'Lean' Requirements Planning and Scheduling

John Grindley, Senior Consultant John.grindley@cistech.net



Agenda

- What do we mean by 'Lean'
- 'Lean' vs Traditional MRP
- 'Lean' Customer Service
- 'Lean' CRP
- 'Lean' Requirements Planning and Scheduling



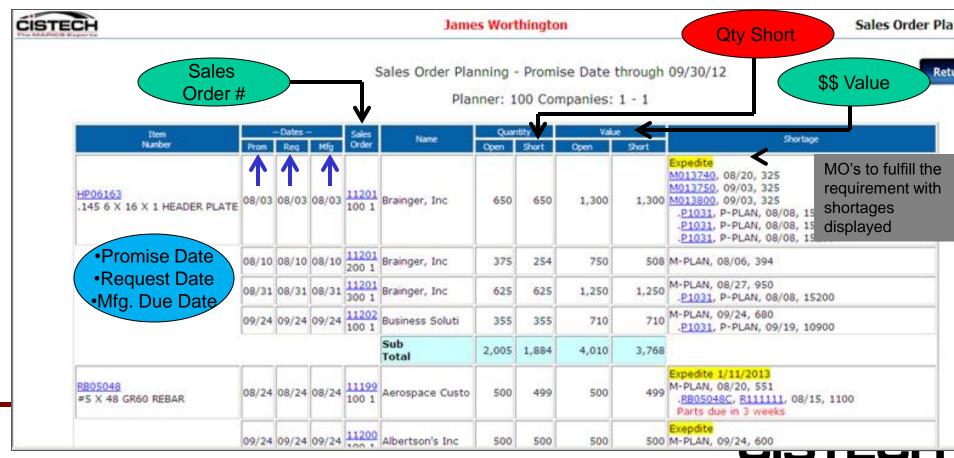
'Lean'?

- Customer Orders drive production
 - Pull resources needed to meet customer promise dates
 - Identify material and production constraints to meet those dates
- Traditional MRP pushes material and production
 - Visibility to Customer demand is a secondary consideration accessed by pegging
 - Results in 'noise' for planners



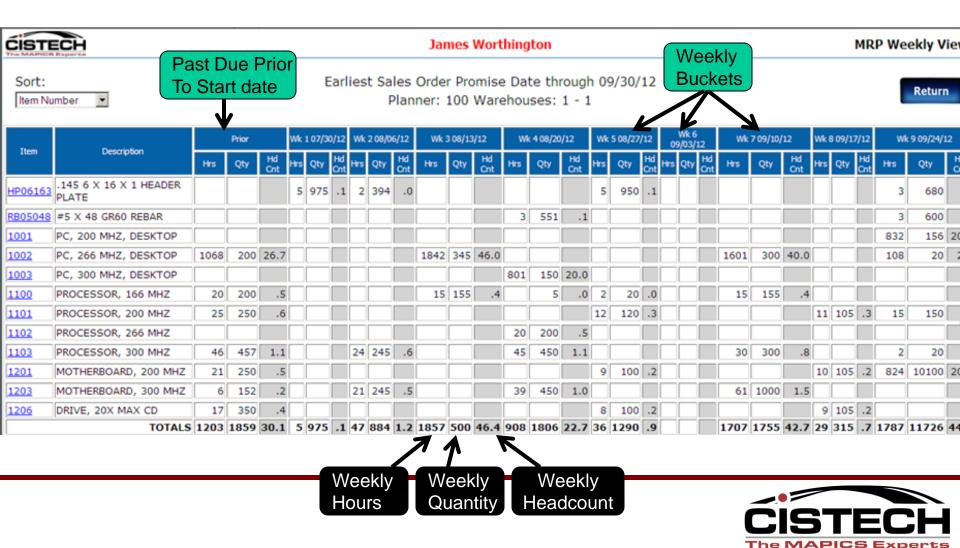
For Customer Service:

- List of customer orders that can ship
- List of customer orders with constraints

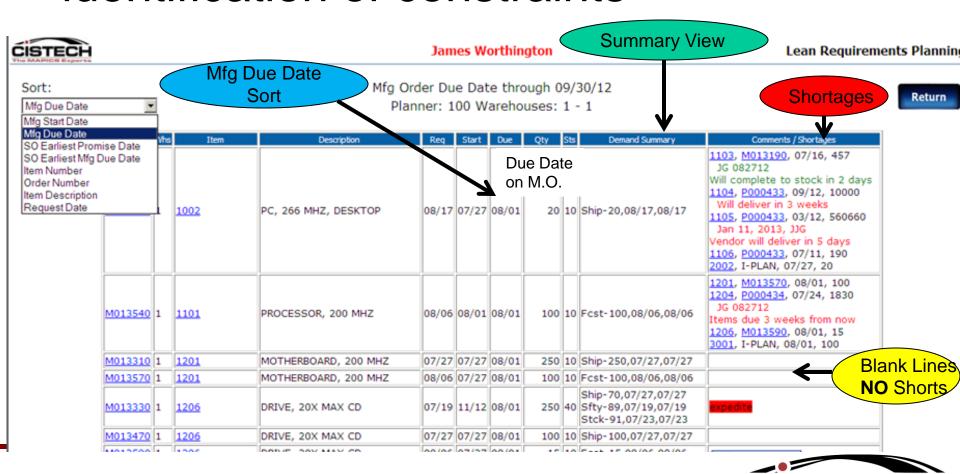


For Operations Managers:

Visibility of Capacity and Staffing needs

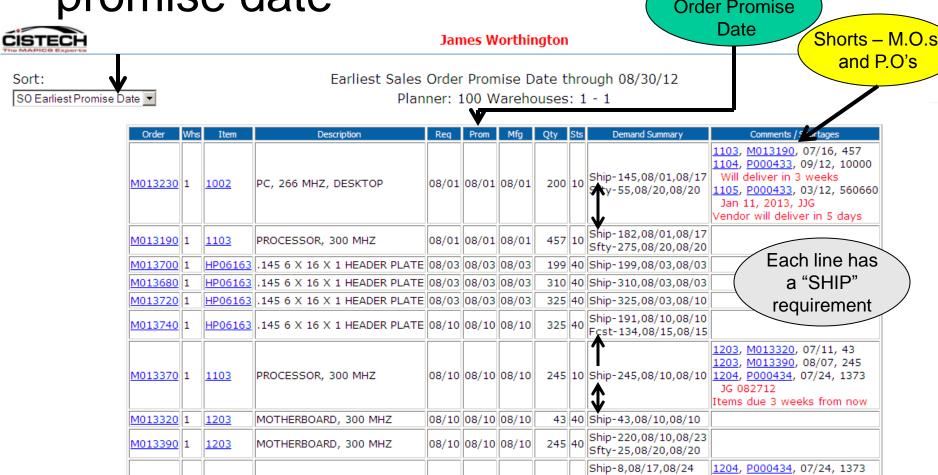


Simplified alignment of resources and identification of constraints



•Schedule set by earliest sales order promise date

Sort by Sales Order Promise





Release an M.O. from M-Plan

M-Plans Scheduled for release sorted by Sales Order Promise Date.

Sort: S0 Earliest Promise Date ▼

> Click to Create M

Earliest Sales Order Promise Date through 09/30/12 Planner: 100 Warehouses: 1 - 1

	Order	Whs	Item	Description	Req	Prom	Mfg	Qty	Sts	Demand Summary	Comments / Shortages
0	M-PLAN	1	1002	PC, 266 MHZ, DESKTOP	08/20	08/20	08/20	325	00	Ship-300,08/23,08/23 Sfty-25,08/20,08/20	1103, M013500, 08/16, 300 1104, P000433, 09/12, 10000 Will deliver in 3 weeks 1105, P000433, 03/12, 560660 Jan 11, 2013, JJG Vendor will deliver in 5 days 1106, R000239, 07/25, 570 jg 082712 Release PO today
>	M-PLAN	1	RB05048	#5 X 48 GR60 REBAR	08/24	08/24	08/24	212	00	Ship-153,08/24,08/24 Fcst-59,08/27,08/27	← No Sho
	M-PLAN	1	1003	PC, 300 MHZ, DESKTOP	08/24	08/24	08/24	150	00	M-Plan Quantity Ship-150,08/24,08/24	1103, M-PLAN, 08/21, 150 1104, P000433, 09/12, 10000 Will deliver in 3 weeks 1105, P000433, 03/12, 560660 Jan 11, 2013, JJG Vendor will deliver in 5 days 1106, R000239, 07/25, 570 jg 082712 Release PO today 2002, I-PLAN, 08/21, 67
	M-PLAN	1	1102	PROCESSOR, 266 MHZ	08/24	08/24	08/24	267	00	Ship-267,08/24,08/24	1204, P-PLAN, 08/15, 640 1207, M013210, 07/11, 57 Machine broke, rerouting 3002, I-PLAN, 08/15, 1419
	M-PLAN	1	1103	PROCESSOR, 300 MHZ	08/24	08/24	08/24	150	00	Ship-150,08/24,08/24	1203, M013460, 08/09, 300 1203, M013530, 08/16, 150 1204, P-PLAN, 08/15, 640



Schedule by Workcenter – Automatic Sort by Sales Order Promise Date

Sort: SO Earliest Promise Date ▼ Earliest Sales Order Promise Date through 09/30/12

Workcenter: 9000 Warehouses: 1 - 1

	Order	Whs	Item	Description	Req	Prom	Mfg	Qty	Sts	Demand Summary	Comments / Shortages
7	M013230	1	1002	PC, 266 MHZ, DESKTOP	08/01	08/01	08/01	200	10	Ship-145,08/01,08/17 Sfty-55,08/20,08/20	1103, M013190, 07/16, 457 1104, P000433, 09/12, 10000 Will deliver in 3 weeks 1105, P000433, 03/12, 560660 Jan 11, 2013, JJG Vendor will deliver in 5 days
M.O.s and	M013190	1	1103	PROCESSOR, 300 MHZ	08/01	08/01	08/01	457	10	Ship-182,08/01,08/17 Sfty-275,08/20,08/20	
M-Plans can be displayed	M013370	1	1103	PROCESSOR, 300 MHZ	08/10	08/10	08/10	245	10	Ship-245,08/10,08/10	1203, M013320, 07/11, 43 1203, M013390, 08/07, 245 1204, P000434, 07/24, 1373 JG 082712 Items due 3 weeks from now
	M013320	1	1203	MOTHERBOARD, 300 MHZ	08/10	08/10	08/10	43	40	Ship-43,08/10,08/10	
	M013390	1	1203	MOTHERBOARD, 300 MHZ	08/10	08/10	08/10	245	40	Ship-220,08/10,08/23 Sfty-25,08/20,08/20	
	M013300	1	1100	PROCESSOR, 166 MHZ	08/15	08/15	08/15	200	10	Ship-8,08/17,08/24 Fcst-92,08/15,08/15 Sfty-100,08/20,08/20	1204, P000434, 07/24, 1373 JG 082712 Items due 3 weeks from now
	M-PLAN	1	1002	PC, 266 MHZ, DESKTOP	08/20	08/20	08/20	325	00	Ship-300,08/23,08/23 Sfty-25,08/20,08/20	1103, M013500, 08/16, 300 1104, P000433, 09/12, 10000 Will deliver in 3 weeks 1105, P000433, 03/12, 560660 Jan 11, 2013, JJG Vendor will deliver in 5 days 1106, R000239, 07/25, 570



Sales Order Line items

Manufacturing Due Date

Customer Order Promise Date+ Manufacturing Due Date

Powerlink/ MRP Recommendations Lean
Requirements
Planning and
Scheduling

- Planner releases M.O.
- Component availability check
- •Review exception messages
 - Reschedules of M.O.s
- •Material Req based on start date of M.O.
 - Shortage reports/Screens

- Planner or Shop Floor releases M.O.
- Automatic Component availability check
 - No Review exception messages
 - No Reschedules of M.O.s
 - •Material Requirements align to Promise Date
- •Short Items show on screen linked to M.O.

Shop floor Execution

Shop floor Execution



Demonstration



Summary



Sales Order Planning

- Visibility of Sales Orders that can Ship Immediately
- •Visibility of Production Status directly related to Individual Customer Orders.
- •Flexibility to View Production Status of Sales Orders by Item, Customer, Planner, or Business Unit
- Hyperlinks to Inventory and Production Status.
- Bookings Visibility by Dollar and Customer
- Material Plan Visibility Impacting Bookings or Planned Shipments thru a given Date Range
 - by Promise Date, Request Date, or Mfg. Due Date.



Capacity and Labor Planning

- •Displays Weekly Material Plan and Load requirements.
- Hourly Load and Material Requirements Displayed in Weekly Buckets
- Past Due Visibility for Hours and Material
- Selection by Planner, Buyer, Vendor, Item, Workcenter
- Hours and Headcount requirements are calculated based on Routing Information.
- •Immediate Calculation of Load Requirements for planned orders, released orders, active orders, or ALL.
- Date Range Selection is by MFG Due Date, or Sales

Order Promise Date



'Lean' Planning and Scheduling

- Planning Tool Links Shop Floor Activity,
 Customer Requirements, and Production Plan
- Automatic Scheduling for Shop Floor by Sales Order Promise Date thru Multiple Levels in the Product Structure.
- •Ability to View Production Plan based on Sales Order Promise Date, Request Date, or Mfg. Due Date by Planner, Item, Workcenter or Business Unit.



'Lean' Planning and Scheduling

- •Immediate Feedback of Requirements which can be released to Production with no Material Shortages, and Shortages which impact the current plan.
- •Interactive Real Time Shop Floor Notes for Status, Follow-up and Execution for each Department to Streamline Production Meetings.
- Vendor Material Requirements Displayed Instantaneously Impacting the Production Plan to meet Customer Sales Order Promise Date.



Implementation Considerations

- Use existing XA data
 - PDM/EPDM and CO, PO, MO, REP status
 - MRP with Source of demand (Populated by AVP)
- Accessible through web browser
- 4-5 days installation, education, testing
- 2-3 days go live and training
- Assistance available for data cleanup
 - Planner codes, buyer and vendor numbers, manufactured items vs purchased items, etc.



Technical Requirements

- XA R6.0 and higher
- PMC, PDM/EPDM, MRP/AVP
- iSeries Web Server setup
- No charge IBM Web Development tool (CGI Dev)



Next Steps

- Discuss status and requirements
- Tailored presentation
- Project proposal with costs and timing



Questions?

Thank you!

