User Guide
Focused Insights for SAP Solution Manager
Document Version: 1.10 – 2022-01-24

PUBLIC

# OCC Dashboard 7.2 User Guide

ST-OST 7.2 SPS 9

# Document History

| Version | Date | Change |
|---|---|---|
| 1.0 | 2016-11-28 | Initial Version |
| 1.1 | 2017-07-05 | Add new Data Providers |
| 1.2 | 2017-07-31 | Support Package 1 |
| 1.3 | 2018-06-28 | OCC Unified Dashboard |
| 1.4 | 2019-02-21 | Support Package 3 |
| 1.5 | 2019-08-09 | Support Package 4 |
| 1.6 | 2019-12-25 | Support Package 5 |
| 1.7 | 2020-05-26 | Support Package 6 |
| 1.8 | 2021-01-26 | Support Package 7 |
| 1.9 | 2021-05-20 | Support Package 8<br>Update in CRM data provider section |
| 1.10 | 2022-01-24 | Support Package 9<br>Update in CRM data provider section |

# Contents

# 1. Overview

This document details the usage, configuration and administration of OCC Dashboard. OCC Dashboard is one of the dashboard models delivered with Focused Insights for Solution Manager.

OCC Dashboard let you create in a convenient and simple way, appealing and powerful dashboards with direct access to most important metrics stored inside your Solution Manager. It is easy to create fully custom views which display and mix up those metrics in different time frames and different granularities.

You can build as many gadgets and dashboard instances as you want and publish those using dedicated URLs. Most common web browsers whether they run on a computer or on mobile devices can display OCC dashboards (for details, see also SAP note 1716423 - SAPUI5 Browser Support).
OCC Dashboard includes an auto refresh mechanism to be integrated easily in your operation control center.

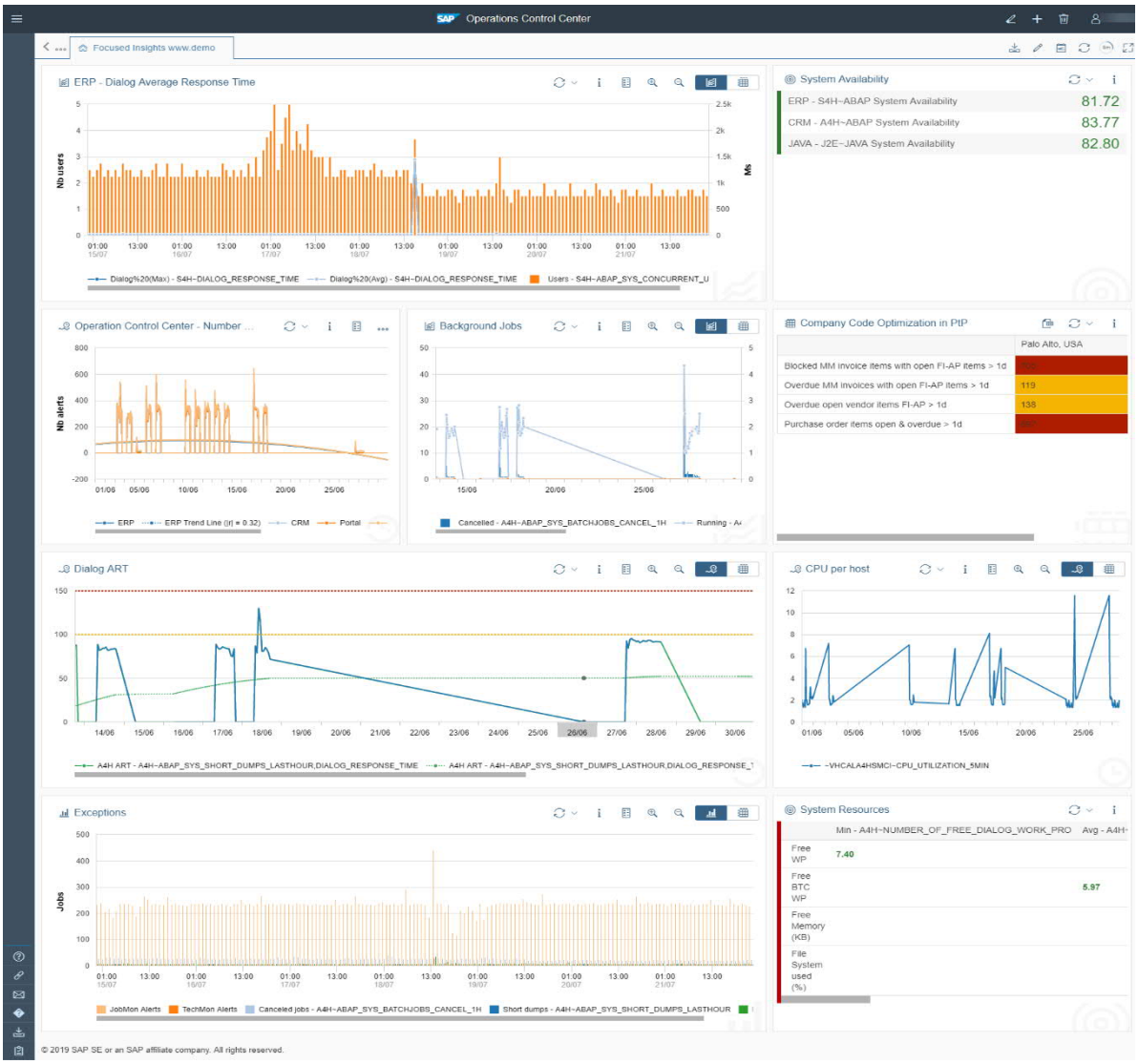



Figure 1. UI View

# 2.Usage

The OCC Dashboard relies on two main graphical components:

- Dashboard: A free-defined row-column layout combining different graphical charts named ‘Gadgets’. You can create and distribute different dashboards via URLs and control the access to your dashboards via SAP authorization.
- Gadget: Charting capabilities that could be shared via multiple dashboards.

  A Gadget supports multiple data providers and data renderers.
  - The data providers correspond to the different reporting / monitoring use-cases in SAP Solution Manager such as System Monitoring, EEM, and BPA, BPMon...
  - The data renderers are grouped into a library of graphical components used to visualize the different data sources. You can select different graphs as line-chart, bar-chart, ...

In addition, time frame selection could be applied to a single gadget or an entire dashboard.

## 2.1 Direct Access URLs

To access directly a specific dashboard instance, use the following notation, where <ID> is the unique identifier of the dashboard instance.

Remark: This direct URL is built automatically in the address bar when you navigate to the dashboard instance.

https:// <solman_host>:<solman_port/sap/bc/ui5_ui5/stdf/occ_dash/index.html?configId=<ID>

To access directly a specific gadget, you can use the following notation, where <ID> is the unique identifier of the dashboard instance and <ID_GADGET> is the unique identifier of a gadget it contains. Remark: This direct URL is built automatically in the address bar when you navigate to the gadget.

https:// <solman_host>:<solman_port/sap/bc/ui5_ui5/stdf/occ_dash/index.html ?configId=<ID> - <ID_GADGET>

To access to several dashboards in the same time, you can use the following notation where <ID1>, <ID2>, <ID3>... are unique dashboard instance's identifier. From this URL it is also possible to manually navigate from one dashboard instance to the other using the arrows.

https:// <solman_host>:<solman_port/sap/bc/ui5_ui5/stdf/occ_dash/index.html ?configId= <ID1>,<ID2>,<ID3>...

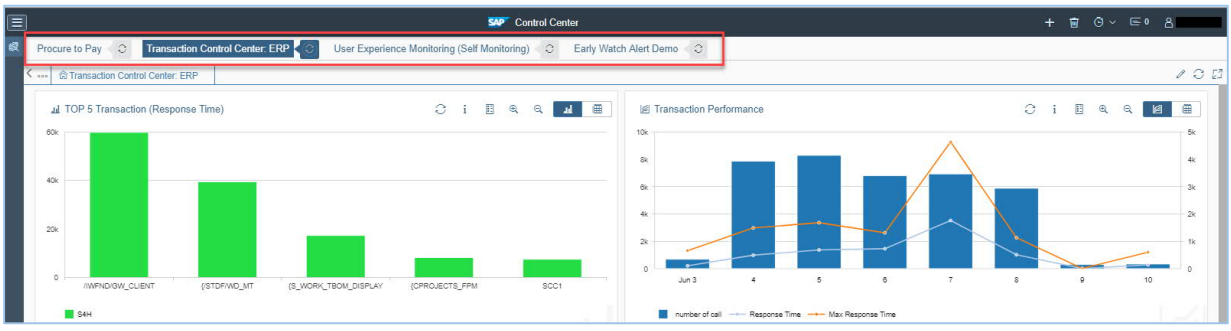



Figure 2. Instances View

## 2.2 Zooming in on a Gadget

To zoom in on a gadget, just click on its title.

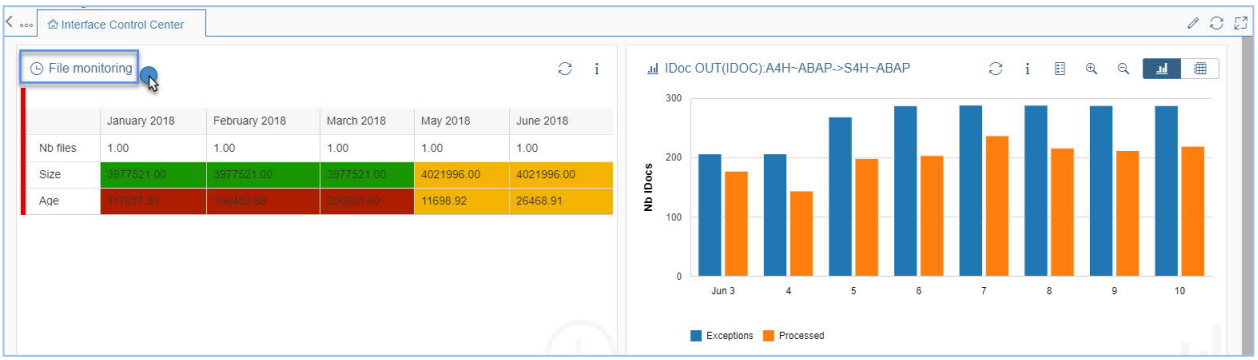



Figure 3. Zoom a gadget (1)

To come back to the dashboard, click on the dashboard's title in the breadcrumb.

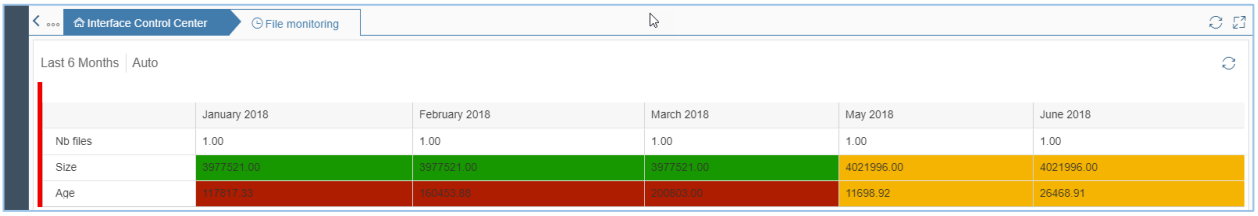



Figure 4. Zoom a gadget (2)

# 3. Dashboard

## 3.1 Instance View

The first view is the Instance View. The dashboard will show level 1 items by instances. You can access it by using Focused Insights Launchpad as follow:

- Select OCC tile.

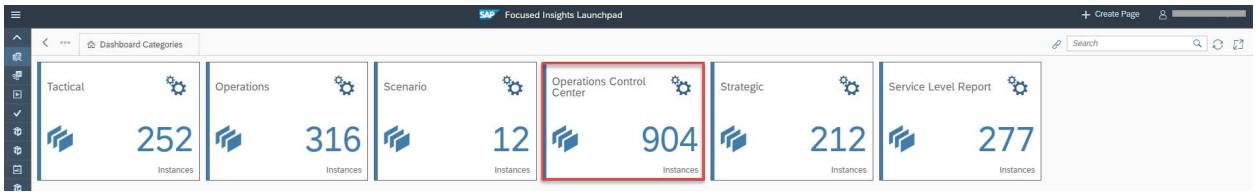



Figure 5. Select OCC Tile

Select the instance you want to go to, and select button Go to Dashboard.

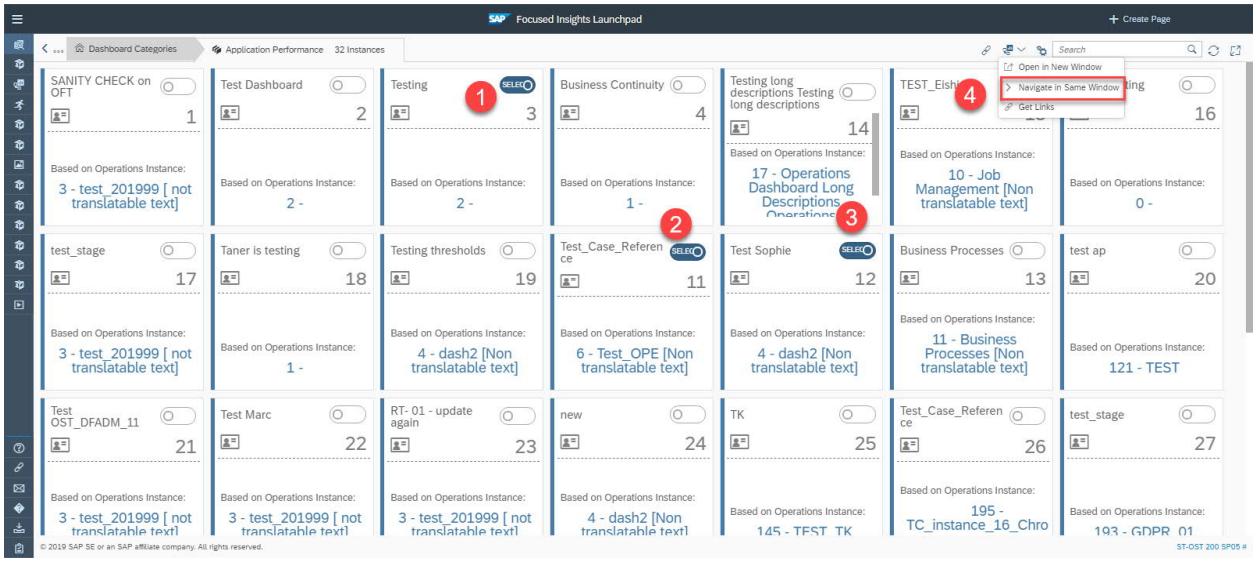



Figure 6. Select instances

Once inside the dashboard with selected instances, you will see as below:

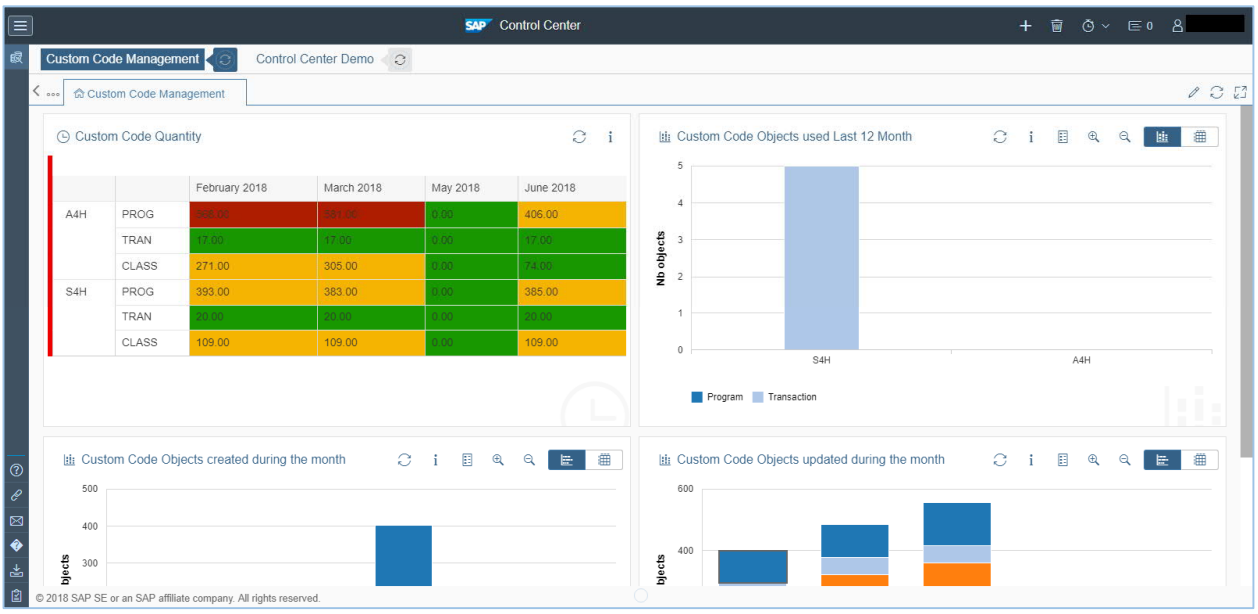



Figure 7. OCC Dashboard: Instances View

The dashboard is showing each instance in the instance selection header. You can switch between instances by clicking the title of the instance. Each instance is composed of several gadgets.

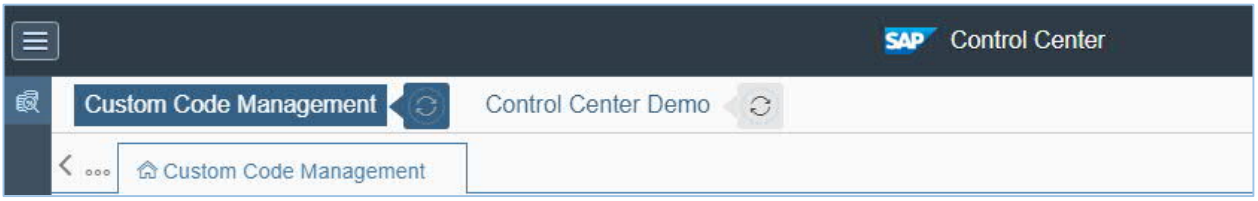



Figure 8. Instance Selection Header

## 3.2 Dashboard Layout

When you enter the application, if not a specified configid is added to the application URL , the user is able to configure a new instance else he access to the selected dashboard content.

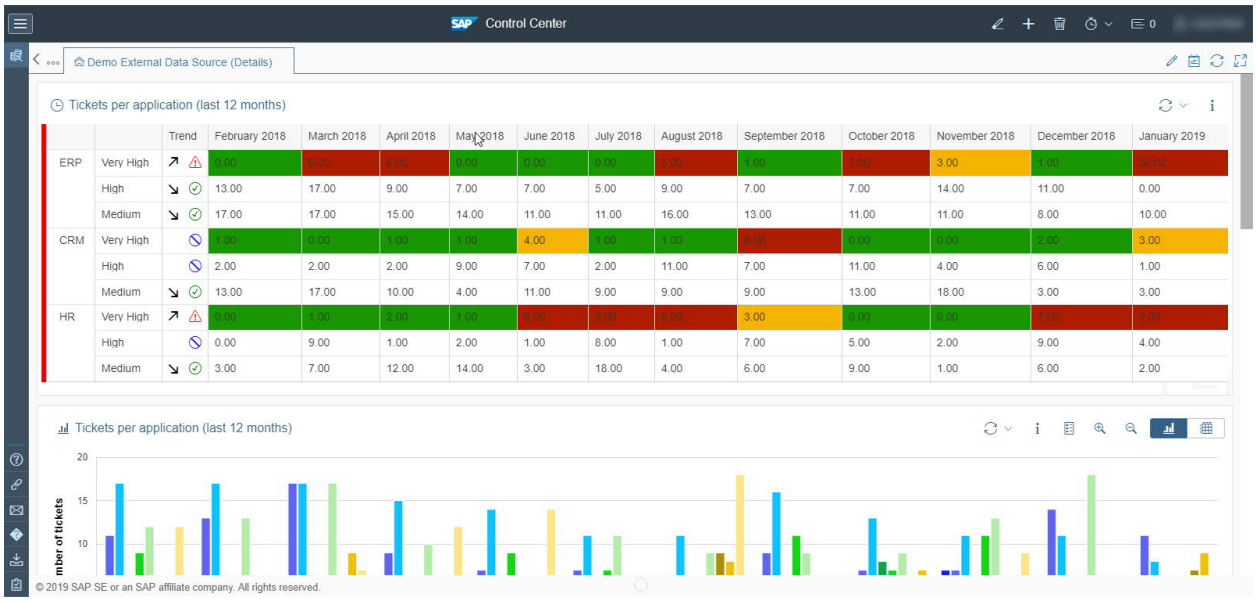



Figure 9. Dashboard Layout

## 3.3 TNT / UOC Shell Header and URL parameters

The header is composed of:

1- The button “Toggle side Navigation” to hide or show the description of the buttons on the left side

2- SAP Logo.

3- Dashboard Model Name: Control Center.


4- User Settings button with user name as label. When chosen, it provides settings that user can set for the dashboard:

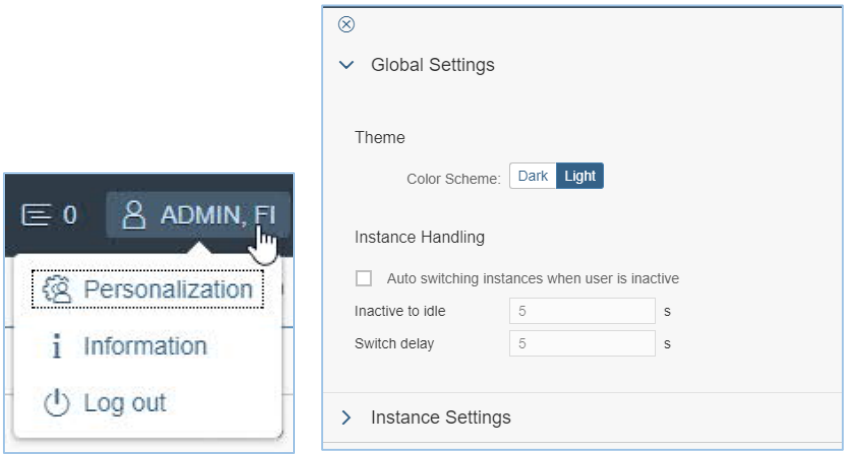



Figure 10. User Settings Dialog

- Global Settings:

You can choose the color scheme either Light (default selected), or Dark as in image below.

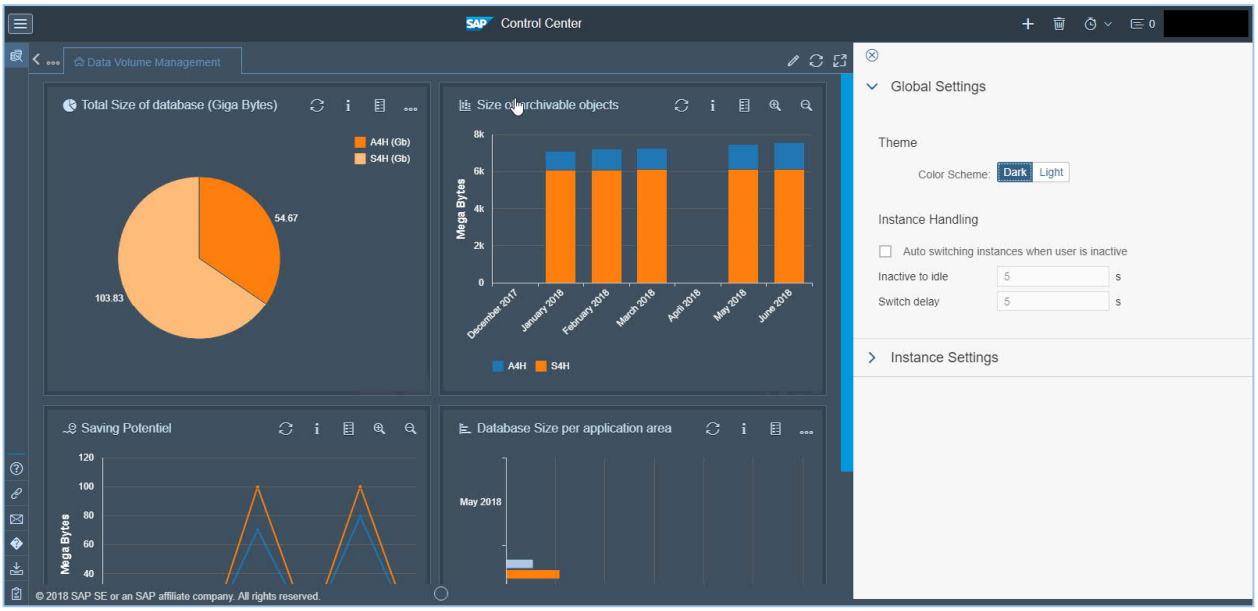



Figure 11. OCC Dashboard: Dark Theme

5- The header also has the timer control which apply globally to all the refresh timers of all instances. Select the button, you will see the list of possible controls on the timers as shown in image below

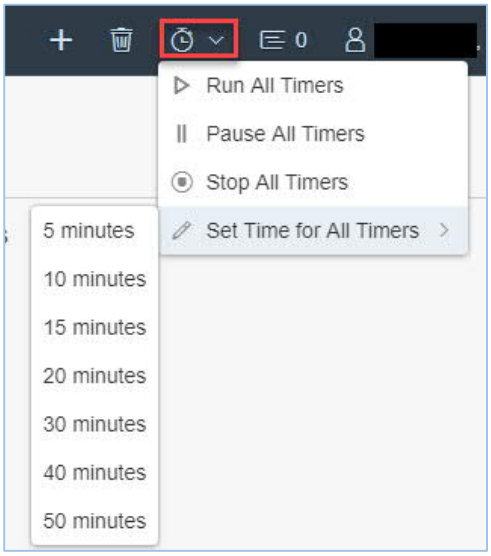



Figure 12. Instance Timers Controls

Each instance will have its own refresh timer, which shows as a circle with refresh icon inside next to the instance name. You can click on the refresh icon to manually refresh the data of the instance. This will not reset the time of the timer.

6- The header also has the two buttons which permit to create new instances or to delete selected instance.

Figure 13. Instance Administrate

## URL parameters:

The user can persist the below URL parameters when calling a dashboard instance:

- **&colorscheme=dark** to select the dark mode.
- **&fullscreen=true** starts dashboard in full screen.
- **&autoSwitchOnIdle=true** starts the dashboard in carousel mode.

- The maximum number of messages to store in the message dialog.
- The Auto Switching of Instances feature if checked:

o By setting the inactive time for the dashboard to determine user is idle to activate the function.

o And time waiting between switch of instances

- **&hardRefresh =** X ' (X = number of hours) This option is used in order to clear the browser cache after a configurable period.
  - ➢ In IE, the Browser will be closed and restarted again in order to reinitialize the memory.
  - ➢ In chrome and other browsers, the browser will be refreshed after the X hours.

## 3.4 Left Utilities Pane

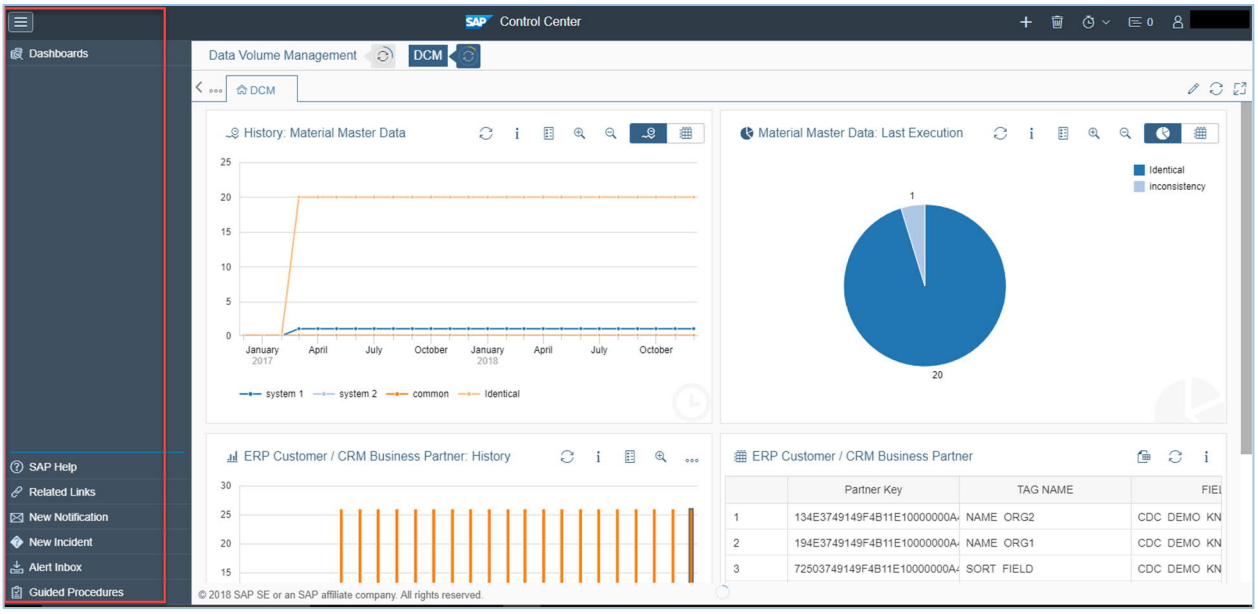



Figure 14. Left Utilities Pane

1- The button “Toggle side Navigation” to hide or show the description of the buttons on the left side

2- The “SAP Help” button is used to be redirected to SAP help page.

3- When using the “New Notification” button a pop up is appearing to create the new notification and send it via SMS or E-mail.

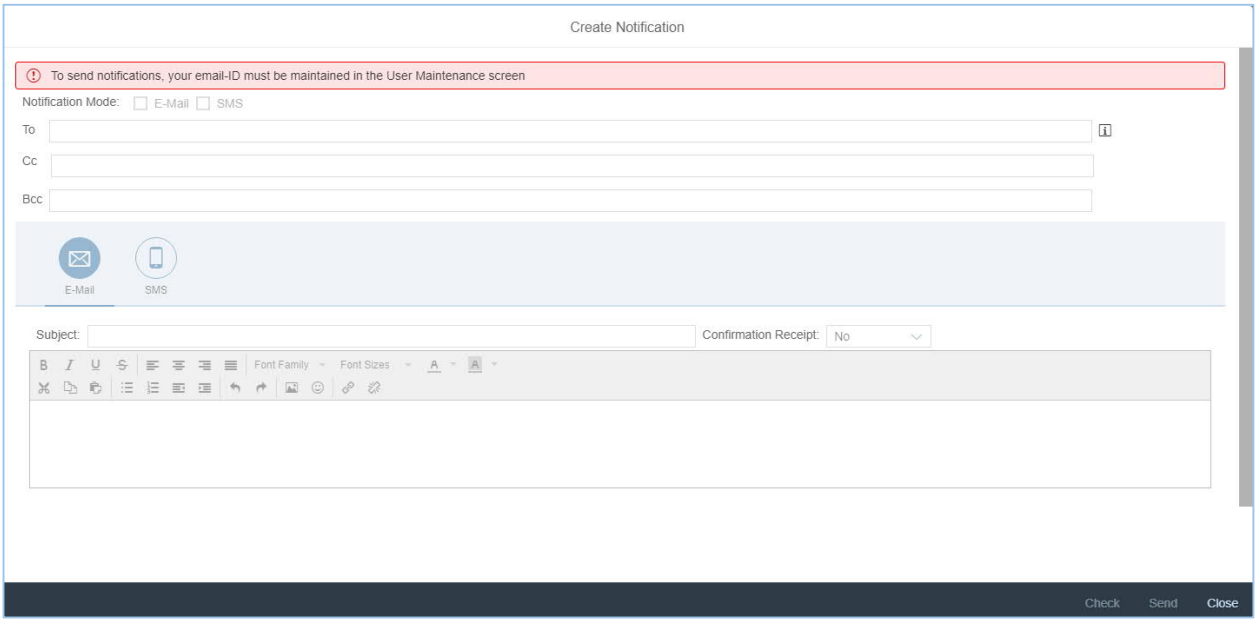



Figure 15. Create notification

4- When using the “New Incident” button a pop up is appearing to choose the incident type and enter the incident details.

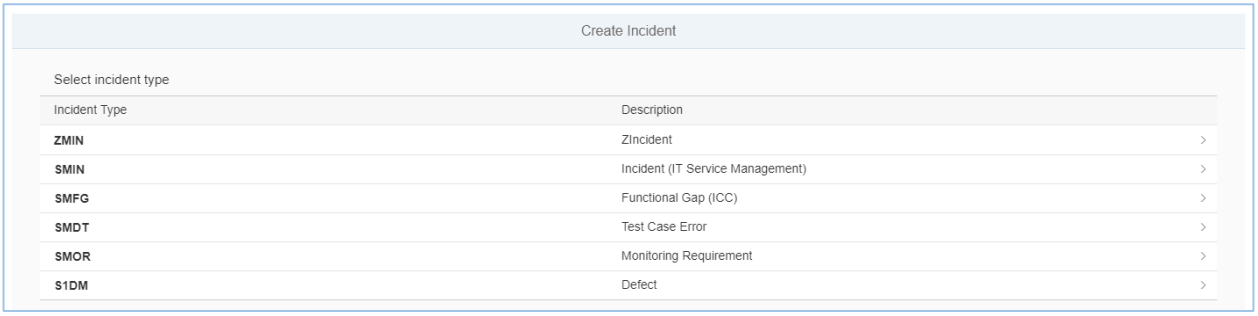



Figure 16. Create Incident

5- The “Alert Inbox” button is used to be redirected to the system alert Webdynpro.

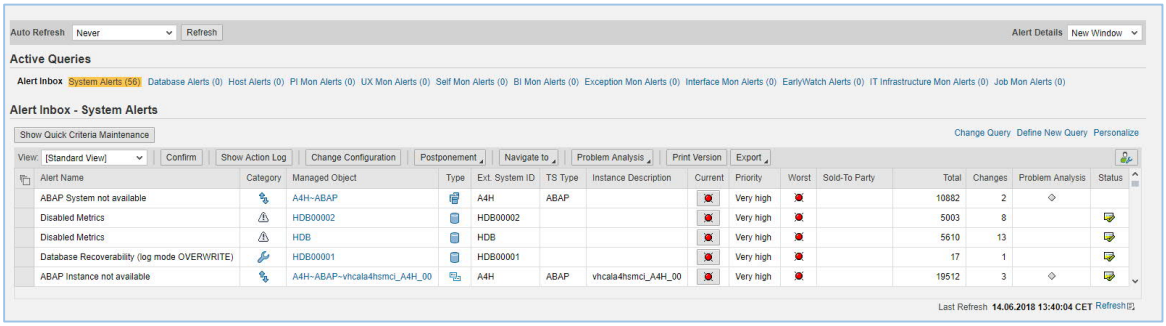



Figure 17. Alert Inbox

6- The “Guided Procedures” button is used to be redirected to the Guided Procedure list of All Application Areas

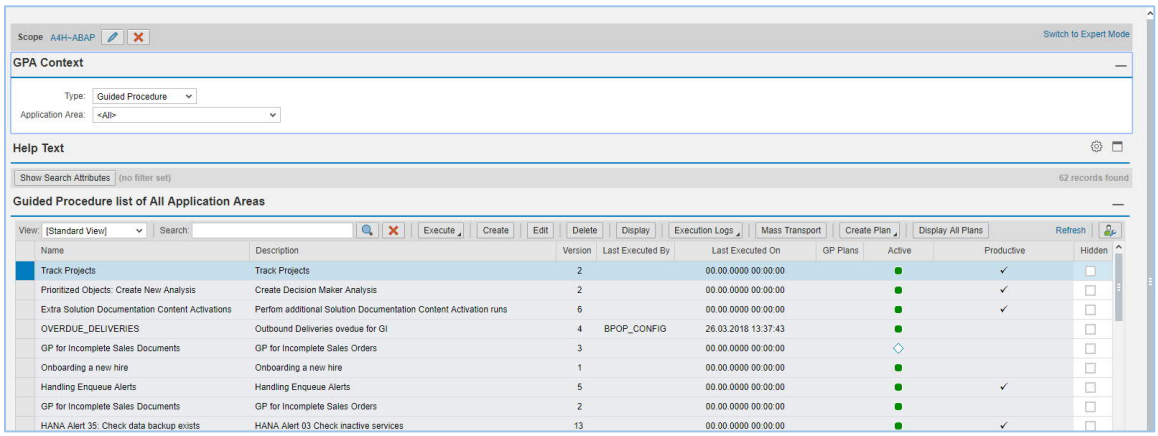



Figure 18. Guided Procedure

## 3.5 The Footer



Figure 19. The footer

The footer contains the Copyright in the left area.

## 3.6 The Content Area

The content area is in the middle-center of the dashboard. This is where you see the content of the selected instance.

This area is covered by the navigator which contains:

1- Navigating items: which show where you are, and where you are from 

.

2- The toggle Edit Mode button  .

3- The full screen button  which allows you to show only the content area.

4- The Refresh Button 

5- The set dashboard's global time range 


Figure 20. Content Area

## 3.7 Gadgets

The default period and default resolution are defined at the dashboard level in the dashboard settings tabs:

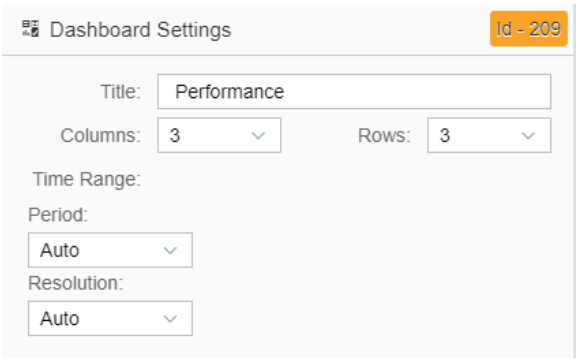



Figure 21. Set Dashboard's Global Time Range

It can be overridden at the gadget level in the **gadget settings** tab

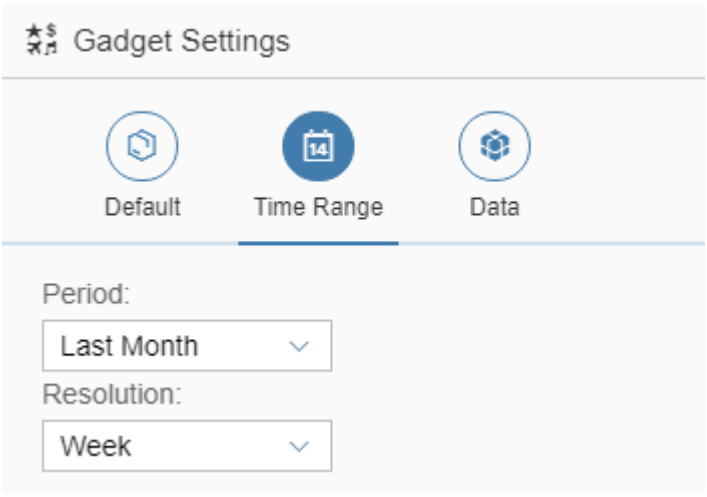



Figure 22. Set gadget's Time Range

At runtime, we can choose a time range using the button set dashboard’s global time range

but this is only applicable with the gadgets which had auto as period and auto as resolution and only the display of the gadget will be changed. The configuration should still the same (Auto/Auto).

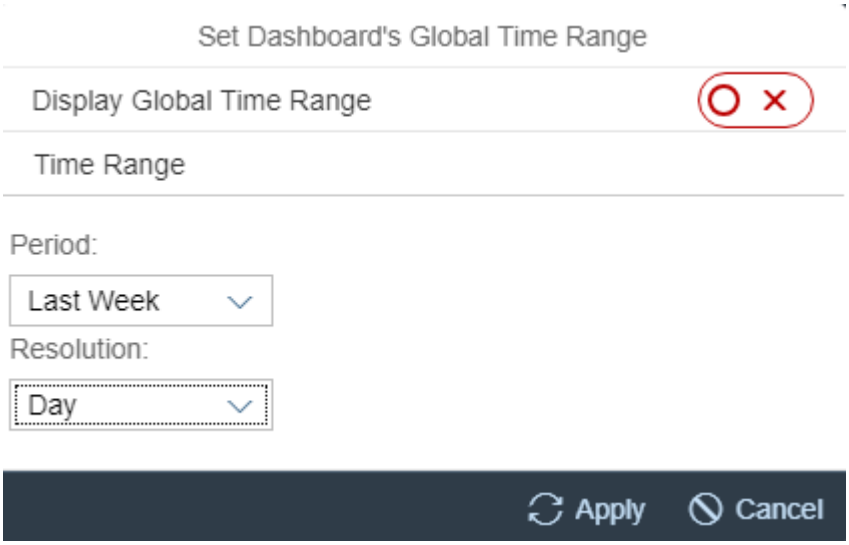



Figure 23. Set Dashboard's Global Time Range

After zooming in the gadget, the last update date is on the bottom of the gadget.

The dashboard's time frame is indicated in the top of every gadget.

It contains:

1- The period
2- The resolution

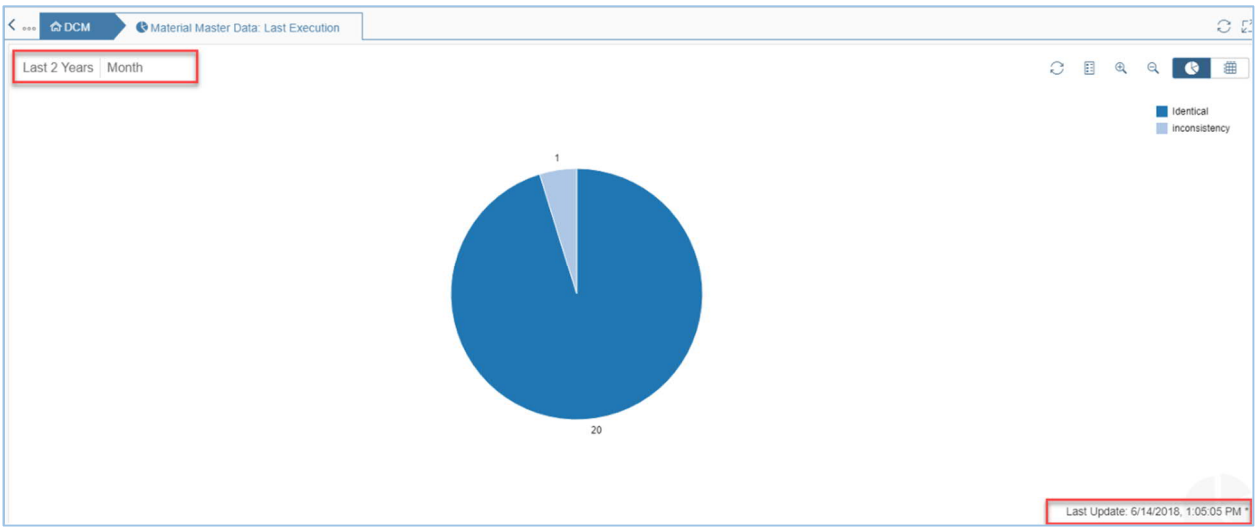



Figure 24. Gadget time frame

The refresh of gadget data is done by the Refresh button and the user can whether to refresh it (this will get the data from the cache if the data are still valid for the selected period / resolution) and to hard reload the gadget(always bypasses the cache).

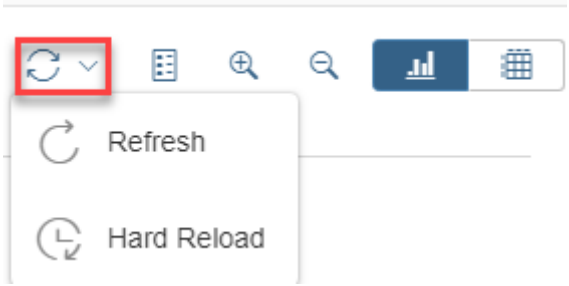



Figure 25. Refresh and Hard Reload buttons

# 4. Configuration

## 4.1 Creating a dashboard

To create a new dashboard, click on the button “Create New Instance” button.

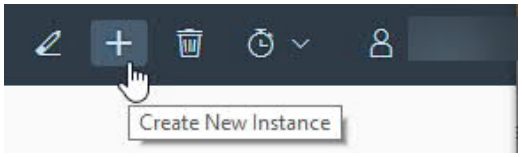



Figure 26. Create new instance

A popup setting is displayed. You should choose several information:

1- Title: This is the title of the dashboard
2- Columns, Rows: If you select for example 2 columns and 3 rows, your dashboard will contain 2x3 = 6 gadgets
3- Time range: You can optionally choose the time range for the dashboard (period and resolution)

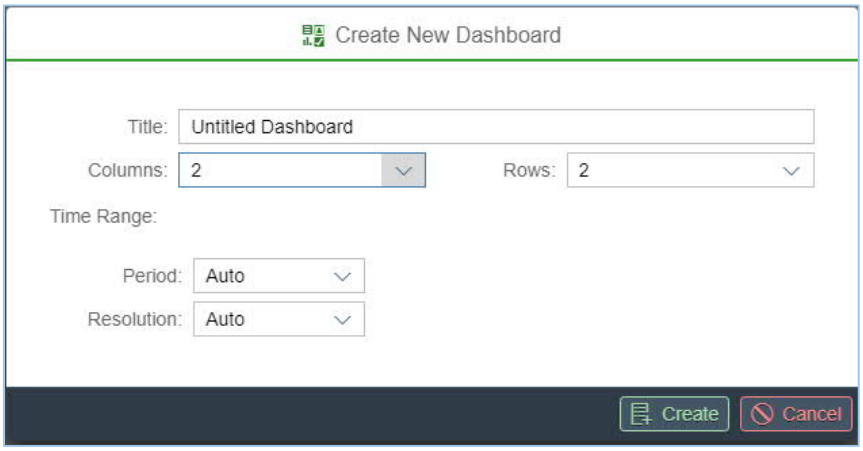



Figure 27. Create New Dashboard Popup

## 4.2 Editing a dashboard

To edit an existing dashboard, you must first access it and then press the button edit. Then, you'll be able to edit gadgets settings.

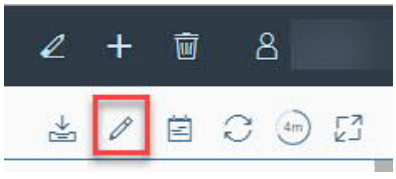


Figure 28. Dashboard Edit button

After pressing the edit button, a new view is displayed containing on the right side the Gadget Settings. On the left side we can access to Dashboard Settings, Dashboard Layout and Galleries:

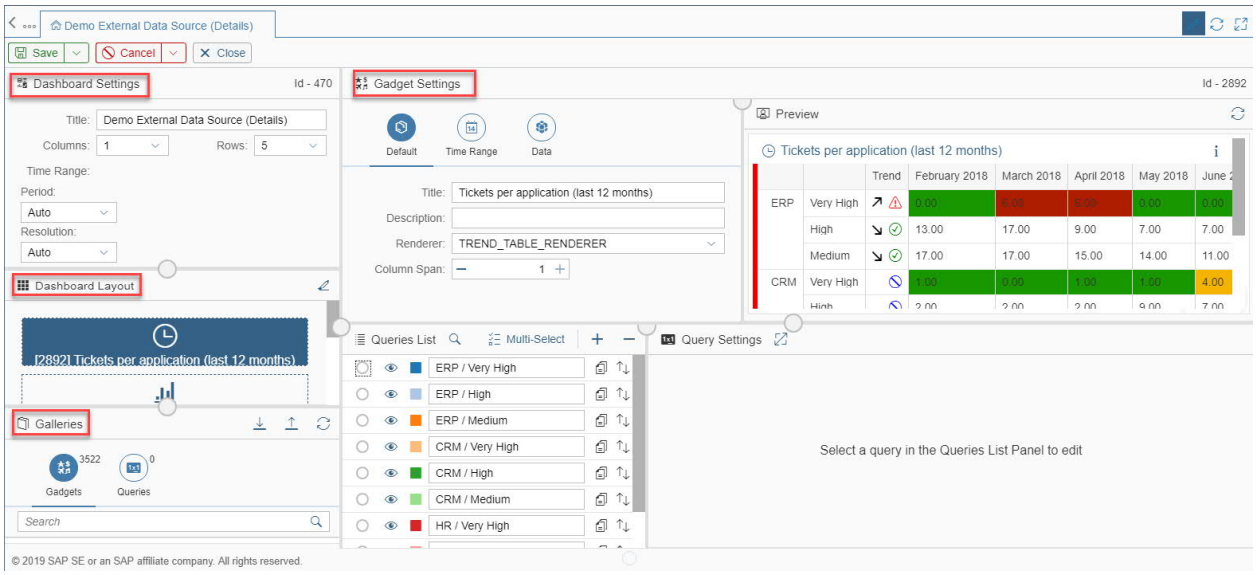



Figure 29. Dashboard Edit Mode

On the section Dashboard Settings, the dashboard id is displayed on the top right of the tab. You can edit several information:

1- Title

2- Columns, Rows

3- Time Range (Period and resolution)

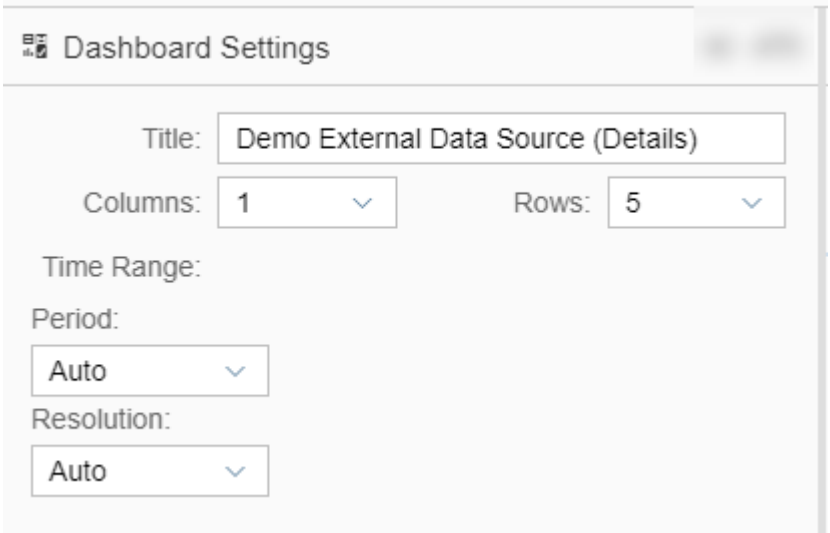



Figure 30. Dashboard Settings

On the section Dashboard Layout, we can see the list of the gadgets existing in the selected dashboard. Every gadget is represented by the title, the id and a figure corresponding to the used renderer.


Figure 31. Dashboard Layout

You can reset a gadget to its initial phase using the button 

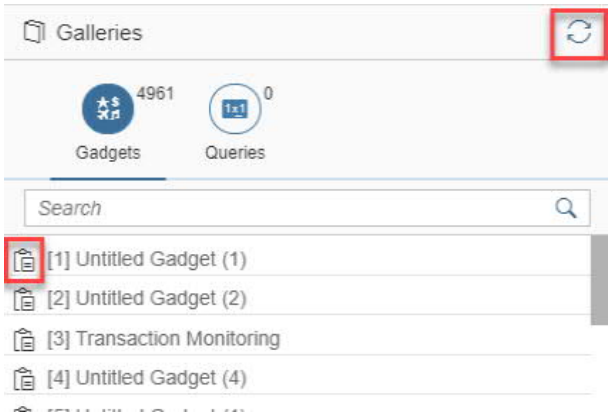



Figure 32. Galleries

You can also use the button Paste Gadget to paste a certain gadget in multiple dashboards.

If a gadget is empty the wanted gadget will be pasted directly

If a gadget is not empty a pop-up message containing two buttons (confirm and cancel) will appear.

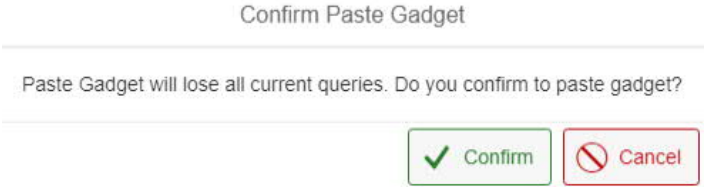



Figure 33. Confirm Paste Gadget Pop-up

If the user clicks on the button confirm the gadget will be pasted and if the user clicks on the button cancel nothing happens.

When the edit of the dashboard has been done you can choose to:

4- Save
5- Save and Close Editor
6- Cancel
7- Cancel and Close Editor
8- Close

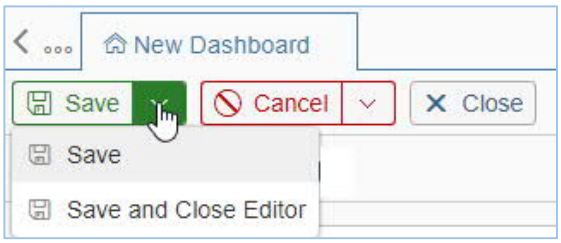



Figure 34. Edit Mode Bar

## 4.3 Deleting a dashboard

To delete a dashboard, click on the “Delete Selected Instance” button.

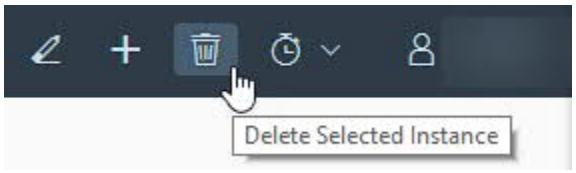



Figure 35. Deleting Dashboard

## 4.4 Editing Gadget Settings

To edit the Gadget Settings, you need first to switch to dashboard edit mode by pressing the button “Toggle edit mode” button. Then, choose the gadget to be edited from the section “Dashboard Layout”.

The gadget settings are then displayed on the right side of the page.

The id of the gadget is displayed on the top right of the section gadget settings.

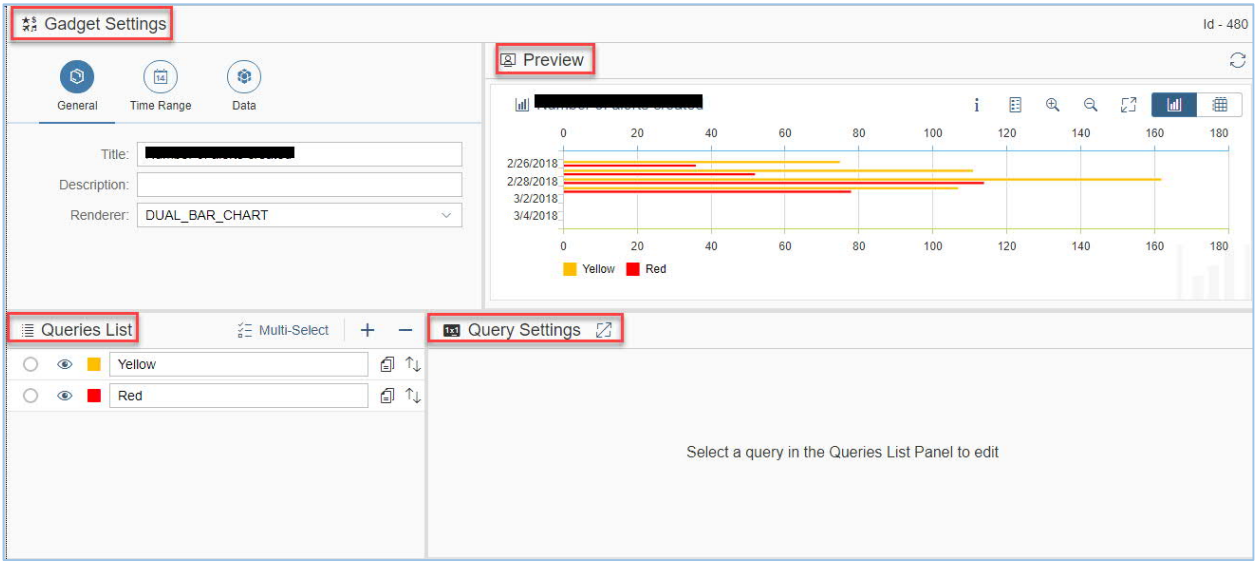



Figure 36. Gadget settings

- The gadget settings are composed of three tabs:
  - Default:
    - Title
    - Description
    - Renderer
    - Display format → only in use of HTML Renderer and Column Span.

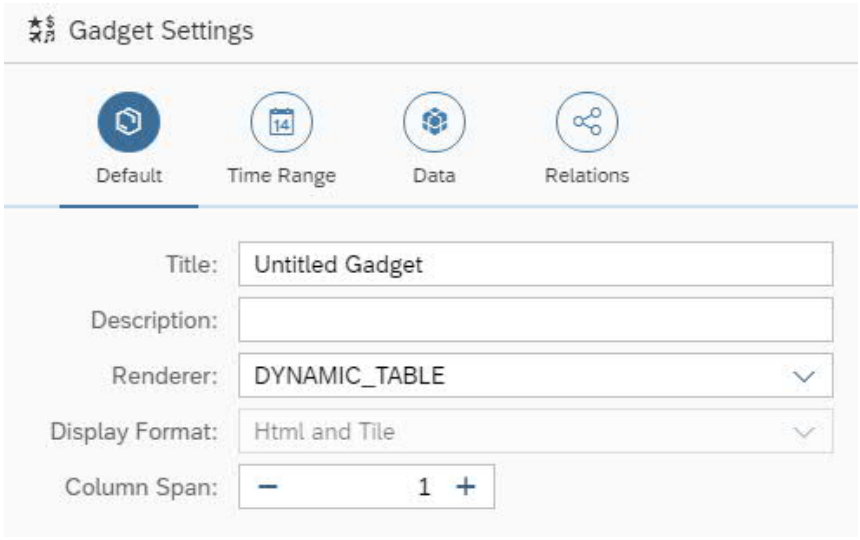



Figure 37. Gadget Settings General

  - Time range: you can force the time range for the gadget. In this case, the gadget will ignore the dashboard's time frame.

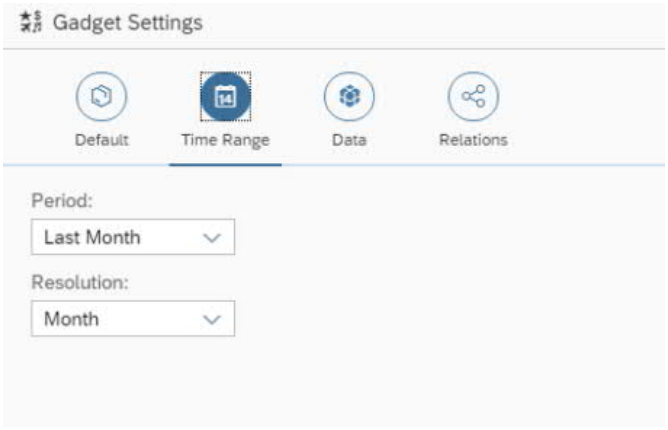



Figure 38. Time Range Tab

Note that if the gadget time range is “Auto|Auto”, the gadget will inherit the global time range of the dashboard and a message strip will appear in the gadget time range configuration area. This message is a control that is used as an information bar.

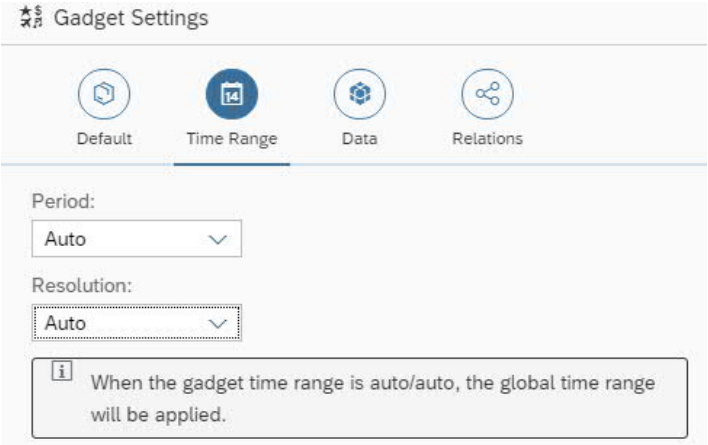



Figure 39. Time Range Values Auto / Auto

- Data: this tab is containing the fields:
  - Category unit
  - Value unit
  - Yellow threshold
  - Red threshold
  - Value max

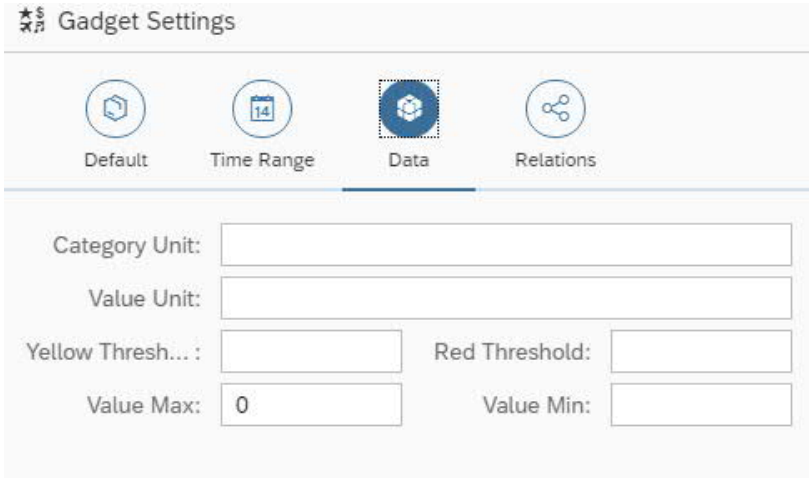



Figure 40. Data Tab

- Relations:

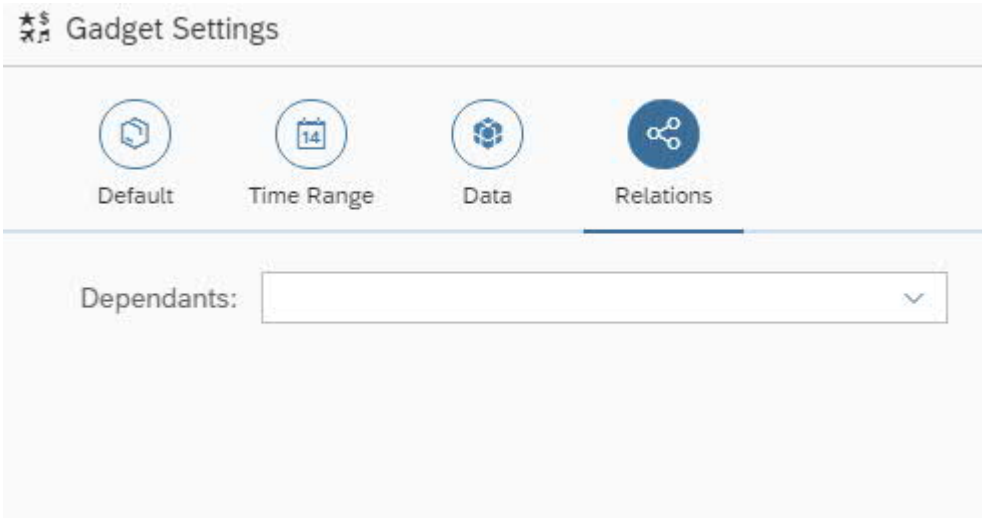



Figure 41. Realtions Tab

The Relations tab enables you to select gadgets which are depended on the current selected gadget. Note that the dependents list is restricted to gadgets which are not itself and not its parent.

This feature works only for Time Axis Chart Renderers Type, select points or time spot in the chart to makes dependent gadgets react to the time range.

When multiple points are selected, the time range are selected from the left most point and the right most point.

When points are selected after some already selected, time range can be increase if either left most point and right most point changes.

When unselect points, dependents will reset their own time range.

➢ The preview section: it contains the gadget view with minimized size. You can update data via the refresh button.


Figure 42. Preview section

➢ The queries section: The list of queries existing in the gadget. You can use one of these buttons to edit the list of queries: choose to select or unselect the queries.

- ❖ The [+] button is used to add a query
- ❖ The button [−] is used to delete a query
- ❖ Select All queries
- ❖ Deselect All queries
- ❖ Toggle Multi-select

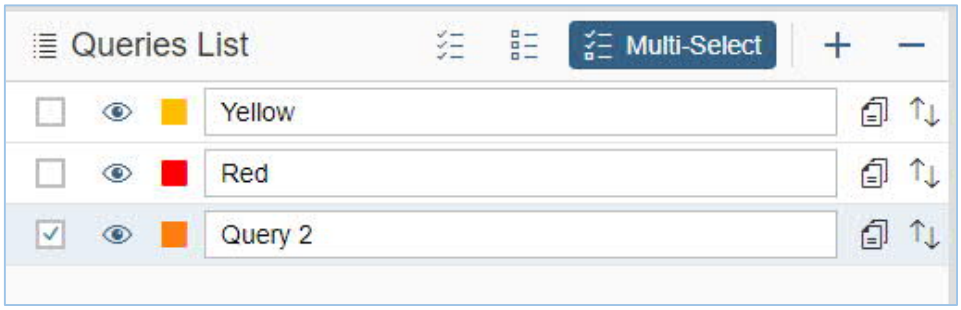



Figure 43. Queries list

For every query you can choose to:

- ❖ Copy the query
- ❖ Sort by Drag and Drop

- Query Settings: After selecting a query from the list, the settings are enabled with 3 tables:
  - **Content:** The configuration of the gadget strongly depends on the data provider you'll choose from the dropdown list

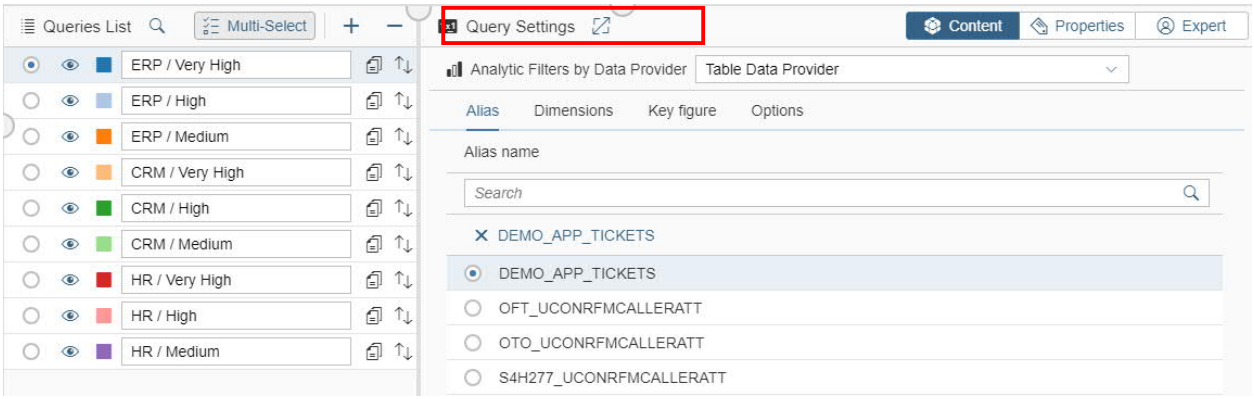



Figure 44. Query settings

- **Properties:** The properties Tab contains theses information:

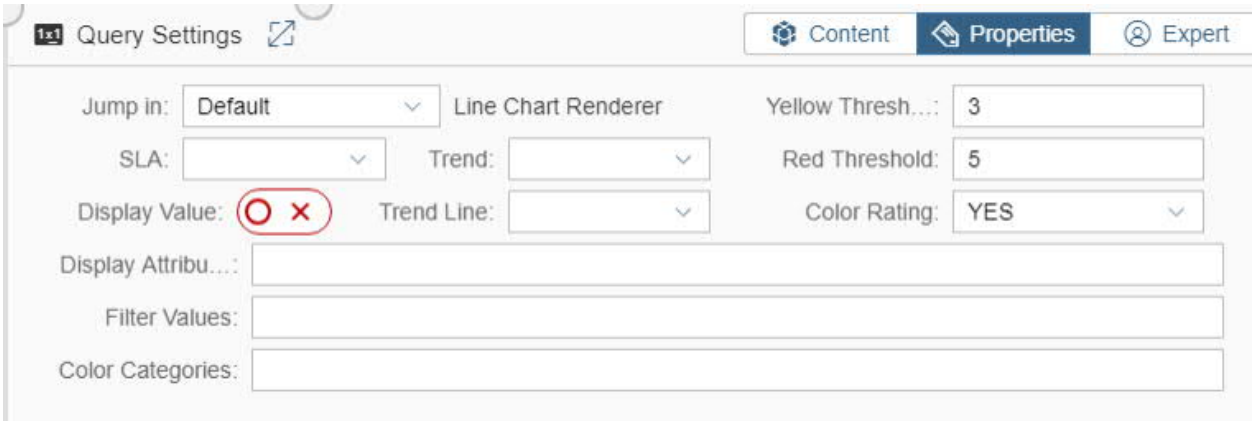



Figure 45. Query Properties

- **Jump in**

This feature enables the user to navigate from the current gadget to the same gadget but with a different renderer type, to another gadget or to a specific dashboard.

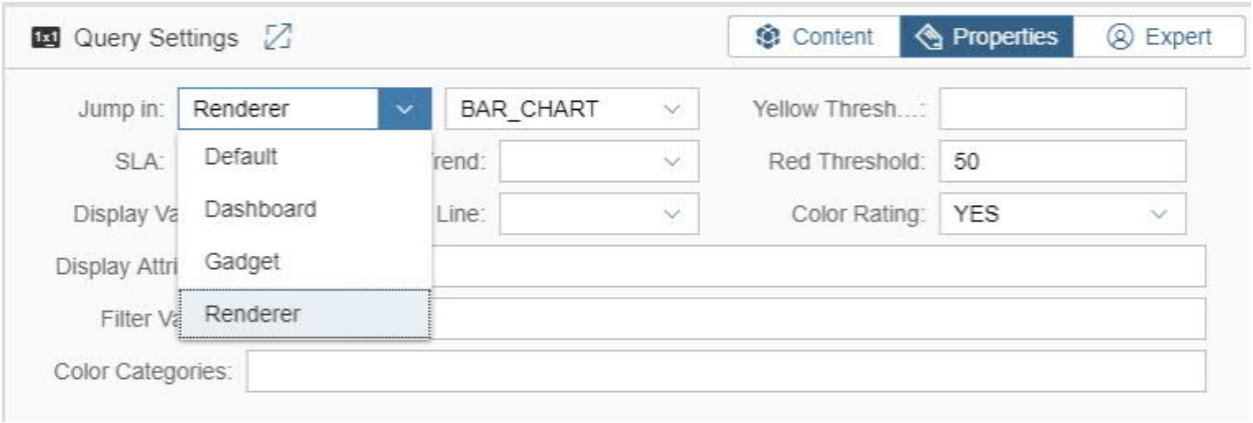



Figure 46. Jump in Property Values

When we double click on the gadget legend the user will redirected depending on the Jump in Property Configuration. In the following an example of the use of Jump in Property

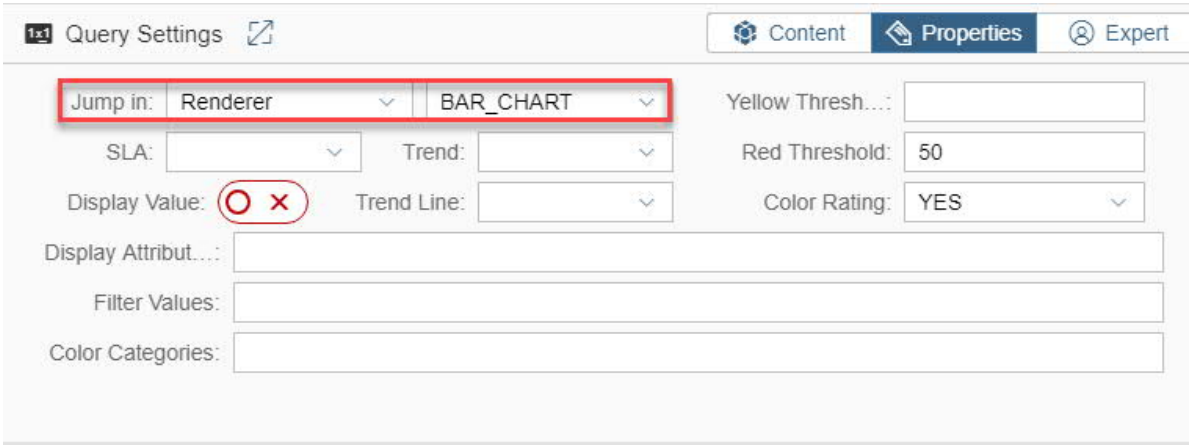



Figure 47. Jump in Property Configuration

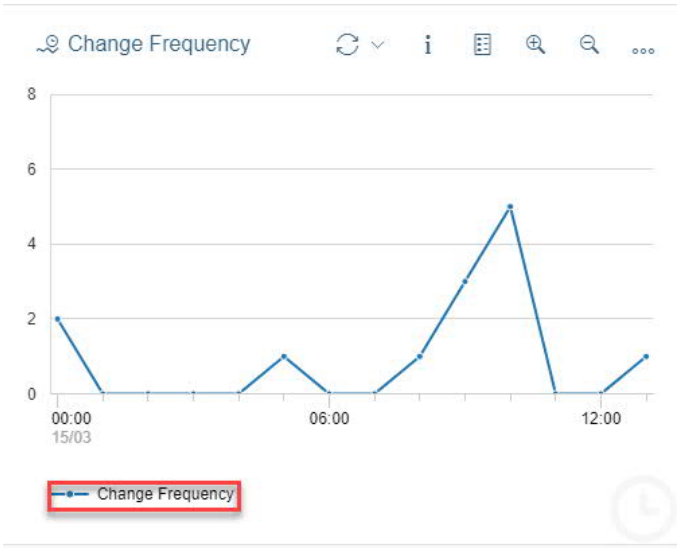



Figure 48. Detail View (1)

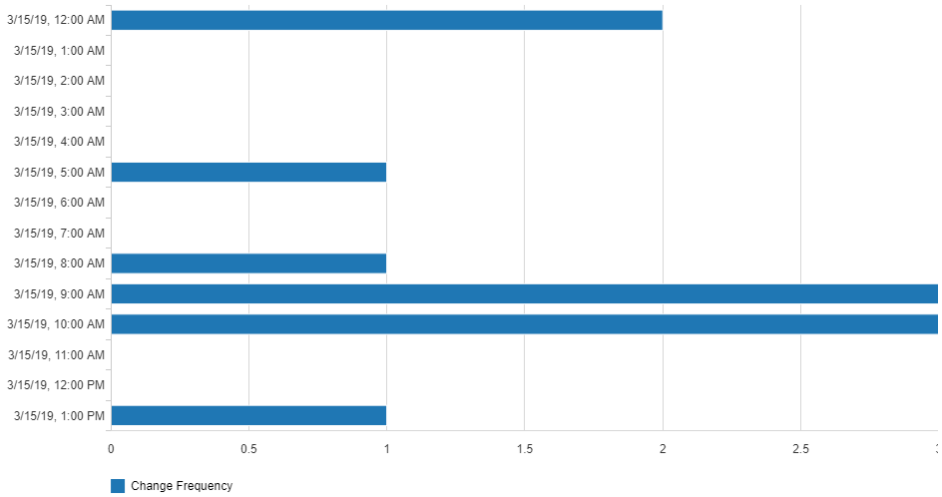



Figure 49. Detail View (2)

- **SLA (Average, Maximum, Minimum, Sum, Last)**

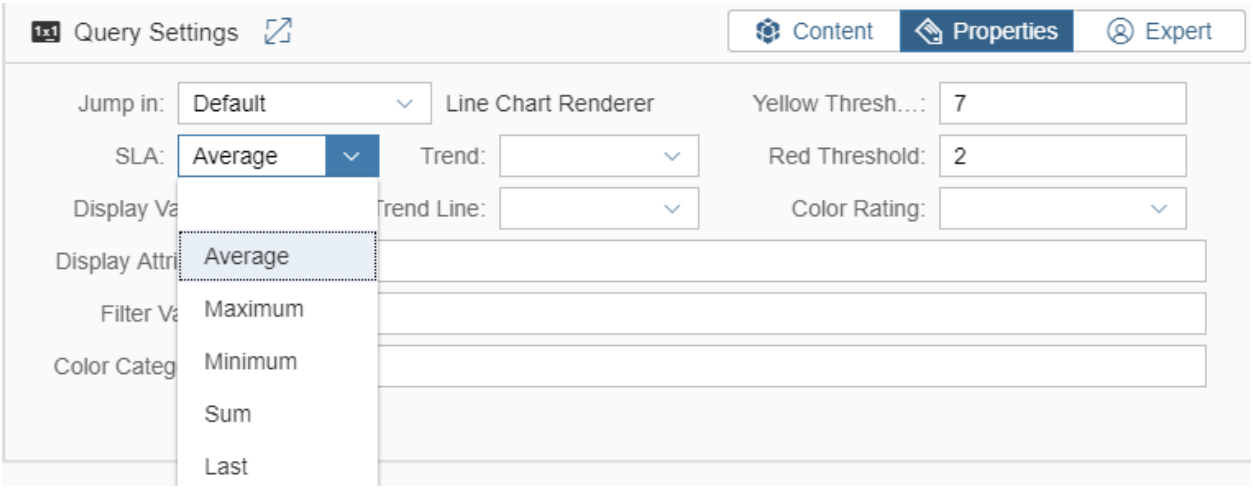



Figure 50. SLA Property Values

The SLA property has five values which are respectively MIN, MAX, AVG, SUM and LAST and it is used with the SLR Renderer and SLR Table Renderer

**Average**

Using the Average parameter the returned value is the average of all values returned by the query in the chosen period.

**Minimum**

Using the Minimum parameter, the returned value is the minimal one among all values returned by the query in the chosen period.

**Maximum**

Using the Maximum parameter, the returned value is the maximal one among all values returned by the query in the chosen period.

**SUM**

Using the SUM parameter, the returned value is the sum of all the values among returned by the query in the chosen period.

**LAST**

Using the LAST parameter, the returned value is the last value among returned by the query in the chosen period.

**DIRECTION**

Using the Direction parameter, the returned value is the average of all values returned by the query in the chosen period.

- **Rating**: based on the direction of the regression
    - **Quadratic Regression**: $Y = BX^2 + AX + C$
        - Calculate B using the below formula $B = \frac{Sx^2ySxx - SxySxx^2}{SxxSx^2x^2 - (Sxx^2)^2}$
        - If B is positive and the Trend is **"UP",** the rating will be **GREEN**
        - If B is negative and the Trend is **"DOWN",** the rating will be **GREEN**
        - Else, it will be **RED**.
    - **Linear Regression**: $Y = BX + A$
        - Calculate B using this formula: $B = \frac{n(Sxy) - (Sx)(Sy)}{n(Sx^2) - (Sx)^2}$

- If B is positive and the Trend is **"UP",** the rating will be **GREEN**
- If B is negative and the Trend is **"DOWN",** the rating will be **GREEN**
- Else, it will be **RED**.

| SLA: DIRECTION | | | |
|---|---|---|---|
| B > 0 | | B < 0 | |
| Trend = UP | Trend = DOWN | Trend = UP | Trend = DOWN |
| | | | |

**RAW**

Using the Raw parameter, the returned value is the last of all values returned by the query in the chosen period.

- **Rating:**
  - If the last value is **"POSITIVE"** and the trend is **"UP"**, the rating will be **GREEN**
  - If the last value is **"NEGATIVE"** and the trend is **"DOWN",** the rating will be **GREEN**
  - Else **RED**

| SLA: RAW | | | |
|---|---|---|---|
| Last Value > 0 | | Last Value < 0 | |
| Trend = UP | Trend = DOWN | Trend = UP | Trend = DOWN |
| | | | |

**RANGE**

Using the Range parameter, the returned value is the average of all values returned by the query in the chosen period.

- **Rating:** Success (green) if all values of the series are between G2Y and Y2R.

- **Trend (Up, Down)**

The Trend property has two values which are Up and Down, and it is used with the SLR_RENDERER, SLR_TABLE, TABLE_HISTORY_RENDERER, TREND_TABLE_RENDERER, DONUT_RENDERER

This renderer type compares the trend calculated from the set of point returned by the query.

If the trend calculated is an ascending trend and the user chose the value Up or the trend calculated is a descending trend and the user chose the value Down, there will be a green icon displayed.

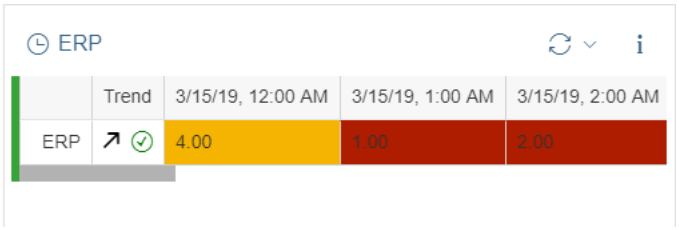



Figure 51. Detail View with a Green Icon

If the trend calculated is an ascending trend and the user chose the value Down or the trend calculated is a descending trend and the user chose the value Up, there will be a red icon displayed

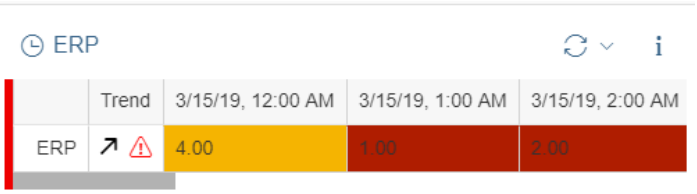



Figure 52. Detail View with a Red Icon

- **Thresholds (yellow and red)**

The user can also define depending on which limits the value rendered can be considered as good or critical and this feature is strongly tight to the previously explained Trend (up, down) feature,

The behavior is resumed in the following table:

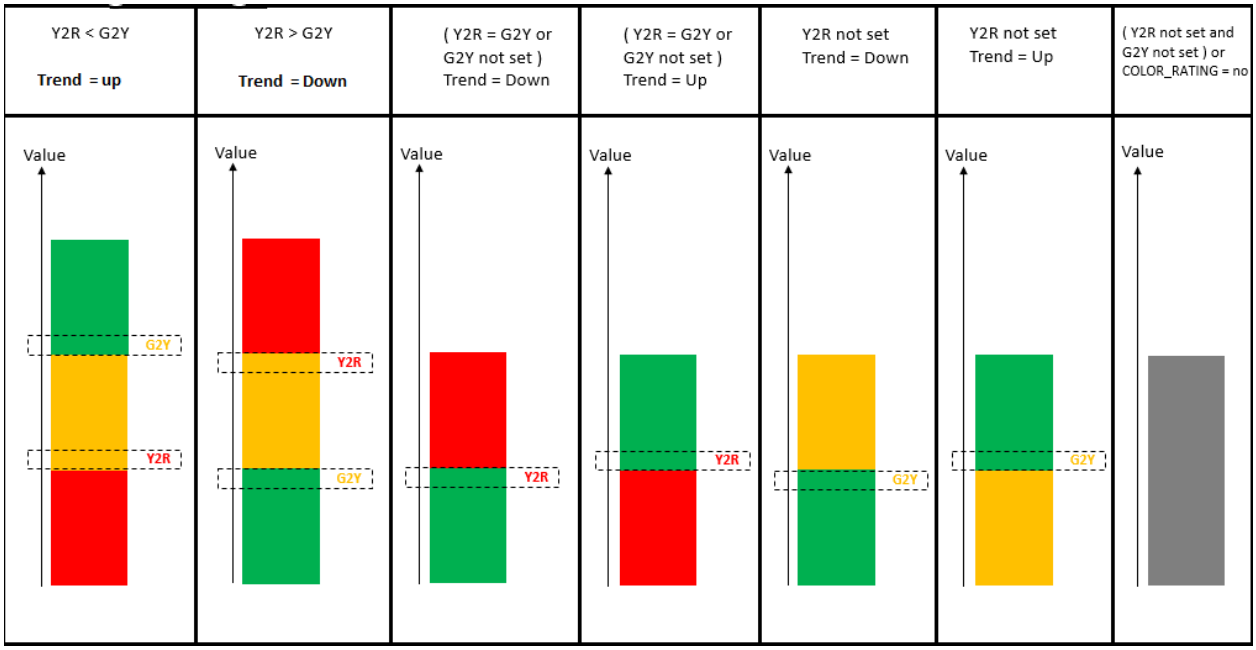



Figure 54 : threshold setting's type

- **Trend Line (Linear Regression, Quadratic Regression)**

The Trend Line property has two values which are respectively Linear Regression and Quadratic Regression

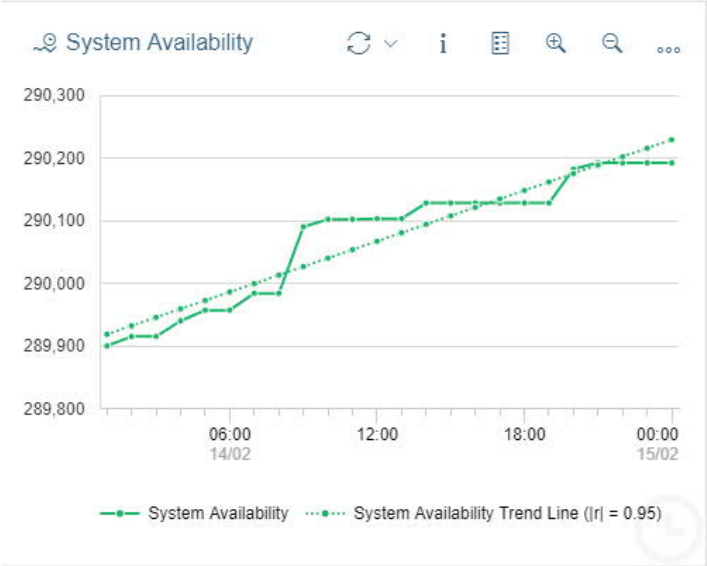



Figure 53. Detail View using Linear Regression Trend Line

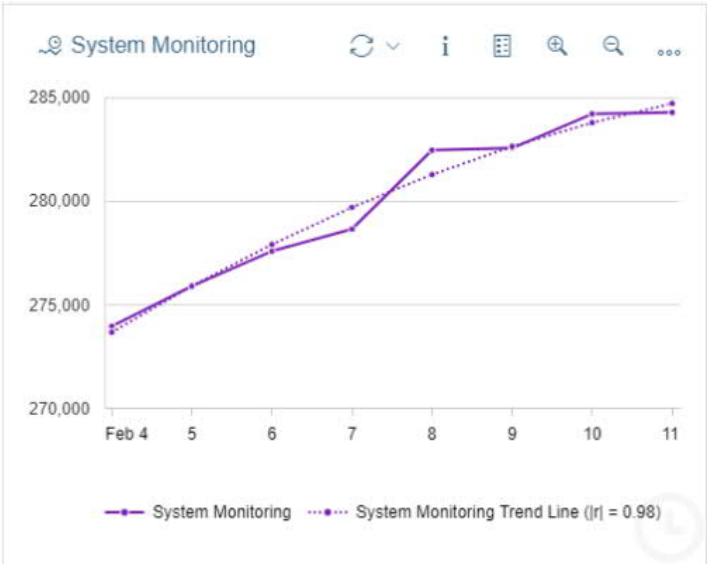



Figure 54. Detail View using Quadratic Regression Trend Line

- **Color Rating (Yes, No, Only)**

The Color Rating property has three values which are respectively Yes, No and Only.
If Color Rating = YES

- If the value of the query is strictly less than the yellow threshold the value will be displayed in the green color.
- If the value of the query is between the yellow threshold G2Y (it represents the MIN value) and the red threshold Y2R (it represents the MAX value) then it will be displayed in yellow.
- If the value of the query is strictly superior of the Red threshold Y2R then it will be displayed in the red color.

In the following an example using the Donut chart showing the use of the color rating property.

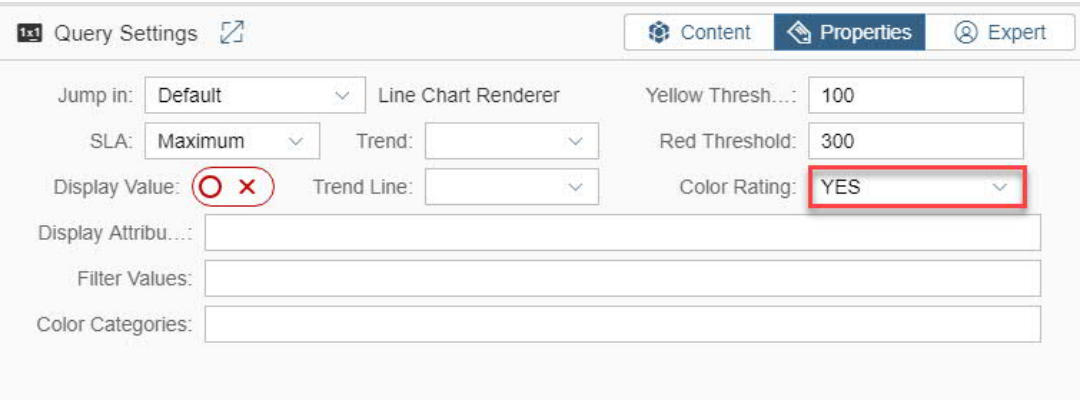



Figure 55. Color Rating Property Configuration

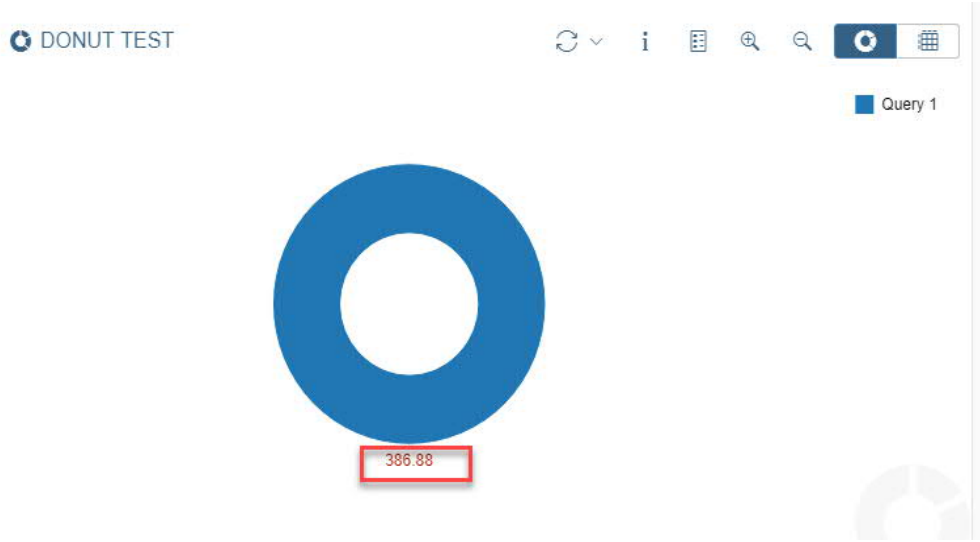



Figure 56. Donut Chart Detail View with a Red rating

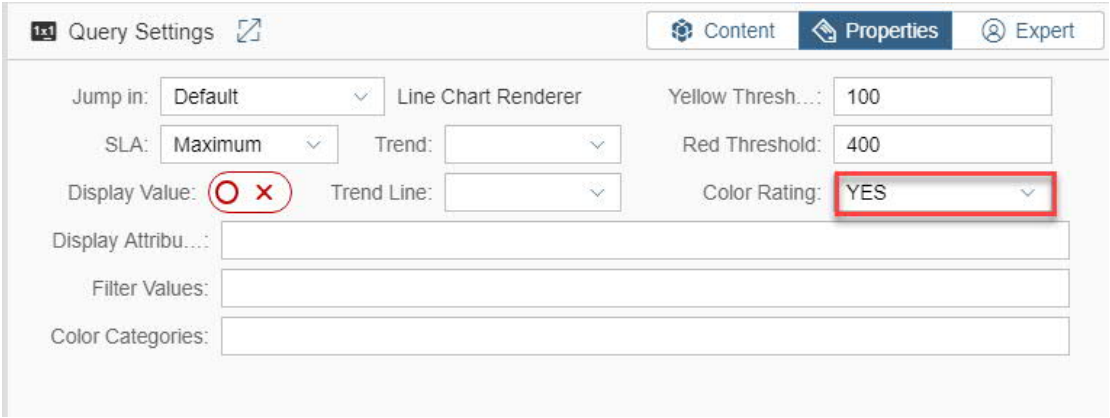


Figure 57. Color Rating Property Configuration

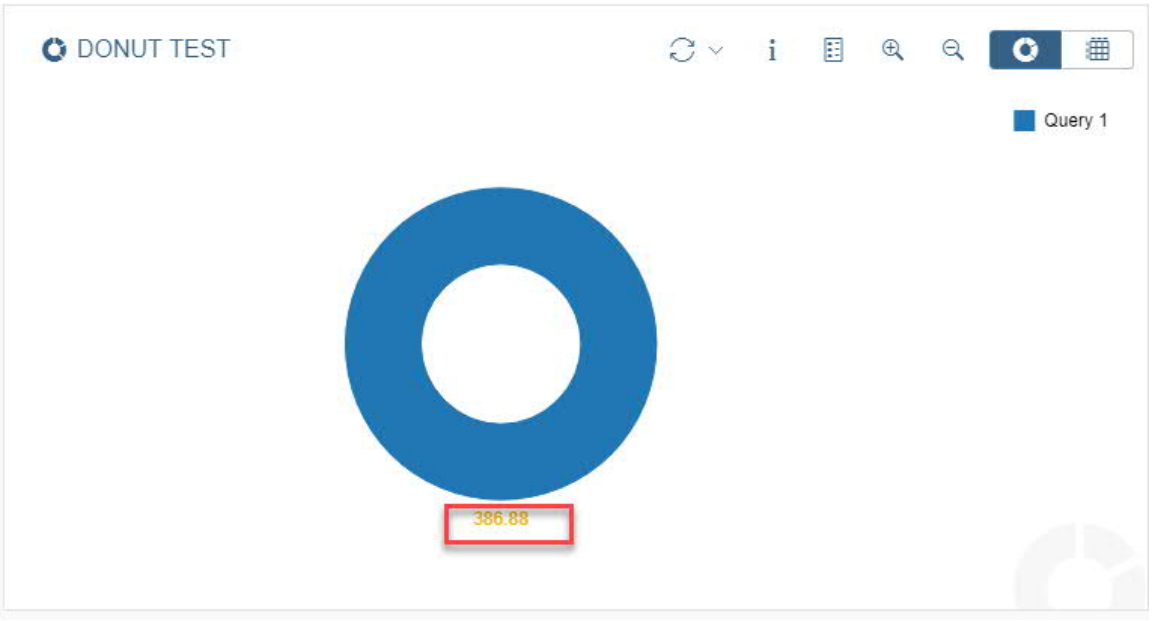



Figure 58. Donut Chart Detail View with a Yellow rating

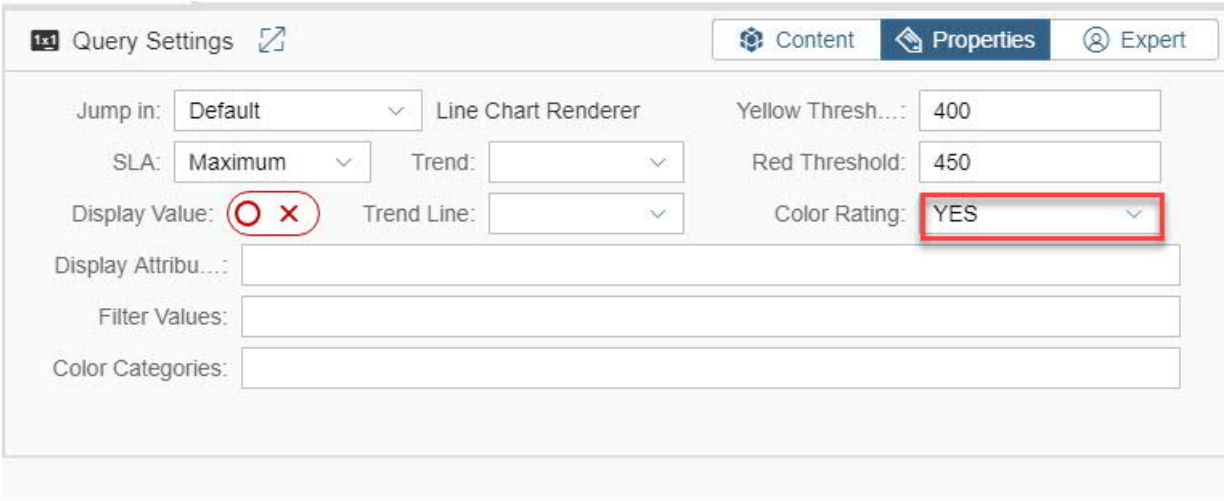



Figure 59. Color Rating Property Configuration

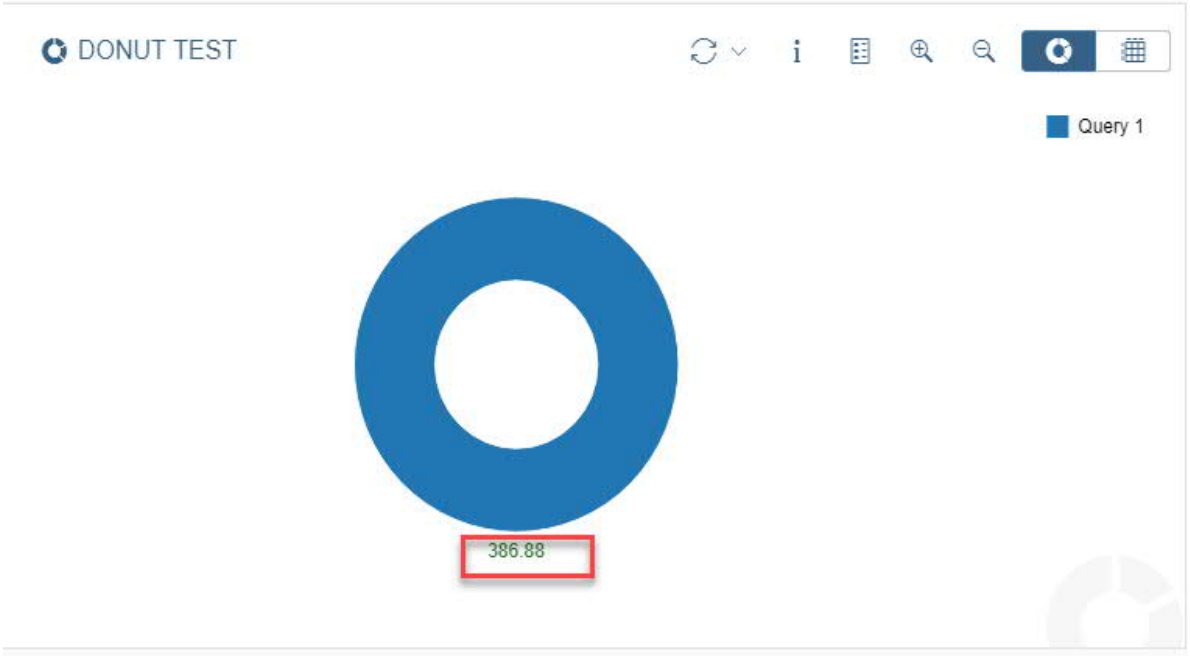



Figure 60. Donut Chart Detail View with a Green rating

If Color Rating = No

The value should be displayed in the color black.

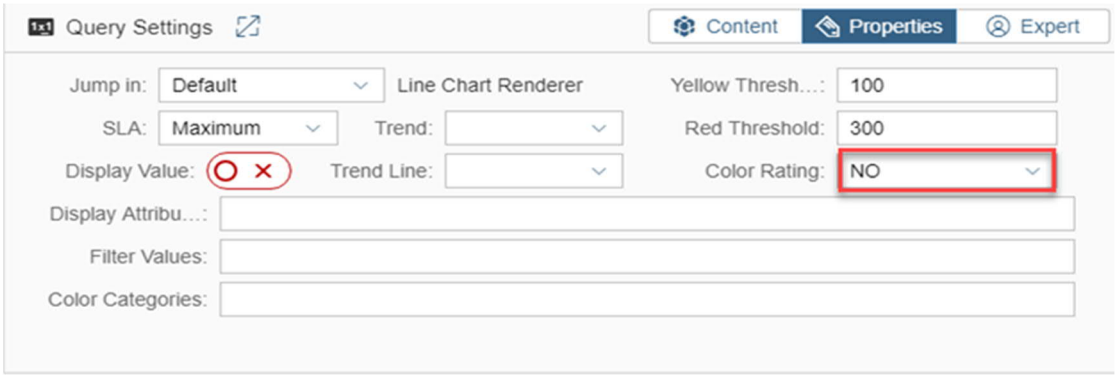



Figure 61. Color Rating Property Configuration

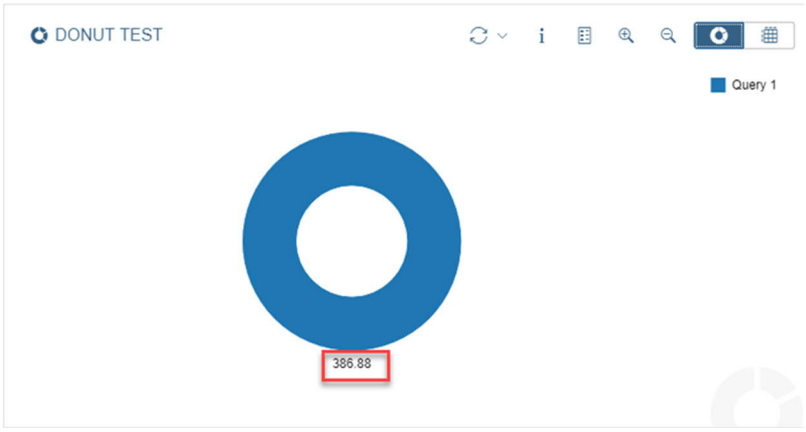



Figure 62. Donut Chart Detail View with a no rating

- Display Attributes: This property enables to rename and manage the displayed columns (An example is detailed on the page 117)
- Filter Values: This property enables to manage the displayed rows (An example is detailed on the page 118)
- Color Categories: This property enables to classify the displayed data in distinct categories (An example is detailed on the page 111)

- **Expert:**


Figure 63. Expert tab

## 4.5 Export Dashboard

After you satisfy with your dashboard, you can export it to use as template for future reference.

Not only you can export dashboard, but you can also parameterize parts of content information, so you can easily change during the importing of dashboard which will be introduced in latter section.

To export dashboard, choose the Export Dashboard button in Dashboard Settings Panel of Editor screen of the dashboard like in figure below.

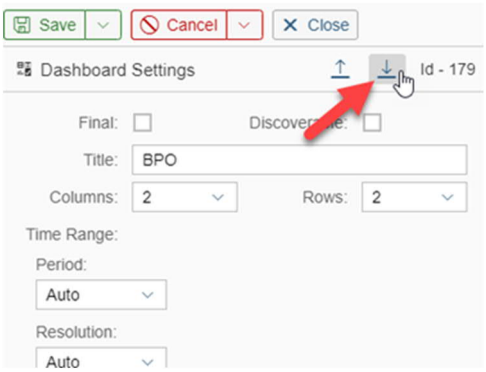



Figure 64. Export Dashboard Button

This will open Export Dialog as you can see in Figure 65 below. There are 3 main sections:

1. The first one is where you put your exported dashboard file's name. The default name will be the combination of dashboard name and timestamp at that moment.
2. As stated, you can parameterize some content, so the biggest section is for parameterization of the content.
3. The last section is to accept and export the dashboard, or to close the dialog.

- Note

  If you close the export dialog, all parameter settings that you did will be erased.

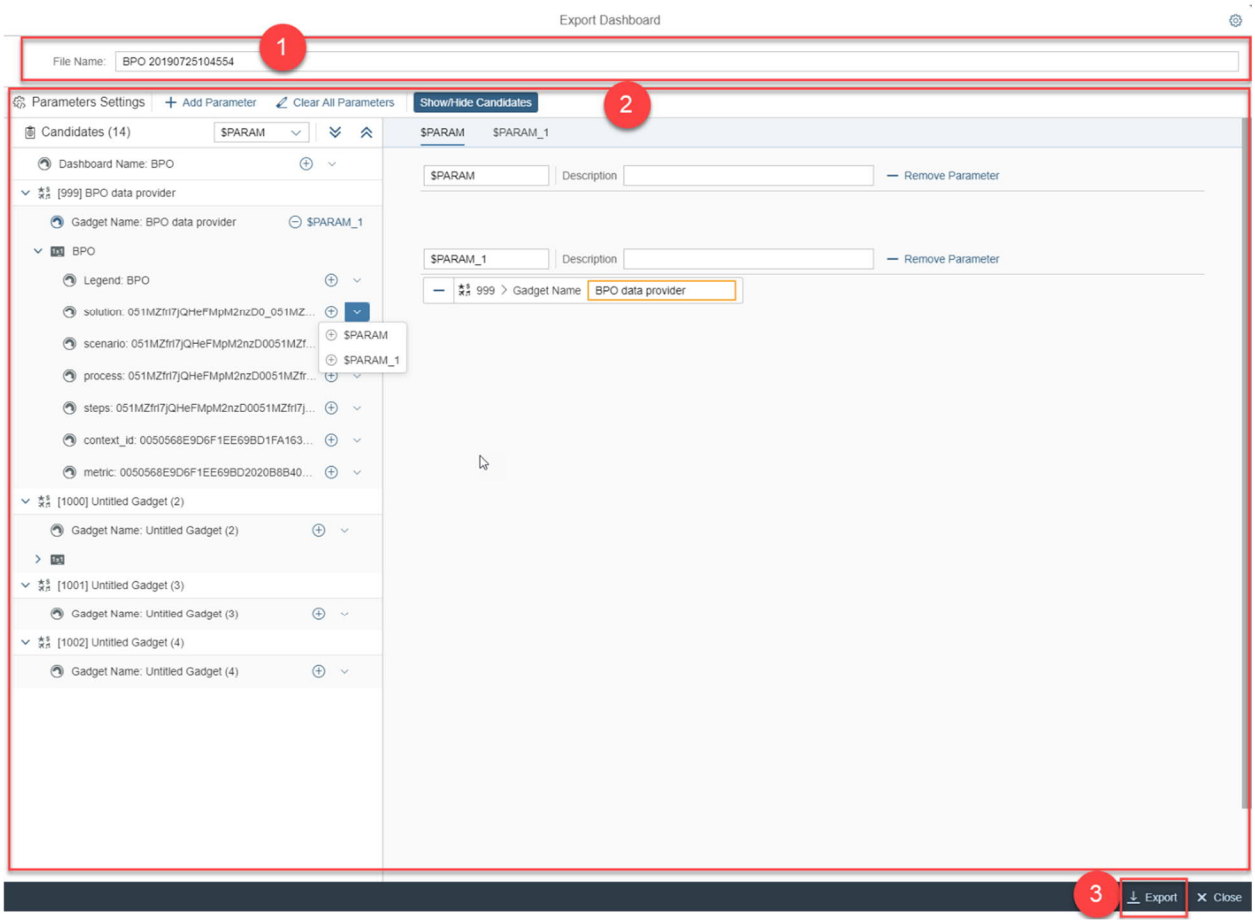



Figure 65. Export Dashboard Dialog

Let's go to the big feature of the export dashboard which is the parameterization. The way it works for the parameterization is that you choose the content which you think it can be changed in target dashboard and set it as a candidate for the parameter, which you will define. In import phase, the candidate value will be changed according to selected value of the parameter.

There are limited contents which you choose as candidates. They are:

- Dashboard name.
- Gadget name.
- Query legend
- Data provider's filters in query.

When you parameterize these contents, and later import to a dashboard, the way the value changes is not the same.

Specifically, for *dashboard name*, *gadget name*, and *query legend*, the value will be changed by insert parameter's selected value to the specified place. For *data provider's filters* in query, parameter's selected value will replace the default value.

To parameterize, you need parameters first, so you can put the contents as candidates in those. You can find the controls in Parameters Settings header.


Figure 66. Parameters Settings Header

1. Use the + Add Parameter button to start adding parameters. After that you will see your parameters on the right panel as show in figure below. You can name your parameter, and optionally provide meaningful description so that one can know what this parameter is about when importing.

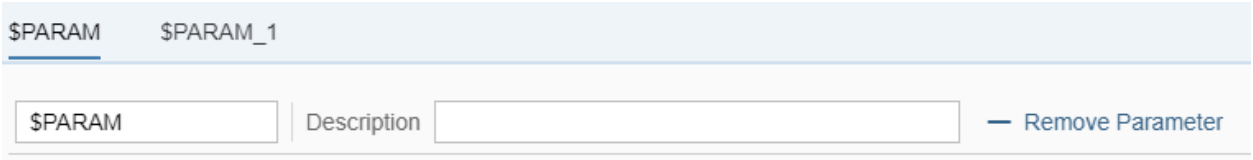



Figure 67. Added parameters

You can quickly remove all parameters by using button Clear All Parameters. Or you can use button Remove Parameter to remove specific paramter

2. Now you can choose candidates for parameters. On the left-hand side, you will see a tree with all the candidates. The tree is organized according to dashboard structure.

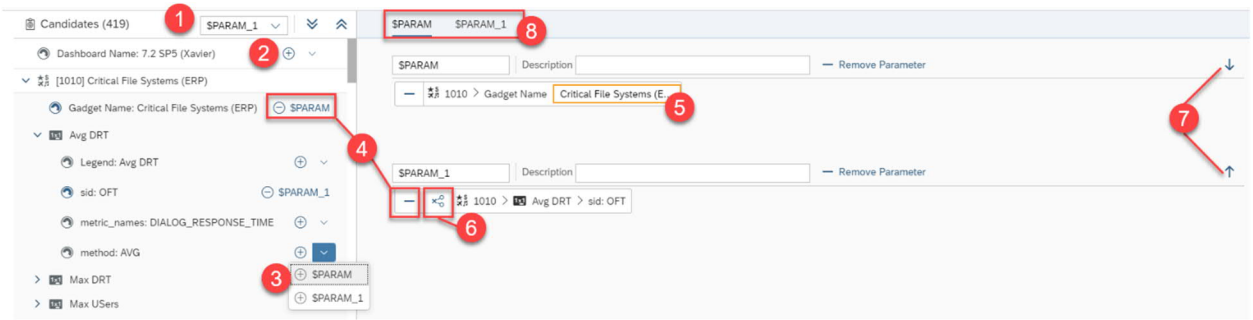



Figure 68. Export Dashboard – Choosing Paramter Candidates

1. You can choose the default parameter to be used when the add button is chosen.
2. Quick add candidate to default parameter. Default parameter is selected in the header of the tree.

3. Add candidate to specific parameter by using the menu next to the add button.
4. The candidate can only be added once. If you want to add to another parameter, you have to remove it from containing parameter.
5. As mentioned before, for candidates related to name, you have to choose a place where parameter value will be inserted to. You can do it by adding $$ to the specific location of the text in the input of the chosen candidate in parameters panel.
6. If the dashboard has many queries in different places with same property which you want to replace, you can toggle propagation for this candidate, so that the value will automatically propagate to all other queries when import. The propagation rules for candidate are query property, same data provider, and same filter.
    - When you toggle the propagation on, you should see the total number of candidates to be propagated.
    - You can choose the arrow button to see the list of propagate candidates. In the Dialog, you will be able to choose which candidate to be propagated on. By default, all are selected.
    - To toggle off, click the propagation button again.

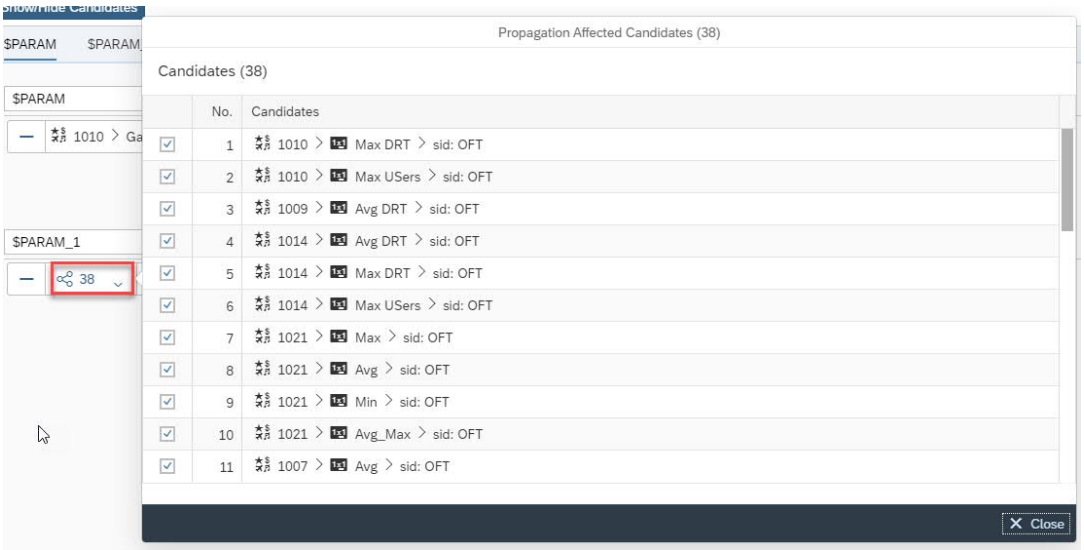



Figure 69. Export Dashboard – Propagation of Candidates

7. You can also adjust the order of parameters by using arrow buttons at the end of each parameter. This is important as when you use the propagation, the overwriting of candidate value may happen.
8. You can quickly navigate scrolling to parameter with this header.

After all this, you can export the dashboard. The exported file will be in format of JSON.

- ### Editing Export Dashboard JSON File

  Be careful when editing the JSON file. We do not suggest editing it, but if you must, all parameters settings are in properties importSettings.

## 4.6 Import Dashboard

If you already exported a dashboard to a JSON file, you can import it to your dashboard to inherit the rich content that you created.

To import dashboard, choose Import Dashboard button as figure below.

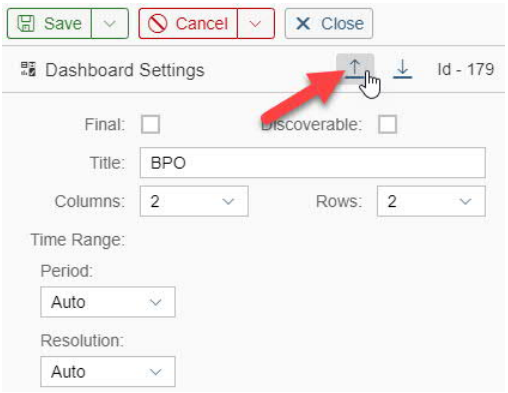



Figure 70. Import Dashboard Button

This will open Import Dashboard dialog.

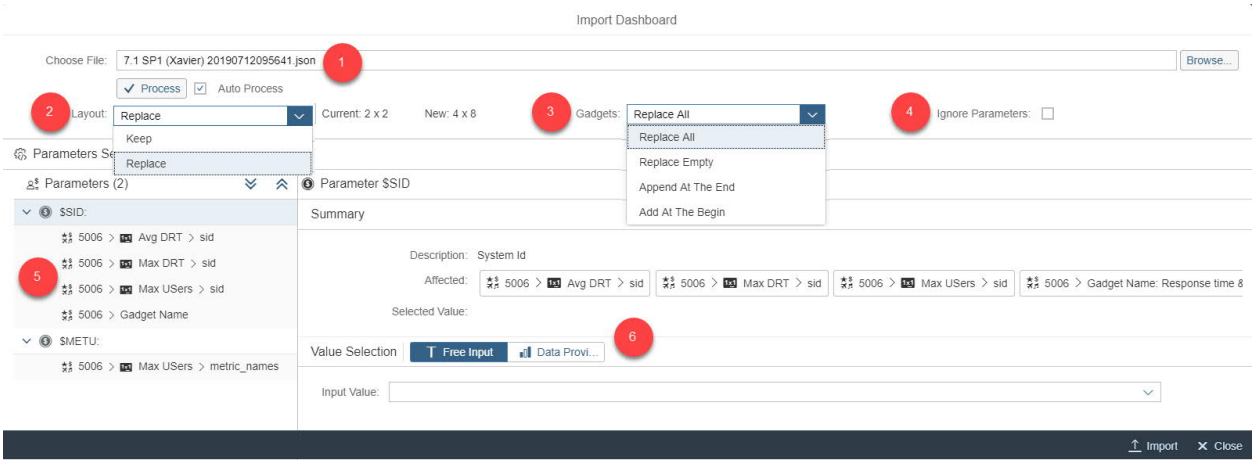



Figure 71. Import Dashboard Dialog

As mentioned in Export Dashboard section, the exported dashboard allows you to parameterize some of the contents. The Import Dashboard will assist you with that.

- Import Dashboard as default

  If you decide to not use parameters, just choose Import button at the bottom to import dashboard as is.

In this dialog, there are:

1. Choose file to import, or input the content of the file in case your browser does not support file reader. By default, when you choose the import file, it will be automatically processed for importing contents. However, if you choose not to, especially in case of manual input, you unselect the Auto Process checkbox.
2. Choose your layout strategy when it's different between your dashboard and the import one. If there are more gadgets, it will be added based on gadget insertion strategy. You can either:
   1. Keep your current layout.

2. Replace your current layout.

3. Choose your gadgets insertion strategy. You can either:
    1. Replace All: To replace all your current gadgets with import gadgets. If more gadgets need to be imported, new provisional ones will be added. If the number of import gadgets is less than your current gadgets, the exceeding current gadgets will be kept.
    2. Replace Empty: Replace only your empty gadgets with the import gadgets. If more gadgets need to be imported compare to the number of empty gadgets, new provisional ones will be added. If the number of import gadgets is less than your current empty gadgets, the exceeding current gadgets will be kept.
    3. Append At The End: All import gadgets will be appended and as provisional ones.
    4. Add At The Begin: All import gadgets will be inserted at the beginning and as provisional ones.
4. You can choose to ignore parameter settings below if you wish to import as is.
5. Select value for your parameters. You have to select a parameter in order to be able to select a value for your parameter. You don't need to care about the ids displayed. They are from exported dashboard for reference. You can select value in 2 ways:
    1. Free input with suggestion.
    2. Using data provider filters search. When using this, you have to specifically choose the ($) button as in figure below to effectively use selected filters as value of parameter.

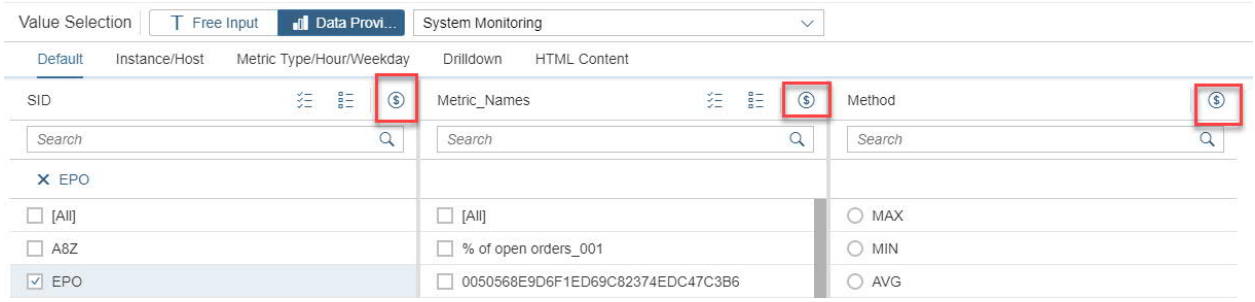



Figure 72. Choose value of parameter by Data Provider Filter Search

After satisfying with your selection for parameters, you can choose Import button at bottom to import the dashboard.

- Gadgets with relationship

  If the import dashboard has gadgets that have relationship, you may need to save the dashboard first to be able to see the relationships. This is due to the gadgets in question may appear as provisional ones after importing based on your strategies of layout and gadget insertion. Provisional gadgets do not have Id, and relationship is working based on Id.

- See gadget name

  You can hover above the gadget id to see the gadget name.

## 4.7 Tackling Huge Data points

In a gadget, when we have a huge number of data points (> 5000, coming from multiple queries); it takes a toll on the performance of backend and front-end resulting in unresponsive application.

To deal with that we have introduced the "Automatic Time Range Limitation" feature:

- We provide a new URL parameter called Maximum Data Points **MaxDataPoints=XXXX**, which is defaulted to 3000 for now at instance level. This parameter is configurable. It will be used as a factor to compare whether the Automatic Time Range Limitation will be applied or not.
- We need to have a **checkbox** to activate this system of limitation or not. By default, all existing instances have this deactivated by default. Newly created ones will have it activated as shown below:

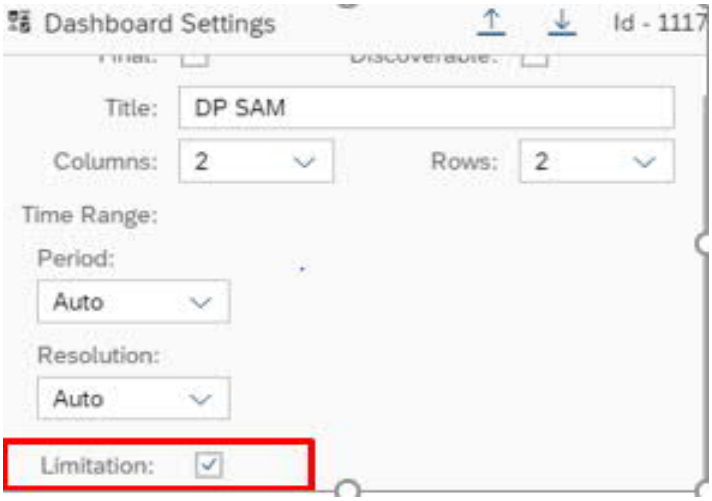



Figure 74. Configure the Limitation parameter

In the case we have changed the period to last 5 Months and the resolution to Hour, the number of the returned points is equal to 5*30*24= 3600 points>3000 which is the defaulted value for the MaxDataPoints parameter so the Data Points Limitation will be enabled automatically and we have :

- The Preview section is deactivated, and the following message is displayed: **"Too many data points: Preview is deactivated, Filters will be applied automatically at runtime for this chart".**

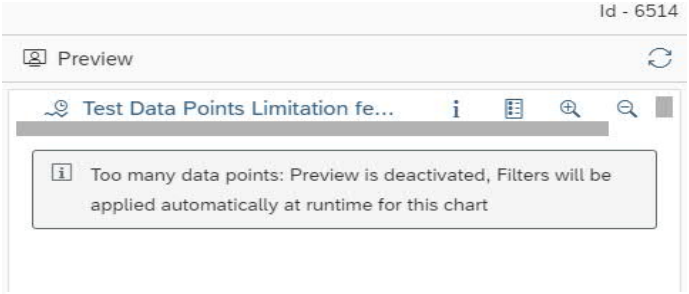



Figure 75. The preview mode with huge data points

- For the display mode the number of displayed data points is reduced. Only the value of MaxDataPoints parameter points will be displayed. Note that the following message is displayed **"Filters applied automatically to reduce volume of information in chart".**

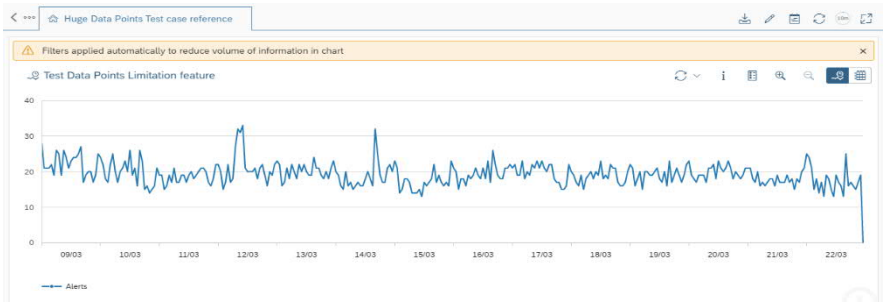



Figure 76. Display Mode

- Note

  - At the run time it will check if the maximum data points returned by all the configured queries in the same gadget is higher than the configured value for MaxDataPoints. Then, we apply a filter by reducing the time frame with a message saying, “Filters applied automatically to reduce volume of information in chart”.
  - This filter on time range applies only to first view. Details view should still use configured time range. Also, the preview section will be disactivated with a message “Too many data points: Preview is deactivated, Filters will be applied automatically at runtime for this chart”
  - There is another way to activate this feature when a dashboard is stuck because of too many returned datapoints and cannot open it in the edit mode: It is by adding the ForceLimit=true to the dashboard URL and this Parameter will override the existing configuration.

# 5.Data Provider

## 5.1 Data Provider /STDF/DP_SYSMON

Data provider /STDF/DP_SYSMON gives you access to all metrics of MAI's (Monitoring and Alerting Infrastructure) system monitoring scenario. Data are read from Solution Manager's BW.

To be accessible from this data provider, metrics must be configured and activated properly. Moreover, the metrics must be reported to SAP Solution Manager's BW.

One way to configure this data provider is to first identify the metrics you are interested in from Solution Manager's system monitoring tree (System Monitoring application). From there, you can first make sure that the metrics are working properly and then retrieve the metrics' technical name you'll need to configure the data provider.

The following procedure details how to configure this data provider:

1- Go to Technical Monitoring Work Center
2- Select Technical System
3- Start System Monitoring application
4- Open a node at Technical System level
5- Select the metric in the tree (metric should have a numerical value)

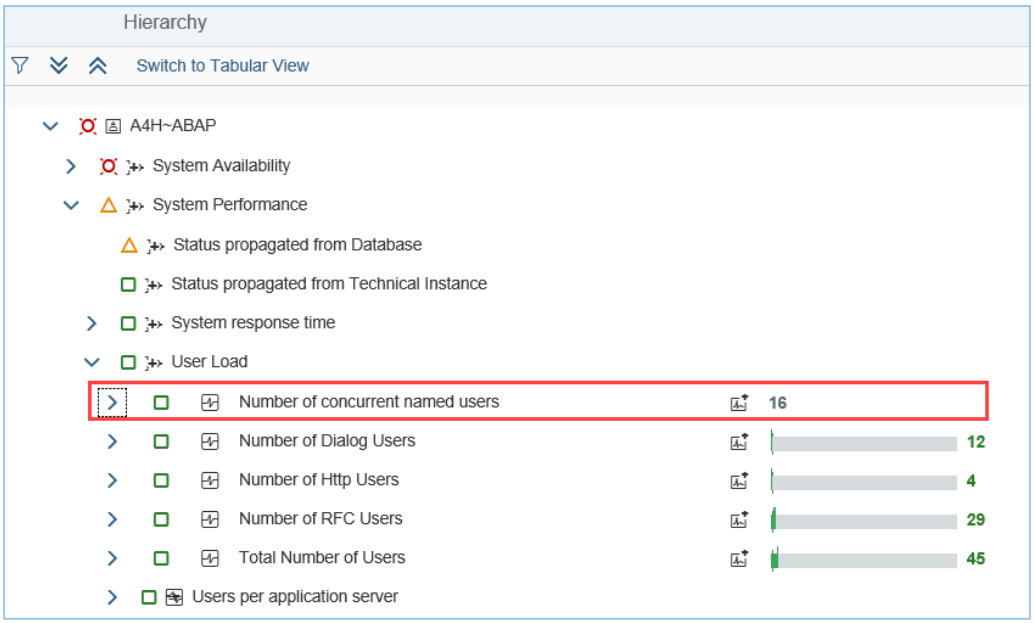



Figure 77. System monitoring view

6- Select "Check Data Collection"

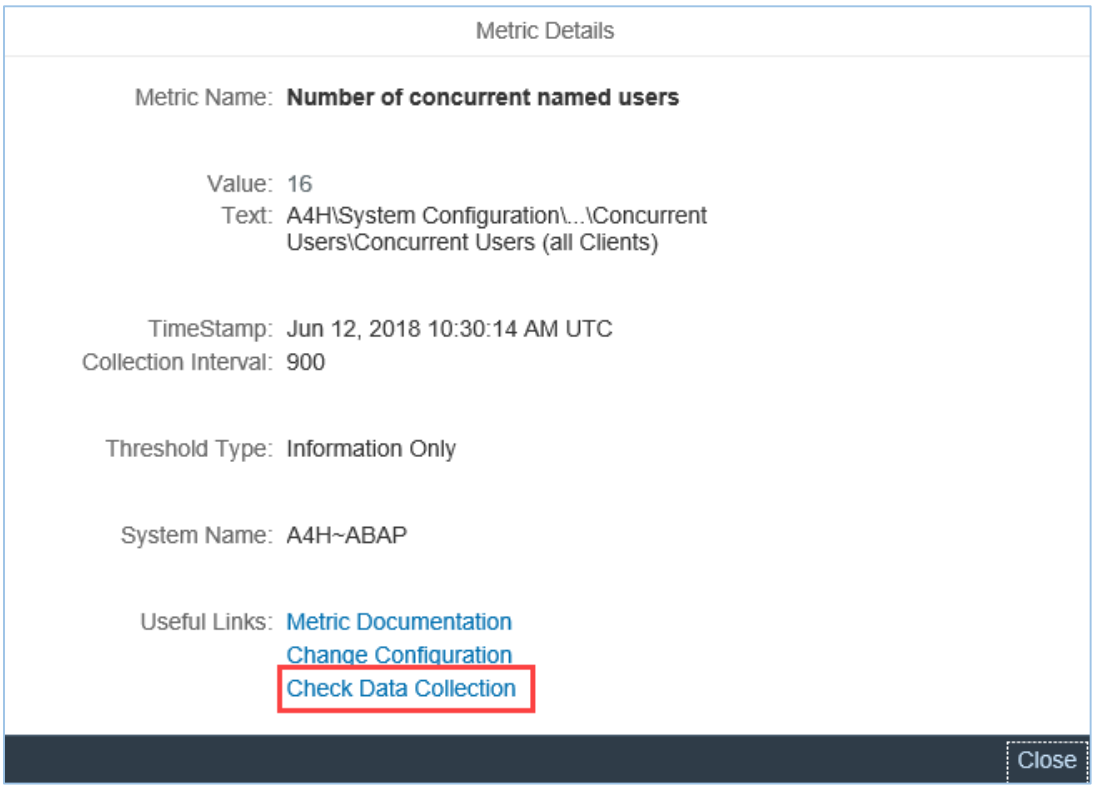



Figure 78. Select “Change Configuration”

7- Click “Monitoring and Alerting Infrastructure Directory Browser’’

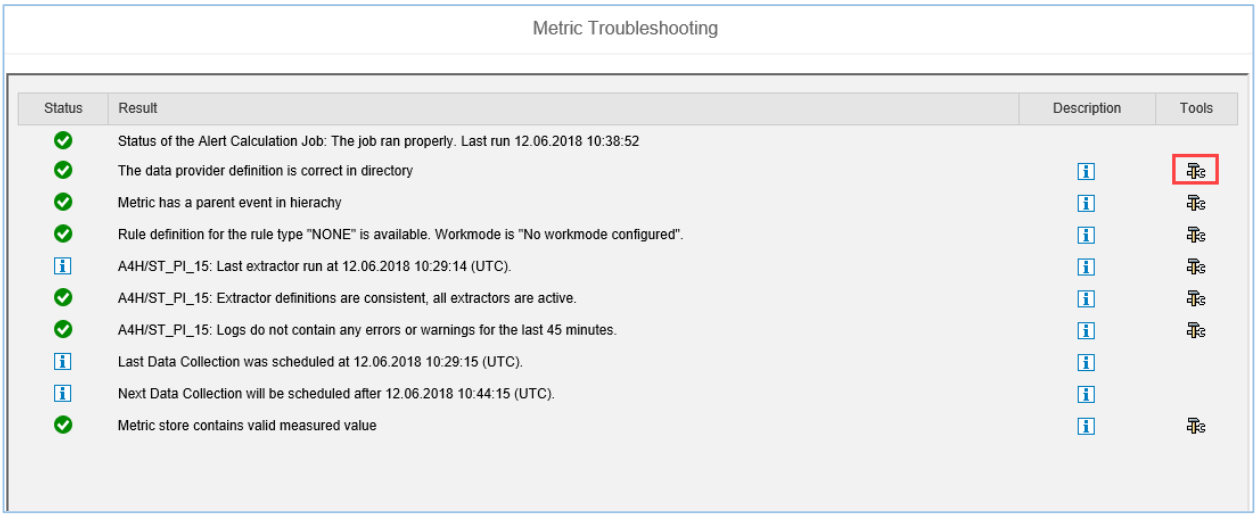



Figure 79. Click “Monitoring and Alerting Infrastructure Directory Browser’’

8- Copy the metric name

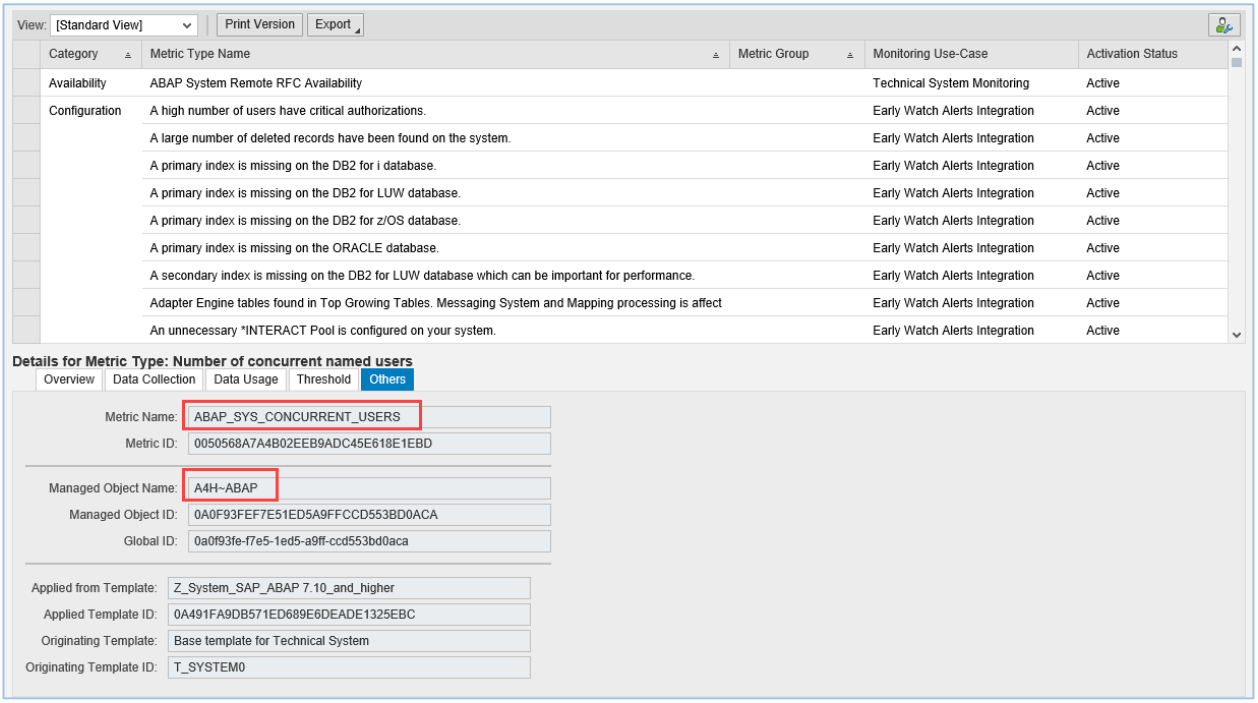



Figure 80. Copy the metric name

9- Access OCC dashboard

10- Press button “Edit”

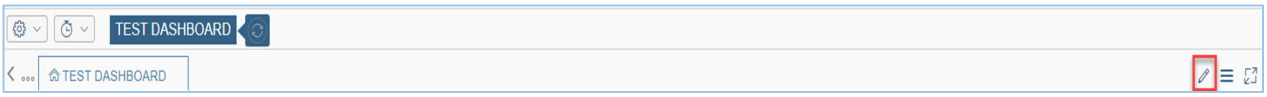



Figure 81. Press button “Edit”

11- Select an empty gadget in the “Dashboard Layout”. The Gadget Settings should be enabled.

12- Enter gadget title. Since the gadget could be reused in other dashboards, you should choose a meaningful name for the gadget.

13- Select a description and a renderer

14- Click on “Add Query” in the section “Queries List”. The “Query Settings” should be enabled.

15- Select data provider /STDF/DP_SYSMON

16- Paste the metric name you copied in step 8 (in this example ABAP_SYS_CONCURRENT_USERS)

17- Select the SID of the system (in this example OTO)

18- Select the method (in this example MAX as we are interested in the maximum value on the period)

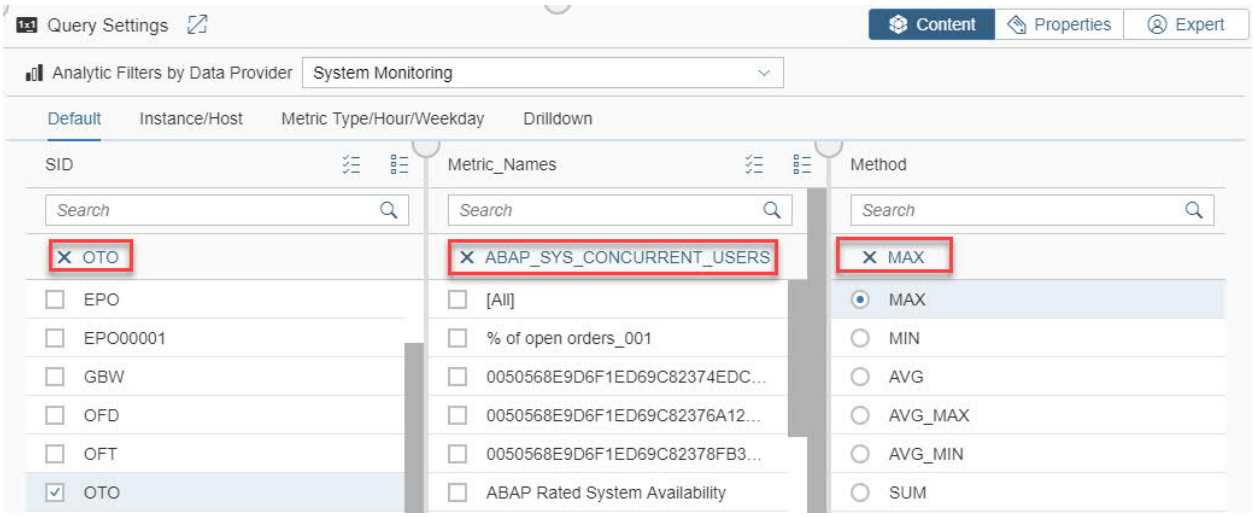



Figure 82. Method Selection

19- In the section Query Settings, go to the tab “Expert”. A query is generated:

| Legend | Query |
|---|---|
| User (Max.) | /STDF/DP_SYSMON:legend= users (max.) \|COLOR=#1f77b4\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|SID=OTO\|Instances=\|Hosts=\|Metric_Names=ABAP_SYS_CONCURRENT_USERS\|Method=MAX\|metric=\|Hours=\|Weekdays=\|Drilldown= |

20- Enter a name for the legend (in this example “User (Max.)”)

21- Select renderer (in this example we keep the default: LINE_CHART)

22-Remark: you can also select more options with the tab “Data” (in this example we keep the default values)

23-You can add multiple queries to the chart. In this example, we add a query for Users (Avg.).

| Legend | Query |
|---|---|
| User (Avg.) | /STDF/DP_SYSMON:legend=users (avg.)\|COLOR=#aec7e8\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|SID=OTO\|Instances=\|Hosts=\|Metric_Names=ABAP_SYS_CONCURRENT_USERS\|Method=MAX\|metric=\|Hours=\|Weekdays=\|Drilldown= |

24-In the preview section, press button "Refresh"

25- Click on “Save” button.

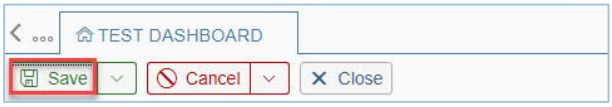



Figure 83. Save Dashboard

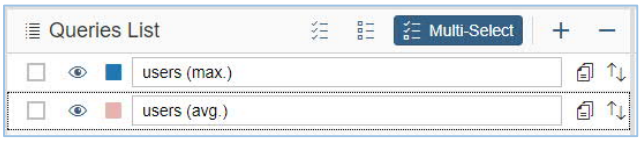



Figure 84. Multiple Queries

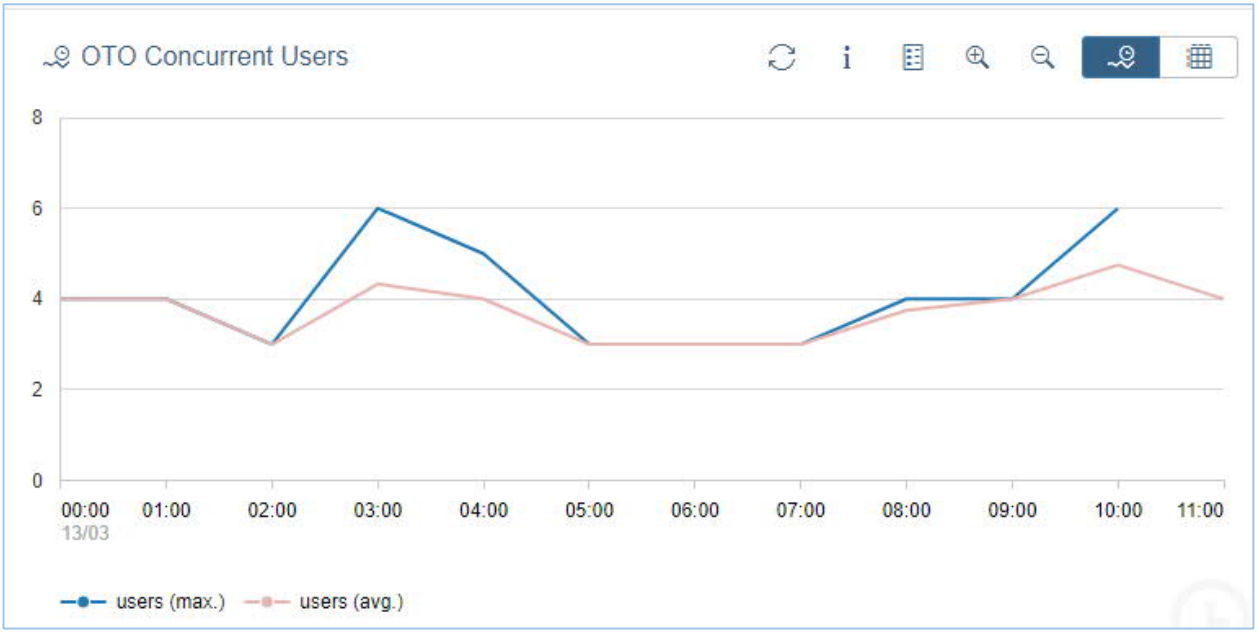



Figure 85. Displayed Chart

## 5.1.1 System Monitoring Metrics at Instance or Host Level

1. Select the metric in the proper node of the system monitoring tree

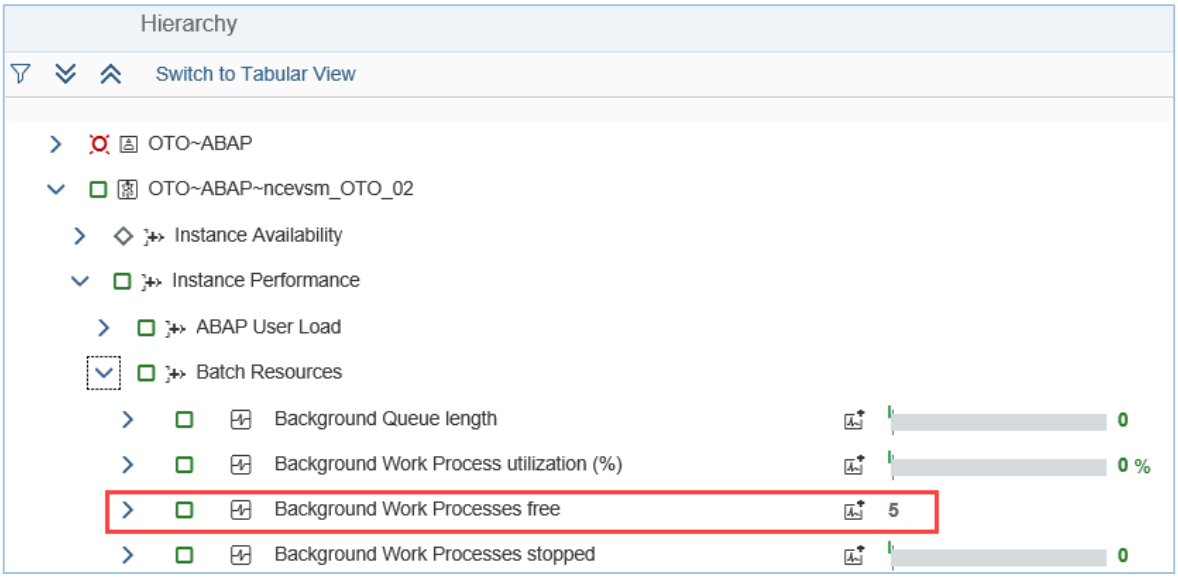



Figure 86. System monitoring metrics

2. Copy the metric's technical name as well as the managed object's name (in this example, we select a technical instance, with managed object name equals to "OTO~ABAP~ncevsm_OTO_02")

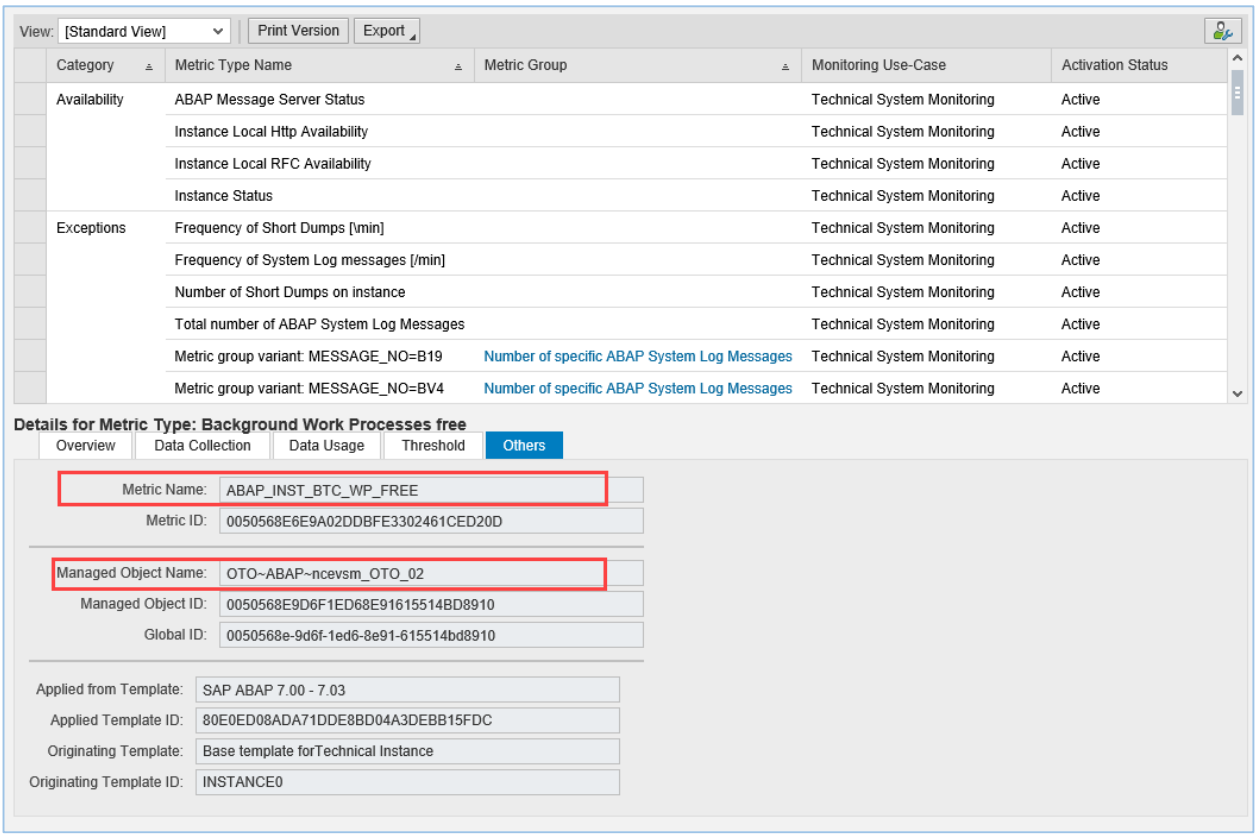



Figure 87. System monitoring Overview

3. Enter gadget title. Since the gadget could be reused in other dashboards, you should choose a meaningful name for the gadget.
4. Select a description and a renderer
5. Click on “Add Query” in the section “Queries List”. The “Query Settings” should be enabled.
6. Select data provider /STDF/DP_SYSMON
7. Enter the metric's name (ABAP_INST_BTC_WP_FREE) and the method (AVG)
8. Select the SID of the system (in this example OTO)
9. Select the method (in this example MAX as we are interested in the maximum value on the period)

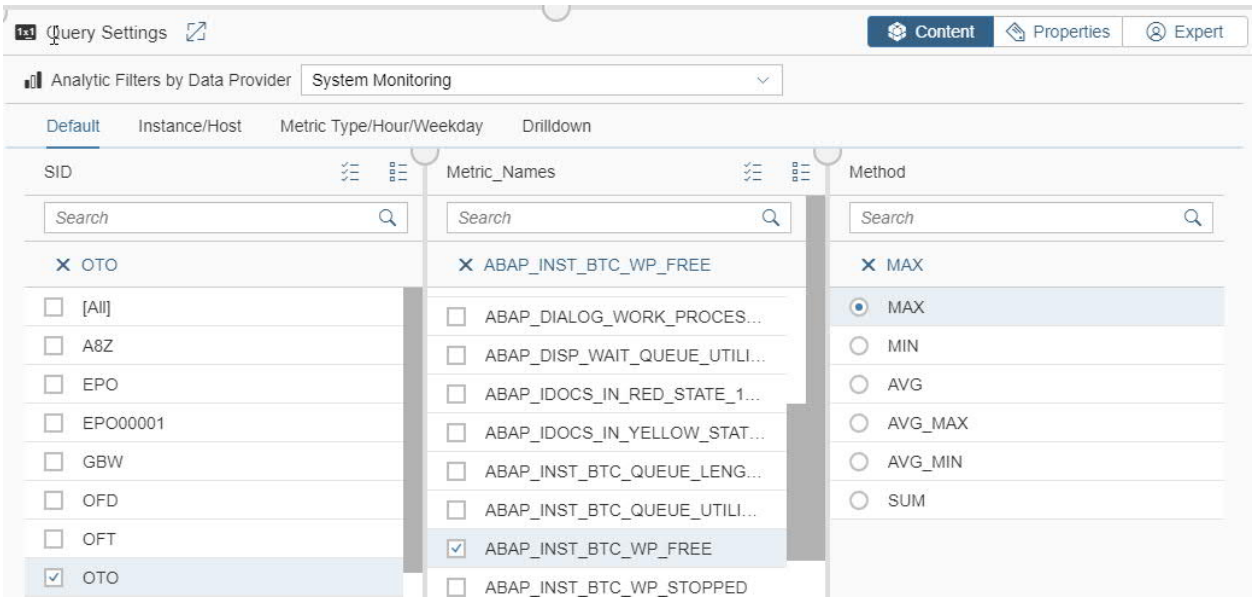



Figure 88. Metric name

10. Select the tab "Instance/Host"
11. In the filter (“Instances*”), enter the name of the instance. In this example “ncevsm_OTO_02” (remark: the technical system name, “OTO~ABAP” is not used as prefix of the technical instance name).

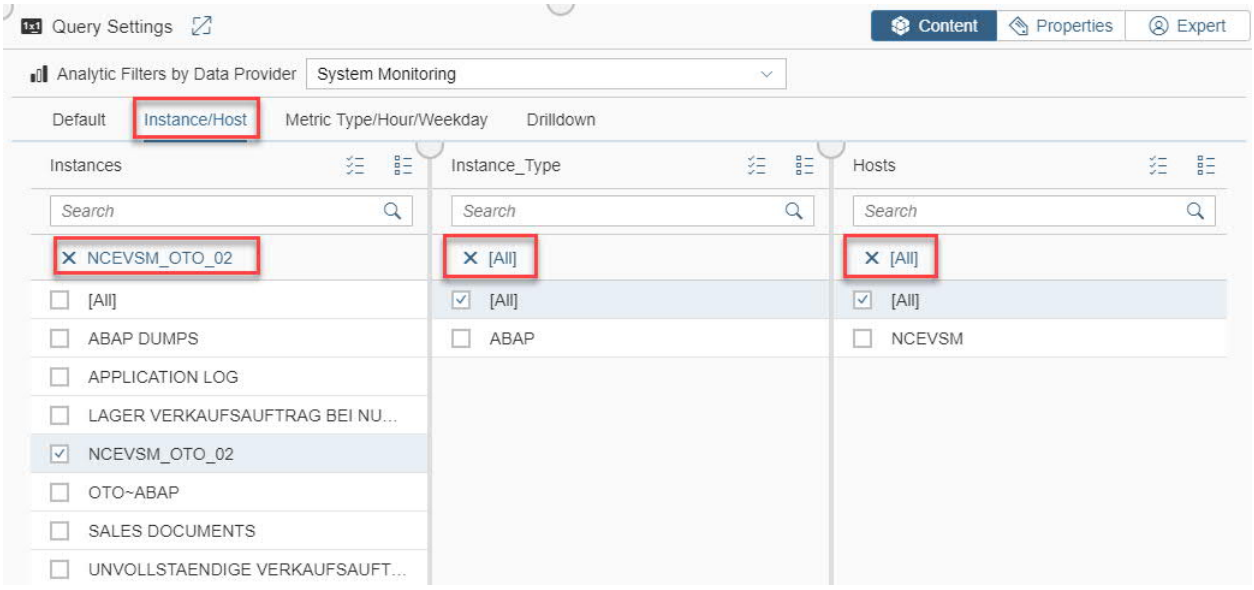



Figure 89. Instance name

12. In the section Query Settings, go to the tab “Expert”. A query is generated:

| Legend | Query |
|---|---|
| Avg. free WP | /STDF/DP_SYSMON:legend=Avg. free WP \|COLOR=#1f77b4\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|SID=OTO\|Instances=NCEVSM_OTO_02\|Hosts=\|Metric_Names=ABAP_INST_BTC_WP_FREE\|Method=AVG\|metric=\|Hours=\|Weekdays=\|Drilldown= |

13. Enter a text for the legend. In this example: "Avg. free WP".

14. In the preview section, press button "Refresh"


Figure 90. App / Save Dashboard

15. Click on “Save and Close” button.

- Note

  If you select an instance or host related metric but you do not specify a specific instance or a specific host in the gadget's settings, then you will get for example the average or the maximum value (it depends on the method selected) for the technical system (if specified in the query) or for all available values.

## 5.1.2 System Monitoring and Metric Variants

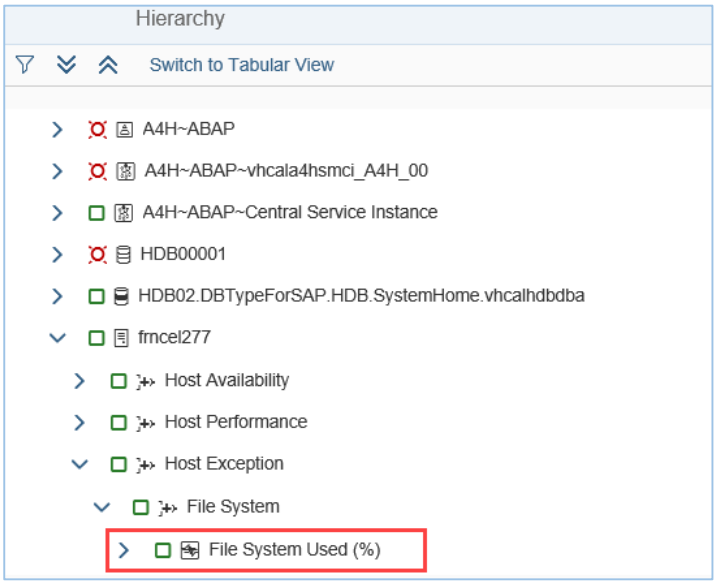


Figure 91. System monitoring and metrics variants

For metric groups like for example “File System Used (%)” at host level, you can use data provider /STDF/DF_SYSMON_SNAPSHOT and the copy paste feature (see after) to create a gadget displaying one or several metric variants part of the group.

## 5.1.3 System Monitoring and Custom Metrics

Custom MAI metrics can be display in an OCC gadget using data provider /STDF/DF_SYSMON. Make sure that in the template definition, you have selected options “Send values to SP NetWeaver Business Warehouse” and at least granularity “Long”.

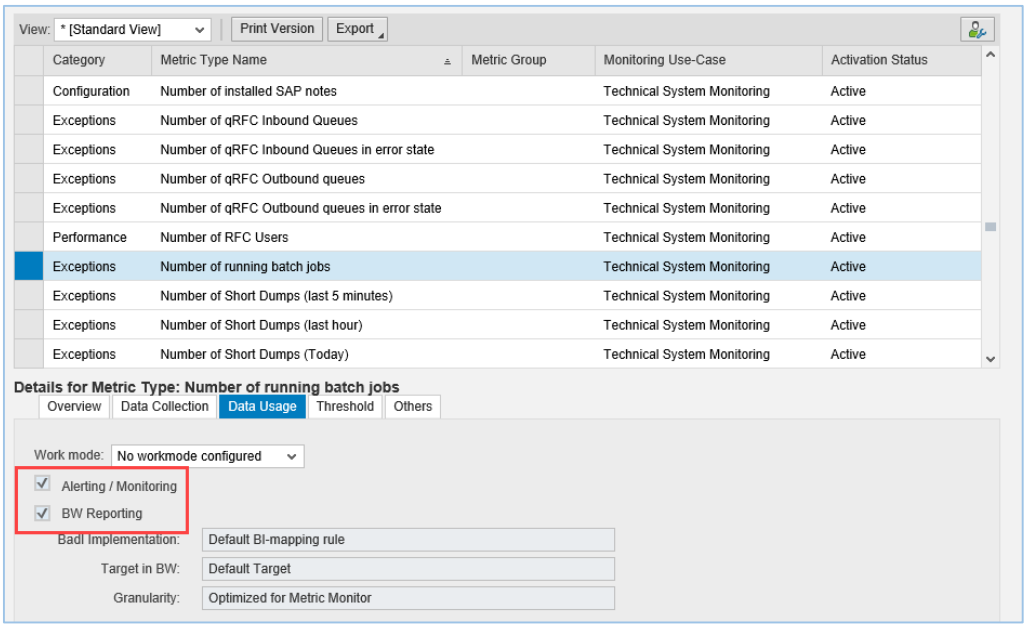



Figure 92. System monitoring and custom metrics

## 5.1.4 Drilldown option

This option enables the user to make a drilldown on the displayed data. There are two possibilities of drilldown: Host & Instance.

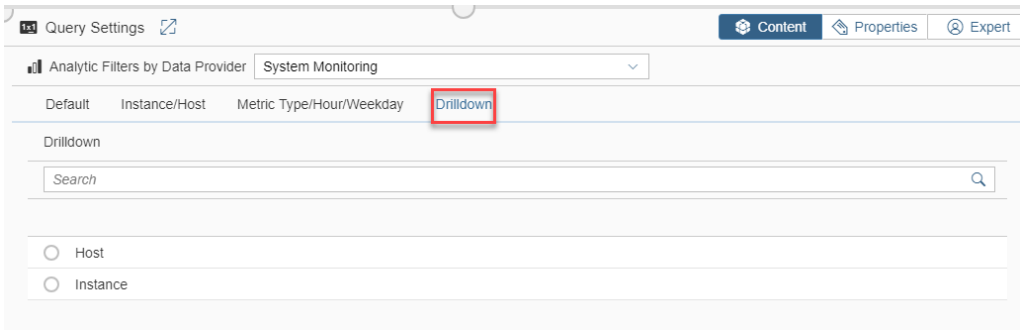



Figure 93. Drilldown Tab

1. In the gadget settings section, enter the title
2. Click on 'Add Query' button in the "Queries List "section
3. Select the data provider /STDF/DP_SYSMON in the "Queries Settings "section
4. Enter the SID, the metric's name (DIALOG_RESPONSE_TIME) and the method (AVG)

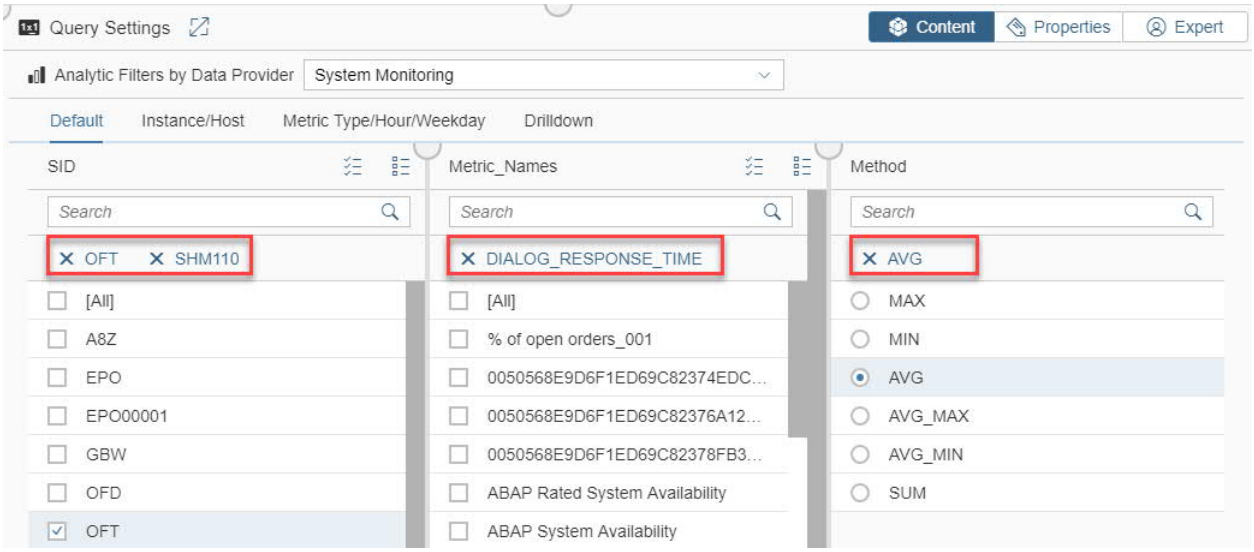



Figure 94. Metric name

5. Select the tab "Instance/Host"

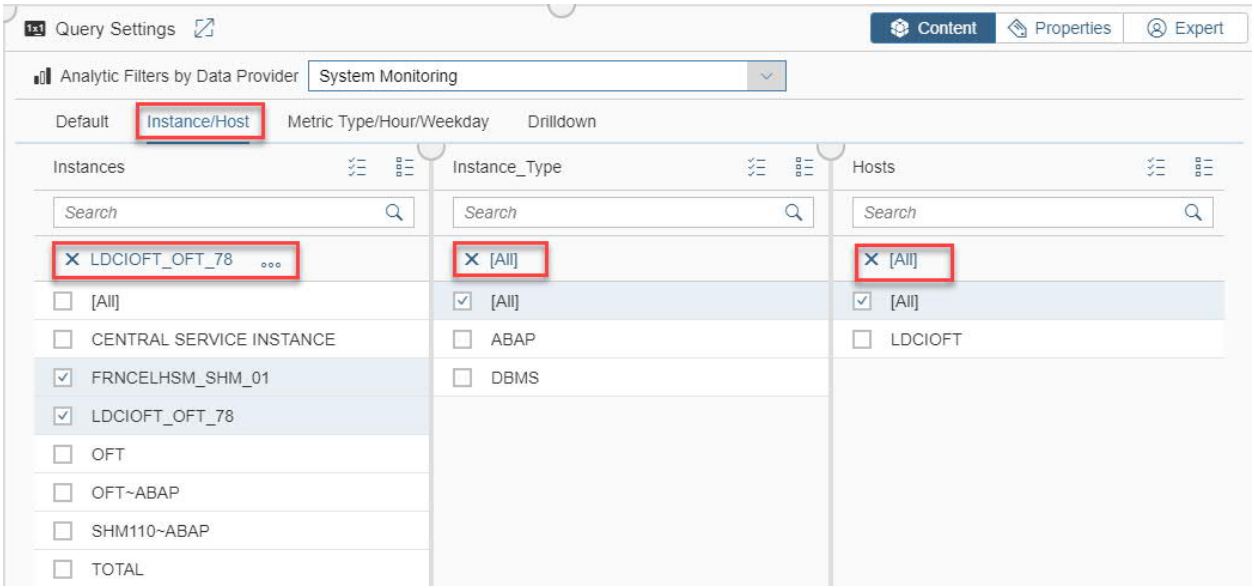



Figure 95. Instances name

6. Select the tab "Drilldown"

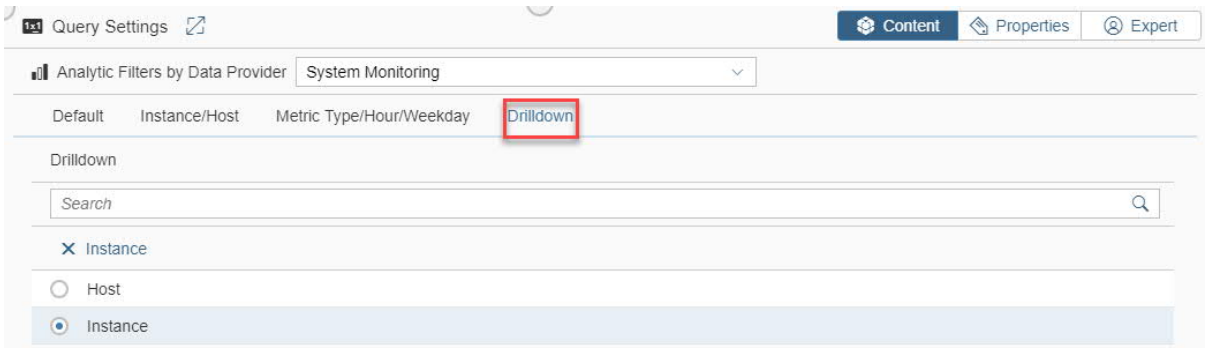



Figure 96. Drilldown type

7. In the section Query Settings, go to the tab “Expert”. A query is generated:

| Legend | Query |
|---|---|
| Query 0 | /STDF/DP_SYSMON:legend=Query 0\|COLOR=#1f77b4\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|SID=OFT,SHM110\|Instances=LDCIOFT_OFT_78,FRNCELHSM_SHM_01\|Hosts=\|Metric_Names=DIALOG_RESPONSE_TIME\|Method=AVG\|metric=\|Hours=\|Weekdays=\|Drilldown=Instance |

8. Enter a text for the legend. In this example: we didn't add a legend in order to display the instances name.
9. In the preview section, press button "Refresh"

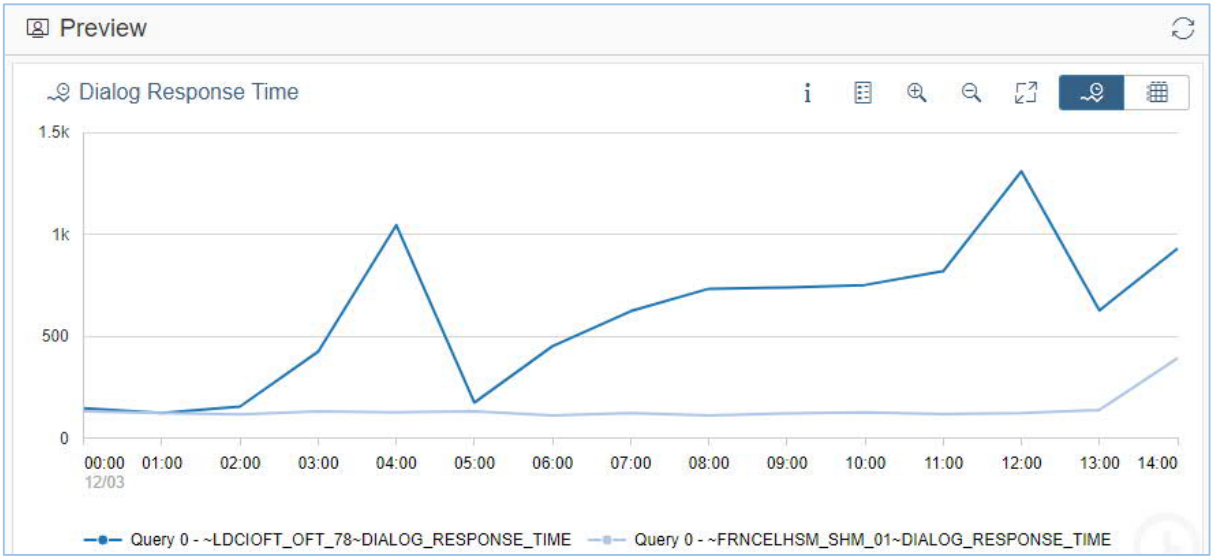



Figure 97. Displayed chart

10. Click on “Save and Close” button.

PS: When using STACK_COLUMN_CHART_2LABEL renderer, we have to:

Check that all the displayed series of data are not null else the renderer won’t return any value.

Specify a legend like shown in this screenshot

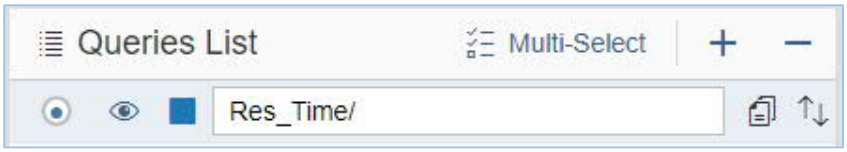



Figure 98. Legend

## 5.2 Data Provider /STDF/DP_SYSMON_SNAPSHOT

This data provider associated with renderer ALERT_TABLE, offers two types of view described below: Overview & Detail.

### 5.2.1 Overview View

This is a table which summarizes the real time monitoring status for the four monitoring categories of MAI (performance, availability, error and configuration) as well as the number of alerts. Each line corresponds to one managed object.

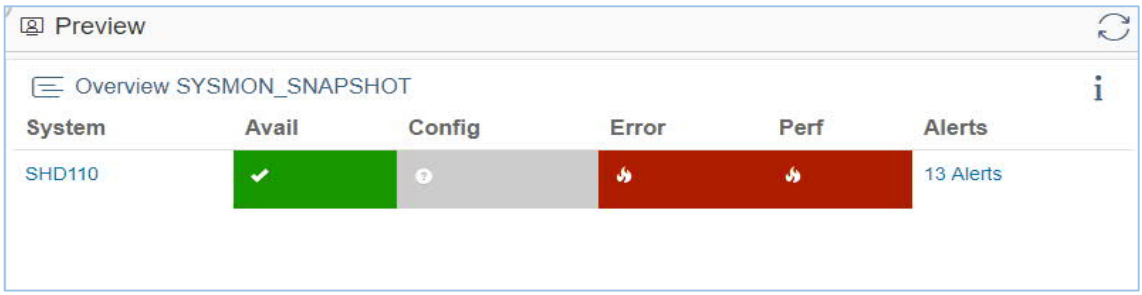



Figure 99. System monitoring overview

All types of monitored object supported by MAI infrastructure can be picked from the list (technical system, technical instance, host, job monitoring scenarios, EEM scenarios...).

Remark: monitoring categories are not relevant to all monitoring scenarios.

To add a monitored object in the overview table:

1. In the gadget settings section, enter the title
2. Select ALERT_TABLE renderer
3. Click on 'Add Query' button in the "Queries List "section
4. Select /STDF/DP_SYSMON_SNAPSHOT data provider
5. Choose a monitoring object from the list "SHD110 (DBMS)"
6. Select the view "Overview"
7. Select a category "PERFORM"
8. Select a type "DBMS"
9. Select a legend for the row in the table

Remarks:

10-From the gadget, a click on the monitored object legend jumps to the detail view for this monitoring object.

11-From the gadget, a click on the number of alerts jumps to the Alert Inbox.

12-For some monitoring object types, detail view is not available.

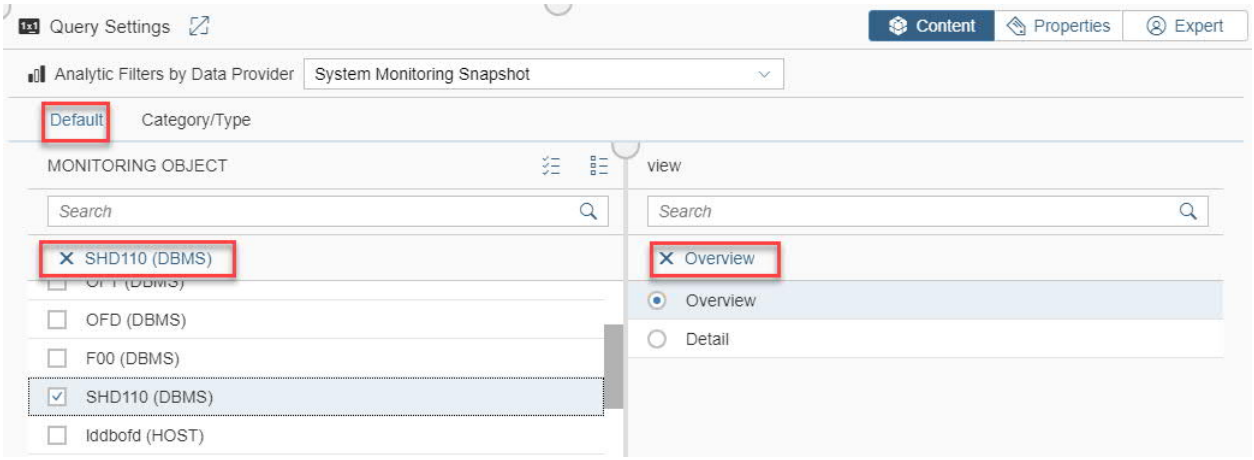



Figure 100. Configure Gadget (1)

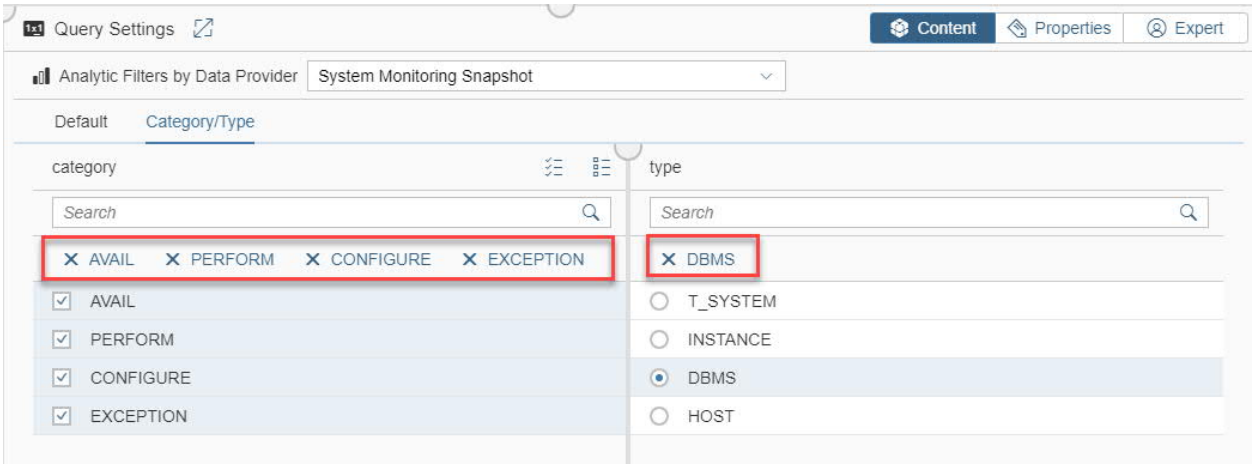



Figure 101. Configure Gadget (2)

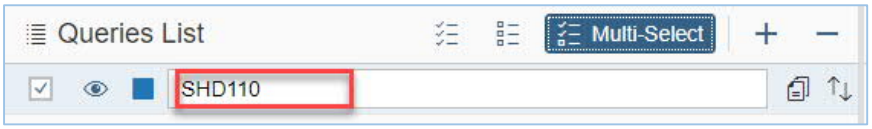



Figure 102. Legend

PS:

If there are multiple systems, the legend field is disabled and for each system the system column will be automatically filled with the appropriate system name.

The legend would be valid and used only if we have a single system.

To see the legend, the customer should configure a query for each system.

## 5.2.2 Detail View

Detail view shows the monitoring tree for the monitoring object. This view is very similar to the one offered by standard system monitoring application. However, only one monitored object is displayed and not the complete tree starting from the technical system. This view works only for managed object types supporting the tree representation (host, database, technical instance, technical system...).

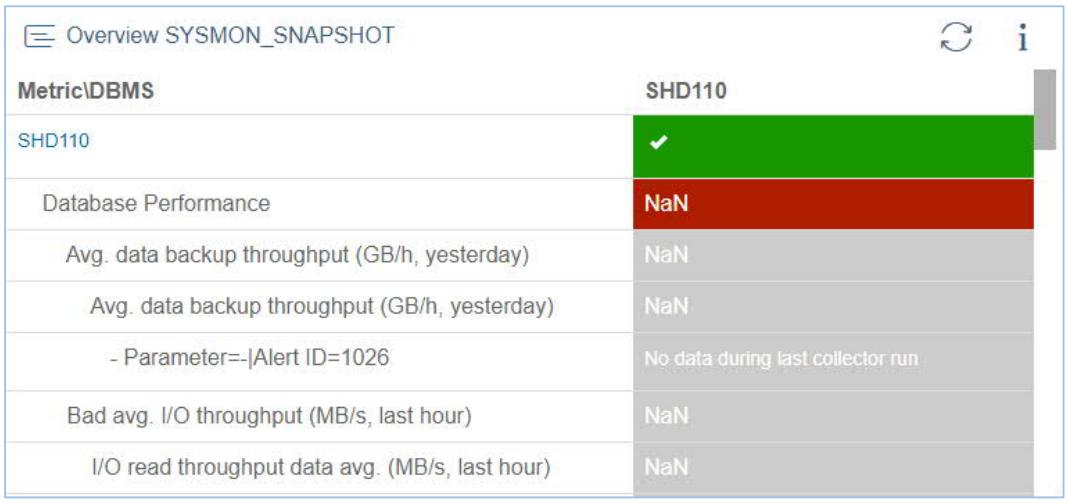



Figure 103. Detail view (1)

A click on a metric value will open a new gadget “on the fly” to display its historical values. This works only for numerical metrics.

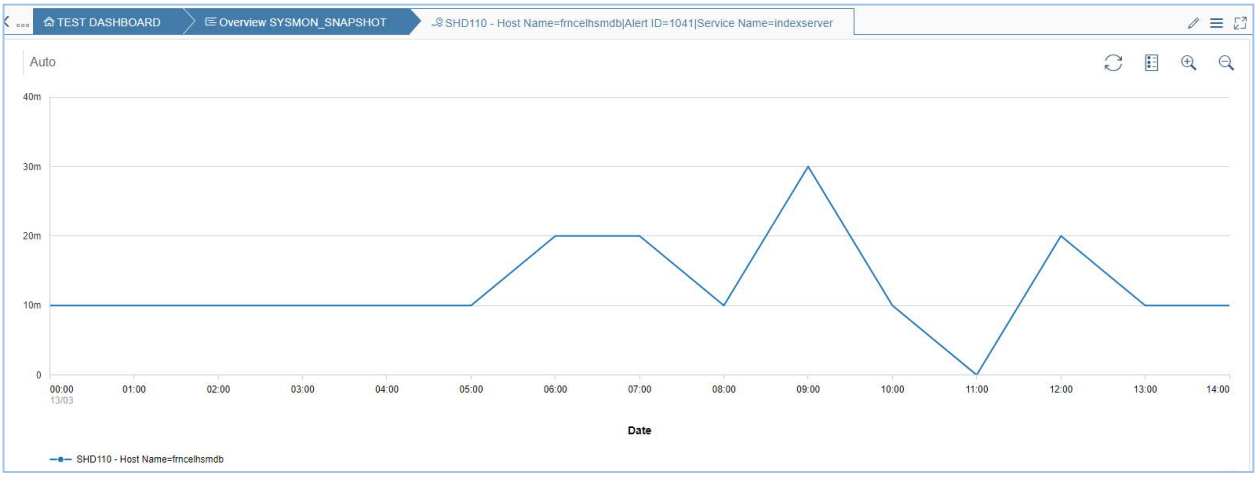



Figure 104. Detail view (2)

## 5.2.3 Copy & Paste Query

the two table views “Overview” and “Detail view” for data provider /STDF/DP_SYSMON_SNAPSHOT supports the copy & paste feature.

From the Overview, it is possible to copy & paste one monitored object in a separated gadget. This operation could be done only in edit mode and it should be saved.

1- Click on the System you want to copy
2- Click on “Copy Query”. Check in the section Queries you have a new query added.

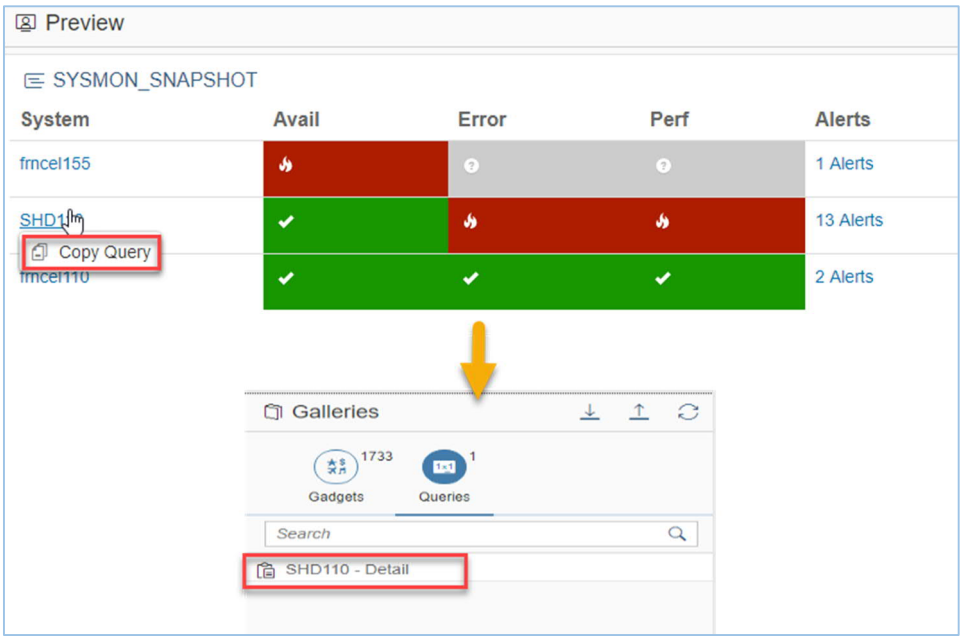



Figure 105. Copy Query (Overview view)

3- Select an empty gadget in the section gadget Layout. Select the copied query and click on the button “Paste query”
4- Select the renderer ALERT_TABLE and the title then save the changes.

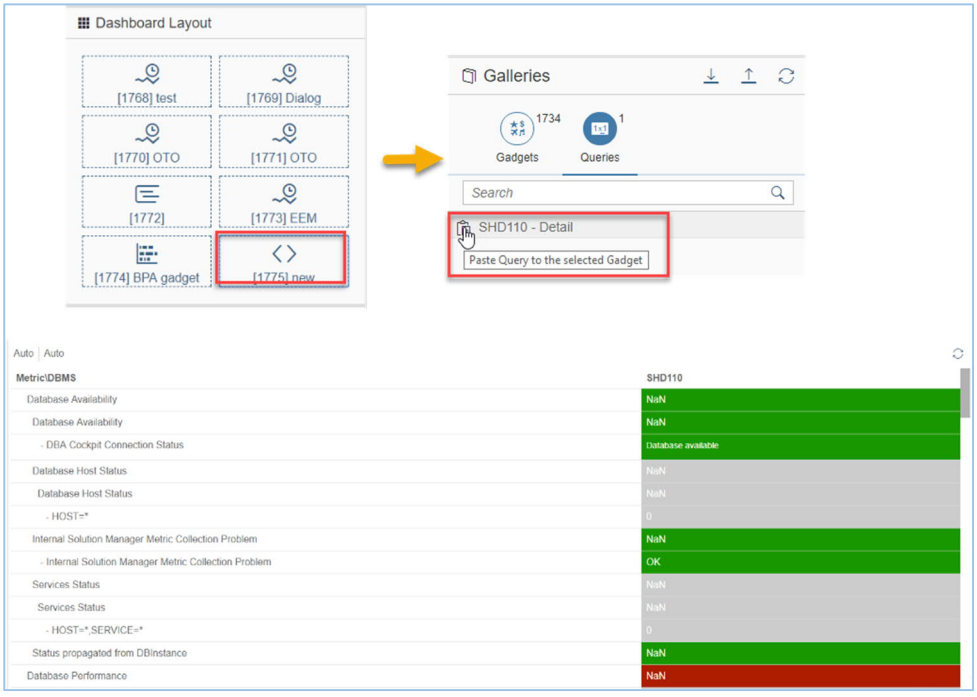



Figure 106. Paste Query (Overview view)

From the detail view, it is possible to copy and paste a metric (with numerical value) in a separated gadget to display it. This operation could only be done in edit mode and it should be saved.

1- Click on the Metric (with numerical value) you want to copy
2- Click on “Copy Query”. Check in the section Queries you have a new query added

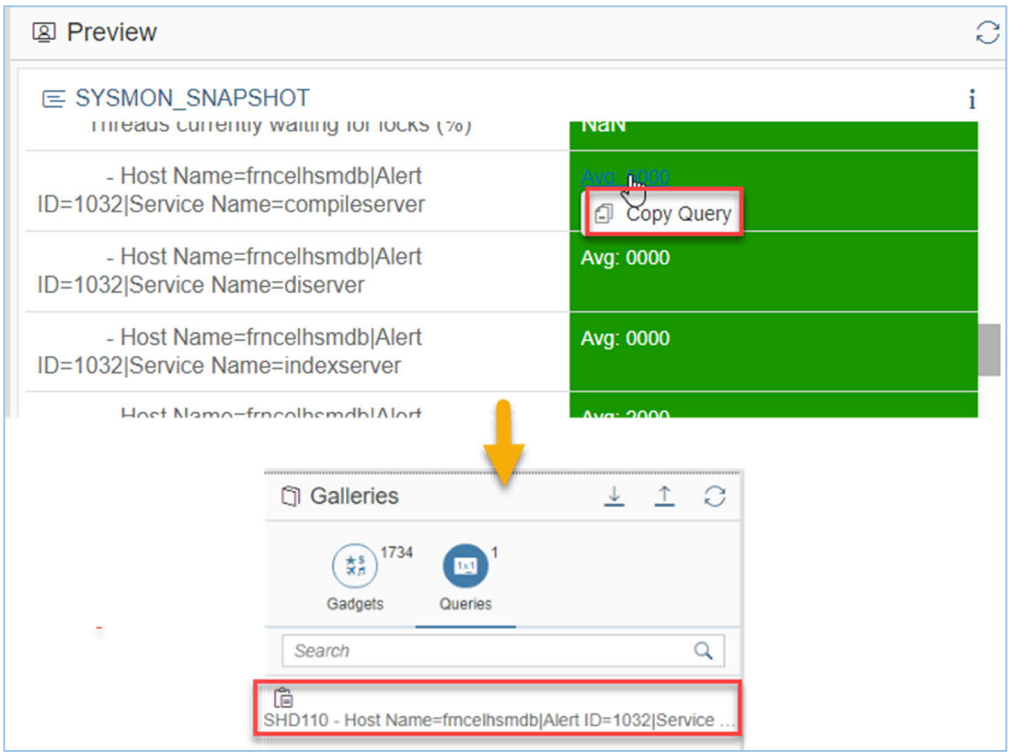



Figure 107. Copy Query (Detail View)

3- Select an empty gadget in the section gadget Layout. Select the copied query and click on the button “Paste query”

4- Select the renderer LINE_CHART and the title then save the changes.

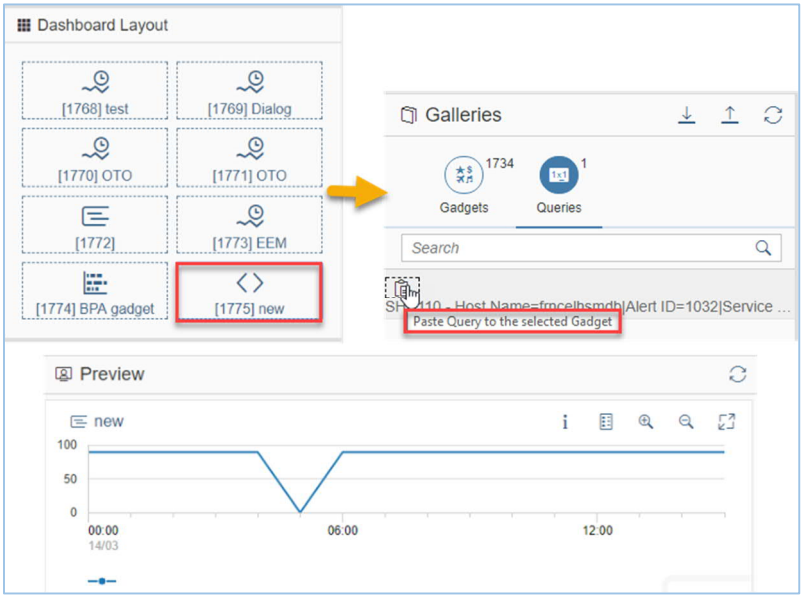



Figure 108. Paste Query (Detail View)

## 5.3 Data Provider /STDF/DP_EEM

This data provider reports either the status or the response times of an EEM script. You need to select a robot and a script together with the type of metric (status or response time).

This data provider is convenient for real time monitoring with short time frame and small granularities (raw, minutes, hours) as it reads the values from EEM tables. For longer period, data provider /STDF/DP_EEM_BI should be used instead.

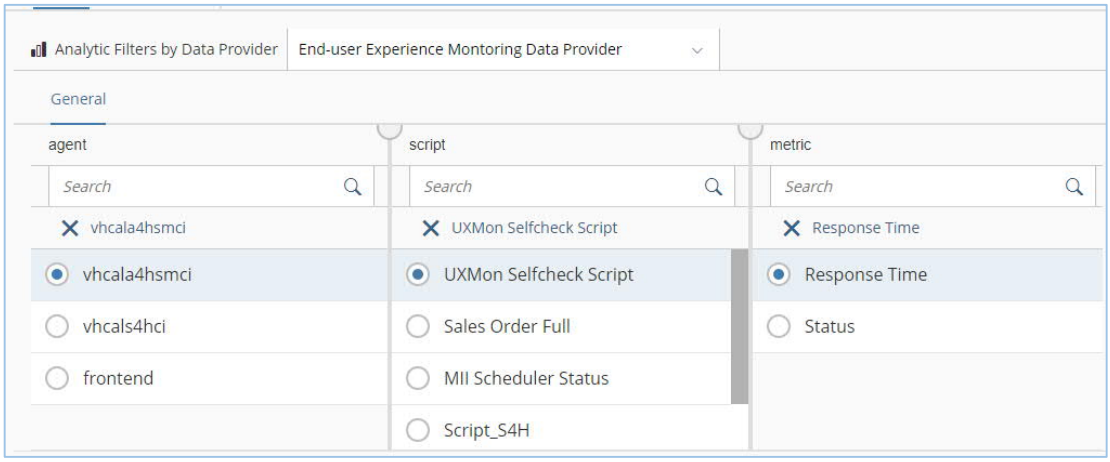



Figure 109. EEM data provider

| Legend | Query |
|---|---|
| Query 0 | /STDF/DP_EEM:COLOR=#1f77b4\|legend=Query 0\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|M=AVAILABILITY:AVAILABILITY\|T=YESTERDAY:DAY\|D=TECH_SYSTEM:HDB\|F=SYS_TYPE:HANADB\|P=\|display_value=false\|agent=vhcala4hsmci\|script=UXMon Selfcheck Script\|metric=RESPONSE_TIME |

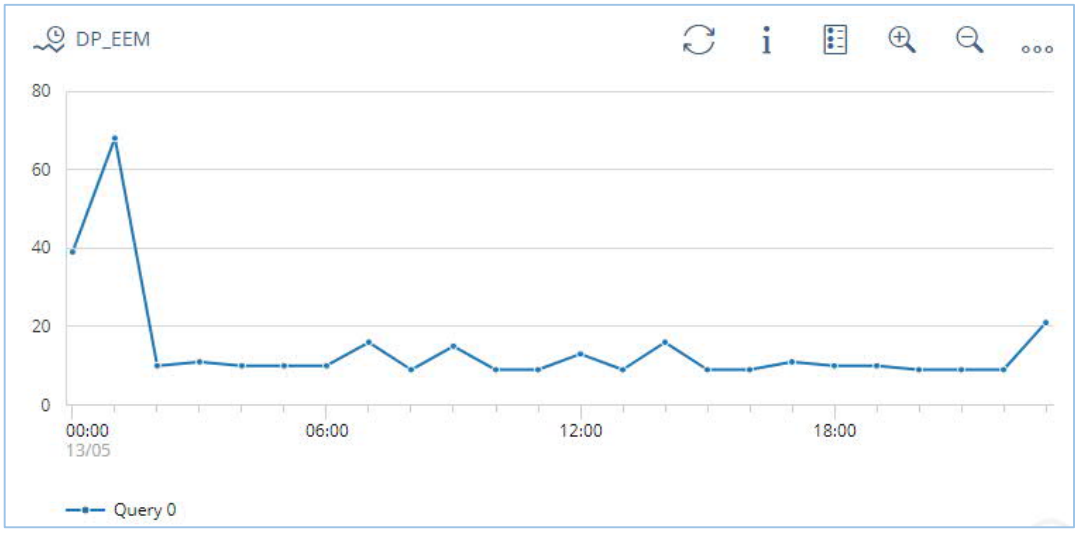



Figure 110. Metric chart

## 5.4 Data provider /STDF/DP_EEM_BI

This data provider reports, for a given robot, the average response time of an EEM script or some EEM script's steps execution. Since data are extracted from BW, It is recommended to report on longer time periods.

You must choose:

- The agent
- The script
- The step

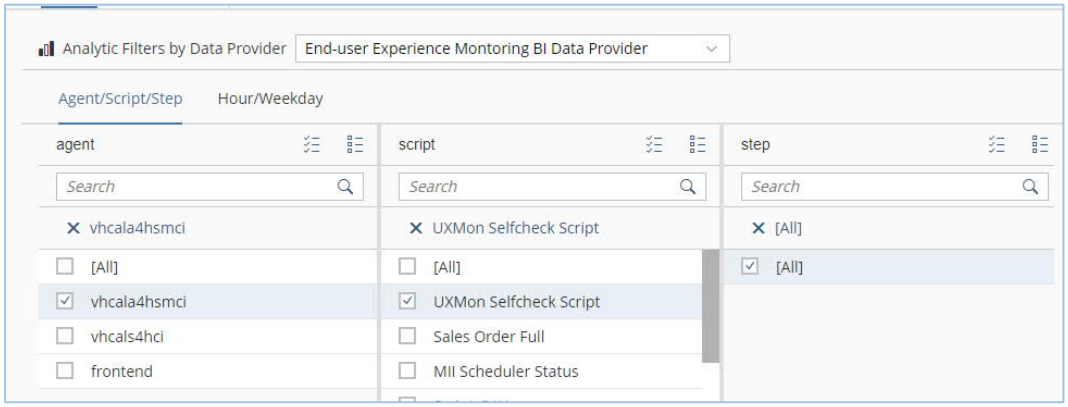



Figure 111. Gadget Configuration (1)

Using the tab "Hour/Weekday" It's possible to filter on business hours or business days.

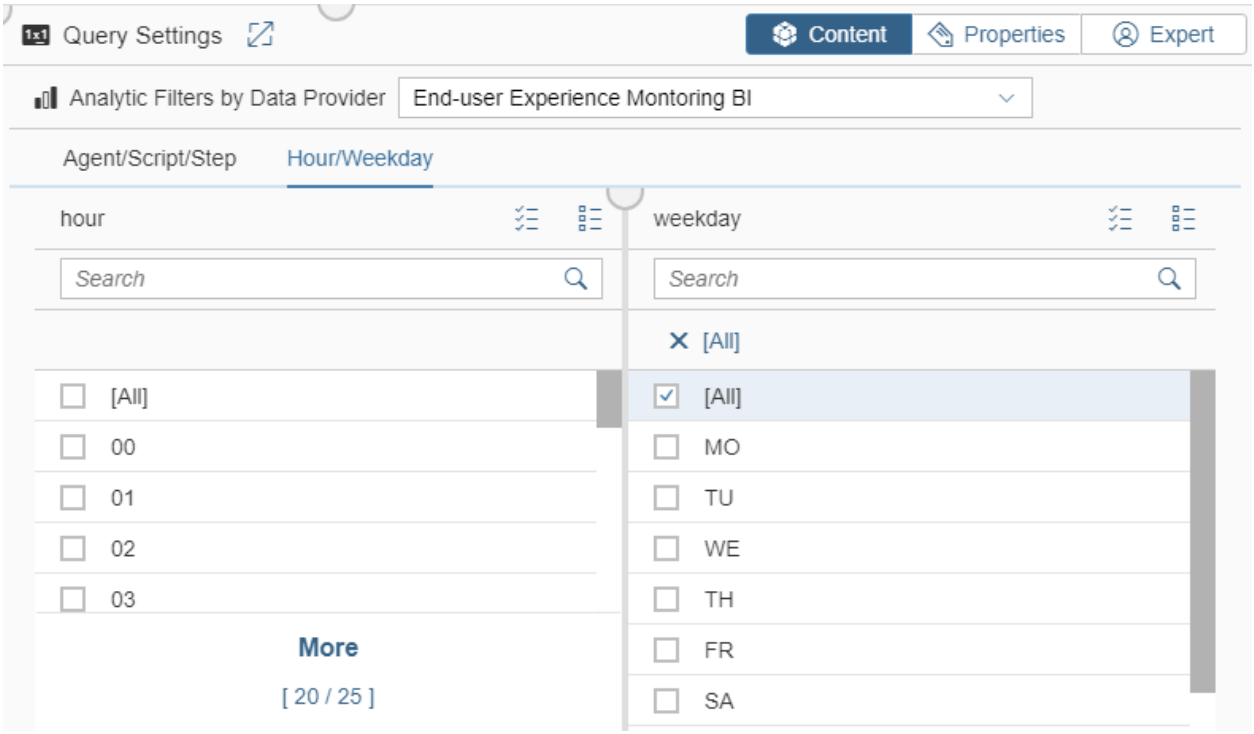



Figure 112. Gadget Configuration (2)

| Legend | Query |
| --- | --- |
| All_week | /STDF/DP_EEM_BI:COLOR=#aec7e8\|legend=All_week\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|agent=vhcala4hsmci\|script=UXMon Selfcheck Script\|step=Call Public Ping\|hour=\|weekday=\|display_value=false\|subchart=COLUMN |
| MO_TU | /STDF/DP_EEM_BI:COLOR=#aec7e8\|legend=MO_TU\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|agent=vhcala4hsmci\|script=UXMon Selfcheck Script\|step=\|hour=\|weekday=1,2\|display_value=false\|subchart=LINE |


Figure 113. EEM Dashboards overview

## 5.5 Data Provider /STDF/DP_BPA_KPI

This Data provider gives you access to all metrics of BPA (Business Process Analytic). You need to select solutions, Key figures, dimensions, filters and options.

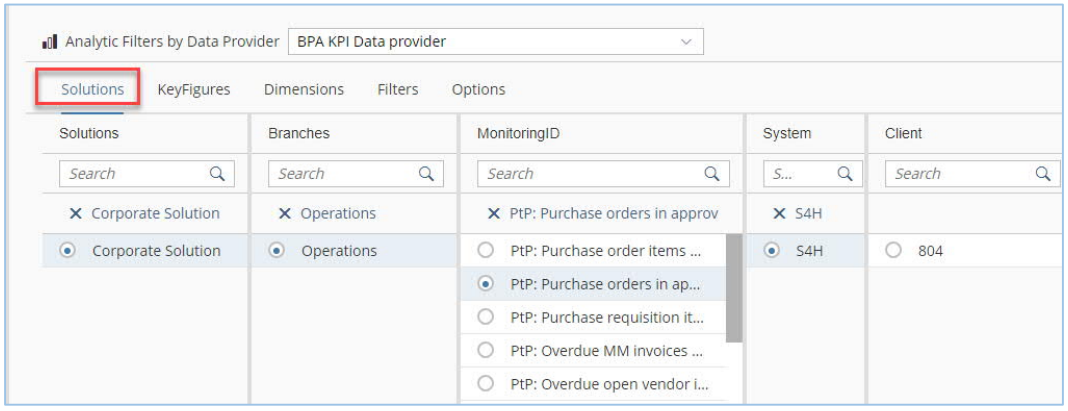



Figure 114. DP_BPA_KPI Gadget configuration (1)

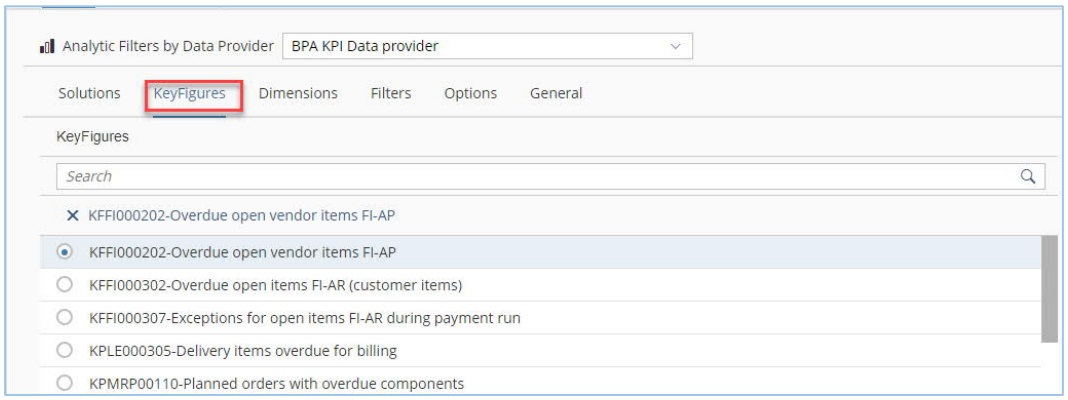



Figure 115. DP_BPA_KPI Gadget configuration (2)

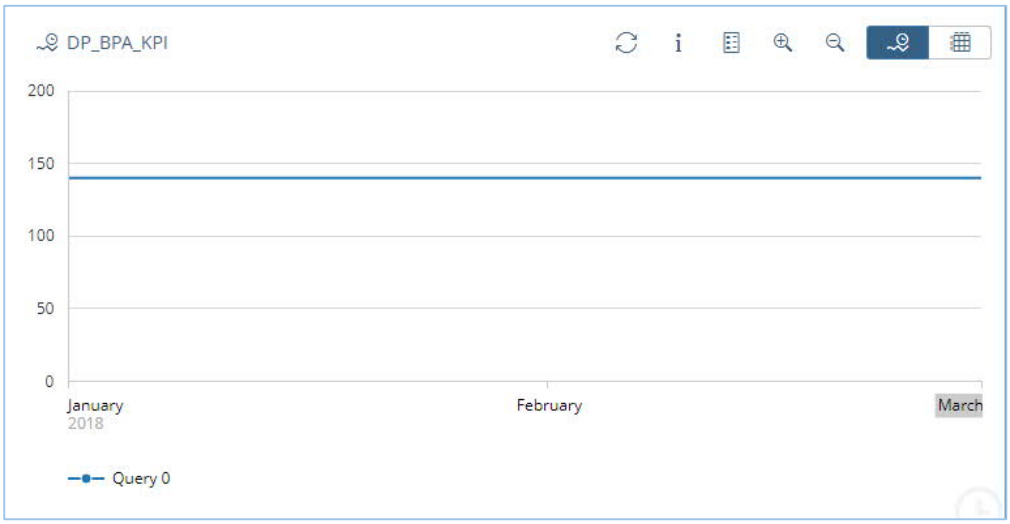



Figure 116. Detail view

## 5.6 Data Provider /STDF/DP_BEX_QUERIES

This data provider gives you access to create a new query.

The user can choose a query then the filters that are supported will be dynamically displayed.

The selection will be also dynamically displayed as follow:

- Selection
- Fill_gaps
- X_axis

| Legend | Query |
|---|---|

| | |
|---|---|
| Availability | /STDF/DP_BEX_QUERIES:COLOR=#1f77b4\|legend=Availability\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Queries=0CCMPDATA-/STDF/QM_AVAILABILITY\|Filters=\|Selection=\|Fill_gaps=\|X_axis=\|0SMD_LSID=A4H |

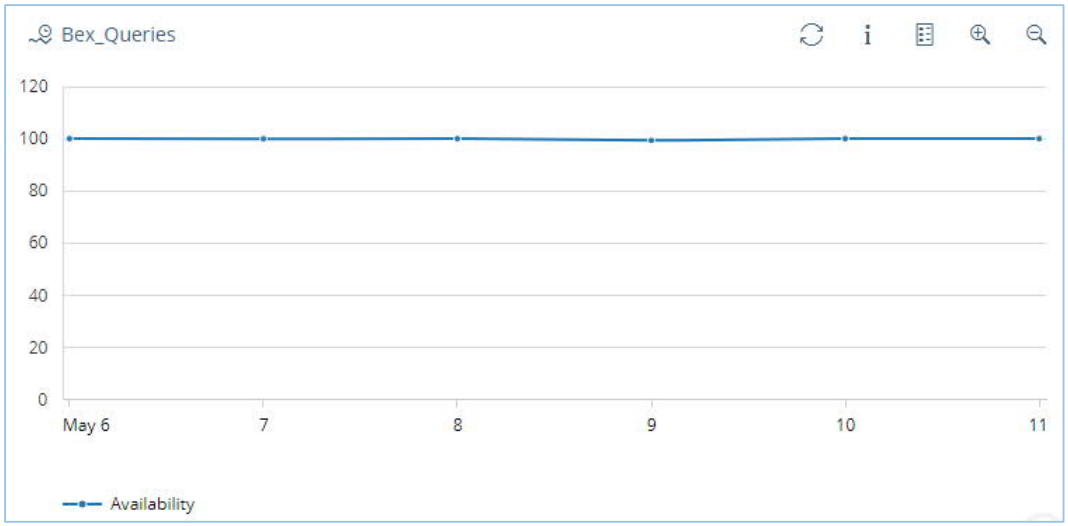



Figure 117. Detail view

## 5.7 Data Provider /STDF/DP_DF_TAC

This Data provider gives you access to add the instances which are added in the TAC dashboard.

The user is able to add a new query.

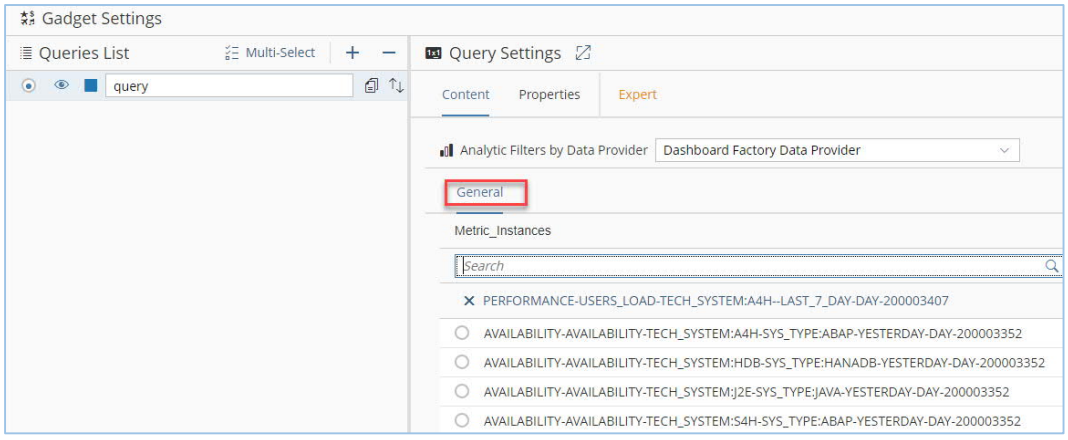



Figure 118. DP_DF_TAC configuration gadget

| Legend | Query |
|---|---|
| query | /STDF/DP_DF_TAC:Metric_Instances=200003407\|M=PERFORMANCE:USERS_LOAD\|T=LAST_7_DAY:DAY\|D=TECH_SYSTEM:A4H\|F=\|P=\|visible=true\|legend=query\|COLOR=#1f77b4\|OCC_JUMP_IN= |

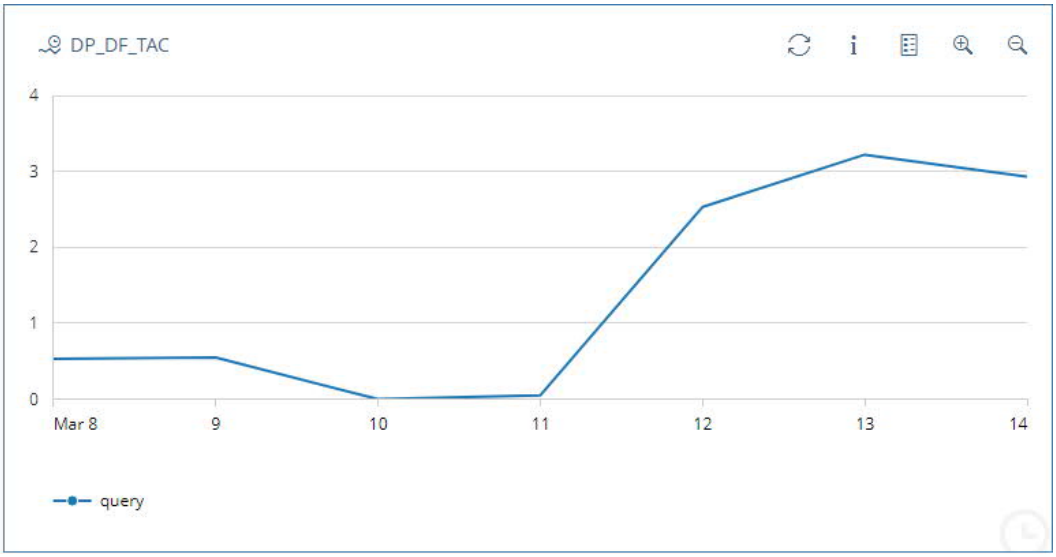



Figure 119. DP_DF_TAC Gadget

## 5.8 Data Provider /STDF/DP_DVM (Data Volume Management)

The Data Volume Management Data Provider provides access to 4 keys metrics in the data volume management area.

As a Pre-requisites: setup Solution Manager DVM scenario.

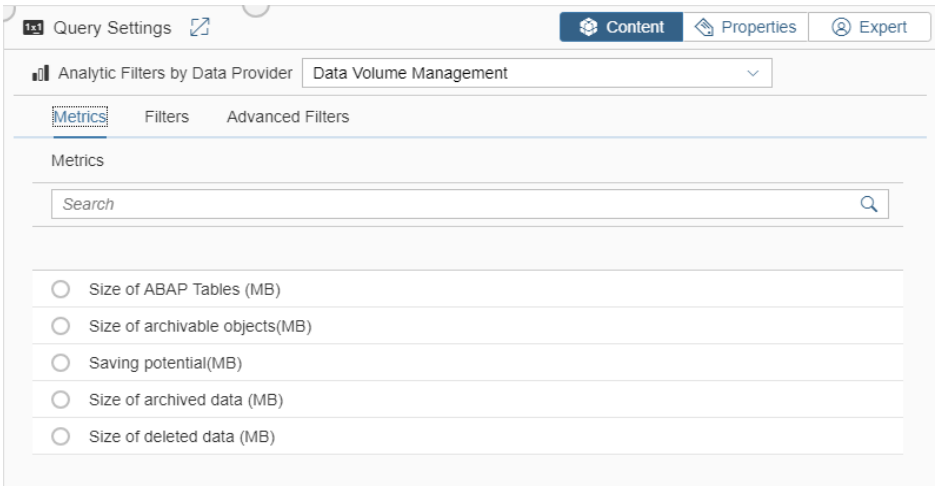



Figure 120. DVM DP: KPI List

This data provider gives you access to calculate:

1- Size of achievable objects (MB): Total size of DB data concerned by archiving process. See also Archive Administration tool in Solution Manager (TCODE SARA).

2- Saving potential (MB): Size of DB data that could be potentially archived by applying a given archiving strategy (prerequisite: configure a DVM saving potential scenario).
3- Size of archived data (MB): Size of data archived.
4- Size of deleted data (MB): Size of data deleted from the DB.
5- Size of ABAP table (MB): Total size of DB data.

Depending on the metric, several filters are possible (see table below): Scenario(s) (DVM saving potential scenario, dedicated configuration required), product(s), application area(s), technical system(s), archiving object(s), document type(s). For each filter it is possible to select one value, several values or all values.

| Metric | Filters |
|---|---|
| Size of ABAP table (MB) | Product, Application Area, System, Document Type |
| Size of achievable objects (MB) | Product, Application Area, System, Archiving Object, Document Type |
| Saving potential (MB) | Scenario, Application Area, System, Archiving Object, Document Type |
| Size of archived data (MB) | Archiving Object, System |
| Size of deleted data (MB) | |

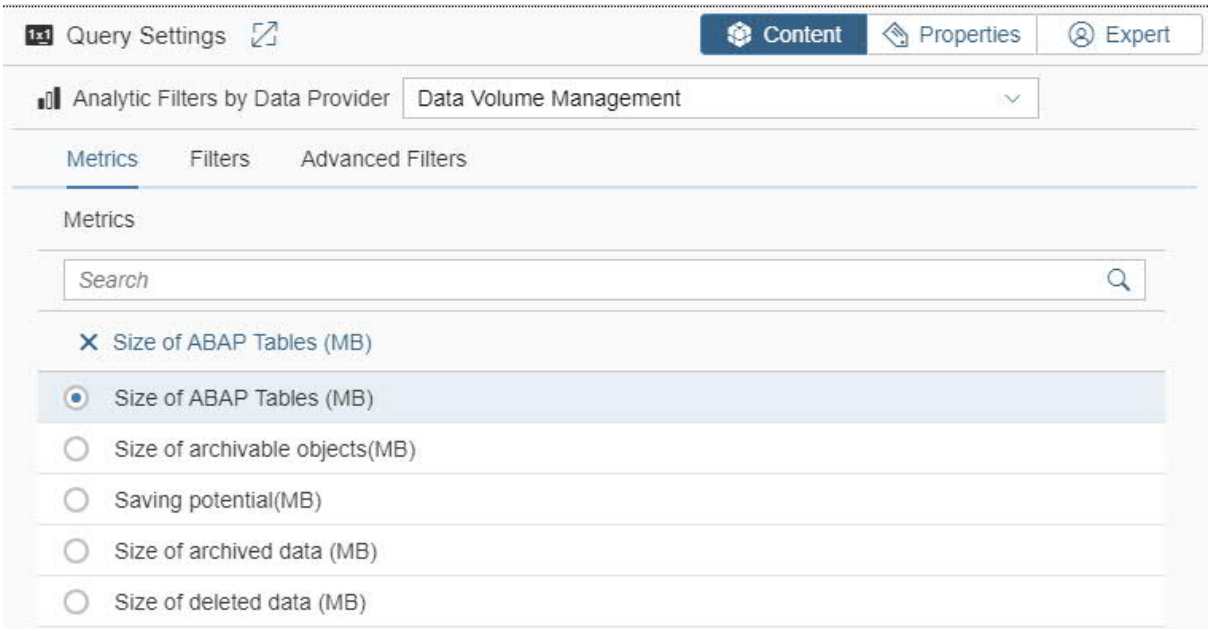



Figure 121. DVM data provider

| Legend | Query |
| --- | --- |
| Size of ABAP Tables (MB) | /STDF/DP_DVM:COLOR=#1f77b4\|legend=Size of ABAP Tables (MB)\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\| DISPLAY_ATTRIBUTES=\|visible=true\|Metrics=Size of ABAP Tables (MB)\|Filters=\|Advanced_Filters=\|Product=SAP SOLUTION MANAGER 7.2\|Application_Area=BC\|System=A4H\|Document_type=ABAP Connectivity and Integration Tools |

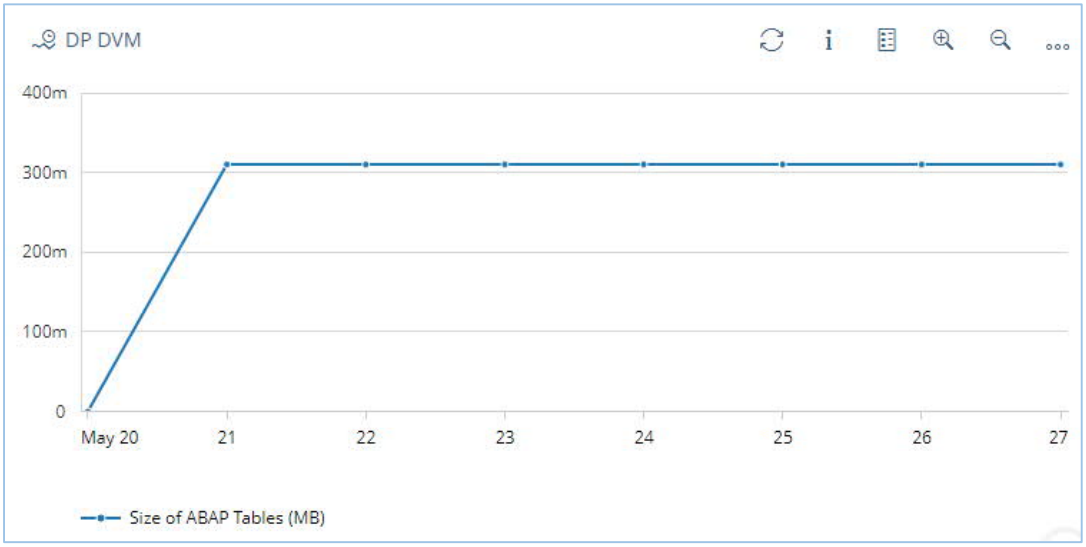



Figure 122. DVM DP detail view

## 5.9 Data Provider /STDF/DP_MAI_ALERTING

This data provider gives an access to calculate these metrics:

1- Number of alerts created (Number of new alerts created during the time period)
2- Current number of alerts (Current number of open alerts in the alert inbox during the requested time period)
3- Average alert processing duration (min) (Average processing time (in minutes) of open alerts in the alert inbox during the requested time period)
4- Average time from Alert is opened till confirmed by Operator (min) (Average time (in minutes) between the alert is opened (i.e. created by the system) until the alert is closed manually by the operator)
5- Number of alerts confirmed by Operator (Number of alerts closed by operator)
6- Maximum time from Alert is opened till confirmed by Operator (Min) (Maximum time (in minutes) between the alert is opened (i.e. created by the system) until the alert is closed manually by the operator)
7- Average time from Alert is opened till manual Incident is created (Min): (Average time in minutes between the alert is opened (i.e. created by the system) until the operator open an incident for this alert)
8- Number of manual Incidents created (Number of incidents opened by operator)
9- Maximum time from Alert is opened till manual Incident is created (Min) (Maximum time in minutes between the alert is opened (i.e. created by the system) until the operator open an incident for this alert)

For these metrics, we have to select the specified tabs and choose the appropriate information:

- Filters
  - Managed Object
  - Alert Name
  - Technical Scenario
- Options
  - Managed Object Type
  - Category
  - Rating
  - With incident
  - Severity

PS: Another tab named "Duration" exists and it applied only with the Current number of alerts metric.

The selected managed object must be compatible with the chosen managed object type, else the DP returns no data.

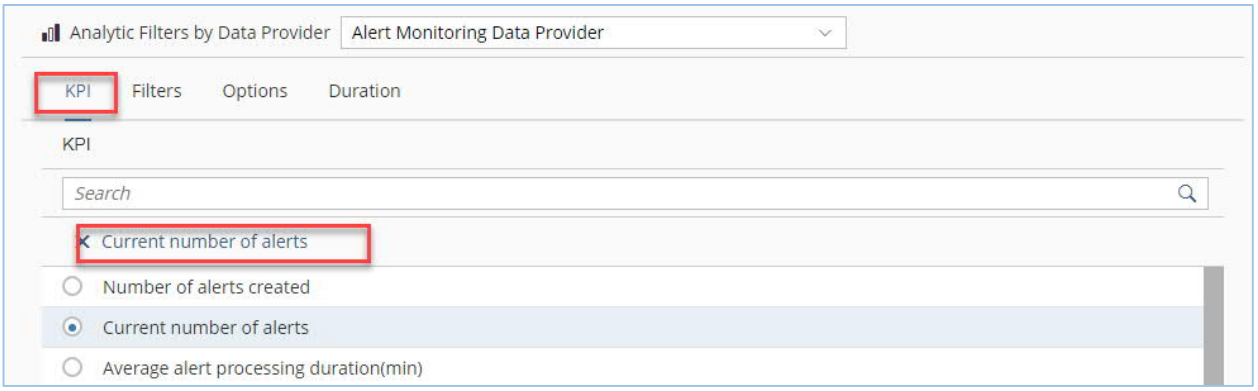



Figure 123. Gadget configuration (1)

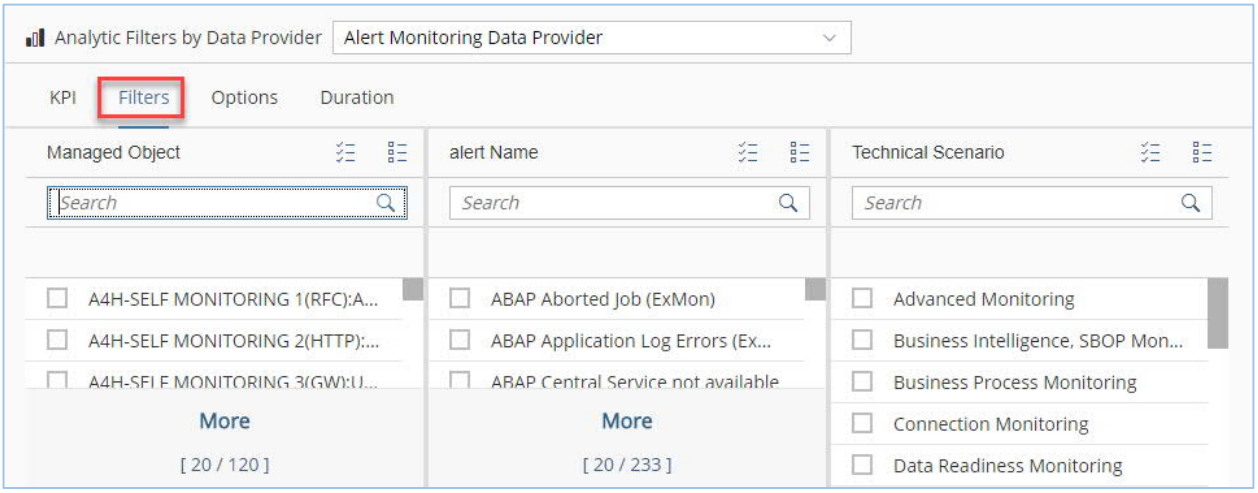



Figure 124. Gadget configuration (2)

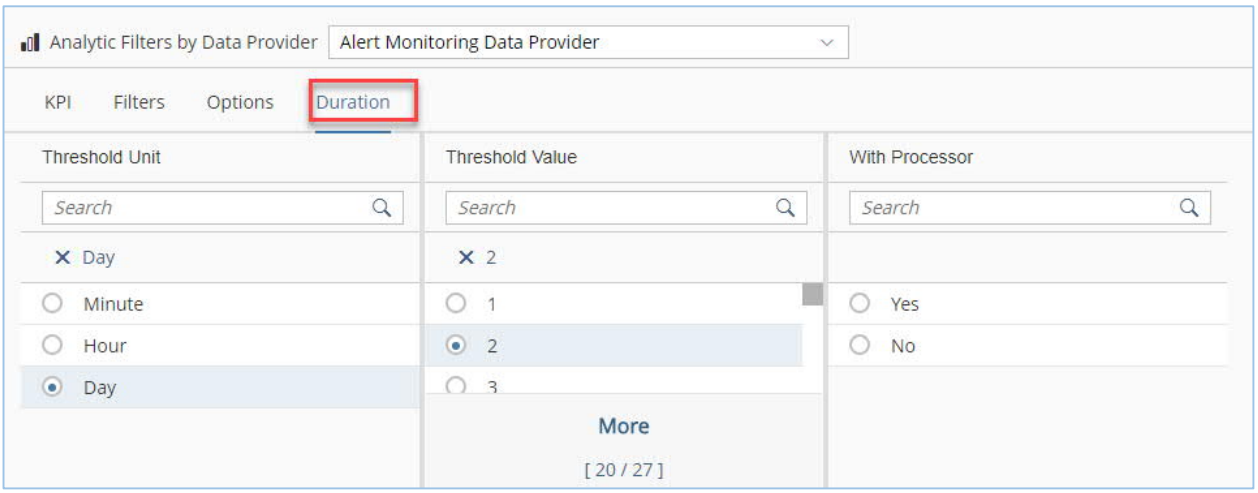



Figure 125. Gadget configuration (3)

The generated query is:

| Legend | Query |
|---|---|
| L1 | /STDF/DP_MAI_ALERTING:KPI=Counter_Cur\|CONTEXT_ID=OTO~ABAP\|ALERT=\|TECHNICAL_SCENARIO=\|CONTEXT_TYPE=\|CATEGORY=\|RATING=\|Incident=\|SEVERITY=\|Threshold_unit=Day\|Threshold_value=2 \|processor=\|visible=true\|legend=\|COLOR=#1f77b4\|OCC_JUMP_IN= |

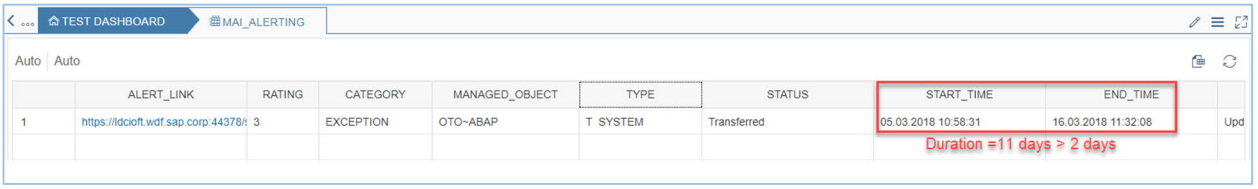



Figure 126. Detail view

PS: In this case, the returned result will show the alerts of the specified managed object that have a duration (Duration= END_TIME - START_TIME) equal or greater than 2 Days.

## 5.10 Data Provider /STDF/DP_DF_KPI

The Dashboard Factory KPI are predefined metrics offering best practices IT indicators abstracting the technical source of the data.

The Metrics are used by the Focused Insights Dashboards.

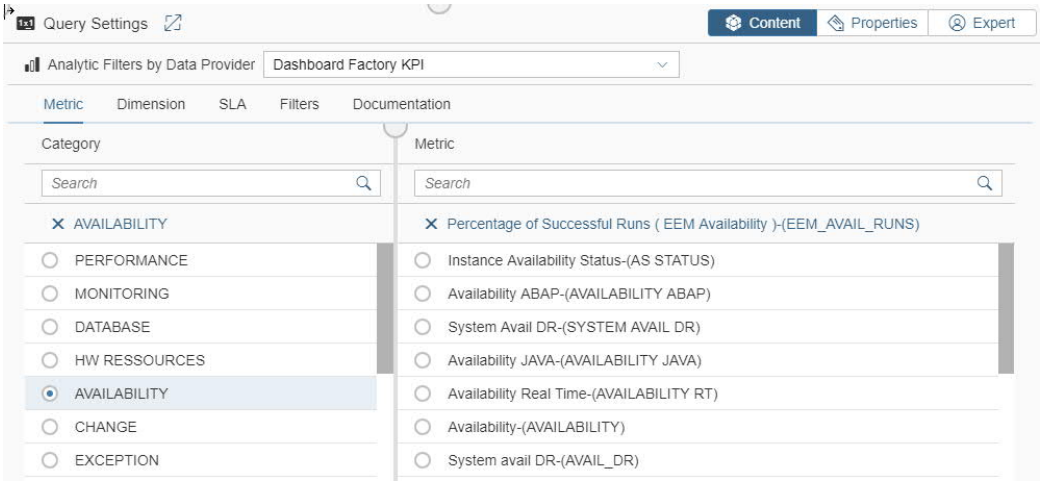



Figure 127. Gadget configuration (1)

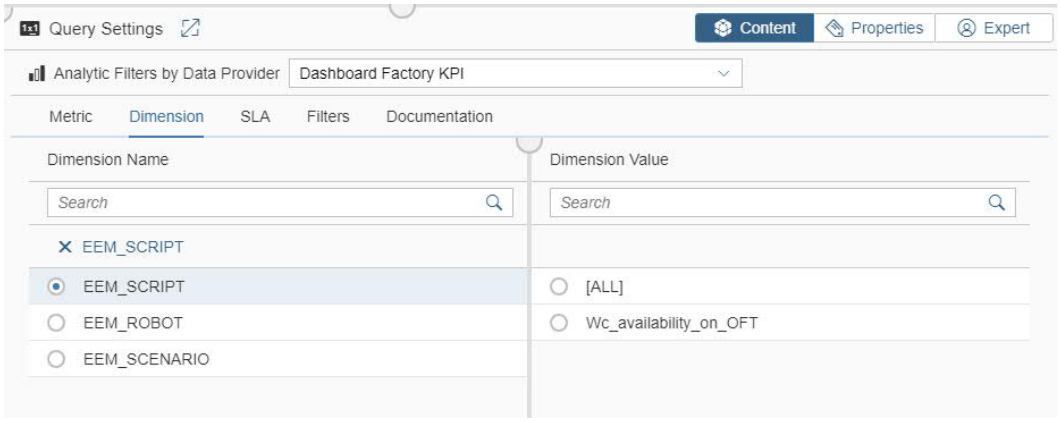



Figure 128. Gadget configuration (2)

| Legend | Query |
|---|---|
| Selfmon | /STDF/DP_DF_KPI:Category=AVAILABILITY\|Metric=/STDF/CL_EEM_AVAIL_RUNS__1_0\|Dim_name=0SMD_SCRI\|Dim_value=UXMon Selfcheck Script\|Period=\|SLA=\|G2Y=\|Y2R=\|UNIT=\|Filters=\|Documentation=\|0SMD_AGENT=\|0SMD_TSCN=\|legend=Selfmon\|visible=true\|COLOR=#1f77b4\|OCC_JUMP_IN=\|display_value=false |

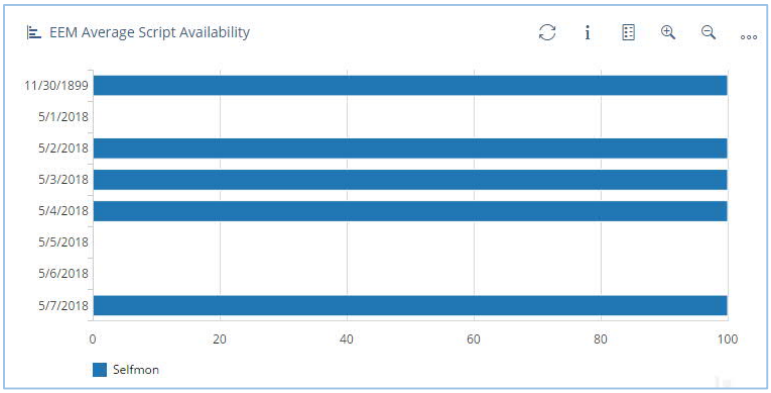



Figure 129. Detail View

## 5.11 Data Provider /STDF/DP_ITSM

The ITSM data provider gives an access to calculate these KPIs:

1- Number of Tickets For ITSM Transactions
2- Average Processing Time
3- Average Work Effort
4- Total Average Work Effort
5- Average Number of Status Iterations
6- Number of Tickets out of IRT
7- Number of Tickets out of MPT
8- Number of Open Tickets
9- Average deviation from MPT
10- Average deviation from IRT

For these metrics, we can filter on:

11- Transaction
12- Priority
13- Business Partner
14- Category level
15- Status

The following screenshots show an example of the gadget configuration for the Number of Tickets For ITSM Transactions:

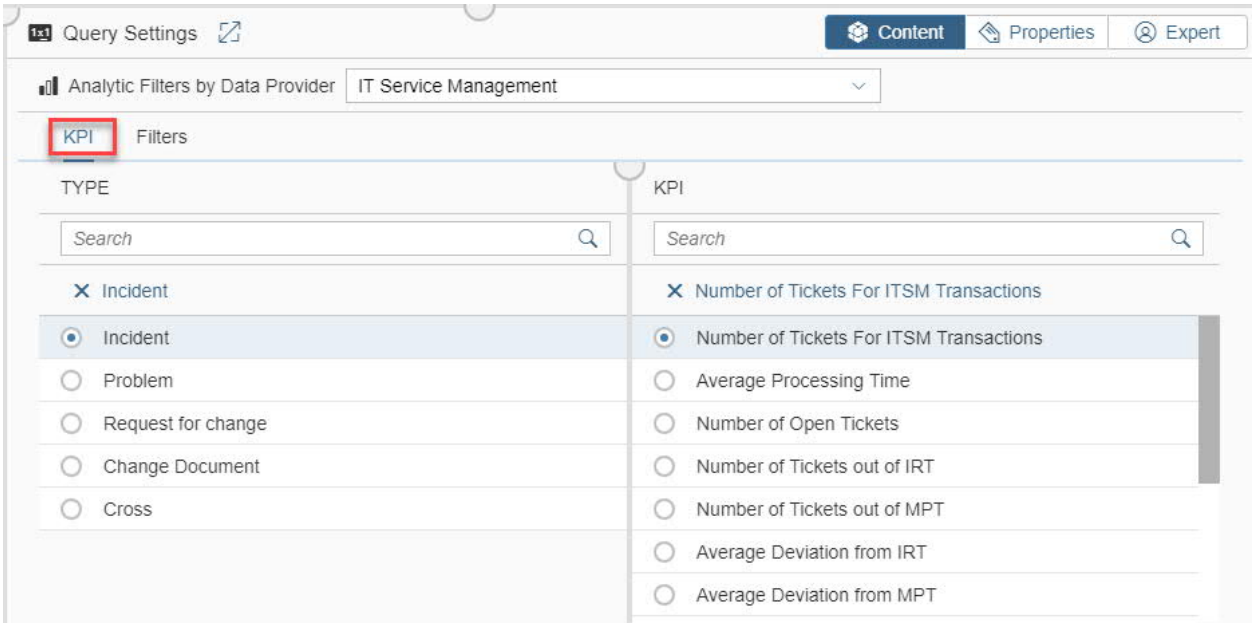



Figure 130. Gadget configuration (1)

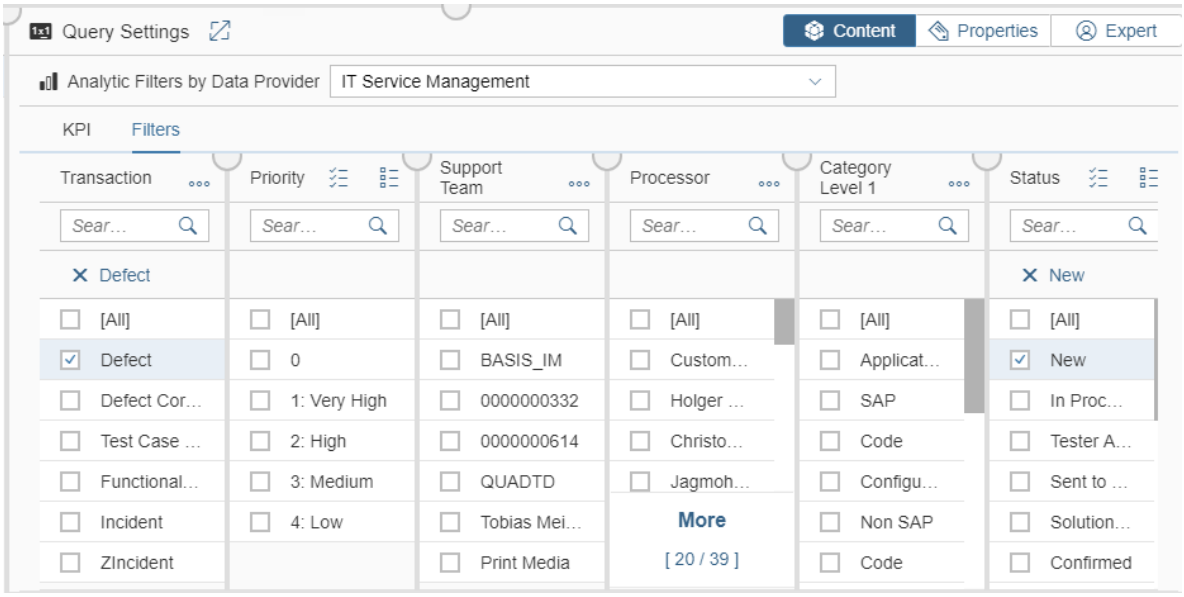



Figure 131. Gadget configuration (2)

PS: When selecting a transaction type from the filters Tab, the appropriate lists of category and status are displayed automatically for the specified transaction.

The generated query is:

| Legend | Query |
|---|---|
| New defects | /STDF/DP_ITSM:COLOR=#1f77b4\|legend=New defects\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|TYPE=Incidents\|KPI=Number of Tickets For ITSM Transactions\|Transaction=S1DM\|Priority=\|Support_Team=\|Processor=\|Category_Level_1=\|Status=S1DM0001E0001 |

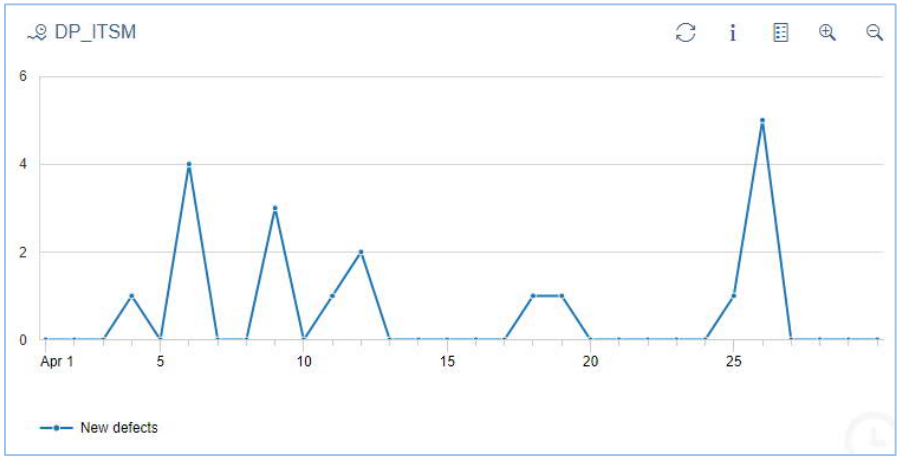



Figure 132. Detail View

## 5.12 Data Provider /STDF/DP_CCM

The Custom Code Data Provider provides access to a set of pre-defined CCM KPIs that need to be configured in the DF Metric Instance editor.

As a Pre-requisites: Metrics have to be created with a webdynpro Wizard to extract the data from the CCLM ad-hoc reporting tables.

Schedule CCM job (Focused Insights GP setup).

The metric instances can be configured via webdynpro application:

Metric Instance Builder application link:

https://host:port/sap/bc/webdynpro/stdf/wd_mi#

The following screenshots show an example of the gadget configuration for the DP_CCM:

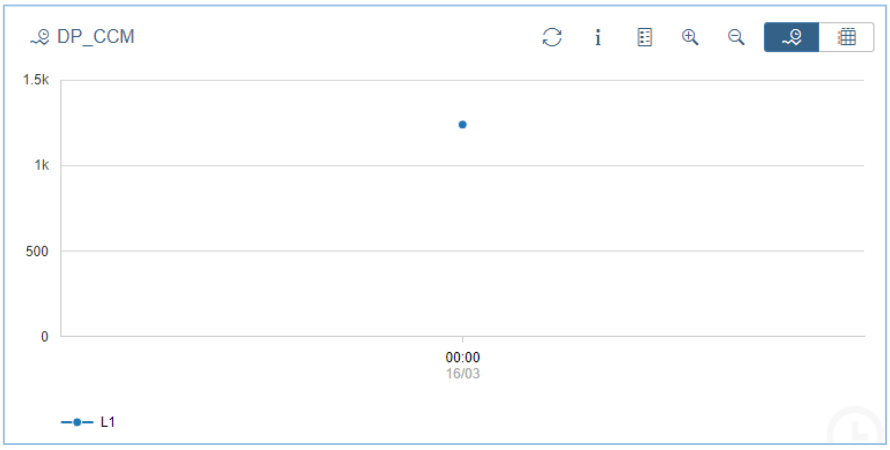



Figure 133. Gadget configuration

The generated query is:

| Legend | Query |
|---|---|
| L1 | /STDF/DP_CCM:legend=L1\|COLOR=#1f77b4\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Metric_Instances=7\|LIVE_COLLECT=TRUE |

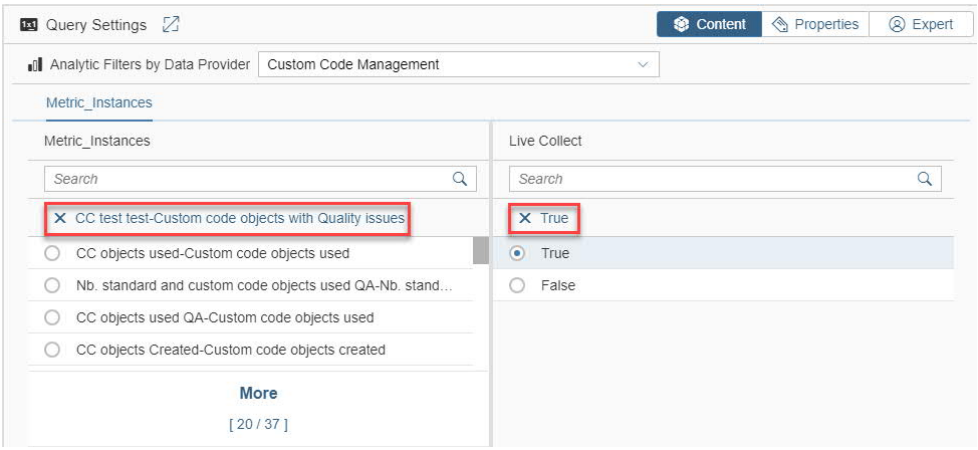



Figure 134. CCM DP detail view

## 5.13 Data Provider /STDF/DP_CRM

The data provider returns the number of objects found on CRM using a chosen saved search created in CRM. It traits all types of saved searches (i.e. incidents, normal change) and support daily, weekly and monthly aggregation.

P.S:

The saved search needs to provide the 'Transaction Type' to get a correct result. Otherwise, the message 'No transaction Type specified' appears.

When using the DYNAMIC TABLE renderer, there is a possibility of jump-in to the CRM UI from the link existing in the OBJECT_ID field showing the result of the query.

The user may affect a drilldown operation on the displayed data using the "Drilldown" tab.

To use the STACK_COLUMN_CHART_2LABEL, we should choose the period and resolution in the way that the gadget returns one value. (Examples: Today/Day, Last_Month/Month...).

Also, we need to specify a legend like shown below:

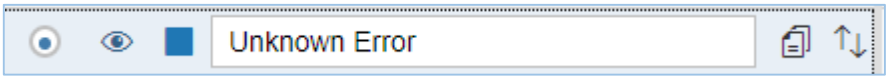



Figure 135. Legend

The '/' is required to get a correct display.

We must be sure that the selected drilldown can be applied on the selected saved search.

The following screenshots show an example of the gadget configuration for CRM DP:

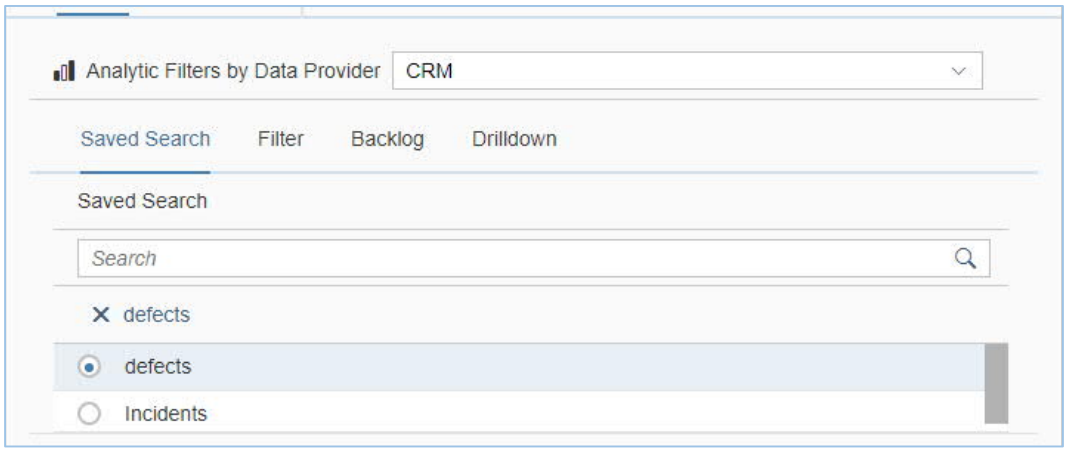



Figure 136. Gadget configuration (1)

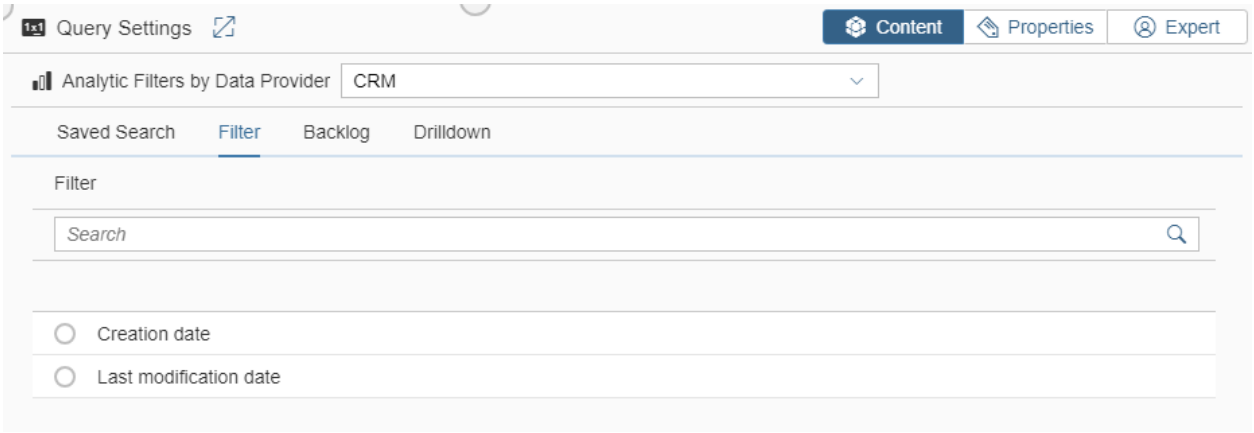



Figure 137. Gadget configuration (2)

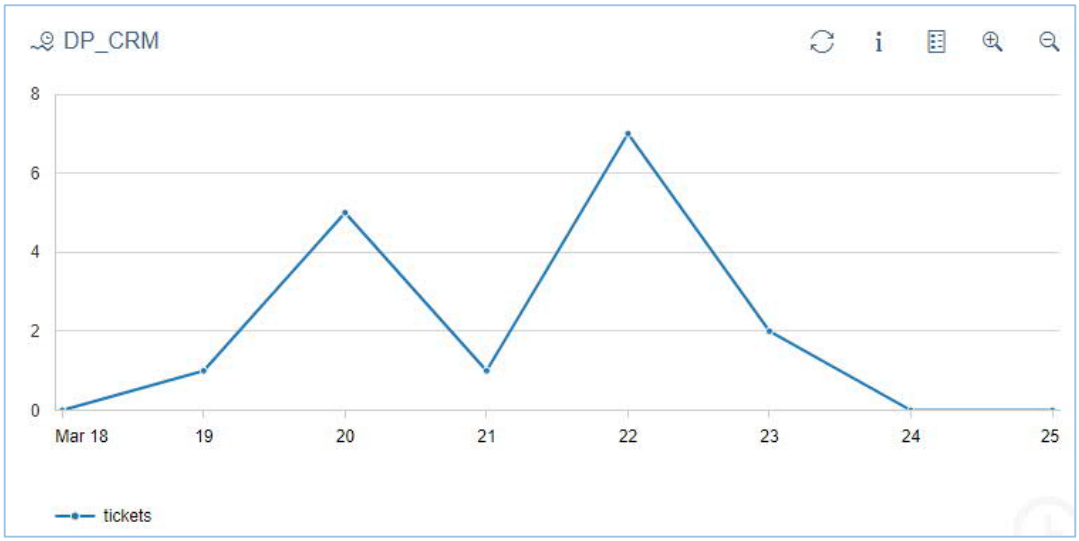



Figure 138. Detail view

Starting with SP06, there are two new options in the Backlog tab:

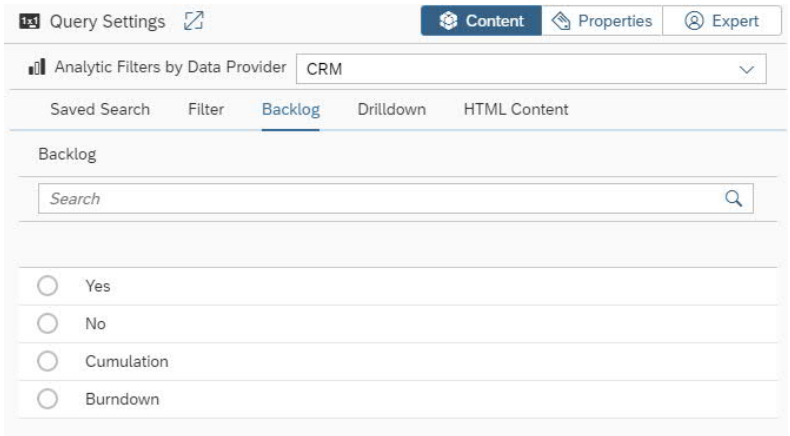



Figure 139. Backlog Tab

- Cumulation:

  - Sum up each granularity value from the previous value.

- Burndown:

  - Sum up all the documents from each granularity
  - assign the result to the first occurrence
  - For each granularity we subtract the value from the previous granularity: previous value – current value

With the current release SP08, a new tab named ‘Saved View’ is available, it allows the display of a preconfigured views based on the saved search from the CRM application.

Note that This Tab is only displayed if the user had already configured one or more saved views.

Below a step by step example of the configuration and the use of a saved view:

1. Navigate to the CRM application
2. Create your saved search and enter the wanted filter

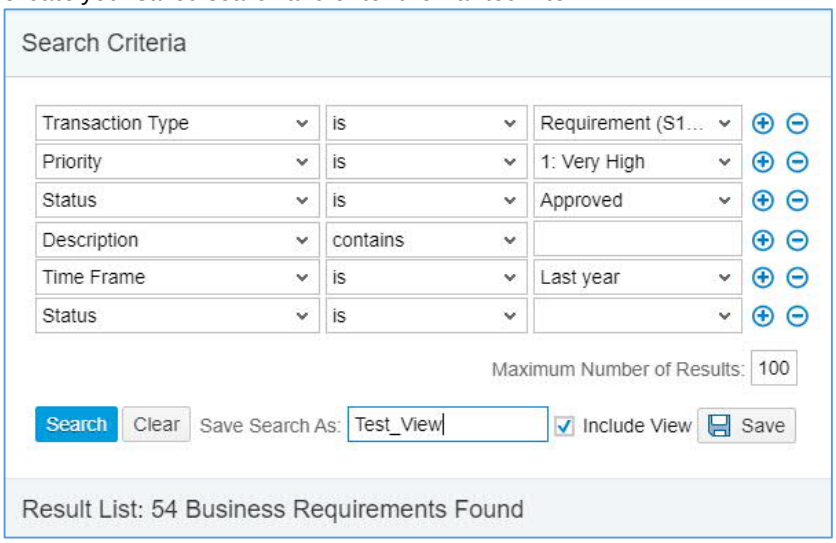



Figure 140. Configuration of a saved search

3. Enter the name of the saved search and check the option include view then click on Save button
4. Check that a view with the same name as the saved search is saved

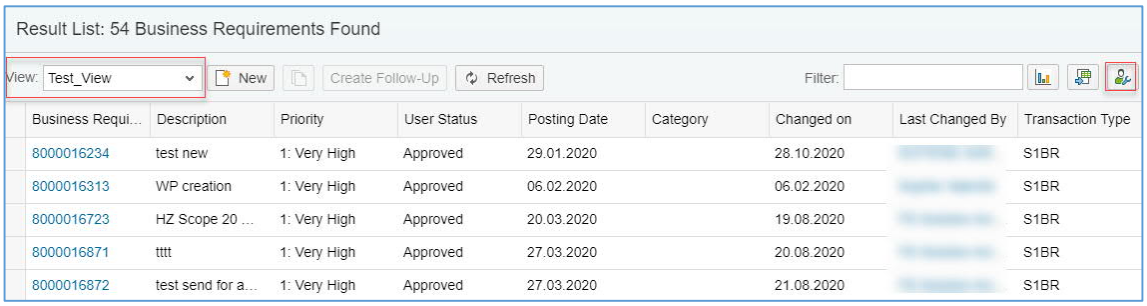



Figure 141. Personalization button

5. Go to the saved view and Personalize your view by adding and removing column from it

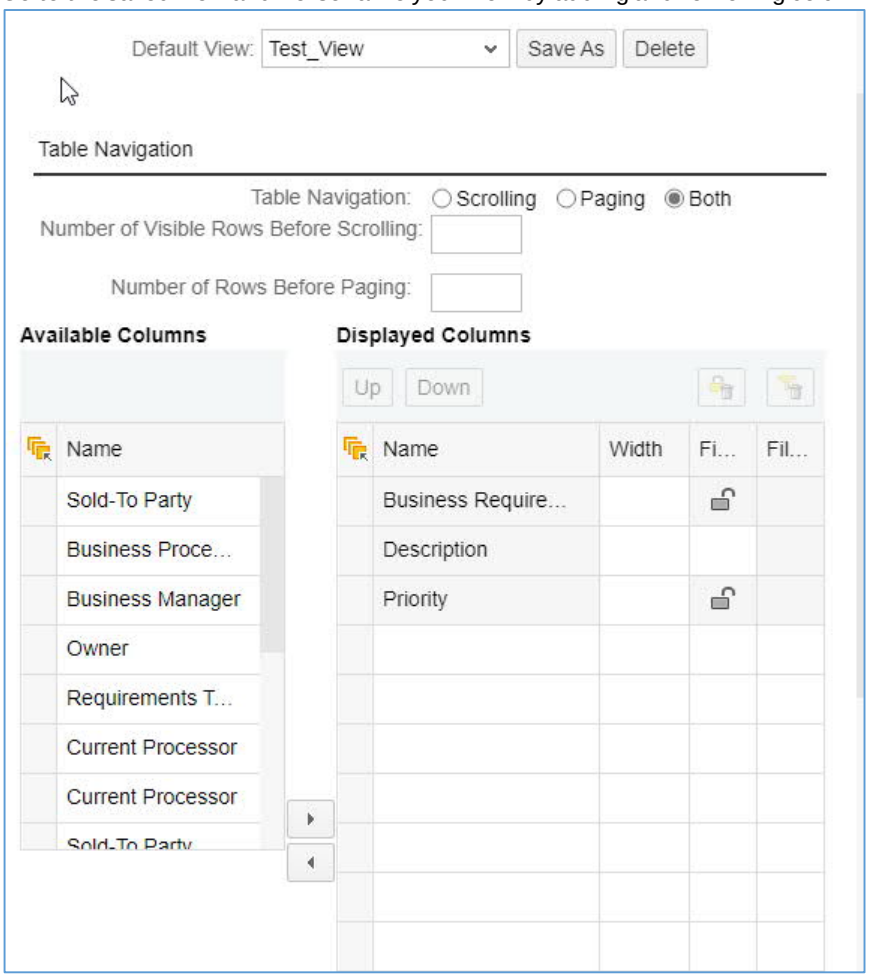



Figure 142. View Personalization

6. Click on Save As button and keep the same name or rename your personalized view then click save

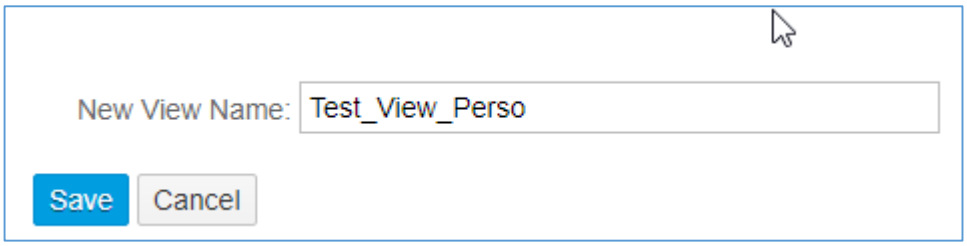



Figure 143. Renaming view

7. Now let's go to the OCC dashboard and configure a new gadget using the preconfigured saved view
8. Select the Dynamic Table renderer
9. Select CRM data provider
10. Select the wanted saved search

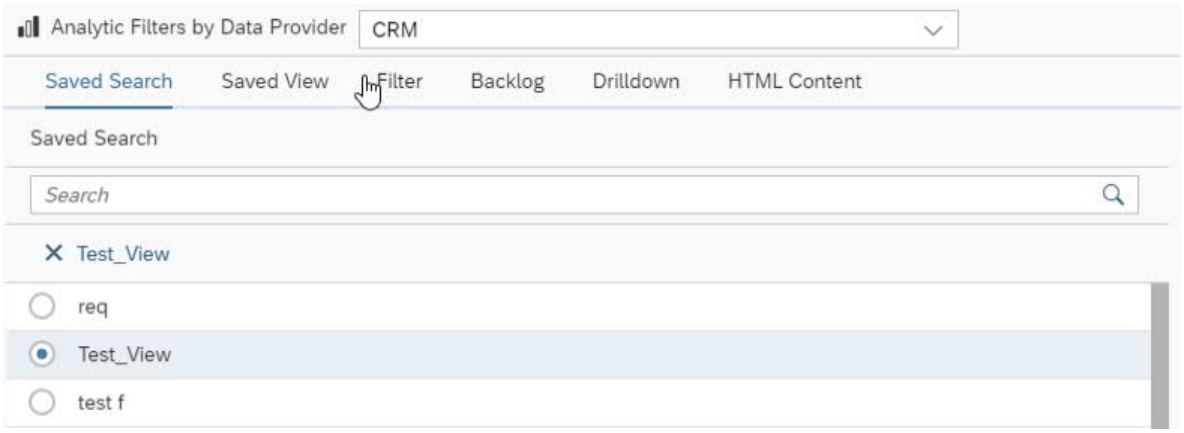



Figure 144. Saved Search

11. Select the wanted saved view

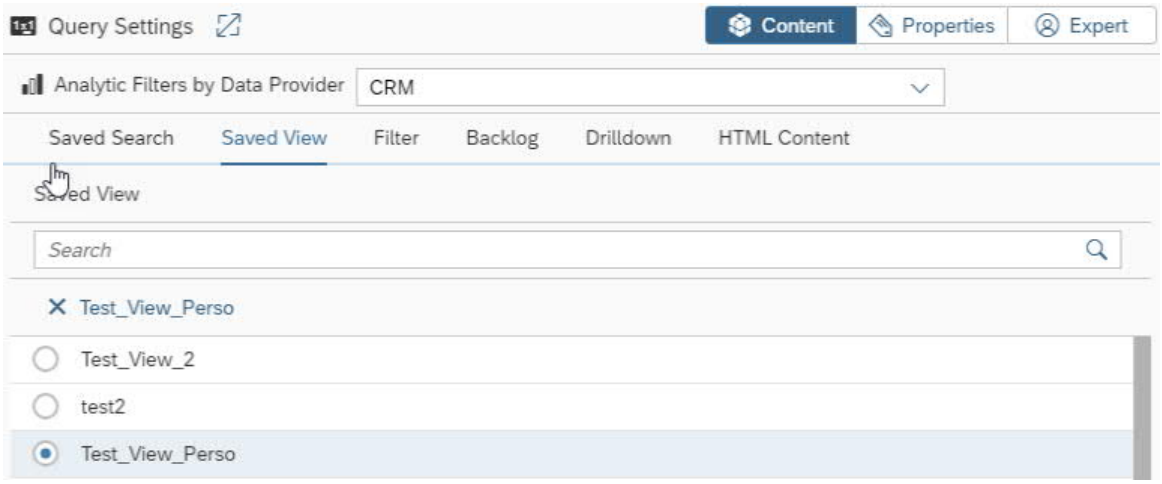



Figure 145. Saved View

12. Click on preview and check that data is there

## 5.14 Data Provider /STDF/DP_CALCULATION

This data provider enables the user to affect mathematical operations on the different metrics. These operations are multiplication, addition, division, and subtraction.

To use the /STDF/DP_CALCULATION data provider, we must proceed like shown below:

1. Create two queries. (Select a metric from any Data provider: In this case, we have select /STDF/DP_DF_TAC and the selected metric is availability)

| Legend | Query |
|---|---|
| ABAP | /STDF/DP_DF_TAC:COLOR=#1f77b4\|legend=ABAP\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|calcQuery=377\|Metric_Instances=200003352\|M=AVAILABILITY:AVAILABILITY\|T=YESTERDAY:DAY\|D=TECH_SYSTEM:A4H\|F=SYS_TYPE:ABAP\|P= |
| J2E | /STDF/DP_DF_TAC:COLOR=#aec7e8\|legend=J2E\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Metric_Instances=200003352\|M=AVAILABILITY:AVAILABILITY\|T=YESTERDAY:DAY\|D=TECH_SYSTEM:J2E\|F=SYS_TYPE:JAVA\|P= |

2. Save the created gadget

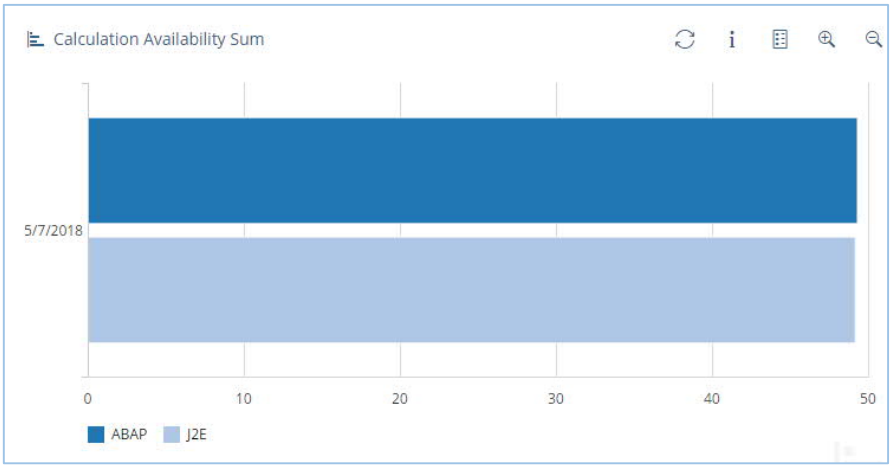



Figure 146. Detail view (ABAP and J2E availability)

3. Select the /STDF/DP_CALCULATION data provider
4. Select an Operand1 (Example: ABAP)
5. Select an operator (Example: Add)
5. Select an Operand2 (Example: J2E)

The generated query is:

| Legend | Query |
|---|---|

| | |
|---|---|
| SUM | /STDF/DP_CALCULATION:COLOR=#ff7f0e\|legend=SUM\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=false\|calcQuery=377\|Operand1=ABAP\|Operator=Add\|Operand2=J2E\|calcQuery=377 |

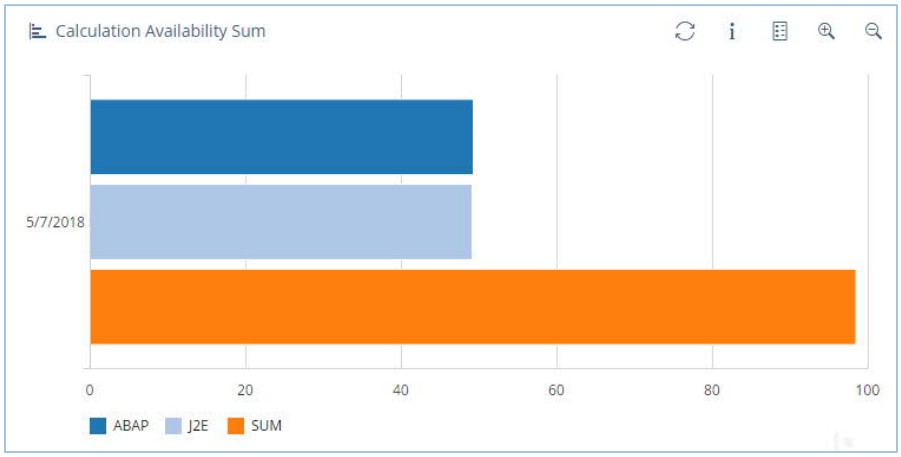



Figure 147. Detail view (ABAP, J2E availability and the sum)

## 5.15 Data Provider /STDF/DP_DCM

This data provider gives you an access to calculate the KPIs using these filters:

1- Model Name

2- Comparison Name

3- Metrics

For this data provider we must select one metric in the list below:

4- Indicator
   Number of objects existing only in system 1
   Number of objects existing only in system 2
   Number of common objects with differences
   Number of identical objects

5- Quality
   Number of run
   Number of successful run

6- Summary
   Number of compared objects
   Number of inconsistencies

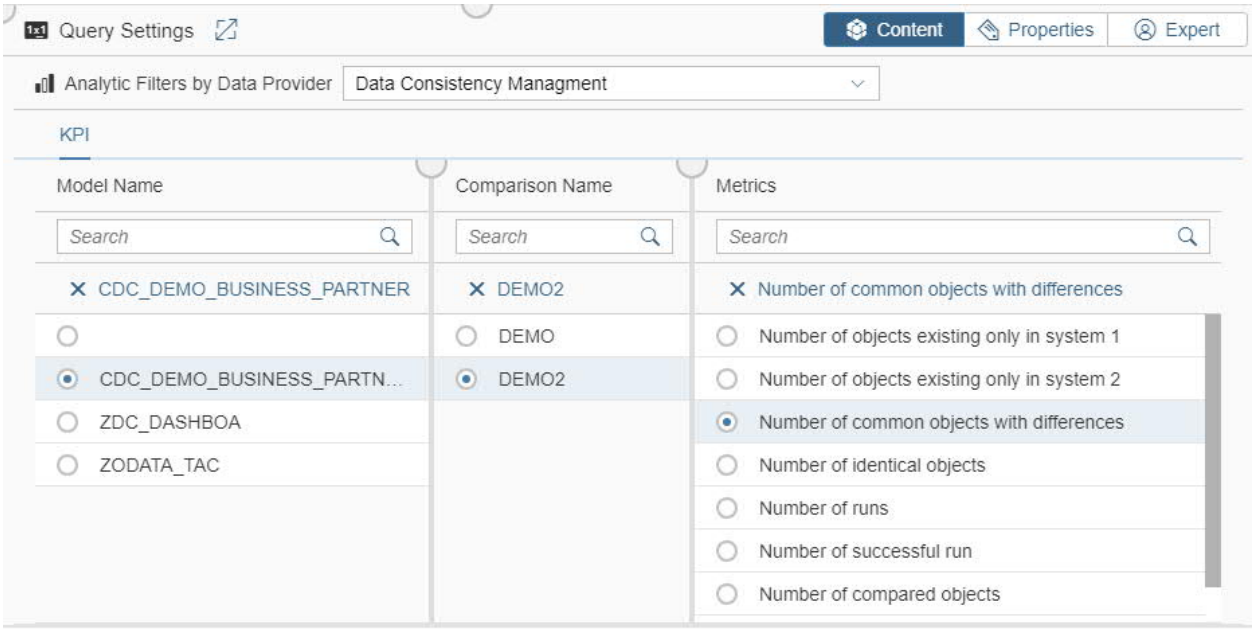



Figure 148. Configuration Gadget

The generated query is:

| Legend | Query |
|---|---|
| DP_DCM | /STDF/DP_DCM:COLOR=#1f77b4\|legend=Query 0\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|COMP_OBJ=CDC_DEMO_BUSINESS_PARTNER\|COMP_INST=DEMO2\|METRICS=3 |

DP_DCM

| | INCON_TYPE | OBJ_KEY_1 | OBJ_KEY_2 |
|---|---|---|---|
| 1 | 3 | 134E3749149F4B11E10000000A42442C | |
| 2 | 3 | 194E3749149F4B11E10000000A42442C | |
| 3 | 3 | 72503749149F4B11E10000000A42442C | |
| 4 | 3 | 73503749149F4B11E10000000A42442C | |
| 5 | 3 | 9EEE9B4920D8383BE10000000A42442C | |
| 6 | 3 | 9EEE9B4920D8383BE10000000A42442C | |
| 7 | 3 | F5513749149F4B11E10000000A42442C | |

Figure 149. Detail View

An export button is available to have results displayed in CVS format.

## 5.16 Data provider /STF/DF/DP_ICM

This Data Provider supports the Interface Channel Monitoring scenario.

The following screenshots show an example of configuration for the DP_ICM gadget:

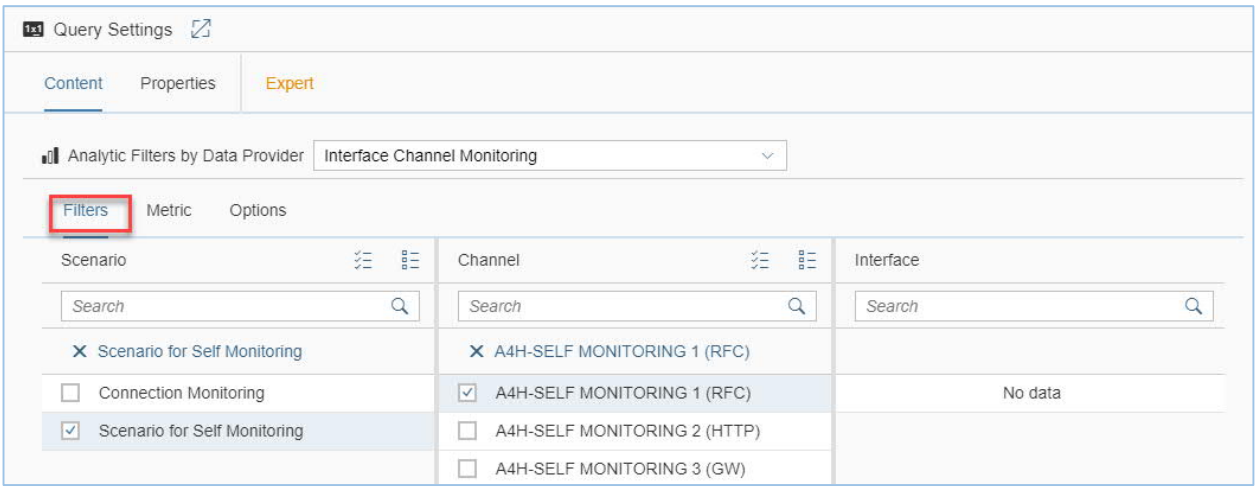



Figure 150. Configuration gadget (1)

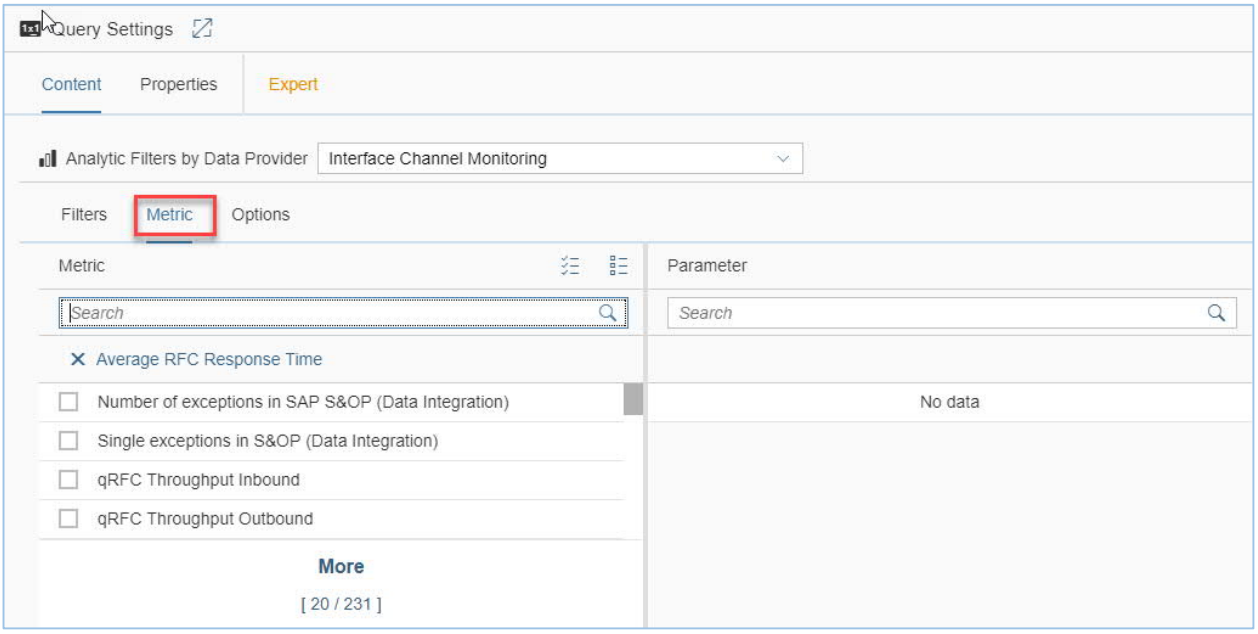



Figure 151. Configuration gadget (2)

The generated query is:

| Legend | Query |
|---|---|
| Averge RFC Response Time | /STDF/DP_ICM:COLOR=#1f77b4\|legend=Response time\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|scenario=SELF |

| | |
|---|---|
| | MONITORING~INTER_MON\|channel=1255A578FFF21ED78CB415AD92C7BB38\|interface=\|metric=ICMON_IFCHANNEL_RFC_RESPONSE_TIME\|parameter=\|Fill_gaps=\|aggregation= |


Figure 152. Detail view

## 5.17 Data Provider /STDF/DP_EWA

This data provider gives access to the history of EWA data.

In the following example we will use the DYNAMIC_TABLE_RENDERER as a renderer for a better display.

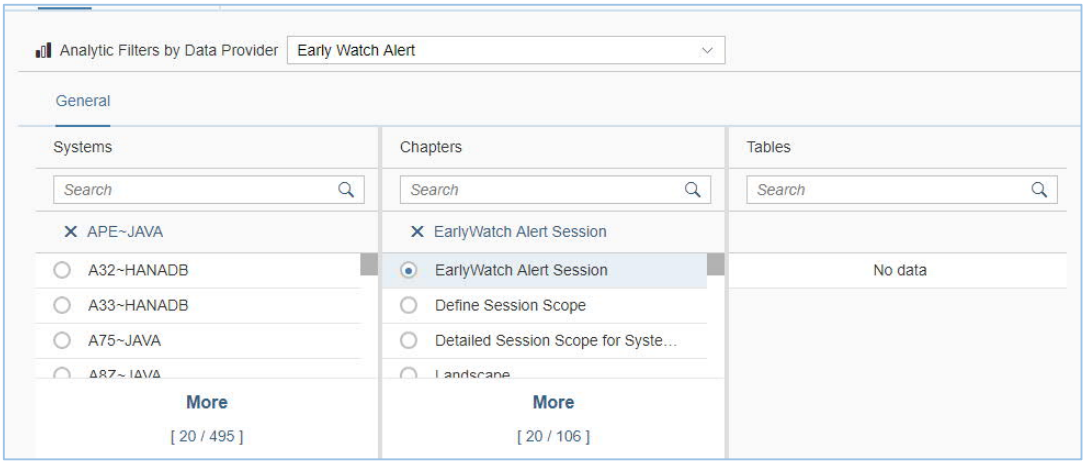
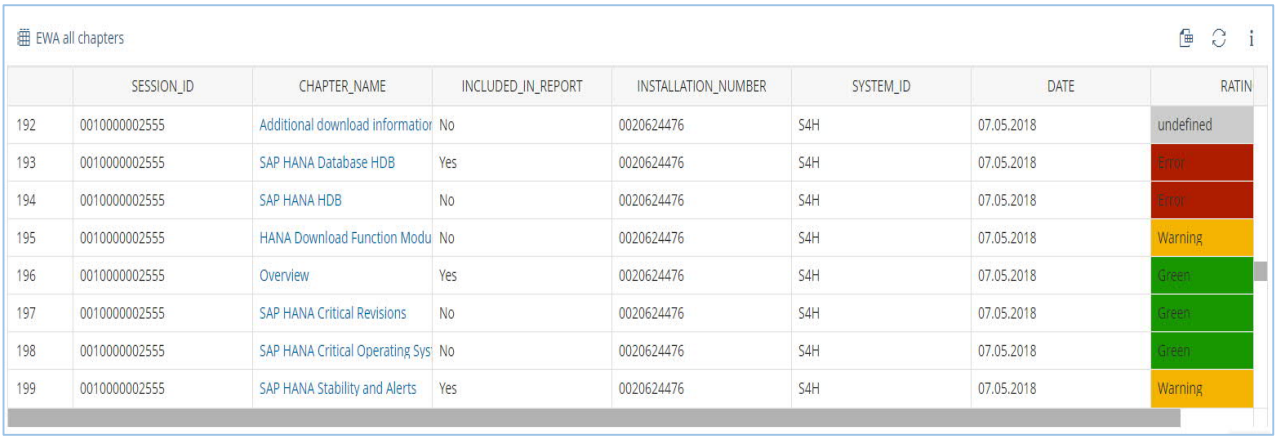



Figure 153. Gadget configuration

The generated query is:

| Legend | Query |
|---|---|
| S4 HANA | /STDF/DP_EWA:COLOR=#1f77b4\|legend=S4 HANA\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBU |

| | |
|---|---|
| | TES=\|visible=true\|Systems=S4H~ABAP\|Chapters=00001,SESSION,,EW_ROOT,EA0010000002555\|TABLE=\|display_value=false |




| | SESSION_ID | CHAPTER_NAME | INCLUDED_IN_REPORT | INSTALLATION_NUMBER | SYSTEM_ID | DATE | RATIN |
|---|---|---|---|---|---|---|---|
| 192 | 0010000002555 | Additional download informatior | No | 0020624476 | S4H | 07.05.2018 | undefined |
| 193 | 0010000002555 | SAP HANA Database HDB | Yes | 0020624476 | S4H | 07.05.2018 | Error |
| 194 | 0010000002555 | SAP HANA HDB | No | 0020624476 | S4H | 07.05.2018 | Error |
| 195 | 0010000002555 | HANA Download Function Modu | No | 0020624476 | S4H | 07.05.2018 | Warning |
| 196 | 0010000002555 | Overview | Yes | 0020624476 | S4H | 07.05.2018 | Green |
| 197 | 0010000002555 | SAP HANA Critical Revisions | No | 0020624476 | S4H | 07.05.2018 | Green |
| 198 | 0010000002555 | SAP HANA Critical Operating Sys | No | 0020624476 | S4H | 07.05.2018 | Green |
| 199 | 0010000002555 | SAP HANA Stability and Alerts | Yes | 0020624476 | S4H | 07.05.2018 | Warning |

Figure 154. Detail view

Rating Mapping: Each color has a specified indication:

Very critical ➔ Red

Critical ➔ Yellow

OK ➔ Green

No rating ➔ Green

Other ➔ Grey

## 5.18 Data Provider /STDF/DP_BPO

This data provider is used to monitor critical SAP business processes.

In order to use the /STDF/DP_BPO data provider, we have to proceed like shown below:

1. Click on “Add query” button
2. Select the data provider '/STDF/DP_BPO'
3. Add the 'Solution'
4. Add the ‘System Role’
5. Add the 'Site'
6. Add the ‘Scenario’
7. Add the ‘Process’
8. Add the 'Step'
9. Add the ‘Monitoring Object’
10. Add the 'Metric'
11. Choose the right time Range
12. Click on “Save” button

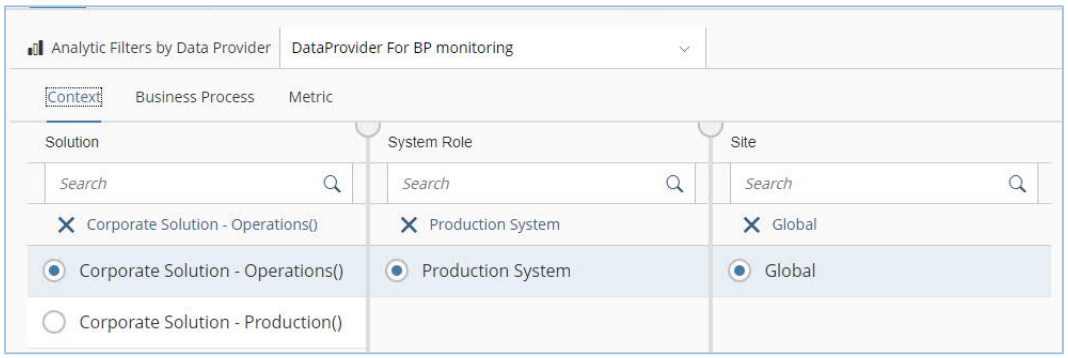



Figure 155. Configuration gadget (1)

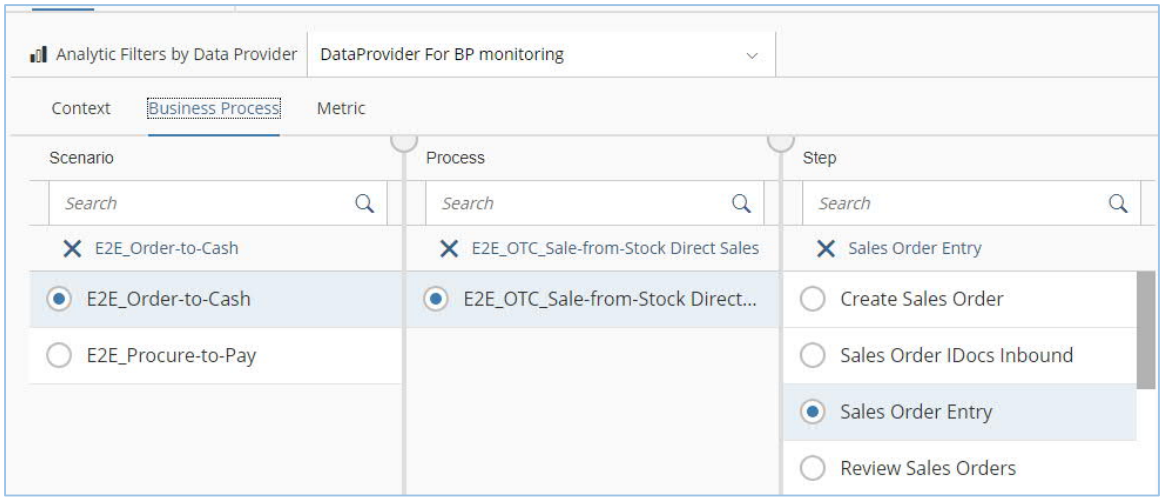



Figure 156. Configuration gadget (2)

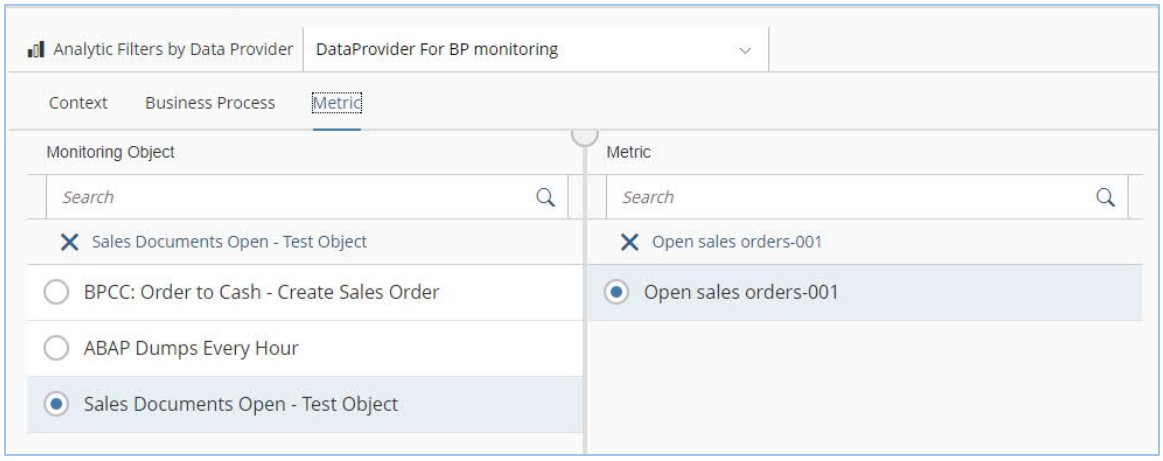



Figure 157. Configuration gadget (3)

The generated query is:

| Legend | Query |
|---|---|
| Sales_doc | /STDF/DP_BPO:legend=Sales_doc\|COLOR=#1f77b4\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Solution=2aaVgTjN7jQRk |

| | |
|---|---|
| | BzcgxZ8hG_2aaVgTjN7jQRkBzcgxZ8hG\|System_Role=2aaVgTjN7jQRkBzcgxZ8hG_2aaVgTjN7jQRkBzcgxZ8hGP\|Site=2aaVgTjN7jQRkBzcgxZ8hG_2aaVgTjN7jQRkBzcgxZ8hGPSITE\|Scenario=2aaVgTjN7jQRkBzcgxZ8hG2aaVgTjN7jQRkBzcgxZ8hGP_02CcdQFd7kMDrA1N4pIdDW2aaVgTjN7jQRkBzcgxZ8hGPSITE\|Process=2aaVgTjN7jQRkBzcgxZ8hG2aaVgTjN7jQRkBzcgxZ8hGP_2aaVgTjN7jQRklJvbEdBVW2aaVgTjN7jQRkBzcgxZ8hGPSITE\|Step=2aaVgTjN7jQRkBzcgxZ8hG2aaVgTjN7jQRkBzcgxZ8hGP_2aaVgTjN7jQRklJvbEbBVW2aaVgTjN7jQRkBzcgxZ8hGPSITE\|Context_id=1255A578FFF21EE7918D4048EDCC4DE6\|Metric=Open sales orders_001-001 |


Figure 158. Detail view

## 5.19 Data Provider /STDF/DP_SOLDOC

This Data Provider supports the Solution Documentation application.

The following screenshots show an example of configuration for the DP_SOLDOC gadget:

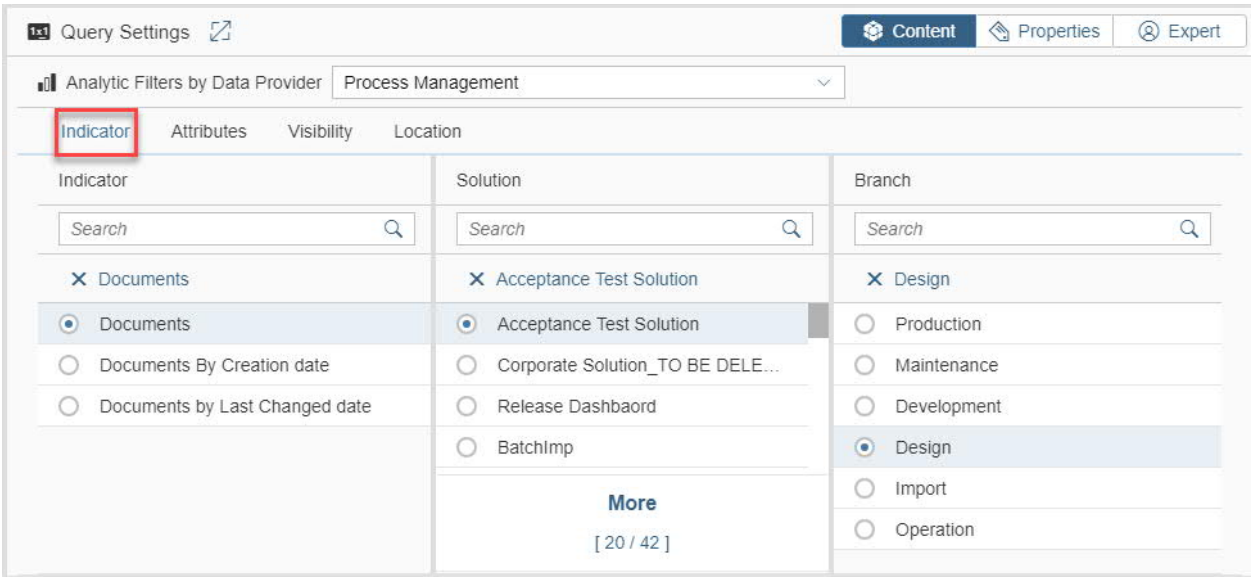


Figure 159. Gadget Configuration (1)

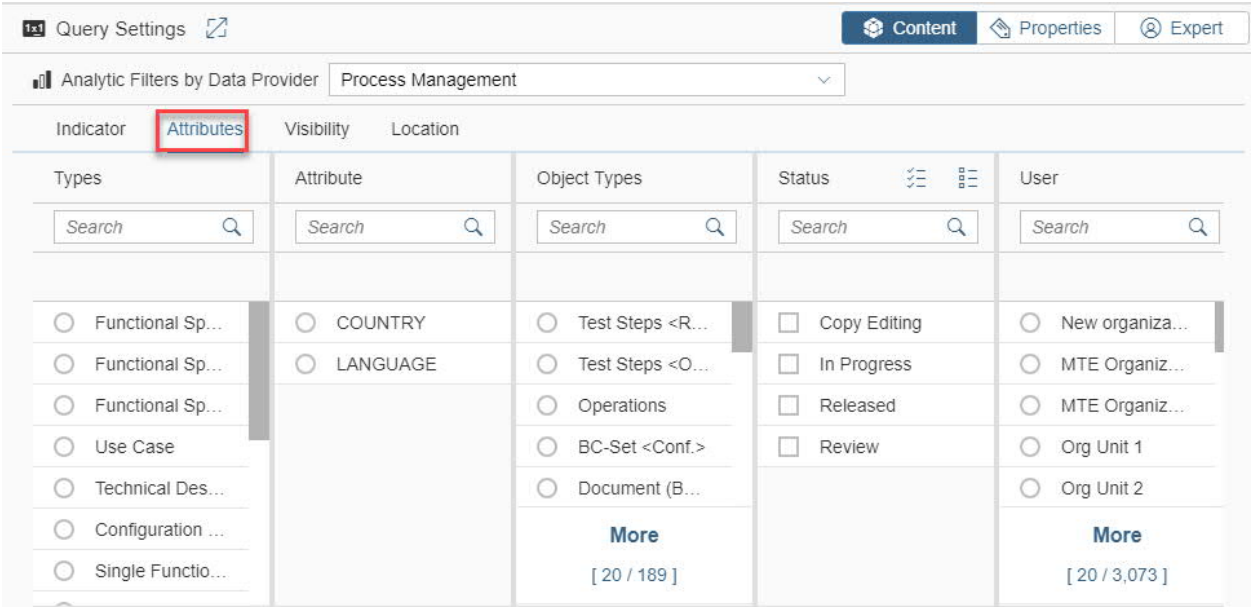



Figure 160. Gadget Configuration (2)

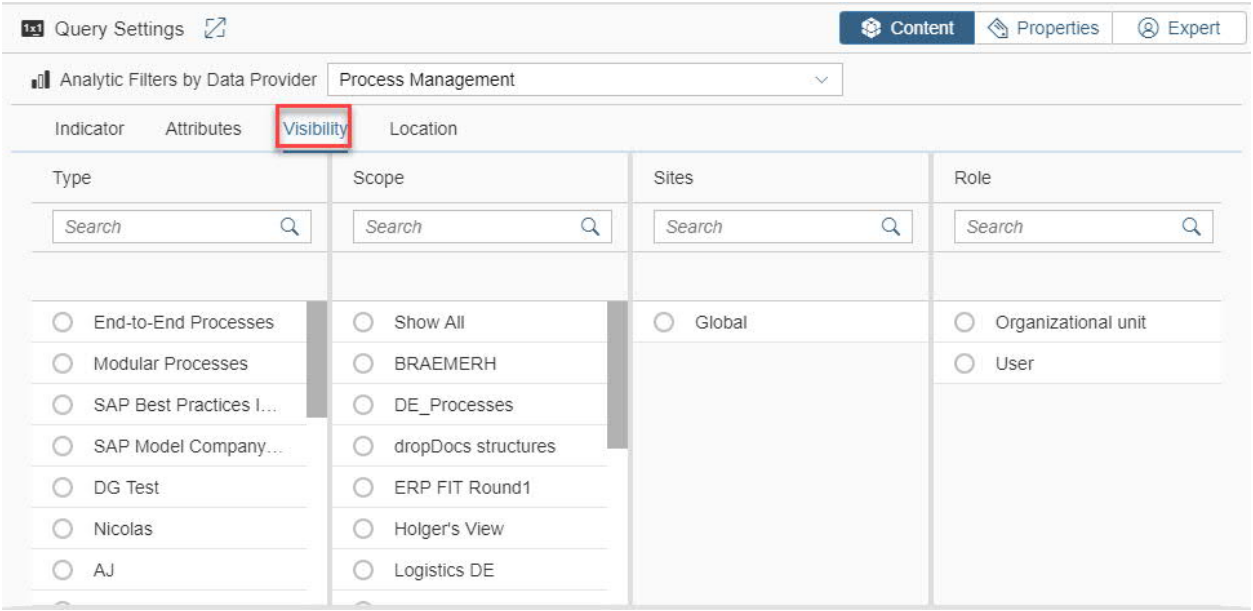



Figure 161. Gadget Configuration (3)

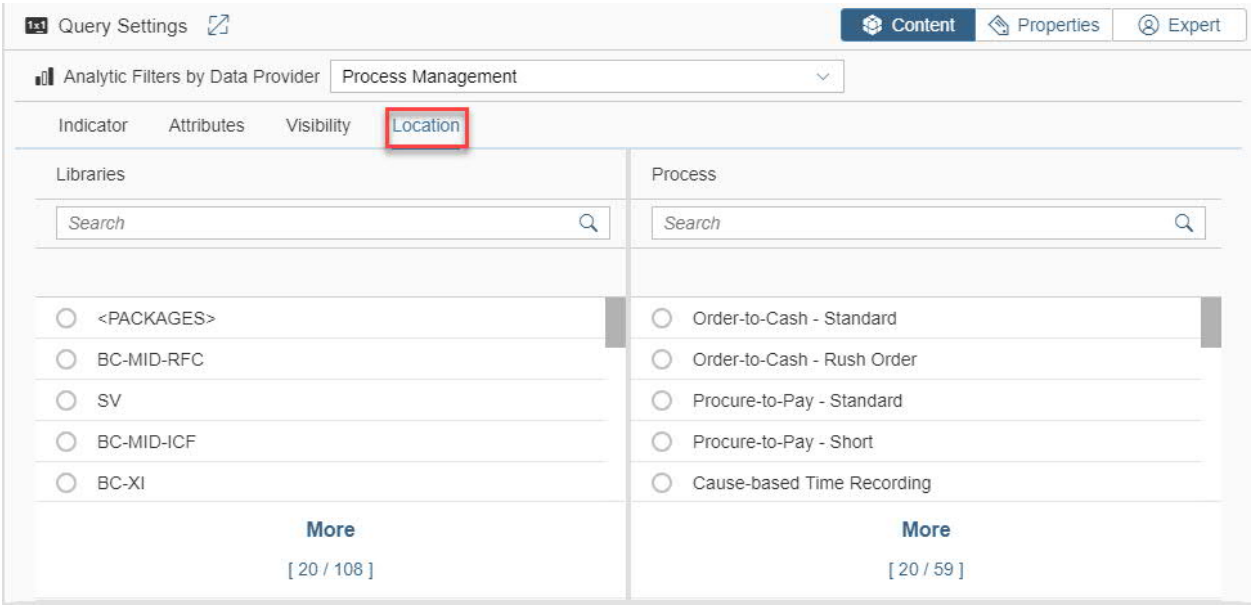



Figure 162. Gadget Configuration (4)

The generated query is:

| Legend | Query |
| --- | --- |
| nbr doc | /STDF/DP_SOLDOC:COLOR=#1f77b4\|legend=nbr doc\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|INDICATOR=2\|SOLUTION=051MZfrl7jQGr3ihYVhm0W\|BRANCH=051MZfrl7jQGr3ihYVhm0W\|OBJECT_TYPES=\|TYPES=\|STATUS=\|USER=\|ATTRIBUTE=\|ATTRIBUTE_V=\|SCOPE=\|ROLE=\|SITES=\|TYPE=\|LIBRARIES=\|PROCESS= |

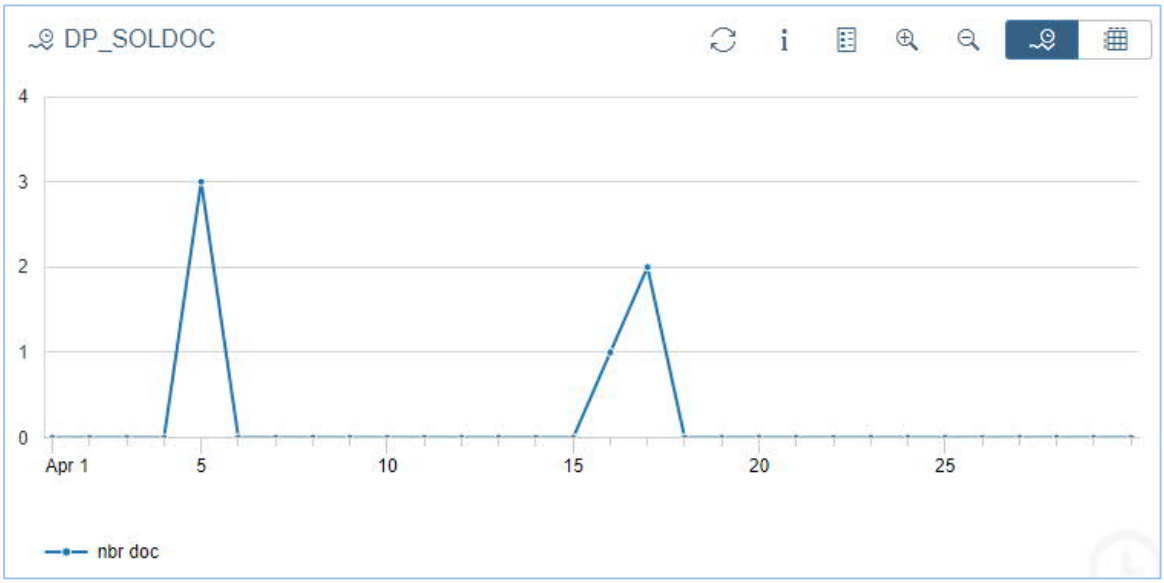



Figure 163. Detail View

## 5.20 Data Provider /STDF/DP_BUILD

This data provider is designated to users using both Focused Insights and Focused Build Applications.

It provides real-time insight on the most used documents of focused build based on a set of standard indicators for Velocity, Reliability Efficiency and Quality.

For this data provider we must select one metric in the list below:

1- Number: number of documents changing to the selected status (created, in dev, ...) for the given resolution (day, week, ...).

2- Lead time: number of days for a document to reach a target status from a source status for the given resolution.

3- Snapshot: number of documents having the selected status (created, in dev, ...) for the given resolution (day, week, ...).

4- Progress This indicator analyses the status of a document of a project for a specific wave.

It returns a set of measurements to track the progress of wave completion between the start date of the Wave and the end date of the wave or the current date if the wave is not finished.

For this metric we use a new Renderer: Waterfall Chart

These metrics are used with the following parameters:

1- Document

2- Status

3- Target status

4- Classification

5- Projects

6- Sub projects

7- Wave

8- Sprint

And you can use the category levels:

1- Level 1

2- Level 2

3- Level 3

4- Level 4

The following screenshots show an example of the gadget configuration for the Number of Work Packages:

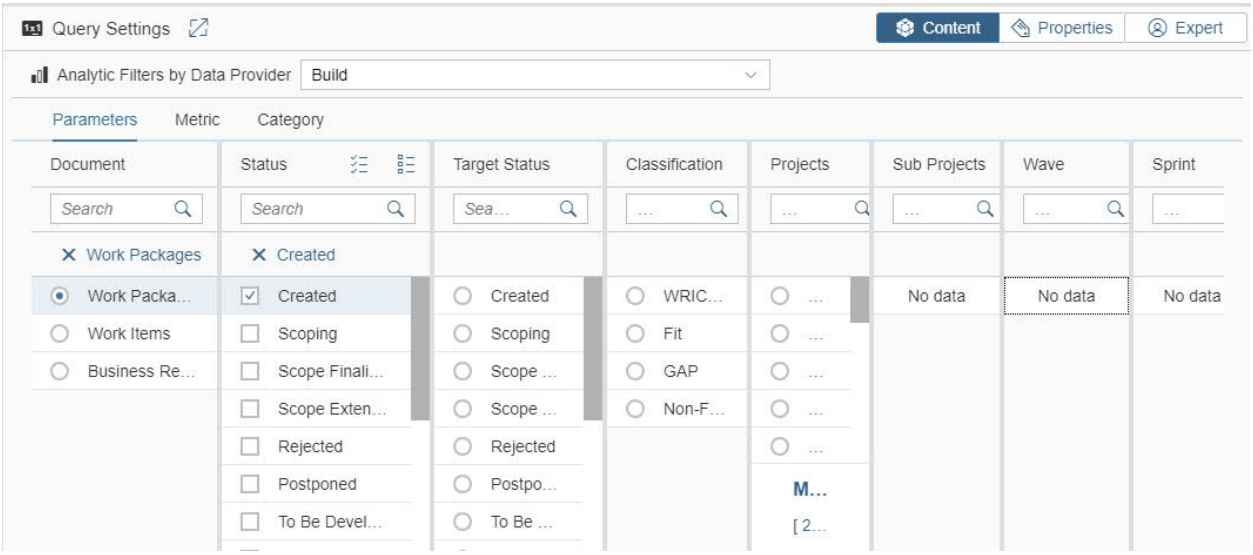



Figure 164. Gadget Configuration (1)

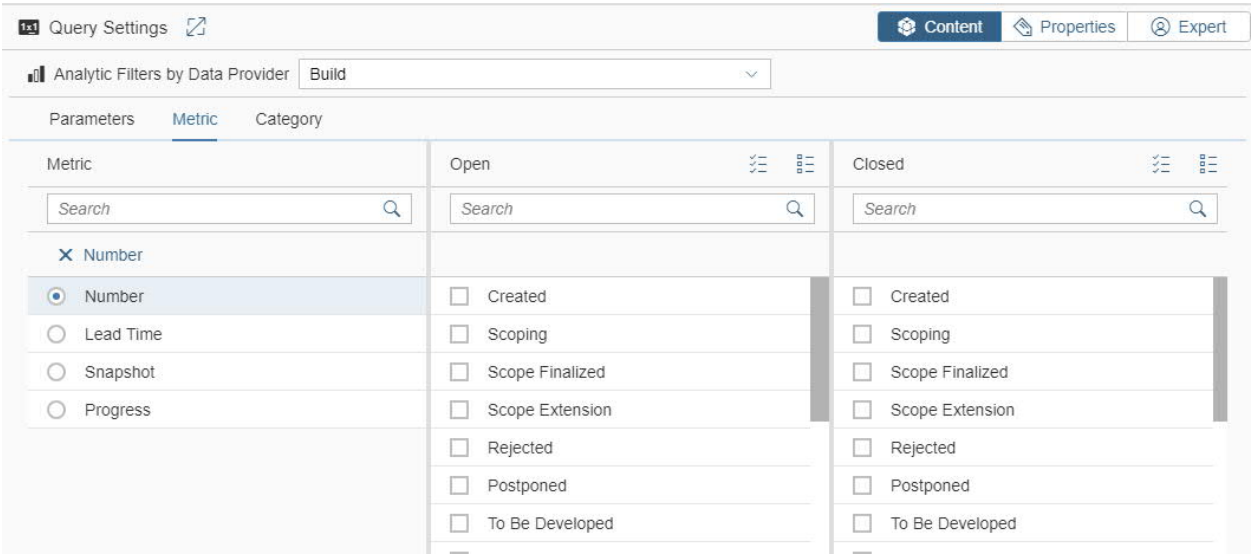



Figure 165. Gadget Configuration (2)

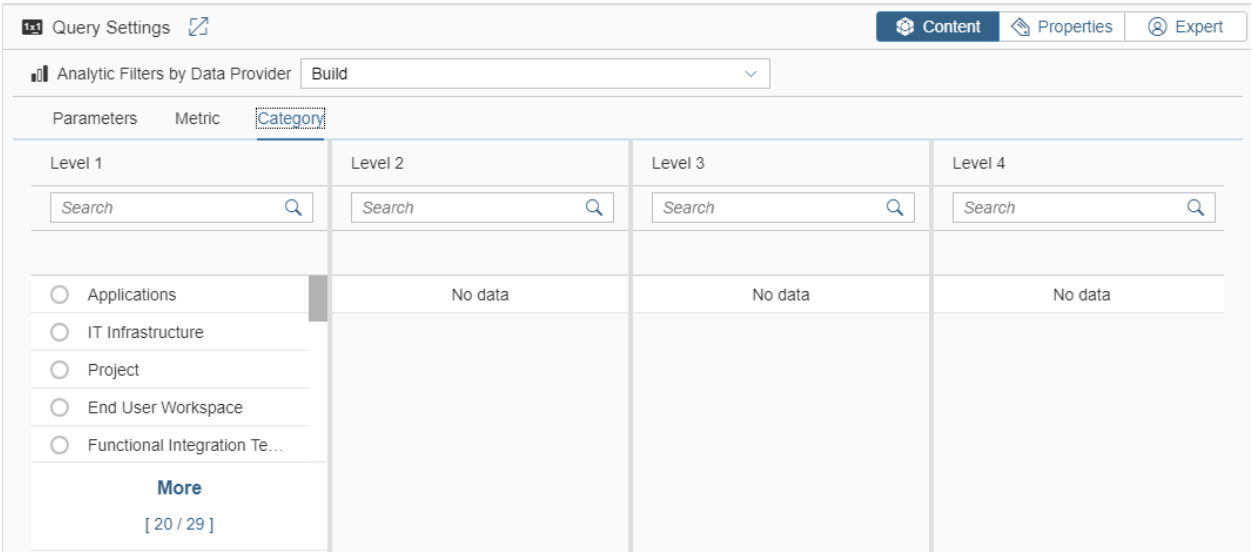



Figure 166. Gadget Configuration (3)

The generated query is:

| Legend | Query |
|---|---|
| CREATED | /STDF/DP_BUILD:OBJECT=S1IT\|STATUS=E0001\|TARGET=E0017\|CLASSIFICATION=\|PROJECTS=\|SUBPROJECTS=\|WAVE=\|METRIC=NUMBER\|legend=CREATED%20\|visible=true\|COLOR=#dd2f04\|OCC_JUMP_IN=\|display_value=false\|SPRINT=\|OPEN=\|CLOSED=\|LEVEL_1=\|LEVEL_2=\|LEVEL_3=\|LEVEL_4= |

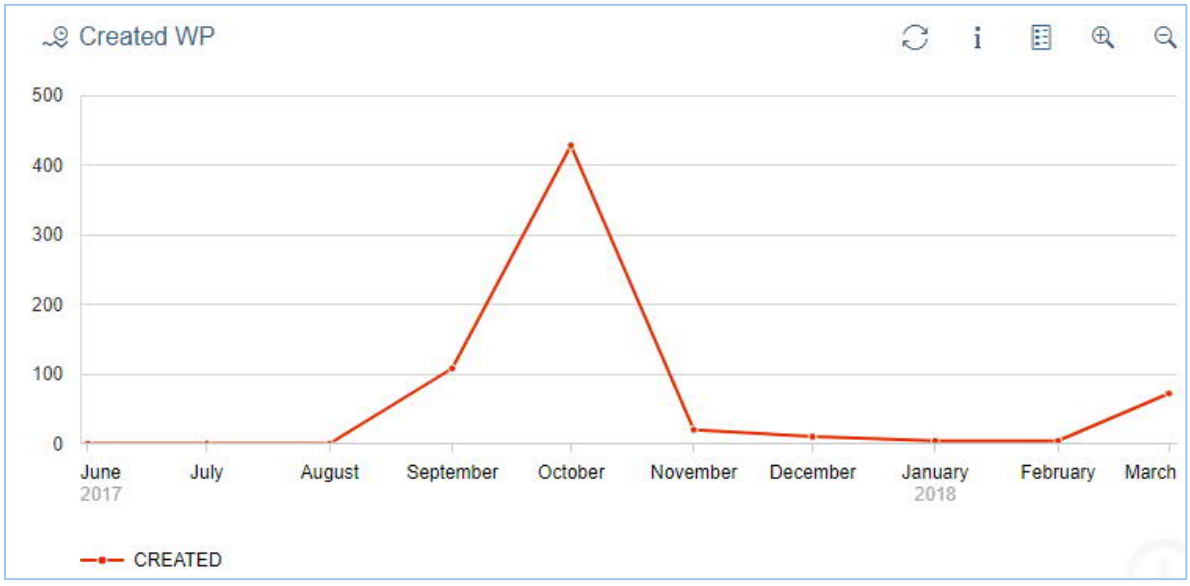



Figure 167. Detail View

## 5.21 Data Provider /STDF/DP_SECURITY

The following screenshots show an example of configuration for the DP_SECURITY gadget.

We choose as renderer the SLR_TABLE_RENDERER:

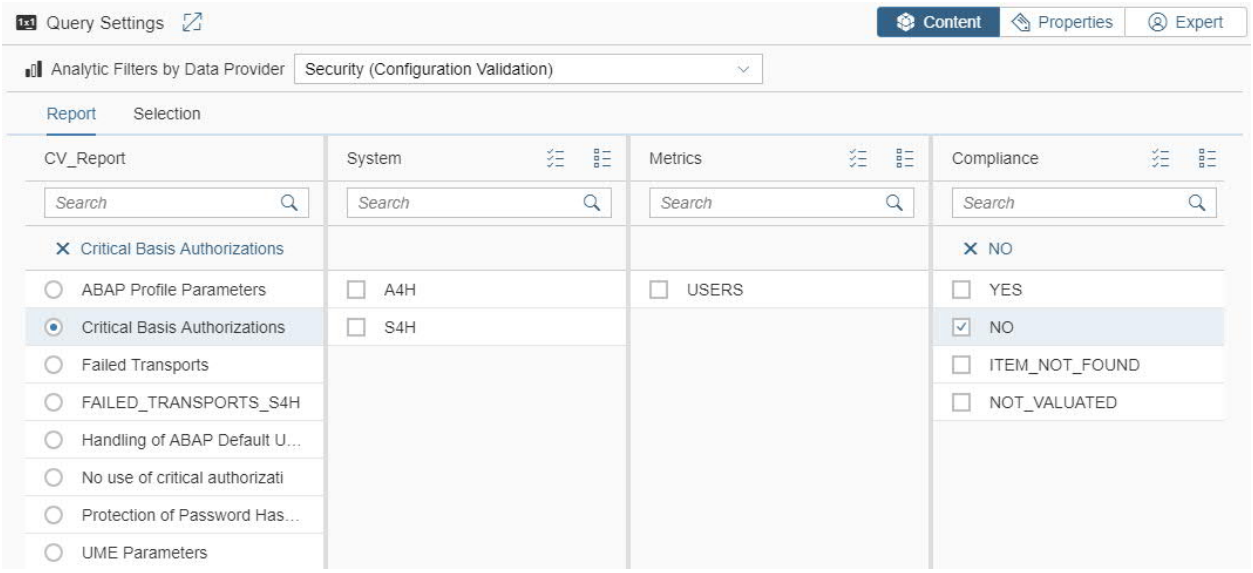



Figure 168. Gadget Configuration (1)

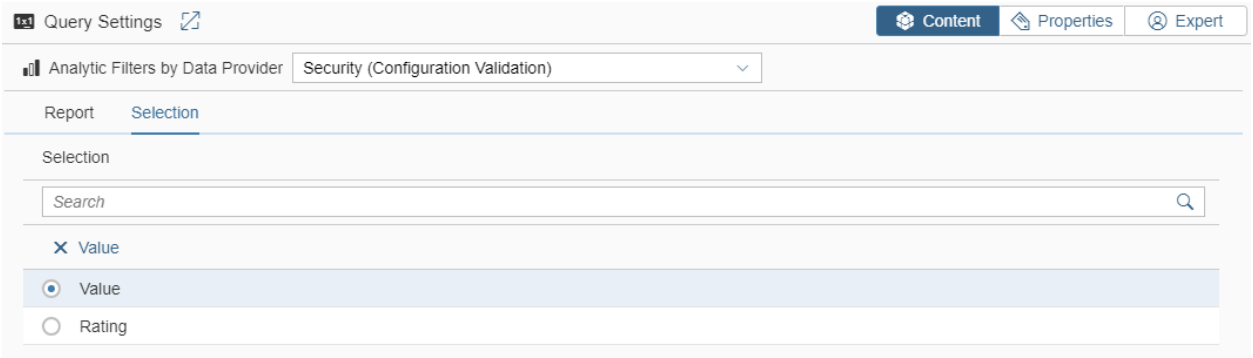



Figure 169. Gadget Configuration (2)

The generated query is:

| Legend | Query |
|---|---|
| O-4 / PC4 | /STDF/DP_SECURITY:legend=O-4 / PC4\|COLOR=#aec7e8\|OCC_JUMP_IN=DYNAMIC_TABLE\|SLA=\|TREND=\|g2y=100\|y2r=200\|color_rating=ONLY\|DISPLAY_ATTRIBUTES=\|CV_Report=Critical Basis Authorizations\|Metrics=USERS\|Selection=VALUE\|Target_Value=\|Compliance=NO\|visible=true\|display_value=false |
| O-4 / PQ6 | /STDF/DP_SECURITY:legend=O-4 / PQ6\|COLOR=#2ca02c\|OCC_JUMP_IN=DYNAMIC_TABLE\|SLA=\|TREND=\|g2y=3\|y2r=4\|color_rating=ONLY\|DISPLAY_ATTRIBUTES=\|CV_Report=ABAP Profile |

| | |
|---|---|
| | Parameters\|Metrics=PAHI\|Selection=\|Target_Value=\|Compliance=YES\|visible=true\|display_value=false |


Figure 170. Detail View

## 5.22 Data Provider /STDF/DP_FRUN

When using this data provider, you can consume FRUN services. You need first to configure system alias to consume Odata services.

The following screenshots show an example of configuration for the DP_FRUN gadget.

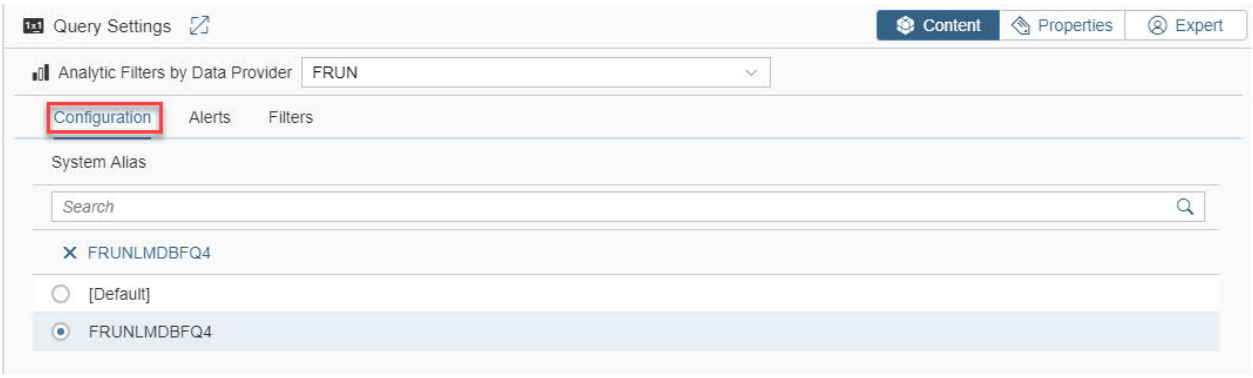



Figure 171. Gadget Configuration (1)

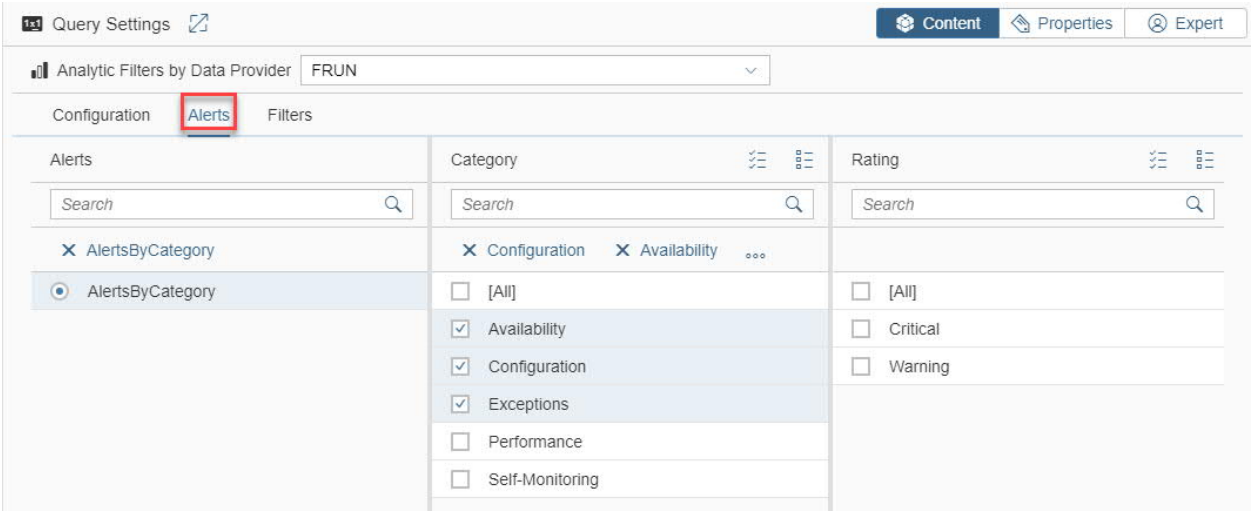



Figure 172. Gadget Configuration (2)

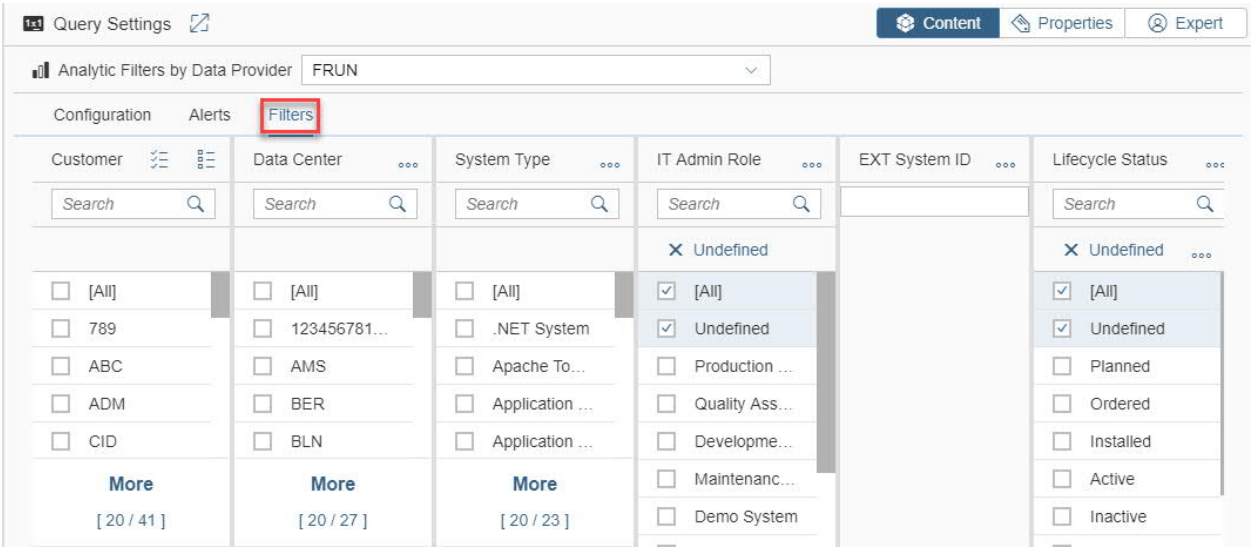



Figure 173. Gadget Configuration (3)

The generated query is:

| Legend | Query |
|---|---|
| Alerts by category | /STDF/DP_FRUN:COLOR=#1f77b4\|legend=Alerts by category\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|SYSTEM_ALIAS=FRUNLMDBFQ4-FRUNACCFQ4\|ALERTS=AlertsByCategory\|Category=Configuration,Availability,Exceptions\|Rating=\|CUSTOMER=\|DATACENTER=\|STYPE=\|ITADROLE=,\|EXTSID=\|LCStatus=,0\|display_value=false |


Figure 174. Detailed View

## 5.23 Data Provider /STDF/DP_BPA

With this data provider, you can display any metric available from Business Process Operation Dashboards.

BPO Dashboards provide a graphical display for application specific and technical key figures in order to give the end user an overview of the most important information for a certain business topic, area or process. This information can be retrieved from various SAP and non-SAP data sources and is displayed in panels. All information needed by the end user is provided at a glance on a single screen: a Dashboard.

The BPO Dashboards must be setup properly in order to use data provider /STDF/DP_BPA. For more information, check related documentation.

In order to reuse BPO dashboards AKFIs (analytical key figure instances), you need to create a panel which includes the AKFIs. It is not necessary to setup a BPO Dashboard.

The following screenshots show an example of configuration for the DP_BPA gadget.

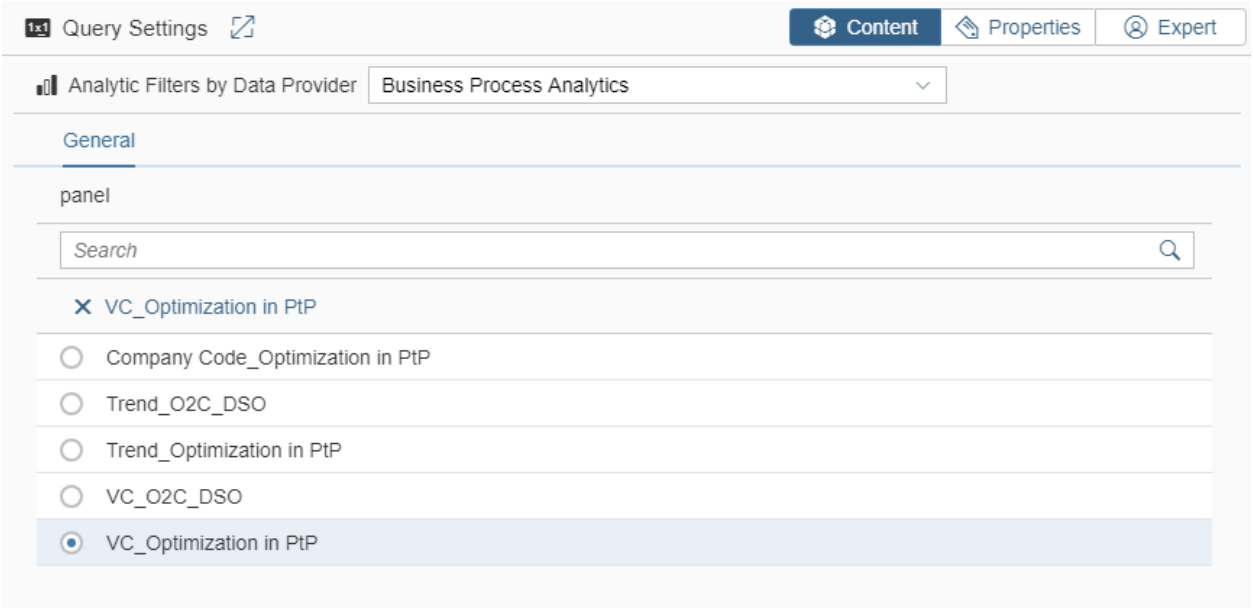
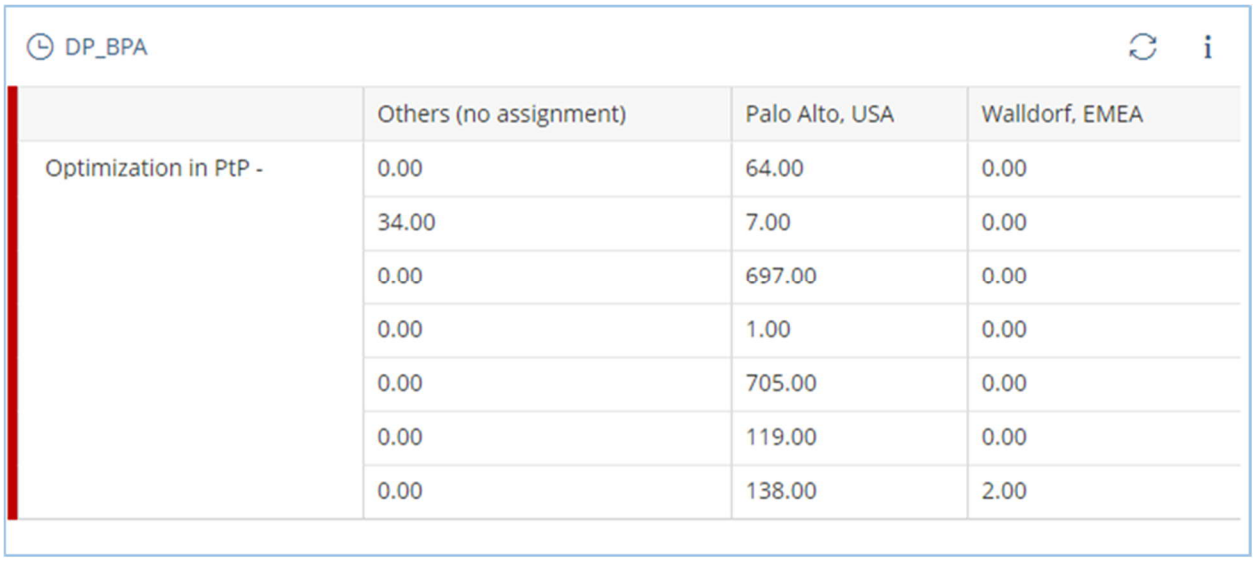



Figure 175. Gadget Configuration (1)

The generated query is:

| Legend | Query |
|---|---|
| Optimization in PtP | /STDF/DP_BPA:COLOR=#1f77b4\|legend=Optimization in PtP\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|panel=VC_Optimization in PtP\|display_value=false |




| | Others (no assignment) | Palo Alto, USA | Walldorf, EMEA |
|---|---|---|---|
| Optimization in PtP - | 0.00 | 64.00 | 0.00 |
| | 34.00 | 7.00 | 0.00 |
| | 0.00 | 697.00 | 0.00 |
| | 0.00 | 1.00 | 0.00 |
| | 0.00 | 705.00 | 0.00 |
| | 0.00 | 119.00 | 0.00 |
| | 0.00 | 138.00 | 2.00 |

Figure 176. Detailed View

## 5.24 Data Provider /STDF/DP_TEST

With DP_TEST we are able to answer the following questions

- How many test are executed?
- How many tests are executed automatically?
- What is the test coverage of the test execution?

For a selected project and wave we get the related test plans.

For those Test plans we calculated the following metrics:

Automation Rate : Number of automatic tests/ total number of tests.
Test Coverage : Number of tests with status “tested ok” / total number of testes.
Test Execution : Number of test executions
Automatic Test Execution : Number of automatic test executions
Number of test cases : Number of test cases

The following screenshots show an example of configuration for the DP_TEST gadget.

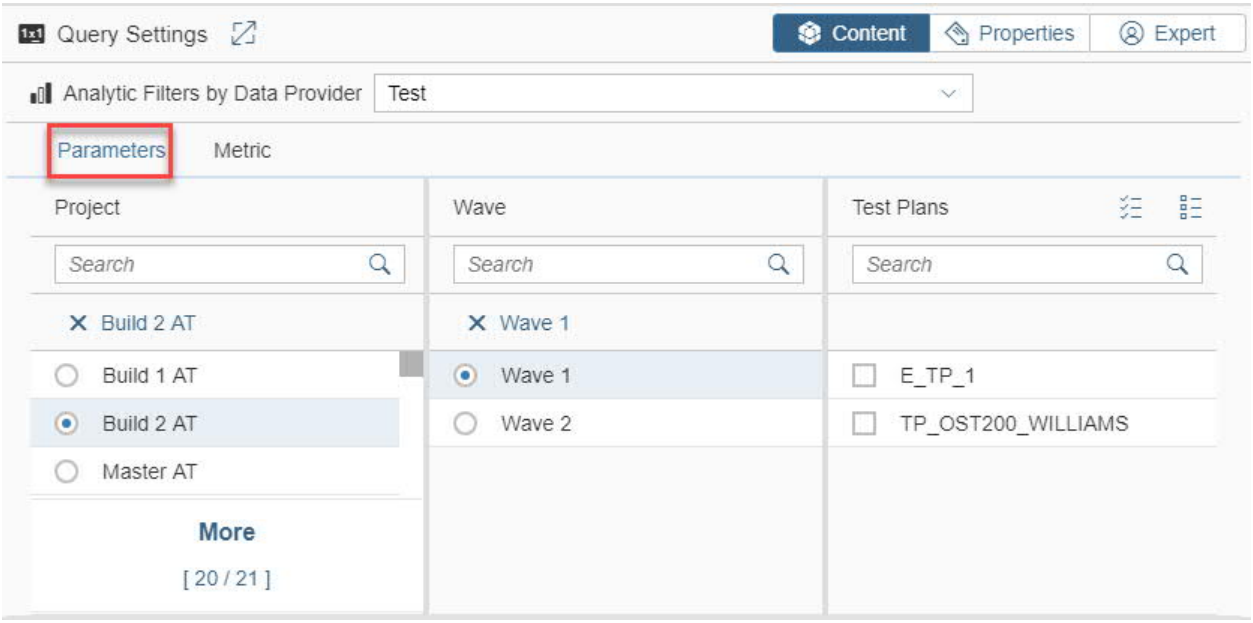



Figure 177. Configuration Gadget (1)

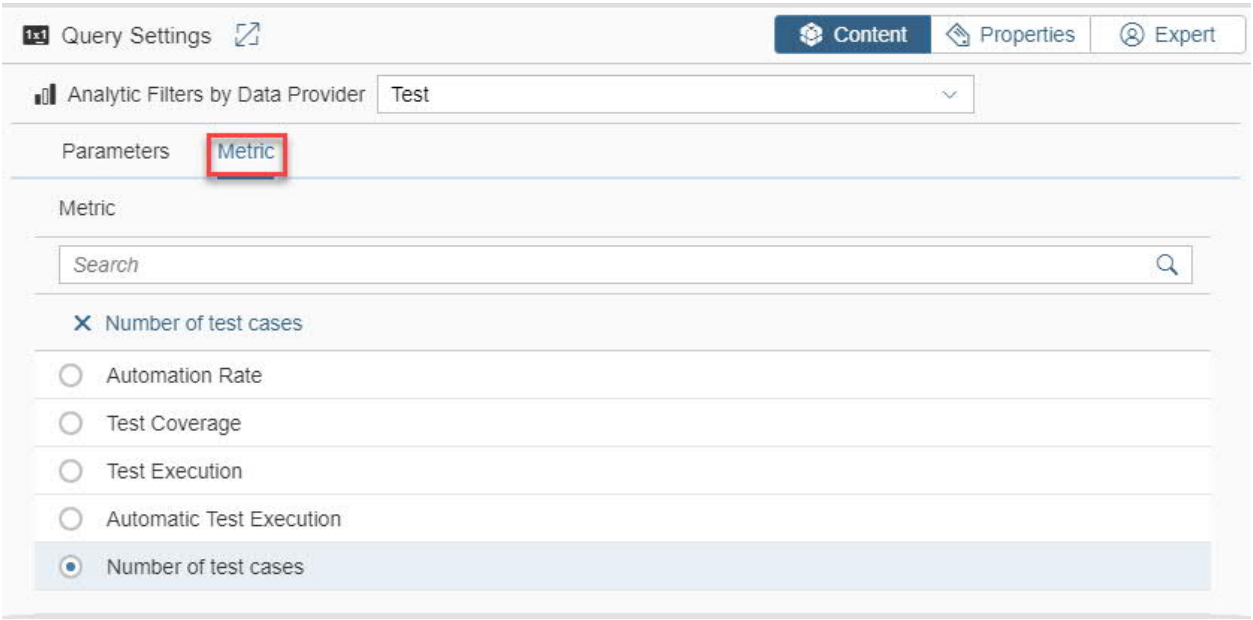



Figure 178. Configuration Gadget (2)

The generated query is:

| Legend | Query |
|---|---|
| Test Cases | /STDF/DP_TEST:COLOR=#1f77b4\|legend=Test Cases\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Project=0050568E9D6F1ED69185FADEC4D26479\|Wave=0050568E9D6F1ED69185FADEC4D7E479\|TEST_PLAN=TP_OST200_WILLIAMS\|Metric=TEST_CASE\|visible=true\|legend=\|COLOR=#1f77b4\|OCC_JUMP_IN=\|display_value=false |

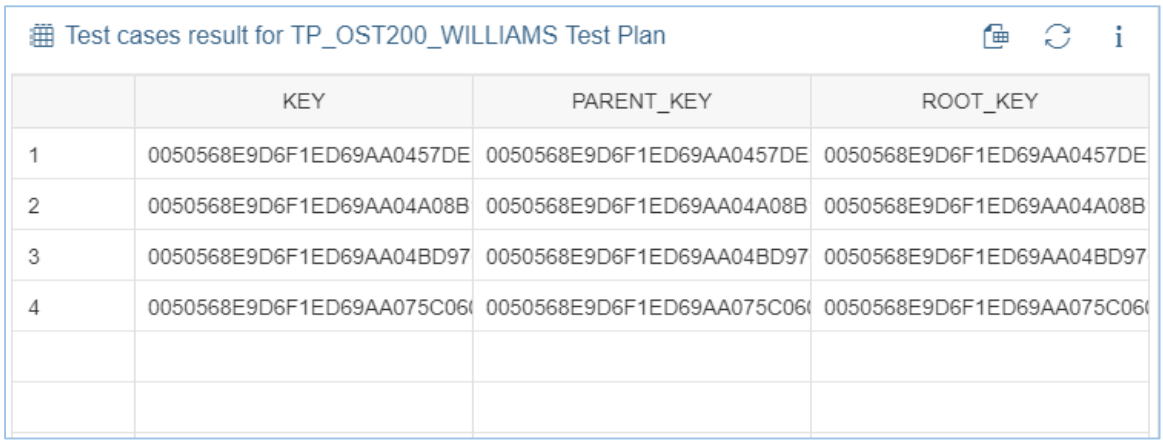



Figure 179. Detailed View

## 5.25 Data Provider /STDF/DP_SQLSCRIPTS

This data provider gives the user the possibility to execute SQL queries.

In the following example we will use the DYNAMIC_TABLE_RENDERER as a renderer for a better display.

The user of this data provider need an SQL query and DBCON

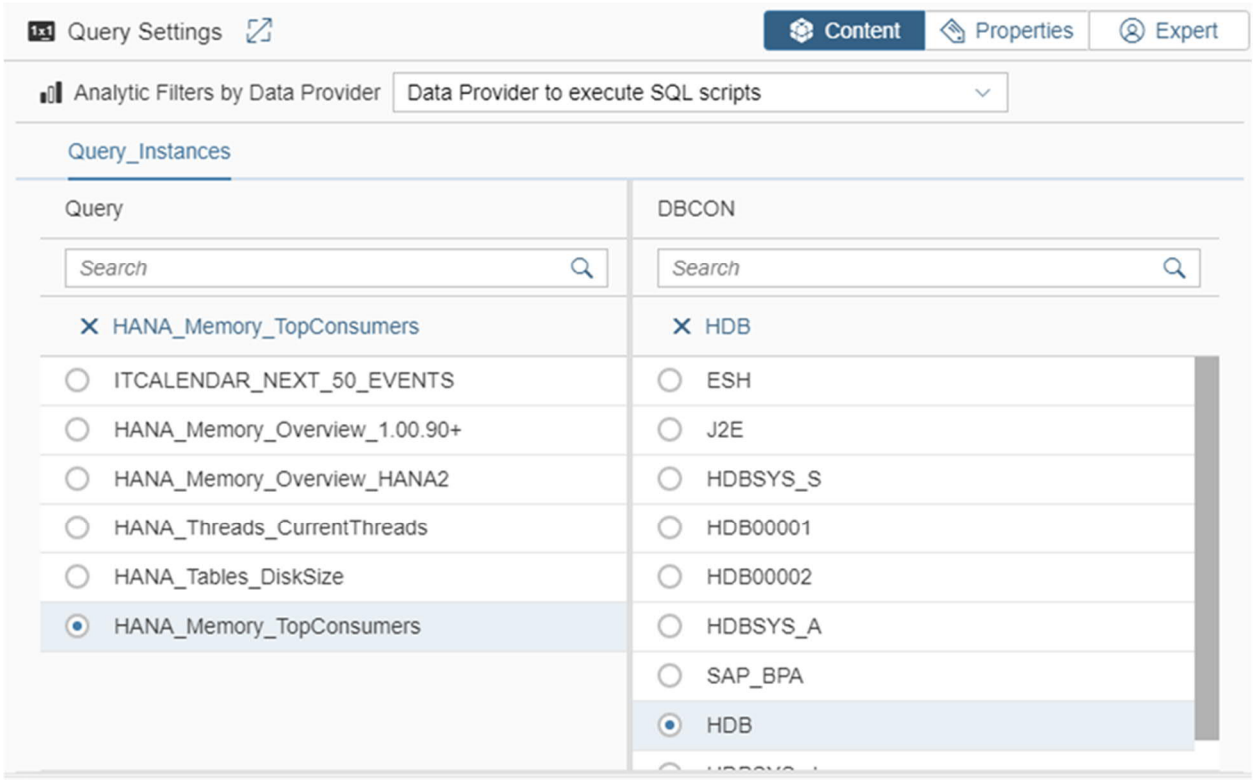
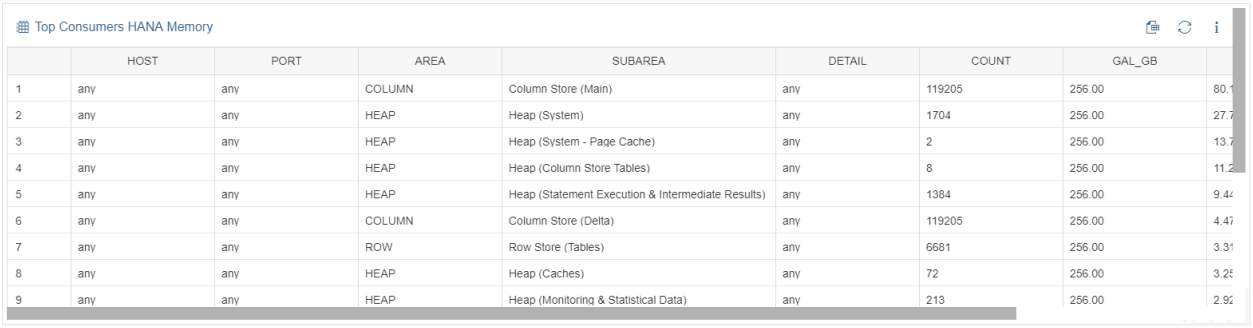



Figure 180. Configuration Gadget

| Legend | Query |
| --- | --- |
| Top Consumers HANA Memory | /STDF/DP_SQLSCRIPTS:COLOR=#1f77b4\|legend= Top Consumers HANA Memory\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Query=HANA_Memory_TopConsumers\|DBCON=HDB |


Top Consumers HANA Memory

| | HOST | PORT | AREA | SUBAREA | DETAIL | COUNT | GAL_GB | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | any | any | COLUMN | Column Store (Main) | any | 119205 | 256.00 | 80.1 |
| 2 | any | any | HEAP | Heap (System) | any | 1704 | 256.00 | 27.7 |
| 3 | any | any | HEAP | Heap (System - Page Cache) | any | 2 | 256.00 | 13.7 |
| 4 | any | any | HEAP | Heap (Column Store Tables) | any | 8 | 256.00 | 11.2 |
| 5 | any | any | HEAP | Heap (Statement Execution & Intermediate Results) | any | 1384 | 256.00 | 9.44 |
| 6 | any | any | COLUMN | Column Store (Delta) | any | 119205 | 256.00 | 4.47 |
| 7 | any | any | ROW | Row Store (Tables) | any | 6681 | 256.00 | 3.31 |
| 8 | any | any | HEAP | Heap (Caches) | any | 72 | 256.00 | 3.25 |
| 9 | any | any | HEAP | Heap (Monitoring & Statistical Data) | any | 213 | 256.00 | 2.92 |

Figure 181. Detailed View

## 5.26 Data Provider /STDF/DP_TRANSACTION

This data provider gives the user the possibility to monitor different metrics for different SAP transactions.

1- Total Response Time
2- Average Response Time
3- Average CPU Time
4- Average DB Time
5- Average Wait Time
6- Average roll Wait Time
7- Number of Dialogue Steps

For all the metrics we can do a drilldown on:

Transaction

Task

Report

In the following example we will use the BAR_CHART_RENDERER as a renderer Type

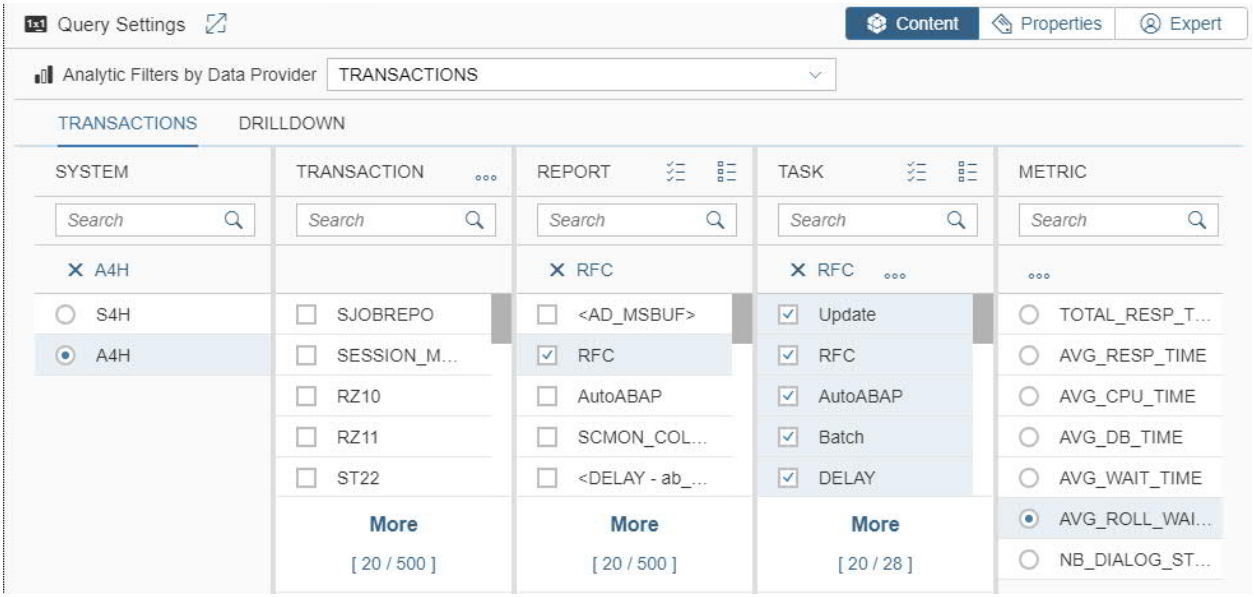



Figure 182. Configuration Gadget

| Legend | Query |
|---|---|
| Transaction Performance | /STDF/DP_TRANSACTION:COLOR=#1f77b4\|legend=Transaction Performance\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|SYSTEM=A4H\|TRANSACTION=\|REPORT=RFC\|TASK=RFC,Update,Batch,DELAY,HTTP,AutoABAP,HTTPS,Dialog\|METRIC=AVG_ROLL_WAIT_TIME\|DRILLDOWN=TRANSACTION\|display_value=false |

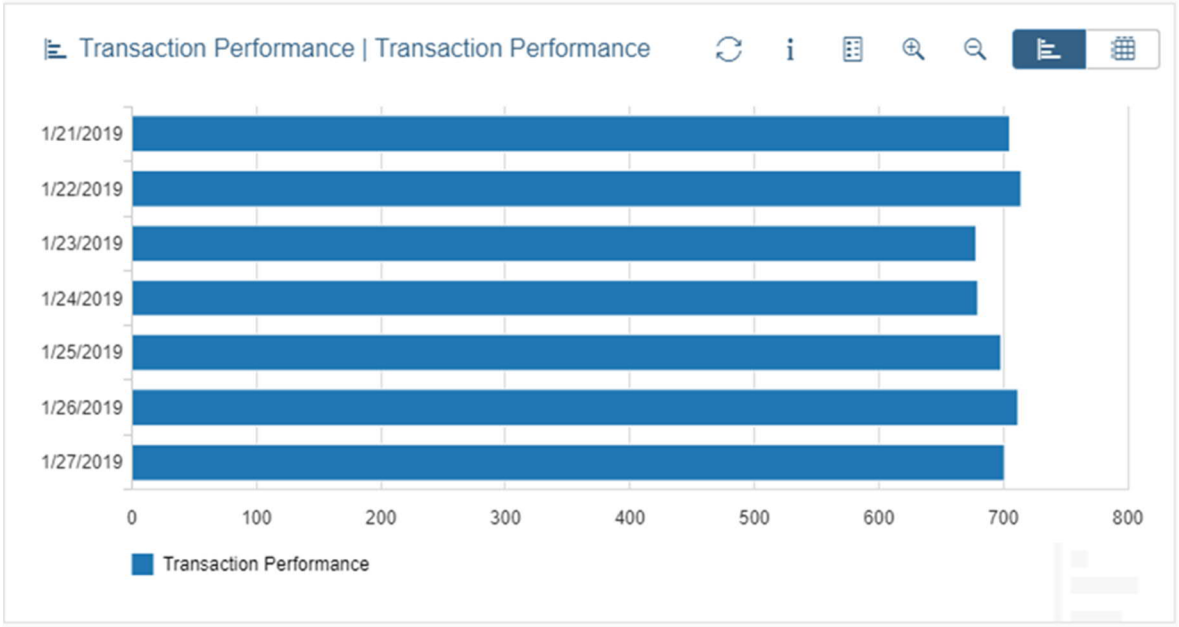



Figure 183. Detailed View

# 5.27 Data Provider /STDF/BEX_VIEW

The Bex_View data provider give the user the possibility to display the saved BEX views he has created.

The displayed views can be configured as follow:

1. Execute **RSRT1** Transaction code in the SAP Logon.
2. Enter the Bex query name that the view will be created for. (For example, **0CCMPDATA//STDF/QD_AVAILABILITY_D**)
3. Execute the query

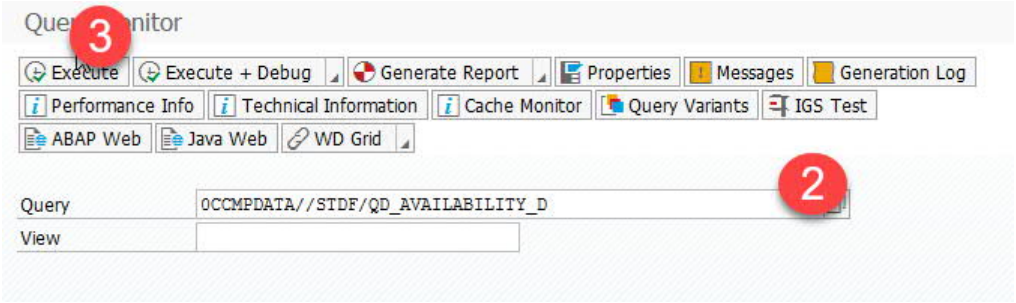



Figure 184. Configuration Steps 1 and 2

4. Enter the appropriate filters.
5. Save the view

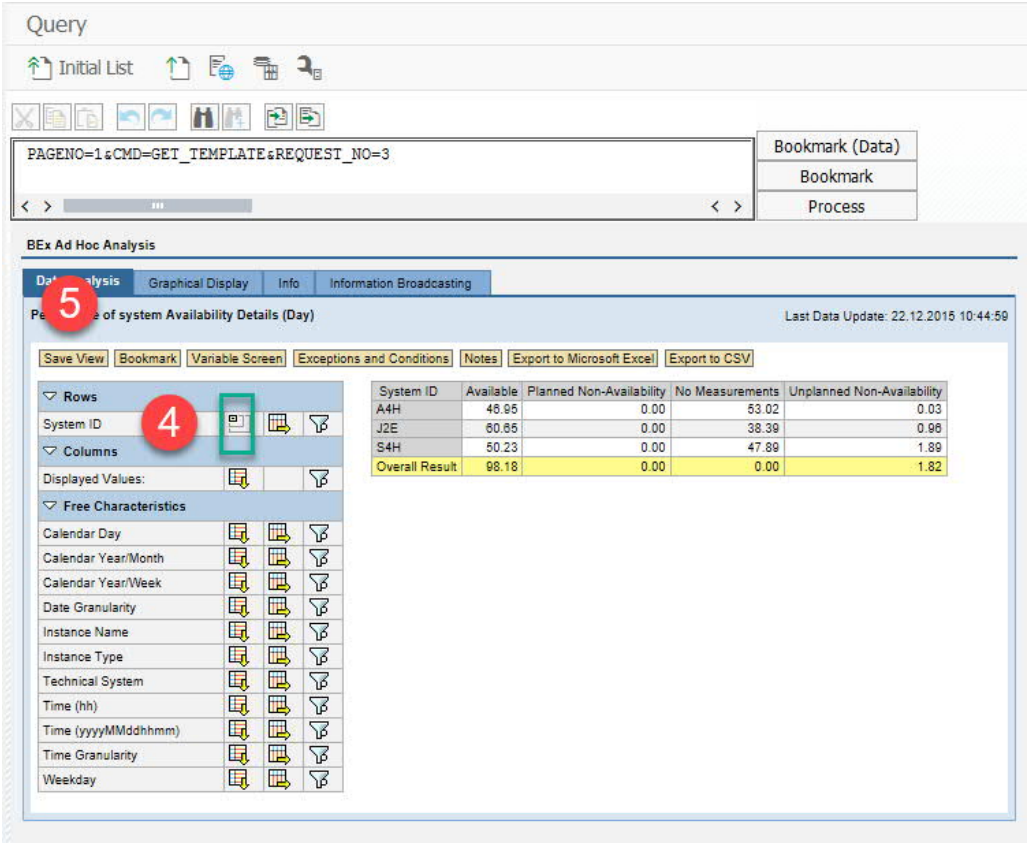



Figure 185. Configuration Steps 3 and 4

6. Enter the view description
7. Enter the view technical name
8. Click on save button

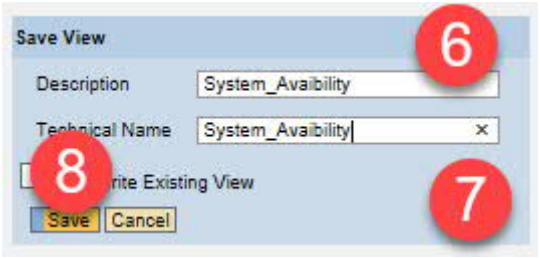



Figure 186. Configuration Step 6,7 and 8

In this example we will use the DYNAMIC_TABLE_RENDERER as a renderer type and as we can see the views created are displayed within the DP Bex_View in the OCC Dashboard

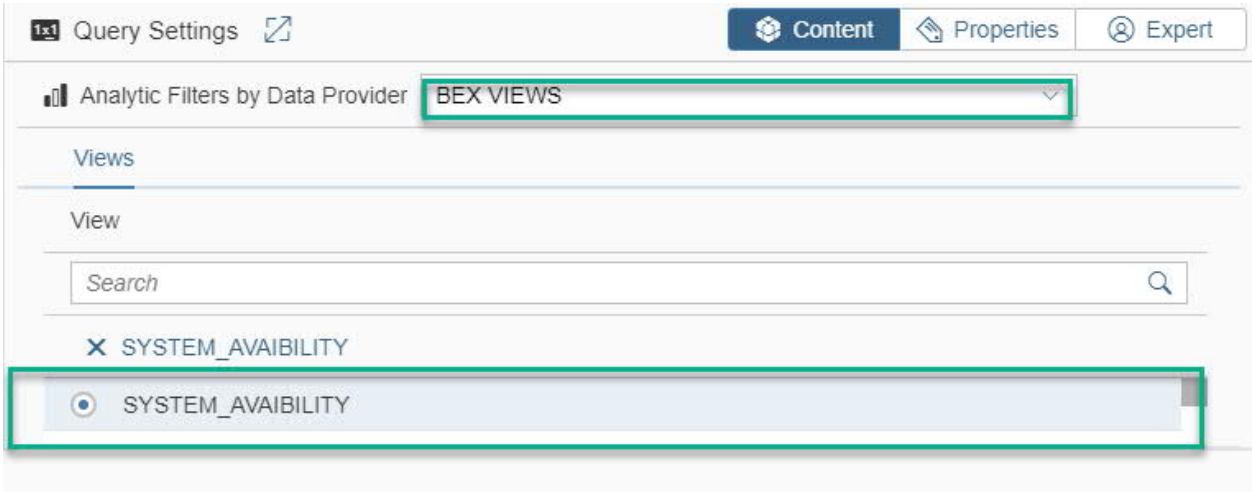



Figure 187. Configuration Gadget

Availability

| | System ID | Available | Planned Non-Availability | No Measurements | Unplanned Non-Availability |
|---|---|---|---|---|---|
| 1 | A4H | 46.95 | 0.00 | 53.02 | 0.03 |
| 2 | J2E | 60.65 | 0.00 | 38.39 | 0.96 |
| 3 | S4H | 50.23 | 0.00 | 47.89 | 1.89 |
| 4 | SUMME | 51.08 | 0.00 | 47.97 | 0.95 |

Figure 188. Detail View

## 5.28 Data Provider /STDF/DP_TABLE

The Table data provider give the user the possibility to display the content of multiple systems table.

This DP is used with the following parameters (select options) and they are built according to the customer's entries in the Database table /STDF/DP_TAB_SRC.

Alias

Dimensions

Key Figure

Options (Aggregation, Drilldown)

The user should create a table entry in the Database table /STDF/DP_TAB_SRC as follow

1. Execute **SE11** Transaction code in the SAP Logon and tape /STDF/DP_TAB_SRC in the database table.
2. Click on the button change

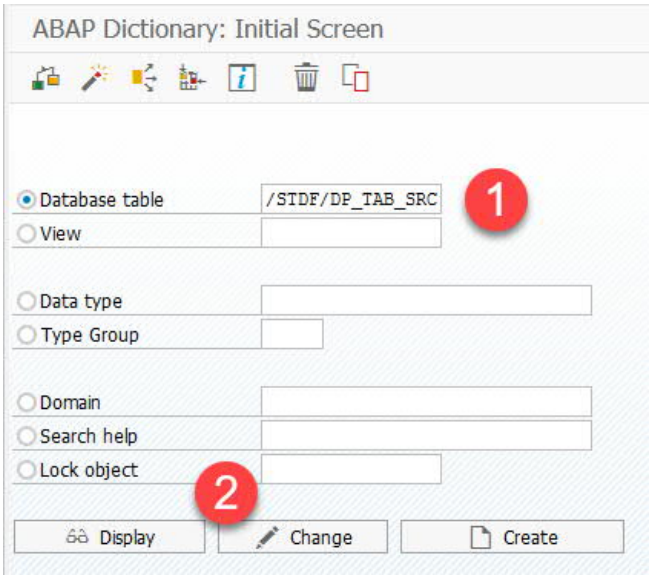



Figure 189. Configuration Step 1 and 2

3. Click on the buttons contents.

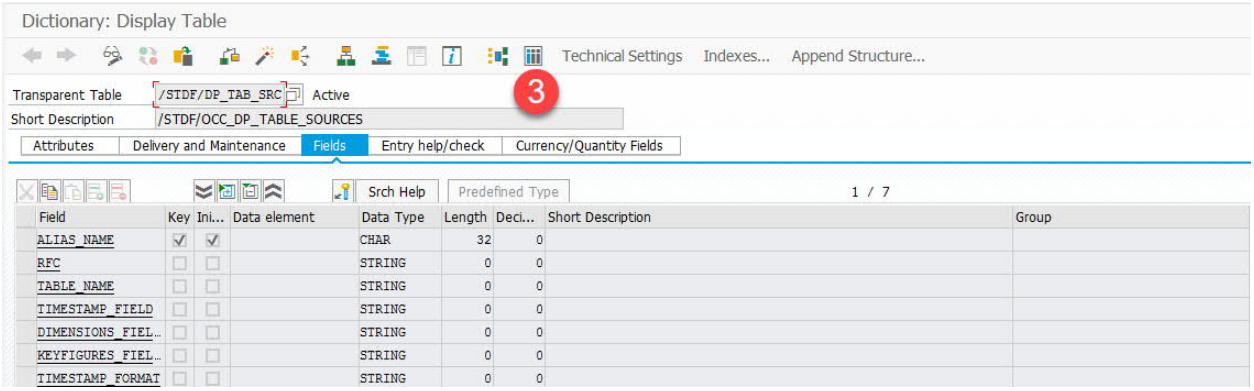



Figure 190. Configuration Step 3

4. Click on the button Execute.

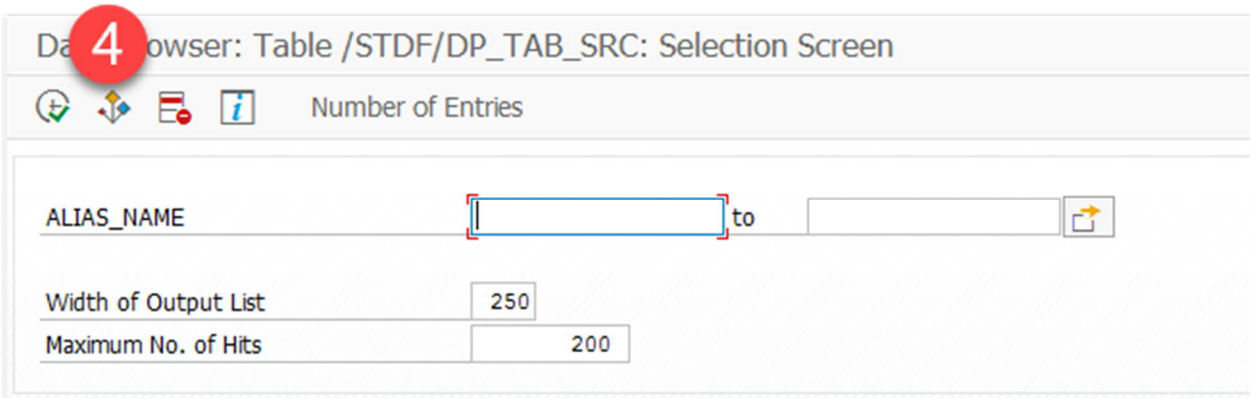



Figure 191. Configuration Step 4

5. Click on the button create.

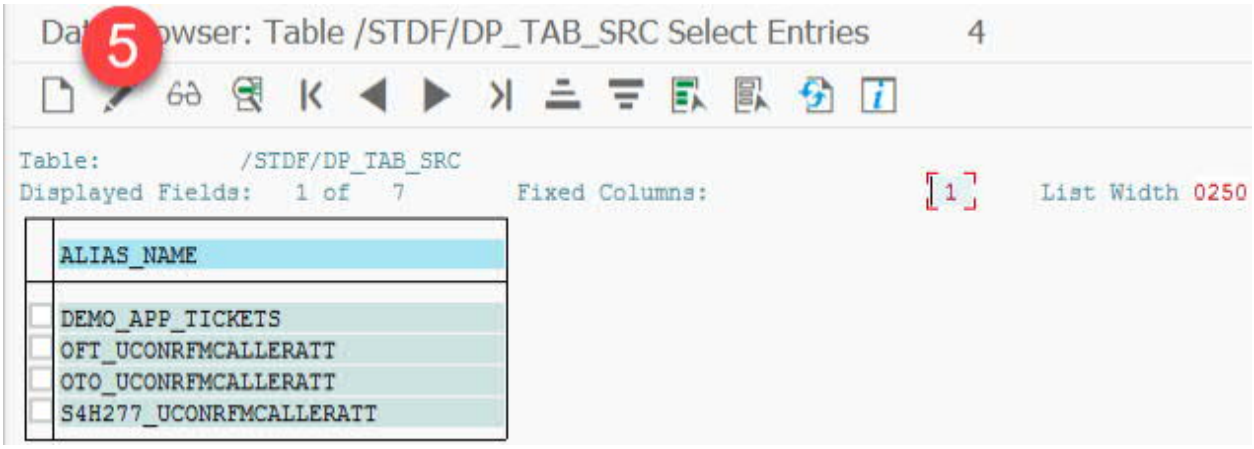



Figure 192. Configuration Step 5

6. The user should specify an ALIAS NAME, a RFC if the table is located in a distant system, TIMESTAMP FIELD, DIMENSIONS FIELDS, KEYFIGURES FIELDS, TIMES STAMP FORMAT

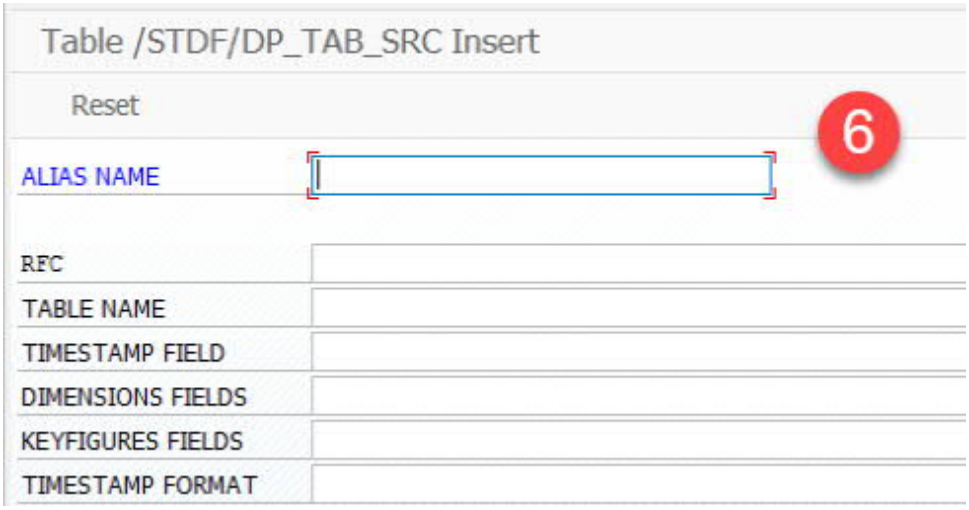



Figure 193. Configuration Step 6

The user at end should click on the button save.

In the following, an example of an entry in the table

Table /STDF/DP_TAB_SRC Display

| | |
|---|---|
| ALIAS NAME | DEMO_APP_TICKETS |
| RFC | |
| TABLE NAME | ZOCC_APP_TCKTS |
| TIMESTAMP FIELD | CALDAY |
| DIMENSIONS FIELDS | APPLICATION,SEVERITY |
| KEYFIGURES FIELDS | COUNTER |
| TIMESTAMP FORMAT | YYYYMMDDHHMMSS |

Figure 194. Entry table example

Now, we will use the COLUMN_CHART_RENDERER as a renderer Type to display of the already created table DEMO_APP_TICKETS.

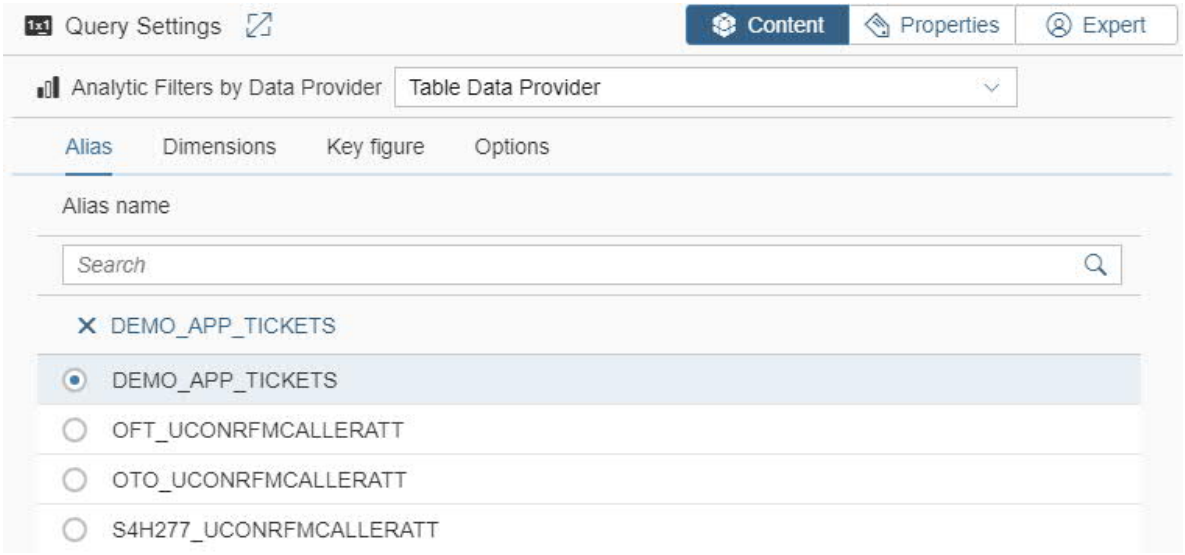



Figure 195. Configuration Gadget (1)

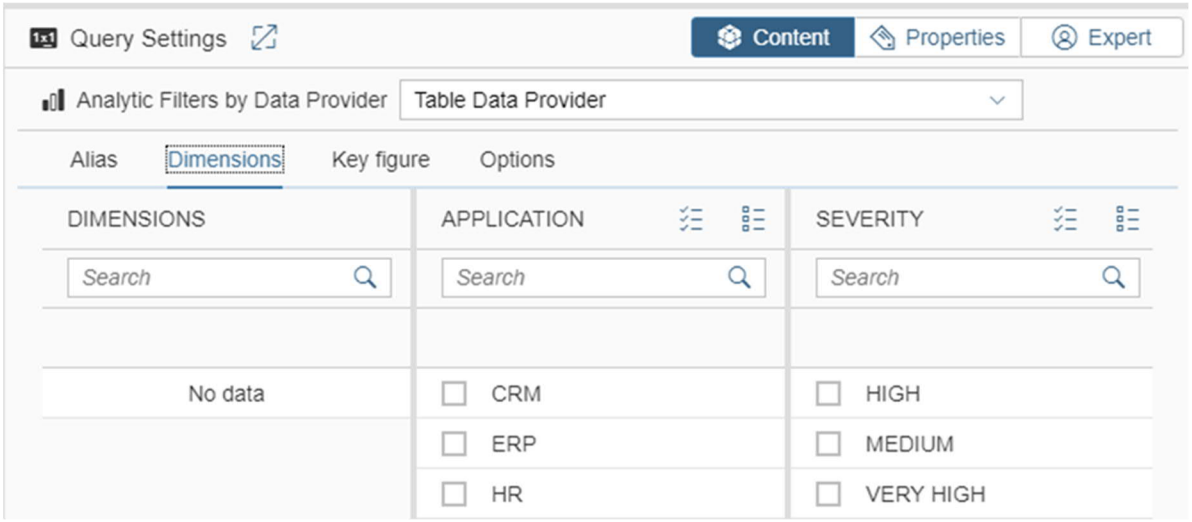



Figure 196. Configuration Gadget (2)

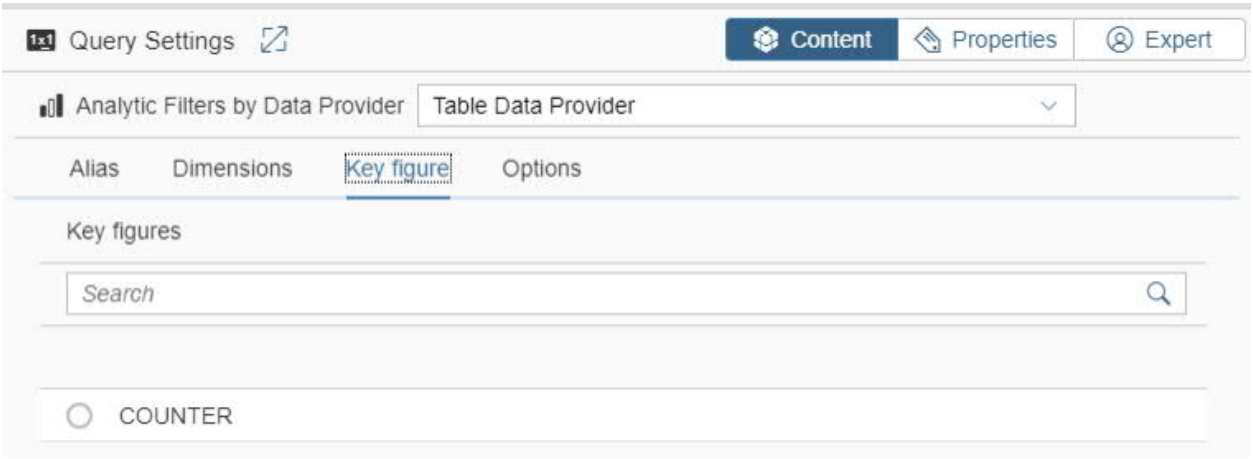



Figure 197. Configuration Gadget (3)

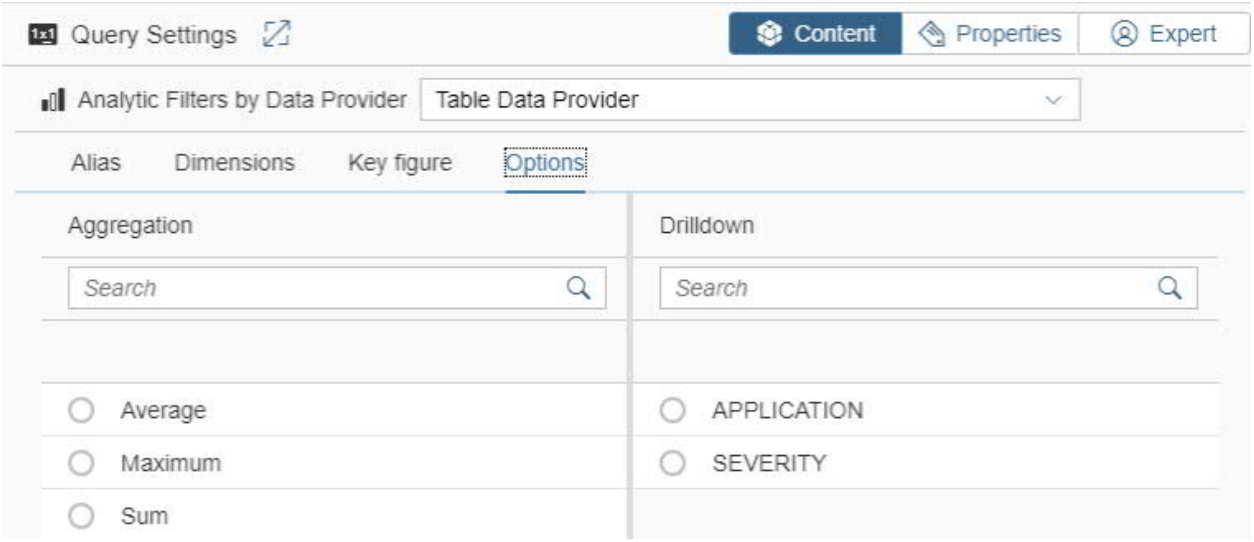



Figure 198. Configuration Gadget (4)

| Legend | Query |
| --- | --- |
| ERP / Very High) | /STDF/DP_TABLE:COLOR=#161af9\|legend=ERP / Very High)\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=3\|Y2R=10\|COLOR_RATING=YES\|DISPLAY_ATTRIBUTES=\|FILTER_VALUE=\|visible=true\|ALIAS_NAME=DEMO_APP_TICKETS\|DIMENSIONS=\|KEY_FIGURE=COUNTER\|AGGREGATION=SUM\|DRILLDOWN=\|APPLICATION=ERP\|SEVERITY=VERY HIGH\|Project=\|Wave=\|TEST_PLAN=\|Metric=\|display_value=false |

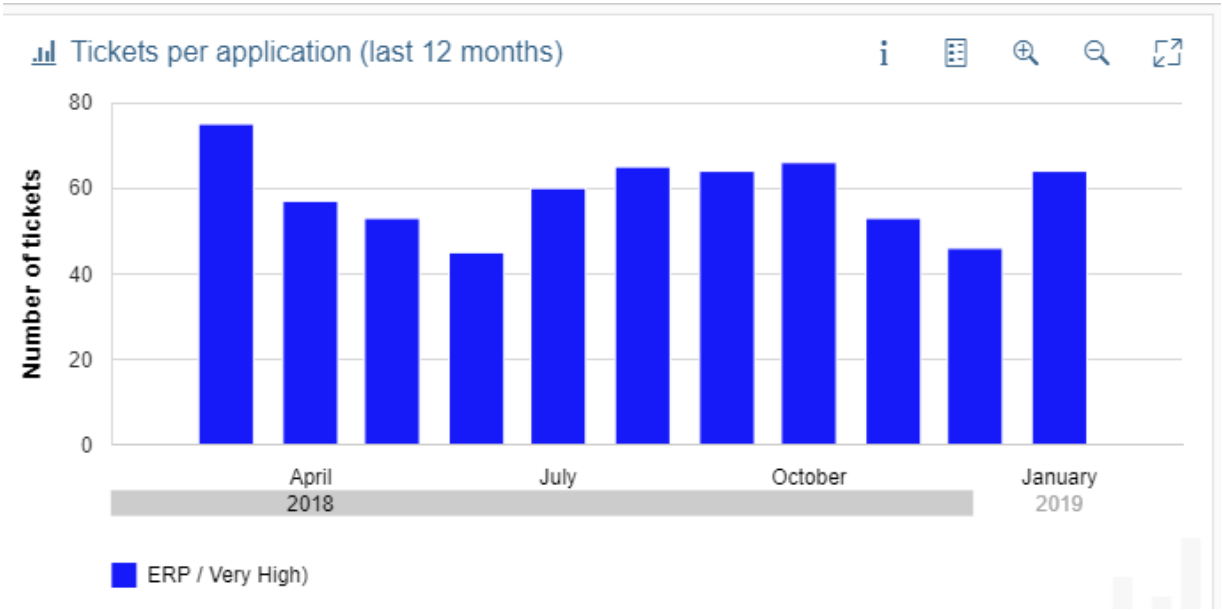



Figure 199. Detailed View

## 5.29 Data Provider /STDF/DP_JSM (Job Scheduling Monitoring)

The Job Scheduling Monitoring Data Provider provides access to 7 keys metrics in the job scheduling monitoring area .

- Number of executions: the number of all execution jobs
- Average duration: the average of duration
- Total duration: the total all job duration
- Minimum duration: minimum duration of jobs (*)
- Maximum duration: maximum duration of jobs (*)
- Average delay: the average of the delay of jobs
- Total delay: all delay jobs
- (*) Key figures not available with resolutions greater than hour; Duration is used instead.

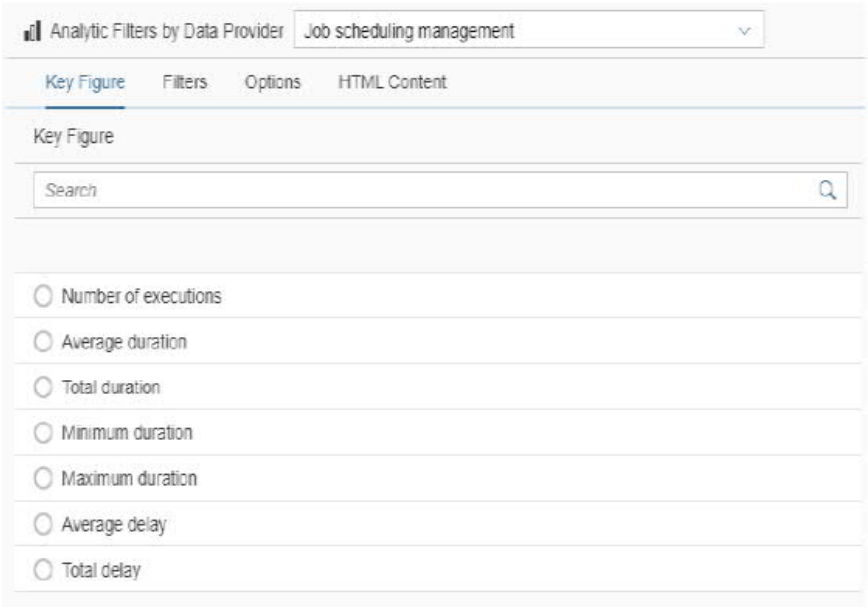



Figure 194. Available Metrics for DP_JSM

The user can filter on:

- System
- Status
- Job Name
- Execution User
- Scheduling User

➔ All filters are multiple selection.

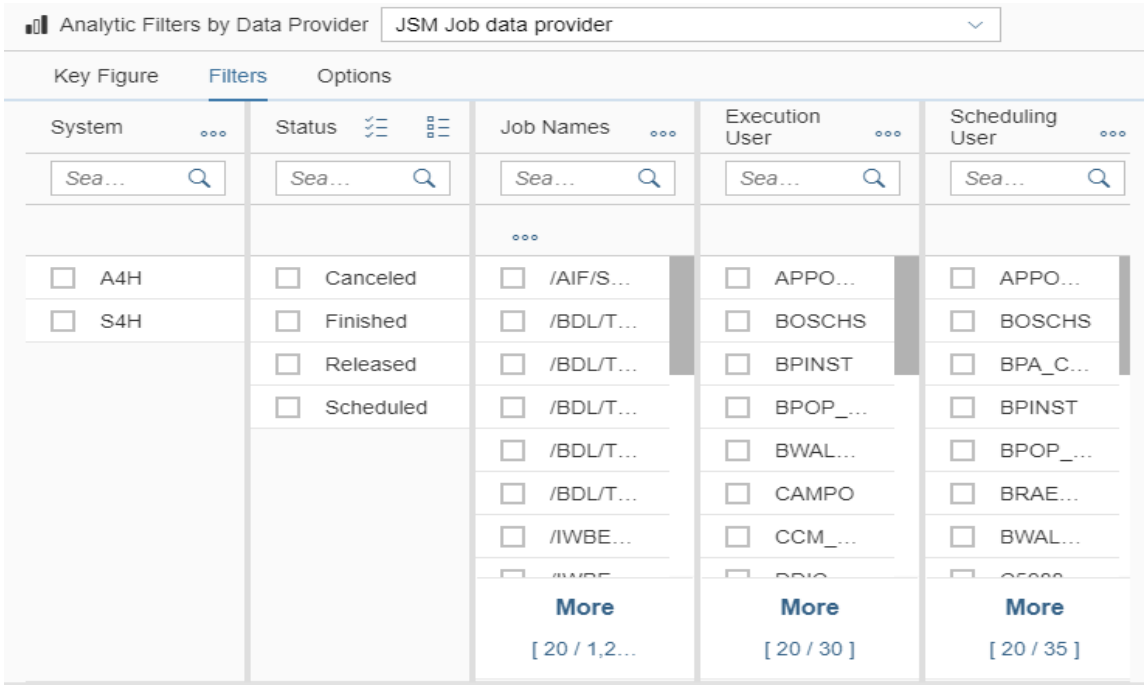



Figure 195. Filters Tab

The user the drilldown on:

- System: the default is to do the drilldown on all system if there is no system is selected.

- Status: the default is to do the drilldown on al status if there is no status is selected.
- Job name: there is not default drilldown the user should at least select one job.
- Execution user: there is not default drilldown the user should at least select one user.
- Scheduling user: there is not default drilldown the user should at least select one user.

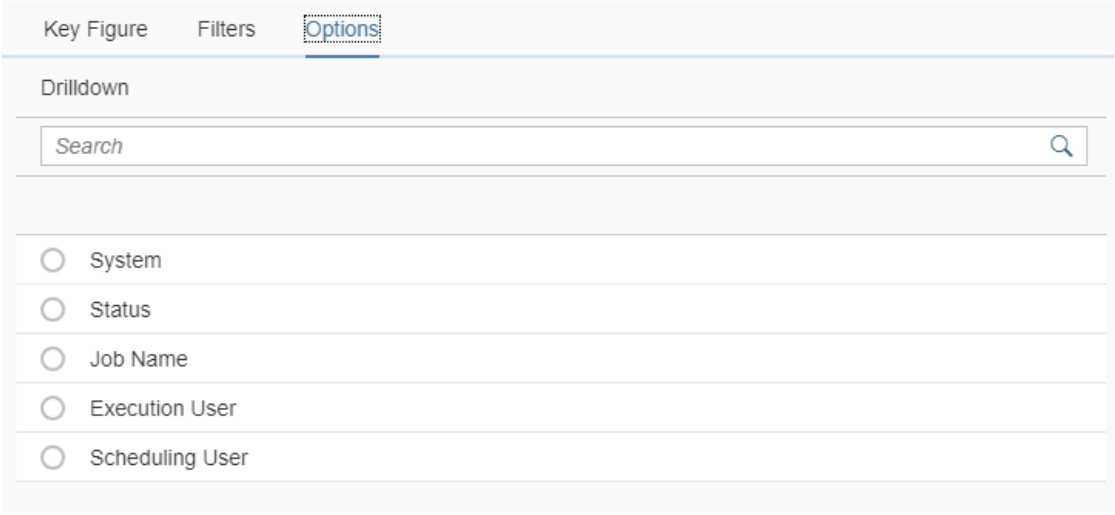



Figure 196. Drilldown Tab

**Exemple of configuration:**

This is an example of the usage of the JSM data provider with the key figure : **Number of executions** .

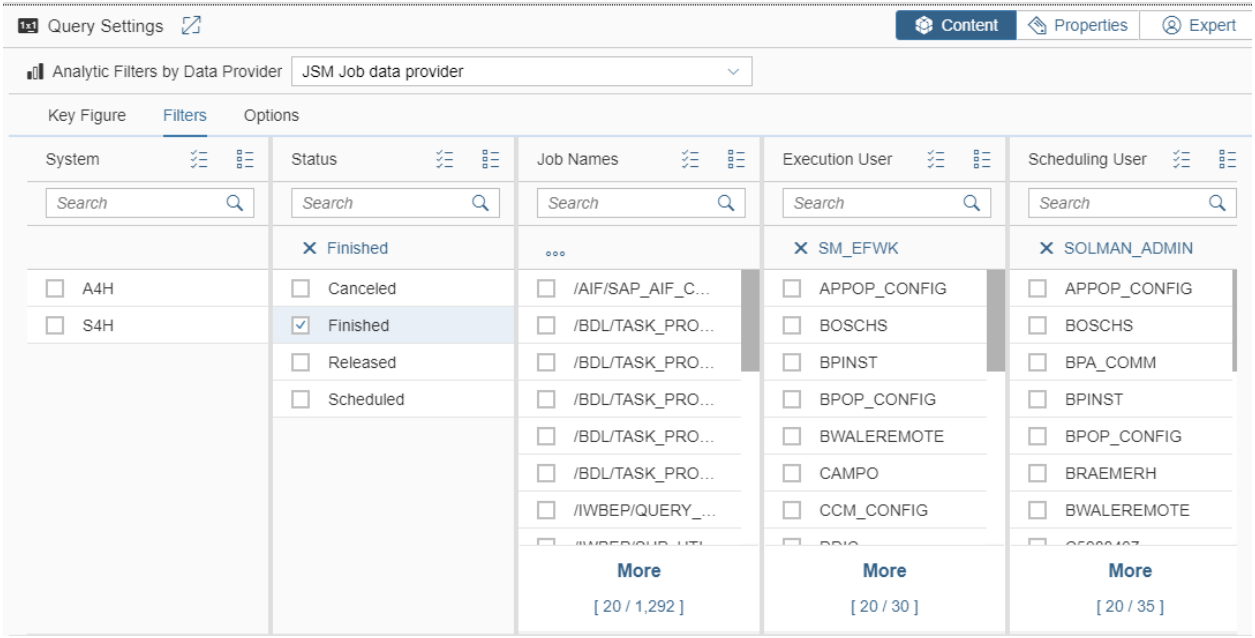



Figure 197. Selected Filters

| Legend | Query |
| --- | --- |
| Query01111 | /STDF/DP_JSM_JOB:COLOR=#1f77b4\|legend=Query 011111\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=SCHEDULE_USER,EXECUTION_USER,JOB_NAME,STATUS,DURATION,COUNTER,DELAY,DURATION_MIN,DURATION_MAX\|visible=true\|KEY_FIGURES=0SM_JSMNO\|SID=\|STATUS=Finished\|JOB_NAMES=EFWK RESOURCE MANAGER\|EX_USER=SM_EFWK\|SCH_USER=SOLMAN_ADMIN\|DRILLDOWN=STATUS\|display_value=false\|value_precision=2 |

The displayed result for the configured query is the following:

**Line CHART:**

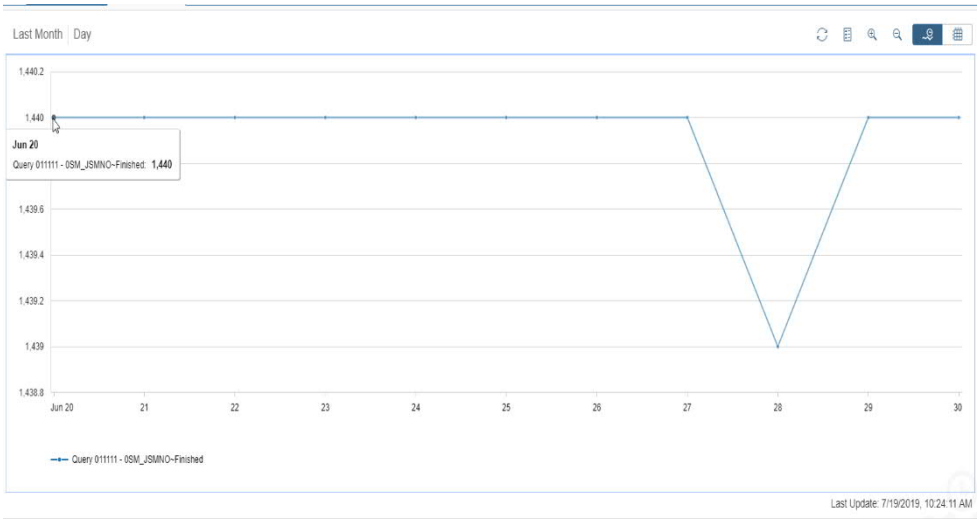



Figure 198. Line Chart-DP_JSM

**DYNAMIC TABLE:**

The dynamic table contains all information of selected filters in addition of the key figures:

Schedule user , execution user , job name , status , duration , counter , delay , duration min , duration max .

Last Month | Day

| | SCHEDULE_USER | EXECUTION_USER | JOB_NAME | STATUS | DURATION | COUNTER | DELAY | DURATION_MIN |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5181.000 | 1440 | 20987.000 | |
| 2 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5132.000 | 1440 | 25152.000 | |
| 3 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5393.000 | 1440 | 26794.000 | |
| 4 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5259.000 | 1440 | 27959.000 | |
| 5 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 4932.000 | 1440 | 29527.000 | |
| 6 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5246.000 | 1440 | 31014.000 | |
| 7 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5319.000 | 1440 | 32598.000 | |
| 8 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5252.000 | 1440 | 34718.000 | |
| 9 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5049.000 | 1439 | 36566.000 | |
| 10 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5055.000 | 1440 | 37956.000 | |
| 11 | SOLMAN ADMIN | SM EFWK | EFWKRESOURCEMANAG | Finished | 5116.000 | 1440 | 38984.000 | |

Figure 199. Dynamic Table-DP_JSM

To validate the displayed data we should define:

- Design Time
  - Dimensions values & key figures are retrieved from Info Provider 0SM_JSM_H
- Runtime Data
  - For resolutions HOUR / RAW: Info Provider 0SM_JSM_H
  - For resolution DAY: Info Provider 0SM_JSM_D
  - For resolutions WEEK or above: Info Provider 0SM_JSM_W

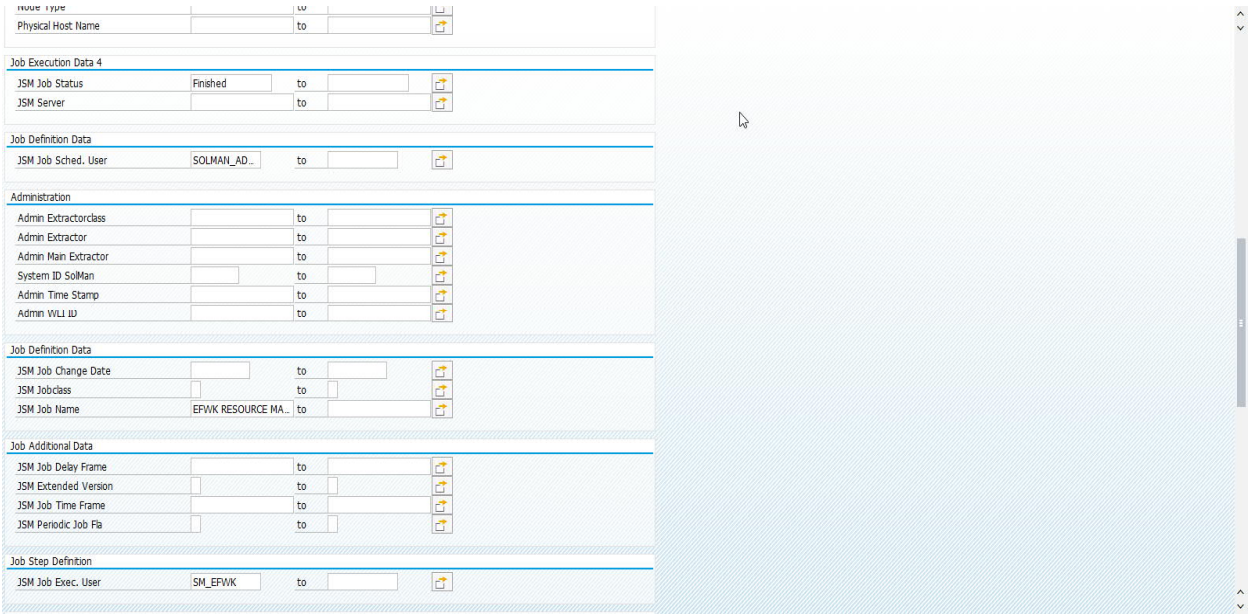
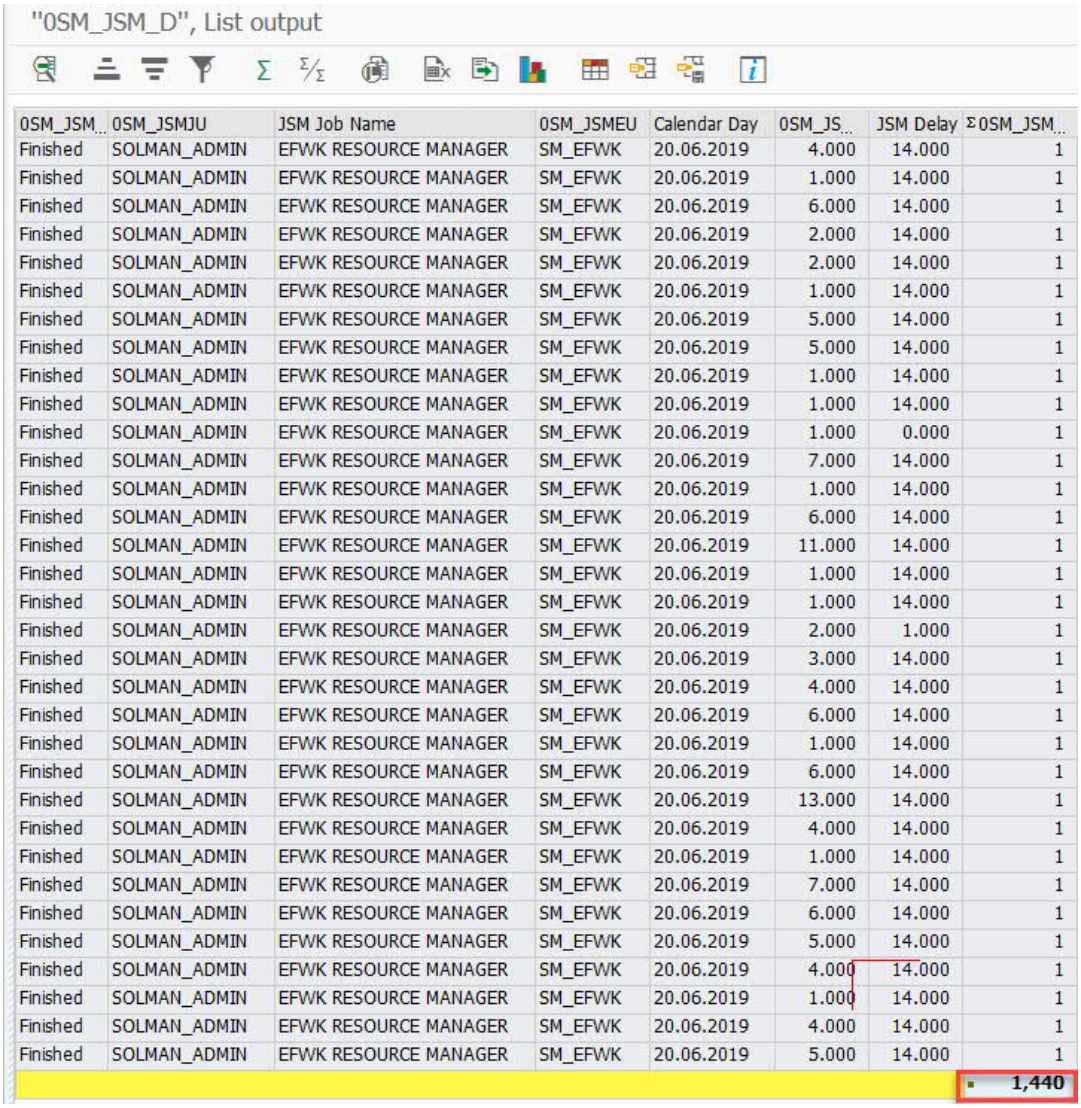



Figure 200. Data validation-DP_JSM

For the same period the user should group all values by sum :


"0SM_JSM_D", List output

| 0SM_JSM... | 0SM_JSMJU | JSM Job Name | 0SM_JSMEU | Calendar Day | 0SM_JS... | JSM Delay | Σ 0SM_JSM... |
|---|---|---|---|---|---|---|---|
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 4.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 6.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 2.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 2.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 5.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 5.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 0.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 7.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 6.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 11.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 2.000 | 1.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 3.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 4.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 6.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 6.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 13.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 4.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 7.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 6.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 5.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 4.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 1.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 4.000 | 14.000 | 1 |
| Finished | SOLMAN_ADMIN | EFWK RESOURCE MANAGER | SM_EFWK | 20.06.2019 | 5.000 | 14.000 | 1 |
| | | | | | | | 1,440 |

Figure 201. Validation Data- DP_JSM

## 5.30 Data provider /STDF/DP_ATC

The ABAP quality check is a data provider allows you to monitor several pre-defined Key product indicators. The DP_ATC fetch data from the custom code management quality cockpit.

To be able to display data using the ATC data provider you should first have tasks that are configured to run on a regular basis in the quality cockpit.

To use the DP_ATC, you should select an ATC Project (regular running task) and a Metric (key product indicator) from the general tab:

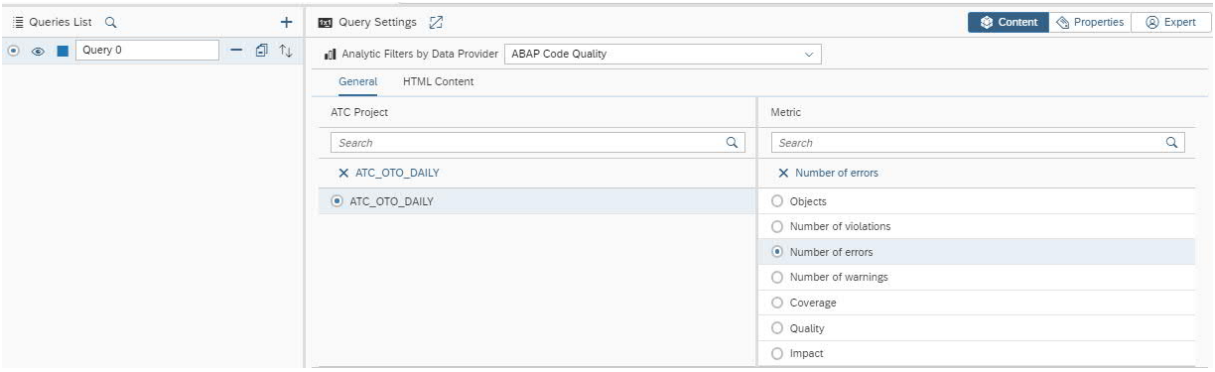



Figure 202. Select Options-DP_ATC

The available metric list is the following:

- **Objects**: Number of objects that were analyzed.
- **Number of violations**: Number of errors and warnings together.
- **Number of errors**: Number of errors.
- **Number of warnings**: Number of warnings.
- **Coverage:** represents the number of used and tested objects (objects whose their “last used” column contains a date, if there is no date it means that the object is not used hence not taken into consideration).
- **Quality:** It is a float number (X.Y) which can between 0.0 and 3.5 which can be considered as an overall quality indicator of the analysis. This metric must be displayed using the SLR renderer.
- **Impact:** number of used objects with issues divided by the total number of objects then multiplied by 100.

## Data Validation:

The user can validate the displayed data through the custom code improvement or just the quality cockpit by following the steps below:

1. Display first the projects list


Figure 203. quality cockpit landing page

2. Select the project name

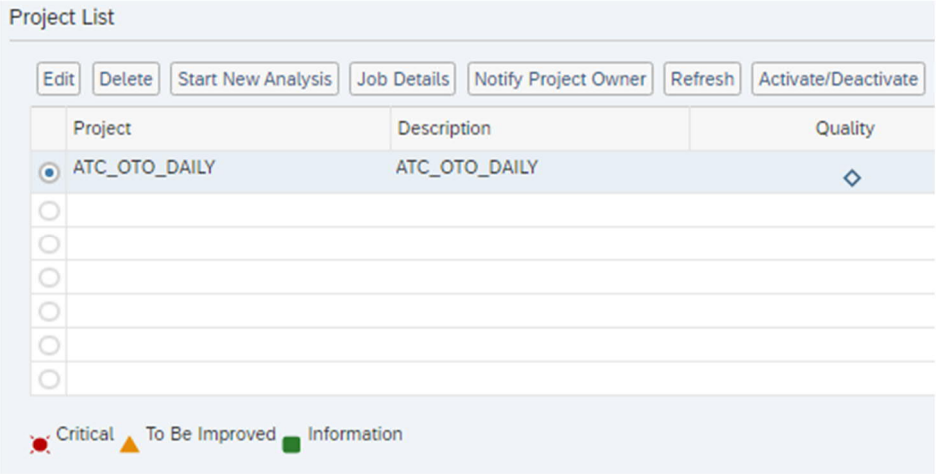



Figure 204: project list

3. Select a time range, click on apply button then select a job

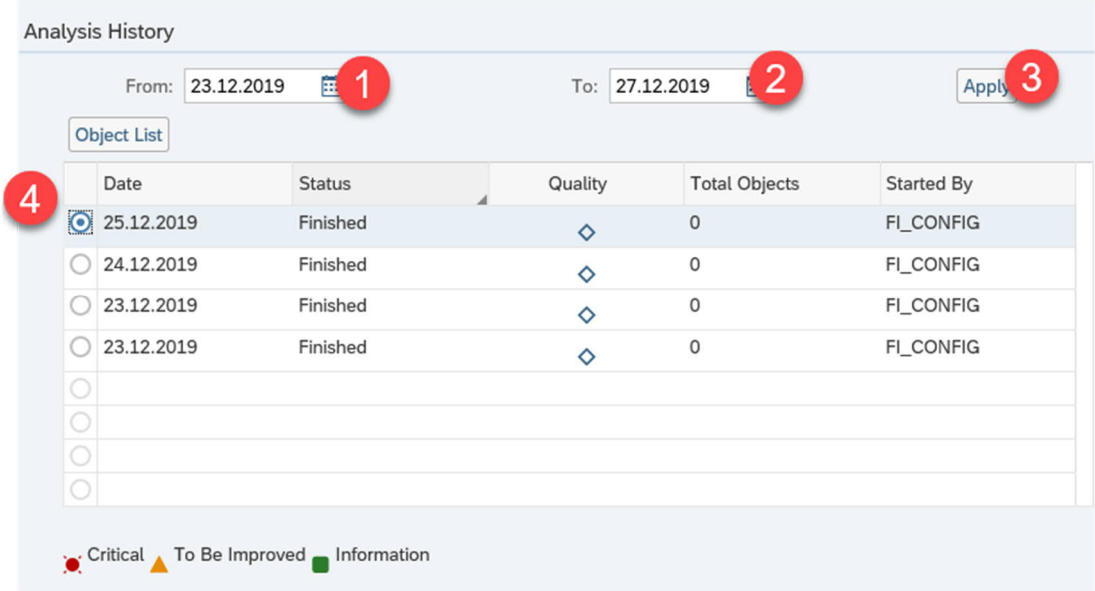



Figure205. selecting a run

Now you use the following information to figure out the value of the selected metric

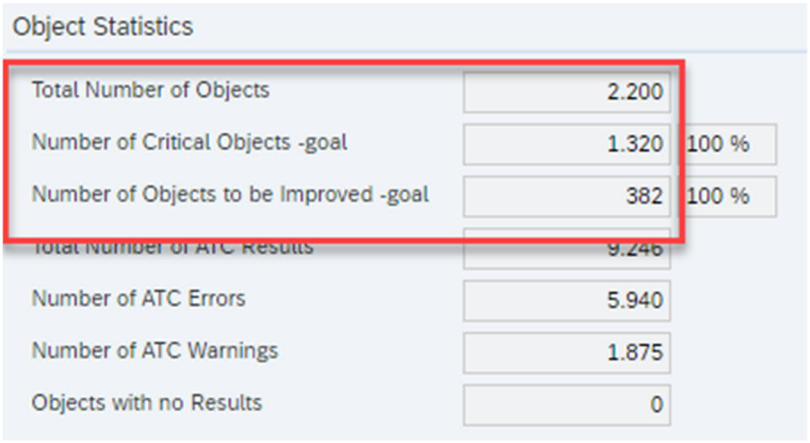



Figure 206. objects statistics

To calculate the value of the coverage metric you should access the object list:

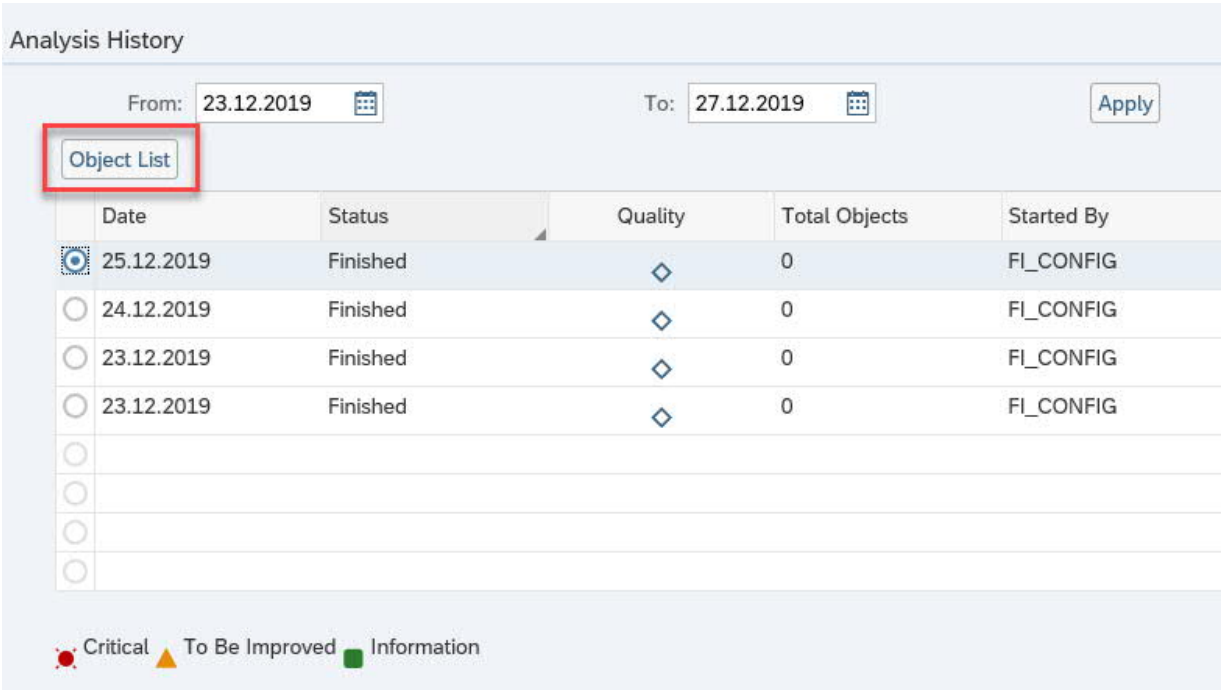



Figure 207. objects list

## 5.31 Data provider /STDF/DP_GADGET_CALCULATION

The gadget calculation data provider is used to perform operations on data series using the SLA property of the query and it can also perform operations on more than one gadget using arithmetic operators (+, - ,*, / ).

In a multi series chart the DP applies the SLA to each series then it sum them , for example if you have two gadgets with one of those using a multi-series line chart, say, three series, the equation form will be as follow : [SLA(serie1)+SLA(serie2)+SLA(serie3)](Gadget1) “operator(+,-,x, /)” [SLA(Serie)](gadget2),
or you can simply display the Gdget1 without using the operators.

The following figure illustrate the calculation pad you will use to compose your equation:


Figure 208. Calculation pad

1- Available arithmetic operators
2- Brackets
3- Identify the gadget by its ID
4- Used to add numerical operators
5- Delete the selected element
6- Erase button

Below an illustrated example of the gadget calculation data provider usage:

1. Configure the first operand:

- Select the column chart as a renderer.
- In the “query list” click on the “Add query” button.
- Add ATC (ABAP code quality) as a data provider
- Select an ATC object and a metric
- Click on save button to save the first Operand.

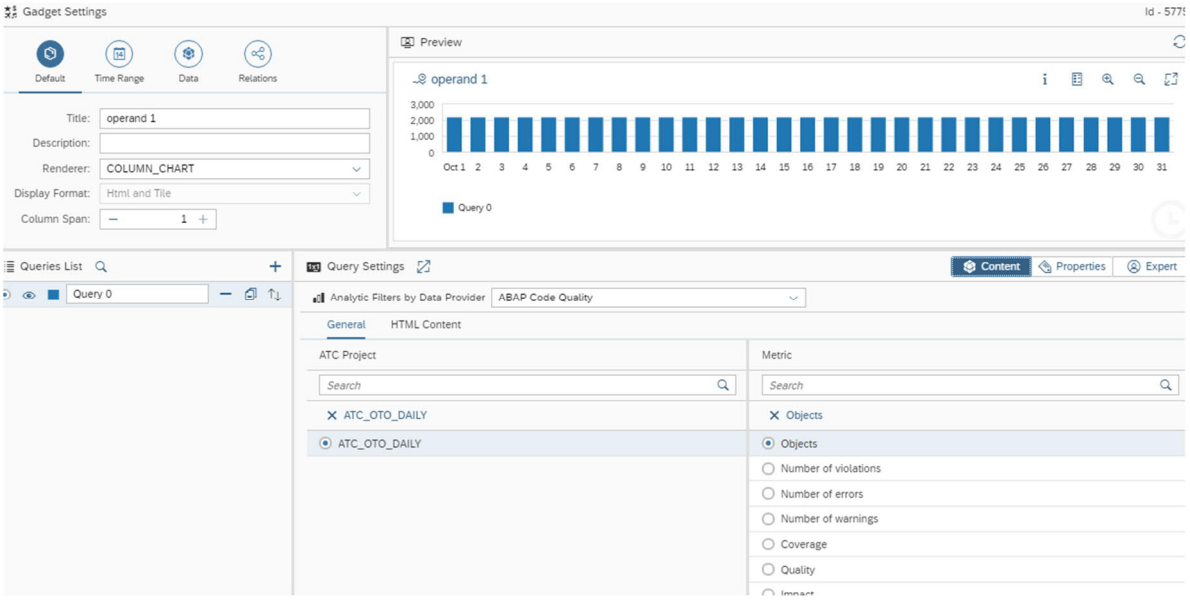



Figure 209. Operand1 configuration

2. Configure the second operand:
   - Select the column chart as a renderer.
   - In the “query list” click on the “Add query” button.
   - Check the query’s radio box
   - Add ATC (ABAP code quality) as a data provider
   - Select ATC_AUTO_DAILY as ATC object and number of violations as metric
   - Click on save button

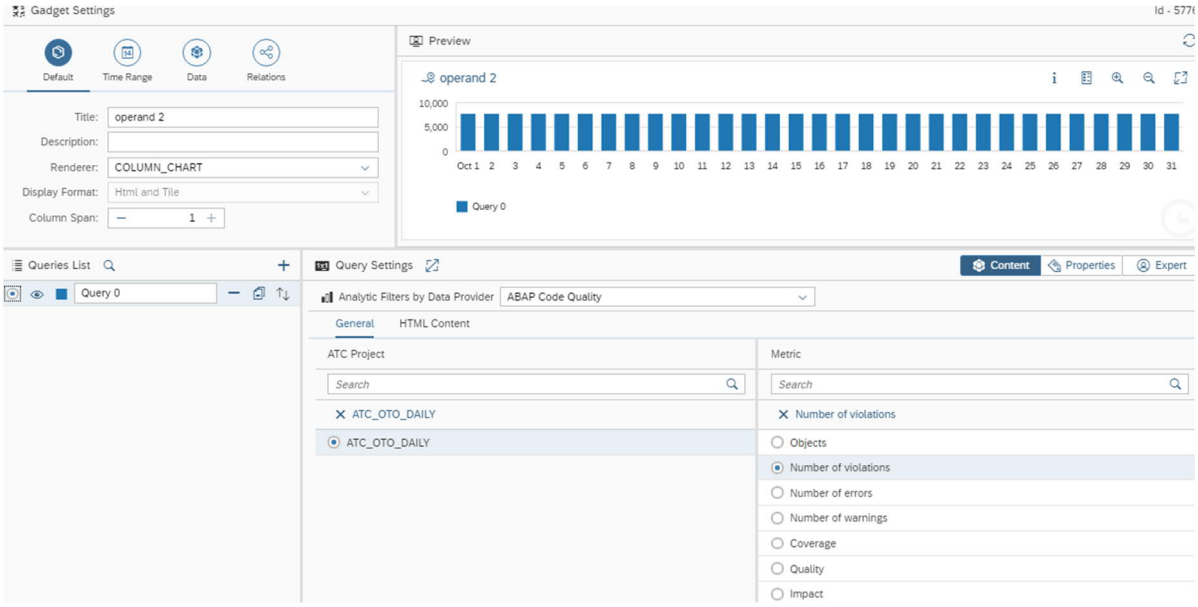



Figure 210. Operand2 configuration

3. Configure the result gadget:

- Select the column chart as a renderer.
- In the" Queries list" click on add a query button.
- In the query settings add the "DP_Gadget_Calculation" data provider.
- Click on GSUM button.
- Enter the ID of the Operand1 Gadget then click on "Add" button

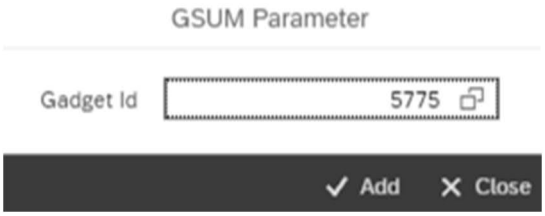



Figure 211. Add button

- Select the" +" operator
- Click again on GSUM
- Enter the ID of the gadget "Operand2"
- Refresh the chart, the result should be the sum of the average value (as the SLA property is by default on average)

Note that you can change the SLA value by:

1. Select the first query
2. Go to "properties" Tab
3. Change the SLA to "Maximum", "Minimum", "SUM" ... for each one of the two operands to get a different result

## 5.32 Data Provider /STDF/DP_SAM

The Data provider SAM gives you access to the service availability management application.

Data is read from the database tables of the service availability management application. This data is collected after configuring reports in there.

Here is a table explaining all possible attributes for the available metrics:

| Attributes | Description | Default Value |
|---|---|---|
| Key figure | List of key figures | No value |
| Systems | List of systems | No value |

The filters of the SAM data provider are all grouped into 1 tab which is the General Tab.

To use SAM data provider:

- Select data provider SAM: The selection of this data provider will display the group General along with its filters and filters values.
- Select Key figure.
- Select a System.

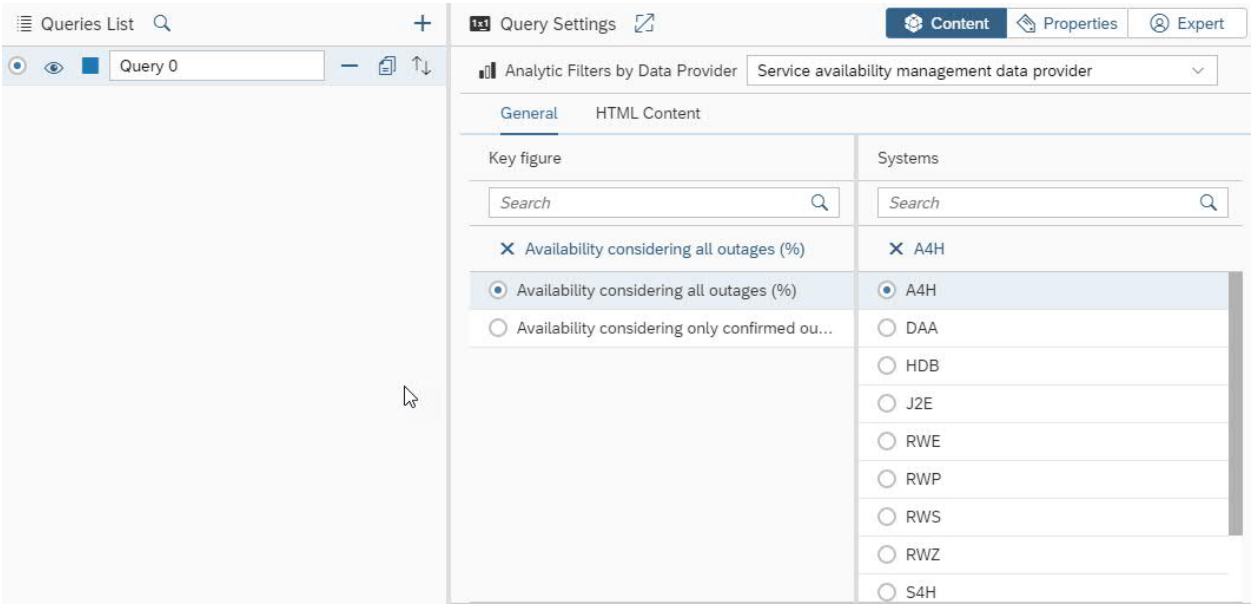



Figure 212. SAM data Provider General Tab

Here is the corresponding selection in the System Analysis application:

First select the system needed. The system selection is in the scope selection of the Service availability management application.

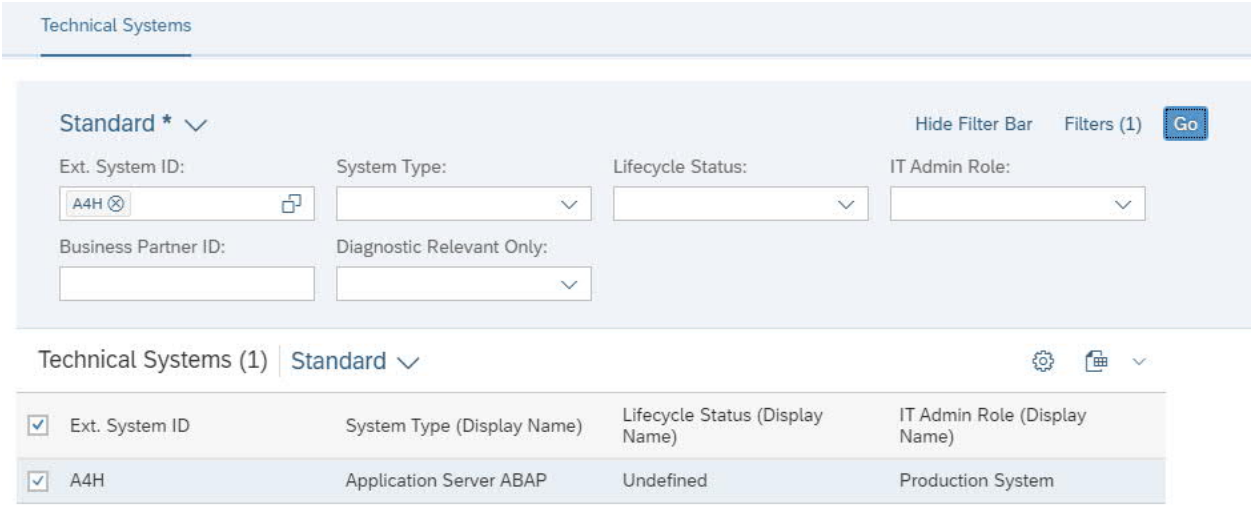



Figure 213. System Analysis application

Second select the key figure needed. This is done through the availability settings section.

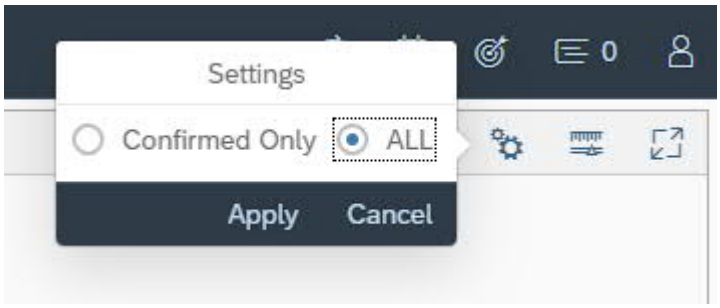



Figure 214. Settings icon

In order to be able to display data related to the service availability management, a report is to be created in the section “service availability definition” trough the add button.

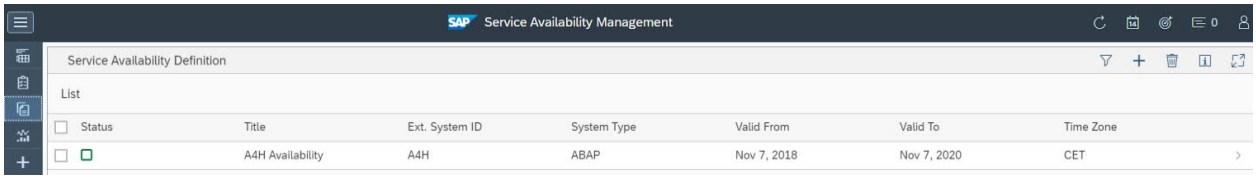



Figure 215. report configuration (1)

In order to configure a report, the below steps need to be made.

Specify the title, validity and the entity (a system)

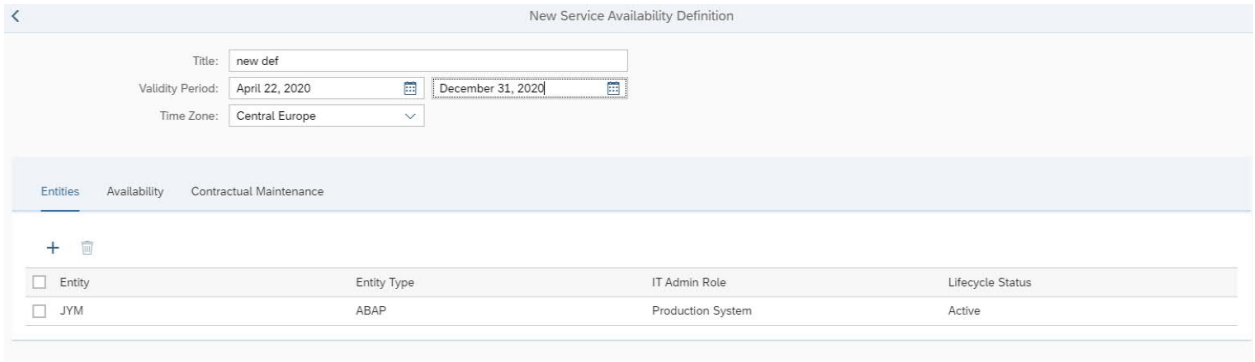



Figure 216. report configuration (2)

Specify the threshold, the reporting period (Monthly or yearly) and the pattern (Daily or weekly) and the start time of the report

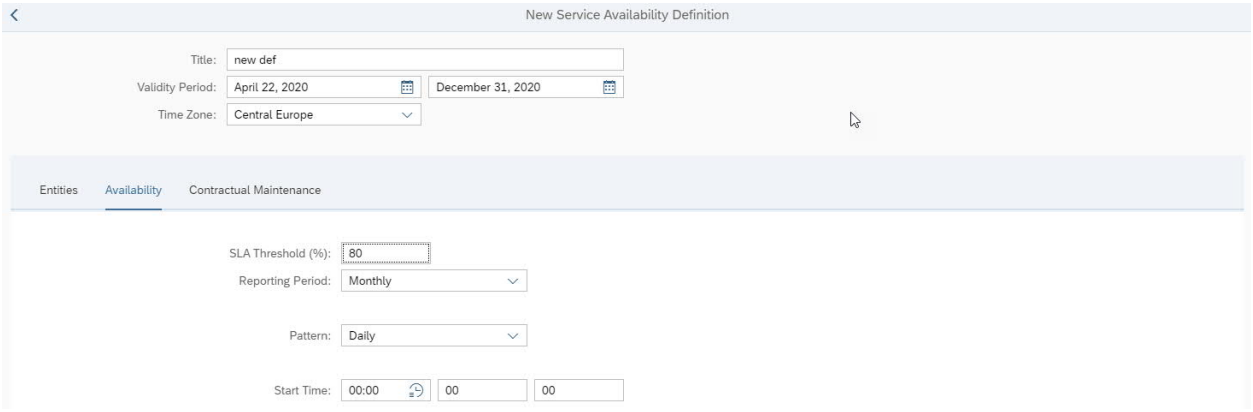



Figure 217. report configuration (3)

Maintain the section contractual maintenance as well and go for the save.

## Data Validation:

The behavior of the DP SAM in the OCC depends on the definition of the service availability management report.

The definition has two parameters that can affect the behavior of the DP SAM. These two parameters are the “Reporting period” and the “Pattern” parameters.

If we set the “Reporting period” to “monthly”, no yearly data will be collected. So, if we configure a query with the system used in this definition and use “Year” as a resolution, we will not be able to see this data. So, the data provider sets the resolution automatically to “Month”.

The same thing will happen if we set the “Pattern” parameter to “Week” and ask for daily data. The DP will set the resolution automatically to “Week”.

Also, the definition in the service availability management has a validity period, so in order to have data in the DP SAM for the selected system, the validity has ingroup the time range selected in dashboard.

Here is an example of a definition for the A4H ABAP:

In here it has a monthly reporting period and a daily pattern which means we cannot have yearly data using the OCC DP SAM.

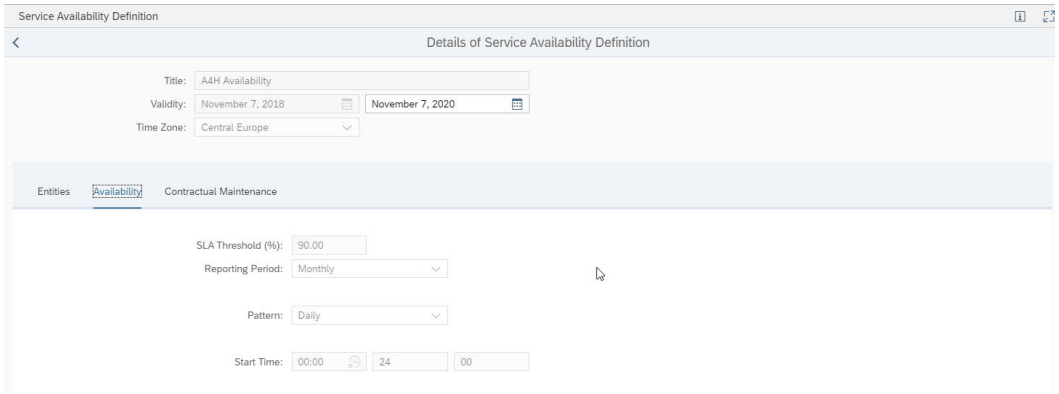



Figure 218. report configuration Example

In order to validate the key figure needed, we need to follow the below rules:

- Availability considering all outages: Choose the availability setting “All”
- Availability considering only confirmed outages: Choose the availability setting “Confirmed only”

Here is an example to be validated, with the below selection:

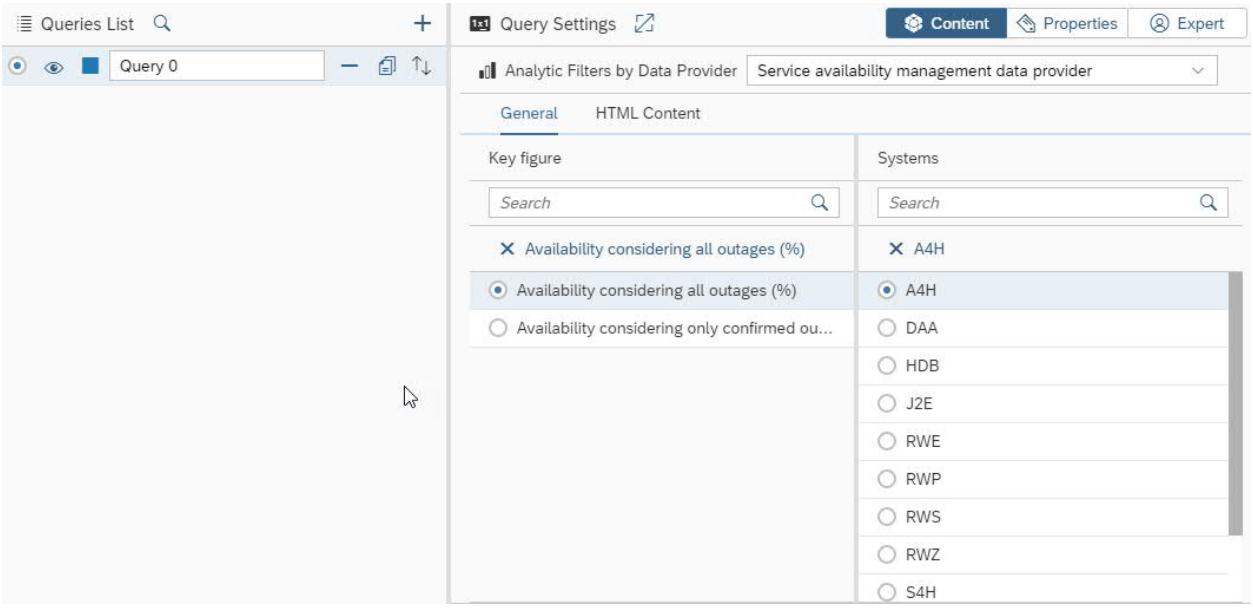



Figure 219. Example configuration (1)

If we choose the period / resolution = LAST_MONTH / day, this is what we will get in the OCC:

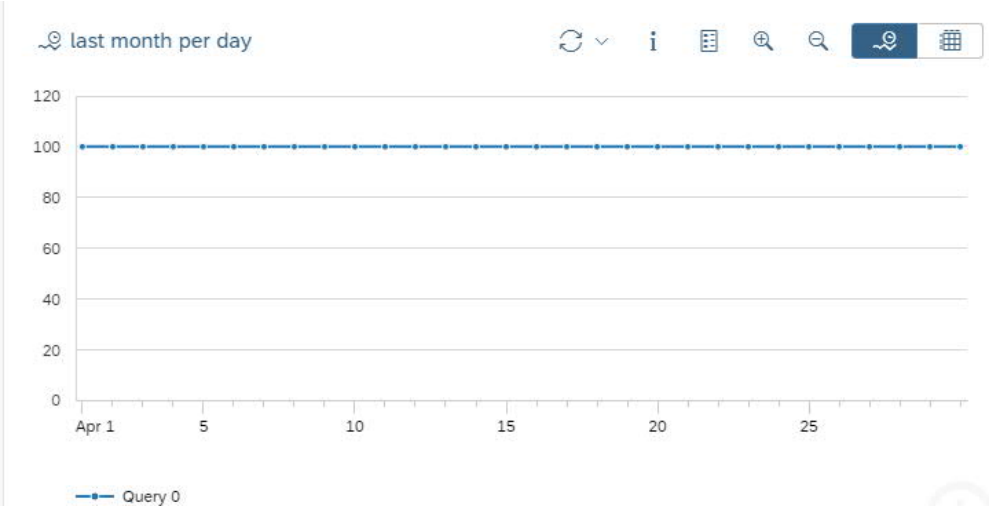



Figure 220. Example configuration (2)

In order to validate this, the parameter availability settings should be set to “All”:

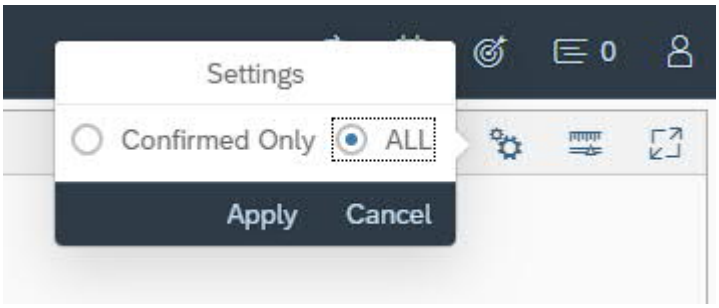



Figure 221. Example configuration (3)

In the scope selection, we should search for the A4H ABAP system.

Then in the overview, we need to navigate to the selected period which is April 2020 in this case.

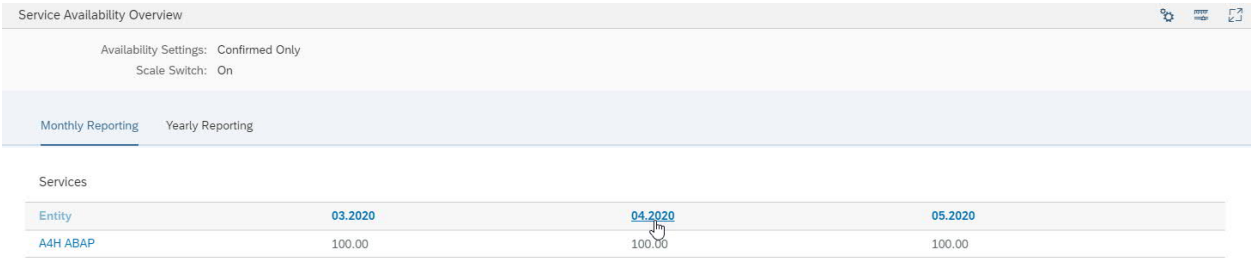



Figure 222. Service Availability Overview (1)

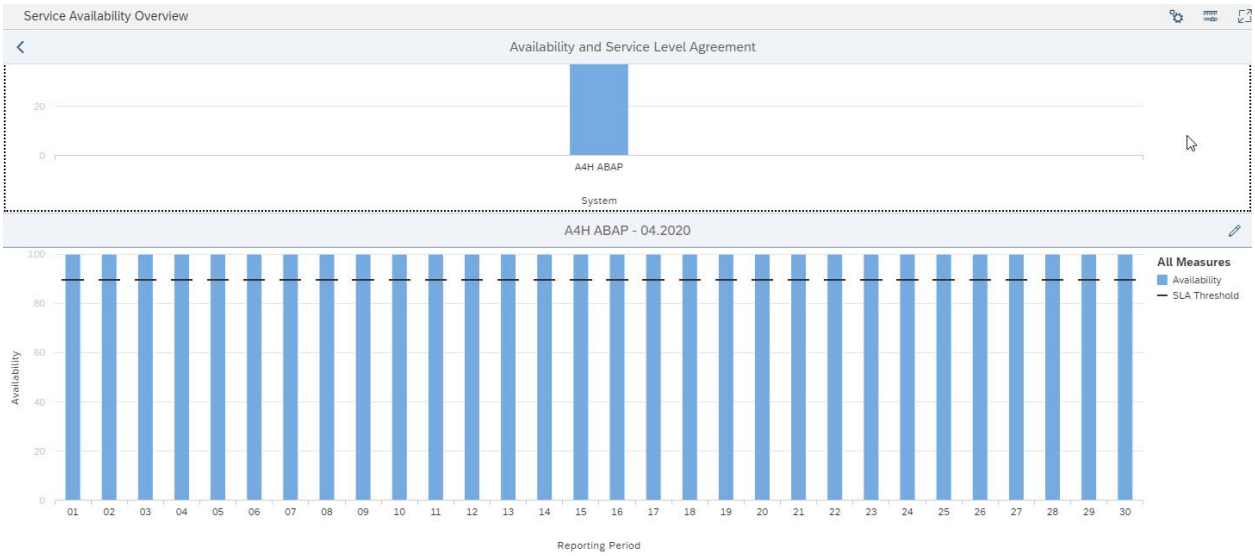



Figure 223. Service Availability Overview (2)

If we went and selected the resolution” Year” with current 2 Year as a period in the OCC, we will get current 2 year per month data since there is no yearly data because the definition of the report is set to” Monthly”.

Here is the screenshot for the behavior below:

The granularity is yearly, and the DP is sending back monthly data.

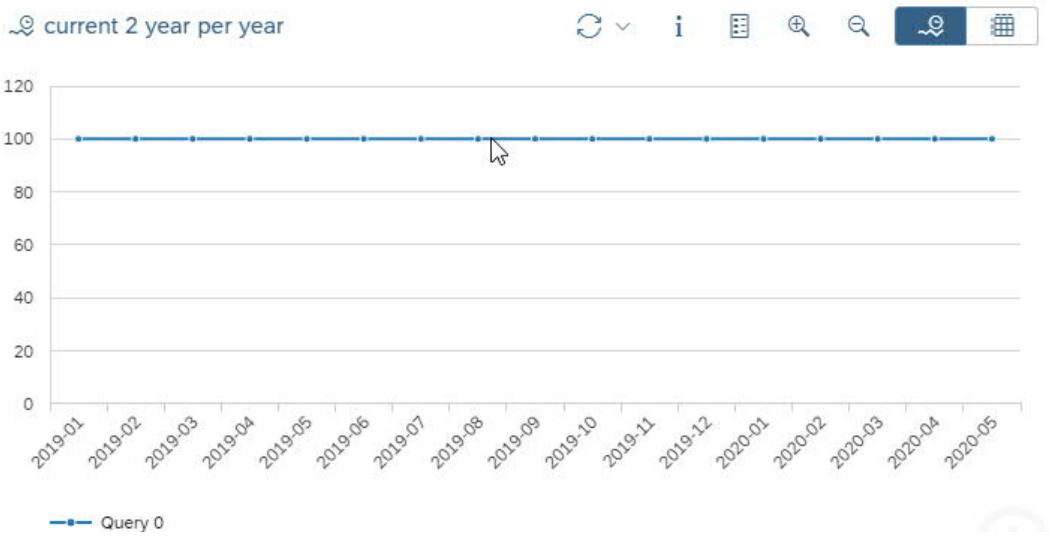



Figure 224. Result

So, the DP will always send back the data with the resolution selected if it exists otherwise it will send back the resolution that exists according to the report definition in the service availability management application.

## 5.33 Data Provider /STDF/DP_ALERT_SEARCH

Data provider /STDF/ALERT_SEARCH gives an overview of critical alerts (number of open alerts and status of alerts) from different monitoring areas such as business process monitoring, data consistency monitoring, job monitoring, etc.

The Alert Search Data Provider has 5 tabs:

**a) Metric Tab**

To configure an Alert Search Data Provider in a gadget:

- Choose Alert Search Data Provider
- Select a Metric:
  - Number of alerts created: Number of alerts created during the time period.
  - Average alert duration in min: Average time (in minutes) of alerts in the alert inbox during the requested time period.

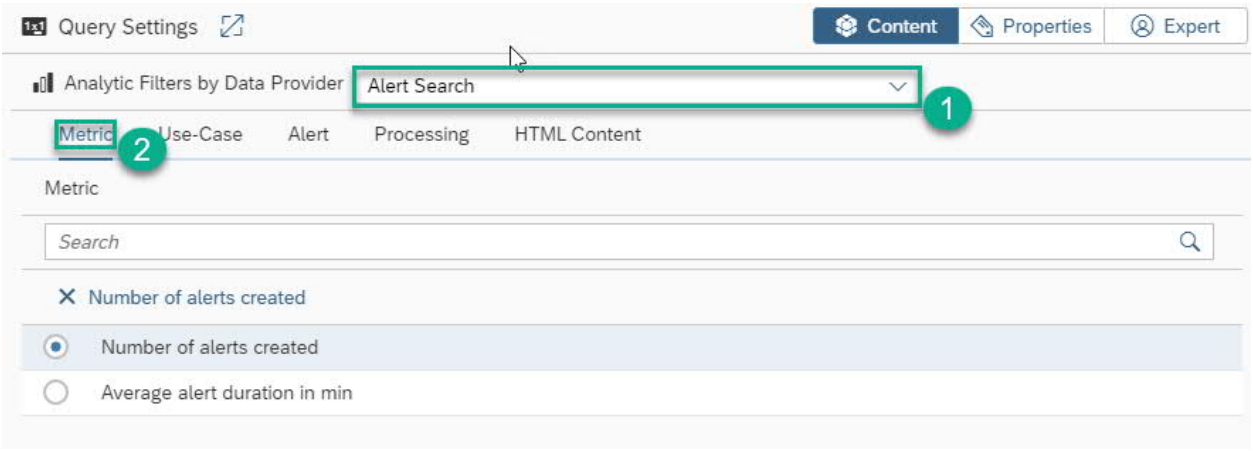



Figure 225. Metric Tab

### b) Use-Case Tab

It displays the list of use case as Technical System Monitoring, Job Monitoring, etc.

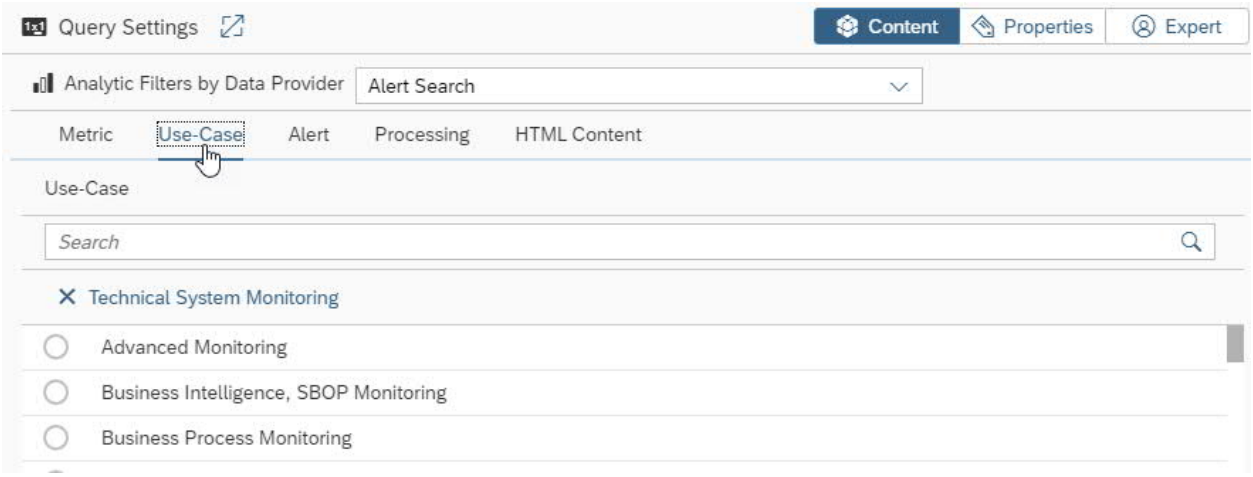



Figure 226. Metric Tab

### c) Alert Tab

The alert tab displays 2 columns:

- Alert name: short text that describes the alert
- Rating: it can be yellow or red
- Object Name

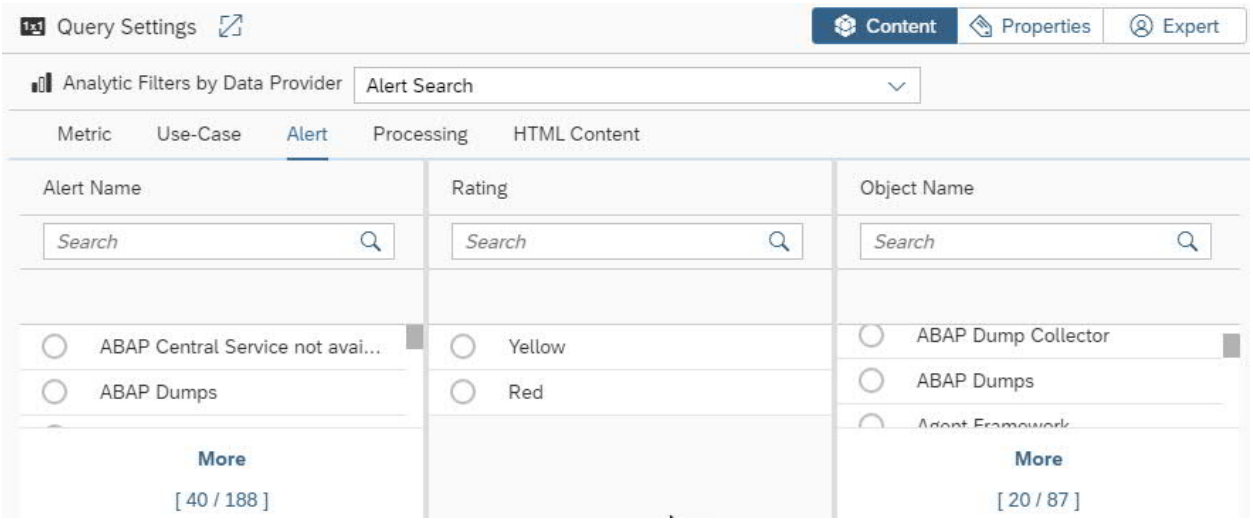



Figure 227. Alert Tab

### d) Processing Tab

The processing Tab displays 2 columns:

- Alert Status
- Classification

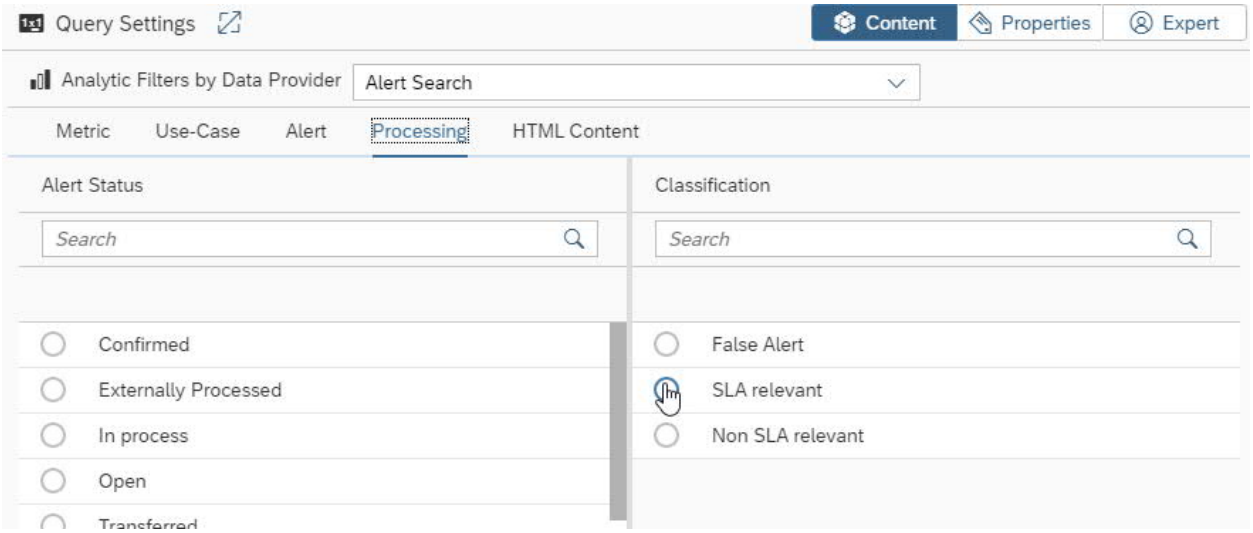



Figure 228. Metric Tab

**Data Validation:**

The data source for the Alert Search data provider is the Alert Search Application. Data validation is only done from this application.

a) Number of Alerts Created

In this section, we will go step by step how to validate the Number of Alerts Created through Alert Search Application.

- Gadget Configuration

| | |
|---|---|
| Query | /STDF/DP_ALERT_SEARCH:COLOR=#0cff18\|legend=TechMon Alerts\|OCC_JUMP_IN= \|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|FILTER_VALUE= \|visible=true\|METRIC=Counter\|USE-CASE=T_SYS_MON\|ALERT= ABAP Central Service not available\|RATING=\|OBJECT NAME=\|STATUS=\|CLASSIFICATION=\|HTML_CONTENT_ID= \|display_value=false |
| Time Range | Last Month /Week |
| Default Settings | Renderer: Dynamic Table |

The Dynamic Table displays 14 Alerts for ABAP Central Service Not Available during the Last Month returned by the Alert Search Data Provider as in the screenshot below:

Last Month | Week

| | ALERTNAME | CATEGORY_TEXT | STATUS | MANOBJ | RATING | MOTYPE_TEXT |
|---|---|---|---|---|---|---|
| 6 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 3 | Technical Instance |
| 7 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 2 | Technical Instance |
| 8 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 3 | Technical Instance |
| 9 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 2 | Technical Instance |
| 10 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 3 | Technical Instance |
| 11 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 2 | Technical Instance |
| 12 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 3 | Technical Instance |
| 13 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 2 | Technical Instance |
| 14 | ABAP Central Service not available | Availability | Confirmed | SHM110~ABAP~Central Service Instanc | 3 | Technical Instance |

Figure 229. Displayed result

We will check the displayed data by the OCC Dashboard with the Alert Search.

- Type SM_WORKCENTER transaction
- Look for Alert Search Tile
- Choose the corresponding time interval
- Choose the corresponding alert name “ABAP Central Service not available”
- Choose the corresponding Monitoring Use-case “Technical System Monitoring”
- Click on “Search” button

Only alerts that are created and confirmed in the selected period are displayed. In other words, if an alert has been created in the selected period and has not been confirmed in this period. It will not appear in the alert details table.

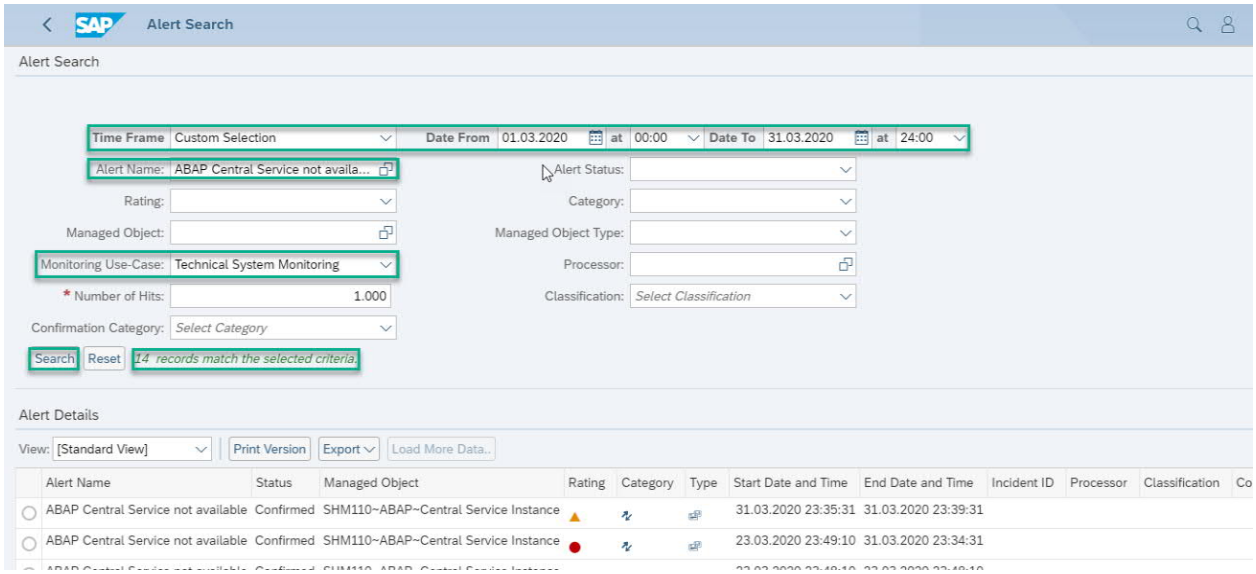



Figure 230. Metric Tab

- Maximum number of hits: It is mandatory to specify the max number of hits for the dynamic table. It can be added and changed manually in the expert mode. If it is not specified, it will be set to 500.

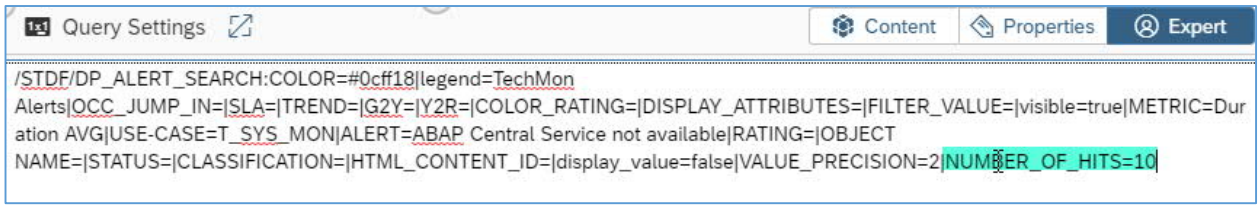



Figure 231. Expert Tab

b) Average Alert Duration in min

The Average Number Duration in min is calculated as below:

- Get all the alerts created within the selected period
- Calculate the average duration
- Then distribute the value on the resolution


Figure 232. Displayed result

In order to validate the data, follow the following steps:

- Open SAP Solution Manager

- Look for Alert Search Tile
- Apply the corresponding filters as in the screenshot below

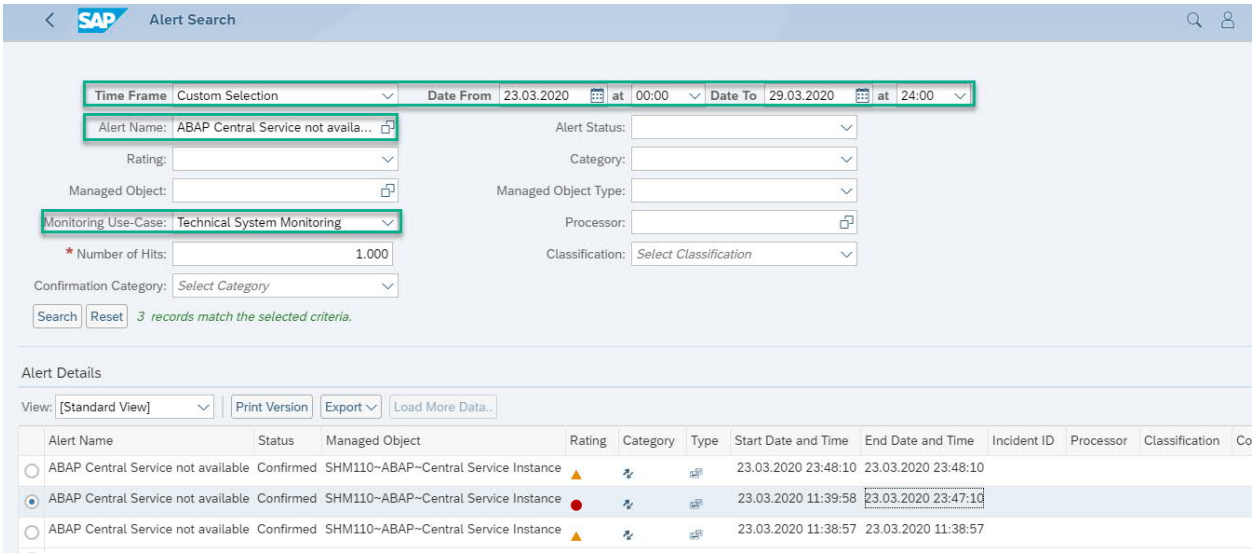



Figure 232. Alert Search Application

In week 13 of 2020, the alert search displays 3 alerts that match the selected criteria. In order to calculate the average alert duration in min, please follow those steps:

- Calculate the duration of the 3 alerts: You can use for example this Function Module

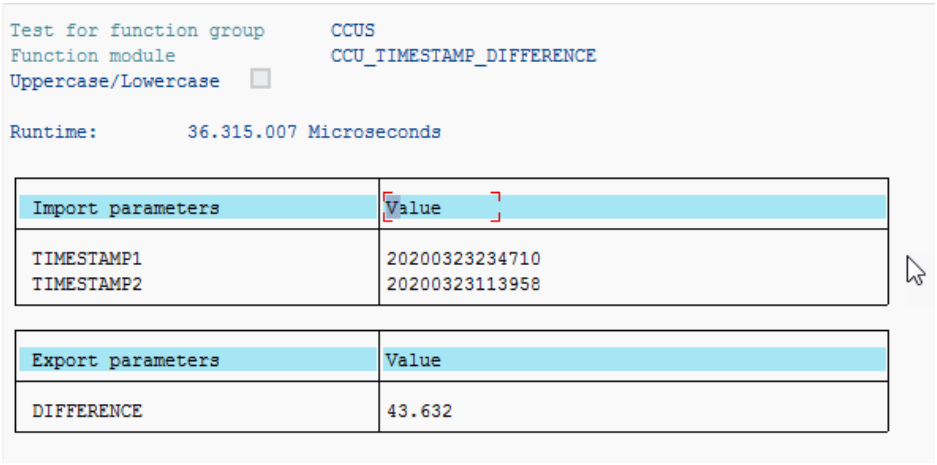



Figure 233. Duration

- Convert the duration in minute:

$$Duration\ (min) = \frac{Difference}{60}$$

$$Duration(min) = \left(\frac{43632}{60}\right) = 7272$$

- Calculate the average of the duration:

$$Average\ duration\ (min) = \frac{Duration\ (min)}{\sum Alerts\ created\ in\ same\ period} = \frac{7272}{3} = 242.4$$

## 5.34 Data Providers Status

The following table is displaying the data Providers status in SP06:

| | In usage | Deprecated |
|---|---|---|
| DP_SYSMON | × | |
| DP_SYSMON_SNAPSHOT | × | |
| DP_EEM | × | |
| DP_EEM_BI | × | |
| DP_BPA_KPI | × | |
| DP_BEX_QUERIES | × | |
| DP_DF_TAC | × | |
| DP_DVM | × | |
| DP_MAI_ALERTING | × | |
| DP_DF_KPI | × | |
| DP_ITSM | × | |
| DP_CCM | × | |
| DP_CRM | × | |
| DP_CALCULATION | × | |
| DP_DCM | × | |
| DP_ICM | × | |
| DP_EWA | × | |
| DP_BPO | × | |
| DP_SOLDOC | × | |
| DP_BUILD | × | |
| DP_SECURITY | × | |
| DP_FRUN | × | |
| DP_BPA | × | |
| DP_TEST | × | |
| DP_SQLSCRIPTS | × | |
| DP_BEX_VIEW | × | |
| DP_TRANSACTION | × | |
| DP_TABLE | × | |
| DP_JSM | × | |
| DP_ATC | × | |
| DP_GADGET_CALCULATION | × | |
| DP_SAM | × | |
| DP_ALERT_SEARCH | × | |

# 6. Renderers

## 6.1 Line Chart

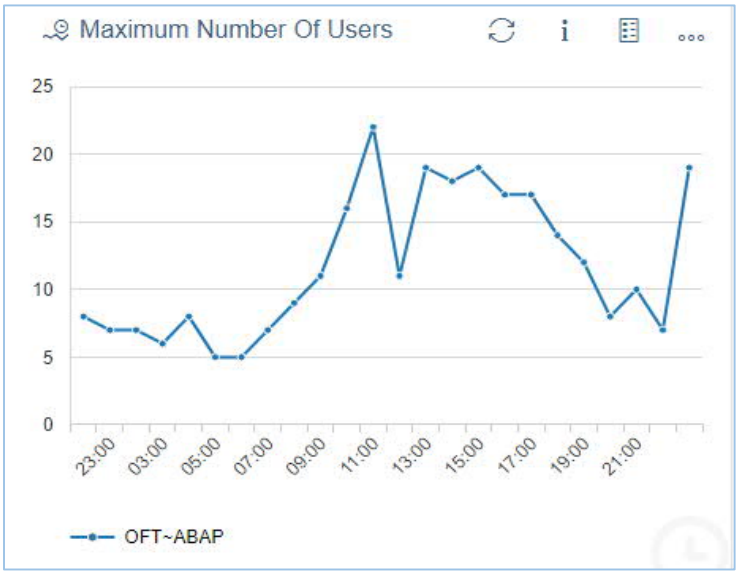



Figure 234. Line Chart

## 6.2 Bar Chart

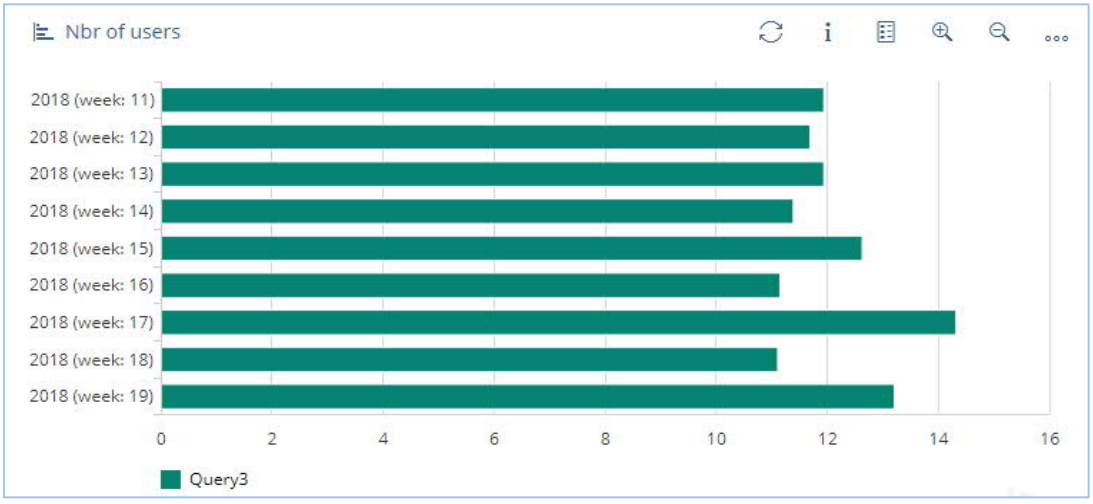



Figure 235. Bar Chart

## 6.3 Column Chart


Figure 236. Column Chart

To classify the data displayed in the column chart in different categories we can use the Color Categories parameter

In the following example showing how to configure it.

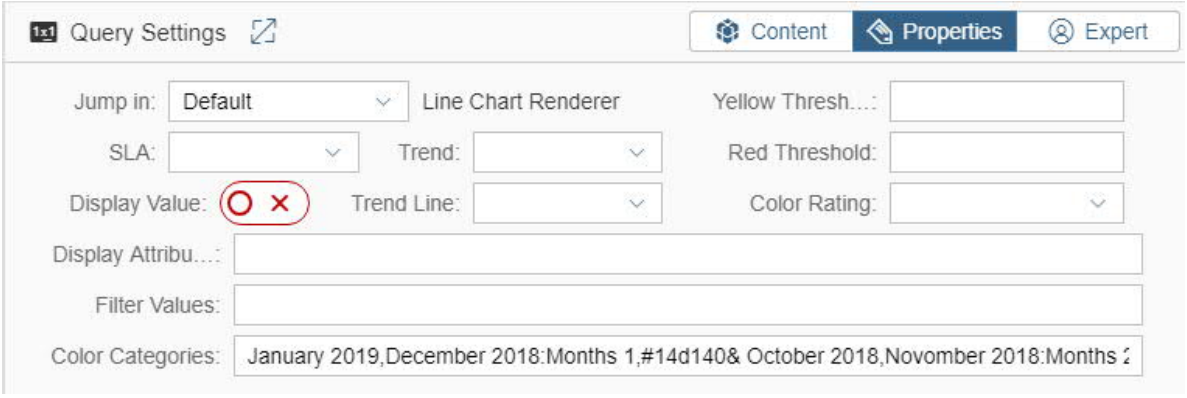



Figure 237. Color Categories Configuration

Color Categories: January 2019, December 2018:Months 1,#14d140& October 2018,Novomber 2018:Months 2,#fc053e

“|”: Delimiter between values

“:”: Delimiter between column name and category

“&”: Delimiter between different color categories

#14d140 and #fc053e are the color codes related to each category.

Months 1 and Months 2 are the names of each category.

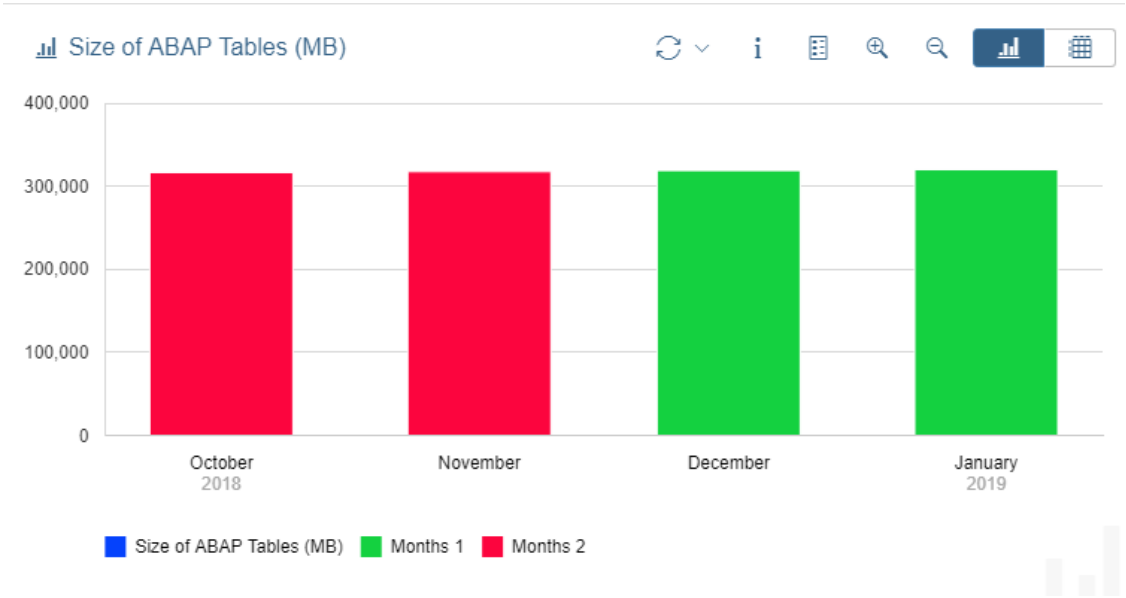



Figure 238. Color Categories Detailed View

## 6.4 Line Column

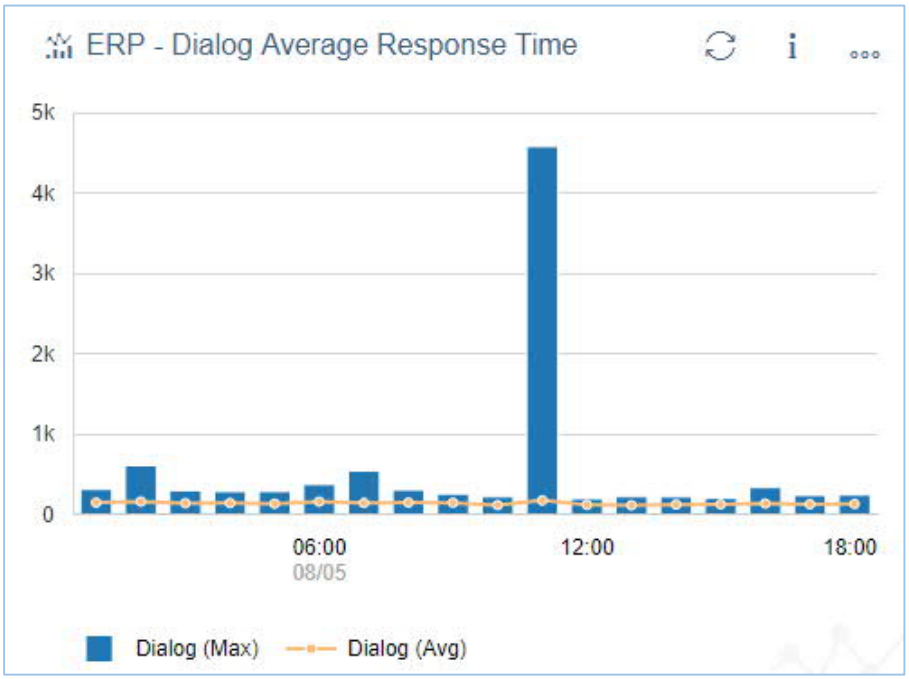



Figure 239. Line Column

## 6.5 Pie Chart

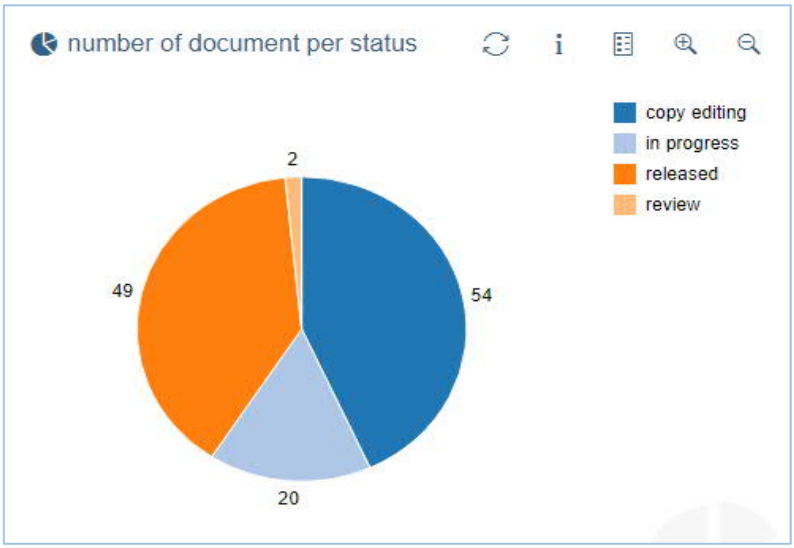



Figure 240. Pie Chart

## 6.6 Donut Chart

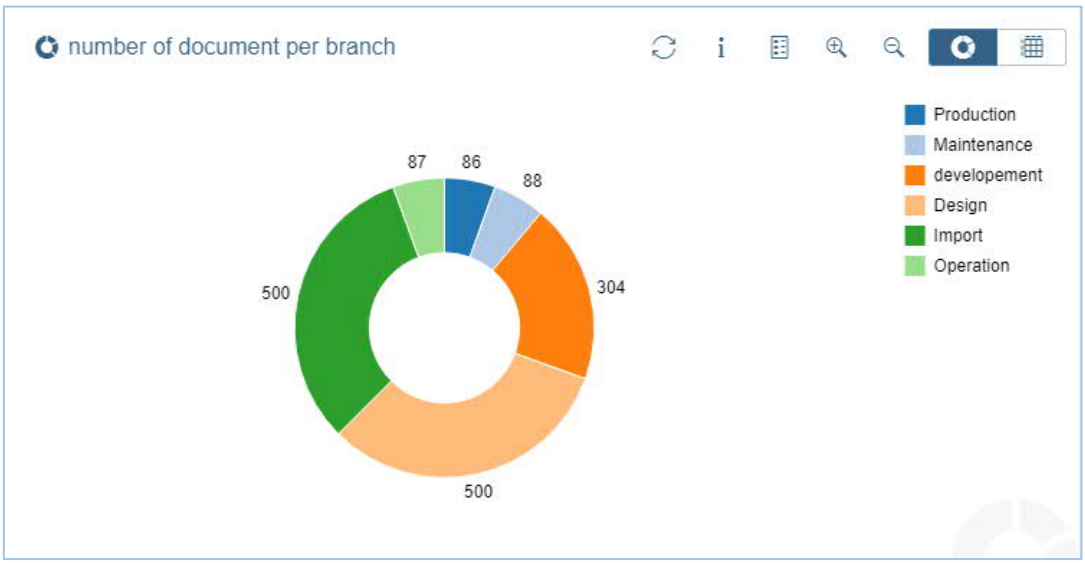



Figure 241. Donut Chart

## 6.7 Dual Bar Chart

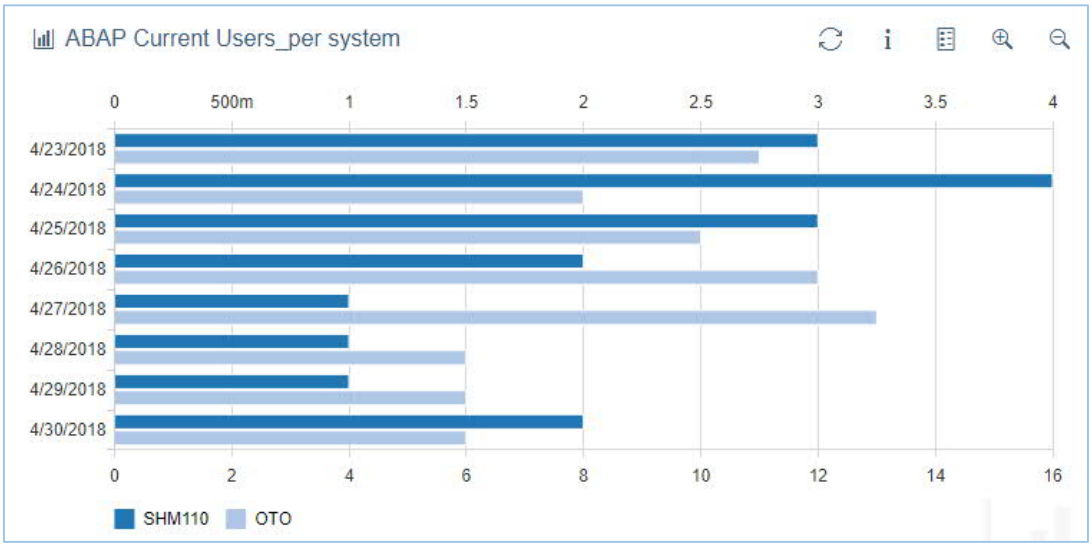



Figure 242. Dual Bar Chart

## 6.8 Dual Line

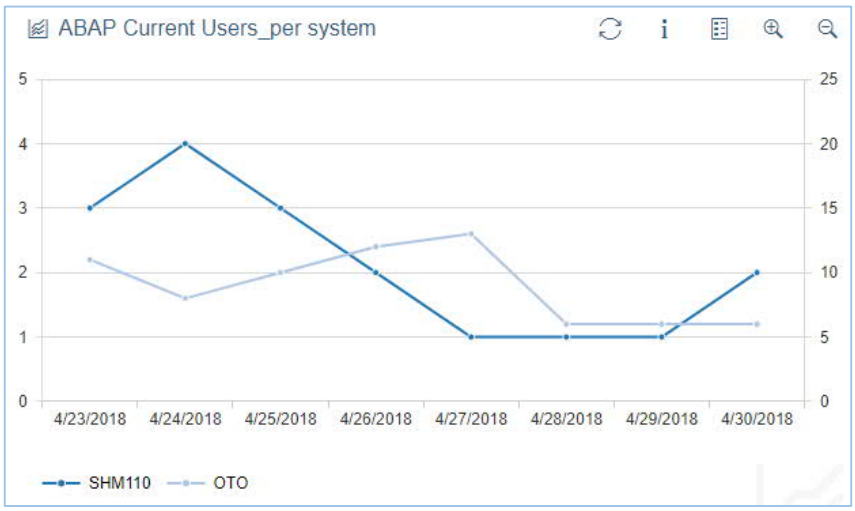



Figure 243. Dual Line Chart

## 6.9 Dual Line-column

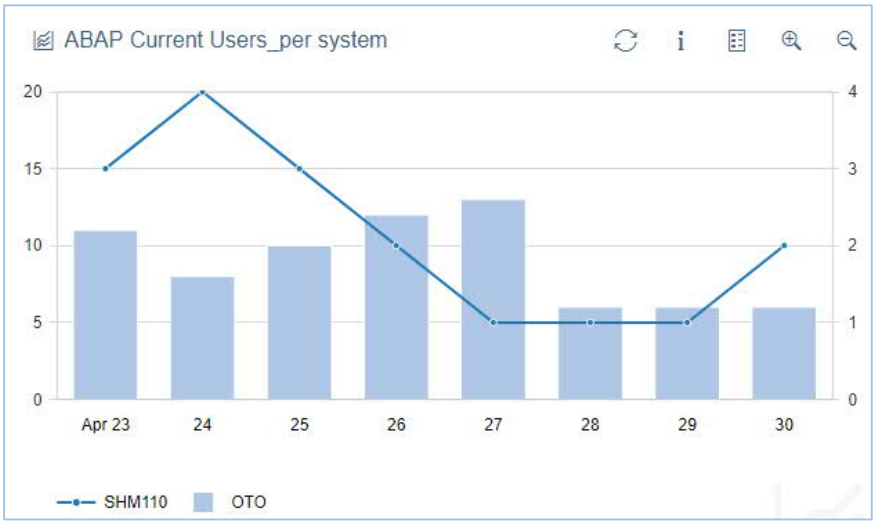



Figure 244. Dual Line-column

## 6.10 Alert Table

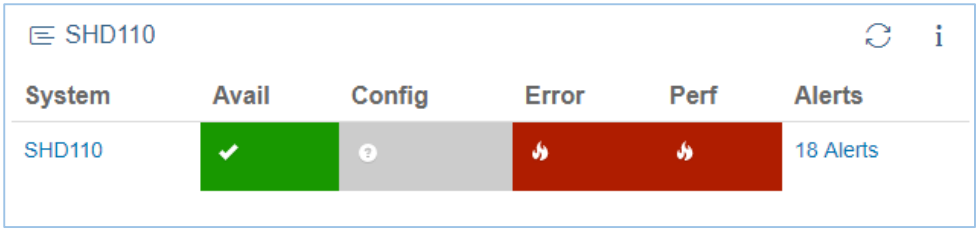



Figure 245. Alert Table renderer

## 6.11 Dynamic Table

Here is an example for the use of Dynamic Table renderer, we will describe also in this section the utility of ''Display Attributes'' and “Filter Values” properties.

- Prepare a saved search on the CRM, Go to the Transaction CRM_UI

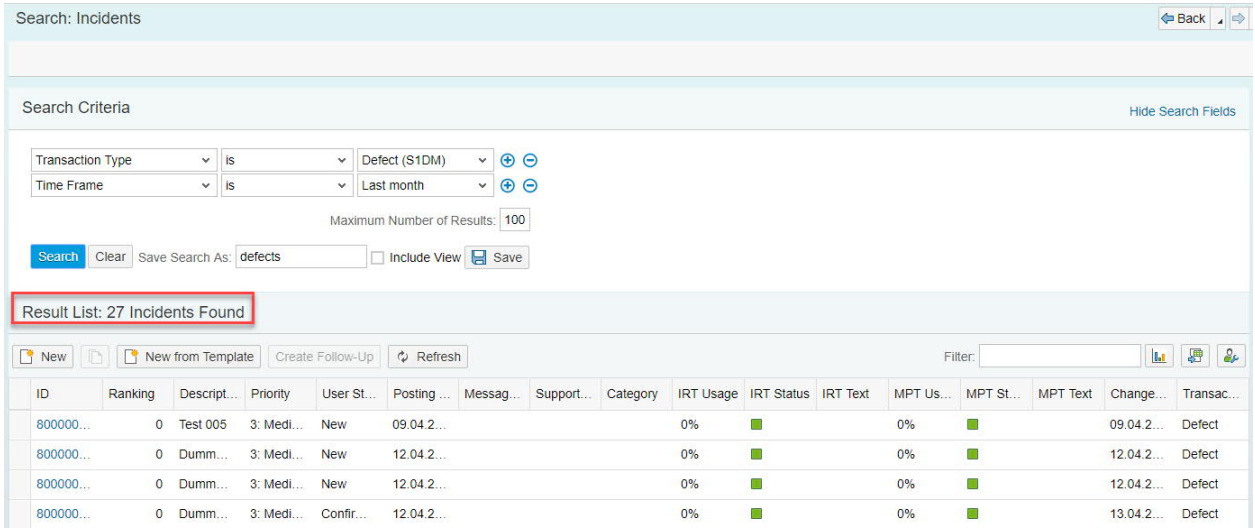



Figure 246. Results in the CRM UI

- Display all the content of the saved search columns using a dynamic table renderer:

The generated query is:

| Legend | Query |
|---|---|
| OFT | /STDF/DP_CRM:COLOR=#1f77b4\|legend=defects\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Saved_search=5CF3FCE8D2301EE88CA1D5130FA1E121\|Filter=1\|Backlog=\|Drilldown= |

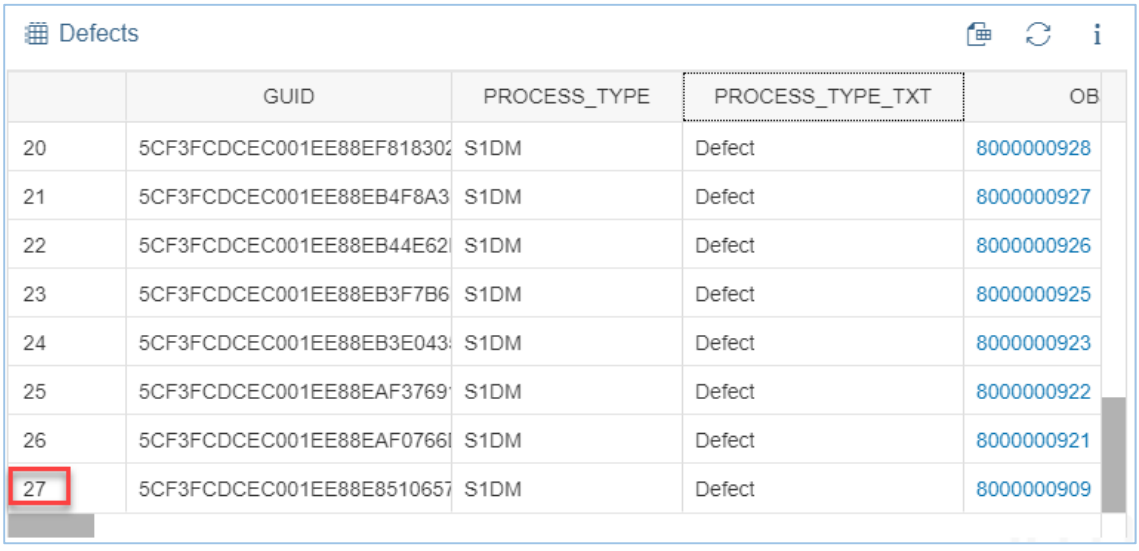



Figure 247. Detail view (Display all the table columns)

- In this example, we will keep the content of two columns only and we will rename them as follow:

<KEY1> > <Display_name1>, <KEY2> > <Display_name2>

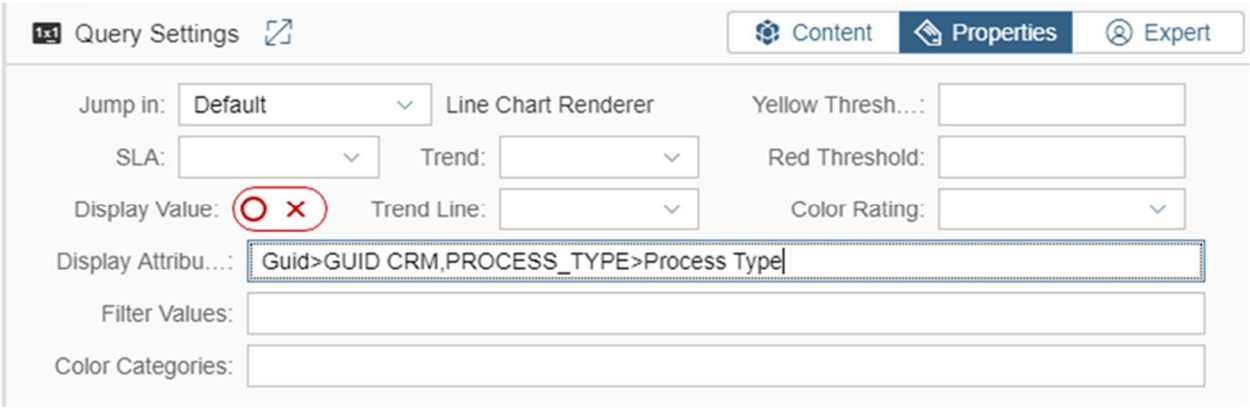



Figure 248. Use of Display Attribute property

The generated query is:

| Legend | Query |
|---|---|
| OFT | /STDF/DP_CRM:COLOR=#1f77b4\|legend=defects\|OCC_JUMP_IN=\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=Guid>GUID CRM,PROCESS_TYPE>Process Type\|visible=true\|Saved_search=5CF3FCE8D2301EE88CA1D5130FA1E121\|Filter=1\|Backlog=\|Drilldown=\|display_value=false |

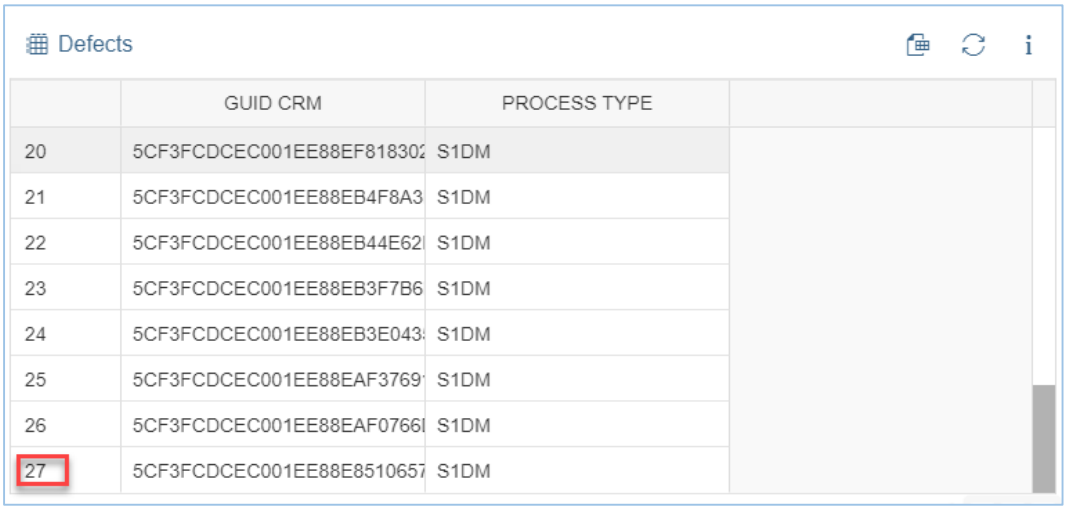



Figure 249. Detail view (Select/Edit some columns titles)

Also using the Display attributes property, we can select/edit some columns titles and Keep the left attributes with the same behavior using this syntax <KEY1> > <Display_name1>, <KEY2> > <Display_name2>, *

The Asterisk in column means that we will show all other columns in addition to those with changed names.

In a very similar way to the DISPLAY_ATTRIBUTES, the FILTERS_VALUES feature is used to select/Edit some rows.

FILTERS_VALUES= <KEY1>: <Value1 >, <Value2>& <KEY2> : <Value1 >,<Value2>

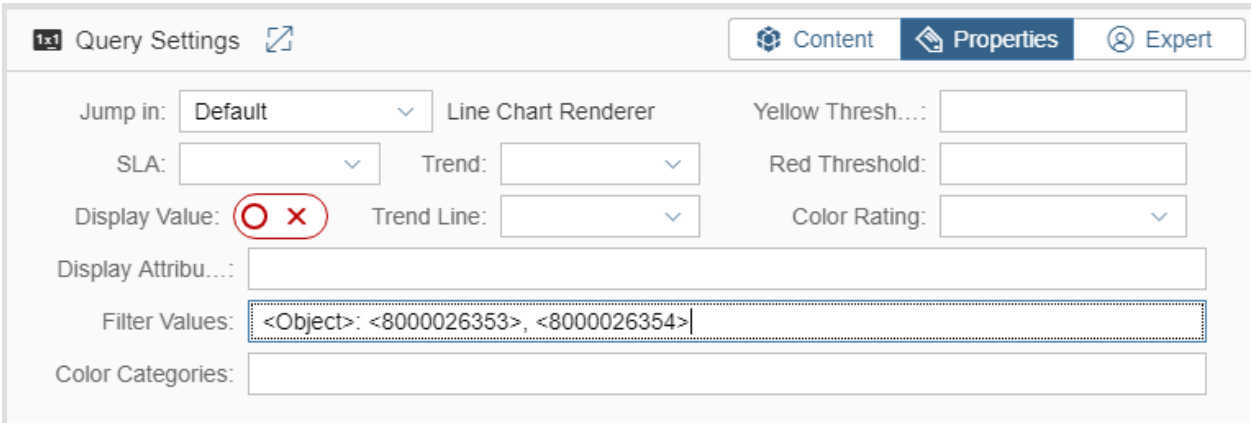



Figure 250. Use of Display Filter Values property

Sort Columns in the Dynamic Table Renderer:

1. Click on the Column Header in the Dynamic Table Renderer
2. A column menu entry for sorting will be displayed: there is two possibilities for sorting
    a. Sort Ascending
    b. Sort Descending


Figure 251. Sort Dynamic Table Renderer

**Dynamic Table Paging:**

This is an extension of dynamic table which offers the same content of Dynamic table with pagination option. Also, this renderer offers the possibility of navigation easily between pages via a slider input form where we can enter the desired page number:

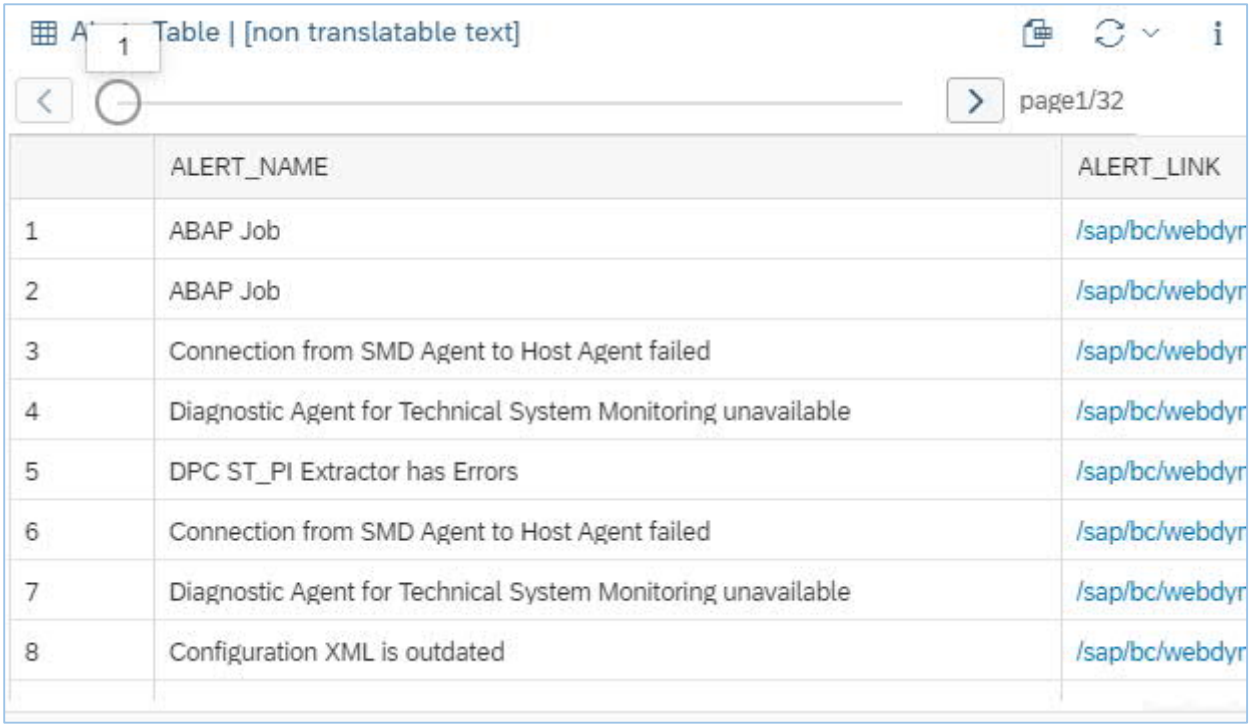



Figure 252. Dynamic Table Paging

To define the number of rows displayed per page we have to add an attribute '**nb_rows_displayed**' to the query in expert mode. The default value of this attribute is 30:

In our example we set the value to 10:

| Legend | Query |
|---|---|
| OFT | /STDF/DP_MAI_ALERTING:KPI=Counter_Cur\|CONTEXT_ID=\|ALERT=\|TECHNICAL_SCENARIO=\|CONTEXT_TYPE=\|CATEGORY=\|RATING=\|Incident=\|SEVERITY=\|Threshold_unit=\|Threshold_value=\|processor=\|visible=true\|legend=\|COLOR=#1f77b4\|OCC_JUMP_IN=\|display_value=false\|HTML_CONTENT_ID=\|**nb_rows_displayed=10** |

All options of dynamic table (Display Attributes, Filters Values ..) are available for this renderer. When we apply a filter, it will be applied on the whole data and not only displayed rows. Then, the number of pages and the content will be refreshed according to filter values.

PS: Dynamic table renderer supports only one query

## 6.12 SLR table renderer

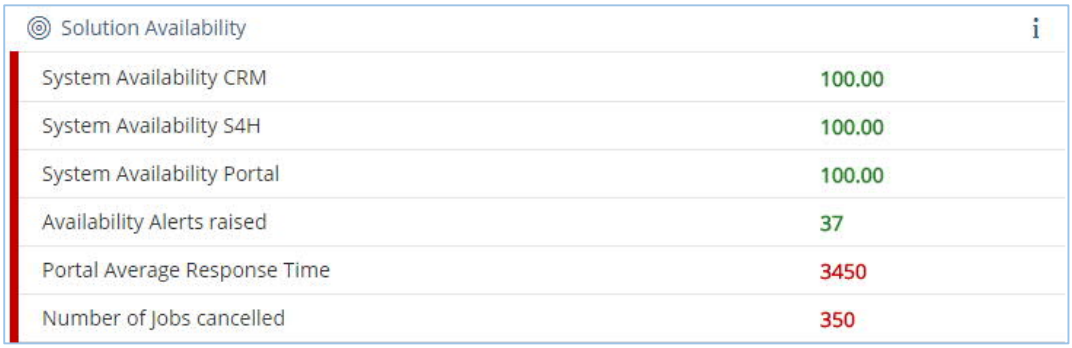



Figure 253. SLR Table Renderer

## 6.13 SLR Renderer

This Renderer display a Rating (Green, Warning or Red) for each query defined in the Gadget.

The rating is based on:

1. Target Thresholds for the SLA.
2. Period, Resolution for the SLA.
3. Color Rating.

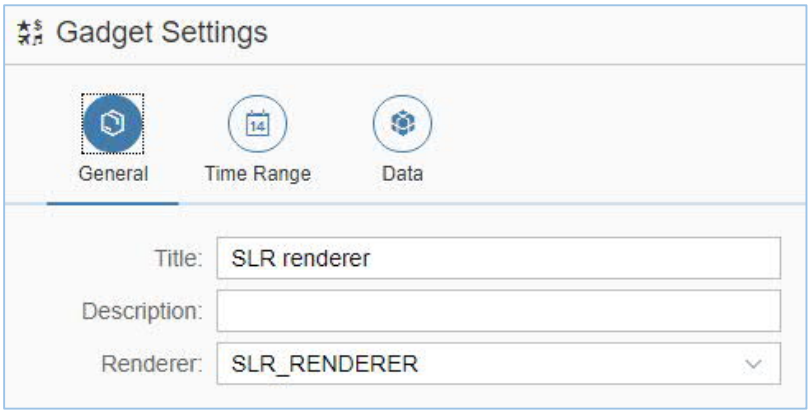



Figure 254. SLR renderer

The SLR_Renderer uses ANY Queries defined in the Gadget and compute the SLA Rating based on the following values:

4. Thresholds are taken from the Query String (G2Y and Y2R) or the Gadget configuration: If there is no Thresholds, the Rating will be Green.
5. Period for the Rating is taken from the gadget period.
   - If the Data Provider is of type DP_DF_KPI, the following parameters can be used: Period, Resolution
6. Rating is either High Is Good or Low is good depending on the G2Y and Y2R values.

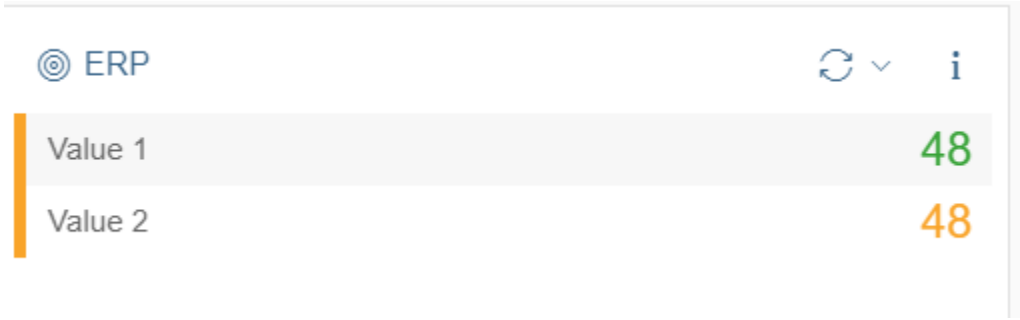



Figure 255. SLR renderer thresholds

## 6.14 Stack Bar Chart

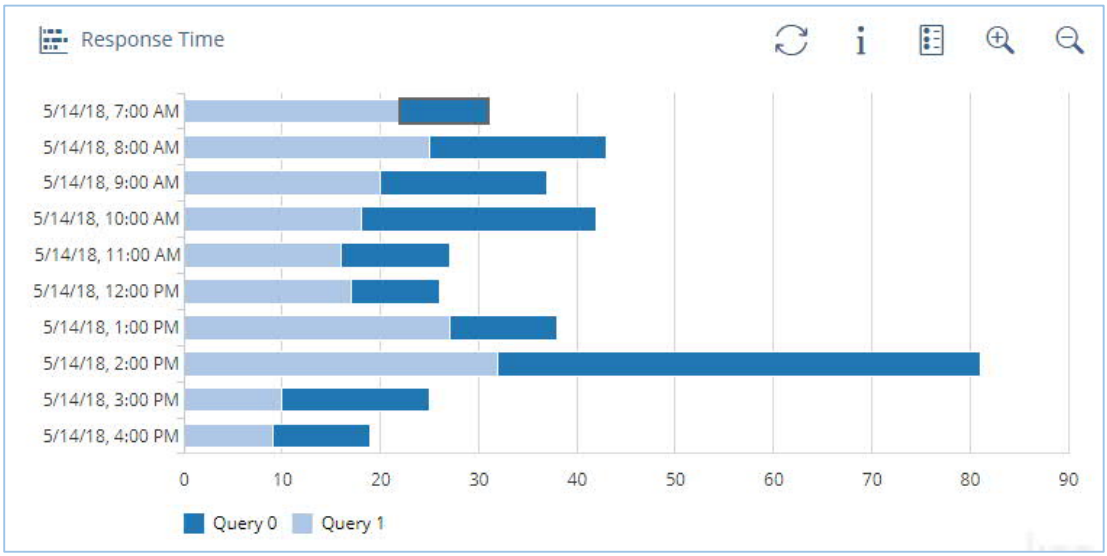



Figure 256. Stack Bar Chart

## 6.15 Stack Column Chart

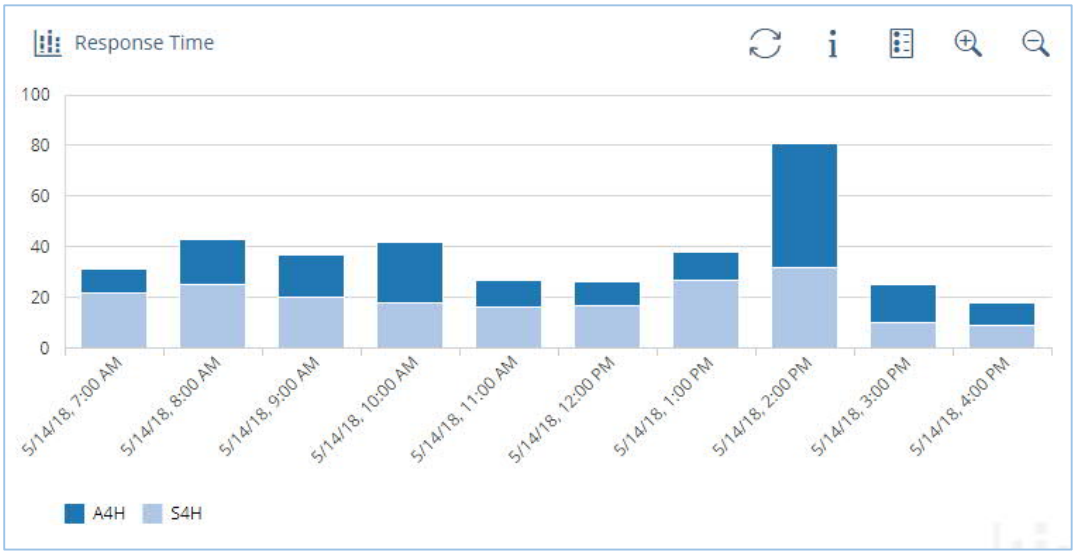



Figure 257. Stack Column Chart

## 6.16 Stack_Column_Chart_2Label

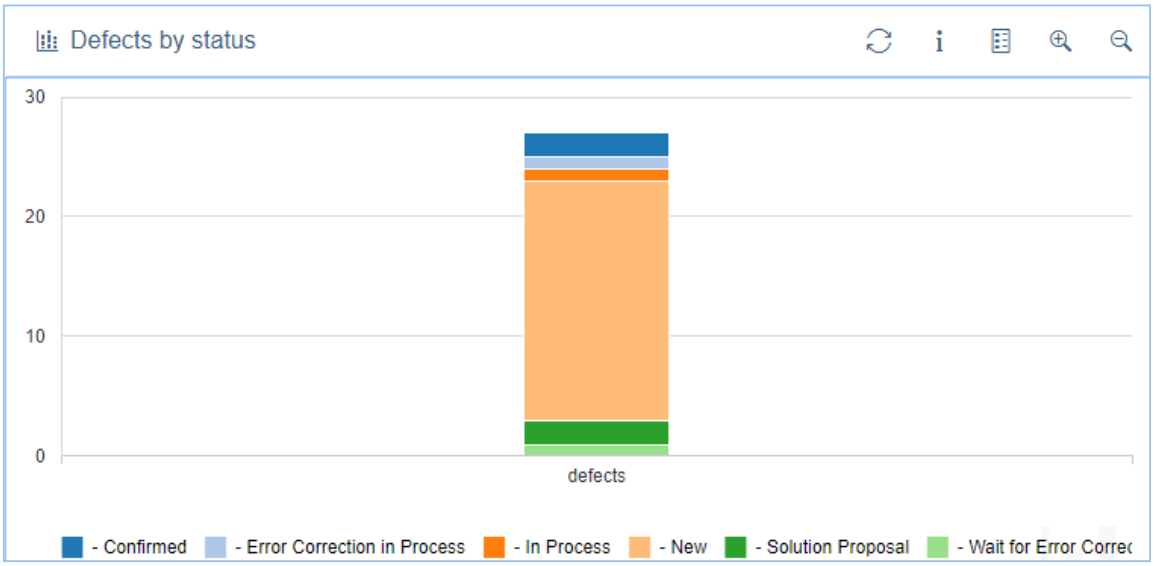



Figure 258. Stack_Column_Chart_2Label

Here is an example for the Stack_Column_Chart_2Label renderer "OCC_JUMP_IN":

- Prepare a saved search on the CRM, Go to the Transaction CRM_UI

We should add the number of the gadget which we want to jump to in the query: |OCC_JUMP_IN=207-2027

The generated query is:

| Legend | Query |
| --- | --- |
| defects / | /STDF/DP_CRM:COLOR=#1f77b4\|legend=defects /\|OCC_JUMP_IN=207-2027\|SLA=\|TREND=\|G2Y=\|Y2R=\|COLOR_RATING=\|DISPLAY_ATTRIBUTES=\|visible=true\|Saved_search=5CF3FCE8D2301EE88CA1D5130FA1E121\|Filter=\|Backlog=\|Drilldown=CONCATSTATUSER\|display_value=false |


Figure 259. Configuration gadget

When clicking on the column, a new window is displayed:

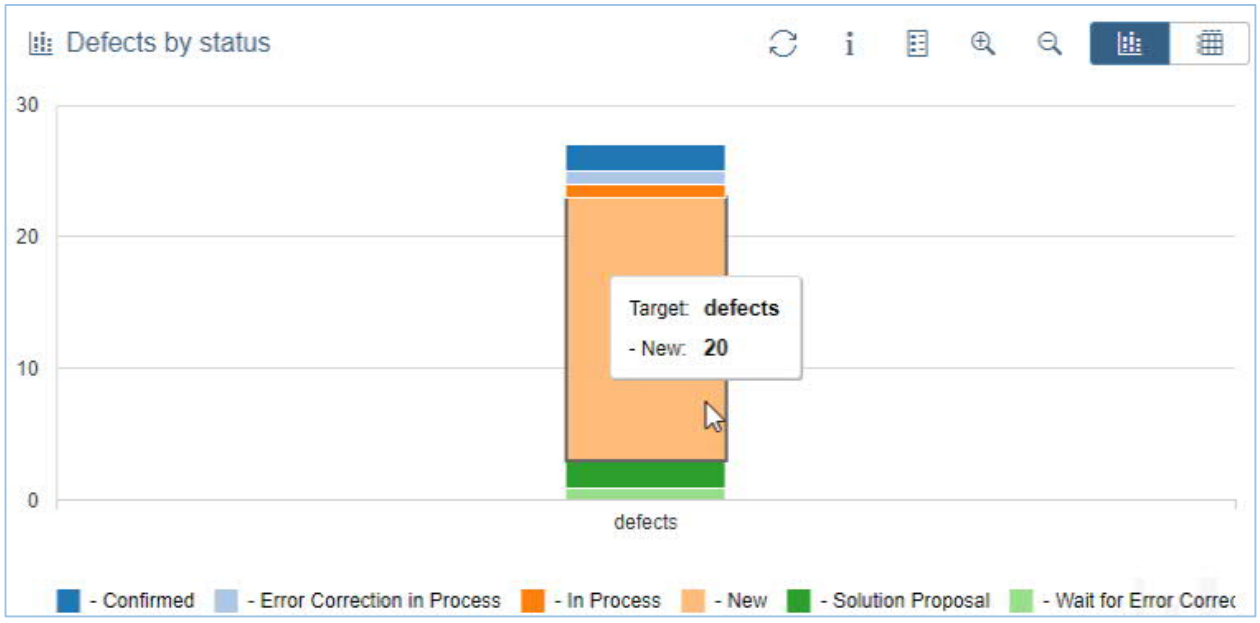
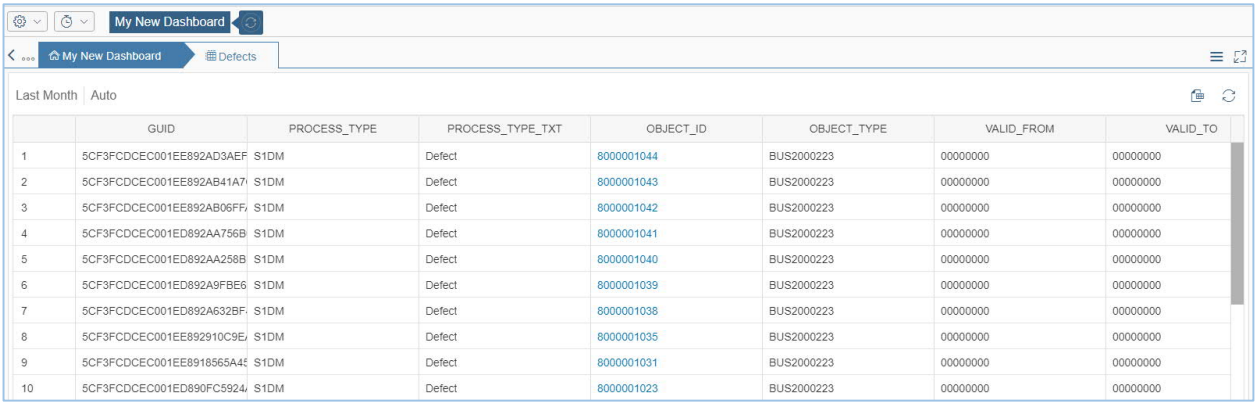



Figure 260. Detail View (1)

Here is the displayed window:




| | GUID | PROCESS_TYPE | PROCESS_TYPE_TXT | OBJECT_ID | OBJECT_TYPE | VALID_FROM | VALID_TO |
|---|---|---|---|---|---|---|---|
| 1 | 5CF3FCDCEC001EE892AD3AEF | S1DM | Defect | 8000001044 | BUS2000223 | 00000000 | 00000000 |
| 2 | 5CF3FCDCEC001EE892AB41A7 | S1DM | Defect | 8000001043 | BUS2000223 | 00000000 | 00000000 |
| 3 | 5CF3FCDCEC001EE892AB06FF | S1DM | Defect | 8000001042 | BUS2000223 | 00000000 | 00000000 |
| 4 | 5CF3FCDCEC001ED892AA756B | S1DM | Defect | 8000001041 | BUS2000223 | 00000000 | 00000000 |
| 5 | 5CF3FCDCEC001ED892AA258B | S1DM | Defect | 8000001040 | BUS2000223 | 00000000 | 00000000 |
| 6 | 5CF3FCDCEC001ED892A9FBE6 | S1DM | Defect | 8000001039 | BUS2000223 | 00000000 | 00000000 |
| 7 | 5CF3FCDCEC001ED892A632BF | S1DM | Defect | 8000001038 | BUS2000223 | 00000000 | 00000000 |
| 8 | 5CF3FCDCEC001EE892910C9E | S1DM | Defect | 8000001035 | BUS2000223 | 00000000 | 00000000 |
| 9 | 5CF3FCDCEC001EE8918565A4 | S1DM | Defect | 8000001031 | BUS2000223 | 00000000 | 00000000 |
| 10 | 5CF3FCDCEC001ED890FC5924 | S1DM | Defect | 8000001023 | BUS2000223 | 00000000 | 00000000 |

Figure 261. Detail View (2)

## 6.17 Table History renderer

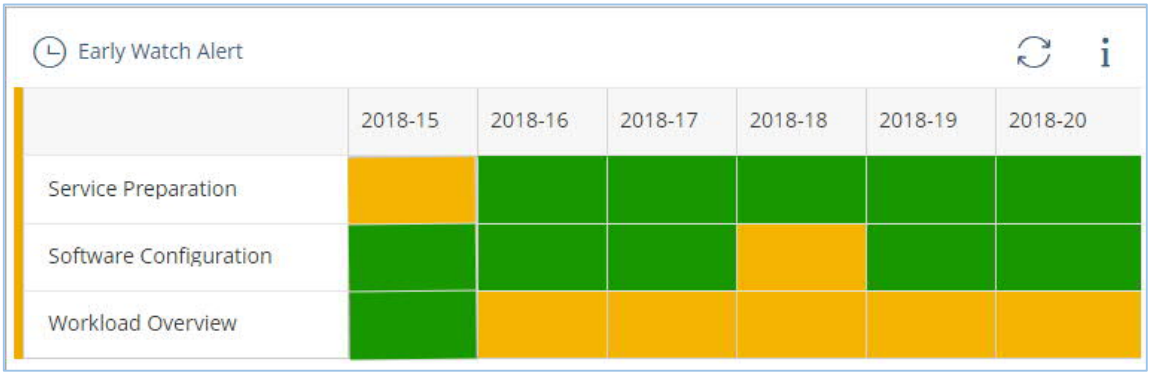



Figure 262. Table History renderer

## 6.18 Trend Table Renderer

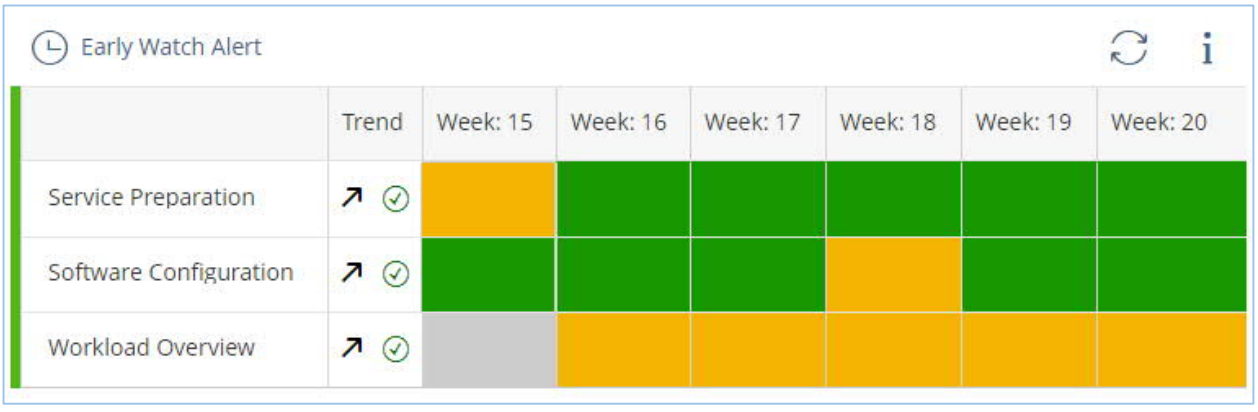



Figure 263. Trend Table Renderer

## 6.19 Waterfall Chart

This renderer is used only with the data provider DP_Build.

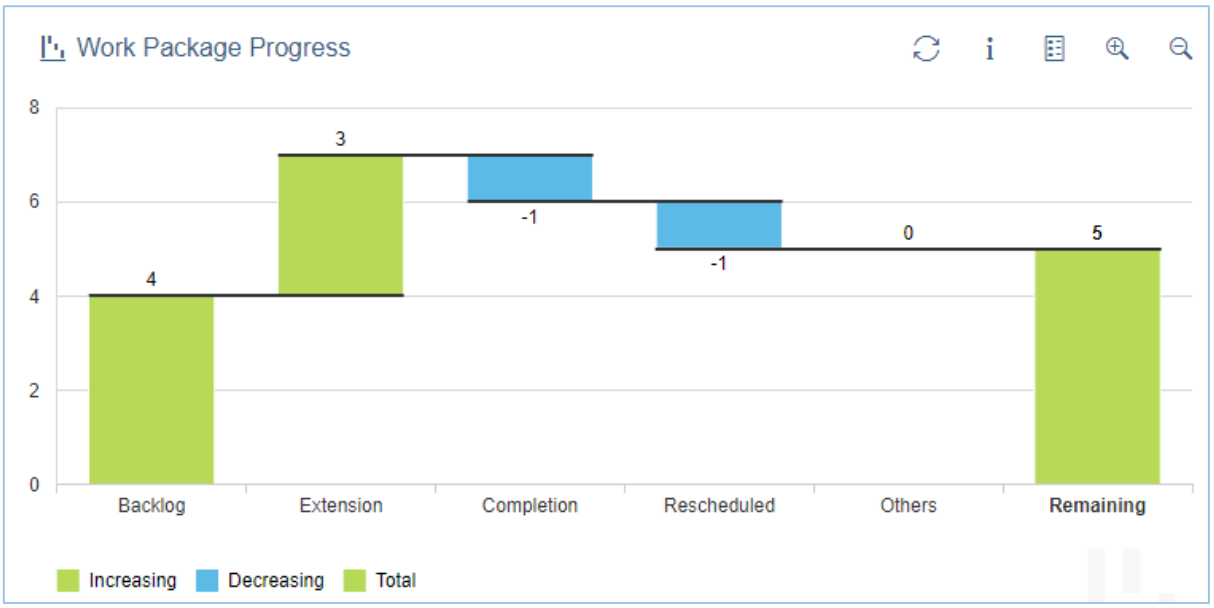



Figure 264. Waterfall renderer

## 6.20 HTML renderer

**Capabilities:**

- Display Tiles and Text / HTML
- **Available for all DPs**: A new Option Group is added for all DPs allowing the selection of the HTML Content to be displayed

**Options:** The user can select one of the 3 options below:

- HTML: The gadget will consider displaying only the HTML content. The content could contain **link** to images or a **base 64** images.
- Tile: The gadget will consider displaying only tiles. The tile will contain the SLR_RENDERER Value according to the specified SLA. It supports also the color rating.
- HTML and Tile: The gadget will display Tiles on the top of the HTML Content **(Default)**

**Usage:**

1. Select The HTML_RENDERER
2. Select the display Format (Tile, HTML or HTML and Tile)
3. Select the content from the Option Group “HTML Content”

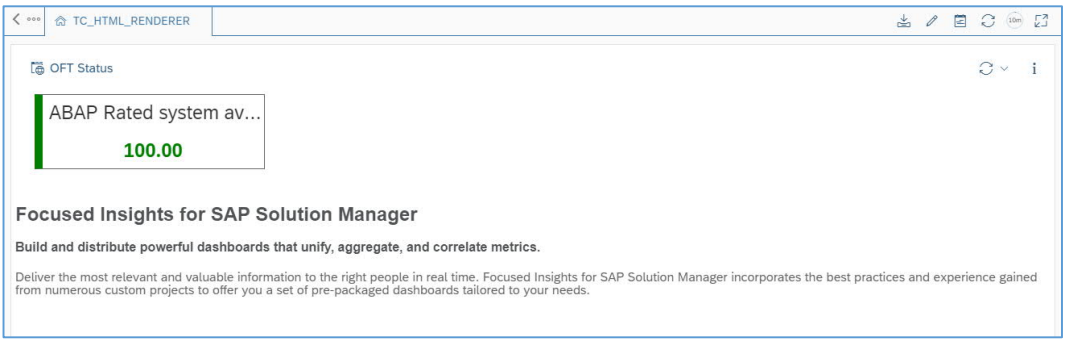



Figure 265. HTML Renderer (HTML & Tile)

## 6.21 Renderers Usage

The renderers are used to display data providers ‘data.

We can group the chart into categories:

- **Trend Chart Single scale:**
  - Line Chart
  - Pie Chart
  - Donut Chart
  - Line-Column Chart

- **Trend Chart Double scale:**
  - Dual Line Chart
  - Dual Line-Column
  - Dual Bar-Column

- **Distribution Stack:**
  - Stack Bar Chart
  - Stack Column Chart
  - Stack Column Chart2Label

- **Comparison:**
  - Waterfall Chart
  - Column Chart
  - Bar Chart

- **Trend Table:**
  - Table History Renderer
  - Trend Table Renderer

- **Table:**
  - Dynamic Table

- **Alerts Tree:**
  - Alert Table
- **Compliance:**
  - SLR Renderer
  - SLR Table Renderer

The following table is showing mapping Data Providers to Renderers 'categories:

| Categories / Renderers | Trend Chart Single scale | Trend Chart Double scale | Distribution Stack | Comparison | Trend Table | Table | Alerts Tree | Compliance |
|---|---|---|---|---|---|---|---|---|
| DP_SYSMON | × | × | × | × | × | | | × |
| DP_SYSMON_SNAPSHOT | | | | | | | × | |
| DP_EEM | × | × | × | × | × | | | × |
| DP_EEM_BI | × | × | × | × | × | | | × |
| DP_BPA_KPI | × | × | × | × | × | × | | × |
| DP_BEX_QUERIES | × | × | × | × | × | × | | × |
| DP_DF_TAC | × | × | × | × | × | | | × |
| DP_DVM | × | × | × | × | × | | | × |
| DP_MAI_ALERTING | × | × | × | × | × | × | | × |
| DP_DF_KPI | × | × | × | × | × | | | × |
| DP_ITSM | × | × | × | × | × | | | × |
| DP_CCM | × | × | × | × | × | × | | × |
| DP_CRM | × | × | × | × | × | × | | × |
| DP_CALCULATION | × | × | × | × | × | | | × |
| DP_DCM | × | × | × | × | × | × | | × |
| DP_ICM | × | × | × | × | × | | | × |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DP_EWA | × | × | × | × | × | × | | × |
| DP_BPO | × | × | × | × | × | | | × |
| DP_SOLDOC | × | × | × | × | × | × | | × |
| DP_BUILD | × | × | × | × | × | × | | S |
| DP_SECURITY | × | × | × | × | × | × | | × |
| DP_FRUN | × | × | × | × | × | × | | × |
| DP_BPA | × | × | × | × | × | | | × |
| DP_TEST | × | × | × | × | × | × | | × |
| DP_SQLSCRIPTS | | | | | | × | | |
| DP_BEX_VIEW | × | × | × | × | × | × | | × |
| DP_TRANSACTIONS | × | × | × | × | × | × | | × |
| DP_TABLE | × | × | × | × | × | × | | × |
| DP_JSM | × | × | × | × | × | × | | × |
| DP_ATC | × | × | × | × | × | × | | × |
| DP_SAM | × | × | × | × | × | × | | × |
| DP_ALERT_SEARCH | × | × | × | × | × | × | | × |

# 7. Limitations specific to internet explorer (IE)

- when using the URL parameter **&hardRefresh** the Browser will be closed and restarted again in order to reinitialize the memory.

- For some old IE versions, the **copy & paste query** option of the **/STDF/DP_SYSMON_SNAPSHOT** DP may not work.

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