

GT 4.2.1 GRAM2: User Guide

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Chapter 1. Introduction

GRAM services provide secure job submission to many types of job schedulers for users who have the right to access a job hosting resource in a Grid environment. The existence of a valid proxy is in fact required for job submission. All GRAM job submission options are supported transparently through the embedded request document input. In fact, the job startup is done by submitting a client-side provided job description to the GRAM services. This submission can be made by end-users with the GRAM command-line tools.

Chapter 2. Commandline Tools

Gram Clients¹

¹ <http://www.globus.org/toolkit/docs/2.4/admin/guide-user.html#gram>

Chapter 3. Resource Specification Language (RSL)

Resource Specification Language (RSL)¹

¹ http://www.globus.org/toolkit/docs/2.4/gram/rsl_spec1.html

Chapter 4. RSL Attributes

RSL Attributes¹

¹ http://www.globus.org/api/c-globus-4.2.1/globus_gram_job_manager/html/globus_job_manager_rsl.html

Chapter 5. Job Execution Environment

Job Execution Environment¹

¹ http://www.globus.org/api/c-globus-4.2.1/globus_gram_job_manager/html/globus_gram_job_manager_job_execution_environment.html

Chapter 6. GRAM Error Codes

Table 6.1. Gram Error Codes

#	Name	Description
0		Success
1	GLOBUS_GRAM_PROTOCOL_ERROR_PARAMETER_NOT_SUPPORTED	one of the RSL parameters is not supported
2	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_REQUEST	the RSL length is greater than the maximum allowed
3	GLOBUS_GRAM_PROTOCOL_ERROR_NO_RESOURCES	an I/O operation failed
4	GLOBUS_GRAM_PROTOCOL_ERROR_BAD_DIRECTORY	jobmanager unable to set default to the directory requested
5	GLOBUS_GRAM_PROTOCOL_ERROR_EXECUTABLE_NOT_FOUND	the executable does not exist
6	GLOBUS_GRAM_PROTOCOL_ERROR_INSUFFICIENT_FUNDS	of an unused INSUFFICIENT_FUNDS
7	GLOBUS_GRAM_PROTOCOL_ERROR_AUTHORIZATION	authentication with the remote server failed
8	GLOBUS_GRAM_PROTOCOL_ERROR_USER_CANCELLED	the user cancelled the job
9	GLOBUS_GRAM_PROTOCOL_ERROR_SYSTEM_CANCELLED	the system cancelled the job
10	GLOBUS_GRAM_PROTOCOL_ERROR_PROTOCOL_FAILED	data transfer to the server failed
11	GLOBUS_GRAM_PROTOCOL_ERROR_STDIN_NOT_FOUND	the stdin file does not exist
12	GLOBUS_GRAM_PROTOCOL_ERROR_CONNECTION_FAILED	the connection to the server failed (check host and port)
13	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_MAXTIME	the provided RSL 'maxtime' value is not an integer
14	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_COUNT	the provided RSL 'count' value is not an integer
15	GLOBUS_GRAM_PROTOCOL_ERROR_NULL_SPECIFICATION_TREE	the job manager received an invalid RSL
16	GLOBUS_GRAM_PROTOCOL_ERROR_JM_FAILED_ALLOW_ATTACH	the job manager failed in allowing others to make contact
17	GLOBUS_GRAM_PROTOCOL_ERROR_JOB_EXECUTION_FAILED	the job failed when the job manager attempted to run it
18	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_PARADYN	an invalid paradyn was specified
19	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_JOBTYPE	the provided RSL 'jobtype' value is invalid
20	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_GRAM_MYJOB	the provided RSL 'myjob' value is invalid
21	GLOBUS_GRAM_PROTOCOL_ERROR_BAD_SCRIPT_ARG_FILE	the job manager failed to locate an internal script argument file

GRAM Error Codes

#	Name	Description
22	GLOBUS_GRAM_PROTOCOL_ERROR_ARG_FILE_CREATION_FAILED	the job manager failed to create an internal script argument file
23	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_JOBSTATE	the job manager detected an invalid job state
24	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_SCRIPT_REPLY	the job manager detected an invalid script response
25	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_SCRIPT_STATUS	the job manager detected an invalid script status
26	GLOBUS_GRAM_PROTOCOL_ERROR_JOBTYPE_NOT_SUPPORTED	the provided RSL 'jobtype' value is not supported by this job manager
27	GLOBUS_GRAM_PROTOCOL_ERROR_UNIMPLEMENTED	unused ERROR_UNIMPLEMENTED
28	GLOBUS_GRAM_PROTOCOL_ERROR_TEMP_SCRIPT_FILE_FAILED	the job manager failed to create an internal script submission file
29	GLOBUS_GRAM_PROTOCOL_ERROR_USER_PROXY_NOT_FOUND	the job manager cannot find the user proxy
30	GLOBUS_GRAM_PROTOCOL_ERROR_OPENING_USER_PROXY	the job manager failed to open the user proxy
31	GLOBUS_GRAM_PROTOCOL_ERROR_JOB_CANCEL_FAILED	the job manager failed to cancel the job as requested
32	GLOBUS_GRAM_PROTOCOL_ERROR_MALLOC_FAILED	system memory allocation failed
33	GLOBUS_GRAM_PROTOCOL_ERROR_DUCT_INIT_FAILED	the interprocess job communication initialization failed
34	GLOBUS_GRAM_PROTOCOL_ERROR_DUCT_LSP_FAILED	the interprocess job communication setup failed
35	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_HOST_COUNT	the provided RSL 'host count' value is invalid
36	GLOBUS_GRAM_PROTOCOL_ERROR_UNSUPPORTED_PARAMETER	one of the provided RSL parameters is unsupported
37	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_QUEUE	the provided RSL 'queue' parameter is invalid
38	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_PROJECT	the provided RSL 'project' parameter is invalid
39	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_EVALUATION_FAILED	the provided RSL string includes variables that could not be identified
40	GLOBUS_GRAM_PROTOCOL_ERROR_BAD_RSL_ENVIRONMENT	the provided RSL 'environment' parameter is invalid
41	GLOBUS_GRAM_PROTOCOL_ERROR_DRYRUN	the provided RSL 'dryrun' parameter is invalid
42	GLOBUS_GRAM_PROTOCOL_ERROR_ZERO_LENGTH_RSL	the provided RSL is invalid (an empty string)
43	GLOBUS_GRAM_PROTOCOL_ERROR_STAGING_EXECUTABLE	the job manager failed to stage the executable

GRAM Error Codes

#	Name	Description
44	GLOBUS_GRAM_PROTOCOL_ERROR_STAGING_STDIN	the job manager failed to stage the stdin file
45	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_JOB_MANAGER_TYPE	the requested job manager type is invalid
46	GLOBUS_GRAM_PROTOCOL_ERROR_BAD_ARGUMENTS	the provided RSL 'arguments' parameter is invalid
47	GLOBUS_GRAM_PROTOCOL_ERROR_GATEKEEPER_MISCONFIGURED	the gatekeeper failed to run the job manager
48	GLOBUS_GRAM_PROTOCOL_ERROR_BAD_RSL	the provided RSL could not be properly parsed
49	GLOBUS_GRAM_PROTOCOL_ERROR_VERSION_MISMATCH	there is a version mismatch between GRAM components
50	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_ARGUMENTS	the provided RSL 'arguments' parameter is invalid
51	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_COUNT	the provided RSL 'count' parameter is invalid
52	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_DIRECTORY	the provided RSL 'directory' parameter is invalid
53	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_DRYRUN	the provided RSL 'dryrun' parameter is invalid
54	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_ENVIRONMENT	the provided RSL 'environment' parameter is invalid
55	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_EXECUTABLE	the provided RSL 'executable' parameter is invalid
56	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_HOST_COUNT	the provided RSL 'host_count' parameter is invalid
57	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_JOBTYPE	the provided RSL 'jobtype' parameter is invalid
58	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_MAXTIME	the provided RSL 'maxtime' parameter is invalid
59	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_MYJOB	the provided RSL 'myjob' parameter is invalid
60	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_PARADYN	the provided RSL 'paradyn' parameter is invalid
61	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_PROJECT	the provided RSL 'project' parameter is invalid
62	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_QUEUE	the provided RSL 'queue' parameter is invalid
63	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_STDERR	the provided RSL 'stderr' parameter is invalid
64	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_STDIN	the provided RSL 'stdin' parameter is invalid
65	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_STDOUT	the provided RSL 'stdout' parameter is invalid

GRAM Error Codes

#	Name	Description
66	GLOBUS_GRAM_PROTOCOL_ERROR_OPENING_JOBMANAGER_SCRIPT	the job manager failed to locate an internal script
67	GLOBUS_GRAM_PROTOCOL_ERROR_CREATING_PIPE	the job manager failed on the system call pipe()
68	GLOBUS_GRAM_PROTOCOL_ERROR_FCNTL_FAILED	the job manager failed on the system call fcntl()
69	GLOBUS_GRAM_PROTOCOL_ERROR_STDOUT_FILENAME_FAILED	the job manager failed to create the temporary stdout filename
70	GLOBUS_GRAM_PROTOCOL_ERROR_STDERR_FILENAME_FAILED	the job manager failed to create the temporary stderr filename
71	GLOBUS_GRAM_PROTOCOL_ERROR_FORKING_EXECUTABLE	the job manager failed on the system call fork()
72	GLOBUS_GRAM_PROTOCOL_ERROR_EXECUTABLE_PERMISSIONS	the executable file permissions do not allow execution
73	GLOBUS_GRAM_PROTOCOL_ERROR_OPENING_STDOUT	the job manager failed to open stdout
74	GLOBUS_GRAM_PROTOCOL_ERROR_OPENING_STDERR	the job manager failed to open stderr
75	GLOBUS_GRAM_PROTOCOL_ERROR_OPENING_CACHE_USER_PROXY	the cache file could not be opened in order to relocate the user proxy
76	GLOBUS_GRAM_PROTOCOL_ERROR_OPENING_CACHE	cannot access cache files in ~/.globus/.gass_cache, check permissions, quota, and disk space
77	GLOBUS_GRAM_PROTOCOL_ERROR_INSERTING_CLIENT_CONTACT	the job manager failed to insert the contact in the client contact list
78	GLOBUS_GRAM_PROTOCOL_ERROR_CLIENT_CONTACT_NOT_FOUND	the contact was not found in the job manager's client contact list
79	GLOBUS_GRAM_PROTOCOL_ERROR_CONTACTING_JOB_MANAGER	connecting to the job manager failed. Possible reasons: job terminated, invalid job contact, network problems, ...
80	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_JOB_CONTACT	the syntax of the job contact is invalid
81	GLOBUS_GRAM_PROTOCOL_ERROR_UNDEFINED_EXE	the executable parameter in the RSL is undefined
82	GLOBUS_GRAM_PROTOCOL_ERROR_CONDOR_ARCH	the job manager service is misconfigured. condor arch undefined
83	GLOBUS_GRAM_PROTOCOL_ERROR_CONDOR_OS	the job manager service is misconfigured. condor os undefined
84	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_MIN_MEMORY	the provided RSL 'min_memory' parameter is invalid
85	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_MAX_MEMORY	the provided RSL 'max_memory' parameter is invalid
86	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_MIN_MEMORY	the RSL 'min_memory' value is not zero or greater

GRAM Error Codes

#	Name	Description
87	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_MAX_MEMORY	the RSL 'max_memory' value is not zero or greater
88	GLOBUS_GRAM_PROTOCOL_ERROR_HTTP_FRAME_FAILED	the creation of a HTTP message failed
89	GLOBUS_GRAM_PROTOCOL_ERROR_HTTP_UNFRAME_FAILED	parsing incoming HTTP message failed
90	GLOBUS_GRAM_PROTOCOL_ERROR_HTTP_PACK_FAILED	the packing of information into a HTTP message failed
91	GLOBUS_GRAM_PROTOCOL_ERROR_HTTP_UNPACK_FAILED	an incoming HTTP message did not contain the expected information
92	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_JOB_QUERY	the job manager does not support the service that the client requested
93	GLOBUS_GRAM_PROTOCOL_ERROR_SERVICE_NOT_FOUND	the gatekeeper failed to find the requested service
94	GLOBUS_GRAM_PROTOCOL_ERROR_JOB_QUERY_DENIAL	the jobmanager does not accept any new requests (shutting down)
95	GLOBUS_GRAM_PROTOCOL_ERROR_CALLBACK_NOT_FOUND	the client failed to close the listener associated with the callback URL
96	GLOBUS_GRAM_PROTOCOL_ERROR_BAD_GATEKEEPER_CONTACT	the gatekeeper contact cannot be parsed
97	GLOBUS_GRAM_PROTOCOL_ERROR_POE_NOT_FOUND	the job manager could not find the 'poe' command
98	GLOBUS_GRAM_PROTOCOL_ERROR_MPIRUN_NOT_FOUND	the job manager could not find the 'mpirun' command
99	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_START_TIME	the provided RSL 'start_time' parameter is invalid
100	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_RESERVATION_HANDLE	the provided RSL 'reservation_handle' parameter is invalid
101	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_MAX_WALL_TIME	the provided RSL 'max_wall_time' parameter is invalid
102	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_MAX_WALL_TIME	the RSL 'max_wall_time' value is not zero or greater
103	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_MAX_CPU_TIME	the provided RSL 'max_cpu_time' parameter is invalid
104	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_MAX_CPU_TIME	the RSL 'max_cpu_time' value is not zero or greater
105	GLOBUS_GRAM_PROTOCOL_ERROR_JM_SCRIPT_NOT_FOUND	the job manager is misconfigured, a scheduler script is missing
106	GLOBUS_GRAM_PROTOCOL_ERROR_JM_SCRIPT_PERMISSIONS	the job manager is misconfigured, a scheduler script has invalid permissions
107	GLOBUS_GRAM_PROTOCOL_ERROR_SIGNALING_JOB	the job manager failed to signal the job
108	GLOBUS_GRAM_PROTOCOL_ERROR_UNKNOWN_SIGNAL_TYPE	the job manager did not recognize/support the signal type

GRAM Error Codes

#	Name	Description
109	GLOBUS_GRAM_PROTOCOL_ERROR_GETTING_JOBID	the job manager failed to get the job id from the local scheduler
110	GLOBUS_GRAM_PROTOCOL_ERROR_WAITING_FOR_COMMIT	the job manager is waiting for a commit signal
111	GLOBUS_GRAM_PROTOCOL_ERROR_COMMIT_TIMED_OUT	the job manager timed out while waiting for a commit signal
112	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_SAVE_STATE	the provided RSL 'save_state' parameter is invalid
113	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_RESTART	the provided RSL 'restart' parameter is invalid
114	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_TWO_PHASE_COMMIT	the provided RSL 'two_phase' parameter is invalid
115	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_TWO_PHASE_COMMIT	the RSL 'two_phase' value is not zero or greater
116	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_STDOUT_POSITION	the provided RSL 'stdout_position' parameter is invalid
117	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_STDOUT_POSITION	the RSL 'stdout_position' value is not zero or greater
118	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_STDERR_POSITION	the provided RSL 'stderr_position' parameter is invalid
119	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_STDERR_POSITION	the RSL 'stderr_position' value is not zero or greater
120	GLOBUS_GRAM_PROTOCOL_ERROR_RESTART_FAILED	the job manager restart attempt failed
121	GLOBUS_GRAM_PROTOCOL_ERROR_NO_STATE_FILE	the job state file doesn't exist
122	GLOBUS_GRAM_PROTOCOL_ERROR_READING_STATE_FILE	could not read the job state file
123	GLOBUS_GRAM_PROTOCOL_ERROR_WRITING_STATE_FILE	could not write the job state file
124	GLOBUS_GRAM_PROTOCOL_ERROR_OLD_JM_ALIVE	old job manager is still alive
125	GLOBUS_GRAM_PROTOCOL_ERROR_TTL_EXPIRED	job manager state file TTL expired
126	GLOBUS_GRAM_PROTOCOL_ERROR_SUBMIT_UNKNOWN	it is unknown if the job was submitted
127	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_REMOTE_IO_URL	the provided RSL 'remote_io_url' parameter is invalid
128	GLOBUS_GRAM_PROTOCOL_ERROR_WRITING_REMOTE_IO_URL	could not write the remote io url file
129	GLOBUS_GRAM_PROTOCOL_ERROR_STDIO_SIZE	the standard output/error size is different
130	GLOBUS_GRAM_PROTOCOL_ERROR_JM_STOPPED	the job manager was sent a stop signal (job is still running)

#	Name	Description
131	GLOBUS_GRAM_PROTOCOL_ERROR_USER_PROXY_EXPIRED	the user proxy expired (job is still running)
132	GLOBUS_GRAM_PROTOCOL_ERROR_JOB_UNSUBMITTED	the job was not submitted by original jobmanager
133	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_COMMIT	the job manager is not waiting for that commit signal
134	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_SCHEDULER_SPECIFIC	the provided RSL scheduler specific parameter is invalid
135	GLOBUS_GRAM_PROTOCOL_ERROR_STAGE_IN_FAILED	the job manager could not stage in a file
136	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_SCRATCH	the scratch directory could not be created
137	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_CACHE	the provided 'gass_cache' parameter is invalid
138	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_SUBMIT_ATTRIBUTE	the RSL contains attributes which are not valid for job submission
139	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_STDIO_UPDATE_ATTRIBUTE	the RSL contains attributes which are not valid for stdio update
140	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_RESTART_ATTRIBUTE	the RSL contains attributes which are not valid for job restart
141	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_FILE_STAGE_IN	the provided RSL 'file_stage_in' parameter is invalid
142	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_FILE_STAGE_IN_SHARED	the provided RSL 'file_stage_in_shared' parameter is invalid
143	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_FILE_STAGE_OUT	the provided RSL 'file_stage_out' parameter is invalid
144	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_GASS_CACHE	the provided RSL 'gass_cache' parameter is invalid
145	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_FILE_CLEANUP	the provided RSL 'file_cleanup' parameter is invalid
146	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_SCRATCH	the provided RSL 'scratch_dir' parameter is invalid
147	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_SCHEDULER_SPECIFIC	the provided scheduler-specific RSL parameter is invalid
148	GLOBUS_GRAM_PROTOCOL_ERROR_UNDEFINED_ATTRIBUTE	a required RSL attribute was not defined in the RSL spec
149	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_CACHE	the gass_cache attribute points to an invalid cache directory
150	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_SAVE_STATE	the provided RSL 'save_state' parameter has an invalid value
151	GLOBUS_GRAM_PROTOCOL_ERROR_OPENING_VALIDATION_FILE	the job manager could not open the RSL attribute validation file
152	GLOBUS_GRAM_PROTOCOL_ERROR_READING_VALIDATION_FILE	the job manager could not read the RSL attribute validation file

GRAM Error Codes

#	Name	Description
153	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_PROXY_TIMEOUT	the provided RSL 'proxy_timeout' is invalid
154	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_PROXY_TIMEOUT	the RSL 'proxy_timeout' value is not greater than zero
155	GLOBUS_GRAM_PROTOCOL_ERROR_STAGE_OUT_FAILED	the job manager could not stage out a file
156	GLOBUS_GRAM_PROTOCOL_ERROR_JOB_CONTACT_NOT_FOUND	the job contact string does not match any which the job manager is handling
157	GLOBUS_GRAM_PROTOCOL_ERROR_DELEGATION_FAILED	proxy delegation failed
158	GLOBUS_GRAM_PROTOCOL_ERROR_LOCKING_STATE_LOCK_FILE	the job manager could not lock the state lock file
159	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_ATTR	an invalid globus_io_clientattr_t was used.
160	GLOBUS_GRAM_PROTOCOL_ERROR_NULL_PARAMETER	an null parameter was passed to the gram library
161	GLOBUS_GRAM_PROTOCOL_ERROR_STILL_STREAMING	the job manager is still streaming output
162	GLOBUS_GRAM_PROTOCOL_ERROR_AUTHORIZATION_DENIED	the authorization system denied the request
163	GLOBUS_GRAM_PROTOCOL_ERROR_AUTHORIZATION_SYSTEM_FAILURE	the authorization system reported a failure
164	GLOBUS_GRAM_PROTOCOL_ERROR_AUTHORIZATION_DENIED_JOB_ID	the authorization system denied the request - invalid job id
165	GLOBUS_GRAM_PROTOCOL_ERROR_AUTHORIZATION_DENIED_EXECUTABLE	the authorization system denied the request - not authorized to run the specified executable
166	GLOBUS_GRAM_PROTOCOL_ERROR_RSL_USER_NAME	the provided RSL 'user_name' parameter is invalid.
167	GLOBUS_GRAM_PROTOCOL_ERROR_INVALID_USER_NAME	the job is not running in the account named by the 'user_name' parameter

Chapter 7. Usage Scenarios

There is no content available at this time.

Chapter 8. Troubleshooting

Globus Toolkit 2.x Error FAQ¹

¹ http://www.globus.org/toolkit/docs/2.4/faq_errors.html