



FACTS
User Guide

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Sign in

 Sign in

Sign in

 Please sign in

Username

Password

Sign in



To sign in, enter provided username and password and press the ‘Sign in’ button. When signed in the Dashboard page is presented.

1 Main menu

The FACTS main menu line is placed at the top of the page.



The above menu is taken from the reports / SPC page. This is indicated by 'gray' area. This area shows the actual page. You can click in the gray area to shortcut back in the menu.

To select a main menu item, simply click the text in in the green area.

1.1 Menu items

FACTS – Opens info page about FACTS, including build version etc.

Dashboard – Opens the Dashboard page

Reports – Opens the main report page

System – Opens the system main page

Question mark – Opens the user manual

Remark

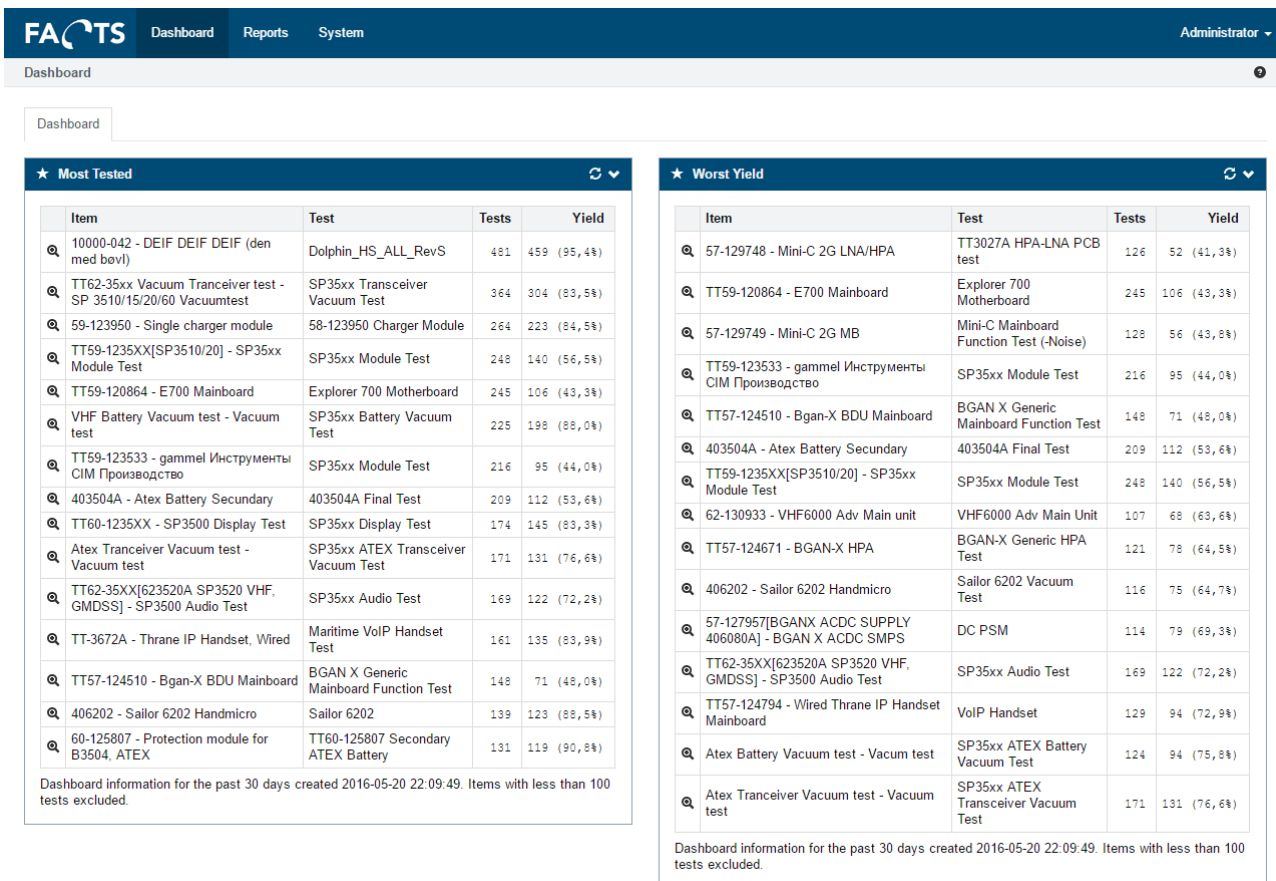
Depending of the assigned user rights some menu items will not be available.

2 Dashboard

To enter Dashboard, click the 'Dashboard' text in menu line.



The Dashboard shows the performance of the test data by providing a top 15 of 'Most Tested' and 'Worst Yield' tests.



Dashboard

★ Most Tested

Item	Test	Tests	Yield
10000-042 - DEIF DEIF DEIF (den med bev)	Dolphin_HS_ALL_RevS	481	459 (95,4%)
TT62-35xx Vacuum Transceiver test - SP 3510/15/20/60 Vacuumtest	SP35xx Transceiver Vacuum Test	364	304 (83,5%)
59-123950 - Single charger module	58-123950 Charger Module	264	223 (84,5%)
TT59-1235XX[SP3510/20] - SP35xx Module Test	SP35xx Module Test	248	140 (56,5%)
TT59-120864 - E700 Mainboard	Explorer 700 Motherboard	245	106 (43,3%)
VHF Battery Vacuum test - Vacuum test	SP35xx Battery Vacuum Test	225	198 (88,0%)
TT59-123533 - gammel Инструменты CIM Производство	SP35xx Module Test	216	95 (44,0%)
403504A - Atex Battery Secondary	403504A Final Test	209	112 (53,6%)
TT60-1235XX - SP3500 Display Test	SP35xx Display Test	174	145 (83,3%)
Atex Transceiver Vacuum test - Vacuum test	SP35xx ATEX Transceiver Vacuum Test	171	131 (76,6%)
TT62-35XX[623520A SP3520 VHF, GMDSS] - SP3500 Audio Test	SP35xx Audio Test	169	122 (72,2%)
TT-3672A - Thrane IP Handset, Wired	Maritime VoIP Handset Test	161	135 (83,9%)
TT57-124510 - Bgan-X BDU Mainboard	BGAN X Generic Mainboard Function Test	148	71 (48,0%)
406202 - Sailor 6202 Handmicro	Sailor 6202	139	123 (88,5%)
60-125807 - Protection module for B3504, ATEX	TT60-125807 Secondary ATEX Battery	131	119 (90,8%)

Dashboard information for the past 30 days created 2016-05-20 22:09:49. Items with less than 100 tests excluded.

★ Worst Yield

Item	Test	Tests	Yield
57-129748 - Mini-C 2G LNA/HPA	TT3027A HPA-LNA PCB test	126	52 (41,3%)
TT59-120864 - E700 Mainboard	Explorer 700 Motherboard	245	106 (43,3%)
57-129749 - Mini-C 2G MB	Mini-C Mainboard Function Test (-Noise)	128	56 (43,8%)
TT59-123533 - gammel Инструменты CIM Производство	SP35xx Module Test	216	95 (44,0%)
TT57-124510 - Bgan-X BDU Mainboard	BGAN X Generic Mainboard Function Test	148	71 (48,0%)
403504A - Atex Battery Secondary	403504A Final Test	209	112 (53,6%)
TT59-1235XX[SP3510/20] - SP35xx Module Test	SP35xx Module Test	248	140 (56,5%)
62-130933 - VHF6000 Adv Main unit	VHF6000 Adv Main Unit	107	68 (63,6%)
TT57-124671 - BGAN-X HPA	BGAN-X Generic HPA Test	121	78 (64,5%)
406202 - Sailor 6202 Handmicro	Sailor 6202 Vacuum Test	116	75 (64,7%)
57-127957[BGANX ACDC SUPPLY 406080A] - BGAN X ACDC SMPS	DC PSM	114	79 (69,3%)
TT62-35XX[623520A SP3520 VHF, GMDSS] - SP3500 Audio Test	SP35xx Audio Test	169	122 (72,2%)
TT57-124794 - Wired Thrane IP Handset Mainboard	VoIP Handset	129	94 (72,9%)
Atex Battery Vacuum test - Vacuum test	SP35xx ATEX Battery Vacuum Test	124	94 (75,8%)
Atex Transceiver Vacuum test - Vacuum test	SP35xx ATEX Transceiver Vacuum Test	171	131 (76,6%)

Dashboard information for the past 30 days created 2016-05-20 22:09:49. Items with less than 100 tests excluded.

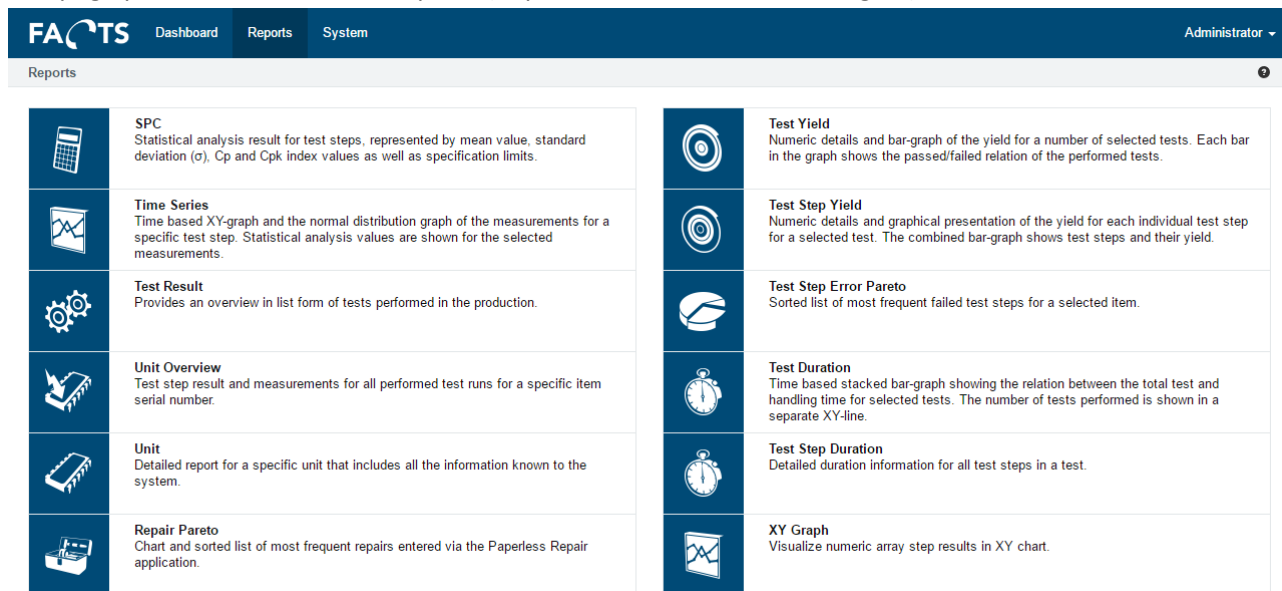
Data is loaded when page is shown. By clicking the  button, the view is refreshed with the latest data available. The number of days and minimum number of tests to take into consideration in this view can be adjusted in the personal settings (see section 6.1).

3 Reports

To enter Report main page, click the 'Reports' text in menu line.



The page presents the available reports (depends on the current user rights).

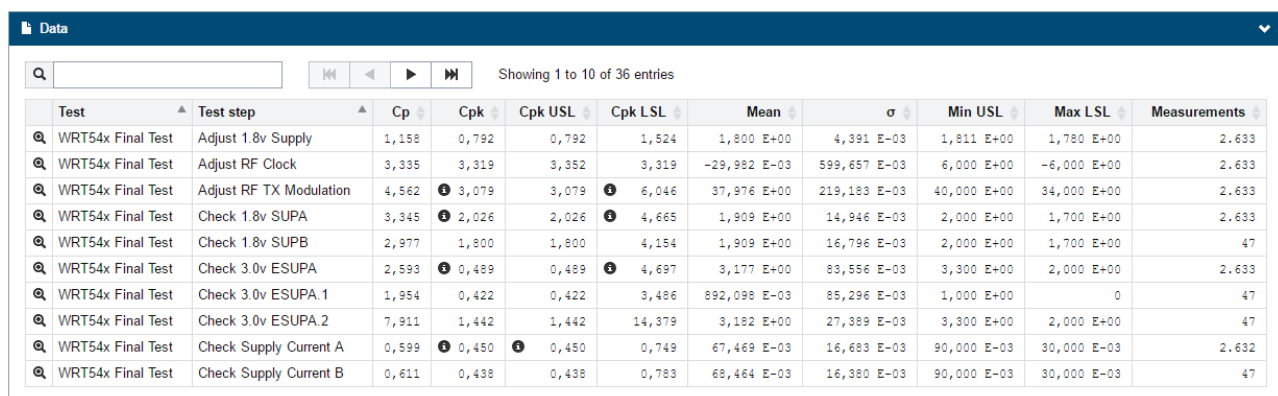


Icon	Report Name	Description
	SPC	Statistical analysis result for test steps, represented by mean value, standard deviation (σ), Cp and Cpk index values as well as specification limits.
	Time Series	Time based XY-graph and the normal distribution graph of the measurements for a specific test step. Statistical analysis values are shown for the selected measurements.
	Test Result	Provides an overview in list form of tests performed in the production.
	Unit Overview	Test step result and measurements for all performed test runs for a specific item serial number.
	Unit	Detailed report for a specific unit that includes all the information known to the system.
	Repair Pareto	Chart and sorted list of most frequent repairs entered via the Paperless Repair application.
	Test Yield	Numeric details and bar-graph of the yield for a number of selected tests. Each bar in the graph shows the passed/failed relation of the performed tests.
	Test Step Yield	Numeric details and graphical presentation of the yield for each individual test step for a selected test. The combined bar-graph shows test steps and their yield.
	Test Step Error Pareto	Sorted list of most frequent failed test steps for a selected item.
	Test Duration	Time based stacked bar-graph showing the relation between the total test and handling time for selected tests. The number of tests performed is shown in a separate XY-line.
	Test Step Duration	Detailed duration information for all test steps in a test.
	XY Graph	Visualize numeric array step results in XY chart.

To select a report, move the mouse over the appropriate report square and select.

3.1 Navigating in Data grids

When report results are presented in a grid (table) as shown below, the following navigation can be used.



Test	Test step	Cp	Cpk	Cpk USL	Cpk LSL	Mean	σ	Min USL	Max LSL	Measurements
WRT54x Final Test	Adjust 1.8v Supply	1,158	0,792	0,792	1,524	1,800 E+00	4,391 E-03	1,811 E+00	1,780 E+00	2.633
WRT54x Final Test	Adjust RF Clock	3,335	3,319	3,352	3,319	-29,982 E-03	599,657 E-03	6,000 E+00	-6,000 E+00	2.633
WRT54x Final Test	Adjust RF TX Modulation	4,562	3,079	3,079	6,046	37,976 E+00	219,183 E-03	40,000 E+00	34,000 E+00	2.633
WRT54x Final Test	Check 1.8v SUPA	3,345	2,026	2,026	4,665	1,909 E+00	14,946 E-03	2,000 E+00	1,700 E+00	2.633
WRT54x Final Test	Check 1.8v SUPB	2,977	1,800	1,800	4,154	1,909 E+00	16,796 E-03	2,000 E+00	1,700 E+00	47
WRT54x Final Test	Check 3.0v ESUPA	2,593	0,489	0,489	4,697	3,177 E+00	83,556 E-03	3,300 E+00	2,000 E+00	2.633
WRT54x Final Test	Check 3.0v ESUPA.1	1,954	0,422	0,422	3,486	892,098 E-03	65,296 E-03	1,000 E+00	0	47
WRT54x Final Test	Check 3.0v ESUPA.2	7,911	1,442	1,442	14,379	3,182 E+00	27,389 E-03	3,300 E+00	2,000 E+00	47
WRT54x Final Test	Check Supply Current A	0,599	0,450	0,450	0,749	67,469 E-03	16,683 E-03	90,000 E-03	30,000 E-03	2.632
WRT54x Final Test	Check Supply Current B	0,611	0,438	0,438	0,783	68,464 E-03	16,380 E-03	90,000 E-03	30,000 E-03	47

Text can be searched in columns containing text. In the above screenshot the Test and Test step columns can be searched. To search, simply enter a text in the search field. The text can be any part of the texts contained in the searched columns.

Example of search with "adj"

Data

Qadj

⏮

⏪

⏩

⏭

Showing 1 to 3 of 3 entries (filtered from 36 total entries)

Test	Test step	Cp	Cpk	Cpk USL	Cpk LSL	Mean	σ	Min USL	Max LSL	Measurements
WRT54x Final Test	Adjust 1.8v Supply	1,158	0,792	0,792	1,524	1,800 E+00	4,391 E-03	1,811 E+00	1,780 E+00	2.633
WRT54x Final Test	Adjust RF Clock	3,335	3,319	3,352	3,319	-29,982 E-03	599,657 E-03	6,000 E+00	-6,000 E+00	2.633
WRT54x Final Test	Adjust RF TX Modulation	4,562	3,079	3,079	6,046	37,976 E+00	219,183 E-03	40,000 E+00	34,000 E+00	2.633

If a table contains more rows than defined by a user setting, the paging control is enabled. To navigate through the pages, click arrow icons or page number directly.

⏮

⏪

⏩

⏭

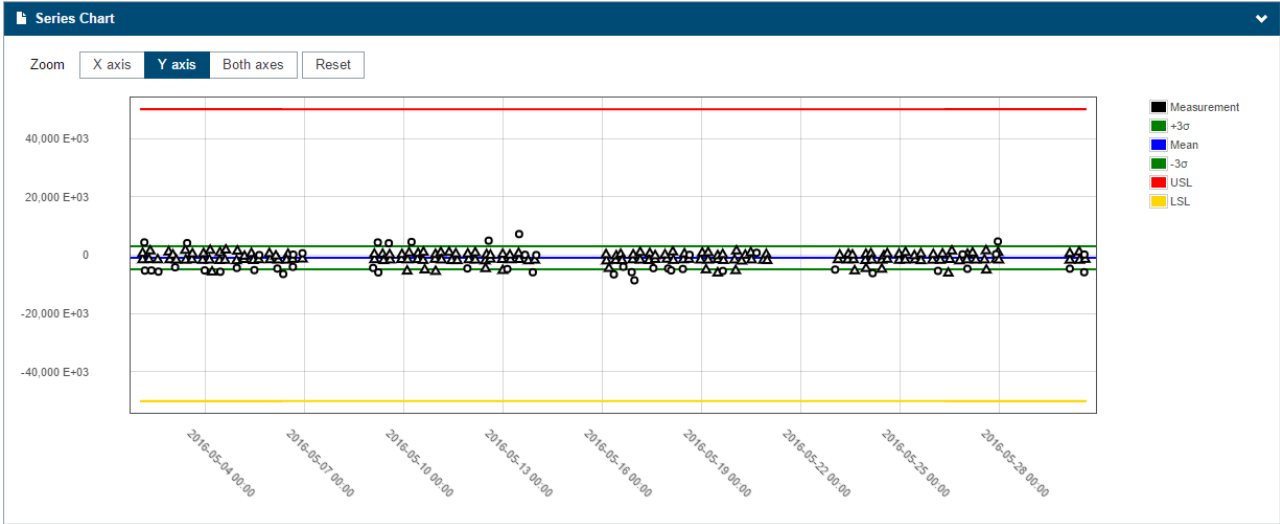
Showing 1 to 25 of 1,000 entries

The sort order of the table can be set to order from high to low, or low to high. Further, the sort order can be controlled by selecting multiple columns headers (hold shift key while clicking the headers). When multi selecting, the sort order is determined by the order the columns is selected. Click a column header once to choose low to high sorting, and click twice to select high to low sorting.

3.2 Navigating in charts

In reports containing graphs, the following navigation can be used.

3.2.1 XY - chart

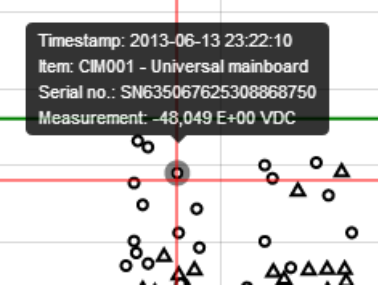


Meaning of circle and triangle:

Circles represent a single measurement, triangles represent a group of measurements.

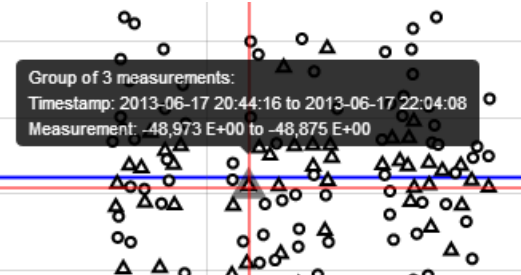
Tooltip: By moving the mouse cursor over either a circle or a triangle, detailed information appears.

Tooltip - circle

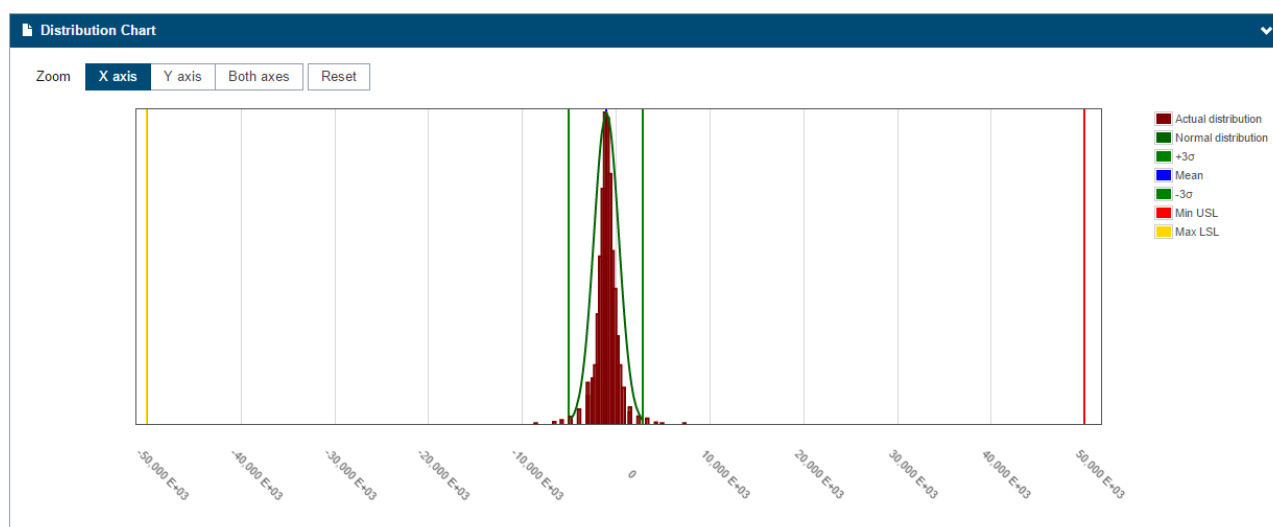


If the mouse is clicked on a circle, the report Unit Overview is shown, with filter options filled out corresponding to the selected unit.

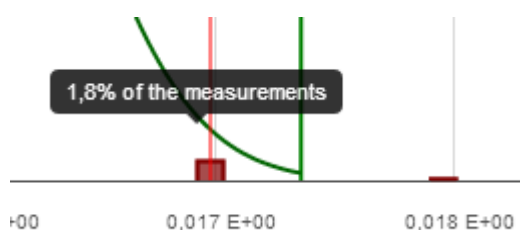
Tooltip – triangle



3.2.2 Normal distribution chart

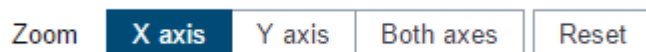


Each bars represent a percentage of measurements. Hold the mouse over a bar to see a tooltip with detailed information:



3.2.3 Zoom

The zoom mode is controlled by the buttons “X axis”, “Y axis” and “Both axes”.



“X axis” – Zoom in only on X axis

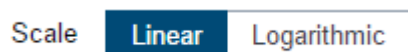
“Y axis” – Zoom in only on Y axis

“Both axes” – Zoom in by selection rectangle

To reset zoom level back to the initial level, press reset button, or double click the graph.

3.2.4 Scale

Some charts allow switching between linear and logarithmic scale. This functionality is controlled by the button “Linear” and “Logarithmic”.



“Linear” – Linear scale on X axis

“Logarithmic” – Logarithmic scale on X axis

3.3 Exporting reports

Most reports can be exported to Microsoft Excel and Adobe PDF.

3.3.1 Export to PDF

This report type exports all the result data including graphs, filter settings etc.

To export to PDF, select menu item “Export” and then Report to PDF. The report is generated on the server and presented as a download file.

3.3.2 Export to Excel

This report type exports all the result data for the report. Filter selection is presented on the first page, and the data on second page.

To export to Excel, select menu item “Export” and then Report to Excel. The report is generated on the server and presented as a download file.

3.4 Filtering reports

All reports are made based on test data selected with filter. Each report has a set of default filter options and some additional advanced filter options:



By clicking the Default button, all default filtering options are visible. Clicking the Advanced button makes further filter options available for the selected report.

Whenever possible, the selected filtering options are transferred when switching between different types of reports.

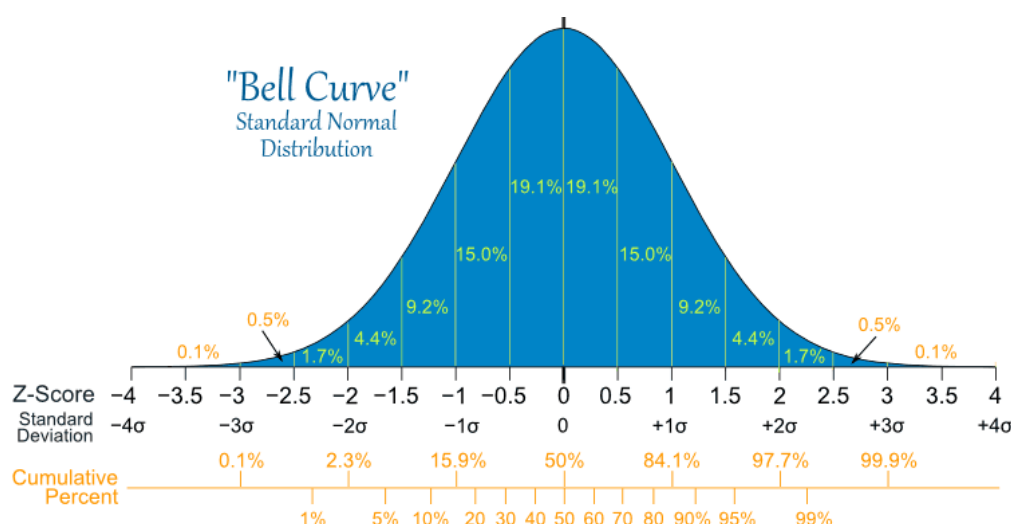
Clicking the Reset button causes all filtering options to be reset to their initial state and value.

3.5 SPC report

Statistical analysis result for test steps represented by mean value, standard deviation (σ), C_p and C_{pk} index values as well as specification limits. For further information on the calculated statistical values, please refer to section 7.

Typical use:

The SPC report contains the results of the statistical analysis performed on the data selected by the filter criteria. Please notice, that the correct use of the SPC report presumes the filtered data is normal distributed and lies within the normal distribution "Bell Curve" (see further explanation in section 3.6).



The capability values C_p and C_{pk} are used to indicate the performance of the production processes involved in generating the selected data. Typically these values are used in Six Sigma process optimizations to give a direct indication of a process' sigma level and the defects PPM (Defect Parts Per Million) See estimated conversion table below:

C_{pk} value	Sigma level	Defects (PPM)
0.333	1	691000
0.667	2	308500
1.000	3	66800
1.333	4	6200
1.667	5	230
2.000	6	3.4

Please note, at the above show conversion between sigma level and C_{pk} value is an estimate. Further, the conversion assumes a 1.5 sigma shift. For further details please refer to Six Sigma literature.

Notes on specification limits (Min USL and Max LSL):

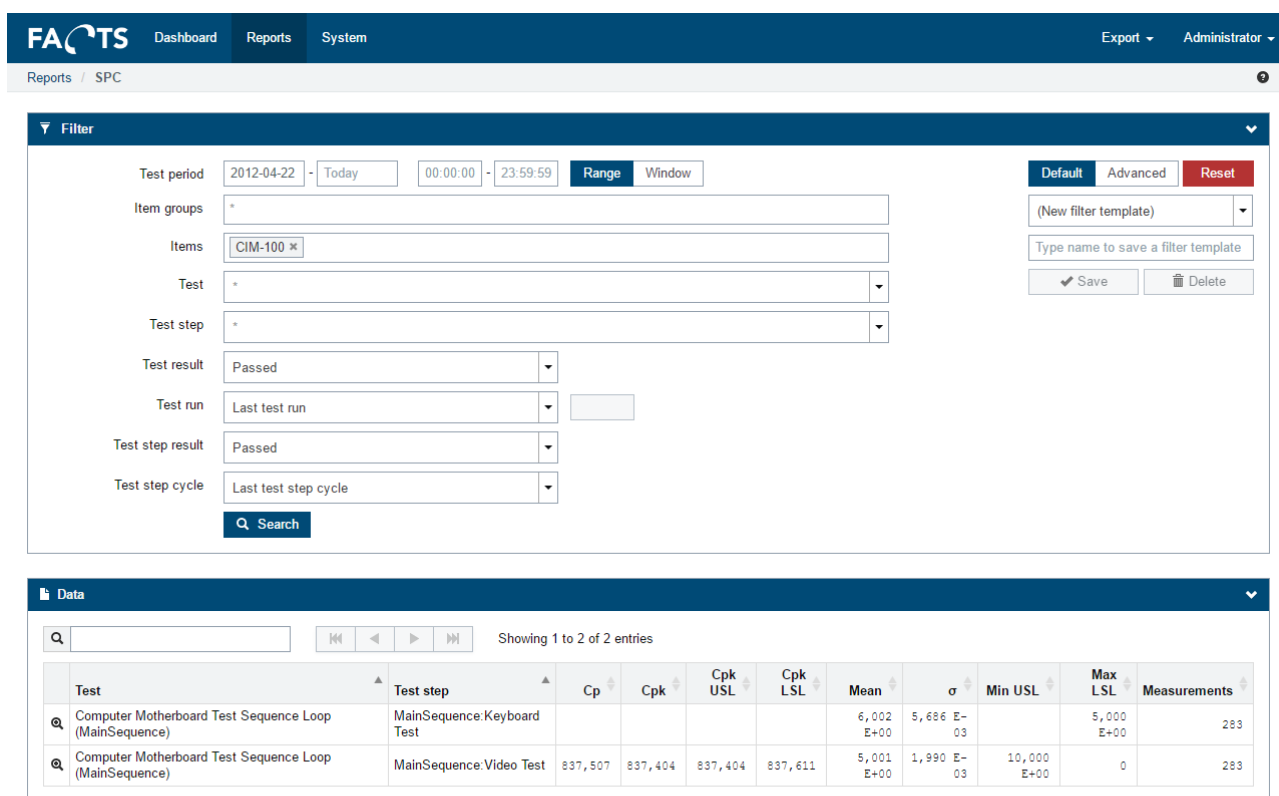
In some cases, the upper and lower specification limits (USL and LSL) vary within the data selected by the filter. In those cases, all statistical values are calculated from a worst case perspective, using the minimum upper specification limit and the maximum lower specification limit found in the filtered data. When presented in the SPC report, these values are denoted Min USL and Max LSL, respectively. All calculated

statistical values in the SPC report are calculated using the formulas described in section 7, using the Min USL and Max LSL as specification limits in the formulas.

Notes on C_p and C_{pk} values:

By definition, the C_{pk} value is the adjustment of C_p for the effect of non-centered distribution (a centered distribution has its mean value right in the middle of LSL and USL). C_{pk} is calculated both against USL (denoted C_{pk} USL) and against LSL (denoted C_{pk} LSL). The final C_{pk} value is the lower of these two values. This means, that if the distribution is centered or close to centered, C_{pk} equals C_p . On the other hand, if C_{pk} is relatively much less than the C_p value, this indicates a mean value far off the center of USL and LSL. In these cases, something significant might have changed within the production process, or perhaps USL or LSL simply needs adjustment to cope with changed circumstances. C_{pk} values above 2, corresponding to less than 3.4 defects per million is a clear indication that USL and LSL are set at a level allowing almost everything to pass through the test.

To get the SPC report, fill out the appropriate filter options and click the Search button.



The screenshot shows the FACTS SPC report interface. The top navigation bar includes 'Dashboard', 'Reports', and 'System'. The 'Reports' section is active, showing 'SPC'. The interface is divided into a 'Filter' section and a 'Data' section.

Filter Section:

- Test period:** 2012-04-22 - Today, 00:00:00 - 23:59:59, Range, Window
- Item groups:** *
- Items:** CIM-100 ✕
- Test:** *
- Test step:** *
- Test result:** Passed
- Test run:** Last test run
- Test step result:** Passed
- Test step cycle:** Last test step cycle
- Buttons:** Search, Default, Advanced, Reset, (New filter template), Type name to save a filter template, Save, Delete

Data Section:

Showing 1 to 2 of 2 entries

Test	Test step	C_p	C_{pk}	C_{pk} USL	C_{pk} LSL	Mean	σ	Min USL	Max LSL	Measurements
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence: Keyboard Test					6,002 E+00	5,686 E-03		5,000 E+00	283
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence: Video Test	837,507	837,404	837,404	837,611	5,001 E+00	1,990 E-03	10,000 E+00	0	283

To see measurements in a “Time Series report”, simply click the magnifying glass in the first column of each row. This opens the Time Series report with prefilled filter options according to the selected test step.

3.6 Time Series report

Time based XY-graph and the normal distribution graph of the measurements for a specific test step. Statistical analysis values are shown for the selected measurements.

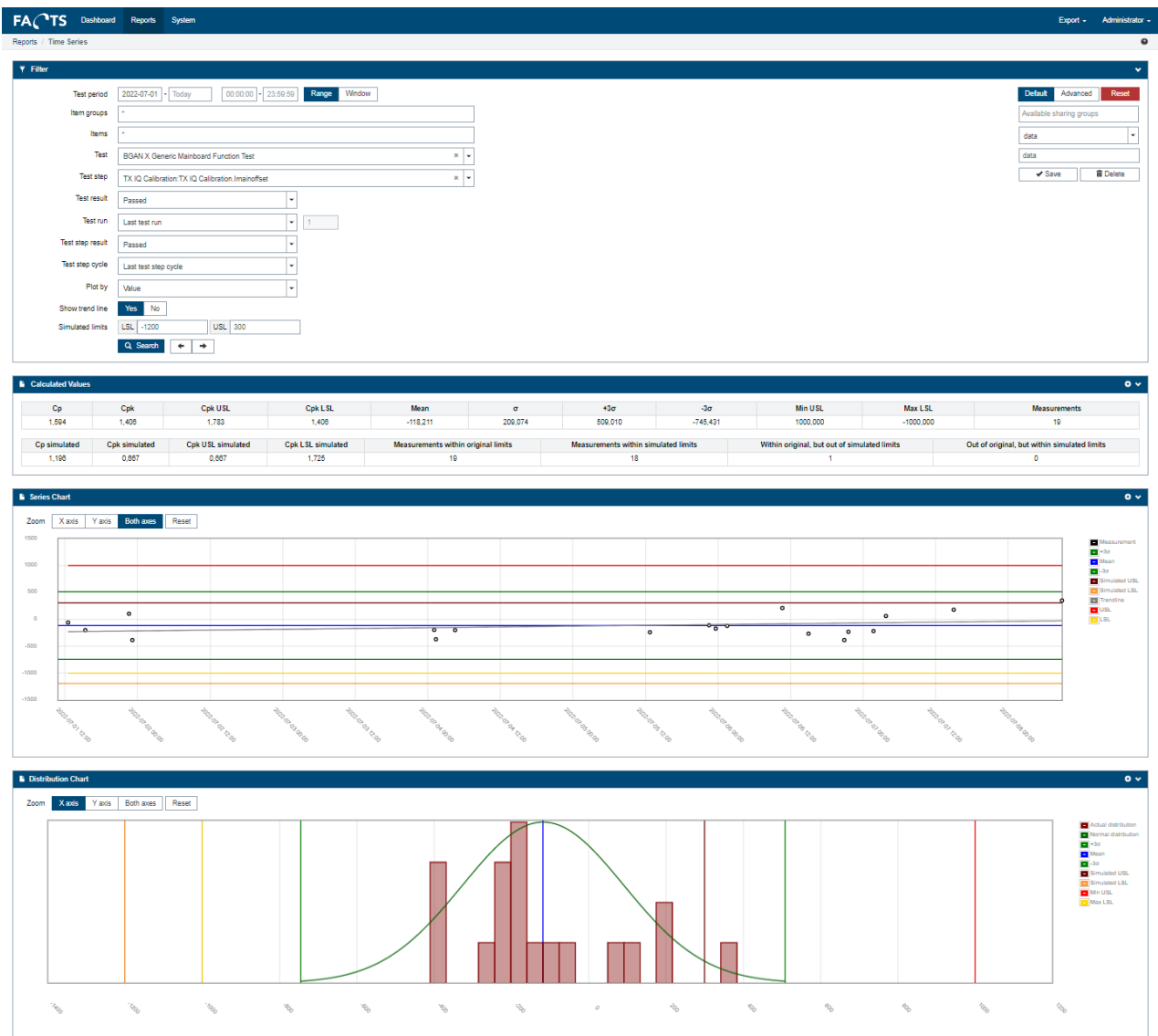
Typical use:

Based on the filter criteria including a specific test step, the Time Series report shows three pieces of information:

- **Calculated Values:** All calculated statistical values for the given filter criteria. These values correspond to the values visible on the SPC report. Also visible are additional values corresponding to the mean value minus/plus 3 times standard deviation. These values are denoted -3σ and $+3\sigma$ and are normally called “control limits”.
If simulated limits are entered, additional values related to simulated limits are shown.
- **Series Chart:** Time based XY chart showing all measurements for the given filter criteria. The chart also contains indications of the values USL, LSL as well as the above mentioned control limits, denoted -3σ and $+3\sigma$.
Trendline and simulated limits (simulated LSL, simulated USL) are shown in the series chart if they are enabled.
- **Distribution Chart:** Chart showing the distribution (population) of the measurements in the given filter criteria. Following the prerequisite that SPC can only be done on data, which has a normal distribution, the chart should show a clear “Bell Curve” of the distribution. The chart also contains indications of the values Min USL, Max LSL as well as the above mentioned control limits, denoted -3σ and $+3\sigma$.
Trendline and simulated limits (simulated LSL, simulated USL) are shown in the distribution chart if they are enabled.

The Time Series report can be used to check the normal distribution of the selected data. According to the empirical rule for normal distribution, only 0.3% of the measurements should lie outside the control limits. This means, that in case the distribution shows more than 0.3% outside the control limits, the distribution might not have a proper normal distribution, or the process producing the measurements are out of statistical control. Production outside statistical control is a good reason to check the selected data further.

To get the Time Series report, fill out the appropriate filter options and click the Search button.



3.7 Test Result report

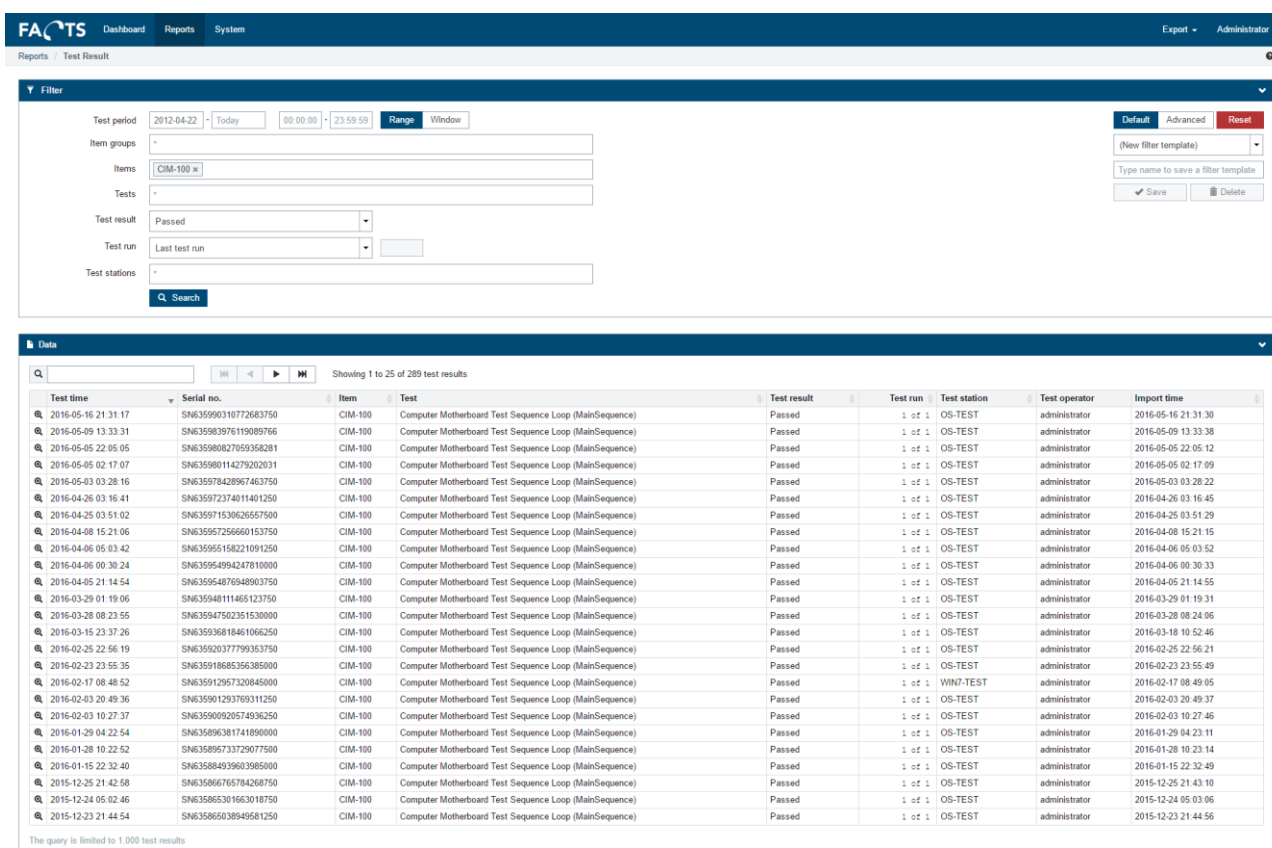
The report shows the most recent test data and test results imported by the system.

Typical use:

The Test Result report is typically used to get an overview of what has recently been tested in the production. It provides an overall overview of tests performed on units, the number of re-tests performed, test station names and test operators.

By setting the appropriate filter options, the report can be used to see what has been tested on a given station. It also provides an efficient tool to check if re-testing is widely used for certain products or certain periods during the day. By entering a specific serial number for a unit in the filter options, test data for that specific unit can be found and displayed.

To get the Test Result report, fill out the appropriate filter options and click the Search button.



Filter

Test period: 2012-04-22 - Today 00:00:00 - 23:59:59 Range Window

Item groups: *

Items: CIM-100

Tests: *

Test result: Passed

Test run: Last test run

Test stations: *

Search

Data

Showing 1 to 25 of 289 test results

Test time	Serial no.	Item	Test	Test result	Test run	Test station	Test operator	Import time
2016-05-16 21:31:17	SN635990310772683750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-05-16 21:31:30
2016-05-09 13:33:31	SN635983976119089766	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-05-09 13:33:38
2016-05-05 22:05:05	SN635980827059358281	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-05-05 22:05:12
2016-05-05 02:17:07	SN635980114279202031	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-05-05 02:17:09
2016-05-03 03:28:16	SN635978428967463750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-05-03 03:28:22
2016-04-26 03:16:41	SN635972374011401250	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-04-26 03:16:45
2016-04-25 03:51:02	SN635971530626557500	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-04-25 03:51:29
2016-04-08 15:21:06	SN635957256660153750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-04-08 15:21:15
2016-04-06 05:03:42	SN63595158221091250	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-04-06 05:03:52
2016-04-06 00:30:24	SN635954994247810000	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-04-06 00:30:33
2016-04-05 21:14:54	SN63594876948903750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-04-05 21:14:55
2016-03-29 01:19:06	SN63594811465123750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-03-29 01:19:31
2016-03-28 08:23:55	SN635947502351530000	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-03-28 08:24:06
2016-03-15 23:37:26	SN635936818461066250	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-03-18 10:52:46
2016-02-25 22:56:19	SN635920377799363750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-02-25 22:56:21
2016-02-23 23:55:35	SN635918685356385000	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-02-23 23:55:49
2016-02-17 08:48:52	SN635912957320845000	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	WIN7-TEST	administrator	2016-02-17 08:49:05
2016-02-03 20:49:36	SN635901293769311250	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-02-03 20:49:37
2016-02-03 10:27:37	SN635900920574936250	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-02-03 10:27:46
2016-01-29 04:22:54	SN635896381741890000	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-01-29 04:23:11
2016-01-28 10:22:52	SN635895733729077500	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-01-28 10:23:14
2016-01-15 22:32:40	SN635884939603985000	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2016-01-15 22:32:49
2015-12-25 21:42:58	SN635866765784268750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2015-12-25 21:43:10
2015-12-24 05:02:46	SN635865301663018750	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2015-12-24 05:03:06
2015-12-23 21:44:54	SN635865038949581250	CIM-100	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST	administrator	2015-12-23 21:44:56

The query is limited to 1.000 test results

3.8 Unit Overview report

Test step result and measurements for all performed test runs for a specific item serial number.

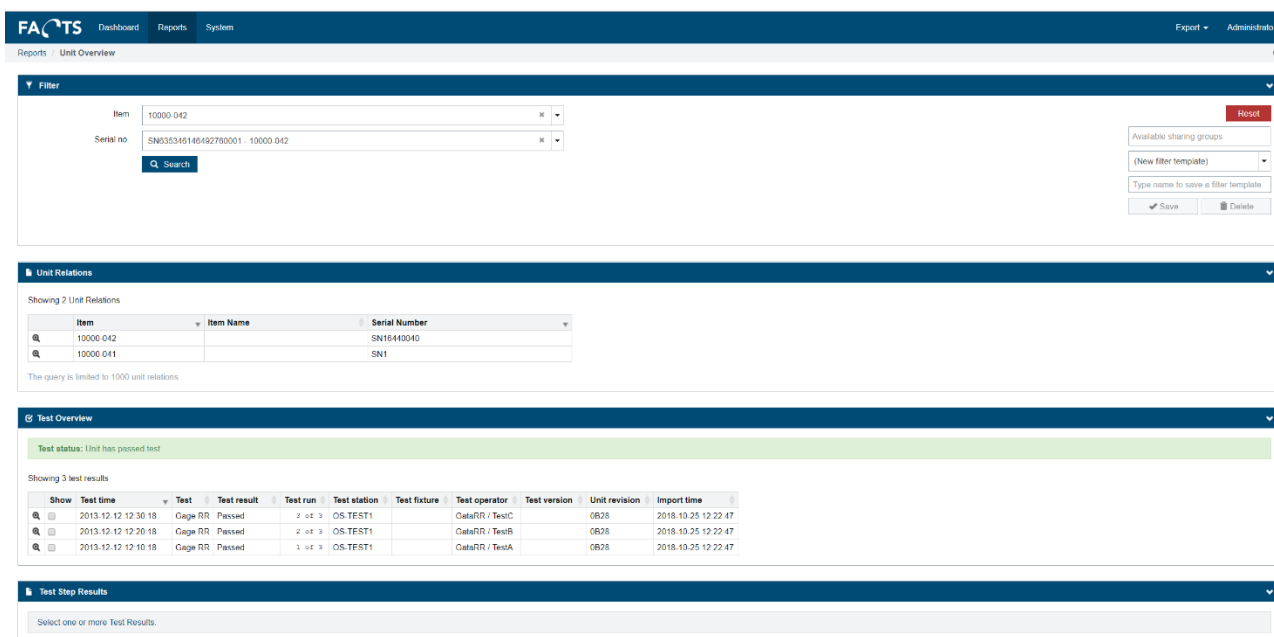
Typical use:

The Unit Overview report is typically used to get full test reports for specific units. The report includes a list of all related units. The relation of units is setup in the import of data. Via the Unit Relations table, it is possible to navigate to any of the related units.

In case a unit has been tested more than once, the performed tests can be selected and shown side-by-side. This way it is easy to get an overview and compare the results of each test step and any differences in test conditions and parameters.

The report can also be used as an easy way to get full product test documentation in case the product undergoes repair or the like.

To get the Unit Overview report, fill out the filter options and click the Search button.



Filter

Item: 10000-042

Serial no: SN035346146492780001 - 10000-042

Search

Available sharing groups

(New filter template)

Type name to save a filter template

Save **Delete**

Unit Relations

Showing 2 Unit Relations

Item	Item Name	Serial Number
10000-042		SN16440040
10000-041		SN1

The query is limited to 1000 unit relations

Test Overview

Test status: Unit has passed test

Showing 3 test results

Show	Test time	Test	Test result	Test run	Test station	Test fixture	Test operator	Test version	Unit revision	Import time
☐	2013-12-12 12:30:18	Cage RR	Passed	3 of 3	OS-TEST1		CatalaRR / TestC	OR28		2018-10-25 12:22:47
☐	2013-12-12 12:20:18	Cage RR	Passed	2 of 3	OS-TEST1		CatalaRR / TestB	OR28		2018-10-25 12:22:47
☐	2013-12-12 12:10:18	Cage RR	Passed	1 of 3	OS-TEST1		CatalaRR / TestA	OR28		2018-10-25 12:22:47

Test Step Results

Select one or more Test Results.

To see and compare specific test step measurements, select appropriate tests in the “Test Overview” section. The view is automatically updated during test selection.

FACTSDashboardReportsSystem

ExportAdministrator

ReportsUnit Overview

Filter

ItemCIM-100

Serial no.SN635990310772683750

Search

Reset

(New filter template)

Type name to save a filter template

SaveDelete

Test Overview

Test status: Unit has passed test

Showing 1 test results

Show	Test time	Test	Test result	Test run	Test station	Test fixture	Test operator	Test version	Unit revision	Import time
☒	2016-05-16 21:31:17	Computer Motherboard Test Sequence Loop (MainSequence)	Passed	1 of 1	OS-TEST		administrator		MK1	2016-05-16 21:31:30

Test Step Results

Showing 1 to 20 of 20 test step results

Test order	Test step	Test run 1 value	Test run 1 result
1	MainSequence: Simulation Dialog		Skipped
2	Random Fails: PowerFail		Passed
3	Random Fails: CPUFail		Passed
4	Random Fails: ROMFail		Passed
5	Random Fails: RAMFail		Passed
6	Random Fails: KeyboardValue		Passed
7	Random Fails: VideoValue		Passed
8	Random Fails: Error		Skipped
9	MainSequence: Turn Vacuum Table On		Passed
10	MainSequence: Powerup Test		Passed
11	MainSequence: String test	MyExpectedString	Passed
12	CPU Test: Register Test		Passed
13	CPU Test: Instruction Set Test		Passed
14	CPU Test: Cache Test		Passed
15	CPU Test: FPU Test		Passed
16	MainSequence: ROM Test		Passed
17	MainSequence: RAM Test		Passed
18	MainSequence: Video Test	5,000 E+00	Passed
19	MainSequence: Keyboard Test	6,000 E+00	Passed
20	MainSequence: Turn Vacuum Table Off		Passed

3.9 Unit Relation report

Test overview for units and their related units.

Typical use:

The Unit Relation report is typically used to get full test reports for specific units. The report includes a list of all related units (descendants or ancestors) recursively. The relation of units is set up in the import of data. Via the Unit Relations table, it is possible to navigate to any of the related units.

The report can also be used as an easy way to get full product test documentation in case the product undergoes repair or the like.

To get the Unit Relation report, fill out the filter options and click the Search button.

FACTS

Dashboard

Reports

System

Export

Benedikt

Reports / Unit Relation

Time zone: UTC+01:00

Filter

Test period

2000-12-14 - Today

00:00:00 - 23:59:59

Range

Window

Item

123-456

Serial no.

123-456R4444N4444 - 123-456

Final tests

*

Relation

Descendants

Related item

*

Tests

*

Test run

All test runs

Test result

All

Test categories

*

Distinct item relations

Yes

No

Max data count

5000

Search

Default

Advanced

Reset

Available sharing groups

(New filter template)

Type name to save a filter template

Save

Delete

Units

Showing 1 Units

Item Number	Item Name	Serial Number	Test Status
123-456		123-456R4444N4444	Passed

The query is limited to 5,000 units

Unit Relations

Showing 3 Unit Relations

Item	Item Name	Serial Number	Test Status	Relation Test	Relationship Type	Of	Relation Test Time	Relation Test Run	Relation Test Category
123-456		123-456R6666N8888	Passed	123-456_310	Child	123-456R5555N8888	2023-01-04 16:11:47	5 of 5	Production
123-456		123-456R5555N8888	Passed	123-456_310	Child	123-456R4444N4444	2022-05-24 07:53:54	3 of 8	Production
123-456		123-456R4444N6666	Failed	123-456_310	Child	123-456R4444N4444	2022-05-24 07:53:54	3 of 8	Production

Test Overview

Showing 17 test results

Unit	Serial number	Test time	Test	Test result	Test run	Test category	Test station	Test fixture	Test cassette	Test operator	Test version	Unit revision	Import time
123-456R5555N8888		2023-01-04 16:11:47	123-456_310	Passed	5 of 5	Production	DESKTOP-N6IANMB	Unknown		Administrator / HMO	01	Unknown	2023-01-04 16:12:51
123-456R4444N6666		2022-07-27 10:39:48	123-456_310	Failed	2 of 2	Production	DESKTOP-N6IANMB	Unknown		Administrator / 424242	01	Unknown	2022-07-27 10:53:32
123-456R4444N6666		2022-07-26 15:01:20	123-456_310	Failed	1 of 2	Production	DESKTOP-N6IANMB	Unknown		Administrator / 424242	01	Unknown	2022-07-27 08:44:32

Units:

Show the units that have been tested by the configured Final tests within the test period. The units are also filtered by item and optionally serial no. filter.

Unit relations:

Shows units recursively related to the units in the above units table with relation role determined by the relation filter. The relations are also filtered by test run, test categories, related item and distinct item relations filter.

Test overview:

Show tests of all units found in Units and Unit Relations tables. The tests are filtered by the tests, test run, test categories and test result filters.

3.10 Test Yield report

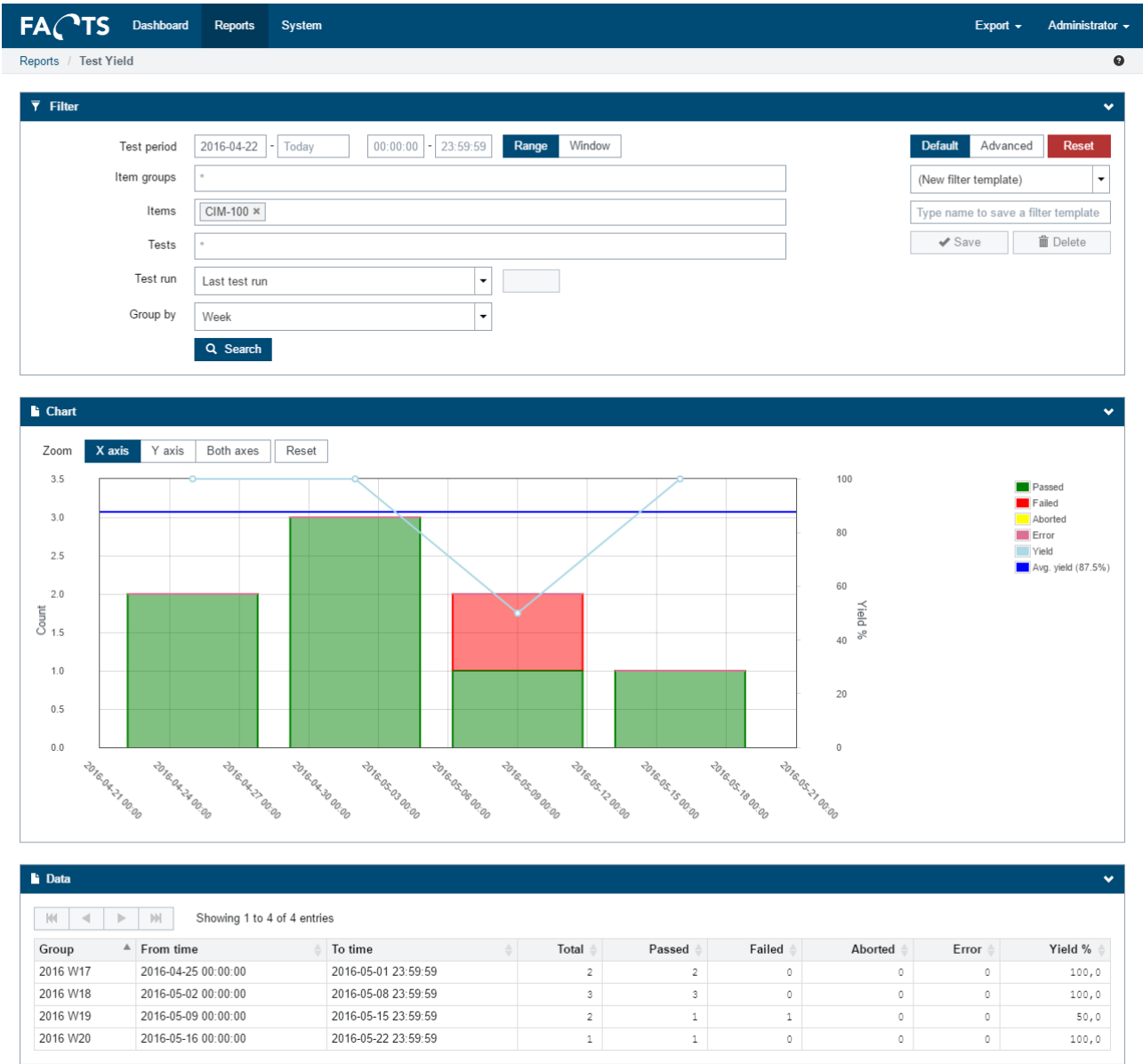
Numeric details and bar-graph of the yield for a number of selected tests. Each bar in the graph shows the passed/failed relation of the performed tests.

Typical use:

The Test Yield report is typically used get an overview of the actual yield and percentage yield for tests performed on a given product or product group. Normally all attention should be focused on maximizing first-pass yield, as any subsequent tests will add cost to the product and hence lower production efficiency. So, comparing first-pass yield with last-pass yield gives a tangible indication of production inefficiency and added costs. Of course, when looking at yield, the production volume is also a key element to determine where to focus any production optimizing efforts in order to get the best payback.

Another way to use this report is to compare the yield results of different time periods and thereby directly compare the production capability for time periods or different shifts, operators etc.

To get the Test Yield report, fill out the appropriate filter options and click the Search button.



A tooltip with detailed information will appear when holding the mouse pointer on bars in the graph.

Remark

Selecting an item, leaving the filter option “Tests” at the default value (*) “All tests”, will not give the net production yield for the selected item. In order to get the net production yield, the last test performed before shipping must be selected as a filter option along with the Item itself.

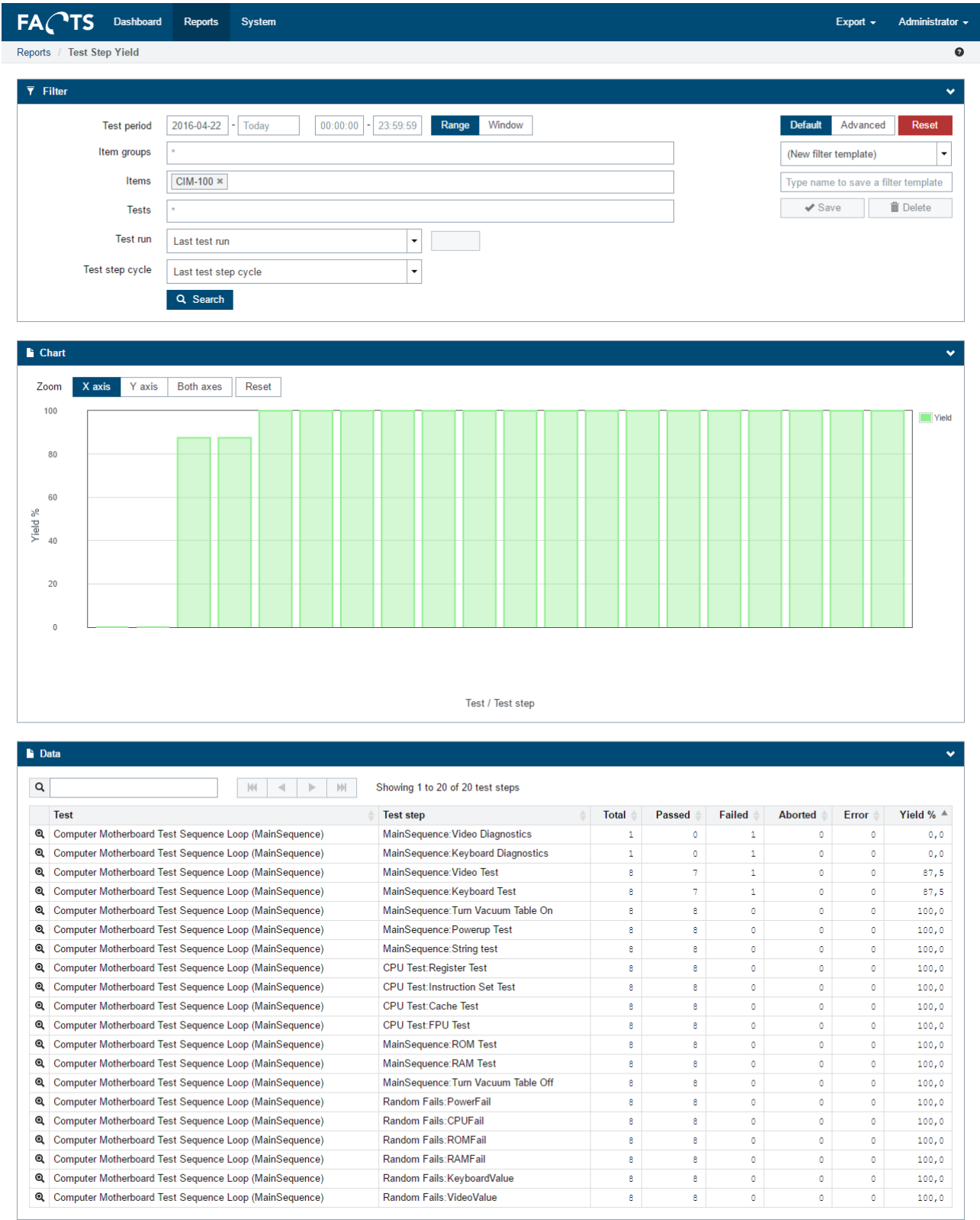
3.11 Test Step Yield report

Numeric details and graphical presentation of the yield for each individual test step for a selected test. The combined bar-graph shows test steps and their yield.

Typical use:

The Test Step Yield report can be used to determine which of the performed tests are the most likely to fail, and which steps are most likely to always succeed. A common picture on this report indicates that half of the test steps performed hardly ever fails. There can be several reasons behind this, but it could be a sign, that the specification limits (USL and LSL) for these test steps are too conservative, and as a result almost never catches any errors. Another reason could be that the step is not necessary at all. Whatever the reason, a test step that does not directly improve quality by catching errors, could be considered a waste of testing time and an undesired increase in production time and costs. Put together it might be a potential for increased yield.

To get the Test Step Yield report, fill out the appropriate filter options and click the Search button.



A tooltip with detailed information will appear when holding the mouse pointer on bars in the graph.

3.12 Test Step Error Pareto report

Sorted list of most frequent failed test steps for a selected item.

Typical use:

The Test Step Error Pareto report is very similar to the Test Step Yield report and essentially shows the same data. The only difference is that it focuses on errors (failed tests), where the Test Step Yield report focuses on succeeded tests. The two reports can be used for the same purposes. Please refer to section 3.11 for further description on the use of these reports.

To get the Test Step Error Pareto report, fill out the appropriate filter options and click the Search button.

FACTSDashboardReportsSystemExportAdministrator

Reports / Test Step Error Pareto

Filter

Test period2016-04-22 - Today00:00:00 - 23:59:59RangeWindow

Item groups*

ItemsCIM-100 ✕

Tests*

Test runLast test run

Test step cycleLast test step cycle

Search

DefaultAdvancedReset

(New filter template)

Type name to save a filter template

SaveDelete

Data

Showing 1 to 4 of 4 test steps

Test	Test step	Total	Passed	Failed	Aborted	Error	Failure %
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Video Diagnostics	1	0	1	0	0	100,0
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Keyboard Diagnostics	1	0	1	0	0	100,0
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Video Test	8	7	1	0	0	12,5
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Keyboard Test	8	7	1	0	0	12,5

3.13 Test Duration report

Time based stacked bar-graph showing the relation between the total test and handling time for selected tests. The number of tests performed is shown in a separate XY-line.

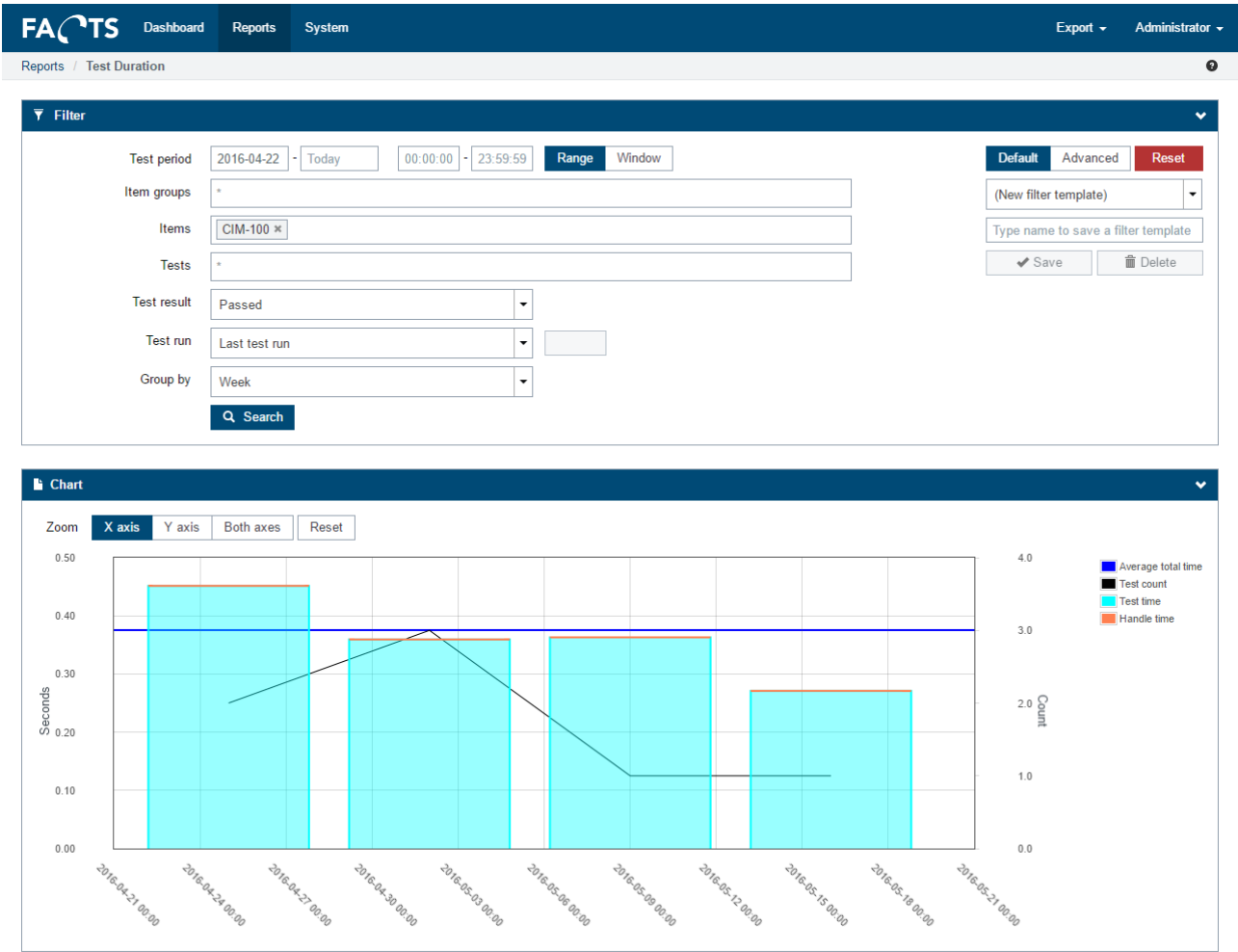
Typical use:

The Test Duration report can be used to map the time used to test a product. It shows the relation between testing time and handling time between two tests. Handling time is defined as the time from the end of one test until the beginning of the next test. In essence, handling time is waste and hence loss of production efficiency, so all efforts should be made to minimize handling time (provided there is a significant production volume to pay for the investment). Poor handling time can originate from a number of different sources – naming a few:

- Test fixtures and connectors are too difficult and time consuming to handle
- Products undergo transport between tests
- Manual handling is too slow

Whatever the reason is for the poor handling time, it should be properly investigated, perhaps as part of a LEAN project to optimize production logistics and maybe even reduce or simplify production steps. Like the Test Yield report, the Test Duration report can also be used to compare performance as a function of time periods, operators, test fixtures or shifts.

To get the Test Duration report, fill out the appropriate filter options and click the Search button.



A tooltip with detailed information will appear when holding the mouse pointer on bars in the graph.

3.14 Test Step Duration report

Detailed duration information for all test steps in a test.

Typical use:

The Test Step Duration report can be used to get a deeper insight into time it takes for each test step to complete. The report provides simple statistics for the time spent for each test step, including average duration, standard deviation and worst duration. As test time is one of the limiting elements for production capacity, efforts should be made to investigate and optimize any test step taking up to majority of time.

When looking at time spent on test steps, it is also very interesting, if any of the “unnecessary test steps” found via the Test Step Yield report is also taking up lots of time when testing. In that case, much time is spent on completing test steps that hardly ever fail – perhaps a serious candidate for optimization.

To get the Test Step Duration report, fill out the appropriate filter options and click the Search button.


Dashboard
Reports
System
Export
Administrator

Reports / Test Step Duration

Filter

Test period
2016-04-22 - Today
00:00:00 - 23:59:59
Range Window

Item groups
*

Items
CIM-100

Tests
*

Test result
Passed

Test run
Last test run

Test step cycle
Last test step cycle

Search

Default Advanced Reset

(New filter template)

Type name to save a filter template

Save Delete

Data

Search

Showing 1 to 20 of 20 test steps

Test	Test step	Worst duration	Average duration	σ duration	Count
Computer Motherboard Test Sequence Loop (MainSequence)	CPU Test:FPU Test	27ms	5ms	10ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Turn Vacuum Table On	23ms	6ms	8ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	CPU Test:Instruction Set Test	18ms	4ms	6ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Turn Vacuum Table Off	18ms	4ms	6ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	CPU Test:Register Test	16ms	6ms	6ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:ROM Test	14ms	8ms	4ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	CPU Test:Cache Test	12ms	3ms	4ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Video Test	7ms	3ms	2ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:RAM Test	3ms	2ms	1ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Keyboard Test	3ms	2ms	1ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Powerup Test	2ms	1ms	1ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	Random Fails:PowerFail	2ms	0ms	1ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:Simulation Dialog	1ms	0ms	0ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	MainSequence:String test	1ms	0ms	0ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	Random Fails:CPUFail	1ms	0ms	0ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	Random Fails:KeyboardValue	1ms	0ms	0ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	Random Fails:VideoValue	1ms	0ms	0ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	Random Fails:ROMFail	0ms	0ms	0ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	Random Fails:RAMFail	0ms	0ms	0ms	7
Computer Motherboard Test Sequence Loop (MainSequence)	Random Fails>Error	0ms	0ms	0ms	7

3.15 XY Graph report

Numeric array based XY-graph and min/max XY-graph for a set of specified test steps and channels.

- **XY chart:** Shows the numeric measurements for selected channels.
- **Min/max chart:** shows the average, min and max values for the selected channels.

FACTS

Dashboard

Reports

System

Export

Administrator

Reports / XY Graph

Filter

Test period

2016-04-22

Today

00:00:00

23:59:59

Range

Window

Item groups

+

Items

+

Test

+

Test step

+

Test result

All

Test run

All test runs

Test step result

All

Search

Default

Advanced

Reset

(New filter template)

Type name to save a filter template

Save

Delete

XY Test Step Results

Showing 10 test results

Show	Test time	Serial no.	Test step	Test step result	Test run
☐	2016-04-30 00:00:00	Afd705de9-9d8-4390-bdf9-e1f3e0679d82	TestStepResult#30-Apr-16 0:00:00 AM#5#20#20#200	Passed	1 of 1
☐	2016-04-29 00:00:00	Ae3e0f179-42d9-4ce4-94ce-081519f2780	TestStepResult#29-Apr-16 0:00:00 AM#5#20#20#200	Passed	1 of 1
☐	2016-04-28 00:00:00	A966ae6777-cae0-4aa1-50fe-c7695e0162f8	TestStepResult#28-Apr-16 0:00:00 AM#5#20#20#200	Passed	1 of 1
☒	2016-04-27 14:32:15	10023442343	Default relay output values	Passed	1 of 1
☐	2016-04-27 00:00:00	A99a9b700-6681-45b8-8a3c-a5ae282394b9	TestStepResult#27-Apr-16 0:00:00 AM#5#20#20#200	Failed	1 of 1
☐	2016-04-26 00:00:00	Aa353ca78-cf52-48d7-b2c0-9b5a26fa2f65	TestStepResult#26-Apr-16 0:00:00 AM#5#20#20#200	Passed	1 of 1
☐	2016-04-25 00:00:00	Ab0dc6bed-8c97-414f-98d5-2a9ebaeab0cd	TestStepResult#25-Apr-16 0:00:00 AM#5#20#20#200	Failed	1 of 1
☐	2016-04-24 00:00:00	Abdee81e3-51f6-4817-9e33-758f7dcee478	TestStepResult#24-Apr-16 0:00:00 AM#5#20#20#200	Passed	1 of 1
☐	2016-04-23 00:00:00	A1ca23e24-1cf7-43c3-a09e-1fc25907514f	TestStepResult#23-Apr-16 0:00:00 AM#5#20#20#200	Failed	1 of 1
☐	2016-04-22 00:00:00	Ac7eb39ca-6127-405c-b1ec-10ff2f6c5fe	TestStepResult#22-Apr-16 0:00:00 AM#5#20#20#200	Passed	1 of 1

Select All Unselect All Invert Selection

The query is limited to 1,000 test results

Channels

Showing 3 test result channels

Show	Color	Serial no.	Test step	Channel
☒		10023442343	Default relay output values	Channel1
☐		10023442343	Default relay output values	Channel2
☒		10023442343	Default relay output values	Channel3

Select All Unselect All Invert Selection

XY Chart

Zoom X axis Y axis Both axes Reset Scale Linear Logarithmic

10023442343 - Default relay output values - Channel1

10023442343 - Default relay output values - Channel2

10023442343 - Default relay output values - Channel3

Min/Max Chart

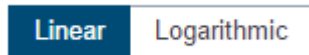
Zoom X axis Y axis Both axes Reset Scale Linear Logarithmic

Maximum

Average

Minimum

Both the XY chart and the Min/Max chart allows switching between logarithmic and linear scale. This is done using the buttons, located next to the zoom functionality.



Both charts default to linear scale.

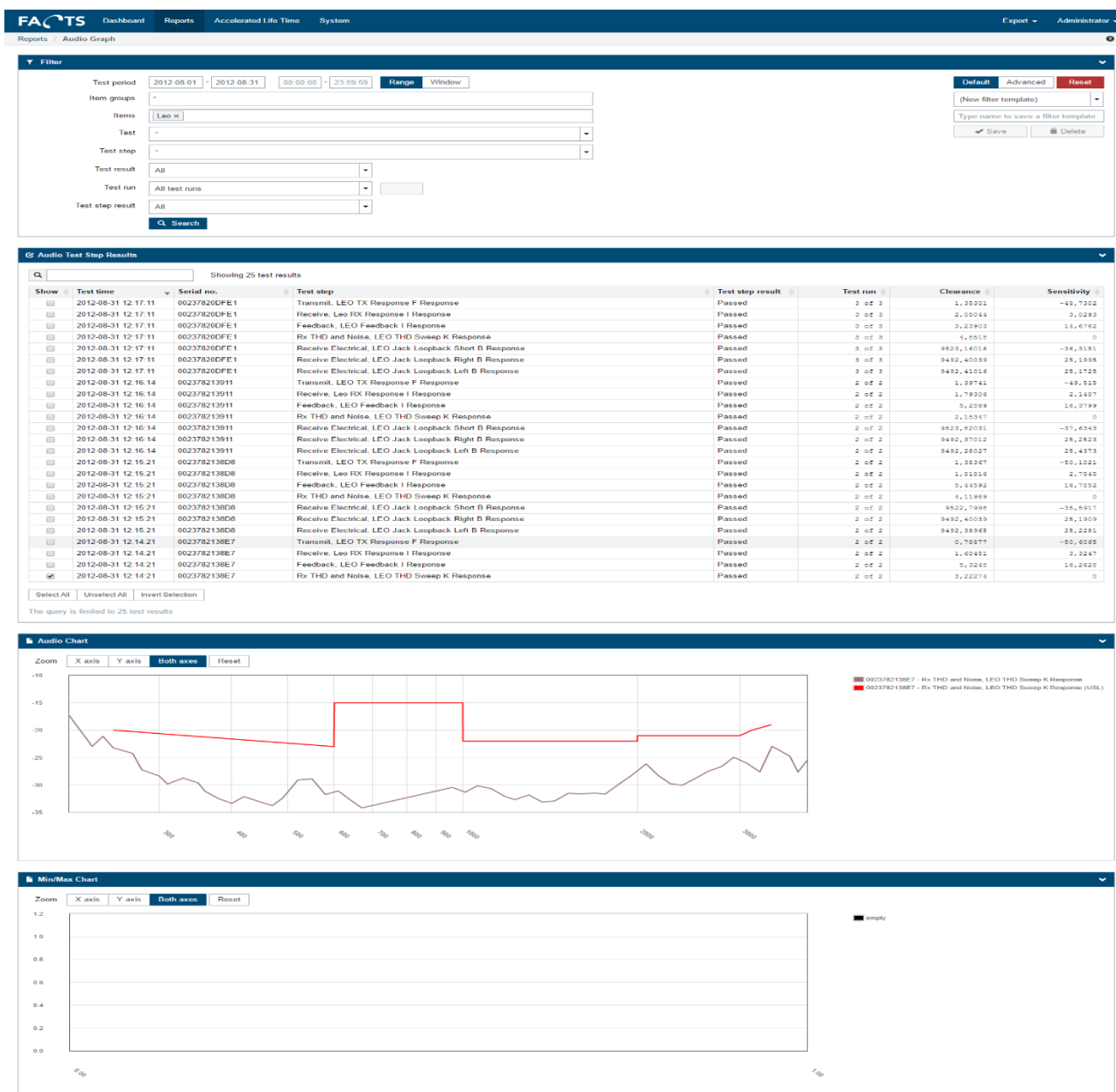
3.16 Audio Graph report

Audio based XY-graph for a specific test step.

Typical use:

Based on the filter criteria including a specific test step, the Audio Chart shows the actual measurements and potential upper- and lower- limits.

- **Audio Chart:** Shows measurements for the selected test steps and potential limits.
- **Min/Max chart:** Shows the average, higher and lower measurements of all the combined test steps.



3.17 Gauge R&R

The Gauge R&R analysis (Type 2 or Type 3) can be used to quantify the amount of variation in a measure that comes from the measurement system itself rather than from product or process variations. This analysis uses the Analysis Of Variance (ANOVA) method for computing the repeatability and reproducibility.

FACTS

DashboardReportsSystem

ExportAdministrator

ReportsGauge R&R

Filter

Period2013-09-29Today00:00:0023:59:59RangeWindow

Item10000-041

TestGage RR

Serial no. rangeFrom serial no. To serial no.

Test operator users

Search

Reset

Available sharing groups

(New filter template)

Type name to save a filter template

SaveDelete

Data

Showing 1 to 1 of 1 test results

Test step name	Avg	Low limit	Hight limit	% Study VAR Total Gauge R&R	% Tolerance VAR Total Gauge R&R	% Study VAR Repeatability	% Tolerance Repeatability	% Study VAR Reproducibility	% Tolerance Reproducibility
test3	85927775.43	3500000	24000000	35.26	0.29	33.81	0.27	9.4	0.08

The query is limited to 10,000 test steps

3.17.1 Details

It is possible to see details on each Gauge R&R analysis. This is done via the icon .



3.17.2 Import

When importing Gauge R&R data it is important to tell the importer that the data is part of an GAGE R&R analysis. This is done to make sure Gauge R&R measurement data is not include in other analysis, like Yield analysis. To mark data as Gauge R&R data, then set TestCategory to 'GaugeRR' in the import files. Also make sure to include metadata on each test result, which indicates which trial it is. A test result, including trial metadata, could look like this.

```
<TestResult TestName="Gage RR" Result="Passed" TestTime="2013-12-12T12:10:18+01:00" TestCategory="GaugeRR" TestStation="OS-test2"
TestOperatorUser="TestA" TestOperatorType="GataRR">
  <Unit SerialNo="SN635346146492760001" Revision="0B28" ItemNumber="10000-042" />
  <Metadata Name="trial" Value="1" />
  <TestSteps>
    <TestStepResult Name="test2" Result="Passed">
      <NumericValue Comparison="GELE" UpperLimit="5.5" LowerLimit="4.1" Value="5.435" Unit="DAC" />
    </TestStepResult>
  </TestSteps>
</TestResult>
<TestResult TestName="Gage RR" Result="Passed" TestTime="2013-12-12T12:11:18+01:00" TestCategory="GaugeRR" TestStation="OS-test2"
TestOperatorUser="TestA" TestOperatorType="GataRR">
  <Unit SerialNo="SN635346146492760001" Revision="0B28" ItemNumber="10000-042" />
  <Metadata Name="trial" Value="2" />
  <TestSteps>
    <TestStepResult Name="test2" Result="Passed">
      <NumericValue Comparison="GELE" UpperLimit="5.5" LowerLimit="4.1" Value="4.435" Unit="DAC" />
    </TestStepResult>
  </TestSteps>
</TestResult>
```

3.18 Station comparison

Visualize yield and mean and standard deviation of numeric measurements based on grouped data.

Typical use:

The Station comparison report can be used to find test stations which are performing different from other station based on grouped data. This will make it easier to identify outlier stations.

To get the Station Comparison report, fill out the appropriate filter options and click the Search button.



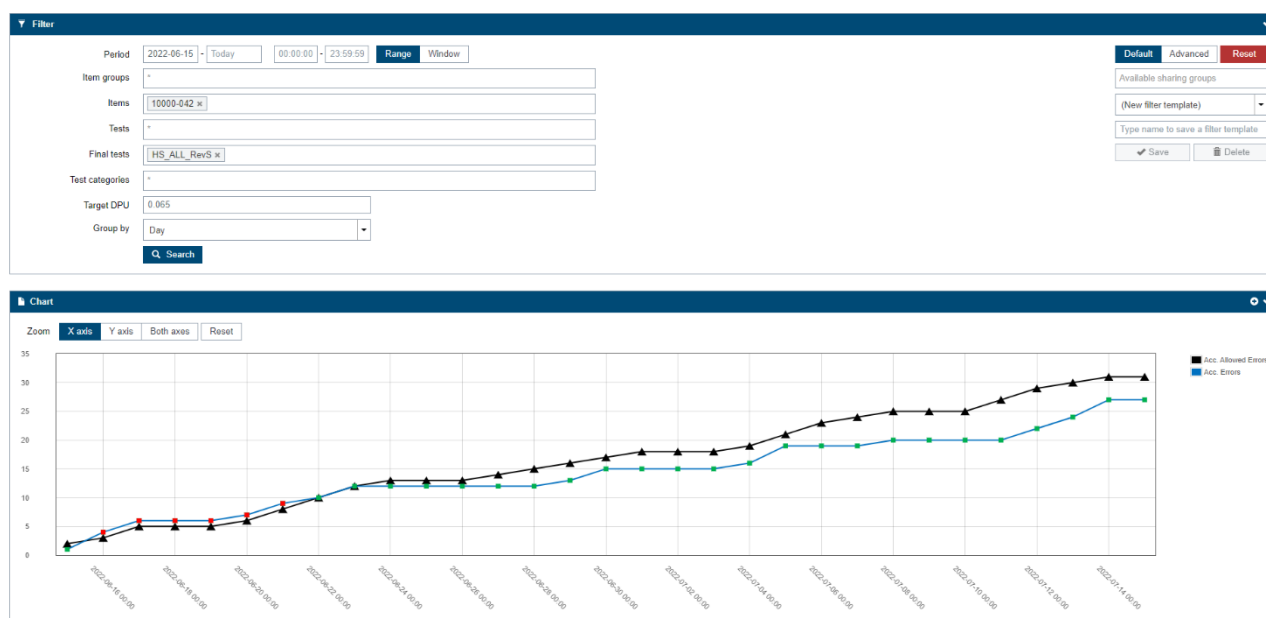
3.19 DPU (Damages per unit)

Visualize the errors (failed tests or test steps) per produced unit. The real DPU is compared in a cumulative graph to a target DPU value that is set as a filter.

Typical use:

This graph is typically used if you have a goal for how many errors there should be on a product per produced unit. An example could be that you have a complex product where you expect that there are repairs on each product but on an average, there should not be more than 1.5 errors per produced unit.

- The errors are counted based on the items and tests, selected in the filter.
- The produced units are counted based on how many units have passed the tests selected in the “Final tests” filter.
- A damage can be configured to either be a failed test or a failed test step by changing the “Count errors based on” filter. The default is to count failed test steps.



In addition to the cumulative graph, a table gives an overview over the DPU values at different times. A color indicates if the value is below or above the desired DPU.

Data											
Showing 1 to 25 of 31 entries											
Time group	Produced units	Allowed errors	Errors	Error difference	Target DPU	Actual DPU	Acc. allowed errors	Acc. errors	Acc. error difference	Acc. actual DPU	
2022-07-15	5	0	0	0	0,065	0,000	31	27	4	0,054	
2022-07-14	20	1	3	-2	0,065	0,110	31	27	4	0,057	
2022-07-13	14	1	2	-1	0,065	0,110	30	24	6	0,053	
2022-07-12	22	1	2	-1	0,065	0,091	29	22	7	0,050	
2022-07-11	29	2	0	2	0,065	0,000	27	20	7	0,048	
2022-07-10	0	0	0	0	0,065		25	20	5	0,051	
2022-07-09	0	0	0	0	0,065		25	20	5	0,051	
2022-07-08	19	1	1	0	0,065	0,053	25	20	5	0,051	
2022-07-07	24	2	0	2	0,065	0,000	24	19	5	0,051	
2022-07-06	23	1	0	1	0,065	0,000	23	19	4	0,055	
2022-07-05	34	2	3	-1	0,065	0,061	21	19	2	0,058	
2022-07-04	13	1	1	0	0,065	0,071	19	16	3	0,055	
2022-07-03	0	0	0	0	0,065		18	15	3	0,054	
2022-07-02	0	0	0	0	0,065		18	15	3	0,054	
2022-07-01	14	1	0	1	0,065	0,000	18	15	3	0,054	
2022-06-30	11	1	2	-1	0,065	0,110	17	15	2	0,057	
2022-06-29	17	1	1	0	0,065	0,059	16	13	3	0,051	
2022-06-28	19	1	0	1	0,065	0,000	15	12	3	0,051	
2022-06-27	18	1	0	1	0,065	0,000	14	12	2	0,055	
2022-06-26	0	0	0	0	0,065		13	12	1	0,060	
2022-06-25	0	0	0	0	0,065		13	12	1	0,060	
2022-06-24	16	1	0	1	0,065	0,000	13	12	1	0,060	
2022-06-23	31	2	2	0	0,065	0,065	12	12	0	0,055	
2022-06-22	31	2	1	1	0,065	0,032	10	10	0	0,045	
2022-06-21	29	2	2	0	0,065	0,044	8	9	-1	0,074	

4 Report filters

This chapter provides detailed information on the different report filter elements:

Hint: When showing a report based on selected filter criteria, you can copy the page link (URL) and store or send to a colleague by e-mail. When opening the copied link (URL) in an internet browser, the same report content will reappear based on the original filter options.

4.1 Filter Templates

Filter templates is an easy way to save and load any filters on a report. Filter templates are available on all report types. The list of filter templates is filtered on each report to only contain the relevant templates.

Default
Advanced
Reset

Available sharing groups

(New filter template)

Type name to save a filter template

Save

Delete

4.1.1 Using filter templates

To use a filter template to generate a report, simply open the wanted report type, then select the wanted filter in the list. The report filters will now be populated using the filter.

4.1.2 Adding filter templates

It is possible to add new filter templates before and after searching using the form.

When you have filled out the filters on form, type in a new name and click Save. Your filter will now appear in the list of filters, for the current report type and for your report widgets, so that you may add it to your dashboard.

4.1.3 Updating filter templates

To update an existing filter, simply select the filter in the list, then modify the filter options using the report filters and click Save. This will update an existing filter.

4.1.4 Deleting filter templates

To delete a filter template, select it in the list, then click Delete.

You cannot delete a filter template that is being used by a widget.

4.1.5 Filter templates and Test Period

Filter templates treat Test Period selections different than reports.

Test period -

If Test Period contains a from-date but no to-date, filter templates will calculate how many days are between the selected date and the current and use this interval for any future reporting.

Test period -

If Test period contains both dates, filter templates will save the selected dates and always use those when accessing the filter.

4.1.6 Sharing filter templates

Adding sharing groups to a filter template will allow other group-members to access the template. The shared filter template will appear in the template list, for all other members of the selected sharing groups. Note that only the creator of the template has the permission to edit or delete the template.

4.2 Filter option relations

Some filter options are inter-related. This means that for these inter-related filter options, only existing combinations can be selected as search criteria for a given report. For example: If a filter option for "Test" is filled out, all other filter options related to "Test" are pre-filtered so that they only contain values that relates to the selected value for "Test".

The following filter options are inter-related:

- Items
- Test
- Test step
- Test station
- Test fixture
- Test cassette

4.3 Test period

Defines start and end time for data selection:

Test period - -

To select a date using a calendar window, select date field with a single click. Double click a date field, if the date is entered manually using the keyboard.

Date field is formatted as [yyyy-MM-dd] (year – month – day)

Time field is formatted as [hh:mm:ss] (hour – minutes – seconds)

Time span - “Range” or “Window”

Defines how data is selected over a day.

- Range: Selects all data in the time range given in Test period filter
- Window: Selects only data between start time [hh:mm:ss] and end time [hh:mm:ss] each day between start date and end date. This feature can be used to filter work shifts etc.

Example

Test period - -

Report time	Included in Range	Included in Window
2012-03-28 10:00:00		
2012-04-29 10:30:00	X	
2012-04-30 00:45:00	X	
2012-05-01 20:00:00	X	X
2012-06-01 23:00:01	X	
2012-06-02 19:00:00	X	X

Available in the following report(s)

Report	Default filter	Advanced filter
SPC	X	
Time Series	X	
Test Result	X	
Repair Pareto	X	
Test Yield	X	
Test Step Yield	X	
Test Step Error Pareto	X	
Test Duration	X	
Test Step Duration	X	
DPU	X	
Unit Relation	X	
Station Comparison	X	

4.4 Items

Limits data so that it only includes data concerning the selected items.

By default (*), all items are selected, however this is an inter-related field (see section 4.2), so a selection in one of the other related fields will influence the available contents of the Items field.

To select an item to include, set focus onto the Items field by clicking it with the mouse. A list of all available items is shown. Select an item to include by clicking it.

Items

1.0

10000232301 - WRT54B - Home Router

10000232302 - WRT54G - Business Router

12

12312123223 - WRT - Controller Board A

12321313223 - WRT - Controller Board B

1234

1234124

12341243

To select more items, simply select another item by clicking it.

Items

60000232301 - WRT54G - FEP ✕

1.0

10000232301 - WRT54B - Home Router

10000232302 - WRT54G - Business Router

12

12312123223 - WRT - Controller Board A

12321313223 - WRT - Controller Board B

1234

To search for a specific item, simply type any part of the item number or description text.

Items

60000232301 - WRT54G - FEP ✕ wrt

10000232301 - WRT54B - Home Router

10000232302 - WRT54G - Business Router

12312123223 - WRT - Controller Board A

12321313223 - WRT - Controller Board B

33446577654 - WRT - Controller Board B with USB

98286362712 - WRT22C - Low Cost Router

Remark

If specific Test(s) are selected, the available items are limited to items related to the selected test(s). Available items can also be limited by assigned user rights.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC	X	
Time Series	X	
Test Result	X	
Repair Pareto	X	
Test Yield	X	
Test Step Yield	X	

Test Step Error Pareto	X	
Test Duration	X	
Test Step Duration	X	
DPU	X	

4.5 Test

Limits data so that it only includes data concerning the selected tests.

By default (*) all items are selected, however this is an inter-related field (see section 4.2), so a selection in one of the other related fields will influence the available contents of the Test field.

To select a test to include, set focus onto the Test field by clicking it with the mouse. A list of all available tests is shown. Select a test to include by clicking it.

Test

*

BoardTest

CPT DEMO

CPU Mainboard

FEP

FlexStand OI Demo - 6TL-08

FlexStand OI Demo - 6TL-24

FlexStand OI Demo - 6TL-24_2

FlexStand OI Demo - Advanced - Computer Motherboard Test Sequence

Functional

To search for a specific test, simply type any part of the test name.

Test

*

flexst

FlexStand OI Demo - 6TL-08

FlexStand OI Demo - 6TL-24

FlexStand OI Demo - 6TL-24_2

FlexStand OI Demo - Advanced - Computer Motherboard Test Sequence

Remark

If specific Item(s) are selected, the available tests are limited to tests related to the selected item(s). Available tests can also be limited by assigned user rights.

Available in the following report(s)

Report	Default filter	Advanced filter
--------	----------------	-----------------

SPC	X	
Time Series	X	
Repair Pareto	X	
Station Comparison	X	

4.6 Tests

Limits data so that it only includes data concerning the selected tests.

By default (*), all tests are selected.

To select a test to include, set focus onto the Test field by clicking it with the mouse. A list of all available tests is shown. Select a test to include by clicking it.

Tests

BoardTest

CPT DEMO

CPU Mainboard

FEP

FlexStand OI Demo - 6TL-08

FlexStand OI Demo - 6TL-24

FlexStand OI Demo - 6TL-24_2

FlexStand OI Demo - Advanced - Computer Motherboard Test Sequence

Functional

Main Controllerboard

WRT54x Final Test

To select more tests, simply select another test by clicking it.

Tests

FlexStand OI Demo - 6TL-08 x FlexStand OI Demo - 6TL-24 x

BoardTest

CPT DEMO

CPU Mainboard

FEP

FlexStand OI Demo - 6TL-24_2

FlexStand OI Demo - Advanced - Computer Motherboard Test Sequence

Functional

Main Controllerboard

WRT54x Final Test

To search for a specific test, simply type any part of the test name.

Tests

Remark

If specific Item(s) are selected, the available tests are limited to tests related to the selected item(s). Available tests can also be limited by assigned user rights.

Available in the following report(s)

Report	Default filter	Advanced filter
Test Result	X	
Test Yield	X	
Test Step Yield	X	
Test Step Error Pareto	X	
Test Duration	X	
Test Step Duration	X	
DPU	X	
Unit Relation	X	

4.7 Test step

Limits data so that it only includes data concerning the selected test step.

By default (*), all items are selected, however this is an inter-related field (see section 4.2), so a selection in one of the other related fields will influence the available contents of the Test Step field.

To select a test step to include, set focus onto the Test step field by clicking it with the mouse. A list of all available test steps is shown. Select a test step to include by clicking it.

Test step *



- Bit Error Rate
- Measure Bias Voltage
- Packet Error Rate
- RF Power F2
- RF Power F2 Trimmed
- Supply V2 Sensor

To search for a specific test step, simply type any part of the test step name.

Test step *



- Bit Error Rate

Remark

A least one item or test must be selected, before a specific test step name can be selected.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC	X	
Time Series	X	
Repair Pareto	X	
Station Comparison	X	

4.8 Test result

Limits data so that it only includes data with the selected test result parameter.

To change the test result parameter, set focus onto the Test result field by clicking it with the mouse. A list of all available test results is shown. Select a test result to include by clicking it.

Test result

All

All

Passed

Failed

Aborted

Error

Terminated

Parameters

- All: includes all test reports regardless of test result
- Passed: includes only “passed” test reports
- Failed: includes only “failed” test reports
- Aborted: includes only “aborted” test reports
- Error: includes only “error” test reports
- Terminated: includes only “terminated” test reports

Available in the following report(s)

Report	Default filter	Advanced filter
SPC	X	
Time Series	X	
Test Result	X	
Test Duration	X	
Test Step Duration	X	
Unit Relation	X	
Station Comparison		X

4.9 Test run

Limits data so that it only includes data with the selected test run parameter. Test run is defined by the number of times an individual unit has been tested in the same test.

Test run

All test runs ▲

All test runs

All test runs

 First test run
 Last test run
 Test run equals
 Test run less than
 Test run greater than

Parameters

All test runs	Include all test runs in selected data
First test run	Only the first test run is selected
Last test run	Only the last test run is selected
Test run equals	Only the test run number specified in the numeric field is selected
Test run less than	Only test runs less than test run number specified in the numeric field is selected
Test run greater than	Only test runs greater than test run number specified in the numeric field is selected

Available in the following report(s)

Report	Default filter	Advanced filter
SPC	X	
Time Series	X	
Test Result	X	
Test Yield	X	
Test Step Yield	X	
Test Step Error Pareto	X	
Test Duration	X	
Test Step Duration	X	
Unit relation	X	
Station Comparison		X

4.10 Test step cycle

Limits data so that it only includes data with the selected test step cycle parameter. Test step cycle is defined by how many times an individual test step has reported a result in the same test report

Test step cycle

Last test step cycle ▲

All test step cycles

First test step cycle

Last test step cycle

Parameters

All test step cycles	Includes all test step cycles in selected data
First test step cycle	Only the first test step cycle is selected
Last test step cycle	Only the last test step cycle is selected

Available in the following report(s)

Report	Default filter	Advanced filter
SPC	X	
Time Series	X	
Test Step Yield	X	
Test Step Error Pareto	X	
Test Step Duration	X	
Station Comparison		X

4.11 Test stations

Limits data so that it only includes data from the selected test station(s).

By default (*), all items are selected, however this is an inter-related field (see section 4.2), so a selection in one of the other related fields will influence the available contents of the Test stations field.

To select a test station to include, set focus onto the Test stations field by clicking it with the mouse. A list of all available test stations is shown. Select a test station to include by clicking it.

Test stations

6TL-PC

DK-CIM-00001

DK-CIM-00002

DK-CIM-00003

DK-CIM-00004

DK-CIM-00005

DK-CIM-00006

DK-CIM-00007

DK-CIM-00008

To select more test stations, simply select another test station by clicking it.

Test stations

DK-CIM-00001 ✕

6TL-PC

DK-CIM-00002

DK-CIM-00003

DK-CIM-00004

DK-CIM-00005

DK-CIM-00006

DK-CIM-00007

DK-CIM-00008

DK-CIM-00009

To search for a specific test station, simply type any part of the test station name.

Test stations

DK-CIM-00002

DK-CIM-00003

DK-CIM-00004

DK-CIM-00005

DK-CIM-00006

DK-CIM-00007

DK-CIM-00008

DK-CIM-00009

DK-CIM-00010

Remark

Since test stations is not a mandatory field, there can be test results without any relation to test station.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU	X	
Station Comparison	X	

4.12 Test fixtures

Limits data so that it only includes data from the selected test fixture(s).

By default (*), all items are selected, however this is an inter-related field (see section 4.2), so a selection in one of the other related fields will influence the available contents of the Test fixtures field.

To select a test fixture to include, set focus onto the Test fixtures field by clicking it with the mouse. A list of all available test fixtures is shown. Select a test fixture to include by clicking it.

Test fixtures

- A
- B
- Fixture123
- FixtureA

To select more test fixtures, simply select another test fixture by clicking it.

Test fixtures

- B
- Fixture123
- FixtureA

To search for a specific test fixture, simply type any part of the test fixture name.

Test fixtures

123

- Fixture123

Remark

Since test fixture is not a mandatory field, there can be test results without any relation to test fixture.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X
Station Comparison		X

4.13 Test cassettes

Limits data so that it only includes data from the selected test cassette(s).

By default (*), all items are selected, however this is an inter-related field (see section 4.2), so a selection in one of the other related fields will influence the available contents of the Test cassettes field.

To select a test cassette to include, set focus onto the Test cassettes field by clicking it with the mouse. A list of all available test cassettes is shown. Select a test cassette to include by clicking it.

Test cassettes

Cassette 1
Cassette 2
Cassette 3

To select more test cassettes, simply select another test cassette by clicking it.

Test cassettes

Cassette 1 ✕
Cassette 2
Cassette 3

To search for a specific test cassette, simply type any part of the test cassette name.

Test cassettes

Cassette 1 ✕ 3
Cassette 3

Remark

Since test cassette is not a mandatory field, there can be test results without any relation to test cassettes.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X

4.14 Test version

Filters on the version of the Test software used to test the units (Test sequence version).

By default (*), all test versions are selected.

To select a test version to include, set focus onto the Test version field by clicking it with the mouse. A list of all available test versions is shown. Select a test version to include by clicking it.

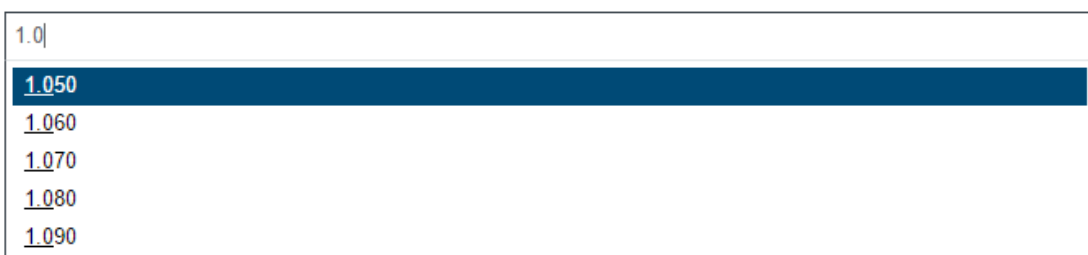
Test versions



1.050
1.060
1.070
1.080
1.090
1.100
1.110
1.130
1.140

To search for a specific test version, simply type any part of the test version name.

Test versions



1.0
1.050
1.060
1.070
1.080
1.090

Remark

Test version is not related to specific tests. Therefore all known test versions can be selected.

Since test version isn't a mandatory field, there can be test results without any relation to test version.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X
Station Comparison		X

4.15 Test category

Filter on one or more test categories. Test categories can for example be “Production” or “Commissioning”. If all real production data is marked with test category “Production”, the filter can be used to filter out all data that is not related to units being produced.

Test categories

- Administrator
- CST
- Debug
- Hopsa
- Migrated
- Production
- SeqZap

Note: The filter depends on the availability of test category in the data being imported.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X
Unit Relation	X	
Station Comparison		X

4.16 Measurement range

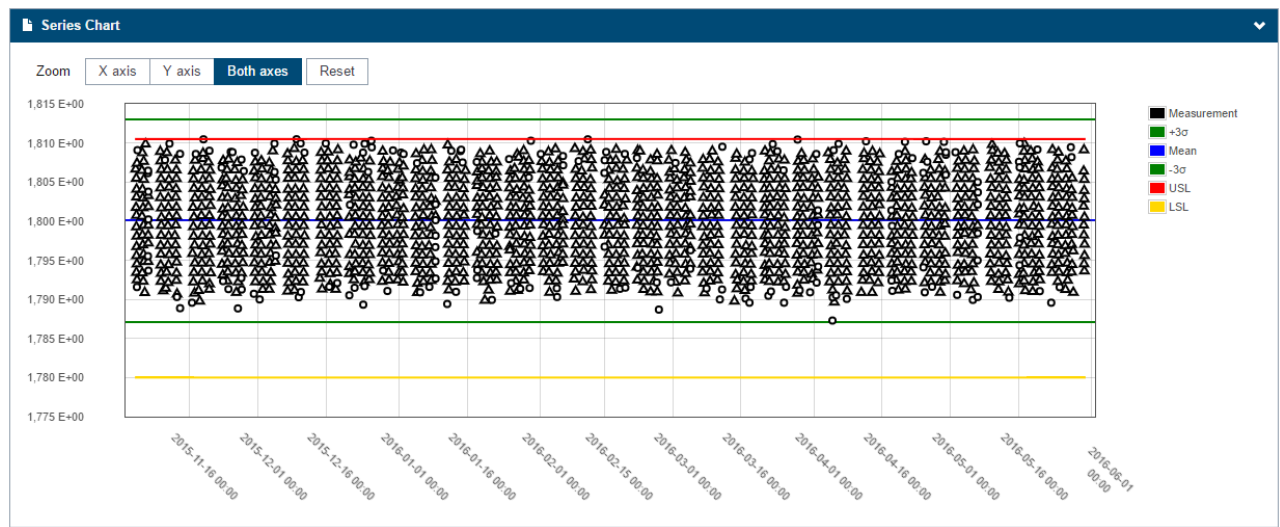
Measurement range is used to filter numeric measurements. The Min and Max value can be used together or individually.

Measurement range

Min

Max

Example:
Measurements without Min or Max set.



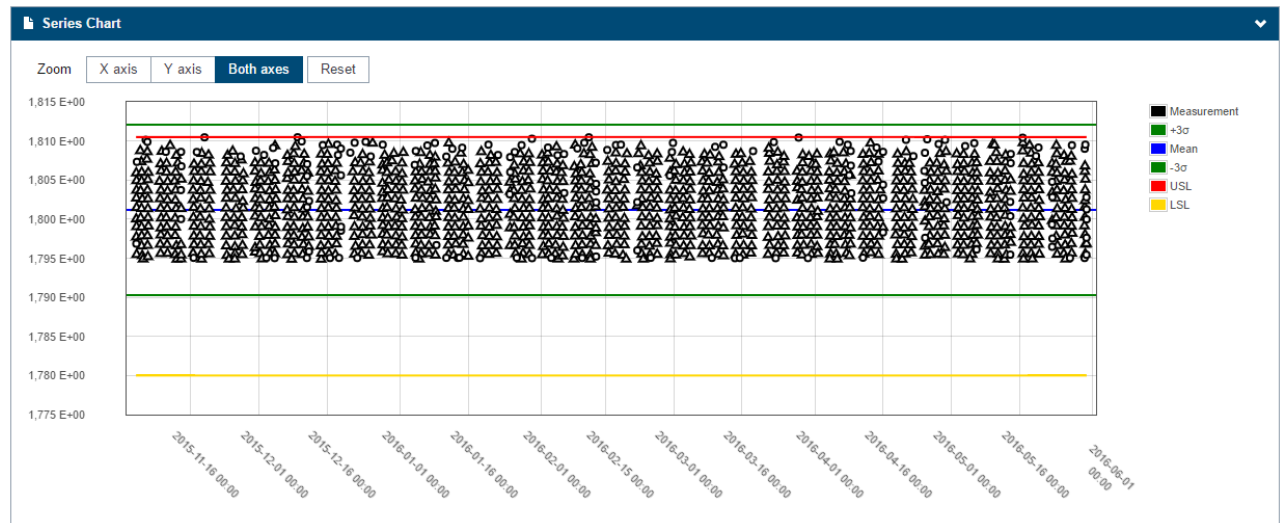
Measurements with Min set to 1.795 and no Max limit.

Measurement range

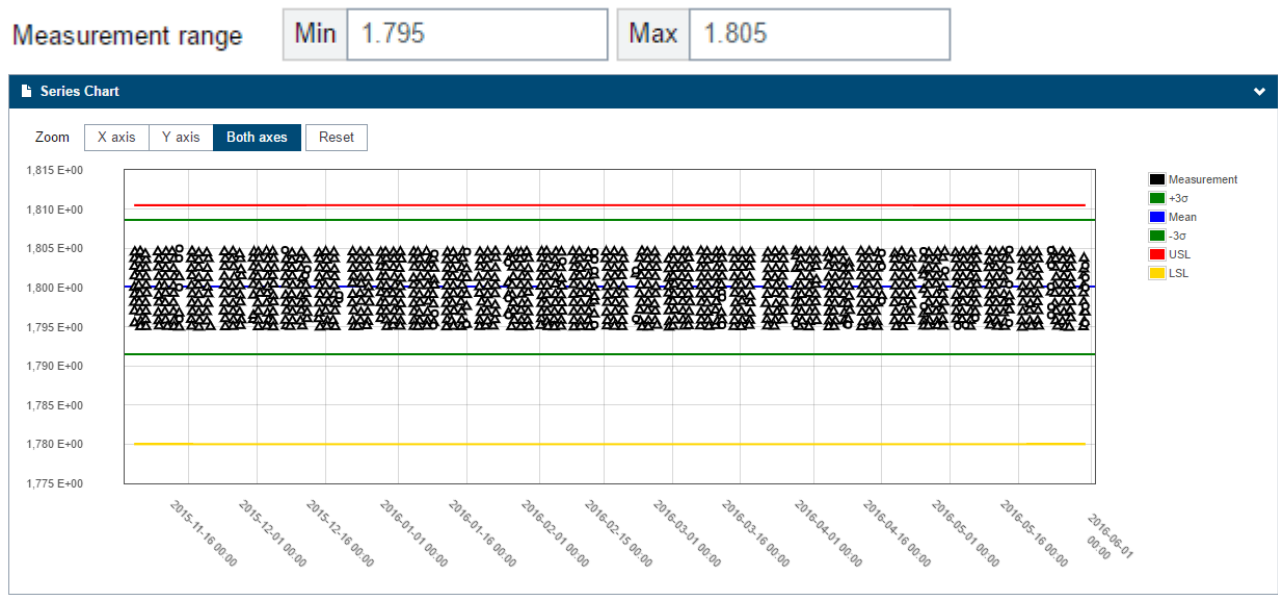
Min

1.795

Max



Measurements with Min set to 1.795 and Max set to 1.805



Available in the following report(s)

Report	Default filter	Advanced filter
Time Series		X

4.17 Sort by

Used to present data in the Time Series graph, either by time stamp (date) or by serial number. The sorting of serial numbers is handled as texts.

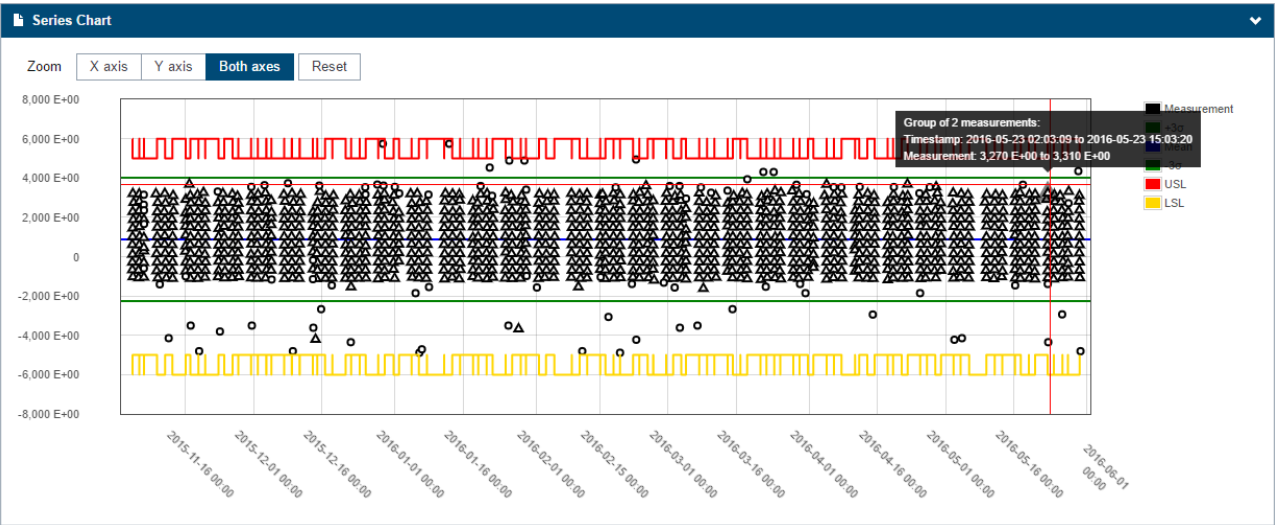
Sort by

Time

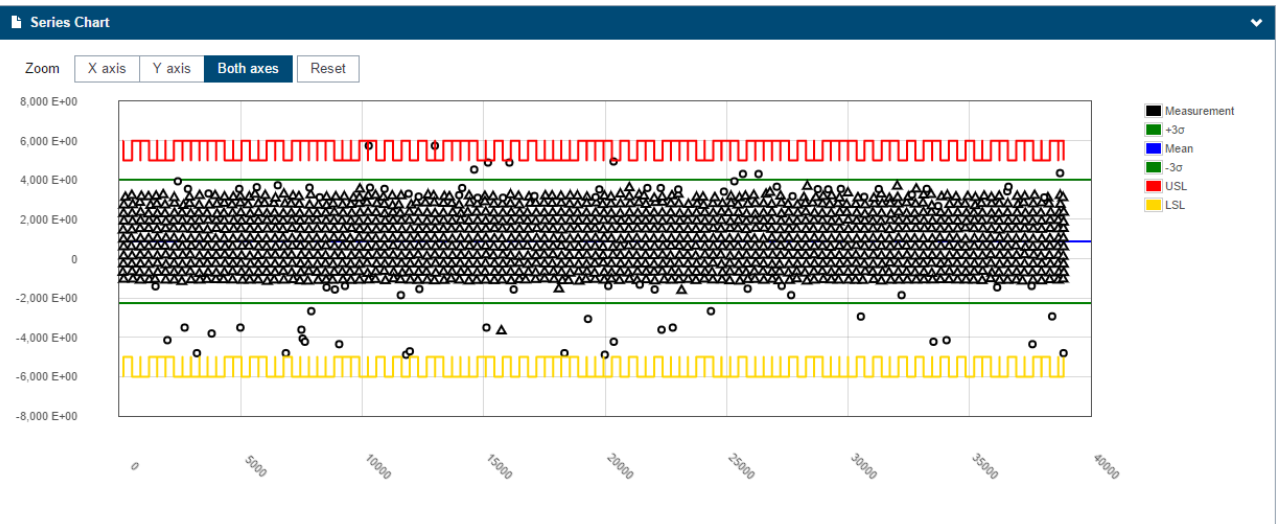
Serial no.

Example of text sort:
SER1
SER2
SER20
SER3

Example of data presented by time:



Same data presented by serial no.:



Available in the following report(s)

Report	Default filter	Advanced filter
Time Series		X

4.18 Serial no. range

Filters on specific serial numbers.

Serial no. range -

There are two ways to search for serial numbers: Either by filling in only “From serial no.” or by filling in both “From serial no.” and “To serial no.”

From serial no. (only):

The “*” character can be used as a wild card to create a search like this: AT8IN10*HA09. The result of this search will be all the units ranging from AT8IN100000HA09 to AT8IN109999HA09 assuming that is the format of the given serial number.

The “*” can be any character, not only numbers, and any number of characters.

The “_” character can likewise be used as a single character wild card to create a search like this: AT8IN10_HA09. The result will be all units ranging from AT8IN100HA09 to AT8IN109HA09, but not serial numbers with additional characters like: AT8IN1011HA09.

The “_” can be any character, not only numbers, but only a single character.

From serial no. and To serial no.:

When using both “From serial no.” and “To serial no.”, the “*” character cannot be used. Instead, type in two serial numbers like this: From AT8IN100000HA09 to AT8IN109999HA09. The result of this search will be the same as above – all units ranging from AT8IN100000HA09 to AT8IN109999HA09.

Also, the “From – To” search is based on characters, not numbers - so searching like this would also be valid: From AT8IN100000AA09 To AT8IN100000ZZ09.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result		X
Repair Pareto		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X
Station Comparison		X

4.19 Unit Revision

Limits data so that it only includes data from the selected unit revision(s).

By default (*), all unit revisions are selected.

To select a unit revision to include, set focus onto the unit revisions field by clicking it with the mouse. A list of all available unit revisions is shown. Select a unit revision to include by clicking it.

Unit revisions

00\r

0A00

0A01

0A04

0A08

0A09

0A10

0A11

0A12

To select more unit revisions, simply select another unit revision by clicking it.

Unit revisions

0A00 x 0A04 x

00\r

0A01

0A08

0A09

0A10

0A11

0A12

0A13

0A14

To search for a specific unit revision, simply type any part of the unit revision name.

Unit revisions

- 0C.00**
- 0C.03
- 0C00
- 0C01
- 0C02
- 0C03
- 0C04
- 0C05
- 0C06

Remark

Unit revisions are not related to specific test stations, tests etc. Therefore, all known unit revisions can be selected. Since unit revision not is a mandatory field, there can be test results without any relation to a unit revision.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X
Station Comparison		X

4.20 Item

Limits data so that it only includes data from the selected item.

To select an item to include, set focus onto the Item field by clicking it with the mouse. A list of all available items is shown. Select an item to include by clicking it.

Items

CIM-100.1043938723
CIM-100.1521232819
CIM-100.1744307622
CIM-100.2744123899
CIM-100.3356852756
CIM-100.4172098942
CIM-100.613163989
CIM-101
CIM-101.1537114716

To search for a specific item, simply type any part of the item number or name.

Items

cim-
CIM-100
CIM-100.1043938723
CIM-100.1521232819
CIM-100.1744307622
CIM-100.2744123899
CIM-100.3356852756
CIM-100.4172098942
CIM-100.613163989
CIM-101

Available in the following report(s)

Report	Default filter	Advanced filter
Unit Overview	X	
Unit Relation	X	

4.21 Serial no.

Used to find a specific unit. Serial number must be identical to the unit's serial number.

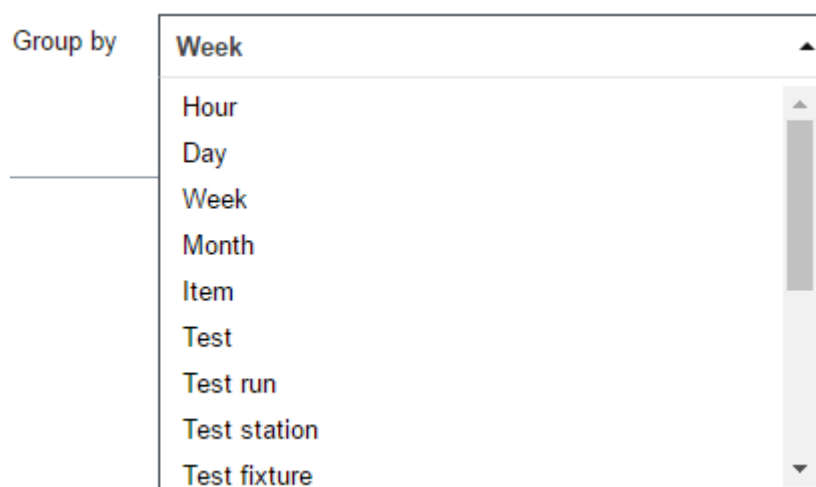
Serial no.

Available in the following report(s)

Report	Default filter	Advanced filter
Unit Overview	X	
Unit Relation	X	

4.22 Group by

Group by is used to group presented data.



Parameters

Hour	Group data selection in hours
Day	Group data selection in days
Week	Group data selection in weeks (Monday is the first day of the week)
Month	Group data selection in months
Item	Group data selection by item
Test	Group data selection by test
Test run	Group data selection by test run
Test station	Group data selection by test station
Test fixture	Group data selection by test fixture
Test cassette	Group data selection by test cassette
Test socket	Group data selection by test socket
Test version	Group data selection by test version
Test category	Group data selection by test category
Test operator type	Group data selection by test operator type
Test operator user	Group data selection by test operator user
Order No.	Group data selection by order No.
Unit Revision	Group data selection by unit revision
None	Group data as one selection

Note: A group with no name indicates that the grouped value is missing on values. This is due to how certain properties on result sets are optional.

Available in the following report(s)

Report	Default filter	Advanced filter
Test Yield	X	
Test Duration	X	
DPU	X	
Station Comparison	X	

4.23 Time element

Time element is used to filter by test and / or handling time.

Time element

Both test and handling time ▲
 Both test and handling time
 Only test time
 Only handling time

Parameters

Both test and handling time	Shows test time and handling time in selection data result
Only test time	Shows only test time in selection data result
Only handling time	Shows only handling time in selection data result

Available in the following report(s)

Report	Default filter	Advanced filter
Test Duration		X

4.24 Handling time cutoff

Defines the upper limit of the handling time between two tests. If the time between two tests exceeds handling time cutoff, the handling time is set to the cutoff value.

Handling time cut off

Time is entered as hh:mm:ss (hours : minutes : seconds)

Available in the following report(s)

Report	Default filter	Advanced filter
Test Duration		X

4.25 Show trend line

The trendline is showing the overall direction of the data available in the chart by calculating a regression model. The chart will be extended with the trendline prediction if the test period is extended to a future time (if enabled). If trendline is disabled, then no trendline will be shown and the chart will not be extended beyond today's date.

Show trend line

Yes
 No

Available in the following report(s)

Report	Default filter	Advanced filter
Time Series	X	

4.26 Simulated limits

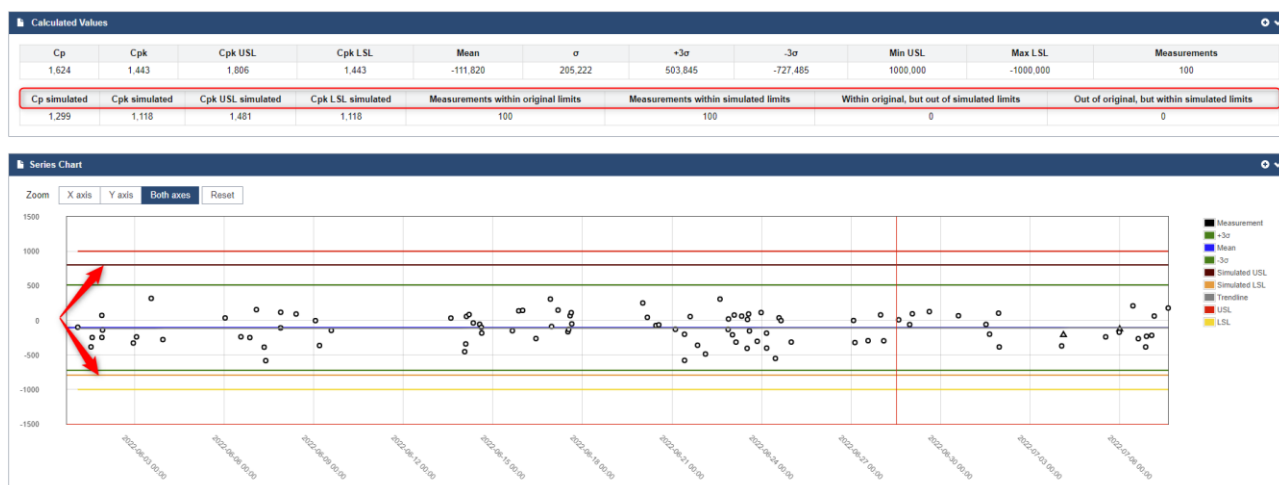
If one or both of the simulated values (LSL, USL) fields have a value, the value is used for simulated capability calculations and for plotting the time series chart. In addition, 8 new fields are shown in the “Calculated Values” section:

- Cp simulated
- Cpk simulated
- Cpk USL simulated
- Cpk LSL simulated
- Measurements within original limits
- Measurements within simulated limits
- Within original, but out of simulated limits
- Out of original, but within simulated limits

Simulated limits

LSL

USL



Report	Default filter	Advanced filter
Time Series		X

4.27 Final tests

This field is used to define the final test of a selected item. An item is assumed to have finished production if it has a passed test on the final test.

Final tests

Report	Default filter	Advanced filter	Comment
DPU	X		Only used to count the number of produced items
Unit Relation	X		

4.28 Relation

Whether to search recursively for descendants or ancestors.

- Descendants: Find sub-components of the items from the filter.
- Ancestors: Find units that contain the items from the filter.

Relation

Report	Default filter	Advanced filter
Unit Relation	X	

4.29 Related item

When looking for relatives, only show relatives, which are related to this item type.

Related item

Report	Default filter	Advanced filter
Unit Relation	X	

4.30 Distinct item relations

When looking for relatives, allow only 1 of each item choosing the newest relation.

Distinct item relations

Report	Default filter	Advanced filter
Unit Relation	X	

4.31 Max data count

Set how much data is read from the database. This is used to avoid very long query times and high memory consumption

Max data count 

Report	Default filter	Advanced filter
Test Result		X
Unit Relation		X
Unit Overview		X
Audio Graph		X
XY Graph		X

4.32 Unit metadata

Only data from units that have the selected metadata values are shown.

By default, all (*) metadata values are selected (no filtering).

Multiple values can be selected.

Format of the values is “type – value”.

All values within the same type are OR’ed, values across different types are AND’ed.

E.g.: (type1-value1 OR type1-value2) AND (type2-value3 OR type2-value4).

To search for a specific value simply enter the name and/or the value of the metadata.

Unit metadata

In this example, the BrowserVersion must either be 61.0.3163.79 OR 51.0.2704.103. The BrowserName must be firefox.

Remarks

The available metadata values will be filtered by previously selected items, tests, serial no. and other filters. Likewise, the values in this filter will affect available values in other filters.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result	X	
Repair Pareto		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X
Station Comparison		X
Unit	X	
Unit Overview	X	
Unit Relation	X	
Audio Graph		X
XY Graph		X

4.33 Test result metadata

Only data from test results that have the selected metadata values are shown.

By default, all (*) metadata values are selected (no filtering).

Multiple values can be selected.

Format of the values is “type – value”.

All values within the same type are OR’ed, values across different types are AND’ed.

E.g.: (type1-value1 OR type1-value2) AND (type2-value3 OR type2-value4).

To search for a specific value simply enter the name and/or the value of the metadata.

Test result metadata

Cycles Requested - 15 x
Cycles Requested - 30 x
Parts From - Denmark x

Cycles Requested - 2
Cycles Requested - 250
Cycles Requested - 3
Cycles Requested - 30000
Cycles Requested - 40
Cycles Requested - 75
Cycles Requested - 999999999

In this example, the Cycles Requested must either be 15 OR 30. The Parts From must be Denmark.

Remarks

The available metadata values will be filtered by previously selected items, tests and other filters. Likewise, the values in this filter will affect available values in other filters.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Test Result	X	
Repair Pareto		X
Test Yield		X
Test Step Yield		X
Test Step Error Pareto		X
Test Duration		X
Test Step Duration		X
DPU		X
Station Comparison		X
Unit		X
Unit Overview		X
Unit Relation		X
Audio Graph		X
XY Graph		X

4.34 Test step result metadata

Only data from test step results that have the selected metadata values are shown.

By default, all (*) metadata values are selected (no filtering).

Multiple values can be selected.

Format of the values is “type – value”.

All values within the same type are OR’ed, values across different types are AND’ed.

E.g.: (type1-value1 OR type1-value2) AND (type2-value3 OR type2-value4).

To search for a specific value simply enter the name and/or the value of the metadata.

Test step result metadata

FilterNo - 3
 FilterNo - 4
 FilterNo - 5
 FilterNo - 6
 Instrument Name - Modbus01

In this example, the FilterNo must either be 1 OR 2. The Type must be Right.

Remarks

The available metadata values will be filtered by previously selected items, tests and other filters. But the values in this filter will NOT affect available values in other filters.

Available in the following report(s)

Report	Default filter	Advanced filter
SPC		X
Time Series		X
Repair Pareto		X
Test Step Yield		X
Test Step Error Pareto		X
Test Step Duration		X
DPU		X
Station Comparison		X
Unit		X
Unit Overview		X
Audio Graph		X
XY Graph		X

5 System

By selecting System from the menu, the follow page is shown.



5.1 User management

Gives access to maintain users and security groups.

5.1.1 Users

Gives a list of all users in the system. Existing users cannot be deleted. If access needs to be restricted/blocked for a certain user, edit the user and uncheck the “Enabled” check box.



	Enabled	Username	Full name	Last sign in	Created
	Yes	admin	Administrator	2016-05-20 22:09:49	2013-03-13

5.1.1.1 Add new user

To add a new user, click the 'New User' button on the Users page. Fill out the fields on the page and click Save.

FACTS

Dashboard

Reports

System

System / Users / New User

ACCOUNT

Enabled

Yes

No

Username

Full name

Description

Email address

Validation type

FACTS

Password

Confirm password

MEMBERSHIP

Security groups

✓ Save

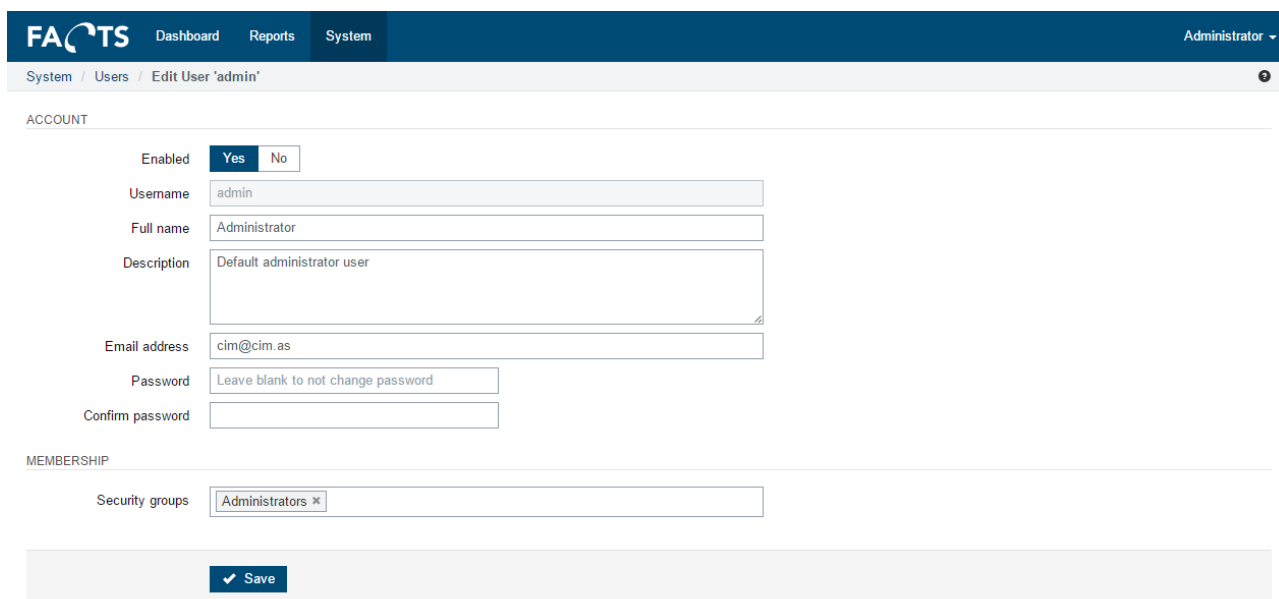
In order to get access to the system, the user must be enabled and be assigned one or more security groups.

Validation type can be set to one of the following:

Validation Type	Description
FACTS	Uses the local FACTS database to store credentials and only validates against this.
Local Machine	Stores username in FACTS database, but validates against the local Windows OS users.
Active Directory	Stores username in FACTS database, but validates against the domain that the current machine is part of. Only available when server is part of a domain.

5.1.1.2 Edit user

To edit an existing user, click the edit icon  in the user list.



The screenshot shows the 'Edit User' page for user 'admin'. The page has a dark blue header with the FACTS logo and navigation tabs: Dashboard, Reports, and System. The user 'Administrator' is logged in. The breadcrumb trail is 'System / Users / Edit User 'admin''. The page is divided into two sections: 'ACCOUNT' and 'MEMBERSHIP'.

ACCOUNT

- Enabled:** Yes (selected), No
- Username:** admin
- Full name:** Administrator
- Description:** Default administrator user
- Email address:** cim@cim.as
- Password:** Leave blank to not change password
- Confirm password:** (empty field)

MEMBERSHIP

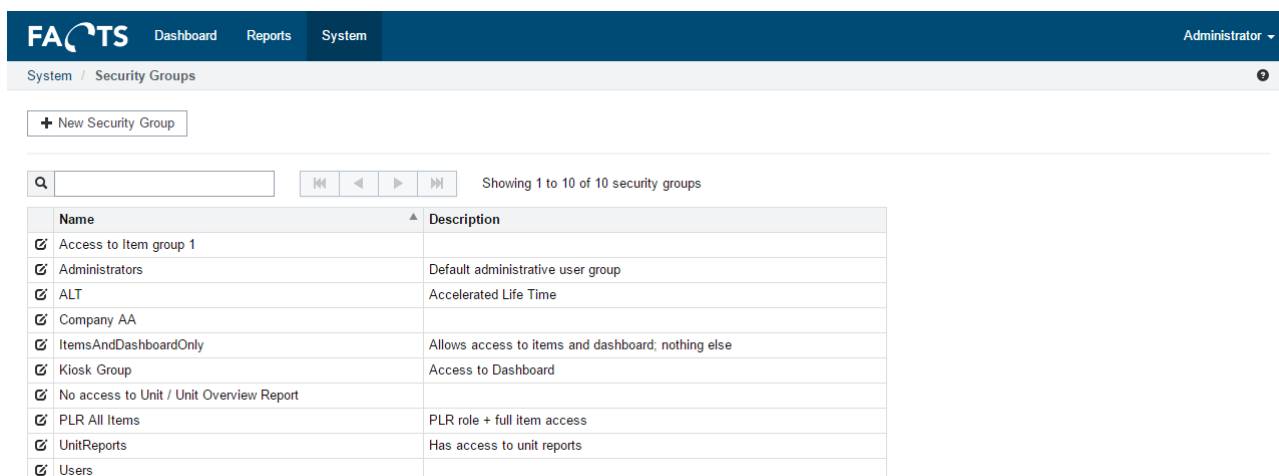
- Security groups:** Administrators ✕

At the bottom, there is a 'Save' button with a checkmark icon.

When finished editing user settings, click Save to store changes.

5.1.2 Security Groups

Security groups control which pages and items a user is allowed to access.



The screenshot shows the 'Security Groups' page. The header is the same as the previous page. The breadcrumb trail is 'System / Security Groups'. There is a '+ New Security Group' button. Below it is a search bar and a table of security groups. The table has columns 'Name' and 'Description'. The table shows 10 security groups.

Name	Description
Access to Item group 1	
Administrators	Default administrative user group
ALT	Accelerated Life Time
Company AA	
ItemsAndDashboardOnly	Allows access to items and dashboard; nothing else
Kiosk Group	Access to Dashboard
No access to Unit / Unit Overview Report	
PLR All Items	PLR role + full item access
UnitReports	Has access to unit reports
Users	

If a user is a member of more security groups, it is the sum of all allowed items and pages that defines the final access rights for the user.

5.1.2.1 Add new security group

To add new security groups, click the “New Security Group” on “Security Group page”. Fill in the fields on the page and click Save.

 Dashboard Reports System

Administrator ▾

System / Security Groups / New Security Group

Name

Description

Users

Select some users

Accessible item groups

Select some item groups

Allowed permissions

☐ Administrator - Provides full access to all features and all items

☐ Access to all items - Provides access to all items in the system

☐ Dashboard - Provides access to the Dashboard

☐ SPC Report - Provides access to the SPC Report

☐ Time Series Report - Provides access to the Time Series Report

☐ Unit Overview Report - Provides access to the Unit Overview Report

☐ Test Yield Report - Provides access to the Test Yield Report

☐ Test Result Report - Provides access to the Test Result Report

☐ Unit Report - Provides access to the Unit Report

☐ Test Step Yield Report - Provides access to the Test Step Yield Report

☐ Test Step Error Pareto Report - Provides access to the Test Step Error Pareto Report

☐ Test Duration Report - Provides access to the Test Duration Report

☐ Test Step Duration Report - Provides access to the Test Step Duration Report

☐ XY Graph - Provides access to XY Graph Report

☐ Repair Pareto Report - Provides access to the Repair Pareto Report

☐ User Management - Provides access to User Management

☐ Data Management - Provides access to management of item groups etc.

☐ Alarm Configuration - Provides access to Alarm Configuration

☐ Import Tasks - Provides access to configuration of Import Tasks

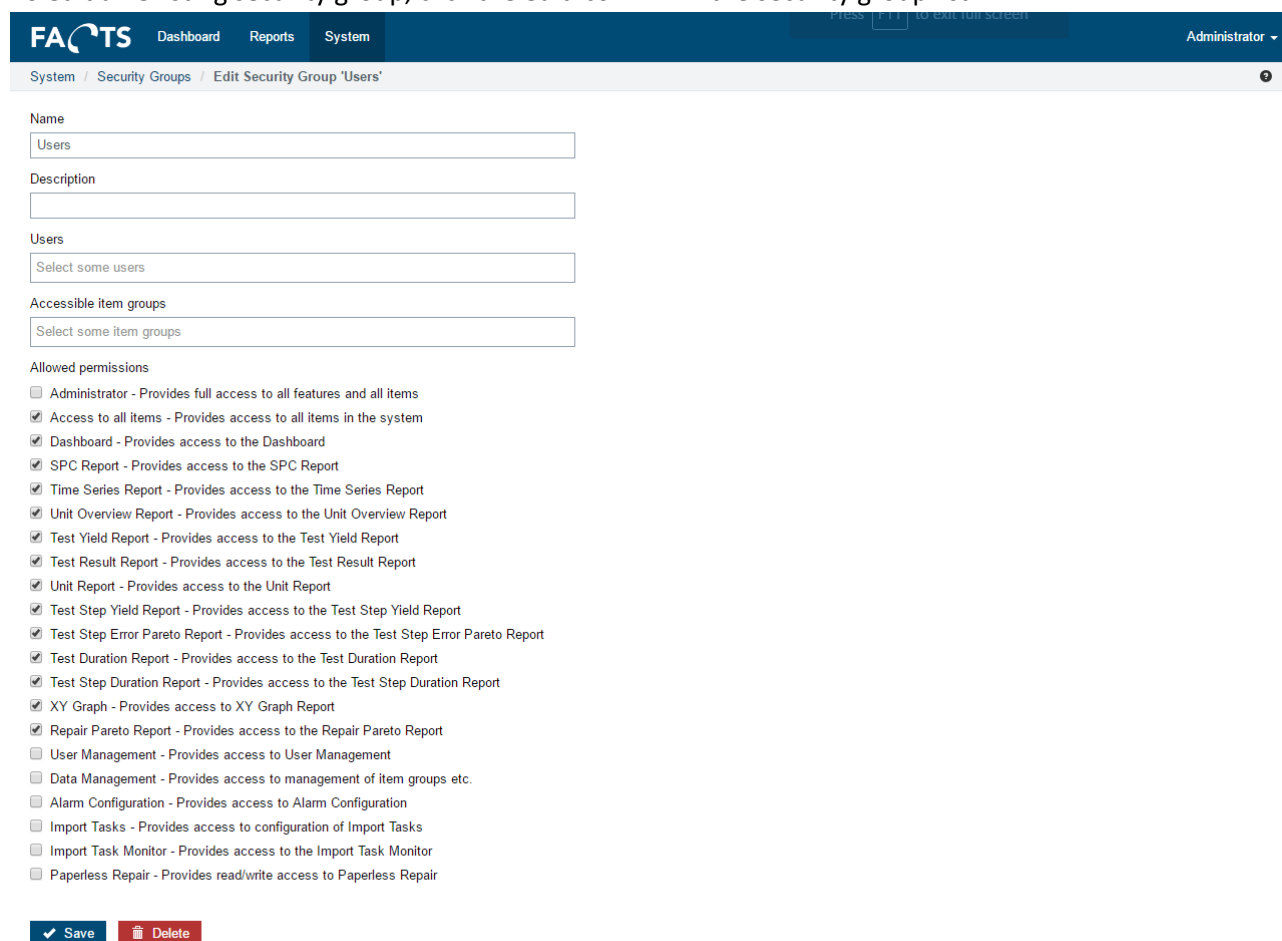
☐ Import Task Monitor - Provides access to the Import Task Monitor

☐ Paperless Repair - Provides read/write access to Paperless Repair

✓ Save

5.1.2.2 Edit security group

To edit an existing security group, click the edit icon  in the security group list.



System / Security Groups / Edit Security Group 'Users'

Name
Users

Description

Users
Select some users

Accessible item groups
Select some item groups

Allowed permissions

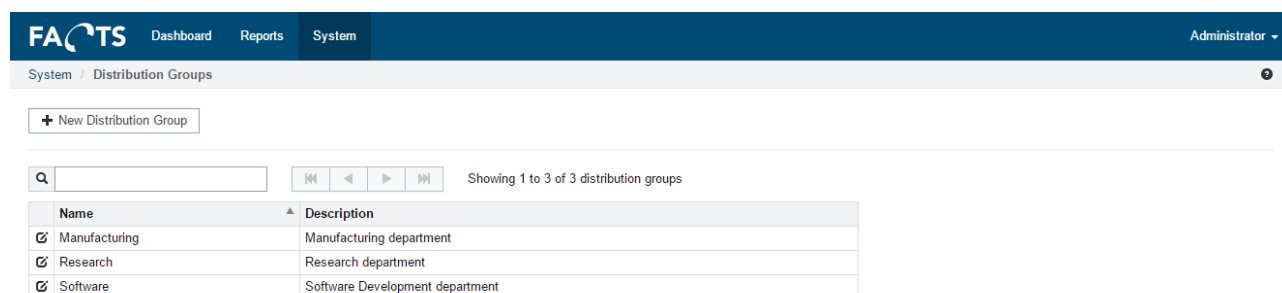
- ☐ Administrator - Provides full access to all features and all items
- ☒ Access to all items - Provides access to all items in the system
- ☒ Dashboard - Provides access to the Dashboard
- ☒ SPC Report - Provides access to the SPC Report
- ☒ Time Series Report - Provides access to the Time Series Report
- ☒ Unit Overview Report - Provides access to the Unit Overview Report
- ☒ Test Yield Report - Provides access to the Test Yield Report
- ☒ Test Result Report - Provides access to the Test Result Report
- ☒ Unit Report - Provides access to the Unit Report
- ☒ Test Step Yield Report - Provides access to the Test Step Yield Report
- ☒ Test Step Error Pareto Report - Provides access to the Test Step Error Pareto Report
- ☒ Test Duration Report - Provides access to the Test Duration Report
- ☒ Test Step Duration Report - Provides access to the Test Step Duration Report
- ☒ XY Graph - Provides access to XY Graph Report
- ☒ Repair Pareto Report - Provides access to the Repair Pareto Report
- ☐ User Management - Provides access to User Management
- ☐ Data Management - Provides access to management of item groups etc.
- ☐ Alarm Configuration - Provides access to Alarm Configuration
- ☐ Import Tasks - Provides access to configuration of Import Tasks
- ☐ Import Task Monitor - Provides access to the Import Task Monitor
- ☐ Paperless Repair - Provides read/write access to Paperless Repair

Save stores changes to the security group

Delete removes the security group from all users and deletes the security group from the system. This action may affect the access rights of existing users.

5.1.3 Distribution Groups

Distribution groups control which users are notified in events where alarms are fired.



System / Distribution Groups

+ New Distribution Group

Showing 1 to 3 of 3 distribution groups

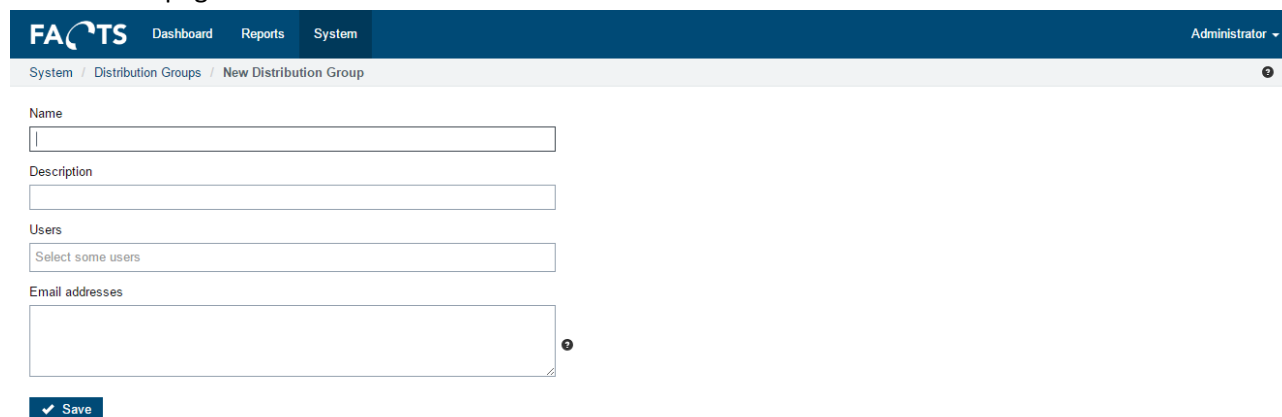
Name	Description
☒ Manufacturing	Manufacturing department
☒ Research	Research department
☒ Software	Software Development department

If a user is a member of more distribution groups, they will be notified of all alarms that are sent to any of the distribution groups.

Distribution groups allow external contacts to receive notifications.

5.1.3.1 Add new distribution group

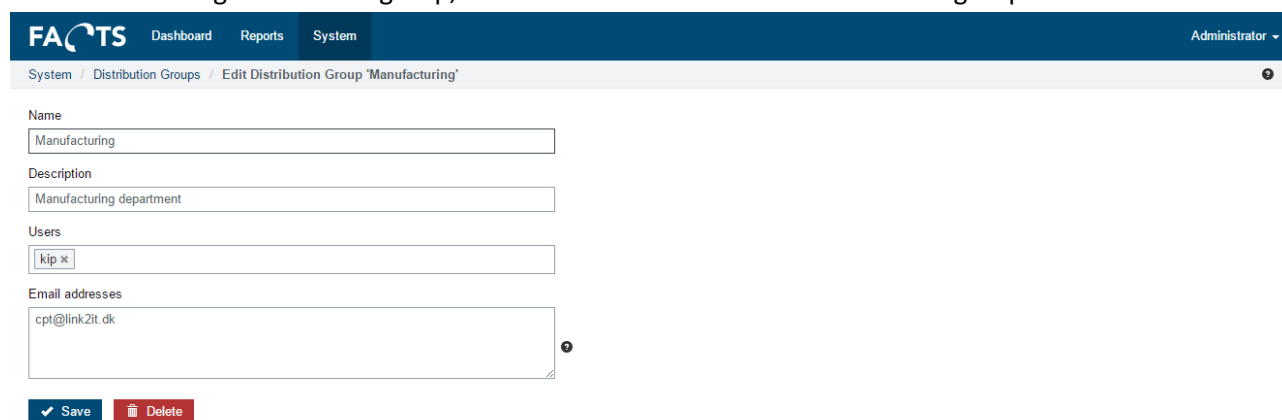
To add new distribution groups, click the “New Distribution Group” on “Distribution Group page”. Fill in the fields on the page and click Save.



The screenshot shows the 'New Distribution Group' form in the FACTS system. The top navigation bar includes 'FACTS', 'Dashboard', 'Reports', and 'System', with 'Administrator' in the top right. The breadcrumb trail is 'System / Distribution Groups / New Distribution Group'. The form contains the following fields: 'Name' (empty text box), 'Description' (empty text box), 'Users' (dropdown menu with 'Select some users' selected), and 'Email addresses' (empty text box with a help icon). At the bottom, there is a 'Save' button with a checkmark icon.

5.1.3.2 Edit distribution group

To edit an existing distribution group, click the edit icon  in the distribution group list.



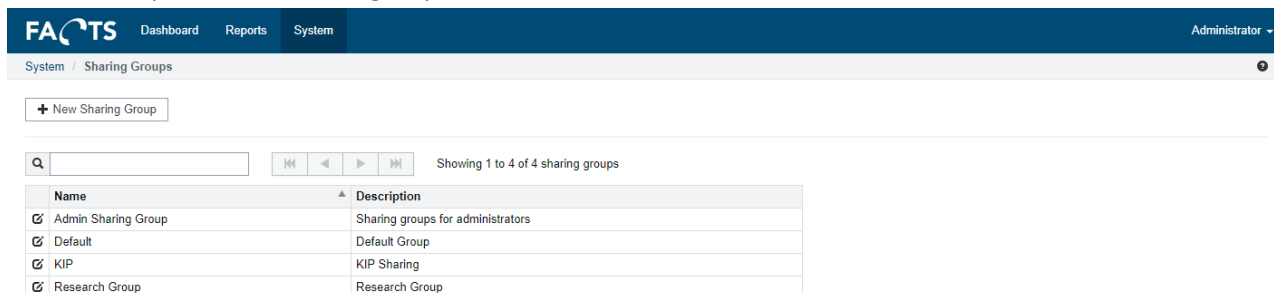
The screenshot shows the 'Edit Distribution Group' form in the FACTS system. The top navigation bar includes 'FACTS', 'Dashboard', 'Reports', and 'System', with 'Administrator' in the top right. The breadcrumb trail is 'System / Distribution Groups / Edit Distribution Group "Manufacturing"'. The form contains the following fields: 'Name' (text box with 'Manufacturing'), 'Description' (text box with 'Manufacturing department'), 'Users' (dropdown menu with 'kip' selected), and 'Email addresses' (text box with 'cpt@link2it.dk'). At the bottom, there are two buttons: 'Save' with a checkmark icon and 'Delete' with a trash can icon.

Save stores changes to the distribution group

Delete removes the distribution group from all users and deletes the distribution group from the system. This may affect alarm configurations.

5.1.4 Sharing Groups

The Sharing group feature allows the user to create and manage internal groups and to share content such as filter templates, with other group members.



Name	Description
☒ Admin Sharing Group	Sharing groups for administrators
☒ Default	Default Group
☒ KIP	KIP Sharing
☒ Research Group	Research Group

With this option, the user is able to create dashboard views by using the shared templates. The feature also allows to generate default dashboards for new users by sharing dashboard views, and subscribe the user to the shared group.

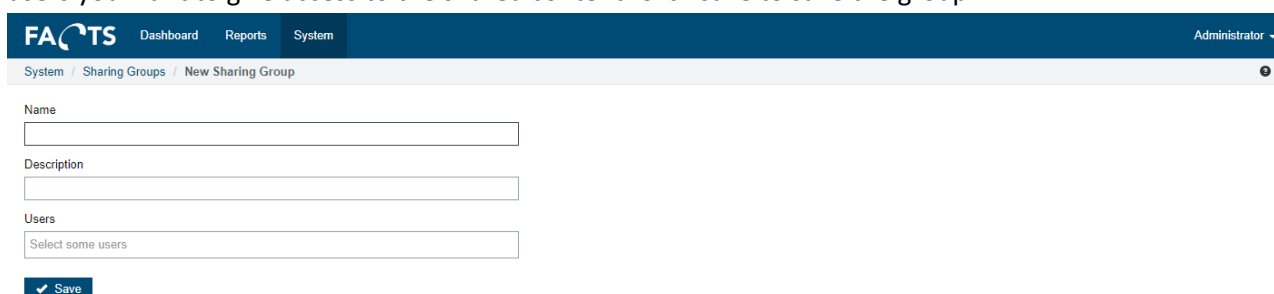
If you want to read more about these FACTS functionalities, go to:

Sharing filter templates 4.1.6

Sharing dashboard view 5.2.2.3

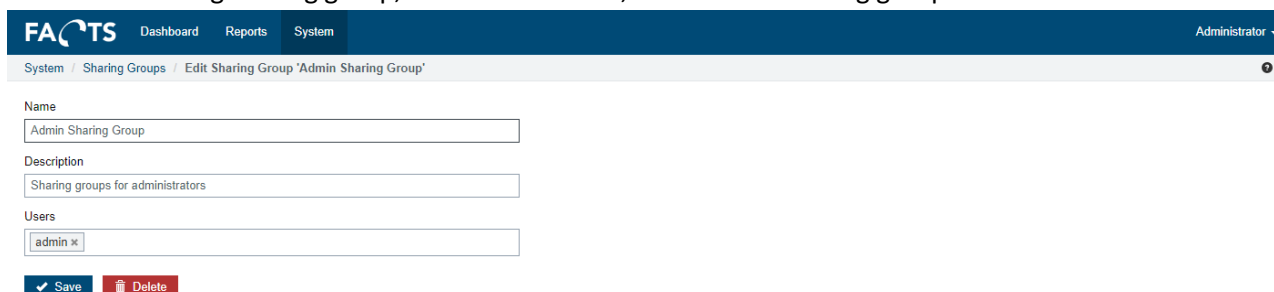
5.1.4.1 Add new sharing group

To add new sharing group, click the “New Sharing Group”. Fill the form with a name, description and attach users you want to give access to the shared content. Click save to save the group.



5.1.4.2 Edit sharing group

To edit an existing sharing group, click the  -icon, in the list of sharing groups.



Click save to store the changes.

If you want to remove the sharing group from the system, click delete button.

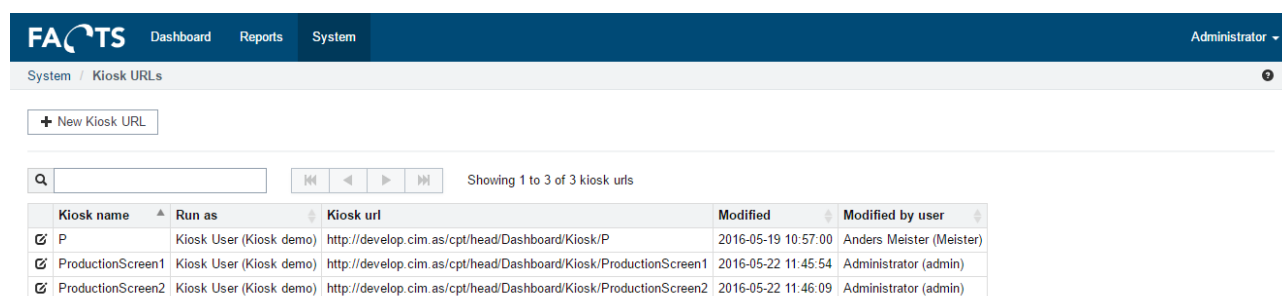
5.1.5 Kiosk URLs

Kiosk URLs or Kiosk mode allows setting up auto sign-in using specific URLs.

Kiosk URLs can be disabled by disabling the user which is used for authorization.

Kiosk mode is a way of showing multiple dashboard views, that automatically change at a set interval.

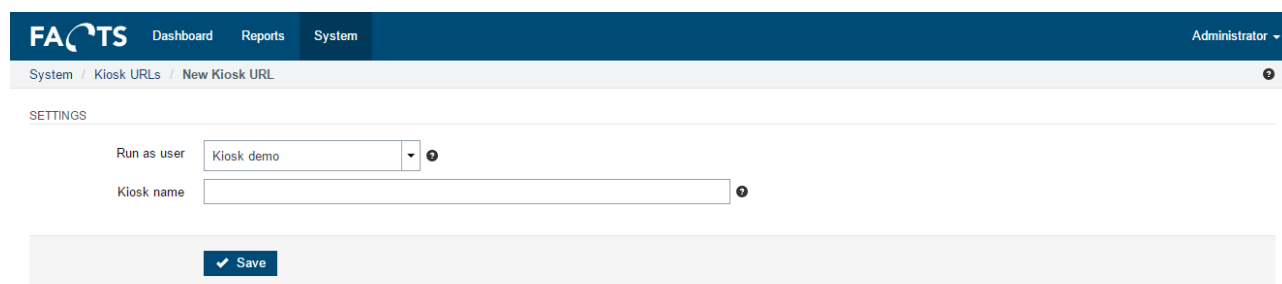
To use kiosk mode, configure a dashboard with the wanted views and widgets, and set up a device to show the kiosk URL.



Kiosk name	Run as	Kiosk url	Modified	Modified by user
P	Kiosk User (Kiosk demo)	http://develop.cim.as/cpt/head/Dashboard/Kiosk/P	2016-05-19 10:57:00	Anders Meister (Meister)
ProductionScreen1	Kiosk User (Kiosk demo)	http://develop.cim.as/cpt/head/Dashboard/Kiosk/ProductionScreen1	2016-05-22 11:45:54	Administrator (admin)
ProductionScreen2	Kiosk User (Kiosk demo)	http://develop.cim.as/cpt/head/Dashboard/Kiosk/ProductionScreen2	2016-05-22 11:46:09	Administrator (admin)

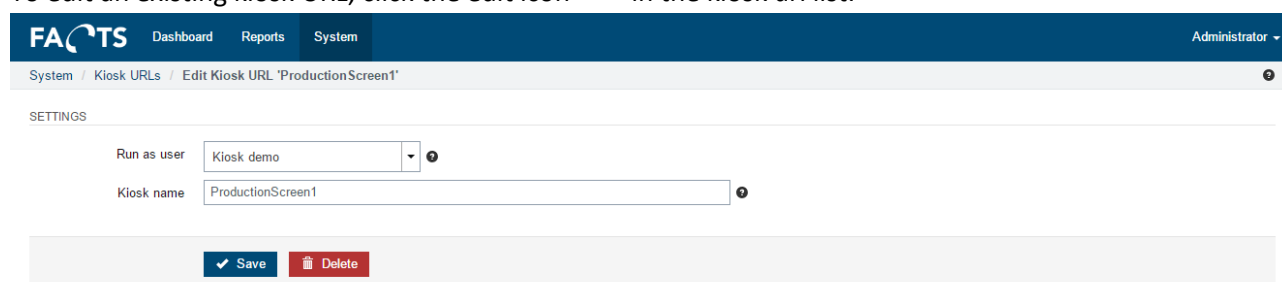
5.1.5.1 Add new Kiosk URL

To add a new kiosk URL, click the “New Kiosk URL” on “Kiosk URLs page”. Fill in the fields on the page and click save.



5.1.5.2 Edit kiosk URL

To edit an existing kiosk URL, click the edit icon  in the kiosk url list.

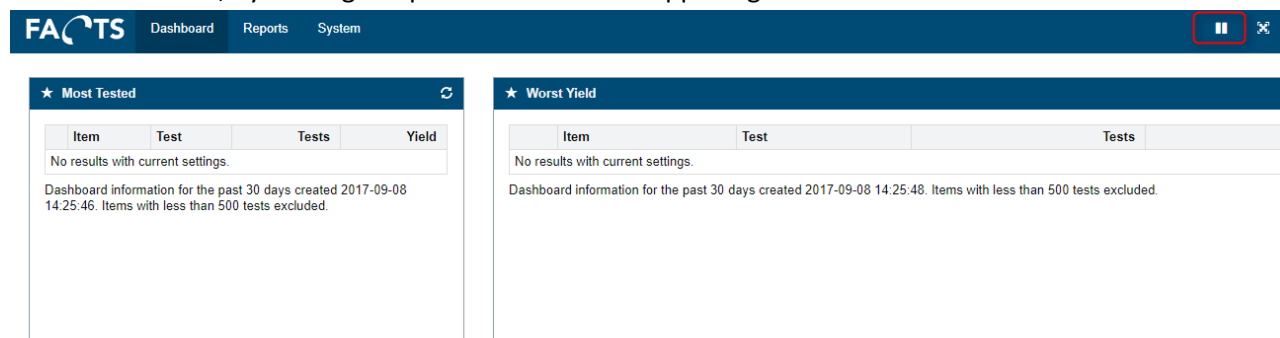


Save stores changes to the kiosk URL.

Delete removes the kiosk URL from the system. This may affect any devices configured to automatically sign on, using a kiosk URL.

5.1.5.3 Play and pause in Kiosk

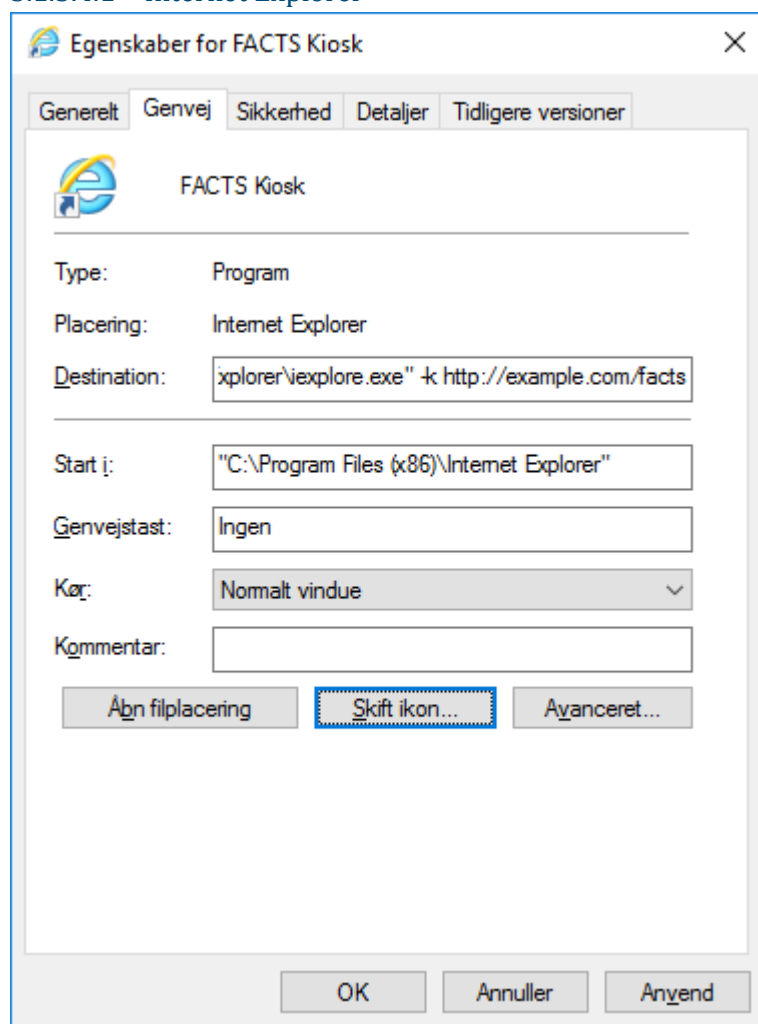
If you want to have a closer look on a specific view while the kiosk views are rolling, you can simply pause the carousel view, by clicking the pause button in the upper-right corner.



5.1.5.4 Automatically open kiosk URLs

It is possible to open a kiosk URL in full screen mode, using either Internet Explorer or Google Chrome. Microsoft Edge does not support full screen at the moment, but kiosk URLs will still work with it.

5.1.5.4.1 Internet Explorer

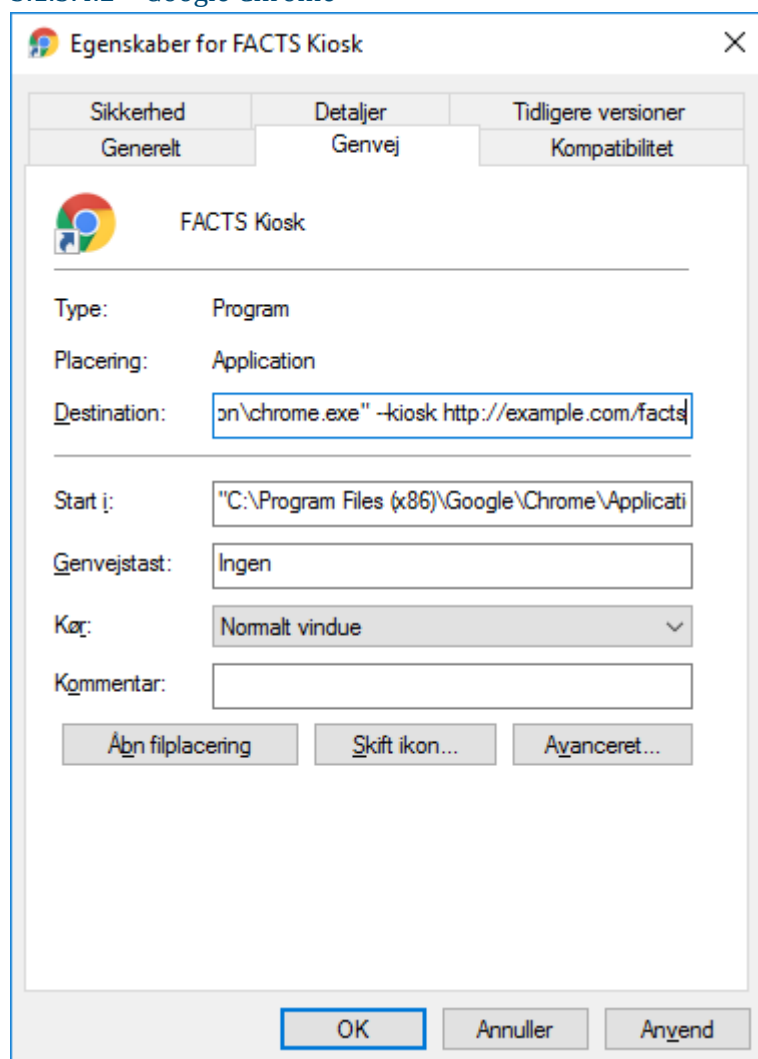


To automatically open a page in full screen, using internet explorer, create a shortcut with the following destination:

"C:\Program Files (x86)\Internet Explorer" -k <http://example.com/facts>

Be sure to keep quotes intact and modify the path to internet explorer in case you are using a pc with a 32-bit OS installed. Change <http://example.com/facts> to be the kiosk url you configured in the web interface.

5.1.5.4.2 Google Chrome



To automatically open a page in full screen, using Google Chrome, create a shortcut with the following destination:

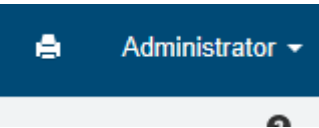
"C:\Program Files (x86)\Google\Chrome\Application\chrome.exe" --kiosk <http://example.com/facts>

Be sure to keep quotes intact and modify the path to Google Chrome in case you are using a pc with a 32-bit OS installed. Change <http://example.com/facts> to be the kiosk url you configured in the web interface.

5.2 Dashboard

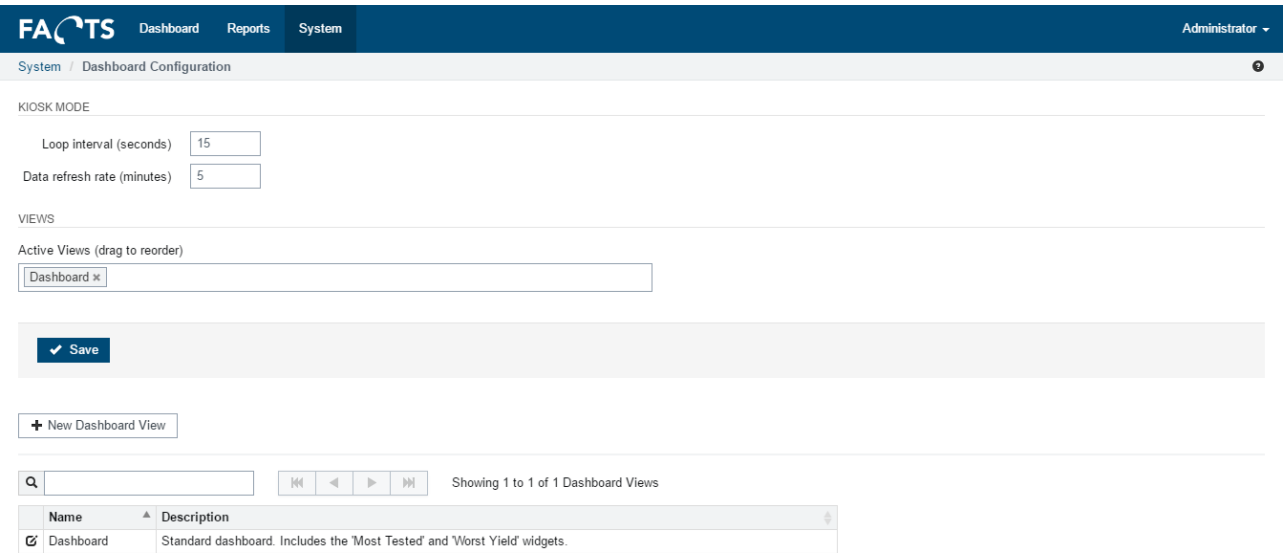
The personal dashboard requires some configuration by a user, but allows quick overview of what is going on in FACTS.

The personal dashboard is printable, but not exportable to excel. A small in the top-right corner, left of the users name, allows users to print their dashboard.



5.2.1 Settings

The settings page contains settings that are used for the dashboard and when in kiosk mode.



5.2.1.1 Kiosk mode

Loop interval is the time (in seconds) between views, when logged into kiosk mode. This time is a minimum value, as the actual time is (time taken to load any data, if needed) + value.
Data refresh rate defines how long FACTS caches any results loaded in both the ordinary dashboard and in kiosk mode. While data is cached and within the refresh rate, the loop interval between views, will remain the value specified.

5.2.1.2 Views

Views allows specifying which views are shown on the dashboard and in which order the kiosk will switch between them.
To remove a view from the list, click the “X”.



To add a view to the list, click it and pick from the available views.



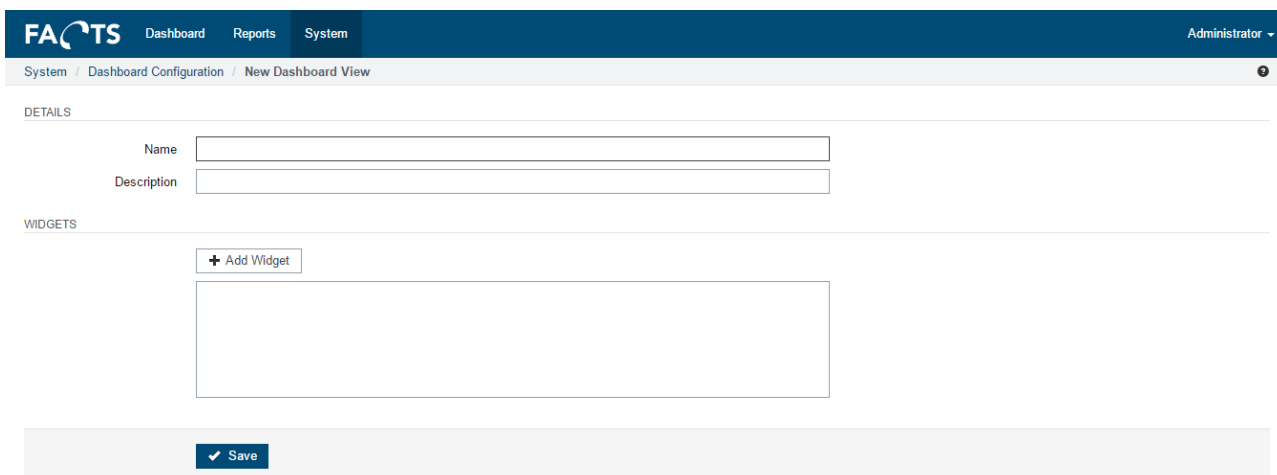
Items can be arranged by drag and drop to select the order in which they are shown.

5.2.2 Dashboard Views

Dashboard views specify a logical grouping of widgets. They allow users to create their own personal dashboards. By default, a user will have a single dashboard view, with 2 widgets, “Most Tested” and “Worst Yield”. This can be customized.

5.2.2.1 Add new dashboard view

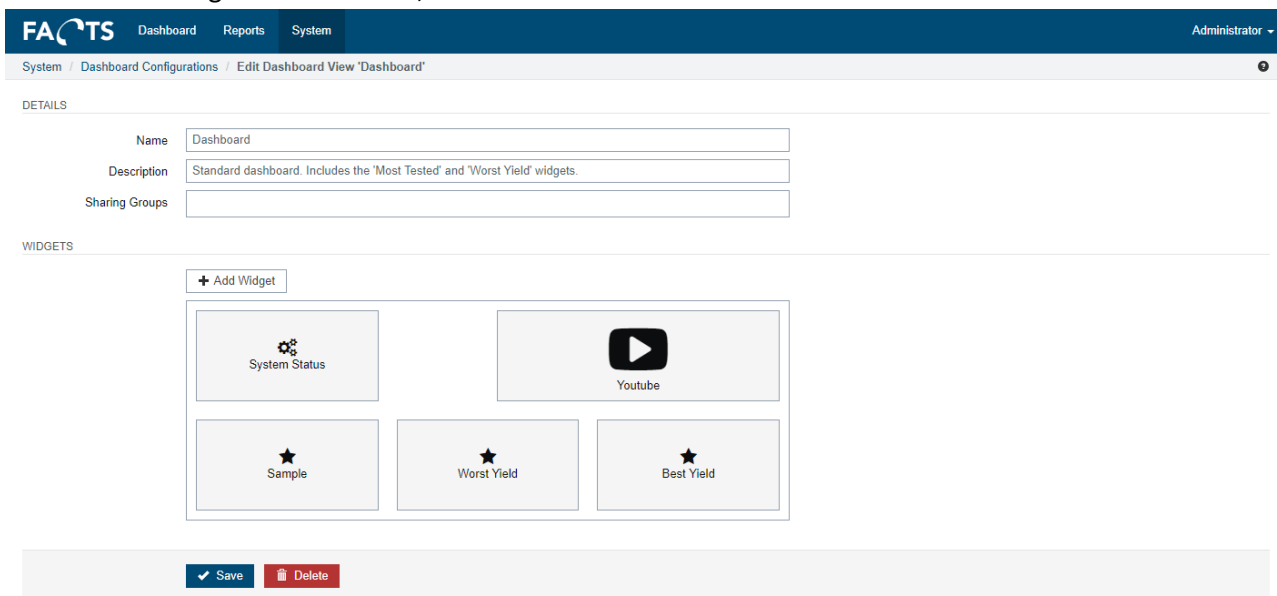
To add a new dashboard view, click the “New Dashboard View” button. Fill out the fields on the page and click Save.



The screenshot shows the 'New Dashboard View' form in the FACTS system. The top navigation bar includes 'FACTS', 'Dashboard', 'Reports', and 'System', with 'Administrator' in the top right. The breadcrumb trail is 'System / Dashboard Configuration / New Dashboard View'. The form is divided into two sections: 'DETAILS' and 'WIDGETS'. In the 'DETAILS' section, there are input fields for 'Name' and 'Description'. In the 'WIDGETS' section, there is a '+ Add Widget' button and a large empty box for selecting widgets. At the bottom, there is a 'Save' button.

5.2.2.2 Edit dashboard view

To edit an existing dashboard view, click the edit icon  in the item list.



The screenshot shows the 'Edit Dashboard View' form in the FACTS system. The top navigation bar includes 'FACTS', 'Dashboard', 'Reports', and 'System', with 'Administrator' in the top right. The breadcrumb trail is 'System / Dashboard Configurations / Edit Dashboard View "Dashboard"'. The form is divided into two sections: 'DETAILS' and 'WIDGETS'. In the 'DETAILS' section, there are input fields for 'Name' (containing 'Dashboard'), 'Description' (containing 'Standard dashboard. Includes the "Most Tested" and "Worst Yield" widgets.'), and 'Sharing Groups'. In the 'WIDGETS' section, there is a '+ Add Widget' button and a grid of widgets: 'System Status' (gear icon), 'Youtube' (play button icon), 'Sample' (star icon), 'Worst Yield' (star icon), and 'Best Yield' (star icon). At the bottom, there are 'Save' and 'Delete' buttons.

5.2.2.3 Sharing dashboard view

To add the selected view in one or more sharing groups, click in the sharing group field to get a list of groups. Note that only the groups you are attached to will appear in the list. Select the groups you want to share with, and click save.

New users created, with the selected sharing groups, will get the shared views as their default views.

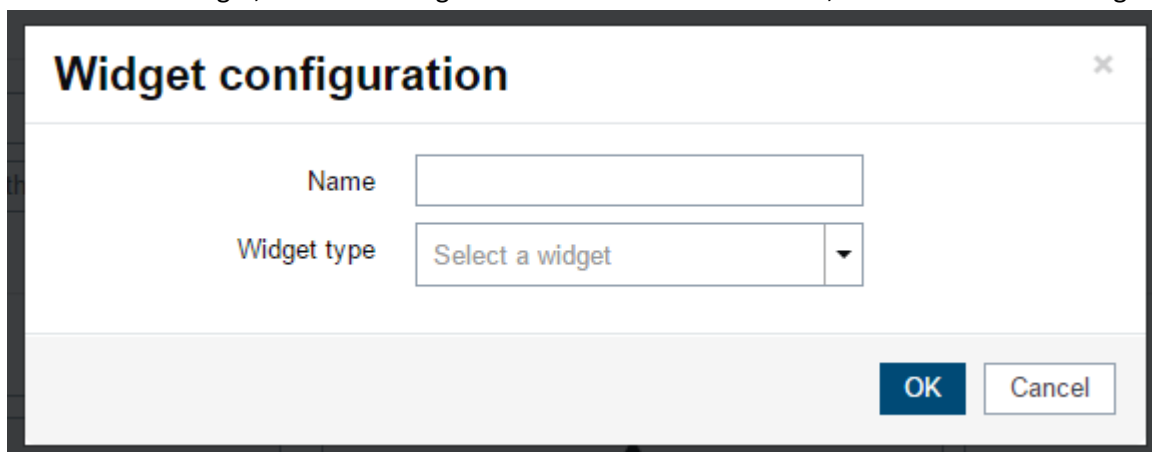
OBS. The shared views will not appear in the dashboard view list for the members of the groups. This functionality is only for pre-generating a set of views, for new users.

5.2.3 Widgets

Widgets display information and can be arranged in many different configurations. Each widget is its own little container of information.

5.2.3.1 Add new widget

To add a new widget, edit an existing dashboard or create a new one, and click the “Add Widget” button.

A dialog box titled "Widget configuration" with a close button (X) in the top right corner. It contains two input fields: "Name" with an empty text box, and "Widget type" with a dropdown menu showing "Select a widget". At the bottom right, there are two buttons: "OK" and "Cancel".

Fill in the fields. The available fields, change depending on the selections done to “Widget type”.

5.2.3.2 Edit existing widget

To edit an existing widget, hover over it and click the edit icon. This will open the configuration dialogue.



Changes to widgets are only saved, when the view is saved.

5.2.3.3 Deleting an existing widget

To delete an existing widget, hover over it and click the delete icon. This will remove the widget from the view.



Widgets removed, are only saved when the view is saved.

5.2.3.4 Arranging widgets

Widgets are layed out in a grid with 6 columns. Widgets can be resized to take up between 1 and 6 columns. A single row can contain widgets that total up to 6 columns. This allows for multiple configuration options, such as 1 widget of 6 columns, 2 widgets of 3 columns each or 1 widget of 2 columns, 1 widget of 3 columns and a single widget of 1 column.

A row does not need to be filled. Rows cannot be skipped.

To resize a widget, click the handles in the bottom corners of it.



To move the widget to a new location, click the widget and drag and drop to the new location. Dragging downwards, outside the box, will add a new empty row to add the selected widget to.

5.2.3.5 Widget types

There are 10 widget types. Each serves a different purpose.

5.2.3.5.1 WebView

The WebView type allows embedding an external web page into FACTS.

Typical use:

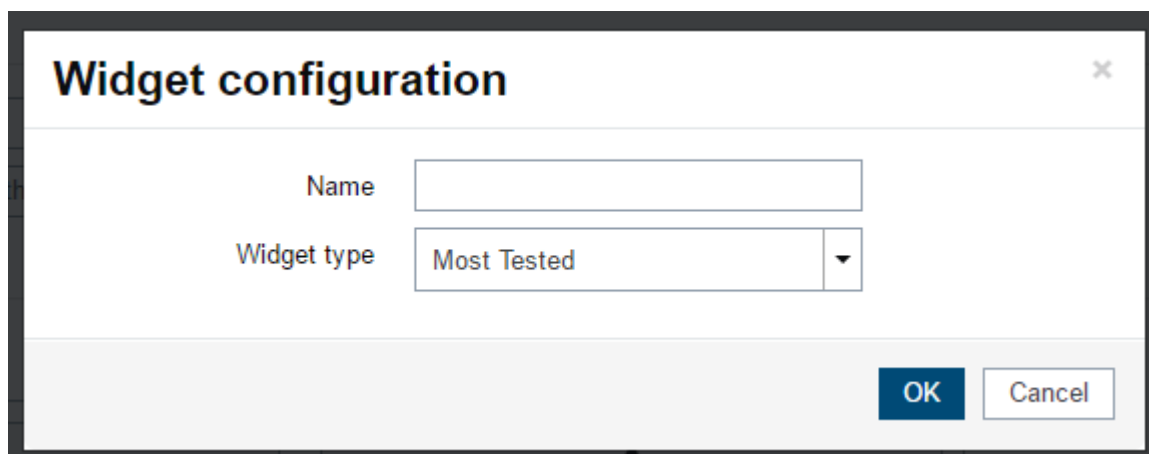
Embed external search or adding information from other systems.

URL is the address of the page that is to be embedded

Height specifies the height on the dashboard. If the height of the widget is less than the webpage, a scrollbar will be visible. If it is larger than the webpage, blank space will be shown. This is the only widget that allows specifying a height.

5.2.3.5.2 Most Tested

Displays the most tested items. Users can specify the number of required tests and the time period in their user settings.



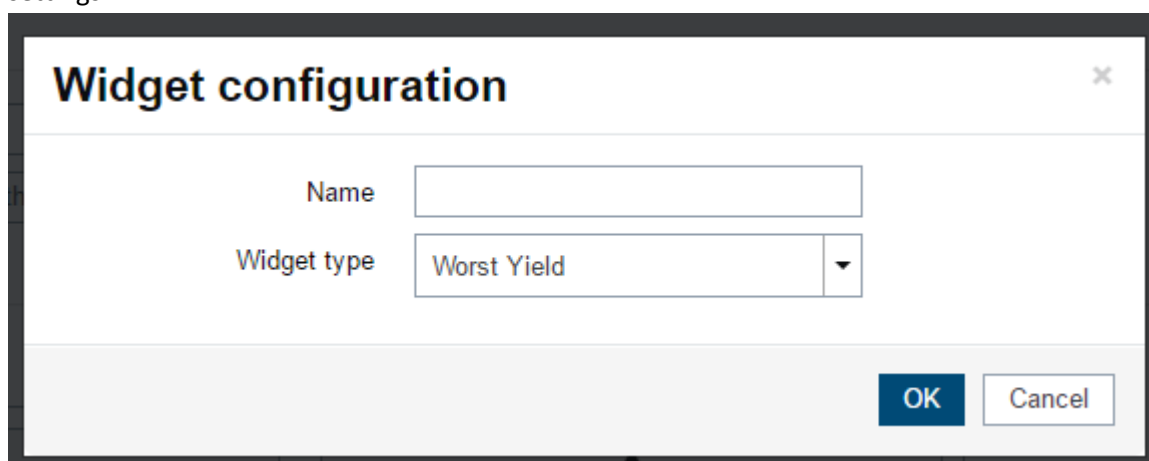
Widget configuration ✕

Name

Widget type ▼

5.2.3.5.3 Worst Yield

Displays the worst yields. Users can specify the number of required tests and the time period in their user settings.



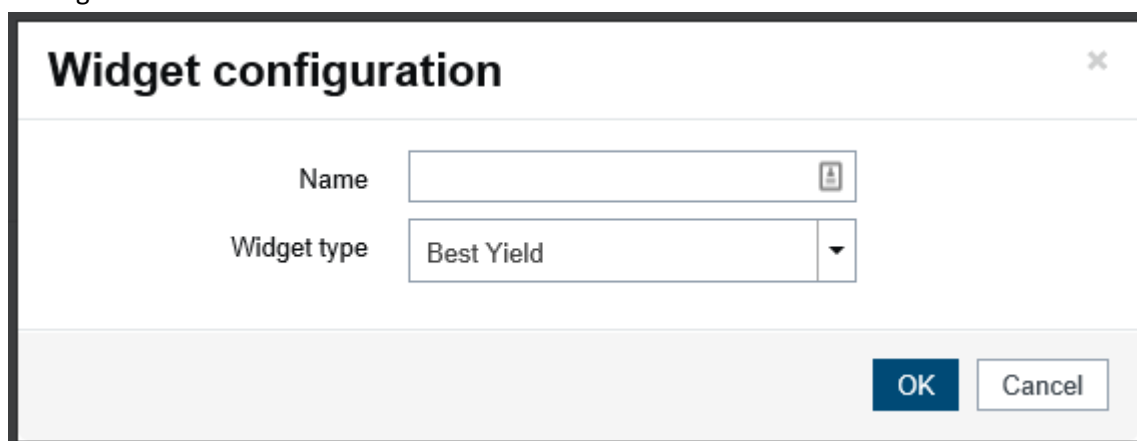
Widget configuration ✕

Name

Widget type ▼

5.2.3.5.4 Best Yield

Displays the best yields. Users can specify the number of required tests and the time period in their user settings.



Widget configuration ✕

Name 

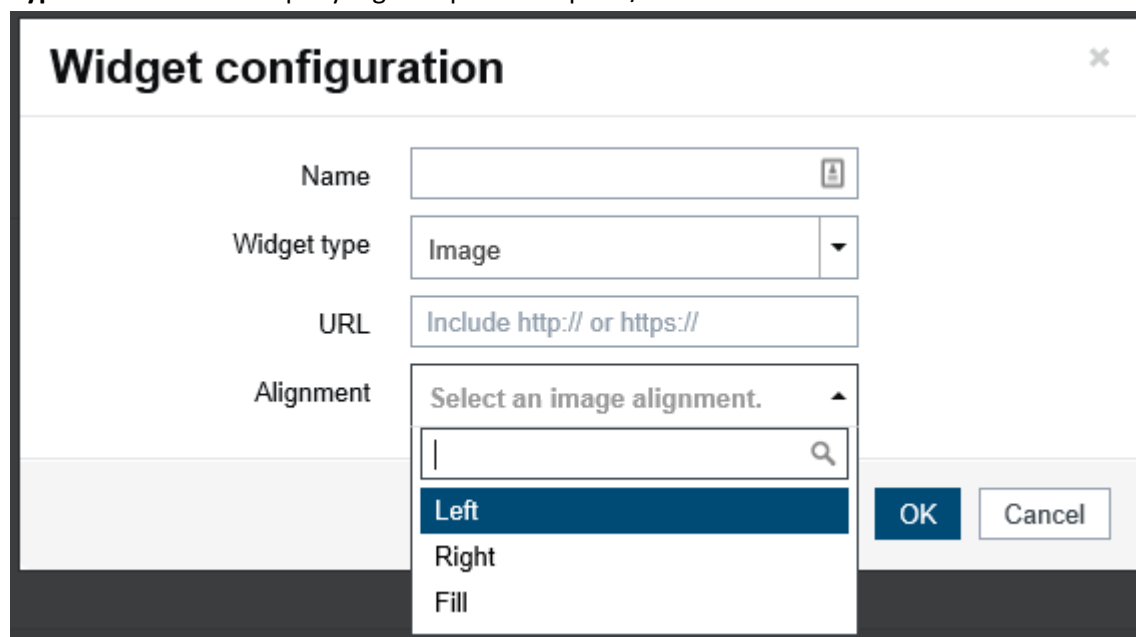
Widget type ▼

5.2.3.5.5 Image Widget

Allows for adding a custom image to a dashboard.

Images can be aligned to the left or to the right, or be set to fill the space available.

Typical use: insert company logo for printed reports/dashboards.



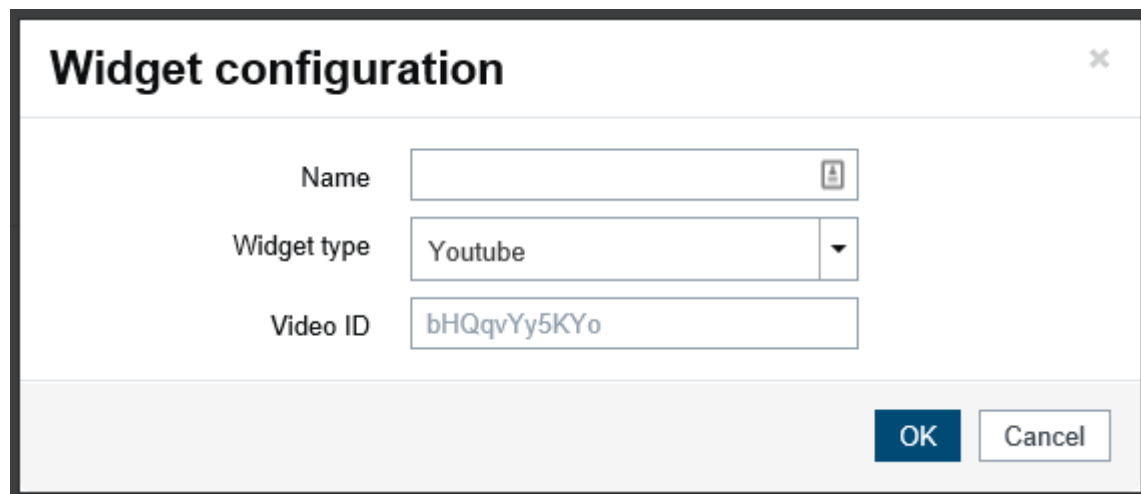
The screenshot shows a 'Widget configuration' dialog box with a close button (X) in the top right corner. It contains the following fields and options:

- Name:** A text input field with a small icon on the right.
- Widget type:** A dropdown menu currently showing 'Image'.
- URL:** A text input field with a placeholder text 'Include http:// or https://'.
- Alignment:** A dropdown menu with the text 'Select an image alignment.' and a search icon. A list is open below it showing 'Left' (highlighted in blue), 'Right', and 'Fill'.
- Buttons:** 'OK' and 'Cancel' buttons are located at the bottom right of the dialog.

5.2.3.5.6 Youtube Widget

Displays a youtube video. Videos are automatically paused in kioskmode, while they are offscreen.

Simply copy the video ID from the youtube page and past it in the Video ID field, to add a video to the dashboard.



The screenshot shows a 'Widget configuration' dialog box with a close button (X) in the top right corner. It contains the following fields and options:

- Name:** A text input field with a small icon on the right.
- Widget type:** A dropdown menu currently showing 'Youtube'.
- Video ID:** A text input field containing the value 'bHQqvYy5KYo'.
- Buttons:** 'OK' and 'Cancel' buttons are located at the bottom right of the dialog.

5.2.3.5.7 Text Widget

Allows for adding custom, formatted text to the dashboard.

Typical use: insert standard text for a printed report/dashboard.

Widget configuration

Name

Widget type

Text

Formats

B

I

p

OK

Cancel

5.2.3.5.8 Report Widget

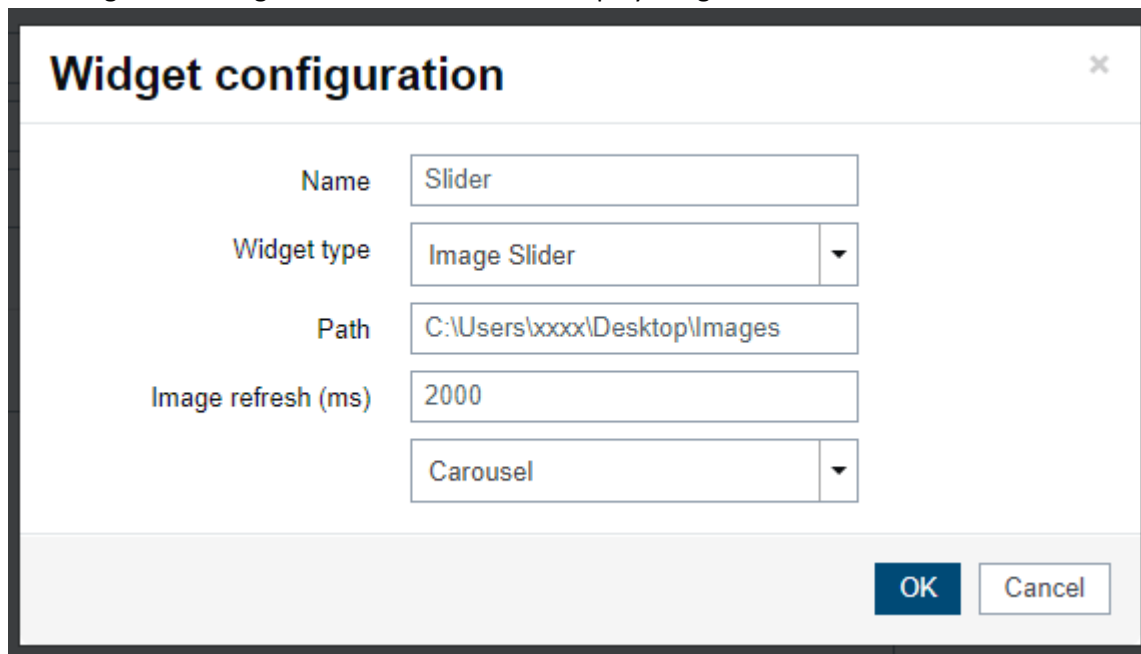
Report widgets are based on a user's filter templates. They allow embedding reports on the dashboard.

Depending on the type of filter used, different Data type options will be available.

Report	Datatable	Chart	Distribution Chart	Series Chart	Test Overview	Test Step Results
SPC	X					
Time Series	X		X	X		
Test Result	X					
Repair Pareto	X	X				
Test Yield	X	X				
Test Step Yield	X	X				
Test Step Error Pareto	X					
Test Duration		X				
Test Step Duration	X					
Unit Overview					X	X
DPU	X	X				

5.2.3.5.9 Image Slider Widget

The Image slider widget are made to read and display images from a folder.



Widget configuration

Name:

Widget type:

Path:

Image refresh (ms):

OK Cancel

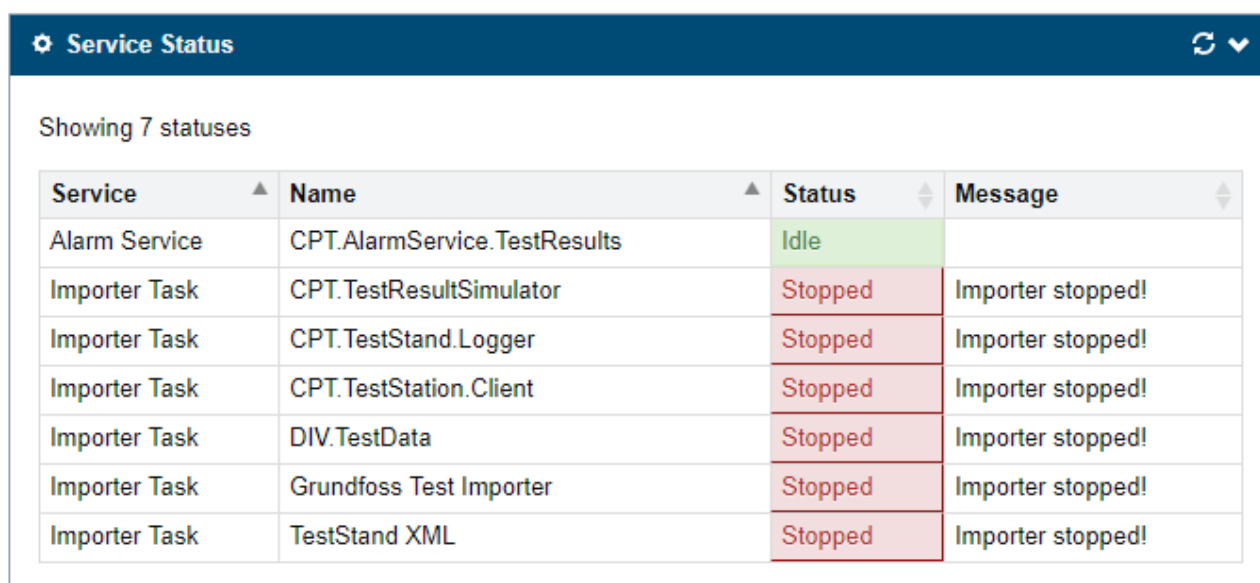
The widget has two display types (*Latest*, *Carousel*), and a refresh interval that defines how often you want the widget to read and update from the defined path.

The *Latest* mode, always shows the latest created image in the folder.

The *Carousel* mode will automatically show the images in a loop, when the last image is shown.

5.2.3.5.10 Service Status Widget

The service status gives you a status overview of the FACTS services.



Service Status

Showing 7 statuses

Service	Name	Status	Message
Alarm Service	CPT.AlarmService.TestResults	Idle	
Importer Task	CPT.TestResultSimulator	Stopped	Importer stopped!
Importer Task	CPT.TestStand.Logger	Stopped	Importer stopped!
Importer Task	CPT.TestStation.Client	Stopped	Importer stopped!
Importer Task	DIV.TestData	Stopped	Importer stopped!
Importer Task	Grundfoss Test Importer	Stopped	Importer stopped!
Importer Task	TestStand XML	Stopped	Importer stopped!

The widget will simply list the different services with a message and status. The service requires no configuration but a widget-name.

5.3 Data management

Provides functions to control and manage items.

5.3.1 Items

Define the relations between item numbers/identifiers and their item names. Item names are used as an alias for item numbers to make items easier to recognize and filter out.

FACTS Dashboard Reports System Administrator			
System / Items			
CIM Showing 1 to 25 of 9,203 items (filtered from 20,018 total items)			
Number	Name	Created	
 10002-043	Name with "special" characters <> æøå/ΕΟΔ - Инструменты CIM Производство	2013-10-20 13:17:14	
 CIM-100		2013-12-13 16:18:35	
 CIM-100.1043938723		2013-12-13 15:54:12	

5.3.1.1 Edit items

To edit an existing item number / name relation, click the edit icon  in the Item list.

FACTS Dashboard Reports System Administrator			
System / Items / Edit Item 'CIM-100'			
Item number			
CIM-100			
Item name			
Enter a name for the Item			
Save			

Save stores the changes to the item name.

5.3.2 Item Groups

Defines the grouping of items. Item groups can be used to control item access rights for user groups.

FACTS Dashboard Reports System Administrator			
System / Item Groups			
+ New Item Group			
Showing 1 to 5 of 5 item groups			
Name	Description		
 Atex items	Items that belongs to Atex		
 Customer A			
 Customer B			
 External Consultants	<p>		
 Special Customers	10005-043		

5.3.2.1 Add item groups

To add a new item group, click the “New Item Group” on the “Item Groups page”. Fill in the fields on the page and click Save.

FACTS

DashboardReportsSystem

Administrator

System / Item Groups / New Item Group

Name

Description

Items

Save

5.3.2.2 Edit item groups

To edit an existing item group, click the edit icon  in the Item Group list.

FACTS

DashboardReportsSystem

Administrator

System / Item Groups / Edit Item Group 'Atex items'

Name

Description

Items

SaveDelete

Save stores the changes to the item group.

5.3.3 Test Sites

Defines a grouping of test stations. Test Sites can be used as an advanced filter in relevant reports.

FACTS

DashboardReportsSystem

Andreas

System / Test Sites

+ New Test Site

Q

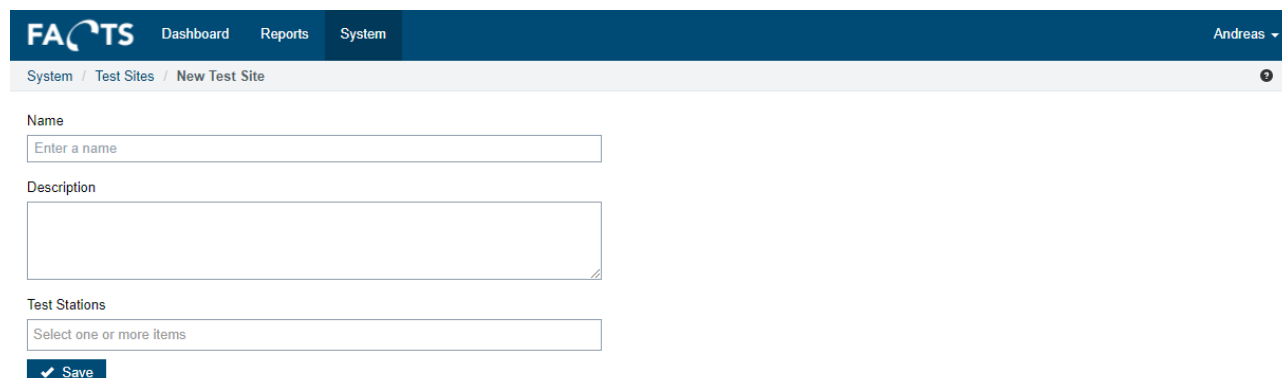
⏮⏪⏩⏭

Showing 1 to 3 of 3 test sites

Name	Description
☒ Aarhus	
☒ China	
☒ Hoersholm	

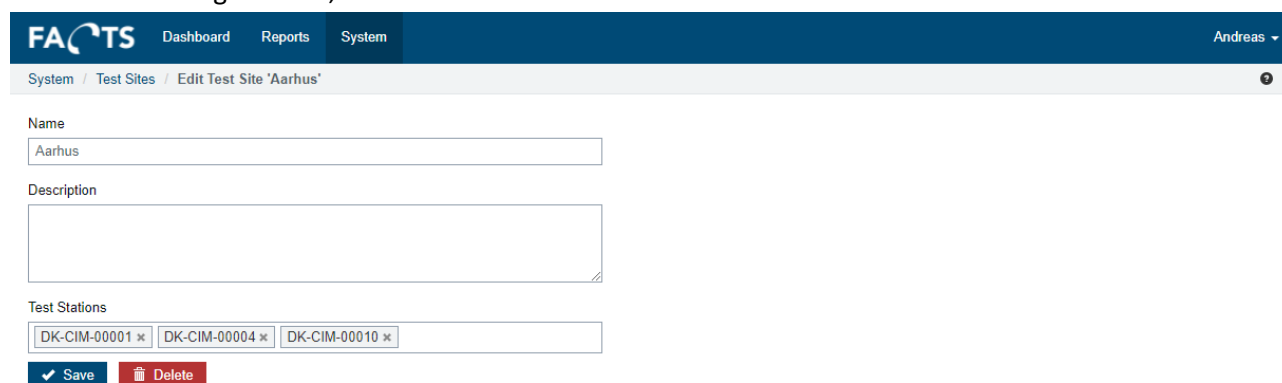
5.3.3.1 Add Test Site

To add a new test site, click the “New Test Site” on the Test Sites page. Fill in the fields on the page and click save.



5.3.3.2 Edit Item Groups

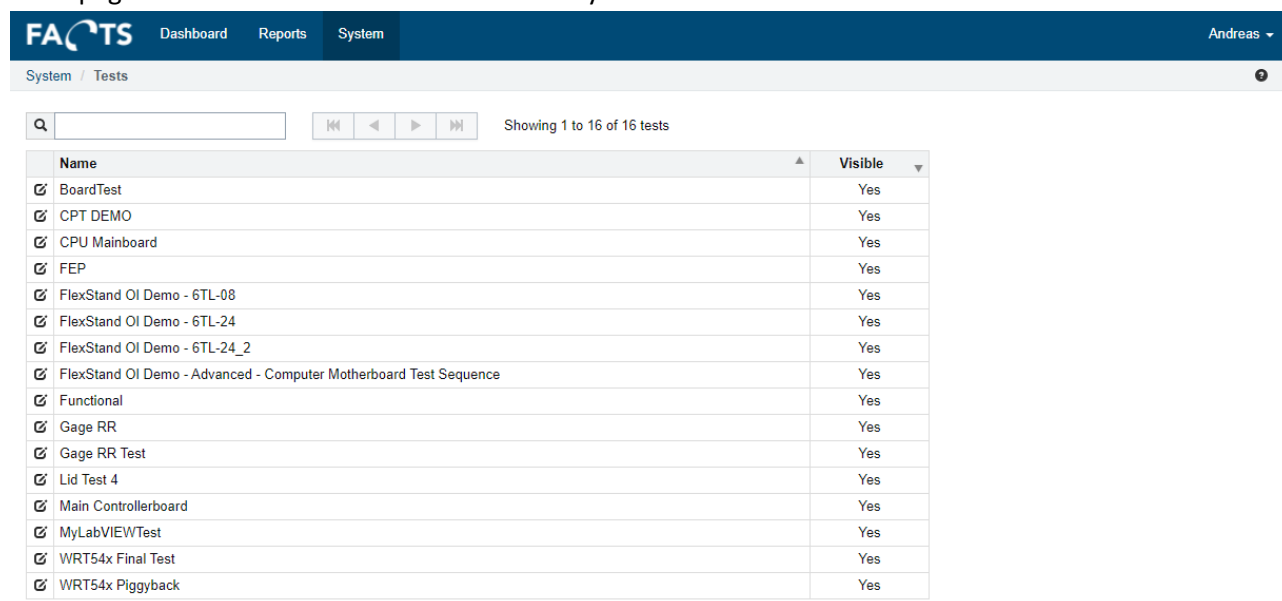
To edit an existing test site, click the edit icon  in the Test Sites list.



Save stores the changes to the Test Site.

5.3.4 Tests

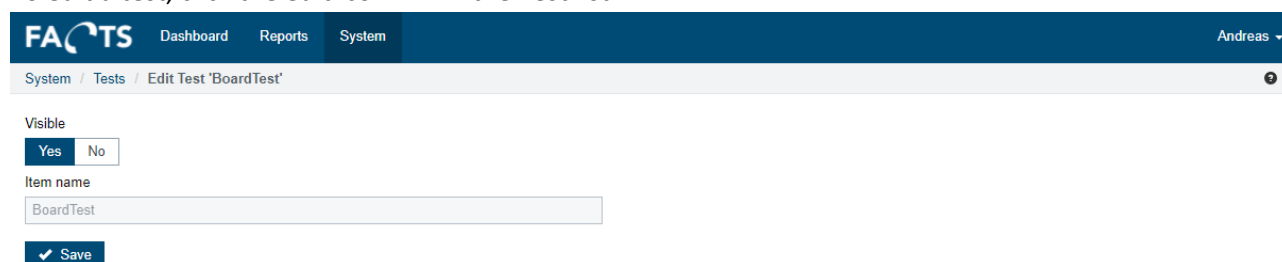
Tests pages is used to show or hide tests in the system.



Name	Visible
☒ BoardTest	Yes
☒ CPT DEMO	Yes
☒ CPU Mainboard	Yes
☒ FEP	Yes
☒ FlexStand OI Demo - 6TL-08	Yes
☒ FlexStand OI Demo - 6TL-24	Yes
☒ FlexStand OI Demo - 6TL-24_2	Yes
☒ FlexStand OI Demo - Advanced - Computer Motherboard Test Sequence	Yes
☒ Functional	Yes
☒ Gage RR	Yes
☒ Gage RR Test	Yes
☒ Lid Test 4	Yes
☒ Main Controllerboard	Yes
☒ MyLabVIEWTest	Yes
☒ WRT54x Final Test	Yes
☒ WRT54x Piggyback	Yes

5.3.4.1 Edit Tests

To edit a test, click the edit icon  in the Test list.



Visible

☒ Yes ☐ No

Item name

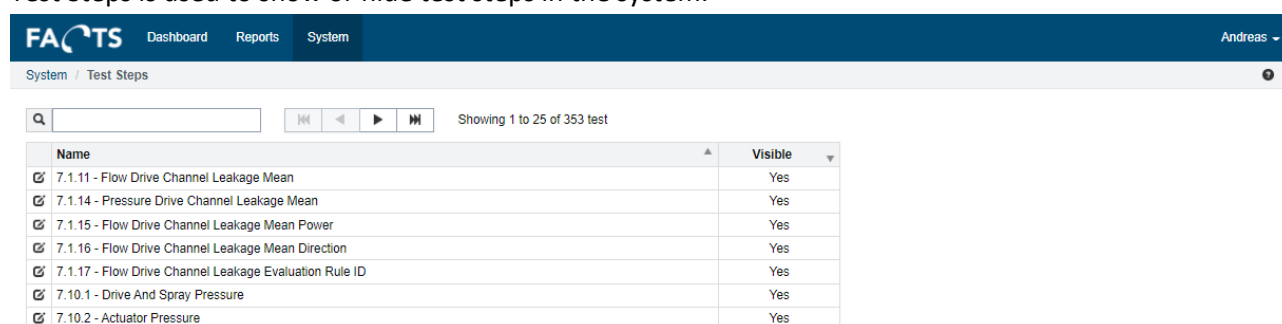
BoardTest

☒ Save

Save stores the changes to the test.

5.3.5 Test Steps

Test Steps is used to show or hide test steps in the system.



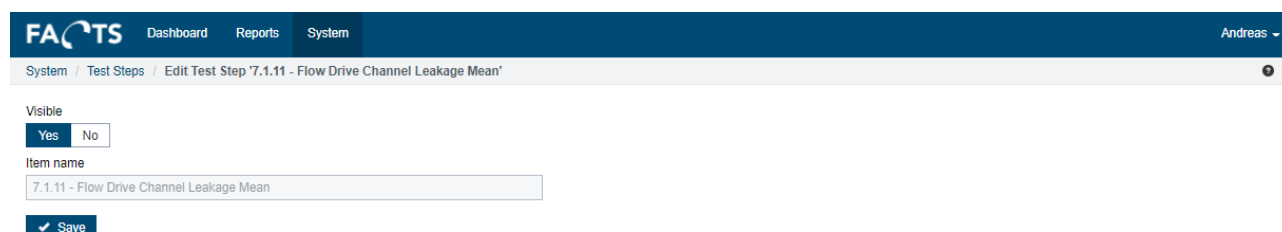
System / Test Steps

Showing 1 to 25 of 353 test

Name	Visible
☒ 7.1.11 - Flow Drive Channel Leakage Mean	Yes
☒ 7.1.14 - Pressure Drive Channel Leakage Mean	Yes
☒ 7.1.15 - Flow Drive Channel Leakage Mean Power	Yes
☒ 7.1.16 - Flow Drive Channel Leakage Mean Direction	Yes
☒ 7.1.17 - Flow Drive Channel Leakage Evaluation Rule ID	Yes
☒ 7.10.1 - Drive And Spray Pressure	Yes
☒ 7.10.2 - Actuator Pressure	Yes

5.3.5.1 Edit Test Steps

To edit a test step, click the edit icon  in the Test Steps list.



System / Test Steps / Edit Test Step '7.1.11 - Flow Drive Channel Leakage Mean'

Visible

☒ Yes ☐ No

Item name

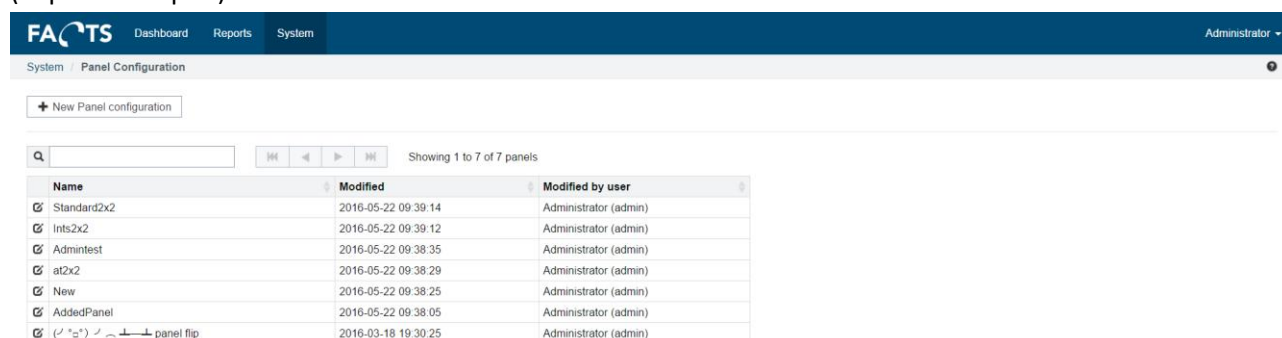
7.1.11 - Flow Drive Channel Leakage Mean

☒ Save

Save stores the changes to the test step.

5.3.6 Panel configuration

Used to configure the layout of panels. Panels are used to group several DUTs under one barcode in PLR (Paper less repair).



System / Panel Configuration

+ New Panel configuration

Showing 1 to 7 of 7 panels

Name	Modified	Modified by user
☒ Standard2x2	2016-05-22 09:39:14	Administrator (admin)
☒ Ints2x2	2016-05-22 09:39:12	Administrator (admin)
☒ Adminintest	2016-05-22 09:38:35	Administrator (admin)
☒ at2x2	2016-05-22 09:38:29	Administrator (admin)
☒ New	2016-05-22 09:38:25	Administrator (admin)
☒ AddedPanel	2016-05-22 09:38:05	Administrator (admin)
☒ panel flip	2016-03-18 19:30:25	Administrator (admin)

5.3.6.1 Add panel configuration

To add a new panel configuration, click the “New Panel configuration” on the “Panel configuration page”. Fill in the fields on the page and click Save.
Changes to the “Columns” and “Rows” fields will redraw the panel layout and default the value of the layout fields.

FACTS

Dashboard

Reports

System

Administrator

System / Panel Configuration / New Panel configuration

CONFIGURATION

Name

UserGuidePanel

Columns

1

Rows

3

PANEL LAYOUT [COL:ROW]

A

B

C

Save

5.3.6.2 Edit panel configuration

To edit an existing item group, click the edit icon  in the Item Group list.

FACTS

Dashboard

Reports

System

Administrator

System / Panel Configuration / Edit Panel 'UserGuidePanel'

CONFIGURATION

Name

UserGuidePanel

Columns

1

Rows

3

PANEL LAYOUT [COL:ROW]

A

B

C

Save

Delete

Save stores the changes to the item group.
Delete is only enabled if no DUTs has been connected to the panel configuration.

5.4 Service management

5.4.1 Import Tasks

By default, the SPC system supports TestStand XML format. Additional import readers can be implemented to support the specific customer needs and business models. In general, test data imports originate either from files like TestStand XML, CSV files etc., or from some different kinds of databases, like MySQL, MS Access, MS-SQL etc. Additional import read can be implemented for both new file formats and data stored in databases.

5.4.1.1 Edit an existing import task

To edit an existing data importer task, click the edit icon  in the importer task list.

“Save” stores the changes to the importer task.

“Delete” deletes and disables the importer task permanently (all parameters will be lost)

5.4.1.2 Creating a new file import task

To setup the necessary parameters for importing test data from a file, the button “New File Import Task” should be clicked.

FACTS Dashboard Reports System Administrator

System / Import Tasks / New File Import Task

GENERAL

Enabled Yes No

Name Enter a name

Description

Max. test results per unit 25

DEFAULTS

Item number

Test name

Test station

Test fixture

TEST RESULT FILES

Reader CPT Test Data XML File

Plugin None

Pickup files from Enter a path

FILE HANDLING OPTIONS

☐ Delete imported files

☐ Zip imported files to save space

Move imported files to

☐ Delete files with error

☐ Zip files with error to save space

Move files with error to

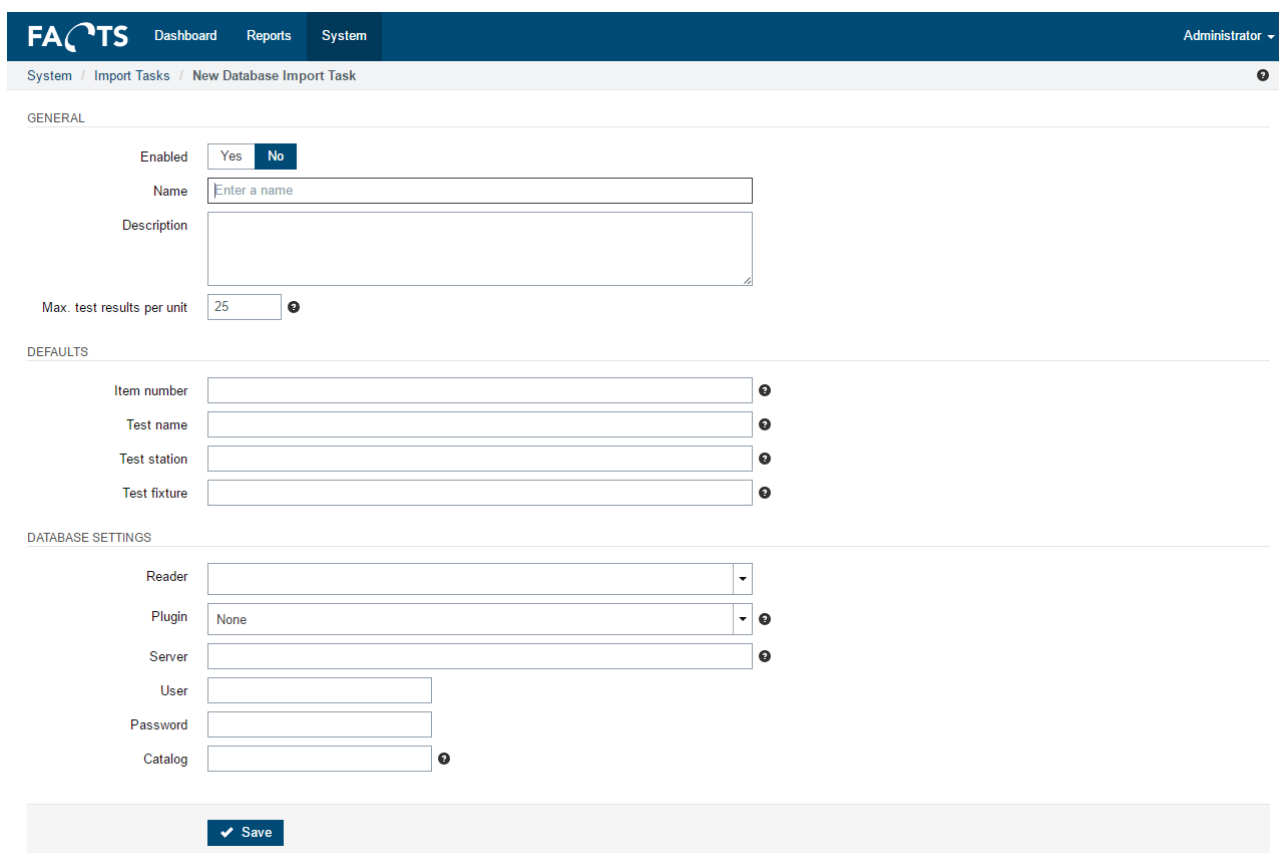
Save

All necessary parameters should be filled out before saving and enabling the new file importer task.

Additional help for each parameter is displayed when moving the mouse pointer over the question mark to the right of each parameter field.

5.4.1.3 Creating a new database import task

To setup the necessary parameters for importing test data from a database, the button “New Database Import Task” should be clicked.



FACTS Dashboard Reports System Administrator

System / Import Tasks / New Database Import Task

GENERAL

Enabled ☐ Yes ☒ No

Name

Description

Max. test results per unit

DEFAULTS

Item number

Test name

Test station

Test fixture

DATABASE SETTINGS

Reader

Plugin

Server

User

Password

Catalog

All necessary parameters should be filled out before saving and enabling the new database importer task.

Additional help for each parameter is displayed when moving the mouse pointer over the question mark to the right of each parameter field.

5.4.1.4 Creating a new MS Access import task

To setup the necessary parameters for importing test data from a Microsoft Access database, the button “New MS Access Import Task” should be clicked.

FACTS Dashboard Reports System Administrator

System / Import Tasks / New MS Access Import Task

GENERAL

Enabled ☐ Yes ☒ No

Name

Description

Max. test results per unit

DEFAULTS

Item number

Test name

Test station

Test fixture

MICROSOFT ACCESS

Reader

Plugin

☒ Open the database in exclusive mode

Database file path

All necessary parameters should be filled out before saving and enabling the new MS Access importer task.

Additional help for each parameter is displayed when moving the mouse pointer over the question mark to the right of each parameter field.

5.4.2 Import Task Monitor

This screen is used to investigate the status and error log of the enabled data importers. It contains relevant information and performance indicators to provide an overview to the health of the data import into the system. The information in the screen is automatically updated every 10 seconds.


Dashboard
Reports
System
Administrator

System / Import Task Monitor

Status

Showing 4 import tasks

Timestamp	Name	State	Message	Last import	Last import error	Avg. import time	Total imports	Total import errors	Details
2016-05-20 14:38:53	CPT.TestResultSimulator	Idle	No data pending	2016-05-20 14:37:22	2016-03-24 01:32:33	118 ms	540,288	278	
2016-05-20 14:38:53	CPT.TestStand.Logger	Idle	No data pending	2014-05-14 10:29:11	2014-05-14 10:21:55	103 ms	114,120	147	
2016-05-20 14:38:53	CPT.TestStation.Client	Idle	No data pending	2016-05-20 07:31:53	2016-05-19 23:42:07	114 ms	8,294	3,528	
2016-05-20 14:38:53	TestStand XML	Idle	No data pending	2016-04-29 12:53:22	2016-02-25 15:39:06	746,856 ms	95	14	

Automatically updated every 10 seconds

Error Log

Showing 1 to 25 of 1,000 import task errors

Timestamp	Name	Error type	Error message	Details
2016-05-19 23:42:07	CPT.TestStation.Client	TestResultValidationFailed	Test.Name cannot be null or an empty string. Unit.SerialNo cannot be null or an empty string.	{"fileName":"20160519-234203_0d06091b-418b-4493-9be7-f9866b08393b.CPT.xml"}
2016-05-19 23:42:07	CPT.TestStation.Client	TestResultValidationFailed	Test.Name cannot be null or an empty string. Unit.SerialNo cannot be null or an empty string.	{"fileName":"20160519-234152_267f5f33-1de3-4dd2-83bf-92391e255422.CPT.xml"}
2016-05-19 23:41:37	CPT.TestStation.Client	TestResultValidationFailed	Test.Name cannot be null or an empty string. Unit.SerialNo cannot be null or an empty string.	{"fileName":"20160519-234125_d07b2bd5-2ae8-4b51-8ff4-5728846346.CPT.xml"}

5.4.3 Scheduled Reports

Scheduled reports are used to send out predefined reports at a specified time and with a specified frequency. Reports are sent out by e-mail to predefined receivers. The layout of the scheduled reports is chosen among the existing reports (Test Yield report and Test Step Error Pareto report).


Dashboard
Reports
System
Administrator

System / Scheduled Reports

Showing 1 to 25 of 511 scheduled reports

Enabled	Name	Description	Run as	Modified	Modified by	
☒	Yes	Daily Test Step Error Pareto	90 days back. Sent out on weekdays	Administrator (admin)	2016-05-20 14:33:55	Administrator (admin)
☒	No	Test Step Error Pareto Report	Test Step Error Pareto	Per Clausen (pcl)	2016-04-28 14:48:48	Per Clausen (pcl)
☒	No	Test Step Error Pareto Report	Test Step Error Pareto	Per Clausen (pcl)	2013-10-30 00:44:00	Per Clausen (pcl)

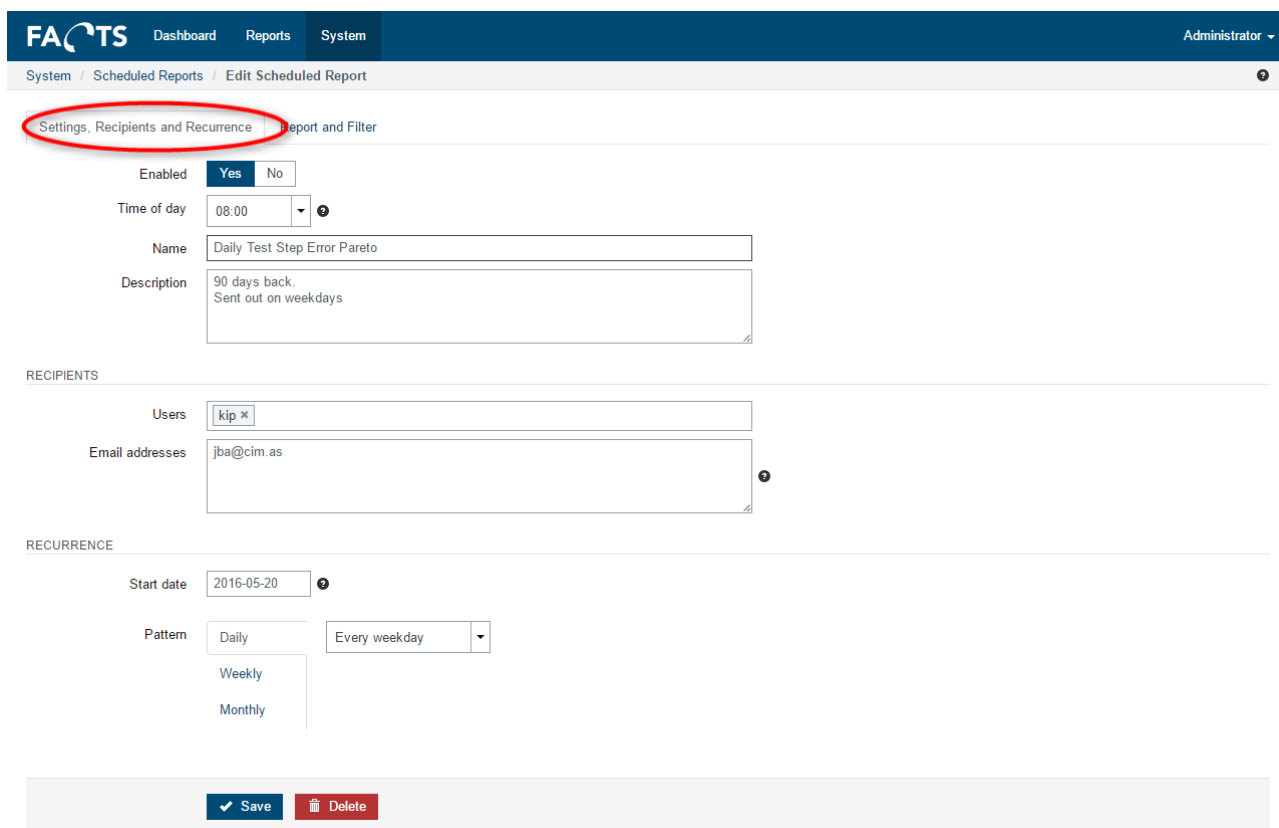
5.4.3.1 Adding and Editing scheduled reports

To edit an existing scheduled report, click the edit icon  in the scheduled report list. To add a new scheduled report, click "New Scheduled Report"

"Save" stores the changes to the importer task.

"Delete" deletes and disables the scheduled report permanently (all parameters will be lost). "Delete" is only available when editing an existing scheduled report.

5.4.3.1.1 Settings, Recipients and Recurrence



FACTS Dashboard Reports System Administrator

System / Scheduled Reports / Edit Scheduled Report

Settings, Recipients and Recurrence Report and Filter

Enabled: ☒ Yes ☐ No

Time of day: 08:00

Name: Daily Test Step Error Pareto

Description: 90 days back.
Sent out on weekdays

RECIPIENTS

Users: kip

Email addresses: jba@cim.as

RECURRENCE

Start date: 2016-05-20

Pattern: Daily (selected), Weekly, Monthly

Every weekday

General Settings:

- Enabled: Used to enable or disable the scheduled report generation
- Time of day: The time of day to send out the report
- Name: Descriptive name of the report
- Description: Further detailed description for the report

Recipients:

- Users: List of system users to receive the report
- E-mail addresses: Additional recipients of the report (unknown to the system)

Recipients:

- Start date: The begin date for the scheduled reports
- Pattern: See further descriptions below

Pattern: **Daily** (highlighted with a red circle)

Weekly

Monthly

Every weekday

The "Daily" pattern is used if the report should be sent out on a daily basis (every day or every weekday)

Pattern

Daily

Weekly

Monthly

Every week(s) on

☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday

☐ Saturday ☐ Sunday

The “Weekly” pattern is used if the report should be sent out on certain days of the week.

Pattern

Daily

Weekly

Monthly

Every month(s) on the

first weekday

first day

first weekday

last weekday

last day

of the month

The “Monthly” pattern is used if the report should be sent out on certain days of the month.

5.4.3.1.2 Report and Filter

FACTS

Dashboard

Reports

System

Administrator

System / Scheduled Reports / Edit Scheduled Report

Settings, Recipients and Recurrence

Report and Filter

Type

Test Step Error Pareto Report

Run as user

lgb

Document type

PDF

Excel

PDF and Excel

FILTER

Time period

90 days back

Items

*

Tests

*

Test run

First test run

Test step cycle

Last test step cycle

Test stations

*

Save

Delete

General Settings:

Type: The layout of the report to send out (Test Yield or Test Step Error Pareto)

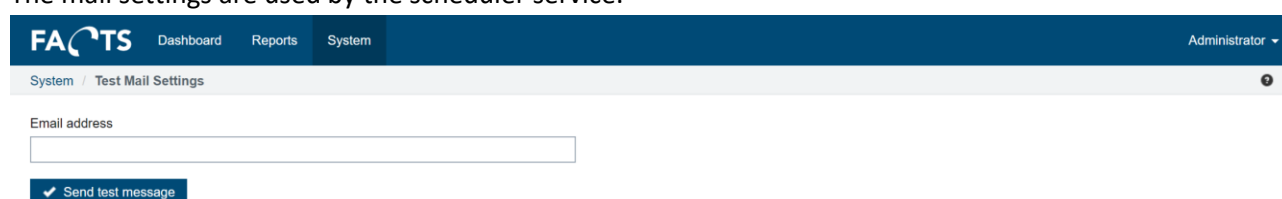
Run as user: The user profile to be used when generating the scheduled reports
 Document type: Send out the report as PDF, Excel or both

Filter:

Set all parameters for the selected report type to obtain the required data in the scheduled reports.
 Please refer to the sections describing the reports (section 3.10 or section 3.12)

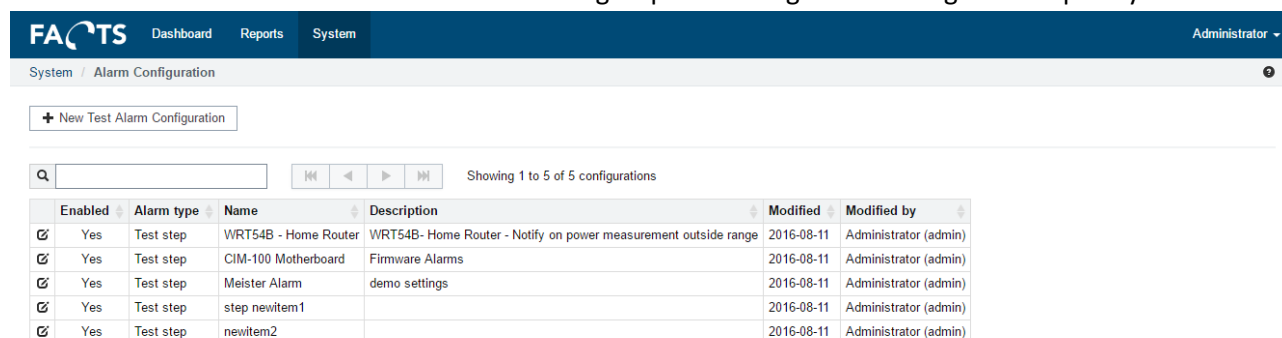
5.4.4 Test Mail Settings

Test Mail Settings can be used to verify the mail settings are correct in the config file.
 The mail settings are used by the scheduler service.



5.4.5 Alarm Configuration

Alarm configuration is used to setup notifications when events that are generally considered bad, occurs. These events can be based on different criteria, such as following the WECO rulesets or custom limits for test results. Notifications are sent to distribution groups according to the configured frequency.



Enabled	Alarm type	Name	Description	Modified	Modified by	
☒	Yes	Test step	WRT54B - Home Router	WRT54B- Home Router - Notify on power measurement outside range	2016-08-11	Administrator (admin)
☒	Yes	Test step	CIM-100 Motherboard	Firmware Alarms	2016-08-11	Administrator (admin)
☒	Yes	Test step	Meister Alarm	demo settings	2016-08-11	Administrator (admin)
☒	Yes	Test step	step newitem1		2016-08-11	Administrator (admin)
☒	Yes	Test step	newitem2		2016-08-11	Administrator (admin)

5.4.5.1 Adding and Editing alarm configurations

To edit an existing alarm configuration, click the edit icon  in the alarm configuration list. To add a new alarm configuration, click "New Test Alarm Configuration". "Save" stores the changes to the alarm configuration task. "Delete" deletes and disables the configuration permanently (all parameters will be lost). "Delete" is only available when editing an existing alarm configuration.

5.4.5.2 Test Alarm Configuration

Test Alarm Configuration is a type of alarms configured on a test level.

They require an item and a test to be specified, before allowing you to added specific criteria on each test step.

FACTS

Dashboard

Reports

System

Administrator

System / Alarm Configuration / Edit Test Alarm Configuration 'CIM-100 Motherboard'

SETTINGS

Enabled Yes No

Name

Description

Item x v

Test x v

Notification interval

Test result

CONFIGURATION

Select a Test Step v

+ Add Test Step

Step	Type	Weco 1	Weco 2	Weco 3	Weco 4	Weco 5	Weco 6	Cp < X	Cpk < X	X < limit	X > limit	
CPU Diagnostics	Enable	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
	Value							1	1	0	10	☐
CPU Test	Enable	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐
	Value							1	1	0	10	☐
MainSequence:Video Test	Enable	☐	☐	☐	☐	☐	☐	☒	☐	☒	☒	☐
	Value							1	1	50	5	☐

RECIPIENTS

Distribution groups

Save

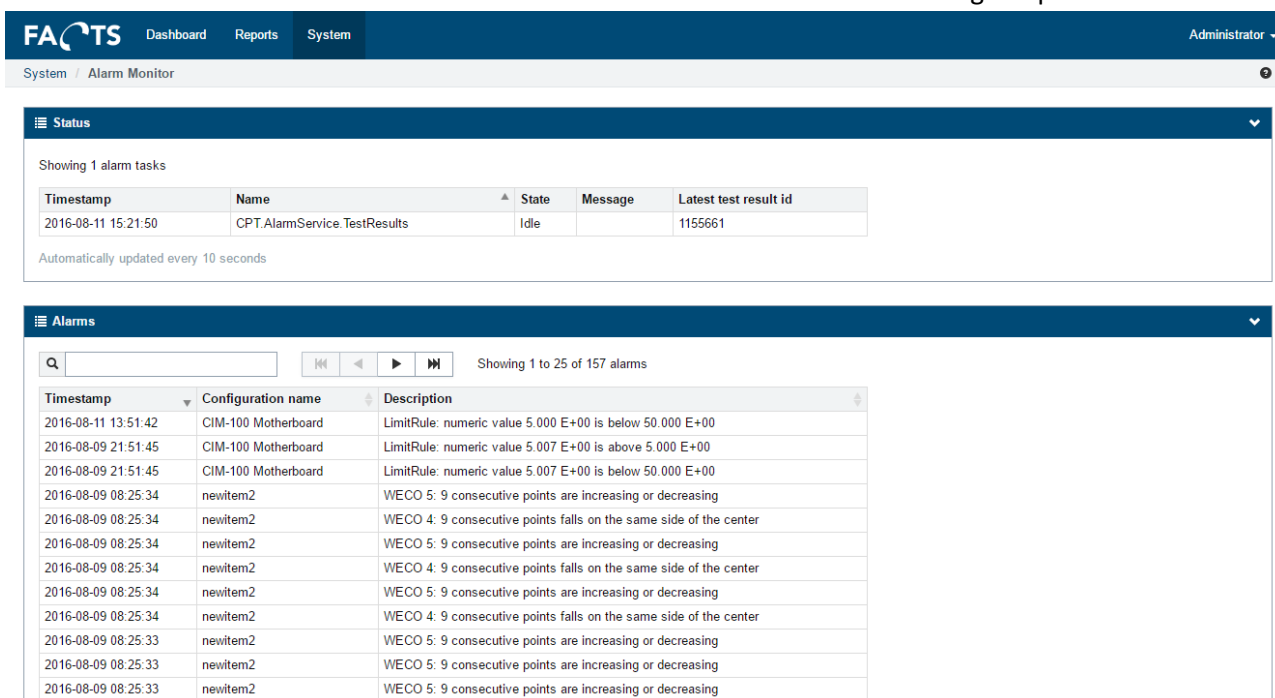
Delete

After an item and a test has been selected, individual test steps can be added to the list of checks. Each test step can then have their own set of rules.

- **WECO 1:** An alarm will be generated if value is outside 3σ
- **WECO 2:** 2 out of 3 consecutive points fall beyond the 2σ limit
- **WECO 3:** 4 out of 5 consecutive points fall beyond the σ limit
- **WECO 4:** 9 consecutive points fall on the same side of the center
- **WECO 5:** 9 consecutive points are increasing or decreasing
- **WECO 6:** An alarm will be generated if 9 consecutive points shift between increasing and decreasing
- **Cp < X:** An alarm will be generated if the calculated Cp is less than the specified value
- **Cpk < X:** An alarm will be generated if the calculated Cpk is less than the specified value
- **X < Limit:** An alarm will be generated if the tested value is less than the specified limit
- **X > Limit:** An alarm will be generated if the tested value is greater than the specified limit

5.4.6 Alarm Monitor

The Alarm monitor is used to track the status of the Alarm service and shows a log of up to 1000 alarms.



Status

Showing 1 alarm tasks

Timestamp	Name	State	Message	Latest test result id
2016-08-11 15:21:50	CPT.AlarmService.TestResults	Idle		1155661

Automatically updated every 10 seconds

Alarms

Showing 1 to 25 of 157 alarms

Timestamp	Configuration name	Description
2016-08-11 13:51:42	CIM-100 Motherboard	LimitRule: numeric value 5.000 E+00 is below 50.000 E+00
2016-08-09 21:51:45	CIM-100 Motherboard	LimitRule: numeric value 5.007 E+00 is above 5.000 E+00
2016-08-09 21:51:45	CIM-100 Motherboard	LimitRule: numeric value 5.007 E+00 is below 50.000 E+00
2016-08-09 08:25:34	newitem2	WECO 5: 9 consecutive points are increasing or decreasing
2016-08-09 08:25:34	newitem2	WECO 4: 9 consecutive points falls on the same side of the center
2016-08-09 08:25:34	newitem2	WECO 5: 9 consecutive points are increasing or decreasing
2016-08-09 08:25:34	newitem2	WECO 4: 9 consecutive points falls on the same side of the center
2016-08-09 08:25:34	newitem2	WECO 5: 9 consecutive points are increasing or decreasing
2016-08-09 08:25:34	newitem2	WECO 4: 9 consecutive points falls on the same side of the center
2016-08-09 08:25:33	newitem2	WECO 5: 9 consecutive points are increasing or decreasing
2016-08-09 08:25:33	newitem2	WECO 5: 9 consecutive points are increasing or decreasing
2016-08-09 08:25:33	newitem2	WECO 5: 9 consecutive points are increasing or decreasing

5.4.7 Global Alarm Configuration

Global alarm configuration for setting up global monitoring functions that works across all selected test / test steps. To disable the monitoring for a test step, a user can either go into the settings menu and disable the monitoring for individual test steps, or the user can press on a “Do not show again for this test step” button when a notification appears. As default the check is enabled on all test / test step combinations. All alarm pages consist of three sections which can be configured individually. A settings section where the alarm specific configuration can be set, a recipient section where distribution groups can be assigned and a test / test step list where the individual test steps can be enabled / disabled.

Common settings for all alarms settings sections are:

- **Enabled** – Set if the alarm should be enabled or disabled and the description.
- **Data extract time frame** – The interval of time where the alarm will search back in time from ‘now’ time.
- **Min number of runs** – The minimum number of times a test step must have run within the time frame for it to be processed.
- **Test categories** – The test categories to include in the data extraction.
- **Distribution groups** – Recipients of alarm emails.

To edit a global alarm configuration, click the edit icon  in the global alarm configuration list.

FACTS

Dashboard Reports System

Administrator

System / Global Alarm Configurations

Showing 4 Global Alarms

	Enabled	Name	Description	Modified	Modified by
☒	Yes	Never Failing Test Steps	Detects which test steps have never failed within a time frame	2022-08-19	Benedikt (bwi)
☒	No	Outlier Detection Alarm	Detects if one station performs significantly different than the other stations performing the same tests	2022-08-19	Benedikt (bwi)
☒	No	Spc Drift Alarm	Predicts if a process will go out of limits within an upcoming period	2022-08-19	Benedikt (bwi)
☒	No	Spc Limits Alarm	Detects if a test steps LSL and USL values deviate too much from the $\pm 3\sigma$	2022-08-18	Benedikt (bwi)

5.4.7.1 Never failing test steps

The never failing alarm will detect if a test steps (belonging to a specific test) had never failed within a time frame.

FACTS

Dashboard Reports System

Administrator

System / Global Alarm Configurations / Never Failing Alarm

SETTINGS

Enabled

☒ Yes
 ☐ No

Data extract time frame

Previous month

Min number of test runs

250

Test categories

Production

RECIPIENTS

Distribution groups

Manufacturing

TEST / TEST STEPS

☒ Select All
 ☒ Deselect All

⏮

⏪

⏩

⏭

Showing 1 to 10 of 48,304 entries

Test	Test step	Enabled
123-456_310	01 Tested	☒
123-456_310	02 Approved	☐
123-456_310	03 01 /SPOR/ 123456	☐
123-456_310	03 02 /SPOR/ 654321	☐
123-456_310	03 Error Types	☐
123-456_310	04 Total Number of Errors	☒
123-456_310	05 Batch Registration	☒
123-456_310	06 Item Registration	☒
123-456_310	16 NaN	☒
123-456_310	17 -INF	☒

☒ Save

5.4.7.2 Outlier detection

The outlier detection will trigger if one station performs significantly different than the other stations performing the same tests.

The outlier detection will group data within a window (configurable by time frame) by station and calculate the mean and std. dev for each station. Afterwards the mean of means, mean of std. devs, std. dev of means and std. dev of std. devs are found. An alarm is raised if one of the stations "mean of means or mean of std. devs is outside the $X \pm \sigma$ limit (X is the **Outlier limit** configuration parameter).

- **Outlier limit for means** – Factor that defines when a stations mean value is considered an outlier: Triggers if mean is outside of $(\mu \pm (\sigma * \text{limit}))$, where μ = mean of means and σ = std dev of means. 0 will disable.
- **Outlier limit for std. devs** – Factor that defines when a stations std. dev value is considered an outlier. Triggers if std. dev is outside of $(\mu \pm (\sigma * \text{limit}))$, where μ = mean of std. devs and σ = std dev of std devs. 0 will disable.
- **Minimum number of test stations** – Number of test stations that must have executed a test- / test step combination. Minimum is 3.


Dashboard Reports System Administrator ▾

System / Global Alarm Configurations / Outlier Detection Alarm

SETTINGS

Enabled ☒ Yes ☐ No

Data extract time frame ▾

Min number of test runs ⓘ

Outlier limit for means ⓘ

Outlier limit for std.devs ⓘ

Min number of stations ⓘ

Test categories

RECIPIENTS

Distribution groups

TEST / TEST STEPS

☒ Select All
 ☒ Deselect All

Showing 1 to 10 of 48,304 entries

Test ▲	Test step ▲	Enabled ▾
123-456_310	01 Tested	☒
123-456_310	02 Approved	☒
123-456_310	03 01 /SPOR/ 123456	☒
123-456_310	03 02 /SPOR/ 654321	☒
123-456_310	03 Error Types	☒
123-456_310	04 Total Number of Errors	☒
123-456_310	05 Batch Registration	☒
123-456_310	06 Item Registration	☒
123-456_310	16 NaN	☒
123-456_310	17 -INF	☒

☒ Save

5.4.7.3 SPC drift

Spc drift alarm module and creates a linear regression model based on the test step results. If the regression model predicts that the process will go out of limits (usl/lsl) within a given period, an alarm is triggered.

- **Data prediction time frame** – If the regression model predicts that the SPC value would exceed the usl or lsl limit within this time frame, an alarm is triggered
- **Only include passed results** – If set to Yes, the algorithm will only include test step results in the regression model that have passed the test.

FACTS

Dashboard Reports System

Administrator ▾

System / Global Alarm Configurations / Spc Drift Alarm

SETTINGS

Enabled

Yes No

Data extract time frame

Previous month ▾

Min number of test runs

50 ⓘ

Data prediction time frame

Future week ⓘ

Only include passed results

Yes No

Test categories

Production ×

RECIPIENTS

Distribution groups

Manufacturing ×

TEST / TEST STEPS

Select All

Deselect All

Q

⏮ ⏪ ⏩ ⏭

Showing 1 to 10 of 48,304 entries

Test ▲	Test step ▲	Enabled ▴▾
123-456_310	01 Tested	✓
123-456_310	02 Approved	✓
123-456_310	03 01 /SPOR/ 123456	✓
123-456_310	03 02 /SPOR/ 654321	✓
123-456_310	03 Error Types	✓
123-456_310	04 Total Number of Errors	✓
123-456_310	05 Batch Registration	✓
123-456_310	06 Item Registration	✓
123-456_310	16 NaN	✓
123-456_310	17 -INF	✓

✓ Save

5.4.7.4 SPC limits

Spc limits module takes two parameters that defines how much, the $\pm 3\sigma$ is allowed to deviate from the corresponding usl/lsl limit. If a limit deviates too much, the operator is notified and can access the report by clicking on the notification, with the suggested USL and LSL simulated.

- Inside limit factor** – How much narrower than the usl/lsl limits are the $3*\pm\sigma$ values allowed to be before an alarm is triggered.
 Triggered if $(USL < (\mu + 3\sigma) - |3\sigma * \text{factor}|)$ or $(LSL > (\mu - 3\sigma) + |3\sigma * \text{factor}|)$.
- Outside limit factor** – How much wider than the usl/lsl limits are the $3*\pm\sigma$ values allowed to be before an alarm is triggered.
 Triggered if $(USL > (\mu + 3\sigma) + |3\sigma * \text{factor}|)$ or $(LSL < (\mu - 3\sigma) - |3\sigma * \text{factor}|)$.



Dashboard
Reports
System

Administrator ▾

System / Global Alarm Configurations / Spc Limits Alarm

SETTINGS

Enabled

Yes

No

Data extract time frame

Previous month ▾

Min number of test runs

250 ⓘ

Inside limit factor

0.25 ⓘ

Outside limit factor

1 ⓘ

Test categories

Production ×

RECIPIENTS

Distribution groups

Manufacturing ×

TEST / TEST STEPS

Select All

Deselect All

Q

⏮

⏪

⏩

⏭

Showing 1 to 10 of 48,304 entries

Test ▲	Test step ▲	Enabled ▴ ▾
123-456_310	01 Tested	☒
123-456_310	02 Approved	☒
123-456_310	03 01 /SPOR/ 123456	☒
123-456_310	03 02 /SPOR/ 654321	☒
123-456_310	03 Error Types	☒
123-456_310	04 Total Number of Errors	☒
123-456_310	05 Batch Registration	☒
123-456_310	06 Item Registration	☒
123-456_310	16 NaN	☒
123-456_310	17 -INF	☒

Save

5.4.8 Global Alarm Monitor

The Global Alarm monitor is used to track the status of the Global Alarm service and shows a log of all alarms from the last 24h.

FACTS

DashboardReportsSystem

System / Global Alarm Monitor

Status

Showing 4 global alarms

Enabled	Name	Last run
Yes	Never Failing Test Steps	2022-08-11 15:54:15
Yes	Outlier Detection Alarm	2022-07-18 12:51:28
Yes	Spc Drift Alarm	2022-08-26 10:43:52
Yes	Spc Limits Alarm	2022-08-26 10:44:32

Global alarms (last 24h)

Q

Showing 1 to 10 of 210 global alarms

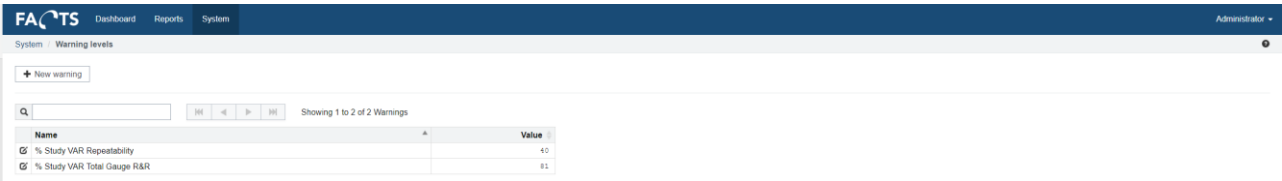
Timestamp	Alarm name	Description		
2022-08-26 10:44:32	Spc Limits Alarm	Test 'PCBA' with Test Step: 'Green LED' is too far outside or inside of the $\pm 3\sigma$ area (number of measurements is 489). The min USL (1.700) is below the lower configured limit of $+3\sigma+0.25^{\circ}\sigma^3$ (limit: 1.689). The max LSL (1.300) is above the upper configured limit of $-3\sigma+0.5^{\circ}\sigma^3$ (limit: 1.122).	Open in Reports	Disable alarm for this test step
2022-08-26 10:44:32	Spc Limits Alarm	Test 'PCBA' with Test Step: 'Red LED' is too far outside or inside of the $\pm 3\sigma$ area (number of measurements is 489). The min USL (0.700) is above the upper configured limit of $+3\sigma+0.5^{\circ}\sigma^3$ (limit: 0.676). The max LSL (0.300) is below the lower configured limit of $-3\sigma+0.25^{\circ}\sigma^3$ (limit: 0.326).	Open in Reports	Disable alarm for this test step
2022-08-26 10:44:32	Spc Limits Alarm	Test 'PCBA' with Test Step: 'RF Offset' is too far outside or inside of the $\pm 3\sigma$ area (number of measurements is 490). The min USL (-10.000) is above the upper configured limit of $+3\sigma+0.5^{\circ}\sigma^3$ (limit: -11.143). The max LSL (-40.000) is below the lower configured limit of $-3\sigma+0.25^{\circ}\sigma^3$ (limit: -32.738).	Open in Reports	Disable alarm for this test step

5.5 GAUGE R&R

GAUGE R&R configuration is used to setup color warnings on the Gauge R&R main page. Color warnings are set up per column.

5.5.1 Warning levels

It is possible to set color warnings on each column ('% Study VAR Total Gauge R&R', '% Study VAR Repeatability' and '% Study VAR Reproducibility'). These warnings are triggered if the value exceeds the value set up in the Warning levels settings. If there is no warning value set on a column ('% Study VAR Total Gauge R&R', '% Study VAR Repeatability' or '% Study VAR Reproducibility'), then warning for the column is disabled.



Each color warning can be edit or deleted via this icon

Name

Value

6 Personal settings

6.1 Settings

To edit personal settings, select 'User name' to the right in the menu bar and click Settings. (In the example below, the user name is "Administrator")

FACTS

Dashboard

Reports

System

Administrator

Edit Personal Settings

DASHBOARD SYSTEM WIDGETS

Days back in time

30

Minimum number of tests

100

REPORT FILTER DEFAULTS

Test categories

Test operator types

PRESENTATION

Table page size

25 rows

Number format

Danish (Denmark)

ACCOUNT

New password

Leave blank to not change password

Confirm password

Save

Dashboard Settings:

- Days back in time:

Number of days to look back in Dashboard reports
- Minimum number of tests:

The number of tests required to qualify for appearance on the dashboard

Presentation Settings:

- Table page size:

Specifies the number of rows per page in reports presenting data in grids (tables).
- Number format:

Specifies how numeric measurements are presented

Account Settings:

- New password:

Used to set a new user password
- Confirm password:

Used to set a new user password. Must be identical to “New password”

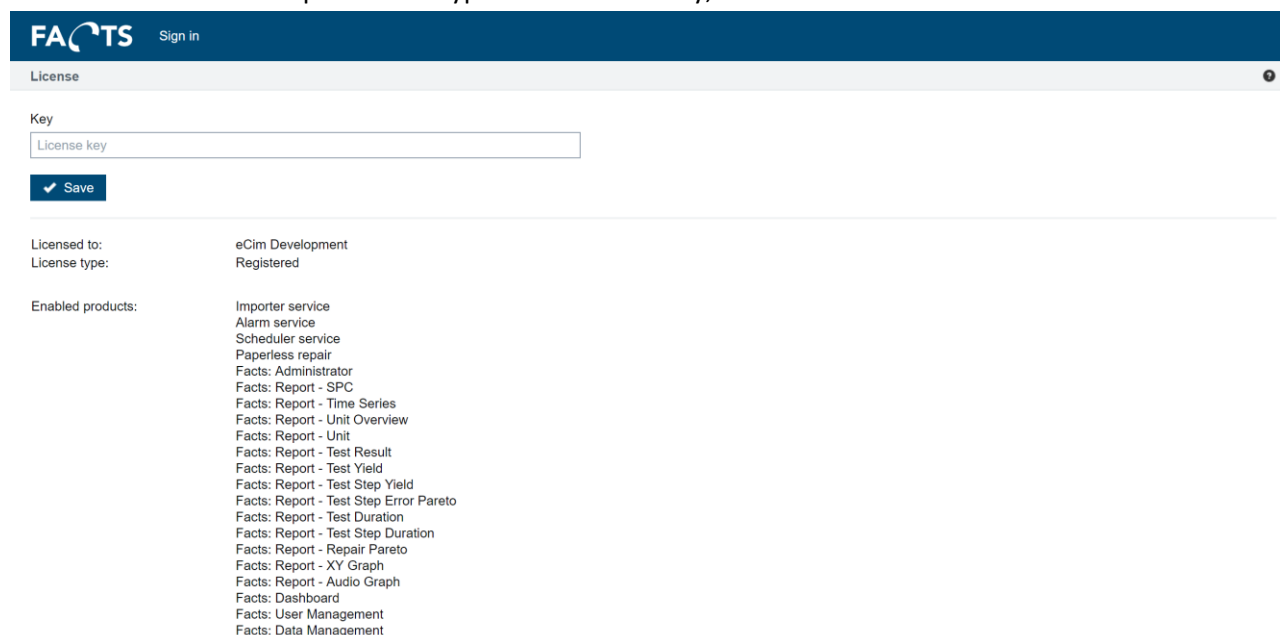
Save button stores changes.

6.2 Sign out

Sign out, and present the sign in page.

7 License

FACTS requires a license to run. This license is used to determine which products are enabled for the installation. To edit the license select the FACTS logo in the upper left and click “License Management”. The window shows an input field to type in the license key, and information about the current license.



The screenshot shows the FACTS License Management interface. At the top, there is a dark blue header with the FACTS logo and a 'Sign in' link. Below the header, the title 'License' is displayed. A 'Key' section contains a text input field labeled 'License key' and a 'Save' button with a checkmark icon. Below this, the current license details are listed:

Licensed to:	eCim Development
License type:	Registered
Enabled products:	- Importer service - Alarm service - Scheduler service - Paperless repair - Facts: Administrator - Facts: Report - SPC - Facts: Report - Time Series - Facts: Report - Unit Overview - Facts: Report - Unit - Facts: Report - Test Result - Facts: Report - Test Yield - Facts: Report - Test Step Yield - Facts: Report - Test Step Error Pareto - Facts: Report - Test Duration - Facts: Report - Test Step Duration - Facts: Report - Repair Pareto - Facts: Report - XY Graph - Facts: Report - Audio Graph - Facts: Dashboard - Facts: User Management - Facts: Data Management

8 Statistical calculations

In the SPC report, a number of statistical values are calculated and used for presentation. This section shows the formulas used to calculate these values. The formulas are shown for reference only. Please refer to special articles and literature regarding the practical use and limitations of the calculated values.

In the formulas below, USL and LSL denotes the upper specification limit and the lower specification limit.

8.1 Formulas

8.1.1 Mean value ($\bar{X}$)

$$Mean = \bar{X} = \frac{1}{n} \sum_{i=1}^{i=n} X_i$$

8.1.2 Standard deviation (σ)

$$\sigma = \sqrt{\frac{1}{n-1} \sum_{i=1}^{i=n} (X_i - \bar{X})^2}$$

8.1.3 Capability (Cp)

$$C_p = \frac{USL - LSL}{6\sigma}$$

8.1.4 Capability Index (Cpk)

$$C_{pkUSL} = \frac{USL - \bar{X}}{3\sigma}$$

$$C_{pkLSL} = \frac{\bar{X} - LSL}{3\sigma}$$

$$C_{pk} = \frac{\text{Min}[(USL - \bar{X}), (\bar{X} - LSL)]}{3\sigma} = \text{Min}[C_{pkUSL}, C_{pkLSL}]$$

8.2 Special value handling

In order to avoid misleading values for any of the capability values (Cp, Cpk, Cpk USL and Cpk LSL) in case of special circumstances in the test data, a special “error value” is used. In case any of the mentioned capability values are less than -999.999 or greater than 999.999, the resulting value will be set to -999.999 or 999.999 respectively.

9 Revision History

Revision	Date	Initials	Description
0.1	2013-04-29	LDI	First version
1.0	2013-05-01	LDI, RD	Review
1.1	2013-05-23	PCL	Dashboard minimum number of tests
1.2	2013-12-17	RD	Updated screen shots and filter options availability (most pages)
1.3	2014-05-11	PCL	Removed obsolete Test completion filter and added Test categories filter.
1.4	2016-05-20	KIP	Added information on Alarm Service, distribution groups, panel config and dashboard configurations.
1.4.1	2016-06-02	KIP	Updated images; renamed CPT to FACTS
1.4.2	2017-08-03	KIP	Added new Widgets
1.4.3	2018-08-12	RBN	Added Gauge R&R
2.2	2021-06-18	ACB	Added section for Test steps, test and test sites.
2.4	2022-07-14	BWI	Added sections for DPU report and Final tests report filters
2.5	2022-07-15	BHA	Added sections for trend line and simulated limits in report filters Added section for Global alarm configuration and station comparison report.
2.6	2022-10-05	JJM	Added sections for Unit relation report and new filters introduced for Unit relation reports
2.8	2025-10-29	BWI	Added sections for Unit relation report and new filters introduced for Unit relation reports
2.9	2025-01-20	BWI	Added metadata filters