

# GRASS Graphical Shop Scheduler

## Shop Scheduling for Infor ERP XA

By Lexel Corporation

- ◆ Optimize your Supply Chain
- ◆ Lower Production costs
- ◆ Explore “What if” scenarios
- ◆ Shorten lead time
- ◆ Deliver on time
- ◆ Inquiry Mode

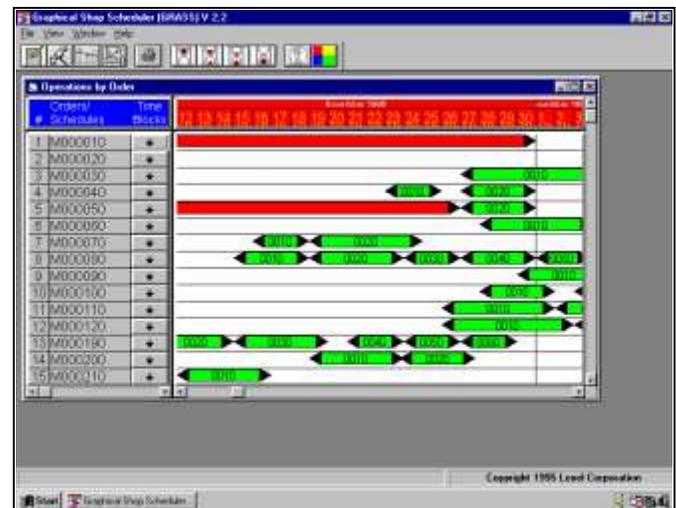
For most companies, production scheduling is a complex and time consuming task which requires quick and flexible responses to differences in products, demand, and operating capacity. Essentially, optimal scheduling is the key to lowering costs, increasing on-time deliveries, and *improving the bottom line*. Despite its significance, most manufacturers are still creating schedules by hand, perhaps even with the use of magnetic planning boards. These systems do not allow for timely responses to changes in operating conditions. In today's fast-paced competitive environment, you need solutions that bring results - *instantly and without extensive training*. GRASS® for Infor ERP XA gives you the tools you need to meet the challenges of scheduling. This “electronic planning board” redefines shop scheduling through the power of client/server technology. GRASS enables you to change schedules in the Infor ERP XA manufacturing orders/schedules files by moving and sliding dates using the familiar Microsoft Windows® interface. Its powerful **CAPACITY FUNCTION** indicates graphically and in real-time the impact of schedule changes on work center capacity. When you are satisfied with your changes in GRASS, update Infor ERP XA!

## How GRASS Works...

Open manufacturing order data is brought down to your PC based on subset criteria. GRASS then allows you to view and manipulate production data in one of three work modes:

- Manufacturing Orders
- Work Centers
- Capacity

In each mode, you can specify time horizons for viewing. View the schedule by days, weeks, months, or even the entire year.



Manufacturing Orders

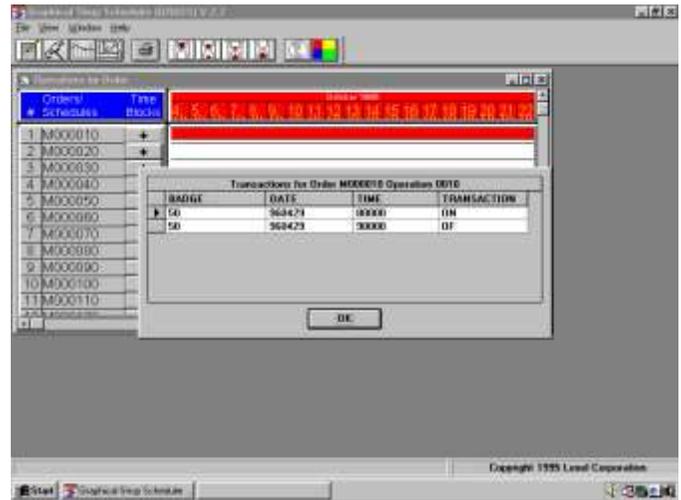
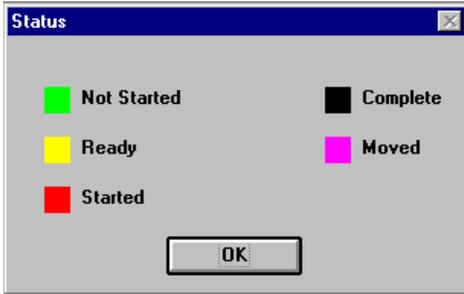
## Manufacturing /Planned Orders Repetitive Schedules

The Orders/Schedules mode provides a visual representation of orders, showing the operations scheduled for each order. This view is especially useful in evaluating queue time between operations. The easy to use Windows interface allows you to reschedule operations by simply moving them with your mouse pointer.

With a mouse click, you can change the start and end date/time of each operation and the operation duration.

Various color bars indicate operation status as well as restrict movement. Orders *not started* or *ready* can be

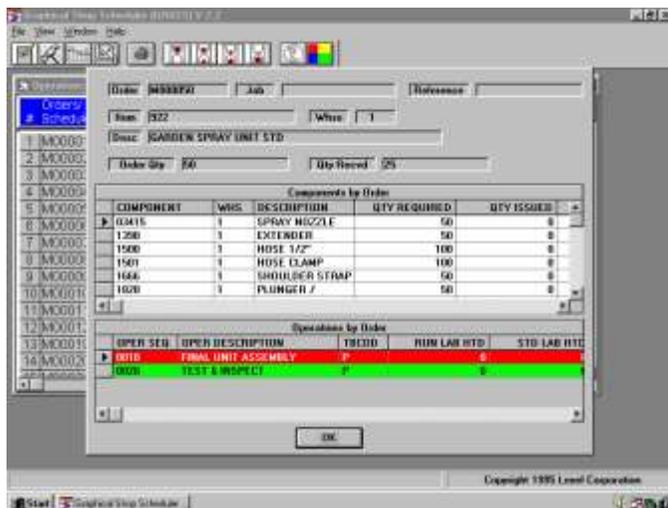
completely rescheduled while orders which have been *started* can only have ending date/time changed. Of course, orders which are *complete* or *moved* cannot be adjusted in any way.



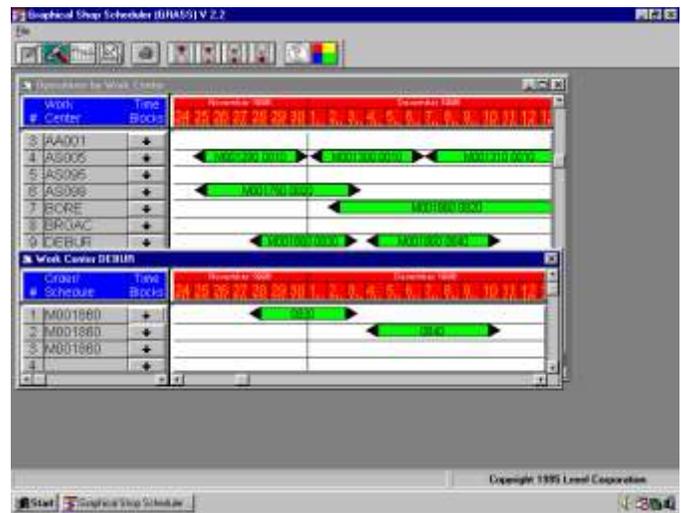
Operation Transactions

### Order Details

Drill down on an order to see real-time details presented in a three-part screen. The top portion of the panel displays order header information. The middle portion lists detailed component information for the finished item. Finally, the third portion enables you to review scheduled operations, color-coded by status.



Order Detail



Work Center Operations

### Work Centers

The Work Center mode allows you to view all scheduled activity for each work center. This includes both **Open and Planned Manufacturing Orders** and provides you with each activity's manufacturing order number and operation sequence. This view is especially useful in examining load at each work center

Repetitive schedules can be viewed by production line and the operations performed at that line can be adjusted.

If a work center is very busy, you can zoom in on the details by double clicking on that work center.

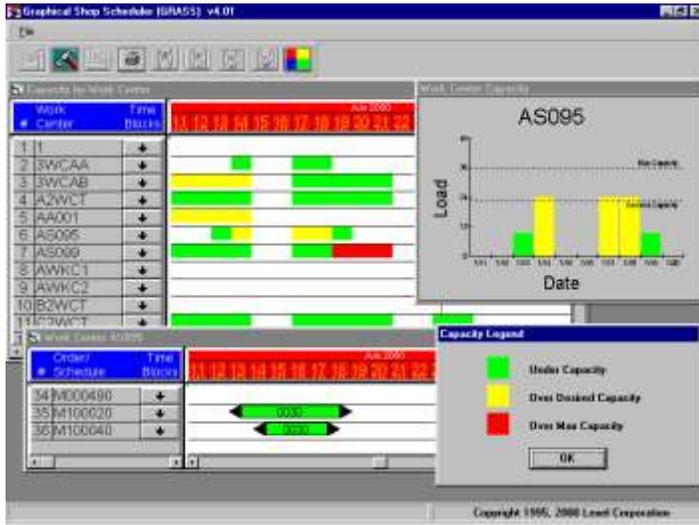
With a mouse click, change the start and end date/time of each operation, lengthen or shorten operation duration, and even **drag an operation to another work center**.

### Operation Transactions

If Infor ERP XA Production Monitoring and Control (PM&C) is installed, you may double click on an operation to access real-time PM&C data and discover whether anyone is clocked on and working on a given order/operation.

## Capacity

Without the use of Infor ERP XA CRP or FCPS, the Capacity mode of GRASS graphically displays the workload (in hours) scheduled at each work center, clearly identifying whether the load is under or over capacity. Load hours which are under capacity appear in green, while over-capacity hours are indicated in red.



Capacity View

The Infor ERP XA work center file is used to obtain the base capacity. Capacity calculation considers the hours and desired capacity of each shift at a work center and the standard efficiency of that work center. GRASS also respects valid workdays based on the Infor XA calendar and does not schedule work on non-workdays.

GRASS supports three levels of capacity:

- Under Desired
- Between Desired and Maximum
- Over Maximum

Double clicking on the green or red capacity bars will zoom in on manufacturing orders running at that particular work center. In this mode, you can adjust the schedule and *immediately view the impact on capacity!*

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Dispatch List					
Work Center DRILL					
Order Number	Finished Item No.	Finished Item Description	Op. Seq.	Sch. Start	Sch. End
M000830	420	GEAR & PINION	0010	12/4/96	12/4/96
M000770	413	GEARBOX	0010	12/4/96	12/4/96
M000780	420	GEARBOX	0010	12/4/96	12/4/96
M000790	420	GEAR & PINION	0010	12/5/96	12/5/96
M000800	420	GEAR & PINION	0010	12/9/96	12/9/96
M000810	420	GEAR & PINION	0010	12/9/96	12/9/96
M001740	420	GLASS DOOR FRAME	0010	12/9/96	12/9/96
M000640	420	GEARBOX	0010	12/10/96	12/10/96
M000930	420	GEAR & PINION	0010	12/12/96	12/12/96
M000440	420	BEARING & POST ASSM	0010	12/12/96	12/12/96
M000650	420	GEARBOX	0010	12/12/96	12/12/96
M000940	420	GEAR & PINION	0010	12/13/96	12/13/96
M000450	420	BEARING & POST ASSM	0010	12/17/96	12/17/96
M000660	420	GEARBOX	0010	12/17/96	12/17/96
M000950	420	GEAR & PINION	0010	12/18/96	12/18/96
M001100	420	GEAR & PINION	0010	12/20/96	12/20/96

Dispatch List

## Print Dispatch Lists and Schedules

After the schedule is adjusted, a supervisor can print a dispatch list and/or graphical schedule with the touch of a button. The *dispatch list* is a list of all scheduled operations at each work center, sequenced by scheduled start dates. The *schedule* is a printout of the active schedule window as it appears on your workspace.

## Update Infor ERP XA!

When you are satisfied with your revised schedule, changes can be sent to Infor ERP XA to update MOMAST (with new order start and/or end dates) and MOROUT (with changes to operation start and end dates and work center). *This ability to update Infor ERP XA sets GRASS apart from other schedulers.*

Conversely, at any time, you may choose to discard your changes prior to updating Infor ERP XA.

## Inquiry Satellites

Why limit the power of GRASS to a scheduler? GRASS' unique inquiry mode allows multiple users to view the schedule information but does not let them update. The inquiry mode user is viewing the **ACTIVE** schedule in the GRASS database but may not update it.

## **Gain Competitive Advantage**

This state-of-the-art solution is a high-return investment. By exploring “what-if?” scenarios and evaluating your options, you can create a schedule that **optimizes your shop floor** capabilities, **reduces lead-time**, and **lowers production and inventory costs**. Optimal scheduling can help you **deliver on time** and **improve customer satisfaction**.

Lexel Corporation has been specializing in implementing solutions in the manufacturing and process industries for over 25 years. In that time, Lexel has become an industry leader in developing state of the art software solutions and has earned a reputation in the MAPICS community for excellent technical support and customer service.



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