

API Reference

# Costos Rest API

API Version: 1.0.0

# INDEX

<b>1. ASSEMBLY</b>	<b>6</b>
1.1 GET /rest/assembly/partialSearchAssembly	6
1.2 GET /rest/assembly/findSortAssembliesByQuery	9
1.3 GET /rest/assembly/getAssemblyCount	11
1.4 GET /rest/assembly/findAssembliesByQuery	11
1.5 GET /rest/assembly/getGenerationOutputCount	14
1.6 GET /rest/assembly/loadGenerationItem	14
1.7 GET /rest/assembly/getAvailableVariables	20
1.8 GET /rest/assembly/getAssemblyArgumentCount	20
1.9 GET /rest/assembly/loadResourceQuery	20
1.10 GET /rest/assembly/loadConceptualResource	23
1.11 GET /rest/assembly/partialFilterAssembly	30
1.12 GET /rest/assembly/loadArgument	33
1.13 GET /rest/assembly/loadAssemblies	37
1.14 GET /rest/assembly/loadAssembly	39
<b>2. CONSUMABLE</b>	<b>43</b>
2.1 GET /rest/consumable/loadConsumables	43
2.2 GET /rest/consumable/loadConsumable	45
2.3 GET /rest/consumable/getConsumableCount	47
2.4 GET /rest/consumable/partialSearchConsumables	47
<b>3. EQUIPMENT</b>	<b>50</b>
3.1 GET /rest/equipment/loadEquipments	50
3.2 GET /rest/equipment/loadEquipment	52
3.3 GET /rest/equipment/partialSearchEquipment	54
3.4 GET /rest/equipment/getEquipmentCount	57
<b>4. GROUPCODE1</b>	<b>58</b>
4.1 GET /rest/groupcode1/getCount	58
4.2 GET /rest/groupcode1/loadGroupCodes	58
4.3 GET /rest/groupcode1/loadGroupCode	59
4.4 GET /rest/groupcode1/searchGroupCodes	59
<b>5. GROUPCODE2</b>	<b>61</b>
5.1 GET /rest/groupcode2/loadGroupCode	61
5.2 GET /rest/groupcode2/loadGroupCodes	61
5.3 GET /rest/groupcode2/getCount	62
5.4 GET /rest/groupcode2/searchGroupCodes	62
5.5 GET /rest/groupcode2/getLastUpdate	63
<b>6. GROUPCODE3</b>	<b>64</b>
6.1 GET /rest/groupcode3/getCount	64
6.2 GET /rest/groupcode3/getLastUpdate	64

6.3	GET /rest/groupcode3/loadGroupCodes	64
6.4	GET /rest/groupcode3/loadGroupCode	65
6.5	GET /rest/groupcode3/searchGroupCodes	66
<b>7.</b>	<b>GROUPCODE4</b>	<b>67</b>
7.1	GET /rest/groupcode4/getCount	67
7.2	GET /rest/groupcode4/getLastUpdate	67
7.3	GET /rest/groupcode4/loadGroupCodes	67
7.4	GET /rest/groupcode4/loadGroupCode	68
7.5	GET /rest/groupcode4/searchGroupCodes	69
<b>8.</b>	<b>GROUPCODE5</b>	<b>70</b>
8.1	GET /rest/groupcode5/getCount	70
8.2	GET /rest/groupcode5/getLastUpdate	70
8.3	GET /rest/groupcode5/loadGroupCodes	70
8.4	GET /rest/groupcode5/loadGroupCode	71
8.5	GET /rest/groupcode5/searchGroupCodes	72
<b>9.</b>	<b>GROUPCODE6</b>	<b>73</b>
9.1	GET /rest/groupcode6/getCount	73
9.2	GET /rest/groupcode6/getLastUpdate	73
9.3	GET /rest/groupcode6/loadGroupCodes	73
9.4	GET /rest/groupcode6/loadGroupCode	74
9.5	GET /rest/groupcode6/searchGroupCodes	75
<b>10.</b>	<b>GROUPCODE7</b>	<b>76</b>
10.1	GET /rest/groupcode7/getCount	76
10.2	GET /rest/groupcode7/getLastUpdate	76
10.3	GET /rest/groupcode7/loadGroupCodes	76
10.4	GET /rest/groupcode7/loadGroupCode	77
10.5	GET /rest/groupcode7/searchGroupCodes	78
<b>11.</b>	<b>GROUPCODE8</b>	<b>79</b>
11.1	GET /rest/groupcode8/getCount	79
11.2	GET /rest/groupcode8/getLastUpdate	79
11.3	GET /rest/groupcode8/loadGroupCodes	79
11.4	GET /rest/groupcode8/loadGroupCode	80
11.5	GET /rest/groupcode8/searchGroupCodes	81
<b>12.</b>	<b>GROUPCODE9</b>	<b>82</b>
12.1	GET /rest/groupcode9/getCount	82
12.2	GET /rest/groupcode9/getLastUpdate	82
12.3	GET /rest/groupcode9/loadGroupCodes	82
12.4	GET /rest/groupcode9/loadGroupCode	83
12.5	GET /rest/groupcode9/searchGroupCodes	84

<b>13. LABOR</b>	<b>85</b>
13.1 GET /rest/labor/partialSearchLabor	85
13.2 GET /rest/labor/getLaborCount	87
13.3 GET /rest/labor/loadLabors	87
13.4 GET /rest/labor/loadLabor	90
<b>14. LINEITEM</b>	<b>93</b>
14.1 GET /rest/lineitem/loadLineItems	93
14.2 GET /rest/lineitem/loadLineItem	98
14.3 GET /rest/lineitem/getLineItemCount	103
14.4 GET /rest/lineitem/loadLineItemEquipment	103
14.5 GET /rest/lineitem/partialSearchLineItems	114
14.6 GET /rest/lineitem/loadLineItemSubcontractor	120
14.7 GET /rest/lineitem/loadLineItemLabor	131
14.8 GET /rest/lineitem/loadLineItemLineItem	135
14.9 GET /rest/lineitem/loadLineItemMaterial	149
14.10 GET /rest/lineitem/loadLineItemConsumable	164
<b>15. MATERIAL</b>	<b>175</b>
15.1 GET /rest/material/partialSearchMaterials	175
15.2 GET /rest/material/loadMaterial	175
15.3 GET /rest/material/getMaterialCount	182
15.4 GET /rest/material/loadMaterials	182
<b>16. SUBCONTRACTOR</b>	<b>190</b>
16.1 GET /rest/subcontractor/loadSubcontractor	190
16.2 GET /rest/subcontractor/partialSearchSubcontractor	192
16.3 GET /rest/subcontractor/loadSubcontractors	195
16.4 GET /rest/subcontractor/getSubcontractorCount	197
<b>17. SUPPLIER</b>	<b>199</b>
17.1 GET /rest/supplier/loadSupplier	199
17.2 GET /rest/supplier/loadSuppliers	201
17.3 GET /rest/supplier/getSupplierCount	203
17.4 GET /rest/supplier/partialSearchSupplier	203

# Security and Authentication

## SECURITY SCHEMES

KEY	TYPE	DESCRIPTION
basicAuth	http, basic	

# API

## 1. ASSEMBLY

### 1.1 GET /rest/assembly/partialSearchAssembly

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	
databases	array of string	

#### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
{
  resultSize          integer
  partialSize        integer
  partialStart       integer
  pageSize           integer
  sortByField        string
  ascending          boolean
  query              string
  queryType          string
  seconds            number
  partialResult [ {
    Array of object:
      paramitemId    integer
      description     string
      variable        string
      title           string
      groupCode       string
      gekCode         string
      editorId       string
      notes           string
      lastUpdate      string
      unit            string
      sampleRate      number
      password        string
      serialNumber    string
      protectionType  string
      extraCode1      string
      extraCode2      string
      extraCode3      string
      extraCode4      string
  }
```

```

extraCode5          string
extraCode6          string
extraCode7          string
extraCode8          string
extraCode9          string
extraCode10         string
wbsCode             string
wbs2Code            string
location            string
icon                string
costModel           boolean
groupName           string
createUserId        string
createDate          string
quantity            number
multUnitQty         boolean
inputSet            [{recursive}] ParamItemInputTable
outputSet           [{recursive}] ParamItemOutputTable
returnSet [{
Array of object:
    paramReturnId  integer
    returnEquation string
    projectId       integer
}]
boqItemSet          [{recursive}] BoqItemTable
conditionSet        [{recursive}] ParamItemConditionTable
totalCost           number
parentBoqItem       {recursive} BoqItemTable
mediaLibraryIcon {
    id              string
    name            string
    tag             string
    type            integer
    mediaBlob       [string]
    creationDate    string
    updateDate      string
    userId          string
    projectId       integer
    fileSize        integer
    dimensionX      integer
    dimensionY      integer
}
accessRights        string
keywords            string
itemCode            string
titleFormula        string
groupIdentifier     string
wasExploded         boolean
databaseId          integer
databaseCreationDate integer
globalId            integer
projectId           integer
id                  integer
resourceAssignmentsList [{
Array of object:
}]
variable_sorted     string

```

```

orderedResourceAssignmentsList [{
  Array of object:
}]
productivity          number
project               string
reference              boolean
writeProtected        boolean
tableRate             number
virtual               boolean
predicted              boolean
unit_sorted           string
notes_sorted          string
title_sorted          string
createUserId_sorted  string
createDate_sorted    string
description_sorted    string
extraCode1_sorted    string
extraCode4_sorted    string
boqItemAssignments  [{
  Array of object:
}]
extraCode8_sorted    string
gekCode_sorted       string
extraCode9_sorted    string
editorId_sorted      string
groupCode_sorted     string
lastUpdate_sorted    string
extraCode6_sorted    string
extraCode10_sorted   string
extraCode5_sorted    string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted    string
extraCode2_sorted    string
extraCode3_sorted    string
activityBased        boolean
timeUnit              string
country               string
currency              string
conceptual            boolean
co2Rate               number
totalRate             number
quoted                boolean
overrideType          integer
buildUpRate           number
fixedCost             number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation   number
}]
result [{
  Array of object:
}]

```



```
}
```

## 1.2 GET /rest/assembly/findSortAssembliesByQuery

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
query	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
[{
```

Array of object:

```
  paramitemId      integer
  description      string
  variable         string
  title           string
  groupCode       string
  gekCode         string
  editorId        string
  notes           string
  lastUpdate      string
  unit            string
  sampleRate      number
  password        string
  serialNumber    string
  protectionType  string
  extraCode1      string
  extraCode2      string
  extraCode3      string
  extraCode4      string
  extraCode5      string
  extraCode6      string
  extraCode7      string
  extraCode8      string
  extraCode9      string
  extraCode10     string
  wbsCode         string
  wbs2Code        string
  location        string
  icon            string
  costModel       boolean
  groupName       string
  createUserId    string
  createDate      string
  quantity        number
  multUnitQty     boolean
```

```

inputSet                [{recursive}] ParamItemInputTable
outputSet               [{recursive}] ParamItemOutputTable
returnSet [{
  Array of object:
    paramReturnId  integer
    returnEquation string
    projectId      integer
  }]
boqItemSet             [{recursive}] BoqItemTable
conditionSet          [{recursive}] ParamItemConditionTable
totalCost              number
parentBoqItem         {recursive}   BoqItemTable
mediaLibraryIcon {
  id                string
  name              string
  tag               string
  type              integer
  mediaBlob         [string]
  creationDate     string
  updateDate       string
  userId           string
  projectId        integer
  fileSize         integer
  dimensionX       integer
  dimensionY       integer
}
accessRights          string
keywords              string
itemCode              string
titleFormula          string
groupIdentifier       string
wasExploded           boolean
databaseId            integer
databaseCreationDate integer
globalId              integer
projectId             integer
id                   integer
resourceAssignmentsList [{
  Array of object:
}]
variable_sorted      string
orderedResourceAssignmentsList [{
  Array of object:
}]
productivity         number
project              string
reference             boolean
writeProtected       boolean
tableRate            number
virtual              boolean
predicted             boolean
unit_sorted          string
notes_sorted         string
title_sorted         string
createUserId_sorted string
createDate_sorted   string
description_sorted   string

```

```

extraCode1_sorted    string
extraCode4_sorted    string
boqItemAssignments  [{
  Array of object:
}]
extraCode8_sorted    string
gekCode_sorted       string
extraCode9_sorted    string
editorId_sorted      string
groupCode_sorted     string
lastUpdate_sorted    string
extraCode6_sorted    string
extraCode10_sorted   string
extraCode5_sorted    string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted    string
extraCode2_sorted    string
extraCode3_sorted    string
activityBased        boolean
timeUnit             string
country              string
currency             string
conceptual           boolean
co2Rate              number
totalRate            number
quoted               boolean
overrideType         integer
buildUpRate          number
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation   number
}]

```

---

### 1.3 GET /rest/assembly/getAssemblyCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 1.4 GET /rest/assembly/findAssembliesByQuery

#### REQUEST

## QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
query	string	
maxResults	int32	

## RESPONSE

STATUS CODE - default: default response

### RESPONSE MODEL - application/json

```
[{
```

Array of object:

```
  paramItemId      integer
  description      string
  variable         string
  title           string
  groupCode       string
  gekCode         string
  editorId        string
  notes          string
  lastUpdate      string
  unit            string
  sampleRate      number
  password        string
  serialNumber    string
  protectionType  string
  extraCode1      string
  extraCode2      string
  extraCode3      string
  extraCode4      string
  extraCode5      string
  extraCode6      string
  extraCode7      string
  extraCode8      string
  extraCode9      string
  extraCode10     string
  wbsCode         string
  wbs2Code        string
  location        string
  icon            string
  costModel       boolean
  groupName       string
  createUserId    string
  createDate      string
  quantity        number
  multUnitQty     boolean
  inputSet        [{recursive}] ParamItemInputTable
  outputSet       [{recursive}] ParamItemOutputTable
  returnSet [ {
    Array of object:
      paramReturnId integer
      returnEquation string
      projectId      integer
    }
  ]
  boqItemSet      [{recursive}] BoqItemTable
```

```

conditionSet          [{recursive}] ParamItemConditionTable
totalCost             number
parentBoqItem        {recursive}   BoqItemTable
mediaLibraryIcon {
  id                 string
  name               string
  tag                string
  type               integer
  mediaBlob          [string]
  creationDate       string
  updateDate         string
  userId             string
  projectId          integer
  fileSize           integer
  dimensionX         integer
  dimensionY         integer
}
accessRights          string
keywords              string
itemCode              string
titleFormula          string
groupIdentifier       string
wasExploded           boolean
databaseId            integer
databaseCreationDate integer
globalId              integer
projectId             integer
id                   integer
resourceAssignmentsList [{
Array of object:
}]
variable_sorted      string
orderedResourceAssignmentsList [{
Array of object:
}]
productivity         number
project              string
reference             boolean
writeProtected       boolean
tableRate            number
virtual              boolean
predicted             boolean
unit_sorted          string
notes_sorted         string
title_sorted         string
createUserId_sorted  string
createDate_sorted    string
description_sorted   string
extraCode1_sorted   string
extraCode4_sorted    string
boqItemAssignments [{
Array of object:
}]
extraCode8_sorted    string
gekCode_sorted       string
extraCode9_sorted    string
editorId_sorted      string

```

```

groupCode_sorted      string
lastUpdate_sorted    string
extraCode6_sorted     string
extraCode10_sorted   string
extraCode5_sorted     string
assemblyAssignments  [{
  Array of object:
}]
extraCode7_sorted     string
extraCode2_sorted     string
extraCode3_sorted     string
activityBased         boolean
timeUnit              string
country              string
currency             string
conceptual            boolean
co2Rate              number
totalRate            number
quoted               boolean
overrideType         integer
buildUpRate          number
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation   number
}]

```

## 1.5 GET /rest/assembly/getGenerationOutputCount

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

integer

## 1.6 GET /rest/assembly/loadGenerationItem

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

## RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
{
  paramOutputId          integer
  quantityEquation       string
  factorEquation          string
  labLocEquation          string
  matLocEquation          string
  equLocEquation          string
  subLocEquation          string
  conLocEquation          string
  generationCondition     string
  title                   string
  productivityEquation     string
  sortOrder               integer
  loopVar                  string
  resourceIds              string
  paramItemTable {
    paramItemId           integer
    description            string
    variable               string
    title                  string
    groupCode              string
    gekCode                string
    editorId               string
    notes                   string
    lastUpdate             string
    unit                    string
    sampleRate              number
    password                string
    serialNumber            string
    protectionType          string
    extraCode1              string
    extraCode2              string
    extraCode3              string
    extraCode4              string
    extraCode5              string
    extraCode6              string
    extraCode7              string
    extraCode8              string
    extraCode9              string
    extraCode10             string
    wbsCode                 string
    wbs2Code                string
    location                string
    icon                    string
    costModel               boolean
    groupName               string
    createUserId            string
    createDate              string
    quantity                number
    multUnitQty             boolean
    inputSet                 [{recursive}] ParamItemInputTable
    outputSet                [{recursive}] ParamItemOutputTable
  }
}
```

```

returnSet [{
Array of object:
    paramReturnId    integer
    returnEquation   string
    projectId        integer
}]
boqItemSet          [{recursive}] BoqItemTable
conditionSet        [{recursive}] ParamItemConditionTable
totalCost           number
parentBoqItem       {recursive}   BoqItemTable
mediaLibraryIcon {
    id                string
    name              string
    tag               string
    type              integer
    mediaBlob         [string]
    creationDate      string
    updateDate        string
    userId            string
    projectId         integer
    fileSize          integer
    dimensionX        integer
    dimensionY        integer
}
accessRights        string
keywords            string
itemCode            string
titleFormula        string
groupIdentifier     string
wasExploded         boolean
databaseId          integer
databaseCreationDate integer
globalId            integer
projectId           integer
id                  integer
resourceAssignmentsList [{
Array of object:
}]
variable_sorted     string
orderedResourceAssignmentsList [{
Array of object:
}]
productivity        number
project             string
reference            boolean
writeProtected      boolean
tableRate           number
virtual             boolean
predicted            boolean
unit_sorted         string
notes_sorted        string
title_sorted        string
createUserId_sorted string
createDate_sorted  string
description_sorted  string
extraCode1_sorted  string
extraCode4_sorted  string

```



```

boqItemAssignments [{
  Array of object:
}]
extraCode8_sorted      string
gekCode_sorted         string
extraCode9_sorted      string
editorId_sorted        string
groupCode_sorted       string
lastUpdate_sorted      string
extraCode6_sorted      string
extraCode10_sorted     string
extraCode5_sorted      string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted      string
extraCode2_sorted      string
extraCode3_sorted      string
activityBased          boolean
timeUnit               string
country                string
currency                string
conceptual              boolean
co2Rate                number
totalRate              number
quoted                 boolean
overrideType           integer
buildUpRate            number
fixedCost              number
timeBasedResource      boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable  boolean
rateForCalculation    number
}
conceptualSet          [{recursive}] ParamItemConceptualResourceTable
queryResourceSet [{
  Array of object:
  id                   integer
  title                string
  jsonUrl              string
  resourceType         string
  orderField           string
  ascending            boolean
  singleSelection      boolean
  titleEquation        string
  estimatedQuantityEquation string
  descriptionEquation  string
  notesEquation        string
  paymentDateEquation  string
  productivityEquation  string
  prodFactorEquation   string
  wbsCodeEquation      string
  wbs2CodeEquation     string
  locationEquation     string
  publishedItemCodeEquation string

```

groupCodeEquation	string
gekCodeEquation	string
extraCode1Equation	string
extraCode2Equation	string
extraCode3Equation	string
extraCode4Equation	string
extraCode5Equation	string
extraCode6Equation	string
extraCode7Equation	string
customText1Equation	string
customText2Equation	string
customText3Equation	string
customText4Equation	string
customText5Equation	string
customText6Equation	string
customText7Equation	string
customText8Equation	string
customText9Equation	string
customText10Equation	string
customText11Equation	string
customText12Equation	string
customText13Equation	string
customText14Equation	string
customText15Equation	string
customText16Equation	string
customText17Equation	string
customText18Equation	string
customText19Equation	string
customText20Equation	string
customText21Equation	string
customText22Equation	string
customText23Equation	string
customText24Equation	string
customText25Equation	string
customText26Equation	string
customRate1Equation	string
customRate2Equation	string
customRate3Equation	string
customRate4Equation	string
customRate5Equation	string
customRate6Equation	string
customRate7Equation	string
customRate8Equation	string
customRate9Equation	string
customRate10Equation	string
customRate11Equation	string
customRate12Equation	string
customRate13Equation	string
customRate14Equation	string
customRate15Equation	string
customRate16Equation	string
customRate17Equation	string
customRate18Equation	string
customRate19Equation	string
customRate20Equation	string
customCumRate1Equation	string
customCumRate2Equation	string

```

    customCumRate3Equation      string
    customCumRate4Equation      string
    customCumRate5Equation      string
    customCumRate6Equation      string
    customCumRate7Equation      string
    customCumRate8Equation      string
    customCumRate9Equation      string
    customCumRate10Equation     string
    customCumRate11Equation     string
    customCumRate12Equation     string
    customCumRate13Equation     string
    customCumRate14Equation     string
    customCumRate15Equation     string
    customCumRate16Equation     string
    customCumRate17Equation     string
    customCumRate18Equation     string
    customCumRate19Equation     string
    customCumRate20Equation     string
    customPercentRate1Equation  string
    customPercentRate2Equation  string
    customPercentRate3Equation  string
    customPercentRate4Equation  string
    customPercentRate5Equation  string
    customPercentRate6Equation  string
    customPercentRate7Equation  string
    customPercentRate8Equation  string
    customPercentRate9Equation  string
    customPercentRate10Equation string
    executionType               integer
    type                         integer
    paramItemOutputTable       {recursive} ParamItemOutputTable
    queryRowList [{
      Array of object:
        id                       integer
        fieldName                 string
        ruleName                  string
        type                      string
        condition                 string
        queryResourceTable       {recursive} ParamItemQueryResourceTable
        projectId                 integer
        data                      {recursive} ParamItemQueryRowTable
    }]
    projectId                    integer
    data                         {recursive} ParamItemQueryResourceTable
    lastUpdate                   string
    tableRate                    number
  }]
projectId                       integer
id                               integer
description                     string
data                            {recursive} ParamItemOutputTable
lastUpdate                      string
tableRate                       number
editorId                        string
createDate                      string
createUserId                    string
}

```

---

## 1.7 GET /rest/assembly/getAvailableVariables

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
assemblyIds	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[string]
```

---

## 1.8 GET /rest/assembly/getAssemblyArgumentCount

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
integer
```

---

## 1.9 GET /rest/assembly/loadResourceQuery

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
{
  id           integer
  title        string
  jsonUrl      string
}
```

resourceType	string
orderField	string
ascending	boolean
singleSelection	boolean
titleEquation	string
estimatedQuantityEquation	string
descriptionEquation	string
notesEquation	string
paymentDateEquation	string
productivityEquation	string
prodFactorEquation	string
wbsCodeEquation	string
wbs2CodeEquation	string
locationEquation	string
publishedItemCodeEquation	string
groupCodeEquation	string
gekCodeEquation	string
extraCode1Equation	string
extraCode2Equation	string
extraCode3Equation	string
extraCode4Equation	string
extraCode5Equation	string
extraCode6Equation	string
extraCode7Equation	string
customText1Equation	string
customText2Equation	string
customText3Equation	string
customText4Equation	string
customText5Equation	string
customText6Equation	string
customText7Equation	string
customText8Equation	string
customText9Equation	string
customText10Equation	string
customText11Equation	string
customText12Equation	string
customText13Equation	string
customText14Equation	string
customText15Equation	string
customText16Equation	string
customText17Equation	string
customText18Equation	string
customText19Equation	string
customText20Equation	string
customText21Equation	string
customText22Equation	string
customText23Equation	string
customText24Equation	string
customText25Equation	string
customText26Equation	string
customRate1Equation	string
customRate2Equation	string
customRate3Equation	string
customRate4Equation	string
customRate5Equation	string
customRate6Equation	string
customRate7Equation	string

```

customRate8Equation      string
customRate9Equation      string
customRate10Equation     string
customRate11Equation     string
customRate12Equation     string
customRate13Equation     string
customRate14Equation     string
customRate15Equation     string
customRate16Equation     string
customRate17Equation     string
customRate18Equation     string
customRate19Equation     string
customRate20Equation     string
customCumRate1Equation   string
customCumRate2Equation   string
customCumRate3Equation   string
customCumRate4Equation   string
customCumRate5Equation   string
customCumRate6Equation   string
customCumRate7Equation   string
customCumRate8Equation   string
customCumRate9Equation   string
customCumRate10Equation  string
customCumRate11Equation  string
customCumRate12Equation  string
customCumRate13Equation  string
customCumRate14Equation  string
customCumRate15Equation  string
customCumRate16Equation  string
customCumRate17Equation  string
customCumRate18Equation  string
customCumRate19Equation  string
customCumRate20Equation  string
customPercentRate1Equation string
customPercentRate2Equation string
customPercentRate3Equation string
customPercentRate4Equation string
customPercentRate5Equation string
customPercentRate6Equation string
customPercentRate7Equation string
customPercentRate8Equation string
customPercentRate9Equation string
customPercentRate10Equation string
executionType            integer
type                      integer
paramItemOutputTable     {recursive} ParamItemOutputTable
queryRowList [{
Array of object:
    id                    integer
    fieldName              string
    ruleName               string
    type                   string
    condition              string
    queryResourceTable     {recursive} ParamItemQueryResourceTable
    projectId              integer
    data                   {recursive} ParamItemQueryRowTable
}]

```

```

    projectId          integer
    data               {recursive} ParamItemQueryResourceTable
    lastUpdate         string
    tableRate          number
}

```

## 1.10 GET /rest/assembly/loadConceptualResource

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```

{
  conceptualId      integer
  title             string
  currency          string
  unit              string
  materialUnitRate  string
  materialFabricationRate string
  materialShipmentRate string
  subcontractorRate string
  subcontractorIKA  string
  crewIds           string
  crewFactors       string
  itemCodeConcatenation string
  titleConcatenation string
  notesConcatenation string
  descriptionConcatenation string
  weightUnit        string
  weight            string
  volFlow           string
  volFlowUnit       string
  massFlow          string
  massFlowUnit      string
  duty              string
  dutyUnit          string
  operPress         string
  operPressUnit     string
  operTemp          string
  operTempUnit      string
  wbsCode           string
  wbs2Code          string
  groupCode         string
  gekCode           string
  extraCode1        string
  extraCode2        string
  extraCode3        string
}

```

```

extraCode4          string
extraCode5          string
extraCode6          string
extraCode7          string
rawMaterial1        string
rawMaterial2        string
rawMaterial3        string
rawMaterial4        string
rawMaterial5        string
reliance1           number
reliance2           number
reliance3           number
reliance4           number
reliance5           number
refDate             string
paramItemOutputTable {
  paramOutputId      integer
  quantityEquation   string
  factorEquation     string
  labLocEquation     string
  matLocEquation     string
  equLocEquation     string
  subLocEquation     string
  conLocEquation     string
  generationCondition string
  title              string
  productivityEquation string
  sortOrder          integer
  loopVar            string
  resourceIds        string
  paramItemTable {
    paramitemId      integer
    description       string
    variable          string
    title             string
    groupCode         string
    gekCode           string
    editorId          string
    notes             string
    lastUpdate        string
    unit              string
    sampleRate        number
    password          string
    serialNumber      string
    protectionType    string
    extraCode1        string
    extraCode2        string
    extraCode3        string
    extraCode4        string
    extraCode5        string
    extraCode6        string
    extraCode7        string
    extraCode8        string
    extraCode9        string
    extraCode10       string
    wbsCode           string
    wbs2Code          string
  }
}

```



```

location          string
icon              string
costModel         boolean
groupName         string
createUserId      string
createDate        string
quantity          number
multUnitQty       boolean
inputSet          [{recursive}] ParamItemInputTable
outputSet         [{recursive}] ParamItemOutputTable
returnSet [{
Array of object:
    paramReturnId integer
    returnEquation string
    projectId      integer
}]
boqItemSet        [{recursive}] BoqItemTable
conditionSet      [{recursive}] ParamItemConditionTable
totalCost         number
parentBoqItem     {recursive}   BoqItemTable
mediaLibraryIcon {
    id             string
    name           string
    tag            string
    type           integer
    mediaBlob      [string]
    creationDate   string
    updateDate     string
    userId         string
    projectId      integer
    fileSize       integer
    dimensionX     integer
    dimensionY     integer
}
accessRights      string
keywords          string
itemCode          string
titleFormula      string
groupIdentifier   string
wasExploded       boolean
databaseId        integer
databaseCreationDate integer
globalId          integer
projectId         integer
id               integer
resourceAssignmentsList [{
Array of object:
}]
variable_sorted   string
orderedResourceAssignmentsList [{
Array of object:
}]
productivity      number
project           string
reference         boolean
writeProtected    boolean
tableRate         number

```

```

virtual                boolean
predicted              boolean
unit_sorted           string
notes_sorted          string
title_sorted          string
createUserId_sorted   string
createDate_sorted     string
description_sorted    string
extraCode1_sorted     string
extraCode4_sorted     string
boqItemAssignments [{
  Array of object:
}]
extraCode8_sorted     string
gekCode_sorted        string
extraCode9_sorted     string
editorId_sorted       string
groupCode_sorted      string
lastUpdate_sorted    string
extraCode6_sorted     string
extraCode10_sorted    string
extraCode5_sorted     string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted     string
extraCode2_sorted     string
extraCode3_sorted     string
activityBased         boolean
timeUnit              string
country               string
currency              string
conceptual            boolean
co2Rate               number
totalRate             number
quoted                boolean
overrideType          integer
buildUpRate           number
fixedCost             number
timeBasedResource     boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation   number
}
conceptualSet         [{recursive}] ParamItemConceptualResourceTable
queryResourceSet [{
  Array of object:
    id                integer
    title              string
    jsonUrl            string
    resourceType       string
    orderField         string
    ascending          boolean
    singleSelection    boolean
    titleEquation      string

```

estimatedQuantityEquation	string
descriptionEquation	string
notesEquation	string
paymentDateEquation	string
productivityEquation	string
prodFactorEquation	string
wbsCodeEquation	string
wbs2CodeEquation	string
locationEquation	string
publishedItemCodeEquation	string
groupCodeEquation	string
gekCodeEquation	string
extraCode1Equation	string
extraCode2Equation	string
extraCode3Equation	string
extraCode4Equation	string
extraCode5Equation	string
extraCode6Equation	string
extraCode7Equation	string
customText1Equation	string
customText2Equation	string
customText3Equation	string
customText4Equation	string
customText5Equation	string
customText6Equation	string
customText7Equation	string
customText8Equation	string
customText9Equation	string
customText10Equation	string
customText11Equation	string
customText12Equation	string
customText13Equation	string
customText14Equation	string
customText15Equation	string
customText16Equation	string
customText17Equation	string
customText18Equation	string
customText19Equation	string
customText20Equation	string
customText21Equation	string
customText22Equation	string
customText23Equation	string
customText24Equation	string
customText25Equation	string
customText26Equation	string
customRate1Equation	string
customRate2Equation	string
customRate3Equation	string
customRate4Equation	string
customRate5Equation	string
customRate6Equation	string
customRate7Equation	string
customRate8Equation	string
customRate9Equation	string
customRate10Equation	string
customRate11Equation	string
customRate12Equation	string

```

customRate13Equation      string
customRate14Equation      string
customRate15Equation      string
customRate16Equation      string
customRate17Equation      string
customRate18Equation      string
customRate19Equation      string
customRate20Equation      string
customCumRate1Equation    string
customCumRate2Equation    string
customCumRate3Equation    string
customCumRate4Equation    string
customCumRate5Equation    string
customCumRate6Equation    string
customCumRate7Equation    string
customCumRate8Equation    string
customCumRate9Equation    string
customCumRate10Equation   string
customCumRate11Equation   string
customCumRate12Equation   string
customCumRate13Equation   string
customCumRate14Equation   string
customCumRate15Equation   string
customCumRate16Equation   string
customCumRate17Equation   string
customCumRate18Equation   string
customCumRate19Equation   string
customCumRate20Equation   string
customPercentRate1Equation string
customPercentRate2Equation string
customPercentRate3Equation string
customPercentRate4Equation string
customPercentRate5Equation string
customPercentRate6Equation string
customPercentRate7Equation string
customPercentRate8Equation string
customPercentRate9Equation string
customPercentRate10Equation string
executionType             integer
type                       integer
paramItemOutputTable      {recursive} ParamItemOutputTable
queryRowList [{
Array of object:
    id                       integer
    fieldName                 string
    ruleName                  string
    type                      string
    condition                 string
    queryResourceTable        {recursive} ParamItemQueryResourceTable
    projectId                 integer
    data                      {recursive} ParamItemQueryRowTable
}]
projectId                  integer
data                      {recursive} ParamItemQueryResourceTable
lastUpdate                 string
tableRate                  number
}]

```

projectId	integer	
id	integer	
description	string	
data	{recursive}	ParamItemOutputTable
lastUpdate	string	
tableRate	number	
editorId	string	
createDate	string	
createUserId	string	
}		
laborRate	string	
laborIKA	string	
consumableRate	string	
equipmentReservationRate	string	
equipmentLubricatesRate	string	
equipmentTiresRate	string	
equipmentSparePartsRate	string	
equipmentDepreciationRate	string	
equipmentFuelRate	string	
equipmentFuelConsumption	string	
equipmentLubricatesConsumption	string	
equipmentFuelType	string	
customText1Equation	string	
customText2Equation	string	
customText3Equation	string	
customText4Equation	string	
customText5Equation	string	
customText6Equation	string	
customText7Equation	string	
customText8Equation	string	
customText9Equation	string	
customText10Equation	string	
customText11Equation	string	
customText12Equation	string	
customText13Equation	string	
customText14Equation	string	
customText15Equation	string	
customText16Equation	string	
customText17Equation	string	
customText18Equation	string	
customText19Equation	string	
customText20Equation	string	
customText21Equation	string	
customText22Equation	string	
customText23Equation	string	
customText24Equation	string	
customText25Equation	string	
customText26Equation	string	
customRate1Equation	string	
customRate2Equation	string	
customRate3Equation	string	
customRate4Equation	string	
customRate5Equation	string	
customRate6Equation	string	
customRate7Equation	string	
customRate8Equation	string	
customRate9Equation	string	

```

customRate10Equation      string
customRate11Equation     string
customRate12Equation     string
customRate13Equation     string
customRate14Equation     string
customRate15Equation     string
customRate16Equation     string
customRate17Equation     string
customRate18Equation     string
customRate19Equation     string
customRate20Equation     string
customCumRate1Equation   string
customCumRate2Equation   string
customCumRate3Equation   string
customCumRate4Equation   string
customCumRate5Equation   string
customCumRate6Equation   string
customCumRate7Equation   string
customCumRate8Equation   string
customCumRate9Equation   string
customCumRate10Equation  string
customCumRate11Equation  string
customCumRate12Equation  string
customCumRate13Equation  string
customCumRate14Equation  string
customCumRate15Equation  string
customCumRate16Equation  string
customCumRate17Equation  string
customCumRate18Equation  string
customCumRate19Equation  string
customCumRate20Equation  string
customPercentRate1Equation string
customPercentRate2Equation string
customPercentRate3Equation string
customPercentRate4Equation string
customPercentRate5Equation string
customPercentRate6Equation string
customPercentRate7Equation string
customPercentRate8Equation string
customPercentRate9Equation string
customPercentRate10Equation string
executionType            integer
projectId                 integer
id                         integer
data                      {recursive} ParamItemConceptualResourceTable
lastUpdate                string
tableRate                 number
}

```

---

## 1.11 GET /rest/assembly/partialFilterAssembly

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
------	------	-------------

NAME	TYPE	DESCRIPTION
query	string	
sortByField	string	
asc	boolean	
startFrom	int32	
databases	array of string	

## RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```

{
  resultSize          integer
  partialSize         integer
  partialStart        integer
  pageSize            integer
  sortByField         string
  ascending           boolean
  query               string
  queryType           string
  seconds             number
  partialResult [ {
    Array of object:
      paramitemId     integer
      description      string
      variable         string
      title            string
      groupCode        string
      gekCode          string
      editorId         string
      notes            string
      lastUpdate       string
      unit             string
      sampleRate       number
      password         string
      serialNumber     string
      protectionType   string
      extraCode1       string
      extraCode2       string
      extraCode3       string
      extraCode4       string
      extraCode5       string
      extraCode6       string
      extraCode7       string
      extraCode8       string
      extraCode9       string
      extraCode10      string
      wbsCode          string
      wbs2Code         string
      location         string
      icon             string
      costModel        boolean
      groupName        string

```

```

createUserId      string
createDate       string
quantity         number
multUnitQty      boolean
inputSet         [{recursive}] ParamItemInputTable
outputSet        [{recursive}] ParamItemOutputTable
returnSet [{
Array of object:
    paramReturnId integer
    returnEquation string
    projectId      integer
}]
boqItemSet       [{recursive}] BoqItemTable
conditionSet     [{recursive}] ParamItemConditionTable
totalCost        number
parentBoqItem    {recursive}    BoqItemTable
mediaLibraryIcon {
    id             string
    name           string
    tag            string
    type           integer
    mediaBlob      [string]
    createDate     string
    updateDate     string
    userId         string
    projectId      integer
    fileSize       integer
    dimensionX     integer
    dimensionY     integer
}
accessRights     string
keywords         string
itemCode         string
titleFormula     string
groupIdentifier  string
wasExploded      boolean
databaseId       integer
databaseCreationDate integer
globalId         integer
projectId        integer
id               integer
resourceAssignmentsList [{
Array of object:
}]
variable_sorted  string
orderedResourceAssignmentsList [{
Array of object:
}]
productivity     number
project          string
reference        boolean
writeProtected   boolean
tableRate        number
virtual          boolean
predicted        boolean
unit_sorted      string
notes_sorted     string

```



```

title_sorted          string
createUserId_sorted  string
createDate_sorted    string
description_sorted    string
extraCode1_sorted    string
extraCode4_sorted    string
boqItemAssignments  [{
  Array of object:
}]
extraCode8_sorted    string
gekCode_sorted       string
extraCode9_sorted    string
editorId_sorted      string
groupCode_sorted     string
lastUpdate_sorted    string
extraCode6_sorted    string
extraCode10_sorted   string
extraCode5_sorted    string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted    string
extraCode2_sorted    string
extraCode3_sorted    string
activityBased        boolean
timeUnit             string
country              string
currency             string
conceptual           boolean
co2Rate              number
totalRate            number
quoted               boolean
overrideType         integer
buildUpRate          number
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation   number
}]
result [{
  Array of object:
}]
}

```

## 1.12 GET /rest/assembly/loadArgument

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

## RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
{
  paramInputId      integer
  unit              string
  name              string
  label             string
  description       string
  dataType          string
  dependencyStatement string
  validationStatement string
  selectionList     string
  defaultValue      string
  storedValue       string
  sortOrder         integer
  hidden            boolean
  pblk              boolean
  grouping          string
  arrayType         string
  arraySizeVar      string
  editable          boolean
  wasShowing        boolean
  calcValue         boolean
  calcValueDecimalDigits string
  comment           string
  frmRowVisible     boolean
  paramItemTable {
    paramitemId      integer
    description       string
    variable          string
    title             string
    groupCode         string
    gekCode           string
    editorId          string
    notes             string
    lastUpdate        string
    unit              string
    sampleRate        number
    password          string
    serialNumber      string
    protectionType    string
    extraCode1        string
    extraCode2        string
    extraCode3        string
    extraCode4        string
    extraCode5        string
    extraCode6        string
    extraCode7        string
    extraCode8        string
    extraCode9        string
    extraCode10       string
    wbsCode           string
    wbs2Code          string
    location           string
  }
}
```

```

icon                string
costModel           boolean
groupName           string
createUserId        string
createDate          string
quantity            number
multUnitQty         boolean
inputSet            [{recursive}] ParamItemInputTable
outputSet           [{recursive}] ParamItemOutputTable
returnSet [{
Array of object:
    paramReturnId  integer
    returnEquation string
    projectId       integer
}]
boqItemSet          [{recursive}] BoqItemTable
conditionSet        [{recursive}] ParamItemConditionTable
totalCost           number
parentBoqItem       {recursive}    BoqItemTable
mediaLibraryIcon {
    id              string
    name            string
    tag             string
    type            integer
    mediaBlob       [string]
    creationDate    string
    updateDate      string
    userId          string
    projectId       integer
    fileSize        integer
    dimensionX      integer
    dimensionY      integer
}
accessRights        string
keywords            string
itemCode            string
titleFormula        string
groupIdentifier     string
wasExploded         boolean
databaseId          integer
databaseCreationDate integer
globalId            integer
projectId           integer
id                 integer
resourceAssignmentsList [{
Array of object:
}]
variable_sorted     string
orderedResourceAssignmentsList [{
Array of object:
}]
productivity        number
project             string
reference           boolean
writeProtected      boolean
tableRate           number
virtual             boolean

```

```

    predicted                boolean
    unit_sorted              string
    notes_sorted             string
    title_sorted             string
    createUserId_sorted     string
    createDate_sorted       string
    description_sorted      string
    extraCode1_sorted       string
    extraCode4_sorted       string
    boqItemAssignments [ {
      Array of object:
    } ]
    extraCode8_sorted       string
    gekCode_sorted          string
    extraCode9_sorted       string
    editorId_sorted         string
    groupCode_sorted        string
    lastUpdate_sorted       string
    extraCode6_sorted       string
    extraCode10_sorted      string
    extraCode5_sorted       string
    assemblyAssignments [ {
      Array of object:
    } ]
    extraCode7_sorted       string
    extraCode2_sorted       string
    extraCode3_sorted       string
    activityBased           boolean
    timeUnit                 string
    country                  string
    currency                 string
    conceptual               boolean
    co2Rate                  number
    totalRate                number
    quoted                   boolean
    overrideType             integer
    buildUpRate              number
    fixedCost                number
    timeBasedResource        boolean
    parentLineItemAssignments [ {
      Array of object:
    } ]
    projectResourceTable    boolean
    rateForCalculation      number
  }
  conditionSet              [{recursive}] ParamItemConditionTable
  projectId                 integer
  id                        integer
  data                      {recursive} ParamItemInputTable
  title                     string
  lastUpdate                string
  tableRate                 number
  editorId                  string
  createDate                string
  createUserId              string
}

```

## 1.13 GET /rest/assembly/loadAssemblies

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
assemblyIds	array of integer	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
[{
```

Array of object:

```
  paramItemId      integer
  description      string
  variable         string
  title           string
  groupCode       string
  gekCode         string
  editorId        string
  notes           string
  lastUpdate      string
  unit            string
  sampleRate      number
  password        string
  serialNumber    string
  protectionType  string
  extraCode1      string
  extraCode2      string
  extraCode3      string
  extraCode4      string
  extraCode5      string
  extraCode6      string
  extraCode7      string
  extraCode8      string
  extraCode9      string
  extraCode10     string
  wbsCode         string
  wbs2Code        string
  location        string
  icon            string
  costModel       boolean
  groupName       string
  createUserId    string
  createDate      string
  quantity        number
  multUnitQty     boolean
  inputSet        [{recursive}] ParamItemInputTable
  outputSet       [{recursive}] ParamItemOutputTable
  returnSet [ {
    paramReturnId integer
    returnEquation string
```

```

    projectId      integer
  ]]
  boqItemSet      [{recursive}] BoqItemTable
  conditionSet    [{recursive}] ParamItemConditionTable
  totalCost       number
  parentBoqItem   {recursive}   BoqItemTable
  mediaLibraryIcon {
    id             string
    name           string
    tag            string
    type           integer
    mediaBlob      [string]
    creationDate   string
    updateDate     string
    userId         string
    projectId      integer
    fileSize       integer
    dimensionX     integer
    dimensionY     integer
  }
  accessRights    string
  keywords        string
  itemCode        string
  titleFormula    string
  groupIdentifier string
  wasExploded     boolean
  databaseId      integer
  databaseCreationDate integer
  globalId        integer
  projectId       integer
  id              integer
  resourceAssignmentsList [{
Array of object:
  }]
  variable_sorted string
  orderedResourceAssignmentsList [{
Array of object:
  }]
  productivity    number
  project         string
  reference       boolean
  writeProtected  boolean
  tableRate      number
  virtual         boolean
  predicted       boolean
  unit_sorted    string
  notes_sorted   string
  title_sorted   string
  createUserId_sorted string
  createDate_sorted string
  description_sorted string
  extraCode1_sorted string
  extraCode4_sorted string
  boqItemAssignments [{
Array of object:
  }]
  extraCode8_sorted string

```

```

gekCode_sorted      string
extraCode9_sorted  string
editorId_sorted    string
groupCode_sorted   string
lastUpdate_sorted  string
extraCode6_sorted  string
extraCode10_sorted string
extraCode5_sorted  string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted  string
extraCode2_sorted  string
extraCode3_sorted  string
activityBased      boolean
timeUnit           string
country            string
currency           string
conceptual         boolean
co2Rate            number
totalRate          number
quoted             boolean
overrideType       integer
buildUpRate        number
fixedCost          number
timeBasedResource  boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation number
}]

```

## 1.14 GET /rest/assembly/loadAssembly

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
assemblyId	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```

{
  paramitemId      integer
  description      string
  variable         string
  title           string
  groupCode        string
  gekCode         string
  editorId        string
}

```

```

notes                string
lastUpdate           string
unit                 string
sampleRate           number
password             string
serialNumber         string
protectionType       string
extraCode1           string
extraCode2           string
extraCode3           string
extraCode4           string
extraCode5           string
extraCode6           string
extraCode7           string
extraCode8           string
extraCode9           string
extraCode10          string
wbsCode              string
wbs2Code             string
location             string
icon                 string
costModel            boolean
groupName            string
createUserId         string
createDate           string
quantity             number
multUnitQty          boolean
inputSet              [{recursive}] ParamItemInputTable
outputSet             [{recursive}] ParamItemOutputTable
returnSet [{
Array of object:
    paramReturnId    integer
    returnEquation    string
    projectId         integer
}]
boqItemSet           [{recursive}] BoqItemTable
conditionSet         [{recursive}] ParamItemConditionTable
totalCost            number
parentBoqItem        {recursive}    BoqItemTable
mediaLibraryIcon {
    id                string
    name              string
    tag               string
    type              integer
    mediaBlob         [string]
    creationDate      string
    updateDate        string
    userId            string
    projectId         integer
    fileSize          integer
    dimensionX        integer
    dimensionY        integer
}
accessRights         string
keywords             string
itemCode            string
titleFormula         string

```



```

groupIdentifier      string
wasExploded         boolean
databaseId          integer
databaseCreationDate integer
globalId            integer
projectId           integer
id                  integer
resourceAssignmentsList [{
Array of object:
}]
variable_sorted     string
orderedResourceAssignmentsList [{
Array of object:
}]
productivity        number
project             string
reference           boolean
writeProtected      boolean
tableRate           number
virtual             boolean
predicted           boolean
unit_sorted         string
notes_sorted        string
title_sorted        string
createUserId_sorted string
createDate_sorted  string
description_sorted  string
extraCode1_sorted   string
extraCode4_sorted   string
boqItemAssignments [{
Array of object:
}]
extraCode8_sorted   string
gekCode_sorted      string
extraCode9_sorted   string
editorId_sorted     string
groupCode_sorted    string
lastUpdate_sorted   string
extraCode6_sorted   string
extraCode10_sorted  string
extraCode5_sorted   string
assemblyAssignments [{
Array of object:
}]
extraCode7_sorted   string
extraCode2_sorted   string
extraCode3_sorted   string
activityBased       boolean
timeUnit            string
country             string
currency            string
conceptual          boolean
co2Rate             number
totalRate           number
quoted              boolean
overrideType        integer
buildUpRate         number

```

```
fixedCost          number
timeBasedResource  boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation number
}
```

---

## 2. CONSUMABLE

### 2.1 GET /rest/consumable/loadConsumables

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
consumableIds	array of integer	

#### RESPONSE

STATUS CODE - default: default response

##### RESPONSE MODEL - application/json

```
[{
```

Array of object:

```
  consumableId      integer
  lastUpdate        string
  description        string
  unit               string
  rate               number
  co2Rate            number
  quantity           number
  groupCode          string
  gekCode            string
  editorId           string
  title              string
  notes              string
  project            string
  currency           string
  stateProvince     string
  country            string
  createUserId       string
  createDate         string
  extraCode1         string
  extraCode2         string
  extraCode3         string
  extraCode4         string
  extraCode5         string
  extraCode6         string
  extraCode7         string
  extraCode8         string
  extraCode9         string
  extraCode10        string
  buildUpRate        number
  virtual            boolean
  predicted          boolean
  conceptual         boolean
  overrideType       integer
  trendChartType     integer
  trendValue         number
```

```

trendUnit                string
trendColorCode          integer
trendDate                string
trendRegType            integer
trendIds                 string
accessRights             string
keywords                 string
itemCode                 string
boqItemConsumableSet   [{
Array of object:
}]
consumableHistorySet   [{
Array of object:
}]
databaseId               integer
databaseCreationDate    integer
projectId                integer
id                       integer
tableRate                number
totalRate                number
unit_sorted              string
notes_sorted             string
title_sorted             string
rate_sorted              number
createUserId_sorted     string
quantity_sorted         number
createDate_sorted       string
description_sorted      string
rateForCalculation      number
extraCode1_sorted       string
extraCode4_sorted       string
boqItemAssignments     [{
Array of object:
}]
project_sorted           string
currency_sorted         string
extraCode8_sorted       string
gekCode_sorted          string
extraCode9_sorted       string
editorId_sorted         string
groupCode_sorted        string
stateProvince_sorted    string
lastUpdate_sorted       string
country_sorted          string
extraCode6_sorted       string
extraCode10_sorted      string
extraCode5_sorted       string
assemblyAssignments     [{
Array of object:
}]
extraCode7_sorted       string
extraCode2_sorted       string
extraCode3_sorted       string
quoted                   boolean
fixedCost                number
timeBasedResource        boolean
parentLineItemAssignments [{
Array of object:

```

```
    }]  
    projectResourceTable boolean  
  }]  
}
```

---

## 2.2 GET /rest/consumable/loadConsumable

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
consumableId	int64	

---

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
{  
  consumableId      integer  
  lastUpdate        string  
  description       string  
  unit              string  
  rate              number  
  co2Rate           number  
  quantity          number  
  groupCode        string  
  gekCode          string  
  editorId         string  
  title            string  
  notes            string  
  project          string  
  currency         string  
  stateProvince    string  
  country          string  
  createUserId     string  
  createDate       string  
  extraCode1       string  
  extraCode2       string  
  extraCode3       string  
  extraCode4       string  
  extraCode5       string  
  extraCode6       string  
  extraCode7       string  
  extraCode8       string  
  extraCode9       string  
  extraCode10      string  
  buildUpRate      number  
  virtual          boolean  
  predicted        boolean  
  conceptual       boolean  
  overrideType     integer  
  trendChartType   integer  
  trendValue       number  
  trendUnit        string
```

```

trendColorCode      integer
trendDate           string
trendRegType        integer
trendIds            string
accessRights        string
keywords            string
itemCode            string
boqItemConsumableSet [{
Array of object:
}]
consumableHistorySet [{
Array of object:
}]
databaseId          integer
databaseCreationDate integer
projectId           integer
id                  integer
tableRate           number
totalRate           number
unit_sorted         string
notes_sorted        string
title_sorted        string
rate_sorted         number
createUserId_sorted string
quantity_sorted     number
createDate_sorted   string
description_sorted   string
rateForCalculation  number
extraCode1_sorted   string
extraCode4_sorted   string
boqItemAssignments [{
Array of object:
}]
project_sorted      string
currency_sorted     string
extraCode8_sorted   string
gekCode_sorted      string
extraCode9_sorted   string
editorId_sorted     string
groupCode_sorted    string
stateProvince_sorted string
lastUpdate_sorted   string
country_sorted      string
extraCode6_sorted   string
extraCode10_sorted  string
extraCode5_sorted   string
assemblyAssignments [{
Array of object:
}]
extraCode7_sorted   string
extraCode2_sorted   string
extraCode3_sorted   string
quoted              boolean
fixedCost           number
timeBasedResource   boolean
parentLineItemAssignments [{
Array of object:

```

```
    }]  
    projectResourceTable boolean  
}
```

---

## 2.3 GET /rest/consumable/getConsumableCount

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

## 2.4 GET /rest/consumable/partialSearchConsumables

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	

---

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

```
{  
  resultSize      integer  
  partialSize     integer  
  partialStart    integer  
  pageSize        integer  
  sortByField     string  
  ascending       boolean  
  query           string  
  queryType       string  
  seconds         number  
  partialResult  [{  
    Array of object:  
    consumableId  integer  
    lastUpdate    string  
    description   string  
    unit          string  
    rate          number  
    co2Rate       number  
    quantity      number  
  }]
```

groupCode	string
gekCode	string
editorId	string
title	string
notes	string
project	string
currency	string
stateProvince	string
country	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
buildUpRate	number
virtual	boolean
predicted	boolean
conceptual	boolean
overrideType	integer
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
accessRights	string
keywords	string
itemCode	string
boqItemConsumableSet	[{ Array of object: }]
consumableHistorySet	[{ Array of object: }]
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
tableRate	number
totalRate	number
unit_sorted	string
notes_sorted	string
title_sorted	string
rate_sorted	number
createUserId_sorted	string
quantity_sorted	number
createDate_sorted	string
description_sorted	string
rateForCalculation	number



```

    extraCode1_sorted    string
    extraCode4_sorted    string
    boqItemAssignments [{
      Array of object:
    }]
    project_sorted       string
    currency_sorted      string
    extraCode8_sorted    string
    gekCode_sorted       string
    extraCode9_sorted    string
    editorId_sorted      string
    groupCode_sorted     string
    stateProvince_sorted string
    lastUpdate_sorted    string
    country_sorted       string
    extraCode6_sorted    string
    extraCode10_sorted   string
    extraCode5_sorted    string
    assemblyAssignments [{
      Array of object:
    }]
    extraCode7_sorted    string
    extraCode2_sorted    string
    extraCode3_sorted    string
    quoted                boolean
    fixedCost              number
    timeBasedResource     boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable boolean
  }]
  result [{
    Array of object:
  }]
}

```

---

# 3. EQUIPMENT

## 3.1 GET /rest/equipment/loadEquipments

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
equipmentIds	array of integer	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
[{
```

Array of object:

equipmentId	integer
lastUpdate	string
notes	string
fuelType	string
groupCode	string
gekCode	string
fuelConsumption	number
lubricatesConsumption	number
depreciationRate	number
lubricatesRate	number
fuelRate	number
tiresRate	number
sparePartsRate	number
reservationRate	number
co2Rate	number
model	string
make	string
description	string
unit	string
title	string
editorId	string
currency	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean

predicted	boolean
conceptual	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
country	string
stateProvince	string
accessRights	string
keywords	string
itemCode	string
buildUpRate	number
overrideType	integer
initAcquisitionPrice	number
salvageValue	number
interestRate	number
depreciationYears	integer
occupationHoursPerMonth	number
occupationalFactor	number
totalRate	number
depreciationCalculationMethod	integer
boqItemEquipmentSet [{	
Array of object:	
}]	
equipmentHistorySet [{	
Array of object:	
}]	
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
model_sorted	string
make_sorted	string
project	string
calculatedFuelRate	number
fuelType_sorted	string
tiresRate_sorted	number
sparePartsRate_sorted	number
fuelConsumption_sorted	number
reservationRate_sorted	number
fuelRate_sorted	number
depreciationRate_sorted	number
lubricatesRate_sorted	number
tableRate	number
quantity	number
unit_sorted	string
notes_sorted	string
title_sorted	string
createUserId_sorted	string
createDate_sorted	string
description_sorted	string
rateForCalculation	number
extraCode1_sorted	string
extraCode4_sorted	string

```

boqItemAssignments [{
  Array of object:
}]
currency_sorted      string
extraCode8_sorted    string
gekCode_sorted       string
extraCode9_sorted    string
editorId_sorted      string
groupCode_sorted     string
lastUpdate_sorted    string
extraCode6_sorted    string
extraCode10_sorted   string
extraCode5_sorted    string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted    string
extraCode2_sorted    string
extraCode3_sorted    string
quoted               boolean
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable  boolean
}]

```

## 3.2 GET /rest/equipment/loadEquipment

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
equipmentId	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```

{
  equipmentId      integer
  lastUpdate       string
  notes            string
  fuelType         string
  groupCode        string
  gekCode          string
  fuelConsumption  number
  lubricatesConsumption  number
  depreciationRate  number
  lubricatesRate    number
  fuelRate         number
  tiresRate        number
}

```

sparePartsRate	number
reservationRate	number
co2Rate	number
model	string
make	string
description	string
unit	string
title	string
editorId	string
currency	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
conceptual	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
country	string
stateProvince	string
accessRights	string
keywords	string
itemCode	string
buildUpRate	number
overrideType	integer
initAquisitionPrice	number
salvageValue	number
interestRate	number
depreciationYears	integer
occupationHoursPerMonth	number
occupationalFactor	number
totalRate	number
depreciationCalculationMethod	integer
boqItemEquipmentSet [{ Array of object:	
}]	
equipmentHistorySet [{ Array of object:	
}]	
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer

```

model_sorted          string
make_sorted          string
project              string
calculatedFuelRate   number
fuelType_sorted      string
tiresRate_sorted     number
sparePartsRate_sorted number
fuelConsumption_sorted number
reservationRate_sorted number
fuelRate_sorted      number
depreciationRate_sorted number
lubricatesRate_sorted number
tableRate            number
quantity             number
unit_sorted          string
notes_sorted         string
title_sorted         string
createUserId_sorted  string
createDate_sorted    string
description_sorted   string
rateForCalculation   number
extraCode1_sorted    string
extraCode4_sorted    string
boqItemAssignments [{
  Array of object:
}]
currency_sorted      string
extraCode8_sorted    string
gekCode_sorted       string
extraCode9_sorted    string
editorId_sorted      string
groupCode_sorted     string
lastUpdate_sorted    string
extraCode6_sorted    string
extraCode10_sorted   string
extraCode5_sorted    string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted    string
extraCode2_sorted    string
extraCode3_sorted    string
quoted               boolean
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}

```

### 3.3 GET /rest/equipment/partialSearchEquipment

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	

## RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

```
{
  resultSize          integer
  partialSize         integer
  partialStart        integer
  pageSize            integer
  sortByField         string
  ascending           boolean
  query               string
  queryType           string
  seconds             number
  partialResult [ {
    Array of object:
      equipmentId      integer
      lastUpdate       string
      notes             string
      fuelType         string
      groupCode        string
      gekCode          string
      fuelConsumption  number
      lubricatesConsumption number
      depreciationRate number
      lubricatesRate   number
      fuelRate         number
      tiresRate        number
      sparePartsRate   number
      reservationRate  number
      co2Rate          number
      model            string
      make             string
      description      string
      unit             string
      title            string
      editorId        string
      currency         string
      createUserId    string
      createDate      string
      extraCode1      string
      extraCode2      string
      extraCode3      string
      extraCode4      string
      extraCode5      string
      extraCode6      string
      extraCode7      string
      extraCode8      string
    }
  ]
}
```

extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
conceptual	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
country	string
stateProvince	string
accessRights	string
keywords	string
itemCode	string
buildUpRate	number
overrideType	integer
initAquisitionPrice	number
salvageValue	number
interestRate	number
depreciationYears	integer
occupationHoursPerMonth	number
occupationalFactor	number
totalRate	number
depreciationCalculationMethod	integer
boqItemEquipmentSet [{	
Array of object:	
}]	
equipmentHistorySet [{	
Array of object:	
}]	
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
model_sorted	string
make_sorted	string
project	string
calculatedFuelRate	number
fuelType_sorted	string
tiresRate_sorted	number
sparePartsRate_sorted	number
fuelConsumption_sorted	number
reservationRate_sorted	number
fuelRate_sorted	number
depreciationRate_sorted	number
lubricatesRate_sorted	number
tableRate	number
quantity	number
unit_sorted	string
notes_sorted	string
title_sorted	string
createUserId_sorted	string
createDate_sorted	string
description_sorted	string



```

    rateForCalculation          number
    extraCode1_sorted          string
    extraCode4_sorted          string
    boqItemAssignments [{
      Array of object:
    }]
    currency_sorted            string
    extraCode8_sorted          string
    gekCode_sorted             string
    extraCode9_sorted          string
    editorId_sorted            string
    groupCode_sorted           string
    lastUpdate_sorted          string
    extraCode6_sorted          string
    extraCode10_sorted         string
    extraCode5_sorted          string
    assemblyAssignments [{
      Array of object:
    }]
    extraCode7_sorted          string
    extraCode2_sorted          string
    extraCode3_sorted          string
    quoted                      boolean
    fixedCost                   number
    timeBasedResource           boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable       boolean
  }]
  result [{
    Array of object:
  }]
}

```

---

### 3.4 GET /rest/equipment/getEquipmentCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

## 4. GROUPCODE1

### 4.1 GET /rest/groupcode1/getCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 4.2 GET /rest/groupcode1/loadGroupCodes

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

```
[{  
  Array of object:  
    groupCodeId      integer  
    groupCode        string  
    title             string  
    editorId         string  
    description       string  
    notes            string  
    lastUpdate       string  
    unit             string  
    unitFactor        number  
    locked           boolean  
    id               integer  
    tableRate        number  
    quantity         number  
    createDate       string  
    createUserId     string  
    notes_sorted     string  
    title_sorted     string  
    description_sorted string  
    editorId_sorted  string  
    groupCode_sorted string  
    lastUpdate_sorted string  
}]
```

---

## 4.3 GET /rest/groupcode1/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

---

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
{
  groupCodeId      integer
  groupCode        string
  title            string
  editorId         string
  description       string
  notes            string
  lastUpdate       string
  unit             string
  unitFactor       number
  locked           boolean
  id               integer
  tableRate        number
  quantity         number
  createDate       string
  createUserId     string
  notes_sorted     string
  title_sorted     string
  description_sorted string
  editorId_sorted  string
  groupCode_sorted string
  lastUpdate_sorted string
}
```

---

## 4.4 GET /rest/groupcode1/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

---

### RESPONSE

## STATUS CODE - default: default response

### RESPONSE MODEL - application/json

```
[{
```

Array of object:

```
  groupId      integer
  groupCode    string
  title        string
  editorId     string
  description   string
  notes        string
  lastUpdate   string
  unit         string
  unitFactor   number
  locked       boolean
  id           integer
  tableRate    number
  quantity     number
  createDate   string
  createUserId string
  notes_sorted string
  title_sorted string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}]
```

---

# 5. GROUPCODE2

## 5.1 GET /rest/groupcode2/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
{
  gekCodeId      integer
  groupCode      string
  title          string
  editorId       string
  description    string
  notes         string
  lastUpdate    string
  unit          string
  unitFactor     number
  locked        boolean
  id            integer
  tableRate     number
  quantity      number
  createDate    string
  createUserId  string
  notes_sorted  string
  title_sorted  string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}
```

## 5.2 GET /rest/groupcode2/loadGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    gekCodeId      integer  
    groupCode      string  
    title          string  
    editorId       string  
    description     string  
    notes          string  
    lastUpdate     string  
    unit           string  
    unitFactor     number  
    locked         boolean  
    id             integer  
    tableRate      number  
    quantity       number  
    createDate     string  
    createUserId  string  
    notes_sorted   string  
    title_sorted   string  
    description_sorted string  
    editorId_sorted string  
    groupCode_sorted string  
    lastUpdate_sorted string  
}]
```

---

### 5.3 GET /rest/groupcode2/getCount

#### REQUEST

No request parameters

#### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

integer

---

### 5.4 GET /rest/groupcode2/searchGroupCodes

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

---

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

```
[{  
  Array of object:  
    gekCodeId      integer  
    groupCode      string  
    title          string  
    editorId       string  
    description    string  
    notes          string  
    lastUpdate     string  
    unit           string  
    unitFactor     number  
    locked         boolean  
    id             integer  
    tableRate      number  
    quantity       number  
    createDate     string  
    createUserId  string  
    notes_sorted   string  
    title_sorted   string  
    description_sorted string  
    editorId_sorted string  
    groupCode_sorted string  
    lastUpdate_sorted string  
}]
```

---

## 5.5 GET /rest/groupcode2/getLastUpdate

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

## 6. GROUPCODE3

### 6.1 GET /rest/groupcode3/getCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 6.2 GET /rest/groupcode3/getLastUpdate

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

### 6.3 GET /rest/groupcode3/loadGroupCodes

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

[{

Array of object:

extraCode1Id	integer
title	string
editorId	string
description	string
notes	string
lastUpdate	string
unit	string
unitFactor	number



```

locked          boolean
id              integer
groupCode      string
tableRate      number
quantity       number
createDate     string
createUserId   string
notes_sorted   string
title_sorted   string
description_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
}]

```

## 6.4 GET /rest/groupcode3/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  extraCode1Id    integer
  title           string
  editorId       string
  description     string
  notes          string
  lastUpdate     string
  unit           string
  unitFactor     number
  locked         boolean
  id             integer
  groupCode      string
  tableRate      number
  quantity       number
  createDate     string
  createUserId   string
  notes_sorted   string
  title_sorted   string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}

```

## 6.5 GET /rest/groupcode3/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    extraCode1Id      integer  
    title             string  
    editorId          string  
    description        string  
    notes             string  
    lastUpdate        string  
    unit              string  
    unitFactor         number  
    locked             boolean  
    id                integer  
    groupCode         string  
    tableRate         number  
    quantity          number  
    createDate        string  
    createUserId      string  
    notes_sorted      string  
    title_sorted      string  
    description_sorted string  
    editorId_sorted   string  
    groupCode_sorted  string  
    lastUpdate_sorted string  
}]
```

# 7. GROUPCODE4

## 7.1 GET /rest/groupcode4/getCount

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

## 7.2 GET /rest/groupcode4/getLastUpdate

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

## 7.3 GET /rest/groupcode4/loadGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

[{

Array of object:

extraCode2Id	integer
title	string
editorId	string
description	string
notes	string
lastUpdate	string
unit	string
unitFactor	number

```

locked          boolean
id              integer
groupCode      string
tableRate      number
quantity       number
createDate     string
createUserId   string
notes_sorted   string
title_sorted   string
description_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
}
}

```

## 7.4 GET /rest/groupcode4/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  extraCode2Id    integer
  title           string
  editorId        string
  description      string
  notes           string
  lastUpdate      string
  unit            string
  unitFactor      number
  locked          boolean
  id              integer
  groupCode      string
  tableRate      number
  quantity       number
  createDate     string
  createUserId   string
  notes_sorted   string
  title_sorted   string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}

```

## 7.5 GET /rest/groupcode4/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    extraCode2Id      integer  
    title             string  
    editorId         string  
    description       string  
    notes            string  
    lastUpdate       string  
    unit             string  
    unitFactor       number  
    locked           boolean  
    id               integer  
    groupCode        string  
    tableRate        number  
    quantity         number  
    createDate       string  
    createUserId     string  
    notes_sorted     string  
    title_sorted     string  
    description_sorted string  
    editorId_sorted  string  
    groupCode_sorted string  
    lastUpdate_sorted string  
}]
```

## 8. GROUPCODE5

### 8.1 GET /rest/groupcode5/getCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 8.2 GET /rest/groupcode5/getLastUpdate

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

### 8.3 GET /rest/groupcode5/loadGroupCodes

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

[{

Array of object:

extraCode3Id	integer
title	string
editorId	string
description	string
notes	string
lastUpdate	string
unit	string
unitFactor	number

```

locked          boolean
id              integer
groupCode      string
tableRate      number
quantity       number
createDate     string
createUserId   string
notes_sorted   string
title_sorted   string
description_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
}
}

```

## 8.4 GET /rest/groupcode5/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  extraCode3Id    integer
  title           string
  editorId        string
  description      string
  notes           string
  lastUpdate      string
  unit            string
  unitFactor      number
  locked          boolean
  id              integer
  groupCode       string
  tableRate       number
  quantity        number
  createDate      string
  createUserId    string
  notes_sorted    string
  title_sorted    string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}

```

## 8.5 GET /rest/groupcode5/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    extraCode3Id      integer  
    title              string  
    editorId          string  
    description        string  
    notes              string  
    lastUpdate        string  
    unit              string  
    unitFactor        number  
    locked             boolean  
    id                 integer  
    groupCode         string  
    tableRate         number  
    quantity          number  
    createDate        string  
    createUserId      string  
    notes_sorted      string  
    title_sorted      string  
    description_sorted string  
    editorId_sorted   string  
    groupCode_sorted  string  
    lastUpdate_sorted string  
}]
```



# 9. GROUPCODE6

## 9.1 GET /rest/groupcode6/getCount

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

## 9.2 GET /rest/groupcode6/getLastUpdate

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

## 9.3 GET /rest/groupcode6/loadGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

[{

Array of object:

extraCode4Id	integer
title	string
editorId	string
description	string
notes	string
lastUpdate	string
unit	string
unitFactor	number

```

locked          boolean
id              integer
groupCode      string
tableRate      number
quantity       number
createDate     string
createUserId   string
notes_sorted   string
title_sorted   string
description_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
}
}

```

---

## 9.4 GET /rest/groupcode6/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

---

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  extraCode4Id    integer
  title           string
  editorId        string
  description      string
  notes           string
  lastUpdate      string
  unit            string
  unitFactor      number
  locked          boolean
  id              integer
  groupCode      string
  tableRate      number
  quantity       number
  createDate     string
  createUserId   string
  notes_sorted   string
  title_sorted   string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}

```

---

## 9.5 GET /rest/groupcode6/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    extraCode4Id      integer  
    title             string  
    editorId          string  
    description        string  
    notes              string  
    lastUpdate         string  
    unit               string  
    unitFactor         number  
    locked             boolean  
    id                 integer  
    groupCode          string  
    tableRate          number  
    quantity           number  
    createDate         string  
    createUserId       string  
    notes_sorted       string  
    title_sorted       string  
    description_sorted string  
    editorId_sorted    string  
    groupCode_sorted   string  
    lastUpdate_sorted  string  
}]
```

# 10. GROUPCODE7

## 10.1 GET /rest/groupcode7/getCount

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

## 10.2 GET /rest/groupcode7/getLastUpdate

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

## 10.3 GET /rest/groupcode7/loadGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

[{

Array of object:

extraCode5Id	integer
title	string
editorId	string
description	string
notes	string
lastUpdate	string
unit	string
unitFactor	number

```

locked          boolean
id              integer
groupCode       string
tableRate       number
quantity        number
createDate      string
createUserId    string
notes_sorted    string
title_sorted    string
description_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
}]

```

---

## 10.4 GET /rest/groupcode7/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  extraCode5Id    integer
  title           string
  editorId        string
  description      string
  notes           string
  lastUpdate      string
  unit            string
  unitFactor      number
  locked          boolean
  id              integer
  groupCode       string
  tableRate       number
  quantity        number
  createDate      string
  createUserId    string
  notes_sorted    string
  title_sorted    string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}

```

---

## 10.5 GET /rest/groupcode7/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    extraCode5Id      integer  
    title             string  
    editorId         string  
    description       string  
    notes            string  
    lastUpdate       string  
    unit             string  
    unitFactor       number  
    locked           boolean  
    id               integer  
    groupCode        string  
    tableRate        number  
    quantity         number  
    createDate       string  
    createUserId     string  
    notes_sorted     string  
    title_sorted     string  
    description_sorted string  
    editorId_sorted  string  
    groupCode_sorted string  
    lastUpdate_sorted string  
}]
```

# 11. GROUPCODE8

## 11.1 GET /rest/groupcode8/getCount

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

## 11.2 GET /rest/groupcode8/getLastUpdate

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

## 11.3 GET /rest/groupcode8/loadGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

[{

Array of object:

extraCode6Id	integer
title	string
editorId	string
description	string
notes	string
lastUpdate	string
unit	string
unitFactor	number

```

locked          boolean
id              integer
groupCode      string
tableRate      number
quantity       number
createDate     string
createUserId   string
notes_sorted   string
title_sorted   string
description_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
}]

```

---

## 11.4 GET /rest/groupcode8/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  extraCode6Id    integer
  title           string
  editorId        string
  description      string
  notes           string
  lastUpdate      string
  unit            string
  unitFactor      number
  locked          boolean
  id              integer
  groupCode      string
  tableRate      number
  quantity       number
  createDate     string
  createUserId   string
  notes_sorted   string
  title_sorted   string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}

```

---



## 11.5 GET /rest/groupcode8/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    extraCode6Id      integer  
    title              string  
    editorId          string  
    description        string  
    notes              string  
    lastUpdate        string  
    unit              string  
    unitFactor         number  
    locked             boolean  
    id                 integer  
    groupCode          string  
    tableRate          number  
    quantity           number  
    createDate         string  
    createUserId       string  
    notes_sorted       string  
    title_sorted       string  
    description_sorted string  
    editorId_sorted    string  
    groupCode_sorted   string  
    lastUpdate_sorted  string  
}]
```

## 12. GROUPCODE9

### 12.1 GET /rest/groupcode9/getCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 12.2 GET /rest/groupcode9/getLastUpdate

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

string

---

### 12.3 GET /rest/groupcode9/loadGroupCodes

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

---

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

[{

Array of object:

extraCode7Id	integer
title	string
editorId	string
description	string
notes	string
lastUpdate	string
unit	string
unitFactor	number

```

locked          boolean
id              integer
groupCode       string
tableRate       number
quantity        number
createDate      string
createUserId    string
notes_sorted    string
title_sorted    string
description_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
}
}

```

---

## 12.4 GET /rest/groupcode9/loadGroupCode

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  extraCode7Id    integer
  title           string
  editorId        string
  description      string
  notes           string
  lastUpdate      string
  unit            string
  unitFactor      number
  locked          boolean
  id              integer
  groupCode       string
  tableRate       number
  quantity        number
  createDate      string
  createUserId    string
  notes_sorted    string
  title_sorted    string
  description_sorted string
  editorId_sorted string
  groupCode_sorted string
  lastUpdate_sorted string
}

```

## 12.5 GET /rest/groupcode9/searchGroupCodes

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    extraCode7Id      integer  
    title              string  
    editorId          string  
    description        string  
    notes              string  
    lastUpdate        string  
    unit              string  
    unitFactor         number  
    locked             boolean  
    id                 integer  
    groupCode          string  
    tableRate          number  
    quantity           number  
    createDate         string  
    createUserId       string  
    notes_sorted       string  
    title_sorted       string  
    description_sorted string  
    editorId_sorted    string  
    groupCode_sorted   string  
    lastUpdate_sorted  string  
}]
```

# 13. LABOR

## 13.1 GET /rest/labor/partialSearchLabor

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
{
  resultSize      integer
  partialSize     integer
  partialStart    integer
  pageSize        integer
  sortByField     string
  ascending       boolean
  query           string
  queryType       string
  seconds         number
  partialResult  [{
    Array of object:
      laborId      integer
      title         string
      description   string
      unit          string
      rate          number
      co2Rate       number
      totalRate     number
      groupCode     string
      gekCode       string
      project       string
      editorId      string
      contactPerson string
      phoneNumber   string
      mobileNumber  string
      faxNumber     string
      email         string
      city          string
      address       string
      notes         string
      stateProvince string
      country       string
  }
}
```

currency	string
lastUpdate	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
conceptual	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
accessRights	string
keywords	string
itemCode	string
buildUpRate	number
overrideType	integer
boqItemLaborSet [{	
Array of object:	
}]	
laborHistorySet [{	
Array of object:	
}]	
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
tableRate	number
quantity	number
ika	number
unit_sorted	string
notes_sorted	string
city_sorted	string
title_sorted	string
ika_sorted	number
rate_sorted	number
email_sorted	string
createUserId_sorted	string
createDate_sorted	string
contactPerson_sorted	string
description_sorted	string
rateForCalculation	number
phoneNumber_sorted	string
mobileNumber_sorted	string
extraCode1_sorted	string

```

    extraCode4_sorted      string
    boqItemAssignments [{
      Array of object:
    }]
    project_sorted         string
    currency_sorted        string
    extraCode8_sorted      string
    gekCode_sorted         string
    address_sorted         string
    extraCode9_sorted      string
    editorId_sorted        string
    groupCode_sorted       string
    stateProvince_sorted   string
    lastUpdate_sorted      string
    totalRate_sorted       number
    country_sorted         string
    extraCode6_sorted      string
    extraCode10_sorted     string
    extraCode5_sorted      string
    faxNumber_sorted       string
    assemblyAssignments [{
      Array of object:
    }]
    extraCode7_sorted      string
    extraCode2_sorted      string
    extraCode3_sorted      string
    quoted                  boolean
    fixedCost               number
    timeBasedResource       boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable   boolean
  }]
  result [{
    Array of object:
  }]
}

```

## 13.2 GET /rest/labor/getLaborCount

### REQUEST

No request parameters

### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

## 13.3 GET /rest/labor/loadLabors

### REQUEST

## QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
laborIds	array of integer	

## RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

```
[{
```

Array of object:

laborId	integer
title	string
description	string
unit	string
rate	number
co2Rate	number
totalRate	number
groupCode	string
gekCode	string
project	string
editorId	string
contactPerson	string
phoneNumber	string
mobileNumber	string
faxNumber	string
email	string
city	string
address	string
notes	string
stateProvince	string
country	string
currency	string
lastUpdate	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
conceptual	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer



```

trendIds                string
accessRights            string
keywords                string
itemCode                string
buildUpRate             number
overrideType            integer
boqItemLaborSet [{
  Array of object:
}]
laborHistorySet [{
  Array of object:
}]
databaseId              integer
databaseCreationDate    integer
projectId                integer
id                       integer
tableRate               number
quantity                number
ika                     number
unit_sorted             string
notes_sorted            string
city_sorted             string
title_sorted            string
ika_sorted              number
rate_sorted             number
email_sorted            string
createUserId_sorted     string
createDate_sorted       string
contactPerson_sorted    string
description_sorted      string
rateForCalculation      number
phoneNumber_sorted      string
mobileNumber_sorted     string
extraCode1_sorted       string
extraCode4_sorted       string
boqItemAssignments [{
  Array of object:
}]
project_sorted          string
currency_sorted         string
extraCode8_sorted       string
gekCode_sorted          string
address_sorted          string
extraCode9_sorted       string
editorId_sorted         string
groupCode_sorted        string
stateProvince_sorted    string
lastUpdate_sorted       string
totalRate_sorted        number
country_sorted          string
extraCode6_sorted       string
extraCode10_sorted      string
extraCode5_sorted       string
faxNumber_sorted        string
assemblyAssignments [{
  Array of object:
}]

```

```

extraCode7_sorted    string
extraCode2_sorted   string
extraCode3_sorted   string
quoted               boolean
fixedCost            number
timeBasedResource   boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}]

```

---

## 13.4 GET /rest/labor/loadLabor

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
laborId	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  laborId            integer
  title              string
  description        string
  unit               string
  rate               number
  co2Rate            number
  totalRate          number
  groupCode          string
  gekCode            string
  project            string
  editorId           string
  contactPerson      string
  phoneNumber         string
  mobileNumber       string
  faxNumber          string
  email              string
  city               string
  address            string
  notes              string
  stateProvince      string
  country            string
  currency           string
  lastUpdate         string
  createUserId       string
  createDate         string
  extraCode1         string
  extraCode2         string
  extraCode3         string
}

```

extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
conceptual	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
accessRights	string
keywords	string
itemCode	string
buildUpRate	number
overrideType	integer
boqItemLaborSet	[{
Array of object:	
}	}]
laborHistorySet	[{
Array of object:	
}	}]
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
tableRate	number
quantity	number
ika	number
unit_sorted	string
notes_sorted	string
city_sorted	string
title_sorted	string
ika_sorted	number
rate_sorted	number
email_sorted	string
createUserId_sorted	string
createDate_sorted	string
contactPerson_sorted	string
description_sorted	string
rateForCalculation	number
phoneNumber_sorted	string
mobileNumber_sorted	string
extraCode1_sorted	string
extraCode4_sorted	string
boqItemAssignments	[{
Array of object:	
}	}]
project_sorted	string
currency_sorted	string
extraCode8_sorted	string

```
gekCode_sorted      string
address_sorted      string
extraCode9_sorted   string
editorId_sorted     string
groupCode_sorted    string
stateProvince_sorted string
lastUpdate_sorted   string
totalRate_sorted    number
country_sorted      string
extraCode6_sorted   string
extraCode10_sorted  string
extraCode5_sorted   string
faxNumber_sorted    string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted   string
extraCode2_sorted   string
extraCode3_sorted   string
quoted              boolean
fixedCost           number
timeBasedResource   boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}
```

---

# 14. LINEITEM

## 14.1 GET /rest/lineitem/loadLineItems

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
ids	array of integer	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
[{  
  Array of object:  
    assemblyId          integer  
    description          string  
    unit                 string  
    productivity         number  
    timeUnit             string  
    groupCode            string  
    gekCode              string  
    editorId             string  
    title                string  
    project              string  
    notes                string  
    currency             string  
    stateProvince       string  
    country              string  
    publishedRate       number  
    rate                 number  
    publishedRevisionCode string  
    bimType              string  
    bimMaterial          string  
    laborRate            number  
    materialRate         number  
    subcontractorRate    number  
    consumableRate       number  
    equipmentRate        number  
    unitManhours         number  
    unitEquipmentHours  number  
    laborCo2Rate         number  
    materialCo2Rate      number  
    subcontractorCo2Rate number  
    consumableCo2Rate    number  
    equipmentCo2Rate     number  
    co2Rate              number  
    quantity             number  
    accuracy             string  
    createUserId         string
```

createDate	string	
virtualEquipment	boolean	
virtualSubcontractor	boolean	
virtualLabor	boolean	
virtualMaterial	boolean	
virtualConsumable	boolean	
overrideType	integer	
activityBased	boolean	
accessRights	string	
keywords	string	
itemCode	string	
customRate1	number	
customRate2	number	
customRate3	number	
customRate4	number	
customRate5	number	
customRate6	number	
customRate7	number	
customRate8	number	
customRate9	number	
customRate10	number	
customRate11	number	
customRate12	number	
customRate13	number	
customRate14	number	
customRate15	number	
customRate16	number	
customRate17	number	
customRate18	number	
customRate19	number	
customRate20	number	
customPercentRate1	number	
customPercentRate2	number	
customPercentRate3	number	
customPercentRate4	number	
customPercentRate5	number	
customPercentRate6	number	
customPercentRate7	number	
customPercentRate8	number	
customPercentRate9	number	
customPercentRate10	number	
customPercentRate11	number	
customPercentRate12	number	
customPercentRate13	number	
customPercentRate14	number	
customPercentRate15	number	
customPercentRate16	number	
customPercentRate17	number	
customPercentRate18	number	
customPercentRate19	number	
customPercentRate20	number	
vars	string	
assemblyLaborSet	[{recursive}]	AssemblyLaborTable
assemblyChildSet	[{recursive}]	AssemblyAssemblyTable
assemblyParentSet	[{recursive}]	AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}]	AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}]	AssemblyConsumableTable

assemblySubcontractorSet	[{recursive}]	AssemblySubcontractorTable
assemblyHistorySet [{		
Array of object:		
}]		
lastUpdate	string	
extraCode1	string	
extraCode2	string	
extraCode3	string	
extraCode4	string	
extraCode5	string	
extraCode6	string	
extraCode7	string	
extraCode8	string	
extraCode9	string	
extraCode10	string	
customText1	string	
customText2	string	
customText3	string	
customText4	string	
customText5	string	
customText6	string	
customText7	string	
customText8	string	
customText9	string	
customText10	string	
customText11	string	
customText12	string	
customText13	string	
customText14	string	
customText15	string	
customText16	string	
customText17	string	
customText18	string	
customText19	string	
customText20	string	
customText21	string	
customText22	string	
customText23	string	
customText24	string	
customText25	string	
virtual	boolean	
puGroupCodeFactor	number	
puGekCodeFactor	number	
puExtraCode1Factor	number	
puExtraCode2Factor	number	
puExtraCode3Factor	number	
puExtraCode4Factor	number	
puExtraCode5Factor	number	
puExtraCode6Factor	number	
puExtraCode7Factor	number	
boqItemAssemblySet [{		
Array of object:		
}]		
databaseId	integer	
databaseCreationDate	integer	
projectId	integer	
id	integer	

```

data {
  id                integer
  country           string
  currency          string
  description       string
  data              {recursive} ResourceTable
  title            string
  unit             string
  groupCode        string
  lastUpdate       string
  project          string
  tableRate        number
  conceptual        boolean
  co2Rate          number
  gekCode          string
  virtual          boolean
  predicted         boolean
  totalRate        number
  quoted           boolean
  quantity         number
  editorId         string
  extraCode7       string
  createDate       string
  extraCode6       string
  extraCode5       string
  itemCode         string
  createUserId     string
  notes            string
  extraCode2       string
  extraCode8       string
  databaseId       integer
  extraCode3       string
  extraCode4       string
  extraCode1       string
  extraCode9       string
  extraCode10      string
  overrideType     integer
  buildUpRate      number
  fixedCost        number
  timeBasedResource boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable boolean
  databaseCreationDate integer
  rateForCalculation number
  boqItemAssignments [{
    Array of object:
  }]
  assemblyAssignments [{
    Array of object:
  }]
}
resourceAssignmentsList [{
  Array of object:
}]
orderedResourceAssignmentsList [{
  Array of object:
}

```



```

}]
assemblyEquipmentDepreciationRate    number
resourceAssignmentsRecursively [{
Array of object:
}]
assemblyLaborHoursActivityBased      number
assemblyEquipmentHoursActivityBased  number
assemblySubcontractorIKARate         number
assemblyEquipmentFuelRate            number
assemblyMaterialCo2Rate              number
assemblyLaborRate                    number
assemblyLaborHours                   number
assemblyEquipmentCo2Rate             number
assemblyLaborIKARate                number
assemblySubcontractorCo2Rate         number
assemblyConsumableCo2Rate           number
assemblyEquipmentRate                number
assemblyLaborCo2Rate                 number
assemblyConsumableRate               number
assemblyFabricationRate              number
assemblySubcontractorRate            number
assemblyShipmentRate                 number
assemblyEquipmentHours               number
assemblyMaterialTotalRate            number
bimType_sorted                       string
publishedRevisionCode_sorted         string
subcontractorRate_sorted             number
productivity_sorted                  number
laborRate_sorted                     number
materialRate_sorted                  number
consumableRate_sorted                number
equipmentRate_sorted                 number
bimMaterial_sorted                   string
publishedRate_sorted                 number
tableRate                            number
quoted                               boolean
predicted                            boolean
unit_sorted                           string
notes_sorted                          string
title_sorted                          string
rate_sorted                           number
createUserId_sorted                  string
quantity_sorted                       number
createDate_sorted                     string
description_sorted                     string
accuracy_sorted                       string
extraCode1_sorted                     string
extraCode4_sorted                     string
boqItemAssignments [{
Array of object:
}]
project_sorted                        string
currency_sorted                       string
gekCode_sorted                         string
editorId_sorted                        string
groupCode_sorted                       string
stateProvince_sorted                  string

```

```

lastUpdate_sorted      string
country_sorted        string
extraCode6_sorted     string
extraCode5_sorted     string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted     string
extraCode2_sorted     string
extraCode3_sorted     string
conceptual            boolean
totalRate             number
buildUpRate           number
fixedCost             number
timeBasedResource     boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable  boolean
rateForCalculation   number
}]

```

## 14.2 GET /rest/lineitem/loadLineItem

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  assemblyId           integer
  description          string
  unit                 string
  productivity         number
  timeUnit            string
  groupCode           string
  gekCode             string
  editorId            string
  title               string
  project             string
  notes               string
  currency            string
  stateProvince       string
  country             string
  publishedRate       number
  rate                number
  publishedRevisionCode string
  bimType             string
}

```

bimMaterial	string
laborRate	number
materialRate	number
subcontractorRate	number
consumableRate	number
equipmentRate	number
unitManhours	number
unitEquipmentHours	number
laborCo2Rate	number
materialCo2Rate	number
subcontractorCo2Rate	number
consumableCo2Rate	number
equipmentCo2Rate	number
co2Rate	number
quantity	number
accuracy	string
createUserId	string
createDate	string
virtualEquipment	boolean
virtualSubcontractor	boolean
virtualLabor	boolean
virtualMaterial	boolean
virtualConsumable	boolean
overrideType	integer
activityBased	boolean
accessRights	string
keywords	string
itemCode	string
customRate1	number
customRate2	number
customRate3	number
customRate4	number
customRate5	number
customRate6	number
customRate7	number
customRate8	number
customRate9	number
customRate10	number
customRate11	number
customRate12	number
customRate13	number
customRate14	number
customRate15	number
customRate16	number
customRate17	number
customRate18	number
customRate19	number
customRate20	number
customPercentRate1	number
customPercentRate2	number
customPercentRate3	number
customPercentRate4	number
customPercentRate5	number
customPercentRate6	number
customPercentRate7	number
customPercentRate8	number
customPercentRate9	number

customPercentRate10	number	
customPercentRate11	number	
customPercentRate12	number	
customPercentRate13	number	
customPercentRate14	number	
customPercentRate15	number	
customPercentRate16	number	
customPercentRate17	number	
customPercentRate18	number	
customPercentRate19	number	
customPercentRate20	number	
vars	string	
assemblyLaborSet	[{recursive}]	AssemblyLaborTable
assemblyChildSet	[{recursive}]	AssemblyAssemblyTable
assemblyParentSet	[{recursive}]	AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}]	AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}]	AssemblyConsumableTable
assemblySubcontractorSet	[{recursive}]	AssemblySubcontractorTable
assemblyHistorySet [{		
Array of object:		
}]		
lastUpdate	string	
extraCode1	string	
extraCode2	string	
extraCode3	string	
extraCode4	string	
extraCode5	string	
extraCode6	string	
extraCode7	string	
extraCode8	string	
extraCode9	string	
extraCode10	string	
customText1	string	
customText2	string	
customText3	string	
customText4	string	
customText5	string	
customText6	string	
customText7	string	
customText8	string	
customText9	string	
customText10	string	
customText11	string	
customText12	string	
customText13	string	
customText14	string	
customText15	string	
customText16	string	
customText17	string	
customText18	string	
customText19	string	
customText20	string	
customText21	string	
customText22	string	
customText23	string	
customText24	string	
customText25	string	

```

virtual                                boolean
puGroupCodeFactor                      number
puGekCodeFactor                        number
puExtraCode1Factor                     number
puExtraCode2Factor                     number
puExtraCode3Factor                     number
puExtraCode4Factor                     number
puExtraCode5Factor                     number
puExtraCode6Factor                     number
puExtraCode7Factor                     number
boqItemAssemblySet [{
Array of object:
}]
databaseId                             integer
databaseCreationDate                   integer
projectId                               integer
id                                      integer
data {
  id                                    integer
  country                              string
  currency                             string
  description                           string
  data                                  {recursive} ResourceTable
  title                                 string
  unit                                  string
  groupCode                             string
  lastUpdate                            string
  project                                string
  tableRate                             number
  conceptual                            boolean
  co2Rate                               number
  gekCode                                string
  virtual                               boolean
  predicted                             boolean
  totalRate                             number
  quoted                                boolean
  quantity                              number
  editorId                              string
  extraCode7                            string
  createDate                            string
  extraCode6                            string
  extraCode5                            string
  itemCode                              string
  createUserId                          string
  notes                                  string
  extraCode2                            string
  extraCode8                            string
  databaseId                            integer
  extraCode3                            string
  extraCode4                            string
  extraCode1                            string
  extraCode9                            string
  extraCode10                           string
  overrideType                          integer
  buildUpRate                           number
  fixedCost                             number
  timeBasedResource                     boolean

```

```

parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
resourceAssignmentsList [{
  Array of object:
}]
orderedResourceAssignmentsList [{
  Array of object:
}]
assemblyEquipmentDepreciationRate number
resourceAssignmentsRecursively [{
  Array of object:
}]
assemblyLaborHoursActivityBased number
assemblyEquipmentHoursActivityBased number
assemblySubcontractorIKARate number
assemblyEquipmentFuelRate number
assemblyMaterialCo2Rate number
assemblyLaborRate number
assemblyLaborHours number
assemblyEquipmentCo2Rate number
assemblyLaborIKARate number
assemblySubcontractorCo2Rate number
assemblyConsumableCo2Rate number
assemblyEquipmentRate number
assemblyLaborCo2Rate number
assemblyConsumableRate number
assemblyFabricationRate number
assemblySubcontractorRate number
assemblyShipmentRate number
assemblyEquipmentHours number
assemblyMaterialTotalRate number
bimType_sorted string
publishedRevisionCode_sorted string
subcontractorRate_sorted number
productivity_sorted number
laborRate_sorted number
materialRate_sorted number
consumableRate_sorted number
equipmentRate_sorted number
bimMaterial_sorted string
publishedRate_sorted number
tableRate number
quoted boolean
predicted boolean
unit_sorted string
notes_sorted string

```

```

title_sorted                string
rate_sorted                 number
createUserId_sorted        string
quantity_sorted            number
createDate_sorted          string
description_sorted         string
accuracy_sorted            string
extraCode1_sorted          string
extraCode4_sorted          string
boqItemAssignments [{
  Array of object:
}]
project_sorted              string
currency_sorted             string
gekCode_sorted              string
editorId_sorted             string
groupCode_sorted            string
stateProvince_sorted       string
lastUpdate_sorted          string
country_sorted              string
extraCode6_sorted           string
extraCode5_sorted           string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted           string
extraCode2_sorted           string
extraCode3_sorted           string
conceptual                  boolean
totalRate                   number
buildUpRate                  number
fixedCost                    number
timeBasedResource            boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable         boolean
rateForCalculation           number
}

```

---

### 14.3 GET /rest/lineitem/getLineItemCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 14.4 GET /rest/lineitem/loadLineItemEquipment

## REQUEST

### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

## RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```
{
  unitHourResolver {
  }
  assemblyEquipmentId           integer
  lastUpdate                     string
  factor1                        number
  factor2                        number
  factor3                        number
  factor4                        number
  factor5                        number
  factor6                        number
  quantityPerUnit               number
  quantityPerUnitFormula        string
  quantityPerUnitFormulaState   string
  localFactor                   number
  localCountry                  string
  localStateProvince           string
  energyPrice                   number
  fuelRate                      number
  exchangeRate                  number
  equipmentTableId             integer
  finalRate                     number
  finalCo2Rate                  number
  finalDepreciationRate        number
  finalFuelRate                 number
  fixedCost                     number
  finalFixedCost                number
  comment                       string
  pvVars                        string
  unitHours                     number
  equipmentTable {
    equipmentId                 integer
    lastUpdate                  string
    notes                       string
    fuelType                    string
    groupCode                   string
    gekCode                     string
    fuelConsumption             number
    lubricatesConsumption       number
    depreciationRate            number
    lubricatesRate              number
    fuelRate                    number
    tiresRate                   number
    sparePartsRate              number
    reservationRate             number
  }
}
```



co2Rate	number
model	string
make	string
description	string
unit	string
title	string
editorId	string
currency	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
conceptual	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
country	string
stateProvince	string
accessRights	string
keywords	string
itemCode	string
buildUpRate	number
overrideType	integer
initAcquisitionPrice	number
salvageValue	number
interestRate	number
depreciationYears	integer
occupationHoursPerMonth	number
occupationalFactor	number
totalRate	number
depreciationCalculationMethod	integer
boqItemEquipmentSet [{	
Array of object:	
}]	
equipmentHistorySet [{	
Array of object:	
}]	
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
model_sorted	string
make_sorted	string

```

project string
calculatedFuelRate number
fuelType_sorted string
tiresRate_sorted number
sparePartsRate_sorted number
fuelConsumption_sorted number
reservationRate_sorted number
fuelRate_sorted number
depreciationRate_sorted number
lubricatesRate_sorted number
tableRate number
quantity number
unit_sorted string
notes_sorted string
title_sorted string
createUserId_sorted string
createDate_sorted string
description_sorted string
rateForCalculation number
extraCode1_sorted string
extraCode4_sorted string
boqItemAssignments [{
  Array of object:
}]
currency_sorted string
extraCode8_sorted string
gekCode_sorted string
extraCode9_sorted string
editorId_sorted string
groupCode_sorted string
lastUpdate_sorted string
extraCode6_sorted string
extraCode10_sorted string
extraCode5_sorted string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted string
extraCode2_sorted string
extraCode3_sorted string
quoted boolean
fixedCost number
timeBasedResource boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}
assemblyTable {
  assemblyId integer
  description string
  unit string
  productivity number
  timeUnit string
  groupCode string
  gekCode string
  editorId string

```

title	string
project	string
notes	string
currency	string
stateProvince	string
country	string
publishedRate	number
rate	number
publishedRevisionCode	string
bimType	string
bimMaterial	string
laborRate	number
materialRate	number
subcontractorRate	number
consumableRate	number
equipmentRate	number
unitManhours	number
unitEquipmentHours	number
laborCo2Rate	number
materialCo2Rate	number
subcontractorCo2Rate	number
consumableCo2Rate	number
equipmentCo2Rate	number
co2Rate	number
quantity	number
accuracy	string
createUserId	string
createDate	string
virtualEquipment	boolean
virtualSubcontractor	boolean
virtualLabor	boolean
virtualMaterial	boolean
virtualConsumable	boolean
overrideType	integer
activityBased	boolean
accessRights	string
keywords	string
itemCode	string
customRate1	number
customRate2	number
customRate3	number
customRate4	number
customRate5	number
customRate6	number
customRate7	number
customRate8	number
customRate9	number
customRate10	number
customRate11	number
customRate12	number
customRate13	number
customRate14	number
customRate15	number
customRate16	number
customRate17	number
customRate18	number
customRate19	number

customRate20	number
customPercentRate1	number
customPercentRate2	number
customPercentRate3	number
customPercentRate4	number
customPercentRate5	number
customPercentRate6	number
customPercentRate7	number
customPercentRate8	number
customPercentRate9	number
customPercentRate10	number
customPercentRate11	number
customPercentRate12	number
customPercentRate13	number
customPercentRate14	number
customPercentRate15	number
customPercentRate16	number
customPercentRate17	number
customPercentRate18	number
customPercentRate19	number
customPercentRate20	number
vars	string
assemblyLaborSet	[{recursive}] AssemblyLaborTable
assemblyChildSet	[{recursive}] AssemblyAssemblyTable
assemblyParentSet	[{recursive}] AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}] AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}] AssemblyConsumableTable
assemblySubcontractorSet	[{recursive}] AssemblySubcontractorTable
assemblyHistorySet [{	
Array of object:	
}]	
lastUpdate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
customText1	string
customText2	string
customText3	string
customText4	string
customText5	string
customText6	string
customText7	string
customText8	string
customText9	string
customText10	string
customText11	string
customText12	string
customText13	string
customText14	string
customText15	string

```

customText16          string
customText17          string
customText18          string
customText19          string
customText20          string
customText21          string
customText22          string
customText23          string
customText24          string
customText25          string
virtual               boolean
puGroupCodeFactor     number
puGekCodeFactor       number
puExtraCode1Factor    number
puExtraCode2Factor    number
puExtraCode3Factor    number
puExtraCode4Factor    number
puExtraCode5Factor    number
puExtraCode6Factor    number
puExtraCode7Factor    number
boqItemAssemblySet [ {
Array of object:
}]
databaseId            integer
databaseCreationDate  integer
projectId             integer
id                   integer
data {
  id                  integer
  country             string
  currency            string
  description         string
  data                {recursive} ResourceTable
  title              string
  unit               string
  groupCode          string
  lastUpdate        string
  project            string
  tableRate          number
  conceptual         boolean
  co2Rate            number
  gekCode            string
  virtual           boolean
  predicted          boolean
  totalRate          number
  quoted             boolean
  quantity           number
  editorId          string
  extraCode7         string
  createDate        string
  extraCode6         string
  extraCode5         string
  itemCode           string
  createUserId      string
  notes             string
  extraCode2         string
  extraCode8         string

```

```

databaseId            integer
extraCode3            string
extraCode4            string
extraCode1            string
extraCode9            string
extraCode10           string
overrideType         integer
buildUpRate           number
fixedCost             number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation   number
boqItemAssignments  [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
resourceAssignmentsList [{
  Array of object:
}]
orderedResourceAssignmentsList [{
  Array of object:
}]
assemblyEquipmentDepreciationRate    number
resourceAssignmentsRecursively [{
  Array of object:
}]
assemblyLaborHoursActivityBased      number
assemblyEquipmentHoursActivityBased  number
assemblySubcontractorIKARate         number
assemblyEquipmentFuelRate            number
assemblyMaterialCo2Rate              number
assemblyLaborRate                    number
assemblyLaborHours                   number
assemblyEquipmentCo2Rate             number
assemblyLaborIKARate                 number
assemblySubcontractorCo2Rate         number
assemblyConsumableCo2Rate            number
assemblyEquipmentRate                number
assemblyLaborCo2Rate                number
assemblyConsumableRate               number
assemblyFabricationRate              number
assemblySubcontractorRate            number
assemblyShipmentRate                 number
assemblyEquipmentHours               number
assemblyMaterialTotalRate            number
bimType_sorted                       string
publishedRevisionCode_sorted         string
subcontractorRate_sorted             number
productivity_sorted                  number
laborRate_sorted                     number

```

```

materialRate_sorted          number
consumableRate_sorted       number
equipmentRate_sorted        number
bimMaterial_sorted          string
publishedRate_sorted        number
tableRate                   number
quoted                       boolean
predicted                   boolean
unit_sorted                 string
notes_sorted                string
title_sorted                string
rate_sorted                 number
createUserId_sorted         string
quantity_sorted            number
createDate_sorted          string
description_sorted          string
accuracy_sorted            string
extraCode1_sorted          string
extraCode4_sorted          string
boqItemAssignments [{
  Array of object:
}]
project_sorted              string
currency_sorted            string
gekCode_sorted             string
editorId_sorted            string
groupCode_sorted           string
stateProvince_sorted       string
lastUpdate_sorted          string
country_sorted             string
extraCode6_sorted          string
extraCode5_sorted          string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted          string
extraCode2_sorted          string
extraCode3_sorted          string
conceptual                 boolean
totalRate                  number
buildUpRate                number
fixedCost                  number
timeBasedResource          boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable       boolean
rateForCalculation         number
}
projectId                  integer
id                          integer
resourceTable {
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
}

```

```

}]
productivity                number
activityBased               boolean
timeUnit                    string
id                           integer
country                      string
currency                     string
description                   string
data {
  id                          integer
  country                     string
  currency                    string
  description                  string
  data                        {recursive} ResourceTable
  title                       string
  unit                        string
  groupCode                   string
  lastUpdate                  string
  project                     string
  tableRate                   number
  conceptual                   boolean
  co2Rate                     number
  gekCode                     string
  virtual                     boolean
  predicted                   boolean
  totalRate                   number
  quoted                       boolean
  quantity                    number
  editorId                    string
  extraCode7                  string
  createDate                  string
  extraCode6                  string
  extraCode5                  string
  itemCode                    string
  createUserId                string
  notes                       string
  extraCode2                  string
  extraCode8                  string
  databaseId                  integer
  extraCode3                  string
  extraCode4                  string
  extraCode1                  string
  extraCode9                  string
  extraCode10                 string
  overrideType                integer
  buildUpRate                 number
  fixedCost                   number
  timeBasedResource           boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable        boolean
  databaseCreationDate        integer
  rateForCalculation          number
  boqItemAssignments [{
    Array of object:
  }]
}

```



```

    assemblyAssignments [{
      Array of object:
    }]
  }
  title string
  unit string
  groupCode string
  lastUpdate string
  project string
  tableRate number
  conceptual boolean
  co2Rate number
  gekCode string
  virtual boolean
  predicted boolean
  totalRate number
  quoted boolean
  quantity number
  editorId string
  extraCode7 string
  createDate string
  extraCode6 string
  extraCode5 string
  itemCode string
  createUserId string
  notes string
  extraCode2 string
  extraCode8 string
  databaseId integer
  extraCode3 string
  extraCode4 string
  extraCode1 string
  extraCode9 string
  extraCode10 string
  overrideType integer
  buildUpRate number
  fixedCost number
  timeBasedResource boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable boolean
  databaseCreationDate integer
  rateForCalculation number
  boqItemAssignments [{
    Array of object:
  }]
  assemblyAssignments [{
    Array of object:
  }]
}
assignmentResourceTable {
  id integer
  country string
  currency string
  description string
  data {recursive} ResourceTable

```

```

title string
unit string
groupCode string
lastUpdate string
project string
tableRate number
conceptual boolean
co2Rate number
gekCode string
virtual boolean
predicted boolean
totalRate number
quoted boolean
quantity number
editorId string
extraCode7 string
createDate string
extraCode6 string
extraCode5 string
itemCode string
createUserId string
notes string
extraCode2 string
extraCode8 string
databaseId integer
extraCode3 string
extraCode4 string
extraCode1 string
extraCode9 string
extraCode10 string
overrideType integer
buildUpRate number
fixedCost number
timeBasedResource boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
variableCost number
assignmentResourceType string
timeBasedAssignment boolean
totalCost number
}

```

---

## 14.5 GET /rest/lineitem/partialSearchLineItems

## REQUEST

### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	

## RESPONSE

STATUS CODE - default: default response

### RESPONSE MODEL - application/json

```
{
  resultSize          integer
  partialSize         integer
  partialStart        integer
  pageSize            integer
  sortByField         string
  ascending           boolean
  query               string
  queryType           string
  seconds             number
  partialResult [ {
    Array of object:
      assemblyId      integer
      description      string
      unit             string
      productivity     number
      timeUnit         string
      groupCode        string
      gekCode          string
      editorId         string
      title            string
      project          string
      notes            string
      currency         string
      stateProvince   string
      country          string
      publishedRate   number
      rate             number
      publishedRevisionCode string
      bimType          string
      bimMaterial      string
      laborRate        number
      materialRate     number
      subcontractorRate number
      consumableRate  number
      equipmentRate   number
      unitManhours    number
      unitEquipmentHours number
      laborCo2Rate    number
      materialCo2Rate number
      subcontractorCo2Rate number
  }
}
```

consumableCo2Rate	number
equipmentCo2Rate	number
co2Rate	number
quantity	number
accuracy	string
createUserId	string
createDate	string
virtualEquipment	boolean
virtualSubcontractor	boolean
virtualLabor	boolean
virtualMaterial	boolean
virtualConsumable	boolean
overrideType	integer
activityBased	boolean
accessRights	string
keywords	string
itemCode	string
customRate1	number
customRate2	number
customRate3	number
customRate4	number
customRate5	number
customRate6	number
customRate7	number
customRate8	number
customRate9	number
customRate10	number
customRate11	number
customRate12	number
customRate13	number
customRate14	number
customRate15	number
customRate16	number
customRate17	number
customRate18	number
customRate19	number
customRate20	number
customPercentRate1	number
customPercentRate2	number
customPercentRate3	number
customPercentRate4	number
customPercentRate5	number
customPercentRate6	number
customPercentRate7	number
customPercentRate8	number
customPercentRate9	number
customPercentRate10	number
customPercentRate11	number
customPercentRate12	number
customPercentRate13	number
customPercentRate14	number
customPercentRate15	number
customPercentRate16	number
customPercentRate17	number
customPercentRate18	number
customPercentRate19	number
customPercentRate20	number

vars	
assemblyLaborSet	string
assemblyChildSet	[{recursive}] AssemblyLaborTable
assemblyParentSet	[{recursive}] AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}] AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}] AssemblyConsumableTable
assemblySubcontractorSet	[{recursive}] AssemblySubcontractorTable
assemblyHistorySet [{	
Array of object:	
}]	
lastUpdate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
customText1	string
customText2	string
customText3	string
customText4	string
customText5	string
customText6	string
customText7	string
customText8	string
customText9	string
customText10	string
customText11	string
customText12	string
customText13	string
customText14	string
customText15	string
customText16	string
customText17	string
customText18	string
customText19	string
customText20	string
customText21	string
customText22	string
customText23	string
customText24	string
customText25	string
virtual	boolean
puGroupCodeFactor	number
puGekCodeFactor	number
puExtraCode1Factor	number
puExtraCode2Factor	number
puExtraCode3Factor	number
puExtraCode4Factor	number
puExtraCode5Factor	number
puExtraCode6Factor	number
puExtraCode7Factor	number
boqItemAssemblySet [{	
Array of object:	

```

}]
databaseId integer
databaseCreationDate integer
projectId integer
id integer
data {
  id integer
  country string
  currency string
  description string
  data {recursive} ResourceTable
  title string
  unit string
  groupCode string
  lastUpdate string
  project string
  tableRate number
  conceptual boolean
  co2Rate number
  gekCode string
  virtual boolean
  predicted boolean
  totalRate number
  quoted boolean
  quantity number
  editorId string
  extraCode7 string
  createDate string
  extraCode6 string
  extraCode5 string
  itemCode string
  createUserId string
  notes string
  extraCode2 string
  extraCode8 string
  databaseId integer
  extraCode3 string
  extraCode4 string
  extraCode1 string
  extraCode9 string
  extraCode10 string
  overrideType integer
  buildUpRate number
  fixedCost number
  timeBasedResource boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable boolean
  databaseCreationDate integer
  rateForCalculation number
  boqItemAssignments [{
    Array of object:
  }]
  assemblyAssignments [{
    Array of object:
  }]
}]

```

```

}
resourceAssignmentsList [{
Array of object:
}]
orderedResourceAssignmentsList [{
Array of object:
}]
assemblyEquipmentDepreciationRate      number
resourceAssignmentsRecursively [{
Array of object:
}]
assemblyLaborHoursActivityBased         number
assemblyEquipmentHoursActivityBased     number
assemblySubcontractorIKARate            number
assemblyEquipmentFuelRate               number
assemblyMaterialCo2Rate                 number
assemblyLaborRate                       number
assemblyLaborHours                     number
assemblyEquipmentCo2Rate                number
assemblyLaborIKARate                   number
assemblySubcontractorCo2Rate            number
assemblyConsumableCo2Rate               number
assemblyEquipmentRate                   number
assemblyLaborCo2Rate                   number
assemblyConsumableRate                  number
assemblyFabricationRate                  number
assemblySubcontractorRate               number
assemblyShipmentRate                    number
assemblyEquipmentHours                  number
assemblyMaterialTotalRate               number
bimType_sorted                          string
publishedRevisionCode_sorted            string
subcontractorRate_sorted                 number
productivity_sorted                     number
laborRate_sorted                        number
materialRate_sorted                     number
consumableRate_sorted                   number
equipmentRate_sorted                    number
bimMaterial_sorted                      string
publishedRate_sorted                    number
tableRate                                number
quoted                                   boolean
predicted                                 boolean
unit_sorted                              string
notes_sorted                             string
title_sorted                             string
rate_sorted                              number
createUserId_sorted                     string
quantity_sorted                          number
createDate_sorted                       string
description_sorted                       string
accuracy_sorted                          string
extraCode1_sorted                       string
extraCode4_sorted                       string
boqItemAssignments [{
Array of object:
}]

```

```

    project_sorted                string
    currency_sorted               string
    gekCode_sorted               string
    editorId_sorted              string
    groupCode_sorted             string
    stateProvince_sorted         string
    lastUpdate_sorted            string
    country_sorted                string
    extraCode6_sorted            string
    extraCode5_sorted            string
    assemblyAssignments [{
      Array of object:
    }]
    extraCode7_sorted            string
    extraCode2_sorted            string
    extraCode3_sorted            string
    conceptual                     boolean
    totalRate                     number
    buildUpRate                   number
    fixedCost                     number
    timeBasedResource             boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable         boolean
    rateForCalculation           number
  }]
  result [{
    Array of object:
  }]
}

```

## 14.6 GET /rest/lineitem/loadLineItemSubcontractor

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```

{
  unitHourResolver {
  }
  assemblySubcontractorId         integer
  lastUpdate                      string
  factor1                         number
  factor2                         number
  factor3                         number
  factor4                         number
}

```



factor5	number
factor6	number
quantityPerUnit	number
quantityPerUnitFormula	string
quantityPerUnitFormulaState	string
localFactor	number
localCountry	string
localStateProvince	string
exchangeRate	number
subcontractorTableId	integer
subcontractorTable {	
subcontractorId	integer
description	string
title	string
unit	string
rate	number
co2Rate	number
subMaterialRate	number
totalRate	number
quantity	number
contactPerson	string
company	string
phoneNumber	string
mobileNumber	string
faxNumber	string
groupCode	string
gekCode	string
editorId	string
performance	string
project	string
email	string
url	string
country	string
city	string
stateProvince	string
address	string
notes	string
currency	string
lastUpdate	string
accuracy	string
inclusion	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
trendChartType	integer
trendValue	number

```

trendUnit                string
trendColorCode           integer
trendDate                string
trendRegType             integer
trendIds                 string
accessRights             string
keywords                 string
itemCode                 string
buildUpRate              number
overrideType            integer
conceptual               boolean
boqItemSubcontractorSet [{
Array of object:
}]
subcontractorHistorySet [{
Array of object:
}]
databaseId               integer
databaseCreationDate     integer
projectId                integer
id                       integer
tableRate                number
quoted                   boolean
ika                      number
unit_sorted              string
url_sorted                string
notes_sorted             string
city_sorted              string
title_sorted             string
ika_sorted               number
rate_sorted              number
email_sorted             string
inclusion_sorted          string
createUserId_sorted      string
quantity_sorted          number
createDate_sorted        string
contactPerson_sorted     string
description_sorted        string
rateForCalculation        number
accuracy_sorted           string
company_sorted            string
phoneNumber_sorted        string
mobileNumber_sorted       string
extraCode1_sorted         string
extraCode4_sorted         string
boqItemAssignments      [{
Array of object:
}]
project_sorted           string
currency_sorted           string
extraCode8_sorted         string
gekCode_sorted            string
address_sorted            string
extraCode9_sorted         string
editorId_sorted           string
groupCode_sorted          string
stateProvince_sorted      string

```

```

lastUpdate_sorted      string
totalRate_sorted      number
country_sorted        string
extraCode6_sorted     string
extraCode10_sorted   string
extraCode5_sorted     string
performance_sorted    string
faxNumber_sorted      string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted     string
extraCode2_sorted     string
extraCode3_sorted     string
fixedCost             number
timeBasedResource     boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}
assemblyTable {
  assemblyId          integer
  description          string
  unit                string
  productivity         number
  timeUnit            string
  groupCode           string
  gekCode             string
  editorId            string
  title               string
  project             string
  notes               string
  currency            string
  stateProvince       string
  country             string
  publishedRate       number
  rate                number
  publishedRevisionCode string
  bimType             string
  bimMaterial         string
  laborRate           number
  materialRate        number
  subcontractorRate   number
  consumableRate      number
  equipmentRate       number
  unitManhours        number
  unitEquipmentHours  number
  laborCo2Rate        number
  materialCo2Rate     number
  subcontractorCo2Rate number
  consumableCo2Rate   number
  equipmentCo2Rate    number
  co2Rate             number
  quantity            number
  accuracy            string
  createUserId        string
}

```

createDate	string
virtualEquipment	boolean
virtualSubcontractor	boolean
virtualLabor	boolean
virtualMaterial	boolean
virtualConsumable	boolean
overrideType	integer
activityBased	boolean
accessRights	string
keywords	string
itemCode	string
customRate1	number
customRate2	number
customRate3	number
customRate4	number
customRate5	number
customRate6	number
customRate7	number
customRate8	number
customRate9	number
customRate10	number
customRate11	number
customRate12	number
customRate13	number
customRate14	number
customRate15	number
customRate16	number
customRate17	number
customRate18	number
customRate19	number
customRate20	number
customPercentRate1	number
customPercentRate2	number
customPercentRate3	number
customPercentRate4	number
customPercentRate5	number
customPercentRate6	number
customPercentRate7	number
customPercentRate8	number
customPercentRate9	number
customPercentRate10	number
customPercentRate11	number
customPercentRate12	number
customPercentRate13	number
customPercentRate14	number
customPercentRate15	number
customPercentRate16	number
customPercentRate17	number
customPercentRate18	number
customPercentRate19	number
customPercentRate20	number
vars	string
assemblyLaborSet	[{recursive}] AssemblyLaborTable
assemblyChildSet	[{recursive}] AssemblyAssemblyTable
assemblyParentSet	[{recursive}] AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}] AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}] AssemblyConsumableTable

assemblySubcontractorSet	[{recursive}]	AssemblySubcontractorTable
assemblyHistorySet [{		
Array of object:		
}]		
lastUpdate		string
extraCode1		string
extraCode2		string
extraCode3		string
extraCode4		string
extraCode5		string
extraCode6		string
extraCode7		string
extraCode8		string
extraCode9		string
extraCode10		string
customText1		string
customText2		string
customText3		string
customText4		string
customText5		string
customText6		string
customText7		string
customText8		string
customText9		string
customText10		string
customText11		string
customText12		string
customText13		string
customText14		string
customText15		string
customText16		string
customText17		string
customText18		string
customText19		string
customText20		string
customText21		string
customText22		string
customText23		string
customText24		string
customText25		string
virtual		boolean
puGroupCodeFactor		number
puGekCodeFactor		number
puExtraCode1Factor		number
puExtraCode2Factor		number
puExtraCode3Factor		number
puExtraCode4Factor		number
puExtraCode5Factor		number
puExtraCode6Factor		number
puExtraCode7Factor		number
boqItemAssemblySet [{		
Array of object:		
}]		
databaseId		integer
databaseCreationDate		integer
projectId		integer
id		integer

```

data {
  id                integer
  country           string
  currency          string
  description       string
  data              {recursive} ResourceTable
  title            string
  unit             string
  groupCode        string
  lastUpdate       string
  project          string
  tableRate        number
  conceptual        boolean
  co2Rate          number
  gekCode          string
  virtual          boolean
  predicted        boolean
  totalRate        number
  quoted           boolean
  quantity         number
  editorId         string
  extraCode7       string
  createDate       string
  extraCode6       string
  extraCode5       string
  itemCode         string
  createUserId    string
  notes            string
  extraCode2       string
  extraCode8       string
  databaseId       integer
  extraCode3       string
  extraCode4       string
  extraCode1       string
  extraCode9       string
  extraCode10      string
  overrideType     integer
  buildUpRate      number
  fixedCost        number
  timeBasedResource boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable boolean
  databaseCreationDate integer
  rateForCalculation number
  boqItemAssignments [{
    Array of object:
  }]
  assemblyAssignments [{
    Array of object:
  }]
}
resourceAssignmentsList [{
  Array of object:
}]
orderedResourceAssignmentsList [{
  Array of object:
}

```

```

}]
assemblyEquipmentDepreciationRate      number
resourceAssignmentsRecursively [{
Array of object:
}]
assemblyLaborHoursActivityBased        number
assemblyEquipmentHoursActivityBased    number
assemblySubcontractorIKARate          number
assemblyEquipmentFuelRate             number
assemblyMaterialCo2Rate               number
assemblyLaborRate                     number
assemblyLaborHours                    number
assemblyEquipmentCo2Rate              number
assemblyLaborIKARate                  number
assemblySubcontractorCo2Rate          number
assemblyConsumableCo2Rate             number
assemblyEquipmentRate                 number
assemblyLaborCo2Rate                  number
assemblyConsumableRate                 number
assemblyFabricationRate                number
assemblySubcontractorRate             number
assemblyShipmentRate                  number
assemblyEquipmentHours                number
assemblyMaterialTotalRate             number
bimType_sorted                        string
publishedRevisionCode_sorted          string
subcontractorRate_sorted              number
productivity_sorted                   number
laborRate_sorted                      number
materialRate_sorted                   number
consumableRate_sorted                 number
equipmentRate_sorted                  number
bimMaterial_sorted                    string
publishedRate_sorted                  number
tableRate                             number
quoted                                 boolean
predicted                              boolean
unit_sorted                            string
notes_sorted                           string
title_sorted                           string
rate_sorted                            number
createUserId_sorted                   string
quantity_sorted                       number
createDate_sorted                     string
description_sorted                     string
accuracy_sorted                       string
extraCode1_sorted                     string
extraCode4_sorted                     string
boqItemAssignments [{
Array of object:
}]
project_sorted                         string
currency_sorted                       string
gekCode_sorted                         string
editorId_sorted                       string
groupCode_sorted                      string
stateProvince_sorted                  string

```

```

lastUpdate_sorted      string
country_sorted         string
extraCode6_sorted     string
extraCode5_sorted     string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted     string
extraCode2_sorted     string
extraCode3_sorted     string
conceptual            boolean
totalRate             number
buildUpRate           number
fixedCost             number
timeBasedResource     boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable  boolean
rateForCalculation    number
}
finalRate             number
finalCo2Rate          number
finalIKARate          number
fixedCost             number
finalFixedCost        number
comment               string
pvVars                string
projectId             integer
id                    integer
resourceTable {
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  productivity          number
  activityBased         boolean
  timeUnit              string
  id                    integer
  country               string
  currency              string
  description           string
  data {
    id                    integer
    country               string
    currency              string
    description           string
    data                  {recursive} ResourceTable
    title                 string
    unit                  string
    groupCode            string
    lastUpdate           string
    project              string
    tableRate            number
    conceptual            boolean
  }
}

```



```

co2Rate          number
gekCode          string
virtual          boolean
predicted        boolean
totalRate        number
quoted           boolean
quantity         number
editorId         string
extraCode7       string
createDate       string
extraCode6       string
extraCode5       string
itemCode         string
createUserId     string
notes            string
extraCode2       string
extraCode8       string
databaseId       integer
extraCode3       string
extraCode4       string
extraCode1       string
extraCode9       string
extraCode10      string
overrideType     integer
buildUpRate      number
fixedCost        number
timeBasedResource boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
title            string
unit             string
groupCode        string
lastUpdate       string
project          string
tableRate        number
conceptual        boolean
co2Rate          number
gekCode          string
virtual          boolean
predicted        boolean
totalRate        number
quoted           boolean
quantity         number
editorId         string
extraCode7       string
createDate       string

```

```

extraCode6          string
extraCode5          string
itemCode            string
createUserId        string
notes               string
extraCode2          string
extraCode8          string
databaseId          integer
extraCode3          string
extraCode4          string
extraCode1          string
extraCode9          string
extraCode10         string
overrideType        integer
buildUpRate         number
fixedCost           number
timeBasedResource   boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation  number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
assignmentResourceTable {
  id          integer
  country     string
  currency    string
  description  string
  data        {recursive} ResourceTable
  title       string
  unit        string
  groupCode   string
  lastUpdate  string
  project     string
  tableRate   number
  conceptual  boolean
  co2Rate     number
  gekCode     string
  virtual     boolean
  predicted   boolean
  totalRate   number
  quoted      boolean
  quantity    number
  editorId    string
  extraCode7  string
  createDate  string
  extraCode6  string
  extraCode5  string
  itemCode    string
  createUserId string

```

```

    notes                string
    extraCode2           string
    extraCode8           string
    databaseId           integer
    extraCode3           string
    extraCode4           string
    extraCode1           string
    extraCode9           string
    extraCode10          string
    overrideType         integer
    buildUpRate          number
    fixedCost            number
    timeBasedResource    boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation  number
    boqItemAssignments [{
      Array of object:
    }]
    assemblyAssignments [{
      Array of object:
    }]
  }
  variableCost          number
  unitHours             number
  assignmentResourceType string
  timeBasedAssignment  boolean
  totalCost            number
}

```

## 14.7 GET /rest/lineitem/loadLineItemLabor

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```

{
  unitHourResolver {
  }
  comment                string
  data                   {recursive} ResourceToAssignmentTable
  factor1                number
  factor2                number
  variableCost           number
}

```

```

factor6                                number
resourceTable {
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  productivity                          number
  activityBased                          boolean
  timeUnit                               string
  id                                      integer
  country                                string
  currency                               string
  description                            string
  data {
    id                                    integer
    country                              string
    currency                             string
    description                          string
    data                                 {recursive} ResourceTable
    title                                string
    unit                                  string
    groupCode                            string
    lastUpdate                           string
    project                               string
    tableRate                            number
    conceptual                           boolean
    co2Rate                              number
    gekCode                              string
    virtual                              boolean
    predicted                            boolean
    totalRate                            number
    quoted                               boolean
    quantity                             number
    editorId                             string
    extraCode7                           string
    createDate                           string
    extraCode6                           string
    extraCode5                           string
    itemCode                             string
    createUserId                         string
    notes                                 string
    extraCode2                           string
    extraCode8                           string
    databaseId                           integer
    extraCode3                           string
    extraCode4                           string
    extraCode1                           string
    extraCode9                           string
    extraCode10                          string
    overrideType                         integer
    buildUpRate                          number
    fixedCost                            number
    timeBasedResource                    boolean
    parentLineItemAssignments [{
    Array of object:

```

```

    }]
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation number
    boqItemAssignments [{
      Array of object:
    }]
    assemblyAssignments [{
      Array of object:
    }]
  }
  title string
  unit string
  groupCode string
  lastUpdate string
  project string
  tableRate number
  conceptual boolean
  co2Rate number
  gekCode string
  virtual boolean
  predicted boolean
  totalRate number
  quoted boolean
  quantity number
  editorId string
  extraCode7 string
  createDate string
  extraCode6 string
  extraCode5 string
  itemCode string
  createUserId string
  notes string
  extraCode2 string
  extraCode8 string
  databaseId integer
  extraCode3 string
  extraCode4 string
  extraCode1 string
  extraCode9 string
  extraCode10 string
  overrideType integer
  buildUpRate number
  fixedCost number
  timeBasedResource boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable boolean
  databaseCreationDate integer
  rateForCalculation number
  boqItemAssignments [{
    Array of object:
  }]
  assemblyAssignments [{
    Array of object:
  }]
}

```

```

}
unitHours                number
finalRate                number
finalCo2Rate             number
localFactor              number
factor5                  number
exchangeRate             number
factor4                  number
pvVars                   string
localCountry             string
factor3                  number
lastUpdate               string
quantityPerUnitFormulaState string
quantityPerUnit          number
assignmentResourceType   string
finalFixedCost           number
assignmentResourceTable {
  id                      integer
  country                 string
  currency                string
  description              string
  data                    {recursive} ResourceTable
  title                   string
  unit                    string
  groupCode               string
  lastUpdate              string
  project                  string
  tableRate               number
  conceptual               boolean
  co2Rate                  number
  gekCode                 string
  virtual                  boolean
  predicted                boolean
  totalRate                number
  quoted                  boolean
  quantity                 number
  editorId                string
  extraCode7              string
  createDate              string
  extraCode6              string
  extraCode5              string
  itemCode                string
  createUserId            string
  notes                   string
  extraCode2              string
  extraCode8              string
  databaseId              integer
  extraCode3              string
  extraCode4              string
  extraCode1              string
  extraCode9              string
  extraCode10             string
  overrideType            integer
  buildUpRate             number
  fixedCost                number
  timeBasedResource       boolean
  parentLineItemAssignments [{
  Array of object:

```

```

    }
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation number
    boqItemAssignments [{
      Array of object:
    }]
    assemblyAssignments [{
      Array of object:
    }]
  }
  timeBasedAssignment boolean
  quantityPerUnitFormula string
  localStateProvince string
  totalCost number
  fixedCost number
  id integer
}

```

## 14.8 GET /rest/lineitem/loadLineItemLineItem

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  unitHourResolver {
  }
  assemblyChildId integer
  lastUpdate string
  factor1 number
  factor2 number
  factor3 number
  factor4 number
  factor5 number
  factor6 number
  quantityPerUnit number
  quantityPerUnitFormula string
  quantityPerUnitFormulaState string
  localFactor number
  localCountry string
  localStateProvince string
  exchangeRate number
  childTableId integer
  childTable {
    assemblyId integer
    description string
  }
}

```

unit	string
productivity	number
timeUnit	string
groupCode	string
gekCode	string
editorId	string
title	string
project	string
notes	string
currency	string
stateProvince	string
country	string
publishedRate	number
rate	number
publishedRevisionCode	string
bimType	string
bimMaterial	string
laborRate	number
materialRate	number
subcontractorRate	number
consumableRate	number
equipmentRate	number
unitManhours	number
unitEquipmentHours	number
laborCo2Rate	number
materialCo2Rate	number
subcontractorCo2Rate	number
consumableCo2Rate	number
equipmentCo2Rate	number
co2Rate	number
quantity	number
accuracy	string
createUserId	string
createDate	string
virtualEquipment	boolean
virtualSubcontractor	boolean
virtualLabor	boolean
virtualMaterial	boolean
virtualConsumable	boolean
overrideType	integer
activityBased	boolean
accessRights	string
keywords	string
itemCode	string
customRate1	number
customRate2	number
customRate3	number
customRate4	number
customRate5	number
customRate6	number
customRate7	number
customRate8	number
customRate9	number
customRate10	number
customRate11	number
customRate12	number
customRate13	number



customRate14	number
customRate15	number
customRate16	number
customRate17	number
customRate18	number
customRate19	number
customRate20	number
customPercentRate1	number
customPercentRate2	number
customPercentRate3	number
customPercentRate4	number
customPercentRate5	number
customPercentRate6	number
customPercentRate7	number
customPercentRate8	number
customPercentRate9	number
customPercentRate10	number
customPercentRate11	number
customPercentRate12	number
customPercentRate13	number
customPercentRate14	number
customPercentRate15	number
customPercentRate16	number
customPercentRate17	number
customPercentRate18	number
customPercentRate19	number
customPercentRate20	number
vars	string
assemblyLaborSet	[{recursive}] AssemblyLaborTable
assemblyChildSet	[{recursive}] AssemblyAssemblyTable
assemblyParentSet	[{recursive}] AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}] AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}] AssemblyConsumableTable
assemblySubcontractorSet	[{recursive}] AssemblySubcontractorTable
assemblyHistorySet [{	
Array of object:	
}]	
lastUpdate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
customText1	string
customText2	string
customText3	string
customText4	string
customText5	string
customText6	string
customText7	string
customText8	string
customText9	string

customText10	string
customText11	string
customText12	string
customText13	string
customText14	string
customText15	string
customText16	string
customText17	string
customText18	string
customText19	string
customText20	string
customText21	string
customText22	string
customText23	string
customText24	string
customText25	string
virtual	boolean
puGroupCodeFactor	number
puGekCodeFactor	number
puExtraCode1Factor	number
puExtraCode2Factor	number
puExtraCode3Factor	number
puExtraCode4Factor	number
puExtraCode5Factor	number
puExtraCode6Factor	number
puExtraCode7Factor	number
boqItemAssemblySet	[ {
Array of object:	
}	}
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
data {	
id	integer
country	string
currency	string
description	string
data	{recursive} ResourceTable
title	string
unit	string
groupCode	string
lastUpdate	string
project	string
tableRate	number
conceptual	boolean
co2Rate	number
gekCode	string
virtual	boolean
predicted	boolean
totalRate	number
quoted	boolean
quantity	number
editorId	string
extraCode7	string
createDate	string
extraCode6	string

```

extraCode5          string
itemCode            string
createUserId       string
notes              string
extraCode2         string
extraCode8         string
databaseId         integer
extraCode3         string
extraCode4         string
extraCode1         string
extraCode9         string
extraCode10        string
overrideType       integer
buildUpRate        number
fixedCost          number
timeBasedResource  boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
resourceAssignmentsList [{
  Array of object:
}]
orderedResourceAssignmentsList [{
  Array of object:
}]
assemblyEquipmentDepreciationRate number
resourceAssignmentsRecursively [{
  Array of object:
}]
assemblyLaborHoursActivityBased number
assemblyEquipmentHoursActivityBased number
assemblySubcontractorIKARate number
assemblyEquipmentFuelRate number
assemblyMaterialCo2Rate number
assemblyLaborRate number
assemblyLaborHours number
assemblyEquipmentCo2Rate number
assemblyLaborIKARate number
assemblySubcontractorCo2Rate number
assemblyConsumableCo2Rate number
assemblyEquipmentRate number
assemblyLaborCo2Rate number
assemblyConsumableRate number
assemblyFabricationRate number
assemblySubcontractorRate number
assemblyShipmentRate number
assemblyEquipmentHours number

```

```

assemblyMaterialTotalRate      number
bimType_sorted                 string
publishedRevisionCode_sorted  string
subcontractorRate_sorted      number
productivity_sorted           number
laborRate_sorted               number
materialRate_sorted           number
consumableRate_sorted         number
equipmentRate_sorted          number
bimMaterial_sorted            string
publishedRate_sorted          number
tableRate                      number
quoted                          boolean
predicted                       boolean
unit_sorted                    string
notes_sorted                   string
title_sorted                   string
rate_sorted                    number
createUserId_sorted           string
quantity_sorted               number
createDate_sorted             string
description_sorted            string
accuracy_sorted               string
extraCode1_sorted             string
extraCode4_sorted             string
boqItemAssignments [{
  Array of object:
}]
project_sorted                 string
currency_sorted                string
gekCode_sorted                 string
editorId_sorted                string
groupCode_sorted               string
stateProvince_sorted           string
lastUpdate_sorted              string
country_sorted                 string
extraCode6_sorted              string
extraCode5_sorted              string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted              string
extraCode2_sorted              string
extraCode3_sorted              string
conceptual                      boolean
totalRate                      number
buildUpRate                    number
fixedCost                      number
timeBasedResource              boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable           boolean
rateForCalculation             number
}
parentTable {
  assemblyId                    integer

```

description	string
unit	string
productivity	number
timeUnit	string
groupCode	string
gekCode	string
editorId	string
title	string
project	string
notes	string
currency	string
stateProvince	string
country	string
publishedRate	number
rate	number
publishedRevisionCode	string
bimType	string
bimMaterial	string
laborRate	number
materialRate	number
subcontractorRate	number
consumableRate	number
equipmentRate	number
unitManhours	number
unitEquipmentHours	number
laborCo2Rate	number
materialCo2Rate	number
subcontractorCo2Rate	number
consumableCo2Rate	number
equipmentCo2Rate	number
co2Rate	number
quantity	number
accuracy	string
createUserId	string
createDate	string
virtualEquipment	boolean
virtualSubcontractor	boolean
virtualLabor	boolean
virtualMaterial	boolean
virtualConsumable	boolean
overrideType	integer
activityBased	boolean
accessRights	string
keywords	string
itemCode	string
customRate1	number
customRate2	number
customRate3	number
customRate4	number
customRate5	number
customRate6	number
customRate7	number
customRate8	number
customRate9	number
customRate10	number
customRate11	number
customRate12	number

customRate13	number	
customRate14	number	
customRate15	number	
customRate16	number	
customRate17	number	
customRate18	number	
customRate19	number	
customRate20	number	
customPercentRate1	number	
customPercentRate2	number	
customPercentRate3	number	
customPercentRate4	number	
customPercentRate5	number	
customPercentRate6	number	
customPercentRate7	number	
customPercentRate8	number	
customPercentRate9	number	
customPercentRate10	number	
customPercentRate11	number	
customPercentRate12	number	
customPercentRate13	number	
customPercentRate14	number	
customPercentRate15	number	
customPercentRate16	number	
customPercentRate17	number	
customPercentRate18	number	
customPercentRate19	number	
customPercentRate20	number	
vars	string	
assemblyLaborSet	[{recursive}]	AssemblyLaborTable
assemblyChildSet	[{recursive}]	AssemblyAssemblyTable
assemblyParentSet	[{recursive}]	AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}]	AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}]	AssemblyConsumableTable
assemblySubcontractorSet	[{recursive}]	AssemblySubcontractorTable
assemblyHistorySet [{		
Array of object:		
}]		
lastUpdate	string	
extraCode1	string	
extraCode2	string	
extraCode3	string	
extraCode4	string	
extraCode5	string	
extraCode6	string	
extraCode7	string	
extraCode8	string	
extraCode9	string	
extraCode10	string	
customText1	string	
customText2	string	
customText3	string	
customText4	string	
customText5	string	
customText6	string	
customText7	string	
customText8	string	

```

customText9          string
customText10         string
customText11         string
customText12         string
customText13         string
customText14         string
customText15         string
customText16         string
customText17         string
customText18         string
customText19         string
customText20         string
customText21         string
customText22         string
customText23         string
customText24         string
customText25         string
virtual              boolean
puGroupCodeFactor    number
puGekCodeFactor      number
puExtraCode1Factor   number
puExtraCode2Factor   number
puExtraCode3Factor   number
puExtraCode4Factor   number
puExtraCode5Factor   number
puExtraCode6Factor   number
puExtraCode7Factor   number
boqItemAssemblySet  [{
  Array of object:
}]
databaseId           integer
databaseCreationDate integer
projectId            integer
id                   integer
data {
  id                  integer
  country             string
  currency            string
  description         string
  data                {recursive} ResourceTable
  title              string
  unit                string
  groupCode           string
  lastUpdate         string
  project             string
  tableRate           number
  conceptual          boolean
  co2Rate             number
  gekCode             string
  virtual             boolean
  predicted           boolean
  totalRate           number
  quoted              boolean
  quantity            number
  editorId            string
  extraCode7          string
  createDate         string

```

```

extraCode6          string
extraCode5          string
itemCode            string
createUserId        string
notes               string
extraCode2          string
extraCode8          string
databaseId          integer
extraCode3          string
extraCode4          string
extraCode1          string
extraCode9          string
extraCode10         string
overrideType        integer
buildUpRate         number
fixedCost           number
timeBasedResource   boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation  number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
resourceAssignmentsList [{
  Array of object:
}]
orderedResourceAssignmentsList [{
  Array of object:
}]
assemblyEquipmentDepreciationRate  number
resourceAssignmentsRecursively [{
  Array of object:
}]
assemblyLaborHoursActivityBased    number
assemblyEquipmentHoursActivityBased number
assemblySubcontractorIKARate       number
assemblyEquipmentFuelRate          number
assemblyMaterialCo2Rate             number
assemblyLaborRate                   number
assemblyLaborHours                  number
assemblyEquipmentCo2Rate            number
assemblyLaborIKARate                number
assemblySubcontractorCo2Rate        number
assemblyConsumableCo2Rate           number
assemblyEquipmentRate               number
assemblyLaborCo2Rate                number
assemblyConsumableRate              number
assemblyFabricationRate             number
assemblySubcontractorRate           number
assemblyShipmentRate                number

```



```

assemblyEquipmentHours          number
assemblyMaterialTotalRate      number
bimType_sorted                  string
publishedRevisionCode_sorted   string
subcontractorRate_sorted       number
productivity_sorted            number
laborRate_sorted               number
materialRate_sorted            number
consumableRate_sorted          number
equipmentRate_sorted           number
bimMaterial_sorted             string
publishedRate_sorted           number
tableRate                      number
quoted                          boolean
predicted                       boolean
unit_sorted                    string
notes_sorted                   string
title_sorted                   string
rate_sorted                    number
createUserId_sorted            string
quantity_sorted               number
createDate_sorted              string
description_sorted             string
accuracy_sorted                string
extraCode1_sorted              string
extraCode4_sorted              string
boqItemAssignments [{
  Array of object:
}]
project_sorted                 string
currency_sorted                string
gekCode_sorted                 string
editorId_sorted                string
groupCode_sorted               string
stateProvince_sorted           string
lastUpdate_sorted              string
country_sorted                 string
extraCode6_sorted              string
extraCode5_sorted              string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted              string
extraCode2_sorted              string
extraCode3_sorted              string
conceptual                     boolean
totalRate                     number
buildUpRate                    number
fixedCost                      number
timeBasedResource              boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable           boolean
rateForCalculation            number
}
finalRate                      number

```

```

finalCo2Rate          number
fixedCost             number
finalFixedCost       number
comment              string
pvVars               string
projectId            integer
id                   integer
resourceTable {
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  productivity        number
  activityBased       boolean
  timeUnit            string
  id                  integer
  country              string
  currency             string
  description          string
  data {
    id                 integer
    country             string
    currency            string
    description         string
    data                {recursive} ResourceTable
    title              string
    unit                string
    groupCode           string
    lastUpdate          string
    project              string
    tableRate           number
    conceptual           boolean
    co2Rate             number
    gekCode             string
    virtual              boolean
    predicted            boolean
    totalRate           number
    quoted              boolean
    quantity            number
    editorId            string
    extraCode7           string
    createDate          string
    extraCode6           string
    extraCode5           string
    itemCode            string
    createUserId        string
    notes                string
    extraCode2           string
    extraCode8           string
    databaseId           integer
    extraCode3           string
    extraCode4           string
    extraCode1           string
    extraCode9           string
    extraCode10          string
  }
}

```

```

    overrideType          integer
    buildUpRate           number
    fixedCost             number
    timeBasedResource     boolean
    parentLineItemAssignments [{
    Array of object:
    }]
    projectResourceTable  boolean
    databaseCreationDate  integer
    rateForCalculation    number
    boqItemAssignments   [{
    Array of object:
    }]
    assemblyAssignments  [{
    Array of object:
    }]
}
title                   string
unit                   string
groupCode              string
lastUpdate             string
project                string
tableRate              number
conceptual             boolean
co2Rate                number
gekCode                string
virtual                boolean
predicted              boolean
totalRate              number
quoted                 boolean
quantity               number
editorId               string
extraCode7             string
createDate             string
extraCode6             string
extraCode5             string
itemCode               string
createUserId           string
notes                  string
extraCode2             string
extraCode8             string
databaseId             integer
extraCode3             string
extraCode4             string
extraCode1             string
extraCode9             string
extraCode10            string
overrideType           integer
buildUpRate            number
fixedCost              number
timeBasedResource     boolean
parentLineItemAssignments [{
    Array of object:
    }]
projectResourceTable  boolean
databaseCreationDate  integer
rateForCalculation    number

```

```

    boqItemAssignments [{
      Array of object:
    }]
    assemblyAssignments [{
      Array of object:
    }]
  }
assignmentResourceTable {
  id                integer
  country           string
  currency          string
  description       string
  data              {recursive} ResourceTable
  title            string
  unit             string
  groupCode        string
  lastUpdate       string
  project          string
  tableRate        number
  conceptual       boolean
  co2Rate          number
  gekCode          string
  virtual          boolean
  predicted        boolean
  totalRate        number
  quoted           boolean
  quantity         number
  editorId         string
  extraCode7       string
  createDate       string
  extraCode6       string
  extraCode5       string
  itemCode         string
  createUserId    string
  notes            string
  extraCode2       string
  extraCode8       string
  databaseId       integer
  extraCode3       string
  extraCode4       string
  extraCode1       string
  extraCode9       string
  extraCode10      string
  overrideType     integer
  buildUpRate      number
  fixedCost        number
  timeBasedResource boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable boolean
  databaseCreationDate integer
  rateForCalculation number
  boqItemAssignments [{
    Array of object:
  }]
  assemblyAssignments [{
    Array of object:
  }]
}

```

```

    }]
  }
  variableCost          number
  unitHours            number
  assignmentResourceType string
  timeBasedAssignment  boolean
  totalCost            number
}

```

## 14.9 GET /rest/lineitem/loadLineItemMaterial

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  unitHourResolver {
  }
  assemblyMaterialId          integer
  lastUpdate                  string
  factor1                     number
  factor2                     number
  factor4                     number
  factor5                     number
  factor6                     number
  quantityPerUnit             number
  quantityPerUnitFormula      string
  quantityPerUnitFormulaState string
  localFactor                 number
  localCountry                string
  localStateProvince          string
  exchangeRate                number
  materialTableId             integer
  materialTable {
    materialId                integer
    title                     string
    bimMaterial                string
    bimType                   string
    description                string
    country                   string
    unit                      string
    rate                      number
    co2Rate                   number
    weight                    number
    weightUnit                string
    quantity                  number
    groupCode                 string
  }
}

```

gekCode	string
rawMaterial	string
rawMaterialReliance	number
rawMaterial2	string
rawMaterialReliance2	number
rawMaterial3	string
rawMaterialReliance3	number
rawMaterial4	string
rawMaterialReliance4	number
rawMaterial5	string
rawMaterialReliance5	number
buildUpRate	number
overrideType	integer
volFlow	number
massFlow	number
duty	number
operPress	number
operTemp	number
volFlowUnit	string
massFlowUnit	string
dutyUnit	string
operTempUnit	string
operPressUnit	string
project	string
editorId	string
notes	string
stateProvince	string
supplierName	string
currency	string
lastUpdate	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
accuracy	string
shipmentRate	number
fabricationRate	number
totalRate	number
inclusion	string
distanceToSite	number
distanceUnit	string
supplierTable {	
supplierId	integer
title	string
description	string
contactPerson	string
phoneNumber	string
mobileNumber	string
faxNumber	string

email	string
city	string
address	string
notes	string
editorId	string
stateProvince	string
groupCode	string
gekCode	string
url	string
performance	string
country	string
lastUpdate	string
createUserId	string
geoLocation	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
itemCode	string
materialSet	[{recursive}] MaterialTable
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
resourceAssignmentsList	[{ Array of object: }]
unit	string
orderedResourceAssignmentsList	[{ Array of object: }]
productivity	number
project	string
geoLocation_sorted	string
tableRate	number
virtual	boolean
quantity	number
predicted	boolean
url_sorted	string
notes_sorted	string
city_sorted	string
title_sorted	string
email_sorted	string
createUserId_sorted	string
createDate_sorted	string
contactPerson_sorted	string
description_sorted	string
phoneNumber_sorted	string
mobileNumber_sorted	string
extraCode1_sorted	string

```

extraCode4_sorted      string
boqItemAssignments [{
  Array of object:
}]
extraCode8_sorted      string
gekCode_sorted         string
address_sorted         string
extraCode9_sorted      string
editorId_sorted        string
groupCode_sorted       string
stateProvince_sorted  string
lastUpdate_sorted     string
country_sorted         string
extraCode6_sorted      string
extraCode10_sorted     string
extraCode5_sorted      string
performance_sorted     string
faxNumber_sorted       string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted      string
extraCode2_sorted      string
extraCode3_sorted      string
activityBased          boolean
timeUnit               string
currency               string
conceptual             boolean
co2Rate                number
totalRate              number
quoted                 boolean
overrideType           integer
buildUpRate            number
fixedCost              number
timeBasedResource      boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable  boolean
rateForCalculation    number
}
virtual                boolean
conceptual             boolean
predicted              boolean
trendChartType         integer
trendValue             number
trendUnit              string
trendColorCode         integer
trendDate              string
trendRegType           integer
trendIds               string
accessRights           string
keywords               string
itemCode               string
assemblyMaterialSet   [{recursive}] AssemblyMaterialTable
boqItemMaterialSet [{
  Array of object:
}

```



```

}]
materialHistorySet [{
  Array of object:
}]
databaseId          integer
databaseCreationDate integer
projectId           integer
id                  integer
weight_sorted       number
bimType_sorted      string
bimMaterial_sorted  string
rawMaterialUnit_sorted string
supplierName_sorted string
weightUnit_sorted   string
distanceUnit_sorted string
parentResourceTitle string
parentResourceTable {
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  productivity          number
  activityBased         boolean
  timeUnit              string
  id                    integer
  country               string
  currency              string
  description           string
  data {
    id                  integer
    country             string
    currency            string
    description         string
    data                {recursive} ResourceTable
    title               string
    unit                string
    groupCode           string
    lastUpdate          string
    project             string
    tableRate           number
    conceptual          boolean
    co2Rate             number
    gekCode             string
    virtual             boolean
    predicted           boolean
    totalRate           number
    quoted              boolean
    quantity            number
    editorId            string
    extraCode7          string
    createDate          string
    extraCode6          string
    extraCode5          string
    itemCode            string
    createUserId        string
  }
}

```

```

notes                string
extraCode2           string
extraCode8           string
databaseId           integer
extraCode3           string
extraCode4           string
extraCode1           string
extraCode9           string
extraCode10          string
overrideType         integer
buildUpRate          number
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation  number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
title                string
unit                 string
groupCode            string
lastUpdate           string
project              string
tableRate            number
conceptual           boolean
co2Rate              number
gekCode              string
virtual              boolean
predicted            boolean
totalRate            number
quoted               boolean
quantity             number
editorId             string
extraCode7           string
createDate           string
extraCode6           string
extraCode5           string
itemCode             string
createUserId         string
notes                string
extraCode2           string
extraCode8           string
databaseId           integer
extraCode3           string
extraCode4           string
extraCode1           string
extraCode9           string
extraCode10          string
overrideType         integer

```

```

    buildUpRate          number
    fixedCost            number
    timeBasedResource    boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable  boolean
    databaseCreationDate  integer
    rateForCalculation    number
    boqItemAssignments [{
      Array of object:
    }]
    assemblyAssignments [{
      Array of object:
    }]
  }
  shipmentRate_sorted    number
  tableRate              number
  quoted                 boolean
  unit_sorted            string
  notes_sorted           string
  title_sorted           string
  rate_sorted            number
  inclusion_sorted       string
  createUserId_sorted    string
  quantity_sorted        number
  createDate_sorted      string
  description_sorted      string
  rateForCalculation      number
  accuracy_sorted        string
  extraCode1_sorted      string
  extraCode4_sorted      string
  boqItemAssignments [{
    Array of object:
  }]
  project_sorted         string
  currency_sorted        string
  extraCode8_sorted      string
  gekCode_sorted         string
  extraCode9_sorted      string
  editorId_sorted        string
  groupCode_sorted       string
  stateProvince_sorted   string
  lastUpdate_sorted      string
  totalRate_sorted       number
  country_sorted         string
  extraCode6_sorted      string
  extraCode10_sorted     string
  extraCode5_sorted      string
  assemblyAssignments [{
    Array of object:
  }]
  extraCode7_sorted      string
  extraCode2_sorted      string
  extraCode3_sorted      string
  fixedCost              number
  timeBasedResource      boolean

```

```

parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable    boolean
}
assemblyTable {
  assemblyId              integer
  description             string
  unit                   string
  productivity            number
  timeUnit               string
  groupCode              string
  gekCode                string
  editorId               string
  title                  string
  project                 string
  notes                  string
  currency                string
  stateProvince          string
  country                 string
  publishedRate          number
  rate                   number
  publishedRevisionCode  string
  bimType                string
  bimMaterial            string
  laborRate              number
  materialRate           number
  subcontractorRate      number
  consumableRate         number
  equipmentRate          number
  unitManhours           number
  unitEquipmentHours     number
  laborCo2Rate           number
  materialCo2Rate        number
  subcontractorCo2Rate   number
  consumableCo2Rate      number
  equipmentCo2Rate       number
  co2Rate                number
  quantity               number
  accuracy                string
  createUserId           string
  createDate             string
  virtualEquipment       boolean
  virtualSubcontractor   boolean
  virtualLabor           boolean
  virtualMaterial        boolean
  virtualConsumable      boolean
  overrideType           integer
  activityBased           boolean
  accessRights            string
  keywords                string
  itemCode                string
  customRate1            number
  customRate2            number
  customRate3            number
  customRate4            number
  customRate5            number
}

```

customRate6	number	
customRate7	number	
customRate8	number	
customRate9	number	
customRate10	number	
customRate11	number	
customRate12	number	
customRate13	number	
customRate14	number	
customRate15	number	
customRate16	number	
customRate17	number	
customRate18	number	
customRate19	number	
customRate20	number	
customPercentRate1	number	
customPercentRate2	number	
customPercentRate3	number	
customPercentRate4	number	
customPercentRate5	number	
customPercentRate6	number	
customPercentRate7	number	
customPercentRate8	number	
customPercentRate9	number	
customPercentRate10	number	
customPercentRate11	number	
customPercentRate12	number	
customPercentRate13	number	
customPercentRate14	number	
customPercentRate15	number	
customPercentRate16	number	
customPercentRate17	number	
customPercentRate18	number	
customPercentRate19	number	
customPercentRate20	number	
vars	string	
assemblyLaborSet	[{recursive}]	AssemblyLaborTable
assemblyChildSet	[{recursive}]	AssemblyAssemblyTable
assemblyParentSet	[{recursive}]	AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}]	AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}]	AssemblyConsumableTable
assemblySubcontractorSet	[{recursive}]	AssemblySubcontractorTable
assemblyHistorySet [{ Array of object: }]		
lastUpdate	string	
extraCode1	string	
extraCode2	string	
extraCode3	string	
extraCode4	string	
extraCode5	string	
extraCode6	string	
extraCode7	string	
extraCode8	string	
extraCode9	string	
extraCode10	string	
customText1	string	

customText2	string
customText3	string
customText4	string
customText5	string
customText6	string
customText7	string
customText8	string
customText9	string
customText10	string
customText11	string
customText12	string
customText13	string
customText14	string
customText15	string
customText16	string
customText17	string
customText18	string
customText19	string
customText20	string
customText21	string
customText22	string
customText23	string
customText24	string
customText25	string
virtual	boolean
puGroupCodeFactor	number
puGekCodeFactor	number
puExtraCode1Factor	number
puExtraCode2Factor	number
puExtraCode3Factor	number
puExtraCode4Factor	number
puExtraCode5Factor	number
puExtraCode6Factor	number
puExtraCode7Factor	number
boqItemAssemblySet [{	
Array of object:	
}]	
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
data {	
id	integer
country	string
currency	string
description	string
data	{recursive} ResourceTable
title	string
unit	string
groupCode	string
lastUpdate	string
project	string
tableRate	number
conceptual	boolean
co2Rate	number
gekCode	string
virtual	boolean

```

predicted                boolean
totalRate                number
quoted                   boolean
quantity                 number
editorId                 string
extraCode7               string
createDate               string
extraCode6               string
extraCode5               string
itemCode                 string
createUserId             string
notes                    string
extraCode2               string
extraCode8               string
databaseId               integer
extraCode3               string
extraCode4               string
extraCode1               string
extraCode9               string
extraCode10              string
overrideType             integer
buildUpRate              number
fixedCost                number
timeBasedResource        boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable     boolean
databaseCreationDate     integer
rateForCalculation       number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
resourceAssignmentsList [{
  Array of object:
}]
orderedResourceAssignmentsList [{
  Array of object:
}]
assemblyEquipmentDepreciationRate    number
resourceAssignmentsRecursively [{
  Array of object:
}]
assemblyLaborHoursActivityBased      number
assemblyEquipmentHoursActivityBased  number
assemblySubcontractorIKARate         number
assemblyEquipmentFuelRate            number
assemblyMaterialCo2Rate              number
assemblyLaborRate                     number
assemblyLaborHours                    number
assemblyEquipmentCo2Rate              number
assemblyLaborIKARate                  number
assemblySubcontractorCo2Rate          number

```

assemblyConsumableCo2Rate	number
assemblyEquipmentRate	number
assemblyLaborCo2Rate	number
assemblyConsumableRate	number
assemblyFabricationRate	number
assemblySubcontractorRate	number
assemblyShipmentRate	number
assemblyEquipmentHours	number
assemblyMaterialTotalRate	number
bimType_sorted	string
publishedRevisionCode_sorted	string
subcontractorRate_sorted	number
productivity_sorted	number
laborRate_sorted	number
materialRate_sorted	number
consumableRate_sorted	number
equipmentRate_sorted	number
bimMaterial_sorted	string
publishedRate_sorted	number
tableRate	number
quoted	boolean
predicted	boolean
unit_sorted	string
notes_sorted	string
title_sorted	string
rate_sorted	number
createUserId_sorted	string
quantity_sorted	number
createDate_sorted	string
description_sorted	string
accuracy_sorted	string
extraCode1_sorted	string
extraCode4_sorted	string
boqItemAssignments [{ Array of object: }]	
project_sorted	string
currency_sorted	string
gekCode_sorted	string
editorId_sorted	string
groupCode_sorted	string
stateProvince_sorted	string
lastUpdate_sorted	string
country_sorted	string
extraCode6_sorted	string
extraCode5_sorted	string
assemblyAssignments [{ Array of object: }]	
extraCode7_sorted	string
extraCode2_sorted	string
extraCode3_sorted	string
conceptual	boolean
totalRate	number
buildUpRate	number
fixedCost	number
timeBasedResource	boolean



```

parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable          boolean
rateForCalculation           number
}
finalRate                     number
finalCo2Rate                  number
fixedCost                     number
finalFixedCost                number
comment                       string
pvVars                        string
projectId                     integer
id                             integer
resourceTable {
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  productivity                 number
  activityBased                boolean
  timeUnit                    string
  id                           integer
  country                     string
  currency                    string
  description                  string
  data {
    id                         integer
    country                   string
    currency                  string
    description               string
    data                      {recursive} ResourceTable
    title                    string
    unit                     string
    groupCode                 string
    lastUpdate                string
    project                   string
    tableRate                 number
    conceptual                 boolean
    co2Rate                   number
    gekCode                   string
    virtual                   boolean
    predicted                 boolean
    totalRate                 number
    quoted                    boolean
    quantity                  number
    editorId                  string
    extraCode7                string
    createDate                string
    extraCode6                string
    extraCode5                string
    itemCode                  string
    createUserId              string
    notes                     string
    extraCode2                string
  }
}

```

```

    extraCode8          string
    databaseId          integer
    extraCode3          string
    extraCode4          string
    extraCode1          string
    extraCode9          string
    extraCode10         string
    overrideType        integer
    buildUpRate         number
    fixedCost           number
    timeBasedResource   boolean
    parentLineItemAssignments [{
    Array of object:
    }]
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation  number
    boqItemAssignments [{
    Array of object:
    }]
    assemblyAssignments [{
    Array of object:
    }]
}
title          string
unit           string
groupCode      string
lastUpdate     string
project        string
tableRate      number
conceptual     boolean
co2Rate        number
gekCode        string
virtual        boolean
predicted      boolean
totalRate      number
quoted         boolean
quantity       number
editorId       string
extraCode7     string
createDate     string
extraCode6     string
extraCode5     string
itemCode       string
createUserId   string
notes          string
extraCode2     string
extraCode8     string
databaseId     integer
extraCode3     string
extraCode4     string
extraCode1     string
extraCode9     string
extraCode10    string
overrideType   integer
buildUpRate    number
fixedCost      number

```

```

timeBasedResource          boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable       boolean
databaseCreationDate       integer
rateForCalculation         number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
factor3                     number
assignmentResourceTable {
  id                         integer
  country                    string
  currency                   string
  description                 string
  data                       {recursive} ResourceTable
  title                      string
  unit                       string
  groupCode                  string
  lastUpdate                 string
  project                    string
  tableRate                  number
  conceptual                  boolean
  co2Rate                    number
  gekCode                    string
  virtual                    boolean
  predicted                  boolean
  totalRate                  number
  quoted                     boolean
  quantity                   number
  editorId                   string
  extraCode7                 string
  createDate                 string
  extraCode6                 string
  extraCode5                 string
  itemCode                   string
  createUserId              string
  notes                      string
  extraCode2                 string
  extraCode8                 string
  databaseId                 integer
  extraCode3                 string
  extraCode4                 string
  extraCode1                 string
  extraCode9                 string
  extraCode10                string
  overrideType               integer
  buildUpRate                number
  fixedCost                  number
  timeBasedResource          boolean
  parentLineItemAssignments [{
    Array of object:
  }
}

```

```

    }
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation number
    boqItemAssignments [{
      Array of object:
    }]
    assemblyAssignments [{
      Array of object:
    }]
  }
  variableCost number
  unitHours number
  assignmentResourceType string
  timeBasedAssignment boolean
  totalCost number
}

```

## 14.10 GET /rest/lineitem/loadLineItemConsumable

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
id	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

{
  unitHourResolver {
  }
  assemblyConsumableId integer
  lastUpdate string
  factor1 number
  factor2 number
  factor3 number
  factor4 number
  factor5 number
  factor6 number
  quantityPerUnit number
  quantityPerUnitFormula string
  quantityPerUnitFormulaState string
  localFactor number
  localCountry string
  localStateProvince string
  exchangeRate number
  consumableTableId integer
  consumableTable {
    consumableId integer
    lastUpdate string
    description string
  }
}

```

unit	string
rate	number
co2Rate	number
quantity	number
groupCode	string
gekCode	string
editorId	string
title	string
notes	string
project	string
currency	string
stateProvince	string
country	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
buildUpRate	number
virtual	boolean
predicted	boolean
conceptual	boolean
overrideType	integer
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
accessRights	string
keywords	string
itemCode	string
boqItemConsumableSet	[{ Array of object: }]
consumableHistorySet	[{ Array of object: }]
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
tableRate	number
totalRate	number
unit_sorted	string
notes_sorted	string
title_sorted	string
rate_sorted	number
createUserId_sorted	string

```

quantity_sorted      number
createDate_sorted   string
description_sorted   string
rateForCalculation  number
extraCode1_sorted   string
extraCode4_sorted   string
boqItemAssignments [{
  Array of object:
}]
project_sorted      string
currency_sorted     string
extraCode8_sorted   string
gekCode_sorted      string
extraCode9_sorted   string
editorId_sorted     string
groupCode_sorted    string
stateProvince_sorted string
lastUpdate_sorted   string
country_sorted      string
extraCode6_sorted   string
extraCode10_sorted  string
extraCode5_sorted   string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted   string
extraCode2_sorted   string
extraCode3_sorted   string
quoted               boolean
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}
assemblyTable {
  assemblyId          integer
  description          string
  unit                string
  productivity         number
  timeUnit            string
  groupCode           string
  gekCode             string
  editorId            string
  title               string
  project             string
  notes               string
  currency            string
  stateProvince       string
  country             string
  publishedRate       number
  rate                number
  publishedRevisionCode string
  bimType             string
  bimMaterial         string
  laborRate           number

```

materialRate	number
subcontractorRate	number
consumableRate	number
equipmentRate	number
unitManhours	number
unitEquipmentHours	number
laborCo2Rate	number
materialCo2Rate	number
subcontractorCo2Rate	number
consumableCo2Rate	number
equipmentCo2Rate	number
co2Rate	number
quantity	number
accuracy	string
createUserId	string
createDate	string
virtualEquipment	boolean
virtualSubcontractor	boolean
virtualLabor	boolean
virtualMaterial	boolean
virtualConsumable	boolean
overrideType	integer
activityBased	boolean
accessRights	string
keywords	string
itemCode	string
customRate1	number
customRate2	number
customRate3	number
customRate4	number
customRate5	number
customRate6	number
customRate7	number
customRate8	number
customRate9	number
customRate10	number
customRate11	number
customRate12	number
customRate13	number
customRate14	number
customRate15	number
customRate16	number
customRate17	number
customRate18	number
customRate19	number
customRate20	number
customPercentRate1	number
customPercentRate2	number
customPercentRate3	number
customPercentRate4	number
customPercentRate5	number
customPercentRate6	number
customPercentRate7	number
customPercentRate8	number
customPercentRate9	number
customPercentRate10	number
customPercentRate11	number

customPercentRate12	number	
customPercentRate13	number	
customPercentRate14	number	
customPercentRate15	number	
customPercentRate16	number	
customPercentRate17	number	
customPercentRate18	number	
customPercentRate19	number	
customPercentRate20	number	
vars	string	
assemblyLaborSet	[{recursive}]	AssemblyLaborTable
assemblyChildSet	[{recursive}]	AssemblyAssemblyTable
assemblyParentSet	[{recursive}]	AssemblyAssemblyTable
assemblyEquipmentSet	[{recursive}]	AssemblyEquipmentTable
assemblyConsumableSet	[{recursive}]	AssemblyConsumableTable
assemblySubcontractorSet	[{recursive}]	AssemblySubcontractorTable
assemblyHistorySet [{		
Array of object:		
}]		
lastUpdate	string	
extraCode1	string	
extraCode2	string	
extraCode3	string	
extraCode4	string	
extraCode5	string	
extraCode6	string	
extraCode7	string	
extraCode8	string	
extraCode9	string	
extraCode10	string	
customText1	string	
customText2	string	
customText3	string	
customText4	string	
customText5	string	
customText6	string	
customText7	string	
customText8	string	
customText9	string	
customText10	string	
customText11	string	
customText12	string	
customText13	string	
customText14	string	
customText15	string	
customText16	string	
customText17	string	
customText18	string	
customText19	string	
customText20	string	
customText21	string	
customText22	string	
customText23	string	
customText24	string	
customText25	string	
virtual	boolean	
puGroupCodeFactor	number	



```

puGekCodeFactor                number
puExtraCode1Factor             number
puExtraCode2Factor             number
puExtraCode3Factor             number
puExtraCode4Factor             number
puExtraCode5Factor             number
puExtraCode6Factor             number
puExtraCode7Factor             number
boqItemAssemblySet [{
Array of object:
}]
databaseId                     integer
databaseCreationDate           integer
projectId                       integer
id                              integer
data {
  id                            integer
  country                       string
  currency                      string
  description                   string
  data                          {recursive} ResourceTable
  title                         string
  unit                          string
  groupCode                     string
  lastUpdate                    string
  project                       string
  tableRate                     number
  conceptual                     boolean
  co2Rate                       number
  gekCode                       string
  virtual                       boolean
  predicted                     boolean
  totalRate                     number
  quoted                        boolean
  quantity                      number
  editorId                      string
  extraCode7                    string
  createDate                    string
  extraCode6                    string
  extraCode5                    string
  itemCode                      string
  createUserId                 string
  notes                         string
  extraCode2                    string
  extraCode8                    string
  databaseId                    integer
  extraCode3                    string
  extraCode4                    string
  extraCode1                    string
  extraCode9                    string
  extraCode10                   string
  overrideType                  integer
  buildUpRate                   number
  fixedCost                     number
  timeBasedResource             boolean
  parentLineItemAssignments [{
Array of object:

```

```

    }]
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation number
    boqItemAssignments [{
      Array of object:
    }]
    assemblyAssignments [{
      Array of object:
    }]
  }
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  assemblyEquipmentDepreciationRate number
  resourceAssignmentsRecursively [{
    Array of object:
  }]
  assemblyLaborHoursActivityBased number
  assemblyEquipmentHoursActivityBased number
  assemblySubcontractorIKARate number
  assemblyEquipmentFuelRate number
  assemblyMaterialCo2Rate number
  assemblyLaborRate number
  assemblyLaborHours number
  assemblyEquipmentCo2Rate number
  assemblyLaborIKARate number
  assemblySubcontractorCo2Rate number
  assemblyConsumableCo2Rate number
  assemblyEquipmentRate number
  assemblyLaborCo2Rate number
  assemblyConsumableRate number
  assemblyFabricationRate number
  assemblySubcontractorRate number
  assemblyShipmentRate number
  assemblyEquipmentHours number
  assemblyMaterialTotalRate number
  bimType_sorted string
  publishedRevisionCode_sorted string
  subcontractorRate_sorted number
  productivity_sorted number
  laborRate_sorted number
  materialRate_sorted number
  consumableRate_sorted number
  equipmentRate_sorted number
  bimMaterial_sorted string
  publishedRate_sorted number
  tableRate number
  quoted boolean
  predicted boolean
  unit_sorted string
  notes_sorted string
  title_sorted string
  rate_sorted number

```

```

createUserId_sorted      string
quantity_sorted         number
createDate_sorted       string
description_sorted       string
accuracy_sorted          string
extraCode1_sorted        string
extraCode4_sorted        string
boqItemAssignments [{
  Array of object:
}]
project_sorted           string
currency_sorted          string
gekCode_sorted           string
editorId_sorted          string
groupCode_sorted         string
stateProvince_sorted     string
lastUpdate_sorted        string
country_sorted           string
extraCode6_sorted        string
extraCode5_sorted        string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted        string
extraCode2_sorted        string
extraCode3_sorted        string
conceptual                boolean
totalRate                 number
buildUpRate               number
fixedCost                 number
timeBasedResource         boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable     boolean
rateForCalculation       number
}
finalRate                 number
finalCo2Rate              number
fixedCost                 number
finalFixedCost            number
comment                   string
pvVars                    string
projectId                 integer
id                        integer
resourceTable {
  resourceAssignmentsList [{
    Array of object:
  }]
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  productivity             number
  activityBased            boolean
  timeUnit                 string
  id                       integer
  country                  string

```

```

currency          string
description       string
data {
  id              integer
  country        string
  currency       string
  description     string
  data           {recursive} ResourceTable
  title          string
  unit           string
  groupCode      string
  lastUpdate     string
  project        string
  tableRate      number
  conceptual     boolean
  co2Rate        number
  gekCode        string
  virtual        boolean
  predicted      boolean
  totalRate      number
  quoted         boolean
  quantity       number
  editorId       string
  extraCode7     string
  createDate     string
  extraCode6     string
  extraCode5     string
  itemCode       string
  createUserId  string
  notes          string
  extraCode2     string
  extraCode8     string
  databaseId     integer
  extraCode3     string
  extraCode4     string
  extraCode1     string
  extraCode9     string
  extraCode10    string
  overrideType  integer
  buildUpRate    number
  fixedCost      number
  timeBasedResource boolean
  parentLineItemAssignments [{
    Array of object:
  }]
  projectResourceTable boolean
  databaseCreationDate integer
  rateForCalculation number
  boqItemAssignments [{
    Array of object:
  }]
  assemblyAssignments [{
    Array of object:
  }]
}
title            string
unit            string

```

```

groupCode                string
lastUpdate              string
project                 string
tableRate               number
conceptual              boolean
co2Rate                 number
gekCode                 string
virtual                 boolean
predicted               boolean
totalRate               number
quoted                  boolean
quantity                number
editorId                string
extraCode7              string
createDate              string
extraCode6              string
extraCode5              string
itemCode                string
createUserId            string
notes                   string
extraCode2              string
extraCode8              string
databaseId              integer
extraCode3              string
extraCode4              string
extraCode1              string
extraCode9              string
extraCode10             string
overrideType            integer
buildUpRate             number
fixedCost               number
timeBasedResource       boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable    boolean
databaseCreationDate    integer
rateForCalculation      number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
assignmentResourceTable {
  id                      integer
  country                 string
  currency                string
  description              string
  data                    {recursive} ResourceTable
  title                   string
  unit                    string
  groupCode               string
  lastUpdate              string
  project                 string
  tableRate               number

```

```

conceptual          boolean
co2Rate            number
gekCode            string
virtual            boolean
predicted          boolean
totalRate          number
quoted             boolean
quantity           number
editorId           string
extraCode7         string
createDate         string
extraCode6         string
extraCode5         string
itemCode           string
createUserId       string
notes              string
extraCode2         string
extraCode8         string
databaseId         integer
extraCode3         string
extraCode4         string
extraCode1         string
extraCode9         string
extraCode10        string
overrideType       integer
buildUpRate        number
fixedCost          number
timeBasedResource  boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
databaseCreationDate integer
rateForCalculation  number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
variableCost          number
unitHours             number
assignmentResourceType string
timeBasedAssignment  boolean
totalCost             number
}

```

---

# 15. MATERIAL

## 15.1 GET /rest/material/partialSearchMaterials

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
{
  resultSize      integer
  partialSize     integer
  partialStart    integer
  pageSize        integer
  sortByField     string
  ascending       boolean
  query           string
  queryType       string
  seconds         number
  result [{
    Array of object:
  }]
}
```

## 15.2 GET /rest/material/loadMaterial

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
materialId	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
{
  materialId      integer
}
```

title	string
bimMaterial	string
bimType	string
description	string
country	string
unit	string
rate	number
co2Rate	number
weight	number
weightUnit	string
quantity	number
groupCode	string
gekCode	string
rawMaterial	string
rawMaterialReliance	number
rawMaterial2	string
rawMaterialReliance2	number
rawMaterial3	string
rawMaterialReliance3	number
rawMaterial4	string
rawMaterialReliance4	number
rawMaterial5	string
rawMaterialReliance5	number
buildUpRate	number
overrideType	integer
volFlow	number
massFlow	number
duty	number
operPress	number
operTemp	number
volFlowUnit	string
massFlowUnit	string
dutyUnit	string
operTempUnit	string
operPressUnit	string
project	string
editorId	string
notes	string
stateProvince	string
supplierName	string
currency	string
lastUpdate	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
accuracy	string
shipmentRate	number
fabricationRate	number



```

totalRate          number
inclusion           string
distanceToSite    number
distanceUnit      string
supplierTable {
  supplierId      integer
  title           string
  description     string
  contactPerson   string
  phoneNumber     string
  mobileNumber   string
  faxNumber       string
  email          string
  city           string
  address        string
  notes          string
  editorId       string
  stateProvince  string
  groupCode      string
  gekCode        string
  url            string
  performance    string
  country        string
  lastUpdate     string
  createUserId   string
  geoLocation    string
  createDate     string
  extraCode1     string
  extraCode2     string
  extraCode3     string
  extraCode4     string
  extraCode5     string
  extraCode6     string
  extraCode7     string
  extraCode8     string
  extraCode9     string
  extraCode10    string
  itemCode       string
  materialSet    [{recursive}] MaterialTable
  databaseId     integer
  databaseCreationDate integer
  projectId      integer
  id             integer
  resourceAssignmentsList [{
    Array of object:
  }]
  unit          string
  orderedResourceAssignmentsList [{
    Array of object:
  }]
  productivity  number
  project       string
  geoLocation_sorted string
  tableRate    number
  virtual      boolean
  quantity     number
  predicted    boolean

```

```

url_sorted          string
notes_sorted       string
city_sorted        string
title_sorted       string
email_sorted       string
createUserId_sorted string
createDate_sorted  string
contactPerson_sorted string
description_sorted  string
phoneNumber_sorted string
mobileNumber_sorted string
extraCode1_sorted  string
extraCode4_sorted  string
boqItemAssignments [{
  Array of object:
}]
extraCode8_sorted  string
gekCode_sorted     string
address_sorted     string
extraCode9_sorted  string
editorId_sorted    string
groupCode_sorted   string
stateProvince_sorted string
lastUpdate_sorted  string
country_sorted     string
extraCode6_sorted  string
extraCode10_sorted string
extraCode5_sorted  string
performance_sorted string
faxNumber_sorted   string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted  string
extraCode2_sorted  string
extraCode3_sorted  string
activityBased      boolean
timeUnit           string
currency           string
conceptual         boolean
co2Rate            number
totalRate          number
quoted             boolean
overrideType       integer
buildUpRate        number
fixedCost          number
timeBasedResource  boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation number
}
virtual            boolean
conceptual         boolean
predicted          boolean
trendChartType    integer

```

```

trendValue          number
trendUnit           string
trendColorCode     integer
trendDate           string
trendRegType        integer
trendIds            string
accessRights        string
keywords            string
itemCode            string
assemblyMaterialSet [{recursive}] AssemblyMaterialTable
boqItemMaterialSet [{
Array of object:
}]
materialHistorySet [{
Array of object:
}]
databaseId          integer
databaseCreationDate integer
projectId           integer
id                  integer
weight_sorted       number
bimType_sorted      string
bimMaterial_sorted  string
rawMaterialUnit_sorted string
supplierName_sorted string
weightUnit_sorted   string
distanceUnit_sorted string
parentResourceTitle string
parentResourceTable {
  resourceAssignmentsList [{
Array of object:
}]
  orderedResourceAssignmentsList [{
Array of object:
}]
  productivity          number
  activityBased          boolean
  timeUnit              string
  id                    integer
  country                string
  currency               string
  description            string
  data {
    id                    integer
    country                string
    currency               string
    description            string
    data                  {recursive} ResourceTable
    title                  string
    unit                   string
    groupCode              string
    lastUpdate             string
    project                string
    tableRate              number
    conceptual             boolean
    co2Rate                number
    gekCode                string

```

```

virtual                boolean
predicted              boolean
totalRate              number
quoted                 boolean
quantity               number
editorId               string
extraCode7             string
createDate             string
extraCode6             string
extraCode5             string
itemCode               string
createUserId           string
notes                  string
extraCode2             string
extraCode8             string
databaseId             integer
extraCode3             string
extraCode4             string
extraCode1             string
extraCode9             string
extraCode10            string
overrideType           integer
buildUpRate            number
fixedCost              number
timeBasedResource      boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable  boolean
databaseCreationDate  integer
rateForCalculation    number
boqItemAssignments [{
  Array of object:
}]
assemblyAssignments [{
  Array of object:
}]
}
title                  string
unit                   string
groupCode              string
lastUpdate             string
project                string
tableRate              number
conceptual             boolean
co2Rate                number
gekCode                string
virtual                boolean
predicted              boolean
totalRate              number
quoted                 boolean
quantity               number
editorId               string
extraCode7             string
createDate             string
extraCode6             string
extraCode5             string

```

```

    itemCode                string
    createUserId            string
    notes                   string
    extraCode2              string
    extraCode8              string
    databaseId              integer
    extraCode3              string
    extraCode4              string
    extraCode1              string
    extraCode9              string
    extraCode10             string
    overrideType            integer
    buildUpRate             number
    fixedCost               number
    timeBasedResource       boolean
    parentLineItemAssignments [{
    Array of object:
    }]
    projectResourceTable    boolean
    databaseCreationDate    integer
    rateForCalculation      number
    boqItemAssignments [{
    Array of object:
    }]
    assemblyAssignments [{
    Array of object:
    }]
}
shipmentRate_sorted       number
tableRate                 number
quoted                    boolean
unit_sorted               string
notes_sorted              string
title_sorted              string
rate_sorted               number
inclusion_sorted           string
createUserId_sorted       string
quantity_sorted           number
createDate_sorted         string
description_sorted         string
rateForCalculation        number
accuracy_sorted           string
extraCode1_sorted         string
extraCode4_sorted         string
boqItemAssignments [{
    Array of object:
    }]
project_sorted            string
currency_sorted           string
extraCode8_sorted         string
gekCode_sorted            string
extraCode9_sorted         string
editorId_sorted           string
groupCode_sorted          string
stateProvince_sorted      string
lastUpdate_sorted         string
totalRate_sorted          number

```

```

country_sorted      string
extraCode6_sorted  string
extraCode10_sorted string
extraCode5_sorted  string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted  string
extraCode2_sorted  string
extraCode3_sorted  string
fixedCost          number
timeBasedResource  boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}

```

---

### 15.3 GET /rest/material/getMaterialCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 15.4 GET /rest/material/loadMaterials

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
materialIds	array of integer	

---

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

```

[ {
  Array of object:
  materialId      integer
  title           string
  bimMaterial     string
  bimType         string
  description     string
  country         string
  unit           string
}

```

rate	number
co2Rate	number
weight	number
weightUnit	string
quantity	number
groupCode	string
gekCode	string
rawMaterial	string
rawMaterialReliance	number
rawMaterial2	string
rawMaterialReliance2	number
rawMaterial3	string
rawMaterialReliance3	number
rawMaterial4	string
rawMaterialReliance4	number
rawMaterial5	string
rawMaterialReliance5	number
buildUpRate	number
overrideType	integer
volFlow	number
massFlow	number
duty	number
operPress	number
operTemp	number
volFlowUnit	string
massFlowUnit	string
dutyUnit	string
operTempUnit	string
operPressUnit	string
project	string
editorId	string
notes	string
stateProvince	string
supplierName	string
currency	string
lastUpdate	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
accuracy	string
shipmentRate	number
fabricationRate	number
totalRate	number
inclusion	string
distanceToSite	number
distanceUnit	string
supplierTable {	
supplierId	integer

title	string
description	string
contactPerson	string
phoneNumber	string
mobileNumber	string
faxNumber	string
email	string
city	string
address	string
notes	string
editorId	string
stateProvince	string
groupCode	string
gekCode	string
url	string
performance	string
country	string
lastUpdate	string
createUserId	string
geoLocation	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
itemCode	string
materialSet	[{recursive}] MaterialTable
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
resourceAssignmentsList	[{ Array of object: }]
unit	string
orderedResourceAssignmentsList	[{ Array of object: }]
productivity	number
project	string
geoLocation_sorted	string
tableRate	number
virtual	boolean
quantity	number
predicted	boolean
url_sorted	string
notes_sorted	string
city_sorted	string
title_sorted	string
email_sorted	string
createUserId_sorted	string



```

createDate_sorted      string
contactPerson_sorted  string
description_sorted     string
phoneNumber_sorted    string
mobileNumber_sorted   string
extraCode1_sorted     string
extraCode4_sorted     string
boqItemAssignments [{
  Array of object:
}]
extraCode8_sorted     string
gekCode_sorted        string
address_sorted        string
extraCode9_sorted     string
editorId_sorted       string
groupCode_sorted      string
stateProvince_sorted  string
lastUpdate_sorted     string
country_sorted        string
extraCode6_sorted     string
extraCode10_sorted    string
extraCode5_sorted     string
performance_sorted    string
faxNumber_sorted      string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted     string
extraCode2_sorted     string
extraCode3_sorted     string
activityBased         boolean
timeUnit              string
currency              string
conceptual            boolean
co2Rate               number
totalRate             number
quoted                boolean
overrideType          integer
buildUpRate           number
fixedCost             number
timeBasedResource     boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable  boolean
rateForCalculation    number
}
virtual                boolean
conceptual             boolean
predicted              boolean
trendChartType         integer
trendValue            number
trendUnit              string
trendColorCode        integer
trendDate             string
trendRegType          integer
trendIds              string

```

```

accessRights          string
keywords             string
itemCode             string
assemblyMaterialSet  [{recursive}] AssemblyMaterialTable
boqItemMaterialSet  [{
Array of object:
}]
materialHistorySet  [{
Array of object:
}]
databaseId           integer
databaseCreationDate integer
projectId            integer
id                  integer
weight_sorted       number
bimType_sorted      string
bimMaterial_sorted  string
rawMaterialUnit_sorted string
supplierName_sorted string
weightUnit_sorted   string
distanceUnit_sorted string
parentResourceTitle string
parentResourceTable {
  resourceAssignmentsList [{
Array of object:
}]
  orderedResourceAssignmentsList [{
Array of object:
}]
  productivity          number
  activityBased         boolean
  timeUnit              string
  id                   integer
  country               string
  currency              string
  description           string
  data {
    id                  integer
    country             string
    currency            string
    description         string
    data                {recursive} ResourceTable
    title               string
    unit                string
    groupCode           string
    lastUpdate          string
    project              string
    tableRate           number
    conceptual           boolean
    co2Rate             number
    gekCode             string
    virtual             boolean
    predicted           boolean
    totalRate           number
    quoted              boolean
    quantity            number
    editorId            string
  }
}

```

```

    extraCode7          string
    createDate          string
    extraCode6          string
    extraCode5          string
    itemCode            string
    createUserId        string
    notes               string
    extraCode2          string
    extraCode8          string
    databaseId          integer
    extraCode3          string
    extraCode4          string
    extraCode1          string
    extraCode9          string
    extraCode10         string
    overrideType        integer
    buildUpRate         number
    fixedCost           number
    timeBasedResource   boolean
    parentLineItemAssignments [{
    Array of object:
    }]
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation  number
    boqItemAssignments [{
    Array of object:
    }]
    assemblyAssignments [{
    Array of object:
    }]
}
title          string
unit           string
groupCode      string
lastUpdate     string
project        string
tableRate      number
conceptual     boolean
co2Rate        number
gekCode        string
virtual         boolean
predicted      boolean
totalRate      number
quoted         boolean
quantity       number
editorId       string
extraCode7     string
createDate     string
extraCode6     string
extraCode5     string
itemCode       string
createUserId   string
notes          string
extraCode2     string
extraCode8     string
databaseId     integer

```

```

    extraCode3          string
    extraCode4          string
    extraCode1          string
    extraCode9          string
    extraCode10         string
    overrideType        integer
    buildUpRate          number
    fixedCost            number
    timeBasedResource    boolean
    parentLineItemAssignments [{
    Array of object:
    }]
    projectResourceTable boolean
    databaseCreationDate integer
    rateForCalculation   number
    boqItemAssignments [{
    Array of object:
    }]
    assemblyAssignments [{
    Array of object:
    }]
}
shipmentRate_sorted    number
tableRate              number
quoted                 boolean
unit_sorted            string
notes_sorted           string
title_sorted           string
rate_sorted            number
inclusion_sorted        string
createUserId_sorted    string
quantity_sorted        number
createDate_sorted      string
description_sorted     string
rateForCalculation     number
accuracy_sorted        string
extraCode1_sorted      string
extraCode4_sorted      string
boqItemAssignments [{
    Array of object:
}]
project_sorted         string
currency_sorted        string
extraCode8_sorted      string
gekCode_sorted         string
extraCode9_sorted      string
editorId_sorted        string
groupCode_sorted       string
stateProvince_sorted   string
lastUpdate_sorted      string
totalRate_sorted       number
country_sorted         string
extraCode6_sorted      string
extraCode10_sorted     string
extraCode5_sorted      string
assemblyAssignments [{
    Array of object:
}

```

```
}]
extraCode7_sorted      string
extraCode2_sorted      string
extraCode3_sorted      string
fixedCost               number
timeBasedResource       boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable   boolean
}]
```

---

# 16. SUBCONTRACTOR

## 16.1 GET /rest/subcontractor/loadSubcontractor

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
subcontractorId	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
{
  subcontractorId      integer
  description          string
  title                string
  unit                 string
  rate                 number
  co2Rate              number
  subMaterialRate     number
  totalRate            number
  quantity             number
  contactPerson       string
  company              string
  phoneNumber          string
  mobileNumber         string
  faxNumber            string
  groupCode            string
  gekCode              string
  editorId             string
  performance          string
  project              string
  email                string
  url                  string
  country              string
  city                 string
  stateProvince       string
  address              string
  notes                string
  currency             string
  lastUpdate           string
  accuracy             string
  inclusion            string
  createUserId         string
  createDate           string
  extraCode1           string
  extraCode2           string
  extraCode3           string
  extraCode4           string
}
```

```

extraCode5          string
extraCode6          string
extraCode7          string
extraCode8          string
extraCode9          string
extraCode10         string
virtual             boolean
predicted           boolean
trendChartType     integer
trendValue          number
trendUnit           string
trendColorCode     integer
trendDate           string
trendRegType       integer
trendIds            string
accessRights        string
keywords            string
itemCode            string
buildUpRate         number
overrideType       integer
conceptual          boolean
boqItemSubcontractorSet [{
  Array of object:
}]
subcontractorHistorySet [{
  Array of object:
}]
databaseId          integer
databaseCreationDate integer
projectId           integer
id                  integer
tableRate           number
quoted              boolean
ika                 number
unit_sorted         string
url_sorted          string
notes_sorted        string
city_sorted         string
title_sorted        string
ika_sorted          number
rate_sorted         number
email_sorted        string
inclusion_sorted     string
createUserId_sorted string
quantity_sorted     number
createDate_sorted   string
contactPerson_sorted string
description_sorted   string
rateForCalculation  number
accuracy_sorted     string
company_sorted      string
phoneNumber_sorted  string
mobileNumber_sorted string
extraCode1_sorted   string
extraCode4_sorted   string
boqItemAssignments [{
  Array of object:
}

```

```

    }]
    project_sorted      string
    currency_sorted     string
    extraCode8_sorted  string
    gekCode_sorted     string
    address_sorted     string
    extraCode9_sorted  string
    editorId_sorted    string
    groupCode_sorted   string
    stateProvince_sorted string
    lastUpdate_sorted  string
    totalRate_sorted   number
    country_sorted     string
    extraCode6_sorted  string
    extraCode10_sorted string
    extraCode5_sorted  string
    performance_sorted string
    faxNumber_sorted   string
    assemblyAssignments [{
    Array of object:
    }]
    extraCode7_sorted  string
    extraCode2_sorted  string
    extraCode3_sorted  string
    fixedCost          number
    timeBasedResource  boolean
    parentLineItemAssignments [{
    Array of object:
    }]
    projectResourceTable boolean
}

```

## 16.2 GET /rest/subcontractor/partialSearchSubcontractor

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	

### RESPONSE

STATUS CODE - default: default response

RESPONSE MODEL - application/json

```

{
  resultSize      integer
  partialSize     integer
  partialStart    integer
  pageSize        integer
}

```



```

sortByField      string
ascending        boolean
query            string
queryType        string
seconds          number
partialResult [{
Array of object:
  subcontractorId integer
  description      string
  title           string
  unit            string
  rate            number
  co2Rate         number
  subMaterialRate number
  totalRate       number
  quantity        number
  contactPerson   string
  company         string
  phoneNumber     string
  mobileNumber    string
  faxNumber       string
  groupCode       string
  gekCode         string
  editorId        string
  performance     string
  project         string
  email           string
  url             string
  country         string
  city            string
  stateProvince   string
  address         string
  notes           string
  currency        string
  lastUpdate      string
  accuracy        string
  inclusion        string
  createUserId    string
  createDate      string
  extraCode1      string
  extraCode2      string
  extraCode3      string
  extraCode4      string
  extraCode5      string
  extraCode6      string
  extraCode7      string
  extraCode8      string
  extraCode9      string
  extraCode10     string
  virtual         boolean
  predicted        boolean
  trendChartType  integer
  trendValue      number
  trendUnit       string
  trendColorCode  integer
  trendDate       string
  trendRegType    integer

```

```

trendIds                string
accessRights            string
keywords                string
itemCode                string
buildUpRate             number
overrideType            integer
conceptual               boolean
boqItemSubcontractorSet [{
  Array of object:
}]
subcontractorHistorySet [{
  Array of object:
}]
databaseId               integer
databaseCreationDate     integer
projectId                integer
id                       integer
tableRate                number
quoted                   boolean
ika                      number
unit_sorted              string
url_sorted                string
notes_sorted             string
city_sorted              string
title_sorted             string
ika_sorted               number
rate_sorted              number
email_sorted             string
inclusion_sorted          string
createUserId_sorted      string
quantity_sorted          number
createDate_sorted        string
contactPerson_sorted     string
description_sorted        string
rateForCalculation        number
accuracy_sorted           string
company_sorted            string
phoneNumber_sorted        string
mobileNumber_sorted       string
extraCode1_sorted         string
extraCode4_sorted         string
boqItemAssignments [{
  Array of object:
}]
project_sorted           string
currency_sorted           string
extraCode8_sorted         string
gekCode_sorted            string
address_sorted            string
extraCode9_sorted         string
editorId_sorted           string
groupCode_sorted           string
stateProvince_sorted      string
lastUpdate_sorted         string
totalRate_sorted          number
country_sorted             string
extraCode6_sorted          string

```

```

    extraCode10_sorted    string
    extraCode5_sorted    string
    performance_sorted    string
    faxNumber_sorted     string
    assemblyAssignments [{
      Array of object:
    }]
    extraCode7_sorted    string
    extraCode2_sorted    string
    extraCode3_sorted    string
    fixedCost             number
    timeBasedResource     boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable boolean
  }]
  result [{
    Array of object:
  }]
}

```

## 16.3 GET /rest/subcontractor/loadSubcontractors

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
subcontractorIds	array of integer	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

[ {
  Array of object:
    subcontractorId    integer
    description        string
    title              string
    unit               string
    rate               number
    co2Rate            number
    subMaterialRate    number
    totalRate          number
    quantity           number
    contactPerson      string
    company            string
    phoneNumber        string
    mobileNumber       string
    faxNumber          string
    groupCode          string
    gekCode            string
    editorId           string
  }
]

```

performance	string
project	string
email	string
url	string
country	string
city	string
stateProvince	string
address	string
notes	string
currency	string
lastUpdate	string
accuracy	string
inclusion	string
createUserId	string
createDate	string
extraCode1	string
extraCode2	string
extraCode3	string
extraCode4	string
extraCode5	string
extraCode6	string
extraCode7	string
extraCode8	string
extraCode9	string
extraCode10	string
virtual	boolean
predicted	boolean
trendChartType	integer
trendValue	number
trendUnit	string
trendColorCode	integer
trendDate	string
trendRegType	integer
trendIds	string
accessRights	string
keywords	string
itemCode	string
buildUpRate	number
overrideType	integer
conceptual	boolean
boqItemSubcontractorSet	[{ Array of object: }]
subcontractorHistorySet	[{ Array of object: }]
databaseId	integer
databaseCreationDate	integer
projectId	integer
id	integer
tableRate	number
quoted	boolean
ika	number
unit_sorted	string
url_sorted	string
notes_sorted	string
city_sorted	string

```

title_sorted          string
ika_sorted           number
rate_sorted          number
email_sorted         string
inclusion_sorted      string
createUserId_sorted  string
quantity_sorted      number
createDate_sorted    string
contactPerson_sorted string
description_sorted   string
rateForCalculation   number
accuracy_sorted      string
company_sorted       string
phoneNumber_sorted   string
mobileNumber_sorted  string
extraCode1_sorted    string
extraCode4_sorted    string
boqItemAssignments  [{
  Array of object:
}]
project_sorted       string
currency_sorted      string
extraCode8_sorted    string
gekCode_sorted       string
address_sorted       string
extraCode9_sorted    string
editorId_sorted      string
groupCode_sorted     string
stateProvince_sorted string
lastUpdate_sorted    string
totalRate_sorted     number
country_sorted       string
extraCode6_sorted    string
extraCode10_sorted   string
extraCode5_sorted    string
performance_sorted   string
faxNumber_sorted     string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted    string
extraCode2_sorted    string
extraCode3_sorted    string
fixedCost            number
timeBasedResource    boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
}]

```

---

## 16.4 GET /rest/subcontractor/getSubcontractorCount

### REQUEST

No request parameters

## RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

# 17. SUPPLIER

## 17.1 GET /rest/supplier/loadSupplier

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
supplierId	int64	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```
{
  supplierId      integer
  title           string
  description     string
  contactPerson  string
  phoneNumber     string
  mobileNumber   string
  faxNumber      string
  email          string
  city           string
  address        string
  notes          string
  editorId       string
  stateProvince  string
  groupCode      string
  gekCode        string
  url            string
  performance    string
  country        string
  lastUpdate     string
  createUserId   string
  geoLocation    string
  createDate     string
  extraCode1     string
  extraCode2     string
  extraCode3     string
  extraCode4     string
  extraCode5     string
  extraCode6     string
  extraCode7     string
  extraCode8     string
  extraCode9     string
  extraCode10    string
  itemCode       string
  materialSet    [{recursive}] MaterialTable
  databaseId     integer
  databaseCreationDate integer
```

```

projectId          integer
id                 integer
resourceAssignmentsList [{
  Array of object:
}]
unit               string
orderedResourceAssignmentsList [{
  Array of object:
}]
productivity       number
project            string
geoLocation_sorted string
tableRate          number
virtual            boolean
quantity           number
predicted           boolean
url_sorted         string
notes_sorted       string
city_sorted        string
title_sorted       string
email_sorted       string
createUserId_sorted string
createDate_sorted string
contactPerson_sorted string
description_sorted string
phoneNumber_sorted string
mobileNumber_sorted string
extraCode1_sorted  string
extraCode4_sorted  string
boqItemAssignments [{
  Array of object:
}]
extraCode8_sorted  string
gekCode_sorted     string
address_sorted     string
extraCode9_sorted  string
editorId_sorted    string
groupCode_sorted   string
stateProvince_sorted string
lastUpdate_sorted  string
country_sorted     string
extraCode6_sorted  string
extraCode10_sorted string
extraCode5_sorted  string
performance_sorted string
faxNumber_sorted   string
assemblyAssignments [{
  Array of object:
}]
extraCode7_sorted  string
extraCode2_sorted  string
extraCode3_sorted  string
activityBased      boolean
timeUnit           string
currency           string
conceptual         boolean
co2Rate            number

```



```

totalRate          number
quoted             boolean
overrideType       integer
buildUpRate        number
fixedCost           number
timeBasedResource  boolean
parentLineItemAssignments [{
  Array of object:
}]
projectResourceTable boolean
rateForCalculation number
}

```

## 17.2 GET /rest/supplier/loadSuppliers

### REQUEST

#### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
supplierIds	array of integer	

### RESPONSE

STATUS CODE - default: default response

#### RESPONSE MODEL - application/json

```

[ {
  Array of object:
  supplierId          integer
  title                string
  description           string
  contactPerson        string
  phoneNumber           string
  mobileNumber          string
  faxNumber             string
  email                 string
  city                  string
  address               string
  notes                 string
  editorId              string
  stateProvince         string
  groupCode             string
  gekCode               string
  url                   string
  performance           string
  country               string
  lastUpdate            string
  createUserId          string
  geoLocation           string
  createDate            string
  extraCode1            string
  extraCode2            string
  extraCode3            string
  extraCode4            string
}

```

```

extraCode5          string
extraCode6          string
extraCode7          string
extraCode8          string
extraCode9          string
extraCode10         string
itemCode            string
materialSet         [{recursive}] MaterialTable
databaseId          integer
databaseCreationDate integer
projectId           integer
id                 integer
resourceAssignmentsList [{
Array of object:
}]
unit               string
orderedResourceAssignmentsList [{
Array of object:
}]
productivity       number
project            string
geoLocation_sorted string
tableRate          number
virtual            boolean
quantity           number
predicted          boolean
url_sorted         string
notes_sorted       string
city_sorted        string
title_sorted       string
email_sorted       string
createUserId_sorted string
createDate_sorted  string
contactPerson_sorted string
description_sorted string
phoneNumber_sorted string
mobileNumber_sorted string
extraCode1_sorted  string
extraCode4_sorted  string
boqItemAssignments [{
Array of object:
}]
extraCode8_sorted  string
gekCode_sorted     string
address_sorted     string
extraCode9_sorted  string
editorId_sorted    string
groupCode_sorted   string
stateProvince_sorted string
lastUpdate_sorted  string
country_sorted     string
extraCode6_sorted  string
extraCode10_sorted string
extraCode5_sorted  string
performance_sorted string
faxNumber_sorted   string
assemblyAssignments [{
Array of object:

```

```

    }]
    extraCode7_sorted      string
    extraCode2_sorted      string
    extraCode3_sorted      string
    activityBased          boolean
    timeUnit               string
    currency               string
    conceptual             boolean
    co2Rate                number
    totalRate              number
    quoted                 boolean
    overrideType           integer
    buildUpRate            number
    fixedCost              number
    timeBasedResource      boolean
    parentLineItemAssignments [{
      Array of object:
    }]
    projectResourceTable  boolean
    rateForCalculation    number
  }]

```

---

### 17.3 GET /rest/supplier/getSupplierCount

#### REQUEST

No request parameters

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

integer

---

### 17.4 GET /rest/supplier/partialSearchSupplier

#### REQUEST

##### QUERY PARAMETERS

NAME	TYPE	DESCRIPTION
searchString	string	
sortByField	string	
asc	boolean	
startFrom	int32	

---

#### RESPONSE

**STATUS CODE - default:** default response

**RESPONSE MODEL - application/json**

{

```

resultSize          integer
partialSize        integer
partialStart       integer
pageSize           integer
sortByField        string
ascending          boolean
query              string
queryType          string
seconds            number
partialResult [{
Array of object:
  supplierId       integer
  title            string
  description       string
  contactPerson    string
  phoneNumber       string
  mobileNumber     string
  faxNumber        string
  email            string
  city             string
  address          string
  notes            string
  editorId         string
  stateProvince    string
  groupCode        string
  gekCode          string
  url              string
  performance      string
  country          string
  lastUpdate       string
  createUserId     string
  geoLocation      string
  createDate       string
  extraCode1       string
  extraCode2       string
  extraCode3       string
  extraCode4       string
  extraCode5       string
  extraCode6       string
  extraCode7       string
  extraCode8       string
  extraCode9       string
  extraCode10      string
  itemCode         string
  materialSet      [{recursive}] MaterialTable
  databaseId       integer
  databaseCreationDate integer
  projectId        integer
  id               integer
  resourceAssignmentsList [{
Array of object:
  }
  unit              string
  orderedResourceAssignmentsList [{
Array of object:
  }
  productivity      number

```

```

project string
geoLocation_sorted string
tableRate number
virtual boolean
quantity number
predicted boolean
url_sorted string
notes_sorted string
city_sorted string
title_sorted string
email_sorted string
createUserId_sorted string
createDate_sorted string
contactPerson_sorted string
description_sorted string
phoneNumber_sorted string
mobileNumber_sorted string
extraCode1_sorted string
extraCode4_sorted string
boqItemAssignments [{
Array of object:
}]
extraCode8_sorted string
gekCode_sorted string
address_sorted string
extraCode9_sorted string
editorId_sorted string
groupCode_sorted string
stateProvince_sorted string
lastUpdate_sorted string
country_sorted string
extraCode6_sorted string
extraCode10_sorted string
extraCode5_sorted string
performance_sorted string
faxNumber_sorted string
assemblyAssignments [{
Array of object:
}]
extraCode7_sorted string
extraCode2_sorted string
extraCode3_sorted string
activityBased boolean
timeUnit string
currency string
conceptual boolean
co2Rate number
totalRate number
quoted boolean
overrideType integer
buildUpRate number
fixedCost number
timeBasedResource boolean
parentLineItemAssignments [{
Array of object:
}]
projectResourceTable boolean

```

```
    rateForCalculation    number
  }
  result [{
    Array of object:
  }]
}
```

---

