Application Performance Monitoring Dashboard 7.2

ST-OST 200 SP03

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE`	Keys on the keyboard, for example, `F2` or `ENTER`.

Document History

Version	Date	Change
1.0	2017-06-27	Initial version
1.1	2017-07-31	ST-OST 200 Support Package 01 (SP01)
1.2	2018-06-22	ST-OST 200 Support Package 02 (SP02)
1.3	2019-02-21	ST-OST 200 Support Package 03 (SP03)

Contents

1 What is APM Dashboard?

1.1 Introduction

The APM Dashboard is used to ensure compliance of SAP application performance. This console is used for monitoring purpose as well as analysis and planning purposes for seven sets of performance metrics:

- o End-User Experience;
- o Interface and Connection;
- o Business Process;
- o Job Monitoring;
- o Transaction;
- o Availability.
- o BI Monitoring.

The APM Dashboard provides an aggregated view of the compliance of performance metrics per month according to several levels:

- o A first navigation level which is customizable;
- o A second navigation level which is customizable;
- o A category or defined set of performance metrics among seven.

The APM Dashboard is strongly linked to an Operation Dashboard: indeed, the APM Dashboard reuses the set of alerts and the navigation model or aggregation model of an Operation Dashboard.
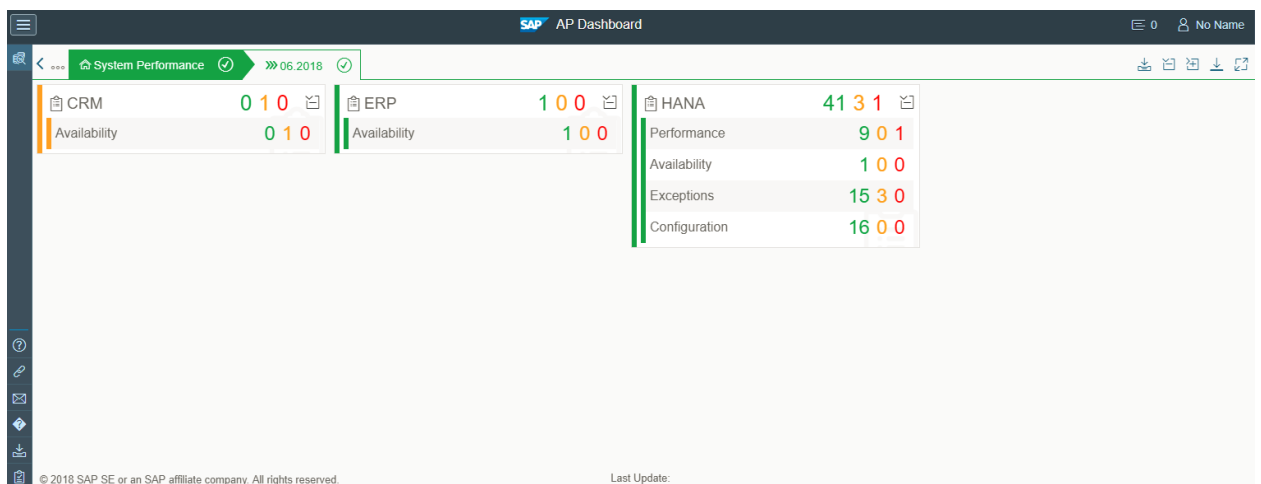

Figure 1: Aggregated View

On the lowest level (metric level), the APM Dashboard shows the daily compliance of a given metric using a chart. On it, we distinguish:

- o Two dotted lines: the desired threshold of alerts and long running alerts (optional).
- o A line: actual values of alerts.
- o Bars: actual values of long running alerts (optional).

Figure 2: Metric View

On category level, the tiles provide the percentage of compliance for each metric. And the global number of compliant metrics is shown on the top.
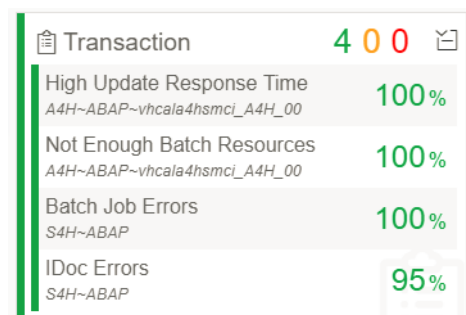

Figure 3: Tile for the category

On upper levels, the tiles provide the detailed statistics for each sublevel. And the global number of compliant metrics is shown on the top. Below is an example for Level 2.
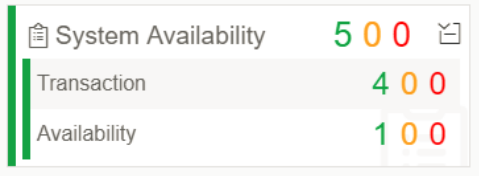

Figure 4: Tile on Level 2

1.2 Configuration of multiple instances

One of the key features of the dashboard is the possibility to configure multiple "instances", each instance is then mapped to a configuration ID.

A configuration represents a dashboard instance with specific configurations and thresholds.

Figure 5: Dashboard instances

2   An overview of the configuration

The configuration of an instance is quite simple and can be summed up in these steps:

1. Execute the configuration application and add one or more instances

Figure 6: Dashboard instances

2. Assign an Operation Dashboard configuration to the new instances

Figure 7: Instances and base configurations

Application Performance Monitoring Dashboard 7.2
An overview of the configuration

Figure 8: Thresholds

3 Configure a new instance step by step

The steps are in general as follows:

1. Create a new instance of the dashboard (Application Performance Area);
2. Assign one base configuration to the current instance (Base Configuration Area);
3. Configure the thresholds for the current instance (Thresholds Area).

3.1 Create a new instance of the Dashboard

The configuration application is accessible from the new Dashboard Launchpad. Here is the link:

```
http://<solman_host>:<port>/sap/bc/ui5_ui5/stdf/central/index.html?admin=true
```

From the main view, click on the wheel in the tile dedicated to Application Performance:
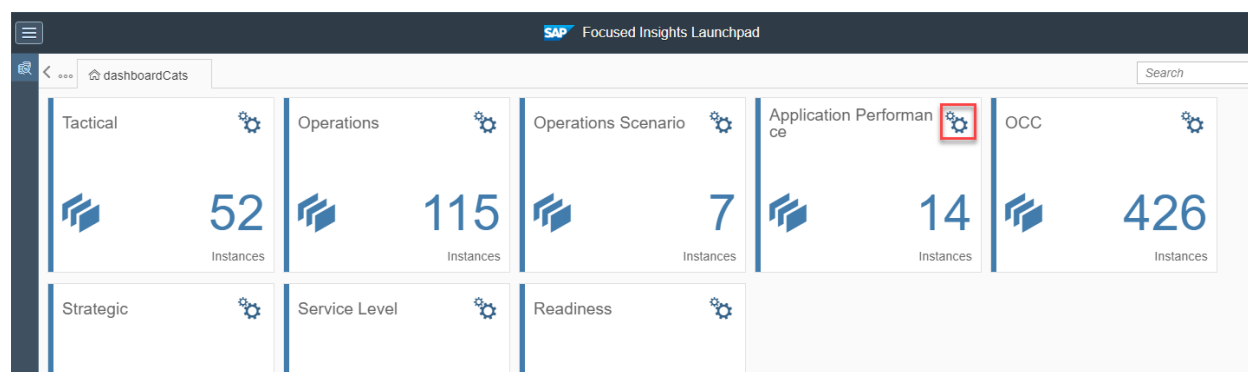

Figure 9: Accessing the configuration application from the new Dashboard Launchpad

There is also the option to use this direct link to access the configuration application:

```
http://<solman_host>:<port>/sap/bc/webdynpro/stdf/ap_wd_conf_app
```

The application includes three principal areas: **Application performance configuration** (where Dashboard instances can be created and maintained), **Base configurations** (where we select the Operation Dashboard instance) and **Thresholds** (where we set up the thresholds of the APM Dashboard instance).

As explained previously the dashboard supports the possibility to configure different instances. To create an instance, first select the option Edit under Application performance configuration area.
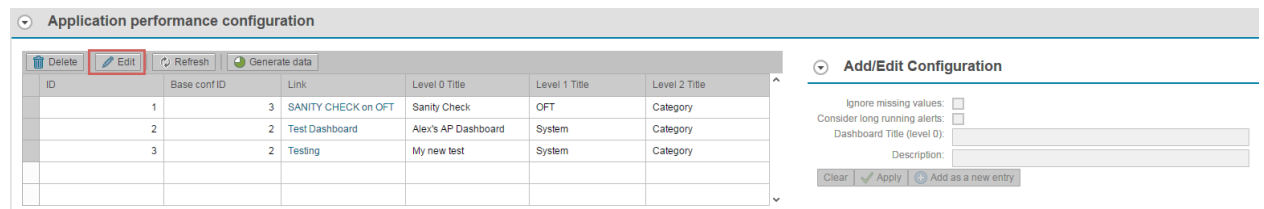

Figure 10: Enter Edit mode

Then, provide all the required fields to create a new instance:
- o Dashboard title (or Level 0 title);
- o Description.

The description is used in the link, visible on the configuration app.
And, below is the way the Level 0 title is displayed on the dashboard.

Figure 11: Level 0 title location

There is also a checkbox "Ignore missing values" we can select to change the behavior of the instance.
If we select "Ignore missing values", the compliance algorithm treats missing values as compliant values.
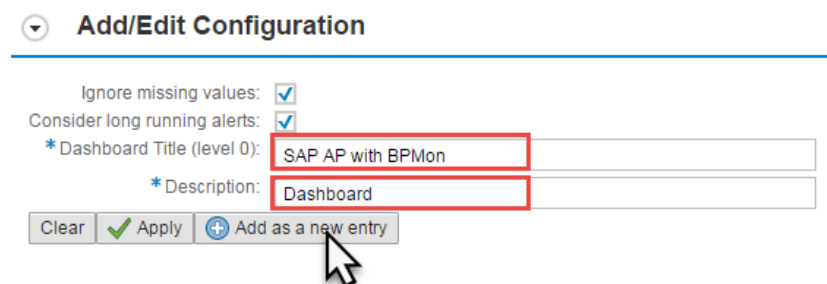

Figure 12: How to add a new instance

Click on the "Add as new entry" button to create the new line in the instance table.

3.2   Assign a base configuration to the new instance

Once the instance is created, one important step is to assign a base configuration (or an Operation Dashboard configuration). Please check the created instance is highlighted and select a line in the base configuration table.

At this level, Level 1 title and Level 2 title are set accordingly to the base configuration data. But there is the possibility to overwrite these values in order to have customized titles.

Figure 13: Base configuration assignment

To finish this step, click on the "Assign base configuration" button. This action transfers the alerts from the Operation Dashboard instance to the APM Dashboard instance. And this action also triggers the generation of default thresholds

3.3 Configure the thresholds

Figure 14: Customized thresholds

In this area, we have five levels of configuration:

- o The Level 0;
- o The Level 1;
- o The Level 2;
- o The category level (for which we have seven fixed categories);
- o And the metric level, which is represented on the same line as the associated category.

For all the levels except the metric level, the user is able to overwrite the green to yellow threshold as well as the yellow to red threshold. These values are percentages.

For evaluating compliance, a threshold at metric level is required and the value is customizable by the user. The threshold type depends on the category. For the category *"End-User Experience"*, the threshold is a percentage. For the other categories, the threshold is a number of alerts.

For the category *"End-User Experience"*, the configuration application distinguishes the performance threshold from the availability threshold as the Dashboard deals with these two types of EEM alerts.

3.4 Extract data using the generation button

Once the instance is properly configured, there is an additional step to retrieve monitoring data for the current month. The user should push the button "Generate data". Doing this, the job /STDF/AP_IMM_JOB<instance_id> is immediately scheduled. After the job execution, monitoring data are available in the Dashboard instance.
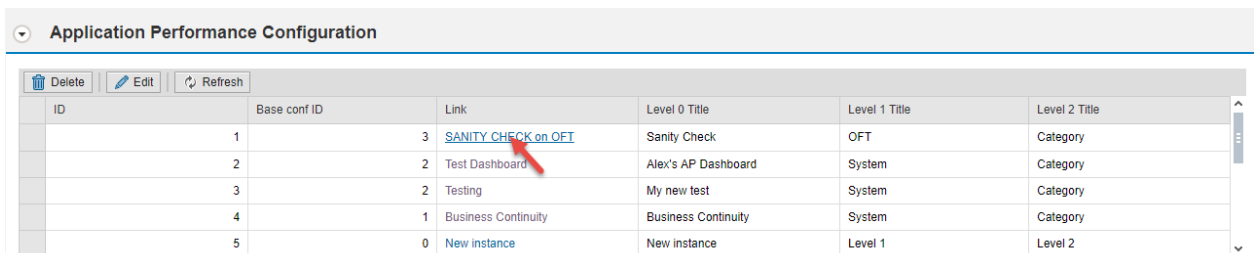

Figure 15: Generation button

4 Dashboard Usage

The current version of the Application Performance Monitoring Dashboard supports 7 categories:

- *"Availability"*, *"Transaction"*, *"Jobs", "BI Monitoring"* and *"Interface & Connection"* from Application Operations Monitoring;

- *"Business Process"* from Business Process Monitoring;

- *"End-User Experience"* from End User Experience Monitoring;

4.1 Accessing the dashboard

From the configuration application, the unified dashboard is accessible from the "Link" column.

Figure 16: Accessing the dashboard

ℹ Note

Note that if you are using the old URL of the classic AP dashboard:
`http://<solman_host>:<port>/sap/bc/bsp/stdf/ap_dashboard/index.html`, the application is deprecated and you will be redirected automatically to the unified version of the AP dashboard.

For accessing this dashboard, the user can also start the new Dashboard Launchpad using this link:

`http://<solman_host>:<port>/sap/bc/ui5_ui5/stdf/central/index.html`

From that place, all the configured instances are grouped per dashboard. For accessing the AP instances, the user should click on "Application Performance" tile.
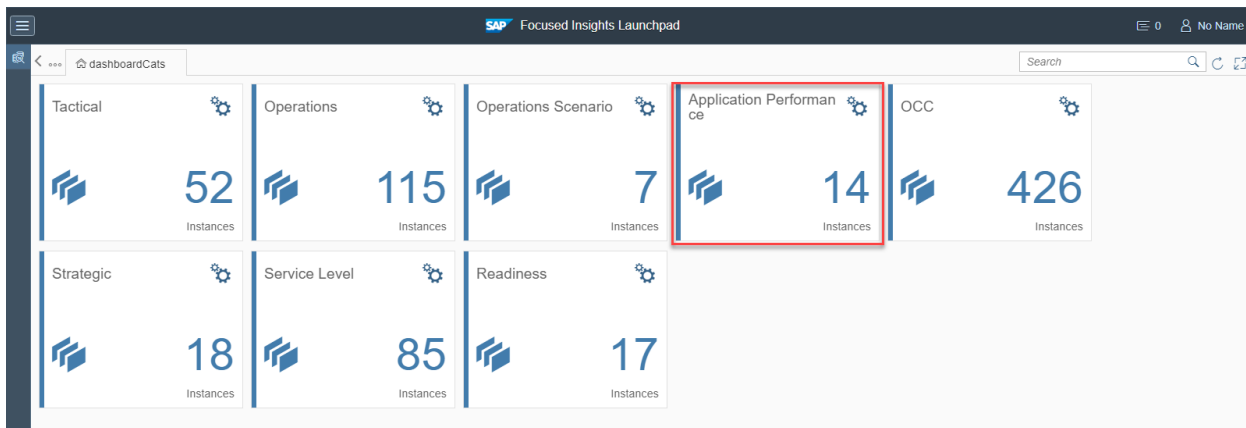

Figure 17: The category "Application Performance" in the Dashboard Launchpad

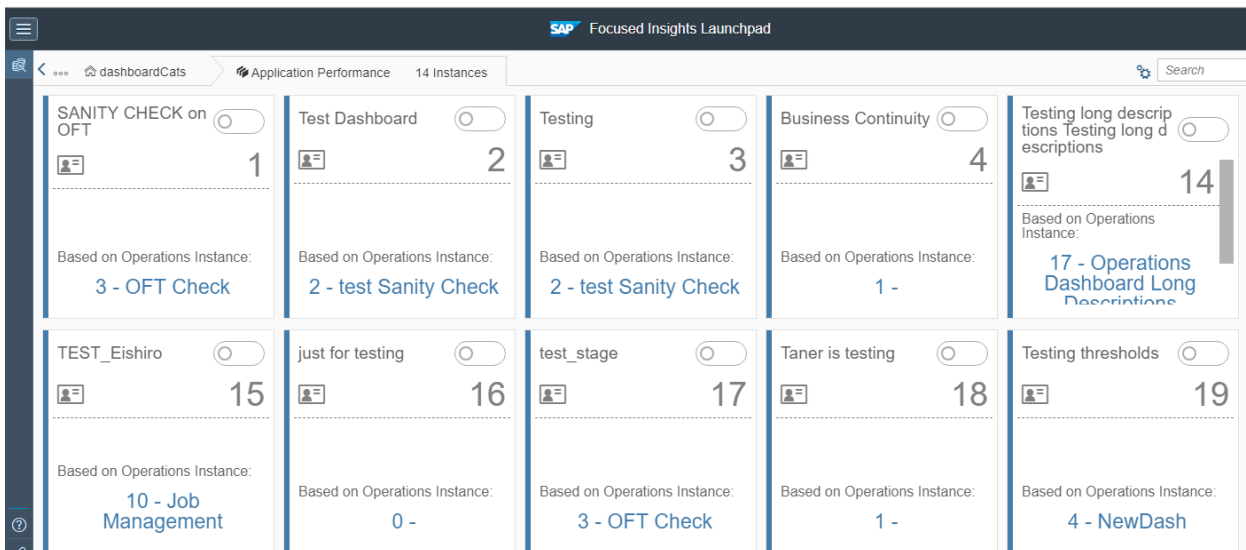Then, all the AP instances are displayed.

Figure 18: AP instances

One or several instances can be selected with the individual switches.

Once the selection is done, the dashboard containing one or multiple instances can be launched with the action "Go to dashboard".
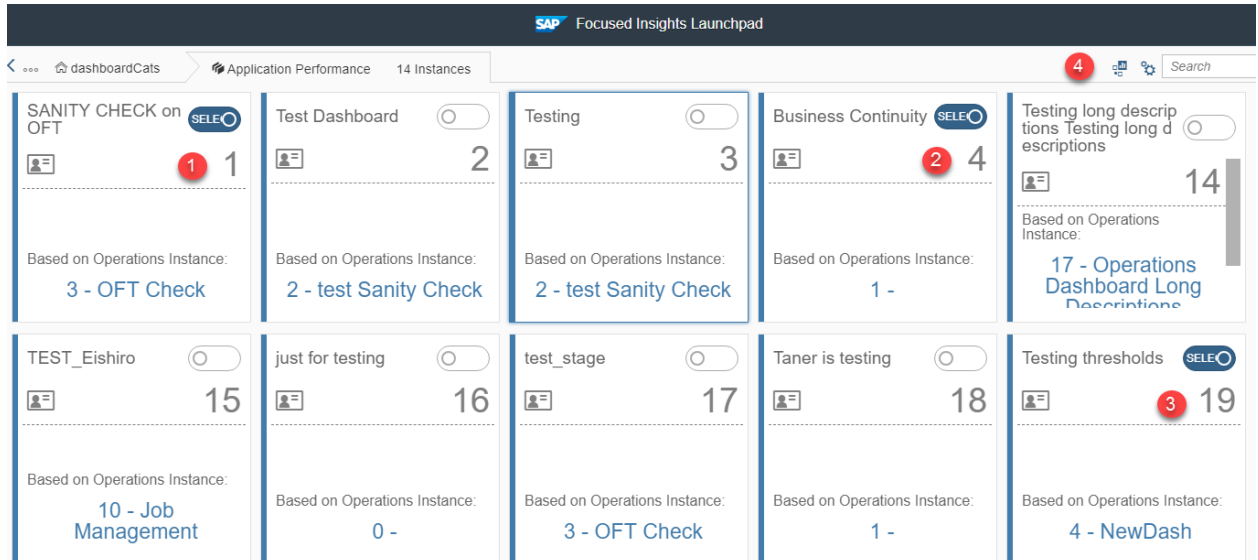

Figure 19: How to select and launch the dashboard

4.2 Navigation and display

Once the application starts, the last 12 months of one instance are displayed. The tiles are grey if there were no job executions for the involved month. Otherwise, the color represents the global rating of the month.
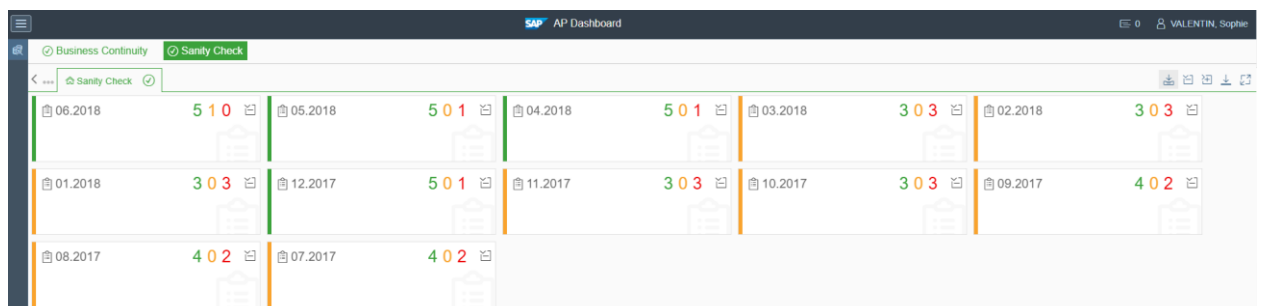

Figure 20: Main screen (month level)

The Header contains in the center, SAP Logo and the dashboard type name Readiness Dashboard.

In the right side there is the messages number button and the user preference button.

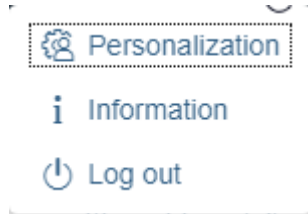When the user clicks on the user preference button a list of three buttons.

Figure 21: User Preference List of Buttons

i- Personalization button:
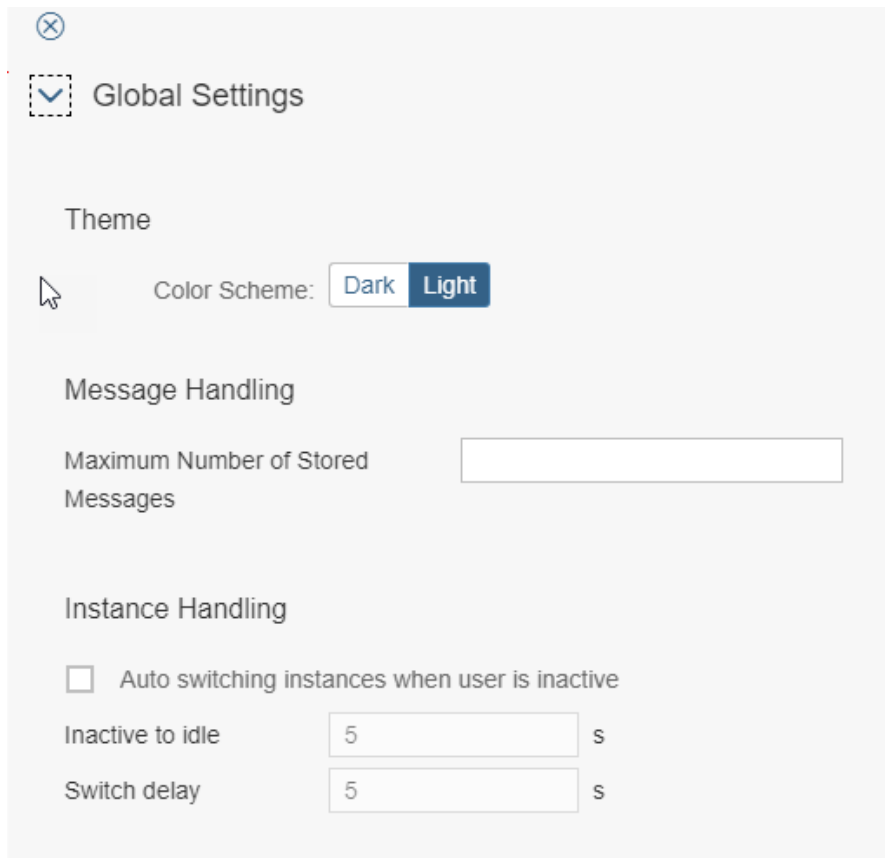
This button opens the Global settings dialog,

Figure 22: Global Setting Dialogue

In this dialog the user can the theme color schema "Light or Dark"

Light mode is the default mode.

> ℹ **Note**

Note that the dark mode can be selected by adding the following parameter '&ColorScheme=dark' to the URL.

- https:// host:port /sap/bc/ui5_ui5/stdf/rd_dash/index.html?CONFIGID=X&ColorScheme=dark

Below a screenshot of the dashboard with the dark mode.

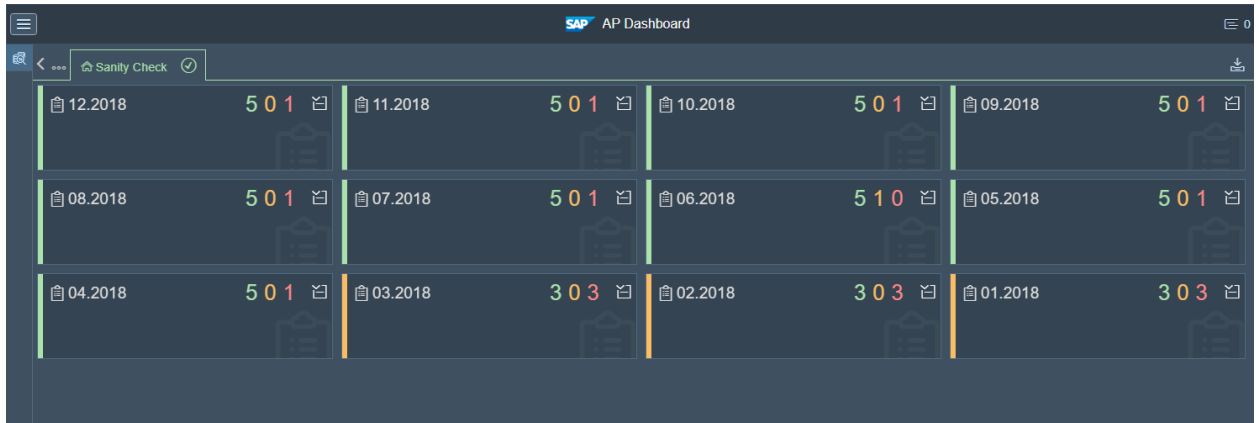*Figure 23: AP Dashboard with the Dark Mode*

From the main screen, the user can navigate to lower levels of the current instance by clicking the tiles. During the navigation, a breadcrumb is displayed on top to reach easily the upper levels.

Figure 24: Breadcrumb

If several instances were selected, then tabs are displayed on top to switch between the instances

Figure 25: Multiple instances

4.3   Compliance and rating method

For every metric, we evaluate the compliance every day. For "End-User Experience" category, the monitored value should be greater or equals than the threshold to be compliant. For the other categories, the monitored value should be lower or equals to the threshold to be compliant.

Below is the chart we obtain for the metric "Batch Job Errors": the number of alerts are displayed per day. For such a metric, the monitored value should be lower than the threshold (or equals to the threshold).
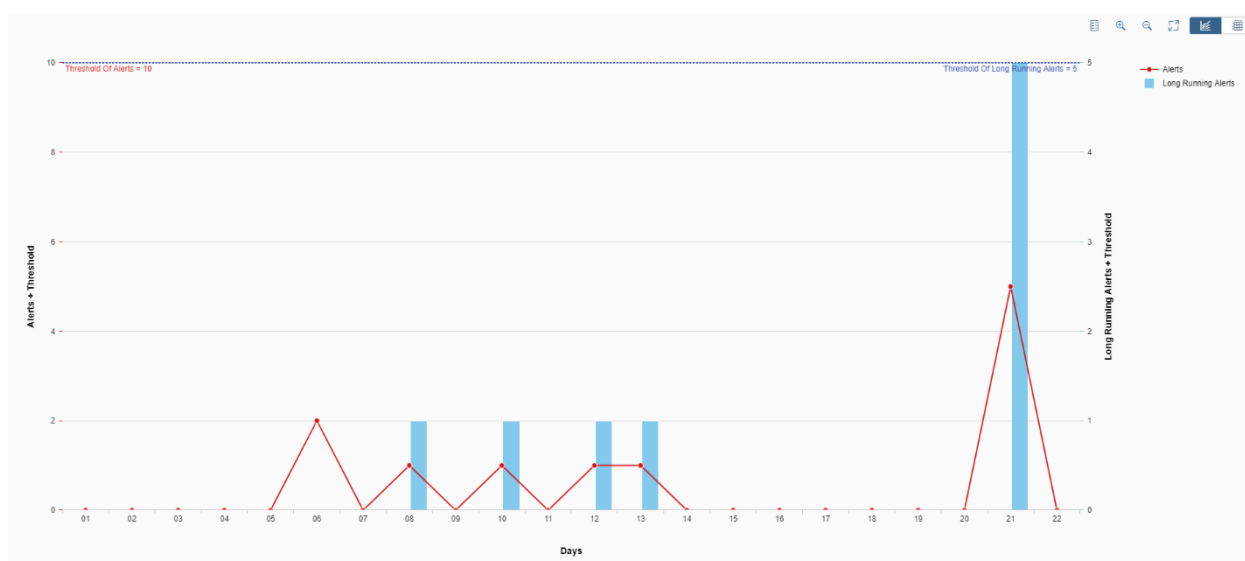
Figure 26: Compliance view for one metric

If for some days, the number of alerts are higher than the threshold, then we would consider these days as not compliant.

In case the user wants to consider the long running alerts to compute the compliance, the calculations are more complicated. Indeed, we have to compare in addition the number of long running alerts to its threshold. This comparison is performed only if the day was considered compliant from the number of alerts perspective.

If we need to see all values more clearly, we can click to display a complete table, as seen below:

Figure 27: Button to switch between chart and table

On metric level, we compute a compliance percentage for the whole month. For doing this, we count the number of days in the month where the monitored value is compliant. Here is the result for the metric "High number of ABAP Short Dumps":
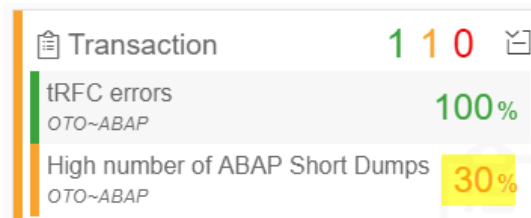

Figure 28: Category rating

In the previous example, the compliance percentage is 0%.

Each level is rated (green, yellow or red) based on the thresholds provided in the configuration application.

In addition, each level displays the number of alerts considered as alerts, warnings or passed ones. In our example, for determining the color rating of the metric, we need to compare the computed percentage to the configured thresholds for the category "End User Experience".
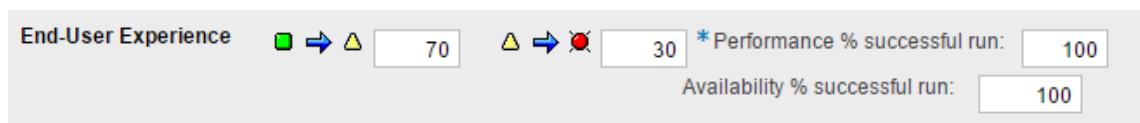

Figure 29: Thresholds for one particular category

According to the previous settings, the metric can be rated as red. And we process the same kind of comparison using the same thresholds on the category itself: here, the rating is also red.

For upper levels, we compute the global compliance percentage which is based on the sublevel percentages and we rate the tile according to the related settings. For example, at month level (Level 0), we use the Level 0 thresholds from the configuration application.

4.4 Export function

Figure 30: Button to export data in Excel file

By clicking this button, you can export your data into an Excel file.

By default, the month selected is the month to date.

5 Troubleshooting

General approach

If some data is not displayed in the Dashboard we first need to understand if the underlying metric is returning any values. To do so we can use the "metric builder" application to test individual metrics involved in the different scenarios.

The link to access the metric builder is the following:

`http://<solmanhost>:<solmanport>/sap/bc/webdynpro/stdf/wd_mt`

To test one metric, you can simply select one entry and click on the "Test" button.

5.1 Alerts from Applications Operations and BPMon on MAI

Metric used: NB_ALERTS

Class name: /STDF/CL_NB_ALERTS__1_0

5.2 Long Running Alerts from Applications Operations and BPMon on MAI

Metric used: NB_LONG_RUNNING_ALERTS

Class name: /STDF/CL_NB_LONG_RUNNING_1_0

5.3 EEM Performance: Percentage of successful runs

Metric used: EEM_PERF_RUNS

Class name: /STDF/CL_EEM_PERF_RUNS__1_0

Underlying query: /STDF/QD_EEM_PERF

5.4 EEM Availability: Percentage of available runs

Metric used: EEM_AVAIL_RUNS

Class name: /STDF/CL_EEM_AVAIL_RUNS__1_0

Underlying query: /STDF/QD_EEM_AVAILABILITY

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