tmforum

TM Forum Specification

Test Result API
Conformance Profile

TMF707B

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NOTICE

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INTRODUCTION - API DESCRIPTION

This API provides a standardized mechanism for the management of test results. These include Test Case Results, Test Suite Results, and Non-functional Test Results.

RESOURCE MODEL CONFORMANCE

API MANDATORY RESOURCES

The following table indicates the mandatory resources for this API.

Resource Name	Comment
TestCaseResult	Mandatory unless the NonFunctionalTestResult or the TestSuiteResult resource is present
TestSuiteResult	Mandatory unless the TestCaseResult or the NonFunctionalTestResult resource is present
NonFunctionalTestResult	Mandatory unless the TestCaseResult or the TestSuiteResult resource is present

General Notes on Resource Attribute Conformance

There are three situations that could occur for an attribute:

o   Mandatory attribute,
o   Mandatory attribute if the optional parent attribute is present,
o   Non-mandatory/Optional attribute. Those are all the other attributes not mentioned in the following subsections. Please refer to the corresponding API REST Specification for more details.

- The tables in the subsections below indicate which attributes are mandatory including mandatory when an optional parent is present.
- Where a resource is an input into an API (e.g. POST, PATCH), Mandatory means that the attribute value must be supplied by the API consumer in the input (and must not be blank or null).
- Where a resource is an output from an API (e.g. GET, POST), Mandatory means that the attribute value must be supplied by the API provider in the output (and must not be blank or null).
- For a sub-resource that is not an array, Mandatory (cardinality 1..1) means that the sub-resource must be present, while Optional (cardinality 0..1) means that the sub-resource may be absent. Mandatory and Optional on the sub-resource attributes apply to the sub-resource if present.
- For a sub-resource that is an array, Mandatory (cardinality 1..*) means that at least one sub-resource must be present in the array, while Optional (cardinality 0..*) means that the array may be absent. Mandatory and Optional on the sub-resource attributes apply to each of the sub-resources if present.

In this table are listed all mandatory attributes. A mandatory attribute MUST be retrieved in resource representation when no attribute selection is used (e.g., GET /../{id}) without any attribute selection.

When an attribute is listed with an indentation (in second column) it means this attribute is mandatory if root (parent) attribute is present.

TestCaseResult Resource Mandatory Attributes

Mandatory attribute when parent is present	Rule
href	M (in response messages)
id	M (in response messages)
testCaseResultDefinition	M
testExecution	M
testEnvironmentProvisioningExecution	M
testExecution.testEnvironmentProvisioningExecution	M
testEnvironmentAllocationExecution	M
testExecution.testEnvironmentProvisioningExecution. testEnvironmentAllocationExecution	M
resourceManagerUrl	M
testExecution.testEnvironmentProvisioningExecution. testEnvironmentAllocationExecution.abstractEnvironment (if present)	
id	M
testExecution.testEnvironmentProvisioningExecution. testEnvironmentAllocationExecution.concreteResourceMapping.concreteResource (if present)	Array of ConcreteResource
name	M
testExecution.testEnvironmentProvisioningExecution. testEnvironmentAllocationExecution.generalTestArtifact (if present)	Array of GeneralTestArtifactRef
id	M

Mandatory attribute when parent is present	Rule
testExecution.testEnvironmentProvisioningExecution. testEnvironmentAllocationExecution.testScenario (if present)	
id	M
testExecution.testEnvironmentProvisioningExecution. generalTestArtifact (if present)	Array of GeneralTestArtifactRef See conditions for GeneralTestArtifactRef at testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact
testExecution.testEnvironmentProvisioningExecution. provisioningArtifact (if present)	Array of ProvisioningArtifactRef
id	M
testExecution.generalTestArtifact (if present)	Array of GeneralTestArtifactRef See conditions for GeneralTestArtifactRef at testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact
testExecution.testCase (if present)	
id	M
testExecution.testDataInstance (if present)	Array of TestDataInstanceRef
id	M

TestSuiteResult Resource Mandatory Attributes

Mandatory attribute when parent is present	Rule
href	M (in response messages)
id	M (in response messages)
testSuiteResultDefinition	M

Mandatory attribute when parent is present	Rule
testExecution	M
testEnvironmentProvisioningExecution	M
testExecution.testEnvironmentProvisioningExecution	M
testEnvironmentAllocationExecution	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution	M
resourceManagerUrl	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.abstractEnvironment (if present)	
id	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.concreteResourceMapping.concreteResource (if present)	Array of ConcreteResource
name	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact (if present)	Array of GeneralTestArtifactRef
id	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.testScenario (if present)	
id	M
testExecution.testEnvironmentProvisioningExecution.generalTestArtifact (if present)	Array of GeneralTestArtifactRef See conditions for GeneralTestArtifactRef at testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact

Mandatory attribute when parent is present	Rule
testExecution.testEnvironmentProvisioningExecution. provisioningArtifact (if present)	Array of ProvisioningArtifactRef
id	M
testExecution.generalTestArtifact (if present)	Array of GeneralTestArtifactRef See conditions for GeneralTestArtifactRef at testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact
testExecution.testDataInstance (if present)	Array of TestDataInstanceRef
id	M
testExecution.testSuite (if present)	
id	M

NonFunctionalTestResult Resource Mandatory Attributes

Mandatory attribute when parent is present	Rule
href	M (in response messages)
id	M (in response messages)
nonFunctionalTestResultDefinition	M
testExecution	M
testEnvironmentProvisioningExecution	M
testExecution.testEnvironmentProvisioningExecution	M
testEnvironmentAllocationExecution	M
testExecution.testEnvironmentProvisioningExecution. testEnvironmentAllocationExecution	M
resourceManagerUrl	M

Mandatory attribute when parent is present		Rule
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.abstractEnvironment (if present)		
	id	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.concreteResourceMapping.concreteResource (if present)		Array of ConcreteResource
	name	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact (if present)		Array of GeneralTestArtifactRef
	id	M
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.testScenario (if present)		
	id	M
testExecution.testEnvironmentProvisioningExecution.generalTestArtifact (if present)		Array of GeneralTestArtifactRef See conditions for GeneralTestArtifactRef at testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact
testExecution.testEnvironmentProvisioningExecution.provisioningArtifact (if present)		Array of ProvisioningArtifactRef
	id	M
testExecution.generalTestArtifact (if present)		Array of GeneralTestArtifactRef See conditions for GeneralTestArtifactRef at testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.generalTestArtifact

Mandatory attribute when parent is present		Rule
testExecution.nonFunctionalTestModel (if present)		
	id	M
testExecution.testDataInstance (if present)		Array of TestDataInstanceRef
	id	M

API OPERATIONS CONFORMANCE

For every single resource the following tables includes mandatory operations.

TestCaseResult Mandatory Operations

The following table indicates which ones are mandatory for the TestCaseResult resource:

Uniform API Operation
GET
POST

TestSuiteResult Mandatory Operations

The following table indicates which ones are mandatory for the TestSuiteResult resource:

Uniform API Operation
GET
POST

NonFunctionalTestResult Mandatory Operations

The following table indicates which ones are mandatory for the NonFunctionalTestResult resource:

Uniform API Operation
GET
POST

API GET OPERATION CONFORMANCE

All the GET operations in this API share the same status code pattern.

GET	Mandatory/Optional
Response Status Code 200 if successful	M
Response Status Code 404 if not found	M

Definitions for Filter

The following definitions apply to all the GET operations:

- Filtered Search: A filtered search can be applied using query parameters to obtain only the resources that meet the criteria defined by the filtering parameters included in the query request. Several elements can be applied to the filtered search. In that case logic, a logical AND is applied to combine the criteria (e.g.:?severity=<value>&status=<value>).
- Attribute selection (Limiting Response Data): In order to limit which attributes are included in the response, the GET request can include the ?fields= query parameter. Only those attributes whose names are supplied in this parameter will be returned. Attribute selection capabilities are the same for collections retrieval and individual resource queries.
- Level: The filtering and attribute selection can apply to the top level properties (attributes) and subproperties. The tables below show which attributes need to be supported in top-level or contained resources.

GET /testCaseResult?fields=…&{filtering}

This operation list or find TestCaseResult entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /testCaseResult/{id}?fields=…&{filtering}

This operation retrieves a TestCaseResult entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /testSuiteResult?fields=…&{filtering}

This operation list or find TestSuiteResult entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /testSuiteResult/{id}?fields=…&{filtering}

This operation retrieves a TestSuiteResult entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /nonFunctionalTestResult?fields=…&{filtering}

This operation list or find NonFunctionalTestResult entities

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

GET /nonFunctionalTestResult/{id}?fields=…&{filtering}

This operation retrieves a NonFunctionalTestResult entity. Attribute selection is enabled for all first level attributes.

Attribute selection is mandatory for all first level attributes except for the href attribute.

Filtering on sub-resources is optional for all compliance levels

API POST OPERATION CONFORMANCE

All the POST operations in this API share the same status code pattern.

POST	Mandatory/Optional
Status Code 201 if resource created	M

POST /testCaseResult

This operation creates a TestCaseResult entity.

The following table provides the list of mandatory attributes when creating an instance of the TestCaseResult resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
testCaseResultDefinition	
testExecution	
testExecution.testEnvironmentProvisioningExecution	
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution	
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.resourceManagerUrl	

POST /testSuiteResult

This operation creates a TestSuiteResult entity.

The following table provides the list of mandatory attributes when creating an instance of the TestSuiteResult resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
testExecution	
testExecution.testEnvironmentProvisioningExecution	

Mandatory Attributes	Rule
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution	
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.resourceManagerUrl	
testSuiteResultDefinition	

POST /nonFunctionalTestResult

This operation creates a NonFunctionalTestResult entity.

The following table provides the list of mandatory attributes when creating an instance of the NonFunctionalTestResult resource, including any possible rule, conditions and applicable default values.

Mandatory Attributes	Rule
nonFunctionalTestResultDefinition	
testExecution	
testExecution.testEnvironmentProvisioningExecution	
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution	
testExecution.testEnvironmentProvisioningExecution.testEnvironmentAllocationExecution.resourceManagerUrl	

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