

Version

4.0



**CMD*Build***<sup>®</sup>

## » Webservice Manual

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We are thankful for the great contributions that led to the creation of these products.

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

## Contents

1. Introduction.....	6
1.1. The application.....	6
1.2. Official website.....	7
1.3. CMDBuild modules.....	7
1.4. Available manuals.....	7
1.5. Applications based on CMDBuild.....	7
2. Interoperability standards.....	9
2.1. Service-Oriented Architecture (SOA).....	9
3. Web services.....	11
3.1. Web Service introduction.....	11
3.2. REST Web Service introduction.....	11
4. REST Web Services.....	12
4.1. CMDBuild REST web service.....	12
4.2. CMDBuild REST Endpoints.....	12
4.2.1. Async Operation.....	13
4.2.2. Audits.....	13
4.2.3. Bim project.....	13
4.2.4. Bim values.....	14
4.2.5. Boot.....	14
4.2.6. Calendar Event Attachments.....	14
4.2.7. Calendar Event Email.....	15
4.2.8. Calendar Event.....	16
4.2.9. Calendar Sequence.....	17
4.2.10. Calendar Trigger.....	18
4.2.11. Calendar View Event.....	19
4.2.12. Card Attachments.....	19
4.2.13. Card Bim values.....	20
4.2.14. Card email attachments.....	20
4.2.15. Card email.....	21
4.2.16. Card geo values.....	22
4.2.17. Card history.....	23
4.2.18. Card locks.....	23
4.2.19. Card print.....	23
4.2.20. Card relations.....	24
4.2.21. Cards.....	24
4.2.22. Charset.....	25
4.2.23. Chat messages.....	25
4.2.24. Chat peers.....	25
4.2.25. Class attributes.....	26
4.2.26. Class filters.....	27
4.2.27. Class or process domains.....	28
4.2.28. Class print.....	28
4.2.29. Class stats.....	29
4.2.30. Classes.....	29
4.2.31. Configurations.....	30
4.2.32. Context menu component.....	30
4.2.33. Core components.....	31
4.2.34. Custom pages.....	31
4.2.35. Dashboard.....	32
4.2.36. Dms category values.....	33
4.2.37. Dms categories.....	33
4.2.38. Dms models.....	33
4.2.39. Domain attributes.....	34
4.2.40. Domains.....	36

4.2.41. Email accounts.....	37
4.2.42. Email queue.....	37
4.2.43. Email signatures.....	38
4.2.44. Email templates.....	38
4.2.45. Etl Config.....	39
4.2.46. Etl Gate.....	40
4.2.47. Etl messages.....	41
4.2.48. Etl templates.....	41
4.2.49. Fk Domain.....	43
4.2.50. Functions.....	43
4.2.51. Geo attributes.....	43
4.2.52. Geo style rules.....	44
4.2.53. Geo values.....	45
4.2.54. Geo server layers.....	46
4.2.55. Grants.....	46
4.2.56. Impersonation.....	47
4.2.57. Jobs.....	47
4.2.58. Language configurations.....	48
4.2.59. Languages.....	48
4.2.60. Locks.....	48
4.2.61. Lookup types.....	48
4.2.62. Lookup values.....	49
4.2.63. Menu.....	50
4.2.64. Minions.....	50
4.2.65. Nav trees.....	51
4.2.66. Process configuration.....	52
4.2.67. Process instance activity email.....	52
4.2.68. Process instance activity.....	52
4.2.69. Process instance history.....	52
4.2.70. Process instances.....	52
4.2.71. Process start activities.....	53
4.2.72. Process task definition.....	53
4.2.73. Process task.....	54
4.2.74. Processes.....	54
4.2.75. Relation history.....	54
4.2.76. Relations.....	55
4.2.77. Reports.....	55
4.2.78. Resources.....	56
4.2.79. Role class filters.....	56
4.2.80. Roles.....	56
4.2.81. Search.....	57
4.2.82. Session menu.....	57
4.2.83. Session preferences.....	57
4.2.84. Sessions.....	58
4.2.85. System configuration.....	59
4.2.86. System.....	59
4.2.87. Tenants.....	60
4.2.88. Timezones.....	60
4.2.89. Translations.....	61
4.2.90. Uploads.....	61
4.2.91. Users.....	62
4.2.92. Card views.....	63
4.2.93. Views.....	63
4.2.94. Widget.....	64
4.3. REST Examples.....	66
4.3.1. Generating a session token.....	66
4.3.2. Obtaining a list of every class.....	67
4.3.3. Obtaining the information of a specific class.....	68
4.3.4. Creating a new class.....	69
4.3.5. Update an existing class.....	70
5. Appendix: Glossary.....	72
5.1.1. ATTACHMENT.....	72

---

5.1.2. WORKFLOW STEP.....	72
5.1.3. ATTRIBUTE.....	72
5.1.4. BIM.....	72
5.1.5. CI.....	72
5.1.6. CLASS.....	73
5.1.7. CONFIGURATION.....	73
5.1.8. DASHBOARD.....	73
5.1.9. DATABASE.....	73
5.1.10. DOMAIN.....	73
5.1.11. DATA FILTER.....	74
5.1.12. GIS.....	74
5.1.13. GUI FRAMEWORK.....	74
5.1.14. ITIL.....	74
5.1.15. LOOKUP.....	74
5.1.16. MOBILE.....	75
5.1.17. PROCESS.....	75
5.1.18. RELATION.....	75
5.1.19. REPORT.....	75
5.1.20. CARD.....	75
5.1.21. SUPERCLASS.....	75
5.1.22. ATTRIBUTE TYPE.....	76
5.1.23. VIEW.....	76
5.1.24. WEBSERVICE.....	76
5.1.25. WIDGET.....	76

# 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 the integrated document management systems - 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")

## 1.5. Applications based on CMDBuild

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

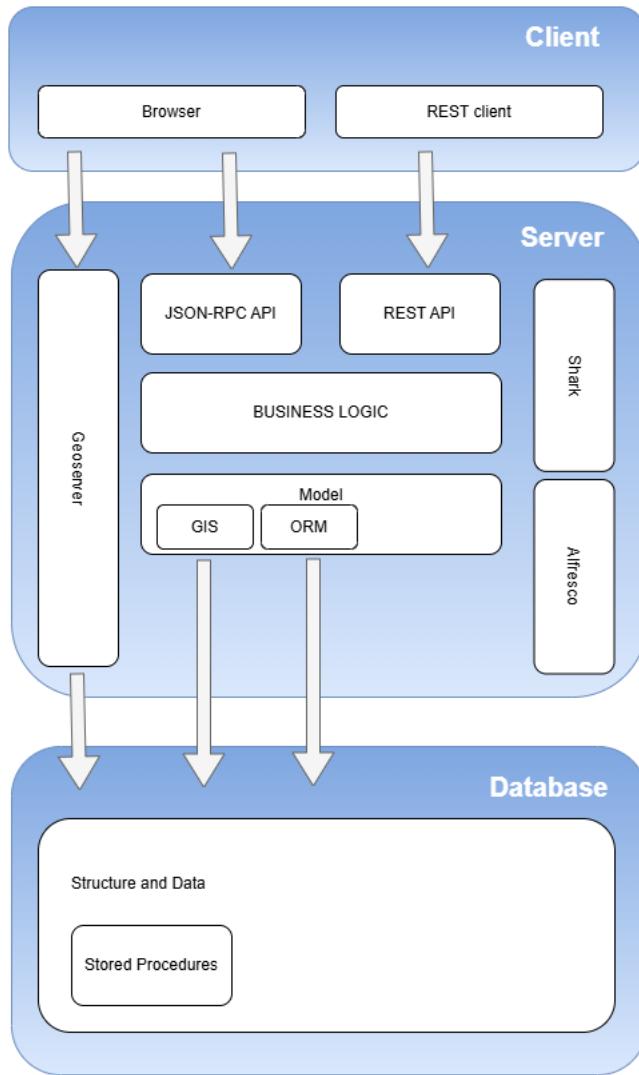
- CMDBuild READY2USE, for the management of assets and IT services, oriented to internal IT infrastructures or services for external clients (<http://www.cmdbuild.org/it/prodotti/ready2use>) according to the ITIL best practice (Information Technology Infrastructure Library)
- openMAINT, for the inventory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

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

Since version 4.0 CMDBuild provides a webservice layer via REST protocol only.

### 3.2. REST Web Service introduction

REST (REpresentational State Transfer) 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 key-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, 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 REST on CMDBuild read chapter 5.

# 4. REST Web Services

## 4.1. CMDBuild REST web service

For the REST webservices there are specific endpoints for every action.

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, update a specific card, create new ones, etc.

## 4.2. CMDBuild REST Endpoints

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

Note that in some cases the endpoint can have some variations in the path, for example some endpoints are the same for cards or process instances, and when that occurs the “|” symbol is used. (classes|processes means we can either use classes or processes)

The “Function” column indicated the name of the endpoint function in the source code of CMDBuild.

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/PUT 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 an 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.

To avoid listing every time all the standard query parameters for endpoints that handle a list of items, a new object called StandardqueryParams has been created to always include those parameters. This is just to simplify the documentation, when the parameter StandardqueryParams is specified for an endpoint it is possible to use the following query parameters (this change doesn't impact the usage, it's just to avoid listing all the query parameters every time they are used):

- |            |   |
|------------|---|
| • attrs    | List of attributes to return                                |
| • filter   | A string containing a filter                                |
| • sort     | A string containing the sorting function                    |
| • limit    | A long value to limit the amount of results                 |
| • offset   | The pagination offset                                       |
| • start    | A long value to set an offset in the resultset              |
| • detailed | A boolean to force the server to return a detailed response |

- positionOf A long value containing an id to return in the meta field

#### 4.2.1. Async Operation

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/async>

Path	Parameters	Type	Description
/jobs/{jobId}		GET	Obtain the status of an async job
/jobs/{jobId}/response		GET	Obtain the results of an async job

\* {jobid}: Numeric id of the job

#### 4.2.2. Audits

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/system/audit>

Path	Parameters	Type	Description
/mark		GET	Obtain the current date
/requests	-since String -limit Long	GET	Obtain a list of last requests since the date specified
/errors	-since String -limit Long	GET	Obtain a list of last errors since the date specified
/requests/{requestId}		GET	Get the details of a specific request

\* {requestId}: String id of the request

#### 4.2.3. Bim project

**Base url:** <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

Path	Parameters	Type	Description
		GET	Obtain the full list of Bim projects
/{projectId}/values/{globalId}	-if_exists boolean	GET	Obtain details about a bim value with the specified globalId
/{projectId}		GET	Obtain the specified Bim project
	-data json	POST	Create a new Bim project

	-file multipart dataHandler		
/{projectId}	-data json -file multipart dataHandler	PUT	Update the specified Bim project
/{projectId}/file	-ifcFormat String	GET	Download the specified Ifc file for the specified Bim project
/{projectId}/file	-file dataHandler -ifcFormat String	POST	Upload a new Ifc file for the specified Bim project
/{projectId}		DELETE	Delete the specified bim project
/{projectId}/convert/xkt		POST	Update the specified bim project from ifc to xkt

\* {projectId}: Long id of the bim project

\* {globalId}: String id of the bim value

#### 4.2.4. Bim values

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/bim/values>

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

\* {globalId}: String id of the bim value

#### 4.2.5. Boot

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/boot>

Path	Parameters	Type	Description
/status		GET	Get the current status of the system
/database/check	-dbConfig Map<String, String>	POST	Verify the validity of the provided database configuration
/database/configure	-file multipart dataHandler -dbConfig Map<String, String>	POST	Configure the database with the provided configuration and provided database dump
/patches		GET	Obtain a list of currently available patches
/patches/apply		POST	Tell the system to perform the installation of every currently available patch

#### 4.2.6. Calendar Event Attachments

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/calendar/events/{eventId}/attachments>

Attachment data structure:

- category String
- fileName String
- majorVersion boolean
- cardValues Map<String, Objects>

Path	Parameters	Type	Description
	-attachment attachmentData -file DataHandler -copyFrom_class String -copyFrom_card Long -copyFrom_id String	POST	Create a new attachment for the specified calendar event with the possibility of copying the attachment from another card
	-wsQueryOption	GET	Obtain a list of all the attachments for the specified event
/{attachmentId}		GET	Obtain a single attachment with the specified attachmentId
/{attachmentId}/{file}		GET	Download the file of a specific attachment
/{attachmentId}/preview		GET	Get the attachment preview if available
/{attachmentId}	-attachment attachmentData -file DataHandler	PUT	Update a specific attachment with the provided data
/{attachmentId}		DELETE	Delete an attachment with the specified id
/{attachmentId}/history		GET	Obtain the history of a specific attachment
/{attachmentId}/history/version/file		GET	Get an older version of a specific attachment

\* {eventId}: Long id of the event

\* {attachmentId}: String id of the attachment

#### 4.2.7. Calendar Event Email

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/calendar/events/{eventId}/emails>

Path	Parameters	Type	Description
	-applyTemplate Boolean -template_only Boolean -attachments List<String> -parts List<Attachment>	POST	Create a new email for the specified event with the possibility of adding a list of attachmentIds

/{{emailId}}	-emailData wsEmailData	PUT	Update an existing email
	-StandardQueryParams	GET	Obtain a list of every email associated with the specified event
/{{emailId}}		GET	Get the details of a specific email related to a specific event
/{{emailId}}		DELETE	Delete a specific email

\* {{eventId}}: Long id of the event  
 \* {{emailId}}: Long id of the email

#### 4.2.8. Calendar Event

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/calendar/events>

Event data structure:

- category String
- priority String
- card Long
- sequence Long
- content String
- description String
- timeZone String
- eventEditMode String
- partecipants List<String>
- onCardDeleteAction String
- type String
- begin String
- end String
- completion String
- owner String
- status String
- source String
- notes String
- values Map<String, Object>

Path	Parameters	Type	Description
	-StandardQueryParams	GET	Obtain a list of every event
/{{eventId}}	-includeStats Boolean	GET	Get the details of a specific event
	-data json	POST	Create a new event with the provided data
/{{eventId}}	-data	PUT	Update an existing event with the

	json		provided data
/{eventId}		DELETE	Remove an existing event
/{eventId}/history	-limit Long -start Long -detailed Boolean	GET	Obtain the history of a specific event
/{eventId}/history/recordId		GET	Obtain the details of a specific record from the history of an event
/print/{file}	-StandardQueryParams -extension String -attributes String	GET	Obtain a report of all events (it is possible to filter the events with the standard query parameters)

\* {eventId}: Long id of the event

#### 4.2.9. Calendar Sequence

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/calendar/sequences>

Sequence data structure:

- category String
- priority String
- card Long
- content String
- description String
- timeZone String
- title String
- eventCount Integer
- frequencyMultiplier Integer
- maxActiveEvents Integer
- eventEditMode String
- eventTime String
- frequency String
- partecipants List<String>
- onCardDeleteAction String
- sequenceParamsEditMode String
- showGeneratedEventsPreview Boolean
- eventType String
- firstEvent String
- lastEvent String
- trigger Long

- endType String
- events List<WsEventData>
- values Map<String, Object>

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

\* {sequenceld}: Long id of the sequence

#### 4.2.10. Calendar Trigger

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/calendar/triggers>

Trigger data structure:

- category String
- priority String
- conditionScript String
- content String
- code String
- description String
- timeZone String
- eventCount Integer
- frequencyMultiplier Integer
- maxActiveEvents Integer
- delay String
- eventEditMode String
- eventTime String
- frequency String
- participants List<String>
- onCardDeleteAction String
- sequenceParamsEditMode String
- showGeneratedEventsPreview Boolean

- active Boolean
- eventType String
- ownerClass String
- ownerAttr String
- endType String
- lastEvent String
- scope String

Path	Parameters	Type	Description
/{triggerId}		GET	Obtain the details of a specific trigger
/{triggerId}/generate-squence	-dateValue String	GET	Generate a sequence based on the provided data
/{triggerId}/create-events		POST	Force the event creation for the specified trigger
	-StandardqueryParams	GET	Get a full list of calendar triggers
	-data json	POST	Create a new trigger with the provided data
/{triggerId}	-data json	PUT	Update an existing trigger with the provided data
/{triggerId}		DELETE	Delete an existing trigger

\* {triggerId}: Long id of the sequence

#### 4.2.11. Calendar View Event

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/calendar/views/viewId/events>

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

\* {eventId}: Long id of the sequence

#### 4.2.12. Card Attachments

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/attachments>

Attachment data structure:

- category String
- fileName String
- majorVersion boolean

- cardValues Map<String, Objects>

Path	Parameters	Type	Description
	-attachment attachmentData -file DataHandler -copyFrom_class String -copyFrom_card Long -copyFrom_id String	POST	Create a new attachment for the specified card with the possibility of copying the attachment from another card
	-wsQueryOption	GET	Obtain a list of all the attachments for the specified card
{attachmentId}		GET	Obtain a single attachment with the specified attachmentId
{attachmentId}/download		GET	Download the file of a specific attachment
/_MANY/file	-attachmentId List<String>	GET	Obtain many attachments file based on the id list
{attachmentId}/preview		GET	Get the attachment preview if available
{attachmentId}	-attachment attachmentData -file DataHandler	PUT	Update a specific attachment with the provided data
{attachmentId}		DELETE	Delete an attachment with the specified id
{attachmentId}/history		GET	Obtain the history of a specific attachment
{attachmentId}/history/version/file		GET	Get an older version of a specific attachment

\* {attachmentId}: String id of the attachment

#### 4.2.13. Card Bim values

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

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

#### 4.2.14. Card email attachments

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

Attachment data structure:

- category String
- fileName String
- majorVersion boolean
- cardValues Map<String, Objects>

Path	Parameters	Type	Description
		POST	Create a new attachment for the specified email
		GET	Obtain a list of every available attachment for the specified email
/{attachmentId}		GET	Obtain the details of an attachment with id attachmentId of a specific email
/{attachmentId}/file		GET	Download the attachment with id attachmentId of the specified email
/{attachmentId}/preview		GET	Obtain a preview of the attachment with id attachmentId of the specified email
/{attachmentId}	-attachment multipart json -file multipart dataHandler	PUT	Update an existing attachment with id attachmentId of the specified email with the given data
/{attachmentId}		DELETE	Delete a specific attachment with if attachmentId of the email with id emailId
/{attachmentId}/history		GET	Obtain the history of a specific attachment
/{attachmentId}/history/ version/file:		GET	Download the specified previous version of the attachment with id attachmentId of the email with if emailId

\* {attachmentId}: String id of the attachment

#### 4.2.15. Card email

**Base url:** <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

Path	Parameters	Type	Description
	-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
/{emailId}		GET	Obtain the details of a specific email
	-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
/{emailId}	-data json -apply_template Boolean -template_Only Boolean	PUT	Update an existing email associated with a card with the provided data in emailData
/{emailId}		DELETE	Delete a specific email

\* {emailId}: Long id of the email

#### 4.2.16. Card geo values

**Base url:** <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

Path	Parameters	Type	Description
		GET	Obtain every geovalue associated with a card
/{attributeld}		GET	Obtain the details of a specific geovalue
/{attributeld}	-data json	PUT	Update an existing geovalue with the provided data
/{attributeld}		DELETE	Delete a specific geovalue

\* {attributeld}: Long id of the geo attribute

#### 4.2.17. Card history

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/history>

Path	Parameters	Type	Description
	-limit Long -start Long -types List<String>	GET	Get the history of a specific card, include cards, relations, system cards with the usage of the types parameter
/{recordId}		GET	Get the details of a specific card in the card history

\* {recordId}: Long id of the history card

#### 4.2.18. Card locks

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/cards|instances/cardId/lock>

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

#### 4.2.19. Card print

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/classes/classId/cards/cardId/print/file>:

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

#### 4.2.20. Card relations

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

Relation data structure:

- `_id` Long
- `_type` String
- `_sourceType` String
- `_sourceId` Long
- `_destinationType` String
- `_destinationId` Long
- `_is_direct` boolean

Path	Parameters	Type	Description
	-limit Long -start Long -detailed Boolean	GET	Get a list of relations for a specific card
	-relationData json	POST	Create a new relation for a specific card with the provided data
<code>/{relationId}</code>	-relationData json	PUT	Update an existing relation for a specific card with the provided data
<code>/{relationId}</code>		DELETE	Delete a specific relation

\* `{relationId}`: Long id of the history card

#### 4.2.21. Cards

**Base url:** `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 the class definition

Path	Parameters	Type	Description
<code>/{cardId}</code>	-includeModel Boolean -includeWidgets Boolean -includeStats Boolean	GET	Obtain the details of a specific card
	-StandardQueryParams -functionValue String -distinctIncludeNull Boolean	GET	Get a list of all available cards owned by a class, with the possibility of adding filters to limit the results

	-distinct String -count String		
	-data json	POST	Create a new card with the provided data for a specific class
/{cardId}	-data json	PUT	Update an existing card with the provided data
/{cardId}		DELETE	Delete a specific card
	-StandardqueryParams -data json	PUT	Update many cards at once
	-StandardqueryParams	DELETE	Delete many cards at once

\* {cardId}: Long id of the card

#### 4.2.22. Charset

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/system/charsets>

Path	Parameters	Type	Description
		GET	Obtain a list of all available charsets

#### 4.2.23. Chat messages

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/session/current/messages>

Message data structure:

- status String
- target String
- subject String
- content String
- thread String
- meta Map<String, String>

Path	Parameters	Type	Description
	-StandardqueryParams	GET	Obtain a list of all available messages for the current session
/{recordId}	-messageData json	PUT	Update the specified message
	-messageData json	POST	Create a new message with the specified data
/{recordId}		DELETE	Delete a message with the specified message id

\* {recordId}: Long id of the message

#### 4.2.24. Chat peers

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/session/current/peers>

Path	Parameters	Type	Description
	-StandardQueryParams	GET	Obtain a list of all available peers for the current session

#### 4.2.25. Class attributes

**Base url:** <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

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

\* {attributeld}: Long id of the message

#### 4.2.26. Class filters

**Base url:** <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
- ownerType String

Path	Parameters	Type	Description
	-limit Long -start Long	GET	Obtain a list of all available filter for a specific class, with the possibility of filtering the result

	-shared Boolean		
/{filterId}		GET	Read a specific filter owned by a class with id classId
	-data json	POST	Create a new filter for a specific class with the provided data
/{filterId}	-data json	PUT	Update an existing filter with the data provided in element
/{filterId}		DELETE	Delete a specific filter
/{filterId}/defaultFor		GET	Obtain a list of roles for a specific filter
/{filterId}/defaultFor	-roles List<json>	POST	Update the list of roles for a specific filter

\* {filterId}: Long id of the filter

#### 4.2.27. Class or process domains

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/domains>

Path	Parameters	Type	Description
	-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

#### 4.2.28. Class print

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/classes>

Path	Parameters	Type	Description
/{classId}/print/file	-filter String -sort String -limit Long -start Long -extension String -attributes String	GET	Obtain the result of a specific report with the provided extension
/{classId}/print_schema/file	-file String -extension String	GET	Obtain a file with the schema of the specified class
/print_schema/file	-file String -extension String	GET	Obtain a file with the schema of the whole database

\* {classId}: Long id of the class

#### 4.2.29. Class stats

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/classes/classId>

Path	Parameters	Type	Description
/stats	WsQueryParams -Query String	GET	Obtain class stats
/relations	-StandardqueryParams	GET	Obtain class relations stats

#### 4.2.30. Classes

**Base url:** <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
- allowedExtensions String
- checkCount String
- checkCountNumber String
- maxFileSize Int
- messageAttr String
- flowStatusAttr String
- engine String
- parent String
- active Boolean
- prototype Boolean
- noteInline Boolean
- noteInlineClosed Boolean
- attachmentsInline Boolean
- attachmentsInlineClosed Boolean
- enableSaveButton Boolean
- dmsCategory String
- multitenantMode String
- stoppableByUser Boolean

- formTriggers List<ClassDataFormTrigger>
- contextMenuItems List<ContextMenuItems>
- widgets List<Widgets>
- attributeGroups List<AttributeGroups>
- domainOrder List<String>
- help String
- formStructure JsonNode

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

\* {{classId}}: Long id of the class

#### 4.2.31. Configurations

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/configuration>

Path	Parameters	Type	Description
/public		GET	Obtain the public configuration
/system		GET	Obtain the system configuration

#### 4.2.32. Context menu component

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/components/contextmenu>

Custom menu component data structure:

- description String
- active boolean

Path	Parameters	Type	Description
		GET	Obtain a full list of the available custom menu components
/{{contextMenuld}}		GET	Obtain the details of a specific custom menu component
/{{contextMenuld}}		DELETE	Delete a specific custom menu component

/{contextMenuld}/ {targetDevice}		DELETE	Delete a specific custom menu component for the specified target device
/{contextMenuld}/ {targetDevice}/file	-extension String -parameters String	GET	Download the custom menu component for the specified target device
	-file dataHandler -data json -merge Boolean	POST	Create a new custom menu component with the provided data
/{contextMenuld}	-file dataHandler -data json	PUT	Update a specific custom menu component with the provided file

\* {contextMenuld}: Long id of the context menu component

\* {targetDevice}: Target device of the context menu component

#### 4.2.33. Core components

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/components/core/{type}>

Core components data structure:

- name String
- description String
- data String
- active Boolean

Path	Parameters	Type	Description
		GET	Obtain a full list of the available core components
/{componentId}		GET	Obtain the details of a specific core component
/{componentId}		DELETE	Delete a specific core component
	-coreComponent json	POST	Create a new core component with the provided data
/{componentId}	-coreComponent json	PUT	Update a specific core component with the provided data

\* {componentId}: Long id of the core component

#### 4.2.34. Custom pages

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/custompages>

Custom page data structure:

- description String
- active boolean

Path	Parameters	Type	Description
		GET	Obtain a full list of the available custom pages
/{customPageId}		GET	Obtain the details of a specific custom page
/{customPageId}		DELETE	Delete a specific custom page
/{customPageId}/{targetDevice}		DELETE	Delete a specific custom page for the specified target device
	-file dataHandler -customPageData json -merge Boolean	POST	Create a new custom page with the provided data
/{customPageId}	-file dataHandler -data json	PUT	Update a specific custom page with the provided data
/{customPageId}/{targetDevice}/file	-extension String -parameters String	GET	Download the custom page file

\* {customPageId}: Long id of the custom page

\* {targetDevice}: Target device of the custom page

#### 4.2.35. Dashboard

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/dashboards>

Dashboard data structure:

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

Path	Parameters	Type	Description
	-detailed Boolean -limit Integer -start Integer	GET	List all available dashboards
/{dashboardId}		GET	Obtain a specific dashboard
	-dashboardData json	POST	Create a new dashboard with the provided data
/{dashboardId}	-dashboardData json	PUT	Update an existing dashboard with the provided data

/{{dashboardId}}		DELETE	Delete a specific dashboard
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\* {{dashboardId}}: Long id of the dashboard

#### 4.2.36. Dms category values

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/dms/categories/lookupTypId/values>

Same data structure as the LookUp values one.

Path	Parameters	Type	Description
/{{lookupValueId}}		GET	Obtain a dms category value
		GET	Obtain a list of all the dms category values for the specific category
	-data json	POST	Create a new dms category value
/{{lookupValueId}}	-data json	PUT	Update an existing dms category value
/{{lookupValueId}}		DELETE	Delete an existing dms category value
/order	-lookupValueIds List<Long>	POST	Reorder the dms category values

\* {{lookupValueId}}: Long id of the dms lookupValue

#### 4.2.37. Dms categories

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/dms/categories>

Same data structure as the LookUp type one

Path	Parameters	Type	Description
/{{lookupTypId}}		GET	Obtain a specific dms category
		GET	Obtain a list of all the dms categories
	-data json	POST	Create a new dms category
		DELETE	Delete a dms category

\* {{lookupTypId}}: Id of the dms lookup type

#### 4.2.38. Dms models

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/dms/models>

Same data structure as the class one

Path	Parameters	Type	Description
	-StandardQueryParams	GET	Obtain all dms models
/{{classId}}		GET	Obtain a specific dms model
	-data json	POST	Create a new dms model

/{classId}	-data json	PUT	Update an existing dms model
/{classId}		DELETE	Delete an existing dms model
/{classId}/ attributes/{attributeld}		GET	Read a specific attribute of the specified dms model
/{classId}/attributes	-StandardQueryParams	GET	Read all attributes of a specific dms model
/{classId}/attributes	-data json	POST	Create a new attribute for a specific dms model
/{classId}/ attributes/{attributeld}	-data json	PUT	Update a specific attribute for a dms model
/{classId}/ attributes/{attributeld}		DELETE	Delete a specific attribute
/{classId}/attributes/order	-attrOrder List<String>	POST	Reorder the dms model attributes
/{classId}/print_schema/file	-extension String	GET	Print the schema of a specific dms model

\* {classId}: String Id of the dms model class

\* {attributeld}: Long Id of the dms model attribute

#### 4.2.39. Domain attributes

**Base url:** <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

Path	Parameters	Type	Description
	-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
/{attributeld}		GET	Get the details of a specific domain attribute
	-data json	POST	Create a new attribute for a specific domain with the provided data
/{attributeld}	-data json	PUT	Update an existing attribute with the provided data
/{attributeld}		DELETE	Delete a specific attribute owned by a domain
/{attributeld}	-attrOrder List <String>	POST	Reorder the list of domain attributes of a specific domain with the provided order provided in attrOrder

\* {attributeld}: Long Id of the domain attribute

#### 4.2.40. Domains

**Base url:** <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
- descriptionMasterDetail String
- filterMasterDetail String
- disabledSourceDescendants List<String>
- disabledDestinationDescendants List<String>
- masterDetailAggregateAttrs List<String>
- active boolean
- isMasterDetail boolean
- sourceInline Boolean
- sourceDefaultClosed Boolean
- destinationInline Boolean
- destinationDefaultClosed Boolean
- cascadeActionDirect\_askConfirm Boolean
- cascadeActionInverse\_askConfirm Boolean
- cascadeActionDirect String
- cascadeActionInverse String

Path	Parameters	Type	Description
	-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
/{{domainId}}		GET	Get the details of a specific domain
	-domainData json	POST	Create a new domain with the provided data
/{{domainId}}	-domainData json	PUT	Update an existing domain with the provided data

/{{domainId}}		DELETE	Delete an existing domain
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\* {{domainId}}: Long Id of the domain

#### 4.2.41. Email accounts

**Base url:** <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

Path	Parameters	Type	Description
	-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
/{accountId}		GET	Get the details of a specific email account
	-emailAccountData json	POST	Create a new email account with the provided data
/{accountId}	-emailAccountData json	PUT	Update an existing email account with the provided data
/{accountId}			Delete an existing email account
/_NEW/test	-emailAccountData json	POST	Verify the configuration of a new account
/{accountId}/test	-emailAccountData json	POST	Verify the configuration of an existing account with the additional data

\* {{accountId}}: Long Id of the email account

#### 4.2.42. Email queue

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

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

\* {emailId}: Long Id of the email to send

#### 4.2.43. Email signatures

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/email/signatures>

Email signature data structure:

- active Boolean
- code String
- description String
- content\_html String

Path	Parameters	Type	Description
	-filter String -sort String -limit Long -start Long -detailed Boolean	GET	Obtain a full list of available email signatures with the possibility of filtering the results with limit offset and sort
/{signatureId}		GET	Get the details of a specific email signature
	-emailSignatureData json	POST	Create a new email signature with the provided data
/{signatureId}	-emailSignatureData json	PUT	Update an existing email signature with the provided data
/{signatureId}		DELETE	Delete a specific email signature

\* {signatureId}: Long Id of the email signature

#### 4.2.44. Email templates

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/email/templates>

Email template data structure:

- name String
- description String
- delay Long
- from String
- to String

• cc	String
• bcc	String
• subject	String
• contentType	String
• body	String
• account	String
• signature	Long
• keepSynchronization	boolean
• promptSynchronization	boolean
• provider	String
• data	Map<String, String>

Path	Parameters	Type	Description
	-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
/{templateId}		GET	Get the details of a specific template
	-data json	POST	Create a new email template with the provided data
/{templateId}	-data json	PUT	Update an existing template with the provided data
/{templateId}		DELETE	Delete an existing email template

\* {templateId}: Long Id of the email template

#### 4.2.45. Etl Config

**Base url:**http://hostname:port/cmdbuild/services/rest/v3/etl/configs

Etl gate data structure:

• disabled	String
• enabled	Boolean
• params	Map<String, String>
• data	String

Path	Parameters	Type	Description
	-StandardQueryParams -includeMeta	GET	Obtain a list of all Etl configs

	boolean		
/{configCode}	-includeMeta boolean -if_exists boolean	GET	Obtain the details of a specific etl config
/{configCode}/items	-StandardQueryParams	GET	Obtain a list of items of a specific etl config, with the possibility of filtering the results with the standard query parameters
	-etlConfigData json	POST	Create a new etl config with the provided data
/{configCode}	-etlConfigData json -file dataHandler	PUT	Update an existing elt config
/{configCode}		DELETE	Delete a specific etl config

\* {configCode}: String Id of the etl config

#### 4.2.46. Etl Gate

**Base url:**http://hostname:port/cmdbuild/services/rest/v3/etl/gates

Etl gate data structure:

- code String
- description String
- processingMode String
- allowPublicAccess Boolean
- enabled Boolean
- config Map<String, String>
- handlers List<Map<String, String>>

Path	Parameters	Type	Description
	-limit Long -offset Long -detailed boolean	GET	Obtain a list of all Etl gates
by-class/{classId}	-StandardQueryParams -include_etl_templates boolean	GET	Obtain a list of etl gates for a class
/{gateld}		GET	Get the details of a specific etl gate
	-date json	POST	Create a new Etl gate with the provided data
/{gateld}	-data json	PUT	Update an existing Etl gate with the provided data

{gateld}		DELETE	Remove an existing Etl gate
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\* {gateld}: Long Id of the etl gate  
 \* {classId}: String Id of the class

#### 4.2.47. Etl messages

**Base url:**http://hostname:port/cmdbuild/services/rest/v3/etl/messages

Path	Parameters	Type	Description
	-detailed Boolean	GET	Obtain a list of etl messages
/{messageReference}		GET	Obtain a specific message with the messageReference provided
/{messageReference}/attachments/{attachmentId}		GET	Obtain an attachment of the specific message

\* {messageReference}: String Id of the message

#### 4.2.48. Etl templates

**Base url:**http://hostname:port/cmdbuild/services/rest/v3/etl/templates

Etl template data structure:

- errorTemplate String
- notificationTemplate String
- errorAccount String
- notificationAccount String
- fileFormat String
- code String
- description String
- targetName String
- targetType String
- source String
- exportFilter String
- mergeMode String
- mergeMode\_when\_missing\_update\_attr String
- mergeMode\_when\_missing\_update\_value String
- active Boolean
- enableCreate Boolean
- type String
- useHeader Boolean
- ignoreColumnOrder Boolean
- dataRow Integer
- firstCol Integer
- charset String

• csv_separator	String
• importKeyAttributes	Object
• filter	JsonNode
• columns	List<EtlColumnData>
• dateFormat	String
• timeFormat	String
• decimalSeparator	String
• thousandsSeparator	String
• handleMissingRecordOnError	Boolean
• attributes	List<AttributeData>

Path	Parameters	Type	Description
	-StandardqueryParams	GET	Obtain all etl templates
/by-class/{classId}	-StandardqueryParams -include_related_domains boolean	GET	Obtain all etl templates for a specific class
/by-process/{classId}	-StandardqueryParams -include_related_domains boolean	GET	Obtain all etl templates for a specific process
/by-view/{viewId}	-StandardqueryParams -include_related_domains boolean	GET	Obtain all etl templates for a specific view
{templateId}		GET	Get the details of a specific template
{templateId}/export	-filterStr String	GET	Execute an export using a template
{templateId}/export/fileName			
{templateId}/import	-dile dataHandler -detailed_report boolean	POST	Execute an import using a template
	-data json	POST	Create a new etl template
{templateId}	-data json	PUT	Update an existing etl template
{templateId}		DELETE	Delete an existing template
/inline/export			
/inline/export/fileName	-data String -config json	POST	
/inline/import	-file dataHandler -config json	POST	

\* {classId}: String Id of the class

\* {viewId}: Long Id of the view  
 \* {templateId}: Long Id of the template

#### 4.2.49. Fk Domain

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/fkdomains>

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

#### 4.2.50. Functions

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/functions>

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

\* {functionId}: Long Id of the function

#### 4.2.51. Geo attributes

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes|classes/classId/geoattributes>

Geo attribute data structure:

- \_icon                      Long
- name                      String

- description String
- active Boolean
- type String
- subtype String
- index int
- zoomMin int
- zoomDef int
- zoomMax int
- visibility List<String>
- style Map<String, Object>
- infoWindowEnabled Boolean
- infoWindowContent String
- infoWindowImage String

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

\* {attributId}: Long Id of the attribute

#### 4.2.52. Geo style rules

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes/classes/classId/geostylerules>

Geo style rules data structure:

- name String
- description String
- function String

- attribute String
- analaysistype String
- classattribute String
- segments Integer
- owner String
- rules JsonNode

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

\* {rulesetId}: Long Id of the attribute

#### 4.2.53. Geo values

**Base url:** [http://hostname:port/cmdbuild/services/rest/v3/processes|classes/\\_ANY/cards|instances/\\_ANY/geovalues](http://hostname:port/cmdbuild/services/rest/v3/processes|classes/_ANY/cards|instances/_ANY/geovalues)

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

	-filter String		
/center	-attribute Set<Long> -filter String	GET	

#### 4.2.54. Geo server layers

**Base url:** <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>

Path	Parameters	Type	Description
/{layerId}		GET	Get the details of a specific geoserver layer for a specific card
	-visible Boolean	GET	Obtain a full list of geo server layers for a specific card
/{layerId}	-data json -file DataHandler	PUT	Create a new attribute with the provided in data for a specific card
/{layerId}		DELETE	Delete an existing geo server layer with the provided data

\* {layerId}: Long Id of the layer

#### 4.2.55. Grants

**Base url:** <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>

Path	Parameters	Type	Description
	-filter String -limit Long -start Long -include ObjectDescription Boolean -include RecordsWithoutGrant Boolean	GET	Obtain a list of available grants for a specific role
/by-target/objectType/ objectTypeName		GET	
/_ANY	-data List<json>	POST	Update the list of available grants for a specific role with the provided data

#### 4.2.56. Impersonation

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/sessions/current/impersonate>

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

#### 4.2.57. Jobs

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/jobs>

Job data structure:

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

Path	Parameters	Type	Description
	-limit Long -start Long	GET	Obtain a list of every Job available
/{jobId}		GET	Get the details of a specific job
	-data json	POST	Create a new job with the provided data
/{jobId}	-data json	PUT	Update an existing job with the provided data

/jobId}		DELETE	Delete a specific existing job
/jobId}/run		POST	Run a specific job
/jobId}/runs	-limit Long -start Long	GET	Get a list of every execution of a specific job
/jobId}/errors	-limit Long -start Long	GET	Get a list of all the errors generated by a specific job
/_ANY/runs	-limit Long -start Long	GET	Get a list of every run of every job
/_ANY/errors	-limit Long -start Long	GET	Get a list of all the errors generated by all jobs
/jobId}/runs/{runId]		GET	Get the details of a specific run of a specific job

#### 4.2.58. Language configurations

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/configuration/languages>

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

#### 4.2.59. Languages

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/languages>

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

#### 4.2.60. Locks

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/locks>

Path	Parameters	Type	Description
		GET	Get all available locks
/lockId}		GET	Get details of a specific lock
/lockId}		DELETE	Delete a specific lock
/_ANY		DELETE	Delete all locks

\* {lockId}: Long Id of the lock

#### 4.2.61. Lookup types

**Base url:** [http://hostname:port/cmdbuild/services/rest/v3/lookup\\_types](http://hostname:port/cmdbuild/services/rest/v3/lookup_types)

Lookup type data structure:

- name String
- parent String

Path	Parameters	Type	Description
/lookupType/{id}		GET	Get the details of a specific lookup type
	-limit Long -start Long -filter String	GET	Obtain a list of all available lookup types
	-data json	POST	Create a new lookup type with the provided data
/lookupType/{id}	-data json	PUT	Update an existing lookup type with the values provided in wsLookupType
/lookupType/{id}		DELETE	Delete an existing lookup type

#### 4.2.62. Lookup values

**Base url:** [http://hostname:port/cmdbuild/services/rest/v3/lookup\\_types/lookupType{id}/values](http://hostname:port/cmdbuild/services/rest/v3/lookup_types/lookupType{id}/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

Path	Parameters	Type	Description
/lookupValue/{id}		GET	Obtain a list of the lookup values for a specific lookup type
	-limit Long -start Long -filter String -active	GET	Obtain a full list of the lookup values available

	Boolean		
	-data json	POST	Create a new lookup value for a specific lookup type with the provided data
/{lookupValueId}	-data json	PUT	Update an existing lookup value with the provided data
/{lookupValueId}		DELETE	Delete an existing lookup value
/order	-lookupValueIds List<Long>	POST	Reorder the lookup value list of a specific lookup type with the provided data

\* {lookupValueId}: Long Id of the lookup value

#### 4.2.63. Menu

**Base url:** <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>
- type String
- device String

Path	Parameters	Type	Description
	-detailed Boolean	GET	Obtain a full list of all available menus
/{menuld}		GET	Get the details of a specific menu
/gismenu		GET	Get the details of the gismenu if it exists
	-data json	POST	Create a new menu with the provided data
/{menuld}	-data json	PUT	Update an existing menu with the provided data
/{menuld}		DELETE	Delete an existing menu

\* {menuld}: Long Id of the menu

#### 4.2.64. Minions

**Base url:** [http://hostname:port/cmdbuild/services/rest/v3/system\\_services](http://hostname:port/cmdbuild/services/rest/v3/system_services)

Path	Parameters	Type	Description
		GET	Obtain a list of the status of every available service
/{serviceld}		GET	Get the status details of a specific service
/{serviceld}/start		POST	Start a specific service
/{serviceld}/stop		POST	Stop a specific service

\* {serviceld}: Long Id of the service

#### 4.2.65. Nav trees

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/domainTrees>

Tree data structure:

- name String
- description String
- nodes List<TreeNodes>
- active boolean
- type String

Tree node data structure:

- \_id String
- filter String
- targetClass String
- description String
- domain String
- direction String
- recursionEnabled Boolean
- showOnlyOne Boolean
- nodes List<TreeNodes>

Path	Parameters	Type	Description
	-filter String -limit Long -start Long	GET	Get a list of every available nav tree
/{treeld}	-treeMode String	GET	Obtain the details of a specific nav tree
	-data json	POST	Create a new nav tree with the provided data
/{treeld}	-data json	PUT	Update an existing nav tree with the provided data
/{treeld}		DELETE	Delete a specific nav tree

\* {treeId}: Long Id of the tree

#### 4.2.66. Process configuration

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/configuration/processes>

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

#### 4.2.67. Process instance activity email

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances/instanceId/activities/activityId/emails>

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

#### 4.2.68. Process instance activity

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances/processInstanceId/activities>

Path	Parameters	Type	Description
		GET	Obtain a list of every available task for a specific class
/{processActivityId}		GET	Get all the details of a specific task

#### 4.2.69. Process instance history

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances/instanceId/history>

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

#### 4.2.70. Process instances

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instances>

Process instance data structure:

- values Map<String, Object>
- \_advance boolean
- \_activity String

Path	Parameters	Type	Description
	-data json	POST	Create a new process instance with the provided data
/{processInstanceId}	-data	PUT	Update a process instance with

	json		the provided data
/{processInstanceId}	-include_tasklist Boolean	GET	Get the details of a specific process
/{processInstanceId}/graph	-simplified Boolean	GET	
	-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
/{processInstanceId}		DELETE	Delete an existing process instance
/{processInstanceId}/suspend		POST	Suspend the specific process instance
/{processInstanceId}/resume		POST	Resume the specific process instance
		DELETE	Delete the specific process instance

#### 4.2.71. Process start activities

**Base url:** [http://hostname:port/cmdbuild/services/rest/v3/processes/processId/start\\_activities](http://hostname:port/cmdbuild/services/rest/v3/processes/processId/start_activities)

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

#### 4.2.72. Process task definition

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes/processId/activities>

Task definition data structure:

- formStructure      JsonNode

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

\* {taskId}: String Id of the task

#### 4.2.73. Process task

**Base url:** [http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instance\\_activities](http://hostname:port/cmdbuild/services/rest/v3/processes/processId/instance_activities)

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

#### 4.2.74. Processes

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/processes>

Path	Parameters	Type	Description
	-activeOnly Boolean -limit Long -start Long -detailed Boolean	GET	Obtain a list of every available process
{processId}		GET	Get the details of a specific process
	-data json	POST	Create a new process with the provided data
{processId}	-data json	PUT	Update an existing process with the provided data
{processId}		DELETE	Delete an existing process
{processId}/versions	-file DataHandler	POST	Upload a new xpdl
{processId}/migration	-provider String -file DataHandler	POST	Upload a new xpdl and force the process to use the new xpdl version
{processId}/versions		GET	Obtain a list of all xpdl version
{processId}/versions/planId/ file		GET	Obtain an xpdl file
{processId}/template		GET	Obtain an xpdl template file

\* {processId}: Long Id of the process

#### 4.2.75. Relation history

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/domains/domainId/relations>

Path	Parameters	Type	Description
/history/{relationId}		GET	Obtain a history record for the specific relation

#### 4.2.76. Relations

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/domains/domainId/relations>

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

\* {relationId}: Long Id of the relation

#### 4.2.77. Reports

**Base url:** <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

Path	Parameters	Type	Description
	-filter String -limit Long -start Long -detailed Boolean	GET	Obtain a list of all available reports
/{reportId}		GET	Get the details of a specific report
/{reportId}/attributes	-limit	GET	Get all attributes of a specific

	Long -start Long		report
/{reportId}/file:	-extension String -parameters String	GET	Download a report on a specified file with a specified extension
	-data json -attachments List<Attachment>	POST	Create a new report with the provided attachments
/{reportId}	-attachments List<Attachment>	PUT	Update an existing report with the provided data
/{reportId}/template-data json -attachments List<Attachment>	-data json -attachments List<Attachment>	PUT	Update an existing report template with the provided data
/{reportId}/template:		GET	Download a specific report template
/{reportId}		DELETE	Delete an existing report

\* {reportId}: Long Id of the relation

#### 4.2.78. Resources

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/resources>

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

#### 4.2.79. Role class filters

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/roles/roleId/filters>

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

#### 4.2.80. Roles

**Base url:** <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

Path	Parameters	Type	Description
/roleId		GET	Get the details of a specific role
	-limit Long -offset Long	GET	Obtain a list of all available roles
/roleId/users	-filter String -sort String -limit Long -start Long -assigned Boolean	GET	Obtain a list of all available roles for a specific user
/roleId/users	-users json	POST	Update the roles of a specific user
	-jsonData String	POST	Create a new role with the provided data
/roleId	-jsonData String	PUT	Update an existing role with the provided data

#### 4.2.81. Search

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/search>

Path	Parameters	Type	Description
/itemType	-StandardQueryOptions	GET	
/itemType1/itemType2	-StandardQueryOptions	GET	

#### 4.2.82. Session menu

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/sessions/sessionId/menu>

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

#### 4.2.83. Session preferences

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/sessions/sessionId/preferences>

Path	Parameters	Type	Description
		GET	Obtain a list of all available preferences for a specific session
/{key}	-key String	GET	Get the value of a specific user configuration
/{key}	-key	PUT	Update the value of a specific

	String -value String		user configuration
	-data Map<String, String>	POST	Update the value of multiple user configurations
/{key}		DELETE	Delete a specific configuration key

\* {key}: String session preference key

#### 4.2.84. Sessions

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/sessions>

Session data structure:

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

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

\* {sessionId}: String session id

#### 4.2.85. System configuration

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/system/config>

Path	Parameters	Type	Description
	-detailed Boolean	GET	Get the full system configuration
/{key}	-includeDefault Boolean	GET	Get a specific configuration of the system
/{key}	-value String -encrypt Boolean	PUT	Update a specific configuration of the system
/_MANY	-data Map<String, String>	PUT	Update the system configuration with the provided data
/{key}		DELETE	Delete a specific system configuration
/reload		POST	Reload the system configuration

\* {key}: String system configuration

#### 4.2.86. System

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/system>

Path	Parameters	Type	Description
/status		GET	Obtain a list of the system services status
/cluster/status		GET	Get the status of the cluster system
/cache/drop		POST	Invalidate all system cache
/cache/cacheld/drop		POST	Invalidate a specific cache
/cache/stats		GET	Obtain a list of the cache statuses
/stop		POST	Stop the CMDBuild system
/reload		POST	Reload the CMDBuild system
/restart		POST	Restart the CMDBuild system
/upgrade	-file DataHandler	POST	Upgrade the CMDBuild system with the provided file
/audit/drop		POST	Drop the audits of the system
/audit/cleanup		POST	Cleanup the audits of the system
/patches		GET	Obtain a list of all patches
/tenants		GET	Obtain a list of all available tenants
/scheduler/jobs		GET	Obtain a list of all the jobs available in the scheduler
/scheduler/job/jobId/trigger		POST	Trigger the execution of a job

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

#### 4.2.87. Tenants

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/tenants>

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

#### 4.2.88. Timezones

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/timezones>

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

#### 4.2.89. Translations

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/translations>

Path	Parameters	Type	Description
	-limit Long -start Long -filter String	GET	Obtain a list of all available translations
/by-code	-StandardQueryParams -lang String -includeRecordsWithoutTranslation Boolean -section String	GET	Obtain a list of specific translations, divided by language and section
/code	-lang String	GET	Get the translation for a specific key in a specific language
/code	-data json	PUT	Set a specific translation with the provided data
/code	-lang String	DELETE	Remove a specific translation for a specific language
/export	-language String -format String -filter String -separator String	GET	Obtain a file of the specified format containing the translations for a specific language
	-separator String -file dataHandler	POST	Upload a file containing translations

#### 4.2.90. Uploads

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/uploads>

Upload item data structure:

- path                              String
- description                      String

Path	Parameters	Type	Description
	-dir String	GET	Obtain a list of all available files in a specific directory
/fileId		GET	Get the details of a specific file
/fileId/file:		GET	Download a specific file
/_MANY/file:.zip	-dir	GET	Download multiple specified files

/_ANY/file:.zip		GET	Download all available files
	-file DataHandler -directoryPath String	POST	Load a new file in the system
/_MANY	-dataHandler DataHandler	POST	Load a zip file containing one or more files
/fileId	-file DataHandler	PUT	Update an existing file with the provided data
/fileId		DELETE	Delete a specific file

#### 4.2.91. Users

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/users>

User data structure:

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

Path	Parameters	Type	Description
	-filter String -sort String -limit Long -start Long -detailed Boolean	GET	Obtain a list of all available users with the possibility of filtering the results with filter, sort, limit and offset
/{userId}		GET	Get the details of a specific user
	-data json	POST	Create a new user with the provided data

/{userId}	-data json	PUT	Update an existing user with the provided data
/current/password	-data json	PUT	Update the password of the current user with the provided data
/{userId}/password		POST	
/{userId}/password/recovery		POST	

\* {userId}: String user id

#### 4.2.92. Card views

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/views/viewId/cards>

Path	Parameters	Type	Description
	-data Map<String, Object>	POST	Create a new view with the provided data
/{cardId}		GET	Get the card details with the specified view
	-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
/{cardId}	-data Map<String, Object>	PUT	Update the information of a specific view with the information contained in data
/{cardId}		DELETE	Delete a specific card view

\* {cardId}: Long card id

#### 4.2.93. Views

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/views>

View data structure:

- name String
- description String
- sourceClassName String
- sourceFunction String
- filter String

- active Boolean
- shared Boolean
- type String
- masterClass String
- masterClassAlias String
- sorter JsonNode
- join List<JoinElement>
- attributes List<JoinAttribute>
- attributeGroups List<JoinAttributeGroup>
- formStructure JsonNode
- ctxtMenuItems List<ClassDataContextMenuItem>

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

\* {{viewId}}: Long view id

#### 4.2.94. Widget

**Base url:** <http://hostname:port/cmdbuild/services/rest/v3/components/widget>

Widget data structure:

- description String
- active Boolean

Path	Parameters	Type	Description
		GET	Obtain the list of all widgets
/{{widgetId}}		GET	Obtain the details of a specific widget
/{{widgetId}}		DELETE	Delete the specific widget
/{{widgetId}}/{{targetDevice}}		DELETE	Delete the specific widget for the provided targetDevice
/{{widgetId}}/version/file		GET	Obtain the file of the specified widget
	-widgetData json -file dataHandler	POST	Create a new widget with the specified data
/{{widgetId}}	-widgetData	PUT	Update the specific widget with

	json -file dataHandler		the provided data
--	------------------------------	--	-------------------

## 4.3. 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.

### 4.3.1. 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&returnId=true 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 privileges 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 further requests users can provide the generated id (the value in the field `_id`) in the header to obtain access to every rest endpoint.

#### 4.3.2. 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.

#### 4.3.3. Obtaining the information of a specific class

If instead of a class list, the user wants to obtain the 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",
...
```

#### 4.3.4. 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.

#### 4.3.5. 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.

## 5. Appendix: Glossary

### 5.1.1. 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.

### 5.1.2. 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

### 5.1.3. 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

### 5.1.4. 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

### 5.1.5. 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

### 5.1.6. 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

### 5.1.7. 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

### 5.1.8. 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

### 5.1.9. 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.

### 5.1.10. 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

### 5.1.11. 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

### 5.1.12. 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

### 5.1.13. 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

### 5.1.14. 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

### 5.1.15. 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.

### 5.1.16. 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

### 5.1.17. 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

### 5.1.18. 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

### 5.1.19. 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

### 5.1.20. 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

### 5.1.21. 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

### 5.1.22. 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

### 5.1.23. 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

### 5.1.24. 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 REST webservice.

### 5.1.25. 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.