Retrieving Material Changes

The REST interface allows to retrieve voxel sagas. The interface returns sagas in singularities and in space.

Method

GET

URL

<server>/entity.ashx

Parameters

To retrieve the contents of a singularity, use the following parameters:

project	Must be set to the ID for the project that contains the material tracking layer
org	Must be set to “2343243456678890”
layer	Contains the ID for the Material Tracking Layer that will be queried
singularity	Contains the ID if the singularity that will be queried
result_begin	Contains the initial timestamp to be included in the query results
result_end	Contains the final timestamp to be included in the query results

To retrieve the material tracking data for a region of space, use the following parameters:

project	Must be set to the ID for the project that contains the material tracking layer
org	Must be set to “2343243456678890”
layer	Contains the ID for the Material Tracking Layer that will be queried

aabb	Contains an axis-aligned bounding box, in project coordinates, for the region of space that will be queried. The bounding box is comprised of six numbers, separated by commas. The first three numbers are the X,Y,Z coordinates of the lower corner of the bounding box. The next three numbers are the X,Y,Z coordinates of the upper corner.
result_begin	Contains the initial timestamp to be included in the query results
result_end	Contains the final timestamp to be included in the query results
search_begin	Contains the initial timestamp for the time search range
search_end	Contains the final timestamp for the time search range

Returns

This call returns a JSON file. The file defines a dictionary where the entity’s properties appear as key-value pairs.

The REST call will return a JSON file that contains an array of operations. Each entry in this array is a JSON object with the following properties:

operation	Will be one of the seven available operation types: 1. load 2. unload 3. reload 4. move 5. update 6. expand 7. jump
id	Unique identifier for material volume
from_t	Origin time for the operation
from_x	Origin coordinate X for the operation
from_y	Origin coordinate Y for the operation
from_z	Origin coordinate Z for the operation
from_id	Origin singularity ID for the operation
to_t	Final time for the operation
to_x	Final coordinate X for the operation

to_y	Final coordinate Y for the operation
to_z	Final coordinate Z for the operation
to_id	Final singularity ID for the operation

In addition to these fields, the JSON object will include the attribute values for the voxel.

Making sense of "search_begin/search_end" and "result_begin/result_end"

When retrieving voxel sagas from a singularities or regions of space, the API requires two time ranges as input. The result_begin and result_end parameters filter out events from the sagas that are outside this time window. This allows to reduce the amount of information returned by the API call.

The search_begin and search_end parameters are used to determine the region of time that will be searched. For instance, imagine there is a truck singularity in the system and we would like to know the last month of material history for the material the truck carried yesterday. In this case, the search region will be limited to yesterday but the results region would include the entire previous month.

Example

```
http://localhost/entity.ashx?org=2343243456678890&project=A14B73E10AD04796A64490AA1056B16A&layer=BC2C849D0A4A44CE9D40714BED2E9143&singularity=86E634C260E74E888C542CC2C87BBE02&result_begin=200&result_end=300
```

Revision #1
Created 17 March 2025 20:44:09 by admin
Updated 17 March 2025 20:46:38 by admin