



MANAGE

DRUM-BUFFER-ROPE (DBR)

WHAT IS DRUM-BUFFER-ROPE (DBR)?

It is a constraint-based production scheduling process designed to provide significantly better performance outcomes – on-time, lead time and cost. Controlling performance outcomes is accomplished through visibility of each order's completion status across a mix of orders with clearly connected work assignment priorities. Well-defined work completion updates are used to determine predicted buffer consumption and shifts in resource loading that need to be proactively addressed.

MANAGE provides an easy to understand priority system for all in-process work which significantly improves execution management. Problem areas where work is queuing are identified and priorities adjusted while there is still time to do so without disruption or the need for additional resources.

*Unless your business performance has reached **Infinity**, your performance is **Constrained**!*

Constraint-Based Decision-Making significantly improves workflow management, customer service, and bottom-line performance.

AGI's Decision-Support Software provides an effective, easy-to-use constraint-based workflow management capability for improved performance whether the workflows are Project, Production, or Inventory-based.

*Visibility and Control –
Order Status, Work Priority and Resource Loading*

BUSINESS ISSUES

From a business perspective, the purpose of all planning and scheduling activities is to control delivery and achieve desired cost performance. Whether actually effective or not, every workflow intervention – or “expediting action” – introduces additional variability which further increases workflow turbulence and results in the need for more interventions. Hence, business performance control is best accomplished through focused and very limited workflow interventions.

Control means seeing what is coming before it arrives with adequate time to respond and adjust.

Constant rescheduling, commonly called “dynamic scheduling”, results in an out-of-control Business Management Process. It leads to uncertainty, not predictability

KEY FUNCTIONALITY OF MANAGE

Time buffers, properly sized and positioned, are designed to absorb time delays in workflow and protect completion commitments.

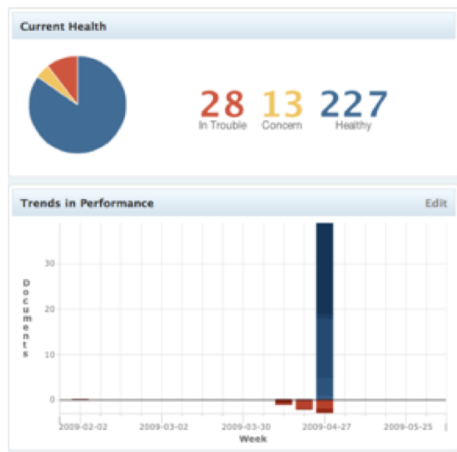
It is the relationship between actual and planned Time Buffer Remaining that powers the “ONE number priority system” you can rely on.

MANAGE utilizes a patented process that monitors actual to planned work completion in relation to time buffers with a “ONE number priority system” where the lowest value always indicates highest priority.

BUSINESS BENEFITS

- Improved delivery performance.
- Reduced delivery costs.
- Improved customer – vendor relationships.
- Increased resource effectiveness – fewer and more focused shifts in priorities.

Overall Status of Open Orders



Detailed Status of Open Orders

Expeditor - Worksheet

Updated 2009-06-09 10:00:00 -0400

Filters: None

| Percentage | Material | Product | Component | Active | Next | Resource Drum | Quantity |
|--------------|----------------------|--------------------------------|---------------------------|--------|------|---------------|----------|
| -1000.00% | Mat E - D7 | Product D 13 | D7 - Interim Component D7 | Active | Next | Resource Drum | 1.0 |
| -870.00% | Mat C - B3 | Product A 32 | B3 - Interim Component B3 | Active | Next | Resource Drum | 1.0 |
| 40.56% | B3 - Product A 16 | Product A - Finished Product A | | Active | Next | Resource Drum | 1.0 |
| 66.94% RDRUM | Mat F - Product F 39 | Product F - Finished Product F | | Active | Next | Resource Drum | 1.0 |
| 82.92% | | | | | | | |
| 71.06% RDRUM | Mat F - Product F 40 | Product F - Finished Product F | | Active | Next | Resource Drum | 1.0 |
| 84.08% | | | | | | | |
| 79.58% | B3 - Product A 17 | Product A - Finished Product A | | Active | Next | Resource Drum | 1.0 |

Historical Order Completion Performance



Work Assignment Priority List

Priority List - Custom Data 1

Updated 2009-06-09 10:00:00 -0400

Filters: None

Custom Data 1: B3

Reporting Point: Yellow

| | | | | |
|---------------------------|---------------------------|---------------|---------------|--|
| Mat C - B3 - Product A 32 | B3 - Interim Component B3 | Quantity: 1.0 | B3P: -870.00% | RDRUM B3P: Resource Drum: Custom Data 2: Sales |
|---------------------------|---------------------------|---------------|---------------|--|

Custom Data 1: D7

Reporting Point: Lt Blue

| | | | | |
|---------------------------|---------------------------|---------------|----------------|--|
| Mat E - D7 - Product D 15 | D7 - Interim Component D7 | Quantity: 1.0 | B3P: -1000.00% | RDRUM B3P: Resource Drum: Custom Data 2: Sales |
|---------------------------|---------------------------|---------------|----------------|--|

Custom Data 1: Prod A

Reporting Point: Blue

| | | | | |
|-------------------|--------------------------------|---------------|-------------|--|
| B3 - Product A 17 | Product A - Finished Product A | Quantity: 1.0 | B3P: 79.58% | RDRUM B3P: Resource Drum: Custom Data 2: Sales |
| B3 - Product A 18 | Product A - Finished Product A | Quantity: 1.0 | B3P: 79.58% | RDRUM B3P: Resource Drum: Custom Data 2: Sales |

What it Takes to Run MANAGE

What You Already Have in Place

- ✓ Defined work centers, process steps (BOM and Routings) and Orders
- ✓ Identified reporting points where transaction data are captured within process flows
- ✓ Regular transaction data updates
- ✓ Established Work Day Calendars for each Work Center/Reporting Point
- ✓ Required Work Content (RWC)

What You will Need to Do

- ❑ Establish **Reliable (NOT Average)** Lead Times (RLT) for order completion commitments; i.e., a planned period of time between the release and completion of an order that is often greater than, and seldom less than the actual time
- ❑ View Lead Time in terms of components that directly relate to managing the effects of workflow variability, primarily:
 - Required Work Content (RWC) at each Reporting Point, and
 - Expected workflow delays (queuing) at each Reporting Point that are accounted for with properly sized and positioned Time Buffers
- ❑ Review and adjust scheduled start and finish dates for Orders in accordance with the **MANAGE** established planned start and finish times to avoid starting too early or having a planned finish date after the scheduled finish date

MANAGE works with your existing ERP system to further leverage your return on investment and sets the stage to identify opportunities to IMPROVE.

Over 30 years of experience in constraint-based decision making, AGI's MANAGE Software is designed to help companies deliver more effectively and efficiently.

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