



Enterprise Application

User Manual

Version 4.5

Software Versions

Software / Tool	Function	Version
Enterprise Application	• Extended compatibility to all SICK products and external applications using a new heartbeat JSON and MQTT topic for dynamic data integration. • Introduced a multi-level Tree View dashboard with zoom, pan, breadcrumb navigation, dynamic data-type selection, and a draggable Summary & Filters panel. • Added a dedicated page to display and manage offline products with search and refresh capabilities. • Added a dedicated page for downloading PDF reports directly from the EA server. • Added OpenID authentication with JWT assertion support alongside Database and LDAP options. • Added a Notification Logs page to track notifications for troubleshooting and auditing. • Improved facility configuration with bulk add/edit/delete, inline edits, and MQTT connections via IP-address lists. • Enhanced List View with data-type filters, health/performance pagination, and a draggable Summary & Filters panel. • Enhanced Map View with a redesigned cluster-info modal, autocomplete for region/country,	4.5

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Software / Tool	Function	Version
	dynamic product-state display, and a Summary & Filters panel. • Increased maximum notification frequency to one hour.	

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SICK

150 Royall St

Suite 104

Canton, MA 02021

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1. About This Manual

This section provides an overview of the SICK Enterprise Application (EA) User Manual, outlining its purpose, how to access it, related documentation, and support contact information. It serves as a starting point for users to understand how to navigate and utilize the EA's features effectively.

1.1 Purpose of the User Manual

The EA User Manual is designed to guide users in interacting with the **EA's** intuitive interface to access and analyze comprehensive data from SICK products. It covers essential tasks such as logging in, personalizing user profiles, navigating the dashboard, viewing product information, performing searches, and managing reports and logs. This manual helps users leverage the **EA's** capabilities to support operations, maintenance, customer service, and data analysis across various facilities, ensuring efficient use of real-time product data.

1.2 Accessing the Manual

The EA User Manual is available in multiple formats to ensure accessibility:

- Printed/PDF Format: Included with the EA software distribution or downloadable from the SICK support portal.

1.3 Related Documentation

For instructions on configuring and setting up the EA, including tasks like product management, user account setup, and system settings, refer to the EA Configuration Manual. The Configuration Manual complements this User Manual by detailing administrative tasks necessary to deploy and maintain the EA system.

1.4 SICK Support Contact Information

For assistance with using the EA or resolving issues, contact SICK support:

- Sales and Product Support: Visit www.sick.com
- Technical Support: Access the SICK Support Portal at <https://support.sick.com/>
- Address: SICK, 150 Royall St Suite 104, Canton, MA 02021, USA

2. EA Overview

This section introduces the SICK Enterprise Application (EA), a powerful web-based platform designed to enhance operational efficiency by aggregating and visualizing real-time data from SICK products. It outlines the application's purpose, key features, and core system components, providing users with a foundational understanding to effectively utilize its capabilities.

2.1 Introduction to Enterprise Application

The Enterprise Application (EA) is a web-based solution that consolidates real-time status, health, and performance data from multiple SICK products, such as Package Analytics, Field Analytics, Dynamic Dashboard, Track and Trace Application Publication, and Asset Analytics. Using the MQTT publish-subscribe protocol, EA securely connects to facility application servers and SICK products over a wide area network via SSL/TLS, ensuring compliance with stringent IT security standards. The EA subscribes to the heartbeat topic to process standardized JSON-formatted heartbeat data, enabling automatic discovery and monitoring of connected products. This heartbeat includes critical information such as product identity, location, facility group organization, status, and product-specific statistics.

The EA's HTML5-based dashboard provides an intuitive interface for users to monitor and analyze product data through List, Map, and Tree Views, facilitating quick access

to facility hierarchies and location-based visualizations. With features like Enterprise Search, Facility Status, and tools for logs, reports, and notifications, EA empowers users to optimize operations, maintenance, customer service, and data security across various facilities.

2.2 System Components Overview

The EA integrates with several components to collect, process, and display system data. Understanding these components helps users navigate the application effectively. The key components are:

Component	Description
EA Software	The core application that receives and processes data from facilities, captured by SICK sensors and controllers. It uses MQTT to retrieve data and supports dashboard requests, storing all data in a facility database.
Client Computers	PCs connected to the EA network running the HTML5 web client, which provides the dashboard interface for accessing facility and database information.
Active Facilities	Facilities linked to the EA that transmit data via MQTT, enabling real-time monitoring of product states and performance.

The EA Dashboard, accessible through client computers, serves as the primary interface for interacting with these components, offering a rich user experience to search, view, and export product information.

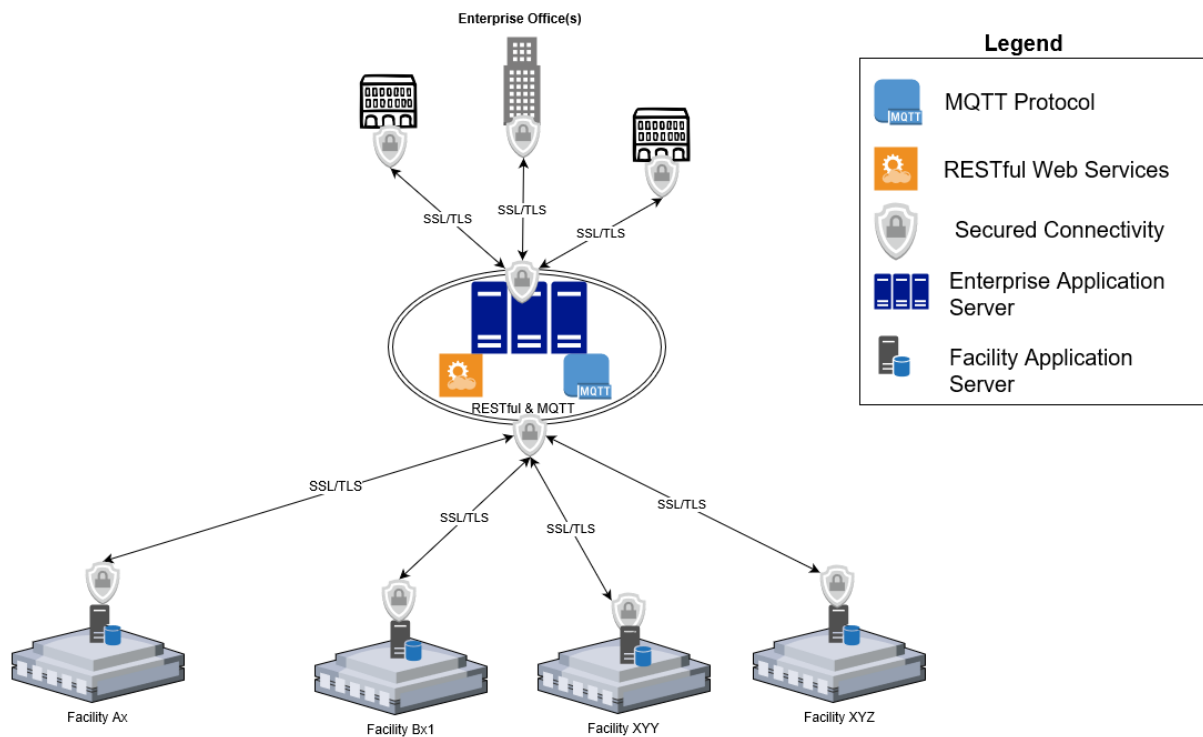


Figure 2.1: System Architecture

3. Getting Started

This section guides users through the initial steps to access and interact with the SICK Enterprise Application (EA). It covers logging in to the EA Dashboard, managing your personal profile, and logging out securely. These tasks enable users to authenticate and personalize their experience based on assigned roles and permissions.

3.1 Logging In

The Log In window prompts users to authenticate before accessing the EA Dashboard. The authentication method may vary depending on the system configuration (Database, LDAP, or OpenID).

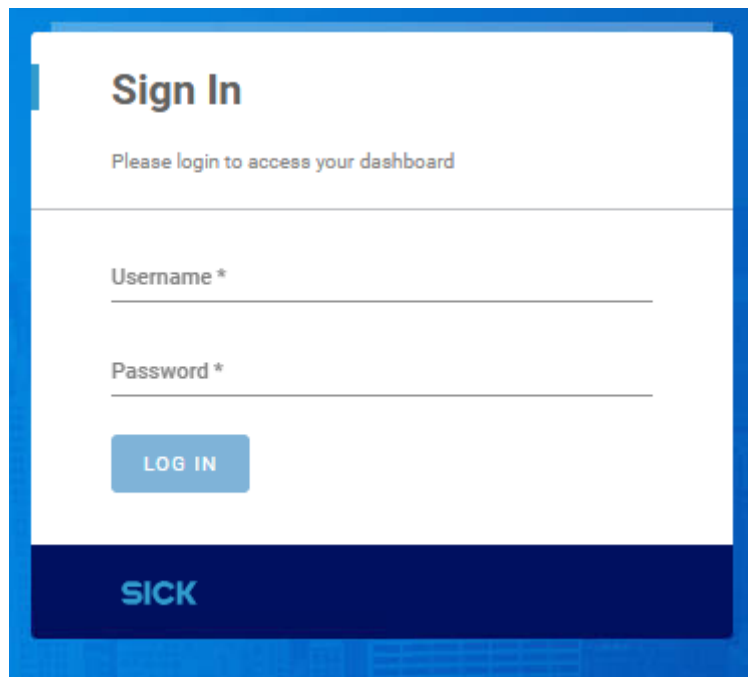


Figure 3.1: Log In Page

1. On the Log In page, enter your credentials based on the authentication method:
 - Database Authentication: Enter your Username and Password.
 - LDAP Authentication: Enter your LDAP Username and Password.
 - OpenID Authentication: Select the OpenID provider button and follow the provider's login flow.
2. Select Log In.

Upon successful authentication, the EA Dashboard appears, providing access to features based on your assigned role and permissions.

3.2 Applying a License

When logged into Enterprise application, select, "Apply License" on the license configuration page and upload the enterprise license.

Dashboard / Configuration / Edit License

LICENSE & REGISTRATION APPLY LICENSE

Contact

Name: SICK Enterprise Analytics Demo

Email:

Company: SICK

Permission

Expiration: 30 Dec 2100

Facilities: 20

MAC Information

System MACs: 92-92-22-68-52-68

COPY TO CLIPBOARD

COPY TO CLIPBOARD

Figure 3.2: License Configuration Screen

Dashboard / Configuration / Edit License

LICENSE & REGISTRATION APPLY LICENSE

Contact

Name: SICK Enterprise Analytics Demo

Email:

Company:

Permission

Expiration:

Facilities:

MAC Information

System MACs: 92-92-22-68-52-68

COPY TO CLIPBOARD

Apply License

Choose a valid license CHOOSE

APPLY CANCEL

Figure 3.3: Apply License Dialog

Enterprise application allows users to personalize their experience with a few parameters and settings according to their geographical location and personal needs.

3.3 Managing Your Profile

The My Profile page allows users to view and update personal information, such as name and email address. Access to certain fields may be restricted based on the authentication method (e.g., LDAP, OpenID).

1. In the top-right corner of the EA Dashboard, click your profile icon .

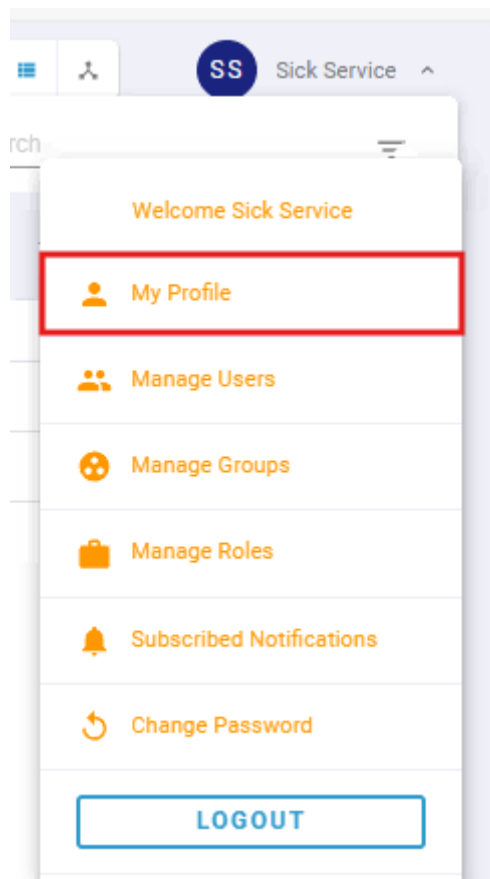
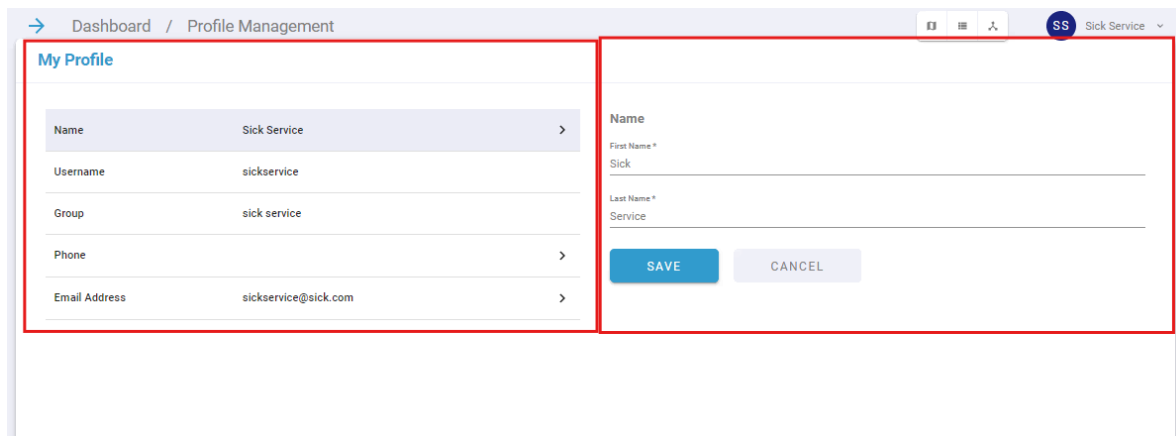


Figure 3.2: Profile Menu

2. From the dropdown menu, select My Profile.

The My Profile page opens.



Dashboard / Profile Management

SS Sick Service

My Profile

Name	Sick Service	>
Username	sickservice	
Group	sick service	
Phone		>
Email Address	sickservice@sick.com	>

Name

First Name *

Sick

Last Name *

Service

SAVE CANCEL

Figure 3.3: My Profile Page

My Profile Fields

The My Profile page displays the following fields:

Field	Description
Name	First Name and Last Name of the user.
Username	Unique login ID (non-editable).
Group	Assigned role or group (non-editable).
Phone	User contact number (if applicable).
Email Address	Email address associated with the account.

Edit Information

To update your profile:

- Update Name:
 1. Click the Name field.
 2. In the right panel, update the First Name and Last Name fields as needed.
 - Update Email Address:
 1. Click the Email Address field.
 2. Enter the new value in the provided input.
1. Select Save to apply changes, or Cancel to discard them.
 2. A snackbar message confirms the update:

"Profile updated successfully."

Note: Username and Group fields are non-editable. If LDAP or OpenID authentication is enabled, all fields may be disabled.

3.4 Logging Out

Use the Logout option to securely exit the application.

1. In the top-right corner of the EA Dashboard, select the profile icon.

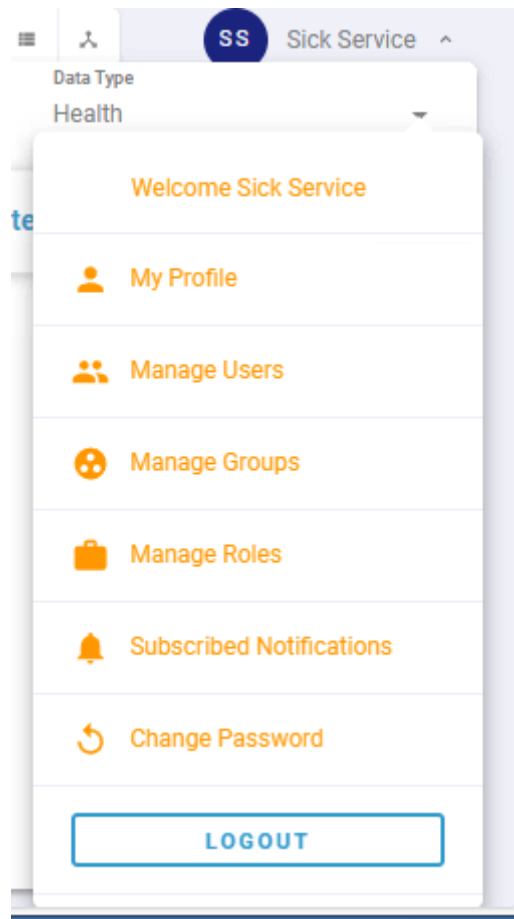


Figure 3.4: Profile Menu with Logout Option

2. From the dropdown menu, select Logout.
3. You are logged out, and the login page reappears.
4. A snackbar message confirms the action:
"Logged out successfully."

4. Using the EA Dashboard

The EA Dashboard is the central hub for users of the SICK Enterprise Application (EA), serving as the landing page after login. It provides live status updates, navigation shortcuts, and customizable settings, adapting its central panel to the selected view mode (List, Map, or Tree). This section describes how to interact with the dashboard's features and navigate to various EA pages to monitor products, access reports, and manage settings.

4.1 Dashboard Features

The EA Dashboard consolidates key functionalities to enhance user interaction with product data and system status. The following features are available:

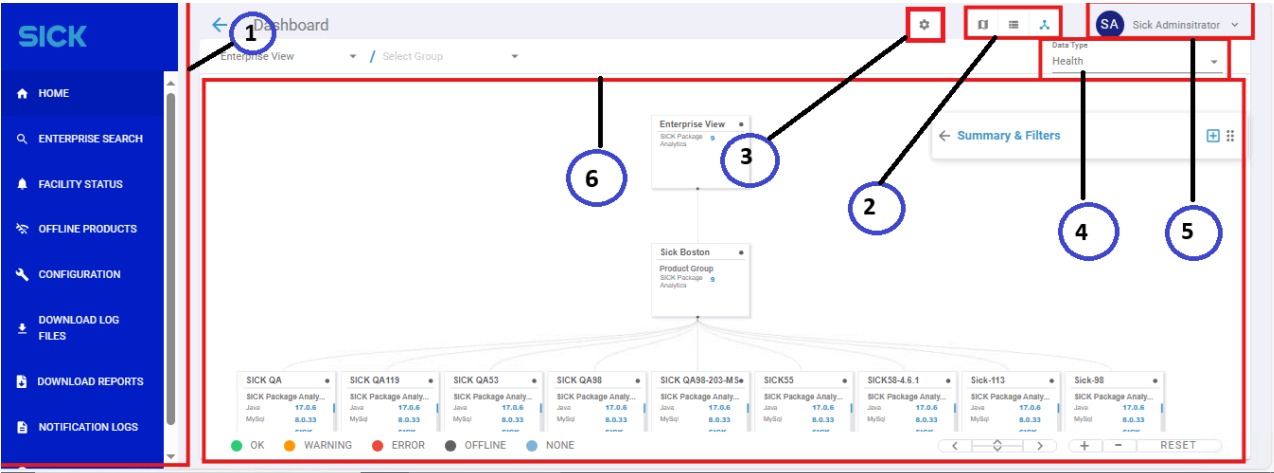


Figure 4.1: EA Dashboard Overview

Feature	Description
1. Navigation Menu	Links to all Enterprise Analytics pages from the left-hand menu: Home (Dashboard), Enterprise Search, Facility Status, Offline Products, Configuration, Download Log Files, Download Reports, and Notification Logs to monitor products, configure settings, or view logs and reports.
2. Product View Selector	Switch between three dashboard views using icons at the top: List View, Map View, and Tree View.

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Feature	Description
3. Summary & Filters Settings	Controls the visibility and width of the Summary & Filters panel for Map, List, or Tree views to customize the dashboard layout.
4. DataType Selector	Updates product statuses and metrics across views using data types like Health, Operational, or Quality.
5. Profile Menu	Dropdown menu with options: My Profile, Manage Users, Manage Groups, Manage Roles, Subscribed Notifications, and Logout.
6. Main Display Area	The central area displays one of three views: List View, Map View, or Tree View.

4.2 Navigating the EA

To access any EA page, use the navigation bar on the left side of the dashboard. The navigation bar provides shortcuts to key functionalities, allowing users to explore product data, perform searches, view reports, or access configuration settings (if authorized).

Selection	Description
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 HOME	View all connected Products and their status (same as Dashboard).
 ENTERPRISE SEARCH	Search for objects per Product or multiple Products.
 FACILITY STATUS	Displays Product status.
 OFFLINE PRODUCTS	View all offline Products.
 CONFIGURATION	Configure EA settings (add/edit Products, Product groups, regions, software settings, licenses, notifications, authentication methods).
 DOWNLOAD LOG FILES	Download all available logs for EA.
 DOWNLOAD REPORTS	View and download reports.
 NOTIFICATION LOGS	View notification logs.
 ABOUT INFO	View application version and software info.



You can expand/collapse the navigation bar using the arrow icon.

5. Product View

The Enterprise Analytics (EA) Dashboard displays the status and general information of all linked products (e.g., PA, FA/DD, Asset Analytics, TTAL) from any SICK application, sourced from their heartbeat data. Product status is determined based on the health of the product, including its efficiency in processing objects and connectivity to its components.

You have the option to view the linked products in three different view modes:

- [Map View](#) 
- [List View](#) 
- [Tree View](#) 

5.1 Status Indicators

Product status is indicated by the following five states, used across all view modes to represent the health of products, clusters, or nodes:

Indicator	Status	Condition
	OK	The linked product is functioning as expected.

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Indicator	Status	Condition
	WARNING	The linked product has some warning parameters that are affecting its performance.
	ERROR	The linked product has a major fault causing performance issues.
	OFFLINE	The linked product is currently offline.
	NONE	No status data has been received from the linked product.

5.2 Common Features

The following features are shared across all view modes (Map View, List View, and Tree View), providing a consistent user experience for interacting with product data.

Data Type Dropdown

The Data Type dropdown is located in the top-right corner of the dashboard header, near the Summary & Filters Panel and view mode icons. It allows you to switch between data categories (e.g., Health or Operational) for the selected product or

node. Selecting a category updates the displayed metrics and the Summary & Filters Panel with relevant data.

Options:

- Health: System health indicators.
- Operational: Performance metrics.

Steps:

1. Click the Data Type dropdown.
2. Select Health or Operational.

Note: Metric availability depends on the product's Heartbeat configuration. Metrics may be unavailable if not configured or if the product is offline.

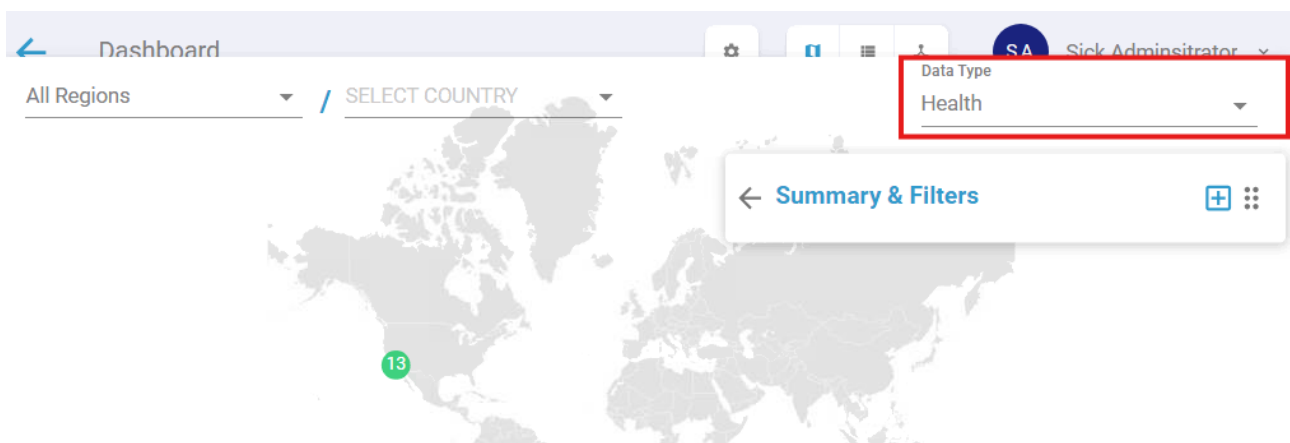


Figure 3: Data Type Dropdown – Located in the dashboard header.

Summary & Filters Settings

The Summary & Filters Settings allow you to control the appearance and visibility of the Summary & Filters Panel across all view modes (Map View, List View, and Tree View). You can adjust the panel's width and choose which views display the panel.

Adjusting Settings:

1. Click the Settings icon  in the dashboard header to open the Summary & Filters Settings dialog.

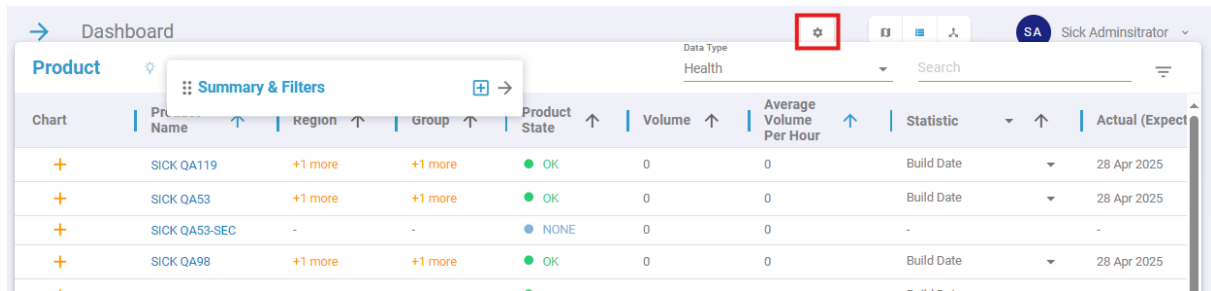


Figure 2: Settings Icon – Located in the dashboard header.

2. In the Summary & Filters Settings dialog:
 - Width: Select the panel width (Small, Medium, or Large) using the radio buttons.
 - Visibility: Check or uncheck the boxes for Map View, List View, and Tree View to show or hide the panel in each view mode.
3. Click Save to apply changes, or Cancel to discard them.

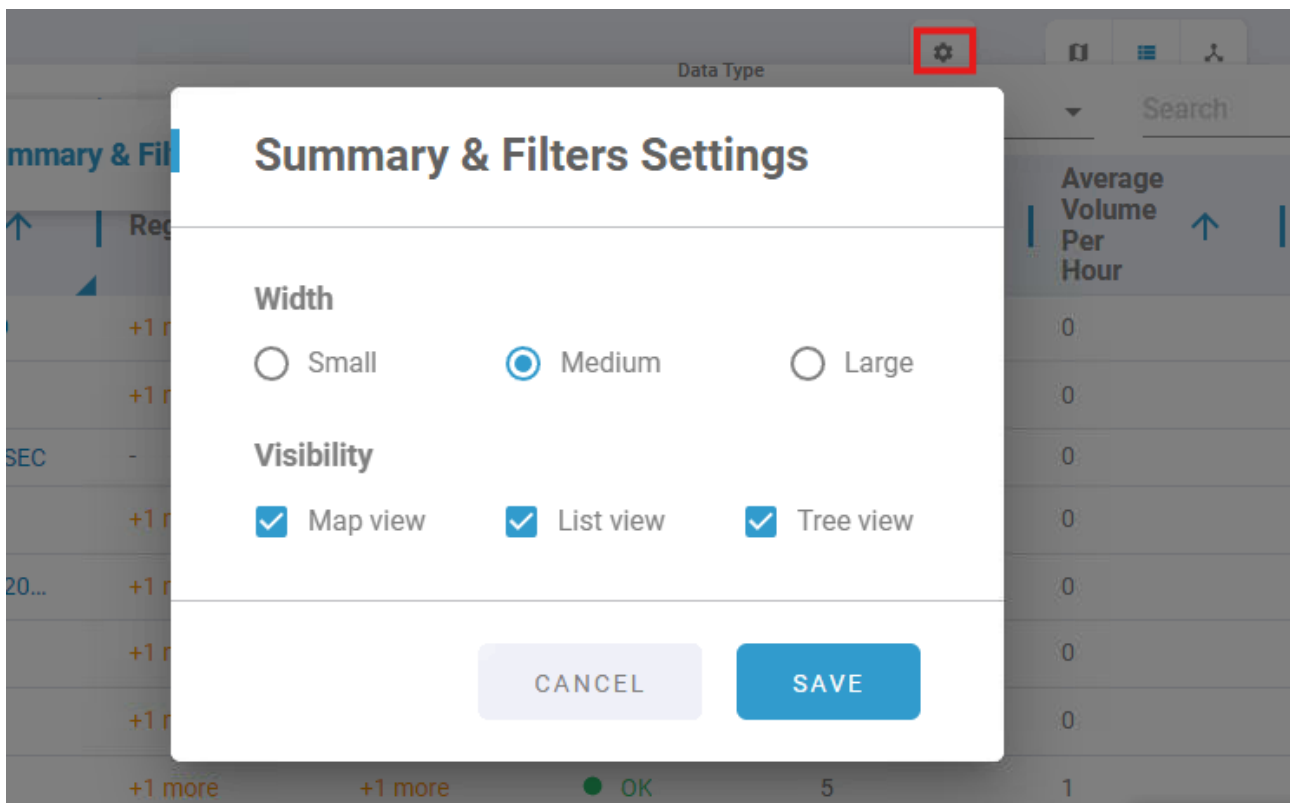


Figure 3: Summary & Filters Settings Dialog – Showing options to adjust width and visibility.

5.3 Map View

You can view all the linked facilities and products across the world in map view mode. The facilities and products in the map are indicated by a dot. The color of the dot reflects the product's status (see section for [status indicators](#)). If multiple facilities/products exist in the current map view and are in close proximity, they are represented by a cluster point. The number of close facilities/products is shown within the cluster point, and the cluster color reflects the status of the facilities/products it represents.

Accessing the Map View

Prerequisites

- A valid Enterprise Analytics (EA) license with MAP_VIEW permission.

Steps:

1. Log in to Enterprise Analytics.
2. Click the Map View  icon in the dashboard header.

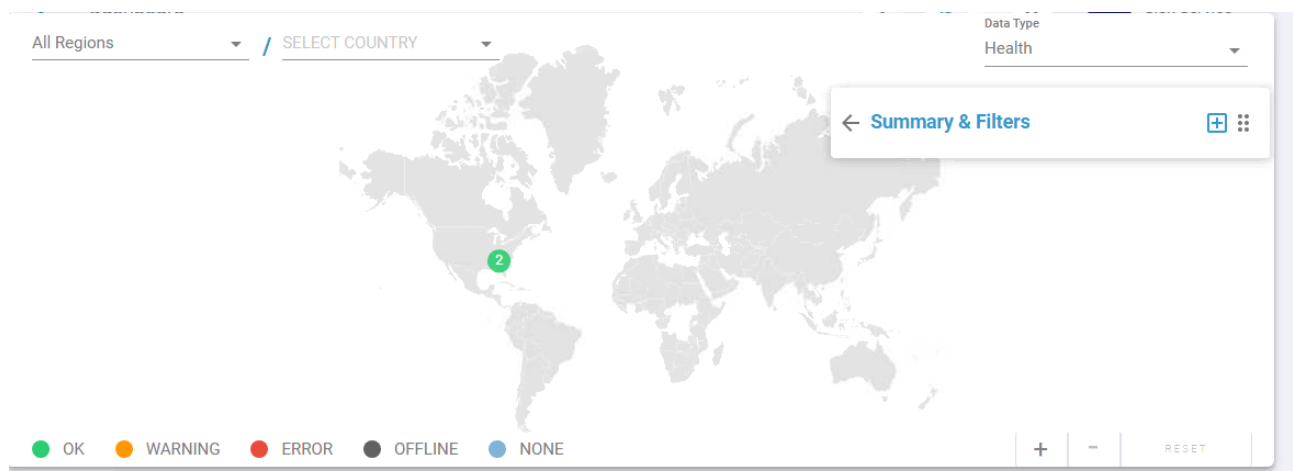


Figure 5: Accessing the Map View Icon and Default Map View – Global Product Distribution with Cluster Dots

Upon opening the Map View:

- The default All Regions view shows all facilities and products on the map as single dots (for one product) or cluster dots with a number (for multiple products grouped closely together).
- The [Summary & Filters Panel](#) on the right allows filtering by product state and type.
- The navigation bar includes dropdowns (All Regions, Country) and a [Data Type](#) dropdown (e.g., Health, Operational) for filtering and switching data categories.
- A status legend at the bottom shows color coding for product states.

Map View: Navigation, Filtering, and Data Selection

Navigate, filter, and select data in the List View using sorting, searching, and chart visualization options. For filtering by product state, type, or group, see the Summary and Filters Panel.

Navigating the Map View Using Dropdown Filters

Dropdowns allow you to filter locations by selecting from a list or typing in the search bar within each dropdown.

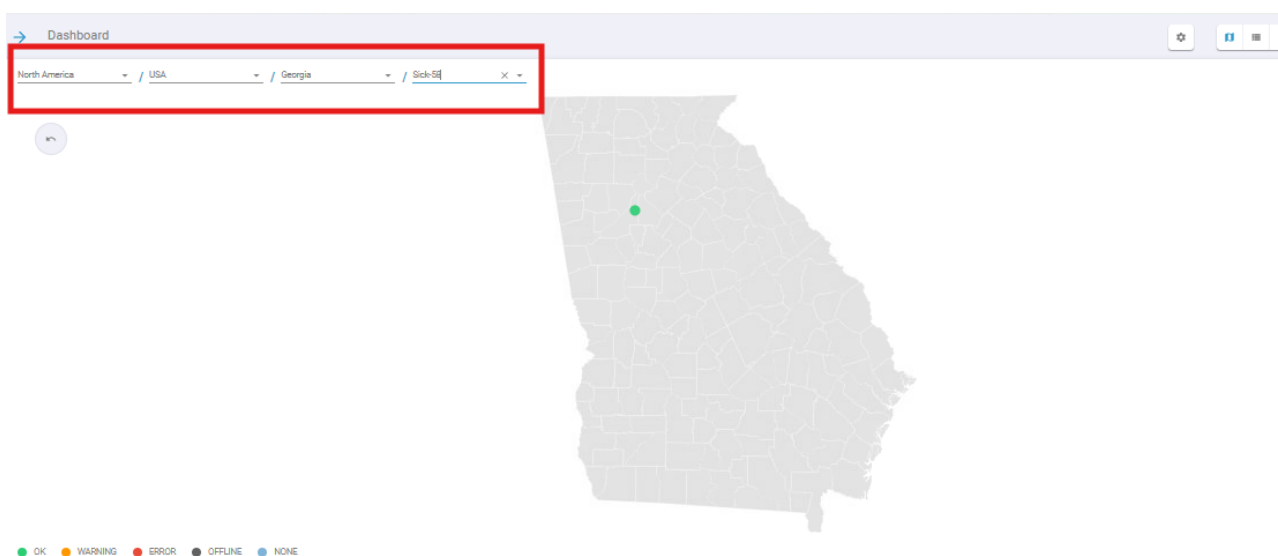


Figure 6: Map View After Applying Dropdown Filters

Navigation Level	Action	Result
Region	Select a region from the All Regions dropdown or use the search bar to filter (e.g., type "Nor" for North America). Breadcrumb updates (e.g., All Regions > North America).	• Zooms to the selected region. • Displays only products located in the selected region as dots or clusters. • Updates the Summary & Filters Panel with region-specific data.
Country	After selecting a region, select a country from the Country dropdown or use the search bar to filter (e.g., type "US" for USA). Breadcrumb updates (e.g., All Regions > USA).	• Zooms to the selected country. • Displays only products located in the selected country as dots or clusters. • Updates the Summary & Filters Panel with country-specific data.

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Navigation Level	Action	Result
State	After selecting a country, select a state from the State dropdown or use the search bar to filter (e.g., type "Geo" for Georgia). Breadcrumb updates (e.g., All Regions > USA > Georgia).	• Zooms to the selected state. • Displays only products located in the selected state as dots or clusters. • Updates the Summary & Filters Panel with state-specific data.
Product	After selecting a state, select a product from the Select Product dropdown or use the search bar to filter (e.g., type "Package" for Package Analytics). Breadcrumb updates (e.g., All Regions > USA > Georgia > Package Analytics).	• Zooms to and highlights the selected product's exact location. • Displays only the selected product. • Updates the Summary & Filters Panel with product-specific data.

Navigating the Map View Using Direct Clicks

In addition to using dropdown filters, you can navigate the Map View by directly interacting with the map elements.

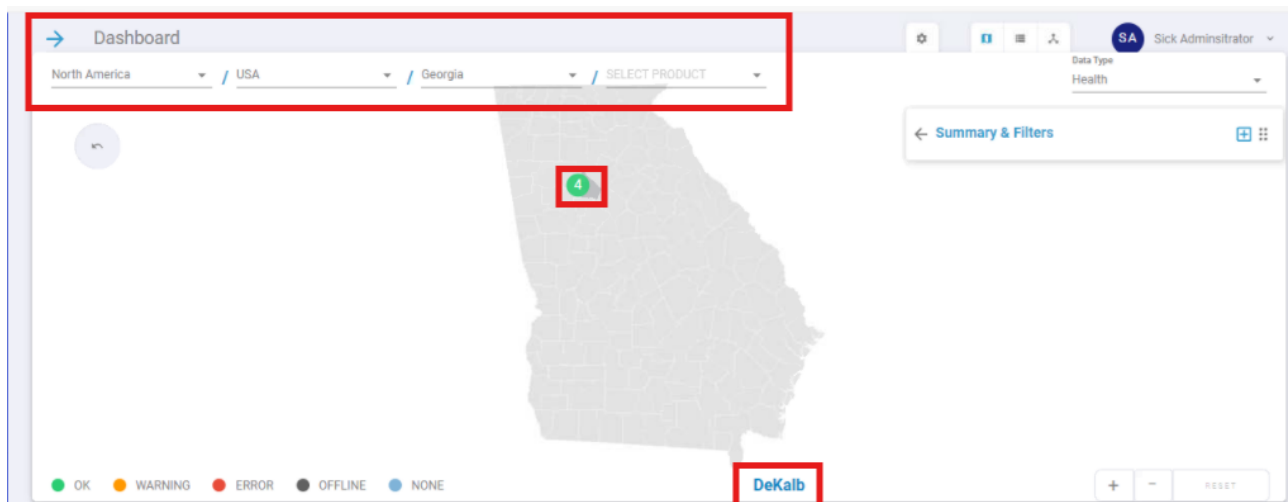


Figure 7: Interactive Navigation of Facilities/Products via Map Click – Highlighted area on hover and zoomed-in view after clicking.

- Hover over a region, country, or state to highlight and view its name.
- Click the highlighted area to zoom in (e.g., region to countries, country to states, state to products).
- Once zoomed in, all linked facilities/products within the selected area become visible.
- The map further divides into smaller regions (e.g., countries into states or provinces), which can also be clicked to zoom in further.
- This allows you to drill down geographically from region to country to state, directly on the map without using dropdown selections.
- The Summary & Filters Panel updates automatically based on the current visible location and selection.

Navigating Back & Clearing Selections

As you explore the Tree View using dropdowns or by interacting with nodes, you can return to higher levels or reset filters using two straightforward methods:

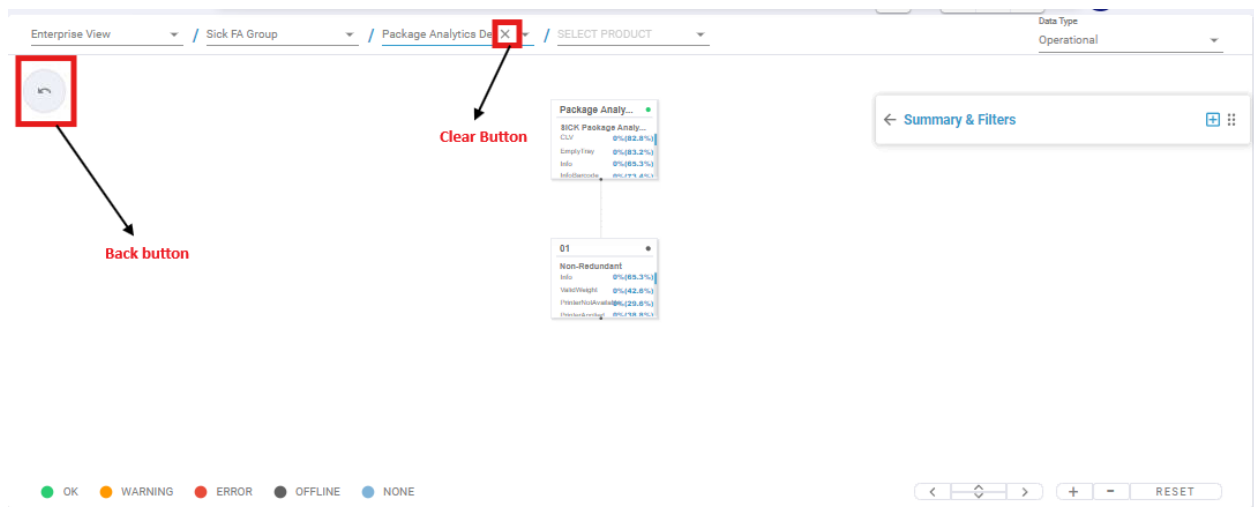


Figure 4.5: Navigation Controls – Showing the Back button and × icon for clearing selections with annotations.

- **Clearing Individual Selections:** To clear a filter and return to the higher-level view, click the Back Button next to the selected Enterprise View, Select Group, Select Product, or Select Device dropdown.
- **Using the Back Button:** Move up one level at a time using the "Back" button in the top-left corner of the Tree View. Each click steps back in the navigation path (e.g., Device → System → Product Group → Enterprise). The Tree View and Summary & Filters Panel adjust to reflect the broader level.

Zoom Controls

To help users effectively navigate complex or multi-level tree structures, Tree View provides interactive controls at the bottom of the screen. These controls allow users to pan, zoom, and reset the view for better visibility and usability.

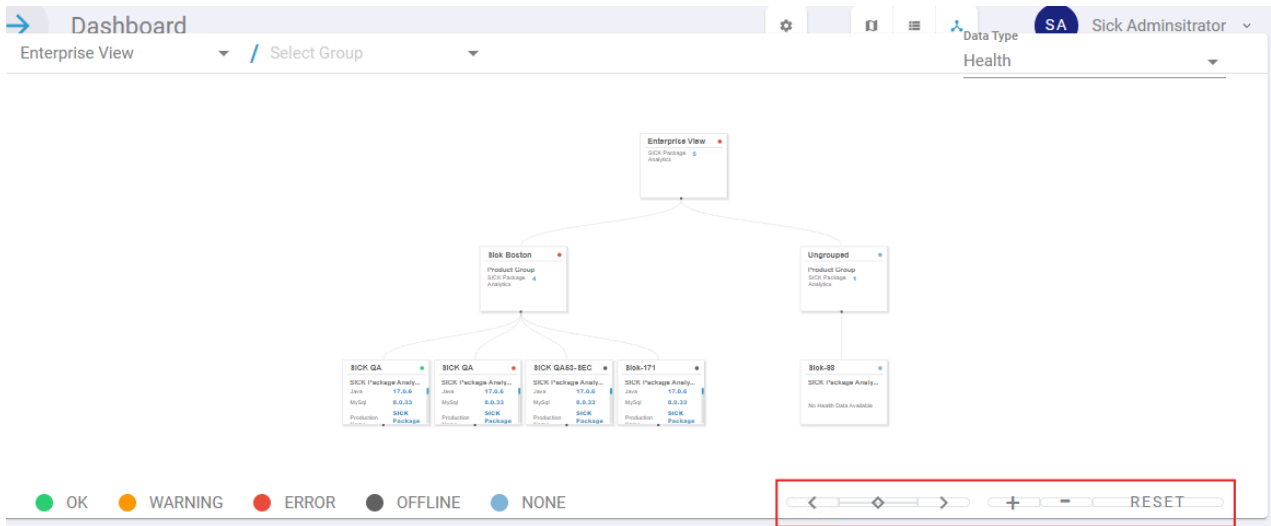


Figure 5.1 – Zoom and Pan Controls in Tree View

Icon/Button	Functionality
 Pan Controls Icon	Use the pan controls to move the Tree View: • Select the left arrow to move the view to the left. • Select the right arrow to move the view to the right. • Select the top part of the center icon to move the view up. • Select the bottom part of the center icon to move the view down. Tip: You can pan the view in any of the following ways: • Use the arrow keys on your keyboard • Click and hold the left mouse button, then drag • Swipe with two fingers on a touchpad
 Zoom Controls Icon	Use the zoom controls to adjust the view: • Select the plus button (+) to zoom in. • Select the minus button (-) to zoom out.

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Icon/Button	Functionality
	• Select RESET to restore the original zoom level and center the tree. Tip: You can also zoom using the mouse scroll wheel or pinch-to-zoom on a touchpad.

Map View :Using the Summary & Filters Panel

The Summary & Filters Panel is located on the right side of the Tree View. It provides a real-time summary of product data and enables users to filter the Tree View based on product state and type. The panel dynamically updates based on the current selection.

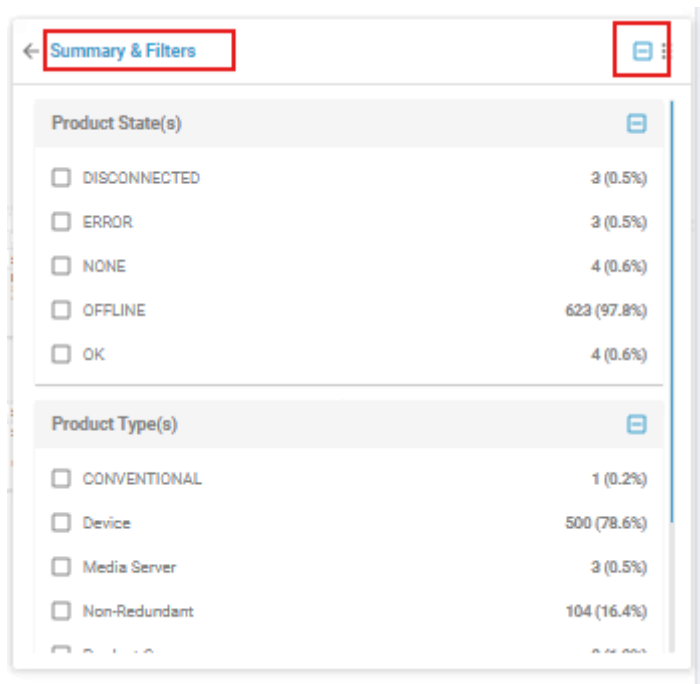


Figure 4.8: Summary & Filters Panel – Showing filters and customization controls.

Filter by Product State or Type:

1. Click the + icon next to Product State(s) or Product Type(s) to expand.
2. Review options:
 1. Product State(s): States with node counts and percentages (e.g., OK, WARNING, ERROR, OFFLINE, NONE).
 2. Product Type(s): Types (e.g., Device Group, Facility, Media Server, Non-Redundant).
3. Check one or more options to filter the Tree View in real time. The Tree View updates to show only nodes matching the selected states, types, or both if combined.
4. Reset filters by selecting Clear Filters.

Panel Customization:

To improve usability and layout flexibility, you can reposition, expand, or collapse the Summary & Filters Panel as needed:

- Drag: Use grip icon (: :) to move panel.
- Move Left/Right: Use the left  and right  arrow icons to move the panel horizontally across the screen.
- Expand/Collapse: Click +/- in the panel header or next to sections (e.g., Product State) to show/hide filters or sections.

5.4 List View

The List View in Enterprise Analytics displays all linked products (e.g., PA, FA/DD, Asset Analytics) from any SICK application in a tabular format, providing general information under column headers. Products are populated dynamically based on standardized heartbeat data sent.

Accessing the List View

1. Log in to Enterprise Analytics.
2. Click the List View  icon in the dashboard header.

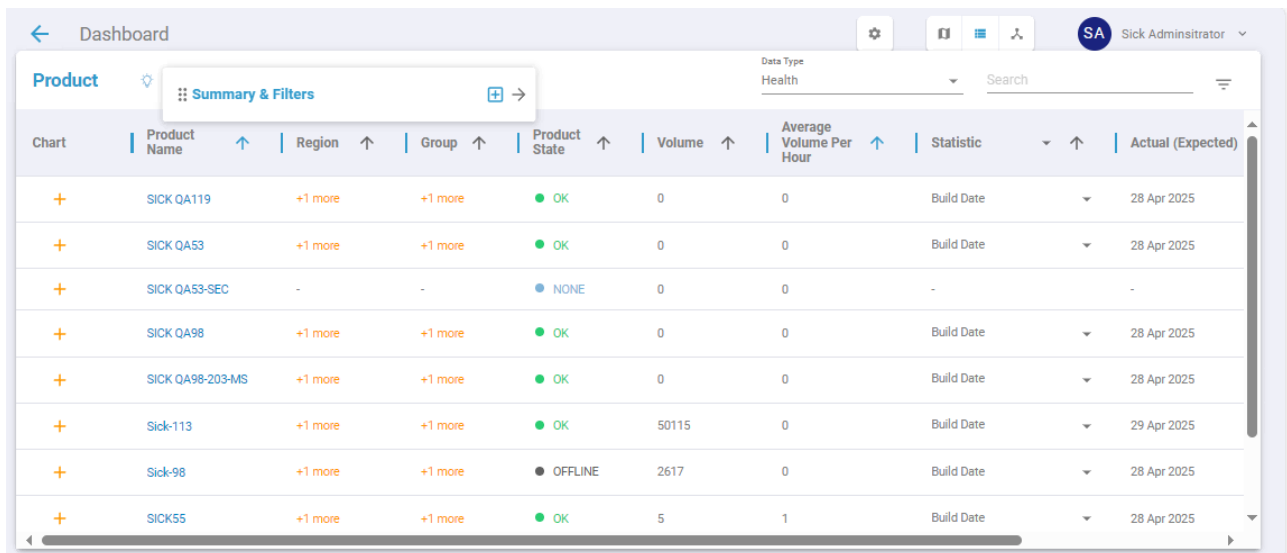


Chart	Product Name	Region	Group	Product State	Volume	Average Volume Per Hour	Statistic	Actual (Expected)
+	SICK QA119	+1 more	+1 more	OK	0	0	Build Date	28 Apr 2025
+	SICK QA53	+1 more	+1 more	OK	0	0	Build Date	28 Apr 2025
+	SICK QA53-SEC	-	-	NONE	0	0	-	-
+	SICK QA98	+1 more	+1 more	OK	0	0	Build Date	28 Apr 2025
+	SICK QA98-203-MS	+1 more	+1 more	OK	0	0	Build Date	28 Apr 2025
+	Sick-113	+1 more	+1 more	OK	50115	0	Build Date	29 Apr 2025
+	Sick-98	+1 more	+1 more	OFFLINE	2617	0	Build Date	28 Apr 2025
+	SICK55	+1 more	+1 more	OK	5	1	Build Date	28 Apr 2025

Figure 12: Product Information Table in List View

Upon opening the List View:

- All products are displayed in a table with column headers providing key information sourced from each product's heartbeat data.
- The [Summary & Filters Panel](#) on the right allows filtering by product state, type, and group.
- A [Data Type](#) dropdown (e.g., Health, Operational) at the top allows switching data categories.
- A [search bar](#) at the top allows filtering products by any available data).
- A [Column Arrangement](#)  icon next to the search bar allows hiding or rearranging table columns to customize the List View.

Product information is presented in the following columns:

Selection	Description
Product Name	Name of the product (e.g., AssetHub, Package Analytics). Click the name to open the product application in a new tab.
Product Label	Label assigned to the product.
Region	Region where the product is defined.
Group	Groups in which the product is configured. If associated with multiple groups, a hyperlink with the count of groups (e.g., "+2 more") is displayed; click to view the list.
Product State	Current state of the product (see section 1.1.2 for status indicators).
Volume	Sum of objects passed through all auto ID systems of the product.
Average Volume Per Hour	Average number of objects passed through each system per hour.

Continued on page 35

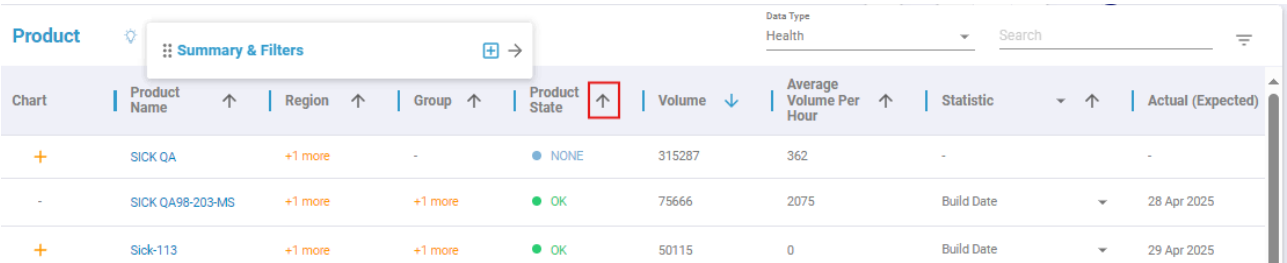
Continued from page 35

Selection	Description
Statistic	Context menu listing common statistics (e.g., read rates) across all systems in the product; select a statistic to view its read rate percentage in charts.
Actual (Expected)	Actual versus expected performance metric (e.g., read rate).
Product Type	Type of the SICK product (e.g., Web Service, SICK Baggage Analytics, SICK Package Analytics).

Sorting Table Content

Sort products by any column to organize the table:

- Click a column heading arrow   to sort by that value. Click again to toggle between ascending and descending order.



The screenshot shows a table with columns: Chart, Product Name, Region, Group, Product State, Volume, Average Volume Per Hour, Statistic, and Actual (Expected). The 'Product State' column header has an upward arrow icon highlighted with a red box, indicating it is the selected sort column. The table contains three rows of data with expandable icons (+/-) on the left.

Chart	Product Name	Region	Group	Product State	Volume	Average Volume Per Hour	Statistic	Actual (Expected)
+	SICK QA	+1 more	-	NONE	315287	362	-	-
-	SICK QA98-203-MS	+1 more	+1 more	OK	75666	2075	Build Date	28 Apr 2025
+	Sick-113	+1 more	+1 more	OK	50115	0	Build Date	29 Apr 2025

Figure 13: Sorting Table Content – Showing column heading arrows for sorting.

Searching Products

Filter products using the search bar at the top of the table:

- Click the search bar and enter any product data (e.g., Product Name, Region, Volume, Average Volume Per Hour) to search and filter the table in real time.

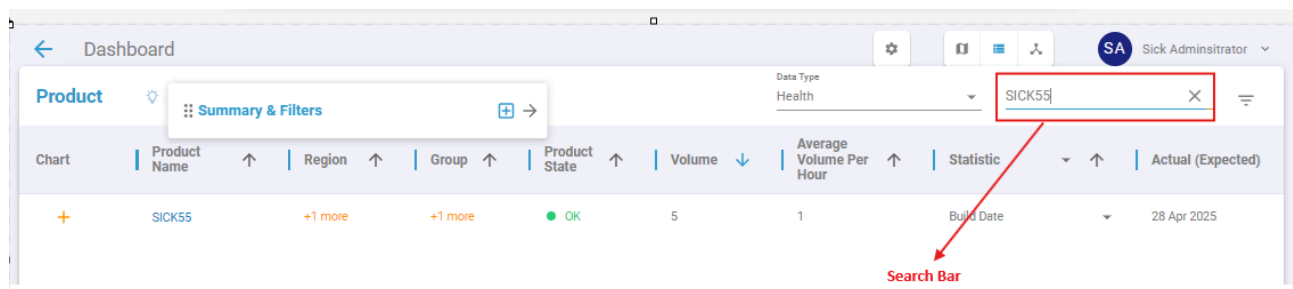
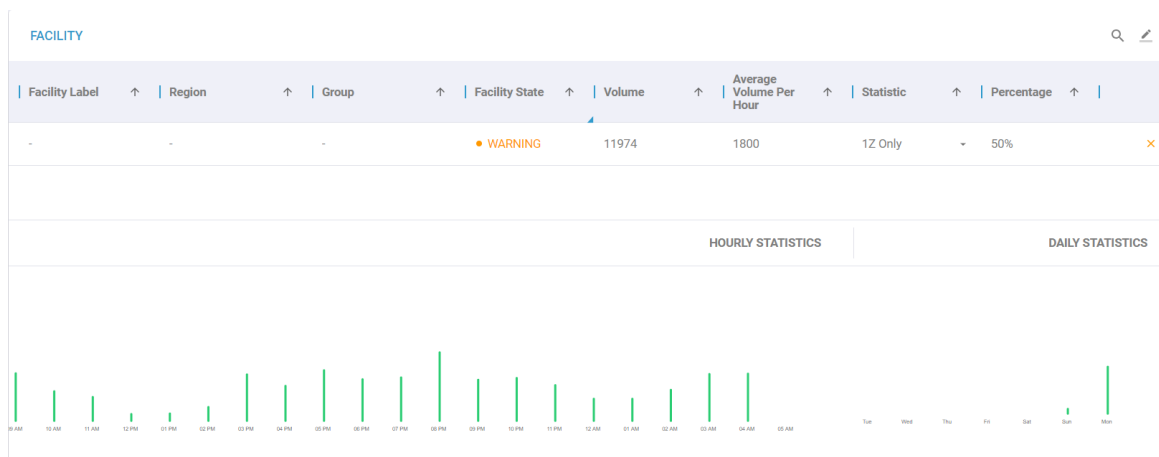


Figure 14: Search Bar – Showing the search bar icon for filtering products.

Viewing Product Charts

Track the performance of a selected statistic for a product using daily and hourly charts, sourced from historical data:



- Select a statistic from the context menu in the Chart button at the top of the table.
- Click the Chart button to view the daily and hourly bar chart for the selected statistic.
- Hover over the chart bars to view the exact percentage for the statistic.



Figure 15: Daily and Hourly Chart – Showing performance of a selected statistic.

Customizing the Table

Show, hide, or rearrange table columns to customize the List View:

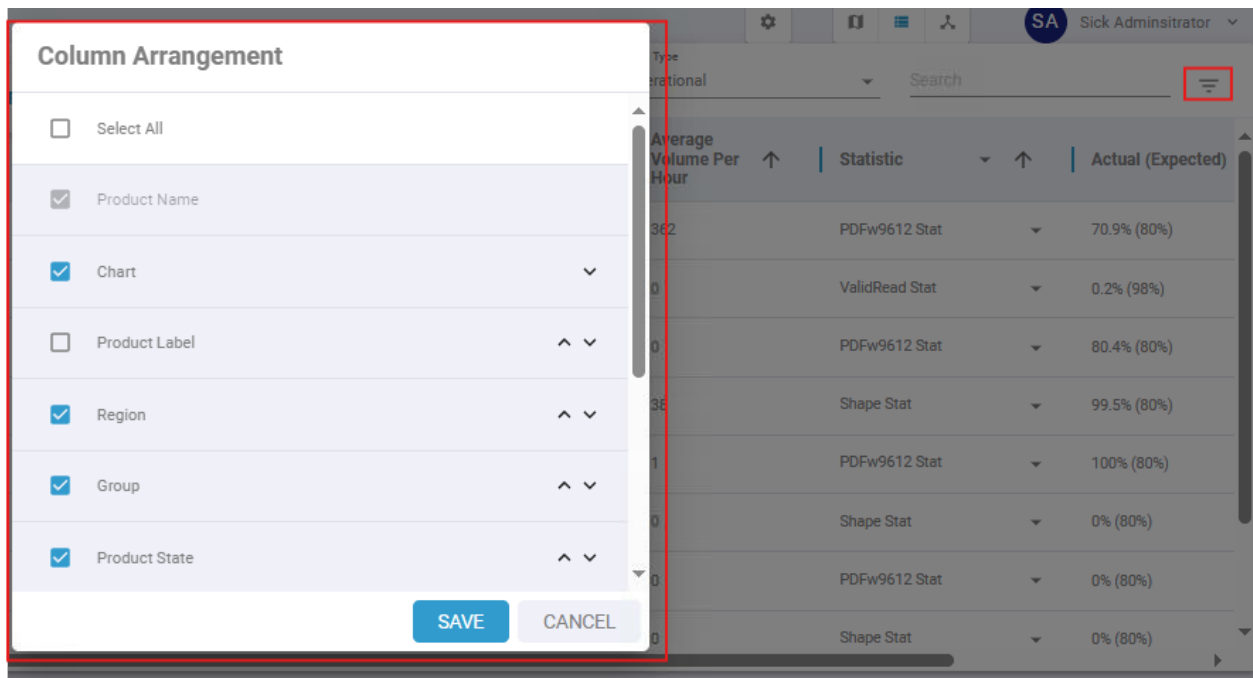


Figure 16: Column Arrangement Dialog – Showing options to show, hide, and rearrange columns.

1. Click the Column Arrangement icon.
2. In the Column Arrangement dialog, use the Select All checkbox to show or hide all columns at once, except fixed columns.
3. Check or uncheck individual column headings to show or hide them.
4. Use the ^ and v arrow keys in the Column Arrangement dialog to move a column heading to a new position.
5. Click Save to apply changes, or Cancel to discard them and return to the List View.

Note:

The Product Name column is fixed and cannot be hidden.

List View : Using the Summary & Filters Panel

The Summary & Filters Panel is located on the right side of the List View. It provides a real-time summary of product data and enables users to filter the List View based on product state, type, and group. The panel dynamically updates based on the current selection. You can control the panel's settings, such as its width and visibility, in the [Summary & Filters Settings](#)

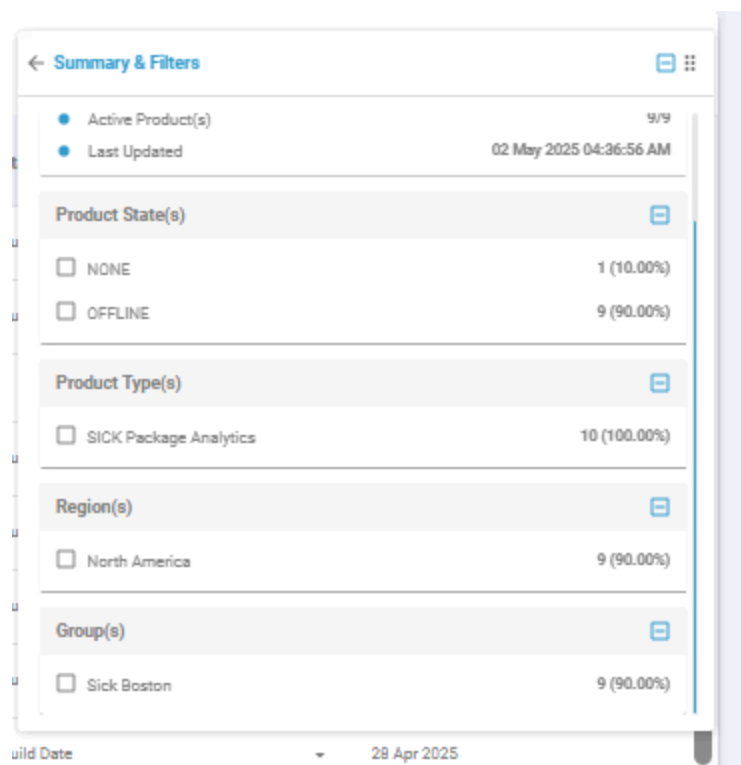


Figure 17: Summary & Filters Panel – Showing Product Type filter options.

Overall Info

The Overall Info section at the top of the panel displays key statistics based on the selected product.

- Overall Health: Displays the current system status.
- Alerts: Indicates the number of active alerts.

- Active Product(s): Shows the number of online products out of the total.
- Last Updated: Displays the timestamp of the most recent data update.

Filter by Product State, Type, Group, or Region:

1. Click the + icon next to Product State(s), Product Type(s), Group(s), or Region(s) to expand.
2. Review options:
 - Product State(s): States with node counts and percentages (e.g., OK, WARNING, ERROR, OFFLINE, NONE).
 - Product Type(s): Types (e.g., Web Service, SICK Baggage Analytics, SICK Package Analytics).
 - Group(s): Groups in which the product is configured (e.g., SICK AG).
 - Region(s): Geographical regions where the product is deployed (e.g., North America, SICK Boston), with counts and percentages.
3. Check one or more options to filter the List View in real time. The List View updates to show only products matching the selected states, types, groups, regions, or a combination of these.
4. Reset filters by selecting Clear Filters.

Panel Customization:

To improve usability and layout flexibility, you can reposition, expand, or collapse the Summary & Filters Panel as needed:

- Drag: Use grip icon (: :) to move panel.
- Move Left/Right: Use the left  and right  arrow icons to move the panel horizontally across the screen.
- Expand/Collapse: Click +/– in the panel header or next to sections (e.g., Product State) to show/hide filters or sections.

5.5 Tree View

The Tree View in Enterprise Analytics offers a visual, interactive hierarchy of your enterprise, organizing products, systems, and devices into a clear, structured layout. This feature empowers users to:

- Navigate effortlessly from enterprise-wide views to individual devices.
- Visualize relationships among enterprise entities, product groups, systems, and devices.
- Monitor real-time operational status and performance metrics.

Each node in the Tree View is a box-shaped element representing a component (e.g., facility, system, or device), displaying key metrics such as availability, connectivity, and performance.

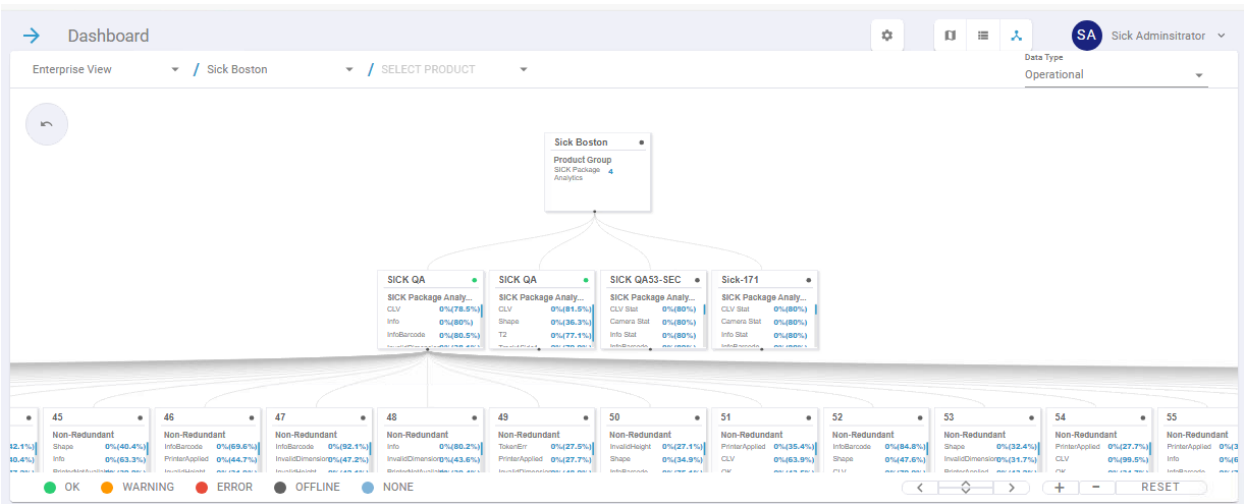


Figure 1.1: Tree View Interface Overview

Accessing the Tree View

Prerequisites

- A valid Enterprise Analytics (EA) license with TREE_VIEW permission.

Steps

1. Log in to Enterprise Analytics.
2. Click the Tree View  icon in the dashboard header.

Note:

The Tree View icon is hidden if your license lacks Tree View support.

Upon opening the Tree View:

- The default Enterprise View displays all product groups, facilities, systems, and devices in a hierarchical structure.
- The Summary & Filters Panel on the right allows filtering by product state and type.
- The navigation bar includes dropdowns (Enterprise View, Select Group, Select Product, Select Device) for filtering and a Data Type dropdown (e.g., Health, Operational) to switch data categories.
- A status legend at the bottom indicates the color coding for node states: Green (OK), Orange (WARNING), Red (ERROR), Gray (OFFLINE), Blue (NONE).

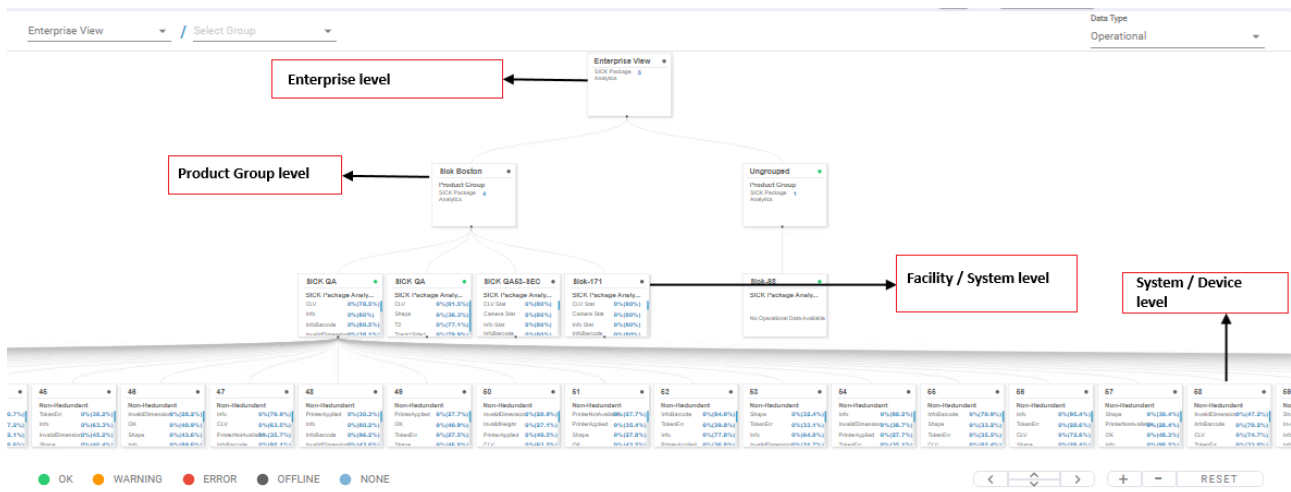


Figure 4.2: Accessing the Tree View Icon and Default Enterprise View

Tree View : Navigation, Filtering, and Data Selection

Navigate from an enterprise-wide overview to a specific device, filter data, and select data types using dropdowns, node interactions, or the Summary & Filters Panel.

Filtering by Hierarchy

Filter by hierarchy using dropdowns to focus on specific components.

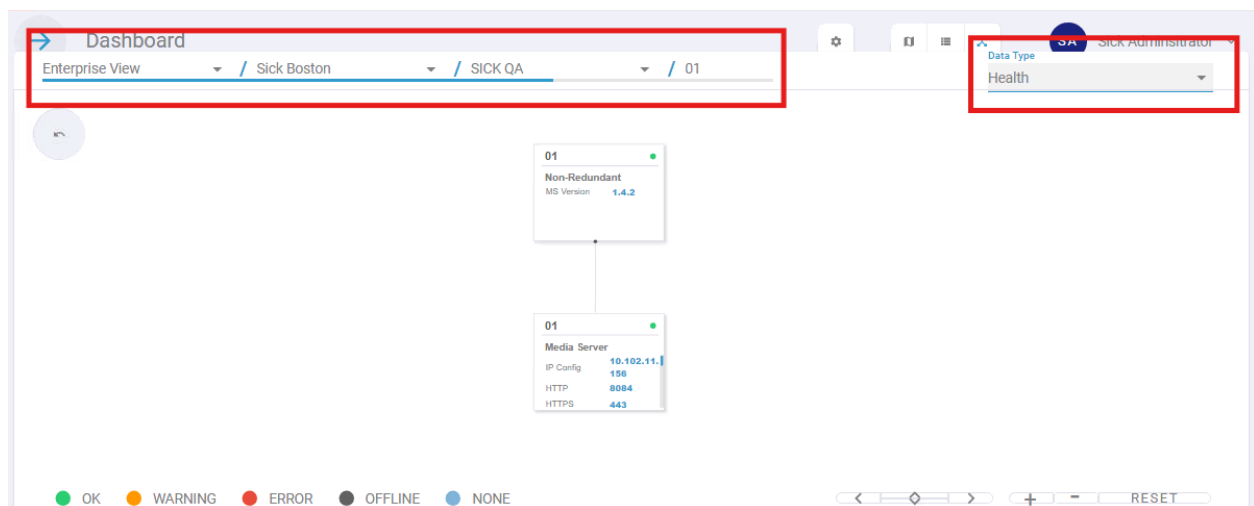


Figure 4.3: Tree View After Applying Dropdown Filters

Dropdowns allow you to filter the hierarchy by selecting from a list or typing in the search bar within each dropdown.

Navigation Level	Action	Result
Enterprise	Select an organization from the "Enterprise View" dropdown or use its search bar to filter.	Narrows to the selected enterprise, displaying its product groups.
Product Group	Select a group from the "Select Group" dropdown or use its search bar to filter.	Narrows to the selected product group, displaying its facilities/systems.
Product	Select a product family from the "Select Product" dropdown or use its search bar to filter.	Narrows to the selected product family, displaying its systems/devices.
System/ Device	Select a device from the "Select Device" dropdown or use its search bar to filter.	Narrows to the selected device, highlighting its node.

The Summary and Filters Panel updates with data specific to the selected level after each filter action.

Navigating the Tree View Using Direct Node Interaction

In addition to using dropdown filters, you can navigate the Tree View by directly interacting with nodes.

- Click the small circle (●) at the bottom of a node to expand and show child nodes, or click again to collapse and hide them.
- This allows you to drill down hierarchically from enterprise to device directly within the Tree View.

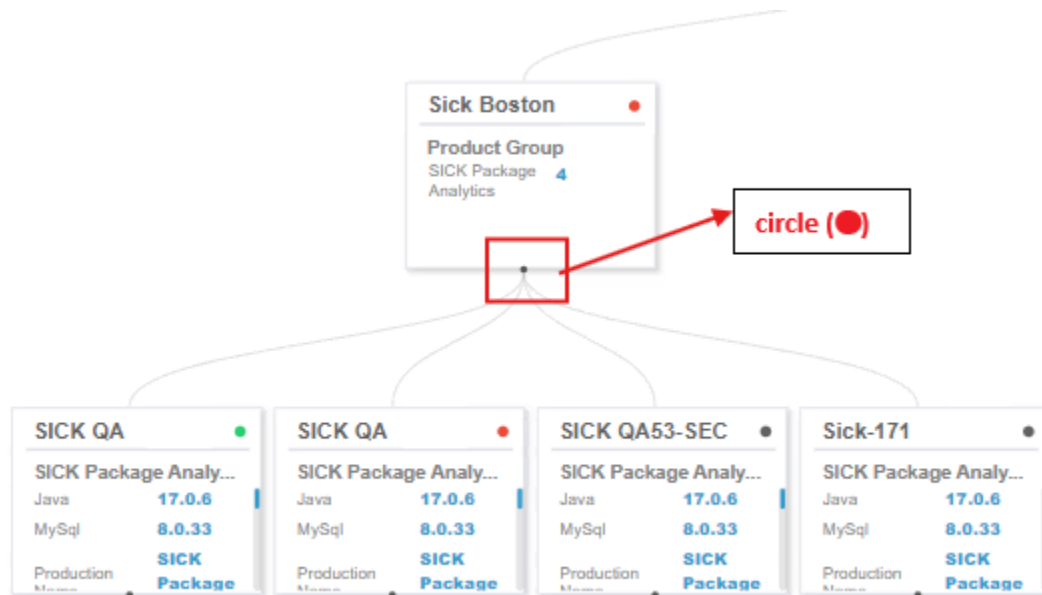


Figure 4.4: Expanding a Node in Tree View – Showing child nodes after clicking.

Navigating Back & Clearing Selections

As you explore the Tree View using dropdowns or by interacting with nodes, you can return to higher levels or reset filters using two straightforward methods:

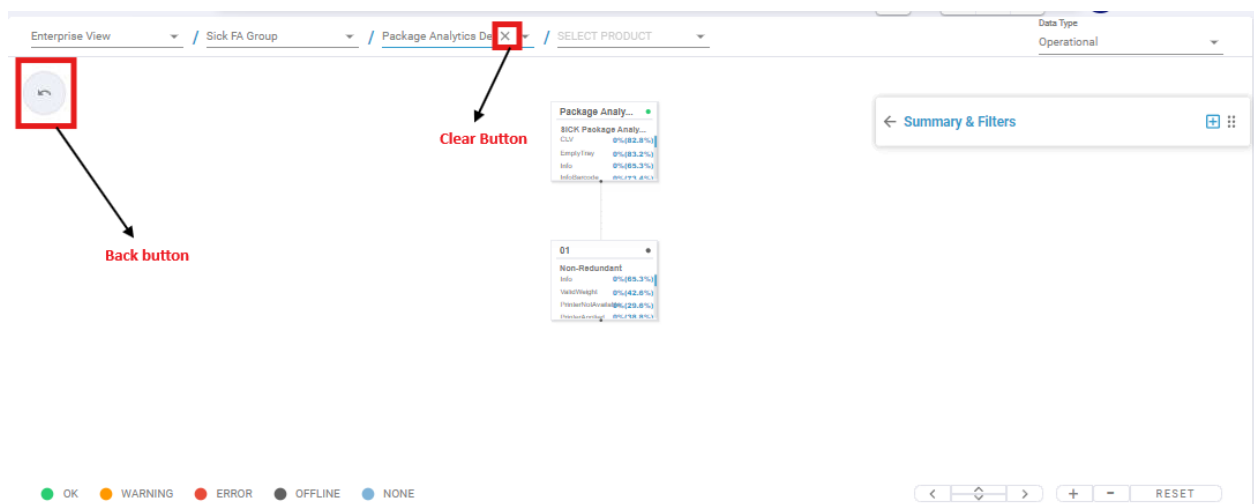


Figure 4.5: Navigation Controls – Showing the Back button and × icon for clearing selections with annotations.

- **Clearing Individual Selections:** To clear a filter and return to the higher-level view, click the Back Button next to the selected Enterprise View, Select Group, Select Product, or Select Device dropdown.
- **Using the Back Button:** Move up one level at a time using the "Back" button in the top-left corner of the Tree View. Each click steps back in the navigation path (e.g., Device → System → Product Group → Enterprise). The Tree View and Summary & Filters Panel adjust to reflect the broader level.

Zoom Controls

To help users effectively navigate complex or multi-level tree structures, Tree View provides interactive controls at the bottom of the screen. These controls allow users to pan, zoom, and reset the view for better visibility and usability.

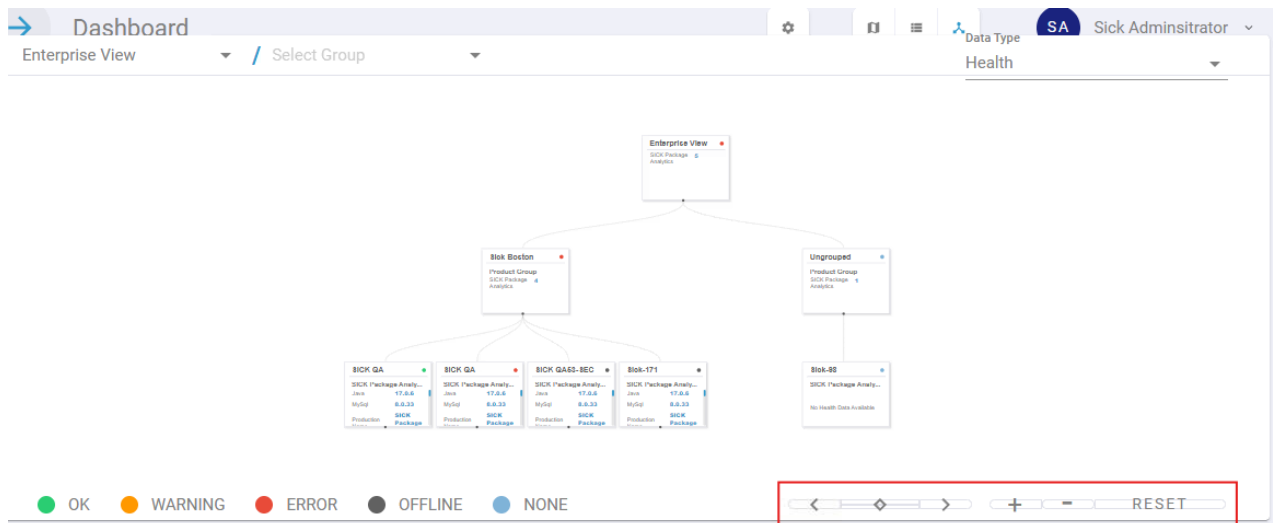


Figure 5.1 – Zoom and Pan Controls in Tree View

Icon/Button	Functionality
 Pan Controls Icon	Use the pan controls to move the Tree View: • Select the left arrow to move the view to the left. • Select the right arrow to move the view to the right. • Select the top part of the center icon to move the view up. • Select the bottom part of the center icon to move the view down. Tip: You can pan the view in any of the following ways: • Use the arrow keys on your keyboard • Click and hold the left mouse button, then drag • Swipe with two fingers on a touchpad
 Zoom Controls Icon	Use the zoom controls to adjust the view: • Select the plus button (+) to zoom in. • Select the minus button (-) to zoom out. • Select RESET to restore the original zoom level and center the tree. Tip: You can also zoom using the mouse scroll wheel or pinch-to-zoom on a touchpad.

Tree view: Using the Summary & Filters Panel

The Summary & Filters Panel is located on the right side of the Tree View. It provides a real-time summary of product data and enables users to filter the Tree View based on product state and type. The panel dynamically updates based on the current selection.

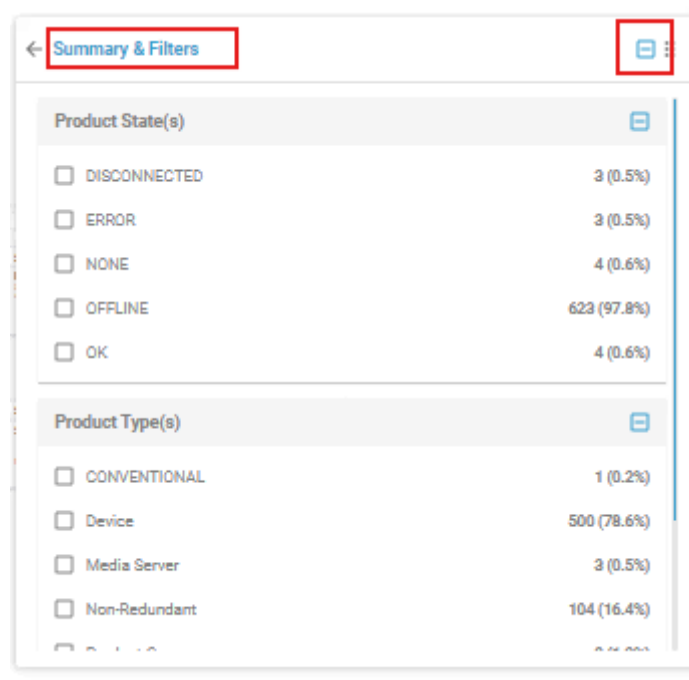


Figure 7: Summary & Filters Panel – Showing filters and customization controls.

Filter by Product State or Type:

1. Click the + icon next to Product State(s) or Product Type(s) to expand.
2. Review options:
 - Product State(s): States with node counts and percentages (e.g., OK, WARNING, ERROR, OFFLINE, NONE).
 - Product Type(s): Types (e.g., Device Group, Facility, Media Server, Non-Redundant).
3. Check one or more options to filter the Tree View in real time. The Tree View updates to show only nodes matching the selected states, types, or both if combined.

4. Reset filters by selecting Clear Filters.

Panel Customization:

To improve usability and layout flexibility, you can reposition, expand, or collapse the Summary & Filters Panel as needed:

- Drag: Use grip icon (: :) to move panel.
- Move Left/Right: Use the left ← and right → arrow icons to move the panel horizontally across the screen.
- Expand/Collapse: Click +/– in the panel header or next to sections (e.g., Product State) to show/hide filters or sections.

Node Status Indicators

Each node includes a colored status dot that represents the current health of the system or device. These colors help users quickly understand the condition of each node at a glance.

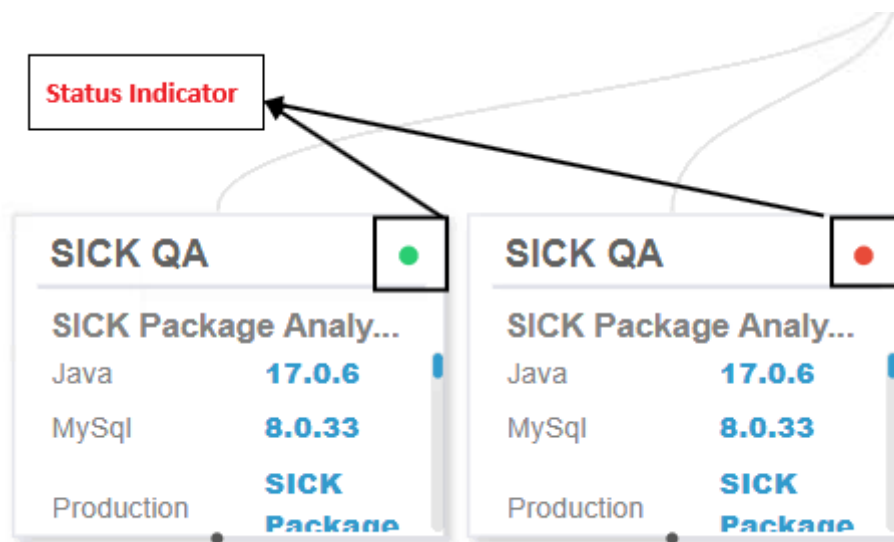


Figure 4.2 – Node Status Indicator

Color	Status
	OK
	Warning
	Error
	Offline
	None

6. Enterprise Search

This feature can be used to search from the pool of objects passed through the auto ID systems of the linked Facilities. You can get the search results by entering valid search parameters and then clicking on the Search button. User can also do advance search by clicking on the Advance Search.

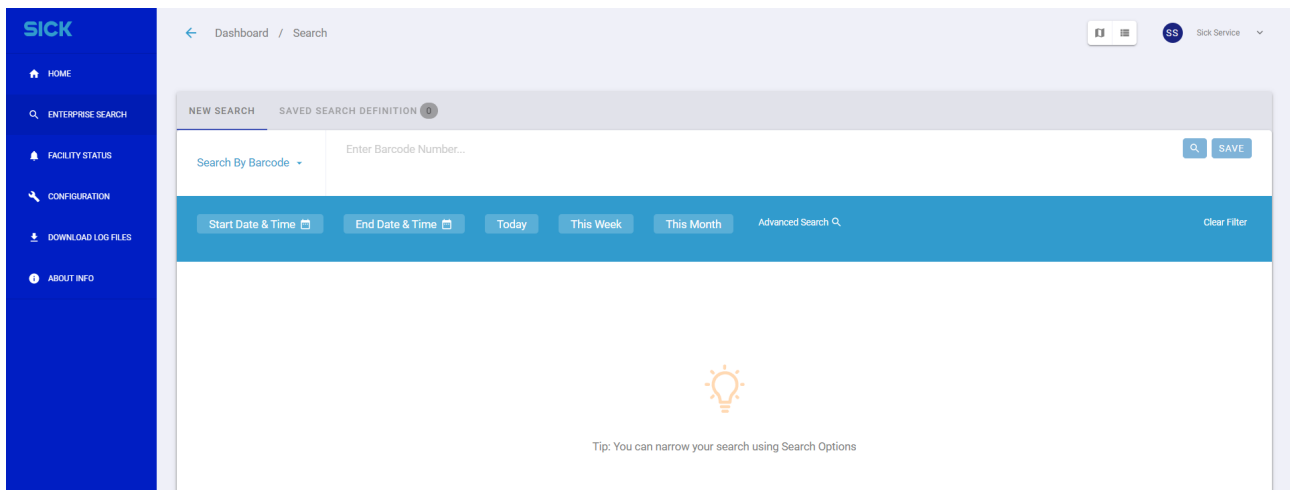


Figure 2: Enterprise Search

6.1 Selecting Date

Search query is set for a given time period. EA provides multiple options to enter start and end time:



Picture 77

- Directly entering start and end time from their respective field
- Using Today button: This will auto fill start and end time for the current day
- Using This week button: This will auto fill start and end time for the current week
- Using this month button: This will auto fill start and end time for the current month

	Week start day is configurable from preferences in configuration tab
---	---

6.2 Selecting Facilities

You can perform Facility specific search operation. This can be done by selecting the Facilities from multi-select Facility context menu. If none of the Facilities are selected, by default, search operation will be performed across all the linked Facilities.

6.3 Search Types

You can search the objects data using different search types:

Search Type	Search Parameters	Description
By Barcode	Start date & time End date & time Search pattern (regex)	This Search option will search and display all the Objects with barcode content matching the Search pattern.
By No reads	Start date & time End date & time	This Search option will search and display all the objects with NoReads (where verified code count is Zero) within the specified Date.

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Search Type	Search Parameters	Description
By Unassigned Object	Start date & time End date & time	This Search option will search and display all the Unassigned Objects (Object Index -100) within the specified date.
By Dimensions	Start date & time End date & time Length min & max Height min & max Width min & max	This Search option will search and display all the Objects with the specified Search parameters for Date, Length, Width, Height
By Gap	Start date & time End date & time Min & Max (for selected unit)	This Search option will search and display all the Objects with the specified Object Gap value in the Search pattern.

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Search Type	Search Parameters	Description
By Angle	Start date & time End date & time Angle less than Angle greater than	This Search option will search and display all the Objects with Object angle matching the specified range. The min and max object angle value should range from -180 to 180.
By Box Factor	Start date & time End date & time	This Search option will search and display all the Objects with Box Factor matching the specified range. The min and max value for Box Factor should be between 0-1
By Girth/ Longest Side	Start date & time, End date & time, Barcode Pattern, Condition, UDF-Error Code, Girth, Longest Side	This Search option will search and display all packages matching the specified Girth or Longest Side values, optionally filtered by Barcode Pattern, Condition, or UDF-Error Code (e.g., 01-04 for EIDS systems). At least one of Barcode Pattern, Condition, UDF-Error Code, Girth, or Longest Side is mandatory. Girth is calculated as $\text{Longest Side} + 2 \times (\text{Width} + \text{Height})$. Supports AND and OR operations for

Continued on page 55

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Search Type	Search Parameters	Description
		multiple conditions. Values for Girth and Longest Side accept two decimal places. Note: <i>By Girth/Longest Side is licensed. This option is available only if permitted in the license file. Users must be logged in with appropriate permissions to access the By Girth/Longest Side search type</i>

6.4 Searching from results

You have an option to further refine the search data using search bar available at the top of the search table. Facility data can be searched with any available data (Facility name, label, volume, average, etc.) of the Facility from the table.

6.5 Show or Hide Table Columns and Rearrange Columns

You can show or hide columns in the search table, and rearrange the column order in the table:

1. Click the edit icon. 
2. In the edit fields dialog, check or uncheck column headings to include (or hide).

i	The Facility Name column is fixed. It cannot be hidden.
----------	---

To move a column, in the edit fields dialog, click the arrow keys move the header to a new position on the list. Do this for each heading you would like to move.

i	The Facility Name column is fixed. It cannot be moved from its position on the Object table.
----------	--

3. When you are finished, click Save to apply the changes, or click Cancel to return to search table without applying changes.

6.6 Download data

Available results from the search table can be exported in CSV format. This can be done by clicking on  button from the search table.

6.7 Navigating to the Facility

Search results displayed in search table can be configured/ rearranged as per you wish. From various table columns available, column Facility name and package ID are hyperlinked. You have the option to view the Facility for which the object data is available by clicking on Facility name displayed under column Facility name or you can directly navigate to the package detail page of the object which has the complete details of the object (Available barcodes in the package, dimensions of the object, images taken by each camera capturing devices, etc.) by clicking on the package ID hyperlink available in the search table result.

Figure 10: Package Detail screen

6.8 Display rows per page

Pagination bar at the bottom of the page shows total results and pagination options. User has the option to view 10, 25, 100, 300, All rows/instances per page based on the selection from the context menu available at the bottom of the Search Results table. We can move between the pages by clicking on < and > arrow keys.

Rows per page: 100 1 - 100 of 6024 < >

6.9 Change the Object data Sort Order

You can sort object data by clicking on any column heading:

- Click a column heading to sort by that value. Click the heading again to toggle between ascending and descending sort order for the selected heading.

6.10 Advance Search

When user clicks on Advance search on Enterprise Search page, Advance Search dialog box appears.

7. Notification

User can get notification about the status of the facilities based on the user configuration. User need to first configure the Email settings or SMS.

To configure the Email or SMS settings, click on **'Configure SMS or SMTP Servers'** under Notification section in Configuration tab.

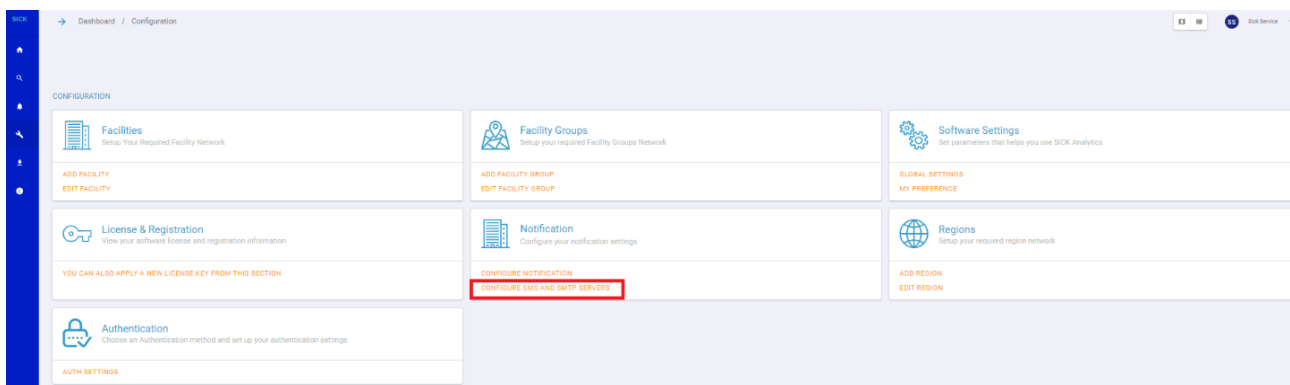


Figure 30: Configure SMS and SMTP Server

'Server Configuration' screen opens. Provide the following fields for Email Settings:

- Host
- Sender Mail Address
- Username
- Password
- Port

Enable Mail Authentication and TLS options for receiving notification then **'Test Connection'** button enables. Click on **'Test Connection'** then on **'Save'** button to save the configuration.

Dashboard / Configuration / Server Configuration

SS Sick Service

EMAIL SETTING

Host *

Sender Mail Address *
administrator@sick.com

Username *

Password *

Port *
587

☒ Mail Authentication

☒ TLS

Mail Notification Enabled

TEST CONNECTION SAVE

Figure 31: Server Configuration

Once the server is configured, click on **'Configuration Notification'** under Notification in Configuration tab.

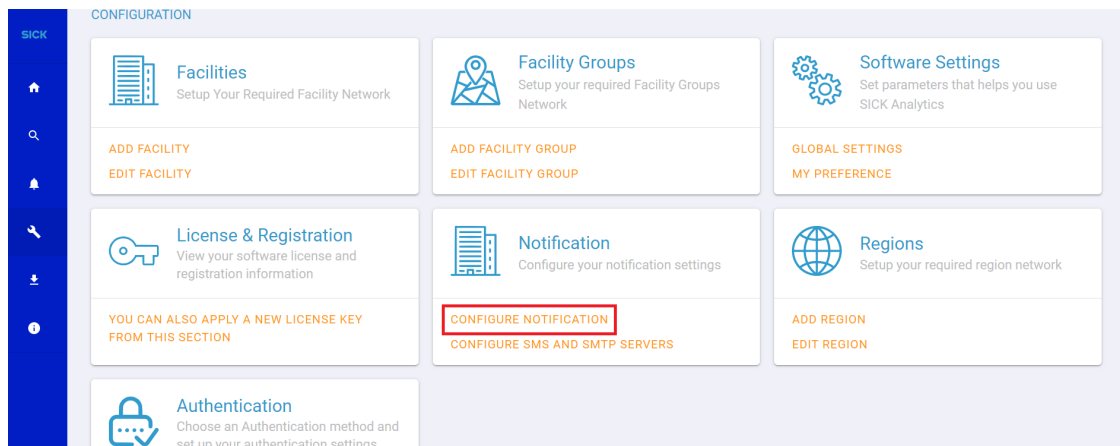
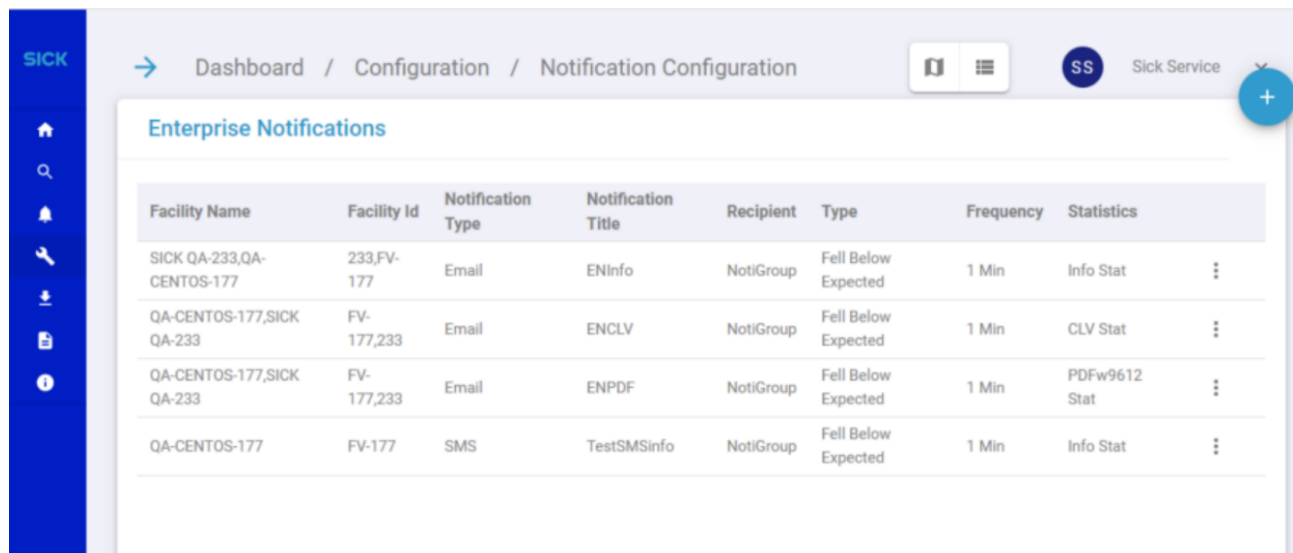


Figure 32: Configure Notification

Enterprise Notification screen appears. User can create notification for the required facility by clicking on  add icon on top right of the screen.



Facility Name	Facility Id	Notification Type	Notification Title	Recipient	Type	Frequency	Statistics
SICK QA-233,QA-CENTOS-177	233,FV-177	Email	ENInfo	NotiGroup	Fell Below Expected	1 Min	Info Stat
QA-CENTOS-177,SICK QA-233	FV-177,233	Email	ENCLV	NotiGroup	Fell Below Expected	1 Min	CLV Stat
QA-CENTOS-177,SICK QA-233	FV-177,233	Email	ENPDF	NotiGroup	Fell Below Expected	1 Min	PDFw9612 Stat
QA-CENTOS-177	FV-177	SMS	TestSMSinfo	NotiGroup	Fell Below Expected	1 Min	Info Stat

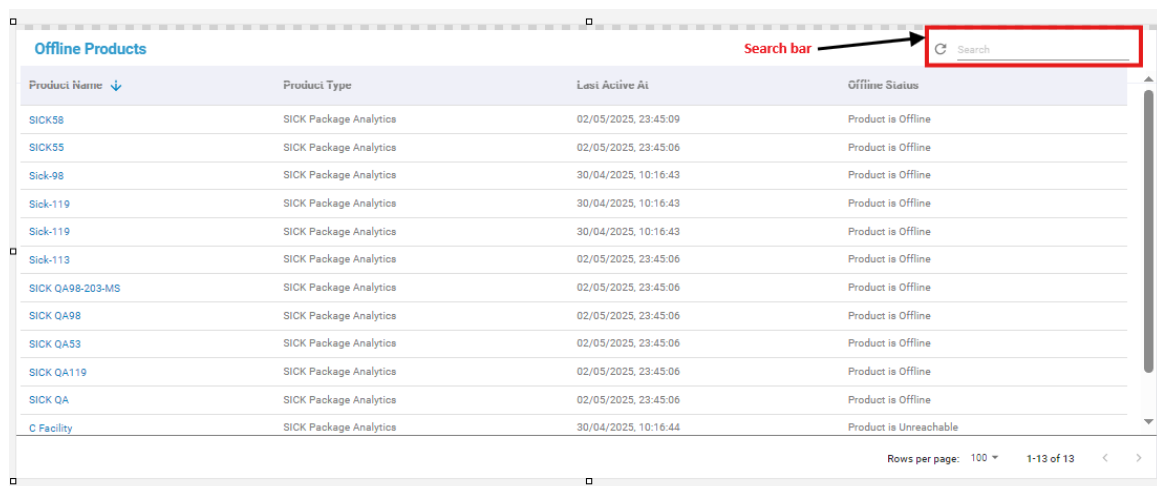
Figure 33: Enterprise Notifications

8. Offline Products

The Offline Products page lists all products that are currently unavailable, helping you identify and troubleshoot connectivity issues within the EA system. This section describes how to view and analyze offline products using the Offline Products page.

Navigate to the Offline Products Page

1. In the left navigation pane, select Offline Products .
- The Offline Products page displays a table listing all products that are currently unavailable. The table includes the following columns:



Product Name	Product Type	Last Active At	Offline Status
SICK58	SICK Package Analytics	02/05/2025, 23:45:09	Product is Offline
SICK55	SICK Package Analytics	02/05/2025, 23:45:06	Product is Offline
Sick-98	SICK Package Analytics	30/04/2025, 10:16:43	Product is Offline
Sick-119	SICK Package Analytics	30/04/2025, 10:16:43	Product is Offline
Sick-119	SICK Package Analytics	30/04/2025, 10:16:43	Product is Offline
Sick-113	SICK Package Analytics	02/05/2025, 23:45:06	Product is Offline
SICK QA98-203-MS	SICK Package Analytics	02/05/2025, 23:45:06	Product is Offline
SICK QA98	SICK Package Analytics	02/05/2025, 23:45:06	Product is Offline
SICK QA53	SICK Package Analytics	02/05/2025, 23:45:06	Product is Offline
SICK QA119	SICK Package Analytics	02/05/2025, 23:45:06	Product is Offline
SICK QA	SICK Package Analytics	02/05/2025, 23:45:06	Product is Offline
C Facility	SICK Package Analytics	30/04/2025, 10:16:44	Product is Unreachable

Figure 53: Offline Products Page

Column Name	Description
Product Name	The name of the offline product (e.g., SICK185-4.6.1).
Product Type	The type of the product (e.g., SICK Package Analytics, Web Service).
Last Active At	The date and time when the product was last active (e.g., 09/04/2025, 13:21:04).
Offline Status	The reason why the product is offline (e.g., "Message not found with key UNREACHABLE_PRODUCT").

- You can sort the table by clicking any column header arrows  .
- Pagination controls allow you to adjust the number of rows displayed per page (e.g., showing entries 1–10 of 13) and move between pages using the navigation arrows.
- To filter the list of offline products, enter a keyword in the Search field at the top-right corner of the page and press Enter.
 - The table updates to show only the products that match the search keyword.

9. Download Log Files

This section is specifically used to download the EA application logs. These logs are very helpful to rectify the issue faced by the application. All the log files available in the directory are visible in this window. The log files retention is configured from global preference of the application.

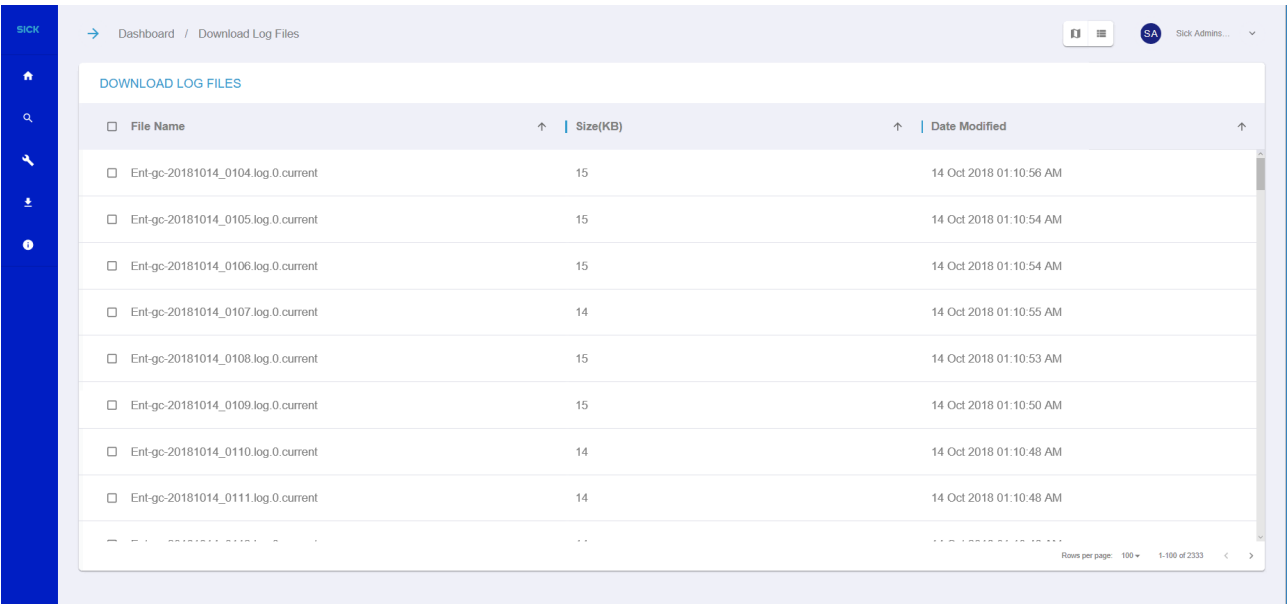


Figure 50: Download Logs

The download logs table has following columns to display:

Selection	Description
File Name	Name of the files available in the directory
Size	Size of the log file in Kb

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Date Modified	Last modified timestamp when the log file was updated
---------------	---

9.1 Retrieving Log Files:

You can select multiple files to be downloaded from the log table. All the available log files can be selected for download by clicking on the checkbox next to the header File name. Checking any of the checkboxes in the table enables download and cancel button at the top of the table. Click on **DOWNLOAD** to extract all the selected log files from the directory. Checkbox selection made in the logs table is reset on clicking on **CANCEL**

9.2 Pagination Options:

Pagination bar at the bottom of the page shows total results and pagination options. User has the option to view 10, 25, 100, 300, All rows/instances per page based on the selection from the context menu available at the bottom of the logs table. We can move between the pages by clicking on < and > arrow keys.

Rows per page: 100 1 - 100 of 6024 < >

9.3 Sorting the Log Files Table:

You can sort log files by clicking on any column heading:

- Click a column heading to sort by that value. Click the heading again to toggle between ascending and descending sort order for the selected heading.

10. Download Reports

The Download Reports page lists all report files available in a designated folder, enabling users to view and download reports directly from the EA system without needing to access the server manually. This section describes how to view and download reports using the Download Reports page.

Navigate to the Download Reports Page

1. In the left navigation pane, select Download Reports.

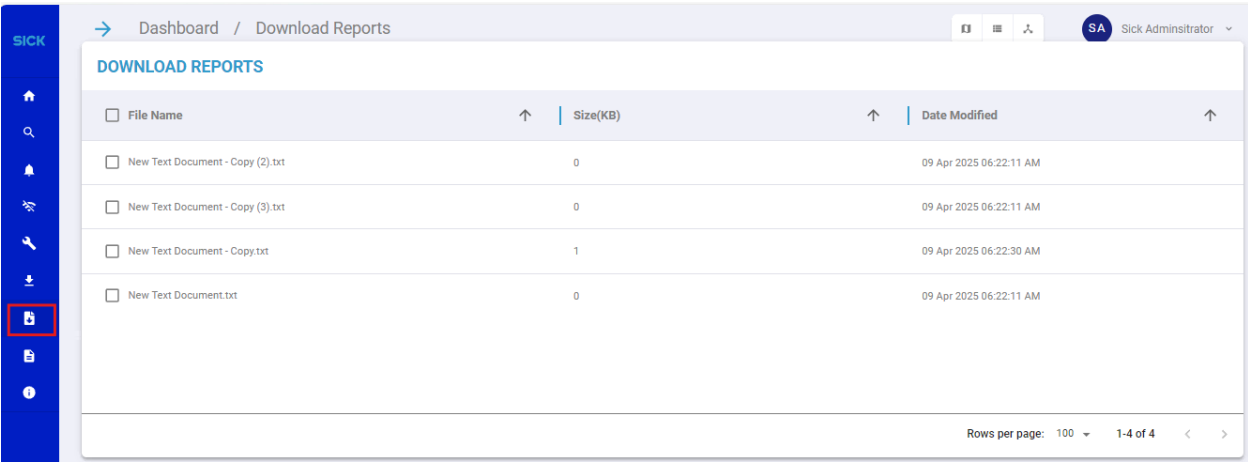


Figure 25: Download Reports Page – Showing Available Report Files

Column Name	Description
-------------	-------------

Continued on page 65

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File Name	The name of the report file.
Size (KB)	The size of the file in kilobytes.
Date Modified	The date and time when the file was last modified.

- You can sort the table by clicking any column header arrows   .
- Pagination controls allow you to adjust the number of rows displayed per page (for example, showing entries 1–10 of 13) and move between pages using the navigation arrows.

Retrieving Reports

1. To download a report, select the checkbox next to the desired file(s).
 - The toolbar above the table will indicate the number of selected files (for example, “1 SELECTED”) and display the Download and Cancel buttons.
2. Select Download to download the selected file(s) to your device in their original format (for example, .txt, .pdf), or select Cancel to deselect the files.

11. Notification Logs

The Notification Logs page lists all notifications sent by the EA system, allowing users to monitor and review notification activities for troubleshooting and auditing purposes. This section describes how to view and analyze notification logs using the Notification Logs page.

Navigate to the Notification Logs Page

1. In the left navigation pane, select  Notification Logs.

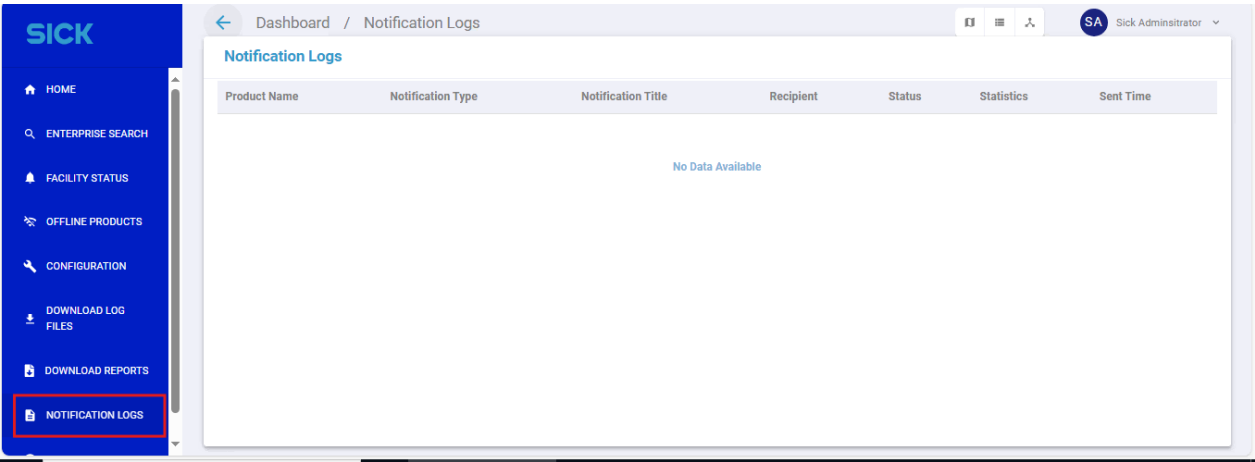


Figure 28: Notification Logs Page

Column Name	Description
Product Name	The name of the product associated with the notification.
Notification Type	The type of notification.
Notification Title	The title of the notification.
Recipient	The user or group who received the notification.
Status	The delivery status of the notification.
Statistics	Additional metrics or details about the notification.

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Column Name	Description
Sent Time	The date and time when the notification was sent.

- You can sort the table by clicking any column header arrows  .
- Pagination controls allow you to adjust the number of rows displayed per page (for example, showing entries 1–10 of 13) and move between pages using the navigation arrows.

Filter Notification Logs

To filter the list of notification logs, enter a keyword in the Search field at the top-right corner of the page and press Enter.

The table updates to show only the notifications that match the search keyword.

12. About/Info

12.1 Where to Find Software Version and License Information:

You can view the installed EA software version by clicking on About/Info from left navigation panel. To know more about our company, you can click on VISIT SITE button available in the tab.

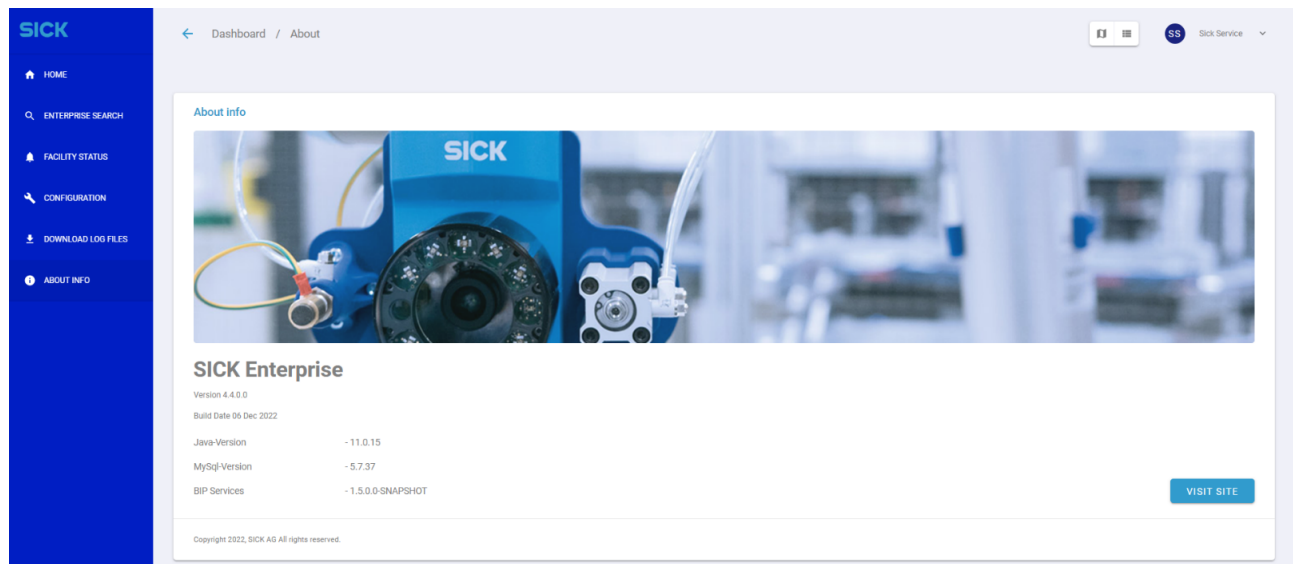


Figure 51: About Info

13. Glossary

Term	Definition
Code related condition	Evaluation conditions which are code-related monitor conditions for individual barcodes. For example, a code related condition may monitor if a barcode is a 2D type. Because an object may have multiple barcodes, a code related condition can have multiple outcomes for one object. See also object related condition.

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MQTT	Publish-subscribe-based messaging protocol that runs over TCP/IP, used to retrieve Facility data to EA.
Intelligent Sensor	Devices that collect data and send it to a central controller. These include barcode scanners, dimensioners, and cameras. Also referred to as Device.
EA	Enterprise Application.
auto ID system	All SICK systems that automatically collect and identify data—such as camera tunnels and scan systems. They may include cameras, laser scanners, dimensioners, and scales working together.
Device	A system component that collects analytical data and transmits it to the Facility (e.g., CLVs, ICRs, MSC/SIMs). Also referred to as Intelligent Sensor.
device group	A logical grouping of devices (for example, all CLVs or all ICRs), used for collective reporting and analysis.
Evaluation Condition	Conditions set in the SICK System Controller that tag objects meeting specific criteria (for example, no read or valid read). See also Performance Statistic.

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Device [Group] Exclusive	Refers to exclusive reads when only one device (or group) records a particular condition on an object.
ICR	SICK's Image Code Reader, used for detecting barcodes.
MAC	Media Access Controller address—a unique ID used by PA to tie a software license to a physical computer.
NORCA	No Read Code Analysis – a quality analysis for readable and non-readable barcodes and 2D codes, provided by auto ID system cameras and configured in camera firmware.
Object	Items scanned by auto ID systems for data (e.g., barcodes, weight, dimensions).
object index	Identifier code for the current object sent from the system controller.
object related condition	Conditions evaluated at the object level (for example, ValidDim or ValidWeight). Returns a single outcome for each object. See also code related condition.

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Performance Statistic	Filters for pre-defined conditions or devices that count how many objects meet a specific Evaluation Condition. See also Evaluation Condition.
read cycle	One complete processing of an object, including data transmission from all devices that recorded data for that object.
System	See auto ID system.
Tunnel	An auto ID system configured as a tunnel, with reading devices mounted around tires—such as a camera tunnel. See also auto ID system.
web client	The program (a Rich Internet Application) that opens EA's user interface—by default in Chrome—and connects to the EA Application Server.
Longterm Read Rate	A graphical analysis of historical performance and operation of your Facility's auto ID systems.
moving average rate	A succession of averages over a specified number of days to smooth out fluctuations in the Primary Statistic read rate, indicating the current trend.

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Current Results	A dynamic view of real-time performance and heartbeat of an individual system that logs each object's data as it moves through the system.
Media Server	The service that stores images captured by ICRs, Lector cameras, and IP cams on a remote host.
client computer	Any PC connected to the EA network running the web client RIA, which accesses the EA Application Server for rich data content.

Enterprise Application