SEvMgr

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SEvMgr is a C++ library of discrete event queue management classes and functions, exclusively targeting simulation purposes. N

SEvMgr makes an extensive use of existing open-source libraries for increased functionality, speed and accuracy. In particular the Boost (*C++ Standard Extensions*) library is used.

The SEvMgr library originates from the department of Operational Research and Innovation at Amadeus, Sophia Antipolis, France. SEvMgr is released under the terms of the GNU Lesser General Public License (LGPLv2.1) for you to enjoy.

SEvMgr 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 SEvMgr 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 SEvMgr.

2 People

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Note

(N) - Amadeus employees.

3 Coding Rules

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

3.1 Default Naming Rules for Variables

Variables names follow Java naming conventions. Examples:

- lNumberOfPassengers

- lSeatAvailability

3.2 Default Naming Rules for Functions

Function names follow Java naming conventions. Example:

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

3.3 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`

3.4 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`

3.5 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.

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4.1.1 Version 2.1, February 1999

```
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```

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application-supplied function or table used by this function must
be optional: if the application does not supply it, the square
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```

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```
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user can modify the Library and then relink to produce a modified
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Library will not necessarily be able to recompile the application
```

```
to use the modified definitions.)

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rather than copying library functions into the executable, and (2)
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interface-compatible with the version that the work was made with.

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   b) Give prominent notice with the combined library of the fact
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   where to find the accompanying uncombined form of the same work.
   ```

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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>

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modify it under the terms of the GNU Lesser General Public
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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

5 Documentation Rules

5.1 General Rules

All classes in SEvMgr 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 SEvMgr 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
};
```

5.2   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.
 *
 * ------------------------------------------------------------------------
 *
 * SEvMgr – C++ Airline Inventory Management Library
 *
 * Copyright (C) 2009-2010  (\see authors file for a list of contributors)
 *
 * \see copyright file for license information
 *
 * ------------------------------------------------------------------------
 */
```

5.3   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);
```

6 Main features

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

6.1 Booking management

- Booking and cancellation requests

6.2 Revenue Management notification

- Forecast and Optimisation notification requests

6.3 Setting simulation break-points

- Simulation break-points

6.4 Other features

- CSV input file parsing

- Memory handling

7 Make a Difference

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

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

- Start using SEvMgr

- Tell your friends about SEvMgr 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 SEvMgr discussion forums on SourceForge. If you know the answer to a question, help others to overcome their SEvMgr 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 SEvMgr to new platforms. If you manage to compile SEvMgr on a new platform, then tell us how you did it.

- Send us your code. If you have a good SEvMgr compatible code, which you can release under the LGPLv2.1, and you think it should be included in SEvMgr, then send it to us.

- Become an SEvMgr developer. Send us an e-mail and tell what you can do for SEvMgr.

8 Make a new release

8.1 Introduction

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

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

8.2 Initialisation

Clone locally the full `Git project`:

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://sevmgr.git.sourceforge.net/gitroot/sevmgr/sevmgr sevmgrgit
cd sevmgrgit
git checkout trunk
```

8.3 Branch creation

Create the branch, on your local clone, corresponding to the new release (say, 0.5.0):

```
cd ~/dev/sim/sevmgrgit
git checkout trunk
git checkout -b 0.5.0
```

Update the version in the various build system files, replacing 99.99.99 by the correct version number:

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

Update the version and add a change-log in the ChangeLog and in the RPM specification files:

```
vi ChangeLog
vi sevmgr.spec
```

8.4 Commit and publish the release branch

Commit the new release:

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

8.5 Update the change-log in the trunk as well

Update the change-log in the ChangeLog and RPM specification files:

```
cd ~/dev/sim/sevmgrgit
git checkout trunk
vi ChangeLog
vi sevmgr.spec
```

Commit the change-logs and publish the trunk (main development branch):

```
git commit -m "[Doc] Integrated the change-log of the release 0.5.0."
git push
```

8.6 Create distribution packages

Create the distribution packages using the following command:

```
cd ~/dev/sim/sevmgrgit
git checkout 0.5.0
rm -rf build && mkdir -p build
cd build
cmake -DCMAKE_INSTALL_PREFIX=/home/user/dev/deliveries/sevmgr-0.5.0 \
 -DWITH_STDAIR_PREFIX=/home/user/dev/deliveries/stdair-stable \
 -DCMAKE_BUILD_TYPE:STRING=Debug -DINSTALL_DOC:BOOL=ON ..
make check && make dist
```

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

8.7 Generation the RPM packages

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

```
cd ~/dev/sim/sevmgrgit
git checkout 0.5.0
rm -rf build && mkdir -p build
cd build
cmake -DCMAKE_INSTALL_PREFIX=/home/user/dev/deliveries/sevmgr-0.5.0 \
 -DWITH_STDAIR_PREFIX=/home/user/dev/deliveries/stdair-stable \
 -DCMAKE_BUILD_TYPE:STRING=Debug -DINSTALL_DOC:BOOL=ON ..
make dist
```

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

```
cp sevmgr.spec ~/dev/packages/SPECS \
  && cp sevmgr-0.5.0.tar.bz2 ~/dev/packages/SOURCES
cd ~/dev/packages/SPECS
rpmbuild -ba sevmgr.spec
rpmlint -i ../SPECS/sevmgr.spec ../SRPMS/sevmgr-0.5.0-1.fc15.src.rpm \
  ../RPMS/noarch/sevmgr-* ../RPMS/i686/sevmgr-*
```

8.8 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 SEvMgr's Git repository.

8.9 Create the binary package, including the documentation

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

```
make package
```

The output binary package will be named, for instance, `sevmgr-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.

8.10 Upload the files to SourceForge

Upload the distribution and documentation packages to the SourceForge server. Check SourceForge help page on uploading software.

8.11 Upload the documentation to SourceForge

In order to update the Web site files, either:

- synchronise them with rsync and SSH:

```
cd ~/dev/sim/sevmgrgit
git checkout 0.5.0
rsync -aiv doc/html/ doc/latex/refman.pdf joe,sevmgr@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.

8.12 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.

8.13 Send an email on the announcement mailing-list

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

9 Installation

9.1 Table of Contents

- Fedora/RedHat Linux distributions
- SEvMgr Requirements
- Basic Installation

9.2 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 sevmgr-devel sevmgr-doc
```

RPM packages can also be available on the `SourceForge download site`.

9.3 SEvMgr Requirements

SEvMgr 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')

- `SOCI` - 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 SEvMgr.

9.4 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 <tt>'CMakeLists.txt'</tt> is used to create the \c '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.

9.5 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.

9.6 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.

9.7 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=P-
REFIX', 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=P-
REFIX' 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.

9.8   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=P-
REFIX' 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'.

9.9   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
```

9.10   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'.

9.11   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.

9.12   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
```

9.13 '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 ouput like this:

```
export LIBSUFFIX_4_CMAKE="-DLIB_SUFFIX=64"
export INSTALL_BASEDIR=/home/user/dev/deliveries
cmake -DCMAKE_INSTALL_PREFIX=${INSTALL_BASEDIR}/sevmgr-0.5.0 \
 -DWITH_STDAIR_PREFIX=${INSTALL_BASEDIR}/stdair-stable \
 -DWITH_AIRRAC_PREFIX=${INSTALL_BASEDIR}/airrac-stable \
 -DWITH_RMOL_PREFIX=${INSTALL_BASEDIR}/rmol-stable \
 -DCMAKE_BUILD_TYPE:STRING=Debug -DINSTALL_DOC:BOOL=ON ${LIBSUFFIX_4_CMAKE} ..
-- 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: 0ee8dcc3e3dd1d1d442c4054fbfa4cacc1182e6a 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 Readline without specifying any version
-- Found Readline: /usr/include
-- Found Readline version: 6.2
-- 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-0.37
-- 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 'sevmgrlib' to CXX
-- Test 'InventoryTestSuite' to be built with 'InventoryTestSuite.cpp'
--
-- =========================================================
-- --------------------------------
-- ---     Project Information    ---
-- --------------------------------
-- PROJECT_NAME ................... : sevmgr
-- PACKAGE_PRETTY_NAME ............ : SEvMgr
-- PACKAGE ........................ : sevmgr
-- PACKAGE_NAME ................... : SEVMGR
-- PACKAGE_BRIEF .................. : C++ Simulation-Oriented Discrete Event Management Library
-- PACKAGE_VERSION ................ : 0.5.0
-- GENERIC_LIB_VERSION ............ : 0.5.0
-- GENERIC_LIB_SOVERSION .......... : 0.5
--
-- --------------------------------
-- ---     Build Configuration    ---
-- --------------------------------
-- Modules to build .............. : airrac;rmol;sevmgr
-- Libraries to build/install ..... : airraclib;rmollib;sevmgrlib
-- Binaries to build/install ...... : airrac;rmol;sevmgr_parseInventory;sevmgr
-- Modules to test ............... : sevmgr
-- Binaries to test .............. : InventoryTestSuitetst
--
-- * Module ...................... : sevmgr
--   + Layers to build ........... : .;basic;bom;factory;command;service
--   + Dependencies on other layers : airraclib;rmollib
--   + Libraries to build/install . : sevmgrlib
--   + Executables to build/install : sevmgr_parseInventory;sevmgr
--   + Tests to perform .......... : InventoryTestSuitetst
--
-- BUILD_SHARED_LIBS .............. : ON
-- CMAKE_BUILD_TYPE ............... : Debug
```

```
--   * CMAKE_C_FLAGS ............... :
--   * CMAKE_CXX_FLAGS ............. : -Wall -Werror
--   * BUILD_FLAGS ................. :
--   * COMPILE_FLAGS ............... :
-- CMAKE_MODULE_PATH .............. : /home/dan/dev/sim/sevmgr/sevmgrgithub/config/
-- CMAKE_INSTALL_PREFIX ........... : /home/dan/dev/deliveries/sevmgr-0.5.0
--
-- * 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/dan/dev/deliveries/sevmgr-0.5.0/lib64
-- INSTALL_BIN_DIR ............... : /home/dan/dev/deliveries/sevmgr-0.5.0/bin
-- INSTALL_INCLUDE_DIR ........... : /home/dan/dev/deliveries/sevmgr-0.5.0/include
-- INSTALL_DATA_DIR .............. : /home/dan/dev/deliveries/sevmgr-0.5.0/share
-- INSTALL_SAMPLE_DIR ............ : /home/dan/dev/deliveries/sevmgr-0.5.0/share/sevmgr/samples
-- INSTALL_DOC ................... : ON
--
-- -------------------------------
-- ---   Packaging Configuration  ---
-- -------------------------------
-- CPACK_PACKAGE_CONTACT ......... : Denis Arnaud <denis_arnaud - at - users dot sourceforge dot net>
-- CPACK_PACKAGE_VENDOR .......... : Denis Arnaud
-- CPACK_PACKAGE_VERSION ......... : 0.5.0
-- CPACK_PACKAGE_DESCRIPTION_FILE . : /home/dan/dev/sim/sevmgr/sevmgrgithub/README
-- CPACK_RESOURCE_FILE_LICENSE .... : /home/dan/dev/sim/sevmgr/sevmgrgithub/COPYING
-- CPACK_GENERATOR ............... : TBZ2
-- CPACK_DEBIAN_PACKAGE_DEPENDS ... :
-- CPACK_SOURCE_GENERATOR ......... : TBZ2;TGZ
-- CPACK_SOURCE_PACKAGE_FILE_NAME . : sevmgr-0.5.0
--
-- -------------------------------
-- ---    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;filesystem;unit_
--   - Boost required libraries ... : optimized;/usr/lib64/libboost_regex-mt.so;debug;/usr/lib64/libboost_rege
--
-- * Readline:
--   - READLINE_VERSION ........... : 6.2
--   - READLINE_INCLUDE_DIR ....... : /usr/include
--   - READLINE_LIBRARY ........... : /usr/lib64/libreadline.so
--
-- * 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
--   - SOCIMYSQL_INCLUDE_DIR ...... : /usr/include/soci
--   - SOCI_LIBRARIES ............. : /usr/lib64/libsoci_core.so
--   - SOCIMYSQL_LIBRARIES ........ : /usr/lib64/libsoci_mysql.so
--
-- * StdAir:
--   - STDAIR_VERSION ............. : 0.38.0
--   - STDAIR_BINARY_DIRS ......... : /home/dan/dev/deliveries/stdair-0.38.0/bin
--   - STDAIR_EXECUTABLES ......... : stdair
--   - STDAIR_LIBRARY_DIRS ........ : /home/dan/dev/deliveries/stdair-0.38.0/lib64
--   - STDAIR_LIBRARIES ........... : stdairlib;stdairuicllib
--   - STDAIR_INCLUDE_DIRS ........ : /home/dan/dev/deliveries/stdair-0.38.0/include
--   - STDAIR_SAMPLE_DIR .......... : /home/dan/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/dan/dev/sim/sevmgr/sevmgrgithub/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_sevmgr
[  0%] Built target hdr_cfg_airrac
[ 13%] Built target hdr_cfg_rmol
[ 98%] Built target sevmgrlib
[100%] Built target InventoryTestSuitetst
Scanning dependencies of target check_sevmgrtst
Test project /home/dan/dev/sim/sevmgr/sevmgrgithub/build/test/sevmgr
    Start 1: InventoryTestSuitetst
1/1 Test #1: InventoryTestSuitetst ............   Passed    0.08 sec

100% tests passed, 0 tests failed out of 1

Total Test time (real) =   0.35 sec
[100%] Built target check_sevmgrtst
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/sevmgrgit
rm -rf build && mkdir build
cd build
```

to remove everything.

10 Linking with SEvMgr

10.1 Table of Contents

10.2 Introdution

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

10.3 Dependencies

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

10.3.1 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').
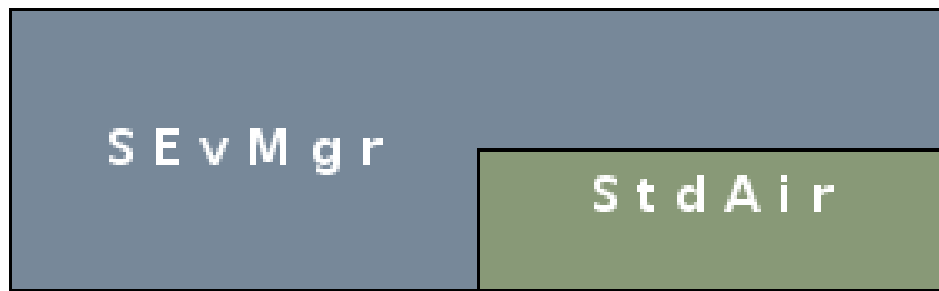
Figure 1: SEvMgr Dependencies

10.4 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 SEvMgr based program 'my_prog.cpp', you should use the following command:

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

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

10.5 Using the sevmgr-config script

SEvMgr provides a shell script called sevmgr-config, which is installed by default in '$prefix/bin' ('/usr/local/bin') directory. It can be used to simplify compilation and linking of SEvMgr 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++ `sevmgr-config --cflags` -o my_prog_opt my_prog.cpp `sevmgr-config --libs`
```

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

```
sevmgr-config --help
```

If the 'sevmgr-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
```

10.6   M4 macro for the GNU Autotools

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

- 'SEvMgr_VERSION' (e.g., defined to 0.23.0)

- 'SEvMgr_CFLAGS' (e.g., defined to '-I${prefix}/include')

- 'SEvMgr_LIBS' (e.g., defined to '-L${prefix}/lib -lsevmgr')

10.7   Using SEvMgr with dynamic linking

When using static linking some of the library routines in SEvMgr 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 SEvMgr library file during your program execution. If you install the SEvMgr 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=<SEvMgr installation prefix>/lib:$LD_LIBRARY_PATH
```

11   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.

11.1   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'.

11.2   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.

11.3   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.

12   Users Guide

12.1   Table of Contents

12.2   Introduction

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

12.3 Get Started

12.3.1 Get the SEvMgr library

Clone locally the full Git project:

```
cd ~
mkdir -p dev/sim
cd ~/dev/sim
git clone git://sevmgr.git.sourceforge.net/gitroot/sevmgr/sevmgr sevmgrgit
cd sevmgrgit
git checkout trunk
```

12.3.2 Build the SEvMgr project

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

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

12.3.3 Build and Run the Tests

After building the SEvMgr project, the following commands run the tests:

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

As a result, you should obtain a similar report:

```
[  0%] Built target hdr_cfg_sevmgr
[ 96%] Built target sevmgrlib
[100%] Built target AirlineScheduleTestSuitetst
Scanning dependencies of target check_sevmgrtst
Test project /home/dan/dev/sim/sevmgr/sevmgrgithub/build/test/sevmgr
    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_sevmgrtst
Scanning dependencies of target check
[100%] Built target check
```

12.3.4 Install the SEvMgr Project (Binaries, Documentation)

After the step Build the SEvMgr project, to install the library and its header files, type:

```
cd ~/dev/sim/sevmgrgit
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/sevmgr-0.5.0
```

To generate the SEvMgr project documentation, the commands are:

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

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

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

12.4   Input file of SEvMgr Project

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

Each line, beyond the header, represents a schedule entry, i.e., the specification of a given flight-period (see `SEV-MGR::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 bahave 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`, `JCDI`, `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`, `JCDI`, `WT` or `YBHK-MLSQ`)

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

12.5 The schedule BOM Tree

The schedule-related Business Object Model (BOM) tree is a structure allowing to store all the `SEVMGR::-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 SEvMgr 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.

12.5.1 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 SEVMGR::SEVMGR_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 SEVMGR::SEVMGR_Service::buildSampleBom() method:

```
void buildSampleBom();
```

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

12.5.2 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::sevmgr.cpp` program:

When the default BOM tree is used (-b/--builtin option of the main program sevmgr.cpp), the schedule BOM tree display (for now, corresponding to schedule01.csv parsed by SEVMGR::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, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-15, SIN-BKK 2010-Jan-15, Y, 300, 300, 0, 0, 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,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Jan-16
*********************************************
*********************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
SQ11 2010-Jan-16, SIN-BKK 2010-Jan-16, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Jan-17
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
            Elapsed, Distance, Capacity,
SQ11 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,
SQ11 2010-Jan-17, SIN-BKK 2010-Jan-17, Y, 300, 300, 0, 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,
SQ11 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,
SQ11 2010-Jan-19, SIN-BKK 2010-Jan-19, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Jan-20
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
SQ11 2010-Jan-20, SIN-BKK 2010-Jan-20, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Jan-21
*****************************************
*****************************************
```

```
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
*****************************************
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 2010-Jan-21, SIN-BKK 2010-Jan-21, Y, 1, Y, 300 (0), 0, 0, 0, 0, 0 (0), 0,
     0, 0, 0, 0, 0,
SQ11 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: SQ11, 2010-Jan-22
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*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
SQ11 2010-Jan-22, SIN-BKK 2010-Jan-22, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Jan-23
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 2010-Jan-23, SIN-BKK, 2010-Jan-23, 08:20:00, 2010-Jan-23, 11:00:00, 07:40:
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      00, 0, -05:00:00, 6300, 0,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 300, 300, 0, 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,
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*******************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-23, SIN-BKK 2010-Jan-23, Y, 2, 0, 0, 0, 0, 300, 0,
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*******************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 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,
SQ11 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,
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*******************************************
FlightDate: SQ11, 2010-Jan-24
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Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
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*******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*******************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Jan-24, SIN-BKK 2010-Jan-24, Y, 2, 0, 0, 0, 0, 300, 0,
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*******************************************
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,
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FlightDate: SQ11, 2010-Jan-25
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Leg-Dates:
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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,
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LegCabins:
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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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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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,
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FlightDate: SQ11, 2010-Jan-26
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Leg-Dates:
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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,
*****************************************
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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,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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*****************************************
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,
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*****************************************
FlightDate: SQ11, 2010-Jan-27
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*****************************************
Leg-Dates:
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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,
*****************************************
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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,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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FlightDate: SQ11, 2010-Jan-28
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*****************************************
Leg-Dates:
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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,
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*****************************************
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
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*****************************************
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, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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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,
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*****************************************
FlightDate: SQ11, 2010-Jan-30
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
SQ11 2010-Jan-30, SIN-BKK 2010-Jan-30, 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-30, SIN-BKK 2010-Jan-30, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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,
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*****************************************
FlightDate: SQ11, 2010-Jan-31
*****************************************
*****************************************
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
SQ11 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 1, 0, 0, 0, 0, 300, 0,
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SQ11 2010-Jan-31, SIN-BKK 2010-Jan-31, Y, 2, 0, 0, 0, 0, 300, 0,
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*******************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 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,
SQ11 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:
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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,
*******************************************
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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,
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*******************************************
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,
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*******************************************
FlightDate: SQ11, 2010-Feb-02
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*******************************************
Leg-Dates:
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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:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*******************************************
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SegmentCabins:
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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,
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Subclasses:
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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,
*****************************************
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FlightDate: SQ11, 2010-Feb-03
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Leg-Dates:
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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,
*****************************************
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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:
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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,
*****************************************
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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:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*****************************************
*****************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 2, 0, 0, 0, 0, 300, 0,
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*****************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 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,
SQ11 2010-Feb-04, SIN-BKK 2010-Feb-04, Y, 2, M, 300 (0), 0, 0, 0, 0, 0 (0), 0,
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     0, 0, 0, 0, 0,
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*****************************************
FlightDate: SQ11, 2010-Feb-05
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*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
     CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
     , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-05, SIN-BKK 2010-Feb-05, Y, 2, 0, 0, 0, 0, 300, 0,
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*****************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
     GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 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,
SQ11 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,
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*****************************************
FlightDate: SQ11, 2010-Feb-06
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Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
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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, 0, 0, 300
     , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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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,
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FlightDate: SQ11, 2010-Feb-07
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Leg-Dates:
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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,
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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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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*****************************************
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,
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FlightDate: SQ11, 2010-Feb-08
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Leg-Dates:
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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,
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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,
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*****************************************
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,
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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,
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FlightDate: SQ11, 2010-Feb-09
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
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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,
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*****************************************
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,
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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,
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FlightDate: SQ11, 2010-Feb-10
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Leg-Dates:
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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,
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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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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*****************************************
FlightDate: SQ11, 2010-Feb-11
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*****************************************
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,
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LegCabins:
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----------
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, 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, 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, 0, 300
     , 9, 0, 0, 0, 0, 0,
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Buckets:
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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
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Leg-Dates:
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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,
SQ11 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,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-15, SIN-BKK 2010-Feb-15, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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,
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FlightDate: SQ11, 2010-Feb-16
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-16, SIN-BKK 2010-Feb-16, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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: SQ11, 2010-Feb-17
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 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,
SQ11 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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
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SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-17, SIN-BKK 2010-Feb-17, Y, 2, 0, 0, 0, 0, 300, 0,
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******************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 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,
SQ11 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,
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******************************************
FlightDate: SQ11, 2010-Feb-18
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******************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 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,
******************************************
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 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,
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******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-18, SIN-BKK 2010-Feb-18, Y, 2, 0, 0, 0, 0, 300, 0,
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Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 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,
SQ11 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,
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FlightDate: SQ11, 2010-Feb-19
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******************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
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******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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******************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-19, SIN-BKK 2010-Feb-19, Y, 2, 0, 0, 0, 0, 300, 0,
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Subclasses:
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-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ11 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,
SQ11 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,
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FlightDate: SQ11, 2010-Feb-20
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*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ11 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 300, 300, 0, 0, 0, 0, 0, 0, 0, 0, 300
      , 9, 0, 0, 0, 0, 0,
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Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 2010-Feb-20, SIN-BKK 2010-Feb-20, Y, 2, 0, 0, 0, 0, 300, 0,
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*****************************************
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,
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FlightDate: SQ11, 2010-Feb-21
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Leg-Dates:
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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,
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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,
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*****************************************
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,
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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,
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FlightDate: SQ11, 2010-Feb-22
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*****************************************
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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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*****************************************
FlightDate: SQ11, 2010-Feb-24
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*****************************************
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,
SQ11 2010-Feb-24, SIN-BKK 2010-Feb-24, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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,
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*****************************************
FlightDate: SQ11, 2010-Feb-25
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ11 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,
SQ11 2010-Feb-25, SIN-BKK 2010-Feb-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-Feb-25, SIN-BKK 2010-Feb-25, Y, 1, 0, 0, 0, 0, 300, 0,
SQ11 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,
SQ11 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,
SQ11 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,
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*****************************************
FlightDate: SQ11, 2010-Feb-26
*****************************************
*****************************************
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
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        Elapsed, Distance, Capacity,
SQ11 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, 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, 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,
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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, 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,
*******************************************
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Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*******************************************
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,
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*******************************************
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,
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*******************************************
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,
*******************************************
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
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SQ12 2010-Jan-16, SIN-HND 2010-Jan-16, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
    , 9, 2.63638e-319, 0, 0, 0, 0,
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Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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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,
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*****************************************
FlightDate: SQ12, 2010-Jan-17
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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,
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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, 0, 200
    , 9, 2.39291e-319, 0, 0, 0, 0,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-17, SIN-HND 2010-Jan-17, Y, 2, 0, 0, 0, 0, 200, 0,
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Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
    GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Jan-18
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
    Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
    CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 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,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-18, SIN-HND 2010-Jan-18, Y, 2, 0, 0, 0, 0, 200, 0,
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*******************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Jan-19
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
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*******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
*******************************************
*******************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-19, SIN-HND 2010-Jan-19, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Jan-20
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*******************************************
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 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,
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Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-20, SIN-HND 2010-Jan-20, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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,
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******************************************
FlightDate: SQ12, 2010-Jan-21
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******************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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, 0, 200
      , 9, 0, 0, 0, 0, 0,
******************************************
******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
******************************************
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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,
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FlightDate: SQ12, 2010-Jan-22
******************************************
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Leg-Dates:
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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, 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,
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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,
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*****************************************
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,
*****************************************
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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, 0, 200
      , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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*****************************************
FlightDate: SQ12, 2010-Jan-24
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*****************************************
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,
*****************************************
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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, 0, 200
      , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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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,
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******************************************
FlightDate: SQ12, 2010-Jan-25
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******************************************
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, 0, 200
    , 9, 0, 0, 0, 0, 0,
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******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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******************************************
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,
******************************************
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FlightDate: SQ12, 2010-Jan-26
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Leg-Dates:
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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, 0, 200
    , 9, 0, 0, 0, 0, 0,
******************************************
******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
******************************************
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 2010-Jan-26, SIN-HND 2010-Jan-26, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
    0, 0, 0, 0, 0,
SQ12 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,
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*****************************************
FlightDate: SQ12, 2010-Jan-27
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Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Jan-27, SIN-HND 2010-Jan-27, Y, 2, 0, 0, 0, 0, 200, 0,
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*****************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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*****************************************
FlightDate: SQ12, 2010-Jan-28
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Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
SQ12 2010-Jan-28, SIN-HND 2010-Jan-28, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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*****************************************
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,
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FlightDate: SQ12, 2010-Jan-29
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Leg-Dates:
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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,
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*****************************************
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,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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*****************************************
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,
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*****************************************
FlightDate: SQ12, 2010-Jan-30
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Leg-Dates:
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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,
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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,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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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,
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*****************************************
FlightDate: SQ12, 2010-Jan-31
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Leg-Dates:
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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,
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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, 0, 200
     , 9, 0, 0, 0, 0, 0,
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*****************************************
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,
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*****************************************
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,
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*****************************************
FlightDate: SQ12, 2010-Feb-01
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Leg-Dates:
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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,
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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,
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*****************************************
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,
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*****************************************
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, 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,
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*****************************************
FlightDate: SQ12, 2010-Feb-02
*****************************************
*****************************************
Leg-Dates:
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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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
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        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,
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*******************************************
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,
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*******************************************
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,
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*******************************************
FlightDate: SQ12, 2010-Feb-03
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*******************************************
Leg-Dates:
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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,
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*******************************************
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, 0, 200
        , 9, 0, 0, 0, 0, 0,
*******************************************
*******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*******************************************
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,
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*******************************************
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,
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*******************************************
FlightDate: SQ12, 2010-Feb-04
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*******************************************
Leg-Dates:
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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,
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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, 0, 200
        , 9, 0, 0, 0, 0, 0,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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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,
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*****************************************
FlightDate: SQ12, 2010-Feb-05
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*****************************************
Leg-Dates:
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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,
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*****************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
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,
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*****************************************
FlightDate: SQ12, 2010-Feb-06
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*****************************************
Leg-Dates:
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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,
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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,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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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,
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FlightDate: SQ12, 2010-Feb-07
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Leg-Dates:
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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,
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LegCabins:
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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, 0, 200
     , 9, 0, 0, 0, 0, 0,
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******************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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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,
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Subclasses:
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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,
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******************************************
FlightDate: SQ12, 2010-Feb-08
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******************************************
Leg-Dates:
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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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
     CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 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,
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******************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 2, 0, 0, 0, 0, 200, 0,
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Subclasses:
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Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 2010-Feb-08, SIN-HND 2010-Feb-08, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 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,
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FlightDate: SQ12, 2010-Feb-09
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
      , 9, 0, 0, 0, 0, 0,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-09, SIN-HND 2010-Feb-09, Y, 2, 0, 0, 0, 0, 200, 0,
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Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Feb-10
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Leg-Dates:
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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,
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LegCabins:
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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, 0, 200
      , 9, 0, 0, 0, 0, 0,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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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,
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Subclasses:
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Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
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        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,
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FlightDate: SQ12, 2010-Feb-11
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Leg-Dates:
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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,
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LegCabins:
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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,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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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,
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Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
        GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Feb-12
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
        Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
        CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 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,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-12, SIN-HND 2010-Feb-12, Y, 2, 0, 0, 0, 0, 200, 0,
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Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
        GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Feb-13
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 2010-Feb-13, SIN-HND, 2010-Feb-13, 09:20:00, 2010-Feb-13, 12:00:00, 07:40:
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 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,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-13, SIN-HND 2010-Feb-13, Y, 2, 0, 0, 0, 0, 200, 0,
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*****************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Feb-14
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*****************************************
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
      CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 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,
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Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
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Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-14, SIN-HND 2010-Feb-14, Y, 2, 0, 0, 0, 0, 200, 0,
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*****************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
      GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Feb-15
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Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
     CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 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,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 2010-Feb-15, SIN-HND 2010-Feb-15, Y, 2, 0, 0, 0, 0, 200, 0,
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*****************************************
Subclasses:
-----------
Flight, Segment, Cabin, FF, Subclass, MIN/AU (Prot), Nego, NS%, OB%, Bkgs,
     GrpBks (pdg), StfBkgs, WLBkgs, ETB, ClassAvl, RevAvl, SegAvl,
SQ12 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,
SQ12 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,
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FlightDate: SQ12, 2010-Feb-16
*****************************************
*****************************************
Leg-Dates:
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Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ12 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,
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*****************************************
LegCabins:
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Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
     CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
     , 9, 0, 0, 0, 0, 0,
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*****************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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*****************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-16, SIN-HND 2010-Feb-16, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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,
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*****************************************
FlightDate: SQ12, 2010-Feb-17
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*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ12 2010-Feb-17, SIN-HND, 2010-Feb-17, 09:20:00, 2010-Feb-17, 12:00:00, 07:40:
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        00, 0, -05:00:00, 6300, 0,
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******************************************
LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
        CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 0, 200
        , 9, 0, 0, 0, 0, 0,
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******************************************
Buckets:
--------
Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-17, SIN-HND 2010-Feb-17, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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,
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******************************************
FlightDate: SQ12, 2010-Feb-18
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******************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
        Elapsed, Distance, Capacity,
SQ12 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,
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LegCabins:
----------
Flight, Leg, Cabin, OffedCAP, PhyCAP, RgdADJ, AU, UPR, SS, Staff, WL, Group,
        CommSpace, AvPool, Avl, NAV, GAV, ACP, ETB, BidPrice,
SQ12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 200, 200, 0, 0, 0, 0, 0, 0, 0, 200
        , 9, 0, 0, 0, 0, 0,
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******************************************
Buckets:
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Flight, Leg, Cabin, Yield, AU/SI, SS, AV,
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******************************************
SegmentCabins:
--------------
Flight, Segment, Cabin, FF, Bkgs, MIN, UPR, CommSpace, AvPool, BP,
SQ12 2010-Feb-18, SIN-HND 2010-Feb-18, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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,
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******************************************
FlightDate: SQ12, 2010-Feb-19
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******************************************
Leg-Dates:
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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,
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LegCabins:
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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, 0, 200
        , 9, 0, 0, 0, 0, 0,
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Buckets:
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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, 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,
SQ12 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,
SQ12 2010-Feb-22, SIN-HND 2010-Feb-22, Y, 1, Y, 200 (0), 0, 0, 0, 0, 0 (0), 0,
      0, 0, 0, 0, 0,
SQ12 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: SQ12, 2010-Feb-23
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
SQ12 2010-Feb-23, SIN-HND 2010-Feb-23, 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-23, SIN-HND 2010-Feb-23, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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: SQ12, 2010-Feb-24
*****************************************
*****************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
      Elapsed, Distance, Capacity,
SQ12 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,
SQ12 2010-Feb-24, SIN-HND 2010-Feb-24, 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-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, 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,
SQ12 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,
SQ12 2010-Feb-26, SIN-HND 2010-Feb-26, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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: SQ12, 2010-Feb-27
******************************************
******************************************
Leg-Dates:
----------
Flight, Leg, BoardDate, BoardTime, OffDate, OffTime, Date Offset, Time Offset,
     Elapsed, Distance, Capacity,
SQ12 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,
SQ12 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,
SQ12 2010-Feb-27, SIN-HND 2010-Feb-27, Y, 1, 0, 0, 0, 0, 200, 0,
SQ12 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,
SQ12 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,
SQ12 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: SQ12, 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, 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,
*****************************************
```

12.6   Exploring the Predefined BOM Tree
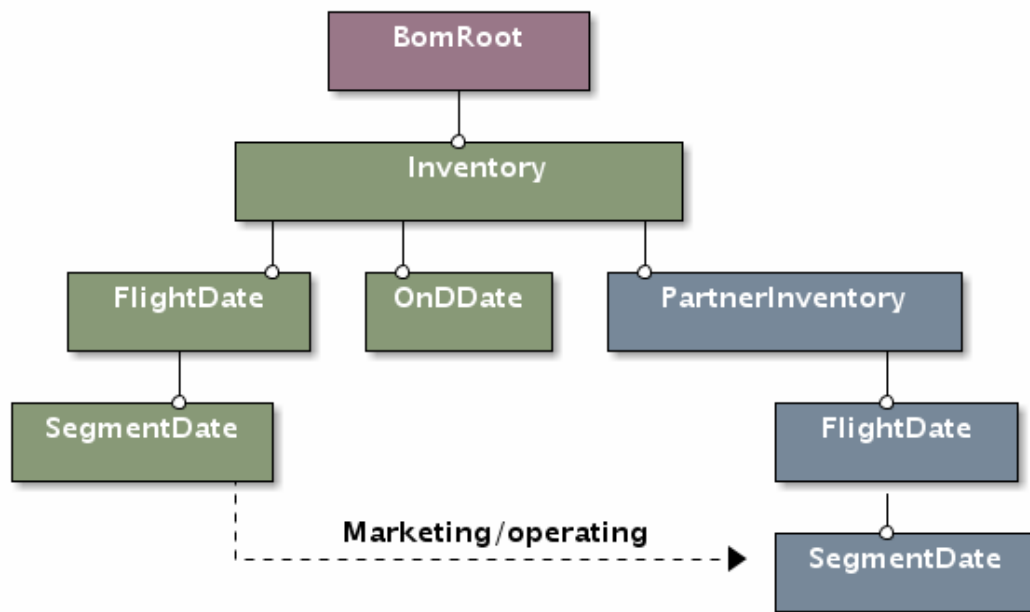
Figure 2: SEvMgr BOM tree

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

12.6.1   Airline Network BOM Tree

- `SEVMGR::ReachableUniverse`
- `SEVMGR::OriginDestinationSet`
- `SEVMGR::SegmentPathPeriod`

12.6.2   Airline Schedule BOM Tree

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

12.7   Extending the BOM Tree

12.8   The travel solution calculation procedure

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

13 Supported Systems

13.1 Table of Contents

13.2 Introdution

This page is intended to provide a list of SEvMgr supported systems, i.e. the systems on which configuration, installation and testing process of the SEvMgr library has been sucessful. 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 SEvMgr library on a system not mentioned below, please let us know, so we could update this database.

14 SEvMgr Supported Systems (Previous Releases)

14.1 SEvMgr 3.9.1

14.2 SEvMgr 3.9.0

14.3 SEvMgr 3.8.1

15 Tutorials

15.1 Table of Contents

15.2 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.

15.3 Your first networkBuilde

15.3.1 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):

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

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

15.3.2 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.

15.4 Network building with an input file

15.4.1 How to build a network input file?

The objective here is to build a network input file to network builde 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 :

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:

Let us say we have just the Economy cabin "Y" and Bristish 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:

15.4.2 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 :

15.4.3 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.

16 Command-Line Test to Demonstrate How To Use Sevmgr elements

```cpp
 */
// //////////////////////////////////////////////////////////////////////
// Import section
// //////////////////////////////////////////////////////////////////////
// STL
#include <sstream>
#include <fstream>
#include <map>
#include <cmath>
// Boost Unit Test Framework (UTF)
#define BOOST_TEST_DYN_LINK
#define BOOST_TEST_MAIN
#define BOOST_TEST_MODULE EventQueueManagementTest
#include <boost/test/unit_test.hpp>
// StdAir
#include <stdair/stdair_basic_types.hpp>
#include <stdair/basic/BasLogParams.hpp>
#include <stdair/basic/BasDBParams.hpp>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/EventQueue.hpp>
#include <stdair/bom/BookingRequestStruct.hpp>
#include <stdair/service/Logger.hpp>
// SEvMgr
#include <sevmgr/SEVMGR_Service.hpp>
#include <sevmgr/config/sevmgr-paths.hpp>

namespace boost_utf = boost::unit_test;

// (Boost) Unit Test XML Report
std::ofstream utfReportStream ("EventQueueManagementTestSuite_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() {
  }
};

// Specific type definitions
typedef std::pair<stdair::Count_T, stdair::Count_T> NbOfEventsPair_T;
```

```
typedef std::map<const stdair::DemandStreamKeyStr_T,
                 NbOfEventsPair_T> NbOfEventsByDemandStreamMap_T;


// //////////////// 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 (sevmgr_simple_simulation_test) {

  // Input file name
  const stdair::Filename_T lInputFilename (STDAIR_SAMPLE_DIR "/demand01.csv");

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

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

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

  // Initialise the Sevmgr service object
  const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
  SEVMGR::SEVMGR_Service sevmgrService (lLogParams);

  sevmgrService.buildSampleBom();

  sevmgrService.reset();

  // DEBUG
  STDAIR_LOG_DEBUG ("End of the simulation");

  // Close the log file
  logOutputFile.close();
}

// End the test suite
BOOST_AUTO_TEST_SUITE_END()

/*!
```

17 Directory Hierarchy

17.1 Directories

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

18 Namespace Index

18.1 Namespace List

Here is a list of all namespaces with brief descriptions:

19 Class Index

19.1 Class Hierarchy

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

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_istringstream< char >
std::basic_istringstream< 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 >

20 Class Index

20.1 Class List

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

21 File Index

21.1 File List

Here is a list of all files with brief descriptions:

22 Directory Documentation

22.1 sevmgr/basic/ Directory Reference

Files

- file BasConst.cpp
- file BasConst_EventQueueManager.hpp
- file BasConst_SEVMGR_Service.hpp
- file BasParserTypes.hpp

22.2   sevmgr/batches/ Directory Reference

Files

- file [sevmgr_demo.cpp]()

22.3   sevmgr/ui/cmdline/ Directory Reference

Files

- file [readline_autocomp.hpp]()
- file [sevmgr.cpp]()
- file [SReadline.hpp]()

  C++ wrapper around libreadline.

22.4   sevmgr/command/ Directory Reference

Files

- file [EventQueueManager.cpp]()
- file [EventQueueManager.hpp]()

22.5   sevmgr/config/ Directory Reference

Files

- file [sevmgr-paths.hpp]()
- file [sevmgr-paths.hpp.in]()

22.6   sevmgr/factory/ Directory Reference

Files

- file [FacSEVMGRServiceContext.cpp]()
- file [FacSEVMGRServiceContext.hpp]()

22.7   sevmgr/python/ Directory Reference

Files

- file [pysevmgr.cpp]()

22.8   sevmgr/service/ Directory Reference

Files

- file [SEVMGR_Service.cpp]()
- file [SEVMGR_ServiceContext.cpp]()
- file [SEVMGR_ServiceContext.hpp]()

22.9 test/sevmgr/ Directory Reference

Files

- file [EventQueueManagementTestSuite.cpp](#)

22.10 sevmgr/ Directory Reference

Directories

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

Files

- file [SEVMGR_Exceptions.hpp](#)
- file [SEVMGR_Service.hpp](#)
- file [SEVMGR_Types.hpp](#)

22.11 test/ Directory Reference

Directories

- directory [sevmgr](#)

22.12 sevmgr/ui/ Directory Reference

Directories

- directory [cmdline](#)

23 Namespace Documentation

23.1 SEVMGR Namespace Reference

Classes

- class [EventQueueManager](#)

  Utility class for Demand and DemandStream objects.
- class [FacSEVMGRServiceContext](#)
- struct [PYEventQueueManager](#)
- class [SEVMGR_ServiceContext](#)

  Class holding the context of the Sevmgr services.
- class [SEvMgrException](#)
- class [SEVMGR_Service](#)

  class holding the services related to Travel Demand Generation.

Typedefs

- 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, 1, 2 > uint1_2_p_t
- typedef
  boost::spirit::classic::uint_parser
  < unsigned int, 10, 1, 3 > uint1_3_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
  < uint1_2_p_t, unsigned int > bounded1_2_p_t
- typedef
  boost::spirit::classic::bounded
  < uint1_3_p_t, unsigned int > bounded1_3_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 boost::shared_ptr
  < SEVMGR_Service > SEVMGR_ServicePtr_T

23.1.1   Typedef Documentation

23.1.1.1   typedef char **SEVMGR::char_t**

Definition at line 31 of file BasParserTypes.hpp.

23.1.1.2   typedef boost::spirit::classic::file_iterator<**char_t**> **SEVMGR::iterator_t**

Definition at line 35 of file BasParserTypes.hpp.

23.1.1.3   typedef boost::spirit::classic::scanner<**iterator_t**> **SEVMGR::scanner_t**

Definition at line 36 of file BasParserTypes.hpp.

23.1.1.4   typedef boost::spirit::classic::rule<**scanner_t**> **SEVMGR::rule_t**

Definition at line 37 of file BasParserTypes.hpp.

23.1.1.5   typedef boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> **SEVMGR::int1_p_t**

1-digit-integer parser

Definition at line 45 of file BasParserTypes.hpp.

23.1.1.6   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 2, 2> **SEVMGR::uint2_p_t**

2-digit-integer parser

Definition at line 48 of file BasParserTypes.hpp.

23.1.1.7   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 2> **SEVMGR::uint1_2_p_t**

Up-to-2-digit-integer parser

Definition at line 51 of file BasParserTypes.hpp.

23.1.1.8   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 3> **SEVMGR::uint1_3_p_t**

Up-to-3-digit-integer parser

Definition at line 54 of file BasParserTypes.hpp.

23.1.1.9   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 4, 4> **SEVMGR::uint4_p_t**

4-digit-integer parser

Definition at line 57 of file BasParserTypes.hpp.

23.1.1.10   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 4> **SEVMGR::uint1_4_p_t**

Up-to-4-digit-integer parser

Definition at line 60 of file BasParserTypes.hpp.

23.1.1.11   typedef boost::spirit::classic::chset<**char_t**> **SEVMGR::chset_t**

character set

Definition at line 63 of file BasParserTypes.hpp.

23.1.1.12   typedef boost::spirit::classic::impl::loop_traits<**chset_t**, unsigned int, unsigned int>::type **SEVMGR::repeat_p_t**

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

Definition at line 69 of file BasParserTypes.hpp.

23.1.1.13 typedef boost::spirit::classic::bounded<uint2_p_t, unsigned int> SEVMGR::bounded2_p_t

Bounded-number-of-integers parser

Definition at line 72 of file BasParserTypes.hpp.

23.1.1.14 typedef boost::spirit::classic::bounded<uint1_2_p_t, unsigned int> SEVMGR::bounded1_2_p_t

Definition at line 73 of file BasParserTypes.hpp.

23.1.1.15 typedef boost::spirit::classic::bounded<uint1_3_p_t, unsigned int> SEVMGR::bounded1_3_p_t

Definition at line 74 of file BasParserTypes.hpp.

23.1.1.16 typedef boost::spirit::classic::bounded<uint4_p_t, unsigned int> SEVMGR::bounded4_p_t

Definition at line 75 of file BasParserTypes.hpp.

23.1.1.17 typedef boost::spirit::classic::bounded<uint1_4_p_t, unsigned int> SEVMGR::bounded1_4_p_t

Definition at line 76 of file BasParserTypes.hpp.

23.1.1.18 typedef boost::shared_ptr<SEVMGR_Service> SEVMGR::SEVMGR_ServicePtr_T

(Smart) Pointer on the SEvMgr service handler.

Definition at line 15 of file SEVMGR_Types.hpp.

23.2 stdair Namespace Reference

23.3 swift Namespace Reference

The wrapper namespace.

Classes

- class SKeymap

    The readline keymap wrapper.
- class SReadline

    The readline library wrapper.

23.3.1 Detailed Description

The wrapper namespace. The namespace is also used for other library elements.

24 Class Documentation

24.1 CmdAbstract Class Reference

Inheritance diagram for CmdAbstract:

```
┌─────────────────────────────┐
│        CmdAbstract          │
└─────────────────────────────┘
               ▲
┌─────────────────────────────┐
│   SEVMGR::EventQueueManager  │
└─────────────────────────────┘
```
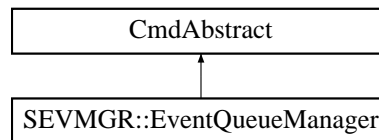
The documentation for this class was generated from the following file:

- sevmgr/command/EventQueueManager.hpp

24.2 COMMAND Struct Reference

```
#include <sevmgr/ui/cmdline/readline_autocomp.hpp>
```

Public Attributes

- char const ∗ name
- pt2Func ∗ func
- char ∗ doc

24.2.1 Detailed Description

A structure which contains information on the commands this program can understand.

Definition at line 41 of file readline_autocomp.hpp.

24.2.2 Member Data Documentation

24.2.2.1 char const∗ COMMAND::name

User printable name of the function.

Definition at line 45 of file readline_autocomp.hpp.

Referenced by com_help(), and find_command().

24.2.2.2 pt2Func∗ COMMAND::func

Function to call to do the job.

Definition at line 50 of file readline_autocomp.hpp.

Referenced by execute_line().

24.2.2.3 char∗ COMMAND::doc

Documentation for this function.

Definition at line 55 of file readline_autocomp.hpp.

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

- sevmgr/ui/cmdline/readline_autocomp.hpp

24.3 SEVMGR::EventQueueManager Class Reference

Utility class for Demand and DemandStream objects.

```
#include <sevmgr/command/EventQueueManager.hpp>
```

Inheritance diagram for SEVMGR::EventQueueManager:

```
┌─────────────────────────────┐
│        CmdAbstract           │
└─────────────────────────────┘
              ▲
              │
┌─────────────────────────────┐
│  SEVMGR::EventQueueManager   │
└─────────────────────────────┘
```
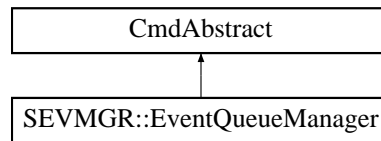
Friends

- class SEVMGR_Service

24.3.1 Detailed Description

Utility class for Demand and DemandStream objects.

Definition at line 24 of file EventQueueManager.hpp.

24.3.2 Friends And Related Function Documentation

24.3.2.1 friend class **SEVMGR_Service** `[friend]`

Definition at line 25 of file EventQueueManager.hpp.

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

- sevmgr/command/EventQueueManager.hpp
- sevmgr/command/EventQueueManager.cpp

24.4 FacServiceAbstract Class Reference

Inheritance diagram for FacServiceAbstract:

```
┌─────────────────────────────────┐
│       FacServiceAbstract         │
└─────────────────────────────────┘
                ▲
                │
┌─────────────────────────────────┐
│ SEVMGR::FacSEVMGRServiceContext  │
└─────────────────────────────────┘
```
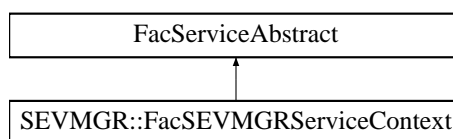
The documentation for this class was generated from the following file:

- sevmgr/factory/FacSEVMGRServiceContext.hpp

24.5 SEVMGR::FacSEVMGRServiceContext Class Reference

```
#include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
```

Inheritance diagram for SEVMGR::FacSEVMGRServiceContext:
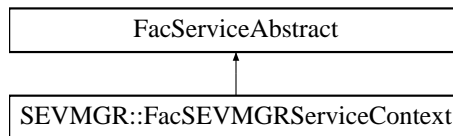
Public Member Functions

- ∼FacSEVMGRServiceContext ()
- SEVMGR_ServiceContext & create ()

Static Public Member Functions

- static FacSEVMGRServiceContext & instance ()

Protected Member Functions

- FacSEVMGRServiceContext ()

24.5.1   Detailed Description

Factory for Bucket.

Definition at line 18 of file FacSEVMGRServiceContext.hpp.

24.5.2   Constructor & Destructor Documentation

24.5.2.1   SEVMGR::FacSEVMGRServiceContext::∼FacSEVMGRServiceContext ( )

Destructor.

The Destruction put the _instance to NULL in order to be clean for the next FacSEVMGRServiceContext::instance().

Definition at line 17 of file FacSEVMGRServiceContext.cpp.

24.5.2.2   SEVMGR::FacSEVMGRServiceContext::FacSEVMGRServiceContext ( ) `[inline, protected]`

Default Constructor.

This constructor is protected in order to ensure the singleton pattern.

Definition at line 42 of file FacSEVMGRServiceContext.hpp.

Referenced by instance().

24.5.3   Member Function Documentation

24.5.3.1   FacSEVMGRServiceContext & SEVMGR::FacSEVMGRServiceContext::instance ( ) `[static]`

Provide the unique instance.

The singleton is instantiated when first used

Returns

[FacSEVMGRServiceContext](#)&

Definition at line [22](#) of file [FacSEVMGRServiceContext.cpp](#).

References [FacSEVMGRServiceContext()](#).

24.5.3.2 SEVMGR_ServiceContext & SEVMGR::FacSEVMGRServiceContext::create ( )

Create a new [SEVMGR_ServiceContext](#) object.

This new object is added to the list of instantiated objects.

Returns

[SEVMGR_ServiceContext](#)& The newly created object.

Definition at line [34](#) of file [FacSEVMGRServiceContext.cpp](#).

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

- sevmgr/factory/[FacSEVMGRServiceContext.hpp](#)
- sevmgr/factory/[FacSEVMGRServiceContext.cpp](#)

24.6 SEVMGR::PYEventQueueManager Struct Reference

Public Member Functions

- std::string [sevmgr](#) ()
- [PYEventQueueManager](#) ()
- [PYEventQueueManager](#) (const [PYEventQueueManager](#) &iPYEventQueueManager)
- [∼PYEventQueueManager](#) ()
- bool [init](#) (const std::string &iLogFilepath, const std::string &iDBUser, const std::string &iDBPasswd, const std::string &iDBHost, const std::string &iDBPort, const std::string &iDBDBName)

24.6.1 Detailed Description

Definition at line [22](#) of file [pysevmgr.cpp](#).

24.6.2 Constructor & Destructor Documentation

24.6.2.1 SEVMGR::PYEventQueueManager::PYEventQueueManager ( ) `[inline]`

Default constructor.

Definition at line [76](#) of file [pysevmgr.cpp](#).

24.6.2.2 SEVMGR::PYEventQueueManager::PYEventQueueManager (const PYEventQueueManager & iPYEventQueueManager) `[inline]`

Default copy constructor.

Definition at line [80](#) of file [pysevmgr.cpp](#).

24.6.2.3 SEVMGR::PYEventQueueManager::∼PYEventQueueManager ( ) `[inline]`

Default constructor.

Definition at line [86](#) of file [pysevmgr.cpp](#).

24.6.3   Member Function Documentation

24.6.3.1   std::string SEVMGR::PYEventQueueManager::sevmgr ( ) `[inline]`

Wrapper around the travel demand generation use case.

Definition at line 25 of file pysevmgr.cpp.

References SEVMGR::SEVMGR_Service::buildSampleBom().

Referenced by BOOST_PYTHON_MODULE().

24.6.3.2   bool SEVMGR::PYEventQueueManager::init (const std::string & *iLogFilepath,* const std::string & *iDBUser,* const std::string & *iDBPasswd,* const std::string & *iDBHost,* const std::string & *iDBPort,* const std::string & *iDBDBName*) `[inline]`

Wrapper around the search use case.

Definition at line 92 of file pysevmgr.cpp.

Referenced by BOOST_PYTHON_MODULE().

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

- sevmgr/python/pysevmgr.cpp

24.7   RootException Class Reference

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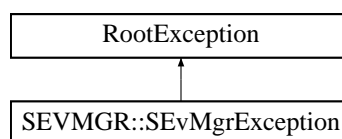
The documentation for this class was generated from the following file:

- sevmgr/SEVMGR_Exceptions.hpp

24.8   ServiceAbstract Class Reference

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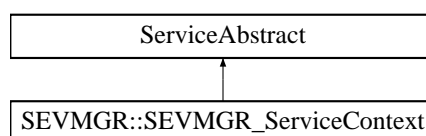
The documentation for this class was generated from the following file:

- sevmgr/service/SEVMGR_ServiceContext.hpp

24.9   SEVMGR::SEVMGR_Service Class Reference

class holding the services related to Travel Demand Generation.

```
#include <sevmgr/SEVMGR_Service.hpp>
```

Public Member Functions

- SEVMGR_Service (const stdair::BasLogParams &, const stdair::BasDBParams &)
    Constructor.
- SEVMGR_Service (const stdair::BasLogParams &)
- SEVMGR_Service (stdair::STDAIR_ServicePtr_T)
- ∼SEVMGR_Service ()
- void buildSampleBom ()
- stdair::ProgressStatusSet popEvent (stdair::EventStruct &) const
- bool isQueueDone () const
- void reset () const
- std::string csvDisplay () const

24.9.1 Detailed Description

class holding the services related to Travel Demand Generation.

Definition at line 29 of file SEVMGR_Service.hpp.

24.9.2 Constructor & Destructor Documentation

24.9.2.1 SEVMGR::SEVMGR_Service::SEVMGR_Service (const stdair::BasLogParams & *iLogParams,* **const stdair::BasDBParams &** *iDBParams* **)**

Constructor.

The initSevmgrService() 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

const	stdair::BasLogParams& Parameters for the output log stream.
const	stdair::BasDBParams& Parameters for the database access.

Definition at line 39 of file SEVMGR_Service.cpp.

24.9.2.2 SEVMGR::SEVMGR_Service::SEVMGR_Service (const stdair::BasLogParams & *iLogParams* **)**

Constructor.

The initSevmgrService() 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

const	stdair::BasLogParams& Parameters for the output log stream.

Definition at line 60 of file SEVMGR_Service.cpp.

24.9.2.3 SEVMGR::SEVMGR_Service::SEVMGR_Service (stdair::STDAIR_ServicePtr_T *ioSTDAIR_Service_ptr* **)**

Constructor.

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

Moreover, as no reference on any output stream is given, neither any database access parameter 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 SEVMGR_Service is itself being initialised by another library service such as DSIM_Service).

Parameters

stdair::STDAIR_- *ServicePtr_T*	Handler on the STDAIR_Service.

Definition at line 81 of file SEVMGR_Service.cpp.

24.9.2.4   SEVMGR::SEVMGR_Service::∼SEVMGR_Service (   )

Destructor.

Definition at line 97 of file SEVMGR_Service.cpp.

24.9.3   Member Function Documentation

24.9.3.1   void SEVMGR::SEVMGR_Service::buildSampleBom (   )

Build a sample BOM tree.

Definition at line 171 of file SEVMGR_Service.cpp.

Referenced by main(), and SEVMGR::PYEventQueueManager::sevmgr().

24.9.3.2   stdair::ProgressStatusSet SEVMGR::SEVMGR_Service::popEvent (stdair::EventStruct & *ioEventStruct*) const

Pop the next coming (in time) event, and remove it from the event queue.

- The next coming (in time) event corresponds to the event having the earliest date-time stamp. In other words, it is the first/front element of the event queue.

- That (first) event/element is then removed from the event queue

- The progress status is updated for the corresponding demand stream.

Returns

stdair::EventStruct A copy of the event structure, which comes first in time from within the event queue.

Definition at line 215 of file SEVMGR_Service.cpp.

24.9.3.3   bool SEVMGR::SEVMGR_Service::isQueueDone (   ) const

States whether the event queue has reached the end.

For now, that method states whether the event queue is empty.

Definition at line 233 of file SEVMGR_Service.cpp.

24.9.3.4   void SEVMGR::SEVMGR_Service::reset (   ) const

Reset the context of the demand streams for another demand generation without having to reparse the demand input file.

Definition at line 255 of file SEVMGR_Service.cpp.

24.9.3.5   std::string SEVMGR::SEVMGR_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 191 of file SEVMGR_Service.cpp.

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

- sevmgr/SEVMGR_Service.hpp
- sevmgr/service/SEVMGR_Service.cpp

24.10   SEVMGR::SEVMGR_ServiceContext Class Reference

Class holding the context of the Sevmgr services.

```
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
```

Inheritance diagram for SEVMGR::SEVMGR_ServiceContext:
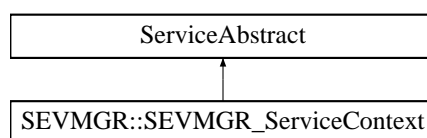
Friends

- class SEVMGR_Service
- class FacSEVMGRServiceContext

24.10.1   Detailed Description

Class holding the context of the Sevmgr services.

Definition at line 21 of file SEVMGR_ServiceContext.hpp.

24.10.2   Friends And Related Function Documentation

24.10.2.1   friend class SEVMGR_Service `[friend]`

The SEVMGR_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 27 of file SEVMGR_ServiceContext.hpp.

24.10.2.2   friend class FacSEVMGRServiceContext `[friend]`

Definition at line 28 of file SEVMGR_ServiceContext.hpp.

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

- sevmgr/service/SEVMGR_ServiceContext.hpp
- sevmgr/service/SEVMGR_ServiceContext.cpp

24.11   SEVMGR::SEvMgrException Class Reference

`#include <sevmgr/SEVMGR_Exceptions.hpp>`

Inheritance diagram for SEVMGR::SEvMgrException:

```
              ┌─────────────────────────────┐
              │       RootException         │
              └─────────────────────────────┘
                             ▲
              ┌─────────────────────────────┐
              │  SEVMGR::SEvMgrException     │
              └─────────────────────────────┘
```
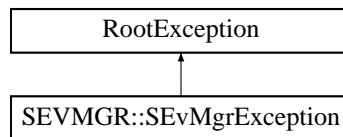
Public Member Functions

- SEvMgrException (const std::string &iWhat)

24.11.1   Detailed Description

Root exception for the Sevmgr component

Definition at line 18 of file SEVMGR_Exceptions.hpp.

24.11.2   Constructor & Destructor Documentation

24.11.2.1   SEVMGR::SEvMgrException::SEvMgrException (const std::string & *iWhat*) `[inline]`

Constructor.

Definition at line 23 of file SEVMGR_Exceptions.hpp.

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

- sevmgr/SEVMGR_Exceptions.hpp

24.12   swift::SKeymap Class Reference

The readline keymap wrapper.

`#include <sevmgr/ui/cmdline/SReadline.hpp>`

Public Member Functions

- SKeymap (bool PrintableBound=false)

    Creates a new keymap.
- SKeymap (Keymap Pattern)

    Creates a new keymap which is a copy of Pattern.
- ∼SKeymap ()

    Frees the allocated keymap.
- void Bind (int Key, KeyCallback Callback)

    Binds the given key to a function.
- void Unbind (int Key)

    Unbinds the given key.
- SKeymap (const SKeymap &rhs)

    Copy constructor.
- SKeymap & operator= (const SKeymap &rhs)

    operator=

Friends

- class SReadline

24.12.1   Detailed Description

The readline keymap wrapper.

Attention: It is not thread safe! Supports: key binding, key unbinding

Definition at line 307 of file SReadline.hpp.

24.12.2   Constructor & Destructor Documentation

24.12.2.1   swift::SKeymap::SKeymap (bool *PrintableBound =* `false`) `[inline, explicit]`

Creates a new keymap.

Parameters

PrintableBound	if true - the printable characters are bound if false - the keymap is empty

Definition at line 319 of file SReadline.hpp.

24.12.2.2   swift::SKeymap::SKeymap (Keymap *Pattern*) `[inline, explicit]`

Creates a new keymap which is a copy of Pattern.

Parameters

Pattern	A keymap to be copied.

Definition at line 342 of file SReadline.hpp.

24.12.2.3   swift::SKeymap::∼SKeymap ( ) `[inline]`

Frees the allocated keymap.

Definition at line 354 of file SReadline.hpp.

24.12.2.4   swift::SKeymap::SKeymap (const SKeymap & *rhs*) `[inline]`

Copy constructor.

Parameters

rhs	Right hand side object of SKeymap

Definition at line 395 of file SReadline.hpp.

24.12.3   Member Function Documentation

24.12.3.1   void swift::SKeymap::Bind (int *Key,* KeyCallback *Callback*) `[inline]`

Binds the given key to a function.

Parameters

Key	A key to be bound
Callback	A function to be called when the Key is pressed

Definition at line 366 of file SReadline.hpp.

24.12.3.2   void swift::SKeymap::Unbind (int *Key*) `[inline]`

Unbinds the given key.

Parameters

Key	A key to be unbound

Definition at line 381 of file SReadline.hpp.

24.12.3.3   SKeymap& swift::SKeymap::operator= (const SKeymap & *rhs*) `[inline]`

operator=

Parameters

rhs	Right hand side object of SKeymap

Definition at line 407 of file SReadline.hpp.

24.12.4   Friends And Related Function Documentation

24.12.4.1   friend class SReadline `[friend]`

Definition at line 415 of file SReadline.hpp.

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

- sevmgr/ui/cmdline/SReadline.hpp

24.13   swift::SReadline Class Reference

The readline library wrapper.

```
#include <sevmgr/ui/cmdline/SReadline.hpp>
```

Public Member Functions

- SReadline (const size_t Limit=DefaultHistoryLimit)

    Constructs the object, sets the completion function.
- SReadline (const std::string &historyFileName, const size_t Limit=DefaultHistoryLimit)

    Constructs the object, sets the completion function, loads history.
- ∼SReadline ()

    Saves the session history (if the file name was provided) and destroys the object.
- std::string GetLine (const std::string &Prompt)

    Gets a single line from a user.
- template<typename Container >
    std::string GetLine (const std::string &Prompt, Container &ReadTokens)

    Gets a single line from a user.
- template<typename Container >
    std::string GetLine (const std::string &Prompt, Container &ReadTokens, bool &BreakOut)

    Gets a single line from a user.
- std::string GetLine (const std::string &Prompt, bool &BreakOut)

    Gets a single line from a user.

- template<typename ContainerType >
  void GetHistory (ContainerType &Container)

    Fills the given container with the current history list.

- bool SaveHistory (std::ostream &OS)

    Saves the history to the given file stream.

- bool SaveHistory (const std::string &FileName)

    Saves the history to the given file.

- void ClearHistory ()

    Clears the history. Does not affect the file where the previous session history is saved.

- bool LoadHistory (std::istream &IS)

    Loads a history from a file stream.

- bool LoadHistory (const std::string &FileName)

    Loads a history from the given file.

- template<typename ContainerType >
  void RegisterCompletions (const ContainerType &Container)

    Allows to register custom completers.

- void SetKeymap (SKeymap &NewKeymap)

    Sets the given keymap.

24.13.1   Detailed Description

The readline library wrapper.

Attention: It is not thread safe! Supports: editing, history, custom completers

Definition at line 424 of file SReadline.hpp.

24.13.2   Constructor & Destructor Documentation

24.13.2.1   swift::SReadline::SReadline (const size␣t *Limit =* `DefaultHistoryLimit`) `[inline]`

Constructs the object, sets the completion function.

Parameters

Limit	History size

Definition at line 431 of file SReadline.hpp.

24.13.2.2   swift::SReadline::SReadline (const std::string & *historyFileName,* const size␣t *Limit =* `DefaultHistoryLimit`) `[inline]`

Constructs the object, sets the completion function, loads history.

Parameters

historyFileName	File name to load history from
Limit	History size

Definition at line 446 of file SReadline.hpp.

References LoadHistory().

24.13.2.3   swift::SReadline::∼SReadline ( ) `[inline]`

Saves the session history (if the file name was provided) and destroys the object.

Definition at line 460 of file SReadline.hpp.

References SaveHistory().

24.13.3   Member Function Documentation

24.13.3.1   std::string swift::SReadline::GetLine (const std::string & *Prompt*) `[inline]`

Gets a single line from a user.

Parameters

Prompt	A printed prompt

Returns

A string which was actually inputed

Definition at line 471 of file SReadline.hpp.

Referenced by GetLine().

24.13.3.2   template<typename Container > std::string swift::SReadline::GetLine (const std::string & *Prompt,* Container & *ReadTokens*) `[inline]`

Gets a single line from a user.

Parameters

Prompt	A printed prompt
ReadTokens	A user inputed string splitted into tokens. The container is cleared first

Returns

A string which was actually inputed

Definition at line 485 of file SReadline.hpp.

References GetLine().

24.13.3.3   template<typename Container > std::string swift::SReadline::GetLine (const std::string & *Prompt,* Container & *ReadTokens,* bool & *BreakOut*) `[inline]`

Gets a single line from a user.

Parameters

Prompt	A printed prompt
BreakOut	it is set to true if the EOF found
ReadTokens	A user inputed string splitted into tokens. The container is cleared first

Returns

A string which was actually inputed

Definition at line 500 of file SReadline.hpp.

References GetLine().

24.13.3.4   std::string swift::SReadline::GetLine (const std::string & *Prompt,* bool & *BreakOut*) `[inline]`

Gets a single line from a user.

Parameters

Prompt	A printed prompt
BreakOut	it is set to true if the EOF found

Returns

A string which was actually inputed

Definition at line 515 of file SReadline.hpp.

24.13.3.5   template<**typename ContainerType** > **void swift::SReadline::GetHistory (ContainerType & *Container*)** `[inline]`

Fills the given container with the current history list.

Does not clear the given container

Definition at line 550 of file SReadline.hpp.

24.13.3.6   bool swift::SReadline::SaveHistory (std::ostream & *OS*) `[inline]`

Saves the history to the given file stream.

Parameters

OS	output file stream

Returns

true if success

Definition at line 562 of file SReadline.hpp.

Referenced by SaveHistory(), and ∼SReadline().

24.13.3.7   bool swift::SReadline::SaveHistory (const std::string & *FileName*) `[inline]`

Saves the history to the given file.

Parameters

FileName	File name to save the history to

Returns

true if success

Definition at line 579 of file SReadline.hpp.

References SaveHistory().

24.13.3.8   void swift::SReadline::ClearHistory ( ) `[inline]`

Clears the history. Does not affect the file where the previous session history is saved.

Definition at line 592 of file SReadline.hpp.

Referenced by LoadHistory().

24.13.3.9   bool swift::SReadline::LoadHistory (std::istream & *IS*) `[inline]`

Loads a history from a file stream.

Parameters

IS	Input file stream

Returns

   true if success

Definition at line 602 of file SReadline.hpp.

References ClearHistory().

Referenced by LoadHistory(), and SReadline().

24.13.3.10   bool swift::SReadline::LoadHistory (const std::string & *FileName*) `[inline]`

Loads a history from the given file.

Parameters

FileName	File name to be load from

Returns

   true if success

Definition at line 627 of file SReadline.hpp.

References LoadHistory().

24.13.3.11   template<**typename ContainerType** > **void swift::SReadline::RegisterCompletions (const ContainerType &** *Container* **)** `[inline]`

Allows to register custom completers.

Supports a special keyword: file. It means to use the standard file name completer.

For example the given container elements could be as follows:

  • command1 opt1

  • command1 opt2 file

  • command2

  • command2 opt1

Each container element must describe a single possible command line. The container element must have a conversion to std::string operator.

Parameters

Container	A container which has all the user possible commands.

Definition at line 656 of file SReadline.hpp.

24.13.3.12   void swift::SReadline::SetKeymap (SKeymap & *NewKeymap*) `[inline]`

Sets the given keymap.

Parameters

NewKeymap	The keymap that should be used from now.

Definition at line 673 of file SReadline.hpp.

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

- sevmgr/ui/cmdline/SReadline.hpp

25   File Documentation

25.1   doc/local/authors.doc File Reference

25.2   doc/local/codingrules.doc File Reference

25.3   doc/local/copyright.doc File Reference

25.4   doc/local/documentation.doc File Reference

25.5   doc/local/features.doc File Reference

25.6   doc/local/help_wanted.doc File Reference

25.7   doc/local/howto_release.doc File Reference

25.8   doc/local/index.doc File Reference

25.9   doc/local/installation.doc File Reference

25.10   doc/local/linking.doc File Reference

25.11   doc/local/test.doc File Reference

25.12   doc/local/users_guide.doc File Reference

25.13   doc/local/verification.doc File Reference

25.14   doc/tutorial/tutorial.doc File Reference

25.15   sevmgr/basic/BasConst.cpp File Reference

```
#include <stdair/basic/BasConst_General.hpp>
#include <sevmgr/basic/BasConst_SEVMGR_Service.hpp>
#include <sevmgr/basic/BasConst_EventQueueManager.hpp>
```

Namespaces

- namespace SEVMGR

25.16 BasConst.cpp

```
00001 // //////////////////////////////////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////////////////////////////////
00004 // StdAir
00005 #include <stdair/basic/BasConst_General.hpp>
00006 // Sevmgr
00007 #include <sevmgr/basic/BasConst_SEVMGR_Service.hpp>
00008 #include <sevmgr/basic/BasConst_EventQueueManager.hpp>
00009
00010 namespace SEVMGR {
00011
00013   // const std::string DEFAULT_SEVMGR_SERVICE_NAME = "sevmgr";
00014
00016   // extern const std::string DEFAULT_EVENT_QUEUE_KEY;
00017
00018 }
```

25.17 sevmgr/basic/BasConst_EventQueueManager.hpp File Reference

```
#include <string>
```

Namespaces

- namespace SEVMGR

25.18 BasConst_EventQueueManager.hpp

```
00001 #ifndef __SEVMGR_BAS_BASCONST_EVENTQUEUEMANAGER_HPP
00002 #define __SEVMGR_BAS_BASCONST_EVENTQUEUEMANAGER_HPP
00003
00004 // //////////////////////////////////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////////////////////////////////
00007 // STL
00008 #include <string>
00009
00010 namespace SEVMGR {
00011
00013   // extern const std::string DEFAULT_EVENT_QUEUE_KEY;
00014
00015 }
00016 #endif // __SEVMGR_BAS_BASCONST_EVENTQUEUEMANAGER_HPP
```

25.19 sevmgr/basic/BasConst_SEVMGR_Service.hpp File Reference

```
#include <string>
```

Namespaces

- namespace SEVMGR

25.20 BasConst_SEVMGR_Service.hpp

```
00001 #ifndef __SEVMGR_BAS_BASCONST_SEVMGR_SERVICE_HPP
00002 #define __SEVMGR_BAS_BASCONST_SEVMGR_SERVICE_HPP
00003
00004 // //////////////////////////////////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////////////////////////////////
00007 #include <string>
00008
00009 namespace SEVMGR {
00010
```

```
00012   // extern const std::string DEFAULT_SEVMGR_SERVICE_NAME;
00013
00014 }
00015 #endif // __SEVMGR_BAS_BASCONST_SEVMGR_SERVICE_HPP
```

25.21 sevmgr/basic/BasParserTypes.hpp File Reference

```
#include <string>
#include <boost/spirit/home/classic/core.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>
```

Namespaces

- namespace SEVMGR

Typedefs

- typedef char SEVMGR::char_t
- typedef
  boost::spirit::classic::file_iterator
  < char_t > SEVMGR::iterator_t
- typedef
  boost::spirit::classic::scanner
  < iterator_t > SEVMGR::scanner_t
- typedef
  boost::spirit::classic::rule
  < scanner_t > SEVMGR::rule_t
- typedef
  boost::spirit::classic::int_parser
  < unsigned int, 10, 1, 1 > SEVMGR::int1_p_t
- typedef
  boost::spirit::classic::uint_parser
  < unsigned int, 10, 2, 2 > SEVMGR::uint2_p_t
- typedef
  boost::spirit::classic::uint_parser
  < unsigned int, 10, 1, 2 > SEVMGR::uint1_2_p_t
- typedef
  boost::spirit::classic::uint_parser
  < unsigned int, 10, 1, 3 > SEVMGR::uint1_3_p_t
- typedef
  boost::spirit::classic::uint_parser
  < unsigned int, 10, 4, 4 > SEVMGR::uint4_p_t
- typedef
  boost::spirit::classic::uint_parser
  < unsigned int, 10, 1, 4 > SEVMGR::uint1_4_p_t
- typedef
  boost::spirit::classic::chset
  < char_t > SEVMGR::chset_t
- typedef
  boost::spirit::classic::impl::loop_traits
  < chset_t, unsigned int,
  unsigned int >::type SEVMGR::repeat_p_t

- typedef
  boost::spirit::classic::bounded
  < uint2_p_t, unsigned int > SEVMGR::bounded2_p_t
- typedef
  boost::spirit::classic::bounded
  < uint1_2_p_t, unsigned int > SEVMGR::bounded1_2_p_t
- typedef
  boost::spirit::classic::bounded
  < uint1_3_p_t, unsigned int > SEVMGR::bounded1_3_p_t
- typedef
  boost::spirit::classic::bounded
  < uint4_p_t, unsigned int > SEVMGR::bounded4_p_t
- typedef
  boost::spirit::classic::bounded
  < uint1_4_p_t, unsigned int > SEVMGR::bounded1_4_p_t

25.22 BasParserTypes.hpp

```
00001 #ifndef __SEVMGR_BAS_BASCOMPARSERTYPES_HPP
00002 #define __SEVMGR_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 SEVMGR {
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   // //////////////////////////////////////////////////////////////////////
00045   typedef boost::spirit::classic::int_parser<unsigned int, 10, 1, 1> int1_p_t;
00046
00048   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 2, 2> uint2_p_t
      ;
00049
00051   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 2>
      uint1_2_p_t;
00052
00054   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 3>
      uint1_3_p_t;
00055
00057   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 4, 4> uint4_p_t
      ;
00058
00060   typedef boost::spirit::classic::uint_parser<unsigned int, 10, 1, 4>
      uint1_4_p_t;
```

```
00061
00063    typedef boost::spirit::classic::chset<char_t> chset_t;
00064
00067    typedef boost::spirit::classic::impl::loop_traits<chset_t,
00068                                          unsigned int,
00069                                          unsigned int>::type repeat_p_t;
00070
00072    typedef boost::spirit::classic::bounded<uint2_p_t, unsigned int> bounded2_p_t
    ;
00073    typedef boost::spirit::classic::bounded<uint1_2_p_t, unsigned int>
    bounded1_2_p_t;
00074    typedef boost::spirit::classic::bounded<uint1_3_p_t, unsigned int>
    bounded1_3_p_t;
00075    typedef boost::spirit::classic::bounded<uint4_p_t, unsigned int> bounded4_p_t
    ;
00076    typedef boost::spirit::classic::bounded<uint1_4_p_t, unsigned int>
    bounded1_4_p_t;
00077 }
00078 #endif // __SEVMGR_BAS_BASCOMPARSERTYPES_HPP
```

25.23   sevmgr/batches/sevmgr_demo.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <fstream>
#include <vector>
#include <list>
#include <string>
#include <boost/program_options.hpp>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/EventQueue.hpp>
#include <stdair/bom/BomDisplay.hpp>
#include <stdair/service/Logger.hpp>
#include <sevmgr/SEVMGR_Service.hpp>
#include <sevmgr/config/sevmgr-paths.hpp>
```

Functions

- const stdair::Filename_T K_SEVMGR_DEFAULT_LOG_FILENAME ("sevmgr_demo.log")
- int readConfiguration (int argc, char ∗argv[], stdair::Filename_T &ioLogFilename)
- int main (int argc, char ∗argv[])

Variables

- const int K_SEVMGR_EARLY_RETURN_STATUS = 99

25.23.1   Function Documentation

25.23.1.1   const stdair::Filename_T K_SEVMGR_DEFAULT_LOG_FILENAME ("sevmgr_demo.log")

Default name and location for the log file.

Referenced by readConfiguration().

25.23.1.2   int readConfiguration (int *argc,* char ∗ *argv[ ],* stdair::Filename_T & *ioLogFilename*)

Read and parse the command line options.

Definition at line 35 of file sevmgr_demo.cpp.

References K_SEVMGR_DEFAULT_LOG_FILENAME(), K_SEVMGR_EARLY_RETURN_STATUS, PACKAGE_-
NAME, PACKAGE_VERSION, and PREFIXDIR.

Referenced by main().

25.23.1.3   int main (int *argc,* char ∗ *argv[ ]*)

Definition at line 109 of file sevmgr_demo.cpp.

References   SEVMGR::SEVMGR_Service::buildSampleBom(),   K_SEVMGR_EARLY_RETURN_STATUS,   and
readConfiguration().

25.23.2   Variable Documentation

25.23.2.1   const int K_SEVMGR_EARLY_RETURN_STATUS = 99

Early return status (so that it can be differentiated from an error).

Definition at line 30 of file sevmgr_demo.cpp.

Referenced by main(), and readConfiguration().

25.24   sevmgr_demo.cpp

```
00001 // ////////////////////////////////////////////////////////////////////
00002 // Import section
00003 // ////////////////////////////////////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 #include <fstream>
00008 #include <vector>
00009 #include <list>
00010 #include <string>
00011 //  //// Boost (Extended STL) ////
00012 // Boost Program Options
00013 #include <boost/program_options.hpp>
00014 // StdAir
00015 #include <stdair/stdair_basic_types.hpp>
00016 #include <stdair/basic/ProgressStatusSet.hpp>
00017 #include <stdair/bom/EventStruct.hpp>
00018 #include <stdair/bom/EventQueue.hpp>
00019 #include <stdair/bom/BomDisplay.hpp>
00020 #include <stdair/service/Logger.hpp>
00021 // SEvMgr
00022 #include <sevmgr/SEVMGR_Service.hpp>
00023 #include <sevmgr/config/sevmgr-paths.hpp>
00024
00025 // //////// Constants //////
00027 const stdair::Filename_T K_SEVMGR_DEFAULT_LOG_FILENAME ("sevmgr_demo.log");
00028
00030 const int K_SEVMGR_EARLY_RETURN_STATUS = 99;
00031
00032
00033 // ///////// Parsing of Options & Configuration /////////
00035 int readConfiguration (int argc, char* argv[],
00036                        stdair::Filename_T& ioLogFilename) {
00037
00038   // Declare a group of options that will be allowed only on command line
00039   boost::program_options::options_description generic ("Generic options");
00040   generic.add_options()
00041     ("prefix", "print installation prefix")
00042     ("version,v", "print version string")
00043     ("help,h", "produce help message");
00044
00045   // Declare a group of options that will be allowed both on command
00046   // line and in config file
00047   boost::program_options::options_description config ("Configuration");
00048   config.add_options()
00049     ("log,l",
00050      boost::program_options::value< std::string >(&ioLogFilename)->
00051     default_value(K_SEVMGR_DEFAULT_LOG_FILENAME),
00051     "Filepath for the logs")
00052     ;
00053
00054   // Hidden options, will be allowed both on command line and
00055   // in config file, but will not be shown to the user.
```

```
00056    boost::program_options::options_description hidden ("Hidden options");
00057    hidden.add_options()
00058      ("copyright",
00059       boost::program_options::value< std::vector<std::string> >(),
00060       "Show the copyright (license)");
00061
00062    boost::program_options::options_description cmdline_options;
00063    cmdline_options.add(generic).add(config).add(hidden);
00064
00065    boost::program_options::options_description config_file_options;
00066    config_file_options.add(config).add(hidden);
00067
00068    boost::program_options::options_description visible ("Allowed options");
00069    visible.add(generic).add(config);
00070
00071    boost::program_options::positional_options_description p;
00072    p.add ("copyright", -1);
00073
00074    boost::program_options::variables_map vm;
00075    boost::program_options::
00076      store (boost::program_options::command_line_parser (argc, argv).
00077            options (cmdline_options).positional(p).run(), vm);
00078
00079    std::ifstream ifs ("sevmgr.cfg");
00080    boost::program_options::store (parse_config_file (ifs, config_file_options),
00081                                   vm);
00082    boost::program_options::notify (vm);
00083
00084    if (vm.count ("help")) {
00085      std::cout << visible << std::endl;
00086      return K_SEVMGR_EARLY_RETURN_STATUS;
00087    }
00088
00089    if (vm.count ("version")) {
00090      std::cout << PACKAGE_NAME << ", version " << PACKAGE_VERSION << std::endl;
00091      return K_SEVMGR_EARLY_RETURN_STATUS;
00092    }
00093
00094    if (vm.count ("prefix")) {
00095      std::cout << "Installation prefix: " << PREFIXDIR << std::endl;
00096      return K_SEVMGR_EARLY_RETURN_STATUS;
00097    }
00098
00099    if (vm.count ("log")) {
00100      ioLogFilename = vm["log"].as< std::string >();
00101      std::cout << "Log filename is: " << ioLogFilename << std::endl;
00102    }
00103
00104    return 0;
00105 }
00106
00107
00108 // /////////////// M A I N /////////////////
00109 int main (int argc, char* argv[]) {
00110
00111    // Output log File
00112    stdair::Filename_T lLogFilename;
00113
00114    // Call the command-line option parser
00115    const int lOptionParserStatus = readConfiguration (argc, argv, lLogFilename);
00116
00117    if (lOptionParserStatus == K_SEVMGR_EARLY_RETURN_STATUS) {
00118      return 0;
00119    }
00120
00121    // Set the log parameters
00122    std::ofstream logOutputFile;
00123    // Open and clean the log outputfile
00124    logOutputFile.open (lLogFilename.c_str());
00125    logOutputFile.clear();
00126
00127    // Set up the log parameters
00128    const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
00129
00133    SEVMGR::SEVMGR_Service sevmgrService (lLogParams);
00134
00135    // Build a sample BOM tree (empty for now)
00136    sevmgrService.buildSampleBom();
00137
00138    // Close the Log outputFile
00139    logOutputFile.close();
00140
00141    /*
00142      Note: as that program is not intended to be run on a server in
00143      production, it is better not to catch the exceptions. When it
00144      happens (that an exception is throwned), that way we get the
00145      call stack.
```

```
00146  */
00147
00148    return 0;
00149 }
```

25.25 sevmgr/command/EventQueueManager.cpp File Reference

```
#include <cassert>
#include <stdair/basic/ProgressStatusSet.hpp>
#include <stdair/bom/BomManager.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/EventQueue.hpp>
#include <stdair/service/Logger.hpp>
#include <sevmgr/command/EventQueueManager.hpp>
```

Namespaces

- namespace SEVMGR

25.26 EventQueueManager.cpp

```
00001 // //////////////////////////////////////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/basic/ProgressStatusSet.hpp>
00008 #include <stdair/bom/BomManager.hpp>
00009 #include <stdair/bom/EventStruct.hpp>
00010 #include <stdair/bom/EventQueue.hpp>
00011 #include <stdair/service/Logger.hpp>
00012 // SEvMgr
00013 #include <sevmgr/command/EventQueueManager.hpp>
00014
00015 namespace SEVMGR {
00016
00017    // //////////////////////////////////////////////////////////////////////
00018    void EventQueueManager::
00019    buildSampleBom (stdair::EventQueue& ioEventQueue) {
00020    }
00021
00022    // //////////////////////////////////////////////////////////////////////
00023    void EventQueueManager::reset (stdair::EventQueue& ioEventQueue) {
00024
00028      ioEventQueue.reset();
00029    }
00030
00031 }
```

25.27 sevmgr/command/EventQueueManager.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp>
#include <stdair/command/CmdAbstract.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

Classes

- class SEVMGR::EventQueueManager

    Utility class for Demand and DemandStream objects.

Namespaces

- namespace stdair
- namespace SEVMGR

25.28   EventQueueManager.hpp

```
00001 #ifndef __SEVMGR_CMD_EVENTQUEUEMANAGER_HPP
00002 #define __SEVMGR_CMD_EVENTQUEUEMANAGER_HPP
00003
00004 // //////////////////////////////////////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////////////////////////////////////
00007 // StdAir
00008 #include <stdair/stdair_basic_types.hpp>
00009 #include <stdair/command/CmdAbstract.hpp>
00010 // SEvMgr
00011 #include <sevmgr/SEVMGR_Types.hpp>
00012
00013 // Forward declarations
00014 namespace stdair {
00015   class EventQueue;
00016   struct ProgressStatusSet;
00017 }
00018
00019 namespace SEVMGR {
00020
00024   class EventQueueManager : public stdair::CmdAbstract {
00025     friend class SEVMGR_Service;
00026
00027   private:
00028     // //////// Business methodes //////////
00032     static void buildSampleBom (stdair::EventQueue&);
00033
00039     static void reset (stdair::EventQueue&);
00040   };
00041
00042 }
00043 #endif // __SEVMGR_CMD_EVENTQUEUEMANAGER_HPP
```

25.29   sevmgr/config/sevmgr-paths.hpp File Reference

Defines

- #define PACKAGE "sevmgr"
- #define PACKAGE_NAME "SEVMGR"
- #define PACKAGE_VERSION "0.2.0"
- #define PREFIXDIR "/usr"
- #define EXEC_PREFIX "/usr"
- #define BINDIR "/usr/bin"
- #define LIBDIR "/usr/lib"
- #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/sevmgr-0.2.0"
- #define MANDIR "/usr/share/man"
- #define INFODIR "/usr/share/info"
- #define HTMLDIR "/usr/share/doc/sevmgr-0.2.0/html"
- #define PDFDIR "/usr/share/doc/sevmgr-0.2.0/html"
- #define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"

25.29.1   Define Documentation

25.29.1.1   #define PACKAGE "sevmgr"

Definition at line 4 of file sevmgr-paths.hpp.

25.29.1.2   #define PACKAGE_NAME "SEVMGR"

Definition at line 5 of file sevmgr-paths.hpp.

Referenced by readConfiguration().

25.29.1.3   #define PACKAGE_VERSION "0.2.0"

Definition at line 6 of file sevmgr-paths.hpp.

Referenced by readConfiguration().

25.29.1.4   #define PREFIXDIR "/usr"

Definition at line 7 of file sevmgr-paths.hpp.

Referenced by readConfiguration().

25.29.1.5   #define EXEC_PREFIX "/usr"

Definition at line 8 of file sevmgr-paths.hpp.

25.29.1.6   #define BINDIR "/usr/bin"

Definition at line 9 of file sevmgr-paths.hpp.

25.29.1.7   #define LIBDIR "/usr/lib"

Definition at line 10 of file sevmgr-paths.hpp.

25.29.1.8   #define LIBEXECDIR "/usr/libexec"

Definition at line 11 of file sevmgr-paths.hpp.

25.29.1.9   #define SBINDIR "/usr/sbin"

Definition at line 12 of file sevmgr-paths.hpp.

25.29.1.10   #define SYSCONFDIR "/usr/etc"

Definition at line 13 of file sevmgr-paths.hpp.

25.29.1.11   #define INCLUDEDIR "/usr/include"

Definition at line 14 of file sevmgr-paths.hpp.

25.29.1.12   #define DATAROOTDIR "/usr/share"

Definition at line 15 of file sevmgr-paths.hpp.

25.29.1.13   #define DATADIR "/usr/share"

Definition at line 16 of file sevmgr-paths.hpp.

25.29.1.14   #define DOCDIR "/usr/share/doc/sevmgr-0.2.0"

Definition at line 17 of file sevmgr-paths.hpp.

25.29.1.15   #define MANDIR "/usr/share/man"

Definition at line 18 of file sevmgr-paths.hpp.

25.29.1.16   #define INFODIR "/usr/share/info"

Definition at line 19 of file sevmgr-paths.hpp.

25.29.1.17   #define HTMLDIR "/usr/share/doc/sevmgr-0.2.0/html"

Definition at line 20 of file sevmgr-paths.hpp.

25.29.1.18   #define PDFDIR "/usr/share/doc/sevmgr-0.2.0/html"

Definition at line 21 of file sevmgr-paths.hpp.

25.29.1.19   #define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"

Definition at line 22 of file sevmgr-paths.hpp.

25.30   sevmgr-paths.hpp

```
00001 #ifndef __SEVMGR_PATHS_HPP__
00002 #define __SEVMGR_PATHS_HPP__
00003
00004 #define PACKAGE "sevmgr"
00005 #define PACKAGE_NAME "SEVMGR"
00006 #define PACKAGE_VERSION "0.2.0"
00007 #define PREFIXDIR "/usr"
00008 #define EXEC_PREFIX "/usr"
00009 #define BINDIR "/usr/bin"
00010 #define LIBDIR "/usr/lib"
00011 #define LIBEXECDIR "/usr/libexec"
00012 #define SBINDIR "/usr/sbin"
00013 #define SYSCONFDIR "/usr/etc"
00014 #define INCLUDEDIR "/usr/include"
00015 #define DATAROOTDIR "/usr/share"
00016 #define DATADIR "/usr/share"
00017 #define DOCDIR "/usr/share/doc/sevmgr-0.2.0"
00018 #define MANDIR "/usr/share/man"
00019 #define INFODIR "/usr/share/info"
00020 #define HTMLDIR "/usr/share/doc/sevmgr-0.2.0/html"
00021 #define PDFDIR "/usr/share/doc/sevmgr-0.2.0/html"
00022 #define STDAIR_SAMPLE_DIR "/usr/share/stdair/samples"
00023
00024 #endif // __SEVMGR_PATHS_HPP__
```

25.31   sevmgr/config/sevmgr-paths.hpp.in File Reference

Defines

- #define __SEVMGR_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@"

25.31.1   Define Documentation

25.31.1.1   #define __SEVMGR_PATHS_HPP__

Definition at line 2 of file sevmgr-paths.hpp.in.

25.31.1.2   #define PACKAGE "@PACKAGE@"

Definition at line 4 of file sevmgr-paths.hpp.in.

25.31.1.3   #define PACKAGE_NAME "@PACKAGE_NAME@"

Definition at line 5 of file sevmgr-paths.hpp.in.

25.31.1.4   #define PACKAGE_VERSION "@PACKAGE_VERSION@"

Definition at line 6 of file sevmgr-paths.hpp.in.

25.31.1.5   #define PREFIXDIR "@prefix@"

Definition at line 7 of file sevmgr-paths.hpp.in.

25.31.1.6   #define EXEC_PREFIX "@exec_prefix@"

Definition at line 8 of file sevmgr-paths.hpp.in.

25.31.1.7   #define BINDIR "@bindir@"

Definition at line 9 of file sevmgr-paths.hpp.in.

25.31.1.8   #define LIBDIR "@libdir@"

Definition at line 10 of file sevmgr-paths.hpp.in.

25.31.1.9   #define LIBEXECDIR "@libexecdir@"

Definition at line 11 of file sevmgr-paths.hpp.in.

25.31.1.10   #define SBINDIR "@sbindir@"

Definition at line 12 of file sevmgr-paths.hpp.in.

25.31.1.11   #define SYSCONFDIR "@sysconfdir@"

Definition at line 13 of file sevmgr-paths.hpp.in.

25.31.1.12   #define INCLUDEDIR "@includedir@"

Definition at line 14 of file sevmgr-paths.hpp.in.

25.31.1.13   #define DATAROOTDIR "@datarootdir@"

Definition at line 15 of file sevmgr-paths.hpp.in.

25.31.1.14   #define DATADIR "@datadir@"

Definition at line 16 of file sevmgr-paths.hpp.in.

25.31.1.15   #define DOCDIR "@docdir@"

Definition at line 17 of file sevmgr-paths.hpp.in.

25.31.1.16   #define MANDIR "@mandir@"

Definition at line 18 of file sevmgr-paths.hpp.in.

25.31.1.17   #define INFODIR "@infodir@"

Definition at line 19 of file sevmgr-paths.hpp.in.

25.31.1.18   #define HTMLDIR "@htmldir@"

Definition at line 20 of file sevmgr-paths.hpp.in.

25.31.1.19   #define PDFDIR "@pdfdir@"

Definition at line 21 of file sevmgr-paths.hpp.in.

25.31.1.20   #define STDAIR_SAMPLE_DIR "@sampledir@"

Definition at line 22 of file sevmgr-paths.hpp.in.

25.32   sevmgr-paths.hpp.in

```
00001 #ifndef __SEVMGR_PATHS_HPP__
00002 #define __SEVMGR_PATHS_HPP__
00003
00004 #define PACKAGE "@PACKAGE@"
00005 #define PACKAGE_NAME "@PACKAGE_NAME@"
00006 #define PACKAGE_VERSION "@PACKAGE_VERSION@"
00007 #define PREFIXDIR "@prefix@"
00008 #define EXEC_PREFIX "@exec_prefix@"
00009 #define BINDIR "@bindir@"
00010 #define LIBDIR "@libdir@"
00011 #define LIBEXECDIR "@libexecdir@"
00012 #define SBINDIR "@sbindir@"
00013 #define SYSCONFDIR "@sysconfdir@"
00014 #define INCLUDEDIR "@includedir@"
00015 #define DATAROOTDIR "@datarootdir@"
00016 #define DATADIR "@datadir@"
00017 #define DOCDIR "@docdir@"
00018 #define MANDIR "@mandir@"
00019 #define INFODIR "@infodir@"
00020 #define HTMLDIR "@htmldir@"
00021 #define PDFDIR "@pdfdir@"
00022 #define STDAIR_SAMPLE_DIR "@sampledir@"
00023
00024 #endif // __SEVMGR_PATHS_HPP__
```

25.33   sevmgr/factory/FacSEVMGRServiceContext.cpp File Reference

```
#include <cassert>
#include <stdair/service/FacSupervisor.hpp>
#include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
```

Namespaces

   • namespace SEVMGR

25.34 FacSEVMGRServiceContext.cpp

```
00001 // //////////////////////////////////////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 // StdAir
00007 #include <stdair/service/FacSupervisor.hpp>
00008 // Sevmgr
00009 #include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
00010 #include <sevmgr/service/SEVMGR_ServiceContext.hpp>
00011
00012 namespace SEVMGR {
00013
00014   FacSEVMGRServiceContext* FacSEVMGRServiceContext::_instance = NULL;
00015
00016   // //////////////////////////////////////////////////////////////////////
00017   FacSEVMGRServiceContext::~FacSEVMGRServiceContext () {
00018     _instance = NULL;
00019   }
00020
00021   // //////////////////////////////////////////////////////////////////////
00022   FacSEVMGRServiceContext& FacSEVMGRServiceContext::instance () {
00023
00024     if (_instance == NULL) {
00025       _instance = new FacSEVMGRServiceContext();
00026       assert (_instance != NULL);
00027
00028       stdair::FacSupervisor::instance().registerServiceFactory (_instance);
00029     }
00030     return *_instance;
00031   }
00032
00033   // //////////////////////////////////////////////////////////////////////
00034   SEVMGR_ServiceContext& FacSEVMGRServiceContext::create () {
00035     SEVMGR_ServiceContext* aServiceContext_ptr = NULL;
00036
00037     aServiceContext_ptr = new SEVMGR_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 }
```

25.35 sevmgr/factory/FacSEVMGRServiceContext.hpp File Reference

```
#include <stdair/service/FacServiceAbstract.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

Classes

- class SEVMGR::FacSEVMGRServiceContext

Namespaces

- namespace SEVMGR

25.36 FacSEVMGRServiceContext.hpp

```
00001 #ifndef __SEVMGR_FAC_FACSEVMGRSERVICECONTEXT_HPP
00002 #define __SEVMGR_FAC_FACSEVMGRSERVICECONTEXT_HPP
00003
00004 // //////////////////////////////////////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////////////////////////////////////
00007 // StdAir
00008 #include <stdair/service/FacServiceAbstract.hpp>
```

```
00009 // Sevmgr
00010 #include <sevmgr/SEVMGR_Types.hpp>
00011
00012 namespace SEVMGR {
00013
00015   class SEVMGR_ServiceContext;
00016
00018   class FacSEVMGRServiceContext : public stdair::FacServiceAbstract {
00019   public:
00020
00024     static FacSEVMGRServiceContext& instance();
00025
00030     ~FacSEVMGRServiceContext();
00031
00035     SEVMGR_ServiceContext& create ();
00036
00037
00038   protected:
00042     FacSEVMGRServiceContext () {}
00043
00044   private:
00046     static FacSEVMGRServiceContext* _instance;
00047   };
00048
00049 }
00050 #endif // __SEVMGR_FAC_FACSEVMGRSERVICECONTEXT_HPP
```

25.37 sevmgr/python/pysevmgr.cpp File Reference

```
#include <cassert>
#include <stdexcept>
#include <fstream>
#include <sstream>
#include <string>
#include <list>
#include <vector>
#include <boost/python.hpp>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_exceptions.hpp>
#include <stdair/basic/BasFileMgr.hpp>
#include <stdair/basic/BasLogParams.hpp>
#include <stdair/basic/BasDBParams.hpp>
#include <sevmgr/SEVMGR_Service.hpp>
```

Classes

- struct SEVMGR::PYEventQueueManager

Namespaces

- namespace SEVMGR

Functions

- BOOST_PYTHON_MODULE (libpysevmgr)

25.37.1 Function Documentation

25.37.1.1 BOOST_PYTHON_MODULE (libpysevmgr)

Definition at line 152 of file pysevmgr.cpp.

References SEVMGR::PYEventQueueManager::init(), and SEVMGR::PYEventQueueManager::sevmgr().

25.38 pysevmgr.cpp

```
00001 // STL
00002 #include <cassert>
00003 #include <stdexcept>
00004 #include <fstream>
00005 #include <sstream>
00006 #include <string>
00007 #include <list>
00008 #include <vector>
00009 // Boost String
00010 #include <boost/python.hpp>
00011 // StdAir
00012 #include <stdair/stdair_basic_types.hpp>
00013 #include <stdair/stdair_exceptions.hpp>
00014 #include <stdair/basic/BasFileMgr.hpp>
00015 #include <stdair/basic/BasLogParams.hpp>
00016 #include <stdair/basic/BasDBParams.hpp>
00017 // SEvMgr
00018 #include <sevmgr/SEVMGR_Service.hpp>
00019
00020 namespace SEVMGR {
00021
00022   struct PYEventQueueManager {
00023   public:
00025     std::string sevmgr() {
00026       std::ostringstream oStream;
00027
00028       // Sanity check
00029       if (_logOutputStream == NULL) {
00030         oStream << "The log filepath is not valid." << std::endl;
00031         return oStream.str();
00032       }
00033       assert (_logOutputStream != NULL);
00034
00035       try {
00036
00037         // DEBUG
00038         *_logOutputStream << "Default service" << std::endl;
00039
00040         if (_sevmgrService == NULL) {
00041           oStream << "The Sevmgr service has not been initialised, "
00042                   << "i.e., the init() method has not been called "
00043                   << "correctly on the PYEventQueueManager object. Please "
00044                   << "check that all the parameters are not empty and "
00045                   << "point to actual files.";
00046           *_logOutputStream << oStream.str();
00047           return oStream.str();
00048         }
00049         assert (_sevmgrService != NULL);
00050
00051         // Do the sevmgr
00052         _sevmgrService->buildSampleBom();
00053
00054         // DEBUG
00055         *_logOutputStream << "Default service returned" << std::endl;
00056
00057         // DEBUG
00058         *_logOutputStream << "Sevmgr output: " << oStream.str() << std::endl;
00059
00060       } catch (const stdair::RootException& eSevmgrError) {
00061         *_logOutputStream << "Sevmgr error: "  << eSevmgrError.what()
00062                           << std::endl;
00063
00064       } catch (const std::exception& eStdError) {
00065         *_logOutputStream << "Error: "  << eStdError.what() << std::endl;
00066
00067       } catch (...) {
00068         *_logOutputStream << "Unknown error" << std::endl;
00069       }
00070
00071       return oStream.str();
00072     }
00073
00074   public:
00076     PYEventQueueManager() : _sevmgrService (NULL), _logOutputStream (NULL) {
00077     }
00078
00080     PYEventQueueManager (const PYEventQueueManager& iPYEventQueueManager)
00081       : _sevmgrService (iPYEventQueueManager._sevmgrService),
00082         _logOutputStream (iPYEventQueueManager._logOutputStream) {
00083     }
00084
00086     ~PYEventQueueManager() {
00087       _sevmgrService = NULL;
00088       _logOutputStream = NULL;
00089     }
```

```
00090
00092     bool init (const std::string& iLogFilepath,
00093                const std::string& iDBUser, const std::string& iDBPasswd,
00094                const std::string& iDBHost, const std::string& iDBPort,
00095                const std::string& iDBDBName) {
00096       bool isEverythingOK = true;
00097
00098       try {
00099
00100         // Check that the file path given as input corresponds to an actual
     file
00101         const bool isWriteable = (iLogFilepath.empty() == false);
00102         // stdair::BasFileMgr::isWriteable (iLogFilepath);
00103         if (isWriteable == false) {
00104           isEverythingOK = false;
00105           return isEverythingOK;
00106         }
00107
00108         // Set the log parameters
00109         _logOutputStream = new std::ofstream;
00110         assert (_logOutputStream != NULL);
00111
00112         // Open and clean the log outputfile
00113         _logOutputStream->open (iLogFilepath.c_str());
00114         _logOutputStream->clear();
00115
00116         // DEBUG
00117         *_logOutputStream << "Python wrapper initialisation" << std::endl;
00118         const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG,
00119                                                *_logOutputStream);
00120
00121         // Initialise the context
00122         stdair::BasDBParams lDBParams (iDBUser, iDBPasswd, iDBHost, iDBPort,
00123                                        iDBDBName);
00124         _sevmgrService = new SEVMGR_Service (lLogParams, lDBParams);
00125
00126         // DEBUG
00127         *_logOutputStream << "Python wrapper initialised" << std::endl;
00128
00129       } catch (const stdair::RootException& eSevmgrError) {
00130         *_logOutputStream << "Sevmgr error: "  << eSevmgrError.what()
00131                           << std::endl;
00132
00133       } catch (const std::exception& eStdError) {
00134         *_logOutputStream << "Error: "  << eStdError.what() << std::endl;
00135
00136       } catch (...) {
00137         *_logOutputStream << "Unknown error" << std::endl;
00138       }
00139
00140       return isEverythingOK;
00141     }
00142
00143   private:
00145     SEVMGR_Service* _sevmgrService;
00146     std::ofstream* _logOutputStream;
00147   };
00148
00149 }
00150
00151 // ////////////////////////////////////////////////////////////
00152 BOOST_PYTHON_MODULE(libpysevmgr) {
00153   boost::python::class_<SEVMGR::PYEventQueueManager> ("PYEventQueueManager")
00154     .def ("sevmgr", &SEVMGR::PYEventQueueManager::sevmgr)
00155     .def ("init", &SEVMGR::PYEventQueueManager::init);
00156 }
```

25.39   sevmgr/service/SEVMGR_Service.cpp File Reference

```
#include <cassert>
```

```
#include <sstream>
#include <boost/make_shared.hpp>
#include <stdair/basic/BasChronometer.hpp>
#include <stdair/basic/BasConst_General.hpp>
#include <stdair/bom/BomRoot.hpp>
#include <stdair/bom/BomDisplay.hpp>
#include <stdair/bom/EventStruct.hpp>
#include <stdair/bom/EventQueue.hpp>
#include <stdair/service/Logger.hpp>
#include <stdair/STDAIR_Service.hpp>
#include <sevmgr/basic/BasConst_SEVMGR_Service.hpp>
#include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
#include <sevmgr/command/EventQueueManager.hpp>
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
#include <sevmgr/SEVMGR_Service.hpp>
```

Namespaces

- namespace SEVMGR

25.40   SEVMGR_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/basic/BasConst_General.hpp>
00012 #include <stdair/bom/BomRoot.hpp>
00013 #include <stdair/bom/BomDisplay.hpp>
00014 #include <stdair/bom/EventStruct.hpp>
00015 #include <stdair/bom/EventQueue.hpp>
00016 #include <stdair/service/Logger.hpp>
00017 #include <stdair/STDAIR_Service.hpp>
00018 // Sevmgr
00019 #include <sevmgr/basic/BasConst_SEVMGR_Service.hpp>
00020 #include <sevmgr/factory/FacSEVMGRServiceContext.hpp>
00021 #include <sevmgr/command/EventQueueManager.hpp>
00022 #include <sevmgr/service/SEVMGR_ServiceContext.hpp>
00023 #include <sevmgr/SEVMGR_Service.hpp>
00024
00025 namespace SEVMGR {
00026
00027   // //////////////////////////////////////////////////////////////////////
00028   SEVMGR_Service::SEVMGR_Service() : _sevmgrServiceContext (NULL) {
00029     assert (false);
00030   }
00031
00032   // //////////////////////////////////////////////////////////////////////
00033   SEVMGR_Service::SEVMGR_Service (const SEVMGR_Service& iService)
00034     : _sevmgrServiceContext (NULL) {
00035     assert (false);
00036   }
00037
00038   // //////////////////////////////////////////////////////////////////////
00039   SEVMGR_Service::SEVMGR_Service (const stdair::BasLogParams& iLogParams,
00040                                  const stdair::BasDBParams& iDBParams)
00041     : _sevmgrServiceContext (NULL) {
00042
00043     // Initialise the STDAIR service handler
00044     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00045       initStdAirService (iLogParams, iDBParams);
00046
00047     // Initialise the service context
00048     initServiceContext();
00049
00050     // Add the StdAir service context to the SEVMGR service context
00051     // \note SEVMGR owns the STDAIR service resources here.
```

```
00052      const bool ownStdairService = true;
00053      addStdAirService (lSTDAIR_Service_ptr, ownStdairService);
00054
00055      // Initialise the (remaining of the) context
00056      initSevmgrService();
00057   }
00058
00059   // //////////////////////////////////////////////////////////////////////
00060   SEVMGR_Service::SEVMGR_Service (const stdair::BasLogParams& iLogParams)
00061     : _sevmgrServiceContext (NULL) {
00062
00063      // Initialise the STDAIR service handler
00064      stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00065        initStdAirService (iLogParams);
00066
00067      // Initialise the service context
00068      initServiceContext();
00069
00070      // Add the StdAir service context to the SEVMGR service context
00071      // \note SEVMGR owns the STDAIR service resources here.
00072      const bool ownStdairService = true;
00073      addStdAirService (lSTDAIR_Service_ptr, ownStdairService);
00074
00075      // Initialise the (remaining of the) context
00076      initSevmgrService();
00077   }
00078
00079   // //////////////////////////////////////////////////////////////////////
00080   SEVMGR_Service::
00081   SEVMGR_Service (stdair::STDAIR_ServicePtr_T ioSTDAIR_Service_ptr)
00082     : _sevmgrServiceContext (NULL) {
00083
00084      // Initialise the service context
00085      initServiceContext();
00086
00087      // Add the StdAir service context to the SEVMGR service context
00088      // \note Sevmgr does not own the STDAIR service resources here.
00089      const bool doesNotOwnStdairService = false;
00090      addStdAirService (ioSTDAIR_Service_ptr, doesNotOwnStdairService);
00091
00092      // Initialise the context
00093      initSevmgrService();
00094   }
00095
00096   // //////////////////////////////////////////////////////////////////////
00097   SEVMGR_Service::~SEVMGR_Service() {
00098      // Delete/Clean all the objects from memory
00099      finalise();
00100   }
00101
00102   // //////////////////////////////////////////////////////////////////////
00103   void SEVMGR_Service::finalise() {
00104      assert (_sevmgrServiceContext != NULL);
00105      // Reset the (Boost.)Smart pointer pointing on the STDAIR_Service object.
00106      _sevmgrServiceContext->reset();
00107   }
00108
00109   // //////////////////////////////////////////////////////////////////////
00110   void SEVMGR_Service::initServiceContext() {
00111      // Initialise the service context
00112      SEVMGR_ServiceContext& lSEVMGR_ServiceContext =
00113        FacSEVMGRServiceContext::instance().create();
00114      _sevmgrServiceContext = &lSEVMGR_ServiceContext;
00115   }
00116
00117   // //////////////////////////////////////////////////////////////////////
00118   void SEVMGR_Service::
00119   addStdAirService (stdair::STDAIR_ServicePtr_T ioSTDAIR_Service_ptr,
00120                     const bool iOwnStdairService) {
00121      // Retrieve the Sevmgr service context
00122      assert (_sevmgrServiceContext != NULL);
00123      SEVMGR_ServiceContext& lSEVMGR_ServiceContext =
00124        *_sevmgrServiceContext;
00125
00126      // Store the STDAIR service object within the (SEVMGR) service context
00127      lSEVMGR_ServiceContext.setSTDAIR_Service (ioSTDAIR_Service_ptr,
00128                                               iOwnStdairService);
00129   }
00130
00131   // //////////////////////////////////////////////////////////////////////
00132   stdair::STDAIR_ServicePtr_T SEVMGR_Service::
00133   initStdAirService (const stdair::BasLogParams& iLogParams,
00134                      const stdair::BasDBParams& iDBParams) {
00135
00141      stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00142        boost::make_shared<stdair::STDAIR_Service> (iLogParams, iDBParams);
00143      assert (lSTDAIR_Service_ptr != NULL);
```

```
00144
00145     return lSTDAIR_Service_ptr;
00146   }
00147
00148   // //////////////////////////////////////////////////////////////////////
00149   stdair::STDAIR_ServicePtr_T SEVMGR_Service::
00150   initStdAirService (const stdair::BasLogParams& iLogParams) {
00151
00157     stdair::STDAIR_ServicePtr_T lSTDAIR_Service_ptr =
00158       boost::make_shared<stdair::STDAIR_Service> (iLogParams);
00159     assert (lSTDAIR_Service_ptr != NULL);
00160
00161     return lSTDAIR_Service_ptr;
00162   }
00163
00164   // //////////////////////////////////////////////////////////////////////
00165   void SEVMGR_Service::initSevmgrService() {
00166     // Do nothing at this stage. A sample BOM tree may be built by
00167     // calling the buildSampleBom() method
00168   }
00169
00170   // //////////////////////////////////////////////////////////////////////
00171   void SEVMGR_Service::buildSampleBom() {
00172
00173     // Retrieve the Sevmgr service context
00174     if (_sevmgrServiceContext == NULL) {
00175       throw stdair::NonInitialisedServiceException ("The Sevmgr service has "
00176                                                     "not been initialised");
00177     }
00178     assert (_sevmgrServiceContext != NULL);
00179
00180     //SEVMGR_ServiceContext& lSEVMGR_ServiceContext = *_sevmgrServiceContext;
00181
00182     // Retrieve the STDAIR service object from the (Sevmgr) service context
00183     //stdair::STDAIR_Service& lSTDAIR_Service =
00184     // lSEVMGR_ServiceContext.getSTDAIR_Service();
00185
00186     // Retrieve the event queue
00187     //stdair::EventQueue& lEventQueue = lSTDAIR_Service.getEventQueue();
00188   }
00189
00190   // //////////////////////////////////////////////////////////////////////
00191   std::string SEVMGR_Service::csvDisplay() const {
00192
00193     // Retrieve the Sevmgr service context
00194     if (_sevmgrServiceContext == NULL) {
00195       throw stdair::NonInitialisedServiceException ("The Sevmgr service has "
00196                                                     "not been initialised");
00197     }
00198     assert (_sevmgrServiceContext != NULL);
00199
00200     SEVMGR_ServiceContext& lSEVMGR_ServiceContext = *_sevmgrServiceContext;
00201
00202     // Retrieve the STDAIR service object from the (Sevmgr) service context
00203     stdair::STDAIR_Service& lSTDAIR_Service =
00204       lSEVMGR_ServiceContext.getSTDAIR_Service();
00205
00206     // Retrieve the event queue
00207     stdair::EventQueue& lEventQueue = lSTDAIR_Service.getEventQueue();
00208
00209     // Delegate the BOM building to the dedicated service
00210     return stdair::BomDisplay::csvDisplay (lEventQueue);
00211   }
00212
00213   // //////////////////////////////////////////////////////////////////////
00214   stdair::ProgressStatusSet SEVMGR_Service::
00215   popEvent (stdair::EventStruct& ioEventStruct) const {
00216
00217     // Retrieve the Sevmgr service context
00218     assert (_sevmgrServiceContext != NULL);
00219     SEVMGR_ServiceContext& lSEVMGR_ServiceContext = *_sevmgrServiceContext;
00220
00221     // Retrieve the StdAir service context
00222     stdair::STDAIR_Service& lSTDAIR_Service =
00223       lSEVMGR_ServiceContext.getSTDAIR_Service();
00224
00225     // Retrieve the event queue object instance
00226     stdair::EventQueue& lQueue = lSTDAIR_Service.getEventQueue();
00227
00228     // Extract the next event from the queue
00229     return lQueue.popEvent (ioEventStruct);
00230   }
00231
00232   // //////////////////////////////////////////////////////////////////////
00233   bool SEVMGR_Service::isQueueDone() const {
00234
00235     // Retrieve the Sevmgr service context
```

```
00236      assert (_sevmgrServiceContext != NULL);
00237      SEVMGR_ServiceContext& lSEVMGR_ServiceContext =
00238        *_sevmgrServiceContext;
00239
00240      // Retrieve the StdAir service context
00241      stdair::STDAIR_Service& lSTDAIR_Service =
00242        lSEVMGR_ServiceContext.getSTDAIR_Service();
00243
00244      // Retrieve the event queue object instance
00245      const stdair::EventQueue& lQueue = lSTDAIR_Service.getEventQueue();
00246
00247      // Calculates whether the event queue has been fully emptied
00248      const bool isQueueDone = lQueue.isQueueDone();
00249
00250      //
00251      return isQueueDone;
00252    }
00253
00254    // //////////////////////////////////////////////////////////////////////
00255    void SEVMGR_Service::reset() const {
00256
00257      // Retrieve the Sevmgr service context
00258      assert (_sevmgrServiceContext != NULL);
00259      SEVMGR_ServiceContext& lSEVMGR_ServiceContext =
00260        *_sevmgrServiceContext;
00261
00262      // Retrieve the StdAir service context
00263      stdair::STDAIR_Service& lSTDAIR_Service =
00264        lSEVMGR_ServiceContext.getSTDAIR_Service();
00265      // Retrieve the event queue object instance
00266      stdair::EventQueue& lQueue = lSTDAIR_Service.getEventQueue();
00267
00268      // Delegate the call to the dedicated command
00269      EventQueueManager::reset (lQueue);
00270    }
00271  }
```

25.41   sevmgr/service/SEVMGR_ServiceContext.cpp File Reference

```
#include <cassert>
#include <sstream>
#include <stdair/STDAIR_Service.hpp>
#include <stdair/basic/BasConst_General.hpp>
#include <sevmgr/basic/BasConst_EventQueueManager.hpp>
#include <sevmgr/service/SEVMGR_ServiceContext.hpp>
```

Namespaces

- namespace SEVMGR

25.42   SEVMGR_ServiceContext.cpp

```
00001 // //////////////////////////////////////////////////////////////////////
00002 // Import section
00003 // //////////////////////////////////////////////////////////////////////
00004 // STL
00005 #include <cassert>
00006 #include <sstream>
00007 // StdAir
00008 #include <stdair/STDAIR_Service.hpp>
00009 #include <stdair/basic/BasConst_General.hpp>
00010 // SEvMgr
00011 #include <sevmgr/basic/BasConst_EventQueueManager.hpp>
00012 #include <sevmgr/service/SEVMGR_ServiceContext.hpp>
00013
00014 namespace SEVMGR {
00015
00016    // //////////////////////////////////////////////////////////////////////
00017    SEVMGR_ServiceContext::SEVMGR_ServiceContext() {
00018    }
00019
00020    // //////////////////////////////////////////////////////////////////////
00021    SEVMGR_ServiceContext::
00022    SEVMGR_ServiceContext (const std::string& iServiceName) {
```

```
00023  }
00024
00025  // //////////////////////////////////////////////////////////////////
00026  SEVMGR_ServiceContext::~SEVMGR_ServiceContext() {
00027  }
00028
00029  // //////////////////////////////////////////////////////////////////
00030  const std::string SEVMGR_ServiceContext::shortDisplay() const {
00031    std::ostringstream oStr;
00032    oStr << "SEVMGR_ServiceContext -- Owns StdAir service: "
00033         << _ownStdairService;
00034    return oStr.str();
00035  }
00036
00037  // //////////////////////////////////////////////////////////////////
00038  const std::string SEVMGR_ServiceContext::display() const {
00039    std::ostringstream oStr;
00040    oStr << shortDisplay();
00041    return oStr.str();
00042  }
00043
00044  // //////////////////////////////////////////////////////////////////
00045  const std::string SEVMGR_ServiceContext::describe() const {
00046    return shortDisplay();
00047  }
00048
00049  // //////////////////////////////////////////////////////////////////
00050  void SEVMGR_ServiceContext::reset() {
00051    if (_ownStdairService == true) {
00052      _stdairService.reset();
00053    }
00054  }
00055
00056 }
```

25.43 sevmgr/service/SEVMGR_ServiceContext.hpp File Reference

```
#include <string>
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_service_types.hpp>
#include <stdair/service/ServiceAbstract.hpp>
#include <sevmgr/SEVMGR_Types.hpp>
```

Classes

- class SEVMGR::SEVMGR_ServiceContext

    Class holding the context of the Sevmgr services.

Namespaces

- namespace SEVMGR

25.44 SEVMGR_ServiceContext.hpp

```
00001 #ifndef __SEVMGR_SVC_SEVMGRSERVICECONTEXT_HPP
00002 #define __SEVMGR_SVC_SEVMGRSERVICECONTEXT_HPP
00003
00004 // //////////////////////////////////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////////////////////////////////
00007 // STL
00008 #include <string>
00009 // StdAir
00010 #include <stdair/stdair_basic_types.hpp>
00011 #include <stdair/stdair_service_types.hpp>
00012 #include <stdair/service/ServiceAbstract.hpp>
00013 // SEvMgr
00014 #include <sevmgr/SEVMGR_Types.hpp>
00015
00016 namespace SEVMGR {
```

```
00017
00021   class SEVMGR_ServiceContext : public stdair::ServiceAbstract {
00027     friend class SEVMGR_Service;
00028     friend class FacSEVMGRServiceContext;
00029
00030   private:
00031     // ////////// Getters //////////
00035     stdair::STDAIR_ServicePtr_T getSTDAIR_ServicePtr() const {
00036       return _stdairService;
00037     }
00038
00042     stdair::STDAIR_Service& getSTDAIR_Service() const {
00043       assert (_stdairService != NULL);
00044       return *_stdairService;
00045     }
00046
00050     const bool getOwnStdairServiceFlag() const {
00051       return _ownStdairService;
00052     }
00053
00054
00055   private:
00056     // ////////// Setters //////////
00060     void setSTDAIR_Service (stdair::STDAIR_ServicePtr_T ioSTDAIR_ServicePtr,
00061                             const bool iOwnStdairService) {
00062       _stdairService = ioSTDAIR_ServicePtr;
00063       _ownStdairService = iOwnStdairService;
00064     }
00065
00066
00067   private:
00068     // ////////// Display Methods //////////
00072     const std::string shortDisplay() const;
00073
00077     const std::string display() const;
00078
00082     const std::string describe() const;
00083
00084
00085   private:
00087
00090     SEVMGR_ServiceContext();
00091     SEVMGR_ServiceContext (const std::string& iServiceName);
00095     SEVMGR_ServiceContext (const SEVMGR_ServiceContext&);
00096
00100     ~SEVMGR_ServiceContext();
00101
00105     void reset();
00106
00107
00108   private:
00109     // /////////////// Children ////////////////
00113     stdair::STDAIR_ServicePtr_T _stdairService;
00114
00118     bool _ownStdairService;
00119
00120
00121   private:
00122     // /////////////// Attributes ////////////////
00123     // No attributes for now
00124   };
00125
00126 }
00127 #endif // __SEVMGR_SVC_SEVMGRSERVICECONTEXT_HPP
```

25.45   sevmgr/SEVMGR_Exceptions.hpp File Reference

```
#include <exception>
#include <stdair/stdair_exceptions.hpp>
```

Classes

- class SEVMGR::SEvMgrException

Namespaces

- namespace SEVMGR

25.46 SEVMGR_Exceptions.hpp

```
00001 #ifndef __SEVMGR_SEVMGR_EXCEPTIONS_HPP
00002 #define __SEVMGR_SEVMGR_EXCEPTIONS_HPP
00003
00004 // //////////////////////////////////////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////////////////////////////////////
00007 // STL
00008 #include <exception>
00009 // StdAir
00010 #include <stdair/stdair_exceptions.hpp>
00011
00012 namespace SEVMGR {
00013
00014   // ///////// Exceptions ///////////
00018   class SEvMgrException : public stdair::RootException {
00019   public:
00023     SEvMgrException (const std::string& iWhat)
00024       : stdair::RootException (iWhat) {}
00025   };
00026
00027 }
00028 #endif // __SEVMGR_SEVMGR_EXCEPTIONS_HPP
00029
```

25.47 sevmgr/SEVMGR_Service.hpp File Reference

```
#include <stdair/stdair_basic_types.hpp>
#include <stdair/stdair_service_types.hpp>
#include <stdair/bom/EventTypes.hpp>
```

Classes

- class SEVMGR::SEVMGR_Service

    class holding the services related to Travel Demand Generation.

Namespaces

- namespace stdair
- namespace SEVMGR

25.48 SEVMGR_Service.hpp

```
00001 #ifndef __SEVMGR_SEVMGR_SERVICE_HPP
00002 #define __SEVMGR_SEVMGR_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/EventTypes.hpp>
00011
00012 // Forward declarations
00013 namespace stdair {
00014   class EventQueue;
00015   struct ProgressStatusSet;
00016   struct BasLogParams;
00017   struct BasDBParams;
00018   struct EventStruct;
00019 }
```

```
00020
00021 namespace SEVMGR {
00022
00024   class SEVMGR_ServiceContext;
00025
00029   class SEVMGR_Service {
00030   public:
00031     // //////////////// Constructors and Destructors //////////////////
00047     SEVMGR_Service (const stdair::BasLogParams&, const stdair::BasDBParams&);
00048
00060     SEVMGR_Service (const stdair::BasLogParams&);
00061
00077     SEVMGR_Service (stdair::STDAIR_ServicePtr_T);
00078
00082     ~SEVMGR_Service();
00083
00084
00085   public:
00086     // //////////////// Business support methods //////////////////
00090     void buildSampleBom();
00091
00108     stdair::ProgressStatusSet popEvent (stdair::EventStruct&) const;
00109
00115     bool isQueueDone() const;
00116
00121     void reset() const;
00122
00123
00124   public:
00125     // //////////////// Display support methods //////////////////
00133     std::string csvDisplay() const;
00134
00135
00136   private:
00137     // //////////////// Constructors and Destructors //////////////////
00141     SEVMGR_Service();
00142
00146     SEVMGR_Service (const SEVMGR_Service&);
00147
00152     void initServiceContext();
00153
00165     stdair::STDAIR_ServicePtr_T initStdAirService (const stdair::BasLogParams&,
00166                                                     const stdair::BasDBParams&);
00167
00177     stdair::STDAIR_ServicePtr_T initStdAirService (const stdair::BasLogParams&)
    ;
00178
00187     void addStdAirService (stdair::STDAIR_ServicePtr_T ioSTDAIR_ServicePtr,
00188                            const bool iOwnStdairService);
00189
00196     void initSevmgrService();
00197
00201     void finalise();
00202
00203
00204   private:
00205     // ////////// Service Context //////////
00209     SEVMGR_ServiceContext* _sevmgrServiceContext;
00210   };
00211
00212 }
00213 #endif // __SEVMGR_SEVMGR_SERVICE_HPP
```

25.49 sevmgr/SEVMGR_Types.hpp File Reference

```
#include <boost/shared_ptr.hpp>
#include <sevmgr/SEVMGR_Exceptions.hpp>
```

Namespaces

- namespace SEVMGR

Typedefs

- typedef boost::shared_ptr
  < SEVMGR_Service > SEVMGR::SEVMGR_ServicePtr_T

25.50 SEVMGR_Types.hpp

```
00001 #ifndef __SEVMGR_SEVMGR_TYPES_HPP
00002 #define __SEVMGR_SEVMGR_TYPES_HPP
00003
00004 // //////////////////////////////////////////////////////////////////////
00005 // Import section
00006 // //////////////////////////////////////////////////////////////////////
00007 // Boost
00008 #include <boost/shared_ptr.hpp>
00009 // Sevmgr
00010 #include <sevmgr/SEVMGR_Exceptions.hpp>
00011
00012 namespace SEVMGR {
00013
00014   // Forward declarations
00015   class SEVMGR_Service;
00016
00017   // ///////// Type definitions specific to to Sevmgr /////////
00021   typedef boost::shared_ptr<SEVMGR_Service> SEVMGR_ServicePtr_T;
00022
00023 }
00024 #endif // __SEVMGR_SEVMGR_TYPES_HPP
00025
```

25.51 sevmgr/ui/cmdline/readline_autocomp.hpp File Reference

```
#include <string>
#include <iosfwd>
#include <cstdio>
#include <sys/types.h>
#include <sys/file.h>
#include <sys/stat.h>
#include <sys/errno.h>
#include <readline/readline.h>
#include <readline/history.h>
```

Classes

- struct COMMAND

Typedefs

- typedef int($*$ pt2Func)(char $*$)

Functions

- char $*$ getwd ()
- char $*$ xmalloc (size_t)
- int com_list (char $*$)
- int com_view (char $*$)
- int com_rename (char $*$)
- int com_stat (char $*$)
- int com_pwd (char $*$)
- int com_delete (char $*$)
- int com_help (char $*$)
- int com_cd (char $*$)
- int com_quit (char $*$)
- char $*$ stripwhite (char $*$iString)
- COMMAND $*$ find_command (char $*$iString)
- char $*$ dupstr (char $*$iString)

- int [execute_line](char ∗line)
- char ∗ [command_generator](char ∗text, int state)
- char ∗∗ [fileman_completion](char ∗text, int start, int end)
- void [initialize_readline]()
- void [too_dangerous](char ∗caller)
- int [valid_argument](char ∗caller, char ∗arg)

Variables

- [COMMAND commands][]
- int [done]
- static char [syscom][1024]

25.51.1   Typedef Documentation

25.51.1.1   typedef int(∗ pt2Func)(char ∗)

Definition at line 35 of file [readline_autocomp.hpp].

25.51.2   Function Documentation

25.51.2.1   char∗ getwd (   )

[readline_autocomp.hpp] -- A tiny application which demonstrates how to use the GNU Readline library. This application interactively allows users to manipulate files and their modes.

Referenced by [com_pwd()].

25.51.2.2   char∗ xmalloc (size_t   )

Referenced by [dupstr()].

25.51.2.3   void com_list (char ∗ _arg_)

List the file(s) named in arg.

Definition at line 264 of file [readline_autocomp.hpp].

25.51.2.4   int com_view (char ∗ _arg_)

Definition at line 274 of file [readline_autocomp.hpp].

References [valid_argument()].

25.51.2.5   int com_rename (char ∗ _arg_)

Definition at line 284 of file [readline_autocomp.hpp].

References [too_dangerous()].

25.51.2.6   int com_stat (char ∗ _arg_)

Definition at line 289 of file [readline_autocomp.hpp].

References [valid_argument()].

25.51.2.7   int com_pwd (char ∗ _ignore_)

Definition at line 367 of file [readline_autocomp.hpp].

References [getwd()].

Referenced by com_cd().

25.51.2.8   int com_delete (char ∗ arg)

Definition at line 315 of file readline_autocomp.hpp.

References too_dangerous().

25.51.2.9   int com_help (char ∗ arg)

Print out help for ARG, or for all of the commands if ARG is not present.

Definition at line 324 of file readline_autocomp.hpp.

References COMMAND::name.

25.51.2.10   int com_cd (char ∗ arg)

Definition at line 356 of file readline_autocomp.hpp.

References com_pwd().

25.51.2.11   int com_quit (char ∗ arg)

Definition at line 381 of file readline_autocomp.hpp.

25.51.2.12   char ∗ stripwhite (char ∗ string)

Strip whitespace from the start and end of STRING. Return a pointer into STRING.

Definition at line 152 of file readline_autocomp.hpp.

25.51.2.13   COMMAND ∗ find_command (char ∗ name)

Look up NAME as the name of a command, and return a pointer to that command. Return a NULL pointer if NAME isn't a command name.

Definition at line 136 of file readline_autocomp.hpp.

References COMMAND::name.

Referenced by execute_line().

25.51.2.14   char∗ dupstr (char ∗ iString)

Duplicate a string

Definition at line 85 of file readline_autocomp.hpp.

References xmalloc().

Referenced by command_generator().

25.51.2.15   int execute_line (char ∗ line)

Execute a command line.

Definition at line 94 of file readline_autocomp.hpp.

References find_command(), and COMMAND::func.

25.51.2.16   char ∗ command_generator (char ∗ text, int state)

Generator function for command completion. STATE lets us know whether to start from scratch; without any state (i.e. STATE == 0), then we start at the top of the list.

Definition at line 222 of file readline_autocomp.hpp.

References dupstr().

Referenced by fileman_completion().

25.51.2.17   char ∗∗ fileman_completion (char ∗ *text,* int *start,* int *end*)

Attempt to complete on the contents of TEXT. START and END bound the region of rl_line_buffer that contains the word to complete. TEXT is the word to complete. We can use the entire contents of rl_line_buffer in case we want to do some simple parsing. Return the array of matches, or NULL if there aren't any.

Definition at line 200 of file readline_autocomp.hpp.

References command_generator().

Referenced by initialize_readline().

25.51.2.18   void initialize_readline (   )

Tell the GNU Readline library how to complete. We want to try to complete on command names if this is the first word in the line, or on filenames if not.

Definition at line 185 of file readline_autocomp.hpp.

References fileman_completion().

25.51.2.19   void too_dangerous (char ∗ *caller*)

Definition at line 387 of file readline_autocomp.hpp.

Referenced by com_delete(), and com_rename().

25.51.2.20   int valid_argument (char ∗ *caller,* char ∗ *arg*)

Definition at line 395 of file readline_autocomp.hpp.

Referenced by com_stat(), and com_view().

25.51.3   Variable Documentation

25.51.3.1   COMMAND commands[]

Initial value:

```
{
  { "cd", (*com_cd)(), "Change to directory DIR" },
  { "delete", com_delete, "Delete FILE" },
  { "help", com_help, "Display this text" },
  { "?", com_help, "Synonym for 'help'" },
  { "list", com_list, "List files in DIR" },
  { "ls", com_list, "Synonym for 'list'" },
  { "pwd", com_pwd, "Print the current working directory" },
  { "quit", com_quit, "Quit using airinv" },
  { "rename", com_rename, "Rename FILE to NEWNAME" },
  { "stat", com_stat, "Print out statistics on FILE" },
  { "view", com_view, "View the contents of FILE" },
  { (char*) NULL, (pt2Func) NULL, (char*) NULL }
}
```

Definition at line 58 of file readline_autocomp.hpp.

25.51.3.2   int done

When non-zero, this global means the user is done using this program.

Definition at line 80 of file readline_autocomp.hpp.

25.51.3.3   char syscom[1024]   [static]

String to pass to system(). This is for the LIST, VIEW and RENAME commands.

Definition at line 259 of file readline_autocomp.hpp.

25.52 readline_autocomp.hpp

```
00001
00006 #ifndef __AIRINV_READLINE_AUTOCOMP_HPP
00007 #define __AIRINV_READLINE_AUTOCOMP_HPP
00008
00009 // STL
00010 #include <string>
00011 #include <iosfwd>
00012 #include <cstdio>
00013 #include <sys/types.h>
00014 #include <sys/file.h>
00015 #include <sys/stat.h>
00016 #include <sys/errno.h>
00017
00018 #include <readline/readline.h>
00019 #include <readline/history.h>
00020
00021 extern char* getwd();
00022 extern char* xmalloc (size_t);
00023
00024 /* The names of functions that actually do the manipulation. */
00025 int com_list (char*);
00026 int com_view (char*);
00027 int com_rename (char*);
00028 int com_stat (char*);
00029 int com_pwd (char*);
00030 int com_delete (char*);
00031 int com_help (char*);
00032 int com_cd (char*);
00033 int com_quit (char*);
00034
00035 typedef int (*pt2Func) (char*);
00036
00041 typedef struct {
00045   char const* name;
00046
00050   pt2Func *func;
00051
00055   char *doc;
00056 } COMMAND;
00057
00058 COMMAND commands[] = {
00059   { "cd", (*com_cd)(), "Change to directory DIR" },
00060   { "delete", com_delete, "Delete FILE" },
00061   { "help", com_help, "Display this text" },
00062   { "?", com_help, "Synonym for 'help'" },
00063   { "list", com_list, "List files in DIR" },
00064   { "ls", com_list, "Synonym for 'list'" },
00065   { "pwd", com_pwd, "Print the current working directory" },
00066   { "quit", com_quit, "Quit using airinv" },
00067   { "rename", com_rename, "Rename FILE to NEWNAME" },
00068   { "stat", com_stat, "Print out statistics on FILE" },
00069   { "view", com_view, "View the contents of FILE" },
00070   { (char*) NULL, (pt2Func) NULL, (char*) NULL }
00071 };
00072
00073 // Forward declarations
00074 char* stripwhite (char* iString);
00075 COMMAND* find_command (char* iString);
00076
00080 int done;
00081
00085 char* dupstr (char* iString) {
00086   char* r = xmalloc (std::strlen (iString) + 1);
00087   strcpy (r, iString);
00088   return r;
00089 }
00090
00094 int execute_line (char* line) {
00095   register int i;
00096   COMMAND* command;
00097   char* word;
00098
00099   /* Isolate the command word. */
00100   i = 0;
00101   while (line[i] && whitespace (line[i])) {
00102     i++;
00103   }
00104   word = line + i;
00105
00106   while (line[i] && !whitespace (line[i])) {
00107     i++;
00108   }
00109
00110   if (line[i]) {
00111     line[i++] = '\0';
```

```
00112    }
00113
00114    command = find_command (word);
00115
00116    if (!command) {
00117      std::cerr << word << ": No such command for airinv." << std::endl;
00118      return -1;
00119    }
00120
00121    /* Get argument to command, if any. */
00122    while (whitespace (line[i])) {
00123      i++;
00124    }
00125
00126    word = line + i;
00127
00128    /* Call the function. */
00129    return (*(command->func)) (word);
00130 }
00131
00136 COMMAND* find_command (char* name) {
00137    register int i;
00138
00139    for (i = 0; commands[i].name; i++) {
00140      if (strcmp (name, commands[i].name) == 0) {
00141        return (&commands[i]);
00142      }
00143    }
00144
00145    return (COMMAND*) NULL;
00146 }
00147
00152 char* stripwhite (char* string) {
00153    register char *s, *t;
00154
00155    for (s = string; whitespace (*s); s++) {
00156    }
00157
00158    if (*s == 0) {
00159      return s;
00160    }
00161
00162    t = s + strlen (s) - 1;
00163    while (t > s && whitespace (*t)) {
00164      t--;
00165    }
00166    *++t = '\0';
00167
00168    return s;
00169 }
00170
00171 /* ************************************************************** */
00172 /*                                                              */
00173 /*             Interface to Readline Completion                 */
00174 /*                                                              */
00175 /* ************************************************************** */
00176
00177 char* command_generator (char* text, int state);
00178 char** fileman_completion (char* text, int start, int end);
00179
00185 void initialize_readline() {
00186    /* Allow conditional parsing of the ~/.inputrc file. */
00187    rl_readline_name = "airinv";
00188
00189    /* Tell the completer that we want a crack first. */
00190    rl_attempted_completion_function = (rl_completion_func_t*) fileman_completion
      ;
00191 }
00192
00200 char** fileman_completion (char* text, int start, int end) {
00201    char **matches;
00202
00203    matches = (char**) NULL;
00204
00210    if (start == 0) {
00211      matches = completion_matches (text, command_generator);
00212    }
00213
00214    return matches;
00215 }
00216
00222 char* command_generator (char* text, int state) {
00223    static int list_index, len;
00224    char* name;
00225
00231    if (!state) {
00232      list_index = 0;
```

```
00233     len = strlen (text);
00234   }
00235
00236   /* Return the next name which partially matches from the command list. */
00237   while (name = commands[list_index].name) {
00238     ++list_index;
00239
00240     if (strncmp (name, text, len) == 0) {
00241       return dupstr (name);
00242     }
00243   }
00244
00245   /* If no names matched, then return NULL. */
00246   return (char*) NULL;
00247 }
00248
00249 /* ****************************************************************** */
00250 /*                                                                  */
00251 /*                       airinv Commands                            */
00252 /*                                                                  */
00253 /* ****************************************************************** */
00254
00259 static char syscom[1024];
00260
00264 void com_list (char* arg) {
00265   if (!arg) {
00266     arg = "";
00267   }
00268
00269   std::ostringstream oStr;
00270   oStr << "ls -FClg " << arg;
00271   return system (oStr.c_str());
00272 }
00273
00274 int com_view (char* arg) {
00275   if (!valid_argument ("view", arg)) {
00276     return 1;
00277   }
00278
00279   std::ostringstream oStr;
00280   oStr << "more " << arg;
00281   return system (syscom);
00282 }
00283
00284 int com_rename (char* arg) {
00285   too_dangerous ("rename");
00286   return 1;
00287 }
00288
00289 int com_stat (char* arg) {
00290   struct stat finfo;
00291
00292   if (!valid_argument ("stat", arg)) {
00293     return 1;
00294   }
00295
00296   if (stat (arg, &finfo) == -1) {
00297     perror (arg);
00298     return 1;
00299   }
00300
00301   std::cout << "Statistics for '" << arg << "':" << std::endl;
00302
00303   const std::string lPluralEnd1 = (finfo.st_nlink == 1) ? "" : "s";
00304   const std::string lPluralEnd2 = (finfo.st_size == 1) ? "" : "s";
00305   std::cout << arg << " has "
00306             << finfo.st_nlink << " link" << lPluralEnd1 << ", and is "
00307             << finfo.st_size << " byte" << lPluralEnd2 << " in length."
00308             << std::endl;
00309   std::cout << " Inode Last Change at: " << ctime (&finfo.st_ctime) <<
00310     std::endl;
00310   std::cout << " Last access at: " << ctime (&finfo.st_atime) << std::endl;
00311   std::cout << " Last modified at: " << ctime (&finfo.st_mtime) << std::endl;
00312   return 0;
00313 }
00314
00315 int com_delete (char* arg) {
00316   too_dangerous ("delete");
00317   return 1;
00318 }
00319
00324 int com_help (char* arg) {
00325   register int i;
00326   int printed = 0;
00327
00328   for (i = 0; commands[i].name; i++) {
00329     if (!*arg || (strcmp (arg, commands[i].name) == 0)) {
```

```
00330          printf ("%s\t\t%s.\n", commands[i].name, commands[i].doc);
00331          printed++;
00332        }
00333    }
00334
00335    if (!printed) {
00336      printf ("No commands match `%s'.  Possibilties are:\n", arg);
00337
00338      for (i = 0; commands[i].name; i++) {
00339        /* Print in six columns. */
00340        if (printed == 6) {
00341          printed = 0;
00342          printf ("\n");
00343        }
00344
00345        printf ("%s\t", commands[i].name);
00346        printed++;
00347      }
00348
00349      if (printed)
00350        printf ("\n");
00351    }
00352    return 0;
00353 }
00354
00355 /* Change to the directory ARG. */
00356 int com_cd (char* arg) {
00357    if (chdir (arg) == -1) {
00358      perror (arg);
00359      return 1;
00360    }
00361
00362    com_pwd ("");
00363    return 0;
00364 }
00365
00366 /* Print out the current working directory. */
00367 int com_pwd (char* ignore) {
00368    char dir[1024], *s;
00369
00370    s = getwd (dir);
00371    if (s == 0) {
00372      printf ("Error getting pwd: %s\n", dir);
00373      return 1;
00374    }
00375
00376    printf ("Current directory is %s\n", dir);
00377    return 0;
00378 }
00379
00380 /* The user wishes to quit using this program.  Just set DONE non-zero. */
00381 int com_quit (char* arg) {
00382    done = 1;
00383    return 0;
00384 }
00385
00386 /* Function which tells you that you can't do this. */
00387 void too_dangerous (char* caller) {
00388    fprintf (stderr,
00389             "%s: Too dangerous for me to distribute.  Write it yourself.\n",
00390             caller);
00391 }
00392
00393 /* Return non-zero if ARG is a valid argument for CALLER, else print
00394  *    an error message and return zero. */
00395 int valid_argument (char* caller, char* arg) {
00396    if (!arg || !*arg) {
00397      fprintf (stderr, "%s: Argument required.\n", caller);
00398      return 0;
00399    }
00400
00401    return 1;
00402 }
00403
00404 #endif // _AIRINV_READLINE_AUTOCOMP_HPP
```

25.53   sevmgr/ui/cmdline/sevmgr.cpp File Reference

25.54   sevmgr.cpp

```
00001
00005 // STL
00006 #include <cassert>
```

```
00007 #include <iostream>
00008 #include <sstream>
00009 #include <fstream>
00010 #include <string>
00011 // Boost (Extended STL)
00012 #include <boost/program_options.hpp>
00013 #include <boost/tokenizer.hpp>
00014 #include <boost/regex.hpp>
00015 #include <boost/swap.hpp>
00016 #include <boost/algorithm/string/case_conv.hpp>
00017 // StdAir
00018 #include <stdair/basic/BasLogParams.hpp>
00019 #include <stdair/basic/BasDBParams.hpp>
00020 #include <stdair/service/Logger.hpp>
00021 // SEvMgr
00022 #include <sevmgr/SEVMGR_Service.hpp>
00023 #include <sevmgr/config/sevmgr-paths.hpp>
00024 // GNU Readline Wrapper
00025 #include <sevmgr/ui/cmdline/SReadline.hpp>
00026
00027 // //////// Constants //////
00031 const std::string K_SEVMGR_DEFAULT_LOG_FILENAME ("sevmgr.log");
00032
00036 const int K_SEVMGR_EARLY_RETURN_STATUS = 99;
00037
00042 typedef std::vector<std::string> TokenList_T;
00043
00047 struct Command_T {
00048   typedef enum {
00049     NOP = 0,
00050     QUIT,
00051     HELP,
00052     LIST,
00053     DISPLAY,
00054     SELECT,
00055     NEXT,
00056     RUN,
00057     JSON_LIST,
00058     JSON_DISPLAY,
00059     LAST_VALUE
00060   } Type_T;
00061 };
00062
00063 // ///////// Parsing of Options & Configuration /////////
00064 // A helper function to simplify the main part.
00065 template<class T> std::ostream& operator<< (std::ostream& os,
00066                                             const std::vector<T>& v) {
00067   std::copy (v.begin(), v.end(), std::ostream_iterator<T> (std::cout, " "));
00068   return os;
00069 }
00070
00074 int readConfiguration (int argc, char* argv[], std::string& ioLogFilename) {
00075   // Declare a group of options that will be allowed only on command line
00076   boost::program_options::options_description generic ("Generic options");
00077   generic.add_options()
00078     ("prefix", "print installation prefix")
00079     ("version,v", "print version string")
00080     ("help,h", "produce help message");
00081
00082   // Declare a group of options that will be allowed both on command
00083   // line and in config file
00084
00085   boost::program_options::options_description config ("Configuration");
00086   config.add_options()
00087     ("log,l",
00088      boost::program_options::value< std::string >(&ioLogFilename)->
00089     default_value(K_SEVMGR_DEFAULT_LOG_FILENAME),
00089     "Filename for the logs")
00090    ;
00091
00092   // Hidden options, will be allowed both on command line and
00093   // in config file, but will not be shown to the user.
00094   boost::program_options::options_description hidden ("Hidden options");
00095  hidden.add_options()
00096     ("copyright",
00097     boost::program_options::value< std::vector<std::string> >(),
00098     "Show the copyright (license)");
00099
00100   boost::program_options::options_description cmdline_options;
00101   cmdline_options.add(generic).add(config).add(hidden);
00102
00103   boost::program_options::options_description config_file_options;
00104   config_file_options.add(config).add(hidden);
00105   boost::program_options::options_description visible ("Allowed options");
00106   visible.add(generic).add(config);
00107
00108   boost::program_options::positional_options_description p;
```

```
00109   p.add ("copyright", -1);
00110
00111   boost::program_options::variables_map vm;
00112   boost::program_options::
00113     store (boost::program_options::command_line_parser (argc, argv).
00114           options (cmdline_options).positional(p).run(), vm);
00115
00116   std::ifstream ifs ("sevmgr.cfg");
00117   boost::program_options::store (parse_config_file (ifs, config_file_options),
00118                                  vm);
00119   boost::program_options::notify (vm);
00120
00121   if (vm.count ("help")) {
00122     std::cout << visible << std::endl;
00123     return K_SEVMGR_EARLY_RETURN_STATUS;
00124   }
00125
00126   if (vm.count ("version")) {
00127     std::cout << PACKAGE_NAME << ", version " << PACKAGE_VERSION << std::endl;
00128     return K_SEVMGR_EARLY_RETURN_STATUS;
00129   }
00130
00131   if (vm.count ("prefix")) {
00132     std::cout << "Installation prefix: " << PREFIXDIR << std::endl;
00133     return K_SEVMGR_EARLY_RETURN_STATUS;
00134   }
00135
00136   if (vm.count ("log")) {
00137     ioLogFilename = vm["log"].as< std::string >();
00138     std::cout << "Log filename is: " << ioLogFilename << std::endl;
00139   }
00140
00141   return 0;
00142 }
00143
00144 // //////////////////////////////////////////////////////////////////////
00145 void initReadline (swift::SReadline& ioInputReader) {
00146
00147   // Prepare the list of my own completers
00148   std::vector<std::string> Completers;
00149
00150   // The following is supported:
00151   // - "identifiers"
00152   // - special identifier %file - means to perform a file name completion
00153   Completers.push_back ("help");
00154   Completers.push_back ("list %airline_code %flight_number");
00155   Completers.push_back ("select %airline_code %flight_number %flight_date");
00156   Completers.push_back ("display");
00157   Completers.push_back ("next");
00158   Completers.push_back ("run");
00159   Completers.push_back ("quit");
00160
00161
00162   // Now register the completers.
00163   // Actually it is possible to re-register another set at any time
00164   ioInputReader.RegisterCompletions (Completers);
00165 }
00166
00167 // //////////////////////////////////////////////////////////////////////
00168 Command_T::Type_T extractCommand (TokenList_T& ioTokenList) {
00169   Command_T::Type_T oCommandType = Command_T::LAST_VALUE;
00170
00171   // Interpret the user input
00172   if (ioTokenList.empty() == false) {
00173     TokenList_T::iterator itTok = ioTokenList.begin();
00174     std::string lCommand (*itTok);
00175     boost::algorithm::to_lower (lCommand);
00176
00177     if (lCommand == "help") {
00178       oCommandType = Command_T::HELP;
00179
00180     } else if (lCommand == "list") {
00181       oCommandType = Command_T::LIST;
00182
00183     } else if (lCommand == "display") {
00184       oCommandType = Command_T::DISPLAY;
00185
00186     } else if (lCommand == "select") {
00187       oCommandType = Command_T::SELECT;
00188
00189     } else if (lCommand == "next") {
00190       oCommandType = Command_T::NEXT;
00191
00192     } else if (lCommand == "run") {
00193       oCommandType = Command_T::RUN;
00194
00195     } else if (lCommand == "json_list") {
```

```
00196        oCommandType = Command_T::JSON_LIST;
00197
00198    } else if (lCommand == "json_display") {
00199      oCommandType = Command_T::JSON_DISPLAY;
00200
00201    } else if (lCommand == "quit") {
00202      oCommandType = Command_T::QUIT;
00203    }
00204
00205    // Remove the first token (the command), as the corresponding information
00206    // has been extracted in the form of the returned command type enumeration
00207    ioTokenList.erase (itTok);
00208
00209  } else {
00210    oCommandType = Command_T::NOP;
00211  }
00212
00213  return oCommandType;
00214 }
00215
00216 // //////////////////////////////////////////////////////////////////////
00217 void parseFlightKey (const TokenList_T& iTokenList,
00218                      stdair::AirlineCode_T& ioAirlineCode,
00219                      stdair::FlightNumber_T& ioFlightNumber) {
00220   // Interpret the user input
00221   if (iTokenList.empty() == false) {
00222
00223     // Read the airline code
00224     TokenList_T::const_iterator itTok = iTokenList.begin();
00225     if (itTok->empty() == false) {
00226       ioAirlineCode = *itTok;
00227       boost::algorithm::to_upper (ioAirlineCode);
00228     }
00229
00230     // Read the flight-number
00231     ++itTok;
00232     if (itTok != iTokenList.end()) {
00233
00234       if (itTok->empty() == false) {
00235         try {
00236
00237           ioFlightNumber = boost::lexical_cast<stdair::FlightNumber_T> (*itTok)
    ;
00238
00239         } catch (boost::bad_lexical_cast& eCast) {
00240           std::cerr << "The flight number ('" << *itTok
00241                     << "') cannot be understood. "
00242                     << "The default value (all) is kept."
00243                     << std::endl;
00244           return;
00245         }
00246       }
00247
00248     } else {
00249       return;
00250     }
00251   }
00252 }
00253
00254 // //////////////////////////////////////////////////////////////////////
00255 void parseFlightDateKey (const TokenList_T& iTokenList,
00256                          stdair::AirlineCode_T& ioAirlineCode,
00257                          stdair::FlightNumber_T& ioFlightNumber,
00258                          stdair::Date_T& ioDepartureDate) {
00259   //
00260   const std::string kMonthStr[12] = {"Jan", "Feb", "Mar", "Apr", "May", "Jun",
00261                                      "Jul", "Aug", "Sep", "Oct", "Nov", "Dec"};
00262   //
00263   unsigned short ioDepartureDateYear = ioDepartureDate.year();
00264   unsigned short ioDepartureDateMonth = ioDepartureDate.month();
00265   std::string ioDepartureDateMonthStr = kMonthStr[ioDepartureDateMonth-1];
00266   unsigned short ioDepartureDateDay = ioDepartureDate.day();
00267
00268   // Interpret the user input
00269   if (iTokenList.empty() == false) {
00270
00271     // Read the airline code
00272     TokenList_T::const_iterator itTok = iTokenList.begin();
00273     if (itTok->empty() == false) {
00274       ioAirlineCode = *itTok;
00275       boost::algorithm::to_upper (ioAirlineCode);
00276     }
00277
00278     // Read the flight-number
00279     ++itTok;
00280     if (itTok != iTokenList.end()) {
00281
```

```
00282          if (itTok->empty() == false) {
00283            try {
00284
00285              ioFlightNumber = boost::lexical_cast<stdair::FlightNumber_T> (*itTok)
;
00286
00287            } catch (boost::bad_lexical_cast& eCast) {
00288              std::cerr << "The flight number ('" << *itTok
00289                        << "') cannot be understood. "
00290                        << "The default value (all) is kept."
00291                        << std::endl;
00292              return;
00293            }
00294          }
00295
00296        } else {
00297          return;
00298        }
00299
00300        // Read the year for the departure date
00301        ++itTok;
00302        if (itTok != iTokenList.end()) {
00303
00304          if (itTok->empty() == false) {
00305            try {
00306
00307              ioDepartureDateYear = boost::lexical_cast<unsigned short> (*itTok);
00308              if (ioDepartureDateYear < 100) {
00309                ioDepartureDateYear += 2000;
00310              }
00311
00312            } catch (boost::bad_lexical_cast& eCast) {
00313              std::cerr << "The year of the flight departure date ('" << *itTok
00314                        << "') cannot be understood. The default value ("
00315                        << ioDepartureDateYear << ") is kept. " << std::endl;
00316              return;
00317            }
00318          }
00319
00320        } else {
00321          return;
00322        }
00323
00324        // Read the month for the departure date
00325        ++itTok;
00326        if (itTok != iTokenList.end()) {
00327
00328          if (itTok->empty() == false) {
00329            try {
00330
00331              const boost::regex lMonthRegex ("^(\\d{1,2})$");
00332              const bool isMonthANumber = regex_match (*itTok, lMonthRegex);
00333
00334              if (isMonthANumber == true) {
00335                const unsigned short lMonth =
00336                  boost::lexical_cast<unsigned short> (*itTok);
00337                if (lMonth > 12) {
00338                  throw boost::bad_lexical_cast();
00339                }
00340                ioDepartureDateMonthStr = kMonthStr[lMonth-1];
00341
00342              } else {
00343                const std::string lMonthStr (*itTok);
00344                if (lMonthStr.size() < 3) {
00345                  throw boost::bad_lexical_cast();
00346                }
00347                std::string lMonthStr1 (lMonthStr.substr (0, 1));
00348                boost::algorithm::to_upper (lMonthStr1);
00349                std::string lMonthStr23 (lMonthStr.substr (1, 2));
00350                boost::algorithm::to_lower (lMonthStr23);
00351                ioDepartureDateMonthStr = lMonthStr1 + lMonthStr23;
00352              }
00353
00354            } catch (boost::bad_lexical_cast& eCast) {
00355              std::cerr << "The month of the flight departure date ('" << *itTok
00356                        << "') cannot be understood. The default value ("
00357                        << ioDepartureDateMonthStr << ") is kept. " << std::endl;
00358              return;
00359            }
00360          }
00361
00362        } else {
00363          return;
00364        }
00365
00366        // Read the day for the departure date
00367        ++itTok;
```

```
00368      if (itTok != iTokenList.end()) {
00369
00370        if (itTok->empty() == false) {
00371          try {
00372
00373              ioDepartureDateDay = boost::lexical_cast<unsigned short> (*itTok);
00374
00375          } catch (boost::bad_lexical_cast& eCast) {
00376            std::cerr << "The day of the flight departure date ('" << *itTok
00377                      << "') cannot be understood. The default value ("
00378                      << ioDepartureDateDay << ") is kept. " << std::endl;
00379            return;
00380          }
00381        }
00382
00383      } else {
00384        return;
00385      }
00386
00387      // Re-compose the departure date
00388      std::ostringstream lDepartureDateStr;
00389      lDepartureDateStr << ioDepartureDateYear << "-" << ioDepartureDateMonthStr
00390                        << "-" << ioDepartureDateDay;
00391
00392      try {
00393
00394        ioDepartureDate =
00395          boost::gregorian::from_simple_string (lDepartureDateStr.str());
00396
00397      } catch (boost::gregorian::bad_month& eCast) {
00398        std::cerr << "The flight departure date ('" << lDepartureDateStr.str()
00399                  << "') cannot be understood. The default value ("
00400                  << ioDepartureDate << ") is kept. " << std::endl;
00401        return;
00402      }
00403
00404    }
00405 }
00406
00407 // //////////////////////////////////////////////////////////////////
00408 void parseBookingClassKey (const TokenList_T& iTokenList,
00409                            stdair::ClassCode_T& ioBookingClass,
00410                            stdair::PartySize_T& ioPartySize,
00411                            stdair::AirportCode_T& ioOrigin,
00412                            stdair::AirportCode_T& ioDestination) {
00413    // Interpret the user input
00414    if (iTokenList.empty() == false) {
00415
00416      // Read the booking class
00417      TokenList_T::const_iterator itTok = iTokenList.begin();
00418      if (itTok->empty() == false) {
00419        ioBookingClass = *itTok;
00420        boost::algorithm::to_upper (ioBookingClass);
00421      }
00422
00423      // Read the party size
00424      ++itTok;
00425      if (itTok != iTokenList.end()) {
00426
00427        if (itTok->empty() == false) {
00428          try {
00429
00430              ioPartySize = boost::lexical_cast<stdair::PartySize_T> (*itTok);
00431
00432          } catch (boost::bad_lexical_cast& eCast) {
00433            std::cerr << "The party size ('" << *itTok
00434                      << "') cannot be understood. The default value ("
00435                      << ioPartySize << ") is kept." << std::endl;
00436            return;
00437          }
00438        }
00439
00440      } else {
00441        return;
00442      }
00443
00444      // Read the origin
00445      ++itTok;
00446      if (itTok != iTokenList.end()) {
00447
00448        if (itTok->empty() == false) {
00449          ioOrigin = *itTok;
00450          boost::algorithm::to_upper (ioOrigin);
00451        }
00452
00453      } else {
00454        return;
```

```
00455      }
00456
00457      // Read the destination
00458      ++itTok;
00459      if (itTok != iTokenList.end()) {
00460
00461        if (itTok->empty() == false) {
00462          ioDestination = *itTok;
00463          boost::algorithm::to_upper (ioDestination);
00464        }
00465
00466      } else {
00467        return;
00468      }
00469    }
00470 }
00471
00472 // //////////////////////////////////////////////////////////
00473 std::string toString (const TokenList_T& iTokenList) {
00474    std::ostringstream oStr;
00475
00476    // Re-create the string with all the tokens, trimmed by read-line
00477    unsigned short idx = 0;
00478    for (TokenList_T::const_iterator itTok = iTokenList.begin();
00479         itTok != iTokenList.end(); ++itTok, ++idx) {
00480      if (idx != 0) {
00481        oStr << " ";
00482      }
00483      oStr << *itTok;
00484    }
00485
00486    return oStr.str();
00487 }
00488
00489 // //////////////////////////////////////////////////////////
00490 TokenList_T extractTokenList (const TokenList_T& iTokenList,
00491                               const std::string& iRegularExpression) {
00492    TokenList_T oTokenList;
00493
00494    // Re-create the string with all the tokens (which had been trimmed
00495    // by read-line)
00496    const std::string lFullLine = toString (iTokenList);
00497
00498    // See the caller for the regular expression
00499    boost::regex expression (iRegularExpression);
00500
00501    std::string::const_iterator start = lFullLine.begin();
00502    std::string::const_iterator end = lFullLine.end();
00503
00504    boost::match_results<std::string::const_iterator> what;
00505    boost::match_flag_type flags = boost::match_default | boost::format_sed;
00506    regex_search (start, end, what, expression, flags);
00507
00508    // Put the matched strings in the list of tokens to be returned back
00509    // to the caller
00510    const unsigned short lMatchSetSize = what.size();
00511    for (unsigned short matchIdx = 1; matchIdx != lMatchSetSize; ++matchIdx) {
00512      const std::string lMatchedString (std::string (what[matchIdx].first,
00513                                                      what[matchIdx].second));
00514      //if (lMatchedString.empty() == false) {
00515      oTokenList.push_back (lMatchedString);
00516      //}
00517    }
00518
00519    // DEBUG
00520    // std::cout << "After (token list): " << oTokenList << std::endl;
00521
00522    return oTokenList;
00523 }
00524
00525 // //////////////////////////////////////////////////////////
00526 TokenList_T extractTokenListForFlight (const TokenList_T& iTokenList) {
00533    const std::string lRegEx ("^([[:alpha:]]{2,3})?"
00534                              "[[:space:]]*([[:digit:]]{1,4})?$");
00535
00536    //
00537    const TokenList_T& oTokenList = extractTokenList (iTokenList, lRegEx);
00538    return oTokenList;
00539 }
00540
00541 // //////////////////////////////////////////////////////////
00542 TokenList_T extractTokenListForFlightDate (const TokenList_T& iTokenList) {
00553    const std::string lRegEx("^([[:alpha:]]{2,3})?"
00554                             "[[:space:]]*([[:digit:]]{1,4})?"
00555                             "[/ ]*"
00556                             "([[:digit:]]{2,4})?[/-]?[[:space:]]*"
00557                             "([[:alpha:]]{3}|[[:digit:]]{1,2})?[/-]?[[:space:]]*
```

```
          "
00558                                   "([[:digit:]]{1,2})?$");
00559
00560     //
00561     const TokenList_T& oTokenList = extractTokenList (iTokenList, lRegEx);
00562     return oTokenList;
00563   }
00564
00565   // //////////////////////////////////////////////////////////////
00566   TokenList_T extractTokenListForClass (const TokenList_T& iTokenList) {
00575     const std::string lRegEx ("^([[:alpha:]])?"
00576                                   "[[:space:]]*([[:digit:]]{1,3})?"
00577                                   "[[:space:]]*([[:alpha:]]{3})?"
00578                                   "[[:space:]]*([[:alpha:]]{3})?$");
00579
00580     //
00581     const TokenList_T& oTokenList = extractTokenList (iTokenList, lRegEx);
00582     return oTokenList;
00583   }
00584
00585
00586   // ///////// M A I N ////////////
00587   int main (int argc, char* argv[]) {
00588
00589     // Readline history
00590     const unsigned int lHistorySize (100);
00591     const std::string lHistoryFilename ("sevmgr.hist");
00592     const std::string lHistoryBackupFilename ("sevmgr.hist.bak");
00593
00594     // Default parameters for the interactive session
00595     stdair::AirlineCode_T lLastInteractiveAirlineCode;
00596     stdair::FlightNumber_T lLastInteractiveFlightNumber;
00597     stdair::Date_T lLastInteractiveDate;
00598     stdair::AirlineCode_T lInteractiveAirlineCode;
00599     stdair::FlightNumber_T lInteractiveFlightNumber;
00600     stdair::Date_T lInteractiveDate;
00601     stdair::AirportCode_T lInteractiveOrigin;
00602     stdair::AirportCode_T lInteractiveDestination;
00603     stdair::ClassCode_T lInteractiveBookingClass;
00604
00605     // Parameters for the sale
00606     std::string lSegmentDateKey;
00607
00608     // Output log File
00609     stdair::Filename_T lLogFilename;
00610
00611     // Call the command-line option parser
00612     const int lOptionParserStatus = readConfiguration (argc, argv, lLogFilename);
00613
00614     if (lOptionParserStatus == K_SEVMGR_EARLY_RETURN_STATUS) {
00615       return 0;
00616     }
00617
00618     // Set the log parameters
00619     std::ofstream logOutputFile;
00620     // Open and clean the log outputfile
00621     logOutputFile.open (lLogFilename.c_str());
00622     logOutputFile.clear();
00623
00624     // Initialise the inventory service
00625     const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
00626     SEVMGR::SEVMGR_Service sevmgrService (lLogParams);
00627
00628     // DEBUG
00629     STDAIR_LOG_DEBUG ("Welcome to SEvMgr");
00630
00631     // Build the sample BOM tree for RMOL
00632     sevmgrService.buildSampleBom();
00633
00634     // Update the default parameters for the following interactive session
00635     lInteractiveAirlineCode = "BA";
00636     lInteractiveFlightNumber = 9;
00637     lInteractiveDate = stdair::Date_T (2011, 06, 10);
00638     lInteractiveBookingClass = "Q";
00639     lInteractiveOrigin = "LHR";
00640     lInteractiveDestination = "SYD";
00641
00642     // Save the last state
00643     lLastInteractiveAirlineCode = lInteractiveAirlineCode;
00644     lLastInteractiveFlightNumber = lInteractiveFlightNumber;
00645     lLastInteractiveDate = lInteractiveDate;
00646
00647     // DEBUG
00648     STDAIR_LOG_DEBUG ("====================================================");
00649     STDAIR_LOG_DEBUG ("=       Beginning of the interactive session       =");
00650     STDAIR_LOG_DEBUG ("====================================================");
00651     STDAIR_LOG_DEBUG ("Last saved state: " << lLastInteractiveAirlineCode
```

```
00652                        << lLastInteractiveFlightNumber << " / "
00653                        << lLastInteractiveDate);
00654
00655    // Initialise the GNU readline wrapper
00656    swift::SReadline lReader (lHistoryFilename, lHistorySize);
00657    initReadline (lReader);
00658
00659    // Now we can ask user for a line
00660    std::string lUserInput;
00661    bool EndOfInput (false);
00662    Command_T::Type_T lCommandType (Command_T::NOP);
00663
00664    while (lCommandType != Command_T::QUIT && EndOfInput == false) {
00665      // Prompt
00666      std::ostringstream oPromptStr;
00667      oPromptStr << "sevmgr "
00668                 << lInteractiveAirlineCode << lInteractiveFlightNumber
00669                 << " / " << lInteractiveDate
00670                 << "> ";
00671      // Call read-line, which will fill the list of tokens
00672      TokenList_T lTokenListByReadline;
00673      lUserInput = lReader.GetLine (oPromptStr.str(), lTokenListByReadline,
00674                                    EndOfInput);
00675
00676      // The history can be saved to an arbitrary file at any time
00677      lReader.SaveHistory (lHistoryBackupFilename);
00678
00679      // The end-of-input typically corresponds to a CTRL-D typed by the user
00680      if (EndOfInput) {
00681        std::cout << std::endl;
00682        break;
00683      }
00684
00685      // Interpret the user input
00686      lCommandType = extractCommand (lTokenListByReadline);
00687
00688      switch (lCommandType) {
00689
00690        // ///////////////////////////// Help /////////////////////////
00691      case Command_T::HELP: {
00692        std::cout << std::endl;
00693        std::cout << "Commands: " << std::endl;
00694        std::cout << " help" << "\t\t" << "Display this help" << std::endl;
00695        std::cout << " quit" << "\t\t" << "Quit the application" << std::endl;
00696        std::cout << " list" << "\t\t" << "List events" << std::endl;
00697        std::cout << " select" << "\t\t"
00698                  << "Select an event to become the current one" << std::endl;
00699        std::cout << " display" << "\t"
00700                  << "Display the current event" << std::endl;
00701        std::cout << " next" << "\t\t"
00702                  << "Play the current event and pop the next one from the queue"
00703                  << std::endl;
00704        std::cout << " run" << "\t\t"
00705                  << "Play all the events until the next break-point, if any"
00706                  << std::endl;
00707        std::cout << " \nDebug Commands" << std::endl;
00708        std::cout << " json_list" << "\t"
00709                  << "List events in a JSON format"
00710                  << std::endl;
00711        std::cout << " json_display" << "\t"
00712                  << "Display the current event in a JSON format"
00713                  << std::endl;
00714        std::cout << std::endl;
00715        break;
00716      }
00717
00718        // /////////////////////////// Quit //////////////////////////
00719      case Command_T::QUIT: {
00720        break;
00721      }
00722
00723        // /////////////////////////// List //////////////////////////
00724      case Command_T::LIST: {
00725        //
00726        std::cout << "List" << std::endl;
00727
00728        //
00729        break;
00730      }
00731
00732        // ////////////////////////// Select /////////////////////////
00733      case Command_T::SELECT: {
00734        //
00735        std::cout << "Select" << std::endl;
00736
00737        //
00738        break;
```

```
00739     }
00740
00741     // ////////////////////////// Display //////////////////////
00742   case Command_T::DISPLAY: {
00743     //
00744     std::cout << "Display" << std::endl;
00745
00746     //
00747     break;
00748   }
00749
00750     // ///////////////////////// Next //////////////////////
00751   case Command_T::NEXT: {
00752     //
00753     std::cout << "Next" << std::endl;
00754
00755     //
00756     break;
00757   }
00758
00759     // ///////////////////////// Run //////////////////////
00760   case Command_T::RUN: {
00761     //
00762     std::cout << "Run" << std::endl;
00763
00764     //
00765     break;
00766   }
00767
00768     // /////////////////////////// JSon List //////////////////////
00769
00770   case Command_T::JSON_LIST: {
00771     //
00772     std::cout << "JSON List" << std::endl;
00773
00774     //
00775     break;
00776   }
00777
00778     // /////////////////////////// JSon Display //////////////////////
00779
00780   case Command_T::JSON_DISPLAY: {
00781     //
00782     std::cout << "JSON Display" << std::endl;
00783
00784     //
00785     break;
00786   }
00787
00788     // ////////////////////////// Default / No value //////////////////////
00789   case Command_T::NOP: {
00790     break;
00791   }
00792
00793   case Command_T::LAST_VALUE:
00794   default: {
00795     // DEBUG
00796     std::ostringstream oStr;
00797     oStr << "That command is not yet understood: '" << lUserInput
00798          << "' => " << lTokenListByReadline;
00799     STDAIR_LOG_DEBUG (oStr.str());
00800     std::cout << oStr.str() << std::endl;
00801   }
00802   }
00803 }
00804
00805 // DEBUG
00806 STDAIR_LOG_DEBUG ("End of the session. Exiting.");
00807 std::cout << "End of the session. Exiting." << std::endl;
00808
00809 // Close the Log outputFile
00810 logOutputFile.close();
00811
00812 /*
00813   Note: as that program is not intended to be run on a server in
00814   production, it is better not to catch the exceptions. When it
00815   happens (that an exception is throwned), that way we get the
00816   call stack.
00817 */
00818
00819   return 0;
00820 }
```

25.55 sevmgr/ui/cmdline/SReadline.hpp File Reference

C++ wrapper around libreadline.

```
#include <cstdio>
#include <readline/readline.h>
#include <readline/history.h>
#include <readline/keymaps.h>
#include <string>
#include <fstream>
#include <vector>
#include <stdexcept>
#include <map>
#include <boost/algorithm/string/trim.hpp>
#include <boost/tokenizer.hpp>
#include <boost/function.hpp>
```

Classes

- class swift::SKeymap

  The readline keymap wrapper.
- class swift::SReadline

  The readline library wrapper.

Namespaces

- namespace swift

  The wrapper namespace.

25.55.1 Detailed Description

C++ wrapper around libreadline. Supported: editing, history, custom completers, keymaps. Attention: implementation is not thread safe! It is mainly because the readline library provides pure C interface and has many calls for an "atomic" completion operation

Definition in file SReadline.hpp.

25.56 SReadline.hpp

```
00001
00011 //
00012 // Date:        17 December 2005
00013 //              03 April    2006
00014 //              20 April    2006
00015 //              07 May      2006
00016 //
00017 // Copyright (c) Sergey Satskiy 2005 - 2006
00018 //              <sergesatsky@yahoo.com>
00019 //
00020 // Permission to copy, use, modify, sell and distribute this software
00021 // is granted provided this copyright notice appears in all copies.
00022 // This software is provided "as is" without express or implied
00023 // warranty, and with no claim as to its suitability for any purpose.
00024 //
00025
00026 #ifndef SREADLINE_H
00027 #define SREADLINE_H
00028
00029 #include <cstdio>
00030
00031 #include <readline/readline.h>
00032 #include <readline/history.h>
```

```
00033 #include <readline/keymaps.h>
00034
00035 #include <string>
00036 #include <fstream>
00037 #include <vector>
00038 #include <stdexcept>
00039 #include <map>
00040
00041 #include <boost/algorithm/string/trim.hpp>
00042 #include <boost/tokenizer.hpp>
00043 #include <boost/function.hpp>
00044
00045
00050 namespace {
00054   typedef std::vector<std::string> TokensStorage;
00055
00059   typedef std::vector<TokensStorage> CompletionsStorage;
00060
00064   typedef boost::function<int (int, int)> KeyCallback;
00065
00069   typedef std::map<int, KeyCallback> KeysBind;
00070
00074   const size_t DefaultHistoryLimit (64);
00075
00079   CompletionsStorage Completions;
00080
00084   TokensStorage Tokens;
00085
00089   std::map<Keymap, KeysBind> Keymaps;
00090
00094   bool KeymapWasSetup (false);
00095
00099   Keymap Earlykeymap (0);
00100
00101
00108   char* Generator (const char* text, int State);
00109
00110
00118   char** UserCompletion (const char* text, int start, int end);
00119
00120
00128   int KeyDispatcher (int Count, int Key);
00129
00130
00135   int StartupHook (void);
00136
00137
00145   template <typename  Container>
00146   bool AreTokensEqual (const Container& Pattern, const Container& Input) {
00147     if (Input.size() > Pattern.size()) {
00148       return false;
00149     }
00150
00151     typename Container::const_iterator k (Pattern.begin());
00152     typename Container::const_iterator j (Input.begin());
00153     for ( ; j != Input.end(); ++k, ++j) {
00154       const std::string lPattern = *k;
00155       if (lPattern == "%file") {
00156         continue;
00157       }
00158
00159       const std::string lInput = *j;
00160       if (lPattern != lInput) {
00161         return false;
00162       }
00163     }
00164     return true;
00165   }
00166
00167   // See description near the prototype
00168   template <typename  ContainerType>
00169   void SplitTokens (const std::string& Source, ContainerType& Container) {
00170     typedef boost::tokenizer<boost::char_separator<char> > TokenizerType;
00171
00172     // Set of token separators
00173     boost::char_separator<char> Separators (" \t\n");
00174     // Tokens provider
00175     TokenizerType Tokenizer (Source, Separators);
00176
00177     Container.clear();
00178     for (TokenizerType::const_iterator k (Tokenizer.begin());
00179          k != Tokenizer.end(); ++k) {
00180       // Temporary storage for the token, in order to trim that latter
00181       std::string SingleToken (*k);
00182
00183       boost::algorithm::trim (SingleToken);
00184       Container.push_back (SingleToken);
```

```
00185        }
00186    }
00187
00188    // See description near the prototype
00189    char** UserCompletion (const char* text, int start, int end) {
00190      // No default completion at all
00191      rl_attempted_completion_over = 1;
00192
00193      if (Completions.empty() == true) {
00194        return NULL;
00195      }
00196
00197      // Memorise all the previous tokens
00198      std::string PreInput (rl_line_buffer, start);
00199      SplitTokens (PreInput, Tokens);
00200
00201      // Detect whether we should call the standard file name completer
00202      // or a custom one
00203      bool FoundPretender (false);
00204
00205      for (CompletionsStorage::const_iterator k (Completions.begin());
00206           k != Completions.end(); ++k) {
00207        const TokensStorage& lTokenStorage = *k;
00208        if (AreTokensEqual (lTokenStorage, Tokens) == false) {
00209          continue;
00210        }
00211
00212        if (lTokenStorage.size() > Tokens.size()) {
00213          FoundPretender = true;
00214          if (lTokenStorage [Tokens.size()] == "%file") {
00215            // Standard file name completer - called for the "%file" keyword
00216            return rl_completion_matches (text, rl_filename_completion_function);
00217          }
00218        }
00219      }
00220
00221      if (FoundPretender) {
00222        return rl_completion_matches (text, Generator);
00223      }
00224      return NULL;
00225    }
00226
00227    // See description near the prototype
00228    char* Generator (const char* text, int State) {
00229      static int Length;
00230      static CompletionsStorage::const_iterator Iterator;
00231
00232      if ( State == 0 ) {
00233        Iterator = Completions.begin();
00234        Length = strlen (text);
00235      }
00236
00237      for ( ; Iterator != Completions.end(); ++Iterator) {
00238        const TokensStorage& lCompletion = *Iterator;
00239        if (AreTokensEqual (lCompletion, Tokens) == false) {
00240          continue;
00241        }
00242
00243        if (lCompletion.size() > Tokens.size()) {
00244          if (lCompletion [Tokens.size()] == "%file") {
00245            continue;
00246          }
00247
00248          const char* lCompletionCharStr (lCompletion [Tokens.size()].c_str());
00249          if (strncmp (text, lCompletionCharStr, Length) == 0) {
00250            // Readline will free the allocated memory
00251            const size_t lCompletionSize = strlen (lCompletionCharStr) + 1;
00252            char* NewString (static_cast<char*> (malloc (lCompletionSize)));
00253            strcpy (NewString, lCompletionCharStr);
00254
00255            ++Iterator;
00256
00257            return NewString;
00258          }
00259        }
00260      }
00261
00262      return NULL;
00263    }
00264
00265
00266    // See the description near the prototype
00267    int KeyDispatcher  (int Count, int  Key ) {
00268      std::map< Keymap, KeysBind >::iterator Set (Keymaps.find (rl_get_keymap()))
       ;
00269      if (Set == Keymaps.end()) {
00270        // Most probably it happens bacause the header was
```

```
00271        // included into many compilation units and the
00272        // keymap setting calls were made in different files.
00273        // This is the problem of "global" data.
00274        // The storage of all the registered keymaps is in anonymous
00275        // namespace.
00276        throw std::runtime_error ("Error selecting a keymap.");
00277      }
00278
00279      (Set->second)[Key] (Count, Key);
00280      return 0;
00281    }
00282
00283    // See the description near the prototype
00284    int StartupHook (void) {
00285      if (KeymapWasSetup) {
00286        rl_set_keymap (Earlykeymap);
00287      }
00288      return 0;
00289    }
00290
00291 } // Anonymous namespace
00292
00293
00299 namespace swift {
00300
00307    class SKeymap {
00308    private:
00309      // Readline keymap
00310      Keymap keymap;
00311
00312    public:
00319      explicit SKeymap (bool PrintableBound = false) : keymap (NULL) {
00320        if (PrintableBound == true) {
00321          // Printable characters are bound
00322          keymap = rl_make_keymap();
00323
00324        } else {
00325          // Empty keymap
00326          keymap = rl_make_bare_keymap();
00327        }
00328
00329        if (keymap == NULL) {
00330          throw std::runtime_error ("Cannot allocate keymap.");
00331        }
00332
00333        // Register a new keymap in the global list
00334        Keymaps [keymap] = KeysBind();
00335      }
00336
00342      explicit SKeymap (Keymap Pattern) : keymap (rl_copy_keymap (Pattern)) {
00343        if ( keymap == NULL ) {
00344          throw std::runtime_error( "Cannot allocate keymap." );
00345        }
00346
00347        // Register a new keymap in the global list
00348        Keymaps [keymap] = KeysBind();
00349      }
00350
00354      ~SKeymap() {
00355        // Deregister the keymap
00356        Keymaps.erase (keymap);
00357        rl_discard_keymap (keymap);
00358      }
00359
00366      void Bind (int  Key, KeyCallback  Callback) {
00367        Keymaps [keymap][Key] = Callback;
00368
00369        if (rl_bind_key_in_map (Key, KeyDispatcher, keymap) != 0) {
00370          // Remove from the map just bound key
00371          Keymaps [keymap].erase (Key);
00372          throw std::runtime_error ("Invalid key.");
00373        }
00374      }
00375
00381      void Unbind (int  Key) {
00382        rl_unbind_key_in_map (Key, keymap);
00383        Keymaps [keymap].erase (Key);
00384      }
00385
00386      // void Bind (const std::string& Sequence, boost::function<int (int,
      int)>);
00387      // void Unbind (std::string&  Sequence);
00388
00389    public:
00395      SKeymap (const SKeymap& rhs) {
00396        if (this == &rhs) {
00397          return;
```

```
00398          }
00399          keymap = rl_copy_keymap (rhs.keymap);
00400      }
00401
00407      SKeymap& operator= (const SKeymap& rhs) {
00408          if (this == &rhs) {
00409              return *this;
00410          }
00411          keymap = rl_copy_keymap (rhs.keymap);
00412          return *this;
00413      }
00414
00415      friend class SReadline;
00416  };
00417
00424  class SReadline {
00425  public:
00431      SReadline (const size_t Limit = DefaultHistoryLimit)
00432          : HistoryLimit (Limit), HistoryFileName (""),
00433            OriginalCompletion (rl_attempted_completion_function) {
00434          rl_startup_hook = StartupHook;
00435          rl_attempted_completion_function = UserCompletion;
00436          using_history();
00437      }
00438
00446      SReadline (const std::string&  historyFileName,
00447                 const size_t Limit = DefaultHistoryLimit)
00448          : HistoryLimit (Limit), HistoryFileName (historyFileName),
00449            OriginalCompletion (rl_attempted_completion_function) {
00450          rl_startup_hook = StartupHook;
00451          rl_attempted_completion_function = UserCompletion;
00452          using_history();
00453          LoadHistory (HistoryFileName);
00454      }
00455
00460      ~SReadline() {
00461          rl_attempted_completion_function = OriginalCompletion;
00462          SaveHistory (HistoryFileName);
00463      }
00464
00471      std::string GetLine (const std::string& Prompt) {
00472          bool Unused;
00473          return GetLine (Prompt, Unused);
00474      }
00475
00484      template <typename  Container>
00485      std::string GetLine (const std::string& Prompt, Container& ReadTokens) {
00486          bool Unused;
00487          return GetLine (Prompt, ReadTokens, Unused);
00488      }
00489
00499      template <typename  Container>
00500      std::string GetLine (const std::string& Prompt, Container& ReadTokens,
00501                           bool& BreakOut) {
00502          std::string Input (GetLine (Prompt, BreakOut));
00503          SplitTokens (Input, ReadTokens);
00504          return Input;
00505      }
00506
00507
00515      std::string GetLine (const std::string& Prompt, bool& BreakOut) {
00516          BreakOut = true;
00517
00518          char* ReadLine (readline (Prompt.c_str()));
00519          if (ReadLine == NULL) {
00520              return std::string();
00521          }
00522
00523          // It's OK
00524          BreakOut = false;
00525          std::string Input (ReadLine);
00526          free (ReadLine); ReadLine = NULL;
00527
00528          boost::algorithm::trim (Input);
00529          if (Input.empty() == false) {
00530              if (history_length == 0
00531                  || Input != history_list()[ history_length - 1 ]->line) {
00532                  add_history (Input.c_str());
00533
00534                  if (history_length >= static_cast<int> (HistoryLimit)) {
00535                      stifle_history (HistoryLimit);
00536                  }
00537              }
00538          }
00539
00540          return Input;
00541      }
```

```
00542
00543
00549       template <typename ContainerType>
00550       void GetHistory (ContainerType&  Container) {
00551         for (int k (0); k < history_length; ++k ) {
00552           Container.push_back (history_list()[k]->line);
00553         }
00554       }
00555
00562       bool SaveHistory (std::ostream& OS) {
00563         if (!OS) {
00564           return false;
00565         }
00566
00567         for (int k (0); k < history_length; ++k) {
00568           OS << history_list()[ k ]->line << std::endl;
00569         }
00570         return true;
00571       }
00572
00579       bool SaveHistory (const std::string&  FileName) {
00580         if (FileName.empty() == true) {
00581           return false;
00582         }
00583
00584         std::ofstream OS (FileName.c_str());
00585         return SaveHistory (OS);
00586       }
00587
00592       void ClearHistory() {
00593         clear_history();
00594       }
00595
00602       bool LoadHistory (std::istream& IS) {
00603         if (!IS) {
00604           return false;
00605         }
00606
00607         ClearHistory();
00608         std::string OneLine;
00609
00610         while (!getline (IS, OneLine).eof()) {
00611           boost::algorithm::trim( OneLine );
00612           if ((history_length == 0)
00613               || OneLine != history_list()[history_length - 1]->line) {
00614             add_history (OneLine.c_str());
00615           }
00616         }
00617         stifle_history (HistoryLimit);
00618         return true;
00619       }
00620
00627       bool LoadHistory (const std::string&  FileName) {
00628         if (FileName.empty() == true) {
00629           return false;
00630         }
00631
00632         std::ifstream IS (FileName.c_str());
00633         return LoadHistory (IS);
00634       }
00635
00655       template <typename  ContainerType>
00656       void RegisterCompletions (const ContainerType& Container) {
00657         Completions.clear();
00658         for (typename ContainerType::const_iterator k (Container.begin());
00659             k != Container.end(); ++k) {
00660           std::vector<std::string> OneLine;
00661           const std::string& kStr = static_cast<std::string> (*k);
00662
00663           SplitTokens (kStr, OneLine);
00664           Completions.push_back (OneLine);
00665         }
00666       }
00667
00673       void SetKeymap (SKeymap& NewKeymap) {
00674         rl_set_keymap (NewKeymap.keymap);
00675         KeymapWasSetup = true;
00676         Earlykeymap = NewKeymap.keymap;
00677       }
00678
00679
00680    private:
00681       // /////////////////////// Attributes ///////////////////////
00685       const size_t HistoryLimit;
00686
00690       const std::string HistoryFileName;
00691
```

```
00695     rl_completion_func_t* OriginalCompletion;
00696   };
00697
00698 }; // namespace swift
00699
00700 #endif
00701
```

25.57   test/sevmgr/EventQueueManagementTestSuite.cpp File Reference

25.58   EventQueueManagementTestSuite.cpp

```
00001
00005 // //////////////////////////////////////////////////////////////////////
00006 // Import section
00007 // //////////////////////////////////////////////////////////////////////
00008 // STL
00009 #include <sstream>
00010 #include <fstream>
00011 #include <map>
00012 #include <cmath>
00013 // Boost Unit Test Framework (UTF)
00014 #define BOOST_TEST_DYN_LINK
00015 #define BOOST_TEST_MAIN
00016 #define BOOST_TEST_MODULE EventQueueManagementTest
00017 #include <boost/test/unit_test.hpp>
00018 // StdAir
00019 #include <stdair/stdair_basic_types.hpp>
00020 #include <stdair/basic/BasLogParams.hpp>
00021 #include <stdair/basic/BasDBParams.hpp>
00022 #include <stdair/basic/BasFileMgr.hpp>
00023 #include <stdair/basic/ProgressStatusSet.hpp>
00024 #include <stdair/bom/EventStruct.hpp>
00025 #include <stdair/bom/EventQueue.hpp>
00026 #include <stdair/bom/BookingRequestStruct.hpp>
00027 #include <stdair/service/Logger.hpp>
00028 // SEvMgr
00029 #include <sevmgr/SEVMGR_Service.hpp>
00030 #include <sevmgr/config/sevmgr-paths.hpp>
00031
00032 namespace boost_utf = boost::unit_test;
00033
00034 // (Boost) Unit Test XML Report
00035 std::ofstream utfReportStream ("EventQueueManagementTestSuite_utfresults.xml");
00036
00040 struct UnitTestConfig {
00042   UnitTestConfig() {
00043     boost_utf::unit_test_log.set_stream (utfReportStream);
00044     boost_utf::unit_test_log.set_format (boost_utf::XML);
00045     boost_utf::unit_test_log.set_threshold_level (boost_utf::log_test_units);
00046     //boost_utf::unit_test_log.set_threshold_level
      (boost_utf::log_successful_tests);
00047   }
00048
00050   ~UnitTestConfig() {
00051   }
00052 };
00053
00054 // Specific type definitions
00055 typedef std::pair<stdair::Count_T, stdair::Count_T> NbOfEventsPair_T;
00056 typedef std::map<const stdair::DemandStreamKeyStr_T,
00057                  NbOfEventsPair_T> NbOfEventsByDemandStreamMap_T;
00058
00059
00060 // /////////////// Main: Unit Test Suite //////////////
00061
00062 // Set the UTF configuration (re-direct the output to a specific file)
00063 BOOST_GLOBAL_FIXTURE (UnitTestConfig);
00064
00065 // Start the test suite
00066 BOOST_AUTO_TEST_SUITE (master_test_suite)
00067
00068
00071 BOOST_AUTO_TEST_CASE (sevmgr_simple_simulation_test) {
00072
00073   // Input file name
00074   const stdair::Filename_T lInputFilename (STDAIR_SAMPLE_DIR "/demand01.csv");
00075
00076   // Check that the file path given as input corresponds to an actual file
00077   const bool doesExistAndIsReadable =
00078     stdair::BasFileMgr::doesExistAndIsReadable (lInputFilename);
00079   BOOST_CHECK_MESSAGE (doesExistAndIsReadable == true,
00080                        "The '" << lInputFilename
```

```
00081                            << "' input file can not be open and read");
00082
00083    // Output log File
00084    const stdair::Filename_T lLogFilename ("EventQueueManagementTestSuite.log");
00085
00086    // Set the log parameters
00087    std::ofstream logOutputFile;
00088    // open and clean the log outputfile
00089    logOutputFile.open (lLogFilename.c_str());
00090    logOutputFile.clear();
00091
00092    // Initialise the Sevmgr service object
00093    const stdair::BasLogParams lLogParams (stdair::LOG::DEBUG, logOutputFile);
00094    SEVMGR::SEVMGR_Service sevmgrService (lLogParams);
00095
00097    sevmgrService.buildSampleBom();
00098
00101    sevmgrService.reset();
00102
00103    // DEBUG
00104    STDAIR_LOG_DEBUG ("End of the simulation");
00105
00106    // Close the log file
00107    logOutputFile.close();
00108 }
00109
00110 // End the test suite
00111 BOOST_AUTO_TEST_SUITE_END()
00112
00113
```

Index