Infor Planning Tools

From Demand to Execution

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Overview M3 Planning Tools

- Demand Planner: Accurate customer demand
- Supply Chain Planner: Rough Cut Capacity Plan
- MRP Planning: Material Requirements Planning
- Scheduling Workbench: Feasible medium term plan
- Scheduling Workbench: Short term scheduling & sequencing
- Manufacturing Execution
M3 Demand Planner (DMP) - distributed forecasting

- BE
- Sales statistics
- Forecast administrator
- Subset
- Subset
- Subset
- Subset

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M3 Scheduling Workbench (SWB)

- What if Scenarios
- Scoreboard for Exception based Planning
- Visibility of Entire Order Network
- People Planning
- Material Checking and Control
- Optimal Batch Sizing
- Sequence Optimization
- Automated Pre-Allocation
- Capacity Bottleneck Identification and Handling
- Synchronization of Material & Capacity
Infor Supply Chain Planning Tools

Integrated Business Planning

Sales & Operations Planning  Demand Planning

Supply Planning  Inventory Optimisation

Product Innovation  Production Scheduling
End to End Supply Chain Capability

Network Design

Demand Planning

Inventory Planning

Supply/Production Planning

Production Scheduling

S&OP

Warehouse Management

Labour Management

Billing Management

Transport Planning

Transport Optimisation & Fleet Scheduling

Supplier Collaboration

Strategic

Tactical

Operational
Infor Supply Chain Execution - A Smart Unified WMS Solution
Integrated Business Planning
Integrated Business Planning

• Central application for all business and supply chain planning
• Workflow & Exception Management
• Risk Management
• One common data repository
Infor Supply Chain Management – Complete the Application

Integrated Business Planning
- Sales & Operations Planning
- Supply Planning
- Product Innovation
- Demand Planning
- Inventory Optimisation
- Production Scheduling

Supply Chain Execution
- Warehouse Management
- Supply Chain Design
- Billing & Invoicing
- Transportation Management
- Labour Management
- Voice & Mobility

Supply Chain Optimization
Sales & Operations Planning

Enables decision makers to achieve consensus on a single operating plan that profitably matches supply and demand while aligned to the executive business goals.
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- Demand Review
- Supply Review
- Pre-S&OP meeting
- Executive S&OP meeting
Why a solution for supporting S&OP?

• S&OP is a key business process for manufacturers
  • Yet >80% use spread-sheets to support the S&OP process*
• Causes of dissatisfaction with existing S&OP systems
  • No what-if analysis
  • Non-integrated supporting applications
  • Poor data integrity, quality and availability
  • Weak executive reporting and performance analysis
  • Difficult to use
  • No support of the process
  • No audit trail of decisions taken
• Key finding - inadequate systems support is inhibiting S&OP process improvement

* Sales & Operations Planning : DNA of the Best-in-Class, Aberdeen, July2010
Infor Sales & Operations Planning

- A *process support* solution
- Meets all levels of S&OP maturity: simple to comprehensive
- Complimentary to your existing supply chain solutions
- ERP independent

Specialist supply chain applications
Infor Sales & Operations Planning

Sales and operations planning (S&OP) is an integrated business management process through which the executive/leadership team continually achieves focus, alignment and synchronization among all functions of the organization.

- Drive a repeatable, auditable S&OP process
- End to End what-if analysis, instant impact of decisions on KPIs
- Track KPIs, budgets and business plans
- Plan for Profit
- S&OP Playbooks. Builds the agenda of your pre-S&OP meeting.
## Infor S&OP

### Enterprise
- Acme Company

### Cycle
- Normal
- M&A

### Cycle Period
- January FY11
- February FY11
- Q1 FY11
- Q2 FY11

### Modules
- Finance
- Demand
- Supply
- Integrated

### Scenario/Status
- Baseline - WIP
- Upside - Published
- Baseline - Approved
- Baseline - Review
- Baseline - WIP

### Workflow/Tasks
- Check Configuration
- Complete Demand Scenarios
- Check Calendar
- Approve Demand Baseline Scenario

### Worksheets
- Supply Scenario Comparison
- Demand Margin Analysis
- Forecast Accuracy
- Days on Hand
S&OP Dashboard
YTD performance on track with Original Budget
Drill to a level to input scenario data
Original vs Revised Budget
Note created to capture assumptions

New scenario added to reflect expected increase of 10% GM for FY13 - Brand Launch in Asia
Demand Review – Forecast accuracy with drilldown
Input key changes to the new demand scenario
Capture demand scenario assumptions
Current baseline plan within existing capacity
Review new scenario considering infinite & finite capacity
Review impact of baseline vs new supply scenario
Capture supply assumptions
Generate Playbook capturing all key notes, assumptions & screens
CONTROL ACTIVITIES IN THE SOP PROCESS
Infor Advanced Planning (Process)

- Advanced Manufacturing Planning for true **supply chain optimization**
- Holistically optimize across manufacturing, transportation, inventory
- Optimal use of resources at **least supply chain cost**
- **Finite** capacity planning adhering to all relevant constraints
- **Scenario** comparison between plans
- Industry-specific:
  - Dis-assembly, by-products
  - Batch-size optimisation
  - Shelf-life, push/pull
  - ATP/CTP
How Does Infor AP Help?

• Which Production Site?
• Which Line?
• Stock build or overtime?
• Overtime or outsource?
• Make or Buy?
• Can I meet that peak demand?
• Production line down – how to meet the plan?
• What’s the least cost option?
• Impact of currency, transport or material prices?
Infor Advanced Planning
Optimised Production Planning

- Capacity constrained **achievable** plan considering and **trading off** all known constraints

- **Balance** demand against service levels based on multiple supply constraints
  - Capacity
  - Material

- Dynamic sourcing & make vs. buy decision support

- **Trade off's** of Manufacturing vs. Inventory Holding vs. Transportation

- Plan to achieve lowest total supply chain cost
Yara International ASA

**Profile**
- Global company specializing in agricultural and environmental protection agents
- World largest supplier of mineral fertilizers with sales in over 120 countries
- 15 manufacturing plants worldwide, offices in over 50 countries

**Solution**
- Infor Demand Planning
- Infor Advanced Planning

**Business Challenge**
- Need for clear, global view of demand and supply across the business
- Optimize production capacity within an environment of extreme demand volatility by balancing production capacity, inventory and proximity of facilities to customer demand

**Results**
- Significantly improved visibility into demand enabling the company to move products and production around more quickly and respond better to market needs
- Better forecast due to sophisticated statistical forecasting
- Better compare history with future projections, due to integration with over 10 different systems allowing for better visibility into historical data
Infor Advanced Production Scheduling

• A unique constraint-based scheduling solution uniquely designed with process manufacturing differences in mind

• Infor Advanced Scheduling delivers:
  • Realistic, achievable production schedules that are optimized and constrained by capacity, materials and labor resources
  • Optimum production sequencing that minimizes unproductive time
  • Management of “volume” constrained resources (tanks & vessels)
  • Command of both continuous & batch flow environments
  • Easy to use graphical and interactive scheduling solution
  • Operates alongside any ERP system to provide advanced shop floor scheduling
Tank scheduling

- Does a storage tank ever have inflow from more than one production batch?
- Do you ever split one production batch over two storage tanks?
- Does a production batch ever have input from multiple storage tanks?
- Do you ever have simultaneous output from one tank to multiple processes?
- Is unavailability of tanks ever a reason for unplanned waiting times?

If you have answered yes to one of the questions above and you have the need to allocate products to tanks dynamically, you will need a flow scheduling tool.
View packing lines: filtration + piping constraints in and out HBK, HBK tanks, filling lines, beer-stock in maturation (evolution in coming weeks)
Advanced Scheduling - Functionality

Synchronizing over multiple resources
Against finite capacities
resources, utilities and enabling resources
Tanks, vessels and silo’s
With complex time relations
Flow, Flow buffer, Inline
Flow Source and Pushed
Batch, Batch Buffer, Inline

Set-up
Inflow only
In- & outflow

Outflow

Inflow only
Change-over

Outflow only
Standing time

Inflow

Outflow

Inflow only
Change-over
Typical Customer Results by using Infor Advanced Scheduling

- Improved on-time delivery performance by up to 5%
- Reduction in lost time due to changeover by up to 30%
- Reduction in cycle times of over 20%
- Reduction in production costs by as much as 10%
- Reduction in inventory waste by 5%
- Increase in capacity utilization and throughput between 10-40%
Profile

- World leading brewer
- 170 brands including Heineken, Amstel, Fosters
- Netherlands implementation
  - Three primary breweries
  - Multiple distribution centers

Solution

- Infor Advanced Planning
- Infor Advanced Scheduling

Business Challenge

- Source across three breweries in Netherlands
- Plan tactical stock build for summer peak
- Balance long lead time (brewing) with packaging (pull)
- Manage total inventory in supply chain (including USA & export)

Results

- Freed-up one whole tank in the schedule
- Reduced changeover on packaging lines
- Better balance brewing and packaging
- Lower finished product inventory
- Halved warehouse capacity in region (2 to 1)
Infor Supply Chain Management

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Supply Chain Optimization
Infor Supply Chain Management Business Unit

- Global
- Industries
  - Manufacturing; Distribution; Retail
- Dedicated resources
  - sales, consultancy, marketing, and development
  - 20+ years track record
- Global Reach
  - Global support 24x7; Unicode
- Proven
  - >1,800 SCM Customers
  - Strong SCM competence in EMEA