

globus xio gridftp driver

1.2

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Contents

1	Module Index	1
1.1	Modules	1
2	File Index	2
2.1	File List	2
3	Module Documentation	2
3.1	Globus XIO GRIDFTP Client Driver	2
3.1.1	Detailed Description	3
3.2	Opening/Closing	4
3.3	Reading/Writing	5
3.4	Env Variables	6
3.5	Attributes and Cntls	7
3.5.1	Detailed Description	8
3.5.2	Enumeration Type Documentation	9
3.5.3	Function Documentation	9
3.6	Types	16
3.6.1	Detailed Description	16
3.6.2	Typedef Documentation	16
3.6.3	Enumeration Type Documentation	16
3.7	Error Types	17
3.7.1	Detailed Description	17
3.7.2	Enumeration Type Documentation	17
4	File Documentation	19
4.1	globus_xio_gridftp_driver.h File Reference	19
4.1.1	Detailed Description	20
	Index	20

1 Module Index

1.1 Modules

Here is a list of all modules:

Globus XIO GRIDFTP Client Driver	2
Opening/Closing	4

Reading/Writing	5
Env Variables	6
Attributes and Cntls	7
Types	16
Error Types	17

2 File Index

2.1 File List

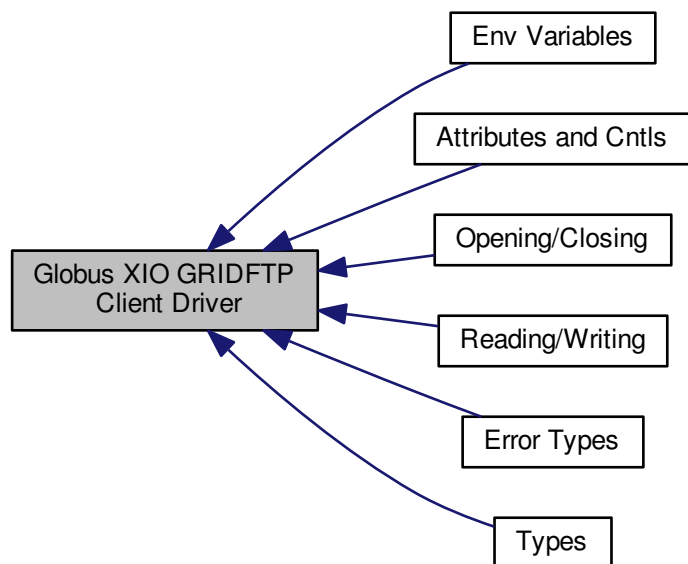
Here is a list of all documented files with brief descriptions:

globus_xio_gridftp_driver.h Header file for XIO GRIDFTP Client Driver	19
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3 Module Documentation

3.1 Globus XIO GRIDFTP Client Driver

Collaboration diagram for Globus XIO GRIDFTP Client Driver:



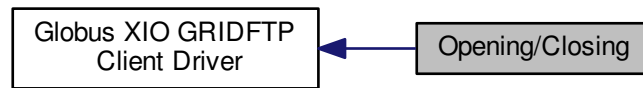
Modules

- **Opening/Closing**
- **Reading/Writing**
- **Env Variables**
- **Attributes and Cntls**
- **Types**
- **Error Types**

3.1.1 Detailed Description

3.2 Opening/Closing

Collaboration diagram for Opening/Closing:

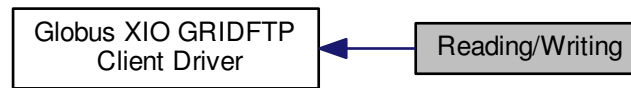


An XIO handle with the gridftp client driver can be created with **globus_xio_handle_create()**. The gridftp client driver makes use of globus ftp client library. **globus_xio_register_open()** call creates a new ftp client handle (unless one is set on the attr passed), establishes connection with the gridftp server. The contact string must contain the scheme, host name, and the resource, optionally it might contain port and subject also.

When the XIO handle is closed, the gridftp driver will destroy its internal resources and the ftp client handle (unless this handle was set on an attr).

3.3 Reading/Writing

Collaboration diagram for Reading/Writing:



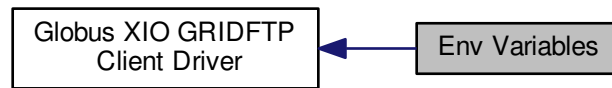
The **globus_xio_register_read()** enforce that the waitforbytes parameter should be one. When multiple TCP streams are used between the client and the server, data might not be delivered in order. **globus_xio_data_descriptor_cntl()** can be used to get the offset of the data.

globus_xio_register_write() does not enforce any restriction on the waitforbytes parameter.

In any case, when an error or EOF occurs before the waitforbytes request has been met, the outgoing nbytes is set to the amount of data actually read/written before the error or EOF occurred.

3.4 Env Variables

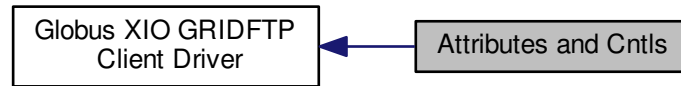
Collaboration diagram for Env Variables:



- GLOBUS_XIO_GRIDFTP_DEBUG Available if using a debug build. See globus_debug.h for format.

3.5 Attributes and Cntls

Collaboration diagram for Attributes and Cntls:



Enumerations

- enum **globus_xio_gridftp_cmd_t** {
 GLOBUS_XIO_GRIDFTP_SEEK,
 GLOBUS_XIO_GRIDFTP_SET_HANDLE,
 GLOBUS_XIO_GRIDFTP_GET_HANDLE,
 GLOBUS_XIO_GRIDFTP_SET_APPEND,
 GLOBUS_XIO_GRIDFTP_GET_APPEND,
 GLOBUS_XIO_GRIDFTP_SET_ERET,
 GLOBUS_XIO_GRIDFTP_GET_ERET,
 GLOBUS_XIO_GRIDFTP_SET_ESTO,
 GLOBUS_XIO_GRIDFTP_GET_ESTO,
 GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER,
 GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER,
 GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS,
 GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS,
 GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER,
 GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER,
 GLOBUS_XIO_GRIDFTP_SET_MODE,
 GLOBUS_XIO_GRIDFTP_GET_MODE,
 GLOBUS_XIO_GRIDFTP_SET_AUTH,
 GLOBUS_XIO_GRIDFTP_GET_AUTH,
 GLOBUS_XIO_GRIDFTP_SET_DCAU,
 GLOBUS_XIO_GRIDFTP_GET_DCAU,
 GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION,
 GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION,
 GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION,
 GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION }

Functions

- globus_result_t **globus_xio_handle_cntl** (handle, driver, **GLOBUS_XIO_GRIDFTP_SEEK**, globus_off_t seek_offset)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_HANDLE**, globus_ftp_client_handle_t *ftp_handle)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_HANDLE**, globus_ftp_client_handle_t **ftp_handle_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_APPEND**, globus_bool_t append)

- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_APPEND**, globus_bool_t *append_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_ERET**, const char *eret_alg_str)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_ERET**, char **eret_alg_str_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_ESTO**, const char *esto_alg_str)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_ESTO**, char **esto_alg_str_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER**, globus_bool_t *partial_xfer)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER**, globus_bool_t *partial_xfer_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS**, int num_streams)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS**, int *num_streams_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER**, int buf_size)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER**, int *buf_size_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_MODE**, int mode)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_MODE**, int *mode_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_AUTH**, gss_cred_id_t credential, const char *user, const char *password, const char *account, const char *subject)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_AUTH**, gss_cred_id_t *credential_out, const char **user_out, const char **password_out, const char **account_out, const char **subject_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_DCAU**, int dcau_mode)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_DCAU**, int *dcau_mode_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION**, int protection)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION**, int *protection_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION**, int protection)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION**, int *protection_out)

3.5.1 Detailed Description

Gridftp driver specific attrs and cntls.

See Also

globus_xio_attr_cntl (p. 15) ()
globus_xio_handle_cntl (p. 9) ()
globus_xio_data_descriptor_cntl ()

3.5.2 Enumeration Type Documentation

3.5.2.1 enum globus_xio_gridftp_cmd_t

doxygen varargs filter stuff

GRIDFTP driver specific cntls

Enumerator

- GLOBUS_XIO_GRIDFTP_SEEK** See usage for: **globus_xio_handle_cntl** (p. 9).
- GLOBUS_XIO_GRIDFTP_SET_HANDLE** See usage for: **globus_xio_attr_cntl** (p. 10).
- GLOBUS_XIO_GRIDFTP_GET_HANDLE** See usage for: **globus_xio_attr_cntl** (p. 10).
- GLOBUS_XIO_GRIDFTP_SET_APPEND** See usage for: **globus_xio_attr_cntl** (p. 10).
- GLOBUS_XIO_GRIDFTP_GET_APPEND** See usage for: **globus_xio_attr_cntl** (p. 10).
- GLOBUS_XIO_GRIDFTP_SET_ERET** See usage for: **globus_xio_attr_cntl** (p. 10).
- GLOBUS_XIO_GRIDFTP_GET_ERET** See usage for: **globus_xio_attr_cntl** (p. 11).
- GLOBUS_XIO_GRIDFTP_SET_ESTO** See usage for: **globus_xio_attr_cntl** (p. 11).
- GLOBUS_XIO_GRIDFTP_GET_ESTO** See usage for: **globus_xio_attr_cntl** (p. 11).
- GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER** See usage for: **globus_xio_attr_cntl** (p. 11).
- GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER** See usage for: **globus_xio_attr_cntl** (p. 11).
- GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS** See usage for: **globus_xio_attr_cntl** (p. 12).
- GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS** See usage for: **globus_xio_attr_cntl** (p. 12).
- GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER** See usage for: **globus_xio_attr_cntl** (p. 12).
- GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER** See usage for: **globus_xio_attr_cntl** (p. 12).
- GLOBUS_XIO_GRIDFTP_SET_MODE** See usage for: **globus_xio_attr_cntl** (p. 12).
- GLOBUS_XIO_GRIDFTP_GET_MODE** See usage for: **globus_xio_attr_cntl** (p. 13).
- GLOBUS_XIO_GRIDFTP_SET_AUTH** See usage for: **globus_xio_attr_cntl** (p. 13).
- GLOBUS_XIO_GRIDFTP_GET_AUTH** See usage for: **globus_xio_attr_cntl** (p. 13).
- GLOBUS_XIO_GRIDFTP_SET_DCAU** See usage for: **globus_xio_attr_cntl** (p. 13).
- GLOBUS_XIO_GRIDFTP_GET_DCAU** See usage for: **globus_xio_attr_cntl** (p. 14).
- GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION** See usage for: **globus_xio_attr_cntl** (p. 14).
- GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION** See usage for: **globus_xio_attr_cntl** (p. 14).
- GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION** See usage for: **globus_xio_attr_cntl** (p. 14).
- GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION** See usage for: **globus_xio_attr_cntl** (p. 15).

3.5.3 Function Documentation

3.5.3.1 globus_result_t globus_xio_handle_cntl (handle , driver , GLOBUS_XIO_GRIDFTP_SEEK , globus_off_t seek_offset)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Reposition the offset of the file being read/written.

Parameters

<i>seek_offset</i>	Specifies the desired offset.
--------------------	-------------------------------

3.5.3.2 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_HANDLE , globus_ftp_client_handle_t * ftp_handle)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the ftp client handle to use.

Do not create a new ftp client handle, use this handle instead.

Parameters

<i>ftp_handle</i>	Specifies the pointer to globus ftp client handle. Note: this handle will not be destroyed.
-------------------	---

3.5.3.3 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_HANDLE , globus_ftp_client_handle_t ** ftp_handle_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the ftp client handle on the attr.

Parameters

<i>ftp_handle_out</i>	The ftp client handle pointer will be stored here. If none is set, GLOBUS_NULL will be set.
-----------------------	---

3.5.3.4 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_APPEND , globus_bool_t append)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Enable or disable opening the file in append mode.

Parameters

<i>append</i>	GLOBUS_TRUE to enable, GLOBUS_FALSE to disable (default).
---------------	---

3.5.3.5 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_APPEND , globus_bool_t * append_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the append flag on the attr.

Parameters

<i>append_out</i>	The append flag will be stored here.
-------------------	--------------------------------------

3.5.3.6 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_ERET , const char * eret_alg_str)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the ERET algorithm string.

This string contains information needed to invoke a server-specific data reduction algorithm on the file being retrieved.

Parameters

<i>eret_alg_str</i>	Specifies the ERET algorithm string.
---------------------	--------------------------------------

3.5.3.7 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_ERET , char **
eret_alg_str_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the ERET algorithm string.

Parameters

<i>eret_alg_str_out</i>	The ERET algorithm string will be stored here. It is the responsibility of the user to free the memory allocated for this string.
-------------------------	---

3.5.3.8 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_ESTO , const char *
esto_alg_str)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the ESTO algorithm string.

This string contains information needed to invoke a server-specific data reduction algorithm on the file being stored.

Parameters

<i>esto_alg_str</i>	Specifies the ESTO algorithm string.
---------------------	--------------------------------------

3.5.3.9 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_ESTO , char **
esto_alg_str_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the ESTO algorithm string.

Parameters

<i>esto_alg_str_out</i>	The ESTO algorithm string will be stored here. It is the responsibility of the user to free the memory allocated for this string.
-------------------------	---

3.5.3.10 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER ,
globus_bool_t partial_xfer)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Enable or disable partial transfer (associate a transfer with each read/write) on the gridftp handle.

Parameters

<i>partial_xfer</i>	GLOBUS_TRUE to enable, GLOBUS_FALSE to disable (default).
---------------------	---

3.5.3.11 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER ,
globus_bool_t * partial_xfer_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the partial transfer flag on the attr.

Parameters

<i>partial_xfer_out</i>	The partial xfer flag will be stored here.
-------------------------	--

3.5.3.12 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS , int num_streams)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the number of TCP streams to be used between the client and the server.

Parameters

<i>num_streams</i>	Specifies the number of streams to use.
--------------------	---

3.5.3.13 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS , int * num_streams_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the number of TCP streams on the attr.

Parameters

<i>num_streams_out</i>	The stream count will be stored here.
------------------------	---------------------------------------

3.5.3.14 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER , int buf_size)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the TCP socket send/rcv buffer size.

Parameters

<i>buf_size</i>	The send/rcv buffer size in bytes to use. (default is system specific)
-----------------	--

3.5.3.15 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER , int * buf_size_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the TCP socket send/rcv buffer size on the attr.

Parameters

<i>buf_size_out</i>	The send/rcv buffer size will be stored here.
---------------------	---

3.5.3.16 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_MODE , int mode)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the transmission mode used for data transfer.

Parameters

<i>mode</i>	Specifies the data transmission mode. (default is stream mode)
-------------	--

See Also

globus_l_xio_gridftp_mode_t (p. 16)

3.5.3.17 **globus_result_t globus_xio_attr_cntl** (*attr* , *driver* , **GLOBUS_XIO_GRIDFTP_GET_MODE** , *int * mode_out*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the data transmission mode on the attr.

Parameters

<i>mode_out</i>	The data transmission mode will be stored here.
-----------------	---

See Also

globus_l_xio_gridftp_mode_t (p. 16)

3.5.3.18 **globus_result_t globus_xio_attr_cntl** (*attr* , *driver* , **GLOBUS_XIO_GRIDFTP_SET_AUTH** , *gss_cred_id_t * credential*, *const char * user*, *const char * password*, *const char * account*, *const char * subject*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the authentication information used to authenticate with the gridftp server.

Parameters

<i>credential</i>	The credential to use for authenticating with a GridFTP server. This may be GSS_C_NO_CREDENTIAL to use the default credential.
<i>user</i>	The user name to send to the gridftp server. When doing a gsiftp transfer, this may be set to NULL, and the default gridmap entry for the user's GSI identity will be used
<i>password</i>	The password to send to the gridftp server. When doing a gsiftp transfer, this may be set to NULL.
<i>account</i>	The account to use for the data transfer.
<i>subject</i>	The subject name of the gridftp server. This is only used when doing a gsiftp transfer, and then only when the security subject name does not match the hostname of the server (ie, when the server is being run by a user).

3.5.3.19 **globus_result_t globus_xio_attr_cntl** (*attr* , *driver* , **GLOBUS_XIO_GRIDFTP_GET_AUTH** , *gss_cred_id_t * credential_out*, *const char ** user_out*, *const char ** password_out*, *const char ** account_out*, *const char ** subject_out*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the authentication information on the attr.

Parameters

<i>credential_out</i>	The credential will be stored here.
<i>user_out</i>	The user name will be stored here.
<i>password_out</i>	The password will be stored here.
<i>account_out</i>	The account information will be stored here.
<i>subject_out</i>	The subject name will be stored here.

3.5.3.20 **globus_result_t globus_xio_attr_cntl** (*attr* , *driver* , **GLOBUS_XIO_GRIDFTP_SET_DCAU** , *int dcau_mode*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set the mode of authentication to be performed on gridftp data channels.

Parameters

<i>dcau_mode</i>	Specifies the authentication mode.
------------------	------------------------------------

See Also

globus_l_xio_gridftp_dcau_mode_t

3.5.3.21 globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_DCAU , int * *dcau_mode_out*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the data channel authentication mode on the attr.

Parameters

<i>dcau_mode_out</i>	The data channel authentication mode will be stored here.
----------------------	---

See Also

globus_l_xio_gridftp_dcau_mode_t

3.5.3.22 globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION , int *protection*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set protection level on the data channel.

Parameters

<i>protection</i>	Specifies the protection level.
-------------------	---------------------------------

See Also

globus_l_xio_gridftp_protection_t

3.5.3.23 globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION , int * *protection_out*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the data channel protection level on the attr.

Parameters

<i>protection_out</i>	The data channel protection level will be stored here.
-----------------------	--

See Also

globus_l_xio_gridftp_dcau_mode_t

3.5.3.24 globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION , int *protection*)

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Set protection level on the control channel.

Parameters

<i>protection</i>	Specifies the protection level.
-------------------	---------------------------------

See Also

`globus_l_xio_gridftp_protection_t`

3.5.3.25 `globus_result_t globus_xio_attr_cntl (attr , driver , GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION , int * protection_out)`

This is an overloaded member function, provided for convenience. It differs from the above function only in what argument(s) it accepts. Get the control channel protection level on the attr.

Parameters

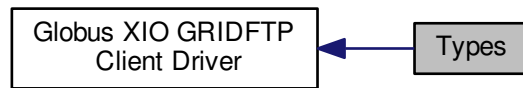
<i>protection_out</i>	The control channel protection level will be stored here.
-----------------------	---

See Also

`globus_l_xio_gridftp_protection_t`

3.6 Types

Collaboration diagram for Types:



Typedefs

- typedef enum
globus_i_xio_gridftp_mode_e globus_i_xio_gridftp_mode_t

Enumerations

- enum **globus_i_xio_gridftp_mode_e**

3.6.1 Detailed Description

3.6.2 Typedef Documentation

3.6.2.1 typedef enum **globus_i_xio_gridftp_mode_e globus_i_xio_gridftp_mode_t**

GRIDFTP driver specific types.

3.6.3 Enumeration Type Documentation

3.6.3.1 enum **globus_i_xio_gridftp_mode_e**

GRIDFTP driver specific types.

3.7 Error Types

Collaboration diagram for Error Types:



Enumerations

- enum **globus_xio_gridftp_error_type_t** {
 GLOBUS_XIO_GRIDFTP_ERROR_ATTR,
 GLOBUS_XIO_GRIDFTP_ERROR_SEEK,
 GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_READ,
 GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_WRITE,
 GLOBUS_XIO_GRIDFTP_ERROR_PENDING_READ,
 GLOBUS_XIO_GRIDFTP_ERROR_PENDING_WRITE,
 GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_PARTIAL_XFER }

3.7.1 Detailed Description

The errors reported by the GRIDFTP driver include **GLOBUS_XIO_ERROR_EOF**, **GLOBUS_XIO_ERROR_CANCELED**, **GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_READ** (p. 17), **GLOBUS_XIO_GRIDFTP_ERROR_SEEK** (p. 17), **GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_WRITE** (p. 17), **GLOBUS_XIO_GRIDFTP_ERROR_PENDING_READ** (p. 18), **GLOBUS_XIO_GRIDFTP_ERROR_PENDING_WRITE** (p. 18), **GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_PARTIAL_XFER** (p. 18).

See Also

`globus_xio_driver_error_match()`
`globus_error_errno_match()`

3.7.2 Enumeration Type Documentation

3.7.2.1 enum **globus_xio_gridftp_error_type_t**

GRIDFTP driver specific error types.

Enumerator

GLOBUS_XIO_GRIDFTP_ERROR_ATTR Indicates that an error occurred in the attribute control.

GLOBUS_XIO_GRIDFTP_ERROR_SEEK Indicates that a seek has been called while there is an outstanding io.

GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_READ Indicates that a write has been called while there is an outstanding read.

GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_WRITE Indicates that a read has been called while there is an outstanding write.

GLOBUS_XIO_GRIDFTP_ERROR_PENDING_READ Indicates that a write has been called while there is a read pending.

GLOBUS_XIO_GRIDFTP_ERROR_PENDING_WRITE Indicates that a read has been called while there is a write pending.

GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_PARTIAL_XFER Indicates that a second partial xfer has been initiated while the first one is still outstanding.

4 File Documentation

4.1 globus_xio_gridftp_driver.h File Reference

Typedefs

- typedef enum
globus_l_xio_gridftp_mode_e globus_l_xio_gridftp_mode_t

Enumerations

- enum **globus_xio_gridftp_error_type_t** {
 GLOBUS_XIO_GRIDFTP_ERROR_ATTR,
 GLOBUS_XIO_GRIDFTP_ERROR_SEEK,
 GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_READ,
 GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_WRITE,
 GLOBUS_XIO_GRIDFTP_ERROR_PENDING_READ,
 GLOBUS_XIO_GRIDFTP_ERROR_PENDING_WRITE,
 GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_PARTIAL_XFER }
- enum **globus_xio_gridftp_cmd_t** {
 GLOBUS_XIO_GRIDFTP_SEEK,
 GLOBUS_XIO_GRIDFTP_SET_HANDLE,
 GLOBUS_XIO_GRIDFTP_GET_HANDLE,
 GLOBUS_XIO_GRIDFTP_SET_APPEND,
 GLOBUS_XIO_GRIDFTP_GET_APPEND,
 GLOBUS_XIO_GRIDFTP_SET_ERET,
 GLOBUS_XIO_GRIDFTP_GET_ERET,
 GLOBUS_XIO_GRIDFTP_SET_ESTO,
 GLOBUS_XIO_GRIDFTP_GET_ESTO,
 GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER,
 GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER,
 GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS,
 GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS,
 GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER,
 GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER,
 GLOBUS_XIO_GRIDFTP_SET_MODE,
 GLOBUS_XIO_GRIDFTP_GET_MODE,
 GLOBUS_XIO_GRIDFTP_SET_AUTH,
 GLOBUS_XIO_GRIDFTP_GET_AUTH,
 GLOBUS_XIO_GRIDFTP_SET_DCAU,
 GLOBUS_XIO_GRIDFTP_GET_DCAU,
 GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION,
 GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION,
 GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION,
 GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION }
- enum **globus_l_xio_gridftp_mode_e**

Functions

- globus_result_t globus_xio_handle_cntl** (handle, driver, **GLOBUS_XIO_GRIDFTP_SEEK**, globus_off_t seek_offset)
- globus_result_t globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_HANDLE**, globus_ftp_client_handle_t *ftp_handle)

- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_HANDLE**, globus_ftp_client_handle_t **ftp_handle_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_APPEND**, globus_bool_t append)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_APPEND**, globus_bool_t *append_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_ERET**, const char *eret_alg_str)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_ERET**, char **eret_alg_str_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_ESTO**, const char *esto_alg_str)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_ESTO**, char **esto_alg_str_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER**, globus_bool_t partial_xfer)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER**, globus_bool_t *partial_xfer_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS**, int num_streams)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS**, int *num_streams_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER**, int buf_size)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER**, int *buf_size_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_MODE**, int mode)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_MODE**, int *mode_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_AUTH**, gss_cred_id_t credential, const char *user, const char *password, const char *account, const char *subject)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_AUTH**, gss_cred_id_t *credential_out, const char **user_out, const char **password_out, const char **account_out, const char **subject_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_DCAU**, int dcau_mode)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_DCAU**, int *dcau_mode_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION**, int protection)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION**, int *protection_out)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION**, int protection)
- globus_result_t **globus_xio_attr_cntl** (attr, driver, **GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION**, int *protection_out)

4.1.1 Detailed Description

Header file for XIO GRIDFTP Client Driver.

Index

Attributes and Cntls, 6

- GLOBUS_XIO_GRIDFTP_GET_APPEND, 8
- GLOBUS_XIO_GRIDFTP_GET_AUTH, 8
- GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION, 8
- GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION, 8
- GLOBUS_XIO_GRIDFTP_GET_DCAU, 8
- GLOBUS_XIO_GRIDFTP_GET_ERET, 8
- GLOBUS_XIO_GRIDFTP_GET_ESTO, 8
- GLOBUS_XIO_GRIDFTP_GET_HANDLE, 8
- GLOBUS_XIO_GRIDFTP_GET_MODE, 8
- GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS, 8
- GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER, 8
- GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER, 8
- GLOBUS_XIO_GRIDFTP_SEEK, 8
- GLOBUS_XIO_GRIDFTP_SET_APPEND, 8
- GLOBUS_XIO_GRIDFTP_SET_AUTH, 8
- GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION, 8
- GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION, 8
- GLOBUS_XIO_GRIDFTP_SET_DCAU, 8
- GLOBUS_XIO_GRIDFTP_SET_ERET, 8
- GLOBUS_XIO_GRIDFTP_SET_ESTO, 8
- GLOBUS_XIO_GRIDFTP_SET_HANDLE, 8
- GLOBUS_XIO_GRIDFTP_SET_MODE, 8
- GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS, 8
- GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER, 8
- GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER, 8
- globus_xio_attr_cntl, 8–14
- globus_xio_gridftp_cmd_t, 8
- globus_xio_handle_cntl, 8

Env Variables, 5

Error Types, 16

- GLOBUS_XIO_GRIDFTP_ERROR_ATTR, 16
- GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_PARTIAL_XFER, 17
- GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_READ, 16
- GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_WRITE, 16
- GLOBUS_XIO_GRIDFTP_ERROR_PENDING_READ, 16
- GLOBUS_XIO_GRIDFTP_ERROR_PENDING_WRITE, 17
- GLOBUS_XIO_GRIDFTP_ERROR_SEEK, 16
- globus_xio_gridftp_error_type_t, 16

- GLOBUS_XIO_GRIDFTP_ERROR_ATTR

- Error Types, 16

- GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_PARTIAL_XFER

- Error Types, 17

- GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_READ

- Error Types, 16

- GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_WRITE

- Error Types, 16

- GLOBUS_XIO_GRIDFTP_ERROR_PENDING_READ

- Error Types, 16

- GLOBUS_XIO_GRIDFTP_ERROR_PENDING_WRITE

- Error Types, 17

- GLOBUS_XIO_GRIDFTP_ERROR_SEEK

- Error Types, 16

- GLOBUS_XIO_GRIDFTP_GET_APPEND

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_AUTH

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_DCAU

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_ERET

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_ESTO

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_HANDLE

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_MODE

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_NUM_STREAMS

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_PARTIAL_TRANSFER

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_GET_TCP_BUFFER

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_SEEK

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_SET_APPEND

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_SET_AUTH

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION

- Attributes and Cntls, 8

- GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_DCAU
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_ERET
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_ESTO
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_HANDLE
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_MODE
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_NUM_STREAMS
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_PARTIAL_TRANSFER
 - Attributes and Cntls, 8
- GLOBUS_XIO_GRIDFTP_SET_TCP_BUFFER
 - Attributes and Cntls, 8
- Globus XIO GRIDFTP Client Driver, 2
- globus_l_xio_gridftp_mode_e
 - Types, 15
- globus_l_xio_gridftp_mode_t
 - Types, 15
- globus_xio_attr_cntl
 - Attributes and Cntls, 8–14
- globus_xio_gridftp_cmd_t
 - Attributes and Cntls, 8
- globus_xio_gridftp_driver.h, 18
- globus_xio_gridftp_error_type_t
 - Error Types, 16
- globus_xio_handle_cntl
 - Attributes and Cntls, 8
- Opening/Closing, 3
- Reading/Writing, 4
- Types, 15
 - globus_l_xio_gridftp_mode_e, 15
 - globus_l_xio_gridftp_mode_t, 15