

globus gssapi error Reference Manual

4.1

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1.1 globus gssapi error Modules

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2.1 Globus GSSAPI Error API

Modules

- group **Error Construction**
- group **Error Data Accessors and Modifiers**
- group **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)`

Defines

- `#define GLOBUS_ERROR_TYPE_GSSAPI`

2.2.1 Detailed Description

Create and initialize a Globus GSSAPI Error object.

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

2.2.2 Define Documentation

2.2.2.1 `#define GLOBUS_ERROR_TYPE_GSSAPI`

Error type definition.

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_t *error)

Set Major Status

- void **globus_error_gssapi_set_major_status** (globus_object_t *error, const OM_uint32 major_status)

Get Minor Status

- OM_uint32 **globus_error_gssapi_get_minor_status** (globus_object_t *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_t * *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_t * *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:

GLOBAL_TRUE - the error matched the module and major status GLOBAL_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_file, const char *source_func, int source_line, const char *short_desc_format, ...)`

Allocate and initialize an error of type GLOBAL_ERROR_TYPE_GLOBUS which contains a causal error of type GLOBAL_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_file Name of file. 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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