

Planning and Data Collaboration

Plating's spreadsheet: Was used to input data recollected from plating department. The data collected was total lead time, monthly usage, in house production time, etc. And with this data we calculated the rest of the cells. We assigned formulas to calculate the other cells like safety stock, buffer, or daily usage. All these procedures were applied also in the polishing dept, and manufacturing dept.

Material Number	Material Description	ABC	Stage	Unit	MP1 TAB	MP2 TAB	MP3 TAB	MP4 TAB	MP5 TAB	MP6 TAB	MP7 TAB	MP8 TAB	MP9 TAB	MP10 TAB	MP11 TAB	MP12 TAB	MP13 TAB	MP14 TAB	MP15 TAB	MP16 TAB	MP17 TAB	MP18 TAB	MP19 TAB	MP20 TAB	
	PLATING DEPT.		2008																						

I PRO 306 Value Stream Analysis of A Global Supply Chain



Introduction to Sloan

Sloan-Valve Company was started in 1906 by William Elvis Sloan. Mr. Sloan invented the Flushometer which was the first among the line of products they now produce and distribute globally. Their world headquarters is located in Franklin Park Illinois (seen below), which is also one of their largest manufacturing sites. Among the thousands of products produced at that facility, the manual flush valve is the main product created there. Castings are received from their Arkansas plant where they are then machined and assembled so they can be shipped out to their various distributors. The site employs up to 600 workers, and its estimated annual sales for 2007 were 50.4 million dollars.



Data Collection and Implementation

Display Multilevel BOM

Level no.	Component number	Rev. Level	Object description	Qty (Uln)	Uln	IC	Item Test Line 1	Item Test Line 2
1						EA	Item Test Line 1	Item Test Line 2
2						EA		
3						EA		
4						EA		
4						EA		
4						EA		
4						EA		
4						EA		

The Bill of Materials screen is used to show the different levels of an item. Starting from the casting all the way to the finished product.

Display Material 0308852 (A-Finished Goods - Sloan)

Material: 0308852

General Data:
 Base Unit of Measure: Each
 Purchasing Group: ABC Indicator
 Plant-sp. mat. status: Valid from

MRP procedure:
 MRP Type: MRP
 Resorder Point: Planning time fence
 Planning cycle: MRP Controller

Lot size data:
 Lot size: Lot-for-lot order quantity
 Minimum Lot Size: Maximum Lot Size
 Assembly scrap (%): Maximum stock level
 Rounding profile: Takt time
 Unit of Measure: Rounding value

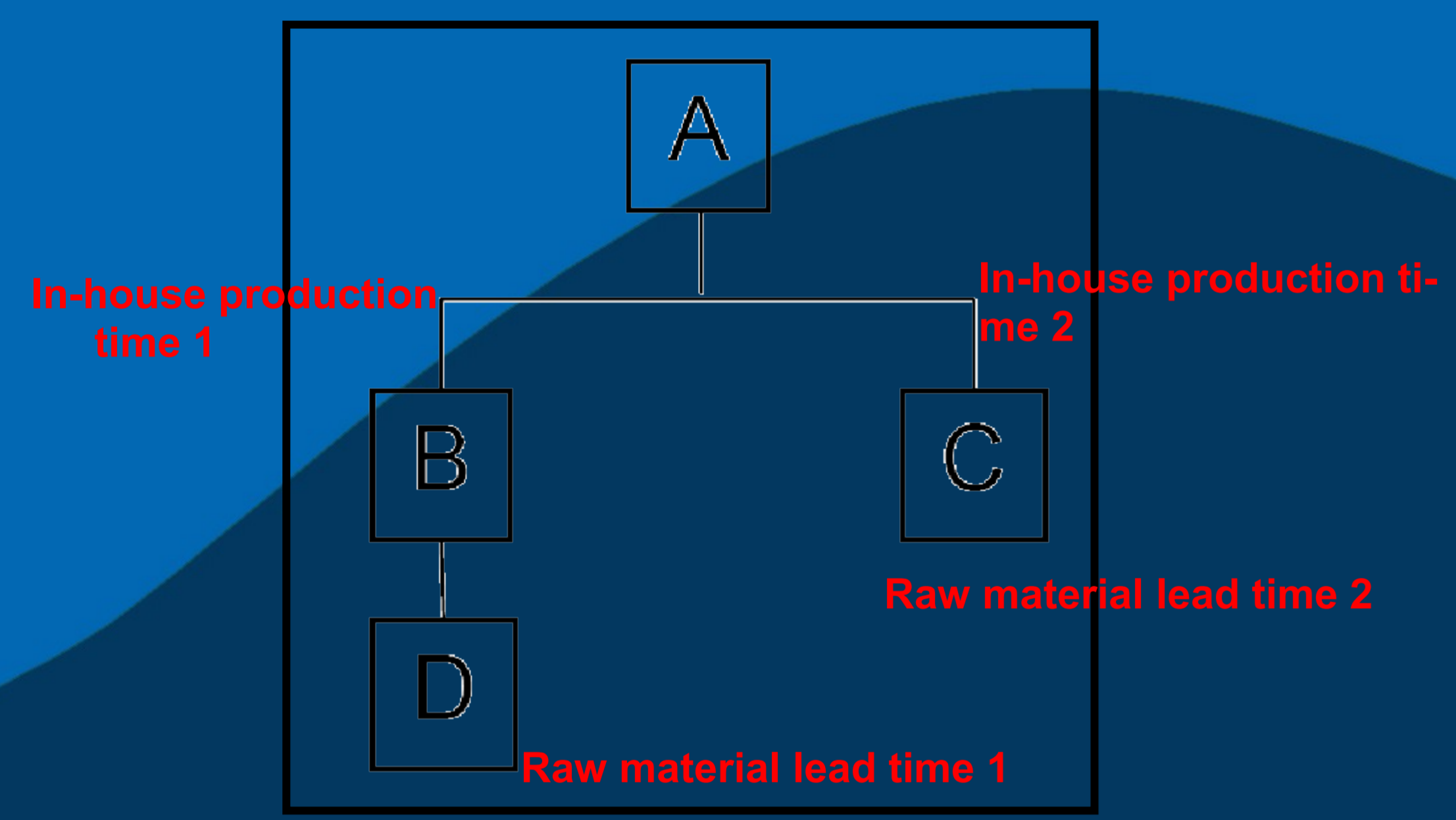
MRP areas:

This is the display materials screen where the data such as the scheduling margin key's as well as in house production times were collected. The different tabs contain numerous amounts of data on a material.

Planning Table for Repetitive Manufacturing: Change Mode

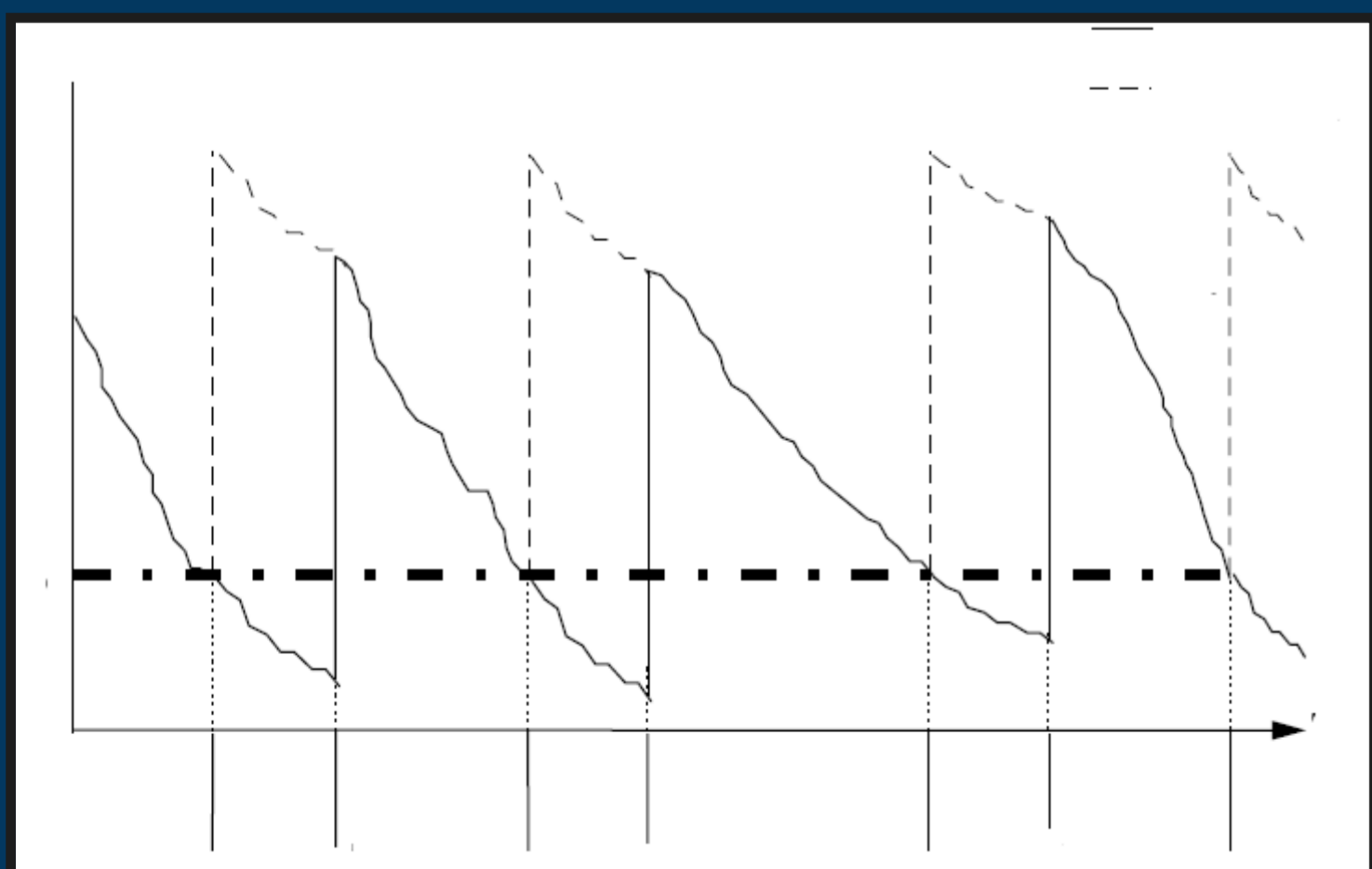
Material data	042099	042109	042209	042309	042409	042709	042809	042909	043009	050109	050409	050509	050609

This Display screen is used by the scheduler to monitor specific parts and determine how much of and when a specific part should be created in order to ensure it can be completed and the safety stock is maintained.



Total lead time: max(RMLT1+IHPT1, RMLT2)+IHPT2

Here you are looking at how we have developed one of the several formulas which was used to fill the spreadsheets. Pay attention to how this graph has been divided to calculate the total lead time. Several graphs were developed to calculate the other formulas.



Here, you would can identify the most important concepts in order to understand how we did the data collection and data calculation. For example, the Safety Stock is the level of extra stock that is maintained below the cycle stock to buffer against stock outs.

Goals of Scheduling

- Reduce shortage WIP 50%
- Reduce WIP inventory 50% by 2 days to less than 1 day in between process.
- Allowing an increase of 100% of inventory turns.
- Minimize obsolescence through better planning, balancing change over and inventory.
- Increase perfect order performance by 10%.
- Eliminate unnecessary overtime

