

Fordele og use cases med SIMATIC IPC'er

Derfor skal du bruge en Industri-PC.

SIEMENS



Dagens værter

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Per Hemmingsen, Technology Specialist



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Agenda

Intro til SIMATIC IPC'er og deres fordele

Use case IOT

Use case HMI - SCADA

Use case PC-based Automation

Hvordan finder man egenlig en IPC hos Siemens ?

SIMATIC IPC's



Controller



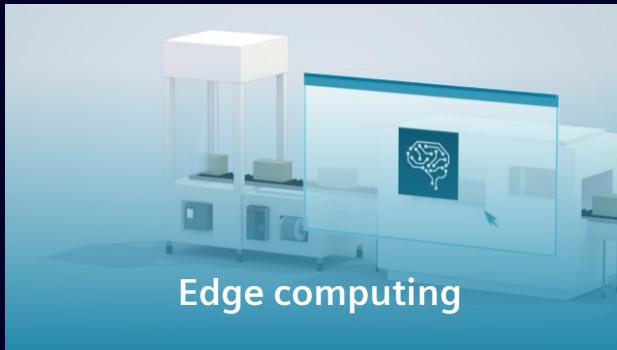
HMI



SCADA



Cloud



Edge computing



Digitalization

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SIMATIC IPC's

Rack PC Box PC Panel PC

IPC1x7
Ultra-compact



IPC127E

IPC2x7
Compact



IPC227G



IPC277E

IPC4x7
Powerful



IPC427E



IPC477D/E

IPC6x7
High performance



IPC647E



IPC627E



IPC677E

IPC8x7
Maximum expandability



IPC847E

IPC5x7
Maximum performance



IPC547G



IPC527G

IPC3x7
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**

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SIMATIC IPC's

Latest PC technology

Future-proof due to modern interfaces and processors with power reserves

Over 90 million configurations

Can be ordered from just 1 piece, flexible choice of specific configuration



Long-term availability and compatibility

Up to 11 years of support after delivery

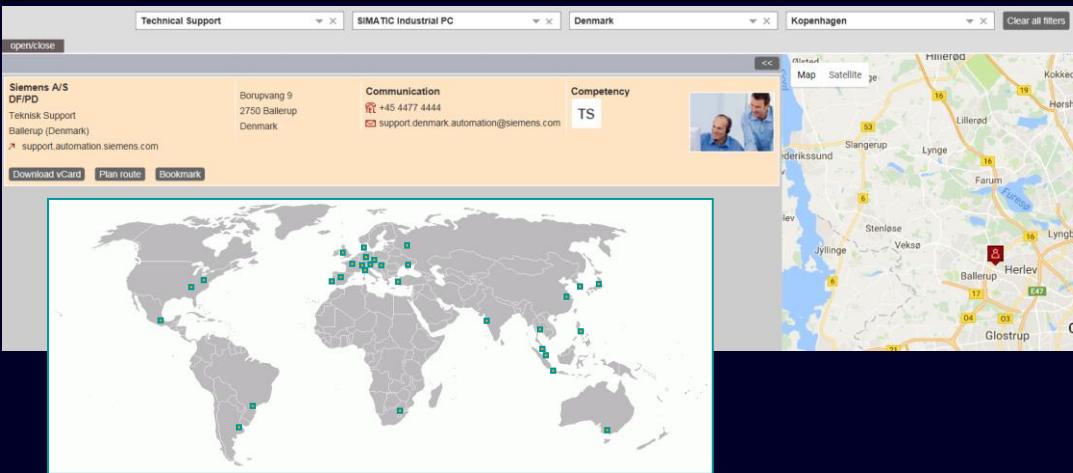
Integrated diagnosis

Prevention of downtime through preventive maintenance concepts

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SIMATIC IPC's

World Wide Support



Siemens IPC

- Own Development. Mainboards, BIOS etc.
- Production & Test
- Service & support
- Training
- Customization



Platform rules

- Planning security over the entire life cycle of the plant/machine
- No software changeover over the entire life cycle
- Flexibility when changing to successor generation
- No mechanical adaptations in migration
- Long term agreement with spare parts supplier (Intel, Micron, etc.). Up to 11 years.
- Long term agreement with Microsoft

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SIMATIC IPC's

Product Lifecycle Management



Start of spare part period.
The product is still available as a
new components.

Beginning of the spare part
phase. With some exceptions
the product is only available on
spare part basis

End of our spare part period.
The product is no longer
available from us and the
support is discontinued.

Microbox Pc – Identical for +10 years



Version Flow



Version c

Version D

Version E

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SIMATIC IPC's Now with Linux



- Industry-hardened Linux-based operating system with a small footprint, developed for and tested on SIMATIC IPC
- Based on Debian 10
- Optimally scalable and reusable due to single image file for all SIMATIC IPCs
- Supported by SIMATIC product support

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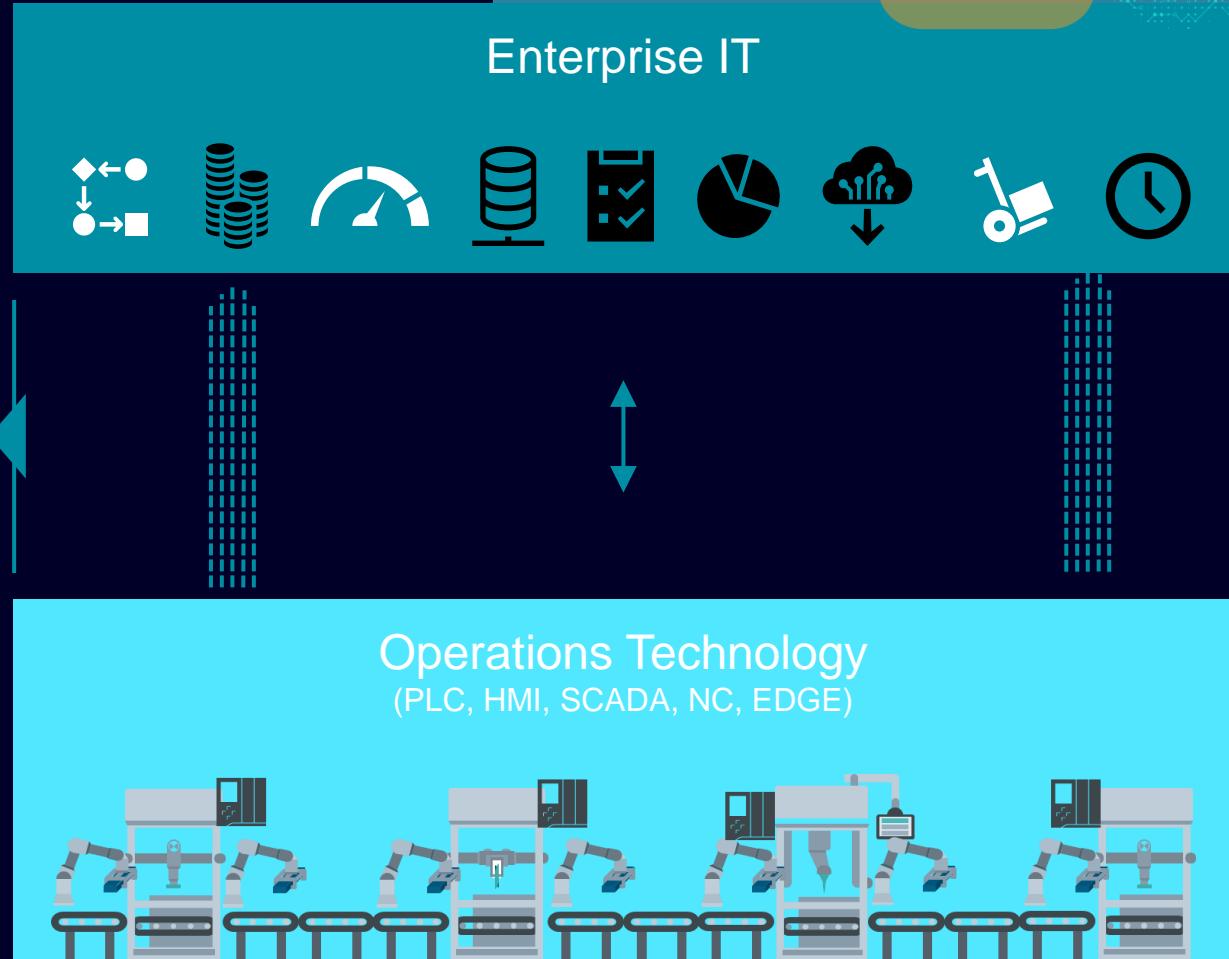
Hvordan finder man egenlig en IPC hos Siemens ?

IOT and SIMATIC IPC's



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SIMATIC IPC's as a Gateway



New business and opportunities

Predictive maintenance

KPI

Output optimization

Closed loop optimization

Product optimization

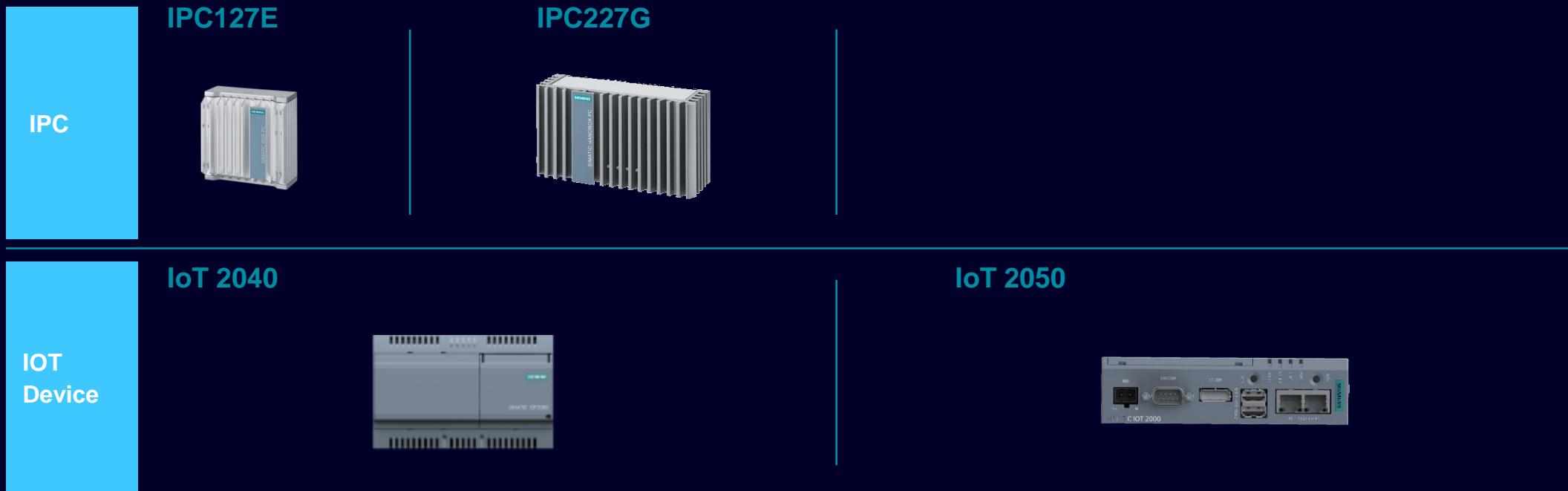
Consumption

Spare part management

Service E-book

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SIMATIC IPC's as a Gateway



CPU range: Quark to Xeon

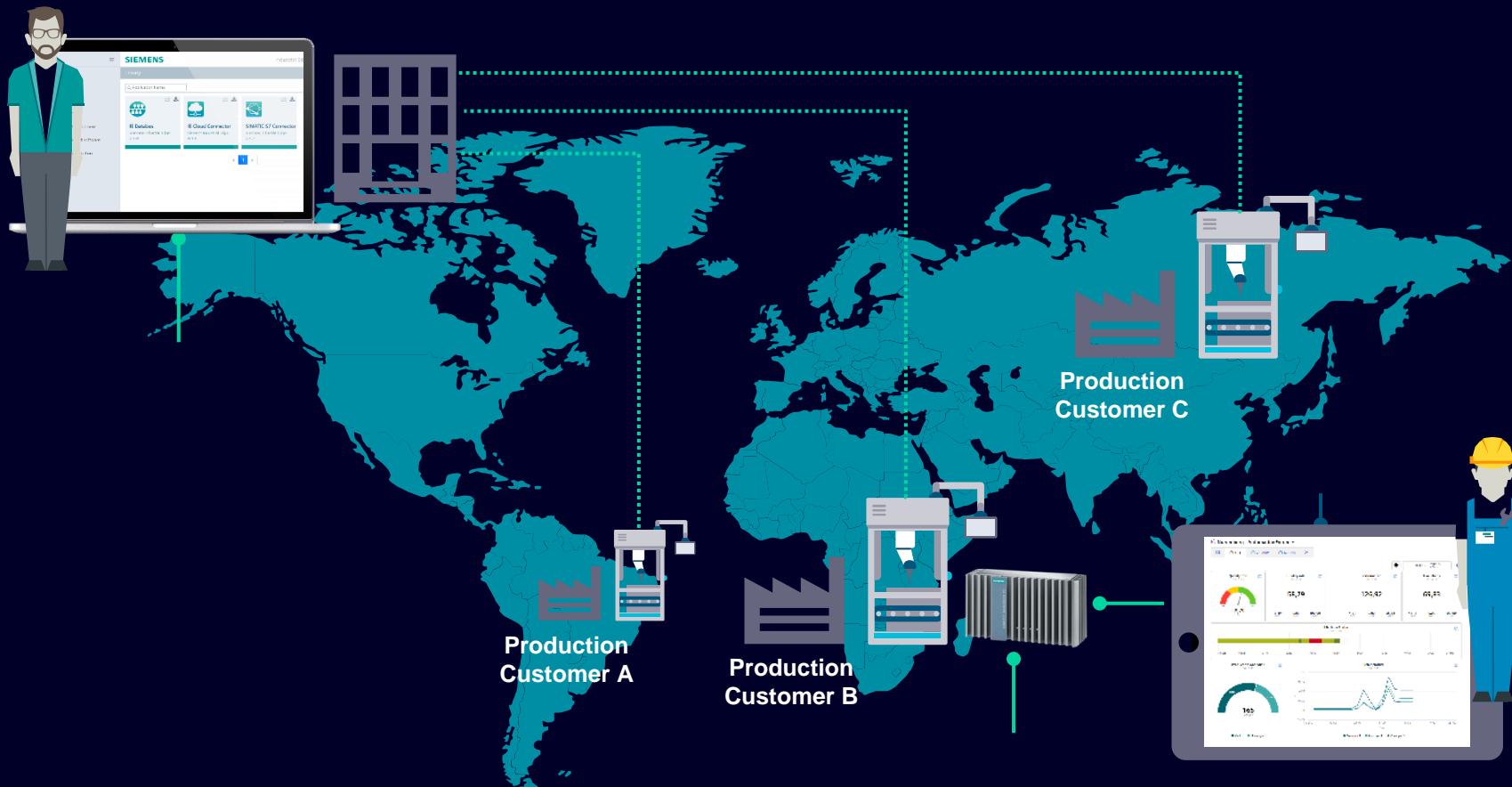
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SIMATIC IPC's as a Edge device

A SIMATIC IPC device is shown from a side-on perspective, angled towards the viewer. The device has a light blue and white front panel with several black heat sinks. Various colorful icons, such as a magnifying glass over a circuit board, a brain, a gear, and a smartphone, are floating around the device, suggesting connectivity and edge computing capabilities. The background is blurred, showing what appears to be an industrial or laboratory setting.

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SIMATIC IPC's as a Edge device



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SIMATIC IPC's as a Edge device



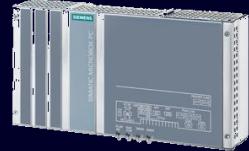
IPC



IPC127E



IPC427E



IOT
Device



CPU range: Arm to Xeon

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Usecase: HMI and SCADA



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Usecase: HMI and entry level SCADA



WinCC RT Advanced (a Comfort panel on a PC)
WinCC Unified PC (small configurations)

Typical at machine level

..Typical without databases



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SIMATIC IPC's as a HMI device



IPC127E



IPC227G



IPC327E



IPC427E



IPC277G



IPC377E



IPC477E



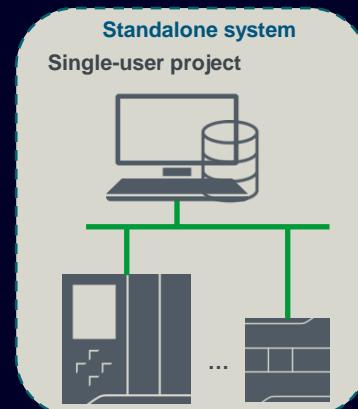
CPU range: Atom to Xeon

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Usecase: Midsize and high level SCADA



..Typical with databases

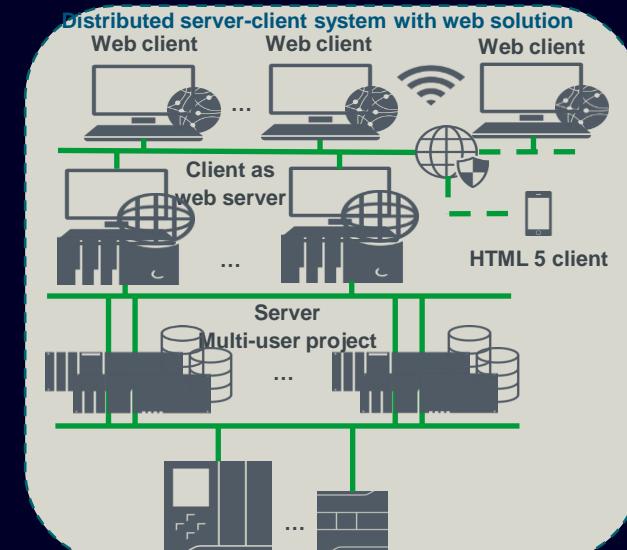


WinCC Professional

WinCC V7.x

WinCC Unified PC (large configurations)

Or other 3. party



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SIMATIC IPC's as a SCADA device Stand alone or server



IPC327/347G



IPC427G



IPC527G/547J



IPC627/647E



IPC827/847E



IPC377E



IPC477G



IPC677E



CPU range: Celeron to Xeon

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Usecase: SCADA clients



Web based clients



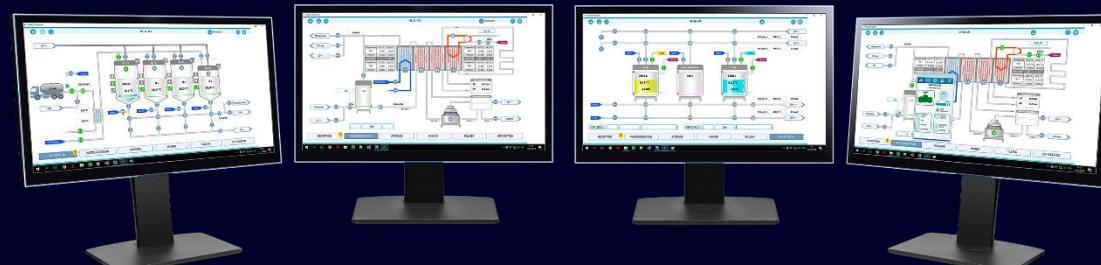
WinCC Professional

WinCC V7.x

WinCC Unified PC

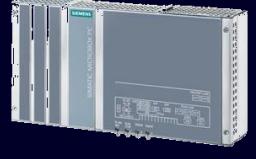


Installed clients



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SIMATIC IPC's as a SCADA client device

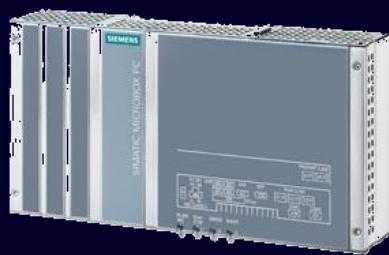
Box IPC	IPC127E 	IPC227G 	IPC327/347E 	IPC427E 	IPC627 
Panel IPC	IPC277G 	IPC377E 	IPC477E 	IPC677E 	

CPU range: Atom to Xeon

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Remember... IPC Packages !

Any IPC



SIMATIC HMI /
SCADA RT SW



+

= A Better Deal



WinCC Advance - WinCC Unified PC - WinCC Professional - WinCC V7.5

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Intro til SIMATIC IPC'er og deres fordele

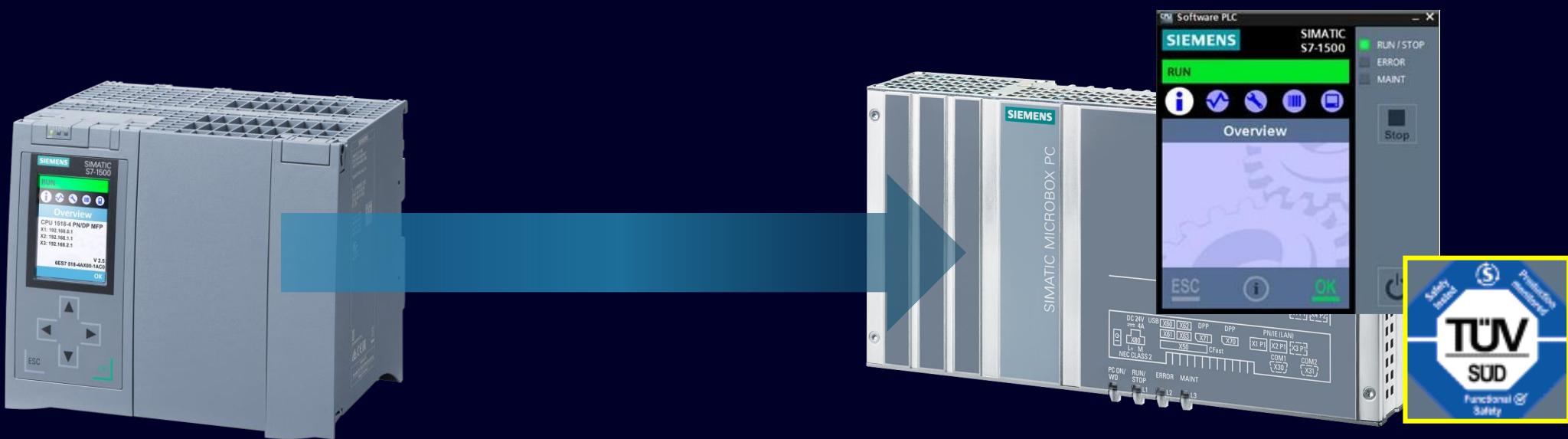
Use case IOT

Use case HMI - SCADA

Use case PC-based Automation

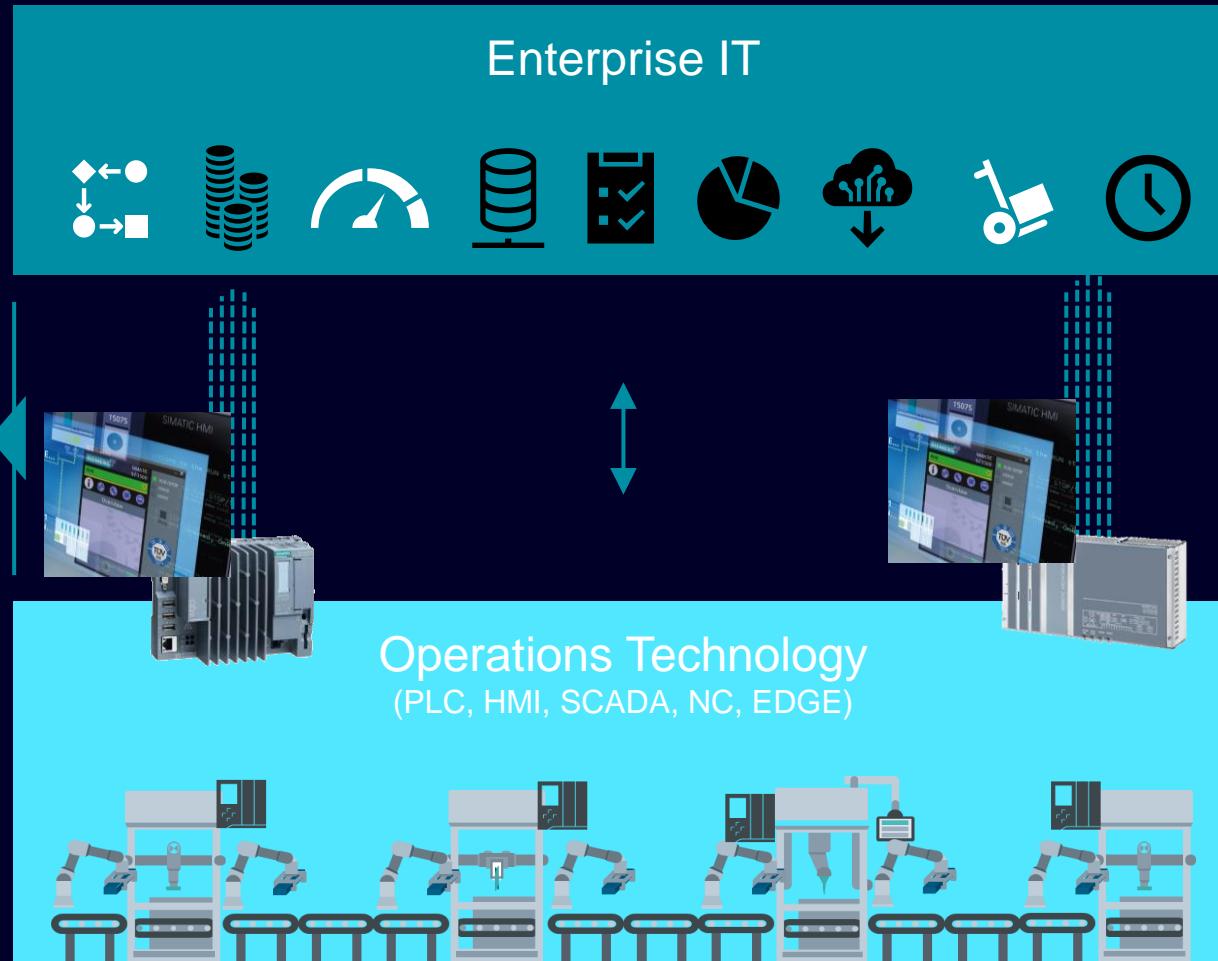
Hvordan finder man egenlig en IPC hos Siemens ?

SIMATIC IPC's as a S7-1500 controller



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SIMATIC IPC's as a S7-1500 controller

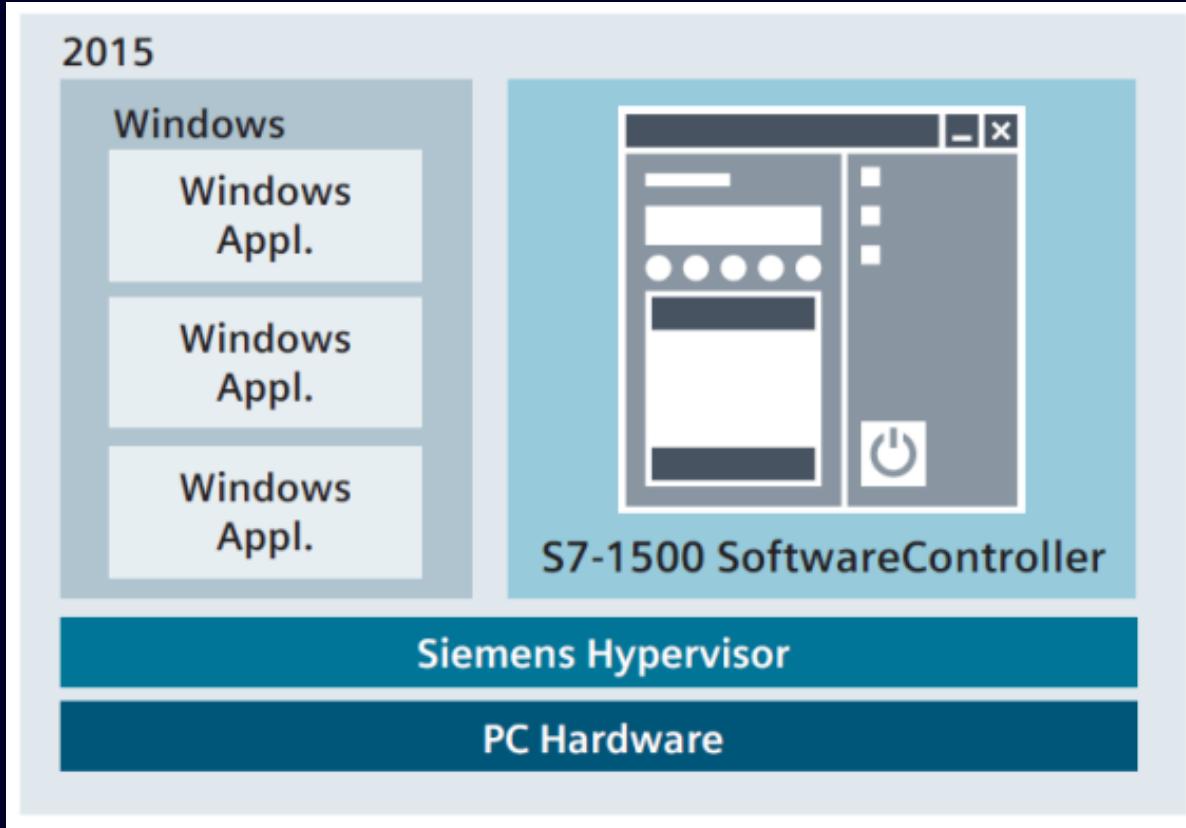


S7-150xS controller

- Standard S7-1500 controller
- Can be combined with HMI
- Easy integration to PC application
Windows features available i.e. SQL, XML and filesystem
- Storage capacity
- Scalable performance

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SIMATIC IPC's as a S7-1500 controller



- Do you need a PC-based controller but don't want your system availability to be dependent on MS Windows?
- Do you want to integrate Windows applications or complex real-time algorithms with little engineering effort?

SIMATIC IPC's as a S7-1500 controller

Embedded Industrie-PCs

Highly rugged – Highly compact – Maintenance-free

Nanobox (Box and Panel PC)



IPC227E / IPC277E



Microbox (Box and Panel PC)



IPC427E / IPC477E



High-end Industrie-PCs

Very rugged – High performance – High functionality

Box and Panel PC



IPC627E / IPC677E



Rack PC



IPC647E / IPC847E



CPU 1507S (F)



CPU 1507S (F)
CPU 1508S (F)



CPU 1507S (F)
CPU 1508S (F)



CPU 1507S
CPU 1508S



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SIMATIC IPC's as a S7-1500 controller

S7-150xS controller



- Preinstalled with S7-1505S
- Can be combined with HMI
- Easy integration to PC application
Windows features available i.e. SQL, XML
and filesystem
- Rugged, compact control system
- Combines the functions of a ET 200SP
controller with those of a PC-based
platform

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Hvordan finder man egenlig en IPC hos Siemens ?

Hvilke værtøjer kan hjælpe med at konfigurere en SIMATIC IPC ?

TIA Selection Tool:

The screenshot shows the Siemens TIA Selection Tool interface. On the left is a vertical navigation bar with icons for Welcome, New Device, Projects, Configure, Views, Order list, and Corporate Information. The main area is titled 'My Projects' with a search bar. A large banner at the top says 'New Version' and 'Efficient engineering with more options. TIA Portal V17 now available'. Below this are two project cards: 'Project (1)' last changed on 8/21/2020 at 9:31:34 and another 'Project' last changed on 5/23/2019 at 10:42:03.

Siemens Mall :

The screenshot shows the Siemens Industry Mall website. At the top is a banner with the text 'INDUSTRY MALL' and 'Industry Mall Danmark'. The main content area has a sidebar with categories like Automation technology, Industrial communication, and Industrial controls. The main panel shows a search bar with 'Produkt-ID' and 'Mængde' fields, and a button 'Kontrol'. Below this is a section for 'Kvikordreindgang' with a 'Produkt-ID' field, 'Mængde' field, and a button 'Fej til indkøbskurv'. The bottom part of the page shows a table for 'Ordrestatus' with columns for 'Status', 'Ordredato', 'Kundeordre #', and a link 'Gå til ordreoversigt'. The table lists several entries, all marked as 'Åben' (Open) with dates from 07.09.2021 and reference numbers 57952, 57951, 57950, 57949, and 57946.

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SIMATIC PcBa is so much more than a PC



SIMATIC PC-based
-Flexible, versatile solutions for
PC-based automation

SIMATIC PC-based

SIMATIC Rack PCs



SIMATIC Box PCs



SIMATIC Industrial Tablet PC



SIMATIC Panel PCs



SIMATIC IPC Software and accessories



SIMATIC devices for Special requirements



SIMATIC Software Controller



SIMATIC Industrial monitors and Thin Clients



SIMATIC Industrial IoT Gateways



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Hvor finder man mere information om SIMATIC IPC'er ?

www.siemens.com/IPC

Industry Online Support:
www.siemens.com/SIOS

SIMATIC IPC System



SIMATIC IPC System - Strong Innovation Power

Flexible, innovative solutions with Siemens Industrial PCs and IPC Systems with long-term availability for PC-based automation

With PC-based automation, you can implement applications and solutions that far exceed the functions of a classic controller. SIMATIC PC-based products offer you a flexible, innovative platform with long-term availability that gives you a home field advantage when meeting the challenges of the digital factory for your machines and plants.



SIMATIC Rack PCs



SIMATIC Box PCs



SIMATIC Panel PCs



SIMATIC Industrial Monitors and Thin Clients



SIMATIC Industrial Tablet PC



SIMATIC devices for special requirements

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NYHEDSBREVE TIL INDUSTRIEN
UDKOMMER 8-10 GANGE OM ÅRET

Industry Information News

TIPS OG TRICKS PÅ YOUTUBE

Industry Information Demo

Find hurtigt playlisten og abonner via
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