Version
3.2

CMDBuild®

» Webservice Manual

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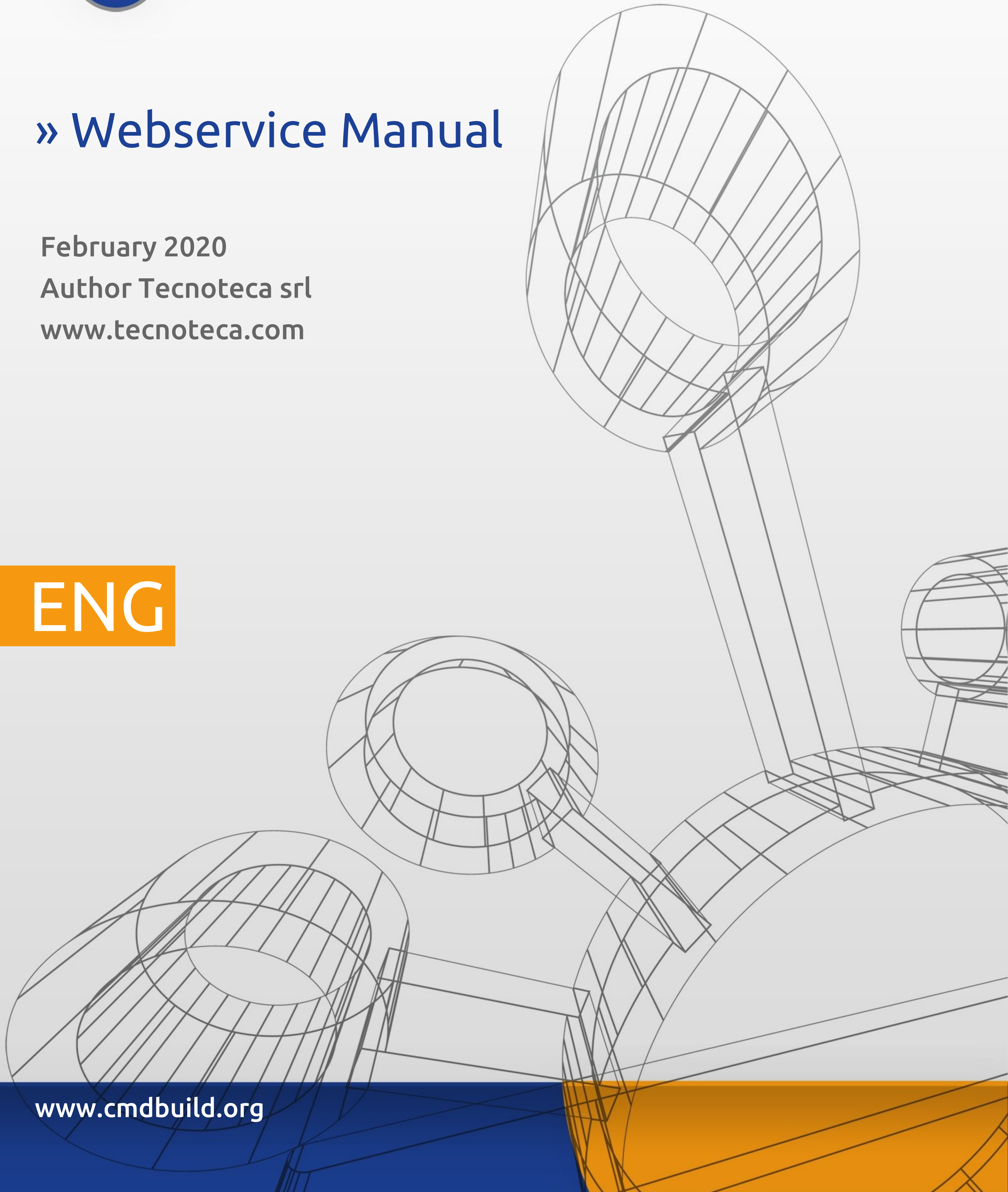


www.cmdbuild.org

The official website is http://www.cmdbuild.org

Contents

1. Introduction

1.1. The application

CMDBuild is an open source web environment for the configuration of custom applications for the Asset Management.

On the one hand, it provides native mechanisms for the administrator, implemented in a "core" code which has been kept separated from the business logic, so that the system can be configured with all its features.

On the other hand, it generates dynamically a web interface for the operators, so that they can keep the asset situation under control and always know their composition, detachment, functional relations and how they update, in order to manage their life-cycle in a comprehensive way.

The system administrator can build and extend his/her own CMDB (hence the name of the project), modeling the CMDB according to the company needs; a proper interface allows you to progressively add new classes of items, new attributes and new relations. You can also define filters, "views" and access permissions limited to rows and columns of every class.

Using external visual editors, the administrator can design workflows, import them into CMDBuild and put them at operators' disposal, so that they can execute them according to the configured automatisms.

In a similar way, using external visual editors, the administrator can design various reports on CMDB data (printouts, graphs, barcode labels, etc.), import them into the system and put them at operators' disposal.

The administrator can also configure some dashboards made up of charts which immediately show the situation of some indicators in the current system (KPI).

A task manager included in the user interface of the Administration Module allows you to schedule various operations (process starts, e-mail receiving and sending, connector executions) and to control CMDB data (synchronous and asynchronous events). Based on their findings, it sends notifications, starts workflows and executes scripts.

Thanks to document management systems that support the CMIS standard (Content Management Interoperability Services) - among which there is also the open source solution Alfresco - you will be able to attach documents, pictures, videos and other files.

Moreover, you can use GIS features to georeference and display assets on a geographical map (external map services) and / or on vector maps (local GeoServer and spatial database PostGIS) and BIM features to view 3D models (IFC format).

The system also includes a REST webservice, so that CMDBuild users can implement custom interoperability solutions with external systems.

Furthermore, CMDBuild includes two external frameworks:

- the Advanced Connector CMDBuild, which is written in Java and can be configured in Groovy: it helps the implementation of connectors with external data sources, i.e automatic inventory systems, virtualization or monitoring ones (supplied with non-open source licence to the users that subscribe the annual Subscription with Tecnoteca)
- the GUI Framework CMDBuild, which helps the implementation of additional graphical interfaces, i.e. web pages (simplified for non technicians) that have to be published on external portals and that are able to interact with the CMDB through the REST webservice

CMDBuild includes a mobile interface (for smartphone and tablet). It is implemented as multi-platform app (iOS, Android) and is able to interact with the CMDB through the REST webservice (supplied with non-open source licence to the users that subscribe the annual Subscription with Tecnoteca).

CMDBuild is an enterprise system: server-side Java, web Ajax GUI, SOA architecture (Service Oriented Architecture), based on webservice and implemented by using the best open source technologies and following the sector standards.

CMDBuild is an ever-evolving system, which has been released for the first time in 2006 and updated several times a year in order to offer more features and to support new technologies.

1.2. Official website

CMDBuild has a dedicated website: http://www.cmdbuild.org

The website gathers a lot of documents on technical and functional features of the project: brochures, slides, manuals (see next paragraph), testimonials, case histories, newsletters, forums.

1.3. CMDBuild modules

The CMDBuild application includes two main modules:

- the Administration Module for the initial definition and the next changes of the data model and the base configuration (relation classes and typologies, users and authorization, dashboards, upload report and workflows, options and parameters)
- the Management Module, used to manage cards and relations, add attachments, run workflow processes, visualize dashboards and execute reports

The Administration Module is available only to the users with the "administrator" role; the Management Module is used by all the users who view and edit data.

1.4. Available manuals

This manual is dedicated to the Administration Module, through which the administrator can configure data, define users and permissions, and perform other tasks.

You can find all the manuals on the official website (http://www.cmdbuild.org):

- system overview ("Overview Manual")
- system administration (“Administrator Manual”)
- installation and system management ("Technical Manual")
- workflow configuration (“Workflow Manual”)
- webservice details and configuration (“Webservice Manual”)
- connectors to sync data through external systems (“ConnectorsManual”)

1.5. Applications based on CMDBuild

Tecnoteca has used the CMDBuild environment in order to implement two different pre-configured solutions:

- CMDBuild READY2USE, for the management of assets and IT services, oriented to internal IT infrastructures or services for external clients (http://www.cmdbuild.org/it/prodotti/ready2use) according to the ITIL best practice (Information Technology Infrastructure Library)
- openMAINT, for the inventory management of assets, properties and related maintenance

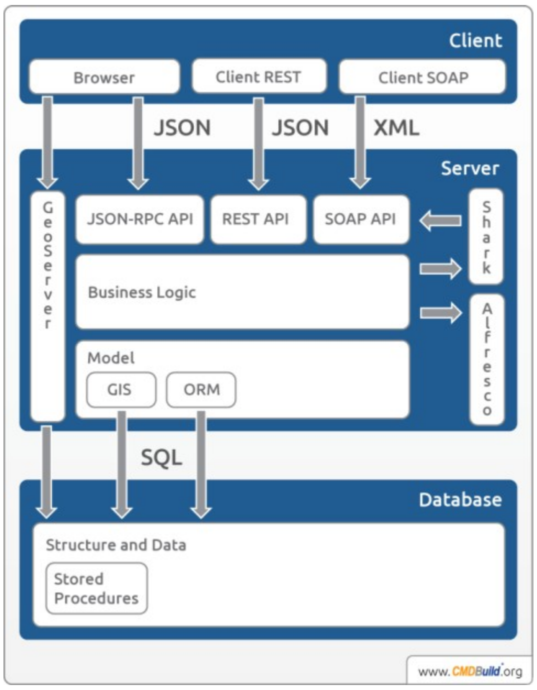
activities (http://www.openmaint.org)

Both applications are released with open source license, except for certain external components (data sync connectors, Self-Service portal, mobile APP, etc.), that are reserved to the users that subscribe the annual Subscription with Tecnoteca.

2. Interoperability standards

2.1. Service-Oriented Architecture (SOA)

In order to make different applications interoperable, they must be created as components that cooperate with the services implementation, and these services must be set through high level interfaces defined under standard protocols.



CMDBuild is designed with Service-Oriented Architecture (SOA):

- decoupling the different logic levels (see the schema)
- implementing and setting in every interface external specifications as a single modality for the access to relating data and methods
- using the interfaces both for the interactive access of the web client and for the programmatic access of external applications

From a technical point of view, we chose to use the following technology of web services:

1. REST protocol
2. SOAP protocol

Through web services, and safety policy permitting, CMDBuild provides the data filed in the CMDB and its management methods to allow the use within other applications involved with the information itself, both for the technical management and for administration.

3. Web services

3.1. Web Service introduction

A web service is an interface that describes a collection of methods, available over a network and working using XML messages.

With web services, an application allows other applications to interact with its methods.

Nowadays the two most used standards are:

- SOAP Web Services
- REST Web Services

In the following chapters both standards will be introduced, with a list of their differences and some examples.

3.2. SOAP Web Service introduction

SOAP (Simlpe Object Access Protocol) is a protocol based on XML language. Thanks to the XML usage SOAP, unlike other frameworks, provides a platform and language indipendent communication.

The structure of SOAP messages is divided in four parts:

- Envelope: a mandatory element that defines the beginning and the end of the message;
- Header: an optional element that contains amy optional attributes;
- Body: a mandatory element that provides the message that has to be sent;
- Fault: a mandatory element that can provide any error that occurs while processing the message;

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:soap="http://soap.services.cmdbuild.org">
   <soapenv:Header>
        ...
   <soapenv:Header/>
   <soapenv:Body>
        <soapenv:Fault>
        ...
        </soapenv:Fault>
   ...
   </soapenv:Body>
</soapenv:Envelope>
```

In the usage of SOAP for CMDBuild the header will be used mainly to authenticate the user, by adding a security field where the user can provide his username and password to access the service.

In the body field the user can provide the function that has to be called with the following syntax:

```
<soap:functionName/>
```

As an example of usage in CMDBuild, the following SOAP request will generate a session for the user specified in the header username field:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:soap="http://soap.services.cmdbuild.org">
   <soapenv:Header>
        <wsse:Security soapenv:mustUnderstand="1"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-
wss-wssecurity-utility-1.0.xsd">
        <wsse:UsernameToken>
        <wsse:Username>username</wsse:Username>
        <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-username-token-profile-1.0#PasswordText">password</wsse:Password>
 </wsse:UsernameToken></wsse:Security>
   <soapenv:Header/>
   <soapenv:Body>
      <soap:createSession/>
   </soapenv:Body>
</soapenv:Envelope>
```

When executing a SOAP request, the target endpoint, in the CMDBuild case, has to be the Private.wsdl file in the CMDBuild installation. The WSDL file provides the user with a list of all available functions that can be called.

For a more detailed description on what you can do with SOAP on CMDBuild read chapter 4.

3.3. REST Web Service introduction

REST (REpresentational State Transfer), unlike SOAP, is an architectural style that provides a stateless, simple and lightweight way of communicating with a system.

The format used to send and receive data with REST web services is JSON. This format is a simple text containing a series of attribute-value pairs, like the following:

```
{
 “Key1”:”value1”,
 “Key2”:”value2”,
 …
}
```

When REST is used, requests can be sent to various endpoints through GET, PUT, POST and DELETE HTTP requests.

Elements such as authentication tokens can be added in the header of the request, data that has to be sent through PUT or POST requests can be added as parameters of the request.

As an example, if we want to generate a session like we previously did with the SOAP web service, we would firstly need to get the session endpoint of CMDBuild:

http://hostname:port/cmdbuild/services/rest/v3/sessions

And than perform a POST request with the username and password of the user to authenticate.

The response would than contain a success key followed by a data key containing the response values (from version 3.2 due to security reasons an additional request parameter has to be set to true in order to obtain the sessionId in the response, more at chapter 5.3.1):

```
{
 “success”:”true”,
 “data”:[”sessionId”:”generatedSessionId”,
        “username”:”user”,
        “password”:”userPassword”]
}
```

For a more detailed description on what you can do with SOAP on CMDBuild read chapter 5.

4. SOAP Web Services

4.1. CMDBuild WSDL

To obtain a list of every possible function that can be called through SOAP web services CMDBuild provides a WSDL called Private.wsdl located in your CMDBuild folder. It can be opened with a normal text editor to visualize an XML containing the definition of every element, but it can also be opened by a software like SoapUI to have a more clear view of its content.

In the next paragraph a list of every available function will be provided.

4.2. SOAP Functions

In the following table a list of available SOAP functions, divided by cathegory, will be provided, note that after future updates the functions might change, so it’s always better to verify the function format in the WSDL file.

4.2.1. Cards

Card data structure:

- className: a string that identifies the owner class
- id: a bigint to identify the card
- attributeList: an array of attributes of the card
- beginDate: a date that shows the creation date of the card
- user: a string that shows what user last modified the card

Function	Parameters	Description
getCard	-className -cardId -attributeList	Function used to obtain the information relative to a specific card owned by a specific class
getCardHistory	-className -cardId -limit -offset	Function used to obtain the history of a specific card owned by a specific class. With limit and offset the amount of results can be modified
getCardList	-className -attributeList -queryType -orderType -limit -offset -fullTextQuery -cqlQuery	Function used to obtain a full list of cards owned by a specific class, with the possibility of specifing a filter (with Query type, FullTextQuery or CqlQuery), with the possibility of controlling the number and order of results via Limit, Offset and Order list
getCardListExt	-className -attributeList -queryType -orderType	Function used to obtain a full extended list of cards owned by a specific class, with the possibility of specifing a filter (with Query type, FullTextQuery or CqlQuery), with the

	-limit -offset -fullTextQuery -cqlQuery	possibility of controlling the number and order of results via Limit, Offset and Order list
getCardListWithLongDateFormat	-className -attributeList -queryType -orderType -limit -offset -fullTextQuery -cqlQuery	Function used to obtain a full list of cards owned by a specific class with a long date format, with the possibility of specifing a filter (with Query type, FullTextQuery or CqlQuery), with the possibility of controlling the number and order of results via Limit, Offset and Order list
getCardMenuSchema		
createCard	-className -attributeList -beginDate -endDate -metadata	Create a card owned by the specified class with a list of attributes specified in the request
updateCard	-className -attributeList -beginDate -endDate -id -metadata	Update a card owned by the specified class with the values specified in the request
deleteCard	-className -cardId	Delete a specific card owned by a specific class

4.2.2. Sessions

Function	Parameters	Description
createSession		Create a session for the user with username and password specified in the header

4.2.3. Lookups

Lookup data structure:

- id: a bigint to identify the lookup
- type: a string to identify the name of the lookup list which includes the current heading
- description; a string to describe the lookup heading
- code
- parent: the parent of the current lookup
- parentId: the id of the parent of the current lookup
- position: the position of the lookup in the lookup list
- notes: a string containing the optional notes of the lookup

Function	Parameters	Description
getLookupById	-id	Get a specific lookup by specifing its Id
getLookList		Get the full list of lookups
getLookListByCode	-type -code	Get the list of lookups of a specific type with a specific code
createLookup	-code -description -notes -parent -type	Create a new lookup with the values defined in the parameters. The paret parameters requires a parentId and a position
updateLookup	-code -description -id -notes -parent -type	Update a lookup with the id specified in the parameters with the values
deleteLookup	-id	Delete the lookup with the specified Id

4.2.4. Attributes

Attribute data structure:

- name: a string that defines the attribute name
- value: a string to identify the attribute value
- code

Function	Parameters	Description
getAttributeList	-className	Get a list of attributes of the class specified with the class name parameter

4.2.5. Relations

Relation data structure:

- domainName: a string that defines the domain used for the relation
- class1Name: a string to identify the first class of the relation
- card1Id: a bigint to identify the first card of the relation
- class2Name: a string to identify the second class of the relation
- card2Id: a bigint to identify the second card of the relation

Function	Parameters	Description
getRelationAttributes	-class1Name -class2Name -card1Id -card2Id -domainName	Get the attributes of a specific relation

getRelationHistory	-class1Name -class2Name -card1Id -card2Id -domainName	Get the history of a specific relation
getRelationList	-className -cardId	Get the full list of relations of a specific card owned by the class specified by Class name
getRelationListExt	-domain -className -cardId	Get the full extended list of relations of a specific card owned by the class specified by Class name
createRelation	-class1Name -class2Name -card1Id -card2Id -domainName	Create a relation between the two classes and two cards specified in the parameters
createRelationWithAttributes	-class1Name -class2Name -card1Id -card2Id -domainName -attributes	Create a relation between the two classes and two cards specified in the parameters with the provided list f attributes
updateRelationAttributes	-class1Name -class2Name -card1Id -card2Id -domainName -attributes	Update the attributes owned by the relation between the specified cards and classes provided in the parameters
deleteRelation	-class1Name -class2Name -card1Id -card2Id -domainName	Delete the specified relation

4.2.6. Classes

Function	Parameters	Description
getClassSchema	-className	Get the schema of a the class with the name specified in the parameters
getClassSchemaById	-classId -includeAttributes	Get the schema of a the class with the id specified in the parameters and, optionally, include its attributes
getClassSchemaByName	-flassName	Get the schema of a the class with the name specified in the parameters

4.2.7. Functions

Function	Parameters	Description
callFunction	-functionName -code -name -value	Execute the specified function
getFunctionList		Obtain a list of all available functions

4.2.8. Attachments

Attachment data structure:

- category: a string that identifies the category of the attribute
- description: a string that reppresent the description of the attachment
- filename: a string that contains the name of the file with the extension
- version: a string containing the version of the attachment
- author: a string containing the author of the upload
- created: a date indicating when the file was firstly uploaed
- modified: a date indicating when the file was last modifies

Function	Parameters	Description
copyAttachment	-sourceClassName -sourceId -destinationClassName -destinationId	Copy an attachment from one class to another class
updateAttachmentDescription	-className -filename -description	Modify the description of the attachment with name Filename owned by the specified class
downloadAttachment	-className -objectId -filename	Download the specified attachment

4.2.9. Reports

Function	Parameters	Description
getBuiltInReport	-id -extension -params	Get a report with the specified id and extension
getReport	-id -extension -params	Get a report with the specified id and extension
getReportList	-type -limit -offset	Get a full list of reports of the specified type

getReportParameters	-id -extension	Obtain a list of all report parameters for the specified report with the specified extension

4.2.10. Other functions

Function	Parameters	Description
abortWorkflow	-card	Abort a specific workflow for the specified card in the parameters
generateDigest	-plainText -digestAlgorithm	Generate a digest with the specified algorithm
getActivityMenuSchema		Get the activity menu schema
getActivityObjects	-className -cardId	Get a list of activity objects for a specific card owned by the class with className
getMenuSchema		Get the menu schema
getProcessHelp	-className -cardId	Get the process help for the specified card owned by the class with name className
getReference	-className -query -orderType -limit -offset -fullTextQuery -cqlQuery -	Get the specified reference
getUserInfo		Get the information about the authenticated user
notify		
resumeWorkflow	-card	Resume the workflow of a card
suspendWorkflow	-card	Suspend the workflow of a card
updateWorkflow	-card	Update the workflow of a card
sync	-xml	

5. REST Web Services

5.1. CMDBuild REST web service

Unlike SOAP, for the REST webservices there isn’t a file containing every function that can be requested on the same endpoint, but there are specific endpoints for every action.

In example if we want to operate on a card the endpoint will be:

http://hostname:port/cmdbuild/services/rest/v3/cards

And with GET, POST, PUT, DELETE requests and addition to the endpoint path we can get a list of cards or update a specific card.

5.2. CMDBuild REST Endpoints

In this paragraph a list of currently available endpoints and data structure will be presented.

Note that in some cases the enpoint can have some variations in the path, for example some endpoints are the same for cards or process instances, and when that occours the “|” symbol is used.

When an endpoint requires additional information in the path it will be specified in the Path column.

When an endpoint requires additional query params, those will be specified in the Parameters column.

A data structure is presented whenever a POST endpoint requires a custom data structure containing the required details in a json format;

The majority of endpoints will provide a function to read the entire list of objects, a function to get the details of a specific object, a function to create a new object, a function to update an existing object and a function to delete a existing object.

In the path of various endpoints, whenever there is “id”, “classId”, “cardId” or similar, that has to be substituted with the id (or code when talking about classes) of the required element.

5.2.1. Async Operation

http://hostname:port/cmdbuild/services/rest/v3/async

Function	Path	Parameters	Type	Description
getAsyncJobStatus	/jobs/jobId		GET	Obtain the status of an async job
getAsyncJobResult	/jobs/jobId/response		GET	Obtain the results of an async job

5.2.2. Attachments

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/instances|cards/attachments

Attachment data structure:

• name	String
• category	String
• description	String
• majorVersion	boolean

Function	Path	Parameters	Type	Description
read			GET	Obtain the list of attachments for a specific card
read	/attachmentId		GET	Obtain the details of a specific attachment
download	/attachmentId/file:		GET	Download a specific attachment
preview	/attachmentId/ preview		GET	Obtain a preview of the specified attachment
getAttachment History	/attachmentId/ history		GET	Obtain the full history of the specified attachment
downloadPrevi ousVersion	/attachmentId/ history/version/file:		GET	Download an old version of the specified attachment
create		-attachment multipart json -file multipart dataHandler -copyFrom_class String -copyFrom_card Long -copyFrom_id String	POST	Create an attachment for the specified card, if copyFrom_class is not null the three copyFrom parameters can be used to copy an existing attachment from another card
update	/attachmentId	-attachment multipart json	PUT	Update the specified attachment
delete	/attachmentId		DELET E	Remove the specified attachment

5.2.3. Audits

http://hostname:port/cmdbuild/services/rest/v3/system/audit

Function	Path	Parameters	Type	Description
mark	/mark		GET	Obtain the current date
getRequests	/requests	-since String -limit Long	GET	Obtain a list of last requests since the date specified
getErrors	/errors	-since String -limit Long	GET	Obtain a list of last errors since the date specified
getRequests	/requests/id		GET	Get the details of a specific request

5.2.4. Bim project

http://hostname:port/cmdbuild/services/rest/v3/bim/projects

Bim project data structure:

• name	String
• description	String
• importMapping	String
• projectId	String
• parentId	Long
• ownerClass	String
• ownerCard	String
• active	boolean

Function	Path	Parameters	Type	Description
getAll			GET	Obtain the full list of Bim projects
getOne	/id		GET	Obtain the specified Bim project
createProjectWithFile		-data json -file multipart dataHandler -ifcFormat String	POST	Create a new Bim project
update	/id/file	-data json	PUT	Update the specified Bim project

downloadIfcFile	/id/file	-ifcFormat String	GET	Download the specified Ifc file for the specified Bim project
uploadIfcFile	/id/file	-file dataHandler -ifcFormat String	POST	Upload a new Ifc file for the specified Bim project
delete	/id		DELETE	Delete the specified bim project

5.2.5. Bim values

http://hostname:port/cmdbuild/services/rest/v3/bim/values

Function	Path	Parameters	Type	Description
getOne	/globalId	-if_exists Boolean	GET	Obtain the Bim values of the specified Bim project

5.2.6. Boot

http://hostname:port/cmdbuild/services/rest/v3/boot

Function	Path	Parameters	Type	Description
status	/status		GET	Get the current status of the system
checkDatabaseConfig	/database/check	-dbConfig Map<String,String>	POST	
reconfigureDatabase	/database/configure	-file multipart dataHandler -dbConfig Map<String,String>	POST	
getPendingPatches	/patches		GET	Obtain a list of currently available patches
applyPendingPatches	/patches/apply		POST	Tell the system to perform the installation of every currently available patch

5.2.7. Calendar Event Email

http://hostname:port/cmdbuild/services/rest/v3/calendar/events/eventId/emails

Function	Path	Parameters	Type	Description
readAll		-limit Integer -start	GET	Obtain a list of every email associated with the specified event

		Integer -detailed Boolean		
read	/emailId		GET	Get the details of a specific email related to a specific event

5.2.8. Calendar Event

http://hostname:port/cmdbuild/services/rest/v3/calendar/events

Event data structure:

• category	String
• priority	String
• job	Long
• card	Long
• sequence	Long
• content	String
• description	String
• timeZone	String
• eventEditMode	String
• notifications	List<String>
• partecipants	List<String>
• onCardDeleteAction	String
• type	String
• begin	String
• end	String
• owner	String
• status	String
• source	String
• notes	String

Function	Path	Parameters	Type	Description
readMany		-filter String -sort String -limit Long -start Long	GET	Obtain a list of every event

		-detailed Boolean -positionOf Long -goToPage Boolean		
readOne	/eventId		GET	Get the details of a specific event
createUserEvent		-data json	POST	Create a new event with the provided data
update	/eventId	-data json	PUT	Update an existing event with the provided data
delete	/eventId		DELETE	Remove an existing event
readHistory	/eventId/history	-limit Long -start Long -detailed Boolean	GET	Obtain the history of a specific event
getHistoryRecord	/eventId/history/ recordId		GET	Obtain the details of a specific record from the history of an event

5.2.9. Calendar Sequence

http://hostname:port/cmdbuild/services/rest/v3/calendar/sequences

Sequence data structure:

• category	String
• priority	String
• job	Long
• card	Long
• content	String
• description	String
• timeZone	String
• title	String
• eventCount	Integer
• frequencyMultiplier	Integer
• maxActiveEvents	Integer
• eventEditMode	String
• notifications	List<String>
• partecipants	List<String>

• onCardDeleteAction	String
• sequenceParamsEditMode	String
• showGeneratedEventsPreview	Boolean
• eventType	String
• firstEvent	String
• lastEvent	String
• trigger	Long
• endType	String
• events	List<WsEventData>

Function	Path	Parameters	Type	Description
readOne	/sequenceId	-includeEvents Boolean	GET	Obtain the details of a specific sequence, with the possibility of including the related events
readManyByCard	/by-card/cardId	-detailed Boolean -includeEvents Boolean	GET	Obtain a list of sequences related to a specific card
create		-data json	POST	Create a new sequence with the provided data
update	/sequenceId	-data json	PUT	Update an existing sequence with the provided data
delete	/sequenceId		DELETE	Remove a specific sequence
getEventsPreview	/_ANY/generate-events	-data json	POST	Generate events based on the provided data

5.2.10. Calendar Trigger

http://hostname:port/cmdbuild/services/rest/v3/calendar/triggers

Trigger data structure:

• category	String
• priority	String
• job	Long
• conditionScript	String
• content	String
• description	String
• timeZone	String
• eventCount	Integer
• frequencyMultiplier	Integer

maxActiveEvents	Integer
delay	String
eventEditMode	String
eventTime	String
frequency	String
notifications	List<String>
partecipants	List<String>
onCardDeleteAction	String
sequenceParamsEditMode	String
showGeneratedEventsPreview	Boolean
active	Boolean
eventType	String
ownerClass	String
ownerAttr	String
endType	String

Function	Path	Parameters	Type	Description
readOne	/triggerId		GET	Obtain the details of a specific trigger
getSequencePreview	/triggerId/generate-sqeuence	-dateValue String	GET	Generate a sequence based on the provided data
readMany			GET	Get a full list of calendar triggers
create		-data json	POST	Create a new trigger with the provided data
update	/triggerId	-data json	PUT	Update an existing trigger with the provided data
delete	/triggerId		DELETE	Delete an existing trigger

5.2.11. Calendar View Event

http://hostname:port/cmdbuild/services/rest/v3/calendar/views/viewId/events

Function	Path	Parameters	Type	Description
readOne	/eventId		GET	Get the details of a specific event of a view
readMany		-limit Long -start Long -detailed Boolean	GET	Obtain a list of events of a specific view

5.2.12. Card Bim values

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/bimvalue

Function	Path	Parameters	Type	Description
getAllForCard		-if_exists Boolean -include_related Boolean	GET	Obtain a list of every Bim value associated with the specified card

5.2.13. Card email attachments

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/emails/emailId/attachments

Attachment data structure:

• file	String
• category	String
• description	String
• majorVersion	boolean

Function	Path	Parameters	Type	Description
create		-attachment multipart json -file multipart dataHandler -copyFrom_class String -copyFrom_card Long -copyFrom_id String	POST	Create a new attachment for the specified email
read			GET	Obtain a list of every available attachment for the specified email
read	/attachmentId		GET	Obtain the details of an attachment with id attachmentId of a specific email
download	/attachmentId/file		GET	Download the attachment with id attachmentId of the specified email
preview	/attachmentId/preview		GET	Obtain a preview of the attachment with id attachmentId of the specified email

update	/attachmentId	-attachment multipart json -file multipart dataHandler	PUT	Update an existing attachment with id attachmentId of the specified email with the given data
delete	/attachmentId		DELETE	Delete a specific attachment with if attachmentId of the email with id emailId
getAttachmentHistory	/attachmentId/history		GET	Obtain the history of a specific attachment
downloadPreviousVersion	/attachmentId/history/version/file:		GET	Download the specified previous version of the attachment with id attachmentId of the email with if emailId

5.2.14. Card email

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/emails

Email data structure:

• delay	Long
• from	String
• replyTo	String
• to	String
• cc	String
• bcc	String
• subject	String
• body	String
• contentType	String
• account	Long
• template	Long
• autoReplyTemplate	Long
• keepSynchronization	boolean
• noSubjectPrefix	boolean
• promptSynchronization	boolean
• status	String
• _expr	String

Function	Path	Parameters	Type	Description
readAll		-limit Integer -start Integer -detailed Boolean	GET	Obtain a list of all available email associated with a card, with the possibility of changing the response to detailed or not and the possibility of change the number of results with limit
read	/emailId		GET	Obtain the details of a specific email
create		-data List<json> -apply_template Boolean -template_only Boolean	POST	Create an email associated with a card with the data provided in emailData, with the possibility of extending a pre-existing template or using only a template
update	/emailId	-data json -apply_template Boolean -template_Only Boolean	PUT	Update an existing email associated with a card with the provided data in emailData
delete	/emailId		DELETE	Delete a specific email

5.2.15. Card geo values

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/geovalues

Geo values data structure:

• _type	String
• x	Double
• y	Double
• points	List<WsPoint>

Point data structure:

• x	Double
• y	Double

Function	Path	Parameters	Type	Description
getAllForCard			GET	Obtain every geovalue associated with a card
get	/attributeId		GET	Obtain the details of a specific geovalue
set	/attributeId	-data json	PUT	Update an existing geovalue with the provided data

delete	/attributeId		DELETE	Delete a specific geovalue

5.2.16. Card history

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/history

Function	Path	Parameters	Type	Description
getHistory		-limit Long -start Long	GET	Get the history of a specific card
getHistoryRecord	/recordId		GET	Get the details of a specific card in the card history

5.2.17. Card locks

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/lock

Function	Path	Parameters	Type	Description
getLock			GET	Get the lock of a specific card
createLock			POST	Create a lock for a specific card
releaseLock			DELETE	Release a lock for a specific card

5.2.18. Card print

http://hostname:port/cmdbuild/services/rest/v3/classes/classId/cards/cardId/print/file:

Function	Path	Parameters	Type	Description
readOne		-extension String	GET	Dwnload a file with an arbitrary extension, with the details of a specific card with cardId, owned by a class with classId

5.2.19. Card relations

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/relations

Relation data structure:

• _id	Long
• _type	String
• _user	String
• _sourceType	String

• _sourceId	Long
• _destinationType	String
• _destinationId	Long
• _is_direct	boolean

Function	Path	Parameters	Type	Description
read		-limit Long -start Long -detailed Boolean	GET	Get a list of relations for a specific card
create		-data json	POST	Create a new relation for a specific card with the provided data
update	/relationId	-data json	PUT	Update an existing relation for a specific card with the provided data
delete	/relationId		DELETE	Delete a specific relation

5.2.20. Cards

http://hostname:port/cmdbuild/services/rest/v3/classes/classId/cards

Card data structure:

The data structure for a card is a map of string and objects that vary based on

Function	Path	Parameters	Type	Description
readOne	/cardId	-includeModel Boolean -includeWidgets Boolean	GET	Obtain the details of a specific card
readMany		-filter String -sort String -limit Long -start Long -positionOfCard -goToPage Boolean	GET	Get a list of all available cards owned by a class, with the possibility of adding filters to limit the results
create		-data json	POST	Create a new card with the provided data for a specific class

update	/cardId	-data json	PUT	Update an existing card with the provided data
delete	/cardId		DELETE	Delete a specific card

5.2.21. Class attributes

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/attributes

Attribute data structure:

• formatPattern	String
• unitOfMeasure	String
• unitOfMeasureLocation	String
• visibleDecimals	Integer
• preselectIfUnique	boolean
• showThousandsSeparator	boolean
• showSeconds	boolean
• showSeparators	boolean
• type	String
• name	String
• description	String
• showInGrid	boolean
• showInReducedGrid	boolean
• domainKey	String
• domain	String
• direction	String
• unique	boolean
• mandatory	boolean
• active	boolean
• index	Integer
• defaultValue	String
• group	String
• precision	String
• scale	String
• targetClass	String
• maxLenght	Integer
• editorType	String
• lookupType	String
• filter	String
• help	String

• showIf	String
• validationRules	String
• mode	boolean
• autoValue	String
• metadata	map<String, String>
• classOrder	Integer
• isMasterDetail	Boolean
• masterDetailDescription	String
• ipType	String
• textContentSecurity	String

Function	Path	Parameters	Type	Description
read	/attrId		GET	Obtain the details of a specific attribute
readAll		-limit Long -start Long	GET	Obtain a list of every available attribute for the specified class
create		-data json	POST	Create a new attribute for a specific class with the provided data
update	/attrId	-data json	PUT	Update an existing attribute with the provided data
delete	/attrId		DELETE	Delete a specific attribute
reorder	/order	-attrOrder List<String>	POST	Reorder the list of attributes for a specific class with the new order set in the parameter attrOrder

5.2.22. Class filters

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/filters

Filter data structure:

• name	String
• description	String
• target	String
• configuration	String
• active	Boolean
• shared	Boolean

Function	Path	Parameters	Type	Description
readAll		-limit Long -start Long -shared Boolean	GET	Obtain a list of all available filter for a specific class, with the possibility of filtering the result
read	/filterId		GET	Read a specific filter owned by a class with id classId
create		-data json	POST	Create a new filter for a specific class with the provided data
update	/filterId	-data json	PUT	Update an existing filter with the data provided in element
delete	/filterId		DELETE	Delete a specific filter
getDefaultForRoles	/filterId/defaultFor		GET	Obtain a list of roles for a specific filter
updateWithPost	/filterId/defaultFor	-roles List<json>	POST	Update the list of roles for a specific filter

5.2.23. Class or process domains

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/domains

Function	Path	Parameters	Type	Description
getDomains		-detailed Boolean	GET	Obtain a list of all domains related to a class or process, with the possibility of specifying if obtaining the full response or a basic response with the boolean parameter includeFullDetails

5.2.24. Class print

http://hostname:port/cmdbuild/services/rest/v3/classes

Function	Path	Parameters	Type	Description
printClassReport	/classId/print/file	-filter String -sort String -limit Long -start Long -extension	GET	Obtain the result of a specific report with the provided extension

		String -attributes String		
printClassSchemaReport	/classId/ print_schema/file	-file String -extenstion String	GET	Obtain a file with the schema of the specified class
printSchemaReport	/print_schema/file	-file String -extension String	GET	Obtain a file with the schema of the whole database

5.2.25. Classes

http://hostname:port/cmdbuild/services/rest/v3/classes

Class data structure:

• name	String
• description	String
• defaultFilter	Long
• defaultImportTemplate	Long
• defaultExportTemplate	Long
• _icon	Long
• validationRule	String
• type	String
• messageAttr	String
• flowStatusAttr	String
• engine	String
• parent	String
• active	Boolean
• prototype	Boolean
• noteInline	Boolean
• noteInlineClosed	Boolean
• attachmentsInLine	Boolean
• enableSaveButton	Boolean
• attachmentTypeLookup	String
• attachmentDescriptionMode	String
• multitenantMode	String
• stoppableByUser	Boolean
• defaultOrder	List<>

• formTriggers	List<>
• contextMenuItems	List<>
• widgets	List<>
• attributeGroups	List<>
• domainOrder	List<String>
• formStructure	JsonNode

Function	Path	Parameters	Type	Description
readAll		-detailed Boolean -limit Long -start Long -filter String	GET	Obtain a list of every available class
read	/classId		GET	Get the details of a specific class
create		-data json	POST	Create a new class with the provided data
update	/classId	-data json	PUT	Update an existing class with the provided data
delete	/classId		DELETE	Delete a specific class

5.2.26. Configurations

http://hostname:port/cmdbuild/services/rest/v3/configuration

Function	Path	Parameters	Type	Description
getPublicConfig	/public		GET	Obtain the public configuration
getSystemConfig	/system		GET	Obtain the system configuration

5.2.27. Custom menu component

http://hostname:port/cmdbuild/services/rest/v3/components/contextmenu

Custom menu component data structure:

• description	String
• active	boolean

Function	Path	Parameters	Type	Description
list			GET	Obtain a full list of the available custom menu components
get	/id		GET	Obtain the details of a specific custom menu component
delete	/id		DELETE	Delete a specific custom menu component
download	/id/file	-extension String -parameters String	GET	Download the custom menu component
create		-file dataHandler -data json -merge Boolean	POST	Create a new custom menu component with the provided data
update	/id	-file dataHandler	PUT	Update a specific custom menu component with the provided file
update	/id	-data json	PUT	Update a specific custom menu component with the provided data

5.2.28. Custom pages

http://hostname:port/cmdbuild/services/rest/v3/custompages

Custom page data structure:

• description	String
• active	boolean

Function	Path	Parameters	Type	Description
list			GET	Obtain a full list of the available custom pages
get	/id		GET	Obtain the details of a specific custom page
delete	/id		DELETE	Delete a specific custom page
create		-file dataHandler -data json -merge	POST	Create a new custom page with the provided data

		Boolean		
update	/id	-file dataHandler	PUT	Update a specific custom page with the provided data
update	/id	-data json	PUT	Update a specific custom page with the provided data
download	/id/file	-extension String -parameters String	GET	Download the custom page file

5.2.29. Dashboard

http://hostname:port/cmdbuild/services/rest/v3/dashboards

Dashboard data structure:

• name	String
• description	String
• active	boolean
• charts	Object
• layout	Object

Function	Path	Parameters	Type	Description
getAll		-detailed Boolean -limit Integer -start Integer	GET	List all available dashboars
readOne	/id		GET	Obtain a specific dashboard
create		-data json	POST	Create a new dashboard with the provided data
update	/id	-data json	PUT	Update an existing dashboard with the provided data
delete	/id		DELETE	Delete a specific dashboard

5.2.30. Domain attributes

http://hostname:port/cmdbuild/services/rest/v3/domains/domainId/attributes

Attribute data structure:

• formatPattern	String
• unitOfMeasure	String
• unitOfMeasureLocation	String
• visibleDecimals	Integer

• preselectIfUnique	boolean
• showThousandsSeparator	boolean
• showSeconds	boolean
• showSeparators	boolean
• type	String
• name	String
• description	String
• showInGrid	boolean
• showInReducedGrid	boolean
• domainKey	String
• domain	String
• direction	String
• unique	boolean
• mandatory	boolean
• active	boolean
• index	Integer
• defaultValue	String
• group	String
• precision	String
• scale	String
• targetClass	String
• maxLenght	Integer
• editorType	String
• lookupType	String
• filter	String
• help	String
• showIf	String
• validationRules	String
• mode	boolean
• autoValue	String
• metadata	map<String, String>
• classOrder	Integer
• isMasterDetail	Boolean
• masterDetailDescription	String
• ipType	String
• textContentSecurity	String

Function	Path	Parameters	Type	Description
readAll		-limit Integer -start Integer	GET	Obtain the full attributes list of a specific domain, with the possibility of filtering the result with limit and offset
read	/attrId		GET	Get the details of a specific domain attribute
create		-data json	POST	Create a new attribute for a specific domain with the provided data
update	/attrId	-data json	PUT	Update an existing attribute with the provided data
delete	/attrId		DELETE	Delete a specific attribute owned by a domain
reorder	/order	-attrOrder List <String>	POST	Reorder the list of domain attributes of a specific domain with the porovided order provided in attrOrder

5.2.31. Domains

http://hostname:port/cmdbuild/services/rest/v3/domains

Domain data structure:

• source	String
• name	String
• description	String
• destination	String
• cardinality	String
• descriptionDirect	String
• descriptionInverse	String
• indexDirect	int
• indexInverse	int
• descripttionMasterDetail	String
• filterMasterDetail	String
• isMasterDetail	boolean
• active	boolean
• disabledSourceDescendants	List<String>
• disabledDestinationDescendants	List<String>
• inline	Boolean
• defaultClosed	Boolean

Function	Path	Parameters	Type	Description
readAll		-filter String -limit Integer -start Integer	GET	Obtain a complete list of all available domains with the possibility of filtering the results with limit and offset
read	/domainId		GET	Get the details of a specific domain
create		-data json	POST	Create a new domain with the provided data
update	/domainId	-data json	PUT	Update an existing domain with the provided data
delete	/domainId		DELETE	Delete an existing domain

5.2.32. Email accounts

http://hostname:port/cmdbuild/services/rest/v3/email/accounts

Email account data structure:

• name	String
• username	String
• password	String
• address	String
• smtp_server	String
• smtp_port	Integer
• smtp_ssl	boolean
• smtp_starttls	boolean
• imap_output_folder	String
• imap_server	String
• imap_port	Integer
• imap_ssl	boolean
• imap_starttls	boolean

Function	Path	Parameters	Type	Description
readAll		-limit Long -offset Long -detailed Boolean	GET	Obtain the full list of available email accounts with the possibility of filtering the results with limit and offset

read	/accountId		GET	Get the details of a specific email account
create		-data json	POST	Create a new email account with the provided data
update	/accountId	-data json	PUT	Update an existing email account with the provided data
delete	/accountId			Delete an existing email account

5.2.33. Email queue

http://hostname:port/cmdbuild/services/rest/v3/email/queue

Function	Path	Parameters	Type	Description
triggerQueue	/trigger		POST	Trigger the email queue to send outgoing emails
getOutgoingEmail	/outgoing		GET	Get a list of every email with outgoing status
sendSingleEmail	/outgoing/emailId/trigger		POST	Trigger a specific email

5.2.34. Email templates

http://hostname:port/cmdbuild/services/rest/v3/email/templates

Email template data structure:

• name	String
• description	String
• from	String
• to	String
• cc	String
• bcc	String
• subject	String
• body	String
• contentType	String
• account	String
• keepSynchronization	boolean
• promptSynchronization	boolean
• delay	Long
• data	Map<String, String>

Function	Path	Parameters	Type	Description
readAll		-filter String -sort String -limit Long -start Long -detailed Boolean -includeBindings Boolean	GET	Obtain a full list of available email templates with the possibility of filtering the results with limit offset and sort
read	/templateId		GET	Get the details of a specific template
create		-data json	POST	Create a new email template with the provided data
update	/templateId	-data json	PUT	Update an existing template with the provided data
delete	/templateId		DELETE	Delete an existing email template

5.2.35. Etl Gate

http://hostname:port/cmdbuild/services/rest/v3/etl/gates

Etl gate data structure:

• code	String
• processingMode	String
• allowPublicAccess	Boolean
• enabled	Boolean
• config	Map<String, String>
• template	String
• script	String

Function	Path	Parameters	Type	Description
readAll		-limit Long -offset Long -detailed boolean	GET	Obtain a list of all Etl gates
read	/gateId		GET	Get the details of a specific etl gate

create		-date json	POST	Create a new Etl gate with the provided data
update	/gateId	-data json	PUT	Update an existing Etl gate with the provided data
delete	/gateId		DELETE	Remove an existing Etl gate

5.2.36. Fk Domain

http://hostname:port/cmdbuild/services/rest/v3/fkdomains

Function	Path	Parameters	Type	Description
readAll		-filter String -limit Long -start Long	GET	Obtain a list of all FKs for every domain, with the possibility of filtering the results

5.2.37. Functions

http://hostname:port/cmdbuild/services/rest/v3/functions

Function	Path	Parameters	Type	Description
readAll		-limit Integer -start integer -filter String -detailed Boolean	GET	Obtain a list of all available functions with the possibility of filtering the results wuth limit offset and filter
read	/functionId		GET	Get the details of a specific functions
readInputParameters	/functionId/ parameters	-limit Integer -start Integer	GET	Get a list of input parameters of a specific function
readOutputParameters	/functionId/ attributes	-limit Integer -start Integer	GET	Get a list of output parameters of a specific function
call	/functionId/outputs	-parameters String -model String	GET	Call a specific function

5.2.38. Geo attributes

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/geoattributes

Geo attribute data structure:

• name	String
• subtype	String
• description	String
• index	int
• visibility	List
• zoomMin	int
• zoomMax	int
• zoomDef	int
• style	Map<String, Object>
• _icon	Long

Function	Path	Parameters	Type	Description
readAllAttributes		-limit Integer -start Integer -detailed Boolean -visible Boolean	GET	Obtain a full list of all available atrtibutes with the possibility of filtering the results with offset, limit and visible
reorder	/order	-attrOrder List<Long>	POST	Reorder the list of attributes with the details provided in attrOrder
readAttribute	/attributeId		GET	Get the details of a specific attribute
create		-data json	POST	Create a new attribute for a specific class with the provided data
updateVisibility	/visibility	-geoAttributes List<Long>	POST	Update the visibility of the attributes owned by a specific class
update	/attributeId	-data json	PUT	Update a specific attribute with the provided data
delete	/attributeId		DELETE	Delete a specific attribute

5.2.39. Geo style rules

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/geostylerules

Geo style rules data structure:

• name	String
• description	String
• owner	String
• attribute	String
• classattribute	String
• function	String
• alanalysistype	String
• segments	Integer
• rules	JsonNode

Function	Path	Parameters	Type	Description
readAll		-limit Integer -start Integer	GET	Obtain a full list of geo style rules
read	/rulesetId		GET	Get the details of a specific geo style rule owned by the class with id classId
create		-data json	POST	Create a new geo style ruleset with the provided data for the class with id classId
update	/rulesetId	-data json	PUT	Update a specific geo style rule with the provided data
delete	/rulesetId		DELETE	Delete an existing ruleset with the id rulesetId and class with id classId
applyRules	/rulesetId/result	-cards String	GET	Get the results of the application of a ruleset with id rulesetId
applyRules	/tryRules	-data json -cards String	POST	Get the results of the application of a ruleset with the provided data

5.2.40. Geo values

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/_ANY/cards|instances/_ANY/geovalues

Function	Path	Parameters	Type	Description
query		-attrs Set<Long> -area String -filter String -attach_nav_tree Boolean	GET	Obtain a list of all currently available geo values in the specified area
queryArea	/area	-attribute Set<Long> -filter String	GET	
queryCenter	/center	-attribute Set<Long> -filter String	GET	

5.2.41. Geo server layers

http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/geolayers

Geo server layer data structure:

• name	String
• type	String
• active	Boolean
• index	Integer
• geoserver_name	String
• description	String
• zoomMin	int
• zoomMax	int
• zoomDef	int
• visibility	List<String>

Function	Path	Parameters	Type	Description
getOneForCard	/layerId		GET	Get the details of a spefic geoserver layer for a specific card

getAllForCard		-visible Boolean	GET	Obtain a full list of geo server layers for a specific card
create		-data json -file DataHandler	POST	Create a new attribute with the provided in data for a specific card
update	/layerId	-data json -file DataHandler	PUT	Update an existing geo server layer with the provided data
delete	/layerId		DELETE	Delete a specific geo server layer
order	/order	-layerOrder List<Long>	POST	Reorder the list of layers for a specific class based on the details provided in layerOrder

5.2.42. Grants

http://hostname:port/cmdbuild/services/rest/v3/roles/roleId/grants

Grant data structure:

• mode	String
• objectType	String
• objectTypeName	String
• filter	String
• attributePrivileges	Map<String, String>
• _card_create_disabled	Boolean
• _card_update_disabled	Boolean
• _card_delete_disabled	Boolean
• _card_clone_disabled	Boolean
• _card_relation_disabled	Boolean
• _card_print_disabled	Boolean
• _can_fc_attachment	Boolean
• _on_filter_mismatch	Boolean

Function	Path	Parameters	Type	Description
readMany		-filter String -limit Long -start Long	GET	Obtain a list of available grants for a specific role

		-include ObjectDescription Boolean -include RecordsWithoutGrant Boolean		
readOneByObject	/by-target/ objectType/ objectTypeName		GET	
update	/_ANY	-data List<json>	PUT	Update the list of available grants for a specific role with the provided data

5.2.43. Impersonation

http://hostname:port/cmdbuild/services/rest/v3/sessions/current/impersonate

Function	Path	Parameters	Type	Description
impersonate	/username		POST	Impersonate a specific user with the provided username
deimpersonare			DELETE	Stop the current impersonation

5.2.44. Jobs

http://hostname:port/cmdbuild/services/rest/v3/jobs

Job data structure:

• code	String
• description	String
• type	String
• config	Map<String, Object>
• enabled	boolean

Function	Path	Parameters	Type	Description
readMany		-limit Long -start Long	GET	Obtain a list of every Job available
readOne	/jobId		GET	Get the details of a specific job
create		-data	POST	Create a new job with the

		json		provided data
update	/jobId	-data json	PUT	Update an existing job with the provided data
delete	/jobId		DELETE	Delete a specific existing job
runJobNow	/jobId/run		POST	Run a specific job
getJobRuns	/jobId/runs	-limit Long -start Long	GET	Get a list of every execution of a specific job
getJonRunErrors	/jobId/errors	-limit Long -start Long	GET	Get a list of all the errors generated by a specific job
getJobRuns	/_ANY/runs	-limit Long -start Long	GET	Get a list of every run of every job
getJonRunErrors	/_ANY/errors	-limit Long -start Long	GET	Get a list of all the errors generated by all jobs
getJobRuns	/jobId/runs/runId		GET	Get the details of a specific run of a specific job

5.2.45. Language configurations

http://hostname:port/cmdbuild/services/rest/v3/configuration/languages

Function	Path	Parameters	Type	Description
getLoginLanguages			GET	Obtain a list of all available languages

5.2.46. Languages

http://hostname:port/cmdbuild/services/rest/v3/languages

Function	Path	Parameters	Type	Description
readLanguages		-active Boolean	GET	Obtain a list of all available languages

5.2.47. Locks

http://hostname:port/cmdbuild/services/rest/v3/locks

Function	Path	Parameters	Type	Description
getLocks			GET	Get all available locks
getLock	/lockId		GET	Get details of a specific lock
deleteLock	/lockId		DELETE	Delete a specific lock
deleteAllLocks	/_ANY		DELETE	Delete all locks

5.2.48. Lookup types

http://hostname:port/cmdbuild/services/rest/v3/lookup_types

Lookup type data structure:

• name	String
• parent	String

Function	Path	Parameters	Type	Description
read	/lookupTypeId		GET	Get the details of a specific lookup type
readAll		-limit Long -start Long -filter String	GET	Obtain a list of all available lookup types
createLookupType		-data json	POST	Create a new lookup type with the provided data
updateLookupType	/lookupTypeId	-data json	PUT	Update an existing lookup type with the values provided in wsLookupType
deleteLookupType	/lookupTypeId		DELETE	Delete an existing lookup type

5.2.49. Lookup values

http://hostname:port/cmdbuild/services/rest/v3/lookup_types/lookupTypeId/values

Lookup data structure:

• code	String
• description	String
• index	Integer
• active	boolean

• parent_id	Long
• default	boolean
• note	String
• text_color	String
• icon_type	String
• icon_image	String
• icon_font	String
• icon_color	String

Function	Path	Parameters	Type	Description
read	/lookupValueId		GET	Obtain a list of the lookup values for a specific lookup type
readAll		-limit Long -start Long -filter String -active Boolean	GET	Obtain a full list of the lookup values available
create		-data json	POST	Create a new lookup value for a specific lookup type with the provided data
update	/lookupValueId	-data json	PUT	Update an existing lookup value with the provided data
delete	/lookupValueId		DELETE	Delete an existing lookup value
reorder	/order	-lookupValueIds List<Long>	POST	Reorder the lookup value list of a specific lookup type with the provided data

5.2.50. Menu

http://hostname:port/cmdbuild/services/rest/v3/menu

Menu Node data structure:

• _id	String
• menuType	MenuItemType
• objectTypeName	String
• objectDescription	String
• children	List<MenuNodes>

Menu Root Node data structure:

• group	String
• children	List<MenuNodes>

Function	Path	Parameters	Type	Description
readAll		-detailed Boolean	GET	Obtain a full list of all available menus
read	/menuId		GET	Get the details of a specific menu
create		-data json	POST	Create a new menu with the provided data
update	/menuId	-data json	PUT	Update an existing menu with the provided data
delete	/menuId		DELETE	Delete an existing menu

5.2.51. Minions

http://hostname:port/cmdbuild/services/rest/v3/system_services

Function	Path	Parameters	Type	Description
getServiceStatus			GET	Obtain a list of the status of every available service
getServiceStatus	/serviceId		GET	Get the status details of a specific service
startStatus	/serviceId/start		POST	Start a specific service
stopService	/serviceId/stop		POST	Stop a specific service

5.2.52. Nav trees

http://hostname:port/cmdbuild/services/rest/v3/domainTrees

Tree data structure:

• name	String
• description	String
• nodes	List<TreeNodes>
• active	boolean

Tree node data structure:

• filter	String
• targetClass	String
• domain	String

• direction	String
• recursionEnabled	Boolean
• showOnlyOne	Boolean
• nodes	List<TreeNodes>

Function	Path	Parameters	Type	Description
readAll		-filter String -limit Long -start Long	GET	Get a list of every available nav tree
read	/treeId	-treeMode String	GET	Obtain the details of a specific nav tree
create		-data json	POST	Create a new nav tree with the provided data
update	/treeId	-data json	PUT	Update an existing nav tree with the provided data
delete	/treeId		DELETE	Delete a specific nav tree

5.2.53. Process configuration

http://hostname:port/cmdbuild/services/rest/v3/configuration/processes

Function	Path	Parameters	Type	Description
readStatuses	/statuses		GET	Obtain a list with the statuses of every available process

5.2.54. Process instance activity email

http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances/instanceId/activities/activityId/emails

Function	Path	Parameters	Type	Description
updateEmailWithCardData	/sync	-flowData	POST	Update a specific email with a specific card data

5.2.55. Process instance activity

http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances/processInstanceId/activities

Function	Path	Parameters	Type	Description
read			GET	Obtain a list of every available task for a specific

				class
read	/processActivityId		GET	Get all the details of a specific task

5.2.56. Process instance history

http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances/instanceId/history

Function	Path	Parameters	Type	Description
getHistory		-limit Long -start Long	GET	Obtain a list of the history of processes for a specific card
getHistoryRecord	/recordId		GET	Get the details of a specific record in the history

5.2.57. Process instances

http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances

Function	Path	Parameters	Type	Description
create		-data json	POST	Create a new process instance with the provided data
update	/processInstanceId	-data json	PUT	Update a process instance with the provided data
read	/processInstanceId	-include_tasklist Boolean	GET	Get the details of a specific process
plotGraph	/processInstanceId /graph	-simplified Boolean	GET	
readMany		-filter String -sort String -limit Long -start Long -positionOf Long -positionOf_goToPage Boolean -include_tasklist Boolean	GET	Obtain the list of all available process instances with the possibility of filtering the results with filter, sort, limit, offset, positionOfCard, goToPage
delete	/processInstanceId		DELETE	Delete an existing process instance

5.2.58. Process start activities

http://hostname:port/cmdbuild/services/rest/v3/processes/processId/start_activities

Function	Path	Parameters	Type	Description
read			GET	Get the start activities of a specific process

5.2.59. Process task definition

http://hostname:port/cmdbuild/services/rest/v3/processes/processId/activities

Task definition data structure:

• formStructure	JsonNode

Function	Path	Parameters	Type	Description
getAllActivities		-limit Long -start Long	GET	Get all task definitions for a specific process
getOne	/taskId		GET	Obtain the details of a specific task
update	/taskId	-data json	PUT	Update an existing task

5.2.60. Process task

http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instance_activities

Function	Path	Parameters	Type	Description
getAllActivities		-limit Long -start Long	GET	Get all activities of a specific process

5.2.61. Processes

http://hostname:port/cmdbuild/services/rest/v3/processes

Function	Path	Parameters	Type	Description
readAll		-activeOnly Boolean -limit Long -start Long -detailed Boolean	GET	Obtain a list of every available process
read	/processId		GET	Get the details of a specific process
create		-data json	POST	Create a new process with the provided data

update	/processId	-data json	PUT	Update an existing process with the provided data
delete	/processId		DELETE	Delete an existing process
uploadNewXpdlVersion	/processId/ versions	-file DataHandler	POST	Upload a new xpdl
uploadXpdlVersionAndMigrateProcessToNewProvider	/processId/ migration	-provider String -file DataHandler	POST	Upload a new xpdl and force the process to use the new xpdl version
getAllXpdlVersions	/processId/ versions		GET	Obtain a list of all xpdl version
getXpdlVersionFile	/processId/ versions/planId/file		GET	Obtain an xpdl file
getXpdlTemplateFile	/processId/ template		GET	Obtain an xpdl template file

5.2.62. Relations

http://hostname:port/cmdbuild/services/rest/v3/domains/domainId/relations

Relation data structure:

• _id	Long
• _type	String
• _sourceType	String
• _sourceId	Long
• _destinationType	String
• _destinationId	Long
• _is_direct	Boolean

Function	Path	Parameters	Type	Description
readAll		-limit Long -start Long -detailed Boolean	GET	Obtain a list of all available relations for a specific domain
read	/relationId		GET	Get the details of a specific relation
create		-data json	POST	Create a new relation with the provided data
update	/relationId	-data json	PUT	Update an existing relation with the provided data
delete	/relationId		DELETE	Delete a specific relation
moveManyRelations	/_ANY/move	-data json	POST	Move the specified relation

copyManyRelatio ns	/_ANY/copy	-data json	POST	Copy a specific relation

5.2.63. Reports

http://hostname:port/cmdbuild/services/rest/v3/reports

Report data structure:

_id	Long
code	String
description	String
_description_translation	String
active	boolean
title	String
query	String

Function	Path	Parameters	Type	Description
readAll		-filter String -limit Long -start Long -detailed Boolean	GET	Obtain a list of all available reports
read	/reportId		GET	Get the details of a specific report
readAllAttributes	/reportId/attributes	-limit Long -start Long	GET	Get all attributes of a specific report
download	/reportId/file:	-extension String -parametersStr String	GET	Download a report on a specified file with a specified extension
createReport		-data json -attachments List<Attachment>	POST	Create a new report with the provided attachments
updateReport	/reportId	-attachments List<Attachment>	PUT	Update an existing report with the provided data
updateReportTe mplate	/reportId/template-data json -attachments List<Attachment>	-data json -attachments List<Attachment>	PUT	Update an existing report template with the provided data

downloadTemplateFiles	/reportId/template:		GET	Download a specific report template
deleteReport	/reportId		DELETE	Delete an existing report

5.2.64. Resources

http://hostname:port/cmdbuild/services/rest/v3/resources

Function	Path	Parameters	Type	Description
downloadCompanyLogo	/company_logo/file	-roleId	GET	Obtain the logo of the company

5.2.65. Role class filters

http://hostname:port/cmdbuild/services/rest/v3/roles/roleId/filters

Function	Path	Parameters	Type	Description
read			GET	Obtain a list of all available filter for a specific role
updateWithPost		-data json	POST	Update the list of filters available for a specific role with the provided data

5.2.66. Roles

http://hostname:port/cmdbuild/services/rest/v3/roles

Role data structure:

• type	String
• name	String
• description	String
• email	String
• active	boolean
• processWidgetAlwaysEnabled	boolean
• startingClass	String

Function	Path	Parameters	Type	Description
readOne	/roleId		GET	Get the details of a specific role
readMany		-limit Long -offset Long	GET	Obtain a list of all available roles

readRoleUser	/roleId/users	-filter String -sort String -limit Long -start Long -assigned Boolean	GET	Obtain a list of all available roles for a specific user
updateUsersPost	/roleId/users	-users json	POST	Update the roles of a specific user
create		-jsonData String	POST	Create a new role with the provided data
update	/roleId	-jsonData String	PUT	Update an existing role with the provided data

5.2.67. Session menu

http://hostname:port/cmdbuild/services/rest/v3/sessions/sessionId/menu

Function	Path	Parameters	Type	Description
read		-flat Boolean	GET	Obtain a list of every session menu available

5.2.68. Session preferences

http://hostname:port/cmdbuild/services/rest/v3/sessions/sessionId/preferences

Function	Path	Parameters	Type	Description
read			GET	Obtain a list of all available preferences for a specific session
getUserConfig	/key	-key String	GET	Get the value of a specific user configuration
updateUserConfigValue	/key	-key String -value String	PUT	Update the value of a specific user configuration
updateUserConfigValues		-data Map<String, String>	POST	Update the vlue of multiple user configurations
deleteSystemConfigValue	/key		DELETE	Delete a specific configuration key

5.2.69. Sessions

http://hostname:port/cmdbuild/services/rest/v3/sessions

Session data structure:

• username	String
• password	String
• role	String
• scope	String
• tenant	Long
• ignoreTenants	Boolean
• activeTenants	List<Long>

Function	Path	Parameters	Type	Description
create		-data json -includeExtendedData Boolean -scopeStr String -returnId Boolean	POST	Create a new session with the provided data
read	/sessionId	-include ExtendedData Boolean	GET	Get the details of a specific session
read	/sessionId/ privileges		GET	Get the details of the privileges of a specific session
readAll			GET	Obtain a list of all available sessions
update	/sessionId	-data json -includeExtendedData Boolean	PUT	Update an existing session with the provided data
delete	/sessionId		DELETE	Delete an existing session
deleteAll	/all		DELETE	Delete all existing sessions
keepAlive	/id/keepalive		POST	Keep a session alive

5.2.70. System configuration

http://hostname:port/cmdbuild/services/rest/v3/system/config

Function	Path	Parameters	Type	Description
getSystemConfig		-detailed Boolean	GET	Get the full system configuration

getSystemConfig	/key	-includeDefault Boolean	GET	Get a specific configuration of the system
updateSystemConfigValue	/key	-value String -encrypt Boolean	PUT	Update a specific configuration of the system
updateSystemConfigValues	/_MANY	-data Map<String, String>	PUT	Update the system configuration with the provided data
deleteSystemConfigValue	/key		DELETE	Delete a specific ststem configuration
reloadConfig	/reload		POST	Reload the system configuration

5.2.71. System

http://hostname:port/cmdbuild/services/rest/v3/system

Function	Path	Parameters	Type	Description
status	/status		GET	Obtain a list of the system services status
getClusterStatus	/cluster/status		GET	Get the status of the cluster system
dropCache	/cache/drop		POST	Invalidate all system cache
dropCache	/cache/cacheId/drop		POST	Invalidate a specific cache
getCacheStats	/cache/stats		GET	Obtain a list of the cache statuses
stopSystem	/stop		POST	Stop the CMDBuild system
reloadSystem	/reload		POST	Reload the CMDBuild system
restartSystem	/restart		POST	Restart the CMDBuild system
upgradeSystem	/upgrade	-file DataHandler	POST	Upgrade the CMDBuild system with the provided file
dropAudit	/audit/drop		POST	Drop the audits of the system
cleanupAudit	/audit/cleanup		POST	Cleanup the audits of the system
getAllPatches	/patches		GET	Obtain a list of all patches
getAllTenants	/tenants		GET	Obtain a list of all available tenants
getSchedulerJobs	/scheduler/jobs		GET	Obtain a list of all the jobs available in the scheduler
triggerJobNow	/scheduler/		POST	Trigger the execution of a

	job/jobId/ trigger			job
getAllLoggers	/loggers		GET	Obtain a list of all available loggers
updateLoggerLevel	/loggers/key	-loggerCategory String -loggerLevel String	POST	Update the level of a specific logger
addLoggerLevel	/loggers/key	-loggerCategory String -loggerLevel String	PUT	Add a logger level to an existing logger
deleteLoggerLevel	/loggers/key	-loggerCategory String	DELETE	Delete a level of a specific logger
receiveLogMessages	/logger/stream		POST	Enable the stream of the active loggers
stopReceivingLogMessages	/logger/stream		DELETE	Stop the stream of the active loggers
dumpDatabase	/database/ dump		GET	Create a dump of the current database used by the system
reconfigureDatabase	/database/ reconfigure	-dbConfig Map<String, String>	POST	Reconfigure the database with the configuration provided by dbConfig
importDatabaseFromDump	/database/ import	-file DataHandler	POST	Reconfigure a database with the dump file provided by dataHandler
generateDebugInfo	/debuginfo/ download		GET	Generate a bug report
sendBugReport	/debuginfo/ send	-message String	POST	Send a bug report with the provided message
sendBroadcastMessage	/messages/ broadcast	-message String	POST	Send a broadcast alert with the provided message

5.2.72. Tenants

http://hostname:port/cmdbuild/services/rest/v3/tenants

Function	Path	Parameters	Type	Description
getAll		-limit Long -start Long	GET	Obtain a list of all available tenants
configureMultitenant	/configure	-configData json	POST	Set the multitenant configuration with the provided data

5.2.73. Timezones

http://hostname:port/cmdbuild/services/rest/v3/timezones

Function	Path	Parameters	Type	Description
readAvailableTimezones			GET	Obtain a list of all available timezones

5.2.74. Translations

http://hostname:port/cmdbuild/services/rest/v3/translations

Function	Path	Parameters	Type	Description
getAll		-limit Long -start Long -filter String	GET	Obtain a list of all available translations
getTranslationForKeyAndLang	/code	-lang String	GET	Get the translation for a specific key in a specific language
setTranslation	/code	-data jdon	PUT	Set a specific translation with the provided data
deleteTranslation	/code	-lang String	DELETE	Remove a specific translation for a specific language
export	/export	-language String -format String -filter String -separator String	GET	Obtain a file of the specified format containing the translations for a specific language

5.2.75. Uploads

http://hostname:port/cmdbuild/services/rest/v3/uploads

Upload item data structure:

• path	String
• description	String

Function	Path	Parameters	Type	Description
readMany		-dir String	GET	Obtain a list of all available files in a specific directory
readFile	/fileId		GET	Get the details of a specific file

downloadFile	/fileId/file:		GET	Download a specific file
downloadManyFiles	/_MANY/file:.zip	-dir	GET	Download multiple specified files
downloadAllFiles	/_ANY/file:.zip		GET	Download all available files
loadFile		-file DataHandler -directoryPath String	POST	Load a new file in the system
loadZipFile	/_MANY	-dataHandler DataHandler	POST	Load a zip file containing one or more files
updateFile	/fileId	-file DataHandler	PUT	Update an existing file with the provided data
deleteFile	/fileId		DELETE	Delete a specific file

5.2.76. Users

http://hostname:port/cmdbuild/services/rest/v3/users

User data structure:

• username	String
• description	String
• email	String
• password	String
• initialPage	String
• active	boolean
• service	boolean
• language	String
• multiGroup	boolean
• multiTenant	boolean
• multiTenantActivationPrivileges	String
• defaultUserGroup	Long
• userTenants	List<TenantInfo>
• userGroups	List<UserRole>

Function	Path	Parameters	Type	Description
readMany		-filter String -sort String -limit Long	GET	Obtain a list of all available users with the possibility of filtering the results with filter, sort, limit and offset

		-start Long -detailed Boolean		
readOne	/userId		GET	Get the details of a specific user
create		-data json	POST	Create a new user with the provided data
update	/userId	-data json	PUT	Update an existing user with the provided data
changePassword	/current/ password	-data json	PUT	Update the password of the current user with the provided data

5.2.77. Card views

http://hostname:port/cmdbuild/services/rest/v3/views/viewId/cards

Function	Path	Parameters	Type	Description
create		-data Map<String,Object>	POST	Create a new view with the provided data
readOne	/cardId		GET	Get the card details with the specified view
readMany		-filter String -sort String -limit Long -start Long -positionOf Long -forDomainName String -forDomainDirection String -forDomainOriginId Long	GET	Obtain a list of information with the specified view
update	/cardId	-data Map<String,Object>	PUT	Update the information of a specific view with the information contained in data
delete	/cardId		DELETE	Delete a specific card view

5.2.78. Views

http://hostname:port/cmdbuild/services/rest/v3/views

View data structure:

• name	String
• description	String
• sourceClassName	String
• sourceFunction	String
• filter	String
• active	boolean
• type	String

Function	Path	Parameters	Type	Description
list			GET	Obtain a list of all available views
getOne	/viewId		GET	Get the details of a specified view
create		-data json	POST	Create a new view with the provided data
update	/viewId	-data json	PUT	Update an existing view with the provided data
delete	/viewId		DELETE	Delete an existing view

5.3. REST Examples

In this paragraph various examples of REST calls will be presented. Note that CMDBuild in this scenario is configured with the database: demo.dump.xz, so if you want to replicate the same examples with the same data you must load that dump first.

To perform the following examples various tools can be used, via terminal with curl on linux operating systems, or with the support of a graphical interface with programs like Postman, or any other software that can perform HTTP requests.

Every request requires the user to specify in the header the field “Cmdbuild-authorization”, that field is a session token generated when creating a session, the first example request will show how to obtain that through a specific request.

5.3.1. Generating a session token

The endpoint to use for generating a session token is:

http://hostname:port/cmdbuild/services/rest/v3/sessions

The request type has to be POST, because username and password will be provided to create a new session. If in the response we want to obtain the session token, from version 3.2 a query parameter has to be set to true in the request, the parameter is ‘returnId’. If this parameter is not set to true the sessionId will be hidden and the value ‘current’ will be returned instead

The request will be like the following:

```
POST http://hostname:port/cmdbuild/services/rest/v3/sessions?scope=service
HTTP/1.1
Content-Type:application/json
{
 username : admin,
 password : admin
}
```

The response will be like the following, where the _id will be the generated session id and after the list of available roles information like multigroup and role priviledges will be displayed:

```
HTTP/1.1 200 OK
Content-Type:application/json
{
 “success”: true,
 “data” : {
       “_id”:“sessionId”,
       “username”:”admin”,
       “userDescription”:”Administrator”,
       “role”:”SuperUser”,
       “availableRoles”:[
       “SuperUser”
       ],
 ...
 }
}
```

An inactive session will be deleted after a certain amount of time, causing the user to re-create the session every once in a while.

With futher requests users can provide the generated id (the value in the field _id) in the header to obtain access to every rest endpoint.

5.3.2. Obtaining a list of every class

If the user wants to obtain a list of the available classes the endpoint that will be used is:

http://hostname:port/cmdbuild/services/rest/v3/classes

The request type has to be GET, and will look like the following:

```
GET http://hostname:port/cmdbuild/services/rest/v3/classes?scope=service
HTTP/1.1
Cmdbuild-authorization:sessionId
```

The response will be like the following, the results should be 24, but for the documentation purpose only the first results are displayed.

```
HTTP/1.1 200 OK
Content-Type:application/json
{
 “success”: true,
 “data” : {
   “_id”:“Invoice”,
   "name": "Invoice",
   "description": "Invoice",
   "_description_translation": "Invoice",
   "prototype": false,
   "parent": "Class",
   "active": true,
   "type": "standard",
   "_can_read": true,
   "_can_create": true,
   "_can_update": true,
   "_can_clone": true,
   "_can_delete": true,
   "_can_modify": true,
   "defaultFilter": null,
   "description_attribute_name": "Description",
   "metadata": {},
   "_icon": null
  },
. . .
,
 "meta": {
  "total": 24
 }
}
```

In the response of multiple items at the bottom of the response a “meta” field will always be provided, various information such as the number of total results can be found here.

Note that the parameters previously described in the documentation can be provided (in this case the available parameters are activeOnly, detailed, limit and offset). If, for example, we wanted the amount of results to be limited to two the request would look the same with the addition of the parameter in the endpoint like:

```
http://hostname:port/cmdbuild/services/rest/v3/classes?
scope=service&limit=2
```

The same with the addition of other parameters.

5.3.3. Obtaining the information of a specific class

If instead of a class list, the user wants to obtainthe information of a specific class only, the endpoint will be the same as the full list with the addition of the classId in the path:

http://hostname:port/cmdbuild/services/rest/v3/classes/classId

Where the value of classId will be the value of the class that we want to obtain, for the example the class we use will be the one previously returned in the response (the class with _id=invoice), so the new request endpoint will be:

http://hostname:port/cmdbuild/services/rest/v3/classes/Invoice

The request type has to be GET, and will look like the following:

```
GET http://hostname:port/cmdbuild/services/rest/v3/classes/Invoice?
scope=service HTTP/1.1
Cmdbuild-authorization:sessionId
```

The response will contain the information of only that class like shown in the response with every class:

```
HTTP/1.1 200 OK
Content-Type:application/json
{
 “success”: true,
 “data” : {
   “_id”:“Invoice”,
   "name": "Invoice",
   "description": "Invoice",
   "_description_translation": "Invoice",
   "prototype": false,
   "parent": "Class",
   "active": true,
   "type": "standard",
   . . .
```

5.3.4. Creating a new class

If the objective of the request has to be the creation of a new class, the endpoint is:

http://hostname:port/cmdbuild/services/rest/v3/classes

The new class information have to be provided, in the header it is also required to add the content-type, as in the session creation and the request type will be POST:

```
POST http://hostname:port/cmdbuild/services/rest/v3/classes HTTP/1.1
Cmdbuild-authorization:sessionId
Content-Type:application/json
{
 “name”:”testClass”,
 “type”:”standard”
}
```

In this case the class created has only the two basic information, the name and the type, in the request we can add whatever information we want that is supported by the class.

When the request is made the response will contain the newly added class:

```
HTTP/1.1 200 OK
Content-Type:application/json
 {
 "success": true,
 "data": {
  "_id": "testClass",
  "name": "testClass",
  "description": "",
  "_description_translation": "",
  "prototype": false,
  "parent": "Class",
  "active": true,
  "type": "standard",
   . . .
```

So that if we would perform a get request for that specific class:

```
GET http://hostname:port/cmdbuild/services/rest/v3/classes/testClass?scope=service HTTP/1.1
Cmdbuild-authorization:sessionId
```

We would obtain those information that just got added.

5.3.5. Update an existing class

If a class has been already created, there is the possibility of updating the information of this class via a PUT request, the endpoint will be

http://hostname:port/cmdbuild/services/rest/v3/classes/classId

And in the request every element that needs changing can be included, for example if the objective is change the description of our previously created class (testClass) to “test description” this will be the request:

```
PUT http://hostname:port/cmdbuild/services/rest/v3/classes/testClass HTTP/1.1
Cmdbuild-authorization:sessionId
Content-Type:application/json
{
 “name”:”testClass”,
 “type”:”standard”,
 “description”:”test description”
}
```

The request will contain the information about the updated class:

```
HTTP/1.1 200 OK
Content-Type:application/json
 {
 "success": true,
 "data": {
  "_id": "testClass",
  "name": "testClass",
  "description": "test description",
  "_description_translation": "",
  "prototype": false,
  "parent": "Class",
  "active": true,
  "type": "standard",
   . . .
```

So that if we would perform a get request for that specific class:

```
GET http://hostname:port/cmdbuild/services/rest/v3/classes/testClass?
scope=service HTTP/1.1
Cmdbuild-authorization:sessionId
```

We would obtain those information that just got added.

6. Appendix: Glossary

6.1.1. ATTACHMENT

An attachment is a file associated to a card.

In order to manage the attachments, CMDBuild uses in embedded mode any document system which is compatible with the standard protocol CMIS (or the DMS Alfresco until the version 3 through its native webservice).

The management of the attachments supports the versioning of those files that have been uploaded a few times, with automatic numbering.

6.1.2. WORKFLOW STEP

"Activity" means one of the steps of which the process consists.

An activity has a name, an executor, a type, possible attributes and methods with statements (CMDBuild API) to be executed.

A process instance is a single process that has been activated automatically by the application or manually by an operator.

See also: Process

6.1.3. ATTRIBUTE

The term refers to an attribute of a CMDBuild class.

CMDBuild allows you to create new attributes (in classes and domains) or edit existing ones.

For example, in "supplier" class the attributes are: name, address, phone number, etc..

Each attribute corresponds, in the Management Module, to a form field and to a column in the database.

See also: Class, Domain, Report, Superclass, Attribute Type

6.1.4. BIM

Method with the aim to support the whole life cycle of a building: from its construction, use and maintenance, to its demolition, if any.

The BIM method (Building Information Modeling) is supported by several IT programs that can interact through an open format for data exchange, called IFC (Industry Foundation Classes).

See also: GIS

6.1.5. CI

We define CI (Configuration Item) each item that provides IT service to the user and has a sufficient detail level for its technical management.

CI examples include: server, workstation, software, operating system, printer, etc.

See also: Configuration

6.1.6. CLASS

A Class is a complex data type having a set of attributes that describe that kind of data.

A Class models an object that has to be managed in the CMDB, such as a computer, a software, a service provider, etc.

CMDBuild allows the administrator - with the Administration Module - to define new classes or delete / edit existing ones.

Classes are represented by cards and, in the database, by tables automatically created at the definition time.

See also: Card, Attribute

6.1.7. CONFIGURATION

The configuration management process is designed to keep updated and available to other processes the items (CI) information, their relations and their history.

It is one of the major ITIL processes managed by the application.

See also: CI, ITIL

6.1.8. DASHBOARD

In CMDBuild, a dashboard corresponds to a collection of different charts, in this way you can immediately hold in evidence some key parameters (KPI) related to a particular management aspect of the IT service.

See also: Report

6.1.9. DATABASE

The term refers to a structured collection of information, hosted on a server, as well as utility software that handle this information for tasks such as initialization, allocation, optimization, backup, etc..

CMDBuild relies on PostgreSQL, the most powerful, reliable, professional and open source database , and uses its advanced features and object-oriented structure.

6.1.10. DOMAIN

A domain is a relation between two classes.

A domain has a name, two descriptions (direct and inverse), classes codes, cardinality and attributes.

The system administrator, using the Administration Module, is able to define new domains or delete / edit existing ones.

It is possible to define custom attributes for each domain.

See also: Class, Relation

6.1.11. DATA FILTER

A data filter is a restriction of the list of those elements contained in a class, obtained by specifying boolean conditions (equal, not equal, contains, begins with, etc.) on those possible values that can be accepted by every class attribute.

Data filters can be defined and used exceptionally, otherwise they can be stored by the operator and then recalled (by the same operator or by operators of other user groups, which get the permission to use them by the system Administrator)

See also: Class, View

6.1.12. GIS

A GIS is a system able to produce, manage and analyse spatial data by associating geographic elements to one or more alphanumeric descriptions.

GIS functionalities in CMDBuild allow you to create geometric attributes (in addition to standard attributes) that represent, on plans / maps, markers position (assets), polylines (cable lines) and polygons (floors, rooms, etc.).

See also: BIM

6.1.13. GUI FRAMEWORK

It is a user interface you can completely customise. It is advised to supply a simplified access to the application. It can be issued onto any webportals and can be used with CMDBuild through the standard REST webservice.

See also: Mobile, Webservice

6.1.14. ITIL

"Best practices" system that established a "standard de facto"; it is a nonproprietary system for the management of IT services, following a process-oriented schema (Information Technology Infrastructure Library).

ITIL processes include: Service Support, Incident Management, Problem Management, Change Management, Configuration Management and Release Management.

For each process, ITIL handles description, basic components, criteria and tools for quality management, roles and responsibilities of the resources involved, integration points with other processes (to avoid duplications and inefficiencies).

See also: Configuration

6.1.15. LOOKUP

The term "Lookup" refers to a pair of values (Code, Description) set by the administrator in the Administration Module.

These values are used to bind the user's choice (at the form filling time) to one of the preset values.

With the Administration Module it is possible to define new "LookUp" tables according to organization needs.

6.1.16. MOBILE

It is a user interface for mobile tools (smartphones and tablets). It is implemented as multi-platform app (iOS, Android) and can be used with the CMDB through the REST webservice.

See also: GUI Framework, Webservice

6.1.17. PROCESS

The term "process" (or workflow) refers to a sequence of steps that realize an action.

Each process will take place on specific assets and will be performed by specific users.

A process is activated by starting a new process (filling related form) and ends when the last workflow step is executed.

See also: Workflow step

6.1.18. RELATION

A relation is a link between two CMDBuild cards or, in other words, an instance of a given domain.

A relation is defined by a pair of unique card identifiers, a domain and attributes (if any).

CMDBuild allows users, through the Management Module, to define new relations among the cards stored in the database.

See also: Class, Domain

6.1.19. REPORT

The term refers to a document (PDF or CSV) containing information extracted from one or more classes and related domains.

CMDBuild users run reports by using the Management Module; reports definitions are stored in the database.

See also: Class, Domain, Database

6.1.20. CARD

The term "card" refers to an element stored in a class.

A card is defined by a set of values, i.e. the attributes defined for its class.

CMDBuild users, through the Management Module, are able to store new cards and update / delete existing ones.

Card information is stored in the database and, more exactly, in the table/columns created for that class (Administration Module).

See also: Class, Attribute

6.1.21. SUPERCLASS

A superclass is an abstract class used to define attributes shared between classes. From the abstract class you can derive real classes that contain data and include both shared attributes (specified in the superclass) and specific subclass attributes.

For example, you can define the superclass "Computer" with some basic attributes (RAM, HD, etc.) and then define derived subclasses "Desktop", "Notebook", "Server", each one with some specific attributes.

See also: Class, Attribute

6.1.22. ATTRIBUTE TYPE

Each attribute has a data type that represents attribute information and management.

The attribute type is defined using the Administration Module and can be modified within some limitations, depending on the data already stored in the system.

CMDBuild manages the following attribute types: "Boolean", "Date", "Decimal", "Double", "Inet" (IP address), "Integer", "Lookup" (lists set in "Settings" / "LookUp"), "Reference" (foreign key), "String", "Text", "Timestamp".

See also: Attribute

6.1.23. VIEW

A view not only includes the whole content of a CMDB class, it is a group of cards defined in a logical way.

In particular, a view can be defined in CMDBuild by applying a filter to a class (so it will contain a reduced set of the same rows) or specifying an SQL function which extracts attributes from one or more related classes.

The first view type maintains all functionalities available for a class, the second one allows the sole display and search with fast filter.

See also: Class, Filter

6.1.24. WEBSERVICE

A webservice is an interface that describes a collection of methods, available over a network and working using XML messages.

With webservices, an application allows other applications to interact with its methods.

CMDBuild includes a SOAP and a REST webservice.

6.1.25. WIDGET

A widget is a component of a GUI that improves user interaction with the application.

CMDBuild uses widgets (presented as "buttons") that can be placed on cards or processes. The buttons open popup windows that allow you to insert additional information, and then display the output of the selected function.