globus xio gridftp driver

1.2

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1 Module Index

1.1 Modules

Here is a list of all modules:

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2 File Index

2.1 File List

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

globus_xio_gridftp_driver.h
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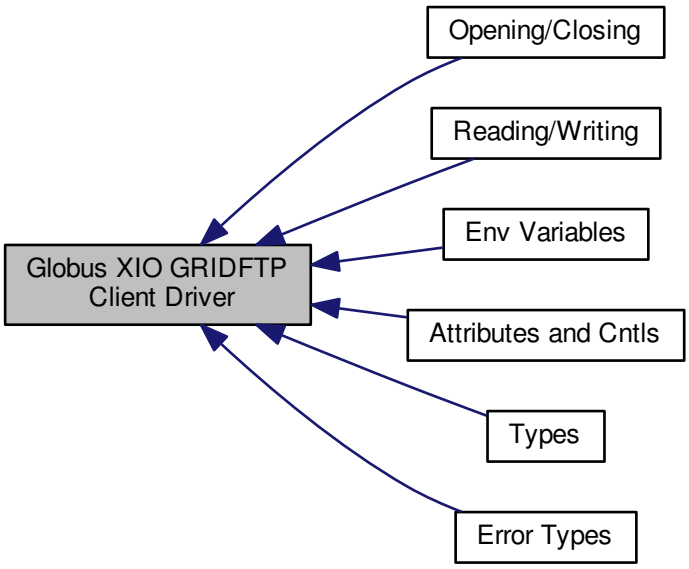
3 Module Documentation

3.1 Globus XIO GRIDFTP Client Driver

Collaboration diagram for Globus XIO GRIDFTP Client Driver:



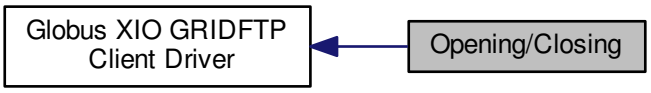
Modules

- **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:

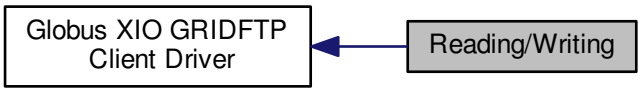


An XIO handle with the gridftp client driver can be created with globus_xio_handle_create() The gridftp client driver makes use of globus ftp client library. globus_xio_register_open() call creates a new ftp client handle (unless one is set on the attr passed), establishes connection with the gridftp 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:



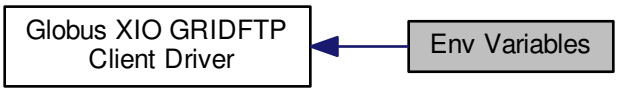
The globus_xio_register_read() enforce that the waitforbytes parameter should be one. When multiple TCP streams are used between the client and the server, data might not be delivered in order. globus_xio_data_descriptor_cntl() can be used to get the offset of the data.

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

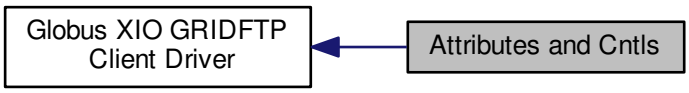
Collaboration diagram for Env Variables:



- 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. 16) ()
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. 14).

GLOBUS_XIO_GRIDFTP_GET_AUTH See usage for: **globus_xio_attr_cntl** (p. 14).

GLOBUS_XIO_GRIDFTP_SET_DCAU See usage for: **globus_xio_attr_cntl** (p. 14).

GLOBUS_XIO_GRIDFTP_GET_DCAU See usage for: **globus_xio_attr_cntl** (p. 15).

GLOBUS_XIO_GRIDFTP_SET_DATA_PROTECTION See usage for: **globus_xio_attr_cntl** (p. 16).

GLOBUS_XIO_GRIDFTP_GET_DATA_PROTECTION See usage for: **globus_xio_attr_cntl** (p. 16).

GLOBUS_XIO_GRIDFTP_SET_CONTROL_PROTECTION See usage for: **globus_xio_attr_cntl** (p. 16).

GLOBUS_XIO_GRIDFTP_GET_CONTROL_PROTECTION See usage for: **globus_xio_attr_cntl** (p. 16).

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

seek_offset	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

ftp_handle	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

ftp_handle_out	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

append	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

append_out	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

eret_alg_str	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

eret_alg_str_out	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

esto_alg_str	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

esto_alg_str_out	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

partial_xfer	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

partial_xfer_out	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

num_streams	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

num_streams_out	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/recv buffer size.

Parameters

buf_size	The send/recv 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/recv buffer size on the attr.

Parameters

buf_size_out	The send/recv 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

mode	Specifies the data transmission mode. (default is stream mode)

See Also

globus_l_xio_gridftp_mode_t (p. 18)

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

mode_out	The data transmission mode will be stored here.

See Also

globus_l_xio_gridftp_mode_t (p. 18)

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

credential	The credential to use for authenticating with a GridFTP server. This may be GSS_C_NO_C-REDENTIAL to use the default credential.
user	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
password	The password to send to the gridftp server. When doing a gsiftp transfer, this may be set to NULL.
account	The account to use for the data transfer.
subject	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

credential_out	The credential will be stored here.
user_out	The user name will be stored here.
password_out	The password will be stored here.
account_out	The account information will be stored here.
subject_out	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

dcau_mode	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

dcau_mode_out	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

protection	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

protection_out	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

protection	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

protection_out	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_l_xio_gridftp_mode_e globus_l_xio_gridftp_mode_t

Enumerations

- enum **globus_l_xio_gridftp_mode_e**

3.6.1 Detailed Description

3.6.2 Typedef Documentation

3.6.2.1 typedef enum globus_l_xio_gridftp_mode_e globus_l_xio_gridftp_mode_t

GRIDFTP driver specific types.

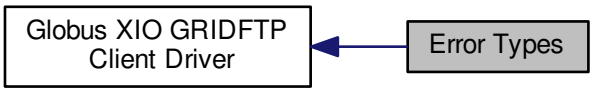
3.6.3 Enumeration Type Documentation

3.6.3.1 enum globus_l_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. 19), **GLOBUS_XIO_GRIDFTP_ERROR_SEEK** (p. 19), **GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_WRITE** (p. 19), **GLOBUS_XIO_GRIDFTP_ERROR_PENDING_READ** (p. 20), **GLOBUS_XIO_GRIDFTP_ERROR_PENDING_WRITE** (p. 20), **GLOBUS_XIO_GRIDFTP_ERROR_OUTSTANDING_PARTIAL_XFER** (p. 20).

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 occured 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.

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