Guide to integrate with ERP

Questions to ask before an ERP integration with RS Production

RS Production is in general both open and flexible when it comes to integration
with ERP and other systems. RS Production is not a limit.

Instead, you have to identify the limits in the purpose of the integration and what
different integration interfaces the other system(s) offer.

1 What is the purpose?
Avoid doing a more complex integration than necessary. Describe what you want to
win by doing the integration.

Find inspiration (advantages and risks) with different types of integrations on the
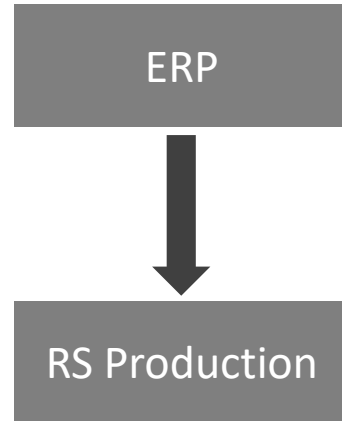following pages.

2 What integration interfaces are available
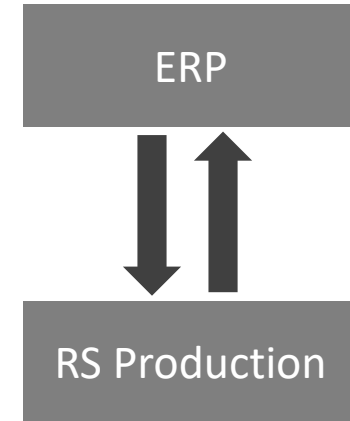Talk to IT/IS responsible to find what interfaces there are available?

Do they have other ongoing integrations and what interface do they use?

RS PRODUCTION

www.rsproduction.se

Guide to integrate with ERP

One way	Two way

A	B	C	D	E
Order sniffing	**Production plan import**	**Production plan with script for manual ERP-report**	**Fully automatic writing back to ERP**	**Manually trigged writing back to ERP**
	Supported by PINT200	Supported by PINT200	Supported by PINT200	Supported by PINT200

RS PRODUCTION

www.rsproduction.se

Guide to integrate with ERP

Where do you run your RS Production Server?

A RS Production Cloud Server	B Central Server	C Local Server
To run an integration between RS Production and an ERP system you will need to install a RS Production Integration Service on a PC close to your ERP-system.	To run an integration between RS Production and an ERP system you will need to install a RS Production Integration Service on PC close to your ERP-system.	Normally runs on the same PC that runs the RS Production Server.

A — RS Production Cloud Server

RS Production Cloud Server
- RS Production Server (Service)

Local Windows Server
- Middle layer integration surface
- RS Production Integration Service

ERP Server
- ERP database

B — Central Server

Central Windows Server
- RS Production Server (Service)

Local Windows Server
- Middle layer integration surface
- RS Production Integration Service

ERP Server
- ERP database

C — Local Server

Local Windows Server
- RS Production Server (Service)
- RS Production Integration Service

Windows Server
- Middle layer integration surface

ERP Server
- ERP database

RS PRODUCTION

www.rsproduction.se

Guide to integrate with ERP

A – One way – Order sniffing

Discription
RS Production continuously asks ERP (or other system) about what order/article that is running on the measuring point.

The question is trigged by a timer (normally ones every minute or two).

RS Production's article register is continuously updated as production orders are imported.

Advantages
+ No need for the "Production plan" page in Operator tools
+ No double work as order/article only have to be changed in one place.

Risks
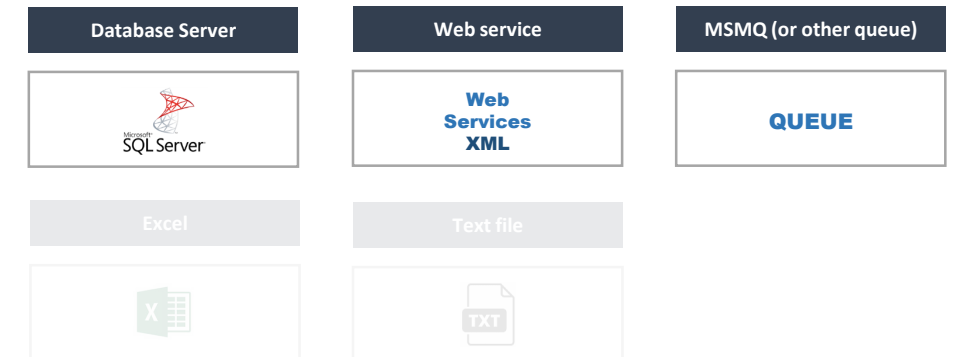- No changes of order/article will be done if there is no connection to the ERP (or other system)

This is what you get - Disturbance follow up
✓ Real time change of article

This is what you get - ERP
✓ Nothing

Recommended integration interfaces

Database Server	Web service	MSMQ (or other queue)
Microsoft SQL Server	Web Services XML	QUEUE

Excel	Text file
X	TXT

Guide to integrate with ERP

B – One way – Production plan import

Discription

RS Production continuously asks ERP (or other system) about planned orders. ERP's planning group Is matched with RS Production's measuring point in a one time configuration.

RS Production's article register is continuously updated as production orders are imported.

Advantages

+ Production orders no longer needs to be manually entered into RS Production
+ Operators have the latest updated production plan digitally available in Operator tools

Risks

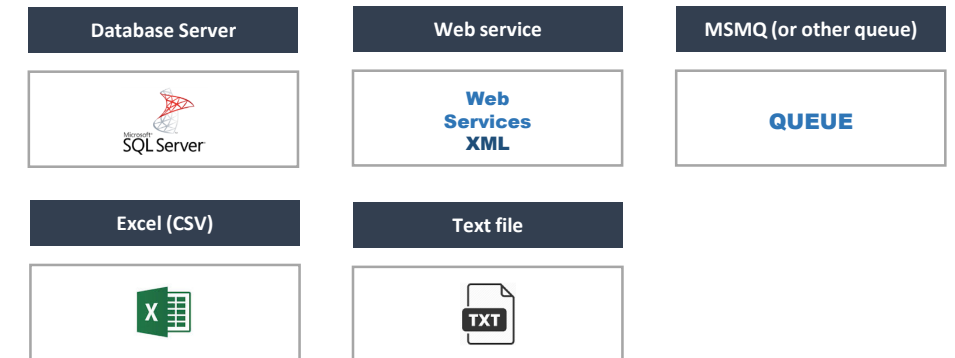- Production orders might need to be started/stopped in two systems

This is what you get - Disturbance follow up

✓ Automatic import of production plan from ERP

This is what you get - ERP

✓ Nothing

Possible data sources

Database Server	Web service	MSMQ (or other queue)
Microsoft SQL Server	Web Services XML	QUEUE

Excel (CSV)	Text file
X	TXT

RS PRODUCTION

www.rsproduction.se

Guide to integrate with ERP

C – One way – Production plan with script for manual report to ERP

Discription

RS Production continuously asks ERP (or other system) about planned orders. ERP's planning group Is matched with RS Production's measuring point in a one time configuration.

RS Production's article register is continuously updated as production orders are imported.

A report button appears in Operator tools' Procuction plan where operators can report times and amounts on the ongoing production order. The reports are shown in a table in Office tools that can be used as a script for manual ERP reporting.

Advantages

+ Production orders no longer needs to be manually entered into RS Production
+ Operators have the latest updated production plan digitally available in Operator tools
+ Reporting mistakes are reduced as operators makes production reporting directly in Operator tools using the times and amounts RS Production have captured
+ Reporting to ERP can be made from tables in Office tools

Risks

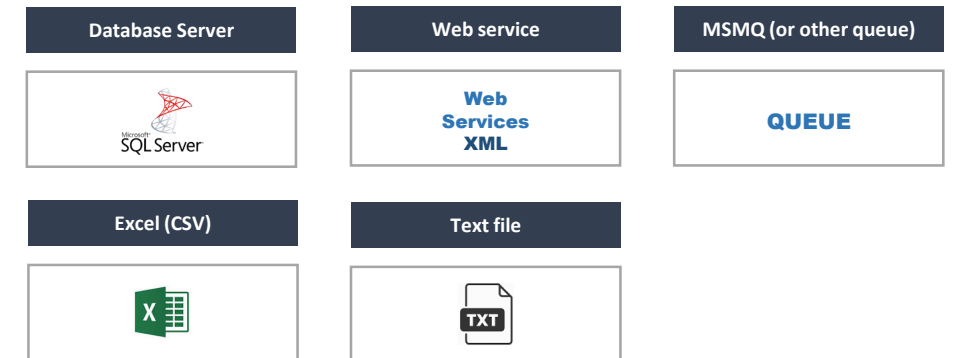- Production orders might need to be started/stopped in two systems

This is what you get - Disturbance follow up

✓ Automatic import of production plan from ERP

This is what you get - ERP

✓ Simple manual report scripts in Office tools

Possible data sources

Database Server	Web service	MSMQ (or other queue)
Microsoft SQL Server	Web Services XML	QUEUE

Excel (CSV)	Text file
X	TXT

RS PRODUCTION

www.rsproduction.se

Guide to integrate with ERP

D – Two way – Fully automatic writing back to ERP

Discription
B (Production plan import) plus automatic writing to ERP trigged by timer or other event.

Often used to updated produced amount on a production order and stock.

Advantages
+ Real time updates in the ERP
+ Reduced manual admin for machine operators
+ Less manual errors in reporting to ERP

Risks
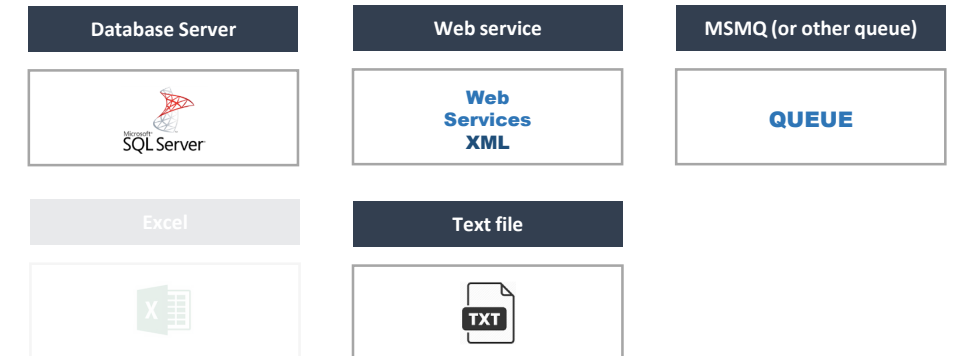-   Data is automatically written to ERP without any human "filters"

This is what you get - Disturbance follow up
✓   Automatic import of production plan from ERP

This is what you get - ERP
✓   Automatic updates of produced amount

Possible data sources

Database Server	Web service	MSMQ (or other queue)
Microsoft SQL Server	Web Services XML	QUEUE

Excel	Text file	
X	TXT	

RS PRODUCTION

www.rsproduction.se

Guide to integrate with ERP

E – Two way – Manually trigged writing back to ERP

Discription

C (Production plan with script for manual report to ERP) plus writing to ERP trigged by machine operator.

With this type of two way integration Operator tools becomes the operators interface to your ERP system.

Advantages

+ Real time updates in the ERP

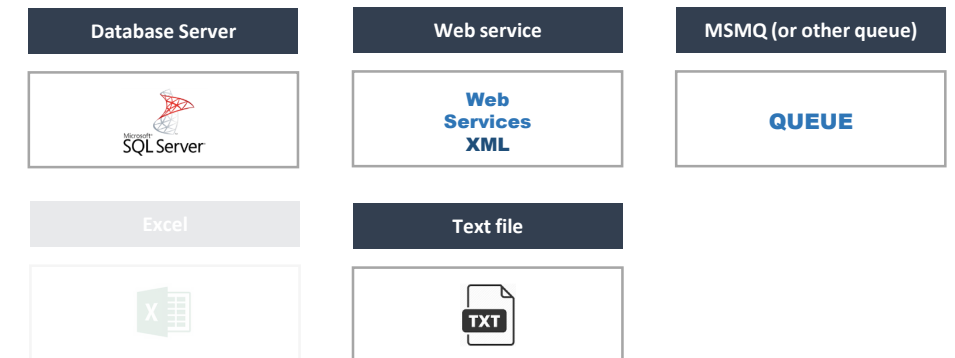+ Less manual errors in reporting to ERP

Risks

-

This is what you get - Disturbance follow up

✓ Automatic import of production plan from ERP

This is what you get - ERP

✓ ERP updated with real times and amounts

Possible data sources

Database Server	Web service	MSMQ (or other queue)
Microsoft SQL Server	Web Services XML	QUEUE

Excel	Text file	
X	TXT	

RS PRODUCTION

www.rsproduction.se

Guide to integrate with ERP

What integration interface should you use?

SQL Server	Web service	MSMQ (or other queue)	Excel (CSV)	Text file

Advantages
+ The most common

Risks
-

Advantages
+ Common and often self documented

Risks
-

Advantages
+ Often have built in functions good for integrations

Risks
- Can be complex in defining and setting up

Advantages
+ Often easier to arrange than a real ERP connection

Risks
- Excel files needs to be manually assigned in Office tools
- Files can be limited in rights (read/write) when several users(systems) wants to work with them in parallel

Advantages
+ Very simple

Risks
- The file can be blocked (reading/writing)
- Files can be removed by people

RS PRODUCTION

www.rsproduction.se