Plantweb Optics v1.8 Portal Help

Help
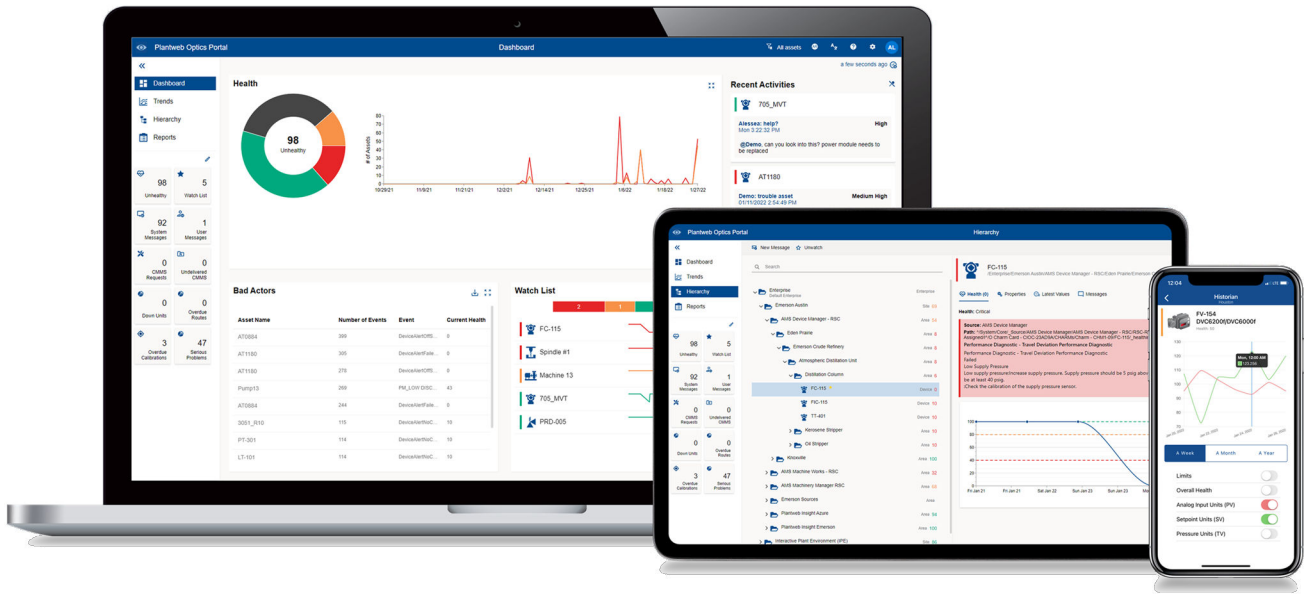
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Contents

1   Introduction

The *Plantweb Optics Portal Help* guides you through using Plantweb Optics Portal after you have installed the Plantweb Optics core services, Optics Portal client, Connector Service, and the Emerson Connectors. The latest Plantweb Optics software connects directly to Plantweb Optics Data Repository (a NoSQL database).

For information about installing the Plantweb Optics core services, Optics Portal client, Connector Service, and the Emerson Connectors., refer to the *Plantweb Optics System Guide*. The System Guide is included with the Plantweb Optics installation files.

Emerson recommends that administrators read the *Plantweb Optics System Guide* before attempting to install the software and before reading the *Plantweb Optics Portal Help*.

Related information

Purpose of Plantweb Optics Portal help
Where to get help
Plantweb Optics Portal (What's New)

1.1   Purpose of Plantweb Optics Portal help

Assist plant production personnel and IT administration to:

- Set up your site, create locations, and display the asset hierarchy of devices.

- Set up asset filters and message notifications to help users collaborate.

- Display key performance indicators (KPIs) about plant assets and events.

- Manage CMMS work requests.

- Graph historical parameter (overall health) trends of critical plant assets.

- Administer software licenses for the Optics Data Lake Portal and mobile app.

- Configure global settings (filters, severities, CMMS configuration) for users.

- Export asset information for use with other spreadsheet software.

1.2   Where to get help

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1.3   Plantweb Optics Portal (What's New)

Plantweb Optics changes from previous versions

- **Asset (Explorer)**–configuration and set-up tasks moved to Plantweb Optics DataStudio.

- **User management tasks**–moved to Plantweb Optics DataStudio.

- **Other System Manager tasks**–moved to Plantweb Optics Portal Settings (System/ Admin).

- **Out of Service Assets**–replaces the Plant Calendar view.

New capabilities

- **Current Asset Health Status**–health scores display color-coded as *Critical*, *Warning*, *Good*, and *Other* (health not set or ignored asset). Score ranges configured by installation.

- **History of unhealthy assets**–trend showing asset management and maintenance effectiveness.

- **Persona-based asset view**–assets display based on user permissions (realm of responsibility) and asset filtering.

- **Recent Activities**–displays the five assets with the latest User Messages. (Can restrict messages to those tin which the signed-in user is tagged).

- **Message KPIs**–separately see system- and user-generated messages (7, 30, 60, or 90 days).

- **Bad Actors**–identifies assets frequently in alarm and counts events by asset type. The Bad Actors Report can be evaluated for 7, 30, 60, or 90 days).

- **Watch List**–quick access to unique assets selected by you, which are operationally critical or have been causing problems.

More new capabilities

- **Filters**–user can now filter assets by criticality. Filter applied to all the KPI asset lists is designated with its name in the User Toolbar. User can save a maximum of 10 User Filters. Administrator can define a maximum of 10 Global Filters.

- **Unhealthy Report**–CSV export file includes up to five top health contributor details (if available).

- **Messages**–two distinct presentations with the most recent messages at the start of each list. Messages include details about type, source, asset (hierarchy I/O path), and severity. Message filters on demand to provide a robust audit trail of events.

- **User Tagging**–done directly in messages for enhanced visibility. When your user login is tagged, messages are highlighted with an orange bar.

- **Join keys**–easily identify which mobile and AR join keys are disabled or assigned to users.

Security and User Permissions

- **User Permissions**–set in the Access Model to override user settings in the Plantweb Optics Portal. This defines the user's realm of responsibility for portions of the plant's assets.

- **Single Sign-on access**–supports both Plantweb Optics DataStudio and Plantweb Optics Portal.

- **Data diode**–support between the AMS Device Manager Data Collector and the Proxy/ Connector Service. Future releases will provide data diode support for other connectors.

Database

Changed from a SQL database to using MongoDB (NoSQL) as the Plantweb Optics Data Repository.

2 Optics Portal Tour

- Dashboard–Health (circle graph, 90-day health count trend), Bad Actors, Watch List, Recent Activities

- Hierarchy of Assets

- KPIs - list of assets with indicators

- Reports (export asset information to CSV file)

- Left pane - show and hide KPIs, extra text

- Asset ribbon features

- User Toolbar–Quick Display Settings and Filter configuration

- User collaboration (Notifications/Message Filters) settings

- System and Admin Settings

- Trends (Historical Parameters and health)

Related information

Dashboard
Asset Hierarchy
Trends graph
Reports
User Toolbar
Understanding different setting types
Settings
Optics Portal Feature Locator
KPI List views

2.1 Dashboard

The Dashboard is a persona-based, user interface that provides an overview of the health and history of all known assets within your area of responsibility.

Along with providing a quick view of the health of your assets, the Dashboard also provides information about Bad Actor assets, assets that are a part of the Watch List, and messages that are tied to the assets in your environment. The Dashboard is a dynamic page that refreshes the information displayed on the page at a cadence that you set. You configure the Dashboard refresh rate in the Display Settings. See Related information for details about setting the Dashboard refresh rate.

Figure 2-1: Plantweb Optics Portal Dashboard

Legend	Feature	Description
1	Health: Circle Graph	Distribution of the number of assets in each health classification.
2	Health: 90-day Health Status Trend	Number of assets categorized with a `Critical` and a `Warning` health score, plotted for the previous 90 days.
3	Bad Actors	A list of assets that create numerous events and have the potential to fail. Your Admin defines the criteria for the assets designated as "Bad Actors."
4	Watch List	A list of assets you designate to closely monitor.
5	Recent Activities	Displays the five assets with the *latest* User Messages.
6	Time since last update	The time since the Plantweb Optics Portal was updated from the Data Repository. Plantweb Optic Connectors send event information to the Plantweb Optics Repository.
7	User Toolbar	A set of user features including Filters and Quick Display Settings.
8	Left pane settings	Displays or hides text for key Optics Portal pages (**Dashboard**, **Hierarchy**, **Trends**, and **Reports**) and the KPI List Views.

Related information

Dashboard controls

Dashboard Health

Bad Actors display

Watch List

KPI List views

Recent Activities
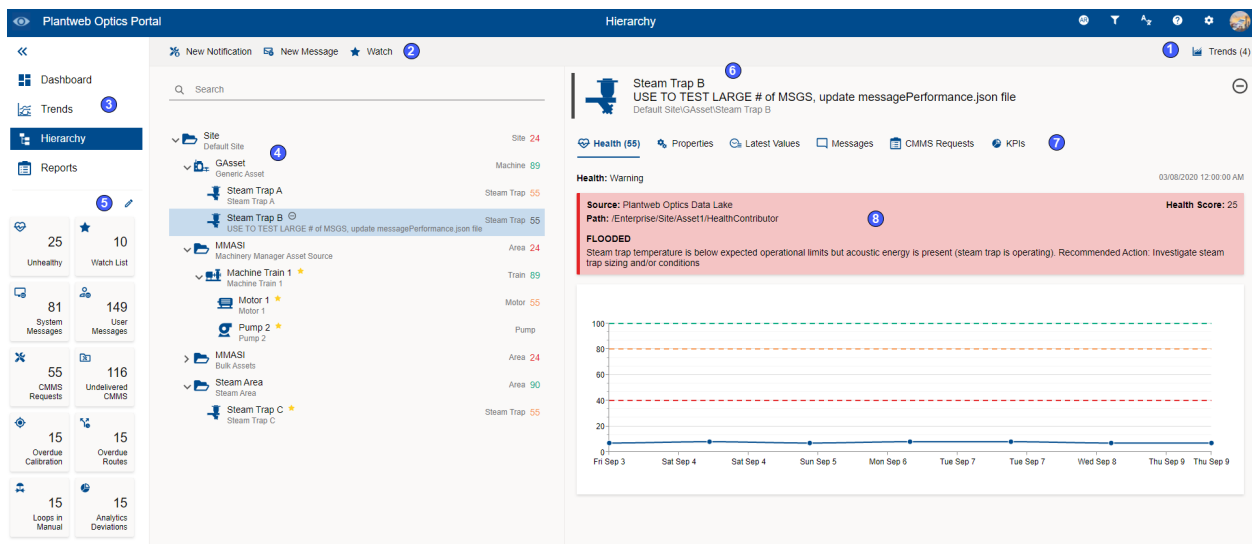
Time since last update

2.2 Asset Hierarchy

Shows the asset hierarchy for the your area of responsibility (assets that you have permissions to change). The objects follow the ISA-95 Equipment model and consist of asset and location types.

The **Hierarchy** page displays:

- **Hierarchy**–the logical organization of assets can be used to determine how an asset's health impacts other assets.

- **Preconfigured KPIs**–assets with a current health score of less than 80, user-designated assets (watch list) to observe closely, and CMMS work requests submitted to SAP or Maximo.

- **Custom KPIs** (dependent on connected data sources)–Overdue calibrations, Serious Problems, Down Units, Overdue Routes, etc.

The **Hierarchy** page also enables you to send, receive, and view messages generated in Plantweb Optics Portal. The ability to receive and display messages depends on the your area of responsibility and message filtering.

Figure 2-2: Plantweb Optics Portal Hierarchy example

Legend	Description
1	**Settings** (⚙) icon and number of asset parameters plotted on **Trends** (📈) graph.
2	*Asset Ribbon Features* found on the **Hierarchy** and KPI List Views. The features can create a new notification, create a new message, add or remove a **Watch List** asset, and can export asset (and message or CMMS request information) to a CSV file.
3	Left panel that helps you quickly switch between main displays and selects specific KPI List Views.

Legend	Description
4	Logical organization of locations, assets, and machines according to the ISA-95 Equipment Model.
5	Edit (✏) icon that helps you display or hide KPI List Views.
6	Asset header information–name, description, and path in the logical hierarchy.
7	Dialog tabs that display on the **Hierarchy** and KPI list views, and include specific asset details (**Health**, **Properties**, **Latest Values** (if acquired), **Messages**, **CMMS Requests**, and **KPIs**. See Related information for details.
8	Details for the specific dialog tab.

Note

You can send, receive, and view the same messages on a mobile device if the Plantweb Optics Mobile App is installed. The Plantweb Optics Mobile App is available for download from the Google Play™ store or the Apple® AppStore™. To use the mobile app, you need a mobile join key that is associated with your account. Refer to the *Plantweb Optics System Guide* for instructions on how to download and install the Plantweb Optics Mobile App.

Related information

Logical Assets and locations
Health score calculation
Asset elements
Filtering assets
Asset ribbon features
Out of Service assets

2.3   Trends graph

Plantweb Optics displays the current health and parameter values for each asset. However, it is often helpful to see how the health values change and trend over time. The **Trends** graph provides you the controls to work with your assets' historical data to analyze data trends.

The Trends graph provides

- Health and asset parameter histories, that can show possible asset problem causes

- Historical health value comparisons, including comparisons between different asset types.

- A flexible display to create accurate presentations (meetings and co-worker discussions).

These features allow you to:

- View historical data for asset parameters

- Measure the value of investments made towards maintaining asset health.

- Extract analytic information and anticipate future maintenance events and cost.

A Plantweb Optics Portal page displays up to seven asset parameters (can be from different assets). The **Trends** graph shows the saved (maximum of 365 days) parameter values and health as raw data and aggregated curves. Use the **Trends** graph to display from one week to one year of information, while comparing asset functionality. You can also export the displayed parameter values to a CSV (spreadsheet) file.

Figure 2-3: Trends graph example

Legend	Description
1	Select date range of asset parameters (health) and limits to display.
2	Quick selection of a standard display interval.
3	Aggregation method used to compute values and construct plot lines (`Raw`, `Average`, `Max`, `Best Fit`, or `Interpolated`).
4	Refresh the display.
5	Enlarge, decrease, or reset the chart magnification.
6	Move the Trends graph forward or backward one week, through the data interval.
7	Export Trends values to a CSV (spreadsheet) file.
8	Plotted asset parameter or health values that are connected by a trend line (**3**–defined using the aggregation method selector).
9	Slide the data picker to list the plotted asset parameter (health) name, units, and value for a day.
10	Use sliders to select which portions of the data to display. Adjust the sliders with your cursor to change the time range and the y-axis start and end values.

Related information

Add data to the Trends graph
Control how trend data is aggregated from raw data
Display Trends values using data picker

Manage Trends graph presentation
Export Trends plots to csv file

2.4   Reports

Plantweb Optics Portal displays asset information reports on the **Reports** page. The key problem assets are displayed in a columnar format. Each column in the reports can be used to sort the table in ascending or descending order. The data listed in each report can be exported to a spreadsheet-formatted `*.csv` file.

Currently, Plantweb Optics Portal has these reports:

- **Bad Actors Report**–filtered to show only poor performing assets from the previous 7, 30, 60, or 90 days.

- **Out of Service Assets Report**–For all ignored assets or for a specific scheduled event (maintenance period, turn-around, etc.).

Figure 2-4: Reports page example
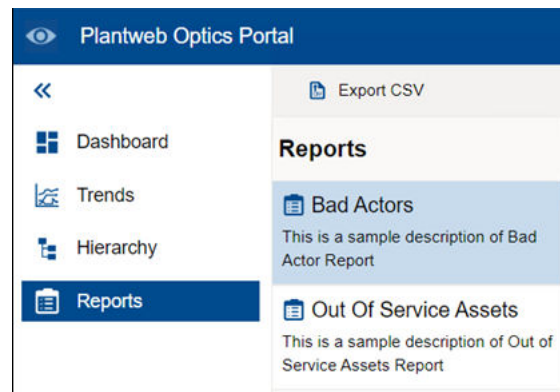
Related information

Bad Actors Report
Display Bad Actors Report
Export Bad Actors Report assets
Out Of Service Assets Report
Display Out of Service Assets Report
Export Out of Service Assets

2.5   KPI List views

Display Key Performance Indicators (KPIs) for plant assets and Custom KPIs that use Plantweb Optics Connectors.

The KPIs include:

- Unhealthy

- Watch List

- System Messages

- User Messages

- CMMS Requests

- Undelivered CMMS

- Custom KPIs–such as Overdue Routes, Serious Problems, Overdue Calibration, and Loops in Manual

Pin (📌) or unpin (✖) a KPI from the **Dashboard** page using the left pane settings.

Display or hide KPIs by using the Quick Display Settings (**Displayed KPIs Setting** check boxes). See Related information for details.

Search any KPI List view asset list using asset identification values (name, description, or path).

Sort assets in the KPI List Views.

Related information

Control KPI List Views with left pane
Asset ribbon features
Search KPI List View and Hierarchy assets
Sort KPI List View assets
Control Trends graph content with Parameters pane

2.6 Understanding different setting types

Use the Plantweb Optics Portal controls to change settings and determine what assets, messages, and work requests to display.

Settings	How to Find	Description and Use
Left Pane	Click (»») icon.	Use to conserve screen space and persistently display specific KPIs.
Quick Display Settings	Click Gear (⚙) in User Toolbar	Changes immediately made to **Dashboard**.
Filter	Click Filter (▼) icon in User Toolbar > Click Show Filters (›) icon.	Display personal filters (**My Filters**) and the **Global Filters** set up by Administrators.
User (**General**) Settings	Click Gear (⚙) icon in User Toolbar > Click **View All Settings**.	Change what notifications and messages you receive from users and Plantweb Optics Connectors.
System Settings	Click Gear (⚙) icon in User Toolbar > Click **View All Settings** > Click one of the five **System** areas.	You can only display these settings. Administrators can change the settings that affect Dashboard and message displays.
Admin Settings	Click Gear (⚙) icon in User Toolbar > Click **View All Settings** > Click one of the five **Admin** areas.	Only Administrators can display and change settings.

Settings	How to Find	Description and Use
System Information	Click Gear (⚙) icon in User Toolbar > Click **View All Settings** > Click **System Information**.	You can display: • Software build # • Plantweb Optics version # • License status • System ID

2.7 Settings

The Plantweb Optics Portal has multiple key setting groups that you use to control the Optics Portal user interface.

Figure 2-5: Plantweb Optics Portal Settings

Legend	Feature	Description
1	**Left Pane**	Displays the four different key browser pages: **Dashboard**, **Trends**, **Hierarchy**, and **Reports**, plus the KPIs. This area displays UI controls with and without text. Display or hide individual KPIs.
2	**Hierarchy and KPI List View**	**Hierarchy** settings include expanding and collapsing portions of the logical asset hierarchy. Search for specific assets using the asset identification fields and message subject. KPI List View settings can (**a**) export information to CSV files, (**b**) search asset lists, and (**c**) sort asset lists

Legend	Feature	Description
3	**User Toolbar**	Provides name of the current **Active Filter** and user interface **Language**. Additionally, it provides links to the **Augmented Reality** application, the *Plantweb Optics Port Help* documentation, the **Quick Display** settings, plus the user profile and log out.
4	**Quick Display**	Click the gear (⚙) icon to display controls for the **Dashboard**.
5	**General** (User)	Define the **Notifications** and **Message Filters** criteria.
6	**System**	**System** Settings can be displayed by users; *however*, only Administrators can change the System settings.
7	**Admin**	Administrator permissions required to display and change settings.
8	**System Information**	Display the Plantweb Optics version and build numbers. Your license status and system identification also display.

2.8　Optics Portal Feature Locator

This table briefly describes how to find a specific Plantweb Optics Portal feature.

Table 2-1: Where in the Optics Portal do I find this feature?

Feature	Located in	(Breadcrumbs) To get there...
90-days Health Chart	Dashboard	Click (⊞) icon
Active Filter	User	Filter name by the (▼) icon
Add Health to Trends Graph	Hierarchy/KPIs	Click (🗂) icon > Select Asset > Click Add Overall Health to Trends option
Add Parameter to Trends Graph	Hierarchy/KPIs	Click (🗂) icon > Select Asset > Click Latest Values > Select a check box under the (📈) icon
Admin	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click Admin
Asset Header	Hierarchy	Click (🗂) icon > Select asset
Bad Actors (brief display)	Dashboard	Click (⊞) icon > Click (⤢) icon
Bad Actors (export)	Dashboard	Click (⊞) icon > Click (⤓) icon
Bad Actors (all fields)	Dashboard	Click (⊞) icon > Click (⤢) icon
Bad Actors	Reports	Click (🗐) Reports icon
Bad Actors	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click System: Bad Actors
CMMS Configuration	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click System: CMMS Configuration
CMMS Requests KPI	KPIs	Click (⊞) icon > Click (🔧) CMMS Requests
CMMS tab	Hierarchy/KPIs	Click (🗂) icon > Select Asset > Click CMMS tab
<Custom Name> KPI	Dashboard	Click(⊞) icon > Click <Custom Name>

Table 2-1: Where in the Optics Portal do I find this feature? *(continued)*

Feature	Located in	(Breadcrumbs) To get there...
Dashboard	n/a	Default Optics Portal browser page at login
Default Filter	Filters Dialog	Click (⚙) in User Toolbar > Click (›) Show Filters icon
General	Settings	Click (⚙) in User Toolbar > Click View All Settings > General List
Global Filters	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click Admin > Click Global Filters
Global Filters (apply)	Filter Dialog	Click (▼) in User Toolbar > Click (›) Show Filters icon
Guardian Information	Dashboard	Click (⚙) in User Toolbar > Click View All Settings > Click Admin > License > Click Guardian Information
Health Circle Graph	Dashboard	Click (⬛) icon
Health	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click System: Health
Health tab	Hierarchy/KPIs	Click (⬛) icon > Select Asset > Under asset header
Hierarchy (Asset)	Hierarchy	Click (⬛) icon
Join Keys (settings)		Click (⚙) in User Toolbar > Click View All Settings > Click Admin > Click Join Keys
KPIs tab	Hierarchy/KPIs	Click (⬛) icon > Click desired KPI > Select Asset > Click KPIs tab
Language	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click Admin > Click Language
Language (select)	Toolbar	Click (🔤) icon
Latest Values tab	Hierarchy/KPIs	Click (⬛) icon > Select Asset > Click Latest Values tab
License	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click Admin > Click License
Log Out	User Toolbar	Click last icon (right side) on User Toolbar
Message Filters	Settings	Click(⚙) in User Toolbar > Click View All Settings > Click Message Filters
Messages tab	Hierarchy/KPIs	Click (⬛) icon > Select Asset > Click Messages tab
New Message	CMMS Requests CMMS Undelivered User Messages	Click (⬛) icon > Click (👥) User Messages > Click (📧 New Message)
New Notification	CMMS Requests CMMS Undelivered User Messages	Click (⬛) icon > Click (👥) User Messages > Click (✂ New Notification)[1]
Notifications	Settings	Click (⚙) in User Toolbar > Click View All Settings
Out of Service Assets	Reports	Display (📋) icon > Click Out of Service Assets Report
Properties tab	Hierarchy/KPIs	Click (⬛) icon > Select Asset > Click Properties tab
Quick Display Settings	User Toolbar	Click (⚙) icon on User Toolbar

Table 2-1: Where in the Optics Portal do I find this feature? *(continued)*

Feature	Located in	(Breadcrumbs) To get there...
Recent Activities	Dashboard	Click (▦) icon > Click (▣) show Recent Activities icon
Severities	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click System: Severities
Show/Hide KPIs	Dashboard	Select (✎) icon in top-right KPI tile > Click pin (📌) or unpin (✕)
Show/Hide KPIs	Quick Settings	Click (⚙) in User Toolbar > Select **Displayed KPIs** check boxes
Spam Management	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click System: Spam Management
System Information	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click System Information
System	Settings	Click(⚙) in User Toolbar > Click View All Settings > System List
System Messages KPI	KPIs	Click (▦) icon > Click (📟) System Messages
Time since last update	Dashboard	Hover over (⟳) icon
Trends	Trends	Click (📈) icon
Undelivered CMMS KPI	KPIs	Click (▦) icon > Click (📇) Undelivered CMMS
Unhealthy KPI	KPIs	Click (▦) icon > Click (♥) Unhealthy
User Filters	Filter Dialog	Click (▼) in User Toolbar > Click (›) Show Filters
User Messages KPI	KPIs	Click (▦) icon > Click (👥) User Messages
User (General)	Settings	Click (⚙) in User Toolbar > Click View All Settings > General list
User Toolbar	n/a	Optics Portal login page
Users	Settings	Click (⚙) in User Toolbar > Click View All Settings > Click Admin > Click Users
Watch List (Display)	Dashboard	Click (▦) icon
Watch List KPI	KPIs	Click (▦) icon > Click (★) Watch List

[1] Your profile or user ID must have explicit permission to "Create Work Notifications" for you to use this feature.

3   Dashboard

The Dashboard is a persona-based, user interface that provides an overview of the health and history of all known assets within your area of responsibility.

Along with providing a quick view of the health of your assets, the Dashboard also provides information about Bad Actor assets, assets that are a part of the Watch List, and messages that are tied to the assets in your environment. The Dashboard is a dynamic page that refreshes the information displayed on the page at a cadence that you set. You configure the Dashboard refresh rate in the Display Settings. See Related information for details about setting the Dashboard refresh rate.

Figure 3-1: Plantweb Optics Portal Dashboard

Legend	Feature	Description
1	Health: Circle Graph	Distribution of the number of assets in each health classification.
2	Health: 90-day Health Status Trend	Number of assets categorized with a `Critical` and a `Warning` health score, plotted for the previous 90 days.
3	Bad Actors	A list of assets that create numerous events and have the potential to fail. Your Admin defines the criteria for the assets designated as "Bad Actors."
4	Watch List	A list of assets you designate to closely monitor.
5	Recent Activities	Displays the five assets with the *latest* User Messages.
6	Time since last update	The time since the Plantweb Optics Portal was updated from the Data Repository. Plantweb Optic Connectors send event information to the Plantweb Optics Repository.

Legend	Feature	Description
7	User Toolbar	A set of user features including Filters and Quick Display Settings.
8	Left pane settings	Displays or hides text for key Optics Portal pages (**Dashboard**, **Hierarchy**, **Trends**, and **Reports**) and the KPI List Views.

Related information

Dashboard controls

Dashboard Health

Bad Actors display

Watch List

KPI List views

Recent Activities

Time since last update

3.1 Dashboard controls

On the Dashboard you have several main areas that you can use to alter the display:

- Left pane settings–show (»») or hide («) **Dashboard** UI text, plus pin (📍) or unpin (✖) specific KPI List views.

- Quick Display Settings–refresh rate, health circle graph format, **Recent Activities** message type, message format, Message Filters `on` or `off`, and the same functionality of the Left pane settings.

- **Recent Activities**–show(🖥) or hide (✖) the messages.

Related information

Left pane settings

Show Quick Display Settings

3.1.1 Left pane settings

Use the left pane settings to conserve screen space on Plantweb Optics Portal application. Display text and icons or, alternatively, just the icons that signify the four key Optics Portal pages and KPI List Views.

Figure 3-2: Left Pane settings (text and icons)
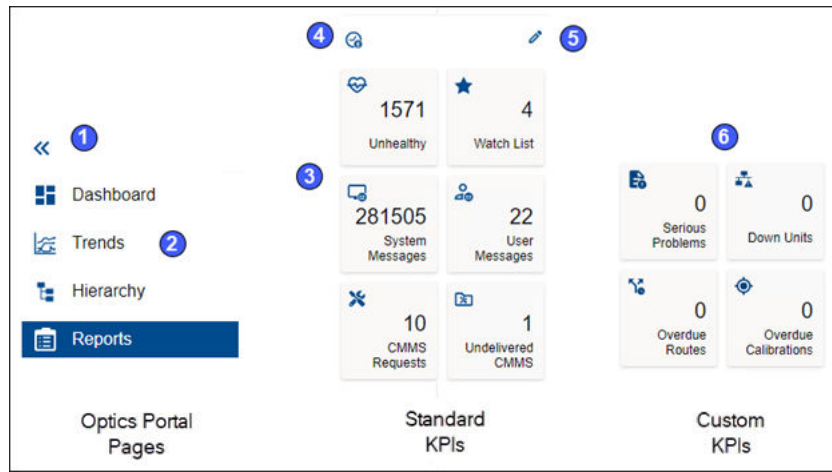
Legend	Description
1	Click (≪) icon to display icons. Click (≫) icon to display text, KPI tiles, and icons.
2	Display one of Optics Portal key pages.
3	Standard KPIs
4	Hover over to see time since last Dashboard update.
5	Click to pin (📌) or unpin (✖) KPI tiles to the **Dashboard**.
6	Custom KPIs (dependent on Plantweb Optics Connectors)

Figure 3-3: Left Pane settings (icons only)
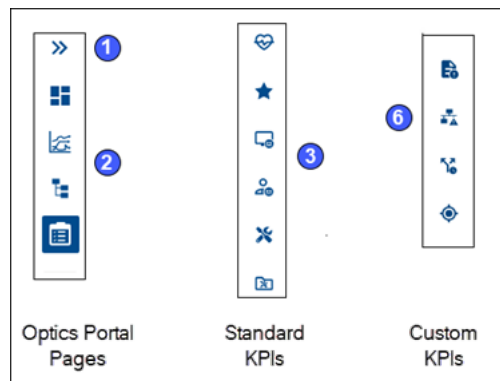
3.1.2 Show Quick Display Settings

Click the (⚙) icon on the User Toolbar to display the Quick Display **Settings**. Make your selections. The **Dashboard** changes immediately. Click (**X**) or outside the pane to hide **Settings**.

Figure 3-4: Quick Display Settings (part 1 of 2)
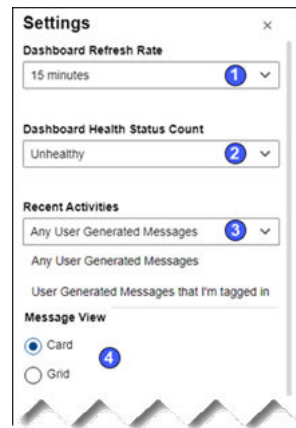
Legend	Description
1	Set **Dashboard** refresh interval in minutes or hours.
2	Set type (`Unhealthy` or `Good`) of **Health Status Count** (Heath: circle graph).
3	Select message type (`Any User Messages` or `Messages that I'm tagged in`) to display in **Recent Activities**.
4	Select the `Grid` or `Card` message format.
5	Turn `On` or `Off` the **Message Filter**.
6	Display asset dialog tabs with or without text (icons only).
7	Select which KPIs to display on the **Dashboard**.
8	Click **View All Settings** link to access the **General** (user), **System**, and **Admin Settings** (administrators only).

Figure 3-5: Quick Display Settings (part 2 of 2)
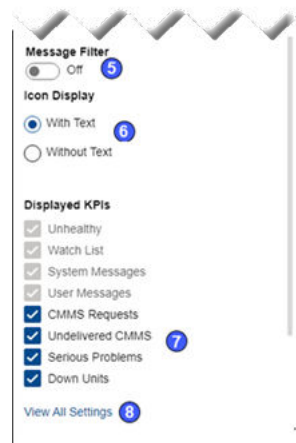
Related information

Set dashboard refresh rate
Determine type of Health Status Count
Select Recent Activities message type
Managing message content and format
Display and hide KPI List Views
Display messages in grid format
Enable and disable the Message Filter

3.2 Dashboard Health

The **Dashboard** shows a count and a distribution of the healthy and unhealthy assets using these graphs:

- **Health circle graph**–A percentage distribution of asset health categories—Good, Critical, Warning, and Others.

- **90-Day health status trend**–Previous 90 days showing number of assets classified as Critical and Warning on each day.

- **Watch List health bar**–Displays the percentages of the health categories for your monitored (**Watch List**) assets.

Related information

Health categories
Health circle graph
90-day health status trend
Select health circle graph option

3.2.1 Health categories

Your Plantweb Optics Administrator defines health categories for each individual Plantweb Optics installation. Health scores range from 0 through 100. Plantweb Optics categorizes out of services assets as `Other`.

The Plantweb Optics health categories are:

- **Other**–(gray) no health score reported or an out of service asset.
- **Critical**–(red) health scores in lowest range.
- **Warning**–(orange) health scores in middle range.
- **Good**–(green) health scores in highest range.

3.2.2 Select health circle graph option

Switch between showing `Unhealthy` and `Good` status counts using the **Dashboard Health Status Count** setting in the Quick Display Settings.

Procedure

1. Click the gear ( ) icon.
   The Quick Display **Settings** pane displays.

2. Select `Unhealthy` or `Good` from the **Dashboard Health Status Count** list.

Figure 3-6: Switch health circle graph between Unhealthy and Good
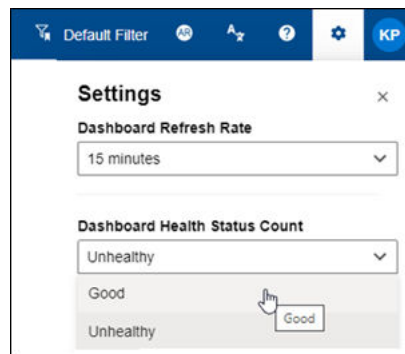
3. Click close (**X**) or click outside the pane.

3.2.3 Health circle graph

Use this **Dashboard** graph of the current asset health distribution; each section represents the number of assets in a specific health category. Health scores range from 0 through 100. The number graphed items also depends on the current Active Filter. Out of services assets count as `Other`.

Your Plantweb Optics Administrator defines the health categories:

- **Critical**–(red) health scores in lowest range.

- **Warning**–(orange) health scores in middle range.

- **Good**–(green) health scores in highest range.

- **Other**–(gray) no health score reported or an out of service asset.

Your Plantweb Optics Administrator sets the values for health ranges of (`Good`, `Warning`, and `Critical`).

Figure 3-7: Health circle graph
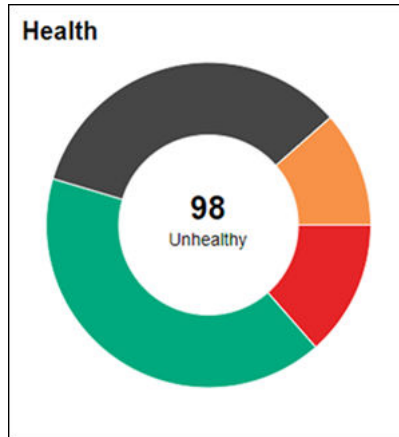
Switch between showing **Unhealthy** and `Good` counts using the **Dashboard Health Status Count** setting in the Quick Display Settings. Click the (⚙) icon to display.

Hover over any slice of the Health circle graph to display the number of assets in that health category.

Click collapse (x) icon to hide the 90-day health status trend. Click (x) to redisplay.

3.2.4 90-day health status trend

Display the number of assets in the poor health categories for the past 90 days. The trends shows the number of assets having a health score categorized as `Critical` (red) and `Warning` (orange). Trend values depend on which assets the currently Active Filter passes. Out of service assets are counted in these trends.

Note
This trend chart is *not restricted* to your area of responsibility. It includes *all assets* in the hierarchy.

Figure 3-8: 90-day health status count trend
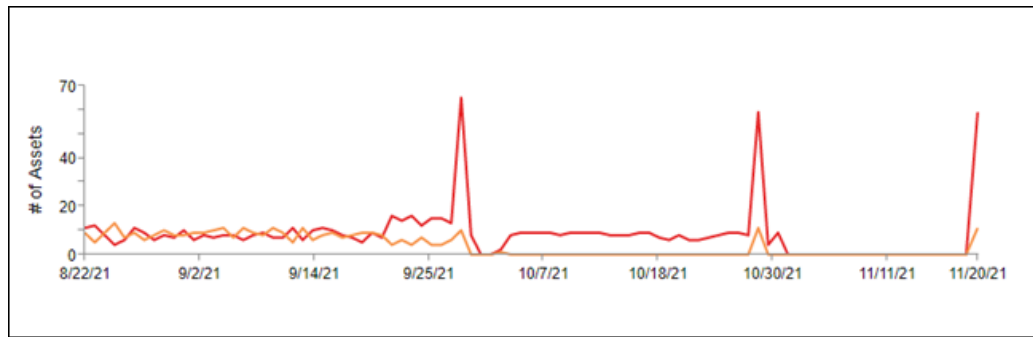
Click and hover to see the assets identified in the `Critical` and `Warning` health categories for each day.

3.3   Bad Actors display

Assets associated with potential failures and assets that create numerous events:

- Calculated once per day.

- Administrator selects the evaluation interval (previous 7, 30, 60, or 90 days) and the criteria to define *Bad Actors*.

- Displayed assets listed after applying your currently Active Filter.

- Expand the asset display to show more information, such as the Asset description and Asset Path.

- Hover over the path name to see the compete asset path in ISA-95 equipment hierarchy.

- Includes out of service assets.

- Export asset information to a comma separated-value (spreadsheet) file. Click (⤓) icon.

Figure 3-9: Bad Actors - partial asset information

Legend	Description
1	Partial **Bad Actors** asset information.
2	Download (⬇) and export **Bad Actors** asset information.
3	Expand (⬚) display to show the complete **Bad Actors** asset information. Click (▤) Reports and display **Bad Actors Report**.

Figure 3-10: Bad Actors - complete asset information

Legend	Description
1	**Bad Actors** complete asset information.

Legend	Description
2	Click any column title to display asset information in ascending (∧) or descending (∨) order.
3	Download (⬇) and export assets to CSV file.
4	Hover over Asset Path to see asset location in ISA-95 Equipment hierarchy.
5	Click collapse (⠿) icon to show brief asset information.

Your administrator defines the connectors and event types in the **Bad Actors-System Settings**.

Related information

Bad Actors (settings)

3.4 Watch List

Monitor assets for performance and maintenance issues. Click an asset to display the full information in the **Watch List** KPI List View.

Figure 3-11: Watch List
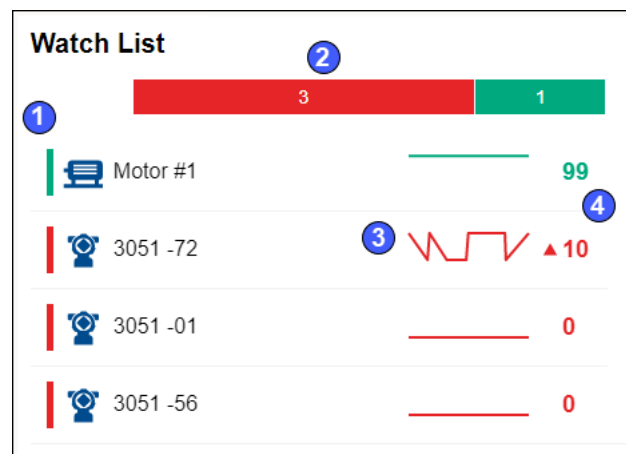
Legend	Description
1	Assets based on your selections and the current Active Filter.
2	Health bar (Critical, Warning, Good, and Others) showing distribution of health categories for assets on your Watch List.
3	Display seven-day running health of each watched asset.
4	Arrow shows change in asset health based on the current health value.

3.5   KPI List views

Display Key Performance Indicators (KPIs) for plant assets and Custom KPIs that use Plantweb Optics Connectors.

The KPIs include:

- Unhealthy
- Watch List
- System Messages
- User Messages
- CMMS Requests
- Undelivered CMMS
- Custom KPIs–such as Overdue Routes, Serious Problems, Overdue Calibration, and Loops in Manual

Pin (⚲) or unpin (✖) a KPI from the **Dashboard** page using the left pane settings.

Display or hide KPIs by using the Quick Display Settings (**Displayed KPIs Setting** check boxes). See Related information for details.

Search any KPI List view asset list using asset identification values (name, description, or path).

Sort assets in the KPI List Views.

Related information

Control KPI List Views with left pane
Asset ribbon features
Search KPI List View and Hierarchy assets
Sort KPI List View assets
Control Trends graph content with Parameters pane

3.5.1   Control KPI List Views with left pane

You can display and hide all KPIs except for the four permanent KPIs. They are Unhealthy (💙), Watch List (★), System Messages (📧), and User Messages (👥).

Use the controls found on the left pane of the Plantweb Optics Portal window for the CMMS Request KPIs and the Custom KPIs, Or use the **Display KPIs** check boxes found in the Quick Display Settings.

Procedure

1. [**If needed**] Click (»») icon to display the KPI edit controls.
2. Click the edit (✏) icon in the upper-right corner. With the exception of the four permanent KPIs, each KPI tile has an unpin (⚲) icon or a pin (✖) icon in the top-right tile corner.

Figure 3-12: Display and hide KPIs using pins
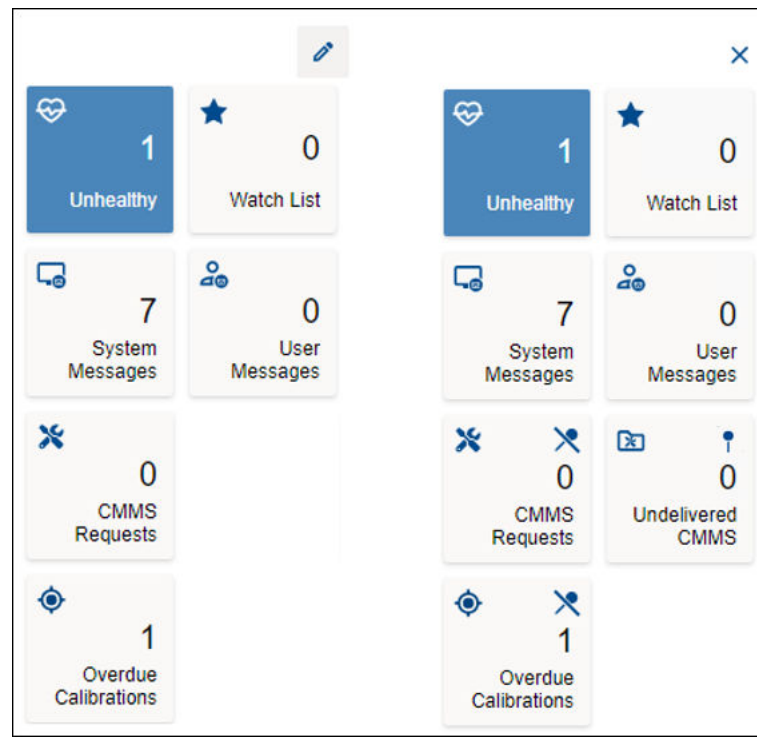
3. Hide (✖) or display (📍) the desired KPIs.

4. You must click (**X**) to stop the KPI display editing (pin and unpin) action.

Related information

Control KPI List Views with Quick Display Settings
Display and hide KPI List Views
Show Quick Display Settings

3.5.2 Display and hide KPI List Views

You can display and hide all KPIs except for the four permanent KPIs. They are Unhealthy (♡), Watch List (★), System Messages (🖥), and User Messages (👥).

Use the **Display KPIs** check boxes found in the Quick Display Settings for the CMMS Request KPIs and the Custom KPIs, Or use the controls found on the left pane of the Plantweb Optics Portal window.

Procedure

1. Click the gear (⚙) icon in User Toolbar.
   The Quick Display Setting has check boxes under **Displayed KPIs**.

2. Select or clear check boxes.
   KPI List View tiles change immediately.

3. Click close (**X**) or click outside the **Settings** pane.

Figure 3-13: Display or hide KPIs

Displayed KPIs

- ☑ Unhealthy
- ☑ Watch List
- ☑ System Messages
- ☑ User Messages
- ☑ CMMS Requests
- ☑ Undelivered CMMS
- ☑ Down Units
- ☑ Serious Problems
- ☑ Overdue Routes
- ☑ Overdue Calibrations

Related information

Control KPI List Views with left pane
Show Quick Display Settings

3.5.3 Search KPI List View and Hierarchy assets

The asset **Hierarchy** and KPI List Views can be searched using asset header identification and the message subject:

- Message Subject (**System Message** KPI and **User Message** KPI)

- Asset Name

- Asset Description

- Asset Path

Figure 3-14: Search function

name:Machine1 AND message:"Western Refinery"

Filter

name: Asset Name

description: Asset Description

path: Asset Path

message: Message Subject

Operators

AND OR   Close

Note

Use **AND** and **OR** Boolean operators to make more complex searches that use multiple fields. When using multiple operators, the **AND** operation takes precedence.

Note

Enclose your search string in double quotes when searching with a field containing blank spaces (for example `"West Refinery"`).

Note

Include the forward slashes when searching the asset **path**, (that is, `Enterprise/Site/Machine1`).

Procedure

1. Select a KPI List view or the **Hierarchy** (🗂) page.

2. Click the (🔍) **Search** area .

3. Click an (asset) **name**, **description**, **message**, or **path** field name.

4. Type your search string after the field name colon (**:**). Start and end the string with (") straight quotes when your search string contains spaces.

5. [**Optional**] Click **AND** or **OR** in the search dialog for more complex searches.

6. [**Optional**] Click an (asset) **name**, **description**, **message**, or **path** field you *did not use* in step three.

7. [**Optional**] Type a second search string for the field in Step six. Use quotes when necessary.

8. Press [**Enter**].

    Note

    The search returns the assets that are preloaded when you clicked the KPI tile. When the search result returns an empty list, the assets (that satisfy the search) are not loaded in the Optics Portal client. Click the **Load more results...** link to fetch the assets from the Data Repository.

9. Click **Close**.

3.5.4   Sort KPI List View assets

Display KPI List View assets using one of these sorting options:

- Criticality: High to Low

- Criticality: Low to High

- Health (score)

- Date (most recent to older)

Figure 3-15: Asset sorting options
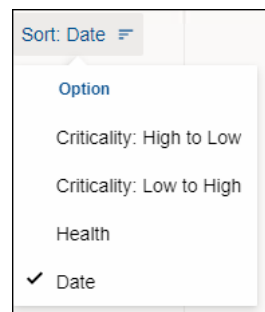
For assets, Plantweb Optics Portal uses these default **Sort** options for the *initial* display:

- **Unhealthy** and **Watch List** KPIs–Health.

- **System Messages** and **User Messages** KPIs–Date.

- **CMMS Requests** and **Undelivered CMMS** KPIs–Date.

- **Custom** KPIs–Date.

Procedure

1. Select a KPI icon or the KPI tile.
2. Select one of the options in the **Sort** drop-down list:
   (**a**) Criticality: High to Low, (**b**) Criticality: Low to High,
   (**c**) Health, or (**d**) Date

The asset list sorts according to your selection.

3.6   Recent Activities

Use the **Recent Activities** to see the five assets with the latest User Messages. The messages displayed are filtered with the current Active Filter, the **Message Filters** settings, and include all asset Class types. Messages about out of service assets are included.

For each message in the **Recent Activities** list:

- The asset health category as a colored bar; Red–Critical, Orange–Warning, Green–Good, or Black–Other.

- Asset name and asset description

- List of users tagged

- Message Severity

Click reveal (⬚) icon to re-display the hidden **Recent Activities**.

Figure 3-16: Recent Activities
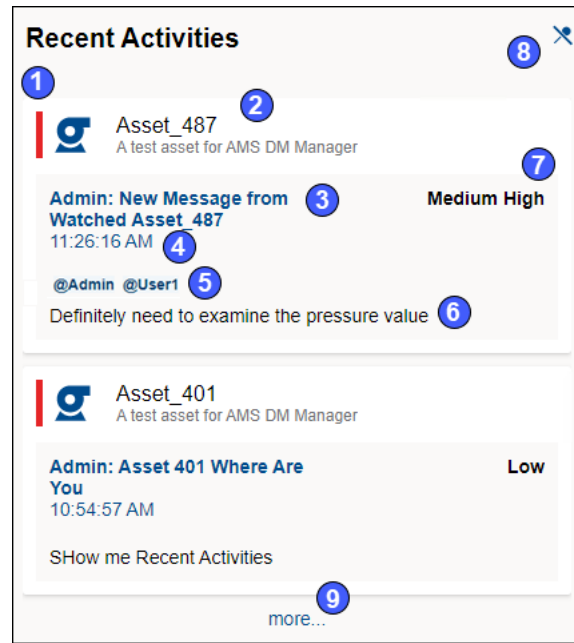
Legend	Description
1	Asset health category
2	Asset name and Description
3	User name of sender and the subject line
4	Time message sent
5	Users tagged
6	Message details
7	Message Severity
8	Display (📌) icon or hide (✖) **Recent Activities**.
9	Click a message (or click **more...**) to display message details and respond.

3.7   Time since last update

Time since the **Dashboard** was updated with new information from the Plantweb Optics repository. Hover over the last update time, the date and time of the previous Optics Portal update displays.
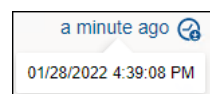
4   Controls

Summary of the Plantweb Optics Portal display controls used for this application.

- Left pane

- User Toolbar

- Asset filter types

- Quick Display Settings

- Asset Ribbon Features

- Asset Dialog Tabs

- Message and Requests

- User Settings to interpret the Dashboard

Related information

Control KPI List Views with left pane
User Toolbar
Asset filter types
Asset ribbon features
Dialog tabs for asset information
Paging controls for messages and CMMS requests
Settings that help you make sense of the Dashboard
Show Quick Display Settings

4.1   **Control KPI List Views with left pane**

You can display and hide all KPIs except for the four permanent KPIs. They are Unhealthy (♥), Watch List (★), System Messages (▣), and User Messages (▣).

Use the controls found on the left pane of the Plantweb Optics Portal window for the CMMS Request KPIs and the Custom KPIs, Or use the **Display KPIs** check boxes found in the Quick Display Settings.

Procedure

1. [**If needed**] Click (≫) icon to display the KPI edit controls.

2. Click the edit (✐) icon in the upper-right corner. With the exception of the four permanent KPIs, each KPI tile has an unpin (⌃) icon or a pin (✖) icon in the top-right tile corner.

Figure 4-1: Display and hide KPIs using pins
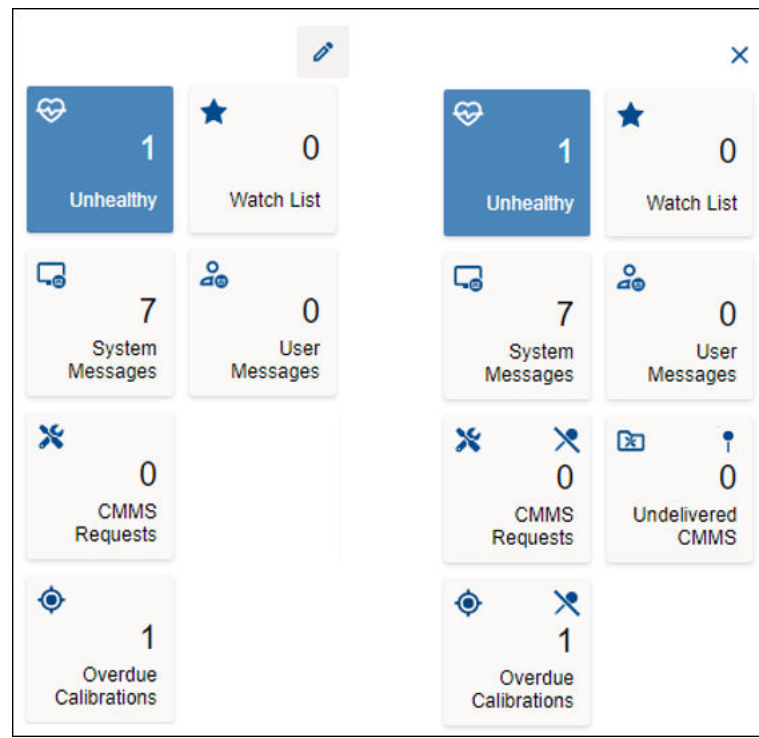
3. Hide (✖) or display (↑) the desired KPIs.

4. You must click (**X**) to stop the KPI display editing (pin and unpin) action.

Related information

Control KPI List Views with Quick Display Settings
Display and hide KPI List Views
Show Quick Display Settings

4.2 User Toolbar

You can perform several functions with the User Toolbar.

Figure 4-2: User Toolbar
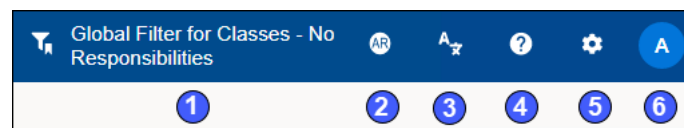
Legend	Description
1	User Filter name used as the *current* Active Filter.

Legend	Description
2	Start Augmented Reality application (with join key license)
3	Change your language for the Plantweb Optics Portal interface.
4	Display *Plantweb Optics Portal Help*.
5	Show Quick Display Settings pane.
6	Display user account information and ink to log out of Optics Portal.

Related information

Show Quick Display Settings

4.3   Asset filter types

Use the Active, Default, User, and Global Filter types to select the assets you monitor and study. Your filtering criteria includes device-type, hierarchy area, responsibilities (Failure Effects, Functions, and Interfaces), and criticality.

Figure 4-3: Filter dialog

Legend	Feature	Description
1	Default Filter	Click **Set Default** to prevent this filter from deletion. The word **Default** identifies your selection..
2	User Filters	Created by you; up to ten User Filters can be saved under **My Filters**.
3	Global Filters	Filters created for all users by a Plantweb Optics administrator, which are saved under **Global Filters**. You can load a Global Filter's specifications, but you can only save changes as a *new* User Filter name.

Legend	Feature	Description
4	Active Filter	Filter applied to the asset **Hierarchy**, **Dashboard** displays, and KPI List Views, when you click **Apply**. The filter is saved in the browser cache as your Active Filter and its name displays in the User Toolbar.
5	**Set Default**	Click to designate these filter settings as the ***Default Filter***. The filter name has the word *Default* beside its name. This filter cannot be deleted until another User Filter is designated as the default filter.
6	**Apply**	Designate the selections (Locations, Classes, Responsibilities, and Criticality) as the ***Active Filter***. Applied to all displays, except the **Hierarchy** search. Active filter saved in the browser cache.
7	**Save**	Retains selections for a User Filter. When the settings begin with a Global Filter, you must save the filter with a *new* name.

Note

With no filter specifications applied, Plantweb Optics Portal displays every asset in the hierarchy for which you have permissions.

4.4 Show Quick Display Settings

Click the (⚙) icon on the User Toolbar to display the Quick Display **Settings**. Make your selections. The **Dashboard** changes immediately. Click (**X**) or outside the pane to hide **Settings**.

Figure 4-4: Quick Display Settings (part 1 of 2)
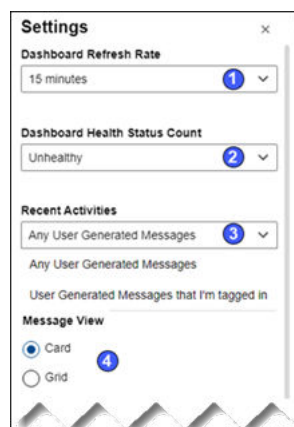
Legend	Description
1	Set **Dashboard** refresh interval in minutes or hours.

Legend	Description
2	Set type (`Unhealthy` or `Good`) of **Health Status Count** (Heath: circle graph).
3	Select message type (`Any User Messages` or `Messages that I'm tagged in`) to display in **Recent Activities**.
4	Select the `Grid` or `Card` message format.
5	Turn `On` or `Off` the **Message Filter**.
6	Display asset dialog tabs with or without text (icons only).
7	Select which KPIs to display on the **Dashboard**.
8	Click **View All Settings** link to access the **General** (user), **System**, and **Admin Settings** (administrators only).

Figure 4-5: Quick Display Settings (part 2 of 2)
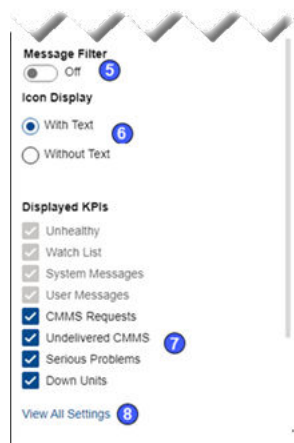
Related information

Set dashboard refresh rate
Determine type of Health Status Count
Select Recent Activities message type
Managing message content and format
Display and hide KPI List Views
Display messages in grid format
Enable and disable the Message Filter

4.4.1　Set dashboard refresh rate

Change the Plantweb Optics Portal dashboard refresh rate using the Optics Portal **Quick Display Setting**s ( ). All displays refresh when the interval is reached.

Select a refresh rate:

- 15 minutes or 30 minutes

- one, three, six, twelve, or 24 hours

Procedure

1. Click the gear (⚙) icon in User Toolbar.
2. In the Quick Display Setting, select the **Dashboard Refresh Rate**.
3. Select an interval.
4. Click close (**X**) or click outside the **Settings** pane.

Figure 4-6: Select refresh interval in Settings
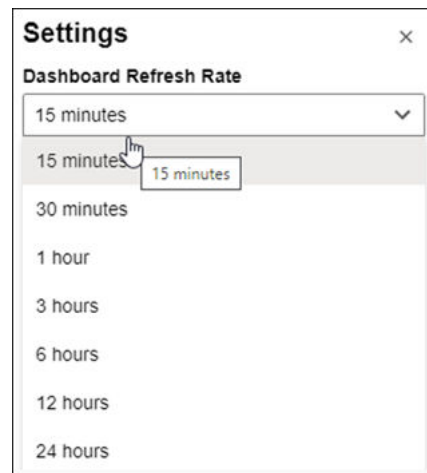
4.4.2   Determine type of Health Status Count

Select the type of health status count (inside **Health** circle graph) to list the Good assets count or the **Unhealthy** (`Critical + Warning`) assets count. Check with your administrator to understand what health score ranges are part of each health category.

Procedure

1. Click the gear (⚙) icon in User Toolbar.
2. In the Quick Display Setting, select the **Dashboard Health Status Count**.
3. Select Good or `Unhealthy`.
4. Click close (**X**) or click outside the **Settings** pane.

Figure 4-7: Select type of Health Status Count
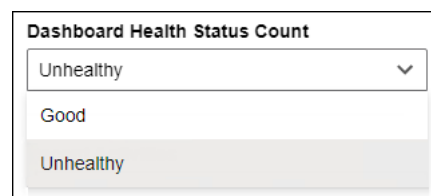
4.4.3   Select Recent Activities message type

Display user messages in which you are tagged, by selecting the **Recent Activities** option in the Quick Display Settings.

Procedure

1. Click the gear (⚙) icon in User Toolbar.
2. Select the **Recent Activities**.
3. Select `User Generated Messages that I'm tagged in` to limit messages.
4. Select `Any User Generated Messages` for all asset User Messages.
5. Click close (**X**) or click outside the **Settings** pane.

Figure 4-8: Limit user messages to when I am tagged
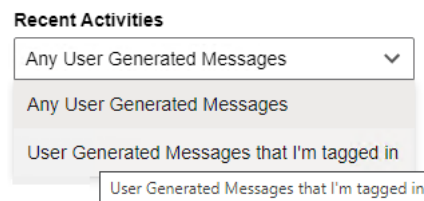
4.4.4   Managing message content and format

Control the format and content of your messages. Display the Quick Display Settings by clicking the gear (⚙) icon in the User Toolbar.

Procedure

1. Select the `Card` or the `Grid` message format in `Message View`.
2. Turn `On` or `Off` the **Message Filter** settings used to restrict what messages display.

Related information

Display messages in grid format
Enable and disable the Message Filter

Display messages in grid format
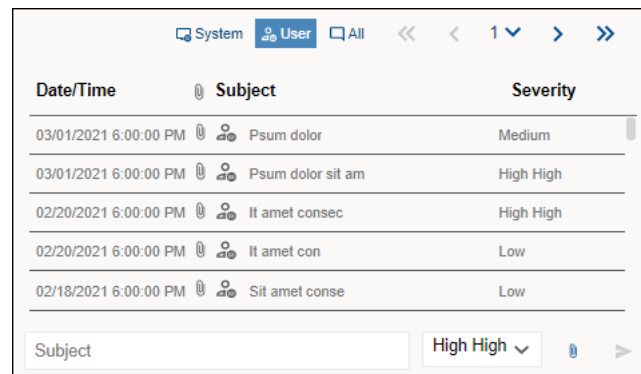
Display your messages in a Grid format as an alternative to the Card format. The Grid format displays the date and time, indicates attachments, shows message type (user or system), provides a message subject, and a message severity.

Procedure

1. Click the Gear (⚙) icon in the User Toolbar.
2. Change the **Message View** option to `Grid`.
3. Click the close (**X**) or click outside the **Settings** pane.

The messages change to a grid format, that resembles a spreadsheet.

Figure 4-9: Messages displayed in grid format

Related information

Managing message content and format

Enable and disable the Message Filter

Enable or disable the **Message Filter** under the Quick Display Settings.

Procedure

1. Click the (⚙) icon in User Toolbar.
2. Turning `Off` the message filter *displays all the messages* and mimics what the event viewer displayed in previous Plantweb Optics software.
3. Turn `On` the filter to only receive messages that match the **Message Filters** Settings.

Figure 4-10: Disable or Enable Message Filter
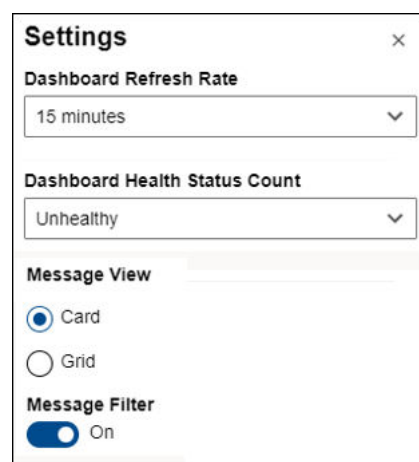
4.4.5   Display and hide KPI List Views

You can display and hide all KPIs except for the four permanent KPIs. They are Unhealthy (🫶), Watch List (★), System Messages (🖥), and User Messages (👥).

Use the **Display KPIs** check boxes found in the Quick Display Settings for the CMMS Request KPIs and the Custom KPIs, Or use the controls found on the left pane of the Plantweb Optics Portal window.

Procedure

1. Click the gear (⚙) icon in User Toolbar.
   The Quick Display Setting has check boxes under **Displayed KPIs**.

2. Select or clear check boxes.
   KPI List View tiles change immediately.

3. Click close (**X**) or click outside the **Settings** pane.

Figure 4-11: Display or hide KPIs
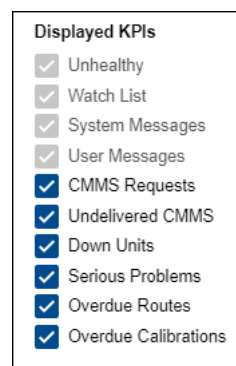
Related information

Control KPI List Views with left pane
Show Quick Display Settings

4.5 Asset ribbon features

Near the Optics Portal Page title bar for **Hierarchy** and KPI List Views, are specific commands that you can use whenever an asset is selected.

Figure 4-12: Asset ribbon feature example
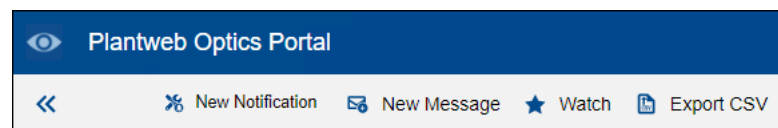
Note
To see all the commands, you must first select an asset in the list or hierarchy.

Table 4-1: Commands for Hierarchy and KPI List Views

Optics Portal Page	Asset Ribbon Features
Hierarchy	New Notification[1], New Message, Watch and Unwatch

Table 4-1: Commands for Hierarchy and KPI List Views *(continued)*

Optics Portal Page	Asset Ribbon Features
Unhealthy KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
Watch List KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
System Messages KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
User Messages KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
CMMS Requests KPI	New Notification[2], New Message, Watch and Unwatch, Export CSV
Undelivered CMMS KPI	New Notification[2], New Message, Watch and Unwatch, Export CSV
Custom KPIs	New Notification[1], New Message, Watch and Unwatch, Export CSV

[1] Displays when (**a**) you select an asset, (**b**) your user ID has the permission to "Create Work Notifications, and (**c**) the selected asset has an Asset Code. Display the asset **Properties** tab and click **CMMS** to display the Asset Code. See Related information for details.

[2] Displays when (**a**) you select an asset and (**b**) your user ID has the permission to "Create Work Notifications."

Related information

Create a new notification
Create a new message
Tag a user in a message
Watch and Unwatch assets
Export asset information
Properties tab

4.6 Dialog tabs for asset information

Select an asset in the **Hierarchy** or in a KPI List View to display asset details. The asset dialog tabs separate the information into groups.

Figure 4-13: Asset tabs

Legend	Feature	Description
1	♡ **Health**	Details about the assets health and possible contributors that are failing. A switch can add previous health values to the **Trends** (📉) graph.
2	⚙ **Properties**	Locate information about the asset : • General asset information (asset logical path, asset description, and health score). • CMMS (Asset Code) • Links and attachments.
3	◔ **Latest Values**	Find parameter limits, current parameter values, and the parameter update time stamps. Select parameters to add to the **Trends** graph (📉).
4	▭ **Messages**	Shows the related messages for a selected asset. Messages are organized by most current and most urgent. You can filter the messages to see System (📥) Messages, User (👥) messages, or All (▭) messages, by clicking the icon. Create and send a message using the fields at the bottom of the **Messages** (▭) tab.. See your Notifications displayed in the **System** (📥) Messages,
5	📄 **CMMS Requests**	Open, Undelivered, Canceled, or Closed CMMS work requests. The work requests are organized in pages of 40 each, with paging controls similar to the **Messages** dialog tab.
6	🥧 **KPIs**	Custom KPI information obtained from a Plantweb Optics Connector.

Related information

Health tab
Properties tab
Latest values tab
Messages tab
CMMS Requests tab
KPIs tab

4.7   Paging controls for messages and CMMS requests

When you display messages or CMMS work requests, Plantweb Optics divides the items into pages (40 items per page). The page controls help you locate a specific message or work request.

Figure 4-14: Paging controls for messages and CMMS work requests
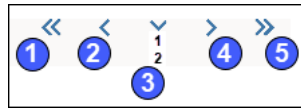
Control	Action when selected
1	First page
2	Previous page
3	Select specific page from page number list
4	Next page
5	Last page

4.8 Settings that help you make sense of the Dashboard

To accurately control and understand the Dashboard display:

- Configure your personal settings–**Filters**, **Notifications**, and **Message Filters**.

- Display your site's **System** Settings–**Health**, **Severities**, and **Bad Actors**.

Note
You can only display the **System** Settings. Your Plantweb Optics Administrators can change the settings.

(See Related information for details.)

Procedure

1. **Display assets of interest by using filters**–click (🔽) in User Toolbar > Click Show Filters (›)

2. **Limit Notifications to critical systems**–click the gear (⚙) in User Toolbar > Click **View All Settings**.

3. **Receive the necessary messages**–click the gear (⚙) in User Toolbar > Click **View All Settings** > under **General** > click **Message Filters**.

4. **Interpret health scores**–click the gear (⚙) in User Toolbar > Click **View All Settings** > under **System** > click **Health**.

5. **Select the message Severity**–click the gear (⚙) in User Toolbar > Click **View All Settings** > under **System** > click **Severities**.

6. **Understand what a Bad Actor is**–click the gear (⚙) in User Toolbar > Click **View All Settings** > under **System** > click **Bad Actors**.

Related information

User Filters

Notifications
Message Filters (settings)
Health (settings)
Severities (settings)
Bad Actors (settings)

5   Asset Hierarchy

Shows the asset hierarchy for the your area of responsibility (assets that you have permissions to change). The objects follow the ISA-95 Equipment model and consist of asset and location types.

The **Hierarchy** page displays:

- **Hierarchy**–the logical organization of assets can be used to determine how an asset's health impacts other assets.

- **Preconfigured KPIs**–assets with a current health score of less than 80, user-designated assets (watch list) to observe closely, and CMMS work requests submitted to SAP or Maximo.

- **Custom KPIs** (dependent on connected data sources)–Overdue calibrations, Serious Problems, Down Units, Overdue Routes, etc.

The **Hierarchy** page also enables you to send, receive, and view messages generated in Plantweb Optics Portal. The ability to receive and display messages depends on the your area of responsibility and message filtering.

Figure 5-1: Plantweb Optics Portal Hierarchy example

Legend	Description
1	**Settings** (⚙) icon and number of asset parameters plotted on **Trends** (📈) graph.
2	*Asset Ribbon Features* found on the **Hierarchy** and KPI List Views. The features can create a new notification, create a new message, add or remove a **Watch List** asset, and can export asset (and message or CMMS request information) to a CSV file.
3	Left panel that helps you quickly switch between main displays and selects specific KPI List Views.

Legend	Description
4	Logical organization of locations, assets, and machines according to the ISA-95 Equipment Model.
5	Edit (✎) icon that helps you display or hide KPI List Views.
6	Asset header information–name, description, and path in the logical hierarchy.
7	Dialog tabs that display on the **Hierarchy** and KPI list views, and include specific asset details (**Health**, **Properties**, **Latest Values** (if acquired), **Messages**, **CMMS Requests**, and **KPIs**. See Related information for details.
8	Details for the specific dialog tab.

Note

You can send, receive, and view the same messages on a mobile device if the Plantweb Optics Mobile App is installed. The Plantweb Optics Mobile App is available for download from the Google Play™ store or the Apple® AppStore™. To use the mobile app, you need a mobile join key that is associated with your account. Refer to the *Plantweb Optics System Guide* for instructions on how to download and install the Plantweb Optics Mobile App.

Related information

Logical Assets and locations
Health score calculation
Asset elements
Filtering assets
Asset ribbon features
Out of Service assets

5.1   Logical Assets and locations

The Plantweb Optics **Hierarchy** displays the *logical* organization (assets and locations) of your installation. The Hierarchy display adheres to the ISA-95 Equipment model in your data repository.

In past Plantweb Optics software, you could display the logical asset hierarchy *and* physical hierarchy of assets. Plantweb Optics now manages the physical asset hierarchy. Administrators (manually), Emerson Connectors, and Connectors using Open Standards add, replace, delete, and reorganize portions of the *physical* hierarchy. Assets are automatically or manually bound to the *logical* hierarchy assets that display in Plantweb Optics Portal..

Figure 5-2: Plantweb Optics Portal logical asset hierarchy

	Asset Hierarchy Organization
1	Company or Enterprise
2	Business Unit
3	Site - City - Rig - Plant
4	High-level process (cat-cracker)
5	System (boiler, reactor, distiller)
6	Sub-system (cooling lubrication)
7	Sub-sub-system (motor cooling)
8	Complex equipment (Pump 101)
9	Equipment (single piece)
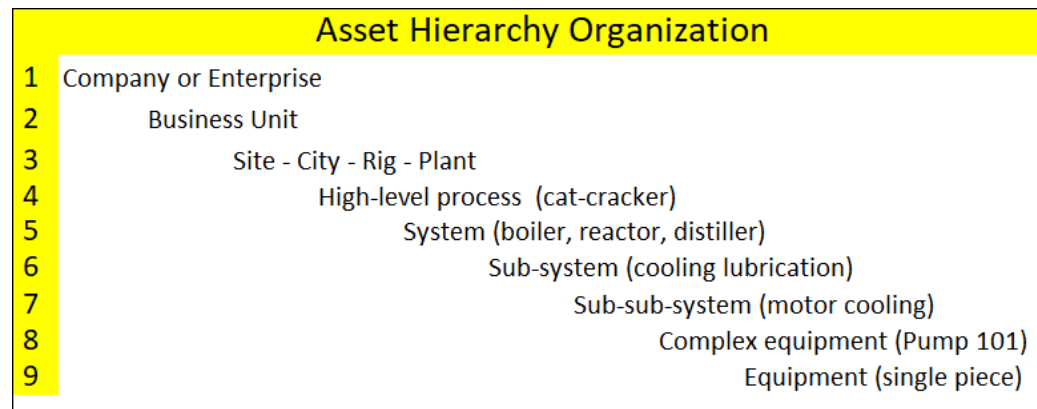
Assets

An asset is any physical component (device, machine, or equipment) being monitored by Plantweb Optics, or the logical representation of a physical asset.

Assets can be a physical piece of equipment, such as machinery or monitoring devices. Typically, an asset is considered a piece of machinery that is monitored with a device. However, a monitoring device is also considered an asset. Some assets, such (valves) are a combination of machine and monitoring device. Examples include motor, pump, fan, turbine, steam trap, and heat exchanger.

Locations and asset locations

Locations and generic assets can contain machines and devices or other generic assets. In specific situations, it makes sense to use one instead of the other. All locations have basic properties. Each additional type of location has additional properties specific to its type. Unique icons represented new location types in the Hierarchy.

A folder represents a location that is an area. It has the location basic properties, a name and links to the child locations.

An asset location is a location type represented by its own icon that can contain other locations, assets, or devices. An asset location has properties common to all assets. A device is location type that represents a monitoring device. Specific device types have unique properties and icons.

A machine is a type of asset location defined by the AMS Machine Works Data Collector. A machine has specific properties defined for collecting specific measurements such as PeakVue, vibration, and temperature. This data is analyzed and used to diagnose problems, then schedule maintenance based on the equipment condition, before a failure actually occurs.

Table 5-1: Asset and location differences

Property	Assets	Locations
Asset health score	Have a health score, including generic assets, for which a health score is calculated by a method (Worst or Average) that considers all its child assets.	Have health scores determined by the assets they contain.

Table 5-1: Asset and location differences *(continued)*

Property	Assets	Locations
Contents	Generic assets can contain any number of machines or asset sources; but cannot contain a location.	Can contain any number of child locations, helping you organize your site any way that makes sense to you.
Filtering	You can apply a User Filter to your permitted assets, so they are easier to display and find.	You apply a User Filter to locations.
Messages	Send messages about a selected asset.	Send a message once you select an asset location.

5.2   Health score calculation

Plantweb Optics calculates the health of each asset and displays it as a numerical health score. Each asset source that interacts with a given asset assigns it a health score, 0 through 100. Zero is completely unhealthy and 100 is completely healthy. Plantweb Optics calculates an overall health score by aggregating all asset source health opinions.

Note
Select an asset and click the **Health** tab to display the asset's health score and 7-day health score trend.

Each Emerson Connector reports on the health of the assets in their hierarchy. The health score is based on the health of the asset for each data collector. The health calculation is presented as numerical health score, 0 through 100.

An asset can have health scores from different asset sources. Plantweb Optics takes into consideration the health scores from data collectors to calculate the overall asset health. The health of multiple assets from different data collectors can be aggregated by creating parent and child associations.

Figure 5-3: Example asset health scores
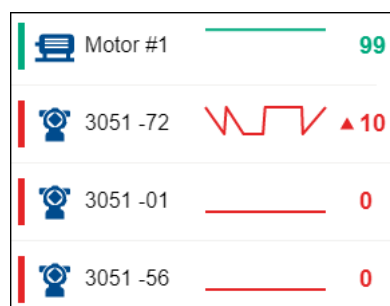
Related information

Alerts to health scores

5.2.1 Alerts to health scores

Devices in the Emerson Connectors report alerts. Individual data collectors convert these alerts are converted into equivalent NAMUR NE-107 diagnostic alert category values. The data collector then converts these NAMUR values to Plantweb Optics health scores. The following table illustrates how alerts become Plantweb Optics health scores.

Device Alert	NAMUR diagnostic alert	Health score
Failed	Failed	0
No Communication	No Communication	10
Maintenance	Off-specification	50
Abnormal	Maintenance	80
Check Function	Check Function	80
Advisory	Maintenance	100
All Alerts Cleared	All Alerts Cleared	100

5.3 Asset elements

Plantweb Optics Portal has five major functions that display or hide (restrict or filter) asset information.

Figure 5-4: Access elements

Area	Function	Description
1	Area of responsibility (unseen)	Parts of the asset hierarchy in which you are permitted to have full control, restricted functions, or display-only access. These areas are defined by the Plantweb Optics Access administrator, who assigns you permissions (`Write`, `Modify`, `Execute`, `List`[1], `Read,` and `Inheritable`[2]). Any asset filtering begins first with filtering the list of assets against your assigned permissions.

Area	Function	Description
		Note You would see this asset hierarchy if no event or message filters are defined.
2	Search function	You can find specific assets using a text search on specific asset header information.
3	Asset Header	Basic asset identification and potential health issues at a glance.
4	Dialog tabs	For each asset, these tabs organize and display specific asset information. See individual tabs for specific information items. See Related information for details.
5	Filters	You can use a filter, edited by you, or a filter defined by the administrator for all Plantweb Optics Portal users. You can designate a filter to be (**a**) Active (in use and applied to the asset hierarchy) or (**b**) the **Default** Filter, which cannot be deleted until another User Filter is designated.. You can save a maximum of ten User Filters.

[1]If set to true the object displays when listing children of its parent, also the ancestors of the object can be listed.

[2]Explicit permissions set for this object are inherited by all its children.

Related information

Asset hierarchy search
Basic asset header
Asset information

5.3.1   Asset hierarchy search

The asset Hierarchy can be searched using asset header identification fields:

- Asset Name

- Asset Description

- Asset Path

For searches using **System Message** or **User Message** KPI List Views, you can search by message **Subject**.

Note
When your search returns more than 100 assets, retrieve more assets by clicking the **Load More Assets** link at the bottom of the asset list.

Figure 5-5: Asset hierarchy search function

Note

Use the **AND** and **OR** Boolean operators for more complex searches that require multiple asset fields.

Note

When searching a field with blank spaces, enclose your string in double quotes (that is, `"West Refinery"`).

Note

When searching the **Asset Path**, include the forward slashes (that is, `Enterprise/Site/Machine1`).

5.3.2 Basic asset header

The asset header provides basic asset identification and displays potential asset issues at a glance.

Figure 5-6: Asset header

Area	Feature	Description
1	Health bar	• Red–`Critical` • Orange–`Warning` • Green–`Good` • Gray–`Unknown` or asset is Out of Service
2	Asset Name	Name of the Asset or can be the CMMS Asset Tag
3	Asset Description	Long name of the Asset
4	Hierarchy Path	Asset's location in the ISA-95 Equipment hierarchy
5	Watched icon	Displays (⭐) icon beside an asset you designated for your **Watch List**.

Area	Feature	Description
6	Out of Service icon	Displays ⊖ icon when an asset is ignored for health calculations and system messages.

5.3.3   Asset information

Plantweb Optics Portal displays an extensive amount of information for each asset.

Figure 5-7: Asset information
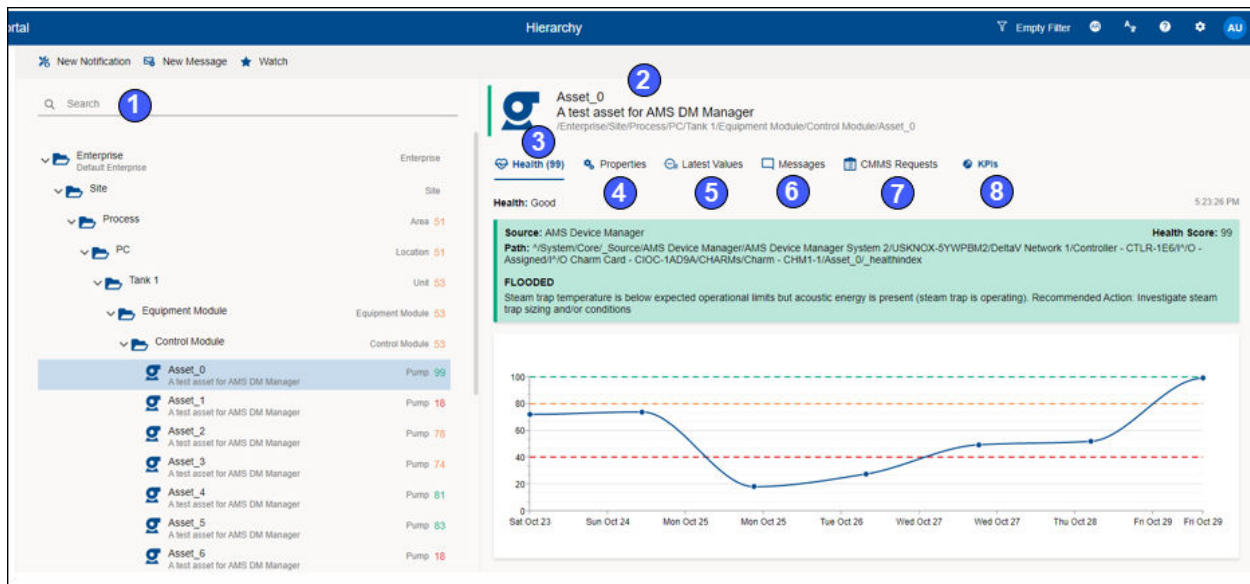
Legend	Description
1	**Asset elements**–the asset **Hierarchy** and the search function, health trend, dialog tabs, and filters that organize and define the following displayed seven sets of asset information.
2	**Basic asset header**–information such as health color-coded bar, asset name, asset description, hierarchy path, Watched icon, and Out of Service icon.
3	**Health tab**–shows asset's current health information.
4	**Properties tab**–provides asset details, links to other information, attachments (pics, docs, procedures), including the Asset Code (CMMS ID) that would be used in a work request.
5	**Latest Values tab**–asset parameters such as temperature and pressure.
6	**Messages tab**–user generated, system-generated (events), or both. User can customize the message filter. Your administrator defines the Severity levels.
7	**CMMS tab (work requests)**–work title includes the Work Notification ID prefix, priority, request Status, and work details.
8	**KPIs tab**–displays all the custom KPIs for asset (if present).

5.3.4 Dialog tabs for asset information

Select an asset in the **Hierarchy** or in a KPI List View to display asset details. The asset dialog tabs separate the information into groups.

Figure 5-8: Asset tabs

Legend	Feature	Description
1	♡ **Health**	Details about the assets health and possible contributors that are failing. A switch can add previous health values to the **Trends** (📈) graph.
2	⚙ **Properties**	Locate information about the asset : • General asset information (asset logical path, asset description, and health score). • CMMS (Asset Code) • Links and attachments.
3	📈 **Latest Values**	Find parameter limits, current parameter values, and the parameter update time stamps. Select parameters to add to the **Trends** graph (📈).
4	▢ **Messages**	Shows the related messages for a selected asset. Messages are organized by most current and most urgent. You can filter the messages to see System (📱) Messages, User (👥) messages, or All (▢) messages, by clicking the icon. Create and send a message using the fields at the bottom of the **Messages** (▢) tab.. See your Notifications displayed in the **System** (📱) Messages,
5	▤ **CMMS Requests**	Open, Undelivered, Canceled, or Closed CMMS work requests. The work requests are organized in pages of 40 each, with paging controls similar to the **Messages** dialog tab.
6	◐ **KPIs**	Custom KPI information obtained from a Plantweb Optics Connector.

Related information

Health tab
Properties tab
Latest values tab
Messages tab
CMMS Requests tab
KPIs tab

Health tab

The Health tab helps you quickly understand the current and previous 7-day health of an asset.

Figure 5-9: Health tab example

Legend	Feature	Description
1	Current health status	`Critical`, `Warning`, `Good`, and `Other`.
2	Health tab	Displays by default once you select the asset.
3	Add Health to Trends	Click to display overall heath score on **Trends** graph.
4	Last health status update	Last time that Optics Portal received the health value for asset
5	Health contributors	• Details related to health score from the Physical Asset that provides health information to the ISA-95 Equipment asset. • **Source**–data source where the health originates • **Path**–path of the Physical Asset that contributes the health information • **Health Score**–physical Asset current health • **Details (Optional)**–details of the reason why the health has changed
6	Seven-day running health	Health history recorded for past seven days. Individual daily health scores are aggregated using a best fit trend line.

Properties tab

Display additional asset details using the **Properties** tab. The dialog tab can provide detailed asset information, CMMS Asset Code used for work requests, links to related documents/images, plus attachments.

Figure 5-10: Properties tab
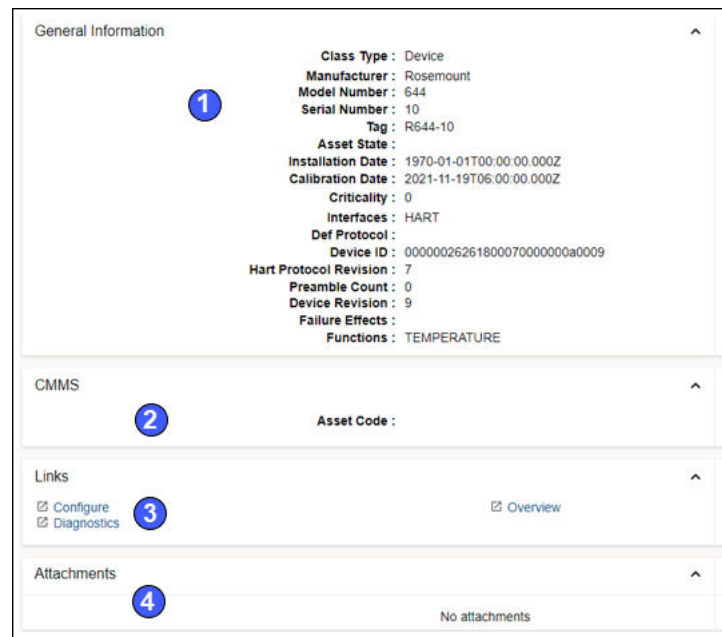
Legend	Feature	Description
1	General Information	Asset information regarding its type, model, protocol, function, failure effect, etc.
2	CMMS	The CMMS Asset Code used for work requests
3	Links	• Types of links: • **Actions**–launch by context URLs • **External Links**–links for a website
4	Attachments	Files that were uploaded for the asset.

Related information

File attachments

Latest values tab

Display parameters associated with an asset. Select a maximum of 16 parameters from multiple assets to add to the **Trends** graph..

Figure 5-11: Latest Values tab
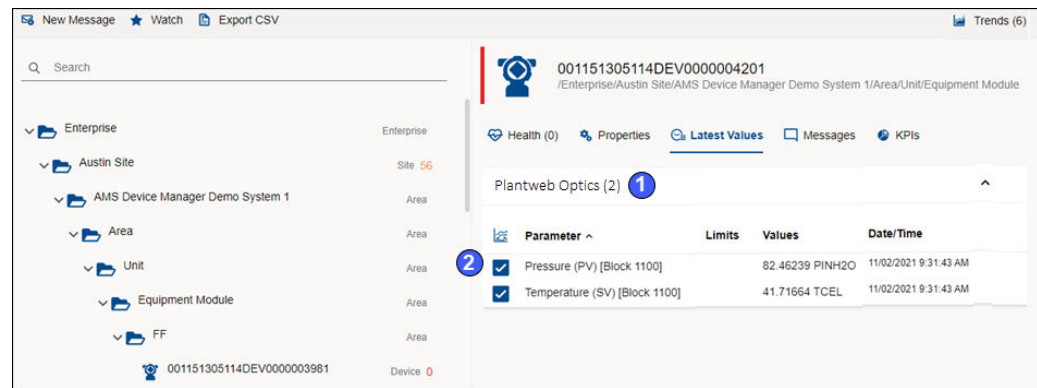
Legend	Description
1	Parameters grouped according to the application or data source.
2	Select check boxes under the **Trends** (⬚) icon to add to the **Trends** graph.

File attachments

Plantweb Optics uses the following file types and file name extensions.

Table 5-2: File types and file name extensions

File Types	File Name Extensions
Plain Text	`.txt`
Portable Document Format (Acrobat™)	`.pdf`
Microsoft Word Document	`.doc, .docx`
Microsoft PowerPoint Presentation	`.ppt, .pptx`
Spreadsheet	`.csv, .xls, .xlsx`
Log	`.log`
Scalable Vector Graphics	`.svg`
Joint Photographic Group Graphic	`.jpg .jpeg`
Portable Network Graphics	`.png`
Graphics Interchange Format	`.gif`
Microsoft Bitmap Image	`.bmp`

Messages tab

The Plantweb Optics Portal pages display a list of messages for an asset that is selected from the **Hierarchy** or belongs to assets from a specific Key Performance Indicator (KPI). KPIs are asset (and locations) lists used to alert users to potential problems. KPIs include **Unhealthy** (assets with low health scores), **Watch List** (user selections), **System**

Messages, **User Messages**, **CMMS Requests**, **Undelivered CMMS** (work requests), and Custom KPIs.

Access all the messages by selecting an asset and clicking the ☐ Messages tab.

Figure 5-12: Messages tab controls

Legend	Description
1	Asset icons to indicate an asset on your **Watch List**(⭐) or an out of service (⊖) asset.
2	Click to switch among **System** (☐), **User** (☐), and **All** (☐) messages.
3	Page controls (≪ ‹ 1∨ › ≫) that display a set of messages: first page, previous page, a specific page number, next page, or last page.
4	Message page (40 messages per page) with scroll bar. Messages display in descending date/time (most recent to older).
5	Compose a Message fields - Subject and message details.
6	Compose a Message - Severity selection list. The Severity selector uses the ranges defined by an administrator under the System Settings: **Severities**.

Legend	Description
7	Compose a Message - Add attachment (select file from local PC) and Send controls. Your administrator defines the maximum file size. Emerson recommends that you keep file sizes less than 30 MB. See Related information for file types and file name extensions used by Plantweb Optics.
8	Displays (>) expanded message information (asset type, source, and hierarchy location).

Related information

File attachments
Brief and expanded message formats
Display Settings for message list
Display messages in grid format

CMMS Requests tab

Display work requests associated with a selected asset from the **Hierarchy** or KPI List Views.

- Select work request priorities to match the MAXIMO or SAP CMMS configuration.

- Resend or delete an undelivered work request.

Figure 5-13: CMMS Requests tab
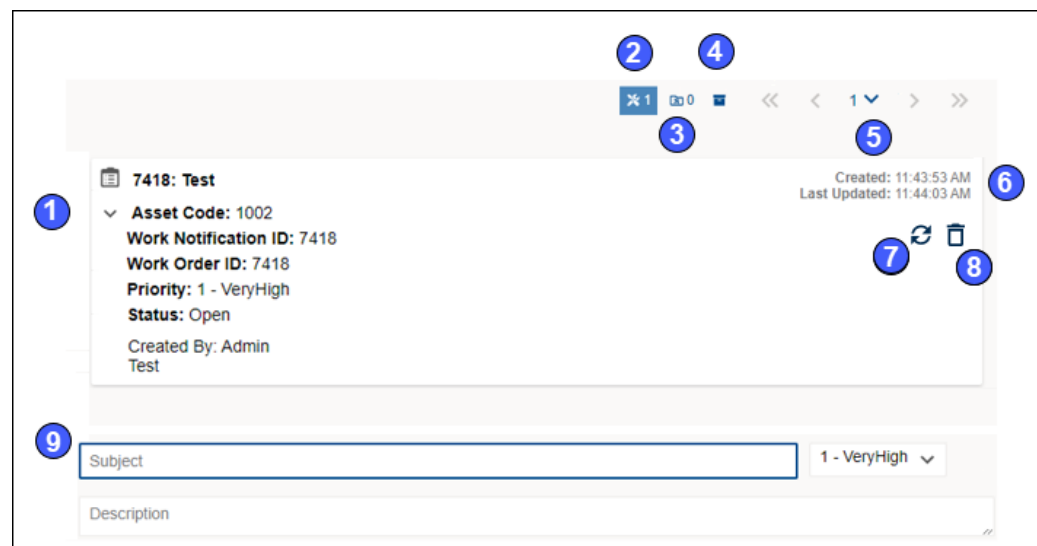
Legend	Description
1	Work request, asset code, notification ID, CMMS priority, status, user that created the request.
2	Open work requests filter.
3	Undelivered work requests filter.
4	Closed or Canceled work requests filter.

Legend	Description
5	Page navigation controls–first, previous, page number, next, and last page controls.
6	Creation and last update time stamps.
7	Click (⟳) to resend a (Undelivered CMMS) work request.
8	Click (🗑) to delete a (Undelivered CMMS) work request.
9	New Work request. Add **Title** and **Details**. Select **Work Priority**. Click **Send**.

Figure 5-14: Work request details

Legend	Feature	Description
1	Work Request Title	For open work requests, the **Work Title** uses the *Work Order ID* as a prefix. For an undelivered work request, the prefix *Undelivered* is attached to the **Work Title**.
2	Asset Code	Value that ties this asset's work request to the SAP/MAXIMO asset.
3	Notification ID	Exported to the CSV file for `Undelivered` and `Open` work requests.
4	Work Order ID	For MAXIMO, the **Work Order ID** displays immediately. For SAP, the SAP Admin needs to manually access a work order before the **Work Order ID** displays in Optics Portal.
5	Priority	One of the work priority values defined by the Plantweb Optics Administrator that matches the configured priority values in the SAP or MAXIMO system.
6	Status	`Open`, `Undelivered`, `Canceled`, or `Closed`.
7	Work Request details	Description who created the request and the details of the work requested.

KPIs tab

Obtain asset information provided by Emerson Connectors or Plantweb Optics Connectors.

Figure 5-15: KPIs tab
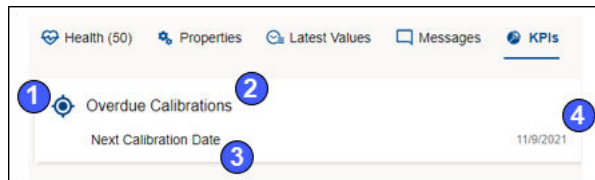
Legend	Description
1	Custom KPI icon
2	Custom KPI contributor subject
3	Custom KPI contributor details
4	Contributor time stamp

5.3.5   Asset filter types

Use the Active, Default, User, and Global Filter types to select the assets you monitor and study. Your filtering criteria includes device-type, hierarchy area, responsibilities (Failure Effects, Functions, and Interfaces), and criticality.

Figure 5-16: Filter dialog
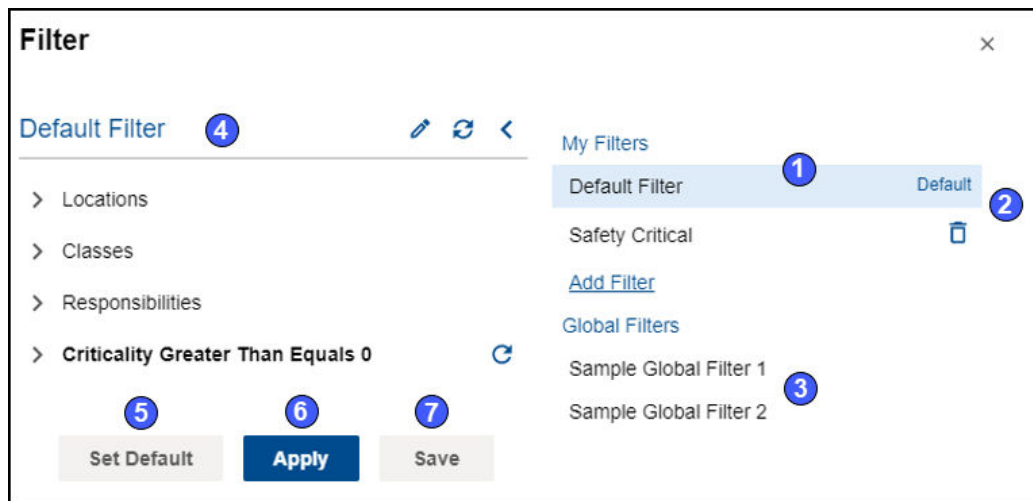
Legend	Feature	Description
1	Default Filter	Click **Set Default** to prevent this filter from deletion. The word **Default** identifies your selection..
2	User Filters	Created by you; up to ten User Filters can be saved under **My Filters**.

Legend	Feature	Description
3	Global Filters	Filters created for all users by a Plantweb Optics administrator, which are saved under **Global Filters**. You can load a Global Filter's specifications, but you can only save changes as a *new* User Filter name.
4	Active Filter	Filter applied to the asset **Hierarchy**, **Dashboard** displays, and KPI List Views, when you click **Apply**. The filter is saved in the browser cache as your Active Filter and its name displays in the User Toolbar.
5	**Set Default**	Click to designate these filter settings as the ***Default Filter***. The filter name has the word *Default* beside its name. This filter cannot be deleted until another User Filter is designated as the default filter.
6	**Apply**	Designate the selections (Locations, Classes, Responsibilities, and Criticality) as the ***Active Filter***. Applied to all displays, except the **Hierarchy** search. Active filter saved in the browser cache.
7	**Save**	Retains selections for a User Filter. When the settings begin with a Global Filter, you must save the filter with a *new* name.

Note
With no filter specifications applied, Plantweb Optics Portal displays every asset in the hierarchy for which you have permissions.

5.3.6   Default and Active filters

When you start a Plantweb Optics session, the **Active Filter** is applied to your asset list views.

The name of the currently Active Filter applied to your displayed asset list, shows next to the (▼) icon in the User Toolbar. This filter is stored in memory and *saved* from session to session.

The **Default Filter** cannot be deleted until another User filter us designated as the new **Default Filter**.

5.4   Filtering assets

Use the **Filter** dialog from the User Toolbar to refine the assets listed in the KPI List Views. Usually, you want to display assets that you either need to inspect or assets you have concerns about performance or reliability.

Note
Before Plantweb Optics Portal applies *any* User Filter, your list of assets is created from the Data Repository, based on your assigned profile permissions. The permissions define what assets you can create, display, change, or delete. These assets are your *realm of responsibility*.

User Filters

Click the filter (▼) icon on the User Toolbar to display the **Filter** dialog for changing your filter settings.

Create persona-based User filters that provide the information you want on locations, classes, and responsibilities. Or copy one of the global filters (Administrator defined) and create a new User Filter to filter your assets.

Note

You can define 10 User Filters. At a minimum, you want two filters that:

- Display assets you work with on a regular basis.

- Show all the assets that are your responsibility.

Filter settings

Your User Filters pass assets based on the following criteria:

- **Locations**–Select an entire site or expand the hierarchy and select child areas within that site location. The site and areas are derived from the Asset **Hierarchy**.

- **Classes**–Select how elements such as assets and asset sources are structured in Plantweb Optics. Choose one or more machines, devices, and IO such as DeltaV. Also select several other class types such as Database, Station, Route, Proxy, and Control Loop.

- **Responsibilities**–Select persona-specific functions that are identified asset responsibilities. Select from Failure Effects, Functions, and Interfaces:
  - *Failure Effects*–Identify assets according to the effects when an equipment failure happens. Plantweb Optics supports (**a**) Safety Critical, (**b**) Air Pollution Control, (**c**) Hazardous Material Control (**d**) Environmental Control, and (**e**) Production Control.

  - *Functions*–functionality of an asset.

  - *Interfaces*–how the asset sends and receives network traffic.

- **Criticality**–Relative risk (expressed as a number, 0 through 1,000,000) of the high costs from failure of that asset.

Figure 5-17: Filter settings
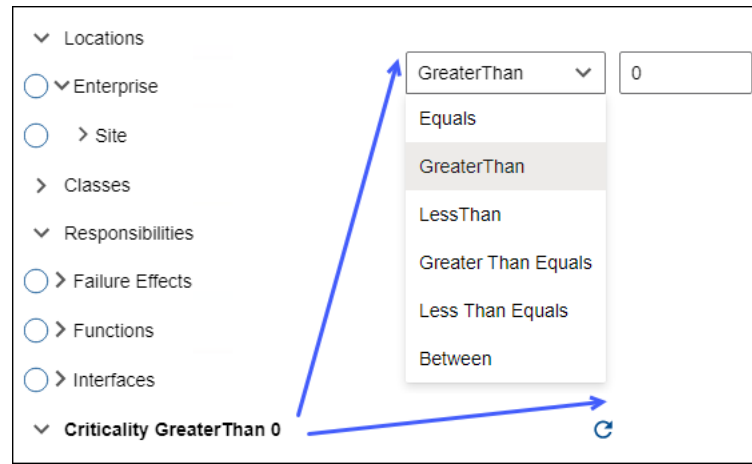
Related information

Asset display filters
Display User and Global Filters
Change the Active Filter
Create a User Filter
Create new User Filter from Global Filter
Delete User Filter
Set Default Filter for user

5.4.1   Asset display filters

This section shows the different types of asset display filters in Plantweb Optics Portal that you can use to focus your attention on specific assets:

Figure 5-18: Optics Portal asset filters - Show Filters dialog

Area	Description
1	**User Filters**–asset filter that can be applied to a list of assets. Each user filter is defined based on (**a**) user permissions (realm of responsibility), (**b**) **Locations**, (**c**) **Classes**, (**d**) **Responsibilities**–failure effects, functions, and interfaces, plus a (**e**) **Criticality** threshold. A maximum of 10 User Filters (**My Filters**) can be saved.
2	**Global Filters**–defined by your Plantweb Optics Portal administrator to help all users create their unique, persona-based User Filters.
3	**Default Filter**–one of the **My Filters** (User) designated. You cannot accidentally delete the Default Filter. You must select another User Filter with the **Set Default** button before you can delete the original filter.
4	**Active Filter**–a filter *currently applied* to an asset list and saved locally in the browser cache. The filter's name displays above the filter criteria in the **Filter** dialog and in the User Toolbar.

5.4.2   Display User and Global Filters

Display the complete list of all defined User Filters and Global Filters.

Procedure

1. Click the **Filter** dialog (▼) icon on the User Toolbar in the upper-left corner of the browser.
2. Click the show filters (>) icon.
   The list of all User Filters (**My Filters**) and **Global Filters** displays.
3. Click close (**X**) icon or click outside the pane.

5.4.3   Change the Active Filter

Change the current Active Filter settings, save them, and apply the new settings to the KPI List Views assets.

Procedure

1. Click the **Filter** dialog (▼) icon on the User Toolbar in the upper-left corner of the browser.
2. Click the edit (✎) icon to make changes.
3. Click expand (>) icon and other expand icons to reveal the **Locations** hierarchy. Make selections. Click collapse (⌄) icon when done.
   Number of selections display beside **Locations** and sub-locations.
4. Click expand (>) icon to show different **Classes**. Make selections. Click collapse (⌄) icon when done.
   One or more **Classes** from list are selected.
5. Click expand (>) icon to show three groups of **Responsibilities**.
6. Click expand (>) for **Failure Effects**, **Functions**, or **Interfaces**. Make selections. Click collapse (⌄) icon when done.
7. Click expand (>) for **Criticality** criteria. Select relationship operator from list. Type criticality value.

8. Click clear filter criteria (⟳) icon to remove single filter criteria. Click discard filter changes (✕) icon to remove all filter criteria changes.

9. Click save filter (🖫) icon to retain the settings.

10. Click **Apply** button to filter your assets.

11. Click **Save** button to retain filter settings.

12. Click close (**X**) icon or click outside the pane. Unsaved changes display a **Confirm Exit** confirmation.

5.4.4   Set Default Filter for user

Select a User Filter as the default. This filter cannot be deleted.

Procedure

1. Click the **Filter** dialog (▼) icon on the User Toolbar in the upper-left corner of the browser.

2. Click the show filters (>) icon.
   The list of all User Filters (**My Filters**) and **Global Filters** displays.

3. Click one of the filters listed under the **My Filters** heading.
   The list of filters slides out of sight.

4. Click the **Set Default** button.
   This User Filter name now has the designation *Default* in blue text.

5. Click close (**X**) icon or click outside the pane.

Once a User Filter is designated as the **Default** Filter, it cannot be deleted until another filter becomes the **Default** Filter.

5.4.5   Create a User Filter

Create a new user filter for the current user. Show how to apply the filter as a temporary filter or store the filter to persist between Plantweb Optics Portal sessions.

Procedure

1. Click the **Filter** dialog (▼) icon on the User Toolbar in the upper-left corner of the browser.

2. Click the show filters (>) icon.
   The list of all User Filters (**My Filters**) and **Global Filters** displays.

3. Click the **Add Filter** link.

4. Enter a name into the top field (maximum length of 100 characters).

5. Click expand (>) icon and other expand icons to reveal the **Locations** hierarchy. Make selections. Click collapse (⌄) icon when done.
   Number of selections display beside **Locations** and sub-locations.

6. Click expand (>) icon to show different **Classes**. Make selections. Click collapse (⌄) icon when done.
   One or more **Classes** from list are selected.

7. Click expand (>) icon to show three groups of **Responsibilities**.

8. Click expand (>) for **Failure Effects**, **Functions**, or **Interfaces**. Make selections. Click collapse (∨) icon when done.

9. Click expand (>) for **Criticality** criteria. Select relationship operator from list. Type criticality value.

10. Click clear filter criteria (⟳) icon to remove single filter criteria.

11. Click save filter (⊟) icon to retain the settings.
New filter becomes the Active Filter. New filter displays under **My Filters**.

12. Click **Apply** to filter assets.

13. Click **Set Default** button to designate it as the **Default** filter.

14. Click close (**X**) icon or click outside the pane.

5.4.6   Create new User Filter from Global Filter

Take the filter criteria from a **Global Filter** and save it under **My Filters** as a new User Filter.

Procedure

1. Click the **Filter** dialog (▼) icon on the User Toolbar in the upper-left corner of the browser.

2. Click the show filters (>) icon.
The list of all User Filters (**My Filters**) and **Global Filters** displays.

3. Select a **Global Filter** name.
The filter criteria displays for the Global Filter.

4. Change the **Locations**, **Classes**, **Responsibilities**, or **Criticality** criteria.

5. Click the **Save As** button.
The filter name changes to "*Global Filter name* + Copy"

6. Click the edit (✎) icon to make changes.

7. Enter the *new name* for the User Filter.

8. Change the **Locations**, **Classes**, **Responsibilities**, or **Criticality** criteria.

9. Click save filter (⊟) icon to retain the settings.

10. Click **Apply** button to filter your assets.

11. Click the **Set Default** button.
This User Filter name now has the designation *Default* in blue text.

12. Click close (**X**) icon or click outside the pane.

5.4.7   Delete User Filter

Delete one of the user filters (**My Filters**) from the list. The Default Filter cannot be deleted.

Note
When an asterisk (*) displays to the right of the User Filter name (in italics), this is the **Default** Filter.

Procedure

1. Click the **Filter** dialog (⬛) icon on the User Toolbar in the upper-left corner of the browser.

2. Click the show filters (⟩) icon.
   The list of all User Filters (**My Filters**) and **Global Filters** displays.

3. Click the delete (🗑) icon beside any **My Filters**. A confirmation "Delete selected Filter? (✔ ✗)" displays.

4. Click green check mark to confirm. Click red X to decline.

5. Click **Save** button to retain all filter changes.

6. Click close (**X**) icon or click outside the pane.

5.5   Asset ribbon features

Near the Optics Portal Page title bar for **Hierarchy** and KPI List Views, are specific commands that you can use whenever an asset is selected.

Figure 5-19: Asset ribbon feature example
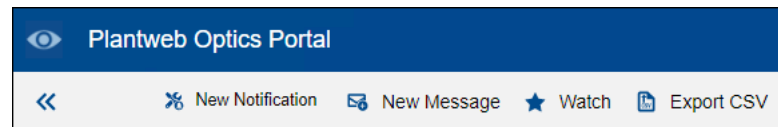
Note
To see all the commands, you must first select an asset in the list or hierarchy.

Table 5-3: Commands for Hierarchy and KPI List Views

Optics Portal Page	Asset Ribbon Features
Hierarchy	New Notification[1], New Message, Watch and Unwatch
Unhealthy KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
Watch List KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
System Messages KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
User Messages KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
CMMS Requests KPI	New Notification[2], New Message, Watch and Unwatch, Export CSV
Undelivered CMMS KPI	New Notification[2], New Message, Watch and Unwatch, Export CSV
Custom KPIs	New Notification[1], New Message, Watch and Unwatch, Export CSV

[1] Displays when (**a**) you select an asset, (**b**) your user ID has the permission to "Create Work Notifications, and (**c**) the selected asset has an Asset Code. Display the asset **Properties** tab and click **CMMS** to display the Asset Code. See Related information for details.

[2] Displays when (**a**) you select an asset and (**b**) your user ID has the permission to "Create Work Notifications."

Related information

Create a new notification
Create a new message
Tag a user in a message
Watch and Unwatch assets
Export asset information
Properties tab

5.5.1   Create a new message

Create a new message that is tied to an asset from the **Hierarchy** page or any of the KPI List Views.

Prerequisites

1. Go to the **Hierarchy** (⬛) page or one of the KPIs.

2. Select an asset.

3. Select (⬛ New Message) from the asset ribbon features

Procedure

1. Click the **Subject** field and enter a distinctive subject.

2. Click in the **Details** field and enter the details.

3. Select a severity from the list for the message. Other users can filter messages based on the severity levels.

4. Optional: Type an @ character and display a list of users you can tag in this message. Select a user **Name** from the list. The User **Name** is enclosed in angle brackets <...> following the ampersand (@) and inserted into the **Details** part of the message. For a summary of the different ways to tag a user in a message, see Related information for details.

5. Optional: Click the Add Attachment (📎) icon to retrieve files such as location images or technical documents related to the asset. Emerson recommends that you keep file sizes less than 30 MB. See Related information for file types and file name extensions used by Plantweb Optics.

6. Click **Send** (➤) icon.

Related information

Tag a user in a message
Severities and messages
File attachments

5.5.2   Watch and Unwatch assets

You can have a **Watch List** of assets for monitoring performance and tracking asset issues. You can add and remove assets from this list at any time.

Prerequisites

- Select the **Hierarchy** (📇) page or one of the KPI List Views.

- Select an asset.

Procedure

1. Click (⭐ Watch) in the asset ribbon features to monitor (Watch) an asset.
2. Click (☆ Unwatch) to stop monitoring (Unwatch) an asset you previously watched.

Plantweb Optics Portal uses a (⭐) to denote a **Watched** asset in its **Hierarchy**, KPI List Views, and messages. All Watched assets display in the **Watch List** Dashboard display and the **Watch List** (⭐) KPI List View.

5.6   Out of Service assets

Out of service assets are set to ignore their unhealthy status and any generated system messages, for a scheduled interval. When an asset is removed from production for scheduled maintenance, a planned shutdown, holidays, or variation in usage patterns, it is *out of service*. Another term used for this asset is an *ignored* asset. Designating an asset as out of service helps users to avoid unnecessary system-generated messages from temporarily out-of-commission equipment. When you designate an asset as out of service, Plantweb Optics DataStudio no longer creates system-generated messages.

By default, an out of service asset:

- Has its health roll up contributions ignored. Individual asset health is unaffected.

- Is removed from the **Unhealthy** KPI List View and **Dashboard.**

- No longer generates system messages. Does not affect user messages.

- Prevents the creation of automatic CMMS work requests.

- Displays for all user profiles.

Your administrator *must* designate any asset as out of service. The administrator can:

- Manually change the asset.

- Run a script to change the status of several assets.

- Use a tool to change the status of multiple unrelated assets.

- Have a schedule trigger a script to change the status of related assets (turn-around, vacation, etc.).

See Related information for details.

Your administrator must change the out of service asset; you cannot. For example, in previous Plantweb Optics software, an out of service asset caused *all* of its child assets to be designated as "out of service." Your administrator can selectively target only the necessary assets (not the child assets). Additionally, you can attach a schedule (start date, end date, and recurrence) to toggle the out of service asset property On and Off.

Related information

Out Of Service Assets Report
Export Out of Service Assets

5.6.1 Out Of Service Assets Report

This report shows a list of assets in which Plantweb Optics Portal ignores the unhealthy status plus any system-generated messages, for a specific scheduled interval. The displayed assets are filtered based on the current Active filter. You can also export the information to a CSV (spreadsheet) file.

The report shows a list of ignored assets for:

- All currently out of service assets, or

- Any scheduled event (maintenance). The schedule displays along with the list of out of service assets.

Figure 5-20: Out of Service Assets Report example

Legend	Description
1	**Out Of Service Assets** report selected

Legend	Description
2	The **current** schedule is the default. (The schedule shows all assets, including those manually taken out of service.)
3	Alternatively, select a schedule. The schedule displays its name, recurrence rate, start time stamp, and final time stamp (when defined).
4	Assets assigned to the selected schedule.
5	Click any asset column title to sort the table in ascending (∧) or descending (∨) order.
6	For a named schedule, the start time and end time.

5.6.2   Export Out of Service Assets

Export the Out Of Service Assets to a spreadsheet (`*.csv`) file.

Table 5-4: Each Out of Service exported asset contains:

- Asset Name
- Start Date (Time stamp)
- Asset Description
- End Date (Time stamp)
- Asset Path–The asset path in the logical **ISA-95 Equipment Model**[1]

[1] For example, `/Enterprise/Austin Site/Emerson Crude Refinery/Process Cell/Unit Name/...`

Prerequisites

You have out of service assets that were:

- Taken manually out of service.
- Set up to be removed from service according to a schedule.
- Taken out of service with a script based upon their relationship to a parent asset.

See Related information for details.

Procedure

1. Click the **Reports** (▤) icon.
   The **Reports** page displays the predefined reports.
2. Select one of the reports under the **Reports** column.
3. For the **Out Of Service Assets Report**, select the schedule for which you want to export assets. **Current** (schedule) denotes a summary of all out of service assets that have no schedule.
4. Click the (▤ Export CSV) feature in the asset ribbon features. Plantweb Optics Portal creates a comma-separated value `*.csv` file (spreadsheet).

The spreadsheet file downloads to your local PC and stored in your default download folder.

Related information

[Manually change out of service asset status](#)
[Use Lua script to change out of service asset status](#)

Customize how a schedule controls out of service assets

Return assets to service

6   Messages

Whether a report originates from another user, yourself, or is automatically created by an event, Plantweb Optics refers to this text as a *message*.

Messages are:

- Displayed for assets that your administrator allows you to access (area of responsibility).

- Associated with an asset or location.

- Classified as an event (system) or user type. You can display one type or both message types.

- Used to collaborate between team members to accomplish requirements such as monitoring, inspecting, performing maintenance, or replacing an asset.

- Filtered based on the **Message Filter** settings (**On**/**Off)** in the Quick Display Settings.

- Assigned a severity level (a specific OPC severity range defined in the System **Severities** settings). See Related information for details.

- Composed by you, tagged with additional team names, assigned a severity level, and optionally have attachments.

- Used to create CMMS work requests (assets with a CMMS Asset Code).

You have access to asset or location messages (user and system-generated) from the **Hierarchy** page or any of the KPI List Views. Select an asset or location, then select the **Messages** (▢) tab under the header. (See Related information for details.)

Related information

Messages work differently now
Message controls
Using Messages
Managing your messages
Severities (settings)

6.1   Messages work differently now

Emerson *revised* the following message concepts from its previous Plantweb Optics software version:

- You can no longer delete messages.

- Events and messages are no longer different items.

- The `Read`, `Unread`, and `Dismissed` message statuses no longer exist.

- The Plantweb Optics **Severities** replaced the `Important` and `Urgent` flags.

6.2   Message controls

You have access asset or location messages (user and system-generated) from the **Hierarchy** page or any of the KPI List Views. You can select an asset or location, then select the **Messages** (🖵) tab under the header. (See Related information for details.)

Once you display the messages using the **Messages** (🖵) tab, you can:

- Display a message using a card or a grid format.

- Display an expanded message format to see more asset information.

- Switch between event-based (**System**) messages, **User** messages, or both (**All**) using a mouse click.

Related information

Asset dialog tabs
Messages tab
Switch among User, System, All messages
Brief and expanded message formats

6.2.1   Asset dialog tabs

For the Plantweb Optics Portal Hierarchy and KPI List Views, once you select an asset in the list, the **asset details** pane displays the asset name, description, and path in the logical hierarchy. A set of dialog tabs further divides the asset details into groups. Use Quick Display Settings to control the tab and message formats. (See Related information for details.)

Figure 6-1: Asset dialog tabs
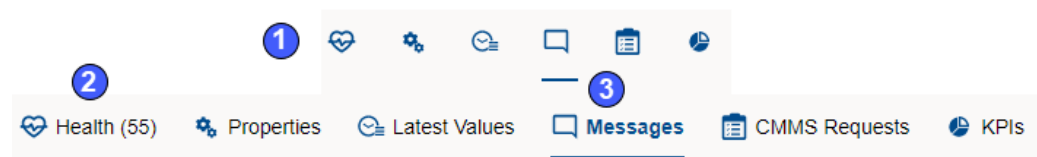
Legend	Description
1	Dialog tab icons only
2	Icons and text for dialog tabs
3	Messages tab (underlined)

Table 6-1: Dialog tabs asset information

Dialog Tab	Asset Information
Health (💟)	**Health** score, health details, and previous 7-day health scores.
Properties (⚙️)	**General Information** (class, manufacturer, criticality, failure effects, functions, and interfaces), CMMS asset code, links, and file attachments defined in the ISA-95 Equipment hierarchy.

Table 6-1: Dialog tabs asset information *(continued)*

Dialog Tab	Asset Information
Latest Values (🔍)	**Latest Values** (parameters, limits, values, last reported date time). Select up to seven parameters to plot on the **Trends** (📈) graph.
Messages (💬)	**System**, **User**, or **All** messages arranged into pages of 40 messages each. For large number of **Messages**, use the paging controls to quickly find the desired message. (See Related information for details.)
CMMS Requests (📋)	Open, Undelivered, Canceled, or Closed CMMS work requests. The work requests are organized into pages of 40 work requests each. Use the paging controls just like the **Messages** (💬) tab.
KPIs (🥧)	KPI information associated with your selected asset.

Related information

Health tab
Properties tab
Latest values tab
Messages tab
CMMS Requests tab
KPIs tab

6.2.2 Messages tab

The Plantweb Optics Portal pages display a list of messages for an asset that is selected from the **Hierarchy** or belongs to assets from a specific Key Performance Indicator (KPI). KPIs are asset (and locations) lists used to alert users to potential problems. KPIs include **Unhealthy** (assets with low health scores), **Watch List** (user selections), **System Messages**, **User Messages**, **CMMS Requests**, **Undelivered CMMS** (work requests), and Custom KPIs.
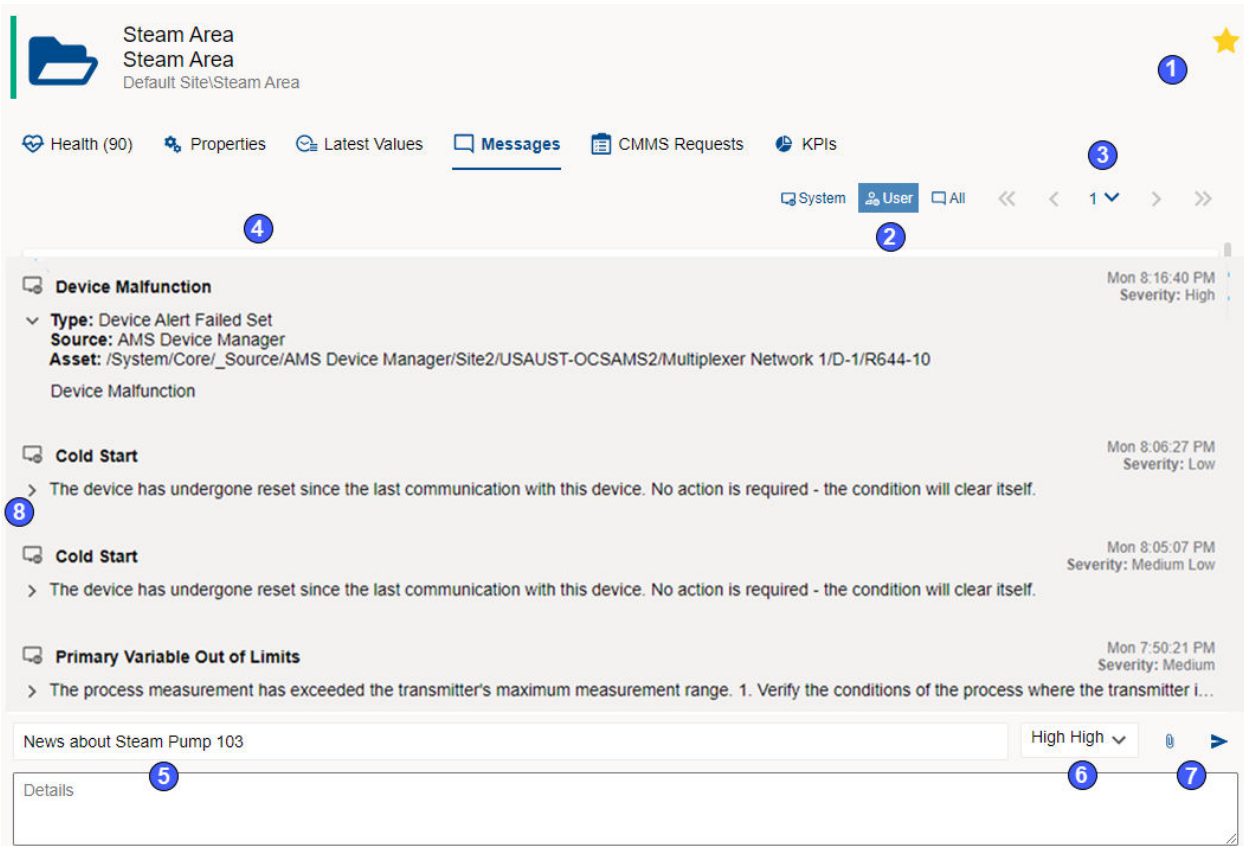
Access all the messages by selecting an asset and clicking the 💬 Messages tab.

Figure 6-2: Messages tab controls

Legend	Description
1	Asset icons to indicate an asset on your **Watch List**(⭐) or an out of service (⊖) asset.
2	Click to switch among **System** (🖥), **User** (👥), and **All** (💬) messages.
3	Page controls (≪ ‹ 1⌄ › ≫) that display a set of messages: first page, previous page, a specific page number, next page, or last page.
4	Message page (40 messages per page) with scroll bar. Messages display in descending date/time (most recent to older).
5	Compose a Message fields - Subject and message details.
6	Compose a Message - Severity selection list. The Severity selector uses the ranges defined by an administrator under the System Settings: **Severities**.
7	Compose a Message - Add attachment (select file from local PC) and Send controls. Your administrator defines the maximum file size. Emerson recommends that you keep file sizes less than 30 MB. See Related information for file types and file name extensions used by Plantweb Optics.
8	Displays (›) expanded message information (asset type, source, and hierarchy location).

Related information

File attachments
Brief and expanded message formats
Display Settings for message list
Display messages in grid format

Brief and expanded message formats
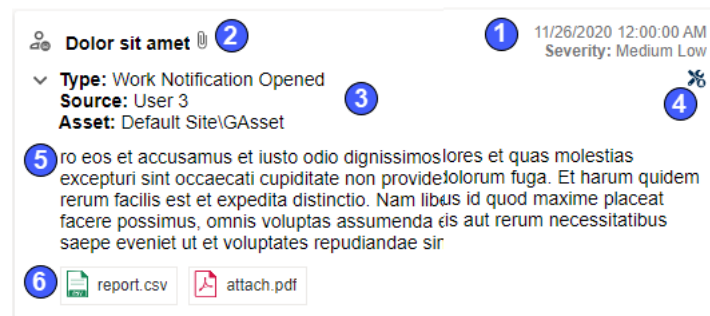
Brief message format

A brief message shows:

- Sender (user message)

- User (👤) or system (🖥) icon

- Subject and attachment (📎)

- Time stamp

- Severity

- Initial message details

Expanded message format

For any message in the **Messages** (💬) tab, click the arrow on the message left to show expanded format.

Figure 6-3: Expanded format example

Legend	Description
1	Time stamp and Severity (See Related information for details.)
2	Sender name, user (👤) or system (✶), message subject, and attachment (📎).
3	Asset Type, Source, and Path found in the ISA-95 Equipment model. Message Type is synonymous to Event Type. Type can be an Event type, user generated, health change, plus a work request closed, opened, or canceled.
4	Create a work request. **Note** The CMMS work request only displays if the asset has an Asset Code.

Legend	Description
5	Message details.
6	Attachment names with links (See Related information for details.)

Related information

Severities and messages
Messages tab
File attachments

Display messages in grid format

Display your messages in a Grid format as an alternative to the Card format. The Grid format displays the date and time, indicates attachments, shows message type (user or system), provides a message subject, and a message severity.

Procedure

1. Click the Gear (⚙) icon in the User Toolbar.

2. Change the **Message View** option to Grid.

3. Click the close (**X**) or click outside the **Settings** pane.

The messages change to a grid format, that resembles a spreadsheet.

**Figure 6-4: Messages displayed in grid format**

Related information

Managing message content and format

Switch among User, System, All messages

For the **Hierarchy** and KPIs, once you select an asset, the details pane displays the asset name, description, and path found in the ISA-95 Equipment hierarchy. Under the **Messages** (🗨) tab, it displays the asset messages. The messages depend upon the **Message Filters** settings and your message (System, User, or All) selection.

The selected message type persists after you refresh the browser page.

Figure 6-5: Message type selection
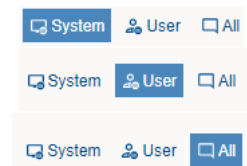
Prerequisites

1. Click **Hierarchy** ( ) icon or one of the KPI List Views.

2. Select an asset.

3. Click the **Messages** ( ) dialog tab. (See Related information for details.)

The messages displaying under the **Messages** tab, are filtered according to age and system event criteria:

- **Age**–messages from the previous 7, 30, 60, or 90 days.

- **System Messages**–limit messages generated from Plantweb Optics Portal (CMMS work request status) or Plantweb Optics Connectors.

Select how to display your messages:

Procedure

1. Turn On or Off the **Message Filter**. The messages corresponds to either the filtered event types or all event types. (See Related information for details.)

2. Select **System** ( ) to display all event-generated messages.

3. Select **User** ( ) to display all user messages. An orange highlight bar to the left of the message displays when you are tagged in another user's message.

4. Select **All** ( ) to display system and user messages.
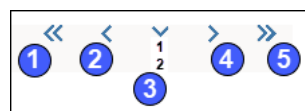
Related information

Messages tab
Display Settings for message list

Paging controls for messages and CMMS requests

When you display messages or CMMS work requests, Plantweb Optics divides the items into pages (40 items per page). The page controls help you locate a specific message or work request.

Figure 6-6: Paging controls for messages and CMMS work requests

Control	Action when selected
1	First page
2	Previous page
3	Select specific page from page number list
4	Next page
5	Last page

File attachments

Plantweb Optics uses the following file types and file name extensions.

Table 6-2: File types and file name extensions

File Types	File Name Extensions
Plain Text	`.txt`
Portable Document Format (Acrobat™)	`.pdf`
Microsoft Word Document	`.doc, .docx`
Microsoft PowerPoint Presentation	`.ppt, .pptx`
Spreadsheet	`.csv, .xls, .xlsx`
Log	`.log`
Scalable Vector Graphics	`.svg`
Joint Photographic Group Graphic	`.jpg.jpeg`
Portable Network Graphics	`.png`
Graphics Interchange Format	`.gif`
Microsoft Bitmap Image	`.bmp`

6.3 Using Messages

Messages help you and your teams collaborate and perform pro-active work on plant assets. Messages help you monitor, inspect, schedule, repair, or replace unhealthy assets.

You can compose a message that is tied to an asset or location. Other users receive the message depending on their message subscriptions, areas of responsibility, or when you "tagged" a user with their Plantweb Optics Portal Name.

Related information

Create a new message
Tag a user in a message
Using Severities
Searching through messages and work requests
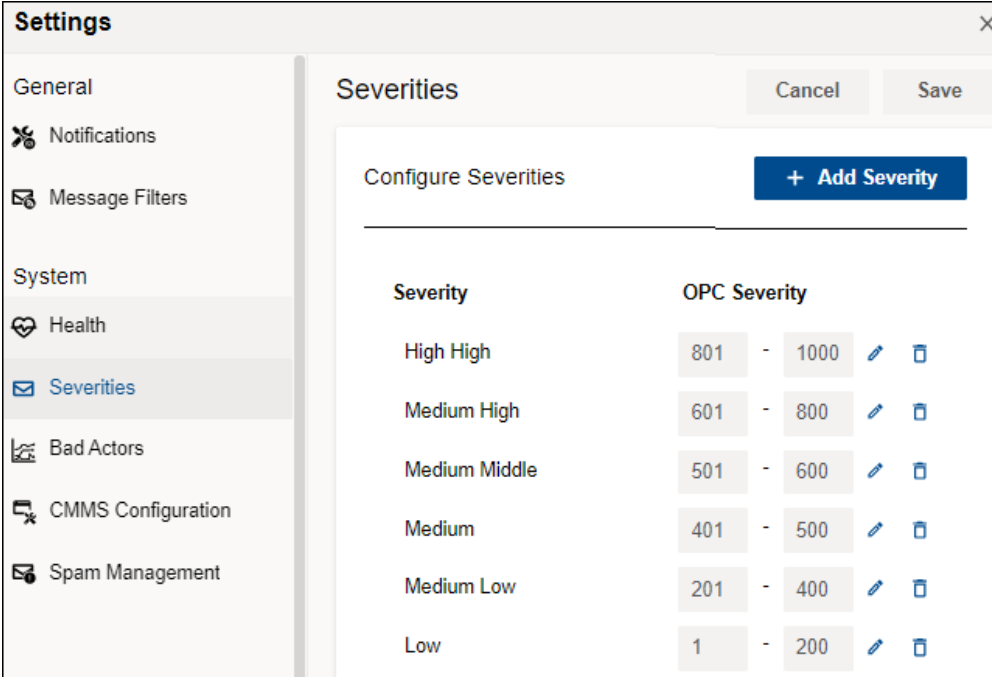Display messages from KPI List views

6.3.1 Using Severities

Use Plantweb Optics Severities to define the importance of your messages and notifications. All users can display the **Severities** defined for your Plantweb Optics installation; however, only an Administrator can *change* the Severity names and the OPC Severity range values.

Plantweb Optics **Severities** are ranges of OPC Severity values you use to:

- Categorize the importance of user messages sent in Plantweb Optics Portal.
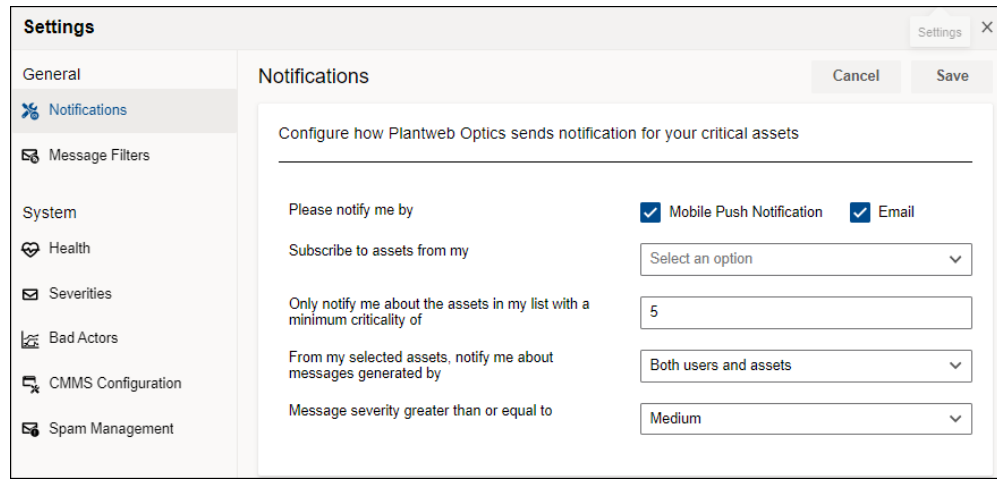
Figure 6-7: Severities

- Define a minimum OPC Severity value for **Notifications** you want to receive.
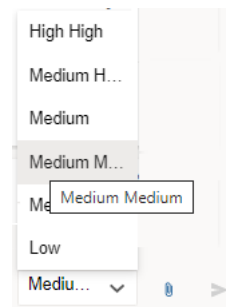
Figure 6-8: Notifications

Related information

Severities and messages

Severities and notifications
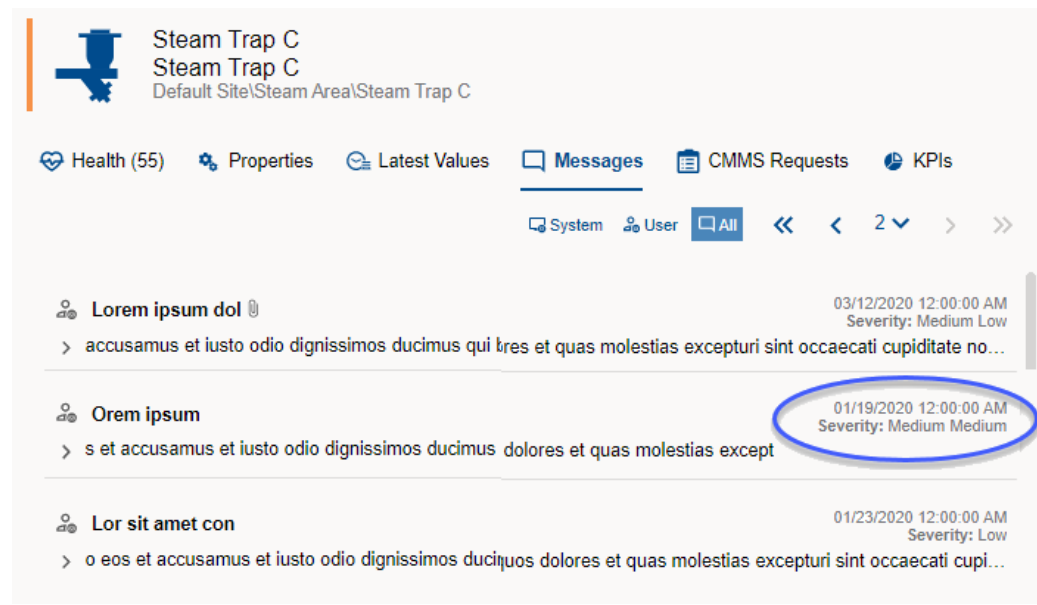
Severities and messages

When you create a new message, the possible severities display in a list. Select a severity to indicate the message importance.

Figure 6-9: Severities selection list

Your selected severity displays in the sent message, under the **Messages** (⬜) tab.

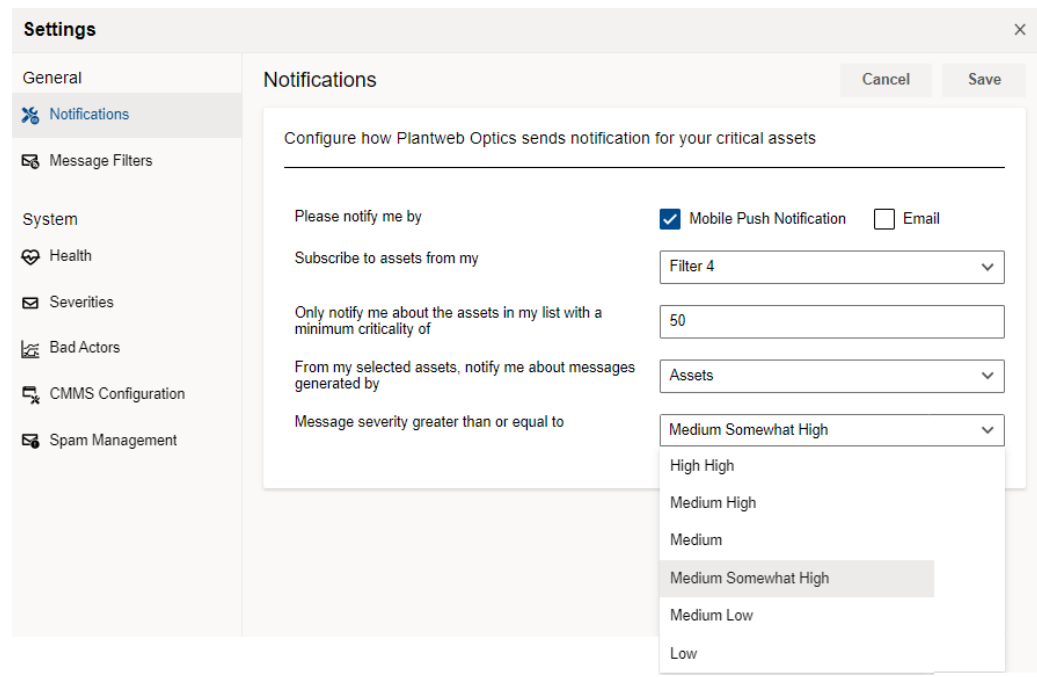**Figure 6-10: Message list showing each message severity**

Severities and notifications

Use **Severities** to specify one of the criteria for you to receive a notification about an asset. Select the minimum severity. Events with a severity number greater or equal to this OPC Severity range, result in a mobile push notification or an email notification.

Display **Notifications** by clicking the Gear (⚙) icon in User Toolbar > Click **View All Settings**. Set the severity level using the **Settings → General → Notifications** dialog. Choose a value from the **Message severity greater than or equal to** selection and **Save** your settings.

Figure 6-11: Severity used for notifications

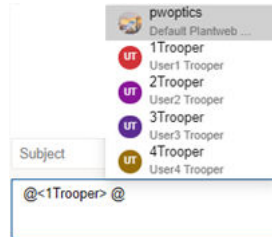
6.3.2 Create a new message

Create a new message that is tied to an asset from the **Hierarchy** page or any of the KPI List Views.

Prerequisites

1. Go to the **Hierarchy** ( ) page or one of the KPIs.

2. Select an asset.

3. Select (New Message) from the asset ribbon features

Procedure

1. Click the **Subject** field and enter a distinctive subject.

2. Click in the **Details** field and enter the details.

3. Select a severity from the list for the message. Other users can filter messages based on the severity levels.

4. Optional: Type an @ character and display a list of users you can tag in this message. Select a user **Name** from the list. The User **Name** is enclosed in angle brackets <...> following the ampersand (@) and inserted into the **Details** part of the message. For a summary of the different ways to tag a user in a message, see Related information for details.

5. Optional: Click the Add Attachment (📎) icon to retrieve files such as location images or technical documents related to the asset. Emerson recommends that you keep file sizes less than 30 MB. See Related information for file types and file name extensions used by Plantweb Optics.

6. Click **Send** (➤) icon.

Related information

Tag a user in a message
Severities and messages
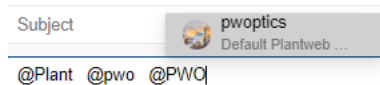File attachments

6.3.3   Tag a user in a message

You can tag (alert) a user several different ways within a message. Additionally, you can tag up to 100 different users.

When you tag one or more users in a message:

- Type lower-case or upper-case letters to generate the same user list .

- Type part of the user **Name** or part of the **Description** to find a user.

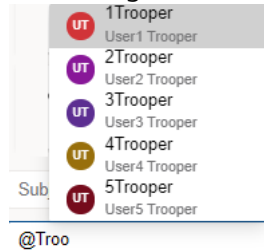**Figure 6-12: Ways to Select the same user Name**

- Type the @ character and only five users display as a default.

- Type a character after the @ sign to display a selection list of additional users.

- Type a user **Name** that has letters, numbers or a combination of alphanumeric characters. Do not type a **Name** having special characters, such as a space, @, <, $, and so forth.

- Tagging the same user multiple times generates only one message.

Prerequisites

1. Select the **Hierarchy** or one of the KPI List Views.

2. Select an asset.
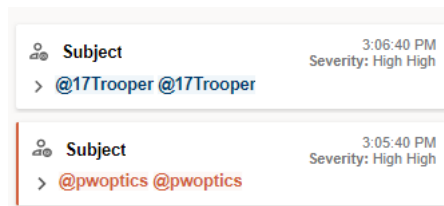
3. Click the **Messages** tab .

Procedure

1. Position your cursor in the message **Details**.

2. Type the ampersand (@) character.

3. Type a few characters of the user **Name** or **Description**.
   A matching user name and description list displays.

4. Optional: Use the up and down arrow key to move among the five selections.

5. Press [**Enter**] or click the user Name to insert it.
   The selected name inserts as @<Batman> in the unsent message, for example.

6. Repeat steps one through five to tag up to 100 users in the same message.

The tagged user name(s) display in the resulting message:

- When the user name does not exist or the user is deleted, the typed name displays as message text. For example, as `@Batman` in the message.

- For the tagged users logged in to the Plantweb Optics Portal, the `@Name` displays in each tagged message with orange text.

- For users not logged in, the `@Name` displays as blue text.

6.3.4 Searching through messages and work requests

When you display messages or CMMS work requests, the list is organized into pages (40 items per page) to help you find the desired item. The page controls perform the operations listed in the following table:

Figure 6-13: Paging controls for messages and work requests
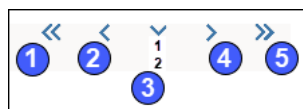
Control	Action when selected
1	First page
2	Previous page
3	Select specific page from page number list
4	Next page
5	Last page

Prerequisites

1. Select the **Hierarchy** or one of the KPI List Views.

2. Select the desired asset.

3. Select the **Message** (⬚) or **CMMS Requests** (⬚) tab.

Procedure

1. Select any of the controls shown to display a single page of messages or CMMS work requests.

2. Use the scroll bar on the right side to display items at the end of a page.

6.3.5 Display messages from KPI List views

The KPI List Views show assets that are within your responsibility that have varying health status. The health index of an asset can range between 0–100, where 0 is completely unhealthy, and 100 is completely healthy.

Prerequisites

Navigate to one of the KPI List Views by clicking its icon or KPI tile.

Only the assets and locations to which you are assigned responsibility, display in your KPI List Views.

Procedure

1. From the **Dashboard**, click the **Unhealthy** (♥) or one of the KPI List Views.
   The **Unhealthy** KPI displays a list of assets that is considered unhealthy based on the health range configured by your administrator. The assets display the last date the score was taken, along with the health score that displays as a color and number:

   • **Red** (`Critical` Assets)–health score based on the health range configured by your administrator. For example,1 through 40.

   • **Yellow** (`Warning` Assets)–health score based on the health range configured by your administrator. For example, 41 through 80.

2. Select an asset.
   Click any of the Asset Ribbon features:

   • Click **New Notification** to create a new notification (if asset code exists).

   • Click **New Message** to create a message tied to the selected asset

- Click **Watch** or **Unwatch** to add or remove an asset from the **Watch List**.

- Click **Export CSV** to download unhealthy asset information to a CSV file.

You can click either the **Health, Properties**, **Latest Values**, **Messages**, **CMMS Requests**, or **KPIs** dialog tab. See Related information for details.

6.4 Managing your messages

Plantweb Optics receives and logs every event that is generated from Emerson Connectors and other Plantweb Optics Connectors. Some event types generate system messages. Messages are also generated by Plantweb Optics Portal (CMMS work requests status changes) and Plantweb Optics Connectors. Users receive messages based on their area of responsibility and the **Message Filters** Settings.

See Related information for details about how to subscribe to messages within Plantweb Optics.

Note

Users can only receive messages and set message preferences related to assets in their area of responsibility.

Messages are displayed based on:

- Your **Message Filter** On or Off setting.

- Your selected **Message Filters** settings. Access settings by clicking the Gear (⚙) icon in User Toolbar > Click **View All Settings** > Click **Message Filters**.

Related information

Display Settings for message list
Filter messages by age
Filter system messages by events

6.4.1 Display Settings for message list

Use these three message settings in the Quick Display Settings to alter the messages listing.

- **Message View**–Card (list) or Grid (messages displayed in spreadsheet format)

- **Message Filter**–Turn On or Off your message filter settings.

- **Icon Display**–Select with or without text.

Figure 6-14: Message settings
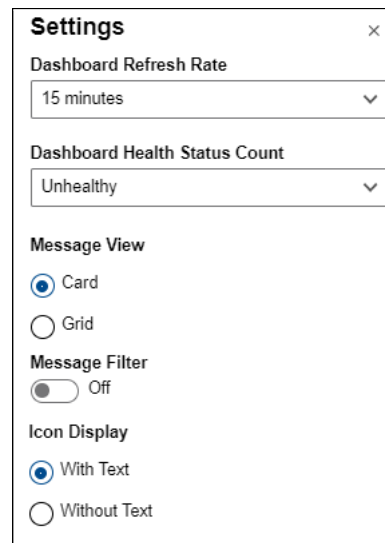
1. Click the Gear (⚙) icon in User Toolbar > Click **View All Settings**. The **Settings** pane slides from the right window border.

2. Change the message settings.

3. Click the close (**X**) icon under the User Toolbar or click outside the **Settings** pane.

Related information

Show Quick Display Settings

6.4.2 Filter messages by age

Control the displayed messages for the KPI list views by including only messages within an evaluation interval (the previous 7, 30, 60, or 90 days).

Procedure

1. Click the Gear (⚙) icon in User Toolbar > Click **View All Settings**.
   The **Settings** page displays.

2. Select **Message Filters** under the **General** Settings.

Figure 6-15: Settings - Message Filters
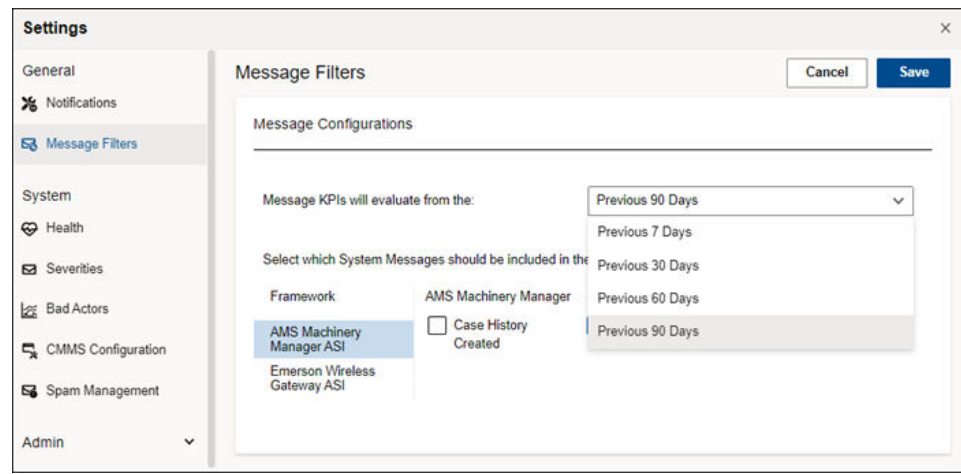
3. From the **Message KPIs will evaluate from the** selection list, select 7, 30, 60, or 90 days.

4. Click **Save**.
   Changes take effect after you refresh the browser or select a KPI List View.

5. Optional: Click **Cancel** to discard all configuration changes.

Hover over a KPI tile to display the evaluation interval selected in the **Message Filters**.

Figure 6-16: Message Filters interval for a KPI
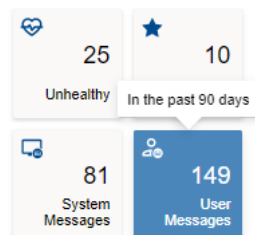
Related information

Message Filters (settings)

6.4.3 Filter system messages by events

Select specific events to reduce the number of system messages displayed in the KPI List Views.

Procedure

1. Click the Gear ( ) icon in User Toolbar > Click **View All Settings**.
   The **Settings** page displays.

2. Select **Message Filters** under the **General** Settings area.

3. Choose the Plantweb Optics Portal or an Emerson Connector under the **Select which System Messages should be included in the filter** area.

4. Select the different events you want to include in the system messages.

5. Repeat steps three and four for other Emerson Connectors.

Figure 6-17: Event examples selected in Message Filters

6. Click **Save**.

7. [Optional] Click **Cancel** to discard all changes.

Related information

Message Filters (settings)

7   KPI List views

Display Key Performance Indicators (KPIs) for plant assets and Custom KPIs that use Plantweb Optics Connectors.

The KPIs include:

- Unhealthy

- Watch List

- System Messages

- User Messages

- CMMS Requests

- Undelivered CMMS

- Custom KPIs–such as Overdue Routes, Serious Problems, Overdue Calibration, and Loops in Manual

Pin (📌) or unpin (✗) a KPI from the **Dashboard** page using the left pane settings.

Display or hide KPIs by using the Quick Display Settings (**Displayed KPIs Setting** check boxes). See Related information for details.

Search any KPI List view asset list using asset identification values (name, description, or path).

Sort assets in the KPI List Views.

Related information

Control KPI List Views with left pane
Asset ribbon features
Search KPI List View and Hierarchy assets
Sort KPI List View assets
Control Trends graph content with Parameters pane

7.1   Hide and display KPI List Views

The Plantweb Optics Portal application displays Key Performance Indicators using a KPI Tile (a square with an icon, text, and a count of the number of indicators) and a list of assets. Any KPI list of assets can be sorted and searched.

The Dashboard has three types of KPI List Views:

- **Permanent**–Four KPIs that always display and cannot be hidden; Unhealthy (♡), Watch List (★), System Messages (🖥), and User Messages (👥).

- **Work Request**–The CMMS Requests (✗) KPI and the Undelivered CMMS (📧) KPI.

- **Custom**–Additional indicators that obtain asset information from Plantweb Optics Connectors. These can be Emerson Connectors (such as AMS Device Manager) or Open Standards and Protocols connectors (such as an OPC UA Server).

Hide or display the Work Request KPIs and the Custom KPIs using these methods:

- **Left pane controls**–Click the show (») icon, followed by clicking the edit (✎) icon.

- **KPI check boxes**–Click the Gear (⚙) icon in User Toolbar. Select or clear the **Displayed KPIs** check boxes.

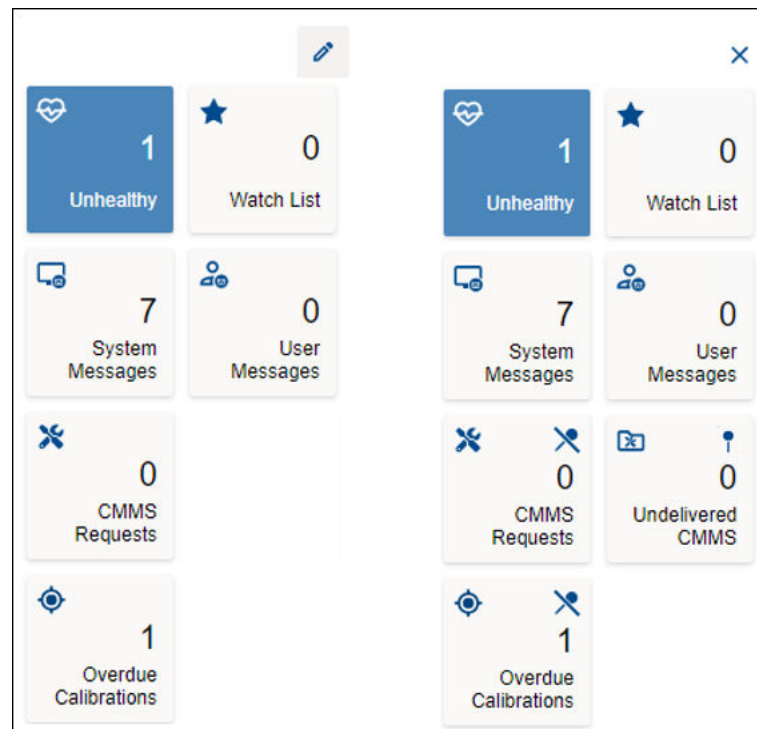## 7.1.1   Control KPI List Views with left pane

You can display and hide all KPIs except for the four permanent KPIs. They are Unhealthy (♡), Watch List (★), System Messages (🖥), and User Messages (👥).

Use the controls found on the left pane of the Plantweb Optics Portal window for the CMMS Request KPIs and the Custom KPIs, Or use the **Display KPIs** check boxes found in the Quick Display Settings.

Procedure

1. [**If needed**] Click (») icon to display the KPI edit controls.

2. Click the edit (✎) icon in the upper-right corner. With the exception of the four permanent KPIs, each KPI tile has an unpin (📍) icon or a pin (✖) icon in the top-right tile corner.

Figure 7-1: Display and hide KPIs using pins

3. Hide (✖) or display (📍) the desired KPIs.

4. You must click (**X**) to stop the KPI display editing (pin and unpin) action.

Related information

Control KPI List Views with Quick Display Settings
Display and hide KPI List Views
Show Quick Display Settings

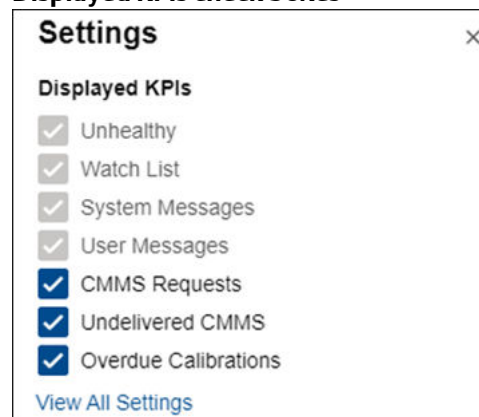## 7.1.2 Control KPI List Views with Quick Display Settings

You can display and hide all KPIs except for the four permanent KPIs. They are the Unhealthy (♡), Watch List (★), System Messages (⬜), and User Messages (⬛) KPIs.

For the Work Request KPIs and the Custom KPIs, you can use the **Display KPIs** check boxes found in the Quick Display Settings. Also, you can use the controls found on the left pane of the Plantweb Optics Portal window.

Procedure

1. Click the (⚙) icon to show the Quick Display Settings pane.
   The Quick Display Settings contain the **Display KPIs** check boxes to hide and display the KPIs.

2. Select or clear one or more KPI check boxes.
   **Displayed KPIs check boxes**

Settings	×
Displayed KPIs	
☑ Unhealthy	
☑ Watch List	
☑ System Messages	
☑ User Messages	
☑ CMMS Requests	
☑ Undelivered CMMS	
☑ Overdue Calibrations	
View All Settings	

3. Click the Close (**X**) icon or click outside the Quick Display Settings pane. The settings are retained.

7.2 Asset ribbon features

Near the Optics Portal Page title bar for **Hierarchy** and KPI List Views, are specific commands that you can use whenever an asset is selected.

Figure 7-2: Asset ribbon feature example

◉ Plantweb Optics Portal	
≪ ✂ New Notification ⬜ New Message ★ Watch 📄 Export CSV	
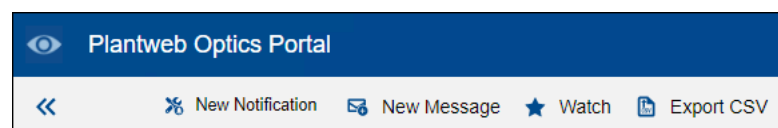
Note

To see all the commands, you must first select an asset in the list or hierarchy.

Table 7-1: Commands for Hierarchy and KPI List Views

Optics Portal Page	Asset Ribbon Features
Hierarchy	New Notification[1], New Message, Watch and Unwatch
Unhealthy KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
Watch List KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
System Messages KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
User Messages KPI	New Notification[1], New Message, Watch and Unwatch, Export CSV
CMMS Requests KPI	New Notification[2], New Message, Watch and Unwatch, Export CSV
Undelivered CMMS KPI	New Notification[2], New Message, Watch and Unwatch, Export CSV
Custom KPIs	New Notification[1], New Message, Watch and Unwatch, Export CSV

[1] Displays when (**a**) you select an asset, (**b**) your user ID has the permission to "Create Work Notifications, and (**c**) the selected asset has an Asset Code. Display the asset **Properties** tab and click **CMMS** to display the Asset Code. See Related information for details.

[2] Displays when (**a**) you select an asset and (**b**) your user ID has the permission to "Create Work Notifications."

Related information

Create a new notification
Create a new message
Tag a user in a message
Watch and Unwatch assets
Export asset information
Properties tab

7.2.1 Create a new notification

You can create a notification that displays in other users' **System Messages** KPI.

Another user can receive a mobile push notification, an email, or both, when they have:

- **Message Filters** Settings subscribed to **CMMS events** (Work Notification Cancelled, Work Notification Closed, or Work Notification Opened). See Related information for details.

- **Notifications** Settings that include an asset that meets their filtering, message type (user or system), and message severity requirements.
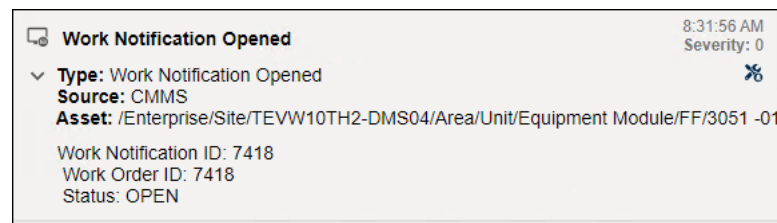
Prerequisites

- Your profile or user ID has explicit permission to Create Work Notifications.

- You selected a KPI.

- You selected an asset in the KPI that has a CMMS asset code configured.

Procedure

1. Click the **New Notification** in the asset ribbon features.

2. Enter the **Subject** and **Description**.

3. Select a severity from the drop-down list, next to the send control.

4. Click send (➤).

The notification message displays in the **System Messages** (📑) KPI for this asset.

Figure 7-3: Notification message example


```
                                                              8:31:56 AM
   📑  Work Notification Opened                                Severity: 0

   ˅  Type: Work Notification Opened                                  ✂
      Source: CMMS
      Asset: /Enterprise/Site/TEVW10TH2-DMS04/Area/Unit/Equipment Module/FF/3051 -01

      Work Notification ID: 7418
      Work Order ID: 7418
      Status: OPEN
```

Related information

Properties tab
Notifications
Message Filters (settings)

7.2.2   Create a new message

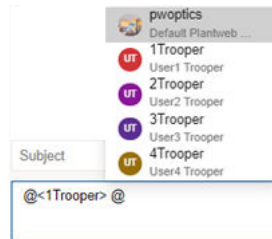Create a new message that is tied to an asset from the **Hierarchy** page or any of the KPI
List Views.

Prerequisites

1. Go to the **Hierarchy** (📋) page or one of the KPIs.

2. Select an asset.

3. Select (📑 New Message) from the asset ribbon features

Procedure

1. Click the **Subject** field and enter a distinctive subject.

2. Click in the **Details** field and enter the details.

3. Select a severity from the list for the message. Other users can filter messages
   based on the severity levels.

4. Optional: Type an @ character and display a list of users you can tag in this message.
   Select a user **Name** from the list. The User **Name** is enclosed in angle brackets <...>

following the ampersand (@) and inserted into the **Details** part of the message. For a summary of the different ways to tag a user in a message, see Related information for details.

5. Optional: Click the Add Attachment (📎) icon to retrieve files such as location images or technical documents related to the asset. Emerson recommends that you keep file sizes less than 30 MB. See Related information for file types and file name extensions used by Plantweb Optics.

6. Click **Send** (➤) icon.

Related information

Tag a user in a message
Severities and messages
File attachments

Tag a user in a message

You can tag (alert) a user several different ways within a message. Additionally, you can tag up to 100 different users.

When you tag one or more users in a message:

- Type lower-case or upper-case letters to generate the same user list .

- Type part of the user **Name** or part of the **Description** to find a user.

Figure 7-4: Ways to Select the same user Name

- Type the @ character and only five users display as a default.

- Type a character after the @ sign to display a selection list of additional users.

- Type a user **Name** that has letters, numbers or a combination of alphanumeric characters. Do not type a **Name** having special characters, such as a space, @, <, $, and so forth.

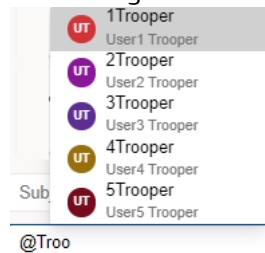- Tagging the same user multiple times generates only one message.

Prerequisites

1. Select the **Hierarchy** or one of the KPI List Views.

2. Select an asset.
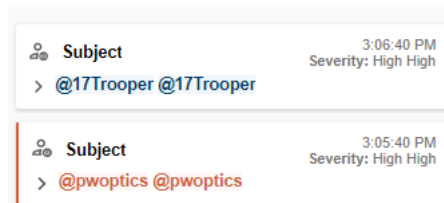
3. Click the **Messages** tab .

Procedure

1. Position your cursor in the message **Details**.

2. Type the ampersand (@) character.

3. Type a few characters of the user **Name** or **Description**.
A matching user name and description list displays.

4. Optional: Use the up and down arrow key to move among the five selections.

5. Press [**Enter**] or click the user Name to insert it.
The selected name inserts as @<Batman> in the unsent message, for example.

6. Repeat steps one through five to tag up to 100 users in the same message.

The tagged user name(s) display in the resulting message:

- When the user name does not exist or the user is deleted, the typed name displays as message text. For example, as @Batman in the message.

- For the tagged users logged in to the Plantweb Optics Portal, the @Name displays in each tagged message with orange text.

- For users not logged in, the @Name displays as blue text.

7.2.3   Watch and Unwatch assets

You can have a **Watch List** of assets for monitoring performance and tracking asset issues. You can add and remove assets from this list at any time.

Prerequisites

- Select the **Hierarchy** ( ) page or one of the KPI List Views.

- Select an asset.

Procedure

1. Click (★ Watch) in the asset ribbon features to monitor (Watch) an asset.

2. Click (☆ Unwatch) to stop monitoring (Unwatch) an asset you previously watched.

Plantweb Optics Portal uses a (⭐) to denote a **Watched** asset in its **Hierarchy**, KPI List Views, and messages. All Watched assets display in the **Watch List** Dashboard display and the **Watch List** (⭐) KPI List View.

7.2.4 Export asset information

Each KPI List View and the **Hierarchy** displays a list of assets. At the top of each list is the **Export CSV** control. Click this control to generate a comma-separated value (CSV) file, with each asset's information listed in a single row of this spreadsheet.

For each specific KPI or **Hierarchy**, consult the export topic to see what asset information is downloaded.

To export the asset information:

1. Click the Hierarchy ( ) icon, a KPI icon, or KPI tile (icon, asset count, and KPI name) to display its list of assets.

2. Click the (Export CSV) control.

Plantweb Optics Portal creates the CSV file on your local PC. The file is stored in your default download folder.

Related information

Export Bad Actors Report assets
Export CMMS Requests KPI assets
Export Custom KPI assets
Export Out of Service Assets
Export System Messages KPI assets
Export Undelivered work requests
Export Unhealthy KPI assets
Export User Messages KPI assets
Export Watch List KPI assets

7.3 Sort KPI List View assets

Display KPI List View assets using one of these sorting options:

- Criticality: High to Low

- Criticality: Low to High

- Health (score)

- Date (most recent to older)

Figure 7-5: Asset sorting options
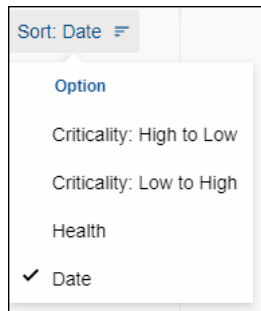
For assets, Plantweb Optics Portal uses these default **Sort** options for the *initial* display:

- **Unhealthy** and **Watch List** KPIs—Health.

- **System Messages** and **User Messages** KPIs—Date.

- **CMMS Requests** and **Undelivered CMMS** KPIs—Date.

- **Custom** KPIs—Date.

Procedure

1. Select a KPI icon or the KPI tile.

2. Select one of the options in the **Sort** drop-down list:
   (**a**) Criticality: High to Low, (**b**) Criticality: Low to High,
   (**c**) Health, or (**d**) Date

The asset list sorts according to your selection.

7.4   Search KPI List View and Hierarchy assets

The asset **Hierarchy** and KPI List Views can be searched using asset header identification and the message subject:

- Message Subject (**System Message** KPI and **User Message** KPI)

- Asset Name

- Asset Description

- Asset Path

Figure 7-6: Search function

Note

Use **AND** and **OR** Boolean operators to make more complex searches that use multiple fields. When using multiple operators, the **AND** operation takes precedence.

Note

Enclose your search string in double quotes when searching with a field containing blank spaces (for example `"West Refinery"`).

Note

Include the forward slashes when searching the asset **path**, (that is, `Enterprise/Site/ Machine1`).

Procedure

1. Select a KPI List view or the **Hierarchy** (▣) page.
2. Click the (🔍) **Search** area .
3. Click an (asset) **name**, **description**, **message**, or **path** field name.
4. Type your search string after the field name colon (**:**). Start and end the string with (") straight quotes when your search string contains spaces.
5. [**Optional**] Click **AND** or **OR** in the search dialog for more complex searches.
6. [**Optional**] Click an (asset) **name**, **description**, **message**, or **path** field you *did not use* in step three.
7. [**Optional**] Type a second search string for the field in Step six. Use quotes when necessary.
8. Press [**Enter**].

   Note

   The search returns the assets that are preloaded when you clicked the KPI tile. When the search result returns an empty list, the assets (that satisfy the search) are not loaded in the Optics Portal client. Click the **Load more results...** link to fetch the assets from the Data Repository.

9. Click **Close**.

7.5 Unhealthy KPI

Display all under-performing (`Critical` and `Warning` health classifications) assets. The **Health** 7-day graph shows the health score recorded for the previous seven days. This list of assets is (**a**) composed of assets with `Critical` and `Warning` health classifications, (**b**) excludes out of service assets, (**c**) is filtered based on the current Active Filter, and (**d**) includes only Asset Type objects.

Figure 7-7: Unhealthy KPI

Legend	Description
1	Selected KPI
2	Selected asset
3	Asset ribbon features
4	Select KPI sorting option. Sorting options are (**a**) Criticality: High to Low, (**b**) Criticality: Low to High, (**c**) Health (low to high), or (**d**) Date (most recent to older).
5	Click the (∧) icon to hide and click the (∨) icon to display parameter grouping.

Related information

Create a new message
Watch and Unwatch assets
Export Unhealthy KPI assets

7.5.1 Export Unhealthy KPI assets

A listing of all under-performing (`Critical` and `Warning` health classifications) assets.

Table 7-2: Each Unhealthy KPI exported asset contains:

- Asset Name
- Asset Description
- Asset Path
- Asset Criticality
- Health
- Last Health Update
- Health Contributor 1
- Health Contributor 2
- Health Contributor 3
- Health Contributor 4
- Health Contributor 5

Procedure

1. Click the KPI (♥) icon or KPI tile (icon, asset count, and KPI name) to display its list of assets.
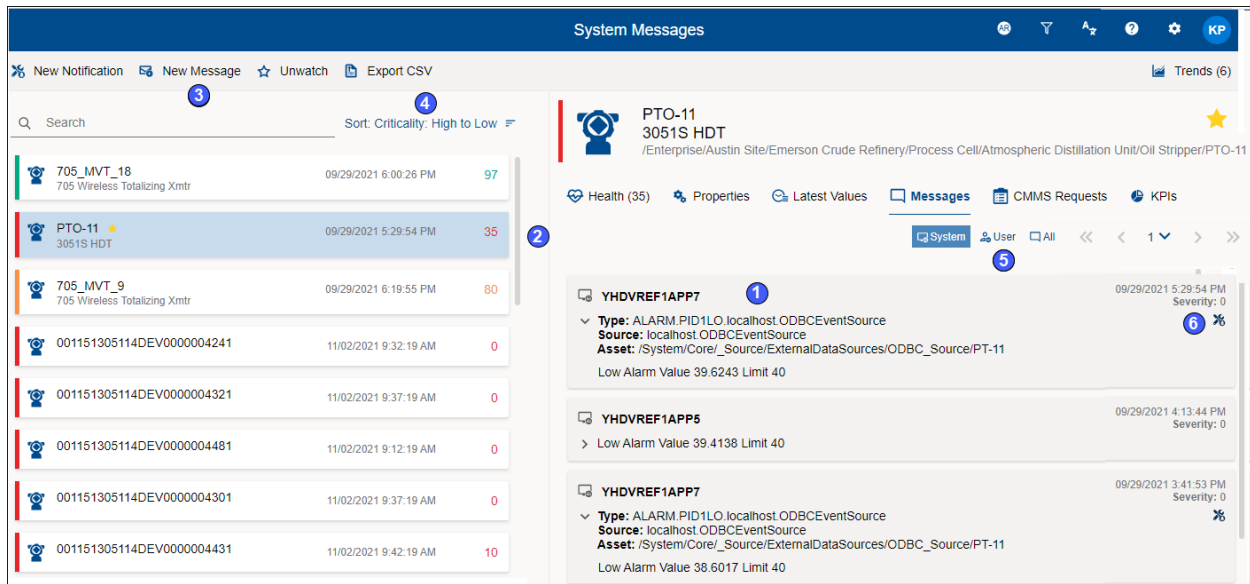2. Click the (📄 Export CSV) control.

Plantweb Optics Portal creates the CSV file (`Unhealthy_Report.csv`) on your local PC. The file is stored in your default download folder.

7.6 Watch List KPI

Select assets to monitor for health and performance. Select any assets from within your area of responsibility for the **Watch List**. The KPI count and asset list is filtered by the current Active Filter. Both asset and location class types display for the **Watch List** KPI.

Figure 7-8: Watch List KPI

Legend	Description
1	Selected KPI
2	Selected asset
3	Asset ribbon features
4	Selected KPI sorting option. Sorting options are (**a**) Criticality: High to Low, (**b**) Criticality: Low to High, (**c**) Health (low to high), or (**d**) Date (most recent first).

Related information

Create a new message
Watch and Unwatch assets
Export Watch List KPI assets

7.6.1   Export Watch List KPI assets

Export a list of the selected assets you monitor for health and performance. You can select any assets from within your area of responsibility to designate for your **Watch List**.

Table 7-3: Each Watch List KPI exported asset contains:

- Asset Name
- Asset Criticality
- Health Contributor 1
- Health Contributor 4

- Asset Description
- Health
- Health Contributor 2
- Health Contributor 5

- Asset Path
- Last Health Update
- Health Contributor 3

Procedure

1. Click the KPI (★) icon or KPI tile (icon, asset count, and KPI name) to display its list of assets.
2. Click the (📄 Export CSV) control.

Plantweb Optics Portal creates the CSV file (`WatchList_Report.csv`) on your local PC. The file is stored in your default download folder.

7.7   System Messages KPI

System Messages created by the Plantweb Optics Portal or Plantweb Optics Connectors. The **Message Filter** replaces the Message subscription concept in previous software releases. The **Message Filter** (configured in your Optics Portal **General Settings**) is applied to your assets when you display this KPI.

- Count of messages coming into the Optics Portal from Data Sources and CMMS work request events.

- List of Assets and Locations with system messages.

- Filtered based on your current Active Filter.

- Configure your Message Filter using the **Settings** page (**General** area). See Related information for details.

- Tool tip for this KPI indicates the evaluation interval (previous 7, 30, 60, or 90 days) set in the **Message Filters**.

- Enable or disable the message filter in the Quick Display Settings.

- Perform any command in the Asset ribbon features: **New Notification**[1], **New Message**, **Watch**/**Unwatch**, and **Export CSV**.

Figure 7-9: System Messages KPI

Legend	Description
1	System message parts such as asset type, source, and asset path, plus message details.
2	Selected asset.
3	Asset ribbon features. You can create a user message for this asset and tag other users. You can create a new notification[1].
4	Selected KPI sorting option. Sorting options are (**a**) Criticality: High to Low, (**b**) Criticality: Low to High, (**c**) Health (low to high), or (**d**) Date (most recent first).
5	Display (⌨) System, (👥) User, or (💬) All message types.
6	Message time stamp, severity, and (🔧) icon, indicating one or more CMMS work requests.

[1] Displays when (**a**) you select an asset, (**b**) your user ID has permission to "Create Work Notifications, and (**c**) the selected asset has an Asset Code. Display the asset **Properties** tab and click **CMMS** to display the Asset Code.

Note
Enable or disable the **Message Filter** under the Quick Display Settings. Click the (⚙) icon in User Toolbar. Turning Off the message filter *displays all the messages* and mimics what the event viewer displayed in previous Plantweb Optics software.

Related information

[Create a new notification](#)
[Create a new message](#)
[Watch and Unwatch assets](#)
[Export System Messages KPI assets](#)
[Enable and disable the Message Filter](#)

7.7.1 Paging controls for messages and CMMS requests

When you display messages or CMMS work requests, Plantweb Optics divides the items into pages (40 items per page). The page controls help you locate a specific message or work request.

Figure 7-10: Paging controls for messages and CMMS work requests
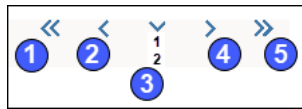
Control	Action when selected
1	First page
2	Previous page
3	Select specific page from page number list
4	Next page
5	Last page

7.7.2 Enable and disable the Message Filter

Enable or disable the **Message Filter** under the Quick Display Settings.

Procedure

1. Click the (⬚) icon in User Toolbar.

2. Turning `Off` the message filter *displays all the messages* and mimics what the event viewer displayed in previous Plantweb Optics software.

3. Turn `On` the filter to only receive messages that match the **Message Filters** Settings.

Figure 7-11: Disable or Enable Message Filter
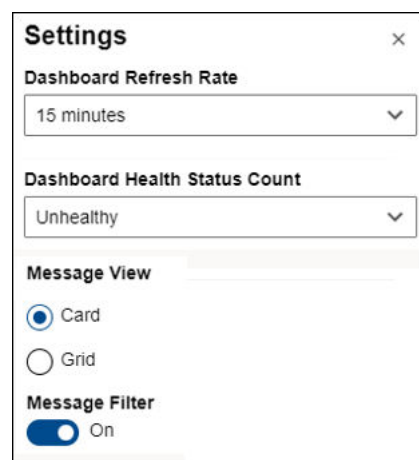
7.7.3 Export System Messages KPI assets

You can export the assets associated with the System Messages (events) created by Plantweb Optics Portal or Plantweb Optics Connectors.

Table 7-4: Each System Messages KPI exported asset has asset and message information:

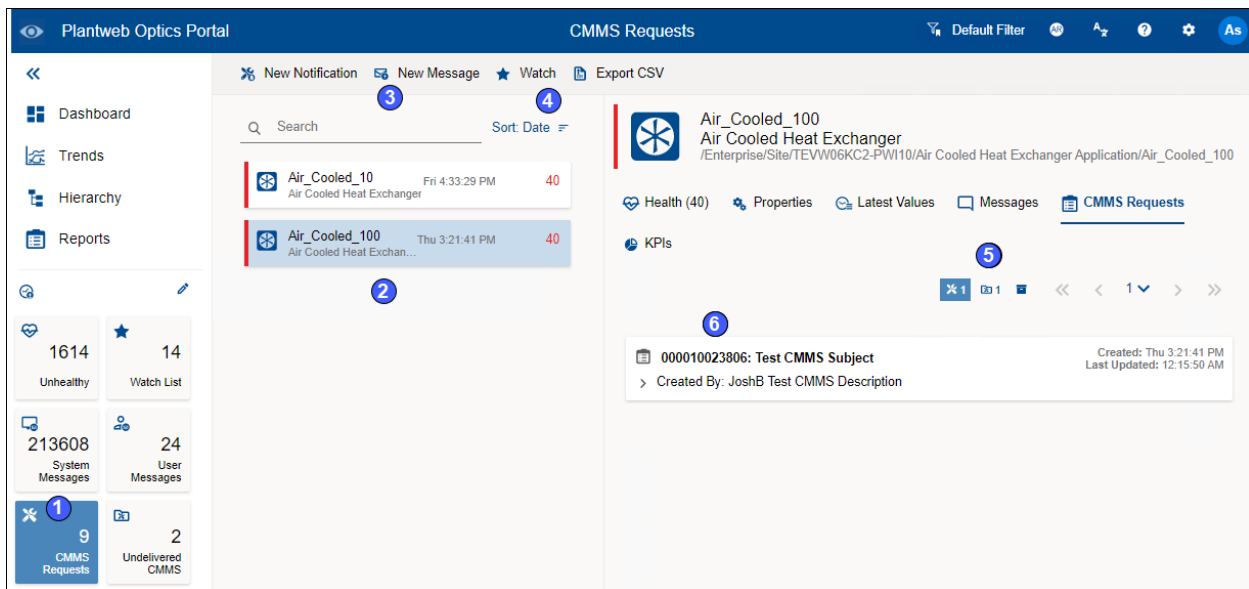|		
• Asset Name	• Asset Description	• Asset Path
• Asset Criticality	• Health	• Last Health Update
• Subject	• Details	
• Severity	• Time stamp	

Procedure

1. Click the KPI (icon) icon or KPI tile (icon, asset count, and KPI name) to display its list of assets.
2. Click the (Export CSV) control.

Plantweb Optics Portal creates the CSV file (`SystemMessages_Report.csv`) on your local PC. The file is stored in your default download folder.

7.8 User Messages KPI

The **User Message** KPI includes:

- Count of user messages.

- List of Assets and Locations with user messages.

- Assets filtered based on the currently Active Filter.

- Configure your Message Filter using the **Settings** page (**General** area). See Related information for details.

- Asset list includes out of service assets.

- Perform any commands in the asset ribbon features: **New Notification**[1], **New Message**, **Watch**/**Unwatch**, and **Export CSV**.

- Tool tip (hover over KPI tile) indicates the number of previous days set in the **Message Filters** settings.

Figure 7-12: User Messages KPI

Legend	Description
1	System message parts such as asset type, source, and asset path, plus message details.
2	Selected asset.
3	Asset ribbon features. You can create a user message for this asset and tag other users. You can create a new notification[1].
4	Selected KPI sorting option. Sorting options are (**a**) Criticality: High to Low, (**b**) Criticality: Low to High, (**c**) Health (low to high), or (**d**) Date (most recent first).
5	Display (⬚) System, (⬚) User, or (⬚) All message types.
6	Message time stamp, severity, and (🔧) icon, indicating one or more CMMS work requests.

[1] Displays when (**a**) you select an asset, (**b**) your user ID has the permission to "Create Work Notifications, and (**c**) the selected asset has an Asset Code. Display the asset **Properties** tab and click **CMMS** to display the Asset Code.

Note
You can enable or disable the **Message Filters** under the Quick Display Settings. Click the (⬚) icon in the User Toolbar.

Related information

Create a new notification
Create a new message
Watch and Unwatch assets
Export User Messages KPI assets
Enable and disable the Message Filter

7.8.1 Enable and disable the Message Filter

Enable or disable the **Message Filter** under the Quick Display Settings.

Procedure

1. Click the (⚙) icon in User Toolbar.
2. Turning `Off` the message filter *displays all the messages* and mimics what the event viewer displayed in previous Plantweb Optics software.
3. Turn `On` the filter to only receive messages that match the **Message Filters** Settings.

Figure 7-13: Disable or Enable Message Filter
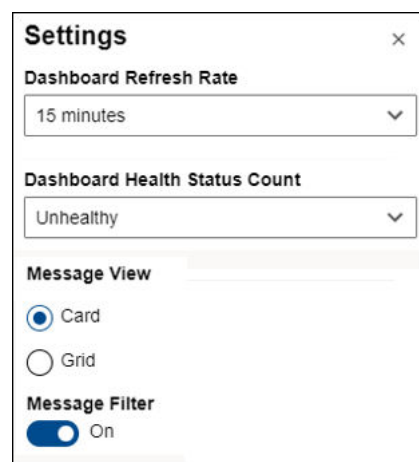
7.8.2 Export User Messages KPI assets

You can export the assets associated with the created User Messages The KPI List View contains assets that are filtered according to your Active Filter and Message Filter settings.

Table 7-5: Each User Messages KPI exported asset has asset and message information:

- Asset Name
- Asset Criticality

- Asset Description
- Health

- Asset Path
- Last Health Update

- Subject
- Severity

- Details
- Time stamp

Procedure

1. Click the KPI (👥) icon or KPI tile (icon, asset count, and KPI name) to display its list of assets.
2. Click the (📄 Export CSV) control.

Plantweb Optics Portal creates the CSV file (`UserMessages_Report.csv`) on your local PC. The file is stored in your default download folder.

7.9 CMMS Requests KPI

The count of Open CMMS work requests, plus a list of the assets that generated the requests. The assets displayed are filtered based on the current Active Filter. The KPI includes asset and location types, plus out of service assets.

Figure 7-14: CMMS Requests KPI

Legend	Description
1	Selected KPI
2	Selected asset
3	Asset ribbon features. Create a user message for this asset and tag other users. You can create a new notification[1].
4	Selected KPI sorting option. Sorting options are (**a**) Criticality: High to Low, (**b**) Criticality: Low to High, (**c**) Health (low to high), or (**d**) Date (most recent first).
5	Filter work requests by status: (✖) Open, (🖾) Undelivered, and (■) Closed or Canceled.
6	Work request details.

[1] Displays when (**a**) you select an asset and (**b**) your user ID has the permission to "Create Work Notifications."

Related information

Create a new notification

Create a new message

Watch and Unwatch assets

Export CMMS Requests KPI assets

7.9.1 Export CMMS Requests KPI assets

You can export a list of the assets that generated CMMS work requests. The assets exported are filtered based on the selected Active Filter.

Table 7-6: Each CMMS Requests KPI exported asset, contains asset and CMMS request information:

• Asset Name	• Asset Description	• Asset Path
• Asset Criticality	• Health	• Last health update
• CMMS Subject	• CMMS Description	• CMMS Priority
• CMMS Asset ID	• CMMS State	• CMMS Work Order ID
• Time Created	• Last Updated	

Procedure

1. Click the KPI (✖) icon or KPI tile (icon, asset count, and KPI name) to display its list of assets.
2. Click the (📄 Export CSV) control.

Plantweb Optics Portal creates the CSV file on your local PC. The file is stored in your default download folder.

7.10 Undelivered CMMS KPI

Count of `Pending` and `Undelivered` work requests, plus the list of assets associated with the work requests. The KPI list includes asset and locations. Resulting assets are filtered based on the current Active Filter.

Figure 7-15: Undelivered CMMS KPI

Legend	Description
1	Selected KPI
2	Selected asset
3	Available asset ribbon features. Create a user message for this asset and tag other users. You can create a new notification[1].
4	Selected KPI sorting option. Sorting options are (**a**) Criticality: High to Low, (**b**) Criticality: Low to High, (**c**) Health (low to high), or (**d**) Date (most recent first).
5	Filter work requests by status: (✖) Open, (▣) Undelivered, and (▣) Closed or Canceled.
6	CMMS request details.
7	Resend the work request.
8	Delete the work request.

[1] Displays when (**a**) you select an asset and (**b**) your user ID has the permission to "Create Work Notifications."

Figure 7-16: New Notification example
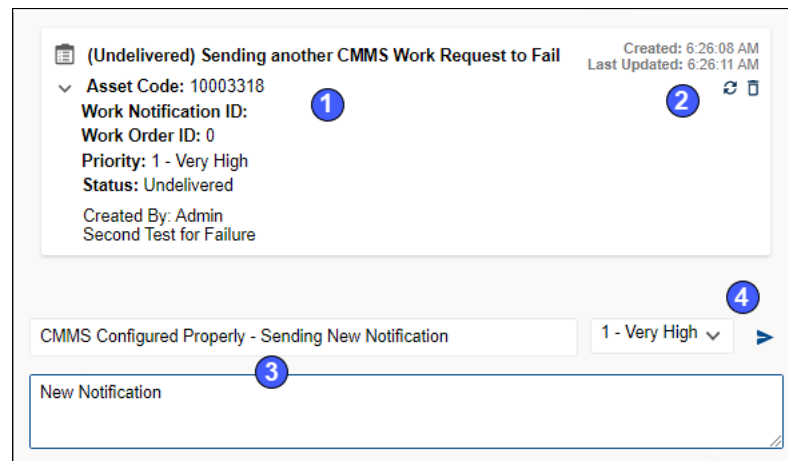
Legend	Description
1	Original work request details.
2	Resend and delete work request controls
3	New notification subject and details.
4	CMMS work priority assigned and the send control.

Related information

Create a new notification
Create a new message
Watch and Unwatch assets

7.10.1 Export Undelivered work requests

Export assets that generated work requests with Pending and Undelivered Work Notifications.

Table 7-7: Each CMMS Requests KPI exported asset, contains asset and CMMS request information:

• Asset Name	• Asset Description	• Asset Path
• Asset Criticality	• Health	• Last health update
• CMMS Subject	• CMMS Description	• CMMS Priority
• CMMS Asset ID	• CMMS State	• CMMS Notification ID
• CMMS Work Order ID	• Time Created	• Last Updated

Procedure

1. Click the KPI (icon) icon or KPI tile (icon, asset count, and KPI name) to display its list of assets.
2. Click the (Export CSV) control.

Plantweb Optics Portal creates the CSV file on your local PC. The file is stored in your default download folder.

7.10.2 Resend Undelivered work request

Resend an Undelivered CMMS work request when there is a connectivity problem or an issue with the CMMS server.

Procedure

1. Select the **Undelivered CMMS** KPI List View using the (icon) icon or tile.
2. Select the asset associated with the undelivered work request.
3. Click the (icon) icon under the **CMMS Requests** tab.
4. Click the (>) icon to expand the Undelivered CMMS request to display the **Resend** (icon) icon.
5. Click the **Resend** (icon) icon.

A new request displays in the **CMMS Requests** KPI List View, or another undelivered request is added to the **Undelivered CMMS** KPI List View.

7.10.3 Delete Undelivered work request

You can delete an Undelivered CMMS work request when it is no longer needed to address an asset issue.

Procedure

1. Select the **Undelivered CMMS** KPI List View using the (⊠) icon or tile.
2. Select the asset associated with the undelivered work request.
3. Click the (⊠) icon under the **CMMS Requests** tab.
4. Click the (›) icon to expand the Undelivered CMMS request to display the **Delete** (⊡) icon.
5. Click the **Delete** (⊡) icon.

The undelivered request is removed from under the **CMMS Requests** tab and the **Undelivered CMMS** KPI count decreases by one.

7.11 Custom KPIs

The Custom KPI count depends upon the type of Custom KPI registration done when you add the asset source.

Registrations can be:

- **by Assets**–number of assets with contributors.

- **by Contributors**–number of contributors.

- **by Value**–the value passed to Plantweb Optics when the Plantweb Optics Connector registers the Custom KPI.

The resulting list has contributors and is filtered based on your current Active Filter.

Custom KPI examples include **Down Units**, **Overdue Routes**, **Serious Problems**, **Overdue Calibration**, **Loops in Manual**, and **Analytics Deviations**.

Figure 7-17: Custom KPI example

Legend	Description
1	Selected KPI
2	Selected asset
3	Asset ribbon features. Create a user message for this asset and tag other users. You can create a new notification[1].
4	Selected KPI sorting option. Sorting options are (**a**) Criticality: High to Low, (**b**) Criticality: Low to High, (**c**) Health (low to high), or (**d**) Date (most recent first).
5	Display KPI for this asset.
6	Custom diagnostic information provided by Plantweb Optics Connector.

[1]Displays when (**a**) you select an asset and (**b**) your user ID has the permission to "Create Work Notifications."

Related information

Create a new message
Watch and Unwatch assets
Export Custom KPI assets

7.11.1 Export Custom KPI assets

All of the Custom KPIs have a common set of asset information that you can export to a CSV file.

Table 7-8: Each Custom KPI exported asset contains:

• Asset Name	• Asset Description	• Asset Path
• Asset Criticality	• Health	• Last Health Update
• KPI Subject	• Time stamp	

Procedure

1. Click the Custom KPI icon or KPI tile to display its list of assets.
2. Click the (Export CSV) control.

Plantweb Optics Portal creates the CSV file on your local PC. The file is stored in your default download folder.

8   Reports

Plantweb Optics Portal displays asset information reports on the **Reports** page. The key problem assets are displayed in a columnar format. Each column in the reports can be used to sort the table in ascending or descending order. The data listed in each report can be exported to a spreadsheet-formatted *.csv file.

Currently, Plantweb Optics Portal has these reports:

- **Bad Actors Report**–filtered to show only poor performing assets from the previous 7, 30, 60, or 90 days.

- **Out of Service Assets Report**–For all ignored assets or for a specific scheduled event (maintenance period, turn-around, etc.).

Figure 8-1: Reports page example
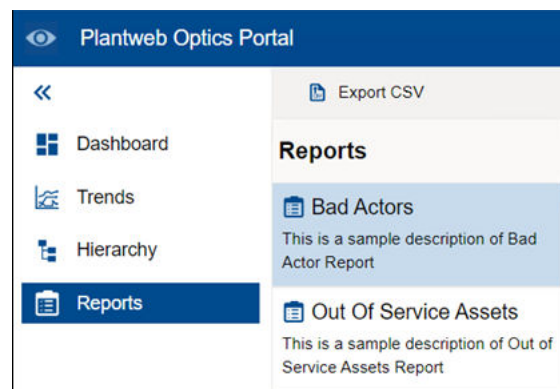
Related information

Bad Actors Report
Display Bad Actors Report
Export Bad Actors Report assets
Out Of Service Assets Report
Display Out of Service Assets Report
Export Out of Service Assets

8.1   Bad Actors Report

Similar to the **Bad Actors** display on the **Dashboard**. You can switch the evaluation interval from 7 to 30, to 60, or to 90 days. You can export the asset information to a comma-separated value (spreadsheet) file.

The report describes assets with frequent warnings and that create numerous events. Your Plantweb Optics Administrator sets the criteria for all Bad Actor assets in the **Bad Actors System Settings**, for your Plantweb Optics installation.

Figure 8-2: Bad Actors Report

Legend	Description
1	Bad Actors assets initially display for a default evaluation interval (defined by Administrator).
2	Select amount of evaluation interval. Choose the previous 7, 30, 60, or 90 days of Bad Actor assets. Your setting persists in the browser cache.
3	Click any asset column title to sort the table in ascending (∧) or descending (∨) order.

Related information

Bad Actors display
Bad Actors (settings)

8.1.1   Display Bad Actors Report

The **Bad Actors** Report shows the same asset information as the Dashboard **Bad Actors** display. You can sort the assets using any column, sorting in ascending or descending sequence. You have column sizing controls you can drag with your cursor to adjust column widths.

Procedure

1. Click the **Reports** (▤) icon.
   The **Bad Actors** Report is already selected.

2. Select the number of days in the evaluation interval (7, 30, 60, or 90 days).

3. Drag the left side of any column title to re-size the column width.

4. Click any asset column title to sort the table in ascending (∧) or descending (∨) order.

8.1.2   Export Bad Actors Report assets

Export the Bad Actor Report assets to a spreadsheet (*.csv) file.

Table 8-1: Each exported Bad Actors asset contains this asset and equipment information:

• Asset Name	• Number of Events	• Event
• Event	• Current Health	• Days Since last Healthy
• Criticality	• Area	

• Manufacturer	• Model	• Serial Number
• Tag	• Last Health Update	• Asset Description
• Asset Path		

Procedure

1. Click the **Reports** (⊞) icon.
   The **Reports** page displays the predefined reports.

2. Click the (📄 Export CSV) in the asset ribbon features, to export the **Bad Actors** Report assets and equipment information to a `.csv` file.

The spreadsheet file downloads to your local PC and stored in your default download folder.

8.2 Out Of Service Assets Report

This report shows a list of assets in which Plantweb Optics Portal ignores the unhealthy status plus any system-generated messages, for a specific scheduled interval. The displayed assets are filtered based on the current Active filter. You can also export the information to a CSV (spreadsheet) file.

The report shows a list of ignored assets for:

• All currently out of service assets, or

• Any scheduled event (maintenance). The schedule displays along with the list of out of service assets.

Figure 8-3: Out of Service Assets Report example
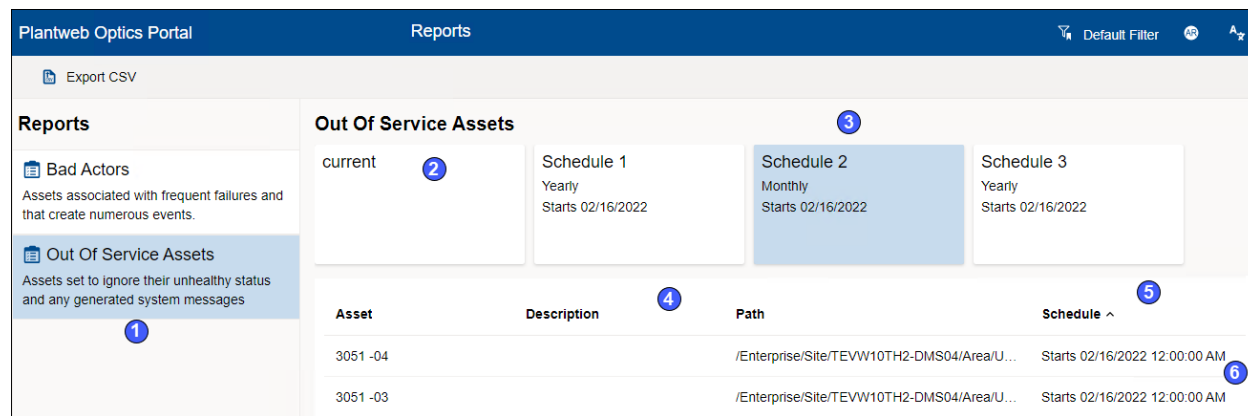
Legend	Description
1	**Out Of Service Assets** report selected
2	The **current** schedule is the default. (The schedule shows all assets, including those manually taken out of service.)
3	Alternatively, select a schedule. The schedule displays its name, recurrence rate, start time stamp, and final time stamp (when defined).
4	Assets assigned to the selected schedule.
5	Click any asset column title to sort the table in ascending (⌃) or descending (⌄) order.
6	For a named schedule, the start time and end time.

8.2.1   Display Out of Service Assets Report

In the Plantweb Optics Portal **Dashboard**, click the **Reports** (clipboard) icon to view the **Out Of Service Assets** report, along with the created calendar schedules.

Prerequisites

- You started the Plantweb Optics Portal in your browser.

- You have navigated to the **Dashboard** display.

Procedure

1. Click the **Reports** (📋) icon.
   The **Reports** page displays the predefined reports.

2. Under the **Reports** column, click the **Out Of Service Assets** report.

   The defined Schedules display across the top of the report. By default, the report lists all the scheduled and unscheduled out of service assets.

Figure 8-4: Out of Service Assets Report - All scheduled and unscheduled assets

Legend	Description
1	**current**-This schedule displays all assets presently out of service. By default, Optics Portal assigns the schedule name `Indefinite` to assets that administrators have manually taken out of service.
2	Displays the start date and time. If an End Date is specified for the schedule, the end date and time displays.
3	Sort the report in ascending or descending sequence by clicking a column title. Ascending sort is denoted by an upward caret (∧) and descending sort sequence is denoted by downward caret (∨).
4	Click any schedule (not **current**) to display assets assigned to this schedule.

3. Click a schedule name to restrict the displayed report to only the out of service assets defined for that schedule.

Figure 8-5: Out Of Service Assets Report - Single Schedule

4. Drag the left side of any column title to re-size the width of a column.
5. Click any asset column title to sort the table in ascending (∧) or descending (∨) order.

8.2.2   Export Out of Service Assets

Export the Out Of Service Assets to a spreadsheet (`*.csv`) file.

Table 8-2: Each Out of Service exported asset contains:

- Asset Name
- Start Date (Time stamp)
- Asset Description
- End Date (Time stamp)
- Asset Path–The asset path in the logical **ISA-95 Equipment Model**[1]

---

[1] For example, `/Enterprise/Austin Site/Emerson Crude Refinery/Process Cell/Unit Name/...`

Prerequisites

You have out of service assets that were:

- Taken manually out of service.
- Set up to be removed from service according to a schedule.
- Taken out of service with a script based upon their relationship to a parent asset.

See Related information for details.

Procedure

1. Click the **Reports** (⊞) icon.
   The **Reports** page displays the predefined reports.

2. Select one of the reports under the **Reports** column.

3. For the **Out Of Service Assets Report**, select the schedule for which you want to export assets. **Current** (schedule) denotes a summary of all out of service assets that have no schedule.

4. Click the (Export CSV) feature in the asset ribbon features. Plantweb Optics Portal creates a comma-separated value *.csv file (spreadsheet).

The spreadsheet file downloads to your local PC and stored in your default download folder.

Related information

Manually change out of service asset status
Use Lua script to change out of service asset status
Customize how a schedule controls out of service assets
Return assets to service

9   System and Admin Settings

Only Administrators can change the **System** Settings and the **Admin** Settings.

System–End users need to display the **System** Settings to understand:

- Health score calculation
- Message severities (OPC Severity ranges).
- Bad Actors criteria
- What CMMS work request priorities to use.

Figure 9-1: System settings
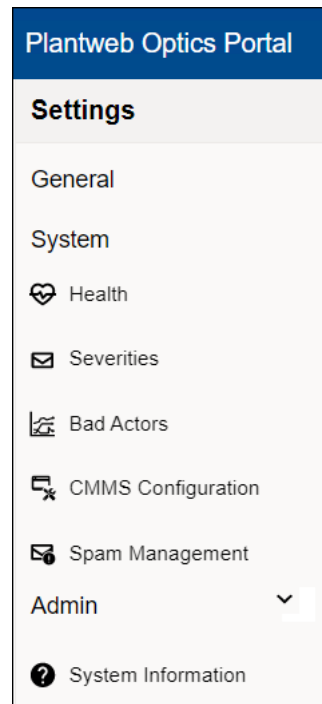
Admin–Tasks used to manage the Plantweb Optics Portal users and global installation settings.

Figure 9-2: Admin Settings
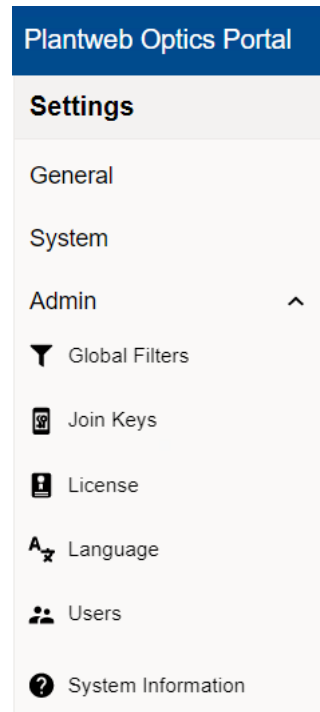
Related information

System Settings
Admin Settings
System Information

9.1 System Settings

System settings affect all users for a Plantweb Optics Portal installation. You can display, but not change the settings.

Note
You must have Administrator permissions to change the System Settings.

Click the **Settings** ( ) icon, then click **View All Settings** link at the bottom of the **Settings** window.

Figure 9-3: System Settings
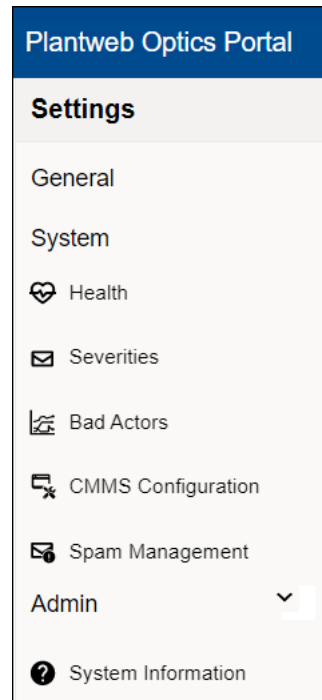
Legend	Feature	Description
1	**Health**	Set the health roll-up calculation method to `Average` or `Worst`.
2	**Severities**	Map OPC Severity values (0 through 1000) to several Optics Portal ranges. Each Optics Portal Severity is designated by a name, for example, Very Low, Low, Medium, High, or Very High.
3	**Bad Actors**	Evaluate whether an asset should be designated a Bad Actor by evaluating Criticality, number of event occurrences, happens in the evaluation interval, and is one of the selected event types.
4	**CMMS Configuration**	Specify the CMMS System server that receives the Optics Portal work requests. Define the work request priority values so that they match the SAP or the Maximo CMMS software.
5	**Spam Management**	Define the number of occurrences of a duplicate message title before the Optics Portal designates this messages as spam.

Related information

Health (calculation method) setting

Severities (settings)

Bad Actors (settings)

CMMS Configuration (settings)

Spam Management (settings)

9.1.1   Health (calculation method) setting

Plantweb Optics Portal calculates the health of each asset in the system and displays it as a numerical rating. Each Plantweb Optics Connector that interacts with a given asset, assigns it a health score between 0–100, where zero is completely unhealthy, and 100 is completely healthy. Plantweb Optics Portal calculates an overall asset health score based on the entries of all contributors..

The health calculation method sets how the system weighs the combined health scores of your assets.

Note
To see the calculation results, return to the Hierarchy and refresh your browser page.

Prerequisites

Display the **Hierarchy** ( ).

Procedure

1. Click the **Settings** ( ) icon in the User Toolbar.

2. Click **View All Settings** link at the bottom of the Quick Display Settings pane.

3. Click **Health** under **System** on the **Settings** dialog.

4. Choose the **Health Calculation Method** from the drop-down list.

Method	Description
Average	(Default) Averages all individual health scores coming from all contributors.
Worst	Uses the lowest health score coming from all contributors.

5. Click **Save**.

6. Return to the **Hierarchy** ( ) page and refresh the browser page to reflect the new health roll-up calculation method in the **Hierarchy**.

9.1.2   Severities settings

A Plantweb Optics Portal user (with administrator rights) can configure a few or up to 100 severities for user or system-generated messages.

The **Severities** (OPC severity value ranges) can be used to:

• Set the severities for individual messages created by any user.

• Define the minimum severity value when an individual user wants to receive mobile push notifications or email notifications. See Related information for details.

Prerequisites

1. You must have administrator permissions defined in Plantweb Optics DataStudio.

2. Navigate to the **Dashboard** ( ) pane.

3. Understand you are editing a list of OPC severity ranges. OPC severities have a value from 1 to 1000.

Before you edit, add, or delete a severity range::

- All of the Plantweb Optics severity ranges must span the *entire* OPC severity values from 1 to 1000.

- Duplicate severity names cannot exist.

- No two severity ranges can have overlapping OPC severity values. As an example, when a `Medium` severity is set to 400 to 600, then the `High` severity cannot overlap the `Medium` range with values of 500 to 700.

See Related information for details.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View all Settings**.
   The **Settings** dialog displays.

Figure 9-4: Plantweb Optics Portal - Settings dialog
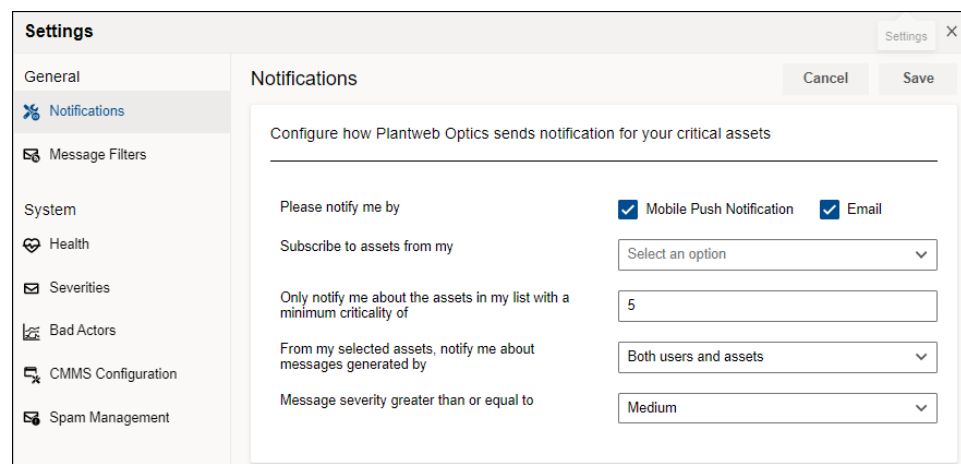
2. Under the **System** area, click **Severities**.

Figure 9-5: Settings > System > Severities dialog
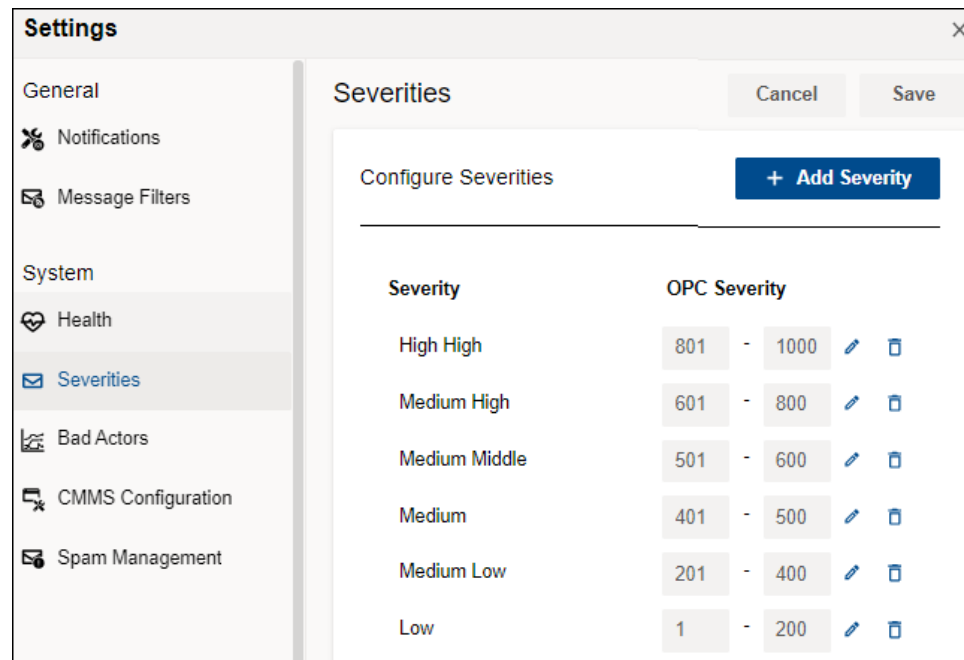
3. Administrators can change **Severities** settings.

You can:

- Edit the OPC severity values in each **Severity**.

- Add a **Severity**.

- Delete a **Severity**.

Postrequisites

Whether you add, edit, or delete a **Severity**, you must follow the severity editing rules and map your Severities to cover the entire **OPC Severity** range (1 through 1000).

Related information

Severities and messages
Severities and notifications
Edit severities
Create a severity
Delete a severity

Severities and messages

When you create a new message, the possible severities display in a list. Select a severity to indicate the message importance.

Figure 9-6: Severities selection list
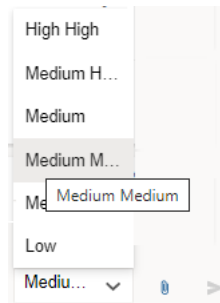
Your selected severity displays in the sent message, under the **Messages** (⬜) tab.

Figure 9-7: Message list showing each message severity
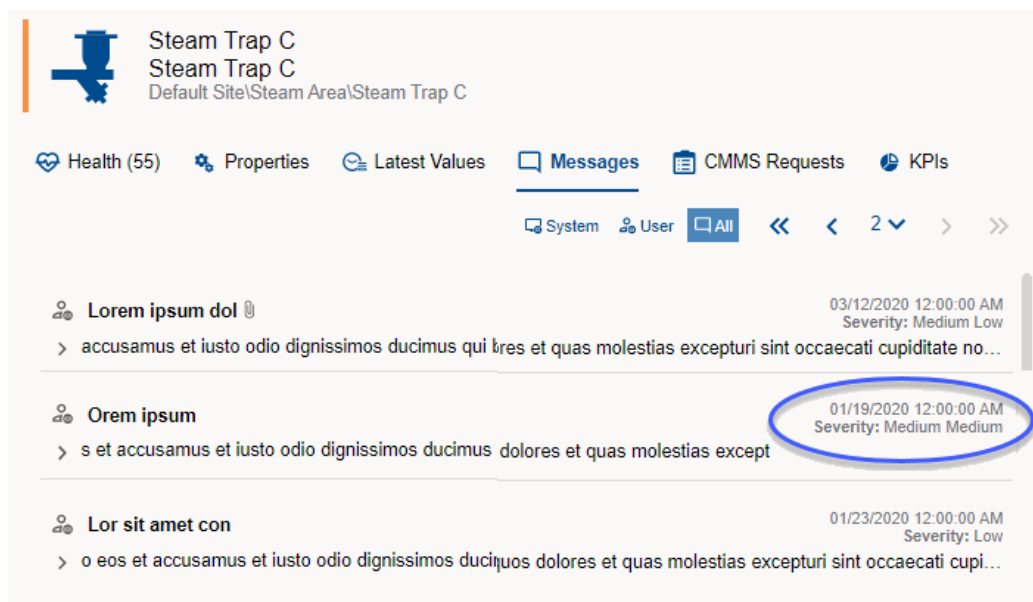
Severities and notifications

Use **Severities** to specify one of the criteria for you to receive a notification about an asset. Select the minimum severity. Events with a severity number greater or equal to this OPC Severity range, result in a mobile push notification or an email notification.

Display **Notifications** by clicking the Gear (⚙) icon in User Toolbar > Click **View All Settings**. Set the severity level using the **Settings** → **General** → **Notifications** dialog. Choose a value from the **Message severity greater than or equal to** selection and **Save** your settings.

Figure 9-8: Severity used for notifications

Edit severities

Change and organize the named **Severities** that correspond to different OPC severity ranges. You must have administrator permissions to change the severities for the entire Plantweb Optics Portal installation. Users employ these severities on each user message and as a criteria for receiving notifications.

Prerequisites

When changing the OPC severities range for any named Plantweb Optics Severity, you must adhere to these rules. (See the following error examples.)

- Before you **Save** the changed **OPC Severity** ranges, the individual OPC severity limits must cover all the OPC Severity values, 1 through 1000.

- You must define at least one **Severity** name.

- Duplicate **Severity** names are not allowed.

- You can define a maximum of 100 Plantweb Optics Severities.

- A **Severity** name must be 100 alphanumeric characters or less.

- All **OPC Severity** values must be whole numbers from 1 through 1000.

- You change OPC Severities limits to specify a range for the named **Severity**.

Figure 9-9: Potential errors when editing OPC Severity ranges
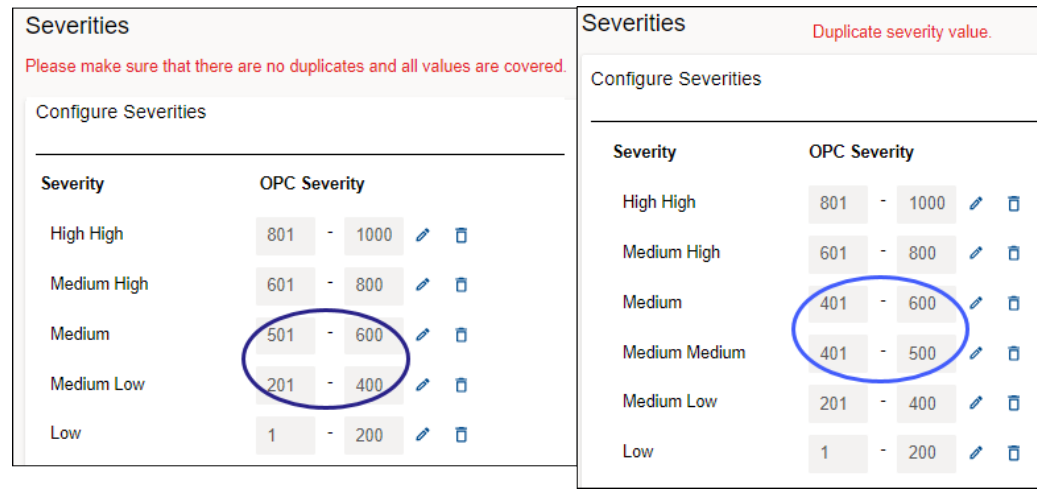
Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View all Settings** > Click **Severities** (under **System**).

2. Select the **Severity** by clicking the edit (✏) icon.

3. Optional: Change the **Severity** name, if necessary.

4. Change the lower and upper **OPC Severity** range values.

5. Click the apply (✔) icon to finish entering the values.

6. Optional: Click the Cancel (**X**) icon to discard the Severity edits.

Postrequisites

1. If your changes generate an error (duplicate value or some OPC Severity not covered), repeat the task for other Severities until no errors display.

2. Click **Save** to retain your changes.

3. [Optional] Click **Cancel** to discard all edits, deletions, and additions.

Related information

Create a severity
Delete a severity

Create a severity

Create a severity using the **Configure Severities** dialog. Once you add a severity, you must edit other severities to span the entire **OPC Severity** range.

Prerequisites

For the rules about changing severities, see the Related information *Edit severities* topic for details.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View all Settings** > Click **Severities** (under **System**).

2. Click the **+ Add Severity** button to insert a new **Severity**.

3. Select the **Severity** you want to change by clicking the edit (✎) icon.

4. Optional: Change the default **Severity** name,

5. Enter the lower and upper **OPC Severity** range values.

6. Click the apply (✔) icon to finish entering the values.

Figure 9-10: Severity added

Severity	OPC Severity					
High High	801	-	1000	✎	🗑	
Medium High	601	-	800	✎	🗑	
Medium	401	-	600	✎	🗑	
Medium Low	201	-	400	✎	🗑	
Low	1	-	200	✎	🗑	Duplicate severity value.
Overlap Severity Add Response	1	-	1	✎	🗑	Duplicate severity value.

7. When adding a severity, you always need to edit some of the other severities to cover all the OPC values. See Related information for details.

8. Click **Save** to retain your changes.

9. [Optional] Click **Cancel** to discard all edits, deletions, and additions.

Related information

Edit severities
Delete a severity

Delete a severity

Delete a severity using the **Configure Severities** dialog. Once you delete a severity, you must edit the other severities to span the entire OPC Severity range.

Prerequisites

For the rules involved with deleting severities, see the Related information *Edit severities* topic for details.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View all Settings** > Click **Severities** (under **System**).

2. Click the delete (□) icon to remove the **Severity**. If you select an incorrect severity, click **Cancel** to restore the severities prior to starting this task.

Figure 9-11: Severity deleted
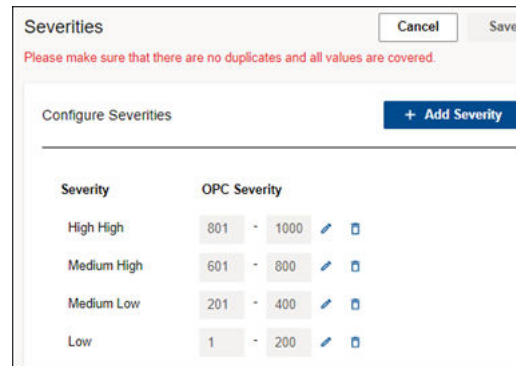
3. When deleting a severity, you always need to edit some of the other severities to cover all the OPC values. See Related information for details.

4. Click **Save** to retain your changes.

5. [Optional] Click **Cancel** to discard all deletions.

Related information

Edit severities

Create a severity

9.1.3   Bad Actors (settings)

Bad Actors are assets associated with frequent failures, that create numerous events, and can result in high maintenance costs. Administrators can identify these assets by setting a threshold criticality value and occurrence value in the **Bad Actors** dialog. Assets that report values higher than the thresholds that you set, display on the **Bad Actors** pane of the **Dashboard** and in the **Bad Actors Report**.

Every user can display the criteria used to identify assets as "bad actors." However, only Administrators can change the criteria to identify bad actors.

Figure 9-12: Bad Actors - System Settings
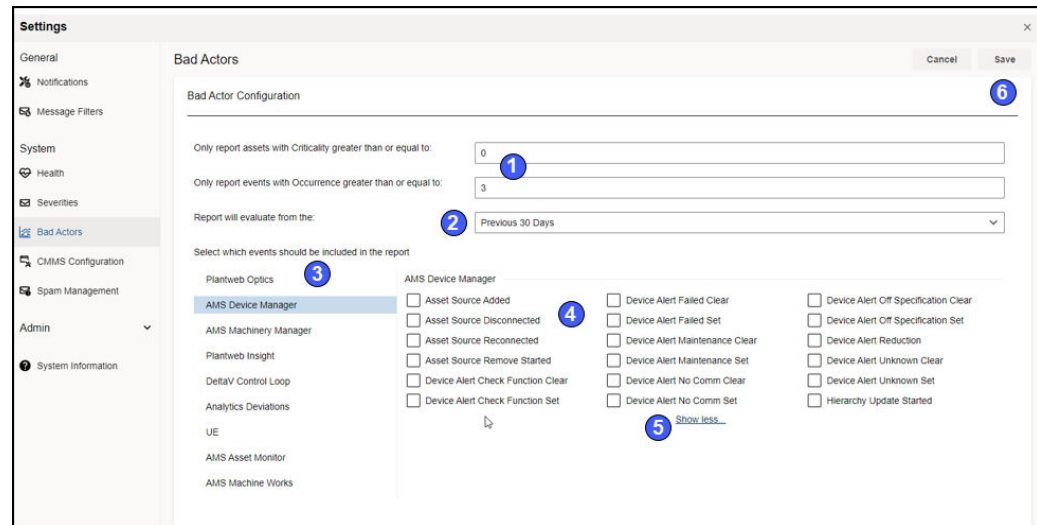
Legend	Description
1	Set criticality and event count thresholds.
2	Evaluate the previous (7, 30, 60, or 90) days of data.
3	Select Plantweb Optics application or Plantweb Optics Connector.
4	Select specific events for the chosen application or Plantweb Optics Connector.
5	Control the size of the event list.
6	Save changes. Optics Portal updates the **Bad Actors** display and report on the next **Dashboard** refresh.

Related information

Change Bad Actors settings

Change Bad Actors settings

Bad Actors are assets associated with frequent failures, that create numerous events, and can result in high maintenance costs. Assets that report values higher than the thresholds that you set, display on the **Bad Actors** panel of the **Dashboard** and in the **Bad Actors Report**.

Figure 9-13: Change Bad Actors asset criteria

Procedure

1. From the Optics Portal Dashboard, click ⚙ on the top right of the screen.

2. From the Settings panel, click **View All Settings** at the bottom of the screen.

3. Click **Bad Actors**.

4. Enter a Criticality value in the **Only report assets with Criticality greater than or equal to** field.

5. Enter an Occurrence value in the **Only report events with Occurrence greater than or equal to** field.

6. Select an evaluation interval. The number of events are counted within this interval (7, 30, 60, or 90 previous days).

7. Select all the events that you want included in the **Bad Actors** display and **Bad Actors Report**.

8. Click **Save**.

Related information

Bad Actors display
Bad Actors Report

9.1.4 CMMS Configuration (settings)

Use the CMMS Configuration settings to specify the settings and interface elements need to connect the Plantweb Optics Portal to an SAP or MAXIMO CMMS System. You must have Administrator permissions to save the changes.

> ⚠ **CAUTION**
>
> Unmatched work request priority values result in undelivered work notifications to Optics Portal.

> ⚠ **CAUTION**
>
> When specifying the CMMS Interface **Server**, avoid adding the `http://` protocol and the final / (forward slash).

Figure 9-14: CMMS Configuration - System Settings

Legend	Description
1	CMMS interface server and port number.

Legend	Description
2	⚠️ **Attention** *Not supported in this software release.* Use an SSL connection and specify the authentication credentials.
3	CMMS internal (SAP or MAXIMO) identification settings.
4	Work request priority values.
5	Add, delete, and change work request priorities (name and value).
6	⚠️ **Attention** *Not supported in this software release.* Generate automatic notifications for critical assets by selecting health score and criticality thresholds.

Related information

Configure CMMS Settings

Manage work request priorities

Configure CMMS Settings

Configure the CMMS Settings in Plantweb Optics Portal to communicate with the CMMS server and send work requests with the correct priorities.

⚠️ **CAUTION**

Unmatched work request priority values result in undelivered requests.

⚠️ **CAUTION**

When specifying the **CMMS Interface Server**, avoid using the `http://` protocol and the final (/) forward slash.

⚠️ **CAUTION**

Enable Secure Connection (SSL) and **Enable Automatic Notifications** are *unsupported* for this software release.

Figure 9-15: CMMS Configuration Settings

Prerequisites

⚠ **CAUTION**

You must have Administrator permissions to make setting changes.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View All Settings**

2. Select the **CMMS Configuration** under the **System** Settings.

3. Enter the **Server** name where your Plantweb Optics CMMS Interface is installed.

4. Enter the **Port** number that Plantweb Optics uses to communicate with the CMMS Server. For example, 80.

5. In the **Update Rate** (Minutes) field, enter the number of minutes between polling intervals for updated health values.
    Plantweb Optics polls for Open Requests based on the **Update Rate**.

6. [*Unsupported*] Enable Secure Connection (SSL).

7. Enter the CMMS **Maintenance Plant** or Site ID.

This global setting defines the context in which Plantweb Optics interfaces with the CMMS server. Plantweb Optics maintenance tasks must only apply to assets in this Maintenance Plant.

8. Enter the type of CMMS Interface notification you create, In the **Notification Type**.

9. Set priority values to manage your **Work Request Priorities** according to what the CMMS server expects. See Related information for details.

10. [***Unsupported**]* Enable Automatic Notifications.

11. Click **Save**.

Related information

Manage work request priorities

Manage work request priorities

Work Request priorities help you to specify the importance of maintenance work requests. When you create a new CMMS request, you can set a priority for the request. Your co-workers can display the request and determine the importance and scheduling of the work.

Note
The **Work Request Priorities** have default values of Very High, High, Medium, and Low.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View All Settings**

2. Select the **CMMS Configuration** under the **System** Settings.

3. Note the **Work Request Priorities** area.

4. Under the **Priority Name** and **Priority Value** columns, you can:

Option	Description
Edit (✏) icon	Change the Priority Name and Priority Value.
Add (**+**) icon	Add a Priority Name and Priority Value.
Delete (🗑) icon	Remove a Priority Name and Priority Value.

5. Click **Save**.

Related information

Configure CMMS Settings

9.1.5   Spam Management (settings)
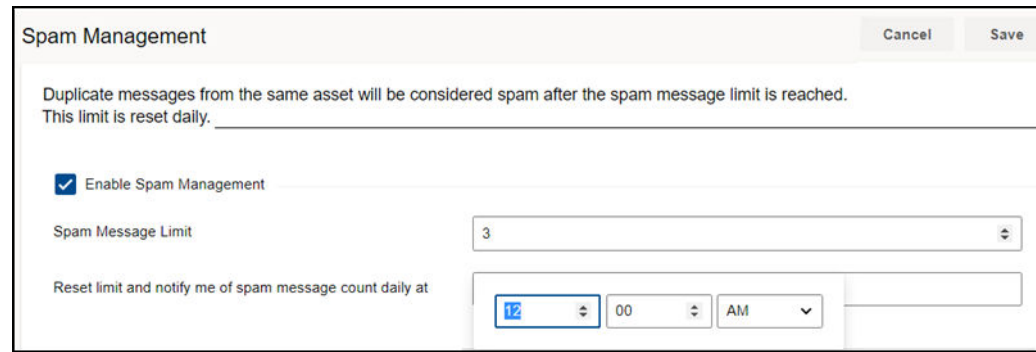
Use Spam Management to limit the number of duplicate system-generated messages (same type and title) created by assets. Duplicate messages from the same asset are considered spam after the spam message limit is reached. This limit resets daily.

The Spam Management settings helps the Administrator to:

- Enable spam management. *Must be done first.*

- Set the spam message limit. You may set the limit from 3 to 100 for duplicate system messages.

- Specify the reset time of the spam message limit. You can set the specific time of day and receive a daily report of the spam message counts.

Figure 9-16: Spam Management - System Settings

Note

Spam only effects system-generated messages and never suppresses user-generated messages.

To access the spam management settings:

1. From the Optics Portal Dashboard, click ⚙ on the top right of the screen.

2. From the Settings panel, click **View All Settings** at the bottom off the screen.

3. Click **Spam Management**.

4. Click **Enable Spam Management**.

5. Set the spam message limit and the reset time daily.

6. Click **Save**.

9.2   Admin Settings

Use **Admin Settings** to manage Plantweb Optics Global filters, Optics Portal user information, join keys, licenses, and the UI language packs.

Users who are not administrators cannot display this section of the **Settings**. You can see and change these **Admin Settings** only when you are a Plantweb Optics administrator.

Click the **Settings** (⚙) icon and then click **View All Settings** link at the bottom of the **Settings** window.

Figure 9-17: Admin Settings

Legend	Feature	Description
1	**Global Filters**	Define asset filters for every Plantweb Optics user. Users can copy these Global Filters to make unique User Filters that factor in their assets realm of responsibility (assigned) and persona-based job requirements (user selected).
2	**Join Keys**	Issue, display, export, and disable keys assigned to users who must access the Plantweb Optics Augmented Reality (AR) or Plantweb Optics Mobile.
3	**License**	(**a**) Request a proposal for a license from Emerson, (**b**) display Guardian Information collected about your Plantweb Optics servers, (**c**) display information about all customer licenses and their key names, plus (**d**) register a Plantweb Optics Portal license using the license file emailed to you.
4	**Language** (User interface)	Install new Plantweb Optics Portal language packs. On the User Toolbar, any user can switch between the UI languages loaded by the administrator. See Related information for details.
5	**Users**	Add, change, display, export (CSV file), or delete Plantweb Optics Portal user information. Disabling, locking, or unlocking user accounts (and other functions) must be done in the Plantweb Optics DataStudio.

Related information

Global Filters (settings)

Join keys (settings)
License
Language (settings)
Users

9.2.1   Global Filters (settings)

Define asset filters for all Plantweb Optics Portal users. Administrators can save a maximum of 10 Global Filters.

Figure 9-18: Global Filters - Admin Settings

Legend	Feature	Description
1	**Locations** (settings)	Organization areas on the asset hierarchy used to restrict the assets displayed.
2	**Classes** (setting)	Examples include `Generic Asset`, `Machine`, `Pump`, `Compressor`, and so forth.
3	**Responsibilities** (setting)	Failure effects, functions, and interfaces that define what assets are displayed on lists. Plantweb Optics supports predefined Failure Effects that include (**a**) Safety Critical, (**b**) Air Pollution Control, (**c**) Hazardous Material Control, (**d**) Environmental Control, and (**e**) Production Control.
4	**Criticality** (setting)	The asset criticality threshold needed to display the asset.

Legend	Feature	Description
5	Global Filter Controls	• Edit Filter (✎)–change filter settings.
		• Clear Selection(↻)–remove and clear all selections for one of the four filter criteria (**Locations**, **Classes**, **Responsibilities**, or **Criticality**) threshold.

9.2.2 Join keys (settings)

Create, issue, and manage join keys for the Plantweb Optics Augmented Reality and Plantweb Optics Mobile applications.

Administrators can:

- Create and manage join keys for users that work with the Augmented Reality or Plantweb Optics Mobile apps.

- Issue a join key, enable a key (*green*), delete a key, disable a join key (*gray*), and re-enable a key for a user.

- Send one or more users a notification when issuing a join key that contains the QR code of the join key, link, join key, site name, server name, and System ID.

- Display enabled, disabled, or both types of join keys.

- Export all join key information to a CSV (spreadsheet) file.

Figure 9-19: Join Keys - Admin Settings

Legend	Description
1	Issue a join key. (See following example.) Number of available join keys decreases by one,

Legend	Description
2	Disable a join key and set **Status** color to gray. An enabled or just issued join key displays as green Status.
3	Delete a join key. Number of available join keys increases by one,
4	Export all Join Keys information to a CSV file.
5	Join Key **Status**: Green (enabled), Gray (disabled).
6	Sort the Join Key list in ascending or descending order using a column tile.
7	Display Join Keys sorted by who was issued the keys.

Figure 9-20: Join Key example
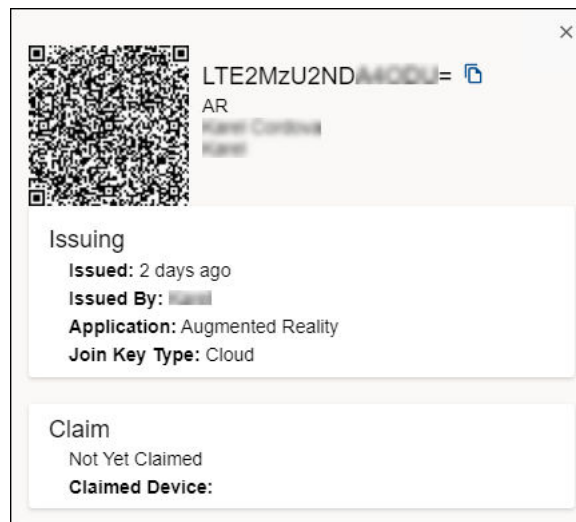
9.2.3 License

Users with Administrator rights can display and make changes in the **License** dialog. The license generation software for the current Plantweb Optics version has multiple changes:

- Application licenses are assigned based on the number of users.

- Number of Plantweb Optics Portal users and Plantweb Optics Mobile users are independently assigned.

- For each Plantweb Optics Mobile user, five Mobile Tokens are assigned.

- CMMS licenses are assigned based on the planned number of organization work requests.

- Licenses are checked daily for expiration. Expiration notices are sent to Plantweb Optics Portal and Plantweb Optics Mobile admins at 90, 60, 30, and 7 days prior to license expiration.

Figure 9-21: Plantweb Optics components for a license example

On the License dialog (**Admin Settings**) in Plantweb Optics, the administrator can:

- Download Guardian plant identification and performance information.
- Register and upgrade Plantweb Optics licenses.
- Display usage of, and the status of Plantweb Optics licenses.
- Retrieve System IDs and Machine fingerprints.

Figure 9-22: License - Admin Settings

Figure 9-23: Guardian Information example
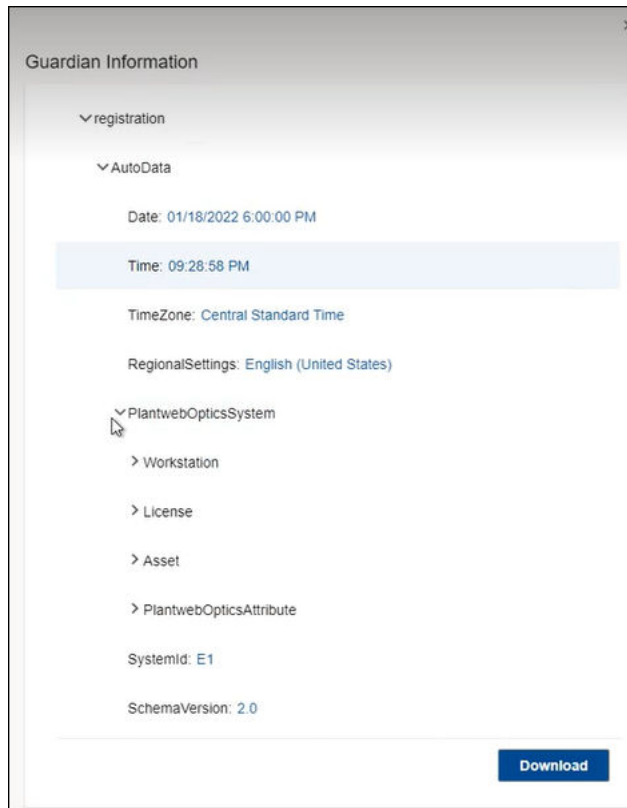
9.2.4   Language (settings)

Add a language pack so that any user can display the user interface text in one of several languages.

Figure 9-24: Language - Admin Setting
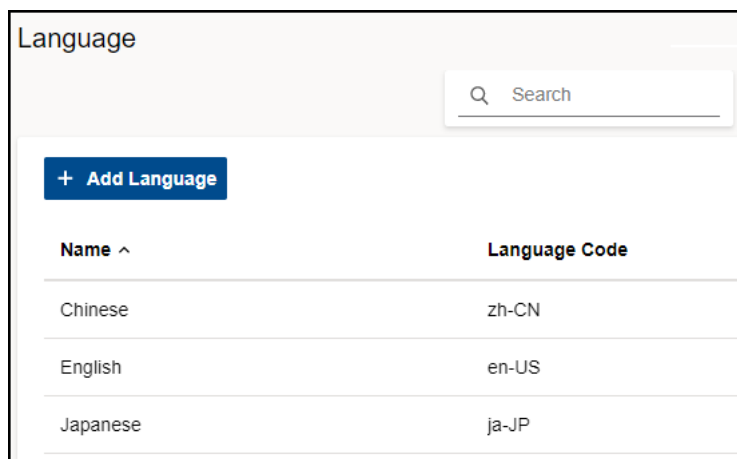
9.2.5 Users

Manage the Plantweb Optics Portal user login information needed for collaboration with other users. All user authentication information (using a profile, Windows login, or Active Directory) must be set up in Plantweb Optics DataStudio.

Note
Only Administrators can display and change **Users** information.

Figure 9-25: Users dialog

Legend	Description
1	Select **Name** column to sort list.
2	Sort all users by clicking a column title. Select ascending or descending alphabetical order.
3	Add new user manually.
4	Export all user information to a CSV (spreadsheet) file.
5	Import user information obtained from Plantweb Optics DataStudio. Uses a CSV (spreadsheet) file.
6	Edit (✎) the user information that includes Name, First Name, Last Name, Email Address, and Logins.
7	Delete (▯) a user.

9.3 System Information

To find the System Information, click the **Settings** (⚙) icon and then click **View All Settings** link at the bottom of the **Settings** window. Click **System Information**.

Figure 9-26: System Information (Settings)
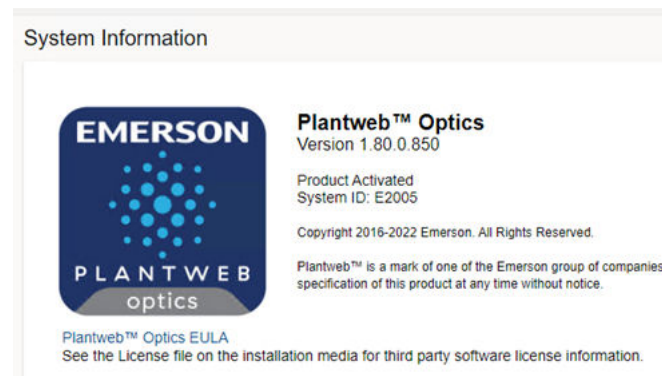
The **System Information** dialog provides the:

- Current software build number.

- Plantweb Optics version number.

- License Status

- System identification.

- Link to the Plantweb Optics end user license agreement (EULA). Click **Plantweb™ Optics EULA**.

10   CMMS work requests

Plantweb Optics can interface to a Computerized Maintenance Management System (CMMS), such as IBM Maximo or the SAP Plant Maintenance Module. This link helps you move asset issues, alerts, and maintenance tasks into the your current work flows that efficiently resolve problems and complete preventive maintenance tasks. This promotes greater asset reliability by helping to identify, prioritize, and take corrective action to maintain assets.

Your plant personnel can:

- Keep track of all the assets in their realm of responsibility.

- Schedule and track maintenance tasks (work requests).

- Keep records of the work they perform.

For the CMMS Interface implementation type, an asset can be physical equipment (for example, an MTR-001) or a functional location (FCC-01-Reactor). For specific steps to install the CMMS software for a CMMS Server, see *Knowledge Base Article NK-2000-0252*.

Related information

Configure CMMS Settings
Create a work request (manual)
Display work requests
Export CMMS assets
Manage undelivered CMMS work requests

10.1   Configure CMMS Settings

Configure the CMMS Settings in Plantweb Optics Portal to communicate with the CMMS server and send work requests with the correct priorities.

> **⚠ CAUTION**

Unmatched work request priority values result in undelivered requests.

> **⚠ CAUTION**

When specifying the **CMMS Interface Server**, avoid using the `http://` protocol and the final (/) forward slash.

> **⚠ CAUTION**

Enable Secure Connection (SSL) and **Enable Automatic Notifications** are *unsupported* for this software release.

Figure 10-1: CMMS Configuration Settings

Prerequisites

> **⚠ CAUTION**

You must have Administrator permissions to make setting changes.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View All Settings**
2. Select the **CMMS Configuration** under the **System** Settings.
3. Enter the **Server** name where your Plantweb Optics CMMS Interface is installed.
4. Enter the **Port** number that Plantweb Optics uses to communicate with the CMMS Server. For example, 80.
5. In the **Update Rate** (Minutes) field, enter the number of minutes between polling intervals for updated health values.
   Plantweb Optics polls for Open Requests based on the **Update Rate**.
6. [*Unsupported*] Enable Secure Connection (SSL).
7. Enter the CMMS **Maintenance Plant** or Site ID.

This global setting defines the context in which Plantweb Optics interfaces with the CMMS server. Plantweb Optics maintenance tasks must only apply to assets in this Maintenance Plant.

8. Enter the type of CMMS Interface notification you create, In the **Notification Type**.

9. Set priority values to manage your **Work Request Priorities** according to what the CMMS server expects. See Related information for details.

10. [*Unsupported*] Enable Automatic Notifications.

11. Click **Save**.

Related information

Manage work request priorities

10.1.1   Manage work request priorities

Work Request priorities help you to specify the importance of maintenance work requests. When you create a new CMMS request, you can set a priority for the request. Your co-workers can display the request and determine the importance and scheduling of the work.

Note
The **Work Request Priorities** have default values of Very High, High, Medium, and Low.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View All Settings**

2. Select the **CMMS Configuration** under the **System** Settings.

3. Note the **Work Request Priorities** area.

4. Under the **Priority Name** and **Priority Value** columns, you can:

Option	Description
Edit (✏) icon	Change the Priority Name and Priority Value.
Add (**+**) icon	Add a Priority Name and Priority Value.
Delete (🗑) icon	Remove a Priority Name and Priority Value.

5. Click **Save**.

Related information

Configure CMMS Settings

10.2   Create a work request (manual)

Manually create a work request that can be tied to a specific asset, CMMS priority, title, and description. Plantweb Optics helps you turn important asset alerts and diagnostics into CMMS notifications that you can integrate into SAP Plant Management or IBM

Maximo. The identifying Asset Code is copied from the asset **Properties** (CMMS) area. You can create a notification that displays in other users' **System Messages** KPI.

Your co-worker can receive a mobile push notification, an email, or both, when they have:

- **Message Filters** Settings subscribed to **Plantweb Optics CMMS** (`Work Notification Cancelled`, `Work Notification Closed`, or `Work Notification Opened`).

- **Notifications** Settings that include an asset that meets their filtering, message type (user or system), and message severity requirements.

Prerequisites

- Your profile or user ID has explicit permission to Create Work Notifications.

- You selected a KPI.

- You selected an asset in the KPI that has a CMMS Asset Code that matches an asset in the CMMS server.

Procedure

1. Select **New Notification** from the asset ribbon features (above asset list or hierarchy).

2. Select the **Subject** field and enter the subject of the work notification.

3. Select a **Priority** level for the work request from the list (next to the send control).

4. Type a short **Description** of the problem to be addressed.

5. Click send (➤).

- Plantweb Optics submits the work notification to the CMMS server and its status is `Pending` until confirmation is received. The work request displays in the **Undelivered CMMS** KPI List View, under the **CMMS Requests** tab. The **Undelivered CMMS** KPI count increase by one.

- When the work request is successfully created in the CMMS (SAP or Maximo), the work request displays in the **CMMS Requests** KPI List View. It's count increases by one. The **Undelivered CMMS** KPI List View removes the request and decreases its count by one. The work request status is now `Open`. The CMMS Asset ID field contains the CMMS **Asset Code** for the request.

When the work notification request fails, it remains in the **Undelivered CMMS** KPI List View.

10.3   Display work requests

You can display all the Plantweb Optics work requests created from an asset. .

Display a work request in any CMMS status:

- open

- undelivered

- closed or cancelled

Prerequisites

The selected asset has a CMMS Asset Code that matches the asset in the CMMS server.

Procedure

1. Select an asset from the **Hierarchy** or one of the KPI List Views.

2. Select the **CMMS Requests** tab in the details pane.

3. Click one of the (✖) Open, (◨) Undelivered, and (▪) Closed or Cancelled icons to display the asset work requests.

10.4 Export CMMS assets

You can export the CMMS assets stored in Plantweb Optics.

Table 10-1: Each exported CMMS asset contains this information:

• Equipment ID	• Category	• Type
• Inventory Number	• Manufacturer	• Manufacturer Serial No
• Parent Equipment ID	• Description	• Functional Location
• Sort Field	• Maintenance Plant	• Priority

Prerequisites

You must have Administrator permissions.

Procedure

1. Click Gear (⚙) icon in User Toolbar > Click **View All Settings**

2. Select the **CMMS Configuration** under the **System** Settings.

3. Click the (▤) **Export CMMS** button

Plantweb Optics Portal creates the CSV file (`CMMS_Assets.csv`) on your local PC. The file is stored in your default download folder.

10.5 Manage undelivered CMMS work requests

When undelivered CMMS work requests pile up in your **Undelivered CMMS** KPI, you can manage the list.

You can:

• **Resend**–retransmit the work request that failed due to a temporary network problem or CMMS server issue.

• **Delete**–remove work requests no longer needed.

• **Export**–save the requests to archive the records or troubleshoot the CMMS interface.

Related information

Resend Undelivered work request
Delete Undelivered work request
Export Undelivered work requests

10.5.1 Resend Undelivered work request

Resend an Undelivered CMMS work request when there is a connectivity problem or an issue with the CMMS server.

Procedure

1. Select the **Undelivered CMMS** KPI List View using the (🖾) icon or tile.
2. Select the asset associated with the undelivered work request.
3. Click the (🖾) icon under the **CMMS Requests** tab.
4. Click the (›) icon to expand the Undelivered CMMS request to display the **Resend** (⟳) icon.
5. Click the **Resend** (⟳) icon.

A new request displays in the **CMMS Requests** KPI List View, or another undelivered request is added to the **Undelivered CMMS** KPI List View.

10.5.2 Delete Undelivered work request

You can delete an Undelivered CMMS work request when it is no longer needed to address an asset issue.

Procedure

1. Select the **Undelivered CMMS** KPI List View using the (🖾) icon or tile.
2. Select the asset associated with the undelivered work request.
3. Click the (🖾) icon under the **CMMS Requests** tab.
4. Click the (›) icon to expand the Undelivered CMMS request to display the **Delete** (🗑) icon.
5. Click the **Delete** (🗑) icon.

The undelivered request is removed from under the **CMMS Requests** tab and the **Undelivered CMMS** KPI count decreases by one.

10.5.3 Export Undelivered work requests

Export assets that generated work requests with Pending and Undelivered Work Notifications.

Table 10-2: Each CMMS Requests KPI exported asset, contains asset and CMMS request information:

• Asset Name	• Asset Description	• Asset Path
• Asset Criticality	• Health	• Last health update

Table 10-2: Each CMMS Requests KPI exported asset, contains asset and CMMS request information: *(continued)*

• CMMS Subject	• CMMS Description	• CMMS Priority
• CMMS Asset ID	• CMMS State	• CMMS Notification ID
• CMMS Work Order ID	• Time Created	• Last Updated

Procedure

1. Click the KPI (⧉) icon or KPI tile (icon, asset count, and KPI name) to display its list of assets.

2. Click the (🗋 Export CSV) control.

Plantweb Optics Portal creates the CSV file on your local PC. The file is stored in your default download folder.

11 Trends graph

Plantweb Optics displays the current health and parameter values for each asset. However, it is often helpful to see how the health values change and trend over time. The **Trends** graph provides you the controls to work with your assets' historical data to analyze data trends.

The Trends graph provides

- Health and asset parameter histories, that can show possible asset problem causes

- Historical health value comparisons, including comparisons between different asset types.

- A flexible display to create accurate presentations (meetings and co-worker discussions).

These features allow you to:

- View historical data for asset parameters

- Measure the value of investments made towards maintaining asset health.

- Extract analytic information and anticipate future maintenance events and cost.

A Plantweb Optics Portal page displays up to seven asset parameters (can be from different assets). The **Trends** graph shows the saved (maximum of 365 days) parameter values and health as raw data and aggregated curves. Use the **Trends** graph to display from one week to one year of information, while comparing asset functionality. You can also export the displayed parameter values to a CSV (spreadsheet) file.

Figure 11-1: Trends graph example

Legend	Description
1	Select date range of asset parameters (health) and limits to display.
2	Quick selection of a standard display interval.
3	Aggregation method used to compute values and construct plot lines (Raw, `Average`, `Max`, `Best Fit`, or `Interpolated`).
4	Refresh the display.
5	Enlarge, decrease, or reset the chart magnification.
6	Move the Trends graph forward or backward one week, through the data interval.
7	Export Trends values to a CSV (spreadsheet) file.
8	Plotted asset parameter or health values that are connected by a trend line (**3**–defined using the aggregation method selector).
9	Slide the data picker to list the plotted asset parameter (health) name, units, and value for a day.
10	Use sliders to select which portions of the data to display. Adjust the sliders with your cursor to change the time range and the y-axis start and end values.

Related information

Add data to the Trends graph
Control how trend data is aggregated from raw data
Display Trends values using data picker
Manage Trends graph presentation
Export Trends plots to csv file

11.1   Add data to the Trends graph

Add information to the **Trends** graph using one of three methods. Any combination of the methods can add a maximum of 16 parameters (or health) that is retained by the **Parameters** pane (right of **Trends** graph).

While you can select a maximum of 16 asset parameters, the **Trends** graph only displays seven parameters (or health) at one time. Adding the eighth parameter to the graph, means one of the original seven parameters no longer displays. The selected asset parameter or health value is retained in the **Parameters** pane.

First select an asset. Add information to the **Trends** graph using the:

- **Latest Values** tab

- **Health** tab

- **Parameters** pane

Add parameters using the **Latest Value** tab under **Asset details** by selecting the **Historized Add to Trends** check box to the left of the asset **Parameter**. (**1**) Click the **Latest Values** tab and (**2**) select the check box under the **Trends** (⬚) icon.

Alternatively, you can turn on the **Add Overall Health to Trends** (**Health** tab) and place asset health values without any historized parameters) on the **Trends** graph. See Related information for details.

Add a parameter from the **Parameters** pane (displaying 16 parameters and health) by selecting the check box. See Related information for details.

Related information

Add parameters from Latest Values tab
Add overall health using Health tab
Add parameters using Trends Parameter pane

11.1.1 Add parameters from Latest Values tab

Add parameters using the **Latest Value** tab under **Asset Overview** by selecting the **Historized Add to Trends** check box to the left of the asset **Parameter**. You can plot seven parameters (or health) from multiple assets on the **Trends** graph.

While you can select a maximum of 16 asset parameters, the **Trends** graph only displays a maximum of seven parameters (or health) at one time. Adding an eighth parameter means one of the original seven parameters no longer displays on the graph. The selected asset parameter or health value does remain in the **Parameters** pane.

Figure 11-2: Adding parameters to the Trends graph
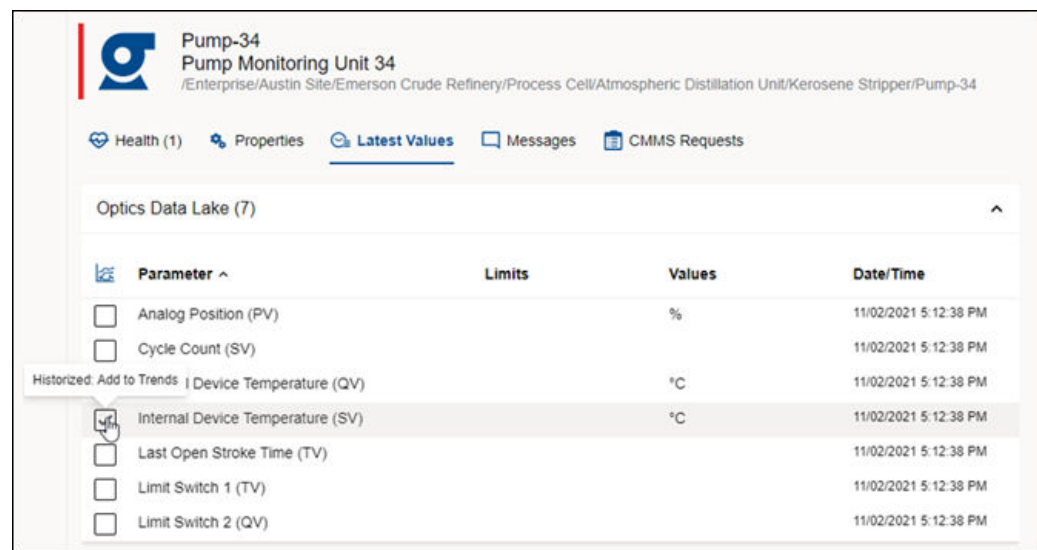
Procedure

1. Select the **Hierarchy** or one of the KPI List Views.

2. Select an asset.

3. Click the Latest Values tab in the asset details.

4. Select a check box under the Trends (x) icon.

5. Hover over the check box. The text: *Historized Add to Trends* indicates a parameter with historical values.
   The historized parameter displays on the **Trends** graph.

6. Repeat the previous two steps for parameters you want displayed.

The Trends graph retains your last 16 parameters or health values (Parameters pane) selected.

Your last seven selections *display* on the **Trends** graph.

11.1.2 Add overall health using Health tab

Add an asset's overall health to the parameters you plot on the **Trends** graph. This is possible even when no historized parameters exist for this asset.

Procedure

1. Select the **Hierarchy** or one of the KPI List Views.

2. Select an asset.

3. Select the **Health** tab.

4. Select the **Add Overall Health to Trends** option.

5. Click the **Trends** (⬚) icon.

The asset health scores for the time range in the **Trends** graph display. The asset health is added as a parameter in the **Parameters** pane.

11.1.3 Add parameters using Trends Parameter pane

You can add parameters from the **Trends** graph using the **Parameters** pane.

Procedure

1. Click the **Trends** (⬚) icon.

2. Click reveal (⬚) icon to re-display the hidden **Parameters** pane.

3. Pin (⬚) the **Parameters** pane to the **Trends** page.

4. Select the check mark on the left side of a parameter or overall health to display in the **Trends** graph.

Figure 11-3: Parameters added to the Trends graph
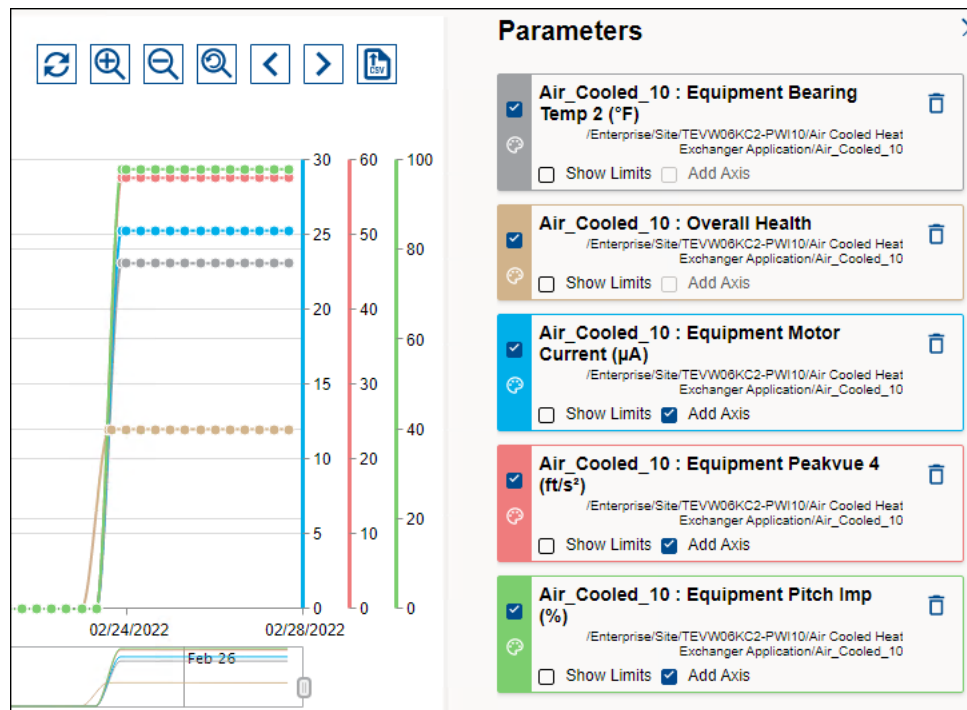
11.2   Control how trend data is aggregated from raw data

Select among five choices for displaying parameters and health trend data.

Procedure

1. Click the **Trends** (⬚) icon.
2. Select your method of daily data aggregation from the drop-down list. The current method applied is the label on the list.

Option	Description
Best Fit	(Default) Takes the minimum and maximum values recorded. Charts the middle value between these two numbers.
Raw	Display every recorded data value for that day.
Average	Charts an average of the data values and displays the average value.
Max	Maximum data value recorded.
Interpolative	An aggregate that returns the interpolated value for each interval and is calculated from the before and after data values of the current time stamp.

The trend lines are recalculated and displayed.

11.3 Display Trends values using data picker

You can display the trend values for any date within the date range.

Procedure

1. Click the **Trends** (⬚) icon.

2. Click and hold the cursor within the plot area.

3. Slide the cursor along the time axis to show all plotted information.
   The picker lists the asset parameter (overall health) name, units, and the value for each curve.

Related information

Manage Trends graph presentation
Search through the data for anomalies

11.4 Manage Trends graph presentation

This task describes how to add and remove asset parameter values from the trends display. It also describes using the control bar to change the display. It determines the amount of data (time line), interpolating line algorithm (average, best-fit, etc.), display magnification, and other data display controls.

Figure 11-4: Trends graph controls

Legend	Description
1	Select date range of asset parameters (health) and limits to display.
2	Quick selection of a standard display interval.

Legend	Description
3	Aggregation method used to compute values and construct plot lines (`Raw`, `Average`, `Max`, `Best Fit`, or `Interpolated`).
4	Refresh the display.
5	Enlarge, decrease, or reset the graph magnification.
6	Move the Trends graph forward or backward one week, through the data interval.
7	Export Trends values to a CSV (spreadsheet) file.
8	Plotted asset parameter or health values that are connected by a trend line (**3**–defined using the aggregation method selector).
9	Slide the data picker to list the plotted asset parameter (health) name, units, and value for a day.
10	Use sliders to select which portions of the data to display. Adjust the sliders with your cursor to change the time range and the y-axis start and end values.

Procedure

1. Click the **Trends** (⊠) icon.

2. Select any of the ten controls listed in the previous table.

Related information

Display and hide the Parameters pane
Control Trends graph content with Parameters pane
Search through the data for anomalies

11.4.1   Display and hide the Parameters pane

You can display the **Parameters** pane or hide it to increase the **Trends** graph available plot size.

Procedure

1. Click the **Trends** (⊠) icon.

2. Click reveal (🖳) icon to display the hidden **Parameters** pane.

3. Pin (📌) the **Parameters** pane to the **Trends** page.

4. Unpin (✖) the **Parameters** pane to remove it.

11.4.2   Control Trends graph content with Parameters pane

Parameters added to the **Trends** graph, display on the right side of the screen in the **Parameters** pane. Here you can control (**a**) whether to display or hide the parameter (health) history, (**b**) display or hide the parameter limits, and (**c**) add a limits axis to the right-side of the graph.

Figure 11-5: Parameters pane controls
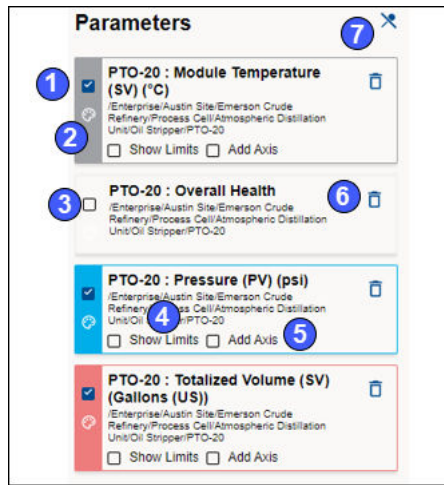
Area	Description
1	Hide or display the asset parameter or health
2	Select a parameter plotting color
3	Display health of selected asset parameter
4	Show parameter limits
5	Add an axis to the graph
6	Remove parameter (health) completely from **Trends** area
7	Keep **Parameters** pane visible ( ) or hidden ( )

Procedure

Related information

Show and hide data limits and axes
Remove parameter (health) from graph
Remove data from Trends page

Show and hide data limits and axes

Show and hide individual parameter axis or the parameter limits.

Procedure

1. Click the **Trends** ( ) icon.

2. Click reveal ( ) icon to re-display the hidden **Parameters** pane.

3. Pin ( ) the **Parameters** pane to the **Trends** page.

4. For any parameter (overall health) select the check box next to **Show Axis**.
   Select a maximum of three parameters (overall health) to show their axes.

5. For any parameter (overall health) select the check box next to **Show Limits**.

You are restricted to one set of limits.

Figure 11-6: Three axes added to Trend graph
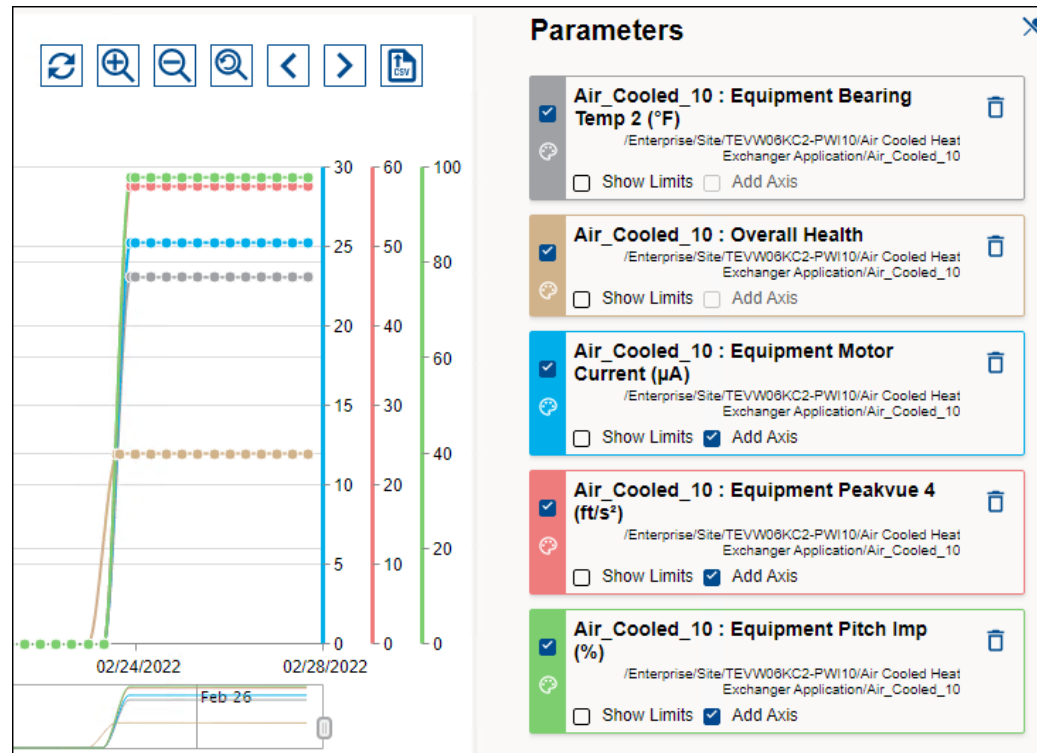
Remove parameter (health) from graph

You can remove parameters from the **Trends** graph using the **Parameters** pane.

Procedure

1. Click the **Trends** ( ) icon.

2. Click reveal ( ) icon to re-display the hidden **Parameters** pane.

3. Pin ( ) the **Parameters** pane to the **Trends** page.

4. Clear the check mark on the left side of a parameter or overall health to remove it from the **Trends** display.

Figure 11-7: Parameters removed from Trends graph
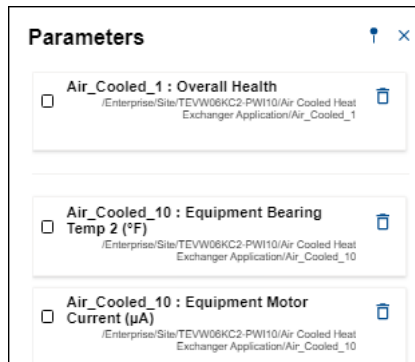
Remove data from Trends page

You can remove parameters (overall health) so you can display new information on the graph.

Procedure

1. Click the **Trends** (⟋) icon.

2. Click reveal (▣) icon to re-display the hidden **Parameters** pane.

3. Pin (ⴰ) the **Parameters** pane to the **Trends** page.

4. Click the delete (□) icon on the right of any parameter (overall health) card. Plantweb Optics Portal removes the parameter (overall health) card from the **Parameters** pane.

11.4.3 Search through the data for anomalies

Use the forward and backward week controls. Alternatively, use the 1 week, 1 month, or 1 year button.

Procedure

1. Click the **Trends** (⟋) icon.

2. Click the calendar widget to set a start date for the time range. Click a similar widget to specify an end date.

3. Alternatively, use one of the fixed intervals (1W-Week, 1M-Month, or 1Y-Year) to set the time range.

4. Click the forward (>) icon to step through the data in one-week increments.

5. Click the backward(<) icon to step backward through the data in a one-week increments.

11.5 Export Trends plots to csv file

Export the asset parameter values displayed along with a time stamp. The displayed (and interpolated) parameter values are stored in a spreadsheet csv file for staff to perform

additional presentations and analysis. Column one of the file contains the date time stamp. Columns two through eight contain the seven parameter values at each time index.

Procedure

1. Click the **Trends** (⊠) icon.

2. Click the **Export** (▤) icon in the upper-right corner of the **Trends** graph.

Plantweb Optics Portal creates the CSV file (`asset-history-chart.csv`) on your local PC. The file is stored in your default download folder.

Glossary

90-day health status trend

A graph of the number of assets categorized with a Critical (red) health score and a Warning (orange) health score plotted for the previous 90 days.

action item

The Plantweb Optics DataStudio container for the logic (out-of-the-box or custom) that is implemented.

alert category

A Plantweb Optics device or NAMUR NE-107 Diagnostic classification used to filter messages into Abnormal (those affecting health) or Advisory (no health impact).

Analytics Deviations

Previously known as *KNet KPI Deviations*.

asset

Any physical component (such as a device or machine) being monitored by Plantweb Optics DataStudio, or the logical representation of a physical asset. Examples include a motor, a pump, a fan, or a turbine.

asset class

A classification used to filter the asset list. Examples of asset classes include boiler, fan, gearbox, cooling tower, and so forth.

asset criticality

A value representing the importance of an asset with respect to other system assets . You specify the criticality using an integer value between 1 and 100,000.

asset health

A numeric value on a normalized health scale from 0–100. It creates a single health index for an asset from the individual health score of the asset and from the health score of child assets, when available.

asset hierarchy

The organization of assets by location (site, area), data collector type (formerly known as ASI type), and asset source.

asset source

Anything that collects data to be associated with an asset. For example, an *AMS 9420 Wireless Vibration Transmitter*.

attachment

A document or image file linked to a specific asset. Emerson recommends that you keep file sizes less than 30 MB. For a complete list of accepted file types, refer to the *File attachments* topic in the *Plantweb Optics Portal Help*.

augmented reality (AR)

Plantweb Optics Augmented Reality overlays digital information on physical images to increase productivity, safety, and insight.

Bad Actors

A list and report of assets associated with frequent failures and that create numerous events. List of assets and event types that meets the criteria (set by an administrator) in the **Bad Actors** settings.

- Calculated once a day

- Select the time range to display (7, 30, 60, tor 90 days) by the user

- Filtered based on the selected User Filter

- Based on the results after applying the User Filter

- Expandable display to show more Bad Actors information, such as the Asset description and Asset Path (hover over path name to see the compete path hierarchy).

- Can be exported to a comma separated-value file (spreadsheet)

card view

A method of displaying the list of messages such that each message's information is in a single pane. You can expand the card to see additional message information and any attachments. See *grid view*.

class

A type of asset device (generic asset, boiler, fan, furnace, etc.) used to filter lists of assets.

CMMS

A computerized maintenance management system (CMMS) that contains a customer's maintenance and supply operations that can receive a work request from a Plantweb Optics Portal. The **CMMS Configuration** settings define the Internet connection setting and work request priorities. SAP and Maximo are two examples of CMMS software.

You can create a new work request, and also resend or delete undelivered work requests. Plantweb Optics updates work status based on polling rates. An administrator can automatically generate work requests based on criteria in the **CMMS Configuration** settings.

Terminology: Maximo refers to the work items as *work orders*, SAP refers to these as *work notifications*, and Plantweb Optics refers to these items as *work requests*.

CMMS Requests KPI

The count of Open work requests, plus a list of assets with `Open` work requests The asset list is filtered based on the current Active Filter and Message Filters settings. The **CMMS Requests** KPI includes out of service assets. The KPI includes asset and location types.

CMMS work requests

A user- or system-generated request for work to be done on an asset. Work requests can be `Open` (not acted on), `Pending` (work in progress), `Closed`, or `Undelivered` (SAP or MAXIMO did not yet receive the request).

context menus

Context menus display automatically by right-clicking on items within the DataStudio models. DataStudio offers context menus in many application window areas and provides functions related to the selected item (like, asset). Context menus can be simple (small number of actions or functions), or they can be large and nested. Disabled menu items define functions for the selected item that are unavailable at that time.

criticality

The relative risk (expressed as a number, 0 through 1,000,000) of the high costs from failure of that asset. Criticality is the relative risk of an asset from a cost perspective, calculated to understand which assets deserve attention and money to prevent failure.

Custom KPIs

Number of Custom KPI registrations using (**a**) assets with contributors, (**b**) number of contributors, or (**c**) value passed to KPI when a Plantweb Optics Connector registered the Custom KPI. The resulting list of assets has contributors and is filtered based on your current Active Filter.

Dashboard

The default page displayed by the Plantweb Optics Portal client. This page provides access to Health circle graph, 90-day health chart, the user's Watch List, Bad Actors assets, Recent Activities, Hierarchy of assets, Trends, Reports, selected KPIs, and Portal display and control settings.

dashboard settings

Determines what KPIs display, the applied message filtering, choice of message format (Card or grid), defines refresh duration, and selects whether to only display icons or display icons plus text.

Data Repository

A central storehouse that stockpiles acquired data using standard formats. MongoDB is the repository; an open-source NoSQL database that can scale to work with increasing amounts of real-time data. See *MongoDB*.

data source

Data sources are also referred to as endpoints. A data source exposes information, which was retrieved using Plantweb Optics Portal. Example sources are an OPC UA server, an Emerson Connector (such as AMS Machinery Manager), or a cloud service (Azure or Amazon Web Services). A data source is connected to the Plantweb Optics Data Repository through a Connector.

DataStudio

One of many client applications used with Plantweb Optics. It is designed to be a secure and singular interface to access a data source network. DataStudio provides access to your real-time and historized data. It supports an interface and customizable tools set to provide users, power users, and administrators, the features to configure and control their workspace.

Default filter

One of the User Filters assigned to display the assets of interest for this user. The default filter cannot be deleted until another filter is designated as the Default filter.

Emerson Connectors

Formerly known as an *Asset Source Interface* (ASI). Extends Plantweb Optics by adding connectivity and communications to asset sources, such as external devices or systems. Emerson Connectors allow data to be stored and accessed in the Plantweb Optics Data Repository.

event filtering

Predefined rules that determine if an event creates a system-generated message that displays to a user. Users can receive mobile push or email notification when events satisfy a selected filter criteria, have a minimum criticality level, and meet or exceed defined severity.

events

Any occurrence in Plantweb Optics DataStudio that a service or utility wants recorded and possibly a user to react to. Certain events create a message that is delivered to users that are subscribed to receive messages for this event type. A user has access to the assets assigned by the Plantweb Optics administrator.

You can choose to receive messages for certain events, which are displayed in the Plantweb Optics. You can also choose to receive notifications on a mobile device or using email. Install the Plantweb Optics Mobile App to view and respond to messages from a mobile device.

failure effects

A filter option for assets. Failure Effects identify and organize assets according to the effects they cause when there is an equipment failure. For example, you can label a Machine type Fan with Environmental Control, if the purpose of the fan is to provide cooling to a production environment.

filtering

Feature that restricts the assets displayed based on location, class (type), responsibilities (failure effect, functions, or interface type), and criticality.

filters

Labels for categorizing system elements to allow grouping and filtering. In the Plantweb Optics DataStudio, you can label any asset with one or more of the following labels: failure effects, functions, and key interfaces.

functions

A filter option for assets. Functions describe the functionality of the asset. For example, for AMS 9420 Wireless Vibration Transmitters, you can apply the functions–Vibration, Temperature, and Analytical.

Global Filters

A group of asset filters defined by your Plantweb Optics Portal administrator that all users can employ to build their own custom filters. See *User Filters*.

grid view

A method to display messages in which the message parts are displayed like a spreadsheet. See *card view*.

guest account

A user account that is authenticated in Plantweb Optics Data Studio, but does not have an assigned user in Plantweb Optics Portal. A guest account has limitations. You cannot perform specific actions and you receive a message stating that, "User does not have access rights to this feature:"

- **Dashboard**–Watch List and Recent Activities

- **KPI List Views**–Watch List

- **Hierarchy** (assets)–New message and new work request

- **Settings**–Notifications and Message Filter

- **Filter panel**–Add and edit User Filters

Health

A dashboard display showing the number of unhealthy assets out of all assets. Health can be calculated using an average or worst-case calculation method.

health 90-day trend chart

Shows the health of assets (filtered) up to the previous 90 days. The chart shows the number of assets where health is categorized as Critical and Warning. The chart results are based on the results after applying the configured User Filter.

health circle graph

Alternatively known as a *donut chart*, this Dashboard graph is the current distribution of asset health classifications, each of which represents the number of assets in a specific health classification. The number of assets depends upon the user filter selected, properly excluded out of service assets, and the defined health classifications. You can change the display setting from Unhealthy to Good assets using the Portal Quick Settings (⚙ icon).

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Hierarchy

The asset and location tree that defines the customer's asset organization. You can display asset health messages, properties, latest values, messages, and KPIs associated with select assets. Displays the last seven days of health values (trend) for a selected asset. It displays the asset hierarchy that mirrors the ISA-95 model hierarchy from Plantweb Optics DataStudio. This display shows all assets for which a user has access, based on the locations and security profile applied by the administrator.

historize

Select asset parameters for trending in Plantweb Optics Portal and DataStudio.

ignored assets

Also referred to as *out of service* assets. The **Out of Service Assets** report shows the current schedules and the out of service assets. You can also export ignored asset information as a *.csv file (spreadsheet).

individual health score

The health of an asset calculated using the individual health score calculation method, from the modules' health opinions reported on the asset.

interfaces

A filter option. Interfaces describe how the asset sends and receives information on the network. Examples include HART and Ethernet.

ISA-95 Model

Previously referred to as the *Logical Hierarchy*. The model helps you to create a logically compliant hierarchical asset model for all sites, units, and modules within a plant. Use this model to make changes to the asset, while keeping the assets physical devices and measurements (parameters) static. This is the logical model you use to set specific asset properties, either manually or using the bulk edit feature (MassConfig) in Optics DataStudio. See *I/O Model* for details about the asset physical devices.

join key

Allows you to log in to the Plantweb Optics Mobile or Augmented Reality client. The join key is unique to you and the application. It identifies your username and the Plantweb Optics Mobile client. The join key is valid until it is disabled in the **Settings** > **Admin** > **Join Keys** interface by the user or a Plantweb Optics administrator.

key performance indicator (KPI)

An asset list based on criteria set in Plantweb Optics to alert users of potential problems. KPIs include **Unhealthy** (assets with low health scores), **Watch List**, **System Messages**, **User Messages**, **CMMS Requests**, **Undelivered CMMS** (work requests), **Overdue Calibration**, and so forth.

language

A feature that permits you to change the language used in the Plantweb Optics Portal interface or add other language translation packages. The DataStudio interface also can use multiple languages.

left pane controls

Area of the Plantweb Optics browser screen that displays four functional areas (Dashboard, Trends, Hierarchy, and Reports), plus a list of KPIs (with or without text). You can decide which of the CMMS and Custom KPIs you want displayed.

licenses

Plantweb Optics determines customer licensing using a mixture of core-based licenses (Repository, Emerson Connectors, and CMMS) and user-based licenses (mobile join key tokens and augmented reality users).

location

A logical representation of an area in a facility. You determine how to organize your facility into locations using the ISA-95 Model in Plantweb Optics DataStudio.

message filters

Options that determine what messages a user sees based on asset event types. These filters are defined in the Plantweb Optics Portal Settings and originate from health roll-up changes, CMMS work request status changes, or events tied to assets.

messages

An asset event generated or created by a user; a message is always associated with a specific asset. Plantweb Optics Portal uses messages to collaborate between multiple users to accomplish requirements such as monitoring, inspecting, performing maintenance, or replacing an asset. Each message is assigned a severity and can contain multiple attachments with more information. Messages help users collaborate, create work requests, effective keep you plant assets healthy.

module

A third-party data source or Emerson Data Collector that can generate system messages. You can suppress event messages from specific modules.

notifications

A mobile push or email sent to a user that meets the criteria set up in the **General > Notifications** settings. The user can receive notifications based on:

- A user-defined filter or a global filter set up by an administrator.

- A user-defined asset watch list.

- Asset criticality exceeding a defined value.

- Messages created by users, system events, or both.

- Messages with a severity that equals or exceeds a defined severity.

OPC severity range

A continuous range of OPC severity values defined by a Plantweb Optics administrator. An administrator can create up to 100 severity ranges, which all users can use in messages and to set a threshold for notifications.

out of service assets

Another term for an *ignored* asset. Assets set to ignore their unhealthy status and any generated system messages, for a scheduled interval. When an asset is removed from production for scheduled maintenance, planned shutdown, holidays, or variation in usage patterns, it is "out of service." This functionality helps users to avoid unnecessary system-generated messages from temporarily out-of-commission equipment (assets).

All users see the list of displayed out of service assets. An asset can be designated as out of service by any user with administrative permissions. Health roll up calculations are unaffected by out of service assets. Their health though continues to be updated. The KPI unhealthy asset list and Dashboard does not display out of service assets. Events from out of service assets are not generated. A user can still create a user message bound to an out of service asset.

Plant Calendar

A term no longer used in Plantweb Optics and replaced by the term *scheduler item*. Used to schedule plant activities and events such as required maintenance outages or holidays. Out-of-service assets can be tied to one or more reoccurring schedules, as long as the schedules do not overlap. See *scheduler item*.

Plantweb Optics Connectors

Collectively includes Emerson Connectors (previously called ASIs), plus Open Standards and Protocols through the Plantweb Optics Connector service.

Plantweb Optics Portal

One of the client applications that retrieves information from the Optics Data Repository to display asset tracking and trend information. The Asset View visualization features are now a part of the Plantweb Optics Portal client, including messaging, collaboration, dashboard displays, and KPIs.

polling rates

Durations between acquiring new information for events, hierarchy, parameters, and asset calibration.

Recent Activities

he **Recent Activities** displays the top five assets with the latest User Messages. The messages displayed are the results of applying the current Active Filter, the Message Filter settings, and includes all asset Class Types. Each asset's health classification is displayed with a colored bar (Red–`Critical`, Orange–`Warning`, Green–`Good`, and Black–`Other`).

recurrence pattern

How often a schedule should activate, whether hourly, daily, monthly, or yearly.

Reports

A major Plantweb Optics Portal page that displays columnar reports about key problem assets. Currently there is the **Bad Actors Report** and the **Out of Service Assets Report**. Each column in the reports can be sorted in ascending or descending order. The Bad Actors Report also can be filtered based on the previous, seven, 30, 60, or 90 days. The data listed in each report can be exported to a spreadsheet formatted file.

responsibilities

A filter that selects persona-specific functions (responsibilities) for an asset that can include failure effects, asset functionality, or interfaces.

saved filters

Filters retained from an earlier user session that can be used to filter the asset hierarchy display. Users can also access filters defined by administrators that are appropriate to this user's responsibilities.

service information

A category of object properties for an asset. Service Information contains the **Out of Service** property. You can change this property manually, with a Lua script, or using MassConfig.

severity

An event attribute that describes the urgency of an event. This can be a value within the range of 1–1000, with one being the lowest severity and 1,000 being the highest. Typically, a severity of one would indicate an event which is informational; while a value of 1,000 would indicate an event of catastrophic nature, which could potentially result in severe financial loss or loss of life. In Plantweb Optics Portal, the severities are categorized

as levels that express a range of OPC severity values. For example, `Medium` can denote the OPC severity range of 401-500.

spam

A Plantweb Optics process that automatically suppresses repeated events for a given asset . The administrator defines the number of repeated events allowed from an asset. Spam settings are system-wide and managed by an administrator.

system messages

Messages created for an asset that experiences a change in health or other operational constraints. These messages often result in monitoring, inspecting, fixing, or replacing the asset.

System Messages KPI

A count of the number of asset-generated messages and the asset list (from data sources or internally) that created the messages. The list is affected by the current Active Filter and Message Filters settings. The **Message Filters** settings are configured based on your requirements. Messages can be filtered by (**a**) age (7, 30, 60, or 90 days) or (**b**) event type. You can enable and disable the Message Filter by clicking the (⚙) icon.

tag (*verb* **)**

Notifying another user about an asset change of status or condition. Users tag one another to collaborate on monitoring, inspecting, repairing, or replacing assets.

Time since last update

The time since the Plantweb Optics Portal Dashboard was last updated with new asset health information from Plantweb Optics repository. If you hover your cursor over the last update time, the date and time of the previous Optics Portal update displays. You can change the Plantweb Optics Portal dashboard refresh rate using the Portal quick settings (gear icon). Refresh rates are 15 minutes, 30 minutes, one hour, three hours, six hours, 12 hours, or 24 hours.

Trends

A Plantweb Optics Portal page that displays up to seven asset parameters (can be from different assets). The Trends plot shows the historical parameter values and health as raw data or interpolated curves. Using this graphic you can display from one week to one year of historical information, while comparing asset functionality. You can also export the displayed parameter values to a spreadsheet csv file. Parameters can be added using the **Latest Value** tab under **Asset Overview** by selecting the **Historized Add to Trends** check box to the left of the asset **Parameter**.

Undelivered CMMS KPI

Count of Pending and Undelivered Work Notifications plus the list of assets associated with the Pending and Undelivered Work Notifications. Resulting assets are filtered based on the current Active Filter. This KPI includes asset and location class types.

Unhealthy KPI

A listing all under-performing (Critical and Warning) assets and their events. The Health tab graph shows the health score for the last seven days recorded from a selected asset. This KPI List View is (**a**) composed of assets with a `Critical` and `Warning` health

classification, (**b**) excludes out of service assets, and (**c**) is filtered based on the current Active filter.

user messages

A message created by you or a co-worker that indicates a change in the operation of an asset. Users can be notified with mobile push notification or email about user or system messages or event messages. Notifications can be restricted to messages with a set severity level.

User Messages KPI

A count of user-created messages and the assets (asset and location types) associated with user messages and the applied **Message Filters** settings. Messages can be filtered by age (7, 30, 60, or 90 days). Tool tip indicates the current number of previous days set in the Message Filter. The resulting asset list is filtered with the current Active Filter.

users

Lists of users (name, email, and profile) associated with specific Plantweb Optics feature permissions.

Watch List

A list of user-specified assets that is sent to the Plantweb Optics Portal when the your session starts. Your **Watch List** is filtered by the configured Active Filter. The **Watch List** shows (**a**) a bar chart of the health score distribution of assets (`Critical`, `Warning`, `Good`, and `Other`), (**b**) a spark line that indicates the seven-day health of the asset, and (**c**) an arrow indicating the change in asset health based on its current health value.

Watch List KPI

A list user-selected assets to monitor for health and performance. You can select any assets from within your area of responsibility to designate for the **Watch List**. The KPI count and asset list is filtered by the current Active Filter.

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Trends

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