API Tutorial for SAP Asset Intelligence Network 1702
API Tutorial
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1 Introduction

The API tutorial guides you in using APIs provided by the SAP Asset Intelligence Network.
2 Company Profile

You can view the details of an organization, its locations, invitees and subsidiaries that are in SAP Asset Intelligence Network.

2.1 Viewing the Company Profile

This API allows you to view the profile of an organization in SAP Asset Intelligence Network.

Request

- **HTTP Method**: GET
- **Example URL**: ain/services/api/v1/company/profile(orgName)
- **Authorization**: You must have the roles or COMPANYPROFILE_READ, COMPANYPROFILE>Edit or COMPANYPROFILE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- On successful execution, the system returns the detailed information about the organization. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html).

2.2 Viewing Locations of the Company

This API allows you to view the locations of an organization in SAP Asset Intelligence Network.

Request

- **HTTP Method**: GET
- **Example URL:** ain/services/api/v1/company/profile(orgName)/locations
- **Authorization:** You must have the roles or COMPANYPROFILE_READ, COMPANYPROFILE_EDIT or COMPANYPROFILE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

### Response

- On successful execution, the system returns the location information of the organization. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html).

### 2.3 Viewing Invitees of the Company

This API allows you to view the invitees of your organization in SAP Asset Intelligence Network.

**Request**

- **HTTP Method:** GET
- **Example URL:** ain/services/api/v1/company/profile(orgName)/invitees
- **Authorization:** You must have the roles or COMPANYPROFILE_READ, COMPANYPROFILE_EDIT or COMPANYPROFILE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

### Response

On successful execution, the system returns the invitee information of the organization. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html).
2.4 Viewing Subsidiaries of the Company

This API allows you to view the subsidiaries of your organization in SAP Asset Intelligence Network.

Request

- **HTTP Method:** GET
- **Example URL:** ain/services/api/v1/company/profile(orgName)/subsidiaries
- **Authorization:** You must have the roles or COMPANYPROFILE_READ, COMPANYPROFILE_EDIT or COMPANYPROFILE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

On successful execution, the system returns the subsidiary companies of the organization.

For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9b18f064353f4d4583b64b0d558bd3fd/1702/en-US/companyprofile.html).
3 External IDs

External ID is the unique object ID of an external system that you want to map with the object ID in SAP Asset Intelligence Network. The external ID is the means to map objects in SAP Asset Intelligence Network with an external system.

3.1 Mapping Object ID in SAP Asset Intelligence Network with External ID

You use this API to assign the external ID of an object in an external system with the same object in SAP Asset Intelligence Network.

Request

- **HTTP Method**: POST
- **Example URL**: ain/services/api/v1/object/externalids
- **Authorization**: You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the service executes successfully, the external ID is assigned to the object ID in SAP Asset Intelligence Network. Otherwise, the system returns appropriate error code. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html).
3.2 Updating the Mapped External IDs

You use this API to update the external ID that you have mapped with the object ID in SAP Asset Intelligence Network.

Request

- **HTTP Method**: PUT
- **Example URL**: /ain/services/api/v1/object/externalid
- **Authorization**: You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the service executes successfully, the external ID is updated. Otherwise, the system returns appropriate error codes. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html).

3.3 Deleting an External ID

You use this API to delete an external ID mapped with the object ID in SAP Asset Intelligence Network.

Request

- **HTTP Method**: PUT
- **Example URL**: /ain/services/api/v1/object/externalid/delete
- **Authorization**: You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT assigned to your user ID in the SAP HANA Cloud Platform account.
Response

If the service executes successfully, the mapped external ID is deleted. Otherwise, the system returns appropriate error codes. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html

3.4 Viewing External Systems Configured with SAP Asset Intelligence Network

You use this API to view the external systems that are configured with SAP Asset Intelligence Network.

Request

- **HTTP Method:** GET
- **Example URL:** /ain/services/api/v1/external/systems
- **Authorization:** You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html.

Response

If the service executes successfully, the system retrieves a list external systems configured in SAP Asset Intelligence Network. Otherwise, the system returns appropriate error codes. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html
3.5 Viewing Objects Assigned to External IDs

You use this API to view the objects of SAP Asset Intelligence Network that are assigned to external IDs.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/objectsid/ainobjects({externalid})
- **Example URL**: /ain/services/api/v1/objectsid/ainobjects (57A81F49B3DF3D6AE10000000A44286)
- **Authorization**: You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the service executes successfully, the system retrieves a list of objects assigned to external IDs. Otherwise, the system returns appropriate error codes. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html).

3.6 Viewing all External IDs Assigned to Objects

You use this API to retrieve a list of all the external IDs that are assigned to the objects in SAP Asset Intelligence Network.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/objectsid/externalid({ainObjectID})
- **Example URL**: /ain/services/api/v1/objectsid/externalid(57A81F49B3DF3D6AE10000000A44286)
- **Query Parameter**: ainObjectID
  - ainObjectID: allows you to specify the object ID in SAP Asset Intelligence Network.
- **Authorization**: You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

If the service executes successfully, the system retrieves a list of external IDs assigned to objects in SAP Asset Intelligence Network. Otherwise, the system returns appropriate error codes. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/98c5ced13b404443b96385c6c79844a1/1702/en-US/externalids.html)
4 Templates

A model template is a format created by the manufacturer to maintain metadata related to an equipment. It inherits a subclass template and has additional attribute groups and attributes. A template inherits the structure from a subclass template that is provided by SAP Asset Intelligence Network and is based on ISO/DIS standards such as 14224.

4.1 Creating a Template

As a manufacturer you can create a model template using either a subclass template provided by SAP Asset Intelligence Network, or any model template that is available for you.

Prerequisite

If you want to assign an attribute group to the template, you must have created one already. (see Creating an AttributeGroup [page 17])

Request

- **HTTP Method**: POST
- **Example URL**: ain/servicesest/api/v1/template
- **Authorization**: You must have the roles TEMPLATE_READ, TEMPLATE_EDIT, or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
  For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 26].

Response

- If a template is created successfully, system auto generates a template id and returns the details in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html
4.1.1 Creating an AttributeGroup

You can create an attribute group within a template or assign an attribute within an attribute group.

Prerequisite

If you want to assign an attribute to an attribute group, you must have created one already. (see Creating an Attribute [page 18])

Request

- **HTTP Method:** POST
- **Example URL:** ain/services/api/v1/attributeGroup
- **Authorization:** You must have the roles TEMPLATE_READ, TEMPLATE_EDIT, or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 26].

Response

- If an attribute group is created successfully, system auto generates an attribute group ID in the response payload.
- If an attribute group cannot be created, system returns appropriate error code in the response payload.
4.1.2 Creating an Attribute

You can create an attribute that can be assigned to an attribute group. Additionally, you can assign an attribute group to an industry standard.

Request

- **HTTP Method:** POST
- **Example URL:** ain/services/api/v1/attribute
- **Authorization:** You must have the roles TEMPLATE_READ, TEMPLATE_EDIT, or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 26].

Response

- If an attribute is created successfully, system auto generates an attribute ID in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
- If an attribute cannot be created, system returns appropriate error code in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.

4.2 Viewing a Template

As a manufacturer or an operator, you can view details of a template before you publish, or before you update the details of a template.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/template(<template ID>)
- **Example URL:** /ain/services/api/v1/template(E0B15BE85E2B41FBA06069B8D61CEB09)
- **Authorization:** You must have any of the following roles assigned to your user ID TEMPLATE_READ or TEMPLATE_EDIT or TEMPLATE_DELETE.
Response

- If a template with the specified template ID exists, system returns the details of the template along with attribute group and attributes assigned to the template.
- If the template with the specified ID does not exists, or you do not have appropriate authorizations to view the template, system returns an error code.

4.3 Viewing all Templates

You can view details of a list of templates that share common parameters such as statuses.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/template/$count
- **Query parameters**: $filter
  - $filter: allows you to specify the the condition on which you want filter the templates
- **Example URL**: /ain/rest/api/v1/template/$count?$filter=substringof('Sample template',Name)
- **Authorization**: You must have the roles TEMPLATE_READ, TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If one or more templates exist as per the filter criteria, system returns the list of templates.
- If the filtering criteria is incorrect, system returns an error code.
4.4 Updating a Template

You can either update an existing template with new information, or update an existing template that has incorrect information.

Request

- **HTTP Method**: PUT
- **Example URL**: ain/services/api/v1/template
- **Authorization**: You must have the roles TEMPLATE_READ or TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema**: To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 26].

Response

- If the system updates the template successfully, system returns the details of the updated template in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
- If the system cannot update the template, system returns appropriate error code in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.

4.5 Deleting a Template

You perform this activity when you want to delete a template containing incorrect information.

Request

- **HTTP Method**: Delete
- **Example URL**: ain/services/api/v1/template
- **Authorization**: You must have the roles TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Request Schema: To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 119].

Response

If the system deletes the template successfully, system returns 200. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.

If the system cannot update the template, system returns appropriate error code in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.

4.6 Updating an Attribute Group

You perform this activity while updating an existing attribute group with new information.

Request

- **HTTP Method**: PUT
- **Example URL**: ain/services/api/v1/attributegroup
- **Authorization**: You must have the roles TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema**: To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 26].

Response

- If the system updates the attribute group successfully, system returns the details of the updated attribute group in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
- If the system cannot update the template, system returns appropriate error code in the response payload.
4.7 Adding Industry Standard to an Existing Template

You use this API to add an industry standard to an existing template.

Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1//template({id})/industrystandard
- **Authorization:** You must have the roles TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html) file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 26].

Response

4.8 Updating an Attribute

You perform this activity while updating an existing attribute with new information.

Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1/attribute
- **Authorization:** You must have the roles TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 26].

Response

- If the system updates the attribute group successfully, system returns the details of the updated attribute group in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
- If the system cannot update the template, system returns appropriate error code in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.

4.9 Viewing Industry Standards for a Template

You use this API to retrieve all the industry standards that can be assigned to templates or attributes.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/industrystandard
- **Authorization:** You must have the roles TEMPLATE_READ, TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
4.10 Viewing Industry Standards Assigned to a Template

You use this API to retrieve the industry standards assigned to a template.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/template({id})/industrystandard
- **Authorization**: You must have the roles TEMPLATE_READ, TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema**: To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 26].

Response

- If the system retrieves the template successfully, system returns the details of the template in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
- If the system cannot retrieve the template, system returns appropriate error code in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
If the system cannot retrieve the template, system returns appropriate error code in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.

4.11 Deleting Industry Standards from a Template

You use this API to remove existing industry standards from a template.

Request

- **HTTP Method:** DELETE
- **URL:** /ain/services/api/v1/template({id})/industrystandard({stdid})
- **Authorization:** You must have the roles TEMPLATE_EDIT or TEMPLATE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 26].

Response

- If the system retrieves the template successfully, system returns the details of the template in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
- If the system cannot retrieve the template, system returns appropriate error code in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/74ed9649cb09455884cc674647aa6694/1702/en-US/Template.html.
### 4.12 Additional Information

<table>
<thead>
<tr>
<th>Field (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;Name&gt;</code></td>
<td>String</td>
<td>a mandatory field that defines a unique name for the attribute.</td>
</tr>
<tr>
<td><code>&lt;Id&gt;</code></td>
<td>String</td>
<td>a unique identifier generated by the system for an attribute.</td>
</tr>
<tr>
<td><code>&lt;Description&gt;</code></td>
<td>String</td>
<td>a description for an attribute. It has the following subfields:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <code>&lt;Id&gt;</code>: unique identifier that is system generated for an attribute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <code>&lt;short&gt;</code>: defines a short description for an attribute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <code>&lt;long&gt;</code>: defines a long description for an attribute</td>
</tr>
<tr>
<td><code>&lt;dataType&gt;</code></td>
<td>String</td>
<td>Defines the kind of data types that can be assigned for an attribute.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>List of supported data types are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- boolean</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- string</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- numeric</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- date</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- enum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- picture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For more information on using the data types and defining additional properties for these data types, see Defining Additional Properties for a Data Type</td>
</tr>
<tr>
<td><code>&lt;dimension1&gt;</code></td>
<td>String</td>
<td>a field that defines a unit of measurement for an numeric attribute</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For more information on supported dimensions, refer the list provided in <code>dimension2</code> description.</td>
</tr>
<tr>
<td>Field (Mandatory or Optional)</td>
<td>Data Type</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| dimension2                    | String    | a field that defines additional unit of measurement for an numeric attribute. List of supported dimensions are:  
  - weight  
  - length  
  - time  
  - force  
  - mass  
  - pressure  
  - current  
  - energy  
  - power  
  - acceleration  
  - electric current  
  - temperature |
<p>| <code>&lt;enumValues&gt;</code>                | array     | Allows you to specify an array of values which serves as an enumeration for enum attribute. |
| unitOfMeasure1                | array     | Specifies the allowed values for dimension1 |
| unitOfMeasure2                | array     | Specifies the allowed values for dimension2 |
| <code>&lt;isMultivalue&gt;</code>              | boolean   | Specifies if the enum attribute can support multiple values. |
| <code>&lt;isLanguage&gt;</code>                | boolean   | Specifies if the value supported by a string attribute is language-dependent or not. |
| <code>&lt;isRange&gt;</code>                   | boolean   | Specifies if the numeric attribute can support a range. |</p>
<table>
<thead>
<tr>
<th>Field (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
</table>
| `<industryStandards>`         | array     | Specifies the supported industry standards at the attribute level. Possible values:  
|                                |           | - ISO 15926  
|                                |           | - IEC 60050  
|                                |           | - ISO 14224  
|                                |           | - IO-LINK    
|                                |           | - MIMOSA     
|                                |           | It has the following sub fields:  
|                                |           |   ○ industryStandard: specifies the name of the industry standard.  
|                                |           |   ○ standard ID: a unique identifier corresponding to an industry standard specified by the user. |
| `<hasNormalValue>`            | boolean   | Specifies if the numeric attribute can support a normal value. This flag can be used only if `<isRange>` is set to true. |
| optionCode                    | Integer   | Specifies the priority - Optional, Mandatory or Recommended |

Table 2: Attribute Group Fields

<table>
<thead>
<tr>
<th>Field (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;Name&gt;</code></td>
<td>String</td>
<td>a mandatory field that defines a unique name for the attribute group.</td>
</tr>
<tr>
<td><code>&lt;Id&gt;</code></td>
<td>String</td>
<td>a unique identifier for an attribute group that is generated by the system.</td>
</tr>
</tbody>
</table>
| `<Description>`               | String    | a description for an attribute group. It has the following subfields:  
|                                |           |   Id: unique identifier for an attribute group  
|                                |           |   short: defines a short description for an attribute group  
|                                |           |   long: defines a long description for an attribute group |
| `<attributes>`                | array     | An array of IDs that uniquely identifies each attribute. |
Table 3: Template Attributes

<table>
<thead>
<tr>
<th>Field (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;name (Mandatory)&gt;</td>
<td>String</td>
<td>a mandatory field and defines a unique name for the template.</td>
</tr>
<tr>
<td>&lt;Id (Optional)&gt;</td>
<td>String</td>
<td>a system generated unique identifier for a template.</td>
</tr>
<tr>
<td>&lt;description (Optional)&gt;</td>
<td>String</td>
<td>Defines a description for a template. It has the following subfields:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● &lt;Id&gt;: unique identifier for the template</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● &lt;short&gt;: defines a short description for a template</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● &lt;long&gt;: defines a long description for a template</td>
</tr>
<tr>
<td>&lt;parentId (Optional)&gt;</td>
<td>String</td>
<td>a unique identifier of a parent template.</td>
</tr>
<tr>
<td>&lt;isAbstract (Optional)&gt;</td>
<td>boolean</td>
<td>a flag that identifies if a template is abstract or non-abstract.</td>
</tr>
<tr>
<td>&lt;type (Mandatory)&gt;</td>
<td>String</td>
<td>a mandatory field that defines the type of a template. It can take any of the following three values:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● class (1): A class template is a base template.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● subclass (2): A subclass template inherits from a class template.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● model template (3): A model template inherits either from a subclass template or another model template.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● equipment template (4): An equipment template is independent of class or subclass. It can have separate attributes of its own.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● location template (5): A location template contains location-specific attributes and attribute groups related to a location.</td>
</tr>
<tr>
<td>&lt;attributeGroups (Optional)&gt;</td>
<td>array</td>
<td>An array of IDs that uniquely identifies each attribute group.</td>
</tr>
<tr>
<td>&lt;changedOn (Optional)&gt;</td>
<td>String</td>
<td>Specifies the date when the template was last updated.</td>
</tr>
</tbody>
</table>
5 Models

A model is an abstract representation from the manufacturer that defines all maintenance and specification information related to a new or existing product. A physical equipment is an instance of a model.

A model comprises the following information:

- **Header**: Primary information that describes a model such as name, description, to name a few.
- **Attributes**: Properties of a model.
- **Components**: Detachable objects of a model.
- **Assignments**: Objects that are associated with a model such as instructions, documents, to name a few.

Public APIs are available for each of these specific sections of a model.

### 5.1 Creating a Model Header

A model header pertains to the model information such as class, subclass, and model template names. Additionally, a model header also specifies other key information for a model using parameters such as equipment tracking, service date, expiry date, and model generation.

**Request**

- **HTTP Method**: POST
- **Example URL**: /services/api/v1/models
- **Authorization**: You must have the roles MODEL_EDIT, or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

- If a model is created successfully, system auto generates a model ID and returns the details of the model header in the response payload. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffc7bda5b2e43/1702/en-US/model.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffc7bda5b2e43/1702/en-US/model.html).
Note
System creates a model header and saves the model in an unpublished state. You can change the state of the model to a published state.

For more information, see Publishing a Model [page 46].

- If the system cannot create a model header, system returns appropriate error codes in the response payload.

5.2 Viewing a Model Header

As a manufacturer or an operator, you can view details of a model header before you publish, or before you update the details of a model header.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/models({model ID})header?status=<STATUS>
  Description: Use the URL with STATUS 1, 2, or 3; where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL**: /ain/services/api/v1/models(E0B15BE85E2B41FBA06069B8D61CEB09)header?status=2
- **Authorization**: You must have the roles MODEL_DELETE, MODEL_EDIT, or MODEL_READ assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the model exists with the given status, the system returns model header information. Otherwise, system returns an appropriate error message.

5.3 Viewing all Model Headers

As a manufacturer or an operator, you can view a list of all models that match a search criteria. Additionally, you can also use this API to search for models based on model fields with the required filter query parameters.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/models
- **Query parameters**: $filter
  - $filter: allows you to specify a search text using which you can filter the models
- **Example URL**: /ain/services/api/v1/models?$filter=substringof(<FILTER VALUE>, <HEADER PROPERTIES>)
  - Description: Where FILTER_VALUE is the parameter to search the text or a substring of the text and <HEADER_PROPERTIES> is the attribute that contains the text.
  - For filters, this API follows ODATA URI conventions. For more information, see [http://www.odata.org/documentation/odata-version-3-0/url-conventions/](http://www.odata.org/documentation/odata-version-3-0/url-conventions/).
- **Authorization**: You must have the roles MODEL_DELETE or MODEL_EDIT or MODEL_READ assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If one or more models exist that match the filter criteria, system returns an array of models. Otherwise, system returns a blank array of models.
- If system cannot retrieve models that match the filter criteria, system returns appropriate error codes.
5.4 Updating a Model Header

You use this API to update the header information of a model.

Request

- **HTTP Method**: PUT
- **Example URL**: `ain/services/api/v1/models({modelId})/header`
- **Authorization**: You must have the roles MODEL_DELETE, or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the system updates the model header successfully, the system returns the details of the updated model header in the response payload. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffcc7bda5b2e43/1702/en-US/model.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffcc7bda5b2e43/1702/en-US/model.html).
- If the system cannot update the model header successfully, the system returns appropriate error message in the response payload. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffcc7bda5b2e43/1702/en-US/model.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffcc7bda5b2e43/1702/en-US/model.html).

5.5 Deleting a Model

You use this API to delete a model from SAP Asset Intelligence Network.

Request

- **HTTP Method**: DELETE
- **URL**: `/ain/services/api/v1/models({modelId})`
- **Example URL**: `/ain/services/api/v1/models(E0B15BE85E2B41FBA06069B8D61CEB09)`
- **Authorization**: You must have the roles MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response

If the system deletes the model header successfully, system returns the code “204 No Content” in the response payload.


5.6 Viewing the Model Count

You use this API to get a count of all models that you have access for. You also use this API to get the count of filtered count by filtering the data.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/models/$count
- **Query Parameter**: $filter
  - $filter: allows you to specify a search text using which you can filter the models.
- **Example URL**: /ain/services/api/v1/models/$count?$filter=substringof('Sample model',Name)
- **Authorization**: You must have the roles MODEL_DELETE, MODEL_EDIT, or MODEL_READ assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If one or more models exist that match the filter criteria, system returns the count of models. Otherwise, system returns the count as 0.

5.7 Finding the Manufacturer of a Model

This API provides a list of manufacturers from which you can populate the manufacturer field while creating or updating a model.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/organizations
- **Authorization:** You must have the roles MODEL_READ, MODEL_EDIT or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

The system returns a list of manufacturers.


5.8 Viewing Model Attribute Values

You use this API to view the attribute values of a model. These values are based on the underlying class templates, subclass templates, and model templates.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/models((model ID))/values/?<STATUS>=1, 2, or 3
  - Description: Use the URL with STATUS 1, 2, or 3: where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL:** /ain/services/api/v1/models(EOB15BE85E2B41FBA06069B8D6CEB09)/values?status=2
- **Authorization:** You must have the roles MODEL_READ, MODEL_DELETE, or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.
5.9 Updating Model Attribute Values

You use this API to update the attribute values of a model. These values are based on the underlying class templates, subclass templates, and model templates.

**Note**

You can update a model only when no item of an equipment uses the model.

**Request**

- **HTTP Method**: PUT
- **URL**: ain/services/api/v1/models({modelId})/values
- **Authorization**: You must have the roles MODEL_DELETE, or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

- If the system updates the attribute values successfully, the system returns the updated attribute value in the response payload.
- If the system cannot update the model value successfully, the system returns appropriate error message in the response payload.
5.10 Viewing Enumerations for a Model

You use this API to view the different types of enumerations that are required to create a model.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/enumeration?type=<ENUMERATION_TYPE>
- **Query Parameters**: type
  Description: Use this API to get the required enumerations while creating a model by specifying the appropriate enumeration type. You can specify multiple enumeration types in the query parameters to get multiple enumerations.
- **Example URL**: /ain/services/api/v1/enumeration?type=EquipmentTracking&type=SourceBPRole
- **Authorization**: You must have the roles MODEL_READ, MODEL_EDIT, or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

The following are the allowed enumeration types:
- DurationUnit
- StepRole
- Tools
- InstructionStatus
- Source
- RiskCategory
- LanguageISOCode
- StoredOn
- DocumentCategory
- FileSize
- DocumentPhaseCode
- InstructionType
- Criticality
- Priority
- ManufacturerAnnouncement
- OperatorAnnouncement
- AnnouncementType
- RegistrationStatus
- OperatorAnnouncementStatus
- EquipmentStatus
- EquipmentSafetyRisk
- DocumentCategoryOption
- AccountType
- AnnouncementSourceProcessingStatus
- AnnouncementNonSourceProcessingStatus
- AttributeType
○ AttributeOption
○ BusinessPartnerType
○ EquipmentTracking
○ SourceBPRole
○ AttributeDimension
○ ImprovementCaseStatus
○ ImprovementCaseEvent
○ ImprovementCaseType
○ ImprovementCaseRole
○ ProjectType
○ EquipmentLifeCycle
○ ComputedDurationUnit
○ AttributeDataType
○ TemplateType
○ ExpiryDate
○ ObjectPermission
○ ImprovementCaseOrgConfig
○ ImprovementCaseConnectionConfig
○ DuplicateReasonCode
○ LocationType
○ AccessPrivilege
○ ExternalSystemStatus
○ ExternalSystemType
○ MimeGroup
○ OrgScope
○ ExtensionStatus
○ AnnouncementPhase
○ AnnouncementAvailability

Response

The system returns the enumeration values if they exist. Otherwise, the system returns an empty object. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffce7bda5b2e43/1702/en-US/model.html
5.11 Viewing Enumeration Values

You use this API to view the enumeration values for a particular code.

Request

- **HTTP Method:** GET
- **URL:** `/ain/services/api/v1/enumerationvalue?type=<ENUMERATION_TYPE>&code=<CODE>`
- **Query Parameters:** type and code
  - type: the type of enumeration.
  - code: code of the enumeration value
  - Description: Use this API to get a particular code value of an enumeration.
- **Example URL:** `/ain/services/api/v1/enumeration?type=EquipmentTracking&code=1`
- **Authorization:** You must have the roles MODEL_READ, MODEL_EDIT, or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- The system returns the model components for the specified model ID and version.
- If the model components with specified IDs and version do not exist, or you do not have appropriate authorizations, system returns an appropriate error message.

5.12 Viewing Model Components

You use this API to view the components of a model.

Request

- **HTTP Method:** GET
- **URL:** `/ain/services/api/v1/models({modelId})/components?version=<VERSION>&immediate=<IMMEDIATE>`
- **Query Parameters:** version and immediate
  - Description: Use the URL with VERSION of the model and the IMMEDIATE Boolean flag. Possible values for immediate flag is `true`, `false`. If the immediate flag is true, the API returns only the immediate children of the model. If the immediate flag is false, the API returns the complete hierarchy.
5.13 Updating Model Components

This API allows you to update the components of a model. The components you add or remove should be the immediate child components of the model. The API does not support partial update of data.

For example, if you have a component A assigned to model B and you want to assign a new component C to B, then you must send both A and C in the request payload. The API removes the components that are not present in the request payload.

Request

- **HTTP Method:** PUT
- **URL:** /ain/services/api/v1/models({modelId})/components
- **Example URL:** /ain/services/api/v1/models(E0B15BE85E2B41FBA06069B8D61CEB09)/components
- **Authorization:** You must have the roles MODEL_EDIT or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- The system returns the updated model components for the specified model id.
5.14 Viewing Spare Parts of a Model

You use this API to view the spare parts of a model.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/models/{modelId}/spareparts?status=<STATUS>&$filter=substringof(<FILTER_VALUE>,<PROPERTY_NAME>)
- **Query Parameters**: version and $filter
  - $filter: allows you to specify a search text using which you can filter the models
  - **Description**: Use the URL with VERSION of the model to get the spare parts assigned. You can also use this API to filter the results using $filter.
- **Example URL**: /ain/services/api/v1/models(E0B15BE85E2B41FBA06069B8D61CEB09)/components?version=2
- **Authorization**: You must have the roles MODEL_READ, MODEL_EDIT, or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- The system returns the spare parts assigned to the model for the specified model ID and version.
- If the model does not have any spare parts assigned, the system returns an empty list.


5.15 Updating Spare Parts of a Model

You use this API to add or remove the spare parts to or from a model.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/models/spareparts
- **Authorization**: You must have the roles MODEL_EDIT or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
• **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffc7bda5b2e43/1702/en-US/model.html

**Response**

The system returns the updated spare parts for the specified model Id.


**5.16 Viewing Announcements of a Model**

Announcements provide single source of information for collaborators who are using the model and are assigned by the manufacturer. You can view the list of all announcements for a model using this service.

**Prerequisite**

You have assigned one or more announcements to a model.

**Request**

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/models({modelID})/announcements
- **Example URL:** /ain/services/api/v1/models/(E0B15BE85E2B41FBA06069B8D61CEB09)/announcements
- **Authorization:** You must have the roles MODEL_READ, MODEL_DELETE, or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

If the model with the specified ID exists, the system returns an array of announcements assigned to the model.

5.17 Viewing Instructions of a Model

Instructions help the operator to get the best out of an item of equipment. As a manufacturer, you can view the list of all instructions that you have assigned for a model.

Prerequisite

You have assigned one or more instructions to a model.

For more information, see Assigning a Model to an Instruction [page 78].

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/models({modelid})/instructions
- **Query parameters:** $count
- **Example URL:** /ain/services/api/v1/models(E0B15BE85E2B41FBA06069B8D61CEB09)/instructions.
- **Authorization:** You must have the roles MODEL_READ, MODEL_DELETE, or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- The system returns all the instructions assigned to the model.


5.18 Viewing Documents of a Model

Documents provide information that is required to use and maintain an item of equipment efficiently. You can view one or more documents that are assigned to a model.

Prerequisite

You have assigned one or more documents to a model.
Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/model({modelId})/documents?status=<STATUS>
  
  Description: Use the URL with STATUS 1, 2, or 3; where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL**: /ain/services/api/v1/model(E0B15BE85E2B41FBA06069B8D61CEB09)/documents?status=2
- **Authorization**: You must have the roles MODEL_READ, MODEL_EDIT or MODEL_DELETE, or DOCUMENT_READ assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the model has a list of documents, the system returns an array of documents. Otherwise, system returns a blank array.
  

5.19 Assigning Documents to a Model

You use this API to assign documents to a model.

Request

- **HTTP Method**: POST
- **URL**: /ain/services/api/v1/models({model ID})/documents
- **Example URL**: /ain/rest/api/v1/models(E0B15BE85E2B41FBA06069B8D61CEB09)/documents
- **Authorization**: You must have the roles MODEL_DELETE or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffc7bda5b2e43/1702/en-US/model.html

Response

- If the models with specified ID exists, and you have appropriate authorizations, system assigns the documents to the model and returns the document details.
5.20 Assigning an Instruction to a Model

Using this API, you can assign multiple instructions to multiple models.

**Prerequisite**

You have created an instruction. For more information, see Creating an Instruction [page 76]

**Request**

- **HTTP Method:** POST
- **URL:** ain/services/api/v1/models/instructions
- **Authorization:** You must have the roles MODEL_EDIT or MODEL_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffcc7bda5b2e43/1702/en-US/model.html file.

**Response**

- If the system assigns instructions to models successfully, the system returns the status code 204.
5.21 Publishing a Model

You publish a model to SAP Asset intelligence Network so that the users of your organization can use to view model information or create an item of equipment.

Prerequisite

You have created a model and the model is in the <Unpublished> or <In Revision> state.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/models({modelID})/publish
- **Example URL**: /ain/services/api/v1/models(E0B15BE85E2B41FBA06069B88D61CEB09)/publish
- **Authorization**: You must have the roles MODEL_DELETE, or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the model with a specified ID exists and you have appropriate authorizations to publish it, system publishes the model and returns the model details.
- If the model with specified ID does not exists, or you do not have appropriate authorizations to view it, system returns appropriate error message.

5.22 Publishing Multiple Models

Request

- **HTTP Method**: PUT
5.23 Revising a Model

You change the status of a model from Published to In Revision when you need to update model information such as header, attribute values, etc. The In Revision version of the model is accessible to users with edit access to the model.

Prerequisite

You have created a model and the model is in Published state.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/models/{modelID}/revise
- **Example URL**: /ain/services/api/v1/models(E0B15BE85E2B41FBA06069B8D61CEB09)/revise
- **Authorization**: You must have the roles MODEL_DELETE, or MODEL_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.
Response

- If the model with specified ID exists, and you have appropriate authorizations, system creates a model in In Revision state and returns the model details. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffcc7bda5b2e43/1702/en-US/model.html.

- If the model with specified ID does not exist, or you do not have appropriate authorizations to view it, system returns appropriate error codes. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/67a9002ea23c44b6a51ffcc7bda5b2e43/1702/en-US/model.html.
6 Visual Spare Parts

A part is a single piece of an item of equipment. A manufacturer provides a list of parts used in the model along with the visual representation of each one of them.

An operator can select a specific part of the model from the list to view the manufacturer details, spare part number, and the quantity of the part used in the model and use these details for procurement purposes.

You can add the visual spare parts information for a model or an item of equipment by uploading an appropriate Visual Enterprise file using the UI application, or create a JSON and upload using the public APIs. The documentation below provides more information on usage of public APIs to maintain visual spare part information in SAP Asset Intelligence Network.

6.1 Creating Visual Spare Parts of a Model/Equipment

As a manufacturer, you can create visual spare parts information for a model or an item of an equipment by using the service described below.

Request

- **HTTP Method**: POST
- **Example URL**: ain/services/api/v1/sparepart
- **Authorization**: You must have any of the following roles assigned to your user ID DOCUMENT_EDIT, DOCUMENT_DELETE, MODEL_EDIT, MODEL_DELETE, EQUIPMENT_EDIT or EQUIPMENT_DELETE.
- **Request Schema**: To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/eed92eaca56b49689c69937f260e5151/1702/en-US/visualspareparts.html file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 51].

Response

- If the system creates visual spare parts successfully, system returns the details of the visual spare parts in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/eed92eaca56b49689c69937f260e5151/1702/en-US/visualspareparts.html.
- If the system cannot create a spare part successfully, appropriate error code is returned in the response payload.
6.2 Viewing all Visual Spare Parts for a Model/Equipment

As a manufacturer, you can retrieve the details of all visual spare parts associated with a particular model or an item of an equipment by using the service described below.

Request

- **Path Parameter:** assignedTo
  The path parameter specifies a valid model ID, or an equipment ID.
- **HTTP Method:** GET
- **Example URL:** a/servicess/api/v1/sparepartassignedTo({assignedTo})
- **Authorization:** You must have any of the following roles assigned to your user ID MODEL_READ, EQUIPMENT_READ, MODEL_EDIT, MODEL_DELETE, EQUIPMENT_EDIT, EQUIPMENT_DELETE, DOCUMENT_EDIT, DOCUMENT_DELETE, or DOCUMENT_READ.
- **Schema:** Not Applicable.

Response

- If a spare part with the specified model ID or an equipmentID exists, system returns the visual spare parts and the relevant details.
- If a spare part with the specified assignedTo does not exist, system returns an appropriate error code.
6.3 Additional Information

The following table provides information related to the fields of the request payload along with the corresponding data types, and descriptions:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>PartName (Optional)</td>
<td>String</td>
<td>Specifies the spare part name.</td>
</tr>
<tr>
<td>PartID (Optional)</td>
<td>String</td>
<td>Specifies the material number of the spare part used in the ERP system.</td>
</tr>
<tr>
<td>Manufacturer (Mandatory)</td>
<td>String</td>
<td>Specifies the manufacturer ID.</td>
</tr>
<tr>
<td>ManufacturerDescription</td>
<td>String</td>
<td>Specifies the name of the manufacturer.</td>
</tr>
<tr>
<td>ManufacturerPartID (Mandatory)</td>
<td>String</td>
<td>Specifies a unique part ID issued by the manufacturer.</td>
</tr>
<tr>
<td>Quantity (Optional)</td>
<td>Integer</td>
<td>Specifies the number of spare parts used in the model or an item of equipment.</td>
</tr>
<tr>
<td>Description (Optional)</td>
<td>String</td>
<td>Specifies a description for the spare part.</td>
</tr>
<tr>
<td>Comment (Optional)</td>
<td>String</td>
<td>Specifies additional information related to the spare part provided by the manufacturer.</td>
</tr>
<tr>
<td>EANNumber (Optional)</td>
<td>String</td>
<td>Specifies an EAN number for the spare part.</td>
</tr>
<tr>
<td>UOM (Optional)</td>
<td>String</td>
<td>Specifies the unit of measurement for the spare part quantity.</td>
</tr>
<tr>
<td>AssignedTo (Mandatory)</td>
<td>String</td>
<td>Specifies the model ID or the equipment ID to which the spare part is assigned to.</td>
</tr>
<tr>
<td>AssigneeType (Optional)</td>
<td>String</td>
<td>Specifies if the spare part is assigned to a model or an item of equipment. Possible values: MOD or EQU.</td>
</tr>
</tbody>
</table>
7  Spare Parts

Spare parts are components that are kept in your inventory as spare. With SAP Asset Intelligence Network, you can record a spare part’s manufacturing information, dimensions, quantity, shelf life, to name a few. A spare part inherits attributes from a subclass. You can assign a spare part to a model.

Public APIs are available for creating, updating, viewing and deleting spare parts. You can also view steps and models assigned to a part using APIs.

7.1  Creating a Spare Part

You use this API to create a spare part and view details of the created spare part.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/parts
- **Authorization**: You must have the roles PART_EDIT or PART_DELETE assigned to your user ID.

Response

- If the system creates the spare part successfully, system returns the details of the spare part in the response payload.
- If the system cannot create a spare part successfully, appropriate error code is returned in the response payload.
7.2 Updating a Spare Part

You use this API to update a spare part and add additional information.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/parts
- **Authorization**: You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT or PART_EDIT or PART_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the service executes successfully, the system updates the spare part. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/954f30e9ebdd4efcae5fe4b3f245e2c2/1702/en-US/parts.html

7.3 Deleting Spare Parts

You use this API to delete one or more spare parts.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/parts/remove
- **Authorization**: You must have the roles AIN_ORG_ADMIN or AIN_ORG_DATA_EXPERT or PART_EDIT or PART_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response

If the service executes successfully, the system deletes the spare parts. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/954f30e9ebdd4efcae5fe4b3f245e2c2/1702/en-US/parts.html

7.4 Viewing a Spare Part

You use this API to view the details of a particular spare part.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/parts({partid})
- **Example URL**: /ain/services/api/v1/parts(E42B20A6E0A34E388D40E8B39879D95A)
- **Authorization**: You must have the roles PART_EDIT or PART_DELETE assigned to your user ID.
- **Query Parameter**: partid
  - partid: Specify the spare part ID.

Response

- If you have specified a valid spare part ID, the system returns the details of the spare part. Otherwise, the system returns appropriate error code.

7.5 Viewing all Spare Parts

You use this API to view the list of spare parts you have created in SAP Asset Intelligence Network.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/parts
• **Authorization:** You must have the roles PART_EDIT or PART_DELETE assigned to your user ID.
• **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/954f30e9ebdd4efca5fe4b3f245e2c2/1702/en-US/parts.html file.

**Response**

• The system returns the list of spare parts in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/954f30e9ebdd4efca5fe4b3f245e2c2/1702/en-US/parts.html.

### 7.6 Viewing Enumeration Details of Spare Parts

You use this API to view the enumeration details of a spare part such as subclass, manufacturer details, to name a few.

**Request**

• **HTTP Method:** GET
• **URL:** /ain/services/api/v1/parts/enumerations
• **Authorization:** You must have the roles PART_EDIT or PART_DELETE assigned to your user ID.

**Response**

• The system retrieves the enumeration details of the spare part.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/954f30e9ebdd4efca5fe4b3f245e2c2/1702/en-US/parts.html.
7.7 Viewing Steps Assigned to a Spare Part

You use this API to view the steps assigned to a spare part.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/parts({partid})/steps
- **Example URL**: /ain/services/api/v1/parts(E42B20A60A34E388D40E8B39879D95A)/steps
- **Authorization**: You must have the roles PART_READ, PART_EDIT or PART_DELETE assigned to your user ID.
- **Query Parameter**: partid. partid: Specify the spare part ID.

Response

The system retrieves the list of steps assigned to the spare part.

For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/95f30e9ebdd4eacae5fe4b3f245e2c2/1702/en-US/parts.html.
8 Equipment

An item of an equipment is a physical instance of a model.

In SAP Asset Intelligence Network, an item of equipment comprises of the following information:

- **Header**: Primary information which describes an item of equipment such as name, description, installation information, to name a few.
- **Attributes**: Properties of the item of equipment.
- **Components**: Detachable objects of an item of equipment.
- **Assignments**: Objects assigned to the item of equipment such as instructions, documents, to name a few. Public APIs are available for each of these specific sections of the item of equipment.

An item of equipment can be in the following states:

- Unpublished
- In Revision
- Published

**Note**

To edit an item of equipment, you must move it to the In Revision state.

8.1 Creating an Item of Equipment

**Request**

- **HTTP Method**: POST
- **Example URL**: ain/services/api/v1/equipment
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

- If the system creates an item of an equipment successfully, the system returns the details of the created item of an equipment along with auto-generated ID for the item of an equipment.
If the systems cannot create an item of equipment successfully, system returns appropriate error codes in the response payload.

8.2 Viewing Equipment Header Information

You use this API to view the header information of an equipment by providing the equipment ID and equipment status.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/equipment({equipment ID})/header?status=<STATUS>
  
  Description: Use the URL with STATUS 1, 2, or 3: where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL**: /ain/services/api/v1/equipment (E0B15BE85E2B41FBA06069B8D61CEB09)/header?status= 2
- **Authorization**: You must have the roles EQUIPMENT_READ, EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If an item of equipment with specified equipment ID exists, and you have necessary authorizations to view it, system returns the details of an item of equipment.
  
- If an item of equipment with the specified equipment ID does not exist, or you do not have appropriate authorizations to view it, system returns an error message.
  
8.3 Viewing all Items of Equipment

You use this API to view the list of all equipment that you have access for. Additionally, you can also search for equipment based on equipment fields with the required filter query parameters.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/equipment?$filter=substringof(<FILTER_VALUE>, <PROPERTY_NAME>)
- **Query parameter:** $filter
  - $filter: allows you to specify a search text using which you can filter the items of equipment
  - Description: Where FILTER_VALUE is the parameter to search the text or a substring of the text and <PROPERTY_NAME> is the attribute that contains the text.
  - For filters, this API follows ODATA URI conventions. For more information, see http://www.odata.org/documentation/odata-version-3-0/url-conventions.
- **Example URL:** /ain/services/api/v1/equipments?$filter=substringof('Sample equipment',Name)
- **Authorization:** You must have the roles EQUIPMENT_READ or EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If an item of equipment exists, and you have appropriate authorizations to view an item of equipment, system returns the array of equipment item details. Otherwise, system returns an empty array of equipment item details.


8.4 Viewing the Equipment Count

You use this API to get a count of all equipment that you have access for.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/equipment/$count?$filter=substringof(<FILTER_VALUE>, <PROPERTY_NAME>)
- **Query parameter:** $filter
  - $filter: allows you to specify a search text using which you can filter the items of equipment
Description: Where FILTER_VALUE is the parameter to search the text or a substring of the text and <PROPERTY_NAME> is the attribute that contains the text.

- **Example URL:** /ain/services/api/v1/equipment/$count?$filter=substringof('Sample equipment',Name)
- **Authorization:** You must have the roles EQUIPMENT_READ or EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If one or more items of equipment exist that match the filter criteria, the system returns the equipment count. Otherwise, the system returns count as 0.


8.5 Updating Header Information of an Item of Equipment

You use this API to update the header information of an item of equipment.

Request

- **HTTP Method:** PUT
- **URL:** /ain/services/api/v1/equipment({equipmentId})/header
- **Example URL:** /ain/services/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/header
- **Authorization:** You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the system updates an item of equipment successfully, system returns the details of the updated item of equipment in the response payload.
- If the system cannot update the item of equipment successfully, system returns appropriate error message in the response payload.
8.6 Deleting an Item of Equipment

You use this API to delete an item of equipment from SAP Asset Intelligence Network.

Request

- **HTTP Method**: DELETE
- **URL**: `/ain/services/api/v1/equipment({equipment ID})`
- **Example URL**: `/ain/services/api/v1/equipment(E0B15BE85E2841FBA06069B8D61CEB09)`
- **Authorization**: You must have the roles EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the system deletes the equipment successfully, system returns code "204 No Content" in the response payload.


8.7 Publishing an Item of Equipment

You use this API to publish an item of equipment.

When you create an equipment, it is in the unpublished state. You must publish the equipment for further utility. You use this API to publish an equipment by providing the equipment Id.

Request

- **HTTP Method**: PUT
- **URL**: `/ain/services/api/v1/equipment({equipmentId})/publish`
- **Example URL**: `/ain/services/api/v1/equipment(E0B15BE85E2841FBA06069B8D61CEB09)/publish`
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response

- If an item of equipment with specified ID exists and you have appropriate authorizations to publish it, system publishes the equipment and returns the equipment details.
  

- If an item of equipment with specified ID does not exist, or you do not have appropriate authorizations to view it, system returns an appropriate error message.
  

8.8 Revising an Item of Equipment

You use this API to move the item of equipment to In Revision state.

You move the item of equipment to In Revision state when you need to create a new version of the equipment and edit the equipment information.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/equipment({equipmentId})/revise
- **Example URL**: /ain/services/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/revise
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If an item of equipment with specified ID exists, and you have appropriate authorizations, system creates a new revision of the equipment and returns the equipment details.
  

- If an item of equipment with specified ID does not exist, or you do not have appropriate authorizations to view it, system returns an appropriate error message.
  
8.9 Publishing Multiple Items of Equipment

You use this API to publish multiple items of equipment in a single API call.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/equipment/publish
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If equipment with specified IDs exist, and you have appropriate authorizations, system publishes the given equipment and returns a status code “204” in the response. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/2000c4bf11324f63963cb579e13dd610/1702/en-US/equipment.html.
- If equipment with specified IDs do not exist, or you do not have appropriate authorizations, system returns an appropriate error message. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/2000c4bf11324f63963cb579e13dd610/1702/en-US/equipment.html.

8.10 Updating Lifecycle of an Item of Equipment

While creating an equipment you have option to create it in either ‘Planned’ or ‘Actual’ state. You create an equipment in Planned state when you do not have the physical instance of equipment.

You update the lifecycle of the equipment from Planned to Actual when you receive the physical instance of the equipment.

You use this API to update the equipment lifecycle.

*Note*

You cannot change the lifecycle of the equipment from Actual to Planned.
Request

- **HTTP Method**: PUT
- **URL**: `ain/services/api/v1/equipment({equipmentId})/changelifecycle?lifecycle=<LIFECYCLE>`
- **Query Parameter**: lifecycle
  lifecycle: specifies the value of the lifecycle that you want to change to. Possible value is 2.
  
- **Example URL**: `ain/services/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/changelifecycle?lifecycle=2`
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the system updates the lifecycle of the item of equipment successfully, system returns the details of the updated equipment in the response payload.
- If the system cannot update the item of equipment successfully, system returns appropriate error code in the response payload.

**8.11 Viewing Equipment Templates for an Equipment**

You use this API to view details of equipment templates.

Request

- **HTTP Method**: GET
- **URL**: `/ain/services/api/v1/equipment({equipmentId})/templates?version=<VERSION>`
- **Query Parameter**: version
  version: Refers to version of the equipment for which you want to fetch equipment templates.
- **Example URL**: `/ain/services/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/templates?version=2`
- **Authorization**: You must have the roles EQUIPMENT_EDIT, EQUIPMENT_READ or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response

- If an equipment with the specified equipment ID exists, system returns the details of the templates that are assigned to the equipment along with attribute group and attributes assigned to the template. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/2000c4bf11324f63963cb579e13dd610/1702/en-US/equipment.html.
- If the equipment with the specified ID does not exist, or you do not have appropriate authorizations to view the equipment templates, system returns an error message. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/2000c4bf11324f63963cb579e13dd610/1702/en-US/equipment.html.

8.12 Viewing Equipment Components

You use this API to view the components of an equipment.

Request

- **HTTP Method**: GET
- **URL**: /ain/restservices/api/v1/equipment({equipmentId})/components?version={version}&immediate={IMMEDIATE}
- **Query Parameters**: version and immediate
  - **Description**: Use the URL with VERSION of the equipment and the IMMEDIATE Boolean flag. Possible values for immediate flag are ‘true’, ‘false’. When the **immediate** flag is ‘true’, the API returns only the immediate children of the equipment. If it is ‘false’, the API returns the complete hierarchy.
- **Example URL**: /ain/restservices/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/components?version=2
- **Authorization**: You must have the roles EQUIPMENT_READ, EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

The system returns the equipment components for the specified equipment ID and version.


If the equipment with the specified ID does not exist, or you do not have appropriate authorizations to view the equipment components, system returns an error message.

8.13 Updating Equipment Components

This API allows you to update components of an equipment. You can add or remove only immediate child components to an equipment.

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/equipment({equipmentId})/components
- **Example URL**: /ain/restservices/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/components
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the equipment ID and components are valid and you have the necessary authorizations, the system returns the equipment components for the specified equipment ID and version.


If the equipment with the specified ID does not exist, or you do not have appropriate authorizations to update the equipment components, the system returns an error message.

8.14  Viewing Equipment Attribute Values

You use this API to view the attribute values for an equipment. These values are based on the underlying equipment templates.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/equipmentvalue({equipmentId})/values?status=1, 2, or 3<STATUS>
- **Query Parameter**: status
  - Description: Use the URL with status 1, 2, or 3; where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL**: /ain/restservices/api/v1/equipmentvalue(E0B15BE85E2B41FBA06069B8D61CEB09)/values?status=2
- **Authorization**: You must have the roles EQUIPMENT_EDIT, EQUIPMENT_READ or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the equipment with specified equipment ID exists and you have appropriate authorizations to view it, system returns the attribute value of the equipment.
- If the equipment with specified equipment ID does not exist, or you do not have appropriate authorizations to view it, system returns appropriate error codes.

8.15  Updating Equipment Values

You use this API to update attribute values for an equipment. These values are based on the underlying equipment templates.

Request

- **HTTP Method**: PUT
- **URL**: ain/services/api/v1/equipment({equipmentId})/values
- **Example URL**: /ain/services/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/values
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

### Response

- If the system updates the attribute value successfully, the system returns the updated attribute values in the response payload. Otherwise, the system returns appropriate error codes. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/2000c4bf11324f63963cb579e13dd610/1702/en-US/equipment.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/2000c4bf11324f63963cb579e13dd610/1702/en-US/equipment.html).

### 8.16 Assigning Documents to an Equipment

This API allows you to assign documents to an equipment.

### Request

- **HTTP Method**: POST
- **URL**: /ain/services/api/v1/equipment({equipmentId})/documents
- **Example URL**: /ain/services/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/documents
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

### Response

If the equipment Id and document IDs are valid and you have necessary authorization, system assigns documents and returns the document details.

### 8.17 Viewing Documents of an Equipment

Documents provide information that is required to use and maintain an item of equipment efficiently. You use this API to view one or more documents that are assigned to an item of equipment.

**Prerequisites**

You have assigned one or more documents to an equipment.

**Request**

- **HTTP Method:** GET
- **URL:** `/ain/services/api/v1/equipment({equipmentId})/documents?status=<STATUS>`
- **Query Parameter:** status
  
  **Description:** Use the URL with STATUS 1, 2, or 3; where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.

- **Example URL:** `/ain/services/api/v1/equipment(E0B15BE85E2B41FBA06069B8D61CEB09)/documents?status=2`

- **Authorization:** You must have the roles EQUIPMENT_EDIT, EQUIPMENT_READ or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

If one or more documents are assigned to the equipment with the given equipment ID, system returns an array of document details. Otherwise, system returns a blank array.


### 8.18 Assigning or Unassigning an Equipment Instruction

You use this API to assign multiple instructions to multiple items of equipment. You also use this API to remove instructions from items of equipment.

**Prerequisites**

- You have created an item of equipment.
- You have created the instruction you want to assign.
8.19 Viewing Instructions of an Equipment

You use this API to get the list of instructions assigned to the item of equipment.

Prerequisites

You have assigned one or more instructions to an equipment.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/equipment/{equipmentId}/instructions
- **Example URL**: /ain/services/api/v1/equipment(E0B15BE85E2B41FB41FB06069B8D61CEB09)/instructions
- **Authorization**: You must have the roles EQUIPMENT_EDIT, EQUIPMENT_READ or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If one or more instructions are assigned to the equipment with the given equipment ID, system returns an array of document details. Otherwise, system returns a blank array.

8.20 Finding Organizations Relevant to the Equipment

Use this API to find a list of organizations relevant to the equipment, comprising of the manufacturer, service provider, dealer, regulator and insurer.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/organizations
- **Example URL**: /ain/services/api/v1/organizations
- **Authorization**: You must have the roles EQUIPMENT_EDIT, EQUIPMENT_READ or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

The system returns the list of organizations in SAP Asset Intelligence Network.


8.21 Viewing Equipment Timeline

You use this API to view the timeline for an equipment.

Request

- **HTTP Method**: GET
- **Example URL**: ain/services/api/v1/equipment({equipmentID})/timeline?version=1, where version is the version of the equipment.
- **Authorization**: You must have the roles EQUIPMENT_READ, EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response


8.22 Transferring Ownership of an Equipment

You use this API to transfer ownership of an equipment from your organization to another organization in SAP Asset Intelligence Network.

Request

- **HTTP Method**: PUT
- **Example URL**: ain/services/api/v1/equipment/transfer
- **Authorization**: You must have the roles EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- On successful execution, the system transfers the equipment to the desired client. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/2000c4bf11324f63963cb579e13dd610/1702/en-US/equipment.html.

8.23 Viewing Enumerations for an Item of Equipment

You use this API to view different types of enumerations required to create an item of equipment.

Request

- **HTTP Method**: GET
- **URL:** `/ain/services/api/v1/enumeration?type=<ENUMERATION_TYPE>`
  
- **Query Parameter:** `type`
  
  - **type:** Refers to the enumeration type.
  
  - **Description:** Use this API to get the required enumerations while creating equipment by specifying the appropriate enumeration type.

  **Note**
  
  You can specify multiple enumeration types in the query parameters to get multiple enumerations.

- **Example URL:** `/ain/services/api/v1/enumeration?type=EquipmentSafetyRisk&type=SourceBPRole`

- **Authorization:** You must have the roles `EQUIPMENT_READ`, `EQUIPMENT_EDIT` or `EQUIPMENT_DELETE` assigned to your user ID in the SAP HANA Cloud Platform account.

  Following are the allowed enumeration types:
  
  - DurationUnit
  - StepRole
  - Tools
  - InstructionStatus
  - Source
  - RiskCategory
  - LanguageISOCode
  - StoredOn
  - DocumentCategory
  - FileSize
  - DocumentPhaseCode
  - InstructionType
  - Criticality
  - Priority
  - ManufacturerAnnouncement
  - OperatorAnnouncement
  - AnnouncementType
  - RegistrationStatus
  - OperatorAnnouncementStatus
  - EquipmentStatus
  - EquipmentSafetyRisk
  - DocumentCategoryOption
  - AccountType
  - AnnouncementSourceProcessingStatus
  - AnnouncementNonSourceProcessingStatus
  - AttributeType
  - AttributeOption
  - BusinessPartnerType
  - EquipmentTracking
  - SourceBPRole
  - AttributeDimension
  - ImprovementCaseStatus
  - ImprovementCaseEvent
Response

- On successful execution, the system returns enumerations values. Otherwise, the system returns an empty object.


8.24 Viewing Enumeration Values

You use this API to view enumeration values of an equipment for a particular code.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/enumerationvalue?type=<ENUMERATION_TYPE>&code=<CODE>
- **Query Parameter**: type, code
  type: Refers to the enumeration type.
code: Refers to the code of the enumeration value
Description: Use this API to get a particular code value of an enumeration.

- **Example URL:** /ain/services/api/v1/enumeration?type=EquipmentTracking&code=1
- **Authorization:** You must have the roles EQUIPMENT_READ, EQUIPMENT_EDIT or EQUIPMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

### Response

- On successful execution, the system returns enumerations values. Otherwise, the system returns an empty object.
9 Instructions

An instruction is a set of steps that help you to carry out a specific task. In SAP Asset Intelligence Network, a manufacturer shares instructions with an operator. The instructions help the operator to get the most from an item of equipment.

SAP Asset Intelligence Network allows you to create the following types of instructions:

- Planned maintenance
- Breakdown
- Installation
- Operations
- Disposal

For simplicity, the following sections deal with a planned maintenance instruction.

9.1 Creating an Instruction

As a manufacturer, you create an instruction to help the operator get the most from an item of equipment.

Request

- **HTTP Method:** POST
- **Example URL:** ain/services/api/v1/instructions
- **Authorization:** You must have the roles INSTRUCTION_EDIT or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html file.

For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 83].

Response

If the system updates an instruction successfully, system returns the details of the updated instruction. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html.
9.2 Viewing an Instruction

As a manufacturer, you would want to view an instruction that is either in a draft (unpublished) state, published state, or in an in revision state.

**Request**

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/instructions(<instruction ID>)?status=2
- **Query parameters:**
  - **Status:** allows you to specify the state of the instruction. It can take the following values:
    - 1 - specifies the instruction is in unpublished state
    - 2 - specifies the instruction is in published state
    - 3 - specifies the instruction is in in Revision state
  - **Example URL:** /ain/services/api/v1/instructions(E0B158E85E2B41FBA06069B8D61CEB09)?status=2
  - **Authorization:** You must have the roles INSTRUCTION_EDIT or INSTRUCTION_READ or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

- If an instruction with the specified instruction ID and the specified status exists, system returns the instruction and the relevant details. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html)
- If the instruction with the specified instruction ID and the status does not exist, system returns an error code. For more information on error codes the system returns, see response payload in [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html).

9.3 Updating an Instruction

As a manufacturer, you want to update information related to an instruction that is either incorrect, or add to the existing information of an instruction.

**Request**

- **HTTP Method:** PUT
Example URL: ain/services/api/v1/instructions

Authorization: You must have the roles INSTRUCTION_EDIT or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Request Schema: To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 83].

Note
When you create an instruction you can specify the status code for the instruction as 1 (Unpublished State), or 2 (Published State). You can update the status of the instruction from 1 (unpublished state) to 2 (published state) by specifying the status as 2. To create a new revision of the published instruction, you can specify the state as 3 (In revision). To change between the Published state and the In Revision state specify the state as 3. To change between the In Revision and Published state specify the state as 2.

Response
If the system updates an instruction successfully, system returns the details of the updated instruction. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html.

9.4 Assigning a Model to an Instruction

As a manufacturer, you can assign a model to an instruction so that the operator can get the most of the item of equipment.

Prerequisite
You have created a model (see Creating a Model Header [page 30]).

Request

- HTTP Method: POST
- Example URL: ain/services/api/v1/instructions/models/assign
- Authorization: You must have the roles INSTRUCTION_EDIT or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
• **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 83].

**Response**

• If the system assigns a model to an instruction successfully, the system returns no content. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html.
• If a model has been assigned to a published instruction, the model gets assigned to the instruction successfully.

### 9.5 Assigning an Equipment to an Instruction

As a manufacturer, you can assign an equipment to an instruction for the benefit of the operator.

**Prerequisite**

You have created an equipment.

**Request**

• **HTTP Method:** POST
• **Example URL:** ain/services/api/v1/instructions/equipments/assign
• **Authorization:** You must have the roles INSTRUCTION_EDIT or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
• **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 83].
**Response**

- If the system assigns an equipment to an instruction successfully, the system returns no content. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html).
- If an equipment has been assigned to a published instruction, the equipment gets assigned to the instruction successfully.

**9.6 Viewing Assigned Announcements for an Instruction**

As a manufacturer, you can view the list of all assigned announcements to an instruction.

**Request**

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/instructions(<instruction ID>)/announcements
- **Example URL**: /ain/services/api/v1/instructions(E0B15BE85E2B41FBA06069B8D61CEB09)/announcements
- **Authorization**: You must have the roles INSTRUCTION_EDIT or INSTRUCTION_READ or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**

If there are announcements assigned for a specified instruction ID, system returns the list of announcements and other relevant instruction details.


For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 83].
9.7 Viewing Assigned Models for an Instruction

As a manufacturer, you can view all assigned models to an instruction.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/instructions(<instruction ID>)/models
- **Example URL:** /ain/services/api/v1/instructions(E0B158E85E2B41FBA06069B8D61CEB09)/models
- **Authorization:** You must have the roles INSTRUCTION_EDIT or INSTRUCTION_READ or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If there are models assigned for a specified instruction ID, system returns the list of models and other relevant instruction details.


For more information about the response payload fields, their descriptions, and possible values, see Additional Information [page 83].

9.8 Deleting an Instruction

Request

- **HTTP Method:** POST
- **Example URL:** /ain/services/api/v1/instructions
- **Authorization:** You must have the roles INSTRUCTION_EDIT or INSTRUCTION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
  For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 83].
Response

- If the system deletes an instruction successfully, the system returns status code 204. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html.
- If the system cannot delete an instruction successfully, the system returns appropriate error codes. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html.

9.9 Mass Publishing of Instructions

As a manufacturer, if you have many Unpublished instructions, or instructions in In Revision state, you can use this service to publish them at once.

Request

- **HTTP Method**: PUT
- **Example URL**: ain/services/api/v1/instructions/publish
- **Authorization**: You must have the roles AIN_ORG_ADMIN, or AIN_ORG_DATA_EXPERT assigned to your user ID in the SAP HANA Cloud Platform account.
  
  For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 83].

Response

- If the system updates the status of the specified instruction successfully, the system returns status code 204. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9650364155d941579837c8daa46751ef/1702/en-US/instructions.html.
- If the system cannot update the status of the specified instruction, the system returns appropriate error codes.

9.10 Additional Information

The following table provides information about the fields of the request payload, along with the corresponding data types, and the data type descriptions:

<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>instructionType (Mandatory)</td>
<td>String</td>
<td>Specifies the type of instruction. You can create five types of instructions. The following list provides the types of instructions and the corresponding codes:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Planned Maintenance - 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Breakdown - 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Installation - 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Operations - 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Disposal - 5</td>
</tr>
<tr>
<td>subclass (Mandatory)</td>
<td>String</td>
<td>Specifies the subclass that the instruction belongs to.</td>
</tr>
<tr>
<td>status (Mandatory)</td>
<td>String</td>
<td>Specifies the status of an instruction. The following list provides the list of statuses and the corresponding status codes:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Unpublished - 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Published - 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● In revision - 3</td>
</tr>
<tr>
<td>activityCode (Mandatory)</td>
<td>String</td>
<td>Specifies an activity code for a primary action performed as part of the instruction. For more information, see the Activity Codes table.</td>
</tr>
<tr>
<td>Title (Mandatory)</td>
<td>String</td>
<td>Specifies the title of an instruction.</td>
</tr>
<tr>
<td>instructionDescription (Optional)</td>
<td>String</td>
<td>Specifies a detailed description for an instruction.</td>
</tr>
<tr>
<td>Field Name (Mandatory or Optional)</td>
<td>Data Type</td>
<td>Description and Possible Values</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>duration (Mandatory)</td>
<td>Double</td>
<td>Specifies the expected time required to execute an instruction. You can use this field when you create a planned maintenance instruction.</td>
</tr>
<tr>
<td>durationUnit (Mandatory)</td>
<td>String</td>
<td>Specifies the unit of time for the duration. You can use this field when you create a planned maintenance instruction. For more information, see the Duration Unit and Codes table.</td>
</tr>
<tr>
<td>peopleRequired (Optional)</td>
<td>Integer</td>
<td>Specifies the number of people required to execute the instruction.</td>
</tr>
<tr>
<td>documentID in documentIDList at the instructionHeader level (Optional)</td>
<td>String</td>
<td>Specifies the document ID that you can assign at the instruction header level. For a list of supported MIME types, see the Supported MIME Types for Attachments table.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> The document ID is a unique ID generated by the system when you upload a document. (see Uploading a Document [page 90])</td>
</tr>
<tr>
<td>documentID in vdsDocumentIDList at the instructionHeader level (Optional)</td>
<td>String</td>
<td>Specifies the document ID of a 3D visual file that you want to assign at an instruction header level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> The document ID is a unique ID generated by the system when you upload a document. (see Uploading a Document [page 90])</td>
</tr>
<tr>
<td>documentID in documentIDList at the steps level (Optional)</td>
<td>String</td>
<td>Specifies the document ID of an image file or a 3D visual that you want to assign at an instruction header level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> The document ID is a unique ID generated by the system when you upload a document. (see Uploading a Document [page 90])</td>
</tr>
<tr>
<td>Field Name (Mandatory or Optional)</td>
<td>Data Type</td>
<td>Description and Possible Values</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>documentID at the steps level (Optional)</td>
<td>String</td>
<td>Specifies the document ID that you want to assign to a step. For a list of supported mime types, see Table Supported MIME Types for Attachments.</td>
</tr>
<tr>
<td>failureCode (Mandatory)</td>
<td>String</td>
<td>Specifies failure codes that define different methods in which an item of equipment, or a model might breakdown. These codes are based on ISO standards and you can use them when you create a breakdown instruction. For more information on various failure mode codes, see the Failure Codes table.</td>
</tr>
<tr>
<td>frequency (Mandatory)</td>
<td>Integer</td>
<td>Specifies the frequency at which the instruction must be executed. You can use this field when you create a planned maintenance instruction.</td>
</tr>
<tr>
<td>frequencyUnit (Mandatory)</td>
<td>String</td>
<td>Specifies the unit of time for the frequency</td>
</tr>
<tr>
<td>criticality (Mandatory)</td>
<td>String</td>
<td>Specifies how important an instruction is for the general maintenance and reliability of an item of equipment. You can use this field when you create a planned maintenance instruction.</td>
</tr>
<tr>
<td>postCheckDescription (Optional)</td>
<td>String</td>
<td>Specifies the post checks to be performed after executing an instruction.</td>
</tr>
<tr>
<td>ruleCode (Optional)</td>
<td>String</td>
<td>Specifies the safety rule code that you can assign to an instruction. For more information, see the Safety Rule Codes table.</td>
</tr>
<tr>
<td>stepName (Mandatory)</td>
<td>String</td>
<td>Specifies the name of a step in an instruction.</td>
</tr>
<tr>
<td>Field Name (Mandatory or Optional)</td>
<td>Data Type</td>
<td>Description and Possible Values</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>stepDescription (Optional)</td>
<td>String</td>
<td>Specifies the step description for an instruction.</td>
</tr>
<tr>
<td>riskCategory (Optional)</td>
<td>String</td>
<td>Specifies the level of potential harm to the environment or injury to the user when you carry</td>
</tr>
<tr>
<td></td>
<td></td>
<td>out a step in an instruction. The following list contains the list of risk categories and the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>corresponding codes:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Low - 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Medium - 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● High - 3</td>
</tr>
<tr>
<td>riskDescription (Optional)</td>
<td>String</td>
<td>Specifies a risk description.</td>
</tr>
<tr>
<td>roleCode (Optional)</td>
<td>String</td>
<td>Specifies the role code that corresponds to the role that you require to execute a step in an</td>
</tr>
<tr>
<td></td>
<td></td>
<td>instruction. For more information, see the Role Codes table.</td>
</tr>
<tr>
<td>sparePartID (Optional)</td>
<td>String</td>
<td>Specifies the spare part ID.</td>
</tr>
<tr>
<td>quantity (Optional)</td>
<td>Double</td>
<td>Specifies the quantity for a spare part.</td>
</tr>
<tr>
<td>toolName (Optional)</td>
<td>String</td>
<td>Specifies the name of the tool required to perform an instruction.</td>
</tr>
<tr>
<td>modelID (optional)</td>
<td>String</td>
<td>Specifies the ID of the model assigned to the instruction.</td>
</tr>
<tr>
<td>updateDeleteFlag</td>
<td>String</td>
<td>Specifies if you can update or delete the steps, preconditions, attachments, or post checks in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>an instruction. Possible values include ‘u’ for update and ‘d’ for delete.</td>
</tr>
</tbody>
</table>

**Note**

The model ID is a unique ID generated by the system when you create a model. (see Creating a Model Header [page 30])
### assignUnassignFlag

**Data Type**: String

**Description and Possible Values**: Specifies whether you can assign a model or an instruction or remove an assignment of a model from an instruction. Also, specifies whether you can assign an attachment to a step in an instruction, or remove an assignment of a step in an instruction. Possible values include 'a' for assign and 'ua' for removing an assignment.

### Table 6: Duration Unit and Codes

<table>
<thead>
<tr>
<th>Field</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>durationUnit</td>
<td>1</td>
<td>Minutes</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Hours</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Days</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Weeks</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Months</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Years</td>
</tr>
</tbody>
</table>

### Table 7: Role Codes

<table>
<thead>
<tr>
<th>Field</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>roleCode</td>
<td>1</td>
<td>Heavy Equipment Technician</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Maintenance Technician</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Electrical Technician</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Electric Line Worker</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Maintenance Helper</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Welder-Fitter</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Diver</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Crane Operator</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Heavy Equipment Operator</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Health and Safety Advisor</td>
</tr>
<tr>
<td>Field</td>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Instrument Technician</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Maintenance Supervisor</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>Marine Engineer</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>Painter/Coater</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Pipe Fitter</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Scaffolder</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Pipeline Inspector</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>Mechanical Inspector</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>Electrical Inspector</td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>Instrumentation Inspector</td>
</tr>
</tbody>
</table>

**Table 8: Safety Rule Codes**

<table>
<thead>
<tr>
<th>Field</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ruleCode</td>
<td>1</td>
<td>Wear a safety helmet</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Read the safety manual</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Wear safety overalls</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Ground connection is required</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Wear ear protection</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Wear eye protection</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>Wear safety boots</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Wear safety gloves</td>
</tr>
</tbody>
</table>

**Table 9: Failure Codes**

<table>
<thead>
<tr>
<th>Field</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>failureCode</td>
<td>FTF</td>
<td>Fail to function</td>
</tr>
<tr>
<td></td>
<td>FTO</td>
<td>Fail to open</td>
</tr>
<tr>
<td></td>
<td>FTC</td>
<td>Fail to close</td>
</tr>
<tr>
<td></td>
<td>DOP</td>
<td>Operation delay</td>
</tr>
<tr>
<td>Field</td>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>---------------</td>
</tr>
<tr>
<td></td>
<td>HI0</td>
<td>Output is high</td>
</tr>
<tr>
<td></td>
<td>LOO</td>
<td>Output is low</td>
</tr>
</tbody>
</table>
10 Documents

A document contains information about a specific phases in the life cycle of a model, an item of equipment, an instruction, or an announcement.

10.1 Uploading a Document

As a manufacturer, you must upload documents into SAP Asset Intelligence Network, and then assign them to a model, an item of equipment, an instruction, or an announcement to ensure the business objects have sufficient documentation.

This API allows you to upload a document its language version in formats other than VDS. For example: docx, png, pdf, html, to name a few.

Prerequisite

You have identified the document that you want to upload.

Request

- **HTTP Method:** POST using form data.
- **Example URL:** `ain/services/api/v1/document/upload`
- **Authorization:** You must have the roles DOCUMENT_EDIT and DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** You must use a form data to upload a new document rather than using a JSON schema. The fields of the form data are described in the table below:

<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>file (Mandatory)</td>
<td>File</td>
<td>Specifies the file that you want to upload.</td>
</tr>
</tbody>
</table>
### Field Name (Mandatory or Optional) | Data Type | Description and Possible Values
---|---|---
file-data (Mandatory) | JSON | phaseCode: Specifies the phases for which the document is relevant to in the lifecycle of a business object such as a model, an equipment, or a business entity such as an instruction, or an announcement. The possible values for the phases are provided in the table Phase Codes and Category Codes.
categoryCode: Specifies category code that corresponds to a phasecode. For the possible values of categoryCode, see Table Phase Codes and Category Codes.
description: Specifies the description of the document.
languageCode: Specifies the language of the document. The possible values for the phase are provided in the table Language Codes.

### Response
The system generates a unique document ID after the successful execution of the service. For more information on the response schema and the corresponding status codes, see RAML definitions at https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

### 10.1.1 Uploading a VDS Document
This API allows you to upload documents in VDS format.

### Request
- **HTTP Method:** POST using form data.
- **Example URL:** ain/services/api/v1/document/upload/VDS
- **Authorization:** You must have the roles DOCUMENT_EDIT and DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Schema: You must use a form data to upload a new document rather than using a JSON schema. The fields of the form data are described in the table below:

Table 11: Parameters used in the Form Data

<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>file (Mandatory)</td>
<td>File</td>
<td>Specifies the file that you want to upload.</td>
</tr>
<tr>
<td>file-data (Mandatory)</td>
<td>JSON</td>
<td>name: Name of the image to create corresponding to the VDS file. file: Converted data of the image. phaseCode: Specifies the phases for which the document is relevant to in the lifecycle of a business object such as a model, an equipment, or a business entity such as an instruction, or an announcement. The possible values for the phases are provided in the table Phase Codes and Category Codes. categoryCode: Specifies category code that corresponds to a phasecode. For the possible values of categoryCode, see Table Phase Codes and Category Codes. description: Specifies the description of the document. languageCode: Specifies the language of the document. The possible values for the phase are provided in the table Language Codes.</td>
</tr>
</tbody>
</table>

Response

The system generates a unique document ID after the successful execution of the service. For more information on the response schema and the corresponding status codes, see RAML definitions at https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
10.1.2 Uploading Language Versions of a Document

As a manufacturer or an operator, you can upload different language versions of a document.

Request

- **HTTP Method**: POST using form data.
- **Example URL**: ain/services/api/v1/document/otherlang
- **Authorization**: You must have the roles DOCUMENT_EDIT and DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: You must use a form data to upload a new document rather than using a JSON schema. The fields of the form data are described in the table below:

<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>file (Mandatory)</td>
<td>File</td>
<td>Specifies the file that you want to upload.</td>
</tr>
<tr>
<td>file-data (Mandatory)</td>
<td>JSON</td>
<td>description: Description of the document. lang: Language of the document. documentId: Specifies the document ID the system generates for a document for which you want to upload different version of languages.</td>
</tr>
</tbody>
</table>

Response

The system generates a unique document ID after the successful execution of the service. For more information on the response schema and the corresponding status codes, see RAML definitions at https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
10.2 Downloading a Document

You use this API to download a document to view information pertaining to the model or item of equipment.

Prerequisite

You have identified the document that you want to download.

Request

- **Query Parameter:** doc, lang.
- **HTTP Method:** GET
- **Example URL:** ain/services/api/v1/document?doc=<DocumentID>&lang=<language>
- **Authorization:** You must have the roles DOCUMENT_READ, DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** Not applicable.

Response

The system returns the file as a stream. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

10.3 Downloading Multiple Documents

This API allows you to download multiple documents as a zipped folder.

Request

- **Query Parameter:** docs
- **HTTP Method:** GET
- **Example URL:** ain/services/api/v1/document?docs=<array of JSON objects>
- **Authorization:** You must have the roles DOCUMENT_READ, DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** Not applicable.
Response

The system returns the files as a stream. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

10.4 Updating Document Properties

As a manufacturer, you can update the properties of a document such as phaseCode, categoryCode, or description. This ensures proper classification and identification of the documents in SAP Asset Intelligence Network.

Prerequisite

You have identified the document that you want to update.

Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1/document/update
- **Authorization:** You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** To understand the allowed fields to be used in a request payload, refer to the request schema in the Documents.html file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 107].

Response

For more information about the response schema and relevant status codes, see the RAML definitions at https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
10.4.1 Updating Language Versions of a VDS Document

As a manufacturer or operator, you can update the properties of language version of documents such as description and content of the document. This API allows you to update language versions of a non-VDS document.

Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1/document/update/otherlangvds
- **Authorization:** You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** You must use a form data to upload a new attachment rather than using a JSON schema. The fields of the form data are described in the table below:

<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>file (Mandatory)</td>
<td>File</td>
<td>Specifies the file that you want to upload.</td>
</tr>
<tr>
<td>file-data (Mandatory)</td>
<td>JSON</td>
<td>name: Name of the image that needs to be created corresponding to the VDS file. file: Converted data of the image. description: Description of the document. languageCode: Language of the document. The possible values for the phase are provided in the table Language Codes. id: Specifies the document ID the system generates for a document for which you want to update.</td>
</tr>
</tbody>
</table>

Response

The system generates a unique document ID after the successful execution of the service. For more information on the response schema and the corresponding status codes, see RAML definitions at https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
10.4.2 Updating Language Versions of a Document

As a manufacturer or operator, you can update the properties of language version of documents such as description and content of the document. This API allows you to update language versions of a non-VDS document.

Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1/document/update/otherlang
- **Authorization:** You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** You must use a form data to upload a new document rather than using a JSON schema. The fields of the form data are described in the table below:

<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>file (Mandatory)</td>
<td>File</td>
<td>Specifies the file that you want to upload.</td>
</tr>
<tr>
<td>file-data (Mandatory)</td>
<td>JSON</td>
<td>description: Description of the document. languageCode: Language of the document. The possible values for the phase are provided in the table Language Codes. id: Specifies the document ID the system generates for a document for which you want to update.</td>
</tr>
</tbody>
</table>

Response

The system generates a unique document ID after the successful execution of the service. For more information on the response schema and the corresponding status codes, see RAML definitions at https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
10.5 Deleting a Document

As a manufacturer or operator, you can delete the documents you do not want on the network.

Request

- **HTTP Method**: DELETE
- **Example URL**: ain/services/api/v1/document/delete
- **Authorization**: You must have the roles COMPANYPROFILE_DELETE or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

Upon successful deletion, the system returns a code "200".


10.5.1 Deleting Language Versions of a Document

As a manufacturer or operator, you can delete language versions of the documents you do not want on the network.

Request

- **HTTP Method**: DELETE
- **Example URL**: ain/services/api/v1/document/delete/otherlang
- **Authorization**: You must have the roles COMPANYPROFILE_DELETE or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response

Upon successful deletion, the system returns a code “200”.

For more information on the response schema and the corresponding status codes, see RAML definitions at https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

10.6 Assigning a Model to a Document

You use this API to assign a model to a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/assign/model
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

Response

If you have assigned the model successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
10.7 Assigning an Announcement to a Document

You use this API to assign an announcement to a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/assign/announcement
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

Response

If you have assigned the announcement successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

10.8 Assigning Equipment to a Document

You use this API to assign an item of equipment to a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/assign/equipment
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
Response

If you have assigned the item of equipment successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

10.9 Assigning a Functional Location to a Document

You use this API to assign a functional location to a document.

Request

- **HTTP Method:** POST
- **URL:** ain/services/api/v1/document/assign/functionallocation
- **Authorization:** You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

Response

If you have assigned the functional location successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
10.10 Assigning Steps to a Document

You use this API to assign an announcement to a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/assign/steps
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

Response

If you have assigned the steps successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html

10.11 Assigning an Improvement Case to a Document

You use this API to assign an improvement case to a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/assign/improvementcase
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html
Response

If you have assigned the functional location successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html).

10.12 Unassigning a Model from a Document

You use this API to unassign a model from a document.

Request

- **HTTP Method:** POST
- **URL:** ain/services/api/v1/document/unassign/model
- **Authorization:** You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If you have unassigned the model successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html).
10.13 Unassigning an Announcement from a Document

You use this API to unassign an announcement from a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/unassign/announcement
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.

Response

If you have unassigned the model successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.

10.14 Unassigning Equipment from a Document

You use this API to unassign an item of equipment from a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/unassign/equipment
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.
Response

If you have unassigned the model successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.

10.15 Unassigning a Functional Location from a Document

You use this API to unassign a functional location from a document.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/document/unassign/functionallocation
- **Authorization**: You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema**: To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.

Response

If you have unassigned the model successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.
10.16 Unassigning Steps from a Document

You use this API to unassign step from a document.

Request

- **HTTP Method:** POST
- **URL:** ain/services/api/v1/document/unassign/steps
- **Authorization:** You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.

Response

If you have unassigned the model successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.

10.17 Unassigning an Improvement Case from a Document

You use this API to unassign an improvement case from a document.

Request

- **HTTP Method:** POST
- **URL:** ain/services/api/v1/document/unassign/improvementcase
- **Authorization:** You must have the roles DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Schema:** To know about fields that you can use in a request payload, refer to the request schema in https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html.
**Response**

If you have unassigned the model successfully, the system sends a status code of 204. Otherwise, the system returns appropriate error codes. For more information on the response schema and the corresponding status codes, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fff11049062c4345ac8dc40bb943c4b6/1702/en-US/documents.html).

**10.18 Obtaining the Valid Phase and Category**

You use this API to obtain the valid phase for a category while creating or editing a document.

**Request**

- **HTTP Method:** GET
- **URL:** ain/services/api/v1/document/unassign/PhaseCategory
- **Authorization:** You must have the roles DOCUMENT_READ, DOCUMENT_EDIT or DOCUMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

**Response**


**10.19 Additional Information**

The following table provides information about the fields of the request payload, along with the corresponding data types, and the data type descriptions:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>documentId (Mandatory)</td>
<td>String</td>
<td>Specifies the document ID the system generates for a document.</td>
</tr>
<tr>
<td>Field Name</td>
<td>Data Type</td>
<td>Description and Possible Values</td>
</tr>
<tr>
<td>----------------------------</td>
<td>------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>phaseCode (Mandatory)</td>
<td>Integer</td>
<td>Specifies the phaseCode for multiple phases. For more information on possible values, see Table Phase Codes and Category Codes.</td>
</tr>
<tr>
<td>categoryCode (Mandatory)</td>
<td>Integer</td>
<td>Specifies category code that corresponds to a phasecode. For more information on possible values, see Table Phase Codes and Category Codes.</td>
</tr>
<tr>
<td>Description (Optional)</td>
<td>String</td>
<td>Specifies the description of the document.</td>
</tr>
</tbody>
</table>

The following table provides information about the fields of the response payload, the corresponding data types, and the data type descriptions. To avoid repetition, fields that are also included in the request payload are excluded from the table.

Table 16:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>title, name</td>
<td>String</td>
<td>Specifies the name or a title of the document.</td>
</tr>
<tr>
<td>Phase</td>
<td>String</td>
<td>Specifies the phase in the lifecycle of a model or an equipment that the document is relevant for. For more information on possible values, see Table Phase Codes and Category Codes.</td>
</tr>
<tr>
<td>Category</td>
<td>String</td>
<td>Specifies the category that corresponds to a phase in the lifecycle of a model or an equipment that the document is relevant for. For more information on possible values, see the Phase Codes and Category Codes table.</td>
</tr>
<tr>
<td>fileSize</td>
<td>Integer</td>
<td>Specifies the size of a document.</td>
</tr>
<tr>
<td>fileSizeUnit</td>
<td>Integer</td>
<td>Specifies the unit used to measure the file size.</td>
</tr>
<tr>
<td>mimeType</td>
<td>String</td>
<td>Specifies the mimetype of the document.</td>
</tr>
</tbody>
</table>
Table 17: Category Codes

<table>
<thead>
<tr>
<th>Category Code</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identification</td>
</tr>
<tr>
<td>2</td>
<td>Technical Specification</td>
</tr>
<tr>
<td>3</td>
<td>Drawings/Schemes</td>
</tr>
<tr>
<td>4</td>
<td>Bills of Materials</td>
</tr>
<tr>
<td>5</td>
<td>Certificates</td>
</tr>
<tr>
<td>6</td>
<td>Installation/Dismantling</td>
</tr>
<tr>
<td>7</td>
<td>Operation</td>
</tr>
<tr>
<td>8</td>
<td>Safety</td>
</tr>
<tr>
<td>9</td>
<td>Inspection/Preventive Maintenance/Testing/Calibration</td>
</tr>
<tr>
<td>10</td>
<td>Corrective Maintenance/Repair</td>
</tr>
<tr>
<td>11</td>
<td>Commercial Documents</td>
</tr>
<tr>
<td>12</td>
<td>Others</td>
</tr>
<tr>
<td>14</td>
<td>Decommissioning Plan</td>
</tr>
<tr>
<td>15</td>
<td>Decommissioning Checklist</td>
</tr>
<tr>
<td>16</td>
<td>Decommissioning Report</td>
</tr>
<tr>
<td>17</td>
<td>Dismantling Guide</td>
</tr>
</tbody>
</table>

Table 18: Phase Codes

<table>
<thead>
<tr>
<th>Phase Code</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Design</td>
</tr>
<tr>
<td>2</td>
<td>Acquisition</td>
</tr>
<tr>
<td>3</td>
<td>Installation</td>
</tr>
<tr>
<td>4</td>
<td>Operation</td>
</tr>
<tr>
<td>5</td>
<td>Maintenance</td>
</tr>
<tr>
<td>6</td>
<td>Decommissioning</td>
</tr>
<tr>
<td>7</td>
<td>Dismantle</td>
</tr>
<tr>
<td>8</td>
<td>Disposal</td>
</tr>
<tr>
<td>File Extension</td>
<td>MIME Type</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>.txt</td>
<td>text/plain</td>
</tr>
<tr>
<td>.jpg</td>
<td>image/jpeg</td>
</tr>
<tr>
<td>.jpeg</td>
<td>image/jpeg</td>
</tr>
<tr>
<td>.jpe</td>
<td>image/jpeg</td>
</tr>
<tr>
<td>.jif</td>
<td>image/jpeg</td>
</tr>
<tr>
<td>.jig</td>
<td>image/jpeg</td>
</tr>
<tr>
<td>.doc</td>
<td>application/msword</td>
</tr>
<tr>
<td>.pdf</td>
<td>application/pdf</td>
</tr>
<tr>
<td>.png</td>
<td>image/png</td>
</tr>
<tr>
<td>.bmp</td>
<td>image/bmp</td>
</tr>
<tr>
<td>.dib</td>
<td>image/bmp</td>
</tr>
<tr>
<td>.bmp</td>
<td>image/x-windows-bmp</td>
</tr>
<tr>
<td>.gif</td>
<td>image/gif</td>
</tr>
<tr>
<td>.tif</td>
<td>image/tiff</td>
</tr>
<tr>
<td>.tiff</td>
<td>image/tiff</td>
</tr>
<tr>
<td>.ppt</td>
<td>application/mspowerpoint</td>
</tr>
<tr>
<td>.ppt</td>
<td>application/powerpoint</td>
</tr>
<tr>
<td>.docx</td>
<td>application/vnd.openxmlformats-officedocument.wordprocessingml.document</td>
</tr>
<tr>
<td>.docm</td>
<td>application/vnd.ms-word.document.macroenabled.12</td>
</tr>
<tr>
<td>.dotx</td>
<td>application/vnd.openxmlformats-officedocument.wordprocessingml.template</td>
</tr>
<tr>
<td>.odt</td>
<td>application/vnd.oasis.opendocument.text</td>
</tr>
<tr>
<td>.rtf</td>
<td>application/msword</td>
</tr>
<tr>
<td>.xps</td>
<td>application/vnd.ms-xpsdocument</td>
</tr>
<tr>
<td>.pptx</td>
<td>application/vnd.openxmlformats-officedocument.presentationml.presentation</td>
</tr>
<tr>
<td>File Extension</td>
<td>MIME Type</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>.vds</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>.dif</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>.prn</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>.csv</td>
<td>application/vnd.ms-excel</td>
</tr>
<tr>
<td>.slk</td>
<td>application/vnd.ms-excel</td>
</tr>
<tr>
<td>.xlsb</td>
<td>application/vnd.ms-excel.sheet.binary.macroenabled.12</td>
</tr>
<tr>
<td>.xlsm</td>
<td>application/vnd.ms-excel.sheet.macroenabled.12</td>
</tr>
<tr>
<td>.xltx</td>
<td>application/vnd.openxmlformats-officedocument.spreadsheetml.template</td>
</tr>
<tr>
<td>.ods</td>
<td>application/vnd.oasis.opendocument.spreadsheet</td>
</tr>
<tr>
<td>.xls</td>
<td>application/excel</td>
</tr>
<tr>
<td>.xlsx</td>
<td>application/vnd.openxmlformats-officedocument.spreadsheetml.sheet</td>
</tr>
<tr>
<td>.html</td>
<td>text/html</td>
</tr>
<tr>
<td>.htm</td>
<td>text/html</td>
</tr>
<tr>
<td>.avi</td>
<td>video/avi</td>
</tr>
<tr>
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<td>video/mp4</td>
</tr>
<tr>
<td>.wav</td>
<td>audio/wav</td>
</tr>
<tr>
<td>.mp3</td>
<td>audio/mpeg3</td>
</tr>
<tr>
<td>.xml</td>
<td>text/xml</td>
</tr>
<tr>
<td>.odp</td>
<td>application/vnd.oasis.opendocument.presentation</td>
</tr>
<tr>
<td>.dwg</td>
<td>application/acad</td>
</tr>
<tr>
<td>.dwg</td>
<td>application/x-acad</td>
</tr>
<tr>
<td>.dwg</td>
<td>application/autocad_dwg</td>
</tr>
<tr>
<td>.dwg</td>
<td>image/x-dwg, application/dwg</td>
</tr>
<tr>
<td>.dwg</td>
<td>application/x-dwg</td>
</tr>
<tr>
<td>File Extension</td>
<td>MIME Type</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>.dwg</td>
<td>application/x-autocad</td>
</tr>
<tr>
<td>.dwg</td>
<td>image/vnd.dwg</td>
</tr>
<tr>
<td>.dwg</td>
<td>drawing/dwg</td>
</tr>
<tr>
<td>.dwg</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>.dxf</td>
<td>application/dxf</td>
</tr>
<tr>
<td>.dxf</td>
<td>application/x-autocad</td>
</tr>
<tr>
<td>.dxf</td>
<td>application/x-dxf</td>
</tr>
<tr>
<td>.dxf</td>
<td>drawing/x-dxf</td>
</tr>
<tr>
<td>.dxf</td>
<td>image/vnd.dxf</td>
</tr>
<tr>
<td>.dxf</td>
<td>image/x-autocad</td>
</tr>
<tr>
<td>.dxf</td>
<td>image/x-dxf</td>
</tr>
<tr>
<td>.dxf</td>
<td>zz-application/zz-winassoc-dxf</td>
</tr>
<tr>
<td>.dxf</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>.sat</td>
<td>application/x-sat</td>
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<tr>
<td>.sat</td>
<td>image/x-sat</td>
</tr>
<tr>
<td>.sat</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>.stp</td>
<td>application/step</td>
</tr>
<tr>
<td>.stp</td>
<td>application/x-step</td>
</tr>
<tr>
<td>.stp</td>
<td>application/octet-stream</td>
</tr>
<tr>
<td>.aml</td>
<td>application/octet-stream</td>
</tr>
</tbody>
</table>
11 Announcements

An announcement is the information that a manufacturer communicates to an operator about an asset. For example, a change in an existing instruction, or an update to the spare parts of an item of equipment. SAP Asset Intelligence Network allows you to create the following types of instructions:

- **Instruction change**: An announcement type communicated by the manufacturer when an instruction related to a model undergoes a change.
- **Service Bulletin**: An announcement type communicated by the manufacturer to indicate a change to the model due to safety, performance, or statutory reasons. The change is carried out by the operator. Example: change a part that has caused.
- **Recall**: An announcement type communicated by the manufacturer to indicate a change to the model due to safety, performance, or statutory reasons. The change is carried out by the manufacturer.
- **New Policy**: An announcement type communicated by the manufacturer that specifies a recommendation, or a guidance by the manufacturer to use an item of equipment or a model within a company.
- **New Model**: An announcement type communicated by the manufacturer to communicate availability of new, or improved models.
- **Attachment Change**: An announcement type communicated by the manufacturer to communicate when any documents, or drawings related to a model undergoes a change.
- **Spare Parts Change**: An announcement type communicated by the manufacturer when any spare parts related to the model undergoes a change. Example: manufacturer part number changed.
- **Model Information Change**: An announcement type communicated by the manufacturer when a model undergoes a change in its specification, or any relevant metadata of a model.

For simplicity, the following sections deal with an Instruction change announcement.

11.1 Creating an Announcement

As a manufacturer, you create an announcement to help the operator use this information to maintain the item of an equipment efficiently.

**Request**

- **HTTP Method**: POST
- **Example URL**: ain/services/api/v1/announcements
- **Authorization**: You must have the roles ANNOUNCEMENT_EDIT or ANNOUNCEMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 119].

Response

- If the system creates an announcement successfully, system returns the details of announcement in the response payload.
- If the systems cannot create an announcement successfully, system returns appropriate error codes in the response payload.

11.2 Viewing an Announcement

As a manufacturer, you would want to view an announcement that is either in a draft (unpublished) state, published state, or in an in revision state.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/announcements(<announcement ID>)?status=2
- **Query parameters:**
  - **Status:** allows you to specify the state of the announcement. The following list contains the possible values:
    - 1- specifies the announcement is in unpublished state
    - 2- specifies the announcement is published state
    - 3- specifies the announcement is in revision state
- **Example URL:** /ain/rest/api/v1/instructions(DA6FE883FF0A424194F88B463C770C162)?status=2
- **Authorization:** You must have the roles ANOUNCEMENT_READ or ANOUNCEMENT_EDIT or ANOUNCEMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If an announcement with the specified announcement ID and the status exists, system returns the announcement and the relevant details.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html
If the announcement with the specified announcement ID and the status does not exist, system returns an error code. For more information on error codes that the system returns, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html.

11.3 Updating an Announcement

As a manufacturer, you want to update information related to an announcement that is either incorrect, or add to the existing information of an announcement.

Prerequisite

You have created an announcement (see Creating an Announcement [page 113].)

Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1/announcements
- **Authorization:** You must have the roles ANNOUNCEMENT_EDIT or ANNOUNCEMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 119].

**Note**

When you create an announcement you can specify the status code for the announcement as 1 (Unpublished State), or 2 (Published State). You can update the status of the announcement from 1 (unpublished state) to 2 (published state) by specifying the status as 2. To create a new revision of the published announcement, you can specify the state as 3 (In revision). To change between the Published state and the In Revision state specify the state as 3. To change between the In Revision and Published state specify the state as 2.

Response

- If the system updates an announcement successfully, system returns the details of the updated announcement along with the appropriate status code.
11.4 Viewing the Announcement Count

You use this API to view the number of announcements based on your query parameter.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/announcement
- **Query parameters:** $filter
  - $filter: allows you to specify a search text using which you can filter the announcements
- **Authorization:** You must have the roles ANNOUNCEMENT_READ or ANNOUNCEMENT_EDIT or ANNOUNCEMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If one or more announcements exist that match the filter criteria, the system returns the announcement count. Otherwise, the system returns count as 0.

11.5 Assigning a Model to an Announcement

As a manufacturer, you can assign a model to an announcement so that the operator can get the most of the item of equipment which is based on the model.

Prerequisite

You have created a model (see Creating a Model Header [page 30])
Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1/announcements
- **Authorization:** You must have the roles ANNOUNCEMENT_EDIT or ANNOUNCEMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 119].

Response

- If the system assigns a model to an announcement successfully, system returns the details of the updated announcement along with the model details in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html
- If a model has been assigned to a published instruction, the model gets assigned to the instruction and the version of the instruction is incremented automatically.

### 11.6 Deleting an Announcement

Request

- **HTTP Method:** Delete
- **Example URL:** ain/services/api/v1/announcements
- **Authorization:** You must have the roles ANNOUNCEMENT_EDIT or ANNOUNCEMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html file. For more information about the request payload fields, their descriptions, and possible values, see Additional Information [page 119].
Response

- If the system deletes an announcement successfully, system returns the deleted announcement ID in the response payload.

11.7 Mass Publishing of Announcements

As a manufacturer, if you have many Unpublished instructions, or instructions in In Revision state, you can use this service to publish them at once.

Request

- **HTTP Method:** PUT
- **Example URL:** ain/services/api/v1/announcements/publish
- **Authorization:** You must have any of the following roles assigned to your user ID ANNOUNCEMENT_EDIT or ANNOUNCEMENT_DELETE.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html file.
  For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 119].

Response

- If the system publishes the list of announcements successfully, the published announcement IDs are returned in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html
11.8 Viewing All Models Assigned to an Announcement

You use this API to view all the models assigned to an announcement.

Request

- **HTTP Method**: GET
- **URL**: `/ain/services/api/v1/announcements(<announcement ID>)/models`
- **Example URL**: `ain/services/api/v1/announcements(DA6FE883FF0A424194F8B463C770C162)/models`
- **Authorization**: You must have any of the following roles assigned to your user ID ANNOUNCEMENT_READ, ANNOUNCEMENT_EDIT, or ANNOUNCEMENT_DELETE.
- **Request Schema**: To know about fields that you can use in a request payload, refer to the request schema in the [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html) file. For more information about the request payload fields, their descriptions, and possible values, refer to Additional Information [page 119].

Response

- If models have been assigned for the announcement with the specified announcement ID, system returns the models information and the relevant details. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html).
- If models have not been assigned for the announcement with the specified announcement ID, system returns an empty array. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/fe592462e3254cd6a871a15b93b5ad28/1702/en-US/announcements.html).

11.9 Additional Information

The following table provides information about the fields of the request payload, along with the corresponding data types, and the data type descriptions:

<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>announcementName (Mandatory)</td>
<td>string</td>
<td>Specifies the name of the announce-ment.</td>
</tr>
<tr>
<td>Field Name (Mandatory or Optional)</td>
<td>Data Type</td>
<td>Description and Possible Values</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>announcementDescription (Optional)</td>
<td>string</td>
<td>Specifies the description for the announcement.</td>
</tr>
<tr>
<td>announcementTypeCode (Mandatory)</td>
<td>number</td>
<td>Specifies the type code for the type of an announcement. For more information on announcement type codes, see the Announcement Type Codes table.</td>
</tr>
<tr>
<td>source (Optional)</td>
<td>String</td>
<td>Specifies the name of the business partner who created the announcement.</td>
</tr>
</tbody>
</table>
| priorityCode (Mandatory) | Number     | Specifies the importance of the announcement. The following list contains the possible values and their descriptions:  
  - 1 - Low  
  - 2 - Medium  
  - 3 - High |
| publishedDate (Optional) | Date       | Specifies the date when the announcement was published. |
| statusCode (Mandatory) | Number     | Specifies the status of the announcement. The following list contains the possible values and their descriptions:  
  - 1 - Unpublished  
  - 2 - Published  
  - 3 - In Revision |
| modelIDs (Optional) | Array      | Specifies the list of model IDs that you can assign to an announcement. |
| modelID (Optional) | String     | Specifies the model ID that you can assign to an announcement. |
| documentIDs (Optional) | Array      | Specifies the list of document IDs that you can assign to an announcement. |

**Note**

The model ID is a unique ID generated by the system when you create a model. (see Creating a Model)
<table>
<thead>
<tr>
<th>Field Name (Mandatory or Optional)</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>documentID (Optional)</td>
<td>String</td>
<td>Specifies the document ID that you can assign to an announcement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> The document ID is a unique ID generated by the system when you upload a document. (see Uploading an Attachment)</td>
</tr>
<tr>
<td>instructionIDs (Optional)</td>
<td>Array</td>
<td>Specifies the list of instruction IDs that you can assign to an announcement.</td>
</tr>
<tr>
<td>instructionID (Optional)</td>
<td>String</td>
<td>Specifies the instruction ID that you can assign to an announcement.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> The instruction ID is a unique ID generated by the system when you create an instruction. (see Creating an Instruction)</td>
</tr>
<tr>
<td>assignUnassignFlag (Optional)</td>
<td>String</td>
<td>A flag that specifies if you can assign a model, instruction, or a document. Possible values include ‘a’ for assign and ‘ua’ for unassign.</td>
</tr>
<tr>
<td>isDefault (Optional)</td>
<td>String</td>
<td>A flag that specifies if the assigned instruction to the announcement is a default one. Possible values: 1 - default 0 - not default</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Note</strong> Additionally, this flag is set to 1 when you create an announcement using the Instructions app.</td>
</tr>
</tbody>
</table>

Table 21: Announcement Type Codes

<table>
<thead>
<tr>
<th>Announcement Type Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instruction Change</td>
</tr>
<tr>
<td>Announcement Type Code</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>2</td>
<td>Service Bulletin</td>
</tr>
<tr>
<td>3</td>
<td>Recall</td>
</tr>
<tr>
<td>4</td>
<td>New Policy</td>
</tr>
<tr>
<td>5</td>
<td>New Model</td>
</tr>
<tr>
<td>6</td>
<td>Attachment Change</td>
</tr>
<tr>
<td>7</td>
<td>Spare Parts Change</td>
</tr>
<tr>
<td>8</td>
<td>Model Information Change</td>
</tr>
</tbody>
</table>

The following table provides information related to the fields of the response payload along with the corresponding data types, and descriptions. To avoid repetition, fields that are common with the request payload are excluded in the following table:

Table 22:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>title, name</td>
<td>String</td>
<td>Specifies the name or a title of the document.</td>
</tr>
<tr>
<td>phase</td>
<td>String</td>
<td>Specifies the phase in the lifecycle of a model or an item of equipment that the document is relevant for. For more information on possible values, see the Phase Codes and Category Codes table.</td>
</tr>
<tr>
<td>category</td>
<td>String</td>
<td>Specifies the category for a phase in the lifecycle of a model, or an item of equipment that the document is relevant for. For more information on possible values, see the Phase Codes and Category Codes table.</td>
</tr>
<tr>
<td>fileSize</td>
<td>Integer</td>
<td>Specifies the size of a document.</td>
</tr>
<tr>
<td>fileSizeUnit</td>
<td>Integer</td>
<td>Specifies the unit used to measure the file size.</td>
</tr>
<tr>
<td>mimeType</td>
<td>String</td>
<td>Specifies the mimetype of the document.</td>
</tr>
</tbody>
</table>
12 Locations

12.1 Creating a Location

This API allows you to create a location for an equipment. As a prerequisite, you must create a functional unit and then create the functional location under the functional location.

Request

- **HTTP Method**: POST
- **Example URL**: ain/services/api/v1/location
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the system creates a location successfully, the system returns the details of the created location with an auto-generated ID. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html)
- If the system cannot create the location successfully, system returns appropriate error codes in the response payload.
12.2 Viewing a Location

Request

- **HTTP Method:** GET
- **URL:** `/ain/services/api/v1/location(id)?status=1, 2 or 3`
  Description: Use the URL with status 1, 2, or 3; where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL:** `/ain/rest/api/v1/location(E0B15BE85E2B41FBA06069B8D61CEB09)?status=2`
- **Authorization:** You must have the roles FUNCTIONAL_LOCATION_READ, FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If a location with specified location ID exists, and you have necessary authorizations to view it, system returns the details of the location.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.
- If location with the specified location ID does not exist, or you do not have appropriate authorizations to view it, system returns an error code.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

12.3 Updating a Location

Request

- **HTTP Method:** PUT
- **Example URL:** `ain/services/api/v1/location`
- **Authorization:** You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html file.
Response

- If the system updates the location successfully, system returns the details of the updated location in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

- If the system cannot update the location successfully, system returns appropriate error code in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

12.4 Deleting a Location

You use this API to delete a location from SAP Asset Intelligence Network.

Request

- **HTTP Method:** DELETE
- **URL:** /ain/services/api/v1/location({id})
- **Example URL:** /ain/services/api/v1/location (E0B15BE85E2B41FBA06069B8D61CEB09)
- **Authorization:** You must have the roles FUNCTIONAL LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the system deletes the location successfully, system returns code "204 No Content" in the response payload.

For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.
12.5 Viewing Location Templates for a Location

As an operator, you can view the location templates for a location.

Request

- **HTTP Method**: GET
- **URL**: /ain/rest/api/v1/location({id})/templates?version={version}
- **Query Parameter**: version
  Refers to version of the location for which you want to view the location templates.
- **Example URL**: /ain/services/api/v1/location(E0B15BE85E2B41FBA06069B8D61CEB09)/templates?version=2
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT, FUNCTIONAL_LOCATION_READ or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If a location with the specified location ID exists, system returns the details of the templates that are assigned to the location along with attribute group and attributes assigned to the template. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html).
- If the location with the specified ID does not exist, or you do not have appropriate authorizations to view the location templates, system returns an error message. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html).

12.6 Adding Location Templates to a Location

As an operator, you can use this API to add location templates to a location.

Request

- **HTTP Method**: PUT
- **URL**: ain/services/api/v1/templates
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response

- If the system updates the template change successfully, the system returns the details of the updated location in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff7f18db8/1702/en-US/location.html.
- If the system cannot update the template successfully, the system returns appropriate error code in the response payload.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff7f18db8/1702/en-US/location.html.

12.7 Publishing a Location

Request

- **HTTP Method:** PUT
- **URL:** /ain/services/api/v1/location({id})/publish
- **Example URL:** /ain/rest/api/v1/location(E0B15BE85E2B41FBA06069B8D61CEB09)/publish
- **Authorization:** You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If a location with specified ID exists and you have appropriate authorizations to publish it, system publishes the location and returns the location details.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff7f18db8/1702/en-US/location.html.
- If a location with specified ID does not exist, or you do not have appropriate authorizations to view it, system returns appropriate error codes.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff7f18db8/1702/en-US/location.html.
12.8 Revising a Location

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/location({id})/revise
- **Example URL**: /ain/services/api/v1/location(E0B15BE85E2B41FBA06069B8D61CEB09)/revise
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

- If the location with specified ID exists, and you have appropriate authorizations, system creates a location in In Revision state and returns the location details. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.
- If the location with the specified ID does not exist, or you do not have appropriate authorizations to view it, system returns appropriate error codes. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

12.9 Publishing Multiple Locations

Request

- **HTTP Method**: PUT
- **URL**: /ain/services/api/v1/locations/publish
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
Response

- If a location with specified ID exists, and you have appropriate authorizations, system returns a status code “204” in the response.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.
- If a location with specified IDs do not exist, or you do not have appropriate authorizations, system returns appropriate error codes.
  For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

12.10 Assigning Attachments to a Location

Request

- **HTTP Method**: POST
- **URL**: /ain/services/api/v1/location({id})/attachments
- **Example URL**: /ain/rest/api/v1/location(E0B15BE85E2B41FBA06069B8D61CEB09)/attachments
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE or DOCUMENT_EDIT assigned to your user ID in the SAP HANA Cloud Platform account.

Response

The API returns the document details assigned to the location.

For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

12.11 Viewing Attachments of a Location

This API allows you to view attachments of a location.

**Prerequisites**

You have assigned one or more attachments to a location.
Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/location({id})/attachments?status=1, 2 or 3
- **Query Parameter**: status
  
  Description: Use the URL with status 1, 2, or 3; where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL**: /ain/rest/api/v1/location(E0B15BE85E2B41FBA06069B8D61CEB09)/attachments?status=2
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT, FUNCTIONAL_LOCATION_READ or FUNCTIONAL_LOCATION_DELETE or DOCUMENT_READ assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If one or more attachments are assigned to the location with the given location ID, system returns an array of attachment details. Otherwise, system returns a blank array.

For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

12.12 Viewing Location Values

This API allows you to view location values for a location.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/locationvalue({id})?status=1, 2, or 3
- **Query Parameter**: status
  
  Description: Use the URL with status 1, 2, or 3; where 1 gets the Unpublished version, 2 gets the Published version and 3 gets the In Revision version.
- **Example URL**: /ain/rest/api/v1/locationvalue(E0B15BE85E2B41FBA06069B8D61CEB09)?status=2
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT, FUNCTIONAL_LOCATION_READ or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
12.13 Updating Location Values

This API allows you to update location values for a location.

Request

- **HTTP Method**: PUT
- **URL**: ain/services/api/v1/locationvalue
- **Authorization**: You must have the roles FUNCTIONAL_LOCATION_EDIT or FUNCTIONAL_LOCATION_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema**: To know about fields that you can use in a request payload, refer to the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.

Response

If the system updates the location value change successfully, the system returns the details of the updated location value in the response payload. Otherwise, the system returns appropriate error codes.

For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/34c1463a5d3f4f2d91253a78ff718db8/1702/en-US/location.html.
13  Performance Improvement

When in a problem with the product or process, trigger a workflow that brings together the relevant stakeholders of your asset. These stakeholders collaborate and help you resolve your case by giving a solution or recommendation.

13.1  Creating an Improvement Request

You create an improvement request when you face an issue with a product or process. By creating an improvement request, parties relevant to this case collaborate and provide you with a suggestion or a solution.

Request

- **HTTP Method**: POST
- **URL**: ain/services/api/v1/improvementcase
- **Authorization**: You must have the roles IMPROVEMENT_EDIT or IMPROVEMENT_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema**: To know about fields that you can use in a request payload, refer to Additional Information [page 137] and the request schema in the https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html file.

Response

If the service executes successfully, an improvement case is created. Otherwise, the system returns appropriate error code. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html
13.2 Viewing an Improvement Case

As a reviewer or requestor, you can view an improvement case to validate it before sending the case to the recommendation provider. You use this API to view the improvement case of the ID you specify.

**Request**

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/improvementCase({improvementCaseId})
- **Authorization:** You must have the roles IMPROVEMENTCASE_READ, IMPROVEMENTCASE_EDIT or IMPROVEMENTCASE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Query Parameter:** For details about the query parameter, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html).

**Response**

Based on the query parameters, the system returns the details of the specified improvement case. For more information, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html).

13.3 Updating an Improvement Case

You use this API to update an improvement case by specifying the improvement case ID.

**Request**

- **HTTP Method:** PUT
- **URL:** /ain/services/api/v1/improvementcase
- **Authorization:** You must have the roles IMPROVEMENTCASE_EDIT or IMPROVEMENTCASE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Request Schema:** To know about fields that you can use in a request payload, refer to the request schema in [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html) and the Additional Information [page 137] section.
Response

- The system returns the updated case information in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html.
- If the system cannot update the improvement case successfully, system returns appropriate error message in the response payload. For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html.

13.4 Deleting an Improvement Case

As a requestor or reviewer, you use this API to delete an improvement case from SAP Asset Intelligence Network.

Request

- **HTTP Method**: DELETE
- **URL**: /ain/services/api/v1/improvementCase({improvementCaseId})
- **Example URL**: /ain/services/api/v1/improvementCase(E0B15BE85E2B41FBA06069B8D61CEB09)
- **Authorization**: You must have the role IMPROVEMENTCASE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.

Response

If the system deletes the improvement case successfully, system returns code "200" in the response payload.

For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html.
13.5 Viewing the List of Improvement Cases

You use this API to view those improvement cases where you are added as the processor.

**Request**

- **HTTP Method:** GET
- **URL:** `ain/services/api/v1/improvementcase`
- **Authorization:** You must have the roles IMPROVEMENTCASE_READ, IMPROVEMENTCASE_EDIT or IMPROVEMENTCASE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Query Parameter:** For details about the query parameter, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cefe4f889695393b85e1a1e/1702/en-US/ImprovementCase.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cefe4f889695393b85e1a1e/1702/en-US/ImprovementCase.html)

**Response**

Based on the query parameters, the system returns the details of a list of improvement cases.


13.6 Viewing the Improvement Case Count

You use this API to view the number of improvement cases in which you were added as the processor or based on the query parameters you use for filtering the improvement case count.

**Request**

- **HTTP Method:** GET
- **URL:** `ain/services/api/v1/improvementcase/$count`
- **Authorization:** You must have the roles IMPROVEMENTCASE_READ, IMPROVEMENTCASE_EDIT or IMPROVEMENTCASE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **Query Parameter:** For details about the query parameter, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cefe4f889695393b85e1a1e/1702/en-US/ImprovementCase.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cefe4f889695393b85e1a1e/1702/en-US/ImprovementCase.html)
13.7 Viewing Instructions Assigned to an Improvement Case

You use this API to view the instructions that were assigned to the improvement case.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/improvementcase({improvementCaseId})/instructions
- **Authorization**: You must have the roles IMPROVEMENTCASE_READ, IMPROVEMENTCASE_EDIT or IMPROVEMENTCASE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **URI Parameter**: For details about the URI parameter, see Additional Information [page 137]

Response

Based on the URI parameters, the system returns the details of instructions assigned to the improvement case.

For more information, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/9f4ff0043cef4f8899695393b85e1a1e/1702/en-US/ImprovementCase.html.

13.8 Viewing Documents Attached to an Improvement Case

You use this API to view the documents that were assigned to the improvement case.

Request

- **HTTP Method**: GET
- **URL**: /ain/services/api/v1/improvementcase({improvementCaseld})/attachments
- **Authorization:** You must have the roles IMPROVEMENTCASE_READ, IMPROVEMENTCASE_EDIT or IMPROVEMENTCASE_DELETE assigned to your user ID in the SAP HANA Cloud Platform account.
- **URI Parameter:** For details about the URI parameter, see Additional Information [page 137]

**Response**

Based on the URI parameters, the system returns the details of documents attached to the improvement case.


### 13.9 Additional Information

Table 23: Request Payload Information

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>caseName (mandatory)</td>
<td>String</td>
<td>Specifies the name of the improvement case.</td>
</tr>
<tr>
<td>caseType (mandatory)</td>
<td>String</td>
<td>Specifies the improvement case. Possible values are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-Product Improvement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-Process improvement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-Maintenance improvement</td>
</tr>
<tr>
<td>priority (mandatory)</td>
<td>String</td>
<td>Specifies the case priority. Possible values are:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1-Low</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-Medium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-High</td>
</tr>
<tr>
<td>commercialImpact (optional)</td>
<td>Integer</td>
<td>Commercial risk involved due to the performance issue. Possible values: 0 to 5</td>
</tr>
<tr>
<td>safetyImpact</td>
<td>Integer</td>
<td>Safety risk. Possible values: 0 to 5</td>
</tr>
<tr>
<td>environmentalImpact</td>
<td>Integer</td>
<td>Possible values: 0 to 5</td>
</tr>
<tr>
<td>operationalImpact</td>
<td>Integer</td>
<td>Possible values: 0 to 5</td>
</tr>
<tr>
<td>urgency</td>
<td>Integer</td>
<td>Possible values: 0 to 5</td>
</tr>
<tr>
<td>Field Name</td>
<td>Data Type</td>
<td>Description and Possible Values</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>modelId (mandatory)</td>
<td>String</td>
<td>Specifies the affected model ID</td>
</tr>
<tr>
<td>id (mandatory)</td>
<td>String</td>
<td>Specifies the ID of the improvement case that has to be addressed</td>
</tr>
<tr>
<td>finalRecommendation (mandatory/optional based on the improvement case status)</td>
<td>String</td>
<td>Specify a recommendation. It is mandatory when the improvement case is in the Submitted or In Process states.</td>
</tr>
<tr>
<td>improvementDescription (mandatory)</td>
<td>String</td>
<td>Specify the nature of the problem.</td>
</tr>
<tr>
<td>equipmentList</td>
<td>List of JSON Objects</td>
<td>List of equipment IDs that have a problem. assigneeId: Equipment ID isAdded: Flag to determine if equipment is being added or deleted. If true then equipment was added to case, if false the equipment was deleted from the case.</td>
</tr>
</tbody>
</table>

**Note**
- A requestor can add/delete when the case is in Created, Author Action, Recommendation Provided, or Rejected states.
- A reviewer can add/delete when the case is in Author Action, Recommendation Provided, Rejected, or In Review states.
<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>instructionList</td>
<td>List of JSON Objects</td>
<td>List of instruction IDs that are associated with this improvement case. assigneeId: Instruction ID isAdded: Flag to determine if instruction is being added or deleted. If true, then the instruction is being added to the case. If false, then the instruction is being deleted from the case. assigneeType: Determines the section of this instruction that is being added. 10: If Request section 11: If Recommendation section</td>
</tr>
</tbody>
</table>

**Note**
- A requestor can add/delete in the Request section when the case is in Created, Author Action, Recommendation Provided, or Rejected states.
- A reviewer can add/delete a Request section when the case is in Author Action, Recommendation Provided, Rejected, or In Review states.
- A recommendation provider can add/delete the Recommendation section when the case is in In Process or Submitted states.
<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
<th>Description and Possible Values</th>
</tr>
</thead>
</table>
| documentList       | List of JSON Objects | List of document IDs that are associated with this improvement case. assigneeId: Improvement case ID  
documentId: ID of the document you want to assign  
assignUnassignFlag: Flag to determine if the document is being added or deleted. If true, then the document is being added to the case. If false, then the document is being deleted from the case. assigneeType: Determines the section to this document that is being added.  
10: If Request section  
11: If Recommendation section |
| requestorId (mandatory) | String | ID of the Improvement requestor. |
| reviewerId (mandatory) | String | ID of the Improvement Reviewer. |
| processorId (mandatory) | String | ID of the Recommendation Provider |

Note
- A requestor can add/delete in the Request section when the case is in Created, Author Action, Recommendation Provided, or Rejected states.
- A reviewer can add/delete a Request section when the case is in Author Action, Recommendation Provided, Rejected, or In Review states.
- A recommendation provider can add/delete the Recommendation section when the case is in In Process or Submitted states.
14 Measuring Point

A measuring point is a measurable attribute of a model or an equipment. With SAP Asset Intelligence Network, you can map the measuring point values of an equipment from an external system with the same equipment in SAP Asset Intelligence Network.

With API, you can retrieve the measuring point values of your equipment in SAP Asset Intelligence Network from an external system, for example – SAP Predictive Maintenance. After mapping, you retrieve the measuring point values stored in the external system.

14.1 Viewing Mapped Measuring Point Values

You use this API to view the measuring point values of your equipment in SAP Asset Intelligence Network. These values are retrieved after you have mapped the equipment with an external system, for example – SAP Predictive Maintenance.

Request

- **HTTP Method:** GET
- **URL:** /ain/services/api/v1/sensor/iot/data
- **Query Parameters:** For details about the query parameter, see https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/bbc6da41c7ae493a898d33dee24a45f6/1702/en-US/measuringPoints.html

Response

Based on the query parameters, the system returns measuring point values of the equipment.

You use this API to search objects in SAP Asset Intelligence Network such as models, equipment, subclass, and templates. Since the search is fault-tolerant, you can search using terms that might not be a perfect match with the object.

You can also narrow down your search by using the following:

<table>
<thead>
<tr>
<th>Path Parameter</th>
<th>Objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOD</td>
<td>Models</td>
</tr>
<tr>
<td>EQU</td>
<td>Equipment</td>
</tr>
<tr>
<td>TEM</td>
<td>Model templates, equipment templates and location templates</td>
</tr>
<tr>
<td>CAT</td>
<td>Subclass</td>
</tr>
<tr>
<td>ALL</td>
<td>Models, Equipment, Model Templates, Equipment Templates, Location Templates and Subclass</td>
</tr>
</tbody>
</table>

**Request**

- **HTTP Method**: GET
- **URL**: `/ain/services/api/v1/searchObject/<path parameter>?searchText=<Provide space-separated search terms which can be Manufacturer name, Manufacturer ID, Industry group name, Object name, description, Class name, Subclass name, Template name, Operator name, Source name>`
- **Query Parameters**: For details about the query parameter, see [https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/b7b5a3bbe4564f3b8b06566da64a4534/1702/en-US/fuzzysearch.html](https://uacp2.hana.ondemand.com/http.svc/rc/DRAFT/b7b5a3bbe4564f3b8b06566da64a4534/1702/en-US/fuzzysearch.html)

**Response**

Based on the query parameters, the system returns the objects you searched for.

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