PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

Herzlich Willkommen!

Agenda

Richard Sturm
Marketingleiter Deutschland

B&R Industrie-Elektronik GmbH | TBM
Norsk-Data-Straße 3, 61352 Bad Homburg, Germay
Phone: +49 6172 4019 191
Email: richard.sturm@br-automation.com
www.br-automation.com

Stefan Messerklinger (vormals Taxer)
Product Manager Mobile Automation

B&R Industrial Automation GmbH
B&R Straße 1, 5142 Eggelsberg, Austria
Phone: +43 7748 6586 1152
Email: stefan.messerklinger@br-automation.com
www.br-automation.com

Company

Focus on Perfection in Automation for 40 years

Active in different industries

Headquarter in Eggelsberg (Austria)

Mobile Automation

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

Industries

Municipal vehicles

Agriculture and forestry

Construction and mining

Intralogistics

And applications in harsh environment

Mobile Automation

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

Challenges for OEM machine builders

Fast growing and changing market/customer demands

International makes

New competition

Cost pleasure

Machine reliability

Long term availability

…

Mobile Automation

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

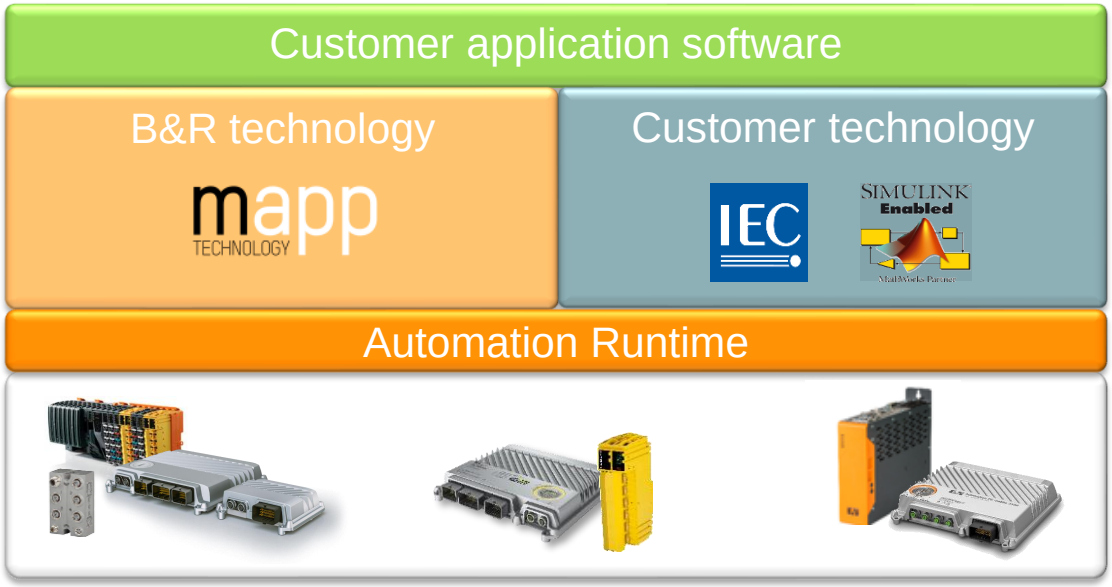
Perfection in Automation

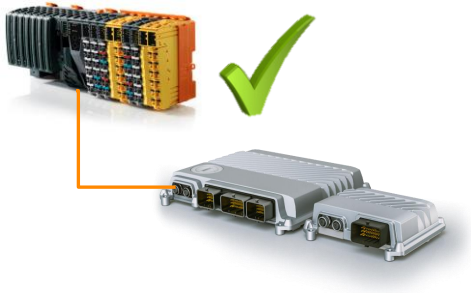
mapp
TECHNOLOGY

Mobile Automation

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

B&R technology platform





Mobile Automation

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

Environmental conditions

Industry	Mobile Automation
Industrial conditions, cabinet mounting	Outdoor automation, no cabinet needed
24V, IP20	9-32V, IP69k
Humidity 90%,	Condensing conditions
Good temperature range	Extended temperature range
Good shock and vibration range	Extended shock and vibration

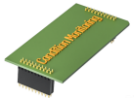
Products
Mobile automation

Product overview

Terminals

mapp VIEW

Controllers



PC

Solutions

SAE J1939

CANopen safety

ISOBUS

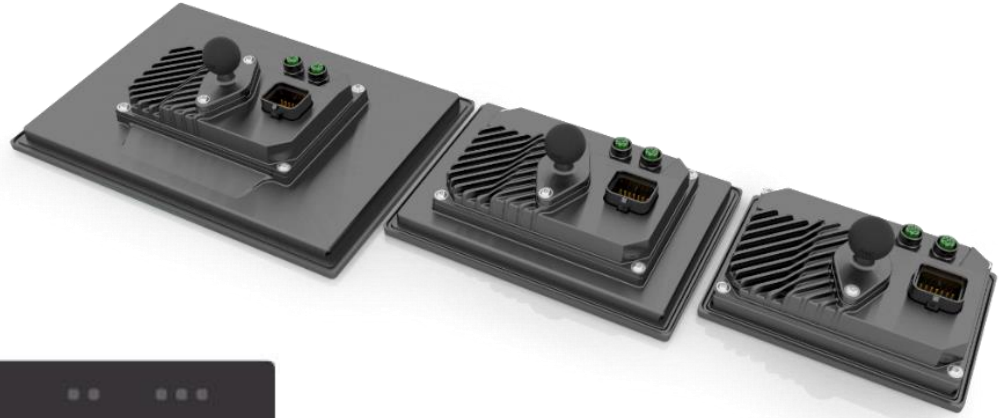
Mobile Automation

T50 mobile

Browser devices

Available in 5”, 7” and 10.1”

LED and brightness sensor on front



https://www.br-automation.com/en/products/mobile-automation/power-panel-t50-mobile/

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

T50 mobile

Optional USB

Fast Ethernet

OPC UA

Die-cast aluminum housing

power supply
USB 2.0 interface
Digital I/O’s

IP65 front sealing
IP66 product sealing

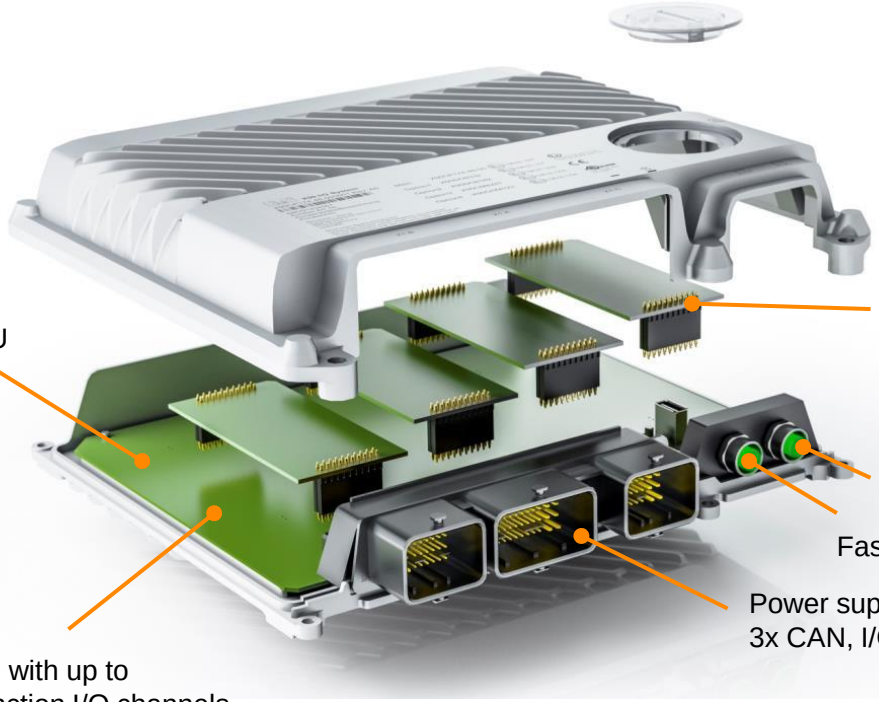
Swing arm mount or
Panel mount

https://www.br-automation.com/en/products/mobile-automation/power-panel-t50-mobile/

Mobile Automation

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

X90 – (safety) controllers and I/O modules



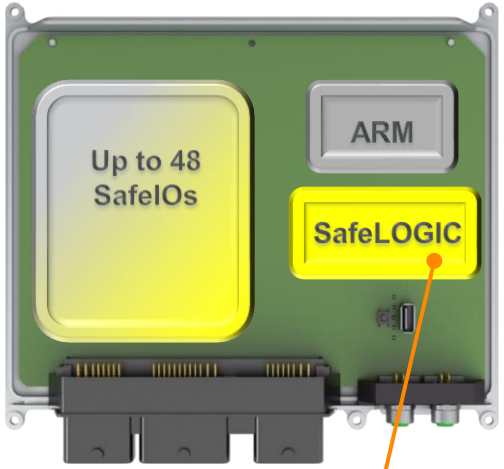
Powerful
ARM CPU

4x option board

ETHERNET POWERLINK
Fast Ethernet

Power supply,
3x CAN, I/O

Mainboard with up to
48 multifunction I/O channels



Safety version

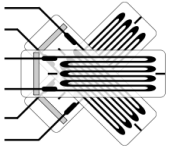
https://www.br-automation.com/en/products/plc-systems/x90-mobile-control-system

Mobile Automation

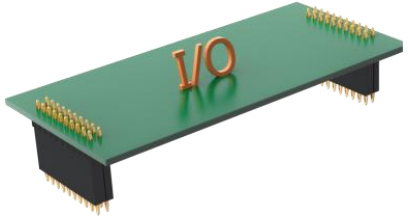
Option boards

RS232
RS485

Safety relays
outputs



Strain gauge
sensors



Vibration sensors
For condition monitoring

Different I/O’s
AI, AT, PWM, AO
DI, DO, encoder

Stepper

https://www.br-automation.com/en/products/plc-systems/x90-mobile-control-system

APC mobile 3100

Up to Intel i7 2.8GHz

16 GB RAM, 480 GB Flash

Extended temperature range

IP69K sealing

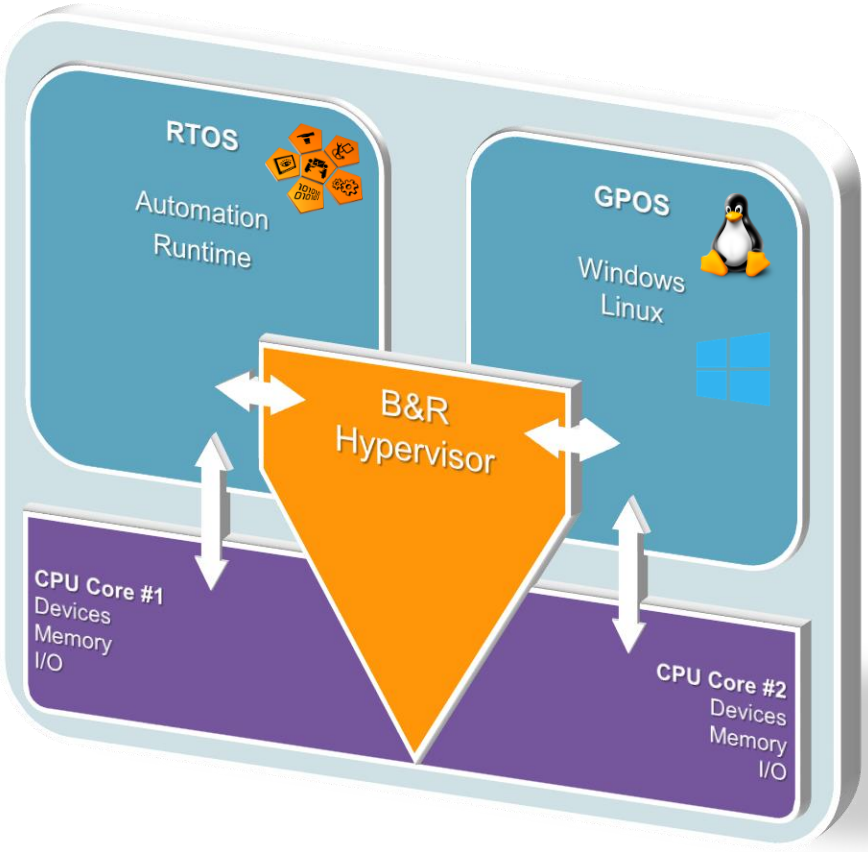
extremely shock- and vibration-resistant

Modular expandable

https://www.br-automation.com/en/products/mobile-automation/automation-pc-3100-mobile/

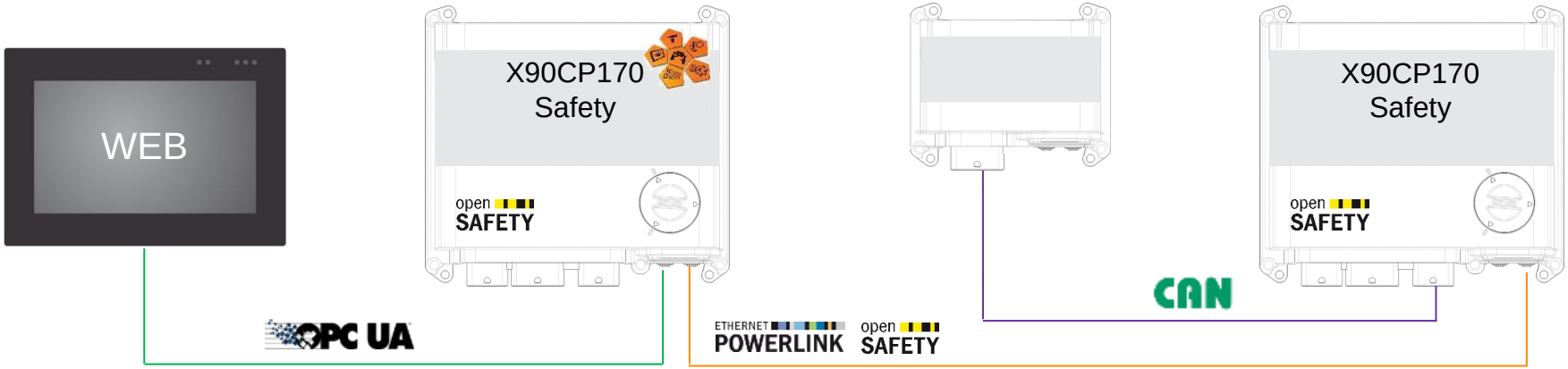
Hypervisor

Combines Windows 10 or
Linux with B&R Automation Runtime



Mobile Automation

Basic System



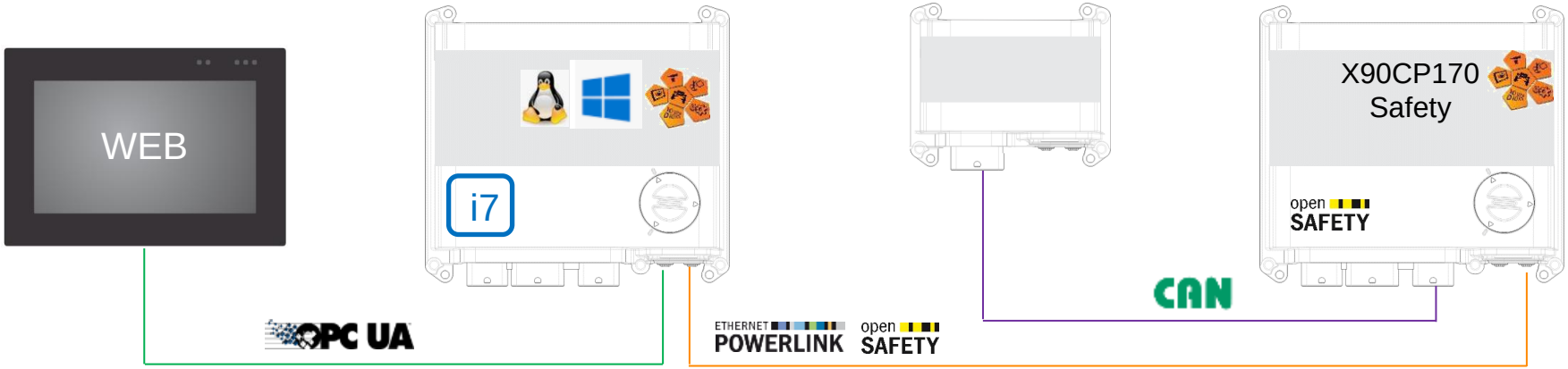
One software per machine

performant embedded CPU with 650MHz, 1GB flash, 512MB RAM

Decentralized, deterministic safe I/O

Terminal with web browser, webserver on embedded controller

High End System



High end CPU with 2.8GHz, 480GB flash, 16GB RAM for embedded and GPOS

Decentralized, deterministic safe I/O

Terminal with web browser, webserver on embedded controller

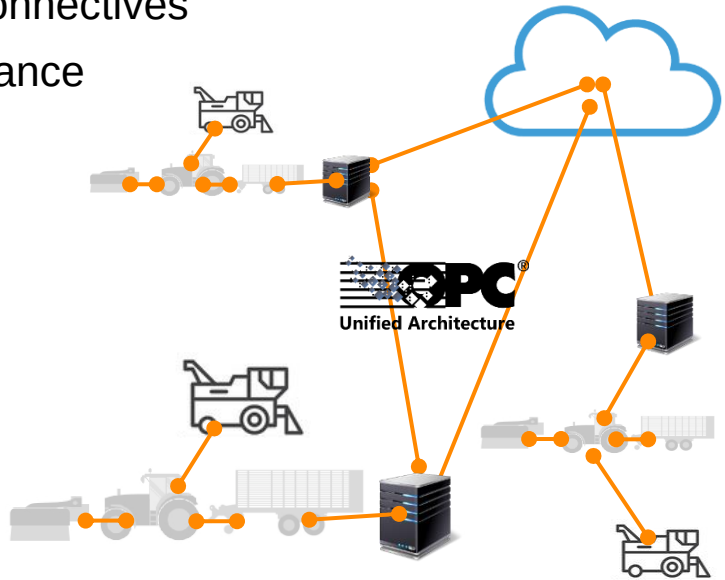
OPC UA

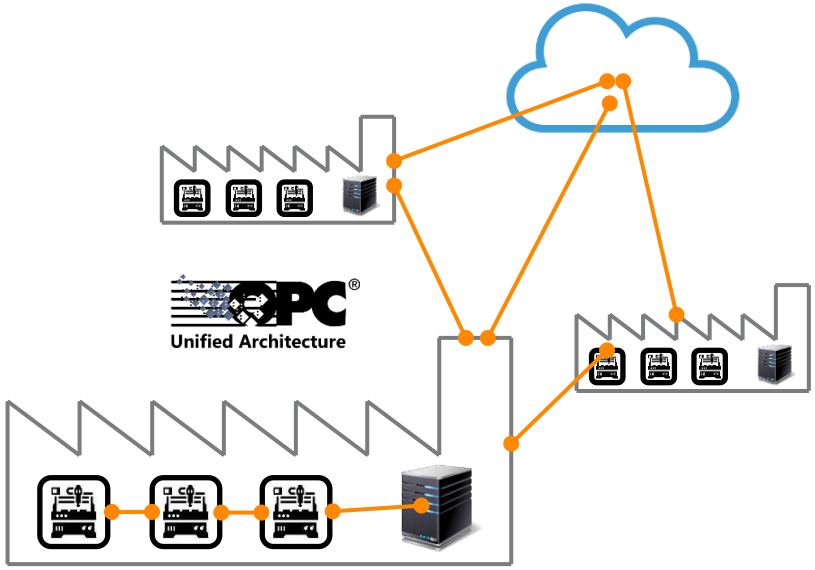
Example connectivity

Machine to Machine automation

Cloud connectives

maintenance



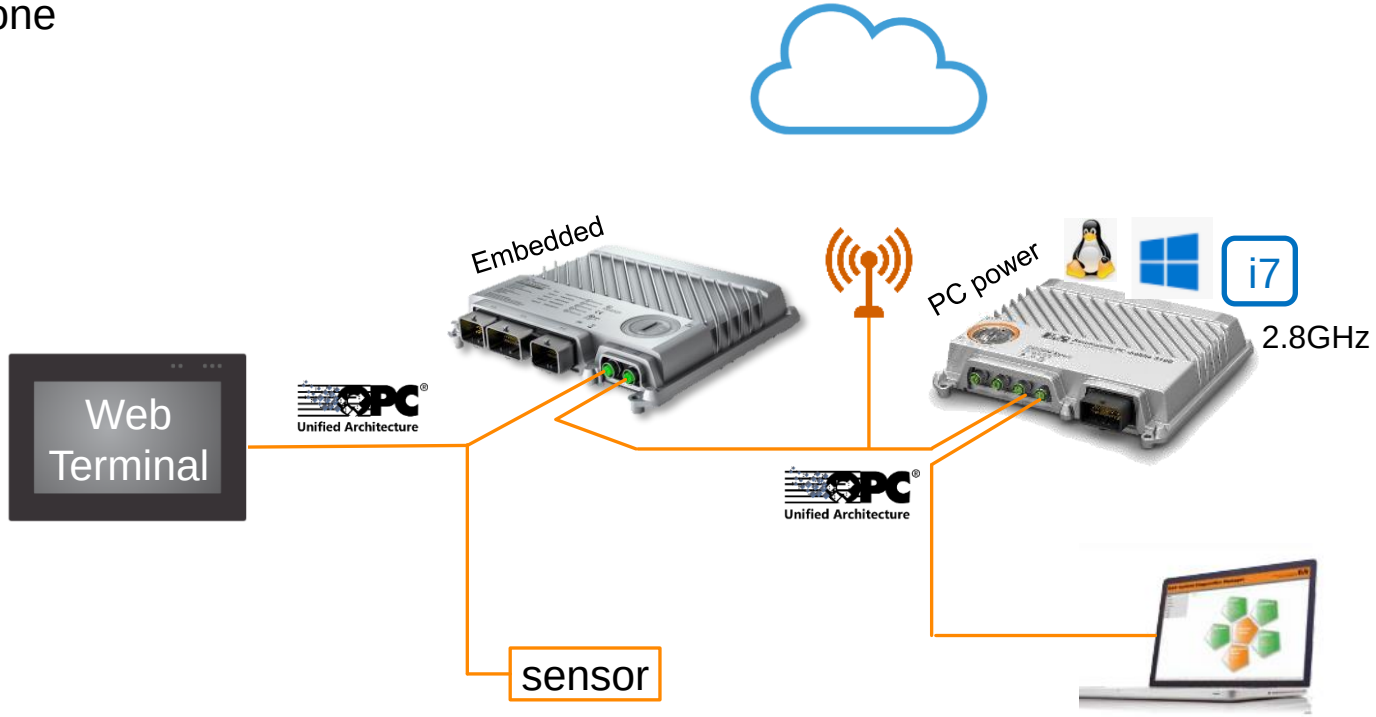


Example connectivity

Machine backbone

Safety, security

Standardized



Tools and solutions

Mobile Automation

Mobile Automation

Automation Studio

Innovation is SW based

B&R Automation Studio tool

one tool for many targets

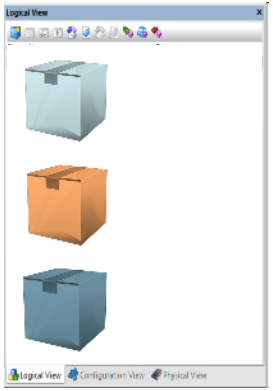
https://www.br-automation.com/en/products/software/automation-studio/

Application modules

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

Efficient machine modularization

Managed by one user

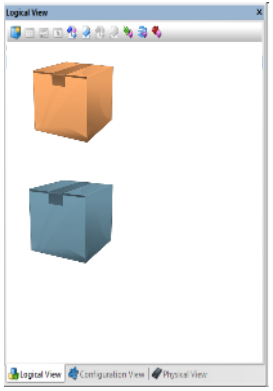


Project

Software

Managed by several users

Project 1



Project n

Self-contained, autonomous applications

Developed, commissioned and updated independently

Defined interfaces using process variables

Efficient maintenance of individual modules

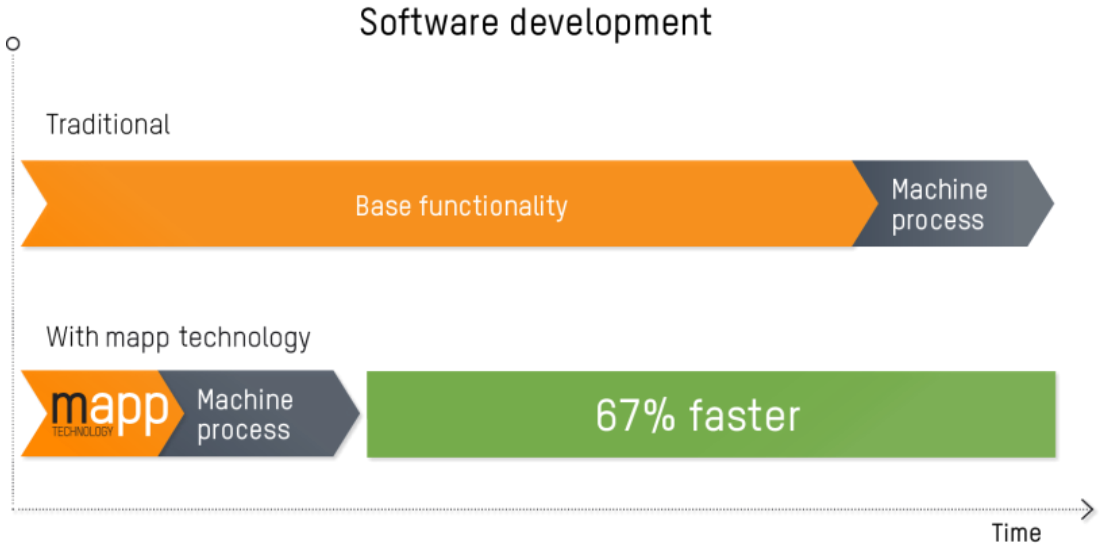
Mobile Automation

Mapp Technology

Pre-developed applications by B&R

Reduced development costs

Improved software quality



https://www.br-automation.com/en/products/software/mapp-technology/

Mobile Automation

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP

mapp CONTROL

Complex control algorithms in the form of easy-to-use software blocks. Crane control, hydraulics control, filter design, closed-loop design and much, much more. Advanced technology made accessible for the average user.
Find out more...

mapp MOTION

mapp Motion provides uniform solutions for all areas of motion control: from individual axes to multi-axis systems and even complex robots and CNC applications.
Find out more...

mapp SERVICES

Get the core functionality of a machine or line with just a few clicks. Recipe management, alarm system, OEE analysis, user-role system, audit trail, energy monitoring, database system and much more.
Find out more...

mapp VIEW

The only HMI solution on the market that works independently of platform and operating system. Create modern HTML 5 applications with ready-made widgets.
Find out more...

mapp SAFETY

Maximum productivity through integrated safety technology. mapp Safety covers the entire spectrum, including safe axes and robots. Safe machine options can be enabled or disabled in the field.

More than 250 mapp's

https://www.br-automation.com/en/products/software/mapp-technology/

Perfection in Automation

More than just hardware

Direct contact to technical sales:
https://www.br-automation.com/en/about-us/locations/

Overview Mobile Automation with videos:
https://www.br-automation.com/en/industries/mobile-automation/