



UNITY

Frequently Asked Questions

Revised: Q4-2019

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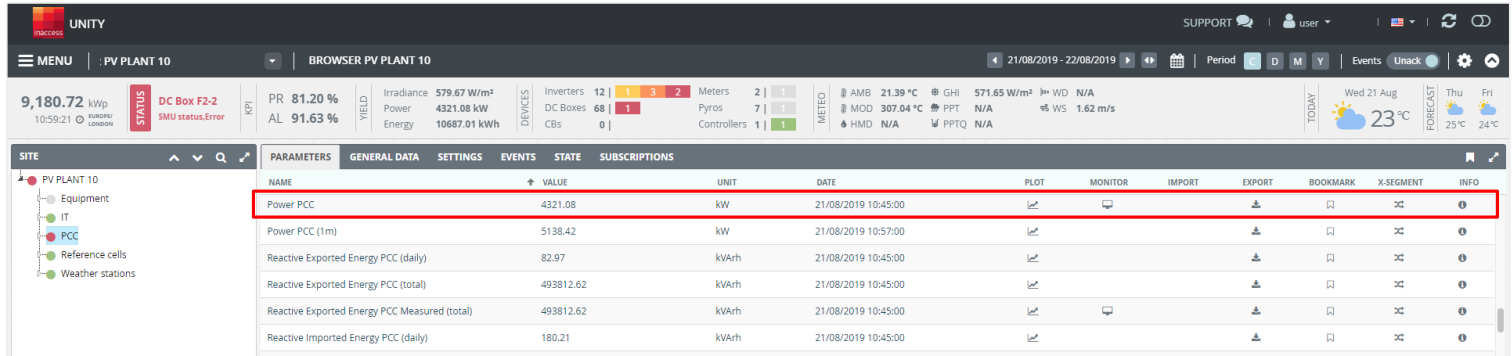
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Source of the Exported Power Site parameter

The Parameter "Exported Power Site" on site level is a derived one.

This parameter is directly linked and actually mirrors the values of a primary parameter called "Power PCC" on PCC level. The primary parameters all have the real time monitor option ("Monitor" icon) with which you can view the real time values received from the register of the controller.



NAME	VALUE	UNIT	DATE	PLOT	MONITOR	IMPORT	EXPORT	BOOKMARK	X-SEGMENT	INFO
Power PCC	4321.08	kW	21/08/2019 10:45:00							
Power PCC (1m)	5138.42	kW	21/08/2019 10:57:00							
Reactive Exported Energy PCC (daily)	82.97	kVarh	21/08/2019 10:45:00							
Reactive Exported Energy PCC (total)	493812.62	kVarh	21/08/2019 10:45:00							
Reactive Exported Energy PCC Measured (total)	493812.62	kVarh	21/08/2019 10:45:00							
Reactive Imported Energy PCC (daily)	180.21	kVarh	21/08/2019 10:45:00							

Figure 1 – "Power PCC" primary parameter info

The "Power PCC" parameter is directly monitored from Inaccess' controller and its values come from the Multimeter installed on the PCC level.

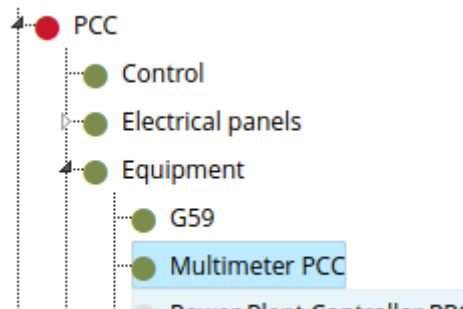


Figure 2 – "Multimeter PCC" Site-tree node

If there is no Multimeter PCC installed at site, then the "Exported Power Site" is calculated according to the priority:

1. Substation Meter (sum)
2. Inverter Meter (sum)
3. Inverters (sum)

Cross Segment inverter parameters or string currents

The “Parameters” tab of the Browser page, among others, provides users with the two following options:

- 1) To select the same parameter for all nodes under the same parent-node of the Site Tree e.g. the String currents for all nodes under a specific inverter (for example, the inverter 1 in the depiction below.)
- 2) To select the same parameter for all nodes within the same path on the site Tree (for example, the String currents for all “String” nodes under every inverter across all paths starting from the PCC level in the depiction below.)

These two options are available through a dropdown menu deployed from the “X-Segment” icon, located on the right-hand side of the “Parameters” tab. From there, with only two clicks, and without changing page, the users are able to select all parameters they need to export, plot and save as scratchpads.

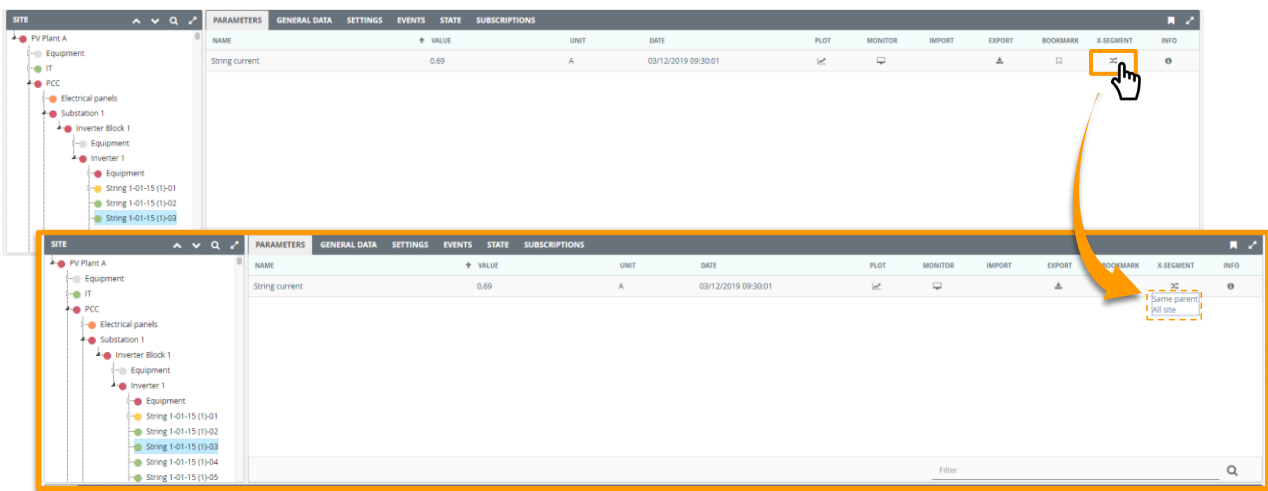


Figure 3 – Cross-Segment Parameters / Selecting the “X-Segment” icon

Clicking on the “Same parent” option enables the “Export” tab / “parameters” sub-tab (located first), where a list is created, containing all siblings of the same parent-node associated with the selected parameter, as seen in the picture that follows.

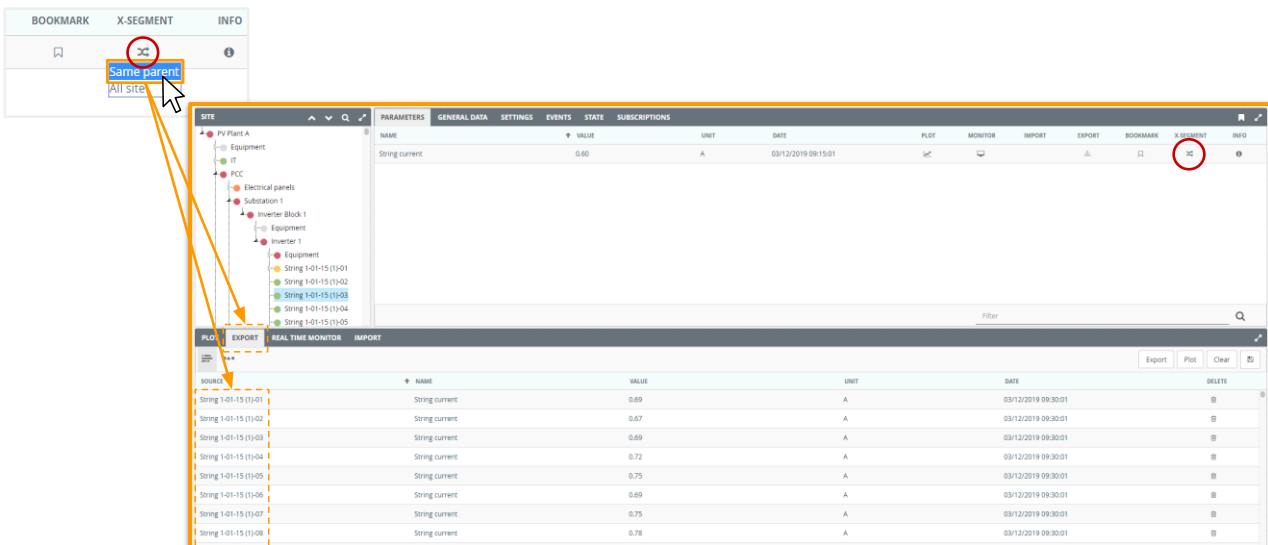


Figure 4 – Cross-Segment Parameters / “Same parent” option

Every single row can be deleted by use of the trashcan icon located on the tab's right-hand side, under "Delete".

By clicking on the "All site" option, the list created in the "Export" tab / "parameters" sub-tab contains all nodes associated with the selected parameter, across the entire site tree. In the picture below, every "String" node on a path initiating from the PCC level and also associated with the "string current" parameter, can be found in the "Export" tab's list.

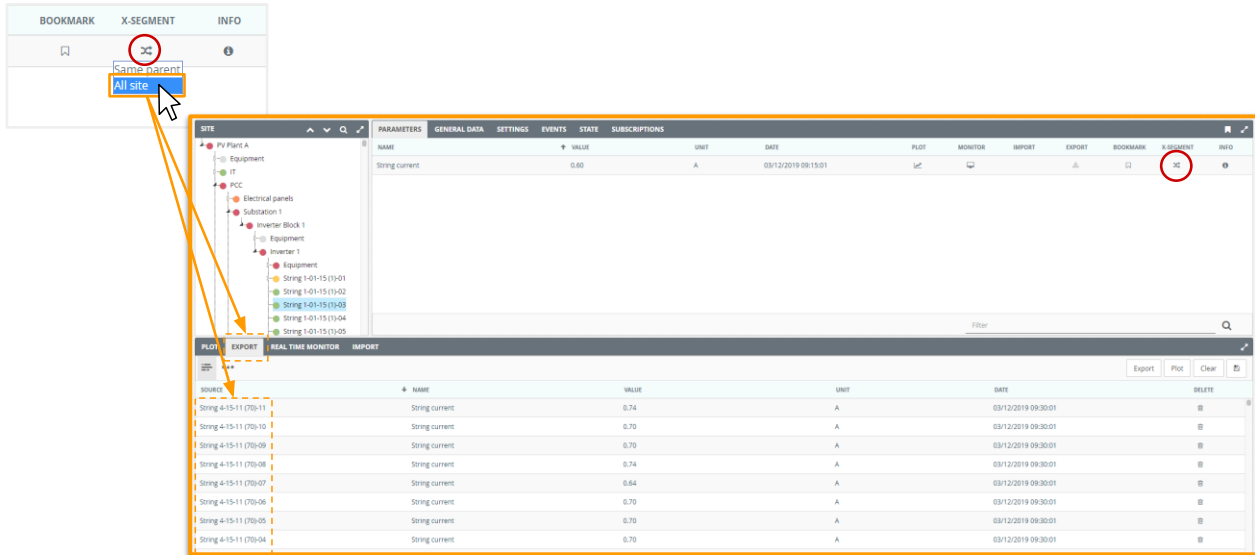


Figure 5 – Cross-Segment Parameters / "All site" option

It is noted that any new parameter selection can be added to the initial list and a variety of scratchpads that the user is able to edit, name and save can be created.

Upon clicking on the "save" button at the top-right corner of the "Export" tab, the "New scratch pad" modal to name and save scratchpads is enabled.

Additionally, every scratchpad can be exported by the "Export" button which opens the "Export Parameters" modal, providing all export settings. The Plot button opens the "Plot" tab, where all listed parameters can be plotted, as long as their maximum number limit is not exceeded.

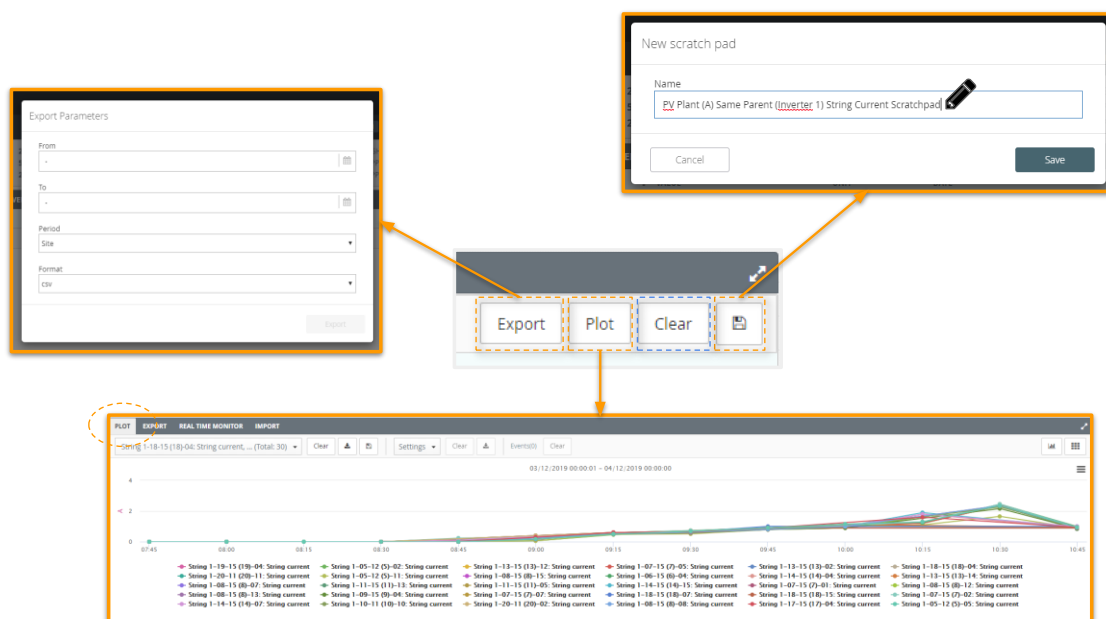


Figure 6 – Cross-Segment Parameters / "Export" tab's buttons

Finally, a “Clear” button for clearing the entire Export tab’s list is located next to the “Plot” button, as seen in the above depiction.

Cross Segment States

Similarly to the Cross Segments functionality in the “Parameters” tab, the “States” tab of the Browser page, provides users with the two following options for exporting states:

- 1) Selecting the same state-variable for all nodes under the same parent-node of the Site Tree e.g. the “String current abnormal status” for all nodes under a specific inverter (for example, the inverter 1 in the depiction below.)
- 2) Selecting the same state-variable for all nodes within the same path on the site tree (for example, the “String current abnormal status” for all “String” nodes under every inverter across all paths starting from the PCC level in the depiction below.)

These two options are available through the dropdown menu deployed from the “X-Segment” icon, located on the right-hand side of the “States” tab. From there, the users are able to select all state-variables which states are needed to be exported.

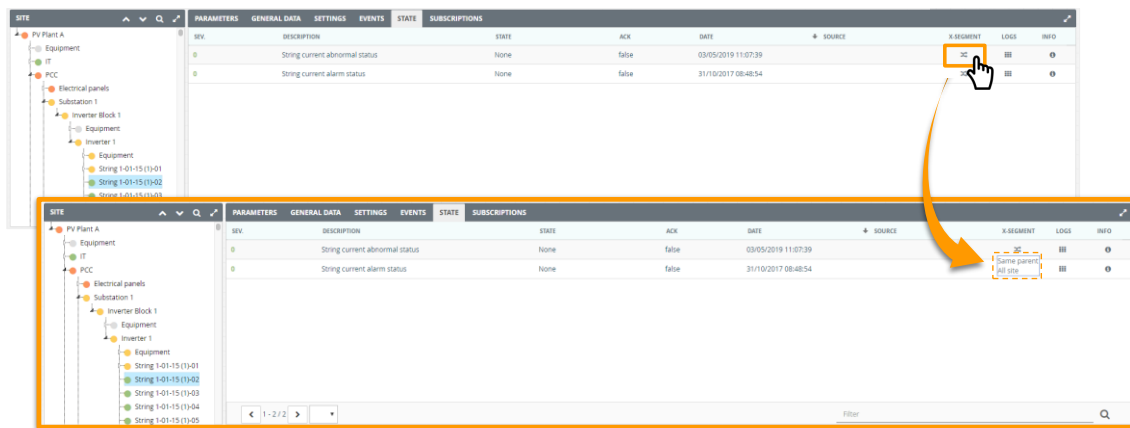


Figure 7 – Cross-Segment States / Selecting the “X-Segment” icon

Clicking on the “Same parent” option enables the “Export” tab / “States” sub-tab (located second, after the “Parameters” sub-tab), where a list is created, containing all siblings of the same parent-node associated with the selected state-variable, as seen in the picture that follows.

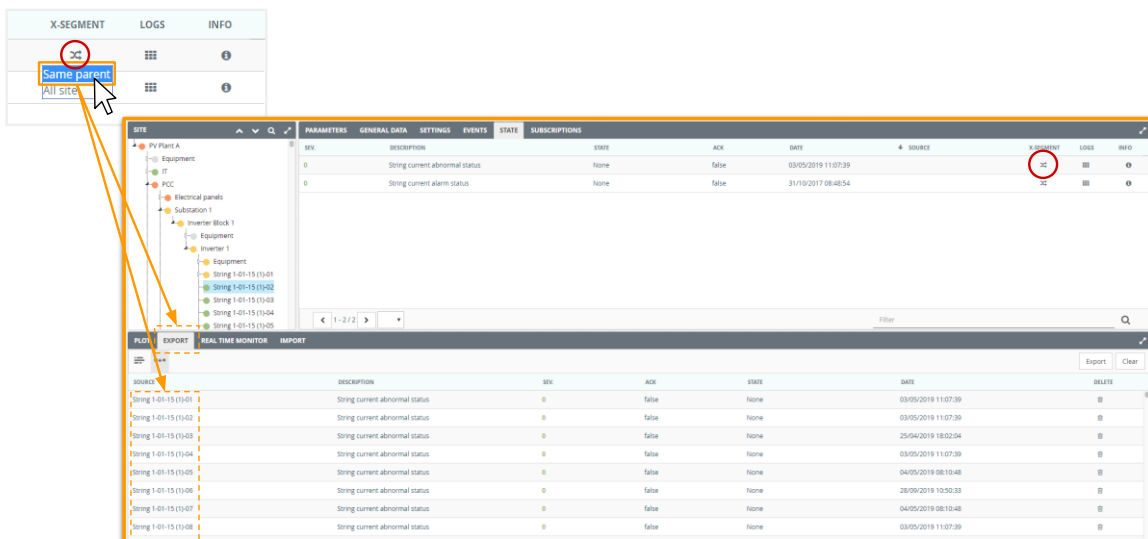


Figure 8 – Cross-Segment States / “Same parent” option

Every single row can be deleted by use of the trashcan icon located on the tab's right-hand side, under "Delete".

By clicking on the "All site" option, the list created in the "Export" tab / "states" sub-tab contains all nodes associated with the selected state-variable across the entire site tree. In the picture below, it can be seen that, after clicking "All site", every "String" node associated with the "string current abnormal status" variable and also on a path initiating from the PCC level, can be found in the "Export" tab's list.

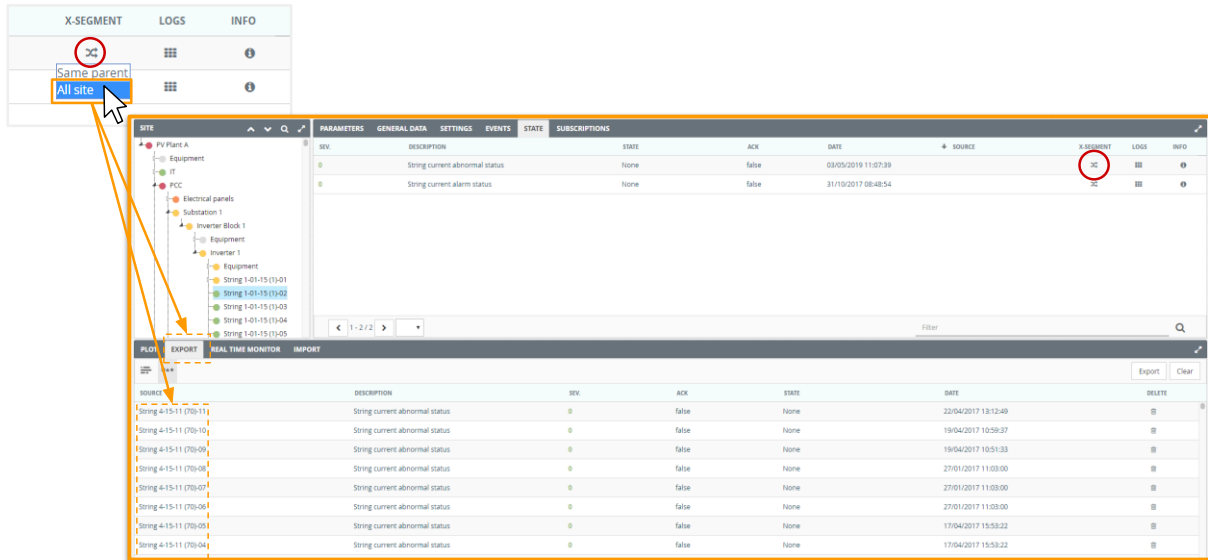


Figure 9 – Cross-Segment States / "All site" option

It is noted that any new selection is added to the initial list, thus a big variety of state export lists to be downloaded by the user can be created.

Every list can be exported by the "Export" button at the top-right corner of the tab, which opens a modal providing all export settings.

A "Clear" button for clearing the entire Export tab's list is located next to the "Export" button, as seen in the following depiction.

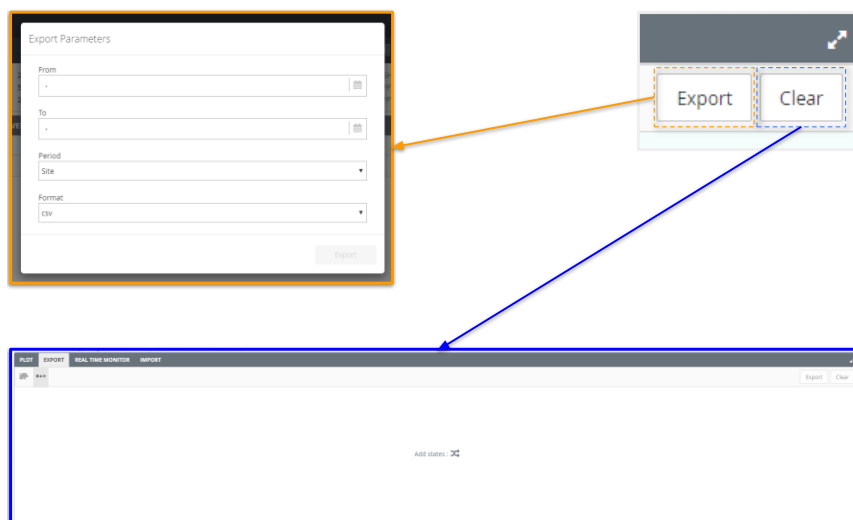


Figure 10 – Cross-Segment States / "Export" tab's buttons

Editing and managing Cross Scratchpads from the Collections page

Once you have added parameters on your Cross Scratchpads (see item *Cross Segment of inverter parameters or string currents* on creating such scratchpads from Browser), you can edit and name them also from the Collections page.

First, select the scratchpad of your interest and then click on the “disk” icon on the right of your screen:

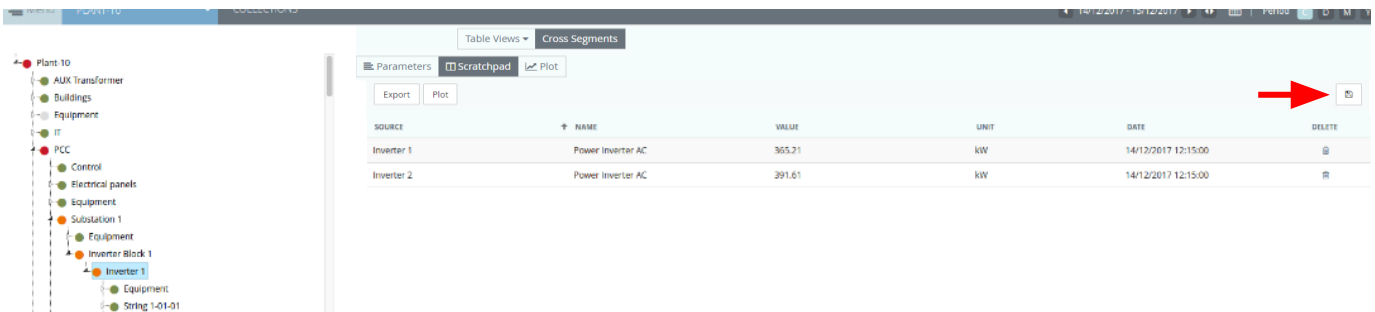


Figure 11 – Naming a Cross Scratchpad from the Collections page / step 1

The “New scratch pad” window will open, where you can type in a name and save your selection by clicking on the “Save” icon:

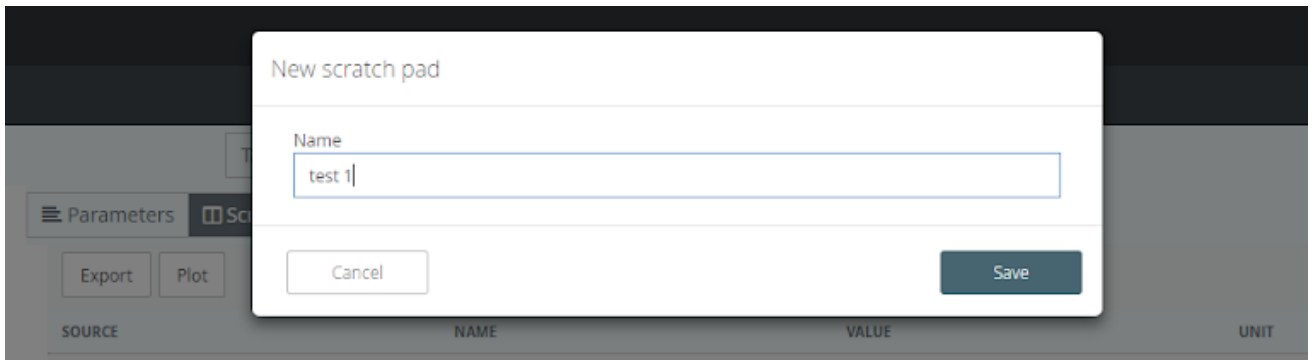


Figure 12 – Naming a Cross Scratchpad from the Collections page / step 2

You can reload/restore your saved selection at any time by clicking on the drop-down list on the right side of the window:



Figure 13 – Reloading a saved Cross Scratchpad from the Collections page



You can edit your saved selection or delete it by clicking on the “Edit saved exports” icon: located next to this drop-down list.

By doing this, a window of your saved exports will open and then you will have the option to either edit or delete your selection:

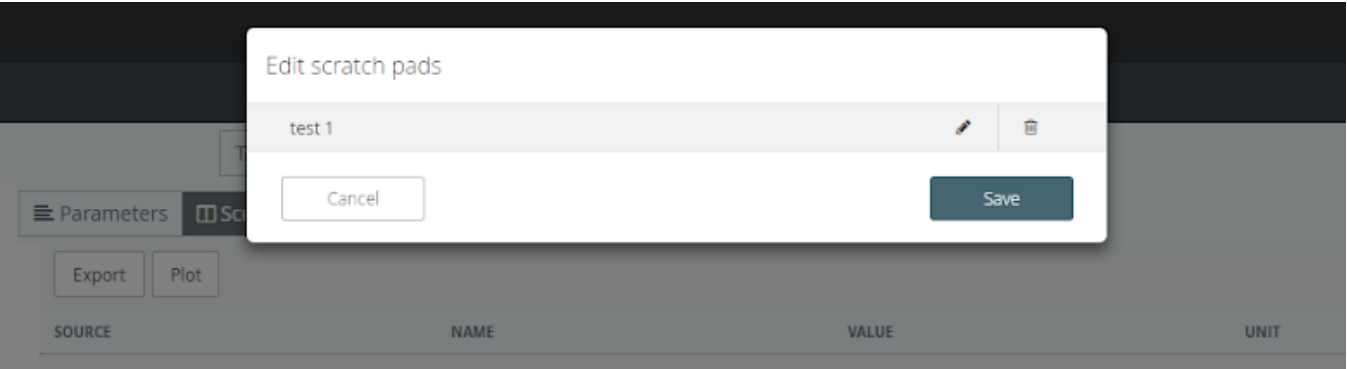


Figure 14 – Editing a saved Cross Scratchpad from the Collections page

Cross Plant Export from multiple sites

Begin by clicking on the “Cross Plant Export” selection of the Portal’s menu:

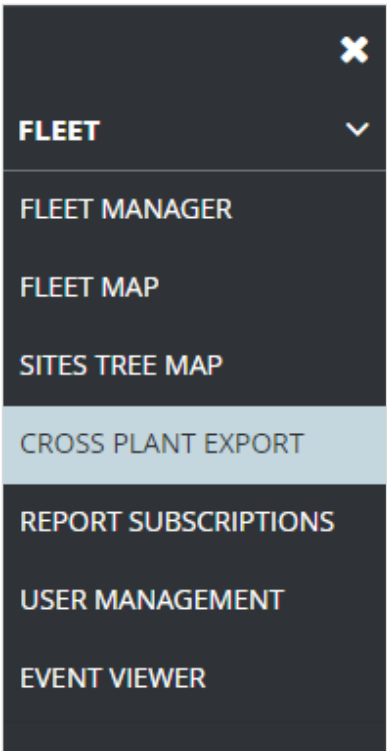


Figure 15 – Selecting the “Cross Plant Export” page from the Portal’s Menu

At the “Cross Plant Export” interface choose the sites and parameters you wish to monitor from the two drop down lists (“Select site” and “Select parameter”) at the center of your screen:

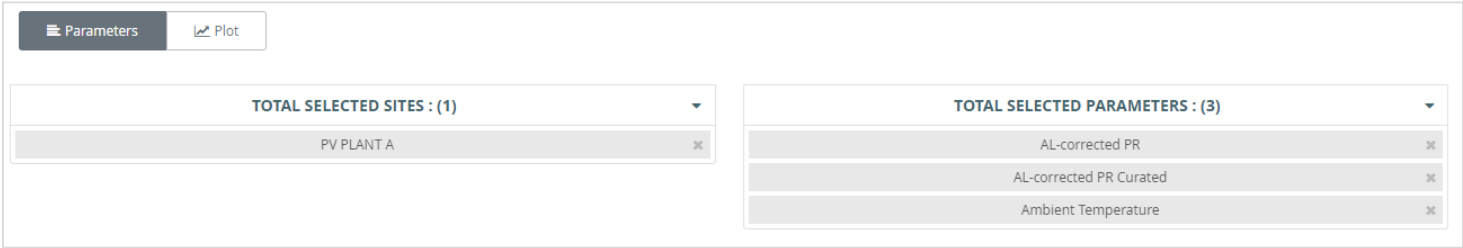


Figure 16 – “Cross Plant Export” page: Configuring the Site and Parameters combination

To Save a Cross Plant Export, click on "Create" on the lefthand side of the screen, type the name of your selection in the "Add new collection name..." window and click on the Save (cloud) icon. Future changes to the collections may be saved by clicking "Save" under the Format selection window on the righthand side of the window.

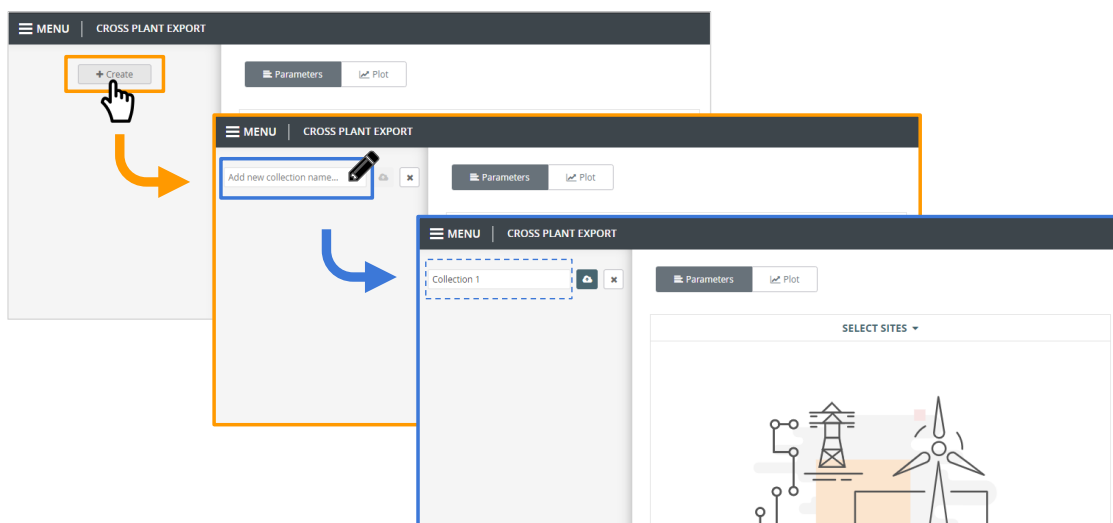


Figure 17 - "Cross Plant Export" page: Saving a "Cross Plant Export"

Afterwards, you have the option to download (Export) or Plot your selection. In order to do so, first select the time period (Start, End date & time), the measurement period (C-site period, D-day, M-month, Y-year) and the format (xlsx, csv) on the righthand of your screen:

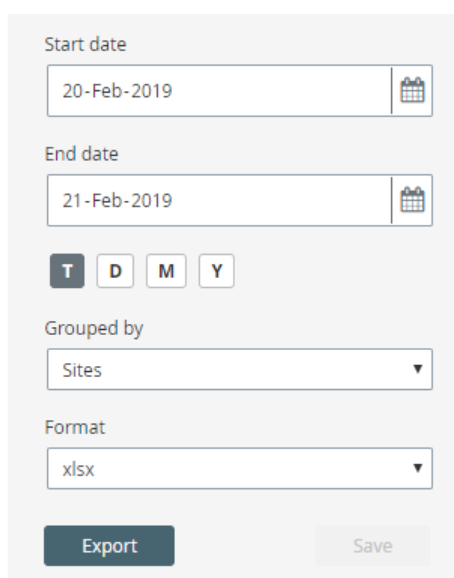


Figure 18 – "Cross Plant Export" page: Configuring the export's / plot's period, style & format

Note that you can group your data either by Sites or by Parameters in the exported file.

By clicking "Export," the export file will be downloaded on your computer.

By clicking "Plot" (above the Total Selected Sites field), the graphs of selected sites and parameters are depicted in a single plot.

Note that the product (Sites total) x (Parameters total) must not be greater than 100, otherwise an error message will pop-up and the requested plot will not be depicted.

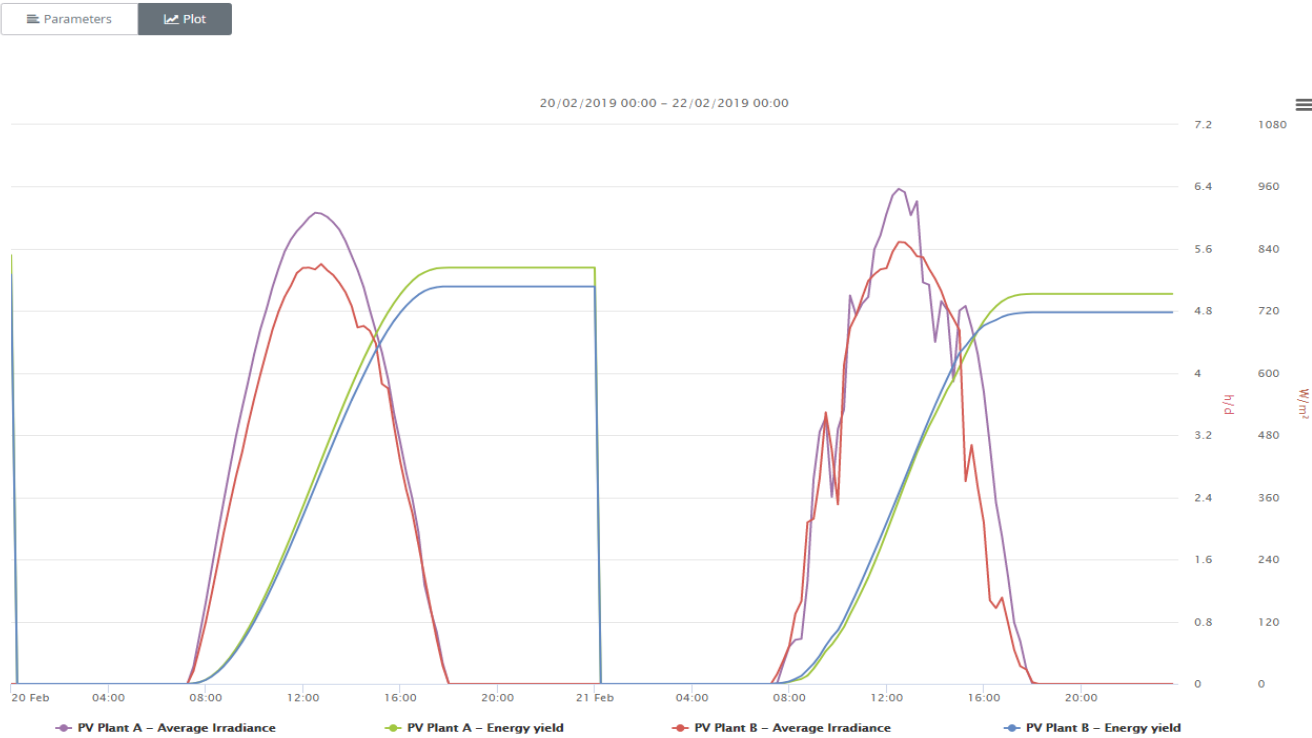
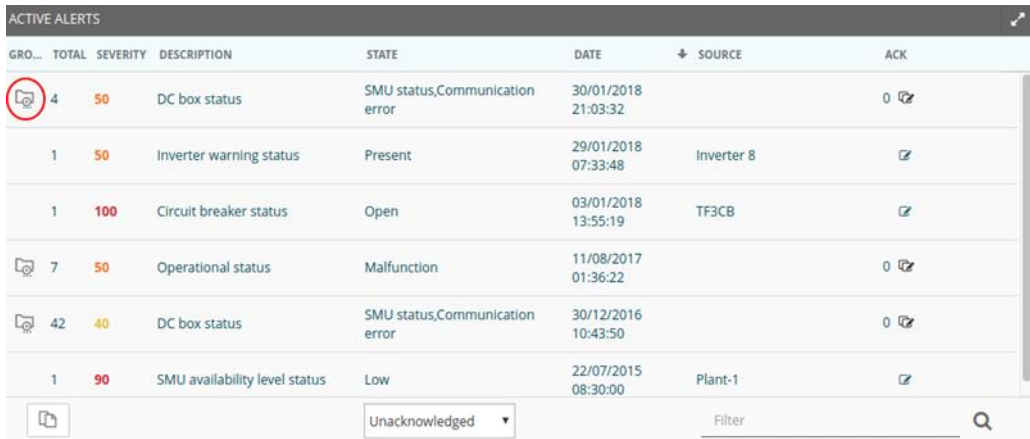


Figure 19 – “Cross Plant Export” page: Plot depiction

View/Export active events of a site

If you want to view the active events (alarms) of a site, there is the "ACTIVE ALERTS" tab in the "Overview" page:

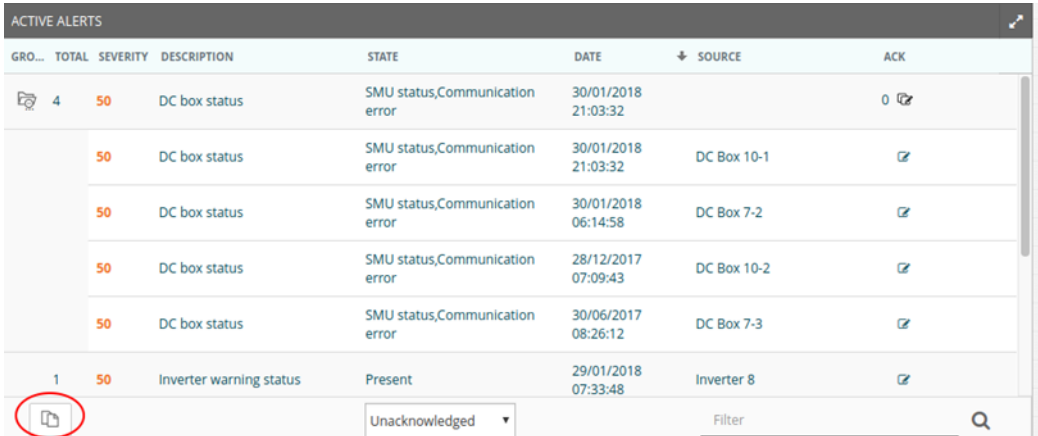


GRO...	TOTAL	SEVERITY	DESCRIPTION	STATE	DATE	SOURCE	ACK
4	50		DC box status	SMU status,Communication error	30/01/2018 21:03:32		0
1	50		Inverter warning status	Present	29/01/2018 07:33:48	Inverter 8	
1	100		Circuit breaker status	Open	03/01/2018 13:55:19	TF3CB	
7	50		Operational status	Malfunction	11/08/2017 01:36:22		0
42	40		DC box status	SMU status,Communication error	30/12/2016 10:43:50		0
1	90		SMU availability level status	Low	22/07/2015 08:30:00	Plant-1	

Figure 20 – "Overview" page: Active Alerts Tab

Events that have the same description are grouped. If you want to ungroup a specific group of events, e.g. DC box status, select the folder icon under Group.

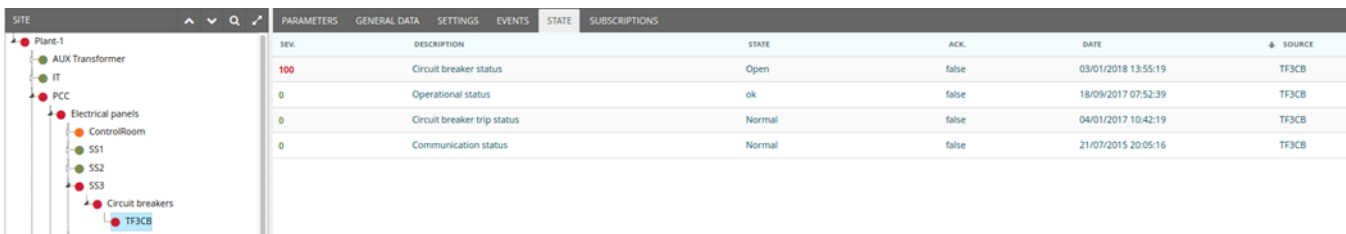
If you want to ungroup all groups in order to see all events on a list, select the icon "List mode," marked below:



GRO...	TOTAL	SEVERITY	DESCRIPTION	STATE	DATE	SOURCE	ACK
4	50		DC box status	SMU status,Communication error	30/01/2018 21:03:32		0
	50		DC box status	SMU status,Communication error	30/01/2018 21:03:32	DC Box 10-1	
	50		DC box status	SMU status,Communication error	30/01/2018 06:14:58	DC Box 7-2	
	50		DC box status	SMU status,Communication error	28/12/2017 07:09:43	DC Box 10-2	
	50		DC box status	SMU status,Communication error	30/06/2017 08:26:12	DC Box 7-3	
1	50		Inverter warning status	Present	29/01/2018 07:33:48	Inverter 8	

Figure 21 – "Overview" page: Ungrouping the active events

By clicking on an event, you are redirected to the Browser page Site-tree, expanded down to the specific node where the effected State is present:

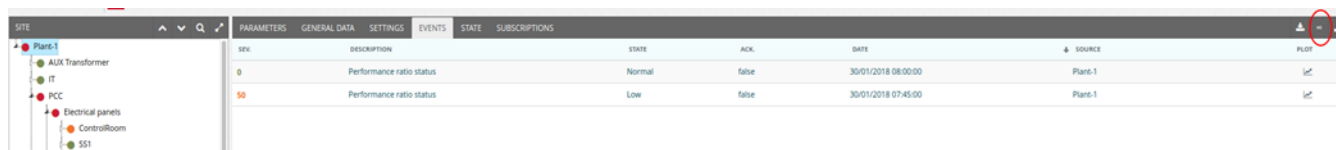


SEV.	DESCRIPTION	STATE	ACK.	DATE	SOURCE
100	Circuit breaker status	Open	false	03/01/2018 13:55:19	TF3CB
0	Operational status	ok	false	18/09/2017 07:52:39	TF3CB
0	Circuit breaker trip status	Normal	false	04/01/2017 10:42:19	TF3CB
0	Communication status	Normal	false	21/07/2015 20:05:16	TF3CB

Figure 22 – The Overview's Active Alerts tab redirected to the Browser's (expanded) Site-tree

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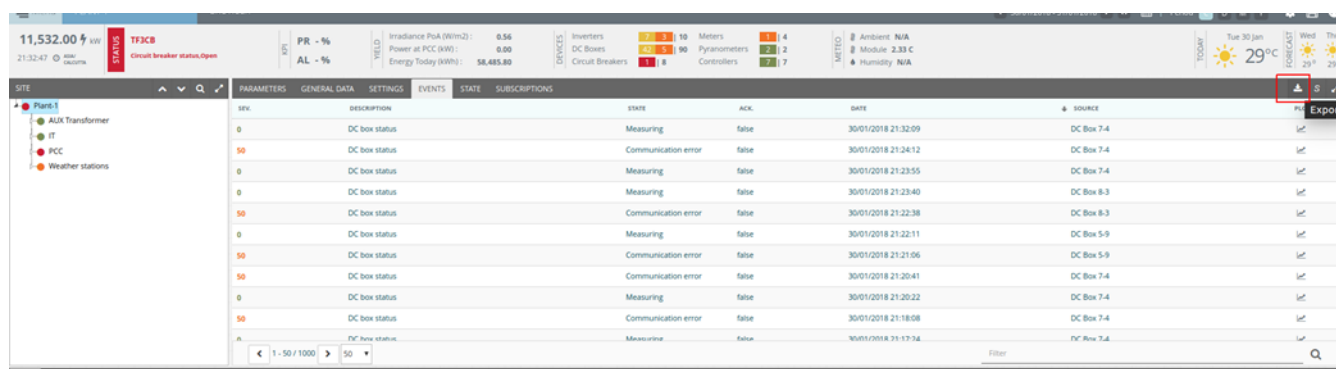
Another location to view all the events of a site is the tab "EVENTS" in the Browser page. By selecting the infinity icon on the right, marked in the image below, you can view all the events of this site:



seq.	description	state	ack.	date	source	plot
0	Performance ratio status	Normal	false	30/01/2018 08:00:00	Plant-1	
50	Performance ratio status	Low	false	30/01/2018 07:45:00	Plant-1	

Figure 23 – Viewing all the events of a Site

You can export the events by use of the "Export" icon (red frame below):



seq.	description	state	ack.	date	source	plot
0	DC box status	Measuring	false	30/01/2018 21:32:09	DC Box 7-4	
50	DC box status	Communication error	false	30/01/2018 21:24:12	DC Box 7-4	
0	DC box status	Measuring	false	30/01/2018 21:23:55	DC Box 7-4	
0	DC box status	Measuring	false	30/01/2018 21:23:40	DC Box 8-3	
50	DC box status	Communication error	false	30/01/2018 21:22:38	DC Box 8-3	
0	DC box status	Measuring	false	30/01/2018 21:22:11	DC Box 5-9	
50	DC box status	Communication error	false	30/01/2018 21:21:06	DC Box 5-9	
50	DC box status	Communication error	false	30/01/2018 21:20:41	DC Box 7-4	
0	DC box status	Measuring	false	30/01/2018 21:20:22	DC Box 7-4	
50	DC box status	Communication error	false	30/01/2018 21:18:08	DC Box 7-4	
50	DC box status	Communication error	false	30/01/2018 21:17:54	DC Box 7-4	

Figure 24 – Exporting all the events of a Site

Active Events from all sites (Event Viewer)

If a user desires to view the active events (alarms) of all their portfolio sites, they select Menu-Event Viewer:

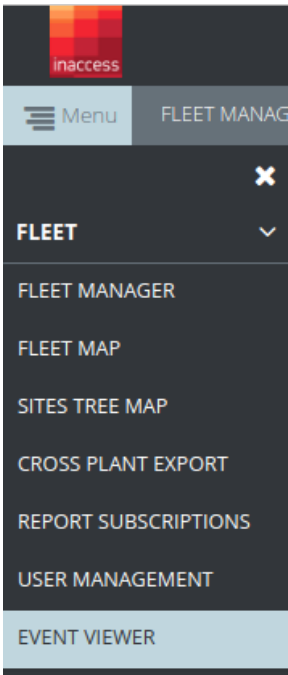


Figure 25 – selecting the “Event Viewer” page from the Platform’s Menu

They can also filter (“Filter line” within the orange frame in the following image) and sort the events by the fields: Site, Severity, Description, State, Date and Source (“Sort line” within the red frame in the following image)

Site	Severity	Description	State	Date	Source	SortLine	ACK
PLANT	Severity	Description	State	Date	Source		All
PLANT-6	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 11:09:36	MAIN CONTROLLER		Q
PLANT-254	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 09:07:43	MAIN CONTROLLER		Q
PLANT-355	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 14:35:21	MAIN S/S1		Q
PLANT-49	100	ALARM STATUS	ON	31/01/2018 11:05:04	GENERAL ALARM		Q
PLANT-265	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 08:47:21	CLIENT		Q
PLANT-153	100	AVAILABILITY LEVEL STATUS	LOW	31/01/2018 10:30:00	PLANT-153		Q
PLANT-178	100	TRIP RELAY STATUS (G59)	RELAY TRIPPED	31/01/2018 08:25:03	PCC		Q
PLANT-178	100	CIRCUIT BREAKER STATUS	OPEN	31/01/2018 08:24:55	G59 SWITCH		Q
PLANT-63	100	AVAILABILITY LEVEL STATUS	LOW	31/01/2018 10:15:00	PLANT-63		Q
PLANT-284	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 08:05:03	S/S2		Q
PLANT-284	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 08:02:53	CLIENT		Q
PLANT-284	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 08:00:20	PPC		Q
PLANT-138	100	CONTROLLER STATUS	UNAVAILABLE	31/01/2018 09:43:02	MAIN CONTROLLER		Q

Figure 26 – “Event Viewer” page: Sort and Filter lines

The magnification of the page’s bottom-left section, shown below, illustrates how a change to the number of events depicted within each page can take place. Some users may find it more convenient to select "All" and have all the events in one page.

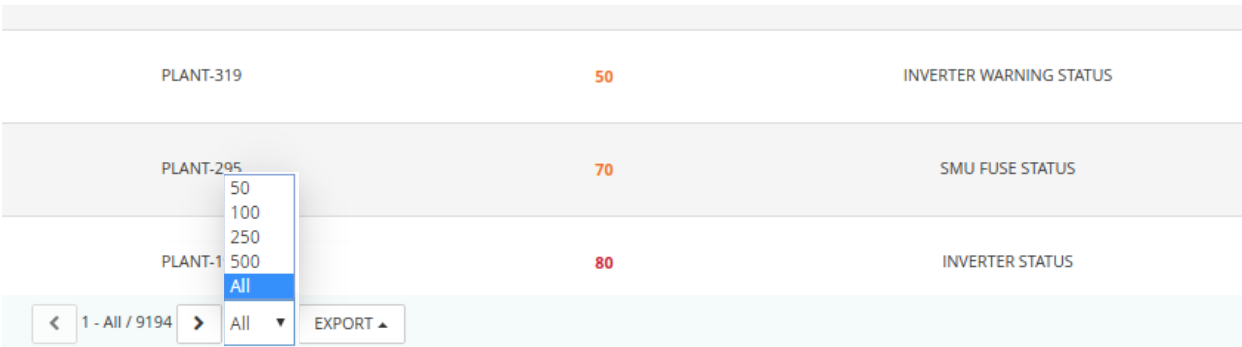


Figure 27 – “Event Viewer” page: Selecting to view all the events in a single page

If a user would like to export the events being displayed, they can click on the "Export icon," as depicted below, and select the desired export format:

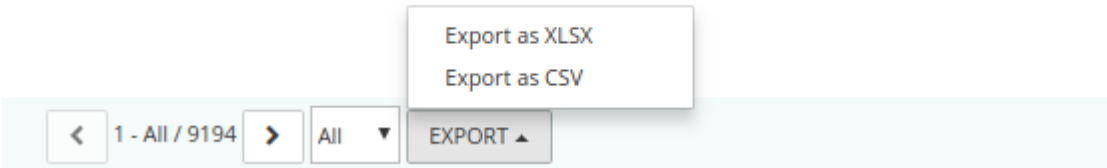


Figure 28 - “Event Viewer” page: Selecting to export the events on display

How to create Report Subscriptions

A user can create a standard or a customized report for one or more sites, by use of the "REPORT SUBSCRIPTIONS" page functionalities.

The report subscription will be sent to the email address declared in the user's account. For this reason, before the user proceeds with creating a subscription, they must first ensure that they have setup the correct email address, by opening the "User Preferences" window and following the steps below:

The first step is to launch the User Preferences Window, by selecting the Preferences option from the drop-down list that opens when their username is clicked. The username is always displayed on the right side of the page's top-stripe:

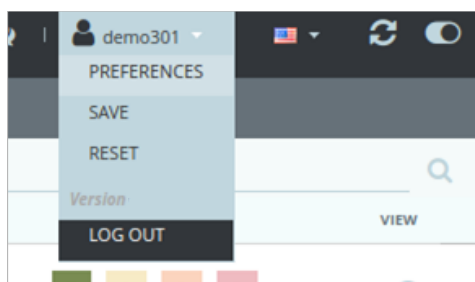


Figure 29 - Opening the User Preferences window

The second step is to fill in the correct email address within the dedicated type-frame of the User Information area, and then to click the "Save" button:

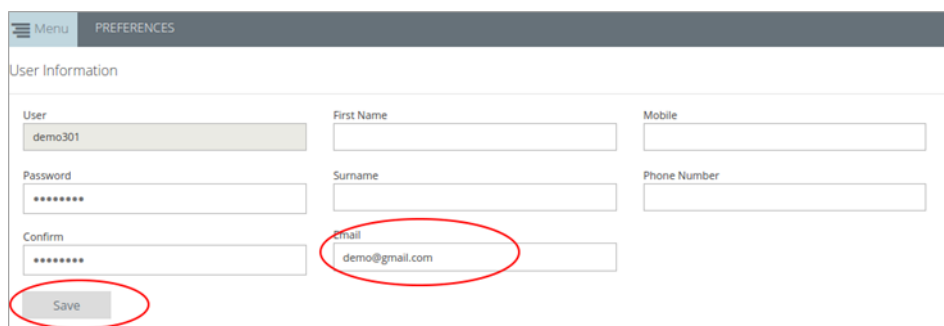


Figure 30 – Inserting an email address

Returning to the landing page, they select the "REPORT SUBSCRIPTIONS" option from the Platform's drop-down Menu:

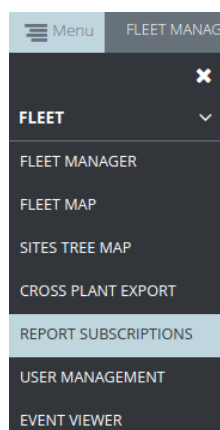
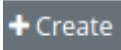


Figure 31 – Selecting the “Report Subscription” page

Upon opening the “Report Subscriptions” page, the users click the  button to create a new Report Subscription.

The fields that appear in the opening “New Report Subscription” window, are the following:

Name:

the desired name of the report

Report Type:

CSV Export Measurements, for customized parameters export of one site

CSV Export States, for exporting States of one site

CSV Export across Sites, for customized parameters export of two or more sites

Financial/Production/Summary Report, for standard reports with a predefined file format

Plant name:

The name of the PV Plant(s) desired

Mode:

OnDemand, if the user desires to receive the report once

Scheduled, if the user desires to receive the report on a recurring basis

Report interval:

Daily, Monthly, Yearly

Customization Resource:

For the “CSV Export Measurement” / “CSV Export States” types of reports, the user is able to distinguish between several resource categories for the parameters to be exported, covering the “Site,” “PCC,” “TCP,” “Array Group” and “Array” segment penetration levels.

Additionally, for the “CSV Export Across Sites” type, the users can themselves specify the “Customization Resource.” There is the choice of a standard monthly report as well as an in-detail report, covering every plant-level parameter.

Report Layouts (only available for the “CSV Export across Sites” Report Type):

By Measurement (in the xlsx file, the parameters are sorted in rows, while the sites are sorted in columns)

By timestamp (in the xlsx file, the timestamps for each site are sorted in rows and the parameters in columns)

Report format:
 Choices include csv, xlsx, pdf, html, odt. The last three types are available only for the "Financial," "Production" and "Summary" report types.

Below, two examples are given:

1. Customized Report Across Sites:

Suppose that a daily scheduled report is desired, containing the Power and Irradiance Parameters of the sites: Plant-122 and Plant-261.
 First, the user saves a Cross Plant Export with the above Parameters (Article: "Save Cross Plant Export").

Then, in the "New Report Subscription window," the user makes the following choices:

New Report subscription

Name

Across Sites Report

Report Type

CSV Export across Sites

Plant name

Plant-122, Plant-261

Mode

Scheduled

Report Interval

Daily

Date

-

1

Time Span

Include all reporting periods

Customization Resource

test

Report Layouts

Cross Plant by Measurement

Report Format

XLSX

Cancel

Save

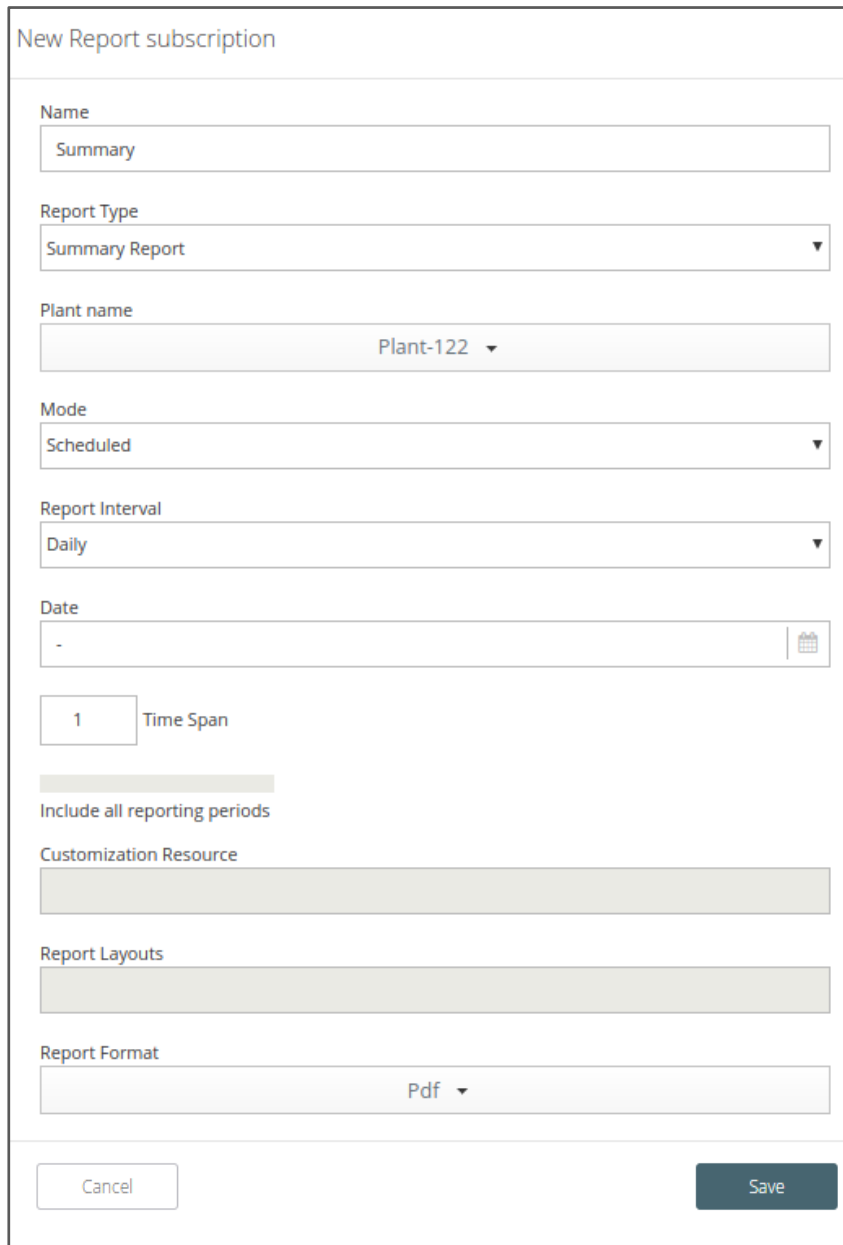
Figure 32 – Report Subscription example 1

At the end, they select the "Save" button.

2. Standard Report (Summary):

Suppose that a Summary report for the Site "Plant-122" is desired.

In the "New Report Subscription window," the following choices are to be made:



The screenshot shows a 'New Report subscription' window with the following fields and options:

- Name:** Text input field containing 'Summary'.
- Report Type:** Dropdown menu with 'Summary Report' selected.
- Plant name:** Dropdown menu with 'Plant-122' selected.
- Mode:** Dropdown menu with 'Scheduled' selected.
- Report Interval:** Dropdown menu with 'Daily' selected.
- Date:** Date picker field showing '-'. A calendar icon is visible on the right.
- Time Span:** A section containing a text input field with '1' and the label 'Time Span'.
- Include all reporting periods:** A checkbox that is currently unchecked.
- Customization Resource:** A text input field.
- Report Layouts:** A text input field.
- Report Format:** Dropdown menu with 'Pdf' selected.
- Buttons:** 'Cancel' and 'Save' buttons at the bottom right.

Figure 33 – Report Subscription example 2

Like before, at the end the user selects the "Save" button.

Save Cross Plant Export

A user may find it useful to save a Cross Plant Export in order to access it quickly in the future. Below is an example of how a Cross Plant Export that contains Power and Irradiance for the sites Plant-122 and Plant-261 can be created and saved.

In the Cross Plant Export window, the "+Create" is first selected:

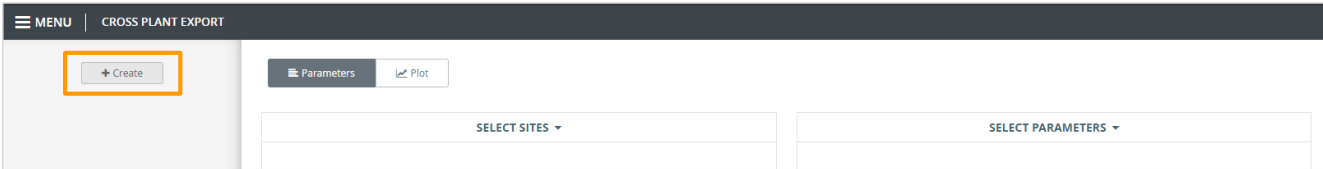


Figure 34 – "Cross Plant Export" page: "+Create" button

Then, the Sites and Parameters needed are selected:

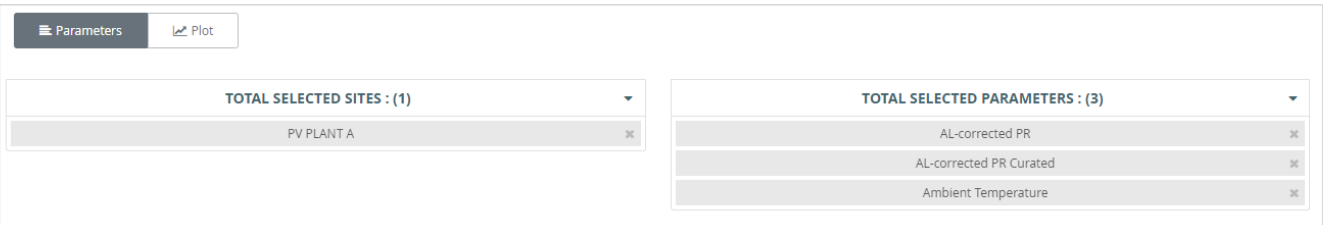


Figure 35 – "Cross Plant Export" page: Selecting Sites and Parameters

The next step is to provide a name ("Collection 1" for this example,) as depicted in the figure below:

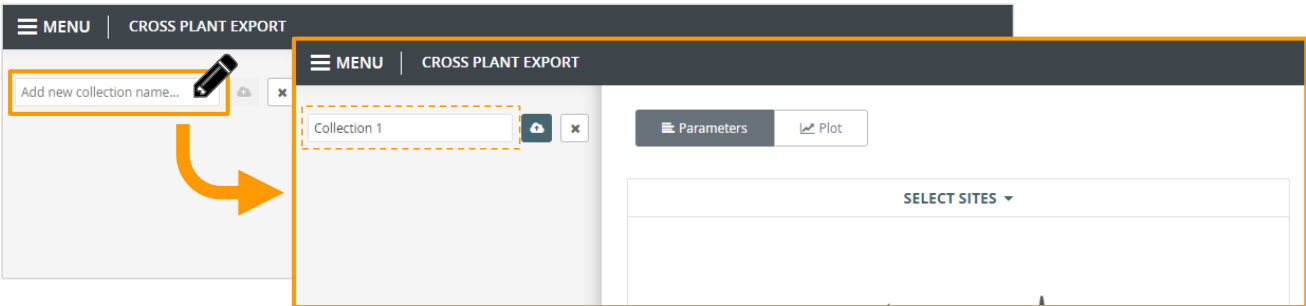


Figure 36 – "Cross Plant Export" page: naming the Export

Finally, selecting the cloud button, finishes the procedure:

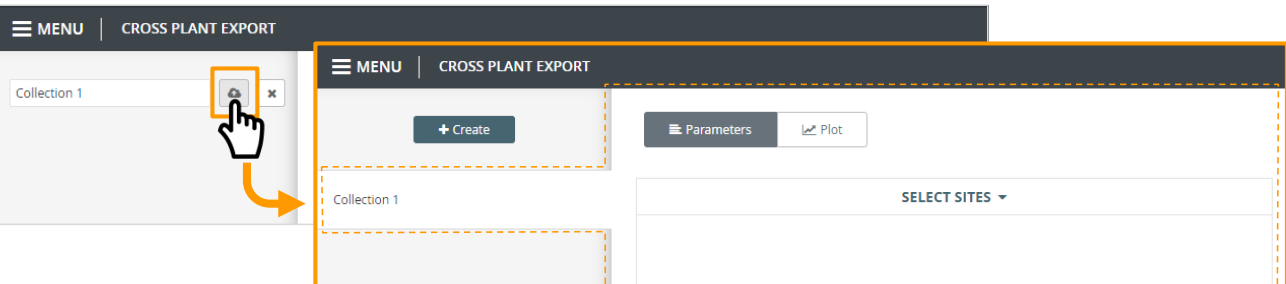


Figure 37 – "Cross Plant Export" page: Saving the Export

Real Time Monitor

The Real Time Monitor allows for viewing and exporting real time data for selected parameters that are supported by the functionality.

First, the user clicks on the "Monitor" icon from the "Parameters" tab / Monitor column on the "Browser" page:

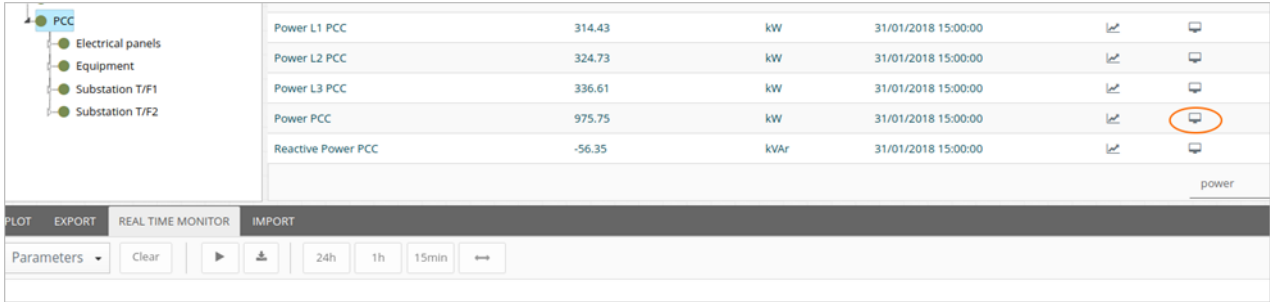


Figure 38 – Real Time Monitor: Selecting the Real Time Monitor icon from the Browser page

The second step is to click the "Start Monitor" button in the Real Time Monitor window. This causes the real time data graph to display. A time window frame of 24h, 1h and 15min can be subsequently selected:

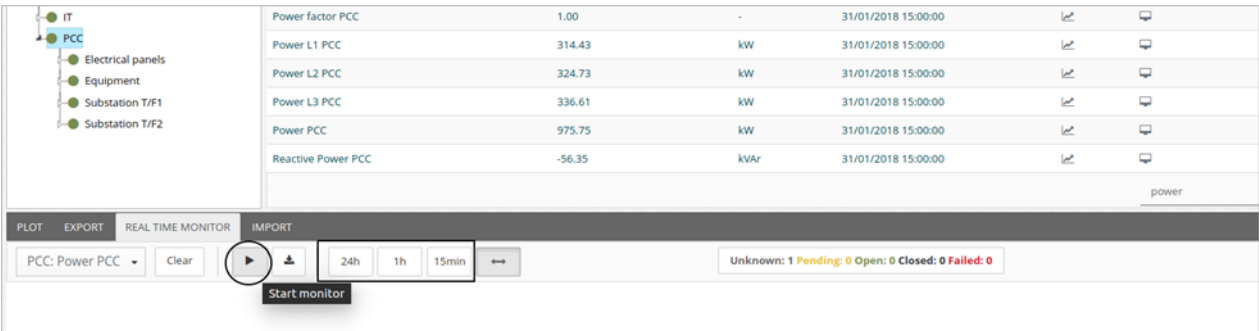


Figure 39 – Real Time Monitor: Setting the plot running / selecting the time-window

The time window frame can also be customized, using the button "set custom time window" shown below:

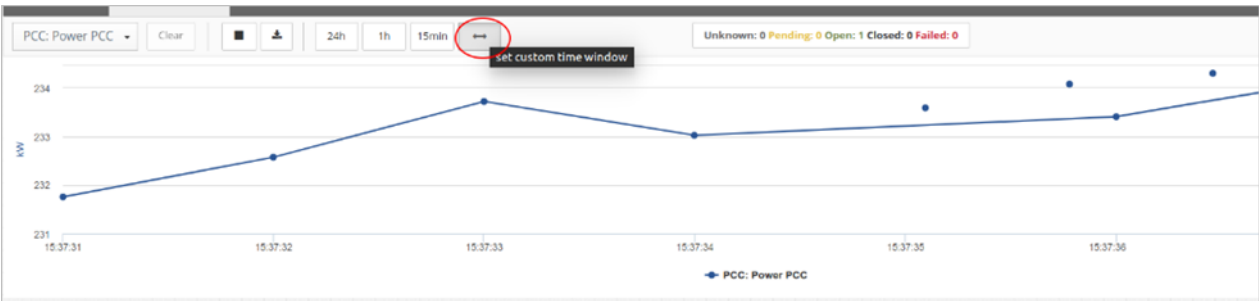


Figure 40 – Real Time Monitor: "set custom time window" functionality button

Once the button is clicked, the user selects the desired Hours and Minutes and then clicks "Change:"

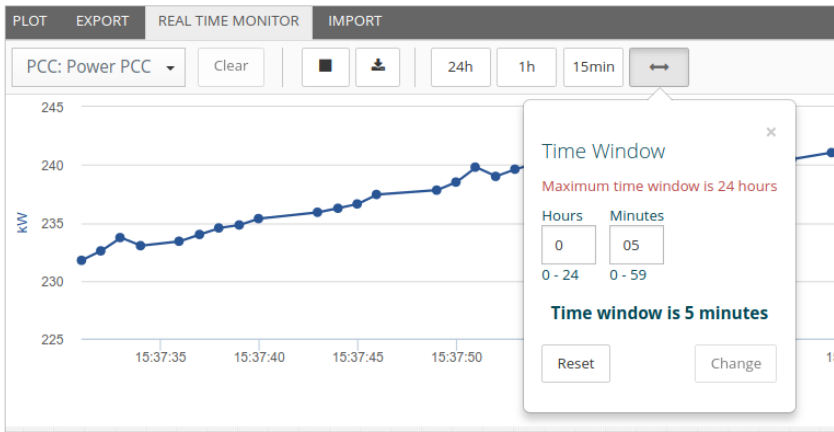


Figure 41 – Real Time Monitor: Customizing the time window

After "Start Monitor" is selected, the State of the Real Time Monitor changes from Unknown:1 to Pending:1. As soon as the window is active, the status changes to Open:1. If the real time data feed cannot be established, then the status will change to Failed:1.

In order to stop the real time data feed, "Stop monitor" must be selected. The status changes to Closed:1.

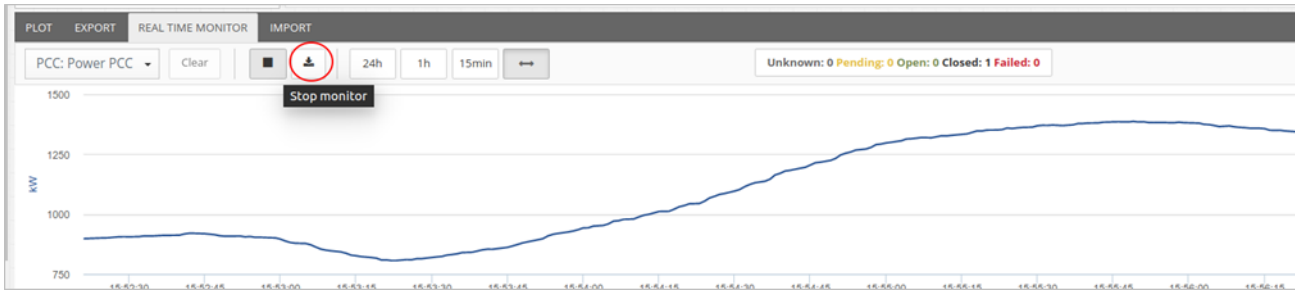


Figure 42 – Real Time Monitor: Customizing the time window

Finally, if the user desires to export this real time data, they click the "Export" button, marked with the red circle in the above depiction.

E-MAIL/SMS Subscription Creation

The UNITY portal supports an email or SMS notification delivery service for alerts. The email/SMS is sent 10 minutes after the alert activation.

The first step is to launch the User Preferences window, by selecting the Preferences option from the drop-down list that opens when the username is clicked. The latter is always displayed on the right side of the Unity top-stripe.

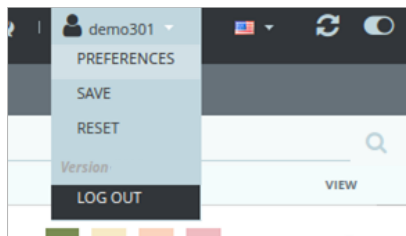


Figure 43 - Opening the User Preferences window

The second step is to fill the correct email address and mobile phone number within the dedicated type-frames of the User Information area, and then to click the “Save” button:

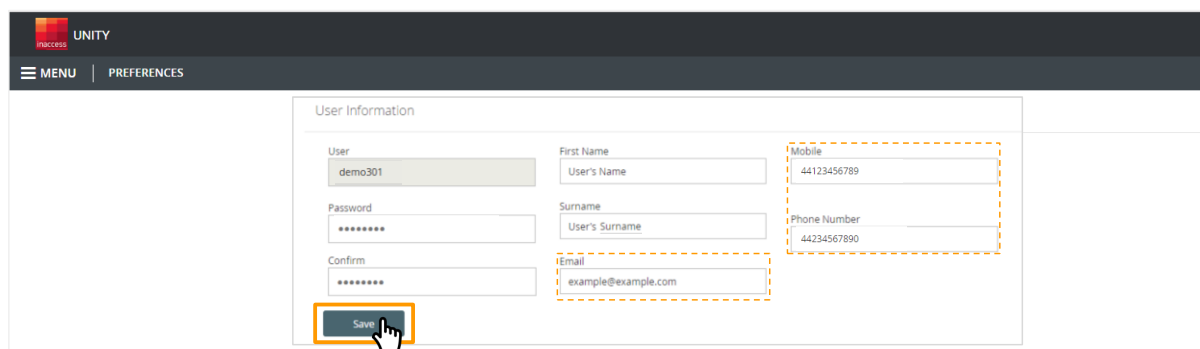


Figure 44 – Inserting an email address – phone/mobile phone number

The mobile phone number should be entered with no spaces or dashes. For example, for UK users with a country code of +44, enter 44xxxxxxx; for US users, enter 1xxxxxxxxxx.

In order to create a new Subscription, the steps below must be followed:

1. Select Menu-Browser / Select the desired node for creating a subscription (e.g. Site Name) / Select SUBSCRIPTIONS tab on the right side:

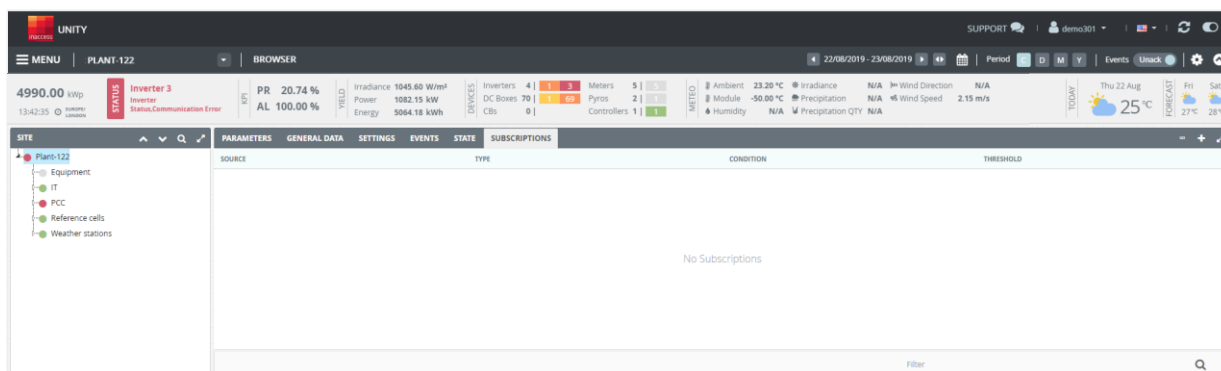


Figure 45 – “Subscriptions” tab in the “Browser” page

2. Click the "Add" button on the right side. Upon selection, the following options appear:

SOURCE (for which node the subscription is to be created)

TYPE (EMAIL or SMS)

CONDITION (ABOVE or BELOW)

THRESHOLD (from 10 to 100 based on the severity of the alarm)



3. If, for example, email notifications for site-level alerts with severity above or equal to 80 are desired, the settings below are required:

PARAMETERS	GENERAL DATA	SETTINGS	EVENTS	STATE	SUBSCRIPTIONS
SOURCE	TYPE	CONDITION	THRESHOLD		
Plant-122	EMAIL ▼	ABOVE ▼	80 ▼		✓ ✕

Figure 46 – email subscription example

4. In order to finally enable the subscription, the user clicks the "tick"  button.

The "BELOW" condition has a meaning if the user needs to know when an alert is no longer active. In this case, the combination BELOW 10 should be selected (since, when an alert is not active, its severity is equal to 0).

To delete a subscription, the user selects the recycle bin button  and then the "tick"  button.

Note that Subscriptions cannot be created for nodes where no States are present.

Plotting parameters and events in the same chart

Parameters and events can be plotted together in a single chart.

For example, the "Exported Power Site" parameter can be plotted:

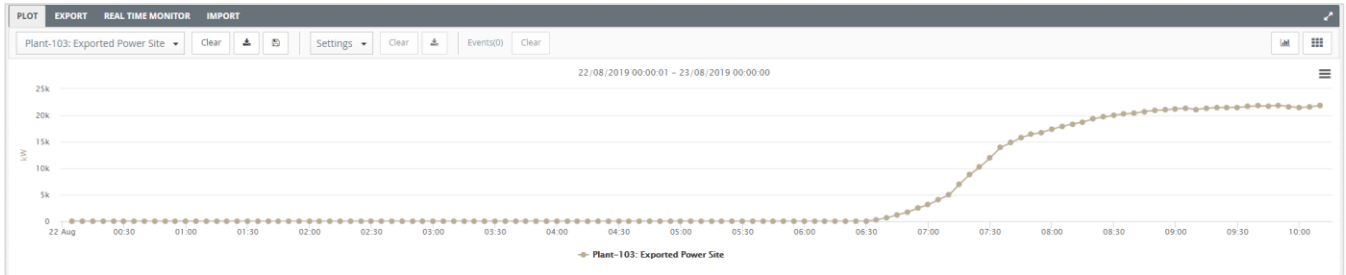


Figure 47 – Parameters plot example

If an "Availability Low" event is to be plotted as well, then the "Events" tab should also be selected.

Following that, the plot icon for the event in question is selected, as shown below:





SITE	PARAMETERS	GENERAL DATA	SETTINGS	EVENTS	STATE	SUBSCRIPTIONS	
Plant-103	SEV	DESCRIPTION	STATE	ACK	DATE	SOURCE	PLOT
• AUX Transformer	0	Availability level status	Normal	false	22/08/2019 07:20:00	Plant-103	
• Equipment	100	Availability level status	Low	false	22/08/2019 07:05:00	Plant-103	
• IT	0	Availability level status	Normal	false	22/08/2019 06:55:00	Plant-103	
• PCC	100	Availability level status	Low	false	22/08/2019 06:45:00	Plant-103	
• Reference cells							
• Weather stations							

Figure 48 – Selecting the icon to plot an event

The event is subsequently depicted as a vertical line, at its exact time of occurrence:

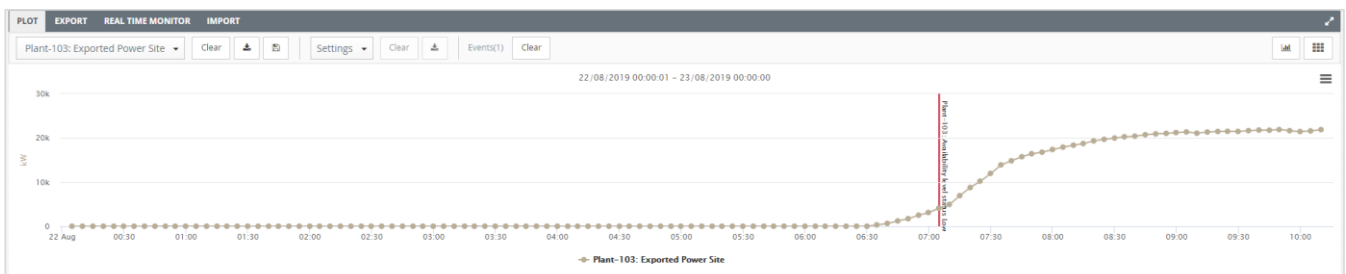


Figure 49 – Example of event depiction

If the event depictions need to be cleared from the plot, the user clicks the "Clear" button, marked with the orange frame below:

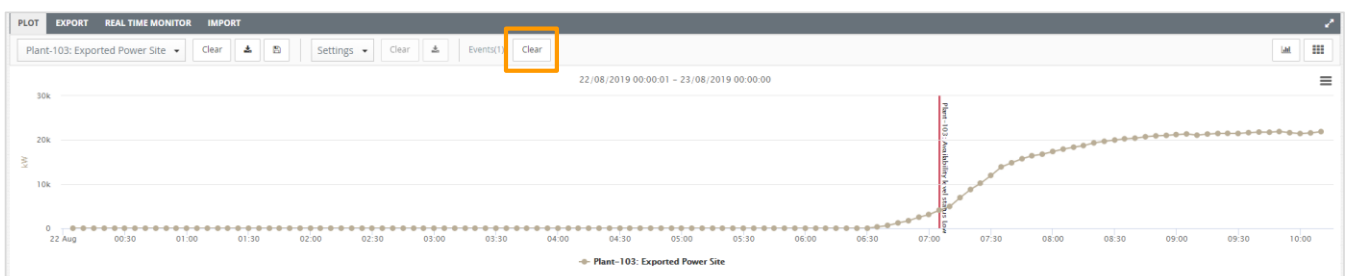


Figure 50 – Clearing an event depiction

View logs or export data from a chart

In order to see the logs of a parameter when the latter is plotted, the users should click on the “Show Log” button, found on the top-right of the Plot tab:

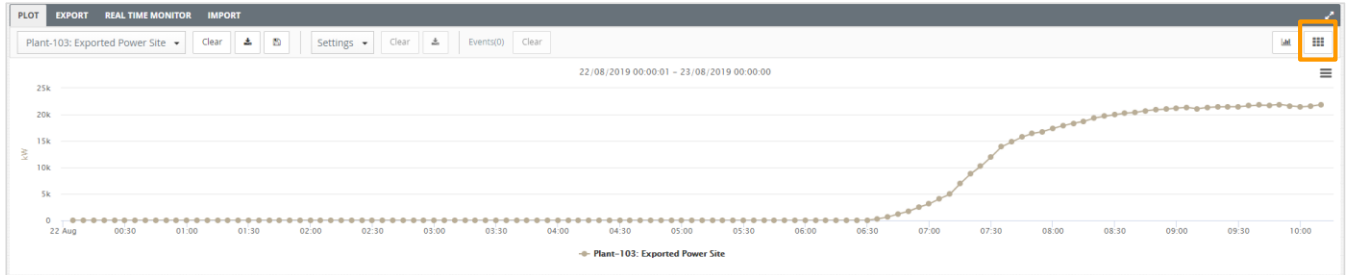


Figure 51 – “Show Log” button

When users desire to export the data of the plotted parameter, they click on the “Export” button, which is found to the left of the “Save” button, on the top of the Plot tab:

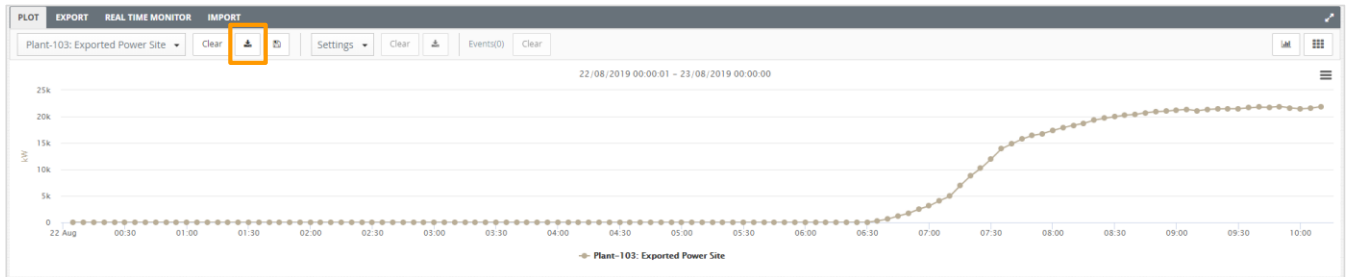


Figure 52 – “Export” button

Table View creation/delete

Table Views is useful if a quick view of the last or minimum or maximum value of parameter groups is wanted, like the string current, the DC Box output current, the pyranometers' irradiation, etc.

1. First the user selects: MENU - COLLECTIONS page.
2. Then, Table Views-Config:

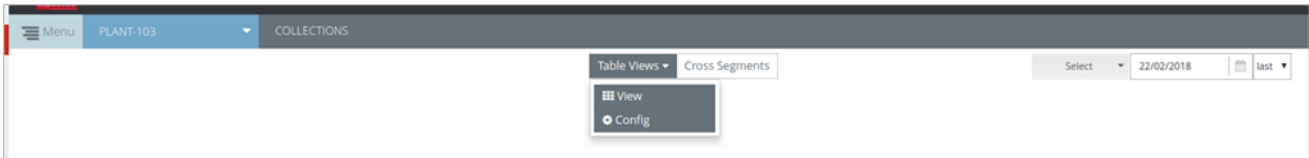


Figure 53 – "Collections" page / Table Views: Selecting the configuration ("Config") mode

3. The third step is to add the parameters the user desires. Users must choose the node of the desired parameter and then click on the (+) button next to the parameter to add it.
If, for example, all the string currents of the site are to be added, the users only need to select the first string-current:



Figure 54 – "Collections" page / Table Views / "Config" mode: Selecting a parameter

4. Then, a name for the pattern just configured must be set (within the type field marked below) and saved by the "Save" button:

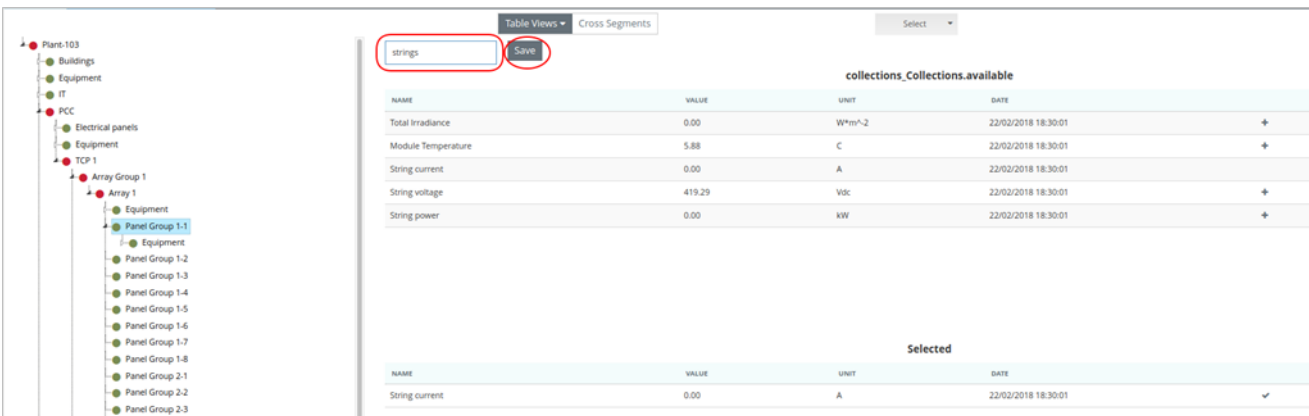


Figure 55 – "Collections" page / Table Views / "Config" mode: Saving the pattern

- Once the Table View is saved, the users can view it by selecting Table Views-View. Then, from the drop-down list, the desired Table Views can be selected:

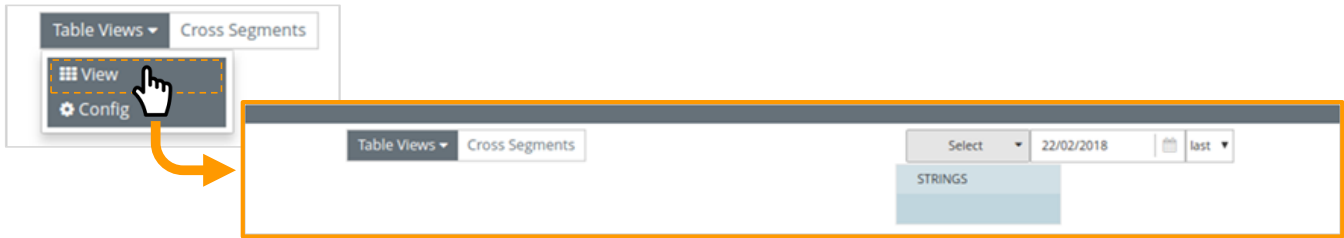


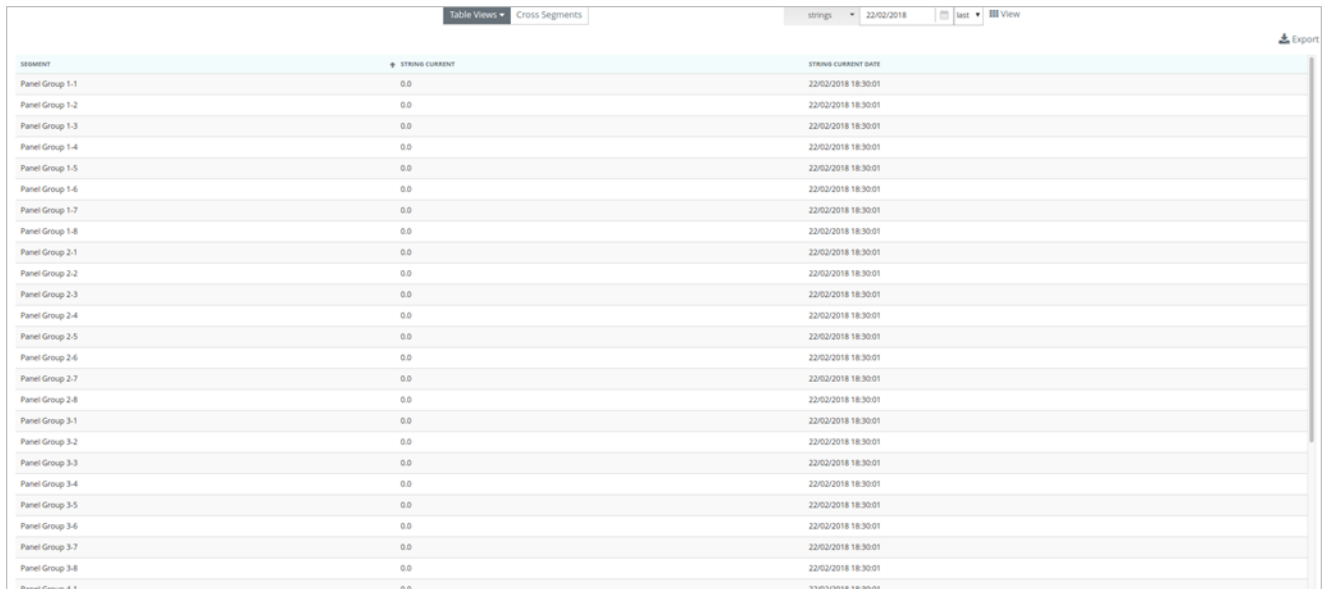
Figure 56 – “Collections” page / Table Views / “View” mode: Viewing a saved the pattern

- Next the user should select the date to be viewed and then the choice of last/min/max values of the saved parameter(s). Click the “View” button to see the table:



Figure 57 – “Collections” page / Table Views / “View” mode: Selecting the data to be viewed

- For example, if the “last” option is the one selected, the result shown below depicts the last 15min average value of each of the string currents:



Segment	String Current	String Current Date
Panel Group 1-1	0.0	22/02/2018 18:30:01
Panel Group 1-2	0.0	22/02/2018 18:30:01
Panel Group 1-3	0.0	22/02/2018 18:30:01
Panel Group 1-4	0.0	22/02/2018 18:30:01
Panel Group 1-5	0.0	22/02/2018 18:30:01
Panel Group 1-6	0.0	22/02/2018 18:30:01
Panel Group 1-7	0.0	22/02/2018 18:30:01
Panel Group 1-8	0.0	22/02/2018 18:30:01
Panel Group 2-1	0.0	22/02/2018 18:30:01
Panel Group 2-2	0.0	22/02/2018 18:30:01
Panel Group 2-3	0.0	22/02/2018 18:30:01
Panel Group 2-4	0.0	22/02/2018 18:30:01
Panel Group 2-5	0.0	22/02/2018 18:30:01
Panel Group 2-6	0.0	22/02/2018 18:30:01
Panel Group 2-7	0.0	22/02/2018 18:30:01
Panel Group 2-8	0.0	22/02/2018 18:30:01
Panel Group 3-1	0.0	22/02/2018 18:30:01
Panel Group 3-2	0.0	22/02/2018 18:30:01
Panel Group 3-3	0.0	22/02/2018 18:30:01
Panel Group 3-4	0.0	22/02/2018 18:30:01
Panel Group 3-5	0.0	22/02/2018 18:30:01
Panel Group 3-6	0.0	22/02/2018 18:30:01
Panel Group 3-7	0.0	22/02/2018 18:30:01
Panel Group 3-8	0.0	22/02/2018 18:30:01
Panel Group 4-1	0.0	22/02/2018 18:30:01

Figure 58 – “Collections” page / Table Views / “View” mode: Table View depiction

Editing a saved Table Views can be done from the Table Views - “Config” screen:

First, the desired Table Views must be chosen in the “Select” dropdown, and then the “Edit” icon must be clicked, shown below on the top-right:

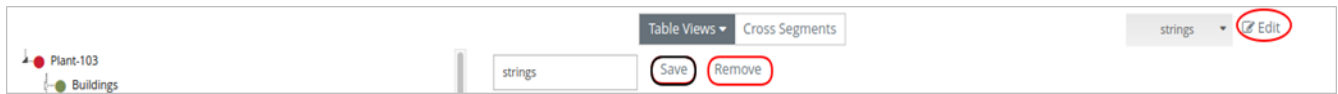


Figure 59 – “Collections” page / Table Views / “View” mode: Editing a Table-Views pattern

When the “Edit” icon has been selected, the users are given two options, both depicted in the middle of the previous image:

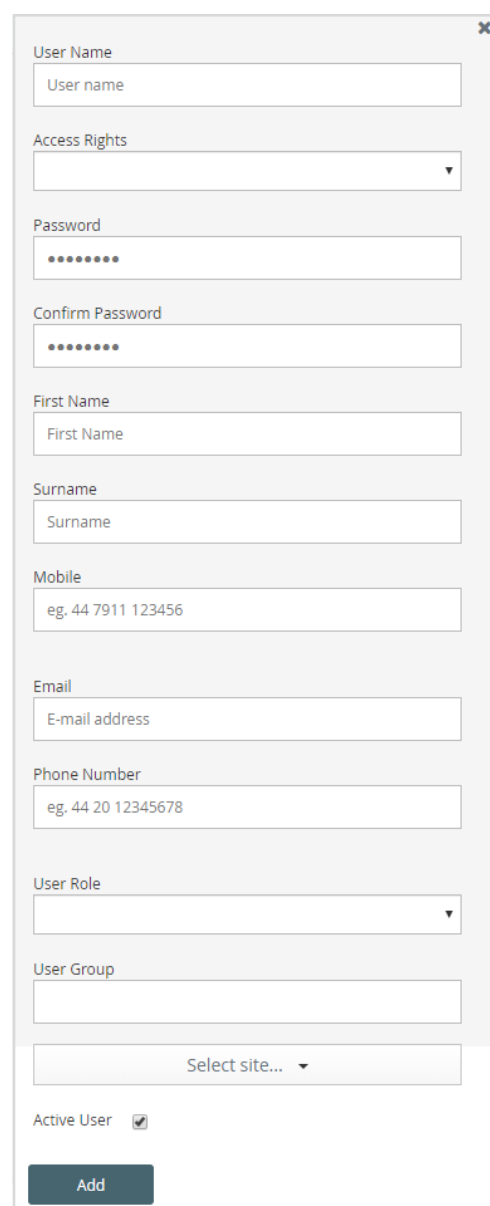
- “Remove” for deleting the Table Views or
- “Save” if a new parameter is to be added to the same Table Views and then the new Table Views pattern is to be saved.

User Management (only for User Administrators)

A User Administrator has the right to create a new user and assign sites to the user or deactivate a user. To do so, User Administrators should follow the next steps:

1. Select MENU - "USER MANAGEMENT" page.
2. Select the "USERS" tab, located to the righthand side of the "AUDIT LOGS" tab (the latter is the default landing tab of this page, offering a list of actions taken by any user within the specific Administrator's authorization, along with each action's timestamp and relevant information.)
3. On the top right side of the page, they select "Add User" and fill the fields of the User Profile managing dialog that opens on the righthand side of the screen:

- Name: The permanent user login name for this account
- Access Rights: Choice of five levels of permission. The "Access Rights" parameter is a key element of the user account. This determines the ability to access specific groups of supported services such as the planning summary, Plant Management, Plant Browsing, subscription to SMS/Email Notifications, Report creation, and User Management services.
- Password: The user password, required during login process
- Confirm Password: Verifying the password
- First Name: First name of the new user
- Surname: Last name of the new user
- Mobile: Mobile phone number of the user, used for the integration of SMS Notification services
- Email: The email account of the new user, used for the integration of Email and Report Subscription and Notification services
- Phone Number: Second phone number for the user
- User Role: The operational role of the new user, which specifies the PV Plant's information accessibility level



The form is a modal dialog titled "User Name" with a close button (X) in the top right corner. It contains the following fields and controls:

- User Name:** A text input field with the placeholder "User name".
- Access Rights:** A dropdown menu.
- Password:** A text input field with masked characters (dots).
- Confirm Password:** A text input field with masked characters (dots).
- First Name:** A text input field with the placeholder "First Name".
- Surname:** A text input field with the placeholder "Surname".
- Mobile:** A text input field with the placeholder "eg. 44 7911 123456".
- Email:** A text input field with the placeholder "E-mail address".
- Phone Number:** A text input field with the placeholder "eg. 44 20 12345678".
- User Role:** A dropdown menu.
- User Group:** A text input field.
- Select site...:** A dropdown menu.
- Active User:** A checkbox that is checked.
- Add:** A dark blue button at the bottom.

Figure 60 – "User Management" page / "Add User" button - User Profile managing dialog

- User Group: The option to make the user a specific user-group's member
4. In the "Select Site" dropdown, the Administrators must check the sites they want to assign to the new user:

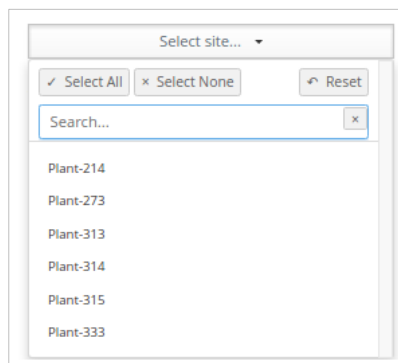


Figure 61 – "User Management" page / "Add User" button / "Select Site" dropdown

If they want to assign all sites, then the "Select All" button can be clicked:

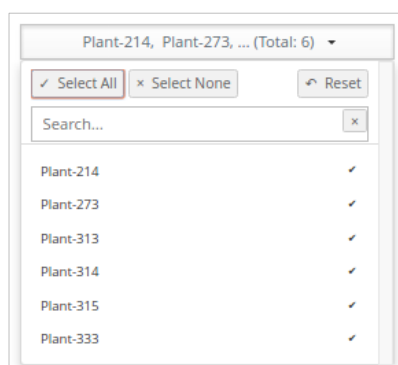


Figure 62 – "User Management" page / "Add User" button / Sites' dropdown "Select All" button

5. Finally, the "Add" button at the bottom of the page must be clicked.

If a User Administrator wants to deactivate a user,

- First, they must find and select this user (e.g. training) by double clicking on the row. A dialog similar to the one previously described, will appear on the righthand side of the page.
- Then, they uncheck the "Active User" box and then click this dialog's "Save" button.

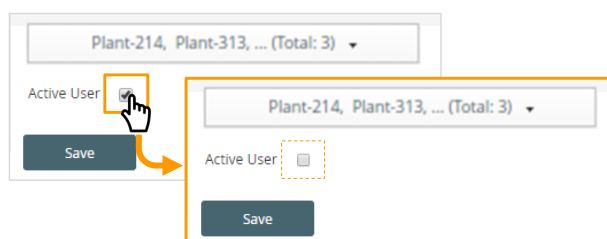


Figure 63 – "User Management" page / User deactivation

The user in question is now inactive and cannot log in to the Portal.

Apart from the “User Profile” managing tools, the “USERS” tab supports a filter for the inclusion or exclusion of any inactive users from the list, which can be enabled by the “Show Inactive” (default) / “Hide Inactive” button, located at the tab’s righthand side.

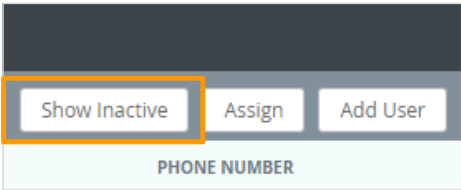


Figure 64– “User Management” page / “Show Inactive” filter button

Finally, The System Administrator has the ability to assign any Plant operation(s) and give access to any PV Plant(s) to multiple users, without needing to perform this action repetitively for each one of them. The Administrator clicks on the “Assign” button and selects the PV Plant, the User Role level and the users to be associated.

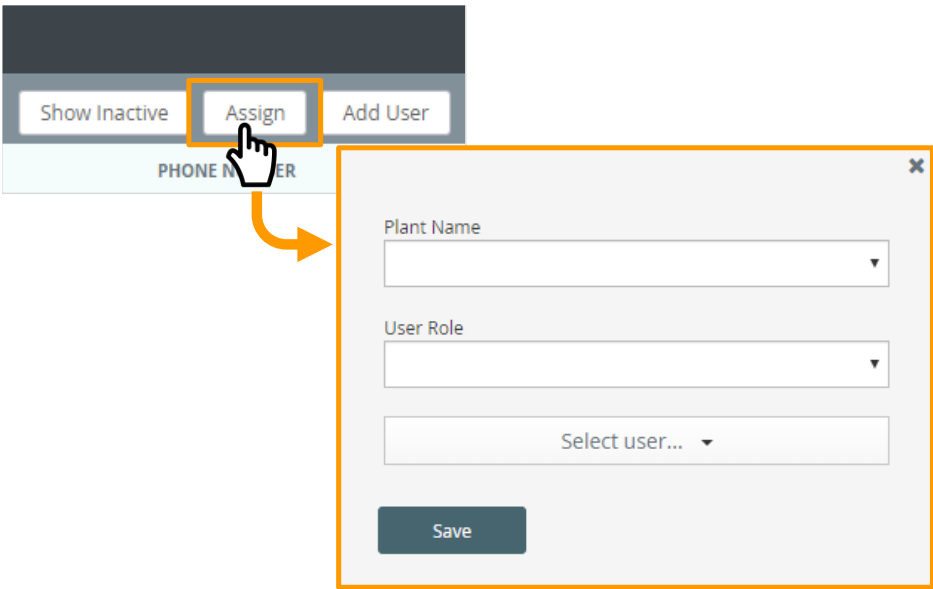


Figure 65– “User Management” page / “Assign” button and the relevant dialog

Temperature high/low threshold setup

The States "Temperature status High or Low" are created when the respective temperature values exceed the temperature thresholds.

In order to change the temperature thresholds, e.g. for the ambient temperature, the user should launch the Site's Browser page and follow the steps below:

1. Select the site- name node and the "Settings" tab on the right. To facilitate the detection of the desired parameters, the search-key "temperature" may be entered within the search field at the bottom-right.
2. Select the icon "EDIT," marked below with a red circle:

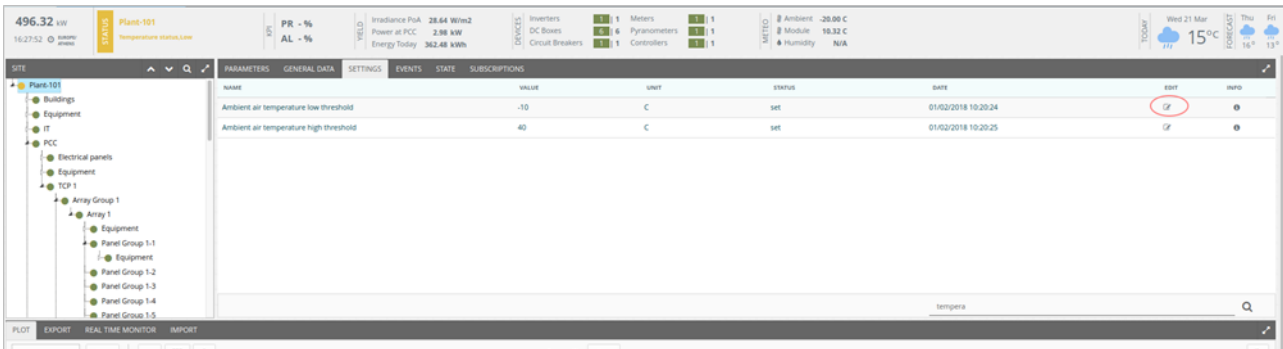
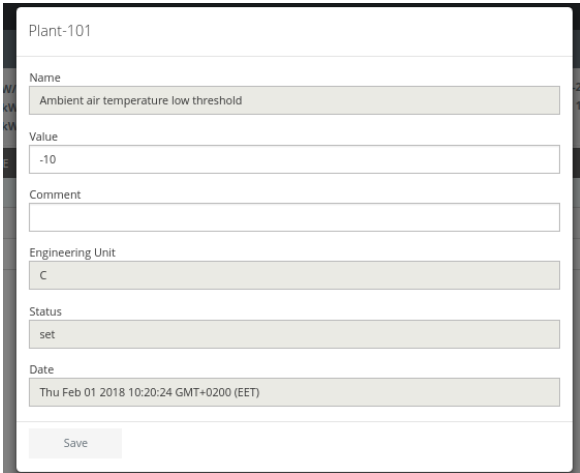


Figure 66 – "Browser" page: Site-name tree node / Settings tab – "Edit" icon

3. In the new window, the desired threshold must be filled in the Value field, and then be saved by clicking on the "Save" button:



Plant-101

Name
Ambient air temperature low threshold

Value
-10

Comment

Engineering Unit
C

Status
set

Date
Thu Feb 01 2018 10:20:24 GMT+0200 (EET)

Save

Figure 67 – "Browser" page: Site-name tree node / Settings tab – Temp. threshold editing

4. In order to ensure that the new setting is configured, the user should check that the "STATUS" has changed from "pending" to "set" and that the "DATE" is the current date, as shown below:

Ambient air temperature low threshold	-10	C	set	01/02/2018 10:20:24
Ambient air temperature high threshold	40	C	set	01/02/2018 10:20:25

Figure 68 – "Browser" page: Site-name tree node / Settings tab – Ensuring a new setting

The figures below depict how the temperature thresholds for room temperature and module temperature can be changed:

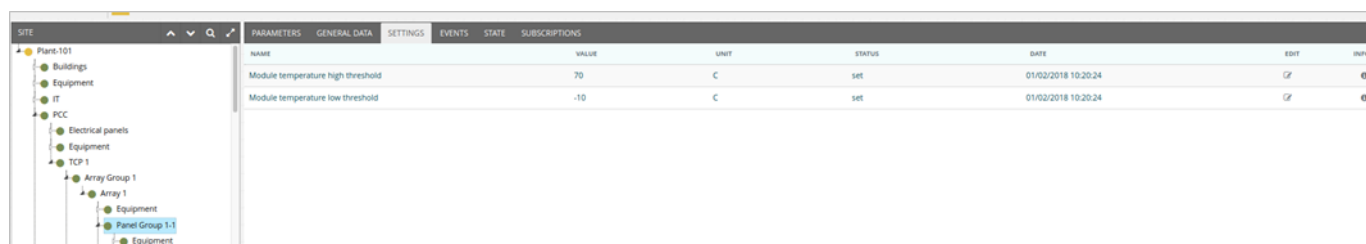
Room Temperature:



NAME	VALUE	UNIT	STATUS	DATE	EDIT	INFO
Room temperature high threshold	40	C	set	01/02/2018 10:20:25		
Room temperature low threshold	1	C	set	01/02/2018 10:20:25		

Figure 69 – "Browser" page: Selecting the Site-tree node to set a new room temp. threshold

Module Temperature:



NAME	VALUE	UNIT	STATUS	DATE	EDIT	INFO
Module temperature high threshold	70	C	set	01/02/2018 10:20:24		
Module temperature low threshold	-10	C	set	01/02/2018 10:20:24		

Figure 70 – "Browser" page: Selecting the Site-tree node to set a new module temp. threshold

Creating PLOT scratchpads

Scratchpads give users the ability to create a set of parameters and recall with one click their chart or the export choice.

1. The first step is to select a site for creating scratchpads and then the “Browser” page from the MENU list:

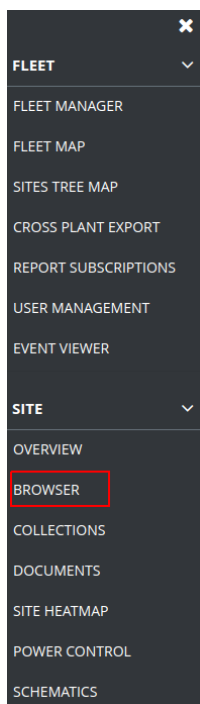


Figure 71 – Selecting the “Browser” page

2. The second step is to select the desired parameters by clicking on their PLOT icons (marked below within the red circle), which adds them to the PLOT tab. The latter is selected by default in the Browser’s page bottom section:

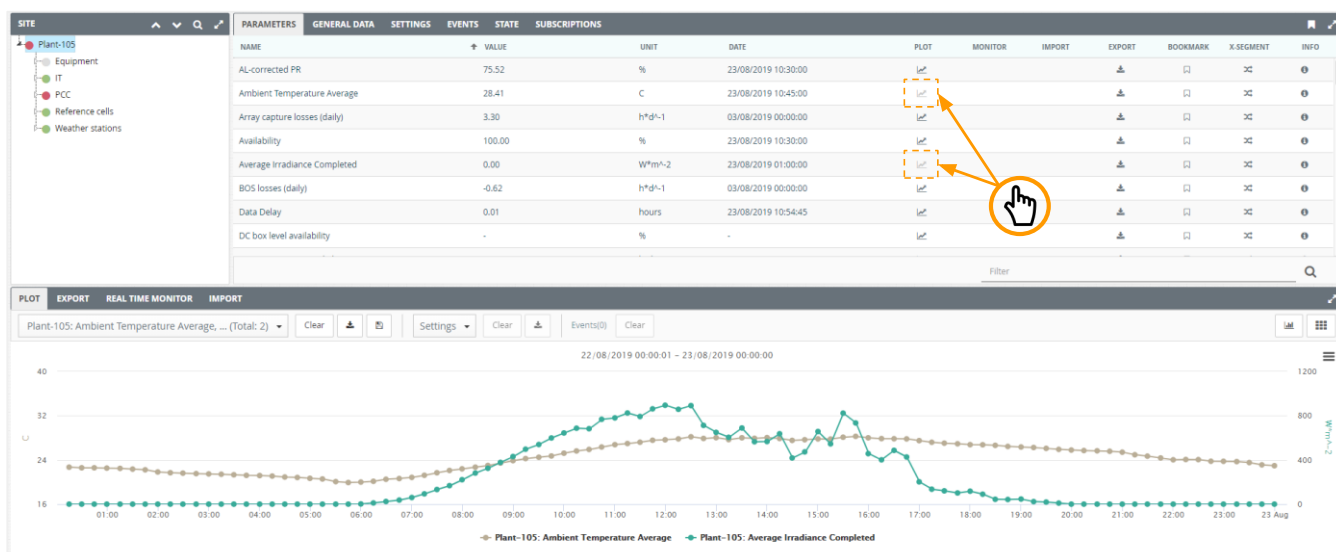


Figure 72 – “Browser” page: Selecting the desired parameters to be plotted

3. Next, click the Save button of the PLOT Tab, depicted in the following figure:

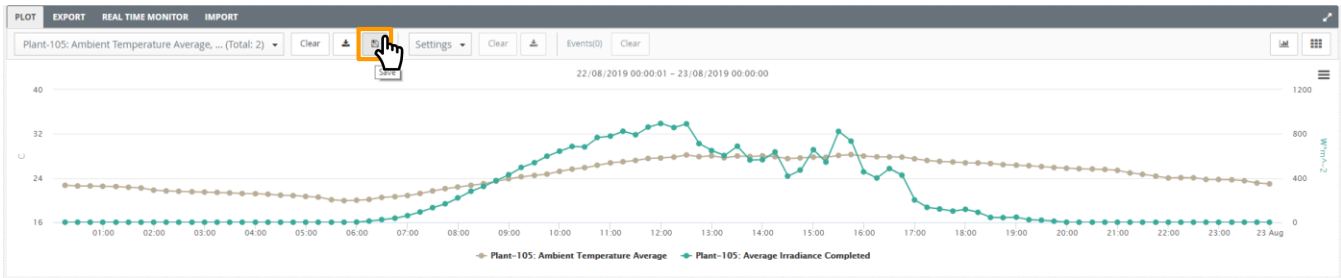


Figure 73 – “Browser” page: Saving the scratchpad

4. As a fourth step, a name for the pattern must be set (within the type field shown below) and saved by the "Save" button:

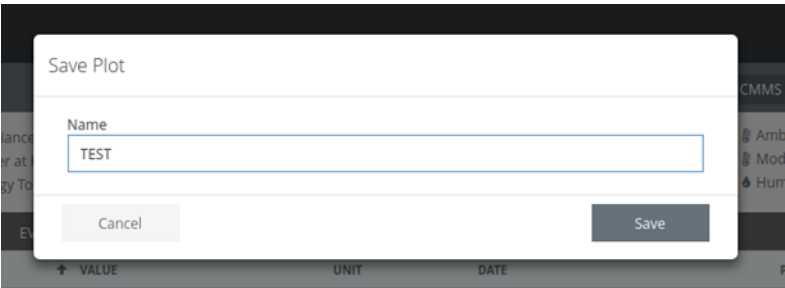


Figure 74 – “Browser” page: Naming the scratchpad

5. The scratchpad has now been saved.

The user can recall the saved scratchpads at any time by following: MENU-BROWSER and then selecting the desired name in the PLOT tab, using the drop-down list depicted in the image below:

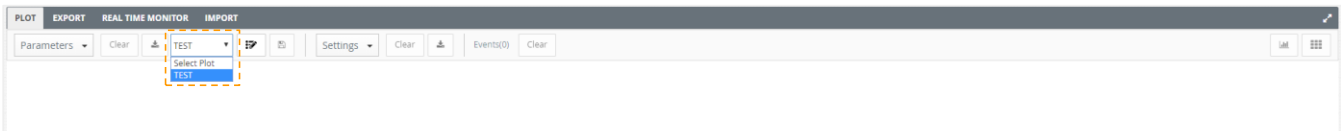


Figure 75 – “Browser” page: Recalling a saved scratchpad

Similar steps may also be followed for the “EXPORT” and the “REAL TIME MONITOR” tabs.