

globus gssapi error Reference Manual

2.5

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1.1 globus gssapi error Modules

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2.1 Globus GSSAPI Error API

Modules

- [Error Construction](#)
- [Error Data Accessors and Modifiers](#)
- [Error Handling Helpers](#)

2.1.1 Detailed Description

These `globus_error` functions are motivated by the desire to provide a easier way of generating new error types, while at the same time preserving all features (e.g. memory management, chaining) of the current error handling framework. The functions in this API are auxiliary to the function in the Globus Generic Error API in the sense that they provide a wrapper for representing GSSAPI errors in terms of a `globus_error_t`.

Any program that uses Globus GSSAPI Error functions must include "`globus_error_gssapi.h`".

2.2 Error Construction

Construct Error

- `globus_object_t` [globus_error_construct_gssapi_error](#)(`globus_module_descriptor_t` base_source, `globus_object_t` base_cause, `const OM_uint32` major_status, `const OM_uint32` minor_status)

Initialize Error

- `globus_object_t globus_error_initialize_gssapi_error(globus_object_t error, globus_module_descriptor_t base_source, globus_object_t base_cause, const OM_uint32 major_status, const OM_uint32 minor_status)`

De nes

- `#define GLOBUS_ERROR_TYPE_GSSAPI`

2.2.1 Detailed Description

Create and initialize a Globus GSSAPI Error object.

This section de nes operations to create and initialize Globus GSSAPI Error objects.

2.2.2 De ne Documentation

2.2.2.1 #define GLOBUS_ERROR_TYPE_GSSAPI

Error type de nition.

2.2.3 Function Documentation

2.2.3.1 `globus_object_t globus_error_construct_gssapi_error (globus_module_descriptor_t base_source, globus_object_t base_cause, const OM_uint32 major_status, const OM_uint32 minor_status)`

Allocate and initialize an error of type `GLOBUS_ERROR_TYPE_GSSAPI`.

Parameters:

- `base_source` Pointer to the originating module.
- `base_cause` The error object causing the error. If this is the original error, this parameter may be NULL.
- `major_status` The GSSAPI major status
- `minor_status` The GSSAPI minor status

Returns:

- The resulting error object. It is the user's responsibility to eventually free this object using `globus_object_free()`. A `globus_result_t` may be obtained by calling `globus_error_put()` on this object.

2.2.3.2 `globus_object_t globus_error_initialize_gssapi_error (globus_object_t error, globus_module_descriptor_t base_source, globus_object_t base_cause, const OM_uint32 major_status, const OM_uint32 minor_status)`

Initialize a previously allocated error of type `GLOBUS_ERROR_TYPE_GSSAPI`.

Parameters:

- `error` The previously allocated error object.
- `base_source` Pointer to the originating module.
- `base_cause` The error object causing the error. If this is the original error this parameter may be NULL.
- `major_status` The GSSAPI major status

minor_status The GSSAPI minor status

Returns:

The resulting error object. You may have to call `globus_error_put()` on this object before passing it on.

2.3 Error Data Accessors and Modifiers

Get Major Status

- OM_uint32 `globus_error_gssapi_get_major_status(globus_object_error)`

Set Major Status

- void `globus_error_gssapi_set_major_status(globus_object_error, const OM_uint32 major_status)`

Get Minor Status

- OM_uint32 `globus_error_gssapi_get_minor_status(globus_object_error)`

2.3.1 Detailed Description

Get and set data in a Globus GSSAPI Error object.

This section defines operations for accessing and modifying data in a Globus GSSAPI Error object.

2.3.2 Function Documentation

2.3.2.1 OM_uint32 `globus_error_gssapi_get_major_status(globus_object_error)`

Retrieve the major status from a gssapi error object.

Parameters:

error The error from which to retrieve the major status

Returns:

The major status stored in the object

2.3.2.2 void `globus_error_gssapi_set_major_status(globus_object_error, const OM_uint32 major_status)`

Set the major status in a gssapi error object.

Parameters:

error The error object for which to set the major status

major_status The major status

Returns:

void

2.3.2.3 OM_uint32 globus_error_gssapi_get_minor_status (globus_object_t error)

Retrieve the minor status from a gssapi error object.

Parameters:

error The error from which to retrieve the minor status

Returns:

The minor status stored in the object

2.4 Error Handling Helpers

Error Match

- globus_bool_t [globus_error_gssapi_match](#) (globus_object_t error, globus_module_descriptor_t module, const OM_uint32 major_status)

Wrap GSSAPI Error

- globus_object_t [globus_error_wrap_gssapi_error](#) (globus_module_descriptor_t base_source, OM_uint32 major_status, OM_uint32 minor_status, int type, const char* source_file, const char* source_func, int source_line, const char* short_desc_format,...)

2.4.1 Detailed Description

Helper functions for dealing with Globus GSSAPI Error objects.

This section defines utility functions for dealing with Globus GSSAPI Error objects.

2.4.2 Function Documentation

2.4.2.1 globus_bool_t globus_error_gssapi_match (globus_object_t error, globus_module_descriptor_t module, const OM_uint32 major_status)

Check whether the error originated from a specific module and match a specific major status.

This function checks whether the error or any of its causative errors originated from a specific module and contains a specific major status. If the module descriptor is left unspecified this function will check for any error of the specified major_status and vice versa.

Parameters:

error The error object for which to perform the check

module The module descriptor to check for

major_status The major status to check for

Returns:

GLOBUS_TRUE - the error matched the module and major status GLOBUS_FALSE - the error failed to match the module and major status

2.4.2.2 `globus_object_t globus_error_wrap_gssapi_error(globus_module_descriptor_t base_source, OM_uint32 major_status, OM_uint32 minor_status, int type, const char *source_le, const char *source_func, int source_line, const char *short_desc_format, ...)`

Allocate and initialize an error of type `GLOBUS_ERROR_TYPE_GLOBUS` which contains a causal error of type `GLOBUS_ERROR_TYPE_GSSAPI`.

Parameters:

- `base_source` Pointer to the originating module.
- `major_status` The major status to use when generating the causal error.
- `minor_status` The minor status to use when generating the causal error.
- `type` The error type. We may reserve part of this namespace for common errors. Errors not in this space are assumed to be local to the originating module.
- `source_le` Name of `le`. Use `__FILE__`
- `source_func` Name of function. Use `_globus_func_name` and declare your func with `GlobusFuncName(<name>)`
- `source_line` Line number. Use `__LINE__`
- `short_desc_format` Short format string giving a succinct description of the error. To be passed on to the user.
- ... Arguments for the format string.

Returns:

- The resulting error object. It is the user's responsibility to eventually free this object using `globus_object_free()`. A `globus_result_t` may be obtained by calling `globus_error_put()` on this object.

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