

PROCESS AUTOMATION

My Control System (web) Operation

User Manual



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1. Introduction

My Control System is a part of the Digital Services offering from ABB. This document is intended to provide assistance in the use of MCS.

This document does not describe the installation and operation of MCS (on-premise). For details on this topic please refer to document ref. [1] & [2].

This manual does not discuss the settings and process for collecting the necessary data with the My Control System - Data Collector (MCS-DC). For details on the collection process refer to document ref. [3].

1.1. General (Introduction & main functions)

My Control System is ABBs digitized service business platform, build to companion DCS customers throughout the entire control system life cycle. It offers plant managers, maintenance teams and IT departments with the necessary insights into the DCS.

My Control System provides the:

- **Knowledge** by acting as repository of information, documentation, and software downloads
- **Awareness** of overall system performance and lifecycle status of individual components
- **Sustainability** to ensure system health and cyber security

It uses data collected during scheduled and on demand analyses for comparison against best practices and standards to detect performance irregularities and provides the user with standardized views of Key Performance Indicators (KPIs).

This comparison quickly pinpoints issues, helping to improve system reliability, availability, and performance.

Depending on the available licenses different functionality is enabled within the platform.

1.2. Used icons



Warning/important notice

Indicates a warning or important notice that must not be ignored.



Informational notice

Indicates additional information which should be read by the user.

1.3. Terminology

Table 1: Terminology

Term	Description
CSM	Control System Monitoring
DCS	Distributed Control System

Term	Description
KPI	<p>Key Performance Indicator</p> <p>This is a basic item or elementary function of the control system which is checked. It consists of one or more values to be measured and evaluated</p>
MCS	<p>My Control System</p> <p>This is a platform hosting ABB service applications in the ABB Cloud</p>
MCS-DC	<p>My Control System Data Collector</p> <p>Software, which collects data from an installed control system</p>
MCS-FW	<p>My Control System – Forwarder</p> <p>Software, which distributes data collections of MCS-DC to consuming applications like e.g., MCS-OP</p>
MCS-OP	My Control System (on-premise) application.
MCS on-premise	This is the platform hosting MCS functionality on a customer site
RAP VSE	Remote Access Platform Virtual Security Engine
SDF	<p>System Data File</p> <p>This file consists of relevant raw data collected on site, which is then used to generate data sets</p>
SEPM	Symantec Endpoint Protection Manager
SID	<p>System identifier</p> <p>This is a unique serial number of control systems used by the software license register (SoFa). The system identification number is always written close to the digits, e.g. SID1234</p>
SoFa	<p>Software Factory</p> <p>Global ABB database holding detailed information on ABB software licenses</p>
VSE	McAfee VirusScan Enterprise

1.4. Scope & Software versions

The scope of the document is for operating MCS in combination with MCS-DC as per the supported software versions. In general, MCS supports all control system versions as supported by the MCS - DC. Refer to document ref. [3] for the complete list.

2. Using My Control System

2.1. Registration of users

MCS is available for all ABB control systems customers. For proper access management, all users must be assigned to their company and their installed base through a registration process. If you or your colleagues are not yet registered for MCS, please contact your local ABB representative, or fill in and submit a request via this URL:

<https://new.abb.com/control-systems/service/offering/my-control-system>

2.2. Customer roles in My Control System

In MCS you are authorized to perform certain actions, depending on the role assigned to you. As a user you can take on the role of a Control System Administrator (primary customer responsible for the control system SID) or a Maintenance Engineer (working with maintenance/pro-active actions for the control system SID). This user manual will inform you where the views differ, and which actions your role is authorized to perform.

2.3. Accessing My Control System

To access MCS, please navigate to <https://myportal.abb.com> and login using the login dialog or log in via www.abb.com.

Welcome to myABB

Your personalized channel compliments ABB services

[Log in](#)

[Not registered yet?](#)

Getting started is simple

1

[Create ABB account](#)

With one ABB account, you can access all our online services

2

[Activate ABB account](#)

Click on activation link in the email

3

[Admins will set up account](#)

Confirmed by e-mail when ready

[Sign up](#)

Figure 1: Login to myABB-portal

When logging in to the web portal for the first time, you will be informed about the MCS Terms and Conditions. To access MCS, you need to accept these Terms and Conditions. Once logged in, you can review the MCS Terms and Conditions, as well as the Privacy policy in the footer of the Dashboard.

2.4. Auto-notifications

2.4.1. Introduction

Auto-notifications must be set up by each user individually. You can set up the auto-notifications in the User Preferences menu available via the user icon in the top right corner.

Once the auto-notifications are set up, the notifications can be viewed online via the bell icon and/or as received email notifications.

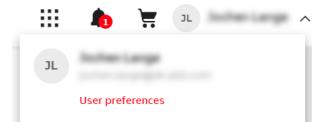


Figure 2: User Preferences

2.4.2. Configuration of auto-notifications

In the Notifications tab, you can configure your personal auto-notification settings. In the section “General settings” you can choose if you want to get your auto-notifications sent via email and/or via the web site.

Online notification messages are updated continuously. Set the email frequency on how often you would like to receive your updates per email.

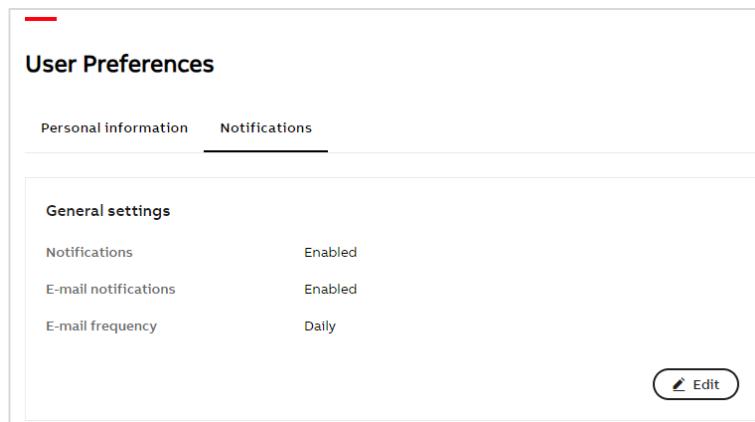


Figure 3: Notification settings

In section “My Control System” you can view your existing auto-notification configurations, edit them via the “Edit” option and add a new one by clicking “Configure a new notification”.

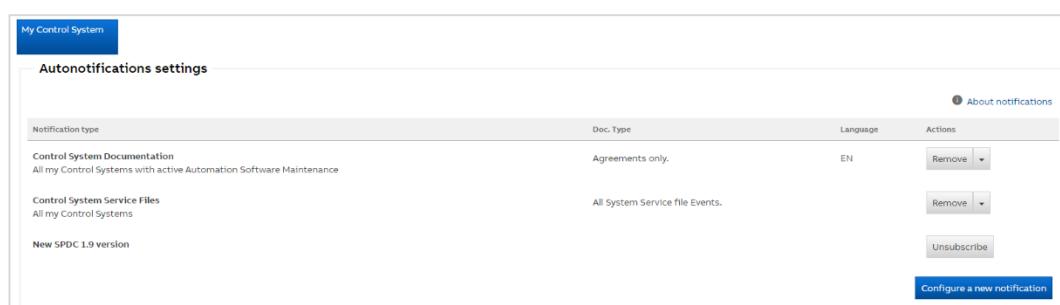


Figure 4: Auto-notifications

For Control System Documentation, the list of Control Systems available in the dropdown depends on the “Show only favorite SIDs” switch setting (see chapter 2.6.1.1). Additionally, this setting is checked before sending the notification.

2.5. The My Control System widget on the myABB dashboard

The MCS widget shows you a list of all systems that are connected to your user account. It shows their current Automation Software Maintenance status and the last time the system has been scanned with the MCS-DC.

Figure 5: MCS widget on myABB



The mapping is done in our backend database, so in case you do not see a system that you expected to see, please contact your local ABB service contact.

The list of Control Systems available in this widget depends on the “Show only favorite SIDs” switch setting (see chapter 2.6.1.1).

Click on the system name to access the System Status page of the specific control system (see chapter 2.6.6.1).

Figure 6: System Status page

Click on “Access My Control System” to access MCS without any preselection of the system. You will then be asked to select the system in the SID selector (see chapter 2.6.1.1).

If you want to make yourself familiar with MCS first, click on “Demo mode” in bottom right of the widget to explore MCS by yourself with 3 Demo systems.

2.6. Overview (general layout)

The MCS dashboard consists for 4 major areas:

1. Navigation bar (Chapter 2.6.1)
2. Filter area (Chapter 2.6.2)
3. Overview area (Chapter 2.6.7)
4. Footer area (Chapter 2.6.3)

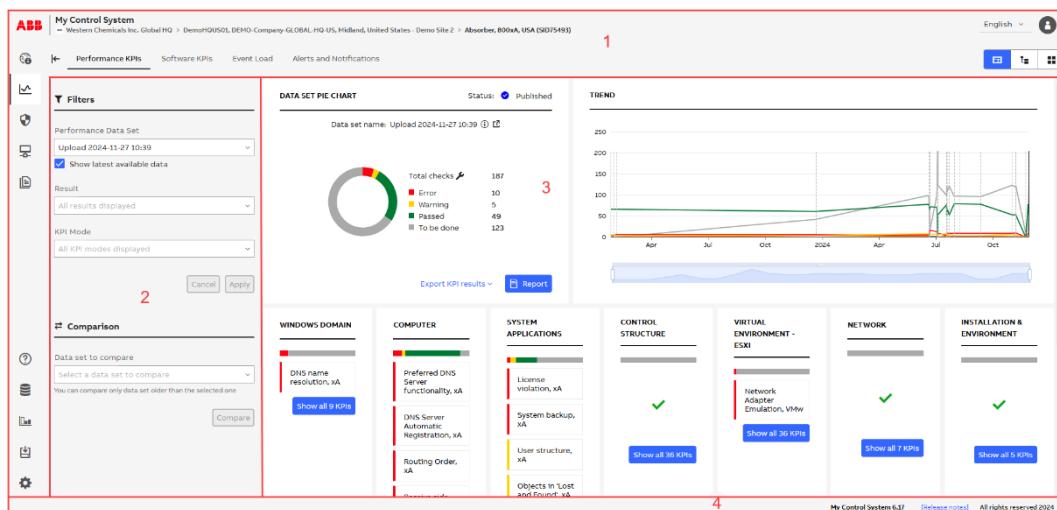


Figure 7: General layout

2.6.1. Navigation bar

The navigation bar consists of 3 different sections:

1. SID selector
2. Categories (Chapter 2.6.4 onwards)
3. Administration and configuration (Chapter 2.6.13)

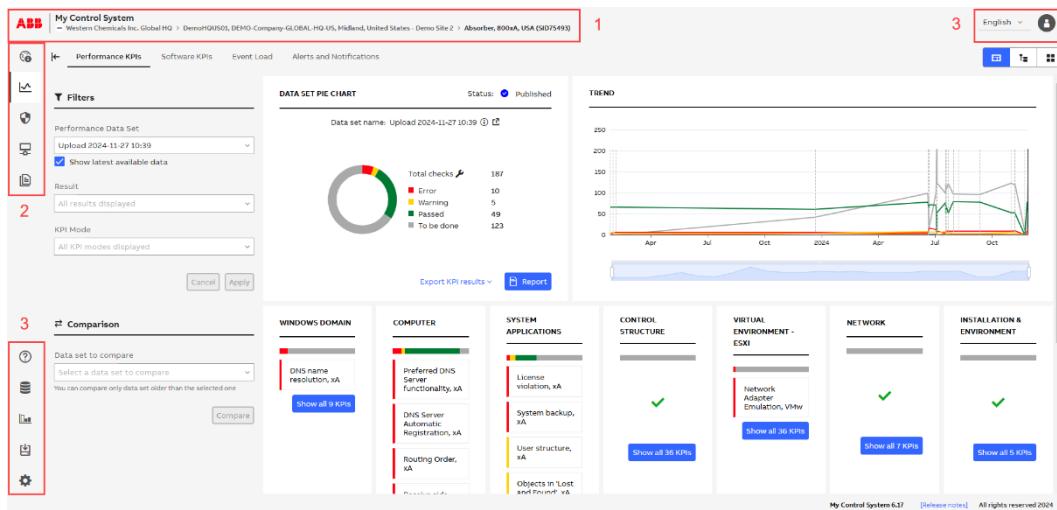


Figure 8: Navigation bar

Use the navigation bar to access the different areas (e.g. “Health”). Hover over the left menu to see the names of the sections.

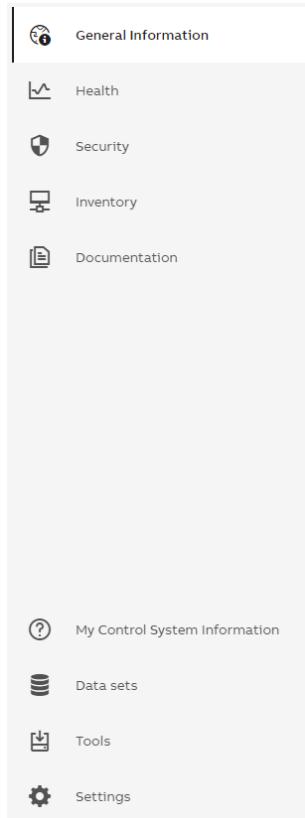


Figure 9: Left navigation bar

Once an area is selected a second level navigation bar will be displayed (if available for that area).

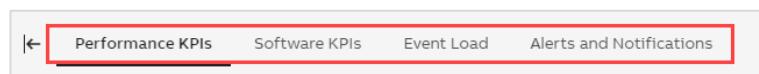


Figure 10: Second level navigation

2.6.1.1. Accessing SIDs

Click in the upper left corner on the ABB logo to open SID selector.

The SID selector contains your connected SIDs, grouped by company and sites. You can enter the SID name or number in the search bar at the top of the widget to filter the displayed data. Clicking on any of the SIDs will select it and refresh the page to display information about the selected SID.

Use the switch on the top of the selector to display only your favorite SIDs.



Figure 11: SID selector

The “show only favorite SID” switch setting affects not only the SID selector but also the number of SIDs listed in the following places:

- “System ID” filter on the Control System Documentation tab
- “Control System” dropdown in the notification configuration dialog (including “All my Control Systems with active Automation Software Maintenance” option)
- My Control System widget on the myABB dashboard

2.6.1.2. Advanced Search / adding favorites

In case where you would like to access information about an SID that is not in your favorites, click on the "Advanced search" button in the SID selector. It will open a popup that allows you to find SIDs using following search criteria:

- Hardware
- License ID
- Licensed option

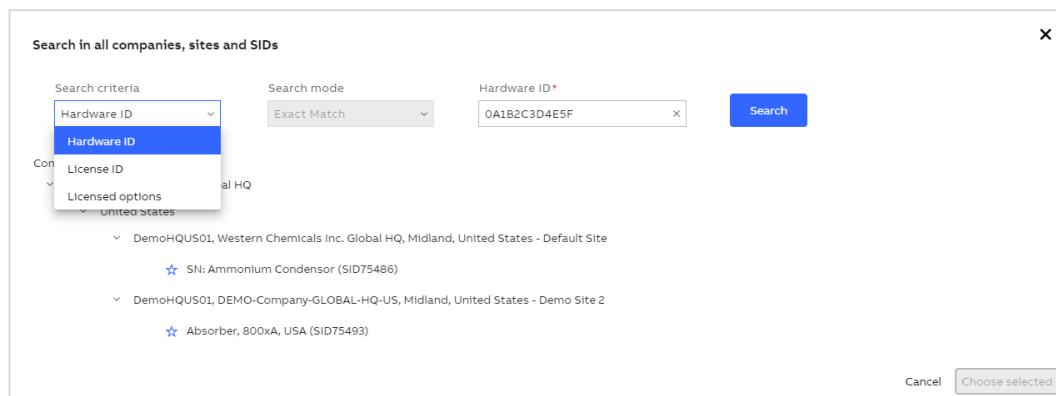


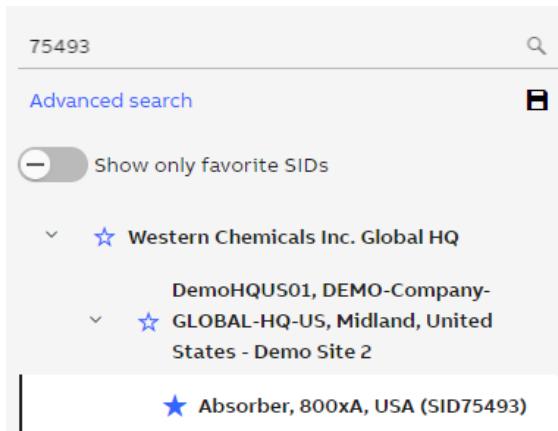
Figure 12: Advanced Search

The empty star indicates that the entry is not in your favorites, clicking it will add that entry to your favorites. You can either add a single SID, a SITE or a complete company to your favorites. Adding a site to your favorites will result in adding all SIDs from that site to your favorites. Adding a company will result in adding all sites (and as a result, all SIDs from those sites) from that company.

The blue star indicates that the entry is already in your favorites and clicking it will remove it from your favorites.

2.6.1.3. Managing favorites

To manage your favorites, click on the pencil icon that is displayed next to the "Advanced search" button in the SID selector. The SID selector will now display the star button before each entry where you can apply the necessary changes.



After any change is done, close the SID selector or click the save icon. A confirmation popup will be displayed if you close the SID selector without saving changes. Click on "Yes" to apply the changes and refresh the page.

2.6.2. Filter area

On the left side of the dashboard, you have a selection and filter area to narrow down / modify the results and content that is shown in the overview area.

By default, filter area is detached from the main view. Click on the "Show filters" icon to display it:

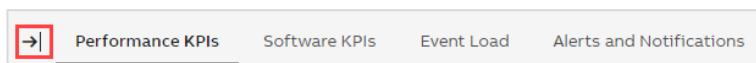


Figure 13: Show filter area

Click on the “Hide filters” icon to hide filter area:

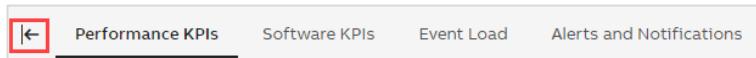


Figure 14: Hide filter area

The visibility of the filter area will be remembered when browsing MCS.



Depending on the category you have selected, different filters may apply. In this example the filters for the category Health / Performance KPIs are used

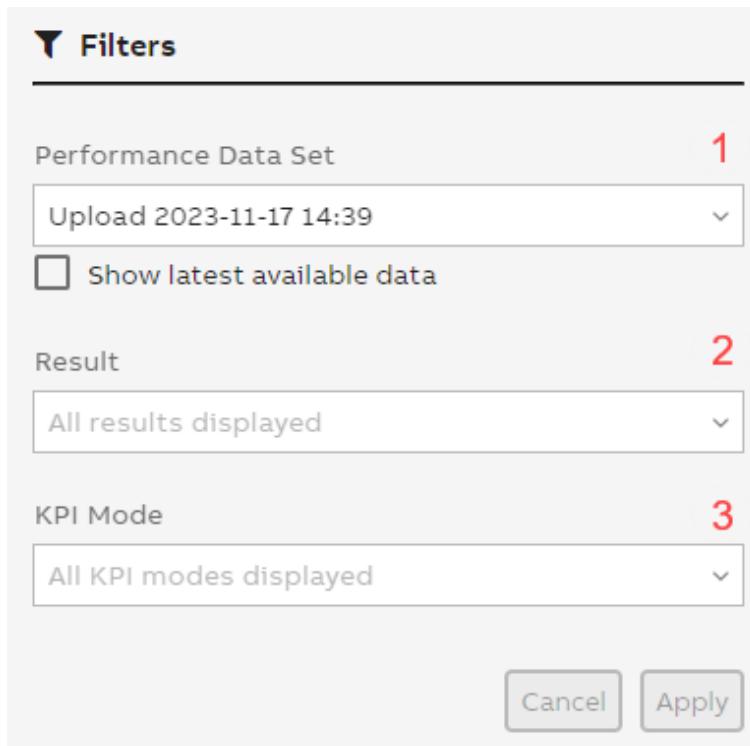


Figure 15: Filter area

1. Data Set selector: Select the data set that you would like to inspect. Only one data set can be selected at any given time. By default, the option “Show latest available data” is enabled.



This means that the selected data set will be kept when switching between the categories only if data for the category is available. Otherwise, it will automatically select the latest data from the category, irrespective of the data set it came from. If you want to browse through one specific data set, this option needs to be disabled. Disabling this option is only kept in the local storage of the browser.

2. Result selector: Select specific KPI results to narrow down what will be displayed in the overview area. This selector allows multiple choice, e.g., you can select “Error” and “Warning” at the same time. If the selector is left empty, all KPIs and their results will be displayed.
3. KPI Mode: Select either automated or manual KPIs. If the selector is left empty, all KPIs will be displayed. This section only appears if you have an active System Assessment license and selected data set is of type “Automated and manual KPIs”.

After you selected your filter, click “Apply”. The page will refresh and display the data you have selected. You can also click “Cancel” to revert any selection you have made to the currently displayed view.

2.6.3. Footer area

Information about the current MCS version is provided in the footer area of the dashboard. In addition, the footer area provides a direct link to the online Release notes that are located in the documentation category (Chapter 2.6.12)



Figure 16: Footer area

2.6.4. Tables in MCS

Depending on the type of the tables in MCS, different functionalities are available directly in this component:

- Filters to narrow down displayed items. A filter icon indicates that this option is available:
 - Click on the filter icon to expand or clear and hide filters
 - Apply filters in each column to narrow down displayed items
 - Click on “x” icon to clear all filters

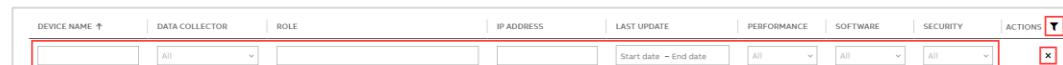


Figure 17: Filters

- Possibility to sort ascending or descending by each column:
 - An arrow in grey (as next to the “device name” column) indicates the current sorting rule
 - An arrow in light grey (as next to the “data collector” column) is displayed on hover to indicate that it is possible to sort by this column. Click to activate this option. Items will be sorted in ascending order. Click for the second time to activate sorting in descending order.



Figure 18: Sorting in ascending order



Figure 19: Sorting in descending order

- Option to customize the width of the columns. A divider displayed on the right side of the column heading indicates it is applicable to this table. There are two ways of using this functionality:
 - Manual adjustment – hover over the divider and drag & drop it to the new position
 - Automatic adjustment – hover over the divider and double click. The width of the column will adjust automatically to the width of the text. Note: The maximum width to which it will expand is 300px but it can be expanded further manually.

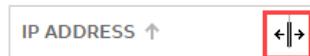


Figure 20: Adjusting column width



Not all tables in MCS have the above options.

2.6.5. Categories

MCS uses five different categories to structure all the information that is available for the control system.

1. General Information (Chapter 2.6.6)
2. Health (Chapter 2.6.9)
3. Security (Chapter 2.6.10)
4. Inventory (Chapter 2.6.11)
5. Documentation (Chapter 2.6.12)

Use the left navigation bar to access the different areas (e.g. “Health”). Once an area is selected a second level navigation bar will be displayed (if available for that area).

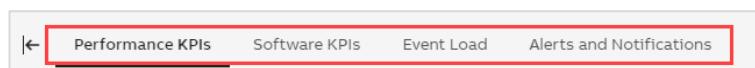


Figure 21: Second level navigation

2.6.6. General Information

The general information category consists of three tabs:

1. System, site or fleet status (high level overview about the system, site or fleet status of the installed control system)
2. Licenses and Contacts (general information about the installed control system, e.g. licenses and contacts)
3. System Service Files (a place to share files with ABB)
4. Support Cases (a place to check support cases related to the selected SID)

2.6.6.1. System Status

The System Status tab gives you a high-level overview about the status of the control system. The KPI analysis results from all categories (Health, Security and Inventory) as well as widgets from other functions are combined within this single dashboard. The dashboard consists of

different widgets representing the different categories / functions (e.g. Performance KPI, Security KPIs, ...).

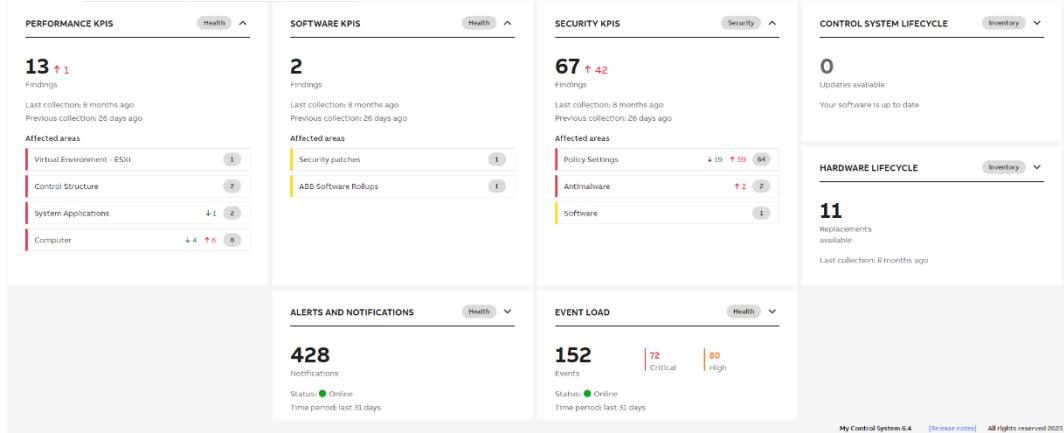


Figure 22: System Status

Each widget has two views (expanded / collapsed) showing a different level of detail. Use the toggle button to switch between the views or click on “Expand all widgets” in the upper right corner.

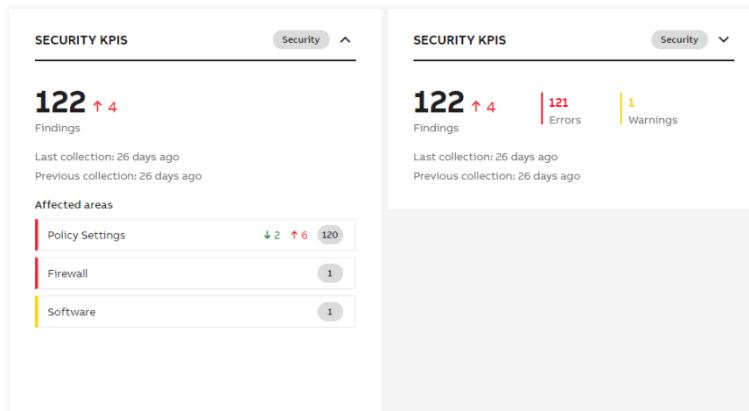


Figure 23: Expanded / collapsed view

Click either on the heading or on the number of findings, to jump to the corresponding KPI analysis of the category.

Click on one of the “Affected areas” (e.g. Firewall) to jump to the KPI analysis of the category using the “Tree view” where the affected area is automatically expanded.

Hover over the indicators in the “Affected areas” to get more information about the changes within this area.

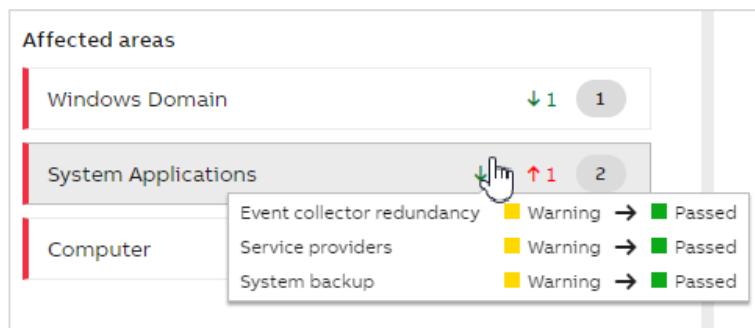


Figure 24: Changes in area

The appearance of the system status tab can be customized. Click on “Customize dashboard” in the upper right corner to start the customization. On the left side of the screen, you have an area where you can do the following adjustments:

- Dashboard Layout (3 or 4 column layout for different screen resolutions)
- Color Theme (Default or High-Performance color theme)
- Widgets (Enabling / Disabling / Expanding / Collapsing widgets)

In addition, the arrangement and order of the widgets can be changed by dragging & dropping the widget to another column or position.

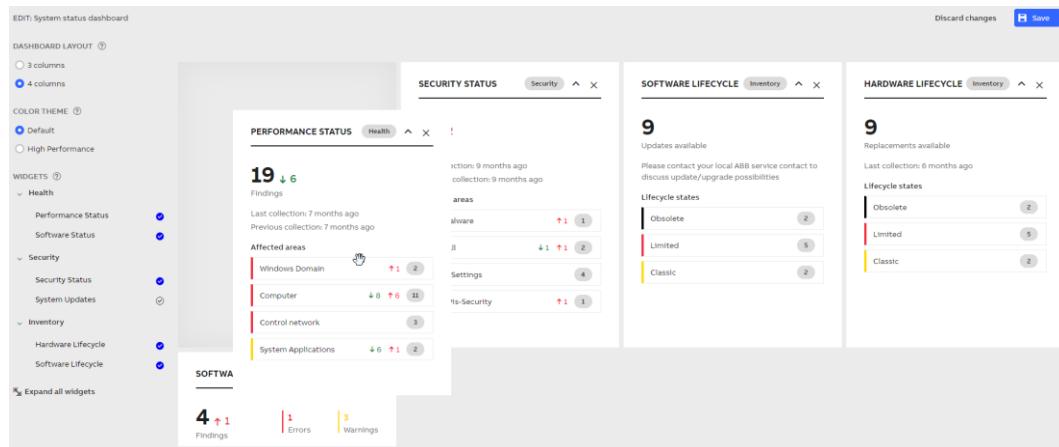


Figure 25: System status customization

If a widget is displayed only if some requirements are met, an info icon is displayed in the left pane next to the widget name. Hover over the icon to see the details.

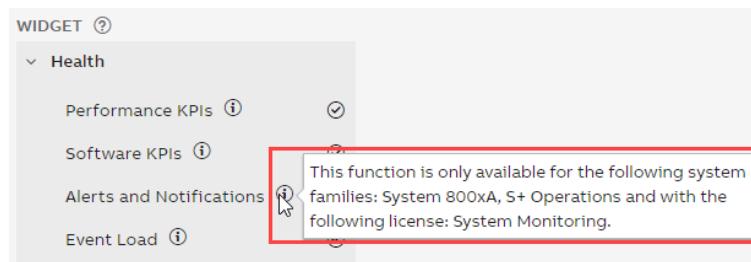


Figure 26: Requirements to display a system status widget

If there are some requirements to display a specific system status widget it is visualized in two ways:

- If for the selected SID, the requirements are not met, information about the needed conditions is displayed in the blue box.

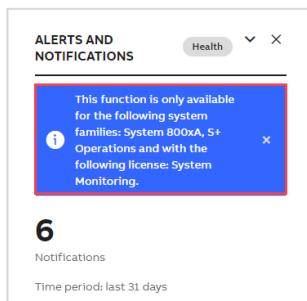


Figure 27: Requirements for the selected SID are not met

- If for the selected SID, the requirements are met, blue icon is displayed in the widget. Click on the icon to check the details.

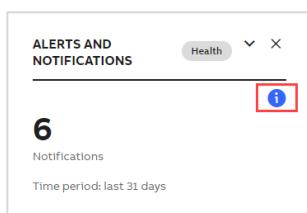


Figure 28: Requirements for the selected SID are met

2.6.6.1.1. Performance KPIs, Software KPIs and Security KPIs

[1] Performance KPIs, Software KPIs and Security KPIs widgets show the number of findings (errors or warnings) in the latest data set with the trend indicator and difference compared to the previous data set. Number of KPIs which have worsened and improved is presented in the tooltip.

[2] Information about the latest and previous collections is presented below with more details on hover.

[3] Red label next to the “Affected area” indicates there is at least 1 error whereas yellow one shows there are no errors but at least 1 warning in the specific KPI category. The number of all findings in each category is displayed in the grey label on the right side. Next to that, trend indicators and more details in the tooltip are shown.

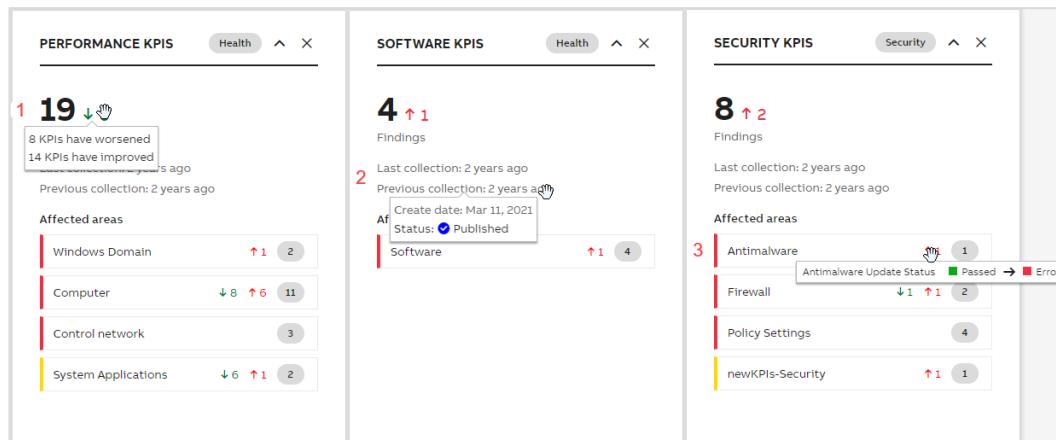


Figure 29: Performance KPIs, Software KPIs and Security KPIs widgets

2.6.6.1.2. System Update Service

System Update Service widget shows:

- [1] Sum of nodes with failed updates and nodes which need update or restart
- [2] Sync status with more details on hover
- [3] Red label indicates there are nodes for which updates failed, yellow label shows there are nodes with needed updates and orange inform about nodes with needed restart. Number of nodes in each status is presented as well.

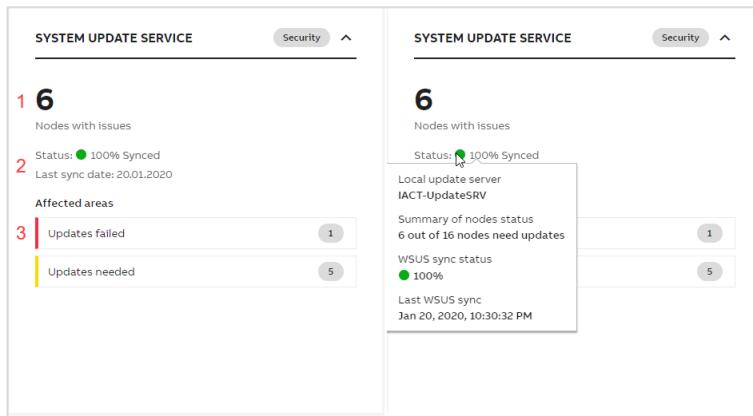


Figure 30: System Update Service widget

2.6.6.1.3. Event Load and Alerts and Notifications

Event Load as well as Alerts and Notifications widgets present CSM data.

- [1] Sum of critical and high events from last 31 days.
- [2] Number of critical or high events from last 31 days listed separately based on the severity.
- [3] Information of the time period for which data is presented.
- [4] Trend showing the number of critical (in red) and high (in orange) number of events from last 3 months
- [5] Sum of notifications with critical or high severity from last 31 days
- [6] List of “Affected areas” for which notification with critical (red label) or high (orange label) severity has been sent. The sum of notifications with critical or high severity in each category is displayed in the grey label on the right side.

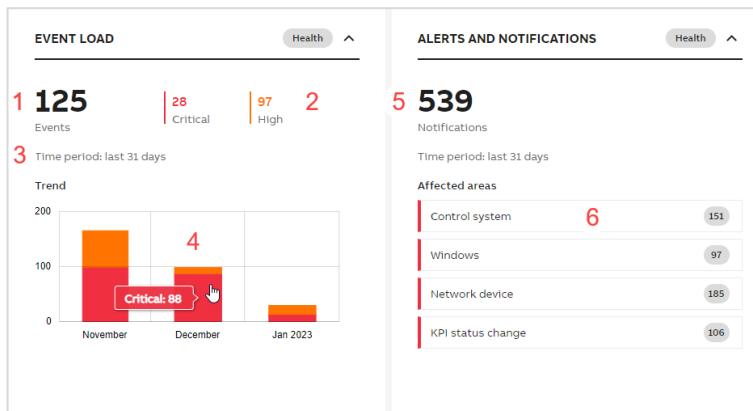


Figure 31: Event Load and Alerts and Notification widgets

2.6.6.1.4. Malware Protection, Security Updates and Backup

[1] Malware Protection, Security Updates and Backup widgets show the number of nodes with issues (errors or warnings).

[2] Information about the last MCS-DC collection information.

[3] Red label indicates there is at least 1 error whereas yellow one shows there are no errors but at least 1 warning in the specific KPI category. The tooltip presents the description of the KPI category. The number of all findings in each category is displayed in the grey label on the right side.

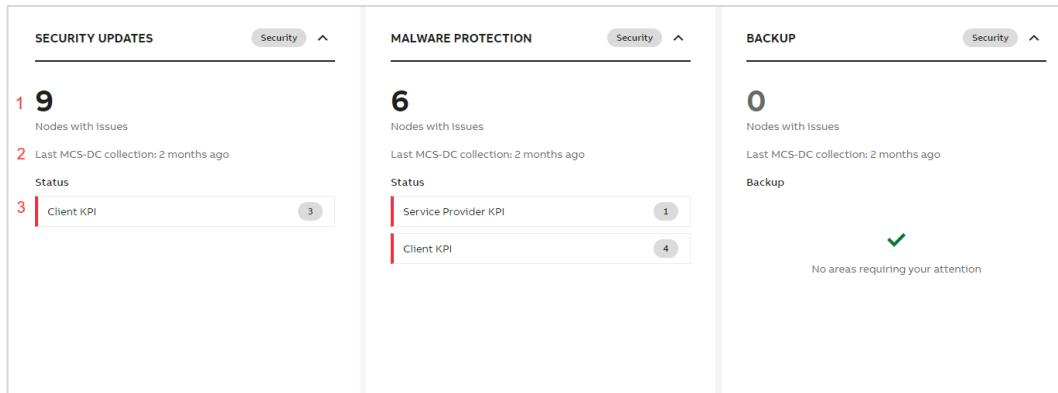


Figure 32: Malware Protection, Security Updates and Backup widgets

2.6.6.1.5. Hardware Lifecycle

[1] Hardware Lifecycle widget show the sum of devices in Obsolete, Limited or Classic lifecycle phase with available replacement.

[2] Information about the last collection is presented below with more details on hover.

[3] “Lifecycle states” section indicates the number of devices with available replacements in each lifecycle phase.



Figure 33: Hardware Lifecycle widget

2.6.6.2. Site Status

The Site Status tab works in the similar way as System Status but gives you a high-level overview about the status of the whole site.

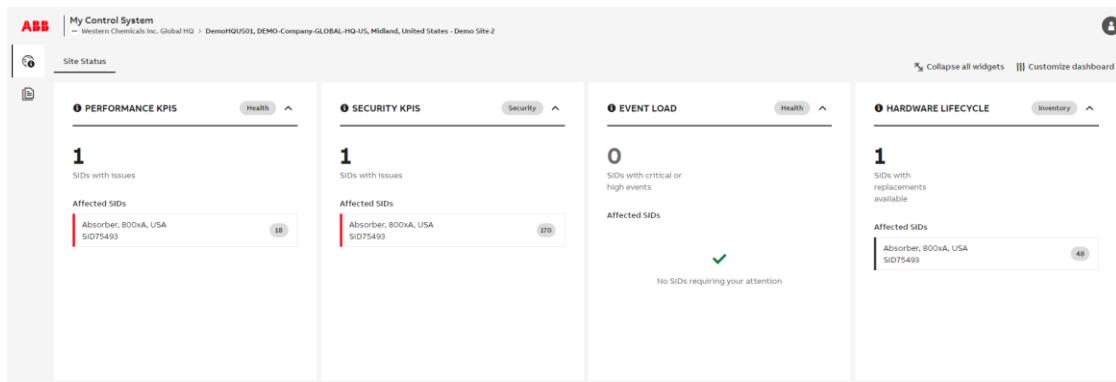


Figure 34: Site Status



Data in the widgets is shown based on your access rights.

Under “Affected SIDs” you will see the list of all SIDs which require your attention.

The color of the label matches the worst result for the listed SID but you can hover over the indicator with the total number of findings to check the details.

Click on one of the “Affected SIDs” (e.g. SID89385) to jump to the KPI tab of the widget’s category.

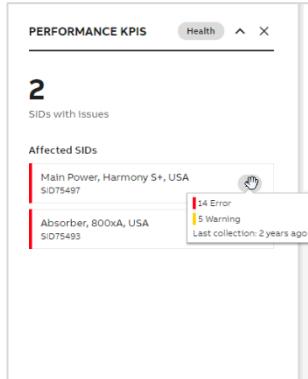


Figure 35: Site status widget

The appearance of the site status tab can be customized independently of the customization of the system status tab.

2.6.6.3. Fleet Status

The Fleet Status tab works in the similar way as Site Status but gives you a high-level overview about the status of the whole fleet.

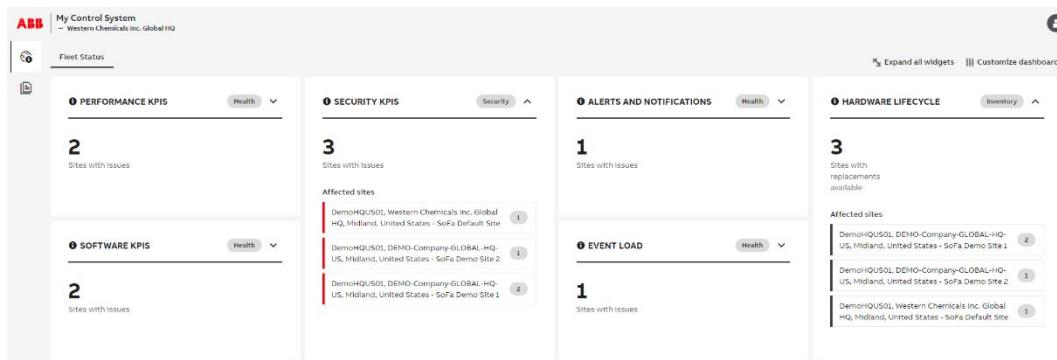


Figure 36: Fleet Status



Data in the widgets is shown based on your access rights.

Under “Affected sites” you will see the list of all sites which require your attention.

The color of the label matches the worst result for the listed site but you can hover over the indicator with the total number of findings to check the details.

Click on one of the “Affected sites” (e.g. “DemoHQUS01, DEMO-Company-GLOBAL-HQ-US, Midland, United States - SoFa Demo Site 2”) to jump to the Site status tab.

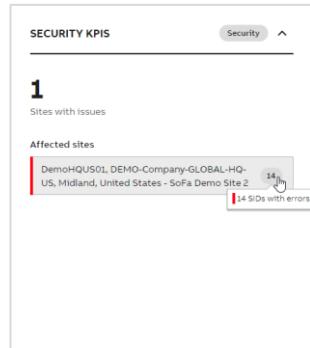


Figure 37: Fleet status widget

2.6.6.4. Licenses and Contacts

The licenses and contacts tab and consists of three different areas:

- Automation Software Maintenance widget (gives information about the status of your service contract)
- Licenses widget (lists all licenses that are registered for your control system)
- Contact widgets (lists all relevant contacts for your control system)

LICENSES

LICENSE	PRODUCT	LICENSE CLASS	LICENSE TYPE	LICENSE STATUS	HARDWARE ID
SL779483903301017	800xA 6.1.0 System	Base	Permanent	Active	0A1B2C3D4E5F
SL72530487013037	System Update...	Service	Leased	Active	SID75493
SL75530610083010	System Fingerprint	Service	Leased	Active	SID75493
SL258180610083010	System Assessment	Service	Leased	Active	SID75493
SL269190610083010	System Monitoring	Service	Leased	Active	SID75493
SL423270010211022	Cyber Security ...	Service	Leased	Active	SID75493
SL222082911162014	Advanced KPI P...	Service	Leased	Active	SID75493

ABB CONTACTS

CONTACT TYPE	CONTACT NAME	MCS STATUS
ABB Local Service Contact	Demo MCS	✓
ABB Project Contact	Per Svensson	✓

END CUSTOMER CONTACTS

CONTACT TYPE	CONTACT NAME	MCS STATUS
Control System Administrator	Jessie James	✗
Maintenance Engineers	Carter Jackson	✗
Maintenance Engineers	Enrico Gonzales	✗
Maintenance Engineers	Per Svensson	✓
Maintenance Engineers	Demo MCS	✓

PARTNER CONTACTS

DEMO-PARTNER-GH
DEMO PARTNER ADDRESS
DEMO PARTNER CITY
Germany
Certification level: Uncertified

ABB
Value Provider

Partner company has been approved and can access SID75493

Figure 38: Licenses and Contacts

In the license widget you can expand the individual licenses to get additional information on the license details.

LICENSE

LICENSE	PRODUCT	LICENSE CLASS	LICENSE TYPE	LICENSE STATUS	HARDWARE ID
SL779483903301017	800xA 6.1.0 System	Base	Permanent	Active	0A1B2C3D4E5F

• 1 x 100 FF Device Aspect Objects.
• 2 x 100 IEC 61850 Non-Redundant Devices.
• 1 800xA System Identifier
• 1 HART Multiplexer Connect.
• 1 800xA for AC 100.
• 1 x 300 Control Loop Asset Monitor.
• 1 PLC Connect.
• 2 PM864 Redundant Software License 800xA
• 1 Operator Workplace Additional Client.
• 1 Audit Trail.
• 1 x 1000 tags, redundant.
• License Class - Production Phase
• 1 x 100 tags, non-redundant.
• 1 PETI New Object Creation Support.
• 1 Symbol Factory for Process Graphics 2.
• 2 PM864 Software License 800xA.
• 1 800xA Base System.

• Please contact your local ABB Customer Sales Representative to expand your license.

[Download license key](#) [Download license certificate](#)

Figure 39: License details

Functionalities which depend on the base licenses work when the license is in either Active or Registered status.

LICENSE	PRODUCT	LICENSE CLASS	LICENSE TYPE	LICENSE STATUS	HARDWARE ID
SL	800xA 6.1.0 System	Base	Permanent	Active	

Figure 40: Active license

LICENSE	PRODUCT	LICENSE CLASS	LICENSE TYPE	LICENSE STATUS	HARDWARE ID
SL	800xA 6.1.0 System	Base	Permanent	Registered	

Figure 41: Registered license

In case a license will expire in the next 90 days, it is displayed as Expiring.

SL	Cyber Security...	Service	Leased	Expiring	SID:
----	-------------------	---------	--------	----------	------

Start date Jul 31, 2023 Valid to Aug 1, 2024

Figure 42: Expiring status

Additionally, this information will be displayed in the banner on the top.



Figure 43: Banner with expiring licenses

On pages in site or fleet context, the banner is also displayed but it indicates which SIDs have at least one license which will expire in the next 90 days.



Figure 44: Banner with SIDs with expiring license(s)

Licenses in grace period are listed with an orange label. Additionally, there is a banner indicating how many days are left till the end of the grace period. During the grace period, the functionality is still working.

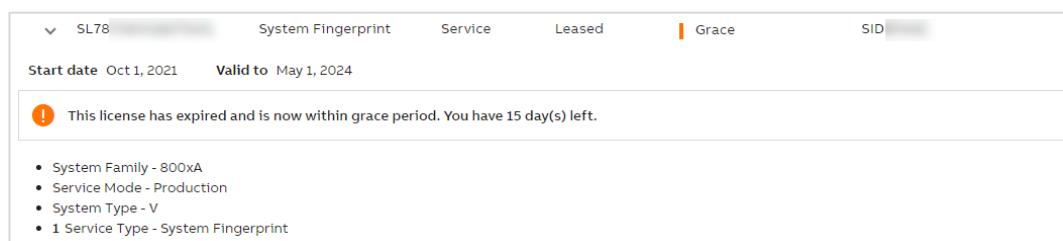


Figure 45: Grace period

Expired licenses are also listed in the widget with red label.

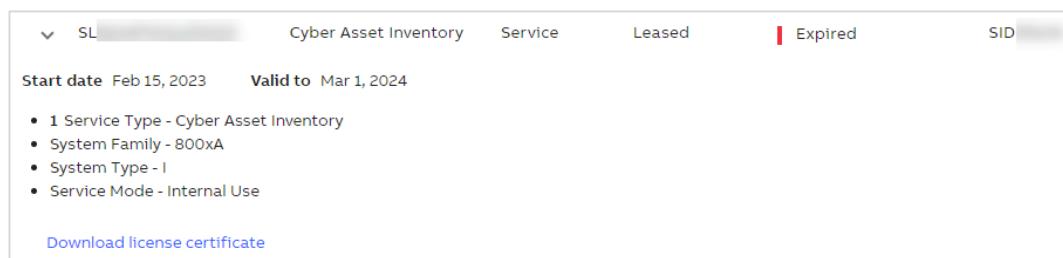


Figure 46: Expired license



All data in the Licenses and Contacts tab is taken from SoFa. In case something is not correct it needs to be changed in SoFa directly.

It is possible to download the license certificate and license key for all licenses from the selected SID. Click on the “Download all” button in the top right corner of the widget and use available options.



Figure 47: Download all license certificates and license keys

2.6.6.4.1. Approving partner company

In case your system is managed by an ABB Value Provider you first need to approve this partner company in My Control System, so that the partner users can access the system in MCS.

Figure 48: Approving partner company



This function is only available for the control system administrator of that SID

2.6.6.5. Support Cases

The Support Cases tab provides an overview of all support cases for the selected SID. By default items are sorted by the case number but clicking on any column name will sort item by other values as well (ascending or descending).

SUPPORT CASES						
NAME	NUMBER	PRODUCT	CONTACT NAME	STATUS	CREATE DATE	CLOSE DATE
1	1	Symphony Melody	1	● Solution Implemented	07 Dec 2023	-
2	2	Symphony Melody	2	● Solution Implemented	11 Oct 2023	-
3	3	Symphony Melody	3	● Solution Implemented	26 Jul 2023	-
4	4	Symphony Melody	4	● Solution Implemented	11 May 2023	-
5	5	Symphony Melody	5	● Closed	17 Aug 2022	25 Oct 2023
6	6	800xA	6	● Closed	14 Jul 2022	28 Sep 2022
7	7	Symphony Melody	7	● Closed	01 Mar 2022	19 Aug 2022
8	8	Symphony Melody	8	● Closed	24 Feb 2022	19 Aug 2022
9	9	Cyber Security	9	● Closed	03 Feb 2022	01 Nov 2023
10	10	800xA	10	● Closed	24 Sep 2021	27 Oct 2021

Figure 49: Support Cases widget

2.6.7. Overview area

The overview area gives you a quick impression about the analyzed data and the results for each category. The structure is nearly the same for all the categories. In this example the overview area for the category Security / Security KPIs is used.

Three different widgets are displayed in the overview area:

1. A pie chart in the top-left presenting all results from the selected data set in an easy and comprehensive manner. Click on the reports button to create/access reports from this category (not applicable for all categories). Use “Export KPI results” button to export the KPIs from the selected category or all KPIs.
2. A trend graph in the top-right giving you an overview how results changed over time. Hover over the vertical line to see the details of each data set.

3. KPIs at the bottom showing the results for the individual checks.

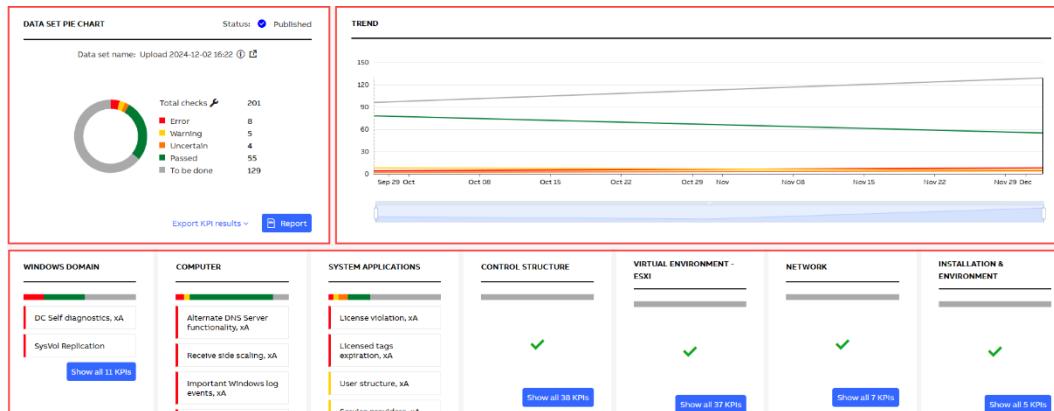


Figure 50: Overview area

The KPIs can be browsed using different views that will help you easily find the most relevant data. The different views will be described in the following chapters.

Switch between the views using the toggle button. Hover over the icon to check the tooltip with the view name.



Figure 51: Toggle button

You can also use the comparison view which is located in the filters area.



Figure 52: Comparison view

2.6.7.1. Groups view

The groups' view gives a quick basic overview about the KPIs with the worst result in the different groups. It is limited to 10 KPIs per group and displays only KPIs with the result "Error" or "Warning". Click on a KPI to access the details page (Chapter 2.6.8) of the corresponding KPI. If you want to see all KPIs of the specific group, click on the "Show all KPIs" button to view all KPIs in the Tree view.

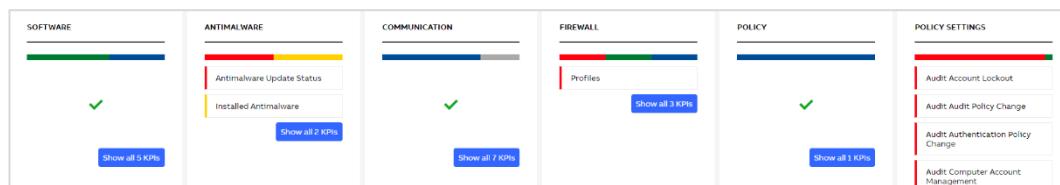


Figure 53: Groups view

2.6.7.2. Tree view

The tree view shows all the KPIs, their status and the reported result in an expandable tree.

The KPIs are grouped into main sections (e.g. Security), subsections (e.g. Software, Antimalware) and the individual KPI (e.g. Windows OS version).

Click on the KPI name to access the details page (Chapter 2.6.8) of the corresponding KPI.

The KPI mode column indicates if this KPI is an “automated KPI” (collected with the MCS-DC) or an “manual KPI” (only available with a valid System Assessment license).

The status column indicates if the KPI is already collected (either automatic or manual) or if it still needs to be done. The status “to be done” is displayed if either the data is not yet imported, it was not possible to collect data for that specific KPI, or the manual performed KPI is not yet evaluated.

The result column shows the result of the analysis of the KPI. The result can be error, warning, uncertain, passed, info, to be done or skipped.

The user changes column allows you to filter for KPIs that either were edited, have attachments, or have user comments. All these are indicated by small icons on the KPI.

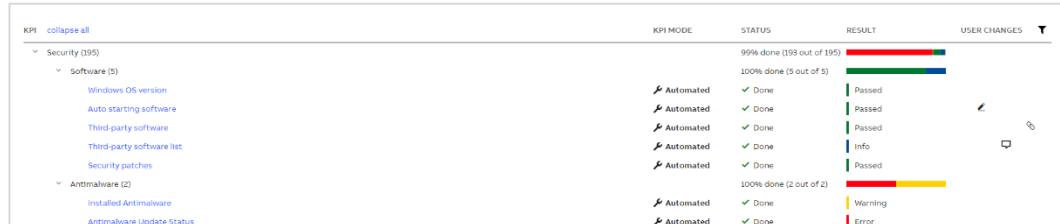
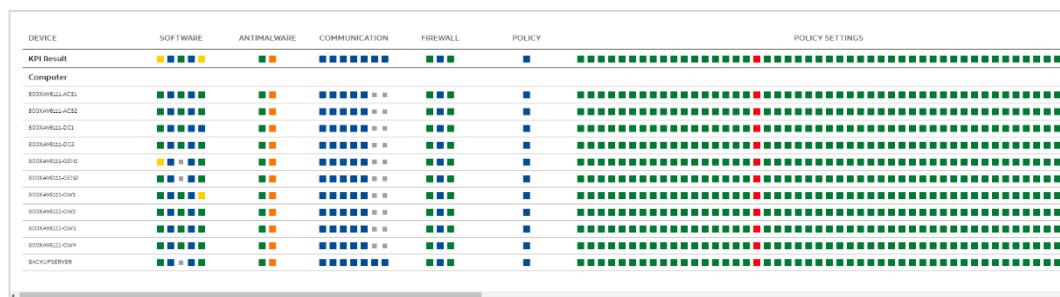


Figure 54: Tree view

2.6.7.3. Grid view

The grid view gives you an overview on the devices and their individual results. Here you can quickly check which device was causing the problem. Click on the squares to access the details page (Chapter 2.6.8) of the corresponding KPI.



2.6.7.4. Comparison view

The comparison view gives you the possibility to check which KPIs changed their status between two data sets. To do so, at least 2 data sets need to be available.

Select a data set from the “data set to compare” dropdown to compare it to the dataset you are currently looking at.

The results are divided into four sections:

1. KPIs that became worse
2. KPIs which improved
3. KPIs which did not change their results
4. KPIs which are not comparable (e.g. they were not collected before)

You can expand each result to see details on which KPIs changed. Click on the result or KPI name to access the details page (Chapter 2.6.8) of the corresponding KPI.

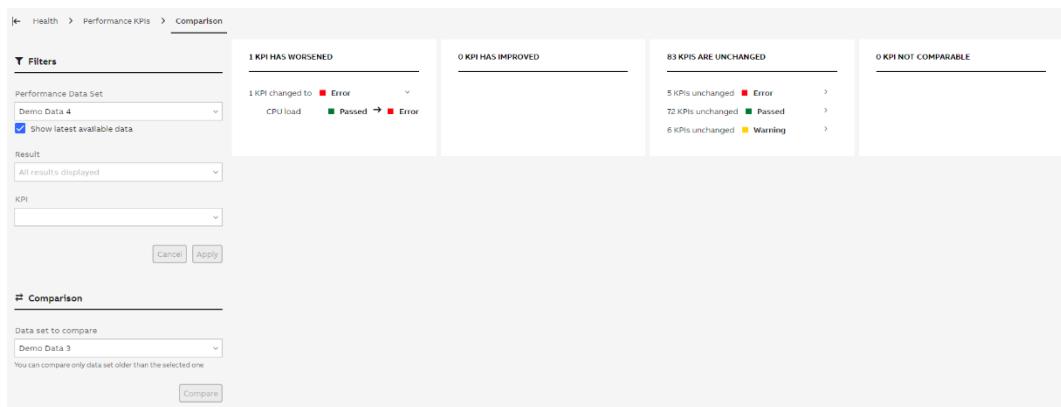


Figure 56: Comparison view

2.6.8. KPI details page

The KPI Details page shows you all relevant information concerning one specific KPI.

It consists of three different widgets:

1. KPI result with the description and the result viewer
2. Additional information
3. Details

For some KPIs additional information is available via the documentation icon next to the widget name.

SECURITY PATCHES

WARNING

Description
This KPI verifies the Security Patches that are installed on each node part of the system. It is only available for:
800xA versions 6.0 and higher
S+ version 2.1x and higher
Non-ABB systems, as long as collection is done with MCS-DC 2.5 or higher

Result Viewer

DEVICE	RESULT	OS CAPTION	KB NUMBER	STATE	DESCRIPTION	REPLACEMENTS	INFO
800XAV6111-OW1	Warning	Windows 10	KB5003711	5	Security Update for...	KB5005112	This patch is tested...
800XAV6111-OW1	Warning	Windows 10	KB5003711	5	Security Update for...	KB5005112	This patch is tested...
800XAV6111-OW4	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is tested...
800XAV6111-OW3	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is tested...
800XAV6111-ACS1	Passed	Windows Server 2019	KB5012170	2	2022-08 Security U...	-	This patch is tested...
800XAV6111-ACS2	Passed	Windows Server 2022	KB5012170	2	2022-08 Security U...	-	This patch is tested...
800XAV6111-OW1	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is tested...
800XAV6111-OW1	Passed	Windows 10	KB4535680	2	Security Update for...	-	This patch is tested...
800XAV6111-OW2	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is tested...
800XAV6111-DC2	Passed	Windows Server 2022	KB5012170	2	2022-08 Security U...	-	This patch is tested...

Export KPI results

Items per page: 10 Page 1 of 38

ADDITIONAL INFORMATION

DETAILS

Figure 57: KPI details page

To navigate between KPIs you can use the KPI selector that is displayed in the Filters section. Keep in mind that all applied filters do have an effect on the KPIs that are displayed in the selector (e.g. if you have result filters set to Passed, only KPIs with that result will be displayed).

To go back to the overview area, click on the second item in the breadcrumbs displayed above the filter area. Click on the first item to go the default tab on the first level of navigation.

Health > Performance KPIs > KPI details

Filters

Performance Data Set
Upload 2023-11-17 14:39
 Show latest available data

Result
All results displayed

KPI Mode
All KPI modes displayed

KPI
Physical RAM utilization, xA

Cancel Apply

Figure 58: Filter on KPI details page

2.6.8.1. KPI details

The KPI result widget shows the actual result of the analysis. The results can be:

- Error (red)
- Warning (yellow)
- Uncertain (orange)
- Passed (green)
- Info (blue)

- To be done (light grey)
- Skipped (dark grey)

The result "Uncertain" means that no data has been collected, although expected. Possible reasons are among others:

- Checks have been selected in MCS-DC for nonexistent devices, e.g. an AC 800M controller check, but no such controller exists
- Devices are not able to deliver the data which was requested by MCS-DC. For example, an AC 800M is not loaded; or has old firmware which does not support MCS-DC collection methods
- MCS-DC has gathered collections from a computer which is not collectable or partially not collectable
- Any kind of software failure

In such cases, the cause for the failure needs to be analyzed and fixed if possible. Afterwards the data collection with the MCS-DC should be repeated for the concerned KPI. If a fix is not possible set the KPI result to "Skipped" and enter an appropriate explanation in the text field.



Figure 59: KPI result

You have the possibility to edit the result manually. Click on the “pencil” icon next to the result and choose the new applicable result. You will be asked to leave a comment why the result was changed. The user, the time and the comment of the changed result will be shown on the KPI details page and in the report.

Edit result

| Error
 | Warning
 | Uncertain
 | Passed
 | Info
 | To be done
 | Skipped

Please enter a comment *

Manually checked and verified

Close **Save**

Figure 60: Edit KPI result

-  To be able to do any modification on the data set (e.g. renaming) or on the data within the data set (e.g. changing a KPI result) you need to be the owner of the data set. See chapter 2.6.13.1 for more information.
-  When editing a result only the overall KPI result is changed. The raw data will not be overwritten and still shows the original result (e.g. in the result viewer)

If you edited the result by mistake, use the “revert result” button to change the result back to its original value.

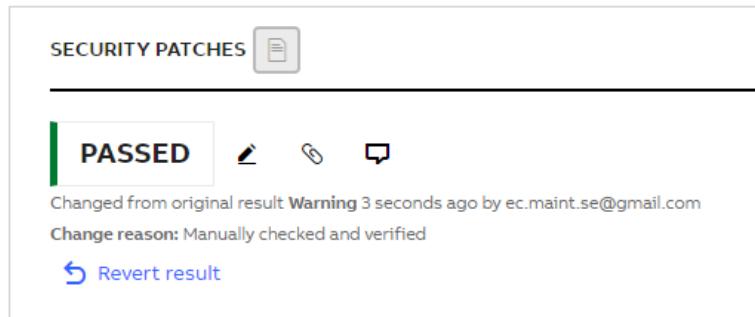


Figure 61: Revert KPI result

Additionally, you have the possibility to add multiple attachments and a comment to each KPI via the corresponding buttons. When adding an attachment, you can choose to include this in the report by enabling the respective checkmark.

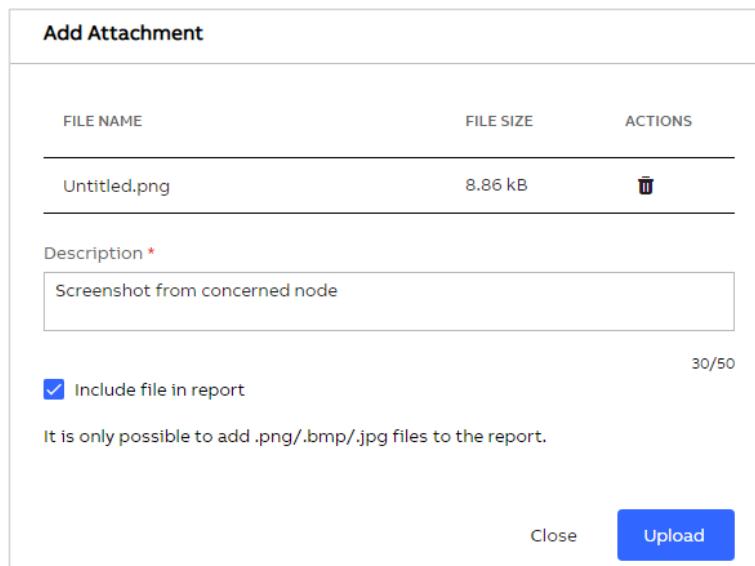


Figure 62: Add attachment

The Result viewer gives you the possibility to access the raw data of each device that was collected for the specific KPI. Use the filters to narrow down your results. In addition, you have the possibility to export this specific KPI, all KPI from that category or all KPIs from the collection to Excel for further investigations.

Result Viewer								
DEVICE	RESULT	OS CAPTION	KB NUMBER	STATE	DESCRIPTION	REPLACEMENTS	INFO	Export KPI results
800XAV6111-OW1	Warning	Windows 10	KB5003711	5	Security Update fo...	KB5005112	This patch is teste...	
800XAV6111-OW1	Warning	Windows 10	KB5003711	5	Security Update fo...	KB5005112	This patch is teste...	
800XAV6111-OW4	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is teste...	
800XAV6111-OW3	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is teste...	
800XAV6111-ACS1	Passed	Windows Server 2019	KB5012170	2	2022-08 Security U...	-	This patch is teste...	
800XAV6111-ACS2	Passed	Windows Server 2022	KB5012170	2	2022-08 Security U...	-	This patch is teste...	
800XAV6111-OW1	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is teste...	
800XAV6111-OW1	Passed	Windows 10	KB4535680	2	Security Update fo...	-	This patch is teste...	
800XAV6111-OW2	Passed	Windows 10	KB5012170	2	2022-08 Security U...	-	This patch is teste...	
800XAV6111-DC2	Passed	Windows Server 2022	KB5012170	2	2022-08 Security U...	-	This patch is teste...	

Figure 63: Result viewer



For systems without an active System Fingerprint license, data in the result viewer is restricted to the device name and result.

There is also a general description of the KPI.

2.6.8.2. Additional information

Depending on the KPI and the result, different additional text elements are available for troubleshooting the issue. These are:

- **Finding** (short information about the finding)
- **Explanation** (detailed explanation on the finding)
- **Impact** (information what could be the impact if this issue is not fixed)
- **Recommendation** (recommended actions to be taken)
- **Reference** (references to e.g., manuals or web pages with additional information around the KPI)



Explanation, Impact, Recommendation and Reference are only available with an active System Fingerprint license

ADDITIONAL INFORMATION	
Finding	The Security Update is installed, but the version is not up to date.
Explanation	Every month ABB publishes a list of Microsoft Security Updates whose interaction with ABB control systems has been successfully tested. An update from this list is installed, but the version is outdated.
Impact	Microsoft Security Updates, which are not installed, or not installed in the latest version, are vulnerability risks. Weaknesses or gaps in a security can be exploited by threats to gain unauthorized access to computers or devices.
Recommendation	If a Security update is installed, which is not qualified for used ABB control system by ABB tests, unpredictable failures or losses in presentation or device control cannot be excluded.
Recommendation	Download and install the latest Microsoft Security Updates from ABB, which are qualified for the used ABB control system. If a non-qualified Security Update is installed, attempts should be made to uninstall it. We recommend the ABB Service Product "System Update Service" for regular automated security updates.
Reference	System 800xA Security Updates Validation Status, latest revision: https://searchabb.com/library/Download.aspx?DocumentID=38SE041902&LanguageCode=en&DocumentPartId=&Action=Launch
Reference	Microsoft Security Updates Validation Status for Symphony Plus, latest revision: https://searchabb.com/library/Download.aspx?DocumentID=BZZ000602T001&LanguageCode=en&DocumentPartId=&Action=Launch
Reference	Freelance, Microsoft Security Update validation status, latest revision: https://searchabb.com/library/Download.aspx?DocumentID=2PAA107593&LanguageCode=en&DocumentPartId=&Action=Launch

Figure 64: Additional text elements

You have the possibility to edit the pre-defined text elements by clicking on the pencil icon. If you edited the text by mistake, use the “revert text” button to change the text back to the original.

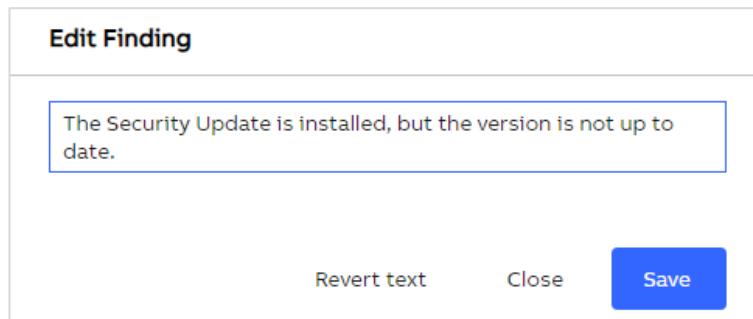


Figure 65: Edit text elements

2.6.8.3. Details

The details widget gives you information about the suggested actions, manual check method and evaluation criteria.

2.6.8.3.1. Suggested actions

The suggested actions widget gives you detailed information about the actions to take to resolve this issue.

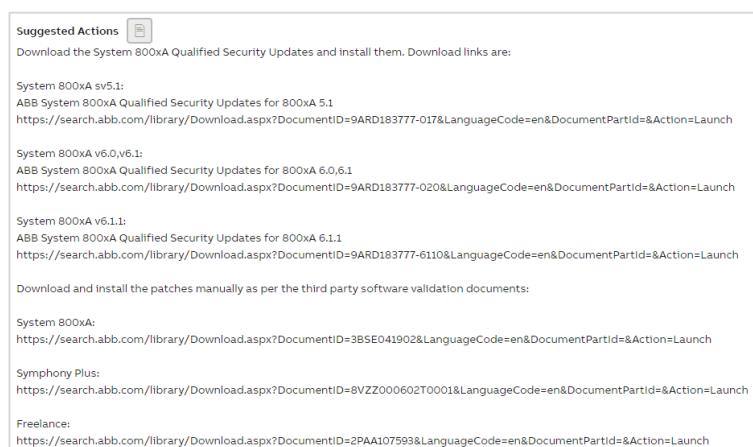


Figure 66: Suggested actions



The suggested actions widget is only available with an active System Finger-print license

2.6.8.3.2. Manual check method

The manual check method widget explains how this KPI can be manually collected. This is either used when e.g., an issue was fixed and you do not want to run another MCS-DC scan. Or when performing a System Assessment where you need to collect some of the KPIs manually.

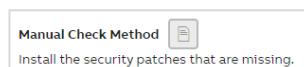


Figure 67: Manual check method



The manual check method widget is only available with an active System Fingerprint license

2.6.8.3.3. Evaluation criteria

The evaluation criteria widget gives you information about the evaluation criteria that were used to determine the result of the KPI.

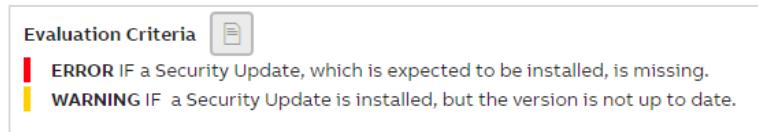


Figure 68: Evaluation criteria

2.6.9. Health

The Health category consists of four tabs:

1. Performance KPIs (showing the results of the Performance KPI analysis)
2. Software KPIs (showing the results of the Software KPI analysis)
3. Event Load (showing the results of the System Monitoring analysis)
4. Alerts and Notifications (showing the results of the System Monitoring analysis)



Event Load and Alerts and Notifications tabs will be displayed only if a System Monitoring license is available and the service on site is correctly set up

2.6.9.1. Performance KPIs

As described in Chapter 2.6.7 three different widgets are displayed on the overview area:

- A pie chart in the top-left presenting all KPI results from the selected data set in an easy to comprehend manner. Click on the reports button to create/access reports from this category. Use “Export KPI results” button to export the KPIs from the selected category or all KPIs.
- A trend graph in the top-right giving you an overview how results changed over time.
- KPIs at the bottom showing the results for the individual checks.

For more information on navigation and the different views in the overview area, refer to Chapter 2.6.7.

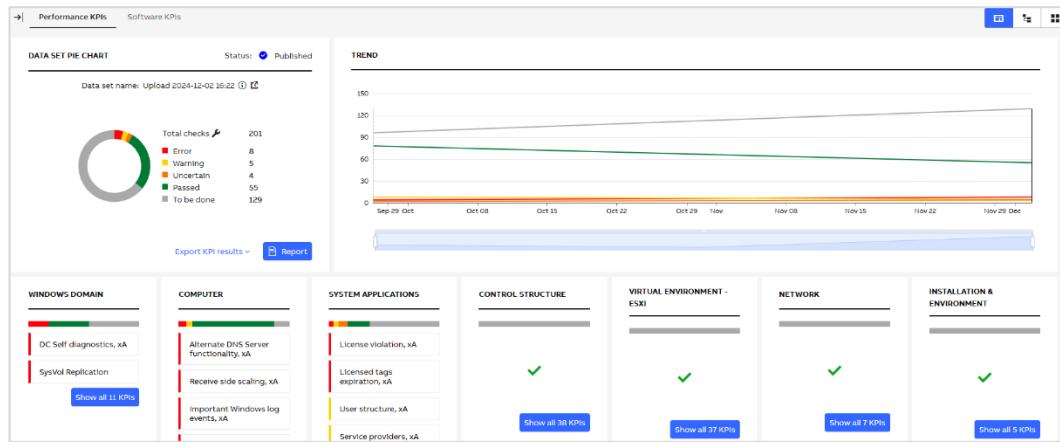


Figure 69: Performance KPIs

2.6.9.2. Software KPIs

As described in Chapter 2.6.7 three different widgets are displayed on the overview area:

- A pie chart in the top-left presenting all KPI results from the selected data set in an easy to comprehend manner. Click on the reports button to create/access reports from this category. Use “Export KPI results” button to export the KPIs from the selected category or all KPIs.
- A trend graph in the top-right giving you an overview how results changed over time.
- KPIs at the bottom showing the results for the individual checks.

For more information on navigation and the different views in the overview area, refer to Chapter 2.6.7.

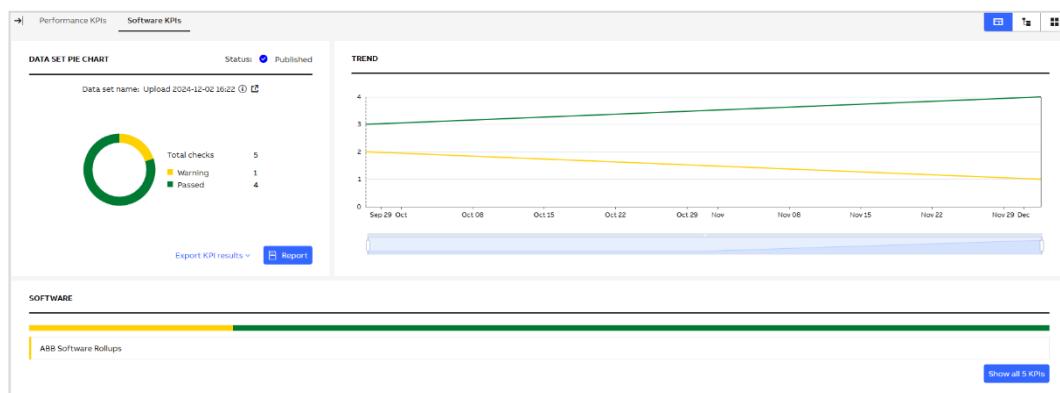


Figure 70: Software KPIs

2.6.9.3. Event Load



The Event Load tab is displayed only if System Monitoring license is available for the selected SID

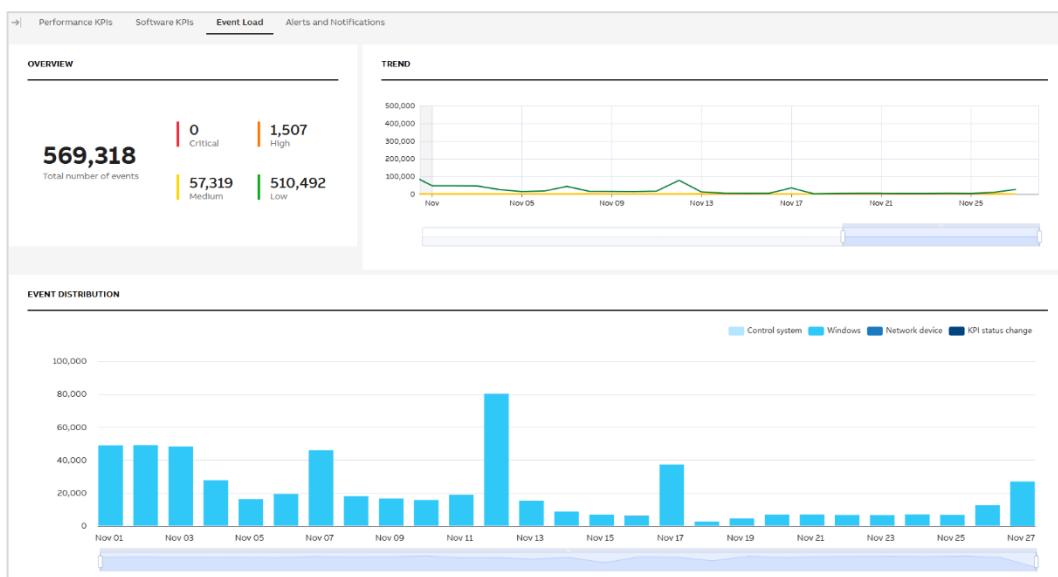


Figure 71: Event Load

A filter area and three different widgets are displayed on Event Load tab.

The following filters are available:

Figure 72: Filter area

1. Category: Select the category you would like to analyze. By default, data from all categories is displayed.
2. Severity: Select the severity of the events. By default, data for all severities is displayed.
3. From/To: By default, “From” filter is set to 31 days back. Date earlier than 1 year ago cannot be selected.
4. Source: Select the specific source(s) to analyze data. By default, data from all sources is displayed.

After you selected your filter, click “Apply”. The page will refresh and display the data you have selected. You can also click “Cancel” to revert any selection you have made to the currently displayed view.

The overview widget presents the total number of events (including not evaluated events) with detailed number for each severity:

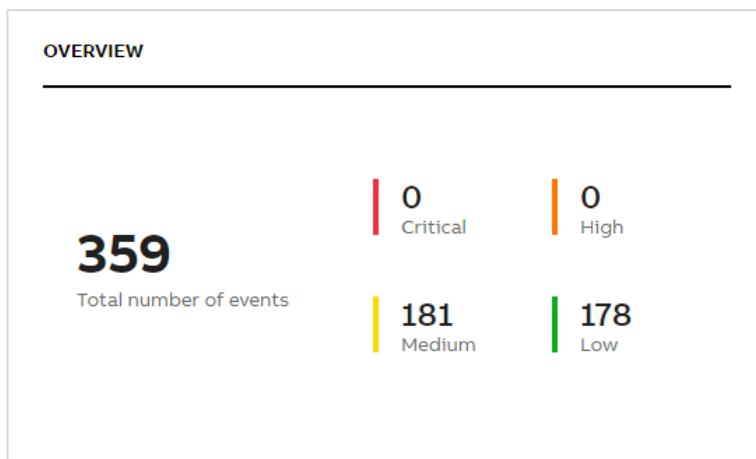


Figure 73: Overview

The trend widget shows the total number of events by the severity (color of the line matches the event severity) from the past year. Date range selected in the filter is indicated by white background and by default zoomed in. Other date range is indicated by grey background.

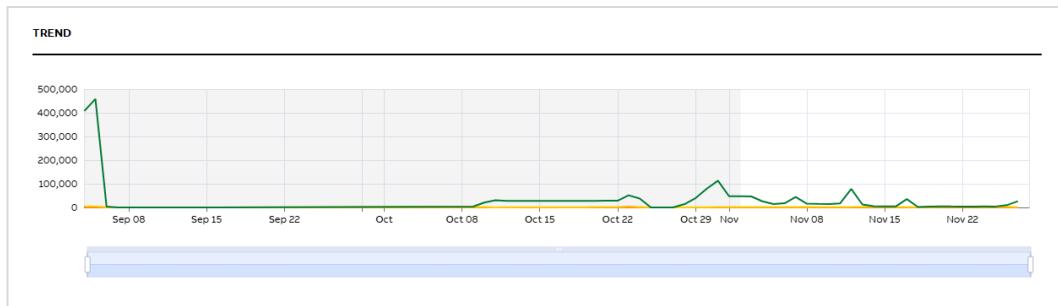


Figure 74: Trend

The Event Distribution widget presents the event distribution per category per day. For a wide range of dates a merging mechanism with the following rules has been implemented:

- If more than 31 days has been selected - data per week is shown
- If more than 31 weeks has been selected - data per month is shown

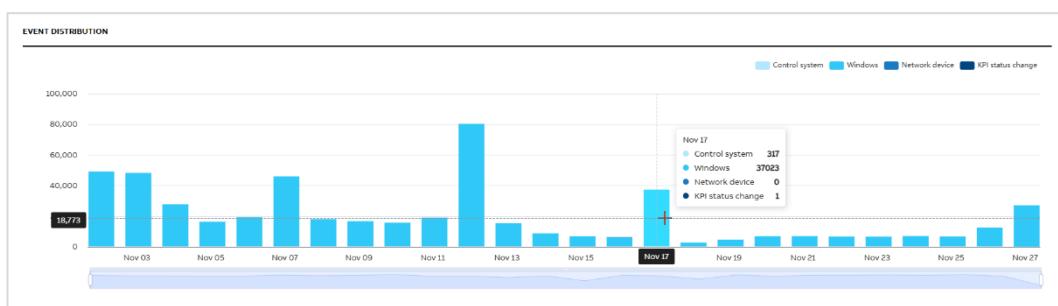


Figure 75: Event Distribution

Event data provision to MCS requires the installation and configuration of two additional software tools on customer site, namely the MCS-EC and the MCS-FW. In addition, it requires an ABB RAP connection from site to the ABB Cloud. For detailed information on how to setup event data provision please refer to document ref. [4] and [5].

2.6.9.4. Alerts and Notifications



The Alerts and Notifications tab is displayed only if System Monitoring license is available for the selected SID

Filter area and three different widgets are displayed on Alerts and Notifications tab:

- A trend graph giving you an overview how notifications changed over time
- Communication device details widget
- Notifications at the bottom grouped by the category. Notifications can be browsed using different views (Groups, Tree or Grid).

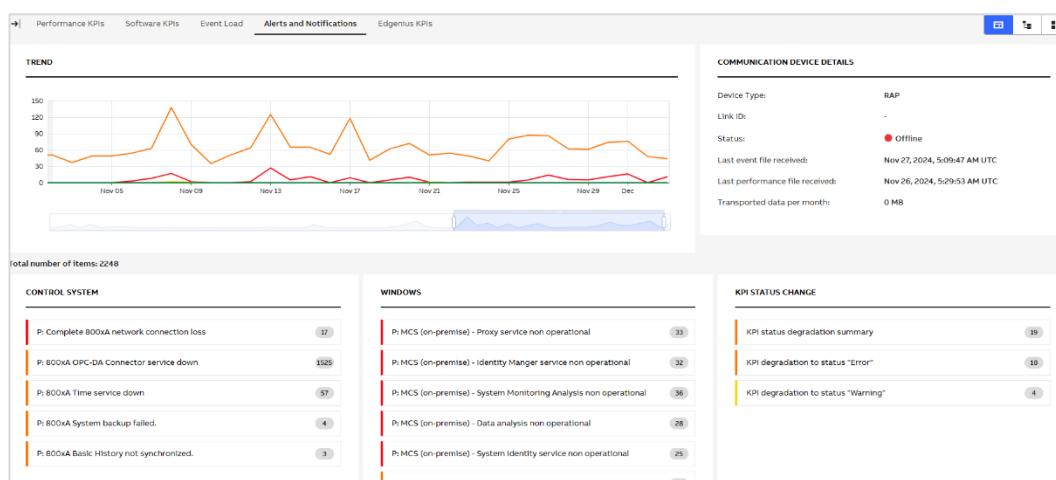


Figure 76: Alerts and Notifications

Selecting a specific notification in any of the views (Groups, Tree or Grid) directs to the notification details page which shows all relevant information concerning one specific notification.

The notification details page consists of:

1. Notification details
2. Frequency widget

To navigate between notifications, you can use the notification selector that is displayed in the Filters sections. Keep in mind that all applied filters do influence the notifications that are displayed in the selector.

For the selected notification a frequency widget is displayed on the right side. It presents how many times the selected notification was triggered for the selected source. If the notification comes from more than one source, by default data from all sources is displayed on the graph and a dropdown with available sources is displayed (in the top right corner of the frequency widget). You can see the data from the specific source by selecting it in the dropdown. By default, data from 1 month is presented but other time frames can be selected.

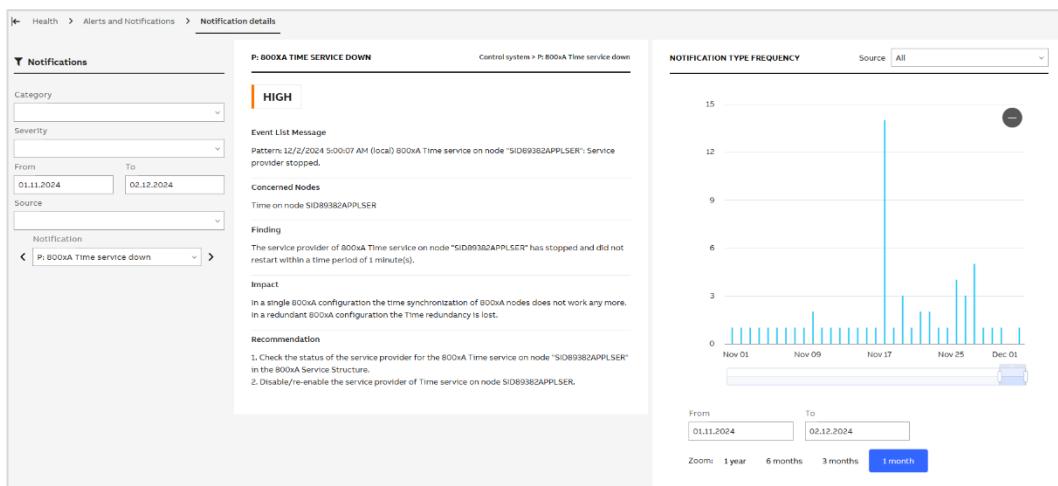


Figure 77: Notification details page

2.6.10. Security

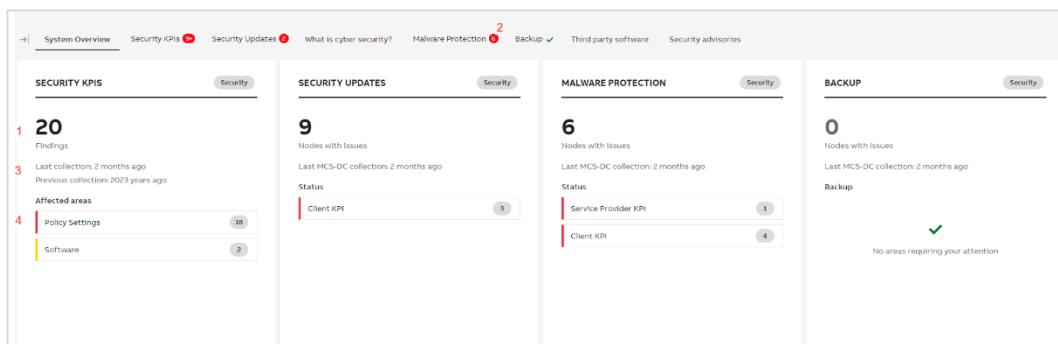
The Security category consists of eight tabs:

1. System overview
2. Security KPIs
3. Security Update Service/Security Updates
4. What is cyber security
5. Malware protection
6. Backup
7. Third party software
8. Security advisories

2.6.10.1.1. System overview

The System Overview tab shows the summary status for the following tabs:

- Security KPIs
- Security Updates
- Malware Protection
- Backup



Depending on the tab, the widget will show the total number of findings (**Security KPIs**) or the number of nodes which are having issues (**Security Updates**, **Malware Protection** and

Backup) – see [1]. The number is always the total number, regardless of errors or warnings being present or not. Therefor the number on the tab, which is only showing the number of the most severe issue – see [2], could differ from the number shown on the summary widget.

Below the number of findings, there is an indicator – see [3] – on the “Last collection” date and “Previous collection” date for the Security Status and the collector “Service status” and the “MCS-DC collection” date for Security Updates, Malware Protection and Backup. This information helps to determine how reliable the data on the widgets is. Finally, the affected areas / status is shown [4]. This shows in which KPI area's the error(s) or warning(s) are.



The System overview tab is displayed only if Cyber Security Workplace license is available for the selected SID

2.6.10.1.2. Security KPIs

The Security KPIs page has the same build up as the Performance and Health KPI's pages. Three different sections are displayed:

- A pie chart in the top-left presenting all KPI results from the selected data set in an easy to comprehend manner. Click on the reports button to create/access reports from this category. Use “Export KPI results” button to export the KPIs from the selected category or all KPIs.
- A trend graph in the top-right giving an overview how results changed over time.
- KPI's at the bottom showing the results for the individual checks.

For more information on navigation and the different views on the KPI tabs, refer to chapter 2.6.7

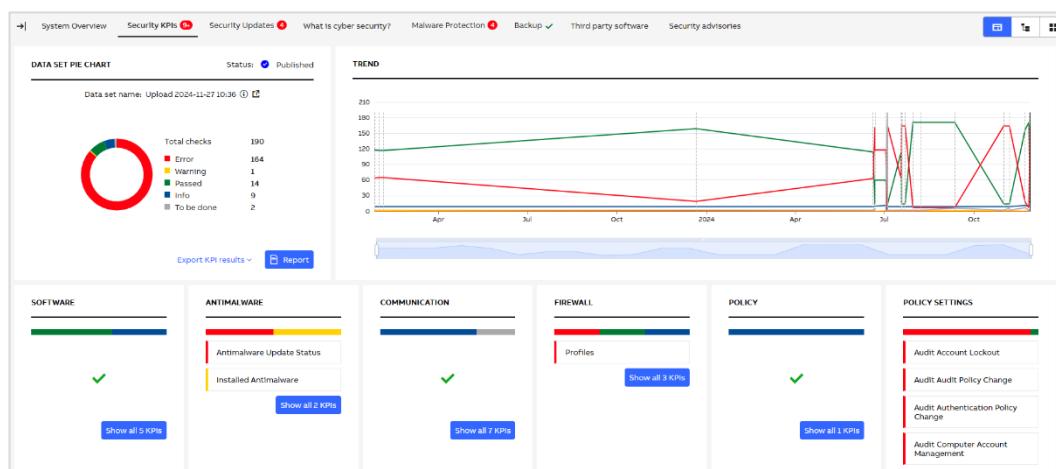


Figure 78: Security KPIs

2.6.10.1.3. System Update Service/Security Updates

The System Update Service tab is displayed only if a System Update Service license is available for the selected SID.

It gives you all information about the status of your local WSUS node and the connected nodes. It consists of three widgets:

- A pie chart in the top-left presenting the total number of nodes and their update status as well as a link to the offline files

- The local WSUS details in the top-right giving a summary on the overall status of the service
- Patch installation status per node in the bottom where the details for every node are listed

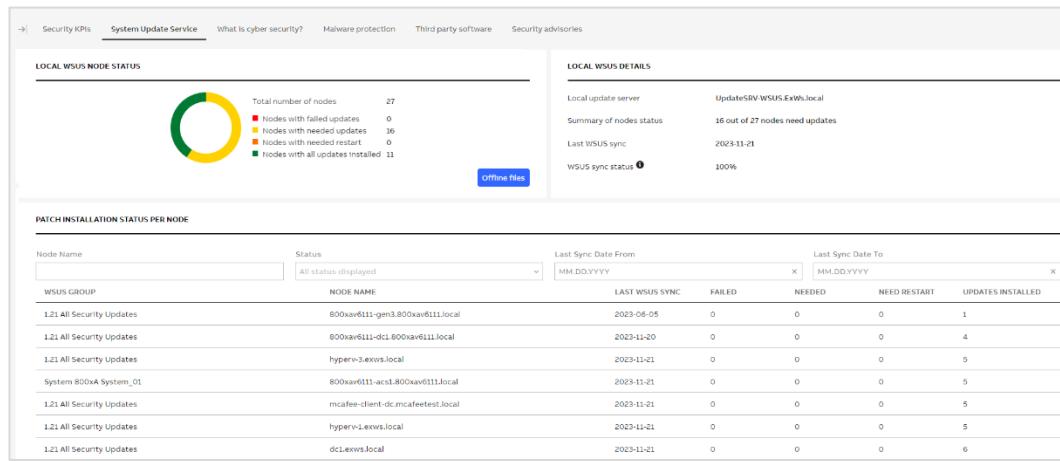


Figure 79: System Update Service



In case a valid System Update Service license is available but no connection to the ABB WSUS server is established the widgets will be empty. You can then use the offline files to update your system manually.

The Security Updates tab is displayed instead of the System Update Service tab for SIDs with Cyber Security Workplace license.



Opposed to the other views in MCS, this tab shows the donut chart and trend data Node oriented, not KPI oriented.

The following information is displayed:

- A pie chart on the top-left presenting the node status from the selected data set in an easy to comprehend manner. Use “Export KPI results” button to export the KPIs from the selected category or all KPIs.
- A trend graph in the top-right giving an overview how the status for the nodes changed over time.
- KPI’s at the bottom showing the results for the individual checks.
- “Show documents” button in the top right corner to check the offline files

For more information on navigation and the different views on the KPI tabs, refer to chapter 2.6.7 Overview area.

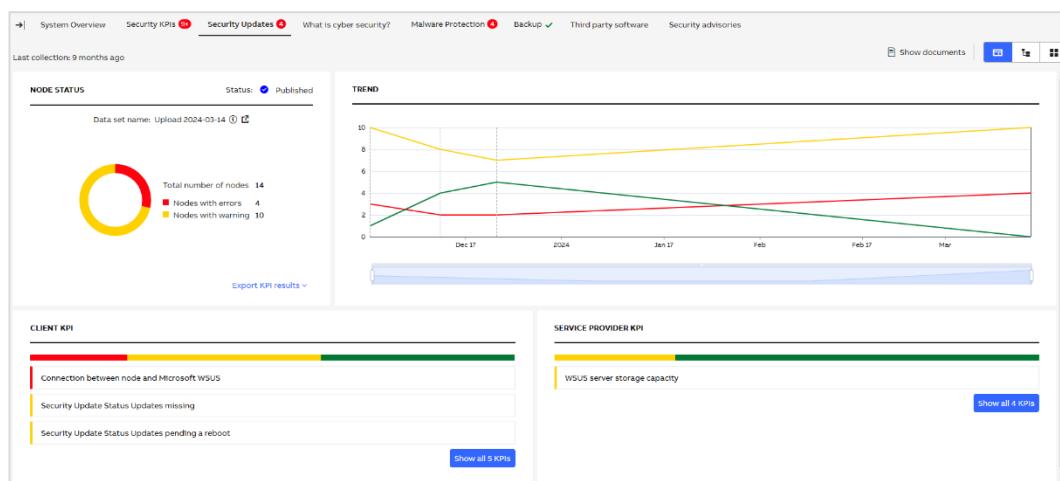


Figure 80: Security Updates tab

2.6.10.1.4. What is cyber security

In this tab all general cyber security related information and material is shown for your installed control system family.

The figure shows the 'What is cyber security?' tab in the ABB Control System Overview. The top navigation bar includes tabs for 'Security KPIs', 'System Update Service', 'What is cyber security?' (selected), 'Malware protection', 'Third party software', and 'Security advisories'. The 'What is cyber security?' tab displays a list of documents categorized by document type and name. The table includes columns for Document Type, Name, Doc. Number, Publish Date, Language, File Size, and File Type. The documents listed are: 'Promotional material' (System 800xA Cyber Security - Maximizing cyber security in process automation), 'Multimedia' (800xA Cyber Security), 'Promotional material' (System 800xA Solutions Handbook), 'Training and support' (3805011567-163_Cyber_Security_for_System_800xA_-RevC), and 'General' (Security for Industrial Automation and Control Systems). A 'Show all 5 KPIs' button is located at the bottom of the table.

Figure 81: What is cyber security tab

2.6.10.1.5. Malware protection

The malware protection tab gives you the possibility to download the latest ABB certified antivirus update files from Symantec and McAfee for your control system.

The figure shows the 'Malware protection' tab in the ABB Control System Overview. The top navigation bar includes tabs for 'Security KPIs', 'System Update Service', 'What is cyber security?', 'Malware protection' (selected), 'Third party software', and 'Security advisories'. The 'Malware protection' tab displays a list of documents categorized by document type and name for both Symantec and McAfee. The table includes columns for Document Type, Name, Doc. Number, Publish Date, Language, File Size, and File Type. The Symantec section includes documents for Software (9ARD119854-017 System 800xA- Qualified Symantec Antivirus Definition), Product data and specifications (System 800xA daily verification of McAfee and Symantec updates), and Product data and specifications (Using Symantec Endpoint protection with System 800xA). The McAfee section includes documents for Product data and specifications (Using McAfee VirusScan Enterprise with System 800xA), Product data and specifications (System 800xA_ Installing and Configuring McAfee ePO server 5.3), Software (System 800xA 5.1, Windows 64 bit McAfee ePO policies), Software (System 800xA 5.1, Windows 32 bit McAfee ePO policies), Software (System 800xA - Qualified McAfee AntiVirus DAT for ePO Server), and Software (System800xA_5.0SP2_Qualified McAfee AntiVirus DAT). A 'Show all 5 KPIs' button is located at the bottom of the table.

Figure 82: Malware protection tab

For systems with the Cyber Security Workplace license, the Malware protection tab presenting the node and KPI status is displayed.



Opposed to the other views in MCS, this tab shows the donut chart and trend data Node oriented, not KPI oriented.

The following information is displayed:

- A pie chart on the top-left presenting the node status from the selected data set in an easy to comprehend manner. Use “Export KPI results” button to export the KPIs from the selected category or all KPIs.
- A trend graph in the top-right giving an overview how the status for the nodes changed over time.
- KPI’s at the bottom showing the results for the individual checks.
- “Show documents” button in the top right corner to check the offline files

For more information on navigation and the different views on the KPI tabs, refer to chapter 2.6.7 Overview area.

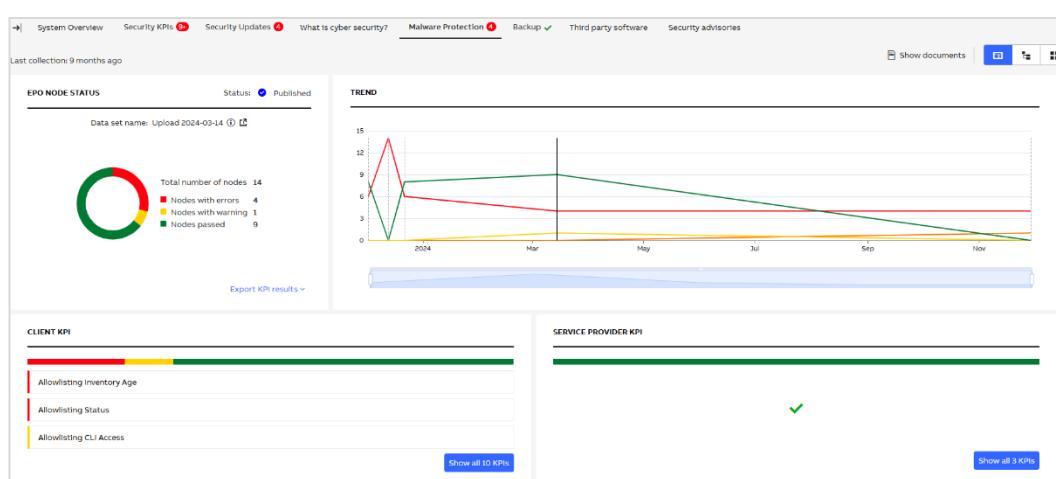


Figure 83: Malware Protection tab for systems with CSWP license

2.6.10.1.6. Backup



Opposed to the other views in MCS, this tab shows the donut chart and trend data Node oriented, not KPI oriented.

The following information is displayed:

- A pie chart on the top-left presenting the node status from the selected data set in an easy to comprehend manner. Use “Export KPI results” button to export the KPIs from the selected category or all KPIs.
- A trend graph in the top-right giving an overview how the status for the nodes changed over time.
- KPI’s at the bottom showing the results for the individual checks.

For more information on navigation and the different views on the KPI tabs, refer to chapter 2.6.7 Overview area.

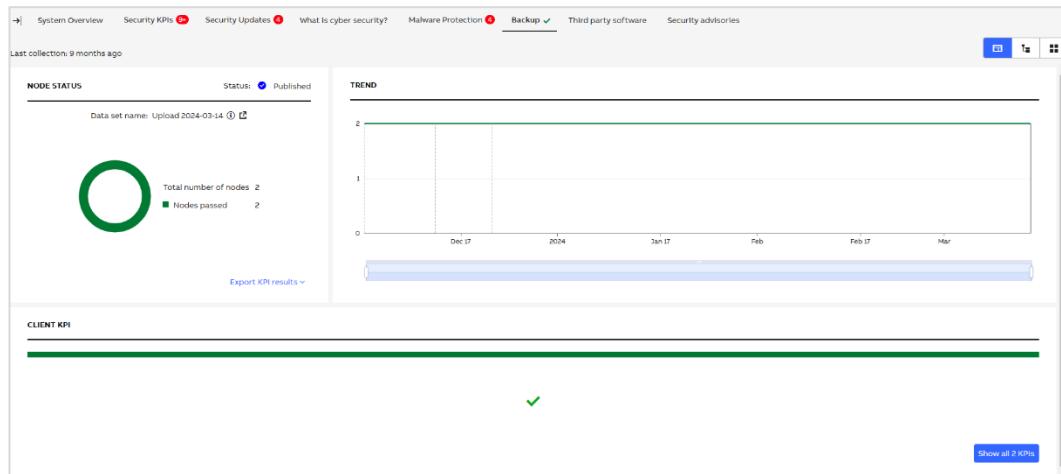


Figure 84: Backup tab



The Backup tab is displayed only if Cyber Security Workplace license is available for the selected SID

2.6.10.1.7. Third party software

The third party software tab shows you the latest Microsoft security updates qualified by ABB for the installed control system.

DOCUMENT TYPE	NAME	DOC. NUMBER	PUBLISH DATE	LANGUAGE	FILE SIZE	FILE TYPE
Notifications	System 800xA Security Updates Validation Status	3BSE041902	Nov 19, 2023	EN	5.11 MB	PDF
Software	ABB System 800xA Qualified Security Updates for 800xA 6.0,6.1.0	0AR0183777-020	Jan 18, 2022	EN	2.11 kB	TXT
Software	ABB System 800xA Qualified Security Updates for 800xA 5.1	9AR0183777-017	Feb 13, 2020	EN	11.99 kB	ZIP
product data and specifications	System 800xA Third Party Software Versions	3BUA000500	Nov 28, 2017	EN	722.6 kB	PDF
product data and specifications	Windows Configuration by System 800xA System Installer 5.1	3BSE064447	Mar 19, 2014	EN	276.57 kB	PDF

Figure 85: Third party software tab

2.6.10.1.8. Security advisories

In the security advisories tab all security related notifications from ABB concerning the installed system family are shown.

DOCUMENT TYPE	NAME	DOC. NUMBER	PUBLISH DATE	LANGUAGE	FILE SIZE	FILE TYPE
Notifications	SECURITY - IEC 61850 Communication Stack Impact on Symphony Plus and System 800xA	7PAA001023	Oct 12, 2023	EN	144.12 kB	PDF
Notifications	SECURITY 800xA History / ABB Ability MOM History OpenSSL Vulnerabilities	2PAA124046	Jun 27, 2023	EN	72.27 kB	PDF
Notifications	SECURITY - My Control System (on-premise) Information Disclosure vulnerability	7PAA007093	Apr 3, 2023	EN	116.87 kB	PDF
Notifications	SECURITY ABB Central Licensing System Vulnerabilities, Impact on System 800xA, Compact HM and Control Builder Safe	2PAA121230	Aug 23, 2022	EN	90.27 kB	PDF
Notifications	SECURITY - AC 800M MMS - Denial of Service vulnerability in MMS communication	7PAA001499	Feb 25, 2022	EN	75.29 kB	PDF
Notifications	SECURITY - OPC Server for AC 800M - Remote Code Execution Vulnerability	7PAA000908	Jan 28, 2022	EN	69.34 kB	PDF
Notifications	SECURITY Inter process communication vulnerability in System 800xA	2PAA121236	Oct 19, 2021	EN	80.65 kB	PDF
Notifications	SECURITY - ABB Base Software for SoftControl Remote Code Execution vulnerability	2PAA122074	Sep 9, 2021	EN	79.07 kB	PDF
Notifications	SECURITY Windriver VxWorks IPNet Vulnerabilities, Impact on AC 800M	2PAA120491	Aug 25, 2021	EN	66.99 kB	PDF
Notifications	SECURITY Multiple Vulnerabilities in ABB Central Licensing System	2PAA121231	Jul 14, 2021	EN	81.53 kB	PDF

Figure 86: Security advisories tab

2.6.11. Inventory

The Inventory category consists of five tabs:

1. Hardware Lifecycle (showing the results of the Hardware lifecycle analysis)
2. Control System Lifecycle (showing the lifecycle of the installed control system version)
3. Assets (showing an overview about all assets with details and analysis results of the different categories)
4. Control Structure (showing and overview about controllers)
5. Software (showing all computers with installed ABB and third-party software)

2.6.11.1. Hardware Lifecycle

The Hardware Lifecycle tab shows all results of the lifecycle analysis.

The overview area consists of two different widgets:

- A pie chart in the top-left presenting all lifecycle phases from the latest inventory information in an easy to comprehend manner. Click on the reports button to create/access reports from this category.
- KPIs at the bottom showing the lifecycle phases for the individual components.

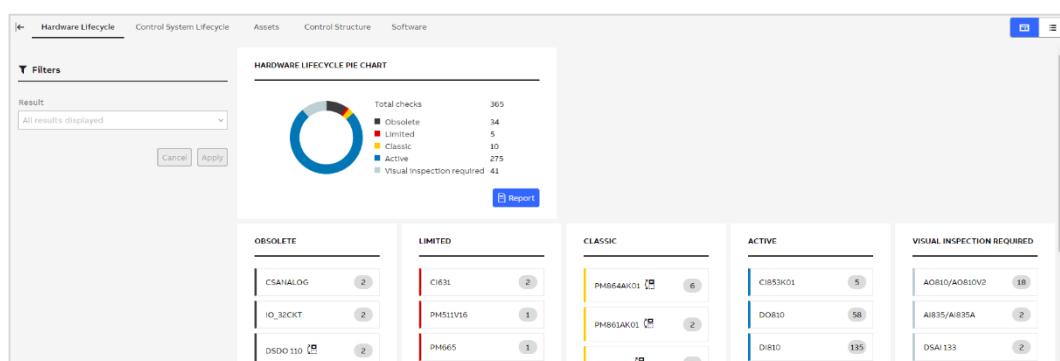


Figure 87: Hardware Lifecycle - groups view

The groups' view classifies the devices according to their current lifecycle status (Active, Classic, Limited, Obsolete). Devices that cannot be determined completely are classified as "visual inspection required". See chapter 2.6.11.4 for more information on how to set the device type for visual inspection required modules.

In every group the name of the device and the number of devices that were found is listed. In addition, indicators show you for which device a replacement is available.

In case the exact module version could not be identified but all module versions have the same lifecycle status, an indicator is displayed next to the device name with tooltip on hover.



Figure 88: Hardware Lifecycle tooltip

Click on the devices to open a pop-up with additional information.

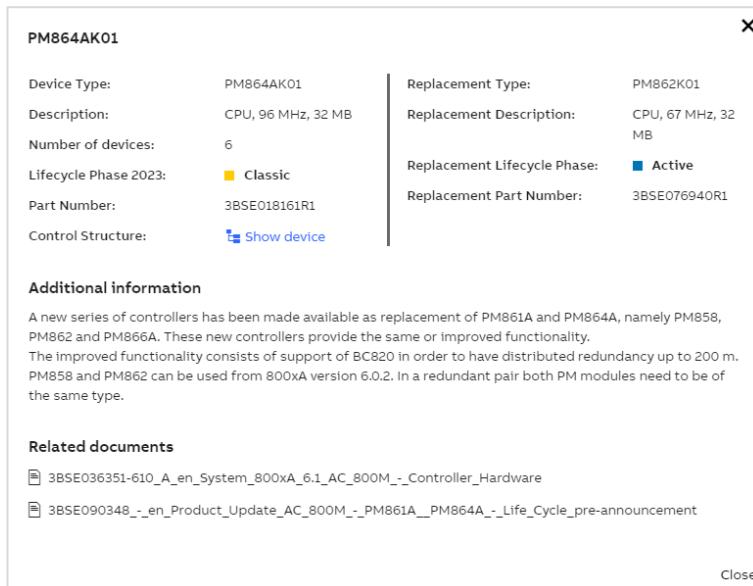


Figure 89: Hardware Lifecycle - Pop-up

The list view shows all devices and additional information in one combined list. The list is sorted descending with the device with the worst lifecycle status (Obsolete) and highest number of devices listed on top.

Click on the device name to open a pop-up with additional information.

DEVICE TYPE	DESCRIPTION	NUMBER OF DEVICES	PART NUMBER	LIFECYCLE PHASE
CI854AK01	Profibus DP/V1 Interface	1	3BSE030220R1	■ Limited Replacement available
PM864AK01	CPU, 96 MHz, 32 MB	6	3BSE018161R1	■ Classic Replacement available
PM861AK01	CPU, 48 MHz, 16 MB	2	3BSE018157R1	■ Classic Replacement available
CI867K01	Modbus TCP Interface	2	3BSE043660R1	■ Classic Replacement available
CI853K01	Dual RS 232C Interface	5	3BSE018103R1	■ Active
DO810	Digital Output 24 Vdc.	58	3BSE008510R1	■ Active
DI810	Digital Input 24 Vdc, 2x8 channels	135	3BSE008508R1	■ Active
AI820	Analog Input 4 channels	2	3BSE008544R1	■ Active
AI810	Analog Input 8 channels	59	3BSE008516R1	■ Active
AO820	Analog Output 4x1 channels	2	3BSE008546R1	■ Active

Figure 90: Hardware Lifecycle - list view

In case the asset inventory data does not match your current installation on site, clear inventory data and re-upload your latest collection file. Click on the banner displayed on the top of this tab or go directly do the Inventory data sets tab to initiate the process.

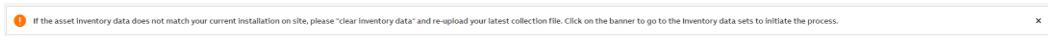


Figure 91: Banner for incorrect asset inventory data

2.6.11.2. Control System Lifecycle

The Control System Lifecycle tab indicates in the same way as the Hardware Lifecycle the results of the lifecycle analysis of the installed ABB Control System software.

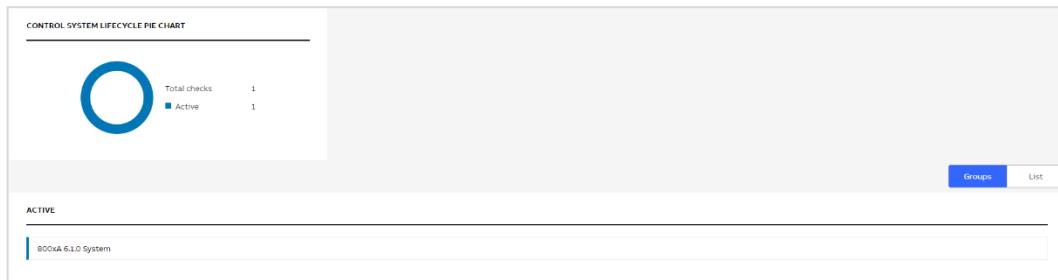


Figure 92: Control System Lifecycle

2.6.11.3. Assets

The Assets tab gives you an overview about all found assets in the control system and their status in the different KPI categories (Performance, Software, Security). The overall result for each category is a sum of error and warnings with the label which matches the color of the worst result. To see the exact number of errors and warnings separately, hover over the number of findings. Only error and warnings are shown in this view. If there are no errors or warnings a green checkmark is displayed. Click on the number of findings to directly jump to the KPI analysis of the respective category and view the KPIs in the grid view.

ASSET INVENTORY									Export to .xls	Merge assets	Restore asset	+ Add Asset
DEVICE NAME	DATA COLLECTOR	ROLE	IP ADDRESS	LAST UPDATE	PERFORMANCE	SOFTWARE	SECURITY	ACTIONS				
800XAVG111-ACS1-new	MCS-DC (2.6)	Aspect Server Primary, CLS Serv...	172.16.4.32	14.10.2022 21:00:27	2 findings	✓	10 findings	Edit				
800XAVG111-AC52	MCS-DC (2.6)	Aspect Server, AC 800M, IM Ser...	172.16.4.33	14.10.2022 21:00:27	-	-	-	Edit				
800XAVG111-AC52-new	MCS-DC (2.6)	Aspect Server, AC 800M, IM Ser...	172.16.4.33	14.10.2022 21:00:27	2 findings	✓	5 findings	Edit				
800XAVG111-DC1	MCS-DC (2.6)	PrimaryDomainController, Sche...	172.16.4.30	22.2.2	14.10.2022 21:00:27	2 findings	24 findings	Edit				
800XAVG111-DC2	MCS-DC (2.6)	Domain Controller, PseudoServ...	172.16.4.31	14.10.2022 21:00:27	2 findings	-	6 findings	Edit				
800XAVG111-OW1	MCS-DC (2.6)	Engineering Client, Operator Cli...	172.16.4.34	14.10.2022 21:00:27	3 findings	✓	16 findings	Edit				
800XAVG111-OW2	MCS-DC (2.6)	Engineering Client, Operator Cli...	172.16.4.35	14.10.2022 21:00:27	2 findings	✓	5 findings	Edit				
800XAVG111-R0DC	MCS-DC (2.6)	-	-	14.10.2022 21:00:27	-	-	-	Edit				
AC11	MCS-DC (2.6)	PM864A	172.16.20.11	20.01.2023 14:14:56	-	-	-	Edit				
AC12	MCS-DC (2.6)	PM864A	172.16.20.12	20.01.2023 14:14:56	-	-	-	Edit				

Figure 93: Asset Inventory widget



Some assets might be shown in the widget multiple times (due to changes that happened over time with them). In order to clean up the list, the following options are available:

1. Delete them individually
2. Use “Clear inventory data” function (Chapter [Inventory 2.6.13.2.2](#)) to delete all assets

The following options are available under the additional menu for a single asset:

- Comment
- Edit asset details – you will be redirected to the asset details view with edit mode enabled
- Merge with another asset – this option is not available for assets added manually
- Edit merging – this option is displayed for assets which have already been merged with another item
- Delete – allows you to remove an asset from the system

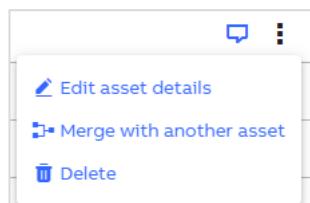


Figure 94: Asset options

An empty comment icon indicates that there is a possibility to add a comment whereas a filled in icon shows that the comment has already been added. Hover over the icon to see the tooltip with the comment.

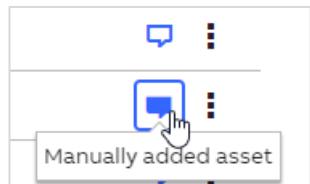


Figure 95: Asset comment

Click on the empty comment icon to add a comment.

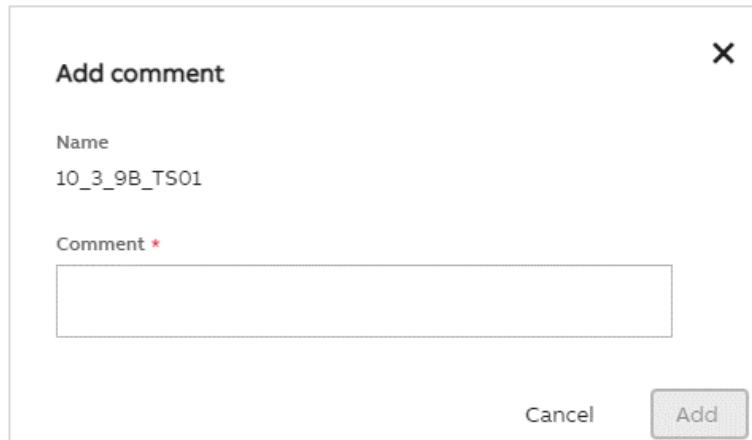


Figure 96: Add comment

Click on the filled in comment icon to check who and when updated the comment or to update it.

Edit comment

Name
10_3_9B_TS01

Updated
20.10.2022 12:13:35

Updated by
Admin

Comment *

Manually added asset

Cancel Update

Figure 97: Edit comment

After choosing the “Merge with another asset” option, you will see the details of the selected asset and a dropdown with the lists of assets with which a merge can be done. Select an asset in the dropdown and click on “Merge”. Selected asset will be displayed in the summary section. An asset which is a master is marked with the blue label displayed next to the asset’s name.

Use “set as master” button if another asset should be set as a master. If MCS-DC asset(s) is among assets which should be merged, only this one can be set as a master.

Use “x” icon to remove an asset and not merge it.

Confirm your selection by clicking on “Save”.

Merge with another asset

Merging will result in creating a new asset with the properties from the selected items. Select from the dropdown an asset to be merged:

Select device to be merged

Search by device name Merge

Summary

These assets will be merged together after saving. Use the “set as master” button to define the master based on the following rules:
 - if MCS-DC asset(s) will be merged with PNN and/or SU asset(s), only MCS-DC asset can be set as master
 - if there is no MCS-DC asset, only PNM asset can be set as master

DEVICE NAME	DATA COLLECTOR	DEVICE TYPE	IP ADDRESS	LAST UPDATE
800XAV6111-... Master	MCS-DC (2.7)	Computer	172.16.4.31, 172.17.4.31	06.07.2023 21:00:07
800XAV6111-DC1	MCS-DC (2.7)	Computer	172.16.4.30, 172.17.4.30, 2.2.2.2	06.07.2023 21:00:07

Cancel Save

Figure 98: Merge with another asset

If assets have already been merged together, “Edit merging” option is displayed.

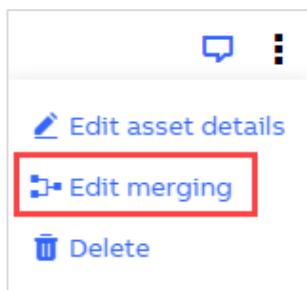


Figure 99: Edit merging

All options which are available for “Merge with another asset” are here as well. Additionally, it is possible to unmerge all assets using “unmerge all assets” button:

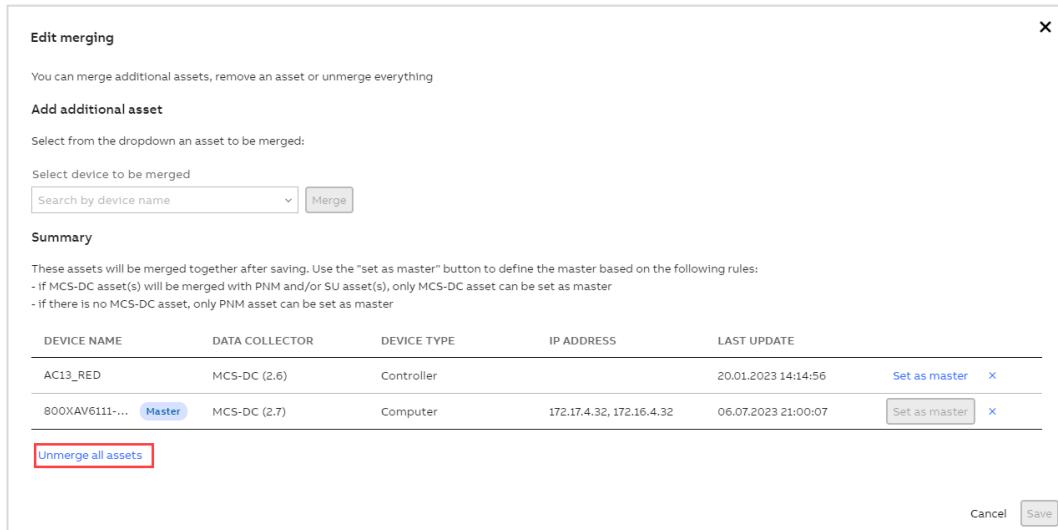


Figure 100: Edit merging dialog and unmerge all assets options

Additional options are available in the top right corner of the Asset Inventory widget:

1. Export to .xls
2. Merge asset
3. Restore asset
4. Add asset



Figure 101: Additional options

To export the list of all assets, click on “Export to .xls” button. A file containing all assets and their details will be generated.

Under “Merge assets” button, the list of merging suggestions are listed. This option is not displayed if “Perform automatic asset merging” is selected in the assets merging setting. If there are no suggestions, the button is disabled with a tooltip indicating the reason.

The table displays all merging suggestions. Expand the assets to see the details. Use checkboxes on the left side and “Accept selected” to accept only specific suggestions or “Accept all”.

Proposed merging of assets

The table below displays merging suggestions of assets. Expand the assets to see the proposal:

<input type="checkbox"/>	DEVICE NAME ↑	DATA COLLECTOR	DEVICE TYPE	IP ADDRESS	LAST UPDATE
<input checked="" type="checkbox"/>	800XAV6111- ACS2-new	Master	MCS-DC	Computer	172.16.4.33 14.10.2022 21:00:27
	800XAV6111-ACS2		MCS-DC	Computer	172.16.4.33 14.10.2022 21:00:27
<input type="checkbox"/>	ADS71-new	Master	MCS-DC	Computer	172.17.4.71, 172.16.4.71 20.01.2023 14:14:56
<input type="checkbox"/>	ADS72-new	Master	MCS-DC	Computer	172.17.4.72, 172.16.4.72 20.01.2023 14:14:56
<input type="checkbox"/>	CS51-new	Master	MCS-DC	Computer	172.17.4.51, 172.16.20... 20.01.2023 14:14:56

Items per page: 10 1 - 4 of 4

Cancel

Figure 102: Proposed merging of assets

Each device which has not yet been permanently deleted can be restored using “Restore asset” button available in the top right corner of Asset Inventory widget. Click on the button to see the list of assets which can be restored.

Select assets which you would like to restore and click on “Restore selected”.

Restore assets

Select assets to be restored.

<input type="checkbox"/>	DEVICE NAME ↑	TYPE	IP ADDRESS	DOMAIN	LAST UPDATE
<input type="checkbox"/>	172.17.2.2	Computer			03.12.2021 13:07:57
<input checked="" type="checkbox"/>	6110PM-FLPCS	Computer			28.07.2022 01:25:58
<input type="checkbox"/>	AC410_ALL	Controller			28.07.2022 01:25:58

Cancel

Figure 103: Restore selected

To add an asset manually, click on “Add asset” button and provide all required data. Click on “Add” button to confirm. Newly added asset will be listed on the Asset Inventory widget.

Add Asset

Device Name *

IP Address *

After filling in the field, press Enter to add a new item.

MAC Address *

After filling in the field, press Enter to add a new item.

Operating System *

Device Role

Domain

Figure 104: Add asset

Click on the device name in the Asset Inventory widget to jump to the overview of the selected asset. Items displayed in the menu on the left side, depends on the selected asset.

The screenshot shows the 'OVERVIEW' tab of an asset details page. The left sidebar lists categories like Device data, Windows data, and Network data. The main area shows the asset's name (800XAV6111-AC51), location, and inventory tag. It also displays network information (PurdueLevel: LEVEL2, LEVEL3) and operating system details (Microsoft Windows Server 2019 Standard, 64-bit). The 'NETWORK ADAPTERS' section lists two network interfaces: Primary (Microsoft Hyper-V Network Adapter, MAC 00:15:5D:64:0A:3D, IP 172.16.4.32, Subnet Mask 255.255.252.0) and Secondary (Microsoft Hyper-V Network Adapter, MAC 00:15:5D:64:0A:53, IP 172.17.4.32, Subnet Mask 255.255.252.0).

Figure 105: Asset details

To edit data, enable edit mode using the switch located in the top right corner of the asset details page. “Discard changes” and “Save changes” buttons will be enabled once you modify any field.

The screenshot shows the 'OVERVIEW' tab with edit mode enabled (indicated by a blue switch in the top right). The asset's name is highlighted and can be edited. The 'PurdueLevel' dropdown is also highlighted. At the bottom right, there are 'Discard changes' and 'Save changes' buttons.

Figure 106: Edit mode

Options to add or update comment or delete asset are also available on asset overview tab.

The screenshot shows the 'OVERVIEW' tab with 'Add comment' and 'Delete asset' buttons highlighted with a red box.

Figure 107: Asset details - comment or delete asset

In case the asset inventory data does not match your current installation on site, clear inventory data and re-upload your latest collection file. Click on the banner displayed on the top of this tab or go directly do the Inventory data sets tab to initiate the process.

The screenshot shows a banner message: 'If the asset inventory data does not match your current installation on site, please "clear inventory data" and re-upload your latest collection file. Click on the banner to go to the Inventory data sets tab to initiate the process.' A red box highlights the 'x' button in the top right corner of the banner.

Figure 108: Banner for incorrect asset inventory data

2.6.11.4. Control Structure

The Control Structure tab gives an overview of all controllers in the control system, their device type, hardware and firmware revision as well as IP address, position and their lifecycle phase.

CONTROLLERS						
DEVICE NAME	DEVICE TYPE	HARDWARE REVISION	FIRMWARE REVISION	IP ADDRESS	POSITION	LIFECYCLE PHASE
> BPC_13_470_01	-	-	-	172.16.60.151	-	■ Unknown
> BPC_13_470_02	-	-	-	172.16.60.152	-	■ Unknown
> BPC_13_470_03	-	-	-	172.16.60.153	-	■ Unknown
> BPC_13_470_04	-	-	-	172.16.60.154	-	■ Unknown
> Controller_1	-	-	-	172.28.100.101	-	■ Unknown
> Controller_1_BED	-	-	-	-	-	■ Unknown
> EP001A09	CMC 70	-	-	192.168.10.27	-	■ Obsolete
> EP002A09	CMC 70	-	-	192.168.10.31	-	■ Obsolete
> EP002A11	CMC 70	-	-	192.168.10.33	-	■ Obsolete
> EP003A09	CMC 70	-	-	192.168.10.23	-	■ Obsolete

Figure 109: Control Structure widget

In case the device type could not be identified and an “visual inspection is required”, use the edit icon displayed next to the lifecycle phase of the specific item or select checkbox(es) next to the device name and then click on “Specify device type” button on the top of the widget to specify the device type.



Figure 110: Specify device type for single item

When using the checkboxes, only items with the same device type can be selected.

CONTROLLERS						
DEVICE NAME	DEVICE TYPE	HARDWARE REVISION	FIRMWARE REVISION	IP ADDRESS	POSITION	LIFECYCLE PHASE
All	All					Visual Inspection required x
> Controller_01	-	-	-	172.16.80.61	-	■ Unknown
> 1	C1654AK60L	-	-	-	-	■ Limited
> 14 RPC2-Rear	C1601	-	-	-	-	■ Active
<input checked="" type="checkbox"/> 2 B1-RTD01	AI830/AI830A	-	-	-	-	■ Visual Inspection required
<input type="checkbox"/> 3 B1-RTD02	AI830/AI830A	-	-	-	-	■ Visual Inspection required

Figure 111: Specify device type for one or multiple items

Select the device type in the dropdown and click “Save” to confirm.

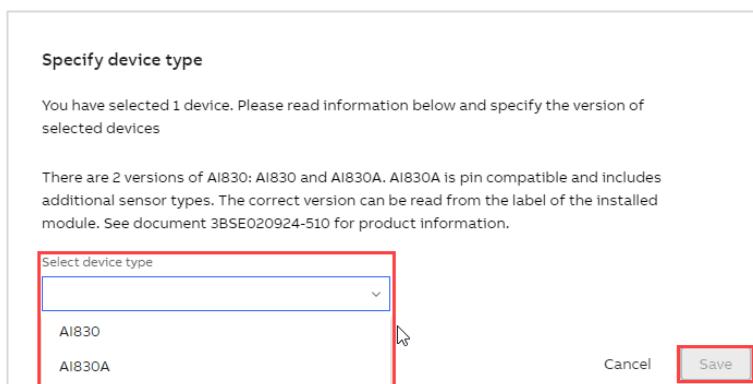


Figure 112: Specify device type dialog

If the device type has been selected manually, this action can be reverted. Click on the edit icon next to the lifecycle phase. Information what was the original device type as well as who and when modified it is displayed in the dialog. Click on “Revert changes” to bring back the original value.

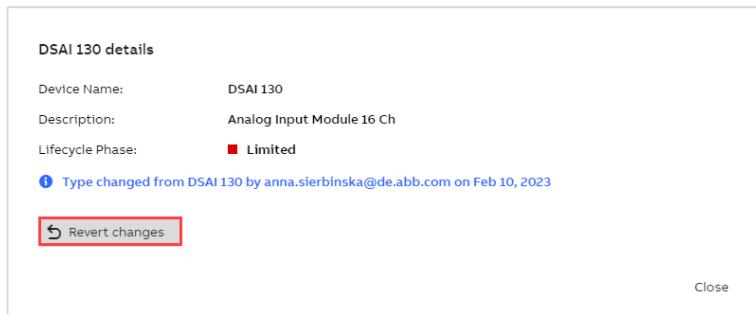


Figure 113: Revert changes dialog

Click on the device name in the Controllers widget to jump to the overview of the selected item. The structure of the controller is displayed in the left pane to allow switching between the detail views of the devices.

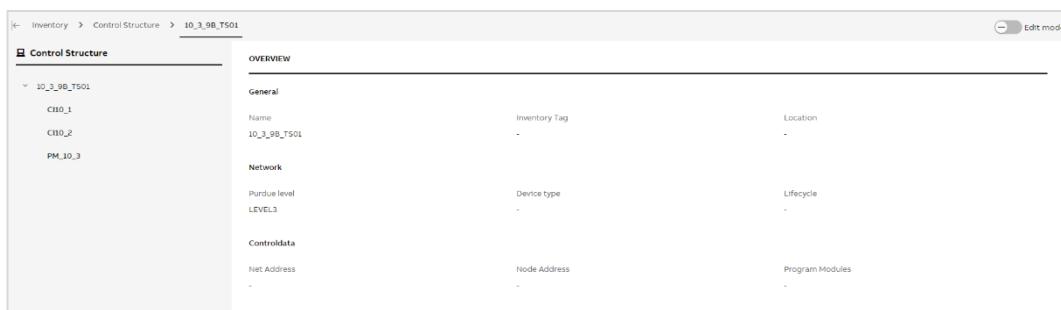


Figure 114: Controller details

To edit data, enable the edit mode using the switch located in the top right corner of the controller details page. “Discard changes” and “Save changes” buttons will be enabled once you modify any field.

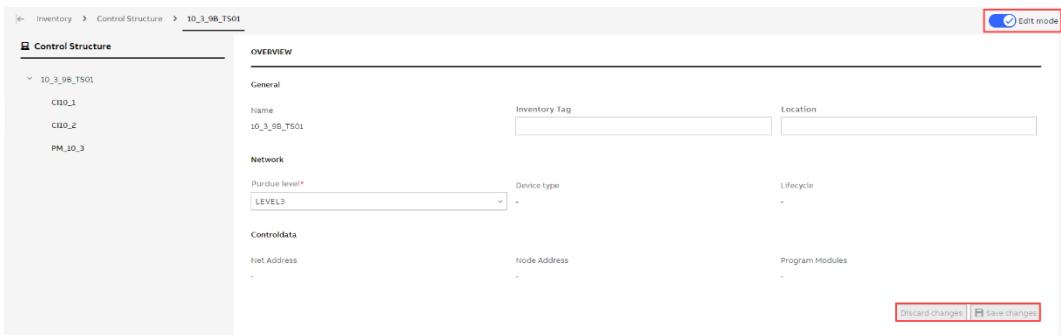


Figure 115: Edit mode

2.6.11.5. Software

The Software tab shows a list of all installed software.

INSTALLED SOFTWARE			Software	Device
SOFTWARE NAME ↑	PROVIDER	INSTALLED ON		
> ABB 800xA Base 6.0.1-0	ABB	12 devices		
> ABB 800xA Base 6.0.1-0 Swedish Language Package	ABB	3 devices		
> ABB 800xA Base OnlineHelp 6.0.1-0 Swedish Language Package	ABB	3 devices		
> ABB 800xA Common Install	ABB	12 devices		
> ABB 800xA DataDirect 6.0.0-1	ABB	10 devices		
> ABB 800xA for Advant Master 6.0.0-1	ABB	3 devices		
> ABB 800xA for Advant Master 6.0.0-1 Swedish Language Package	ABB	3 devices		
> ABB 800xA History Connectivity 6.0.0-1	ABB	9 devices		
> ABB 800xA Instructions 6.0.1-0	ABB	12 devices		
> ABB 800xA Instructions 6.0.1-0 Swedish Language Package	ABB	3 devices		

Figure 116: Installed software – software view

Click on the expand icon next to the software name to see all the computers where this software is installed on.

SOFTWARE NAME ↑	PROVIDER	INSTALLED ON
> ABB 800xA Base 6.0.1-0	ABB	12 devices
v ABB 800xA Base 6.0.1-0 Swedish Language Package	ABB	3 devices
Installed on devices:		
ASCS02		
ASCS01		
ES01		
> ABB 800xA Base OnlineHelp 6.0.1-0 Swedish Language Package	ABB	3 devices

Figure 117: Installed on devices

Use the switch in the top right corner to see the list of all computers in the control system with software installed.

Software Device

Figure 118: Software/Device view switch

Click on the expand icon next to the device name to see the software installed there.

INSTALLED SOFTWARE		Software	Device
DEVICE NAME ↑	INSTALLED SOFTWARE		
> 172.16.4.81	0		
> ASCS01	286		
> ASCS02	291		
> ES01	291		
v 500-ASD01	751		
Installed software:	Provider:		
ABB 800xA Base 6.0.1-0	ABB		
ABB 800xA Common Install	ABB		
ABB 800xA DataDirect 6.0.0-1	ABB		
ABB 800xA History Connectivity 6.0.0-1	ABB		
ABB 800xA Instructions 6.0.1-0	ABB		
ABB 800xA RNRP 6.0.0-1 (5.10.1)	ABB		
ABB 800xA SoftPoint Server 6.0.0-1	ABB		
ABB 800xA System Installer Agent 6.0.1-0	ABB		
ABB AC800M Connect 5.0.0-0 TC2	ABB		

Figure 119: Installed software - device view

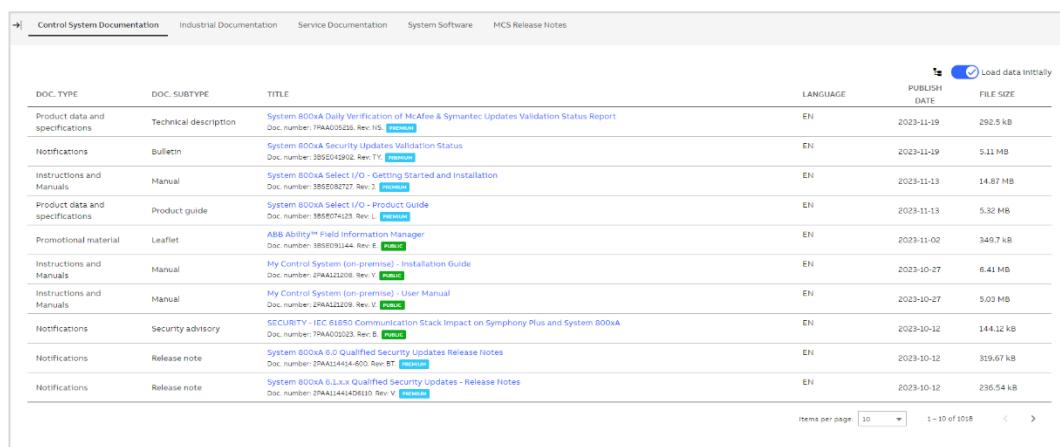
On both software and device views, filters can be used to find out on which computer a specific software is installed.

2.6.12. Documentation

The documentation tab allows you to find all relevant documents for your control system in one place. It is divided into following sub-sections:

- Control System Documentation
- Industrial Documentation
- Service Documentation
- System Software
- MCS Release Notes

Documentation will be loaded with the default filters for as long as "Load data initially" toggle is switched to on. Given that there are thousands of documents available, consider switching this option off when your internet bandwidth is limited.



The screenshot shows a table of documents with the following columns: DOC. TYPE, DOC. SUBTYPE, TITLE, LANGUAGE, PUBLISH DATE, and FILE SIZE. The table includes 1018 documents. The filters applied are: DOC. TYPE: Notifications, LANGUAGE: EN, and PUBLISH DATE: 2023-10-12. The table shows various document types like System, Notifications, Instructions and Manuals, and Promotional material, with titles such as 'System 800xA Daily Verification of McAfee & Symantec Updates Validation Status Report', 'System 800xA Security Updates Validation Status', and 'ABB Ability™ Field Information Manager'.

Figure 120: Control System Documentation

To find specific documents, you can use the filters displayed on the left-hand side of the screen. Keep in mind that some filters described here are available only on some of the documentation sub-sections. For the filters to take effect, click the "Apply" button found at the bottom of the filters section.

Text search - allows you to find a specific phrase in the document. You can search in full document text or document ID. In text search mode, you can look for documents containing any words entered in the "Search keyword" field. In document ID mode, you can search for either exact ID match or any document ID starting with entered phrase.

Document property - allows you to look for documents matching specific criteria, such as being of specific type or describing specific control families:

- Document type - select any number of document types that you would like to find
- System family/version - select this to find documents associated with specific system families or versions
- System ID - select a specific SID to find documents relevant to that control system. The list of SIDs available in the dropdown depends on the "Show only favorite SIDs" switch setting (see chapter 2.6.1.1).
- Language - select the language of the documents

- Industries - select specific industry branches to find documentation relevant to them
- Services - select specific services to find documentation relevant to them

Publish date - Select a date range to define the period in which the document was published.

In general, all documentation can be browsed using either a list view or tree view. To switch the view, click on the icon (either tree or list icon, depending on currently selected).

2.6.12.1. MCS Release Notes

You have the possibility to view the release notes information as part of the application for the respective released version.

The following three release notes information categories are published:

- What's new
- Fixed Issues
- Known Issues

The **What's new** section provides information about newly added, enhanced, or modified functionality. Under section **Fixed Issues**, we are listing solved product issues and the **Known Issues** section always contains the list of known issues for the particular version released.

The release notes information is accessible either using the quick link available in the footer section of the application called "[Release Notes]" (Chapter 2.6.3) or by direct navigation to the Documentation/MCS Release Notes section.

Figure 121: Release Notes Information

2.6.13. Administration and Configuration Area

The Administration and Configuration area of the MCS dashboard is divided into two sections (first in the lower left corner and second in the upper right corner) and consists of a couple of icons used to administrate MCS. These icons provide access to the functionalities described in the following chapters:

1. Information section: Please refer to chapter 2.6.13.1 for details
2. Data set management section: Please refer to chapter 2.6.13.2 for details
3. Power BI section: Please refer to chapter 2.6.13.3 for details

4. Tools section: Please refer to chapter 2.6.13.4 for details
5. Settings section: Please refer to chapter 2.6.13.5 for details
6. Language selector: Please refer to chapter 2.6.13.6 for details
7. User section: Please refer to chapter 2.6.13.7 for details



Figure 122: Icons of the Administration and Configuration area

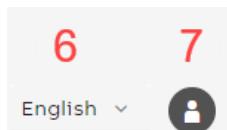


Figure 123: Icons of the Administration and Configuration area

2.6.13.1. Information Section

In the information section you can find links to documentation and functions (e.g. manuals, take a tour function, release notes) that help you to understand the general functionality of MCS.

2.6.13.2. Data set management section

The data set management section of the Administration and Configuration area provides the needed functionality to manage previously collected data sets.



Figure 124: Data Sets Management section of Administration and Configuration area

Data sets management section consists of two tabs:

- KPI

- Inventory

2.6.13.2.1. KPI



To prevent any unauthorized data modification, a newly created data set is locked to the user or instance (e.g. MCS-OP) that created it. To be able to do any modification on the data set (e.g. renaming) or on the data within the data set (e.g. changing a KPI result) you need to take over the data set. Click on the “lock” icon next to the data set name to take over the data set. This is only possible if you are in the same company as the creator of the data set.

The main dashboard of this section displays all previously collected data sets with their details, namely:

- Data set name
- Creation date
- User who created the data set
- Collected KPI categories (Performance, Software, Security) with checkmark icon (published/not published)
- Project type (automated or automated/manual)
- Actions

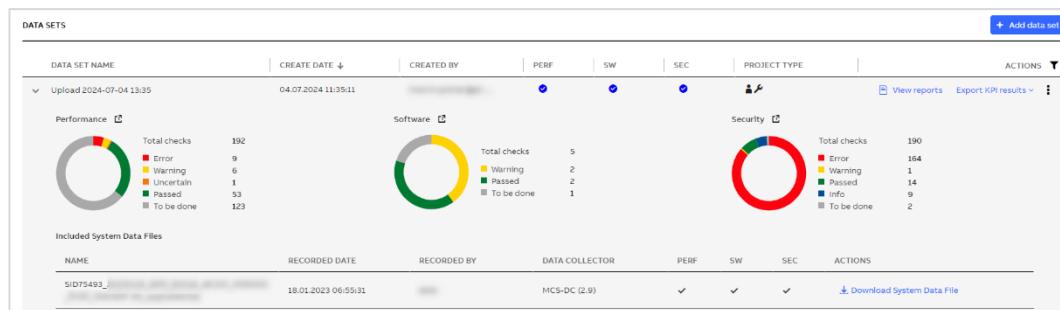


Figure 125: Data set management

Depending on the source of the data, data sets with different content are created.



Actions and Options might vary between the different data set contents. E.g. Reports are not available for “SystemUtilities” data sets.

By selecting the Reports icon all already generated reports related to the selected data set can be displayed.

Created reports					
Category	Report Type	Results	Language	Status	Actions
Performance	Complete	All results	English	Published	 
Software	Complete	All results	English	Published	 
Security	System Status	All results	-	Published	
Software	System Status	All results	-	Published	
Performance	System Status	All results	-	Published	
Performance	Complete	All results	German	Published	 

Items per page: 1 – 6 of 6 < >

Close Create new report

Figure 126: Created reports list

The Actions section provides all necessary functionalities to manage and edit your data sets. These functionalities are described in detail in the following chapters.

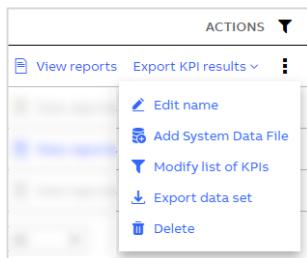


Figure 127: Actions section within Data set management

Furthermore, you can expand/collapse the selected data set to figure out the raw system data files the results displayed in the system data set are based on.

DATA SET NAME	CREATE DATE	CREATED BY	PERF	SW	SEC	PROJECT TYPE	ACTIONS
Upload 2024-07-04 13:35	04.07.2024 11:35:11						  
Performance							
Total checks	192			Total checks	5	Total checks	190
Error	9			Warning	2	Error	164
Warning	6			Passed	2	Warning	1
Uncertain	1			To be done	1	Passed	14
Passed	53					Info	9
To be done	123					To be done	2
Included System Data Files							
NAME	RECORDED DATE	RECORDED BY	DATA COLLECTOR	PERF	SW	SEC	ACTIONS
SID75493_	18.01.2023 06:55:31		MCS-DC (2.9)				

Figure 128: Expanded data set

Exporting KPI results

Use “Export KPI results” button and select one of the categories or all KPIs to export data.

DATA SET NAME	CREATE DATE	CREATED BY	PERF	SW	SEC	PROJECT TYPE	ACTIONS
Upload 2024-02-27 10:07	27.02.2024 08:07:59	ec.maint.se@gmail.com	●	●	●	✗	View reports Export KPI results More
...	...	...	...	...	...	...	View reports Export KPI results More
...	...	...	...	...	...	...	View reports Export KPI results More
...	...	...	...	...	...	...	View reports Export KPI results More

Figure 129: Export KPI results

Adding a data set

Click on the “Add data set” button located in the upper right corner of the “Data Sets” widget. A pop-up window will be displayed where you can select option to create new data set or import an existing one.

Add data set

Create a new data set if you want to upload a System Data File from your system scan. If you have previously exported a data set from e.g. another MCS installation and want to synchronize it with this MCS instance, please select import existing.

Create new data set

Import existing

Name of data set *

Upload 2022-12-08 15:48

Add System Data File (optional)

Drop files here

+ Add File

Select project type

Automated and manual KPIs (System Assessment)

[Close](#) [Save](#)

Figure 130: Create new data set

When creating new data set, in case you have the applicable System Assessment license you can choose the project type (Automated KPIs / Automated and manual KPIs) otherwise only Automated KPIs are available. Then click on the “Save” button. After that the new created data set is displayed in the “Data sets” widget.

To import a previously exported data please select the “Import Data Set” button located in the upper right corner of the “Data Sets” widget. The following pop-up window will show up:

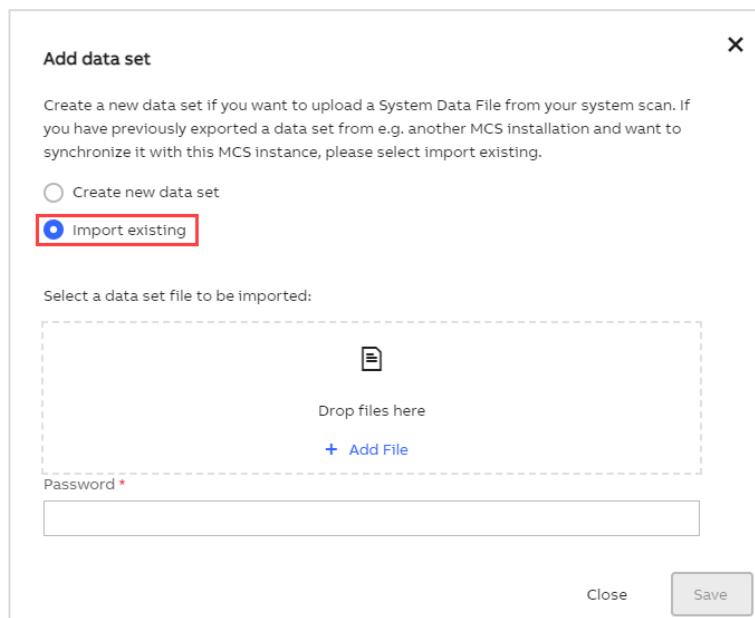


Figure 131: Import existing data set

Please select the Data Set you would like to (re-)import to MCS from the hard disk and place it in the respective drop field.

During the export process of the Data Set an initial password has been defined. This process is described in detail in this chapter. The same password needs to be used when (re-) importing this Data Set to MCS.

Adding a system data file

Once the new data set is saved you can manually upload the collected SDF by using the “Add File” button. A pop-up window will come up where you can select the data file. Please consider that the name of the uploaded file must begin with the SID number you want to upload to. After the file is selected, the system will automatically analyze the uploaded raw system data file. This might take some minutes to complete.

After the file has been analyzed a confirmation message stating that the pop-up window can be safely closed will be displayed. In case of issues during analysis like e.g., wrong file extension, relevant information will be displayed in the pop-up window.

Downloading a system data file

It is possible to download the SDF of a specific data set from the data set management. To do so, please expand a selected data set and then select the Download icon in the lower right corner next to the SDF name.

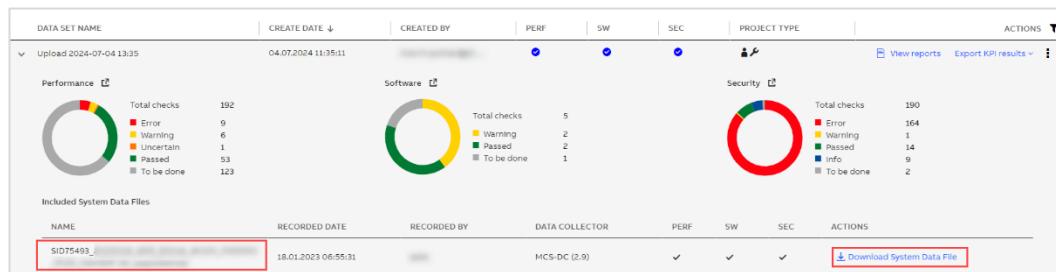


Figure 132: Possibility to download an SDF of a specific data set

Renaming a data set

You have the possibility to rename an existing data set. To do so, select the pencil icon in the Actions section and a pop-up window will be displayed where you can rename the selected data set.

Modifying the KPI list

To prevent specific sections or KPIs from being displayed in the analysis results of a specific data set you could modify its KPI list. The KPI list of a data set is created automatically based on your system configuration and the existing licenses.

To do so, please select the Filter icon from the Actions section to modify the KPI list. You can then use toggle buttons to select/deselect individual KPIs or KPI groups.

Deleting a data set

Select the trash icon from the Actions section to delete a selected data set. Please consider that all information associated with this data set, including reports, will be deleted. A pop-up window will ask you to confirm deletion.

Exporting a data set

To export a data set from MCS select the data set you would like to export and press the export icon in the Actions section on the right side. If data in at least one category is not published, this option is disabled.

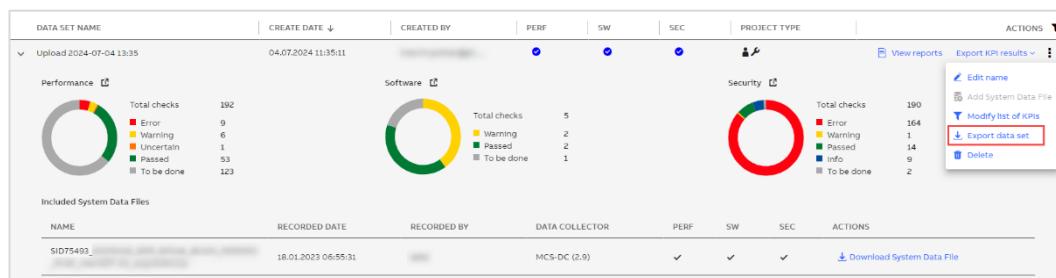


Figure 133: Exporting a Data Set via export tool

According to ABB cyber security guidelines exported customer data has to be password protected. For this reason, a new pop-up window will appear where you must specify a password for the Data Set to be exported.

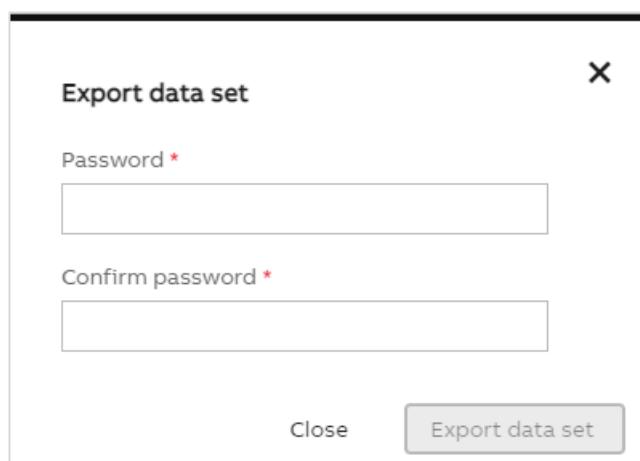


Figure 134: Specify password for exported Data Sets

The Data Set export is started by selecting the “Export Data Set” button inside this pop-up window. The Data Set export will then be stored on your local hard drive.

2.6.13.2.2. Inventory

The inventory tab is used to manage inventory reports, check data import history or clean inventory data.

In the “Inventory Reports” widget you can find the list of already generated inventory reports. Use “Create new report” button to generate new inventory or lifecycle reports.

INVENTORY REPORTS					
CATEGORY	REPORT TYPE	STATUS	CREATED DATE	AUTHOR	Actions
Inventory	Summary	Published	06.10.2022 10:32:03	[REDACTED]	Open report Edit
Inventory	Benchmark	Published	06.10.2022 10:21:52	[REDACTED]	Open report Edit
Lifecycle	Benchmark	Published	06.10.2022 09:55:02	[REDACTED]	Open report Edit
Lifecycle	Fingerprint	Published	06.10.2022 08:52:30	[REDACTED]	Open report Edit
Lifecycle	Benchmark	Published	06.10.2022 08:44:24	[REDACTED]	Open report Edit

Figure 135: Inventory Report widget

The “Data import history” widget shows information about the data collector, upload date and who uploaded the data. You can also use create a new data set or import previously exported data set from this widget.

DATA IMPORT HISTORY				
NAME	DATA COLLECTOR	UPLOAD DATE	UPLOADED BY	Actions
[REDACTED]	MCS-DC (2.9)	11.09.2024 13:28:21	[REDACTED]	
[REDACTED]	MCS-DC (2.9)	09.09.2024 15:05:33	[REDACTED]	

Figure 136: Data Import History

To clear all inventory data, click on the button located in the top right corner of this tab.



Figure 137: Clear inventory data

2.6.13.3. Power BI section

The Power BI section is used to access the data lake for end users. This icon is available in each context which means that you can access it on the SID, site or company level.



Figure 138: Power BI section of Administration and Configuration area

2.6.13.4. Tools section

In the tools section you can download all necessary tools for the data collection and analysis process (e.g. MCS-DC).



Figure 139: Tools section of Administration and Configuration area

2.6.13.5. **Settings section**

The Settings section is used to manage and preconfigure the working environment of your MCS application.



Figure 140: Settings section of Administration and Configuration area

2.6.13.5.1. **Assets tab**

The Assets tab allows to manage and configure settings for assets. There are three widgets on this tab:

- Restore assets
- Assets merging
- Assets merging logic

“Restore assets” widget allows to configure the time before an asset is deleted permanently.

RESTORE ASSETS

Time before permanent asset deletion*

30 days

Discard changes

Figure 141: Restore assets

“Assets merging” widget is used to define whether automatic assets merging should be performed.

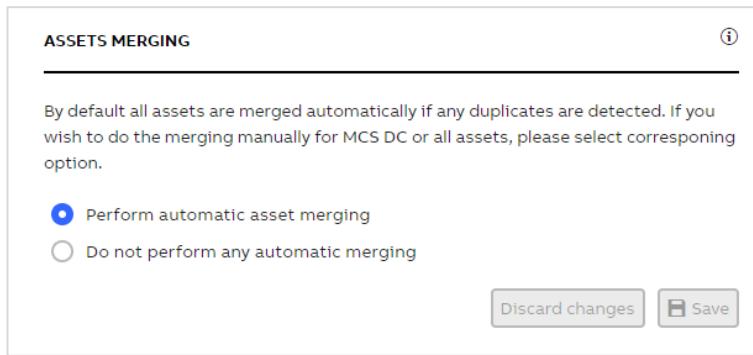


Figure 142: Assets merging

In the “Assets merging logic” widget you can define the criteria used for merging assets. At least one option must be selected.

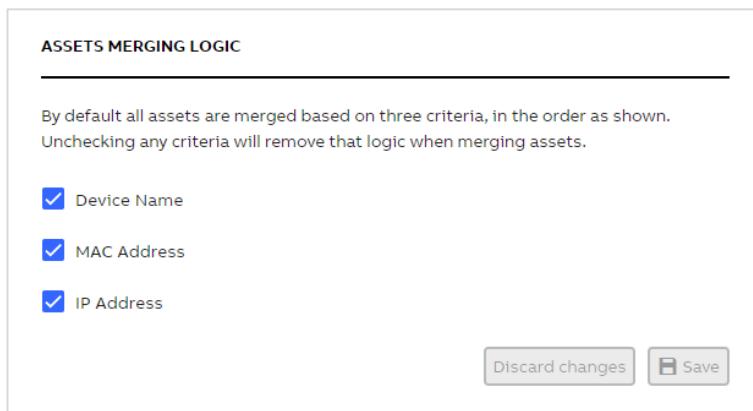


Figure 143: Assets merging logic

2.6.13.5.2. Application Credentials Management

The content of the Application Credentials Management tab is available on the company level and allows to initiate the connection between MCS on-premise and web.

Click on the “Add application” button to add new application to the widget.

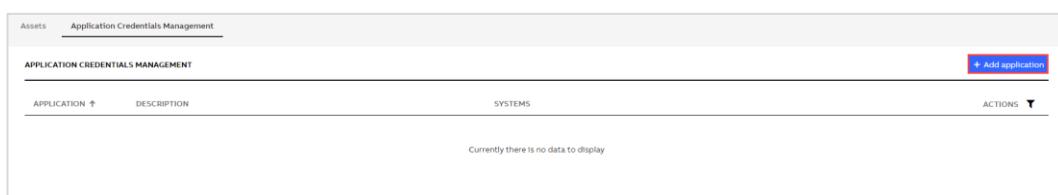


Figure 144: Application Credentials Management

In the dialog box select application (for now only MCS On-Premise is available), provide a description and select one or more systems from your company. Click on “Add application” button.

Add application

Application*
MCS On-Premise

Description*
MCS OP - web connection
23/50

Systems*
SID75493 X

Cancel **Add application**

Figure 145: Add application

Once the application has been configured, a dialog box with the credentials is displayed. Remember to store them securely as once the dialog is closed, it will not be possible to see them again. Use the “copy credentials” button to copy the content of the box.

Application configured

MCS On-Premise - MCS OP - web connection was successfully configured.

⚠ Remember to store the credentials securely, you will not be able to see them again after closing this dialog.

Client ID	OnPremiseConnection.McsOnPremise-MCS-OP---web-connection.20240719112038
One-time password	31b0122a-8197-4f85-ba55-6e9189440cbf
Password	deYZdePjyu-ArY-qjCsmJepnfGrPLtpHB_zXeeLkhSd2Vvvqq3XWc3lsHgeM QCRzwqL1vt_DLtCcx_qwDjyDkg

Copy credentials

Figure 146: Credentials for the configured application

It is possible to reset credentials, edit the description or remove the connection using icons in the Actions column. These options are available only if user has access to all systems used for configuring the specific connection.

The screenshot shows a table with columns: APPLICATION, DESCRIPTION, SYSTEMS, and ACTIONS. The 'APPLICATION' row contains 'MCS On-Premise' and 'test'. The 'SYSTEMS' row contains 'SID75486, SID75497, SID75498'. The 'ACTIONS' row contains a 'Reset password' button, which is highlighted with a red box.

Figure 147: Modify connection

To finalize setting up the connection between MCS on-premise and web, configure your MCS on-premise instance. For details on this topic please refer to document ref. [1].

2.6.13.6. Language selector

The language selector located in the top right corner allows changing the language. After choosing a specific item from the list, the page will be refreshed to apply the changes.

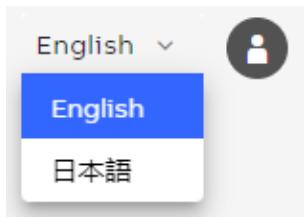


Figure 148: Language selector

2.6.13.7. User section

The user section in the Administration and Configuration area displays information about the current user logged in to MCS.

The screenshot shows a vertical list of links: 'User Preferences', 'Privacy Notice', 'Terms & Conditions', 'About MCS', 'myABB dashboard', and 'Log Out'.

Figure 149: User section of Administration and Configuration area

It also provides links to edit the user preferences, view the privacy notice and terms & conditions, access the release notes ("about MCS"), jump back to the myABB dashboard and to log out the current user.

2.7. Reports

My Control System gives you the possibility to create and download all the analysis results and text elements via dedicated reports.

Following report types are available:

- Summary (provides a short overview about the overall KPI results)
- Reduced (provides a general overview about the individual KPI result of each collected device)
- Detailed (provides in-depth information about the individual KPI result of each collected device and descriptive text elements for each finding)
- Complete (provides in-depth information about the individual KPI result for each collected device, descriptive text elements for each finding and an appendix with all data points that were used for the analysis)
- Benchmark (legacy report type that is comparable to the new “Reduced Report” type)
- Fingerprint (legacy report type that is comparable to the new “Detailed Report” type)
- Assessment (legacy report type that is comparable to the new “Complete Report” type)



Report types Detailed, Complete and Fingerprint are only available with an active System Fingerprint license. Report type Assessment is only available with an active System Assessment license.



The report functionality is not available for “SystemUtilities” data sets.

2.7.1. Accessing reports

Reports can be created/accessed in three different places:

- On the data set management page (KPI tab) via the “Actions”, where you can browse reports grouped by data set (see Chapter 2.6.13.1)
- On the data set management page (Inventory tab) via the “Inventory Reports” widget where you can browse Inventory and Lifecycle reports
- In the pie chart widget on the KPI analysis tab of each category, where you will find reports for specific category (see Chapter 2.6.7)

Either a popup is opened where you can see already created reports or create a new one

Created reports					
Category	Report Type	Results	Language	Status	Actions
Performance	Complete	All results	English	Published	 
Software	Complete	All results	English	Published	 
Security	System Status	All results	-	Published	
Software	System Status	All results	-	Published	
Performance	System Status	All results	-	Published	
Performance	Complete	All results	German	Published	 

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[Close](#) [Create new report](#)

Figure 150: Created reports

or (as on Inventory tab under data set management) already created reports are listed directly in the widget.

INVENTORY REPORTS					Create new report
Category	Report Type	Status	Created Date	Author	Actions
Inventory	Summary	Published	06.10.2022 10:32:03		 
Inventory	Benchmark	Published	06.10.2022 10:21:52		 
Lifecycle	Benchmark	Published	06.10.2022 08:53:02		 
Lifecycle	Fingerprint	Published	06.10.2022 08:52:30		 
Lifecycle	Benchmark	Published	06.10.2022 08:44:24		 

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Figure 151: Created inventory reports

For already created reports, there are two actions available:

- Open report (opens the PDF version of the report in a new browser tab)
- Delete (deletes the report)

2.7.2. Generating reports

New reports can be generated by clicking the "Create new report" button. Clicking that button will open a wizard that will guide you through the process of report generation.

Following steps need to be done in the wizard:

- Select the category (if the wizard was opened from one of the category tabs, that category will be pre-selected in the drop down)
- Select the report type (keep in mind that some report types may be unavailable based on the selected category)
- Select the result filter (keep in mind that some filters may be unavailable based on the selected report type)
- Select additional options (language)

When all selections are made, click on the "Create report" button. The report will be displayed on top of the created reports list. For as long as the report is being generated, no actions will be available for that report.

Create report for data set: Upload 2021-12-15 MCS Data Collector 2.3

Category
Please select the Category
Performance

Report Type
Please select the Report Type

Filter
Please select the Filter

Options
Language

Buttons
Cancel Create Report

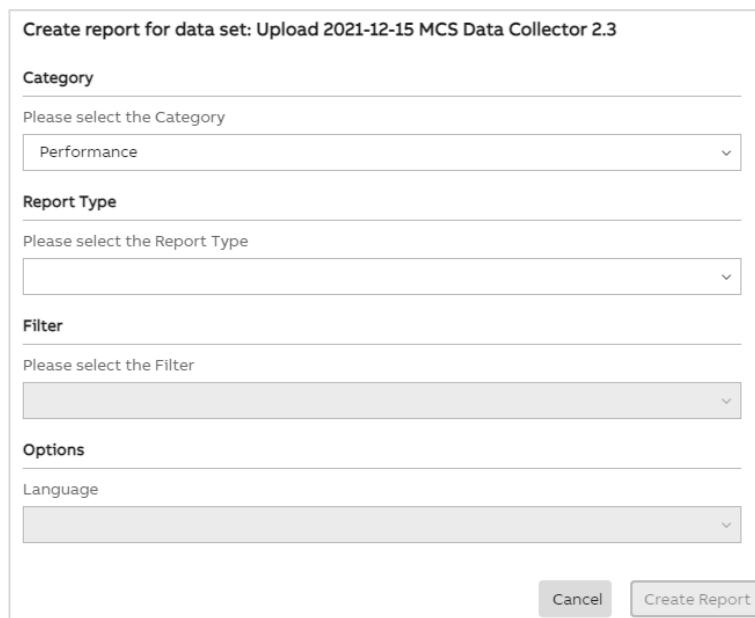


Figure 152: Create new report

3. Additional Information

3.1. Listing of Related Documents

Document Kind, Title	Document No.
1 My Control System (on-premise) - Installation and Configuration Manual	2PAA121208
2 My Control System (on-premise) - Operations Manual	2PAA121209
3 My Control System - Data Collector - User manual	2PAA120980-200
4 My Control System - Forwarder - User Manual	7PAA001522
5 My Control System Event Collector – User manual	7PAA001523
6 My Control System (on-premise) - Hardening Guide	7PAA002031

4. Revisions

4.1. Revision History

Rev.	MCS Version	Page (P) Chapt. (C)	Description	Date Dept./Init.
A-L		(P) all	Explaining changes in the widgets of an earlier version My Control System	Before June 2022
M	5.9	(P) all	Revision of complete document	2022-09, PA PCP
N	5.14	(P) all	Revision of complete document	2023-02-17 PA PCP
O	5.15	(C) 2.6.5.1.2 (C) 2.6.10.1 (C) 2.6.10.3	Added chapter 'System Update Service' Updated chapter 'Hardware Lifecycle' Updated chapter 'Assets'	2023-03-17 PA PCP
P	6.2	(C) 2.6.10.3 (C) 2.6.11 (C) 2.6.12.4.1	Updated chapter 'Assets' Updated chapter 'Documentation' Updated chapter 'Assets tab'	2023-08-11 PA PCP
Q	6.3	(C) 2.6.10.3 (C) 2.6.12.2.1	Updated chapter 'Assets' Updated chapter 'KPI'	2023-09-01 PA PCP
R	6.4	(C) 2.6.5.1	Updated chapter 'System Status'	2023-09-29 PA PCP
S	6.5	(C) 2.6.2 (C) 2.6.6.4	Updated chapter 'Filter area' Updated chapter 'Comparison view'	2023-10-27 PA PCP
T	6.6	(P) all (C) 2.6.5 (C) 2.6.6 (C) 2.6.8.4	Updated used pictures Updated chapter 'General Information' Updated chapter 'Overview area' Updated chapter 'Alerts and Notifications'	2023-12-15 PA PCP
U	6.7	(C) 2.6.1 (C) 2.6.5 (C) 2.6.6 (C) 2.6.7 (C) 2.6.8 (C) 2.6.9 (C) 2.6.12.2.1	Updated chapter 'Navigation bar' Updated chapter 'General Information' Updated chapter 'Overview area' Updated chapter 'KPI details page' Updated chapter 'Health' Updated chapter 'Security' Updated chapter 'KPI'	2024-03-04 PA PCP
V	6.8	(C) 2.6.1 (C) 2.6.7.1	Updated chapter 'Navigation bar' Updated chapter 'KPI details'	2024-04-05 PA PCP
W	6.9	(C) 2.6.5.5	Added chapter 'Support cases'	2024-04-29 PA PCP
X	6.11	(C) 2.4.2 (C) 2.5 (C) 2.6.1.1 (C) 2.6.5.4 (C) 2.6.11	Updated chapter 'Configuration of auto-notifications' Updated chapter 'The My Control System widget on the myABB dashboard' Updated chapter 'Accessing SIDs' Updated chapter 'Licenses and Contacts' Updated chapter 'Documentation'	2024-07-03 PA PCP

Rev.	MCS Version	Page (P) Chapt. (C)	Description	Date Dept./Init.
Y	6.12	(C) 2.6.5.4 (C) 2.6.12.4.2	Updated chapter 'Licenses and Contacts' Added chapter 'Application Credentials Management'	2024-07-26 PA PCP
Z	6.14	(C) 2.4.2 (C) 2.6.4 (C) 2.6.5 (C) 2.6.11.3 (C) 2.6.12	Updated pictures in chapter 'Configuration of auto-notifications' Added chapter 'Tables in MCS' Updated chapter 'General Information' Updated chapter 'Assets' Updated chapter 'Administration and Configuration Area'	2024-09-16 PA PCP
AA	6.15	(C) 2.6.6.4 (C) 2.6.13.2	Updated chapter 'Licenses and Contacts' Updated pictures in chapter 'Data set management section'	2024-10-14 PA PCP
AB	6.16	(C) 2.6	Updated chapter 'Overview (general layout)'	2024-11-12 PA PCP
AC	6.17	(P) all	Updated used pictures	2024-12-09 PA PCP

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