

4.6 Revision Service

Revision Service

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Revision Service

Use this service for creating revisions of models or attachments.

Create a new revision or update/overwrite a model

URL / Resource / JSON Structure

Resource: revisions

URL: https://api-stage.bimplus.net/v2/<team_slug>/divisions/<id>/revisions

Example: <https://api-stage.bimplus.net/v2/bimplus/divisions/00b54edd-c84c-4bd2-a08c-c93d1f28907a/revisions>

JSON Structure:

Name	Mandatory / Optional	Type	Description
name	mandatory	string	Name of the revision
description	optional	string	Short description of the revision
projectId	will be ignored	string (guid)	Creation date of the revision
divisionId	will be ignored	string (guid)	Id of the model
revisionNr	will be ignored	int	Revision number
created	will be ignored	string (date)	Creation date
createdBy	will be ignored	user object	The user who created it
changed	will be ignored	string (date)	Modification date
changedby	will be ignored	user object	The user who did the modification
applicationId	will be ignored	string (guid)	The id of the application
inputType	optional	string	Type of upload (eg: "IFC_IMPORT")

Note: The import/upload is always done only for the latest revision.

HTTP Method

POST

Description

Use this API for creating a new revision. Please, note that import/upload is always done only for the latest revision. i.e if there are no revisions, & if we use [import API](#) the always the model is updated/overwritten. If a model has revisions & if we use the [import API](#) then always the latest import/upload is linked with the latest revision.

Request

Headers
Authorization: BimPlus 9c1874a62c974dcfa75e0132c423a088 Content-Type: application/json

JSON

```
{
  "name": "Ballo.ifc"
}
```

Response

Status

Status: 201 Created

JSON

```
{
  "id": "d2d39bca-051e-48fa-ba23-4845087a071c",
  "name": "Ballo.ifc",
  "description": "",
  "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
  "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
  "revisionNr": 6,
  "created": "2015-11-03T11:13:27.2",
  "createdby": {
    "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
    "email": "jayaraj.purushothaman@gmail.com"
  },
  "changed": "2015-11-03T11:13:27.2",
  "changedby": {
    "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
    "email": "jayaraj.purushothaman@gmail.com"
  },
  "applicationId": "0106c8ba-ad46-7c08-e26f-026852cb7525",
  "inputType": "IFC_IMPORT"
}
```

Get the list of revisions of a model

URL / Resource / JSON Structure

Resource: revisions

URL: [https://api-stage.bimplus.net/v2/ <team_slug>/divisions/<id>/revisions](https://api-stage.bimplus.net/v2/<team_slug>/divisions/<id>/revisions)

Example: <https://api-stage.bimplus.net/v2/bimplus/divisions/00b54edd-c84c-4bd2-a08c-c93d1f28907a/revisions>

HTTP Method

GET

Description

Get the list of revisions of a model

Request

Headers

Authorization: BimPlus 9c1874a62c974dcfa75e0132c423a088
Content-Type: application/json

Response

Status

Status: 200 OK

JSON

```
[
  {
    "id": "d2d39bca-051e-48fa-ba23-4845087a071c",
    "name": "Ballo.ifc",
    "description": "",
    "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
    "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
    "revisionNr": 6,
    "created": "2015-11-03T11:13:27",
    "createdby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "changed": "2015-11-03T11:13:36",
    "changedby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "applicationId": "0106c8ba-ad46-7c08-e26f-026852cb7525",
    "topologyId": "abef74ce-869d-4c6f-9fbc-e8b6102cbb4a",
    "inputType": "IFC_IMPORT"
  },
  {
    "id": "314075f5-2eaa-409f-a5b2-2de9a9b3f1a0",
    "name": "Ballo.ifc",
    "description": "",
    "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
    "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
    "revisionNr": 5,
    "created": "2015-11-02T16:09:51",
    "createdby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "changed": "2015-11-02T16:09:54",
    "changedby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "applicationId": "0106c8ba-ad46-7c08-e26f-026852cb7525",
    "topologyId": "abef74ce-869d-4c6f-9fbc-e8b6102cbb4a",
    "inputType": "IFC_IMPORT"
  },
  {
    "id": "4566ccbb-e9d1-4deb-a0ef-72b6847c050e",
    "name": "Ballo.ifc",
    "description": "",
    "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
    "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
    "revisionNr": 4,
    "created": "2015-11-02T16:00:46",
    "createdby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "changed": "2015-11-02T16:00:55",
    "changedby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "applicationId": "0106c8ba-ad46-7c08-e26f-026852cb7525",
    "topologyId": "abef74ce-869d-4c6f-9fbc-e8b6102cbb4a",
  }
]
```

```

    "inputType": "IFC_IMPORT"
  },
  {
    "id": "c913054e-b4c2-44e8-8e92-602f6c9256ce",
    "name": "Ballo.ifc",
    "description": "",
    "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
    "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
    "revisionNr": 3,
    "created": "2015-11-02T15:53:49",
    "createdby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "changed": "2015-11-02T15:54:18",
    "changedby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "applicationId": "0106c8ba-ad46-7c08-e26f-026852cb7525",
    "topologyId": "abef74ce-869d-4c6f-9fbc-e8b6102cbb4a",
    "inputType": "IFC_IMPORT"
  },
  {
    "id": "7806506b-d506-46a2-8d18-a7addb196e1d",
    "name": "Model revision",
    "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
    "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
    "revisionNr": 2,
    "created": "2015-06-18T13:23:03",
    "createdby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "changed": "2015-06-18T13:23:14",
    "changedby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "applicationId": "a1621259-a32f-e517-d0cb-aba5f07e5ffa",
    "topologyId": "abef74ce-869d-4c6f-9fbc-e8b6102cbb4a",
    "inputType": "IFC_IMPORT"
  },
  {
    "id": "a94c9494-a32c-4bfa-b8ac-a1aebb78b5fe",
    "name": "m1",
    "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
    "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
    "revisionNr": 1,
    "created": "2015-06-18T13:14:51",
    "createdby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "changed": "2015-06-18T13:14:51",
    "changedby": {
      "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
      "email": "jayaraj.purushothaman@gmail.com"
    },
    "applicationId": "a1621259-a32f-e517-d0cb-aba5f07e5ffa",
    "topologyId": "7a7a68c9-a26c-4cd9-84d9-96af4e86c0d1",
    "inputType": "IFC_IMPORT"
  }
]

```

URL / Resource / JSON Structure

Resource: projects

URL: https://api-stage.bimplus.net/v2/<team_slug>/revisions/<id>

Example: <https://api-stage.bimplus.net/v2/bimplus/revisions/d2d39bca-051e-48fa-ba23-4845087a071c>

HTTP Method

GET

Description

Get the info about a particular revision.

Request

Headers

Authorization: BimPlus 9c1874a62c974dcfa75e0132c423a088
Content-Type: application/json

Response

Status

Status: 200 OK

JSON

```
{
  "id": "d2d39bca-051e-48fa-ba23-4845087a071c",
  "name": "Ballo.ifc",
  "description": "",
  "projectId": "e31c3480-5633-4506-b717-8dd97c0f0ab3",
  "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
  "revisionNr": 6,
  "created": "2015-11-03T11:13:27",
  "createdby": {
    "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
    "email": "jayaraj.purushothaman@gmail.com"
  },
  "changed": "2015-11-03T11:13:36",
  "changedby": {
    "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
    "email": "jayaraj.purushothaman@gmail.com"
  },
  "applicationId": "0106c8ba-ad46-7c08-e26f-026852cb7525",
  "inputType": "IFC_IMPORT"
}
```

[Update the revision info](#)

URL / Resource / JSON Structure

Resource: revisions/<revision_id>

URL: https://api-stage.bimplus.net/v2/<team_slug>/revisions/<revision_id>

Example: <https://api-stage.bimplus.net/v2/bimplus/revisions/0d2ce2cc-3588-45d6-a59a-f6b89ebed34e>

JSON Structure:

Name	Mandatory / Optional	Type	Description
------	----------------------	------	-------------

name	mandatory	string	Name of the revision
description	optional	string	Short description of the revision
projectId	will be ignored	string (guid)	Creation date of the revision
divisionId	will be ignored	string (guid)	Id of the model
revisionNr	will be ignored	int	Revision number
created	will be ignored	string (date)	Creation date
createdBy	will be ignored	user object	The user who created it
applicationId	optional	string (guid)	The id of the application
inputType	optional	string	Type of upload (eg: "IFC_IMPORT")

HTTP Method

PUT

Description

Update the revision info of a model.

Request

Headers

Authorization: BimPlus 9c1874a62c974dcfa75e0132c423a088
Content-Type: application/json

JSON

```
{
  "name": "updated name"
}
```

Response

Status

Status: 200 OK

JSON

```
{
  "id": "d2d39bca-051e-48fa-ba23-4845087a071c",
  "name": "updated name",
  "divisionId": "00b54edd-c84c-4bd2-a08c-c93d1f28907a",
  "revisionNr": 6,
  "created": "2015-11-03T11:13:27",
  "createdby": {
    "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
    "email": "jayaraj.purushothaman@gmail.com"
  },
  "changed": "0001-01-01T00:00:00",
  "changedby": {
    "id": "71e0ac3b-fa49-e540-ac2f-8caff3dd72ed",
    "email": "jayaraj.purushothaman@gmail.com"
  },
  "applicationId": "0106c8ba-ad46-7c08-e26f-026852cb7525"
}
```

List of APIs for retrieving info from a particular revision (3D objects, attachments etc)

Please note that all resources(eg: objects, attachments etc) of a model revision can be accessed using the revision query string(i.e "?revision=<revisionNr>")

eg: GET /<TeamSlug>/objects/<ObjectId>/disciplines/<DisciplineID>/geometries/threejs?revision=2

GET /<TeamSlug>/objects/<ObjectId>/attachments?revision=2

Calculate revisions comparison of the model

URL / Resource / JSON Structure

Resource: divisions/<division_id>/revisionscomparison/<higher_revision_number>/<lower_revision_number>

URL: https://api-stage.bimplus.net/v2/<team_slug>/divisions/<division_id>/revisionscomparison/<higher_revision_number>/<lower_revision_number>

Example: <https://api-stage.bimplus.net/v2/bimplus/divisions/00b54edd-c84c-4bd2-a08c-c93d1f28907a/revisionscomparison/5/2>

Optional query parameters

Name	Type	Default value	Description
filter	Guid	null	When "filter={{filterId}}" is defined the API will return only valid object's which meet a conditions of defined filter.
attributes	String	null	When "attributes={{attributeId1}};{{attributeId2}}" are defined the API will return only objects, for which the given attributes were changed. Only really changed attributes are touched by that, the new elements, deleted elements and also the modified geometry are returned always.
selectionobject	Guid	null	When "selectionobject={{selectionObjectId}}" is defined the API will return only object's in selections.
allChangedAttributes	Boolean	false	When "allChangedAttributes" are true the API will return also changes attributes in object.
page, pageSize	Int	null	When "page=2&pageSize=3" are set the API will return defined page number (2) with defined number of objects per page (3 objects).

HTTP Method

POST

Description

This API call will calculate comparison between two revisions of the same model to provide revisions differences. The revisions numbers does not have to be consecutive, meaning you can compare revisions e.g. 5 vs 2. But revision numbers must be in correct order, revisions number higher_revision_number must be higher then lower_revision_number. The higher revision number maybe be also the latest revision.

Request

Headers
Authorization: BimPlus 9c1874a62c974dcfa75e0132c423a088 Content-Type: application/json

Response

Status
Status: 200 OK - when succeeded calculation of comparison of revisions of the model Status : 400 BadRequest - if revision numbers are incorrect, or first revision is not greater than second Status : 400 NotFound - if any of the revisions does not exist

JSON
The response is similar to the GET <Url>/<TeamSlug>/divisions/<division_id>/revisionscomparison/<higher_revision_number>/<lower_revision_number>. For details see "Get calculated comparison of revisions of the model" below.

Get calculated comparison of revisions of the model

URL / Resource / JSON Structure

Resource: divisions/<division_id>/revisionscomparison/<higher_revision_number>/<lower_revision_number>

URL: https://api-stage.bimplus.net/v2/<team_slug>/divisions/<division_id>/revisionscomparison/<higher_revision_number>/<lower_revision_number>

Example: <https://api-stage.bimplus.net/v2/bimplus/divisions/00b54edd-c84c-4bd2-a08c-c93d1f28907a/revisionscomparison/5/2>

Optional query parameters

Name	Type	Default value	Description
filter	Guid	null	When "filter={{filterId}}" is defined the API will return only valid object's which meet a conditions of defined filter.
attributes	String	null	When "attributes={{attributeId1}},{{attributeId2}}" are defined the API will return only objects, for which the given attributes were changed. Only really changed attributes are touched by that, the new elements, deleted elements and also the modified geometry are returned always.
allChangedAttributes	Boolean	false	When "allChangedAttributes" are true the API will return also changes attributes in object.
page, pageSize	Int	null	When "page=2&pageSize=3" are set the API will return defined page number (2) with defined number of objects per page (3 objects).

HTTP Method

GET

Description

This api returns already calculated comparison of revisions of the model. In returned json is very important property "IsUpToDate" which provide information if revision comparison is actual or not.

In response are most important four sets of objects - inserted, deleted, changedGeometry, changed.

The unaffected & hidden objects are not returned in the response.

Request

Headers
Authorization: BimPlus 9c1874a62c974dcfa75e0132c423a088 Content-Type: application/json

Response

Status
Status: 200 OK

In general, the response JSON has following format :

```
{
  "divisionId": "958ee96f-12c6-4684-928c-7119ad7090ab",
  "firstRevision": 3,
  "secondRevision": 2,
  "status": "DONE",
  "isUpToDate": true,
  "calculatedAt": "2016-10-19T09:05:39.8138934",
  "calculatedBy": {
    "id": "7c555899-5a5f-44d1-930e-284930678bed",
    "email": "user@allplan.com"
  },
  "inserted": [ ... ],
  "deleted": [ ... ],
  "changedGeometry": [ ... ],
  "changed": [ ... ]
}
```

The properties "inserted", "deleted", "changedGeometry" and "changed" will contain array of comparison objects in following format:

The comparison objects in response JSON has following format :

```
{
  "comparisonObjectId": "870c9ced-63fb-4fdf-beaf-ebd19507c072",
  "first":
  {
    "id": "3a2d82dc-325c-4369-a083-02e3535d850d",
    "type":
    "Beam",
    "name": "Beam_1-
01"
  },
  "second":
  {
    "id": "3a2d82dc-325c-4369-a083-02e3535d850d",
    "type": "Beam",
    "name": "Beam_1-01"
  }
}
```

The comparison objects with specified attributes in response JSON has following format :

```
{
  "divisionId": "14d59026-a26f-4c75-8e96-5ea535calcdc",
  "firstRevision": 2,
  "secondRevision": 1,
  "status": "DONE",
  "isUpToDate": true,
  "calculatedAt": "2019-06-27T05:54:59.9898647",
  "calculatedBy": {"id": "c739304f-68c3-461f-b580-bb706226852b", "email": "UserProjectEditor@allplan.
com"},
  "inserted": {"id": "3957ab72-08ee-4a1e-b6e0-23ece985009c", "resultObjects": []},
  "deleted": {"id": "4c731362-a113-4df1-8702-e4a7d0bc0872", "resultObjects": []},
  "changedGeometry": { "id": "de790796-62be-4cc3-bc17-5d06563c041f", "resultObjects": []},
  "changed": {
    "id": "193fb85e-72bd-435f-9b9d-28441c297f2a",
    "resultObjects": [{
      "comparisonObjectId": "13e07edd-373d-428b-ab16-925e15ad0bd4",
      "disciplineId": "f8a4b995-4c06-4b0e-b4d2-4e68f56a8496",
      "lastTopologyId": "a29657af-1ce5-4a78-9cea-c13cd8bd8acb",
      "first": {
        "id": "9160d574-cf22-4609-b16d-13892aef350d",
        "type": "StructuralCurveMember",
        "name": "TestBeam-A updated to B",
        "attributes": {
          "name": "TestBeam-A updated to B",
          "coefficientofperformancecurve": "B"
        }
      },
      "second": {
        "id": "9160d574-cf22-4609-b16d-13892aef350d",
        "type": "StructuralCurveMember",
        "name": "TestBeam-A",
        "attributes": {
          "name": "TestBeam-A",
          "coefficientofperformancecurve": "A"
        }
      }
    }, {
      "comparisonObjectId": "8b8e1843-54a6-4df1-8397-34f8e673e888",
      "disciplineId": "0f106af0-a919-44c5-b211-15bd5ef620b6",
      "lastTopologyId": "a29657af-1ce5-4a78-9cea-c13cd8bd8acb",
      "first": {
        "id": "f809c169-375f-4a41-9e73-13d5a396ff06",
        "type": "Wall",
        "name": "TestWall-A updated to B",
        "attributes": {
          "name": "TestWall-A updated to B"
        }
      },
      "second": {
        "id": "f809c169-375f-4a41-9e73-13d5a396ff06",
        "type": "Wall",
        "name": "TestWall-A",
        "attributes": {
          "name": "TestWall-A"
        }
      }
    }
  ]
}
```

JSON Structure:

Name	Mandatory / Optional	Type	Description
divisionId		string (guid)	The id of the model
firstRevision		int	higher revision number between whose the calculation was done
secondRevision		int	lower revision number between whose the calculation was done
status		string	Can be "DONE" => ok, or "PENDING" => calculation was not yet completed
isUpToDate		bool	Should be be true. False means that the model was changed after the revision comparison was calculated, so the revision comparison is not actual, and it will be better to recalculate again with POST (see api call above)
calculatedAt		string (date)	The date and time of the calculation
calculatedBy		string (user)	The user which performed the calculation
inserted		objects	Objects that exists only in in first (higher) revision but not in the second
deleted		objects	Objets that exist only in the second (lower) revision, but are already deleted in the first (higher) revision
changedGeometry		objects	Objects that exists in both revisions, but with different geometry
changed		objects	Objects that exist in both revisions, have identical geometry, but some other properties are changed, (objects identical in both revisions are not present in this response)
NOTE : Properties "inserted", "deleted", "changedGeometry" and "changed", will contain array of comparison objects with following properties:			
comparisonObjectid		string (guid)	id of the comparison object
first		object	Object from revision with higher revision number. This object is not present in the "deleted" list. Object has following properties: <ul style="list-style-type: none"> id of the compared element ("id") element type name ("type") element name ("name")
second		object	Object from revision with lower revision number. This object is not present in the "inserted" list. Object has following properties: <ul style="list-style-type: none"> id of the compared element ("id") element type name ("type") element name ("name")