



INTEGRATION WITH SAGE



**THE INTEGRATION BETWEEN PREACTOR & SAGE**

On its own the Preactor software is a modeling tool.  
 The tool needs to understand the characteristics of your factory.

So Preactor needs 2 things to be able to function:

1) A **configuration** for Preactor:

- Data table description of fields and their Preactor properties.
- Definition of the menu system and the initial settings (similar to Sage system keys).

2) An **interface** for passing data from / to the ERP system:



sl-ect has designed a “configuration” that is ready to accept the available fields from Sage and which utilises all the main features of Preactor. Including the new Material Explorer functionality.

To support this we’ve re-designed our “interface” to deliver a fast, flexible way of moving data between Sage and Preactor.

This also includes a tool called PRO which can be used to generate production orders within Preactor, using data from Sage.

The interface is currently available for all versions of Sage Line 500 and Sage ERP 1000 running on SQL2005 or later.

Also some updates take place in the reverse direction, after the plan is published. Sage is updated from Preactor to set various dates on works orders (WO) and to release selected MRP recommendations for automated WO creation.

Note: The PRO system and any data imported for use in Preactor Material Control are only used by Preactor 400 & 500 systems.

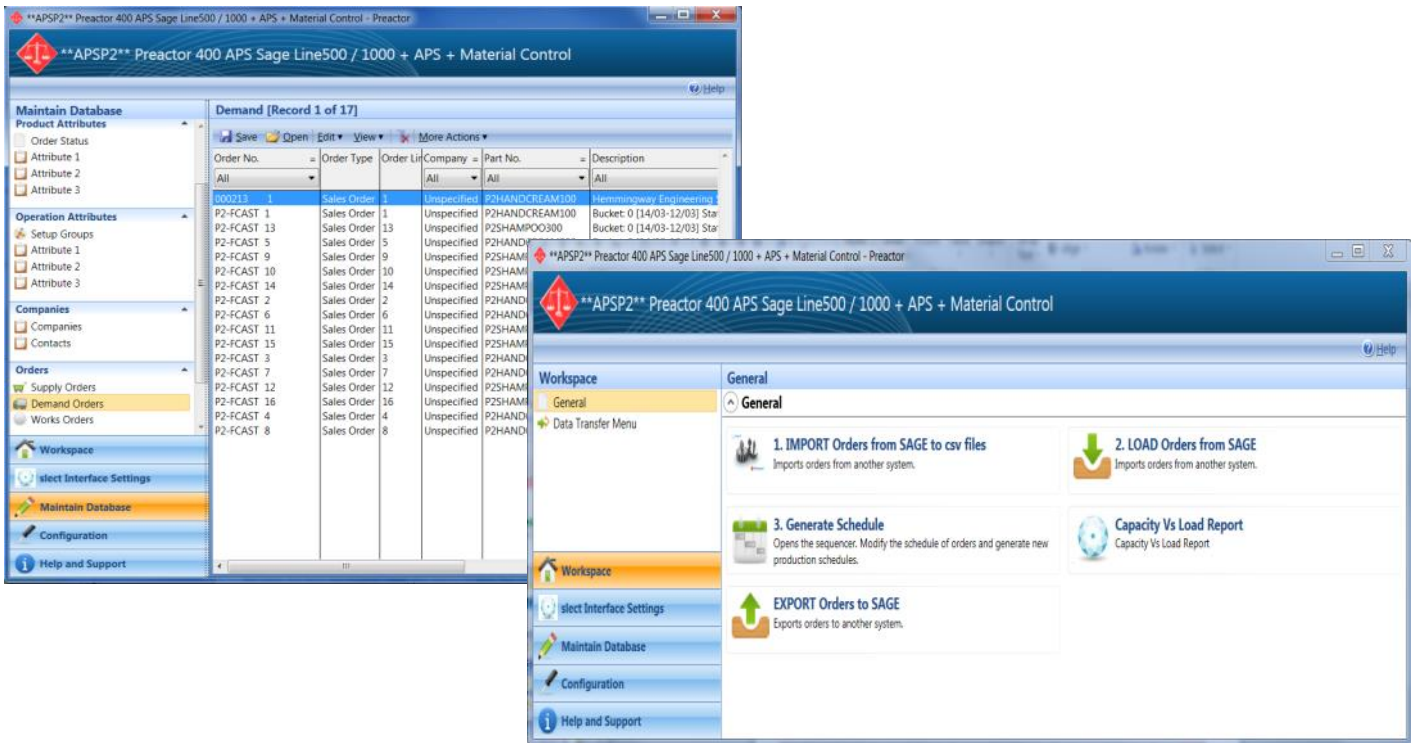
## The Preactor Configuration

This is a folder that holds various files used to describe your environment to Preactor.

The main files are:

### Preactor.prmdf

This is the “menu definition file” where we describe the layout of the menu system, deciding which options are available on each of the sub-menus.



### Preactor.prtfd

This is the “table definition file” where we describe the layout of the various data tables. Effectively it is a data dictionary for Preactor, containing the tables and fields that Preactor needs.

Plus additional items that match the fields that are available in the Sage manufacturing modules.

Preactor dynamically builds the SQL tables based on this file.

For instance the F7 Notes that can be added to a works order header are shown on the Preactor jobs:

```

1050 Operation Name,-1,STRING,
1051 BAR TEXT
1052 TIP DISPLAY
1053 HELPPOPUPID (110)
1054 FREE FORMAT (30)
1055 UxxxxNIQUE FOR FAMILY
1056 GANTT LEGEND:
1057 Resource,-1,STRING,
1058 HELPPOPUPID (150)
1059 DATABASE(Resource Group(Resources))
1060 ALLOW UNSPECIFIED
1061 V AXIS
1062 TIP DISPLAY
1063 DEFAULT ON SPLIT:
1064 Sage F7 Notes,-1,STRING,
1065 READ ONLY
1066 FREE FORMAT(30)
1067 ALLOW EMPTY
1068 MAX LENGTH(1000)
1069 MULTILINE
1070 TIP DISPLAY
1071 DIALOG ONLY:
    
```

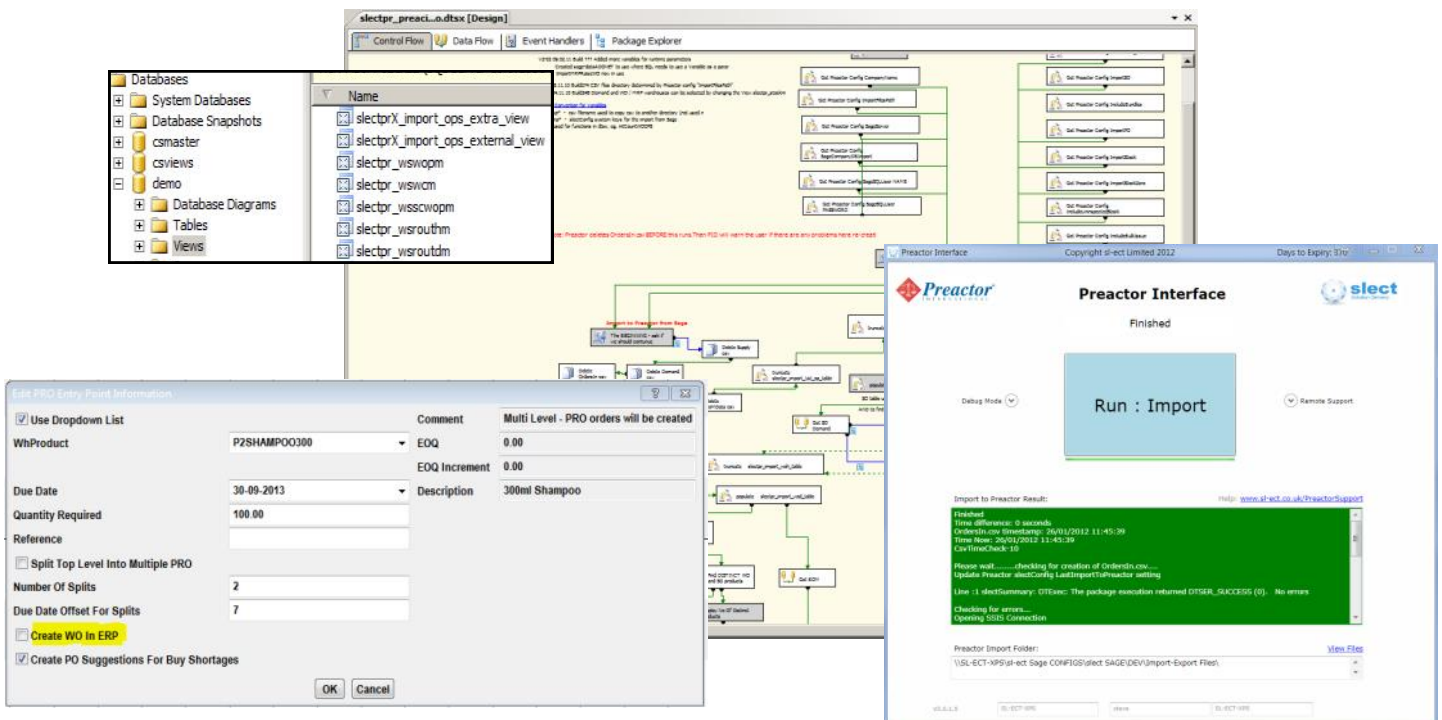
### The Data Interface

This is a 2-way process that supports the planning cycle. Data records from Sage are sent to Preactor to show existing and new orders to the planner.

On publication of the new schedule the planner can also send updates back to the Sage for information & reporting purposes.

Type	Data	Description
Import to Preactor	Sales Forecasts and/or Sales Orders	Optionally netted off to avoid duplicating demand
Import to Preactor	Purchase Orders	External supply with dates and remaining quantities
Import to Preactor	Product Codes	Descriptions + initial stock for Preactor pegging
Import to Preactor	Works Order Headers	Supply of made products + target dates
Import to Preactor	Works Order Details	BOM data to show the demand for components + required dates
Import to Preactor	Works Order Operations	Process routes describing resource groups, run rates and setup times
Import to Preactor	MRP Recommendations	Suggestions to raise new Works Orders
Import to Preactor	BOM for MRP Recommendations	BOM data to show the demand for components + required dates
Import to Preactor	Routings for MRP Recommendations	Process routes describing resource groups, run rates and setup times
Import to Preactor	Up to 30 extra fields	Modify a SQL View to fetch fields from anywhere in the Sage database
Export to Sage	Planned production dates	For reporting of the latest plan from within the Sage database
Export to Sage	Update Works Orders	Expected completion dates. Component start dates. Making the planned dates available to Predict Future Stock and MRP.
Export to Sage	Approve MRP Recommendations	To automatically create WO for jobs with dates in the Preactor firm plan period.
PRO Preactor Orders	Create multi-level PRO orders from within Preactor by reading the Sage BoM and Routing.  Push PRO back to Sage to create WO	Don't wait for WO to be entered manually in Sage or suggested by MRP overnight. Instead create "PRO" orders in Preactor to get quick accurate answers for new delivery promises. If it is for a quote then discard the PRO orders. Or optionally ask that they get raised directly in Sage as full WO (requires Defacto UI module).

The interface has been developed using a combination of .Net, SQL Integration Services and Stored Procedures / Views.



The screenshot displays the SQL Server Enterprise Designer interface for a database named 'selectpr\_preact'. A list of views is visible, including 'selectpr\_import\_ops\_extra\_view', 'selectpr\_import\_ops\_external\_view', 'selectpr\_wswoopm', 'selectpr\_wswicm', 'selectpr\_wsscwoopm', 'selectpr\_wsroutm', and 'selectpr\_wsroutdm'. In the foreground, there is a 'Preactor Interface' window titled 'Preactor Interface' with a 'Finished' status and a large blue button labeled 'Run : Import'. Below the button, a log window shows the following text:

```

Import to Preactor Result:
Finished
Time difference: 0 seconds
Successfully imported: 26/01/2012 11:45:39
Time Now: 26/01/2012 11:45:39
Data Transfer: 0

Please wait.....checking for creation of Orders in On...
Update: Preactor_sledConfig LeadReportToPreactor setting
Line (-) ItemSummary: DTSEnc: The package execution returned DTSEnc_SUCCESS (0). No errors
Checking for errors...
Opening SSIS Connection

Preactor Import Folder:
\\SL-ECT-HP518-ect\Sage\Config\select_SAGE\DEV\Import-Export Files
    
```

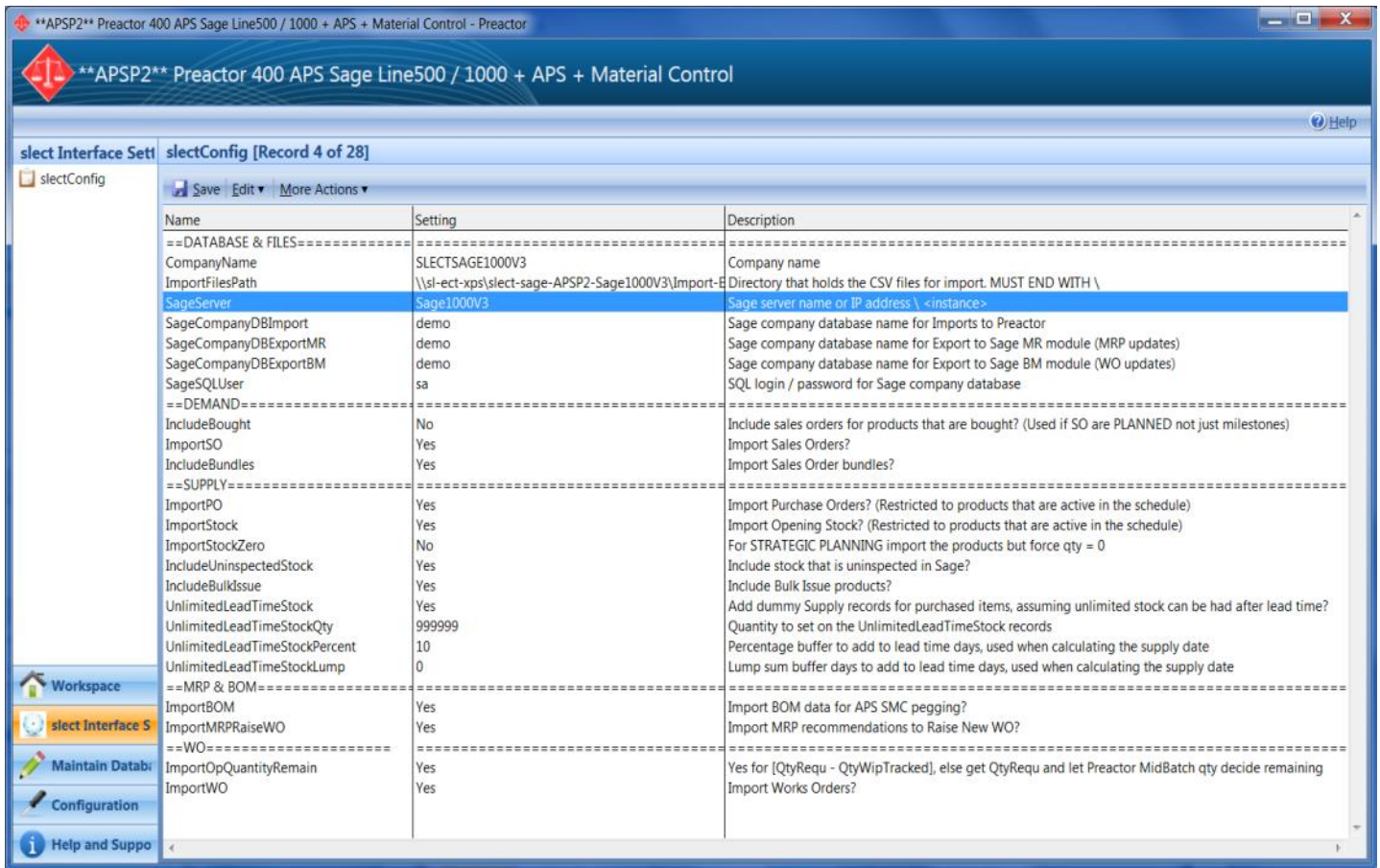
In the bottom left, a 'Edit PRO Entry Field Information' dialog box is open, showing details for 'WhProduct: P2SHAMPO0300', 'Due Date: 30-09-2013', and 'Quantity Required: 100.00'. It also includes a 'Comment' field with the text 'Multi Level - PRO orders will be created' and a 'Description' field with '300ml Shampoo'. There are checkboxes for 'Create WO in ERP' and 'Create PO Suggestions For Buy Shortages'.

### Configurable Settings

Like Sage with its system keys, the interface has settings that let you change the behaviour of the system for different scenarios.

For instance some companies wish to only plan the Works Orders on the assumption that materials are always available (they might run a purchasing MRP afterwards to check for exceptions to this). And maybe they make-to-order and have already raised all the WO that are needed. So they would set "ImportPO" and "ImportMRPRaiseWO" to "No".

Or for strategic long term planning based on a 12 month sales forecast you can ignore the current stock and WIP position by setting "ImportWO" to "No" and "ImportStockZero" to "Yes".



Name	Setting	Description
==DATABASE & FILES==		
CompanyName	SLECTSAGE1000V3	Company name
ImportFilePath	\\slect-xps\slect-sage-APSP2-Sage1000V3\Import-	Directory that holds the CSV files for import. MUST END WITH \
SageServer	Sage1000V3	Sage server name or IP address \ <instance>
SageCompanyDBImport	demo	Sage company database name for Imports to Preactor
SageCompanyDBExportMR	demo	Sage company database name for Export to Sage MR module (MRP updates)
SageCompanyDBExportBM	demo	Sage company database name for Export to Sage BM module (WO updates)
SageSQLUser	sa	SQL login / password for Sage company database
==DEMAND==		
IncludeBought	No	Include sales orders for products that are bought? (Used if SO are PLANNED not just milestones)
ImportSO	Yes	Import Sales Orders?
IncludeBundles	Yes	Import Sales Order bundles?
==SUPPLY==		
ImportPO	Yes	Import Purchase Orders? (Restricted to products that are active in the schedule)
ImportStock	Yes	Import Opening Stock? (Restricted to products that are active in the schedule)
ImportStockZero	No	For STRATEGIC PLANNING import the products but force qty = 0
IncludeUninspectedStock	Yes	Include stock that is uninspected in Sage?
IncludeBulkIssue	Yes	Include Bulk Issue products?
UnlimitedLeadTimeStock	Yes	Add dummy Supply records for purchased items, assuming unlimited stock can be had after lead time?
UnlimitedLeadTimeStockQty	999999	Quantity to set on the UnlimitedLeadTimeStock records
UnlimitedLeadTimeStockPercent	10	Percentage buffer to add to lead time days, used when calculating the supply date
UnlimitedLeadTimeStockLump	0	Lump sum buffer days to add to lead time days, used when calculating the supply date
==MRP & BOM==		
ImportBOM	Yes	Import BOM data for APS SMC pegging?
ImportMRPRaiseWO	Yes	Import MRP recommendations to Raise New WO?
==WO==		
ImportOpQuantityRemain	Yes	Yes for [QtyRequ - QtyWipTracked], else get QtyRequ and let Preactor MidBatch qty decide remaining
ImportWO	Yes	Import Works Orders?



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