

Guide to different ways to capture data

A Manual input



B RS Blackbox



24V 

0 – 10V 4 – 20mA

Energy Airflow

C PLC/OPC



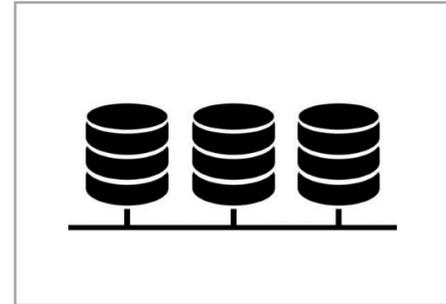
 

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D Integration server





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E Standard ERP-integration





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Guide to different ways to capture data

A – Manual input

Mainly used to move knowledge from machine operators to RS Production's database



Hardware needed

Only a PC (see "Guide to select PC for Operator tools")

Advantages

- + Low investment
- + Not depending on 3rd party solutions

Risks

- Manual input is never 100 % correct

RS Production software needed

Depends on what you are collecting data for (se below)

External software needed

None

Related RS Production packages

Manual input can be made in;

P100 (start/stop order, produced and rejected amount, stop cause etc)

PK200, Standard Operation Procedures

PK202, Maintenance support

PK204, Track and Trace

PK211, Andon & Alarm Escalation

PK213, Labor & Competence



Guide to different ways to capture data

B – RS Blackbox

Mainly used to capture machine status and count machine cycles. Handles digital signals only.



24V



Hardware needed

RS Blackbox (of course). It comes in different sizes with different number of inputs and outputs

RS Production software needed

All you need is the P100 Elemental OEE

External software needed

None

Related RS Production packages

Mainly supports functionality in P100 such as measure point status, cycle time, registration of rejects/scrap, automatic categorization of stop reason.

Inputs can with configuration from RS Production specialist receive sets of binaries describing article number, station id and other larger number.

Advantages

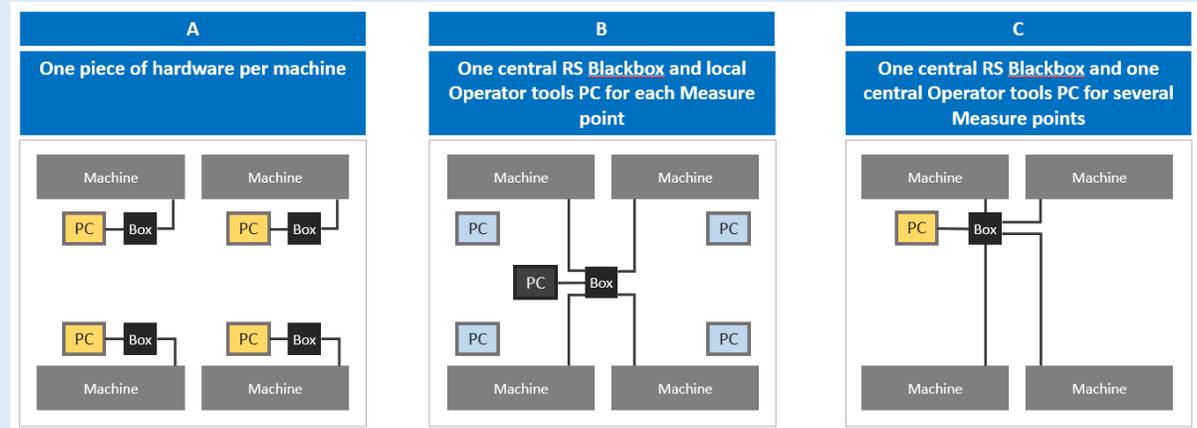
- + Low investment
- + Extremely high availability
- + Not depending on any third party software
- + Short lead time
- + For most type of production processes can connection be done by local machine electrician and no IT staff needs to be involved

Risks

- Connecting via Ethernet to a central PC can cause problems when the network is unstable (using RS232 COM is no problem)
- Building a parallel infrastructure when OPC or other data layer is available can be wrong way to go

Typical connection schedule

Connection to PC can be via RS232 COM-cable or Ethernet cable. See “Guide to decide how much hardware you’ll need” for details here.

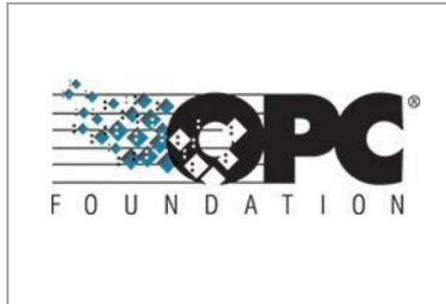


Box with 24V signal is the most common way to connect to machines

Guide to different ways to capture data

C – PLC/OPC

Capture anything from status and cycles to current order/article and process values/measures



Hardware needed

No RS Production hardware needed

RS Production software needed

“PT218 OPC Client” is needed to connect to your OPC Server/Servers

External software needed

There must be an OPC Server where you have published the “tags” that RS Production should capture.

Related RS Production packages

Besides supporting functionality in P100 such as measure point status, cycle counter, registration of rejects/scrap, automatic categorization of stop reason, current order/article etc the OPC connection is often used to collect process values and measures for “PK203 Stable Processes”.

Can also be used to collect alarms for “PK213 Andon and Alarm Escalation”

Advantages

- + Very cost efficient when OPC-infrastructure already is in place
- + Can capture all kinds of production data automatically
- + Flexible

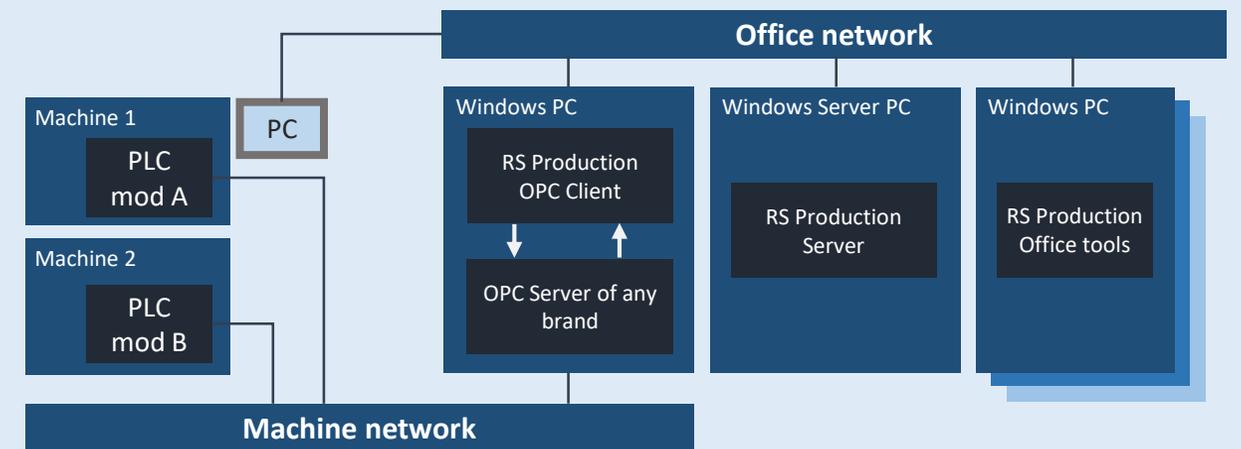
Risks

- Depends on third party software services and solutions



Typical connection schedule

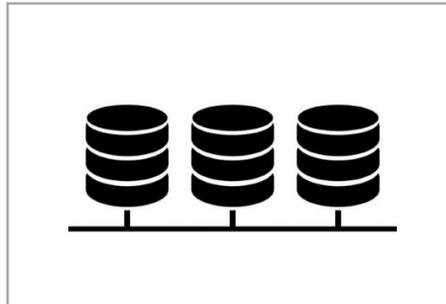
RS Production OPC client must be installed locally on the same net as the OPC Server. The absolutely most safe is to install it on the same Windows machine as the OPC Server.



PC for Operator tools only

Guide to different ways to capture data

D – Integration Server Capture anything from status and cycles to current order/article and process values/measures



Hardware needed

No RS Production hardware needed

RS Production software needed

“**PS102 Integration Server**” is needed to connect to external data sources plus a separate support & subscription contract.

External software needed

None other than the other data source

Related RS Production packages

Besides supporting functionality in **P100** such as measure point status, cycle counter, registration of rejects/scrap, automatic categorization of stop reason, current order/article etc the Integration Server is often used to collect process values and measures for “**PK203 Stable Processes**”.

Can also be used to collect alarms for “**PK213 Andon and Alarm Escalation**”

Advantages

+ Can capture all kinds of production data automatically

Risks

- Needs a very good specification and documentation of the data source
- Depends on third party software services and solutions
- Third party’s integration interface may change over time
- Will always include a customer unique part in the delivery

Typical connection schedule

RS Production Integration Server client must be installed locally on have connection with the data source in real time.



Guide to different ways to capture data

D – Standard ERP Integration Handle production plan including order/article start and stop and reporting to ERP



Hardware needed

No RS Production hardware needed

RS Production software needed

“PINT205 Standard ERP Integration” is needed. Normally uses Web Services or a SQL database as interface area + support agreement

External software needed

A middleware between RS Production and the ERP system needs to implement PINT205's interface

Related RS Production packages

Helps reading production plan from ERP and also report times and amounts back to ERP (operation, order, material usage, move to stock)

Ask for the PINT205 detail specification for full details

Advantages

- + Standard surface area
- + Can be developed by any developer
- + No customer unique part in RS Production

Risks

- Depends on third party software services and solutions
- Third party's integration interface may change over time
- Will always include a customer unique part in the delivery

Typical connection schedule

RS Production Integration Server client must be installed locally on have connection with the middleware in realtime.

