

Orange Box Industrial IoT for brownfields

PERFECTION IN AUTOMATION
A MEMBER OF THE ABB GROUP





An Orange Box consists of a controller and B&R mapp Technology's preconfigured software components - known as mapps. The controller collects operating data from any machine via its I/O

channels or a fieldbus connection. From this data, the mapps generate and display OEE ratings and other KPIs, and can also share the information with higher-level systems via OPC UA.

OEMs

The Orange Box can add a powerful new option to an OEM's portfolio – allowing them to offer shop-floor data acquisition as a value-added service for collecting and analyzing production data from customers' brownfield installations.

- Easy setup through configuration
- Suitable for any production environment
- Flexible and scalable
- App-like software upgrades
- Advanced maintenance service

OEMs can provide a quick and easy connectivity upgrade for any machine, regardless of automation platform.

With remarkably simple, yet highly effective shop-floor data acquisition, the Orange Box can transform even the oldest equipment into smart, interconnected lines ready for ultra-efficient production. The overall equipment effectiveness (OEE) can be increased significantly.

mapp
TECHNOLOGY



mapp OEE

OEE calculations are fundamental to equipment performance. With mapp OEE, the Orange Box enables real-time analysis of data from all types of equipment – displayed clearly, effectively and consistently.



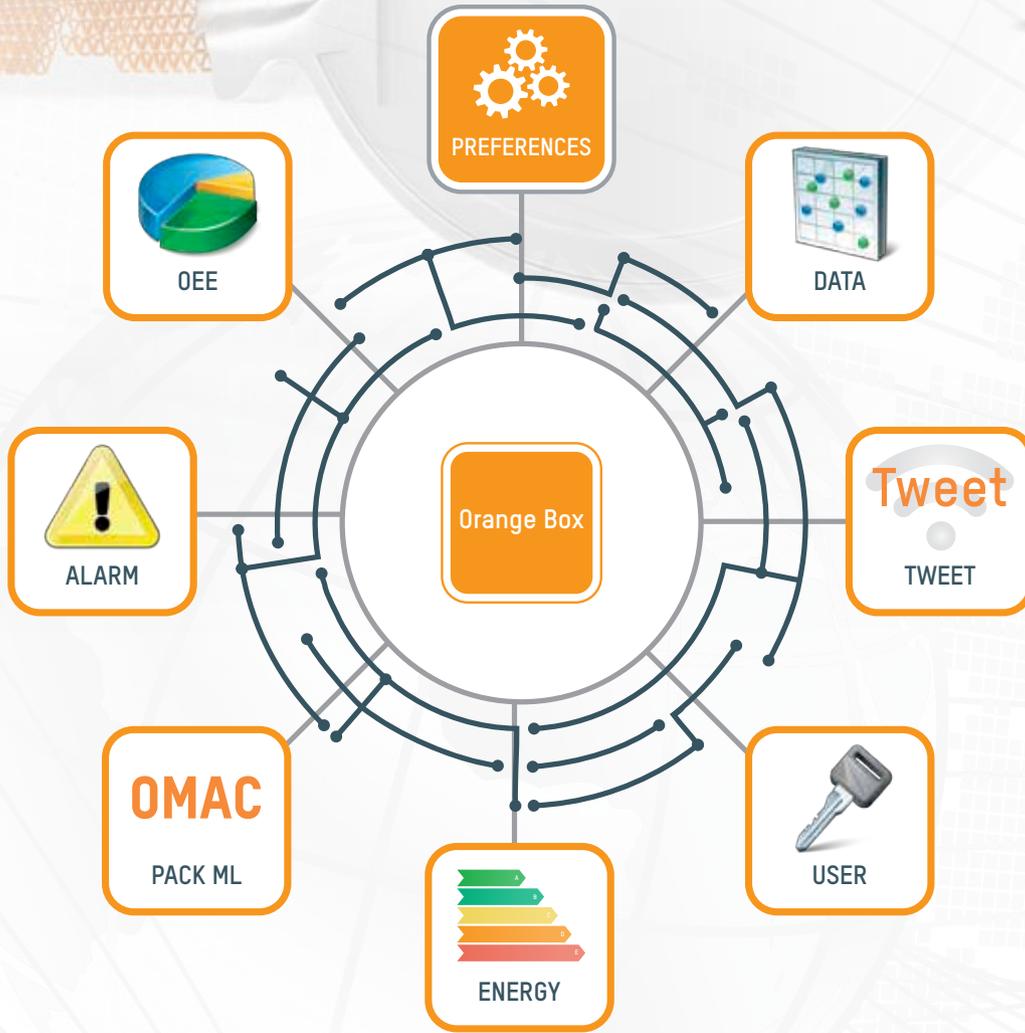
mapp Data

mapp Data allows users to back up values of defined process variables to CSV files. Current data can then be visualized via the Orange Box, enabling access to helpful statistics and ensuring that data is secure in the event of a power outage. It also provides OPC UA connectivity to higher-level systems.



mapp Tweet

mapp Tweet sends automated text message notifications regarding machine status, unexpected stoppages, upcoming service or critical alarms directly to the appropriate recipients.



Scalability+



mapp User

mapp User assigns users to groups with configurable permissions and provides a variety of functions, such as password expiration, that support implementation of 21 CFR Part 11 requirements.



mapp Energy

mapp Energy allows the Orange Box to report energy consumption and cost data per machine and component – providing valuable insight for improving energy efficiency.



mapp PackML

With mapp PackML, the Orange Box can generate machine control logic compliant with the OMAC PackML standard, manage the PackML states and modes – and even display the PackML interface on the HMI screen.



mapp Alarm

mapp Alarm collects, logs and evaluates alarms, generating simple and informative notifications in multiple languages. Alarms are grouped logically with critical alarms highlighted and easy to recognize.

End users

End users face the difficult challenge of increasing market share while at the same time achieving sustainability in markets that are changing at an accelerating rate.

- Maintain maximum profitability
- Shorter product lifecycles
- Aggressive marketing strategies
- Highly demanding consumers

As a result, daily operations are driven by metrics like OEE, TCO and ROI. Optimizing these factors is

all about data. What can you learn from your machine's performance data, and how can you leverage that knowledge by sharing it with other sites – regardless of whether they are greenfield or brownfield installations.

Tapping into valuable performance data at a brownfield plant has never been more straightforward and painless than with the B&R Orange Box – the easy, reliable solution for collecting and analyzing data directly from your machine.



Preferences. Equipped with this component, the Orange Box allows you to define production data related to shifts, products and recipes without having to manipulate the original machine or plant software.

Highlights

- Exceptionally user-friendly
- Real-time connectivity to existing equipment
- Independent of automation level, architecture and supplier
- Excellent return on investment
- Suitable for any industrial production environment
- App-like software upgrades
- Scalability+ hardware upgrades
- Easy setup through configuration

Integrated automation
Global presence
Solid partnership



ETHERNET
POWERLINK

open
SAFETY