

**Experimental / Localization**

# Experimental / Localization

API Version: 1.0.0

Provide spatio-temporal localization of the instances.

# INDEX

<b>1. COHORTS</b>	<b>3</b>
1.1 GET /cohorts	3
1.2 PUT /cohorts	3
1.3 GET /cohorts/{guid}	4
1.4 DELETE /cohorts/{guid}	4
1.5 GET /localization/concrete/cohort/{guid}	5
<b>2. INSTANCES</b>	<b>6</b>
2.1 GET /instances	6
2.2 PUT /instances	6
2.3 GET /instances/{guid}	7
2.4 DELETE /instances/{guid}	7
2.5 GET /localization/concrete/instance/{guid}	8
2.6 POST /localization/concrete/instance/{guid}	9
2.7 POST /localization/logical/instance/{guid}	9
<b>3. LOGICAL</b>	<b>11</b>
3.1 GET /logical_locations/{guid}	11
3.2 GET /logical_locations	11
3.3 PUT /logical_locations	12
3.4 GET /localization/logical/instance/{guid}	12
3.5 POST /localization/logical/instance/{guid}	13
3.6 GET /localization/logical/cohort/{guid}	14

# API

## 1. COHORTS

### 1.1 GET /cohorts

#### List Cohorts

List the GUIDs of the available cohorts.

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

```
[string]
```

---

### 1.2 PUT /cohorts

#### Put Cohort

Put a cohort based on its GUID.

#### REQUEST

**REQUEST BODY - application/json**

```
{  
  Represent a cohort of BIM instances.  
  url*      string  URL to the cohort data (e.g., in BIM Sync or BIM Extended)  
  guid*     string  PATTERN:^[a-zA-Z0-9_ . :- ]+$  
              generally unique identifier of the cohort  
  instances* [string]  
}
```

#### RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

```
undefined
```

**STATUS CODE - 422:** Validation Error

**RESPONSE MODEL - application/json**

```
{  
  detail [{  
    Array of object:  
    loc* [string]  
    msg* string  
    type* string  
  }]  
}
```

---

## 1.3 GET /cohorts/{guid}

### Get Cohort

Retrieve the cohort by the guid.

### REQUEST

#### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+</code>	GUID of the cohort

### RESPONSE

STATUS CODE - 200: Successful Response

#### RESPONSE MODEL - application/json

```
{  
  Represent a cohort of BIM instances.  
  url*      string  URL to the cohort data (e.g., in BIM Sync or BIM Extended)  
  guid*     string  PATTERN: ^[a-zA-Z0-9_ . :- ]+$  
              generally unique identifier of the cohort  
  instances* [string]  
}
```

STATUS CODE - 422: Validation Error

#### RESPONSE MODEL - application/json

```
{  
  detail [{  
    Array of object:  
    loc* [string]  
    msg* string  
    type* string  
  }]  
}
```

## 1.4 DELETE /cohorts/{guid}

### Delete Cohort

Delete the indicated cohort, or do nothing if it does not exist.

### REQUEST

#### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+</code>	GUID of the cohort

### RESPONSE

STATUS CODE - 200: Successful Response

#### RESPONSE MODEL - application/json

undefined

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

```
{
  detail [{
    Array of object:
      loc* [string]
      msg* string
      type* string
    }]
}
```

---

## 1.5 GET /localization/concrete/cohort/{guid}

### Concrete Observations Of Cohort

Get all the location observations recorded for the cohort.

### REQUEST

#### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+</code>	GUID of the cohort

### RESPONSE

**STATUS CODE - 200: Successful Response**

**RESPONSE MODEL - application/json**

```
[{
  Array of object: Observe something relative to the reference point of the site.
  coordinates* {
    Concrete coordinates
    x* number
    y* number
    z* number
  }
  timestamp* integer Time stamp when the location has been recorded (milliseconds since epoch in UTC)
}]
```

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

```
{
  detail [{
    Array of object:
      loc* [string]
      msg* string
      type* string
    }]
}
```

---

## 2. INSTANCES

### 2.1 GET /instances

#### List Instances

List the identifiers of the available instances.

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

[string]

**PATTERN:** `^[a-zA-Z0-9_.-]+$`

---

### 2.2 PUT /instances

#### Put Instance

Put an instance based on its GUID.

#### REQUEST

**REQUEST BODY - application/json**

```
{  
  Represent a track of a BIM instance.  
  guid*    string    PATTERN:^[a-zA-Z0-9_.-]+$  
              Generally unique identifier of the instance  
  cohorts* [string]  
  url*     string    URL to the instance data (e.g., in BIM Sync or BIM Extended)  
}
```

#### RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

undefined

**STATUS CODE - 422:** Validation Error

**RESPONSE MODEL - application/json**

```
{  
  detail [{  
    Array of object:  
    loc*  [string]  
    msg*  string  
    type* string  
  }]  
}
```

---

## 2.3 GET /instances/{guid}

### Get Instance

Retrieve the instance by its GUID.

### REQUEST

#### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+\$</code>	GUID of the instance

### RESPONSE

STATUS CODE - 200: Successful Response

#### RESPONSE MODEL - application/json

```
{  
  Represent a track of a BIM instance.  
  guid*    string    PATTERN: ^[a-zA-Z0-9_ . : - ]+$  
            Generally unique identifier of the instance  
  cohorts* [string]  
  url*     string    URL to the instance data (e.g., in BIM Sync or BIM Extended)  
}
```

STATUS CODE - 422: Validation Error

#### RESPONSE MODEL - application/json

```
{  
  detail [{  
    Array of object:  
    loc*  [string]  
    msg*  string  
    type* string  
  }]  
}
```

## 2.4 DELETE /instances/{guid}

### Delete Instance

Delete the indicated instance, or do nothing if it does not exist.

### REQUEST

#### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+\$</code>	GUID of the instance

### RESPONSE

STATUS CODE - 200: Successful Response

#### RESPONSE MODEL - application/json

undefined

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

```
{
  detail [{
    Array of object:
      loc* [string]
      msg* string
      type* string
    }]
}
```

## 2.5 GET /localization/concrete/instance/{guid}

### Concrete Observations Of Instance

Get all the location observations recorded for the instance.

### REQUEST

#### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+</code>	GUID of the instance

### RESPONSE

**STATUS CODE - 200: Successful Response**

**RESPONSE MODEL - application/json**

```
[{
  Array of object: Observe something relative to the reference point of the site.
  coordinates* {
    Concrete coordinates
    x* number
    y* number
    z* number
  }
  timestamp* integer Time stamp when the location has been recorded (milliseconds since epoch in UTC)
}]
```

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

```
{
  detail [{
    Array of object:
      loc* [string]
      msg* string
      type* string
    }]
}
```



## 2.6 POST /localization/concrete/instance/{guid}

### Post Concrete Observation Of Instance

Post a recorded location of an instance.

#### REQUEST

##### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+</code>	GUID of the instance

##### REQUEST BODY - application/json

```
{  
  Observe something relative to the reference point of the site.  
  coordinates* {  
    Concrete coordinates  
    x* number  
    y* number  
    z* number  
  }  
  timestamp* integer Time stamp when the location has been recorded (milliseconds since epoch in UTC)  
}
```

#### RESPONSE

STATUS CODE - 200: Successful Response

RESPONSE MODEL - application/json

undefined

STATUS CODE - 422: Validation Error

RESPONSE MODEL - application/json

```
{  
  detail [{  
    Array of object:  
    loc* [string]  
    msg* string  
    type* string  
  }]  
}
```

## 2.7 POST /localization/logical/instance/{guid}

### Post Logical Observation Of Instance

Post a recorded logical location of an instance.

#### REQUEST

##### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_-:~]+</code>	GUID of the instance

## REQUEST BODY - application/json

```
{
```

Represent an observation of a logical location for an instance.

```
  guid*      string  PATTERN:^[a-zA-Z0-9_[:-]+$  
                Globally unique identifier of the location  
  timestamp* integer  Time stamp when the location has been recorded (milliseconds since epoch in UTC)  
}
```

## RESPONSE

### STATUS CODE - 200: Successful Response

#### RESPONSE MODEL - application/json

undefined

### STATUS CODE - 422: Validation Error

#### RESPONSE MODEL - application/json

```
{  
  detail [{  
    Array of object:  
    loc*  [string]  
    msg*  string  
    type* string  
  }]  
}
```

---

## 3. LOGICAL

### 3.1 GET /logical\_locations/{guid}

#### Get Logical Location

Retrieve the logical location by its GUID.

#### REQUEST

##### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_.-]+\$</code>	GUID of the logical location

#### RESPONSE

STATUS CODE - 200: Successful Response

##### RESPONSE MODEL - application/json

```
{
  Represent a track of a BIM instance.
  guid*   string   PATTERN:^[a-zA-Z0-9_.-]+$
            Generally unique identifier of the instance
  cohorts* [string]
  url*    string   URL to the instance data (e.g., in BIM Sync or BIM Extended)
}
```

STATUS CODE - 422: Validation Error

##### RESPONSE MODEL - application/json

```
{
  detail [{
    Array of object:
    loc* [string]
    msg* string
    type* string
  }]
}
```

### 3.2 GET /logical\_locations

#### List Logical Locations

List the available logical locations.

#### REQUEST

No request parameters

#### RESPONSE

STATUS CODE - 200: Successful Response

##### RESPONSE MODEL - application/json

```
[{
```

Array of object: Represent a logical location.

This can be arbitrarily abstract and the location may not even exist in the physical world with a concrete spatial zone.

```
  guid* string PATTERN:^[a-zA-Z0-9_.-]+$
           Generally unique identifier of the location
  url*  string URL to the location, e.g., in BIM Sync or BIM Extended
}]
```

---

### 3.3 PUT /logical\_locations

#### Put Logical Location

Put a logical location based on its GUID.

#### REQUEST

##### REQUEST BODY - application/json

```
{
  Represent a logical location.
```

This can be arbitrarily abstract and the location may not even exist in the physical world with a concrete spatial zone.

```
  guid* string PATTERN:^[a-zA-Z0-9_.-]+$
           Generally unique identifier of the location
  url*  string URL to the location, e.g., in BIM Sync or BIM Extended
}
```

#### RESPONSE

**STATUS CODE - 200:** Successful Response

##### RESPONSE MODEL - application/json

undefined

**STATUS CODE - 422:** Validation Error

##### RESPONSE MODEL - application/json

```
{
  detail [{
    Array of object:
      loc* [string]
      msg* string
      type* string
    }]
}
```

---

### 3.4 GET /localization/logical/instance/{guid}

#### Logical Observations Of Instance

Get all the logical locations recorded for the instance.

#### REQUEST

##### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: ^[a-zA-Z0-9_.-]+\$	GUID of the instance

## RESPONSE

**STATUS CODE - 200: Successful Response**

**RESPONSE MODEL - application/json**

```
[{
  Array of object: Represent an observation of a logical location for an instance.
  guid*      string    PATTERN:^[a-zA-Z0-9_.-]+$
                Globally unique identifier of the location
  timestamp* integer    Time stamp when the location has been recorded (milliseconds since epoch in UTC)
}]
```

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

```
{
  detail [{
    Array of object:
    loc*   [string]
    msg*   string
    type*  string
  }]
}
```

---

## 3.5 POST /localization/logical/instance/{guid}

### Post Logical Observation Of Instance

Post a recorded logical location of an instance.

## REQUEST

**PATH PARAMETERS**

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: ^[a-zA-Z0-9_.-]+\$	GUID of the instance

**REQUEST BODY - application/json**

```
{
  Represent an observation of a logical location for an instance.
  guid*      string    PATTERN:^[a-zA-Z0-9_.-]+$
                Globally unique identifier of the location
  timestamp* integer    Time stamp when the location has been recorded (milliseconds since epoch in UTC)
}
```

## RESPONSE

**STATUS CODE - 200: Successful Response**

**RESPONSE MODEL - application/json**

undefined

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

```
{
  detail [{
```

Array of object:

```
loc* [string]
msg* string
type* string
}]
}
```

---

### 3.6 GET /localization/logical/cohort/{guid}

#### Logical Observations Of Cohort

Get all the logical locations recorded for the cohort.

#### REQUEST

##### PATH PARAMETERS

NAME	TYPE	DESCRIPTION
*guid	string PATTERN: <code>^[a-zA-Z0-9_.-]+\$</code>	GUID of the cohort

---

#### RESPONSE

##### STATUS CODE - 200: Successful Response

##### RESPONSE MODEL - application/json

```
[{
  Array of object: Represent an observation of a logical location for an instance.
  guid*      string    PATTERN: ^[a-zA-Z0-9_.-]+$
                Globally unique identifier of the location
  timestamp* integer    Time stamp when the location has been recorded (milliseconds since epoch in UTC)
}]
```

##### STATUS CODE - 422: Validation Error

##### RESPONSE MODEL - application/json

```
{
  detail [{
    Array of object:
    loc* [string]
    msg* string
    type* string
  }]
}
```

---

