# TAYLOR SCHEDULER







# WELCOME!

Taylor Scheduler is our advanced planning and production scheduling software. Its many features allow Taylor Scheduler to be able to handle just about any manufacturing scheduling challenge as evidenced by the wide variety of manufacturers using Taylor Scheduler for production scheduling today. It is flexible and powerful and allows manufacturers to easily realize plant efficiencies and make better plans for the future.

# INDUSTRIES WE SERVE

Taylor Scheduling Software has been developing and marketing advanced planning and manufacturing scheduling systems (production scheduling, finite capacity scheduling) since 1989. During that time, we have successfully implemented software for many manufacturers around the world, focusing on the following complex industries: Batch Chemicals, Consumer Packaged Goods, Cosmetics, Packaging, Pharmaceuticals, Plastics, and Textiles.

# REALIZE EFFICIENCY

- 1. Streamline and standardize the schedule process by having all of the business and manufacturing rules in one system.
- 2. Reduce Finished Goods material storage by using storage space as a critical resource.
- 3. Improve on time delivery by visualizing and adapting to potential late jobs.
- 4. Improve communication by centralizing information.
- 5. Increase the utilization of key resources.
- 6. Reduce Raw material carrying costs.
- 7. Make accurate order promise dates.
- 8. Reduce WIP inventory.
- 9. Reduce Cycle time.

# **RETURN ON INVESTMENT**

Most of our clients report return on their software investment within 6 - 12 months, and have experienced a significant increase in productivity:

- \* work-in-progress reduced by 50%
- \* raw material inventories down by 30%
- \* finished good inventories cut by up to 50%
- \* setup costs trimmed by 30%
- \* lead times reduced by 50%
- \* machine efficiency up by 25%
- \* customer service levels improved up to 100%

# ADVANCED PLANNING AND SCHEDULING

- Alternate Machines/Equipment
- Attributes
- Batch Size
- Bill Of Materials (BOM)
- Calendars
- Capacity Analysis
- Capacity Freeze/Capacity Unfreeze
- Cascade Copy
- Combine Orders
- Custom Reports
- Dispatch List
- Drag and Drop
- Due Date Quoting
- Dynamic Setup/Cleanup
- Earliest Start Date
- Equations
- Freeze/Unfreeze
- Gantt Spy
- Import/Export Data
- Isolate Order
- Lag Time
- Load Balancing





- Machine Downtime
- Matrices
- Max Break
- Max Delay
- Operation Scheduler
- Operators
- Optimization
- Order Pegging
- Order Priority
- Order Tracing
- Overlapping Operations
- Parts
- Preferred Machines/Equipment
- Raw Materials
- Resource Graph
- Routings
- Scheduling Views
- Shift Patterns
- Stay On Line
- Suspend Orders
- Tooling Requirements
- Transfer Time
- User Defined Scheduling Rules

# INTERACTIVE GANTT



List of Equipment, Machines, Workcenters in the schedule. Which ones are displayed are determined by the scheduler. In addition, you can isolate orders so that only the steps for a particular order are displayed. Taylor Scheduler can be configured to calculate when a machine/equipment needs work done before proceeding (e.g. cleaning, sharpening) based upon volume. This is called a campaign setup block (purple).

This shows a lag time of 1 hour between step 20 and step 30. This step (Lathe3) shows that it is going to be late (red). It could be that the due date needs to be adjusted or perhaps it would be on time if moved to an alternate machine (e.g. Lathe2 might be faster). Taylor Scheduler allows you to drag and drop these operations onto alternate machines and/or alternate dates as long as other constraints are not violated.

# DYNAMIC DATA

As you mouse over an operation on the Gantt chart the Operation Scheduler dynamically displays all of the data relating to that machine/equipment, conveniently displaying detailed information. The columns shown can be re-ordered via drag and drop so that you can display only the information that is meaningful to your needs.

🗞 Operation Scheduler									
Order Number	Oper #	Priority	Due Date	Order Qty	Split Status	Machine			
0001 A	40	5	3/7/2007	200	Scheduled	Drill1			
0002	40	5	2/27/2007	500	Frozen	Drill1			
0002	30	5	2/27/2007	500	Scheduled	Lathe2			
0001A	30	5	3/7/2007	200	Capacity Frozen	Lathe3			
0001 A	10	5	3/7/2007	200	Scheduled	Prep_Area			

# FULL FEATURED WINDOWS

File	Edit	View	Schedule	Options	Utilities	Reports	Window	Help				
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**SAVE DATA:** Taylor Scheduler allows you to save the schedule in a variety of ways including: Current (working copy), Published (finished version), What-if (for planning purposes). In addition the level of detail can be specified (e.g. Save Metrics).

Taylor Scheduler allows you to select which type of color display you want to appear on the Gantt chart.

**ISOLATE ORDERS:** This handy feature allows you to isolate a specific order on the Gantt chart instead of viewing all scheduled orders. It is useful because it allows better visability of a particular order when there are a lot of orders in the system.

**DUE DATE QUOTING:** Taylor Scheduler has a built-in Due Date Quoting function that lets your sales department enter the quantity of a particular order and let the system tell them when this order will be available. It can also be used to check a specified due date.

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**ORDERS:** While orders may enter the system uncombined, it may make more sense to combine them so that they are run concurrently. This feature allows you to search existing orders based upon a number of criteria (for example: Part Name, Routing Name, Order Priority, Attribute, etc.) and group them into one order. You can then reschedule to see if this approach is what you desire. If not, you can simply Uncombine existing Combined Orders and go back to the way things were.

**SCHEDULING RULES:** Users of Taylor Scheduler have the ability to create their own scheduling rules and add them as the need arises. From Due Date, Class and Priority to Setup reduction requirements. The choice of which rule to use in a particular situation belongs to the scheduler. **BROWSE PEGS:** There are many situations when it is necessary to peg orders (for example, when you manufacture many different sub-components, each one as a separate order, and then assemble all of these components together in yet another order. Another example is when you manufacture the raw product as one order and package it as a second order. In both of these examples you need order pegging to make sure that the assembly or packaging orders cannot begin until the product or sub-components have been manufactured. While the pegging of orders is done during the Add New Order stage, this handy utility allows you to browse through existing pegs.

**MANUAL MOVE:** In a busy schedule it is occasionally difficult to use the interactive drag and drop functionality (i.e., sometimes it is hard to drag and drop an operation to the exact location you need). This utility allows you to view all of the operations on a specific piece of equipment, machine, or workcenter and manually re-order the sequence that orders will be completed on that equipment/machine/workcenter.

**READJUST FROZEN:** After making production updates, you may find it necessary to make changes in your current schedule to correspond to the evolving realities of the shop floor. Some jobs run faster than expected while others may be delayed due to quality control issues, late parts deliveries, machine breakdowns, and other constraints. Re-Adjust Frozen facilitates fine tuning your current schedule to account for production delays or speed-ups. When you select Re-Adjust Frozen, Taylor Scheduler adjusts all of the frozen split operations in the schedule that are directly or indirectly affected by the production

changes. The operation sequences on the machines are maintained.

**BE** SPLIT **OPERATIONS BREAK/JOIN:** You can break scheduled operations into multiple splits to facilitate use of available capacity, reduce idle time and improve throughput. You can join some or all of an operation's multiple splits into one split to reduce

setup time and facilitate the management of critical tooling requirements. **FREEZE:** Freezing an operation locks it in place on a specific

machine at a specific day and time so that neither you nor a scheduler at another network station can move it either by interactive scheduling or by selecting Reschedule without first unfreezing it.

GANTT SPY: The Gantt Spy displays error and warning messages for scheduled and unscheduled operations in an on-screen log. This information alerts you to late orders, resource shortages, late operation splits, invalid available

machines, predecessor and successor violations, and other conditions.

**RESCHEDULE:** Reschedule re-computes the sequencing for all (or a selected group) previously scheduled operations that have not been frozen or suspended, or that have not begun receiving production

updates. It adds unscheduled operations that are not suspended into the newly created schedule. Reschedule produces a schedule based on the latest changes in orders, settings, and other conditions. Reschedule is the most powerful and the most automated scheduling function available in Taylor Scheduler.

# UTILITIES/FUNCTIONS

TaylorSchedulercomesbundledwithover50utilities/functions that can help you with production scheduling including context sensitive menus, online help and resource graph.

# **CONTEXT SENSITIVE MENUS**

Depending upon where you right-mouse click in Taylor Scheduler a context sensitive menu will appear that only lets you select those functions that pertain to that object. This makes Taylor Scheduler intuitive and easy to learn by conveniently letting you work without having to know where to look.



# Display DataLathe4Display DataSelect SplitsUnSelect SplitsSander1Reschedule SplitsOptimize MachinesSort MachinesSander2Create/Update View

## RESOURCE GRAPH

This resource graph shows that on Monday and Tuesday five resources are required, dropping to four on Wednesday and then down to two resources on Thursday and Friday. A resource can be special tools, raw materials or critical operators.

# ONLINE HELP

All of the functions contained in Taylor Scheduler are described in detail within the online help. Simply type in your keyword.



# SCHEDULING VIEWS

Taylor Scheduler allows you to create different views of the schedule using the Scheduling Views utility.



# MODULES

Our customers often ask us to build them custom applications that use data contained within Taylor Scheduler.If you need a custom application designed, let us know and we will build it. The following are available as value-added modules (licensed separately) to Taylor Scheduler.



**DPTIMIZER:** The Optimizer is an add-on module to Taylor Schedule that can be configured to determine the optimum schedule based upon selected criteria (e.g., Setup time, Late orders, Cost, Bottlenecks, Idleness, Makespan, etc.).



**CAPACITY PLANNER:** Capacity Planner will show you Machine and Load Center usage by a specific customer, and it will do a comparison of the different customers' machine usage to identify which customer most often uses a machine and/or load center. Customer utilization of machines and load centers can be reported both weekly and monthly.

**INTERFACING:** Interfacing is key to integrating Taylor Scheduler with other enterprise systems (e.g., ERP/MRP). TS ships with tools that enable you to import data. If needed, we can build you a custom interface between Taylor Scheduler and another enterprise system.



**TS EVENT VIEWER:** Now you can easily share your production schedule with your entire company using this browser based thin client that is available on your intranet. The TS Event Viewer displays the production schedule in an intuitive calendar format and users can select which part of the schedule is meaningful to their department.



**ROUTING WIZARD:** This handy module allows you graphically view routings. The advantage is that if your routings are complex (e.g. network routings), you can see the flow easily and can check to make sure the routing is logical.



**PRODUCTION CLIENT:** Our shop floor Production Client uses touch screen technology that allows production staff to view the dispatch list, make production updates to the system and a view lot of other mission critical information.



Taylor Scheduler is our advanced planning and production scheduling software and requires either an Oracle or MS SQL Server database.

For More Information, please contact:

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