

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys®

ADX - ADS

Application and Data Server

The Application and Data Server (ADS) and Extended Application and Data Server (ADX) are optional components of the Metasys system that manage the collection and presentation of large amounts of trend data, event messages, operator transactions, and system configuration data. The ADS is an entry-level server that runs on personal computers and supports up to 5 users. The ADX is a larger scale system that runs on a server operating system to provide extended historical archiving and reporting capabilities. The ADX is offered in several models to support up to 10, 25, 50, or 100 users. As Site Director, the ADS/ADX provides secure communication to a network of Network Automation Engines (NAEs), Network Control Engines (NCEs), and Network Integration Engines (NIEs).

The Site Management Portal UI of the ADS/ADX provides flexible system navigation, user graphics, comprehensive alarm management, trend analysis, and summary reporting capabilities. With the Site Management Portal UI, you can efficiently manage occupant comfort and energy usage, quickly respond to critical events, and optimize control strategies. The ADS/ADX includes an Open Database Connectivity (ODBC) compliant database package for secure storage of historical and configuration data.

The new Metasys UI is designed to enhance our customers' productivity and effectiveness. It allows users to navigate by space to view summaries, trends, and activities, emulating the way they work every day. The new user interface is also optimized for all devices, enabling our customers to work smarter from any device and any location. This release is the first in a series of enhancements that will consolidate existing Metasys user interface products into a single, dramatically improved experience that is accessible from any device. The ADS and ADX support virtual environments, including VMware® and Microsoft® Hyper-V™. Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for more information.

The Metasys system can communicate with cloud-based applications easily and securely. To make this connection, the Metasys system requires minor programming and setup by Johnson Controls. When you are connected, you can access multiple cloud-based applications and features. To learn more, please visit the Building Management page located on the Johnson Controls website. For the ADX, the Metasys Advanced Reporting System and Energy Essentials report on system configuration performance, energy usage, demand and cost.

Note

In this document, the term network engine refers to NAEs, NCEs and NIEs, unless otherwise noted. Refer to the ADS Product Bulletin (LIT-1201525) for important product application information.



Features

- Support of IT Standards and Internet Technologies
- Secure User Access
- Flexible System Navigation and Dynamic User Graphics
- Alarm and Event Management
- Long-Term Trend Data Storage
- Optional Metasys Advanced Reporting System and Energy Essentials

Applications

Use an ADS when:

- The number of network engines becomes larger than a single network engine can handle efficiently as Site Director.
- Long-term historical data storage needs exceed the capacity of a typical network engine.
- The number of simultaneous users logging in exceeds the capacity of a single network engine. The ADS supports up to 5 simultaneous users, and up to 10 to 14 NxE engines. Refer to the Metasys System Configuration Guide (LIT-12011832).

Use an ADX when:

- The Metasys Advanced Reporting System, Energy Essentials, or the Metasys for Validated Environments (MVE), Extended Architecture application is required
- You need to support more than 5 simultaneous users. The ADX supports up to 10, 25, 50, or 100 users, and up to 1,000 NxE engines. Refer to the Metasys System Configuration Guide (LIT-12011832).
- Any one of your data storage or access requirements is not met by an ADS.

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys® ADX - ADS

Ordering Information

For complete ordering information, refer to the Metasys System Software Purchase Options Product Bulletin (LIT-12011703).

ADS/ADX Ordering Information for New or Upgrade Software

New Software Ordering Codes	Product Description	Upgrade Software Product Code Number	Migration Software Product Code Number
MS-ADS05U-0	Application and Data Server For up to 5 users	MS-ADS05U-6	MS-ADS05U-8
MS-ADX10U-0	Extended Application and Data Server For up to 10 users	MS-ADX10U-6	MS-ADX10U-8
MS-ADX10SQL-0	Extended Application and Data Server For up to 10 users Includes Microsoft® SQL Server® 2012 software with core license	MS-ADX10SQL-6	MS-ADX10SQL-8
MS-ADXSWO-0	Extended Application and Data Server For up to 25 users	MS-ADXSWO-6	MS-ADXSWO-8
MS-ADXSWOSQL-0	Extended Application and Data Server For up to 25 users Includes Microsoft SQL Server 2012 software with core license	MS-ADXSWOSQL-6	MS-ADXSWOSQL-8
MS-ADX50U-0	Extended Application and Data Server For up to 50 users	MS-ADX50U-6	MS-ADX50U-8
MS-ADX50SQL2-0	Extended Application and Data Server For up to 50 users For use on server with dual processors or 8 cores ¹ Includes Microsoft SQL Server 2012 software with core license	MS-ADX50SQL2-6	MS-ADX50SQL2-8
MS-ADX50SQL-0	Extended Application and Data Server For up to 50 users For use on server with single processor or 4 cores Includes Microsoft SQL Server 2012 software with core license	MS-ADX50SQL-6	MS-ADX50SQL-8
MS-ADX100U-0	Extended Application and Data Server For up to 100 users	MS-ADX100U-6	MS-ADX100U-8
MS-ADX100SQL2-0	Extended Application and Data Server For up to 100 users For use on server with dual processors or 8 cores ¹ Includes Microsoft SQL Server 2012 software with core license	MS-ADX100SQL2-6	MS-ADX100SQL2-8

Note

¹ Servers with dual processors or 8 cores are recommended for ADX 50 user and 100 user software.

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys® ADX - ADS

Operating Systems and SQL Server Combinations

The following table lists by operating system the Microsoft® SQL Server® software editions that have been fully qualified by Johnson Controls for Release 7.0. You can select other combinations, but we recommend that you select from the following pairings.

Recommended Operating System and SQL Server Combinations

Operating System	Database Software								
	ADS					ADX			
	SQL 2014 Express, 64-bit	SQL 2012 Express SP2, 64-bit	SQL 2008 R2 Express SP2, 64-bit	SQL 2008 R2 Express SP2, 32-bit	SQL 2008 Express SP3, 32-bit	SQL 2014, 64-bit	SQL 2012 SP2, 64-bit	SQL 2008 R2 SP2, 64-bit	SQL 2008 R2 SP2, 32-bit
Windows® 8.1 Pro and Windows 8.1 Enterprise (64-bit)	•	•	•	---	---	---	---	---	---
Windows 8 Pro and Windows 8 Enterprise (64-bit)	•	•	•	---	---	---	---	---	---
Windows 7 Professional, Enterprise, and Ultimate Editions with SP1 (64-bit)	•	•	•	---	---	---	---	---	---
Windows 7 Professional, Enterprise, and Ultimate Editions with SP1 (32-bit)	---	---	---	•	•	---	---	---	---
Windows Server® 2012 R2 Standard Edition (64-bit)	---	---	---	---	---	•	•	•	---
Windows Server 2012 Standard Edition (64-bit)	---	---	---	---	---	•	•	•	---
Windows Server 2008 R2 Standard and Enterprise Editions with SP1 (64-bit)	---	---	---	---	---	•	•	•	---
Windows Server 2008 Standard and Enterprise Editions with SP2 (32-bit)	---	---	---	---	---	---	---	---	•

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys® ADX - ADS

Technical Specifications

Application and Data Server (ADS) System Requirements (5 Users)

Recommended Computer Platform ¹	3.4 GHz Intel® Core™ Quad processor 2 x 500 GB hard disk (RAID 1) ² with 40 GB free space after installation of all prerequisite software and before installation of ADS software. Configure RAID 1 (mirroring) with disk write-caching turned on. DVD drive Note: Prerequisite software includes the supported operating system, database software, .NET Framework, and any other software or service packs required for your ADS configuration.	
	Graphics card (1 GB RAM, ATI® Technologies or NVIDIA® Corporation, 64-bit compatible [for 64-bit operating systems], Small Form Factor [SFF] if required) ³	
Recommended Memory ⁴	8 to 16 GB RAM (64-bit systems) 4 GB RAM (32-bit systems)	
Supported Operating Systems ⁵ and Database Software	Windows® 8.1 Pro and Windows 8.1 Enterprise Editions (64-bit) Supports Microsoft SQL Server® 2014 Express (64-bit) ⁶ , Microsoft SQL Server 2012 Express with SP2 (64-bit), or Microsoft SQL Server 2008 R2 Express with SP2 (64-bit) Windows 8 Pro and Windows 8 Enterprise Editions (64-bit) Supports Microsoft SQL Server® 2014 Express (64-bit) ⁶ , Microsoft SQL Server 2012 Express with SP2 (64-bit), or Microsoft SQL Server 2008 R2 Express with SP2 (64-bit) Windows 7 Professional, Enterprise, and Ultimate Editions with SP1 (32-bit or 64-bit) Supports Microsoft SQL Server 2014 Express (32-bit or 64-bit) ⁶ , Microsoft SQL Server 2012 Express with SP2 (32-bit or 64-bit), or Microsoft SQL Server 2008 R2 Express with SP2 (32-bit or 64-bit) Note: The OS and software must both be 32-bit or 64-bit.	
Supported Virtual Environments	Microsoft Hyper-V™, VMware®	
Supported User Interfaces	Site Management Portal (SMP) Metasys UI Ready Access Portal	
Additional Software Included with the ADS	CCT software	Launcher software
	Export Utility software	Microsoft SQL Server 2012 Express software with SP2 (64-bit)
	Metasys Database Manager software	Microsoft SQL Server 2008 R2 Express software with SP2 (32-bit and 64-bit)
	SCT software	Microsoft .NET Framework Version 3.5 SP1
Optional Hardware	Any network or local printer supported by the qualified Windows operating system	
Optional Software	Graphic Generation Tool	

Note

- Our computer platform and memory recommendations are not meant to imply that older or slower machines are not usable. Refer to the *Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279)* for more information regarding computer/server recommendations.
- For best performance, use Serial Attached SCSI (SAS) hard drives, not Small Computer System Interface (SCSI) hard drives.
- For improved performance in configurations where ADS and Ready Access Portal share the same computer.
- For best performance, use the maximum amount of memory that the computer allows.
- Refer to the *Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279)* for specific Microsoft Windows operating system settings that may be required for your Metasys system configuration.
- To use SQL Server 2014 with Metasys products, you must install Microsoft cumulative update package 3 (KB2984923) for SQL Server 2014. To download the update package, visit <http://support.microsoft.com/kb/2984923/>.

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys® ADX - ADS

Extended Application and Data Server System Requirements (Unified ADX Systems, 10 or 25 Users)

Recommended Server Platform ¹	2.20 GHz E5 Series Intel Xeon® Quad Core single processor or better 2 x 600 GB hard disk (RAID 1) ² with 40 GB free space after installation of all prerequisite software and before installation of ADS software. Configure RAID 1 (mirroring) with disk write-caching turned on. DVD drive Note: ADX prerequisite software includes the Windows operating system, SQL Server software, Windows .NET Framework, and any other software or SPs required by your ADX configuration.	
Recommended Memory ³	16 GB RAM (10 or 25 user ADX)	
Supported Operating Systems ⁴ and Database Software	Windows Server® 2012 R2 (64-bit) ⁵ Supports Microsoft SQL Server 2014 (64-bit) ⁶ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2012 (64-bit) ⁵ Supports Microsoft SQL Server 2014 (64-bit) ⁶ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2008 R2 with SP1 (64-bit) ⁷ Supports Microsoft SQL Server 2014 (64-bit) ⁶ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2008 with SP2 (32-bit) ⁷ Supports Microsoft SQL Server 2008 R2 with SP2 (32-bit) Note: A 32-bit operating system only supports a maximum of 4 GB memory. For best performance, use a 64-bit operating system.	
Supported Virtual Environments	Microsoft Hyper-V™, VMware®	
Supported User Interfaces	Site Management Portal (SMP) Metasys UI Ready Access Portal	
Additional Software Included with the ADX	CCT software	Microsoft SQL Server 2012 software with SP2 (64-bit) ⁸
	Export Utility software	SCT software
	Metasys Database Manager software	Microsoft .NET Framework Version 3.5 SP1
	Launcher software	
	Note: The Metasys Advanced Reporting System requires an ADX. The SCT computer must be online and accessible to the ADX at all times.	
Optional Hardware	Any network or local printer supported by the qualified Windows operating system	
Optional Software	Energy Essentials Graphic Generation Tool	

Note

- Our computer platform and memory recommendations are not meant to imply that older or slower machines are not usable.
Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for more information regarding computer/server recommendations.
- For best performance, use SAS hard drives (not SATA hard drives) that use RAID controllers with write caching enabled.
- For best performance, use the maximum amount of memory. An ADX with 16 GB RAM has much greater performance than an ADX with only 4 GB RAM.
A 32-bit operating system does not support more than 4 GB of RAM.
- Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for specific Microsoft Windows operating system settings that may be required for your Metasys system configuration.
- For SQL Server 2014 software or SQL Server 2012 software, you must purchase a SQL Server software license for each individual processor core (with a minimum of four core licenses). For example, if you have a single processor with dual cores, purchase four core licenses (the minimum) for SQL Server 2014 software or SQL Server 2012 software.
- To use SQL Server 2014 with Metasys products, you must install Microsoft cumulative update package 3 (KB2984923) for SQL Server 2014.
To download the update package, visit <http://support.microsoft.com/kb/2984923/>.
- For SQL Server 2008 R2 software, you must purchase a SQL Server software license for each individual processor you have. You do not need to purchase multiple licenses if you have a single processor divided into multiple cores. For example, if you have a single processor with dual cores, purchase one license for SQL Server software.
- SQL Server software is only included with the MS-ADX10SQL product.

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys® ADX - ADS

Extended Application and Data Server System Requirements (Unified ADX Systems, 50 or 100 Users)

Recommended Server Platform ¹	Two processors: 2.20 GHz Intel Xeon® Dual Processors with a minimum of 4 cores each 6 x 300 GB 15,000 RPM hard disk (RAID 5) ² with 50 GB free space after installation of all prerequisite software and before installation of ADS software. Configure RAID 5 with disk write-caching turned on. RAID Controller-PERC H710 with 512 NV Cache DVD drive Note: ADX prerequisite software includes the Windows operating system, SQL Server software, Windows .NET Framework, and any other software or SPs required by your ADX configuration.	
Recommended Memory	32 GB RAM	
Supported Operating Systems ³ and Database Software	Windows Server® 2012 R2 (64-bit) ⁴ Supports Microsoft SQL Server 2014 (64-bit) ⁶ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2012 (64-bit) ⁴ Supports Microsoft SQL Server 2014 (64-bit) ⁶ Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2008 R2 with SP1 (64-bit) ⁵ Supports Microsoft SQL Server 2014 (64-bit) ⁶ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
Supported Virtual Environments	Microsoft Hyper-V™, VMware®	
Supported User Interfaces	Site Management Portal (SMP) Metasys UI Ready Access Portal	
Additional Software Included with the ADX	CCT software	Microsoft SQL Server 2012 software with SP2 (64-bit) ⁷
	Export Utility software	Microsoft .NET Framework Version 3.5 SP1
	Metasys Database Manager software	SCT software
	Launcher software	
	Note: The Metasys Advanced Reporting System requires an ADX. The SCT computer must be online and accessible to the ADX at all times.	
Optional Hardware	Any network or local printer supported by the qualified Windows operating system	
Optional Software	Energy Essentials Graphic Generation Tool	

Note

- Our computer platform and memory recommendations are not meant to imply that older or slower machines are not usable.
Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for more information regarding computer/server recommendations.
- For best performance, use SAS hard drives (not SATA hard drives) that use RAID controllers with write caching enabled.
- Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for specific Microsoft Windows operating system settings that may be required for your Metasys® system configuration.
- For SQL Server 2014 software or SQL Server 2012 software, you must purchase a SQL Server software license for each individual processor core (with a minimum of four core licenses). For example, if you have a single processor with dual cores, purchase four core licenses (the minimum) for SQL Server 2014 software or SQL Server 2012 software.
- For SQL Server 2008 R2 software, you must purchase a SQL Server software license for each individual processor you have. You do not need to purchase multiple licenses if you have a single processor divided into multiple cores. For example, if you have a single processor with dual cores, purchase one license for SQL Server software.
- To use SQL Server 2014 with Metasys products, you must install Microsoft cumulative update package 3 (KB2984923) for SQL Server 2014.
To download the update package, visit <http://support.microsoft.com/kb/2984923/>.
- SQL Server software is only included with the MS-ADX50SQL product.

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys® ADX - ADS

Extended Application and Data Server System Requirements (Split ADX Systems, 10 or 25 Users)

Recommended Server Platform ¹	Web/Application Server 2.20 GHz E5 Series Intel Xeon® Quad Core single processor or better. 2 x 600 GB hard disk (RAID 1) ² with 40 GB free space after installation of all prerequisite software ⁴ and before installation of ADS software. Configure RAID 1 (mirroring) with disk write-caching turned on. DVD drive Note: Metasys UI must reside on the ADX web/application server.	
	Database Server 2.20 GHz E5 Series Intel Xeon® Quad Core single processor or better. 2 x 600 GB hard disk (RAID 1) with 40 GB free space after installation of all prerequisite software ⁴ and before installation of ADS software. Configure RAID 1 (mirroring) with disk write-caching turned on. DVD drive	
	SCT Computer In a split configuration, you cannot install SCT or Ready Access Portal software on either the ADX web/application server computer or the ADX database server computer. <i>Refer to the System Configuration Tool Catalog Page (LIT-1900198) for current SCT computer requirements.</i>	
Recommended Memory ³	16 GB RAM (web/application server and database server for 10 or 25 user ADX)	
Supported Operating Systems ^{5,6} with Supported Database Software	Windows Server® 2012 R2 (64-bit) ⁷ Supports Microsoft SQL Server 2014 (64-bit) ⁹ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2012 (64-bit) ⁷ Supports Microsoft SQL Server 2014 (64-bit) ⁹ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2008 R2 with SP1 (64-bit) ⁸ Supports Microsoft SQL Server 2014 (64-bit) ⁹ , Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)	
	Windows Server 2008 with SP2 (32-bit) ⁸ Supports Microsoft SQL Server 2008 R2 with SP2 (32-bit) Note: A 32-bit operating system only supports a maximum of 4 GB memory. For best performance, use a 64-bit operating system.	
Supported Virtual Environments	Microsoft Hyper-V™, VMware®	
Supported User Interfaces	Site Management Portal (SMP) Metasys UI Ready Access Portal	
Additional Software Included with the ADX	CCT software Export Utility software Metasys Database Manager software Launcher software	Microsoft SQL Server 2012 software with SP2 (64-bit) ¹⁰ Microsoft .NET Framework Version 3.5 SP1 SCT software
	Note: The Metasys Advanced Reporting System requires an ADX. The SCT computer must be online and accessible to the ADX at all times.	
Optional Hardware	Any network or local printer supported by the qualified Windows operating system	
Optional Software	Energy Essentials Graphic Generation Tool	

Note

- Our computer platform and memory recommendations are not meant to imply that older or slower machines are not usable. Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for more information regarding computer/server recommendations.
- For best performance, use SAS hard drives (not SATA hard drives) that use RAID controllers with write caching enabled.
- For best performance, use the maximum amount of memory. An ADX with 16 GB RAM has much greater performance than an ADX with only 4 GB RAM. Also, a 32-bit operating system only supports a maximum of 4 GB of RAM.
- ADX prerequisite software includes the Windows operating system and SQL Server software, Windows .NET Framework, and any other software or service packs required for your ADX configuration.
- The web/application and database servers must have the same operating system installed.
- Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for specific Microsoft Windows operating system settings that may be required for your Metasys system configuration.
- For SQL Server 2014 software or SQL Server 2012 software, you must purchase a SQL Server software license for each individual processor core (with a minimum of four core licenses). For example, if you have a single processor with dual cores, purchase four core licenses (the minimum) for SQL Server 2014 software or SQL Server 2012 software.
- For SQL Server 2008 R2 software, you must purchase a SQL Server software license for each individual processor you have. You do not need to purchase multiple licenses if you have a single processor divided into multiple cores. For example, if you have a single processor with dual cores, purchase one license for SQL Server software.
- To use SQL Server 2014 with Metasys products, you must install Microsoft cumulative update package 3 (KB2984923) for SQL Server 2014. To download the update package, visit <http://support.microsoft.com/kb/2984923/>.
- SQL Server software is only included with the MS-ADX10SQL product.

BAS SYSTEM SOFTWARE Supervisor Software and Tools

Metasys® ADX - ADS

Extended Application and Data Server System Requirements (Split ADX System, 50 or 100 Users)

Recommended Server Platform ¹	<p>Web/Application Server Two processors: 2.20 GHz Intel Xeon® Dual Processors with a minimum of 4 cores each 6 x 300 GB 15,000 RPM hard disk (RAID 5) ² with 50 GB free space after installation of all prerequisite software ⁴ and before installation of ADS software. Configure RAID 5 with disk write-caching turned on. RAID Controller—PERC H710 with 512 NV Cache DVD drive Note: ARS and Energy Essentials can reside on the ADX web/application server. Note: Metasys UI must reside on the ADX web/application server.</p> <p>Database Server Two processors: 2.20 GHz Intel Xeon® Dual Processors with a minimum of 4 cores each 6 x 300 GB 15,000 RPM hard disk (RAID 5) with 50 GB free space after installation of all prerequisite software ⁴ and before installation of ADS software. Configure RAID 5 with disk write-caching turned on. RAID Controller—PERC H710 with 512 NV Cache DVD drive</p> <p>SCT Computer In a split configuration, you cannot install SCT or Ready Access Portal software on either the ADX web/application server computer or the ADX database server computer. <i>Refer to the System Configuration Tool Catalog Page (LIT-1900198) for current SCT computer requirements.</i></p>									
Recommended Memory ³	32 GB RAM									
Supported Operating Systems ^{5,6} with Supported Database Software	<p>Windows Server® 2012 R2 (64-bit) ⁷ Supports Microsoft SQL Server 2014 (64-bit) ⁹, Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)</p> <p>Windows Server 2012 (64-bit) ⁷ Supports Microsoft SQL Server 2014 (64-bit) ⁹, Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)</p> <p>Windows Server 2008 R2 with SP1 (64-bit) ⁸ Supports Microsoft SQL Server 2014 (64-bit) ⁹, Microsoft SQL Server 2012 with SP2 (64-bit), or Microsoft SQL Server 2008 R2 with SP2 (64-bit)</p>									
Supported Virtual Environments	Microsoft Hyper-V™, VMware®									
Supported User Interfaces	Site Management Portal (SMP) Metasys UI Ready Access Portal									
Additional Software Included with the ADX	<table border="1"> <tr> <td>CCT software</td> <td>Microsoft SQL Server 2012 software with SP2 (64-bit) ¹⁰</td> </tr> <tr> <td>Export Utility software</td> <td>Microsoft .NET Framework Version 3.5 SP1</td> </tr> <tr> <td>Metasys Database Manager software</td> <td>SCT software</td> </tr> <tr> <td>Launcher software</td> <td></td> </tr> </table>	CCT software	Microsoft SQL Server 2012 software with SP2 (64-bit) ¹⁰	Export Utility software	Microsoft .NET Framework Version 3.5 SP1	Metasys Database Manager software	SCT software	Launcher software		
CCT software	Microsoft SQL Server 2012 software with SP2 (64-bit) ¹⁰									
Export Utility software	Microsoft .NET Framework Version 3.5 SP1									
Metasys Database Manager software	SCT software									
Launcher software										
Note	<p>Note: The Metasys Advanced Reporting System requires an ADX. The SCT computer must be online and accessible to the ADX at all times.</p>									
Optional Hardware	Any network or local printer supported by the qualified Windows operating system									
Optional Software	Energy Essentials Graphic Generation Tool									

Note

- Our computer platform and memory recommendations are not meant to imply that older or slower machines are not usable.
Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for more information regarding computer/server recommendations.
- For best performance, use SAS hard drives (not SATA hard drives) that use RAID controllers with write caching enabled.
- For best performance, use the maximum amount of memory. An ADX with 32 GB RAM has much greater performance than an ADX with only 16 GB RAM.
A 32-bit operating system does not support more than 4 GB of RAM.
- ADX prerequisite software includes the Windows operating system and SQL Server software, Windows .NET Framework, and any other software or service packs required for your ADX configuration.
- The web/application and database servers must have the same operating system installed.
- Refer to the Network and IT Guidance for the BAS Professional Technical Bulletin (LIT-12011279) for specific Microsoft Windows operating system settings that may be required for your Metasys system configuration.*
- For SQL Server 2014 software or SQL Server 2012 software, you must purchase a SQL Server software license for each individual processor core (with a minimum of four core licenses). For example, if you have a single processor with dual cores, purchase four core licenses (the minimum) for SQL Server 2014 software or SQL Server 2012 software.
- For SQL Server 2008 R2 software, you must purchase a SQL Server software license for each individual processor you have. You do not need to purchase multiple licenses if you have a single processor divided into multiple cores. For example, if you have a single processor with dual cores, purchase one license for SQL Server software.
- To use SQL Server 2014 with Metasys products, you must install Microsoft cumulative update package 3 (KB2984923) for SQL Server 2014.
To download the update package, visit <http://support.microsoft.com/kb/2984923/>.
- SQL Server software is only included with the MS-ADX50SQL product.