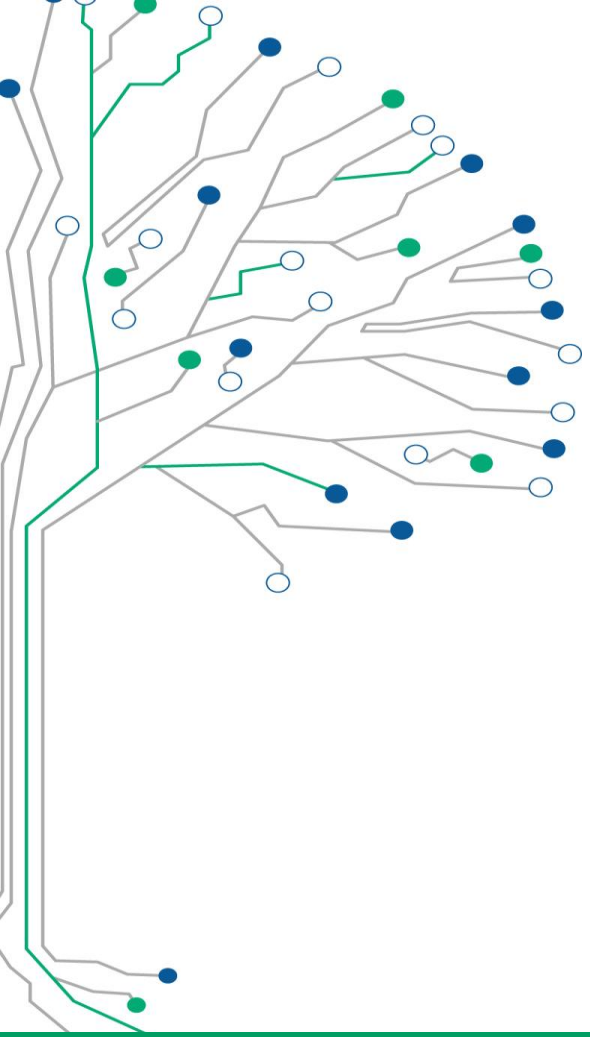


ANIE AUTOMAZIONE

ANIE FEDERAZIONE

CONFINDUSTRIA

OPC UA & Web - standards which are transforming the industry

Carlo Cuppini

PERFECTION IN AUTOMATION
www.br-automation.com

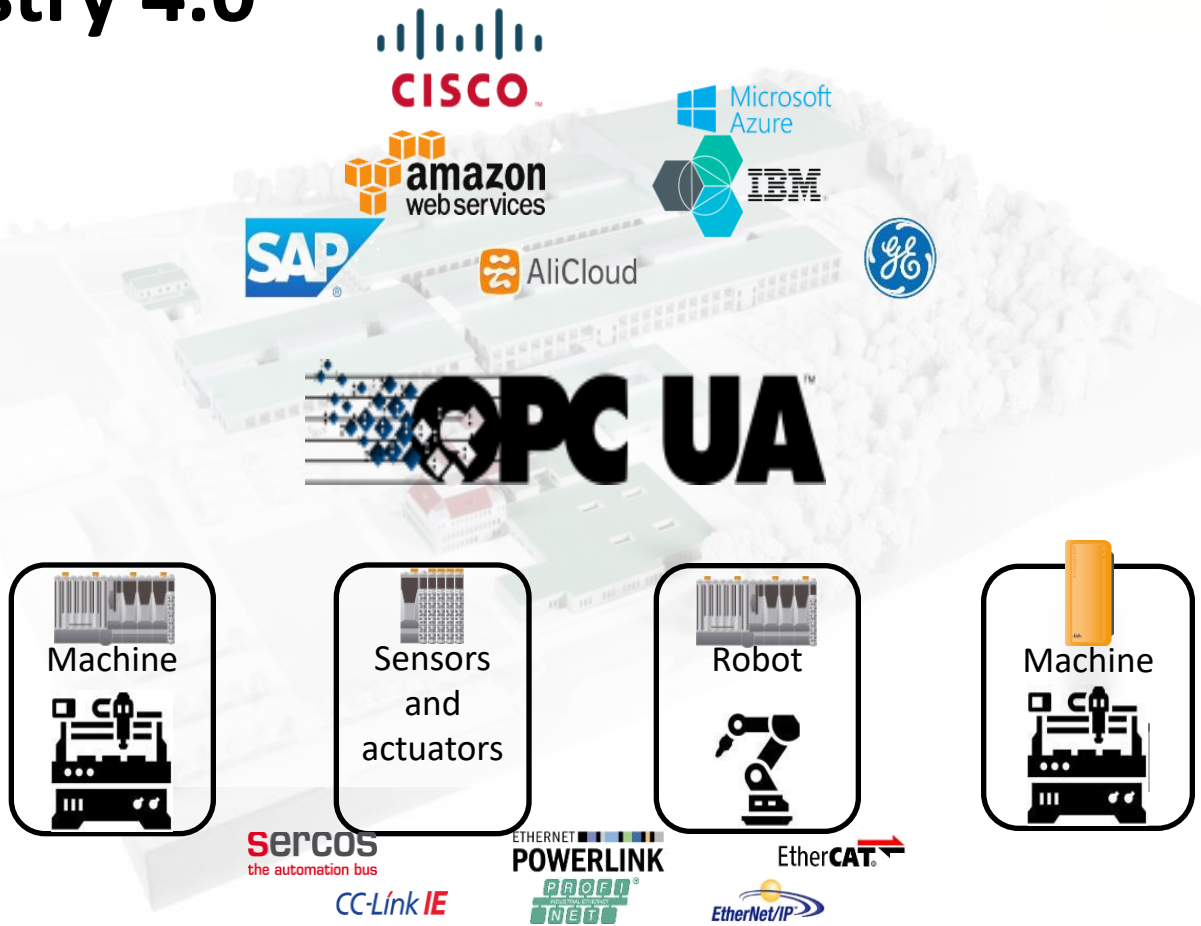
B&R

Industry 4.0

Internet

Industrial

Things



OPC UA


FESTO
SICK
OPC FOUNDATION
CONTROL TECHNIQUES
MOXA
TEXAS INSTRUMENTS
ALTERA
Danfoss
KEB
CISCO
OMRON
STÄUBLI
SYS TEC
HEIDELBERG
PLCopen
for efficiency in automation
NORD
DELTA
softing
intel
ABB
Microsoft
MAILLEFER
XILINX
Endress+Hauser
People for Process Automation
SIKO
EUROMAP
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FRABA
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SAP
IMA
Starlinger
MABI
YASKAWA
Honeywell
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PHOENIX CONTACT
YOKOGAWA
XMOS
KUKA
battenfeld-cincinnati
Rockwell Automation
MTS SENSORS
Lenze
industrial internet CONSORTIUM
CODESYS
WAGO
LEINE LINDE
METTLER TOLEDO
CREVIS
LTi DRIVES
LAUMAS ELETTRONICA
COPALP
PEAK System
BECKHOFF
Innovasic Semiconductor
SICK
Sensor Intelligence.
DORNIER
COMAU

OPC UA

The universal protocol

Industrial data exchange

- www.opcfoundation.org
- Open source
- Based on the TCP/IP standard
- Client - server technology

Data exchange between machine components

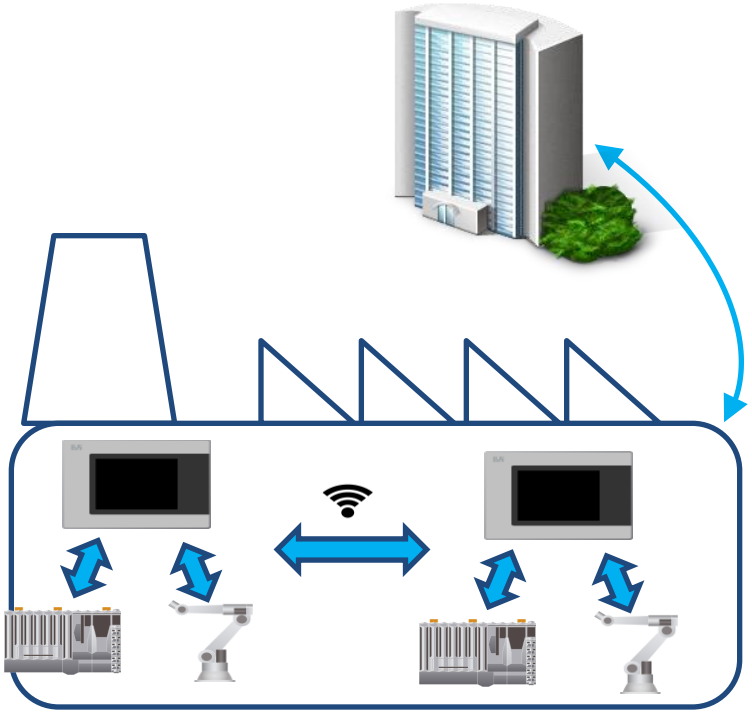
- PLC, HMI, vision systems, robot, …

Data exange between machines

- Production lines

Exchange data to management software

- Production process management, MES
- Product lifecycle management, PLM
- Communication with the company management software, ERP



OPC UA

The universal protocol

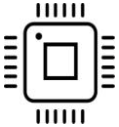
Independent by the operative system

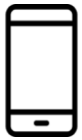
Windows, Linux, Android, OSX




Scalable

microcontroller, cloud, mobile





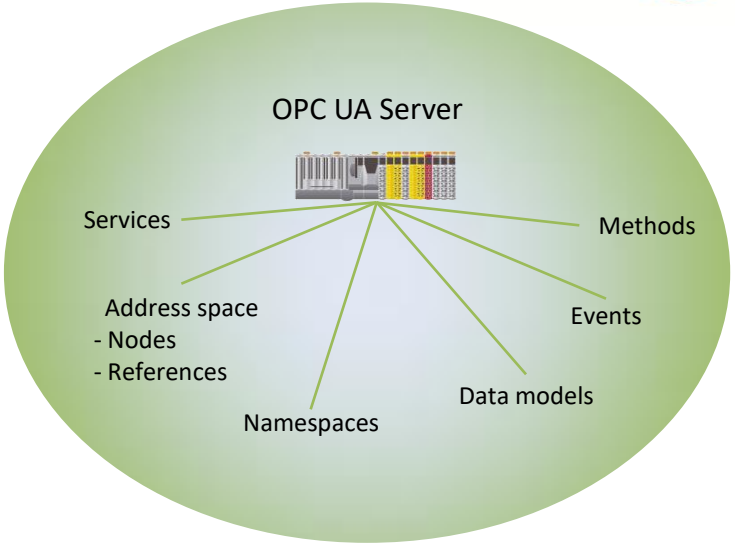
Safe

users, roles and access management

encryption


OPC UA

OPC UA **Server**



Integrated into the operative system

No Windows need

Services

Functionality published to the Client :

- connection
- reading / writing
- monitored items
- methods call
- browsing

The OPC UA server is managed through the configuration parameters

No programming is required

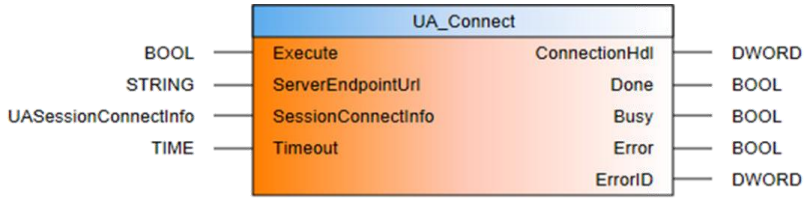
OPC UA

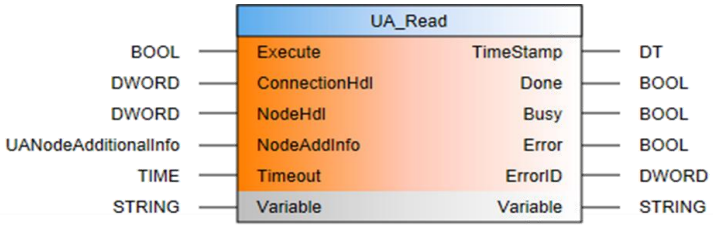
OPC UA **Client**

Joint WG OPC / PLCopen

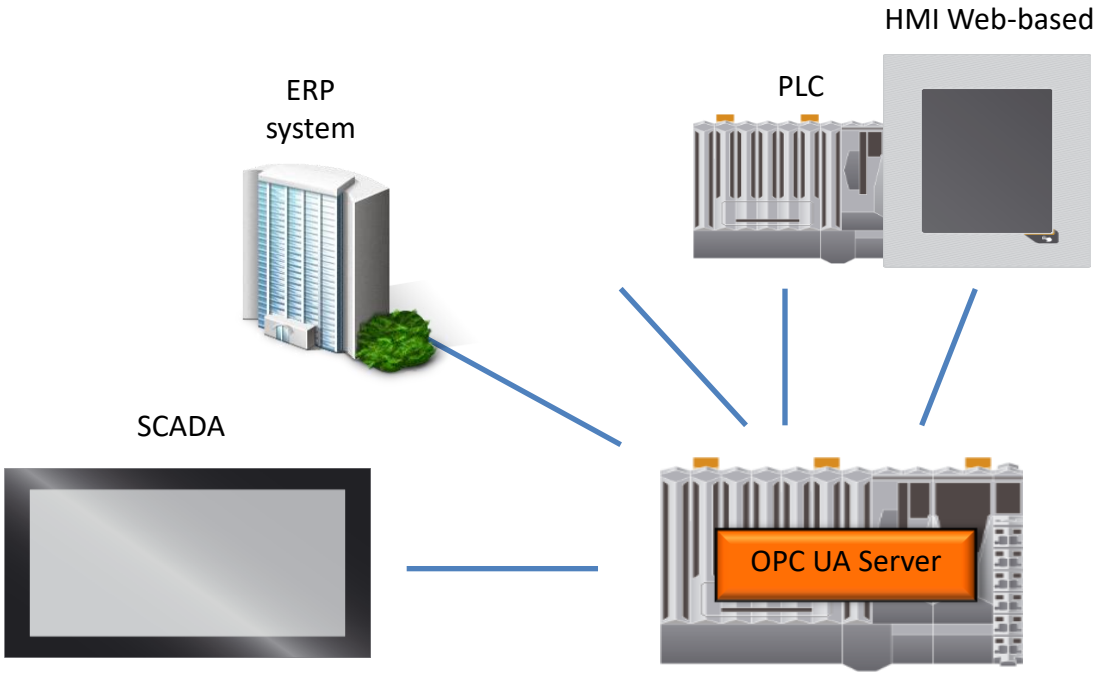
PLCopen function blocks

AsOpcUa library with more than 20 client function blocks



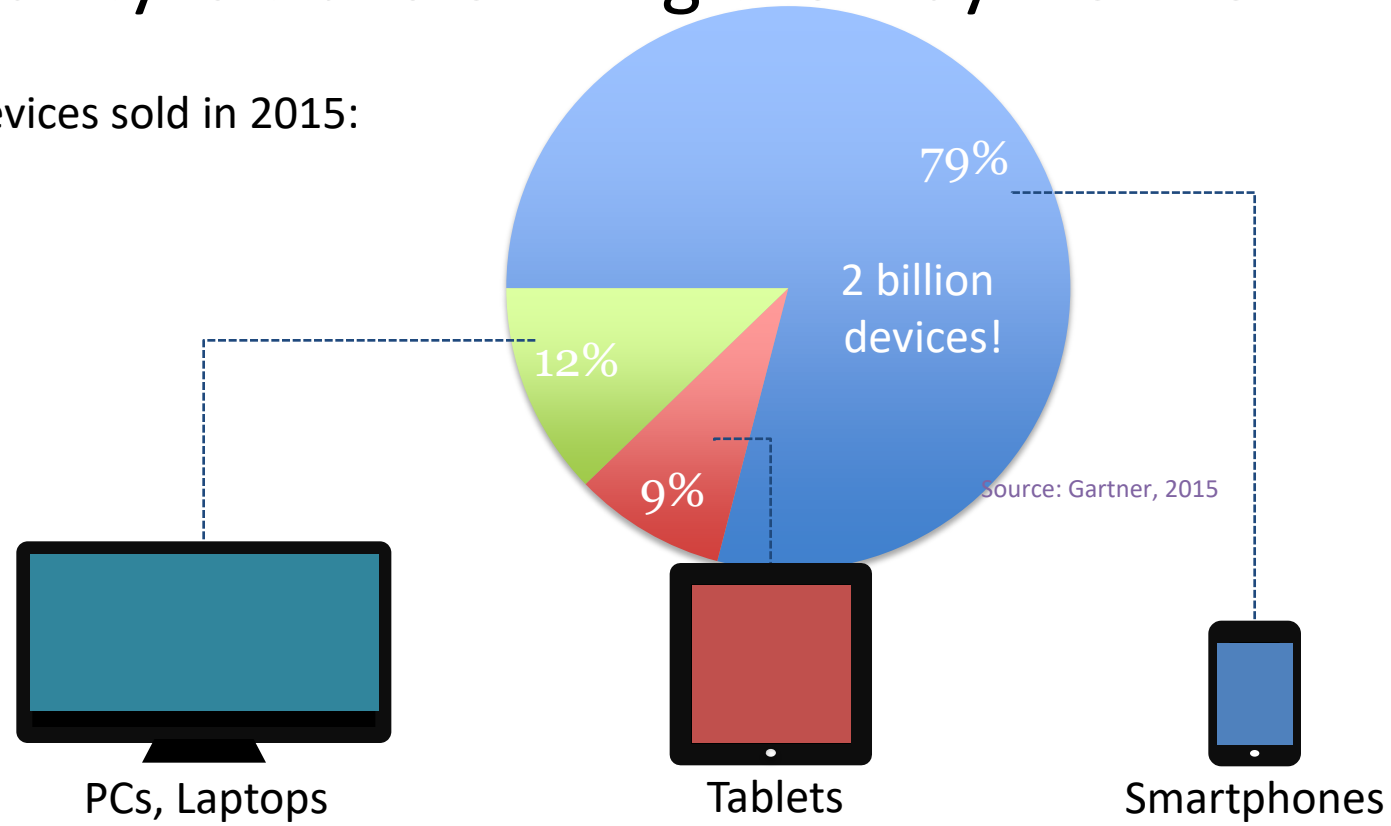


OPC UA



Mobility is transforming the way we live

Devices sold in 2015:



Mobility is transforming the way we live

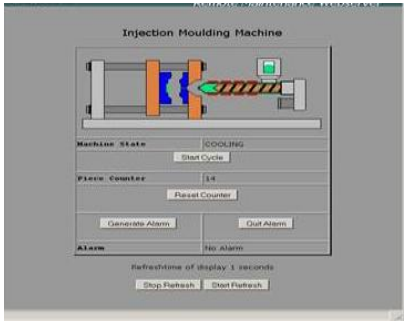
High expectations for usability

vs.

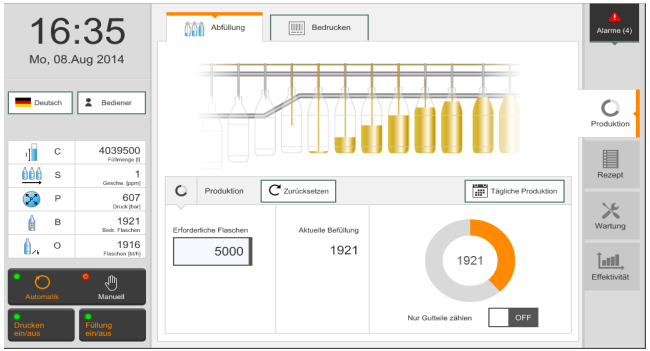
Mobility is transforming the way we live

Attractive design

Intuitive use



vs.



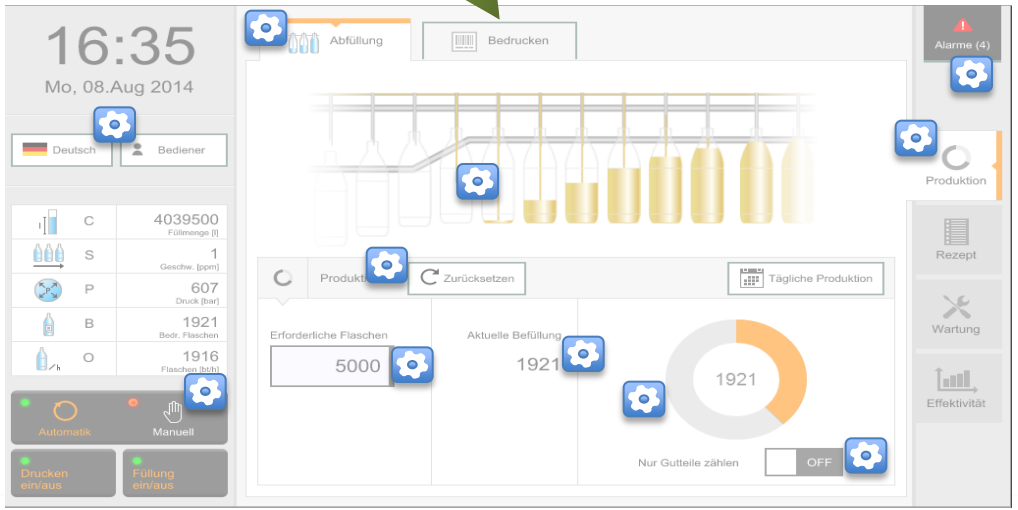
Native web technology

Not suitable for automation

widget

Made for automation

- Access to variables
- Units of measure conversion
- Change units of measure
- Limits
- Access management
- Styles

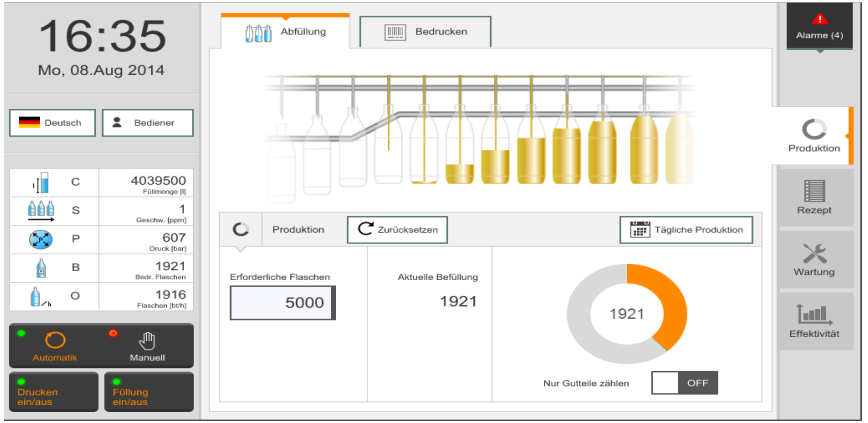


HMI Web-technologies based

1. Fully integrated

No external tools needed

A single development environment



2. Native web technology

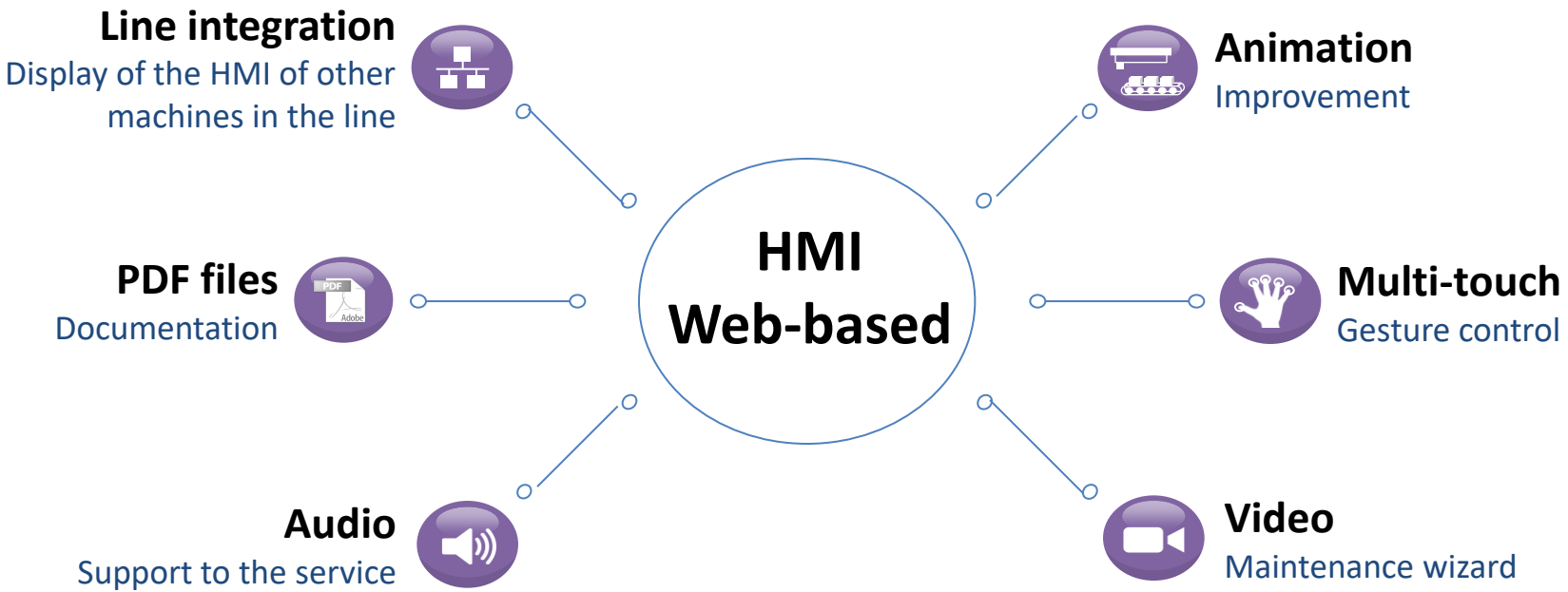
No Plug-in needed

Independent from platform

Ready for Web future developments

Standard languages (HTML 5, CSS 3, JS 5)

Web meets Automation



Web technology for the Automation