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UMD CLIENT QUALITY CRITERIA v3 DRAFT 2

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| Document identifier: | EGI-CLIENT-QC-V3-DRAFT2.doc |
| Date: | 26/01/2012 |
| Document Link: | https://documents.egi.eu/document/718 |

Abstract

This document describes the Quality Criteria for the Client Capabilities of the UMD distribution must meet.



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Document Log

| Issue | Date | Comment | Author/Partner |
|-----------|------------|----------------------------|----------------|
| 2 DRAFT 1 | 15/02/2011 | Preparation of new release | Enol Fernández |
| 2 DRAFT 2 | 01/07/2011 | Update of client criteria | Enol Fernández |
| 2 | 02/08/2011 | Release of criteria | Enol Fernández |
| 3 DRAFT 1 | 13/10/2011 | First draft of release 3 | Enol Fernández |
| 3 DRAFT 2 | 24/01/2012 | Second draft of release 3 | Enol Fernández |



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1 CLIENT TOOLS

1.1 Generic client tools criteria

| Command line options coherency | |
|---------------------------------------|---|
| ID | CLIENT_TOOLS_1 |
| Description | Client commands for the same product should have a coherent set of options. |
| Mandatory | NO |
| Applicability | Client Tools |
| Input from Technology Provider | Client command tools for a given product with coherent options between them (e.g. configuration file is always specified with <code>-c</code> option, vo with <code>-vo</code> option) Ideally, coherency with other product command line clients. |
| Pass/Fail Criteria | All the command tools for a given product must have a coherent command line options. Semantically common options for two commands must have the same syntax. |
| Related Information | Requirement #1780 |
| Revision Log | |

| Error Messages | |
|---------------------------------------|--|
| ID | CLIENT_TOOLS_2 |
| Description | Error messages provided by the service should be clear and facilitate the solution of those errors by users or service administrators |
| Mandatory | NO |
| Applicability | Client tools. |
| Input from Technology Provider | Any error in the client tools must produce a clear error message. A possible solution/cause for it should be given. |
| Pass/Fail Criteria | <p>Pass if the errors provided by the client tools always produce a descriptive message. Errors without any message (unless a quiet option is specified) will make the criterion to fail.</p> <p>Ideally the following info is also documented/shown for all errors:</p> <ul style="list-style-type: none"> • Error code • Error source (internal module or remote resource (specify it explicitly)) • Cause of error (syntax error, module malfunctioning, configuration problem, network error, other (specify it explicit)) • Type (critical, informative) • Possible solution |
| Related Information | Requirements gathered in MS305 related to resubmission of jobs, and information provided in error messages. |
| Revision Log | |

2 CLIENT API

| SAGA API Support | |
|---------------------------------------|---|
| ID | CLIENT_API_1 |
| Description | Client Appliances should be “SAGA compliant” implementations of the SAGA API |
| Mandatory | YES |
| Applicability | Client API Appliances |
| Input from Technology Provider | A Client API Capability implementations that follows the SAGA API specification, and the language binding(s) for its respective programming language(s), both syntactically and semantically. |
| Pass/Fail Criteria | The Client API Appliance provides “SAGA compliant” implementations or “partially SAGA compliant” implementations as defined in the SAGA API specification. |
| Related Information | SAGA API [R 18] |
| Revision Log | |

| Middleware Bindings | |
|---------------------------------------|--|
| ID | CLIENT_API_2 |
| Description | Technology Providers provide middleware bindings for accessing their products through SAGA |
| Mandatory | NO |
| Applicability | Client API Appliances |
| Input from Technology Provider | SAGA-adaptor for accessing the middleware products provided by the TP. A test-suite that assures that the SAGA-adaptor works as expected should be provided. |
| Pass/Fail Criteria | The SAGA-adaptor allows the access to the TP middleware through the SAGA API. |
| Related Information | SAGA API [R 18][R 19] |
| Revision Log | |

2.1 Specific SAGA Bindings

2.1.1 BES

| BES Bindings | |
|---------------------------------------|---|
| ID | CLIENT_API_BES_1 |
| Description | SAGA bindings should provide remote execution using BES. |
| Mandatory | YES |
| Applicability | Client API Appliances with BES bindings |
| Input from Technology Provider | SAGA-adaptor for accessing BES resources (various URL schemes) that provides job abstraction, using |
| Pass/Fail Criteria | The SAGA-adaptor allows: - Running and managing jobs at remote resources (via BES) using |
| Related Information | SAGA API [R 18][R 19] |
| Revision Log | |

2.1.2 Globus

| Globus GRAM Bindings | |
|---------------------------------------|--|
| ID | CLIENT_API_GLOBUS_1 |
| Description | Globus bindings should provide remote files access using Globus. |
| Mandatory | YES |
| Applicability | Client API Appliances with Globus bindings |
| Input from Technology Provider | SAGA-adaptor for accessing Globus resources via gram (URL scheme gram://) that provides job abstraction. |
| Pass/Fail Criteria | The SAGA-adaptor allows: <ul style="list-style-type: none">- Use of X.509 context- Running and managing jobs at remote resources (via gram) |
| Related Information | SAGA API [R 18][R 19] |
| Revision Log | |

| Globus GridFTP Bindings | |
|---------------------------------------|--|
| ID | CLIENT_API_GLOBUS_2 |
| Description | Globus bindings should provide remote file access using GridFTP |
| Mandatory | YES |
| Applicability | Client API Appliances with Globus bindings |
| Input from Technology Provider | SAGA-adaptor for accessing files resources via GridFTP (URL scheme gsiftp://, gsiscp://) that provides file abstraction. |
| Pass/Fail Criteria | The SAGA-adaptor allows: <ul style="list-style-type: none">- Use of X.509 context- File operations: reading, writing, copying and modifying remote files and directories using GridFTP. |
| Related Information | SAGA API [R 18][R 19] |
| Revision Log | |

2.1.3 SSH

| SSH Bindings | |
|---------------------------------------|--|
| ID | CLIENT_API_SSH_1 |
| Description | SSH bindings should provide remote execution and file access using SSH. |
| Mandatory | YES |
| Applicability | Client API Appliances with SSH bindings |
| Input from Technology Provider | SAGA-adaptor for accessing SSH resources (URL scheme ssh://) that provides job and file abstraction. |
| Pass/Fail Criteria | The SAGA-adaptor allows: <ul style="list-style-type: none">- Running jobs at remote resources (via ssh)- File operations: reading, writing, copying and modifying remote files and directories using ssh. |
| Related Information | SAGA API [R 18][R 19] |
| Revision Log | |

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