RM Studio Web API 1.0

Introduction

The RM Studio Web API provides a REST-ful interface for interacting with data in an RM Studio database. The API has built in functionality for logging and access control of operations and modifications.

To use the API, you need a valid RM Studio license with the API feature enabled.

Authentication

An RM Studio user account is required to authenticate and interact with the API. The API uses **Basic authentication** scheme with the RM Studio username and password to auhenticate requests. An authorization header should be sent with every request on the form

```
Authorization: Basic base64(username:password)
```

Where `base64(username:password)` represents the username an password concatenated with a colon (:) with base64 encoding.

A Windows authenticated user cannot be used with the API at this point.

Full URI list

URI	Method
/Assessments	GET
/Assessments/{id}	GET
/Assessments/{id}/Assets	GET
/Assessments/{id}/Risks	GET
/Assessments/{id}/Calculations	GET
/Assessments/{id}/AssetEvaluations	GET
/Assessments/{id}/RiskEvaluations	GET
/Assessments/New?id_BusinessEntity={id_BusinessEntity}&id_RiskProfile={id_RiskProfile}	GET
/Assessments/{id}/CheckOut	POST
/Assessments/{id}/CheckIn	POST
/Assessments	POST
/Assets	GET
/Assets/{id}	GET
/Asset/{id}/AssetCategories	GET
/Categories	GET
/BusinessEntities	GET
/BusinessEntities/{id}	GET
/Contacts	GET
/Contacts/Active	GET
/RiskProfiles	GET
/RiskProfiles/{id}	GET
/RiskProfiles/Templates/{id}	GET
/RiskProfiles/Templates/{id}/Factors	GET
/RiskProfiles/Template/{id}/Values	GET
/Threats	GET
/Threats/Types	GET

Detailed Documentation

Assessments

Value	Description
URI	/Assessments
Method	GET
Description	Gets a list of all Assessments that the user is allowed to view
Auth. operation	View Assessment
URI Parameters	None
Returns (Body)	A collection of Assessment items: ```[
{
"id Assessment" : 1, ...
},
{
"id_Assessment" : 2, ...
}, ...
]```
Return codes	200 = Success 401 = Incorrect authentication 403 = Unauthorized to perform the operation 500 = Error

Value	Description
URI	/Assessments/{id}
Method	GET
Description	Gets information on a single Assessment
Auth. operation	View Assessment
URI Parameters	{id} : Id of the assessment
Returns (Body)	A single Assessment item: ```{
"id_Assessment" : 1, ...
}```
Return codes	200 = Success 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments/{id}/Assets
Method	GET
Description	Gets a list of all AssetsInAssessment items from a single Assessment
Auth. operation	View Assessment
URI Parameters	{id} : Id of the assessment

Returns (Body)	A list of AssetInAssessment items:
	
	`[`
	`    {`
	`        "id_AssetInAssessment" : 1, ...`
	`    },`
	`    {`
	`        "id_AssetInAssessment" : 2, ...`
	`    }, ...`
	`]`

Return codes	200 = Success 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments/{id}/Risks
Method	GET
Description	Gets a list of all Risk items from a single Assessment
Auth. operation	View Assessment
URI Parameters	{id} : Id of the assessment

Returns (Body)	A list of Risk items:
	
	`[`
	`    {`
	`        "id_Risk" : 1, ...`
	`    },`
	`    {`
	`        "id_Risk" : 2, ...`
	`    }, ...`
	`]`

Return codes	200 = Success 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments/{id}/Calculations
Method	GET
Description	Gets a list of all Calculation items from a single Assessment
Auth. operation	View Assessment
URI Parameters	{id} : Id of the assessment

Returns (Body)	A list of AssessmentCalculation items:
	
	``
	[
	    {
	        "id_AssessmentCalculation" : 1, ...
	    },
	    {
	        "id_AssessmentCalculation" : 2, ...
	    }, ...
	]
	``

Return codes	200 = Success 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments/{id}/AssetEvaluations
Method	GET
Description	Gets a list of all AssetEvaluation items from a single Assessment
Auth. operation	View Assessment
URI Parameters	{id} : Id of the assessment

Returns (Body)	A list of AssetEvaluation items:
	
	``
	[
	    {
	        "id:AssetEvaluation" : 1, ...
	    },
	    {
	        "id_AssetEvaluation" : 2, ...
	    }, ...
	]
	``

Return codes	200 = Success 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments/{id}/RiskEvaluations
Method	GET
Description	Gets a list of all RiskEvaluations items from a single Assessment
Auth. operation	View Assessment
URI Parameters	{id} : Id of the assessment

Returns (Body)	A list of AssetEvaluation items:
	
	`[`
	`    {`
	`        "id_RiskEvaluation" : 1, ...`
	`    },`
	`    {`
	`        "id_RiskEvaluation" : 2, ...`
	`    }, ...`
	`]`

Return codes	200 = Success 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments/New?id_BusinessEntity={id_BusinessEntity}&id_RiskProfile={id_RiskProfile}
Method	GET
Description	Gets all the information required to create a new assessment configured with the given Risk Profile for the given Business Entity. The data set returned will include all Assets and their Risks as they have been configured within the given Business Entity. The evaluation values will be taken from the templates in the given Risk Profile. The data set returned can be POST-ed directly to the save endpoint (/Assessment) to create the assessment with all associated data: Assessment, AssetInAssessment, Risk, RiskEvaluation, AssetEvaluation, AssessmentCalculation. All the items returned will have EditState = 3 (Added).
Auth. operation	None
URI Parameters	{id_BusinessEntity} : Id of the associated BusinessEntity {id_RiskProfile} : Id of the associated RiskProfile

Returns (Body)	A full data set that can be used to create a new Assessment:
| | ```
{
        "Assessment" :
        [
                {
                        "id_Assessment" : -1,
                        "Name" : "New Assessment", ...
                }
        ],
        "AssessmentCalculation" :
        [
                {
                        "id_AssessmentCalculation" : -1,
                },
                {
                        "id_AssessmentCalculation" : -2,
                },
        ],
        "AssetInAssessment" :
        [
                {
                        "id_AssetInAssessment" : -1,
                },
                {
                        "id_AssetInAssessment" : -2,
                },
        ],
        "Risk" :
        [
                {
                        "id_Risk" : -1,
                },
                {
                        "id_Risk" : -2,
                },
        ],
        "RiskEvaluation" :
        [
                {
                        "id_RiskEvaluation" : -1,
                },
                {
                        "id_ RiskEvaluation" : -2,
                },
        ],
        "AssetEvaluation" :
        [
                {
                        "id_AssetEvaluation" : -1,
                },
                {
                        "id_ AssetEvaluation" : -2,
                },
        ]
}
``` |
| Return codes | 200 = Success
401 = Incorrect authentication
500 = Error |

Value	Description
URI	/Assessments/{id}/CheckOut
Method	POST
Description	Performs a check-out operation on an Assessment, locking it for exclusive editing for the authenticated user.
Auth. operation	Modify Assessment
URI Parameters	{id} : Id of the assessment
Input (Body)	Empty
Returns (Body)	Empty
Return codes	200 = Success 400 = Item is checked out to someone else 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments/{id}/CheckIn
Method	POST
Description	Performs a check-in operation on an Assessment that is already checked out to the authenticated user, releasing the exclusive edit lock
Auth. operation	Modify Assessment
URI Parameters	{id} : Id of the assessment
Input (Body)	Empty
Returns (Body)	Empty
Return codes	200 = Success 400 = Item is currently not checked out to the current user 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Value	Description
URI	/Assessments
Method	POST
Description	This is the main assessment save endpoint. Used for creating and updating assessments and any data within assesments: Assessment, AssetInAssessment, Risk, RiskEvaluation, AssetEvaluation, AssessmentCalculation This can include modifications to multiple assessments and related data in a single request. The whole set of data will be commited in one transaction, or none at all if an error occurs. The EditState property on each object determines if it should be created or modified.
Auth. operation	When modifying assessments: Modify Assessment When creating assessments: Create Assessment
URI Parameters	None

Input (Body)	A dataset representing the modifications to make
	
	``
	{
	      "Assessment" :
	      [
	            { List of Assessment modifications }
	      ],
	      "AssessmentCalculation" :
	      [
	            { List of AssessmentCalculation modifications }
	      ],
	      "AssetInAssessment" :
	      [
	            { List of AssetInAssessment modifications }
	      ],
	      "Risk" :
	      [
	            { List of Risk modifications }
	      ],
	      "RiskEvaluation" :
	      [
	            { List of RiskEvaluation modifications }
	      ],
	      "AssetEvaluation" :
	      [
	            { List of AssetEvaluation modifications }
	      ]
	}
	``

Returns (Body)	A dataset representing all the modifications that were made. If any related items/parent items were modified, they will be included in the returned data. Any database generated keys will replace the placeholder keys on the input models.
Return codes	200 = Success 400 = Item being modified is currently not checked out to the current user 401 = Incorrect authentication 403 = Unauthorized to perform the operation 404 = Assessment with the given Id not found 500 = Error

Assessment:

Name	Data Type	Create	Update	Comments
id_Assessment	Number	x	x	Unique key. Generated by server.
id_BusinessEntity	Number	x		References the associated Business Entity
Starts	String (date)	x	x	Start date
Ends	String (date)	x	x	End date
CreatedBy	String			Date when assessment was created
Created	String (date)			Name of the user who created the assessment
BaseSecurityRisk	Number (decimal)	x	x	Risk percentage values are shown as fractions (0.6 = 60%). Risk score values are shown as they are.
Name	String	x	x	Name of the assessment
Description	String	x	x	Allows a limited set of HTML formatting
RiskLevelTemplate	Number			Id of the risk level template
BusinessEntityName	String			Name of the Business entity
id_RiskProfile	Number	x		References the associated risk profile
RiskDisplayMethod	Number			Display method of risk calculations: 1 = Score 2 = Percentage
RiskProfileName	String			Name of the risk profile
id_LockedBy	Number			Id of the Contact who has the item checked out (or 1 if not checked out)
EditState	Number	x	x	Item edit state

AssetInAssessment:

Name	Data Type	Create	Update	Comments
id_AssetInAssessment	Number	x	X	Unique key. Generated by server.
id_Assessment	Number	x		References the associated Assessment
id_Asset	Number	x		References the associated Asset
Name	String			Name of the asset
Description	String	x	X	Allows a limited set of HTML formatting
BaseSecurityRisk	Number (decimal)	X	X	Risk percentage values are shown as fractions (0.6 = 60%). Risk score values are shown as they are.
id_Responsible	Number	X	X	References the Responsible Contact
id_Operator	Number	X	X	References the Operator Contact
DefinedBy	String			Date created
Defined	String (date)			Name of the user who created the asset in the assessment
EditState	Number	X	X	Item edit state

Risk

Name	Data Type	Create	Update	Comments
id_Risk	Number	x	x	Unique key. Generated by server.
id_AssetInAssessment	Number	x		References the associated AssetInAssessment
id_Threat	Number	x		References the associated Threat
BaseSecurityRisk	Number (decimal)	x	x	Risk percentage values are shown as fractions (0.6 = 60%). Risk score values are shown as they are.
AssetsName	String			Name of the asset
ThreatsName	String			Name of the threat

Description	String	x	x	Allows a limited set of HTML formatting
id_RiskOwner	Number	x	x	References the Risk Owner Contact
id_ThreatType	Number			References the threat type
EditState	Number	x	x	Item edit state

AssessmentCalculation

Name	Data Type	Create	Update	Comments
id_AssessmentCalculation	Number	X	X	Unique key. Server generated.
id_Assessment	Number	X		References the associated Assessment
id_TemplateFactor	Number	X		References the associated TemplateFactor
UseInCalculation	Boolean	X	X	True if the associated template factor should be used in risk calculations
EditState	Number	X		Item edit state

AssetEvaluation

Name	Data Type	Create	Update	Comments
id_AssetEvaluation	Number	X	X	Unique key. Server generated.
id_AssetInAssessment	Number	X		References the associated AssetInAssessment
id_TemplateFactor	Number	X		References the associated TemplateFactor
id_FactorValue	Number	X	X	References the associated FactorValue (or 0 for no value)
EvaluatedOn	String (date)			The date this evaluation was modified
EvaluatedBy	String			The name of the user who modified the evaluation
EditState	Number	x	x	Item edit state

RiskEvaluation

Name	Data Type	Create	Update	Comments
id_RiskEvaluation	Number	X	X	Unique key. Server generated.
id_Risk	Number	X		References the associated Risk
id_TemplateFactor	Number	X		References the associated TemplateFactor
id_FactorValue	Number	X	X	References the associated FactorValue (or 0 for no value)
EvaluatedOn	String (date)			The date this evaluation was modified
EvaluatedBy	String			The name of the user who modified the evaluation
EditState	Number	x	x	Item edit state