

# **Features and Benefits**

nMetric software provides capabilities in four main areas of any make-to-order enterprise, all uniquely powered and/or informed by patented Smart Job technology. Click on any capability and see the features and related benefits available to make scheduling easier and more productive in your organization.

# Real-time, Forward-Looking Constraint Management

### **Features**

- nVironment resource utilization graphics and drill down to identify production bottlenecks and under-utilization
- Now Line updates as time passes, automatically pushing tasks not completed forward and adjusting dependent tasks to reflect reality
- All sequential task dependencies enforced and maintained automatically
- Complete Gantt chart view of all scheduled resources with drill-down and onscreen call-out details
- Dispatch Zone freezes schedule in near term for efficient staging of materials and machine programming
- Scheduling Time Thresholds/Fences, where tasks are not permitted to pass the time threshold if designated conditions are present:
  - » Material threshold holds back tasks not ready for completion due to material not in-house
  - » Engineering or credit hold thresholds
  - » Easily add/edit resources including changes to attributes and available time

- Visibility of future resource workload and shop floor activities
- Increased throughput
- Reduced cycle time
- Greater flexibility to manage high product mix and make-to-order environments
- Reduced lead-time requirements
- Reduced days sales outstanding due to timely shipments
- On-time completion status and accurate ship date visibility
- Proactive customer communications and faster response times
- Predictive and preventative maintenance of resources and immediate response to unplanned downtime

## **Production Scheduling Arranging & Tracking**

#### **Features**

- Attribute-based scheduling with priority
- Drag and Drop for easy manual schedule management
- Dependencies in sequential tasks maintained dynamically
- Transport time buffers between tasks reflecting actual time required to move work in process (WIP) between work areas
- Operational overlap to shorten cycle time on large orders
- Informational call-outs for each scheduled task
- MES tracking:
  - » Starts and completions
  - » Scrap and rework
  - » Hold and pause
- Resource availability calendars
- Unplanned resource down rescheduling
- Notes for proactive communication between shop floor, maintenance, customer service and management; notes available for:
  - » Smart Jobs (general, hold, scrap and rework)
  - » Resources
  - » Customers

- Visibility into future work demand for the entire enterprise as well as each individual resource
- Track who made what, when, and using which resources, creating an electronic trail for warrantee and recall analysis
- Scrap and rework tracking
- Reduce work in process (WIP) as production bottlenecks are addressed
- Improved operational communications
- Visibility to manage JIT material and parts purchasing
- Reduction in unnecessary buffer or WIP inventory
- Achieve Make-to-Order production goals
- On-time shipment advance visibility
- Proactive scheduled man-hour management
- Focused overtime management
- Sales/Manufacturing alignment

### **Resource Change Response**

#### **Features**

- Time segment management
  - » Set-up, run and cleanup times
- Drag-and-drop manual move of tasks between qualified resources
- Resource availability time profiles
  - » Set/Edit shifts and holidays
  - » Add overtime
  - » Schedule maintenance downtime
- Immediately adjusts resource schedule when unplanned downtime entered
- Options to pin tasks to specific resource, time or both
- Hot order option to expedite critical orders to top priority status
- Event-based alerts to proactively address critical conditions:
  - » Maintenance personnel for unplanned downtime
  - » Customer service for critical order lateness or delay
  - » Customer configurable events

- Increased throughput
- Improved skill/competency allocation
- Visibility to future impact of changes to shop workload and resource constraints
- Proactive and focused use of overtime
- Proactively address and resolve unplanned events
- Fast adjustment to absenteeism/worker turnover
- Proactively acquire the right resource skills/ capabilities
- Increased delivery reliability
- Reduced missed or late shipments
- Expedite and prioritize prototype and new product production
- Reduce scheduler/expediting man-hours
- Reduce direct worker supervision

### **Performance Analysis**

#### **Features**

- Lateness of orders and tasks clearly visible with color display on Gantt chart
- Overall lateness performance summary KPI (%)
- Aged lateness drill down with numbers of orders and detail:
  - » Past due
  - » Will be late (no change can help)
  - » Could be late (if no intervention in resource availability)
- KPI and drill down details for:
  - » Cycle time
  - » Throughput
  - » Resource utilization
- Standard reports
- Role-based security ensures only authorized users perform appropriate actions

- Real-time KPI visibility of operational status for:
  - » Lateness
  - » Cycle time
  - » Throughput
  - » Capacity utilization
- Configurable role- and event-based alerts provide opportunity to proactively resolve problems
- On-time/lateness visibility enables proactive customer communications resulting in improved satisfaction
- Improved traceability, error identification, liability control in the event of recall or warrantee actions
- More accurate enterprise-wide visibility into operations and reporting