

AirSched

0.1.4

Generated by Doxygen 1.7.6.1

Tue Feb 28 2012 18:00:05

Contents

1	AirSched Documentation	1
1.1	Getting Started	1
1.2	AirSched at SourceForge	2
1.3	AirSched Development	2
1.4	External Libraries	2
1.5	Support AirSched	2
1.6	About AirSched	2
2	Configuration helper for AirSched programs	3
3	People	4
3.1	Project Admins	4
3.2	Developers	4
3.3	Retired Developers	4
3.4	Contributors	4
3.5	Distribution Maintainers	4
4	Coding Rules	5
4.1	Default Naming Rules for Variables	5
4.2	Default Naming Rules for Functions	5
4.3	Default Naming Rules for Classes and Structures	5
4.4	Default Naming Rules for Files	5
4.5	Default Functionality of Classes	6
5	Copyright and License	6
5.1	GNU LESSER GENERAL PUBLIC LICENSE	6
5.1.1	Version 2.1, February 1999	6
5.2	Preamble	6
5.3	TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND M- ODIFICATION	8
5.3.1	NO WARRANTY	13
5.3.2	END OF TERMS AND CONDITIONS	13
5.4	How to Apply These Terms to Your New Programs	13
6	Documentation Rules	14

6.1	General Rules	14
6.2	File Header	15
6.3	Grouping Various Parts	16
7	Main features	16
7.1	Network generation	16
7.2	Finding travel solutions	16
7.3	Other features	16
8	Make a Difference	17
9	Make a new release	17
9.1	Introduction	17
9.2	Initialisation	17
9.3	Release branch maintenance	18
9.4	Commit and publish the release branch	18
9.5	Create distribution packages	18
9.6	Upload the HTML documentation to SourceForge	19
9.7	Generate the RPM packages	19
9.8	Update distributed change log	19
9.9	Create the binary package, including the documentation	20
9.10	Upload the files to SourceForge	20
9.11	Make a new post	20
9.12	Send an email on the announcement mailing-list	20
10	Installation	20
10.1	Table of Contents	20
10.2	Fedora/RedHat Linux distributions	21
10.3	AirSched Requirements	21
10.4	Basic Installation	22
10.5	Compilers and Options	23
10.6	Compiling For Multiple Architectures	23
10.7	Installation Names	24
10.8	Optional Features	25
10.9	Particular systems	26

10.10 Specifying the System Type	26
10.11 Sharing Defaults	27
10.12 Defining Variables	27
10.13 'cmake' Invocation	28
11 Linking with AirSched	32
11.1 Table of Contents	32
11.2 Introduction	32
11.3 Dependencies	32
11.3.1 StdAir	32
11.4 Using the pkg-config command	33
11.5 Using the airsched-config script	33
11.6 M4 macro for the GNU Autotools	34
11.7 Using AirSched with dynamic linking	34
12 Test Rules	34
12.1 The Test File	35
12.2 The Reference File	35
12.3 Testing IT++ Library	35
13 Users Guide	35
13.1 Table of Contents	35
13.2 Introduction	36
13.3 Get Started	36
13.3.1 Get the AirSched library	36
13.3.2 Build the AirSched project	36
13.3.3 Build and Run the Tests	36
13.3.4 Install the AirSched Project (Binaries, Documentation)	37
13.4 Input file of AirSched Project	37
13.5 The schedule BOM Tree	39
13.5.1 Build of the schedule BOM tree	39
13.5.2 Display of the schedule BOM tree	40
13.6 Exploring the Predefined BOM Tree	91
13.6.1 Airline Network BOM Tree	91
13.6.2 Airline Schedule BOM Tree	91

13.7 Extending the BOM Tree	92
13.8 The travel solution calculation procedure	92
14 Supported Systems	92
14.1 Table of Contents	92
14.2 Introduction	92
14.3 AirSched 0.2.x	93
14.3.1 Linux Systems	93
14.3.2 Windows Systems	97
14.3.3 Unix Systems	100
15 AirSched Supported Systems (Previous Releases)	101
15.1 AirSched 3.9.1	101
15.2 AirSched 3.9.0	101
15.3 AirSched 3.8.1	101
16 Tutorials	101
16.1 Table of Contents	101
16.2 Preparing the AirSched Project for Development	101
16.3 Your first networkBuilde	101
16.3.1 Summary of the different steps	101
16.3.2 Result of the Batch Program	102
16.4 Network building with an input file	102
16.4.1 How to build a network input file?	102
16.4.2 Building the BOM tree with an input file	105
16.4.3 Result of the Batch Program	105
17 Command-Line Test to Demonstrate How To Test the AirSched Project	105
18 Directory Hierarchy	107
18.1 Directories	107
19 Namespace Index	108
19.1 Namespace List	108
20 Class Index	108
20.1 Class Hierarchy	108

21 Class Index	112
21.1 Class List	112
22 File Index	116
22.1 File List	116
23 Directory Documentation	119
23.1 test/airsched/ Directory Reference	119
23.2 airsched/ Directory Reference	120
23.3 airsched/basic/ Directory Reference	120
23.4 airsched/batches/ Directory Reference	120
23.5 airsched/bom/ Directory Reference	120
23.6 airsched/command/ Directory Reference	121
23.7 airsched/config/ Directory Reference	122
23.8 airsched/factory/ Directory Reference	122
23.9 airsched/service/ Directory Reference	122
23.10test/ Directory Reference	122
24 Namespace Documentation	123
24.1 airsched Namespace Reference	123
24.1.1 Typedef Documentation	124
24.1.2 Function Documentation	124
24.1.3 Variable Documentation	124
24.2 AIRSCHED Namespace Reference	125
24.2.1 Typedef Documentation	128
24.2.2 Function Documentation	132
24.2.3 Variable Documentation	132
24.3 AIRSCHED::OnDParserHelper Namespace Reference	133
24.3.1 Function Documentation	133
24.3.2 Variable Documentation	135
24.4 AIRSCHED::ScheduleParserHelper Namespace Reference	135
24.4.1 Function Documentation	136
24.4.2 Variable Documentation	138
24.5 boost Namespace Reference	139
24.5.1 Detailed Description	139

24.6	boost::serialization Namespace Reference	139
24.7	stdair Namespace Reference	139
24.7.1	Detailed Description	139
25	Class Documentation	139
25.1	airsched::Airline_T Struct Reference	139
25.1.1	Detailed Description	140
25.1.2	Constructor & Destructor Documentation	140
25.1.3	Member Function Documentation	140
25.1.4	Member Data Documentation	140
25.2	AirlineScheduleTestSuite Class Reference	140
25.2.1	Detailed Description	141
25.2.2	Constructor & Destructor Documentation	141
25.2.3	Member Function Documentation	141
25.2.4	Member Data Documentation	141
25.3	AIRSCHED::AIRSCHED_Service Class Reference	142
25.3.1	Detailed Description	142
25.3.2	Constructor & Destructor Documentation	142
25.3.3	Member Function Documentation	143
25.4	AIRSCHED::AIRSCHED_ServiceContext Class Reference	146
25.4.1	Detailed Description	146
25.4.2	Friends And Related Function Documentation	146
25.5	BomAbstract Class Reference	147
25.6	AIRSCHED::BomDisplay Class Reference	147
25.6.1	Detailed Description	147
25.6.2	Member Function Documentation	147
25.7	CmdAbstract Class Reference	148
25.8	airsched::Date_T Struct Reference	149
25.8.1	Detailed Description	150
25.8.2	Constructor & Destructor Documentation	150
25.8.3	Member Function Documentation	150
25.8.4	Member Data Documentation	150
25.9	AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT > - Struct Template Reference	151

25.9.1 Detailed Description	151
25.9.2 Constructor & Destructor Documentation	152
25.9.3 Member Function Documentation	152
25.9.4 Member Data Documentation	152
25.10AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition< - ScannerT > Struct Template Reference	153
25.10.1 Detailed Description	154
25.10.2 Constructor & Destructor Documentation	154
25.10.3 Member Function Documentation	154
25.10.4 Member Data Documentation	154
25.11airsched::SearchStringParser::definition< ScannerT > Struct Template Reference	157
25.11.1 Detailed Description	158
25.11.2 Constructor & Destructor Documentation	158
25.11.3 Member Function Documentation	158
25.11.4 Member Data Documentation	159
25.12AIRSCHEd::ScheduleParserHelper::doEndFlight Struct Reference	160
25.12.1 Detailed Description	161
25.12.2 Constructor & Destructor Documentation	161
25.12.3 Member Function Documentation	161
25.12.4 Member Data Documentation	162
25.13AIRSCHEd::OnDParserHelper::doEndOnD Struct Reference	162
25.13.1 Detailed Description	163
25.13.2 Constructor & Destructor Documentation	163
25.13.3 Member Function Documentation	163
25.13.4 Member Data Documentation	163
25.14AIRSCHEd::FacAIRSCHEdServiceContext Class Reference	164
25.14.1 Detailed Description	165
25.14.2 Constructor & Destructor Documentation	165
25.14.3 Member Function Documentation	165
25.15AIRSCHEd::FacServiceAbstract Class Reference	166
25.15.1 Detailed Description	166
25.15.2 Member Typedef Documentation	166
25.15.3 Constructor & Destructor Documentation	167

25.15.4 Member Function Documentation	167
25.15.5 Member Data Documentation	167
25.16FacServiceAbstract Class Reference	167
25.17AIRSCHED::FareFamilyStruct Struct Reference	168
25.17.1 Detailed Description	168
25.17.2 Constructor & Destructor Documentation	168
25.17.3 Member Function Documentation	169
25.17.4 Member Data Documentation	169
25.18FileNotFoundException Class Reference	169
25.19AIRSCHED::FlagSaver Struct Reference	169
25.19.1 Detailed Description	170
25.19.2 Constructor & Destructor Documentation	170
25.20AIRSCHED::FlightPeriodFileParser Class Reference	170
25.20.1 Detailed Description	171
25.20.2 Constructor & Destructor Documentation	171
25.20.3 Member Function Documentation	171
25.21AIRSCHED::ScheduleParserHelper::FlightPeriodParser Struct Reference	171
25.21.1 Detailed Description	172
25.21.2 Constructor & Destructor Documentation	172
25.21.3 Member Data Documentation	172
25.22AIRSCHED::FlightPeriodStruct Struct Reference	173
25.22.1 Detailed Description	174
25.22.2 Constructor & Destructor Documentation	174
25.22.3 Member Function Documentation	174
25.22.4 Member Data Documentation	176
25.23grammar Class Reference	180
25.24AIRSCHED::InventoryGenerator Class Reference	180
25.24.1 Detailed Description	181
25.24.2 Friends And Related Function Documentation	181
25.25KeyAbstract Class Reference	181
25.26AIRSCHED::LegCabinStruct Struct Reference	181
25.26.1 Detailed Description	182
25.26.2 Member Function Documentation	182
25.26.3 Member Data Documentation	182

25.27AIRSCHED::LegStruct Struct Reference	183
25.27.1 Detailed Description	183
25.27.2 Constructor & Destructor Documentation	184
25.27.3 Member Function Documentation	184
25.27.4 Member Data Documentation	184
25.28AIRSCHED::OnDInputFileNotFoundException Class Reference	185
25.28.1 Detailed Description	186
25.28.2 Constructor & Destructor Documentation	186
25.29AIRSCHED::OnDParser Class Reference	186
25.29.1 Detailed Description	187
25.29.2 Member Function Documentation	187
25.30AIRSCHED::OnDParserHelper::OnDParser Struct Reference	187
25.30.1 Detailed Description	188
25.30.2 Constructor & Destructor Documentation	188
25.30.3 Member Data Documentation	188
25.31AIRSCHED::OnDPeriodFileParser Class Reference	188
25.31.1 Detailed Description	189
25.31.2 Constructor & Destructor Documentation	189
25.31.3 Member Function Documentation	189
25.32AIRSCHED::OnDPeriodGenerator Class Reference	189
25.32.1 Detailed Description	190
25.32.2 Friends And Related Function Documentation	190
25.33AIRSCHED::OnDPeriodStruct Struct Reference	190
25.33.1 Detailed Description	191
25.33.2 Constructor & Destructor Documentation	192
25.33.3 Member Function Documentation	192
25.33.4 Member Data Documentation	193
25.34AIRSCHED::OriginDestinationSet Class Reference	195
25.34.1 Detailed Description	196
25.34.2 Member Typedef Documentation	196
25.34.3 Constructor & Destructor Documentation	197
25.34.4 Member Function Documentation	197
25.34.5 Friends And Related Function Documentation	198
25.34.6 Member Data Documentation	199

25.35AIRSCHED::OriginDestinationSetKey Struct Reference	199
25.35.1 Detailed Description	200
25.35.2 Constructor & Destructor Documentation	200
25.35.3 Member Function Documentation	201
25.35.4 Friends And Related Function Documentation	202
25.36ParserException Class Reference	202
25.37AIRSCHED::OnDParserHelper::ParserSemanticAction Struct Reference	202
25.37.1 Detailed Description	203
25.37.2 Constructor & Destructor Documentation	203
25.37.3 Member Data Documentation	204
25.38AIRSCHED::ScheduleParserHelper::ParserSemanticAction Struct - Reference	204
25.38.1 Detailed Description	205
25.38.2 Constructor & Destructor Documentation	205
25.38.3 Member Data Documentation	206
25.39airsched::Passenger_T Struct Reference	206
25.39.1 Detailed Description	207
25.39.2 Member Enumeration Documentation	207
25.39.3 Constructor & Destructor Documentation	207
25.39.4 Member Function Documentation	207
25.39.5 Member Data Documentation	208
25.40airsched::Place_T Struct Reference	208
25.40.1 Detailed Description	209
25.40.2 Constructor & Destructor Documentation	209
25.40.3 Member Function Documentation	209
25.40.4 Member Data Documentation	209
25.41AIRSCHED::ReachableUniverse Class Reference	209
25.41.1 Detailed Description	211
25.41.2 Member Typedef Documentation	211
25.41.3 Constructor & Destructor Documentation	211
25.41.4 Member Function Documentation	211
25.41.5 Friends And Related Function Documentation	213
25.41.6 Member Data Documentation	213
25.42AIRSCHED::ReachableUniverseKey Struct Reference	214

25.42.1 Detailed Description	215
25.42.2 Constructor & Destructor Documentation	215
25.42.3 Member Function Documentation	215
25.42.4 Friends And Related Function Documentation	217
25.43AIRSCHED::ScheduleInputFileNotFoundException Class Reference	217
25.43.1 Detailed Description	217
25.43.2 Constructor & Destructor Documentation	217
25.44AIRSCHED::ScheduleParser Class Reference	218
25.44.1 Detailed Description	218
25.44.2 Member Function Documentation	218
25.45airsched::SearchString_T Struct Reference	219
25.45.1 Detailed Description	219
25.45.2 Constructor & Destructor Documentation	219
25.45.3 Member Function Documentation	219
25.45.4 Member Data Documentation	220
25.46airsched::SearchStringParser Struct Reference	221
25.46.1 Detailed Description	221
25.46.2 Constructor & Destructor Documentation	221
25.46.3 Member Data Documentation	221
25.47AIRSCHED::SegmentCabinStruct Struct Reference	222
25.47.1 Detailed Description	222
25.47.2 Member Function Documentation	222
25.47.3 Member Data Documentation	223
25.48AIRSCHED::SegmentDateNotFoundException Class Reference	223
25.48.1 Detailed Description	224
25.48.2 Constructor & Destructor Documentation	224
25.49AIRSCHED::SegmentPathGenerator Class Reference	224
25.49.1 Detailed Description	225
25.49.2 Member Function Documentation	225
25.50AIRSCHED::SegmentPathPeriod Class Reference	225
25.50.1 Detailed Description	226
25.50.2 Member Typedef Documentation	227
25.50.3 Constructor & Destructor Documentation	227
25.50.4 Member Function Documentation	227

25.50.5 Friends And Related Function Documentation	231
25.50.6 Member Data Documentation	231
25.51AIRSCHED::SegmentPathPeriodKey Struct Reference	232
25.51.1 Detailed Description	233
25.51.2 Constructor & Destructor Documentation	233
25.51.3 Member Function Documentation	234
25.51.4 Friends And Related Function Documentation	237
25.52AIRSCHED::SegmentPathProvider Class Reference	237
25.52.1 Detailed Description	237
25.52.2 Friends And Related Function Documentation	237
25.53AIRSCHED::SegmentPeriodHelper Class Reference	238
25.53.1 Detailed Description	238
25.53.2 Member Function Documentation	238
25.54AIRSCHED::SegmentStruct Struct Reference	238
25.54.1 Detailed Description	239
25.54.2 Member Function Documentation	239
25.54.3 Member Data Documentation	240
25.55AIRSCHED::ServiceAbstract Class Reference	241
25.55.1 Detailed Description	241
25.55.2 Constructor & Destructor Documentation	241
25.55.3 Member Function Documentation	241
25.56ServiceAbstract Class Reference	242
25.57AIRSCHED::Simulator Class Reference	242
25.57.1 Detailed Description	243
25.57.2 Member Function Documentation	243
25.58airsched::store_adult_passenger_type Struct Reference	243
25.58.1 Detailed Description	243
25.58.2 Constructor & Destructor Documentation	244
25.58.3 Member Function Documentation	244
25.58.4 Member Data Documentation	244
25.59airsched::store_airline_code Struct Reference	244
25.59.1 Detailed Description	244
25.59.2 Constructor & Destructor Documentation	245
25.59.3 Member Function Documentation	245

25.59.4 Member Data Documentation	245
25.60airsched::store_airline_name Struct Reference	245
25.60.1 Detailed Description	245
25.60.2 Constructor & Destructor Documentation	246
25.60.3 Member Function Documentation	246
25.60.4 Member Data Documentation	246
25.61airsched::store_airline_sign Struct Reference	246
25.61.1 Detailed Description	246
25.61.2 Constructor & Destructor Documentation	247
25.61.3 Member Function Documentation	247
25.61.4 Member Data Documentation	247
25.62airsched::store_child_passenger_type Struct Reference	247
25.62.1 Detailed Description	247
25.62.2 Constructor & Destructor Documentation	248
25.62.3 Member Function Documentation	248
25.62.4 Member Data Documentation	248
25.63airsched::store_date Struct Reference	248
25.63.1 Detailed Description	248
25.63.2 Constructor & Destructor Documentation	249
25.63.3 Member Function Documentation	249
25.63.4 Member Data Documentation	249
25.64airsched::store_passenger_number Struct Reference	249
25.64.1 Detailed Description	249
25.64.2 Constructor & Destructor Documentation	250
25.64.3 Member Function Documentation	250
25.64.4 Member Data Documentation	250
25.65airsched::store_pet_passenger_type Struct Reference	250
25.65.1 Detailed Description	250
25.65.2 Constructor & Destructor Documentation	251
25.65.3 Member Function Documentation	251
25.65.4 Member Data Documentation	251
25.66airsched::store_place_element Struct Reference	251
25.66.1 Detailed Description	251
25.66.2 Constructor & Destructor Documentation	252

25.66.3 Member Function Documentation	252
25.66.4 Member Data Documentation	252
25.67AIRSCHED::ScheduleParserHelper::storeAirlineCode Struct Reference	252
25.67.1 Detailed Description	253
25.67.2 Constructor & Destructor Documentation	253
25.67.3 Member Function Documentation	253
25.67.4 Member Data Documentation	253
25.68AIRSCHED::OnDParserHelper::storeAirlineCode Struct Reference	254
25.68.1 Detailed Description	254
25.68.2 Constructor & Destructor Documentation	254
25.68.3 Member Function Documentation	255
25.68.4 Member Data Documentation	255
25.69AIRSCHED::ScheduleParserHelper::storeBoardingTime Struct Reference	255
25.69.1 Detailed Description	256
25.69.2 Constructor & Destructor Documentation	256
25.69.3 Member Function Documentation	256
25.69.4 Member Data Documentation	257
25.70AIRSCHED::ScheduleParserHelper::storeCapacity Struct Reference	257
25.70.1 Detailed Description	258
25.70.2 Constructor & Destructor Documentation	258
25.70.3 Member Function Documentation	258
25.70.4 Member Data Documentation	258
25.71AIRSCHED::OnDParserHelper::storeClassCode Struct Reference	259
25.71.1 Detailed Description	259
25.71.2 Constructor & Destructor Documentation	259
25.71.3 Member Function Documentation	260
25.71.4 Member Data Documentation	260
25.72AIRSCHED::ScheduleParserHelper::storeClasses Struct Reference	260
25.72.1 Detailed Description	261
25.72.2 Constructor & Destructor Documentation	261
25.72.3 Member Function Documentation	261
25.72.4 Member Data Documentation	262
25.73AIRSCHED::ScheduleParserHelper::storeDateRangeEnd Struct Reference	262

25.73.1 Detailed Description	263
25.73.2 Constructor & Destructor Documentation	263
25.73.3 Member Function Documentation	263
25.73.4 Member Data Documentation	263
25.74AIRSCHED::OnDParserHelper::storeDateRangeEnd Struct Reference	264
25.74.1 Detailed Description	264
25.74.2 Constructor & Destructor Documentation	264
25.74.3 Member Function Documentation	265
25.74.4 Member Data Documentation	265
25.75AIRSCHED::OnDParserHelper::storeDateRangeStart Struct Reference	265
25.75.1 Detailed Description	266
25.75.2 Constructor & Destructor Documentation	266
25.75.3 Member Function Documentation	266
25.75.4 Member Data Documentation	266
25.76AIRSCHED::ScheduleParserHelper::storeDateRangeStart Struct Reference	267
25.76.1 Detailed Description	267
25.76.2 Constructor & Destructor Documentation	268
25.76.3 Member Function Documentation	268
25.76.4 Member Data Documentation	268
25.77AIRSCHED::OnDParserHelper::storeDestination Struct Reference	269
25.77.1 Detailed Description	269
25.77.2 Constructor & Destructor Documentation	269
25.77.3 Member Function Documentation	269
25.77.4 Member Data Documentation	270
25.78AIRSCHED::ScheduleParserHelper::storeDow Struct Reference	270
25.78.1 Detailed Description	271
25.78.2 Constructor & Destructor Documentation	271
25.78.3 Member Function Documentation	271
25.78.4 Member Data Documentation	271
25.79AIRSCHED::ScheduleParserHelper::storeElapsedTime Struct Reference	272
25.79.1 Detailed Description	272
25.79.2 Constructor & Destructor Documentation	272
25.79.3 Member Function Documentation	273

25.79.4 Member Data Documentation	273
25.80AIRSCHED::OnDParserHelper::storeEndRangeTime Struct Reference	273
25.80.1 Detailed Description	274
25.80.2 Constructor & Destructor Documentation	274
25.80.3 Member Function Documentation	274
25.80.4 Member Data Documentation	274
25.81AIRSCHED::ScheduleParserHelper::storeFamilyCode Struct Reference	275
25.81.1 Detailed Description	275
25.81.2 Constructor & Destructor Documentation	276
25.81.3 Member Function Documentation	276
25.81.4 Member Data Documentation	276
25.82AIRSCHED::ScheduleParserHelper::storeFClasses Struct Reference	277
25.82.1 Detailed Description	277
25.82.2 Constructor & Destructor Documentation	277
25.82.3 Member Function Documentation	277
25.82.4 Member Data Documentation	278
25.83AIRSCHED::ScheduleParserHelper::storeFlightNumber Struct Reference	278
25.83.1 Detailed Description	279
25.83.2 Constructor & Destructor Documentation	279
25.83.3 Member Function Documentation	279
25.83.4 Member Data Documentation	279
25.84AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint Struct - Reference	280
25.84.1 Detailed Description	281
25.84.2 Constructor & Destructor Documentation	281
25.84.3 Member Function Documentation	281
25.84.4 Member Data Documentation	281
25.85AIRSCHED::ScheduleParserHelper::storeLegCabinCode Struct - Reference	282
25.85.1 Detailed Description	282
25.85.2 Constructor & Destructor Documentation	282
25.85.3 Member Function Documentation	283
25.85.4 Member Data Documentation	283
25.86AIRSCHED::ScheduleParserHelper::storeLegOffPoint Struct Reference	284

25.86.1 Detailed Description	284
25.86.2 Constructor & Destructor Documentation	284
25.86.3 Member Function Documentation	284
25.86.4 Member Data Documentation	285
25.87AIRSCHED::ScheduleParserHelper::storeOffTime Struct Reference	285
25.87.1 Detailed Description	286
25.87.2 Constructor & Destructor Documentation	286
25.87.3 Member Function Documentation	286
25.87.4 Member Data Documentation	286
25.88AIRSCHED::OnDParserHelper::storeOrigin Struct Reference	287
25.88.1 Detailed Description	287
25.88.2 Constructor & Destructor Documentation	288
25.88.3 Member Function Documentation	288
25.88.4 Member Data Documentation	288
25.89AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint - Struct Reference	289
25.89.1 Detailed Description	289
25.89.2 Constructor & Destructor Documentation	289
25.89.3 Member Function Documentation	289
25.89.4 Member Data Documentation	290
25.90AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode Struct - Reference	290
25.90.1 Detailed Description	291
25.90.2 Constructor & Destructor Documentation	291
25.90.3 Member Function Documentation	291
25.90.4 Member Data Documentation	291
25.91AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint Struct - Reference	292
25.91.1 Detailed Description	292
25.91.2 Constructor & Destructor Documentation	293
25.91.3 Member Function Documentation	293
25.91.4 Member Data Documentation	293
25.92AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity Struct Reference	294
25.92.1 Detailed Description	294

25.92.2 Constructor & Destructor Documentation	294
25.92.3 Member Function Documentation	295
25.92.4 Member Data Documentation	295
25.93AIRSCHED::OnDParserHelper::storeStartRangeTime Struct Reference	295
25.93.1 Detailed Description	296
25.93.2 Constructor & Destructor Documentation	296
25.93.3 Member Function Documentation	296
25.93.4 Member Data Documentation	296
25.94StructAbstract Class Reference	297
25.95TestFixture Class Reference	297
25.96AIRSCHED::TravelSolutionParser Class Reference	298
25.96.1 Detailed Description	298
25.96.2 Member Function Documentation	298
26 File Documentation	299
26.1 airsched/AIRSCHED_Service.hpp File Reference	299
26.2 AIRSCHED_Service.hpp	299
26.3 airsched/AIRSCHED_Types.hpp File Reference	300
26.4 AIRSCHED_Types.hpp	301
26.5 airsched/basic/BasConst.cpp File Reference	302
26.6 BasConst.cpp	302
26.7 airsched/basic/BasConst_AIRSCHED_Service.hpp File Reference	302
26.8 BasConst_AIRSCHED_Service.hpp	302
26.9 airsched/basic/BasConst_General.hpp File Reference	302
26.10BasConst_General.hpp	303
26.11airsched/basic/BasParserTypes.hpp File Reference	303
26.12BasParserTypes.hpp	304
26.13airsched/batches/airsched.cpp File Reference	305
26.13.1 Typedef Documentation	306
26.13.2 Function Documentation	306
26.13.3 Variable Documentation	307
26.14airsched.cpp	308
26.15airsched/batches/BookingRequestParser.cpp File Reference	313
26.15.1 Define Documentation	314

26.15.2 Typedef Documentation	315
26.16BookingRequestParser.cpp	315
26.17airsched/batches/BookingRequestParser.hpp File Reference	320
26.18BookingRequestParser.hpp	320
26.19airsched/bom/AirportList.hpp File Reference	322
26.20AirportList.hpp	323
26.21airsched/bom/BomDisplay.cpp File Reference	323
26.22BomDisplay.cpp	323
26.23airsched/bom/BomDisplay.hpp File Reference	324
26.24BomDisplay.hpp	325
26.25airsched/bom/FareFamilyStruct.cpp File Reference	325
26.26FareFamilyStruct.cpp	325
26.27airsched/bom/FareFamilyStruct.hpp File Reference	326
26.28FareFamilyStruct.hpp	326
26.29airsched/bom/FlightPeriodStruct.cpp File Reference	327
26.30FlightPeriodStruct.cpp	327
26.31airsched/bom/FlightPeriodStruct.hpp File Reference	331
26.32FlightPeriodStruct.hpp	331
26.33airsched/bom/LegCabinStruct.cpp File Reference	332
26.34LegCabinStruct.cpp	332
26.35airsched/bom/LegCabinStruct.hpp File Reference	333
26.36LegCabinStruct.hpp	333
26.37airsched/bom/LegStruct.cpp File Reference	334
26.38LegStruct.cpp	334
26.39airsched/bom/LegStruct.hpp File Reference	335
26.40LegStruct.hpp	336
26.41airsched/bom/OnDPeriodStruct.cpp File Reference	336
26.42OnDPeriodStruct.cpp	336
26.43airsched/bom/OnDPeriodStruct.hpp File Reference	338
26.44OnDPeriodStruct.hpp	338
26.45airsched/bom/OriginDestinationSet.cpp File Reference	339
26.46OriginDestinationSet.cpp	339
26.47airsched/bom/OriginDestinationSet.hpp File Reference	340
26.48OriginDestinationSet.hpp	341

26.49airsched/bom/OriginDestinationSetKey.cpp File Reference	342
26.50OriginDestinationSetKey.cpp	343
26.51airsched/bom/OriginDestinationSetKey.hpp File Reference	344
26.52OriginDestinationSetKey.hpp	344
26.53airsched/bom/OriginDestinationSetTypes.hpp File Reference	345
26.54OriginDestinationSetTypes.hpp	346
26.55airsched/bom/ReachableUniverse.cpp File Reference	346
26.56ReachableUniverse.cpp	347
26.57airsched/bom/ReachableUniverse.hpp File Reference	348
26.58ReachableUniverse.hpp	348
26.59airsched/bom/ReachableUniverseKey.cpp File Reference	350
26.60ReachableUniverseKey.cpp	350
26.61airsched/bom/ReachableUniverseKey.hpp File Reference	352
26.62ReachableUniverseKey.hpp	352
26.63airsched/bom/ReachableUniverseTypes.hpp File Reference	353
26.64ReachableUniverseTypes.hpp	353
26.65airsched/bom/SegmentCabinStruct.cpp File Reference	354
26.66SegmentCabinStruct.cpp	354
26.67airsched/bom/SegmentCabinStruct.hpp File Reference	355
26.68SegmentCabinStruct.hpp	355
26.69airsched/bom/SegmentPathPeriod.cpp File Reference	356
26.70SegmentPathPeriod.cpp	356
26.71airsched/bom/SegmentPathPeriod.hpp File Reference	361
26.72SegmentPathPeriod.hpp	361
26.73airsched/bom/SegmentPathPeriodKey.cpp File Reference	363
26.74SegmentPathPeriodKey.cpp	364
26.75airsched/bom/SegmentPathPeriodKey.hpp File Reference	365
26.76SegmentPathPeriodKey.hpp	366
26.77airsched/bom/SegmentPathPeriodTypes.hpp File Reference	368
26.78SegmentPathPeriodTypes.hpp	368
26.79airsched/bom/SegmentPeriodHelper.cpp File Reference	369
26.80SegmentPeriodHelper.cpp	369
26.81airsched/bom/SegmentPeriodHelper.hpp File Reference	370
26.82SegmentPeriodHelper.hpp	371

26.83	airsched/bom/SegmentStruct.cpp File Reference	371
26.84	SegmentStruct.cpp	371
26.85	airsched/bom/SegmentStruct.hpp File Reference	372
26.86	SegmentStruct.hpp	372
26.87	airsched/command/InventoryGenerator.cpp File Reference	373
26.88	InventoryGenerator.cpp	374
26.89	airsched/command/InventoryGenerator.hpp File Reference	375
26.90	InventoryGenerator.hpp	375
26.91	airsched/command/OnDParser.cpp File Reference	376
26.92	OnDParser.cpp	376
26.93	airsched/command/OnDParser.hpp File Reference	377
26.94	OnDParser.hpp	377
26.95	airsched/command/OnDParserHelper.cpp File Reference	378
26.96	OnDParserHelper.cpp	379
26.97	airsched/command/OnDParserHelper.hpp File Reference	384
26.98	OnDParserHelper.hpp	385
26.99	airsched/command/OnDPeriodGenerator.cpp File Reference	387
26.100	OnDPeriodGenerator.cpp	387
26.101	airsched/command/OnDPeriodGenerator.hpp File Reference	388
26.102	OnDPeriodGenerator.hpp	388
26.103	airsched/command/ScheduleParser.cpp File Reference	388
26.104	ScheduleParser.cpp	389
26.105	airsched/command/ScheduleParser.hpp File Reference	389
26.106	ScheduleParser.hpp	390
26.107	airsched/command/ScheduleParserHelper.cpp File Reference	390
26.108	ScheduleParserHelper.cpp	391
26.109	airsched/command/ScheduleParserHelper.hpp File Reference	401
26.110	ScheduleParserHelper.hpp	402
26.111	airsched/command/SegmentPathGenerator.cpp File Reference	404
26.112	SegmentPathGenerator.cpp	405
26.113	airsched/command/SegmentPathGenerator.hpp File Reference	411
26.114	SegmentPathGenerator.hpp	411
26.115	airsched/command/SegmentPathProvider.cpp File Reference	412
26.116	SegmentPathProvider.cpp	412

26.11	airsched/command/SegmentPathProvider.hpp File Reference	414
26.11	SegmentPathProvider.hpp	415
26.11	airsched/command/Simulator.cpp File Reference	415
26.12	Simulator.cpp	416
26.12	airsched/command/Simulator.hpp File Reference	416
26.12	Simulator.hpp	417
26.12	airsched/command/TravelSolutionParser.cpp File Reference	417
26.12	TravelSolutionParser.cpp	417
26.12	airsched/command/TravelSolutionParser.hpp File Reference	419
26.12	TravelSolutionParser.hpp	420
26.12	airsched-paths.hpp	421
26.12	airsched/config/airsched-paths.hpp.in File Reference	421
26.12	airsched-paths.hpp.in	421
26.13	airsched/factory/FacAIRSCHEDServiceContext.cpp File Reference	422
26.13	FacAIRSCHEDServiceContext.cpp	422
26.13	airsched/factory/FacAIRSCHEDServiceContext.hpp File Reference	423
26.13	FacAIRSCHEDServiceContext.hpp	423
26.13	airsched/factory/FacServiceAbstract.cpp File Reference	424
26.13	FacServiceAbstract.cpp	424
26.13	airsched/factory/FacServiceAbstract.hpp File Reference	424
26.13	FacServiceAbstract.hpp	425
26.13	airsched/service/AIRSCHED_Service.cpp File Reference	425
26.13	AIRSCHED_Service.cpp	426
26.14	airsched/service/AIRSCHED_ServiceContext.cpp File Reference	431
26.14	AIRSCHED_ServiceContext.cpp	431
26.14	airsched/service/AIRSCHED_ServiceContext.hpp File Reference	432
26.14	AIRSCHED_ServiceContext.hpp	432
26.14	airsched/service/ServiceAbstract.cpp File Reference	433
26.14	ServiceAbstract.cpp	433
26.14	airsched/service/ServiceAbstract.hpp File Reference	434
26.14	Function Documentation	434
26.14	ServiceAbstract.hpp	435
26.14	doc/local/authors.doc File Reference	435
26.14	doc/local/codingrules.doc File Reference	435

26.156	doc/local/copyright.doc File Reference	436
26.157	doc/local/documentation.doc File Reference	436
26.158	doc/local/features.doc File Reference	436
26.159	doc/local/help_wanted.doc File Reference	436
26.160	doc/local/howto_release.doc File Reference	436
26.161	doc/local/index.doc File Reference	436
26.162	doc/local/installation.doc File Reference	436
26.163	doc/local/linking.doc File Reference	436
26.164	doc/local/test.doc File Reference	436
26.165	doc/local/users_guide.doc File Reference	436
26.166	doc/local/verification.doc File Reference	436
26.167	doc/tutorial/tutorial.doc File Reference	436
26.168	test/airsched/AirlineScheduleTestSuite.cpp File Reference	436
26.169	AirlineScheduleTestSuite.cpp	436
26.170	test/airsched/AirlineScheduleTestSuite.hpp File Reference	438
26.171	26.164. Function Documentation	438
26.172	AirlineScheduleTestSuite.hpp	439

1 AirSched Documentation

1.1 Getting Started

- [Main features](#)
- [Installation](#)
- [Linking with AirSched](#)
- [Users Guide](#)
- [Tutorials](#)
- [Copyright and License](#)
- [Make a Difference](#)
- [Make a new release](#)
- [People](#)

1.2 AirSched at SourceForge

- [Project page](#)
- [Download AirSched](#)
- [Open a ticket for a bug or feature](#)
- [Mailing lists](#)
- [Forums](#)
 - [Discuss about Development issues](#)
 - [Ask for Help](#)
 - [Discuss AirSched](#)

1.3 AirSched Development

- [Git Repository](#) (Subversion is deprecated)
- [Coding Rules](#)
- [Documentation Rules](#)
- [Test Rules](#)

1.4 External Libraries

- [Boost](#) (C++ STL extensions)
- [Python](#)
- [MySQL client](#)
- [SOI](#) (C++ DB API)

1.5 Support AirSched

1.6 About AirSched

AirSched is a C++ library of classes and functions modeling airline schedules, for instance allowing to retrieve all the flight-based travel solutions corresponding to a given pair of origin and destination points. AirSched mainly targets simulation purposes. [N](#)

AirSched makes an extensive use of existing open-source libraries for increased functionality, speed and accuracy. In particular [Boost](#) (*C++ STL Extensions*) library is used.

The AirSched project originates from the department of Operational Research and - Innovation at [Amadeus](#), Sophia Antipolis, France. AirSched is released under the

terms of the [GNU Lesser General Public License](#) (LGPLv2.1) for you to enjoy.

AirSched should work on [GNU/Linux](#), [Sun Solaris](#), Microsoft Windows (with [-Cygwin](#), [MinGW/MSYS](#), or [Microsoft Visual C++ .NET](#)) and [Mac OS X](#) operating systems.

Note

(N) - The AirSched library is **NOT** intended, in any way, to be used by airlines for production systems. If you want to report issue, bug or feature request, or if you just want to give feedback, have a look on the right-hand side of this page for the preferred reporting methods. In any case, please do not contact Amadeus directly for any matter related to AirSched.

2 Configuration helper for AirSched programs

```

*/
#ifndef __AIRSCHED_PATHS_HPP__
#define __AIRSCHED_PATHS_HPP__

#define PACKAGE "airsched"
#define PACKAGE_NAME "AIRSCHED"
#define PACKAGE_VERSION "0.1.4"
#define PREFIXDIR "/usr"
#define EXEC_PREFIX "/usr"
#define BINDIR "/usr/bin"
#define LIBDIR "/usr/lib64"
#define LIBEXECDIR "/usr/libexec"
#define SBINDIR "/usr/sbin"
#define SYSCONFDIR "/usr/etc"
#define INCLUDEDIR "/usr/include"
#define DATAROOTDIR "/usr/share"
#define DATADIR "/usr/share"
#define DOCDIR "/usr/share/doc/airsched-0.1.4"
#define MANDIR "/usr/share/man"
#define INFODIR "/usr/share/info"
#define HTMLDIR "/usr/share/doc/airsched-0.1.4/html"
#define PDFDIR "/usr/share/doc/airsched-0.1.4/html"
#define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"

#endif // __AIRSCHED_PATHS_HPP__

/*!

*/
#ifndef __AIRSCHED_PATHS_HPP__
#define __AIRSCHED_PATHS_HPP__

#define PACKAGE "@PACKAGE@"
#define PACKAGE_NAME "@PACKAGE_NAME@"
#define PACKAGE_VERSION "@PACKAGE_VERSION@"
#define PREFIXDIR "@prefix@"
#define EXEC_PREFIX "@exec_prefix@"
#define BINDIR "@bindir@"
#define LIBDIR "@libdir@"
#define LIBEXECDIR "@libexecdir@"
#define SBINDIR "@sbindir@"
#define SYSCONFDIR "@sysconfdir@"
#define INCLUDEDIR "@includedir@"
#define DATAROOTDIR "@datarootdir@"
#define DATADIR "@datadir@"
#define DOCDIR "@docdir@"
#define MANDIR "@mandir@"

```

```
#define INFODIR "@infodir@"
#define HTMLDIR "@htmldir@"
#define PDFDIR "@pdfdir@"
#define STDAIR_SAMPLE_DIR "@sampledir@"

#endif // __AIRSCHED_PATHS_HPP__

/*!
```

3 People

3.1 Project Admins

- Denis Arnaud <denis_arnaud@users.sourceforge.net> (N)
- Anh Quan Nguyen <quannaus@users.sourceforge.net> (N)

3.2 Developers

- Anh Quan Nguyen <quannaus@users.sourceforge.net> (N)
- Denis Arnaud <denis_arnaud@users.sourceforge.net> (N)
- Gabrielle Sabatier <gsabatier@users.sourceforge.net> (N)

3.3 Retired Developers

- Daniel Perez <daniperez@users.sourceforge.net> (N)
- Mehdi Ayouni <mehdi.ayouni@gmail.com>
- Son Nguyen Kim <snguyenkim@users.sourceforge.net>
- Alexandre Point <apoint@users.sourceforge.net>

3.4 Contributors

- Emmanuel Bastien <ebastien@users.sourceforge.net> (N)
- Christophe Lacombe <ddtoof@users.sourceforge.net> (N)

3.5 Distribution Maintainers

- **Fedora/RedHat**: Denis Arnaud <denis_arnaud@users.sourceforge.net> (N)
- **Debian**: Emmanuel Bastien <ebastien@users.sourceforge.net> (N)

Note

(N) - *Amadeus* employees.

4 Coding Rules

In the following sections we describe the naming conventions which are used for files, classes, structures, local variables, and global variables.

4.1 Default Naming Rules for Variables

Variables names follow Java naming conventions. Examples:

- `lNumberOfPassengers`
- `lSeatAvailability`

4.2 Default Naming Rules for Functions

Function names follow Java naming conventions. Example:

- `int myFunctionName (const int& a, int b)`

4.3 Default Naming Rules for Classes and Structures

Each new word in a class or structure name should always start with a capital letter and the words should be separated with an under-score. Abbreviations are written with capital letters. Examples:

- `MyClassName`
- `MyStructName`

4.4 Default Naming Rules for Files

Files are named after the C++ class names.

Source files are named using `.cpp` suffix, whereas header files end with `.hpp` extension. Examples:

- `FlightDate.hpp`
- `SegmentDate.cpp`

4.5 Default Functionality of Classes

All classes that are configured by input parameters should include:

- default empty constructor
- one or more additional constructor(s) that takes input parameters and initializes the class instance
- setup function, preferably named `'setup'` or `'set_parameters'`

Explicit destructor functions are not required, unless they are needed. It shall not be possible to use any of the other member functions unless the class has been properly initiated with the input parameters.

5 Copyright and License

5.1 GNU LESSER GENERAL PUBLIC LICENSE

5.1.1 Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

5.2 Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. - These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission

to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

5.3 TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this - License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming

a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code,

which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying,

distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the - Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission.

For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

5.3.1 NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

5.3.2 END OF TERMS AND CONDITIONS

5.4 How to Apply These Terms to Your New Programs

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

```
<one line to give the library's name and a brief idea of what it does.>
Copyright (C) <year> <name of author>
```

```
This library is free software; you can redistribute it and/or
modify it under the terms of the GNU Lesser General Public
License as published by the Free Software Foundation; either
version 2.1 of the License, or (at your option) any later version.
```

```
This library is distributed in the hope that it will be useful,
but WITHOUT ANY WARRANTY; without even the implied warranty of
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU
Lesser General Public License for more details.
```

```
You should have received a copy of the GNU Lesser General Public
License along with this library; if not, write to the Free Software
Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA
```

Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

```
Yoyodyne, Inc., hereby disclaims all copyright interest in the
library 'Frob' (a library for tweaking knobs) written by James Random Hacker.
```

```
<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice
```

That's all there is to it!

Source

6 Documentation Rules

6.1 General Rules

All classes in AirSched should be properly documented with Doxygen comments in include (.hpp) files. Source (.cpp) files should be documented according to a normal standard for well documented C++ code.

An example of how the interface of a class shall be documented in AirSched is shown here:

```
/*!
 * \brief Brief description of MyClass here
 *
 * Detailed description of MyClass here. With example code if needed.
 */
class MyClass {
public:
    //! Default constructor
    MyClass(void) { setup_done = false; }

    /*!
     * \brief Constructor that initializes the class with parameters
     *
     * Detailed description of the constructor here if needed
     *
     * \param[in] param1 Description of \a param1 here
     * \param[in] param2 Description of \a param2 here
     */
}
```

```

MyClass(TYPE1 param1, TYPE2 param2) { setup(param1, param2); }

/*!
 * \brief Setup function for MyClass
 *
 * Detailed description of the setup function here if needed
 *
 * \param[in] param1 Description of \a param1 here
 * \param[in] param2 Description of \a param2 here
 */
void setup(TYPE1 param1, TYPE2 param2);

/*!
 * \brief Brief description of memberFunction1
 *
 * Detailed description of memberFunction1 here if needed
 *
 * \param[in] param1 Description of \a param1 here
 * \param[in] param2 Description of \a param2 here
 * \param[in,out] param3 Description of \a param3 here
 * \return Description of the return value here
 */
TYPE4 memberFunction1(TYPE1 param1, TYPE2 param2, TYPE3 &param3);

private:

    bool _setUpDone;          /*!< Variable that checks if the class is properly
                               initialized with parameters */
    TYPE1 _privateVariable1; /*!< Short description of _privateVariable1 here
    TYPE2 _privateVariable2; /*!< Short description of _privateVariable2 here
};

```

6.2 File Header

All files should start with the following header, which include Doxygen's `\file`, `\brief` and `\author` tags, `$Date$` and `$Revisions$` CVS tags, and a common copyright note:

```

/*!
 * \file
 * \brief Brief description of the file here
 * \author Names of the authors who contributed to this code
 * \date Date
 *
 * Detailed description of the file here if needed.
 *
 * -----
 *
 * AirSched - C++ Airline Schedule Management Library
 *
 * Copyright (C) 2009-2010 (\see authors file for a list of contributors)
 *
 * \see copyright file for license information
 *
 * -----
 */

```

6.3 Grouping Various Parts

All functions must be added to a Doxygen group in order to appear in the documentation. The following code example defines the group `'my_group'`:

```
/*!
 * \defgroup my_group Brief description of the group here
 *
 * Detailed description of the group here
 */
```

The following example shows how to document the function `myFunction` and how to add it to the group `my_group`:

```
/*!
 * \brief Brief description of myFunction here
 * \ingroup my_group
 *
 * Detailed description of myFunction here
 *
 * \param[in] param1 Description of \a param1 here
 * \param[in] param2 Description of \a param2 here
 * \return Description of the return value here
 */
TYPE3 myFunction(TYPE1 param1, TYPE2 &param2);
```

7 Main features

A short list of the main features of AirSched is given below sorted in different categories. Many more features and functions exist and for these we refer to the reference documentation.

7.1 Network generation

- Network/graph generation

7.2 Finding travel solutions

- Matching of travel solutions with user requests

7.3 Other features

- CSV input file parsing
- Memory handling

8 Make a Difference

Do not ask what AirSched can do for you. Ask what you can do for AirSched.

You can help us to develop the AirSched library. There are always a lot of things you can do:

- Start using AirSched
- Tell your friends about AirSched and help them to get started using it
- If you find a bug, report it to us. Without your help we can never hope to produce a bug free code.
- Help us to improve the documentation by providing information about documentation bugs
- Answer support requests in the AirSched discussion forums on SourceForge. - If you know the answer to a question, help others to overcome their AirSched problems.
- Help us to improve our algorithms. If you know of a better way (e.g. that is faster or requires less memory) to implement some of our algorithms, then let us know.
- Help us to port AirSched to new platforms. If you manage to compile AirSched on a new platform, then tell us how you did it.
- Send us your code. If you have a good AirSched compatible code, which you can release under the LGPLv2.1, and you think it should be included in AirSched, then send it to us.
- Become an AirSched developer. Send us an e-mail and tell what you can do for AirSched.

9 Make a new release

9.1 Introduction

This document describes briefly the recommended procedure of releasing a new version of AirSched using a Linux development machine and the SourceForge project site.

The following steps are required to make a release of the distribution package.

9.2 Initialisation

Clone locally the full [Git project](#):

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://air-sched.git.sourceforge.net/gitroot/air-sched/air-sched airschedgit
cd airschedgit
git checkout trunk
```

9.3 Release branch maintenance

Switch to the release branch, on your local clone, and merge the latest updates from the trunk. Decide about the new version to be released.

```
cd ~/dev/sim/airschedgit
git checkout releases
git merge trunk
```

Update the version in the various build system files, replacing the old version numbers by the correct ones:

```
vi CMakeLists.txt
vi autogen.sh
vi README
```

Update the version, add some news in the NEWS file, add a change-log in the Change-Log file and in the RPM specification files:

```
vi NEWS
vi ChangeLog
vi airsched.spec
```

9.4 Commit and publish the release branch

Commit the new release:

```
cd ~/dev/sim/airschedgit
git add -A
git commit -m "[Release 0.5.0] Release of the 0.5.0 version of AirSched."
git push
```

9.5 Create distribution packages

Create the distribution packages using the following command:

```
cd ~/dev/sim/airschedgit
git checkout releases
rm -rf build && mkdir -p build
cd build
export INSTALL_BASEDIR=/home/user/dev/deliveries
export LIBSUFFIX_4_CMAKE="-DLIB_SUFFIX=64"
cmake -DCMAKE_INSTALL_PREFIX=${INSTALL_BASEDIR}/airsched-0.5.0 \
      -DCMAKE_BUILD_TYPE:String=Debug -DINSTALL_DOC:BOOL=ON \
      ${LIBSUFFIX_4_CMAKE} ..
make check && make dist
make install
```

This will configure, compile and check the package. The output packages will be named, for instance, `airsched-0.5.0.tar.gz` and `airsched-0.5.0.tar.bz2`.

9.6 Upload the HTML documentation to SourceForge

In order to update the Web site files, either:

- **synchronise them with rsync and SSH:** Upload the just generated HTML (and PDF) documentation onto the **SourceForge Web site**.

```
cd ~/dev/sim/airschedgit/build
git checkout releases
rsync -aiv ${INSTALL_BASEDIR}/airsched-0.5.0/share/doc/airsched-0.5.0/html/ \
  your_sf_user,air-sched@web.sourceforge.net:htdocs/
```

where `-aiv` options mean:

- `-a`: archive/mirror mode; equals `-rlptgoD` (no `-H`, `-A`, `-X`)
- `-v`: increase verbosity
- `-i`: output a change-summary for all updates
- Note the trailing slashes (/) at the end of both the source and target directories. It means that the content of the source directory (`doc/html`), rather than the directory itself, has to be copied into the content of the target directory.

- or use the **SourceForge Shell service**.

9.7 Generate the RPM packages

Optionally, generate the RPM package (for instance, for **Fedora/RedHat**):

```
cd ~/dev/sim/airschedgit/build
git checkout releases
make dist
```

To perform this step, `rpm-build`, `rpmlint` and `rpmdevtools` have to be available on the system.

```
cp ../airsched.spec ~/dev/packages/SPECS \
  && cp airsched-0.5.0.tar.bz2 ~/dev/packages/SOURCES
cd ~/dev/packages/SPECS
rpmbuild -ba airsched.spec
cd ~/dev/packages
rpmlint -i SPECS/airsched.spec SRPMS/airsched-0.5.0-1.fc16.src.rpm \
  RPMS/noarch/airsched-* RPMS/i686/airsched-*
```

9.8 Update distributed change log

Update the **NEWS** and **ChangeLog** files with appropriate information, including what has changed since the previous release. Then commit and push the changes into the **AirSched's Git repository**.

9.9 Create the binary package, including the documentation

Create the binary package, which includes HTML and PDF documentation, using the following command:

```
cd ~/dev/sim/airschedgit/build
git checkout releases
make package
```

The output binary package will be named, for instance, `airsched-0.5.0--Linux.tar.bz2`. That package contains both the HTML and PDF documentation. The binary package contains also the executables and shared libraries, as well as C++ header files, but all of those do not interest us for now.

9.10 Upload the files to SourceForge

Upload the distribution and documentation packages to the SourceForge server. Check [SourceForge help page on uploading software](#).

9.11 Make a new post

- submit a new entry in the [SourceForge project-related news feed](#)
- make a new post on the [SourceForge hosted WordPress blog](#)
- and update, if necessary, [Trac tickets](#).

9.12 Send an email on the announcement mailing-list

Finally, you should send an announcement to airsched-announce@lists.sourceforge.net (see <https://lists.sourceforge.net/lists/listinfo/airsched-announce> for the archives)

10 Installation

10.1 Table of Contents

- [Fedora/RedHat Linux distributions](#)
- [AirSched Requirements](#)
- [Basic Installation](#)
- [Compilers and Options](#)
- [Compiling For Multiple Architectures](#)

- [Installation Names](#)
- [Optional Features](#)
- [Particular systems](#)
- [Specifying the System Type](#)
- [Sharing Defaults](#)
- [Defining Variables](#)
- ['cmake' Invocation](#)

10.2 Fedora/RedHat Linux distributions

Note that on [Fedora/RedHat](#) Linux distributions, RPM packages are available and can be installed with your usual package manager. For instance:

```
yum -y install airsched-devel airsched-doc
```

RPM packages can also be available on the [SourceForge download site](#).

10.3 AirSched Requirements

AirSched should compile without errors or warnings on most GNU/Linux systems, on UNIX systems like Solaris SunOS, and on POSIX based environments for Microsoft - Windows like Cygwin or MinGW with MSYS. It can be also built on Microsoft Windows NT/2000/XP/Vista/7 using Microsoft's Visual C++ .NET, but our support for this compiler is limited. For GNU/Linux, SunOS, Cygwin and MinGW we assume that you have at least the following GNU software installed on your computer:

- GNU Autotools:
 - [autoconf](#),
 - [automake](#),
 - [libtool](#),
 - [make](#), version 3.72.1 or later (check version with ``make --version``)
- [GCC](#) - GNU C++ Compiler (g++), version 4.3.x or later (check version with ``gcc --version``)
- [Boost](#) - C++ STL extensions, version 1.35 or later (check version with ``grep "define BOOST_LIB_VERSION" /usr/include/boost/version.hpp``)
- [MySQL](#) - Database client libraries, version 5.0 or later (check version with ``mysql --version``)
- [SOCl](#) - C++ database client library wrapper, version 3.0.0 or later (check version with ``soci-config --version``)

Optionally, you might need a few additional programs: [Doxygen](#), [LaTeX](#), [Dvips](#) and [Ghostscript](#), to generate the HTML and PDF documentation.

We strongly recommend that you use recent stable releases of the GCC, if possible. We do not actively work on supporting older versions of the GCC, and they may therefore (without prior notice) become unsupported in future releases of AirSched.

10.4 Basic Installation

Briefly, the shell commands `./cmake .. && make install` should configure, build, and install this package. The following more-detailed instructions are generic; see the `README` file for instructions specific to this package. Some packages provide this `INSTALL` file but do not implement all of the features documented below. The lack of an optional feature in a given package is not necessarily a bug. More recommendations for GNU packages can be found in the info page corresponding to "Makefile Conventions: (standards)Makefile Conventions".

The `cmake` shell script attempts to guess correct values for various system-dependent variables used during compilation. It uses those values to create a `Makefile` in each directory of the package. It may also create one or more `.h` files containing system-dependent definitions. Finally, it creates a `CMakeCache.txt` cache file that you can refer to in the future to recreate the current configuration, and a file `CMakeFiles` containing compiler output (useful mainly for debugging `cmake`).

It can also use an optional file (typically called `config.cache` and enabled with `--cache-file=config.cache` or simply `-C`) that saves the results of its tests to speed up reconfiguring. Caching is disabled by default to prevent problems with accidental use of stale cache files.

If you need to do unusual things to compile the package, please try to figure out how `configure` could check whether to do them, and mail diffs or instructions to the address given in the `README` so they can be considered for the next release. If you are using the cache, and at some point `config.cache` contains results you don't want to keep, you may remove or edit it.

The file `CMakeLists.txt` is used to create the `Makefile` files.

The simplest way to compile this package is:

1. `cd` to the directory containing the package's source code and type `./cmake ..` to configure the package for your system. Running `cmake` is generally fast. While running, it prints some messages telling which features it is checking for.
2. Type `make` to compile the package.
3. Optionally, type `make check` to run any self-tests that come with the package, generally using the just-built uninstalled binaries.
4. Type `make install` to install the programs and any data files and documentation. When installing into a prefix owned by root, it is recommended that the

package be configured and built as a regular user, and only the 'make install' phase executed with root privileges.

5. You can remove the program binaries and object files from the source code directory by typing 'make clean'. To also remove the files that 'configure' created (so you can compile the package for a different kind of computer), type 'make distclean'. There is also a 'make maintainer-clean' target, but that is intended mainly for the package's developers. If you use it, you may have to get all sorts of other programs in order to regenerate files that came with the distribution.
6. Often, you can also type 'make uninstall' to remove the installed files again. In practice, not all packages have tested that uninstallation works correctly, even though it is required by the GNU Coding Standards.

10.5 Compilers and Options

Some systems require unusual options for compilation or linking that the 'cmake' script does not know about. - Run './cmake --help' for details on some of the pertinent environment variables.

You can give 'cmake' initial values for configuration parameters by setting variables in the command line or in the environment. Here is an example:

```
./cmake CC=c99 CFLAGS=-g LIBS=-lposix
```

See also

[Defining Variables](#) for more details.

10.6 Compiling For Multiple Architectures

You can compile the package for more than one kind of computer at the same time, by placing the object files for each architecture in their own directory. To do this, you can use GNU 'make'. 'cd' to the directory where you want the object files and executables to go and run the 'configure' script. 'configure' automatically checks for the source code in the directory that 'configure' is in and in '..'. This is known as a "VPATH" build.

With a non-GNU 'make', it is safer to compile the package for one architecture at a time in the source code directory.

After you have installed the package for one architecture, use 'make distclean' before reconfiguring for another architecture.

On MacOS X 10.5 and later systems, you can create libraries and executables that work on multiple system types--known as "fat" or "universal" binaries--by specifying multiple '-arch' options to the compiler but only a single '-arch' option to the preprocessor. Like this:

```
./configure CC="gcc -arch i386 -arch x86_64 -arch ppc -arch ppc64" \  
           CXX="g++ -arch i386 -arch x86_64 -arch ppc -arch ppc64" \  
           CPP="gcc -E" CXXCPP="g++ -E"
```

This is not guaranteed to produce working output in all cases, you may have to build one architecture at a time and combine the results using the 'lipo' tool if you have problems.

10.7 Installation Names

By default, 'make install' installs the package's commands under '/usr/local/bin', include files under '/usr/local/include', etc. You can specify an installation prefix other than '/usr/local' by giving 'configure' the option '--prefix=PREFIX', where PREFIX must be an absolute file name.

You can specify separate installation prefixes for architecture-specific files and architecture-independent files. If you pass the option '--exec-prefix=PREFIX' to 'configure', the package uses PREFIX as the prefix for installing programs and libraries. Documentation and other data files still use the regular prefix.

In addition, if you use an unusual directory layout you can give options like '--bindir=DIR' to specify different values for particular kinds of files. Run 'configure --help' for a list of the directories you can set and what kinds of files go in them. In general, the default for these options is expressed in terms of '\${prefix}', so that specifying just '--prefix' will affect all of the other directory specifications that were not explicitly provided.

The most portable way to affect installation locations is to pass the correct locations to 'configure'; however, many packages provide one or both of the following shortcuts of passing variable assignments to the 'make install' command line to change installation locations without having to reconfigure or recompile.

The first method involves providing an override variable

for each affected directory. For example, `'make install prefix=/alternate/directory'` will choose an alternate location for all directory configuration variables that were expressed in terms of `'${prefix}'`. Any directories that were specified during `'configure'`, but not in terms of `'${prefix}'`, must each be overridden at install time for the entire installation to be relocated. The approach of makefile variable overrides for each directory variable is required by the GNU Coding Standards, and ideally causes no recompilation. However, some platforms have known limitations with the semantics of shared libraries that end up requiring recompilation when using this method, particularly noticeable in packages that use GNU Libtool.

The second method involves providing the `'DESTDIR'` variable. For example, `'make install DESTDIR=/alternate/directory'` will prepend `'/alternate/directory'` before all installation names. The approach of `'DESTDIR'` overrides is not required by the GNU Coding Standards, and does not work on platforms that have drive letters. On the other hand, it does better at avoiding recompilation issues, and works well even when some directory options were not specified in terms of `'${prefix}'` at `'configure'` time.

10.8 Optional Features

If the package supports it, you can cause programs to be installed with an extra prefix or suffix on their names by giving `'cmake'` the option `'--program-prefix=PREFIX'` or `'--program-suffix=SUFFIX'`.

Some packages pay attention to `'--enable-FEATURE'` options to `'configure'`, where `FEATURE` indicates an optional part of the package. They may also pay attention to `'--with--PACKAGE'` options, where `PACKAGE` is something like `'gnu-as'` or `'x'` (for the X Window System). The `'README'` should mention any `'--enable-'` and `'--with-'` options that the package recognizes.

For packages that use the X Window System, `'configure'` can usually find the X include and library files automatically, but if it doesn't, you can use the `'configure'` options `'--x-includes=DIR'` and `'--x-libraries=DIR'` to specify their locations.

Some packages offer the ability to configure how verbose the execution of `'make'` will be. For these packages, running `'./configure --enable-silent-rules'` sets the default to minimal output, which can be overridden with `'make -V=1'`; while running `'./configure --disable-silent-rules'` sets the default to verbose, which can be overridden with

```
`make V=0'.
```

10.9 Particular systems

On HP-UX, the default C compiler is not ANSI C compatible. If GNU CC is not installed, it is recommended to use the following options in order to use an ANSI C compiler:

```
./configure CC="cc -Ae -D_XOPEN_SOURCE=500"
```

and if that doesn't work, install pre-built binaries of - GCC for HP-UX.

On OSF/1 a.k.a. Tru64, some versions of the default - C compiler cannot parse its '<wchar.h>' header file. - The option '-nodtk' can be used as a workaround. If GNU CC is not installed, it is therefore recommended to try

```
./configure CC="cc"
```

and if that doesn't work, try

```
./configure CC="cc -nodtk"
```

On Solaris, don't put '/usr/ucb' early in your 'PATH'. - This directory contains several dysfunctional programs; working variants of these programs are available in '/usr/bin'. So, if you need '/usr/ucb' in your 'PATH', put it _after_ - '/usr/bin'.

On Haiku, software installed for all users goes in '/boot/common', not '/usr/local'. It is recommended to use the following options:

```
./cmake -DCMAKE_INSTALL_PREFIX=/boot/common
```

10.10 Specifying the System Type

There may be some features 'configure' cannot figure out automatically, but needs to determine by the type of machine the package will run on. Usually, assuming the package is built to be run on the _same_ architectures, 'configure' can figure that out, but if it prints a message saying it cannot guess the machine type, give it the '--build=TYPE' option. TYPE can either be a short name for the system type, such as 'sun4', or a canonical name which has the form CPU-COMPANY-SYSTEM

where SYSTEM can have one of these forms:

- OS
- KERNEL-OS

See the file `'config.sub'` for the possible values of each field. If `'config.sub'` isn't included in this package, then this package doesn't need to know the machine type.

If you are `_building_` compiler tools for cross-compiling, you should use the option `'--target=TYPE'` to select the type of system they will produce code for.

If you want to `_use_` a cross compiler, that generates code for a platform different from the build platform, you should specify the "host" platform (i.e., that on which the generated programs will eventually be run) with `'--host=TYPE'`.

10.11 Sharing Defaults

If you want to set default values for `'configure'` scripts to share, you can create a site shell script called `'config.site'` that gives default values for variables like `'CC'`, `'cache-file'`, and `'prefix'`. `'configure'` looks for `'PREFIX/share/config.site'` if it exists, then `'PREFIX/etc/config.site'` if it exists. Or, you can set the `'CONFIG_SITE'` environment variable to the location of the site script. A warning: not all `'configure'` scripts look for a site script.

10.12 Defining Variables

Variables not defined in a site shell script can be set in the environment passed to `'configure'`. However, some packages may run `configure` again during the build, and the customized values of these variables may be lost. - In order to avoid this problem, you should set them in the `'configure'` command line, using `'VAR=value'`. For example:

```
./configure CC=/usr/local2/bin/gcc
```

causes the specified `'gcc'` to be used as the C compiler (unless it is overridden in the site shell script).

Unfortunately, this technique does not work for `'CONFIG_SHELL'` due to an Autoconf bug. Until the bug is fixed you can use this workaround:

```
CONFIG_SHELL=/bin/bash /bin/bash ./configure CONFIG_SHELL=/bin/bash
```

10.13 'cmake' Invocation

'cmake' recognizes the following options to control how it operates.

- '--help', '-h' print a summary of all of the options to 'cmake', and exit.
- '--help=short', '--help=recursive' print a summary of the options unique to this package's 'configure', and exit. The 'short' variant lists options used only in the top level, while the 'recursive' variant lists options also present in any nested packages.
- '--version', '-V' print the version of Autoconf used to generate the 'configure' script, and exit.
- '--cache-file=FILE' enable the cache: use and save the results of the tests in FILE, traditionally 'config.cache'. FILE defaults to '/dev/null' to disable caching.
- '--config-cache', '-C' alias for '--cache-file=config.cache'.
- '--quiet', '--silent', '-q' do not print messages saying which checks are being made. To suppress all normal output, redirect it to '/dev/null' (any error messages will still be shown).
- '--srcdir=DIR' look for the package's source code in directory DIR. Usually 'configure' can determine that directory automatically.
- '--prefix=DIR' use DIR as the installation prefix.

See also

[Installation Names](#) for more details, including other options available for fine-tuning the installation locations.

- '--no-create', '-n' run the configure checks, but stop before creating any output files.

'cmake' also accepts some other, not widely useful, options. Run 'cmake' --help' for more details.

The 'cmake' script produces an output like this:

```
-- Requires Git without specifying any version
cmake -DCMAKE_INSTALL_PREFIX=/home/user/dev/deliveries/airsched-99.99.99 -DLIB_SUFFIX=64 -DCMAKE_B
-- The C compiler identification is GNU
-- The CXX compiler identification is GNU
-- Check for working C compiler: /usr/lib64/ccache/gcc
```

```

-- Check for working C compiler: /usr/lib64/ccache/gcc -- works
-- Detecting C compiler ABI info
-- Detecting C compiler ABI info - done
-- Check for working CXX compiler: /usr/lib64/ccache/c++
-- Check for working CXX compiler: /usr/lib64/ccache/c++ -- works
-- Detecting CXX compiler ABI info
-- Detecting CXX compiler ABI info - done
-- Requires Git without specifying any version
-- Current Git revision name: 6100bb1479e9c72f807a60067138dfe1b71cbec7 trunk
-- Requires Boost-1.41
-- Boost version: 1.46.0
-- Found the following Boost libraries:
--   regex
--   program_options
--   date_time
--   iostreams
--   serialization
--   filesystem
--   unit_test_framework
--   python
-- Found Boost version: 1.46.0
-- Found BoostWrapper: /usr/include (Required is at least version "1.41")
-- Requires MySQL without specifying any version
-- Using mysql-config: /usr/bin/mysql_config
-- Found MySQL: /usr/lib64/mysql/libmysqlclient.so
-- Found MySQL version: 5.5.14
-- Requires SOCI-3.0
-- Using soci-config: /usr/bin/soci-config
-- SOCI headers are buried
-- Found SOCI: /usr/lib64/libsoci_core.so (Required is at least version "3.0")
-- Found SOCIMySQL: /usr/lib64/libsoci_mysql.so (Required is at least version "3.0")
-- Found SOCI with MySQL back-end support version: 3.0.0
-- Requires StdAir-0.35
-- Found StdAir version: 0.38.0
-- Requires Doxygen without specifying any version
-- Found Doxygen: /usr/bin/doxygen
-- Found DoxygenWrapper: /usr/bin/doxygen
-- Found Doxygen version: 1.7.4
-- Had to set the linker language for 'airschedlib' to CXX
-- Test 'AirlineScheduleTestSuite' to be built with 'AirlineScheduleTestSuite.cpp'
--
-- =====
-- -----
-- ---      Project Information      ---
-- -----
-- PROJECT_NAME ..... : aairsched
-- PACKAGE_PRETTY_NAME ..... : AirSched
-- PACKAGE ..... : aairsched
-- PACKAGE_NAME ..... : AIRSCHED
-- PACKAGE_BRIEF ..... : C++ Simulated Airline Schedule Manager Library
-- PACKAGE_VERSION ..... : 99.99.99
-- GENERIC_LIB_VERSION ..... : 99.99.99
-- GENERIC_LIB_SOVERSION ..... : 99.99
--
-- -----
-- ---      Build Configuration      ---
-- -----
-- Modules to build ..... : aairsched
-- Libraries to build/install ..... : aairschedlib
-- Binaries to build/install ..... : aairsched
-- Modules to test ..... : aairsched
-- Binaries to test ..... : AirlineScheduleTestSuite

```

```

--
-- * Module ..... : airsched
-- + Layers to build ..... : .;basic;bom;factory;command;service
-- + Dependencies on other layers :
-- + Libraries to build/install . : airschedlib
-- + Executables to build/install : airsched
-- + Tests to perform ..... : AirlineScheduleTestSuitetst
--
-- BUILD_SHARED_LIBS ..... : ON
-- CMAKE_BUILD_TYPE ..... : Debug
-- * CMAKE_C_FLAGS ..... :
-- * CMAKE_CXX_FLAGS ..... : -Wall -Werror
-- * BUILD_FLAGS ..... :
-- * COMPILE_FLAGS ..... :
-- CMAKE_MODULE_PATH ..... : /home/user/dev/sim/airsched/airschedgithub/config/
-- CMAKE_INSTALL_PREFIX ..... : /home/user/dev/deliveries/airsched-99.99.99
--
-- * Doxygen:
-- - DOXYGEN_VERSION ..... : 1.7.4
-- - DOXYGEN_EXECUTABLE ..... : /usr/bin/doxygen
-- - DOXYGEN_DOT_EXECUTABLE ..... : /usr/bin/dot
-- - DOXYGEN_DOT_PATH ..... : /usr/bin
--
-----
-- --- Installation Configuration ---
-----
-- INSTALL_LIB_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/lib64
-- INSTALL_BIN_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/bin
-- INSTALL_INCLUDE_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/include
-- INSTALL_DATA_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/share
-- INSTALL_SAMPLE_DIR ..... : /home/user/dev/deliveries/airsched-99.99.99/share/airsched/s
-- INSTALL_DOC ..... : ON
--
-----
-- --- Packaging Configuration ---
-----
-- CPACK_PACKAGE_CONTACT ..... : Denis Arnaud <denis_arnaud - at - users dot sourceforge dot m
-- CPACK_PACKAGE_VENDOR ..... : Denis Arnaud
-- CPACK_PACKAGE_VERSION ..... : 99.99.99
-- CPACK_PACKAGE_DESCRIPTION_FILE . : /home/user/dev/sim/airsched/airschedgithub/README
-- CPACK_RESOURCE_FILE_LICENSE .... : /home/user/dev/sim/airsched/airschedgithub/COPYING
-- CPACK_GENERATOR ..... : TBZ2
-- CPACK_DEBIAN_PACKAGE_DEPENDS ... :
-- CPACK_SOURCE_GENERATOR ..... : TBZ2;TGZ
-- CPACK_SOURCE_PACKAGE_FILE_NAME . : airsched-99.99.99
--
-----
-- --- External libraries ---
-----
--
-- * Boost:
-- - Boost_VERSION ..... : 104600
-- - Boost_LIB_VERSION ..... : 1_46
-- - Boost_HUMAN_VERSION ..... : 1.46.0
-- - Boost_INCLUDE_DIRS ..... : /usr/include
-- - Boost required components .. : regex;program_options;date_time;iostreams;serialization;files
-- - Boost required libraries ... : optimized;/usr/lib64/libboost_regex-mt.so;debug;/usr/lib64/l
--
-- * MySQL:
-- - MYSQL_VERSION ..... : 5.5.14
-- - MYSQL_INCLUDE_DIR ..... : /usr/include/mysql
-- - MYSQL_LIBRARIES ..... : /usr/lib64/mysql/libmysqlclient.so

```

```
--
-- * SOCI:
--   - SOCI_VERSION ..... : 3.0.0
--   - SOCI_INCLUDE_DIR ..... : /usr/include/soci
--   - SOCI_MYSQL_INCLUDE_DIR ..... : /usr/include/soci
--   - SOCI_LIBRARIES ..... : /usr/lib64/libsoci_core.so
--   - SOCI_MYSQL_LIBRARIES ..... : /usr/lib64/libsoci_mysql.so
--
-- * StdAir:
--   - STDAIR_VERSION ..... : 0.38.0
--   - STDAIR_BINARY_DIRS ..... : /home/user/dev/deliveries/stdair-0.38.0/bin
--   - STDAIR_EXECUTABLES ..... : stdair
--   - STDAIR_LIBRARY_DIRS ..... : /home/user/dev/deliveries/stdair-0.38.0/lib64
--   - STDAIR_LIBRARIES ..... : stdairlib;stdairuiclib
--   - STDAIR_INCLUDE_DIRS ..... : /home/user/dev/deliveries/stdair-0.38.0/include
--   - STDAIR_SAMPLE_DIR ..... : /home/user/dev/deliveries/stdair-0.38.0/share/stdair/samples
--
-- Change a value with: cmake -D<Variable>=<Value>
-- =====
--
-- Configuring done
-- Generating done
-- Build files have been written to: /home/user/dev/sim/airsched/airschedgithub/build
```

It is recommended that you check if your library has been compiled and linked properly and works as expected. - To do so, you should execute the testing process 'make check'. As a result, you should obtain a similar report:

```
[ 0%] Built target hdr_cfg_airsched
[ 96%] Built target airschedlib
[100%] Built target AirlineScheduleTestSuitetst
Scanning dependencies of target check_airschedtst
Test project /home/dan/dev/sim/airsched/airschedgithub/build/test/airsched
  Start 1: AirlineScheduleTestSuitetst
1/1 Test #1: AirlineScheduleTestSuitetst ..... Passed    0.15 sec

100% tests passed, 0 tests failed out of 1

Total Test time (real) = 0.40 sec
[100%] Built target check_airschedtst
Scanning dependencies of target check
[100%] Built target check
```

Check if all the executed tests PASSED. If not, please contact us by filling a [bug-report](#).

Finally, you should install the compiled and linked library, include files and (optionally) HTML and PDF documentation by typing:

```
make install
```

Depending on the PREFIX settings during configuration, you might need the root (administrator) access to perform this step.

Eventually, you might invoke the following command

```
make clean
```

to remove all files created during compilation process,
or even

```
cd ~/dev/sim/airschedgit
rm -rf build && mkdir build
cd build
```

to remove everything.

11 Linking with AirSched

11.1 Table of Contents

- [Introduction](#)
- [Dependencies](#)
- [Using the pkg-config command](#)
- [Using the airsched-config script](#)
- [M4 macro for the GNU Autotools](#)
- [Using AirSched with dynamic linking](#)

11.2 Introduction

There are two convenient methods of linking your programs with the AirSched library. The first one employs the `'pkg-config'` command (see <http://pkgconfig.freedesktop.org/>), whereas the second one uses `'airsched-config'` script. These methods are shortly described below.

11.3 Dependencies

The AirSched library depends on several other C++ components.

11.3.1 StdAir

Among them, as for now, only StdAir has been packaged. The support for StdAir is taken in charge by a dedicated M4 macro file (namely, `'stdair.m4'`), from the configuration script (generated thanks to `'configure.ac'`).



Figure 1: AirSched Dependencies

11.4 Using the pkg-config command

'pkg-config' is a helper tool used when compiling applications and libraries. It helps you insert the correct compiler and linker options. The syntax of the 'pkg-config' is as follows:

```
pkg-config <options> <library_name>
```

For instance, assuming that you need to compile an AirSched based program 'my_prog.cpp', you should use the following command:

```
g++ `pkg-config --cflags airsched` -o my_prog my_prog.cpp `pkg-config --libs  
airsched`
```

For more information see the 'pkg-config' man pages.

11.5 Using the airsched-config script

AirSched provides a shell script called 'airsched-config', which is installed by default in '\$prefix/bin' ('/usr/local/bin') directory. It can be used to simplify compilation and linking of AirSched based programs. The usage of this script is quite similar to the usage of the 'pkg-config' command.

Assuming that you need to compile the program 'my_prog.cpp' you can now do that with the following command:

```
g++ `airsched-config --cflags` -o my_prog_opt my_prog.cpp `airsched-config --libs`
```

A list of `'airsched-config'` options can be obtained by typing:

```
airsched-config --help
```

If the `'airsched-config'` command is not found by your shell, you should add its location `'$prefix/bin'` to the `PATH` environment variable, e.g.:

```
export PATH=/usr/local/bin:$PATH
```

11.6 M4 macro for the GNU Autotools

A M4 macro file is delivered with AirSched, namely `'airsched.m4'`, which can be found in, e.g., `'/usr/share/aclocal'`. When used by a `'configure'` script, thanks to the `'AM_PATH_AirSched'` macro (specified in the M4 macro file), the following Makefile variables are then defined:

- `'AirSched_VERSION'` (e.g., defined to 0.23.0)
- `'AirSched_CFLAGS'` (e.g., defined to `'-I${prefix}/include'`)
- `'AirSched_LIBS'` (e.g., defined to `'-L${prefix}/lib -lairsched'`)

11.7 Using AirSched with dynamic linking

When using static linking some of the library routines in AirSched are copied into your executable program. This can lead to unnecessary large executables. To avoid having too large executable files you may use dynamic linking instead. Dynamic linking means that the actual linking is performed when the program is executed. This requires that the system is able to locate the shared AirSched library file during your program execution. If you install the AirSched library using a non-standard prefix, the `'LD_LIBRARY_PATH'` environment variable might be used to inform the linker of the dynamic library location, e.g.:

```
export LD_LIBRARY_PATH=<AirSched installation prefix>/lib:$LD_LIBRARY_PATH
```

12 Test Rules

This section describes rules how the functionality of the IT++ library should be verified. In the `'tests'` subdirectory test files are provided. All functionality should be tested using these test files.

12.1 The Test File

Each new IT++ module/class should be accompanied with a test file. The test file is an implementation in C++ that tests the functionality of a function/class or a group of functions/classes called modules. The test file should test relevant parameter settings and input/output relations to guarantee correct functionality of the corresponding classes/functions. The test files should be maintained using version control and updated whenever new functionality is added to the IT++ library.

The test file should print relevant data to a standard output that can be used to verify the functionality. All relevant parameter settings should be tested.

The test file should be placed in the `'tests'` subdirectory and should have a name ending with `'_test.cpp'`.

12.2 The Reference File

Consider a test file named `'module_test.cpp'`. A reference file named `'module_test.ref'` should accompany the test file. The reference file contains a reference printout of the standard output generated when running the test program. The reference file should be maintained using version control and updated according to the test file.

12.3 Testing IT++ Library

One can compile and execute all test programs from `'tests'` subdirectory by typing

```
% make check
```

after successful compilation of the IT++ library.

13 Users Guide

13.1 Table of Contents

- [Introduction](#)
- [Get Started](#)
 - [Get the AirSched library](#)
 - [Build the AirSched project](#)
 - [Build and Run the Tests](#)
 - [Install the AirSched Project \(Binaries, Documentation\)](#)
- [Input file of AirSched Project](#)
- [The schedule BOM Tree](#)

- Build of the schedule BOM tree
 - Display of the schedule BOM tree
- Exploring the Predefined BOM Tree
 - Airline Network BOM Tree
 - Airline Schedule BOM Tree
- Extending the BOM Tree
- The travel solution calculation procedure

13.2 Introduction

The `AirSched` library contains classes for airline business management. This document does not cover all the aspects of the `AirSched` library. It does however explain the most important things you need to know in order to start using `AirSched`.

13.3 Get Started

13.3.1 Get the AirSched library

Clone locally the full [Git project](#):

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://air-sched.git.sourceforge.net/gitroot/air-sched/air-sched airschedgit
cd airschedgit
git checkout trunk
```

13.3.2 Build the AirSched project

Link with `StdAir`, create the distribution package (say, 0.5.0) and compile using the following commands:

```
cd ~/dev/sim/airschedgit
rm -rf build && mkdir -p build
cd build
cmake -DCMAKE_INSTALL_PREFIX=~/dev/deliveries/airsched-0.5.0 \
      -DWITH_STDAIR_PREFIX=~/dev/deliveries/stdair-stable \
      -DCMAKE_BUILD_TYPE:String=Debug -DINSTALL_DOC:BOOL=ON ..
make
```

13.3.3 Build and Run the Tests

After building the `AirSched` project, the following commands run the tests:

```
cd ~/dev/sim/airschedgit
cd build
make check
```

As a result, you should obtain a similar report:

```
[ 0%] Built target hdr_cfg_airsched
[ 96%] Built target airschedlib
[100%] Built target AirlineScheduleTestSuitetst
Scanning dependencies of target check_airschedtst
Test project /home/dan/dev/sim/airsched/airschedgithub/build/test/airsched
  Start 1: AirlineScheduleTestSuitetst
1/1 Test #1: AirlineScheduleTestSuitetst ..... Passed    0.15 sec

100% tests passed, 0 tests failed out of 1

Total Test time (real) = 0.40 sec
[100%] Built target check_airschedtst
Scanning dependencies of target check
[100%] Built target check
```

13.3.4 Install the AirSched Project (Binaries, Documentation)

After the step [Build the AirSched project](#), to install the library and its header files, type:

```
cd ~/dev/sim/airschedgit
cd build
make install
```

You can check that the executables and other required files have been copied into the given final directory:

```
cd ~/dev/deliveries/airsched-0.5.0
```

To generate the AirSched project documentation, the commands are:

```
cd ~/dev/sim/airschedgit
cd build
make doc
```

The AirSched project documentation is available in the following formats: HTML, LaTeX. Those documents are available in a subdirectory:

```
cd ~/dev/sim/airschedgit
cd build
cd doc
```

13.4 Input file of AirSched Project

The schedule input file structure should look like the following sample:

```
// Flights:  AirlineCode; FlightNumber; Date-Range; ; DOW; Legs; Segments;
// Legs:      BoardPoint; OffPoint; BoardTime; ArrivalDateOffSet; ArrivalTime;
//            ElapsedTime; LegCabins;
// LegCabins: CabinCode; Capacity;
// Segments: Specific;
BA; 9; 2007-04-20; 2007-06-30; 0000011; LHR; BKK; 22:00; 15:15 / +1; 11:15; F;
```

```

5; J; 12; W; 20; Y; 300; BKK; SYD; 18:10 / +1; 06:05 / +2; 08:55; F; 5; J; 12; W
; 20; Y; 300; 0; F; FA; 1; FA; J; JC DI; 1; JC DI; W; WT; 1; WT; Y; YBHKMLSQ; 1;
YBHKMLSQ;
BA; 9; 2007-04-20; 2007-06-30; 1111100; LHR; BKK; 22:00; 15:15 / +1; 11:15; F;
5; J; 12; W; 20; Y; 300; BKK; SYD; 18:10 / +1; 06:05 / +2; 08:55; F; 5; J; 12; W
; 20; Y; 300; 1; LHR; BKK; F; FA; J; JC DI; W; WT; Y; YBHKMLSQ; BKK; SYD; F; FA;
J; JC DI; W; WT; Y; YBHKMLSQ; LHR; SYD; F; FA; 1; FA; J; JC DI; 1; JC DI; W; WT; 1;
WT; Y; YBHKMLSQ; 1; YBHKMLSQ;
BA; 117; 2007-04-20; 2007-06-30; 1111111; LHR; JFK; 08:20; 11:00; 07:40; F; 5;
J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JC DI; 1; JC DI; W; WT; 1; WT; Y; YBHKM;
1; YBHKM;
BA; 175; 2007-04-20; 2007-06-30; 1111111; LHR; JFK; 10:55; 13:35; 07:40; F; 5;
J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JC DI; 1; JC DI; W; WT; 1; WT; Y;
YBHKMRL; 1; YBHKMRL;
BA; 179; 2007-04-20; 2007-06-30; 1111111; LHR; JFK; 18:05; 20:45; 07:40; F; 5;
J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JC DI; 1; JC DI; W; WT; 1; WT; Y;
YBHKMRVNELSQO; 1; YBHKMRVNELSQO;
BA; 207; 2007-04-20; 2007-06-30; 1111111; LHR; MIA; 09:40; 14:25; 09:45; F; 5;
J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JC DI; 1; JC DI; W; WT; 1; WT; Y;
YBHKMRVNELSQO; 1; YBHKMRVNELSQO;
BA; 279; 2007-04-20; 2007-06-30; 1111111; LHR; LAX; 10:05; 13:10; 11:05; F; 5;
J; 12; W; 20; Y; 300; 0; F; FA; 1; FA; J; JC DI; 1; JC DI; W; WT; 1; WT; Y;
YBHKMRVNELSQO; 1; YBHKMRVNELSQO;

```

Each line, beyond the header, represents a schedule entry, i.e., the specification of a given flight-period (see `AIRSCHED::FlightPeriodStruct`). The fields are as follows:

- Flights section
 - AirlineCode (e.g., BA)
 - FlightNumber (e.g., 9)
 - Start of the flight departure period (e.g., 2007-04-20)
 - End of the flight departure period (e.g., 2007-06-30)
 - Day-Of-the-Week for the flight departure period (DOW) (e.g., 0000011)
 - Leg section
 - Segment section
- Leg section
 - BoardPoint (e.g., LHR)
 - OffPoint (e.g., BKK)
 - BoardTime (e.g., 22:00)
 - ArrivalTime (e.g., 15:15)
 - ArrivalDateOffset (e.g., +1)
 - ElapsedTime (e.g., 11:15)
 - Leg-cabin section
- Leg-cabin section
 - Cabin code (e.g., F, J, W or Y)
 - Capacity (e.g., respectively 5, 12, 20 or 300)
- Segment section

- Specificity flag:
 - * 0 means that all the segments behave the same way, i.e., have got the same dressing (distribution and order of the booking classes per cabin)
 - * 1 means that each segment behave differently. The full specification of each of those segments must therefore be given.
- Segment-cabin section
- Fare family section
- Segment-cabin section
 - Cabin code (e.g., F, J, W or Y)
 - List of (one-letter-code) booking classes for the cabin (e.g, respectively FA, JC DI, WT or YBHKMLSQ)
- Fare family section
 - Fare family code (e.g., 1)
 - List of (one-letter-code) booking classes for the fare family (e.g, respectively FA, JC DI, WT or YBHKMLSQ)

Some fare input examples (including the example above named `schedule03.csv`) are given in the `StdAir` project.

13.5 The schedule BOM Tree

The schedule-related Business Object Model (BOM) tree is a structure allowing to store all the `AIRSCHEd::FlightPeriodStruct` objects of the simulation. That is why parsing an input file, containing the specification for all the flight-periods, is more convenient (

See also

the previous section [Input file of AirSched Project](#)).

As it may be time consuming, and it for sure requires some know-how, to first build such a schedule input file, a small sample BOM tree is provided by default when needed.

13.5.1 Build of the schedule BOM tree

First, a BOM root object (i.e., a root for all the classes in the project) is instantiated by the `stdair::STDAIR_ServiceContext` context object, when the `stdair::STDAIR_Service` is itself instantiated (during the instantiation of the `AIRSCHEd::AIRSCHEd_Service` object).

The corresponding type (class) `stdair::BomRoot` is defined in the `StdAir` library.

Then, the BOM root can be either constructed thanks to the `AIRSCHEd::AIRSCHEd_Service::buildSampleBom()` method:

```
void buildSampleBom();
```

or can be constructed using the schedule input file described above thanks to the `AIRSCHEd::AIRSCHEd_Service::parseAndLoad` (const stdair::Filename_T&) method:

```
void parseAndLoad (const stdair::Filename_T& iScheduleInputFilename);
```

13.5.2 Display of the schedule BOM tree

Note

That feature (of BOM tree display) has not been implemented yet. Do not hesitate to [open a ticket](#) if you would like to have it implemented more quickly.

The schedule BOM tree can be displayed as done in the `batches::airsched.-cpp` program:

When the default BOM tree is used (`-b/--builtin` option of the main program `airsched.cpp`), the schedule BOM tree display (for now, corresponding to `schedule01.csv` parsed by `AIRINV::parseInventory`) should look like:

```
=====
BomRoot:  -- ROOT  --
=====
+++++
Inventory: SQ
+++++
*****
FlightDate: SQ11, 2010-Jan-15
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-15, SIN-BKK, 2010-Jan-15, 08:20:00, 2010-Jan-15, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Av1, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 300, 300, 0, 0, 0, 0, 0, 2, 298
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 1, 0, 0, 0, 2, 298, 0,
```

```
SQL1 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 2, 0, 0, 0, 2, 298, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 1, Y, 300 (0), 0, 0, 0, 2, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL1 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL1 2010-Jan-16, SIN-BKK, 2010-Jan-16, 08:20:00, 2010-Jan-16, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 1.83244e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL1 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-17
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL1 2010-Jan-17, SIN-BKK, 2010-Jan-17, 08:20:00, 2010-Jan-17, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 1.58896e-319, 0, 0, 0, 0,
*****
*****
Buckets:
```

```
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-18
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, 08:20:00, 2010-Jan-18, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Jan-18, SIN-BKK 2010-Jan-18, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, 08:20:00, 2010-Jan-19, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
```

```

-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL1 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, 08:20:00, 2010-Jan-20, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL1 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-21
*****
*****
Leg-Dates:

```

```

-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL1 2010-Jan-21, SIN-BKK, 2010-Jan-21, 08:20:00, 2010-Jan-21, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 1, Y, 300 (0), 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL1 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL1 2010-Jan-22, SIN-BKK, 2010-Jan-22, 08:20:00, 2010-Jan-22, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,

```

```

SQL1 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Jan-23, SIN-BKK, 2010-Jan-23, 08:20:00, 2010-Jan-23, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 300, 300, 0, 0, 0, 0, 0, 6.64029e-
319, 0, 300, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-24
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Jan-24, SIN-BKK, 2010-Jan-24, 08:20:00, 2010-Jan-24, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 2, 0, 0, 0, 0, 300, 0,

```

```
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-25
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Jan-25, SIN-BKK, 2010-Jan-25, 08:20:00, 2010-Jan-25, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Jan-25, SIN-BKK 2010-Jan-25, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-26
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Jan-26, SIN-BKK, 2010-Jan-26, 08:20:00, 2010-Jan-26, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
```

```

Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Jan-26, SIN-BKK 2010-Jan-26, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-27
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Jan-27, SIN-BKK, 2010-Jan-27, 08:20:00, 2010-Jan-27, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Jan-27, SIN-BKK 2010-Jan-27, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-28
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Jan-28, SIN-BKK, 2010-Jan-28, 08:20:00, 2010-Jan-28, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----

```

```

Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-28, SIN-BKK 2010-Jan-28, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-29
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Jan-29, SIN-BKK, 2010-Jan-29, 08:20:00, 2010-Jan-29, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 300, 300, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Jan-29, SIN-BKK 2010-Jan-29, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Jan-30
*****
*****
Leg-Dates:
-----

```

```
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Jan-30, SIN-BKK, 2010-Jan-30, 08:20:00, 2010-Jan-30, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Jan-30, SIN-BKK 2010-Jan-30, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Jan-31
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Jan-31, SIN-BKK, 2010-Jan-31, 08:20:00, 2010-Jan-31, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
```

```

0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-01
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-01, SIN-BKK, 2010-Feb-01, 08:20:00, 2010-Feb-01, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-01, SIN-BKK 2010-Feb-01, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-02
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-02, SIN-BKK, 2010-Feb-02, 08:20:00, 2010-Feb-02, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 2, 0, 0, 0, 0, 300, 0,
*****

```

```

*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-02, SIN-BKK 2010-Feb-02, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-03
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-03, SIN-BKK, 2010-Feb-03, 08:20:00, 2010-Feb-03, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-03, SIN-BKK 2010-Feb-03, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-04
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-04, SIN-BKK, 2010-Feb-04, 08:20:00, 2010-Feb-04, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,

```

```

*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-05
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-05, SIN-BKK, 2010-Feb-05, 08:20:00, 2010-Feb-05, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 300, 300, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-06
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-06, SIN-BKK, 2010-Feb-06, 08:20:00, 2010-Feb-06, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,

```

```

CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 300, 300, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-06, SIN-BKK 2010-Feb-06, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-07
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-07, SIN-BKK, 2010-Feb-07, 08:20:00, 2010-Feb-07, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-07, SIN-BKK 2010-Feb-07, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-08
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,

```

```

Elapsed, Distance, Capacity,
SQ11 2010-Feb-08, SIN-BKK, 2010-Feb-08, 08:20:00, 2010-Feb-08, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-08, SIN-BKK 2010-Feb-08, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-09
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-09, SIN-BKK, 2010-Feb-09, 08:20:00, 2010-Feb-09, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-09, SIN-BKK 2010-Feb-09, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,

```

```

*****
*****
FlightDate: SQ11, 2010-Feb-10
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-10, SIN-BKK, 2010-Feb-10, 08:20:00, 2010-Feb-10, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-10, SIN-BKK 2010-Feb-10, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-11
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-11, SIN-BKK, 2010-Feb-11, 08:20:00, 2010-Feb-11, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****

```

```
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 1, Y, 300 (0), 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-11, SIN-BKK 2010-Feb-11, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-12
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-12, SIN-BKK, 2010-Feb-12, 08:20:00, 2010-Feb-12, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ11 2010-Feb-12, SIN-BKK 2010-Feb-12, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-13
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ11 2010-Feb-13, SIN-BKK, 2010-Feb-13, 08:20:00, 2010-Feb-13, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
```

```

*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-13, SIN-BKK 2010-Feb-13, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ11, 2010-Feb-14
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-14, SIN-BKK, 2010-Feb-14, 08:20:00, 2010-Feb-14, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 2, 0, 0, 0, 0, 300, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-14, SIN-BKK 2010-Feb-14, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ11, 2010-Feb-15
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-15, SIN-BKK, 2010-Feb-15, 08:20:00, 2010-Feb-15, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,

```

```

SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL1 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, 08:20:00, 2010-Feb-16, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL1 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-17
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,

```

```
SQL1 2010-Feb-17, SIN-BKK, 2010-Feb-17, 08:20:00, 2010-Feb-17, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL1 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-18
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL1 2010-Feb-18, SIN-BKK, 2010-Feb-18, 08:20:00, 2010-Feb-18, 11:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL1 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
```

```
*****
FlightDate: SQL1, 2010-Feb-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-19, SIN-BKK, 2010-Feb-19, 08:20:00, 2010-Feb-19, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-20, SIN-BKK, 2010-Feb-20, 08:20:00, 2010-Feb-20, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
```

```
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-21, SIN-BKK, 2010-Feb-21, 08:20:00, 2010-Feb-21, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ11 2010-Feb-21, SIN-BKK 2010-Feb-21, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 2010-Feb-22, SIN-BKK, 2010-Feb-22, 08:20:00, 2010-Feb-22, 11:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
```

```

SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Feb-22, SIN-BKK 2010-Feb-22, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Feb-23, SIN-BKK, 2010-Feb-23, 08:20:00, 2010-Feb-23, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ11 2010-Feb-23, SIN-BKK 2010-Feb-23, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-24
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ11 2010-Feb-24, SIN-BKK, 2010-Feb-24, 08:20:00, 2010-Feb-24, 11:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300

```

```

, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-25
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-25, SIN-BKK, 2010-Feb-25, 08:20:00, 2010-Feb-25, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL1 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL1 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 1, 0, 0, 0, 0, 300, 0,
SQL1 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL1 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL1 2010-Feb-25, SIN-BKK 2010-Feb-25, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL1, 2010-Feb-26
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL1 2010-Feb-26, SIN-BKK, 2010-Feb-26, 08:20:00, 2010-Feb-26, 11:00:00, 07:40:

```

```
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-26, SIN-BKK 2010-Feb-26, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ11, 2010-Feb-27
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-27, SIN-BKK, 2010-Feb-27, 08:20:00, 2010-Feb-27, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-27, SIN-BKK 2010-Feb-27, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
```

```

FlightDate: SQ11, 2010-Feb-28
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ11 2010-Feb-28, SIN-BKK, 2010-Feb-28, 08:20:00, 2010-Feb-28, 11:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 2, 0, 0, 0, 0, 300, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ11 2010-Feb-28, SIN-BKK 2010-Feb-28, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-15
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-15, SIN-HND, 2010-Jan-15, 09:20:00, 2010-Jan-15, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 200, 200, 2.082e+121, 5.53287e-48, 5.
20268e-90, 0, 1.31346e-47, 1.05119e-153, 2.78986e+179, 0, 200, 9, 3.66962e-62, 1
.0854e-71, 6.74783e-67, 6.9835e-77, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:

```

```
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 1, Y13856, 200 (0), 0, 0, 0, 0, 0 (0)
      , 0, 0, 0, 0, 0, 0,
SQ12 2010-Jan-15, SIN-HND 2010-Jan-15, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Jan-16, SIN-HND, 2010-Jan-16, 09:20:00, 2010-Jan-16, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 2.63638e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-17
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Jan-17, SIN-HND, 2010-Jan-17, 09:20:00, 2010-Jan-17, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 2.39291e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
```

```

SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL2 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-18
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQL2 2010-Jan-18, SIN-HND, 2010-Jan-18, 09:20:00, 2010-Jan-18, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 2.14469e-319, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQL2 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-19
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQL2 2010-Jan-19, SIN-HND, 2010-Jan-19, 09:20:00, 2010-Jan-19, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200

```

```

, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Jan-20, SIN-HND, 2010-Jan-20, 09:20:00, 2010-Jan-20, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Jan-21, SIN-HND, 2010-Jan-21, 09:20:00, 2010-Jan-21, 12:00:00, 07:40:

```

```
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-21, SIN-HND 2010-Jan-21, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-22, SIN-HND, 2010-Jan-22, 09:20:00, 2010-Jan-22, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-22, SIN-HND 2010-Jan-22, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
```

```
FlightDate: SQ12, 2010-Jan-23
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-23, SIN-HND, 2010-Jan-23, 09:20:00, 2010-Jan-23, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-23, SIN-HND 2010-Jan-23, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-24
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-24, SIN-HND, 2010-Jan-24, 09:20:00, 2010-Jan-24, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
```

```
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ12 2010-Jan-24, SIN-HND 2010-Jan-24, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-25
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Jan-25, SIN-HND, 2010-Jan-25, 09:20:00, 2010-Jan-25, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ12 2010-Jan-25, SIN-HND 2010-Jan-25, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-26
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Jan-26, SIN-HND, 2010-Jan-26, 09:20:00, 2010-Jan-26, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
```

```
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0,
    0, 0, 0, 0, 0,
SQL2 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-27
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL2 2010-Jan-27, SIN-HND, 2010-Jan-27, 09:20:00, 2010-Jan-27, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL2 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Jan-28
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL2 2010-Jan-28, SIN-HND, 2010-Jan-28, 09:20:00, 2010-Jan-28, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
```

```

*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-29
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Jan-29, SIN-HND, 2010-Jan-29, 09:20:00, 2010-Jan-29, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Jan-29, SIN-HND 2010-Jan-29, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-30
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Jan-30, SIN-HND, 2010-Jan-30, 09:20:00, 2010-Jan-30, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,

```

```
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-30, SIN-HND 2010-Jan-30, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Jan-31
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Jan-31, SIN-HND, 2010-Jan-31, 09:20:00, 2010-Jan-31, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Jan-31, SIN-HND 2010-Jan-31, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-01
```

```

*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-01, SIN-HND, 2010-Feb-01, 09:20:00, 2010-Feb-01, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 1, Y, 200 (0), 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-01, SIN-HND 2010-Feb-01, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-02
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-02, SIN-HND, 2010-Feb-02, 09:20:00, 2010-Feb-02, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,

```

```
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-02, SIN-HND 2010-Feb-02, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-03
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-03, SIN-HND, 2010-Feb-03, 09:20:00, 2010-Feb-03, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-03, SIN-HND 2010-Feb-03, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-04
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-04, SIN-HND, 2010-Feb-04, 09:20:00, 2010-Feb-04, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
```

```
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ12 2010-Feb-04, SIN-HND 2010-Feb-04, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
FlightDate: SQ12, 2010-Feb-05
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Feb-05, SIN-HND, 2010-Feb-05, 09:20:00, 2010-Feb-05, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
  GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
SQ12 2010-Feb-05, SIN-HND 2010-Feb-05, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
  0, 0, 0, 0, 0,
*****
FlightDate: SQ12, 2010-Feb-06
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
  Elapsed, Distance, Capacity,
SQ12 2010-Feb-06, SIN-HND, 2010-Feb-06, 09:20:00, 2010-Feb-06, 12:00:00, 07:40:
  00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
  CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
  , 9, 0, 0, 0, 0, 0,
*****
```

```
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Feb-06, SIN-HND 2010-Feb-06, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ12, 2010-Feb-07
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-07, SIN-HND, 2010-Feb-07, 09:20:00, 2010-Feb-07, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Feb-07, SIN-HND 2010-Feb-07, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
FlightDate: SQ12, 2010-Feb-08
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-08, SIN-HND, 2010-Feb-08, 09:20:00, 2010-Feb-08, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
```

```

*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 1, Y, 200 (0), 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-09
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Feb-09, SIN-HND, 2010-Feb-09, 09:20:00, 2010-Feb-09, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-10
*****

```

```

*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-10, SIN-HND, 2010-Feb-10, 09:20:00, 2010-Feb-10, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQ12 2010-Feb-10, SIN-HND 2010-Feb-10, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-11
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQ12 2010-Feb-11, SIN-HND, 2010-Feb-11, 09:20:00, 2010-Feb-11, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,

```

```
SQL2 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-11, SIN-HND 2010-Feb-11, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-12
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Feb-12, SIN-HND, 2010-Feb-12, 09:20:00, 2010-Feb-12, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-13
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Feb-13, SIN-HND, 2010-Feb-13, 09:20:00, 2010-Feb-13, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
```

```
SQL2 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL2 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-14
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL2 2010-Feb-14, SIN-HND, 2010-Feb-14, 09:20:00, 2010-Feb-14, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL2 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-15
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL2 2010-Feb-15, SIN-HND, 2010-Feb-15, 09:20:00, 2010-Feb-15, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
```

```

Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL2 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-16
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL2 2010-Feb-16, SIN-HND, 2010-Feb-16, 09:20:00, 2010-Feb-16, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL2 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-17
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL2 2010-Feb-17, SIN-HND, 2010-Feb-17, 09:20:00, 2010-Feb-17, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****

```

```
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 1, 0, 0, 0, 0, 200, 0,
SQL12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL12, 2010-Feb-18
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQL12 2010-Feb-18, SIN-HND, 2010-Feb-18, 09:20:00, 2010-Feb-18, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 1, 0, 0, 0, 0, 200, 0,
SQL12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQL12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL12, 2010-Feb-19
*****
*****
```

```
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Feb-19, SIN-HND, 2010-Feb-19, 09:20:00, 2010-Feb-19, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ12 2010-Feb-19, SIN-HND 2010-Feb-19, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-20
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Feb-20, SIN-HND, 2010-Feb-20, 09:20:00, 2010-Feb-20, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
```

```

    0, 0, 0, 0, 0,
SQ12 2010-Feb-20, SIN-HND 2010-Feb-20, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-21
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Feb-21, SIN-HND, 2010-Feb-21, 09:20:00, 2010-Feb-21, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ12 2010-Feb-21, SIN-HND 2010-Feb-21, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-22
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Feb-22, SIN-HND, 2010-Feb-22, 09:20:00, 2010-Feb-22, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 1, 0, 0, 0, 0, 200, 0,

```

```
SQL2 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 2, 0, 0, 0, 0, 200, 0,
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 1, Y, 200 (0), 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL2 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-23
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL2 2010-Feb-23, SIN-HND, 2010-Feb-23, 09:20:00, 2010-Feb-23, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQL2 2010-Feb-23, SIN-HND 2010-Feb-23, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-24
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQL2 2010-Feb-24, SIN-HND, 2010-Feb-24, 09:20:00, 2010-Feb-24, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 200, 200, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
```

```
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-25
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-25, SIN-HND, 2010-Feb-25, 09:20:00, 2010-Feb-25, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 2010-Feb-25, SIN-HND 2010-Feb-25, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
*****
*****
FlightDate: SQ12, 2010-Feb-26
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-26, SIN-HND, 2010-Feb-26, 09:20:00, 2010-Feb-26, 12:00:00, 07:40:
      00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
```

```
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-27
*****
*****
Leg-Dates:
-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
Elapsed, Distance, Capacity,
SQL2 2010-Feb-27, SIN-HND, 2010-Feb-27, 09:20:00, 2010-Feb-27, 12:00:00, 07:40:
00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhycAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
, 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 1, 0, 0, 0, 0, 200, 0,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
SQL2 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
0, 0, 0, 0, 0,
*****
*****
FlightDate: SQL2, 2010-Feb-28
*****
*****
Leg-Dates:
```

```

-----
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 2010-Feb-28, SIN-HND, 2010-Feb-28, 09:20:00, 2010-Feb-28, 12:00:00, 07:40:
    00, 0, -05:00:00, 6300, 0,
*****
*****
LegCabins:
-----
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 0, 0, 0, 0, 0,
*****
*****
Buckets:
-----
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****
*****
SegmentCabins:
-----
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 2, 0, 0, 0, 0, 200, 0,
*****
*****
Subclasses:
-----
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ12 2010-Feb-28, SIN-HND 2010-Feb-28, Y, 2, M, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
*****

```

13.6 Exploring the Predefined BOM Tree

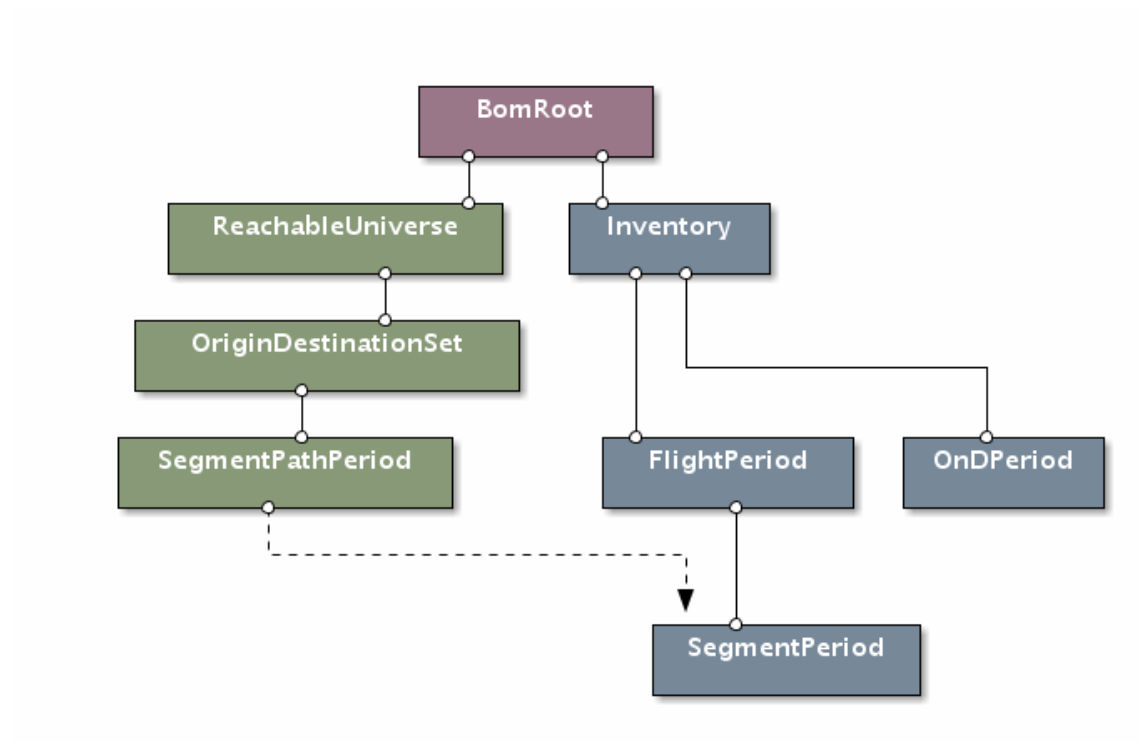


Figure 2: AirSched BOM tree

AirSched predefines a BOM (Business Object Model) tree specific to the airline IT arena.

13.6.1 Airline Network BOM Tree

- `AIRSCHEd::ReachableUniverse`
- `AIRSCHEd::OriginDestinationSet`
- `AIRSCHEd::SegmentPathPeriod`

13.6.2 Airline Schedule BOM Tree

- `stdair::Inventory`
- `stdair::FlightPeriod`
- `stdair::SegmentPeriod`
- `stdair::OnDPeriod`

13.7 Extending the BOM Tree

13.8 The travel solution calculation procedure

The project AirSched aims at calculating a list of `travel solutions` for every incoming `booking request`.

14 Supported Systems

14.1 Table of Contents

- [Introduction](#)
- [AirSched 0.2.x](#)
 - [Linux Systems](#)
 - * [Fedora Core 4 with ATLAS](#)
 - * [Gentoo Linux with ACML](#)
 - * [Gentoo Linux with ATLAS](#)
 - * [Gentoo Linux with MKL](#)
 - * [Gentoo Linux with NetLib's BLAS and LAPACK](#)
 - * [Red Hat Enterprise Linux with AirSched External](#)
 - * [SUSE Linux 10.0 with NetLib's BLAS and LAPACK](#)
 - * [SUSE Linux 10.0 with MKL](#)
 - [Windows Systems](#)
 - * [Microsoft Windows XP with Cygwin](#)
 - * [Microsoft Windows XP with Cygwin and ATLAS](#)
 - * [Microsoft Windows XP with Cygwin and ACML](#)
 - * [Microsoft Windows XP with MinGW, MSYS and ACML](#)
 - * [Microsoft Windows XP with MinGW, MSYS and AirSched External](#)
 - * [Microsoft Windows XP with MS Visual C++ and Intel MKL](#)
 - [Unix Systems](#)
 - * [SunOS 5.9 with AirSched External](#)
- [AirSched 3.9.1](#)
- [AirSched 3.9.0](#)
- [AirSched 3.8.1](#)

14.2 Introduction

This page is intended to provide a list of AirSched supported systems, i.e. the systems on which configuration, installation and testing process of the AirSched library has been successful. Results are grouped based on minor release number. Therefore, only the

latest tests for bug-fix releases are included. Besides, the information on this page is divided into sections dependent on the operating system.

Where necessary, some extra information is given for each tested configuration, e.g. external libraries installed, configuration commands used, etc.

If you manage to compile, install and test the AirSched library on a system not mentioned below, please let us know, so we could update this database.

14.3 AirSched 0.2.x

14.3.1 Linux Systems

14.3.1.1 Fedora Core 4 with ATLAS

- **Platform:** Intel Pentium 4
- **Operating System:** Fedora Core 4 (x86)
- **Compiler:** g++ (GCC) 4.0.2 20051125
- **AirSched release:** 0.2.0
- **External Libraries:** From FC4 distribution:
 - fftw3.i386-3.0.1-3
 - fftw3-devel.i386-3.0.1-3
 - atlas-sse2.i386-3.6.0-8.fc4
 - atlas-sse2-devel.i386-3.6.0-8.fc4
 - blas.i386-3.0-35.fc4
 - lapack.i386-3.0-35.fc4
- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% CXXFLAGS="-O3 -pipe -march=pentium4" ./configure
```
- **Date:** March 7, 2006
- **Tester:** Tony Ottosson

14.3.1.2 Gentoo Linux with ACML

- **Platform:** AMD Sempron 3000+
- **Operating System:** Gentoo Linux 2006.0 (x86 arch)
- **Compiler(s):** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.1
- **External Libraries:** Compiled and installed from portage tree:

```
- sci-libs/acml-3.0.0
```

- **Tests Status:** All tests PASSED
- **Comments:** BLAS and LAPACK libs set by using the following system commands:

```
% eselect blas set ACML  
% eselect lapack set ACML
```

AirSched configured with:

```
% export CPPFLAGS="-I/usr/include/acml"  
% ./configure --with-blas="-lblas"
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.1.3 Gentoo Linux with ATLAS

- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86)
- **Compiler:** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.1
- **External Libraries:** Compiled and installed from portage tree:

```
- sci-libs/fftw-3.1  
- sci-libs/blas-atlas-3.6.0-r1  
- sci-libs/lapack-atlas-3.6.0
```

- **Tests Status:** All tests PASSED
- **Comments:** BLAS and LAPACK libs set by using the following system commands:

```
% eselect blas set ATLAS  
% eselect lapack set ATLAS
```

AirSched configured with:

```
% ./configure --with-blas="-lblas"
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.1.4 Gentoo Linux with MKL

- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86 arch)
- **Compiler:** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.0
- **External Libraries:** Intel Math Kernel Library (MKL) 8.0.1 installed manually in the following directory: /opt/intel/mkl/8.0.1
- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured using the following commands:

```
% export LDFLAGS="-L/opt/intel/mkl/8.0.1/lib/32"
% export CPPFLAGS="-I/opt/intel/mkl/8.0.1/include"
% ./configure
```

- **Date:** February 28, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.1.5 Gentoo Linux with NetLib's BLAS and LAPACK

- **Platform:** Intel Pentium M Centrino
- **Operating System:** Gentoo Linux 2006.0 (x86)
- **Compiler:** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.1
- **External Libraries:** Compiled and installed from portage tree:
 - sci-libs/fftw-3.1
 - sci-libs/blas-reference-19940131-r2
 - sci-libs/cblas-reference-20030223
 - sci-libs/lapack-reference-3.0-r2
- **Tests Status:** All tests PASSED
- **Comments:** BLAS and LAPACK libs set by using the following system commands:

```
% blas-config reference
% lapack-config reference
```

AirSched configured with:

```
% ./configure --with-blas="-lblas"
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.1.6 Red Hat Enterprise Linux with AirSched External

- **Platform:** Intel Pentium 4
- **Operating System:** Red Hat Enterprise Linux AS release 4 (Nahant Update 2)
- **Compiler:** g++ (GCC) 3.4.4 20050721 (Red Hat 3.4.4-2)
- **AirSched release:** 0.2.0
- **External Libraries:** BLAS, CBLAS, LAPACK and FFTW libraries from AirSched External 2.1.1 package
- **Tests Status:** All tests PASSED
- **Date:** March 7, 2006
- **Tester:** Erik G. Larsson

14.3.1.7 SUSE Linux 10.0 with NetLib's BLAS and LAPACK

- **Platform:** Intel Pentium 4 CPU 3.20GHz (64-bit)
- **Operating System:** SUSE Linux 10.0 (x86_64)
- **Compiler(s):** g++ (GCC) 4.0.2
- **AirSched release:** 0.2.0
- **External Libraries:** BLAS, LAPACK and FFTW libraries installed from OpenSuse 10.0 RPM repository:
 - blas-3.0-926
 - lapack-3.0-926
 - fftw3-3.0.1-114
 - fftw3-threads-3.0.1-114
 - fftw3-devel-3.0.1-114
- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% export CXXFLAGS="-m64 -march=nocona -O3 -pipe"
% ./configure --with-lapack="/usr/lib64/liblapack.so.3"
```
- **Date:** March 1, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.1.8 SUSE Linux 10.0 with MKL

- **Platform:** Intel Pentium 4 CPU 3.20GHz (64-bit)
- **Operating System:** SUSE Linux 10.0 (x86_64)
- **Compiler(s):** g++ (GCC) 4.0.2
- **AirSched release:** 0.2.0
- **External Libraries:** Intel Math Kernel Library (MKL) 8.0.1 installed manually in the following directory: /opt/intel/mkl/8.0.1
- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% export CXXFLAGS="-m64 -march=nocona -O3 -pipe"
% export LDFLAGS="-L/opt/intel/mkl/8.0.1/lib/em64t"
% export CPPFLAGS="-I/opt/intel/mkl/8.0.1/include"
% ./configure
```
- **Date:** March 1, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.2 Windows Systems

14.3.2.1 Microsoft Windows XP with Cygwin

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **AirSched release:** 0.2.1
- **External Libraries:** Installed from Cygwin's repository:
 - fftw-3.0.1-2
 - fftw-dev-3.0.1-1
 - lapack-3.0-4
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% ./configure
```
- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.2.2 Microsoft Windows XP with Cygwin and ATLAS

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **AirSched release:** 0.2.1
- **External Libraries:** Installed from Cygwin's repository:

```
- fftw-3.0.1-2
- fftw-dev-3.0.1-1
```

ATLAS BLAS and LAPACK libraries from AirSched External 2.1.1 package configured using:

```
% ./configure --enable-atlas --disable-fftw
```

- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/usr/local/lib"
% ./configure
```

- **Date:** March 31, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.2.3 Microsoft Windows XP with Cygwin and ACML

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, Cygwin 1.5.19-4
- **Compiler(s):** g++ (GCC) 3.4.4 (cygming special)
- **AirSched release:** 0.2.2
- **External Libraries:** ACML version 3.1.0 (acml3.1.0-32-win32-g77.-exe) installed into a default directory, i.e. "c:\Program Files\AMD\acml3.1.0"
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/cygdrive/c/Progra~1/AMD/acml3.1.0/gnu32/lib"
% export CPPFLAGS="-I/cygdrive/c/Progra~1/AMD/acml3.1.0/gnu32/include"
% ./configure --enable-debug
```

- **Date:** May 15, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.2.4 Microsoft Windows XP with MinGW, MSYS and ACML

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, MinGW 5.0.2, MSYS 1.0.10
- **Compiler(s):** g++ (GCC) 3.4.4 (mingw special)
- **AirSched release:** 0.2.2
- **External Libraries:** ACML version 3.1.0 (acml3.1.0-32-win32-g77.exe) installed into a default directory, i.e. "c:\Program Files\AMD\acml3.1.0"
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/c/Progra~1/AMD/acml3.1.0/gnu32/lib"
% export CPPFLAGS="-I/c/Progra~1/AMD/acml3.1.0/gnu32/include"
% ./configure --enable-debug
```
- **Date:** May 15, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.2.5 Microsoft Windows XP with MinGW, MSYS and AirSched External

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2, MinGW 5.0.2, MSYS 1.0.10
- **Compiler(s):** g++ (GCC) 3.4.4 (mingw special)
- **AirSched release:** 0.2.5
- **External Libraries:** BLAS, CBLAS, LAPACK and FFTW libraries from AirSched External 2.2.0 package
- **Tests Status:** All tests PASSED
- **Comments:** Only static library can be built. AirSched configured with:

```
% export LDFLAGS="-L/usr/local/lib"
% export CPPFLAGS="-I/usr/local/include"
% export CXXFLAGS="-Wall -O3 -march=athlon-tbird -pipe"
% ./configure --disable-html-doc
```
- **Date:** August 11, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.2.6 Microsoft Windows XP with MS Visual C++ and Intel MKL

- **Platform:** AMD Sempron 3000+
- **Operating System:** Microsoft Windows XP SP2
- **Compiler(s):** Microsoft Visual C++ 2005 .NET
- **AirSched release:** 0.2.5
- **External Libraries:** Intel Math Kernel Library (MKL) 8.1 installed manually in the following directory: "C:\Program Files\Intel\MKL\8.1"
- **Tests Status:** Not fully tested. Some AirSched based programs compiled and run with success.
- **Comments:** Only static library can be built. AirSched built by opening the "win32\airsched.vcproj" project file in MSVC++ and executing "Build -> Build Solution" command from menu.
- **Date:** August 11, 2006
- **Tester:** Adam Piatyszek (ediap)

14.3.3 Unix Systems

14.3.3.1 SunOS 5.9 with AirSched External

- **Platform:** SUNW, Sun-Blade-100 (SPARC)
- **Operating System:** SunOS 5.9 Generic_112233-10
- **Compiler(s):** g++ (GCC) 3.4.5
- **AirSched release:** 0.2.2
- **External Libraries:** BLAS, CBLAS, LAPACK and FFTW libraries from AirSched External 2.1.1 package. The following configuration command has been used:

```
% export CFLAGS="-mcpu=ultrasparc -O2 -pipe -funroll-all-loops"
% ./configure
```

- **Tests Status:** All tests PASSED
- **Comments:** AirSched configured with:

```
% export LDFLAGS="-L/usr/local/lib"
% export CPPFLAGS="-I/usr/local/include"
% export CXXFLAGS="-mcpu=ultrasparc -O2 -pipe"
% ./configure --enable-debug
```

- **Date:** May 15, 2006
- **Tester:** Adam Piatyszek (ediap)

15 AirSched Supported Systems (Previous Releases)

15.1 AirSched 3.9.1

15.2 AirSched 3.9.0

15.3 AirSched 3.8.1

16 Tutorials

16.1 Table of Contents

- [Preparing the AirSched Project for Development](#)
- [Your first networkBuilde](#)
 - [Summary of the different steps](#)
 - [Result of the Batch Program](#)
- [Network building with an input file](#)
 - [How to build a network input file?](#)
 - [Building the BOM tree with an input file](#)
 - [Result of the Batch Program](#)

16.2 Preparing the AirSched Project for Development

The source code for these examples can be found in the `batches` and `test/airsched` directories. They are compiled along with the rest of the `AirSched` project. See the [Users Guide](#) for more details on how to build the `AirSched` project.

16.3 Your first networkBuilde

16.3.1 Summary of the different steps

All the steps below can be found in the same order in the batch `AirSched.cpp` program.

First, we instanciate the `AIRSCHEd_Service` object:

Then, we construct a default sample list of travel solutions and a default booking request (as mentionned in `ug_procedure_bookingrequest` and `ug_procedure_travelsolution` parts):

```
stdair::TravelSolutionList_T lTravelSolutionList;  
airschedService.buildSegmentPathList (lTravelSolutionList, lBookingRequest);
```

For basic use, the default BOM tree can be built using:

The main step is the network building (see [The travel solution calculation procedure](#)):

16.3.2 Result of the Batch Program

When the `AirSched.cpp` program is run (with the `-b` option), the log output file should look like:

What is interesting is to compare the travel solution list (here reduced to a single travel solution) displayed before:

and after the network building:

Between the two groups of dashes, we can see that a network option structure has been added by the network builder: the price is 450 EUR for the Y class, the ticket is refundable but there are exchange fees and the customer must stay over on saturday night.

Let's return to our default BOM tree display: the only network rule stored was a match for the travel solution into consideration (same origin airport, same destination airport, flight date included in the network rule date range, same airline "BA", ...).

By looking at the network rule trip type "RT", we can guess we face a round trip network: that means the price given in the default bom tree construction in `stdair::CmdBomManager.hpp` has been divided by 2 because we are considering either an inbound trip or an outbound one.

16.4 Network building with an input file

16.4.1 How to build a network input file?

The objective here is to build a network input file to network build the default travel solution list built using:

This travel solution list, reduced to a singleton, can be displayed as done before:

We deduce:

- we need a network rule whose origin-destination couple is "LHR, SYD".
- the date range must include the date "2011-06-10".
- the time range must include the time "21:45".
- the airline operating is "BA", so it must be the airline pricing.

We can deduce a part of our network rule file :

```
// Fares: fare ID; OriginCity; DestinationCity; TripType; DateRangeStart;
      DateRangeEnd; DepartureTimeRangeStart; DepartureTimeRangeEnd; POS; CabinCode;
      Channel; AdvancePurchase; SaturdayNight; ChangeFees; NonRefundable; MinimumStay; Price;
      nb Segments
// Segment: AirlineCode; Class;
1; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ???; ?; ??; ?; ?; ?; ?;
  ?; ???; BA; ?;
```

We have no information about stay duration and advance purchase (such information are contained into the booking request): so let us put "0" to embrace all the requests possible.

No information for the point-of-sale and the channel too: let us consider all the channels ("IN", "DN", "IF" and "DF") and all the points of sale (the origin "LHR", the destination "SYD" and the rest-of-the-world "ROW") existing. To access this information, we could look into the default booking request.

The input file is now:

```
// Fares: fare ID; OriginCity; DestinationCity; TripType; DateRangeStart;
      DateRangeEnd; DepartureTimeRangeStart; DepartureTimeRangeEnd; POS; CabinCode;
      Channel; AdvancePurchase; SaturdayNight; ChangeFees; NonRefundable; MinimumStay; Price;
      nb Segments
// Segment: AirlineCode; Class;
1; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; IN; 0; ?; ?; ?;
  0; ???; BA; ?;
2; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; IF; 0; ?; ?; ?;
  0; ???; BA; ?;
3; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; DN; 0; ?; ?; ?;
  0; ???; BA; ?;
4; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; ?; DF; 0; ?; ?; ?;
  0; ???; BA; ?;
5; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; IN; 0; ?; ?; ?;
  0; ???; BA; ?;
6; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; IF; 0; ?; ?; ?;
  0; ???; BA; ?;
7; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; DN; 0; ?; ?; ?;
  0; ???; BA; ?;
8; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; ?; DF; 0; ?; ?; ?;
  0; ???; BA; ?;
9; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; IN; 0; ?; ?; ?;
  0; ???; BA; ?;
10; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; IF; 0; ?; ?; ?;
```

```

0; ????; BA; ?;
11; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; DN; 0; ?; ?; ?;
0; ????; BA; ?;
12; LHR; SYD; ??; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; ?; DF; 0; ?; ?; ?;
0; ????; BA; ?;

```

Let us say we have just the Economy cabin "Y" and British Airways prices ticket for class "Y".

No information about the trip type, so we duplicate all the network rules for both type: one-way "OW" and round-trip "RT" (to access this information, we could look to the default booking request).

The network options are all set to a default value "T" (meaning true) and the network values are chosen to be all distinct.

We obtain:

```

// Fares: fare ID; OriginCity; DestinationCity; TripType; DateRangeStart;
DateRangeEnd; DepartureTimeRangeStart; DepartureTimeRangeEnd; POS; CabinCode;
Channel; AdvancePurchase; SaturdayNight; ChangeFees; NonRefundable; MinimumStay; Price;
nb Segments
// Segment: AirlineCode; Class;
1; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IN; 0; T; T; T;
0; 50; BA; Y;
2; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IF; 0; T; T; T;
0; 150; BA; Y;
3; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DN; 0; T; T; T;
0; 250; BA; Y;
4; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DF; 0; T; T; T;
0; 350; BA; Y;
5; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IN; 0; T; T; T;
0; 450; BA; Y;
6; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IF; 0; T; T; T;
0; 550; BA; Y;
7; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DN; 0; T; T; T;
0; 650; BA; Y;
8; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DF; 0; T; T; T;
0; 750; BA; Y;
9; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IN; 0; T; T; T;
0; 850; BA; Y;
10; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IF; 0; T; T; T;
0; 950; BA; Y;
11; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DN; 0; T; T; T;
0; 1050; BA; Y;
12; LHR; SYD; OW; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DF; 0; T; T; T;
0; 1150; BA; Y;
13; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IN; 0; T; T; T;
0; 90; BA; Y;
14; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; IF; 0; T; T; T;
0; 190; BA; Y;
15; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DN; 0; T; T; T;
0; 290; BA; Y;
16; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; LHR; Y; DF; 0; T; T; T;
0; 390; BA; Y;
17; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IN; 0; T; T; T;
0; 490; BA; Y;
18; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; IF; 0; T; T; T;
0; 590; BA; Y;
19; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DN; 0; T; T; T;
0; 690; BA; Y;
20; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; SYD; Y; DF; 0; T; T; T;
0; 790; BA; Y;
21; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IN; 0; T; T; T;
0; 890; BA; Y;
22; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; IF; 0; T; T; T;
0; 990; BA; Y;
23; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DN; 0; T; T; T;
0; 1090; BA; Y;
24; LHR; SYD; RT; 2011-01-01; 2011-12-31; 00:00; 23:59; ROW; Y; DF; 0; T; T; T;

```

```
0; 1190; BA; Y;
```

16.4.2 Building the BOM tree with an input file

The steps are the same as before [Summary of the different steps](#) except the bom tree must be built using the network input file :

16.4.3 Result of the Batch Program

When the `AirSched.cpp` program is run with the `-f` option linking with the file built just above:

```
~/AirSched -f ~/<YourFileName>.csv
```

the last lines of the log output should look like:

```
[D]~/AirSchedgit/AirSched/batches/AirSched.cpp:223: Travel solutions:
    [0] [0] BA, 9, 2011-06-10, LHR, SYD, 21:45 --- Y, 145, 1 1 1 ---
```

We have just one network option added to the travel solution. We can deduce from the price value 145 that the network builder used the network rule number 15 to price the travel solution. We have an inbound or outbound trip of a round trip: the total price 290 has been divided by 2.

17 Command-Line Test to Demonstrate How To Test the AirSched Project

```
*/
// ////////////////////////////////////////
// Import section
// ////////////////////////////////////////
// STL
#include <sstream>
#include <fstream>
#include <string>
// Boost Unit Test Framework (UTF)
#define BOOST_TEST_DYN_LINK
#define BOOST_TEST_MAIN
#define BOOST_TEST_MODULE InventoryTestSuite
#include <boost/test/unit_test.hpp>
// StdAir
#include <stdair/basic/BasLogParams.hpp>
#include <stdair/basic/BasDBParams.hpp>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/bom/TravelSolutionStruct.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/service/Logger.hpp>
// AirSched
#include <airsched/AIRSCHEM_Service.hpp>
#include <airsched/config/airsched-paths.hpp>

namespace boost_utf = boost::unit_test;
```

```

// (Boost) Unit Test XML Report
std::ofstream utfReportStream ("AirlineScheduleTestSuite_utfresults.xml");

struct UnitTestConfig {
    UnitTestConfig() {
        boost_utf::unit_test_log.set_stream (utfReportStream);
        boost_utf::unit_test_log.set_format (boost_utf::XML);
        boost_utf::unit_test_log.set_threshold_level (boost_utf::log_test_units);
        //boost_utf::unit_test_log.set_threshold_level
        (boost_utf::log_successful_tests);
    }

    ~UnitTestConfig() {
    }
};

// ////////////////////////////////// Main: Unit Test Suite //////////////////////////////////

// Set the UTF configuration (re-direct the output to a specific file)
BOOST_GLOBAL_FIXTURE (UnitTestConfig);

// Start the test suite
BOOST_AUTO_TEST_SUITE (master_test_suite)

BOOST_AUTO_TEST_CASE (airsched_simple_inventory_sell) {

    // Input file name
    const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
                                                    "/schedule03.csv");

    // Output log File
    const stdair::Filename_T lLogFilename ("AirlineScheduleTestSuite.log");

    // Check that the file path given as input corresponds to an actual file
    bool doesExistAndIsReadable =
        stdair::BasFileMgr::doesExistAndIsReadable (lScheduleInputFilename);
    BOOST_CHECK_MESSAGE (doesExistAndIsReadable == true,
        "The '" << lScheduleInputFilename
        << "' input file can not be open and read");

    // Set the log parameters
    std::ofstream logOutputFile;
    // Open and clean the log outputfile
    logOutputFile.open (lLogFilename.c_str());
    logOutputFile.clear();

    // Instantiate the AirSched service
    const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
    AIRSCHEDED::AIRSCHEDED_Service airschedService (lLogParams);

    // Build the BOM tree from parsing input files
    airschedService.parseAndLoad (lScheduleInputFilename);

    // Create an empty booking request structure
    // \todo: fill the booking request structure from the input parameters
    const stdair::AirportCode_T lOrigin ("NCE");
    const stdair::AirportCode_T lDestination ("BKK");
    const stdair::AirportCode_T lPOS ("NCE");
    const stdair::Date_T lPreferredDepartureDate(2007, boost::gregorian::Apr, 21)
    ;
    const stdair::Date_T lRequestDate (2007, boost::gregorian::Mar, 21);
    const stdair::Duration_T lRequestTime (boost::posix_time::hours(8));
    const stdair::DateTime_T lRequestDateTime (lRequestDate, lRequestTime);
    const stdair::CabinCode_T lPreferredCabin ("Bus");
    const stdair::PartySize_T lPartySize (3);
    const stdair::ChannelLabel_T lChannel ("DF");
    const stdair::TripType_T lTripType ("RO");
    const stdair::DayDuration_T lStayDuration (5);
    const stdair::FrequentFlyer_T lFrequentFlyerType ("NONE");
    const stdair::Duration_T lPreferredDepartureTime (boost::posix_time::hours(10)
    );
    const stdair::WTP_T lWTP (2000.0);

```

```

const stdair::PriceValue_T lValueOfTime (20.0);
const stdair::BookingRequestStruct lBookingRequest (lOrigin, lDestination,
                                                    lPOS,
                                                    lPreferredDepartureDate,
                                                    lRequestDateTime,
                                                    lPreferredCabin,
                                                    lPartySize, lChannel,
                                                    lTripType, lStayDuration,
                                                    lFrequentFlyerType,
                                                    lPreferredDepartureTime,
                                                    lWTP, lValueOfTime);

//
stdair::TravelSolutionList_T lTravelSolutionList;
airschedService.buildSegmentPathList (lTravelSolutionList, lBookingRequest);
const unsigned int lNbOfTravelSolutions = lTravelSolutionList.size();

// \todo: change the expected number of travel solutions to the actual number
const unsigned int lExpectedNbOfTravelSolutions = 4;

// DEBUG
STDAIR_LOG_DEBUG ("Number of travel solutions for the booking request ' "
                  << lBookingRequest.describe() << "': "
                  << lNbOfTravelSolutions << ". It is expected to be "
                  << lExpectedNbOfTravelSolutions << ".");

BOOST_CHECK_EQUAL (lNbOfTravelSolutions, lExpectedNbOfTravelSolutions);

BOOST_CHECK_MESSAGE (lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
                    "The number of travel solutions for the booking request ' "
                    << lBookingRequest.describe() << "' is equal to "
                    << lNbOfTravelSolutions << ", but it should be equal to "
                    << lExpectedNbOfTravelSolutions);

// Close the Log outputFile
logOutputFile.close();
}

// End the test suite
BOOST_AUTO_TEST_SUITE_END()

/*!

```

18 Directory Hierarchy

18.1 Directories

This directory hierarchy is sorted roughly, but not completely, alphabetically:

airsched	120
basic	120
batches	120
bom	120
command	121
config	122
factory	122

service	122
test	122
airsched	119

19 Namespace Index

19.1 Namespace List

Here is a list of all namespaces with brief descriptions:

airsched	123
AIRSCHEd	125
AIRSCHEd::OnDParserHelper	133
AIRSCHEd::ScheduleParserHelper	135
boost	
Forward declarations	139
boost::serialization	139
stdair	
Forward declarations	139

20 Class Index

20.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

airsched::Airline_T	139
AIRSCHEd::AIRSCHEd_Service	142
std::basic_fstream< char >	
std::basic_fstream< wchar_t >	
std::basic_ifstream< char >	
std::basic_ifstream< wchar_t >	
std::basic_ios< char >	
std::basic_ios< wchar_t >	
std::basic_iostream< char >	
std::basic_iostream< wchar_t >	
std::basic_istream< char >	
std::basic_istream< wchar_t >	
std::basic_istreamstream< char >	

std::basic_istream< wchar_t >	
std::basic_ofstream< char >	
std::basic_ofstream< wchar_t >	
std::basic_ostream< char >	
std::basic_ostream< wchar_t >	
std::basic_ostringstream< char >	
std::basic_ostringstream< wchar_t >	
std::basic_string< char >	
std::basic_string< wchar_t >	
std::basic_stringstream< char >	
std::basic_stringstream< wchar_t >	
BomAbstract	147
AIRSCHED::OriginDestinationSet	195
AIRSCHED::ReachableUniverse	209
AIRSCHED::SegmentPathPeriod	225
AIRSCHED::BomDisplay	147
CmdAbstract	148
AIRSCHED::FlightPeriodFileParser	170
AIRSCHED::InventoryGenerator	180
AIRSCHED::OnDParser	186
AIRSCHED::OnDPeriodFileParser	188
AIRSCHED::OnDPeriodGenerator	189
AIRSCHED::ScheduleParser	218
AIRSCHED::SegmentPathGenerator	224
AIRSCHED::SegmentPathProvider	237
AIRSCHED::Simulator	242
AIRSCHED::TravelSolutionParser	298
airsched::Date_T	149
AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >	151
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >	153
airsched::SearchStringParser::definition< ScannerT >	157

AIRSCHEd::FacServiceAbstract	166
FacServiceAbstract	167
AIRSCHEd::FacAIRSCHEdServiceContext	164
FileNotFoundException	169
AIRSCHEd::OnDInputFileNotFoundException	185
AIRSCHEd::ScheduleInputFileNotFoundException	217
AIRSCHEd::FlagSaver	169
grammar	180
AIRSCHEd::OnDParserHelper::OnDParser	187
AIRSCHEd::ScheduleParserHelper::FlightPeriodParser	171
airsched::SearchStringParser	221
KeyAbstract	181
AIRSCHEd::OriginDestinationSetKey	199
AIRSCHEd::ReachableUniverseKey	214
AIRSCHEd::SegmentPathPeriodKey	232
ParserException	202
AIRSCHEd::SegmentDateNotFoundExcepion	223
AIRSCHEd::OnDParserHelper::ParserSemanticAction	202
AIRSCHEd::OnDParserHelper::doEndOnD	162
AIRSCHEd::OnDParserHelper::storeAirlineCode	254
AIRSCHEd::OnDParserHelper::storeClassCode	259
AIRSCHEd::OnDParserHelper::storeDateRangeEnd	264
AIRSCHEd::OnDParserHelper::storeDateRangeStart	265
AIRSCHEd::OnDParserHelper::storeDestination	269
AIRSCHEd::OnDParserHelper::storeEndRangeTime	273
AIRSCHEd::OnDParserHelper::storeOrigin	287
AIRSCHEd::OnDParserHelper::storeStartRangeTime	295

AIRSCHEd::ScheduleParserHelper::ParserSemanticAction	204
AIRSCHEd::ScheduleParserHelper::doEndFlight	160
AIRSCHEd::ScheduleParserHelper::storeAirlineCode	252
AIRSCHEd::ScheduleParserHelper::storeBoardingTime	255
AIRSCHEd::ScheduleParserHelper::storeCapacity	257
AIRSCHEd::ScheduleParserHelper::storeClasses	260
AIRSCHEd::ScheduleParserHelper::storeDateRangeEnd	262
AIRSCHEd::ScheduleParserHelper::storeDateRangeStart	267
AIRSCHEd::ScheduleParserHelper::storeDow	270
AIRSCHEd::ScheduleParserHelper::storeElapsedTime	272
AIRSCHEd::ScheduleParserHelper::storeFamilyCode	275
AIRSCHEd::ScheduleParserHelper::storeFClasses	277
AIRSCHEd::ScheduleParserHelper::storeFlightNumber	278
AIRSCHEd::ScheduleParserHelper::storeLegBoardingPoint	280
AIRSCHEd::ScheduleParserHelper::storeLegCabinCode	282
AIRSCHEd::ScheduleParserHelper::storeLegOffPoint	284
AIRSCHEd::ScheduleParserHelper::storeOffTime	285
AIRSCHEd::ScheduleParserHelper::storeSegmentBoardingPoint	289
AIRSCHEd::ScheduleParserHelper::storeSegmentCabinCode	290
AIRSCHEd::ScheduleParserHelper::storeSegmentOffPoint	292
AIRSCHEd::ScheduleParserHelper::storeSegmentSpecificity	294
airsched::Passenger_T	206
airsched::Place_T	208
airsched::SearchString_T	219
AIRSCHEd::SegmentPeriodHelper	238
AIRSCHEd::ServiceAbstract	241
ServiceAbstract	242

AIRSCHED::AIRSCHED_ServiceContext	146
airsched::store_adult_passenger_type	243
airsched::store_airline_code	244
airsched::store_airline_name	245
airsched::store_airline_sign	246
airsched::store_child_passenger_type	247
airsched::store_date	248
airsched::store_passenger_number	249
airsched::store_pet_passenger_type	250
airsched::store_place_element	251
StructAbstract	297
AIRSCHED::FareFamilyStruct	168
AIRSCHED::FlightPeriodStruct	173
AIRSCHED::LegCabinStruct	181
AIRSCHED::LegStruct	183
AIRSCHED::OnDPeriodStruct	190
AIRSCHED::SegmentCabinStruct	222
AIRSCHED::SegmentStruct	238
TestFixture	297
AirlineScheduleTestSuite	140

21 Class Index

21.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

airsched::Airline_T	139
AirlineScheduleTestSuite	140

AIRSCHEd::AIRSCHEd_Service	
Interface for the AirSched Services	142
AIRSCHEd::AIRSCHEd_ServiceContext	
Class holding the context of the AirSched services	146
BomAbstract	147
AIRSCHEd::BomDisplay	
Utility class to display AirSched objects with a pretty format	147
CmdAbstract	148
airsched::Date_T	149
AIRSCHEd::OnDParserHelper::OnDParser::definition< ScannerT >	151
AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >	153
airsched::SearchStringParser::definition< ScannerT >	157
AIRSCHEd::ScheduleParserHelper::doEndFlight	160
AIRSCHEd::OnDParserHelper::doEndOnD	162
AIRSCHEd::FacAIRSCHEdServiceContext	
Factory for the service context	164
AIRSCHEd::FacServiceAbstract	166
FacServiceAbstract	167
AIRSCHEd::FareFamilyStruct	168
FileNotFoundException	169
AIRSCHEd::FlagSaver	169
AIRSCHEd::FlightPeriodFileParser	170
AIRSCHEd::ScheduleParserHelper::FlightPeriodParser	171
AIRSCHEd::FlightPeriodStruct	173
grammar	180
AIRSCHEd::InventoryGenerator	180
KeyAbstract	181
AIRSCHEd::LegCabinStruct	181

AIRSCHED::LegStruct	183
AIRSCHED::OnDInputFileNotFoundExpection	185
AIRSCHED::OnDParser	
Class wrapping the parser entry point	186
AIRSCHED::OnDParserHelper::OnDParser	187
AIRSCHED::OnDPeriodFileParser	188
AIRSCHED::OnDPeriodGenerator	
Class handling the generation / instantiation of the O&D-Period BOM	189
AIRSCHED::OnDPeriodStruct	190
AIRSCHED::OriginDestinationSet	
Class representing a simple sub-network	195
AIRSCHED::OriginDestinationSetKey	
Structure representing the key of a sub-network	199
ParserException	202
AIRSCHED::OnDParserHelper::ParserSemanticAction	202
AIRSCHED::ScheduleParserHelper::ParserSemanticAction	204
airsched::Passenger_T	206
airsched::Place_T	208
AIRSCHED::ReachableUniverse	
Class representing the root of the schedule-related BOM tree	209
AIRSCHED::ReachableUniverseKey	
Structure representing the key of the schedule-related BOM tree root	214
AIRSCHED::ScheduleInputFileNotFoundExpection	217
AIRSCHED::ScheduleParser	218
airsched::SearchString_T	219
airsched::SearchStringParser	221
AIRSCHED::SegmentCabinStruct	222
AIRSCHED::SegmentDateNotFoundExpection	223
AIRSCHED::SegmentPathGenerator	
Class handling the generation / instantiation of the network BOM	224

AIRSCHEd::SegmentPathPeriod	
Class representing a segment/path	225
AIRSCHEd::SegmentPathPeriodKey	
Structure representing the key of a segment/path	232
AIRSCHEd::SegmentPathProvider	
Class building the travel solutions from airline schedules	237
AIRSCHEd::SegmentPeriodHelper	238
AIRSCHEd::SegmentStruct	238
AIRSCHEd::ServiceAbstract	241
ServiceAbstract	242
AIRSCHEd::Simulator	242
airsched::store_adult_passenger_type	243
airsched::store_airline_code	244
airsched::store_airline_name	245
airsched::store_airline_sign	246
airsched::store_child_passenger_type	247
airsched::store_date	248
airsched::store_passenger_number	249
airsched::store_pet_passenger_type	250
airsched::store_place_element	251
AIRSCHEd::ScheduleParserHelper::storeAirlineCode	252
AIRSCHEd::OnDParserHelper::storeAirlineCode	254
AIRSCHEd::ScheduleParserHelper::storeBoardingTime	255
AIRSCHEd::ScheduleParserHelper::storeCapacity	257
AIRSCHEd::OnDParserHelper::storeClassCode	259
AIRSCHEd::ScheduleParserHelper::storeClasses	260
AIRSCHEd::ScheduleParserHelper::storeDateRangeEnd	262
AIRSCHEd::OnDParserHelper::storeDateRangeEnd	264

AIRSCHED::OnDParserHelper::storeDateRangeStart	265
AIRSCHED::ScheduleParserHelper::storeDateRangeStart	267
AIRSCHED::OnDParserHelper::storeDestination	269
AIRSCHED::ScheduleParserHelper::storeDow	270
AIRSCHED::ScheduleParserHelper::storeElapsedTime	272
AIRSCHED::OnDParserHelper::storeEndRangeTime	273
AIRSCHED::ScheduleParserHelper::storeFamilyCode	275
AIRSCHED::ScheduleParserHelper::storeFClasses	277
AIRSCHED::ScheduleParserHelper::storeFlightNumber	278
AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint	280
AIRSCHED::ScheduleParserHelper::storeLegCabinCode	282
AIRSCHED::ScheduleParserHelper::storeLegOffPoint	284
AIRSCHED::ScheduleParserHelper::storeOffTime	285
AIRSCHED::OnDParserHelper::storeOrigin	287
AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint	289
AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode	290
AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint	292
AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity	294
AIRSCHED::OnDParserHelper::storeStartRangeTime	295
StructAbstract	297
TestFixture	297
AIRSCHED::TravelSolutionParser	
Class filling the TravelSolutionHolder structure (representing a list of classes/travelSolutions) from a given input file	298

22 File Index

22.1 File List

Here is a list of all files with brief descriptions:

airsched/ AIRSCHED_Service.hpp	299
airsched/ AIRSCHED_Types.hpp	301
airsched/basic/ BasConst.cpp	302
airsched/basic/ BasConst_AIRSCHED_Service.hpp	302
airsched/basic/ BasConst_General.hpp	303
airsched/basic/ BasParserTypes.hpp	304
airsched/batches/ airsched.cpp	308
airsched/batches/ BookingRequestParser.cpp	315
airsched/batches/ BookingRequestParser.hpp	320
airsched/bom/ AirportList.hpp	323
airsched/bom/ BomDisplay.cpp	323
airsched/bom/ BomDisplay.hpp	325
airsched/bom/ FareFamilyStruct.cpp	325
airsched/bom/ FareFamilyStruct.hpp	326
airsched/bom/ FlightPeriodStruct.cpp	327
airsched/bom/ FlightPeriodStruct.hpp	331
airsched/bom/ LegCabinStruct.cpp	332
airsched/bom/ LegCabinStruct.hpp	333
airsched/bom/ LegStruct.cpp	334
airsched/bom/ LegStruct.hpp	336
airsched/bom/ OnDPeriodStruct.cpp	336
airsched/bom/ OnDPeriodStruct.hpp	338
airsched/bom/ OriginDestinationSet.cpp	339
airsched/bom/ OriginDestinationSet.hpp	341
airsched/bom/ OriginDestinationSetKey.cpp	343
airsched/bom/ OriginDestinationSetKey.hpp	344
airsched/bom/ OriginDestinationSetTypes.hpp	346

airsched/bom/ReachableUniverse.cpp	347
airsched/bom/ReachableUniverse.hpp	348
airsched/bom/ReachableUniverseKey.cpp	350
airsched/bom/ReachableUniverseKey.hpp	352
airsched/bom/ReachableUniverseTypes.hpp	353
airsched/bom/SegmentCabinStruct.cpp	354
airsched/bom/SegmentCabinStruct.hpp	355
airsched/bom/SegmentPathPeriod.cpp	356
airsched/bom/SegmentPathPeriod.hpp	361
airsched/bom/SegmentPathPeriodKey.cpp	364
airsched/bom/SegmentPathPeriodKey.hpp	366
airsched/bom/SegmentPathPeriodTypes.hpp	368
airsched/bom/SegmentPeriodHelper.cpp	369
airsched/bom/SegmentPeriodHelper.hpp	371
airsched/bom/SegmentStruct.cpp	371
airsched/bom/SegmentStruct.hpp	372
airsched/command/InventoryGenerator.cpp	374
airsched/command/InventoryGenerator.hpp	375
airsched/command/OnDParser.cpp	376
airsched/command/OnDParser.hpp	377
airsched/command/OnDParserHelper.cpp	379
airsched/command/OnDParserHelper.hpp	385
airsched/command/OnDPeriodGenerator.cpp	387
airsched/command/OnDPeriodGenerator.hpp	388
airsched/command/ScheduleParser.cpp	389
airsched/command/ScheduleParser.hpp	390
airsched/command/ScheduleParserHelper.cpp	391

airsched/command/ScheduleParserHelper.hpp	402
airsched/command/SegmentPathGenerator.cpp	405
airsched/command/SegmentPathGenerator.hpp	411
airsched/command/SegmentPathProvider.cpp	412
airsched/command/SegmentPathProvider.hpp	415
airsched/command/Simulator.cpp	416
airsched/command/Simulator.hpp	417
airsched/command/TravelSolutionParser.cpp	417
airsched/command/TravelSolutionParser.hpp	420
airsched/config/airsched-paths.hpp	421
airsched/config/airsched-paths.hpp.in	421
airsched/factory/FacAIRSCHEDServiceContext.cpp	422
airsched/factory/FacAIRSCHEDServiceContext.hpp	423
airsched/factory/FacServiceAbstract.cpp	424
airsched/factory/FacServiceAbstract.hpp	425
airsched/service/AIRSCHED_Service.cpp	426
airsched/service/AIRSCHED_ServiceContext.cpp	431
airsched/service/AIRSCHED_ServiceContext.hpp	432
airsched/service/ServiceAbstract.cpp	433
airsched/service/ServiceAbstract.hpp	435
test/airsched/AirlineScheduleTestSuite.cpp	436
test/airsched/AirlineScheduleTestSuite.hpp	439

23 Directory Documentation

23.1 test/airsched/ Directory Reference

Files

- file [AirlineScheduleTestSuite.cpp](#)

- file [AirlineScheduleTestSuite.hpp](#)

23.2 airsched/ Directory Reference

Directories

- directory [basic](#)
- directory [batches](#)
- directory [bom](#)
- directory [command](#)
- directory [config](#)
- directory [factory](#)
- directory [service](#)

Files

- file [AIRSCHED_Service.hpp](#)
- file [AIRSCHED_Types.hpp](#)

23.3 airsched/basic/ Directory Reference

Files

- file [BasConst.cpp](#)
- file [BasConst_AIRSCHED_Service.hpp](#)
- file [BasConst_General.hpp](#)
- file [BasParserTypes.hpp](#)

23.4 airsched/batches/ Directory Reference

Files

- file [airsched.cpp](#)
- file [BookingRequestParser.cpp](#)
- file [BookingRequestParser.hpp](#)

23.5 airsched/bom/ Directory Reference

Files

- file [AirportList.hpp](#)
- file [BomDisplay.cpp](#)
- file [BomDisplay.hpp](#)
- file [FareFamilyStruct.cpp](#)

- file [FareFamilyStruct.hpp](#)
- file [FlightPeriodStruct.cpp](#)
- file [FlightPeriodStruct.hpp](#)
- file [LegCabinStruct.cpp](#)
- file [LegCabinStruct.hpp](#)
- file [LegStruct.cpp](#)
- file [LegStruct.hpp](#)
- file [OnDPeriodStruct.cpp](#)
- file [OnDPeriodStruct.hpp](#)
- file [OriginDestinationSet.cpp](#)
- file [OriginDestinationSet.hpp](#)
- file [OriginDestinationSetKey.cpp](#)
- file [OriginDestinationSetKey.hpp](#)
- file [OriginDestinationSetTypes.hpp](#)
- file [ReachableUniverse.cpp](#)
- file [ReachableUniverse.hpp](#)
- file [ReachableUniverseKey.cpp](#)
- file [ReachableUniverseKey.hpp](#)
- file [ReachableUniverseTypes.hpp](#)
- file [SegmentCabinStruct.cpp](#)
- file [SegmentCabinStruct.hpp](#)
- file [SegmentPathPeriod.cpp](#)
- file [SegmentPathPeriod.hpp](#)
- file [SegmentPathPeriodKey.cpp](#)
- file [SegmentPathPeriodKey.hpp](#)
- file [SegmentPathPeriodTypes.hpp](#)
- file [SegmentPeriodHelper.cpp](#)
- file [SegmentPeriodHelper.hpp](#)
- file [SegmentStruct.cpp](#)
- file [SegmentStruct.hpp](#)

23.6 airsched/command/ Directory Reference

Files

- file [InventoryGenerator.cpp](#)
- file [InventoryGenerator.hpp](#)
- file [OnDParser.cpp](#)
- file [OnDParser.hpp](#)
- file [OnDParserHelper.cpp](#)
- file [OnDParserHelper.hpp](#)
- file [OnDPeriodGenerator.cpp](#)
- file [OnDPeriodGenerator.hpp](#)
- file [ScheduleParser.cpp](#)
- file [ScheduleParser.hpp](#)
- file [ScheduleParserHelper.cpp](#)

- file [ScheduleParserHelper.hpp](#)
- file [SegmentPathGenerator.cpp](#)
- file [SegmentPathGenerator.hpp](#)
- file [SegmentPathProvider.cpp](#)
- file [SegmentPathProvider.hpp](#)
- file [Simulator.cpp](#)
- file [Simulator.hpp](#)
- file [TravelSolutionParser.cpp](#)
- file [TravelSolutionParser.hpp](#)

23.7 airsched/config/ Directory Reference

Files

- file [airsched-paths.hpp](#)
- file [airsched-paths.hpp.in](#)

23.8 airsched/factory/ Directory Reference

Files

- file [FacAIRSCHEDServiceContext.cpp](#)
- file [FacAIRSCHEDServiceContext.hpp](#)
- file [FacServiceAbstract.cpp](#)
- file [FacServiceAbstract.hpp](#)

23.9 airsched/service/ Directory Reference

Files

- file [AIRSCHED_Service.cpp](#)
- file [AIRSCHED_ServiceContext.cpp](#)
- file [AIRSCHED_ServiceContext.hpp](#)
- file [ServiceAbstract.cpp](#)
- file [ServiceAbstract.hpp](#)

23.10 test/ Directory Reference

Directories

- directory [airsched](#)

24 Namespace Documentation

24.1 airsched Namespace Reference

Classes

- struct [store_place_element](#)
- struct [store_date](#)
- struct [store_airline_sign](#)
- struct [store_airline_code](#)
- struct [store_airline_name](#)
- struct [store_passenger_number](#)
- struct [store_adult_passenger_type](#)
- struct [store_child_passenger_type](#)
- struct [store_pet_passenger_type](#)
- struct [SearchStringParser](#)
- struct [Place_T](#)
- struct [Date_T](#)
- struct [Airline_T](#)
- struct [Passenger_T](#)
- struct [SearchString_T](#)

Typedefs

- typedef std::vector< [Place_T](#) > [PlaceList_T](#)
- typedef std::vector< [Date_T](#) > [DateList_T](#)
- typedef std::vector< [Airline_T](#) > [AirlineList_T](#)
- typedef std::vector< [Passenger_T](#) > [PassengerList_T](#)

Functions

- [SearchString_T parseBookingRequest](#) (const std::string &iSearchString)

Variables

- boost::spirit::classic::int_parser < unsigned int, 10, 1, 1 > [int1_p](#)
- boost::spirit::classic::uint_parser < unsigned int, 10, 1, 1 > [uint1_p](#)
- boost::spirit::classic::uint_parser < unsigned int, 10, 1, 2 > [uint1_2_p](#)
- boost::spirit::classic::uint_parser < int, 10, 2, 2 > [uint2_p](#)
- boost::spirit::classic::uint_parser < int, 10, 2, 4 > [uint2_4_p](#)
- boost::spirit::classic::uint_parser < int, 10, 4, 4 > [uint4_p](#)
- boost::spirit::classic::uint_parser < int, 10, 1, 4 > [uint1_4_p](#)

24.1.1 Typedef Documentation

24.1.1.1 `typedef std::vector<Place_T> airsched::PlaceList_T`

List of Place strucutres.

Definition at line 24 of file [BookingRequestParser.hpp](#).

24.1.1.2 `typedef std::vector<Date_T> airsched::DateList_T`

List of Date strucutres.

Definition at line 49 of file [BookingRequestParser.hpp](#).

24.1.1.3 `typedef std::vector<Airline_T> airsched::AirlineList_T`

List of Airline strucutres.

Definition at line 68 of file [BookingRequestParser.hpp](#).

24.1.1.4 `typedef std::vector<Passenger_T> airsched::PassengerList_T`

List of Passenger strucutres.

Definition at line 91 of file [BookingRequestParser.hpp](#).

24.1.2 Function Documentation

24.1.2.1 `SearchString_T airsched::parseBookingRequest (const std::string & iSearchString)`

Parse the booking request.

Sample guadeloupe rio de janeiro 07/22/2009 +aa -ua 2 adults 1 dog

Grammar: search_string ::= places [dates] (preferred_airlines) (passengers) dates -
 ::= board_date [off_date] places ::= [board_place] off_place board_place ::= place_
 elements off_place ::= place_elements place_elements ::= country | city | airport coun-
 try ::= country_code | country_name city ::= city_code | city_name airport ::= airport_
 code | airport_name preferred_airlines ::= [+|-] airline_code | airline_name passengers
 ::= adult_number adult_description [child_number child_description] [pet_number pet_
 description] adult_description ::= 'adult' | 'adults' | 'pax' | 'passengers' child_description
 ::= 'child' | 'children' | 'kid' | 'kids' pet_description ::= 'dog' | 'dogs' | 'cat' | 'cats'

Definition at line 373 of file [BookingRequestParser.cpp](#).

24.1.3 Variable Documentation

24.1.3.1 `boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> airsched::int1_p`

1-digit-integer parser

Definition at line 203 of file [BookingRequestParser.cpp](#).

24.1.3.2 `boost::spirit::classic::uint_parser<unsigned int, 10, 1, 1> airsched::uint1_p`

1-digit-integer parser

Definition at line 205 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

24.1.3.3 `boost::spirit::classic::uint_parser<unsigned int, 10, 1, 2> airsched::uint1_2_p`

Up-to-2-digit-integer parser

Definition at line 207 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

24.1.3.4 `boost::spirit::classic::uint_parser<int, 10, 2, 2> airsched::uint2_p`

2-digit-integer parser

Definition at line 209 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

24.1.3.5 `boost::spirit::classic::uint_parser<int, 10, 2, 4> airsched::uint2_4_p`

Up-to-4-digit-integer parser

Definition at line 211 of file [BookingRequestParser.cpp](#).

24.1.3.6 `boost::spirit::classic::uint_parser<int, 10, 4, 4> airsched::uint4_p`

4-digit-integer parser

Definition at line 213 of file [BookingRequestParser.cpp](#).

Referenced by [airsched::SearchStringParser::definition< ScannerT >::definition\(\)](#).

24.1.3.7 `boost::spirit::classic::uint_parser<int, 10, 1, 4> airsched::uint1_4_p`

Up-to-4-digit-integer parser

Definition at line 215 of file [BookingRequestParser.cpp](#).

24.2 AIRSCHED Namespace Reference

Namespaces

- namespace [ScheduleParserHelper](#)
- namespace [OnDParserHelper](#)

Classes

- class [AIRSCHED_Service](#)
Interface for the AirSched Services.

- class [SegmentDateNotFoundException](#)
- class [OnDInputFileNotFoundException](#)
- class [ScheduleInputFileNotFoundException](#)
- struct [FlagSaver](#)
- class [BomDisplay](#)
 - Utility class to display AirSched objects with a pretty format.*
- struct [FareFamilyStruct](#)
- struct [FlightPeriodStruct](#)
- struct [LegCabinStruct](#)
- struct [LegStruct](#)
- struct [OnDPeriodStruct](#)
- class [OriginDestinationSet](#)
 - Class representing a simple sub-network.*
- struct [OriginDestinationSetKey](#)
 - Structure representing the key of a sub-network.*
- class [ReachableUniverse](#)
 - Class representing the root of the schedule-related BOM tree.*
- struct [ReachableUniverseKey](#)
 - Structure representing the key of the schedule-related BOM tree root.*
- struct [SegmentCabinStruct](#)
- class [SegmentPathPeriod](#)
 - Class representing a segment/path.*
- struct [SegmentPathPeriodKey](#)
 - Structure representing the key of a segment/path.*
- class [SegmentPeriodHelper](#)
- struct [SegmentStruct](#)
- class [InventoryGenerator](#)
- class [OnDParser](#)
 - Class wrapping the parser entry point.*
- class [OnDPeriodFileParser](#)
- class [OnDPeriodGenerator](#)
 - Class handling the generation / instantiation of the O&D-Period BOM.*
- class [ScheduleParser](#)
- class [FlightPeriodFileParser](#)
- class [SegmentPathGenerator](#)
 - Class handling the generation / instantiation of the network BOM.*
- class [SegmentPathProvider](#)
 - Class building the travel solutions from airline schedules.*
- class [Simulator](#)
- class [TravelSolutionParser](#)
 - Class filling the TravelSolutionHolder structure (representing a list of classes/travel-Solutions) from a given input file.*
- class [FacAIRSCHEDServiceContext](#)
 - Factory for the service context.*

- class [FacServiceAbstract](#)
- class [AIRSCHED_ServiceContext](#)
Class holding the context of the AirSched services.
- class [ServiceAbstract](#)

Typedefs

- typedef boost::shared_ptr < [AIRSCHED_Service](#) > [AIRSCHED_ServicePtr_T](#)
- typedef char [char_t](#)
- typedef boost::spirit::classic::file_iterator < [char_t](#) > [iterator_t](#)
- typedef boost::spirit::classic::scanner < [iterator_t](#) > [scanner_t](#)
- typedef boost::spirit::classic::rule < [scanner_t](#) > [rule_t](#)
- typedef boost::spirit::classic::int_parser < unsigned int, 10, 1, 1 > [int1_p_t](#)
- typedef boost::spirit::classic::uint_parser < unsigned int, 10, 2, 2 > [uint2_p_t](#)
- typedef boost::spirit::classic::uint_parser < unsigned int, 10, 4, 4 > [uint4_p_t](#)
- typedef boost::spirit::classic::uint_parser < unsigned int, 10, 1, 4 > [uint1_4_p_t](#)
- typedef boost::spirit::classic::chset < [char_t](#) > [chset_t](#)
- typedef boost::spirit::classic::impl::loop_traits < [chset_t](#), unsigned int, unsigned int >::type [repeat_p_t](#)
- typedef boost::spirit::classic::bounded < [uint2_p_t](#), unsigned int > [bounded2_p_t](#)
- typedef boost::spirit::classic::bounded < [uint4_p_t](#), unsigned int > [bounded4_p_t](#)
- typedef boost::spirit::classic::bounded < [uint1_4_p_t](#), unsigned int > [bounded1_4_p_t](#)
- typedef std::set < stdair::AirportCode_T > [AirportList_T](#)
- typedef std::vector < stdair::AirportCode_T > [AirportOrderedList_T](#)
- typedef std::vector < [FareFamilyStruct](#) > [FareFamilyStructList_T](#)
- typedef std::vector < [LegCabinStruct](#) > [LegCabinStructList_T](#)
- typedef std::vector < [LegStruct](#) > [LegStructList_T](#)
- typedef std::list < [OriginDestinationSet](#) * > [OriginDestinationSetList_T](#)
- typedef std::map< const stdair::MapKey_T, [OriginDestinationSet](#) * > [OriginDestinationSetMap_T](#)
- typedef std::list < [ReachableUniverse](#) * > [ReachableUniverseList_T](#)
- typedef std::map< const stdair::MapKey_T, [ReachableUniverse](#) * > [ReachableUniverseMap_T](#)
- typedef std::vector < [SegmentCabinStruct](#) > [SegmentCabinStructList_T](#)
- typedef std::list < [SegmentPathPeriod](#) * > [SegmentPathPeriodList_T](#)
- typedef std::multimap< const stdair::MapKey_T, [SegmentPathPeriod](#) * > [SegmentPathPeriodMultimap_T](#)
- typedef std::vector< const [SegmentPathPeriod](#) * > [SegmentPathPeriodLightList_T](#)
- typedef std::vector < [SegmentPathPeriodLightList_T](#) > [SegmentPathPeriodListList_T](#)
- typedef std::vector < stdair::DateOffset_T > [DateOffsetList_T](#)
- typedef std::vector < [SegmentStruct](#) > [SegmentStructList_T](#)

Functions

- template void [OriginDestinationSet::serialize](#)< [ba::text_oarchive](#) > ([ba::text_oarchive](#) &, unsigned int)
- template void [OriginDestinationSet::serialize](#)< [ba::text_iarchive](#) > ([ba::text_iarchive](#) &, unsigned int)
- template void [OriginDestinationSetKey::serialize](#)< [ba::text_oarchive](#) > ([ba::text_oarchive](#) &, unsigned int)
- template void [OriginDestinationSetKey::serialize](#)< [ba::text_iarchive](#) > ([ba::text_iarchive](#) &, unsigned int)
- template void [ReachableUniverse::serialize](#)< [ba::text_oarchive](#) > ([ba::text_oarchive](#) &, unsigned int)
- template void [ReachableUniverse::serialize](#)< [ba::text_iarchive](#) > ([ba::text_iarchive](#) &, unsigned int)
- template void [ReachableUniverseKey::serialize](#)< [ba::text_oarchive](#) > ([ba::text_oarchive](#) &, unsigned int)
- template void [ReachableUniverseKey::serialize](#)< [ba::text_iarchive](#) > ([ba::text_iarchive](#) &, unsigned int)
- template void [SegmentPathPeriod::serialize](#)< [ba::text_oarchive](#) > ([ba::text_oarchive](#) &, unsigned int)
- template void [SegmentPathPeriod::serialize](#)< [ba::text_iarchive](#) > ([ba::text_iarchive](#) &, unsigned int)
- template void [SegmentPathPeriodKey::serialize](#)< [ba::text_oarchive](#) > ([ba::text_oarchive](#) &, unsigned int)
- template void [SegmentPathPeriodKey::serialize](#)< [ba::text_iarchive](#) > ([ba::text_iarchive](#) &, unsigned int)

Variables

- const int [DEFAULT_NUMBER_OF_DRAWS_FOR_MC_SIMULATION](#) = 100000

24.2.1 Typedef Documentation

24.2.1.1 `typedef boost::shared_ptr<AIRSCHED_Service>
AIRSCHED::AIRSCHED_ServicePtr_T`

(Smart) Pointer on the AirSched service handler.

Definition at line 62 of file [AIRSCHED_Types.hpp](#).

24.2.1.2 `typedef char AIRSCHED::char_t`

Definition at line 31 of file [BasParserTypes.hpp](#).

24.2.1.3 `typedef boost::spirit::classic::file_iterator<char_t> AIRSCHED::iterator_t`

Definition at line 35 of file [BasParserTypes.hpp](#).

24.2.1.4 `typedef boost::spirit::classic::scanner<iterator_t> AIRSCHED::scanner_t`

Definition at line 36 of file [BasParserTypes.hpp](#).

24.2.1.5 `typedef boost::spirit::classic::rule<scanner_t> AIRSCHED::rule_t`

Definition at line 37 of file [BasParserTypes.hpp](#).

24.2.1.6 `typedef boost::spirit::classic::int_parser<unsigned int, 10, 1, 1>
AIRSCHED::int1_p_t`

1-digit-integer parser

Definition at line 45 of file [BasParserTypes.hpp](#).

24.2.1.7 `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 2, 2>
AIRSCHED::uint2_p_t`

2-digit-integer parser

Definition at line 48 of file [BasParserTypes.hpp](#).

24.2.1.8 `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 4, 4>
AIRSCHED::uint4_p_t`

4-digit-integer parser

Definition at line 51 of file [BasParserTypes.hpp](#).

24.2.1.9 `typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 4>
AIRSCHED::uint1_4_p_t`

Up-to-4-digit-integer parser

Definition at line 54 of file [BasParserTypes.hpp](#).

24.2.1.10 `typedef boost::spirit::classic::chset<char_t> AIRSCHED::chset_t`

character set

Definition at line 57 of file [BasParserTypes.hpp](#).

24.2.1.11 `typedef boost::spirit::classic::impl::loop_traits<chset_t, unsigned int, unsigned
int>::type AIRSCHED::repeat_p_t`

(Repeating) sequence of a given number of characters: repeat_p(min, max)

Definition at line 63 of file [BasParserTypes.hpp](#).

24.2.1.12 `typedef boost::spirit::classic::bounded<uint2_p_t, unsigned int>
AIRSCHED::bounded2_p_t`

Bounded-number-of-integers parser

Definition at line 66 of file [BasParserTypes.hpp](#).

24.2.1.13 `typedef boost::spirit::classic::bounded<uint4_p_t, unsigned int>
AIRSCHED::bounded4_p_t`

Definition at line 67 of file [BasParserTypes.hpp](#).

24.2.1.14 `typedef boost::spirit::classic::bounded<uint1_4_p_t, unsigned int>
AIRSCHED::bounded1_4_p_t`

Definition at line 68 of file [BasParserTypes.hpp](#).

24.2.1.15 `typedef std::set<stdair::AirportCode_T> AIRSCHED::AirportList_T`

Define lists of Airport Codes.

Definition at line 16 of file [AirportList.hpp](#).

24.2.1.16 `typedef std::vector<stdair::AirportCode_T> AIRSCHED::AirportOrderedList_T`

Definition at line 17 of file [AirportList.hpp](#).

24.2.1.17 `typedef std::vector<FareFamilyStruct> AIRSCHED::FareFamilyStructList-
_T`

List of FareFamily-Detail structures.

Definition at line 31 of file [FareFamilyStruct.hpp](#).

24.2.1.18 `typedef std::vector<LegCabinStruct> AIRSCHED::LegCabinStructList_T`

List of LegCabin-Detail structures.

Definition at line 36 of file [LegCabinStruct.hpp](#).

24.2.1.19 `typedef std::vector<LegStruct> AIRSCHED::LegStructList_T`

List of Leg structures.

Definition at line 50 of file [LegStruct.hpp](#).

24.2.1.20 `typedef std::list<OriginDestinationSet*> AIRSCHED::OriginDestination-
SetList_T`

Define the [OriginDestinationSet](#) list.

Definition at line 18 of file [OriginDestinationSetTypes.hpp](#).

24.2.1.21 `typedef std::map<const stdair::MapKey_T, OriginDestinationSet*>
AIRSCHED::OriginDestinationSetMap_T`

Define the [OriginDestinationSet](#) map.

Definition at line 25 of file [OriginDestinationSetTypes.hpp](#).

24.2.1.22 `typedef std::list<ReachableUniverse*> AIRSCHED::ReachableUniverse-
List_T`

Define the reachable-universe list.

Definition at line 18 of file [ReachableUniverseTypes.hpp](#).

24.2.1.23 `typedef std::map<const stdair::MapKey_T, ReachableUniverse*>
AIRSCHED::ReachableUniverseMap_T`

Define the reachable-universe map.

Definition at line 25 of file [ReachableUniverseTypes.hpp](#).

24.2.1.24 `typedef std::vector<SegmentCabinStruct> AIRSCHED::SegmentCabin-
StructList_T`

List of SegmentCabin-Detail strucutres.

Definition at line 41 of file [SegmentCabinStruct.hpp](#).

24.2.1.25 `typedef std::list<SegmentPathPeriod*> AIRSCHED::SegmentPathPeriod-
List_T`

Define the segment path list.

Definition at line 20 of file [SegmentPathPeriodTypes.hpp](#).

24.2.1.26 `typedef std::multimap<const stdair::MapKey_T, SegmentPathPeriod*>
AIRSCHED::SegmentPathPeriodMultimap_T`

Define the segment path map.

Definition at line 27 of file [SegmentPathPeriodTypes.hpp](#).

24.2.1.27 `typedef std::vector<const SegmentPathPeriod*>
AIRSCHED::SegmentPathPeriodLightList_T`

Define the (temporary) containers of segment path period.

Definition at line 30 of file [SegmentPathPeriodTypes.hpp](#).

24.2.1.28 `typedef std::vector<SegmentPathPeriodLightList_T>
AIRSCHED::SegmentPathPeriodListList_T`

Definition at line 31 of file [SegmentPathPeriodTypes.hpp](#).

24.2.1.29 `typedef std::vector<stdair::DateOffset_T> AIRSCHED::DateOffsetList_T`

Define the vector of boarding date offsets of the member segments of a segment path compare to the boarding date of the first segment.

Definition at line 35 of file [SegmentPathPeriodTypes.hpp](#).

24.2.1.30 `typedef std::vector<SegmentStruct> AIRSCHED::SegmentStructList_T`

List of Segment strucutres.

Definition at line 44 of file [SegmentStruct.hpp](#).

24.2.2 Function Documentation

24.2.2.1 `template void AIRSCHED::OriginDestinationSet::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)`

24.2.2.2 `template void AIRSCHED::OriginDestinationSet::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)`

24.2.2.3 `template void AIRSCHED::OriginDestinationSetKey::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)`

24.2.2.4 `template void AIRSCHED::OriginDestinationSetKey::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)`

24.2.2.5 `template void AIRSCHED::ReachableUniverse::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)`

24.2.2.6 `template void AIRSCHED::ReachableUniverse::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)`

24.2.2.7 `template void AIRSCHED::ReachableUniverseKey::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)`

24.2.2.8 `template void AIRSCHED::ReachableUniverseKey::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)`

24.2.2.9 `template void AIRSCHED::SegmentPathPeriod::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)`

24.2.2.10 `template void AIRSCHED::SegmentPathPeriod::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)`

24.2.2.11 `template void AIRSCHED::SegmentPathPeriodKey::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)`

24.2.2.12 `template void AIRSCHED::SegmentPathPeriodKey::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)`

24.2.3 Variable Documentation

24.2.3.1 `const int AIRSCHED::DEFAULT_NUMBER_OF_DRAWS_FOR_MC_SIMULATION = 100000`

Default value for the number of draws within the Monte-Carlo Integration algorithm.

Definition at line 8 of file [BasConst.cpp](#).

24.3 AIRSCHED::OnDParserHelper Namespace Reference

Classes

- struct [ParserSemanticAction](#)
- struct [storeOrigin](#)
- struct [storeDestination](#)
- struct [storeDateRangeStart](#)
- struct [storeDateRangeEnd](#)
- struct [storeStartRangeTime](#)
- struct [storeEndRangeTime](#)
- struct [storeAirlineCode](#)
- struct [storeClassCode](#)
- struct [doEndOnD](#)
- struct [OnDParser](#)

Functions

- [chset_t alpha_cap_set_p](#) ("A-Z")
- [repeat_p_t airport_p](#) ([chset_t](#)("0-9A-Z").derived(), 3, 3)
- [repeat_p_t airline_code_p](#) ([alpha_cap_set_p](#).derived(), 2, 3)
- [bounded4_p_t year_p](#) ([uint4_p](#).derived(), 2000u, 2099u)
- [bounded2_p_t month_p](#) ([uint2_p](#).derived(), 1u, 12u)
- [bounded2_p_t day_p](#) ([uint2_p](#).derived(), 1u, 31u)
- [bounded2_p_t hours_p](#) ([uint2_p](#).derived(), 0u, 23u)
- [bounded2_p_t minutes_p](#) ([uint2_p](#).derived(), 0u, 59u)
- [bounded2_p_t seconds_p](#) ([uint2_p](#).derived(), 0u, 59u)
- [chset_t class_code_p](#) ("A-Z")

Variables

- [uint2_p_t uint2_p](#)
- [uint4_p_t uint4_p](#)
- [uint1_4_p_t uint1_4_p](#)

24.3.1 Function Documentation

24.3.1.1 [chset_t AIRSCHED::OnDParserHelper::alpha_cap_set_p](#) ("A-Z")

Sequence of (capital) alphabetic characters: [chset_p](#)("A-Z")

24.3.1.2 [repeat_p_t AIRSCHED::OnDParserHelper::airport_p](#) ([chset_t](#)("0-9A-Z").derived() , 3 , 3)

Airport Parser: [repeat_p](#)(3)[[chset_p](#)("0-9A-Z")]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition](#)< [ScannerT](#) >::[definition](#)()

24.3.1.3 **repeat_p_t** AIRSCHED::OnDParserHelper::airline_code_p (
 alpha_cap_set_p. *derived()*, 2 , 3)

Airline Code Parser: repeat_p(2,3)[chset_p("0-9A-Z")]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.1.4 **bounded4_p_t** AIRSCHED::OnDParserHelper::year_p (uint4_p. *derived()*,
 2000u , 2099u)

Year Parser: limit_d(2000u, 2099u)[uint4_p]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.1.5 **bounded2_p_t** AIRSCHED::OnDParserHelper::month_p (uint2_p. *derived()*,
 1u , 12u)

Month Parser: limit_d(1u, 12u)[uint2_p]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.1.6 **bounded2_p_t** AIRSCHED::OnDParserHelper::day_p (uint2_p. *derived()*, 1u
 , 31u)

Day Parser: limit_d(1u, 31u)[uint2_p]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.1.7 **bounded2_p_t** AIRSCHED::OnDParserHelper::hours_p (uint2_p. *derived()*,
 0u , 23u)

Hour Parser: limit_d(0u, 23u)[uint2_p]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.1.8 **bounded2_p_t** AIRSCHED::OnDParserHelper::minutes_p (uint2_p.
 derived(), 0u , 59u)

Minute Parser: limit_d(0u, 59u)[uint2_p]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.1.9 **bounded2_p_t** AIRSCHED::OnDParserHelper::seconds_p (uint2_p.
 derived(), 0u , 59u)

Second Parser: limit_d(0u, 59u)[uint2_p]

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.1.10 chset_t AIRSCHED::OnDParserHelper::class_code_p("A-Z")

Class Code Parser: chset_p("A-Z")

Referenced by [AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition\(\)](#).

24.3.2 Variable Documentation

24.3.2.1 uint2_p_t AIRSCHED::OnDParserHelper::uint2_p

2-digit-integer parser

Definition at line 215 of file [OnDParserHelper.cpp](#).

24.3.2.2 uint4_p_t AIRSCHED::OnDParserHelper::uint4_p

4-digit-integer parser

Definition at line 218 of file [OnDParserHelper.cpp](#).

24.3.2.3 uint1_4_p_t AIRSCHED::OnDParserHelper::uint1_4_p

Up-to-4-digit-integer parser

Definition at line 221 of file [OnDParserHelper.cpp](#).

24.4 AIRSCHED::ScheduleParserHelper Namespace Reference

Classes

- struct [ParserSemanticAction](#)
- struct [storeAirlineCode](#)
- struct [storeFlightNumber](#)
- struct [storeDateRangeStart](#)
- struct [storeDateRangeEnd](#)
- struct [storeDow](#)
- struct [storeLegBoardingPoint](#)
- struct [storeLegOffPoint](#)
- struct [storeBoardingTime](#)
- struct [storeOffTime](#)
- struct [storeElapsedTime](#)
- struct [storeLegCabinCode](#)
- struct [storeCapacity](#)
- struct [storeSegmentSpecificity](#)
- struct [storeSegmentBoardingPoint](#)
- struct [storeSegmentOffPoint](#)
- struct [storeSegmentCabinCode](#)
- struct [storeClasses](#)
- struct [storeFamilyCode](#)

- struct [storeFClasses](#)
- struct [doEndFlight](#)
- struct [FlightPeriodParser](#)

Functions

- [repeat_p_t airline_code_p](#) ([chset_t](#)("0-9A-Z").[derived\(\)](#), 2, 3)
- [bounded1_4_p_t flight_number_p](#) ([uint1_4_p](#).[derived\(\)](#), 0u, 9999u)
- [bounded4_p_t year_p](#) ([uint4_p](#).[derived\(\)](#), 2000u, 2099u)
- [bounded2_p_t month_p](#) ([uint2_p](#).[derived\(\)](#), 1u, 12u)
- [bounded2_p_t day_p](#) ([uint2_p](#).[derived\(\)](#), 1u, 31u)
- [repeat_p_t dow_p](#) ([chset_t](#)("0-1").[derived\(\)](#).[derived\(\)](#), 7, 7)
- [repeat_p_t airport_p](#) ([chset_t](#)("0-9A-Z").[derived\(\)](#), 3, 3)
- [bounded2_p_t hours_p](#) ([uint2_p](#).[derived\(\)](#), 0u, 23u)
- [bounded2_p_t minutes_p](#) ([uint2_p](#).[derived\(\)](#), 0u, 59u)
- [bounded2_p_t seconds_p](#) ([uint2_p](#).[derived\(\)](#), 0u, 59u)
- [chset_t cabin_code_p](#) ("A-Z")
- [repeat_p_t class_code_list_p](#) ([chset_t](#)("A-Z").[derived\(\)](#), 1, 26)

Variables

- [int1_p_t int1_p](#)
- [uint2_p_t uint2_p](#)
- [uint4_p_t uint4_p](#)
- [uint1_4_p_t uint1_4_p](#)
- [int1_p_t family_code_p](#)

24.4.1 Function Documentation

24.4.1.1 [repeat_p_t AIRSCHED::ScheduleParserHelper::airline_code_p](#) ([chset_t](#)("0-9A-Z").[derived\(\)](#), 2, 3)

Airline Code Parser: [repeat_p](#)(2,3)[[chset_p](#)("0-9A-Z")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT>::definition\(\)](#).

24.4.1.2 [bounded1_4_p_t AIRSCHED::ScheduleParserHelper::flight_number_p](#) ([uint1_4_p](#).[derived\(\)](#), 0u, 9999u)

Flight Number Parser: [limit_d](#)(0u, 9999u)[[uint1_4_p](#)]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT>::definition\(\)](#).

24.4.1.3 **bounded4_p_t** AIRSCHED::ScheduleParserHelper::year_p (uint4_p.
derived(), 2000u , 2099u)

Year Parser: limit_d(2000u, 2099u)[uint4_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.4.1.4 **bounded2_p_t** AIRSCHED::ScheduleParserHelper::month_p (uint2_p.
derived(), 1u , 12u)

Month Parser: limit_d(1u, 12u)[uint2_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.4.1.5 **bounded2_p_t** AIRSCHED::ScheduleParserHelper::day_p (uint2_p.
derived(), 1u , 31u)

Day Parser: limit_d(1u, 31u)[uint2_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.4.1.6 **repeat_p_t** AIRSCHED::ScheduleParserHelper::dow_p (chset_t("0-1").*derived()*.*derived()* , 7 , 7)

DOW (Day-Of-the-Week) Parser: repeat_p(7)[chset_p("0-1")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.4.1.7 **repeat_p_t** AIRSCHED::ScheduleParserHelper::airport_p (chset_t("0-9A-Z").*derived()* , 3 , 3)

Airport Parser: repeat_p(3)[chset_p("0-9A-Z")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.4.1.8 **bounded2_p_t** AIRSCHED::ScheduleParserHelper::hours_p (uint2_p.
derived(), 0u , 23u)

Hour Parser: limit_d(0u, 23u)[uint2_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.4.1.9 **bounded2_p_t** AIRSCHED::ScheduleParserHelper::minutes_p (uint2_p.
derived(), 0u , 59u)

Minute Parser: limit_d(0u, 59u)[uint2_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.4.1.10 **bounded2_p_t** AIRSCHED::ScheduleParserHelper::seconds_p (uint2_p.
derived(), 0u, 59u)

Second Parser: limit_d(0u, 59u)[uint2_p]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT>::definition\(\)](#).

24.4.1.11 **chset_t** AIRSCHED::ScheduleParserHelper::cabin_code_p ("A-Z")

Cabin Code Parser: chset_p("A-Z")

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT>::definition\(\)](#).

24.4.1.12 **repeat_p_t** AIRSCHED::ScheduleParserHelper::class_code_list_p (chset_t("A-Z").derived(), 1, 26)

Class Code List Parser: repeat_p(1,26)[chset_p("A-Z")]

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT>::definition\(\)](#).

24.4.2 Variable Documentation

24.4.2.1 **int1_p_t** AIRSCHED::ScheduleParserHelper::int1_p

1-digit-integer parser

Definition at line 408 of file [ScheduleParserHelper.cpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT>::definition\(\)](#).

24.4.2.2 **uint2_p_t** AIRSCHED::ScheduleParserHelper::uint2_p

2-digit-integer parser

Definition at line 411 of file [ScheduleParserHelper.cpp](#).

24.4.2.3 **uint4_p_t** AIRSCHED::ScheduleParserHelper::uint4_p

4-digit-integer parser

Definition at line 414 of file [ScheduleParserHelper.cpp](#).

24.4.2.4 **uint1_4_p_t** AIRSCHED::ScheduleParserHelper::uint1_4_p

Up-to-4-digit-integer parser

Definition at line 417 of file [ScheduleParserHelper.cpp](#).

24.4.2.5 **int1_p_t** AIRSCHED::ScheduleParserHelper::family_code_p

Family code parser

Definition at line 453 of file [ScheduleParserHelper.cpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT >::definition\(\)](#).

24.5 boost Namespace Reference

Forward declarations.

Namespaces

- namespace [serialization](#)

24.5.1 Detailed Description

Forward declarations.

24.6 boost::serialization Namespace Reference

24.7 stdair Namespace Reference

Forward declarations.

24.7.1 Detailed Description

Forward declarations.

25 Class Documentation

25.1 airsched::Airline_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

Public Member Functions

- [Airline_T](#) ()
- void [display](#) () const

Public Attributes

- bool [_isPreferred](#)
- std::string [_name](#)
- std::string [_code](#)

25.1.1 Detailed Description

Airline.

Definition at line 52 of file [BookingRequestParser.hpp](#).

25.1.2 Constructor & Destructor Documentation

25.1.2.1 `airsched::Airline_T::Airline_T()` [inline]

Constructor.

Definition at line 58 of file [BookingRequestParser.hpp](#).

25.1.3 Member Function Documentation

25.1.3.1 `void airsched::Airline_T::display() const` [inline]

Definition at line 60 of file [BookingRequestParser.hpp](#).

References [_code](#), [_isPreferred](#), and [_name](#).

Referenced by [airsched::SearchString_T::display\(\)](#).

25.1.4 Member Data Documentation

25.1.4.1 `bool airsched::Airline_T::_isPreferred`

Definition at line 54 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_airline_sign::operator\(\)](#).

25.1.4.2 `std::string airsched::Airline_T::_name`

Definition at line 55 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_airline_name::operator\(\)](#).

25.1.4.3 `std::string airsched::Airline_T::_code`

Definition at line 56 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_airline_code::operator\(\)](#).

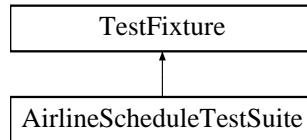
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)

25.2 AirlineScheduleTestSuite Class Reference

```
#include <test/airsched/AirlineScheduleTestSuite.hpp>
```

Inheritance diagram for AirlineScheduleTestSuite:



Public Member Functions

- void [externalMemoryManagement](#) ()
- void [scheduleParsing](#) ()
- [AirlineScheduleTestSuite](#) ()

Protected Attributes

- `std::stringstream` [_describeKey](#)

25.2.1 Detailed Description

Definition at line 6 of file [AirlineScheduleTestSuite.hpp](#).

25.2.2 Constructor & Destructor Documentation

25.2.2.1 `AirlineScheduleTestSuite::AirlineScheduleTestSuite ()`

Constructor.

25.2.3 Member Function Documentation

25.2.3.1 `void AirlineScheduleTestSuite::externalMemoryManagement ()`

Test the Optimisation functionality.

The code is aimed at testing the initialization of airline inventory-related objects which are mainly implemented in the `stdair` library. That means the memory allocation of these objects will be managed by the calling project and not by the called project.

25.2.3.2 `void AirlineScheduleTestSuite::scheduleParsing ()`

25.2.4 Member Data Documentation

25.2.4.1 `std::stringstream AirlineScheduleTestSuite::_describeKey` [protected]

Definition at line 26 of file [AirlineScheduleTestSuite.hpp](#).

The documentation for this class was generated from the following file:

- [test/airsched/AirlineScheduleTestSuite.hpp](#)

25.3 AIRSCHED::AIRSCHED_Service Class Reference

Interface for the AirSched Services.

```
#include <airsched/AIRSCHED_Service.hpp>
```

Public Member Functions

- [AIRSCHED_Service](#) (const stdair::BasLogParams &, const stdair::BasDBParams &)
- [AIRSCHED_Service](#) (const stdair::BasLogParams &)
- [AIRSCHED_Service](#) (stdair::STDAIR_ServicePtr_T ioSTDAIR_ServicePtr)
- void [parseAndLoad](#) (const stdair::Filename_T &iScheduleInputFilename)
- void [parseAndLoad](#) (const stdair::Filename_T &iScheduleFilename, const stdair::Filename_T &iODInputFilename)
- [~AIRSCHED_Service](#) ()
- void [buildSampleBom](#) ()
- void [buildSegmentPathList](#) (stdair::TravelSolutionList_T &, const stdair::BookingRequestStruct &)
- void [simulate](#) ()
- std::string [jsonExport](#) (const stdair::AirlineCode_T &, const stdair::FlightNumber_T &, const stdair::Date_T &iDepartureDate) const
- std::string [csvDisplay](#) () const
- std::string [csvDisplay](#) (const stdair::AirlineCode_T &, const stdair::FlightNumber_T &, const stdair::Date_T &iDepartureDate) const

25.3.1 Detailed Description

Interface for the AirSched Services.

Definition at line 32 of file [AIRSCHED_Service.hpp](#).

25.3.2 Constructor & Destructor Documentation

25.3.2.1 AIRSCHED::AIRSCHED_Service::AIRSCHED_Service (const stdair::BasLogParams & iLogParams, const stdair::BasDBParams & iDBParams)

Constructor.

The `initAirschedService()` method is called; see the corresponding documentation for more details.

A reference on an output stream is given, so that log outputs can be directed onto that stream.

Moreover, database connection parameters are given, so that a session can be created on the corresponding database.

Parameters

<i>const</i>	stdair::BasLogParams& Parameters for the output log stream.
<i>const</i>	stdair::BasDBParams& Parameters for the database access.

Definition at line 62 of file [AIRSCHED_Service.cpp](#).

25.3.2.2 AIRSCHED::AIRSCHED_Service::AIRSCHED_Service (*const* stdair::BasLogParams & *iLogParams*)

Constructor.

The `initAirschedService()` method is called; see the corresponding documentation for more details.

A reference on an output stream is given, so that log outputs can be directed onto that stream.

Parameters

<i>const</i>	stdair::BasLogParams& Parameters for the output log stream.
--------------	---

Definition at line 42 of file [AIRSCHED_Service.cpp](#).

25.3.2.3 AIRSCHED::AIRSCHED_Service::AIRSCHED_Service (stdair::STDAIR_ServicePtr_T *ioSTDAIR_ServicePtr*)

Constructor.

The `initAirschedService()` method is called; see the corresponding documentation for more details.

Moreover, as no reference on any output stream is given, it is assumed that the StdAir log service has already been initialised with the proper log output stream by some other methods in the calling chain (for instance, when the [AIRSCHED_Service](#) is itself being initialised by another library service such as `SIMCRS_Service`).

Parameters

<i>stdair::STDAIR_ServicePtr_T</i>	Reference on the STDAIR service.
------------------------------------	----------------------------------

Definition at line 84 of file [AIRSCHED_Service.cpp](#).

25.3.2.4 AIRSCHED::AIRSCHED_Service::~~AIRSCHED_Service ()

Destructor.

Definition at line 100 of file [AIRSCHED_Service.cpp](#).

25.3.3 Member Function Documentation

25.3.3.1 void AIRSCHED::AIRSCHED_Service::parseAndLoad (const
stdair::Filename_T & *iScheduleInputFilename*)

Parse the schedule input file and load it into memory.

The CSV file, describing the airline schedule for the simulator, is parsed and instantiated in memory accordingly.

Parameters

<i>const</i>	stdair::Filename_T& Filename of the input schedule file.
--------------	--

Definition at line 178 of file [AIRSCHED_Service.cpp](#).

References [AIRSCHED::ScheduleParser::generateInventories\(\)](#).

Referenced by [main\(\)](#), and [parseAndLoad\(\)](#).

25.3.3.2 void AIRSCHED::AIRSCHED_Service::parseAndLoad (const
stdair::Filename_T & *iScheduleFilename*, const stdair::Filename_T & *iODInputFilename*
)

Parse the schedule and O&D input files, and load them into memory.

The CSV files, describing the airline schedule and the O&Ds for the simulator, are parsed and instantiated in memory accordingly.

Parameters

<i>const</i>	stdair::Filename_T& Filename of the input schedule file.
<i>const</i>	stdair::Filename_T& Filename of the input O&D file.

Definition at line 199 of file [AIRSCHED_Service.cpp](#).

References [AIRSCHED::OnDParser::generateOnDPeriods\(\)](#), and [parseAndLoad\(\)](#).

25.3.3.3 void AIRSCHED::AIRSCHED_Service::buildSampleBom ()

Build a sample BOM tree, and attach it to the BomRoot instance.

The BOM tree is based on two actual inventories (one for BA, another for AF). Each inventory contains one flight. One of those flights has two legs (and therefore three segments).

Definition at line 223 of file [AIRSCHED_Service.cpp](#).

References [AIRSCHED::SegmentPathGenerator::createSegmentPathNetwork\(\)](#).

Referenced by [main\(\)](#).

25.3.3.4 void AIRSCHED::AIRSCHED_Service::buildSegmentPathList (
stdair::TravelSolutionList_T & *ioTravelSolutionList*, const stdair::BookingRequestStruct
& *iBookingRequest*)

Calculate and return a list of travel solutions corresponding to a given product demand.

Definition at line 369 of file [AIRSCHED_Service.cpp](#).

Referenced by [main\(\)](#).

25.3.3.5 void AIRSCHED::AIRSCHED_Service::simulate ()

Perform a small simulation, which uses the Customer Choice Model (CCM).

Currently, that method does nothing.

Definition at line 341 of file [AIRSCHED_Service.cpp](#).

25.3.3.6 std::string AIRSCHED::AIRSCHED_Service::jsonExport (const stdair::AirlineCode_T & iAirlineCode, const stdair::FlightNumber_T & iFlightNumber, const stdair::Date_T & iDepartureDate) const

Recursively dump, in the returned string and in JSON format, the flight-period corresponding to the parameters given as input.

Parameters

<i>const</i>	stdair::AirlineCode_T& Airline code of the flight to dump.
<i>const</i>	stdair::FlightNumber_T& Flight number of the flight to dump.
<i>const</i>	stdair::Date_T& Departure date of a flight within the flight period to dump.

Returns

std::string Output string in which the BOM tree is JSON-ified.

Definition at line 274 of file [AIRSCHED_Service.cpp](#).

25.3.3.7 std::string AIRSCHED::AIRSCHED_Service::csvDisplay () const

Recursively display (dump in the returned string) the objects of the BOM tree.

Returns

std::string Output string in which the BOM tree is logged/dumped.

Definition at line 297 of file [AIRSCHED_Service.cpp](#).

25.3.3.8 std::string AIRSCHED::AIRSCHED_Service::csvDisplay (const stdair::AirlineCode_T & iAirlineCode, const stdair::FlightNumber_T & iFlightNumber, const stdair::Date_T & iDepartureDate) const

Recursively display (dump in the returned string) the flight-period corresponding to the parameters given as input.

Parameters

<i>const</i>	stdair::AirlineCode_T& Airline code of the flight period to display.
<i>const</i>	stdair::FlightNumber_T& Flight number of the flight to display.
<i>const</i>	stdair::Date_T& Departure date of a flight within the flight-period to display.

Returns

std::string Output string in which the BOM tree is logged/dumped.

Definition at line 318 of file [AIRSCHED_Service.cpp](#).

The documentation for this class was generated from the following files:

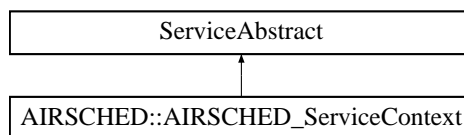
- [airsched/AIRSCHED_Service.hpp](#)
- [airsched/service/AIRSCHED_Service.cpp](#)

25.4 AIRSCHED::AIRSCHED_ServiceContext Class Reference

Class holding the context of the AirSched services.

```
#include <airsched/service/AIRSCHED_ServiceContext.hpp>
```

Inheritance diagram for AIRSCHED::AIRSCHED_ServiceContext:

**Friends**

- class [AIRSCHED_Service](#)
- class [FacAIRSCHEDServiceContext](#)

25.4.1 Detailed Description

Class holding the context of the AirSched services.

Definition at line 22 of file [AIRSCHED_ServiceContext.hpp](#).

25.4.2 Friends And Related Function Documentation**25.4.2.1 friend class AIRSCHED_Service [friend]**

The [AIRSCHED_Service](#) class should be the sole class to get access to ServiceContext content: general users do not want to bother with a context interface.

Definition at line 28 of file [AIRSCHED_ServiceContext.hpp](#).

25.4.2.2 friend class FacAIRSCHEDServiceContext [friend]

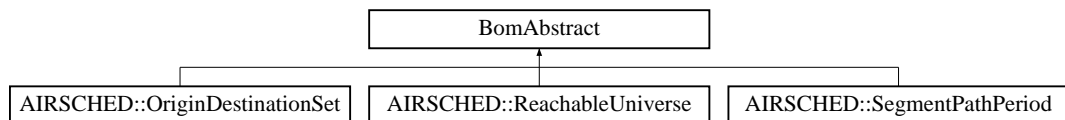
Definition at line 29 of file [AIRSCHED_ServiceContext.hpp](#).

The documentation for this class was generated from the following files:

- [airsched/service/AIRSCHED_ServiceContext.hpp](#)
- [airsched/service/AIRSCHED_ServiceContext.cpp](#)

25.5 BomAbstract Class Reference

Inheritance diagram for BomAbstract:



The documentation for this class was generated from the following file:

- [airsched/bom/OriginDestinationSet.hpp](#)

25.6 AIRSCHED::BomDisplay Class Reference

Utility class to display AirSched objects with a pretty format.

```
#include <airsched/bom/BomDisplay.hpp>
```

Static Public Member Functions

- static std::string [csvDisplay](#) (const stdair::BomRoot &)
- static void [csvDisplay](#) (std::ostream &, const [ReachableUniverse](#) &)

25.6.1 Detailed Description

Utility class to display AirSched objects with a pretty format.

Definition at line 26 of file [BomDisplay.hpp](#).

25.6.2 Member Function Documentation

25.6.2.1 std::string AIRSCHED::BomDisplay::csvDisplay (const stdair::BomRoot & iBomRoot) [static]

Recursively display (dump in the underlying output log stream) the objects of the BOM tree.

Parameters

<i>std- ::ostream&</i>	Output stream in which the BOM tree should be logged/dumped.
<i>const</i>	stdair::EventQueue& Root of the BOM tree to be displayed.

Definition at line 43 of file [BomDisplay.cpp](#).

25.6.2.2 void AIRSCHED::BomDisplay::csvDisplay (std::ostream & oStream, const ReachableUniverse & iReachableUniverse) [static]

Recursively display (dump in the underlying output log stream) the objects of the BOM tree.

Parameters

<i>std- ::ostream&</i>	Output stream in which the BOM tree should be logged/dumped.
<i>const</i>	ReachableUniverse & Root of the BOM tree to be displayed.

Definition at line 81 of file [BomDisplay.cpp](#).

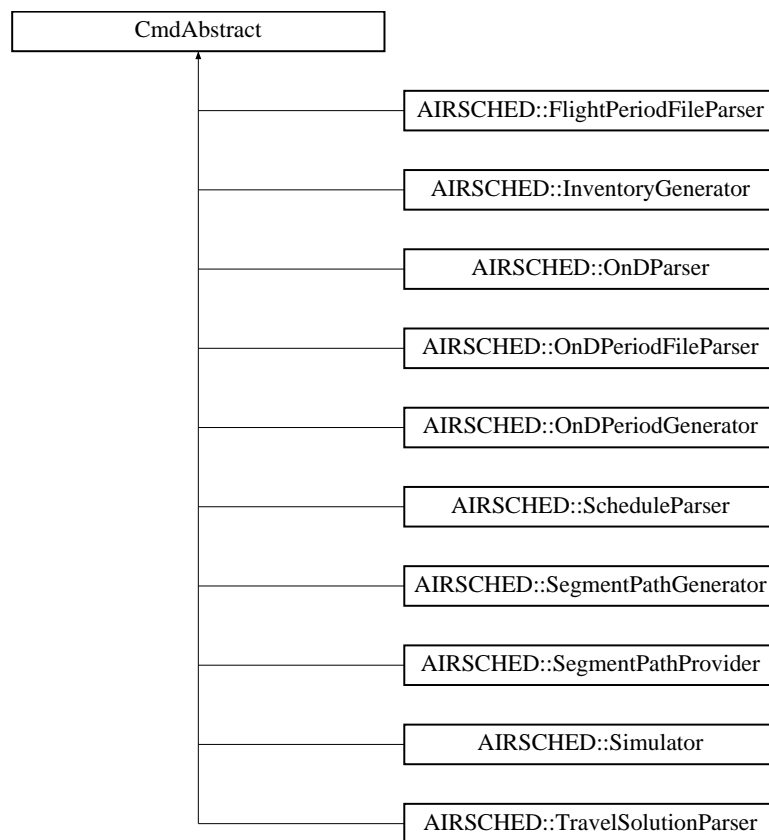
References [AIRSCHED::ReachableUniverse::toString\(\)](#).

The documentation for this class was generated from the following files:

- [airsched/bom/BomDisplay.hpp](#)
- [airsched/bom/BomDisplay.cpp](#)

25.7 CmdAbstract Class Reference

Inheritance diagram for CmdAbstract:



The documentation for this class was generated from the following file:

- airsched/command/[OnDPeriodGenerator.hpp](#)

25.8 airsched::Date_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

Public Member Functions

- [Date_T](#) ()
- void [display](#) () const
- boost::gregorian::date [getDate](#) () const

Public Attributes

- boost::gregorian::date [_date](#)
- unsigned int [_reldays](#)
- unsigned int [_day](#)

- unsigned int `_month`
- unsigned int `_year`

25.8.1 Detailed Description

Date.

Definition at line 27 of file [BookingRequestParser.hpp](#).

25.8.2 Constructor & Destructor Documentation

25.8.2.1 `airsched::Date_T::Date_T()` `[inline]`

Constructor.

Definition at line 35 of file [BookingRequestParser.hpp](#).

25.8.3 Member Function Documentation

25.8.3.1 `void airsched::Date_T::display() const` `[inline]`

Definition at line 37 of file [BookingRequestParser.hpp](#).

References `_date`, `_day`, `_month`, `_reldays`, and `_year`.

Referenced by [airsched::SearchString_T::display\(\)](#).

25.8.3.2 `boost::gregorian::date airsched::Date_T::getDate() const` `[inline]`

Set the date from the staging details.

Definition at line 43 of file [BookingRequestParser.hpp](#).

References `_day`, `_month`, and `_year`.

Referenced by [airsched::store_date::operator\(\)\(\)](#).

25.8.4 Member Data Documentation

25.8.4.1 `boost::gregorian::date airsched::Date_T::_date`

Definition at line 29 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_date::operator\(\)\(\)](#).

25.8.4.2 `unsigned int airsched::Date_T::_reldays`

Definition at line 30 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

25.8.4.3 unsigned int airsched::Date_T::_day

Definition at line 31 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [getDate\(\)](#).

25.8.4.4 unsigned int airsched::Date_T::_month

Definition at line 32 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [getDate\(\)](#).

25.8.4.5 unsigned int airsched::Date_T::_year

Definition at line 33 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [getDate\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)

25.9 AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT > Struct Template Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Public Member Functions

- [definition](#) ([OnDParser](#) const &self)
- [boost::spirit::classic::rule < ScannerT > const & start \(\) const](#)

Public Attributes

- [boost::spirit::classic::rule < ScannerT > ond_list](#)
- [boost::spirit::classic::rule < ScannerT > ond](#)
- [boost::spirit::classic::rule < ScannerT > segment](#)
- [boost::spirit::classic::rule < ScannerT > ond_key](#)
- [boost::spirit::classic::rule < ScannerT > ond_end](#)
- [boost::spirit::classic::rule < ScannerT > date](#)
- [boost::spirit::classic::rule < ScannerT > time](#)

25.9.1 Detailed Description

```
template<typename ScannerT>struct AIRSCHED::OnDParserHelper::OnDParser::definition<ScannerT >
```

Definition at line 133 of file [OnDParserHelper.hpp](#).

25.9.2 Constructor & Destructor Documentation

25.9.2.1 `template<typename ScannerT > AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::definition (OnDParser const & self)`

Definition at line 267 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDParserHelper::airline_code_p\(\)](#), [AIRSCHED::OnDParserHelper::airport_p\(\)](#), [AIRSCHED::OnDParserHelper::class_code_p\(\)](#), [AIRSCHED::OnDParserHelper::day_p\(\)](#), [AIRSCHED::OnDParserHelper::hours_p\(\)](#), [AIRSCHED::OnDParserHelper::minutes_p\(\)](#), [AIRSCHED::OnDParserHelper::month_p\(\)](#), [AIRSCHED::OnDParserHelper::seconds_p\(\)](#), and [AIRSCHED::OnDParserHelper::year_p\(\)](#).

25.9.3 Member Function Documentation

25.9.3.1 `template<typename ScannerT > boost::spirit::classic::rule< ScannerT > const & AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::start () const`

Entry point of the parser.

Definition at line 330 of file [OnDParserHelper.cpp](#).

25.9.4 Member Data Documentation

25.9.4.1 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::ond_list`

Definition at line 137 of file [OnDParserHelper.hpp](#).

25.9.4.2 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::ond`

Definition at line 137 of file [OnDParserHelper.hpp](#).

25.9.4.3 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::segment`

Definition at line 137 of file [OnDParserHelper.hpp](#).

25.9.4.4 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::ond_key`

Definition at line 137 of file [OnDParserHelper.hpp](#).

25.9.4.5 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT
>::ond_end`

Definition at line 137 of file [OnDParserHelper.hpp](#).

25.9.4.6 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::date`

Definition at line 137 of file [OnDParserHelper.hpp](#).

25.9.4.7 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >::time`

Definition at line 137 of file [OnDParserHelper.hpp](#).

The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.10 AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT > Struct Template Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Public Member Functions

- [definition](#) ([FlightPeriodParser](#) const &self)
- `boost::spirit::classic::rule < ScannerT > const & start () const`

Public Attributes

- `boost::spirit::classic::rule < ScannerT > flight_period_list`
- `boost::spirit::classic::rule < ScannerT > flight_period`
- `boost::spirit::classic::rule < ScannerT > not_to_be_parsed`
- `boost::spirit::classic::rule < ScannerT > flight_period_end`
- `boost::spirit::classic::rule < ScannerT > flight_key`
- `boost::spirit::classic::rule < ScannerT > airline_code`
- `boost::spirit::classic::rule < ScannerT > flight_number`
- `boost::spirit::classic::rule < ScannerT > date`
- `boost::spirit::classic::rule < ScannerT > dow`
- `boost::spirit::classic::rule < ScannerT > time`
- `boost::spirit::classic::rule < ScannerT > date_offset`
- `boost::spirit::classic::rule < ScannerT > leg`
- `boost::spirit::classic::rule < ScannerT > leg_key`
- `boost::spirit::classic::rule < ScannerT > leg_details`

- boost::spirit::classic::rule < ScannerT > [leg_cabin_details](#)
- boost::spirit::classic::rule < ScannerT > [segment_section](#)
- boost::spirit::classic::rule < ScannerT > [segment_key](#)
- boost::spirit::classic::rule < ScannerT > [full_segment_cabin_details](#)
- boost::spirit::classic::rule < ScannerT > [segment_cabin_details](#)
- boost::spirit::classic::rule < ScannerT > [full_family_cabin_details](#)
- boost::spirit::classic::rule < ScannerT > [family_cabin_details](#)
- boost::spirit::classic::rule < ScannerT > [generic_segment](#)
- boost::spirit::classic::rule < ScannerT > [specific_segment_list](#)

25.10.1 Detailed Description

template<typename ScannerT>struct AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >

Definition at line 255 of file [ScheduleParserHelper.hpp](#).

25.10.2 Constructor & Destructor Documentation

25.10.2.1 template<typename ScannerT > AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::definition (FlightPeriodParser const & self)

Definition at line 474 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::airline_code_p\(\)](#), [AIRSCHED::ScheduleParserHelper::airport_p\(\)](#), [AIRSCHED::ScheduleParserHelper::cabin_code_p\(\)](#), [AIRSCHED::ScheduleParserHelper::class_code_list_p\(\)](#), [AIRSCHED::ScheduleParserHelper::day_p\(\)](#), [AIRSCHED::ScheduleParserHelper::dow_p\(\)](#), [AIRSCHED::ScheduleParserHelper::family_code_p\(\)](#), [AIRSCHED::ScheduleParserHelper::flight_number_p\(\)](#), [AIRSCHED::ScheduleParserHelper::hours_p\(\)](#), [AIRSCHED::ScheduleParserHelper::int1_p\(\)](#), [AIRSCHED::ScheduleParserHelper::minutes_p\(\)](#), [AIRSCHED::ScheduleParserHelper::month_p\(\)](#), [AIRSCHED::ScheduleParserHelper::seconds_p\(\)](#), and [AIRSCHED::ScheduleParserHelper::year_p\(\)](#).

25.10.3 Member Function Documentation

25.10.3.1 template<typename ScannerT > bsc::rule< ScannerT > const & AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition< ScannerT >::start () const

Entry point of the parser.

Definition at line 621 of file [ScheduleParserHelper.cpp](#).

25.10.4 Member Data Documentation

25.10.4.1 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::flight_period_list`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.2 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::flight_period`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.3 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::not_to_be_parsed`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.4 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::flight_period_end`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.5 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::flight_key`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.6 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::airline_code`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.7 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::flight_number`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.8 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::date`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.9 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::dow`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.10 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::time`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.11 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::date_offset`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.12 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::leg`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.13 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::leg_key`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.14 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::leg_details`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.15 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::leg_cabin_details`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.16 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::segment_section`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.17 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::segment_key`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.18 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::full_segment_cabin_details`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.19 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::segment_cabin_details`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.20 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::full_family_cabin_details`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.21 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::family_cabin_details`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.22 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::generic_segment`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

25.10.4.23 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
AIRSCHED::ScheduleParserHelper::FlightPeriodParser::definition<
ScannerT >::specific_segment_list`

Definition at line 259 of file [ScheduleParserHelper.hpp](#).

The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.11 airsched::SearchStringParser::definition< ScannerT > Struct Template - Reference

Public Member Functions

- `definition` (`SearchStringParser` const &`self`)
- `boost::spirit::classic::rule< ScannerT >` const & `start` () const

Public Attributes

- `boost::spirit::classic::rule< ScannerT >` `search_string`
- `boost::spirit::classic::rule< ScannerT >` `places`
- `boost::spirit::classic::rule< ScannerT >` `place_element`
- `boost::spirit::classic::rule< ScannerT >` `dates`
- `boost::spirit::classic::rule< ScannerT >` `date`
- `boost::spirit::classic::rule< ScannerT >` `month`
- `boost::spirit::classic::rule< ScannerT >` `day`
- `boost::spirit::classic::rule< ScannerT >` `year`
- `boost::spirit::classic::rule< ScannerT >` `preferred_airlines`
- `boost::spirit::classic::rule< ScannerT >` `airline_code`
- `boost::spirit::classic::rule< ScannerT >` `airline_name`
- `boost::spirit::classic::rule< ScannerT >` `passengers`
- `boost::spirit::classic::rule< ScannerT >` `passenger_number`
- `boost::spirit::classic::rule< ScannerT >` `passenger_type`
- `boost::spirit::classic::rule< ScannerT >` `passenger_adult_type`
- `boost::spirit::classic::rule< ScannerT >` `passenger_child_type`
- `boost::spirit::classic::rule< ScannerT >` `passenger_pet_type`

25.11.1 Detailed Description

`template<typename ScannerT>struct airsched::SearchStringParser::definition< ScannerT >`

Definition at line 259 of file `BookingRequestParser.cpp`.

25.11.2 Constructor & Destructor Documentation

25.11.2.1 `template<typename ScannerT > airsched::SearchStringParser::definition< ScannerT >::definition (SearchStringParser const & self)` [inline]

Definition at line 260 of file `BookingRequestParser.cpp`.

References `airsched::uint1_2_p`, `airsched::uint1_p`, `airsched::uint2_p`, and `airsched::uint4_p`.

25.11.3 Member Function Documentation

25.11.3.1 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT> const& airsched::SearchStringParser::definition< ScannerT >::start ()` const [inline]

Definition at line 366 of file `BookingRequestParser.cpp`.

25.11.4 Member Data Documentation

25.11.4.1 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::search_string`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.2 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::places`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.3 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::place_element`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.4 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::dates`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.5 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::date`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.6 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::month`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.7 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::day`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.8 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::year`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.9 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT
>::preferred_airlines`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.10 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::airline_code`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.11 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::airline_name`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.12 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::passengers`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.13 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT
>::passenger_number`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.14 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT >::passenger_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.15 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT
>::passenger_adult_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.16 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT
>::passenger_child_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

25.11.4.17 `template<typename ScannerT > boost::spirit::classic::rule<ScannerT>
airsched::SearchStringParser::definition< ScannerT
>::passenger_pet_type`

Definition at line 360 of file [BookingRequestParser.cpp](#).

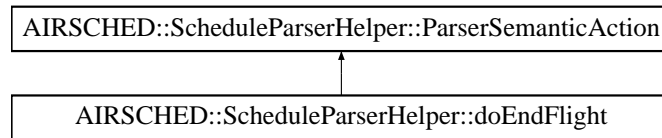
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.12 AIRSCHED::ScheduleParserHelper::doEndFlight Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::doEndFlight:



Public Member Functions

- [doEndFlight](#) (stdair::BomRoot &, [FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- stdair::BomRoot & [_bomRoot](#)
- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.12.1 Detailed Description

Mark the end of the flight-period parsing.

Definition at line 192 of file [ScheduleParserHelper.hpp](#).

25.12.2 Constructor & Destructor Documentation

25.12.2.1 AIRSCHED::ScheduleParserHelper::doEndFlight::doEndFlight (stdair::BomRoot & *ioBomRoot*, [FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 375 of file [ScheduleParserHelper.cpp](#).

25.12.3 Member Function Documentation

25.12.3.1 void AIRSCHED::ScheduleParserHelper::doEndFlight::operator() ([iterator_t](#) *iStr*, [iterator_t](#) *iStrEnd*) const

Actor Function (functor).

Definition at line 383 of file [ScheduleParserHelper.cpp](#).

References [_bomRoot](#), [AIRSCHED::LegStruct::_cabinList](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itLeg](#), [AIRSCHED::FlightPeriodStruct::_legAlreadyDefined](#), [AIRSCHED::FlightPeriodStruct::_legList](#), and [AIRSCHED::FlightPeriodStruct::describe\(\)](#).

25.12.4 Member Data Documentation

25.12.4.1 stdair::BomRoot& AIRSCHED::ScheduleParserHelper::doEndFlight::_bomRoot

Actor Specific Context.

Definition at line 198 of file [ScheduleParserHelper.hpp](#).

Referenced by [operator\(\)](#).

25.12.4.2 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [operator\(\)](#).

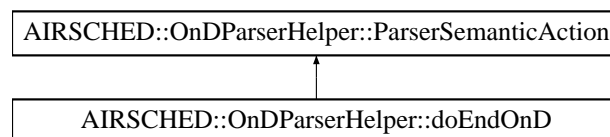
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.13 AIRSCHED::OnDParserHelper::doEndOnD Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::doEndOnD:



Public Member Functions

- [doEndOnD](#) (stdair::BomRoot &, [OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- stdair::BomRoot & [_bomRoot](#)
- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.13.1 Detailed Description

Mark the end of the O&D parsing.

Definition at line 106 of file [OnDParserHelper.hpp](#).

25.13.2 Constructor & Destructor Documentation

25.13.2.1 AIRSCHED::OnDParserHelper::doEndOnD::doEndOnD (stdair::BomRoot & ioBomRoot, OnDPeriodStruct & ioOnDPeriod)

Actor Constructor.

Definition at line 193 of file [OnDParserHelper.cpp](#).

25.13.3 Member Function Documentation

25.13.3.1 void AIRSCHED::OnDParserHelper::doEndOnD::operator() (iterator_t iStr, iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 199 of file [OnDParserHelper.cpp](#).

References [_bomRoot](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#).

25.13.4 Member Data Documentation

25.13.4.1 stdair::BomRoot& AIRSCHED::OnDParserHelper::doEndOnD::_bomRoot

Actor Specific Context.

Definition at line 112 of file [OnDParserHelper.hpp](#).

Referenced by [operator\(\)](#)().

25.13.4.2 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemantic-Action::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [operator\(\)](#).

The documentation for this struct was generated from the following files:

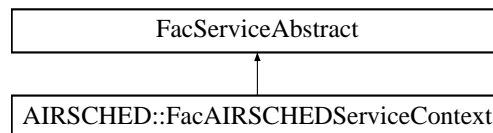
- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.14 AIRSCHED::FacAIRSCHEDServiceContext Class Reference

Factory for the service context.

```
#include <airsched/factory/FacAIRSCHEDServiceContext.h>
hpp>
```

Inheritance diagram for AIRSCHED::FacAIRSCHEDServiceContext:



Public Member Functions

- [~FacAIRSCHEDServiceContext \(\)](#)
- [AIRSCHED_ServiceContext & create \(\)](#)

Static Public Member Functions

- static [FacAIRSCHEDServiceContext & instance \(\)](#)

Protected Member Functions

- [FacAIRSCHEDServiceContext \(\)](#)

25.14.1 Detailed Description

Factory for the service context.

Definition at line 19 of file [FacAIRSCHEDServiceContext.hpp](#).

25.14.2 Constructor & Destructor Documentation

25.14.2.1 AIRSCHED::FacAIRSCHEDServiceContext::~~FacAIRSCHEDServiceContext ()

Destructor.

The Destruction put the `_instance` to NULL in order to be clean for the next [FacAIRSCHEDServiceContext::instance\(\)](#).

Definition at line 17 of file [FacAIRSCHEDServiceContext.cpp](#).

25.14.2.2 AIRSCHED::FacAIRSCHEDServiceContext::FacAIRSCHEDServiceContext () [inline, protected]

Default Constructor.

This constructor is protected in order to ensure the singleton pattern.

Definition at line 54 of file [FacAIRSCHEDServiceContext.hpp](#).

Referenced by [instance\(\)](#).

25.14.3 Member Function Documentation

25.14.3.1 FacAIRSCHEDServiceContext & AIRSCHED::FacAIRSCHEDServiceContext::instance () [static]

Provide the unique instance.

The singleton is instantiated when first used.

Returns

FacServiceContext&

Definition at line 22 of file [FacAIRSCHEDServiceContext.cpp](#).

References [FacAIRSCHEDServiceContext\(\)](#).

25.14.3.2 AIRSCHED_ServiceContext & AIRSCHED::FacAIRSCHEDServiceContext::create ()

Create a new ServiceContext object.

This new object is added to the list of instantiated objects.

Returns

ServiceContext& The newly created object.

Definition at line 34 of file [FacAIRSCHEDServiceContext.cpp](#).

The documentation for this class was generated from the following files:

- [airsched/factory/FacAIRSCHEDServiceContext.hpp](#)
- [airsched/factory/FacAIRSCHEDServiceContext.cpp](#)

25.15 AIRSCHED::FacServiceAbstract Class Reference

```
#include <airsched/factory/FacServiceAbstract.hpp>
```

Public Types

- typedef std::vector < [ServiceAbstract](#) * > [ServicePool_T](#)

Public Member Functions

- virtual [~FacServiceAbstract](#) ()
- void [clean](#) ()

Protected Member Functions

- [FacServiceAbstract](#) ()

Protected Attributes

- [ServicePool_T _pool](#)

25.15.1 Detailed Description

Base class for the (Service) Factory layer.

Definition at line 16 of file [FacServiceAbstract.hpp](#).

25.15.2 Member Typedef Documentation

25.15.2.1 typedef std::vector<ServiceAbstract*> AIRSCHED::FacServiceAbstract::ServicePool_T

Define the list (pool) of Service objects.

Definition at line 20 of file [FacServiceAbstract.hpp](#).

25.15.3 Constructor & Destructor Documentation

25.15.3.1 AIRSCHED::FacServiceAbstract::~~FacServiceAbstract () [virtual]

Destructor.

Definition at line 13 of file [FacServiceAbstract.cpp](#).

References [clean\(\)](#).

25.15.3.2 AIRSCHED::FacServiceAbstract::FacServiceAbstract () [inline, protected]

Default Constructor.

This constructor is protected to ensure the class is abstract.

Definition at line 31 of file [FacServiceAbstract.hpp](#).

25.15.4 Member Function Documentation

25.15.4.1 void AIRSCHED::FacServiceAbstract::clean ()

Destroyed all the object instantiated by this factory.

Definition at line 18 of file [FacServiceAbstract.cpp](#).

References [_pool](#).

Referenced by [~FacServiceAbstract\(\)](#).

25.15.5 Member Data Documentation

25.15.5.1 ServicePool_T AIRSCHED::FacServiceAbstract::_pool [protected]

List of instantiated Business Objects

Definition at line 34 of file [FacServiceAbstract.hpp](#).

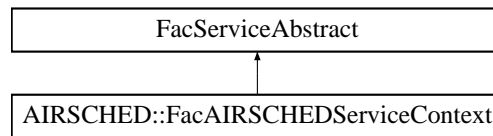
Referenced by [clean\(\)](#).

The documentation for this class was generated from the following files:

- [airsched/factory/FacServiceAbstract.hpp](#)
- [airsched/factory/FacServiceAbstract.cpp](#)

25.16 FacServiceAbstract Class Reference

Inheritance diagram for FacServiceAbstract:



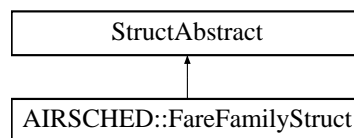
The documentation for this class was generated from the following file:

- [airsched/factory/FacAIRSCHEDServiceContext.hpp](#)

25.17 AIRSCHED::FareFamilyStruct Struct Reference

```
#include <airsched/bom/FareFamilyStruct.hpp>
```

Inheritance diagram for AIRSCHED::FareFamilyStruct:



Public Member Functions

- [FareFamilyStruct](#) (const stdair::FamilyCode_T &, const stdair::ClassList_String_T &)
- const std::string [describe](#) () const

Public Attributes

- stdair::FamilyCode_T [_familyCode](#)
- stdair::ClassList_String_T [_classes](#)

25.17.1 Detailed Description

Utility Structure for the parsing of fare family details.

Definition at line 17 of file [FareFamilyStruct.hpp](#).

25.17.2 Constructor & Destructor Documentation

25.17.2.1 AIRSCHED::FareFamilyStruct::FareFamilyStruct (const stdair::FamilyCode_T & *iFamilyCode*, const stdair::ClassList_String_T & *iClasses*)

Constructors.

Definition at line 14 of file [FareFamilyStruct.cpp](#).

25.17.3 Member Function Documentation

25.17.3.1 `const std::string AIRSCHED::FareFamilyStruct::describe () const`

Give a description of the structure (for display purposes).

Definition at line 21 of file [FareFamilyStruct.cpp](#).

References [_classes](#), and [_familyCode](#).

25.17.4 Member Data Documentation

25.17.4.1 `stdair::FamilyCode_T AIRSCHED::FareFamilyStruct::_familyCode`

Definition at line 19 of file [FareFamilyStruct.hpp](#).

Referenced by [describe\(\)](#).

25.17.4.2 `stdair::ClassList_String_T AIRSCHED::FareFamilyStruct::_classes`

Definition at line 20 of file [FareFamilyStruct.hpp](#).

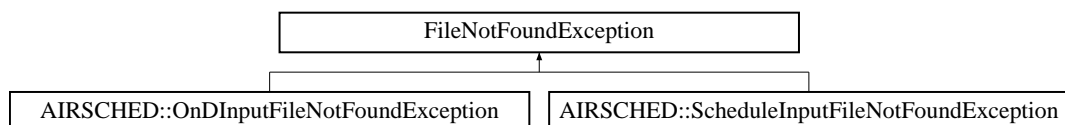
Referenced by [describe\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/FareFamilyStruct.hpp](#)
- [airsched/bom/FareFamilyStruct.cpp](#)

25.18 FileNotFoundException Class Reference

Inheritance diagram for FileNotFoundException:



The documentation for this class was generated from the following file:

- [airsched/AIRSCHED_Types.hpp](#)

25.19 AIRSCHED::FlagSaver Struct Reference

Public Member Functions

- [FlagSaver](#) (std::ostream &oStream)
- [~FlagSaver](#) ()

25.19.1 Detailed Description

Helper singleton structure to store the current formatting flags of any given output stream. The flags are re-set at the structure destruction.

Definition at line 22 of file [BomDisplay.cpp](#).

25.19.2 Constructor & Destructor Documentation

25.19.2.1 AIRSCHED::FlagSaver::FlagSaver (std::ostream & oStream) [inline]

Constructor.

Definition at line 25 of file [BomDisplay.cpp](#).

25.19.2.2 AIRSCHED::FlagSaver::~~FlagSaver () [inline]

Destructor.

Definition at line 30 of file [BomDisplay.cpp](#).

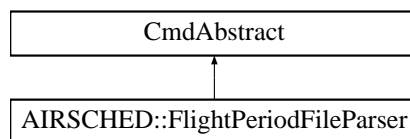
The documentation for this struct was generated from the following file:

- [airsched/bom/BomDisplay.cpp](#)

25.20 AIRSCHED::FlightPeriodFileParser Class Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::FlightPeriodFileParser:



Public Member Functions

- [FlightPeriodFileParser](#) (stdair::BomRoot &ioBomRoot, const stdair::Filename_T &iFilename)
- bool [generateInventories](#) ()

25.21 AIRSCHED::ScheduleParserHelper::FlightPeriodParser Struct Reference

25.20.1 Detailed Description

Short Description

Detailed Description. Class wrapping the initialisation and entry point of the parser.

The seemingly redundancy is used to force the instantiation of the actual parser, which is a templatised Boost Spirit grammar. Hence, the actual parser is instantiated within that class object code.

Definition at line 291 of file [ScheduleParserHelper.hpp](#).

25.20.2 Constructor & Destructor Documentation

25.20.2.1 AIRSCHED::FlightPeriodFileParser::FlightPeriodFileParser (stdair::BomRoot & *ioBomRoot*, const stdair::Filename.T & *iFilename*)

Constructor.

Definition at line 636 of file [ScheduleParserHelper.cpp](#).

25.20.3 Member Function Documentation

25.20.3.1 bool AIRSCHED::FlightPeriodFileParser::generateInventories ()

Parse the input file and generate the Inventories.

Definition at line 673 of file [ScheduleParserHelper.cpp](#).

Referenced by [AIRSCHED::ScheduleParser::generateInventories\(\)](#).

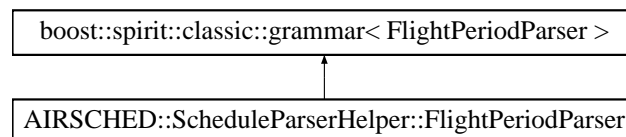
The documentation for this class was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.21 AIRSCHED::ScheduleParserHelper::FlightPeriodParser Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::FlightPeriodParser:



Classes

- struct [definition](#)

25.21 AIRSCHED::ScheduleParserHelper::FlightPeriodParser Struct Reference 22

Public Member Functions

- [FlightPeriodParser](#) (stdair::BomRoot &, [FlightPeriodStruct](#) &)

Public Attributes

- stdair::BomRoot & [_bomRoot](#)
- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.21.1 Detailed Description

AirlineCode; FlightNumber; DateRangeStart; DateRangeEnd; DOW; (list) BoardingPoint; OffPoint; BoardingTime; DateOffset; OffTime; ElapsedTime; (list) CabinCode; Capacity; SegmentSpecificity (0 or 1); (list) (optional BoardingPoint; OffPoint); CabinCode; Classes BA; 9; 2007-04-20; 2007-04-30; 0000011; LHR; BKK; 22:00; +1; 15:15; 11:15; C; 12; M; 300; BKK; SYD; 18:10; +1; 06:05; 08:55; C; 20; M; 250; 0; C; CDIU; 1; CD; 2; IU; M; YHBKLMNOPQRSTUVWXYZ; 3; YHBKLMNOPQRSTUVWXYZ BA; 9; 2007-04-20; 2007-04-30; 1111100; LHR; SIN; 22:00; +1; 15:15; 11:15; C; 15; M; 310; SIN; SYD; 18:10; +1; 06:05; 08:55; C; 25; M; 260; 1; LHR; SIN; C; CDIU; 1; CDIU; M; YHBKLMNOPQRSTUVWXYZ; 2; YHBKLMNOPQRSTUVWXYZ SIN; SYD; C; CDIU; 1; CDIU; M; YHBKLMNOPQRSTUVWXYZ; 2; YHBKLMNOPQRSTUVWXYZ LHR; SYD; C; CDIU; 1; CDIU; M; YHBKLMNOPQRSTUVWXYZ; 2; YHBKLMNOPQRSTUVWXYZ

Grammar: DOW ::= int FlightKey ::= AirlineCode ';' FlightNumber ';' DateRangeStart ';' DateRangeEnd ';' DOW LegKey ::= BoardingPoint ';' OffPoint LegDetails ::= BoardingTime ['/ BoardingDateOffset] ';' OffTime ['/ BoardingDateOffset] ';' Elapsed LegCabinDetails ::= CabinCode ';' Capacity Leg ::= LegKey ';' LegDetails (';' CabinDetails)+ SegmentKey ::= BoardingPoint ';' OffPoint SegmentCabinDetails ::= CabinCode ';' Classes (';' FamilyCabinDetails)* FamilyCabinDetails ::= FamilyCode ';' - Classes FullSegmentCabinDetails ::= (';' SegmentCabinDetails)+ GenericSegment ::= '0' (';' SegmentCabinDetails)+ SpecificSegments ::= '1' (';' SegmentKey ';' FullSegmentCabinDetails)+ SegmentSection ::= GenericSegment | SpecificSegments FlightPeriod ::= FlightKey (';' Leg)+ ';' SegmentSection ';' EndOfFlight EndOfFlight ::= ';' Grammar for the Flight-Period parser.

Definition at line 249 of file [ScheduleParserHelper.hpp](#).

25.21.2 Constructor & Destructor Documentation

25.21.2.1 AIRSCHED::ScheduleParserHelper::FlightPeriodParser::FlightPeriodParser (stdair::BomRoot & *ioBomRoot*, [FlightPeriodStruct](#) & *ioFlightPeriod*)

Definition at line 465 of file [ScheduleParserHelper.cpp](#).

25.21.3 Member Data Documentation

25.21.3.1 stdair::BomRoot& AIRSCHED::ScheduleParserHelper::FlightPeriodParser::_bomRoot

Definition at line 272 of file [ScheduleParserHelper.hpp](#).

25.21.3.2 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::FlightPeriodParser::_flightPeriod

Definition at line 273 of file [ScheduleParserHelper.hpp](#).

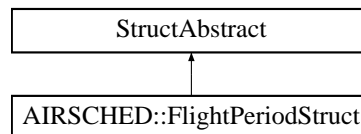
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.22 AIRSCHED::FlightPeriodStruct Struct Reference

```
#include <airsched/bom/FlightPeriodStruct.hpp>
```

Inheritance diagram for AIRSCHED::FlightPeriodStruct:



Public Member Functions

- `stdair::Date_T` [getDate](#) () const
- `stdair::Duration_T` [getTime](#) () const
- `const std::string` [describe](#) () const
- `void` [addAirport](#) (const `stdair::AirportCode_T` &)
- `void` [buildSegments](#) ()
- `void` [addSegmentCabin](#) (const [SegmentStruct](#) &, const [SegmentCabinStruct](#) &)
- `void` [addSegmentCabin](#) (const [SegmentCabinStruct](#) &)
- `void` [addFareFamily](#) (const [SegmentStruct](#) &, const [SegmentCabinStruct](#) &, const [FareFamilyStruct](#) &)
- `void` [addFareFamily](#) (const [SegmentCabinStruct](#) &, const [FareFamilyStruct](#) &)
- [FlightPeriodStruct](#) ()

Public Attributes

- `stdair::AirlineCode_T` [_airlineCode](#)
- `stdair::FlightNumber_T` [_flightNumber](#)
- `stdair::DatePeriod_T` [_dateRange](#)
- `stdair::DoWStruct` [_dow](#)

- [LegStructList_T _legList](#)
- [SegmentStructList_T _segmentList](#)
- [bool _legAlreadyDefined](#)
- [LegStruct _itLeg](#)
- [LegCabinStruct _itLegCabin](#)
- [stdair::Date_T _dateRangeStart](#)
- [stdair::Date_T _dateRangeEnd](#)
- [unsigned int _itYear](#)
- [unsigned int _itMonth](#)
- [unsigned int _itDay](#)
- [int _dateOffset](#)
- [long _itHours](#)
- [long _itMinutes](#)
- [long _itSeconds](#)
- [AirportList_T _airportList](#)
- [AirportOrderedList_T _airportOrderedList](#)
- [bool _areSegmentDefinitionsSpecific](#)
- [SegmentStruct _itSegment](#)
- [SegmentCabinStruct _itSegmentCabin](#)

25.22.1 Detailed Description

Utility Structure for the parsing of Flight-Period structures.

Definition at line 26 of file [FlightPeriodStruct.hpp](#).

25.22.2 Constructor & Destructor Documentation

25.22.2.1 AIRSCHED::FlightPeriodStruct::FlightPeriodStruct ()

Constructor.

Definition at line 17 of file [FlightPeriodStruct.cpp](#).

25.22.3 Member Function Documentation

25.22.3.1 stdair::Date_T AIRSCHED::FlightPeriodStruct::getDate () const

Set the date from the staging details.

Definition at line 24 of file [FlightPeriodStruct.cpp](#).

References [_itDay](#), [_itMonth](#), and [_itYear](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

25.22.3.2 `std::duration<T> AIRSCHED::FlightPeriodStruct::getTime () const`

Set the time from the staging details.

Definition at line 29 of file [FlightPeriodStruct.cpp](#).

References [_itHours](#), [_itMinutes](#), and [_itSeconds](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#).

25.22.3.3 `const std::string AIRSCHED::FlightPeriodStruct::describe () const`

Give a description of the structure (for display purposes).

Definition at line 36 of file [FlightPeriodStruct.cpp](#).

References [_airlineCode](#), [_dateRange](#), [_dow](#), [_flightNumber](#), [_legList](#), [_segmentList](#), [AIRSCHED::SegmentStruct::describe\(\)](#), and [AIRSCHED::LegStruct::describe\(\)](#).

Referenced by [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

25.22.3.4 `void AIRSCHED::FlightPeriodStruct::addAirport (const std::string & airportCode, const Airport & airport)`

Add the given airport to the internal lists (if not already existing).

Definition at line 62 of file [FlightPeriodStruct.cpp](#).

References [_airportList](#), and [_airportOrderedList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#).

25.22.3.5 `void AIRSCHED::FlightPeriodStruct::buildSegments ()`

Build the list of [SegmentStruct](#) objects.

Definition at line 78 of file [FlightPeriodStruct.cpp](#).

References [_airportList](#), [_airportOrderedList](#), [AIRSCHED::SegmentStruct::_boardingPoint](#), [AIRSCHED::SegmentStruct::_offPoint](#), and [_segmentList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#).

25.22.3.6 `void AIRSCHED::FlightPeriodStruct::addSegmentCabin (const SegmentStruct & segment, const SegmentCabinStruct & cabin)`

Add, to the Segment structure whose key corresponds to the given (board point, off point) pair, the specific segment cabin details (mainly, the list of the class codes).

Note that the Segment structure is retrieved from the internal list, already filled by a previous step (the [buildSegments\(\)](#) method).

Definition at line 111 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentStruct::_boardingPoint](#), [AIRSCHED::SegmentStruct::_cabinList](#), [AIRSCHED::SegmentStruct::_offPoint](#), and [_segmentList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)\(\)](#).

25.22.3.7 void AIRSCHED::FlightPeriodStruct::addSegmentCabin (const SegmentCabinStruct & iCabin)

Add, to all the Segment structures, the general segment cabin details (mainly, the list of the class codes).

Note that the Segment structures are stored within the internal list, already filled by a previous step (the [buildSegments\(\)](#) method).

Definition at line 149 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentStruct::_cabinList](#), and [_segmentList](#).

25.22.3.8 void AIRSCHED::FlightPeriodStruct::addFareFamily (const SegmentStruct & iSegment, const SegmentCabinStruct & iCabin, const FareFamilyStruct & iFareFamily)

Add, to the SegmentCabin structure whose key corresponds to the given cabin code, the specific segment fare family details (mainly, the list of the class codes).

Note that the SegmentCabin structure is retrieved from the internal list, already filled by a previous step (the [buildSegmentCabins\(\)](#) method).

Definition at line 162 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentStruct::_boardingPoint](#), [AIRSCHED::SegmentCabinStruct::_cabinCode](#), [AIRSCHED::SegmentStruct::_cabinList](#), [AIRSCHED::SegmentCabinStruct::_fareFamilies](#), [AIRSCHED::SegmentStruct::_offPoint](#), and [_segmentList](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeFCClasses::operator\(\)\(\)](#).

25.22.3.9 void AIRSCHED::FlightPeriodStruct::addFareFamily (const SegmentCabinStruct & iCabin, const FareFamilyStruct & iFareFamily)

Add, to all the Segment structures, the general fare family sets (list of fare families).

Note that the SegmentCabin structures are stored within the internal list, already filled by a previous step (the [buildSegmentCabins\(\)](#) method).

Definition at line 229 of file [FlightPeriodStruct.cpp](#).

References [AIRSCHED::SegmentCabinStruct::_cabinCode](#), [AIRSCHED::SegmentStruct::_cabinList](#), [AIRSCHED::SegmentCabinStruct::_fareFamilies](#), and [_segmentList](#).

25.22.4 Member Data Documentation

25.22.4.1 stdair::AirlineCode_T AIRSCHED::FlightPeriodStruct::_airlineCode

Definition at line 84 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)\(\)](#).

25.22.4.2 stdair::FlightNumber_T AIRSCHED::FlightPeriodStruct::_flightNumber

Definition at line 85 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#).

25.22.4.3 stdair::DatePeriod_T AIRSCHED::FlightPeriodStruct::_dateRange

Definition at line 86 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

25.22.4.4 stdair::DoWStruct AIRSCHED::FlightPeriodStruct::_dow

Definition at line 87 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#).

25.22.4.5 LegStructList_T AIRSCHED::FlightPeriodStruct::_legList

Definition at line 88 of file [FlightPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

25.22.4.6 SegmentStructList_T AIRSCHED::FlightPeriodStruct::_segmentList

Definition at line 89 of file [FlightPeriodStruct.hpp](#).

Referenced by [addFareFamily\(\)](#), [addSegmentCabin\(\)](#), [buildSegments\(\)](#), and [describe\(\)](#).

25.22.4.7 bool AIRSCHED::FlightPeriodStruct::_legAlreadyDefined

Staging Leg (resp. Cabin) structure, gathering the result of the iteration on one leg (resp. cabin).

Definition at line 93 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

25.22.4.8 LegStruct AIRSCHED::FlightPeriodStruct::_itLeg

Definition at line 94 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

25.22.4.9 LegCabinStruct AIRSCHED::FlightPeriodStruct::_itLegCabin

Definition at line 95 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#).

25.22.4.10 stdair::Date_T AIRSCHED::FlightPeriodStruct::_dateRangeStart

Staging Date.

Definition at line 98 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

25.22.4.11 stdair::Date_T AIRSCHED::FlightPeriodStruct::_dateRangeEnd

Definition at line 99 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#).

25.22.4.12 unsigned int AIRSCHED::FlightPeriodStruct::_itYear

Definition at line 100 of file [FlightPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

25.22.4.13 unsigned int AIRSCHED::FlightPeriodStruct::_itMonth

Definition at line 101 of file [FlightPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

25.22.4.14 unsigned int AIRSCHED::FlightPeriodStruct::_itDay

Definition at line 102 of file [FlightPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

25.22.4.15 int AIRSCHED::FlightPeriodStruct::_dateOffset

Definition at line 103 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#).

25.22.4.16 long AIRSCHED::FlightPeriodStruct::_itHours

Staging Time.

Definition at line 106 of file [FlightPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

25.22.4.17 long AIRSCHED::FlightPeriodStruct::_itMinutes

Definition at line 107 of file [FlightPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

25.22.4.18 long AIRSCHED::FlightPeriodStruct::_itSeconds

Definition at line 108 of file [FlightPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#).

25.22.4.19 AirportList_T AIRSCHED::FlightPeriodStruct::_airportList

Staging Airport List (helper to derive the list of Segment structures).

Definition at line 112 of file [FlightPeriodStruct.hpp](#).

Referenced by [addAirport\(\)](#), [buildSegments\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#).

25.22.4.20 AirportOrderedList_T AIRSCHED::FlightPeriodStruct::_airport-OrderedList

Definition at line 113 of file [FlightPeriodStruct.hpp](#).

Referenced by [addAirport\(\)](#), [buildSegments\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#).

25.22.4.21 bool AIRSCHED::FlightPeriodStruct::_areSegmentDefinitionsSpecific

Staging Segment-related attributes.

Definition at line 116 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFCClasses::operator\(\)](#).

25.22.4.22 SegmentStruct AIRSCHED::FlightPeriodStruct::_itSegment

Definition at line 117 of file [FlightPeriodStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFCClasses::operator\(\)](#).

25.22.4.23 SegmentCabinStruct AIRSCHED::FlightPeriodStruct::_itSegment-Cabin

Definition at line 118 of file [FlightPeriodStruct.hpp](#).

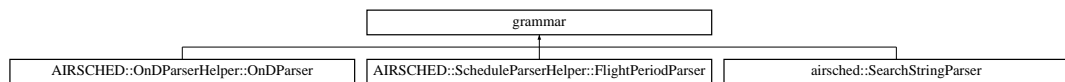
Referenced by [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/FlightPeriodStruct.hpp](#)
- [airsched/bom/FlightPeriodStruct.cpp](#)

25.23 grammar Class Reference

Inheritance diagram for grammar:



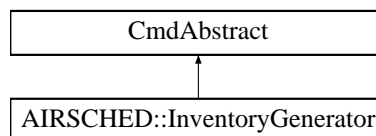
The documentation for this class was generated from the following file:

- [airsched/command/OnDParserHelper.hpp](#)

25.24 AIRSCHED::InventoryGenerator Class Reference

```
#include <airsched/command/InventoryGenerator.hpp>
```

Inheritance diagram for AIRSCHED::InventoryGenerator:



Friends

- class [FlightPeriodFileParser](#)
- class [FFFlightPeriodFileParser](#)
- struct [ScheduleParserHelper::doEndFlight](#)
- class [ScheduleParser](#)

25.24.1 Detailed Description

Class handling the generation / instantiation of the Inventory BOM.

Definition at line 31 of file [InventoryGenerator.hpp](#).

25.24.2 Friends And Related Function Documentation

25.24.2.1 friend class FlightPeriodFileParser [friend]

Definition at line 35 of file [InventoryGenerator.hpp](#).

25.24.2.2 friend class FFFlightPeriodFileParser [friend]

Definition at line 36 of file [InventoryGenerator.hpp](#).

25.24.2.3 friend struct ScheduleParserHelper::doEndFlight [friend]

Definition at line 37 of file [InventoryGenerator.hpp](#).

25.24.2.4 friend class ScheduleParser [friend]

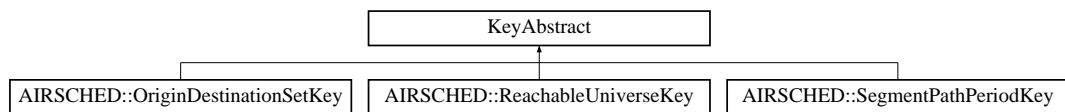
Definition at line 38 of file [InventoryGenerator.hpp](#).

The documentation for this class was generated from the following files:

- [airsched/command/InventoryGenerator.hpp](#)
- [airsched/command/InventoryGenerator.cpp](#)

25.25 KeyAbstract Class Reference

Inheritance diagram for KeyAbstract:



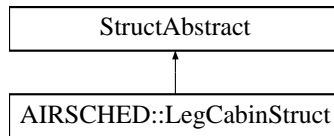
The documentation for this class was generated from the following file:

- [airsched/bom/ReachableUniverseKey.hpp](#)

25.26 AIRSCHED::LegCabinStruct Struct Reference

```
#include <airsched/bom/LegCabinStruct.hpp>
```

Inheritance diagram for AIRSCHED::LegCabinStruct:



Public Member Functions

- void [fill](#) (stdair::LegCabin &) const
- const std::string [describe](#) () const

Public Attributes

- stdair::CabinCode_T [_cabinCode](#)
- stdair::CabinCapacity_T [_capacity](#)

25.26.1 Detailed Description

Utility Structure for the parsing of LegCabin details.

Definition at line 22 of file [LegCabinStruct.hpp](#).

25.26.2 Member Function Documentation

25.26.2.1 void AIRSCHED::LegCabinStruct::fill (stdair::LegCabin & *ioLegCabin*) const

Fill the LegCabin objects with the attributes of the [LegCabinStruct](#).

Definition at line 22 of file [LegCabinStruct.cpp](#).

References [_capacity](#).

25.26.2.2 const std::string AIRSCHED::LegCabinStruct::describe () const

Give a description of the structure (for display purposes).

Definition at line 15 of file [LegCabinStruct.cpp](#).

References [_cabinCode](#), and [_capacity](#).

Referenced by [AIRSCHED::LegStruct::describe\(\)](#).

25.26.3 Member Data Documentation

25.26.3.1 stdair::CabinCode_T AIRSCHED::LegCabinStruct::_cabinCode

Definition at line 24 of file [LegCabinStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#).

25.26.3.2 stdair::CabinCapacity_T AIRSCHED::LegCabinStruct::_capacity

Definition at line 25 of file [LegCabinStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#).

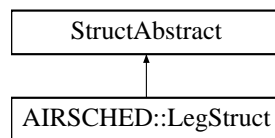
The documentation for this struct was generated from the following files:

- [airsched/bom/LegCabinStruct.hpp](#)
- [airsched/bom/LegCabinStruct.cpp](#)

25.27 AIRSCHED::LegStruct Struct Reference

```
#include <airsched/bom/LegStruct.hpp>
```

Inheritance diagram for AIRSCHED::LegStruct:



Public Member Functions

- void [fill](#) (const stdair::Date_T &iRefDate, stdair::LegDate &) const
- const std::string [describe](#) () const
- [LegStruct](#) ()

Public Attributes

- stdair::AirportCode_T [_boardingPoint](#)
- stdair::DateOffset_T [_boardingDateOffset](#)
- stdair::Duration_T [_boardingTime](#)
- stdair::AirportCode_T [_offPoint](#)
- stdair::DateOffset_T [_offDateOffset](#)
- stdair::Duration_T [_offTime](#)
- stdair::Duration_T [_elapsed](#)
- [LegCabinStructList_T](#) [_cabinList](#)

25.27.1 Detailed Description

Utility Structure for the parsing of Leg structures.

Definition at line 24 of file [LegStruct.hpp](#).

25.27.2 Constructor & Destructor Documentation

25.27.2.1 AIRSCHED::LegStruct::LegStruct ()

Default Constructor.

Definition at line 16 of file [LegStruct.cpp](#).

25.27.3 Member Function Documentation

25.27.3.1 void AIRSCHED::LegStruct::fill (const stdair::Date_T & *iRefDate*, stdair::LegDate & *ioLegDate*) const

Fill the LegDate objects with the attributes of the [LegStruct](#).

The given reference date corresponds to the date of the FlightDate. Indeed, each Leg gets date off-sets, when compared to that (reference) flight-date, both for the boarding date and for the off date.

Definition at line 48 of file [LegStruct.cpp](#).

References [_boardingDateOffset](#), [_boardingTime](#), [_elapsed](#), [_offDateOffset](#), [_offPoint](#), and [_offTime](#).

25.27.3.2 const std::string AIRSCHED::LegStruct::describe () const

Give a description of the structure (for display purposes).

Definition at line 22 of file [LegStruct.cpp](#).

References [_boardingDateOffset](#), [_boardingPoint](#), [_boardingTime](#), [_cabinList](#), [_elapsed](#), [_offDateOffset](#), [_offPoint](#), [_offTime](#), and [AIRSCHED::LegCabinStruct::describe\(\)](#).

Referenced by [AIRSCHED::FlightPeriodStruct::describe\(\)](#).

25.27.4 Member Data Documentation

25.27.4.1 stdair::AirportCode_T AIRSCHED::LegStruct::_boardingPoint

Definition at line 26 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#).

25.27.4.2 stdair::DateOffset_T AIRSCHED::LegStruct::_boardingDateOffset

Definition at line 27 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#).

25.27.4.3 stdair::Duration_T AIRSCHED::LegStruct::_boardingTime

Definition at line 28 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#).

25.27.4.4 stdair::AirportCode_T AIRSCHED::LegStruct::_offPoint

Definition at line 29 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#).

25.27.4.5 stdair::DateOffset_T AIRSCHED::LegStruct::_offDateOffset

Definition at line 30 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#).

25.27.4.6 stdair::Duration_T AIRSCHED::LegStruct::_offTime

Definition at line 31 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#).

25.27.4.7 stdair::Duration_T AIRSCHED::LegStruct::_elapsed

Definition at line 32 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#).

25.27.4.8 LegCabinStructList_T AIRSCHED::LegStruct::_cabinList

Definition at line 33 of file [LegStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

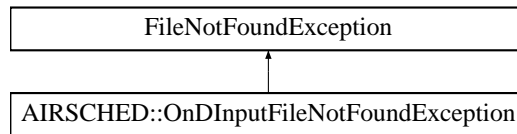
The documentation for this struct was generated from the following files:

- [airsched/bom/LegStruct.hpp](#)
- [airsched/bom/LegStruct.cpp](#)

25.28 AIRSCHED::OnInputFileNotFoundException Class Reference

```
#include <airsched/AIRSCHED_Types.hpp>
```

Inheritance diagram for AIRSCHED::OnInputFileNotFoundException:



Public Member Functions

- [OnDInputFileNotFoundException](#) (const std::string &iWhat)

25.28.1 Detailed Description

The O&D input file cannot be retrieved.

Definition at line 35 of file [AIRSCHED_Types.hpp](#).

25.28.2 Constructor & Destructor Documentation

25.28.2.1 AIRSCHED::OnDInputFileNotFoundException::OnDInputFileNotFoundException (const std::string & iWhat)
`[inline]`

Constructor.

Definition at line 40 of file [AIRSCHED_Types.hpp](#).

The documentation for this class was generated from the following file:

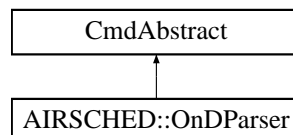
- [airsched/AIRSCHED_Types.hpp](#)

25.29 AIRSCHED::OnDParser Class Reference

Class wrapping the parser entry point.

```
#include <airsched/command/OnDParser.hpp>
```

Inheritance diagram for AIRSCHED::OnDParser:



Static Public Member Functions

- static void [generateOnDPeriods](#) (const stdair::Filename_T &, stdair::BomRoot &)

25.29.1 Detailed Description

Class wrapping the parser entry point.

Definition at line 23 of file [OnDParser.hpp](#).

25.29.2 Member Function Documentation

25.29.2.1 `void AIRSCHED::OnDParser::generateOnDPeriods (const
stdair::Filename_T & iFilename, stdair::BomRoot & ioBomRoot) [static]`

Parse the CSV file describing the O&D.

Parameters

<code>const</code>	std::string& The file-name of the CSV-formatted fare input file and the container.
--------------------	--

Definition at line 16 of file [OnDParser.cpp](#).

References [AIRSCHED::OnDPeriodFileParser::generateOnDPeriods\(\)](#).

Referenced by [AIRSCHED::AIRSCHED_Service::parseAndLoad\(\)](#).

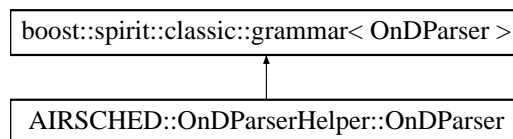
The documentation for this class was generated from the following files:

- [airsched/command/OnDParser.hpp](#)
- [airsched/command/OnDParser.cpp](#)

25.30 AIRSCHED::OnDParserHelper::OnDParser Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::OnDParser:



Classes

- struct [definition](#)

Public Member Functions

- [OnDParser](#) (stdair::BomRoot &, [OnDPeriodStruct](#) &)

Public Attributes

- [stdair::BomRoot](#) & [_bomRoot](#)
- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.30.1 Detailed Description

Fares: AirlineCode; OriginCity; DestinationCity; DepartureDate-Range(FirstDate; Last-Date); Airline; Class; BA; NCE; LHR; 2007-01-01; 2007-12-31; BA; Y; BA; Y BA; NCE; LHR; 2007-01-01; 2007-12-31; BA; V; BA; H Grammar for the FareRule parser.

Definition at line 127 of file [OnDParserHelper.hpp](#).

25.30.2 Constructor & Destructor Documentation

25.30.2.1 AIRSCHED::OnDParserHelper::OnDParser::OnDParser ([stdair::BomRoot](#) & [ioBomRoot](#), [OnDPeriodStruct](#) & [ioOnDPeriod](#))

Definition at line 261 of file [OnDParserHelper.cpp](#).

25.30.3 Member Data Documentation

25.30.3.1 [stdair::BomRoot](#)& AIRSCHED::OnDParserHelper::OnDParser::_bomRoot

Definition at line 145 of file [OnDParserHelper.hpp](#).

25.30.3.2 [OnDPeriodStruct](#)& AIRSCHED::OnDParserHelper::OnDParser::_onD-Period

Definition at line 146 of file [OnDParserHelper.hpp](#).

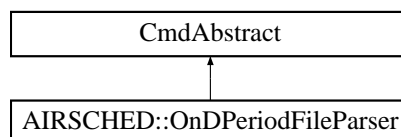
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.31 AIRSCHED::OnDPeriodFileParser Class Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDPeriodFileParser:



Public Member Functions

- [OnDPeriodFileParser](#) (const stdair::Filename_T &iFilename, stdair::BomRoot &ioBomRoot)
- bool [generateOnDPeriods](#) ()

25.31.1 Detailed Description

Class wrapping the initialisation and entry point of the parser.

The seemingly redundancy is used to force the instantiation of the actual parser, which is a templatised Boost Spirit grammar. Hence, the actual parser is instantiated within that class object code.

Definition at line 161 of file [OnDParserHelper.hpp](#).

25.31.2 Constructor & Destructor Documentation

25.31.2.1 AIRSCHED::OnDPeriodFileParser::OnDPeriodFileParser (const stdair::Filename_T & iFilename, stdair::BomRoot & ioBomRoot)

Constructor.

Definition at line 342 of file [OnDParserHelper.cpp](#).

25.31.3 Member Function Documentation

25.31.3.1 bool AIRSCHED::OnDPeriodFileParser::generateOnDPeriods ()

Parse the input file and generate the O&D-Periods.

Definition at line 378 of file [OnDParserHelper.cpp](#).

Referenced by [AIRSCHED::OnDParser::generateOnDPeriods\(\)](#).

The documentation for this class was generated from the following files:

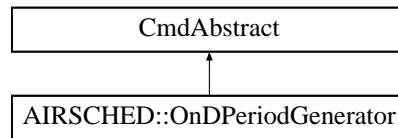
- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.32 AIRSCHED::OnDPeriodGenerator Class Reference

Class handling the generation / instantiation of the O&D-Period BOM.

```
#include <airsched/command/OnDPeriodGenerator.hpp>
```

Inheritance diagram for AIRSCHED::OnDPeriodGenerator:



Friends

- class [OnDPeriodFileParser](#)
- struct [OnDParserHelper::doEndOnD](#)
- class [OnDParser](#)

25.32.1 Detailed Description

Class handling the generation / instantiation of the O&D-Period BOM.

Definition at line 29 of file [OnDPeriodGenerator.hpp](#).

25.32.2 Friends And Related Function Documentation

25.32.2.1 friend class [OnDPeriodFileParser](#) [friend]

Only the following class may use methods of [OnDPeriodGenerator](#). Indeed, as those methods build the BOM, it is not good to expose them publicly.

Definition at line 35 of file [OnDPeriodGenerator.hpp](#).

25.32.2.2 friend struct [OnDParserHelper::doEndOnD](#) [friend]

Definition at line 36 of file [OnDPeriodGenerator.hpp](#).

25.32.2.3 friend class [OnDParser](#) [friend]

Definition at line 37 of file [OnDPeriodGenerator.hpp](#).

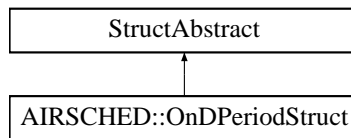
The documentation for this class was generated from the following files:

- [airsched/command/OnDPeriodGenerator.hpp](#)
- [airsched/command/OnDPeriodGenerator.cpp](#)

25.33 AIRSCHED::OnDPeriodStruct Struct Reference

```
#include <airsched/bom/OnDPeriodStruct.hpp>
```

Inheritance diagram for AIRSCHED::OnDPeriodStruct:



Public Member Functions

- const stdair::AirlineCode_T & [getFirstAirlineCode](#) () const
- stdair::Date_T [getDate](#) () const
- stdair::Duration_T [getTime](#) () const
- const std::string [describe](#) () const
- const std::string [describeTSKey](#) () const
- [OnDPeriodStruct](#) ()

Public Attributes

- stdair::AirportCode_T [_origin](#)
- stdair::AirportCode_T [_destination](#)
- stdair::DatePeriod_T [_datePeriod](#)
- stdair::Duration_T [_timeRangeStart](#)
- stdair::Duration_T [_timeRangeEnd](#)
- stdair::NbOfAirlines_T [_nbOfAirlines](#)
- stdair::AirlineCode_T [_airlineCode](#)
- stdair::ClassCode_T [_classCode](#)
- stdair::AirlineCodeList_T [_airlineCodeList](#)
- stdair::ClassCodeList_T [_classCodeList](#)
- stdair::Date_T [_dateRangeStart](#)
- stdair::Date_T [_dateRangeEnd](#)
- unsigned int [_itYear](#)
- unsigned int [_itMonth](#)
- unsigned int [_itDay](#)
- long [_itHours](#)
- long [_itMinutes](#)
- long [_itSeconds](#)

25.33.1 Detailed Description

Utility Structure for the parsing of FareRule structures.

Definition at line 15 of file [OnDPeriodStruct.hpp](#).

25.33.2 Constructor & Destructor Documentation

25.33.2.1 AIRSCHED::OnDPeriodStruct::OnDPeriodStruct ()

Default constructor.

Definition at line 17 of file [OnDPeriodStruct.cpp](#).

25.33.3 Member Function Documentation

25.33.3.1 const stdair::AirlineCode_T & AIRSCHED::OnDPeriodStruct::getFirstAirlineCode () const

Get the first airline code.

Definition at line 64 of file [OnDPeriodStruct.cpp](#).

References [_airlineCodeList](#).

25.33.3.2 stdair::Date_T AIRSCHED::OnDPeriodStruct::getDate () const

Get the date from the staging details.

Definition at line 28 of file [OnDPeriodStruct.cpp](#).

References [_itDay](#), [_itMonth](#), and [_itYear](#).

Referenced by [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)\(\)](#), and [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)\(\)](#).

25.33.3.3 stdair::Duration_T AIRSCHED::OnDPeriodStruct::getTime () const

Get the time from the staging details.

Definition at line 33 of file [OnDPeriodStruct.cpp](#).

References [_itHours](#), [_itMinutes](#), and [_itSeconds](#).

Referenced by [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)\(\)](#), and [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)\(\)](#).

25.33.3.4 const std::string AIRSCHED::OnDPeriodStruct::describe () const

Give a description of the structure (for display purposes).

Definition at line 40 of file [OnDPeriodStruct.cpp](#).

References [_airlineCode](#), [_classCode](#), [_datePeriod](#), [_destination](#), [_origin](#), [_timeRangeEnd](#), and [_timeRangeStart](#).

25.33.3.5 const std::string AIRSCHED::OnDPeriodStruct::describeTSKey () const

Give a short description of the key required in the travel solution object to differentiate fare rule structures.

Definition at line 55 of file [OnDPeriodStruct.cpp](#).

References [_airlineCode](#), [_classCode](#), [_destination](#), and [_origin](#).

25.33.4 Member Data Documentation

25.33.4.1 stdair::AirportCode_T AIRSCHED::OnDPeriodStruct::_origin

Definition at line 41 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), and [AIRSCHED::OnDParserHelper::store-Origin::operator\(\)](#).

25.33.4.2 stdair::AirportCode_T AIRSCHED::OnDPeriodStruct::_destination

Definition at line 42 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), and [AIRSCHED::OnDParserHelper::store-Destination::operator\(\)](#).

25.33.4.3 stdair::DatePeriod_T AIRSCHED::OnDPeriodStruct::_datePeriod

Definition at line 43 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#).

25.33.4.4 stdair::Duration_T AIRSCHED::OnDPeriodStruct::_timeRangeStart

Definition at line 44 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#).

25.33.4.5 stdair::Duration_T AIRSCHED::OnDPeriodStruct::_timeRangeEnd

Definition at line 45 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), and [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#).

25.33.4.6 stdair::NbOfAirlines_T AIRSCHED::OnDPeriodStruct::_nbOfAirlines

Definition at line 46 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#).

25.33.4.7 stdair::AirlineCode_T AIRSCHED::OnDPeriodStruct::_airlineCode

Definition at line 47 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), [AIRSCHED::OnDParserHelper::store-Origin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#).

25.33.4.8 stdair::ClassCode_T AIRSCHED::OnDPeriodStruct::_classCode

Definition at line 48 of file [OnDPeriodStruct.hpp](#).

Referenced by [describe\(\)](#), [describeTSKey\(\)](#), [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#).

25.33.4.9 stdair::AirlineCodeList_T AIRSCHED::OnDPeriodStruct::_airlineCodeList

Definition at line 49 of file [OnDPeriodStruct.hpp](#).

Referenced by [getFirstAirlineCode\(\)](#), [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#).

25.33.4.10 stdair::ClassCodeList_T AIRSCHED::OnDPeriodStruct::_classCodeList

Definition at line 50 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#).

25.33.4.11 stdair::Date_T AIRSCHED::OnDPeriodStruct::_dateRangeStart

Staging Date.

Definition at line 53 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#).

25.33.4.12 stdair::Date_T AIRSCHED::OnDPeriodStruct::_dateRangeEnd

Definition at line 54 of file [OnDPeriodStruct.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#).

25.33.4.13 unsigned int AIRSCHED::OnDPeriodStruct::_itYear

Definition at line 55 of file [OnDPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

25.33.4.14 unsigned int AIRSCHED::OnDPeriodStruct::_itMonth

Definition at line 56 of file [OnDPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

25.33.4.15 unsigned int AIRSCHED::OnDPeriodStruct::_itDay

Definition at line 57 of file [OnDPeriodStruct.hpp](#).

Referenced by [getDate\(\)](#).

25.33.4.16 long AIRSCHED::OnDPeriodStruct::_itHours

Staging Time.

Definition at line 60 of file [OnDPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

25.33.4.17 long AIRSCHED::OnDPeriodStruct::_itMinutes

Definition at line 61 of file [OnDPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#).

25.33.4.18 long AIRSCHED::OnDPeriodStruct::_itSeconds

Definition at line 62 of file [OnDPeriodStruct.hpp](#).

Referenced by [getTime\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), and [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#).

The documentation for this struct was generated from the following files:

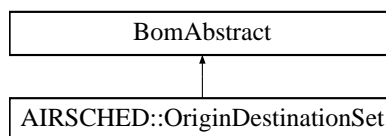
- [airsched/bom/OnDPeriodStruct.hpp](#)
- [airsched/bom/OnDPeriodStruct.cpp](#)

25.34 AIRSCHED::OriginDestinationSet Class Reference

Class representing a simple sub-network.

```
#include <airsched/bom/OriginDestinationSet.hpp>
```

Inheritance diagram for AIRSCHED::OriginDestinationSet:



Public Types

- typedef [OriginDestinationSetKey](#) Key_T

Public Member Functions

- const [Key_T](#) & [getKey](#) () const
- const stdair::AirportCode_T & [getDestination](#) () const
- stdair::BomAbstract *const [getParent](#) () const
- const stdair::HolderMap_T & [getHolderMap](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)

- `std::string toString () const`
- `const std::string describeKey () const`
- `template<class Archive >`
`void serialize (Archive &ar, const unsigned int iFileVersion)`

Protected Member Functions

- `OriginDestinationSet (const Key_T &)`
- `~OriginDestinationSet ()`

Protected Attributes

- `Key_T _key`
- `stdair::BomAbstract * _parent`
- `stdair::HolderMap_T _holderMap`

Friends

- `class stdair::FacBom`
- `class stdair::FacBomManager`
- `class boost::serialization::access`

25.34.1 Detailed Description

Class representing a simple sub-network.

That simple sub-network is made of a set of segments ([SegmentPathPeriod](#) objects), from the origin airport specified within [ReachableUniverse](#) (parent object) to the destination specified in the [OriginDestinationSetKey](#) object.

Each segment (composing that [OriginDestinationSet](#) object) corresponds to an actual travel solution from the origin to the destination, that is, a path that a traveller can take with actual scheduled flights.

Definition at line 44 of file [OriginDestinationSet.hpp](#).

25.34.2 Member Typedef Documentation

25.34.2.1 `typedef OriginDestinationSetKey AIRSCHED::OriginDestinationSet::Key_T`

Definition allowing to retrieve the associated BOM key type.

Definition at line 57 of file [OriginDestinationSet.hpp](#).

25.34.3 Constructor & Destructor Documentation

25.34.3.1 AIRSCHED::OriginDestinationSet::OriginDestinationSet (const Key_T & iKey) [protected]

Main constructor.

Definition at line 31 of file [OriginDestinationSet.cpp](#).

25.34.3.2 AIRSCHED::OriginDestinationSet::~~OriginDestinationSet () [protected]

Destructor.

Definition at line 36 of file [OriginDestinationSet.cpp](#).

25.34.4 Member Function Documentation

25.34.4.1 const Key_T& AIRSCHED::OriginDestinationSet::getKey () const [inline]

Get the primary key (destination airport).

Definition at line 65 of file [OriginDestinationSet.hpp](#).

References [_key](#).

25.34.4.2 const stdair::AirportCode_T& AIRSCHED::OriginDestinationSet::getDestination () const [inline]

Get the destination airport (i.e., the primary key).

Definition at line 72 of file [OriginDestinationSet.hpp](#).

References [_key](#), and [AIRSCHED::OriginDestinationSetKey::getOffPoint\(\)](#).

25.34.4.3 stdair::BomAbstract* const AIRSCHED::OriginDestinationSet::getParent () const [inline]

Get the parent (i.e., [ReachableUniverse](#)) object.

Definition at line 79 of file [OriginDestinationSet.hpp](#).

References [_parent](#).

25.34.4.4 const stdair::HolderMap_T& AIRSCHED::OriginDestinationSet::getHolderMap () const [inline]

Get the map of children holders ([SegmentPathPeriod](#) objects).

Definition at line 86 of file [OriginDestinationSet.hpp](#).

References [_holderMap](#).

25.34.4.5 void AIRSCHED::OriginDestinationSet::toStream (std::ostream & *ioOut*)
const [inline]

Dump a Business Object into an output stream.

Parameters

<i>ostream&</i>	the output stream.
---------------------	--------------------

Definition at line 98 of file [OriginDestinationSet.hpp](#).

References [toString\(\)](#).

25.34.4.6 void AIRSCHED::OriginDestinationSet::fromStream (std::istream & *ioIn*)
[inline]

Read a Business Object from an input stream.

Parameters

<i>istream&</i>	the input stream.
---------------------	-------------------

Definition at line 107 of file [OriginDestinationSet.hpp](#).

25.34.4.7 std::string AIRSCHED::OriginDestinationSet::toString () const

Get the serialised version of the Business Object.

Definition at line 40 of file [OriginDestinationSet.cpp](#).

References [_key](#), and [AIRSCHED::OriginDestinationSetKey::toString\(\)](#).

Referenced by [toStream\(\)](#).

25.34.4.8 const std::string AIRSCHED::OriginDestinationSet::describeKey () const
[inline]

Get a string describing the key.

Definition at line 118 of file [OriginDestinationSet.hpp](#).

References [_key](#), and [AIRSCHED::OriginDestinationSetKey::toString\(\)](#).

25.34.4.9 template<class Archive > void AIRSCHED::OriginDestinationSet::serialize (Archive & *ar*, const unsigned int *iFileVersion*)

Serialisation.

Definition at line 62 of file [OriginDestinationSet.cpp](#).

References [_key](#).

25.34.5 Friends And Related Function Documentation

25.34.5.1 friend class stdair::FacBom [friend]

Friend classes.

Definition at line 48 of file [OriginDestinationSet.hpp](#).

25.34.5.2 friend class stdair::FacBomManager [friend]

Definition at line 49 of file [OriginDestinationSet.hpp](#).

25.34.5.3 friend class boost::serialization::access [friend]

Definition at line 50 of file [OriginDestinationSet.hpp](#).

25.34.6 Member Data Documentation

25.34.6.1 Key_T AIRSCHED::OriginDestinationSet::_key [protected]

Primary key (destination airport code).

Definition at line 168 of file [OriginDestinationSet.hpp](#).

Referenced by [describeKey\(\)](#), [getDestination\(\)](#), [getKey\(\)](#), [serialize\(\)](#), and [toString\(\)](#).

25.34.6.2 stdair::BomAbstract* AIRSCHED::OriginDestinationSet::_parent [protected]

Pointer on the parent ([ReachableUniverse](#)) object.

Definition at line 173 of file [OriginDestinationSet.hpp](#).

Referenced by [getParent\(\)](#).

25.34.6.3 stdair::HolderMap_T AIRSCHED::OriginDestinationSet::_holderMap [protected]

Map holding the children ([SegmentPathPeriod](#) objects).

Definition at line 178 of file [OriginDestinationSet.hpp](#).

Referenced by [getHolderMap\(\)](#).

The documentation for this class was generated from the following files:

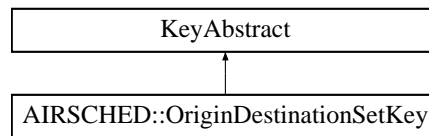
- [airsched/bom/OriginDestinationSet.hpp](#)
- [airsched/bom/OriginDestinationSet.cpp](#)

25.35 AIRSCHED::OriginDestinationSetKey Struct Reference

Structure representing the key of a sub-network.

```
#include <airsched/bom/OriginDestinationSetKey.hpp>
```

Inheritance diagram for AIRSCHED::OriginDestinationSetKey:



Public Member Functions

- [OriginDestinationSetKey](#) (const stdair::AirportCode_T &iDestination)
- [OriginDestinationSetKey](#) (const [OriginDestinationSetKey](#) &)
- [~OriginDestinationSetKey](#) ()
- const stdair::AirportCode_T & [getOffPoint](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- const std::string [toString](#) () const
- template<class Archive >
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

Friends

- class [boost::serialization::access](#)

25.35.1 Detailed Description

Structure representing the key of a sub-network.

As the origin airport code is already part of the [ReachableUniverse](#) (parent) class, that key is only made of the destination airport code.

Definition at line 30 of file [OriginDestinationSetKey.hpp](#).

25.35.2 Constructor & Destructor Documentation

25.35.2.1 AIRSCHED::OriginDestinationSetKey::OriginDestinationSetKey (const stdair::AirportCode_T & iDestination)

Constructor.

Definition at line 26 of file [OriginDestinationSetKey.cpp](#).

25.35.2.2 AIRSCHED::OriginDestinationSetKey::OriginDestinationSetKey (const OriginDestinationSetKey & iKey)

Copy constructor.

Definition at line 32 of file [OriginDestinationSetKey.cpp](#).

25.35.2.3 AIRSCHED::OriginDestinationSetKey::~~OriginDestinationSetKey ()

Destructor.

Definition at line 37 of file [OriginDestinationSetKey.cpp](#).

25.35.3 Member Function Documentation

25.35.3.1 const std::airportCode.T& AIRSCHED::OriginDestinationSetKey::getOff-Point () const [inline]

Get the destination airport.

Definition at line 62 of file [OriginDestinationSetKey.hpp](#).

Referenced by [AIRSCHED::OriginDestinationSet::getDestination\(\)](#).

25.35.3.2 void AIRSCHED::OriginDestinationSetKey::toStream (std::ostream & ioOut) const

Dump a Business Object Key into an output stream.

Parameters

<i>ostream&</i>	the output stream.
---------------------	--------------------

Definition at line 41 of file [OriginDestinationSetKey.cpp](#).

References [toString\(\)](#).

25.35.3.3 void AIRSCHED::OriginDestinationSetKey::fromStream (std::istream & ioin)

Read a Business Object Key from an input stream.

Parameters

<i>istream&</i>	the input stream.
---------------------	-------------------

Definition at line 46 of file [OriginDestinationSetKey.cpp](#).

25.35.3.4 const std::string AIRSCHED::OriginDestinationSetKey::toString () const

Get the serialised version of the Business Object Key.

That string is unique, at the level of a given Business Object, when among children of a given parent Business Object.

For instance, "H" and "K" allow to differentiate among two marketing classes for the same segment-date.

Definition at line 50 of file [OriginDestinationSetKey.cpp](#).

Referenced by [AIRSCHED::OriginDestinationSet::describeKey\(\)](#), [toStream\(\)](#), and [AIRSCHED::OriginDestinationSet::toString\(\)](#).

```
25.35.3.5  template<class Archive > void AIRSCHED::OriginDestination-  
          SetKey::serialize ( Archive & ar, const unsigned int iFileVersion  
          )
```

Serialisation.

Definition at line 72 of file [OriginDestinationSetKey.cpp](#).

25.35.4 Friends And Related Function Documentation

```
25.35.4.1  friend class boost::serialization::access  [friend]
```

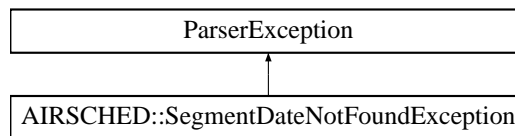
Definition at line 31 of file [OriginDestinationSetKey.hpp](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/OriginDestinationSetKey.hpp](#)
- [airsched/bom/OriginDestinationSetKey.cpp](#)

25.36 ParserException Class Reference

Inheritance diagram for ParserException:



The documentation for this class was generated from the following file:

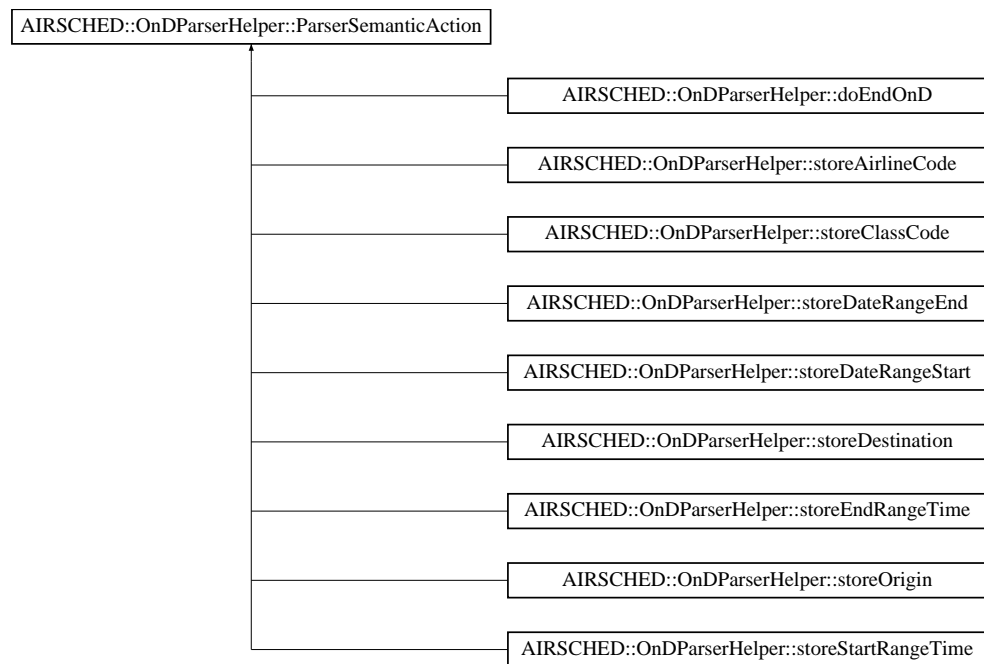
- [airsched/AIRSCHED_Types.hpp](#)

25.37 AIRSCHED::OnDParserHelper::ParserSemanticAction Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::ParserSemanticAction:

25.37 AIRSCHED::OnDParserHelper::ParserSemanticAction Struct Reference203



Public Member Functions

- [ParserSemanticAction](#) ([OnDPeriodStruct](#) &)

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.37.1 Detailed Description

Generic Semantic Action (Actor / Functor) for the Schedule Parser.

Definition at line 34 of file [OnDParserHelper.hpp](#).

25.37.2 Constructor & Destructor Documentation

25.37.2.1 AIRSCHED::OnDParserHelper::ParserSemanticAction::ParserSemanticAction ([OnDPeriodStruct](#) & *ioOnDPeriod*)

Actor Constructor.

Definition at line 25 of file [OnDParserHelper.cpp](#).

25.37.3 Member Data Documentation

25.37.3.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

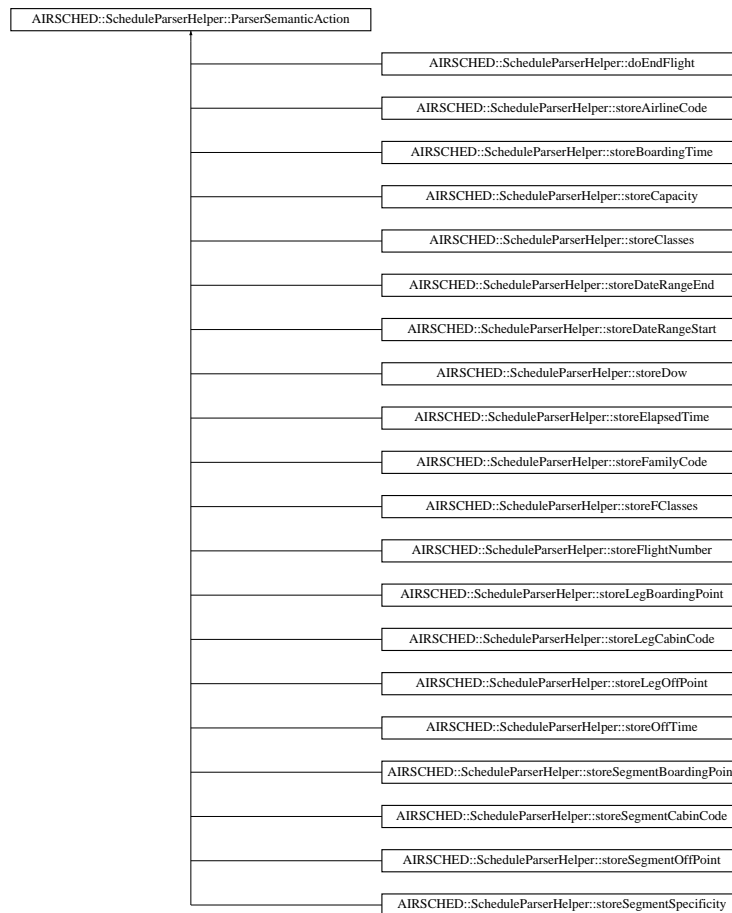
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.38 AIRSCHED::ScheduleParserHelper::ParserSemanticAction Struct - Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::ParserSemanticAction:



Public Member Functions

- [ParserSemanticAction](#) ([FlightPeriodStruct](#) &)

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.38.1 Detailed Description

Generic Semantic Action (Actor / Functor) for the Schedule Parser.

Definition at line 29 of file [ScheduleParserHelper.hpp](#).

25.38.2 Constructor & Destructor Documentation

25.38.2.1 AIRSCHED::ScheduleParserHelper::ParserSemanticAction- ::ParserSemanticAction (FlightPeriodStruct & ioFlightPeriod)

Actor Constructor.

Definition at line 26 of file [ScheduleParserHelper.cpp](#).

25.38.3 Member Data Documentation

25.38.3.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser- SemanticAction::_flightPeriod

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [- AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [- AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [- AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.39 airsched::Passenger_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

Public Types

- enum [PassengerType_T](#) { ADULT = 0, CHILD, PET, LAST_VALUE }

Public Member Functions

- [Passenger_T](#) ()
- void [display](#) () const

Public Attributes

- [PassengerType_T_type](#)
- unsigned short [_number](#)

Static Public Attributes

- static const std::string [_labels](#) [[LAST_VALUE](#)]

25.39.1 Detailed Description

Passenger.

Definition at line 71 of file [BookingRequestParser.hpp](#).

25.39.2 Member Enumeration Documentation

25.39.2.1 enum airsched::Passenger_T::PassengerType_T

Enumerator:

ADULT
CHILD
PET
LAST_VALUE

Definition at line 73 of file [BookingRequestParser.hpp](#).

25.39.3 Constructor & Destructor Documentation

25.39.3.1 airsched::Passenger_T::Passenger_T() [inline]

Constructor.

Definition at line 78 of file [BookingRequestParser.hpp](#).

25.39.4 Member Function Documentation

25.39.4.1 void airsched::Passenger_T::display() const [inline]

Definition at line 80 of file [BookingRequestParser.hpp](#).

References [_labels](#), [_number](#), and [_type](#).

Referenced by [airsched::SearchString_T::display\(\)](#).

25.39.5 Member Data Documentation

25.39.5.1 `const std::string airsched::Passenger_T::_labels` [static]

Initial value:

```
{ "Adult", "Child", "Pet" }
```

Passenger type labels.

Definition at line 74 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

25.39.5.2 `PassengerType_T airsched::Passenger_T::_type`

Definition at line 75 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), [airsched::store_adult_passenger_type::operator\(\)\(\)](#), [airsched::store_child_passenger_type::operator\(\)\(\)](#), and [airsched::store_pet_passenger_type::operator\(\)\(\)](#).

25.39.5.3 `unsigned short airsched::Passenger_T::_number`

Definition at line 76 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_passenger_number::operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)

25.40 airsched::Place_T Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

Public Member Functions

- [Place_T](#) ()
- void [display](#) () const

Public Attributes

- std::string [_name](#)
- std::string [_code](#)

25.40.1 Detailed Description

Place.

Definition at line 11 of file [BookingRequestParser.hpp](#).

25.40.2 Constructor & Destructor Documentation

25.40.2.1 `airsched::Place_T::Place_T()` [inline]

Constructor.

Definition at line 16 of file [BookingRequestParser.hpp](#).

25.40.3 Member Function Documentation

25.40.3.1 `void airschched::Place_T::display() const` [inline]

Definition at line 18 of file [BookingRequestParser.hpp](#).

References [_code](#), and [_name](#).

Referenced by [airsched::SearchString_T::display\(\)](#).

25.40.4 Member Data Documentation

25.40.4.1 `std::string airschched::Place_T::_name`

Definition at line 13 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_place_element::operator\(\)\(\)](#).

25.40.4.2 `std::string airschched::Place_T::_code`

Definition at line 14 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

The documentation for this struct was generated from the following file:

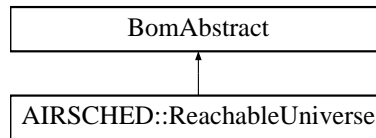
- [airsched/batches/BookingRequestParser.hpp](#)

25.41 AIRSCHED::ReachableUniverse Class Reference

Class representing the root of the schedule-related BOM tree.

```
#include <airsched/bom/ReachableUniverse.hpp>
```

Inheritance diagram for AIRSCHED::ReachableUniverse:



Public Types

- typedef [ReachableUniverseKey](#) [Key_T](#)

Public Member Functions

- const [Key_T](#) & [getKey](#) () const
- const [stdair::AirportCode_T](#) & [getOrigin](#) () const
- [stdair::BomAbstract](#) *const [getParent](#) () const
- const [stdair::HolderMap_T](#) & [getHolderMap](#) () const
- const [SegmentPathPeriodListList_T](#) & [getSegmentPathPeriodListList](#) () const
- void [toStream](#) ([std::ostream](#) &ioOut) const
- void [fromStream](#) ([std::istream](#) &ioIn)
- [std::string](#) [toString](#) () const
- const [std::string](#) [describeKey](#) () const
- template<class Archive >
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

Protected Member Functions

- [ReachableUniverse](#) (const [Key_T](#) &)
- [~ReachableUniverse](#) ()

Protected Attributes

- [Key_T](#) [_key](#)
- [stdair::BomAbstract](#) * [_parent](#)
- [stdair::HolderMap_T](#) [_holderMap](#)
- [SegmentPathPeriodListList_T](#) [_segmentPathPeriodListList](#)

Friends

- class [stdair::FacBom](#)
- class [stdair::FacBomManager](#)
- class [SegmentPathGenerator](#)
- class [boost::serialization::access](#)

25.41.1 Detailed Description

Class representing the root of the schedule-related BOM tree.

It is the pending, in the schedule universe, of the `stdair::Inventory` class. It corresponds to all the destinations, which can be reached from a given geographical point. That latter is an airport for now, and its key (airport code) is specified by the [ReachableUniverseKey](#) object.

Definition at line 41 of file [ReachableUniverse.hpp](#).

25.41.2 Member Typedef Documentation

25.41.2.1 `typedef ReachableUniverseKey AIRSCHED::ReachableUniverse::Key_T`

Definition allowing to retrieve the associated BOM key type.

Definition at line 55 of file [ReachableUniverse.hpp](#).

25.41.3 Constructor & Destructor Documentation

25.41.3.1 `AIRSCHED::ReachableUniverse::ReachableUniverse (const Key_T & iKey) [protected]`

Main constructor.

Definition at line 32 of file [ReachableUniverse.cpp](#).

25.41.3.2 `AIRSCHED::ReachableUniverse::~~ReachableUniverse () [protected]`

Destructor.

Definition at line 37 of file [ReachableUniverse.cpp](#).

25.41.4 Member Function Documentation

25.41.4.1 `const Key_T& AIRSCHED::ReachableUniverse::getKey () const [inline]`

Get the universe key (airport code representing the departure point of the "reachable universe").

Definition at line 63 of file [ReachableUniverse.hpp](#).

References [_key](#).

25.41.4.2 `const stdair::AirportCode_T& AIRSCHED::ReachableUniverse::getOrigin () const [inline]`

Get the (origin) airport (i.e., the primary key).

Definition at line 70 of file [ReachableUniverse.hpp](#).

References [_key](#), and [AIRSCHED::ReachableUniverseKey::getBoardingPoint\(\)](#).

25.41.4.3 `stdair::BomAbstract* const AIRSCHED::ReachableUniverse::getParent ()
const [inline]`

Get the parent (i.e., the BomRoot) object.

Definition at line 77 of file [ReachableUniverse.hpp](#).

References [_parent](#).

25.41.4.4 `const stdair::HolderMap_T& AIRSCHED::ReachableUniverse::getHolderMap
() const [inline]`

Get the map of children holders ([OriginDestinationSet](#) objects).

Definition at line 84 of file [ReachableUniverse.hpp](#).

References [_holderMap](#).

25.41.4.5 `const SegmentPathPeriodListList_T& AIRSCHED::Reachable-
Universe::getSegmentPathPeriodListList () const
[inline]`

Get the vector of SegmentPathPeriodLightList objects.

Definition at line 91 of file [ReachableUniverse.hpp](#).

References [_segmentPathPeriodListList](#).

25.41.4.6 `void AIRSCHED::ReachableUniverse::toStream (std::ostream & ioOut)
const [inline]`

Dump a Business Object into an output stream.

Parameters

<i>ostream&</i>	the output stream.
---------------------	--------------------

Definition at line 103 of file [ReachableUniverse.hpp](#).

References [toString\(\)](#).

25.41.4.7 `void AIRSCHED::ReachableUniverse::fromStream (std::istream & ioIn)
[inline]`

Read a Business Object from an input stream.

Parameters

<i>istream&</i>	the input stream.
---------------------	-------------------

Definition at line 112 of file [ReachableUniverse.hpp](#).

25.41.4.8 `std::string AIRSCHED::ReachableUniverse::toString () const`

Get the serialised version of the Business Object.

Definition at line 41 of file [ReachableUniverse.cpp](#).

References [_key](#), and [AIRSCHED::ReachableUniverseKey::toString\(\)](#).

Referenced by [AIRSCHED::BomDisplay::csvDisplay\(\)](#), and [toStream\(\)](#).

25.41.4.9 `const std::string AIRSCHED::ReachableUniverse::describeKey () const` `[inline]`

Get a string describing the key.

Definition at line 123 of file [ReachableUniverse.hpp](#).

References [_key](#), and [AIRSCHED::ReachableUniverseKey::toString\(\)](#).

25.41.4.10 `template<class Archive > void AIRSCHED::ReachableUniverse::serialize (` `Archive & ar, const unsigned int iFileVersion)`

Serialisation.

Definition at line 63 of file [ReachableUniverse.cpp](#).

References [_key](#).

25.41.5 Friends And Related Function Documentation

25.41.5.1 `friend class stdair::FacBom` `[friend]`

Friend classes.

Definition at line 45 of file [ReachableUniverse.hpp](#).

25.41.5.2 `friend class stdair::FacBomManager` `[friend]`

Definition at line 46 of file [ReachableUniverse.hpp](#).

25.41.5.3 `friend class SegmentPathGenerator` `[friend]`

Definition at line 47 of file [ReachableUniverse.hpp](#).

25.41.5.4 `friend class boost::serialization::access` `[friend]`

Definition at line 48 of file [ReachableUniverse.hpp](#).

25.41.6 Member Data Documentation

25.41.6.1 `Key_T AIRSCHED::ReachableUniverse::_key` `[protected]`

Primary key (origin airport code).

Definition at line 174 of file [ReachableUniverse.hpp](#).

Referenced by [describeKey\(\)](#), [getKey\(\)](#), [getOrigin\(\)](#), [serialize\(\)](#), and [toString\(\)](#).

25.41.6.2 `stdair::BomAbstract* AIRSCHED::ReachableUniverse::_parent`
[protected]

Pointer on the parent (BomRoot) object.

Definition at line 179 of file [ReachableUniverse.hpp](#).

Referenced by [getParent\(\)](#).

25.41.6.3 `stdair::HolderMap_T AIRSCHED::ReachableUniverse::_holderMap`
[protected]

Map holding the children ([OriginDestinationSet](#) objects).

Definition at line 184 of file [ReachableUniverse.hpp](#).

Referenced by [getHolderMap\(\)](#).

25.41.6.4 `SegmentPathPeriodListList_T AIRSCHED::ReachableUniverse::_segmentPathPeriodListList` [protected]

The list (actually, a vector) of lists of [SegmentPathPeriods](#), used solely for the construction of the main list of [SegmentPathPeriods](#) within the [ReachableUniverseStructure](#).

Definition at line 191 of file [ReachableUniverse.hpp](#).

Referenced by [getSegmentPathPeriodListList\(\)](#).

The documentation for this class was generated from the following files:

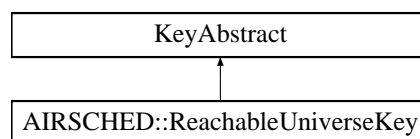
- [airsched/bom/ReachableUniverse.hpp](#)
- [airsched/bom/ReachableUniverse.cpp](#)

25.42 AIRSCHED::ReachableUniverseKey Struct Reference

Structure representing the key of the schedule-related BOM tree root.

```
#include <airsched/bom/ReachableUniverseKey.hpp>
```

Inheritance diagram for [AIRSCHED::ReachableUniverseKey](#):



Public Member Functions

- [ReachableUniverseKey](#) (const [stdair::AirportCode_T](#) &iOrigin)
- [ReachableUniverseKey](#) (const [ReachableUniverseKey](#) &)

- [~ReachableUniverseKey](#) ()
- const stdair::AirportCode_T & [getBoardingPoint](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- const std::string [toString](#) () const
- template<class Archive >
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

Friends

- class [boost::serialization::access](#)

25.42.1 Detailed Description

Structure representing the key of the schedule-related BOM tree root.

The [ReachableUniverse](#) is the pending, in the schedule universe, of the stdair::Inventory class. It corresponds to all the destinations which can be reached from a given geographical point. That latter is an airport for now, and the present structure specifies its key (i.e., airport code).

Definition at line 33 of file [ReachableUniverseKey.hpp](#).

25.42.2 Constructor & Destructor Documentation

25.42.2.1 AIRSCHED::ReachableUniverseKey::ReachableUniverseKey (const stdair::AirportCode_T & *iOrigin*)

Constructor.

Definition at line 32 of file [ReachableUniverseKey.cpp](#).

25.42.2.2 AIRSCHED::ReachableUniverseKey::ReachableUniverseKey (const ReachableUniverseKey & *iKey*)

Copy constructor.

Definition at line 26 of file [ReachableUniverseKey.cpp](#).

25.42.2.3 AIRSCHED::ReachableUniverseKey::~~ReachableUniverseKey ()

Destructor.

Definition at line 37 of file [ReachableUniverseKey.cpp](#).

25.42.3 Member Function Documentation

25.42.3.1 `const std::air::AirportCode_T& AIRSCHED::ReachableUniverseKey::get-BoardingPoint () const` `[inline]`

Get the origin airport (from which the remaining universe may be reached).

Definition at line 66 of file [ReachableUniverseKey.hpp](#).

Referenced by [AIRSCHED::ReachableUniverse::getOrigin\(\)](#).

25.42.3.2 `void AIRSCHED::ReachableUniverseKey::toStream (std::ostream & ioOut) const`

Dump a Business Object Key into an output stream.

Parameters

<i>ostream&</i>	the output stream.
---------------------	--------------------

Definition at line 41 of file [ReachableUniverseKey.cpp](#).

References [toString\(\)](#).

25.42.3.3 `void AIRSCHED::ReachableUniverseKey::fromStream (std::istream & ioin)`

Read a Business Object Key from an input stream.

Parameters

<i>istream&</i>	the input stream.
---------------------	-------------------

Definition at line 46 of file [ReachableUniverseKey.cpp](#).

25.42.3.4 `const std::string AIRSCHED::ReachableUniverseKey::toString () const`

Get the serialised version of the Business Object Key.

That string is unique, at the level of a given Business Object, when among children of a given parent Business Object.

For instance, "H" and "K" allow to differentiate among two marketing classes for the same segment-date.

Definition at line 50 of file [ReachableUniverseKey.cpp](#).

Referenced by [AIRSCHED::ReachableUniverse::describeKey\(\)](#), [toStream\(\)](#), and [AIRSCHED::ReachableUniverse::toString\(\)](#).

25.42.3.5 `template<class Archive > void AIRSCHED::ReachableUniverseKey::serialize (Archive & ar, const unsigned int iFileVersion)`

Serialisation.

Definition at line 72 of file [ReachableUniverseKey.cpp](#).

25.43 AIRSCHED::ScheduleInputFileNotFoundException Class Reference 217

25.42.4 Friends And Related Function Documentation

25.42.4.1 friend class boost::serialization::access [friend]

Definition at line 34 of file [ReachableUniverseKey.hpp](#).

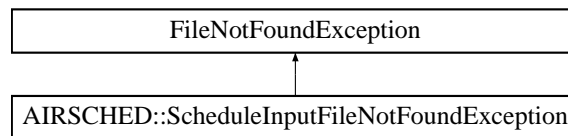
The documentation for this struct was generated from the following files:

- [airsched/bom/ReachableUniverseKey.hpp](#)
- [airsched/bom/ReachableUniverseKey.cpp](#)

25.43 AIRSCHED::ScheduleInputFileNotFoundException Class Reference

```
#include <airsched/AIRSCHED_Types.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleInputFileNotFoundException:



Public Member Functions

- [ScheduleInputFileNotFoundException](#) (const std::string &iWhat)

25.43.1 Detailed Description

The schedule input file cannot be retrieved.

Definition at line 47 of file [AIRSCHED_Types.hpp](#).

25.43.2 Constructor & Destructor Documentation

25.43.2.1 AIRSCHED::ScheduleInputFileNotFoundException::ScheduleInputFileNotFoundException (const std::string & iWhat) [inline]

Constructor.

Definition at line 53 of file [AIRSCHED_Types.hpp](#).

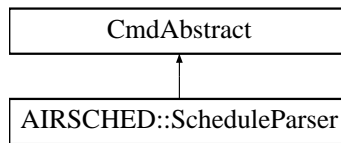
The documentation for this class was generated from the following file:

- [airsched/AIRSCHED_Types.hpp](#)

25.44 AIRSCHED::ScheduleParser Class Reference

```
#include <airsched/command/ScheduleParser.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParser:



Static Public Member Functions

- static void [generateInventories](#) (const stdair::Filename_T &, stdair::BomRoot &)

25.44.1 Detailed Description

Class wrapping the parser entry point.

Definition at line 21 of file [ScheduleParser.hpp](#).

25.44.2 Member Function Documentation

25.44.2.1 void **AIRSCHED::ScheduleParser::generateInventories** (const stdair::Filename_T & *iFilename*, stdair::BomRoot & *ioBomRoot*) [static]

Parse the CSV file describing the airline schedules for the simulator, and generates the inventories accordingly.

Parameters

<i>const</i>	stdair::Filename_T& The file-name of the CSV-formatted schedule input file.
<i>stdair::Bom-Root&</i>	Root of the BOM tree.

Definition at line 18 of file [ScheduleParser.cpp](#).

References [AIRSCHED::SegmentPathGenerator::createSegmentPathNetwork\(\)](#), and - [AIRSCHED::FlightPeriodFileParser::generateInventories\(\)](#).

Referenced by [AIRSCHED::AIRSCHED_Service::parseAndLoad\(\)](#).

The documentation for this class was generated from the following files:

- [airsched/command/ScheduleParser.hpp](#)
- [airsched/command/ScheduleParser.cpp](#)

25.45 `airsched::SearchString_T` Struct Reference

```
#include <airsched/batches/BookingRequestParser.hpp>
```

Public Member Functions

- [SearchString_T\(\)](#)
- void [display\(\)](#) const

Public Attributes

- [PlaceList_T_placeList](#)
- [DateList_T_dateList](#)
- [AirlineList_T_airlineList](#)
- [PassengerList_T_passengerList](#)
- [Place_T_tmpPlace](#)
- [Date_T_tmpDate](#)
- [Airline_T_tmpAirline](#)
- [Passenger_T_tmpPassenger](#)

25.45.1 Detailed Description

Search string.

Definition at line 94 of file [BookingRequestParser.hpp](#).

25.45.2 Constructor & Destructor Documentation

25.45.2.1 `airsched::SearchString_T::SearchString_T()` `[inline]`

Constructor.

Definition at line 102 of file [BookingRequestParser.hpp](#).

25.45.3 Member Function Documentation

25.45.3.1 `void airsched::SearchString_T::display()` const `[inline]`

Definition at line 105 of file [BookingRequestParser.hpp](#).

References [_airlineList](#), [_dateList](#), [_passengerList](#), [_placeList](#), [_tmpPlace](#), [airsched::Place_T::display\(\)](#), [airsched::Date_T::display\(\)](#), [airsched::Airline_T::display\(\)](#), and [airsched::Passenger_T::display\(\)](#).

25.45.4 Member Data Documentation

25.45.4.1 `PlaceList_T` `airsched::SearchString_T::_placeList`

Definition at line 96 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#).

25.45.4.2 `DateList_T` `airsched::SearchString_T::_dateList`

Definition at line 97 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_date::operator\(\)\(\)](#).

25.45.4.3 `AirlineList_T` `airsched::SearchString_T::_airlineList`

Definition at line 98 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), [airsched::store_airline_code::operator\(\)\(\)](#), and [airsched::store_airline_name::operator\(\)\(\)](#).

25.45.4.4 `PassengerList_T` `airsched::SearchString_T::_passengerList`

Definition at line 99 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), [airsched::store_adult_passenger_type::operator\(\)\(\)](#), [airsched::store_child_passenger_type::operator\(\)\(\)](#), and [airsched::store_pet_passenger_type::operator\(\)\(\)](#).

25.45.4.5 `Place_T` `airsched::SearchString_T::_tmpPlace`

Definition at line 137 of file [BookingRequestParser.hpp](#).

Referenced by [display\(\)](#), and [airsched::store_place_element::operator\(\)\(\)](#).

25.45.4.6 `Date_T` `airsched::SearchString_T::_tmpDate`

Definition at line 138 of file [BookingRequestParser.hpp](#).

Referenced by [airsched::store_date::operator\(\)\(\)](#).

25.45.4.7 `Airline_T` `airsched::SearchString_T::_tmpAirline`

Definition at line 139 of file [BookingRequestParser.hpp](#).

Referenced by [airsched::store_airline_sign::operator\(\)\(\)](#), [airsched::store_airline_code::operator\(\)\(\)](#), and [airsched::store_airline_name::operator\(\)\(\)](#).

25.45.4.8 `Passenger_T` `airsched::SearchString_T::_tmpPassenger`

Definition at line 140 of file [BookingRequestParser.hpp](#).

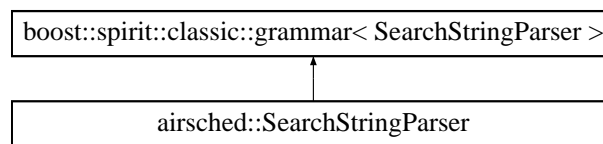
Referenced by [airsched::store_passenger_number::operator\(\)\(\)](#), [airsched::store_adult_passenger_type::operator\(\)\(\)](#), [airsched::store_child_passenger_type::operator\(\)\(\)](#), and [airsched::store_pet_passenger_type::operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.hpp](#)

25.46 airsched::SearchStringParser Struct Reference

Inheritance diagram for airsched::SearchStringParser:



Classes

- struct [definition](#)

Public Member Functions

- [SearchStringParser](#) ([SearchString_T](#) &ioSearchString)

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.46.1 Detailed Description

Grammar for the search string parser.

Definition at line 251 of file [BookingRequestParser.cpp](#).

25.46.2 Constructor & Destructor Documentation

25.46.2.1 airsched::SearchStringParser::SearchStringParser ([SearchString_T](#) & *ioSearchString*) [\[inline\]](#)

Definition at line 254 of file [BookingRequestParser.cpp](#).

25.46.3 Member Data Documentation

25.46.3.1 [SearchString_T](#) & airsched::SearchStringParser::_searchString

Definition at line 369 of file [BookingRequestParser.cpp](#).

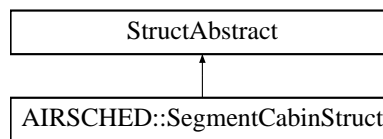
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.47 AIRSCHED::SegmentCabinStruct Struct Reference

```
#include <airsched/bom/SegmentCabinStruct.hpp>
```

Inheritance diagram for AIRSCHED::SegmentCabinStruct:



Public Member Functions

- void [fill](#) (stdair::SegmentCabin &) const
- const std::string [describe](#) () const

Public Attributes

- stdair::CabinCode_T [_cabinCode](#)
- stdair::ClassList_String_T [_classes](#)
- stdair::FamilyCode_T [_itFamilyCode](#)
- [FareFamilyStructList_T](#) [_fareFamilies](#)

25.47.1 Detailed Description

Utility Structure for the parsing of SegmentCabin details.

Definition at line 24 of file [SegmentCabinStruct.hpp](#).

25.47.2 Member Function Documentation

25.47.2.1 void AIRSCHED::SegmentCabinStruct::fill (stdair::SegmentCabin & *ioSegmentCabin*) const

Fill the SegmentCabin objects with the attributes of the [SegmentCabinStruct](#).

Definition at line 22 of file [SegmentCabinStruct.cpp](#).

25.47.2.2 `const std::string AIRSCHED::SegmentCabinStruct::describe () const`

Give a description of the structure (for display purposes).

Definition at line 15 of file [SegmentCabinStruct.cpp](#).

References [_cabinCode](#), and [_classes](#).

Referenced by [AIRSCHED::SegmentStruct::describe\(\)](#).

25.47.3 Member Data Documentation

25.47.3.1 `stdair::CabinCode_T AIRSCHED::SegmentCabinStruct::_cabinCode`

Definition at line 26 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#).

25.47.3.2 `stdair::ClassList_String_T AIRSCHED::SegmentCabinStruct::_classes`

Definition at line 27 of file [SegmentCabinStruct.hpp](#).

Referenced by [describe\(\)](#), [AIRSCHED::SegmentPeriodHelper::fill\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#).

25.47.3.3 `stdair::FamilyCode_T AIRSCHED::SegmentCabinStruct::_itFamilyCode`

Definition at line 28 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#).

25.47.3.4 `FareFamilyStructList_T AIRSCHED::SegmentCabinStruct::_fareFamilies`

Definition at line 29 of file [SegmentCabinStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#).

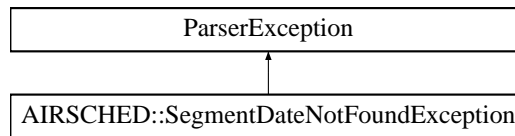
The documentation for this struct was generated from the following files:

- [airsched/bom/SegmentCabinStruct.hpp](#)
- [airsched/bom/SegmentCabinStruct.cpp](#)

25.48 AIRSCHED::SegmentDateNotFoundException Class Reference

```
#include <airsched/AIRSCHED_Types.hpp>
```

Inheritance diagram for AIRSCHED::SegmentDateNotFoundException:



Public Member Functions

- [SegmentDateNotFoundException](#) (const std::string &iWhat)

25.48.1 Detailed Description

Specific exception when some BOM objects can not be found within the schedule.

Definition at line 23 of file [AIRSCHED_Types.hpp](#).

25.48.2 Constructor & Destructor Documentation

25.48.2.1 AIRSCHED::SegmentDateNotFoundException::SegmentDateNotFoundException (const std::string & iWhat)
`[inline]`

Constructor.

Definition at line 28 of file [AIRSCHED_Types.hpp](#).

The documentation for this class was generated from the following file:

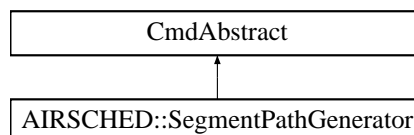
- [airsched/AIRSCHED_Types.hpp](#)

25.49 AIRSCHED::SegmentPathGenerator Class Reference

Class handling the generation / instantiation of the network BOM.

```
#include <airsched/command/SegmentPathGenerator.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathGenerator:



Static Public Member Functions

- static void [createSegmentPathNetwork](#) (const stdair::BomRoot &)

25.49.1 Detailed Description

Class handling the generation / instantiation of the network BOM.

Definition at line 34 of file [SegmentPathGenerator.hpp](#).

25.49.2 Member Function Documentation

25.49.2.1 **void AIRSCHED::SegmentPathGenerator::createSegmentPathNetwork (const stdair::BomRoot & iBomRoot) [static]**

Generate the segment path network.

Definition at line 26 of file [SegmentPathGenerator.cpp](#).

Referenced by [AIRSCHED::AIRSCHED_Service::buildSampleBom\(\)](#), and [AIRSCHED::ScheduleParser::generateInventories\(\)](#).

The documentation for this class was generated from the following files:

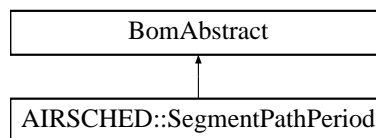
- [airsched/command/SegmentPathGenerator.hpp](#)
- [airsched/command/SegmentPathGenerator.cpp](#)

25.50 AIRSCHED::SegmentPathPeriod Class Reference

Class representing a segment/path.

```
#include <airsched/bom/SegmentPathPeriod.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathPeriod:



Public Types

- typedef [SegmentPathPeriodKey](#) Key_T

Public Member Functions

- const [Key_T](#) & [getKey](#) () const
- stdair::BomAbstract *const [getParent](#) () const
- const stdair::PeriodStruct & [getDeparturePeriod](#) () const
- const [DateOffsetList_T](#) & [getBoardingDateOffsetList](#) () const
- const stdair::NbOfSegments_T [getNbOfSegments](#) () const

- const stdair::NbOfAirlines_T & [getNbOfAirlines](#) () const
- const stdair::Duration_T & [getElapsedTime](#) () const
- const stdair::Duration_T & [getBoardingTime](#) () const
- const stdair::HolderMap_T & [getHolderMap](#) () const
- stdair::SegmentPeriod * [getLastSegmentPeriod](#) () const
- stdair::SegmentPeriod * [getFirstSegmentPeriod](#) () const
- const stdair::AirportCode_T & [getDestination](#) () const
- [Key_T](#) [connectWithAnotherSegment](#) (const [SegmentPathPeriod](#) &) const
- bool [checkCircle](#) (const stdair::AirportCode_T &) const
- bool [isAirlineFlown](#) (const stdair::AirlineCode_T &) const
- bool [isDepartureDateValid](#) (const stdair::Date_T &) const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- std::string [toString](#) () const
- const std::string [describeKey](#) () const
- template<class Archive >
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

Protected Member Functions

- [SegmentPathPeriod](#) (const [Key_T](#) &)
- [~SegmentPathPeriod](#) ()

Protected Attributes

- [Key_T _key](#)
- stdair::BomAbstract * [_parent](#)
- stdair::HolderMap_T [_holderMap](#)

Friends

- class [stdair::FacBom](#)
- class [stdair::FacBomManager](#)
- class [boost::serialization::access](#)

25.50.1 Detailed Description

Class representing a segment/path.

It corresponds to an actual travel solution from the origin to the destination, that is, a path that a traveller can take with actual scheduled flights.

Definition at line 39 of file [SegmentPathPeriod.hpp](#).

25.50.2 Member Typedef Documentation

25.50.2.1 typedef SegmentPathPeriodKey AIRSCHED::SegmentPathPeriod::Key_T

Definition allowing to retrieve the associated BOM key type.

Definition at line 52 of file [SegmentPathPeriod.hpp](#).

25.50.3 Constructor & Destructor Documentation

25.50.3.1 AIRSCHED::SegmentPathPeriod::SegmentPathPeriod (const Key_T & iKey) [protected]

Main constructor.

Definition at line 43 of file [SegmentPathPeriod.cpp](#).

25.50.3.2 AIRSCHED::SegmentPathPeriod::~~SegmentPathPeriod () [protected]

Destructor.

Definition at line 48 of file [SegmentPathPeriod.cpp](#).

25.50.4 Member Function Documentation

25.50.4.1 const Key_T& AIRSCHED::SegmentPathPeriod::getKey () const [inline]

Get the primary key (destination airport).

Definition at line 60 of file [SegmentPathPeriod.hpp](#).

References [_key](#).

25.50.4.2 stdair::BomAbstract* const AIRSCHED::SegmentPathPeriod::getParent () const [inline]

Get the parent (i.e., [OriginDestinationSet](#)) object.

Definition at line 67 of file [SegmentPathPeriod.hpp](#).

References [_parent](#).

25.50.4.3 const stdair::PeriodStruct& AIRSCHED::SegmentPathPeriod::getDeparturePeriod () const [inline]

Get the departure period (part of the primary key).

Definition at line 72 of file [SegmentPathPeriod.hpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::getPeriod\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#), and [isDepartureDateValid\(\)](#).

25.50.4.4 `const DateOffsetList_T& AIRSCHED::SegmentPathPeriod::getBoardingDateOffsetList () const`
`[inline]`

Get the boarding date offset list (part of the primary key).

Definition at line 77 of file [SegmentPathPeriod.hpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::getBoardingDateOffsetList\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

25.50.4.5 `const stdair::NbOfSegments_T AIRSCHED::SegmentPathPeriod::getNbOfSegments () const` `[inline]`

Get the number of segments (part of the primary key).

Definition at line 82 of file [SegmentPathPeriod.hpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::getNbOfSegments\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

25.50.4.6 `const stdair::NbOfAirlines_T& AIRSCHED::SegmentPathPeriod::getNbOfAirlines () const` `[inline]`

Get the number of airlines (part of the primary key).

Definition at line 87 of file [SegmentPathPeriod.hpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::getNbOfAirlines\(\)](#).

25.50.4.7 `const stdair::Duration_T& AIRSCHED::SegmentPathPeriod::getElapsedTime () const` `[inline]`

Get the elapsed time (part of the primary key).

Definition at line 92 of file [SegmentPathPeriod.hpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::getElapsedTime\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

25.50.4.8 `const stdair::Duration_T& AIRSCHED::SegmentPathPeriod::getBoardingTime () const` `[inline]`

Get the boarding time (part of the primary key).

Definition at line 97 of file [SegmentPathPeriod.hpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::getBoardingTime\(\)](#).

Referenced by [connectWithAnotherSegment\(\)](#).

25.50.4.9 `const stdair::HolderMap_T & AIRSCHED::SegmentPathPeriod::getHolderMap () const [inline]`

Get the map of children holders (SegmentPeriod objects).

Definition at line 104 of file [SegmentPathPeriod.hpp](#).

References [_holderMap](#).

25.50.4.10 `stdair::SegmentPeriod * AIRSCHED::SegmentPathPeriod::getLastSegmentPeriod () const`

Get the last SegmentPeriod object of the list.

Return a NULL pointer if the list is empty.

Definition at line 91 of file [SegmentPathPeriod.cpp](#).

Referenced by [connectWithAnotherSegment\(\)](#), and [getDestination\(\)](#).

25.50.4.11 `stdair::SegmentPeriod * AIRSCHED::SegmentPathPeriod::getFirstSegmentPeriod () const`

Get the first SegmentPeriod object of the list.

Return a NULL pointer if the list is empty.

Definition at line 109 of file [SegmentPathPeriod.cpp](#).

Referenced by [connectWithAnotherSegment\(\)](#).

25.50.4.12 `const stdair::AirportCode_T & AIRSCHED::SegmentPathPeriod::getDestination () const`

Get the destination of the segment path (i.e., the destination of the last segment).

Definition at line 127 of file [SegmentPathPeriod.cpp](#).

References [getLastSegmentPeriod\(\)](#).

25.50.4.13 `SegmentPathPeriodKey AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment (const SegmentPathPeriod & iSingleSegmentPath) const`

Check whether the (i-1)-length segment path period can be merged with the single segment path period in order to create an i-length segment path period. The function will return a valid or non-valid segment path period key.

The two segment path period above can be fused (and will produce a valid new segment path period key) if:

1. A passenger can connect from the last segment of the first segment path and the first segment of the next segment path. These two segments should not create another segment.
2. There is no circle within the new segment path.
3. The intersection of the two periods is non-empty.

Definition at line 163 of file [SegmentPathPeriod.cpp](#).

References [checkCircle\(\)](#), [getBoardingDateOffsetList\(\)](#), [getBoardingTime\(\)](#), [getDeparturePeriod\(\)](#), [getElapsedTime\(\)](#), [getFirstSegmentPeriod\(\)](#), [getLastSegmentPeriod\(\)](#), [getNbOfSegments\(\)](#), [AIRSCHED::SegmentPathPeriodKey::setBoardingDateOffsetList\(\)](#), [AIRSCHED::SegmentPathPeriodKey::setBoardingTime\(\)](#), [AIRSCHED::SegmentPathPeriodKey::setElapsedTime\(\)](#), and [AIRSCHED::SegmentPathPeriodKey::setPeriod\(\)](#).

25.50.4.14 `bool AIRSCHED::SegmentPathPeriod::checkCircle (const stdair::AirportCode_T &) const`

Check whether the given destination airport is also the departure point of one of the other segment members. If yes, a circle exists.

Definition at line 289 of file [SegmentPathPeriod.cpp](#).

Referenced by [connectWithAnotherSegment\(\)](#).

25.50.4.15 `bool AIRSCHED::SegmentPathPeriod::isAirlineFlown (const stdair::AirlineCode_T & iAirlineCode) const`

State whether or not the given airline is flown by (at least) one of the segments of the internal list.

Definition at line 135 of file [SegmentPathPeriod.cpp](#).

25.50.4.16 `bool AIRSCHED::SegmentPathPeriod::isDepartureDateValid (const stdair::Date_T & iDepartureDate) const`

Check whether the given departure date is included in the departure period of the segment path.

Definition at line 308 of file [SegmentPathPeriod.cpp](#).

References [getDeparturePeriod\(\)](#).

25.50.4.17 `void AIRSCHED::SegmentPathPeriod::toStream (std::ostream & ioOut) const [inline]`

Dump a Business Object into an output stream.

Parameters

<code>ostream&</code>	the output stream.
---------------------------	--------------------

Definition at line 176 of file [SegmentPathPeriod.hpp](#).

References [toString\(\)](#).

25.50.4.18 `void AIRSCHED::SegmentPathPeriod::fromStream (std::istream & ioln) [inline]`

Read a Business Object from an input stream.

Parameters

<i>istream</i> &	the input stream.
------------------	-------------------

Definition at line 185 of file [SegmentPathPeriod.hpp](#).

25.50.4.19 std::string AIRSCHED::SegmentPathPeriod::toString () const

Get the serialised version of the Business Object.

Definition at line 52 of file [SegmentPathPeriod.cpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::toString\(\)](#).

Referenced by [toStream\(\)](#).

25.50.4.20 const std::string AIRSCHED::SegmentPathPeriod::describeKey () const [inline]

Get a string describing the key.

Definition at line 196 of file [SegmentPathPeriod.hpp](#).

References [_key](#), and [AIRSCHED::SegmentPathPeriodKey::toString\(\)](#).

25.50.4.21 template<class Archive > void AIRSCHED::SegmentPathPeriod::serialize (Archive & ar, const unsigned int iFileVersion)

Serialisation.

Definition at line 74 of file [SegmentPathPeriod.cpp](#).

References [_key](#).

25.50.5 Friends And Related Function Documentation

25.50.5.1 friend class stdair::FacBom [friend]

Friend classes.

Definition at line 43 of file [SegmentPathPeriod.hpp](#).

25.50.5.2 friend class stdair::FacBomManager [friend]

Definition at line 44 of file [SegmentPathPeriod.hpp](#).

25.50.5.3 friend class boost::serialization::access [friend]

Definition at line 45 of file [SegmentPathPeriod.hpp](#).

25.50.6 Member Data Documentation

25.50.6.1 Key_T AIRSCHED::SegmentPathPeriod::_key [protected]

Primary key (segment/path characteristics: scheduled period, number of segments, number of airlines, elapsed time, boarding time).

Definition at line 249 of file [SegmentPathPeriod.hpp](#).

Referenced by [describeKey\(\)](#), [getBoardingDateOffsetList\(\)](#), [getBoardingTime\(\)](#), [getDeparturePeriod\(\)](#), [getElapsedTime\(\)](#), [getKey\(\)](#), [getNbOfAirlines\(\)](#), [getNbOfSegments\(\)](#), [serialize\(\)](#), and [toString\(\)](#).

25.50.6.2 stdair::BomAbstract* AIRSCHED::SegmentPathPeriod::_parent [protected]

Pointer on the parent ([OriginDestinationSet](#)) object.

Definition at line 254 of file [SegmentPathPeriod.hpp](#).

Referenced by [getParent\(\)](#).

25.50.6.3 stdair::HolderMap_T AIRSCHED::SegmentPathPeriod::_holderMap [protected]

Map holding the children (SegmentPeriod objects).

Note

The SegmentPeriod objects themselves have for parent the FlightPeriod class (not the [SegmentPathPeriod](#) class).

Definition at line 262 of file [SegmentPathPeriod.hpp](#).

Referenced by [getHolderMap\(\)](#).

The documentation for this class was generated from the following files:

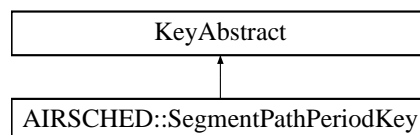
- [airsched/bom/SegmentPathPeriod.hpp](#)
- [airsched/bom/SegmentPathPeriod.cpp](#)

25.51 AIRSCHED::SegmentPathPeriodKey Struct Reference

Structure representing the key of a segment/path.

```
#include <airsched/bom/SegmentPathPeriodKey.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathPeriodKey:



Public Member Functions

- [SegmentPathPeriodKey](#) (const stdair::PeriodStruct &, const stdair::Duration_T &iBoardingTime, const stdair::Duration_T &iElapsed, const [DateOffsetList_T](#) &, const stdair::NbOfAirlines_T &)
- [SegmentPathPeriodKey](#) ()
- [SegmentPathPeriodKey](#) (const [SegmentPathPeriodKey](#) &)
- [~SegmentPathPeriodKey](#) ()
- const stdair::PeriodStruct & [getPeriod](#) () const
- const [DateOffsetList_T](#) & [getBoardingDateOffsetList](#) () const
- const stdair::NbOfSegments_T [getNbOfSegments](#) () const
- const stdair::NbOfAirlines_T & [getNbOfAirlines](#) () const
- const stdair::Duration_T & [getElapsedTime](#) () const
- const stdair::Duration_T & [getBoardingTime](#) () const
- void [setPeriod](#) (const stdair::PeriodStruct &iPeriod)
- void [setBoardingDateOffsetList](#) (const [DateOffsetList_T](#) &iList)
- void [setNbOfAirlines](#) (const stdair::NbOfAirlines_T &iNbOfAirlines)
- void [setElapsedTime](#) (const stdair::Duration_T &iElapsed)
- void [setBoardingTime](#) (const stdair::Duration_T &iBoardingTime)
- const bool [isValid](#) () const
- void [toStream](#) (std::ostream &ioOut) const
- void [fromStream](#) (std::istream &ioIn)
- const std::string [toString](#) () const
- template<class Archive >
void [serialize](#) (Archive &ar, const unsigned int iFileVersion)

Friends

- class [boost::serialization::access](#)

25.51.1 Detailed Description

Structure representing the key of a segment/path.

That key specifies a travel solution from a geographical point (origin airport) to another (destination airport).

Definition at line 33 of file [SegmentPathPeriodKey.hpp](#).

25.51.2 Constructor & Destructor Documentation

- 25.51.2.1 **AIRSCHED::SegmentPathPeriodKey::SegmentPathPeriodKey** (const stdair::PeriodStruct & *iPeriod*, const stdair::Duration_T & *iBoardingTime*, const stdair::Duration_T & *iElapsed*, const [DateOffsetList_T](#) & *iBoardingDateOffsetList*, const stdair::NbOfAirlines_T & *iNbOfAirlines*)

Constructor.

Definition at line 40 of file [SegmentPathPeriodKey.cpp](#).

25.51.2.2 AIRSCHED::SegmentPathPeriodKey::SegmentPathPeriodKey ()

Default constructor.

Definition at line 22 of file [SegmentPathPeriodKey.cpp](#).

25.51.2.3 AIRSCHED::SegmentPathPeriodKey::SegmentPathPeriodKey (const SegmentPathPeriodKey & iSPPK)

Copy constructor.

Definition at line 30 of file [SegmentPathPeriodKey.cpp](#).

25.51.2.4 AIRSCHED::SegmentPathPeriodKey::~~SegmentPathPeriodKey ()

Destructor.

Definition at line 53 of file [SegmentPathPeriodKey.cpp](#).

25.51.3 Member Function Documentation

25.51.3.1 const stdair::PeriodStruct& AIRSCHED::SegmentPathPeriodKey::getPeriod () const [inline]

Get the active days-of-week.

Definition at line 68 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getDeparturePeriod\(\)](#).

25.51.3.2 const DateOffsetList_T& AIRSCHED::SegmentPathPeriodKey::getBoardingDateOffsetList () const [inline]

Get the list of boarding date off-sets.

Definition at line 75 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getBoardingDateOffsetList\(\)](#).

25.51.3.3 const stdair::NbOfSegments_T AIRSCHED::SegmentPathPeriodKey::getNbOfSegments () const [inline]

Get the number of segments.

Definition at line 82 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getNbOfSegments\(\)](#).

25.51.3.4 const stdair::NbOfAirlines_T& AIRSCHED::SegmentPathPeriodKey::getNbOfAirlines () const [inline]

Get the number of airlines.

Definition at line 89 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getNbOfAirlines\(\)](#).

25.51.3.5 `const stdair::Duration_T& AIRSCHED::SegmentPathPeriodKey::getElapsed-
Time () const [inline]`

Get the elapsed time.

Definition at line 96 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getElapsedTime\(\)](#).

25.51.3.6 `const stdair::Duration_T& AIRSCHED::SegmentPathPeriodKey::get-
BoardingTime () const [inline]`

Get the boarding time.

Definition at line 103 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::getBoardingTime\(\)](#).

25.51.3.7 `void AIRSCHED::SegmentPathPeriodKey::setPeriod (const
stdair::PeriodStruct & iPeriod) [inline]`

Set the active days-of-week.

Definition at line 111 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

25.51.3.8 `void AIRSCHED::SegmentPathPeriodKey::setBoardingDateOffsetList (const
DateOffsetList_T & iList) [inline]`

Definition at line 115 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

25.51.3.9 `void AIRSCHED::SegmentPathPeriodKey::setNbOfAirlines (const
stdair::NbOfAirlines_T & iNbOfAirlines) [inline]`

Set the number of airlines.

Definition at line 120 of file [SegmentPathPeriodKey.hpp](#).

25.51.3.10 `void AIRSCHED::SegmentPathPeriodKey::setElapsedTime (const
stdair::Duration_T & iElapsed) [inline]`

Set the elapsed time.

Definition at line 125 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

25.51.3.11 `void AIRSCHED::SegmentPathPeriodKey::setBoardingTime (const
stdair::Duration_T & iBoardingTime) [inline]`

Set the boarding time.

Definition at line 130 of file [SegmentPathPeriodKey.hpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::connectWithAnotherSegment\(\)](#).

25.51.3.12 `const bool AIRSCHED::SegmentPathPeriodKey::isValid () const
[inline]`

Check if the key is valid (i.e. the departure period is valid).

Definition at line 138 of file [SegmentPathPeriodKey.hpp](#).

25.51.3.13 `void AIRSCHED::SegmentPathPeriodKey::toStream (std::ostream & ioOut
) const`

Dump a Business Object Key into an output stream.

Parameters

<i>ostream&</i>	the output stream.
---------------------	--------------------

Definition at line 57 of file [SegmentPathPeriodKey.cpp](#).

References [toString\(\)](#).

25.51.3.14 `void AIRSCHED::SegmentPathPeriodKey::fromStream (std::istream & ioln
)`

Read a Business Object Key from an input stream.

Parameters

<i>istream&</i>	the input stream.
---------------------	-------------------

Definition at line 62 of file [SegmentPathPeriodKey.cpp](#).

25.51.3.15 `const std::string AIRSCHED::SegmentPathPeriodKey::toString () const`

Get the serialised version of the Business Object Key.

That string is unique, at the level of a given Business Object, when among children of a given parent Business Object.

For instance, "H" and "K" allow to differentiate among two marketing classes for the same segment-date.

Definition at line 66 of file [SegmentPathPeriodKey.cpp](#).

Referenced by [AIRSCHED::SegmentPathPeriod::describeKey\(\)](#), [toStream\(\)](#), and [AIRSCHED::SegmentPathPeriod::toString\(\)](#).

25.51.3.16 `template<class Archive > void AIRSCHED::SegmentPathPeriod-
Key::serialize (Archive & ar, const unsigned int iFileVersion
)`

Serialisation.

Definition at line 98 of file [SegmentPathPeriodKey.cpp](#).

25.51.4 Friends And Related Function Documentation

25.51.4.1 friend class boost::serialization::access [friend]

Definition at line 34 of file [SegmentPathPeriodKey.hpp](#).

The documentation for this struct was generated from the following files:

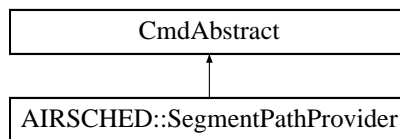
- [airsched/bom/SegmentPathPeriodKey.hpp](#)
- [airsched/bom/SegmentPathPeriodKey.cpp](#)

25.52 AIRSCHED::SegmentPathProvider Class Reference

Class building the travel solutions from airline schedules.

```
#include <airsched/command/SegmentPathProvider.hpp>
```

Inheritance diagram for AIRSCHED::SegmentPathProvider:



Friends

- class [AIRSCHED_Service](#)

25.52.1 Detailed Description

Class building the travel solutions from airline schedules.

Definition at line 27 of file [SegmentPathProvider.hpp](#).

25.52.2 Friends And Related Function Documentation

25.52.2.1 friend class AIRSCHED_Service [friend]

Definition at line 28 of file [SegmentPathProvider.hpp](#).

The documentation for this class was generated from the following files:

- [airsched/command/SegmentPathProvider.hpp](#)
- [airsched/command/SegmentPathProvider.cpp](#)

25.53 AIRSCHED::SegmentPeriodHelper Class Reference

```
#include <airsched/bom/SegmentPeriodHelper.hpp>
```

Static Public Member Functions

- static void [fill](#) (stdair::SegmentPeriod &, const [SegmentStruct](#) &)
- static void [fill](#) (stdair::SegmentPeriod &, const [LegStructList_T](#) &)

25.53.1 Detailed Description

Class representing the actual business functions for an airline segment-period.

Definition at line 19 of file [SegmentPeriodHelper.hpp](#).

25.53.2 Member Function Documentation

25.53.2.1 void [AIRSCHED::SegmentPeriodHelper::fill](#) (stdair::SegmentPeriod & *ioSegmentPeriod*, const [SegmentStruct](#) & *iSegmentStruct*) [static]

Fill the attributes of the given segment-period with the cabins and classes.

Definition at line 14 of file [SegmentPeriodHelper.cpp](#).

References [AIRSCHED::SegmentCabinStruct::_cabinCode](#), [AIRSCHED::SegmentStruct::_cabinList](#), and [AIRSCHED::SegmentCabinStruct::_classes](#).

25.53.2.2 void [AIRSCHED::SegmentPeriodHelper::fill](#) (stdair::SegmentPeriod & *ioSegmentPeriod*, const [LegStructList_T](#) & *iLegList*) [static]

Fill the attributes of the given segment-period with the list of used legs.

Definition at line 29 of file [SegmentPeriodHelper.cpp](#).

References [AIRSCHED::LegStruct::_boardingPoint](#), [AIRSCHED::LegStruct::_offDateOffset](#), [AIRSCHED::LegStruct::_offPoint](#), and [AIRSCHED::LegStruct::_offTime](#).

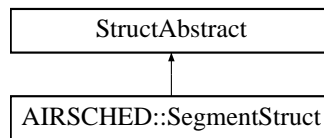
The documentation for this class was generated from the following files:

- [airsched/bom/SegmentPeriodHelper.hpp](#)
- [airsched/bom/SegmentPeriodHelper.cpp](#)

25.54 AIRSCHED::SegmentStruct Struct Reference

```
#include <airsched/bom/SegmentStruct.hpp>
```

Inheritance diagram for AIRSCHED::SegmentStruct:



Public Member Functions

- void [fill](#) (stdair::SegmentDate &) const
- const std::string [describe](#) () const

Public Attributes

- stdair::AirportCode_T [_boardingPoint](#)
- stdair::Date_T [_boardingDate](#)
- stdair::Duration_T [_boardingTime](#)
- stdair::AirportCode_T [_offPoint](#)
- stdair::Date_T [_offDate](#)
- stdair::Duration_T [_offTime](#)
- stdair::Duration_T [_elapsed](#)
- [SegmentCabinStructList_T_cabinList](#)

25.54.1 Detailed Description

Utility Structure for the parsing of Segment structures.

Definition at line 24 of file [SegmentStruct.hpp](#).

25.54.2 Member Function Documentation

25.54.2.1 void **AIRSCHED::SegmentStruct::fill** (stdair::SegmentDate & *ioSegmentDate*) const

Fill the SegmentDate objects with the attributes of the [SegmentStruct](#).

Definition at line 35 of file [SegmentStruct.cpp](#).

25.54.2.2 const std::string **AIRSCHED::SegmentStruct::describe** () const

Give a description of the structure (for display purposes).

Definition at line 15 of file [SegmentStruct.cpp](#).

References [_boardingPoint](#), [_boardingTime](#), [_cabinList](#), [_elapsed](#), [_offPoint](#), [_offTime](#), and [AIRSCHED::SegmentCabinStruct::describe\(\)](#).

Referenced by [AIRSCHED::FlightPeriodStruct::describe\(\)](#).

25.54.3 Member Data Documentation

25.54.3.1 stdair::AirportCode_T AIRSCHED::SegmentStruct::_boardingPoint

Definition at line 26 of file [SegmentStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#), [AIRSCHED::FlightPeriodStruct::buildSegments\(\)](#), [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#).

25.54.3.2 stdair::Date_T AIRSCHED::SegmentStruct::_boardingDate

Definition at line 27 of file [SegmentStruct.hpp](#).

25.54.3.3 stdair::Duration_T AIRSCHED::SegmentStruct::_boardingTime

Definition at line 28 of file [SegmentStruct.hpp](#).

Referenced by [describe\(\)](#).

25.54.3.4 stdair::AirportCode_T AIRSCHED::SegmentStruct::_offPoint

Definition at line 29 of file [SegmentStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#), [AIRSCHED::FlightPeriodStruct::buildSegments\(\)](#), [describe\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#).

25.54.3.5 stdair::Date_T AIRSCHED::SegmentStruct::_offDate

Definition at line 30 of file [SegmentStruct.hpp](#).

25.54.3.6 stdair::Duration_T AIRSCHED::SegmentStruct::_offTime

Definition at line 31 of file [SegmentStruct.hpp](#).

Referenced by [describe\(\)](#).

25.54.3.7 stdair::Duration_T AIRSCHED::SegmentStruct::_elapsed

Definition at line 32 of file [SegmentStruct.hpp](#).

Referenced by [describe\(\)](#).

25.54.3.8 SegmentCabinStructList_T AIRSCHED::SegmentStruct::_cabinList

Definition at line 33 of file [SegmentStruct.hpp](#).

Referenced by [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#), [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#), [describe\(\)](#), and [AIRSCHED::SegmentPeriodHelper::fill\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/bom/SegmentStruct.hpp](#)
- [airsched/bom/SegmentStruct.cpp](#)

25.55 AIRSCHED::ServiceAbstract Class Reference

```
#include <airsched/service/ServiceAbstract.hpp>
```

Public Member Functions

- virtual [~ServiceAbstract](#) ()
- virtual void [toStream](#) (std::ostream &ioOut) const
- virtual void [fromStream](#) (std::istream &ioIn)

Protected Member Functions

- [ServiceAbstract](#) ()

25.55.1 Detailed Description

Base class for the Service layer.

Definition at line 14 of file [ServiceAbstract.hpp](#).

25.55.2 Constructor & Destructor Documentation

25.55.2.1 virtual AIRSCHED::ServiceAbstract::~~ServiceAbstract () [inline, virtual]

Destructor.

Definition at line 18 of file [ServiceAbstract.hpp](#).

25.55.2.2 AIRSCHED::ServiceAbstract::ServiceAbstract () [inline, protected]

Protected Default Constructor to ensure this class is abstract.

Definition at line 30 of file [ServiceAbstract.hpp](#).

25.55.3 Member Function Documentation

25.55.3.1 virtual void AIRSCHED::ServiceAbstract::toStream (std::ostream & ioOut) const [inline, virtual]

Dump a Business Object into an output stream.

Parameters

<i>ostream</i> &	the output stream.
------------------	--------------------

Definition at line 22 of file [ServiceAbstract.hpp](#).

25.55.3.2 `virtual void AIRSCHED::ServiceAbstract::fromStream (std::istream & ioln)`
`[inline, virtual]`

Read a Business Object from an input stream.

Parameters

<i>istream</i> &	the input stream.
------------------	-------------------

Definition at line 26 of file [ServiceAbstract.hpp](#).

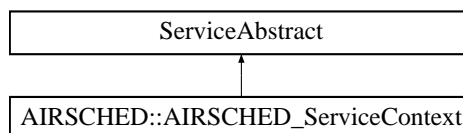
Referenced by [operator>>\(\)](#).

The documentation for this class was generated from the following file:

- [airsched/service/ServiceAbstract.hpp](#)

25.56 ServiceAbstract Class Reference

Inheritance diagram for ServiceAbstract:



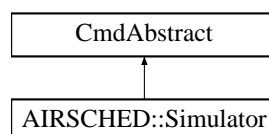
The documentation for this class was generated from the following file:

- [airsched/service/AIRSCHED_ServiceContext.hpp](#)

25.57 AIRSCHED::Simulator Class Reference

```
#include <airsched/command/Simulator.hpp>
```

Inheritance diagram for AIRSCHED::Simulator:



Static Public Member Functions

- static void [simulate](#) (stdair::BomRoot &)

25.57.1 Detailed Description

Class implementing a small simulation, which uses the Airline Schedule.

Definition at line 18 of file [Simulator.hpp](#).

25.57.2 Member Function Documentation

25.57.2.1 void AIRSCHEM::Simulator::simulate (stdair::BomRoot & ioBomRoot)
[static]

Perform a small simulation, which uses the Airline Schedule.

Parameters

<i>stdair::BomRoot&</i>	Root of the BOM tree.
-----------------------------	-----------------------

Definition at line 19 of file [Simulator.cpp](#).

The documentation for this class was generated from the following files:

- airsched/command/[Simulator.hpp](#)
- airsched/command/[Simulator.cpp](#)

25.58 airsched::store_adult_passenger_type Struct Reference

Public Member Functions

- [store_adult_passenger_type](#) (SearchString_T &ioSearchString)
- void [operator\(\)](#) (iterator_t iStr, iterator_t iStrEnd) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.58.1 Detailed Description

Store the parsed passenger type.

Definition at line 145 of file [BookingRequestParser.cpp](#).

25.58.2 Constructor & Destructor Documentation

25.58.2.1 airsched::store_adult_passenger_type::store_adult_passenger_type (SearchString_T & ioSearchString) [inline]

Constructor.

Definition at line 147 of file [BookingRequestParser.cpp](#).

25.58.3 Member Function Documentation

25.58.3.1 void airsched::store_adult_passenger_type::operator() (iterator_t iStr, iterator_t iStrEnd) const [inline]

Parse adult passenger type.

Definition at line 151 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString_T::_passengerList](#), [_searchString](#), [airsched::SearchString_T::_tmpPassenger](#), [airsched::Passenger_T::_type](#), and [airsched::Passenger_T::ADULT](#).

25.58.4 Member Data Documentation

25.58.4.1 SearchString_T& airsched::store_adult_passenger_type::_searchString

Definition at line 160 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.59 airsched::store_airline_code Struct Reference

Public Member Functions

- [store_airline_code](#) (SearchString_T &ioSearchString)
- void [operator\(\)](#) (iterator_t iStr, iterator_t iStrEnd) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.59.1 Detailed Description

Store the parsed airline code.

Definition at line 92 of file [BookingRequestParser.cpp](#).

25.59.2 Constructor & Destructor Documentation

25.59.2.1 airsched::store_airline_code::store_airline_code (SearchString_T & ioSearchString) [inline]

Constructor.

Definition at line 94 of file [BookingRequestParser.cpp](#).

25.59.3 Member Function Documentation

25.59.3.1 void airsched::store_airline_code::operator() (iterator_t iStr, iterator_t iStrEnd) const [inline]

Parse the airline code.

Definition at line 98 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString_T::_airlineList](#), [airsched::Airline_T::_code](#), [_searchString](#), and [airsched::SearchString_T::_tmpAirline](#).

25.59.4 Member Data Documentation

25.59.4.1 SearchString_T& airsched::store_airline_code::_searchString

Definition at line 107 of file [BookingRequestParser.cpp](#).

Referenced by [operator>\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.60 airsched::store_airline_name Struct Reference

Public Member Functions

- [store_airline_name](#) (SearchString_T &ioSearchString)
- void [operator\(\)](#) (iterator_t iStr, iterator_t iStrEnd) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.60.1 Detailed Description

Store the parsed airline name.

Definition at line 111 of file [BookingRequestParser.cpp](#).

25.60.2 Constructor & Destructor Documentation

25.60.2.1 airsched::store_airline_name::store_airline_name (SearchString_T & ioSearchString) [inline]

Constructor.

Definition at line 113 of file [BookingRequestParser.cpp](#).

25.60.3 Member Function Documentation

25.60.3.1 void airsched::store_airline_name::operator() (iterator_t iStr, iterator_t iStrEnd) const [inline]

Parse the airline name.

Definition at line 117 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString_T::_airlineList](#), [airsched::Airline_T::_name](#), [_searchString](#), and [airsched::SearchString_T::_tmpAirline](#).

25.60.4 Member Data Documentation

25.60.4.1 SearchString_T& airsched::store_airline_name::_searchString

Definition at line 126 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.61 airsched::store_airline_sign Struct Reference

Public Member Functions

- [store_airline_sign](#) (SearchString_T &ioSearchString)
- void [operator\(\)](#) (bool iAirlineSign) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.61.1 Detailed Description

Store the airline sign (+/-).

Definition at line 77 of file [BookingRequestParser.cpp](#).

25.61.2 Constructor & Destructor Documentation

25.61.2.1 aircshed::store_airline_sign::store_airline_sign (SearchString_T & ioSearchString) [inline]

Constructor.

Definition at line 79 of file [BookingRequestParser.cpp](#).

25.61.3 Member Function Documentation

25.61.3.1 void aircshed::store_airline_sign::operator() (bool iAirlineSign) const [inline]

Parse the airline sign.

Definition at line 83 of file [BookingRequestParser.cpp](#).

References [aircsched::Airline_T::_isPreferred](#), [_searchString](#), and [aircsched::SearchString_T::_tmpAirline](#).

25.61.4 Member Data Documentation

25.61.4.1 SearchString_T& aircshed::store_airline_sign::_searchString

Definition at line 88 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [aircsched/batches/BookingRequestParser.cpp](#)

25.62 aircshed::store_child_passenger_type Struct Reference

Public Member Functions

- [store_child_passenger_type](#) (SearchString_T &ioSearchString)
- void [operator\(\)](#) (iterator_t iStr, iterator_t iStrEnd) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.62.1 Detailed Description

Store the parsed passenger type.

Definition at line 164 of file [BookingRequestParser.cpp](#).

25.62.2 Constructor & Destructor Documentation

25.62.2.1 `airsched::store_child_passenger_type::store_child_passenger_type (SearchString_T & ioSearchString) [inline]`

Constructor.

Definition at line 166 of file [BookingRequestParser.cpp](#).

25.62.3 Member Function Documentation

25.62.3.1 `void airsched::store_child_passenger_type::operator() (iterator_t iStr, iterator_t iStrEnd) const [inline]`

Parse child passenger type.

Definition at line 170 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString_T::_passengerList](#), [_searchString](#), [airsched::SearchString_T::_tmpPassenger](#), [airsched::Passenger_T::_type](#), and [airsched::Passenger_T::CHILD](#).

25.62.4 Member Data Documentation

25.62.4.1 `SearchString_T& airsched::store_child_passenger_type::_searchString`

Definition at line 179 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.63 `airsched::store_date` Struct Reference

Public Member Functions

- [store_date](#) ([SearchString_T](#) &ioSearchString)
- [void operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.63.1 Detailed Description

Store a parsed date.

Definition at line 58 of file [BookingRequestParser.cpp](#).

25.63.2 Constructor & Destructor Documentation

25.63.2.1 `airsched::store_date::store_date (SearchString_T & ioSearchString)`
[[inline](#)]

Constructor.

Definition at line 60 of file [BookingRequestParser.cpp](#).

25.63.3 Member Function Documentation

25.63.3.1 `void airsched::store_date::operator() (iterator_t iStr, iterator_t iStrEnd) const`
[[inline](#)]

Parse the date.

Definition at line 64 of file [BookingRequestParser.cpp](#).

References [airsched::Date_T::_date](#), [airsched::SearchString_T::_dateList](#), [_searchString](#), [airsched::SearchString_T::_tmpDate](#), and [airsched::Date_T::getDate\(\)](#).

25.63.4 Member Data Documentation

25.63.4.1 `SearchString_T& airsched::store_date::_searchString`

Definition at line 73 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.64 `airsched::store_passenger_number` Struct Reference

Public Member Functions

- `store_passenger_number` ([SearchString_T](#) &ioSearchString)
- `void operator()` (unsigned int iNumber) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.64.1 Detailed Description

Store the parsed number of passengers.

Definition at line 130 of file [BookingRequestParser.cpp](#).

25.64.2 Constructor & Destructor Documentation

25.64.2.1 `airsched::store_passenger_number::store_passenger_number (SearchString_T & ioSearchString) [inline]`

Constructor.

Definition at line 132 of file [BookingRequestParser.cpp](#).

25.64.3 Member Function Documentation

25.64.3.1 `void airsched::store_passenger_number::operator() (unsigned int iNumber) const [inline]`

Parse number of passengers.

Definition at line 136 of file [BookingRequestParser.cpp](#).

References [airsched::Passenger_T::_number](#), [_searchString](#), and [airsched::SearchString_T::_tmpPassenger](#).

25.64.4 Member Data Documentation

25.64.4.1 `SearchString_T& airsched::store_passenger_number::_searchString`

Definition at line 141 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.65 `airsched::store_pet_passenger_type` Struct Reference

Public Member Functions

- [store_pet_passenger_type](#) ([SearchString_T](#) &ioSearchString)
- `void operator() (iterator_t iStr, iterator_t iStrEnd) const`

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.65.1 Detailed Description

Store the parsed passenger type.

Definition at line 183 of file [BookingRequestParser.cpp](#).

25.65.2 Constructor & Destructor Documentation

25.65.2.1 airsched::store_pet_passenger_type::store_pet_passenger_type (SearchString_T & ioSearchString) [inline]

Constructor.

Definition at line 185 of file [BookingRequestParser.cpp](#).

25.65.3 Member Function Documentation

25.65.3.1 void airsched::store_pet_passenger_type::operator() (iterator_t iStr, iterator_t iStrEnd) const [inline]

Parse pet passenger type.

Definition at line 189 of file [BookingRequestParser.cpp](#).

References [airsched::SearchString_T::_passengerList](#), [_searchString](#), [airsched::SearchString_T::_tmpPassenger](#), [airsched::Passenger_T::_type](#), and [airsched::Passenger_T::PET](#).

25.65.4 Member Data Documentation

25.65.4.1 SearchString_T& airsched::store_pet_passenger_type::_searchString

Definition at line 198 of file [BookingRequestParser.cpp](#).

Referenced by [operator\(\)\(\)](#).

The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.66 airsched::store_place_element Struct Reference

Public Member Functions

- [store_place_element](#) ([SearchString_T](#) &ioSearchString)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [SearchString_T](#) & [_searchString](#)

25.66.1 Detailed Description

Store the parsed place element.

Definition at line 37 of file [BookingRequestParser.cpp](#).

25.67 AIRSCHED::ScheduleParserHelper::storeAirlineCode Struct Reference 252

25.66.2 Constructor & Destructor Documentation

25.66.2.1 `airsched::store_place_element::store_place_element (SearchString_T & ioSearchString)` `[inline]`

Constructor.

Definition at line 39 of file [BookingRequestParser.cpp](#).

25.66.3 Member Function Documentation

25.66.3.1 `void airschd::store_place_element::operator() (iterator_t iStr, iterator_t iStrEnd) const` `[inline]`

Parse the place.

Definition at line 43 of file [BookingRequestParser.cpp](#).

References [airsched::Place_T::_name](#), [_searchString](#), and [airsched::SearchString_T::_tmpPlace](#).

25.66.4 Member Data Documentation

25.66.4.1 `SearchString_T& airschd::store_place_element::_searchString`

Definition at line 54 of file [BookingRequestParser.cpp](#).

Referenced by [operator>\(\)](#).

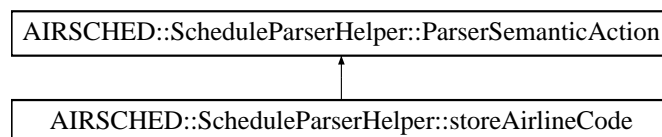
The documentation for this struct was generated from the following file:

- [airsched/batches/BookingRequestParser.cpp](#)

25.67 AIRSCHED::ScheduleParserHelper::storeAirlineCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeAirlineCode:



Public Member Functions

- [storeAirlineCode](#) ([FlightPeriodStruct](#) &)
- `void operator\(\) (iterator_t iStr, iterator_t iStrEnd) const`

25.67 AIRSCHED::ScheduleParserHelper::storeAirlineCode Struct Reference 253

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.67.1 Detailed Description

Store the parsed airline code.

Definition at line 37 of file [ScheduleParserHelper.hpp](#).

25.67.2 Constructor & Destructor Documentation

25.67.2.1 **AIRSCHED::ScheduleParserHelper::storeAirlineCode-
::storeAirlineCode** ([FlightPeriodStruct](#) & *ioFlightPeriod*
)

Actor Constructor.

Definition at line 32 of file [ScheduleParserHelper.cpp](#).

25.67.3 Member Function Documentation

25.67.3.1 **void AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator()** ([iterator_t](#)
 iStr, [iterator_t](#) *iStrEnd*) const

Actor Function (functor).

Definition at line 37 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_airlineCode](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::_legList](#).

25.67.4 Member Data Documentation

25.67.4.1 **FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser-
SemanticAction::_flightPeriod** [*inherited*]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#),

[AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)\(\)](#).

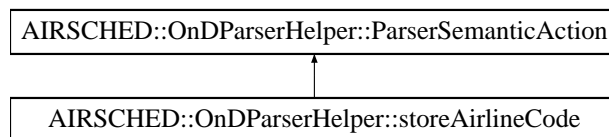
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.68 AIRSCHED::OnDParserHelper::storeAirlineCode Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeAirlineCode:



Public Member Functions

- [storeAirlineCode](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.68.1 Detailed Description

Store the parsed airline code.

Definition at line 90 of file [OnDParserHelper.hpp](#).

25.68.2 Constructor & Destructor Documentation

25.69 AIRSCHED::ScheduleParserHelper::storeBoardingTime Struct Reference 255

25.68.2.1 AIRSCHED::OnDParserHelper::storeAirlineCode::storeAirlineCode (OnDPeriodStruct & ioOnDPeriod)

Actor Constructor.

Definition at line 139 of file [OnDParserHelper.cpp](#).

25.68.3 Member Function Documentation

25.68.3.1 void AIRSCHED::OnDParserHelper::storeAirlineCode::operator() (iterator_t iStr, iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 144 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_airlineCode](#), [AIRSCHED::OnDPeriodStruct::_airlineCodeList](#), [AIRSCHED::OnDPeriodStruct::_nbOfAirlines](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#).

25.68.4 Member Data Documentation

25.68.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)\(\)](#), [operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)\(\)](#).

The documentation for this struct was generated from the following files:

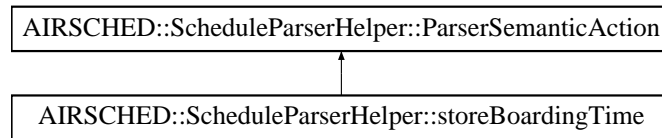
- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.69 AIRSCHED::ScheduleParserHelper::storeBoardingTime Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeBoardingTime:

25.69 AIRSCHED::ScheduleParserHelper::storeBoardingTime Struct Reference 256



Public Member Functions

- [storeBoardingTime](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.69.1 Detailed Description

Store the boarding time.

Definition at line 93 of file [ScheduleParserHelper.hpp](#).

25.69.2 Constructor & Destructor Documentation

25.69.2.1 AIRSCHED::ScheduleParserHelper::storeBoardingTime::storeBoardingTime ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 155 of file [ScheduleParserHelper.cpp](#).

25.69.3 Member Function Documentation

25.69.3.1 void AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator() ([iterator_t](#) *iStr*, [iterator_t](#) *iStrEnd*) const

Actor Function (functor).

Definition at line 160 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::_boardingTime](#), [AIRSCHED::FlightPeriodStruct::_dateOffset](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itLeg](#), [AIRSCHED::FlightPeriodStruct::_itSeconds](#), and [AIRSCHED::FlightPeriodStruct::getTime\(\)](#).

25.69.4 Member Data Documentation

25.69.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser-SemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [-AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

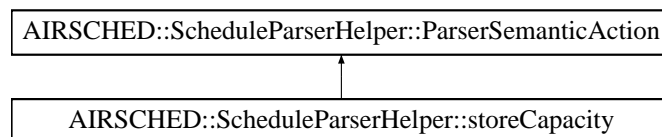
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.70 AIRSCHED::ScheduleParserHelper::storeCapacity Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeCapacity:



Public Member Functions

- [storeCapacity](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) (double iReal) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.70.1 Detailed Description

Store the parsed capacity.

Definition at line 125 of file [ScheduleParserHelper.hpp](#).

25.70.2 Constructor & Destructor Documentation

25.70.2.1 AIRSCHED::ScheduleParserHelper::storeCapacity::storeCapacity ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 227 of file [ScheduleParserHelper.cpp](#).

25.70.3 Member Function Documentation

25.70.3.1 void AIRSCHED::ScheduleParserHelper::storeCapacity::operator() (double *iReal*) const

Actor Function (functor).

Definition at line 232 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::_cabinList](#), [AIRSCHED::LegCabinStruct::_capacity](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itLeg](#), and [AIRSCHED::FlightPeriodStruct::_itLeg-Cabin](#).

25.70.4 Member Data Documentation

25.70.4.1 [FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#) [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParser-](#)

Helper::storeElapsedTime::operator>(), AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator(), operator(), AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator(), AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator(), AIRSCHED::ScheduleParserHelper::storeClasses::operator(), AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator(), AIRSCHED::ScheduleParserHelper::storeFClasses::operator(), and AIRSCHED::ScheduleParserHelper::doEndFlight::operator()).

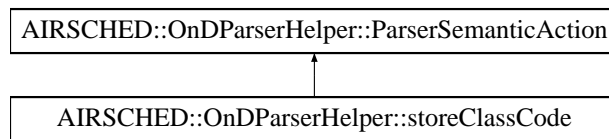
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.71 AIRSCHED::OnDParserHelper::storeClassCode Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeClassCode:



Public Member Functions

- [storeClassCode](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) (char iChar) const

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.71.1 Detailed Description

Store the parsed class code.

Definition at line 98 of file [OnDParserHelper.hpp](#).

25.71.2 Constructor & Destructor Documentation

25.71.2.1 AIRSCHED::OnDParserHelper::storeClassCode::storeClassCode (OnDPeriodStruct & ioOnDPeriod)

Actor Constructor.

Definition at line 172 of file [OnDParserHelper.cpp](#).

25.71.3 Member Function Documentation

25.71.3.1 void AIRSCHED::OnDParserHelper::storeClassCode::operator() (char iChar) const

Actor Function (functor).

Definition at line 177 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_classCode](#), [AIRSCHED::OnDPeriodStruct::_classCodeList](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#).

25.71.4 Member Data Documentation

25.71.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)\(\)](#), [operator\(\)\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)\(\)](#).

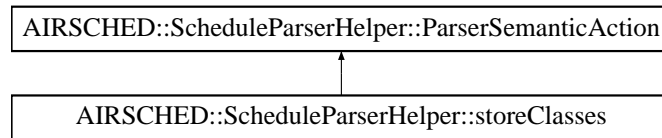
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.72 AIRSCHED::ScheduleParserHelper::storeClasses Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeClasses:



Public Member Functions

- [storeClasses](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.72.1 Detailed Description

Store the parsed list of class codes.

Definition at line 168 of file [ScheduleParserHelper.hpp](#).

25.72.2 Constructor & Destructor Documentation

25.72.2.1 AIRSCHED::ScheduleParserHelper::storeClasses::storeClasses ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 309 of file [ScheduleParserHelper.cpp](#).

25.72.3 Member Function Documentation

25.72.3.1 void AIRSCHED::ScheduleParserHelper::storeClasses::operator() ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Actor Function (functor).

Definition at line 314 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_areSegmentDefinitionsSpecific](#), [AIRSCHED::SegmentCabinStruct::_classes](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itSegment](#), [AIRSCHED::FlightPeriodStruct::_itSegmentCabin](#), and [AIRSCHED::FlightPeriodStruct::addSegmentCabin\(\)](#).

25.72.4 Member Data Documentation

25.72.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [-AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [-AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

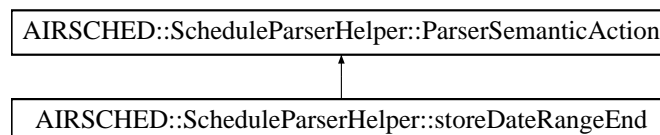
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.73 AIRSCHED::ScheduleParserHelper::storeDateRangeEnd Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeDateRangeEnd:



Public Member Functions

- [storeDateRangeEnd](#) ([FlightPeriodStruct](#) &)
- [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.73.1 Detailed Description

Store the end of the date range.

Definition at line 61 of file [ScheduleParserHelper.hpp](#).

25.73.2 Constructor & Destructor Documentation

25.73.2.1 AIRSCHED::ScheduleParserHelper::storeDateRangeEnd- ::storeDateRangeEnd ([FlightPeriodStruct](#) & [ioFlightPeriod](#))

Actor Constructor.

Definition at line 75 of file [ScheduleParserHelper.cpp](#).

25.73.3 Member Function Documentation

25.73.3.1 void AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator() ([iterator_t](#) [iStr](#), [iterator_t](#) [iStrEnd](#)) const

Actor Function (functor).

Definition at line 80 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_dateRange](#), [AIRSCHED::FlightPeriodStruct::_dateRangeEnd](#), [AIRSCHED::FlightPeriodStruct::_dateRangeStart](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itSeconds](#), and [AIRSCHED::FlightPeriodStruct::getDate\(\)](#).

25.73.4 Member Data Documentation

25.73.4.1 [FlightPeriodStruct&](#) [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#) [\[inherited\]](#)

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#).

25.74 AIRSCHED::OnDParserHelper::storeDateRangeEnd Struct Reference 264

[AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

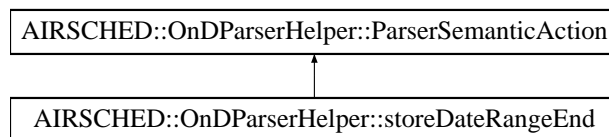
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.74 AIRSCHED::OnDParserHelper::storeDateRangeEnd Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeDateRangeEnd:



Public Member Functions

- [storeDateRangeEnd](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.74.1 Detailed Description

Store the end of the date range.

Definition at line 66 of file [OnDParserHelper.hpp](#).

25.74.2 Constructor & Destructor Documentation

25.75 AIRSCHED::OnDParserHelper::storeDateRangeStart Struct Reference 265

25.74.2.1 AIRSCHED::OnDParserHelper::storeDateRangeEnd-
::storeDateRangeEnd (OnDPeriodStruct & ioOnDPeriod
)

Actor Constructor.

Definition at line 83 of file [OnDParserHelper.cpp](#).

25.74.3 Member Function Documentation

25.74.3.1 void AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator() (iterator_t iStr,
iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 88 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_datePeriod](#), [AIRSCHED::OnDPeriodStruct::_dateRangeEnd](#), [AIRSCHED::OnDPeriodStruct::_dateRangeStart](#), [AIRSCHED::OnDPeriodStruct::_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#), and [AIRSCHED::OnDPeriodStruct::getDate\(\)](#).

25.74.4 Member Data Documentation

25.74.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemantic-
Action::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

The documentation for this struct was generated from the following files:

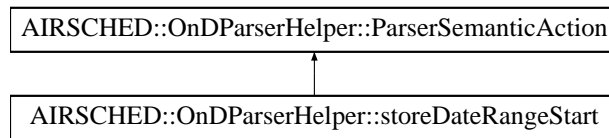
- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.75 AIRSCHED::OnDParserHelper::storeDateRangeStart Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeDateRangeStart:

25.75 AIRSCHED::OnDParserHelper::storeDateRangeStart Struct Reference 266



Public Member Functions

- [storeDateRangeStart](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.75.1 Detailed Description

Store the start of the date range.

Definition at line 58 of file [OnDParserHelper.hpp](#).

25.75.2 Constructor & Destructor Documentation

25.75.2.1 AIRSCHED::OnDParserHelper::storeDateRangeStart- ::storeDateRangeStart (OnDPeriodStruct & ioOnDPeriod)

Actor Constructor.

Definition at line 66 of file [OnDParserHelper.cpp](#).

25.75.3 Member Function Documentation

25.75.3.1 void AIRSCHED::OnDParserHelper::storeDateRangeStart::operator() (iterator_t iStr, iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 71 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_dateRangeStart](#), [AIRSCHED::OnDPeriodStruct::_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#), and [AIRSCHED::OnDPeriodStruct::getDate\(\)](#).

25.75.4 Member Data Documentation

25.75.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

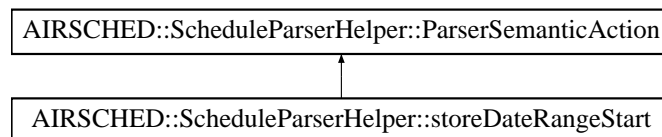
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.76 AIRSCHED::ScheduleParserHelper::storeDateRangeStart Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeDateRangeStart:



Public Member Functions

- [storeDateRangeStart](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.76.1 Detailed Description

Store the start of the date range.

Definition at line 53 of file [ScheduleParserHelper.hpp](#).

25.76.2 Constructor & Destructor Documentation

25.76.2.1 AIRSCHED::ScheduleParserHelper::storeDateRangeStart- ::storeDateRangeStart (FlightPeriodStruct & ioFlightPeriod)

Actor Constructor.

Definition at line 60 of file [ScheduleParserHelper.cpp](#).

25.76.3 Member Function Documentation

25.76.3.1 void AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator() (iterator_t iStr, iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 65 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_dateRangeStart](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itSeconds](#), and [AIRSCHED::FlightPeriodStruct::getDate\(\)](#).

25.76.4 Member Data Documentation

25.76.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser- SemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

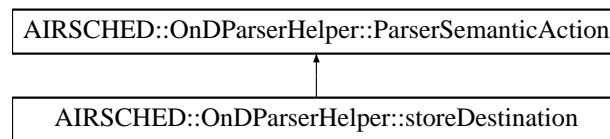
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.77 AIRSCHED::OnDParserHelper::storeDestination Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeDestination:



Public Member Functions

- [storeDestination](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.77.1 Detailed Description

Store the parsed destination.

Definition at line 50 of file [OnDParserHelper.hpp](#).

25.77.2 Constructor & Destructor Documentation

25.77.2.1 AIRSCHED::OnDParserHelper::storeDestination::storeDestination ([OnDPeriodStruct](#) & *ioOnDPeriod*)

Actor Constructor.

Definition at line 50 of file [OnDParserHelper.cpp](#).

25.77.3 Member Function Documentation

25.77.3.1 void AIRSCHED::OnDParserHelper::storeDestination::operator() ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Actor Function (functor).

Definition at line 55 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_destination](#), and [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#).

25.77.4 Member Data Documentation

25.77.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

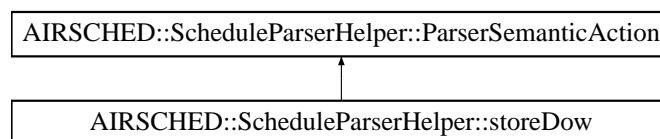
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.78 AIRSCHED::ScheduleParserHelper::storeDow Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeDow:



Public Member Functions

- [storeDow](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.78.1 Detailed Description

Store the DOW (day of the Week).

Definition at line 69 of file [ScheduleParserHelper.hpp](#).

25.78.2 Constructor & Destructor Documentation

25.78.2.1 AIRSCHED::ScheduleParserHelper::storeDow::storeDow (
 FlightPeriodStruct & ioFlightPeriod)

Actor Constructor.

Definition at line 98 of file [ScheduleParserHelper.cpp](#).

25.78.3 Member Function Documentation

25.78.3.1 void AIRSCHED::ScheduleParserHelper::storeDow::operator() (iterator_t iStr,
 iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 103 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_dow](#), and [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#).

25.78.4 Member Data Documentation

25.78.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser-
 SemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), -

25.79 AIRSCHED::ScheduleParserHelper::storeElapsedTime Struct Reference 272

[AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

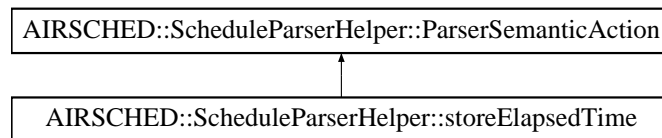
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.79 AIRSCHED::ScheduleParserHelper::storeElapsedTime Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeElapsedTime:



Public Member Functions

- [storeElapsedTime](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.79.1 Detailed Description

Store the elapsed time.

Definition at line 109 of file [ScheduleParserHelper.hpp](#).

25.79.2 Constructor & Destructor Documentation

25.79.2.1 AIRSCHED::ScheduleParserHelper::storeElapsedTime- ::storeElapsedTime ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 194 of file [ScheduleParserHelper.cpp](#).

25.80 AIRSCHED::OnDParserHelper::storeEndRangeTime Struct Reference 273

25.79.3 Member Function Documentation

25.79.3.1 void AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator() (iterator_t iStr, iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 199 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_dateOffset](#), [AIRSCHED::LegStruct::_elapsed](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itLeg](#), [AIRSCHED::FlightPeriodStruct::_itSeconds](#), [AIRSCHED::LegStruct::_offDateOffset](#), and [AIRSCHED::FlightPeriodStruct::getTime\(\)](#).

25.79.4 Member Data Documentation

25.79.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

The documentation for this struct was generated from the following files:

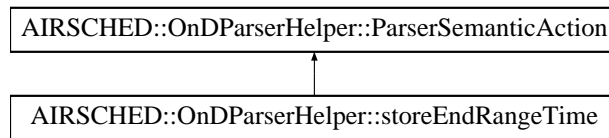
- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.80 AIRSCHED::OnDParserHelper::storeEndRangeTime Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeEndRangeTime:

25.80 AIRSCHED::OnDParserHelper::storeEndRangeTime Struct Reference 274



Public Member Functions

- [storeEndRangeTime](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.80.1 Detailed Description

Store the end range time.

Definition at line 82 of file [OnDParserHelper.hpp](#).

25.80.2 Constructor & Destructor Documentation

25.80.2.1 **AIRSCHED::OnDParserHelper::storeEndRangeTime-
::storeEndRangeTime** ([OnDPeriodStruct](#) & *ioOnDPeriod*
)

Actor Constructor.

Definition at line 124 of file [OnDParserHelper.cpp](#).

25.80.3 Member Function Documentation

25.80.3.1 **void AIRSCHED::OnDParserHelper::storeEndRangeTime::operator()** ([iterator_t](#) *iStr*,
[iterator_t](#) *iStrEnd*) const

Actor Function (functor).

Definition at line 129 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#), [AIRSCHED::OnDPeriodStruct::_timeRangeEnd](#), and [AIRSCHED::OnDPeriodStruct::getTime\(\)](#).

25.80.4 Member Data Documentation

25.81 AIRSCHED::ScheduleParserHelper::storeFamilyCode Struct Reference 275

25.80.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

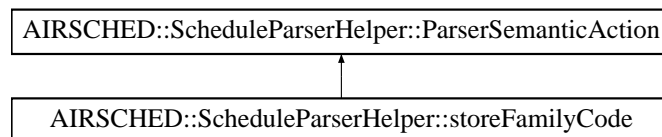
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.81 AIRSCHED::ScheduleParserHelper::storeFamilyCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFamilyCode:



Public Member Functions

- [storeFamilyCode](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (int iCode) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.81.1 Detailed Description

Store the parsed family code.

Definition at line 176 of file [ScheduleParserHelper.hpp](#).

25.81 AIRSCHED::ScheduleParserHelper::storeFamilyCode Struct Reference 276

25.81.2 Constructor & Destructor Documentation

25.81.2.1 AIRSCHED::ScheduleParserHelper::storeFamilyCode- ::storeFamilyCode (FlightPeriodStruct & ioFlightPeriod)

Actor Constructor.

Definition at line 334 of file [ScheduleParserHelper.cpp](#).

25.81.3 Member Function Documentation

25.81.3.1 void AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator() (int iCode) const

Actor Function (functor).

Definition at line 339 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::SegmentCabinStruct::_itFamilyCode](#), and [AIRSCHED::FlightPeriodStruct::_itSegmentCabin](#).

25.81.4 Member Data Documentation

25.81.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser- SemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDown::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)\(\)](#), [operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)\(\)](#).

The documentation for this struct was generated from the following files:

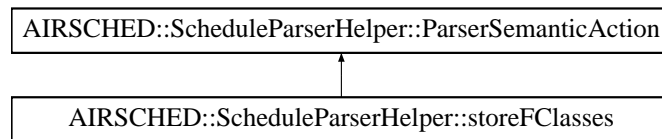
25.82 AIRSCHED::ScheduleParserHelper::storeFClasses Struct Reference 277

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.82 AIRSCHED::ScheduleParserHelper::storeFClasses Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFClasses:



Public Member Functions

- [storeFClasses](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.82.1 Detailed Description

Store the parsed list of class codes (for families).

Definition at line 184 of file [ScheduleParserHelper.hpp](#).

25.82.2 Constructor & Destructor Documentation

25.82.2.1 AIRSCHED::ScheduleParserHelper::storeFClasses::storeFClasses ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 347 of file [ScheduleParserHelper.cpp](#).

25.82.3 Member Function Documentation

25.82.3.1 void AIRSCHED::ScheduleParserHelper::storeFClasses::operator() ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Actor Function (functor).

25.83 AIRSCHED::ScheduleParserHelper::storeFlightNumber Struct Reference 278

Definition at line 352 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_areSegmentDefinitionsSpecific](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::SegmentCabinStruct::_itFamilyCode](#), [AIRSCHED::FlightPeriodStruct::_itSegment](#), [AIRSCHED::FlightPeriodStruct::_itSegmentCabin](#), and [AIRSCHED::FlightPeriodStruct::addFareFamily\(\)](#).

25.82.4 Member Data Documentation

25.82.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDown::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

The documentation for this struct was generated from the following files:

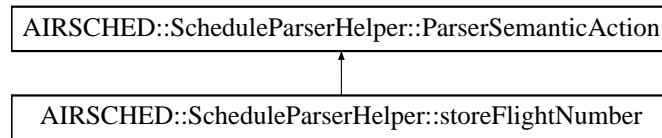
- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.83 AIRSCHED::ScheduleParserHelper::storeFlightNumber Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeFlightNumber:

25.83 AIRSCHED::ScheduleParserHelper::storeFlightNumber Struct Reference 279



Public Member Functions

- [storeFlightNumber](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (unsigned int iNumber) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.83.1 Detailed Description

Store the parsed flight number.

Definition at line 45 of file [ScheduleParserHelper.hpp](#).

25.83.2 Constructor & Destructor Documentation

25.83.2.1 AIRSCHED::ScheduleParserHelper::storeFlightNumber- ::storeFlightNumber ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 49 of file [ScheduleParserHelper.cpp](#).

25.83.3 Member Function Documentation

25.83.3.1 void AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator() (unsigned int *iNumber*) const

Actor Function (functor).

Definition at line 54 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_flightNumber](#), and [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#).

25.83.4 Member Data Documentation

25.83.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser-SemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

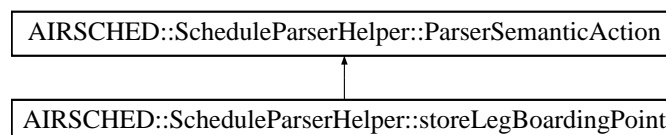
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.84 AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint Struct - Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint:



Public Member Functions

- [storeLegBoardingPoint](#) ([FlightPeriodStruct](#) &)
- [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.84.1 Detailed Description

Store the parsed leg boarding point.

Definition at line 77 of file [ScheduleParserHelper.hpp](#).

25.84.2 Constructor & Destructor Documentation

25.84.2.1 AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::storeLegBoardingPoint ([FlightPeriodStruct](#) & [ioFlightPeriod](#))

Actor Constructor.

Definition at line 110 of file [ScheduleParserHelper.cpp](#).

25.84.3 Member Function Documentation

25.84.3.1 void AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator() ([iterator_t iStr](#), [iterator_t iStrEnd](#)) const

Actor Function (functor).

Definition at line 115 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::_boardingPoint](#), [AIRSCHED::LegStruct::_cabinList](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itLeg](#), [AIRSCHED::FlightPeriodStruct::_legAlreadyDefined](#), [AIRSCHED::FlightPeriodStruct::_legList](#), and [AIRSCHED::FlightPeriodStruct::addAirport\(\)](#).

25.84.4 Member Data Documentation

25.84.4.1 [FlightPeriodStruct&](#) [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#) [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::storeBoardingTime-](#)

[::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

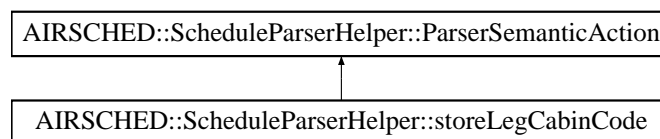
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.85 AIRSCHED::ScheduleParserHelper::storeLegCabinCode Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeLegCabinCode:



Public Member Functions

- [storeLegCabinCode](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (char iChar) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.85.1 Detailed Description

Store the parsed leg cabin code.

Definition at line 117 of file [ScheduleParserHelper.hpp](#).

25.85.2 Constructor & Destructor Documentation

25.85.2.1 AIRSCHED::ScheduleParserHelper::storeLegCabinCode-
::storeLegCabinCode (FlightPeriodStruct & ioFlightPeriod
)

Actor Constructor.

Definition at line 215 of file [ScheduleParserHelper.cpp](#).

25.85.3 Member Function Documentation

25.85.3.1 void AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator() (char iChar)
const

Actor Function (functor).

Definition at line 220 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegCabinStruct::_cabinCode](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::_itLegCabin](#).

25.85.4 Member Data Documentation

25.85.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser-
SemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

The documentation for this struct was generated from the following files:

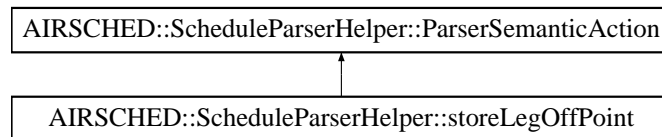
- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.86 AIRSCHED::ScheduleParserHelper::storeLegOffPoint Struct Reference 284

25.86 AIRSCHED::ScheduleParserHelper::storeLegOffPoint Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeLegOffPoint:



Public Member Functions

- [storeLegOffPoint](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.86.1 Detailed Description

Store the parsed leg off point.

Definition at line [85](#) of file [ScheduleParserHelper.hpp](#).

25.86.2 Constructor & Destructor Documentation

25.86.2.1 AIRSCHED::ScheduleParserHelper::storeLegOffPoint- ::storeLegOffPoint ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line [139](#) of file [ScheduleParserHelper.cpp](#).

25.86.3 Member Function Documentation

25.86.3.1 void AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator() ([iterator_t](#) *iStr*, [iterator_t](#) *iStrEnd*) const

Actor Function (functor).

Definition at line [144](#) of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itLeg](#), [AIRSCHED::LegStruct::_offPoint](#), and [AIRSCHED::FlightPeriodStruct::addAirport\(\)](#).

25.86.4 Member Data Documentation

25.86.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

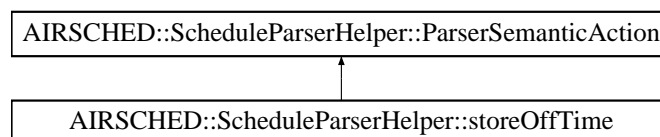
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.87 AIRSCHED::ScheduleParserHelper::storeOffTime Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeOffTime:



Public Member Functions

- [storeOffTime](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.87.1 Detailed Description

Store the off time.

Definition at line 101 of file [ScheduleParserHelper.hpp](#).

25.87.2 Constructor & Destructor Documentation

25.87.2.1 AIRSCHED::ScheduleParserHelper::storeOffTime::storeOffTime ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 173 of file [ScheduleParserHelper.cpp](#).

25.87.3 Member Function Documentation

25.87.3.1 void AIRSCHED::ScheduleParserHelper::storeOffTime::operator() ([iterator_t](#) *iStr*, [iterator_t](#) *iStrEnd*) const

Actor Function (functor).

Definition at line 178 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::LegStruct::_boardingDateOffset](#), [AIRSCHED::FlightPeriodStruct::_dateOffset](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itLeg](#), [AIRSCHED::FlightPeriodStruct::_itSeconds](#), [AIRSCHED::LegStruct::_offTime](#), and [AIRSCHED::FlightPeriodStruct::getTime\(\)](#).

25.87.4 Member Data Documentation

25.87.4.1 [FlightPeriodStruct](#)& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [-AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDown::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [-AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

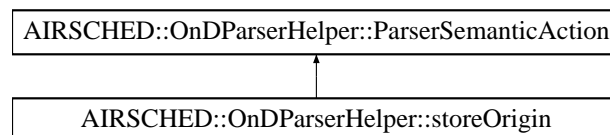
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.88 AIRSCHED::OnDParserHelper::storeOrigin Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeOrigin:



Public Member Functions

- [storeOrigin \(OnDPeriodStruct &\)](#)
- [void operator\(\) \(iterator_t iStr, iterator_t iStrEnd\) const](#)

Public Attributes

- [OnDPeriodStruct & _onDPeriod](#)

25.88.1 Detailed Description

Store the parsed origin.

Definition at line 42 of file [OnDParserHelper.hpp](#).

25.88.2 Constructor & Destructor Documentation

25.88.2.1 AIRSCHED::OnDParserHelper::storeOrigin::storeOrigin (OnDPeriodStruct & *ioOnDPeriod*)

Actor Constructor.

Definition at line 30 of file [OnDParserHelper.cpp](#).

25.88.3 Member Function Documentation

25.88.3.1 void AIRSCHED::OnDParserHelper::storeOrigin::operator() (iterator_t *iStr*, iterator_t *iStrEnd*) const

Actor Function (functor).

Definition at line 35 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_airlineCode](#), [AIRSCHED::OnDPeriodStruct::_airlineCodeList](#), [AIRSCHED::OnDPeriodStruct::_classCode](#), [AIRSCHED::OnDPeriodStruct::_classCodeList](#), [AIRSCHED::OnDPeriodStruct::_nbOfAirlines](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#), and [AIRSCHED::OnDPeriodStruct::_origin](#).

25.88.4 Member Data Documentation

25.88.4.1 OnDPeriodStruct& AIRSCHED::OnDParserHelper::ParserSemantic- Action::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeStartRangeTime::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)\(\)](#).

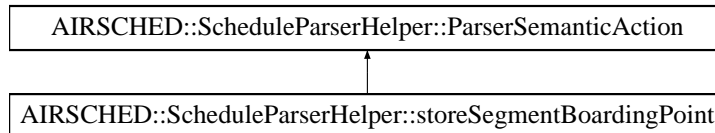
The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.89 AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint:



Public Member Functions

- [storeSegmentBoardingPoint](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.89.1 Detailed Description

Store the parsed segment boarding point.

Definition at line 144 of file [ScheduleParserHelper.hpp](#).

25.89.2 Constructor & Destructor Documentation

25.89.2.1 AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::storeSegmentBoardingPoint ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 272 of file [ScheduleParserHelper.cpp](#).

25.89.3 Member Function Documentation

25.89.3.1 void AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator() ([iterator_t](#) *iStr*, [iterator_t](#) *iStrEnd*) const

Actor Function (functor).

Definition at line 277 of file [ScheduleParserHelper.cpp](#).

25.90 AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode Struct Reference

290

References [AIRSCHED::SegmentStruct::_boardingPoint](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::_itSegment](#).

25.89.4 Member Data Documentation

25.89.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

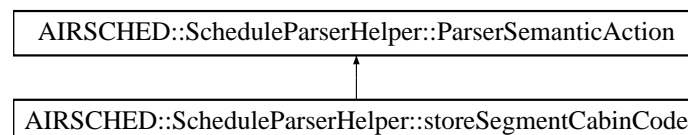
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.90 AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode Struct - Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode:



Public Member Functions

- [storeSegmentCabinCode](#) ([FlightPeriodStruct](#) &)
- void [operator\(\)](#) (char iChar) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.90.1 Detailed Description

Store the parsed segment cabin code.

Definition at line 160 of file [ScheduleParserHelper.hpp](#).

25.90.2 Constructor & Destructor Documentation

25.90.2.1 **AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode-
::storeSegmentCabinCode** ([FlightPeriodStruct](#) & *ioFlightPeriod*
)

Actor Constructor.

Definition at line 298 of file [ScheduleParserHelper.cpp](#).

25.90.3 Member Function Documentation

25.90.3.1 **void AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator()** ([char](#)
iChar) const

Actor Function (functor).

Definition at line 303 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::SegmentCabinStruct::_cabinCode](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::_itSegmentCabin](#).

25.90.4 Member Data Documentation

25.90.4.1 **FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::Parser-
SemanticAction::_flightPeriod** [*inherited*]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED-](#)

[::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDown::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

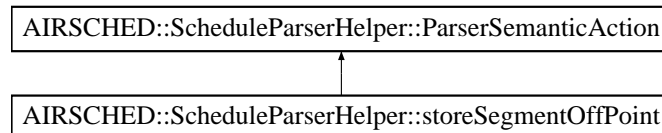
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.91 AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint Struct Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint:



Public Member Functions

- [storeSegmentOffPoint](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.91.1 Detailed Description

Store the parsed segment off point.

Definition at line 152 of file [ScheduleParserHelper.hpp](#).

25.91.2 Constructor & Destructor Documentation

25.91.2.1 AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::storeSegmentOffPoint (FlightPeriodStruct & ioFlightPeriod)

Actor Constructor.

Definition at line 285 of file [ScheduleParserHelper.cpp](#).

25.91.3 Member Function Documentation

25.91.3.1 void AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator() (iterator_t iStr, iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 290 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), [AIRSCHED::FlightPeriodStruct::_itSegment](#), and [AIRSCHED::SegmentStruct::_offPoint](#).

25.91.4 Member Data Documentation

25.91.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDown::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)\(\)](#), [operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)\(\)](#).

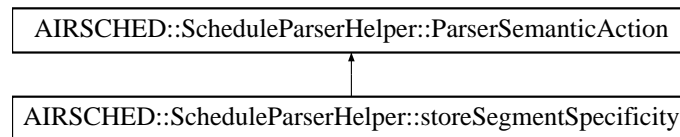
The documentation for this struct was generated from the following files:

- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.92 AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity Struct - Reference

```
#include <airsched/command/ScheduleParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity:



Public Member Functions

- [storeSegmentSpecificity](#) ([FlightPeriodStruct](#) &)
- [void operator\(\)](#) (char iChar) const

Public Attributes

- [FlightPeriodStruct](#) & [_flightPeriod](#)

25.92.1 Detailed Description

Store whether or not the segment definitions are specific. Specific means that there is a definition for each segment. General (not specific) means that a single definition defines all the segments.

Definition at line 136 of file [ScheduleParserHelper.hpp](#).

25.92.2 Constructor & Destructor Documentation

25.92.2.1 AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity- ::storeSegmentSpecificity ([FlightPeriodStruct](#) & *ioFlightPeriod*)

Actor Constructor.

Definition at line 246 of file [ScheduleParserHelper.cpp](#).

25.93 AIRSCHED::OnDParserHelper::storeStartRangeTime Struct Reference 295

25.92.3 Member Function Documentation

25.92.3.1 void AIRSCHED::ScheduleParserHelper::storeSegmentSpecificity::operator() (char iChar) const

Actor Function (functor).

Definition at line 251 of file [ScheduleParserHelper.cpp](#).

References [AIRSCHED::FlightPeriodStruct::_airportList](#), [AIRSCHED::FlightPeriodStruct::_airportOrderedList](#), [AIRSCHED::FlightPeriodStruct::_areSegmentDefinitionsSpecific](#), [AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod](#), and [AIRSCHED::FlightPeriodStruct::buildSegments\(\)](#).

25.92.4 Member Data Documentation

25.92.4.1 FlightPeriodStruct& AIRSCHED::ScheduleParserHelper::ParserSemanticAction::_flightPeriod [inherited]

Actor Context.

Definition at line 33 of file [ScheduleParserHelper.hpp](#).

Referenced by [AIRSCHED::ScheduleParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFlightNumber::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDateRangeEnd::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeDow::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeBoardingTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeOffTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeElapsedTime::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeLegCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeCapacity::operator\(\)](#), [operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentBoardingPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentOffPoint::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeSegmentCabinCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeClasses::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFamilyCode::operator\(\)](#), [AIRSCHED::ScheduleParserHelper::storeFClasses::operator\(\)](#), and [AIRSCHED::ScheduleParserHelper::doEndFlight::operator\(\)](#).

The documentation for this struct was generated from the following files:

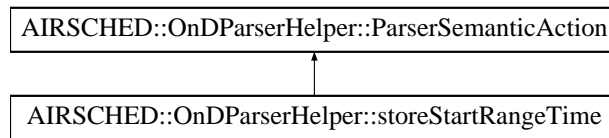
- [airsched/command/ScheduleParserHelper.hpp](#)
- [airsched/command/ScheduleParserHelper.cpp](#)

25.93 AIRSCHED::OnDParserHelper::storeStartRangeTime Struct Reference

```
#include <airsched/command/OnDParserHelper.hpp>
```

Inheritance diagram for AIRSCHED::OnDParserHelper::storeStartRangeTime:

25.93 AIRSCHED::OnDParserHelper::storeStartRangeTime Struct Reference 296



Public Member Functions

- [storeStartRangeTime](#) ([OnDPeriodStruct](#) &)
- void [operator\(\)](#) ([iterator_t](#) iStr, [iterator_t](#) iStrEnd) const

Public Attributes

- [OnDPeriodStruct](#) & [_onDPeriod](#)

25.93.1 Detailed Description

Store the start range time.

Definition at line 74 of file [OnDParserHelper.hpp](#).

25.93.2 Constructor & Destructor Documentation

25.93.2.1 AIRSCHED::OnDParserHelper::storeStartRangeTime- ::storeStartRangeTime (OnDPeriodStruct & ioOnDPeriod)

Actor Constructor.

Definition at line 109 of file [OnDParserHelper.cpp](#).

25.93.3 Member Function Documentation

25.93.3.1 void AIRSCHED::OnDParserHelper::storeStartRangeTime::operator() (iterator_t iStr, iterator_t iStrEnd) const

Actor Function (functor).

Definition at line 114 of file [OnDParserHelper.cpp](#).

References [AIRSCHED::OnDPeriodStruct::_itSeconds](#), [AIRSCHED::OnDParserHelper::ParserSemanticAction::_onDPeriod](#), [AIRSCHED::OnDPeriodStruct::_timeRangeStart](#), and [AIRSCHED::OnDPeriodStruct::getTime\(\)](#).

25.93.4 Member Data Documentation

25.93.4.1 OnDPeriodStruct & AIRSCHED::OnDParserHelper::ParserSemantic-Action::_onDPeriod [inherited]

Actor Context.

Definition at line 38 of file [OnDParserHelper.hpp](#).

Referenced by [AIRSCHED::OnDParserHelper::storeOrigin::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDestination::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeStart::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeDateRangeEnd::operator\(\)](#), [operator\(\)](#), [AIRSCHED::OnDParserHelper::storeEndRangeTime::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeAirlineCode::operator\(\)](#), [AIRSCHED::OnDParserHelper::storeClassCode::operator\(\)](#), and [AIRSCHED::OnDParserHelper::doEndOnD::operator\(\)](#).

The documentation for this struct was generated from the following files:

- [airsched/command/OnDParserHelper.hpp](#)
- [airsched/command/OnDParserHelper.cpp](#)

25.94 StructAbstract Class Reference

Inheritance diagram for StructAbstract:

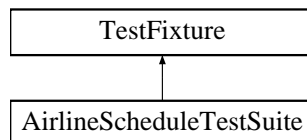


The documentation for this class was generated from the following file:

- [airsched/bom/SegmentStruct.hpp](#)

25.95 TestFixture Class Reference

Inheritance diagram for TestFixture:



The documentation for this class was generated from the following file:

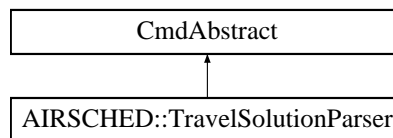
- [test/airsched/AirlineScheduleTestSuite.hpp](#)

25.96 AIRSCHED::TravelSolutionParser Class Reference

Class filling the TravelSolutionHolder structure (representing a list of classes/travel-Solutions) from a given input file.

```
#include <airsched/command/TravelSolutionParser.hpp>
```

Inheritance diagram for AIRSCHED::TravelSolutionParser:



Static Public Member Functions

- static bool [parseInputFileAndBuildBom](#) (const stdair::Filename_T &)

25.96.1 Detailed Description

Class filling the TravelSolutionHolder structure (representing a list of classes/travel-Solutions) from a given input file.

Definition at line 19 of file [TravelSolutionParser.hpp](#).

25.96.2 Member Function Documentation

25.96.2.1 bool AIRSCHED::TravelSolutionParser::parseInputFileAndBuildBom (const stdair::Filename_T &) [static]

Parse the input values from a CSV-formatted travel solution file.

Parameters

<i>const</i>	std::string& iInputFileName Travel solution file to be parsed.
--------------	--

Returns

bool Whether or not the parsing was successful.

Definition at line 21 of file [TravelSolutionParser.cpp](#).

The documentation for this class was generated from the following files:

- airsched/command/[TravelSolutionParser.hpp](#)
- airsched/command/[TravelSolutionParser.cpp](#)

26 File Documentation

26.1 airsched/AIRSCHEd_Service.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp> #include <stdair/stdair-
_service_types.hpp> #include <stdair/bom/TravelSolution-
Types.hpp> #include <airsched/AIRSCHEd_Types.hpp>
```

Classes

- class [AIRSCHEd::AIRSCHEd_Service](#)
Interface for the AirSched Services.

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHEd](#)

26.2 AIRSCHEd_Service.hpp

```
00001 #ifndef __AIRSCHEd_SVC_AIRSCHEd_SERVICE_HPP
00002 #define __AIRSCHEd_SVC_AIRSCHEd_SERVICE_HPP
00003
00004 ///////////////////////////////////////////////////////////////////
00005 // Import section
00006 ///////////////////////////////////////////////////////////////////
00007 // StdAir
00008 #include <stdair/stdair_basic_types.hpp>
00009 #include <stdair/stdair_service_types.hpp>
00010 #include <stdair/bom/TravelSolutionTypes.hpp>
00011 // AirSched
00012 #include <airsched/AIRSCHEd_Types.hpp>
00013
00015 namespace stdair {
00016     class STDAIR_Service;
00017     struct BasLogParams;
00018     struct BasDBParams;
00019     struct BookingRequestStruct;
00020     struct TravelSolutionStruct;
00021 }
00022
00023 namespace AIRSCHEd {
00024
00026     class AIRSCHEd_ServiceContext;
00027
00028
00032     class AIRSCHEd_Service {
00033     public:
00034         ////////////////////////////////////////////////////////////////// Constructors and Destructors //////////////////////////////////////////////////////////////////
00050         AIRSCHEd_Service (const stdair::BasLogParams&, const stdair::BasDBParams&);
00051
00063         AIRSCHEd_Service (const stdair::BasLogParams&);
00064
00080         AIRSCHEd_Service (stdair::STDAIR_ServicePtr_T ioSTDAIR_ServicePtr);
00081
00090         void parseAndLoad (const stdair::Filename_T& iScheduleInputFilename);
00091
```

```

00101     void parseAndLoad (const stdair::Filename_T& iScheduleFilename,
00102                       const stdair::Filename_T& iODInputFilename);
00103
00104     ~AIRSCHEd_Service();
00105
00106 public:
00107     // //////////// Business Methods ////////////
00108     void buildSampleBom();
00109
00110     void buildSegmentPathList (stdair::TravelSolutionList_T&,
00111                               const stdair::BookingRequestStruct&);
00112
00113     void simulate();
00114
00115 public:
00116     // //////////// Export support methods ////////////
00117     std::string jsonExport (const stdair::AirlineCode_T&,
00118                             const stdair::FlightNumber_T&,
00119                             const stdair::Date_T& iDepartureDate) const;
00120
00121 public:
00122     // //////////// Display support methods ////////////
00123     std::string csvDisplay() const;
00124
00125     std::string csvDisplay (const stdair::AirlineCode_T&,
00126                             const stdair::FlightNumber_T&,
00127                             const stdair::Date_T& iDepartureDate) const;
00128
00129 private:
00130     // ////////// Construction and Destruction helper methods //////////
00131     AIRSCHEd_Service();
00132
00133     AIRSCHEd_Service (const AIRSCHEd_Service&);
00134
00135     stdair::STDAIR_ServicePtr_T initStdAirService (const stdair::BasLogParams&,
00136                                                     const stdair::BasDBParams&);
00137
00138     stdair::STDAIR_ServicePtr_T initStdAirService (const stdair::BasLogParams&);
00139 ;
00140
00141     void addStdAirService (stdair::STDAIR_ServicePtr_T,
00142                           const bool iOwnStdairService);
00143
00144     void initServiceContext();
00145
00146     void initAirschedService();
00147
00148     void finalise();
00149
00150 private:
00151     // ////////// Service Context //////////
00152     AIRSCHEd_ServiceContext* _airschedServiceContext;
00153 };
00154 }
00155 #endif // __AIRSCHEd_SVC_AIRSCHEd_SERVICE_HPP

```

26.3 airsched/AIRSCHEd_Types.hpp File Reference

```

#include <boost/shared_ptr.hpp> #include <stdair/stdair_
exceptions.hpp>

```

Classes

- class [AIRSCHED::SegmentDateNotFoundException](#)
- class [AIRSCHED::OnDInputFileNotFoundException](#)
- class [AIRSCHED::ScheduleInputFileNotFoundException](#)

Namespaces

- namespace [AIRSCHED](#)

Typedefs

- typedef boost::shared_ptr < AIRSCHED_Service > [AIRSCHED::AIRSCHED_ServicePtr_T](#)

26.4 AIRSCHED_Types.hpp

```

00001 #ifndef __AIRSCHED_AIRSCHED_TYPES_HPP
00002 #define __AIRSCHED_AIRSCHED_TYPES_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // Boost
00008 #include <boost/shared_ptr.hpp>
00009 // StdAir
00010 #include <stdair/stdair_exceptions.hpp>
00011
00012 namespace AIRSCHED {
00013
00014     // Forward declarations
00015     class AIRSCHED_Service;
00016
00017
00018     // /////////// Exceptions ///////////
00023     class SegmentDateNotFoundException : public stdair::ParserException {
00024     public:
00028         SegmentDateNotFoundException (const std::string& iWhat)
00029             : stdair::ParserException (iWhat) {}
00030     };
00031
00035     class OnDInputFileNotFoundException : public stdair::FileNotFoundException {
00036     public:
00040         OnDInputFileNotFoundException (const std::string& iWhat)
00041             : stdair::FileNotFoundException (iWhat) {}
00042     };
00043
00047     class ScheduleInputFileNotFoundException
00048         : public stdair::FileNotFoundException {
00049     public:
00053         ScheduleInputFileNotFoundException (const std::string& iWhat)
00054             : stdair::FileNotFoundException (iWhat) {}
00055     };
00056
00057
00058     // /////////// Type definitions specific to AirSched ///////////
00062     typedef boost::shared_ptr<AIRSCHED_Service> AIRSCHED_ServicePtr_T;
00063
00064 }
00065 #endif // __AIRSCHED_AIRSCHED_TYPES_HPP

```

26.5 airsched/basic/BasConst.cpp File Reference

```
#include <airsched/basic/BasConst_General.hpp>    #include
<airsched/basic/BasConst_AIRSCHED_Service.hpp>
```

Namespaces

- namespace [AIRSCHED](#)

Variables

- const int [AIRSCHED::DEFAULT_NUMBER_OF_DRAWS_FOR_MC_SIMULATION](#) = 100000

26.6 BasConst.cpp

```
00001 #include <airsched/basic/BasConst_General.hpp>
00002 #include <airsched/basic/BasConst_AIRSCHED_Service.hpp>
00003
00004 namespace AIRSCHED {
00005
00008     const int DEFAULT_NUMBER_OF_DRAWS_FOR_MC_SIMULATION = 100000;
00009
00010 }
```

26.7 airsched/basic/BasConst_AIRSCHED_Service.hpp File Reference

Namespaces

- namespace [AIRSCHED](#)

26.8 BasConst_AIRSCHED_Service.hpp

```
00001 #ifndef __AIRSCHED_BAS_BASCONST_AIRSCHED_SERVICE_HPP
00002 #define __AIRSCHED_BAS_BASCONST_AIRSCHED_SERVICE_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007
00008 namespace AIRSCHED {
00009
00010 }
00011 #endif // __AIRSCHED_BAS_BASCONST_AIRSCHED_SERVICE_HPP
```

26.9 airsched/basic/BasConst_General.hpp File Reference

Namespaces

- namespace [AIRSCHED](#)

26.10 BasConst_General.hpp

```

00001 #ifndef __AIRSCHED_BAS_BASCONST_GENERAL_HPP
00002 #define __AIRSCHED_BAS_BASCONST_GENERAL_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007
00008 namespace AIRSCHED {
00009
00012     extern const int DEFAULT_NUMBER_OF_DRAWS_FOR_MC_SIMULATION;
00013 }
00014
00015 #endif // __AIRSCHED_BAS_BASCONST_GENERAL_HPP

```

26.11 airsched/basic/BasParserTypes.hpp File Reference

```

#include <string> #include <boost/spirit/home/classic/core.-
hpp> #include <boost/spirit/home/classic/attribute.hpp>
#include <boost/spirit/home/classic/utility/functor_-
parser.hpp> #include <boost/spirit/home/classic/utility/loops.-
hpp> #include <boost/spirit/home/classic/utility/chset.-
hpp> #include <boost/spirit/home/classic/utility/confix.-
hpp> #include <boost/spirit/home/classic/iterator/file_-
iterator.hpp> #include <boost/spirit/home/classic/actor/push-
_back_actor.hpp> #include <boost/spirit/home/classic/actor/assign-
_actor.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Typedefs

- typedef char [AIRSCHED::char_t](#)
- typedef boost::spirit::classic::file_iterator < [char_t](#) > [AIRSCHED::iterator_t](#)
- typedef boost::spirit::classic::scanner < [iterator_t](#) > [AIRSCHED::scanner_t](#)
- typedef boost::spirit::classic::rule < [scanner_t](#) > [AIRSCHED::rule_t](#)
- typedef boost::spirit::classic::int_parser < unsigned int, 10, 1, 1 > [AIRSCHED-
::int1_p_t](#)
- typedef boost::spirit::classic::uint_parser < unsigned int, 10, 2, 2 > [AIRSCHED-
::uint2_p_t](#)
- typedef boost::spirit::classic::uint_parser < unsigned int, 10, 4, 4 > [AIRSCHED-
::uint4_p_t](#)
- typedef boost::spirit::classic::uint_parser < unsigned int, 10, 1, 4 > [AIRSCHED-
::uint1_4_p_t](#)
- typedef boost::spirit::classic::chset < [char_t](#) > [AIRSCHED::chset_t](#)
- typedef boost::spirit::classic::impl::loop_traits < [chset_t](#), unsigned int, unsigned
int >::type [AIRSCHED::repeat_p_t](#)

- typedef boost::spirit::classic::bounded < uint2_p_t, unsigned int > AIRSCHED-
::bounded2_p_t
- typedef boost::spirit::classic::bounded < uint4_p_t, unsigned int > AIRSCHED-
::bounded4_p_t
- typedef boost::spirit::classic::bounded < uint1_4_p_t, unsigned int > AIRSCH-
ED::bounded1_4_p_t

26.12 BasParserTypes.hpp

```

00001 #ifndef __AIRSCHED_BAS_BASCOMPARSERTYPES_HPP
00002 #define __AIRSCHED_BAS_BASCOMPARSERTYPES_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // Boost
00010 // #define BOOST_SPIRIT_DEBUG
00011 #include <boost/spirit/home/classic/core.hpp>
00012 #include <boost/spirit/home/classic/attribute.hpp>
00013 #include <boost/spirit/home/classic/utility/functor_parser.hpp>
00014 #include <boost/spirit/home/classic/utility/loops.hpp>
00015 #include <boost/spirit/home/classic/utility/chset.hpp>
00016 #include <boost/spirit/home/classic/utility/confix.hpp>
00017 #include <boost/spirit/home/classic/iterator/file_iterator.hpp>
00018 #include <boost/spirit/home/classic/actor/push_back_actor.hpp>
00019 #include <boost/spirit/home/classic/actor/assign_actor.hpp>
00020
00021 namespace AIRSCHED {
00022
00023 // //////////////////////////////////////
00024 //
00025 // Definition of Basic Types
00026 //
00027 // //////////////////////////////////////
00028 // For a file, the parsing unit is the character (char). For a string,
00029 // it is a "char const *".
00030 // typedef char const* iterator_t;
00031 typedef char char_t;
00032
00033 // The types of iterator, scanner and rule are then derived from
00034 // the parsing unit.
00035 typedef boost::spirit::classic::file_iterator<char_t> iterator_t;
00036 typedef boost::spirit::classic::scanner<iterator_t> scanner_t;
00037 typedef boost::spirit::classic::rule<scanner_t> rule_t;
00038
00039 // //////////////////////////////////////
00040 //
00041 // Parser related types
00042 //
00043 // //////////////////////////////////////
00044 typedef boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> int1_p_t;
00045
00046
00047 typedef boost::spirit::classic::uint_parser<unsigned int, 10, 2, 2> uint2_p_t;
00048
00049
00050
00051 typedef boost::spirit::classic::uint_parser<unsigned int, 10, 4, 4> uint4_p_t;
00052
00053
00054
00055 typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 4>
uint1_4_p_t;
00056
00057
00058
00059 typedef boost::spirit::classic::chset<char_t> chset_t;
00060
00061
00062
00063 typedef boost::spirit::classic::impl::loop_traits<chset_t,
unsigned int,
unsigned int>::type repeat_p_t;
00064

```

```

00066  typedef boost::spirit::classic::bounded<uint2_p_t, unsigned int> bounded2_p_t
00067  ;
00067  typedef boost::spirit::classic::bounded<uint4_p_t, unsigned int> bounded4_p_t
00068  ;
00068  typedef boost::spirit::classic::bounded<uint1_4_p_t, unsigned int>
    bounded1_4_p_t;
00069
00070 }
00071 #endif // __AIRSCHED_BAS_BASCOMPASERTYPES_HPP

```

26.13 airsched/batches/airsched.cpp File Reference

```

#include <cassert> #include <sstream> #include <fstream> ×
#include <string> #include <boost/date_time/posix_time/posix-
_time.hpp> #include <boost/date_time/gregorian/gregorian.-
hpp> #include <boost/program_options.hpp> #include <boost/tokenizer.-
hpp> #include <boost/lexical_cast.hpp> #include <stdair/-
STDAIR_Service.hpp> #include <stdair/bom/BomDisplay.-
hpp> #include <stdair/bom/BookingRequestStruct.hpp> ×
#include <stdair/bom/TravelSolutionStruct.hpp> #include
<stdair/service/Logger.hpp> #include <airsched/AIRSCHED-
_Service.hpp> #include <airsched/batches/BookingRequest-
Parser.hpp> #include <airsched/config/airsched-paths.-
hpp>

```

Typedefs

- typedef std::vector< std::string > [WordList_T](#)

Functions

- const std::string [K_AIRSCHED_DEFAULT_LOG_FILENAME](#) ("airsched.log")
- const std::string [K_AIRSCHED_DEFAULT_INPUT_FILENAME](#) (STDAIR_SAMPLE_DIR"/schedule03.csv")
- const std::string [K_AIRSCHED_DEFAULT_BOOKING_REQUEST](#) ("NCE BKK - NCE 2007-04-21 2007-03-21 08:32:00 C 1 DF RO 5 NONE 10:00:00 2000.0 20.0")
- std::string [createStringFromWordList](#) (const [WordList_T](#) &iWordList)
- template<class T > std::ostream & [operator<<](#) (std::ostream &os, const std::vector< T > &v)
- int [readConfiguration](#) (int argc, char *argv[], bool &iolsBuiltin, bool &iioReadBookingRequestFromCmdLine, stdair::Filename_T &iioInputFilename, std::string &iioLogFilename, std::string &iioBookingRequestString)
- stdair::BookingRequestStruct [parseBookingRequest](#) (const std::string &iRequestOption)
- int [main](#) (int argc, char *argv[])

Variables

- const bool [K_AIRSCHED_DEFAULT_BUILT_IN_INPUT](#) = false
- const bool [K_AIRSCHED_DEFAULT_BOOKING_REQUEST_MODE](#) = false
- const int [K_AIRSCHED_EARLY_RETURN_STATUS](#) = 99

26.13.1 Typedef Documentation

26.13.1.1 typedef std::vector<std::string> WordList_T

Definition at line 24 of file [airsched.cpp](#).

26.13.2 Function Documentation

26.13.2.1 const std::string K_AIRSCHED_DEFAULT_LOG_FILENAME ("airsched.log")

Default name and location for the log file.

Referenced by [readConfiguration\(\)](#).

26.13.2.2 const std::string K_AIRSCHED_DEFAULT_INPUT_FILENAME (STDAIR_SAMPLE_DIR"/schedule03.csv")

Default name and location for the (CSV) input file.

Referenced by [readConfiguration\(\)](#).

26.13.2.3 const std::string K_AIRSCHED_DEFAULT_BOOKING_REQUEST ("NCE BKK NCE 2007-04-21 2007-03-21 08:32:00 C 1 DF RO 5 NONE 10:00:00 2000.0 20.0")

Default booking request string, to be seached against the AirSched network.

Referenced by [main\(\)](#).

26.13.2.4 std::string createStringFromWordList (const WordList_T & iWordList)

Definition at line 59 of file [airsched.cpp](#).

Referenced by [readConfiguration\(\)](#).

26.13.2.5 template<class T > std::ostream& operator<< (std::ostream & os, const std::vector< T > & v)

Definition at line 77 of file [airsched.cpp](#).

26.13.2.6 int readConfiguration (int argc, char * argv[], bool & iolsBuiltin, bool & ioReadBookingRequestFromCmdLine, stdair::Filename_T & ioInputFilename, std::string & ioLogFilename, std::string & ioBookingRequestString)

Read and parse the command line options.

Definition at line 87 of file [airtched.cpp](#).

References [createStringFromWordList\(\)](#), [K_AIRSCHEDED_DEFAULT_BOOKING_REQUEST_MODE](#), [K_AIRSCHEDED_DEFAULT_BUILT_IN_INPUT](#), [K_AIRSCHEDED_DEFAULT_INPUT_FILENAME\(\)](#), [K_AIRSCHEDED_DEFAULT_LOG_FILENAME\(\)](#), and [K_AIRSCHEDED_EARLY_RETURN_STATUS](#).

Referenced by [main\(\)](#).

26.13.2.7 `stdair::BookingRequestStruct parseBookingRequest (const std::string & iRequestOption)`

Definition at line 230 of file [airtched.cpp](#).

Referenced by [main\(\)](#).

26.13.2.8 `int main (int argc, char * argv[])`

Definition at line 335 of file [airtched.cpp](#).

References [AIRSCHEDED::AIRSCHEDED_Service::buildSampleBom\(\)](#), [AIRSCHEDED::AIRSCHEDED_Service::buildSegmentPathList\(\)](#), [K_AIRSCHEDED_DEFAULT_BOOKING_REQUEST\(\)](#), [K_AIRSCHEDED_EARLY_RETURN_STATUS](#), [AIRSCHEDED::AIRSCHEDED_Service::parseAndLoad\(\)](#), [parseBookingRequest\(\)](#), and [readConfiguration\(\)](#).

26.13.3 Variable Documentation

26.13.3.1 `const bool K_AIRSCHEDED_DEFAULT_BUILT_IN_INPUT = false`

Default for the BOM tree building. The BOM tree can either be built-in or provided by an input file. That latter must then be given with the -s option.

Definition at line 44 of file [airtched.cpp](#).

Referenced by [readConfiguration\(\)](#).

26.13.3.2 `const bool K_AIRSCHEDED_DEFAULT_BOOKING_REQUEST_MODE = false`

Default for the input type. It can be either built-in or provided by an input file. That latter must then be given with the -i option.

Definition at line 50 of file [airtched.cpp](#).

Referenced by [readConfiguration\(\)](#).

26.13.3.3 `const int K_AIRSCHEDED_EARLY_RETURN_STATUS = 99`

Early return status (so that it can be differentiated from an error).

Definition at line 84 of file [airtched.cpp](#).

Referenced by [main\(\)](#), and [readConfiguration\(\)](#).

26.14 airsched.cpp

```

00001 // STL
00002 #include <cassert>
00003 #include <sstream>
00004 #include <fstream>
00005 #include <string>
00006 // Boost (Extended STL)
00007 #include <boost/date_time/posix_time/posix_time.hpp>
00008 #include <boost/date_time/gregorian/gregorian.hpp>
00009 #include <boost/program_options.hpp>
00010 #include <boost/tokenizer.hpp>
00011 #include <boost/lexical_cast.hpp>
00012 // StdAir
00013 #include <stdair/STDAIR_Service.hpp>
00014 #include <stdair/bom/BomDisplay.hpp>
00015 #include <stdair/bom/BookingRequestStruct.hpp>
00016 #include <stdair/bom/TravelSolutionStruct.hpp>
00017 #include <stdair/service/Logger.hpp>
00018 // AirSched
00019 #include <airsched/AIRSCHEM_Service.hpp>
00020 #include <airsched/batches/BookingRequestParser.hpp>
00021 #include <airsched/config/airsched-paths.hpp>
00022
00023 // ////////// Type definitions //////////
00024 typedef std::vector<std::string> WordList_T;
00025
00026
00027 // ////////// Constants //////////
00031 const std::string K_AIRSCHEM_DEFAULT_LOG_FILENAME ("airsched.log");
00032
00036 const std::string K_AIRSCHEM_DEFAULT_INPUT_FILENAME (STDAIR_SAMPLE_DIR
00037                                                         "/schedule03.csv");
00038
00044 const bool K_AIRSCHEM_DEFAULT_BUILT_IN_INPUT = false;
00045
00050 const bool K_AIRSCHEM_DEFAULT_BOOKING_REQUEST_MODE = false;
00051
00056 const std::string K_AIRSCHEM_DEFAULT_BOOKING_REQUEST ("NCE BKK NCE 2007-04-21
2007-03-21 08:32:00 C 1 DF RO 5 NONE 10:00:00 2000.0 20.0");
00057
00058 // //////////////////////////////////////
00059 std::string createStringFromWordList (const WordList_T& iWordList) {
00060     std::ostringstream oStr;
00061
00062     unsigned short idx = iWordList.size();
00063     for (WordList_T::const_iterator itWord = iWordList.begin();
00064          itWord != iWordList.end(); ++itWord, --idx) {
00065         const std::string& lWord = *itWord;
00066         oStr << lWord;
00067         if (idx > 1) {
00068             oStr << " ";
00069         }
00070     }
00071
00072     return oStr.str();
00073 }
00074
00075 // ////////// Parsing of Options & Configuration //////////
00076 // A helper function to simplify the main part.
00077 template<class T> std::ostream& operator<< (std::ostream& os,
00078                                           const std::vector<T>& v) {
00079     std::copy (v.begin(), v.end(), std::ostream_iterator<T> (std::cout, " "));
00080     return os;
00081 }
00082
00084 const int K_AIRSCHEM_EARLY_RETURN_STATUS = 99;
00085
00087 int readConfiguration (int argc, char* argv[],
00088                       bool& ioIsBuiltin, bool& ioReadBookingRequestFromCmdLine
00089                       ,
00089                       stdair::Filename_T& ioInputFilename,
00090                       std::string& ioLogFilename,

```

```

00091         std::string& ioBookingRequestString) {
00092
00093     // Default for the built-in input
00094     ioIsBuiltin = K_AIRSCHED_DEFAULT_BUILT_IN_INPUT;
00095
00096     // Default for the booking request mode (whether it is read from
00097     command-line)
00098     ioReadBookingRequestFromCmdLine = K_AIRSCHED_DEFAULT_BOOKING_REQUEST_MODE;
00099
00100     //
00101     WordList_T lWordList;
00102
00103     // Declare a group of options that will be allowed only on command line
00104     boost::program_options::options_description generic ("Generic options");
00105     generic.add_options()
00106         ("prefix", "print installation prefix")
00107         ("version,v", "print version string")
00108         ("help,h", "produce help message");
00109
00110     // Declare a group of options that will be allowed both on command
00111     // line and in config file
00112     boost::program_options::options_description config ("Configuration");
00113     config.add_options()
00114         ("builtin,b",
00115          "The sample BOM tree can be either built-in or parsed from input files. In
00116          that latter case, the -i/--input option must be specified as well")
00117         ("input,i",
00118          boost::program_options::value< std::string >(&ioInputFilename)->
00119          default_value(K_AIRSCHED_DEFAULT_INPUT_FILENAME),
00120          "(CSV) input file specifying the schedule (flight-period) entries")
00121         ("log,l",
00122          boost::program_options::value< std::string >(&ioLogFilename)->
00123          default_value(K_AIRSCHED_DEFAULT_LOG_FILENAME),
00124          "Filename for the logs")
00125         ("read_booking_request,r",
00126          "Indicates that a booking request is given as a command-line option. That
00127          latter must then be given with the -b/--bkg_req option")
00128         ("bkg_req,q",
00129          boost::program_options::value< WordList_T >(&lWordList)->multitoken(),
00130          "Booking request word list (e.g. 'NCE BKK NCE 2007-04-21 2007-04-21
00131          10:00:00 C 1 DF RO 5 NONE 10:0:0 2000.0 20.0'), which should be located at the end of
00132          the command line (otherwise, the other options would be interpreted as part of
00133          that booking request word list)")
00134         ;
00135
00136     // Hidden options, will be allowed both on command line and
00137     // in config file, but will not be shown to the user.
00138     boost::program_options::options_description hidden ("Hidden options");
00139     hidden.add_options()
00140         ("copyright",
00141          boost::program_options::value< std::vector<std::string> >(),
00142          "Show the copyright (license)");
00143
00144     boost::program_options::options_description cmdline_options;
00145     cmdline_options.add(generic).add(config).add(hidden);
00146
00147     boost::program_options::options_description config_file_options;
00148     config_file_options.add(config).add(hidden);
00149
00150     boost::program_options::options_description visible ("Allowed options");
00151     visible.add(generic).add(config);
00152
00153     boost::program_options::positional_options_description p;
00154     p.add ("copyright", -1);
00155
00156     boost::program_options::variables_map vm;
00157     boost::program_options::
00158         store (boost::program_options::command_line_parser (argc, argv).
00159               options (cmdline_options).positional(p).run(), vm);
00160
00161     std::ifstream ifs ("airsched.cfg");
00162     boost::program_options::store (parse_config_file (ifs, config_file_options),
00163                                   vm);
00164     boost::program_options::notify (vm);

```

```

00157
00158     if (vm.count ("help")) {
00159         std::cout << visible << std::endl;
00160         return K_AIRSCHED_EARLY_RETURN_STATUS;
00161     }
00162
00163     if (vm.count ("version")) {
00164         std::cout << PACKAGE_NAME << ", version " << PACKAGE_VERSION << std::endl;
00165         return K_AIRSCHED_EARLY_RETURN_STATUS;
00166     }
00167
00168     if (vm.count ("prefix")) {
00169         std::cout << "Installation prefix: " << PREFIXDIR << std::endl;
00170         return K_AIRSCHED_EARLY_RETURN_STATUS;
00171     }
00172
00173     if (vm.count ("builtin")) {
00174         ioIsBuiltin = true;
00175     }
00176     const std::string isBuiltinStr = (ioIsBuiltin == true)? "yes": "no";
00177     std::cout << "The BOM should be built-in? " << isBuiltinStr << std::endl;
00178
00179     //
00180     std::ostringstream oErrorMessageStr;
00181     oErrorMessageStr << "Either the -b/--builtin option, or the -i/--input option
"
00182         << " must be specified";
00183
00184     if (ioIsBuiltin == false) {
00185         if (vm.count ("input")) {
00186             ioInputFilename = vm["input"].as< std::string >();
00187             std::cout << "Input filename is: " << ioInputFilename << std::endl;
00188
00189         } else {
00190             // The built-in option is not selected. However, no schedule input file
00191             // is specified
00192             std::cerr << oErrorMessageStr.str() << std::endl;
00193         }
00194     }
00195
00196     //
00197     if (vm.count ("read_booking_request")) {
00198         ioReadBookingRequestFromCmdLine = true;
00199     }
00200     const std::string readBookingRequestFromCmdLineStr =
00201         (ioReadBookingRequestFromCmdLine == true)? "yes": "no";
00202     std::cout << "A booking request is to be given as command-line option? "
00203         << readBookingRequestFromCmdLineStr << std::endl;
00204
00205     if (ioReadBookingRequestFromCmdLine == true) {
00206
00207         if (lWordList.empty() == true) {
00208             std::cerr << "When the --read_booking_request/-r option is given, "
00209                 << "a query must also be provided (with the --bkg_req/-b "
00210                 << "option at the end of the command-line)" << std::endl;
00211             return K_AIRSCHED_EARLY_RETURN_STATUS;
00212         }
00213
00214         // Rebuild the booking request query string
00215         ioBookingRequestString = createStringFromWordList (lWordList);
00216         std::cout << "The booking request string is: " << ioBookingRequestString
00217             << std::endl;
00218     }
00219
00220     if (vm.count ("log")) {
00221         ioLogFilename = vm["log"].as< std::string >();
00222         std::cout << "Log filename is: " << ioLogFilename << std::endl;
00223     }
00224
00225     return 0;
00226 }
00227
00228 // //////////////////////////////////////
00229 stdair::BookingRequestStruct

```

```

00230 parseBookingRequest (const std::string& iRequestOption) {
00231     typedef boost::tokenizer<boost::char_separator<char> > tokenizer;
00232     boost::char_separator<char> sep(" -:");
00233
00234     tokenizer tokens (iRequestOption, sep);
00235
00236     // Origin (e.g., "NCE")
00237     tokenizer::iterator tok_iter = tokens.begin();
00238     assert (tok_iter != tokens.end());
00239     const stdair::AirportCode_T iOrigin (*tok_iter);
00240
00241     // Destination (e.g., "BKK")
00242     ++tok_iter; assert (tok_iter != tokens.end());
00243     const stdair::AirportCode_T iDestination (*tok_iter);
00244
00245     // POS (e.g., "NCE")
00246     ++tok_iter; assert (tok_iter != tokens.end());
00247     const stdair::AirportCode_T iPOS (*tok_iter);
00248
00249     // Preferred departure date (e.g., "2007-04-21")
00250     ++tok_iter; assert (tok_iter != tokens.end());
00251     const short lDepDateYear = boost::lexical_cast<short> (*tok_iter);
00252     ++tok_iter; assert (tok_iter != tokens.end());
00253     const short lDepDateMonth = boost::lexical_cast<short> (*tok_iter);
00254     ++tok_iter; assert (tok_iter != tokens.end());
00255     const short lDepDateDay = boost::lexical_cast<short> (*tok_iter);
00256     const stdair::Date_T iDepartureDate(lDepDateYear, lDepDateMonth, lDepDateDay)
00257 ;
00258     // Request date (e.g., "2007-03-21")
00259     ++tok_iter; assert (tok_iter != tokens.end());
00260     const short lReqDateYear = boost::lexical_cast<short> (*tok_iter);
00261     ++tok_iter; assert (tok_iter != tokens.end());
00262     const short lReqDateMonth = boost::lexical_cast<short> (*tok_iter);
00263     ++tok_iter; assert (tok_iter != tokens.end());
00264     const short lReqDateDay = boost::lexical_cast<short> (*tok_iter);
00265     const stdair::Date_T iRequestDate (lReqDateYear, lReqDateMonth, lReqDateDay);
00266
00267     // Request time (e.g., "08:34:23")
00268     ++tok_iter; assert (tok_iter != tokens.end());
00269     const short lReqTimeHours = boost::lexical_cast<short> (*tok_iter);
00270     ++tok_iter; assert (tok_iter != tokens.end());
00271     const short lReqTimeMinutes = boost::lexical_cast<short> (*tok_iter);
00272     ++tok_iter; assert (tok_iter != tokens.end());
00273     const short lReqTimeSeconds = boost::lexical_cast<short> (*tok_iter);
00274     const stdair::Duration_T iRequestTime (lReqTimeHours, lReqTimeMinutes,
00275                                           lReqTimeSeconds);
00276
00277     // Request date-time (aggregation of the two items above)
00278     const stdair::DateTime_T iRequestDateTime (iRequestDate, iRequestTime);
00279
00280     // Preferred cabin (e.g., "C")
00281     ++tok_iter; assert (tok_iter != tokens.end());
00282     const stdair::CabinCode_T iPreferredCabin (*tok_iter);
00283
00284     // Party size (e.g., 1)
00285     ++tok_iter; assert (tok_iter != tokens.end());
00286     const stdair::NbOfSeats_T iPartySize = 1;
00287
00288     // Channel (e.g., "DF")
00289     ++tok_iter; assert (tok_iter != tokens.end());
00290     const stdair::ChannelLabel_T iChannel (*tok_iter);
00291
00292     // Trip type (e.g., "RO")
00293     ++tok_iter; assert (tok_iter != tokens.end());
00294     const stdair::TripType_T iTripType (*tok_iter);
00295
00296     // Stay duration (e.g., 5)
00297     ++tok_iter; assert (tok_iter != tokens.end());
00298     const stdair::DayDuration_T iStayDuration = 5;
00299
00300     // Frequent flyer (e.g., "NONE")
00301     ++tok_iter; assert (tok_iter != tokens.end());
00302     const stdair::FrequentFlyer_T iFrequentFlyerType ("NONE");

```

```

00303
00304 // Preferred departure time (e.g., "10:00:00")
00305 ++tok_iter; assert (tok_iter != tokens.end());
00306 const short lPrefTimeHours = boost::lexical_cast<short> (*tok_iter);
00307 ++tok_iter; assert (tok_iter != tokens.end());
00308 const short lPrefTimeMinutes = boost::lexical_cast<short> (*tok_iter);
00309 ++tok_iter; assert (tok_iter != tokens.end());
00310 const short lPrefTimeSeconds = boost::lexical_cast<short> (*tok_iter);
00311 const stdair::Duration_T iPreferredDepartureTime (lPrefTimeHours,
00312                                                    lPrefTimeMinutes,
00313                                                    lPrefTimeSeconds);
00314
00315 // Willingness-to-pay (e.g., 2000.0)
00316 ++tok_iter; assert (tok_iter != tokens.end());
00317 const stdair::WTP_T iWTP = 2000.0;
00318
00319 // Value of time (e.g., 20.0)
00320 ++tok_iter; assert (tok_iter != tokens.end());
00321 const stdair::PriceValue_T iValueOfTime = 20.0;
00322
00323 // Build and return the booking request structure
00324 return stdair::BookingRequestStruct (iOrigin,
00325                                     iDestination, iPOS,
00326                                     iDepartureDate, iRequestDateTime,
00327                                     iPreferredCabin, iPartySize,
00328                                     iChannel, iTripType, iStayDuration,
00329                                     iFrequentFlyerType,
00330                                     iPreferredDepartureTime, iWTP,
00331                                     iValueOfTime);
00332 }
00333
00334 // ////////// M A I N //////////
00335 int main (int argc, char* argv[]) {
00336
00337 // State whether the BOM tree should be built-in or parsed from an
00338 // input file
00339 bool isBuiltin;
00340
00341 // A booking request should be given as command-line option
00342 bool readBookingRequestFromCmdLine;
00343
00344 // Input file name
00345 stdair::Filename_T lInputFilename;
00346
00347 // Output log File
00348 stdair::Filename_T lLogFilename;
00349
00350 // Booking request string
00351 std::string lBookingRequestString;
00352
00353 // Call the command-line option parser
00354 const int lOptionParserStatus =
00355     readConfiguration (argc, argv, isBuiltin, readBookingRequestFromCmdLine,
00356                       lInputFilename, lLogFilename, lBookingRequestString);
00357
00358 if (lOptionParserStatus == K_AIRSCHED_EARLY_RETURN_STATUS) {
00359     return 0;
00360 }
00361
00362 // Set the log parameters
00363 std::ofstream logOutputFile;
00364 // Open and clean the log outputfile
00365 logOutputFile.open (lLogFilename.c_str());
00366 logOutputFile.clear();
00367
00368 // Initialise the AirSched service object
00369 const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
00370 AIRSCHED::AIRSCHED_Service aairschedService (lLogParams);
00371
00372 // Check whether or not (CSV) input files should be read
00373 if (isBuiltin == true) {
00374
00375     // Build the sample BOM tree
00376     aairschedService.buildSampleBom();

```

```

00377
00378 } else {
00379     // Build the BOM tree from parsing input files
00380     airschedService.parseAndLoad (lInputFilename);
00381 }
00382
00383 // Check whether or not a booking request is given as a command-line option
00384 if (readBookingRequestFromCmdLine == false) {
00385     lBookingRequestString = K_AIRSCHED_DEFAULT_BOOKING_REQUEST;
00386 }
00387
00388 // DEBUG
00389 STDAIR_LOG_DEBUG("Booking request string: '" << lBookingRequestString << "'")
;
00390
00391 // Create a booking request object
00392 const stdair::BookingRequestStruct& lBookingRequest =
00393     parseBookingRequest (lBookingRequestString);
00394
00395 //
00396 stdair::TravelSolutionList_T lTravelSolutionList;
00397 airschedService.buildSegmentPathList (lTravelSolutionList, lBookingRequest);
00398
00399 // DEBUG
00400 STDAIR_LOG_DEBUG ("Parsed booking request: " << lBookingRequest);
00401
00402 // DEBUG
00403 std::ostream oStream;
00404 stdair::BomDisplay::csvDisplay (oStream, lTravelSolutionList);
00405 STDAIR_LOG_DEBUG (oStream.str());
00406
00407 // Close the Log outputFile
00408 logOutputFile.close();
00409
00410 return 0;
00411 }

```

26.15 airsched/batches/BookingRequestParser.cpp File Reference

```

#include <cassert> #include <sstream> #include <fstream> ×
#include <boost/date_time/posix_time/posix_time.hpp> ×
#include <boost/date_time/gregorian/gregorian.hpp> #include
<boost/spirit/home/classic/core.hpp> #include <boost/spirit/home/classic/attrib
hpp> #include <boost/spirit/home/classic/utility/functor-
_parser.hpp> #include <boost/spirit/home/classic/utility/loops.-
hpp> #include <boost/spirit/home/classic/utility/chset.-
hpp> #include <boost/spirit/home/classic/utility/confix.-
hpp> #include <boost/spirit/home/classic/iterator/file_-
iterator.hpp> #include <boost/spirit/home/classic/actor/push-
_back_actor.hpp> #include <boost/spirit/home/classic/actor/assign-
_actor.hpp> #include <stdair/service/Logger.hpp> #include
<airsched/batches/BookingRequestParser.hpp>

```

Classes

- struct [airsched::store_place_element](#)
- struct [airsched::store_date](#)
- struct [airsched::store_airline_sign](#)
- struct [airsched::store_airline_code](#)

- struct [airsched::store_airline_name](#)
- struct [airsched::store_passenger_number](#)
- struct [airsched::store_adult_passenger_type](#)
- struct [airsched::store_child_passenger_type](#)
- struct [airsched::store_pet_passenger_type](#)
- struct [airsched::SearchStringParser](#)
- struct [airsched::SearchStringParser::definition< ScannerT >](#)

Namespaces

- namespace [airsched](#)

Defines

- `#define` [BOOST_SPIRIT_DEBUG](#)

Typedefs

- typedef char [char_t](#)
- typedef char const * [iterator_t](#)
- typedef boost::spirit::classic::scanner < [iterator_t](#) > [scanner_t](#)
- typedef boost::spirit::classic::rule < [scanner_t](#) > [rule_t](#)

Functions

- SearchString_T [airsched::parseBookingRequest](#) (const std::string &iSearch-String)

Variables

- boost::spirit::classic::int_parser < unsigned int, 10, 1, 1 > [airsched::int1_p](#)
- boost::spirit::classic::uint_parser < unsigned int, 10, 1, 1 > [airsched::uint1_p](#)
- boost::spirit::classic::uint_parser < unsigned int, 10, 1, 2 > [airsched::uint1_2_p](#)
- boost::spirit::classic::uint_parser < int, 10, 2, 2 > [airsched::uint2_p](#)
- boost::spirit::classic::uint_parser < int, 10, 2, 4 > [airsched::uint2_4_p](#)
- boost::spirit::classic::uint_parser < int, 10, 4, 4 > [airsched::uint4_p](#)
- boost::spirit::classic::uint_parser < int, 10, 1, 4 > [airsched::uint1_4_p](#)

26.15.1 Define Documentation

26.15.1.1 `#define` [BOOST_SPIRIT_DEBUG](#)

Definition at line [12](#) of file [BookingRequestParser.cpp](#).

26.15.2 Typedef Documentation

26.15.2.1 typedef char char_t

Definition at line 28 of file [BookingRequestParser.cpp](#).

26.15.2.2 typedef char const* iterator_t

Definition at line 29 of file [BookingRequestParser.cpp](#).

26.15.2.3 typedef boost::spirit::classic::scanner<iterator_t> scanner_t

Definition at line 31 of file [BookingRequestParser.cpp](#).

26.15.2.4 typedef boost::spirit::classic::rule<scanner_t> rule_t

Definition at line 32 of file [BookingRequestParser.cpp](#).

26.16 BookingRequestParser.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 #include <fstream>
00008 // Boost (Extended STL)
00009 #include <boost/date_time/posix_time/posix_time.hpp>
00010 #include <boost/date_time/gregorian/gregorian.hpp>
00011 // Boost Spirit (Parsing)
00012 #define BOOST_SPIRIT_DEBUG
00013 #include <boost/spirit/home/classic/core.hpp>
00014 #include <boost/spirit/home/classic/attribute.hpp>
00015 #include <boost/spirit/home/classic/utility/functor_parser.hpp>
00016 #include <boost/spirit/home/classic/utility/loops.hpp>
00017 #include <boost/spirit/home/classic/utility/chset.hpp>
00018 #include <boost/spirit/home/classic/utility/confix.hpp>
00019 #include <boost/spirit/home/classic/iterator/file_iterator.hpp>
00020 #include <boost/spirit/home/classic/actor/push_back_actor.hpp>
00021 #include <boost/spirit/home/classic/actor/assign_actor.hpp>
00022 // StdAir
00023 #include <stdair/service/Logger.hpp>
00024 // AirSched
00025 #include <airsched/batches/BookingRequestParser.hpp>
00026
00027 // Type definitions
00028 typedef char char_t;
00029 typedef char const* iterator_t;
00030 //typedef boost::spirit::classic::file_iterator<char_t> iterator_t;
00031 typedef boost::spirit::classic::scanner<iterator_t> scanner_t;
00032 typedef boost::spirit::classic::rule<scanner_t> rule_t;
00033
00034 namespace airsched {
00035
00036     struct store_place_element {
00037         store_place_element (SearchString_T& ioSearchString)
00038             : _searchString (ioSearchString) {}
00039
00040         void operator() (iterator_t iStr, iterator_t iStrEnd) const {
00041             std::string lPlace (iStr, iStrEnd);
00042             // std::cout << "Place: " << lPlace << std::endl;
00043
00044             // Set the place
00045         }
00046     };
00047
00048 }
```

```

00048     _searchString._tmpPlace._name += " " + lPlace;
00049
00050     // Add the parsed place to the list
00051     // _searchString._placeList.push_back (_searchString._tmpPlace);
00052 }
00053
00054 SearchString_T& _searchString;
00055 };
00056
00057 struct store_date {
00058     store_date (SearchString_T& ioSearchString)
00059         : _searchString (ioSearchString) {}
00060
00061     void operator() (iterator_t iStr, iterator_t iStrEnd) const {
00062         _searchString._tmpDate._date = _searchString._tmpDate.getDate();
00063         // std::cout << "Board date: "
00064         // << _searchString._date << std::endl;
00065
00066         // Add the parsed date to the list
00067         _searchString._dateList.push_back (_searchString._tmpDate);
00068     }
00069
00070     SearchString_T& _searchString;
00071 };
00072
00073 struct store_airline_sign {
00074     store_airline_sign (SearchString_T& ioSearchString)
00075         : _searchString (ioSearchString) {}
00076
00077     void operator() (bool iAirlineSign) const {
00078         _searchString._tmpAirline._isPreferred = !iAirlineSign;
00079         // std::cout << "Airline is preferred: " << iAirlineSign << std::endl;
00080     }
00081
00082     SearchString_T& _searchString;
00083 };
00084
00085 struct store_airline_code {
00086     store_airline_code (SearchString_T& ioSearchString)
00087         : _searchString (ioSearchString) {}
00088
00089     void operator() (iterator_t iStr, iterator_t iStrEnd) const {
00090         std::string lAirlineCode (iStr, iStrEnd);
00091         _searchString._tmpAirline._code = lAirlineCode;
00092         // std::cout << "Airline code: " << lAirlineCode << std::endl;
00093
00094         // Add the parsed airline to the list
00095         _searchString._airlineList.push_back (_searchString._tmpAirline);
00096     }
00097
00098     SearchString_T& _searchString;
00099 };
00100
00101 struct store_airline_name {
00102     store_airline_name (SearchString_T& ioSearchString)
00103         : _searchString (ioSearchString) {}
00104
00105     void operator() (iterator_t iStr, iterator_t iStrEnd) const {
00106         std::string lAirlineName (iStr, iStrEnd);
00107         _searchString._tmpAirline._name = lAirlineName;
00108         // std::cout << "Airline: " << lAirlineName << std::endl;
00109
00110         // Add the parsed airline to the list
00111         _searchString._airlineList.push_back (_searchString._tmpAirline);
00112     }
00113
00114     SearchString_T& _searchString;
00115 };
00116
00117 struct store_passenger_number {
00118     store_passenger_number (SearchString_T& ioSearchString)
00119         : _searchString (ioSearchString) {}
00120
00121     void operator() (unsigned int iNumber) const {

```

```

00137     _searchString._tmpPassenger._number = iNumber;
00138     // std::cout << "Number of passengers: " << iNumber << std::endl;
00139 }
00140
00141 SearchString_T& _searchString;
00142 };
00143
00144 struct store_adult_passenger_type {
00145     store_adult_passenger_type (SearchString_T& ioSearchString)
00146         : _searchString (ioSearchString) {}
00147
00148     void operator() (iterator_t iStr, iterator_t iStrEnd) const {
00149         std::string lPassengerType (iStr, iStrEnd);
00150         _searchString._tmpPassenger._type = Passenger_T::ADULT;
00151         // std::cout << "Passenger type: " << lPassengerType << std::endl;
00152
00153         // Add the parsed passenger to the list
00154         _searchString._passengerList.push_back (_searchString._tmpPassenger);
00155     }
00156
00157     SearchString_T& _searchString;
00158 };
00159
00160 struct store_child_passenger_type {
00161     store_child_passenger_type (SearchString_T& ioSearchString)
00162         : _searchString (ioSearchString) {}
00163
00164     void operator() (iterator_t iStr, iterator_t iStrEnd) const {
00165         std::string lPassengerType (iStr, iStrEnd);
00166         _searchString._tmpPassenger._type = Passenger_T::CHILD;
00167         // std::cout << "Passenger type: " << lPassengerType << std::endl;
00168
00169         // Add the parsed passenger to the list
00170         _searchString._passengerList.push_back (_searchString._tmpPassenger);
00171     }
00172
00173     SearchString_T& _searchString;
00174 };
00175
00176 struct store_pet_passenger_type {
00177     store_pet_passenger_type (SearchString_T& ioSearchString)
00178         : _searchString (ioSearchString) {}
00179
00180     void operator() (iterator_t iStr, iterator_t iStrEnd) const {
00181         std::string lPassengerType (iStr, iStrEnd);
00182         _searchString._tmpPassenger._type = Passenger_T::PET;
00183         // std::cout << "Passenger type: " << lPassengerType << std::endl;
00184
00185         // Add the parsed passenger to the list
00186         _searchString._passengerList.push_back (_searchString._tmpPassenger);
00187     }
00188
00189     SearchString_T& _searchString;
00190 };
00191
00192 // ////////////////////////////////// Utilities //////////////////////////////////
00193 boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> int1_p;
00194 boost::spirit::classic::uint_parser<unsigned int, 10, 1, 1> uint1_p;
00195 boost::spirit::classic::uint_parser<unsigned int, 10, 1, 2> uint1_2_p;
00196 boost::spirit::classic::uint_parser<int, 10, 2, 2> uint2_p;
00197 boost::spirit::classic::uint_parser<int, 10, 2, 4> uint2_4_p;
00198 boost::spirit::classic::uint_parser<int, 10, 4, 4> uint4_p;
00199 boost::spirit::classic::uint_parser<int, 10, 1, 4> uint1_4_p;
00200
00201 //
00202 // Our calculator grammar (using subrules)
00203 //
00204 using namespace boost::spirit::classic;
00205
00206 struct SearchStringParser :
00207     public boost::spirit::classic::grammar<SearchStringParser> {
00208
00209     SearchStringParser (SearchString_T& ioSearchString)

```

```

00255         : _searchString (ioSearchString) {
00256     }
00257
00258     template <typename ScannerT>
00259     struct definition {
00260         definition (SearchStringParser const& self) {
00261
00262             search_string = places
00263                 >> !( dates )
00264                 >> *( preferred_airlines )
00265                 >> *( passengers )
00266             ;
00267
00268             places =
00269                 +( place_element )
00270             ;
00271
00272             place_element =
00273                 lexeme_d[ (repeat_p(1,20) [chset_p("a-z")]) [store_place_element(self.
00274 _searchString)] ]
00275             ;
00276
00277             dates =
00278                 date[store_date(self._searchString)]
00279                 >> !date[store_date(self._searchString)]
00280             ;
00281
00282             date =
00283                 ( month | day )
00284                 >> boost::spirit::classic::chset_p("/")
00285                 >> ( day | month )
00286                 >> ! ( boost::spirit::classic::chset_p("/")
00287                     >> year )
00288             ;
00289
00290             day =
00291                 lexeme_d[ limit_d(1u,31u) [uint1_2_p] [assign_a(self._searchString.
00292 _tmpDate._day)] ]
00293             ;
00294
00295             month =
00296                 lexeme_d[ limit_d(1u,12u) [uint1_2_p] [assign_a(self._searchString.
00297 _tmpDate._month)] ]
00298             ;
00299
00300             year =
00301                 lexeme_d[ limit_d(2000u,2099u) [uint4_p] [assign_a(self._searchString.
00302 _tmpDate._year)] ]
00303             | lexeme_d[ limit_d(0u,99u) [uint2_p] [assign_a(self._searchString.
00304 _tmpDate._year)] ]
00305             ;
00306
00307             preferred_airlines =
00308                 !(boost::spirit::classic::sign_p) [store_airline_sign(self.
00309 _searchString)]
00310                 >> airline_code | airline_name
00311             ;
00312
00313             airline_code =
00314                 lexeme_d[ (repeat_p(2,3) [chset_p("0-9a-z")]) [store_airline_code(self.
00315 _searchString)] ]
00316             ;
00317
00318             airline_name =
00319                 lexeme_d[ (repeat_p(4,20) [chset_p("0-9a-z")]) [store_airline_name(self.
00320 _searchString)] ]
00321             ;
00322
00323             passengers =
00324                 passenger_number >> passenger_type
00325             ;
00326
00327             passenger_number =
00328                 lexeme_d[ limit_d(1u, 9u) [uint1_p] [store_passenger_number(self.

```

```

        _searchString]] ]
00321         ;
00322
00323         passenger_type =
00324             passenger_adult_type[store_adult_passenger_type(self._searchString)]
00325             | passenger_child_type[store_child_passenger_type(self._searchString)]
00326         ]
00327         | passenger_pet_type[store_pet_passenger_type(self._searchString)]
00328         ;
00329         passenger_adult_type =
00330             lexeme_d[ as_lower_d [ str_p("adult") >> !ch_p('s') ] ]
00331         ;
00332
00333         passenger_child_type =
00334             lexeme_d[ as_lower_d [ str_p("child") >> !str_p("ren") ] ]
00335         ;
00336
00337         passenger_pet_type =
00338             lexeme_d[ as_lower_d [ str_p("dog") | str_p("cat") >> !ch_p('s') ] ]
00339         ;
00340
00341         BOOST_SPIRIT_DEBUG_NODE (search_string);
00342         BOOST_SPIRIT_DEBUG_NODE (places);
00343         BOOST_SPIRIT_DEBUG_NODE (place_element);
00344         BOOST_SPIRIT_DEBUG_NODE (dates);
00345         BOOST_SPIRIT_DEBUG_NODE (date);
00346         BOOST_SPIRIT_DEBUG_NODE (day);
00347         BOOST_SPIRIT_DEBUG_NODE (month);
00348         BOOST_SPIRIT_DEBUG_NODE (year);
00349         BOOST_SPIRIT_DEBUG_NODE (preferred_airlines);
00350         BOOST_SPIRIT_DEBUG_NODE (airline_code);
00351         BOOST_SPIRIT_DEBUG_NODE (airline_name);
00352         BOOST_SPIRIT_DEBUG_NODE (passengers);
00353         BOOST_SPIRIT_DEBUG_NODE (passenger_number);
00354         BOOST_SPIRIT_DEBUG_NODE (passenger_type);
00355         BOOST_SPIRIT_DEBUG_NODE (passenger_adult_type);
00356         BOOST_SPIRIT_DEBUG_NODE (passenger_child_type);
00357         BOOST_SPIRIT_DEBUG_NODE (passenger_pet_type);
00358     }
00359
00360     boost::spirit::classic::rule<ScannerT> search_string, places,
place_element,
00361     dates, date, month, day, year,
00362     preferred_airlines, airline_code, airline_name,
00363     passengers, passenger_number, passenger_type, passenger_adult_type,
00364     passenger_child_type, passenger_pet_type;
00365
00366     boost::spirit::classic::rule<ScannerT> const& start() const { return
search_string; }
00367     };
00368
00369     SearchString_T& _searchString;
00370     };
00371
00372     // //////////////////////////////////////
00373     SearchString_T parseBookingRequest (const std::string& iSearchString) {
00374         SearchString_T oSearchStringStruct;
00375
00376         // Read the search string
00377         iterator_t lStringIterator = iSearchString.c_str();
00378
00379         // Instantiate the structure that will hold the result of the parsing.
00380         SearchStringParser lSearchStringParser (oSearchStringStruct);
00381         boost::spirit::classic::parse_info<iterator_t> info =
00382             boost::spirit::classic::parse (lStringIterator, lSearchStringParser,
00383             boost::spirit::classic::space_p);
00384
00385         STDAIR_LOG_DEBUG ("-----");
00386
00387         bool hasBeenParsingSuccessful = info.full;
00388         if (hasBeenParsingSuccessful == true) {
00389             STDAIR_LOG_DEBUG ("Parsing succeeded");
00390

```

```

00391     } else {
00392         STDAIR_LOG_DEBUG ("Parsing failed");
00393     }
00394     STDAIR_LOG_DEBUG ("-----");
00395
00396     return oSearchStringStruct;
00397 }
00398
00399 }

```

26.17 airsched/batches/BookingRequestParser.hpp File Reference

```
#include <string> #include <vector>
```

Classes

- struct [airsched::Place_T](#)
- struct [airsched::Date_T](#)
- struct [airsched::Airline_T](#)
- struct [airsched::Passenger_T](#)
- struct [airsched::SearchString_T](#)

Namespaces

- namespace [airsched](#)

Typedefs

- typedef std::vector< Place_T > [airsched::PlaceList_T](#)
- typedef std::vector< Date_T > [airsched::DateList_T](#)
- typedef std::vector< Airline_T > [airsched::AirlineList_T](#)
- typedef std::vector< Passenger_T > [airsched::PassengerList_T](#)

Functions

- SearchString_T [airsched::parseBookingRequest](#) (const std::string &iSearchString)

26.18 BookingRequestParser.hpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <string>
00006 #include <vector>
00007
00008 namespace airsched {
00009
00011     struct Place_T {
00012         // Attributes

```

```

00013     std::string _name;
00014     std::string _code;
00016     Place_T () : _name (""), _code ("") {}
00017     /* Display. */
00018     void display() const {
00019         std::cout << "Place: " << _name << " (" << _code << ")" << std::endl;
00020     }
00021 };
00022
00024     typedef std::vector<Place_T> PlaceList_T;
00025
00027     struct Date_T {
00028         // Attributes
00029         boost::gregorian::date _date;
00030         unsigned int _reldays;
00031         unsigned int _day;
00032         unsigned int _month;
00033         unsigned int _year;
00035         Date_T () : _reldays (14), _day(1), _month(1), _year(1970) {}
00036         /* Display. */
00037         void display() const {
00038             std::cout << "Date: " << _date << " (" << _day << "/" << _month
00039                 << "/" << _year << ")", i.e. in " << _reldays << " days"
00040                 << std::endl;
00041         }
00043         boost::gregorian::date getDate() const {
00044             return boost::gregorian::date (_year, _month, _day);
00045         }
00046     };
00047
00049     typedef std::vector<Date_T> DateList_T;
00050
00052     struct Airline_T {
00053         // Attributes
00054         bool _isPreferred;
00055         std::string _name;
00056         std::string _code;
00058         Airline_T () : _isPreferred (true), _name(""), _code("") {}
00059         /* Display. */
00060         void display() const {
00061             const std::string isPreferredStr = (_isPreferred)?"+":"-";
00062             std::cout << "Airline: " << isPreferredStr << _name << " (" << _code << "
00063                 << std::endl;
00064         }
00065     };
00066
00068     typedef std::vector<Airline_T> AirlineList_T;
00069
00071     struct Passenger_T {
00072         // Attributes
00073         typedef enum { ADULT = 0, CHILD, PET, LAST_VALUE } PassengerType_T;
00074         static const std::string _labels[LAST_VALUE];
00075         PassengerType_T _type;
00076         unsigned short _number;
00078         Passenger_T () : _type(ADULT), _number(1) {}
00079         /* Display. */
00080         void display() const {
00081             std::cout << "Passenger: " << _number << " (" << _labels[_type] << ")"
00082                 << std::endl;
00083         }
00084     };
00085
00087     const std::string Passenger_T::_labels[Passenger_T::LAST_VALUE] =
00088         { "Adult", "Child", "Pet" };
00089
00091     typedef std::vector<Passenger_T> PassengerList_T;
00092
00094     struct SearchString_T {
00095         // Attributes
00096         PlaceList_T _placeList;
00097         DateList_T _dateList;
00098         AirlineList_T _airlineList;
00099         PassengerList_T _passengerList;

```

```

00100
00102     SearchString_T () {}
00103
00104     /* Display. */
00105     void display() const {
00106         std::cout << std::endl;
00107
00108         for (PlaceList_T::const_iterator itPlace = _placeList.begin();
00109             itPlace != _placeList.end(); ++itPlace) {
00110             const Place_T& lPlace = *itPlace;
00111             lPlace.display();
00112         }
00113
00114         for (DateList_T::const_iterator itDate = _dateList.begin();
00115             itDate != _dateList.end(); ++itDate) {
00116             const Date_T& lDate = *itDate;
00117             lDate.display();
00118         }
00119
00120         for (AirlineList_T::const_iterator itAirline = _airlineList.begin();
00121             itAirline != _airlineList.end(); ++itAirline) {
00122             const Airline_T& lAirline = *itAirline;
00123             lAirline.display();
00124         }
00125
00126         for (PassengerList_T::const_iterator itPassenger = _passengerList.begin()
00127 ;
00128             itPassenger != _passengerList.end(); ++itPassenger) {
00129             const Passenger_T& lPassenger = *itPassenger;
00130             lPassenger.display();
00131         }
00132
00133         std::cout << "-- Staging --" << std::endl;
00134         _tmpPlace.display();
00135     }
00136
00137     // //// Staging ////
00138     Place_T _tmpPlace;
00139     Date_T _tmpDate;
00140     Airline_T _tmpAirline;
00141     Passenger_T _tmpPassenger;
00142 };
00143
00144 //
00145 // The booking request grammar (using subrules)
00146 //
00147
00148 SearchString_T parseBookingRequest (const std::string& iSearchString);
00149
00150 }

```

26.19 airsched/bom/AirportList.hpp File Reference

```
#include <set> #include <vector> #include <stdair/stdair-
_basic_types.hpp>
```

Namespaces

- namespace [AIRSCHED](#)

Typedefs

- typedef std::set < stdair::AirportCode_T > [AIRSCHED::AirportList_T](#)
- typedef std::vector < stdair::AirportCode_T > [AIRSCHED::AirportOrderedList_T](#)

26.20 AirportList.hpp

```

00001 #ifndef __AIRSCHED_BOM_AIRPORTLIST_HPP
00002 #define __AIRSCHED_BOM_AIRPORTLIST_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <set>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012
00013 namespace AIRSCHED {
00014
00016     typedef std::set<stdair::AirportCode_T> AirportList_T;
00017     typedef std::vector<stdair::AirportCode_T> AirportOrderedList_T;
00018
00019 }
00020 #endif // __AIRSCHED_BOM_AIRPORTLIST_HPP

```

26.21 airsched/bom/BomDisplay.cpp File Reference

```

#include <cassert> #include <ostream> #include <stdair/basic/-
BasConst_BomDisplay.hpp> #include <stdair/bom/BomManager.-
hpp> #include <stdair/bom/BomRoot.hpp> #include <airsched/bom/-
ReachableUniverse.hpp> #include <airsched/bom/BomDisplay.-
hpp>

```

Classes

- struct [AIRSCHED::FlagSaver](#)

Namespaces

- namespace [AIRSCHED](#)

26.22 BomDisplay.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <ostream>
00007 // StdAir
00008 #include <stdair/basic/BasConst_BomDisplay.hpp>
00009 #include <stdair/bom/BomManager.hpp>
00010 #include <stdair/bom/BomRoot.hpp>
00011 // AirSched
00012 #include <airsched/bom/ReachableUniverse.hpp>
00013 #include <airsched/bom/BomDisplay.hpp>
00014
00015 namespace AIRSCHED {
00016
00022     struct FlagSaver {
00023     public:
00025         FlagSaver (std::ostream& oStream)

```

```

00026         : _oStream (oStream), _streamFlags (oStream.flags()) {
00027     }
00028
00030     ~FlagSaver() {
00031         // Reset formatting flags of the given output stream
00032         _oStream.flags (_streamFlags);
00033     }
00034
00035 private:
00037     std::ostream& _oStream;
00039     std::ios::fmtflags _streamFlags;
00040 };
00041
00042 // //////////////////////////////////////
00043 std::string BomDisplay::csvDisplay (const stdair::BomRoot& iBomRoot) {
00044     std::ostringstream oStream;
00045
00049     oStream << std::endl;
00050     oStream << "=====
"
00051         << std::endl;
00052     oStream << "BomRoot: " << iBomRoot.describeKey() << std::endl;
00053     oStream << "=====
"
00054         << std::endl;
00055
00056     // Check whether there are ReachableUniverse objects
00057     if (stdair::BomManager::hasList<ReachableUniverse> (iBomRoot) == false) {
00058         return oStream.str();
00059     }
00060
00061     // Retrieve the ReachableUniverse list
00062     const ReachableUniverseList_T& lReachableUniverseList =
00063         stdair::BomManager::getList<ReachableUniverse> (iBomRoot);
00064
00065     // Browse the networks for each departure airport
00066     for (ReachableUniverseList_T::const_iterator itReachableUniverse =
00067         lReachableUniverseList.begin();
00068         itReachableUniverse != lReachableUniverseList.end();
00069         ++itReachableUniverse) {
00070         ReachableUniverse* lReachableUniverse_ptr = *itReachableUniverse;
00071         assert (lReachableUniverse_ptr != NULL);
00072
00073         // Display the reachable universe
00074         csvDisplay (oStream, *lReachableUniverse_ptr);
00075     }
00076
00077     return oStream.str();
00078 }
00079
00080 // //////////////////////////////////////
00081 void BomDisplay::csvDisplay (std::ostream& oStream,
00082                             const ReachableUniverse& iReachableUniverse) {
00083     // Save the formatting flags for the given STL output stream
00084     FlagSaver flagSaver (oStream);
00085
00089     oStream << "+++++" << std::endl;
00090
00091     oStream << iReachableUniverse.toString();
00092     oStream << "+++++" << std::endl;
00093
00094 }

```

26.23 airsched/bom/BomDisplay.hpp File Reference

```
#include <iosfwd> #include <string>
```

Classes

- class [AIRSCHED::BomDisplay](#)
Utility class to display AirSched objects with a pretty format.

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

26.24 BomDisplay.hpp

```

00001 #ifndef __AIRSCHED_BOM_BOMDISPLAY_HPP
00002 #define __AIRSCHED_BOM_BOMDISPLAY_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // AirSched
00011
00012 namespace stdair {
00013     class BomRoot;
00014 }
00015
00016 namespace AIRSCHED {
00017
00018     class ReachableUniverse;
00019
00020     class BomDisplay {
00021     public:
00022         // ////////////////////////////////// Display support methods //////////////////////////////////
00023         static std::string csvDisplay (const stdair::BomRoot&);
00024
00025         static void csvDisplay (std::ostream&, const ReachableUniverse&);
00026     };
00027 }
00028
00029 #endif // __AIRSCHED_BOM_BOMDISPLAY_HPP

```

26.25 airsched/bom/FareFamilyStruct.cpp File Reference

```

#include <cassert> #include <sstream> #include <airsched/bom/-
FareFamilyStruct.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.26 FareFamilyStruct.cpp

```

00001 // //////////////////////////////////////

```

```

00002 // Import section
00003 // ///////////////////////////////////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // AIRSCHED
00008 #include <airsched/bom/FareFamilyStruct.hpp>
00009
00010 namespace AIRSCHED {
00011
00012 // ///////////////////////////////////////////////////////////////////
00013 FareFamilyStruct::
00014 FareFamilyStruct (const stdair::FamilyCode_T& iFamilyCode,
00015                  const stdair::ClassList_String_T& iClasses)
00016 : _familyCode (iFamilyCode),
00017   _classes (iClasses) {
00018 }
00019
00020 // ///////////////////////////////////////////////////////////////////
00021 const std::string FareFamilyStruct::describe() const {
00022     std::ostringstream ostr;
00023     ostr << " " << _familyCode << " " << _classes << ", ";
00024     return ostr.str();
00025 }
00026
00027 }

```

26.27 airsched/bom/FareFamilyStruct.hpp File Reference

```

#include <string> #include <vector> #include <stdair/stdair-
_base_types.hpp> #include <stdair/basic/StructAbstract.-
hpp>

```

Classes

- struct [AIRSCHED::FareFamilyStruct](#)

Namespaces

- namespace [AIRSCHED](#)

Typedefs

- typedef std::vector < FareFamilyStruct > [AIRSCHED::FareFamilyStructList_T](#)

26.28 FareFamilyStruct.hpp

```

00001 #ifndef __AIRSCHED_BOM_FAREFAMILYSTRUCT_HPP
00002 #define __AIRSCHED_BOM_FAREFAMILYSTRUCT_HPP
00003
00004 // ///////////////////////////////////////////////////////////////////
00005 // Import section
00006 // ///////////////////////////////////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>

```

```

00012 #include <stdair/basic/StructAbstract.hpp>
00013
00014 namespace AIRSCHED {
00015
00017     struct FareFamilyStruct : public stdair::StructAbstract {
00018         // Attributes
00019         stdair::FamilyCode_T _familyCode;
00020         stdair::ClassList_String_T _classes;
00021
00023         FareFamilyStruct (const stdair::FamilyCode_T&,
00024                         const stdair::ClassList_String_T&);
00025
00027         const std::string describe() const;
00028     };
00029
00031     typedef std::vector<FareFamilyStruct> FareFamilyStructList_T;
00032
00033 }
00034 #endif // __AIRSCHED_BOM_FAREFAMILYSTRUCT_HPP

```

26.29 airsched/bom/FlightPeriodStruct.cpp File Reference

```

#include <cassert> #include <sstream> #include <stdair/basic/-
BasConst_Period_BOM.hpp> #include <stdair/service/Logger.-
hpp> #include <airsched/AIRSCHED_Types.hpp> #include
<airsched/bom/FlightPeriodStruct.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.30 FlightPeriodStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // StdAir
00008 #include <stdair/basic/BasConst_Period_BOM.hpp>
00009 #include <stdair/service/Logger.hpp>
00010 // AirSched
00011 #include <airsched/AIRSCHED_Types.hpp>
00012 #include <airsched/bom/FlightPeriodStruct.hpp>
00013
00014 namespace AIRSCHED {
00015
00016 // //////////////////////////////////////
00017 FlightPeriodStruct::FlightPeriodStruct ()
00018 : _dateRange (stdair::BOOST_DEFAULT_DATE_PERIOD),
00019   _dow (stdair::DEFAULT_DOW_STRING),
00020   _legAlreadyDefined (false), _itSeconds (0) {
00021 }
00022
00023 // //////////////////////////////////////
00024 stdair::Date_T FlightPeriodStruct::getDate() const {
00025     return stdair::Date_T (_itYear, _itMonth, _itDay);
00026 }
00027
00028 // //////////////////////////////////////
00029 stdair::Duration_T FlightPeriodStruct::getTime() const {
00030     return boost::posix_time::hours (_itHours)

```

```

00031         + boost::posix_time::minutes (_itMinutes)
00032         + boost::posix_time::seconds (_itSeconds);
00033     }
00034
00035     // //////////////////////////////////////
00036     const std::string FlightPeriodStruct::describe() const {
00037         std::ostringstream ostr;
00038         ostr << _airlineCode << _flightNumber << ", " << _dateRange
00039             << " - " << _dow << std::endl;
00040
00041         for (LegStructList_T::const_iterator itLeg = _legList.begin();
00042             itLeg != _legList.end(); ++itLeg) {
00043             const LegStruct& lLeg = *itLeg;
00044             ostr << lLeg.describe();
00045         }
00046
00047         for (SegmentStructList_T::const_iterator itSegment = _segmentList.begin();
00048             itSegment != _segmentList.end(); ++itSegment) {
00049             const SegmentStruct& lSegment = *itSegment;
00050             ostr << lSegment.describe();
00051         }
00052
00053         //ostr << "[Debug] - Staging Leg: ";
00054         //ostr << _itLeg.describe();
00055         //ostr << "[Debug] - Staging Cabin: ";
00056         //ostr << _itCabin.describe();
00057
00058         return ostr.str();
00059     }
00060
00061     // //////////////////////////////////////
00062     void FlightPeriodStruct::addAirport (const stdair::AirportCode_T& iAirport) {
00063         AirportList_T::const_iterator itAirport = _airportList.find (iAirport);
00064         if (itAirport == _airportList.end()) {
00065             // Add the airport code to the airport set
00066             const bool insertSuccessful = _airportList.insert (iAirport).second;
00067
00068             if (insertSuccessful == false) {
00069                 // TODO: throw an exception
00070             }
00071
00072             // Add the airport code to the airport vector
00073             _airportOrderedList.push_back (iAirport);
00074         }
00075     }
00076
00077     // //////////////////////////////////////
00078     void FlightPeriodStruct::buildSegments () {
00079         // The list of airports encompasses all the airports on which
00080         // the flight takes off or lands. Moreover, that list is
00081         // time-ordered: the first airport is the initial departure of
00082         // the flight, and the last airport is the eventual point of
00083         // rest of the flight.
00084         // Be l the size of the ordered list of airports.
00085         // We want to generate all the segment combinations from the legs
00086         // and, hence, from all the possible (time-ordered) airport pairs.
00087         // Thus, we both iterator on i=0...l-1 and j=i+1...l
00088         assert (_airportOrderedList.size() >= 2);
00089
00090         _segmentList.clear();
00091         for (AirportOrderedList_T::const_iterator itAirport_i =
00092             _airportOrderedList.begin();
00093             itAirport_i != _airportOrderedList.end()-1; ++itAirport_i) {
00094             for (AirportOrderedList_T::const_iterator itAirport_j = itAirport_i + 1;
00095                 itAirport_j != _airportOrderedList.end(); ++itAirport_j) {
00096                 SegmentStruct lSegmentStruct;
00097                 lSegmentStruct._boardingPoint = *itAirport_i;
00098                 lSegmentStruct._offPoint = *itAirport_j;
00099
00100                 _segmentList.push_back (lSegmentStruct);
00101             }
00102         }
00103
00104         // Clear the lists of airports, so that it is ready for the next flight

```

```

00105     _airportList.clear();
00106     _airportOrderedList.clear();
00107 }
00108
00109 // //////////////////////////////////////
00110 void FlightPeriodStruct::
00111 addSegmentCabin (const SegmentStruct& iSegment,
00112                 const SegmentCabinStruct& iCabin) {
00113     // Retrieve the Segment structure corresponding to the (boarding, off)
point
00114     // pair.
00115     SegmentStructList_T::iterator itSegment = _segmentList.begin();
00116     for ( ; itSegment != _segmentList.end(); ++itSegment) {
00117         const SegmentStruct& lSegment = *itSegment;
00118
00119         const stdair::AirportCode_T& lBoardingPoint = iSegment._boardingPoint;
00120         const stdair::AirportCode_T& lOffPoint = iSegment._offPoint;
00121         if (lSegment._boardingPoint == lBoardingPoint
00122             && lSegment._offPoint == lOffPoint) {
00123             break;
00124         }
00125     }
00126
00127     if (itSegment == _segmentList.end()) {
00128         std::ostringstream oStr;
00129         oStr << "Within the schedule input file, there is a flight, for which "
00130             << "the airports of segments and those of the legs "
00131             << "do not correspond";
00132         STDAIR_LOG_ERROR (oStr.str());
00133         throw SegmentDateNotFoundException (oStr.str());
00134     }
00135
00136     // Add the Cabin structure to the Segment Cabin structure.
00137     assert (itSegment != _segmentList.end());
00138     SegmentStruct& lSegment = *itSegment;
00139     lSegment._cabinList.push_back (iCabin);
00140 }
00141
00142 // //////////////////////////////////////
00143 void FlightPeriodStruct::
00144 addSegmentCabin (const SegmentCabinStruct& iCabin) {
00145     // Iterate on all the Segment structures (as they get the same cabin
00146     // definitions)
00147     for (SegmentStructList_T::iterator itSegment = _segmentList.begin();
00148         itSegment != _segmentList.end(); ++itSegment) {
00149         SegmentStruct& lSegment = *itSegment;
00150
00151         lSegment._cabinList.push_back (iCabin);
00152     }
00153 }
00154
00155 // //////////////////////////////////////
00156 void FlightPeriodStruct::
00157 addFareFamily (const SegmentStruct& iSegment,
00158               const SegmentCabinStruct& iCabin,
00159               const FareFamilyStruct& iFareFamily) {
00160     // Retrieve the Segment structure corresponding to the (boarding, off)
point
00161     // pair.
00162     SegmentStructList_T::iterator itSegment = _segmentList.begin();
00163     for ( ; itSegment != _segmentList.end(); ++itSegment) {
00164         const SegmentStruct& lSegment = *itSegment;
00165
00166         const stdair::AirportCode_T& lBoardingPoint = iSegment._boardingPoint;
00167         const stdair::AirportCode_T& lOffPoint = iSegment._offPoint;
00168         if (lSegment._boardingPoint == lBoardingPoint
00169             && lSegment._offPoint == lOffPoint) {
00170             break;
00171         }
00172     }
00173
00174     if (itSegment == _segmentList.end()) {
00175         std::ostringstream oStr;
00176         oStr << "Within the schedule input file, there is a flight, for which "

```

```

00187         << "the airports of segments and those of the legs "
00188         << "do not correspond";
00189         STDAIR_LOG_ERROR (oStr.str());
00190         throw SegmentDateNotFoundException (oStr.str());
00191     }
00192
00193     // Add the Cabin structure to the Segment Cabin structure.
00194     assert (itSegment != _segmentList.end());
00195     SegmentStruct& lSegment = *itSegment;
00196
00197     // Retrieve the Segment cabin structure given the cabin code
00198     SegmentCabinStructList_T::iterator itCabin = lSegment._cabinList.begin();
00199     for ( ; itCabin != lSegment._cabinList.end(); ++itCabin) {
00200         const SegmentCabinStruct& lCabin = *itCabin;
00201
00202         const stdair::CabinCode_T& lCabinCode = lCabin._cabinCode;
00203         if (iCabin._cabinCode == lCabinCode) {
00204             break;
00205         }
00206     }
00207
00213     if (itCabin == lSegment._cabinList.end()) {
00214         std::ostringstream oStr;
00215         oStr << "Within the schedule input file, there is a flight "
00216         << "for which the cabin code does not exist.";
00217         STDAIR_LOG_ERROR (oStr.str());
00218         throw SegmentDateNotFoundException (oStr.str());
00219     }
00220
00221     // Add the Cabin structure to the Segment Cabin structure.
00222     assert (itCabin != lSegment._cabinList.end());
00223     SegmentCabinStruct& lCabin = *itCabin;
00224     lCabin._fareFamilies.push_back (iFareFamily);
00225 }
00226
00227 ///////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00228 void FlightPeriodStruct::
00229 addFareFamily (const SegmentCabinStruct& iCabin,
00230               const FareFamilyStruct& iFareFamily) {
00231     // Iterate on all the Segment structures (as they get the same cabin
00232     // definitions)
00233
00234     for (SegmentStructList_T::iterator itSegment = _segmentList.begin();
00235          itSegment != _segmentList.end(); ++itSegment) {
00236         SegmentStruct& lSegment = *itSegment;
00237
00238         // Retrieve the Segment cabin structure given the cabin code
00239         SegmentCabinStructList_T::iterator itCabin = lSegment._cabinList.begin();
00240         for ( ; itCabin != lSegment._cabinList.end(); ++itCabin) {
00241             const SegmentCabinStruct& lCabin = *itCabin;
00242
00243             const stdair::CabinCode_T& lCabinCode = lCabin._cabinCode;
00244             if (iCabin._cabinCode == lCabinCode) {
00245                 break;
00246             }
00247         }
00248
00254         if (itCabin == lSegment._cabinList.end()) {
00255             std::ostringstream oStr;
00256             oStr << "Within the schedule input file, there is a flight "
00257             << "for which the cabin code does not exist.";
00258             STDAIR_LOG_ERROR (oStr.str());
00259             throw SegmentDateNotFoundException (oStr.str());
00260         }
00261
00262         // Add the Cabin structure to the Segment Cabin structure.
00263         assert (itCabin != lSegment._cabinList.end());
00264         SegmentCabinStruct& lCabin = *itCabin;
00265         lCabin._fareFamilies.push_back (iFareFamily);
00266     }
00267 }
00268
00269 }

```

26.31 airsched/bom/FlightPeriodStruct.hpp File Reference

```
#include <string>    #include <stdair/stdair_basic_types.-
hpp> #include <stdair/basic/StructAbstract.hpp> #include
<stdair/bom/DoWStruct.hpp>    #include <airsched/bom/Leg-
CabinStruct.hpp>    #include <airsched/bom/LegStruct.hpp>
#include <airsched/bom/SegmentStruct.hpp> #include <airsched/bom/-
SegmentCabinStruct.hpp> #include <airsched/bom/FareFamily-
Struct.hpp> #include <airsched/bom/AirportList.hpp>
```

Classes

- struct [AIRSCHED::FlightPeriodStruct](#)

Namespaces

- namespace [AIRSCHED](#)

26.32 FlightPeriodStruct.hpp

```
00001 #ifndef __AIRSCHED_BOM_FLIGHTPERIODSTRUCT_HPP
00002 #define __AIRSCHED_BOM_FLIGHTPERIODSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/basic/StructAbstract.hpp>
00012 #include <stdair/bom/DoWStruct.hpp>
00013 // AirSched
00014 #include <airsched/bom/LegCabinStruct.hpp>
00015 #include <airsched/bom/LegStruct.hpp>
00016 #include <airsched/bom/SegmentStruct.hpp>
00017 #include <airsched/bom/SegmentCabinStruct.hpp>
00018 #include <airsched/bom/FareFamilyStruct.hpp>
00019 #include <airsched/bom/AirportList.hpp>
00020
00021 namespace AIRSCHED {
00022
00026 struct FlightPeriodStruct : public stdair::StructAbstract {
00027
00029     stdair::Date_T getDate() const;
00030
00032     stdair::Duration_T getTime() const;
00033
00035     const std::string describe() const;
00036
00039     void addAirport (const stdair::AirportCode_T&);
00040
00042     void buildSegments();
00043
00050     void addSegmentCabin (const SegmentStruct&,
00051                          const SegmentCabinStruct&);
00052
00058     void addSegmentCabin (const SegmentCabinStruct&);
00059
00066     void addFareFamily (const SegmentStruct&,
00067                        const SegmentCabinStruct&,
```

```

00068                                     const FareFamilyStruct&);
00069
00075 void addFareFamily (const SegmentCabinStruct&,
00076                   const FareFamilyStruct&);
00077
00081 FlightPeriodStruct();
00082
00083 // Attributes
00084 stdair::AirlineCode_T _airlineCode;
00085 stdair::FlightNumber_T _flightNumber;
00086 stdair::DatePeriod_T _dateRange;
00087 stdair::DoWStruct _dow;
00088 LegStructList_T _legList;
00089 SegmentStructList_T _segmentList;
00090
00093 bool _legAlreadyDefined;
00094 LegStruct _itLeg;
00095 LegCabinStruct _itLegCabin;
00096
00098 stdair::Date_T _dateRangeStart;
00099 stdair::Date_T _dateRangeEnd;
00100 unsigned int _itYear;
00101 unsigned int _itMonth;
00102 unsigned int _itDay;
00103 int _dateOffset;
00104
00106 long _itHours;
00107 long _itMinutes;
00108 long _itSeconds;
00109
00112 AirportList_T _airportList;
00113 AirportOrderedList_T _airportOrderedList;
00114
00116 bool _areSegmentDefinitionsSpecific;
00117 SegmentStruct _itSegment;
00118 SegmentCabinStruct _itSegmentCabin;
00119 };
00120
00121 }
00122 #endif // __AIRSCHED_BOM_FLIGHTPERIODSTRUCT_HPP

```

26.33 airsched/bom/LegCabinStruct.cpp File Reference

```

#include <cassert> #include <sstream> #include <stdair/bom/-
LegCabin.hpp>      #include <airsched/bom/LegCabinStruct.-
hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.34 LegCabinStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/bom/LegCabin.hpp>
00009 // AIRSCHED
00010 #include <airsched/bom/LegCabinStruct.hpp>
00011

```

```

00012 namespace AIRSCHED {
00013
00014 // //////////////////////////////////////
00015 const std::string LegCabinStruct::describe() const {
00016     std::ostringstream ostr;
00017     ostr << "          " << _cabinCode << " " << _capacity << ", ";
00018     return ostr.str();
00019 }
00020
00021 // //////////////////////////////////////
00022 void LegCabinStruct::fill (stdair::LegCabin& ioLegCabin) const {
00023     // Set the Capacity
00024     ioLegCabin.setCapacities (_capacity);
00025 }
00026
00027 }

```

26.35 airsched/bom/LegCabinStruct.hpp File Reference

```

#include <string> #include <vector> #include <stdair/stdair-
_inventory_types.hpp> #include <stdair/basic/StructAbstract.-
hpp>

```

Classes

- struct [AIRSCHED::LegCabinStruct](#)

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

Typedefs

- typedef std::vector < LegCabinStruct > [AIRSCHED::LegCabinStructList_T](#)

26.36 LegCabinStruct.hpp

```

00001 #ifndef __AIRSCHED_BOM_LEGCABINSTRUCT_HPP
00002 #define __AIRSCHED_BOM_LEGCABINSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_inventory_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013
00014 // Forward declarations
00015 namespace stdair {
00016     class LegCabin;
00017 }

```

```

00018
00019 namespace AIRSCHED {
00020
00022     struct LegCabinStruct : public stdair::StructAbstract {
00023         // Attributes
00024         stdair::CabinCode_T _cabinCode;
00025         stdair::CabinCapacity_T _capacity;
00026
00029         void fill (stdair::LegCabin&) const;
00030
00032         const std::string describe() const;
00033     };
00034
00036     typedef std::vector<LegCabinStruct> LegCabinStructList_T;
00037
00038 }
00039 #endif // __AIRSCHED_BOM_LEGCAINSTRUCT_HPP

```

26.37 airsched/bom/LegStruct.cpp File Reference

```

#include <cassert> #include <sstream> #include <stdair/basic/-
BasConst_Period_BOM.hpp> #include <stdair/bom/LegDate.-
hpp> #include <airsched/bom/LegStruct.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.38 LegStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/basic/BasConst_Period_BOM.hpp>
00009 #include <stdair/bom/LegDate.hpp>
00010 // AIRSCHED
00011 #include <airsched/bom/LegStruct.hpp>
00012
00013 namespace AIRSCHED {
00014
00015     // //////////////////////////////////////
00016     LegStruct::LegStruct ()
00017         : _boardingDateOffset (stdair::DEFAULT_DATE_OFFSET),
00018           _offDateOffset (stdair::DEFAULT_DATE_OFFSET) {
00019     }
00020
00021     // //////////////////////////////////////
00022     const std::string LegStruct::describe() const {
00023         std::ostringstream ostr;
00024         ostr << " " << _boardingPoint << " / "
00025             << boost::posix_time::to_simple_string(_boardingTime);
00026         if (_boardingDateOffset.days() != 0) {
00027             ostr << " [" << _boardingDateOffset.days() << "]";
00028         }
00029         ostr << " -- " << _offPoint << " / "
00030             << boost::posix_time::to_simple_string(_offTime);
00031         if (_offDateOffset.days() != 0) {
00032             ostr << " [" << _offDateOffset.days() << "]";
00033         }
00034         ostr << " --> "

```

```

00035         << boost::posix_time::to_simple_string(_elapsed)
00036         << std::endl;
00037     for (LegCabinStructList_T::const_iterator itCabin = _cabinList.begin();
00038         itCabin != _cabinList.end(); itCabin++) {
00039         const LegCabinStruct& lCabin = *itCabin;
00040         ostr << lCabin.describe();
00041     }
00042     ostr << std::endl;
00043
00044     return ostr.str();
00045 }
00046
00047 // //////////////////////////////////////
00048 void LegStruct::fill (const stdair::Date_T& iRefDate,
00049                     stdair::LegDate& ioLegDate) const {
00050     // Set the Off Point
00051     ioLegDate.setOffPoint (_offPoint);
00052
00053     // Set the Boarding Date
00054     ioLegDate.setBoardingDate (iRefDate + _boardingDateOffset);
00055
00056     // Set the Boarding Time
00057     ioLegDate.setBoardingTime (_boardingTime);
00058
00059     // Set the Off Date
00060     ioLegDate.setOffDate (iRefDate + _offDateOffset);
00061
00062     // Set the Off Time
00063     ioLegDate.setOffTime (_offTime);
00064
00065     // Set the Elapsed Time
00066     ioLegDate.setElapsedTime (_elapsed);
00067 }
00068
00069 }

```

26.39 airsched/bom/LegStruct.hpp File Reference

```

#include <string> #include <vector> #include <stdair/stdair-
_basic_types.hpp> #include <stdair/basic/StructAbstract.-
hpp> #include <airsched/bom/LegCabinStruct.hpp>

```

Classes

- struct [AIRSCHED::LegStruct](#)

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

Typedefs

- typedef std::vector< LegStruct > [AIRSCHED::LegStructList_T](#)

26.40 LegStruct.hpp

```

00001 #ifndef __AIRSCHED_BOM_LEGSTRUCT_HPP
00002 #define __AIRSCHED_BOM_LEGSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013 // AirSched
00014 #include <airsched/bom/LegCabinStruct.hpp>
00015
00016 // Forward declarations
00017 namespace stdair {
00018     class LegDate;
00019 }
00020
00021 namespace AIRSCHED {
00022
00024     struct LegStruct : public stdair::StructAbstract {
00025         // Attributes
00026         stdair::AirportCode_T _boardingPoint;
00027         stdair::DateOffset_T _boardingDateOffset;
00028         stdair::Duration_T _boardingTime;
00029         stdair::AirportCode_T _offPoint;
00030         stdair::DateOffset_T _offDateOffset;
00031         stdair::Duration_T _offTime;
00032         stdair::Duration_T _elapsed;
00033         LegCabinStructList_T _cabinList;
00034
00040         void fill (const stdair::Date_T& iRefDate, stdair::LegDate&) const;
00041
00043         const std::string describe() const;
00044
00046         LegStruct();
00047     };
00048
00050     typedef std::vector<LegStruct> LegStructList_T;
00051
00052 }
00053 #endif // __AIRSCHED_BOM_LEGSTRUCT_HPP

```

26.41 airsched/bom/OnDPeriodStruct.cpp File Reference

```

#include <cassert> #include <iostream> #include <stdair/basic/-
BasConst_Period_BOM.hpp> #include <stdair/basic/BasConst-
_General.hpp> #include <stdair/basic/BasConst_Inventory.-
hpp> #include <stdair/service/Logger.hpp> #include <airsched/bom/-
OnDPeriodStruct.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.42 OnDPeriodStruct.cpp

```

00001 // //////////////////////////////////////

```

```

00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <iostream>
00007 // StdAir
00008 #include <stdair/basic/BasConst_Period_BOM.hpp>
00009 #include <stdair/basic/BasConst_General.hpp>
00010 #include <stdair/basic/BasConst_Inventory.hpp>
00011 #include <stdair/service/Logger.hpp>
00012 // AIRSCHEd
00013 #include <airsched/bom/OnDPeriodStruct.hpp>
00014
00015 namespace AIRSCHEd {
00016 // //////////////////////////////////////
00017 OnDPeriodStruct::OnDPeriodStruct ()
00018 : _datePeriod (stdair::BOOST_DEFAULT_DATE_PERIOD),
00019   _timeRangeStart (stdair::NULL_BOOST_TIME_DURATION),
00020   _timeRangeEnd (stdair::NULL_BOOST_TIME_DURATION),
00021   _nbOfAirlines (stdair::DEFAULT_NBFAIRLINES),
00022   _airlineCode (stdair::DEFAULT_NULL_AIRLINE_CODE),
00023   _classCode (stdair::DEFAULT_NULL_CLASS_CODE),
00024   _itSeconds (0) {
00025 }
00026
00027 // //////////////////////////////////////
00028 stdair::Date_T OnDPeriodStruct::getDate() const {
00029     return stdair::Date_T (_itYear, _itMonth, _itDay);
00030 }
00031
00032 // //////////////////////////////////////
00033 stdair::Duration_T OnDPeriodStruct::getTime() const {
00034     return boost::posix_time::hours (_itHours)
00035         + boost::posix_time::minutes (_itMinutes)
00036         + boost::posix_time::seconds (_itSeconds);
00037 }
00038
00039 // //////////////////////////////////////
00040 const std::string OnDPeriodStruct::describe() const {
00041     std::ostringstream ostr;
00042     ostr << _origin << "-" << _destination << ", "
00043         << _datePeriod << ", between "
00044         << boost::posix_time::to_simple_string(_timeRangeStart)
00045         << " to "
00046         << boost::posix_time::to_simple_string(_timeRangeEnd) << ", "
00047         << _classCode << ", "
00048         << _airlineCode << ", "
00049         << std::endl;
00050
00051     return ostr.str();
00052 }
00053
00054 // //////////////////////////////////////
00055 const std::string OnDPeriodStruct::describeTSKey() const {
00056     std::ostringstream ostr;
00057     ostr << _origin << "-" << _destination << ", "
00058         << _airlineCode << ", " << _classCode << std::endl;
00059
00060     return ostr.str();
00061 }
00062
00063 // //////////////////////////////////////
00064 const stdair::AirlineCode_T& OnDPeriodStruct::getFirstAirlineCode () const {
00065     assert (_airlineCodeList.size() > 0);
00066     stdair::AirlineCodeList_T::const_iterator itFirstAirlineCode =
00067         _airlineCodeList.begin();
00068     return *itFirstAirlineCode;
00069 }
00070
00071 }

```

26.43 airsched/bom/OnDPeriodStruct.hpp File Reference

```
#include <string>      #include <stdair/stdair_inventory_-
types.hpp> #include <stdair/basic/StructAbstract.hpp>
```

Classes

- struct [AIRSCHEDED::OnDPeriodStruct](#)

Namespaces

- namespace [AIRSCHEDED](#)

26.44 OnDPeriodStruct.hpp

```
00001 #ifndef __AIRSCHEDED_BOM_ONDPERIODSTRUCT_HPP
00002 #define __AIRSCHEDED_BOM_ONDPERIODSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_inventory_types.hpp>
00011 #include <stdair/basic/StructAbstract.hpp>
00012
00013 namespace AIRSCHEDED {
00014     struct OnDPeriodStruct : public stdair::StructAbstract {
00015     public:
00016         // ////////////////////////////////// Getters //////////////////////////////////
00017         const stdair::AirlineCode_T& getFirstAirlineCode () const;
00018
00019         stdair::Date_T getDate() const;
00020
00021         stdair::Duration_T getTime() const;
00022
00023         // ////////////////////////////////// Display Methods //////////////////////////////////
00024         const std::string describe() const;
00025
00026         const std::string describeTSKey() const;
00027
00028     public:
00029         OnDPeriodStruct ();
00030
00031     public:
00032         // Attributes
00033         stdair::AirportCode_T _origin;
00034         stdair::AirportCode_T _destination;
00035         stdair::DatePeriod_T _datePeriod;
00036         stdair::Duration_T _timeRangeStart;
00037         stdair::Duration_T _timeRangeEnd;
00038         stdair::NbOfAirlines_T _nbOfAirlines;
00039         stdair::AirlineCode_T _airlineCode;
00040         stdair::ClassCode_T _classCode;
00041         stdair::AirlineCodeList_T _airlineCodeList;
00042         stdair::ClassCodeList_T _classCodeList;
00043
00044         stdair::Date_T _dateRangeStart;
00045         stdair::Date_T _dateRangeEnd;
00046         unsigned int _itYear;
00047         unsigned int _itMonth;
00048         unsigned int _itDay;
00049
00050
00051
00052
00053
00054
00055
00056
00057
00058
```

```

00060         long _itHours;
00061         long _itMinutes;
00062         long _itSeconds;
00063     };
00064 }
00065 #endif // __AIRSCHED_BOM_ONDPERIODSTRUCT_HPP

```

26.45 airsched/bom/OriginDestinationSet.cpp File Reference

```

#include <cassert> #include <sstream> #include <boost/archive/text-
_iarchive.hpp> #include <boost/archive/text_oarchive.-
hpp> #include <boost/serialization/access.hpp> #include
<stdair/basic/BasConst_Inventory.hpp> #include <airsched/bom/-
OriginDestinationSet.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Functions

- template void [AIRSCHED::OriginDestinationSet::serialize< ba::text_oarchive >](#) (ba::text_oarchive &, unsigned int)
- template void [AIRSCHED::OriginDestinationSet::serialize< ba::text_iarchive >](#) (ba::text_iarchive &, unsigned int)

26.46 OriginDestinationSet.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/OriginDestinationSet.hpp>
00015
00016 namespace AIRSCHED {
00017
00018 // //////////////////////////////////////
00019 OriginDestinationSet::OriginDestinationSet ()
00020 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00021     assert (false);
00022 }
00023
00024 // //////////////////////////////////////
00025 OriginDestinationSet::OriginDestinationSet (const OriginDestinationSet&)
00026 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00027     assert (false);
00028 }
00029
00030 // //////////////////////////////////////

```

```

00031 OriginDestinationSet::OriginDestinationSet (const Key_T& iKey)
00032 : _key (iKey), _parent (NULL) {
00033 }
00034
00035 // //////////////////////////////////////
00036 OriginDestinationSet::~OriginDestinationSet () {
00037 }
00038
00039 // //////////////////////////////////////
00040 std::string OriginDestinationSet::toString() const {
00041     std::ostringstream oStr;
00042     oStr << _key.toString();
00043     return oStr.str();
00044 }
00045
00046 // //////////////////////////////////////
00047 void OriginDestinationSet::serialisationImplementationExport() const {
00048     std::ostringstream oStr;
00049     boost::archive::text_oarchive oa (oStr);
00050     oa << *this;
00051 }
00052
00053 // //////////////////////////////////////
00054 void OriginDestinationSet::serialisationImplementationImport() {
00055     std::istringstream iStr;
00056     boost::archive::text_iarchive ia (iStr);
00057     ia >> *this;
00058 }
00059
00060 // //////////////////////////////////////
00061 template<class Archive>
00062 void OriginDestinationSet::serialize (Archive& ioArchive,
00063                                     const unsigned int iFileVersion) {
00064     ioArchive & _key;
00065 }
00066
00067 // //////////////////////////////////////
00068 // Explicit template instantiation
00069 namespace ba = boost::archive;
00070 template
00071 void OriginDestinationSet::serialize<ba::text_oarchive> (ba::text_oarchive&,
00072                                                         unsigned int);
00073 template
00074 void OriginDestinationSet::serialize<ba::text_iarchive> (ba::text_iarchive&,
00075                                                         unsigned int);
00076 // //////////////////////////////////////
00077
00078 }
00079

```

26.47 airsched/bom/OriginDestinationSet.hpp File Reference

```

#include <iosfwd> #include <string> #include <stdair/bom/-
BomAbstract.hpp> #include <airsched/bom/OriginDestination-
SetKey.hpp> #include <airsched/bom/OriginDestinationSet-
Types.hpp>

```

Classes

- class [AIRSCHED::OriginDestinationSet](#)
Class representing a simple sub-network.

Namespaces

- namespace `boost`
 Forward declarations.
- namespace `boost::serialization`
- namespace `stdair`
 Forward declarations.
- namespace `AIRSCHEd`

26.48 OriginDestinationSet.hpp

```

00001 #ifndef __AIRSCHEd_BOM_ORIGINDESTINATIONSET_HPP
00002 #define __AIRSCHEd_BOM_ORIGINDESTINATIONSET_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/bom/BomAbstract.hpp>
00012 // AirSched
00013 #include <airsched/bom/OriginDestinationSetKey.hpp>
00014 #include <airsched/bom/OriginDestinationSetTypes.hpp>
00015
00017 namespace boost {
00018     namespace serialization {
00019         class access;
00020     }
00021 }
00022
00024 namespace stdair {
00025     template <typename BOM> class FacBom;
00026     class FacBomManager;
00027 }
00028
00029 namespace AIRSCHEd {
00030
00044     class OriginDestinationSet : public stdair::BomAbstract {
00048     template <typename BOM> friend class stdair::FacBom;
00049     friend class stdair::FacBomManager;
00050     friend class boost::serialization::access;
00051
00052     public:
00053         // ////////////////////////////////// Type definitions //////////////////////////////////
00057         typedef OriginDestinationSetKey Key_T;
00058
00059
00060     public:
00061         // ////////////////////////////////// Getters //////////////////////////////////
00065         const Key_T& getKey() const {
00066             return _key;
00067         }
00068
00072         const stdair::AirportCode_T& getDestination() const {
00073             return _key.getOffPoint();
00074         }
00075
00079         stdair::BomAbstract* getParent() const {
00080             return _parent;
00081         }
00082
00086         const stdair::HolderMap_T& getHolderMap() const {
00087             return _holderMap;
00088         }
00089

```

```

00090
00091 public:
00092 // /////////// Display support methods ///////////
00098 void toStream (std::ostream& ioOut) const {
00099     ioOut << toString();
00100 }
00101
00107 void fromStream (std::istream& ioIn) {
00108 }
00109
00113 std::string toString() const;
00114
00118 const std::string describeKey() const {
00119     return _key.toString();
00120 }
00121
00122
00123 public:
00124 // /////////// (Boost) Serialisation support methods ///////////
00128 template<class Archive>
00129 void serialize (Archive& ar, const unsigned int iFileVersion);
00130
00131 private:
00136 void serialisationImplementationExport() const;
00137 void serialisationImplementationImport();
00138
00139
00140 protected:
00141 // /////////// Constructors and destructors ///////////
00145 OriginDestinationSet (const Key_T&);
00146
00150 ~OriginDestinationSet();
00151
00152 private:
00156 OriginDestinationSet();
00157
00161 OriginDestinationSet (const OriginDestinationSet&);
00162
00163 protected:
00164 // /////////// Attributes ///////////
00168 Key_T _key;
00169
00173 stdair::BomAbstract* _parent;
00174
00178 stdair::HolderMap_T _holderMap;
00179 };
00180
00181 }
00182 #endif // __AIRSCHED_BOM_ORIGINDESTINATIONSET_HPP
00183

```

26.49 airsched/bom/OriginDestinationSetKey.cpp File Reference

```

#include <cassert> #include <sstream> #include <boost/archive/text-
_iarchive.hpp> #include <boost/archive/text_oarchive.-
hpp> #include <boost/serialization/access.hpp> #include
<stdair/basic/BasConst_Inventory.hpp> #include <airsched/bom/-
OriginDestinationSetKey.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Functions

- template void AIRSCHED::OriginDestinationSetKey::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)
- template void AIRSCHED::OriginDestinationSetKey::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)

26.50 OriginDestinationSetKey.cpp

```

00001 ///////////////////////////////////////////////////////////////////
00002 // Import section
00003 ///////////////////////////////////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/OriginDestinationSetKey.hpp>
00015
00016 namespace AIRSCHED {
00017
00018 ///////////////////////////////////////////////////////////////////
00019 OriginDestinationSetKey::OriginDestinationSetKey()
00020 : _destination (stdair::DEFAULT_DESTINATION) {
00021     assert (false);
00022 }
00023
00024 ///////////////////////////////////////////////////////////////////
00025 OriginDestinationSetKey::
00026 OriginDestinationSetKey (const stdair::AirportCode_T& iDestination)
00027 : _destination (iDestination) {
00028 }
00029
00030 ///////////////////////////////////////////////////////////////////
00031 OriginDestinationSetKey::
00032 OriginDestinationSetKey (const OriginDestinationSetKey& iKey)
00033 : _destination (iKey._destination) {
00034 }
00035
00036 ///////////////////////////////////////////////////////////////////
00037 OriginDestinationSetKey::~OriginDestinationSetKey() {
00038 }
00039
00040 ///////////////////////////////////////////////////////////////////
00041 void OriginDestinationSetKey::toStream (std::ostream& ioOut) const {
00042     ioOut << "OriginDestinationSetKey: " << toString() << std::endl;
00043 }
00044
00045 ///////////////////////////////////////////////////////////////////
00046 void OriginDestinationSetKey::fromStream (std::istream& ioIn) {
00047 }
00048
00049 ///////////////////////////////////////////////////////////////////
00050 const std::string OriginDestinationSetKey::toString() const {
00051     std::ostringstream oStr;
00052     oStr << _destination;
00053     return oStr.str();
00054 }
00055
00056 ///////////////////////////////////////////////////////////////////
00057 void OriginDestinationSetKey::serialisationImplementationExport() const {
00058     std::ostringstream oStr;
00059     boost::archive::text_oarchive oa (oStr);
00060     oa << *this;

```

```

00061     }
00062
00063     // //////////////////////////////////////
00064     void OriginDestinationSetKey::serialisationImplementationImport() {
00065         std::istream iStr;
00066         boost::archive::text_iarchive ia (iStr);
00067         ia >> *this;
00068     }
00069
00070     // //////////////////////////////////////
00071     template<class Archive>
00072     void OriginDestinationSetKey::serialize (Archive& ioArchive,
00073                                             const unsigned int iFileVersion) {
00074         ioArchive & _destination;
00075     }
00076
00077     // //////////////////////////////////////
00078     // Explicit template instantiation
00079     namespace ba = boost::archive;
00080     template
00081     void OriginDestinationSetKey::serialize<ba::text_oarchive> (ba::text_oarchive
00082 &,
00083                                                                unsigned int);
00084     template
00085     void OriginDestinationSetKey::serialize<ba::text_iarchive> (ba::text_iarchive
00086 &,
00087                                                                unsigned int);
00088     // //////////////////////////////////////
00089
00090 }
00091
00092 }

```

26.51 airsched/bom/OriginDestinationSetKey.hpp File Reference

```

#include <iosfwd> #include <string> #include <stdair/stdair-
_basic_types.hpp> #include <stdair/bom/KeyAbstract.hpp>

```

Classes

- struct [AIRSCHED::OriginDestinationSetKey](#)
Structure representing the key of a sub-network.

Namespaces

- namespace [boost](#)
Forward declarations.
- namespace [boost::serialization](#)
- namespace [AIRSCHED](#)

26.52 OriginDestinationSetKey.hpp

```

00001 #ifndef __AIRSCHED_BOM_ORIGINDESTINATIONSETKEY_HPP
00002 #define __AIRSCHED_BOM_ORIGINDESTINATIONSETKEY_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>

```

```

00009 #include <string>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/bom/KeyAbstract.hpp>
00013
00015 namespace boost {
00016     namespace serialization {
00017         class access;
00018     }
00019 }
00020
00021 namespace AIRSCHED {
00022
00030 struct OriginDestinationSetKey : public stdair::KeyAbstract {
00031     friend class boost::serialization::access;
00032
00033     // ////////// Constructors and destructors //////////
00034 private:
00038     OriginDestinationSetKey();
00039
00040 public:
00044     OriginDestinationSetKey (const stdair::AirportCode_T& iDestination);
00045
00049     OriginDestinationSetKey (const OriginDestinationSetKey&);
00050
00054     ~OriginDestinationSetKey();
00055
00056 public:
00057     // ////////// Getters //////////
00058     00062 const stdair::AirportCode_T& getOffPoint() const {
00063         return _destination;
00064     }
00065
00066 public:
00067     // ////////// Display support methods //////////
00068     void toStream (std::ostream& ioOut) const;
00074
00075     void fromStream (std::istream& ioIn);
00082
00092     const std::string toString() const;
00093
00094 public:
00095     // ////////// (Boost) Serialisation support methods //////////
00096     template<class Archive>
00100     void serialize (Archive& ar, const unsigned int iFileVersion);
00102
00103 private:
00108     void serialisationImplementationExport() const;
00109     void serialisationImplementationImport();
00110
00111 private:
00112     // ////////// Attributes //////////
00113     stdair::AirportCode_T _destination;
00117 };
00118
00119
00120 }
00121 #endif // __AIRSCHED_BOM_ORIGINDESTINATIONSETKEY_HPP

```

26.53 airsched/bom/OriginDestinationSetTypes.hpp File Reference

```

#include <map> #include <list> #include <stdair/stdair_
basic_types.hpp> #include <stdair/bom/key_types.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Typedefs

- typedef std::list < OriginDestinationSet * > [AIRSCHED::OriginDestinationSetList_T](#)
- typedef std::map< const stdair::MapKey_T, OriginDestinationSet * > [AIRSCHED::OriginDestinationSetMap_T](#)

26.54 OriginDestinationSetTypes.hpp

```

00001 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00002 #ifndef __AIRSCHED_BOM_ORIGINDESTINATIONSETTYPES_HPP
00003 #define __AIRSCHED_BOM_ORIGINDESTINATIONSETTYPES_HPP
00004
00005 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00006 // Import section
00007 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00008 // STL
00009 #include <map>
00010 #include <list>
00011 // StdAir
00012 #include <stdair/stdair_basic_types.hpp>
00013 #include <stdair/bom/key_types.hpp>
00014
00015 namespace AIRSCHED {
00016
00017     // Forward declarations.
00018     class OriginDestinationSet;
00019
00020     typedef std::list<OriginDestinationSet*> OriginDestinationSetList_T;
00021
00022     typedef std::map<const stdair::MapKey_T,
00023                    OriginDestinationSet*> OriginDestinationSetMap_T;
00024
00025 }
00026
00027 #endif // __AIRSCHED_BOM_ORIGINDESTINATIONSETTYPES_HPP
00028
00029

```

26.55 airsched/bom/ReachableUniverse.cpp File Reference

```

#include <cassert> #include <sstream> #include <boost/archive/text-
_iarchive.hpp> #include <boost/archive/text_oarchive.-
hpp> #include <boost/serialization/access.hpp> #include
<stdair/basic/BasConst_Inventory.hpp> #include <airsched/bom/-
ReachableUniverse.hpp> #include <airsched/bom/Segment-
PathPeriod.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Functions

- template void AIRSCHED::ReachableUniverse::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)
- template void AIRSCHED::ReachableUniverse::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)

26.56 ReachableUniverse.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/ReachableUniverse.hpp>
00015 #include <airsched/bom/SegmentPathPeriod.hpp>
00016
00017 namespace AIRSCHED {
00018
00019 // //////////////////////////////////////
00020 ReachableUniverse::ReachableUniverse()
00021 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00022     assert (false);
00023 }
00024
00025 // //////////////////////////////////////
00026 ReachableUniverse::ReachableUniverse (const ReachableUniverse&)
00027 : _key (stdair::DEFAULT_ORIGIN), _parent (NULL) {
00028     assert (false);
00029 }
00030
00031 // //////////////////////////////////////
00032 ReachableUniverse::ReachableUniverse (const Key_T& iKey)
00033 : _key (iKey), _parent (NULL) {
00034 }
00035
00036 // //////////////////////////////////////
00037 ReachableUniverse::~ReachableUniverse() {
00038 }
00039
00040 // //////////////////////////////////////
00041 std::string ReachableUniverse::toString() const {
00042     std::ostringstream oStr;
00043     oStr << _key.toString();
00044     return oStr.str();
00045 }
00046
00047 // //////////////////////////////////////
00048 void ReachableUniverse::serialisationImplementationExport() const {
00049     std::ostringstream oStr;
00050     boost::archive::text_oarchive oa (oStr);
00051     oa << *this;
00052 }
00053
00054 // //////////////////////////////////////
00055 void ReachableUniverse::serialisationImplementationImport() {
00056     std::istringstream iStr;
00057     boost::archive::text_iarchive ia (iStr);
00058     ia >> *this;
00059 }
00060

```

```

00061 ///////////////////////////////////////////////////////////////////
00062 template<class Archive>
00063 void ReachableUniverse::serialize (Archive& ioArchive,
00064                                   const unsigned int iFileVersion) {
00065     ioArchive & _key;
00066 }
00067
00068 ///////////////////////////////////////////////////////////////////
00069 // Explicit template instantiation
00070 namespace ba = boost::archive;
00071 template
00072 void ReachableUniverse::serialize<ba::text_oarchive> (ba::text_oarchive&,
00073                                                       unsigned int);
00074 template
00075 void ReachableUniverse::serialize<ba::text_iarchive> (ba::text_iarchive&,
00076                                                       unsigned int);
00077 ///////////////////////////////////////////////////////////////////
00078
00079 }
00080

```

26.57 airsched/bom/ReachableUniverse.hpp File Reference

```

#include <iosfwd> #include <string> #include <stdair/bom/-
BomAbstract.hpp> #include <airsched/bom/ReachableUniverse-
Key.hpp> #include <airsched/bom/ReachableUniverseTypes.-
hpp> #include <airsched/bom/SegmentPathPeriodTypes.hpp>

```

Classes

- class [AIRSCHED::ReachableUniverse](#)
Class representing the root of the schedule-related BOM tree.

Namespaces

- namespace [boost](#)
Forward declarations.
- namespace [boost::serialization](#)
- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

26.58 ReachableUniverse.hpp

```

00001 #ifndef __AIRSCHED_BOM_REACHABLEUNIVERSE_HPP
00002 #define __AIRSCHED_BOM_REACHABLEUNIVERSE_HPP
00003
00004 ///////////////////////////////////////////////////////////////////
00005 // Import section
00006 ///////////////////////////////////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/bom/BomAbstract.hpp>
00012 // AirSched

```

```

00013 #include <airsched/bom/ReachableUniverseKey.hpp>
00014 #include <airsched/bom/ReachableUniverseTypes.hpp>
00015 #include <airsched/bom/SegmentPathPeriodTypes.hpp>
00016
00017 namespace boost {
00018     namespace serialization {
00019         class access;
00020     }
00021 }
00022
00023 namespace stdair {
00024     template <typename BOM> class FacBom;
00025     class FacBomManager;
00026 }
00027
00028 namespace AIRSCHED {
00029
00030     class ReachableUniverse : public stdair::BomAbstract {
00031     public:
00032         template <typename BOM> friend class stdair::FacBom;
00033         friend class stdair::FacBomManager;
00034         friend class SegmentPathGenerator;
00035         friend class boost::serialization::access;
00036
00037     public:
00038         // //////////// Type definitions ////////////
00039         typedef ReachableUniverseKey Key_T;
00040
00041     public:
00042         // //////////// Getters ////////////
00043         const Key_T& getKey() const {
00044             return _key;
00045         }
00046
00047         const stdair::AirportCode_T& getOrigin() const {
00048             return _key.getBoardingPoint();
00049         }
00050
00051         stdair::BomAbstract* const getParent() const {
00052             return _parent;
00053         }
00054
00055         const stdair::HolderMap_T& getHolderMap() const {
00056             return _holderMap;
00057         }
00058
00059         const SegmentPathPeriodListList_T& getSegmentPathPeriodListList() const {
00060             return _segmentPathPeriodListList;
00061         }
00062
00063     public:
00064         // //////////// Display support methods ////////////
00065         void toStream (std::ostream& ioOut) const {
00066             ioOut << toString();
00067         }
00068
00069         void fromStream (std::istream& ioIn) {
00070         }
00071
00072         std::string toString() const;
00073
00074         const std::string describeKey() const {
00075             return _key.toString();
00076         }
00077
00078     public:
00079         // //////////// (Boost) Serialisation support methods ////////////
00080         template<class Archive>
00081         void serialize (Archive& ar, const unsigned int iFileVersion);
00082
00083     private:
00084         void serialisationImplementationExport() const;
00085         void serialisationImplementationImport();
00086     };
00087
00088 }
00089
00090 }
00091
00092 }
00093
00094 }
00095
00096 }
00097
00098 }
00099
00100 }
00101
00102 }
00103
00104 }
00105
00106 }
00107
00108 }
00109
00110 }
00111
00112 }
00113
00114 }
00115
00116 }
00117
00118 }
00119
00120 }
00121
00122 }
00123
00124 }
00125
00126 }
00127
00128 }
00129
00130 }
00131
00132 }
00133
00134 }
00135
00136 }
00137
00138 }
00139
00140 }
00141
00142 }

```

```

00143
00144
00145     protected:
00146         // ////////// Constructors and destructors //////////
00150         ReachableUniverse (const Key_T&);
00151
00155         ~ReachableUniverse ();
00156
00157     private:
00161         ReachableUniverse ();
00162
00166         ReachableUniverse (const ReachableUniverse&);
00167
00168     protected:
00170         // ////////// Attributes //////////
00174         Key_T _key;
00175
00179         stdair::BomAbstract* _parent;
00180
00184         stdair::HolderMap_T _holderMap;
00185
00191         SegmentPathPeriodListList_T _segmentPathPeriodListList;
00192     };
00193
00194 }
00195 #endif // __AIRSCHED_BOM_REACHABLEUNIVERSE_HPP
00196

```

26.59 airsched/bom/ReachableUniverseKey.cpp File Reference

```

#include <cassert> #include <sstream> #include <boost/archive/text-
_iarchive.hpp> #include <boost/archive/text_oarchive.-
hpp> #include <boost/serialization/access.hpp> #include
<stdair/basic/BasConst_Inventory.hpp> #include <airsched/bom/-
ReachableUniverseKey.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Functions

- template void [AIRSCHED::ReachableUniverseKey::serialize< ba::text_oarchive >](#) (ba::text_oarchive &, unsigned int)
- template void [AIRSCHED::ReachableUniverseKey::serialize< ba::text_iarchive >](#) (ba::text_iarchive &, unsigned int)

26.60 ReachableUniverseKey.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>

```

```

00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_Inventory.hpp>
00013 // AirSched
00014 #include <airsched/bom/ReachableUniverseKey.hpp>
00015
00016 namespace AIRSCHED {
00017
00018 // //////////////////////////////////////
00019 ReachableUniverseKey::ReachableUniverseKey()
00020 : _origin (stdair::DEFAULT_ORIGIN) {
00021     assert (false);
00022 }
00023
00024 // //////////////////////////////////////
00025 ReachableUniverseKey::
00026 ReachableUniverseKey (const ReachableUniverseKey& iKey)
00027 : _origin (iKey._origin) {
00028 }
00029
00030 // //////////////////////////////////////
00031 ReachableUniverseKey::
00032 ReachableUniverseKey (const stdair::AirportCode_T& iAirportCode)
00033 : _origin (iAirportCode) {
00034 }
00035
00036 // //////////////////////////////////////
00037 ReachableUniverseKey::~ReachableUniverseKey() {
00038 }
00039
00040 // //////////////////////////////////////
00041 void ReachableUniverseKey::toStream (std::ostream& ioOut) const {
00042     ioOut << "ReachableUniverseKey: " << toString() << std::endl;
00043 }
00044
00045 // //////////////////////////////////////
00046 void ReachableUniverseKey::fromStream (std::istream& ioIn) {
00047 }
00048
00049 // //////////////////////////////////////
00050 const std::string ReachableUniverseKey::toString() const {
00051     std::ostringstream oStr;
00052     oStr << _origin;
00053     return oStr.str();
00054 }
00055
00056 // //////////////////////////////////////
00057 void ReachableUniverseKey::serialisationImplementationExport() const {
00058     std::ostringstream oStr;
00059     boost::archive::text_oarchive oa (oStr);
00060     oa << *this;
00061 }
00062
00063 // //////////////////////////////////////
00064 void ReachableUniverseKey::serialisationImplementationImport() {
00065     std::istringstream iStr;
00066     boost::archive::text_iarchive ia (iStr);
00067     ia >> *this;
00068 }
00069
00070 // //////////////////////////////////////
00071 template<class Archive>
00072 void ReachableUniverseKey::serialize (Archive& ioArchive,
00073                                     const unsigned int iFileVersion) {
00074     ioArchive & _origin;
00075 }
00076
00077 // //////////////////////////////////////
00078 // Explicit template instantiation
00079 namespace ba = boost::archive;
00080 template
00081 void ReachableUniverseKey::serialize<ba::text_oarchive> (ba::text_oarchive&,
00082                                                         unsigned int);

```

```

00087     template
00088     void ReachableUniverseKey::serialize<ba::text_iarchive> (ba::text_iarchive&,
00089                                                             unsigned int);
00090     // //////////////////////////////////////
00091
00092 }

```

26.61 airsched/bom/ReachableUniverseKey.hpp File Reference

```

#include <iosfwd> #include <string> #include <stdair/stdair-
_basic_types.hpp> #include <stdair/bom/KeyAbstract.hpp>

```

Classes

- struct [AIRSCHED::ReachableUniverseKey](#)
Structure representing the key of the schedule-related BOM tree root.

Namespaces

- namespace [boost](#)
Forward declarations.
- namespace [boost::serialization](#)
- namespace [AIRSCHED](#)

26.62 ReachableUniverseKey.hpp

```

00001 #ifndef __AIRSCHED_BOM_REACHABLEUNIVERSEKEY_HPP
00002 #define __AIRSCHED_BOM_REACHABLEUNIVERSEKEY_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/bom/KeyAbstract.hpp>
00013
00014 namespace boost {
00015     namespace serialization {
00016         class access;
00017     }
00018 }
00019
00020 namespace AIRSCHED {
00021
00022     struct ReachableUniverseKey : public stdair::KeyAbstract {
00023         friend class boost::serialization::access;
00024
00025         // ////////////////////////////////// Constructors and destructors //////////////////////////////////
00026     private:
00027         ReachableUniverseKey();
00028
00029     public:
00030         ReachableUniverseKey (const stdair::AirportCode_T& iOrigin);
00031         ReachableUniverseKey (const ReachableUniverseKey&);
00032
00033     };
00034 }
00035
00036 #endif

```

```

00053
00057     ~ReachableUniverseKey();
00058
00059
00060 public:
00061     // //////////// Getters ////////////
00066     const stdair::AirportCode_T& getBoardingPoint() const {
00067         return _origin;
00068     }
00069
00070
00071 public:
00072     // //////////// Display support methods ////////////
00078     void toStream (std::ostream& ioOut) const;
00079
00085     void fromStream (std::istream& ioIn);
00086
00096     const std::string toString() const;
00097
00098
00099 public:
00100     // //////////// (Boost) Serialisation support methods ////////////
00104     template<class Archive>
00105     void serialize (Archive& ar, const unsigned int iFileVersion);
00106
00107 private:
00112     void serialisationImplementationExport() const;
00113     void serialisationImplementationImport();
00114
00115
00116 private:
00117     // //////////// Attributes ////////////
00122     stdair::AirportCode_T _origin;
00123 };
00124
00125 }
00126
00127 #endif // __AIRSCHED_BOM_REACHABLEUNIVERSEKEY_HPP

```

26.63 airsched/bom/ReachableUniverseTypes.hpp File Reference

```

#include <map> #include <list> #include <stdair/stdair_-
basic_types.hpp> #include <stdair/bom/key_types.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Typedefs

- typedef std::list < ReachableUniverse * > [AIRSCHED::ReachableUniverseList_T](#)
- typedef std::map< const stdair::MapKey_T, ReachableUniverse * > [AIRSCHED::ReachableUniverseMap_T](#)

26.64 ReachableUniverseTypes.hpp

```

00001 // ////////////////////////////////////////////
00002 #ifndef __AIRSCHED_BOM_REACHABLEUNIVERSETYPES_HPP
00003 #define __AIRSCHED_BOM_REACHABLEUNIVERSETYPES_HPP

```

```

00004
00005 // //////////////////////////////////////
00006 // Import section
00007 // //////////////////////////////////////
00008 // STL
00009 #include <map>
00010 #include <list>
00011 // StdAir
00012 #include <stdair/stdair_basic_types.hpp>
00013 #include <stdair/bom/key_types.hpp>
00014
00015 namespace AIRSCHED {
00016
00017     // Forward declarations.
00018     class ReachableUniverse;
00019
00020     typedef std::list<ReachableUniverse*> ReachableUniverseList_T;
00021
00022     typedef std::map<const stdair::MapKey_T,
00023                    ReachableUniverse*> ReachableUniverseMap_T;
00024
00025 }
00026
00027 #endif // __AIRSCHED_BOM_REACHABLEUNIVERSETYPES_HPP
00028
00029

```

26.65 airsched/bom/SegmentCabinStruct.cpp File Reference

```

#include <cassert> #include <sstream> #include <stdair/bom/-
SegmentCabin.hpp> #include <airsched/bom/SegmentCabin-
Struct.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.66 SegmentCabinStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/bom/SegmentCabin.hpp>
00009 // AIRSCHED
00010 #include <airsched/bom/SegmentCabinStruct.hpp>
00011
00012 namespace AIRSCHED {
00013
00014     // //////////////////////////////////////
00015     const std::string SegmentCabinStruct::describe() const {
00016         std::ostringstream ostr;
00017         ostr << " " << _cabinCode << " " << _classes;
00018         return ostr.str();
00019     }
00020
00021     // //////////////////////////////////////
00022     void SegmentCabinStruct::fill (stdair::SegmentCabin& ioSegmentCabin) const {
00023     }
00024
00025 }

```

26.67 airsched/bom/SegmentCabinStruct.hpp File Reference

```
#include <string> #include <vector> #include <stdair/stdair-
_basic_types.hpp> #include <stdair/basic/StructAbstract.-
hpp> #include <airsched/bom/FareFamilyStruct.hpp>
```

Classes

- struct [AIRSCHEDED::SegmentCabinStruct](#)

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHEDED](#)

Typedefs

- typedef std::vector < SegmentCabinStruct > [AIRSCHEDED::SegmentCabinStruct-List_T](#)

26.68 SegmentCabinStruct.hpp

```
00001 #ifndef __AIRSCHEDED_BOM_SEGMENTCABINSTRUCT_HPP
00002 #define __AIRSCHEDED_BOM_SEGMENTCABINSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013 // AirSched
00014 #include <airsched/bom/FareFamilyStruct.hpp>
00015
00016 // Forward declarations
00017 namespace stdair {
00018     class SegmentCabin;
00019 }
00020
00021 namespace AIRSCHEDED {
00022
00024     struct SegmentCabinStruct : public stdair::StructAbstract {
00025         // Attributes
00026         stdair::CabinCode_T _cabinCode;
00027         stdair::ClassList_String_T _classes;
00028         stdair::FamilyCode_T _itFamilyCode;
00029         FareFamilyStructList_T _fareFamilies;
00030
00033         void fill (stdair::SegmentCabin&) const;
00034
00036         const std::string describe() const;
00037
00038     };
00039
```

```

00041  typedef std::vector<SegmentCabinStruct> SegmentCabinStructList_T;
00042
00043  }
00044  #endif // __AIRSCHED_BOM_SEGMENTCABINSTRUCT_HPP

```

26.69 airsched/bom/SegmentPathPeriod.cpp File Reference

```

#include <cassert> #include <sstream> #include <boost/archive/text-
_iarchive.hpp> #include <boost/archive/text_oarchive.-
hpp> #include <boost/serialization/access.hpp> #include
<stdair/basic/BasConst_General.hpp> #include <stdair/basic/-
BasConst_Inventory.hpp> #include <stdair/basic/BasConst_-
Period_BOM.hpp> #include <stdair/basic/BasConst_Travel-
Solution.hpp> #include <stdair/bom/Inventory.hpp> #include
<stdair/bom/FlightPeriod.hpp> #include <stdair/bom/-
SegmentPeriod.hpp> #include <stdair/bom/BomManager.hpp>
#include <airsched/bom/SegmentPathPeriod.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Functions

- template void [AIRSCHED::SegmentPathPeriod::serialize< ba::text_oarchive >](#)
(ba::text_oarchive &, unsigned int)
- template void [AIRSCHED::SegmentPathPeriod::serialize< ba::text_iarchive >](#)
(ba::text_iarchive &, unsigned int)

26.70 SegmentPathPeriod.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_General.hpp>
00013 #include <stdair/basic/BasConst_Inventory.hpp>
00014 #include <stdair/basic/BasConst_Period_BOM.hpp>
00015 #include <stdair/basic/BasConst_TravelSolution.hpp>
00016 #include <stdair/bom/Inventory.hpp>
00017 #include <stdair/bom/FlightPeriod.hpp>
00018 #include <stdair/bom/SegmentPeriod.hpp>
00019 #include <stdair/bom/BomManager.hpp>
00020 // AirSched
00021 #include <airsched/bom/SegmentPathPeriod.hpp>
00022
00023 namespace AIRSCHED {
00024
00025 // //////////////////////////////////////

```

```

00026 SegmentPathPeriod::SegmentPathPeriod()
00027 : _key (stdair::PeriodStruct (stdair::BOOST_DEFAULT_DATE_PERIOD,
00028                               stdair::DEFAULT_DOW_STRING),
00029         stdair::NULL_BOOST_TIME_DURATION, stdair::NULL_BOOST_TIME_DURATION
00030 ,
00031         DateOffsetList_T(),
00032         stdair::DEFAULT_NBOFAIRLINES),
00033   _parent (NULL) {
00034   assert (false);
00035 }
00036 // //////////////////////////////////////
00037 SegmentPathPeriod::SegmentPathPeriod (const SegmentPathPeriod& iSPP)
00038 : _key (iSPP._key), _parent (NULL) {
00039   assert (false);
00040 }
00041 // //////////////////////////////////////
00042 SegmentPathPeriod::SegmentPathPeriod (const Key_T& iKey)
00043 : _key (iKey), _parent (NULL) {
00044 }
00045 // //////////////////////////////////////
00046 SegmentPathPeriod::~SegmentPathPeriod() {
00047 }
00048 // //////////////////////////////////////
00049 std::string SegmentPathPeriod::toString() const {
00050   std::ostringstream oStr;
00051   oStr << _key.toString();
00052   return oStr.str();
00053 }
00054 // //////////////////////////////////////
00055 void SegmentPathPeriod::serialisationImplementationExport() const {
00056   std::ostringstream oStr;
00057   boost::archive::text_oarchive oa (oStr);
00058   oa << *this;
00059 }
00060 // //////////////////////////////////////
00061 void SegmentPathPeriod::serialisationImplementationImport() {
00062   std::istringstream iStr;
00063   boost::archive::text_iarchive ia (iStr);
00064   ia >> *this;
00065 }
00066 // //////////////////////////////////////
00067 template<class Archive>
00068 void SegmentPathPeriod::serialize (Archive& ioArchive,
00069                                   const unsigned int iFileVersion) {
00070   ioArchive & _key;
00071 }
00072 // //////////////////////////////////////
00073 // Explicit template instantiation
00074 namespace ba = boost::archive;
00075 template
00076 void SegmentPathPeriod::serialize<ba::text_oarchive> (ba::text_oarchive&,
00077                                                       unsigned int);
00078 template
00079 void SegmentPathPeriod::serialize<ba::text_iarchive> (ba::text_iarchive&,
00080                                                       unsigned int);
00081 // //////////////////////////////////////
00082 stdair::SegmentPeriod* SegmentPathPeriod::getLastSegmentPeriod () const {
00083   // Retrieve the last segment of the list
00084   const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00085     stdair::BomManager::getList<stdair::SegmentPeriod> (*this);
00086   stdair::SegmentPeriodList_T::const_reverse_iterator itLastSegment =
00087     lSegmentPeriodList.rbegin();
00088   if (itLastSegment == lSegmentPeriodList.rend()) {

```

```

00099         return NULL;
00100     }
00101
00102     stdair::SegmentPeriod* oSegment_ptr = *itLastSegment;
00103     assert (oSegment_ptr != NULL);
00104
00105     return oSegment_ptr;
00106 }
00107
00108 // //////////////////////////////////////
00109 stdair::SegmentPeriod* SegmentPathPeriod::getFirstSegmentPeriod () const{
00110     // Retrieve the first segment of the list
00111     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00112         stdair::BomManager::getList<stdair::SegmentPeriod> (*this);
00113     stdair::SegmentPeriodList_T::const_iterator itFirstSegment =
00114         lSegmentPeriodList.begin();
00115
00116     if (itFirstSegment == lSegmentPeriodList.end()) {
00117         return NULL;
00118     }
00119
00120     stdair::SegmentPeriod* oSegment_ptr = *itFirstSegment;
00121     assert (oSegment_ptr != NULL);
00122
00123     return oSegment_ptr;
00124 }
00125
00126 // //////////////////////////////////////
00127 const stdair::AirportCode_T& SegmentPathPeriod::getDestination () const {
00128     const stdair::SegmentPeriod* lLastSegment_ptr = getLastSegmentPeriod();
00129     assert (lLastSegment_ptr != NULL);
00130     return lLastSegment_ptr->getOffPoint();
00131 }
00132
00133 // //////////////////////////////////////
00134 bool SegmentPathPeriod::
00135 isAirlineFlown (const stdair::AirlineCode_T& iAirlineCode) const {
00136     bool oAirlineFlown = false;
00137
00138     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00139         stdair::BomManager::getList<stdair::SegmentPeriod> (*this);
00140     for (stdair::SegmentPeriodList_T::const_iterator itSegmentPeriod =
00141         lSegmentPeriodList.begin();
00142         itSegmentPeriod != lSegmentPeriodList.end(); ++itSegmentPeriod) {
00143         const stdair::SegmentPeriod* lSegmentPeriod_ptr = *itSegmentPeriod;
00144         assert (lSegmentPeriod_ptr != NULL);
00145
00146         const stdair::FlightPeriod& lFlightPeriod =
00147             stdair::BomManager::getParent<stdair::FlightPeriod>
00148             (*lSegmentPeriod_ptr);
00149         const stdair::Inventory& lInventory =
00150             stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00151         const stdair::AirlineCode_T& lSegmentAirlineCode =
00152             lInventory.getAirlineCode ();
00153         if (lSegmentAirlineCode == iAirlineCode) {
00154             oAirlineFlown = true;
00155             break;
00156         }
00157     }
00158     return oAirlineFlown;
00159 }
00160
00161 // //////////////////////////////////////
00162 SegmentPathPeriodKey SegmentPathPeriod::
00163 connectWithAnotherSegment (const SegmentPathPeriod& iSingleSegmentPath) const
00164 {
00165     SegmentPathPeriodKey oSegmentPathPeriodKey;
00166
00167     // Retrieve the (only) segment period of the single segment path.
00168     const stdair::SegmentPeriod* lNextSegmentPeriod_ptr =
00169         iSingleSegmentPath.getFirstSegmentPeriod();
00170     assert (lNextSegmentPeriod_ptr != NULL);
00171 }

```

```

00171 // Retrieve the last segment period of the current segment path and check
00172 // if the combination of the last segment and the next segment that we
00173 // want to add to the current segment path will create a new segment
00174 // (i.e., the two segment period belongs to the same flight number).
00175 const stdair::SegmentPeriod* lLastSegmentPeriod_ptr = getLastSegmentPeriod
    (
00176     assert (lLastSegmentPeriod_ptr != NULL);
00177     const stdair::FlightPeriod& lLastFlightPeriod = stdair::BomManager::
00178         getParent<stdair::FlightPeriod> (*lLastSegmentPeriod_ptr);
00179     const stdair::Inventory& lLastInventory =
00180         stdair::BomManager::getParent<stdair::Inventory> (lLastFlightPeriod);
00181
00182     const stdair::FlightPeriod& lNextFlightPeriod = stdair::BomManager::
00183         getParent<stdair::FlightPeriod> (*lNextSegmentPeriod_ptr);
00184     const stdair::Inventory& lNextInventory =
00185         stdair::BomManager::getParent<stdair::Inventory> (lNextFlightPeriod);
00186
00187     if (lLastFlightPeriod.getFlightNumber() == lNextFlightPeriod.getFlightNumber(
00188         && lLastInventory.getAirlineCode() == lNextInventory.getAirlineCode())
00189     {
00189         return oSegmentPathPeriodKey;
00190     }
00191
00192     // Check if the new segment period will create a circle.
00193     const stdair::AirportCode_T& lDestination =
00194         lNextSegmentPeriod_ptr->getOffPoint();
00195     if (checkCircle (lDestination) == true) {
00196         return oSegmentPathPeriodKey;
00197     }
00198
00199     // Check if a passenger can connect from the last segment of the
00200     // current segment path to the first segment of the to-be-added
00201     // segment path. If yes, build a new departure period for the new
00202     // segment path.
00203     DateOffsetList_T lBoardingDateOffsetList =
00204         getBoardingDateOffsetList();
00205     const stdair::PeriodStruct& lCurrentDeparturePeriod = getDeparturePeriod();
00206     const stdair::PeriodStruct& lNextDeparturePeriod =
00207         iSingleSegmentPath.getDeparturePeriod();
00208     const stdair::Duration_T& lLastOffTime =
00209         lLastSegmentPeriod_ptr->getOffTime();
00210     const stdair::Duration_T& lNextBoardingTime =
00211         lNextSegmentPeriod_ptr->getBoardingTime();
00212     // If the next boarding time is later than the last off time, check if
00213     // the passengers will have enough time for the transfer. If the next
00214     // boarding time is earlier than the last off time, check if the passengers
00215     // can connect to a flight in the next day.
00216     if (lNextBoardingTime >= lLastOffTime) {
00217         const stdair::Duration_T lStopTime = lNextBoardingTime - lLastOffTime;
00218         if (lStopTime < stdair::DEFAULT_MINIMAL_CONNECTION_TIME) {
00219             return oSegmentPathPeriodKey;
00220         } else {
00221             // Calculate the date offset of the next segment compare to
00222             // the first one. In this case, this value is equal to the offset
00223             // of the off date of the last segment compare to the boarding date
00224             // of the first segment.
00225             const stdair::DateOffset_T& lLastBoardingDateOffset =
00226                 lBoardingDateOffsetList.at (getNbOfSegments() - 1);
00227             const stdair::DateOffset_T lNextBoardingDateOffset =
00228                 lLastBoardingDateOffset + lLastSegmentPeriod_ptr->getOffDateOffset()
00229                 - lLastSegmentPeriod_ptr->getBoardingDateOffset();
00230             const stdair::DateOffset_T lNegativeNextBoardingDateOffset =
00231                 stdair::DateOffset_T (0) - lNextBoardingDateOffset;
00232
00233             // Compute the adjusted departure period of the next segment by
00234             // subtracting the origin one with the boarding date offset.
00235             const stdair::PeriodStruct lAdjustedNextDeparturePeriod =
00236                 lNextDeparturePeriod.addDateOffset (lNegativeNextBoardingDateOffset);
00237
00238             // Build the intersection of the two periods.
00239             const stdair::PeriodStruct lNewDeparturePeriod =
00240                 lCurrentDeparturePeriod.intersection (lAdjustedNextDeparturePeriod);
00241             stdair::Duration_T lNewElapsed = getElapsedTime() + lStopTime +

```

```

00242         lNextSegmentPeriod_ptr->getElapsedTime();
00243         lBoardingDateOffsetList.push_back (lNextBoardingDateOffset);
00244         oSegmentPathPeriodKey.setPeriod (lNewDeparturePeriod);
00245         oSegmentPathPeriodKey.setElapsedTime (lNewElapsed);
00246     }
00247 } else {
00248     const stdair::Duration_T lStopTime =
00249         lNextBoardingTime - lLastOffTime + stdair::Duration_T (24, 0, 0);
00250     if (lStopTime < stdair::DEFAULT_MINIMAL_CONNECTION_TIME) {
00251         return oSegmentPathPeriodKey;
00252     } else {
00253         // Calculcate the date offset of the next segment compare to
00254         // the first one.
00255         const stdair::DateOffset_T& lLastBoardingDateOffset =
00256             lBoardingDateOffsetList.at (getNbOfSegments() - 1);
00257         const stdair::DateOffset_T lNextBoardingDateOffset =
00258             lLastBoardingDateOffset + lLastSegmentPeriod_ptr->getOffDateOffset()
00259             - lLastSegmentPeriod_ptr->getBoardingDateOffset() +
00260             stdair::DateOffset_T (1);
00261         const stdair::DateOffset_T lNegativeNextBoardingDateOffset =
00262             stdair::DateOffset_T (0) - lNextBoardingDateOffset;
00263
00264         // Compute the adjusted departure period of the next segment by
00265         // subtracting the origin one with the boarding date offset.
00266         const stdair::PeriodStruct lAdjustedNextDeparturePeriod =
00267             lNextDeparturePeriod.addDateOffset (lNegativeNextBoardingDateOffset);
00268
00269         // Build the intersection of the two periods.
00270         const stdair::PeriodStruct lNewDeparturePeriod =
00271             lCurrentDeparturePeriod.intersection (lAdjustedNextDeparturePeriod);
00272         stdair::Duration_T lNewElapsed = getElapsedTime() + lStopTime +
00273             lNextSegmentPeriod_ptr->getElapsedTime();
00274         lBoardingDateOffsetList.push_back (lNextBoardingDateOffset);
00275         oSegmentPathPeriodKey.setPeriod (lNewDeparturePeriod);
00276         oSegmentPathPeriodKey.setElapsedTime (lNewElapsed);
00277     }
00278 }
00279
00280 const stdair::Duration_T& lBoardingTime = getBoardingTime();
00281 oSegmentPathPeriodKey.setBoardingTime (lBoardingTime);
00282 oSegmentPathPeriodKey.setBoardingDateOffsetList (lBoardingDateOffsetList);
00283
00284 return oSegmentPathPeriodKey;
00285 }
00286
00287 // //////////////////////////////////////
00288 bool SegmentPathPeriod::
00289 checkCircle (const stdair::AirlineCode_T& iDestination) const {
00290     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00291         stdair::BomManager::getList<stdair::SegmentPeriod> (*this);
00292     for (stdair::SegmentPeriodList_T::const_iterator itSegment =
00293         lSegmentPeriodList.begin();
00294         itSegment != lSegmentPeriodList.end(); ++itSegment) {
00295         const stdair::SegmentPeriod* lCurrentSegment_ptr = *itSegment;
00296         assert (lCurrentSegment_ptr != NULL);
00297         const stdair::AirlineCode_T& lCurrentBoardingPoint =
00298             lCurrentSegment_ptr->getBoardingPoint();
00299         if (lCurrentBoardingPoint == iDestination) {
00300             return true;
00301         }
00302     }
00303     return false;
00304 }
00305
00306 // //////////////////////////////////////
00307 bool SegmentPathPeriod::
00308 isDepartureDateValid (const stdair::Date_T& iDepartureDate) const {
00309     const stdair::PeriodStruct& lPeriod = getDeparturePeriod ();
00310
00311     // Check if the departure date is within the date range.
00312     const stdair::DatePeriod_T& lDeparturePeriod = lPeriod.getDateRange ();
00313     if (lDeparturePeriod.contains (iDepartureDate) == false) {
00314         return false;
00315     }

```

```

00316
00317     // Check if the departure date is valid within the DOW.
00318     // 0 = Sunday, 1 = Monday, etc.
00319     const short lDay = iDepartureDate.day_of_week ();
00320     const stdair::DoWStruct& lDoW = lPeriod.getDoW ();
00321     if (lDoW.getStandardDayOfWeek (lDay) == false) {
00322         return false;
00323     }
00324
00325     return true;
00326 }
00327
00328 }

```

26.71 airsched/bom/SegmentPathPeriod.hpp File Reference

```

#include <iosfwd> #include <string> #include <stdair/bom/-
BomAbstract.hpp> #include <airsched/bom/SegmentPathPeriod-
Key.hpp> #include <airsched/bom/SegmentPathPeriodTypes.-
hpp>

```

Classes

- class [AIRSCHED::SegmentPathPeriod](#)
Class representing a segment/path.

Namespaces

- namespace [boost](#)
Forward declarations.
- namespace [boost::serialization](#)
- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

26.72 SegmentPathPeriod.hpp

```

00001 #ifndef __AIRSCHED_BOM_SEGMENTPATHPERIOD_HPP
00002 #define __AIRSCHED_BOM_SEGMENTPATHPERIOD_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/bom/BomAbstract.hpp>
00012 // AirSched
00013 #include <airsched/bom/SegmentPathPeriodKey.hpp>
00014 #include <airsched/bom/SegmentPathPeriodTypes.hpp>
00015
00016 namespace boost {
00017     namespace serialization {
00018         class access;
00019     }
00020 }

```

```

00021 }
00022
00024 namespace stdair {
00025     template <typename BOM> class FacBom;
00026     class FacBomManager;
00027     class SegmentPeriod;
00028 }
00029
00030 namespace AIRSCHED {
00031
00039     class SegmentPathPeriod : public stdair::BomAbstract {
00043         template <typename BOM> friend class stdair::FacBom;
00044         friend class stdair::FacBomManager;
00045         friend class boost::serialization::access;
00046
00047     public:
00048         // //////////// Type definitions ////////////
00052         typedef SegmentPathPeriodKey Key_T;
00053
00054
00055     public:
00056         // //////////// Getters ////////////
00060         const Key_T& getKey() const {
00061             return _key;
00062         }
00063
00067         stdair::BomAbstract* const getParent() const {
00068             return _parent;
00069         }
00070
00072         const stdair::PeriodStruct& getDeparturePeriod() const {
00073             return _key.getPeriod();
00074         }
00075
00077         const DateOffsetList_T& getBoardingDateOffsetList () const {
00078             return _key.getBoardingDateOffsetList();
00079         }
00080
00082         const stdair::NbOfSegments_T getNbOfSegments() const {
00083             return _key.getNbOfSegments();
00084         }
00085
00087         const stdair::NbOfAirlines_T& getNbOfAirlines() const {
00088             return _key.getNbOfAirlines();
00089         }
00090
00092         const stdair::Duration_T& getElapsedTime() const {
00093             return _key.getElapsedTime();
00094         }
00095
00097         const stdair::Duration_T& getBoardingTime() const {
00098             return _key.getBoardingTime();
00099         }
00100
00104         const stdair::HolderMap_T& getHolderMap() const {
00105             return _holderMap;
00106         }
00107
00113         stdair::SegmentPeriod* getLastSegmentPeriod() const;
00114
00120         stdair::SegmentPeriod* getFirstSegmentPeriod() const;
00121
00126         const stdair::AirportCode_T& getDestination() const;
00127
00128
00129     public:
00130         // //////////// Business methods ////////////
00148         Key_T connectWithAnotherSegment (const SegmentPathPeriod&) const;
00149
00155         bool checkCircle (const stdair::AirportCode_T&) const;
00156
00161         bool isAirlineFlown (const stdair::AirlineCode_T&) const;
00162
00167         bool isDepartureDateValid (const stdair::Date_T&) const;

```

```

00168
00169 public:
00170 // /////////// Display support methods ///////////
00176 void toStream (std::ostream& ioOut) const {
00177     ioOut << toString();
00178 }
00179
00185 void fromStream (std::istream& ioIn) {
00186 }
00187
00191 std::string toString() const;
00192
00196 const std::string describeKey() const {
00197     return _key.toString();
00198 }
00199
00200
00201 public:
00202 // /////////// (Boost) Serialisation support methods ///////////
00206 template<class Archive>
00207 void serialize (Archive& ar, const unsigned int iFileVersion);
00208
00209 private:
00214 void serialisationImplementationExport() const;
00215 void serialisationImplementationImport();
00216
00217
00218 protected:
00219 // /////////// Constructors and destructors ///////////
00223 SegmentPathPeriod (const Key_T&);
00224
00228 ~SegmentPathPeriod();
00229
00230 private:
00234 SegmentPathPeriod();
00235
00239 SegmentPathPeriod (const SegmentPathPeriod&);
00240
00241
00242 protected:
00243 // /////////// Attributes ///////////
00249 Key_T _key;
00250
00254 stdair::BomAbstract* _parent;
00255
00262 stdair::HolderMap_T _holderMap;
00263 };
00264
00265 }
00266 #endif // __AIRSCHED_BOM_SEGMENTPATHPERIOD_HPP
00267

```

26.73 airsched/bom/SegmentPathPeriodKey.cpp File Reference

```

#include <cassert> #include <sstream> #include <boost/archive/text-
_iarchive.hpp> #include <boost/archive/text_oarchive.-
hpp> #include <boost/serialization/access.hpp> #include
<stdair/basic/BasConst_General.hpp> #include <stdair/basic/-
BasConst_Inventory.hpp> #include <stdair/basic/BasConst_-
Period_BOM.hpp> #include <stdair/basic/BasConst_Travel-
Solution.hpp> #include <airsched/bom/SegmentPathPeriod-
Key.hpp>

```

Namespaces

- namespace AIRSCHED

Functions

- template void AIRSCHED::SegmentPathPeriodKey::serialize< ba::text_oarchive > (ba::text_oarchive &, unsigned int)
- template void AIRSCHED::SegmentPathPeriodKey::serialize< ba::text_iarchive > (ba::text_iarchive &, unsigned int)

26.74 SegmentPathPeriodKey.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost.Serialization
00008 #include <boost/archive/text_iarchive.hpp>
00009 #include <boost/archive/text_oarchive.hpp>
00010 #include <boost/serialization/access.hpp>
00011 // StdAir
00012 #include <stdair/basic/BasConst_General.hpp>
00013 #include <stdair/basic/BasConst_Inventory.hpp>
00014 #include <stdair/basic/BasConst_Period_BOM.hpp>
00015 #include <stdair/basic/BasConst_TravelSolution.hpp>
00016 // AirSched
00017 #include <airsched/bom/SegmentPathPeriodKey.hpp>
00018
00019 namespace AIRSCHED {
00020
00021 // //////////////////////////////////////
00022 SegmentPathPeriodKey::SegmentPathPeriodKey()
00023 : _period (stdair::BOOST_DEFAULT_DATE_PERIOD, stdair::DEFAULT_DOW_STRING),
00024   _boardingTime (stdair::NULL_BOOST_TIME_DURATION),
00025   _elapsed (stdair::NULL_BOOST_TIME_DURATION),
00026   _nbOfAirlines (stdair::DEFAULT_NBOFAIRLINES) {
00027 }
00028
00029 // //////////////////////////////////////
00030 SegmentPathPeriodKey::SegmentPathPeriodKey (const SegmentPathPeriodKey& iSPPK
00031 )
00032 : _period (iSPPK._period),
00033   _boardingTime (iSPPK._boardingTime),
00034   _elapsed (iSPPK._elapsed),
00035   _boardingDateOffsetList (iSPPK._boardingDateOffsetList),
00036   _nbOfAirlines (iSPPK._nbOfAirlines) {
00037 }
00038 // //////////////////////////////////////
00039 SegmentPathPeriodKey::
00040 SegmentPathPeriodKey (const stdair::PeriodStruct& iPeriod,
00041                      const stdair::Duration_T& iBoardingTime,
00042                      const stdair::Duration_T& iElapsedTime,
00043                      const DateOffsetList_T& iBoardingDateOffsetList,
00044                      const stdair::NbOfAirlines_T& iNbOfAirlines)
00045 : _period (iPeriod),
00046   _boardingTime (iBoardingTime),
00047   _elapsed (iElapsedTime),
00048   _boardingDateOffsetList (iBoardingDateOffsetList),
00049   _nbOfAirlines (iNbOfAirlines) {
00050 }
00051
00052 // //////////////////////////////////////

```

```

00053 SegmentPathPeriodKey::~SegmentPathPeriodKey() {
00054 }
00055
00056 // //////////////////////////////////////
00057 void SegmentPathPeriodKey::toStream (std::ostream& ioOut) const {
00058     ioOut << "SegmentPathPeriodKey: " << toString() << std::endl;
00059 }
00060
00061 // //////////////////////////////////////
00062 void SegmentPathPeriodKey::fromStream (std::istream& ioIn) {
00063 }
00064
00065 // //////////////////////////////////////
00066 const std::string SegmentPathPeriodKey::toString() const {
00067     std::ostringstream oStr;
00068     oStr << _period.describeShort() << ", "
00069     << _boardingTime << ", " << _elapsed << ", ";
00070
00071     for (DateOffsetList_T::const_iterator itOffset =
00072         _boardingDateOffsetList.begin();
00073         itOffset != _boardingDateOffsetList.end(); ++itOffset) {
00074         const stdair::DateOffset_T& lDateOffset = *itOffset;
00075         oStr << lDateOffset.days() << ", ";
00076     }
00077
00078     oStr << _nbOfAirlines ;
00079     return oStr.str();
00080 }
00081
00082 // //////////////////////////////////////
00083 void SegmentPathPeriodKey::serialisationImplementationExport() const {
00084     std::ostringstream oStr;
00085     boost::archive::text_oarchive oa (oStr);
00086     oa << *this;
00087 }
00088
00089 // //////////////////////////////////////
00090 void SegmentPathPeriodKey::serialisationImplementationImport() {
00091     std::istringstream iStr;
00092     boost::archive::text_iarchive ia (iStr);
00093     ia >> *this;
00094 }
00095
00096 // //////////////////////////////////////
00097 template<class Archive>
00098 void SegmentPathPeriodKey::serialize (Archive& ioArchive,
00099                                     const unsigned int iFileVersion) {
00100     //ioArchive & _period & _boardingTime & _elapsed & _nbOfAirlines;
00101     std::string lBTStr = boost::posix_time::to_simple_string (_boardingTime);
00102     std::string lElapsedStr = boost::posix_time::to_simple_string (_elapsed);
00103     ioArchive & lBTStr & lElapsedStr & _nbOfAirlines;
00104 }
00105
00106 // //////////////////////////////////////
00107 // Explicit template instantiation
00108 namespace ba = boost::archive;
00109 template
00110 void SegmentPathPeriodKey::serialize<ba::text_oarchive> (ba::text_oarchive&,
00111                                                         unsigned int);
00112 template
00113 void SegmentPathPeriodKey::serialize<ba::text_iarchive> (ba::text_iarchive&,
00114                                                         unsigned int);
00115 // //////////////////////////////////////
00116 }
00117

```

26.75 airsched/bom/SegmentPathPeriodKey.hpp File Reference

```

#include <iosfwd> #include <string> #include <stdair/stdair-
_basic_types.hpp>      #include <stdair/stdair_date_time_

```

```
types.hpp> #include <stdair/bom/KeyAbstract.hpp> #include
<stdair/bom/PeriodStruct.hpp> #include <airsched/bom/-
SegmentPathPeriodTypes.hpp>
```

Classes

- struct [AIRSCHEd::SegmentPathPeriodKey](#)
Structure representing the key of a segment/path.

Namespaces

- namespace [boost](#)
Forward declarations.
- namespace [boost::serialization](#)
- namespace [AIRSCHEd](#)

26.76 SegmentPathPeriodKey.hpp

```
00001 #ifndef __AIRSCHEd_BOM_SEGMENTPATHPERIODKEY_HPP
00002 #define __AIRSCHEd_BOM_SEGMENTPATHPERIODKEY_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iosfwd>
00009 #include <string>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/stdair_date_time_types.hpp>
00013 #include <stdair/bom/KeyAbstract.hpp>
00014 #include <stdair/bom/PeriodStruct.hpp>
00015 // AirSched
00016 #include <airsched/bom/SegmentPathPeriodTypes.hpp>
00017
00019 namespace boost {
00020     namespace serialization {
00021         class access;
00022     }
00023 }
00024
00025 namespace AIRSCHEd {
00026
00033     struct SegmentPathPeriodKey : public stdair::KeyAbstract {
00034         friend class boost::serialization::access;
00035
00036         // ////////////////////////////////// Constructors and destructors //////////////////////////////////
00037     public:
00041         SegmentPathPeriodKey (const stdair::PeriodStruct&,
00042                               const stdair::Duration_T& iBoardingTime,
00043                               const stdair::Duration_T& iElapsed,
00044                               const DateOffsetList_T&,
00045                               const stdair::NbOfAirlines_T&);
00046
00050         SegmentPathPeriodKey ();
00051
00055         SegmentPathPeriodKey (const SegmentPathPeriodKey&);
00056
00060         ~SegmentPathPeriodKey ();
00061
00062
```

```

00063 public:
00064     // //////////// Getters ////////////
00068     const stdair::PeriodStruct& getPeriod() const {
00069         return _period;
00070     }
00071
00075     const DateOffsetList_T& getBoardingDateOffsetList() const {
00076         return _boardingDateOffsetList;
00077     }
00078
00082     const stdair::NbOfSegments_T getNbOfSegments() const {
00083         return _boardingDateOffsetList.size();
00084     }
00085
00089     const stdair::NbOfAirlines_T& getNbOfAirlines() const {
00090         return _nbOfAirlines;
00091     }
00092
00096     const stdair::Duration_T& getElapsedTime() const {
00097         return _elapsed;
00098     }
00099
00103     const stdair::Duration_T& getBoardingTime() const {
00104         return _boardingTime;
00105     }
00106
00107 public:
00108     // //////////// Setters ////////////
00111     void setPeriod (const stdair::PeriodStruct& iPeriod) {
00112         _period = iPeriod;
00113     }
00114
00115     void setBoardingDateOffsetList (const DateOffsetList_T& iList) {
00116         _boardingDateOffsetList = iList;
00117     }
00118
00120     void setNbOfAirlines (const stdair::NbOfAirlines_T& iNbOfAirlines) {
00121         _nbOfAirlines = iNbOfAirlines;
00122     }
00123
00125     void setElapsedTime (const stdair::Duration_T& iElapsed) {
00126         _elapsed = iElapsed;
00127     }
00128
00130     void setBoardingTime (const stdair::Duration_T& iBoardingTime) {
00131         _boardingTime = iBoardingTime;
00132     }
00133
00134 public:
00135     // //////////// Business methods ////////////
00138     const bool isValid () const {
00139         return _period.isValid ();
00140     }
00141
00142 public:
00143     // //////////// Display support methods ////////////
00144     void toStream (std::ostream& ioOut) const;
00151
00157     void fromStream (std::istream& ioIn);
00158
00168     const std::string toString() const;
00169
00170 public:
00171     // //////////// (Boost) Serialisation support methods ////////////
00172     template<class Archive>
00177     void serialize (Archive& ar, const unsigned int iFileVersion);
00178
00179 private:
00184     void serialisationImplementationExport() const;
00185     void serialisationImplementationImport();

```

```

00186
00187
00188     private:
00189         // ////////////////////////////////// Attributes //////////////////////////////////
00193         stdair::PeriodStruct _period;
00194
00198         stdair::Duration_T _boardingTime;
00199
00203         stdair::Duration_T _elapsed;
00204
00209         DateOffsetList_T _boardingDateOffsetList;
00210
00214         stdair::NbOfAirlines_T _nbOfAirlines;
00215     };
00216
00217 }
00218 #endif // __AIRSCHED_BOM_SEGMENTPATHPERIODKEY_HPP

```

26.77 airsched/bom/SegmentPathPeriodTypes.hpp File Reference

```

#include <map> #include <vector> #include <list> #include
<stdair/stdair_basic_types.hpp> #include <stdair/stdair-
_date_time_types.hpp> #include <stdair/bom/key_types.-
hpp>

```

Namespaces

- namespace [AIRSCHED](#)

Typedefs

- typedef std::list < SegmentPathPeriod * > [AIRSCHED::SegmentPathPeriodList_T](#)
- typedef std::multimap< const stdair::MapKey_T, SegmentPathPeriod * > [AIRSCHED::SegmentPathPeriodMultimap_T](#)
- typedef std::vector< const SegmentPathPeriod * > [AIRSCHED::SegmentPathPeriodLightList_T](#)
- typedef std::vector < SegmentPathPeriodLightList_T > [AIRSCHED::SegmentPathPeriodListList_T](#)
- typedef std::vector < stdair::DateOffset_T > [AIRSCHED::DateOffsetList_T](#)

26.78 SegmentPathPeriodTypes.hpp

```

00001 // //////////////////////////////////
00002 #ifndef __AIRSCHED_BOM_SEGMENTPATHPERIODTYPES_HPP
00003 #define __AIRSCHED_BOM_SEGMENTPATHPERIODTYPES_HPP
00004
00005 // //////////////////////////////////
00006 // Import section
00007 // //////////////////////////////////
00008 // STL
00009 #include <map>
00010 #include <vector>
00011 #include <list>
00012 // StdAir
00013 #include <stdair/stdair_basic_types.hpp>

```

```

00014 #include <stdair/stdair_date_time_types.hpp>
00015 #include <stdair/bom/key_types.hpp>
00016
00017 namespace AIRSCHED {
00018
00020     class SegmentPathPeriod;
00021
00023     typedef std::list<SegmentPathPeriod*> SegmentPathPeriodList_T;
00024
00026     typedef std::multimap<const stdair::MapKey_T,
00027                        SegmentPathPeriod*> SegmentPathPeriodMultimap_T;
00028
00030     typedef std::vector<const SegmentPathPeriod*> SegmentPathPeriodLightList_T;
00031     typedef std::vector<SegmentPathPeriodLightList_T> SegmentPathPeriodListList_T;
00032
00035     typedef std::vector<stdair::DateOffset_T> DateOffsetList_T;
00036
00037 }
00038 #endif // __AIRSCHED_BOM_SEGMENTPATHPERIODTYPES_HPP
00039

```

26.79 airsched/bom/SegmentPeriodHelper.cpp File Reference

```

#include <cassert>          #include <stdair/basic/BasConst_
General.hpp>              #include <stdair/bom/SegmentPeriod.hpp> ×
#include <airsched/bom/SegmentPeriodHelper.hpp>

```

Namespaces

- namespace **AIRSCHED**

26.80 SegmentPeriodHelper.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // STDAIR
00007 #include <stdair/basic/BasConst_General.hpp>
00008 #include <stdair/bom/SegmentPeriod.hpp>
00009 // AIRSCHED
00010 #include <airsched/bom/SegmentPeriodHelper.hpp>
00011
00012 namespace AIRSCHED {
00013 // //////////////////////////////////////
00014 void SegmentPeriodHelper::fill (stdair::SegmentPeriod& ioSegmentPeriod,
00015                                const SegmentStruct& iSegmentStruct) {
00016     // Browse the list of segment cabins and fill the cabin booking
00017     // class map of the BOM segment period.
00018     for (SegmentCabinStructList_T::const_iterator itCabin =
00019          iSegmentStruct._cabinList.begin();
00020          itCabin != iSegmentStruct._cabinList.end(); ++itCabin) {
00021         const SegmentCabinStruct& lSegmentCabinStruct = *itCabin;
00022         ioSegmentPeriod.
00023             addCabinBookingClassList (lSegmentCabinStruct._cabinCode,
00024                                       lSegmentCabinStruct._classes);
00025     }
00026 }
00027
00028 // //////////////////////////////////////
00029 void SegmentPeriodHelper::fill (stdair::SegmentPeriod& ioSegmentPeriod,
00030                                const LegStructList_T& iLegList) {
00031

```

```

00032     const stdair::AirportCode_T& lBoardingPoint =
00033         ioSegmentPeriod.getBoardingPoint ();
00034     const stdair::AirportCode_T& lOffPoint = ioSegmentPeriod.getOffPoint();
00035     stdair::Duration_T lElapsedTime;
00036
00037     // Find the leg which has the same boarding point.
00038     LegStructList_T::const_iterator itLeg = iLegList.begin ();
00039     while (itLeg != iLegList.end()) {
00040         const LegStruct& lLeg = *itLeg;
00041         if (lLeg._boardingPoint == lBoardingPoint) {
00042             break;
00043         } else {
00044             ++itLeg;
00045         }
00046     }
00047     assert (itLeg != iLegList.end());
00048     const LegStruct& lFirstLeg = *itLeg;
00049     stdair::AirportCode_T lCurrentOffPoint = lFirstLeg._offPoint;
00050     stdair::Duration_T lCurrentOffTime = lFirstLeg._offTime;
00051
00052     // Update the elapsed time.
00053     lElapsedTime += lFirstLeg._elapsed;
00054
00055     // Find the last used leg.
00056     while (lCurrentOffPoint != lOffPoint) {
00057         ++itLeg;
00058         assert (itLeg != iLegList.end());
00059
00060         const LegStruct& lCurrentLeg = *itLeg;
00061         assert (lCurrentOffPoint == lCurrentLeg._boardingPoint);
00062         // As the boarding point of the current leg is the same as the off point
00063         // of the previous leg (by construction), there is no time difference.
00064         const stdair::Duration_T lStopOverTime =
00065             lCurrentLeg._boardingTime - lCurrentOffTime;
00066         lElapsedTime += lStopOverTime;
00067
00068         // Add the elapsed time of the current leg
00069         lElapsedTime += lCurrentLeg._elapsed;
00070
00071         lCurrentOffTime = lCurrentLeg._offTime;
00072         lCurrentOffPoint = lCurrentLeg._offPoint;
00073     }
00074     const LegStruct& lLastLeg = *itLeg;
00075
00076     // Update the attributes of the segment-period.
00077     ioSegmentPeriod.setBoardingTime (lFirstLeg._boardingTime);
00078     ioSegmentPeriod.setOffTime (lLastLeg._offTime);
00079     ioSegmentPeriod.setBoardingDateOffset (lFirstLeg._boardingDateOffset);
00080     ioSegmentPeriod.setOffDateOffset (lLastLeg._offDateOffset);
00081     ioSegmentPeriod.setElapsedTime (lElapsedTime);
00082 }
00083
00084 }

```

26.81 airsched/bom/SegmentPeriodHelper.hpp File Reference

```

#include <airsched/bom/LegStruct.hpp> #include <airsched/bom/-
SegmentStruct.hpp>

```

Classes

- class [AIRSCHED::SegmentPeriodHelper](#)

Namespaces

- namespace `stdair`
Forward declarations.
- namespace `AIRSCHEd`

26.82 SegmentPeriodHelper.hpp

```

00001 #ifndef __AIRSCHEd_BOM_SEGMENTPERIODHELPER_HPP
00002 #define __AIRSCHEd_BOM_SEGMENTPERIODHELPER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // AIRSCHEd
00008 #include <airsched/bom/LegStruct.hpp>
00009 #include <airsched/bom/SegmentStruct.hpp>
00010
00011 // Forward declarations
00012 namespace stdair {
00013     class SegmentPeriod;
00014 }
00015
00016 namespace AIRSCHEd {
00019     class SegmentPeriodHelper {
00020     public:
00021         // ////////////////////////////////// Business Methods //////////////////////////////////
00024         static void fill (stdair::SegmentPeriod&, const SegmentStruct&);
00025
00028         static void fill (stdair::SegmentPeriod&, const LegStructList_T&);
00029     };
00030
00031 }
00032 #endif // __AIRSCHEd_BOM_SEGMENTPERIODHELPER_HPP

```

26.83 airsched/bom/SegmentStruct.cpp File Reference

```

#include <cassert> #include <sstream> #include <stdair/bom/-
SegmentDate.hpp> #include <airsched/bom/SegmentStruct.-
hpp>

```

Namespaces

- namespace `AIRSCHEd`

26.84 SegmentStruct.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // STDAIR
00008 #include <stdair/bom/SegmentDate.hpp>
00009 // AIRSCHEd
00010 #include <airsched/bom/SegmentStruct.hpp>
00011

```

```

00012 namespace AIRSCHED {
00013
00014 // //////////////////////////////////////
00015 const std::string SegmentStruct::describe() const {
00016     std::ostringstream ostr;
00017     ostr << " " << _boardingPoint << " / "
00018         << boost::posix_time::to_simple_string(_boardingTime)
00019         << " -- " << _offPoint << " / "
00020         << boost::posix_time::to_simple_string(_offTime)
00021         << " --> "
00022         << boost::posix_time::to_simple_string(_elapsed)
00023         << std::endl;
00024     for (SegmentCabinStructList_T::const_iterator itCabin =
00025         _cabinList.begin(); itCabin != _cabinList.end(); itCabin++) {
00026         const SegmentCabinStruct& lCabin = *itCabin;
00027         ostr << lCabin.describe();
00028     }
00029     ostr << std::endl;
00030
00031     return ostr.str();
00032 }
00033
00034 // //////////////////////////////////////
00035 void SegmentStruct::fill (stdair::SegmentDate& ioSegmentDate) const {
00036     // Note that some parameters (boarding date, boarding time, off
00037     // date, off time, elapsed time) are set by
00038     // SegmentDate::fillFromRouting() when the routing (with legs) is
00039     // built. So, it is useless to set those parameters here.
00040
00041     // At that time, there are no other parameters.
00042 }
00043
00044 }

```

26.85 airsched/bom/SegmentStruct.hpp File Reference

```

#include <string> #include <vector> #include <stdair/stdair-
_basic_types.hpp> #include <stdair/basic/StructAbstract.-
hpp> #include <airsched/bom/SegmentCabinStruct.hpp>

```

Classes

- struct [AIRSCHED::SegmentStruct](#)

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

Typedefs

- typedef std::vector < SegmentStruct > [AIRSCHED::SegmentStructList_T](#)

26.86 SegmentStruct.hpp

```

00001 #ifndef __AIRSCHED_BOM_SEGMENTSTRUCT_HPP

```

```

00002 #define __AIRSCHEDED_BOM_SEGMENTSTRUCT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 #include <vector>
00010 // StdAir
00011 #include <stdair/stdair_basic_types.hpp>
00012 #include <stdair/basic/StructAbstract.hpp>
00013 // AirSched
00014 #include <airsched/bom/SegmentCabinStruct.hpp>
00015
00016 // Forward declarations
00017 namespace stdair {
00018     class SegmentDate;
00019 }
00020
00021 namespace AIRSCHEDED {
00022
00024     struct SegmentStruct : public stdair::StructAbstract {
00025         // Attributes
00026         stdair::AirportCode_T _boardingPoint;
00027         stdair::Date_T _boardingDate;
00028         stdair::Duration_T _boardingTime;
00029         stdair::AirportCode_T _offPoint;
00030         stdair::Date_T _offDate;
00031         stdair::Duration_T _offTime;
00032         stdair::Duration_T _elapsed;
00033         SegmentCabinStructList_T _cabinList;
00034
00037         void fill (stdair::SegmentDate&) const;
00038
00040         const std::string describe() const;
00041     };
00042
00044     typedef std::vector<SegmentStruct> SegmentStructList_T;
00045
00046 }
00047 #endif // __AIRSCHEDED_BOM_SEGMENTSTRUCT_HPP

```

26.87 airsched/command/InventoryGenerator.cpp File Reference

```

#include <cassert> #include <boost/date_time/date_iterator.-
hpp> #include <stdair/stdair_basic_types.hpp> #include
<stdair/basic/BasConst_Inventory.hpp> #include <stdair/bom/-
BomManager.hpp> #include <stdair/bom/BomRoot.hpp> #include
<stdair/bom/Inventory.hpp> #include <stdair/bom/Flight-
Period.hpp> #include <stdair/bom/SegmentPeriod.hpp> ×
#include <stdair/factory/FacBomManager.hpp> #include <stdair/service/-
Logger.hpp> #include <airsched/bom/FlightPeriodStruct.-
hpp> #include <airsched/bom/SegmentPeriodHelper.hpp> ×
#include <airsched/command/InventoryGenerator.hpp>

```

Namespaces

- namespace [AIRSCHEDED](#)

26.88 InventoryGenerator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // Boost
00007 #include <boost/date_time/date_iterator.hpp>
00008 // StdAir
00009 #include <stdair/stdair_basic_types.hpp>
00010 #include <stdair/basic/BasConst_Inventory.hpp>
00011 #include <stdair/bom/BomManager.hpp>
00012 #include <stdair/bom/BomRoot.hpp>
00013 #include <stdair/bom/Inventory.hpp>
00014 #include <stdair/bom/FlightPeriod.hpp>
00015 #include <stdair/bom/SegmentPeriod.hpp>
00016 #include <stdair/factory/FacBomManager.hpp>
00017 #include <stdair/service/Logger.hpp>
00018 // AirSched
00019 #include <airsched/bom/FlightPeriodStruct.hpp>
00020 #include <airsched/bom/SegmentPeriodHelper.hpp>
00021 #include <airsched/command/InventoryGenerator.hpp>
00022
00023 namespace AIRSCHED {
00024
00025 // //////////////////////////////////////
00026 void InventoryGenerator::
00027     createFlightPeriod (stdair::BomRoot& ioBomRoot,
00028                        const FlightPeriodStruct& iFlightPeriodStruct) {
00029
00030     const stdair::AirlineCode_T& lAirlineCode = iFlightPeriodStruct.
00031         _airlineCode;
00032
00033     // Instantiate an inventory object (if not exist)
00034     // for the given key (airline code)
00035     stdair::Inventory* lInventory_ptr = stdair::BomManager::
00036         getObjectPtr<stdair::Inventory> (ioBomRoot, lAirlineCode);
00037     if (lInventory_ptr == NULL) {
00038         stdair::InventoryKey lKey (lAirlineCode);
00039
00040         lInventory_ptr =
00041             &stdair::FacBom<stdair::Inventory>::instance().create (lKey);
00042         stdair::FacBomManager::addToListAndMap (ioBomRoot, *lInventory_ptr);
00043         stdair::FacBomManager::linkWithParent (ioBomRoot, *lInventory_ptr);
00044     }
00045     assert (lInventory_ptr != NULL);
00046
00047     // Create the flight-period key.
00048     const stdair::PeriodStruct lPeriod (iFlightPeriodStruct._dateRange,
00049                                         iFlightPeriodStruct._dow);
00050     const stdair::FlightPeriodKey
00051         lFlightPeriodKey (iFlightPeriodStruct._flightNumber, lPeriod);
00052
00053     // Check that the flight-period object is not already created.
00054     stdair::FlightPeriod* lFlightPeriod_ptr = stdair::BomManager::
00055         getObjectPtr<stdair::FlightPeriod> (*lInventory_ptr,
00056                                             lFlightPeriodKey.toString());
00057     if (lFlightPeriod_ptr != NULL) {
00058         throw stdair::ObjectCreationDuplicationException ("");
00059     }
00060     assert (lFlightPeriod_ptr == NULL);
00061
00062     // Instantiate a flight-period object with the given key.
00063     lFlightPeriod_ptr = &stdair::FacBom<stdair::FlightPeriod>::
00064         instance().create (lFlightPeriodKey);
00065     stdair::FacBomManager::addToListAndMap (*lInventory_ptr, *lFlightPeriod_ptr);
00066     stdair::FacBomManager::linkWithParent (*lInventory_ptr, *lFlightPeriod_ptr);
00067
00068     // Create the segment-periods.
00069     createSegmentPeriods (*lFlightPeriod_ptr, iFlightPeriodStruct);

```

```

00069     }
00070
00071     // //////////////////////////////////////
00072     void InventoryGenerator::
00073     createSegmentPeriods (stdair::FlightPeriod& ioFlightPeriod,
00074                          const FlightPeriodStruct& iFlightPeriodStruct) {
00075
00076         // Iterate on the segment strutures.
00077         const SegmentStructList_T& lSegmentList = iFlightPeriodStruct._segmentList;
00078         for (SegmentStructList_T::const_iterator itSegment = lSegmentList.begin();
00079              itSegment != lSegmentList.end(); ++itSegment) {
00080
00081             const SegmentStruct& lSegment = *itSegment;
00082
00083             // Set the segment-period primary key.
00084             const stdair::AirportCode_T& lBoardingPoint = lSegment._boardingPoint;
00085             const stdair::AirportCode_T& lOffPoint = lSegment._offPoint;
00086             const stdair::SegmentPeriodKey lSegmentPeriodKey (lBoardingPoint,
00087                                                                lOffPoint);
00088
00089             // Instantiate a segment-period with the key.
00090             stdair::SegmentPeriod& lSegmentPeriod = stdair::
00091             FacBom<stdair::SegmentPeriod>::instance().create (lSegmentPeriodKey);
00092             stdair::FacBomManager::addToListAndMap (ioFlightPeriod, lSegmentPeriod);
00093             stdair::FacBomManager::linkWithParent (ioFlightPeriod, lSegmentPeriod);
00094
00095             // Set the segment-period attributes.
00096             SegmentPeriodHelper::fill (lSegmentPeriod, lSegment);
00097             SegmentPeriodHelper::fill (lSegmentPeriod, iFlightPeriodStruct._legList);
00098         }
00099     }
00100
00101 }

```

26.89 airsched/command/InventoryGenerator.hpp File Reference

```

#include <stdair/command/CmdAbstract.hpp> #include <airsched/-
AIRSCHED_Types.hpp>

```

Classes

- class [AIRSCHED::InventoryGenerator](#)

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)
- namespace [AIRSCHED::ScheduleParserHelper](#)

26.90 InventoryGenerator.hpp

```

00001 #ifndef __AIRSCHED_CMD_INVENTORYGENERATOR_HPP
00002 #define __AIRSCHED_CMD_INVENTORYGENERATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir

```

```

00008 #include <stdair/command/CmdAbstract.hpp>
00009 // AirSched
00010 #include <airsched/AIRSCHEDED_Types.hpp>
00011
00012 // Forward declarations
00013 namespace stdair {
00014     class BomRoot;
00015     class FlightPeriod;
00016 }
00017
00018 namespace AIRSCHEDED {
00019
00020     // Forward declarations
00021     struct FlightPeriodStruct;
00022     struct LegStruct;
00023     struct SegmentStruct;
00024     struct LegCabinStruct;
00025     struct SegmentCabinStruct;
00026     namespace ScheduleParserHelper {
00027         struct doEndFlight;
00028     }
00029
00030     class InventoryGenerator : public stdair::CmdAbstract {
00031     // Only the following class may use methods of InventoryGenerator.
00032     // Indeed, as those methods build the BOM, it is not good to expose
00033     // them publicly.
00034     friend class FlightPeriodFileParser;
00035     friend class FFFlightPeriodFileParser;
00036     friend struct ScheduleParserHelper::doEndFlight;
00037     friend class ScheduleParser;
00038
00039     private:
00040     static void createFlightPeriod (stdair::BomRoot&,
00041                                     const FlightPeriodStruct&);
00042
00043     static void createSegmentPeriods (stdair::FlightPeriod&,
00044                                       const FlightPeriodStruct&);
00045
00046     };
00047
00048 }
00049
00050 #endif // __AIRSCHEDED_CMD_INVENTORYGENERATOR_HPP

```

26.91 airsched/command/OnDParser.cpp File Reference

```

#include <cassert>    #include <stdair/basic/BasFileMgr.-
hpp> #include <stdair/bom/BomRoot.hpp> #include <airsched/command/-
OnDParserHelper.hpp> #include <airsched/command/OnDParser.-
hpp>

```

Namespaces

- namespace [AIRSCHEDED](#)

26.92 OnDParser.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/basic/BasFileMgr.hpp>

```

```

00008 #include <stdair/bom/BomRoot.hpp>
00009 // AirSched
00010 #include <airsched/command/OnDParserHelper.hpp>
00011 #include <airsched/command/OnDParser.hpp>
00012
00013 namespace AIRSCHED {
00014
00015 // //////////////////////////////////////
00016 void OnDParser::generateOnDPeriods (const stdair::Filename_T& iFilename,
00017                                     stdair::BomRoot& ioBomRoot) {
00018
00019     // Check that the file path given as input corresponds to an actual file
00020     const bool doesExistAndIsReadable =
00021         stdair::BasFileMgr::doesExistAndIsReadable (iFilename);
00022
00023     if (doesExistAndIsReadable == false) {
00024         throw OnDInputFileNotFoundExpection ("The O&D file " + iFilename
00025                                             + " does not exist or can not be "
00026                                             + "read");
00027     }
00028
00029     // Initialise the O&D-Period file parser.
00030     OnDPeriodFileParser lOnDPeriodParser (iFilename, ioBomRoot);
00031
00032     // Parse the CSV-formatted O&D input file, and generate the
00033     // corresponding O&D-Period for the airlines.
00034     lOnDPeriodParser.generateOnDPeriods();
00035 }
00036
00037 }

```

26.93 airsched/command/OnDParser.hpp File Reference

```

#include <string>    #include <stdair/stdair_basic_types.-
hpp> #include <stdair/command/CmdAbstract.hpp>

```

Classes

- class [AIRSCHED::OnDParser](#)
Class wrapping the parser entry point.

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

26.94 OnDParser.hpp

```

00001 #ifndef __AIRSCHED_CMD_ONDPARSER_HPP
00002 #define __AIRSCHED_CMD_ONDPARSER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>

```

```

00011 #include <stdair/command/CmdAbstract.hpp>
00012
00014 namespace stdair {
00015     class BomRoot;
00016 }
00017
00018 namespace AIRSCHED {
00019
00023     class OnDParser : public stdair::CmdAbstract {
00024     public:
00031         static void generateOnDPeriods (const stdair::Filename_T&,
00032                                         stdair::BomRoot&);
00033     };
00034
00035 }
00036 #endif // __AIRSCHED_CMD_ONDPARSER_HPP

```

26.95 airsched/command/OnDParserHelper.cpp File Reference

```

#include <cassert>      #include <stdair/basic/BasFileMgr.-
hpp> #include <stdair/bom/BomRoot.hpp> #include <stdair/service/-
Logger.hpp> #include <airsched/command/OnDParserHelper.-
hpp> #include <airsched/command/OnDPeriodGenerator.hpp>

```

Namespaces

- namespace [AIRSCHED](#)
- namespace [AIRSCHED::OnDParserHelper](#)

Functions

- [chset_t AIRSCHED::OnDParserHelper::alpha_cap_set_p](#) ("A-Z")
- [repeat_p_t AIRSCHED::OnDParserHelper::airport_p](#) (chset_t("0-9A-Z").-
derived(), 3, 3)
- [repeat_p_t AIRSCHED::OnDParserHelper::airline_code_p](#) (alpha_cap_set_p.-
derived(), 2, 3)
- [bounded4_p_t AIRSCHED::OnDParserHelper::year_p](#) (uint4_p.derived(), 2000u,
2099u)
- [bounded2_p_t AIRSCHED::OnDParserHelper::month_p](#) (uint2_p.derived(), 1u,
12u)
- [bounded2_p_t AIRSCHED::OnDParserHelper::day_p](#) (uint2_p.derived(), 1u,
31u)
- [bounded2_p_t AIRSCHED::OnDParserHelper::hours_p](#) (uint2_p.derived(), 0u,
23u)
- [bounded2_p_t AIRSCHED::OnDParserHelper::minutes_p](#) (uint2_p.derived(), 0u,
59u)
- [bounded2_p_t AIRSCHED::OnDParserHelper::seconds_p](#) (uint2_p.derived(), 0u,
59u)
- [chset_t AIRSCHED::OnDParserHelper::class_code_p](#) ("A-Z")

Variables

- uint2_p_t AIRSCHED::OnDParserHelper::uint2_p
- uint4_p_t AIRSCHED::OnDParserHelper::uint4_p
- uint1_4_p_t AIRSCHED::OnDParserHelper::uint1_4_p

26.96 OnDParserHelper.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/basic/BasFileMgr.hpp>
00008 #include <stdair/bom/BomRoot.hpp>
00009 #include <stdair/service/Logger.hpp>
00010 // AIRSCHED
00011 #include <airsched/command/OnDParserHelper.hpp>
00012 #include <airsched/command/OnDPeriodGenerator.hpp>
00013
00014 namespace AIRSCHED {
00015
00016     namespace OnDParserHelper {
00017
00018         // //////////////////////////////////////
00019         //
00020         // Semantic actions
00021         //
00022         // //////////////////////////////////////
00023
00024         ParserSemanticAction::
00025         ParserSemanticAction (OnDPeriodStruct& ioOnDPeriod)
00026             : _onDPeriod (ioOnDPeriod) {
00027         }
00028
00029         // //////////////////////////////////////
00030         storeOrigin::storeOrigin (OnDPeriodStruct& ioOnDPeriod)
00031             : ParserSemanticAction (ioOnDPeriod) {
00032         }
00033
00034         // //////////////////////////////////////
00035         void storeOrigin::operator() (iterator_t iStr,
00036                                     iterator_t iStrEnd) const {
00037             std::string lOrigin (iStr, iStrEnd);
00038             //STDAIR_LOG_DEBUG ( "Origin: " << lOrigin << std::endl);
00039
00040             // Set the origin
00041             _onDPeriod._origin = lOrigin;
00042             _onDPeriod._nbOfAirlines = 0;
00043             _onDPeriod._airlineCode = "";
00044             _onDPeriod._classCode = "";
00045             _onDPeriod._airlineCodeList.clear();
00046             _onDPeriod._classCodeList.clear();
00047         }
00048
00049         // //////////////////////////////////////
00050         storeDestination::storeDestination (OnDPeriodStruct& ioOnDPeriod)
00051             : ParserSemanticAction (ioOnDPeriod) {
00052         }
00053
00054         // //////////////////////////////////////
00055         void storeDestination::operator() (iterator_t iStr,
00056                                           iterator_t iStrEnd) const {
00057             std::string lDestination (iStr, iStrEnd);
00058             //STDAIR_LOG_DEBUG ("Destination: " << lDestination << std::endl);
00059
00060             // Set the destination
00061             _onDPeriod._destination = lDestination;

```

```

00062     }
00063
00064     // //////////////////////////////////////
00065     storeDateRangeStart::
00066     storeDateRangeStart (OnDPeriodStruct& ioOnDPeriod)
00067         : ParserSemanticAction (ioOnDPeriod) {
00068     }
00069
00070     // //////////////////////////////////////
00071     void storeDateRangeStart::operator() (iterator_t iStr,
00072                                           iterator_t iStrEnd) const {
00073         _onDPeriod._dateRangeStart = _onDPeriod.getDate();
00074         /*STDAIR_LOG_DEBUG ("Date Range Start: "
00075             << _onDPeriod._dateRangeStart << std::endl);*/
00076
00077         // Reset the number of seconds
00078         _onDPeriod._itSeconds = 0;
00079     }
00080
00081     // //////////////////////////////////////
00082     storeDateRangeEnd::
00083     storeDateRangeEnd (OnDPeriodStruct& ioOnDPeriod)
00084         : ParserSemanticAction (ioOnDPeriod) {
00085     }
00086
00087     // //////////////////////////////////////
00088     void storeDateRangeEnd::operator() (iterator_t iStr,
00089                                         iterator_t iStrEnd) const {
00090         // As a Boost date period (COM::DatePeriod_T) defines the last day of
00091         // the period to be end-date - one day, we have to add one day to that
00092         // end date before.
00093         const stdair::DateOffset_T oneDay (1);
00094         _onDPeriod._dateRangeEnd = _onDPeriod.getDate() + oneDay;
00095         /*STDAIR_LOG_DEBUG ("Date Range End: "
00096             << _onDPeriod._dateRangeEnd << std::endl);*/
00097
00098         // Transform the date pair (i.e., the date range) into a date period
00099         _onDPeriod._datePeriod =
00100             stdair::DatePeriod_T (_onDPeriod._dateRangeStart,
00101                                 _onDPeriod._dateRangeEnd);
00102
00103         // Reset the number of seconds
00104         _onDPeriod._itSeconds = 0;
00105     }
00106
00107     // //////////////////////////////////////
00108     storeStartRangeTime::
00109     storeStartRangeTime (OnDPeriodStruct& ioOnDPeriod)
00110         : ParserSemanticAction (ioOnDPeriod) {
00111     }
00112
00113     // //////////////////////////////////////
00114     void storeStartRangeTime::operator() (iterator_t iStr,
00115                                           iterator_t iStrEnd) const {
00116         _onDPeriod._timeRangeStart = _onDPeriod.getTime();
00117
00118         // Reset the number of seconds
00119         _onDPeriod._itSeconds = 0;
00120     }
00121
00122     // //////////////////////////////////////
00123     storeEndRangeTime::
00124     storeEndRangeTime (OnDPeriodStruct& ioOnDPeriod)
00125         : ParserSemanticAction (ioOnDPeriod) {
00126     }
00127
00128     // //////////////////////////////////////
00129     void storeEndRangeTime::operator() (iterator_t iStr,
00130                                         iterator_t iStrEnd) const {
00131         _onDPeriod._timeRangeEnd = _onDPeriod.getTime();
00132
00133         // Reset the number of seconds
00134         _onDPeriod._itSeconds = 0;
00135     }

```

```

00136
00137 ///////////////////////////////////////////////////////////////////
00138 storeAirlineCode::
00139 storeAirlineCode (OnDPeriodStruct& ioOnDPeriod)
00140 : ParserSemanticAction (ioOnDPeriod) {
00141 }
00142
00143 ///////////////////////////////////////////////////////////////////
00144 void storeAirlineCode::operator() (iterator_t iStr,
00145                                     iterator_t iStrEnd) const {
00146     const std::string lAirlineCodeStr (iStr, iStrEnd);
00147     const stdair::AirlineCode_T lAirlineCode (lAirlineCodeStr);
00148     // Test if the OnD Period Struct stands for interline products
00149     if (_onDPeriod._airlineCodeList.size() > 0) {
00150         // update the airline code
00151         std::ostringstream ostr;
00152         ostr << _onDPeriod._airlineCode << lAirlineCode;
00153         _onDPeriod._airlineCode = ostr.str();
00154         // Update the number of airlines if necessary
00155         const stdair::AirlineCode_T lPreviousAirlineCode =
00156             _onDPeriod._airlineCodeList.back();
00157         if (lPreviousAirlineCode != lAirlineCode) {
00158             _onDPeriod._nbOfAirlines = _onDPeriod._nbOfAirlines + 1;
00159         }
00160     }
00161     else {
00162         _onDPeriod._airlineCode = lAirlineCode;
00163         _onDPeriod._nbOfAirlines = 1;
00164     }
00165     _onDPeriod._airlineCodeList.push_back (lAirlineCode);
00166
00167     //STDAIR_LOG_DEBUG ( "Airline code: " << lAirlineCode << std::endl);
00168 }
00169
00170 ///////////////////////////////////////////////////////////////////
00171 storeClassCode::
00172 storeClassCode (OnDPeriodStruct& ioOnDPeriod)
00173 : ParserSemanticAction (ioOnDPeriod) {
00174 }
00175
00176 ///////////////////////////////////////////////////////////////////
00177 void storeClassCode::operator() (char iChar) const {
00178     std::ostringstream ostr;
00179     ostr << iChar;
00180     std::string classCodeStr = ostr.str();
00181     const stdair::ClassCode_T lClassCode (classCodeStr);
00182     _onDPeriod._classCodeList.push_back (lClassCode);
00183     /*STDAIR_LOG_DEBUG ("Class Code: "
00184         << lClassCode << std::endl);*/
00185     // Insertion of this class Code in the whole classCode name
00186     std::ostringstream ostrr;
00187     ostrr << _onDPeriod._classCode << classCodeStr;
00188     _onDPeriod._classCode = ostrr.str();
00189 }
00190
00191 ///////////////////////////////////////////////////////////////////
00192 doEndOnD::doEndOnD (stdair::BomRoot& ioBomRoot, OnDPeriodStruct&
00193 ioOnDPeriod)
00194 : ParserSemanticAction (ioOnDPeriod),
00195   _bomRoot (ioBomRoot) {
00196 }
00197
00198 ///////////////////////////////////////////////////////////////////
00199 void doEndOnD::operator() (iterator_t iStr, iterator_t iStrEnd) const {
00200
00201     // DEBUG: Display the result
00202     // STDAIR_LOG_DEBUG ("FareRule " << _onDPeriod.describe());
00203
00204     // Generation of the O&D-Period object.
00205     OnDPeriodGenerator::createOnDPeriod (_bomRoot, _onDPeriod);
00206 }
00207
00208 ///////////////////////////////////////////////////////////////////

```

```

00209 //
00210 // Utility Parsers
00211 //
00212 // //////////////////////////////////////
00213
00215 uint2_p_t uint2_p;
00216
00218 uint4_p_t uint4_p;
00219
00221 uint1_4_p_t uint1_4_p;
00222
00224 chset_t alpha_cap_set_p ("A-Z");
00225
00227 repeat_p_t airport_p (chset_t("0-9A-Z").derived(), 3, 3);
00228
00230 repeat_p_t airline_code_p (alpha_cap_set_p.derived(), 2, 3);
00231
00233 bounded4_p_t year_p (uint4_p.derived(), 2000u, 2099u);
00234
00236 bounded2_p_t month_p (uint2_p.derived(), 1u, 12u);
00237
00239 bounded2_p_t day_p (uint2_p.derived(), 1u, 31u);
00240
00242 bounded2_p_t hours_p (uint2_p.derived(), 0u, 23u);
00243
00245 bounded2_p_t minutes_p (uint2_p.derived(), 0u, 59u);
00246
00248 bounded2_p_t seconds_p (uint2_p.derived(), 0u, 59u);
00249
00251 chset_t class_code_p ("A-Z");
00252
00254 //
00255 // (Boost Spirit) Grammar Definition
00256 //
00258
00259 // //////////////////////////////////////
00260 OnDParser::
00261 OnDParser (stdair::BomRoot& ioBomRoot, OnDPeriodStruct& ioOnDPeriod)
00262 : _bomRoot (ioBomRoot), _onDPeriod (ioOnDPeriod) {
00263 }
00264
00265 // //////////////////////////////////////
00266 template<typename ScannerT>
00267 OnDParser::definition<ScannerT>::definition (OnDParser const& self) {
00268
00269     ond_list = *( boost::spirit::classic::comment_p("//")
00270                  | boost::spirit::classic::comment_p("/*", "*/")
00271                  | ond )
00272     ;
00273
00274     ond = ond_key
00275     >> +( ';' >> segment )
00276     >> ond_end[doEndOnD(self._bomRoot, self._onDPeriod)]
00277     ;
00278
00279     ond_end = boost::spirit::classic::ch_p(';')
00280     ;
00281
00282     ond_key = (airport_p)[storeOrigin(self._onDPeriod)]
00283     >> ';' >> (airport_p)[storeDestination(self._onDPeriod)]
00284     >> ';' >> date[storeDateRangeStart(self._onDPeriod)]
00285     >> ';' >> date[storeDateRangeEnd(self._onDPeriod)]
00286     >> ';' >> time[storeStartRangeTime(self._onDPeriod)]
00287     >> ';' >> time[storeEndRangeTime(self._onDPeriod)]
00288     ;
00289
00290     date = boost::spirit::classic::
00291     lexeme_d[(year_p)[boost::spirit::classic::
00292     assign_a(self._onDPeriod._itYear)]
00293     >> '-'
00294     >> (month_p)[boost::spirit::classic::
00295     assign_a(self._onDPeriod._itMonth)]
00296     >> '-'
00297     >> (day_p)[boost::spirit::classic::

```

```

00298         assign_a(self._onDPeriod._itDay)]
00299     ;
00300
00301     time = boost::spirit::classic::
00302         lexeme_d[(hours_p)[boost::spirit::classic::
00303             assign_a(self._onDPeriod._itHours)]
00304             >> ':'
00305             >> (minutes_p)[boost::spirit::classic::
00306                 assign_a(self._onDPeriod._itMinutes)]
00307             >> !(':' >> (seconds_p)[boost::spirit::classic::
00308                 assign_a(self._onDPeriod._itSeconds)])
00309 ]
00310
00311     segment = boost::spirit::classic::
00312         lexeme_d[(airline_code_p)[storeAirlineCode(self._onDPeriod)]
00313             >> ';' >> (class_code_p)[storeClassCode(self._onDPeriod)]
00314     ;
00315
00316     //BOOST_SPIRIT_DEBUG_NODE (OnDParser);
00317     BOOST_SPIRIT_DEBUG_NODE (ond_list);
00318     BOOST_SPIRIT_DEBUG_NODE (ond);
00319     BOOST_SPIRIT_DEBUG_NODE (segment);
00320     BOOST_SPIRIT_DEBUG_NODE (ond_key);
00321     BOOST_SPIRIT_DEBUG_NODE (ond_end);
00322     BOOST_SPIRIT_DEBUG_NODE (date);
00323     BOOST_SPIRIT_DEBUG_NODE (time);
00324
00325 }
00326
00327 ///////////////////////////////////////////////////////////////////
00328 template<typename ScannerT>
00329 boost::spirit::classic::rule<ScannerT> const&
00330 OnDParser::definition<ScannerT>::start() const {
00331     return ond_list;
00332 }
00333 }
00334
00335 //
00336 // Entry class for the file parser
00337 //
00338 //
00339 ///////////////////////////////////////////////////////////////////
00340 OnDPeriodFileParser::OnDPeriodFileParser (const stdair::Filename_T& iFilename
00341 ,
00342     stdair::BomRoot& ioBomRoot)
00343 : _filename (iFilename), _bomRoot (ioBomRoot) {
00344     init();
00345 }
00346
00347 ///////////////////////////////////////////////////////////////////
00348 void OnDPeriodFileParser::init() {
00349     // Check that the file exists and is readable
00350     const bool doesExistAndIsReadable =
00351         stdair::BasFileMgr::doesExistAndIsReadable (_filename);
00352
00353     if (doesExistAndIsReadable == false) {
00354         STDAIR_LOG_ERROR ("The O&D file " << _filename
00355             << " does not exist or can not be read.");
00356
00357         throw OnDInputFileNotFoundExpection ("The O&D file " + _filename
00358             + " does not exist or can not be
00359 read");
00360     }
00361
00362     // Open the file
00363     _startIterator = iterator_t (_filename);
00364
00365     // Check that the filename exists and can be open
00366     if (!_startIterator) {
00367         STDAIR_LOG_DEBUG ("The O&D file " << _filename << " can not be open."
00368             << std::endl);
00369         throw OnDInputFileNotFoundExpection ("The file " + _filename
00370             + " does not exist or can not be

```

```

    read");
    }
00371     }
00372
00373     // Create an EOF iterator
00374     _endIterator = _startIterator.make_end();
00375 }
00376
00377 // //////////////////////////////////////
00378 bool OnDPeriodFileParser::generateOnDPeriods () {
00379     bool oResult = false;
00380
00381     STDAIR_LOG_DEBUG ("Parsing O&D input file: " << _filename);
00382
00383     // Initialise the parser (grammar) with the helper/staging structure.
00384     OnDParserHelper::OnDParser lODParser (_bomRoot, _onDPeriod);
00385
00386     // Launch the parsing of the file and, thanks to the doEndOnD
00387     // call-back structure, filling the worldSchedule (Fares)
00388     boost::spirit::classic::parse_info<iterator_t> info =
00389         boost::spirit::classic::parse (_startIterator, _endIterator, lODParser,
00390                                         boost::spirit::classic::space_p);
00391
00392     // Retrieves whether or not the parsing was successful
00393     oResult = info.hit;
00394
00395     const std::string hasBeenFullyReadStr = (info.full == true)?"":"not ";
00396     if (oResult == true) {
00397         STDAIR_LOG_DEBUG ("Parsing of O&D input file: " << _filename
00398                             << " succeeded: read " << info.length
00399                             << " characters. The input file has "
00400                             << hasBeenFullyReadStr
00401                             << "been fully read. Stop point: " << info.stop);
00402     } else {
00403         // TODO: decide whether to throw an exception
00404         STDAIR_LOG_ERROR ("Parsing of O&D input file: " << _filename
00405                             << " failed: read " << info.length
00406                             << " characters. The input file has "
00407                             << hasBeenFullyReadStr
00408                             << "been fully read. Stop point: " << info.stop);
00409     }
00410 }
00411
00412     return oResult;
00413 }
00414 }

```

26.97 airsched/command/OnDParserHelper.hpp File Reference

```

#include <string> #include <boost/date_time/posix_time/posix-
_time.hpp> #include <boost/date_time/gregorian/gregorian.-
hpp> #include <stdair/command/CmdAbstract.hpp> #include
<airsched/AIRSCHEd_Types.hpp> #include <airsched/basic/-
BasParserTypes.hpp> #include <airsched/bom/OnDPeriod-
Struct.hpp>

```

Classes

- struct [AIRSCHEd::OnDParserHelper::ParserSemanticAction](#)
- struct [AIRSCHEd::OnDParserHelper::storeOrigin](#)
- struct [AIRSCHEd::OnDParserHelper::storeDestination](#)
- struct [AIRSCHEd::OnDParserHelper::storeDateRangeStart](#)
- struct [AIRSCHEd::OnDParserHelper::storeDateRangeEnd](#)

- struct AIRSCHED::OnDParserHelper::storeStartRangeTime
- struct AIRSCHED::OnDParserHelper::storeEndRangeTime
- struct AIRSCHED::OnDParserHelper::storeAirlineCode
- struct AIRSCHED::OnDParserHelper::storeClassCode
- struct AIRSCHED::OnDParserHelper::doEndOnD
- struct AIRSCHED::OnDParserHelper::OnDParser
- struct AIRSCHED::OnDParserHelper::OnDParser::definition< ScannerT >
- class AIRSCHED::OnDPeriodFileParser

Namespaces

- namespace stdair
Forward declarations.
- namespace AIRSCHED
- namespace AIRSCHED::OnDParserHelper

26.98 OnDParserHelper.hpp

```

00001 #ifndef __AIRSCHED_CMD_ONDPARSERHELPER_HPP
00002 #define __AIRSCHED_CMD_ONDPARSERHELPER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // Boost (Extended STL)
00010 #include <boost/date_time/posix_time/posix_time.hpp>
00011 #include <boost/date_time/gregorian/gregorian.hpp>
00012 // StdAir
00013 #include <stdair/command/CmdAbstract.hpp>
00014 // AirSched
00015 #include <airsched/AIRSCHED_Types.hpp>
00016 #include <airsched/basic/BasParserTypes.hpp>
00017 #include <airsched/bom/OnDPeriodStruct.hpp>
00018
00019 // Forward declarations
00020 namespace stdair {
00021     class BomRoot;
00022 }
00023
00024 namespace AIRSCHED {
00025
00026     namespace OnDParserHelper {
00027
00028         // //////////////////////////////////////
00029         //
00030         // Semantic actions
00031         //
00032         // //////////////////////////////////////
00033         struct ParserSemanticAction {
00034             ParserSemanticAction (OnDPeriodStruct&);
00035             OnDPeriodStruct& _onDPeriod;
00036         };
00037
00038         struct storeOrigin : public ParserSemanticAction {
00039             storeOrigin (OnDPeriodStruct&);
00040             void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00041         };
00042
00043         struct storeDestination : public ParserSemanticAction {
00044             storeDestination (OnDPeriodStruct&);

```

```

00054     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00055 };
00056
00058 struct storeDateRangeStart : public ParserSemanticAction {
00060     storeDateRangeStart (OnDPeriodStruct&);
00062     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00063 };
00064
00066 struct storeDateRangeEnd : public ParserSemanticAction {
00068     storeDateRangeEnd (OnDPeriodStruct&);
00070     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00071 };
00072
00074 struct storeStartRangeTime : public ParserSemanticAction {
00076     storeStartRangeTime (OnDPeriodStruct&);
00078     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00079 };
00080
00082 struct storeEndRangeTime : public ParserSemanticAction {
00084     storeEndRangeTime (OnDPeriodStruct&);
00086     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00087 };
00088
00090 struct storeAirlineCode : public ParserSemanticAction {
00092     storeAirlineCode (OnDPeriodStruct&);
00094     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00095 };
00096
00098 struct storeClassCode : public ParserSemanticAction {
00100     storeClassCode (OnDPeriodStruct&);
00102     void operator() (char iChar) const;
00103 };
00104
00106 struct doEndOnD : public ParserSemanticAction {
00108     doEndOnD (stdair::BomRoot&, OnDPeriodStruct&);
00110     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00112     stdair::BomRoot& _bomRoot;
00113 };
00114
00116 //
00117 // (Boost Spirit) Grammar Definition
00118 //
00120
00122 struct OnDParser :
00123     public boost::spirit::classic::grammar<OnDParser> {
00124
00126     OnDParser (stdair::BomRoot&, OnDPeriodStruct&);
00127
00129     template <typename ScannerT>
00130     struct definition {
00131         definition (OnDParser const& self);
00132
00134         // Instantiation of rules
00135         boost::spirit::classic::rule<ScannerT> ond_list, ond, segment,
00136             ond_key, ond_end, date, time;
00137
00139         boost::spirit::classic::rule<ScannerT> const& start() const;
00140     };
00141
00143     // Parser Context
00144     stdair::BomRoot& _bomRoot;
00145     OnDPeriodStruct& _onDPeriod;
00146 };
00147
00149 //
00150 // Entry class for the file parser
00151 //
00153
00155 class OnDPeriodFileParser : public stdair::CmdAbstract {
00156 public:
00158     OnDPeriodFileParser (const stdair::Filename_T& iFilename,
00159         stdair::BomRoot& ioBomRoot);
00160

```

```

00168     bool generateOnDPeriods ();
00169
00170 private:
00171     void init();
00172
00173 private:
00174     // Attributes
00175     stdair::Filename_T _filename;
00176
00177     iterator_t _startIterator;
00178
00179     iterator_t _endIterator;
00180
00181     stdair::BomRoot& _bomRoot;
00182
00183     OnDPeriodStruct _onDPeriod;
00184 };
00185
00186 #endif // __AIRSCHED_CMD_ONDPARSERHELPER_HPP

```

26.99 airsched/command/OnDPeriodGenerator.cpp File Reference

```

#include <cassert>      #include <stdair/stdair_date_time_-
types.hpp> #include <stdair/bom/BomManager.hpp> #include
<stdair/bom/BomRoot.hpp> #include <stdair/factory/Fac-
BomManager.hpp> #include <stdair/service/Logger.hpp>
#include <airsched/bom/OnDPeriodStruct.hpp> #include <airsched/command/-
OnDPeriodGenerator.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.100 OnDPeriodGenerator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/stdair_date_time_types.hpp>
00008 #include <stdair/bom/BomManager.hpp>
00009 #include <stdair/bom/BomRoot.hpp>
00010 #include <stdair/factory/FacBomManager.hpp>
00011 #include <stdair/service/Logger.hpp>
00012 // AirSched
00013 #include <airsched/bom/OnDPeriodStruct.hpp>
00014 #include <airsched/command/OnDPeriodGenerator.hpp>
00015
00016 namespace AIRSCHED {
00017
00018 // //////////////////////////////////////
00019 void OnDPeriodGenerator::
00020 createOnDPeriod (stdair::BomRoot& ioBomRoot,
00021                 const OnDPeriodStruct& iOnDPeriodStruct) {
00022 }
00023 }

```

26.101 airtched/command/OnDPeriodGenerator.hpp File Reference

```
#include <stdair/command/CmdAbstract.hpp> #include <airched/-
AIRSCHED_Types.hpp>
```

Classes

- class [AIRSCHED::OnDPeriodGenerator](#)
Class handling the generation / instantiation of the O&D-Period BOM.

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)
- namespace [AIRSCHED::OnDParserHelper](#)

26.102 OnDPeriodGenerator.hpp

```
00001 #ifndef __AIRSCHED_CMD_ONDPERIODGENERATOR_HPP
00002 #define __AIRSCHED_CMD_ONDPERIODGENERATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/command/CmdAbstract.hpp>
00009 // AirSched
00010 #include <airched/AIRSCHED_Types.hpp>
00011
00012 namespace stdair {
00013     class BomRoot;
00014 }
00015
00016 namespace AIRSCHED {
00017
00018     struct OnDPeriodStruct_T;
00019     namespace OnDParserHelper {
00020         struct doEndOnD;
00021     }
00022
00023     class OnDPeriodGenerator : public stdair::CmdAbstract {
00024     friend class OnDPeriodFileParser;
00025     friend struct OnDParserHelper::doEndOnD;
00026     friend class OnDParser;
00027
00028     private:
00029         static void createOnDPeriod (stdair::BomRoot&, const OnDPeriodStruct&);
00030     };
00031 }
00032
00033 #endif // __AIRSCHED_CMD_ONDPERIODGENERATOR_HPP
```

26.103 airtched/command/ScheduleParser.cpp File Reference

```
#include <cassert> #include <string> #include <stdair/basic/-
BasFileMgr.hpp> #include <stdair/bom/BomRoot.hpp> #include
```

```
<airsched/command/SegmentPathGenerator.hpp>#include <airsched/command/-
ScheduleParserHelper.hpp>      #include <airsched/command/-
ScheduleParser.hpp>
```

Namespaces

- namespace AIRSCHED

26.104 ScheduleParser.cpp

```
00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <string>
00007 // StdAir
00008 #include <stdair/basic/BasFileMgr.hpp>
00009 #include <stdair/bom/BomRoot.hpp>
00010 // AirSched
00011 #include <airsched/command/SegmentPathGenerator.hpp>
00012 #include <airsched/command/ScheduleParserHelper.hpp>
00013 #include <airsched/command/ScheduleParser.hpp>
00014
00015 namespace AIRSCHED {
00016
00017 // //////////////////////////////////////
00018 void ScheduleParser::generateInventories (const stdair::Filename_T& iFilename
00019
00019                                     stdair::BomRoot& ioBomRoot) {
00020
00021     // Check that the file path given as input corresponds to an actual file
00022     const bool doesExistAndIsReadable =
00023         stdair::BasFileMgr::doesExistAndIsReadable (iFilename);
00024
00025     if (doesExistAndIsReadable == false) {
00026         throw ScheduleInputFileNotFoundException ("The schedule file " +
00027 iFilename
00027                                     + " does not exist or can not "
00028                                     "be read");
00029     }
00030
00031     // Initialise the Flight-Period file parser.
00032     FlightPeriodFileParser lFlightPeriodParser (ioBomRoot, iFilename);
00033
00034     // Parse the CSV-formatted schedule input file, and generate the
00035     // corresponding Inventories for the airlines.
00036     lFlightPeriodParser.generateInventories();
00037
00038     // Build the network from the schedule.
00039     SegmentPathGenerator::createSegmentPathNetwork (ioBomRoot);
00040 }
00041
00042 }
```

26.105 airsched/command/ScheduleParser.hpp File Reference

```
#include <string>      #include <stdair/stdair_basic_types.-
hpp> #include <stdair/command/CmdAbstract.hpp>
```

Classes

- class [AIRSCHED::ScheduleParser](#)

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHED](#)

26.106 ScheduleParser.hpp

```

00001 #ifndef __AIRSCHED_CMD_SCHEDULEPARSER_HPP
00002 #define __AIRSCHED_CMD_SCHEDULEPARSER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/command/CmdAbstract.hpp>
00012
00013 // Forward declarations.
00014 namespace stdair {
00015     class BomRoot;
00016 }
00017
00018 namespace AIRSCHED {
00019
00021     class ScheduleParser : public stdair::CmdAbstract {
00022     public:
00028         static void generateInventories (const stdair::Filename_T&,
00029                                         stdair::BomRoot&);
00030     };
00031 }
00032 #endif // __AIRSCHED_CMD_SCHEDULEPARSER_HPP

```

26.107 airsched/command/ScheduleParserHelper.cpp File Reference

```

#include <cassert>    #include <stdair/basic/BasFileMgr.-
hpp> #include <stdair/bom/BomRoot.hpp> #include <stdair/service/-
Logger.hpp>    #include <airsched/command/ScheduleParser-
Helper.hpp> #include <airsched/command/InventoryGenerator.-
hpp>

```

Namespaces

- namespace [AIRSCHED](#)
- namespace [AIRSCHED::ScheduleParserHelper](#)

Functions

- repeat_p_t AIRSCHED::ScheduleParserHelper::airline_code_p (chset_t("0-9A--Z").derived(), 2, 3)
- bounded1_4_p_t AIRSCHED::ScheduleParserHelper::flight_number_p (uint1_4_p.derived(), 0u, 9999u)
- bounded4_p_t AIRSCHED::ScheduleParserHelper::year_p (uint4_p.derived(), 2000u, 2099u)
- bounded2_p_t AIRSCHED::ScheduleParserHelper::month_p (uint2_p.derived(), 1u, 12u)
- bounded2_p_t AIRSCHED::ScheduleParserHelper::day_p (uint2_p.derived(), 1u, 31u)
- repeat_p_t AIRSCHED::ScheduleParserHelper::dow_p (chset_t("0-1").derived().derived(), 7, 7)
- repeat_p_t AIRSCHED::ScheduleParserHelper::airport_p (chset_t("0-9A-Z").derived(), 3, 3)
- bounded2_p_t AIRSCHED::ScheduleParserHelper::hours_p (uint2_p.derived(), 0u, 23u)
- bounded2_p_t AIRSCHED::ScheduleParserHelper::minutes_p (uint2_p.derived(), 0u, 59u)
- bounded2_p_t AIRSCHED::ScheduleParserHelper::seconds_p (uint2_p.derived(), 0u, 59u)
- chset_t AIRSCHED::ScheduleParserHelper::cabin_code_p ("A-Z")
- repeat_p_t AIRSCHED::ScheduleParserHelper::class_code_list_p (chset_t("A-Z").derived(), 1, 26)

Variables

- int1_p_t AIRSCHED::ScheduleParserHelper::int1_p
- uint2_p_t AIRSCHED::ScheduleParserHelper::uint2_p
- uint4_p_t AIRSCHED::ScheduleParserHelper::uint4_p
- uint1_4_p_t AIRSCHED::ScheduleParserHelper::uint1_4_p
- int1_p_t AIRSCHED::ScheduleParserHelper::family_code_p

26.108 ScheduleParserHelper.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/basic/BasFileMgr.hpp>
00008 #include <stdair/bom/BomRoot.hpp>
00009 #include <stdair/service/Logger.hpp>
00010 // AIRSCHED
00011 // #define BOOST_SPIRIT_DEBUG
00012 #include <airsched/command/ScheduleParserHelper.hpp>
00013 #include <airsched/command/InventoryGenerator.hpp>
00014
00015 namespace bsc = boost::spirit::classic;
00016
00017 namespace AIRSCHED {

```

```

00018
00019 namespace ScheduleParserHelper {
00020
00021 // ////////////////////////////////////////
00022 // Semantic actions
00023 // ////////////////////////////////////////
00024
00025 ParserSemanticAction::
00026 ParserSemanticAction (FlightPeriodStruct& ioFlightPeriod)
00027 : _flightPeriod (ioFlightPeriod) {
00028 }
00029
00030 // ////////////////////////////////////////
00031 storeAirlineCode::
00032 storeAirlineCode (FlightPeriodStruct& ioFlightPeriod)
00033 : ParserSemanticAction (ioFlightPeriod) {
00034 }
00035
00036 // ////////////////////////////////////////
00037 void storeAirlineCode::operator() (iterator_t iStr,
00038                                     iterator_t iStrEnd) const {
00039     const stdair::AirlineCode_T lAirlineCode (iStr, iStrEnd);
00040     _flightPeriod._airlineCode = lAirlineCode;
00041
00042     // As that's the beginning of a new flight, the list of legs
00043     // must be reset
00044     _flightPeriod._legList.clear();
00045 }
00046
00047 // ////////////////////////////////////////
00048 storeFlightNumber::
00049 storeFlightNumber (FlightPeriodStruct& ioFlightPeriod)
00050 : ParserSemanticAction (ioFlightPeriod) {
00051 }
00052
00053 // ////////////////////////////////////////
00054 void storeFlightNumber::operator() (unsigned int iNumber) const {
00055     _flightPeriod._flightNumber = iNumber;
00056 }
00057
00058 // ////////////////////////////////////////
00059 storeDateRangeStart::
00060 storeDateRangeStart (FlightPeriodStruct& ioFlightPeriod)
00061 : ParserSemanticAction (ioFlightPeriod) {
00062 }
00063
00064 // ////////////////////////////////////////
00065 void storeDateRangeStart::operator() (iterator_t iStr,
00066                                     iterator_t iStrEnd) const {
00067     _flightPeriod._dateRangeStart = _flightPeriod.getDate();
00068
00069     // Reset the number of seconds
00070     _flightPeriod._itSeconds = 0;
00071 }
00072
00073 // ////////////////////////////////////////
00074 storeDateRangeEnd::
00075 storeDateRangeEnd (FlightPeriodStruct& ioFlightPeriod)
00076 : ParserSemanticAction (ioFlightPeriod) {
00077 }
00078
00079 // ////////////////////////////////////////
00080 void storeDateRangeEnd::operator() (iterator_t iStr,
00081                                     iterator_t iStrEnd) const {
00082     // As a Boost date period (DatePeriod_T) defines the last day of
00083     // the period to be end-date - one day, we have to add one day to that
00084     // end date before.
00085     const stdair::DateOffset_T oneDay (1);
00086     _flightPeriod._dateRangeEnd = _flightPeriod.getDate() + oneDay;
00087
00088     // Transform the date pair (i.e., the date range) into a date period
00089     _flightPeriod._dateRange =
00090         stdair::DatePeriod_T (_flightPeriod._dateRangeStart,
00091                               _flightPeriod._dateRangeEnd);
00091

```

```

00092
00093     // Reset the number of seconds
00094     _flightPeriod._itSeconds = 0;
00095 }
00096
00097 // //////////////////////////////////////
00098 storeDow::storeDow (FlightPeriodStruct& ioFlightPeriod)
00099     : ParserSemanticAction (ioFlightPeriod) {
00100 }
00101
00102 // //////////////////////////////////////
00103 void storeDow::operator() (iterator_t iStr, iterator_t iStrEnd) const {
00104     stdair::DOW_String_T lDow (iStr, iStrEnd);
00105     _flightPeriod._dow = lDow;
00106 }
00107
00108 // //////////////////////////////////////
00109 storeLegBoardingPoint::
00110 storeLegBoardingPoint (FlightPeriodStruct& ioFlightPeriod)
00111     : ParserSemanticAction (ioFlightPeriod) {
00112 }
00113
00114 // //////////////////////////////////////
00115 void storeLegBoardingPoint::operator() (iterator_t iStr,
00116                                         iterator_t iStrEnd) const {
00117     stdair::AirportCode_T lBoardingPoint (iStr, iStrEnd);
00118
00119     // If a leg has already been parsed, add it to the FlightPeriod
00120     if (_flightPeriod._legAlreadyDefined == true) {
00121         _flightPeriod._legList.push_back (_flightPeriod._itLeg);
00122     } else {
00123         _flightPeriod._legAlreadyDefined = true;
00124     }
00125
00126     // Set the (new) boarding point
00127     _flightPeriod._itLeg._boardingPoint = lBoardingPoint;
00128
00129     // As that's the beginning of a new leg, the list of cabins
00130     // must be reset
00131     _flightPeriod._itLeg._cabinList.clear();
00132
00133     // Add the airport code if it is not already stored in the airport lists
00134     _flightPeriod.addAirport (lBoardingPoint);
00135 }
00136
00137 // //////////////////////////////////////
00138 storeLegOffPoint::
00139 storeLegOffPoint (FlightPeriodStruct& ioFlightPeriod)
00140     : ParserSemanticAction (ioFlightPeriod) {
00141 }
00142
00143 // //////////////////////////////////////
00144 void storeLegOffPoint::operator() (iterator_t iStr,
00145                                   iterator_t iStrEnd) const {
00146     stdair::AirportCode_T lOffPoint (iStr, iStrEnd);
00147     _flightPeriod._itLeg._offPoint = lOffPoint;
00148
00149     // Add the airport code if it is not already stored in the airport lists
00150     _flightPeriod.addAirport (lOffPoint);
00151 }
00152
00153 // //////////////////////////////////////
00154 storeBoardingTime::
00155 storeBoardingTime (FlightPeriodStruct& ioFlightPeriod)
00156     : ParserSemanticAction (ioFlightPeriod) {
00157 }
00158
00159 // //////////////////////////////////////
00160 void storeBoardingTime::operator() (iterator_t iStr,
00161                                    iterator_t iStrEnd) const {
00162     _flightPeriod._itLeg._boardingTime = _flightPeriod.getTime();
00163
00164     // Reset the number of seconds
00165     _flightPeriod._itSeconds = 0;

```

```

00166
00167     // Reset the date off-set
00168     _flightPeriod._dateOffset = 0;
00169 }
00170
00171 // //////////////////////////////////////
00172 storeOffTime::
00173 storeOffTime (FlightPeriodStruct& ioFlightPeriod)
00174     : ParserSemanticAction (ioFlightPeriod) {
00175 }
00176
00177 // //////////////////////////////////////
00178 void storeOffTime::operator() (iterator_t iStr,
00179                               iterator_t iStrEnd) const {
00180     _flightPeriod._itLeg._offTime = _flightPeriod.getTime();
00181
00182     // Reset the number of seconds
00183     _flightPeriod._itSeconds = 0;
00184
00185     // As the boarding date off set is optional, it can be set only
00186     // afterwards, based on the staging date off-set value
00187     // (_flightPeriod._dateOffset).
00188     const stdair::DateOffset_T lDateOffset (_flightPeriod._dateOffset);
00189     _flightPeriod._itLeg._boardingDateOffset = lDateOffset;
00190 }
00191
00192 // //////////////////////////////////////
00193 storeElapsedTime::
00194 storeElapsedTime (FlightPeriodStruct& ioFlightPeriod)
00195     : ParserSemanticAction (ioFlightPeriod) {
00196 }
00197
00198 // //////////////////////////////////////
00199 void storeElapsedTime::operator() (iterator_t iStr,
00200                                   iterator_t iStrEnd) const {
00201     _flightPeriod._itLeg._elapsed = _flightPeriod.getTime();
00202
00203     // Reset the number of seconds
00204     _flightPeriod._itSeconds = 0;
00205
00206     // As the boarding date off set is optional, it can be set only
00207     // afterwards, based on the staging date off-set value
00208     // (_flightPeriod._dateOffset).
00209     const stdair::DateOffset_T lDateOffset (_flightPeriod._dateOffset);
00210     _flightPeriod._itLeg._offDateOffset = lDateOffset;
00211 }
00212
00213 // //////////////////////////////////////
00214 storeLegCabinCode::
00215 storeLegCabinCode (FlightPeriodStruct& ioFlightPeriod)
00216     : ParserSemanticAction (ioFlightPeriod) {
00217 }
00218
00219 // //////////////////////////////////////
00220 void storeLegCabinCode::operator() (char iChar) const {
00221     _flightPeriod._itLegCabin._cabinCode = iChar;
00222     //std::cout << "Cabin code: " << iChar << std::endl;
00223 }
00224
00225 // //////////////////////////////////////
00226 storeCapacity::
00227 storeCapacity (FlightPeriodStruct& ioFlightPeriod)
00228     : ParserSemanticAction (ioFlightPeriod) {
00229 }
00230
00231 // //////////////////////////////////////
00232 void storeCapacity::operator() (double iReal) const {
00233     _flightPeriod._itLegCabin._capacity = iReal;
00234     //std::cout << "Capacity: " << iReal << std::endl;
00235
00236     // The capacity is the last (according to the arrival order
00237     // within the schedule input file) detail of the leg cabin. Hence,
00238     // when a capacity is parsed, it means that the full cabin
00239     // details have already been parsed as well: the cabin can

```

```

00240         // thus be added to the leg.
00241         _flightPeriod._itLeg._cabinList.push_back (_flightPeriod._itLegCabin);
00242     }
00243
00244     // //////////////////////////////////////
00245     storeSegmentSpecificity::
00246     storeSegmentSpecificity (FlightPeriodStruct& ioFlightPeriod)
00247         : ParserSemanticAction (ioFlightPeriod) {
00248     }
00249
00250     // //////////////////////////////////////
00251     void storeSegmentSpecificity::operator() (char iChar) const {
00252         if (iChar == '0') {
00253             _flightPeriod._areSegmentDefinitionsSpecific = false;
00254         } else {
00255             _flightPeriod._areSegmentDefinitionsSpecific = true;
00256         }
00257
00258         // Do a few sanity checks: the two lists should get exactly the same
00259         // content (in terms of airport codes). The only difference is that one
00260         // is a STL set, and the other a STL vector.
00261         assert (_flightPeriod._airportList.size()
00262             == _flightPeriod._airportOrderedList.size());
00263         assert (_flightPeriod._airportList.size() >= 2);
00264
00265         // Since all the legs have now been parsed, we get all the airports
00266         // and the segments may be built.
00267         _flightPeriod.buildSegments();
00268     }
00269
00270     // //////////////////////////////////////
00271     storeSegmentBoardingPoint::
00272     storeSegmentBoardingPoint (FlightPeriodStruct& ioFlightPeriod)
00273         : ParserSemanticAction (ioFlightPeriod) {
00274     }
00275
00276     // //////////////////////////////////////
00277     void storeSegmentBoardingPoint::operator() (iterator_t iStr,
00278         iterator_t iStrEnd) const {
00279         stdair::AirportCode_T lBoardingPoint (iStr, iStrEnd);
00280         _flightPeriod._itSegment._boardingPoint = lBoardingPoint;
00281     }
00282
00283     // //////////////////////////////////////
00284     storeSegmentOffPoint::
00285     storeSegmentOffPoint (FlightPeriodStruct& ioFlightPeriod)
00286         : ParserSemanticAction (ioFlightPeriod) {
00287     }
00288
00289     // //////////////////////////////////////
00290     void storeSegmentOffPoint::operator() (iterator_t iStr,
00291         iterator_t iStrEnd) const {
00292         stdair::AirportCode_T lOffPoint (iStr, iStrEnd);
00293         _flightPeriod._itSegment._offPoint = lOffPoint;
00294     }
00295
00296     // //////////////////////////////////////
00297     storeSegmentCabinCode::
00298     storeSegmentCabinCode (FlightPeriodStruct& ioFlightPeriod)
00299         : ParserSemanticAction (ioFlightPeriod) {
00300     }
00301
00302     // //////////////////////////////////////
00303     void storeSegmentCabinCode::operator() (char iChar) const {
00304         _flightPeriod._itSegmentCabin._cabinCode = iChar;
00305     }
00306
00307     // //////////////////////////////////////
00308     storeClasses::
00309     storeClasses (FlightPeriodStruct& ioFlightPeriod)
00310         : ParserSemanticAction (ioFlightPeriod) {
00311     }
00312
00313     // //////////////////////////////////////

```

```

00314 void storeClasses::operator() (iterator_t iStr,
00315                               iterator_t iStrEnd) const {
00316     std::string lClasses (iStr, iStrEnd);
00317     _flightPeriod._itSegmentCabin._classes = lClasses;
00318
00319     // The list of classes is the last (according to the arrival order
00320     // within the schedule input file) detail of the segment cabin. Hence,
00321     // when a list of classes is parsed, it means that the full segment
00322     // cabin details have already been parsed as well: the segment cabin
00323     // can thus be added to the segment.
00324     if (_flightPeriod._areSegmentDefinitionsSpecific == true) {
00325         _flightPeriod.addSegmentCabin (_flightPeriod._itSegment,
00326                                       _flightPeriod._itSegmentCabin);
00327     } else {
00328         _flightPeriod.addSegmentCabin (_flightPeriod._itSegmentCabin);
00329     }
00330 }
00331
00332 // //////////////////////////////////////
00333 storeFamilyCode::
00334 storeFamilyCode (FlightPeriodStruct& ioFlightPeriod)
00335     : ParserSemanticAction (ioFlightPeriod) {
00336 }
00337
00338 // //////////////////////////////////////
00339 void storeFamilyCode::operator() (int iCode) const {
00340     std::ostringstream ostr;
00341     ostr << iCode;
00342     _flightPeriod._itSegmentCabin._itFamilyCode = ostr.str();
00343 }
00344
00345 // //////////////////////////////////////
00346 storeFClasses::
00347 storeFClasses (FlightPeriodStruct& ioFlightPeriod)
00348     : ParserSemanticAction (ioFlightPeriod) {
00349 }
00350
00351 // //////////////////////////////////////
00352 void storeFClasses::operator() (iterator_t iStr,
00353                               iterator_t iStrEnd) const {
00354     std::string lClasses (iStr, iStrEnd);
00355     FareFamilyStruct lFareFamily(_flightPeriod._itSegmentCabin._itFamilyCode,
00356                                 lClasses);
00357
00358     // The list of classes is the last (according to the arrival order
00359     // within the schedule input file) detail of the segment cabin. Hence,
00360     // when a list of classes is parsed, it means that the full segment
00361     // cabin details have already been parsed as well: the segment cabin
00362     // can thus be added to the segment.
00363     if (_flightPeriod._areSegmentDefinitionsSpecific == true) {
00364         _flightPeriod.addFareFamily (_flightPeriod._itSegment,
00365                                     _flightPeriod._itSegmentCabin,
00366                                     lFareFamily);
00367     } else {
00368         _flightPeriod.addFareFamily (_flightPeriod._itSegmentCabin,
00369                                     lFareFamily);
00370     }
00371 }
00372
00373 // //////////////////////////////////////
00374 doEndFlight::
00375 doEndFlight (stdair::BomRoot& ioBomRoot,
00376             FlightPeriodStruct& ioFlightPeriod)
00377     : ParserSemanticAction (ioFlightPeriod),
00378       _bomRoot (ioBomRoot) {
00379 }
00380
00381 // //////////////////////////////////////
00382 // void doEndFlight::operator() (char iChar) const {
00383 void doEndFlight::operator() (iterator_t iStr,
00384                               iterator_t iStrEnd) const {
00385
00386     assert (_flightPeriod._legAlreadyDefined == true);
00387     _flightPeriod._legList.push_back (_flightPeriod._itLeg);

```

```

00388
00389 // The lists of legs and cabins must be reset
00390 _flightPeriod._legAlreadyDefined = false;
00391 _flightPeriod._itLeg._cabinList.clear();
00392
00393 // DEBUG: Display the result
00394 STDAIR_LOG_DEBUG ("FlightPeriod: " << _flightPeriod.describe());
00395
00396 // Create the FlightPeriod BOM objects, and potentially the intermediary
00397 // objects (e.g., Inventory).
00398 InventoryGenerator::createFlightPeriod (_bomRoot, _flightPeriod);
00399 }
00400
00401
00402 // //////////////////////////////////////
00403 //
00404 // Utility Parsers
00405 //
00406 // //////////////////////////////////////
00408 int1_p_t int1_p;
00409
00411 uint2_p_t uint2_p;
00412
00414 uint4_p_t uint4_p;
00415
00417 uint1_4_p_t uint1_4_p;
00418
00420 repeat_p_t airline_code_p (chset_t("0-9A-Z").derived(), 2, 3);
00421
00423 bounded1_4_p_t flight_number_p (uint1_4_p.derived(), 0u, 9999u);
00424
00426 bounded4_p_t year_p (uint4_p.derived(), 2000u, 2099u);
00427
00429 bounded2_p_t month_p (uint2_p.derived(), 1u, 12u);
00430
00432 bounded2_p_t day_p (uint2_p.derived(), 1u, 31u);
00433
00435 repeat_p_t dow_p (chset_t("0-1").derived().derived(), 7, 7);
00436
00438 repeat_p_t airport_p (chset_t("0-9A-Z").derived(), 3, 3);
00439
00441 bounded2_p_t hours_p (uint2_p.derived(), 0u, 23u);
00442
00444 bounded2_p_t minutes_p (uint2_p.derived(), 0u, 59u);
00445
00447 bounded2_p_t seconds_p (uint2_p.derived(), 0u, 59u);
00448
00450 chset_t cabin_code_p ("A-Z");
00451
00453 int1_p_t family_code_p;
00454
00456 repeat_p_t class_code_list_p (chset_t("A-Z").derived(), 1, 26);
00457
00458
00459 // //////////////////////////////////////
00460 // (Boost Spirit) Grammar Definition
00461 // //////////////////////////////////////
00462
00463 // //////////////////////////////////////
00464 FlightPeriodParser::
00465 FlightPeriodParser (stdair::BomRoot& ioBomRoot,
00466                     FlightPeriodStruct& ioFlightPeriod)
00467 : _bomRoot (ioBomRoot),
00468   _flightPeriod (ioFlightPeriod) {
00469 }
00470
00471 // //////////////////////////////////////
00472 template<typename ScannerT>
00473 FlightPeriodParser::definition<ScannerT>::
00474 definition (FlightPeriodParser const& self) {
00475
00476     flight_period_list = *(not_to_be_parsed
00477                          | flight_period )
00478
00479     ;

```

```

00479
00480     not_to_be_parsed =bsc::
00481         lexeme_d[bsc::comment_p("//") |bsc::comment_p("/*", "*/")
00482             |bsc::eol_p];
00483
00484     flight_period = flight_key
00485         >> +( ';' >> leg )
00486         >> ';' >> segment_section
00487         >> flight_period_end[doEndFlight (self._bomRoot, self._flightPeriod)]
00488         ;
00489
00490     flight_period_end =
00491         bsc::ch_p(';')
00492         ;
00493
00494     flight_key = airline_code
00495         >> ';' >> flight_number
00496         >> ';' >> date[storeDateRangeStart (self._flightPeriod)]
00497         >> ';' >> date[storeDateRangeEnd (self._flightPeriod)]
00498         >> ';' >> dow[storeDow (self._flightPeriod)]
00499         ;
00500
00501     airline_code =bsc::
00502         lexeme_d[(airline_code_p) [storeAirlineCode (self._flightPeriod)] ]
00503         ;
00504
00505     flight_number =bsc::
00506         lexeme_d[(flight_number_p) [storeFlightNumber (self._flightPeriod)] ]
00507         ;
00508
00509     date =bsc::
00510         lexeme_d[(year_p) [bsc::assign_a(self._flightPeriod._itYear)]
00511             >> '-'
00512             >> (month_p) [bsc::assign_a(self._flightPeriod._itMonth)]
00513             >> '-'
00514             >> (day_p) [bsc::assign_a(self._flightPeriod._itDay)]
00515             ]
00516         ;
00517
00518     dow =bsc::lexeme_d[ dow_p ]
00519     ;
00520
00521     leg = leg_key >> ';' >> leg_details >> +( ';' >> leg_cabin_details )
00522     ;
00523
00524     leg_key =
00525         (airport_p) [storeLegBoardingPoint (self._flightPeriod)]
00526         >> ';'
00527         >> (airport_p) [storeLegOffPoint (self._flightPeriod)]
00528         ;
00529
00530     leg_details =
00531         time[storeBoardingTime (self._flightPeriod)]
00532         >> !(date_offset)
00533         >> ';'
00534         >> time[storeOffTime (self._flightPeriod)]
00535         >> !(date_offset)
00536         >> ';'
00537         >> time[storeElapsedTime (self._flightPeriod)]
00538         ;
00539
00540     time =bsc::
00541         lexeme_d[(hours_p) [bsc::assign_a(self._flightPeriod._itHours)]
00542             >> ':'
00543             >> (minutes_p) [bsc::assign_a(self._flightPeriod._itMinutes)]
00544             >> !(':'
00545                 >> (seconds_p) [bsc::assign_a(self._flightPeriod.
00546                     _itSeconds))]
00547             ]
00548         ;
00549
00549     date_offset =bsc::ch_p('/')
00550         >> (int1_p) [bsc::assign_a(self._flightPeriod._dateOffset)]
00551         ;

```

```

00552     leg_cabin_details = (cabin_code_p)[storeLegCabinCode(self._flightPeriod)]
00553     >> ';' >> (bsc::ureal_p)[storeCapacity(self._flightPeriod)]
00554     ;
00555
00556     segment_key =
00557         (airport_p)[storeSegmentBoardingPoint(self._flightPeriod)]
00558         >> ';'
00559         >> (airport_p)[storeSegmentOffPoint(self._flightPeriod)]
00560         ;
00561
00562     segment_section =
00563         generic_segment | specific_segment_list
00564         ;
00565
00566     generic_segment =bsc::
00567         ch_p('0')[storeSegmentSpecificity(self._flightPeriod)]
00568         >> +(';') >> segment_cabin_details)
00569         ;
00570
00571     specific_segment_list =bsc::
00572         ch_p('1')[storeSegmentSpecificity(self._flightPeriod)]
00573         >> +(';') >> segment_key >> full_segment_cabin_details)
00574         ;
00575
00576     full_segment_cabin_details =
00577         +(';') >> segment_cabin_details)
00578         ;
00579
00580     segment_cabin_details =
00581         (cabin_code_p)[storeSegmentCabinCode(self._flightPeriod)]
00582         >> ';' >> (class_code_list_p)[storeClasses(self._flightPeriod)]
00583         >> *(';') >> family_cabin_details)
00584         ;
00585
00586     family_cabin_details =
00587         (family_code_p)[storeFamilyCode(self._flightPeriod)]
00588         >> ';'
00589         >> (class_code_list_p)[storeFClasses(self._flightPeriod)]
00590         ;
00591
00592     // BOOST_SPIRIT_DEBUG_NODE (FlightPeriodParser);
00593     BOOST_SPIRIT_DEBUG_NODE (flight_period_list);
00594     BOOST_SPIRIT_DEBUG_NODE (flight_period);
00595     BOOST_SPIRIT_DEBUG_NODE (not_to_be_parsed);
00596     BOOST_SPIRIT_DEBUG_NODE (flight_period_end);
00597     BOOST_SPIRIT_DEBUG_NODE (flight_key);
00598     BOOST_SPIRIT_DEBUG_NODE (airline_code);
00599     BOOST_SPIRIT_DEBUG_NODE (flight_number);
00600     BOOST_SPIRIT_DEBUG_NODE (date);
00601     BOOST_SPIRIT_DEBUG_NODE (dow);
00602     BOOST_SPIRIT_DEBUG_NODE (leg);
00603     BOOST_SPIRIT_DEBUG_NODE (leg_key);
00604     BOOST_SPIRIT_DEBUG_NODE (leg_details);
00605     BOOST_SPIRIT_DEBUG_NODE (time);
00606     BOOST_SPIRIT_DEBUG_NODE (date_offset);
00607     BOOST_SPIRIT_DEBUG_NODE (leg_cabin_details);
00608     BOOST_SPIRIT_DEBUG_NODE (segment_section);
00609     BOOST_SPIRIT_DEBUG_NODE (segment_key);
00610     BOOST_SPIRIT_DEBUG_NODE (generic_segment);
00611     BOOST_SPIRIT_DEBUG_NODE (specific_segment_list);
00612     BOOST_SPIRIT_DEBUG_NODE (full_segment_cabin_details);
00613     BOOST_SPIRIT_DEBUG_NODE (segment_cabin_details);
00614     BOOST_SPIRIT_DEBUG_NODE (family_cabin_details);
00615 }
00616
00617
00618 // //////////////////////////////////////
00619 template<typename ScannerT>
00620 bsc::rule<ScannerT> const&
00621 FlightPeriodParser::definition<ScannerT>::start() const {
00622     return flight_period_list;
00623 }
00624
00625 }

```

```

00626
00627
00629 //
00630 // Entry class for the file parser
00631 //
00633
00634 // //////////////////////////////////////
00635 FlightPeriodFileParser::
00636 FlightPeriodFileParser (stdair::BomRoot& ioBomRoot,
00637                          const stdair::Filename_T& iFilename)
00638 : _filename (iFilename), _bomRoot (ioBomRoot) {
00639     init();
00640 }
00641
00642 // //////////////////////////////////////
00643 void FlightPeriodFileParser::init() {
00644     // Check that the file exists and is readable
00645     const bool doesExistAndIsReadable =
00646         stdair::BasFileMgr::doesExistAndIsReadable (_filename);
00647
00648     if (doesExistAndIsReadable == false) {
00649         STDAIR_LOG_ERROR ("The schedule file " << _filename
00650             << " does not exist or can not be read.");
00651
00652         throw ScheduleInputFileNotFoundException ("The schedule file " +
00653             _filename
00654             + " does not exist or can not
00655             be read");
00656     }
00657
00658     // Open the file
00659     _startIterator = iterator_t (_filename);
00660
00661     // Check the filename exists and can be open
00662     if (!_startIterator) {
00663         STDAIR_LOG_ERROR ("The schedule file " << _filename << " can not be open.
00664             "
00665             << std::endl);
00666
00667         throw ScheduleInputFileNotFoundException ("The file " + _filename
00668             + " does not exist or can not
00669             be read");
00670     }
00671
00672     // Create an EOF iterator
00673     _endIterator = _startIterator.make_end();
00674 }
00675
00676 // //////////////////////////////////////
00677 bool FlightPeriodFileParser::generateInventories () {
00678     bool oResult = false;
00679
00680     STDAIR_LOG_DEBUG ("Parsing schedule input file: " << _filename);
00681
00682     // Initialise the parser (grammar) with the helper/staging structure.
00683     ScheduleParserHelper::FlightPeriodParser lFPPParser (_bomRoot,
00684         _flightPeriod);
00685
00686     // Launch the parsing of the file and, thanks to the doEndFlight
00687     // call-back structure, the building of the whole BomRoot BOM
00688     // (i.e., including Inventory, FlightDate, LegDate, SegmentDate, etc.)
00689     bsc::parse_info<iterator_t> info =
00690         bsc::parse (_startIterator, _endIterator, lFPPParser,
00691             bsc::space_p - bsc::eol_p);
00692
00693     // Retrieves whether or not the parsing was successful
00694     oResult = info.hit;
00695
00696     const std::string hasBeenFullyReadStr = (info.full == true)?"":"not ";
00697     if (oResult == true) {
00698         STDAIR_LOG_DEBUG ("Parsing of schedule input file: " << _filename
00699             << " succeeded: read " << info.length
00700             << " characters. The input file has "
00701             << hasBeenFullyReadStr

```

```

00698             << "been fully read. Stop point: " << info.stop);
00699
00700     } else {
00701         // TODO: decide whether to throw an exception
00702         STDAIR_LOG_ERROR ("Parsing of schedule input file: " << _filename
00703             << " failed: read " << info.length
00704             << " characters. The input file has "
00705             << hasBeenFullyReadStr
00706             << "been fully read. Stop point: " << info.stop);
00707     }
00708
00709     return oResult;
00710 }
00711
00712 }

```

26.109 airsched/command/ScheduleParserHelper.hpp File Reference

```

#include <string> #include <stdair/command/CmdAbstract.-
hpp> #include <airsched/AIRSCHEDED_Types.hpp> #include
<airsched/basic/BasParserTypes.hpp> #include <airsched/bom/-
FlightPeriodStruct.hpp>

```

Classes

- struct [AIRSCHEDED::ScheduleParserHelper::ParserSemanticAction](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeAirlineCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFlightNumber](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeDateRangeStart](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeDateRangeEnd](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeDow](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeLegBoardingPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeLegOffPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeBoardingTime](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeOffTime](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeElapsedTime](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeLegCabinCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeCapacity](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentSpecificity](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentBoardingPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentOffPoint](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeSegmentCabinCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeClasses](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFamilyCode](#)
- struct [AIRSCHEDED::ScheduleParserHelper::storeFClasses](#)
- struct [AIRSCHEDED::ScheduleParserHelper::doEndFlight](#)
- struct [AIRSCHEDED::ScheduleParserHelper::FlightPeriodParser](#)
- struct [AIRSCHEDED::ScheduleParserHelper::FlightPeriodParser::definition<ScannerT>](#)
- class [AIRSCHEDED::FlightPeriodFileParser](#)

Namespaces

- namespace `stdair`
 Forward declarations.
- namespace `AIRSCHEd`
- namespace `AIRSCHEd::ScheduleParserHelper`

26.110 ScheduleParserHelper.hpp

```

00001 #ifndef __AIRSCHEd_CMD_SCHEDULEPARSERHELPER_HPP
00002 #define __AIRSCHEd_CMD_SCHEDULEPARSERHELPER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/command/CommandAbstract.hpp>
00011 // AirSched
00012 #include <airsched/AIRSCHEd_Types.hpp>
00013 #include <airsched/basic/BasParserTypes.hpp>
00014 #include <airsched/bom/FlightPeriodStruct.hpp>
00015
00016 // Forward declarations
00017 namespace stdair {
00018     class BomRoot;
00019 }
00020
00021 namespace AIRSCHEd {
00022
00023     namespace ScheduleParserHelper {
00024
00025         // //////////////////////////////////////
00026         // Semantic actions
00027         // //////////////////////////////////////
00028         struct ParserSemanticAction {
00029             ParserSemanticAction (FlightPeriodStruct&);
00030             FlightPeriodStruct& _flightPeriod;
00031         };
00032
00033         struct storeAirlineCode : public ParserSemanticAction {
00034             storeAirlineCode (FlightPeriodStruct&);
00035             void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00036         };
00037
00038         struct storeFlightNumber : public ParserSemanticAction {
00039             storeFlightNumber (FlightPeriodStruct&);
00040             void operator() (unsigned int iNumber) const;
00041         };
00042
00043         struct storeDateRangeStart : public ParserSemanticAction {
00044             storeDateRangeStart (FlightPeriodStruct&);
00045             void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00046         };
00047
00048         struct storeDateRangeEnd : public ParserSemanticAction {
00049             storeDateRangeEnd (FlightPeriodStruct&);
00050             void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00051         };
00052
00053         struct storeDow : public ParserSemanticAction {
00054             storeDow (FlightPeriodStruct&);
00055             void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00056         };
00057
00058         struct storeLegBoardingPoint : public ParserSemanticAction {
00059             storeLegBoardingPoint (FlightPeriodStruct&);

```

```

00081     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00082 };
00083
00085 struct storeLegOffPoint : public ParserSemanticAction {
00086     storeLegOffPoint (FlightPeriodStruct&);
00087     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00088 };
00089
00091
00093 struct storeBoardingTime : public ParserSemanticAction {
00094     storeBoardingTime (FlightPeriodStruct&);
00095     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00096 };
00097
00099
00101 struct storeOffTime : public ParserSemanticAction {
00102     storeOffTime (FlightPeriodStruct&);
00103     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00104 };
00105
00107
00109 struct storeElapsedTime : public ParserSemanticAction {
00110     storeElapsedTime (FlightPeriodStruct&);
00111     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00112 };
00113
00115
00117 struct storeLegCabinCode : public ParserSemanticAction {
00118     storeLegCabinCode (FlightPeriodStruct&);
00119     void operator() (char iChar) const;
00120 };
00121
00123
00125 struct storeCapacity : public ParserSemanticAction {
00126     storeCapacity (FlightPeriodStruct&);
00127     void operator() (double iReal) const;
00128 };
00129
00131
00133 struct storeSegmentSpecificity : public ParserSemanticAction {
00134     storeSegmentSpecificity (FlightPeriodStruct&);
00135     void operator() (char iChar) const;
00136 };
00137
00139
00141 struct storeSegmentBoardingPoint : public ParserSemanticAction {
00142     storeSegmentBoardingPoint (FlightPeriodStruct&);
00143     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00144 };
00145
00147
00149 struct storeSegmentOffPoint : public ParserSemanticAction {
00150     storeSegmentOffPoint (FlightPeriodStruct&);
00151     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00152 };
00153
00155
00157 struct storeSegmentCabinCode : public ParserSemanticAction {
00158     storeSegmentCabinCode (FlightPeriodStruct&);
00159     void operator() (char iChar) const;
00160 };
00161
00163
00165 struct storeClasses : public ParserSemanticAction {
00166     storeClasses (FlightPeriodStruct&);
00167     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00168 };
00169
00171
00173 struct storeFamilyCode : public ParserSemanticAction {
00174     storeFamilyCode (FlightPeriodStruct&);
00175     void operator() (int iCode) const;
00176 };
00177
00179
00181 struct storeFClasses : public ParserSemanticAction {
00182     storeFClasses (FlightPeriodStruct&);
00183     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00184 };
00185
00187
00189 struct doEndFlight : public ParserSemanticAction {
00190     doEndFlight (stdair::BomRoot&, FlightPeriodStruct&);
00191     void operator() (iterator_t iStr, iterator_t iStrEnd) const;
00192     stdair::BomRoot& _bomRoot;
00193 };
00194
00196
00198
00199
00200

```

```

00201
00202 //
00203 // (Boost Spirit) Grammar Definition
00204 //
00205
00206
00207
00249 struct FlightPeriodParser :
00250     public boost::spirit::classic::grammar<FlightPeriodParser> {
00251
00252     FlightPeriodParser (stdair::BomRoot&, FlightPeriodStruct&);
00253
00254     template <typename ScannerT>
00255     struct definition {
00256         definition (FlightPeriodParser const& self);
00257
00258         // Instantiation of rules
00259         boost::spirit::classic::rule<ScannerT> flight_period_list, flight_period
00260
00261         not_to_be_parsed, flight_period_end, flight_key, airline_code,
00262         flight_number, date, dow, time, date_offset,
00263         leg, leg_key, leg_details, leg_cabin_details,
00264         segment_section, segment_key, full_segment_cabin_details,
00265         segment_cabin_details, full_family_cabin_details,
00266         family_cabin_details, generic_segment, specific_segment_list;
00267
00268         boost::spirit::classic::rule<ScannerT> const& start() const;
00269     };
00270
00271     // Parser Context
00272     stdair::BomRoot& _bomRoot;
00273     FlightPeriodStruct& _flightPeriod;
00274 };
00275
00276 }
00281
00282 //
00283 // Entry class for the file parser
00284 //
00285
00286
00291 class FlightPeriodFileParser : public stdair::CmdAbstract {
00292 public:
00293     FlightPeriodFileParser (stdair::BomRoot& ioBomRoot,
00294                             const stdair::Filename_T& iFilename);
00295
00296     bool generateInventories ();
00297
00298 private:
00299     void init();
00300
00301 private:
00302     // Attributes
00303     stdair::Filename_T _filename;
00304
00305     iterator_t _startIterator;
00306
00307     iterator_t _endIterator;
00308
00309     stdair::BomRoot& _bomRoot;
00310
00311     FlightPeriodStruct _flightPeriod;
00312 };
00313
00314 #endif // __AIRSCHED_CMD_SCHEDULEPARSERHELPER_HPP

```

26.111 airsched/command/SegmentPathGenerator.cpp File Reference

```

#include <cassert> #include <vector> #include <stdair/basic/-
BasConst_Inventory.hpp> #include <stdair/bom/BomManager.-
hpp> #include <stdair/bom/BomRoot.hpp> #include <stdair/bom/-

```

```

Inventory.hpp>      #include <stdair/bom/FlightPeriod.hpp>
#include <stdair/bom/SegmentPeriod.hpp> #include <stdair/factory/-
FacBomManager.hpp> #include <stdair/service/Logger.hpp>
#include <airsched/bom/ReachableUniverse.hpp> #include
<airsched/bom/OriginDestinationSet.hpp> #include <airsched/bom/-
SegmentPathPeriod.hpp> #include <airsched/command/Segment-
PathGenerator.hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.112 SegmentPathGenerator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <vector>
00007 // StdAir
00008 #include <stdair/basic/BasConst_Inventory.hpp>
00009 #include <stdair/bom/BomManager.hpp>
00010 #include <stdair/bom/BomRoot.hpp>
00011 #include <stdair/bom/Inventory.hpp>
00012 #include <stdair/bom/FlightPeriod.hpp>
00013 #include <stdair/bom/SegmentPeriod.hpp>
00014 #include <stdair/factory/FacBomManager.hpp>
00015 #include <stdair/service/Logger.hpp>
00016 // AirSched
00017 #include <airsched/bom/ReachableUniverse.hpp>
00018 #include <airsched/bom/OriginDestinationSet.hpp>
00019 #include <airsched/bom/SegmentPathPeriod.hpp>
00020 #include <airsched/command/SegmentPathGenerator.hpp>
00021
00022 namespace AIRSCHED {
00023
00024 // //////////////////////////////////////
00025 void SegmentPathGenerator::
00026 createSegmentPathNetwork (const stdair::BomRoot& iBomRoot) {
00027
00028     // Build the list of single-segment segment path objects.
00029     const stdair::InventoryList_T& lInventoryList =
00030         stdair::BomManager::getList<stdair::Inventory> (iBomRoot);
00031     for (stdair::InventoryList_T::const_iterator itInv = lInventoryList.begin()
00032 ;
00033         itInv != lInventoryList.end(); ++itInv) {
00034         const stdair::Inventory* lCurrentInventory_ptr = *itInv;
00035         assert (lCurrentInventory_ptr != NULL);
00036         //
00037         createSinglePaths (*lCurrentInventory_ptr);
00038     }
00039
00040     // Build the list of i-fixed-length segment path objects. In other words,
00041     // build the whole segment path network.
00042     for (stdair::NbOfSegments_T i = 2;
00043         i <= stdair::MAXIMAL_NUMBER_OF_SEGMENTS_IN_OND; ++i) {
00044         buildSegmentPathNetwork (iBomRoot, i);
00045     }
00046 }
00047
00048 // //////////////////////////////////////
00049 void SegmentPathGenerator::
00050 createSinglePaths (const stdair::Inventory& iInventory) {

```

```

00051
00052     const stdair::FlightPeriodList_T& lFlightPeriodList =
00053         stdair::BomManager::getList<stdair::FlightPeriod> (iInventory);
00054     for (stdair::FlightPeriodList_T::const_iterator itFlightPeriod =
00055         lFlightPeriodList.begin();
00056         itFlightPeriod != lFlightPeriodList.end(); ++itFlightPeriod) {
00057         const stdair::FlightPeriod* lCurrentFlightPeriod_ptr = *itFlightPeriod;
00058         assert (lCurrentFlightPeriod_ptr != NULL);
00059
00060         //
00061         createSinglePaths (*lCurrentFlightPeriod_ptr);
00062     }
00063 }
00064
00065 // //////////////////////////////////////
00066 void SegmentPathGenerator::
00067 createSinglePaths (const stdair::FlightPeriod& iFlightPeriod) {
00068
00069     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00070         stdair::BomManager::getList<stdair::SegmentPeriod> (iFlightPeriod);
00071     for (stdair::SegmentPeriodList_T::const_iterator itSegmentPeriod =
00072         lSegmentPeriodList.begin();
00073         itSegmentPeriod != lSegmentPeriodList.end(); ++itSegmentPeriod) {
00074         stdair::SegmentPeriod* lCurrentSegmentPeriod_ptr = *itSegmentPeriod;
00075         assert (lCurrentSegmentPeriod_ptr != NULL);
00076
00077         //
00078         createSinglePath (*lCurrentSegmentPeriod_ptr);
00079     }
00080 }
00081
00082 // //////////////////////////////////////
00083 void SegmentPathGenerator::
00084 createSinglePath (stdair::SegmentPeriod& ioSegmentPeriod) {
00085
00086     // Retrieve the BOM tree root
00087     const stdair::AirportCode_T& lOrigin = ioSegmentPeriod.getBoardingPoint();
00088     const stdair::FlightPeriod& lFlightPeriod =
00089         stdair::BomManager::getParent<stdair::FlightPeriod> (ioSegmentPeriod);
00090     const stdair::Inventory& lInventory =
00091         stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00092     stdair::BomRoot& lBomRoot =
00093         stdair::BomManager::getParent<stdair::BomRoot> (lInventory);
00094
00095     // Retrieve the ReachableUniverse (if existing) which corresponds
00096     // to the origin. If it does not exist, then create one.
00097     ReachableUniverse* lReachableUniverse_ptr =
00098         stdair::BomManager::getObjectPtr<ReachableUniverse> (lBomRoot, lOrigin);
00099     if (lReachableUniverse_ptr == NULL) {
00100         ReachableUniverseKey lKey (lOrigin);
00101         lReachableUniverse_ptr =
00102             &stdair::FacBom<ReachableUniverse>::instance().create (lKey);
00103         stdair::FacBomManager::addToListAndMap (lBomRoot, *lReachableUniverse_ptr
00104 );
00105         stdair::FacBomManager::linkWithParent (lBomRoot, *lReachableUniverse_ptr
00106 );
00107     }
00108     assert (lReachableUniverse_ptr != NULL);
00109
00110     //
00111     createSinglePath (*lReachableUniverse_ptr, ioSegmentPeriod);
00112 }
00113
00114 // //////////////////////////////////////
00115 void SegmentPathGenerator::
00116 createSinglePath (ReachableUniverse& ioReachableUniverse,
00117                 stdair::SegmentPeriod& ioSegmentPeriod) {
00118
00119     const stdair::AirportCode_T& lDestination = ioSegmentPeriod.getOffPoint();
00120
00121     // Retrieve the origin-destination set (if existing) which corresponds
00122     // to the destination. If it does not exist, then create one.
00123     OriginDestinationSet* lOriginDestinationSet_ptr =
00124         stdair::BomManager::getObjectPtr<OriginDestinationSet> (

```

```

ioReachableUniverse,
00123                                     lDestination);
00124     if (lOriginDestinationSet_ptr == NULL) {
00125         OriginDestinationSetKey lKey (lDestination);
00126
00127         lOriginDestinationSet_ptr =
00128             &stdair::FacBom<OriginDestinationSet>::instance().create (lKey);
00129         stdair::FacBomManager::addToListAndMap (ioReachableUniverse,
00130             *lOriginDestinationSet_ptr);
00131         stdair::FacBomManager::linkWithParent (ioReachableUniverse,
00132             *lOriginDestinationSet_ptr);
00133     }
00134     assert (lOriginDestinationSet_ptr != NULL);
00135
00136     // Create a segment path period and add it to the corresponding
00137     // origin-destination set and reachable-universe.
00138     const stdair::FlightPeriod& lFlightPeriod =
00139         stdair::BomManager::getParent<stdair::FlightPeriod> (ioSegmentPeriod);
00140     const stdair::PeriodStruct& lPeriodOfFlight = lFlightPeriod.getPeriod();
00141
00142     // The departure period of the segment is the departure period of
00143     // the flight plus the boarding date offset of the segment.
00144     const stdair::DateOffset_T& lBoardingDateOffset =
00145         ioSegmentPeriod.getBoardingDateOffset();
00146
00147     const stdair::PeriodStruct lPeriodOfSegment =
00148         lPeriodOfFlight.addDateOffset (lBoardingDateOffset);
00149
00150     const stdair::Duration_T& lBoardingTime = ioSegmentPeriod.getBoardingTime()
;
00151     const stdair::Duration_T& lElapsed = ioSegmentPeriod.getElapsedTime();
00152
00153     DateOffsetList_T lDateOffsetList;
00154     const stdair::DateOffset_T lFirstDateOffset (0);
00155     lDateOffsetList.push_back (lFirstDateOffset);
00156
00157     const SegmentPathPeriodKey lSegmentPathKey (lPeriodOfSegment,
00158         lBoardingTime, lElapsed,
00159         lDateOffsetList, 1);
00160
00161     SegmentPathPeriod& lSegmentPathPeriod =
00162         stdair::FacBom<SegmentPathPeriod>::instance().create (lSegmentPathKey);
00163
00170     addSegmentPathPeriod (ioReachableUniverse, lSegmentPathPeriod);
00171
00172     // Link the SegmentPathPeriod object with its parent, namely
00173     // OriginDestinationSet
00174     stdair::FacBomManager::addToList (*lOriginDestinationSet_ptr,
00175         lSegmentPathPeriod);
00176     stdair::FacBomManager::linkWithParent (*lOriginDestinationSet_ptr,
00177         lSegmentPathPeriod);
00178
00179     // Link the SegmentPathPeriod and SegmentPeriod objects. Note that
00180     // the SegmentPeriod object has already a parent, namely FlightPeriod.
00181     stdair::FacBomManager::addToList (lSegmentPathPeriod,
00182         ioSegmentPeriod);
00183 }
00184
00185 // //////////////////////////////////////
00186 void SegmentPathGenerator::
00187 addSegmentPathPeriod (ReachableUniverse& ioReachableUniverse,
00188     const SegmentPathPeriod& iSegmentPathPeriod) {
00189
00190     const stdair::NbOfSegments_T& lNbOfSegments =
00191         iSegmentPathPeriod.getNbOfSegments();
00192
00193     assert (lNbOfSegments > 0
00194         && lNbOfSegments <= stdair::MAXIMAL_NUMBER_OF_SEGMENTS_IN_OND);
00195
00196     // If needed, initialise the list of lists with empty fixed-length
00197     // segment path period lists.
00198
00199     SegmentPathPeriodListList_T& lSegmentPathPeriodListList =
00200         ioReachableUniverse._segmentPathPeriodListList;

```

```

00201     while (lSegmentPathPeriodListList.size() < lNbOfSegments) {
00202         SegmentPathPeriodLightList_T lSegmentPathPeriodList;
00203         lSegmentPathPeriodListList.push_back (lSegmentPathPeriodList);
00204     }
00205
00206     // Retrieve the i-fixed-length segment path period list (i = number of
00207     // segments).
00208     SegmentPathPeriodLightList_T lSegmentPathPeriodList =
00209         lSegmentPathPeriodListList.at (lNbOfSegments-1);
00210
00211     // Add the SegmentPathPeriod to that fixed-length-path list.
00212     lSegmentPathPeriodList.push_back (&lSegmentPathPeriod);
00213 }
00214
00215 // //////////////////////////////////////
00216 void SegmentPathGenerator::
00217 buildSegmentPathNetwork (const stdair::BomRoot& iBomRoot,
00218                         const stdair::NbOfSegments_T& lNbOfSegments) {
00219
00220     const ReachableUniverseList_T& lReachableUniverseList =
00221         stdair::BomManager::getList<ReachableUniverse> (iBomRoot);
00222     for (ReachableUniverseList_T::const_iterator itReachableUniverse =
00223          lReachableUniverseList.begin();
00224          itReachableUniverse != lReachableUniverseList.end();
00225          ++itReachableUniverse) {
00226         ReachableUniverse* lReachableUniverse_ptr = *itReachableUniverse;
00227         assert (lReachableUniverse_ptr != NULL);
00228
00229         //
00230         buildSegmentPathNetwork (*lReachableUniverse_ptr, lNbOfSegments);
00231     }
00232 }
00233
00234 // //////////////////////////////////////
00235 void SegmentPathGenerator::
00236 buildSegmentPathNetwork (ReachableUniverse& ioReachableUniverse,
00237                         const stdair::NbOfSegments_T& iNbOfSegments) {
00238
00239     // The goal of that method is to build the i-fixed-length
00240     // segment path period objects, knowing that all the
00241     // lower-fixed-length segment path period objects have already been
00242     // built during the previous steps. Once an i-fixed-length
00243     // segment path period object is created, it is added to the list of
00244     // the (fixed-length segment path period object) lists.
00245
00246     // Hence, at that iteration, by construction, the list of the
00247     // (fixed-length segment path period object) lists should already get
00248     // a size of i-1, if there were such possibilities (in terms of
00249     // segment path period). In that case, at the end of the method, its
00250     // size should be of i.
00251
00252     // If the size of the list of the (fixed-length segment path period
00253     // object) lists is (strictly) less than i-1, it means that that
00254     // reachable universe has no more possibilities of destinations. We
00255     // are thus done at that stage.
00256     const SegmentPathPeriodListList_T& lSegmentPathPeriodListList =
00257         ioReachableUniverse.getSegmentPathPeriodListList();
00258     const unsigned short lNbOfSegments_m1 = lNbOfSegments - 1;
00259     assert (lNbOfSegments_m1 >= 0);
00260     if (lSegmentPathPeriodListList.size() < lNbOfSegments_m1) {
00261         return;
00262     }
00263
00264     // Retrieve the (i-1)-fixed-length segment path period list (i = number of
00265     // segments).
00266
00267     // Note that a STL vector starts at 0, whereas the number of segments
00268     // starts at 1. Hence, (i-1) for the length (in number of segments)
00269     // corresponds to [lNbOfSegments-2] for the STL vector.
00270
00271     // As the lSegmentPathPeriodListList may change during the next loop
00272     // iterations (as some SegmentPathPeriod objects are created and linked to
00273     // ReachableUniverse), we need to take the initial copy of that list.
00274     const SegmentPathPeriodLightList_T lSegmentPathPeriodLightList_im1 =

```

```

00280         lSegmentPathPeriodListList.at (iNbOfSegments-2);
00281
00282         // Iterate on the (i-1)-fixed-length segment path period objects, in order
00283         // to build a i-fixed-length segment path period objects.
00284         // There are two steps:
00285         // 1. Retrieve the airport-dates at a (i-1) length (in number of segments)
00286         //    of the origin airport-date.
00287         // 2. From each of such (i-1) airport-date, add the single-segment pathes
00288         //    to the (i-1)-length pathes, so as to make i-length pathes.
00289         for (SegmentPathPeriodLightList_T::const_iterator itSegmentPathPeriodList =
00290             lSegmentPathPeriodLightList_iml.begin();
00291             itSegmentPathPeriodList != lSegmentPathPeriodLightList_iml.end();
00292             ++itSegmentPathPeriodList) {
00293             const SegmentPathPeriod* lSegmentPathPeriod_iml_ptr =
00294                 *itSegmentPathPeriodList;
00295             assert (lSegmentPathPeriod_iml_ptr != NULL);
00296
00297             // Get the reachable-universe departing from the destination of
00298             // the current segment path period.
00299             const stdair::AirportCode_T& lDestination_iml =
00300                 lSegmentPathPeriod_iml_ptr->getDestination();
00301             const stdair::BomRoot& lBomRoot =
00302                 stdair::BomManager::getParent<stdair::BomRoot> (ioReachableUniverse);
00303             const ReachableUniverse* lReachableUniverseFromDestination_iml_ptr =
00304                 stdair::BomManager::getObjectPtr<ReachableUniverse> (lBomRoot,
00305                                                                     lDestination_iml);
00306
00307             // If there is no ReachableUniverse corresponding to the destination (off
00308             // point of the last SegmentDate), it means that the destination is
00309             // an end point (no other SegmentDate is starting from there).
00310             // Hence, there is nothing else to do for now for that (final)
00311             // destination, and we can process the next (i-1)-segment path period.
00312             if (lReachableUniverseFromDestination_iml_ptr == NULL) {
00313                 continue;
00314             }
00315             assert (lReachableUniverseFromDestination_iml_ptr != NULL);
00316
00317             // Retrieve the single-segment segment path period list,
00318             // so as to make a i-length SegmentPathPeriod.
00319             const SegmentPathPeriodListList_T&
00320                 lSegmentPathPeriodListListFromDestination_iml =
00321                 lReachableUniverseFromDestination_iml_ptr->
00322                 getSegmentPathPeriodListList();
00323             assert (lSegmentPathPeriodListListFromDestination_iml.size() >= 1);
00324
00325             // As the lSegmentPathPeriodListListFromDestination_iml may change during
00326             // the next loop iterations (as some SegmentPathPeriod objects are
00327             // created and linked to ReachableUniverse), we need to take the initial
00328             // copy of that list.
00329             const SegmentPathPeriodLightList_T
00330                 lSingleSegmentPathPeriodLightListFromDestination_iml =
00331                 lSegmentPathPeriodListListFromDestination_iml.at (0);
00332
00333             for (SegmentPathPeriodLightList_T::const_iterator
00334                 itSegmentPathPeriodFromDestination_iml =
00335                 lSingleSegmentPathPeriodLightListFromDestination_iml.begin();
00336                 itSegmentPathPeriodFromDestination_iml
00337                 != lSingleSegmentPathPeriodLightListFromDestination_iml.end();
00338                 ++itSegmentPathPeriodFromDestination_iml) {
00339                 const SegmentPathPeriod*
00340                     lSingleSegmentPathPeriodFromDestination_iml_ptr=
00341                     *itSegmentPathPeriodFromDestination_iml;
00342                 assert (lSingleSegmentPathPeriodFromDestination_iml_ptr != NULL);
00343
00344                 // Check if the (i-1)-length segment path period can be fused with the
00345                 // single segment segment path period in order to create an i-length
00346                 // segment path period. The function will return a valid or non-valid
00347                 // segment path period key.
00348
00349                 // The two segment path period above can be fused (and will produce a
00350                 // valid new segment path period key) if:
00351                 // 1. A passenger can connect from the last segment of the
00352                 // first segment path and the first segment of the next segment path.
00353                 // These two segments should not create another segment.

```

```

00352         // 2. There is no circle within the new segment path.
00353         // 3. The intersection of the two periods is non-empty.
00354         SegmentPathPeriodKey lSegmentPathPeriodKey_i =
00355             lSegmentPathPeriod_iml_ptr->connectWithAnotherSegment (*
lSingleSegmentPathPeriodFromDestination_iml_ptr);
00356
00357         if (lSegmentPathPeriodKey_i.isValid () == false) {
00358             continue;
00359         }
00360
00361         // Get the off point of the single-segment SegmentPathPeriod
00362         // attached to the intermediate destination (iml). That off point is
00363         // at a length i of the initial ReachableUniverse: (i-1) + 1.
00364         const stdair::AirportCode_T& lDestination_i =
00365             lSingleSegmentPathPeriodFromDestination_iml_ptr->getDestination();
00366
00367         // Build the i-length SegmentPathPeriod
00368         // Get the parameters of the last segment
00369         stdair::SegmentPeriod* lSegmentPeriod_l_ptr =
00370             lSingleSegmentPathPeriodFromDestination_iml_ptr->
getFirstSegmentPeriod();
00371         assert (lSegmentPeriod_l_ptr != NULL);
00372
00373         // Calculate the number of airlines flown by the i-length
00374         // segment path period
00375         const stdair::FlightPeriod& lFlightPeriod = stdair::BomManager::
00376             getParent<stdair::FlightPeriod> (*lSegmentPeriod_l_ptr);
00377         const stdair::Inventory& lInventory =
00378             stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00379         const stdair::AirlineCode_T& lAirlineCode_l = lInventory.getAirlineCode(
);
00380         stdair::NbOfAirlines_T lNbOfAirlines_i =
00381             lSegmentPathPeriod_iml_ptr->getNbOfAirlines();
00382         if (lSegmentPathPeriod_iml_ptr->isAirlineFlown(lAirlineCode_l) == false
){
00383             ++lNbOfAirlines_i;
00384         }
00385         lSegmentPathPeriodKey_i.setNbOfAirlines (lNbOfAirlines_i);
00386
00387         // Create the new segment path and add it to the dedicated lists.
00388         OriginDestinationSet* lOriginDestinationSet_ptr = stdair::BomManager::
00389             getObjectPtr<OriginDestinationSet> (ioReachableUniverse, lDestination_i
);
00390         if (lOriginDestinationSet_ptr == NULL) {
00391             OriginDestinationSetKey lKey (lDestination_i);
00392             lOriginDestinationSet_ptr =
00393                 &stdair::FacBom<OriginDestinationSet>::instance().create (lKey);
00394             stdair::FacBomManager::addToListAndMap (ioReachableUniverse,
00395                 *lOriginDestinationSet_ptr);
00396             stdair::FacBomManager::linkWithParent (ioReachableUniverse,
00397                 *lOriginDestinationSet_ptr);
00398         }
00399         assert (lOriginDestinationSet_ptr != NULL);
00400
00401
00402         SegmentPathPeriod& lSegmentPathPeriod_i = stdair::
00403             FacBom<SegmentPathPeriod>::instance().create (lSegmentPathPeriodKey_i
);
00404         stdair::FacBomManager::addToList (*lOriginDestinationSet_ptr,
00405             lSegmentPathPeriod_i);
00406         stdair::FacBomManager::linkWithParent (*lOriginDestinationSet_ptr,
00407             lSegmentPathPeriod_i);
00408
00409         // Clone the list of SegmentPeriod references of the given
00410         // SegmentPathPeriod object (passed as the second parameter).
00411         stdair::FacBomManager::
00412             cloneHolder<stdair::SegmentPeriod> (lSegmentPathPeriod_i,
00413                 *lSegmentPathPeriod_iml_ptr);
00414
00415
00416         // Add the SegmentPeriod reference to the dedicated list within
00417         // the SegmentPathPeriod. Note that this must be done before
00418         // the link between the SegmentPathPeriod and
00419         // ReachableUniverse, as that latter method uses the number of

```

```

00420         // segments within the SegmentPathPeriod object.
00421         stdair::FacBomManager::addToList (lSegmentPathPeriod_i,
00422                                         *lSegmentPeriod_l_ptr);
00423
00431         addSegmentPathPeriod (ioReachableUniverse, lSegmentPathPeriod_i);
00432     }
00433 }
00434 }
00435 }

```

26.113 airsched/command/SegmentPathGenerator.hpp File Reference

```

#include <vector>    #include <stdair/stdair_basic_types.-
hpp> #include <stdair/command/CmdAbstract.hpp> #include
<airsched/AIRSCHEDED_Types.hpp>

```

Classes

- class [AIRSCHEDED::SegmentPathGenerator](#)
Class handling the generation / instantiation of the network BOM.

Namespaces

- namespace [stdair](#)
Forward declarations.
- namespace [AIRSCHEDED](#)

26.114 SegmentPathGenerator.hpp

```

00001 #ifndef __AIRSCHEDED_CMD_SEGMENTPATHGENERATOR_HPP
00002 #define __AIRSCHEDED_CMD_SEGMENTPATHGENERATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <vector>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/command/CmdAbstract.hpp>
00012 // AirSched
00013 #include <airsched/AIRSCHEDED_Types.hpp>
00014
00016 namespace stdair {
00017     class BomRoot;
00018     class Inventory;
00019     class FlightPeriod;
00020     class SegmentPeriod;
00021 }
00022
00023 namespace AIRSCHEDED {
00024
00026     class ReachableUniverse;
00027     class OriginDestinationSet;
00028     class SegmentPathPeriod;
00029
00030
00034     class SegmentPathGenerator : public stdair::CmdAbstract {

```

```

00035 public:
00039     static void createSegmentPathNetwork (const stdair::BomRoot&);
00040
00041 private:
00046     static void createSinglePaths (const stdair::Inventory&);
00047     static void createSinglePaths (const stdair::FlightPeriod&);
00048
00053     static void createSinglePath (stdair::SegmentPeriod&);
00054     static void createSinglePath (ReachableUniverse&, stdair::SegmentPeriod&);
00055
00059     static void buildSegmentPathNetwork (const stdair::BomRoot&,
00060                                           const stdair::NbOfSegments_T&);
00061     static void buildSegmentPathNetwork (ReachableUniverse&,
00062                                           const stdair::NbOfSegments_T&);
00063
00067     static void addSegmentPathPeriod (ReachableUniverse&,
00068                                       const SegmentPathPeriod&);
00069 };
00070
00071 }
00072 #endif // __AIRSCHED_CMD_SEGMENTPATHGENERATOR_HPP

```

26.115 airsched/command/SegmentPathProvider.cpp File Reference

```

#include <cassert> #include <string> #include <sstream>
#include <stdair/basic/BasConst_BomDisplay.hpp> #include
<stdair/bom/BomManager.hpp> #include <stdair/bom/Bom-
Root.hpp> #include <stdair/bom/Inventory.hpp> #include
<stdair/bom/FlightPeriod.hpp> #include <stdair/bom/-
SegmentPeriod.hpp> #include <stdair/bom/BookingRequest-
Struct.hpp> #include <stdair/bom/TravelSolutionStruct.-
hpp> #include <stdair/service/Logger.hpp> #include <airsched/bom/-
ReachableUniverse.hpp> #include <airsched/bom/Origin-
DestinationSet.hpp> #include <airsched/bom/SegmentPath-
Period.hpp> #include <airsched/command/SegmentPathProvider.-
hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.116 SegmentPathProvider.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <string>
00007 #include <sstream>
00008 // StdAir
00009 #include <stdair/basic/BasConst_BomDisplay.hpp>
00010 #include <stdair/bom/BomManager.hpp>
00011 #include <stdair/bom/BomRoot.hpp>
00012 #include <stdair/bom/Inventory.hpp>
00013 #include <stdair/bom/FlightPeriod.hpp>
00014 #include <stdair/bom/SegmentPeriod.hpp>
00015 #include <stdair/bom/BookingRequestStruct.hpp>
00016 #include <stdair/bom/TravelSolutionStruct.hpp>

```

```

00017 #include <stdair/service/Logger.hpp>
00018 // AirSched
00019 #include <airsched/bom/ReachableUniverse.hpp>
00020 #include <airsched/bom/OriginDestinationSet.hpp>
00021 #include <airsched/bom/SegmentPathPeriod.hpp>
00022 #include <airsched/command/SegmentPathProvider.hpp>
00023
00024 namespace AIRSCHED {
00025
00026 // //////////////////////////////////////
00027 void SegmentPathProvider::
00028 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00029                      const stdair::BomRoot& iBomRoot,
00030                      const stdair::BookingRequestStruct& iBookingRequest) {
00031     // Retrieve the reachable universe object corresponding to the
00032     // origin of the booking request.
00033     const stdair::AirportCode_T& lOrigin = iBookingRequest.getOrigin ();
00034     const ReachableUniverse* lReachableUniverse_ptr =
00035         stdair::BomManager::getObjectPtr<ReachableUniverse> (iBomRoot, lOrigin);
00036     if (lReachableUniverse_ptr != NULL) {
00037         buildSegmentPathList (ioTravelSolutionList, *lReachableUniverse_ptr,
00038                               iBookingRequest);
00039     }
00040 }
00041
00042 // //////////////////////////////////////
00043 void SegmentPathProvider::
00044 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00045                      const ReachableUniverse& iReachableUniverse,
00046                      const stdair::BookingRequestStruct& iBookingRequest) {
00047     // Retrieve the origin-destination set object corresponding to the
00048     // destination of the booking request.
00049     const stdair::AirportCode_T& lDestination = iBookingRequest.getDestination(
00050 );
00051     const OriginDestinationSet* lOriginDestinationSet_ptr =
00052         stdair::BomManager::getObjectPtr<OriginDestinationSet> (
00053 iReachableUniverse,
00054                                                                 lDestination);
00055     if (lOriginDestinationSet_ptr != NULL) {
00056         buildSegmentPathList (ioTravelSolutionList, *lOriginDestinationSet_ptr,
00057                               iBookingRequest);
00058     }
00059 }
00060 // //////////////////////////////////////
00061 void SegmentPathProvider::
00062 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00063                      const OriginDestinationSet& iOriginDestinationSet,
00064                      const stdair::BookingRequestStruct& iBookingRequest) {
00065     // Retrieve the departure date of the booking request.
00066     const stdair::Date_T& lPreferredDepartureDate =
00067         iBookingRequest.getPreferredDepartureDate ();
00068     // Browse the list of segment path periods and find those which content
00069     // the preferred departure date.
00070     const SegmentPathPeriodList_T& lSegmentPathPeriodList =
00071         stdair::BomManager::getList<SegmentPathPeriod> (iOriginDestinationSet);
00072     for (SegmentPathPeriodList_T::const_iterator itSegmentPath =
00073          lSegmentPathPeriodList.begin ();
00074          itSegmentPath != lSegmentPathPeriodList.end (); ++itSegmentPath) {
00075         const SegmentPathPeriod* lCurrentSegmentPath_ptr = *itSegmentPath;
00076         assert (lCurrentSegmentPath_ptr != NULL);
00077         if (lCurrentSegmentPath_ptr->isDepartureDateValid(lPreferredDepartureDate)
00078 ) {
00079             buildSegmentPathList (ioTravelSolutionList, *lCurrentSegmentPath_ptr,
00080                                   iBookingRequest);
00081         }
00082     }
00083 }
00084 // //////////////////////////////////////
00085 void SegmentPathProvider::
00086 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00087                      const SegmentPathPeriod& iSegmentPathPeriod,

```

```

00088         const stdair::BookingRequestStruct& iBookingRequest) {
00089     // Create a new travel solution.
00090     stdair::TravelSolutionStruct lTravelSolution;
00091
00092     // Browse the list of segments and retrieve the necessary informations
00093     // for identifying the corresponding segment-date.
00094     const stdair::Date_T& lPreferredDepartureDate =
00095         iBookingRequest.getPreferredDepartureDate ();
00096     const stdair::SegmentPeriodList_T& lSegmentPeriodList =
00097         stdair::BomManager::getList<stdair::SegmentPeriod> (iSegmentPathPeriod);
00098     const DateOffsetList_T& lBoardingDateOffsetList =
00099         iSegmentPathPeriod.getBoardingDateOffsetList ();
00100     assert (lSegmentPeriodList.size() == lBoardingDateOffsetList.size());
00101     DateOffsetList_T::const_iterator itOffset = lBoardingDateOffsetList.begin()
;
00102     for (stdair::SegmentPeriodList_T::const_iterator itSegment =
00103         lSegmentPeriodList.begin();
00104         itSegment != lSegmentPeriodList.end(); ++itSegment) {
00105         const stdair::SegmentPeriod* lSegmentPeriod_ptr = *itSegment;
00106         assert (lSegmentPeriod_ptr != NULL);
00107         const stdair::DateOffset_T& lBoardingDateOffset = *itOffset;
00108
00109         // Find the corresponding segment-date within the segment period.
00110         const stdair::DateOffset_T& lSegmentBoardingDateOffset =
00111             lSegmentPeriod_ptr->getBoardingDateOffset();
00112         const stdair::Date_T& lReferenceFlightDate = lPreferredDepartureDate
00113             + lBoardingDateOffset - lSegmentBoardingDateOffset;
00114
00115         // Build the whole segment-date key string.
00116         const stdair::FlightPeriod& lFlightPeriod =
00117             stdair::BomManager::getParent<stdair::FlightPeriod>
00118             (*lSegmentPeriod_ptr);
00119         const stdair::Inventory& lInventory =
00120             stdair::BomManager::getParent<stdair::Inventory> (lFlightPeriod);
00121         const stdair::Duration_T lBoardingTime = lSegmentPeriod_ptr->
00122             getBoardingTime();
00123         std::ostringstream oStr;
00124         oStr << lInventory.getAirlineCode()
00125             << stdair::DEFAULT_KEY_FLD_DELIMITER
00126             << lFlightPeriod.getFlightNumber()
00127             << stdair::DEFAULT_KEY_SUB_FLD_DELIMITER
00128             << boost::gregorian::to_simple_string (lReferenceFlightDate)
00129             << stdair::DEFAULT_KEY_FLD_DELIMITER
00130             << lSegmentPeriod_ptr->getBoardingPoint()
00131             << stdair::DEFAULT_KEY_SUB_FLD_DELIMITER
00132             << lSegmentPeriod_ptr->getOffPoint()
00133             << stdair::DEFAULT_KEY_FLD_DELIMITER
00134             << lBoardingTime;
00135
00136         lTravelSolution.addSegment (oStr.str());
00137
00138         ++itOffset;
00139     }
00140     ioTravelSolutionList.push_back (lTravelSolution);
00141 }

```

26.117 airsched/command/SegmentPathProvider.hpp File Reference

```

#include <stdair/bom/TravelSolutionTypes.hpp>    #include
<stdair/command/CmdAbstract.hpp>

```

Classes

- class [AIRSCHED::SegmentPathProvider](#)

Class building the travel solutions from airline schedules.

Namespaces

- namespace `stdair`
 Forward declarations.
- namespace `AIRSCHEd`

26.118 SegmentPathProvider.hpp

```

00001 #ifndef __AIRSCHEd_COM_CMD_SEGMENTPATHPROVIDER_HPP
00002 #define __AIRSCHEd_COM_CMD_SEGMENTPATHPROVIDER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/bom/TravelSolutionTypes.hpp>
00009 #include <stdair/command/CmdAbstract.hpp>
00010
00012 namespace stdair {
00013     class BomRoot;
00014     struct BookingRequestStruct;
00015 }
00016
00017 namespace AIRSCHEd {
00018
00020     class ReachableUniverse;
00021     class OriginDestinationSet;
00022     class SegmentPathPeriod;
00023
00027     class SegmentPathProvider : public stdair::CmdAbstract {
00028     friend class AIRSCHEd_Service;
00029
00030     private:
00031         // ////////////////////////////////// Business Methods //////////////////////////////////
00042         static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00043                                           const stdair::BomRoot&,
00044                                           const stdair::BookingRequestStruct&);
00045
00056         static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00057                                           const ReachableUniverse&,
00058                                           const stdair::BookingRequestStruct&);
00059
00070         static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00071                                           const OriginDestinationSet&,
00072                                           const stdair::BookingRequestStruct&);
00073
00084         static void buildSegmentPathList (stdair::TravelSolutionList_T&,
00085                                           const SegmentPathPeriod&,
00086                                           const stdair::BookingRequestStruct&);
00087     };
00088
00089 }
00090 #endif // __AIRSCHEd_COM_CMD_SEGMENTPATHPROVIDER_HPP

```

26.119 airsched/command/Simulator.cpp File Reference

```

#include <cassert> #include <string> #include <sstream>
#include <stdair/basic/BasConst_General.hpp> #include
<stdair/bom/BomManager.hpp> #include <stdair/bom/Booking-
RequestStruct.hpp> #include <stdair/service/Logger.hpp>
#include <airsched/command/Simulator.hpp>

```

Namespaces

- namespace AIRSCHEd

26.120 Simulator.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <string>
00007 #include <sstream>
00008 // StdAir
00009 #include <stdair/basic/BasConst_General.hpp>
00010 #include <stdair/bom/BomManager.hpp>
00011 #include <stdair/bom/BookingRequestStruct.hpp>
00012 #include <stdair/service/Logger.hpp>
00013 // AIRSCHEd
00014 #include <airsched/command/Simulator.hpp>
00015
00016 namespace AIRSCHEd {
00017
00018 // //////////////////////////////////////
00019 void Simulator::simulate (stdair::BomRoot& ioBomRoot) {
00020
00021     // Delegate to the dedicated StdAir utility class
00022     // std::ostringstream oStream;
00023     // stdair::BomManager::display (oStream, ioBomRoot);
00024
00025     // DEBUG
00026     // STDAIR_LOG_DEBUG ("BOM Tree: ");
00027     // STDAIR_LOG_DEBUG (oStream.str());
00028
00029     // TODO: do not hardcode the booking request (get it from the
00030     // demand generation module instead).
00031     // stdair::BookingRequestStruct ("LHR", "JFK", stdair::Date_T (2009, 01,
00032     16),
00033     //                               stdair::DEFAULT_DATETIME, "Y", 1);
00034 }
00035 }

```

26.121 airsched/command/Simulator.hpp File Reference

```
#include <stdair/command/CmdAbstract.hpp>
```

Classes

- class AIRSCHEd::Simulator

Namespaces

- namespace stdair
Forward declarations.
- namespace AIRSCHEd

26.122 Simulator.hpp

```

00001 #ifndef __AIRSCHED_COM_CMD_SIMULATOR_HPP
00002 #define __AIRSCHED_COM_CMD_SIMULATOR_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/command/CmdAbstract.hpp>
00009
00010 // Forward declarations
00011 namespace stdair {
00012     class BomRoot;
00013 }
00014
00015 namespace AIRSCHED {
00016
00017     class Simulator : public stdair::CmdAbstract {
00018     public:
00019
00020         // ////////////////////////////////// Business Methods //////////////////////////////////
00021         static void simulate (stdair::BomRoot&);
00022     };
00023
00024 }
00025 #endif // __AIRSCHED_COM_CMD_SIMULATOR_HPP

```

26.123 airsched/command/TravelSolutionParser.cpp File Reference

```

#include <sstream> #include <fstream> #include <cassert> ×
#include <stdair/stdair_exceptions.hpp> #include <stdair/basic/-
BasConst_TravelSolution.hpp> #include <stdair/basic/Bas-
FileMgr.hpp> #include <stdair/bom/BomRoot.hpp> #include
<stdair/service/Logger.hpp> #include <airsched/command/-
TravelSolutionParser.hpp>

```

Namespaces

- namespace **AIRSCHED**

26.124 TravelSolutionParser.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <sstream>
00006 #include <fstream>
00007 #include <cassert>
00008 // StdAir
00009 #include <stdair/stdair_exceptions.hpp>
00010 #include <stdair/basic/BasConst_TravelSolution.hpp>
00011 #include <stdair/basic/BasFileMgr.hpp>
00012 #include <stdair/bom/BomRoot.hpp>
00013 #include <stdair/service/Logger.hpp>
00014 // AirSched
00015 #include <airsched/command/TravelSolutionParser.hpp>
00016
00017 namespace AIRSCHED {
00018
00019 // //////////////////////////////////////

```

```

00020 bool TravelSolutionParser::
00021 parseInputFileAndBuildBom (const std::string& iInputFileName) {
00022     bool hasReadBeenSuccessful = false;
00023
00024     // Check that the file path given as input corresponds to an actual file
00025     const bool doesExistAndIsReadable =
00026         stdair::BasFileMgr::doesExistAndIsReadable (iInputFileName);
00027     if (doesExistAndIsReadable == false) {
00028         std::ostringstream oMessage;
00029         oMessage << "The input file, '" << iInputFileName
00030             << "', can not be retrieved on the file-system";
00031         throw stdair::FileNotFoundException (oMessage.str());
00032     }
00033
00034     // Open the input file
00035     std::ifstream inputFile (iInputFileName.c_str());
00036     if (! inputFile) {
00037         STDAIR_LOG_ERROR ("Can not open input file '" << iInputFileName << "'");
00038         throw new stdair::FileNotFoundException ("Can not open input file '"
00039             + iInputFileName + "'");
00040     }
00041
00042     char buffer[80];
00043     double dval = 0.0;
00044     std::string dvalStr;
00045     short i = 1;
00046     bool hasAllParams = true;
00047
00048     stdair::AirportCode_T dAirport;
00049     stdair::AirportCode_T aAirport;
00050     stdair::Date_T depDate;
00051     stdair::Duration_T depTime;
00052     stdair::Duration_T arTime;
00053     stdair::Duration_T dur;
00054     //bool Ref;
00055     stdair::AirlineCode_T airline;
00056     stdair::CabinCode_T cabin;
00057     //stdair::FlightNumber_T flightNum;
00058     //stdair::Fare_T fare;
00059     //int lagsNum;
00060     //bool SNS;
00061     //bool change;
00062
00063     while (inputFile.getline (buffer, sizeof (buffer), ';')) {
00064         std::istringstream iStringStr (buffer);
00065
00066         bool hasRead = false;
00067
00068         if (i == 1) {
00069             hasAllParams = true;
00070         }
00071
00072         if (i >= 1 && i <= 14) {
00073             hasRead = (iStringStr >> dvalStr);
00074         }
00075
00076         if (i == 15) {
00077             hasRead = (iStringStr >> dval);
00078         }
00079
00080         if (hasRead) {
00081             if (i == 1) {
00082                 dAirport = dvalStr;
00083             }
00084             else if (i == 2) {
00085                 aAirport = dvalStr;
00086                 // std::cout << "City Pair = '" << dAiport
00087                 // << "-" << aAirport << "'" << std::endl;
00088             }
00089             else if (i == 3) {
00090                 depDate = boost::gregorian::from_simple_string (dvalStr);
00091                 // std::cout << "Date = '" << depDate << "'" << std::endl;
00092             }
00093             else if (i == 4) {

```

```

00094         depTime = boost::posix_time::duration_from_string (dvalStr);
00095
00096     } else if (i == 5) {
00097         arTime = boost::posix_time::duration_from_string (dvalStr);
00098
00099     } else if (i == 6) {
00100         dur = boost::posix_time::duration_from_string (dvalStr);
00101
00102     } else if (i == 7) {
00103         //if (dvalStr == "refundable fare")
00104         //    Ref = true;
00105         //else Ref = false;
00106
00107     } else if (i == 8) {
00108         airline = dvalStr;
00109
00110     } else if (i == 9) {
00111         cabin = dvalStr;
00112
00113     } else if (i == 10) {
00114         //flightNum = dval;
00115
00116     } else if (i == 11) {
00117         //fare = dval;
00118
00119     } else if (i == 12) {
00120         //lagsNum = dval;
00121
00122     } else if (i == 13) {
00123         //if (dvalStr == "Saturday Nigth Stay mandatory")
00124         //    SNS = true;
00125         //else SNS = false;
00126
00127     } else if (i == 14) {
00128         //if (dvalStr == "changeable fare")
00129         //    change = true;
00130         //else change = false;
00131         i = 0;
00132     }
00133
00134     //
00135     ++i;
00136
00137     } else {
00138         hasAllParams = false;
00139     }
00140 }
00141
00142 if (hasAllParams && i == 1) {
00143     STDAIR_LOG_DEBUG ("Successfully read");
00144 }
00145
00146 //
00147 if (!inputFile.eof()) {
00148     STDAIR_LOG_ERROR ("Problem when reading input file '" << iInputFileName
00149         << "'");
00150     return hasReadBeenSuccessful;
00151 }
00152
00153 //
00154 hasReadBeenSuccessful = true;
00155 return hasReadBeenSuccessful;
00156 }
00157
00158 }

```

26.125 airsched/command/TravelSolutionParser.hpp File Reference

```

#include <string>    #include <stdair/stdair_basic_types.-
hpp> #include <stdair/command/CmdAbstract.hpp>

```

Classes

- class [AIRSCHED::TravelSolutionParser](#)
Class filling the TravelSolutionHolder structure (representing a list of classes/travel-Solutions) from a given input file.

Namespaces

- namespace [AIRSCHED](#)

26.126 TravelSolutionParser.hpp

```

00001 #ifndef __AIRSCHED_CMD_TRAVELSOLUTIONPARSER_HPP
00002 #define __AIRSCHED_CMD_TRAVELSOLUTIONPARSER_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/command/CmdAbstract.hpp>
00012
00013 namespace AIRSCHED {
00014
00019     class TravelSolutionParser : public stdair::CmdAbstract {
00020     public:
00028         static bool parseInputFileAndBuildBom (const stdair::Filename_T&);
00029     };
00030 }
00031 #endif // __AIRSCHED_CMD_TRAVELSOLUTIONPARSER_HPP

*/
#ifndef __AIRSCHED_PATHS_HPP__
#define __AIRSCHED_PATHS_HPP__

#define PACKAGE "airsched"
#define PACKAGE_NAME "AIRSCHED"
#define PACKAGE_VERSION "0.1.4"
#define PREFIXDIR "/usr"
#define EXEC_PREFIX "/usr"
#define BINDIR "/usr/bin"
#define LIBDIR "/usr/lib64"
#define LIBEXECDIR "/usr/libexec"
#define SBINDIR "/usr/sbin"
#define SYSCONFDIR "/usr/etc"
#define INCLUDEDIR "/usr/include"
#define DATAROOTDIR "/usr/share"
#define DATADIR "/usr/share"
#define DOCDIR "/usr/share/doc/airsched-0.1.4"
#define MANDIR "/usr/share/man"
#define INFODIR "/usr/share/info"
#define HTMLDIR "/usr/share/doc/airsched-0.1.4/html"
#define PDFDIR "/usr/share/doc/airsched-0.1.4/html"
#define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"

#endif // __AIRSCHED_PATHS_HPP__

/*!

*/
#ifndef __AIRSCHED_PATHS_HPP__
#define __AIRSCHED_PATHS_HPP__

```

```

#define PACKAGE "@PACKAGE@"
#define PACKAGE_NAME "@PACKAGE_NAME@"
#define PACKAGE_VERSION "@PACKAGE_VERSION@"
#define PREFIXDIR "@prefix@"
#define EXEC_PREFIX "@exec_prefix@"
#define BINDIR "@bindir@"
#define LIBDIR "@libdir@"
#define LIBEXECDIR "@libexecdir@"
#define SBINDIR "@sbindir@"
#define SYSCONFDIR "@sysconfdir@"
#define INCLUDEDIR "@includedir@"
#define DATAROOTDIR "@datarootdir@"
#define DATADIR "@datadir@"
#define DOCDIR "@docdir@"
#define MANDIR "@mandir@"
#define INFODIR "@infodir@"
#define HTMLDIR "@htmldir@"
#define PDFDIR "@pdfdir@"
#define STDAIR_SAMPLE_DIR "@sampledir@"

#endif // __AIRSCHED_PATHS_HPP__

/*!

```

26.127 airsched-paths.hpp

```

00001
00005 #ifndef __AIRSCHED_PATHS_HPP__
00006 #define __AIRSCHED_PATHS_HPP__
00007
00008 #define PACKAGE "airsched"
00009 #define PACKAGE_NAME "AIRSCHED"
00010 #define PACKAGE_VERSION "0.1.4"
00011 #define PREFIXDIR "/usr"
00012 #define EXEC_PREFIX "/usr"
00013 #define BINDIR "/usr/bin"
00014 #define LIBDIR "/usr/lib64"
00015 #define LIBEXECDIR "/usr/libexec"
00016 #define SBINDIR "/usr/sbin"
00017 #define SYSCONFDIR "/usr/etc"
00018 #define INCLUDEDIR "/usr/include"
00019 #define DATAROOTDIR "/usr/share"
00020 #define DATADIR "/usr/share"
00021 #define DOCDIR "/usr/share/doc/airsched-0.1.4"
00022 #define MANDIR "/usr/share/man"
00023 #define INFODIR "/usr/share/info"
00024 #define HTMLDIR "/usr/share/doc/airsched-0.1.4/html"
00025 #define PDFDIR "/usr/share/doc/airsched-0.1.4/html"
00026 #define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"
00027
00028 #endif // __AIRSCHED_PATHS_HPP__
00029

```

26.128 airsched/config/airsched-paths.hpp.in File Reference

26.129 airsched-paths.hpp.in

```

00001
00005 #ifndef __AIRSCHED_PATHS_HPP__
00006 #define __AIRSCHED_PATHS_HPP__
00007
00008 #define PACKAGE "@PACKAGE@"
00009 #define PACKAGE_NAME "@PACKAGE_NAME@"
00010 #define PACKAGE_VERSION "@PACKAGE_VERSION@"
00011 #define PREFIXDIR "@prefix@"
00012 #define EXEC_PREFIX "@exec_prefix@"

```

```

00013 #define BINDIR "@bindir@"
00014 #define LIBDIR "@libdir@"
00015 #define LIBEXECDIR "@libexecdir@"
00016 #define SBINDIR "@sbindir@"
00017 #define SYSCONFDIR "@sysconfdir@"
00018 #define INCLUDEDIR "@includedir@"
00019 #define DATAROOTDIR "@datarootdir@"
00020 #define DATADIR "@datadir@"
00021 #define DOCDIR "@docdir@"
00022 #define MANDIR "@mandir@"
00023 #define INFODIR "@infodir@"
00024 #define HTMLDIR "@htmldir@"
00025 #define PDFDIR "@pdfdir@"
00026 #define STDAIR_SAMPLE_DIR "@sampledir@"
00027
00028 #endif // __AIRSCHED_PATHS_HPP__
00029

```

26.130 airsched/factory/FacAIRSCHEDServiceContext.cpp File Reference

```

#include <cassert> #include <stdair/service/FacSupervisor.-
hpp> #include <airsched/factory/FacAIRSCHEDServiceContext.-
hpp> #include <airsched/service/AIRSCHED_ServiceContext.-
hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.131 FacAIRSCHEDServiceContext.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/service/FacSupervisor.hpp>
00008 // AirSched
00009 #include <airsched/factory/FacAIRSCHEDServiceContext.hpp>
00010 #include <airsched/service/AIRSCHED_ServiceContext.hpp>
00011
00012 namespace AIRSCHED {
00013
00014     FacAIRSCHEDServiceContext* FacAIRSCHEDServiceContext::_instance = NULL;
00015
00016     // //////////////////////////////////////
00017     FacAIRSCHEDServiceContext::~FacAIRSCHEDServiceContext() {
00018         _instance = NULL;
00019     }
00020
00021     // //////////////////////////////////////
00022     FacAIRSCHEDServiceContext& FacAIRSCHEDServiceContext::instance () {
00023
00024         if (_instance == NULL) {
00025             _instance = new FacAIRSCHEDServiceContext();
00026             assert (_instance != NULL);
00027
00028             stdair::FacSupervisor::instance().registerServiceFactory (_instance);
00029         }
00030         return *_instance;
00031     }
00032

```

```

00033 // //////////////////////////////////////
00034 AIRSCHED_ServiceContext& FacAIRSCHEDServiceContext::create () {
00035     AIRSCHED_ServiceContext* aServiceContext_ptr = NULL;
00036
00037     aServiceContext_ptr = new AIRSCHED_ServiceContext();
00038     assert (aServiceContext_ptr != NULL);
00039
00040     // The new object is added to the Bom pool
00041     _pool.push_back (aServiceContext_ptr);
00042
00043     return *aServiceContext_ptr;
00044 }
00045
00046 }

```

26.132 airsched/factory/FacAIRSCHEDServiceContext.hpp File Reference

```

#include <stdair/stdair_basic_types.hpp> #include <stdair/service/-
FacServiceAbstract.hpp>

```

Classes

- class [AIRSCHED::FacAIRSCHEDServiceContext](#)
Factory for the service context.

Namespaces

- namespace [AIRSCHED](#)

26.133 FacAIRSCHEDServiceContext.hpp

```

00001 #ifndef __AIRSCHED_FAC_FACAIRSCHEDSERVICECONTEXT_HPP
00002 #define __AIRSCHED_FAC_FACAIRSCHEDSERVICECONTEXT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // StdAir
00008 #include <stdair/stdair_basic_types.hpp>
00009 #include <stdair/service/FacServiceAbstract.hpp>
00010
00011 namespace AIRSCHED {
00012
00013     class AIRSCHED_ServiceContext;
00014
00015     class FacAIRSCHEDServiceContext : public stdair::FacServiceAbstract {
00016     public:
00017
00018         static FacAIRSCHEDServiceContext& instance();
00019
00020         ~FacAIRSCHEDServiceContext();
00021
00022         AIRSCHED_ServiceContext& create();
00023
00024     protected:
00025         FacAIRSCHEDServiceContext() {}
00026
00027     private:
00028         static FacAIRSCHEDServiceContext* _instance;
00029
00030     };
00031
00032 }

```

```

00061
00062     };
00063 }
00064 #endif // __AIRSCHED_FAC_FACAIRSCHEDSERVICECONTEXT_HPP

```

26.134 airsched/factory/FacServiceAbstract.cpp File Reference

```

#include <assert.h>   #include <airsched/service/Service-
Abstract.hpp> #include <airsched/factory/FacServiceAbstract.-
hpp>

```

Namespaces

- namespace [AIRSCHED](#)

26.135 FacServiceAbstract.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // C
00005 #include <assert.h>
00006 // TRAVEL-CCM
00007 #include <airsched/service/ServiceAbstract.hpp>
00008 #include <airsched/factory/FacServiceAbstract.hpp>
00009
00010 namespace AIRSCHED {
00011
00012 // //////////////////////////////////////
00013 FacServiceAbstract::~FacServiceAbstract() {
00014     clean ();
00015 }
00016
00017 // //////////////////////////////////////
00018 void FacServiceAbstract::clean() {
00019     for (ServicePool_T::iterator itService = _pool.begin();
00020          itService != _pool.end(); itService++) {
00021         ServiceAbstract* currentService_ptr = *itService;
00022         assert (currentService_ptr != NULL);
00023
00024         delete (currentService_ptr); currentService_ptr = NULL;
00025     }
00026
00027     // Empty the pool of Service Factories
00028     _pool.clear();
00029 }
00030
00031 }

```

26.136 airsched/factory/FacServiceAbstract.hpp File Reference

```

#include <vector>

```

Classes

- class [AIRSCHED::FacServiceAbstract](#)

Namespaces

- namespace AIRSCHED

26.137 FacServiceAbstract.hpp

```

00001 #ifndef __AIRSCHED_FAC_FACSERVICEABSTRACT_HPP
00002 #define __AIRSCHED_FAC_FACSERVICEABSTRACT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <vector>
00009
00010 namespace AIRSCHED {
00011
00012     // Forward declarations
00013     class ServiceAbstract;
00014
00016     class FacServiceAbstract {
00017     public:
00018
00020         typedef std::vector<ServiceAbstract*> ServicePool_T;
00021
00023         virtual ~FacServiceAbstract();
00024
00026         void clean();
00027
00028     protected:
00031         FacServiceAbstract() {}
00032
00034         ServicePool_T _pool;
00035     };
00036 }
00037 #endif // __AIRSCHED_FAC_FACSERVICEABSTRACT_HPP

```

26.138 airsched/service/AIRSCHED_Service.cpp File Reference

```

#include <cassert> #include <sstream> #include <boost/make-
_shared.hpp> #include <stdair/basic/BasChronometer.hpp>
#include <stdair/bom/BomManager.hpp> #include <stdair/bom/-
BookingRequestStruct.hpp> #include <stdair/bom/Travel-
SolutionStruct.hpp> #include <stdair/service/Logger.-
hpp> #include <stdair/STDAIR_Service.hpp> #include <airsched/basic/-
BasConst_AIRSCHED_Service.hpp> #include <airsched/factory/-
FacAIRSCHEDServiceContext.hpp> #include <airsched/command/-
Simulator.hpp> #include <airsched/command/ScheduleParser.-
hpp> #include <airsched/command/OnDPParser.hpp> #include
<airsched/command/SegmentPathProvider.hpp> #include <airsched/command/-
InventoryGenerator.hpp> #include <airsched/command/Segment-
PathGenerator.hpp> #include <airsched/service/AIRSCHED_-
ServiceContext.hpp> #include <airsched/AIRSCHED_Service.-
hpp>

```

Namespaces

- namespace `AIRSCHED`

26.139 AIRSCHED_Service.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // Boost
00008 #include <boost/make_shared.hpp>
00009 // StdAir
00010 #include <stdair/basic/BasChronometer.hpp>
00011 #include <stdair/bom/BomManager.hpp>
00012 #include <stdair/bom/BookingRequestStruct.hpp>
00013 #include <stdair/bom/TravelSolutionStruct.hpp>
00014 #include <stdair/service/Logger.hpp>
00015 #include <stdair/STDAIR_Service.hpp>
00016 // AirSched
00017 #include <airsched/basic/BasConst_AIRSCHED_Service.hpp>
00018 #include <airsched/factory/FacAIRSCHEDServiceContext.hpp>
00019 #include <airsched/command/Simulator.hpp>
00020 #include <airsched/command/ScheduleParser.hpp>
00021 #include <airsched/command/OnDParser.hpp>
00022 #include <airsched/command/SegmentPathProvider.hpp>
00023 #include <airsched/command/InventoryGenerator.hpp>
00024 #include <airsched/command/SegmentPathGenerator.hpp>
00025 #include <airsched/service/AIRSCHED_ServiceContext.hpp>
00026 #include <airsched/AIRSCHED_Service.hpp>
00027
00028 namespace AIRSCHED {
00029
00030 // //////////////////////////////////////
00031 AIRSCHED_Service::AIRSCHED_Service() : _airschedServiceContext (NULL) {
00032     assert (false);
00033 }
00034
00035 // //////////////////////////////////////
00036 AIRSCHED_Service::AIRSCHED_Service (const AIRSCHED_Service& iService)
00037 : _airschedServiceContext (NULL) {
00038     assert (false);
00039 }
00040
00041 // //////////////////////////////////////
00042 AIRSCHED_Service::AIRSCHED_Service (const stdair::BasLogParams& iLogParams)
00043 : _airschedServiceContext (NULL) {
00044
00045     // Initialise the STDAIR service handler
00046     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00047         initStdAirService (iLogParams);
00048
00049     // Initialise the service context
00050     initServiceContext ();
00051
00052     // Add the StdAir service context to the AirSched service context
00053     // \note AirSched owns the STDAIR service resources here.
00054     const bool ownStdairService = true;
00055     addStdAirService (lSTDAIR_Service_ptr, ownStdairService);
00056
00057     // Initialise the (remaining of the) context
00058     initAirschedService();
00059 }
00060
00061 // //////////////////////////////////////
00062 AIRSCHED_Service::AIRSCHED_Service (const stdair::BasLogParams& iLogParams,
00063                                     const stdair::BasDBParams& iDBParams)
00064 : _airschedServiceContext (NULL) {

```

```

00065
00066 // Initialise the STDAIR service handler
00067 stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00068     initStdAirService (iLogParams, iDBParams);
00069
00070 // Initialise the service context
00071 initServiceContext();
00072
00073 // Add the StdAir service context to the AirSched service context
00074 // \note AirSched owns the STDAIR service resources here.
00075 const bool ownStdairService = true;
00076 addStdAirService (lSTDAIR_Service_ptr, ownStdairService);
00077
00078 // Initialise the (remaining of the) context
00079 initAirschedService();
00080 }
00081
00082 // //////////////////////////////////////
00083 AIRSCHED_Service::
00084 AIRSCHED_Service (stdair::STDAIR_ServicePtr_T ioSTDAIRServicePtr)
00085 : _airschedServiceContext (NULL) {
00086
00087     // Initialise the service context
00088     initServiceContext();
00089
00090     // Add the StdAir service context to the AirSched service context.
00091     // \note AirSched does not own the STDAIR service resources here.
00092     const bool doesNotOwnStdairService = false;
00093     addStdAirService (ioSTDAIRServicePtr, doesNotOwnStdairService);
00094
00095     // Initialise the context
00096     initAirschedService();
00097 }
00098
00099 // //////////////////////////////////////
00100 AIRSCHED_Service::~AIRSCHED_Service() {
00101     // Delete/Clean all the objects from memory
00102     finalise();
00103 }
00104
00105 // //////////////////////////////////////
00106 void AIRSCHED_Service::finalise() {
00107     assert (_airschedServiceContext != NULL);
00108     // Reset the (Boost.)Smart pointer pointing on the STDAIR_Service object.
00109     _airschedServiceContext->reset();
00110 }
00111
00112 // //////////////////////////////////////
00113 void AIRSCHED_Service::initServiceContext() {
00114     // Initialise the service context
00115     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00116         FacAIRSCHEDServiceContext::instance().create();
00117     _airschedServiceContext = &lAIRSCHED_ServiceContext;
00118 }
00119
00120 // //////////////////////////////////////
00121 void AIRSCHED_Service::
00122 addStdAirService (stdair::STDAIR_ServicePtr_T ioSTDAIR_Service_ptr,
00123                 const bool iOwnStdairService) {
00124
00125     // Retrieve the AirSched service context
00126     assert (_airschedServiceContext != NULL);
00127     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00128         *_airschedServiceContext;
00129
00130     // Store the STDAIR service object within the (AirSched) service context
00131     lAIRSCHED_ServiceContext.setSTDAIR_Service (ioSTDAIR_Service_ptr,
00132                                                iOwnStdairService);
00133 }
00134
00135 // //////////////////////////////////////
00136 stdair::STDAIR_ServicePtr_T AIRSCHED_Service::
00137 initStdAirService (const stdair::BasLogParams& iLogParams) {
00138

```

```

00146     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00147         boost::make_shared<stdair::STDAIR_Service> (iLogParams);
00148
00149     return lSTDAIR_Service_ptr;
00150 }
00151
00152 // //////////////////////////////////////
00153 stdair::STDAIR_ServicePtr_T AIRSCHED_Service::
00154 initStdAirService (const stdair::BasLogParams& iLogParams,
00155                   const stdair::BasDBParams& iDBParams) {
00156
00157     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00158         boost::make_shared<stdair::STDAIR_Service> (iLogParams, iDBParams);
00159
00160     return lSTDAIR_Service_ptr;
00161 }
00162
00163 // //////////////////////////////////////
00164 void AIRSCHED_Service::initAirschedService() {
00165     // Do nothing at this stage. A sample BOM tree may be built by
00166     // calling the buildSampleBom() method
00167 }
00168
00169 // //////////////////////////////////////
00170 void AIRSCHED_Service::
00171 parseAndLoad (const stdair::Filename_T& iScheduleInputFilename) {
00172
00173     // Retrieve the BOM root object.
00174     assert (_airschedServiceContext != NULL);
00175     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00176         *_airschedServiceContext;
00177     stdair::STDAIR_Service& lSTDAIR_Service =
00178         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00179     stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00180
00181     // Parse the schedule input file, and generate the Inventories
00182     stdair::BasChronometer lINVGeneration; lINVGeneration.start();
00183     ScheduleParser::generateInventories (iScheduleInputFilename, lBomRoot);
00184     const double lGenerationMeasure = lINVGeneration.elapsed();
00185
00186     // DEBUG
00187     STDAIR_LOG_DEBUG ("Inventory generation time: " << lGenerationMeasure);
00188 }
00189
00190 // //////////////////////////////////////
00191 void AIRSCHED_Service::
00192 parseAndLoad (const stdair::Filename_T& iScheduleInputFilename,
00193               const stdair::Filename_T& iODInputFilename) {
00194
00195     // First, build the airline inventories from the schedule file
00196     parseAndLoad (iScheduleInputFilename);
00197
00198     // Retrieve the BOM tree root
00199     assert (_airschedServiceContext != NULL);
00200     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00201         *_airschedServiceContext;
00202     stdair::STDAIR_Service& lSTDAIR_Service =
00203         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00204     stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00205
00206     // Parse the O&D input file, and generate the O&D periods
00207     stdair::BasChronometer lOnDGeneration; lOnDGeneration.start();
00208     OnDParser::generateOnDPeriods (iODInputFilename, lBomRoot);
00209     const double lGenerationMeasure = lOnDGeneration.elapsed();
00210
00211     // DEBUG
00212     STDAIR_LOG_DEBUG ("O&D generation time: " << lGenerationMeasure);
00213 }
00214
00215 // //////////////////////////////////////
00216 void AIRSCHED_Service::buildSampleBom() {
00217
00218     // Retrieve the AirSched service context
00219     if (_airschedServiceContext == NULL) {

```

```

00227         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00228                                                         "not been initialised");
00229     }
00230     assert (_airschedServiceContext != NULL);
00231
00232     // Retrieve the AirSched service context and whether it owns the Stdair
00233     // service
00234     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00235         *_airschedServiceContext;
00236     const bool doesOwnStdairService =
00237         lAIRSCHED_ServiceContext.getOwnStdairServiceFlag();
00238
00239     // Retrieve the StdAir service object from the (AirSched) service context
00240     stdair::STDAIR_Service& lSTDAIR_Service =
00241         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00242
00243     if (doesOwnStdairService == true) {
00244         //
00245         lSTDAIR_Service.buildSampleBom();
00246     }
00247
00248     stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00249     SegmentPathGenerator::createSegmentPathNetwork (lBomRoot);
00250 }
00251
00252 // //////////////////////////////////////
00253 std::string AIRSCHED_Service::
00254 jsonExport (const stdair::AirlineCode_T& iAirlineCode,
00255             const stdair::FlightNumber_T& iFlightNumber,
00256             const stdair::Date_T& iDepartureDate) const {
00257
00258     // Retrieve the AirSched service context
00259     if (_airschedServiceContext == NULL) {
00260         throw stdair::NonInitialisedServiceException ("The AirSched service "
00261                                                         "has not been initialised")
00262     }
00263     assert (_airschedServiceContext != NULL);
00264
00265     // Retrieve the StdAir service object from the (AirSched) service context
00266     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00267         *_airschedServiceContext;
00268     stdair::STDAIR_Service& lSTDAIR_Service =
00269         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00270
00271     // Delegate the JSON export to the dedicated service
00272     return lSTDAIR_Service.jsonExport (iAirlineCode, iFlightNumber,
00273                                       iDepartureDate);
00274 }
00275
00276 // //////////////////////////////////////
00277 std::string AIRSCHED_Service::csvDisplay() const {
00278
00279     // Retrieve the AirSched service context
00280     if (_airschedServiceContext == NULL) {
00281         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00282                                                         "not been initialised");
00283     }
00284     assert (_airschedServiceContext != NULL);
00285
00286     // Retrieve the STDAIR service object from the (AirSched) service context
00287     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00288         *_airschedServiceContext;
00289     stdair::STDAIR_Service& lSTDAIR_Service =
00290         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00291
00292     // Delegate the BOM building to the dedicated service
00293     return lSTDAIR_Service.csvDisplay();
00294 }
00295
00296 // //////////////////////////////////////
00297 std::string AIRSCHED_Service::
00298 csvDisplay (const stdair::AirlineCode_T& iAirlineCode,
00299            const stdair::FlightNumber_T& iFlightNumber,

```

```

00320         const stdair::Date_T& iDepartureDate) const {
00321
00322     // Retrieve the AirSched service context
00323     if (_airschedServiceContext == NULL) {
00324         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00325                                                     "not been initialised");
00326     }
00327     assert (_airschedServiceContext != NULL);
00328
00329     // Retrieve the STDAIR service object from the (AirSched) service context
00330     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00331         *_airschedServiceContext;
00332     stdair::STDAIR_Service& lSTDAIR_Service =
00333         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00334
00335     // Delegate the BOM display to the dedicated service
00336     return lSTDAIR_Service.csvDisplay (iAirlineCode, iFlightNumber,
00337                                       iDepartureDate);
00338 }
00339
00340 // //////////////////////////////////////
00341 void AIRSCHED_Service::simulate() {
00342
00343     // Retrieve the AirSched service context
00344     if (_airschedServiceContext == NULL) {
00345         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00346                                                     "not been initialised");
00347     }
00348     assert (_airschedServiceContext != NULL);
00349
00350     // Retrieve the BOM tree root
00351     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00352         *_airschedServiceContext;
00353     stdair::STDAIR_Service& lSTDAIR_Service =
00354         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00355     stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00356
00357     // Call the underlying Use Case (command)
00358     stdair::BasChronometer lSimulateChronometer; lSimulateChronometer.start();
00359     Simulator::simulate (lBomRoot);
00360     const double lSimulateMeasure = lSimulateChronometer.elapsed();
00361
00362     // DEBUG
00363     STDAIR_LOG_DEBUG ("Simulation: " << lSimulateMeasure << " - "
00364                     << lAIRSCHED_ServiceContext.display());
00365 }
00366
00367 // //////////////////////////////////////
00368 void AIRSCHED_Service::
00369 buildSegmentPathList (stdair::TravelSolutionList_T& ioTravelSolutionList,
00370                     const stdair::BookingRequestStruct& iBookingRequest) {
00371
00372     if (_airschedServiceContext == NULL) {
00373         throw stdair::NonInitialisedServiceException ("The AirSched service has "
00374                                                     "not been initialised");
00375     }
00376     assert (_airschedServiceContext != NULL);
00377
00378     // Retrieve the BOM tree root
00379     AIRSCHED_ServiceContext& lAIRSCHED_ServiceContext =
00380         *_airschedServiceContext;
00381     stdair::STDAIR_Service& lSTDAIR_Service =
00382         lAIRSCHED_ServiceContext.getSTDAIR_Service();
00383     stdair::BomRoot& lBomRoot = lSTDAIR_Service.getBomRoot();
00384
00385     // Delegate the call to the dedicated command
00386     stdair::BasChronometer lBuildChronometer; lBuildChronometer.start();
00387     SegmentPathProvider::buildSegmentPathList (ioTravelSolutionList,
00388                                               lBomRoot, iBookingRequest);
00389     const double lBuildMeasure = lBuildChronometer.elapsed();
00390
00391     // DEBUG
00392     STDAIR_LOG_DEBUG ("Segment-path build: " << lBuildMeasure << " - "
00393                     << lAIRSCHED_ServiceContext.display());

```

```

00394     }
00395
00396 }

```

26.140 airsched/service/AIRSCHEd_ServiceContext.cpp File Reference

```

#include <cassert> #include <sstream> #include <stdair/-
STDAIR_Service.hpp> #include <airsched/basic/BasConst_AI-
RSCHED_Service.hpp> #include <airsched/service/AIRSCHEd_-
ServiceContext.hpp>

```

Namespaces

- namespace [AIRSCHEd](#)

26.141 AIRSCHEd_ServiceContext.cpp

```

00001 // //////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // StdAir
00008 #include <stdair/STDAIR_Service.hpp>
00009 // AirSched
00010 #include <airsched/basic/BasConst_AIRSCHEd_Service.hpp>
00011 #include <airsched/service/AIRSCHEd_ServiceContext.hpp>
00012
00013 namespace AIRSCHEd {
00014
00015 // //////////////////////////////////////
00016 AIRSCHEd_ServiceContext::AIRSCHEd_ServiceContext()
00017     : _ownStdairService (false) {
00018 }
00019
00020 // //////////////////////////////////////
00021 AIRSCHEd_ServiceContext::
00022 AIRSCHEd_ServiceContext (const AIRSCHEd_ServiceContext&) {
00023     assert (false);
00024 }
00025
00026 // //////////////////////////////////////
00027 AIRSCHEd_ServiceContext::~AIRSCHEd_ServiceContext() {
00028 }
00029
00030 // //////////////////////////////////////
00031 stdair::STDAIR_Service& AIRSCHEd_ServiceContext::getSTDAIR_Service() const {
00032     assert (_stdairService != NULL);
00033     return *_stdairService;
00034 }
00035
00036 // //////////////////////////////////////
00037 const std::string AIRSCHEd_ServiceContext::shortDisplay() const {
00038     std::ostringstream oStr;
00039     oStr << "AIRSCHEd_ServiceContext -- Owns StdAir service: "
00040         << _ownStdairService;
00041     return oStr.str();
00042 }
00043
00044 // //////////////////////////////////////
00045 const std::string AIRSCHEd_ServiceContext::display() const {
00046     std::ostringstream oStr;

```

```

00047     oStr << shortDisplay();
00048     return oStr.str();
00049 }
00050
00051 // //////////////////////////////////////
00052 const std::string AIRSCHEd_ServiceContext::describe() const {
00053     return shortDisplay();
00054 }
00055
00056 // //////////////////////////////////////
00057 void AIRSCHEd_ServiceContext::reset() {
00058     if (_ownStdairService == true) {
00059         _stdairService.reset();
00060     }
00061 }
00062
00063 }

```

26.142 airsched/service/AIRSCHEd_ServiceContext.hpp File Reference

```

#include <string> #include <boost/shared_ptr.hpp> #include
<stdair/stdair_service_types.hpp> #include <stdair/service/-
ServiceAbstract.hpp> #include <airsched/AIRSCHEd_Types.-
hpp>

```

Classes

- class [AIRSCHEd::AIRSCHEd_ServiceContext](#)
Class holding the context of the AirSched services.

Namespaces

- namespace [AIRSCHEd](#)

26.143 AIRSCHEd_ServiceContext.hpp

```

00001 #ifndef __AIRSCHEd_SVC_AIRSCHEd_SERVICE_CONTEXT_HPP
00002 #define __AIRSCHEd_SVC_AIRSCHEd_SERVICE_CONTEXT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // Boost
00010 #include <boost/shared_ptr.hpp>
00011 // StdAir
00012 #include <stdair/stdair_service_types.hpp>
00013 #include <stdair/service/ServiceAbstract.hpp>
00014 // AirSched
00015 #include <airsched/AIRSCHEd_Types.hpp>
00016
00017 namespace AIRSCHEd {
00018
00022     class AIRSCHEd_ServiceContext : public stdair::ServiceAbstract {
00028         friend class AIRSCHEd_Service;
00029         friend class FacAIRSCHEdServiceContext;
00030
00031     private:

```

```

00032      // ////////////////////////////////// Getters //////////////////////////////////
00036      stdair::STDAIR_ServicePtr_T getSTDAIR_ServicePtr() const {
00037          return _stdairService;
00038      }
00039
00043      stdair::STDAIR_Service& getSTDAIR_Service() const;
00044
00048      const bool getOwnStdairServiceFlag() const {
00049          return _ownStdairService;
00050      }
00051
00052
00053  private:
00054      // ////////////////////////////////// Setters //////////////////////////////////
00058      void setSTDAIR_Service (stdair::STDAIR_ServicePtr_T ioSTDAIR_ServicePtr,
00059                             const bool iOwnStdairService) {
00060          _stdairService = ioSTDAIR_ServicePtr;
00061          _ownStdairService = iOwnStdairService;
00062      }
00063
00064
00065  private:
00066      // ////////////////////////////////// Display Methods //////////////////////////////////
00070      const std::string shortDisplay() const;
00071
00075      const std::string display() const;
00076
00080      const std::string describe() const;
00081
00082
00083  private:
00085
00088      AIRSCHED_ServiceContext();
00089
00093      AIRSCHED_ServiceContext (const AIRSCHED_ServiceContext&);
00094
00098      void init();
00099
00103      ~AIRSCHED_ServiceContext();
00104
00108      void reset();
00109
00110
00111  private:
00112      // ////////////////////////////////// Children //////////////////////////////////
00116      stdair::STDAIR_ServicePtr_T _stdairService;
00117
00121      bool _ownStdairService;
00122  };
00123
00124 }
00125 #endif // __AIRSCHED_SVC_AIRSCHED_SERVICE_CONTEXT_HPP

```

26.144 airsched/service/ServiceAbstract.cpp File Reference

```
#include <airsched/service/ServiceAbstract.hpp>
```

Namespaces

- namespace [AIRSCHED](#)

26.145 ServiceAbstract.cpp

```

00001 // ////////////////////////////////// Import section
00002 //

```

```

00003 // //////////////////////////////////////
00004 // AIRSCHED
00005 #include <airsched/service/ServiceAbstract.hpp>
00006
00007 namespace AIRSCHED {
00008
00009 }
```

26.146 airsched/service/ServiceAbstract.hpp File Reference

```
#include <iostream> #include <sstream>
```

Classes

- class [AIRSCHED::ServiceAbstract](#)

Namespaces

- namespace [AIRSCHED](#)

Functions

- template<class charT , class traits >
std::basic_ostream< charT, traits > & [operator<<](#) (std::basic_ostream< charT, traits > &ioOut, const [AIRSCHED::ServiceAbstract](#) &iService)
- template<class charT , class traits >
std::basic_istream< charT, traits > & [operator>>](#) (std::basic_istream< charT, traits > &ioln, [AIRSCHED::ServiceAbstract](#) &iService)

26.146.1 Function Documentation

26.146.1.1 template<class charT , class traits > std::basic_ostream<charT, traits>&
operator<< (std::basic_ostream< charT, traits > & *ioOut*, const
[AIRSCHED::ServiceAbstract](#) & *iService*) [inline]

Piece of code given by Nicolai M. Josuttis, Section 13.12.1 "Implementing Output Operators" (p653) of his book "The C++ Standard Library: A Tutorial and Reference", published by Addison-Wesley.

Definition at line [42](#) of file [ServiceAbstract.hpp](#).

26.146.1.2 template<class charT , class traits > std::basic_istream<charT, traits>& operator>> (std::basic_istream< charT, traits > & *ioln*,
[AIRSCHED::ServiceAbstract](#) & *ioService*) [inline]

Piece of code given by Nicolai M. Josuttis, Section 13.12.1 "Implementing Output Operators" (pp655-657) of his book "The C++ Standard Library: A Tutorial and Reference", published by Addison-Wesley.

Definition at line 70 of file [ServiceAbstract.hpp](#).

References [AIRSCHED::ServiceAbstract::fromStream\(\)](#).

26.147 ServiceAbstract.hpp

```

00001 #ifndef __AIRSCHED_SERVICEABSTRACT_HPP
00002 #define __AIRSCHED_SERVICEABSTRACT_HPP
00003
00004 // //////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////
00007 // STL
00008 #include <iostream>
00009 #include <sstream>
00010
00011 namespace AIRSCHED {
00012
00013     class ServiceAbstract {
00014     public:
00015
00016         virtual ~ServiceAbstract() {}
00017
00018         virtual void toStream (std::ostream& ioOut) const {}
00019
00020         virtual void fromStream (std::istream& ioIn) {}
00021
00022     protected:
00023         ServiceAbstract() {}
00024     };
00025
00026 template <class charT, class traits>
00027 inline
00028 std::basic_ostream<charT, traits>&
00029 operator<< (std::basic_ostream<charT, traits>& ioOut,
00030           const AIRSCHED::ServiceAbstract& iService) {
00031     std::basic_ostringstream<charT,traits> ostr;
00032     ostr.copyfmt (ioOut);
00033     ostr.width (0);
00034
00035     // Fill string stream
00036     iService.toStream (ostr);
00037
00038     // Print string stream
00039     ioOut << ostr.str();
00040
00041     return ioOut;
00042 }
00043
00044 template <class charT, class traits>
00045 inline
00046 std::basic_istream<charT, traits>&
00047 operator>> (std::basic_istream<charT, traits>& ioIn,
00048            AIRSCHED::ServiceAbstract& ioService) {
00049     // Fill Service object with input stream
00050     ioService.fromStream (ioIn);
00051     return ioIn;
00052 }
00053
00054 #endif // __AIRSCHED_SERVICEABSTRACT_HPP

```

26.148 doc/local/authors.doc File Reference

26.149 doc/local/codingrules.doc File Reference

26.150 doc/local/copyright.doc File Reference

26.151 doc/local/documentation.doc File Reference

26.152 doc/local/features.doc File Reference

26.153 doc/local/help_wanted.doc File Reference

26.154 doc/local/howto_release.doc File Reference

26.155 doc/local/index.doc File Reference

26.156 doc/local/installation.doc File Reference

26.157 doc/local/linking.doc File Reference

26.158 doc/local/test.doc File Reference

26.159 doc/local/users_guide.doc File Reference

26.160 doc/local/verification.doc File Reference

26.161 doc/tutorial/tutorial.doc File Reference

26.162 test/airsched/AirlineScheduleTestSuite.cpp File Reference

26.163 AirlineScheduleTestSuite.cpp

```
00001
00005 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00006 // Import section
00007 //////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
00008 // STL
00009 #include <sstream>
00010 #include <fstream>
00011 #include <string>
00012 // Boost Unit Test Framework (UTF)
00013 #define BOOST_TEST_DYN_LINK
00014 #define BOOST_TEST_MAIN
00015 #define BOOST_TEST_MODULE InventoryTestSuite
00016 #include <boost/test/unit_test.hpp>
00017 // StdAir
00018 #include <stdair/basic/BasLogParams.hpp>
00019 #include <stdair/basic/BasDBParams.hpp>
00020 #include <stdair/basic/BasFileMgr.hpp>
00021 #include <stdair/bom/TravelSolutionStruct.hpp>
00022 #include <stdair/bom/BookingRequestStruct.hpp>
00023 #include <stdair/service/Logger.hpp>
00024 // AirSched
00025 #include <airsched/AIRSCHEM_Service.hpp>
00026 #include <airsched/config/airsched-paths.hpp>
00027
00028 namespace boost_utf = boost::unit_test;
00029
00030 // (Boost) Unit Test XML Report
00031 std::ofstream utfReportStream ("AirlineScheduleTestSuite_utfresults.xml");
```

```

00032
00036 struct UnitTestConfig {
00038     UnitTestConfig() {
00039         boost_utf::unit_test_log.set_stream (utfReportStream);
00040         boost_utf::unit_test_log.set_format (boost_utf::XML);
00041         boost_utf::unit_test_log.set_threshold_level (boost_utf::log_test_units);
00042         //boost_utf::unit_test_log.set_threshold_level
00043         (boost_utf::log_successful_tests);
00044     }
00046     ~UnitTestConfig() {
00047     }
00048 };
00049
00050
00051 // ////////////////////////////////// Main: Unit Test Suite //////////////////////////////////
00052
00053 // Set the UTF configuration (re-direct the output to a specific file)
00054 BOOST_GLOBAL_FIXTURE (UnitTestConfig);
00055
00056 // Start the test suite
00057 BOOST_AUTO_TEST_SUITE (master_test_suite)
00058
00059
00062 BOOST_AUTO_TEST_CASE (airsched_simple_inventory_sell) {
00063
00064     // Input file name
00065     const stdair::Filename_T lScheduleInputFilename (STDAIR_SAMPLE_DIR
00066                                                         "/schedule03.csv");
00067
00068     // Output log File
00069     const stdair::Filename_T lLogFilename ("AirlineScheduleTestSuite.log");
00070
00071     // Check that the file path given as input corresponds to an actual file
00072     bool doesExistAndIsReadable =
00073         stdair::BasFileMgr::doesExistAndIsReadable (lScheduleInputFilename);
00074     BOOST_CHECK_MESSAGE (doesExistAndIsReadable == true,
00075                           "The '" << lScheduleInputFilename
00076                           << "' input file can not be open and read");
00077
00078     // Set the log parameters
00079     std::ofstream logOutputFile;
00080     // Open and clean the log outputfile
00081     logOutputFile.open (lLogFilename.c_str());
00082     logOutputFile.clear();
00083
00084     // Instantiate the AirSched service
00085     const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
00086     AIRSCHED::AIRSCHED_Service airschedService (lLogParams);
00087
00088     // Build the BOM tree from parsing input files
00089     airschedService.parseAndLoad (lScheduleInputFilename);
00090
00091     // Create an empty booking request structure
00092     // \todo: fill the booking request structure from the input parameters
00093     const stdair::AirportCode_T lOrigin ("NCE");
00094     const stdair::AirportCode_T lDestination ("BKK");
00095     const stdair::AirportCode_T lPOS ("NCE");
00096     const stdair::Date_T lPreferredDepartureDate (2007, boost::gregorian::Apr, 21)
00097 ;
00097     const stdair::Date_T lRequestDate (2007, boost::gregorian::Mar, 21);
00098     const stdair::Duration_T lRequestTime (boost::posix_time::hours(8));
00099     const stdair::DateTime_T lRequestDateTime (lRequestDate, lRequestTime);
00100     const stdair::CabinCode_T lPreferredCabin ("Bus");
00101     const stdair::PartySize_T lPartySize (3);
00102     const stdair::ChannelLabel_T lChannel ("DF");
00103     const stdair::TripType_T lTripType ("RO");
00104     const stdair::DayDuration_T lStayDuration (5);
00105     const stdair::FrequentFlyer_T lFrequentFlyerType ("NONE");
00106     const stdair::Duration_T lPreferredDepartureTime (boost::posix_time::hours(10
00107 ));
00107     const stdair::WTP_T lWTP (2000.0);
00108     const stdair::PriceValue_T lValueOfTime (20.0);
00109     const stdair::BookingRequestStruct lBookingRequest (lOrigin, lDestination,

```

```

00110                                     lPOS,
00111                                     lPreferredDepartureDate,
00112                                     lRequestDateTime,
00113                                     lPreferredCabin,
00114                                     lPartySize, lChannel,
00115                                     lTripType, lStayDuration,
00116                                     lFrequentFlyerType,
00117                                     lPreferredDepartureTime,
00118                                     lWTP, lValueOfTime);
00119
00120 //
00121 stdair::TravelSolutionList_T lTravelSolutionList;
00122 airschedService.buildSegmentPathList (lTravelSolutionList, lBookingRequest);
00123 const unsigned int lNbOfTravelSolutions = lTravelSolutionList.size();
00124
00125 // \todo: change the expected number of travel solutions to the actual number
00126 const unsigned int lExpectedNbOfTravelSolutions = 4;
00127
00128 // DEBUG
00129 STDAIR_LOG_DEBUG ("Number of travel solutions for the booking request ' "
00130                  << lBookingRequest.describe() << "': "
00131                  << lNbOfTravelSolutions << ". It is expected to be "
00132                  << lExpectedNbOfTravelSolutions << ".");
00133
00134 BOOST_CHECK_EQUAL (lNbOfTravelSolutions, lExpectedNbOfTravelSolutions);
00135
00136 BOOST_CHECK_MESSAGE(lNbOfTravelSolutions == lExpectedNbOfTravelSolutions,
00137                    "The number of travel solutions for the booking request '
00138                    << lBookingRequest.describe() << " is equal to "
00139                    << lNbOfTravelSolutions << ", but it should be equal to "
00140                    << lExpectedNbOfTravelSolutions);
00141
00142 // Close the Log output file
00143 logOutputFile.close();
00144 }
00145
00146 // End the test suite
00147 BOOST_AUTO_TEST_SUITE_END()
00148
00149

```

26.164 test/airsched/AirlineScheduleTestSuite.hpp File Reference

```
#include <sstream>    #include <cppunit/extensions/Helper-
Macros.h>
```

Classes

- class [AirlineScheduleTestSuite](#)

Functions

- [CPPUNIT_TEST_SUITE_REGISTRATION](#) ([AirlineScheduleTestSuite](#))

26.164.1 Function Documentation

26.164.1.1 CPPUNIT_TEST_SUITE_REGISTRATION ([AirlineScheduleTestSuite](#))

26.165 AirlineScheduleTestSuite.hpp

```
00001 // STL
00002 #include <sstream>
00003 // CPPUNIT
00004 #include <cppunit/extensions/HelperMacros.h>
00005
00006 class AirlineScheduleTestSuite : public CppUnit::TestFixture {
00007     CPPUNIT_TEST_SUITE (AirlineScheduleTestSuite);
00008     // CPPUNIT_TEST (externalMemoryManagement);
00009     CPPUNIT_TEST (scheduleParsing);
00010     CPPUNIT_TEST_SUITE_END ();
00011 public:
00012
00013     void externalMemoryManagement ();
00014     void scheduleParsing ();
00015
00016     AirlineScheduleTestSuite ();
00017
00018 protected:
00019     std::stringstream _describeKey;
00020 };
00021
00022 CPPUNIT_TEST_SUITE_REGISTRATION (AirlineScheduleTestSuite);
```

Index

- ~FacServiceAbstract
 - AIRSCHEd::FacServiceAbstract, [167](#)
- ~FlagSaver
 - AIRSCHEd::FlagSaver, [170](#)
- ~OriginDestinationSet
 - AIRSCHEd::OriginDestinationSet, [197](#)
- ~OriginDestinationSetKey
 - AIRSCHEd::OriginDestinationSetKey, [200](#)
- ~ReachableUniverse
 - AIRSCHEd::ReachableUniverse, [211](#)
- ~ReachableUniverseKey
 - AIRSCHEd::ReachableUniverseKey, [215](#)
- ~SegmentPathPeriod
 - AIRSCHEd::SegmentPathPeriod, [227](#)
- ~SegmentPathPeriodKey
 - AIRSCHEd::SegmentPathPeriodKey, [234](#)
- ~ServiceAbstract
 - AIRSCHEd::ServiceAbstract, [241](#)
- ADULT
 - airsched::Passenger_T, [207](#)
- CHILD
 - airsched::Passenger_T, [207](#)
- LAST_VALUE
 - airsched::Passenger_T, [207](#)
- PET
 - airsched::Passenger_T, [207](#)
- AIRSCHEd, [125](#)
 - AirportList_T, [130](#)
 - AirportOrderedList_T, [130](#)
 - DateOffsetList_T, [131](#)
 - FareFamilyStructList_T, [130](#)
 - LegCabinStructList_T, [130](#)
 - LegStructList_T, [130](#)
 - OriginDestinationSet::serialize< ba::text_iarchive >, [132](#)
 - OriginDestinationSet::serialize< ba::text_oarchive >, [132](#)
 - OriginDestinationSetKey::serialize< ba::text_iarchive >, [132](#)
- OriginDestinationSetKey::serialize< ba::text_oarchive >, [132](#)
- OriginDestinationSetList_T, [130](#)
- OriginDestinationSetMap_T, [130](#)
- ReachableUniverse::serialize< ba::text_iarchive >, [132](#)
- ReachableUniverse::serialize< ba::text_oarchive >, [132](#)
- ReachableUniverseKey::serialize< ba::text_iarchive >, [132](#)
- ReachableUniverseKey::serialize< ba::text_oarchive >, [132](#)
- ReachableUniverseList_T, [130](#)
- ReachableUniverseMap_T, [131](#)
- SegmentCabinStructList_T, [131](#)
- SegmentPathPeriod::serialize< ba::text_iarchive >, [132](#)
- SegmentPathPeriod::serialize< ba::text_oarchive >, [132](#)
- SegmentPathPeriodKey::serialize< ba::text_iarchive >, [132](#)
- SegmentPathPeriodKey::serialize< ba::text_oarchive >, [132](#)
- SegmentPathPeriodLightList_T, [131](#)
- SegmentPathPeriodListList_T, [131](#)
- SegmentPathPeriodList_T, [131](#)
- SegmentPathPeriodMultimap_T, [131](#)
- SegmentStructList_T, [131](#)
- bounded1_4_p_t, [130](#)
- bounded2_p_t, [129](#)
- bounded4_p_t, [129](#)
- char_t, [128](#)
- chset_t, [129](#)
- int1_p_t, [129](#)
- iterator_t, [128](#)
- repeat_p_t, [129](#)
- rule_t, [129](#)
- scanner_t, [128](#)
- uint1_4_p_t, [129](#)
- uint2_p_t, [129](#)
- uint4_p_t, [129](#)
- AIRSCHEd::AIRSCHEd_Service, [142](#)
- csvDisplay, [145](#)
- jsonExport, [145](#)
- simulate, [145](#)
- AIRSCHEd::AIRSCHEd_ServiceContext,

- 146
- AIRSCHEd::BomDisplay, 147
- csvDisplay, 147, 148
- AIRSCHEd::FacAIRSCHEdService-Context, 164
- create, 165
- instance, 165
- AIRSCHEd::FacServiceAbstract, 166
- ~FacServiceAbstract, 167
- FacServiceAbstract, 167
- ServicePool_T, 166
- _pool, 167
- clean, 167
- AIRSCHEd::FareFamilyStruct, 168
- FareFamilyStruct, 168
- _classes, 169
- _familyCode, 169
- describe, 169
- AIRSCHEd::FlagSaver, 169
- ~FlagSaver, 170
- FlagSaver, 170
- AIRSCHEd::FlightPeriodFileParser, 170
- FlightPeriodFileParser, 171
- generateInventories, 171
- AIRSCHEd::FlightPeriodStruct, 173
- FlightPeriodStruct, 174
- _airlineCode, 176
- _airportList, 179
- _airportOrderedList, 179
- _areSegmentDefinitionsSpecific, 179
- _dateOffset, 178
- _dateRange, 177
- _dateRangeEnd, 178
- _dateRangeStart, 178
- _dow, 177
- _flightNumber, 176
- _itDay, 178
- _itHours, 178
- _itLeg, 177
- _itLegCabin, 177
- _itMinutes, 178
- _itMonth, 178
- _itSeconds, 179
- _itSegment, 179
- _itSegmentCabin, 179
- _itYear, 178
- _legAlreadyDefined, 177
- _legList, 177
- _segmentList, 177
- addAirport, 175
- addFareFamily, 176
- addSegmentCabin, 175, 176
- buildSegments, 175
- describe, 175
- getDate, 174
- getTime, 174
- AIRSCHEd::InventoryGenerator, 180
- FFFlightPeriodFileParser, 181
- FlightPeriodFileParser, 181
- ScheduleParser, 181
- ScheduleParserHelper::doEndFlight, 181
- AIRSCHEd::LegCabinStruct, 181
- _cabinCode, 182
- _capacity, 182
- describe, 182
- fill, 182
- AIRSCHEd::LegStruct, 183
- LegStruct, 184
- _boardingDateOffset, 184
- _boardingPoint, 184
- _boardingTime, 184
- _cabinList, 185
- _elapsed, 185
- _offDateOffset, 185
- _offPoint, 185
- _offTime, 185
- describe, 184
- fill, 184
- AIRSCHEd::OnDInputFileNotFound-Exception, 185
- AIRSCHEd::OnDParser, 186
- generateOnDPeriods, 187
- AIRSCHEd::OnDParserHelper, 133
- airline_code_p, 133
- airport_p, 133
- alpha_cap_set_p, 133
- class_code_p, 134
- day_p, 134
- hours_p, 134
- minutes_p, 134
- month_p, 134
- seconds_p, 134
- uint1_4_p, 135
- uint2_p, 135
- uint4_p, 135
- year_p, 134
- AIRSCHEd::OnDParserHelper::OnD-Parser, 187
- OnDParser, 188

- [_bomRoot](#), 188
- AIRSCHEd::OnDParserHelper::OnD-Parser::definition
 - [date](#), 153
 - [definition](#), 152
 - [ond](#), 152
 - [ond_end](#), 152
 - [ond_key](#), 152
 - [ond_list](#), 152
 - [segment](#), 152
 - [start](#), 152
 - [time](#), 153
- AIRSCHEd::OnDParserHelper::OnD-Parser::definition< ScannerT >, 151
- AIRSCHEd::OnDParserHelper::Parser-SemanticAction, 202
- AIRSCHEd::OnDParserHelper::doEnd-OnD, 162
 - [_bomRoot](#), 163
 - [doEndOnD](#), 163
 - [operator\(\)](#), 163
- AIRSCHEd::OnDParserHelper::store-AirlineCode, 254
 - [_onDPeriod](#), 255
 - [operator\(\)](#), 255
 - [storeAirlineCode](#), 254
- AIRSCHEd::OnDParserHelper::store-ClassCode, 259
 - [_onDPeriod](#), 260
 - [operator\(\)](#), 260
 - [storeClassCode](#), 259
- AIRSCHEd::OnDParserHelper::store-DateRangeEnd, 264
 - [operator\(\)](#), 265
 - [storeDateRangeEnd](#), 264
- AIRSCHEd::OnDParserHelper::store-DateRangeStart, 265
 - [operator\(\)](#), 266
- AIRSCHEd::OnDParserHelper::store-Destination, 269
 - [_onDPeriod](#), 270
 - [operator\(\)](#), 269
 - [storeDestination](#), 269
- AIRSCHEd::OnDParserHelper::storeEnd-RangeTime, 273
 - [operator\(\)](#), 274
 - [storeEndRangeTime](#), 274
- AIRSCHEd::OnDParserHelper::store-Origin, 287
 - [_onDPeriod](#), 288
 - [operator\(\)](#), 288
 - [storeOrigin](#), 288
- AIRSCHEd::OnDParserHelper::store-StartRangeTime, 295
 - [operator\(\)](#), 296
- AIRSCHEd::OnDPeriodFileParser, 188
 - [OnDPeriodFileParser](#), 189
 - [generateOnDPeriods](#), 189
- AIRSCHEd::OnDPeriodGenerator, 189
 - [OnDParser](#), 190
 - [OnDPeriodFileParser](#), 190
- AIRSCHEd::OnDPeriodStruct, 190
 - [OnDPeriodStruct](#), 192
 - [_airlineCode](#), 193
 - [_airlineCodeList](#), 194
 - [_classCode](#), 193
 - [_classCodeList](#), 194
 - [_datePeriod](#), 193
 - [_dateRangeEnd](#), 194
 - [_dateRangeStart](#), 194
 - [_destination](#), 193
 - [_itDay](#), 194
 - [_itHours](#), 194
 - [_itMinutes](#), 195
 - [_itMonth](#), 194
 - [_itSeconds](#), 195
 - [_itYear](#), 194
 - [_nbOfAirlines](#), 193
 - [_origin](#), 193
 - [_timeRangeEnd](#), 193
 - [_timeRangeStart](#), 193
 - [describe](#), 192
 - [describeTSKey](#), 192
 - [getDate](#), 192
 - [getFirstAirlineCode](#), 192
 - [getTime](#), 192
- AIRSCHEd::OriginDestinationSet, 195
 - [~OriginDestinationSet](#), 197
 - [Key_T](#), 196
 - [OriginDestinationSet](#), 197
 - [_holderMap](#), 199
 - [_key](#), 199
 - [_parent](#), 199
 - [boost::serialization::access](#), 199
 - [describeKey](#), 198
 - [fromStream](#), 198
 - [getDestination](#), 197
 - [getHolderMap](#), 197
 - [getKey](#), 197

- getParent, 197
- serialize, 198
- stdair::FacBom, 198
- stdair::FacBomManager, 199
- toStream, 197
- toString, 198
- AIRSCHEd::OriginDestinationSetKey, 199
 - ~OriginDestinationSetKey, 200
 - OriginDestinationSetKey, 200
 - boost::serialization::access, 202
 - fromStream, 201
 - getOffPoint, 201
 - serialize, 201
 - toStream, 201
 - toString, 201
- AIRSCHEd::ReachableUniverse, 209
 - ~ReachableUniverse, 211
 - Key_T, 211
 - ReachableUniverse, 211
 - SegmentPathGenerator, 213
 - _holderMap, 214
 - _key, 213
 - _parent, 214
 - _segmentPathPeriodListList, 214
 - boost::serialization::access, 213
 - describeKey, 213
 - fromStream, 212
 - getHolderMap, 212
 - getKey, 211
 - getOrigin, 211
 - getParent, 212
 - getSegmentPathPeriodListList, 212
 - serialize, 213
 - stdair::FacBom, 213
 - stdair::FacBomManager, 213
 - toStream, 212
 - toString, 212
- AIRSCHEd::ReachableUniverseKey, 214
 - ~ReachableUniverseKey, 215
 - ReachableUniverseKey, 215
 - boost::serialization::access, 217
 - fromStream, 216
 - getBoardingPoint, 215
 - serialize, 216
 - toStream, 216
 - toString, 216
- AIRSCHEd::ScheduleInputFileNotFound-Exception, 217
- AIRSCHEd::ScheduleParser, 218
 - generateInventories, 218
- AIRSCHEd::ScheduleParserHelper, 135
 - airline_code_p, 136
 - airport_p, 137
 - cabin_code_p, 138
 - class_code_list_p, 138
 - day_p, 137
 - dow_p, 137
 - family_code_p, 138
 - flight_number_p, 136
 - hours_p, 137
 - int1_p, 138
 - minutes_p, 137
 - month_p, 137
 - seconds_p, 137
 - uint1_4_p, 138
 - uint2_p, 138
 - uint4_p, 138
 - year_p, 136
- AIRSCHEd::ScheduleParserHelper::-FlightPeriodParser, 171
 - FlightPeriodParser, 172
 - _bomRoot, 172
 - _flightPeriod, 173
- AIRSCHEd::ScheduleParserHelper::-FlightPeriodParser::definition
 - airline_code, 155
 - date, 155
 - date_offset, 156
 - definition, 154
 - dow, 155
 - flight_key, 155
 - flight_number, 155
 - flight_period, 155
 - generic_segment, 157
 - leg, 156
 - leg_details, 156
 - leg_key, 156
 - segment_key, 156
 - segment_section, 156
 - start, 154
 - time, 156
- AIRSCHEd::ScheduleParserHelper::-FlightPeriodParser::definition<ScannerT >, 153
- AIRSCHEd::ScheduleParserHelper::-ParserSemanticAction, 204
 - ParserSemanticAction, 205
 - _flightPeriod, 206

- AIRSCHEd::ScheduleParserHelper::do-
 - EndFlight, 160
 - _bomRoot, 162
 - _flightPeriod, 162
 - doEndFlight, 161
 - operator(), 161
- AIRSCHEd::ScheduleParserHelper-
 - ::storeAirlineCode, 252
 - _flightPeriod, 253
 - operator(), 253
 - storeAirlineCode, 253
- AIRSCHEd::ScheduleParserHelper-
 - ::storeBoardingTime, 255
 - _flightPeriod, 257
 - operator(), 256
 - storeBoardingTime, 256
- AIRSCHEd::ScheduleParserHelper-
 - ::storeCapacity, 257
 - _flightPeriod, 258
 - operator(), 258
 - storeCapacity, 258
- AIRSCHEd::ScheduleParserHelper-
 - ::storeClasses, 260
 - _flightPeriod, 262
 - operator(), 261
 - storeClasses, 261
- AIRSCHEd::ScheduleParserHelper-
 - ::storeDateRangeEnd, 262
 - _flightPeriod, 263
 - operator(), 263
 - storeDateRangeEnd, 263
- AIRSCHEd::ScheduleParserHelper-
 - ::storeDateRangeStart, 267
 - _flightPeriod, 268
 - operator(), 268
 - storeDateRangeStart, 268
- AIRSCHEd::ScheduleParserHelper-
 - ::storeDow, 270
 - _flightPeriod, 271
 - operator(), 271
 - storeDow, 271
- AIRSCHEd::ScheduleParserHelper-
 - ::storeElapsedTime, 272
 - _flightPeriod, 273
 - operator(), 273
 - storeElapsedTime, 272
- AIRSCHEd::ScheduleParserHelper-
 - ::storeFClasses, 277
 - _flightPeriod, 278
 - operator(), 277
 - storeFCClasses, 277
- AIRSCHEd::ScheduleParserHelper-
 - ::storeFamilyCode, 275
 - _flightPeriod, 276
 - operator(), 276
 - storeFamilyCode, 276
- AIRSCHEd::ScheduleParserHelper-
 - ::storeFlightNumber, 278
 - _flightPeriod, 279
 - operator(), 279
 - storeFlightNumber, 279
- AIRSCHEd::ScheduleParserHelper-
 - ::storeLegBoardingPoint, 280
 - _flightPeriod, 281
 - operator(), 281
 - storeLegBoardingPoint, 281
- AIRSCHEd::ScheduleParserHelper-
 - ::storeLegCabinCode, 282
 - _flightPeriod, 283
 - operator(), 283
 - storeLegCabinCode, 282
- AIRSCHEd::ScheduleParserHelper-
 - ::storeLegOffPoint, 284
 - _flightPeriod, 285
 - operator(), 284
 - storeLegOffPoint, 284
- AIRSCHEd::ScheduleParserHelper-
 - ::storeOffTime, 285
 - _flightPeriod, 286
 - operator(), 286
 - storeOffTime, 286
- AIRSCHEd::ScheduleParserHelper-
 - ::storeSegmentBoardingPoint, 289
 - _flightPeriod, 290
 - operator(), 289
 - storeSegmentBoardingPoint, 289
- AIRSCHEd::ScheduleParserHelper-
 - ::storeSegmentCabinCode, 290
 - _flightPeriod, 291
 - operator(), 291
 - storeSegmentCabinCode, 291
- AIRSCHEd::ScheduleParserHelper-
 - ::storeSegmentOffPoint, 292
 - _flightPeriod, 293
 - operator(), 293
 - storeSegmentOffPoint, 293
- AIRSCHEd::ScheduleParserHelper-
 - ::storeSegmentSpecificity, 294
 - _flightPeriod, 295

- operator(), 295
- storeSegmentSpecificity, 294
- AIRSCHEd::SegmentCabinStruct, 222
 - _cabinCode, 223
 - _classes, 223
 - _fareFamilies, 223
 - _itFamilyCode, 223
 - describe, 222
 - fill, 222
- AIRSCHEd::SegmentDateNotFound-Exception, 223
- SegmentDateNotFoundException, 224
- AIRSCHEd::SegmentPathGenerator, 224
 - createSegmentPathNetwork, 225
- AIRSCHEd::SegmentPathPeriod, 225
 - ~SegmentPathPeriod, 227
 - Key_T, 227
 - SegmentPathPeriod, 227
 - _holderMap, 232
 - _key, 231
 - _parent, 232
 - boost::serialization::access, 231
 - checkCircle, 230
 - connectWithAnotherSegment, 229
 - describeKey, 231
 - fromStream, 230
 - getBoardingDateOffsetList, 227
 - getBoardingTime, 228
 - getDeparturePeriod, 227
 - getDestination, 229
 - getElapsedTime, 228
 - getFirstSegmentPeriod, 229
 - getHolderMap, 228
 - getKey, 227
 - getLastSegmentPeriod, 229
 - getNbOfAirlines, 228
 - getNbOfSegments, 228
 - getParent, 227
 - isAirlineFlown, 230
 - isDepartureDateValid, 230
 - serialize, 231
 - stdair::FacBom, 231
 - stdair::FacBomManager, 231
 - toStream, 230
 - toString, 231
- AIRSCHEd::SegmentPathPeriodKey, 232
 - ~SegmentPathPeriodKey, 234
 - SegmentPathPeriodKey, 233, 234
 - boost::serialization::access, 237
 - fromStream, 236
 - getBoardingDateOffsetList, 234
 - getBoardingTime, 235
 - getElapsedTime, 235
 - getNbOfAirlines, 234
 - getNbOfSegments, 234
 - getPeriod, 234
 - isValid, 236
 - serialize, 236
 - setBoardingDateOffsetList, 235
 - setBoardingTime, 235
 - setElapsedTime, 235
 - setNbOfAirlines, 235
 - setPeriod, 235
 - toStream, 236
 - toString, 236
- AIRSCHEd::SegmentPathProvider, 237
- AIRSCHEd::SegmentPeriodHelper, 238
 - fill, 238
- AIRSCHEd::SegmentStruct, 238
 - _boardingDate, 240
 - _boardingPoint, 240
 - _boardingTime, 240
 - _cabinList, 240
 - _elapsed, 240
 - _offDate, 240
 - _offPoint, 240
 - _offTime, 240
 - describe, 239
 - fill, 239
- AIRSCHEd::ServiceAbstract, 241
 - ~ServiceAbstract, 241
 - ServiceAbstract, 241
 - fromStream, 242
 - toStream, 241
- AIRSCHEd::Simulator, 242
 - simulate, 243
- AIRSCHEd::TravelSolutionParser, 298
 - parseInputFileAndBuildBom, 298
- AIRSCHEd_Service
 - AIRSCHEd::SegmentPathProvider, 237
- AIRSCHEd_ServicePtr_T
 - AIRSCHEd, 128
- AirlineList_T
 - airsched, 124
- AirlineScheduleTestSuite, 140
 - AirlineScheduleTestSuite, 141
 - _describeKey, 141
 - AirlineScheduleTestSuite, 141

- externalMemoryManagement, [141](#)
- scheduleParsing, [141](#)
- Airline_T
 - airsched::Airline_T, [140](#)
- AirportList_T
 - AIRSCHEd, [130](#)
- AirportOrderedList_T
 - AIRSCHEd, [130](#)
- BomAbstract, [147](#)
- BookingRequestParser.cpp
 - char_t, [315](#)
 - iterator_t, [315](#)
 - rule_t, [315](#)
 - scanner_t, [315](#)
- CmdAbstract, [148](#)
- DateList_T
 - airsched, [124](#)
- DateOffsetList_T
 - AIRSCHEd, [131](#)
- Date_T
 - airsched::Date_T, [150](#)
- FFFlightPeriodFileParser
 - AIRSCHEd::InventoryGenerator, [181](#)
- FacServiceAbstract, [167](#)
 - AIRSCHEd::FacServiceAbstract, [167](#)
- FareFamilyStruct
 - AIRSCHEd::FareFamilyStruct, [168](#)
- FareFamilyStructList_T
 - AIRSCHEd, [130](#)
- FileNotFoundException, [169](#)
- FlagSaver
 - AIRSCHEd::FlagSaver, [170](#)
- FlightPeriodFileParser
 - AIRSCHEd::FlightPeriodFileParser, [171](#)
 - AIRSCHEd::InventoryGenerator, [181](#)
- FlightPeriodParser
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser, [172](#)
- FlightPeriodStruct
 - AIRSCHEd::FlightPeriodStruct, [174](#)
- KeyAbstract, [181](#)
- Key_T
 - AIRSCHEd::OriginDestinationSet, [196](#)
 - AIRSCHEd::ReachableUniverse, [211](#)
- AIRSCHEd::SegmentPathPeriod, [227](#)
- LegCabinStructList_T
 - AIRSCHEd, [130](#)
- LegStruct
 - AIRSCHEd::LegStruct, [184](#)
- LegStructList_T
 - AIRSCHEd, [130](#)
- OnDInputFileNotFoundException
 - AIRSCHEd::OnDInputFileNotFoundException, [186](#)
- OnDParser
 - AIRSCHEd::OnDParserHelper::OnDParser, [188](#)
 - AIRSCHEd::OnDPeriodGenerator, [190](#)
- OnDParserHelper::doEndOnD
 - AIRSCHEd::OnDPeriodGenerator, [190](#)
- OnDPeriodFileParser
 - AIRSCHEd::OnDPeriodFileParser, [189](#)
 - AIRSCHEd::OnDPeriodGenerator, [190](#)
- OnDPeriodStruct
 - AIRSCHEd::OnDPeriodStruct, [192](#)
- OriginDestinationSet
 - AIRSCHEd::OriginDestinationSet, [197](#)
- OriginDestinationSet::serialize< ba::text-
_iarchive >
 - AIRSCHEd, [132](#)
- OriginDestinationSet::serialize< ba::text-
_oarchive >
 - AIRSCHEd, [132](#)
- OriginDestinationSetKey
 - AIRSCHEd::OriginDestinationSetKey, [200](#)
- OriginDestinationSetKey::serialize< ba-
::text_iarchive >
 - AIRSCHEd, [132](#)
- OriginDestinationSetKey::serialize< ba-
::text_oarchive >
 - AIRSCHEd, [132](#)
- OriginDestinationSetList_T
 - AIRSCHEd, [130](#)
- OriginDestinationSetMap_T
 - AIRSCHEd, [130](#)
- ParserException, [202](#)
- ParserSemanticAction

- AIRSCHEd::OnDParserHelper::-
ParserSemanticAction, 203
- AIRSCHEd::ScheduleParserHelper-
::ParserSemanticAction, 205
- PassengerList_T
airsched, 124
- PassengerType_T
airsched::Passenger_T, 207
- Passenger_T
airsched::Passenger_T, 207
- PlaceList_T
airsched, 124
- Place_T
airsched::Place_T, 209
- ReachableUniverse
AIRSCHEd::ReachableUniverse,
211
- ReachableUniverse::serialize< ba::text_-
iarchive >
AIRSCHEd, 132
- ReachableUniverse::serialize< ba::text_-
oarchive >
AIRSCHEd, 132
- ReachableUniverseKey
AIRSCHEd::ReachableUniverseKey,
215
- ReachableUniverseKey::serialize< ba-
::text_iarchive >
AIRSCHEd, 132
- ReachableUniverseKey::serialize< ba-
::text_oarchive >
AIRSCHEd, 132
- ReachableUniverseList_T
AIRSCHEd, 130
- ReachableUniverseMap_T
AIRSCHEd, 131
- ScheduleInputFileNotFoundException
AIRSCHEd::ScheduleInputFileNot-
FoundException, 217
- ScheduleParser
AIRSCHEd::InventoryGenerator,
181
- ScheduleParserHelper::doEndFlight
AIRSCHEd::InventoryGenerator,
181
- SearchStringParser
airsched::SearchStringParser, 221
- SearchString_T
airsched::SearchString_T, 219
- SegmentCabinStructList_T
AIRSCHEd, 131
- SegmentDateNotFoundException
AIRSCHEd::SegmentDateNot-
FoundException, 224
- SegmentPathGenerator
AIRSCHEd::ReachableUniverse,
213
- SegmentPathPeriod
AIRSCHEd::SegmentPathPeriod,
227
- SegmentPathPeriod::serialize< ba::text_-
iarchive >
AIRSCHEd, 132
- SegmentPathPeriod::serialize< ba::text_-
oarchive >
AIRSCHEd, 132
- SegmentPathPeriodKey
AIRSCHEd::SegmentPathPeriod-
Key, 233, 234
- SegmentPathPeriodKey::serialize< ba-
::text_iarchive >
AIRSCHEd, 132
- SegmentPathPeriodKey::serialize< ba-
::text_oarchive >
AIRSCHEd, 132
- SegmentPathPeriodLightList_T
AIRSCHEd, 131
- SegmentPathPeriodListList_T
AIRSCHEd, 131
- SegmentPathPeriodList_T
AIRSCHEd, 131
- SegmentPathPeriodMultimap_T
AIRSCHEd, 131
- SegmentStructList_T
AIRSCHEd, 131
- ServiceAbstract, 242
AIRSCHEd::ServiceAbstract, 241
- ServiceAbstract.hpp
operator<<, 434
operator>>, 434
- ServicePool_T
AIRSCHEd::FacServiceAbstract,
166
- StructAbstract, 297
- TestFixture, 297
- WordList_T
airsched.cpp, 306
- _airlineCode
AIRSCHEd::FlightPeriodStruct, 176
AIRSCHEd::OnDPeriodStruct, 193

- `_airlineCodeList`
 - `AIRSCHEd::OnDPeriodStruct`, 194
- `_airlineList`
 - `airsched::SearchString_T`, 220
- `_airportList`
 - `AIRSCHEd::FlightPeriodStruct`, 179
- `_airportOrderedList`
 - `AIRSCHEd::FlightPeriodStruct`, 179
- `_areSegmentDefinitionsSpecific`
 - `AIRSCHEd::FlightPeriodStruct`, 179
- `_boardingDate`
 - `AIRSCHEd::SegmentStruct`, 240
- `_boardingDateOffset`
 - `AIRSCHEd::LegStruct`, 184
- `_boardingPoint`
 - `AIRSCHEd::LegStruct`, 184
 - `AIRSCHEd::SegmentStruct`, 240
- `_boardingTime`
 - `AIRSCHEd::LegStruct`, 184
 - `AIRSCHEd::SegmentStruct`, 240
- `_bomRoot`
 - `AIRSCHEd::OnDParserHelper::doEndOnD`, 163
 - `AIRSCHEd::OnDParserHelper::OnDParser`, 188
 - `AIRSCHEd::ScheduleParserHelper::doEndFlight`, 162
 - `AIRSCHEd::ScheduleParserHelper::FlightPeriodParser`, 172
- `_cabinCode`
 - `AIRSCHEd::LegCabinStruct`, 182
 - `AIRSCHEd::SegmentCabinStruct`, 223
- `_cabinList`
 - `AIRSCHEd::LegStruct`, 185
 - `AIRSCHEd::SegmentStruct`, 240
- `_capacity`
 - `AIRSCHEd::LegCabinStruct`, 182
- `_classCode`
 - `AIRSCHEd::OnDPeriodStruct`, 193
- `_classCodeList`
 - `AIRSCHEd::OnDPeriodStruct`, 194
- `_classes`
 - `AIRSCHEd::FareFamilyStruct`, 169
 - `AIRSCHEd::SegmentCabinStruct`, 223
- `_code`
 - `airsched::Airline_T`, 140
 - `airsched::Place_T`, 209
- `_date`
 - `airsched::Date_T`, 150
- `_dateList`
 - `airsched::SearchString_T`, 220
- `_dateOffset`
 - `AIRSCHEd::FlightPeriodStruct`, 178
- `_datePeriod`
 - `AIRSCHEd::OnDPeriodStruct`, 193
- `_dateRange`
 - `AIRSCHEd::FlightPeriodStruct`, 177
- `_dateRangeEnd`
 - `AIRSCHEd::FlightPeriodStruct`, 178
 - `AIRSCHEd::OnDPeriodStruct`, 194
- `_dateRangeStart`
 - `AIRSCHEd::FlightPeriodStruct`, 178
 - `AIRSCHEd::OnDPeriodStruct`, 194
- `_day`
 - `airsched::Date_T`, 150
- `_describeKey`
 - `AirlineScheduleTestSuite`, 141
- `_destination`
 - `AIRSCHEd::OnDPeriodStruct`, 193
- `_dow`
 - `AIRSCHEd::FlightPeriodStruct`, 177
- `_elapsed`
 - `AIRSCHEd::LegStruct`, 185
 - `AIRSCHEd::SegmentStruct`, 240
- `_familyCode`
 - `AIRSCHEd::FareFamilyStruct`, 169
- `_fareFamilies`
 - `AIRSCHEd::SegmentCabinStruct`, 223
- `_flightNumber`
 - `AIRSCHEd::FlightPeriodStruct`, 176
- `_flightPeriod`
 - `AIRSCHEd::ScheduleParserHelper::doEndFlight`, 162
 - `AIRSCHEd::ScheduleParserHelper::FlightPeriodParser`, 173
 - `AIRSCHEd::ScheduleParserHelper::ParserSemanticAction`, 206
 - `AIRSCHEd::ScheduleParserHelper::storeAirlineCode`, 253
 - `AIRSCHEd::ScheduleParserHelper::storeBoardingTime`, 257
 - `AIRSCHEd::ScheduleParserHelper::storeCapacity`, 258
 - `AIRSCHEd::ScheduleParserHelper::storeClasses`, 262
 - `AIRSCHEd::ScheduleParserHelper::storeDateRangeEnd`, 263

- AIRSCHEd::ScheduleParserHelper-
::storeDateRangeStart, 268
- AIRSCHEd::ScheduleParserHelper-
::storeDow, 271
- AIRSCHEd::ScheduleParserHelper-
::storeElapsedTime, 273
- AIRSCHEd::ScheduleParserHelper-
::storeFamilyCode, 276
- AIRSCHEd::ScheduleParserHelper-
::storeFClasses, 278
- AIRSCHEd::ScheduleParserHelper-
::storeFlightNumber, 279
- AIRSCHEd::ScheduleParserHelper-
::storeLegBoardingPoint, 281
- AIRSCHEd::ScheduleParserHelper-
::storeLegCabinCode, 283
- AIRSCHEd::ScheduleParserHelper-
::storeLegOffPoint, 285
- AIRSCHEd::ScheduleParserHelper-
::storeOffTime, 286
- AIRSCHEd::ScheduleParserHelper-
::storeSegmentBoardingPoint,
290
- AIRSCHEd::ScheduleParserHelper-
::storeSegmentCabinCode, 291
- AIRSCHEd::ScheduleParserHelper-
::storeSegmentOffPoint, 293
- AIRSCHEd::ScheduleParserHelper-
::storeSegmentSpecificity, 295
- _holderMap
 - AIRSCHEd::OriginDestinationSet,
199
 - AIRSCHEd::ReachableUniverse,
214
 - AIRSCHEd::SegmentPathPeriod,
232
- _isPreferred
 - airsched::Airline_T, 140
- _itDay
 - AIRSCHEd::FlightPeriodStruct, 178
 - AIRSCHEd::OnDPeriodStruct, 194
- _itFamilyCode
 - AIRSCHEd::SegmentCabinStruct,
223
- _itHours
 - AIRSCHEd::FlightPeriodStruct, 178
 - AIRSCHEd::OnDPeriodStruct, 194
- _itLeg
 - AIRSCHEd::FlightPeriodStruct, 177
- _itLegCabin
 - AIRSCHEd::FlightPeriodStruct, 177
- _itMinutes
 - AIRSCHEd::FlightPeriodStruct, 178
 - AIRSCHEd::OnDPeriodStruct, 195
- _itMonth
 - AIRSCHEd::FlightPeriodStruct, 178
 - AIRSCHEd::OnDPeriodStruct, 194
- _itSeconds
 - AIRSCHEd::FlightPeriodStruct, 179
 - AIRSCHEd::OnDPeriodStruct, 195
- _itSegment
 - AIRSCHEd::FlightPeriodStruct, 179
- _itSegmentCabin
 - AIRSCHEd::FlightPeriodStruct, 179
- _itYear
 - AIRSCHEd::FlightPeriodStruct, 178
 - AIRSCHEd::OnDPeriodStruct, 194
- _key
 - AIRSCHEd::OriginDestinationSet,
199
 - AIRSCHEd::ReachableUniverse,
213
 - AIRSCHEd::SegmentPathPeriod,
231
- _labels
 - airsched::Passenger_T, 208
- _legAlreadyDefined
 - AIRSCHEd::FlightPeriodStruct, 177
- _legList
 - AIRSCHEd::FlightPeriodStruct, 177
- _month
 - airsched::Date_T, 151
- _name
 - airsched::Airline_T, 140
 - airsched::Place_T, 209
- _nbOfAirlines
 - AIRSCHEd::OnDPeriodStruct, 193
- _number
 - airsched::Passenger_T, 208
- _offDate
 - AIRSCHEd::SegmentStruct, 240
- _offDateOffset
 - AIRSCHEd::LegStruct, 185
- _offPoint
 - AIRSCHEd::LegStruct, 185
 - AIRSCHEd::SegmentStruct, 240
- _offTime
 - AIRSCHEd::LegStruct, 185
 - AIRSCHEd::SegmentStruct, 240
- _onDPeriod

- AIRSCHEd::OnDParserHelper::do-EndOnD, [163](#)
- AIRSCHEd::OnDParserHelper::OnDParser, [188](#)
- AIRSCHEd::OnDParserHelper::ParserSemanticAction, [204](#)
- AIRSCHEd::OnDParserHelper::storeAirlineCode, [255](#)
- AIRSCHEd::OnDParserHelper::storeClassCode, [260](#)
- AIRSCHEd::OnDParserHelper::storeDateRangeEnd, [265](#)
- AIRSCHEd::OnDParserHelper::storeDateRangeStart, [266](#)
- AIRSCHEd::OnDParserHelper::storeDestination, [270](#)
- AIRSCHEd::OnDParserHelper::storeEndRangeTime, [274](#)
- AIRSCHEd::OnDParserHelper::storeOrigin, [288](#)
- AIRSCHEd::OnDParserHelper::storeStartRangeTime, [296](#)
- _origin
 - AIRSCHEd::OnDPeriodStruct, [193](#)
- _parent
 - AIRSCHEd::OriginDestinationSet, [199](#)
 - AIRSCHEd::ReachableUniverse, [214](#)
 - AIRSCHEd::SegmentPathPeriod, [232](#)
- _passengerList
 - airsched::SearchString_T, [220](#)
- _placeList
 - airsched::SearchString_T, [220](#)
- _pool
 - AIRSCHEd::FacServiceAbstract, [167](#)
- _reldays
 - airsched::Date_T, [150](#)
- _searchString
 - airsched::SearchStringParser, [221](#)
 - airsched::store_adult_passenger_type, [244](#)
 - airsched::store_airline_code, [245](#)
 - airsched::store_airline_name, [246](#)
 - airsched::store_airline_sign, [247](#)
 - airsched::store_child_passenger_type, [248](#)
 - airsched::store_date, [249](#)
 - airsched::store_passenger_number, [250](#)
 - airsched::store_pet_passenger_type, [251](#)
 - airsched::store_place_element, [252](#)
- _segmentList
 - AIRSCHEd::FlightPeriodStruct, [177](#)
- _segmentPathPeriodListList
 - AIRSCHEd::ReachableUniverse, [214](#)
- _timeRangeEnd
 - AIRSCHEd::OnDPeriodStruct, [193](#)
- _timeRangeStart
 - AIRSCHEd::OnDPeriodStruct, [193](#)
- _tmpAirline
 - airsched::SearchString_T, [220](#)
- _tmpDate
 - airsched::SearchString_T, [220](#)
- _tmpPassenger
 - airsched::SearchString_T, [220](#)
- _tmpPlace
 - airsched::SearchString_T, [220](#)
- _type
 - airsched::Passenger_T, [208](#)
- _year
 - airsched::Date_T, [151](#)
- addAirport
 - AIRSCHEd::FlightPeriodStruct, [175](#)
- addFareFamily
 - AIRSCHEd::FlightPeriodStruct, [176](#)
- addSegmentCabin
 - AIRSCHEd::FlightPeriodStruct, [175](#), [176](#)
- airline_code
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, [155](#)
 - airsched::SearchStringParser::definition, [159](#)
- airline_code_p
 - AIRSCHEd::OnDParserHelper, [133](#)
 - AIRSCHEd::ScheduleParserHelper, [136](#)
- airline_name
 - airsched::SearchStringParser::definition, [159](#)
- airport_p
 - AIRSCHEd::OnDParserHelper, [133](#)

- AIRSCHEd::ScheduleParserHelper, 137
- airsched, 123
 - AirlineList_T, 124
 - DateList_T, 124
 - PassengerList_T, 124
 - PlaceList_T, 124
 - int1_p, 124
 - parseBookingRequest, 124
 - uint1_2_p, 125
 - uint1_4_p, 125
 - uint1_p, 124
 - uint2_4_p, 125
 - uint2_p, 125
 - uint4_p, 125
- airsched.cpp
 - WordList_T, 306
 - createStringFromWordList, 306
 - main, 307
 - operator<=, 306
 - parseBookingRequest, 307
 - readConfiguration, 306
- airsched/ Directory Reference, 120
- airsched/AIRSCHEd_Service.hpp, 299
- airsched/AIRSCHEd_Types.hpp, 300, 301
- airsched/basic/ Directory Reference, 120
- airsched/basic/BasConst.cpp, 302
- airsched/basic/BasConst_AIRSCHEd_Service.hpp, 302
- airsched/basic/BasConst_General.hpp, 302, 303
- airsched/basic/BasParserTypes.hpp, 303, 304
- airsched/batches/ Directory Reference, 120
- airsched/batches/BookingRequest-Parser.cpp, 313, 315
- airsched/batches/BookingRequest-Parser.hpp, 320
- airsched/batches/airsched.cpp, 305, 308
- airsched/bom/ Directory Reference, 120
- airsched/bom/AirportList.hpp, 322, 323
- airsched/bom/BomDisplay.cpp, 323
- airsched/bom/BomDisplay.hpp, 324, 325
- airsched/bom/FareFamilyStruct.cpp, 325
- airsched/bom/FareFamilyStruct.hpp, 326
- airsched/bom/FlightPeriodStruct.cpp, 327
- airsched/bom/FlightPeriodStruct.hpp, 331
- airsched/bom/LegCabinStruct.cpp, 332
- airsched/bom/LegCabinStruct.hpp, 333
- airsched/bom/LegStruct.cpp, 334
- airsched/bom/LegStruct.hpp, 335, 336
- airsched/bom/OnDPeriodStruct.cpp, 336
- airsched/bom/OnDPeriodStruct.hpp, 338
- airsched/bom/OriginDestinationSet.cpp, 339
- airsched/bom/OriginDestinationSet.hpp, 340, 341
- airsched/bom/OriginDestinationSetKey.-cpp, 342, 343
- airsched/bom/OriginDestinationSetKey.-hpp, 344
- airsched/bom/OriginDestinationSet-Types.hpp, 345, 346
- airsched/bom/ReachableUniverse.cpp, 346, 347
- airsched/bom/ReachableUniverse.hpp, 348
- airsched/bom/ReachableUniverseKey.-cpp, 350
- airsched/bom/ReachableUniverseKey.-hpp, 352
- airsched/bom/ReachableUniverseTypes.-hpp, 353
- airsched/bom/SegmentCabinStruct.cpp, 354
- airsched/bom/SegmentCabinStruct.hpp, 355
- airsched/bom/SegmentPathPeriod.cpp, 356
- airsched/bom/SegmentPathPeriod.hpp, 361
- airsched/bom/SegmentPathPeriodKey.-cpp, 363, 364
- airsched/bom/SegmentPathPeriodKey.-hpp, 365, 366
- airsched/bom/SegmentPathPeriodTypes.-hpp, 368
- airsched/bom/SegmentPeriodHelper.cpp, 369
- airsched/bom/SegmentPeriodHelper.hpp, 370, 371
- airsched/bom/SegmentStruct.cpp, 371
- airsched/bom/SegmentStruct.hpp, 372
- airsched/command/ Directory Reference, 121
- airsched/command/InventoryGenerator.-cpp, 373, 374

- airsched/command/InventoryGenerator.-
hpp, 375
- airsched/command/OnDParser.cpp, 376
- airsched/command/OnDParser.hpp, 377
- airsched/command/OnDParserHelper.-
cpp, 378, 379
- airsched/command/OnDParserHelper.-
hpp, 384, 385
- airsched/command/OnDPeriodGenerator.-
cpp, 387
- airsched/command/OnDPeriodGenerator.-
hpp, 388
- airsched/command/ScheduleParser.cpp,
388, 389
- airsched/command/ScheduleParser.hpp,
389, 390
- airsched/command/ScheduleParser-
Helper.cpp, 390, 391
- airsched/command/ScheduleParser-
Helper.hpp, 401, 402
- airsched/command/SegmentPathGenerator.-
cpp, 404, 405
- airsched/command/SegmentPathGenerator.-
hpp, 411
- airsched/command/SegmentPathProvider.-
cpp, 412
- airsched/command/SegmentPathProvider.-
hpp, 414, 415
- airsched/command/Simulator.cpp, 415,
416
- airsched/command/Simulator.hpp, 416,
417
- airsched/command/TravelSolutionParser.-
cpp, 417
- airsched/command/TravelSolutionParser.-
hpp, 419, 420
- airsched/config/ Directory Reference, 122
- airsched/config/airsched-paths.hpp, 421
- airsched/config/airsched-paths.hpp.in,
421
- airsched/factory/ Directory Reference, 122
- airsched/factory/FacAIRSCHEDService-
Context.cpp, 422
- airsched/factory/FacAIRSCHEDService-
Context.hpp, 423
- airsched/factory/FacServiceAbstract.cpp,
424
- airsched/factory/FacServiceAbstract.hpp,
424, 425
- airsched/service/ Directory Reference,
122
- airsched/service/AIRSCHED_Service.-
cpp, 425, 426
- airsched/service/AIRSCHED_Service-
Context.cpp, 431
- airsched/service/AIRSCHED_Service-
Context.hpp, 432
- airsched/service/ServiceAbstract.cpp,
433
- airsched/service/ServiceAbstract.hpp,
434, 435
- airsched::Passenger_T
ADULT, 207
CHILD, 207
LAST_VALUE, 207
PET, 207
- airsched::Airline_T, 139
Airline_T, 140
_code, 140
_isPreferred, 140
_name, 140
display, 140
- airsched::Date_T, 149
Date_T, 150
_date, 150
_day, 150
_month, 151
_reldays, 150
_year, 151
display, 150
getDate, 150
- airsched::Passenger_T, 206
PassengerType_T, 207
Passenger_T, 207
_labels, 208
_number, 208
_type, 208
display, 207
- airsched::Place_T, 208
Place_T, 209
_code, 209
_name, 209
display, 209
- airsched::SearchString_T, 219
SearchString_T, 219
_airlineList, 220
_dateList, 220
_passengerList, 220
_placeList, 220
_tmpAirline, 220

- [_tmpDate](#), [220](#)
- [_tmpPassenger](#), [220](#)
- [_tmpPlace](#), [220](#)
- [display](#), [219](#)
- [airsched::SearchStringParser](#), [221](#)
 - [SearchStringParser](#), [221](#)
 - [_searchString](#), [221](#)
- [airsched::SearchStringParser::definition](#)
 - [airline_code](#), [159](#)
 - [airline_name](#), [159](#)
 - [date](#), [159](#)
 - [dates](#), [159](#)
 - [day](#), [159](#)
 - [definition](#), [158](#)
 - [month](#), [159](#)
 - [passenger_adult_type](#), [160](#)
 - [passenger_child_type](#), [160](#)
 - [passenger_number](#), [160](#)
 - [passenger_pet_type](#), [160](#)
 - [passenger_type](#), [160](#)
 - [passengers](#), [160](#)
 - [place_element](#), [159](#)
 - [places](#), [159](#)
 - [preferred_airlines](#), [159](#)
 - [search_string](#), [159](#)
 - [start](#), [158](#)
 - [year](#), [159](#)
- [airsched::SearchStringParser::definition<ScannerT>](#), [157](#)
- [airsched::store_adult_passenger_type](#), [243](#)
 - [_searchString](#), [244](#)
 - [operator\(\)](#), [244](#)
 - [store_adult_passenger_type](#), [244](#)
- [airsched::store_airline_code](#), [244](#)
 - [_searchString](#), [245](#)
 - [operator\(\)](#), [245](#)
 - [store_airline_code](#), [245](#)
- [airsched::store_airline_name](#), [245](#)
 - [_searchString](#), [246](#)
 - [operator\(\)](#), [246](#)
 - [store_airline_name](#), [246](#)
- [airsched::store_airline_sign](#), [246](#)
 - [_searchString](#), [247](#)
 - [operator\(\)](#), [247](#)
 - [store_airline_sign](#), [247](#)
- [airsched::store_child_passenger_type](#), [247](#)
 - [_searchString](#), [248](#)
 - [operator\(\)](#), [248](#)
 - [store_child_passenger_type](#), [248](#)
- [airsched::store_date](#), [248](#)
 - [_searchString](#), [249](#)
 - [operator\(\)](#), [249](#)
 - [store_date](#), [249](#)
- [airsched::store_passenger_number](#), [249](#)
 - [_searchString](#), [250](#)
 - [operator\(\)](#), [250](#)
 - [store_passenger_number](#), [250](#)
- [airsched::store_pet_passenger_type](#), [250](#)
 - [_searchString](#), [251](#)
 - [operator\(\)](#), [251](#)
 - [store_pet_passenger_type](#), [251](#)
- [airsched::store_place_element](#), [251](#)
 - [_searchString](#), [252](#)
 - [operator\(\)](#), [252](#)
 - [store_place_element](#), [252](#)
- [alpha_cap_set_p](#)
 - [AIRSCHED::OnDParserHelper](#), [133](#)
- [boost](#), [139](#)
- [boost::serialization](#), [139](#)
- [boost::serialization::access](#)
 - [AIRSCHED::OriginDestinationSet](#), [199](#)
 - [AIRSCHED::OriginDestinationSetKey](#), [202](#)
 - [AIRSCHED::ReachableUniverse](#), [213](#)
 - [AIRSCHED::ReachableUniverseKey](#), [217](#)
 - [AIRSCHED::SegmentPathPeriod](#), [231](#)
 - [AIRSCHED::SegmentPathPeriodKey](#), [237](#)
- [bounded1_4_p_t](#)
 - [AIRSCHED](#), [130](#)
- [bounded2_p_t](#)
 - [AIRSCHED](#), [129](#)
- [bounded4_p_t](#)
 - [AIRSCHED](#), [129](#)
- [buildSampleBom](#)
 - [AIRSCHED::AIRSCHED_Service](#), [144](#)
- [buildSegmentPathList](#)
 - [AIRSCHED::AIRSCHED_Service](#), [144](#)
- [buildSegments](#)
 - [AIRSCHED::FlightPeriodStruct](#), [175](#)

- cabin_code_p
 - AIRSCHEd::ScheduleParserHelper, 138
- char_t
 - AIRSCHEd, 128
 - BookingRequestParser.cpp, 315
- checkCircle
 - AIRSCHEd::SegmentPathPeriod, 230
- chset_t
 - AIRSCHEd, 129
- class_code_list_p
 - AIRSCHEd::ScheduleParserHelper, 138
- class_code_p
 - AIRSCHEd::OnDParserHelper, 134
- clean
 - AIRSCHEd::FacServiceAbstract, 167
- connectWithAnotherSegment
 - AIRSCHEd::SegmentPathPeriod, 229
- create
 - AIRSCHEd::FacAIRSCHEdServiceContext, 165
- createSegmentPathNetwork
 - AIRSCHEd::SegmentPathGenerator, 225
- createStringFromWordList
 - airsched.cpp, 306
- csvDisplay
 - AIRSCHEd::AIRSCHEd_Service, 145
 - AIRSCHEd::BomDisplay, 147, 148
- date
 - AIRSCHEd::OnDParserHelper::OnDParser::definition, 153
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 155
 - airsched::SearchStringParser::definition, 159
- date_offset
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 156
- dates
 - airsched::SearchStringParser::definition, 159
- day
 - airsched::SearchStringParser::definition, 159
- day_p
 - AIRSCHEd::OnDParserHelper, 134
 - AIRSCHEd::ScheduleParserHelper, 137
- definition
 - AIRSCHEd::OnDParserHelper::OnDParser::definition, 152
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 154
 - airsched::SearchStringParser::definition, 158
- describe
 - AIRSCHEd::FareFamilyStruct, 169
 - AIRSCHEd::FlightPeriodStruct, 175
 - AIRSCHEd::LegCabinStruct, 182
 - AIRSCHEd::LegStruct, 184
 - AIRSCHEd::OnDPeriodStruct, 192
 - AIRSCHEd::SegmentCabinStruct, 222
 - AIRSCHEd::SegmentStruct, 239
- describeKey
 - AIRSCHEd::OriginDestinationSet, 198
 - AIRSCHEd::ReachableUniverse, 213
 - AIRSCHEd::SegmentPathPeriod, 231
- describeTSKey
 - AIRSCHEd::OnDPeriodStruct, 192
- display
 - airsched::Airline_T, 140
 - airsched::Date_T, 150
 - airsched::Passenger_T, 207
 - airsched::Place_T, 209
 - airsched::SearchString_T, 219
- doEndFlight
 - AIRSCHEd::ScheduleParserHelper::doEndFlight, 161
- doEndOnD
 - AIRSCHEd::OnDParserHelper::doEndOnD, 163
- doc/local/authors.doc, 435
- doc/local/codingrules.doc, 435
- doc/local/copyright.doc, 436
- doc/local/documentation.doc, 436
- doc/local/features.doc, 436

- doc/local/help_wanted.doc, [436](#)
- doc/local/howto_release.doc, [436](#)
- doc/local/index.doc, [436](#)
- doc/local/installation.doc, [436](#)
- doc/local/linking.doc, [436](#)
- doc/local/test.doc, [436](#)
- doc/local/users_guide.doc, [436](#)
- doc/local/verification.doc, [436](#)
- doc/tutorial/tutorial.doc, [436](#)
- dow
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[155](#)
- dow_p
 - AIRSCHEd::ScheduleParserHelper,
[137](#)
- externalMemoryManagement
 - AirlineScheduleTestSuite, [141](#)
- family_cabin_details
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[157](#)
- family_code_p
 - AIRSCHEd::ScheduleParserHelper,
[138](#)
- fill
 - AIRSCHEd::LegCabinStruct, [182](#)
 - AIRSCHEd::LegStruct, [184](#)
 - AIRSCHEd::SegmentCabinStruct,
[222](#)
 - AIRSCHEd::SegmentPeriodHelper,
[238](#)
 - AIRSCHEd::SegmentStruct, [239](#)
- flight_key
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[155](#)
- flight_number
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[155](#)
- flight_number_p
 - AIRSCHEd::ScheduleParserHelper,
[136](#)
- flight_period
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[155](#)
- flight_period_end
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[155](#)
- flight_period_list
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[154](#)
- fromStream
 - AIRSCHEd::OriginDestinationSet,
[198](#)
 - AIRSCHEd::OriginDestinationSet-
Key, [201](#)
 - AIRSCHEd::ReachableUniverse,
[212](#)
 - AIRSCHEd::ReachableUniverseKey,
[216](#)
 - AIRSCHEd::SegmentPathPeriod,
[230](#)
 - AIRSCHEd::SegmentPathPeriod-
Key, [236](#)
 - AIRSCHEd::ServiceAbstract, [242](#)
- full_family_cabin_details
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[157](#)
- full_segment_cabin_details
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[157](#)
- generateInventories
 - AIRSCHEd::FlightPeriodFileParser,
[171](#)
 - AIRSCHEd::ScheduleParser, [218](#)
- generateOnDPeriods
 - AIRSCHEd::OnDParser, [187](#)
 - AIRSCHEd::OnDPeriodFileParser,
[189](#)
- generic_segment
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[157](#)
- getBoardingDateOffsetList
 - AIRSCHEd::SegmentPathPeriod,
[227](#)
 - AIRSCHEd::SegmentPathPeriod-
Key, [234](#)
- getBoardingPoint

- AIRSCHEd::ReachableUniverseKey, 215
- getBoardingTime
 - AIRSCHEd::SegmentPathPeriod, 228
 - AIRSCHEd::SegmentPathPeriod-Key, 235
- getDate
 - airsched::Date_T, 150
 - AIRSCHEd::FlightPeriodStruct, 174
 - AIRSCHEd::OnDPeriodStruct, 192
- getDeparturePeriod
 - AIRSCHEd::SegmentPathPeriod, 227
- getDestination
 - AIRSCHEd::OriginDestinationSet, 197
 - AIRSCHEd::SegmentPathPeriod, 229
- getElapsedTime
 - AIRSCHEd::SegmentPathPeriod, 228
 - AIRSCHEd::SegmentPathPeriod-Key, 235
- getFirstAirlineCode
 - AIRSCHEd::OnDPeriodStruct, 192
- getFirstSegmentPeriod
 - AIRSCHEd::SegmentPathPeriod, 229
- getHolderMap
 - AIRSCHEd::OriginDestinationSet, 197
 - AIRSCHEd::ReachableUniverse, 212
 - AIRSCHEd::SegmentPathPeriod, 228
- getKey
 - AIRSCHEd::OriginDestinationSet, 197
 - AIRSCHEd::ReachableUniverse, 211
 - AIRSCHEd::SegmentPathPeriod, 227
- getLastSegmentPeriod
 - AIRSCHEd::SegmentPathPeriod, 229
- getNbOfAirlines
 - AIRSCHEd::SegmentPathPeriod, 228
- AIRSCHEd::SegmentPathPeriod-Key, 234
- getNbOfSegments
 - AIRSCHEd::SegmentPathPeriod, 228
 - AIRSCHEd::SegmentPathPeriod-Key, 234
- getOffPoint
 - AIRSCHEd::OriginDestinationSet-Key, 201
- getOrigin
 - AIRSCHEd::ReachableUniverse, 211
- getParent
 - AIRSCHEd::OriginDestinationSet, 197
 - AIRSCHEd::ReachableUniverse, 212
 - AIRSCHEd::SegmentPathPeriod, 227
- getPeriod
 - AIRSCHEd::SegmentPathPeriod-Key, 234
- getSegmentPathPeriodListList
 - AIRSCHEd::ReachableUniverse, 212
- getTime
 - AIRSCHEd::FlightPeriodStruct, 174
 - AIRSCHEd::OnDPeriodStruct, 192
- grammar, 180
- hours_p
 - AIRSCHEd::OnDParserHelper, 134
 - AIRSCHEd::ScheduleParserHelper, 137
- instance
 - AIRSCHEd::FacAIRSCHEdService-Context, 165
- int1_p
 - airsched, 124
 - AIRSCHEd::ScheduleParserHelper, 138
- int1_p_t
 - AIRSCHEd, 129
- isAirlineFlown
 - AIRSCHEd::SegmentPathPeriod, 230
- isDepartureDateValid

- AIRSCHEd::SegmentPathPeriod, 230
- isValid
 - AIRSCHEd::SegmentPathPeriod-Key, 236
- iterator_t
 - AIRSCHEd, 128
 - BookingRequestParser.cpp, 315
- jsonExport
 - AIRSCHEd::AIRSCHEd_Service, 145
- leg
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 156
- leg_cabin_details
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 156
- leg_details
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 156
- leg_key
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 156
- main
 - airsched.cpp, 307
- minutes_p
 - AIRSCHEd::OnDParserHelper, 134
 - AIRSCHEd::ScheduleParserHelper, 137
- month
 - airsched::SearchStringParser::definition, 159
- month_p
 - AIRSCHEd::OnDParserHelper, 134
 - AIRSCHEd::ScheduleParserHelper, 137
- not_to_be_parsed
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, 155
- ond
 - AIRSCHEd::OnDParserHelper::OnDParser::definition, 152
- ond_end
 - AIRSCHEd::OnDParserHelper::OnDParser::definition, 152
- ond_key
 - AIRSCHEd::OnDParserHelper::OnDParser::definition, 152
- ond_list
 - AIRSCHEd::OnDParserHelper::OnDParser::definition, 152
- operator<<
 - airsched.cpp, 306
 - ServiceAbstract.hpp, 434
- operator>>
 - ServiceAbstract.hpp, 434
- operator()
 - AIRSCHEd::OnDParserHelper::doEndOnD, 163
 - AIRSCHEd::OnDParserHelper::storeAirlineCode, 255
 - AIRSCHEd::OnDParserHelper::storeClassCode, 260
 - AIRSCHEd::OnDParserHelper::storeDateRangeEnd, 265
 - AIRSCHEd::OnDParserHelper::storeDateRangeStart, 266
 - AIRSCHEd::OnDParserHelper::storeDestination, 269
 - AIRSCHEd::OnDParserHelper::storeEndRangeTime, 274
 - AIRSCHEd::OnDParserHelper::storeOrigin, 288
 - AIRSCHEd::OnDParserHelper::storeStartRangeTime, 296
 - AIRSCHEd::ScheduleParserHelper::doEndFlight, 161
 - AIRSCHEd::ScheduleParserHelper::storeAirlineCode, 253
 - AIRSCHEd::ScheduleParserHelper::storeBoardingTime, 256
 - AIRSCHEd::ScheduleParserHelper::storeCapacity, 258
 - AIRSCHEd::ScheduleParserHelper::storeClasses, 261
 - AIRSCHEd::ScheduleParserHelper::storeDateRangeEnd, 263
 - AIRSCHEd::ScheduleParserHelper::storeDateRangeStart, 268

- AIRSCHEd::ScheduleParserHelper
 - ::storeDow, [271](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeElapsedTime, [273](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeFamilyCode, [276](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeFClasses, [277](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeFlightNumber, [279](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeLegBoardingPoint, [281](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeLegCabinCode, [283](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeLegOffPoint, [284](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeOffTime, [286](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeSegmentBoardingPoint, [289](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeSegmentCabinCode, [291](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeSegmentOffPoint, [293](#)
- AIRSCHEd::ScheduleParserHelper
 - ::storeSegmentSpecificity, [295](#)
- airsched::store_adult_passenger_-
 - type, [244](#)
- airsched::store_airline_code, [245](#)
- airsched::store_airline_name, [246](#)
- airsched::store_airline_sign, [247](#)
- airsched::store_child_passenger_-
 - type, [248](#)
- airsched::store_date, [249](#)
- airsched::store_passenger_number, [250](#)
- airsched::store_pet_passenger_-
 - type, [251](#)
- airsched::store_place_element, [252](#)
- parseAndLoad
 - AIRSCHEd::AIRSCHEd_Service, [143](#), [144](#)
- parseBookingRequest
 - airsched, [124](#)
 - airsched.cpp, [307](#)
- parseInputFileAndBuildBom
 - AIRSCHEd::TravelSolutionParser, [298](#)
- passenger_adult_type
 - airsched::SearchStringParser-
 - ::definition, [160](#)
- passenger_child_type
 - airsched::SearchStringParser-
 - ::definition, [160](#)
- passenger_number
 - airsched::SearchStringParser-
 - ::definition, [160](#)
- passenger_pet_type
 - airsched::SearchStringParser-
 - ::definition, [160](#)
- passenger_type
 - airsched::SearchStringParser-
 - ::definition, [160](#)
- passengers
 - airsched::SearchStringParser-
 - ::definition, [160](#)
- place_element
 - airsched::SearchStringParser-
 - ::definition, [159](#)
- places
 - airsched::SearchStringParser-
 - ::definition, [159](#)
- preferred_airlines
 - airsched::SearchStringParser-
 - ::definition, [159](#)
- readConfiguration
 - airsched.cpp, [306](#)
- repeat_p_t
 - AIRSCHEd, [129](#)
- rule_t
 - AIRSCHEd, [129](#)
 - BookingRequestParser.cpp, [315](#)
- scanner_t
 - AIRSCHEd, [128](#)
 - BookingRequestParser.cpp, [315](#)
- scheduleParsing
 - AirlineScheduleTestSuite, [141](#)
- search_string
 - airsched::SearchStringParser-
 - ::definition, [159](#)
- seconds_p
 - AIRSCHEd::OnDParserHelper, [134](#)
 - AIRSCHEd::ScheduleParserHelper, [137](#)
- segment

- AIRSCHEd::OnDParserHelper::OnDParser::definition, [152](#)
- segment_cabin_details
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, [157](#)
- segment_key
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, [156](#)
- segment_section
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, [156](#)
- serialize
 - AIRSCHEd::OriginDestinationSet, [198](#)
 - AIRSCHEd::OriginDestinationSetKey, [201](#)
 - AIRSCHEd::ReachableUniverse, [213](#)
 - AIRSCHEd::ReachableUniverseKey, [216](#)
 - AIRSCHEd::SegmentPathPeriod, [231](#)
 - AIRSCHEd::SegmentPathPeriodKey, [236](#)
- setBoardingDateOffsetList
 - AIRSCHEd::SegmentPathPeriodKey, [235](#)
- setBoardingTime
 - AIRSCHEd::SegmentPathPeriodKey, [235](#)
- setElapsedTime
 - AIRSCHEd::SegmentPathPeriodKey, [235](#)
- setNbOfAirlines
 - AIRSCHEd::SegmentPathPeriodKey, [235](#)
- setPeriod
 - AIRSCHEd::SegmentPathPeriodKey, [235](#)
- simulate
 - AIRSCHEd::AIRSCHEd_Service, [145](#)
 - AIRSCHEd::Simulator, [243](#)
- specific_segment_list
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, [157](#)
- start
 - AIRSCHEd::OnDParserHelper::OnDParser::definition, [152](#)
 - AIRSCHEd::ScheduleParserHelper::FlightPeriodParser::definition, [154](#)
 - airsched::SearchStringParser::definition, [158](#)
- stdair, [139](#)
- stdair::FacBom
 - AIRSCHEd::OriginDestinationSet, [198](#)
 - AIRSCHEd::ReachableUniverse, [213](#)
 - AIRSCHEd::SegmentPathPeriod, [231](#)
- stdair::FacBomManager
 - AIRSCHEd::OriginDestinationSet, [199](#)
 - AIRSCHEd::ReachableUniverse, [213](#)
 - AIRSCHEd::SegmentPathPeriod, [231](#)
- store_adult_passenger_type
 - airsched::store_adult_passenger_type, [244](#)
- store_airline_code
 - airsched::store_airline_code, [245](#)
- store_airline_name
 - airsched::store_airline_name, [246](#)
- store_airline_sign
 - airsched::store_airline_sign, [247](#)
- store_child_passenger_type
 - airsched::store_child_passenger_type, [248](#)
- store_date
 - airsched::store_date, [249](#)
- store_passenger_number
 - airsched::store_passenger_number, [250](#)
- store_pet_passenger_type
 - airsched::store_pet_passenger_type, [251](#)
- store_place_element
 - airsched::store_place_element, [252](#)
- storeAirlineCode
 - AIRSCHEd::OnDParserHelper::storeAirlineCode, [254](#)
 - AIRSCHEd::ScheduleParserHelper::storeAirlineCode, [253](#)

- storeBoardingTime
 - AIRSCHEd::ScheduleParserHelper-
::storeBoardingTime, [256](#)
- storeCapacity
 - AIRSCHEd::ScheduleParserHelper-
::storeCapacity, [258](#)
- storeClassCode
 - AIRSCHEd::OnDParserHelper-
::storeClassCode, [259](#)
- storeClasses
 - AIRSCHEd::ScheduleParserHelper-
::storeClasses, [261](#)
- storeDateRangeEnd
 - AIRSCHEd::OnDParserHelper-
::storeDateRangeEnd, [264](#)
 - AIRSCHEd::ScheduleParserHelper-
::storeDateRangeEnd, [263](#)
- storeDateRangeStart
 - AIRSCHEd::OnDParserHelper-
::storeDateRangeStart, [266](#)
 - AIRSCHEd::ScheduleParserHelper-
::storeDateRangeStart, [268](#)
- storeDestination
 - AIRSCHEd::OnDParserHelper-
::storeDestination, [269](#)
- storeDow
 - AIRSCHEd::ScheduleParserHelper-
::storeDow, [271](#)
- storeElapsedTime
 - AIRSCHEd::ScheduleParserHelper-
::storeElapsedTime, [272](#)
- storeEndRangeTime
 - AIRSCHEd::OnDParserHelper-
::storeEndRangeTime, [274](#)
- storeFClasses
 - AIRSCHEd::ScheduleParserHelper-
::storeFClasses, [277](#)
- storeFamilyCode
 - AIRSCHEd::ScheduleParserHelper-
::storeFamilyCode, [276](#)
- storeFlightNumber
 - AIRSCHEd::ScheduleParserHelper-
::storeFlightNumber, [279](#)
- storeLegBoardingPoint
 - AIRSCHEd::ScheduleParserHelper-
::storeLegBoardingPoint, [281](#)
- storeLegCabinCode
 - AIRSCHEd::ScheduleParserHelper-
::storeLegCabinCode, [282](#)
- storeLegOffPoint
 - AIRSCHEd::ScheduleParserHelper-
::storeLegOffPoint, [284](#)
- storeOffTime
 - AIRSCHEd::ScheduleParserHelper-
::storeOffTime, [286](#)
- storeOrigin
 - AIRSCHEd::OnDParserHelper-
::storeOrigin, [288](#)
- storeSegmentBoardingPoint
 - AIRSCHEd::ScheduleParserHelper-
::storeSegmentBoardingPoint,
[289](#)
- storeSegmentCabinCode
 - AIRSCHEd::ScheduleParserHelper-
::storeSegmentCabinCode, [291](#)
- storeSegmentOffPoint
 - AIRSCHEd::ScheduleParserHelper-
::storeSegmentOffPoint, [293](#)
- storeSegmentSpecificity
 - AIRSCHEd::ScheduleParserHelper-
::storeSegmentSpecificity, [294](#)
- storeStartRangeTime
 - AIRSCHEd::OnDParserHelper-
::storeStartRangeTime, [296](#)
- test/ Directory Reference, [122](#)
- test/airsched/ Directory Reference, [119](#)
- test/airsched/AirlineScheduleTestSuite.-
cpp, [436](#)
- test/airsched/AirlineScheduleTestSuite.-
hpp, [438](#), [439](#)
- time
 - AIRSCHEd::OnDParserHelper::On-
DParser::definition, [153](#)
 - AIRSCHEd::ScheduleParserHelper-
::FlightPeriodParser::definition,
[156](#)
- toStream
 - AIRSCHEd::OriginDestinationSet,
[197](#)
 - AIRSCHEd::OriginDestinationSet-
Key, [201](#)
 - AIRSCHEd::ReachableUniverse,
[212](#)
 - AIRSCHEd::ReachableUniverseKey,
[216](#)
 - AIRSCHEd::SegmentPathPeriod,
[230](#)
 - AIRSCHEd::SegmentPathPeriod-
Key, [236](#)

AIRSCHEd::ServiceAbstract, [241](#)

toString

AIRSCHEd::OriginDestinationSet,
[198](#)

AIRSCHEd::OriginDestinationSet-
Key, [201](#)

AIRSCHEd::ReachableUniverse,
[212](#)

AIRSCHEd::ReachableUniverseKey,
[216](#)

AIRSCHEd::SegmentPathPeriod,
[231](#)

AIRSCHEd::SegmentPathPeriod-
Key, [236](#)

uint1_2_p

airsched, [125](#)

uint1_4_p

airsched, [125](#)

AIRSCHEd::OnDParserHelper, [135](#)

AIRSCHEd::ScheduleParserHelper,
[138](#)

uint1_4_p_t

AIRSCHEd, [129](#)

uint1_p

airsched, [124](#)

uint2_4_p

airsched, [125](#)

uint2_p

airsched, [125](#)

AIRSCHEd::OnDParserHelper, [135](#)

AIRSCHEd::ScheduleParserHelper,
[138](#)

uint2_p_t

AIRSCHEd, [129](#)

uint4_p

airsched, [125](#)

AIRSCHEd::OnDParserHelper, [135](#)

AIRSCHEd::ScheduleParserHelper,
[138](#)

uint4_p_t

AIRSCHEd, [129](#)

year

airsched::SearchStringParser-
::definition, [159](#)

year_p

AIRSCHEd::OnDParserHelper, [134](#)

AIRSCHEd::ScheduleParserHelper,
[136](#)