This document contains information about version 12 of the Supervisor.

- What's new in version 12? - An overview of the main new features
- System requirements
- Installation

See the Release Notes for more information about software changes since version 11.2, in particular a list of modifications and known issues.

What's new in version 12?

This section lists all major new features and enhancements in version 12.

General	End-user	Designer
WebVue The web client, which was originally designed as a Java applet introduced to the market in the late 90's, now takes full advantage of the latest web technologies. WebVue provides a graphic interface to monitor and control your process from a web browser on any device. WebVue combines user experience, security and ease of deployment. New features and enhancements include: • No installation required on the web client side, • Cross-browser support, including desktop and mobile web browsers, • Secured communication over HTTPS, • Support for network segregation, • Multi-tab support with a single license. The technology stack includes HTML5, SVG, REST/JSON web services over web sockets and OAuth.	X	X
Web Deployment Tools A new tool is introduced to support WebVue server & web services deployment needs. The Web Deployment Console (WDC) is designed to support a comprehensive list of scenarios for web server deployment. It can be used side-by-side with IT admin tools: • For system administrators, it does not require any knowledge of the Web apps & web services being deployed, • For automation engineers, it opens the door to web server deployments with limited knowledge of the underlying IT technologies. Using the Web Deployment Console, you will be able to: • Install the Microsoft IIS web server components, • Set-up the connection to the underlying web back end, • Deploy the services you need to support Web & Mobile apps including WebVue, TouchVue, the WebScheduler and the Web Services Toolkit. The WDC also includes support for troubleshooting, as well as a re-deploy feature that turns an update of the web server into a 1-click action.	X	X

General	End-user	Designer
SQL Connections Acting as a SQL bridge, SQL connections facilitate the connection of the Supervisor to third party systems. In particular, SQL connections are useful to exchange data with Enterprise systems such as a MES, CMMS, ERP and Weather data providers. SQL connections and the underlying SQL request handler can be used as a universal data connector to any external data source provided that a compatible ADO.NET provider is available. The module behind SQL connection handling helps you connect seamlessly to SQL data sources. It includes: • Request routing inside the Supervisor's multi-station, • Support for single active server associations for redundancy, • Asynchronous command handling, • Centralized connection strings at the project configuration level. This SQL bridge supports a large variety of database commands including: • Select, Insert, Update and Delete queries, • Scalar, tabular and non-query requests, • Requests on tables, views, stored procedure execution, • … Requests can be scripted in SCADA Basic, and the underlying request handler can be used in Add-ons developed based on the SV Manager Toolkit SDK.	X	
User Sessions & Scope Comprehensive user session handling is now available. It includes session monitoring & audit, and with the concept of scope, the ability to isolate a variable's value and associated behaviors (events, thresholds, expressions…) within a user session.	X	X
HMI Variables HMI variables are a new kind of variables designed to be less resource-intensive than internal variables. Handled locally on each station, they can be used to handle user inputs and navigation activities, including WebVue. HMI variables are a complement to I/O and internal variables that can be distributed across multi-station systems based on server and client lists. HMI variables supersede the legacy percent variables and temporary variables.		X
Enhancements to the Data Export It is now possible to append new data to an existing export file (Excel and CSV), to seamlessly aggregate data over successive exports.	X	
Enhancements to TouchVue The TouchVue mobile app now supports simultaneous connection to multiple servers and is able to display graphic mimics and symbols. A re-designed interface makes it for a great user experience and better performances.	X	
Licensing Development licenses now offer up to 4 hours of continuous data acquisition.		X

General	End-user	Designer
Performances Several performance improvements, including: • Faster start-up, reduced generation and synchronization time with the Application Architect and XML generic import, • Improvements to CPU and resources utilization for the IEC 61850 driver, leading to more responsive data exchanges, • Improvements to on-demand reads with the BACnet driver, leading to more responsive configuration and diagnostic tools, • Improvements to the variable browsing to improve the user experience with the variable selector, • Improvements to the WebScheduler responsiveness when displaying BACnet Schedules and Calendars.	X	X
New and updated Add-ons • OPC-UA client and server for Data Access, • Data acquisition driver for MultiTech LoRa Gateways, • BACnet/IP server - Profile B-ASC, • Dream Report 5.0. Contact your local reseller for more information and availability.	X	X
Microsoft® SQL Server 2016 and 2017 support.	X	X
Microsoft® Windows Server 2019 support.	X	X
1000+ fixes and enhancements.	X	X

HMI	End-user	Designer
Enhancement to the Grid control Historical mode - Now display sampled trend and statistical data, in addition to raw data. Used in conjunction with the Data Export wizard, users can now export any trend data in their preferred format.	X	
The trend viewer support of simultaneous trend lines is doubled to 16.	X	
New chart control for Pie, Doughnut and Pyramid shapes.	X	
New form control for Textbox.	X	
New and enhanced text animations, including the ability to use pre-defined labels associated to an enumeration.		X
New and updated libraries: • Railway: A new library including a set of images and symbols for Urban & Main lines signaling systems and station assets such as ticketing machines and security gates. • Navigation: Updated mimic templates with new styles in dark and light themes.		X

Scripting	End-user	Designer
New SCADA Basic instructions: • File transfer handling: FILETRANSFER, • Pie, doughnut and pyramid chart control: PIE • Session handling: SESSION, • SQL Connection handling: SQL_COMMAND, SQL_CONNECTION, • Textbox form control: TEXTBOX. Several new modes on existing instructions including enhancements to scripting for form controls, the WEBVUE instruction…		X
Several enhancements to SCADA Basic support when scripts are executed in the context of a WebVue session.		X

Data Acquisition	End-user	Designer
New drivers: • EtherNet/IP™ - Support for CompactLogix, ControlLogix, DriveLogix and FlexLogix controllers, • Moxa ioLogik - Support controllers in the E1200 & E2500 series.	X	X
Updated drivers: • BACnet, IEC 104, IEC 61850, DNP3, KNX, Lonworks, OPC Client, SNMP Manager, TwinCAT, XBUS-IP-MASTER, XBUS-IP-SLAVE, Ferromatik, Mitsubishi-TCP.	X	
IEC 61850 driver: The IEC 61850 driver now supports RCB reservation in redundant data acquisition architectures and the File Transfer services. This new feature includes: • A file transfer Helper on IEC 61850 devices nodes in the Application Explorer, • The Helper allows browsing files available in devices connected to the network, as well as file Download, Upload and Deletion, • A new SCADA Basic instruction named FILETRANSFER so that the File Transfer services can be scripted, • Background retrieval and synchronization of files. It permits handling files generated and/or stored in field devices, in particular disturbance recording, files containing device settings or configuration.	X	

Configuration environment	End-user	Designer
Application Explorer The following elements can now be configured using the Application Explorer: • Monitoring of active sessions, • Web & Mobile back ends, • SQL Connections, • Populations, • Associated labels - Configurable default labels, and timestamp quality labels, • File references, • Function keys (keyboard shortcuts), • Line printers, • Enhancements to the BACnet engineering process, including the automatic detection of fields in vendor-specific EDE files, as well as support for a variety of encoding.		X
Application Architect • File object - If your application requires application data files, you can now model Xml and text-delimited files thanks to templates and instances. Examples of use include cases where a script requires a data file containing a list of mimics, a list of branches, a list of trended variables, a hierarchy of mimics for custom mimic navigation… Such files can now be generated as part of your application modelling. • This new feature supports the modeling of data files required to populate form controls. • Support for more item types: BACnet, IEC 61850, IEC 104 outstation data point, Archive unit and Log list. • Excel lookup - A set of new functions that can be used in expressions to get data from 3rd party Microsoft Excel files. Using such expressions to predefine variables addresses in templates, you can use your regular Excel I/O list as an input for mapping variables automatically without error.		X
Smart Generators 3 new Smart Generators are available: • Smart Generator for MOXA® ioLogik - Network scanning, online device discovery and automated configuration of data acquisition and variables with support for the ioLogik E1200 & E2500 series. • Smart Generator for OPC - Automate configuration of variables based on browsing of OPC servers. • Smart Generator for TIA Portal - Automate configuration of data acquisition & variables based on a TIA Portal project for Siemens PLC.		X

System requirements

Operating Systems

Only operating systems from the Microsoft® families of Windows 7, Windows 8.1, Windows 10, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2, Windows Server 2016 and Windows Server 2019 are supported.

We recommend you to use Windows Client versions for operator stations and Windows Server versions for server stations.

Supported and operational:

- Windows 7 with SP1 - Professional, Enterprise and Ultimate Editions
- Windows 8.1 - Professional and Enterprise Editions
- Windows 10 version 1607 or later - Professional and Enterprise Editions
- Windows Server 2008 R2 with SP1 - Web, Standard, Enterprise and Datacenter Editions
- Windows Server 2012 - Foundation, Essentials, Standard and Datacenter Editions
- Windows Server 2012 R2 - Foundation, Essentials, Standard and Datacenter Editions
- Windows Server 2016 - Essentials, Standard and Datacenter Editions
- Windows Server 2019 - Essentials, Standard and Datacenter Editions

All operational versions of Windows Server shall be installed with the 'Desktop Experience' option.

Operational but may have limitations in use:

Please contact your technical support before using:

- Windows 10 IoT Enterprise LTSB 2016 or later, Windows Server IoT 2019, Windows Server for Embedded Systems and all other embedded systems
- Any operating systems hosted in a system virtual machine such as Microsoft® Hyper-V and VMWare® virtualization products

NOT supported:

- All other versions of Windows 7, Windows 8.1 and Windows 10 - In particular Windows 10 version 1507 (RTM) and 1511 (Nov 2015 update) are not supported
- Windows 8
- Windows RT
- Windows 10 IoT Core, Windows Embedded Compact 7 and 2013
- Windows Server installation in Nano Server or Server Core mode

For all operational versions of Windows 7, Windows 8.1, Windows 10 and Windows Server 2008, only the x64 processor architecture is supported.

For all platforms, we recommend that you apply any critical updates available from the Windows Update website. Installation of the latest Windows Service Pack may be required on some operating systems.

For any other Microsoft® operating system, please contact your Technical Support.

WebVue – Supported Web browsers

The list of supported web browsers for WebVue is:

- Desktop web browsers:
    - Google Chrome™ 43 and later
    - Mozilla Firefox™ 45 and later
    - Microsoft Edge™ 38.14393 and later
    - Apple Safari® for MacOS®10.5 and later

- Mobile web browsers:
    - Google Chrome™ for Android™ 46 and later
    - Apple Safari® for iOS™ 10 and later
    - Android WebView™ 5 and later

TouchVue – Supported Mobile operating systems

The list of supported platforms for the TouchVue mobile app is:

- Android™ 5.x to 8.x (RAM 2 Gb minimum)

Microsoft® SQL Server

Using the HDS for database archiving with the Supervisor requires one of the following SQL Server versions:

- Microsoft® SQL Server 2008 R2
- Microsoft® SQL Server 2012
- Microsoft® SQL Server 2014
- Microsoft® SQL Server 2016
- Microsoft® SQL Server 2017
- Microsoft® SQL Server 2019

Depending on your needs and their specific constraints, any of the following editions can be used for each of the above: Express, Workgroup, Web, Standard, Business Intelligence, Enterprise and Datacenter.

Starting with Microsoft® SQL Server 2014, SQL Server does not support Windows Vista.

SQL Server administration requires Microsoft SQL Server Management Studio – For more information and download, refer to https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms

Recommended MINIMUM PC configuration

- Processor - x64-compatible AMD or Intel CPU (or equivalent) - 1.4 GHz dual core minimum.
- System Memory* - 4 GB of RAM.
- Available hard disk space - At least 10 GB.
- Graphics - 1024×768 display for Windows Server platforms. In addition for Windows Client platforms, support for DirectX 9 graphics device with WDDM driver.
- Network Interface Card - At least 1.
- Drives - A DVD drive, as appropriate, is required for installation from disc. An available USB port is required for the hardware protection dongle.

*If you are using SQL Server, additional memory may be required. See the following topic in the online help for more information: Microsoft SQL Server related considerations.

*If you are using RDS (Remote Desktop Services) or IIS (web server), please contact Technical Support for advice about memory requirements.

The above figures represent the minimum requirements. For advice on specific applications, please contact Technical Support.

For information about the Microsoft® Windows user privileges required to install and run the Supervisor, see the following topic in the online help: Operating system related considerations.

Installation

See the Installation help for more information and help about prerequisites and the installation process itself.

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