



EcoStruxure™ Machine SCADA Expert BLUE Open Studio (BOS)

SCADA solution for line management and lite supervision



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EcoStruxure for Industry

Harmony iPC with EcoStruxure Machine SCADA Expert

EcoStruxure™
Innovation At Every Level **for Industry**

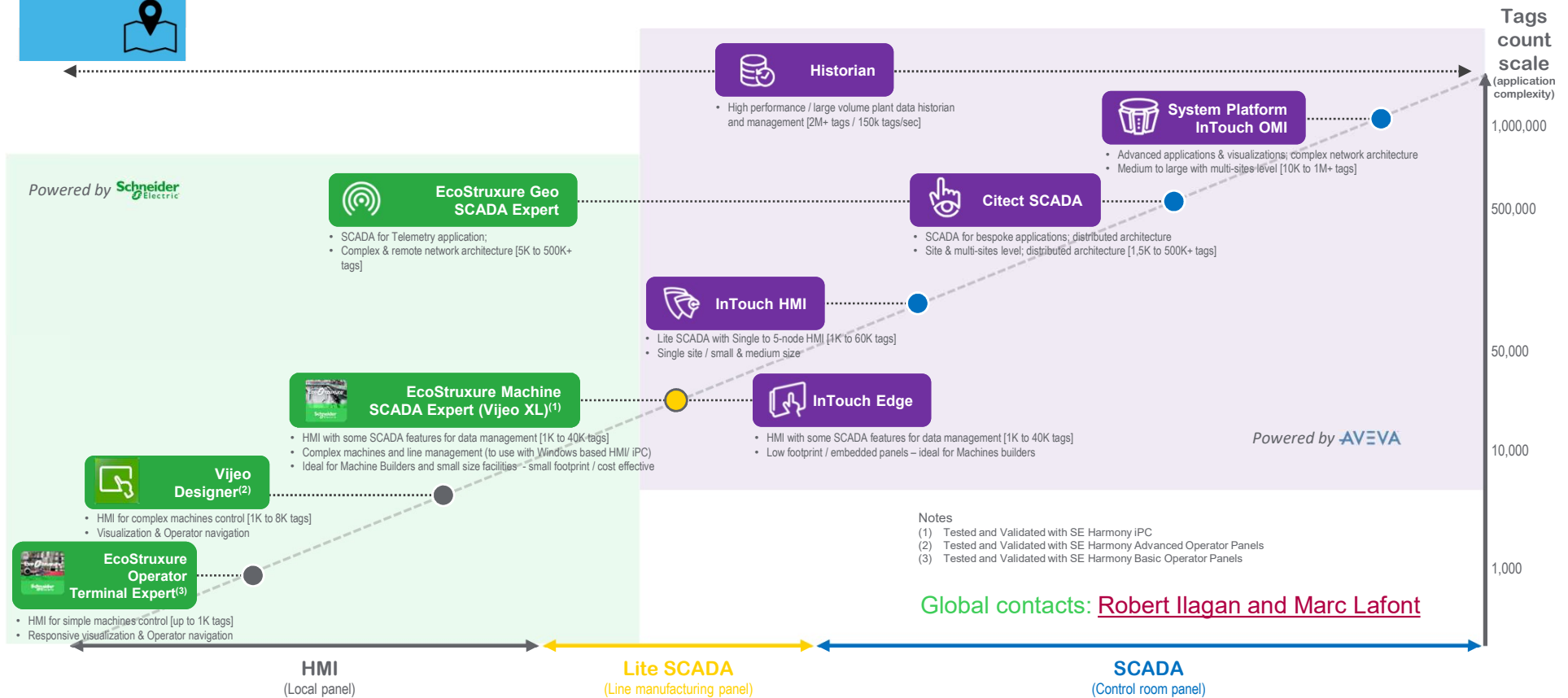


HMI/SCADA Offers positioning

WHAT'S NEW

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Offers positioning



EcoStruxure Machine SCADA Expert

The easy-to-use, powerful, and affordable SCADA solution for line management and lite supervision

Bundled with our Harmony GTU Open Box/iPCs

- For demanding data-intensive and complex visualization such as complex machine and monitoring



Capabilities

- | | | | |
|--|---|---|---|
| <ul style="list-style-type: none">• Scripting• Security• Symbols• Tags Database• Troubleshooting• Gestures• Alarms | <ul style="list-style-type: none">• Animation• Database• Events• Graphics and Design Tools• Trends• Multi-Language | <ul style="list-style-type: none">• Recipes• Multi-touch• Reports• Scalable• Scheduler• OPC• ActiveX and .NET | <ul style="list-style-type: none">• Email (SMTP)• FTP• Historical Performance• PDF Export• SSL Support for Emails• DDE Client• Intellectual Property Protection |
|--|---|---|---|

Recommended bundle offer

	Machine Control	Line Management	Lite Supervision
Examples	<ul style="list-style-type: none"> Standalone Packaging Material Handling Plastic Injection Metal Working 	<ul style="list-style-type: none"> Automotive lines SEMI/LCD Complex Packaging Robotics 	<ul style="list-style-type: none"> F&B Packaging SEMI/LCD Building Automation
HMI Task	<ul style="list-style-type: none"> Machine management 	<ul style="list-style-type: none"> Line Management 	<ul style="list-style-type: none"> Lite SCADA
Typical machine			
# of Tags	<ul style="list-style-type: none"> Less than 1,500 	<ul style="list-style-type: none"> 4,000–32,000 	<ul style="list-style-type: none"> Up to 64,000
# of Drivers	<ul style="list-style-type: none"> Unlimited (v8.1 or later) 	<ul style="list-style-type: none"> Unlimited (v8.1 or later) 	<ul style="list-style-type: none"> Unlimited (v8.1 or later)
Target Hardware	  <p>Harmony GTU Open Box Harmony iPC</p>	 <p>Panel & Box iPC</p>	 <p>Rack & Box iPC</p>



Line-up

Product offers

Secure Viewer Thin Clients

- Platforms: Windows
- Host: Secure Viewer (executable)
- Technology: ActiveX

EcoStruxure Machine SCADA Expert "Build time"

- Windows 10
- Windows 8
- Windows Server 2012
- Windows 7
- Windows Server 2008 R2



Mobile Access Thin Clients

- Platforms: Agnostic
- Host: Web Browser agnostic
- Technology: HTML5

EcoStruxure Machine SCADA Expert "Runtime" with IPC

- Windows 10
- Windows 8.1
- Windows 7
- Windows Embedded Standard 7

License key comparison

	Pros	Cons
Hard Key (USB + Sticker)	<ul style="list-style-type: none">• Easy to reuse	<ul style="list-style-type: none">• Need additional cost• Risk of breakage and loss of USB key
Soft Key (Sticker only)	<ul style="list-style-type: none">• No physical equipment	<ul style="list-style-type: none">• Need to reactivate when a target PC will be changed

* Recommendation:

→ Hard Key for Build time

→ Soft Key for Runtime

Targeted Hardware



Select from 4 types of RunTime License **+**

A: v8.0+SP2
B: v8.1+SP2





Feature focused

Overview



EcoStruxure
Machine SCADA
Expert

Main features

FDA Traceability

- Can be created [21 CFR part 11](#) compliant projects with traceability and e-signatures

Open Architecture

- TCP/IP, .NET, ActiveX, OPC (client and server), ADO/ODBC, COM/DCOM, OLE, DDE, XML, SOAP, and HTML5 are supported

Data base interface

- SQL Server, ORACLE, My SQL, SYBASE are supported

A variety of drivers

- over 250 native communication drivers for PLCs, temperature controllers, motion controllers, bar code/2D/RFID readers, and many other devices

Mobile Access Thin Client

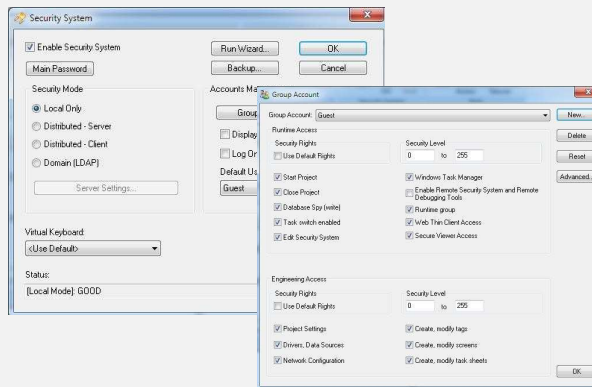
- To access your IPC from any device with a browser that supports HTML5, such as iPads, iPhones, Android devices, and Windows devices, among others

Import Wizard

- Minimize cost of migration from PanelMate/PanelBuilder32/FactoryTalk View ME/SE to EcoStruxure Machine SCADA Expert by automatically converting

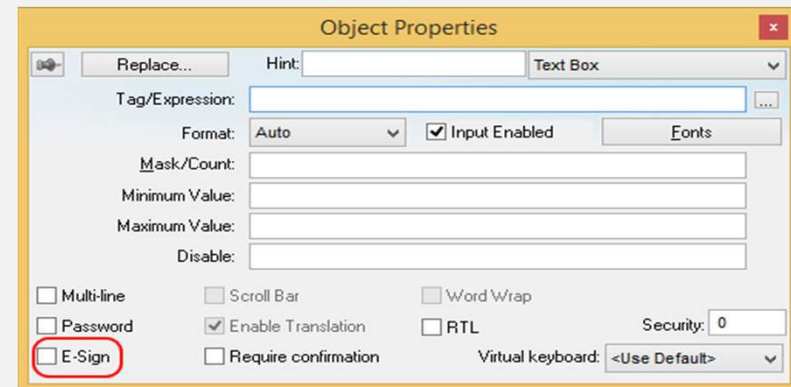
FDA Traceability

Security system



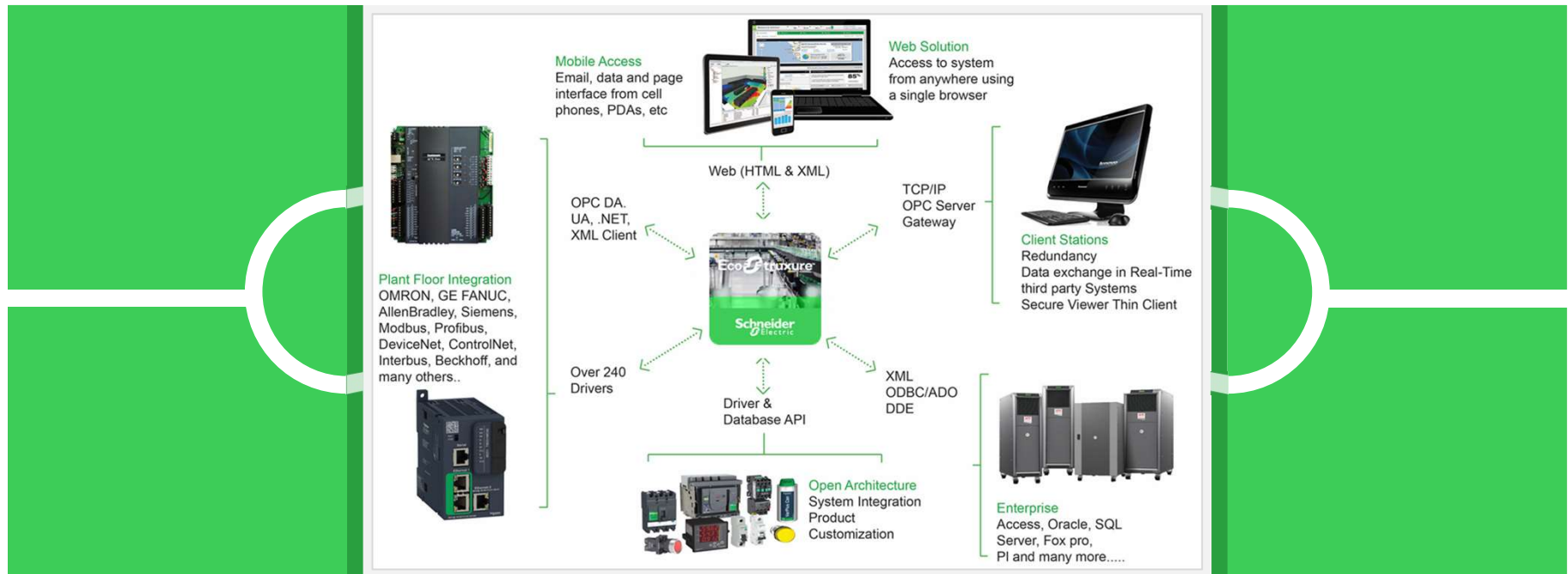
You can easily enable or disable the Security System for the whole application through the “Enable Security System” check-box.

Electronic Signature (E-Sign)



Objects and animation that allow the user to perform an action during the runtime allow you to enforce an Electronic Signature (E-sign) in order to execute the respective task.

Open Architecture



Data base interface



A variety of drivers

New and Updated Communication Drivers and Tag Integration

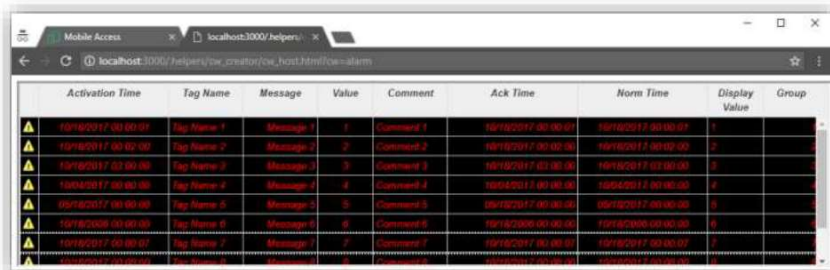
- New Library of Custom Widgets (Tree View, Full Calendar, Web Browser, Pie Chart and Image List)
- OPC-UA Server and Client
- MQTT
- KAWR
- SNMP
- SITIA , S7-1500 & Tag Integration
- 20+ Updated drivers
- Included OPC Factory Server (Data server software)

Benefits

- Enable integration of multiple devices and systems from the plant-floor to the ERP/Cloud in a seamless manner.
- Increase productivity and quality through native tag integration for tag-based devices.

Mobile Access Thin Client

Alarm/Event Control



The screenshot shows a web browser window with a table of alarm events. The table has columns for Activation Time, Tag Name, Message, Value, Comment, Ack Time, Norm Time, Display Value, and Group. The data is as follows:

Activation Time	Tag Name	Message	Value	Comment	Ack Time	Norm Time	Display Value	Group
10/18/2017 00:00:07	Tag Name 1	Message 1	1	Comment 1	10/18/2017 00:00:07	10/18/2017 00:00:07	1	
10/18/2017 00:00:00	Tag Name 2	Message 2	2	Comment 2	10/18/2017 00:00:00	10/18/2017 00:00:00	2	
10/18/2017 00:00:06	Tag Name 3	Message 3	3	Comment 3	10/18/2017 00:00:06	10/18/2017 00:00:06	3	
10/18/2017 00:00:06	Tag Name 4	Message 4	4	Comment 4	10/18/2017 00:00:06	10/18/2017 00:00:06	4	
10/18/2017 00:00:06	Tag Name 5	Message 5	5	Comment 5	10/18/2017 00:00:06	10/18/2017 00:00:06	5	
10/18/2017 00:00:06	Tag Name 6	Message 6	6	Comment 6	10/18/2017 00:00:06	10/18/2017 00:00:06	6	
10/18/2017 00:00:07	Tag Name 7	Message 7	7	Comment 7	10/18/2017 00:00:07	10/18/2017 00:00:07	7	
10/18/2017 00:00:07	Tag Name 8	Message 8	8	Comment 8	10/18/2017 00:00:07	10/18/2017 00:00:07	8	

Ability to visualize and interact (e.g.: acknowledge, filter, etc.) with online and history alarms from devices based on different platforms and web browsers (HTML5), using a modern and intuitive user interface.

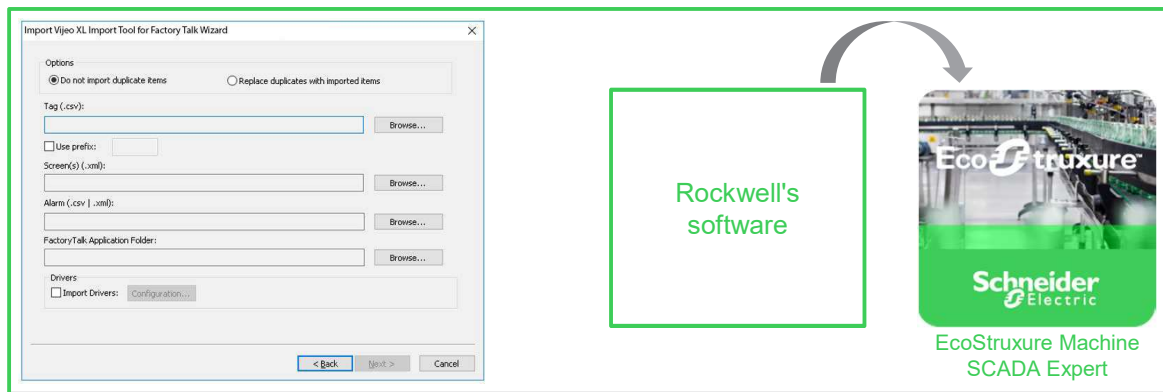


Ability to integrate third-party web-based controls into the HMI/SCADA project screens.

Engineers with HTML/JScript can easily create Custom Widgets and define Properties/Events through the IDE. Users can use the Custom Widgets on the local Viewer and Thin Clients.

Import Wizard

FactoryTalk, PanelMate and PanelBuilder



Benefits

- Minimize cost of migration 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.).
- Leverage the EcoStruxure Machine SCADA Expert native features, such as Mobile Access Thin Clients based on HTML5, after converting the application.

PanelMate

- Eaton and Cutler Hammer
- Versions 2.20.6 and 4.01

PanelBuilder32

- Rockwell
- Version 3.82.1

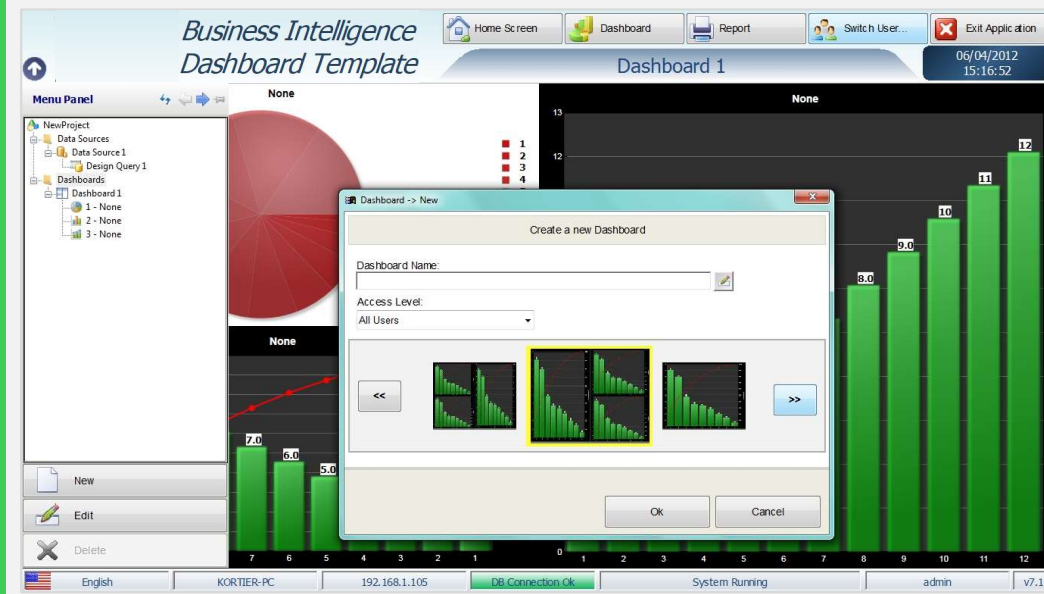
FactoryTalk View ME/SE

- Rockwell
- Designed for version v8.10

BI-Dashboard Template

Information at a Glance

The software shall provide the necessary tools to allow a user to create a Dashboard based on the queries created.



○ Pie Chart

○ Pareto Graphs

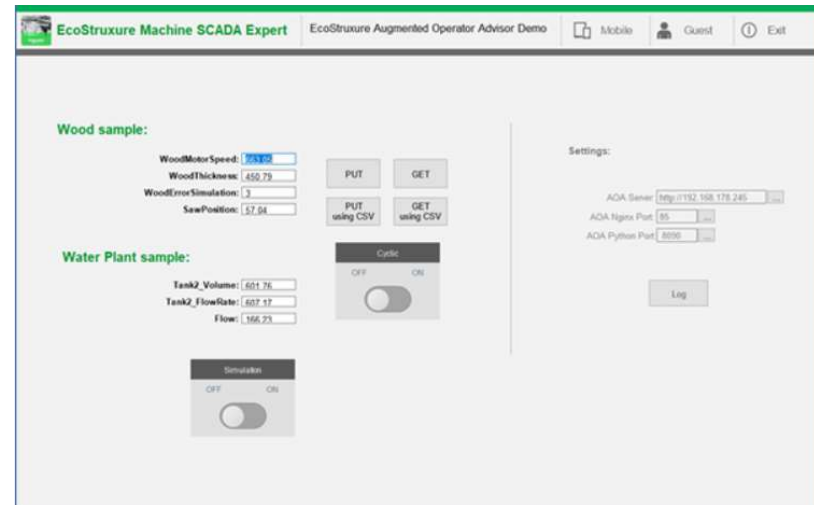
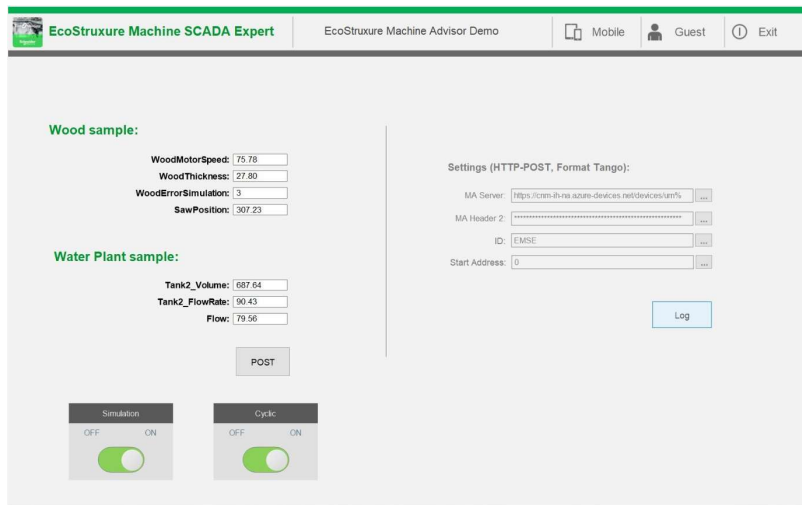
○ Line Graphs

○ Tables

○ Printed reports (even as PDF)

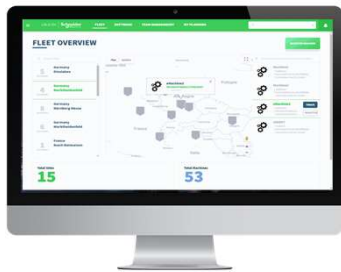
IloT : Machine Advisor

AR : Augmented Operator Advisor



EcoStruxure Machine Advisor

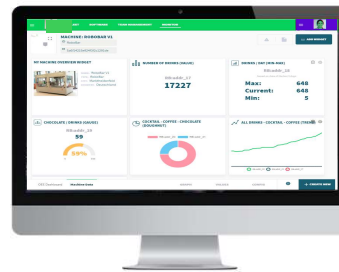
Augmented Operator Advisor (AOA)



TRACK

A repository service for OEMs that enables online access to the machine fleet, the documentation and the history of all machines

- Localize your entire installed base worldwide
- Manage machine data (BOM, documentation...) and software
- Manage and log service and maintenance activities



MONITOR

An analytics service for OEMs and end users enabling them to remotely monitor and analyze machine health and performance

- Monitor your installed base/single machine status and KPIs
- Starting with descriptive analysis moving towards predictive analysis
- Customizable and configurable analytics dashboard



FIX

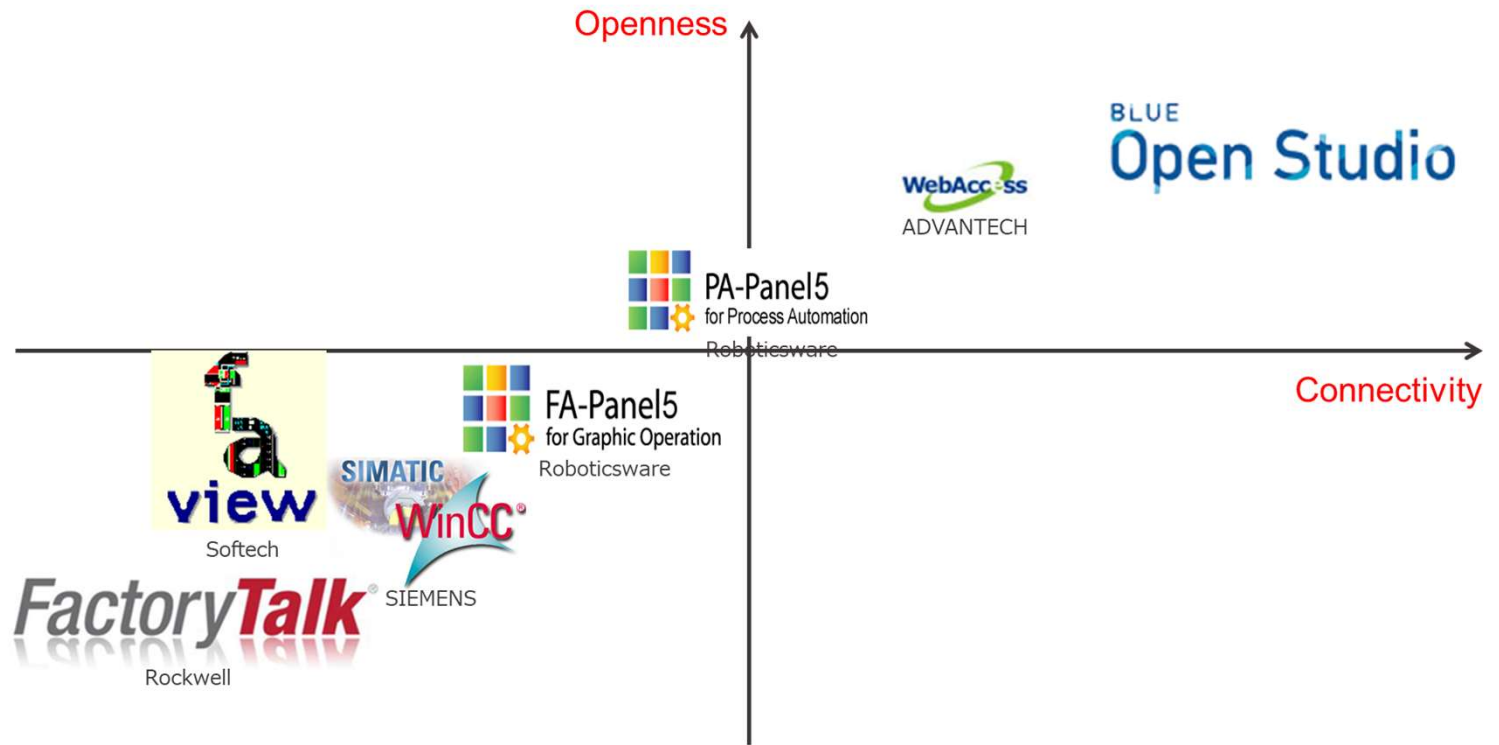
A toolkit to facilitate machine maintenance operations

- Use software as a service directly from the browser
- Manage preventive maintenance plans and execution
- Use EcoStruxure Augmented Operator Advisor at end user sites

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Competitors (1/2)



Competitors (2/2)

Category	Item	SE / Pro-face	ADVANTECH	SIEMENS	B&R	Rockwell
	Series	EMSE / BOS	WebAccess/SCADA	WinCC	Automation Studio	FACTORYTALK VIEW ME
	Version	V8.0	V8.1	V7.4	V4.0	V8.20
Connectivity to external apps or DB	OPC	DA, HDA (Server) UA, . NET, XML-DA (Client)	DA, BACnet UA	HDA DA, XML-DA, A&E	UA, XML-DA	DA
	Standard	TCP/IP, .NET, ADO/ODBC, COM/DCOM, OLE, DDE, SOAP, HTML5, ActiveX, SQL	DDE, SQL, Oracle, MySQL, Access, ERP/MES, HTML5, ActiveX	WinCC OLE, SQL, ActiveX	SQL,	SQL, ODBC, ActiveX
Architecture	Script	Indu/VB Script	Tcl/VB/J	VB, ANSI-C	C++	
Reports	Reporting	Plaintext, RTF, XML, PDF, HTML, CSV	excel	csv	XML	XML
Security	FDA 21 CFR Part 11	○	-	○	○	○
Secure	Redundancy	○	○	○	○	×

Example Target

1 Measurement/Testing OEM/SI

Balancer



tester



Key points

- Top Players
- Think differentiation
- Better Visualization VS HMI SW
- Better connectivity than Win-GP

Target

Processing
machines/lines
Testing machines

2 Food & Beverage



Key points

- Better Visualization VS HMI SW
- Better connectivity than Win-GP
- FDA Part 11

Target

End Users
OEM

3 IPC custs competitors



Key points

- Current IPC custs' competitors
- Expand success case to others
- re-try with new SW

Target

Current PF IPC
custs' competitors

Work Shop 1

- **Separate group**
 - List target customers at least 5 customers
 - Define their system / Machines to approach EMSE/BOS
 - Present

Work Shop 2

- Complete eLearning
 - <https://schneider-electric.csod.com/ui/lms-learning-details/app/course/e7af3d50-3288-48e3-95bf-d2642650ccf5>



Appendix

Parts Number List (EcoStruxure Machine SCADA Expert) (1/2)

Product Name	Parts Number	Description
EcoStruxure Machine SCADA Expert for Supervision (Build time DVD)	HMIVXLBT64KDV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Supervision (Build time DVD), 64000 Tags
EcoStruxure Machine SCADA Expert for Line Management Plus (Build time DVD)	HMIVXLBT32KDV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Line Management Plus (Build time DVD), 32000 Tags
EcoStruxure Machine SCADA Expert for Line Management (Build time DVD)	HMIVXLBT4KDV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Line Management (Build time DVD), 4000 Tags
EcoStruxure Machine SCADA Expert for Machine Control (Build time DVD)	HMIVXLBT1KDV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Machine Control (Build time DVD), 1500 Tags
EcoStruxure Machine SCADA Expert for Supervision (Build time License)	HMIVXLBT64KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Supervision (Build time License), 64000 Tags
EcoStruxure Machine SCADA Expert for Line Management Plus (Build time License)	HMIVXLBT32KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Line Management Plus (Build time License), 32000 Tags
EcoStruxure Machine SCADA Expert for Line Management (Build time License)	HMIVXLBT4KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Line Management (Build time License), 4000 Tags
EcoStruxure Machine SCADA Expert for Machine Control (Build time License)	HMIVXLBT1KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Machine Control (Build time License), 1500 Tags
EcoStruxure Machine SCADA Expert for Supervision (Runtime License)	HMIVXLRT64KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Supervision (Runtime License), 64000 Tags
EcoStruxure Machine SCADA Expert for Line Management Plus (Runtime License)	HMIVXLRT32KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Line Management Plus (Runtime License), 32000 Tags
EcoStruxure Machine SCADA Expert for Line Management (Runtime License)	HMIVXLRT4KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 for Line Management (Runtime License), 4000 Tags
EcoStruxure Machine SCADA Expert Build time for Machine Control (Runtime License)	HMIVXLRT1KLV80	EcoStruxure Machine SCADA Expert V8.1 ServicePack2 Build time for Machine Control (Runtime License), 1500 Tags
GTU Open BOX for Vijeo XL v8.0	HMIG5UL8A	G5U2 Open BOX with Vijeo XL v8.0
GTU Open BOX for EcoStruxure Machine SCADA Expert XL v8.1	HMIG5UL8B	G5U2 Open BOX with EcoStruxure Machine SCADA Expert v8.1

Parts Number List (EcoStruxure Machine SCADA Expert) (2/2)

Product Name	Parts Number	Description
EcoStruxure Machine SCADA Expert Thin Client Licenses	HMIVXLTC	Thin Client License for Secure Viewer and Mobile Access
EcoStruxure Machine SCADA Expert Import Wizard License	HMIVXLTK	PanelBuilder Import Wizard, PanelMate Import Wizard and FactoryTalk Import Wizard are included
USB Hard key	HMIVXLUSBL	USB Hard key
Upgrade from Line Management Plus to Supervision (Build time)	HMIVXLUG64KBT	Upgrade license (Build time) from 32000 tags to 64000 tags
Upgrade from Line Management to Line Management Plus (Build time)	HMIVXLUG32KBT	Upgrade license (Build time) from 4000 tags to 32000 tags
Upgrade from Machine Control to Line Management (Build time)	HMIVXLUG4KBT	Upgrade license (Build time) from 1500 tags to 4000 tags
Upgrade from Line Management Plus to Supervision (Runtime)	HMIVXLUG64KRT	Upgrade license (Runtime) from 32000 tags to 64000 tags
Upgrade from Line Management to Line Management Plus (Runtime)	HMIVXLUG32KRT	Upgrade license (Runtime) from 4000 tags to 32000 tags
Upgrade from Machine Control to Line Management (Runtime)	HMIVXLUG4KRT	Upgrade license (Runtime) from 1500 tags to 4000 tags
Version up license for Supervision (Build time)	HMIVXLVU64KBT	Version up license (Build time), 64000 Tags
Version up license for Line Management Plus (Build time)	HMIVXLVU32KBT	Version up license (Build time), 32000 Tags
Version up license for Line Management (Build time)	HMIVXLVU4KBT	Version up license (Build time), 4000 Tags
Version up license for Machine Control (Build time)	HMIVXLVU1KBT	Version up license (Build time), 1500 Tags
Version up license for Supervision (Runtime)	HMIVXLVU64KRT	Version up license (Runtime), 64000 Tags
Version up license for Line Management Plus (Runtime)	HMIVXLVU32KRT	Version up license (Runtime), 32000 Tags
Version up license for Line Management (Runtime)	HMIVXLVU4KRT	Version up license (Runtime), 4000 Tags
Version up license for Machine Control (Runtime)	HMIVXLVU1KRT	Version up license (Runtime), 1500 Tags

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