

# Siemens Digital Industries Webinari

## FA12: Comfort -> Unified Comfort

## Današnji predavač



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Powered  
by WinCC  
Unified

# SIMATIC HMI Unified Comfort Panels

# SIMATIC HMI Unified Comfort Panels

## Innovations leads to advantage



<sup>1</sup> as of V17

### Making Unified Comfort Panel a compelling argument

- Significant increase of performance and system limits
- Smoother operation with multitouch (2 Hand<sup>1</sup>) and gesture detection
- More applications preinstalled on the device
- Extensibility by apps using Industrial Edge
- Design and usability:
  - Custom Web Controls
  - Static and dynamic SVG graphics
  - Increased functionality in controls
  - Screen window technology
  - Dynamization of objects
- Advanced scripting with Java Script
- Extensibility by WinCC Unified options



# SIMATIC HMI Unified Comfort Panels Portfolio



**Comfort Panels**  
12 devices (Key and touch)



**Unified Comfort Panels**  
6 devices (Multitouch)

# SIMATIC HMI Unified Comfort Panels

## Multitouch from 7" to 22"



**MTP 700**

**800 x 480**

7.0"



**MTP 1000**

**1,280 x 800**

10.1"



**MTP 1200**

**1,280 x 800**

12.1"



**MTP 1500**

**1,366 x 768**

15.6"



**MTP 1900**

**1,920 x 1,080**

18.5"



**MTP 2200**

**1,920 x 1,080**

21.5"

**MTP = Multi-Touch Panel**

# SIMATIC HMI Unified Comfort Panels – Display Information <sup>1</sup>



	MTP 700	MTP 1000	MTP 1200	MTP 1500	MTP 1900	MTP 2200
Resolution	800x480	1280x800	1280x800	1366x768	1920x1080	1920x1080
Diagonal	7“	10.1“	12.1“	15.6“	18.5“	21.5“
PPI (Points per Inch)	133	149	125	100	119	102
Aspect ratio	15:9	16:10	16:10	16:9	16:9	16:9
Viewing angle	160°	160°	176°	170°	178°	178°
Brightness (cd)	400	400	400	400	350	250
MTBF (hours)	50.000	50.000	50.000	50.000	50.000	30.000

<sup>1</sup> This data is not included in the technical data in the Siemens Industry Online Support, as the values may vary if a supplier changes.

# SIMATIC HMI Unified Comfort Panels

## Resolution and mounting compatibility

Comfort Panel	Resolution and mounting compatibility						
	4.3"	7.0"	9.0"	12.1"	15.4"	18.5"	21.5"
	480 x 272	800 x 480	800 x 480	1,280 x 800	1,280 x 800	1,366 x 768	1,920 x 1,080
Unified Comfort Panel	Resolution and mounting compatibility						Mounting compatibility
	7.0"	9" → 10.1"	12.1"	15.6"	18.5"	21.5"	
	800 x 480	1,280 x 800	1,280 x 800	1,366 x 768	1,920 x 1,080	1,920 x 1,080	
	✓	Enlarge Cut-Out	✓	Mounting frame 1)	Mounting frame 1)	Mounting frame 1)	

1 Available after product release



# SIMATIC HMI Unified Comfort Panel

Increased system performance

	Comfort Panel 7 – 12"/15 – 22"	Unified Comfort Panel 7 – 12"/15 – 22"
PLC-Connections	8	16
Tags	2,048 / 4,096	8,000
Alarms	4,000 / 6,000	9,000
Logs	50	50
Logging Tags	2,048	5,000
Scripts	100 / 200	600
Trends	300 / 400	600
Trends per Trend Control	8	20
Text-/Graphic list	500	750
Screens	500 / 750	1,200
- Objects per screen	400 / 600	800 / 1,200
- Tags per screen	400	600 / 800

Increased quantity structure  
from 7" to 22"

Doubled quantity structure  
compared to Comfort Panel

Differentiation only for  
tags and objects per screen

# SIMATIC HMI Unified Comfort Panels

## Optimized usability with Multitouch gestures



<sup>1</sup> as of V17

### Intuitive operation for industrial applications

- Usability is similar to smartphones
- Modern design with new robust hardened glass front
- Glove operation
- Anti-reflective and brilliant glass for better readability
- Detection of fault operations e.g., heel of hand
- High electromagnetic compatibility (EMC)

### Gestures and Multitouch

- **Gesture detection control** to define actions e.g., swipe gesture for screen change
- **Zooming and panning** for more details in trend control, web control and document viewers
- **Scroll** in lists e.g., alarm control, text lists, documents
- **2-Hand Operation<sup>1</sup>**

# SIMATIC HMI Unified Comfort Panels

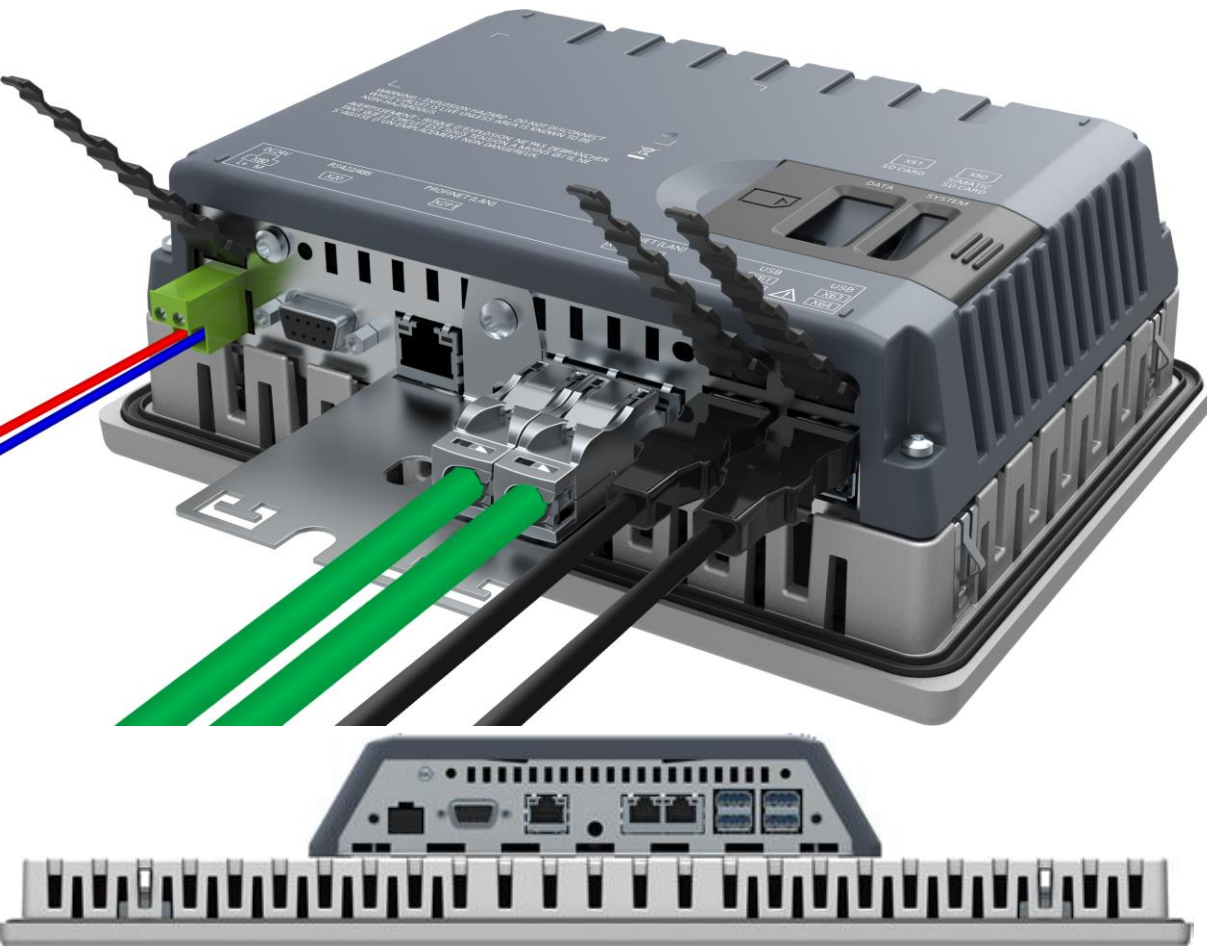
## Glove operation



Support of commercial work gloves						
<div> <div></div> <div>UVEX tested gloves (<a href="#">link</a>):</div> </div>						
	Glove model	Norm	Area of application	Properties	Standard touch application	Complex touch application (e.g. zoom)
	uvex phynomic XS uvex phynomic XS-W	EN 388: cut protection level 1	Fine and final assembly work	<ul style="list-style-type: none"> <li>Breathable impregnation</li> <li>Mechanical protection</li> </ul>		
	uvex rubipor XS	EN 388: cut protection level 1	Fine and final assembly work	<ul style="list-style-type: none"> <li>Breathable impregnation</li> <li>Mechanical protection</li> </ul>		
	uvex profi ergo	EN 388: cut protection level 1	Oily applications	<ul style="list-style-type: none"> <li>Partially coated</li> <li>Impermeable to oils and water</li> </ul>		
	uvex C500 foam uvex C300 foam	EN 388: cut protection levels 5 and 3 respectively	Handling sharp parts	<ul style="list-style-type: none"> <li>Breathable</li> <li>Cut protection</li> </ul>		
	uvex rubiflex S (blue)	EN 374	Work with chemicals, paints, etc.	<ul style="list-style-type: none"> <li>Fully coated</li> <li>Impermeable to chemicals, oils and water</li> </ul>		
	uvex u-fit lite	EN 374	Laboratories, food processing and medicine	<ul style="list-style-type: none"> <li>Disposable safety gloves</li> </ul>		

# SIMATIC HMI Unified Comfort Panels

## Connectivity



1 Available after device release via CSP

Description	Comfort Panel			Unified Comfort Panel
	4" variant	7"/9"/12" variants	15"/19"/22" variants	
Power supply connector			•	
Connection for potential equalization (ground)	-		•	
Memory expansion				
PROFINET (LAN) X1, 10/100 Mbps			•	
PROFINET (LAN) X2, 10/100/1000 Mbps		-		•
PROFIBUS (SUB-D RS422/485)		•		-
USB and SD				
Number of USB Type A ports	1	2	2	4
USB Type Mini B		•		-
SD card slot for data storage and system storage			•	
Other				
Audio Line OUT	-		•	-
Maintenance button		-		•

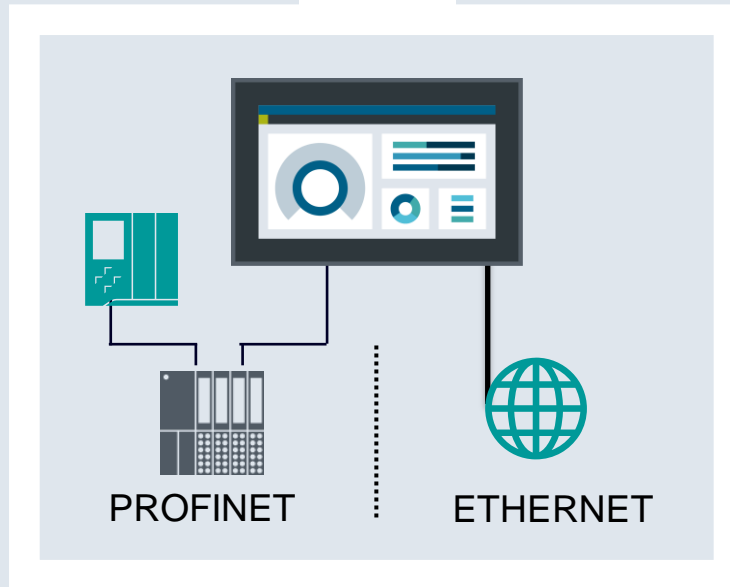
# SIMATIC HMI Unified Comfort Panel

## Interfaces – V16 Update 3

### Integrated Switch

2 Ports

- S7/S7+ Communication
- MRP / HSYNC
- PN Basic Services (assign name, IP,...)
- Project Download via PN



### Gigabit Interface

1 Ports

- Project download and Firmware Update via Ethernet
- Sm@rtServer (VNC) Access
- Web Browser
- Network Access
- Edge Management and Apps
- Integrated 3<sup>rd</sup> Party PLC (e.g. Mitsubishi, Allen-Bradley) plus more via CSP

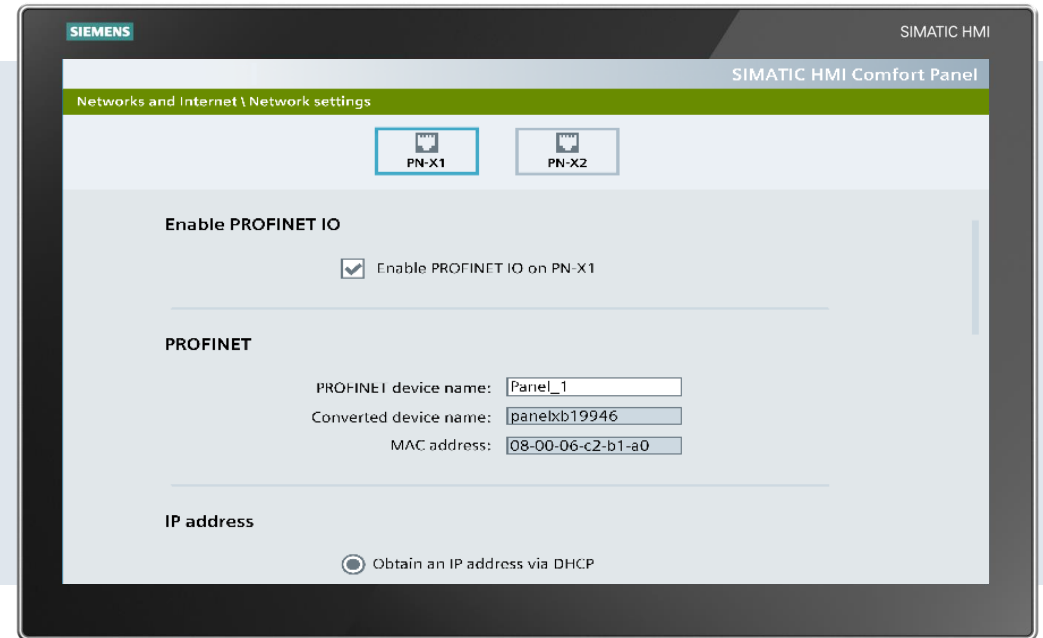
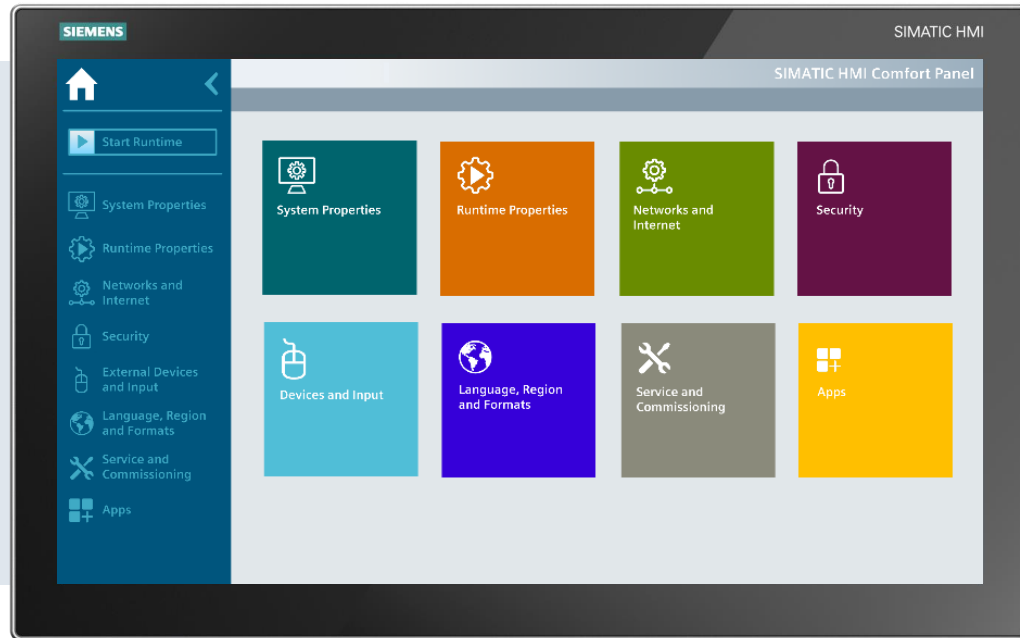
[SIOS \(109779920\)](#)

**Full connectivity for both ethernet interfaces**



# SIMATIC HMI Unified Comfort Panel

## Completely new designed control panel



- New look for the Control Panel - optimized for touch devices
- User has only access to control panel UI – not operating system UI

# SIMATIC HMI Unified Comfort Panels

## Extend the standard functionality via Options



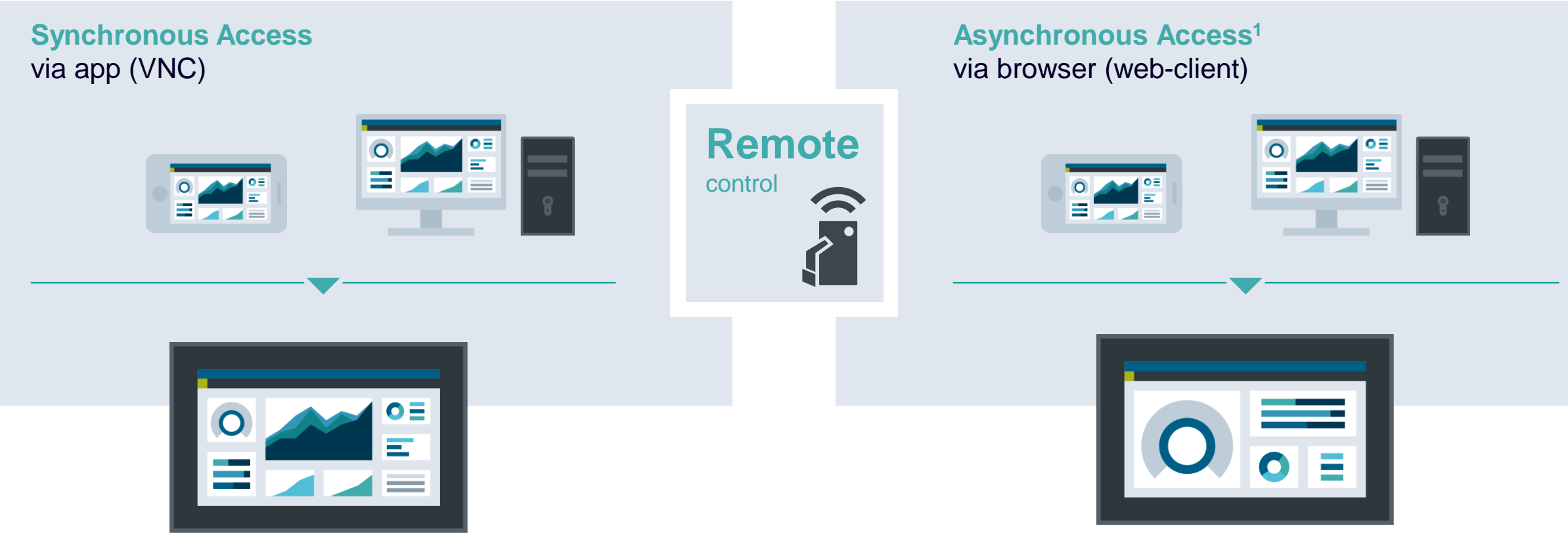
### Optional<sup>1</sup> functionality:

- Web-Client<sup>1</sup>: Asynchronous remote control
- Collaboration: Share information between Unified station
- Audit: Track user actions when changing process values
- Reports: Automated reports

Detailed information regarding options is available at: [WinCC Unified \(Highspot\)](#)

# SIMATIC HMI Unified Comfort Panels

## Remote control



<sup>1</sup> as of V17

# SIMATIC HMI Unified Comfort Panel

## Increased flexibility by openness



### TIA Portal Openness

- Enables automated engineering for Panel and PC-Systems

### Application Openness

- Preinstalled applications
- Siemens Industrial Edge to expand the standard functionality

### Runtime Openness

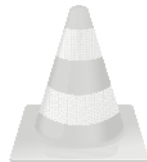
- Local access to HMI Runtime Tags via OpenPipe
- Custom Web Controls for more flexibility

### Hardware Openness

- More flexibility with ready to use USB hardware e.g. printer  
[Supported Printer \(Operating Instructions\)](#)

# SIMATIC HMI Unified Comfort Panels

## Pre-Installed Applications



### Preinstalled and ready to use applications

- Web browser: Google Chrome
- Media Player: VLC Media Player
- Office Software: Libre Office
- PDF Viewer: Okular

### Start applications from Runtime

using system functions or control panel

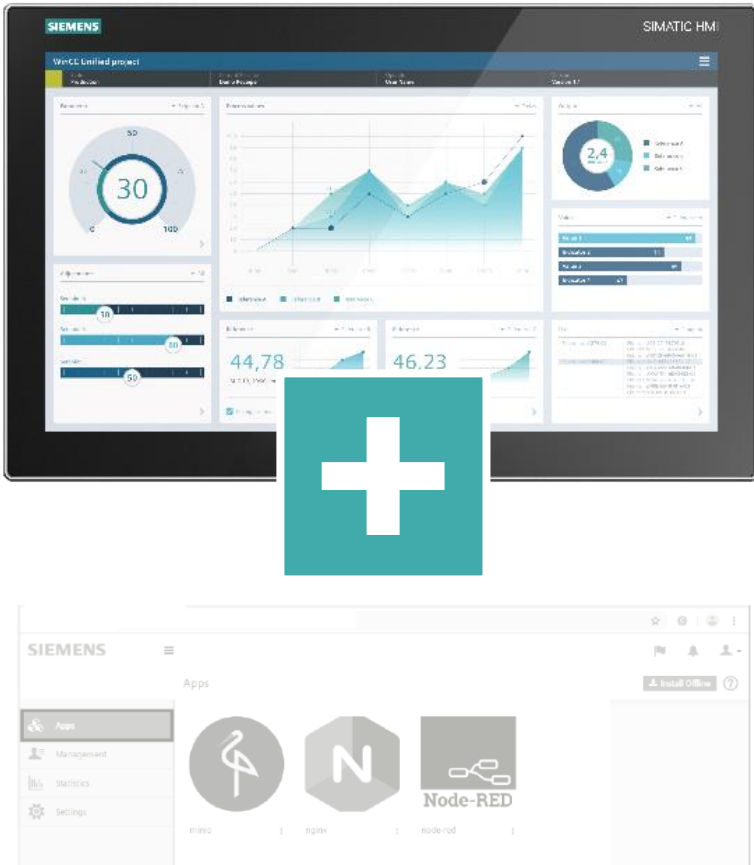
### Switch between Runtime and Apps

with the new taskbar



# SIMATIC HMI Unified Comfort Panels

## Openness to add applications using Edge technology



1 Option can be ordered via license

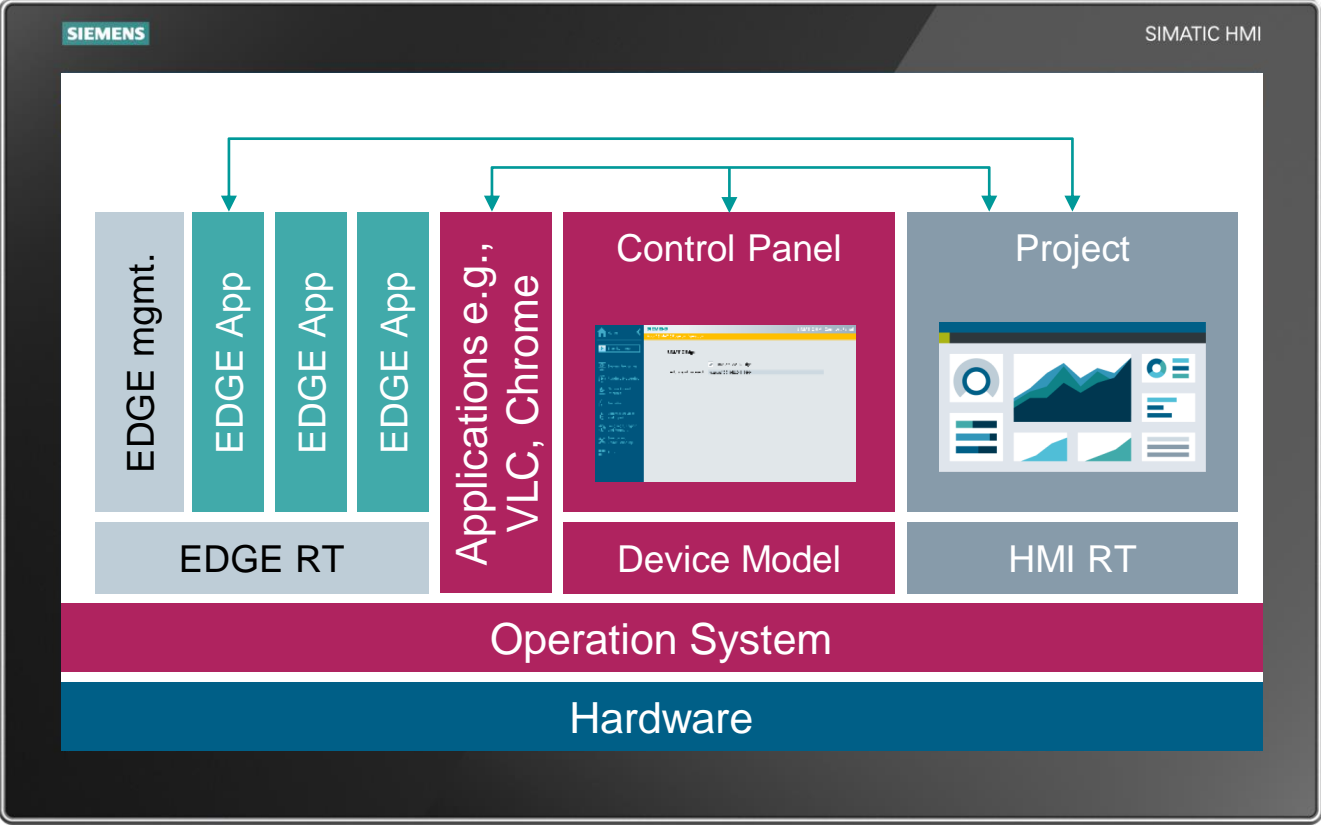
### Expand the standard functionality via Edge Apps

- Siemens or others can provide applications
- Access to WinCC Unified Online Tags using OpenPipe interface
- **Device Managed Edge** <sup>1)</sup>  
Apps can be managed directly on the device
- **Central Managed Edge** **Step 2**  
Apps can be managed centrally via Edge Management System

**Note:** Edge applications can be used on **all** Unified Comfort Panels.

# SIMATIC HMI Unified Comfort Panel

## System architecture



# SIMATIC HMI Unified Comfort Panel

## Generation change



1 Available after product release

### Device changes concepts for

Project and device change

[SIOS LINK](#)

→ **How to switch to Unified Comfort Panels Guide**

Transfer of mass data (e.g. Tags) to Unified

[SIOS LINK](#)

→ **“Data2Unified” TIA Portal Add-In**

Mechanical compatibility

→ **Installation frame 15" – 22"**

Direct Profibus support

**> V17**

→ **Profibus with USB Profibus CP<sup>1</sup>**

Migration Service by Siemens

**Planned**

→ **SIMATIC Migration SERVICES**

# SIMATIC HMI Unified Comfort Panels

## Easy device mounting

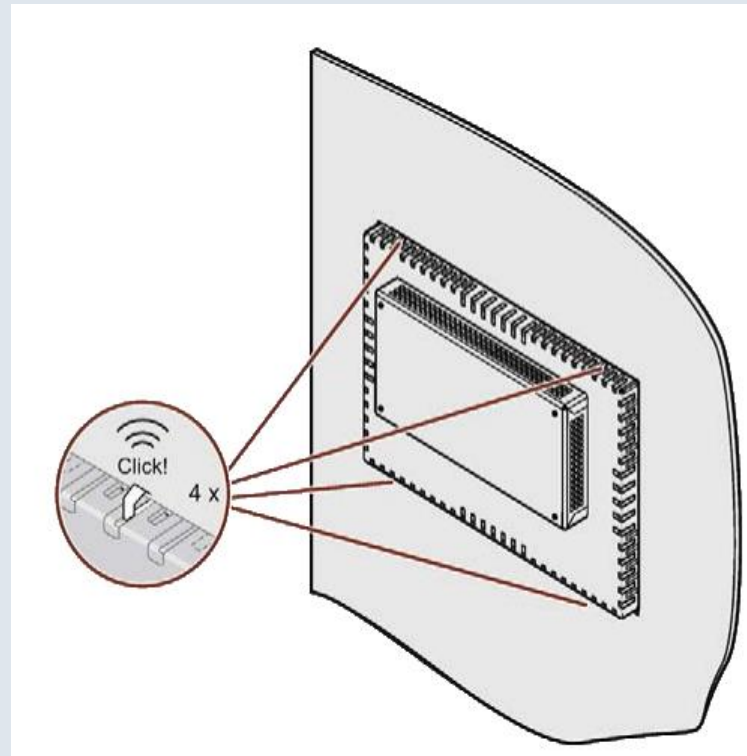
### Portrait or landscape Installation

Configurable in Control Panel



### One-man installation

through integrated spring clips



### Fixed mounting bracket

due to innovative mounting clip



# SIMATIC HMI Unified Comfort Panels

## Dimensions

Comfort Panels	Dimensions			Unified Comfort Panels	Dimensions		
	Installation cut-out W x H (mm)	Installation depth of the device (mm)	Front W x H (mm)		Installation cut-out W x H (mm)	Installation depth of the device (mm)	Front W x H (mm)
TP700	197 x 141	63	214 x 158	MTP700	197 x 141	64	214 x 158
TP900	250 x 166	63	274 x 190	MTP1000	264 x 189	64	280 x 205
TP1200	310 x 221	64	330 x 241	MTP1200	310 x 221	64	326 x 237
TP1500	396 x 291	73	415 x 310	MTP1500	382 x 241	73	398 x 257
TP1900	465 x 319	73	483 x 337	MTP1900	448 x 278	73	464 x 294
TP2200	542 x 362	73	560 x 380	MTP2200	513 x 315	73	529 x 331



LIVE DEMO

## Pitanja i odgovori

Q

[www.siemens.rs](http://www.siemens.rs) > DI Webinar

A



Hvala na pažnji



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