

What's New for *Metasys* Release 8.0

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Refer to the [QuickLIT website](#) for the most up-to-date version of this document.

Introduction.....	2
Summary of Changes.....	2
Features and Benefits.....	2
<i>Metasys</i> User Interface.....	2
Configuration and Programming Productivity Enhancements.....	4
Network Engine Enhancements.....	5
Security Updates.....	6
Platform and Upgrade Process Updates.....	7
BACnet Protocol Revisions.....	8
New and Revised Documentation.....	8

Introduction

This document lists the *Metasys*® system features and enhancements introduced at Release 8.0 and the *Metasys* User Interface enhancements at Release 2.0. For more information, refer to the *Metasys* system technical documentation and to the *Metasys* software help systems.

Summary of Changes

Corrected the NCE model numbers for network engines with AMEV Profile A Certification. See [BACnet Protocol Revisions](#).

Features and Benefits

Metasys User Interface

Metasys® Release 8.0 includes Release 2.0 of the *Metasys* user interface, the device-friendly UI that runs on smart phones, tablets, and computers without the need to install any native applications or client-side software. The *Metasys* UI adapts to the size of the screen so that all information can be accessed from any device. The *Metasys* UI is intuitive and easy to learn because system navigation is based on a building floors and spaces model. The following table outlines enhancements to the *Metasys* UI at Release 2.0.

Table 1: *Metasys* UI Release 2.0 Enhancements

Feature	Description	Benefit
Graphic Viewing	Include graphical images originally created as Graphics+ graphics or Standard Graphics in equipment and spaces dashboards.	Meets the needs of <i>Metasys</i> operators who prefer graphical representations of their equipment and building layout to provide easy system navigation, to view status, and to take action—from any device. Ensures current <i>Metasys</i> operators get the most out of their existing graphics investments.
Alarm Manager and Alarm Monitor	Sort alarms by priority and acknowledge alarms in bulk.	Provides faster troubleshooting for <i>Metasys</i> operators by easily prioritizing the most critical alarm occurrences.
Commanding	Issue commands directly from a graphic.	Improves system response time by helping <i>Metasys</i> operators restore order to their facilities.
Custom Trend Widget	View customized, ad hoc charts of trend data (up to four points at a time.)	Provides <i>Metasys</i> operators the opportunity to learn more about their system and make more informed decisions.
Equipment Activity Widget	View all alarm activities and user changes (audits) made to the selected piece of equipment. Using the Filters button, operators can filter by activity, specific point, or date range.	Helps <i>Metasys</i> operators easily see and understand the correlation between alarms and audits in the system. In a single view, <i>Metasys</i> operators can get answers to common questions to diagnose system performance, like: "What happened to my chiller over the weekend?" "What user changes were made in this time frame, and who made them?"
Equipment Data Widget	View all the points mapped to a single piece of equipment. These points are displayed in the order that they are configured in SCT. Color sidebars indicate conditions other than Normal.	Quickly indicates to <i>Metasys</i> operators the information related to a specific piece of equipment. <i>Metasys</i> operators can expand any point to issue commands or view trend data.
Trend, Alarm, Audit Data Export	View and export up to one year of historical trend, alarm, and audit data; filter list by points; and improve the display of alarm messages.	Helps <i>Metasys</i> operators measure, analyze, and improve building occupant conditions with ease.

Table 1: Metasys UI Release 2.0 Enhancements

Feature	Description	Benefit
Improved Schedule Viewing	View schedules affecting a space or piece of equipment and add exceptions across multiple schedules.	Demonstrates to <i>Metasys</i> operators the impact of schedule changes on their system and helps them quickly make adjustments. Scheduling changes become a convenient and efficient process for the <i>Metasys</i> operators, reducing time on task.
Mass Scheduling	Adjust multiple building schedules in one step.	
Schedule Summary	Display all effective schedules that are associated with equipment directly serving the currently selected space or any children spaces. You can use this view to navigate to the schedule details view so you can learn more about an individual schedule.	
Space Authorization	Provide <i>Metasys</i> system administrators with the flexibility to allow or restrict access to <i>Metasys</i> operators for their selected spaces.	Restricts <i>Metasys</i> operators to only those parts of the system they are authorized to see, resulting in a more tailored user experience and a more secure system.
Search by Equipment	Fast method for searching by equipment name.	Helps <i>Metasys</i> operators quickly find information about specific equipment. View prioritized data for better decision-making.
Expanded User Support	Support up to 25 simultaneous users in the <i>Metasys</i> UI.	Meets the needs of <i>Metasys</i> sites that have a large number of <i>Metasys</i> operators requiring simultaneous access.
Temporary Out of Override	<p>Change the value of an output point for a specified period of time. After the specified time period expires, the override is automatically released and the object returns to its previous state or value.</p> <p>At Release 7.0, this feature was available to MS/TP and BACnet® integrations only, but is now extended to N2 Bus, LON, and VND integrations.</p>	Helps prevent system issues caused by <i>Metasys</i> operators forgetting to release an override. Also available on the <i>Metasys</i> SMP UI.
Temporary Operator Service	<p>Place an object in the out-of-service state for a specified period of time. After the specified time period expires, the object is placed back into service.</p> <p>At Release 7.0, this feature was available to MS/TP and BACnet integrations only, but is now extended to N2 Bus, LON, and VND integrations.</p>	Helps prevent system issues caused by <i>Metasys</i> operators forgetting to put objects back into service. Also available on the <i>Metasys</i> SMP UI.

Configuration and Programming Productivity Enhancements

The new configuration and commissioning features for the Site Management Portal (SMP) and System Configuration Tool (SCT) dramatically improve the efficiency with which users can create underlying system-wide logic and commission Network Engines and Field Equipment Controllers. These features also reduce the amount of time required to configure the *Metasys* UI. The following table outlines enhancements to the Site Management Portal UI.

Table 2: SMP Enhancements

Feature	Description	Benefit
Audit Viewer	Forward audits to the Site Director immediately for schedules, multiple command objects (MCOs), interlocks, and logic control tool (LCT) objects, similar to how events were handled previously. Prior to Release 8.0, audits were forwarded once at midnight, when the local repository became full, or when the operator issued a Route Samples command. In addition, immediate audit forwarding provides you with useful and complete information on the <i>Metasys</i> UI Recent Activity Viewer.	Provides <i>Metasys</i> operators with the most recent information about their system, helping them to make more informed decisions.
Multi-Time Zone Support	Set the local time zone of a network engine independent of the Site Director's time zone. All dates, times, alarm notifications, and schedules for the network engine are in the local time zone, enabling multiple NxEs across different time zones to report to a single Site Director. Prior to Release 8.0, a network engine reported to a single Site Director without consideration of the time zone.	Eliminates frustrations for <i>Metasys</i> operators working with schedules across multiple buildings and systems located in different time zones. Operators no longer have to account for the different time zones and calculate the local time at which the event occurred.
Alarm and Trend for ODS	System alarming and trends occur locally at the ODS.	Provides <i>Metasys</i> system designers the increased flexibility to design appropriate solutions for systems requiring BACnet interoperability.
Improved Custom State Text Support	<i>Metasys</i> objects inherit the states text defined for custom multi-state variables programmed in CCT.	Saves <i>Metasys</i> programmers time by eliminating the need for them to enter states text twice.
Virtual Machine Support	VMware and HyperV support is expanded to 1,000 network engines on a unified or split ADX configuration.	Provides for ensured system expandability with the most popular VM software.

The following table outlines enhancements to the SCT UI.

Table 3: SCT Enhancements

Feature	Description	Benefit
Rapid Archive Creation	Create points under field controllers in an automated fashion by using equipment definitions, controller templates, and room schedules.	Reduces drastically the database creation and validation time. The laborious task of manually creating points under field controllers is now automated. <i>Metasys</i> programmers can create an SCT archive database quickly and easily without having to be at the customer's site.
Metasys UI Offline Mode	Provide an offline view of the <i>Metasys</i> UI.	Saves <i>Metasys</i> programmers time and improves the quality of their design by enabling them to preview how the spaces, equipment, and graphics defined in SCT appear in the <i>Metasys</i> UI, without having to access a live site.
Download Spaces and Equipment Definitions Only	When selected, only the Spaces and Equipment definitions are downloaded to the ADS/ADX, not the entire database.	Saves <i>Metasys</i> programmers time when creating the <i>Metasys</i> UI and avoids customer disruption, without the need to take the ADS/ADX offline and download the entire database.
Encrypted Databases	SCT and network engine database encryption.	Ensure greater system security.
Enhanced Upload and Download Process	The upload and download processes now include user preferences and object lists.	Saves <i>Metasys</i> programmers time and improves the quality of their upgrades. They no longer need to manually back up these settings before an upgrade or manually restore them once upgraded.
Launcher 1.5 Enhancements	Include new customizations that enable all users to run Launcher from a common location and manual proxy selection.	Provide the flexibility needed for the Launcher installation to meet popular IT configurations and remote access methods used by our customers.
Support for NAE55-3 Engines	Support the newest network engine models. The NAE55-3 provides greater capacity than older models and runs on a newer operating system.	Readies BAS installations for the latest technology improvements and satisfies common IT requirements.
Locate in Tree	Provide a new right-click option that, when selected, highlights the selected object in the All Items tree.	Saves time spent searching for an object's location in the All Items tree.
Security Copy	Integrate optional security database uploads and downloads into the Manage Archive wizard. Include network engine security editing and improved security database structures.	Provides a fast and convenient method for downloading the same security database to one or multiple network engines at the same time.

Network Engine Enhancements

The Network Engine family has been expanded to provide a more powerful platform for the NAE55/NIE59 models. The NxE55-3 and NIE59-3 models with Release 7.0.7 software were initially released in April 2016, but are now updated with Release 8.0 software. These new models ensure long-term viability of the installed NxE55 engine base.

Security Updates

This release includes updates to the user password management process to match the industry-standard best practices. See the following table.

Table 4: Security Enhancements

Feature	Description	Benefit
Inactivation of Unused Ports	Activate only those ports required specifically by <i>Metasys</i> system operations.	Limits unauthorized access to the <i>Metasys</i> system by preventing access to ports not in use by the system.
Dormant User Accounts	Enable <i>Metasys</i> system administrators to specify when to tag a user account as dormant. System administrators can select any number of days to set a user's account as unauthorized from accessing the <i>Metasys</i> system. This setting applies to local, RADIUS, and Active Directory accounts.	Provide a <i>Metasys</i> system administrator a method of determining user accounts that have not been used for a period of time and provide the option for disabling these accounts.
RADIUS Server Authentication Support	Provide support for user accounts that are controlled by a RADIUS server. A user's account is automatically locked out if inactive for 30 days.	Provides the flexibility needed for the <i>Metasys</i> installations whose IT configurations require this specific type of centralized authentication and authorization.
Syslog Activity Logging Support	Send all <i>Metasys</i> audits and events in a Syslog standard formatted message to a RFC 3164-compliant Syslog UDP network logging server. System administrators can use the Syslog server for system management and security auditing.	Provides the IT department the ability to view from a single seat all log-in attempts from network devices, including <i>Metasys</i> system devices.
Password Hashing	Apply an internal hashing algorithm to <i>Metasys</i> passwords.	Prevents unauthorized users from retrieving passwords and using them to gain unauthorized access.
Warning Banner Configuration	Enable and disable the U.S. Department of Defense (DoD) banner for the Site Management Portal and any network engine that is configured as a Site Director or child ADX that is included on the <i>Metasys</i> site.	Provides the flexibility needed for the <i>Metasys</i> installations required to meet DoD standards.

Platform and Upgrade Process Updates

Our customers expect and need their Building Management System (BMS) to function on the computers, servers, and browsers (clients) that are available in the marketplace. As indicated in the following table, the *Metasys* system supports the latest Microsoft® platform offerings and provides new utilities to manage the upgrade and installation process.

Table 5: Enhancements

Feature	Description	Benefit
One-Click Installation	<p>For an ADS, the new <i>Metasys</i> Server installer adds the required software prerequisites, such as IIS and SQL Server 2014 Express software, then installs the <i>Metasys</i> system software. Requires only one click by system installers.</p> <p>For an ADX, the <i>Metasys</i> Server installer adds the required software prerequisites and installs the <i>Metasys</i> system software, but requires that a supported version of SQL Server Standard or Enterprise software has been previously installed.</p> <p>The <i>Metasys</i> Server Release 8.0 installer includes the following products: Site Management Portal UI, <i>Metasys</i> UI 2.0, Launcher 1.5, <i>Metasys</i> Advanced Reporting System, and Software License Activator.</p>	Provides a much faster and easier method for installing an ADS, ADX, or ADS-Lite. After the system is at Release 8.0, a one-click upgrade option becomes available.
Microsoft Windows 10 Support	Permit the ADS to run on the Windows 10 operating system, in addition to continued support on Windows 7 and Windows 8.1.	Allows <i>Metasys</i> to be installed on modern, widely available computing platforms.
Microsoft Office 2016 Support	Add support for the newest version of Microsoft Office to use with the <i>Metasys</i> Advanced Reporting System and the <i>Metasys</i> Export Utility.	
Multiple Network Interface Card (NIC) Support	Allow two or more network cards to reside on a <i>Metasys</i> Server.	Provides the flexibility needed for the <i>Metasys</i> Server installation to meet popular IT configurations. For example, one network card can be used for networking the BAS components and the other for remote access or for networking the database in a split ADX configuration.
Simplified Rename Tool for <i>Metasys</i> Servers	Assist in re-naming the <i>Metasys</i> Server.	Saves <i>Metasys</i> upgrade personnel time and frustration by making the computer renaming procedure faster and easier to follow and execute.

BACnet Protocol Revisions

The latest release of the *Metasys* system is expanded to comply with the **BACnet Protocol Revision (PR) 12 BTL Listing** (all network engines) and **AMEV Profile A Certification** for Germany (MS-NCE2517-0 and MS-NCE2566-0 only). Support for three new BACnet objects is provided: Integer Value, Positive Integer Value, and Character String Value. This new capability improves interoperability between *Metasys* and third-party BACnet devices, resulting in an even more open offering.

New and Revised Documentation

Metasys Release 8.0 and *Metasys* UI Release 2.0 includes multiple documentation updates.

Table 6: Partial List of New and Revised Documentation for *Metasys* Release 8.0

Document	Overview of Update
ADS, ADX, and SCT Installation and Upgrade Instructions Wizard (LIT-12011521)	Retired. Replaced by the <i>Metasys Server Installation and Upgrade Instructions Wizard (LIT-12012162)</i> and <i>SCT Installation and Upgrade Instructions (LIT-12012067)</i> .
ADS-Lite and SCT Installation and Upgrade Instructions Wizard (LIT-12011688)	Retired. Replaced by the <i>Metasys Server Lite Installation and Upgrade Instructions Wizard (LIT-12012258)</i> and <i>SCT Installation and Upgrade Instructions (LIT-12012067)</i> .
Metasys Server Installation and Upgrade Instructions Wizard (LIT-12012162)	New. Covers the steps for installing ADS or ADX, <i>Metasys</i> UI, and some other <i>Metasys</i> applications using the new <i>Metasys</i> Server Installer. Replaces the <i>ADS and ADX Installation and Upgrade Instructions Wizard (LIT-12011521)</i> .
Metasys Server Lite Installation and Upgrade Instructions Wizard (LIT-12012258)	New. Covers the steps for installing ADS-Lite Europe or ADS-Lite Asia, <i>Metasys</i> UI, and some other <i>Metasys</i> applications using the new <i>Metasys</i> Server Lite Installer. Replaces the <i>ADS-Lite Installation and Upgrade Instructions Wizard (LIT-12011688)</i> .
Metasys SMP Help (LIT-1201793)	Updated for new <i>Metasys</i> features, enhancements, and capabilities of the SMP and SCT.
Metasys SCT Help (LIT-12011964)	
Metasys System Product Bulletin (LIT-1201526)	Reorganized and updated for features of this release.
Network Engines Product Bulletin (LIT-12012138)	New document that describes the features and benefits of all Network Engines.
Network Automation Engine Product Bulletin (LIT-1201160)	Retired. Replaced by the <i>Network Engines Product Bulletin (LIT-12012138)</i> .
Network Control Engine Product Bulletin (LIT-12011283)	Retired. Replaced by the <i>Network Engines Product Bulletin (LIT-12012138)</i> .
Network Integration Engine Product Bulletin (LIT-1201537)	Retired. Replaced by the <i>Network Engines Product Bulletin (LIT-12012138)</i> .
Network Integration Engine (NIEx9) for Third-Party Integrations Product Bulletin (LIT-12011923)	Retired. Replaced by the <i>Network Engines Product Bulletin (LIT-12012138)</i> .
SCT Installation and Upgrade Instructions (LIT-12012067)	Updated for the new SCT 11.0 software and support for the Windows 10 operating system.
Metasys Database Manager Help (LIT-12011202)	Updated to include detail about the Rename Assistant.
Metasys System Product Bulletin (LIT-1201526)	Updated for new <i>Metasys</i> features, enhancements, and capabilities.
ODS Installation and Upgrade Instructions Wizard (LIT-12011945)	Updated for the new ODS software and support for the Windows 10 operating system.

Table 6: Partial List of New and Revised Documentation for *Metasys* Release 8.0

Document	Overview of Update
<i>SQL Server Installation and Upgrade Instructions (LIT-12012240)</i>	New. Describes in detail the steps for installing or upgrading any supported version of SQL Server software.
<i>Security Administrator Technical Bulletin (LIT-1201528)</i>	Updated for RADIUS server and Syslog changes and dormant user accounts feature.
<i>Database Tools Commissioning Guide (LIT-12012254)</i>	New. Describes how to use the <i>Metasys</i> Post Install (MPI) Database tool after installing the <i>Metasys</i> Server or ODS software if the installation notifies you that the database conversion failed. This document is intended for use by Johnson Controls® technical staff only, and is only available on the Branch Purchase Package DVD.

Table 7: New and Revised Documentation for *Metasys* UI Release 2.0

Document	Overview of Update
<i>Metasys UI Help (LIT-12011953)</i>	Updated for new <i>Metasys</i> UI content.
<i>Metasys UI Offline Help (LIT-12012166)</i>	New user document for <i>Metasys</i> UI offline.
<i>Metasys UI Offline Mode Installation Instructions (LIT-12011952)</i>	New installation instructions for <i>Metasys</i> UI offline.
<i>Metasys UI Technical Bulletin (LIT-12012115)</i>	Updated for new <i>Metasys</i> UI content.



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