



EcoStruxure Machine SCADA Expert

# EcoStruxure™ Machine SCADA Expert

Lite SCADA for line management



# Harmony

## Discover [Harmony](#)

Advanced operator interface and industrial relays

**Harmony** operator interface and industrial relays enhance operational efficiency and equipment availability across industrial and building applications. **Harmony** includes intelligent connected products and edge terminals that visualize, gather and process data, enabling informed operator decisions

## Explore our offer

- [Harmony](#) Push Buttons and Switches
- [Harmony](#) HMI Operator Terminals, IPC and EdgeBox
- [Harmony](#) Signaling Devices
- [Harmony](#) Electrical Relays
- [Harmony](#) Safety

# Quick access to product information

## Get technical information about your product

References

**Modicon TM3**  
I/O expansion modules for Modicon controllers  
Analog I/O modules

Number and type of channels	Input range	Output range	Resolution	Input format (internal)	Reference	Weight (kg)
2 voltage/current inputs	-15...+15 VDC 0...20 mA r.t. 20 mA	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	0.001V 0.001V	TM3AI2H TM3AI2G	0.110 0.100
4 voltage/current inputs	-15...+15 VDC 0...20 mA r.t. 20 mA	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	0.001V 0.001V	TM3AI4H TM3AI4G	0.110 0.100
4 voltage/current or temperature inputs (T)	-15...+15 VDC 0...20 mA r.t. 20 mA	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	0.001V 0.001V	TM3AI4H TM3AI4G	0.110 0.100
4 differential temperature inputs (T)	-15...+15 VDC 0...20 mA r.t. 20 mA	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	0.001V 0.001V	TM3AI4H TM3AI4G	0.110 0.100
8 self-diagnosis	-15...+15 VDC	16.00V or 12.00V r.t.	16.00V or 12.00V r.t.	0.001V 0.001V	TM3AI8H TM3AI8G	0.110 0.100

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All products Industrial Automation and Control PLC, PAC and Dedicated Controllers Distributed Input/Output (I/O) Modules Modicon TMI

View all Modicon TMI

**TM3AI2H**

Module TM3 - 2 analog inputs high resolution

Show more characteristics >

Related Software >

Product Datasheet User guide Catalogue CAD Document

Characteristics Documents and Downloads Technical FAQs Additional Information Dimensions Drawings >

Main

range of product Modicon TMI

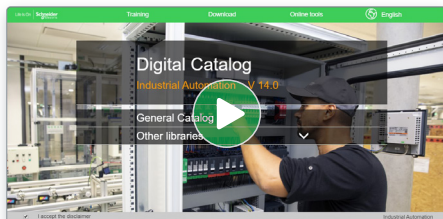
product or component type Analog input module

range compatibility Modicon M251

Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

## Find your catalog



- > With just 3 clicks, you can access the Industrial Automation and Control catalogs, in both English and French
- > Consult digital automation catalogs at [Digi-Cat Online](#)

Industrial Automation

General Catalog

Publications, Datasheets, PLC Ladder & Symbols

Books, Catalogs & Interfaces

Signaling Devices

HMI (Terminals and Industrial PC)

Sensors & RFID System

Motor Starters and Load Management

Components for Motor Starters

Variable Speed Drives & Soft Starters

Motor Control & Robotics

Interface, Measurement & Control Relays

PLC, PAC & other Controllers

Publications, Datasheets, PLC Ladder & Symbols

Hardware 380

Product Selector

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- Optimized search by commercial references

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Industrial Automation

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# EcoStruxure Machine SCADA Expert

## Lite SCADA for line management

### EcoStruxure Machine SCADA Expert



EcoStruxure Machine SCADA Expert enables you to use the key features of Microsoft operating system and build a full-featured SCADA or HMI project for your industrial automation business.

EcoStruxure Machine SCADA Expert is designed in a modern, ribbon-based Windows interface to provide an integrated and user-friendly development environment.

EcoStruxure Machine SCADA Expert supports capabilities like scripting, animation, E-mail, recipes, security, tags database, multi-touch, alarms, trends, scalability, multi-language, FDA traceability, PDF export, graphics and design tools, and so on.

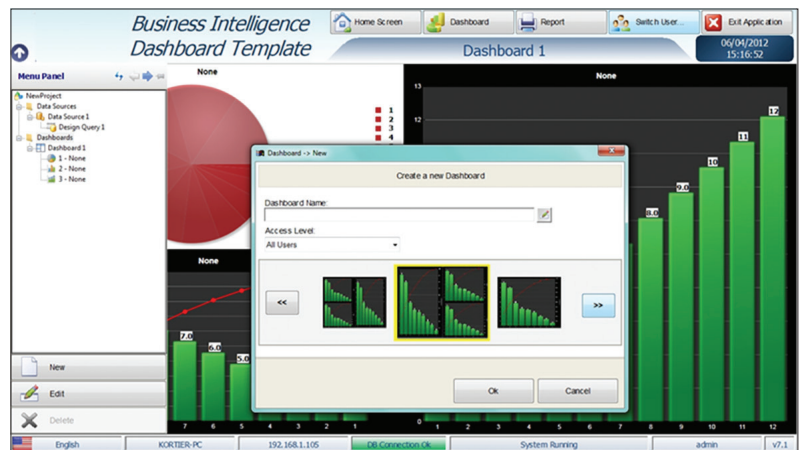
For applications ranging from complex machine control and monitoring to plant supervision and SCADA, EcoStruxure Machine SCADA Expert with Harmony iPC association makes industrial operations smooth and stress-free.



EcoStruxure Machine SCADA Expert

### Saves time

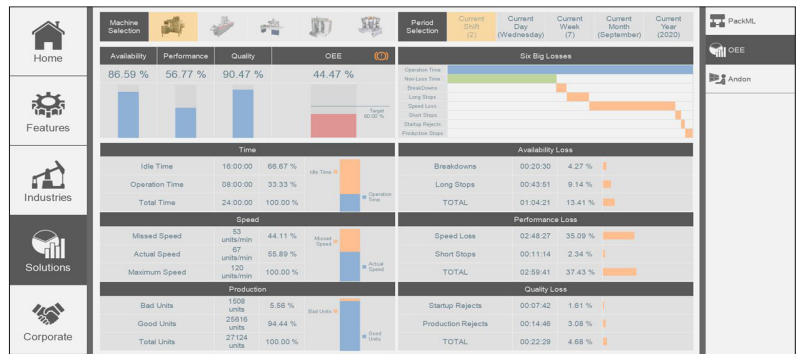
- > Quick and easy installation on Harmony iPCs
- > Fully tested and validated association means that testing and commissioning days can be saved
- > Build applications with ready-to-use PackML, Andon, and OEE templates
- > Generate automatically reports compliant with FDA CFR 21 Part 11
- > Minimize migration time from FactoryTalk™ to EcoStruxure Machine SCADA Expert by automatically converting FactoryTalk ME/SE applications to EcoStruxure Machine SCADA Expert (graphical interface, communication interface, tags, etc.) using the Import Wizard
- > Information at a glance using Business Intelligence Dashboard Template



Business Intelligence Dashboard Template

### Cost-effective

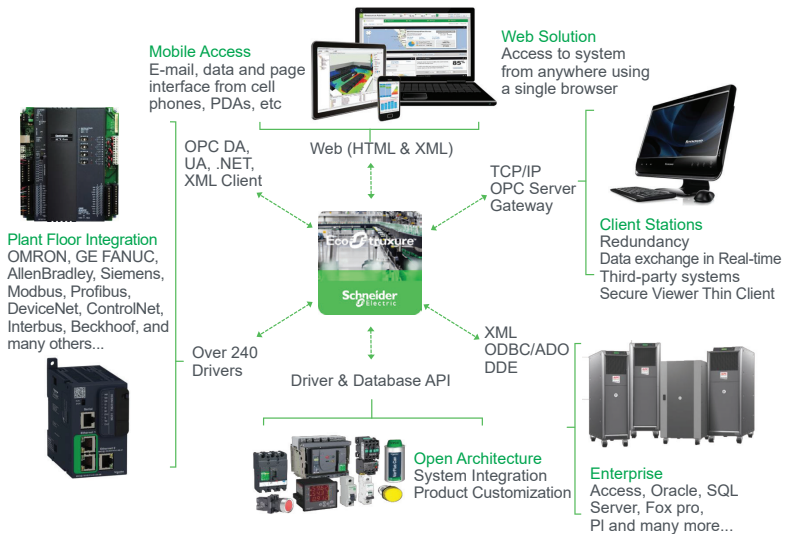
- > Track and analyze the performance of your data with embedded EcoStruxure Machine SCADA Expert historian and OEE templates
- > Single point of contact for hardware/software/operating system integration and support
- > Access SCADA level software with its benefits at competitive cost/benefits ratio
- > Easy maintenance of machine with long-term hardware supply and availability
- > With size-based license pricing, you can buy EcoStruxure Machine SCADA Expert as per your requirement



EcoStruxure Machine SCADA Expert Runtime environment

### Good connectivity and data management

- > Realize the power of the IoT with EcoStruxure Machine SCADA Expert's extensive IT and OT driver library and data management capabilities (connection between ERP, MES, third-party historians, and the plant floor)
- > Supports over 250 native communication drivers for PLCs, temperature controllers, motion controllers, bar code/2D/RFID readers, and many more devices
- > Native OPC interface, including OPC UA, OPC DA, OPC XML, and OPC .NET to communicate with OPC servers
- > With EcoStruxure Machine SCADA Expert Mobile Access, you can connect remotely with your tablet or smart phone



Open architecture

### Open architecture and easy-to-configure database interface

**Applications**

**Touchscreen configuration software with UI design and gestures**

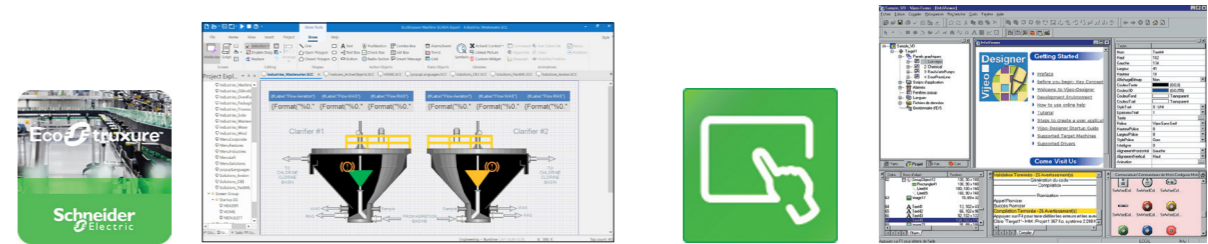


<b>Compatible products</b>	Type	Harmony STO Color Harmony ST6/STM6 Harmony GTU (Premium and Open Box) Harmony iPCs Windows compatible computers
	Maximum number of targets	1
	Operating system on terminals	Proprietary for Harmony STO Color, Harmony ST6/STM6 and Harmony GTU Windows operating system for Harmony iPCs
<b>Functions</b>	Reading/writing of PLC variables	Yes
	Display of variables	Yes
	Data processing	Yes
	Sharing of variables between HMI applications	-
	Saving of variables to external database	-
<b>Internationalization</b>		16 languages supported by 26 font types
<b>Development of graphic applications</b>	Native library of graphic objects	Yes
	Curves and alarms	Yes
	Scripts	Block Script
<b>Communication between HMI application and PLCs</b>		Via I/O drivers: Schneider Electric or third-party protocols (Mitsubishi, Omron, Rockwell Automation, Siemens)
<b>Uploading of applications</b>		-
<b>Simulation of HMI applications</b>		Yes
<b>Recipe management</b>		Yes, up to 256 recipes, 600,000 ingredients in total
<b>Report and barcode printing</b>		-
<b>Screen capture</b>		Yes, for Harmony iPCs in PNG format
<b>Access security</b>		Password protected
<b>Interface languages</b>		Screens in 9 languages: English, French, German, Italian, Portuguese, Spanish, Traditional Chinese, Simplified Chinese, and Korean and documentation in electronic format available in 4 languages: English, French, German, and Italian
<b>OS compatibility</b>		Windows 7, Windows 8, Windows 8.1, Windows 10 (64-bit)
<b>Software type</b>		<b>EcoStruxure™ Operator Terminal Expert</b>
<b>Pages</b>		For more information, please refer to the <a href="#">DIA5ED2140703EN</a> catalog.

(1) Magelis XBT and Harmony GTO/GTU terminals behave transparently on restoration of power.  
(2) Depending on the compatible product.  
(3) Supported by EcoStruxure Machine SCADA Expert V8.1 and later versions.

**Configuration software for data-intensive and complex visualization**

**Classic configuration software for the complete HMI range**



Harmony STM6 Edge Box HMI, Harmony HMIG5U21 (3), Harmony iPCs Windows compatible computers	Harmony STU and Harmony GTO (1) Harmony GK/GTU (1)/GTUX and Magelis XBTGH (1) Harmony Panel PCs and Box PCs (HMIBMP, HMIBMU, HMIPSP, HMIPSO, HMIPEP) Harmony P6
1	32
Harmony HMIG5U21 (3): Windows 10 IoT Enterprise 2019 LTSC 32bit Harmony iPCs: Windows 8.1, Windows 10	Proprietary for Harmony STU/GTO, Harmony GK/GTU/GTUX, Magelis XBTGH
Embedded Basic: 500 tags Windows Machine control: 1,500 tags Windows Line management: 4,000 tags Windows Line management plus: 32,000 tags Windows Supervision: 64,000 tags	Yes, up to 8,000 internal and external variables
Yes, depending on the number of tags	Yes
Yes, with VBScript or built-in scripting	Yes, using expression editor or Java programming
Yes, via TCP/IP, OPC, driver or database	Up to 300 variables between 8 terminals, without router PLC Proprietary protocol above TCP/IP
Yes, with relational database (any SQL Database, MS Access and Excel CSV file)	-
Multi-language (depending on the OS)	Up to 15 languages supported by 34 Western alphabets, 4 Asian alphabets, and 2 Middle Eastern alphabets embedded in the application
Yes, user customizable	Yes
Yes	Yes, with log
VB Script and built-in scripting	Java
Via I/O drivers: Schneider Electric or third-party protocols (over 250 drivers: Mitsubishi, Omron, Rockwell Automation, Siemens)	
Yes	-
Yes	
Yes, built-in tools with local file or with database	Yes, up to 32 groups, 1,024 ingredients for 256 recipes per group, proprietary or CSV format, complete multilingual support for labels and ingredients
Report is a built-in function that executes the specified Report worksheet and sends the output to hard disk, printer, or PDF.	On the fly alarms, log data. Up to 9,999 active alarms, records, or logs Main USB barcode supported for Harmony with Windows OS and main serial barcode supported for other Harmony.
Yes	Yes, Harmony GTO/GTU, and Harmony Panel PCs and Box PCs (HMIBMP, HMIBMU and Harmony P6) in JPEG format
Linked to user profiles	
Screens and user interface available in 5 languages: English, German, French, Chinese, and Japanese	Screens, online help, and documentation in electronic format available in 7 languages: English, French, German, Italian, Portuguese, Simplified Chinese, and Spanish
Windows 8.1, Windows 10 (64-bit), Windows Server 2012 R2, Windows Server 2016, Windows Server 2019	Windows 8.1, Windows 10 Professional, Windows 7 Business (32-bit/64-bit)
<b>EcoStruxure™ Machine SCADA Expert</b>	<b>Vijeo Designer™</b>
For more information, please refer to <a href="#">page 14</a> .	For more information, please refer to the <a href="#">DIA5ED2130614EN</a> catalog.

(1) Magelis XBT and Harmony GTO/GTU terminals behave transparently on restoration of power.  
(2) Depending on the compatible product.  
(3) Supported by EcoStruxure Machine SCADA Expert V8.1 and later versions.

# EcoStruxure Machine SCADA Expert

## Lite SCADA for line management



### Presentation

EcoStruxure Machine SCADA Expert is a powerful software suite for developing HMI, SCADA, and OEE/Dashboard projects that can be deployed anywhere. EcoStruxure Machine SCADA Expert associated with Harmony iPCs provides smart SCADA solutions. This software supports English, German, French, Chinese, and Japanese.

The EcoStruxure Machine SCADA Expert software project includes a project tags database to manage data, configurable drivers to communicate, animated human-machine interface (HMI) screens, overall equipment effectiveness (OEE) dashboards, and optional modules (alarms, events, trends, recipes, complete database interface, security system, etc.).

EcoStruxure Machine SCADA Expert supports numerous features for creating and managing projects for various industrial automation businesses, helping you to:

- Monitor machines, run VB scripts, generate reports (PDF, XML, HTML, etc.), receive alarm notifications, and follow trends without having to pay for a full SCADA
- Monitor applications remotely through a Web client or tablet and receive alarms via e-mail
- Save time by generating FDA CFR 21 Part 11 projects with traceability and e-signature
- Improve efficiency with built-in OEE dashboard
- Store production data in local databases (SQL)
- Protect information with database and overall redundancy
- Use the mobile access function where screen monitoring from Web browser is based on HTML5
- Provide necessary tools to enable the user to create a dashboard based on the queries created
- Use the Industrial Graphics Editor in parallel or as an optional alternative with the native editor of EcoStruxure Machine SCADA Expert to provide a unified look and feel and user experience with AVEVA System Platform
- Make use of the modernized buildtime environment with new graphics, custom themes, shortcuts and other usability improvements
- Make use of MQTT SparkPlug B, which provides better compatibility with IIoT applications and use cases, allowing a richer standardized data model

### EcoStruxure Machine SCADA Expert components

The EcoStruxure Machine SCADA Expert suite comprises several individual components that can be installed on various platforms to perform different functions. The architecture of the finished EcoStruxure Machine SCADA Expert project depends upon the components installed, where they have been installed, and how they are connected to each other. The following table lists the available components.

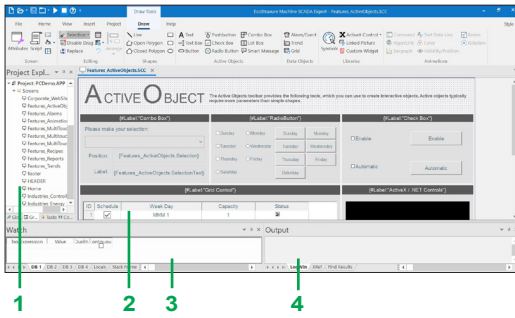
### Software components

Component	Features	Platforms
EcoStruxure Machine SCADA Expert	<ul style="list-style-type: none"> <li>■ Project development environment</li> <li>■ Tag integration</li> <li>■ Remote management of project runtimes</li> <li>■ Project runtime</li> <li>■ Agent to allow remote management</li> <li>■ Project thin client</li> </ul>	<ul style="list-style-type: none"> <li>■ Windows</li> <li>■ Windows Server</li> </ul>
Database Gateway	Enables communication between the project runtime and external databases, including Historian and most ADO.NET-compatible databases.	<ul style="list-style-type: none"> <li>■ Windows</li> <li>■ Windows Server</li> </ul>
Mobile Access Runtime	Enables the project runtime to serve HTML5-enhanced project screens to tablets and smartphones	<ul style="list-style-type: none"> <li>■ Internet Information Services (IIS) for Windows</li> <li>■ Any CGI-enabled Web server (e.g. Apache)</li> </ul>
Secure Viewer	Project thin client, as a standalone program	<ul style="list-style-type: none"> <li>■ Windows</li> <li>■ Windows Server</li> </ul>

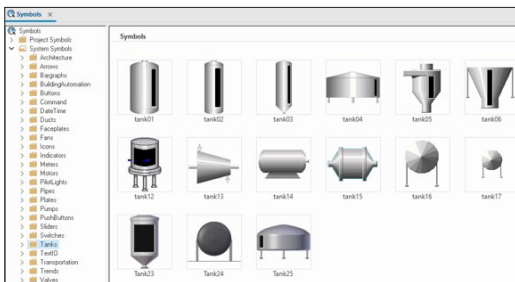


# EcoStruxure Machine SCADA Expert

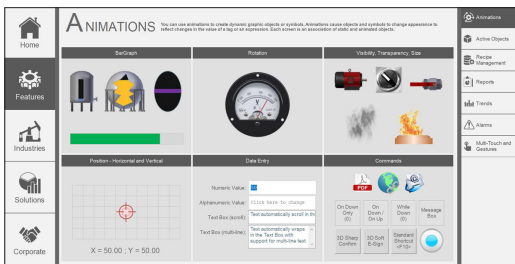
## Lite SCADA for line management



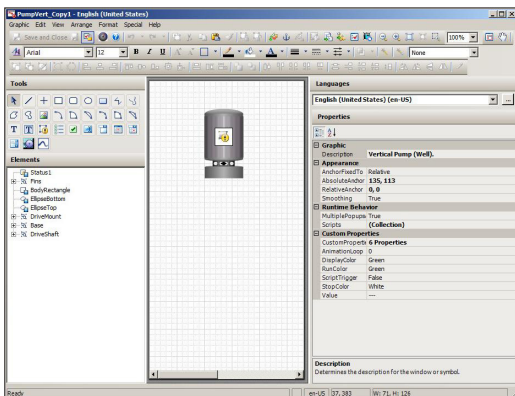
EcoStruxure Machine SCADA Expert Buildtime environment



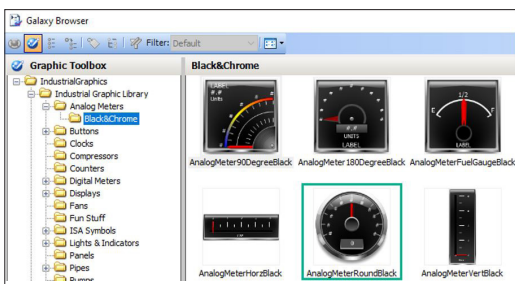
Symbols library



EcoStruxure Machine SCADA Expert Runtime environment



Industrial Graphics Editor screen



Graphic Toolbox

### Configuration

The complete EcoStruxure Machine SCADA Expert includes both the project development and the project runtime environments. EcoStruxure Machine SCADA Expert incorporates a modern, ribbon-based Windows interface to provide an integrated and user-friendly development environment.

The project development environment allows you to design, develop, troubleshoot, deploy, and maintain EcoStruxure Machine SCADA Expert projects. The user interface for the EcoStruxure Machine SCADA Expert development environment includes:

- 1 Project Explorer: Organizes all the screens, worksheets, and other items that comprise your project and presents them in an expandable tree-view.
- 2 Screen/Worksheet Editor: Uses the powerful object-oriented screen editor to create and edit a variety of screens and worksheets for the projects.
- 3 Watch Window: Debugging window that allows you to watch and force values to project tags, execute and test functions, and execute and test math expressions.
- 4 Output (LogWin): Displays additional information about the project.

The Symbols library is a visual browser for all the symbols that are available to be used in your project screens. The library includes the Project Symbols folder containing user-made symbols for the current project, and the System Symbols folder containing all the predefined symbols (sorted by type) that are installed with the EcoStruxure Machine SCADA Expert 2020 software.

The project developed can either be run locally on your development workstation or downloaded and run on a remote computer. The project runtime server processes I/O data from connected devices according to your project parameters and then responds, displays, and/or saves the data. The runtime environment runs the project, communicates with external databases and devices, and serves project screens to thin clients.

### Industrial Graphics Editor

The Industrial Graphics Editor works as a companion to the native EcoStruxure Machine SCADA Expert graphic tools in Studio. It provides new features and options, allows you to reuse symbols that were created in other applications, and it increases interoperability across your entire automation solution.

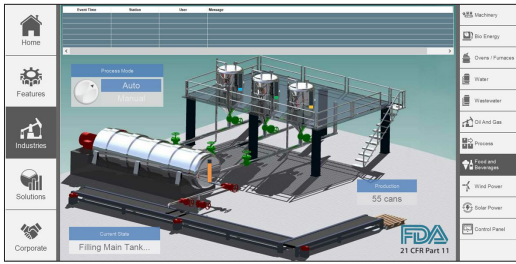
The Industrial Graphics Editor is used to create industrial graphics from basic elements, such as rectangles, lines, and text elements. The interface includes a tools panel, canvas, elements list, language selector, properties editor, animation summary, and Symbol Wizard Editor. The Symbol Wizard Editor helps to create graphics containing multiple visual and functional configurations called Symbol Wizards. These graphics can also be embedded in other graphics enabling more complex graphics to be rapidly developed using common components. The created industrial graphics screens can be used in your projects during runtime.

Depending on the development requirements, you can select where and how to store industrial graphics:

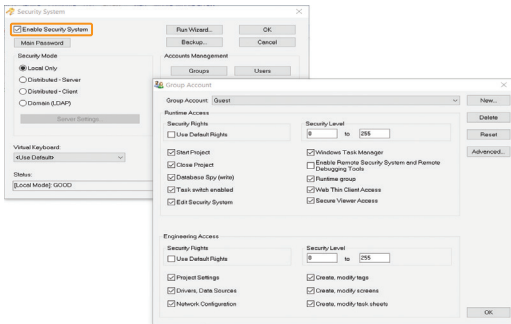
- Create and store graphics as a standard set that you can reuse, such as a generic valve graphic
- Store graphics as templates if you want to use the graphics in multiple instances during runtime
- Store graphics for use in a specific application

# EcoStruxure Machine SCADA Expert

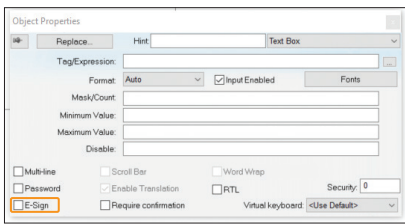
## Lite SCADA software for line management



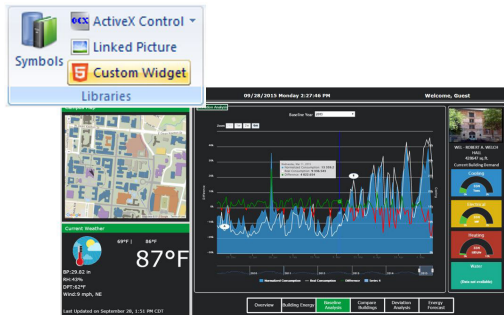
FDA traceability



Security system



Electronic signature



Mobile Access thin client

### Key features

#### FDA traceability

With built-in FDA traceability and e-signature features, projects that fully comply with U.S. Food and Drug Administration regulations (FDA CFR 21 Part 11) can be created. These features are often used in food and pharmaceutical applications, but they can also be used in any application where traceability is required.

- Security system: The security system for the whole application can be enabled or disabled with the “Enable Security System” checkbox.
- Electronic signature (E-Sign): The objects and animations enable you to perform a task during runtime and checking the “E-sign” option will allow you to set an electronic signature (E-Sign) to execute the respective task.

### Drivers

The EcoStruxure Machine SCADA Expert includes over 250 built-in communication drivers for most PLCs, temperature controllers, motion controllers, barcode/RFID readers, and other devices. These drivers enable the integration of multiple devices and systems from the plant floor to the ERP/Cloud in a seamless manner. Also, the Schneider Electric driver toolkits provide the flexibility to build your own drivers. These various drivers increase productivity and quality through native tag integration for tag-based devices.

### OLE for Process Control (OPC)

As an alternative to the built-in drivers for direct communication with PLCs, several different versions of OLE for Process Control (OPC) can also be used to manage your devices. This software includes support for OPC DA (server or client), OPC HDA (server), OPC UA (server or client), OPC .NET (client), and OPC XML/DA (client).

### Mobile Access thin clients

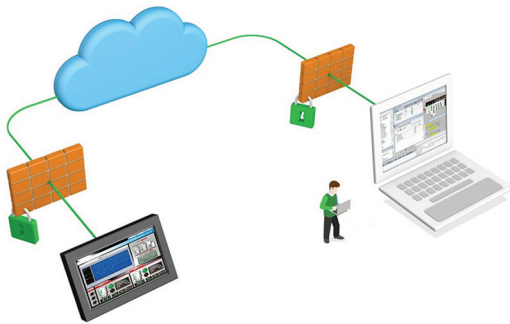
With this feature, you can remotely view project screens on several different types of thin client. The HTML5-enabled Mobile Access feature also allows you to access projects from almost any other computer or mobile device. A high level of security can be achieved on plant-floor stations using the standalone Secure Viewer.

### Standards

Supports common industry standards for developing projects that are compatible with any format. TCP/IP, ActiveX/.NET, OPC (client and server), ODBC/ADO, COM/DCOM, OLE, DDE, XML, SOAP, and HTML are all supported.

# EcoStruxure Machine SCADA Expert

Lite SCADA software for line management



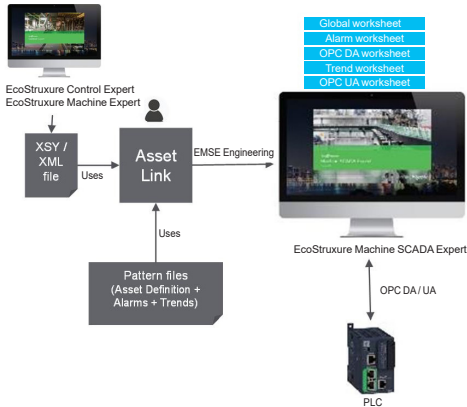
## EcoStruxure Secure Connect Advisor (1)

EcoStruxure Secure Connect Advisor provides a secure connection between remote display units on the work site (via SiteManager Embedded) and computers or smart devices in the office (via LinkManager) over a secure central server (GateManager). With EcoStruxure Secure Connect Advisor, maintenance personnel can access Schneider Electric software and update it remotely and securely via the HMI, PLC, and other connected devices as if they were on site. Troubleshooting and repair can also be performed remotely upon request.

(1) For more information, please refer to the "EcoStruxure Secure Connect Advisor" catalog [DIA5ED2190101EN](#).

# EcoStruxure Machine SCADA Expert

Lite SCADA software for line management



## EcoStruxure Machine SCADA Expert - Asset Link

Design tool for seamless integration of control and supervisory systems

### Overview

#### Seamless integration of control and supervisory systems

EcoStruxure Machine SCADA Expert - Asset Link enables engineers to create a fully integrated control system to reduce design and commissioning time and deliver long term system consistency.

It integrates system built with EcoStruxure Control Expert or EcoStruxure Machine Expert which are supervised by EcoStruxure Machine SCADA Expert or Proface Blue OPEN Studio.

### Benefits

#### Faster design and implementation

EcoStruxure Machine SCADA Expert - Asset Link analyzes your control project and reads the configuration information: (Function Blocks), data structures (Variables), and meta data (Comments and Initial Values). It generates Assets in EcoStruxure Machine SCADA Expert or Proface Blue OPEN Studio., with configured attributes and addresses reducing engineering time by 20%.

#### Simplified system changes

EcoStruxure Machine SCADA Expert - Asset Link simplifies the maintenance of your control system by continuing to monitor your controller project and update the attributes of the SCADA assets. This removes the risk of inconsistency when changes are made in your control system.

#### Process and Machine solutions

EcoStruxure Machine SCADA Expert - Asset Link works with all Modicon Controllers configured with EcoStruxure Control Expert and EcoStruxure Machine Expert.

#### Range of communication protocols

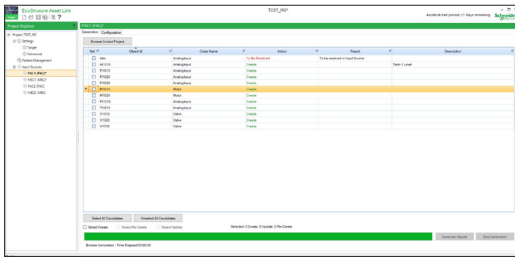
EcoStruxure Machine SCADA Expert - Asset Link automatically configures EcoStruxure Machine SCADA Expert or Proface Blue OPEN Studio IO Address when using the embedded OPC UA communication, EcoStruxure OPC UA Server Expert or Open Factory Server (OFS).

#### Custom patterns

EcoStruxure Machine SCADA Expert - Asset Link generates patterns for customer / project standards based on a sample object type without additional effort.

# EcoStruxure Machine SCADA Expert

Lite SCADA software for line management



## EcoStruxure Machine SCADA Expert - Asset Link (continued)

### Features

#### Asset creation

EcoStruxure Machine SCADA Expert - Asset Link recognizes an asset based on the function blocks and variables used within the controller. Once recognized, it generates a matching asset using the defined template within the EcoStruxure Machine SCADA Expert or Proface Blue OPEN Studio worksheets.

#### Optionality

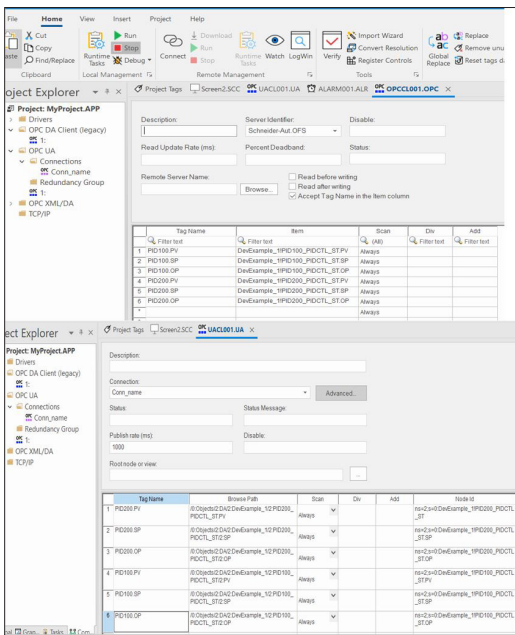
Projects require only a single motor or valve control module but may require many variations for specific applications within the project. Asset Link recognizes assets by a core set of (required) controller assets. It generate rules for any optional elements which are included only when the elements exist within the controller. When the template is created in EcoStruxure Machine SCADA Expert or Proface Blue OPEN Studio the attributes associated to the assets which exist in the controller are configured and the other are left blank.

#### Customization

Asset Link rules can be customized so that the existence of controller blocks or variables can enable or disable attributes within the SCADA worksheets.

#### Description

Asset Link uses the description of the Asset within the controller as the description of the asset within EcoStruxure Machine SCADA Expert or Proface Blue OPEN Studio.

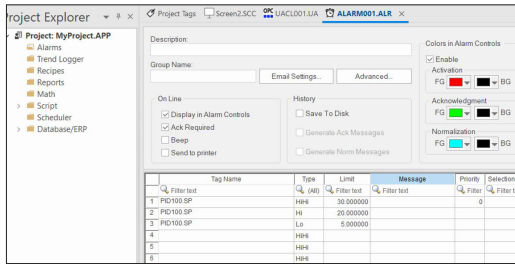


#### Asset binding

EcoStruxure Machine SCADA Expert - Asset Link detects IO variables which are read from the controller and binds each instance of the asset to the variables available within the controller.

#### Protocols

Asset Link recognizes and configures the variable addresses when using OPC-DA, OPC-UA and OPC UA Embedded (also in rack OPC UA Server modules). The engineer selects the required protocol and all addresses are formatted as required.



## EcoStruxure Machine SCADA Expert - Asset Link (continued)

### Features (continued)

#### Asset Meta Data

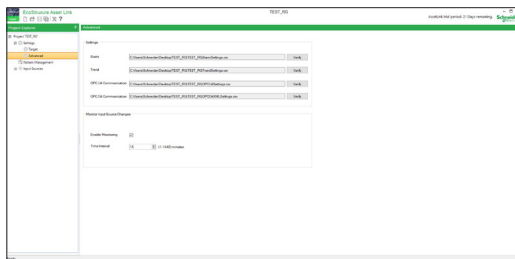
EcoStruxure Control Expert - Asset Link uses the Meta Data associated to variables and function blocks within the controller. This information, which is specific to each instance of an asset, does not change dynamically at runtime. The data adds value to the user interface by providing more detail as to the state of the controller logic. Using controller configuration within the supervision improves the quality of the documentation of the controller logic.

#### ■ Comments

Each input pin for a function block can contain a description of the data which is being connected. In applications like failure conditions and interlocks this can provide detail to the operator on the cause of conditions which are impacting operation. By replicating this data Asset Link ensures comments are available within the controller as well as providing additional insight to the operator

#### ■ Initial values

Many parameters are used both in the controller and supervision (analog scaling). When variables are required in both Asset Link enables the data to be synchronized so a single value change is required to change the value across the control system.



### Maintain consistency

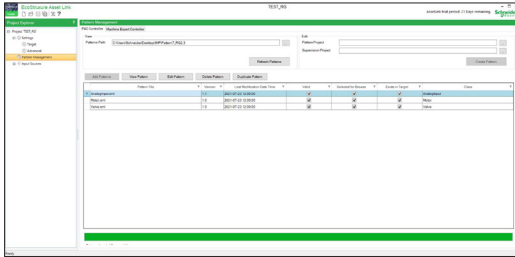
EcoStruxure Machine SCADA Expert - Asset Link monitors changes for changes in the source input file and enables user to update the same to generated assets. Asset Link identifies if there are any conflicts (name and type) between Assets and enables user to resolve them using resolve conflict dialog.

#### ■ Monitor functionality

User can enable / disable monitor capabilities on Asset Link template. Once enabled, based on the time interval set by user, Asset Link template will monitor for the changes in the control project input file and indicate user on detecting a new version

# EcoStruxure Machine SCADA Expert

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## EcoStruxure Machine SCADA Expert - Asset Link (continued)

### Features (continued)

#### Patterns

EcoStruxure Machine SCADA Expert - Asset Link does not require expertise beyond that required to configure the controller and supervision system for any automation project.

#### ■ Sample asset

Asset Link generates patterns based on an example of an asset. A pump in the controller and in supervision configured with the maximum capabilities of a pump provides all the information required. Asset Link recognizes when data from the controller is re-used for supervision and generates the rules.

#### ■ Required elements

The engineer must select the required elements of the asset when generating a pattern to allow the same pattern to be used with multiple variations of similar assets.

#### ■ Custom rules

Patterns can support custom rules by configuring the Pattern Editor. User rules are identified within the pattern and are not impacted when rules are re-evaluated to update the pattern. Custom rules are typically used to set digital data within the template which can not be automatically recognized.

#### ■ Standards

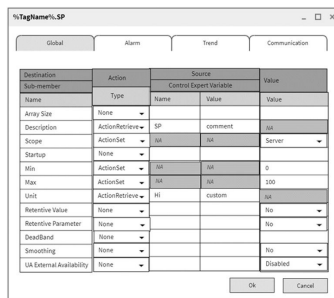
Each controller within the automation system can be linked to a common set of patterns or its own patterns. This allows projects to support multiple sets of standards in different areas of the process.

## Pattern Management

Patterns are a key component of Asset Link for defining smart conditions for creating assets in more flexible and consistent with Control Code.

User now has the capability to Manage Pattern within the User Interface of Asset Link

Smart definition (edit and refine) of Patterns can now be achieved using in-line editor without any need of XML Coding knowledge.



Selected Members	Settings		
	Alarm Setting	Trend Setting	Communication Setting
DT	DefaultSetting	DefaultSetting	DefaultSetting
PV.HI	DefaultSetting		
ST.Lo	DefaultSetting		
Alarm	DefaultSetting	DefaultSetting	DefaultSetting
OP	DefaultSetting	DefaultSetting	DefaultSetting
Running	DefaultSetting	DefaultSetting	DefaultSetting
Interlock1	DefaultSetting	DefaultSetting	DefaultSetting
LocalPanel1	DefaultSetting	DefaultSetting	DefaultSetting
Maintenance01	DefaultSetting	DefaultSetting	DefaultSetting
Interlock2	DefaultSetting	DefaultSetting	DefaultSetting
LocalPanel2	DefaultSetting	DefaultSetting	DefaultSetting
Maintenance02	DefaultSetting	DefaultSetting	DefaultSetting
Interlock3	DefaultSetting	DefaultSetting	DefaultSetting
LocalPanel3	DefaultSetting	DefaultSetting	DefaultSetting
Maintenance03	DefaultSetting	DefaultSetting	DefaultSetting

User will have drop down combobox to select other settings on each cells

Duplicate and Delete existing Patterns

Support templates with Graphical Objects Symbol Linking

Asset Link supports SCADA templates with the Symbol Linking using Generic type object properties

# EcoStruxure Machine SCADA Expert

Lite SCADA software for line management

## References

EcoStruxure Machine SCADA Expert is compatible with Harmony iPCs. The software licensing and activation process is managed by e-mail as follows:

- 1 On purchase of the product, the EcoStruxure Machine SCADA Expert activation key is provided in paper format.
- 2 After installing the project development or runtime software, a unique site code will be generated.
- 3 You then need to send an e-mail with the activation key and site code to [SiteKeyLicense.Support@schneider-electric.com](mailto:SiteKeyLicense.Support@schneider-electric.com) requesting the site key, which will again be sent in an e-mail.
- 4 Input the site key on your computer or target device to activate the EcoStruxure Machine SCADA Expert.

EcoStruxure Machine SCADA Expert supports the following execution modes:

- Evaluate mode enables you to use all the engineering and runtime features of the product. When EcoStruxure Machine SCADA Expert is installed on the computer for the first time, the product runs for 40 hours in Evaluation mode and then automatically converts to Demo mode.
- Demo mode enables you to download projects to remote stations and run them for testing or demonstration. You can execute runtime tasks and use debugging tools, which will shut down automatically after running continuously for two hours.
- Licensed for Engineering only mode enables all development options for an unlimited time. You can execute runtime tasks and use debugging tools continuously for 72 hours. This license can be used for development and testing only.
- Licensed for Runtime only mode enables all runtime tasks and debugging tools for an unlimited time, but cannot create or modify screens/worksheets.

## EcoStruxure Machine SCADA Expert references

Description	Reference
EcoStruxureMachine SCADA Expert - Asset Link – Single	<a href="#">HMIMCNCZZSPEZZ</a>
EcoStruxureMachine SCADA Expert - Asset Link – Group	<a href="#">HMIMCNCZZGPEZZ</a>
EcoStruxureMachine SCADA Expert - Asset Link – Team	<a href="#">HMIMCNCZZTPEZZ</a>



# EcoStruxure Machine SCADA Expert

## Lite SCADA for line management



EcoStruxure Machine SCADA Expert

### EcoStruxure Machine SCADA Expert references

Description	License type	Compatible with	Reference
<b>USB references</b>			
USB media drive containing downloadable software version 2020, without software license	USB media drive	HMIPEP●●, HMIPSO●●, HMIBMU●●, HMIBMP●●, HMIP6, HMIG5U21	<a href="#">HMIEMSEUSB</a>
EcoStruxure Machine SCADA Expert USB hard key	USB dongle		<a href="#">HMIEMSEUSBL</a>
<b>Digital license references</b>			
EcoStruxure Machine SCADA Expert Supervision, Buildtime license with 64000 tags	Buildtime license	HMIPEP●●, HMIPSO●●, HMIBMU●●, HMIBMP●●, HMIP6, HMIG5U21 (1)	<a href="#">HMIEMSEBT64KA</a>
EcoStruxure Machine SCADA Expert Line management plus, Buildtime license with 32000 tags	Buildtime license		<a href="#">HMIEMSEBT32KA</a>
EcoStruxure Machine SCADA Expert Line management, Buildtime license with 4000 tags, digital	Buildtime license		<a href="#">HMIEMSEBT4KA</a>
EcoStruxure Machine SCADA Expert Machine control, Buildtime license with 1500 tags	Buildtime license		<a href="#">HMIEMSEBT1KA</a>
EcoStruxure Machine SCADA Expert Basic Buildtime license with 500 tags	Buildtime license		<a href="#">HMIEMSEBT500A</a>
EcoStruxure Machine SCADA Expert Supervision, Runtime license with 64000 tags	Runtime license		<a href="#">HMIEMSERT64KA</a>
EcoStruxure Machine SCADA Expert Line management plus, Runtime license with 32000 tags	Runtime license		<a href="#">HMIEMSERT32KA</a>
EcoStruxure Machine SCADA Expert Line management, Runtime license with 4000 tags	Runtime license		<a href="#">HMIEMSERT4KA</a>
EcoStruxure Machine SCADA Expert Machine control, Runtime license with 1500 tags	Runtime license		<a href="#">HMIEMSERT1KA</a>
EcoStruxure Machine SCADA Expert Supervision, Third party runtime license with 64000 tags	Runtime license		<a href="#">HMIEMSE3PRT64KA</a>

(1) EcoStruxure Machine SCADA Expert version 8.1 supported.

# EcoStruxure Machine SCADA Expert

## Lite SCADA for line management



EcoStruxure Machine SCADA Expert

### EcoStruxure Machine SCADA Expert references (continued)

Description	License type	Compatible with	Reference
<b>Digital license references (continued)</b>			
EcoStruxure Machine SCADA Expert Supervision, Upgrade License for Buildtime license with 64000 tags	Upgrade License	HMIPEP●●●, HMIPSO●●●, HMIBMU●●●, HMIBMP●●●, HMIP6, HMIG5U21 (1)	<a href="#">HMIEMSEUG64KBTA</a>
EcoStruxure Machine SCADA Expert Line management plus, Upgrade license for Buildtime license with 32000 tags	Upgrade License		<a href="#">HMIEMSEUG32KBTA</a>
EcoStruxure Machine SCADA Expert Line management, Upgrade license for Buildtime license with 4000 tags	Upgrade License		<a href="#">HMIEMSEUG4KBTA</a>
EcoStruxure Machine SCADA Expert Machine control, Upgrade license for Buildtime license with 1500 tags	Upgrade License		<a href="#">HMIEMSEUG1KBTA</a>
EcoStruxure Machine SCADA Expert Supervision, Upgrade license for Runtime license with 64000 tags	Upgrade License		<a href="#">HMIEMSEUG64KRTA</a>
EcoStruxure Machine SCADA Expert Line management plus, Upgrade license for Runtime license with 32000 tags	Upgrade License		<a href="#">HMIEMSEUG32KRTA</a>
EcoStruxure Machine SCADA Expert Line management, Upgrade license for Runtime license with 4000 tags	Upgrade License		<a href="#">HMIEMSEUG4KRTA</a>
EcoStruxure Machine SCADA Expert Machine control, Upgrade license for Runtime license with 1500 tags	Upgrade License		<a href="#">HMIEMSEUG1KRTA</a>
EcoStruxure Machine SCADA Expert Supervision, upgrade license for Third party Runtime license with 64000 tags	Upgrade License		<a href="#">HMIEMSE3PUG64KRTA</a>
EcoStruxure Machine SCADA Expert Line management plus, Upgrade license for Third party runtime license with 32000 tags	Upgrade License		<a href="#">HMIEMSE3PUG32KRTA</a>
EcoStruxure Machine SCADA Expert Line management, Upgrade license for third party runtime license with 4000 tags	Upgrade License		<a href="#">HMIEMSE3PUG4KRTA</a>
EcoStruxure Machine SCADA Expert Thin client Accessory for Runtime license	Thin client License		<a href="#">HMIEMSETCA</a>
EcoStruxure Machine SCADA Expert Import wizard Accessory for Buildtime license	Import wizard License		<a href="#">HMIEMSETKA</a>
EcoStruxure Machine SCADA Expert Thin client, basic 1 client Accessory Runtime license for embedded products	Thin client License		<a href="#">HMIEMSETCEMBA</a>
EcoStruxure Machine SCADA Expert Thin client Accessory Runtime license for Windows, 10 client	Thin client License		<a href="#">HMIEMSETC10WINA</a>
EcoStruxure Machine SCADA Expert Thin client Accessory Runtime license for embedded products, basic , 10 client	Thin client License		<a href="#">HMIEMSETC10EMBA</a>

(1) EcoStruxure Machine SCADA Expert version 8.1 supported.

# EcoStruxure Machine SCADA Expert

## Lite SCADA for line management

EcoStruxure Machine SCADA Expert references (continued)			
Description	License type	Compatible with	Reference
<b>Digital license references (continued)</b>			
EcoStruxure Machine SCADA Expert Supervision, Version up Buildtime license with 64000 tags	Version up License	HMIPEP●●, HMIPSO●●, HMIBMU●●, HMIBMP●●, HMIP6, HMIG5U21 (1)	<a href="#">HMIEMSEVU64KBTA</a>
EcoStruxure Machine SCADA Expert Line management plus, Version up Buildtime license with 32000 tags	Version up License		<a href="#">HMIEMSEVU32KBTA</a>
EcoStruxure Machine SCADA Expert Line management, Version up Buildtime license, with 4000 tags	Version up License		<a href="#">HMIEMSEVU4KBTA</a>
EcoStruxure Machine SCADA Expert Machine control, Version up Buildtime license with 1500 tags	Version up License		<a href="#">HMIEMSEVU1KBTA</a>
EcoStruxure Machine SCADA Expert Basic, Version up Buildtime license with 500 tags	Version up License		<a href="#">HMIEMSEVU500BTA</a>
EcoStruxure Machine SCADA Expert Supervision, Version up Runtime license with 64000 tags	Version up License		<a href="#">HMIEMSEVU64KRTA</a>
EcoStruxure Machine SCADA Expert Line management plus, Version up Runtime license with 32000 tags	Version up License		<a href="#">HMIEMSEVU32KRTA</a>
EcoStruxure Machine SCADA Expert Line management, Version up Runtime license with 4000 tags	Version up License		<a href="#">HMIEMSEVU4KRTA</a>
EcoStruxure Machine SCADA Expert Machine control, Version up Runtime license with 1500 tags	Version up License		<a href="#">HMIEMSEVU1KRTA</a>
EcoStruxure Machine SCADA Expert Supervision, Version up third party Runtime license with 64000 tags	Version up License		<a href="#">HMIEMSE3PVU64KRTA</a>
EcoStruxure Machine SCADA Expert Line management plus, Version up third party Runtime license with 32000 tags	Version up License		<a href="#">HMIEMSE3PVU32KRTA</a>
EcoStruxure Machine SCADA Expert Line management, Version up third party Runtime license with 4000 tags	Version up License		<a href="#">HMIEMSE3PVU4KRTA</a>
EcoStruxure Machine SCADA Expert Machine control, Version up third party Runtime license with 1500 tags	Version up License		<a href="#">HMIEMSE3PVU1KRTA</a>
EcoStruxure Machine SCADA Expert USB key	USB Key		<a href="#">HMIEMSEUSBL</a>
EcoStruxure Machine SCADA Expert USB installer	USB Installer		<a href="#">HMIEMSEUSB</a>

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<a href="#">HMIEMSEVU500BTA</a>	17
<a href="#">HMIMCNCZZGPEZZ</a>	14
<a href="#">HMIMCNCZZSPEZZ</a>	14
<a href="#">HMIMCNCZZTPEZZ</a>	14

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