

# Focal Point<sup>®</sup>

## Dashboard REST API Reference Manual

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# 1 Dashboard REST API

Focal Point version 7.4.2 onwards supports a REST API for Dashboard. The REST API uses HTTP GET to retrieve the configured user dashboard data in JSON format.

Focal Point 7.4.2 supports content negotiation by using the standard HTTP Accept header values for getting the required resource representations. To understand and use the REST API, you must be familiar with the REST principles.

The Dashboard REST API is a provisional API and subject to change without prior notice.

## Setup

The URIs that Focal Point returns are absolute. To create absolute URIs, the Focal Point server must have information about its own server name.

To configure this setting, in Focal Point, click **Application > Login Page > Login or Balancer URL** and specify the appropriate value for the host name.

**Note** Make sure that the host name or the server name does not change. A change in the host name can lead to broken links in Focal Point integrated systems that link to the Focal Point resources.

## Authentication

The requests to the RESTful API must be authenticated by using HTTP basic authentication. Unless you use HTTPS, the user name and password are sent without encryption. In HTTP basic authentication, character encoding is not specified for user names and passwords. User names and passwords can include ASCII characters only.

## Content negotiation

Dashboard REST API supports JSON format. When making REST API call, you can use the `application/json` as HTTP Accept header.

For convenience, `json` can be used as the URL extension while requesting for resource URLs.

For example, to view the Dashboard REST API response

`http://focalpointserver/fp/resources/workspaces/49/homepages/tabs/53.json`  
URL in a web browser.

## Focal Point Dashboard Primary Resources

The primary resources in the Focal Point Dashboard REST API are the list of dashboards from all accessible workspaces, the list of all tabs in a dashboard belonging to a workspace and the content of all widgets in a tab. The following table lists the types and example of REST API URIs for the primary resources.

Type	Example REST API	HTTP Method	Description
Dashboards	<code>http://focalpointserver/fp/resources/homepages</code>	GET	Lists all the accessible dashboards for the given server instance and the API user.
Tabs	<code>http://focalpointserver/fp/resources/workspaces/2/homepages</code>	GET	Lists all the tabs in the given workspace.
Widgets	<code>http://focalpointserver/fp/resources/workspaces/2/homepages/tabs/20</code>	GET	Lists the contents of all the widgets in the given tab.

### API to list the available dashboards

This API is the starting point of the Dashboard REST API. The resources listed here can be referenced to find the subsequent resources. The service document lists all the dashboards available for the API user in the given server instance.

The resource URI for the service document is:

`http://focalpointserver/fp/resources/homepages`

#### GET method

Use this method to retrieve available dashboards.

#### Accept header

`application/json`

## Response body

```
{
  "workspace": [
    {
      "title": "CARS Workspace",
      "url":
"http://focalpointserver/fp/resources/workspaces/52/homepages"
    },
    {
      "title": "Entry - Application Portfolio Management ",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages"
    },
    {
      "title": "IT Portfolio Management Template - MASTER DEMOS",
      "url":
"http://focalpointserver/fp/resources/workspaces/49/homepages"
    },
    {
      "title": "RM-HQ",
      "url":
"http://focalpointserver/fp/resources/workspaces/65/homepages"
    },
  ]
}
```

---

## API to list all the tabs in a dashboard

This API lists all the tabs configured in the given workspace dashboard. The resources listed can be referenced to find the subsequent resources.

The resource URI for the service document is

`http://focalpointserver/fp/resources/workspaces/107/homepages`

### GET method

Use this method to retrieve the available tabs.

### Accept header

`application/json`

## Response body

```
{
  "tabs": [
    {
      "title": "Welcome to Focal Point",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/1"
    },
    {
      "title": "Demo Tables",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/85"
    },
    {
      "title": "Demo Charts",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/100"
    },
    {
      "title": "Demo Bubble Charts",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/138"
    },
    {
      "title": "Demo Gadgets",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/121"
    },
    {
      "title": "My Views",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/132"
    },
    {
      "title": "Demo Custom Chart Plugin",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/134"
    },
    {
      "title": "Demo Attribute Statistics",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/142"
    },
    {
      "title": "XYChart",
      "url":
"http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/150"
    }
  ]
}
```

```
}
```

---

## API to list all the widgets in a tab

This API lists all the widgets configured in a given tab.

The resource URI for the service document is

```
http://focalpointserver/fp/resources/workspaces/107/homepages/tabs/100
```

### GET method

Use this method to retrieve the available widgets for selected tab.

### Accept header

```
application/json
```

### Response body

```
{"id":100,"widgets":[{"data":{"legendtitle":"Projected Annual Cost","yaxislabel":"Sum: Targeted Next Year Funding","series":[{"Title", "Enterprise Application", "Finance", "Risk Control", "Sales"], ["221,500",0,0,0,239220.00000000003], ["244,205",261299.35,0,0,0]], "xaxislabel":"Title"}, {"x":"0", "width":"12", "y":"0", "title":"Investment Distribution by Portfolio", "type":"BARCHART", "height":"6"}]}
```

---

## Supported Widget type with data format

Dashboard API supports the following widget types. Data format of the API response is also captured in the following table.

Table widget includes the column name, type and element URL information.

Widget type	Data format
Pie Chart [PIECHART]	<pre>{"data":{"legendtitle":"Classification","series":[{"Gold",2779240}, {"Silver",3806070}, {"Bronze",602520}, {"Blue",6282840}]}, {"x":"0", "width":"6", "y":"6", "title":"Application by Classification-Pie", "type":"PIECHART", "height":"7"}</pre>

---



Widget type	Data format
XY Chart [SCATTER, SPLINE, SCATTER]	<pre>{   "id":150,   "widgets": [     {       "data": {         "legendtitle": "Name",         "yaxislabel": "Sum: Total Lifetime Cost",         "series": [           [             "IT Alignment",             "5 - Very High",             "4 - High",             "3 - Medium",             "2 - Low",             "1 - Very Low",             "0 - Unknown"           ],           [             "Active Risk Manager",             0, 0, 61260, 0, 0, 0           ],           [             "EMEA Pipeline",             0, 0, 0, 126200, 0, 0           ],           [             "Position Keeping Engine",             0, 0, 0, 131600, 0, 0           ],           [             "Product Service",             0, 0, 0, 0, 351250, 0           ],           [             "Purchasing",             0, 0, 209400, 0, 0, 0           ],           [             "Risk Charting",             0, 0, 0, 0, 1806000, 0           ],           [             "Ticking Risk",             0, 0, 0, 951000, 0, 0           ]         ]       },       "xaxislabel": "IT Alignment",       "categories": [         "5 - Very High",         "4 - High",         "3 - Medium",         "2 - Low",         "1 - Very Low",         "0 - Unknown"       ]     }   ],   "x": "0",   "width": "12",   "y": "0",   "title": "Attribute Statistics",   "type": "SPLINE",   "height": "6" }, {   "title": "XYChart" }</pre>
Bar Chart [BARCHART]	<pre>{   "data": {     "legendtitle": "Targeted Next Year Funding",     "yaxislabel": "Number of Elements",     "series": [       [         "Total Sum of Calculated Funding Changes",         "227,950",         "461,889",         "1,056,515",         "251,635.75"       ],       [         "416,461",         0, 1, 0, 0       ],       [         "1,118,891",         0, 0, 1, 0       ],       [         "261,299.35",         0, 0, 0, 1       ]     ]   },   "xaxislabel": "Total Sum of Calculated Funding Changes",   "x": "0",   "width": "12",   "y": "13",   "title": "Portfolio Overview",   "type": "BARCHART",   "height": "6" }</pre>
Bubble Chart [BUBBLECHART]	<pre>{   "data": {     "legendtitle": "Total Risks Score",     "yaxislabel": "Number of Elements",     "series": [       {         "x": 71,         "y": 1129,         "value": 56.45       },       {         "x": 128,         "y": 715,         "value": 56.45       },       {         "x": 157,         "y": 1101,         "value": 56.45       },       {         "x": 157,         "y": 686,         "value": 112.9       },       {         "x": 157,         "y": 786,         "value": 56.45       },       {         "x": 214,         "y": 886,         "value": 56.45       }     ]   },   "xaxislabel": "Total Business Value Score",   "x": "0",   "width": "12",   "y": "0",   "title": "Project Risk Score",   "type": "BUBBLECHART",   "height": "7" }</pre>

Widget type	Data format
Time Grid Chart [TIMEGRID]	<pre>{ "id": 68, "widgets": [ { "data": { "title": "Time Grid Chart", "type": "TIMEGRID", "height": "12", "sheets": [ { "title": "Plan - High", "rows": [ [ "Expenditures", 5848920, 3381180, 1692980, 558000, 0 ] ], "cols": [ "Q3 2009", "Q4 2009", "Q1 2010", "Q2 2010", "Q3 2010" ] }, { "title": "Actual", "rows": [ [ "Expenditures", 4889000, 2976000, 1132000, 453100, 0 ], [ "Capital Expenditures", 4889000, 2976000, 1132000, 453100, 0 ] ], "cols": [ "Q3 2009", "Q4 2009", "Q1 2010", "Q2 2010", "Q3 2010" ] } ] }, "x": "0", "width": "12", "y": "0" } ], "title": "TimeGRID" }</pre>
Gauge Chart [GAUGECHART]	<pre>{ "data": { "thresholds": [ 0, 100, 250, 400 ], "color": "#85ba1d", "name": "Average Portfolio Level Risk", "pattern": [ "#85ba1d", "#ffe53e", "#f2111d", "#B6150E" ], "value": 21, "x": "0", "width": "3", "y": "0", "title": "Infrastructure Average Portfolio Level Risk", "type": "GAUGECHART", "height": "6" }</pre>
Table [TABLE]	<pre>{ "data": { "rows": [ [ "Applications with Critical Stability Risk", "Implementing", "-", "Evelyn", "http://localhost:8080/fp/workspace/107/element/98" ], [ "Business Objects", "Accepted", "-", "Evelyn", "http://localhost:8080/fp/workspace/107/element/99" ], [ "Retire TBRI and Risk Charting - Option 4", "Proposed", "-", "Evelyn", "http://localhost:8080/fp/workspace/107/element/116" ], [ "Consolidate Account Management Applications", "Assess", "5", "Evelyn", "http://localhost:8080/fp/workspace/107/element/117" ], [ "UI Transformation", "Accepted", "2", "", "http://localhost:8080/fp/workspace/107/element/121" ] ], "type": [ { "prefix": "", "id": 504, "title": "Name", "type": "Text", "suffix": "" }, { "prefix": "", "id": 516, "title": "State", "type": "Choice", "suffix": "" }, { "prefix": "", "id": 517, "title": "Priority", "type": "Integer", "suffix": "" }, { "prefix": "", "id": 520, "title": "Architect", "type": "Text", "suffix": "" }, { "prefix": "", "id": -1, "title": "element url", "type": "", "suffix": "" } ], "cols": [ "Name", "State", "Priority", "Architect", "element url" ] }, "x": 0, "width": 12, "y": 6, "title": "Projects", "type": "TABLE", "height": 6 }</pre>

Widget type	Data format
Matrix [MATRIX]	<pre>{   "data": {     "yaxislabel": "",     "xaxislabel": "State",     "cell": "",     "rows": [       ["Accepted", "8", "32.0%"],       ["Implementing", "2", "8.0%"],       ["Delivered", "0", "0.0%"],       ["Rejected", "0", "0.0%"],       ["Canceled", "0", "0.0%"],       ["Other", "10", "40.0%"],       ["Sum: 25", ""],       ["", ""]     ],     "cols": [       ["2", "8.0%"]     ]   },   "x": "6",   "width": "6",   "y": "0",   "title": "Project Lifecycle Distribution",   "type": "MATRIX",   "height": "6" }</pre>
Open Social [OPENSOCIAL]	<pre>{   "data": {     "url": "http://www.bbc.co.uk/inc/specials/cream/hi/news/igoogole/bbcnews.xml",     "x": "0",     "width": "12",     "y": "0",     "title": "BBC NEWS",     "type": "OPENSOCIAL",     "height": "8"   } }</pre>
Message [MESSAGE]	<pre>{   "data": {     "color": "#AFFC0C0",     "text": "Hi there Welcome to Focal Point Dash Board",     "x": "0",     "width": "12",     "y": "12",     "title": "Welcome to Focal Point",     "type": "MESSAGE",     "height": "4"   } }</pre>



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