

4.33 Connection Service

Connection Service

Bimplus DB

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Create a new connection

URL / Resource / JSON Structure

Resource: projects/<project_id>/connection

URL: [https://api-stage.bimplus.net/v2/ <team_slug>/projects/<project_id>/connection](https://api-stage.bimplus.net/v2/<team_slug>/projects/<project_id>/connection)

Example: <https://api.bimplus.net/v2/bimplus/projects/e504f24c-e643-452b-b901-6a18883dc7e9/connection>

JSON Structure:

Name	Mandatory / Optional	Type	Description
Id	will be ignored	string(guid)	Connection Id
elements	mandatory	JSON Array	List of element Ids. Connection will be created between elements in this array.
ConnectionElement	mandatory	object	Connection definition object, in this object are defined properties of the connection element which will be created.

JSON Structure of the object in "ConnectionElement" :

Name	Mandatory / Optional	Type	Description
Id	will be ignored	string (guid)	Connection Id
parent	will be ignored	string (guid)	Connection parent
elementtyp	mandatory	string (guid)	Guid of element type "ConnectionElement"
type	mandatory	string	"ConnectionElement"
layerid	mandatory	string (guid)	Connection layer Id, in this layer will be created connection element
attributes	mandatory	object	List of free attribute Ids, where are defined name and description of the connection element.
children	optional	JSON Array	Array of objects which define single parts of connection from which is built connection. E.g. one type of connection may have only plates with welds or another one maybe assembled from plates with wholes together with screws with nuts, generally can be defined any wanted connection geometry.

HTTP Method

POST

Description

Creates a new connection between single objects

Request

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

JSON

```
{
  "elements":["909ff986-f74e-44b5-bcf2-ec7b779e3011", "6b12bd40-a4c6-4eae-8a0b-b93592f71483"
],
  "ConnectionElement":{
    "elementtyp":"a48f8bcc-79c7-47ed-ab43-f8c7f0ddffdf",
    "type":"ConnectionElement",
    "layerid":"72b7e0ba-aela-4a71-blec-ad8f553fb3bc",
    "attributes":{
      "general":{
        "name":"Conection_Test",
        "description":"Connection_Part_Of_test"
      }
    },
    "children":[{
      "elementtyp":"0a98744d-baf5-4606-ad86-2097a93f188f",
      "parent":"61d54a09-3076-41f9-93e2-810cb3df99d0",
      "type":"Opening",
      "layerid":"0a98744d-baf5-4606-ad86-2097a93f188f",
      "attributes":{
        "general":{
          "name":"Hole_1"
        }
      },
      "element":{
        "divisionid":"6a764b22-22dd-4cdb-83cc-33366ce8b4d3",
        "logparentid":"548126f3-d69e-485b-a8ba-8fc5a615ed1c",
        "matrix":{
          "Values":[1, 0, 0, 100,
                    0, 1, 0, 100,
                    0, 0, 1, 0,
                    0, 0, 0, 1 ]
        }
      },
      "geometry":{
        "csg":{
          "elements":[{
            "type":"Path",
            "crossSection":"RD8",
            "vectorX":[1, 0, 0 ],
            "vectorY":[0, 1, 0 ],
            "geometry":[{
              "geoType":"StartPolygon",
              "point":[0, 0, 2900 ]
            },
            {
              "geoType":"Line",
              "point":[0, 0, 3200 ]
            }
          ]
        },
        "color":4286611584
      }
    }
  ]
}
```

Response

Status
Status: 201 Created

JSON

```
{
  "id": "e5875246-7306-49b4-ab3a-30f014f01d3c"
  "elements": [ "909ff986-f74e-44b5-bcf2-ec7b779e3011", "6b12bd40-a4c6-4eae-8a0b-b93592f71483" ],
  "ConnectionElement":
  {
    "elementtyp": "a48f8bcc-79c7-47ed-ab43-f8c7f0ddffdf",
    "id": "7470de4c-6893-4a2e-9c2c-60629e28ad93",
    "parent": "61d54a09-3076-41f9-93e2-810cb3df99d0",
    "type": "ConnectionElement",
    "layerid": "72b7e0ba-aela-4a71-b1ec-ad8f553fb3bc",
    "attributes": {
      "general": {
        "name": "Conection_Test",
        "description": "Connection_Part_Of_test"
      }
    },
    "children":
    [ {
      "elementtyp": "0a98744d-baf5-4606-ad86-2097a93f188f",
      "parent": "61d54a09-3076-41f9-93e2-810cb3df99d0",
      "id": "c5ba93c2-ef80-451f-8104-aa58f8ef787a",
      "type": "Opening",
      "layerid": "0a98744d-baf5-4606-ad86-2097a93f188f",
      "attributes":
      {
        "general": {
          "name": "Hole_1"
        },
        "element": {
          "divisionid": "6a764b22-22dd-4cdb-83cc-33366ce8b4d3",
          "logparentid": "548126f3-d69e-485b-a8ba-8fc5a615ed1c",
          "matrix": {
            "Values": [1.0, 0.0, 0.0, 100.0, 0.0, 1.0, 0.0, 100.0, 0.0, 0.0, 1.0, 0.0, 0.0, 0.0, 0.0, 1.0]
          }
        },
        "geometry": {
          "csg": {
            "elements": [{
              "type": "Path",
              "crossSection": "RD8",
              "vectorX": [1.0, 0.0, 0.0],
              "vectorY": [0.0, 1.0, 0.0],
              "geometry": [{
                "geoType": "StartPolygon",
                "point": [0.0, 0.0, 2900.0]
              }, {
                "geoType": "Line",
                "point": [0.0, 0.0, 3200.0]
              }
            ]
          }
        },
        "color": 4286611584
      }
    },
    "elementstate": {
      "state": "0aaf5a1c-2453-40cb-9232-315119dd288f"
    }
  ]
},
],
}
```

Get the connection details

URL / Resource / JSON Structure

Resource: <team_slug>/connection/<connection_id>

URL: <https://api-stage.bimplus.net/v2/> <team_slug>/connection/<connection_id>

Example: <https://api.bimplus.net/v2/bimplus/connection/e5875246-7306-49b4-ab3a-30f014f01d3c>

HTTP Method

GET

Description

Get details of a specified connection

Request

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

Response

Status
Status: 200 OK

JSON

```
{
  "elements": [ "909ff986-f74e-44b5-bcf2-ec7b779e3011",
    "6b12bd40-a4c6-4eae-8a0b-b93592f71483"
  ],
  "connectionelement": {
    "elementtyp": "a48f8bcc-79c7-47ed-ab43-f8c7f0ddffdf",
    "id": "7470de4c-6893-4a2e-9c2c-60629e28ad93",
    "type": "ConnectionElement",
    "layerid": "72b7e0ba-aela-4a71-blec-ad8f553fb3bc",
    "attributes": {
      "producer data": {
        "product by company": null,
        "product name": null,
        "product description": null,
        "article number": null
      }
    }
  },
  "children": [ {
    "elementtyp": "0a98744d-baf5-4606-ad86-2097a93f188f",
    "id": "c5ba93c2-ef80-451f-8104-aa58f8ef787a",
    "parent": "7470de4c-6893-4a2e-9c2c-60629e28ad93",
    "type": "Opening",
    "layerid": "0a98744d-baf5-4606-ad86-2097a93f188f",
    "attributes": {
      "producer data": {
        "product by company": null,
        "product name": null,
        "product description": null,
        "article number": null
      }
    }
  },
    {
      "name": "Hole_1"
    }
  ],
  "name": "Conection_Test"
},
{id": "e5875246-7306-49b4-ab3a-30f014f01d3c"
}
```

Update the connection

URL / Resource / JSON Structure

Resource: <team_slug>/connection/<connection_id>

URL: [https://api-stage.bimplus.net/v2/ <team_slug>/connection/<connection_id>](https://api-stage.bimplus.net/v2/<team_slug>/connection/<connection_id>)

Example: <https://api.bimplus.net/v2/bimplus/connection/e5875246-7306-49b4-ab3a-30f014f01d3c>

HTTP Method

PUT

Description

Updates specified connection in bimplus database.
JSON structure is the same as is defined in 'Create a new connection in Bimplus DB'

Request

Headers

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

JSON

```
{
  "elements":["909ff986-f74e-44b5-bcf2-ec7b779e3011",
    "6b12bd40-a4c6-4eae-8a0b-b93592f71483"
  ],
  "ConnectionElement":{
    "elementtyp":"a48f8bcc-79c7-47ed-ab43-f8c7f0ddffdf",
    "type":"ConnectionElement",
    "layerid":"72b7e0ba-ae1a-4a71-b1ec-ad8f553fb3bc",
    "attributes":{
      "general":{
        "name":"Update_Test",
        "description":"Connection_Part_Of_test"
      }
    }
  },
  "children":[{
    "elementtyp":"0a98744d-baf5-4606-ad86-2097a93f188f",
    "parent":"61d54a09-3076-41f9-93e2-810cb3df99d0",
    "type":"Opening",
    "layerid":"0a98744d-baf5-4606-ad86-2097a93f188f",
    "attributes":{
      "general":{
        "name":"Update_Hole_1"
      }
    },
    "element":{
      "divisionid":"6a764b22-22dd-4cdb-83cc-33366ce8b4d3",
      "logparentid":"548126f3-d69e-485b-a8ba-8fc5a615ed1c",
      "matrix":{
        "Values":[1, 0, 0, 200,
                  0, 1, 0, 200,
                  0, 0, 1, 0,
                  0, 0, 0, 1 ]
      }
    }
  },
  "geometry":{
    "csg":{
      "elements":[{
        "type":"Path",
        "crossSection":"RD8",
        "vectorX":[1, 0, 0 ],
        "vectorY":[0, 1, 0 ],
        "geometry":[{
          "geoType":"StartPolygon",
          "point":[0, 0, 2900 ]
        },
        {
          "geoType":"Line",
          "point":[0, 0, 3200 ]
        }
      ]
    }
  },
  "color":4286611584
}
```

Response

Status

Status: 200 Ok

JSON

```
{
  "elements":["909ff986-f74e-44b5-bcf2-ec7b779e3011",
    "6b12bd40-a4c6-4eae-8a0b-b93592f71483"
  ],
  "connectionelement":{
    "elementtyp":"a48f8bcc-79c7-47ed-ab43-f8c7f0ddffdf",
    "id":"7470de4c-6893-4a2e-9c2c-60629e28ad93",
    "parent":"61d54a09-3076-41f9-93e2-810cb3df99d0",
    "type":"ConnectionElement",
    "layerid":"72b7e0ba-ae1a-4a71-b1ec-ad8f553fb3bc",
    "attributes":{
      "general":{
        "name":"Update_Test",
        "description":"Connection_Part_Of_test"
      },
      "element":{
        "divisionid":"6a764b22-22dd-4cdb-83cc-33366ce8b4d3",
        "logparentid":"548126f3-d69e-485b-a8ba-8fc5a615ed1c"
      },
      "elementstate":{
        "state":"0aaf5a1c-2453-40cb-9232-315119dd288f"
      }
    },
    "children":[{
      "elementtyp":"0a98744d-baf5-4606-ad86-2097a93f188f",
      "id":"66b5ac4c-62f1-4af2-b304-acc4da903d15",
      "parent":"7470de4c-6893-4a2e-9c2c-60629e28ad93",
      "type":"Opening",
      "layerid":"0a98744d-baf5-4606-ad86-2097a93f188f",
      "attributes":{
        "general":{
          "name":"Update_Hole_1"
        },
        "element":{
          "divisionid":"6a764b22-22dd-4cdb-83cc-33366ce8b4d3",
          "logparentid":"548126f3-d69e-485b-a8ba-8fc5a615ed1c",
          "matrix":{
            "Values":[1, 0, 0, 200,
              0, 1, 0, 200,
              0, 0, 1, 0,
              0, 0, 0, 1 ]
          }
        },
        "geometry":{
          "csg":{
            "elements":[{
              "type":"Path",
              "crossSection":"RD8",
              "vectorX":[1, 0, 0 ],
              "vectorY":[0, 1, 0 ],
              "geometry":[{
                "geoType":"StartPolygon",
                "point":[0, 0, 2900 ]
              },
              {
                "geoType":"Line",
                "point":[0, 0, 3200 ]
              }
            ]
          }
        },
        "color":4286611584
      }
    ]
  }
```

```
    },
    },
    "elementstate": {
      "state": "0aaf5a1c-2453-40cb-9232-315119dd288f"
    }
  }
]
},
" id": "e5875246-7306-49b4-ab3a-30f014f01d3c"
}
```

Delete the connection

URL / Resource / JSON Structure

Resource: <team_slug>/connection/<connection_id>

URL: [https://api-stage.bimplus.net/v2/ <team_slug>/connection/<connection_id>](https://api-stage.bimplus.net/v2/<team_slug>/connection/<connection_id>)

Example: <https://api.bimplus.net/v2/bimplus/connection/e5875246-7306-49b4-ab3a-30f014f01d3c>

HTTP Method

DELETE

Description

Deletes a specified connection from bimplus database.

Request

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

Response

Status
Status: 200 Ok