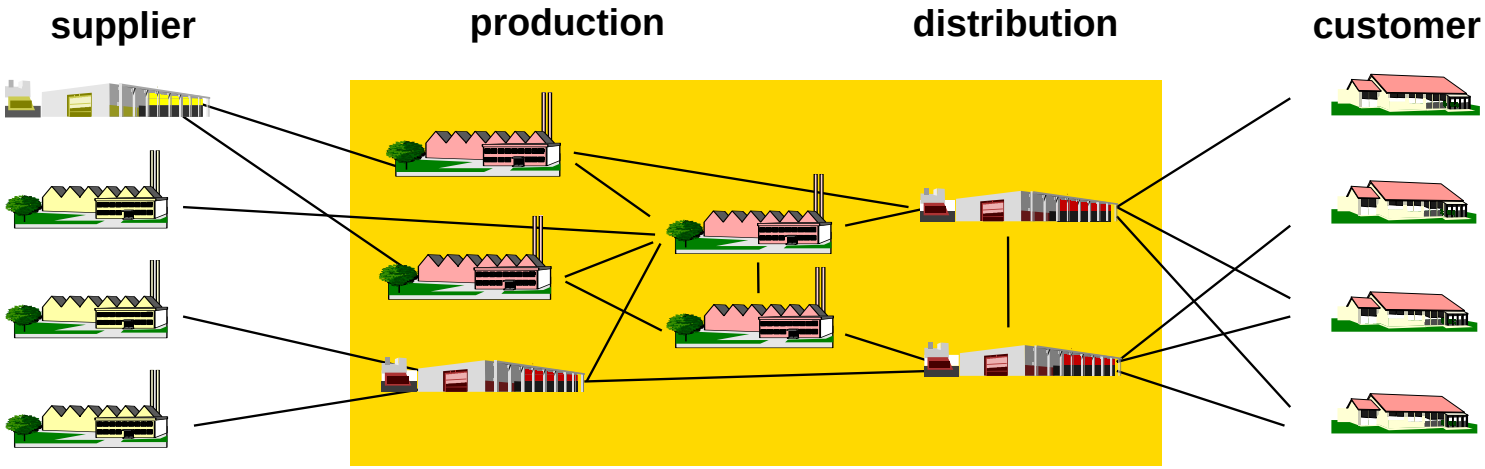
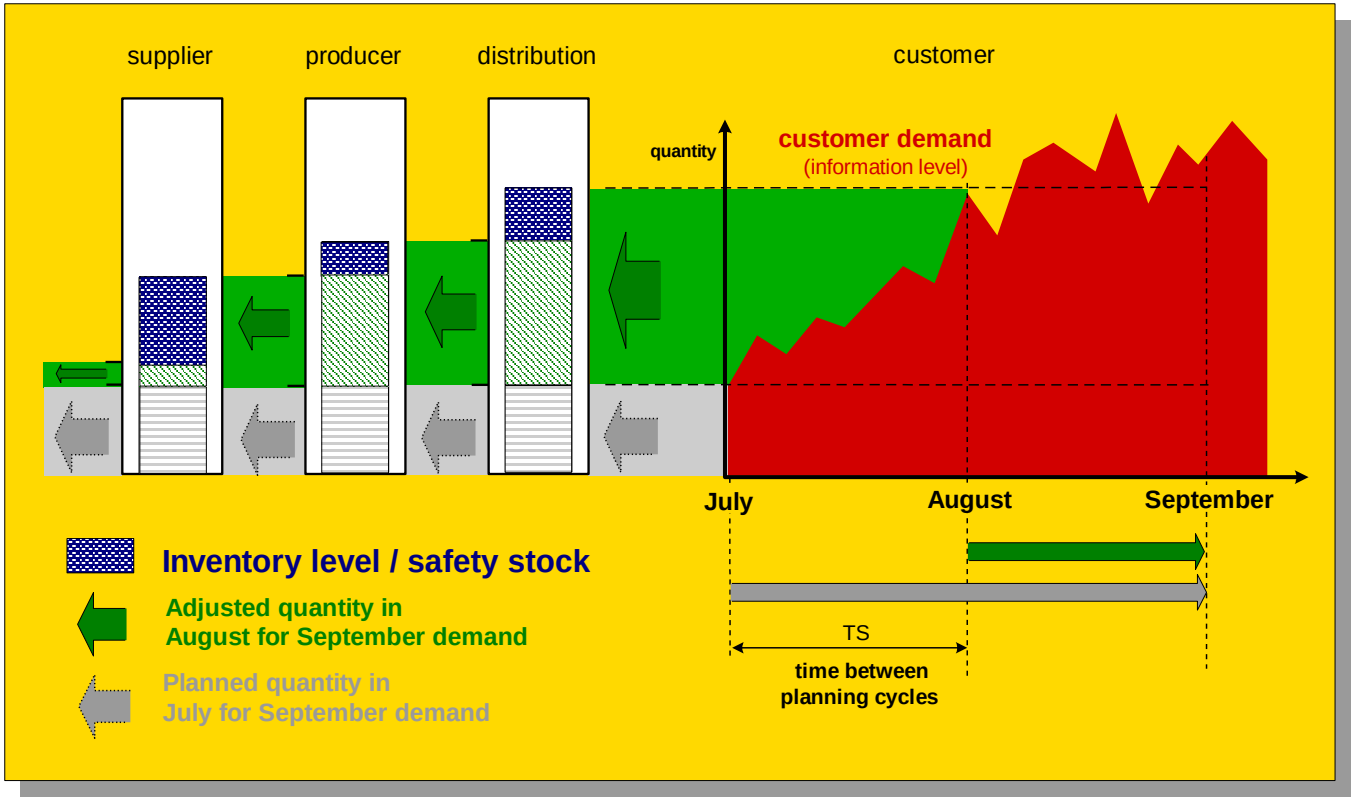
Supply Chain Managament with ICON-MPS



‘Supply Chain’ =

network of facilities and distribution options that performs functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers.
Supply chains exist in both service and manufacturing organizations, although the complexity of the chain may vary greatly from industry to industry and firm to firm.

Reactivity of a supply chain



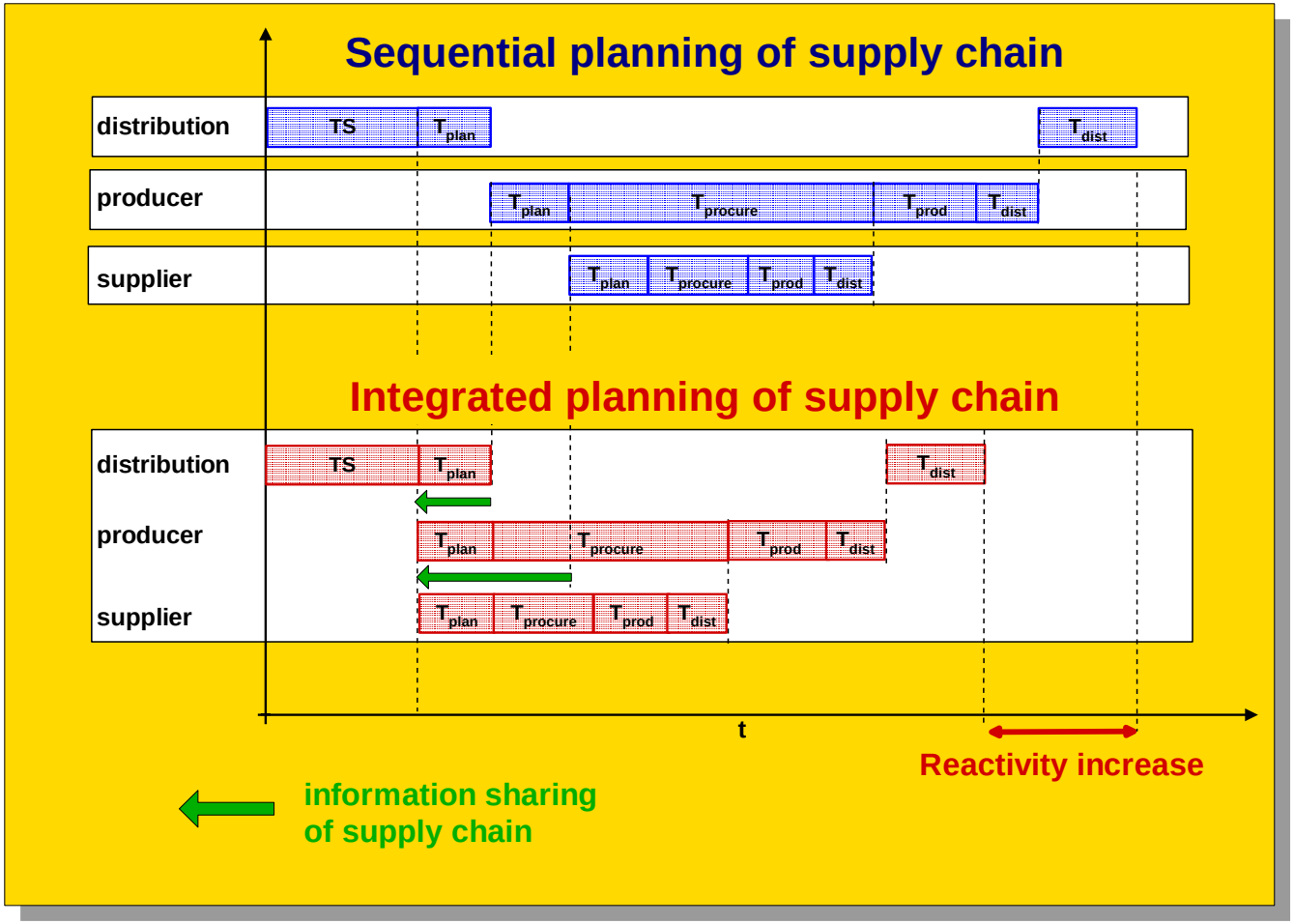
Increasing reactivity is possible through:

- Increasing inventory/capacity levels
- Integrated planning of the whole supply chain with short planning cycles

ICON-MPS

ICON-MPS

Increased reactivity through integrated planning



- decreasing planning cycle
- dampening of unexpected events

Targets of a Supply Chain Management System

- Reduce **costs**
- Control **complexity**
- Ensure **delivery capability**

Benefits of ICON-MPS

Increased **throughput**

Reduced **inventory**

Improved **ROA**
(return on assets)

Decreased **cycle times**

Improved **acknowledgement performance**

Improved **customer satisfaction**

+ Complexity under control

+ Practical implementation timeframes

Motivation 'Supply Chain Optimization'?

Increased complexity of business processes

- Global competition
- Multi-site production and distribution (outsourcing, synchronization of activities)

Rapidly changing business

- Compressed product life cycles
- Permanently changing plans and schedules are
- Customers require Available To Promise (ATP) response e.g. on delivery time & quantity

Customer orientation is the key to success

How does **ICON-MPS approach** "Supply Chain Optimization"?

Complexity under Control / Global visibility

- Integrated planning of different sites
- Concurrent planning across the whole supply chain
- Visibility of source of demand on all levels of the bill of material (part level and aggregated views)

Short reaction time

- Daily planning cycles
- "What if" simulation capability
- Available to Promise (ATP) logic

Flexibility and accurate supply chain representation options

- Flexible priority rules and execution logic
- Reflection of engineering changes (roll parts)
- Dynamic inventory goals (synchronized with fluctuating demand)

*How does **ICON-MPS approach** "Supply Chain Optimization"?*

Speed through memory resident calculation

User friendly graphical user interface

- Comfortable handling
- Sort + query + filter functions

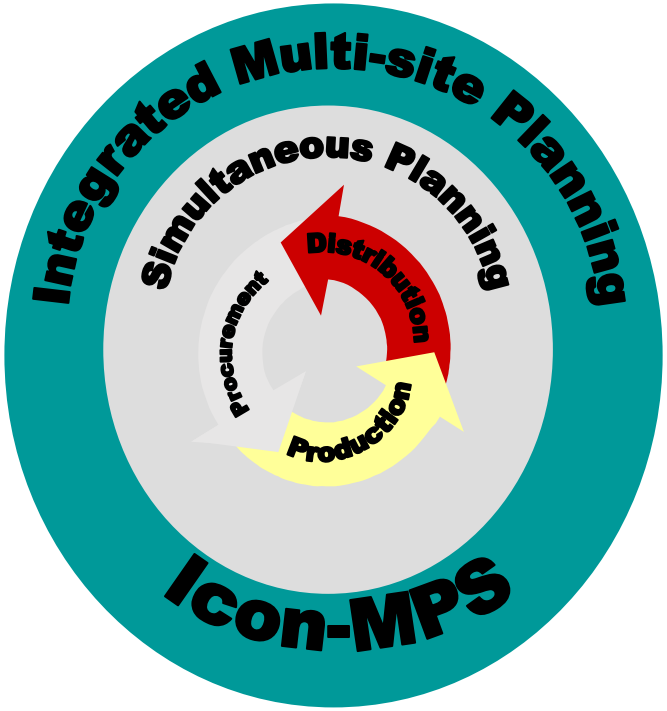
Easy integration into existing system environments

- Support of industry standard RDBMS
- File based interface

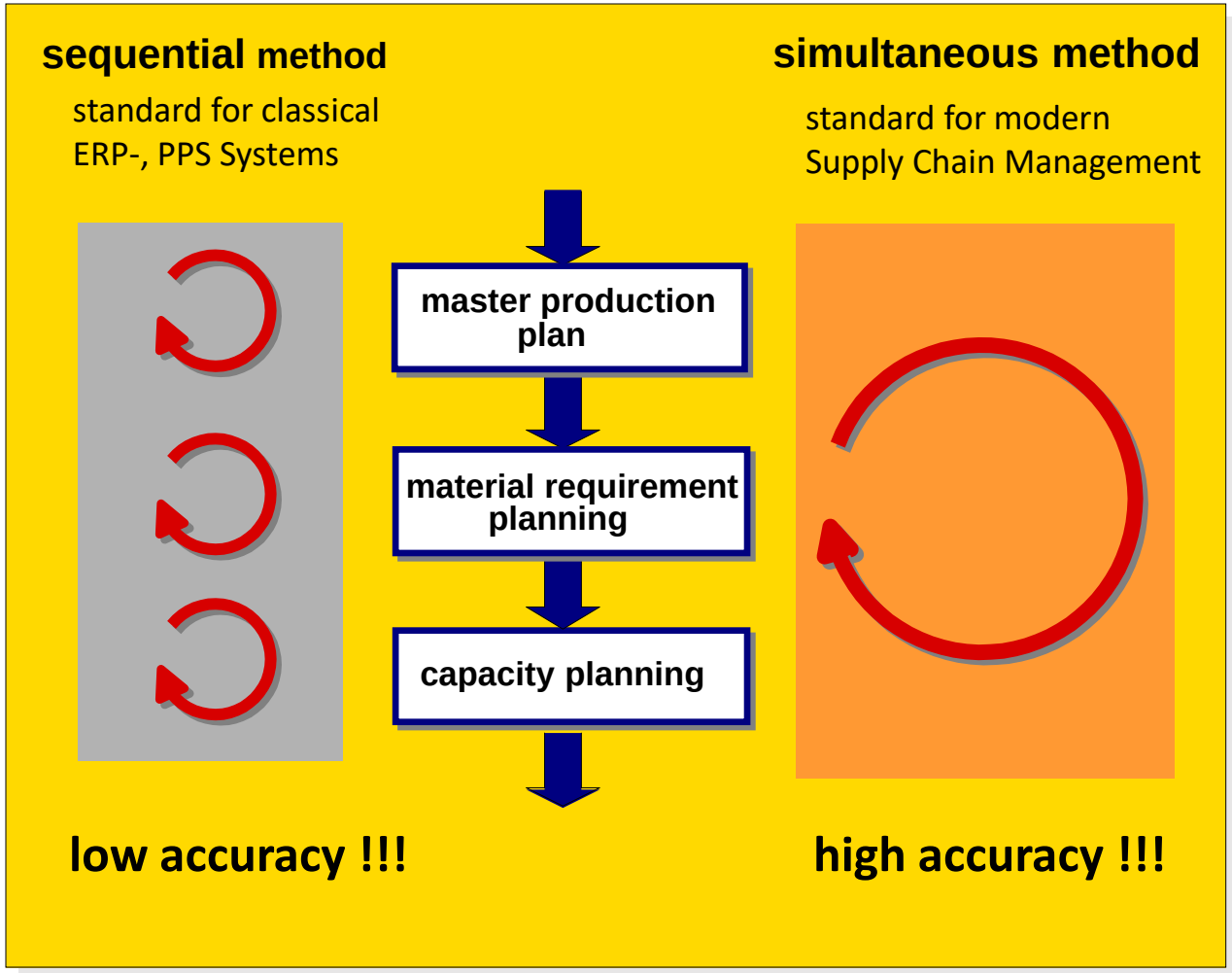
Integrated approach for global optimization

Concurrent planning of:

- multiple sites
- procurement, production and distribution



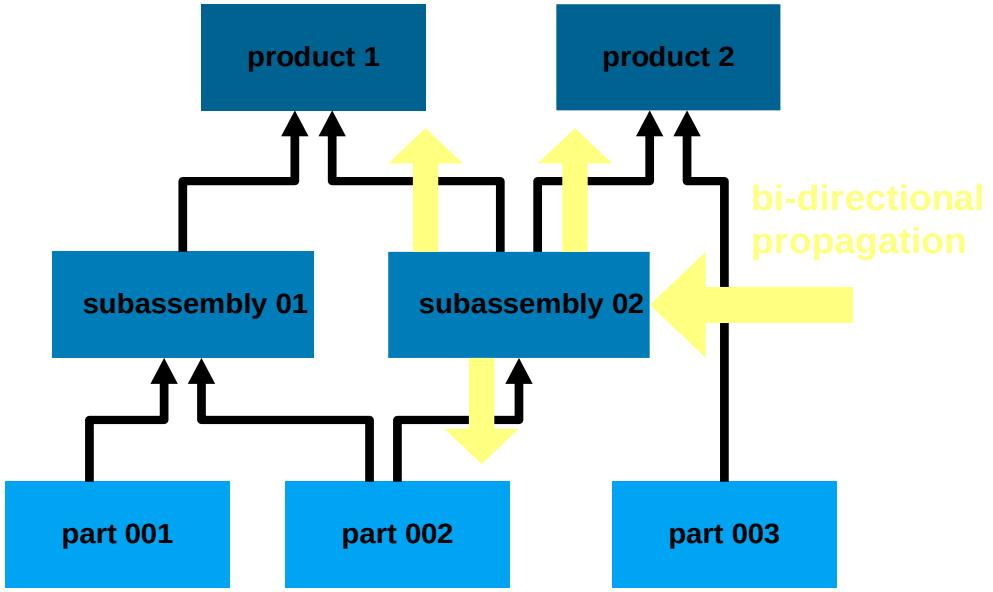
Planning cycle



Bi-directional change propagation

Bi-directional change propagation means:

On each level of bills of material a change for any component resulting out of a shortage of a sub-component or capacity constraint updates all effected units up- and down stream (net change logic).



Bill of material structure

Multi-site handling

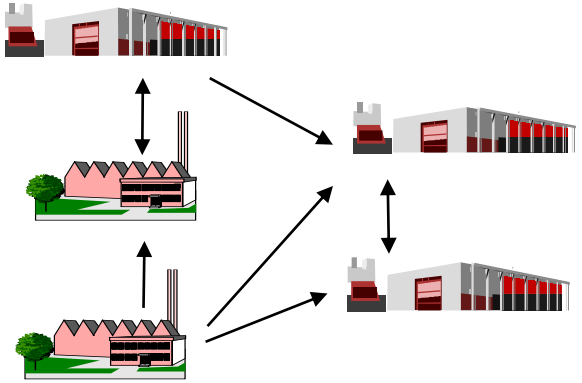
Multiple sites in one data model

Accurate representation of the whole supply chain

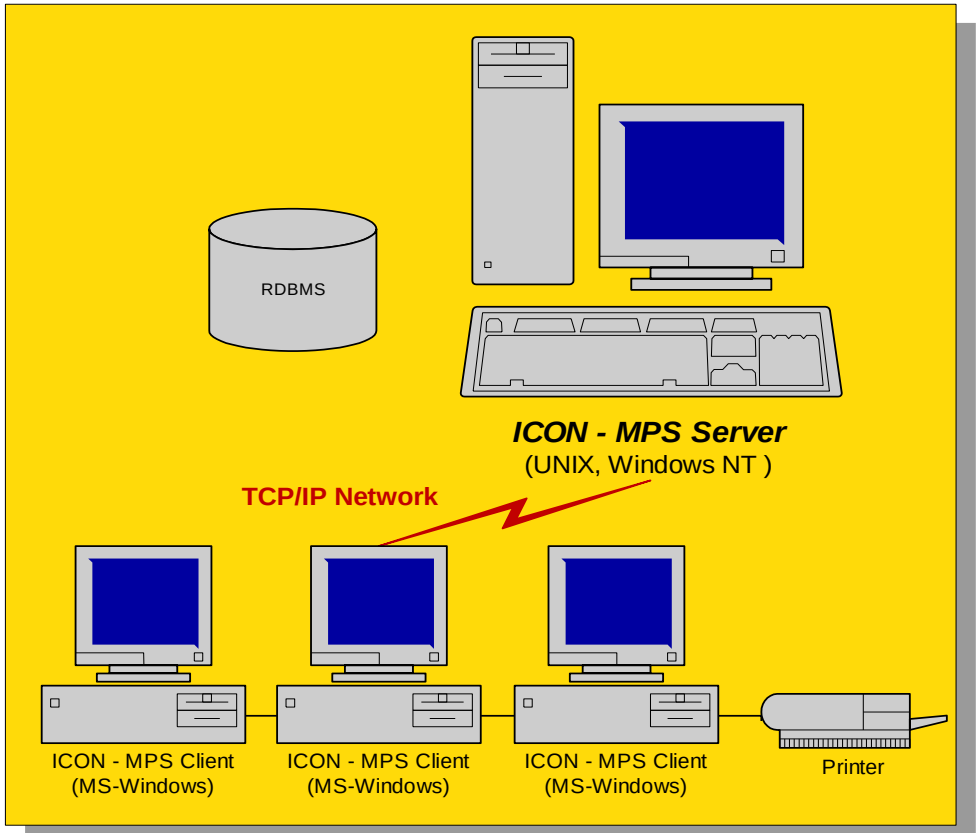
Site specific planning behavior through site specific planning parameters:

- calendars
- bills of material
- lead-times
- reorder cycles
- inventory levels

Stock balancing between sites to balance supply and demand mismatches automatically



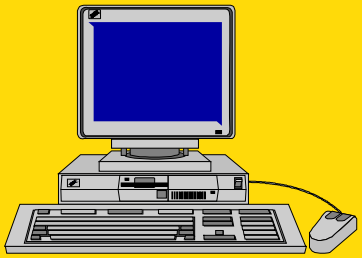
ICON-MPS system architecture



- ***Client - Server Structure*** **ensures efficient & economic Hardware Requirements**
- ***Portable Code Base*** **ensures availability for future Operating Systems**
- ***Scalability*** **meets future Requirements**
- ***High Performance Architecture*** **ensures high Acceptance**

ICON-MPS system requirements

MPS Client



Software

MS Windows / Windows NT

Informix NET for Windows / Windows NT

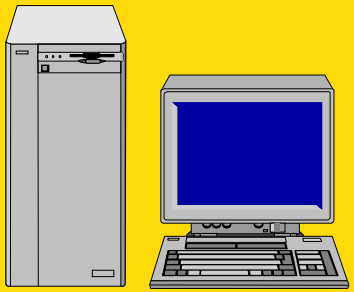
Hardware

Processor 486/66

RAM 16 MB

available Disk space 40 MB

MPS Server



Software

HP-UX 9.04

Informix Online 7.10

Hardware Component

HP 9000

RAM 256 MB

free Disk Space 2 GB

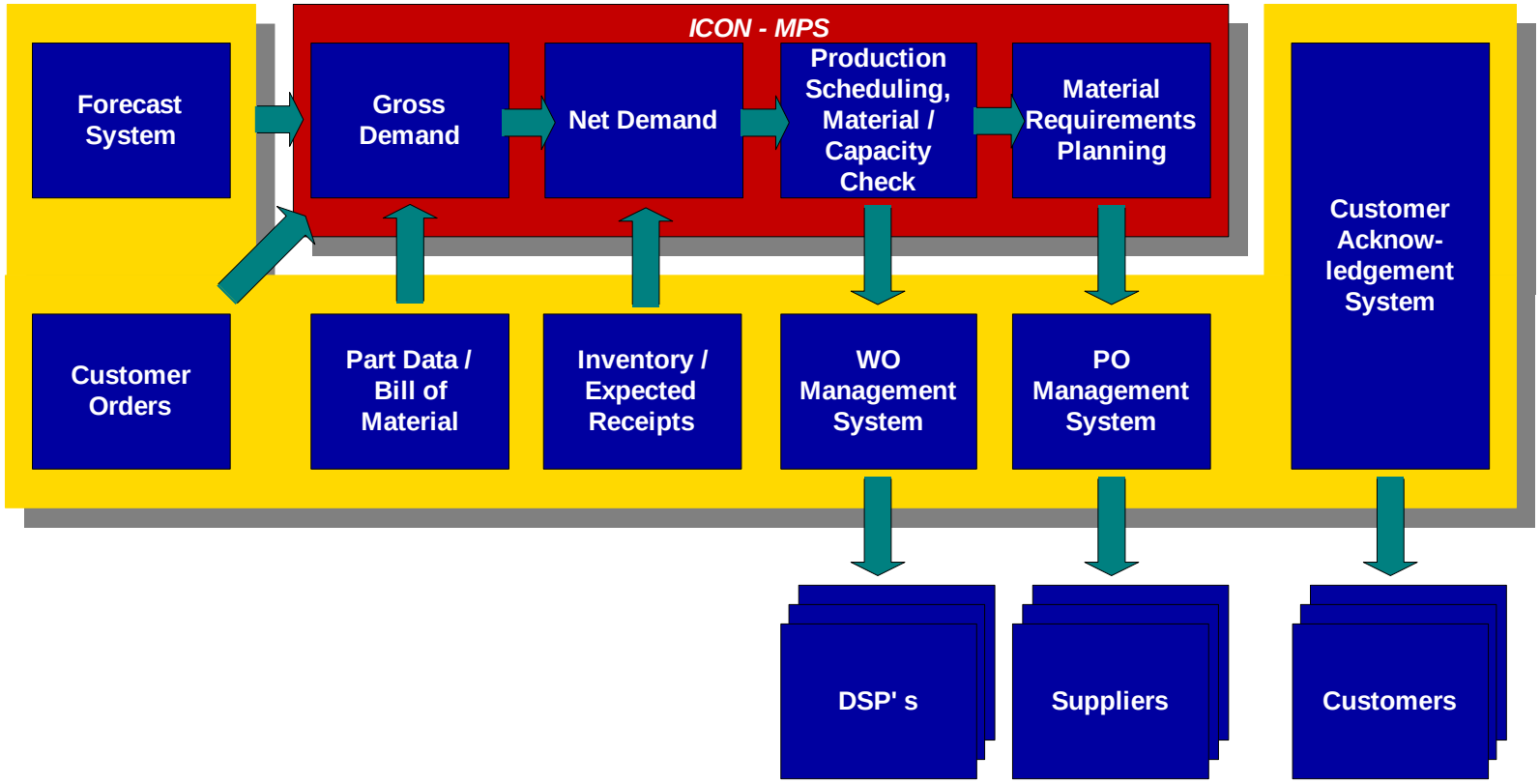
System Configuration

maxdsize > 256 MB

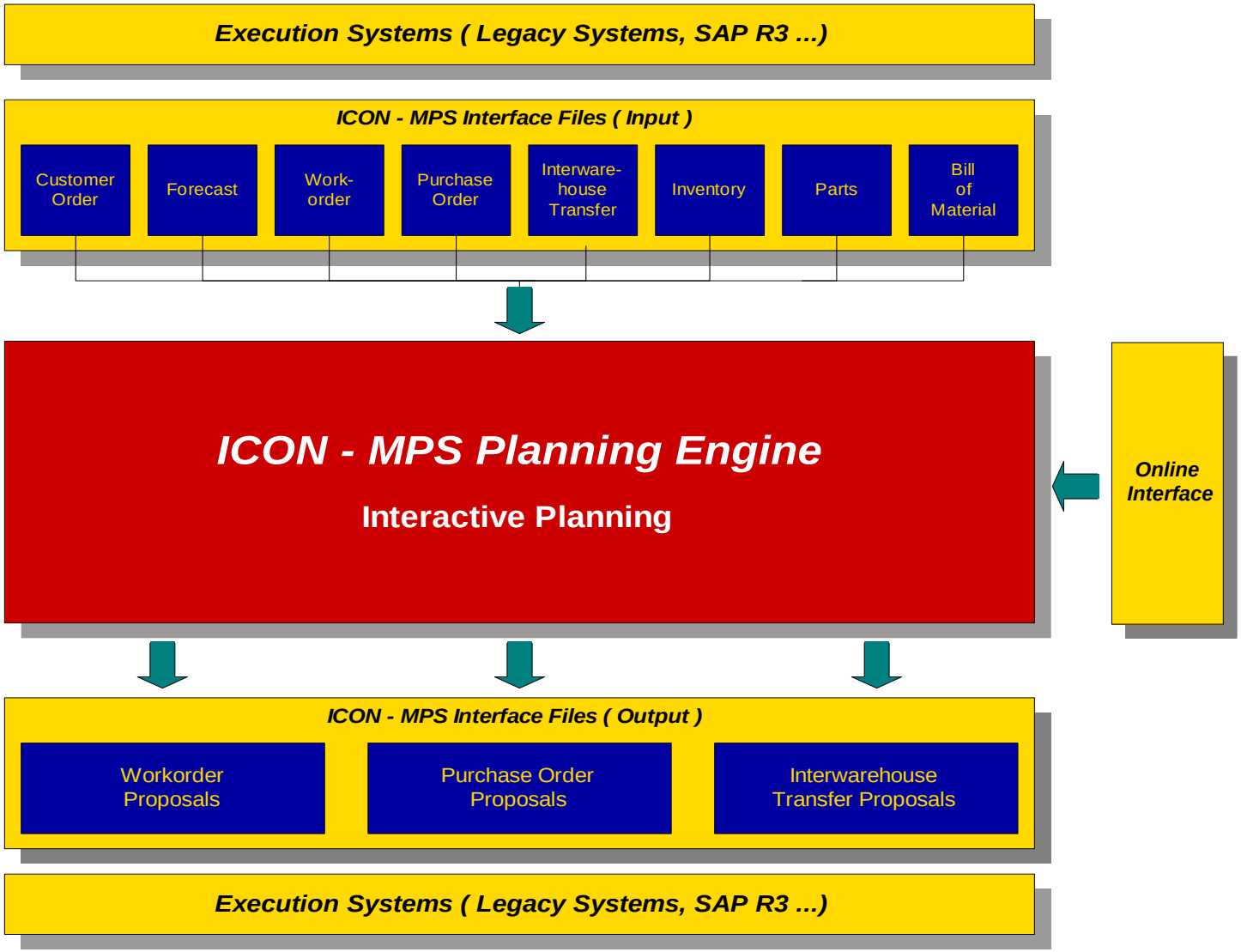
swapspace 512 MB

tmp space 200 MB

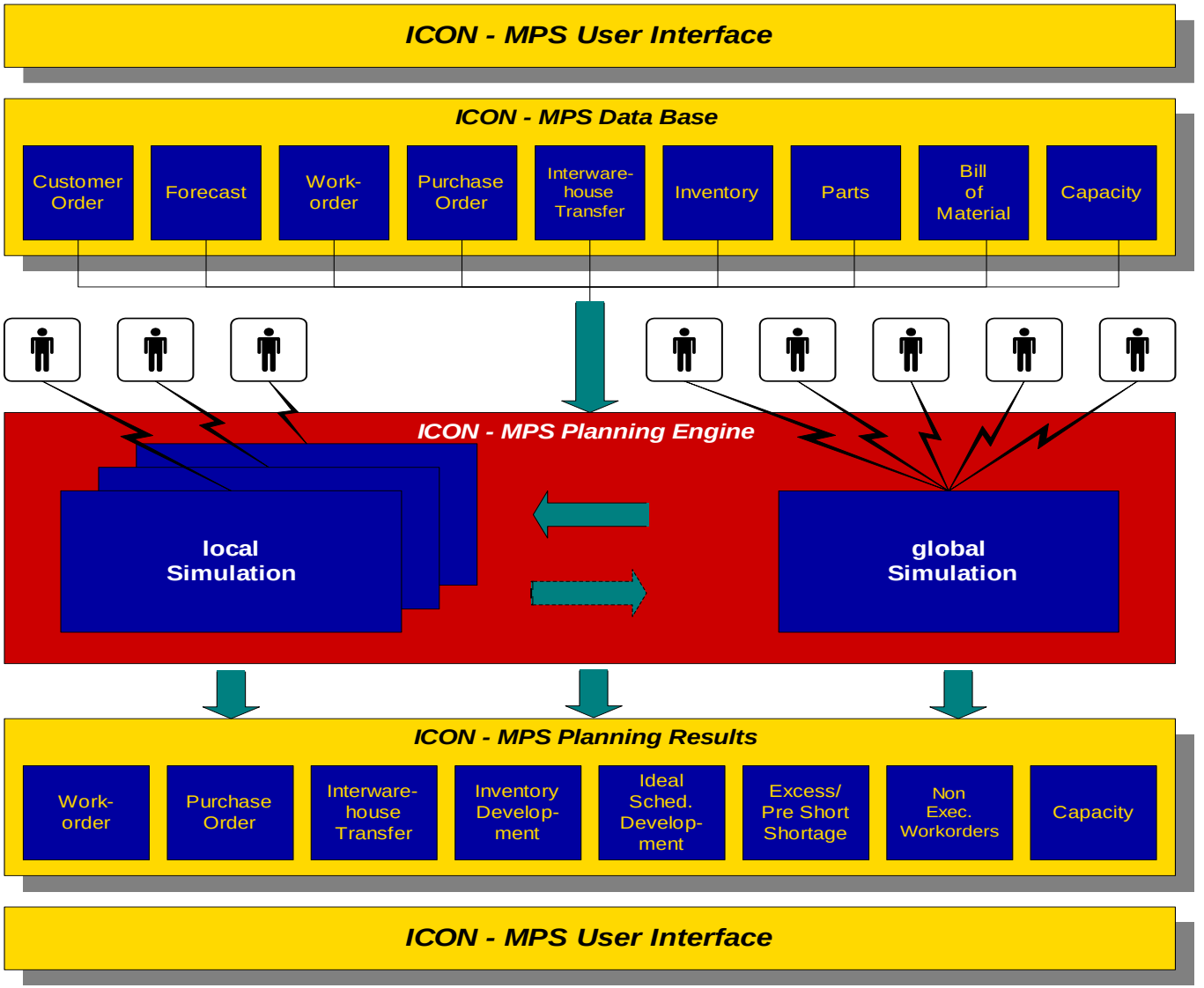
ICON-MPS system integration



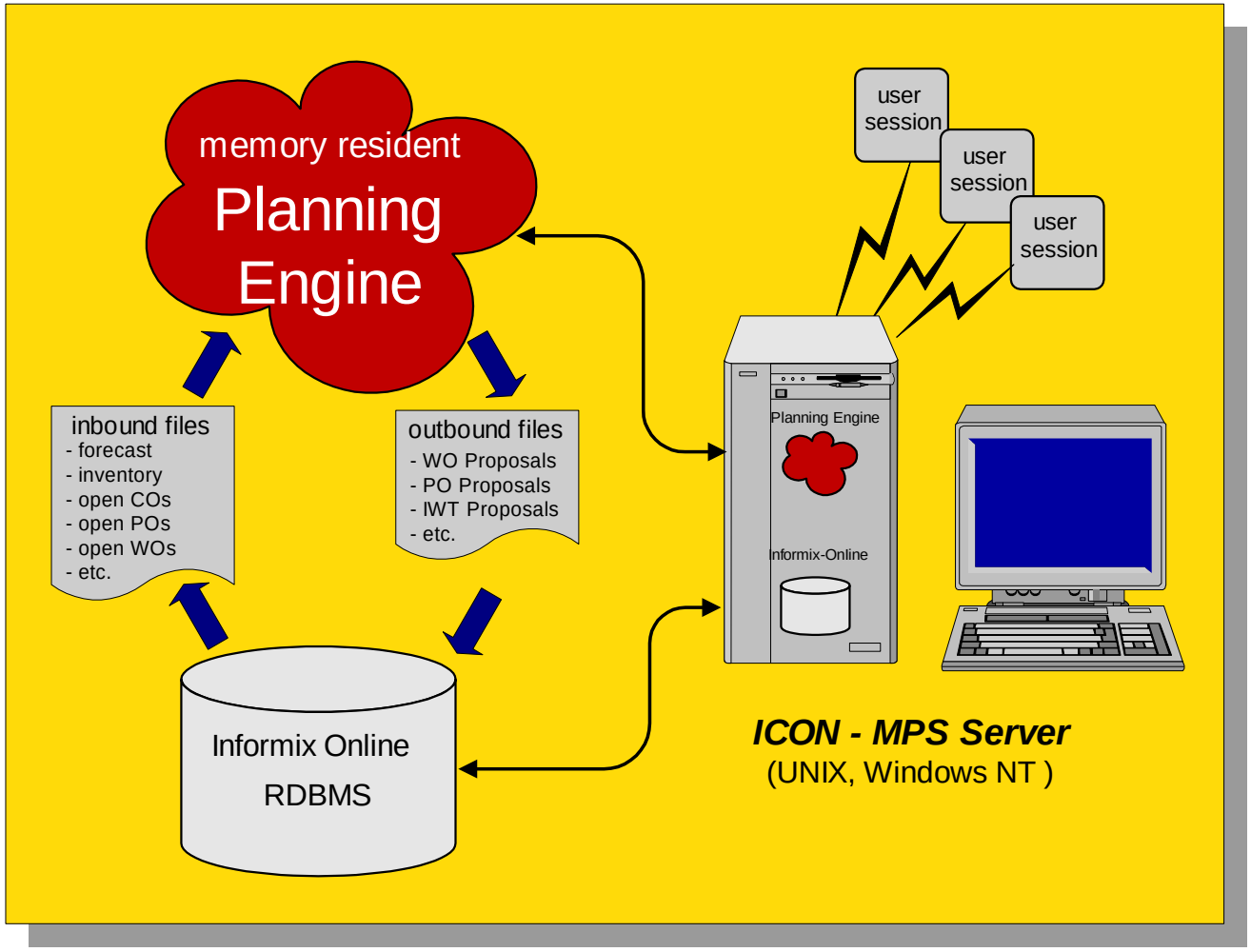
ICON-MPS system interfaces



ICON-MPS interactive planning



ICON-MPS server



Why ICON-MPS for HP

The products of todays highly competitive industry are becoming more and more compareable and are no longer the sole source of the competitive advantage of a company. Customer satisfaction through excellent services is getting the focus of modern business.

Supply chain planning together with electronic order placement (Internet) and available to promise technology (ATP) is an important cornerstone for such service.

HP Sites currently using or installing ICO-MPS

- CPDE (Boeblingen)
- SMO-E (Boeblingen)
- EMRO (Boeblingen)
- PSDE (Grenoble)
- PPMD (Roseville)
- CPCD (San José)
- LPCD (San José)
- IJBU (Richmond)
- IJMD (San Diego, Richmond)
- LADO (Guadalajara)
- LADO (Brazil)
- APDO (Singapore)

Advantages

- Intelligent planning capabilities lead to an increasing throughput, reduce inventory, decrease cycle times, and improve customer delivery date performance
- Integrated production and procurement planning.
  - Any modification on production plans is propagated immediately to the buyers in terms of changed needs for lower level materials. The reverse is true also.

Advantages

- Multi depot handling.
  - MPS supports planning of multiple sites in one data model. Site specific planning behavior is achieved by site specific planning parameters: calendars, bills of material, leadtimes, reorder cycles, etc.
- Supply chain handling.
  - Supply chains are utilized to model supplier relationships between sites.

Advantages

- Stock balancing between depots.
  - Supply and demand mismatches between different sites are balanced automatically.
- Flexible priority rules and execution logic.
  - A set of sophisticated priority rules drives the execution of demand (forecast, customer orders, extra demand) and workorders according to business requirements.
- Multilevel bills of material.
  - Bills of material with arbitrary levels allow the modeling of complex real world like products

Advantages

- Engineering changes.
  - Demand is switched automatically by applying hardrolls or softrolls. This is performed either for a component of a specific bill of material or for a part in general.
- Dynamic inventory goals.
  - Stock levels are synchronized with fluctuating demand. Increasing demand increasing stock levels. Decreasing demand decreases stock levels. This avoids material excess situations and simplifies greatly the monitoring of inventory levels.

Advantages

- Visibility of the source of demand.
  - The source of demand (customer orders, forecast, etc.) is an important decision support information and available for lower level materials as well as for the product level.
- Allocation handling.
  - The execution logic utilizes a fixed percentage split to allocate scarce lower level materials to products.

Advantages

- Mixed planning.
  - The execution logic utilizes a dynamic percentage split to allocate scarce lower level materials to products.
- Simulation capabilities.
  - "What if" scenarios can be run be varying planning parameters and executing either local or global simulations.
- Planning parameters.
  - Various planning parameters are available to drive MRP calculations most flexibly.

Advantages

- Handling of Push Products.
  - Material availability can be modeled to simulate real world behavior as close as possible.
- Production planning.
  - Production planning is performed either fully automated or manually with drag and drop support.
- Aggregated views and data maintenance.
  - Aggregations on part, family or depot level supports data analysis and maintenance most flexibly.

Advantages

- Forecast handling.
  - The MPS forecast module transforms marketing forecast to shipment forecast. The calculations are driven by a set of powerful and flexible parameters.
- Kit handling.
  - Unlike the bill of material structures, KITs are used to drive procurement only. No workorders are generated.

Advantages

- Constraint material handling.
  - Lower level materials or subassemblies can be parameterized to either constrain or not constrain production planning.
- Additional demand handling.
  - Additional demand can be utilized to simulate extra demand like big deals.

Advantages

- Windows based Graphical User Interface (GUI).
  - Comfortable handling, print capabilities, sort + query + filter functions, data import and export to Excel, DBase, HTML, etc.

Disadvantages

- Offline - file based interface
  - The data is extracted every night from the Legacy systems
- Not a reporting application
  - Provides data tables to generate reports with third party tools
- Does not substitute the work in Promis and MM
  - Purchase orders and IWT to be maintained in Legacy systems

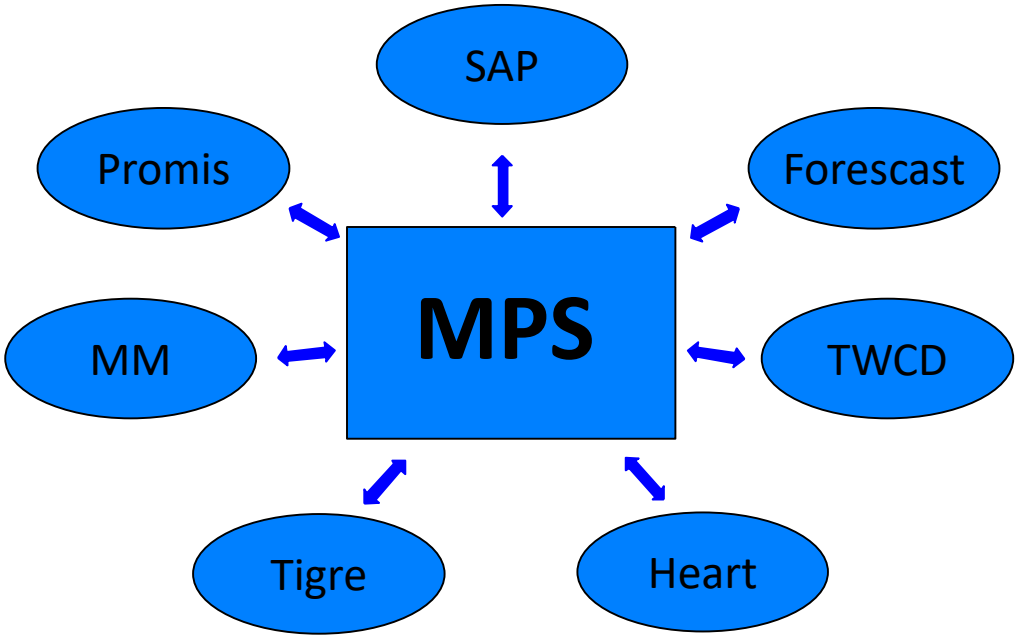
Disadvantages

- Not an application for Approved To Promise (ATP) logic, but prepared to.
- Discrepant and Credit material not visible
  - Only available, inspection and rework inventory used and visible in MPS

Systems/Processes to be replaced

- BTO Planning
- MRP
- Poplan
- Big Deal Simulator
- Spreadsheets to calculate requirements
- Quetzal
- Some functionalities of Pinto
- Master Schedule

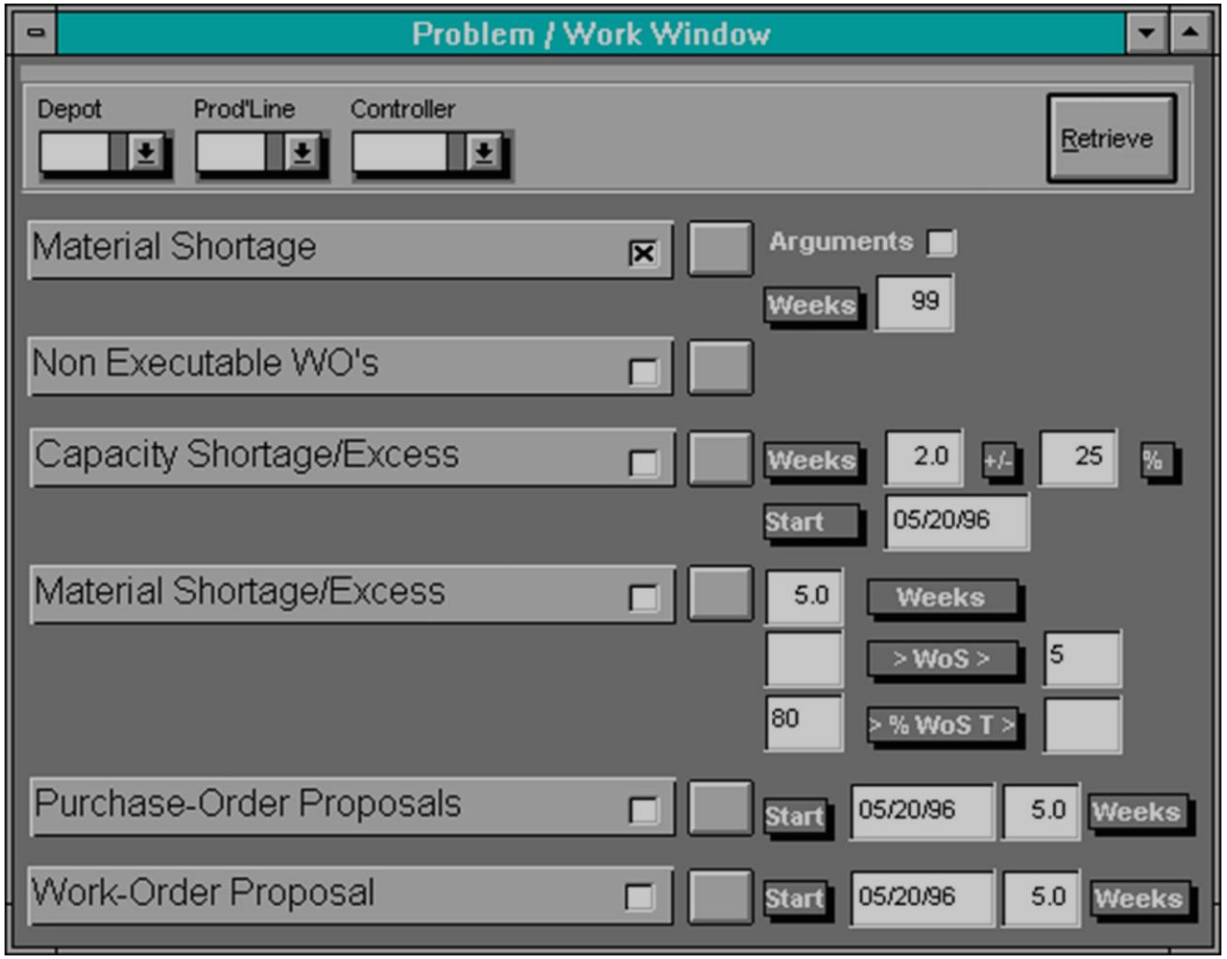
System *Integration*



Execution Systems (Legacy Systems, SAP R3 ...)
ICON - MPS Interface Files (Input)
Material
to
Bill
Parts
Inventory
Transfer
Issues
Inventory-
Order
Purchase
Work-
order
Forecast
Order
Customer
Batch Planning
ICON - MPS Planning Engine
Interactive Planning
Transfer Proposals
Interwarehouse
Proposals
Purchase Order
Proposals
Workorder
ICON - MPS Interface Files (Output)
Execution Systems (Legacy Systems, SAP R3 ...)

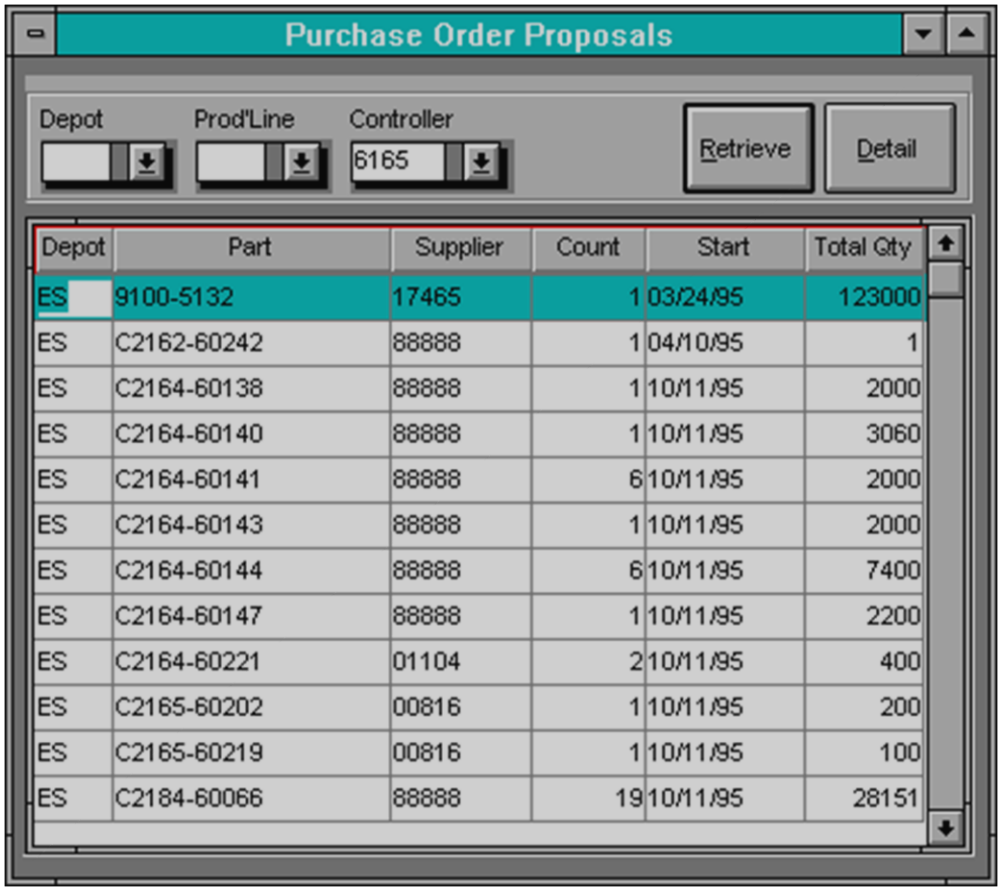
Procurement

Problem / Work Window



- The buyer/planner can mark the desired categories and set the parameters to limit The output.

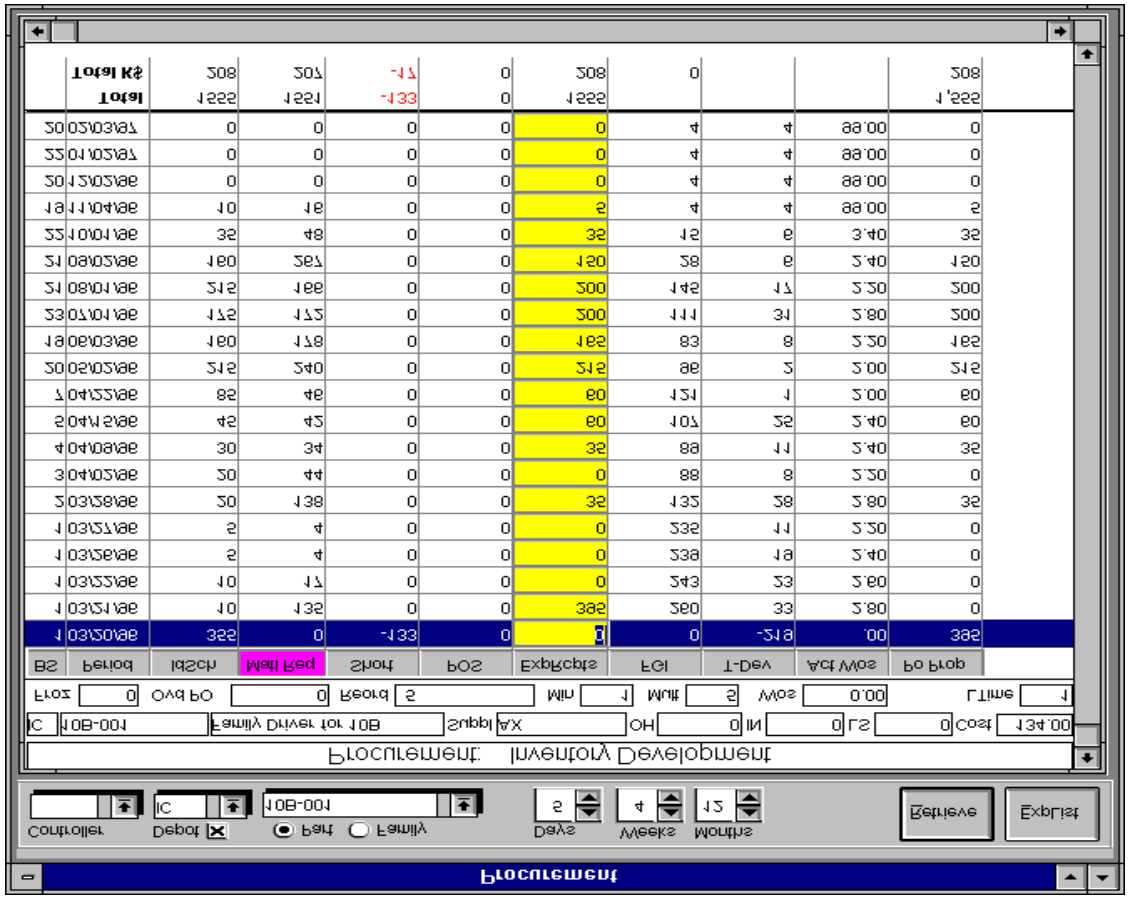
PO Proposals



Depot	Part	Supplier	Count	Start	Total Qty
ES	9100-5132	17465	1	03/24/95	123000
ES	C2162-60242	88888	1	04/10/95	1
ES	C2164-60138	88888	1	10/11/95	2000
ES	C2164-60140	88888	1	10/11/95	3060
ES	C2164-60141	88888	6	10/11/95	2000
ES	C2164-60143	88888	1	10/11/95	2000
ES	C2164-60144	88888	6	10/11/95	7400
ES	C2164-60147	88888	1	10/11/95	2200
ES	C2164-60221	01104	2	10/11/95	400
ES	C2165-60202	00816	1	10/11/95	200
ES	C2165-60219	00816	1	10/11/95	100
ES	C2184-60066	88888	19	10/11/95	28151

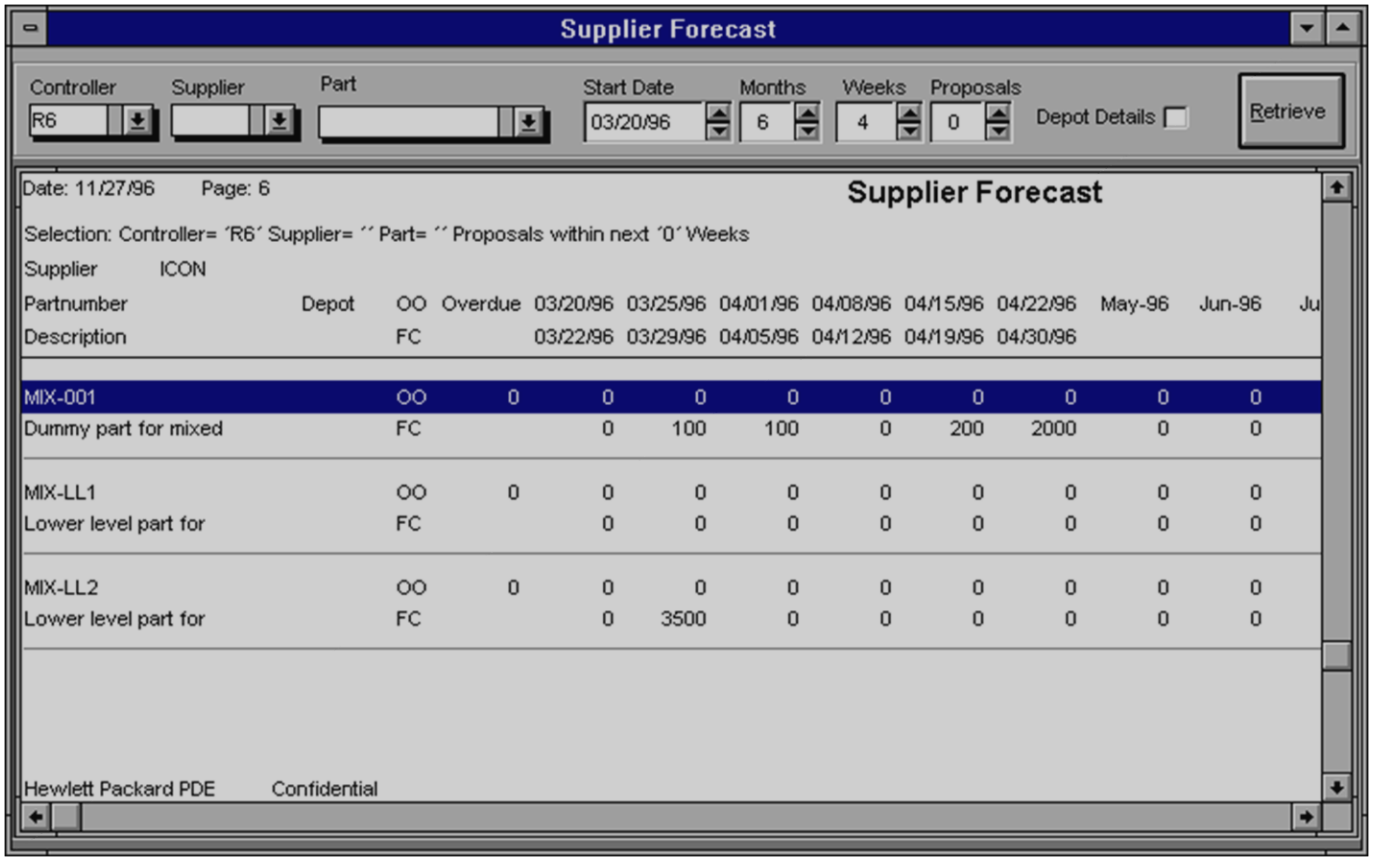
- The buyer/planner can all up a list of all components for which Order or Cancellation Proposals are pending in the given period.

Procurement Plan



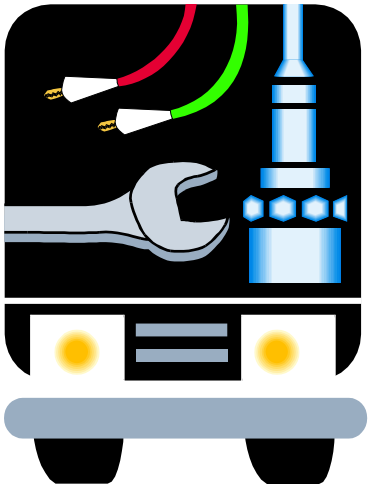
- The buyer/planner can retrieve detailed information on the Inventory Development and the Ideal Schedule Development.

Supplier Forecast

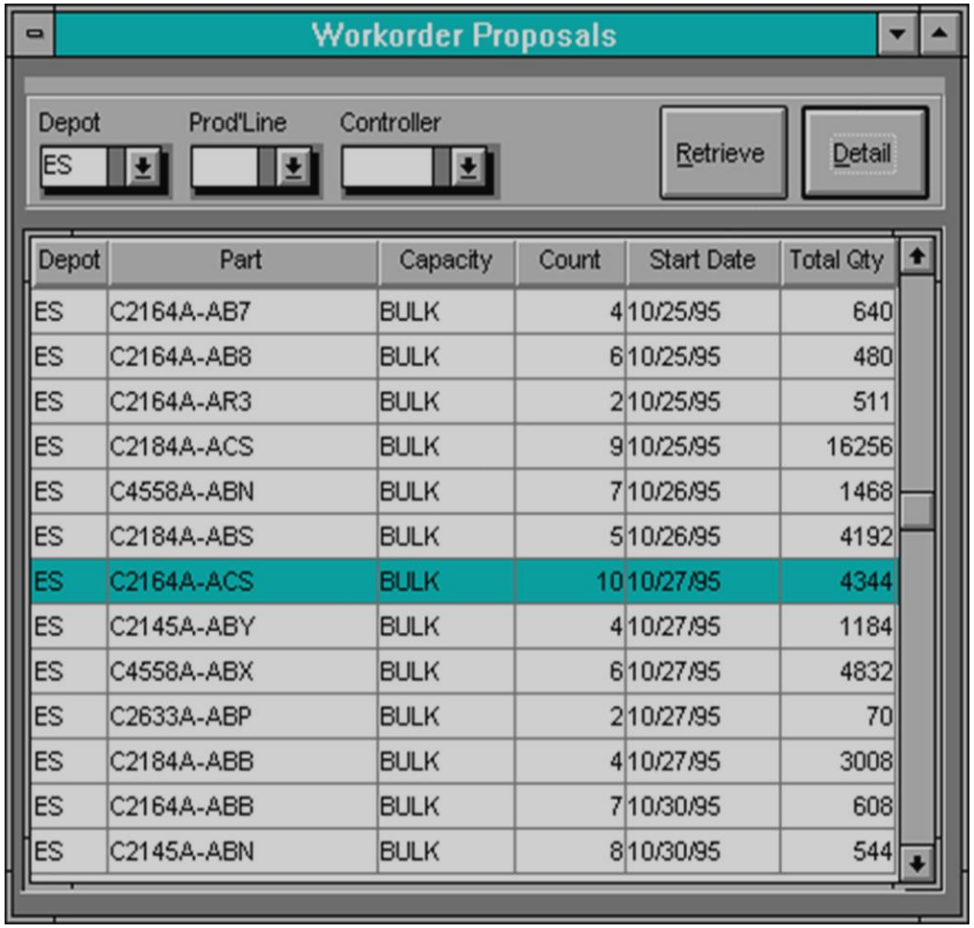


- Provides information about open orders and purchase order proposals for the selection made.

Production Planning



WO Proposals



Depot	Part	Capacity	Count	Start Date	Total Qty
ES	C2164A-AB7	BULK	4	10/25/95	640
ES	C2164A-AB8	BULK	6	10/25/95	480
ES	C2164A-AR3	BULK	2	10/25/95	511
ES	C2184A-ACS	BULK	9	10/25/95	16256
ES	C4558A-ABN	BULK	7	10/26/95	1468
ES	C2184A-ABS	BULK	5	10/26/95	4192
ES	C2164A-ACS	BULK	10	10/27/95	4344
ES	C2145A-ABY	BULK	4	10/27/95	1184
ES	C4558A-ABX	BULK	6	10/27/95	4832
ES	C2633A-ABP	BULK	2	10/27/95	70
ES	C2184A-ABB	BULK	4	10/27/95	3008
ES	C2164A-ABB	BULK	7	10/30/95	608
ES	C2145A-ABN	BULK	8	10/30/95	544

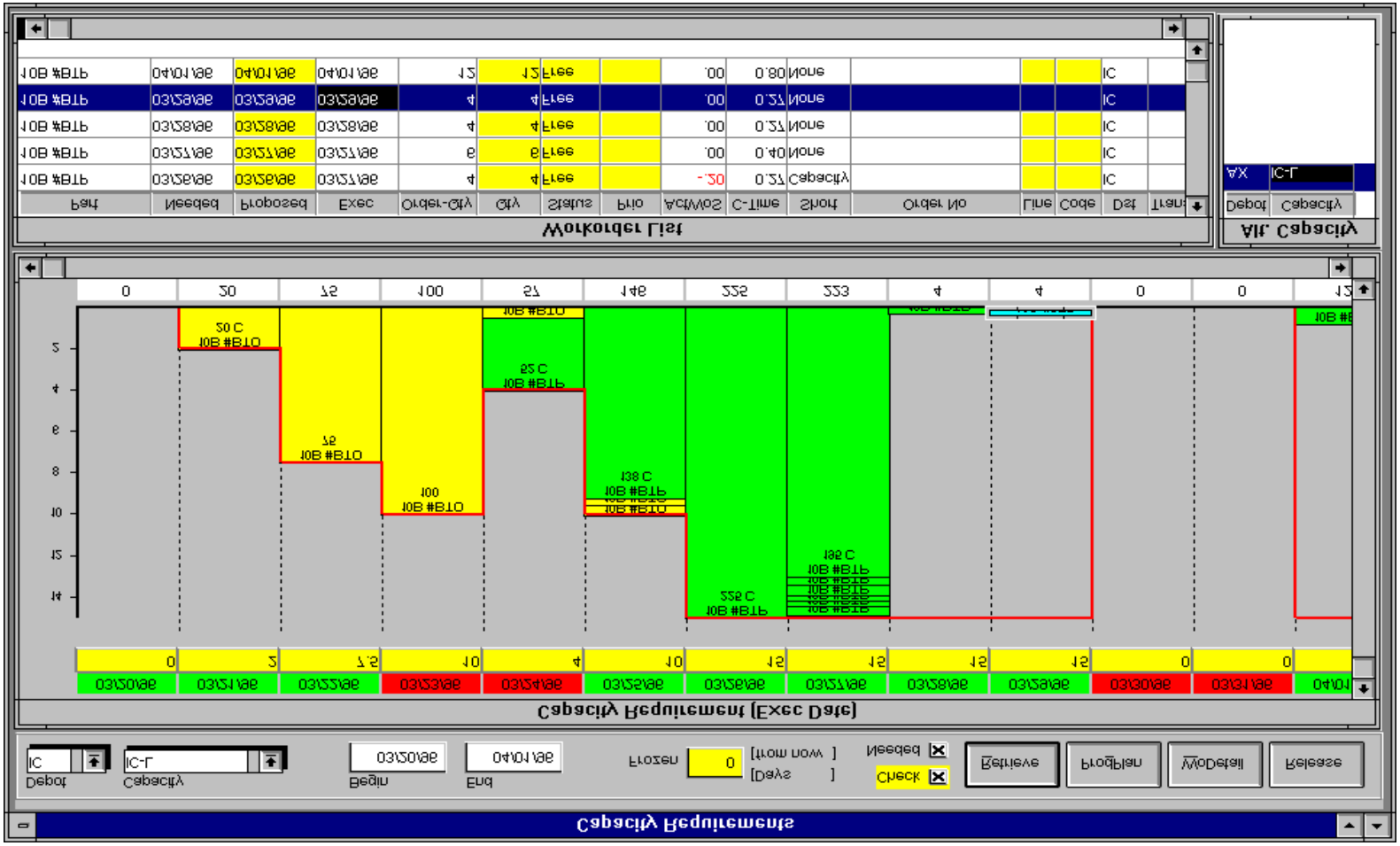
- The planner can all up a list of all products for which Production or Cancellation Proposals are pending in the given period.

Material Shortage

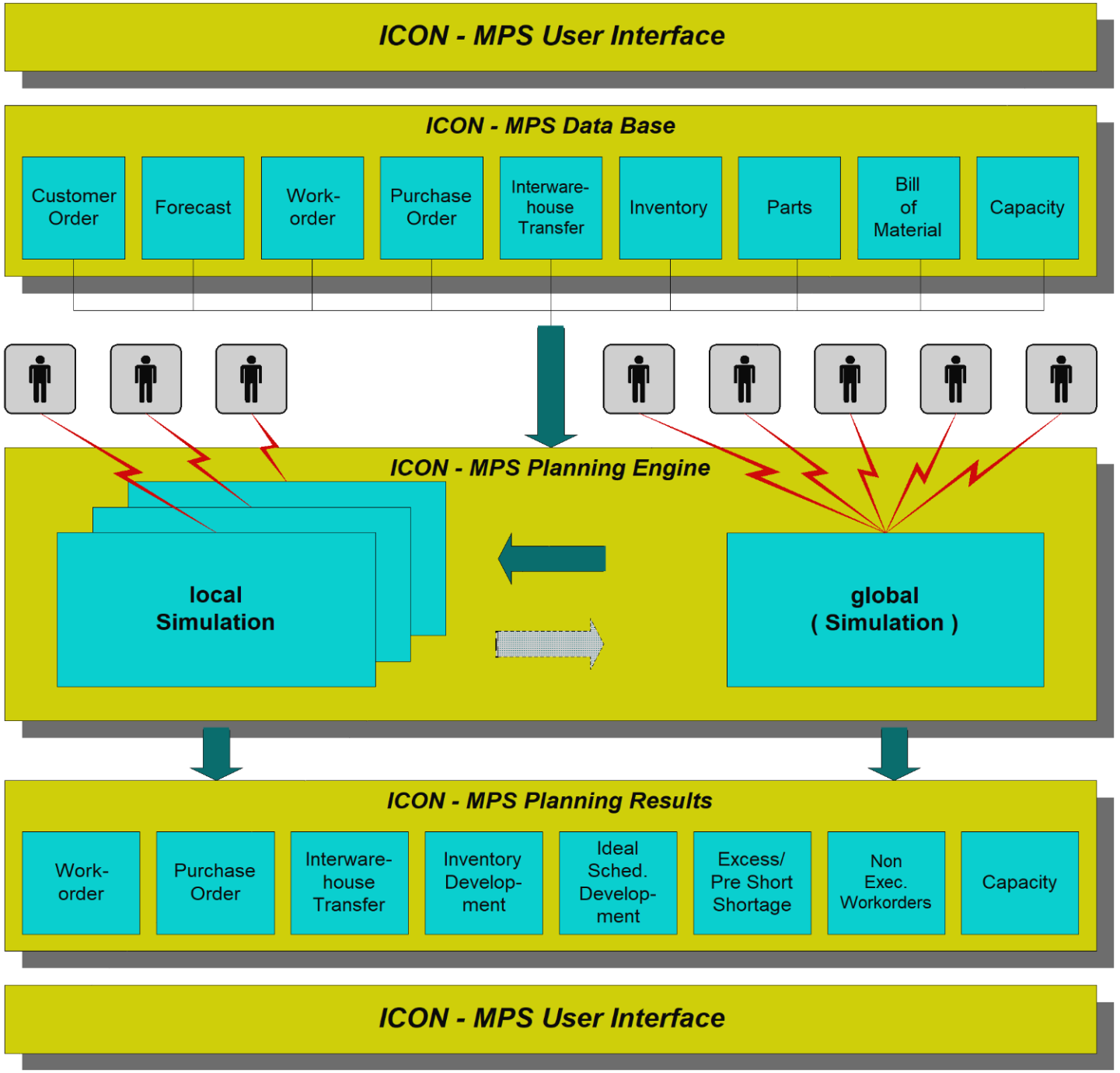
Depot	Part	Ctrl	Start	End	Total Missed	Memo
IC	MC3	R6	03/20/96	02/03/97	4300	
IC	ROLL-S01	R6	03/20/96	04/09/96	3300	
IC	MC2	R6	03/20/96	02/03/97	2800	
IC	MIX-LL1	R6	03/20/96	02/03/97	1500	
IC	MC1	R6	03/20/96	02/03/97	1500	
IC	MIX-001	R6	03/20/96	02/03/97	1500	
IC	MIX-LL2	R6	03/20/96	03/27/96	1500	
IC	C9	MT	03/20/96	04/15/96	800	
IC	40S #BOX	R6	03/20/96	02/03/97	300	
IC	30G-LL1	R6	03/20/96	04/22/96	250	
IC	20B #BTO	R6	03/20/96	02/03/97	194	
IC	MIX-XU	ICON	03/20/96	04/24/96	174	
IC	40B #BOX	R6	03/20/96	03/26/96	160	

- The planner can find out which components are short within the specified next weeks

Capacity Requirements



- The production planners can view and edit the utilization of a production line.

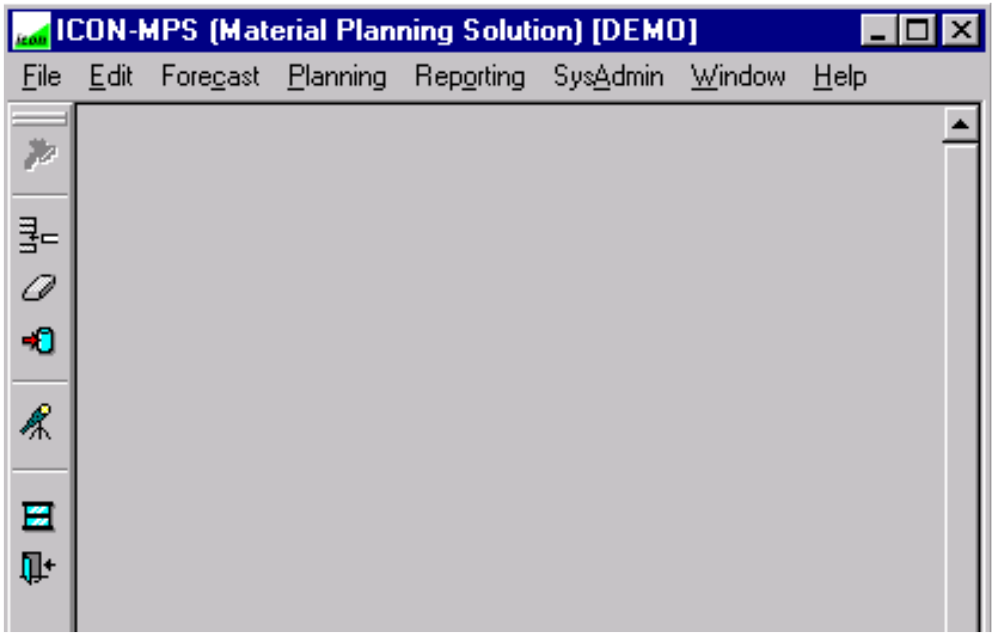

ICON - MPS User Interface
ICON - MPS Data Base
Customer Order
Forecast
Work-order
Purchase Order
Interware-house Transfer
Inventory
Parts
Bill of Material
Capacity
ICON - MPS Planning Engine
local Simulation
global (Simulation)
ICON - MPS Planning Results
Work-order
Purchase Order
Interware-house Transfer
Inventory Develop-ment
Ideal Sched. Develop-ment
Excess/ Pre Short Shortage
Non Exec. Workorders
Capacity
ICON - MPS User Interface

System Administration

- Depots
- Global Settings
- System Parameters
- Demand Priority
- WO Priority
- Batch Planning Engine
- Interfaces

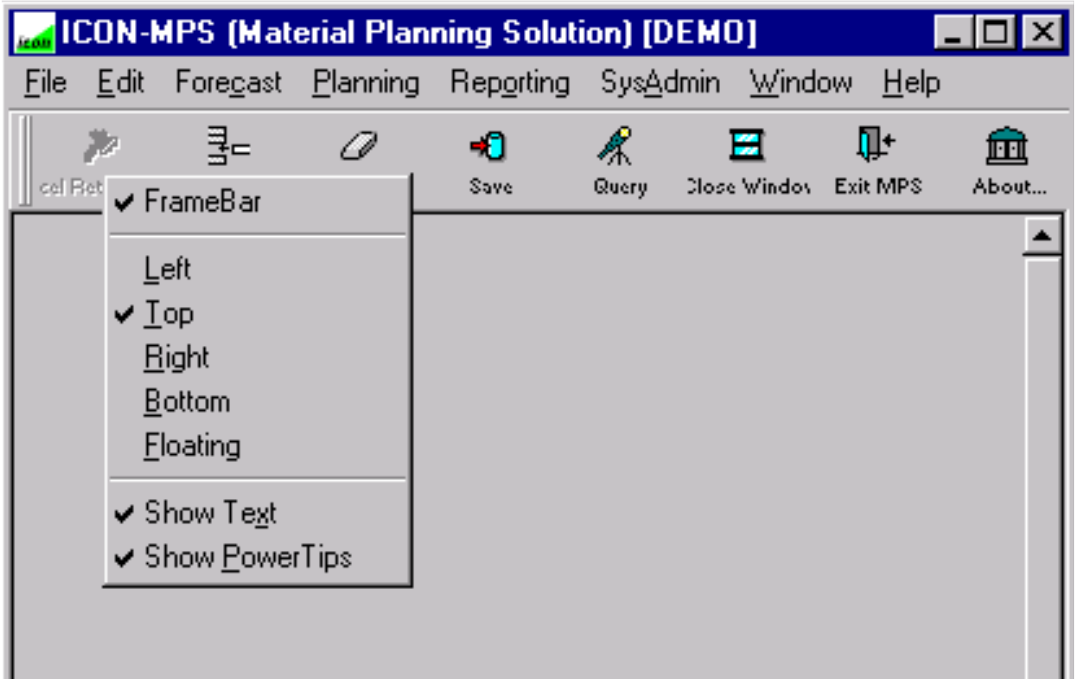
General Program Operation

Toolbar



The Toolbar is normally on the left edge of the application window. The number of **Icons** available depends on the active window.

Toolbar



If you click on the Toolbar with the right mouse button, a menu is opened in which you can change the position of the Toolbar.

Inserting Data Records

If data records can be created in the active window or subwindow, the entry **Insert Row** (CTRL, I) is activated in the File menu.

Execute the following steps to insert a data record:

- Activate the desired window, and if necessary the relevant subwindow.
- Click the **Insert Row** icon on the toolbar, select the entry Insert Row from the File Menu, or enter CTRL + I.

The inserted data record is precept with the content of the data record, which was selected before the insertion. The new data record is always inserted before the last active data record. The new data record is now the active record. The data record is stored in the database when you save your modifications with **Save Changes**.

Multiple Delete of Data Records

If data records can be deleted in the active window or subwindow, the entry **Delete Row** (CTRL, D) is activated in the File menu.

Execute the following steps to delete a data record:

Activate the desired window and if necessary the relevant subwindow.

Select the Position the chosen data record(s). Marking multiple records is performed by holding down the shift key while moving the up- or down arrow key or by holding down the Shift/CTRL key and select records with the mouse (standard windos multiple select).

Click the **Delete Row** icon in the toolbar, select the Delete Row entry from the File Menu, or enter CTRL + D.

The deleted data record is no longer displayed in the window. It is deleted in the database when you save your modifications with **Save Changes**.

Saving Modifications

If data records can be created, modified or deleted in the active window or subwindow, the entry **Save Changes** (CTRL, S) is activated in the File menu.

Execute the following steps for saving:

Activate the desired window and if necessary the relevant subwindow.

Click the **Save Changes** icon in the toolbar, select the entry Save Changes from the File menu, or enter CTRL + S.

Only the changes to the active window or subwindow are saved.

Using Help

ICON-MPS possesses an Online Help System, which is executed via the Windows Help Engine. Using the Index or the search function, you can look up information in the Help system, or retrieve context-sensitive Help.

Press **Shift, F1** to retrieve context-sensitive Help.

Select **Contents** in the Help menu to call up the Help index, and **Search for Help** to call up the Search window.

Edit Planning results

Query mode

In Query mode, interrogations can be performed with several search criteria. Data needs to be sorted after query.

The following steps are required for this:

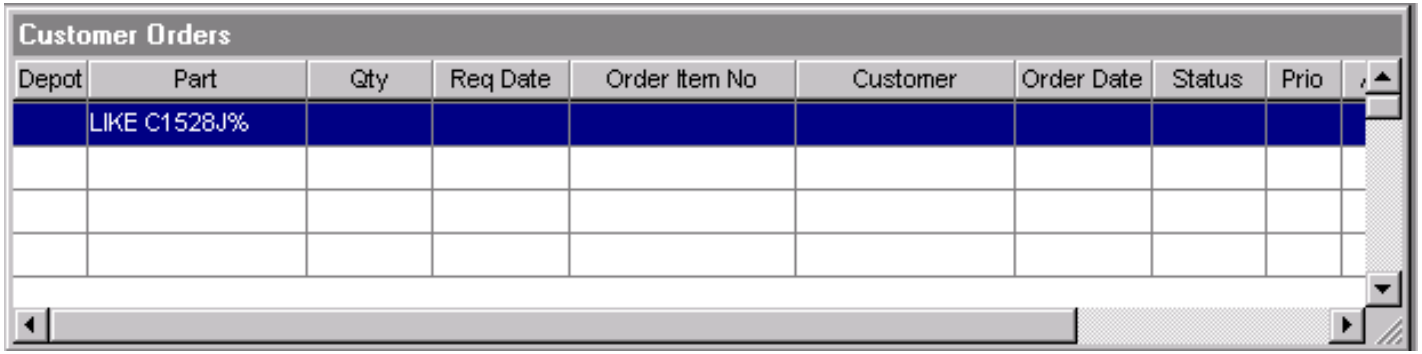
Select the window with the results

In the Files menu, choose Query Mode. The lines in the window are deleted when Query mode is activated, so that the search conditions can be entered.

Enter search condition. A search condition consists of an operator and the search word. Valid operators are >, <, LIKE, IN and BETWEEN.

In the Files menu, choose Execute Query. After selection is completed, the results of the query are displayed in the window.

Edit Planning results



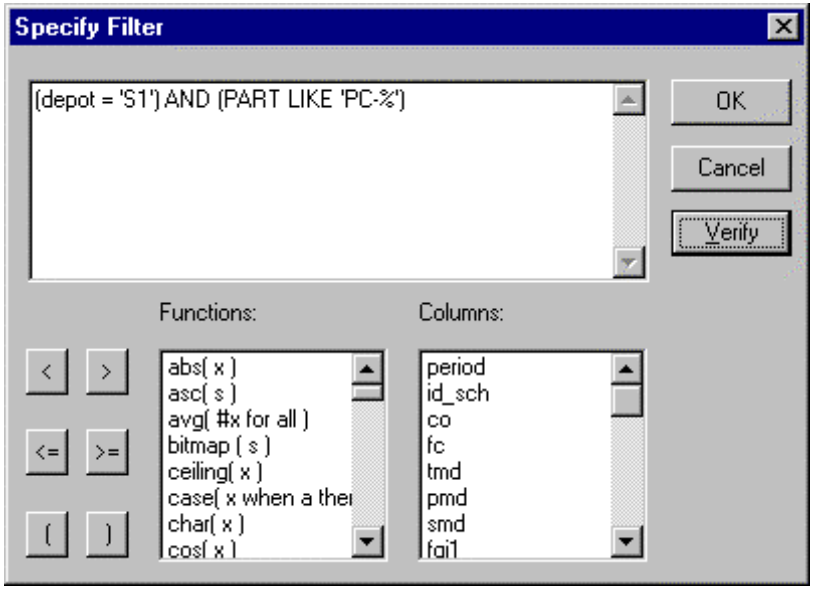
Edit Planning results

Customer Orders

Depot	Part	Qty	Req Date	Order Item No	Customer	Order Date	Status	Prio	Ack Date	Order Type
03	C1528J #ABA	3	03/09/99	18400000043803	TALLARD TECHNOL	03/01/99	C	TRADE	03/09/99	T1
	Sub	3								
L1	C1528J #ABA	2	03/10/99	361687926001L103	CONSULTORES EN	03/25/99	C	TRADE	03/23/99	T1
	C1528J #ABA	2	03/10/99	361595192350L101	CENTROS COMERC	03/10/99	C	TRADE	03/10/99	L1
		1	03/10/99	361666433002L101	CENTRO DE COMPU	03/10/99	U	UNCLE	03/10/99	T1
		8	03/10/99	361671804002L106	CONSULTORES EN	03/26/99	C	TRADE	03/24/99	T1
		7	03/10/99	18CE25370040L104	COMPUTER 2000 C	03/10/99	C	TRADE	03/28/99	T1
		1	03/10/99	R60225007001L101	CHS PROMARK COI	03/10/99	U	UNCLE	03/10/99	T1
		2	03/10/99	361667524002L101	VERTEX DE MEXICO	03/10/99	U	UNCLE	03/10/99	T1
		1	03/10/99	361678304001L101	INFONEXT, SA DE C	03/25/99	C	TRADE	03/23/99	T1
		8	03/10/99	18CE25370040L107	COMPUTER 2000 C	03/10/99	C	TRADE	03/29/99	T1
		1	03/10/99	361677204001L101	INFONEXT, SA DE C	03/10/99	U	UNCLE	03/10/99	T1
		1	03/10/99	361690052002L101	CHS ELECTRONICS	03/10/99	U	UNCLE	03/10/99	T1
		9	03/10/99	96UN00058001L101	UNISYS DE VENEZU	03/12/99	C	UNISY	03/09/99	T1
		2	03/10/99	361663980001L103	MPS MAYORISTA, S	03/26/99	C	TRADE	03/24/99	T1
		5	03/10/99	R61525004001L104	MPS MAYORISTA [	03/29/99	C	TRADE	03/27/99	T1
		1	03/10/99	361663982001L102	MPS MAYORISTA, S	03/29/99	C	TRADE	03/27/99	T1
		1	03/10/99	361595202350L101	CENTROS COMERC	03/30/99	C	TRADE	03/28/99	L1
		1	03/10/99	361687926001L102	CONSULTORES EN	03/25/99	C	TRADE	03/23/99	T1
		9	03/10/99	361595211300L101	ADCO, S.A. DE C.V	03/10/99	C	TRADE	03/10/99	L1
		1	03/10/99	361663977005L102	MPS MAYORISTA, S	03/25/99	C	TRADE	03/23/99	T1
		1	03/10/99	361621791001L101	INTERAX DE MEXIC	03/10/99	U	UNCLE	03/10/99	T1
		1	03/10/99	361650743001L111	INGRAM DICOM, SA	03/10/99	CC	CLEAR	03/10/99	T1
		1	03/10/99	361595191350L101	CENTROS COMERC	03/10/99	C	TRADE	03/10/99	L1
		34	03/12/99	361595193100L101	BANCOMER, SA	03/25/99	C	TRADE	03/23/99	L1
		18	03/26/99	361595193101L101	BANCOMER, SA	03/29/99	C	TRADE	03/27/99	L1

Edit Planning results

Filtering the results



The following steps are required for this:

Select the window with the results.

Load the results into the window.

Select Filter in the Files menu.

Select Mode in the Filter submenu.

Enter the filter expression in the filter definition box.

Execute Filter by pressing the OK button.

Edit Planning results

All lines, which were loaded in the window, are filtered. The Filter function can also be activated with the right mouse button.

Using the specify filter box

Define the filter by entering text in the filter definition box and inserting the operators, symbols, functions and column numbers where appropriate.

Repeat the procedure until the complete filter expression is defined. To verify the expression, click the Verify button. A message is displayed telling you whether the expression is valid.

Click OK. The syntax is verified. If there is an error in the syntax, a message displays. If no errors are found, the Filter Definition dialog box closes and the filtered data is displayed.

Edit Planning results

Fill Column

Fill Column allows to fill a column with the same value in each listed row.of any window. This functionality can be used together with filters or querries to isolate specific rows for a fill operation.

The following steps are required for this:

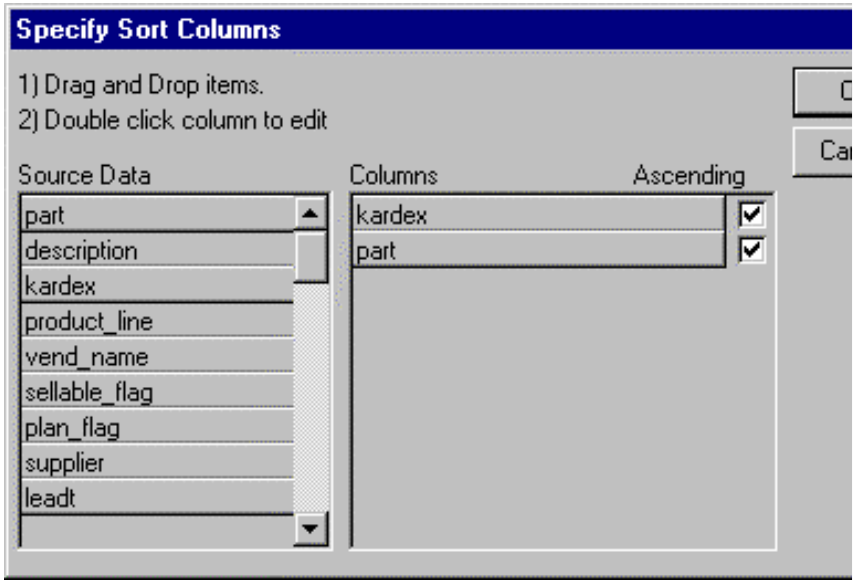
Select a field and enter a value.

Choose Fill Column from the Edit menu. (CTRL-U)

As the result all listed rows will have the same value in the selected column.

Edit Planning results

Sorting the results



The planning results, master data and reports can be sorted for further processing.

The following steps are required for this:

Select the window with the results.

Load the results into the window.

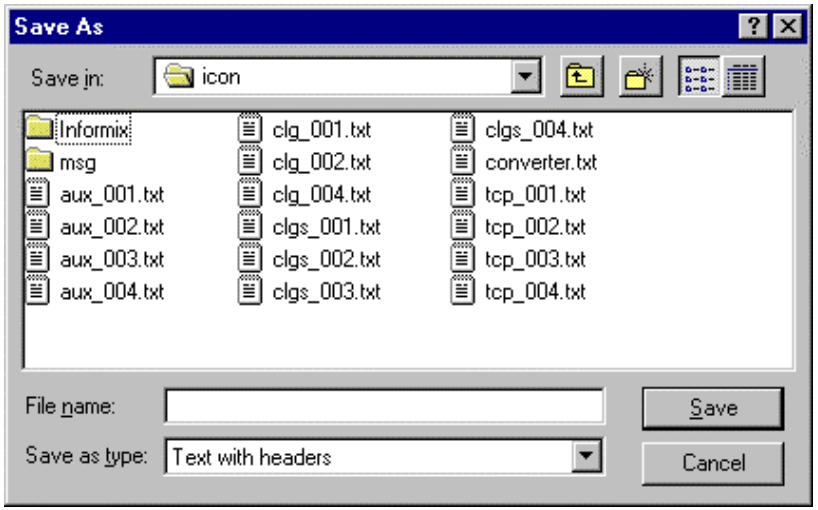
Select Sort in the Files menu.

In the menu Sort chose the columns and the sort order.

Execute Sort by pressing the OK button.

Edit Planning results

Export of the results for further processing



The planning results, master data and reports can be input to other programs for further processing. If you export the results, the **raw data** is exported and not the results you see in the window.

The following steps are required for this:

Select the window with the results.

Load the results into the window.

Select Save As in the Files menu.

Enter the filename in the Save As window.

In the listbox Save File as Type select the File Format.

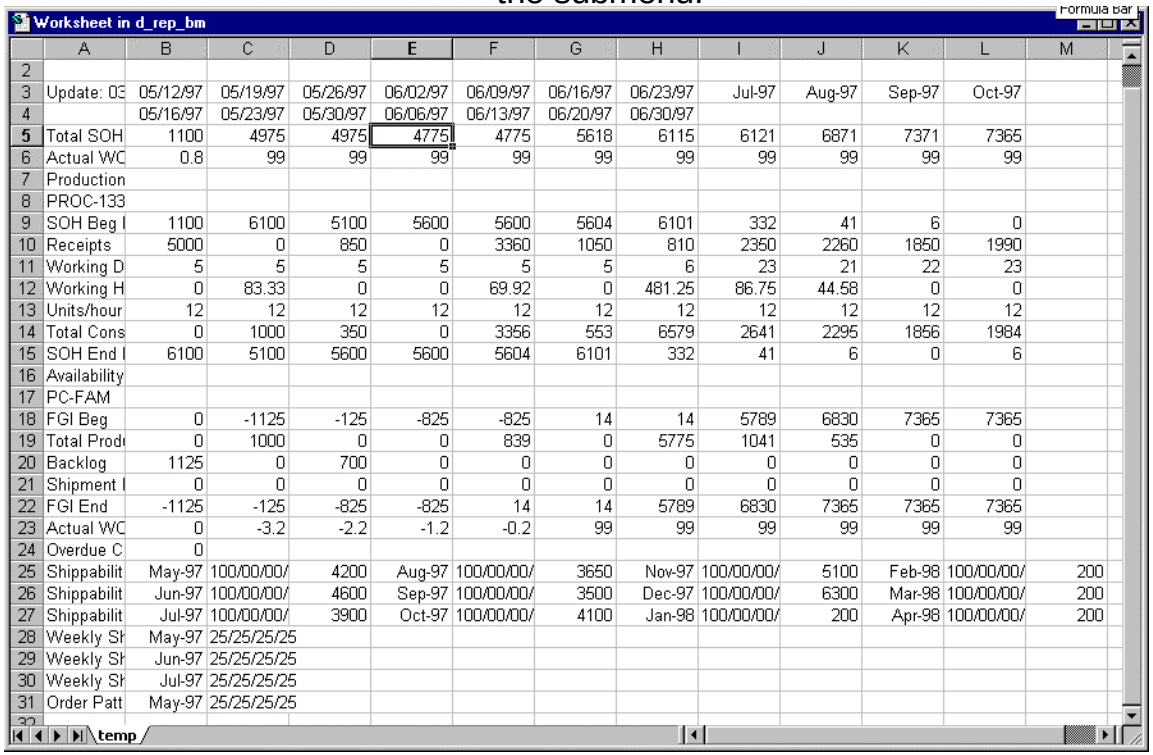
Set Directory and Drive if necessary.

Execute Export by pressing the OK button.

Edit Planning results

Load in Excel

To export the contents of a window directly into Excel, you may also choose the Files menu item Load in and select Excel from the submenu.



	A	B	C	D	E	F	G	H	I	J	K	L	M
2													
3	Update: 03	05/12/97	05/19/97	05/26/97	06/02/97	06/09/97	06/16/97	06/23/97	Jul-97	Aug-97	Sep-97	Oct-97	
4		05/16/97	05/23/97	05/30/97	06/06/97	06/13/97	06/20/97	06/30/97					
5	Total SOH	1100	4975	4975	4775	4775	5618	6115	6121	6871	7371	7365	
6	Actual WC	0.8	99	99	99	99	99	99	99	99	99	99	
7	Production												
8	PROC-133												
9	SOH Beg I	1100	6100	5100	5600	5600	5604	6101	332	41	6	0	
10	Receipts	5000	0	850	0	3360	1050	810	2350	2260	1850	1990	
11	Working D	5	5	5	5	5	5	6	23	21	22	23	
12	Working H	0	83.33	0	0	69.92	0	481.25	86.75	44.58	0	0	
13	Units/hour	12	12	12	12	12	12	12	12	12	12	12	
14	Total Cons	0	1000	350	0	3356	553	6579	2641	2295	1856	1984	
15	SOH End I	6100	5100	5600	5600	5604	6101	332	41	6	0	6	
16	Availability												
17	PC-FAM												
18	FGI Beg	0	-1125	-125	-825	-825	14	14	5789	6830	7365	7365	
19	Total Prod	0	1000	0	0	839	0	5775	1041	535	0	0	
20	Backlog	1125	0	700	0	0	0	0	0	0	0	0	
21	Shipment I	0	0	0	0	0	0	0	0	0	0	0	
22	FGI End	-1125	-125	-825	-825	14	14	5789	6830	7365	7365	7365	
23	Actual WC	0	-3.2	-2.2	-1.2	-0.2	99	99	99	99	99	99	
24	Overdue C	0											
25	Shippabilit	May-97	100/00/00/	4200	Aug-97	100/00/00/	3650	Nov-97	100/00/00/	5100	Feb-98	100/00/00/	200
26	Shippabilit	Jun-97	100/00/00/	4600	Sep-97	100/00/00/	3500	Dec-97	100/00/00/	6300	Mar-98	100/00/00/	200
27	Shippabilit	Jul-97	100/00/00/	3900	Oct-97	100/00/00/	4100	Jan-98	100/00/00/	200	Apr-98	100/00/00/	200
28	Weekly Sh	May-97	25/25/25/25										
29	Weekly Sh	Jun-97	25/25/25/25										
30	Weekly Sh	Jul-97	25/25/25/25										
31	Order Patt	May-97	25/25/25/25										

TWCD Concepts

This presentation will cover:

- TWCD concept and changes to the current process
- What impacts the TWCD
- Initialization of backlog
- Process measurements and support
- Process and system improvement

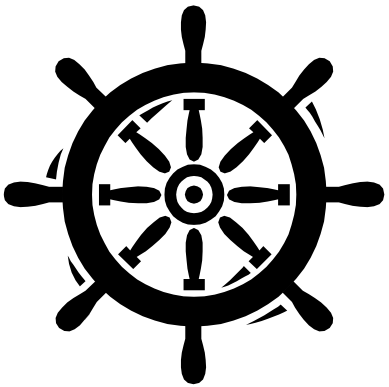
TWCD Concepts

Two Way Commitment Date

Committed base for shipment date, which has been agreed on by Customer and HP.

Credit status

Planning controlled parameters



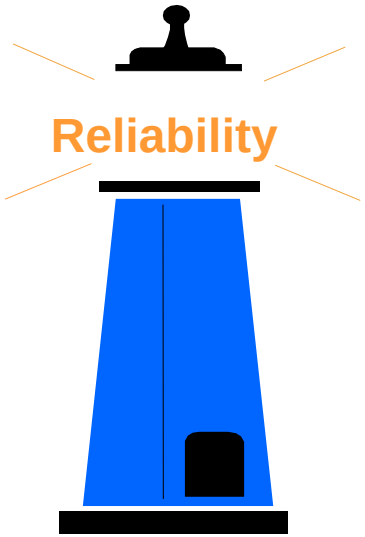
Availibility of supply

Supply file creation

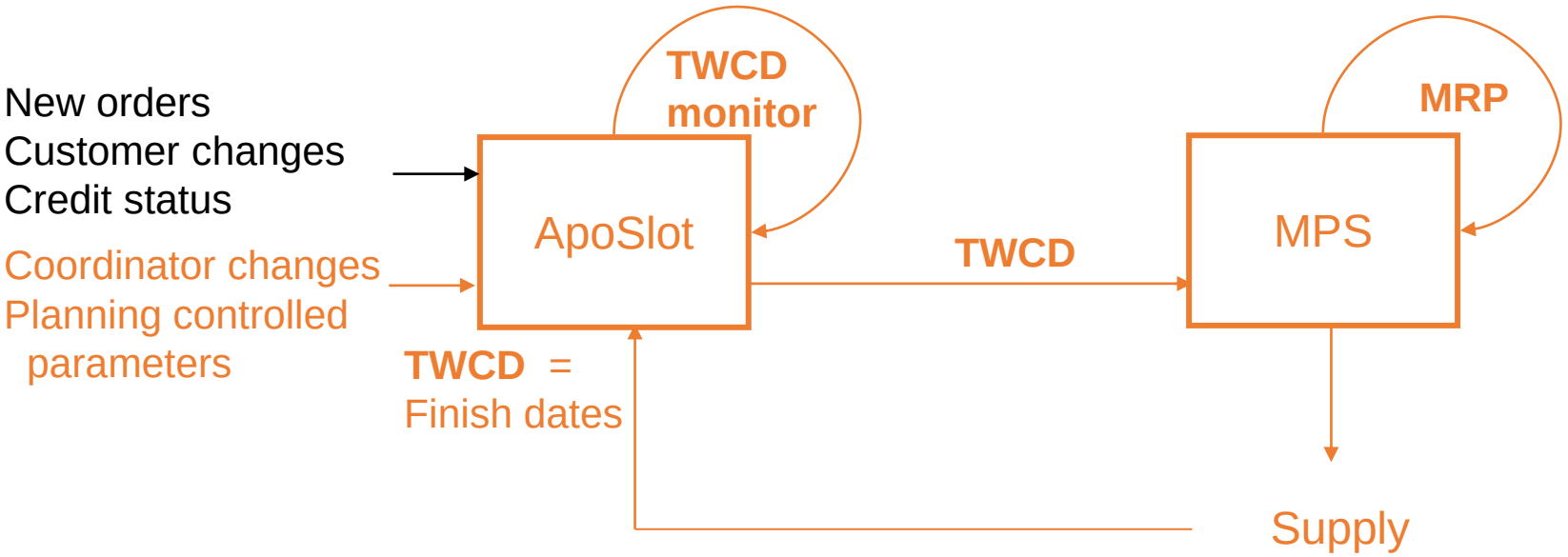
Changes to EAD

Changes to product/option/ increase quantity

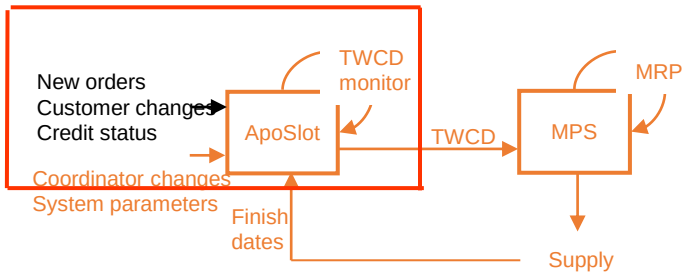
Prolonged unclear



TWCD Concepts

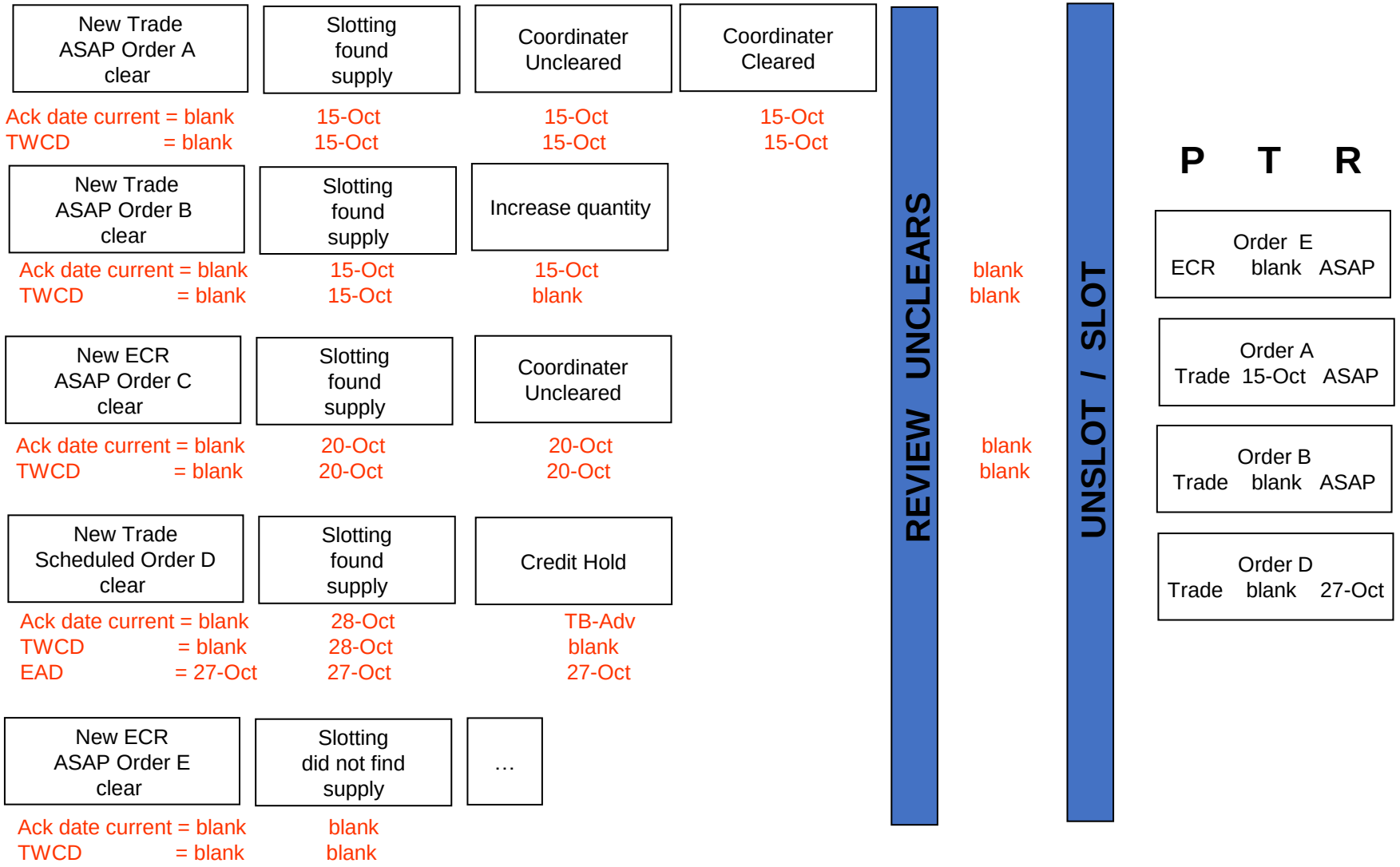


TWCD Concepts

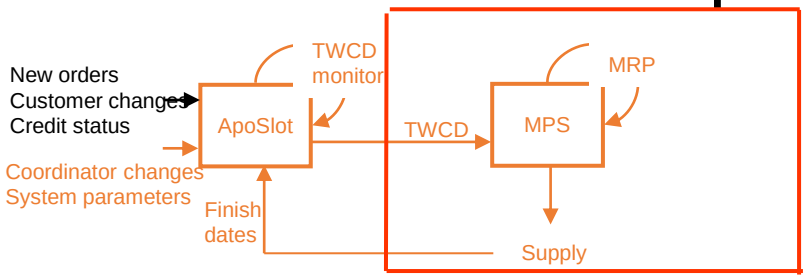


- Slotting in P(Business Priority), T(Ack date current), R(EAD) order
- Ack date current assigned vía Slotting from MM (FGI) and Supply file (POs, WOs, IWTs)
- TWCD = Ack date current or latest finish date
- Ack date current = blank if
  - * No supply
  - * Change in EAD or EAD Override
  - * Change in product, option or increase in quantity
  - * Credit hold
  - * Unclear over night

TWCD Concepts

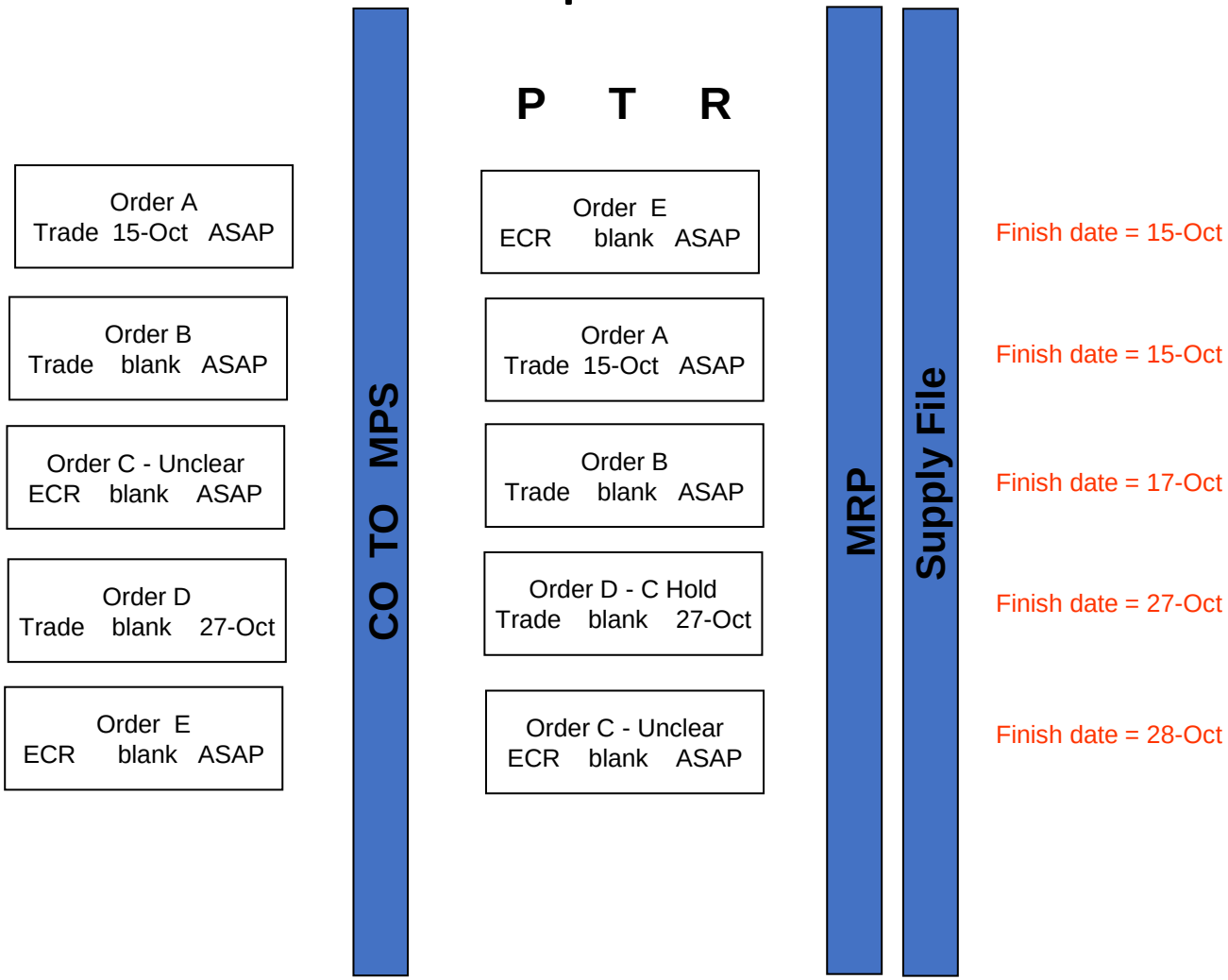


TWCD Concepts

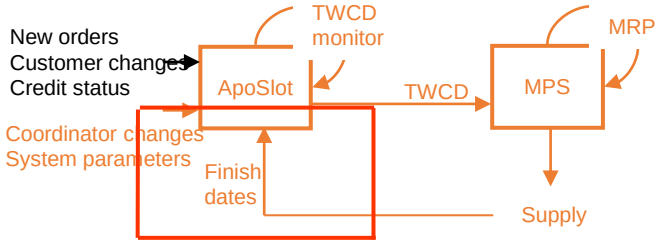


- MPS in P(Business Priority), T(TWCD), R(Required date) order
- Orders within the same priority are ordered: TWCD before orders w/o TWCD
- Required dates never in the past, therefore there is no required date aging effect

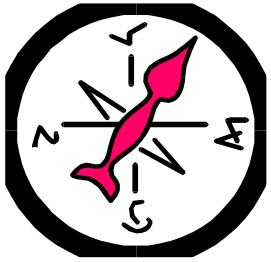
TWCD Concepts

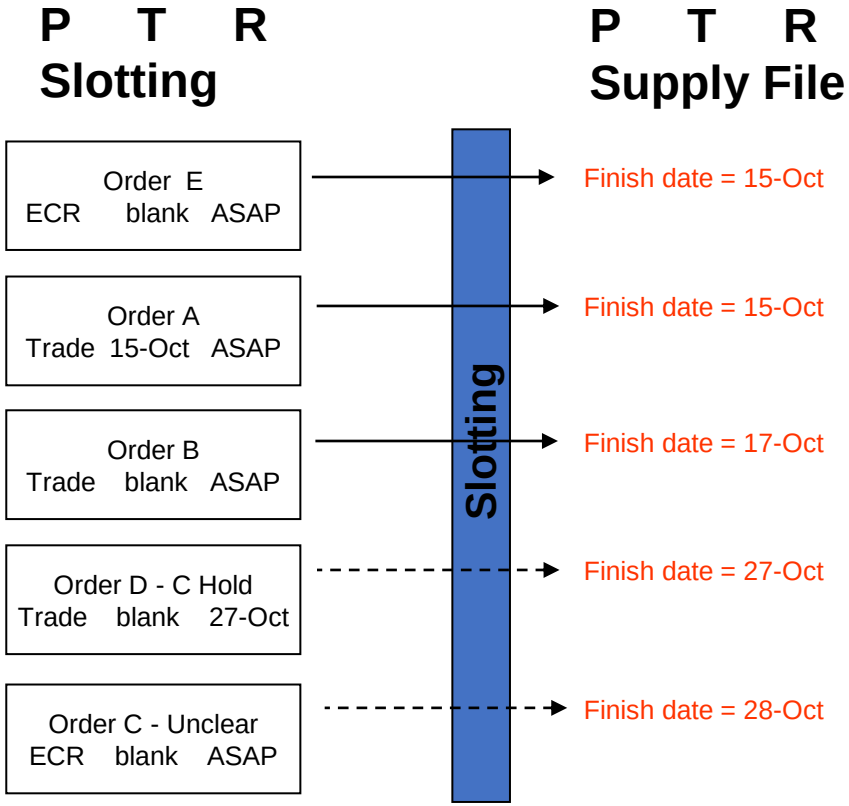


TWCD Concepts



Slotting and MPS
in same priority scheme





TWCD Concepts

- TWCD will NOT change if… we fail or improve shipment date

- Ship vs. 1st Ack will become
  Ship vs. TWCD

TWCD Concepts

What will NOT change

- Ack date current = blank or TB-ADV due to lack of supply or products off-slotting

- For partialized order:
  * Original partial will keep its Ack date current
  * New partial will be treated as a new order, ie Ack date current = blank

- Order slotted vs FGI before Ack date will not be released automatically (Pull-in report)

What impacts TWCD

Customer changes:

- Product or option changes
- Increase in quantity
- EAD or EAD Override changes
- Credit Hold

Coordinator changes:

- Unclear over night
- Manual acks or re-acks
- Manual slot

Planning controlled parameters:

- Products off-slotting
- Scheduling window

Systems:

- Supply file creation

Initialization of backlog

1. Justify and minimize products off-slotting
2. Confirm scheduling window by PL
3. Blank ALL Ack date current
4. Blank ALL TWCD
5. Initial cycle run: P T R (T = blank)
6. Next cycle runs: P T R