REST Documentation Client

Last Modified on 03/11/2024 8:45 am CDT

The REST Doc Client provides consumers of the API the means of discovering available resources and implement methods. The client allows users to verify and test endpoints exposed through the API.

The Campus OneRoster API allows districts to integrate 3rd party applications with Campus by retrieving information from Campus such as roster, student, and teacher data. OneRoster is a set of specifications established by the IMS Global Learning Consortium. The REST Documentation Client allows users to test and validate this API by issuing HTTP requests and reviewing the responses.

The Rest Documentation Client can be used to modify data through PUT and DELETE methods. Campus recommends testing OneRoster API calls using those methods via a district's sandbox environment and not in production.

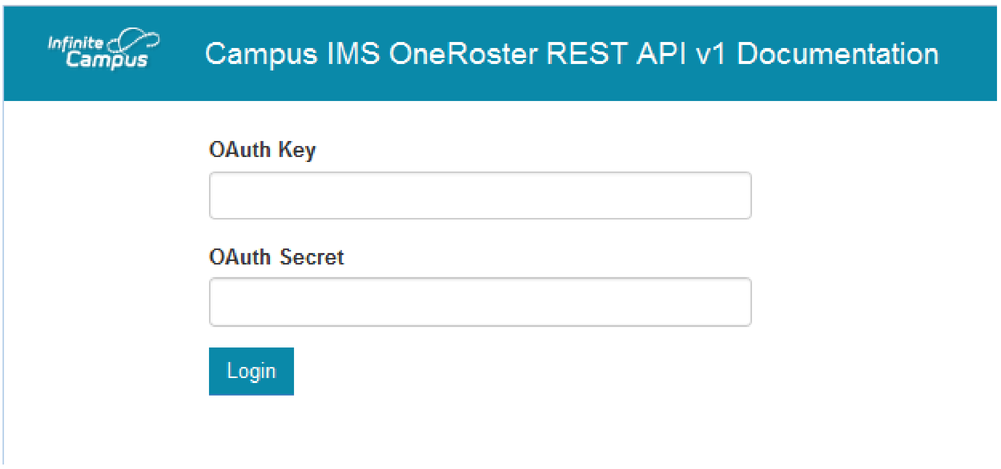
Key Concepts

- **Resources** are objects with associated data and a set of methods to operate on it.
- **Endpoints** are unique URLs that represents an object or collection of objects. The endpoint is used by the HTTP client to interact with data resources.
- **Models** represent data objects. Aside from the model name, the model contains a description, along with properties that define the contained elements and data types.
- **Path** includes the URL for accessing the resource endpoints.
- **Method** is an operation or action that can be performed on a resource.

The REST Doc Client handles URL encoding by replacing unsafe ASCII characters with a "%" followed by two hexadecimal digits. For more information on URL encoding visit http://www.w3schools.com/tags/ref_urlencode.asp

OneRoster Walkthrough

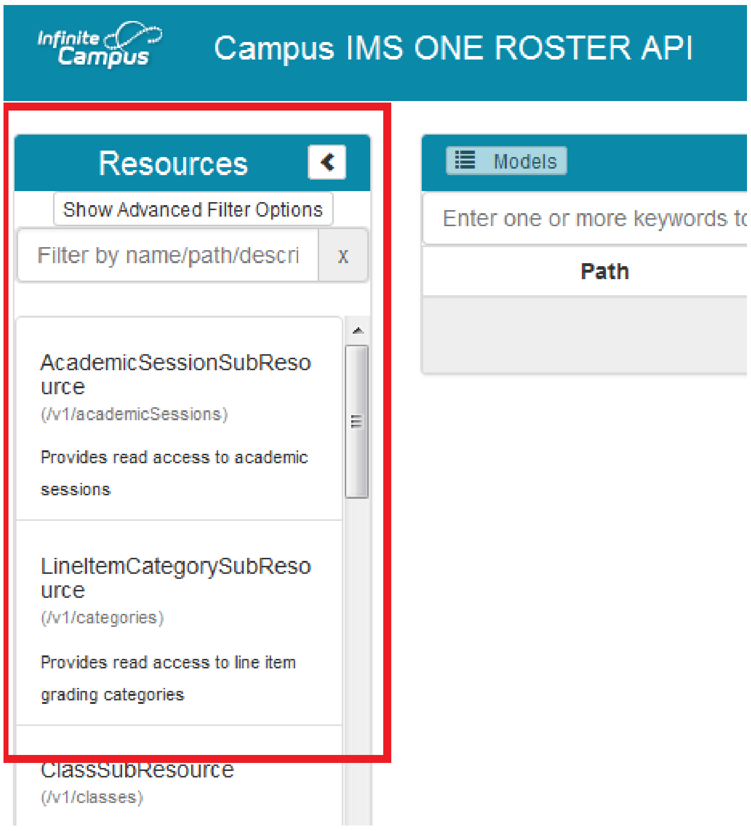
1. Log Into the REST Doc Client
    1. The REST Doc client exposes sensitive SIS data and therefore requires authentication.
    2. The user is granted full access to all resources based on the available actions.
    3. Granular calendar or tool rights are not supported.
    4. This account is not linked with any Campus SIS accounts.
    5. The credentials are based on the Consumer Key and Secret configured on that specific district edition.


Campus IMS OneRoster REST API v1 Documentation

OAuth Key

OAuth Secret

2. Browse or Search for Resources
    1. Before any requests can be submitted, the user must first identity what resource they would like to access.
    2. The resources are based on OneRoster object naming conventions


Campus IMS ONE ROSTER API

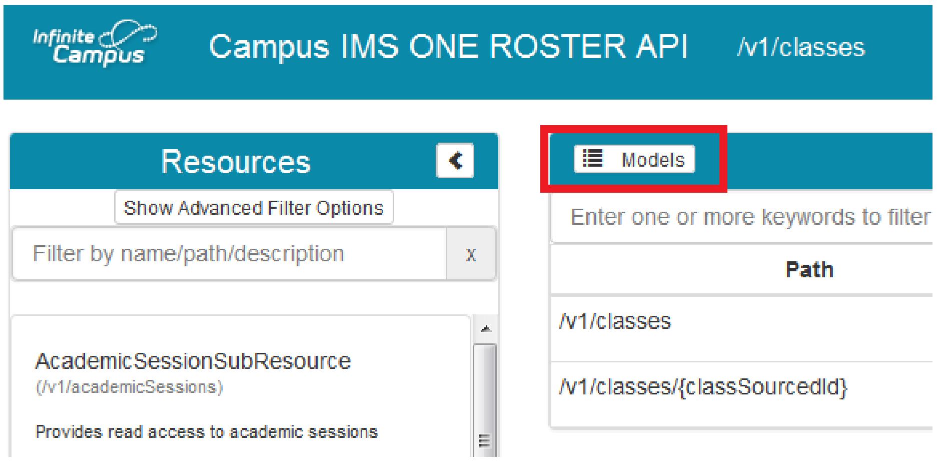
Resources
Show Advanced Filter Options
Filter by name/path/descri
x
Models
Enter one or more keywords to
Path

AcademicSessionSubResource
(/v1/academicSessions)
Provides read access to academic sessions

LineItemCategorySubResource
(/v1/categories)
Provides read access to line item grading categories

ClassSubResource
(/v1/classes)

3. Review the associated model
    1. Access the resource models to familiarize yourself with the mapped data
    2. Close the model when you are done reviewing it.


Campus IMS ONE ROSTER API /v1/classes

Resources

Show Advanced Filter Options

Filter by name/path/description

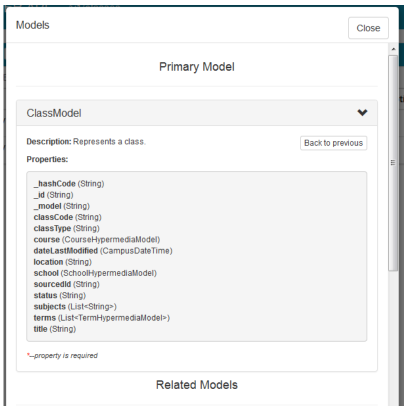
AcademicSessionSubResource
(/v1/academicSessions)

Provides read access to academic sessions

Models

Enter one or more keywords to filter

Path
/v1/classes
/v1/classes/{classSourcedId}


Models

Primary Model

ClassModel

Description: Represents a class.

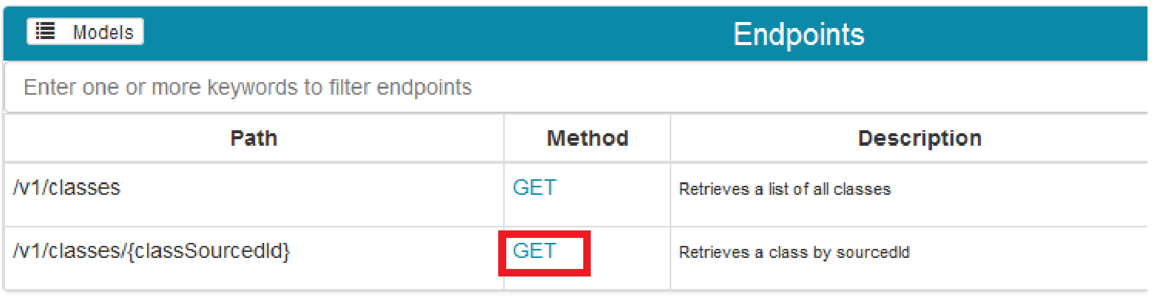
Properties:

_hashCode (String)
_id (String)
_model (String)
classCode (String)
classType (String)
course (CourseHypermediaModel)
dateLastModified (CampusDateTime)
location (String)
school (SchoolHypermediaModel)
sourcedId (String)
status (String)
subjects (List<String>)
terms (List<TermHypermediaModel>)
title (String)

**--property is required*

Related Models

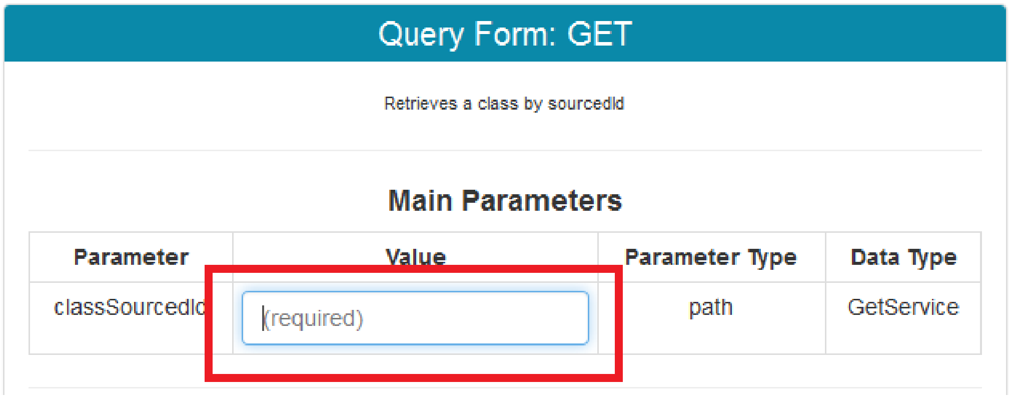
4. Select a request method (action)
    1. Determine which method you would like to perform on the resource based on the provided description


Endpoints

Enter one or more keywords to filter endpoints

Path	Method	Description
/v1/classes	GET	Retrieves a list of all classes
/v1/classes/{classSourcedId}	GET	Retrieves a class by sourcedId

    2. Some paths require additional parameters be provided in order to issue a request. (In the example below I would need to enter a Section.sectionID)

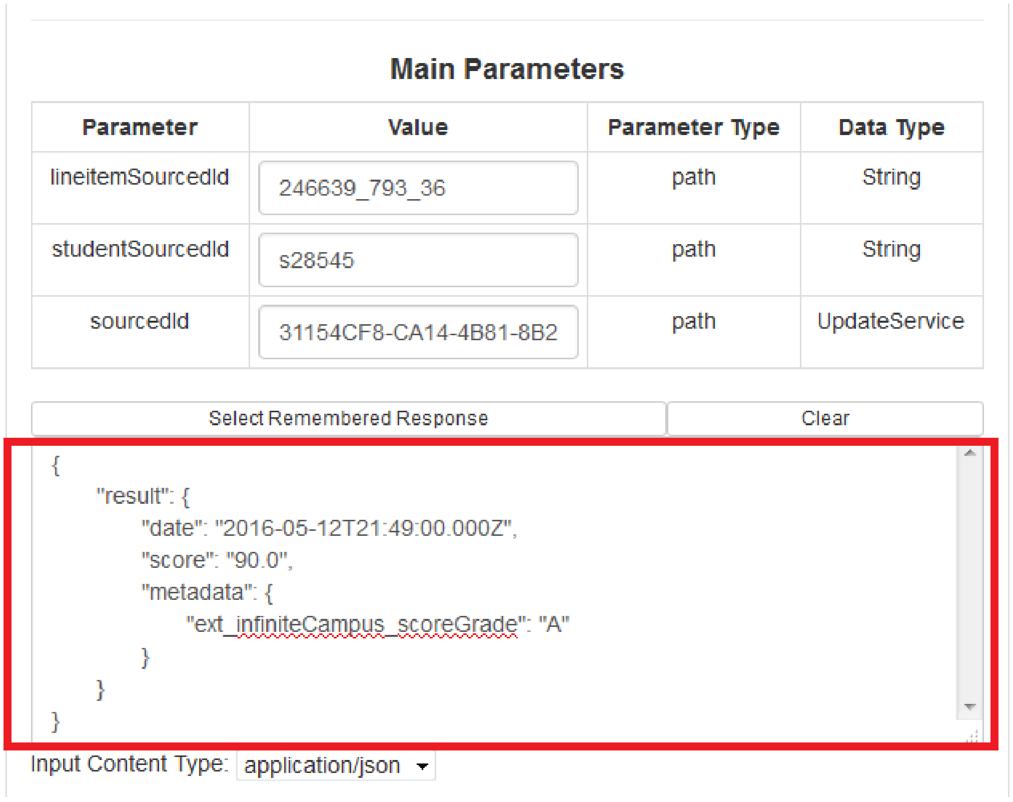

Query Form: GET

Retrieves a class by sourcedId

Main Parameters

Parameter	Value	Parameter Type	Data Type
classSourcedId	(required)	path	GetService

3. PUT Methods require input content. (In the example below I am posting a Result (GradingScore record) with the required date, score (percent) and custom letter grade (score) fields:



Main Parameters

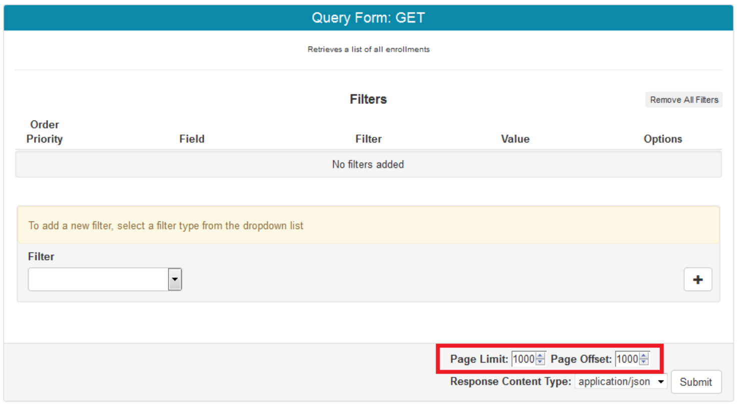
Parameter	Value	Parameter Type	Data Type
lineitemSourcedId	246639_793_36	path	String
studentSourcedId	s28545	path	String
sourcedId	31154CF8-CA14-4B81-8B2	path	UpdateService

Select Remembered Response | Clear

```
{
    "result": {
        "date": "2016-05-12T21:49:00.000Z",
        "score": "90.0",
        "metadata": {
            "ext_infiniteCampus_scoreGrade": "A"
        }
    }
}
```

Input Content Type: application/json

4. The REST Doc client supports pagination
    1. Set the following values to override the defaults: Limit = Number of Records per Page, Offset = Starting Record



Query Form: GET

Retrieves a list of all enrollments

Filters

Remove All Filters

Order Priority	Field	Filter	Value	Options
No filters added				

To add a new filter, select a filter type from the dropdown list

Filter

Page Limit: 1000 Page Offset: 1000

Response Content Type: application/json

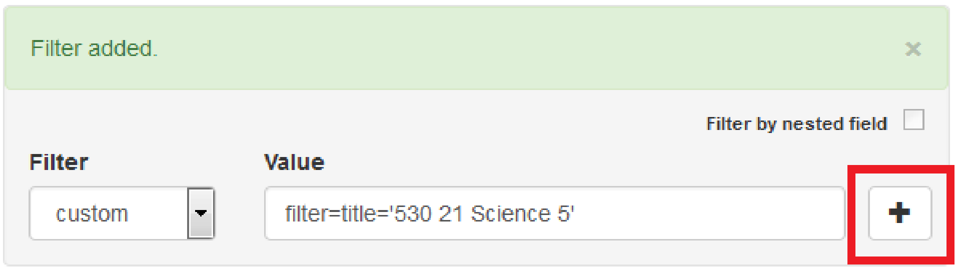
Submit

5. Additional **custom** filters can be added for GET Methods

    1. The filter needs to be added to the request, otherwise the value will be ignored.

        1. The filter syntax always starts with the string prefix of "filter="+fieldName+filterType+"'"+value+"'"
            1. Values are enclosed in single quotes, regardless of dataType (i.e. not just for text but for IDs and Booleans too)
            2. Note: Field names are case sensitive

2. Below is an example of the syntax for filtering based off a single field value.



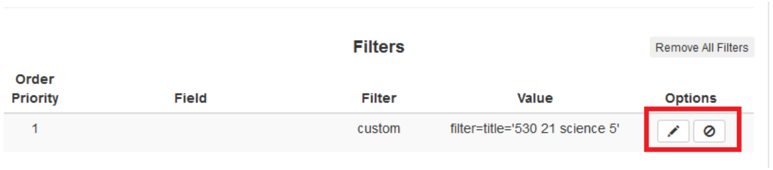
Filter added.

Filter by nested field

Filter	Value
custom	filter=title='530 21 Science 5'

Here is an example of a contains filter:
filter=usernamecontains'Bob.Marley'

3. Once added the filters will appear above, and can be edited or removed before submitting the request.

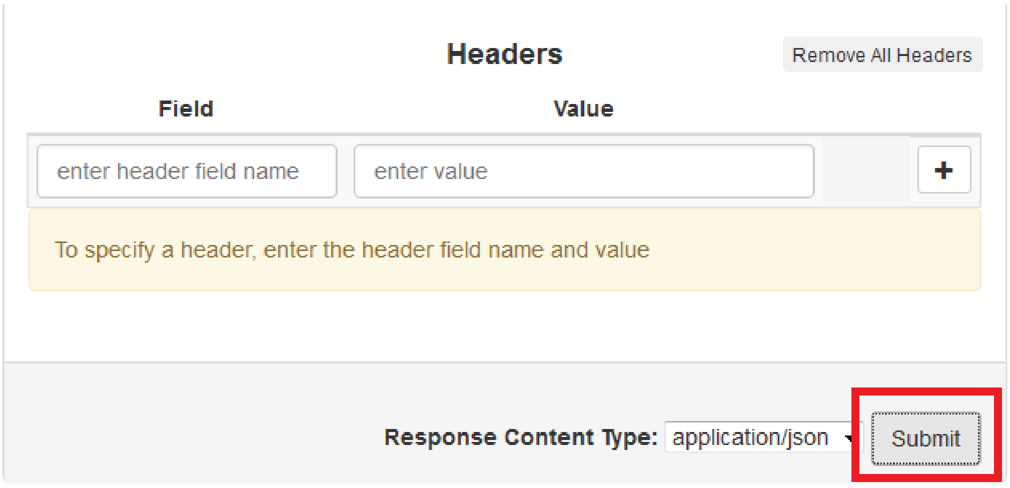


Filters

Remove All Filters

Order Priority	Field	Filter	Value	Options
1		custom	filter=title='530 21 science 5'	

5. Submit the request in order to retrieve a response



Headers

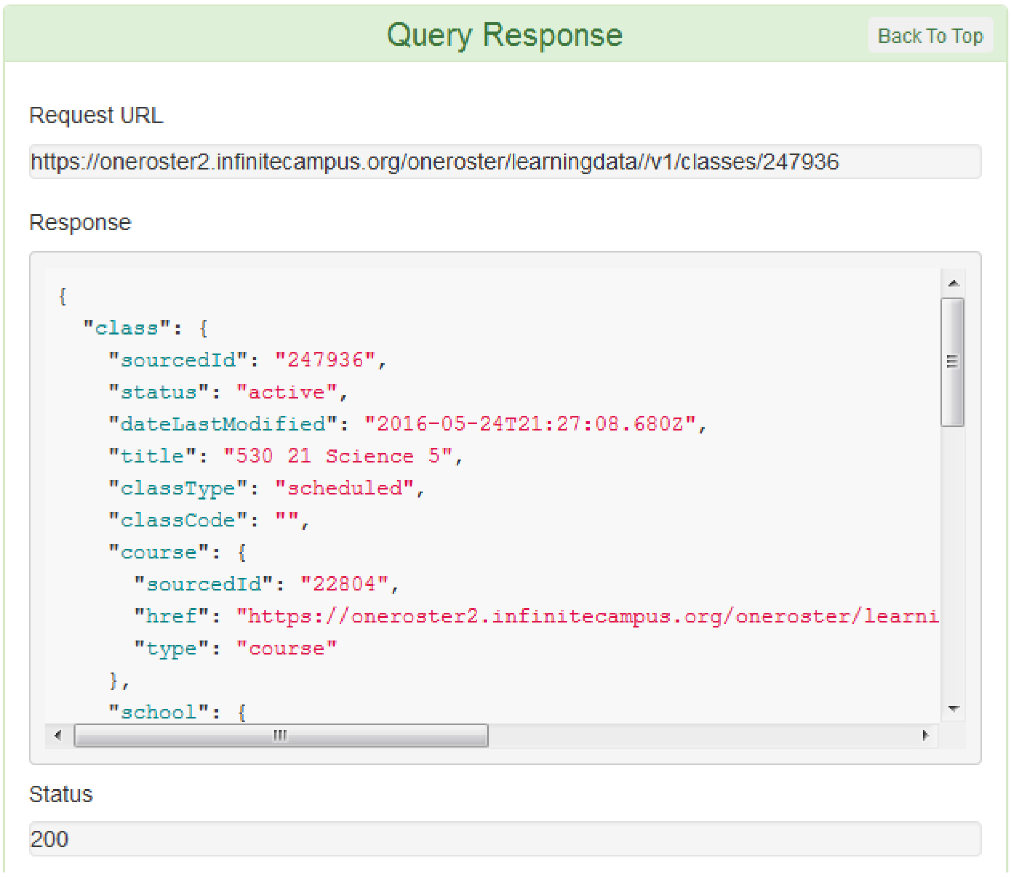
Remove All Headers

Field	Value
enter header field name	enter value

To specify a header, enter the header field name and value

Response Content Type: application/json

6. Review the response
   1. The response is formatted as JSON, which is similar to XML.
      1. It displays data organized by a hierarchy of tags; starting with the object, embedded elements and values, and followed by any linked objects and their values.
   2. The status code reveals whether or not the request was successfully satisfied.
      1. http://www.imsglobal.org/lis/imsonerosterv1p0/imsOneRoster-v1p0.html#toc-33
      2. ▸ Click here to expand...



Query Response

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Request URL

https://oneroster2.infinitecampus.org/oneroster/learningdata//v1/classes/247936

Response

```
{
  "class": {
    "sourcedId": "247936",
    "status": "active",
    "dateLastModified": "2016-05-24T21:27:08.680Z",
    "title": "530 21 Science 5",
    "classType": "scheduled",
    "classCode": "",
    "course": {
      "sourcedId": "22804",
      "href": "https://oneroster2.infinitecampus.org/oneroster/learni
      "type": "course"
    },
    "school": {
```

Status

200