

Validation Error Code

This tool allows the validation of an Object that is publicly reachable by the tool: http://dev_devtoolkit.openmobilealliance.org/OEditor/OMNAVVerify

- The error codes relevant to single Object Validation are from (403 to 499).
- In addition, the user needs to validate by hand the criteria provided by error codes (400 to 402).

The information in the OMNA LwM2M Registry is contained in two files:

- DDF.xml: this file contains all the Object information that is displayed in the [OMA LwM2M registry](#) (with the exception of the Reusable Resources that are contained in the "Common.xml" file).
- Common.xml: this file contains the Reusable Resources information that is displayed in the [OMA LwM2M registry](#).

Error Codes

General Requirements

Fault ID.	Resolve By	Description
001	Maintainer	It cannot be downloaded from the Registry API.
002	Maintainer	<ol style="list-style-type: none">1. Internal server error, Unknown error code when finding files from the repository to validate2. Other errors that prevent the validator to validate the remaining tasks3. The validation tool is configured to not do full validation of external links, for example, the object contains a link to the TS but the validation is requested to ignore validating that
005	Maintainer	SenML units were not possible to load and therefore not used during validation
010	Maintainer	The API does not return the same number of objects for DDF.XML
011	Maintainer	The API does not return the same number of resources for Common.XML - NOT SUPPORTED, THE API DOES NOT SUPPORT Common.XML
021	Maintainer	The XML File is NOT 1) well-formatted or 2) valid according to the schema in DDF.XML
022	Maintainer	The XML File is NOT 1) well-formatted or 2) valid according to the schema in Common.XML
023	Maintainer	Validate that the API return MIME Type application/json
031	Maintainer	Validate that the file contains at least one object in DDF.XML
032	Maintainer	Validate that the file contains at least one resource in Common.XML
041	Maintainer	Invalid content or element that is not expected in DDF.XML
050	Maintainer	Indicate that there are one or more files in the repository that does not exist in DDF.xml.

Elements in the DDF.xml

Fault ID	Resolve By	Elements	Description
200	Maintainer	ObjectID	Version is the same between two objects with the same Object ID
201	Maintainer		Name is different for a different version of the same Object ID
202	Maintainer		The description is different for a different version of the same Object ID
210	Maintainer	URN	<p>The URN or ObjectID not correct according to the Technical Specification</p> <p>The URN or Source category is not correct according to the Technical Specification</p> <p>The URN or Ver is not correct according to the Technical Specification</p> <p>The ID is not in the range allowed by Source</p>
220	Maintainer	Name	Is not allowed to be empty
230	Maintainer	Description	Is not allowed to be empty
240	Maintainer	Owner	Is not allowed to be empty

250	Maintainer	Source	Is not allowed to be empty
251	Maintainer		Must be either "0", "1" or "2" without quotes
260	Maintainer	Ver	Must be either empty or 3 character with the format <Digit>.<Digit> according to the Technical Specification
270	Submitter	DDF	Must be either Empty or a valid link that does not return HTTP 404 (Not Found) and any error while downloading the object or processing the object
271	Maintainer		The MIME type of the response must be text/xml
272	Submitter		The link contains an invalid Object
273	Submitter		The link should contain an Object with a minimum of one resource
274	Maintainer		For each entry in the <DDF> element there MUST be a file name <ObjectID>-<Ver> in the "version_history" folder. "The error is the file for this ObjectID is missing from the "version_history" folder" or the content of both Objects are not the same. In addition these are possible issues: 1. An Object that is not the latest version MUST be prefixed with "version_history" 2. An Object that is the latest version MUST NOT be prefixed with "version_history"
275	Maintainer		Previous version exist twice, which is not allowed
276	Maintainer		Previous version missing. For example if an object contains ver 2.4, then the following version must exist: 2.3, 2.2, 2.1, 2.0, 1.0
280	n/a	LWM2M (Void)	Must either be empty if DDF is empty or a valid link to the tool with the URL to load the object into the tool A valid URL must start with the call to the tool: http://devtoolkit.openmobilealliance.org/OEditor/LWMOView?url= Followed by the URL, (URL-encoded), to the Object. For example http://devtoolkit.openmobilealliance.org/OEditor/LWMOView?url=http%3A%2F%2Fwww.openmobilealliance.org%2Ftech%2Fprofiles%2FLWM2M_APN_connection_profile-v1_0.xml Note: this error code is not longer in used. The element that contained the link to the LwM2M Editor was removed from the DDF.
290	Maintainer	Vorto	Must be either Empty or a valid link that does not return HTTP 404 (Not Found)
291	n/a		DISABLED - The MIME Type of the response must not be "html" to avoid web page with HTTP 404
300	Maintainer	DDFLink	Is not allowed to be empty
301	Maintainer		Must be either "0", or "1" without the quotes
310	Maintainer	TS	Technical Specification (TS) must be either empty or a valid link that does not return HTTP 404 (Not Found)
311	n/a		DISABLED - The MIME Type of the response must not be "html" to avoid web page with HTTP 404
320	Maintainer	TSLink	Is not allowed to be empty
321	Maintainer		Must be either "0", or "1" without the quotes
330	Submitter	LicenseType	Under development Must either be empty or string - Will not be verified, empty or non-existing is treated equally Note: to be changed to, it cannot be empty
400	Submitter	Content of Object	"ObjectID" inside the object is not the same as in the DDF.XML File
401	Submitter		"Object URN" inside the object is not the same as in the DDF.XML File
402	Submitter		"Object Name" inside the object is not the same as in the DDF.XML File
403	Submitter		Incorrect content of LWM2MVersion
404	Submitter		Non-existent xml schema reference
405	Submitter		Invalid XML schema reference.
406	Submitter		The object is missing Line Feed (LF) characters in the end of the file
407	Submitter		Object contains Carriage Return (CR) which is not allowed in LwM2M Object and Resource Registry and is required in Object XML files
408	Submitter		Object missing several Line Feed (LF), which is not allowed
700	Submitter		Invalid XML characters in Description1 , e.g. usage of smart quotes ("ExtDevInfo") rather than straight quotes ("ExtDevInfo")
701	Maintainer		The Description1 in the DDF and in the Object doesn't match
705	Submitter		Invalid XML characters in Description2 , e.g. usage of smart quotes ("ExtDevInfo") rather than straight quotes ("ExtDevInfo")

410	Submitter	Content of the objects resources	Empty Name
411	Submitter		Invalid Operations according to the Technical Specification (TS)
412	Submitter		Invalid Type according to the Technical Specification (TS)
413	Submitter		Invalid Type for an resource with Operation = "E" (Execute). Also, "E" operation, MUST have "Single" as value of the "Instances" field as indicated in the TS.
414	Submitter		Invalid MultipleInstances value
415	Submitter		Invalid Mandatory value
416	Submitter		Empty Description
420	Submitter		Invalid XML characters in Description , e.g. usage of smart quotes ("ExtDevInfo") rather than straight quotes ("ExtDevInfo")
417	Submitter		Invalid Unit value according to SenML
418	Submitter		In the description of a range it is not possible to use "-" or "to" instead it should be used ".." <ul style="list-style-type: none">• Correct Example: "0..23"• Incorrect: "0 to 23"
450	Submitter	Content of the object's reusable resources	The object uses an non existing reusable resource
451	Submitter		Same reusable resource already included
460	Submitter		Mismatch with reusable resources on: Name
461	Submitter		Mismatch with reusable resources on: Operation
462	Submitter		Mismatch with reusable resources on: Type
463	Submitter		Mismatch with reusable resources on: RangeEnumeration
464	Submitter		Mismatch with reusable resources on: Unit
465	Submitter		Mismatch with reusable resources on: Description <ul style="list-style-type: none">• Ignore blank space, tab character, line feed and new line character.• This rule implies that description doesn't change the meaning.

Elements in the Common.xml

Fault ID	Resolve by	Element	Description
500	Maintainer	Item ID	The ID is already used in another registration, it must be unique
501	Maintainer		The ID is not in the range of (2048 - 26240)
510	Maintainer	Name	Is not allowed to be empty
520	Submitter	Operations	Invalid Operations according to the Technical Specification, TS
530	Submitter	Type	Invalid Type according to the Technical Specification, TS
531	Submitter		Invalid Type for an resource with Operation = "E" (Executable)
540	n/a	RangeEnumeration	N/A, No validation done
541	Submitter		In the description of a range it is not possible to use "-" or "to" instead it should be used ".." <ul style="list-style-type: none">• Correct Example: "0..23"• Incorrect: "0 to 23"
551	Submitter	Units	Invalid Unit according to SenML
570	Submitter	Description	Is not allowed to be empty
571	Maintainer		VOID. Description is not CDATA encoded
580	Maintainer	TS	Technical Specification (TS), must be either Empty or a valid link that does not return HTTP 404 (Not Found)
581	Maintainer		The MIME Type of the response must not be "html" to avoid web page with HTTP 404
590	Maintainer	TSLink	Is not allowed to be empty
591	Maintainer		Must be either "0" or "1" without quotes
601	Submitter	Name	Invalid XML characters in Name , e.g. "smart quotes"
602	Submitter	Description	Invalid XML characters in Description , e.g. "smart quotes"

603	Submitter	TS Link	Invalid XML characters in TS Link
604	Submitter	Operations	Invalid XML characters in Operations according to the Microsoft XML parser in addition "smart quotes" will generate this error.
605	Submitter	TS	Invalid XML characters in Technical Specification (TS), e.g. "smart quotes"

Elements inside of the Object

Fault ID	Resolve By	Elements	Description
800	Submitter	LwM2MVersion or ObjectVersion	One or both of these elements (LwM2MVersion, ObjectVersion) are missing from the Object.