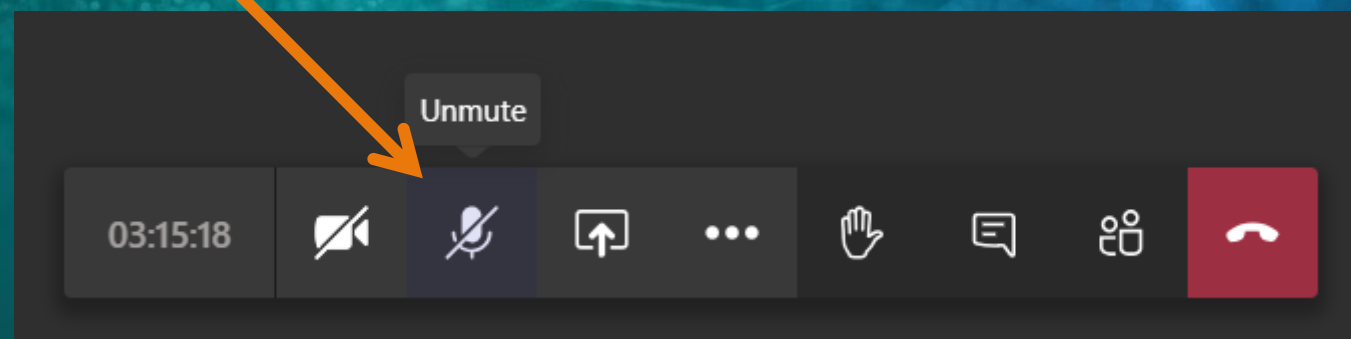




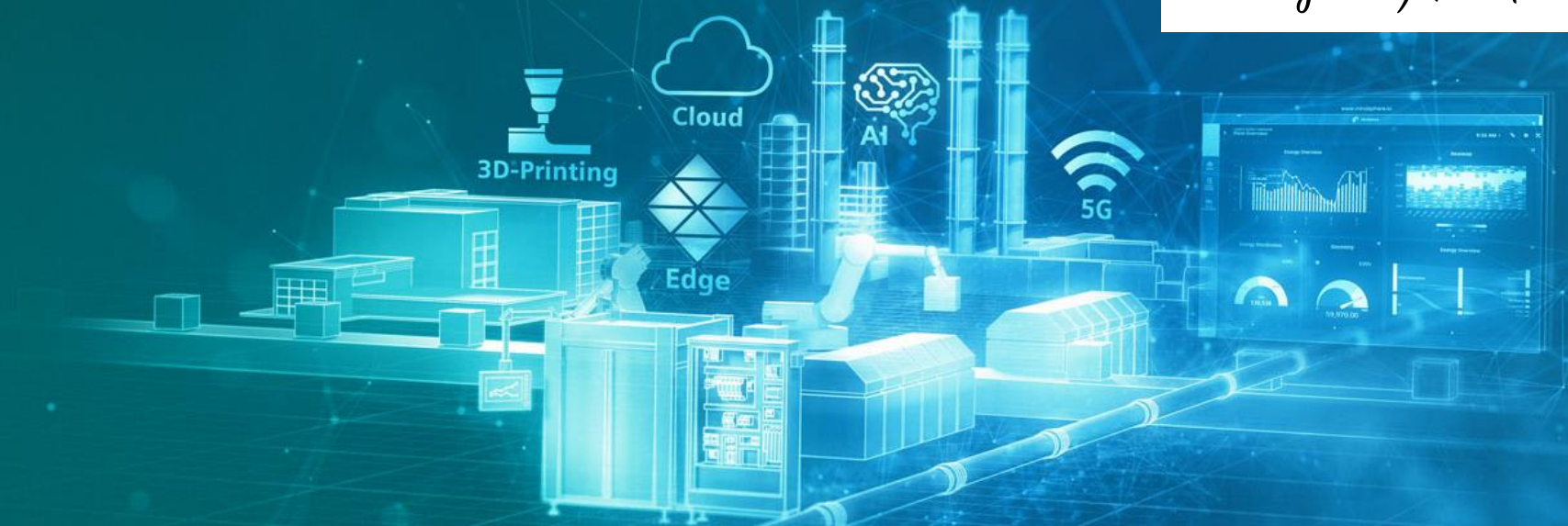
# Factory Automation

Svibanj 2020.

Klik na  
mikrofon







**Razvojni alat, softver**



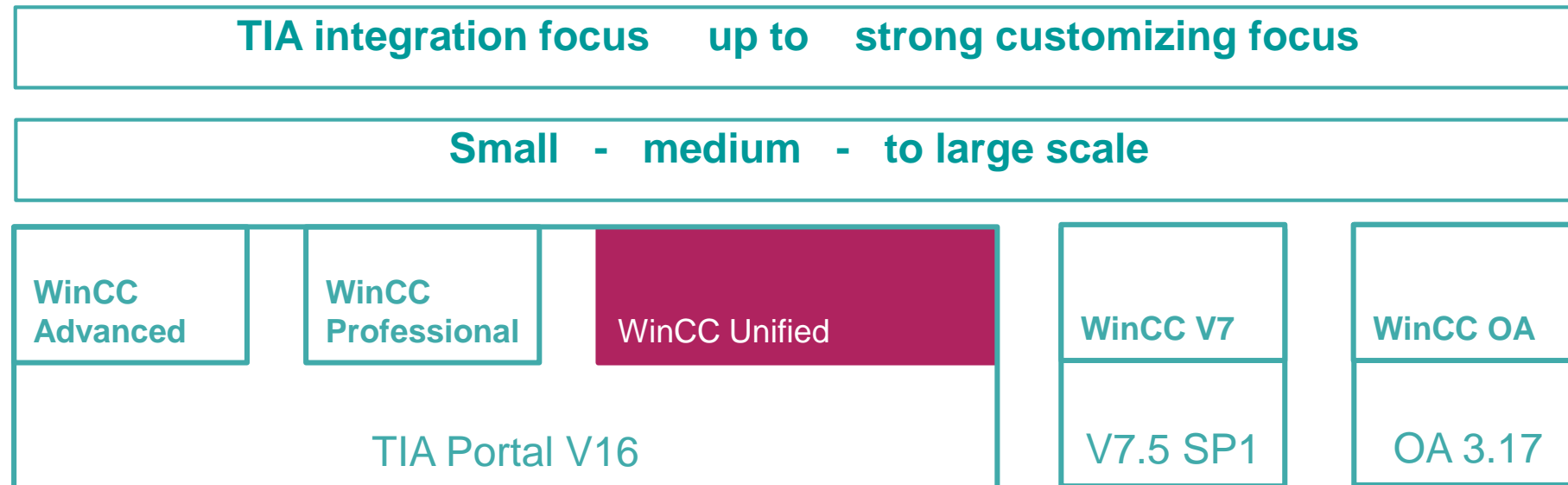
WinCC Professional

WinCC Advanced

WinCC Comfort

WinCC Basic

# PC-based Systems HMI incl. SCADA Portfolio



WinCC Unified will expand over the next years in parallel.  
In the long-term, the HMI & SCADA Portfolio in TIA Portal will be based on WinCC Unified.

# Human Machine Interface is changing...

Decimal			Binary			
Value	Metric		Value	IEC	JEDEC	
1	B	byte	1	B byte	B	byte
1000	kB	kilobyte	1024	KiB kibibyte	KB	kilobyte
1000 <sup>2</sup>	MB	megabyte	1024 <sup>2</sup>	MiB mebibyte	MB	megabyte
1000 <sup>3</sup>	GB	gigabyte	1024 <sup>3</sup>	GiB gibibyte	GB	gigabyte
1000 <sup>4</sup>	TB	terabyte	1024 <sup>4</sup>	TiB tebibyte	—	
1000 <sup>5</sup>	PB	petabyte	1024 <sup>5</sup>	PiB pebibyte	—	
1000 <sup>6</sup>	EB	<u>exabyte</u>	1024 <sup>6</sup>	EiB exbibyte	—	
1000 <sup>7</sup>	ZB	<b>zettabyte</b>	1024 <sup>7</sup>	ZiB zebibyte	—	
1000 <sup>8</sup>	YB	yottabyte	1024 <sup>8</sup>	YiB yobibyte	—	



## Increase of production data

The amount of data generated annually will increase by five times until 2025. (175 Zettabyte)

## Increasing number of devices and systems to connect

Gartner IT forecasts that the number of IoT devices will reach 25 billion by 2021

## Upcoming user interaction scenarios

Expected sales of virtual reality equipment by 2022: 26.7 million devices (0.8 million in 2018)

# If you want to master this change you have to deal with...

**Web Technology**  
Scalability Manufacturing IT Collaboration Object orientation  
**Device independency** SVG Openness Plant Intelligence  
Engineering Automation One Engineering Everywhere Access  
**Data Backbone** HTML5  
**On Premise** IT-Integration Edge computing Connectivity Usability  
Digitalization **Cloud Connectivity**

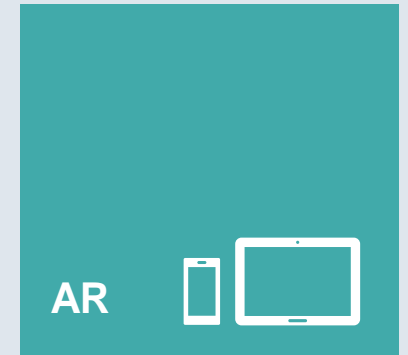
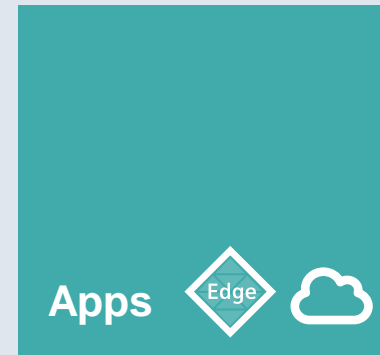
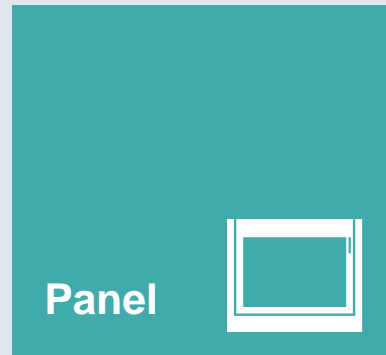
– ”

These topics define the requirements for the HMI systems of the next decade.

# One engineering in TIA Portal to cover all use cases



WinCC  
Unified



– ”

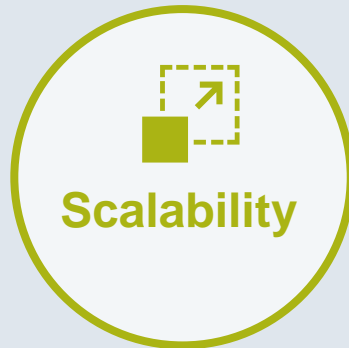
WinCC Unified is fit for today's HMI and SCADA applications, but also ready for future scenarios in the digitization context (e.g. Augmented Reality or Edge technologies).



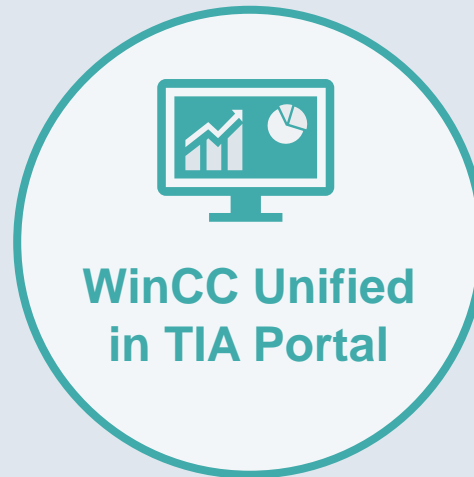
# We meet these requirements with the new WinCC Unified system!



- Native Web Technology HTML5, SVG, JavaScript
- Device independent
- Object oriented – HMI



- One Engineering
- Unified Comfort Panels
- WinCC Unified PC
- Collaboration



- On Premise
- Unified @Cloud
- Unified @Edge
- MindSphere Apps



- Basis for Digitalization
- Plant Intelligence
- Integration Platform for everything north of the PLC
- Openness

# WinCC Unified V16

## Plant Intelligence Options



Plant Intelligence Options	Description	Unified Comfort Panels	Unified PC Runtime
Calendar <sup>1</sup>	Calendar-based administration of events and schedules	✗	✓
Performance Insight <sup>1</sup>	Visualization and analysis of asset performance with KPIs and time/state model	✗	✓

Plant Intelligence Options	Description	Unified Comfort Panels	Unified PC Runtime
Line Coordination <sup>1</sup> <span>Q2 / 2020</span>	Coordination and synchronization of machines/units via recipe-controlled procedures	✗	✓
Sequence Execution <sup>1</sup> <span>Q2/2020 SSR</span>	Flexible arrangement of automatic steps within the production process including manual interaction	✗	✓

<sup>1</sup> Technologischer Hierarchie is mandatory

Available
 Available (limited)
 In work
 Not available



# PC-based systems – Integration – Plant Intelligence Options



Plant Intelligence	WinCC RT Adv. V16	WinCC RT Prof. V16	Unified PC RT V16	WinCC V7.5 SP1	WinCC OA V3.17
Calendar	✗	✗	✓	✓	✓
Performance Calculation (OEE)	✗	✗	✓	✓	✓
Sequence Execution <sup>1</sup>	✗	✗	Q2 2020	✓	✗
Line Coordination	✗	✗	✓	✗	✗

<sup>1</sup> via special sales release

Available Available (limited) Not available Work in process



# PC-based systems – Technology



Technology	WinCC RT Adv. V16	WinCC RT Prof. V16	Unified PC RT V16	WinCC V7.5 SP1	WinCC OA V3.17
Web (HTML5)	✗	✓	✓	✓	✓
Java Script	✗	✗	✓	✗	✓
SVG Graphics	✓	✓	✓	✓	✓
Dynamic SVG Graphics	✗	✗	✓	✓	✗

Object oriented approach	WinCC RT Adv. V16	WinCC RT Prof. V16	Unified PC RT V16	WinCC V7.5 SP1	WinCC OA V3.17
Object oriented approach	✗	✗	✓	✗	✓






























✓ Available    ✓ Available (limited)    ✗ Not available    ◻ Work in process





# PC-based systems – Scalability Single Station → SCADA system



Scalable SCADA Functionality	WinCC RT Adv. V16		WinCC RT Prof. V16		Unified PC RT V16		WinCC V7.5 SP1		WinCC OA V3.17	
Server/Client	Max. 16k PowerTags		1 Server max. 256k PowerTags		1 Server max. 600,000 PowerTags		Max.18 Srv max. 256k PowerTags		Max. 2,048 Srv Unlimited PowerTags	
Native Clients			Max. 64/Srv				Max. 64/Srv		Max. 255/Srv	
Clients (Zero Inst.)			WebUX Max. 100		System tested up to max.150		WebUX Max. 100		ULC UX	
File-based Logging	CSV/RDB SQLite				SQLite					
Databased Logging	Via odbc		Incl. MS SQL		Incl. MS SQL		Incl. MS SQL		Connect to Oracle, Influx	
Logging Tags	Incl. at option „Logging		optional up to max. 80,000		optional up to max. tags		optional up to 80,000		All included	

✓ Available    ✓ Available (limited)    ✗ Not available    🔄 Work in process



# PC-based systems – Everywhere



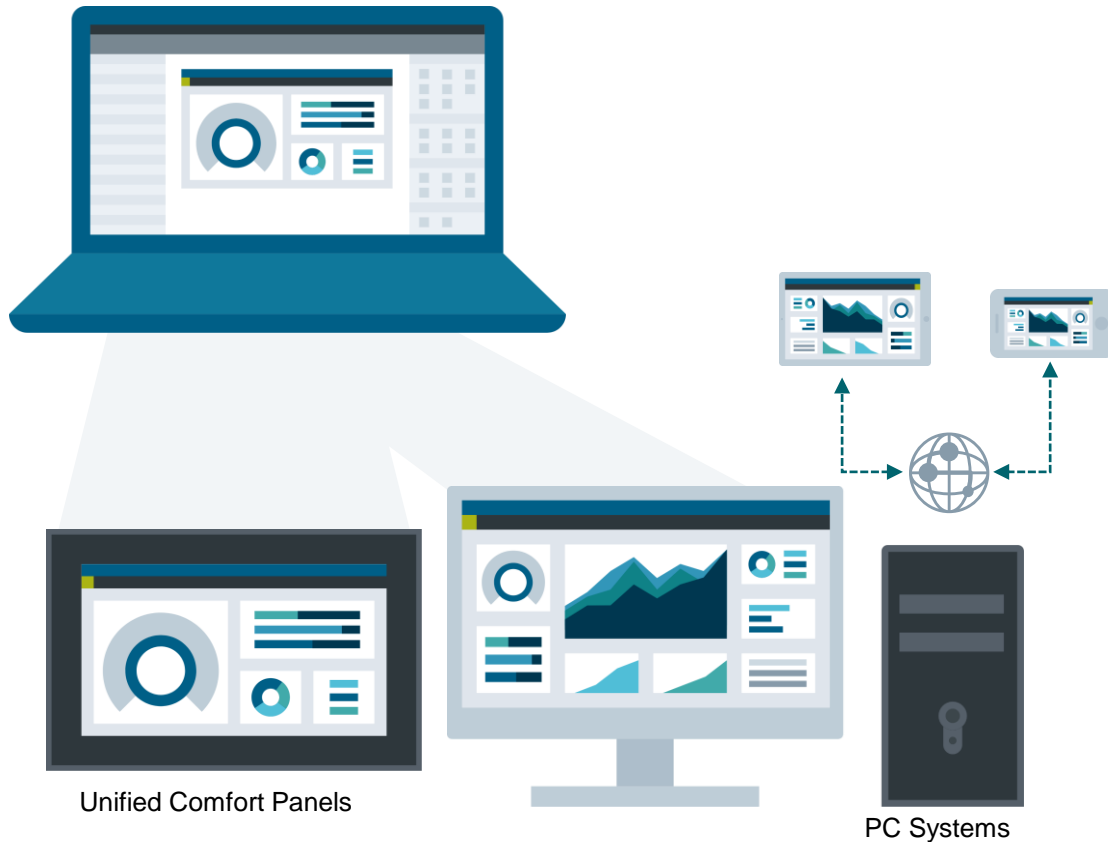
	WinCC RT Adv. V16	WinCC RT Prof. V16	Unified PC RT V16	WinCC V7.5 SP1	WinCC OA V3.17
On Premises	✓	✓	✓	✓	✓
Prepared for Cloud	✗	Private ✓	↻	Private ✓	Private/ Public ✓
Prepared for Edge	✗	✗	Industrial Edge ↻	✗	IOT Suite ✓
Augmented Reality	✗	✗	↻	✗	✗

✓ Available    ✓ Available (limited)    ✗ Not available    ↻ Work in process

# WinCC Unified V16 – User Interface Scalable for all devices

Unified Comfort Panel ✓

PC ✓



## Homogeneous design, usability and functionality for Panel and PC systems

- Identical User Interface for Panel- & PC-Systems
- **Zero installation client (PC Systems)** based on native web technology
- **Homogenous engineering** of consistent visualizations, independent from technology e.g., Unified Comfort Panel or web-browser

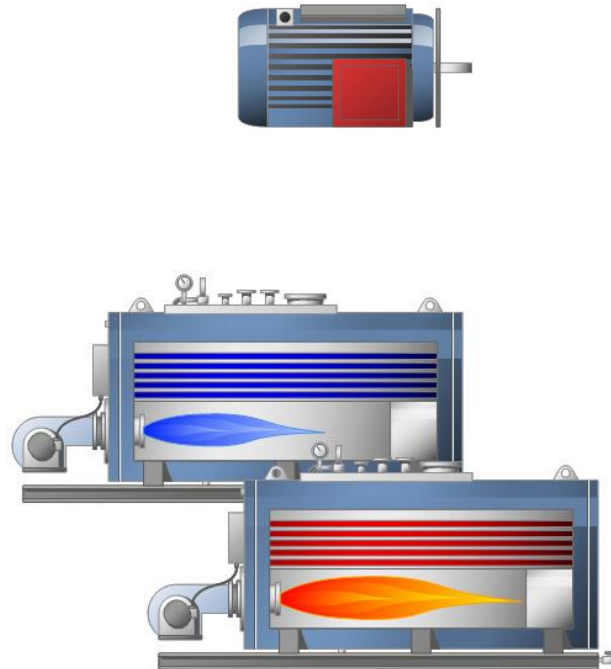
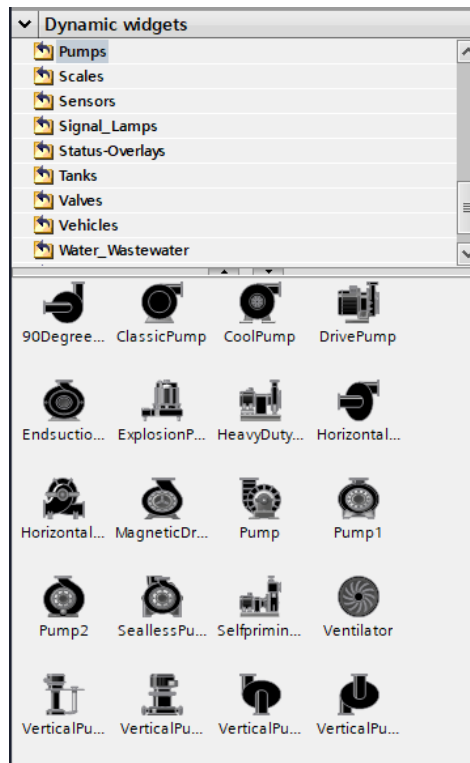


# WinCC Unified V16 – User Interface

## Scalable for all devices

Unified Comfort Panel ✓

PC ✓



**Scalable Vector Graphics (SVG)**  
for all resolutions without loss of quality

- **Animate (dynamic) SVG files** according to the process state
- **Ready to use industry library** with static and dynamic SVGs





# WinCC Unified - Videos



WinCC Unified first program: <https://www.youtube.com/watch?v=IspDMFQbNo8>

String handling: <https://www.youtube.com/watch?v=fKEaattACCU>

Export logged tags: <https://www.youtube.com/watch?v=jTmL5F4D42E>

Connect a OPC UA Client to the Unified Server: <https://www.youtube.com/watch?v=6KTJfKBCjVs>

Secure download, secure connection, encrypted transfer: <https://www.youtube.com/watch?v=atm4vnO1E6c>

Kolekcija: [https://www.youtube.com/results?search\\_query=%23DerHecht](https://www.youtube.com/results?search_query=%23DerHecht)

Unified Comfort panel: <https://www.youtube.com/watch?v=XKPsaj9Qdc4>

# SIMATIC Energy Suite

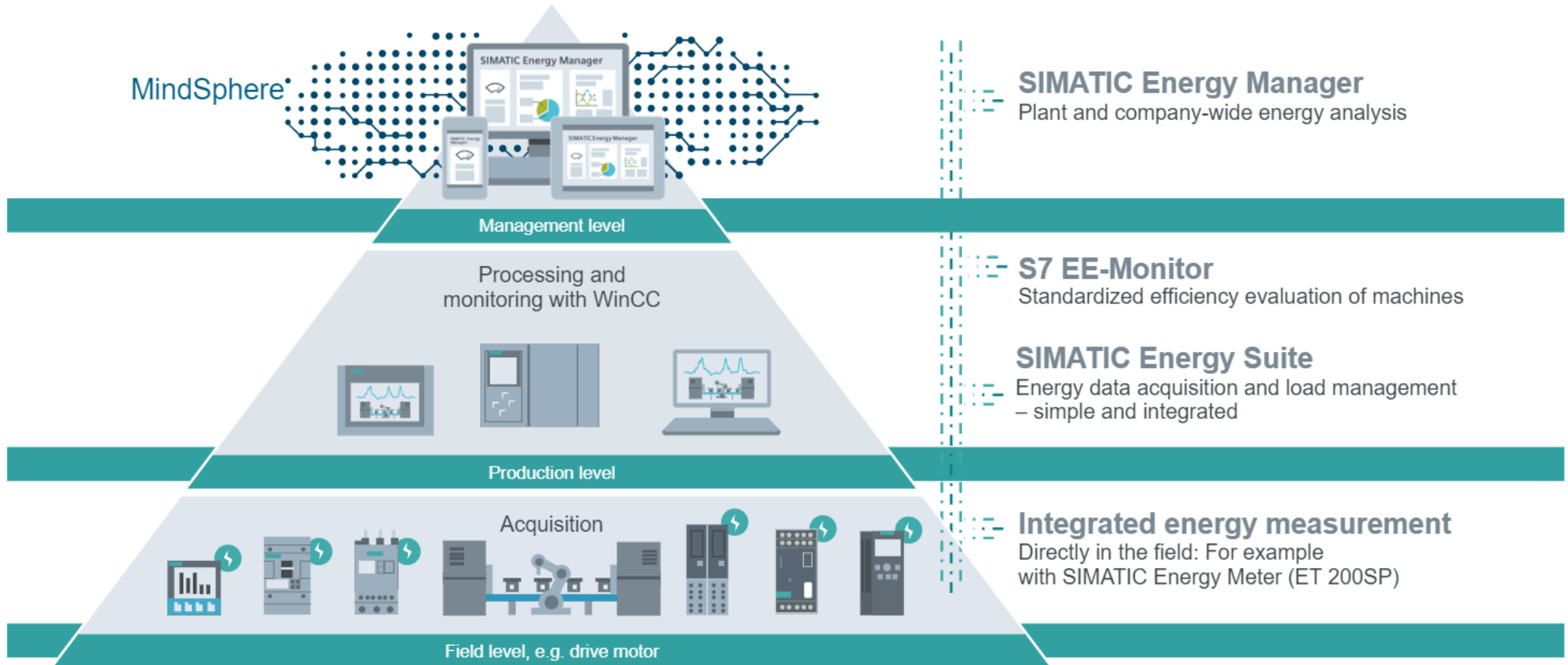
Proactive load management in the production  
- Easy and integrated – technical slides

[siemens.com/energysuite](https://siemens.com/energysuite)

# TIA Portal V16

## SIMATIC Energy Management

**SIEMENS**  
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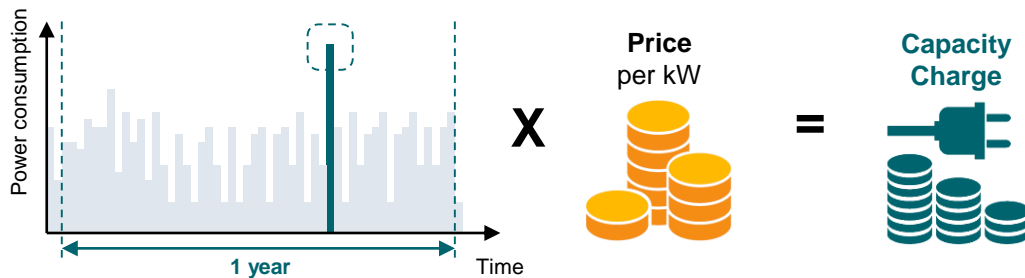
# SIMATIC Energy Suite Load Management – Load peaks reduction

## Customer requirements

- **Reduction** of the capacity charge through the avoidance of load peaks and more even power distribution
- Production processes **must not be influenced**
- **Automatic regulation** of the system without external influence
- Response of the system to **feedback** of the production process

## Calculation of the Capacity Charge

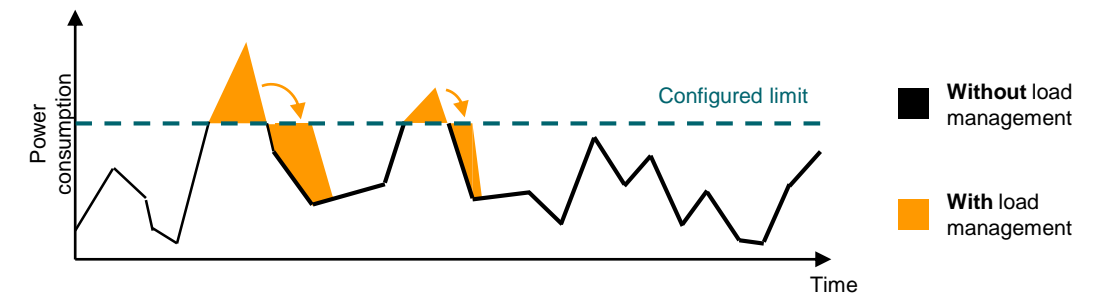
- Determination of the **highest average consumption** (in kW) during a period (usually 15 minutes) within a year
- **Multiplication** of this value by the contractually determined **price per kW** with the energy supplier company



**High costs with only a single load peak**

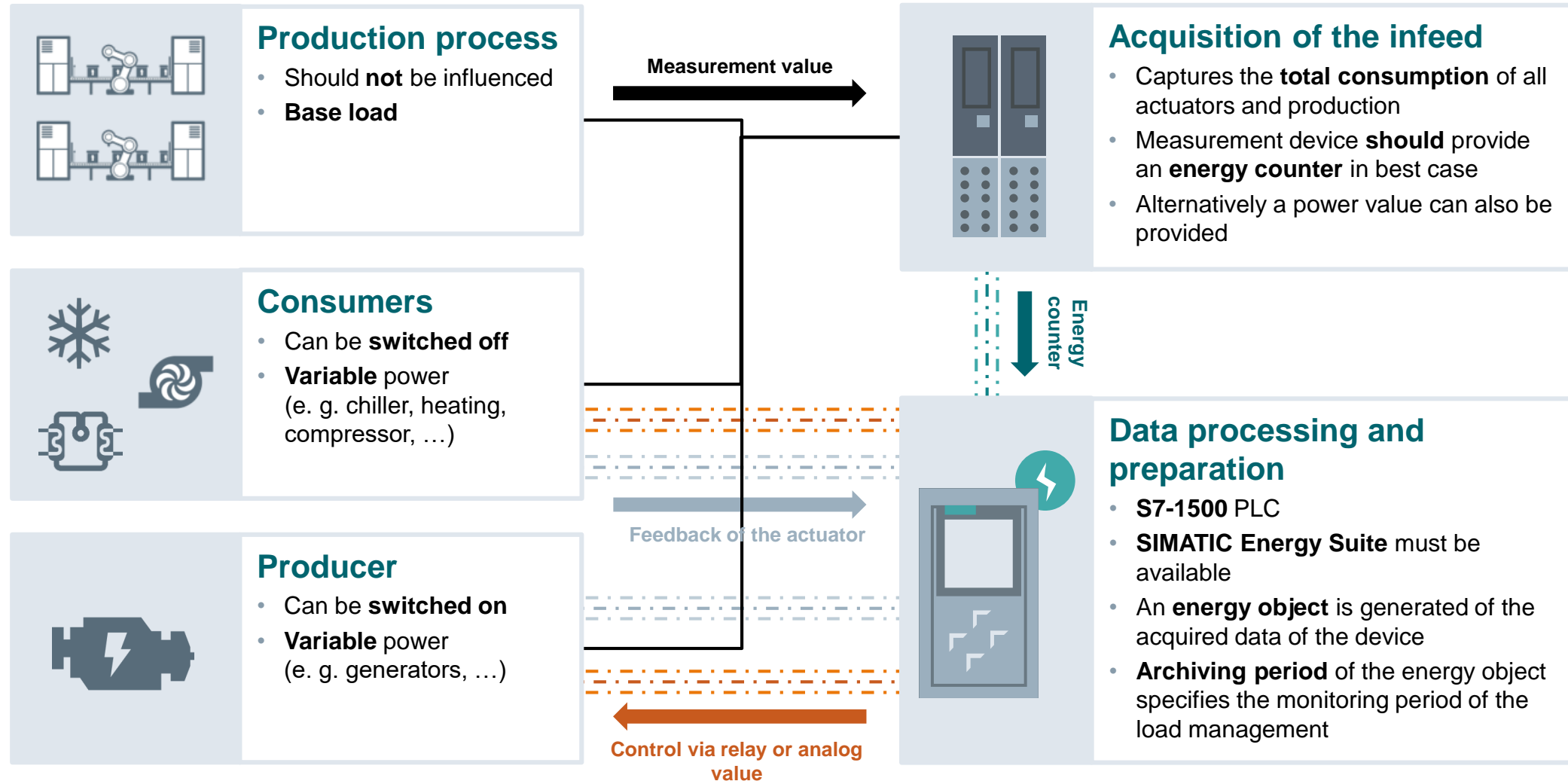
## Siemens offering – SIMATIC Energy Suite with load management

- Direct **integration** into the **production level** due to PLC-based solution  
→ No intervention of IT systems in the production level necessary
- Avoidance of load peaks through **integrated prediction algorithm**
- **Smooth load distribution** due to **independent switch** of consumers or activation of generators
- **Future-proof** due to a **modular function block concept**  
→ Simple extension of the number of actuators
- **Fast integration** into an existing **visualization** including all relevant data of the actuators and the entire system
- **Archiving** of every switching action and limit violation






# SIMATIC Energy Suite Load Management – Basic prerequisites

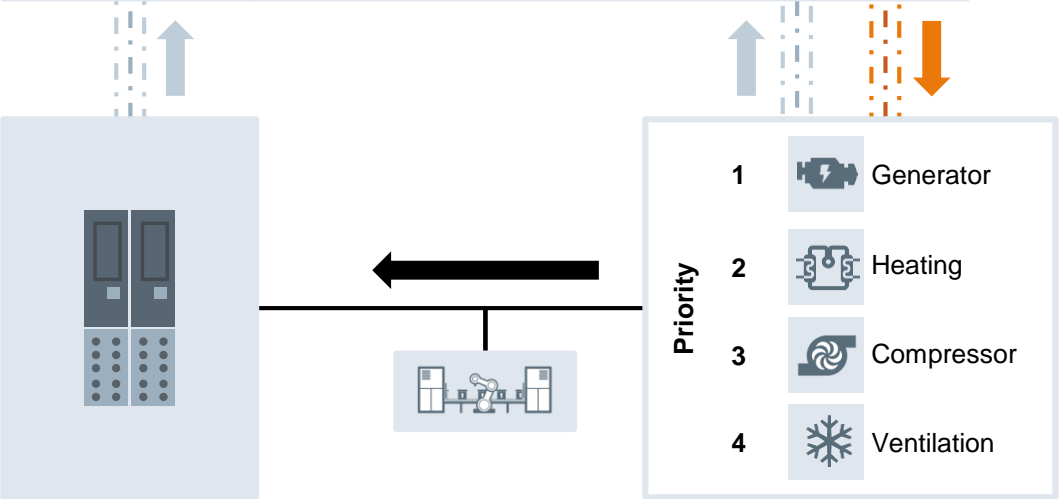
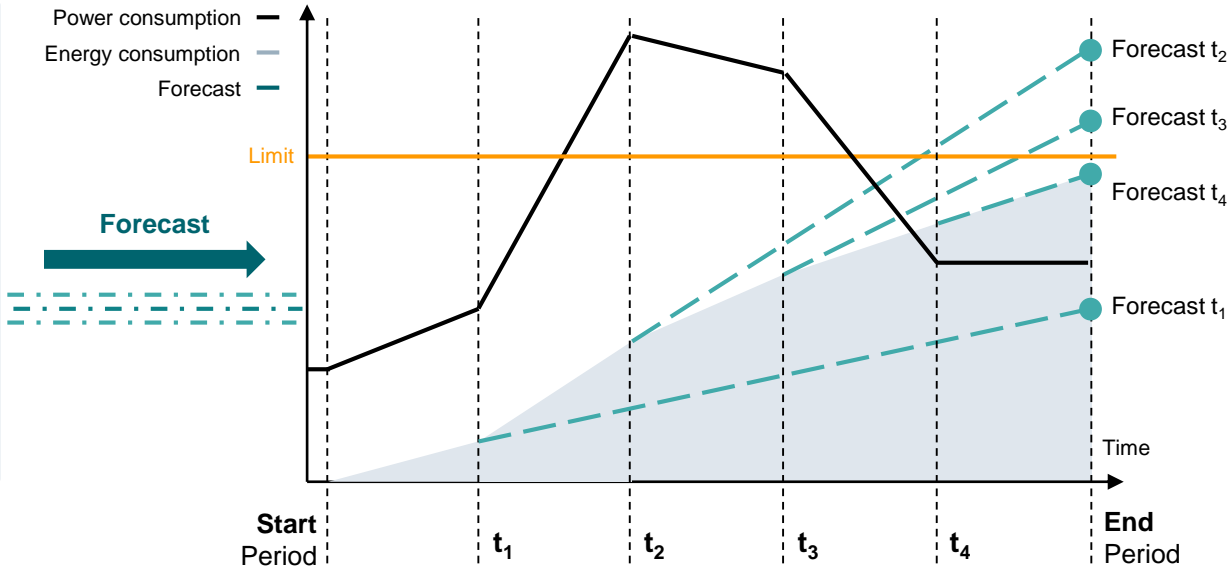


# SIMATIC Energy Suite load management – Functionality



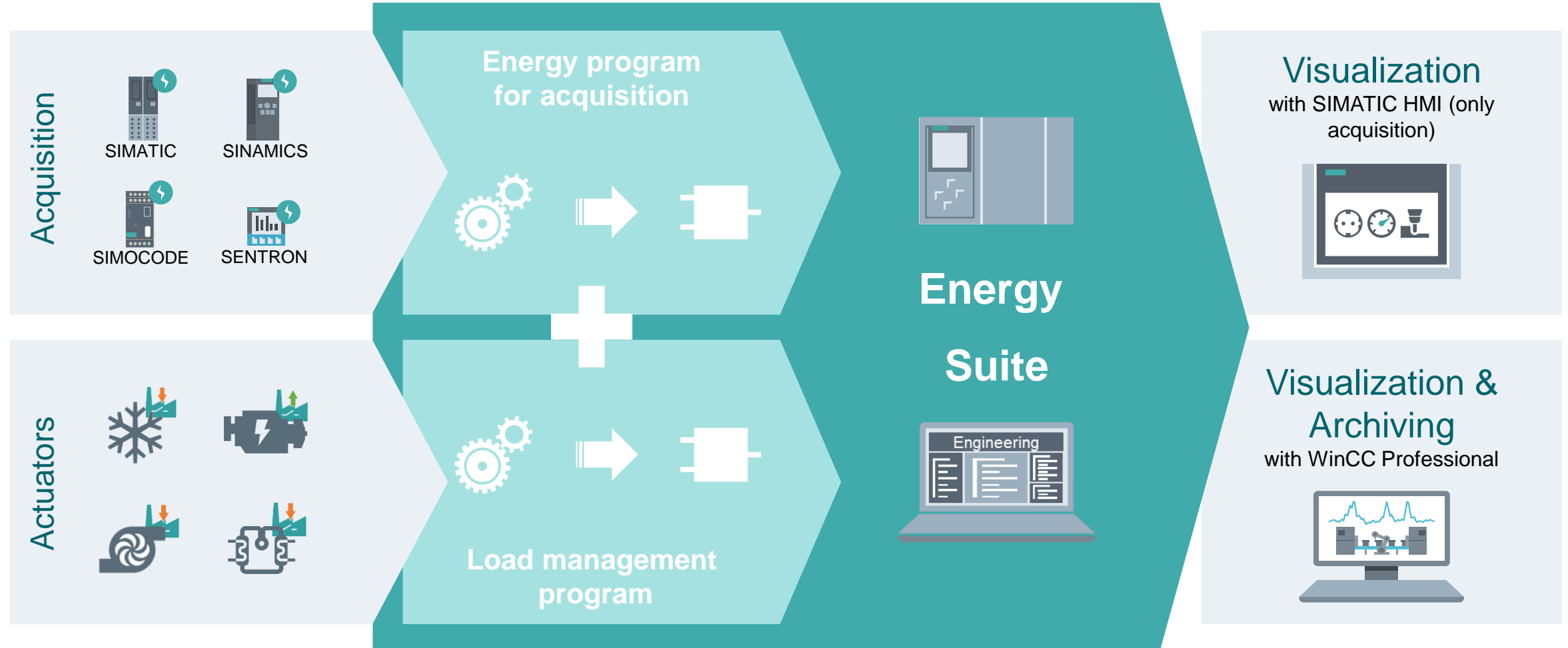
### Load management software

- Continuously **calculates** the forecast of the energy demand at the end of the period
- Switches actuators** on or off depending on available potential
- Actuators are switched **according to configured priority**
- The **lower** the priority (relevance for the production process), the **more often** the actuator is switched



Forecast	---	< Limit	> Limit	> Limit	< Limit	---
Switching action	Heating on	Compressor & ventilation on	Generator on	Heating & compressor off	Compressor on	---
Energy demand	↗	↑	↘	↓	↗	---

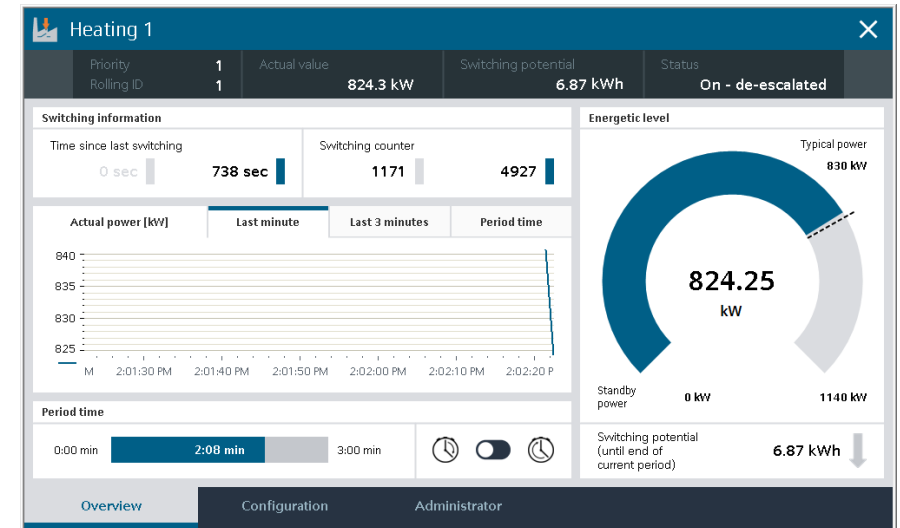
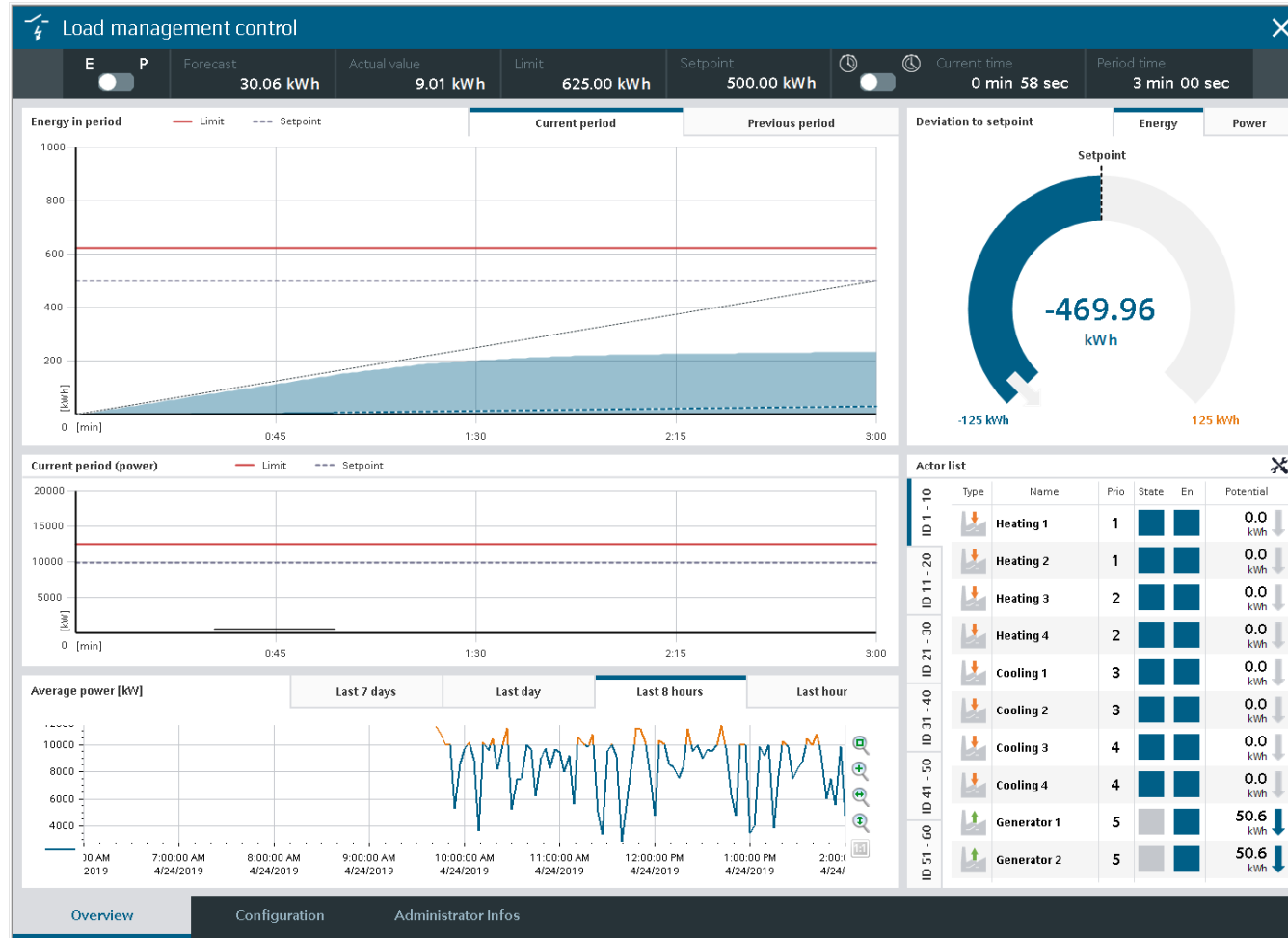
# SIMATIC Energy Suite load management – Load management in the Energy Suite



# SIMATIC Energy Suite load management – Visualization example

<https://www.youtube.com/watch?v=Qm2QwT6KBAA>

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## Overview of the load management

- Presentation of the previous and current period using a triangle diagram
- Historical values of the infeed up to 7 days
- List of all actors including status and configuration possibility

## Detail view per actuator

- All relevant information at a glance
- Subsequent configuration possible
- Operation of the manual mode

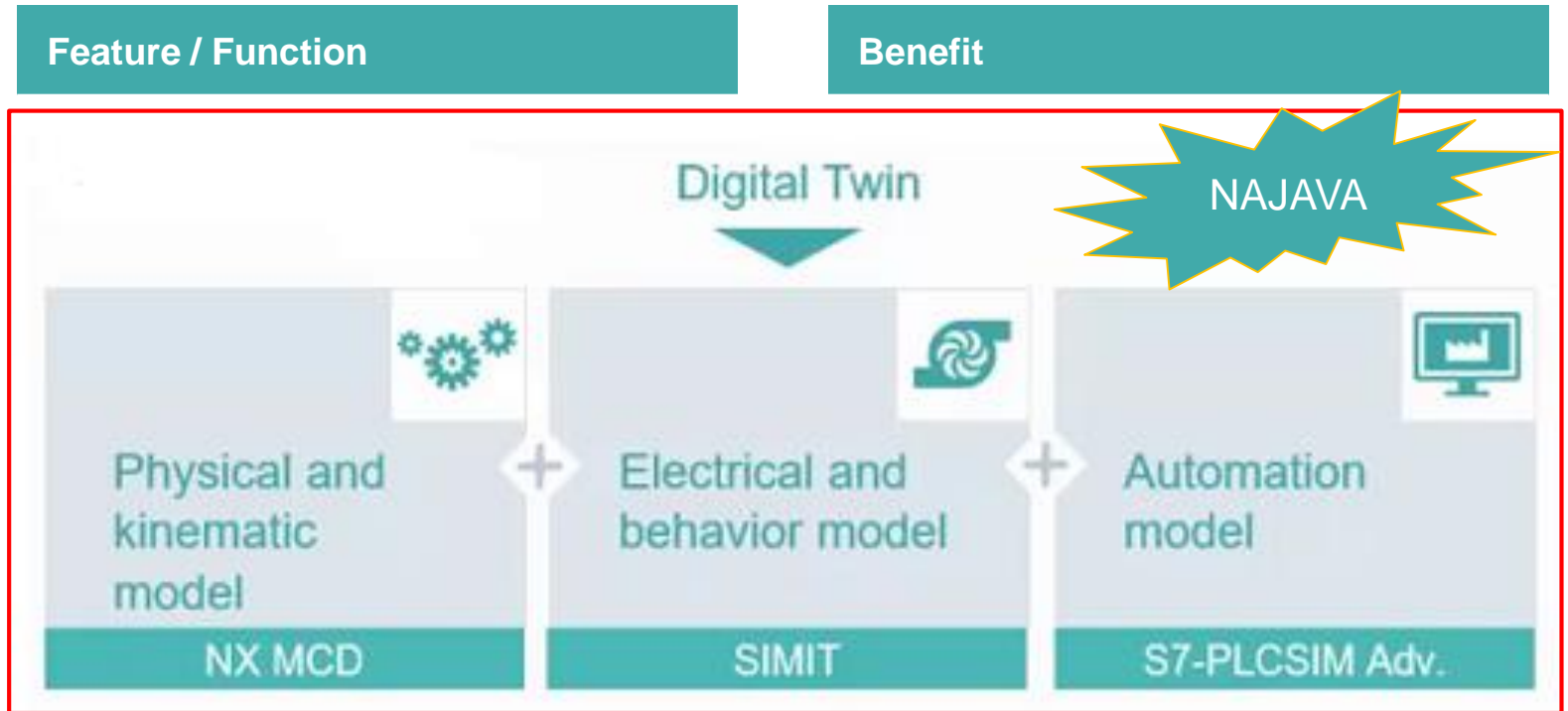
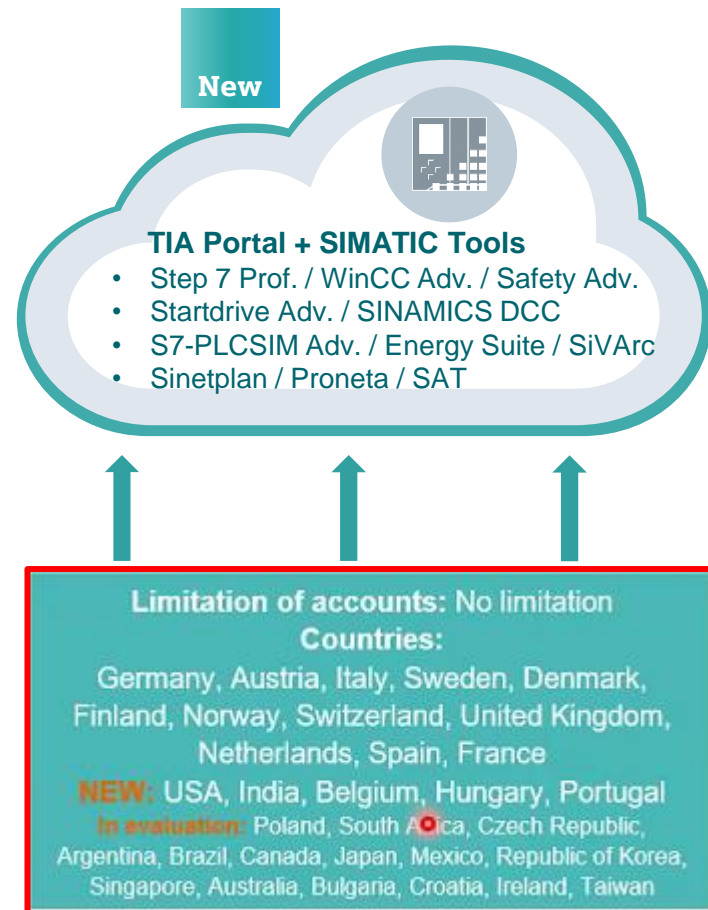


# TIA Portal V16

## Your gateway to automation in the Digital Enterprise



### TIA Portal Cloud as 21-day free TRIAL



[www.siemens.com/simulation-cloud](http://www.siemens.com/simulation-cloud)



## „Home-Office ponuda” do 31.7.2020.

Svjedoci smo da je u ovim izazovnim vremenima vrlo važna fleksibilnost i mogućnost rada neovisno o lokaciji. Kako bismo omogućili rad izvan firme, pripremili smo posebnu ponudu koja će našim korisnicima omogućiti korištenje najnovijeg TIA PORTALA V16.

Trajanje licenci vremenski je ograničeno do **31.12.2020.**

U promotivni paket uključene su TIA Portal floating licence:

- STEP 7 Professional V16
- WinCC Advanced V16 i WinCC Unified V16 (10K PT)
- STEP 7 Safety Advanced V16

Kataloški broj za naručivanje: **6ES7822-1AE06-0YS0**

>> Narudžbe su moguće do 31.7.2020.

>> Kataloška cijena: 25 €

>> Isporuka isključivo putem standardnog Online Software Delivery (OSD) procesa.

Powered  
by WinCC  
Unified

# SIMATIC HMI Unified Comfort Panels

Unrestricted © Siemens 2020

[siemens.com/wincc-unified-system](https://siemens.com/wincc-unified-system)

# SIMATIC HMI Unified Comfort Panels – Highlights



## Great usability in a brilliant way

Capacitive Multitouch technology combined with bright colors and excellent readability



## Size doesn't matter

Same interfaces and functionality for all devices from 7" to 22"



## Need more? Add Apps!

Use Siemens Industrial Edge to extend standard functionality by edge apps



## The power to do more

Realize larger applications thanks to increased system limits



## Security Integrated

From access control and encrypted communication to security patches. Everything is inside



## Everything under control

Full commissioning within TIA Portal. No IT-management necessary



## Ready for the future as of today

Take full advantage of WinCC Unified with a Modern UI, openness and full scalability



## Comfort DNA remains

Well known Comfort Panel features like automatic system backup remain



# SIMATIC HMI Unified Comfort Panels – Standard- and Neutral design version

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**Standard design**  
Silver frame – With Siemens branding



**Neutral design**  
Black frame – No branding



# SIMATIC HMI Unified Comfort Panels – Multitouch from 7” to 22”

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



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

## Glove operation



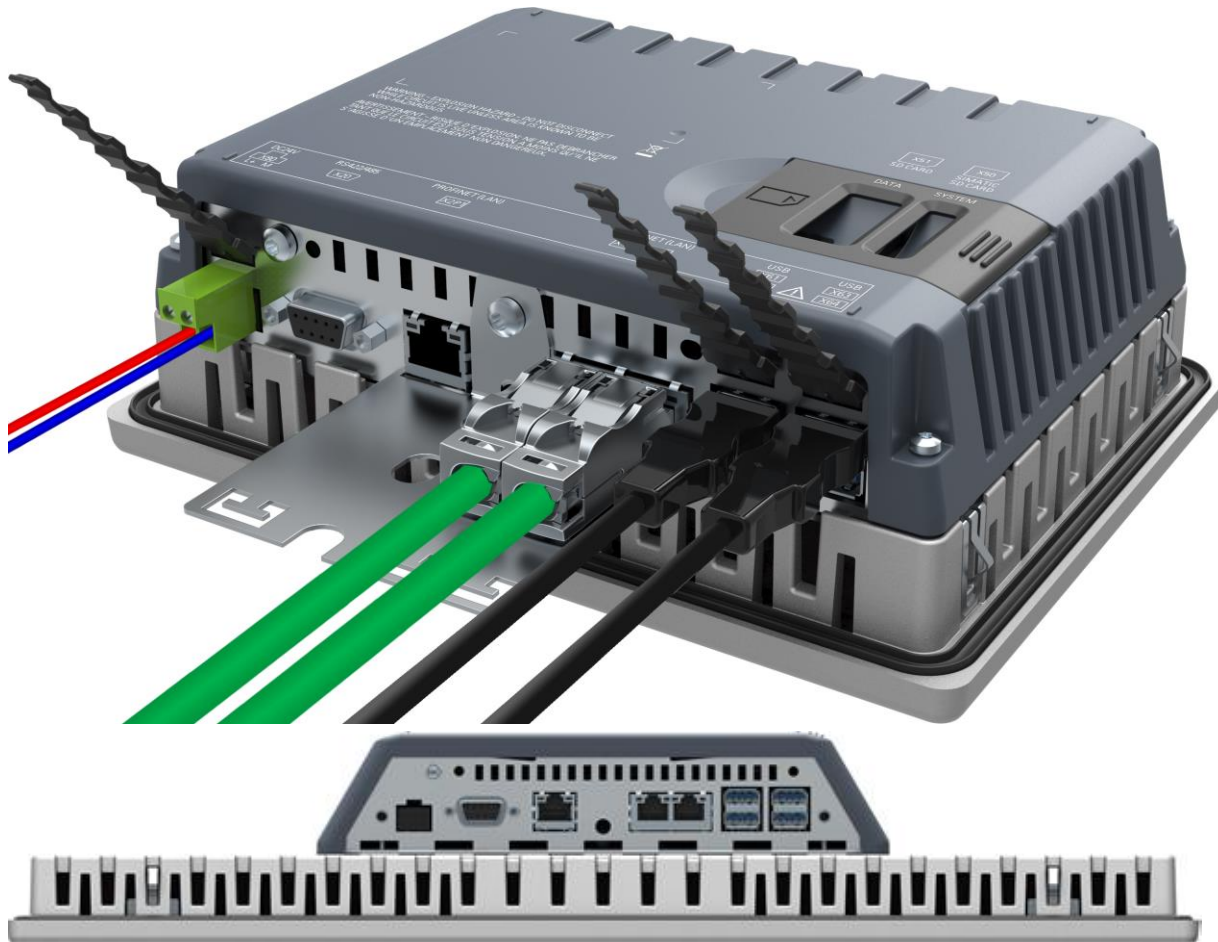
### Support of commercial work gloves

- UVEX tested gloves ([link](#)):

	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

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## 2 Port PROFINET Switch

1 IP address 100 Mbit

## 1 Port Ethernet

1 IP address 100 Mbit/1 Gbit

## Serial

(422, 485) to support 3<sup>rd</sup> party PLCs<sup>1</sup>

## 4x USB 3.0

Support of USB Hardware e.g., printer,

## 2x SD-Card

Data card for files, logs and customer data

System card for automatic backup

## Reset Button

Set device to reset mode

<sup>1</sup> Available after device release via CSP

# SIMATIC HMI Unified Comfort Panel

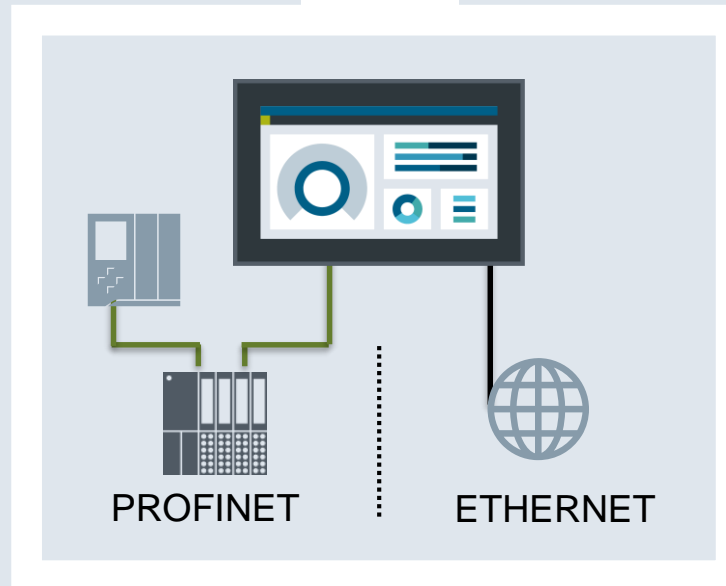
## Temporary not all services on all interfaces!



### Integrated Switch

2 Ports

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



### Gigabit Interface

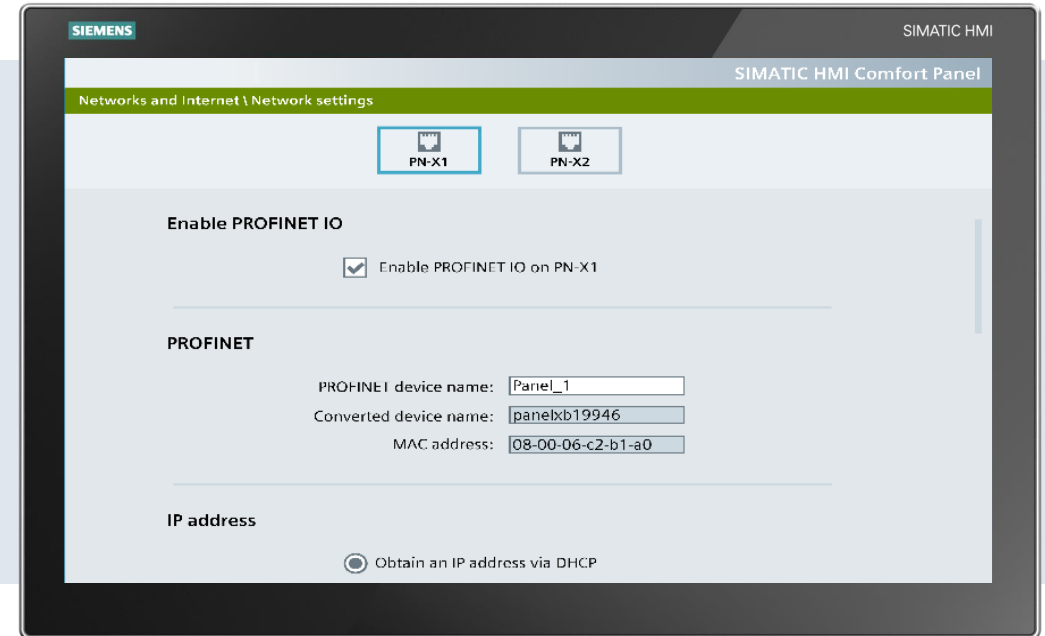
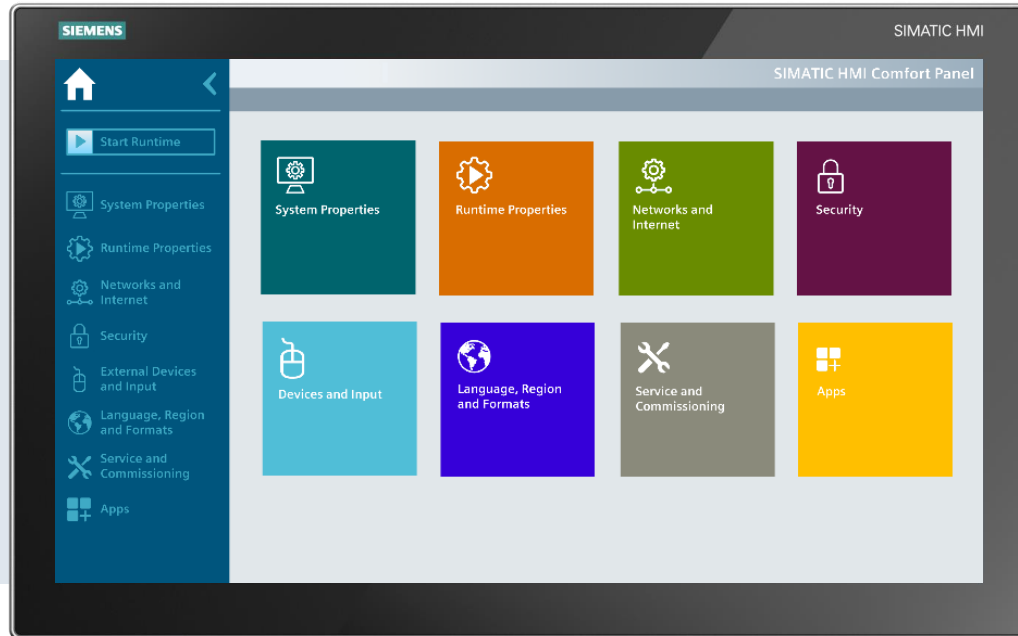
1 Ports

- Project download and Firmware Update via Ethernet
- Sm@rtServer (VNC) Access
- Web Browser
- Network Access
- Edge Management and Apps
- 3<sup>rd</sup> Party PLC<sup>1</sup> (e.g. Modbus RTU)

- If both communication services are required, two Ethernet wires must be used temporarily
- Will be changed with Update for WinCC Unified V16

# 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 – Get work done!

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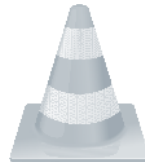


## Ready to use system applications

Work in documents, view instruction videos or get access to web-based systems with the preinstalled applications on every Unified Comfort Panel.

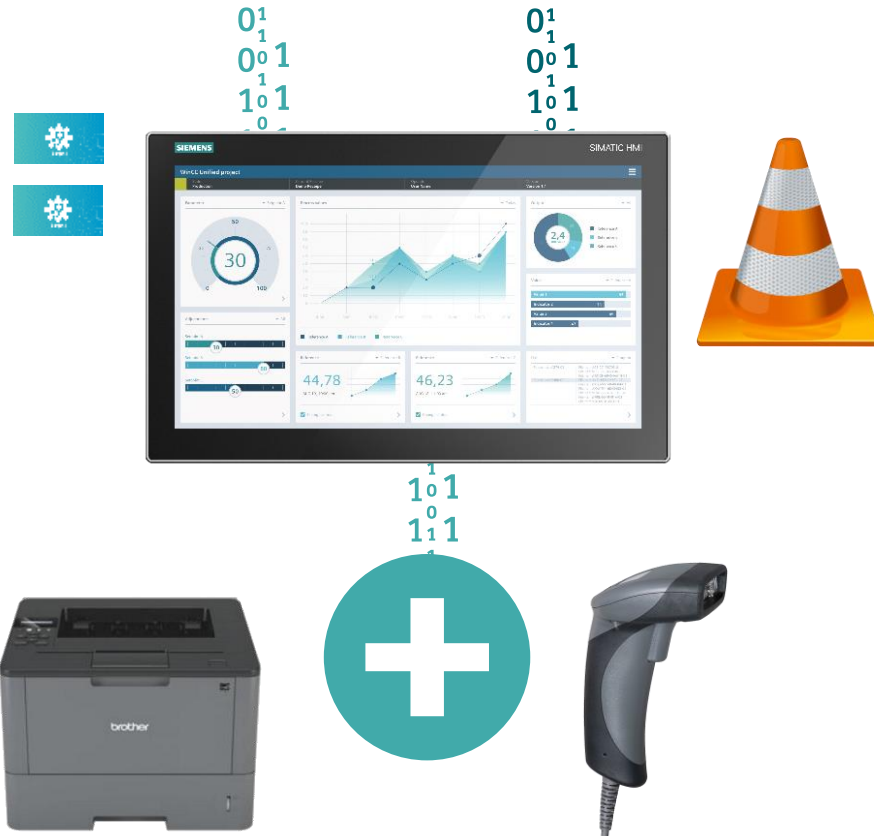
## Preinstalled system applications

<b>Browser</b>	Google Chrome
<b>Media Player</b>	VLC Media Player
<b>Office</b>	Libre Office
<b>PDF Viewer</b>	Okular



# 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

# SIMATIC HMI Unified Comfort Panels

## Openness to add applications using Edge technology

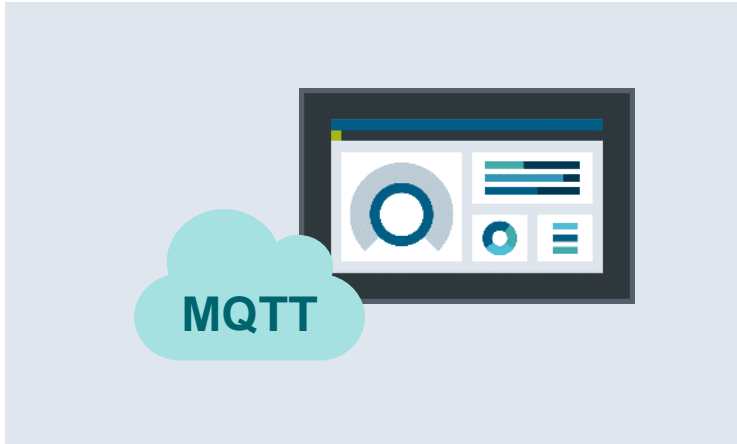


### Expand the standard functionality via Edge Apps

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

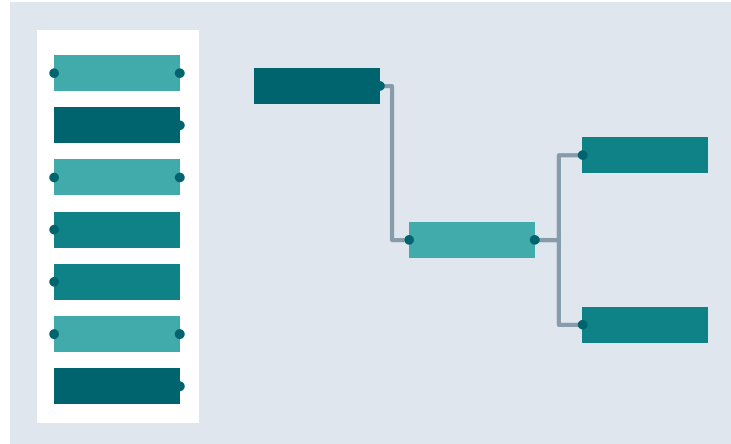
**Note:** Edge applications can be used on **all** Unified Comfort Panels.

# SIMATIC HMI Unified Comfort Panels – Edge App Examples



## MQTT App Cloud Connection

MQTT is the most common protocol for the connection of automation equipment to cloud based systems like MindSphere.



## SIMATIC Flow Creator Data processing made easy

Define your data flow and create rules, KPIs or trigger actions, if threshold values are exceeded or a special event happens.



## SIMATIC Notifier Mobile Notification

Transform the Unified Comfort Panel into a messaging service. Manage and send mobile notifications directly to your Smartphone or Smartwatch.

# Device-Managed Edge Licensing – Unified Comfort Panel

**SIEMENS**  
*Ingenuity for life*

Free



## Demo, Test and Development

- Siemens Industrial Edge is part of every Unified Comfort Panel by default
- Simply activate the Edge functionality in the Control Panel
- No need for a separate software package

€200

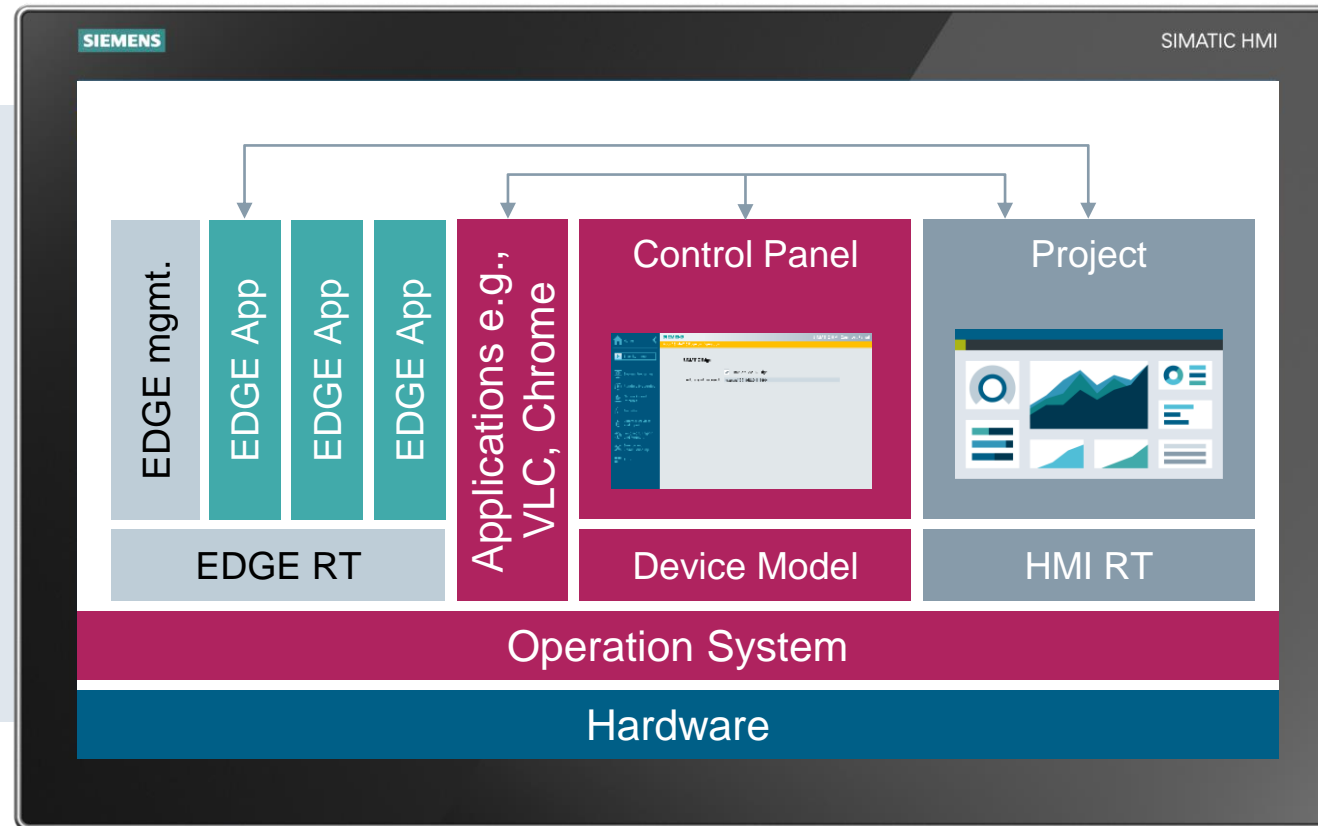


## Productive Usage

- As soon as the device is in productive usage a certificate of license will be required for each Unified Comfort Panel
- No need for license transfer
- Version independent

# SIMATIC HMI Unified Comfort Panel

## System architecture







SIMATIC Industrial OS

## One Linux ...

- Based on one of the best-known and most stable distributions → Debian 9
- Use of existing advantages such as freely available packages, simple update concept, etc.
- Large community (support and exchange of experiences)
- LTS version → Long-term availability
- Preemptive Patch → real-time capable
- Quick and easy installation
- Installation of additional components (e.g. Gnome Desktop-Environment) already prepared

## cross-platform, ...

- SIMATIC IPCs (entire current Portfolio)
- Edge Devices (based on SIMATIC IPC)
- SIMATIC HMI Panels (new Generation)
- SIMATIC IOT Devices (new Generation)
- Hypervisor-based platforms, z. B.: Open Controller

# SIMATIC HMI Template Suite – The TIA Portal library for good HMI design



Ready to use screen  
templates for WinCC Unified  
and Unified Comfort Panels

Available for all common  
resolutions from 7" - 22"

Available free of charge in  
Industry Online Support

Download under entry ID **91174767**  
or from Industry Online Support via the following link:  
<https://support.industry.siemens.com/cs/ww/en/view/91174767>

# SIMATIC WinCC Unified System – Application Examples



Type	German	English
TIA Portal Add-In Data 2 Unified	<a href="#">SIOS Download</a>	<a href="#">SIOS Download</a>
WinCC Unified Tag Simulator	<a href="#">SIOS Download</a>	<a href="#">SIOS Download</a>
WinCC Unified Demo projects	<a href="#">SIOS Download</a>	<a href="#">SIOS Download</a>
TIA Portal Library HMI Template Suite	<a href="#">SIOS Download</a>	<a href="#">SIOS Download</a>
Getting Started Edge @ Unified Comfort Panel	Soon	Soon
From Comfort to Unified Comfort Guideline	Soon	Soon

























# SIMATIC Industrial PC



# SIMATIC Industrial-PC Portfolio

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		Rack PC	Box PC	Panel PC
<b>Embedded Industrial-PCs</b> without fan		<b>IPC1x7</b> Ultracompact	 IPC127E	
		<b>IPC2x7 Compact</b>	 IPC227E	 IPC277E
		<b>IPC4x7</b> Powerful	 IPC427E	 IPC477D/E
<b>High-end Industrial-PCs</b> High-end functionality		<b>IPC6x7</b> High Performance	 IPC647E	 IPC627E
		<b>IPC8x7</b> Extensive expandability	 IPC847E	 IPC677E
		<b>IPC1047</b> High CPU and GPU Performance	 IPC1047	
<b>Advanced Industrial-PCs</b> Latest PC technology		<b>IPC5x7</b> Maximum Performance	 IPC547G	 IPC527G
<b>Basic Industrial-PCs</b> Attractive price		<b>IPC3x7</b> available from stock	 IPC347E	 IPC327E
			 IPC377E	

**Long-term availability:**  
4 – 6 years

plus 5 years  
repair and spare parts service

**Long-term availability:**  
2 – 3 years plus 3 years  
repair and spare parts service

# SIMATIC IPC127E

## The ultra-compact industrial PC for your application

**SIEMENS**  
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### High-performance data processing with the most compact design

- Latest CPU technology of Intel Apollo Lake series  
2 or 4-core processors
- Comprehensive interface equipment
- Integrated 128 GB SSD
- Up to 3 LAN interfaces

### Operating system

- Windows 10 Enterprise LTSC 2016
- SIMATIC Industrial OS (Debian based Linux)

### High flexibility

- Flexible mounting in all vertical mounting positions
- Small space requirement  
(installation volume approx. 0.3 liters)



### High system availability

- Maintenance-free, as there are no rotating parts (fan, HDD)
- Self-diagnosis thanks to local diagnostic software SIMATIC IPC DiagBase

### High investment security

- Short delivery times due to warehouse variants
- Long-term availability: Service & support period from 8 - 10 years from market launch

### Adaptable to the machine

- Up to 55 °C ambient temperature
- Dust protection due to closed housing
- LEDs for efficient self-diagnosis; optimization for headless operation



# SIMATIC IPC327E/IPC377E

## Industrial PC technology at an attractive price



### Latest PC technology

with Intel Celeron Quad Core, up to 8GB RAM and mPCIe/mSATA for easy expandability

### Proven standards

with USB 3.0, display port, 6 serial ports and more for easy integration into existing systems



### SIMATIC quality

designed for 24/7 operation in industrial environments incl. standard run-in tests and certificates

### Attractive price

with an excellent price-performance ratio for cost-efficient implementation of a wide range of applications

### Available from stock

with reduced complexity in pre-configured variants for shorter delivery times

\* To operate AWS IoT Greengrass, the following operating systems are supported:

- Ubuntu 18.04.1 LTS
- SIMATIC Industrial OS V1.3

# SIMATIC Rack PCs – High performance, functionality and expandability for versatile applications

**SIEMENS**  
*Ingenuity for life*

High-end

## IPC1047

Maximum CPU und GPU Performance

## IPC847

Maximum expandability and long-term availability

## IPC647

Highest compactness and long-term availability

Industrial

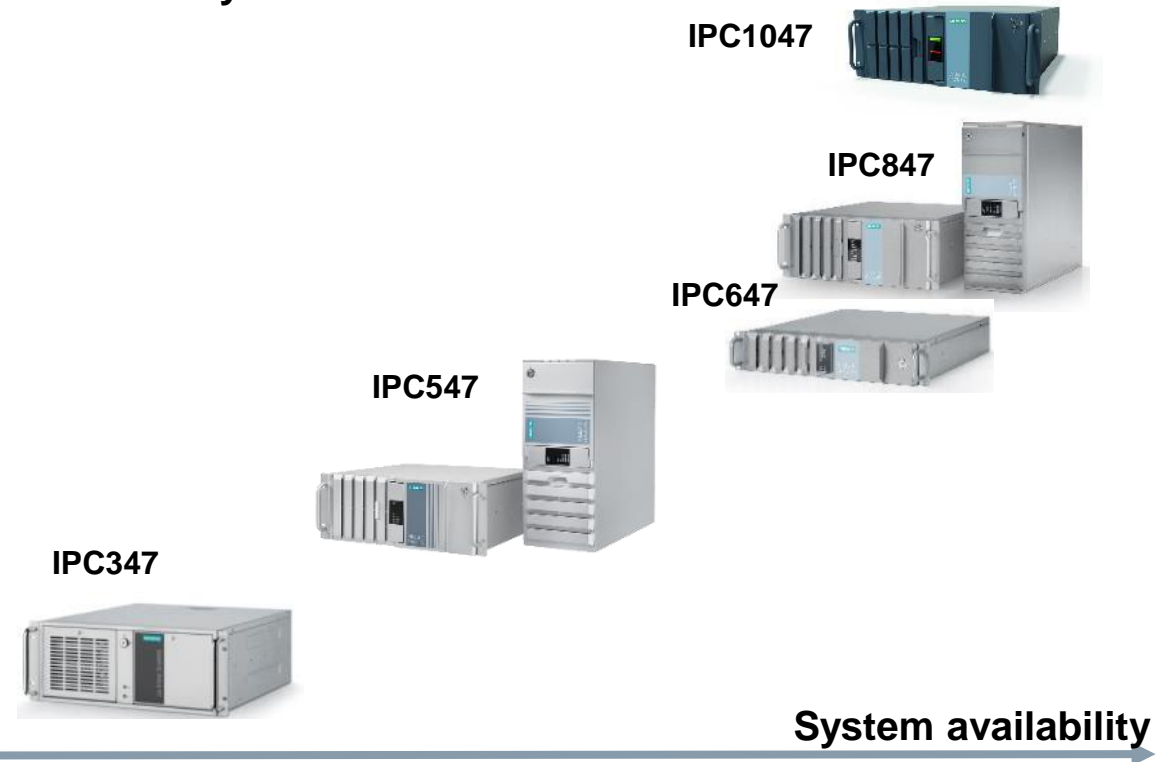
## IPC547

Latest technology and maximum performance

## IPC347

High performance and optimized price

Functionality / Performance



On stock - short  
delivery times

Build-to-order - maximum configuration freedom

**SIMATIC Quality – 24/7 continuous operation in  
industrial applications**

# SIMATIC ITP1000 PC in Tablet design

**SIEMENS**  
*Ingenuity for life*

## Mobile Devices in Production

Strong growth of mobile devices in manufacturing (+5.1% last year)

## Specific Functions

At least 70% of all Industrial Tablet users need special functions

## Windows in Production

Some have tried to switch to iOS / Android and return to Windows.



## Paperless Factory

No more printed documents in production.

## High performance

Demanding applications now mobile.

## Industry Core Requirements

High ruggedness, long product availability for use in industrial environments.

**Long-term available, Windows-based industrial tablet PC with many interfaces and integrated functions**

# TIA Portal V16

## Zanimljivi linkovi



- Digital Training with Highlights of TIA Portal V16  
<https://support.industry.siemens.com/cs/document/109772991/sittrain%3A-digital-training-with-highlights-of-tia-portal-v16?dti=0&lc=en-WW>
- TIA Portal Tutorial Centar  
[https://cache.industry.siemens.com/dl/dl-media/707/106656707/att\\_961750/v9/106656707\\_TIA\\_Portal\\_-\\_Tutorial\\_Center\\_web/start.htm#!/en](https://cache.industry.siemens.com/dl/dl-media/707/106656707/att_961750/v9/106656707_TIA_Portal_-_Tutorial_Center_web/start.htm#!/en)
- Automation Tasks in 10 minutes  
[https://cache.industry.siemens.com/dl/dl-media/570/109767570/att\\_986452/v1/109476605\\_Automation\\_Tasks\\_web/start.htm#!/de](https://cache.industry.siemens.com/dl/dl-media/570/109767570/att_986452/v1/109476605_Automation_Tasks_web/start.htm#!/de)
- Basic Process Library  
<https://support.industry.siemens.com/cs/ww/en/view/109749508>
- HMI Option +  
<https://support.industry.siemens.com/cs/ww/en/view/109754400>
- HMI design Template  
<https://support.industry.siemens.com/cs/ww/en/view/91174767>



## **Adrian Lucić**

Mob: +385 91 6105 128

[adrian.lucic@siemens.com](mailto:adrian.lucic@siemens.com)

Siemens d.d.  
Heinzelova 70a  
10000 Zagreb, Hrvatska

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# Ordering Information

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# SIMATIC WinCC Unified – Promotion Packages

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Available until 31/12/2020

## WinCC Unified PC (1k) RT

- WinCC Unified PC (1k) RT
- Parameter Control (PC)
- Logging Tags (100)
- Report Execution

**6AV2155-2ES01-6AL0**

## WinCC Unified PC (10k) RT

- WinCC Unified PC (10k) RT
- Parameter Control (PC)
- Logging Tags (1000)
- Report Execution

**6AV2155-2FS01-6AL0**

## WinCC Unified PC (50k) RT

- WinCC Unified PC (50k) RT
- Parameter Control (PC)
- Logging Tags (1000)
- Report Execution
- Database Option
- Client Operate (1)

**6AV2155-1GS01-6AL0**

**Packages only available via Online Software Delivery (OSD)**

~ 30%  
discount

# SIMATIC WinCC Unified – Promotion Packages Plant Intelligence Options

**SIEMENS**  
*Ingenuity for life*

Available until 31/12/2020

## WinCC Unified Plant Intelligence Optionen

- Calendar Option (Basis)
- Performance Insight Option (Basis)
- Logging Tags (100)

**6AV2155-0XP01-6AL0**

**Packages only available via Online Software Delivery (OSD)**

~ 30%  
discount

# SIMATIC WinCC Unified V16 Engineering – Ordering information



WinCC Unified Engineering	Package (DVD)	Online Software Delivery (OSD)
WinCC Unified Comfort ES	6AV2151-0XB01-6AA5	6AV2151-0XB01-6LA5
WinCC Unified PC (10k) ES	6AV2153-2FB01-6AA5	6AV2153-2FB01-6LA5
WinCC Unified PC (100k) ES	6AV2153-2GB01-6AA5	6AV2153-2GB01-6LA5
WinCC Unified PC (Max) ES	6AV2153-0XB01-6AA5	6AV2153-0XB01-6LA5
WinCC Unified PC (1k) ES Trial	6AV2153-2EB01-6AA7	Download via SIOS

**The complete list for WinCC Unified (Engineering and Runtime) can be found in the product announcement [here](https://support.industry.siemens.com/cs/ww/en/view/109771724)**  
<https://support.industry.siemens.com/cs/ww/en/view/109771724>

# WinCC Unified V16 – IPC Packages



Package	Order Number
WinCC Unified V16 PC RT 150, Package	6AV2155-3DB01-6AA0
WinCC Unified V16 PC RT 500, Package	6AV2155-1EB01-6AA0
WinCC Unified V16 PC RT 1k, Package	6AV2155-2EB01-6AA0
WinCC Unified V16 PC RT 2.5k, Package	6AV2155-2MB01-6AA0
WinCC Unified V16 PC RT 5k, Package	6AV2155-1FB01-6AA0
WinCC Unified V16 PC RT 10k, Package	6AV2155-2FB01-6AA0
WinCC Unified V16 PC RT 50k, Package	6AV2155-1GB01-6AA0

Further information: <https://support.industry.siemens.com/cs/de/en/view/99860269>

# SIMATIC HMI Unified Comfort Panels – Ordering information



Device Name	Display Size	MLFB Standard Design	MLFB Neutral Design
MTP700 Unified Comfort	7.0"	6AV2128-3GB06-0AX0	6AV2128-3GB36-0AX0
MTP1000 Unified Comfort	10.1"	6AV2128-3KB06-0AX0	6AV2128-3KB36-0AX0
MTP1200 Unified Comfort	12.1"	6AV2128-3MB06-0AX0	6AV2128-3MB36-0AX0
MTP1500 Unified Comfort	15.6"	6AV2128-3QB06-0AX0	6AV2128-3QB36-0AX0
MTP1900 Unified Comfort	18.5"	6AV2128-3UB06-0AX0	6AV2128-3UB36-0AX0
MTP2200 Unified Comfort	21,5"	6AV2128-3XB06-0AX0	6AV2128-3XB36-0AX0
License for Device Managed Edge		6AV2170-2BA00-0AA0	

# Mounting Frames – Ordering information

Available Q2/2020

Name	Mounting compatibility	MLFB
Mounting Frame Set 15" Touch	from TP1500 to MTP15000	6AV6881-6QD41-1AA0
Mounting Frame Set 19" Touch	from TP1900 to MTP1900	6AV6881-6UD41-1AA0
Mounting Frame Set 22" Touch	from TP2200 to MTP2200	6AV6881-6VD41-1AA0



# SIMATIC HMI Unified Comfort Panels – Starter Kits



Available Q2/2020

Device Name	MLFB	List price
MTP700 Unified Comfort Starter Kit	6AV2128-3GB06-0AP0	1400 €
MTP1000 Unified Comfort Starter Kit	6AV2128-3KB06-0AP0	2150 €
MTP1200 Unified Comfort Starter Kit	6AV2128-3MB06-0AP0	2800 €
MTP1500 Unified Comfort Starter Kit	6AV2128-3QB06-0AP0	3350 €
MTP1900 Unified Comfort Starter Kit	6AV2128-3UB06-0AP0	4000 €
MTP2200 Unified Comfort Starter Kit	6AV2128-3XB06-0AP0	4650 €