



Auto Reporting and Alarming

Version 5.11

Manual



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1 Auto Reporting

Auto Reporting allows reports or dashboards to be sent automatically via email. You can freely select the desired reports or dashboards. Recipients can be individuals or groups. The reports are sent at specified time intervals.

Path: System Administration > Configuration > Auto Reporting

- ❗ When selecting a report/dashboard, its filters can be configured to send only desired data. If a period is selected that marks a past time span (for example, the last 4 days), the current date will not be included. This means that the last 4 days do not include the current day.

<div> <div>New</div> <div>Copy</div> <div>Edit</div> <div>Delete</div> </div>			
Name	Execution time	Recipient	Active Flag
AnandTest	Daily,11:25;	john.doe@forcam.com	<input checked="" type="checkbox"/>
Mtest	Daily,16:00;	john.doe@forcam.com	<input type="checkbox"/>
JGTest	Monthly cycle,04,16:02;	john.doe@forcam.com	<input checked="" type="checkbox"/>

Fig. 1: Auto Reporting (excerpt)

1.1 Create Auto Report

 All mandatory fields are marked with * .

To create a new auto report:

1. Click **New** in the top bar.
2. Enter the name and description of the auto report.
3. Set activity.
If a check mark is set at **Active**, the auto report is in operation.
4. Add attachments.
Attach one or more reports/dashboards by clicking the **Add** icon. The attachments are sent in the email.
5. Select language.
The email including the attachment will be sent in the language that is selected here.
6. Select time zone.
The execution time of the auto report refers to the time zone selected here.
7. Set execution time:
 - a. Add execution time with the **Add** icon.
 - b. Select cycle type.
The selected type determines the other fields in this mask.
 - c. Select day/date.
 - d. Select time.
 - e. Click on **Add**.
8. Add recipient by clicking the **Add** icon.
To create email groups, see section 4.
9. Enter subject.
This appears in the subject line of the email.
10. Enter text.
Text of the sent email.
11. Click **Save** in the top bar.
12. Click **Debug** in the top bar.
- ➔ The configuration is checked for errors.
13. Click **Close** in the top bar.

Auto Reporting

To copy an auto report:

1. Select an auto report.
2. Click on **Copy** in the upper bar.
- The name of the auto report is supplemented by the word (**copy**). The name can be changed.
3. Edit the auto report as necessary.
4. Click **Save** in the top bar.
5. Click **Close** in the top bar.

1.2 Edit Auto Reporting

To edit an auto report:

1. Select an auto report.
2. Edit the auto report as necessary.
3. Click **Save** in the top bar.
4. Click **Close** in the top bar.

To delete an auto report:

1. Select an auto report.
2. In the upper right part of the screen, click on **Delete** and confirm.

2 Document Templates

Path: System Administration > Configuration > Document Templates

A document template sets the layout of an object during PDF export. An object can be a report, a dashboard or a visualization. The object itself remains unaffected. However, it is possible to add a header, footer and a custom logo to the PDF document.

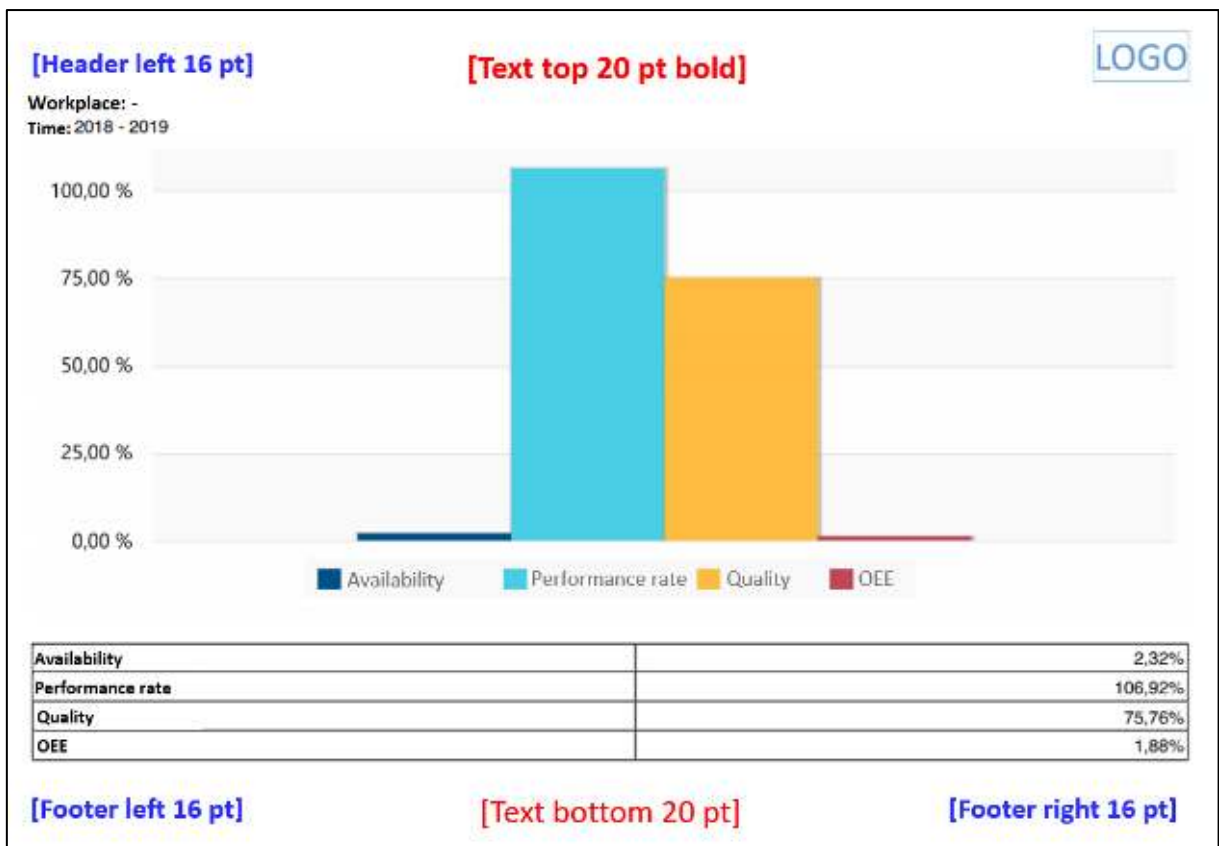


Fig. 2: PDF export of the OEE report (overall view) with header/footer and logo

Some values and the logo in the configuration page are predefined by default but can be customized as desired.

The height of the header/footer determines the possible font size of the text within it. At a height of 12.7 mm, for example, texts in 20 pt. can be displayed without any problems. If the height is about 5 mm, the font can be a maximum of 12 pt.

Texts can be displayed side by side in 3 places in the header/footer: left, center and right. The texts will overlap if they are too long. Therefore we recommend not to use longer texts next to each other.

Name *

Page
Header
Footer

Height *
 mm

Texts in the header that are too long can overlap


Left

Middle

Right

Font Size (pt) *

Font Size (pt) *



Font Color

Font Color

☐ Bold

☒ Bold

Fig. 3: Configuration of the layout during a PDF export

To create a new document template:

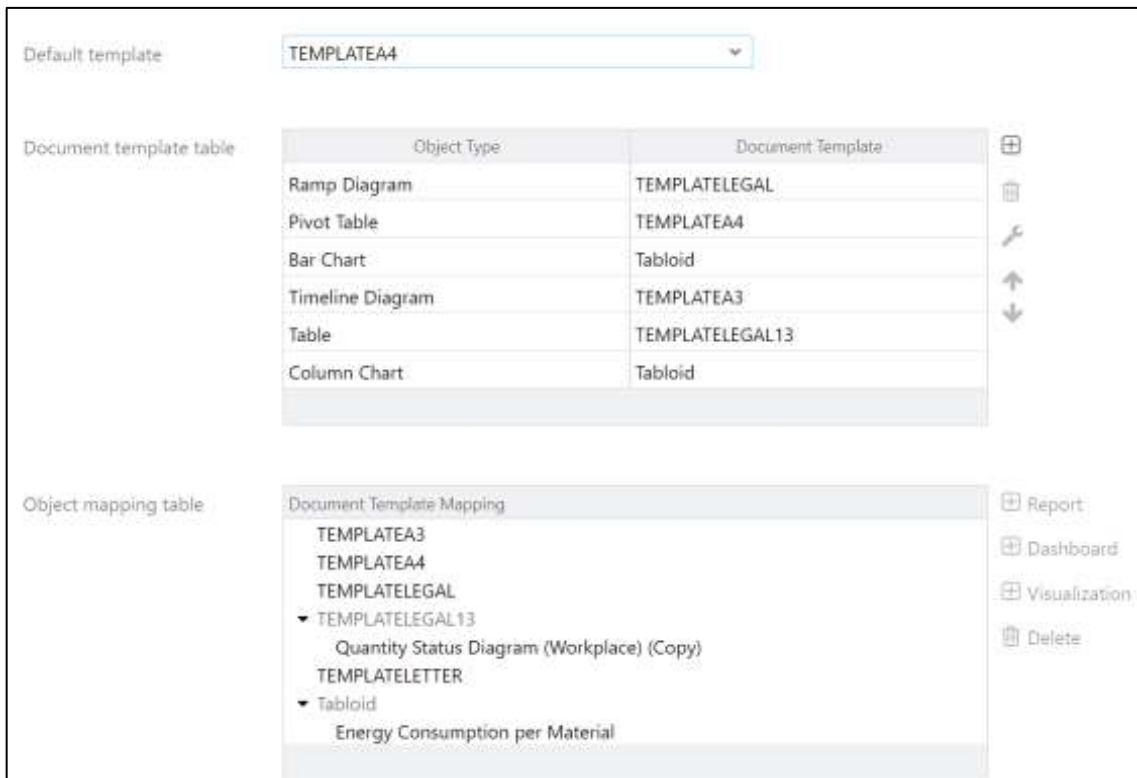
1. Click **New** in the top bar.
2. Enter name.
The template can be saved after this step. All further steps are optional.
3. Select the desired paper size, page orientation, and margins in the **Page** tab.
4. Click in the **Header** tab to select what to display on the left, in the center, or on the right of the header.
Name is the name of the exported content (e.g. title of the dashboard).
5. Click in the **Footer** tab to select what should be displayed on the left, in the middle or on the right of the footer.
It is possible to insert images, but this will require a correspondingly high footer.
6. Save.

3 Document Template Mapping

Path: System Administration > Configuration > Template Mapping

Document templates can be mapped to object types (e.g. all reports of a certain type) or to individual objects (e.g. certain reports). If a template is mapped to an object, this mapping is preferred, even if the object's type has received a different mapping.

A default template can be selected here, which forms the basis for all object types.



Default template: TEMPLATEA4

Document template table:

Object Type	Document Template
Ramp Diagram	TEMPLATELEGAL
Pivot Table	TEMPLATEA4
Bar Chart	Tabloid
Timeline Diagram	TEMPLATEA3
Table	TEMPLATELEGAL13
Column Chart	Tabloid

Object mapping table:

Document Template Mapping
TEMPLATEA3
TEMPLATEA4
TEMPLATELEGAL
▼ TEMPLATELEGAL13
Quantity Status Diagram (Workplace) (Copy)
TEMPLATELETTER
▼ Tabloid
Energy Consumption per Material

Actions: Report, Dashboard, Visualization, Delete

Fig. 4: Document template mapping

To specify a default template:

Select template in the drop-down menu **Default template**.

The selected template is used by default for all objects.

To map a template to an object type:

1. Click the **Add** icon at the **Document template table** area.
 2. Select the desired object type.
 3. Select the desired document template.
 4. Click on **Add**.
- The template is mapped to the object type. The mapping is saved.

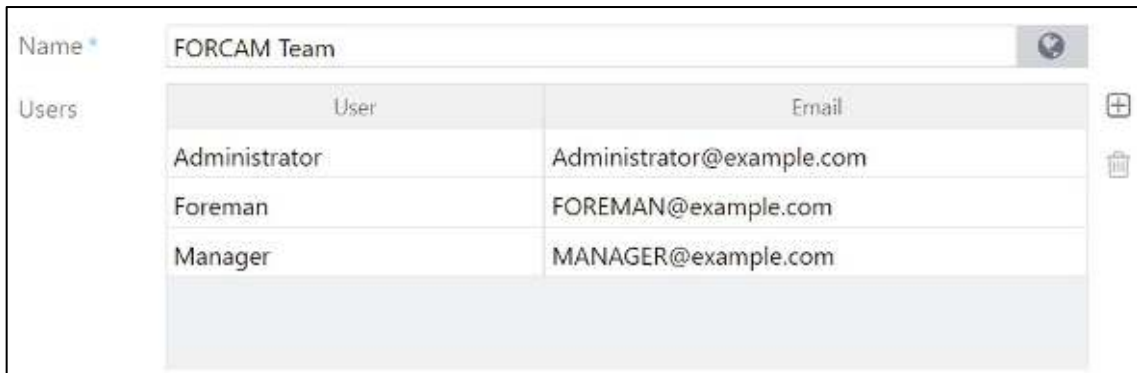
To map a template to an object:

1. At the **Object mapping table** area, select a template to be mapped to the object.
 2. Click on the **Add** icon next to the desired object type.
 3. Select object and click **Select**.
- The template is mapped to the object. The mapping is saved.

4 Email Groups

Path: System Administration > Configuration > Email Groups

Email groups can be created to assign multiple people to a group. When an email is sent to the group, all members of the group receive it. Email groups can be used for alarms or auto reports (see section **Alarming** or **Auto Reporting**).



Name *	FORCAM Team	
Users	User	Email
	Administrator	Administrator@example.com
	Foreman	FOREMAN@example.com
	Manager	MANAGER@example.com

Fig. 5: Create an email group

To create a new email group:

1. Click **New** in the top bar.
 2. Enter the group name.
 3. Add users.
Several users can be selected all at once by holding down the shift key.
 4. Click **Save** in the top bar.
- The newly created group appears in the navigation area.

To copy an email group:

1. Select an email group in the navigation area.
 2. Click on **Copy** in the upper bar.
- The name of the group is supplemented by the word **(copy)**. The name can be changed.
- **Copy** is disabled here because a copy cannot be made from a copy.
3. Edit the email group as desired.
 4. Click **Save** in the top bar.
- The copied group appears in the navigation area (possibly under a new name).

To edit an email group:

1. Select an email group in the navigation area.
2. Edit the group as necessary.
3. Click **Save** in the top bar.

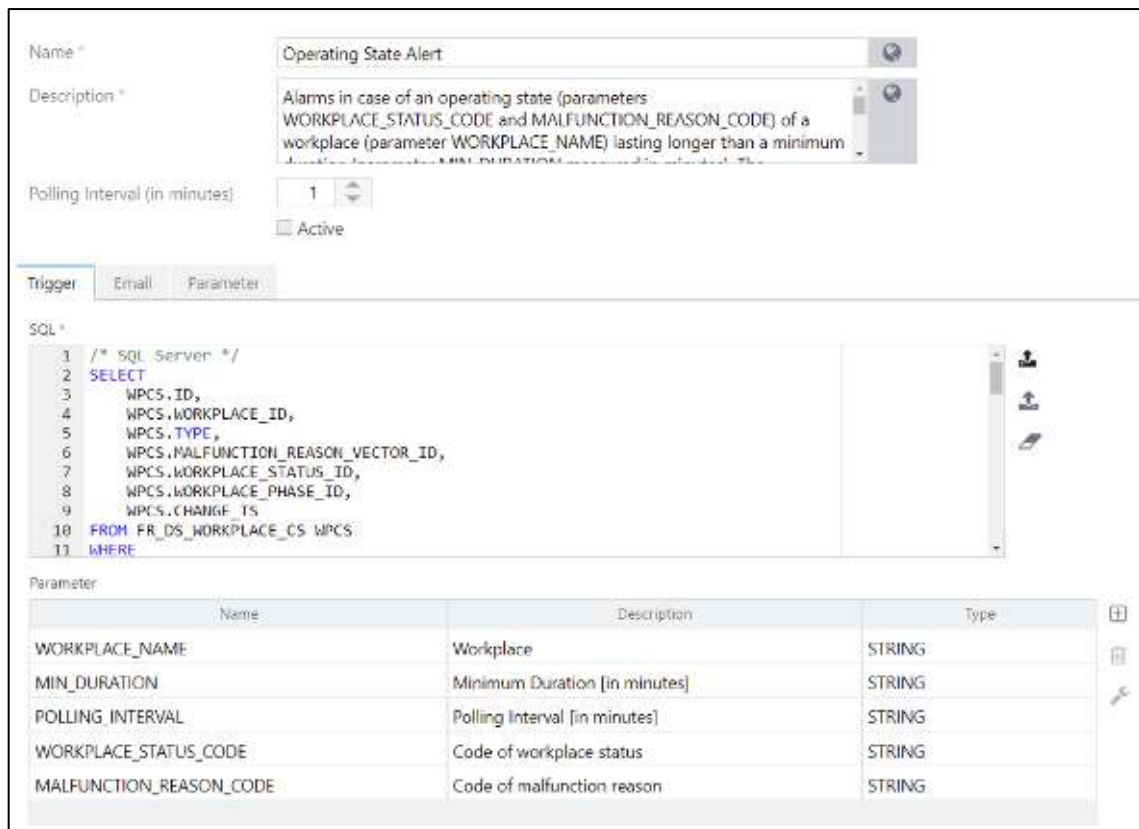
To delete an email group:

1. Select an email group in the navigation area.
2. In the upper right part of the screen, click on **Delete** and confirm.

5 Alarming

Specific data from production can be defined as a trigger for an alarm. If the alarm is triggered, selected people or groups can be notified per email. A variety of layout templates can be defined to create and re-use email notifications.

- ⚠ Utilizing the alarming function requires in-depth knowledge of SQL programming as well as FORCAM FORCE IIOT database structures. If necessary, it is recommended to contact FORCAM's Professional Service for assistance.



Name * Operating State Alert

Description * Alarms in case of an operating state (parameters: WORKPLACE_STATUS_CODE and MALFUNCTION_REASON_CODE) of a workplace (parameter: WORKPLACE_NAME) lasting longer than a minimum duration (parameter: MIN_DURATION).

Polling Interval (in minutes): 1

☐ Active

Trigger Email Parameter

SQL *

```

1 /* SQL Server */
2 SELECT
3     WPCS.ID,
4     WPCS.WORKPLACE_ID,
5     WPCS.TYPE,
6     WPCS.MALFUNCTION_REASON_VECTOR_ID,
7     WPCS.WORKPLACE_STATUS_ID,
8     WPCS.WORKPLACE_PHASE_ID,
9     WPCS.CHANGE_TS
10 FROM FR_DS_WORKPLACE_CS WPCS
11 WHERE

```

Parameter

Name	Description	Type
WORKPLACE_NAME	Workplace	STRING
MIN_DURATION	Minimum Duration [in minutes]	STRING
POLLING_INTERVAL	Polling Interval [in minutes]	STRING
WORKPLACE_STATUS_CODE	Code of workplace status	STRING
MALFUNCTION_REASON_CODE	Code of malfunction reason	STRING

Fig. 6: Alarming (excerpt)

5.1 Create Alarm

Path: System Administration > Configuration > Alarming

To create a new alarm

1. Click **New** in the top bar.
2. Enter the name of the alarm.
3. Enter a description of the alarm.
4. Select polling interval.
Time interval in minutes at which the trigger of the alarm is to be polled.
5. Enter trigger.
Enter the SQL statement for the signal that is to serve as a trigger for the alarm. The alarm is triggered when the SQL statement returns at least one dataset.
6. Add trigger parameters in the lower field by clicking the **Add** icon.
7. Go to the **Email** tab.
8. Enter or select the email server.
9. Enter subject.
10. Add recipient by clicking the **Add** icon.
To create email groups, see section 4.
11. Enter the content of the email under **Content**.
12. Go to the **Parameter** tab.
In case parameters are assigned, an email will be sent to a corresponding person only if the criteria specified here are met.
13. Add additional parameters using the **Add** icon.
14. Enter SQL parameters in the lower field.
15. Click **Save** in the top bar.

To copy an alarm:

1. Select an alarm in the navigation area.
2. Click on **Copy** in the upper bar.
 - The name of the alarm is supplemented by the word (**copy**). The name can be changed.
 - **Copy** is disabled here because a copy cannot be made from a copy.
3. Edit the alarm as necessary.
4. Click **Save** in the top bar.
 - The copied alarm appears in the navigation area (possibly under a new name).

5.2 Edit Alarming

To edit an alarm:

1. Select an alarm in the navigation area.
2. Edit the alarm as necessary.
3. Click **Save** in the top bar.

To delete an alarm:

1. Select an alarm in the navigation area.
2. In the upper right part of the screen, click on **Delete** and confirm.

6 Annex

6.1 Change Log

Table 1: List of all changes with release version 5.11

Date	Type	Description	Section
2019-07-17	Edited	Chapter revised (new configuration page)	2
2021-07-28	Created	Transferred content from Manual - Performance Analysis to this manual	
2021-07-28	Edited	Tab page described in more detail	2
2021-07-28	Added	Added warning note that defines a scope where a deeper knowledge of SQL and database structures of FORCAM FORCE IIOT is required	5