



# Human Machine Interfaces Product Line-up Guide

Harmony Panels and Industrial PCs

[www.se.com/HMI](http://www.se.com/HMI)

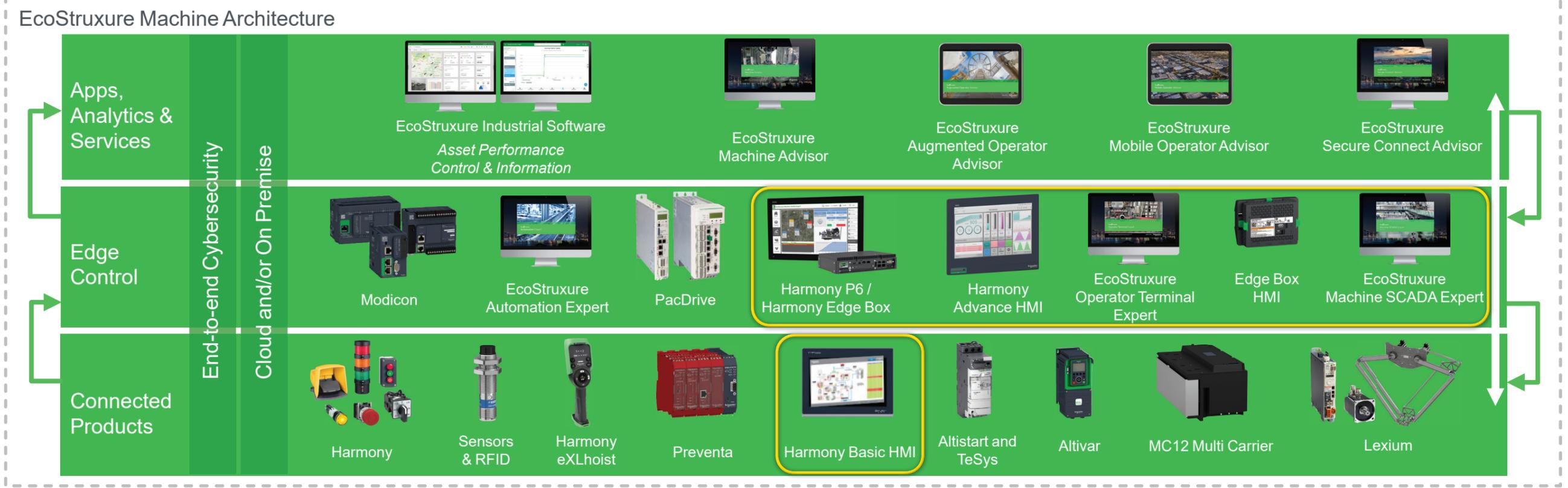
Life Is On

**Schneider**  
Electric

# EcoStruxure™ for Harmony HMI

EcoStruxure is Schneider Electric's innovative IoT-enabled, plug-and-play, open, interoperable architecture and platform addressing the needs of automation applications for a wide range of industries. The EcoStruxure platform is the functional technology backbone, which enables embedded connectivity and intelligence using standard-based communication protocols. This has three levels or layers, namely: Connected Products, Edge Control, and Apps, Analytics & Services, that can be hosted in the cloud as well as on premise.

The Harmony Industrial PCs and Edge Box offer meets IIoT challenges at the Edge Control level by enabling secure communication from connected products on the shop floor to the required software and applications on the top floor. All Basic and Advanced Harmony HMI panels meets IIoT challenges at the Edge Control and Connected Products level, by enabling secure communication to the required Software. This provides improved profitability and new business opportunities, through enhanced asset performance for more efficient operation and maintenance of capital assets.



## Harmony HMI and iPC families

Basic HMI for simple machines		Advanced HMI for performance machines		Industrial PC for line management	
A cost-effective, optimized HMI range that also delivers on features and performance		A high-performance range of HMIs that allows users to manage demanding application requirements		A comprehensive range of intuitive industrial PCs for improved productivity to enhance operator experience	
 <b>Harmony ST6</b> Basic HMI/Basic web HMI/ Basic Modular HMI/Basic Edge Box HMI	 <b>Harmony GTO</b>	 <b>Harmony GTU</b>	 <b>Vijeo Designer</b>	 <b>Harmony Edge Box</b>	 <b>Harmony FP6</b>
 <b>Vijeo Designer</b>	 <b>Harmony STU</b>	 <b>Harmony GTUX</b>	 <b>EcoStruxure Operator Terminal Expert</b>	 <b>EcoStruxure Machine SCADA Expert</b>	 <b>Harmony P6</b>
 <b>EcoStruxure Operator Terminal Expert</b>	 <b>Harmony SCU</b>	 <b>Harmony HMI GK</b>	 <b>EcoStruxure Machine SCADA Expert</b>	 <b>EcoStruxure Machine SCADA Expert</b>	 <b>EcoStruxure Operator Terminal Expert</b>
<b>Other Software</b>  Remote access apps		<b>Service</b>  EcoStruxure Secure Connect Advisor		 EcoStruxure Augmented Operator Advisor	

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# Product Panorama

# Basic HMI panels for simple machines

## Harmony ST6 — High-resolution and cost-efficient basic HMI



Harmony STM6: W4", W7"  
Harmony ST6/STW6: W4", W7", W10", W12", W15"



Modular Harmony STM6



Modular HMI Gateway Box



Edge Box HMI



### Supporting Software



EcoStruxure Operator Terminal Expert



EcoStruxure Machine SCADA Expert



HTML 5

- Cost-effective with good quality
- Fits into Schneider EcoStruxure Architecture
- Superior high-resolution screen with 16M colors
- Powered by new-generation software "EcoStruxure Operator Terminal Expert" for high-quality graphics and stylish design
- Tool-free mounting with newly-designed mounting fastener, no need for screwdriver
- 2x Ethernet with Dual IP, end-to-end Cybersecurity
- Modular HMI version with push button 22 mm/0.866 in. mounting system
- Web HMI version with embedded browser (instead of HMI software) for visualizing HTML5 servers on industrial devices
- Remote visualization using Web Viewer feature
- Faceless HMI version with STM6 Gateway Box and Web Viewer feature for applications that do not need a full time operator screen
- Supports Cloud Services on Edge Box HMI (HMISTM6BOXIOT) due to the power of EcoStruxure Machine SCADA Expert software

## Harmony STO7 — Compact color HMI



Harmony STO7: W4.3"



### Supporting Software



EcoStruxure Operator Terminal Expert

- TFT color screen with 480 x 272 pixels
- Removable logo stickers
- Larger screen with full-size ratio in the 4.3" class
- 3 versions for various communication types

## Harmony GTO — Standard HMI



Harmony GTO: 3.5", 5.7", W7", 7", 10", 12"



### Supporting Software



Vijeo Designer

- Excellent brightness with TFT 65K colors
- Stainless steel panel for food and beverage applications
- Standard front and IP65 degree of protection
- Extended Temperature - up to 55 °C/131 °F
- Easy to install and sustainable offer
- Full range of international certifications
- No logo and full conformal coating versions available

## Harmony STU — Cut-out free HMI



Harmony STU: 3.5", 5.7"



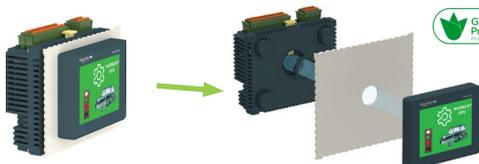
### Supporting Software



Vijeo Designer

- Compact for space saving
- Innovative tool-free mounting via 22.5 mm/0.885 in. hole
- Ethernet port RJ45 10BASE-T/100BASE-TX
- Separately mounted via 3 m or 5 m cable with mounting adapter
- Modular design for easy maintenance

## Harmony SCU — Cut-out free HMI controller



Harmony SCU: 3.5", 5.7"



### Supporting Software



EcoStruxure Machine Expert

- Optimum all-in-one combination for HMI and Control
- Innovative tool-free mounting via 22.5 mm/0.885 in. hole
- Reduce machine assembly time and cost
- Space saving
- Embedded CANopen port for field networking
- Modular design for easy maintenance

# Advanced HMI panels for performance machines

## Harmony GTU — High performance modular HMI



### Supporting Software



Harmony GTU: W7", 10", W10", 12, W12", 15", W15", W19"



EcoStruxure Operator Terminal Expert



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- 8 sizes of high-resolution displays ranging from 7" to 19", either with modern 16:9 or standard 4:3 ratio
- 3 boxes, two with Real Time OS and one with fully open Windows based
- Up to 2 separate Ethernet ports, serial communication ports, and field bus options suiting IoT
- Industrial multi-touch and fully coated offer
- All memory removable for PC-free box replacements
- Wireless LAN enabled display
- Easy to install with integrated mounting fastener and antidrop lock
- Multi-display capability with Open box using DVI interface or multi-display adapter

## Harmony GTUX — eXtreme HMI



### Supporting Software



Harmony GTUX: W7", W12", W15"



Vijeo Designer

- A wide temperature range from -30...+70 °C / -22 ...+158 °F
- Sunlight Readable: High brightness LCD (1000 cd/m<sup>2</sup>), anti-glare surface
- Robustness: UV Protection, conformal coated (fully coated)
- Dust and water proof (IP66F, IP67F and UL50E Type 4X (Outdoor use))
- Environmental standard: Class 1, Div. 2, ATEX/IECEX Zone 2/22
- Variety of interfaces including dual Ethernet ports
- Modular design with stainless front face
- Suitable for industry segments like Oil & gas, Water and Waste Water (WWW) management

## Harmony GK — Keyboard HMI



### Supporting Software



Harmony GK: 5.7", 10.4"



Vijeo Designer

- Fine control inputs even in severe environment
- Touch screen and keypad keys configurable simultaneously or separately
- Highly robust with operating temperatures up to 55 °C / 131 °F, reducing maintenance problems and time

# Harmony Industrial PCs and Edge Box for line management

Harmony P6 Industrial PCs — Drive efficiency and productivity at the Edge of EcoStruxure



Supporting Software



Node-RED



EcoStruxure Operator Terminal Expert



EcoStruxure Machine SCADA Expert



Harmony P6 Modular Box and Modular Display: 12", 15", W10", W12", W15", W19", W22"



How to select the Industrial PC and build a Plant Architecture  
Click to view the video

- HMIP6 (1)
- Advanced Modular Box PC
  - Intel Core i5 up to 4.1 GHz or Intel Core i7 up to 4.4 GHz or Intel Celeron up to 2.0 GHz, UHD Graphics accelerator
  - 8 to 32 GB or 4 to 16 GB DDR4 RAM, 1x M.2 SSD SATA and 2x 2.5-inch SATA (HDD/SSD) storage slots
  - USB Type A (2x USB 2.0 and 2x USB 3.0), USB Type C (1x USB 3.0), 1x COM RS-232C, 2x RJ45 Ethernet, 1x Display port
  - 2x interface slots and optional extension module for 2x PCI/PCIe slots
  - Default TPM module for encryption
- Standard Modular Box PC
  - Intel Core i3 up to 3.9 GHz, UHD Graphics accelerator
  - 8 to 32 GB DDR4 RAM, 1x M.2 SSD SATA and 1x 2.5-inch SATA (HDD/SSD) storage slots
  - USB Type A (2x USB 2.0 and 2x USB 3.0), USB Type C (1x USB3.0), 1x COM RS-232C, 2x RJ45 Ethernet, 1x Display port
  - 2x interfaces slots
  - Default TPM module for encryption
- HMIDM6
  - 4:3 12" and 15" (XGA) color LCD resistive analog multi-touch (2 points) screen with 1x USB 2.0 (Type A), and front USB cover
  - 16:9 10" and 12" (WXGA)/15" (FWXGA)/19" and 21" (FHD) projected capacitive multi-touch (2 points) screen, 7H hardness, anti-scratch, 3 touch mode configuration
  - IP66, Nema 4X indoor front panel
  - All models are certified for CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL121201 (2), and CSA C22.2 No. 213 (2)
  - All DC models are certified for IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (2), DNV

Harmony S-Panel PC — Slim All-in-one design



Supporting Software



EcoStruxure Operator Terminal Expert



EcoStruxure Machine SCADA Expert



Harmony S-Panel PC: W10.1", W18.5"

- HMIPSO
  - Intel Atom E3827 dual-core 1.75 GHz, fanless
  - 4 GB DDR3 RAM, None or 32 GB CFAST or 128 GB SSD or 500 GB HDD storage slots
  - Expansion kit allowing 1x SATA HDD/SSD slot and 1x mini PCIe slot
  - W10" and W15" multi-touch projected capacitive technology screens

(1) Available as Configured-to-order only and can be ordered using the online configurator.  
(2) Available in Q4 2022.

# Harmony Industrial PCs and Edge Box for line management

## Harmony Edge Box — Edge Control for EcoStruxure Machine and EcoStruxure Plant



### Supporting Software



Node-RED



EcoStruxure Operator Terminal Expert



EcoStruxure Machine SCADA Expert



HMIBSC



HMIBMI



HMIBMO

- HMIBSC (1)
  - Qualcomm ARM Cortex-A53 Quad-core up to 1.2 GHz
  - 1 or 2 GB RAM, 2x Ethernet, 1x COM RS-232/432/485, 2x USB, 1x HDMI (for configuration only)
  - 8 GB or 64 GB eMMC (soldered), 1x SD card slot, 1x mini PCIe slot and 1x M.2 slot for expansions (2), antenna connectors
  - Runs Node-RED to wired devices on the Industrial Internet of Things
- HMIBMI
  - Intel Atom “Apollo lake” E3930 Dual-core 1.8 GHz fanless
  - 4 GB RAM, 2x Ethernet, 1x COM, 2x USB, 1x DP (working with modular display HMIDM mounted)
  - 64 GB or 128 GB eMMC (soldered), 1x mini PCIe (3) slot, antennas connectors
  - Runs Node-RED to wired devices on the Industrial Internet of Things
- HMIBMO
  - Intel Atom “Apollo lake” E3930 Dual-core 1.8 GHz fanless
  - 4 GB or 8 GB RAM, 2x Ethernet (supporting real time), 2x COM, 4x USB, 2x DP (both working with modular display HMIDM mounted)
  - None or 64 GB or 250 GB M.2 SSD, 1x mini PCIe slot (without optional interface) (2), antenna connectors
  - Expandable model with HDD/SSD 2.5" slot and optional interface for Mini PCIe (2)
  - Runs Node-RED to wired devices on the Industrial Internet of Things

## Harmony Modular Display — Display for Edge Box family



Harmony Modular Display: 12", W12", 15", W15.6", W18.5", W21.5"

- HMIDM
  - 4:3 12"/15" single-touch resistive screen with front USB
  - 16:9 12"/15"/19"/22" multi-touch projected capacitive screen, 7H hardness, anti-scratch
  - IP66, Nema 4X indoor front panel

## Harmony FP6 — Industrial Flat Panel Monitors



Harmony HMIFP6 : 12", 15", W10", W12", W15", W19", W22"

- HMIFP6
  - 4:3 12" and 15" (XGA) color LCD resistive analog multi-touch (2 points) screen with 1x USB 2.0 (Type A), and front USB cover
  - 16:9 10" and 12" (WXGA)/15" (FWXGA)/19" and 22" (FHD) projected capacitive multi-touch (2 points) screen, 7H hardness, anti-scratch, 3 touch mode configuration IP66, Nema 4X indoor front panel
  - All models are certified for CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL121201 (3) (4), and CSA C22.2 No. 213 (3) (4), IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (3) (4)

(1) EcoStruxure Operator Terminal Expert and EcoStruxure Machine SCADA Expert is not supported by Harmony HMIBSC.

(2) Mini PCIe cards not requiring Optional interface (no external connector): Cellular, Wifi, Saved RAM, etc. Mini PCIe cards requiring Optional interface: COM, USB, Audio, Video, Fieldbus, I/O, etc.

(3) Available in Q4 2022.

(4) On the front panel when properly installed in an enclosure and not using the front panel USB port.

# HMI software and services

## EcoStruxure Operator Terminal Expert — Touchscreen configuration software



EcoStruxure Operator Terminal Expert



- Operate intuitively
  - Ability to go beyond the limitations of the physical screen size to improve productivity
  - Convert already created Landscape screens into Portrait screens for vertical scrolling and for screens that require many operation switches
- Reduce time to market
  - Efficient and intuitive engineering
  - For faster customization and modification
- Improve efficiency
  - High usability and image quality for the operator (experience design)
  - With Web Viewer feature, watch/operate the HMI screen remotely with mirroring function

## EcoStruxure Machine SCADA Expert — Lite SCADA for line management



EcoStruxure Machine SCADA Expert



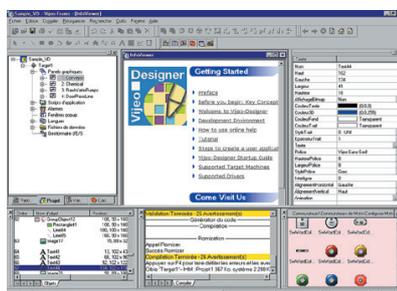
- Save time
  - Quick and easy to install directly on our iPCs
  - Save days of testing and commissioning thanks to a fully tested and validated association
  - Tailored information at a glance using BI-Dashboard template
- Save money
  - Get peace of mind and save time and resources with our single point of contact for Hardware/Software/Operating System support
  - Access SCADA level software, with all its benefits, at a competitive cost/features ratio
- Connectivity and data management
  - Includes 250+ native communication drivers
  - Monitor and control remotely your application with Mobile Access, using a tablet or smartphone

**Note:** For Harmony HMIP6, EcoStruxure Machine SCADA Expert Runtime preinstalled version is available as an option in the online configurator.

## Vijeo Designer — Classic HMI configuration software



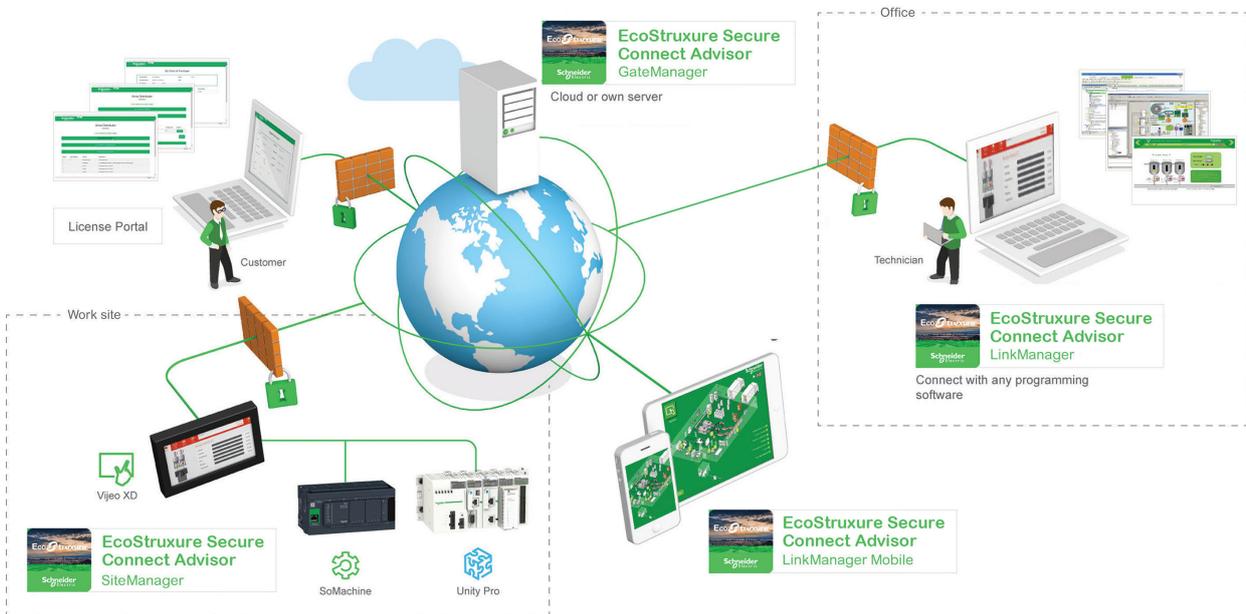
Vijeo Designer



- Multi-platform: from optimized panels to iPCs
- Multi-panel communication: automatic data sharing between up to 8 different panels
- Multi-language: 15 languages in runtime and 38 alphabets
- Multi-protocol: on COM and Ethernet ports
- Multi-access: local or remote display with WEB Gate, Vijeo Designer Air and Vijeo Designer Air Plus
- Multi-media: video/sound record/replay capability

# HMI software and services

## EcoStruxure Secure Connect Advisor — Secure remote access solution



- 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 repairs can be performed remotely upon request.

## EcoStruxure Augmented Operator Advisor — Augmented reality for instant diagnosis and contactless maintenance

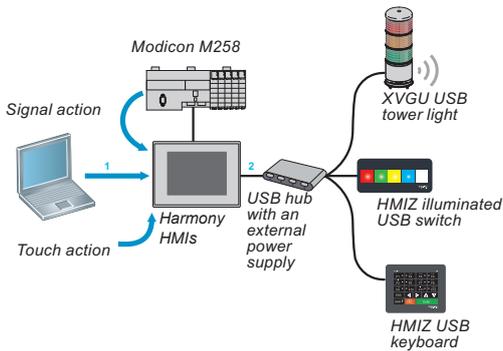


EcoStruxure  
Augmented  
Operator Advisor



- Reduces downtime by opening electrical cabinet doors virtually and diagnosing the device status instantly in real-time without the need for lockout or electrical qualifications.
- Speeds up the efficiency of operations and maintenance by offering immediate access to relevant information in the field like real-time data, machine history, user manuals, instructions, diagrams, etc.
- Enables technicians to locate the right equipment and guides them step-by-step to complete the procedures.

# Harmony USB accessories



The functionality of the Harmony HMI can be extended with USB connected accessories. These innovative accessories can be easily installed and operated with HMI terminals. Their configuration is part of the overall HMI project and is stored in the terminal memory. The illuminated switch panel and the keyboard panel are mounted via a 22 mm/0.866 in. hole, simplifying installation.

## Harmony HMIZRA



Supporting Software



- Illuminated switch
  - 5 tactile switches with configurable LED (red/green/yellow/white/blue)
  - Dynamic light changes and flashing to display the machine status
  - Easy mounting with one-cable connection and 22.5 mm/0.885 in. hole



Vijeo Designer

## Harmony HMIZKB



Supporting Software



- USB keyboard
  - Keyboard with 12 tactile function keys
  - Support for alphanumerical and numerical input
  - Easy mounting with one-cable connection and 22.5 mm/0.885 in. hole



Vijeo Designer

## Harmony XVGU



Supporting Software



- Tower light
  - USB powered tower light with 3 LED light elements
  - Multicolor with red, orange, green, or blue
  - 85 dB buzzer with 4 configurable sound patterns
  - Easy mounting with single USB cable



Vijeo Designer



EcoStruxure Machine SCADA Expert

# Quick Product Selection Tables

# Basic HMI panels for simple machines

Platform	Harmony ST6				Harmony ST07 -Compact HMI-	Harmony GTO -Standard HMI-	Harmony STU -Cut-out free HMI-	Harmony SCU -HMI controller -
	Basic HMI ST6	Basic Web HMI STW6	Basic Modular STM6	Basic Edge Box HMI				
<b>Modular</b>	–	–	Yes	–	–	–	Yes	Yes
<b>Screen size</b>	W4", W7", W10", W12", W15"	W4", W7", W10", W12", W15"	No Face or W4", W7"	No Face	4.3"	3.5", 5.7", W7", 7", 10", 12"	3.5", 5.7"	3.5", 5.7"
<b>Screen resolution</b>	480 x 272 / 800 x 480 / 1024 x 600 / 1280 x 800 / 1366 x 768	480 x 272 / 800 x 480 / 1024 x 600 / 1280 x 800 / 1366 x 768	480 x 272 / 800 x 480	–	480 x 272	320 x 240 / 640 x 480 / 800 x 480 / 800 x 600	320 x 240	320 x 240
<b>Application memory</b>	128 MB	512 MB	128 MB	–	26 MB	64 MB/128 MB or 96 MB/128 MB	32 MB	128 MB
<b>Backup memory</b>	512 KB	128 KB	512 KB	–	128 KB	128 KB to 512 KB	64 KB	128 KB
<b>Ethernet port</b>	1 or 2 LAN port(s)		2 LAN port(s)		None or 1 LAN port	None or 1 LAN port	1 LAN port	1 LAN port
<b>Serial line</b>	RS-232C/485 (COM1) only or RS-232C (COM1) and RS-485 (COM2)	None	RS-232C/485 (COM1)	RS-232C/485 (COM1)	None or RS-232C or RS-232C/RS-485	RS-232C/485 (COM1) only or RS-232C (COM1) RS-485 (COM2)	RS-232C/RS-485	RS485/RS232
<b>Operating temperature</b>	0...50 °C/32...122 °F		0...50 °C/32...122 °F or 0...60 °C/32...140 °F	0...60 °C/32...140 °F	0...50 °C/32...122 °F	0...50 °C/32...122 °F or 0...55 °C/32...131 °F	0...50 °C/32...122 °F	0...50 °C/32...122 °F
<b>Software</b>	EcoStruxure Operator Terminal Expert	HTML pre-installed browser	EcoStruxure Operator Terminal Expert	EcoStruxure Machine SCADA Expert	EcoStruxure Operator Terminal Expert	Vijeo Designer	Vijeo Designer	EcoStruxure Machine Expert

# Advanced HMI panels for performance machines

Platform	Harmony GTU -High performance HMI-			Harmony GTUX -eXtreme outdoor HMI-	Harmony GK -Keyboard HMI-
	HMIG2U	HMIG3U	HMIG5U21, HMIG5U22		
<b>Modular</b>	Yes			Yes	–
<b>Screen size</b>	W7", 10.4", W10", 12.1", W12", 15", W15", W19"			W7", W12", W15"	5.7", 10.4"
<b>Screen resolution</b>	800 x 480/800 x 600/1024 x 768/1280 x 800			800 x 480/1280 x 800/1366 x 768	320 x 240/640 x 480
<b>CPU</b>	RISC, 600 MHz		x86, 1.33 GHz	–	–
<b>Operating system</b>	Real time OS		Windows 10	Real time OS	Real time OS
<b>Application memory</b>	256 MB		4 GB	256 MB	128 MB
<b>Backup memory</b>	512 KB			512 KB	512 KB
<b>Expansion memory</b>	SD card		SD card and CFast card 32 GB	SD card	SD card
<b>Ethernet port</b>	2 LAN ports			2 LAN ports	1 LAN port
<b>Serial line</b>	RS-232C (COM1), RS-485 (COM2)	RS-485 (COM1), RS-232C/RS-485/RS-422 (COM2)		RS-485 (COM1), RS-232C/RS-485/RS-422 (COM2)	RS-232C (COM1), RS-485 (COM2)
<b>Supply voltage</b>	12...24 V $\overline{\text{DC}}$			12...24 V $\overline{\text{DC}}$	24 V $\overline{\text{DC}}$
<b>Operating temperature</b>	0...60 °C / 32...140 °F			-30...65 °C/-22...149 °F or -30...70 °C/-22...158 °F or -20...60 °C/-4...140 °F	0...55 °C / 32...131 °F
<b>Software</b>	Vijeo Designer	Vijeo Designer / EcoStruxure Operator Terminal Expert	Vijeo Designer / EcoStruxure Operator Terminal Expert	Vijeo Designer	Vijeo Designer

# Industrial PC for line management

Platform	Harmony P6 (1)	
	Advanced Modular Box	Standard Modular Box
Optional Modular Displays - Screen size	12", 15", W10", W12", W15", W19", W22"	
Front protection (2)	IP66F, IP67F, Type 1, Type 4X (NEMA indoor use only), Type 13 UL 50/50E	
Certifications	All models: CE, RCM, UL 61010-2-201, CSA C22.2 No. 61010-2-201, UL 121201 (3), CSA C22.2 No. 213 (3) DC models: IECEx/ATEX for use in Zone 2 gas/Zone 22 dust (3), DNV	
RAM	4 to 16 GB DDR4 RAM or 8 to 32 GB DDR4 RAM	8 to 32 GB DDR4 RAM
CPU processor	Intel Core i7-8665UE or Intel Core i5-8365UE or Intel Celeron 4305UE	Intel Core i3-8145UE
OS	Windows 10 IoT Enterprise 2019 LTSC (64-bit)	
Storage slots	1x M.2 SSD SATA, 2x 2.5-inch SATA (HDD/SSD)	1x M.2 SSD SATA, 1x 2.5-inch SATA (HDD/SSD)
Expansion slots	2x interfaces slots and optional extension module for 2x PCI/PCIe slots	1x interfaces slots
IIoT and approved Cybersecurity	Node-RED, TPM 2.0 module (preinstalled), McAfee Whitelisting	
Software	EcoStruxure Operator Terminal Expert, EcoStruxure Machine SCADA Expert (4), EcoStruxure Secure Connect Advisor, EcoStruxure Augmented Operator Advisor	

Platform	Harmony Edge Box		
	HMIBSC	HMIBMI	HMIBMO
Modular	–	Yes	
Optional Modular Displays - Screen size	–	12", W12", 15", W15", W19", W22"	
Front protection	–	IP66, NEMA 4X indoor, 7H hardness anti-scratch	
Certifications	CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (part 15 EMC Class A)		
RAM	1 GB or 2 GB (not user-expandable)	4 GB (not user-expandable)	4 GB or 8 GB (not user-expandable)
CPU processor	Qualcomm ARM Cortex-A53 Quad-core (up to 1.2 GHz)	Intel Atom Apollo Lake E3930 Dual-core (1.8 GHz)	
OS	Linux Yocto	None or Windows 10 IoT Enterprise LTSC (64-bit) or Configured-To-Order offer	
Storage slots	8 GB or 64 GB eMMC (soldered)	64 GB or 128 GB eMMC (soldered)	None or 64 GB or 250 GB M.2 SSD
Expansion slots	1x full-size slot with optional interface, 1x M.2 slot (not for storage)	1x mini PCIe full slot with optional interface	1x mini PCIe full slot with or without optional interface
IIoT and approved Cybersecurity	Secure boot, password Node-RED preinstalled, TPM for Cybersecurity	IIoT system monitor with Node-RED and approved Cybersecurity (TPM hardware encryption, McAfee white-listing, etc.)	
Software	–	EcoStruxure Operator Terminal Expert, EcoStruxure Machine SCADA Expert, EcoStruxure Secure Connect Advisor	

Platform	Slim All-in-one Panel PC	
	HMIPSO	HMIEP
Screen size	W10"	W19"
Front protection	IP66, NEMA 4X indoor, 7H hardness anti-scratch	IP66 all over with VESA 100 mounting, NEMA 4X indoor, 7H hardness anti-scratch front panels
Certifications	CE, cULus, RCM, EAC, CCC, FCC (part 15 EMC Class A)	
RAM	4 GB	8 GB
CPU processor	Intel Atom E3827 Dual-core (1.75 GHz)	Intel Core i3-4010U Dual-core 4 <sup>th</sup> generation (1.7 GHz)
OS	None or Windows 10 IoT Enterprise (64-bit Multi-language)	None, Windows 10 IoT Enterprise (64-bit Multi-language) or Configured-To-Order offer
Storage slots	None or 32 GB CFAST or 128 GB SSD or 500 GB HDD	None or 128 GB SSD
Expansion slots	1 Mini PCIe (requires optional expansion)	1 Mini PCIe
IIoT and approved Cybersecurity	–	–
Software	EcoStruxure Operator Terminal Expert, EcoStruxure Machine SCADA Expert	

(1) Available as Configured-to-order only and can be ordered using the online configurator.

(2) On the front panel when properly installed in an enclosure and not using the front panel USB port.

(3) Available in Q4 2022.

(4) For Harmony HMIP6, EcoStruxure Machine SCADA Expert Runtime preinstalled version is available as an option in the online configurator.

# HMI software comparison table

Platform	EcoStruxure Operator Terminal Expert	EcoStruxure Machine SCADA Expert	Vijeo Designer
Modern/Stylish design	+++	++	+
Efficient operation	+++ (multi-screen, scrollable screen, custom zoom view)	++	+
Easy screen creation	+++	++	++
Easy programming	++	++	+++
Multitouch gestures	++	+++	-
Security	++	+++	+
Mobile access	+++ (Web Viewer/Web API)	+++ (Web API)	++
Languages	+	+++	+++
IT/OT connectivity	++	+++	+
Data management	+	+++	+
Target equipment type	Simple/Compact Machine	Performance/Complex Machine Line Management	Simple/Compact Machine Performance/Complex Machine
Typical target application	Marine, Control Panel Builders, HVAC&R, Pumping, Packaging, Food & Beverages	Material handling, Packaging, Food & Beverages, Material working, SEMI/FPD, Automotive line	Marine, Control Panel Builders, HVAC&R, Pumping, Packaging, Food & Beverages, Oil & Gas, WWW
Optimum hardware	Harmony ST6/STO7/GTU (HMIG5U22 & HMIG3U), Harmony iPCs	Harmony iPCs (1), Edge Box HMI	Harmony GTO/STU/SCU/GTU/GTUX/GK

+++ Highly recommended

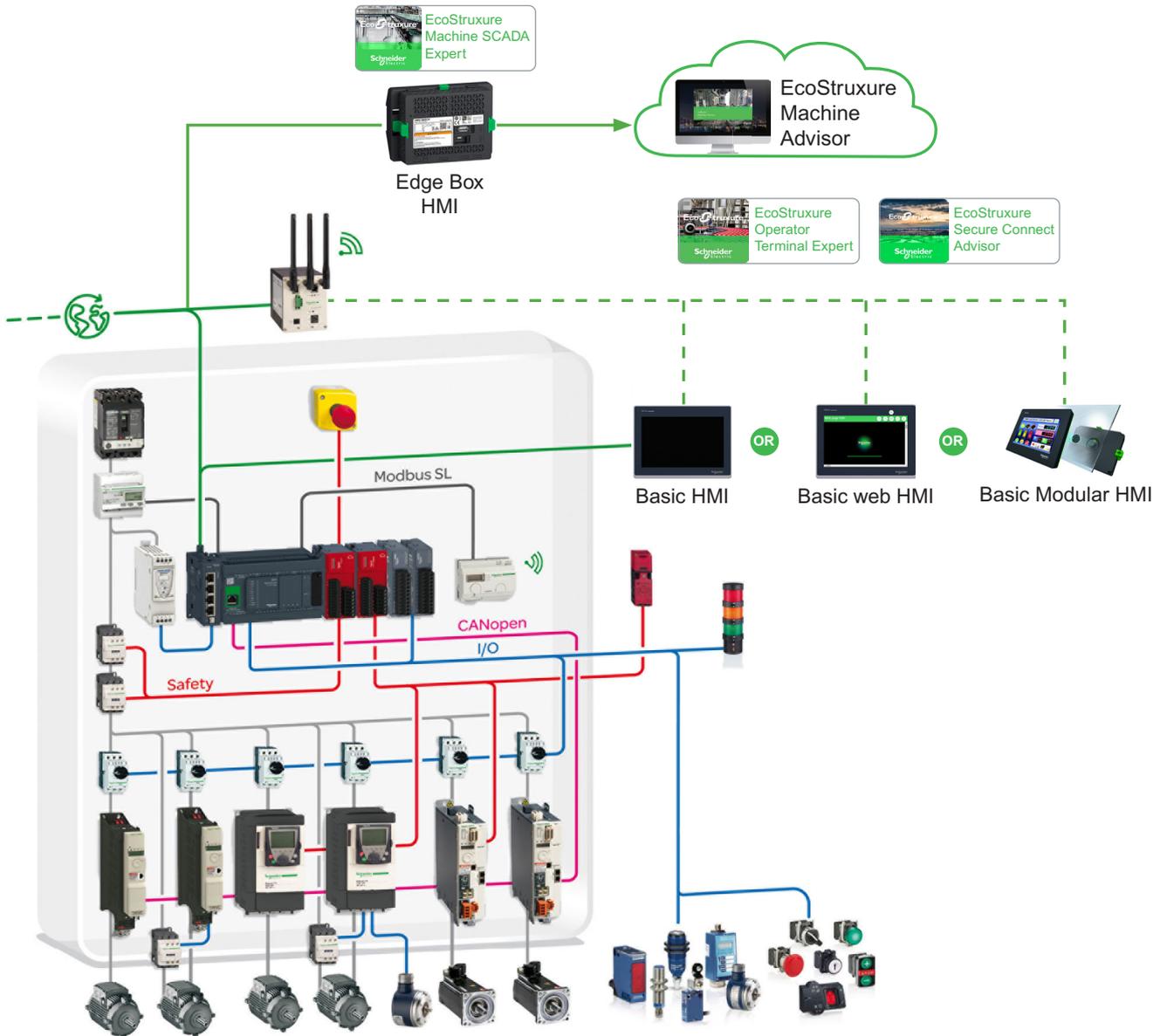
(1) For Harmony HMIP6, EcoStruxure Machine SCADA Expert Runtime preinstalled version is available as an option in the online configurator.

# Harmony USB compatible accessories table

Harmony HMIs	USB accessories for HMI terminals		
	USB tower light	Illuminated USB switch	USB keyboard
	XVGU3S●●●	HMIZRA1	HMIZKB1
Harmony Panel PC	No	Yes	No
Harmony Box PC	No	Yes	No
HMIGK	Yes	Yes	No
HMIGTU	Yes	Yes	Yes
HMIGTUX	No	No	No
HMIGTO	Yes	Yes	Yes
HMIST6	No	No	No
HMISTU	No	No	Yes
HMISTO7	No	No	No
HMISCU	Yes	Yes	Yes

# Examples of Use cases

Harmony ST6 Basic HMI for simple machines: Flexible architectures for the same application



STM6 Basic HMIs for simple applications come with extra certifications.



Class 1 Div 2 Category 3

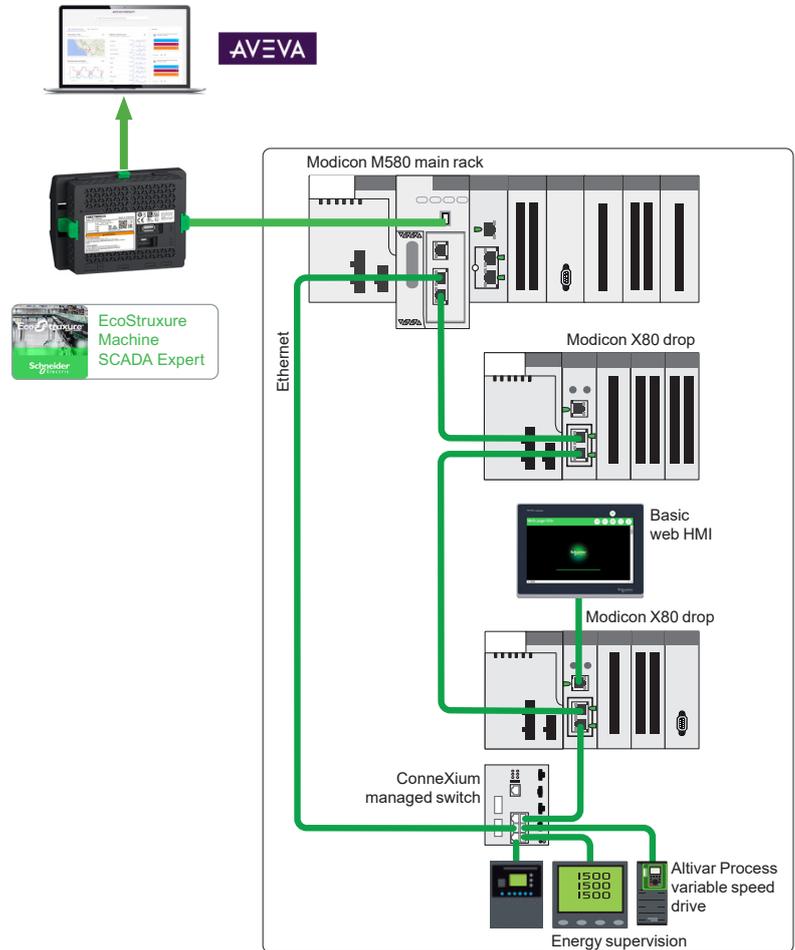
# Examples of Use cases

## Harmony ST6 Basic HMI in the End User Plant



Food & Beverage

Harmony STW6 and Edge Box HMI are used as secondary HMIs for the maintenance and diagnostic tools in the EcoStruxure plant architecture.



## Harmony iPC powered by an IIoT application with Node-RED in process and manufacturing optimization



### Energy, production, and asset management across plants and locations

- Process improvement insights and actionable data:
  - Parallel wiring model, not interfering within the control system
  - Wonderware Online connector to the Cloud
  - EcoStruxure Augmented Operator Advisor
- Cybersecured industrial automation system, compliant to ISA/IEC 62443
- For most demanding environments, certified for hazardous locations

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