

**Custom / UXVs**

# Custom / UXVs

API Version: 1.0.0

List and modify unmanned vehicles (UxVs, such as drones and ground robots).

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# API

## 1. MISSIONS

### 1.1 GET /missions

#### List Missions

List all missions available in the system.

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

[string]

---

### 1.2 PUT /missions

#### Put Mission

Put the mission in the system based on its GUID.

#### REQUEST

**REQUEST BODY - application/json**

```
{
  Represent a mission to record the relevant spots on the site.
  guid*           string  PATTERN:^[a-zA-Z0-9_ . :-]+$
                  Generally unique identifier of the mission's topic (*e.g.*, in BIM Sync), used to identify the
                  mission
  topic_url*     string  URL to the corresponding topic (*e.g.*, in BIM Sync)
  uxv_guid*      string  PATTERN:^[a-zA-Z0-9_ . :-]+$
                  Generally unique identifier of the UxV
  uxv_url*       string  URL to the description of the UxV
  spots* [ {
    Array of object: Represent a spot on the construction site that needs to be recorded.
    product {
      Relevant product to be observed in more detail; if omitted, the recording should not focus on any particular building element.
      guid*       string  PATTERN:^[a-zA-Z0-9_ . :-]+$
                  Generally unique identifier of the product
      revision_url* string  URL to the revision of the building plan (*e.g.*, in BIM Sync)
      url*        string  URL to the description of the product (*e.g.*, in BIM Sync)
    }
    regions_of_interest* [ {
      Array of object: Represent a bounding box that needs to be recorded.
      xmin* number  inclusive
      xmax* number  exclusive
      ymin* number  inclusive
      ymax* number  exclusive
      zmin* number  inclusive
      zmax* number  exclusive
    }
  ]
}
```

```

    scheduled_start* integer Scheduled start of the mission (seconds since epoch in UTC)
    scheduled_end*   integer Scheduled end of the mission (seconds 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
    }]
}

```

## 1.3 GET /missions/{guid}

### Get Mission

Get the mission description.

## REQUEST

### PATH PARAMETERS

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

## RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

```

{
  Represent a mission to record the relevant spots on the site.
  guid*           string   PATTERN:^[a-zA-Z0-9_.-]+$
                  Generally unique identifier of the mission's topic (*e.g.*, in BIM Sync), used to identify the mission
  topic_url*     string   URL to the corresponding topic (*e.g.*, in BIM Sync)
  uxv_guid*      string   PATTERN:^[a-zA-Z0-9_.-]+$
                  Generally unique identifier of the UxV
  uxv_url*       string   URL to the description of the UxV
  spots* [{
    Array of object: Represent a spot on the construction site that needs to be recorded.
    product {
      Relevant product to be observed in more detail; if omitted, the recording should not focus on any particular building element.
      guid*           string   PATTERN:^[a-zA-Z0-9_.-]+$
                        Generally unique identifier of the product
      revision_url*   string   URL to the revision of the building plan (*e.g.*, in BIM Sync)
    }
  }]
}

```

```

    url*          string  URL to the description of the product (*e.g.*, in BIM Sync)
  }
  regions_of_interest* [{
    Array of object: Represent a bounding box that needs to be recorded.
    xmin* number  inclusive
    xmax* number  exclusive
    ymin* number  inclusive
    ymax* number  exclusive
    zmin* number  inclusive
    zmax* number  exclusive
  }]
}]
scheduled_start* integer  Scheduled start of the mission (seconds since epoch in UTC)
scheduled_end*   integer  Scheduled end of the mission (seconds since epoch in UTC)
}

```

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

```

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

```

## 1.4 DELETE /missions/{guid}

### Delete Mission

Delete the mission from the system based on its GUID.

### REQUEST

#### PATH PARAMETERS

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

### 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 HEAD /missions/{guid}

### Head Mission

Check whether the mission exists in the system.

### REQUEST

#### PATH PARAMETERS

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

### RESPONSE

**STATUS CODE - 200:** The mission is available in the service.

**RESPONSE MODEL - application/json**

undefined

**STATUS CODE - 404:** The mission is not available.

**STATUS CODE - 422:** Validation Error

**RESPONSE MODEL - application/json**

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

---

## 1.6 GET /missions/{guid}/status

### Get Mission Status

Retrieve the status of the mission given by its GUID.

### REQUEST

#### PATH PARAMETERS

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

### RESPONSE

**STATUS CODE - 200:** Successful Response

## RESPONSE MODEL - application/json

```
{
  Represent the status of the mission.
  timestamp* integer  Timestamp when the status was observed (seconds since epoch in UTC)
  status*     enum    ALLOWED:pending, in_progress, finished
                Provide choices for the status of a recording mission.
}
```

## STATUS CODE - 422: Validation Error

### RESPONSE MODEL - application/json

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

---

## 1.7 PUT /missions/{guid}/status

### Put Mission Status

Put the status status of the mission given by its GUID.

## REQUEST

### PATH PARAMETERS

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

### REQUEST BODY - application/json

```
{
  Represent the status of the mission.
  timestamp* integer  Timestamp when the status was observed (seconds since epoch in UTC)
  status*     enum    ALLOWED:pending, in_progress, finished
                Provide choices for the status of a recording mission.
}
```

## 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. UXVS

### 2.1 GET /uxvs

#### List Uxvs

List GUIDs of all the UxVs.

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

[string]

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

---

### 2.2 PUT /uxvs

#### Put Uxv

Register the UxV with the service based on its GUID.

#### REQUEST

**REQUEST BODY - application/json**

```
{  
  Represent the status of an unmanned vehicle.  
  guid* string PATTERN: ^[a-zA-Z0-9_.-]+  
           Generally unique identifier of the vehicle  
  url*  string URL to the description of the vehicle (*e.g.*, in 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 /uxvs/{guid}

## Get Uxv

Get the meta-data of the specified UxVs.

## REQUEST

### PATH PARAMETERS

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

## RESPONSE

STATUS CODE - 200: Successful Response

### RESPONSE MODEL - application/json

```
{  
  Represent the status of an unmanned vehicle.  
  guid* string PATTERN: ^[a-zA-Z0-9_-:~]+$  
    Generally unique identifier of the vehicle  
  url* string URL to the description of the vehicle (*e.g.*, in BIM Extended)  
}
```

STATUS CODE - 422: Validation Error

### RESPONSE MODEL - application/json

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

## 2.4 DELETE /uxvs/{guid}

### Delete Uxv

Unregister the UxV from the service and delete all the related data.

## REQUEST

### PATH PARAMETERS

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

## 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 HEAD /uxvs/{guid}

### Head Uxv

Check whether the UxV has been registered with the service.

## REQUEST

### PATH PARAMETERS

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

---

## RESPONSE

**STATUS CODE - 200:** The UxV has been registered with the service.

### RESPONSE MODEL - application/json

undefined

**STATUS CODE - 404:** The UxV has not been registered.

**STATUS CODE - 422:** Validation Error

### RESPONSE MODEL - application/json

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

---

## 2.6 GET /uxvs/{guid}/status

### Get Uxv Status

Get the status of the specified UxV.

## REQUEST

### PATH PARAMETERS

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

---

## RESPONSE

**STATUS CODE - 200: Successful Response**

**RESPONSE MODEL - application/json**

```
{
  Represent the observed status of an unmanned vehicle.
  timestamp* integer  Timestamp when the status was observed (seconds since epoch in UTC)
  status*     enum     ALLOWED:ready, on_mission, needs_assistance, broken
                  Represent the available choices for the status of an unmanned vehicle.
}
```

**STATUS CODE - 422: Validation Error**

**RESPONSE MODEL - application/json**

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

---

## 2.7 PUT /uxvs/{guid}/status

### Put Uxv Status

Put the observed status of the unmanned vehicle based on its GUID.

## REQUEST

**PATH PARAMETERS**

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

**REQUEST BODY - application/json**

```
{
  Represent the observed status of an unmanned vehicle.
  timestamp* integer  Timestamp when the status was observed (seconds since epoch in UTC)
  status*     enum     ALLOWED:ready, on_mission, needs_assistance, broken
                  Represent the available choices for the status of an unmanned vehicle.
}
```

## 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
}]
}
```

---

## 2.8 GET /uxvs/{guid}/missions

### List Missions Of Uxv

List the GUIDs of the missions to which this UxV has been assigned.

### REQUEST

#### PATH PARAMETERS

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

---

### RESPONSE

**STATUS CODE - 200:** Successful Response

**RESPONSE MODEL - application/json**

```
[string]
```

**STATUS CODE - 422:** Validation Error

**RESPONSE MODEL - application/json**

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

---

