Work Order Plus Management Manual

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Introduction

The ultimate goal of Work Order Plus is to manage the manufacturing process. There are many tools to assist a plant manager with monitoring and analyzing. These tools come in the form of screen programs and reports.

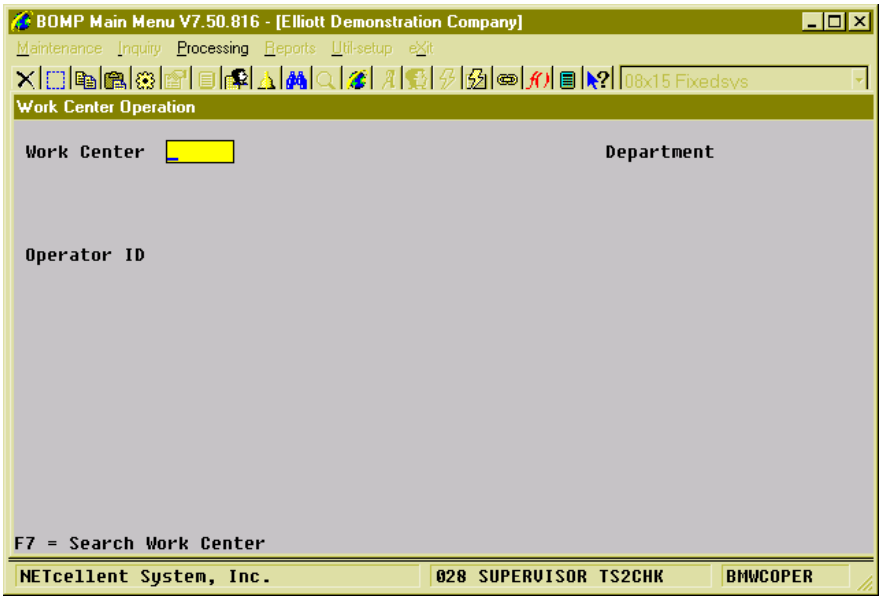
Chapter 1: Monitor Interfaces

Work Center Operation/Inquiry

How to Access:

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Maintenance ➔ Work Center Operation

Or drill-down from another interface



(Figure 1) Work Center Operation/Inquiry

Application Overview

This is an operation interface for a work order that can be used to inquire the status. An ID and password may be required for security. This interface monitors all production and labor in one work center and handles exceptions. It can also display the production history of one work order. The interface provides an alternative way to start and report a production, as opposed to reporting through Work Order Production. This is a powerful interface which can change many of the production values and time-clock related data, so access should be limited.

This interface has 3 stages:

1. Enter a Work Center ID. Use the **F7 Key** to search Work Center IDs.
2. Enter the Operator ID and password to sign in. Use the **F1 Key** to toggle between scanning mode and typing mode.
3. Inquire or modify information in this work center.

Drill down from another interface and the system will skip the first and second stages when the Work Center ID and Operator ID are given.

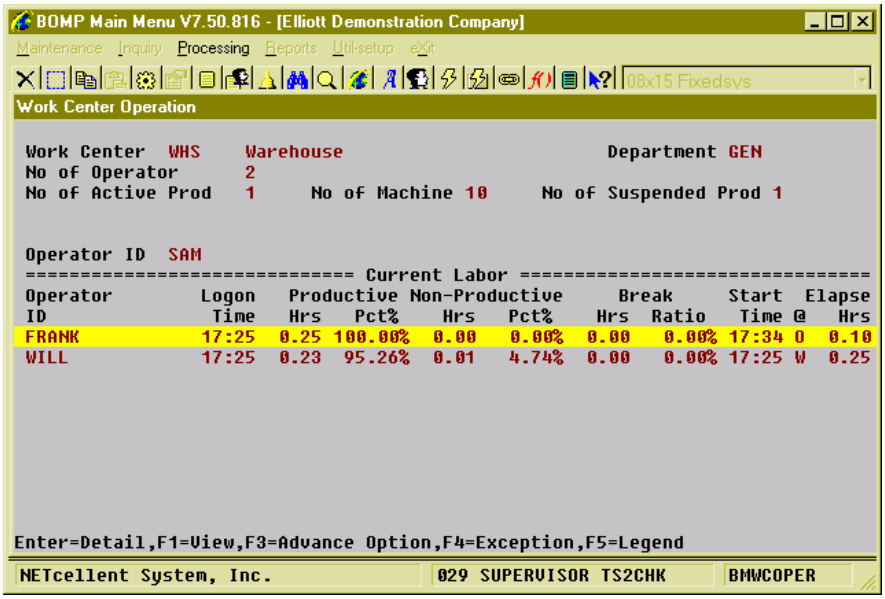
Once you are signed in, the system will display useful information; basic work center statistics on the top three rows and the ID of the operator who is using this interface. The work center statistics include the number of operators, the number of active/suspended productions and the number of machines in the work center. Below the double-line is a list of details about this work center. Take figure 2 as an example. It lists all the operators who are currently working in this work center. The interface has four information modes that can be toggled through the **F1 Key**:

- Use the **F1 Key** to toggle among different views and inquire the work center's current status and history.
- Start a new Production, report for an unfinished Production, suspend a Production or resume a Production. Some options are not available, depending on the work center setting. This will be discussed later.
- Drill down detail of the highlighted record.
- Maintain production records or production transaction records.
- Handle exceptions for this work center, like an operator's time clock logoff or changing production activity.

Views

There are five inquiries available in this interface. We call them **Views** of a work center in WO+. They include **Current Labor**, **Started Production**, **Complete Production**, **Cancelled Production** and **Work Center Activity**. Use the **F1 Key** to toggle between the views. The system will display a list of available options. Select one and switch to a certain view. The Operator file controls which views this operator can see, so some operators may see fewer options or may not have access to this interface. Each view provides an aspect of this work center's labor, production progress and history.

Current Labor



(Figure 2) Work Center Operation, Current Labor View

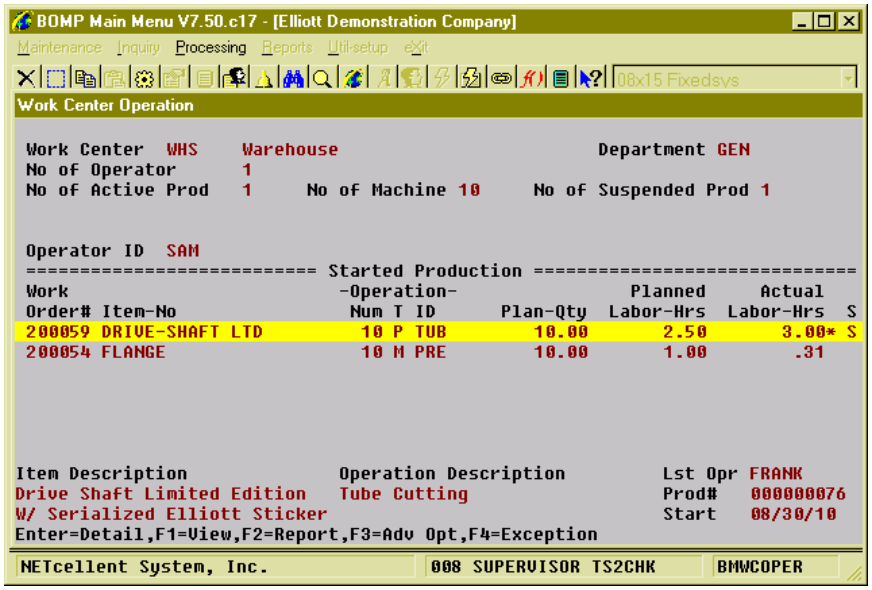
This view shows all operators who are currently working in this work center and will display today's performance of each operator. The system will evaluate today's performance in productive hours, non-productive hours and break time.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. The screen will refresh each time the highlighted bar is moved.
- Press the **Enter Key** to drill down to Time Clock Inquiry for the highlighted operator.
- Use the **F1 Key** to toggle to another view
- Use the **F2 Key** to add a new Production. This will be discussed in the next section.
- Use the **F3 Key** to bring up Advanced Options. These options include adding a new production and drilling down to time clock inquiry.
- Use the **F4 Key** to handle exceptions, like entering the end time of the highlighted operator if they forgot to log off.

- Use the **F5 Key** to bring up the legend.

Started Production



(Figure 3) Work Center Operation, Started Production View

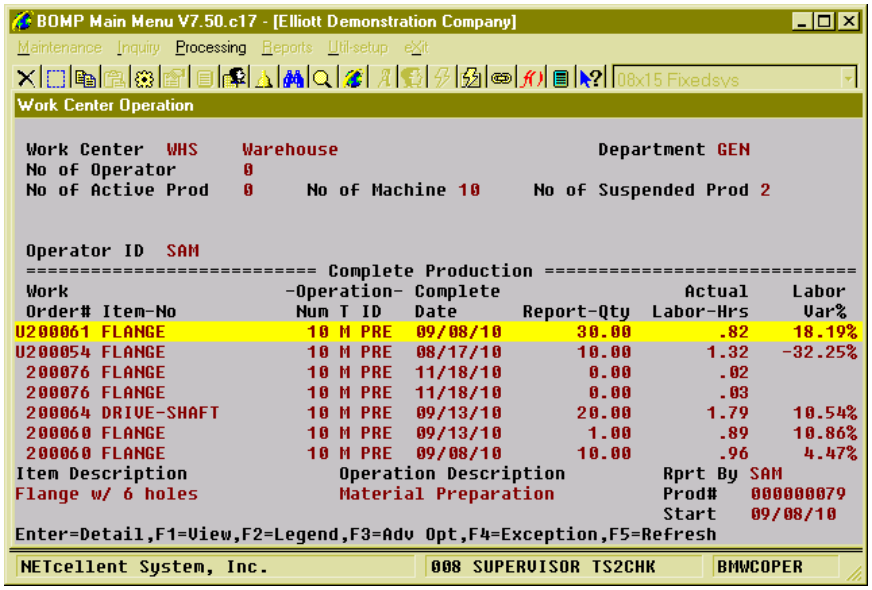
This view shows all work-in-progress productions. These productions are operations for one or more work orders[1]. They have been started, but not yet reported. They include currently active and suspended productions[2]. The order and operation information of each production will be displayed as well as the plan quantity and labor hour variance[3].

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. The screen will refresh each time the highlighted bar is moved.
- Use the **Enter Key** to inquire production detail.
- Use the **F1 Key** to toggle to other views.
- Use the **F2 Key** to report a production. This will be discussed later.
- Use the **F3 Key** to bring up Advanced Options. These options include various drill-down selections for the highlighted production, like Production Inquiry for the order. A production can be added or maintained through Production Detail.
- Use the **F4 Key** to handle exceptions. The exceptions include canceling a production.

[1] A production for more than one work order is called Batch Production.
[2] If "S" appears on the right side of each line, the production has been suspended. If an asterisk "*" appears to the right of the actual labor hours, the actual labor hours have exceeded the plan hours.
[3] Hour variance may not be available and "N/A" will be displayed if the operation statistics are estimated.

Complete Production



(Figure 4) Work Center Operation, Complete Production View

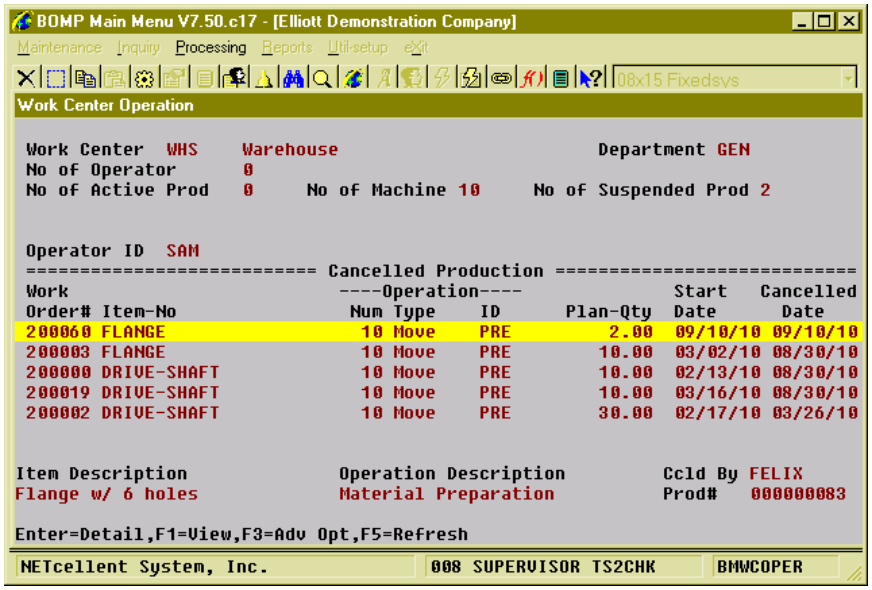
This view displays all reported productions. Each production should have a production transaction or a transaction history record[1]. The order and operation information of each production will be displayed, along with the reported quantity[2] and labor hour variance.

The following functions are available in this view:

- Use the **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to inquiry Production Detail.
- Use the **F1 Key** to toggle to other views.
- Use the **F2 Key** to bring up the legend.
- Use the **F3 Key** to bring up Advanced Options. These options include various drill-downs for the highlighted production. The number of days of records to display can be changed and reported transaction data can be maintained.
- Use the **F4 Key** to handle exceptions. The exceptions include canceling a production.
- Use the **F5 Key** to refresh the screen. This view is history-oriented and the data will not refresh when the highlighted bar is moved.

[1] If "U" appears to the right of the order number, this production has not yet been posted.
[2] Report Quantity includes completed quantity and scrapped quantity.

Cancelled Production



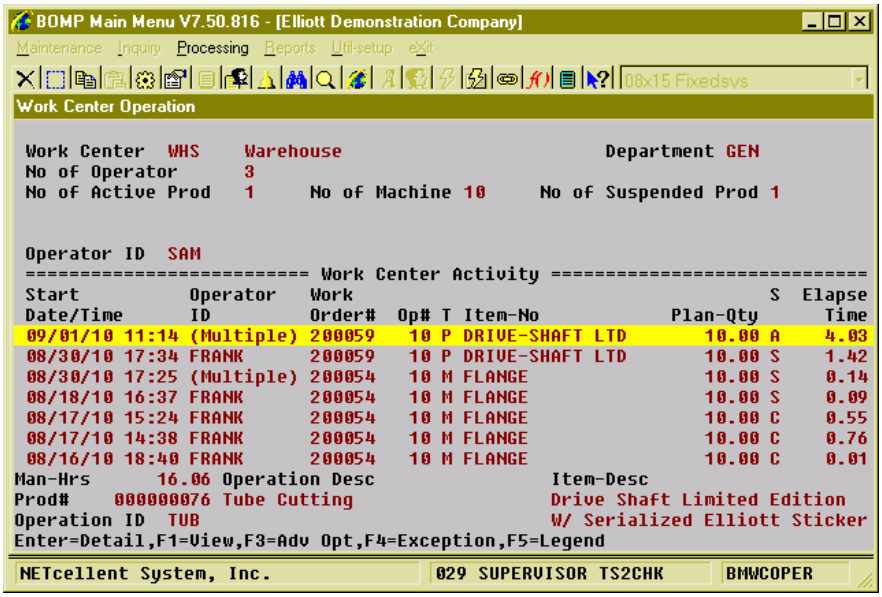
(Figure 5) Work Center Operation, Complete Production View

This view lists all the cancelled productions. These productions can be cancelled because of a mistake or a change in plan. A production can be cancelled through Exception Handling and will appear in this view. The screen will show brief information of each cancelled production as well as the cancel date.

The following functions are available in this view:

- Use the **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to inquiry Production Detail.
- Use the **F1 Key** to toggle to other views.
- Use the **F3 Key** to bring up Advanced Options. These options include various drill-downs for the highlighted production. Also, the number of days of records to display can be changed.
- Use the **F5 Key** to refresh the screen. This view is history-oriented and the data will not refresh it when the highlighted bar is moved.

Work Center Activity



(Figure 6) Work Center Operation, Work Center Activity View

This view provides all production history in one work center. Production activities are time transactions when the production was active. A production is active when an operator is working on it or machines are automatically processing it. For each activity record, the order and brief information about the operation will be displayed, along with the operator[1] who worked on this activity and the total hours.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. The data will automatically refresh when the highlighted bar is moved on the first page since this shows the most recent activity.
- Use the **Enter Key** to inquiry Production Detail.
- Use the **F1 Key** to toggle to other views.
- Use the **F2 Key** to bring up the legend.
- Use the **F3 Key** to bring up Advanced Options. These options include various drill-downs for the highlighted production. The number of days of records to display can be changed and reported transaction data can be maintained.
- Use the **F4 Key** to handle exceptions, including canceling productions and activities.
- Use the **F5 Key** to bring up the legend.

[1] If more than one operator worked on the production, the system will display "(Multiple)" instead of the operator ID.

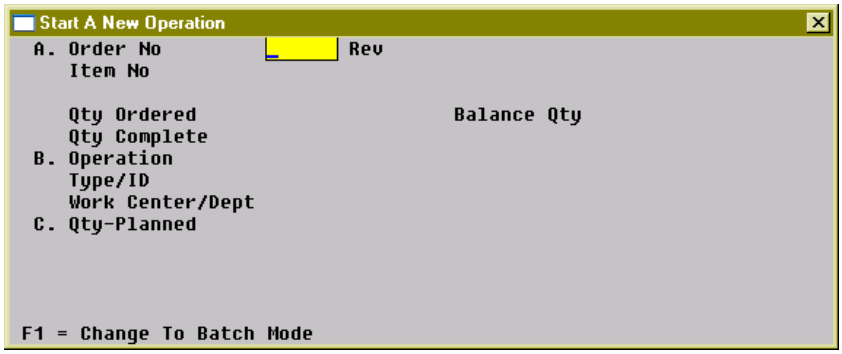
Production-Related Operation

In Work Center Operation you can start a new production, report for a production, suspend an active production, resume a suspended production and maintain production details. Suspending a production means to stop working on the production, like at the end of the day. Resuming a production means to continue working on a suspended production.

Normally these activities are performed through Work Order Production, but direct labor[1] is required to report whether a work order has started or ended. Productions that do not direct labor, like a CNC Machine (Computed Numerically Controlled machine) which can run automatically without an operator, can be manipulated through Work Center Operation. This is an alternative way to report production, so evaluate your needs before using it. Most of these production-related operations require the work center to be configured properly, like "**Machine Hrs Calc Method**" should be set to "S" for Separately Tracking.

Start a New Production

From Current Labor View, you can press the F3 Key to bring up **Advanced Options** and select "Start A New Operation" or bring up the window directly by pressing the F2 Key. The **Advanced Options** in Started Production View also has this option. Enter the operation information and the production will be started without an operator. The machine hours for this work center should be calculated separately from Direct Labor Hours.

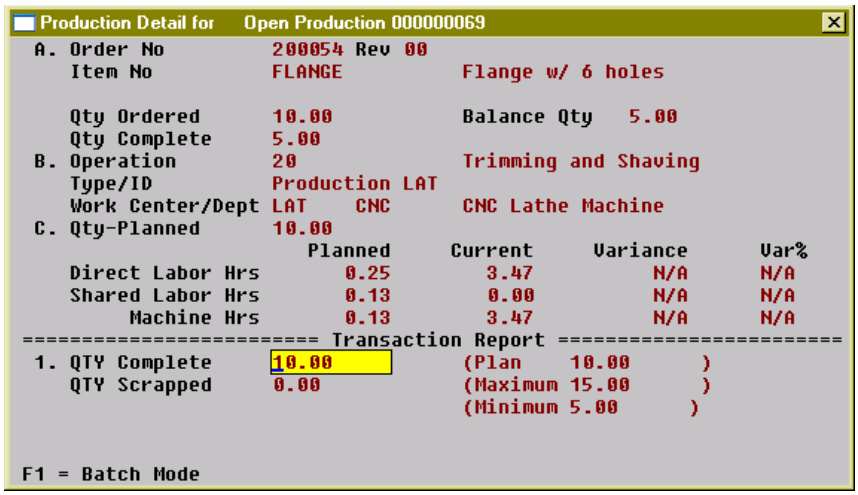


(Figure 7) Start a New Production.

[1] Direct Labor is labor of a worker who is directly in charge of the orders. This labor should be reported at the start and end of the production. Shared Labor is labor of a worker who works in one work center or department, but does not report any order related information.

Report for a Production

From Started Production View, you can press the F3 Key to bring up **Advanced Options** and select "Report For a Production" or bring up the window directly by pressing the F2 Key when the production to report is highlighted. The system will pop up the screen to report quantity, material, serial/lot numbers, etc. Operators can only report productions which have no direct labor, active or not. Otherwise, the operator should report through the Work Order Production interface.



(Figure 8) Report for Production.

Suspend an Active Production

To suspend an active production, use **Advanced Options** in Started Production View on a currently active production. Highlight an active production, as indicated by an "A" to the right side of the data line. Press the **F3 Key** to bring up the Advanced Options menu. Select "Suspend Production" and the system will prompt a confirmation. Click "Yes" to suspend this production, however can not have direct labor reported. The machine hours for this work center should be calculated separately from Direct Labor Hours.

Resume a Suspended Production

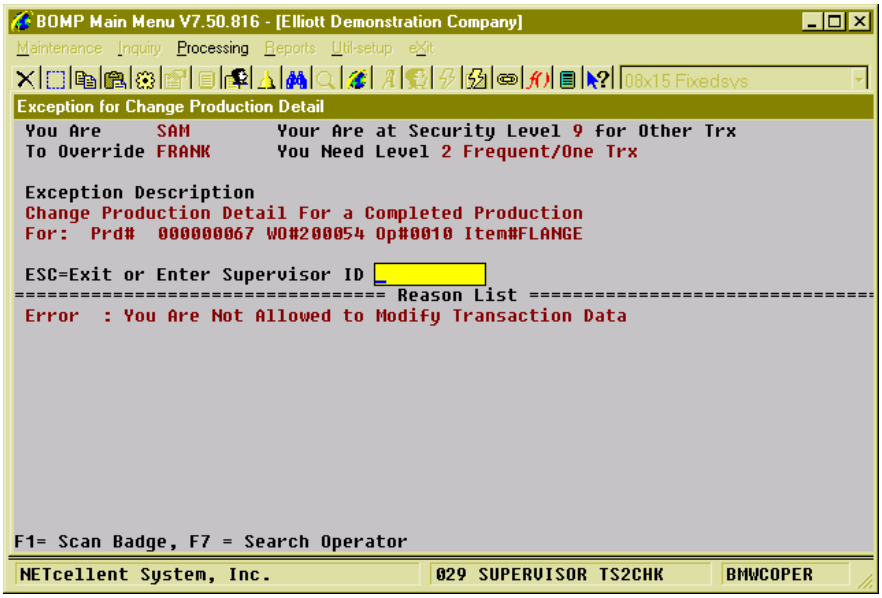
To resume a suspended production, use Advanced Options in Started Production View. Highlight a suspended production, indicated by an "S" to the right of the data line, and press the **F3 Key** to bring up the Advanced Options menu. Select "Resume Production" and the system will prompt a confirmation. Click "Yes" and this production will resume with an active status. The machine hours for this work center should be calculated separately from Direct Labor Hours.

Maintain Production Detail

If an operator entered a wrong work order number or reported a wrong completed quantity, the production detail would need to be changed. There are two stages to make a change, maintaining production detail and maintaining transaction detail.

If the production has not been reported, changes can be made to the order number, operation number and plan quantity. A single transaction production can be made into a batch production. To maintain these details, use Advanced Options in Started Production View. Highlight a production and press the **F3 Key** to bring up the Advanced Options menu. Select "Production Detail Maintenance" and the Exception Handling screen will appear to verify if the operator has authority to continue. A supervisor can enter credentials to continue. A screen will appear to allow the order number, operation number and plan quantity to be changed. The new operation from the new work order must remain in the same work center.

If production has been reported but the transaction has not been posted, changes can be made to the transaction detail, like complete quantity, issued material, serial numbers, etc. To maintain these details, use Advanced Options in Complete Production View. Highlight a production to maintain and press the **F3 Key** to bring up Advanced Options. Select the "Production Maintenance" option and the Exception Handling screen will appear to verify if this operator has the authority to continue. A supervisor can enter credentials to continue. The system will display the production detail maintenance screen.



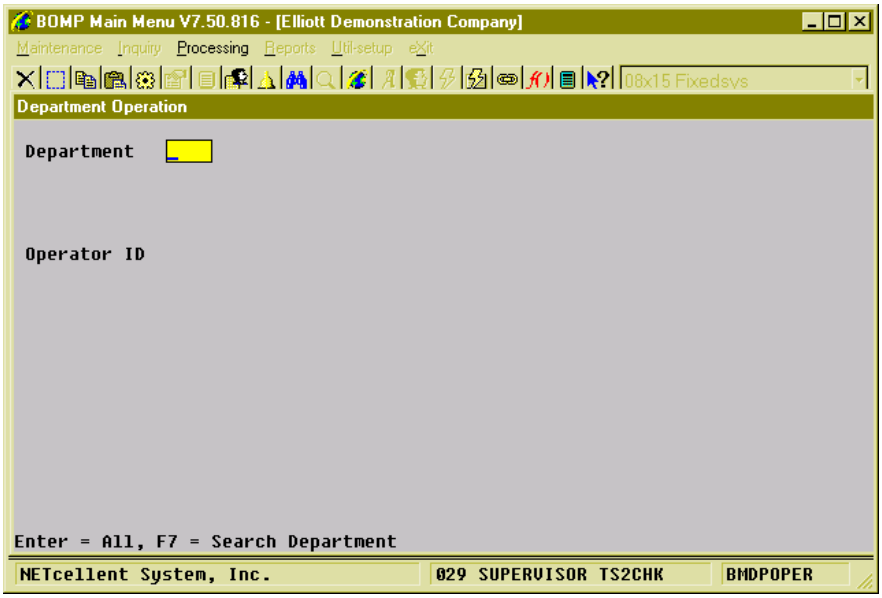
(Figure 9) Exception Handling Checking for Production Detail Maintenance

Department Operation/Inquiry

How to Access:

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Maintenance ➔ Department Operation

Or drill-down from another interface



(Figure 10) Department Operation/Inquiry

Application Overview

In WO+, each work center can belong to one department and they can be monitored by department with this interface. A supervisor can inquire the status of all current laborers and work centers from the selected department and drill down to each work center. Plus, this interface provides a feature to monitor the status of all work centers status at once no matter what department they belong. This provides overview information for the whole shop floor.

This interface contains three stages:

1. Enter a department ID or leave it blank to inquire the whole shop.
2. Use an Operator ID and password to sign in. Use the **F1 Key** to toggle between scanning mode and typing mode.
3. Inquire or modify information for the department.

If you drill down from another interface where the Department ID and Operator ID are given, the first two stages are skipped. Once you are signed in, the system will display general department and shop statistics on the top 4 lines and view information below the double-line separator. Similar to Work Center/Operator Inquiry, this interface has three views which can be toggled with the **F1 Key**.

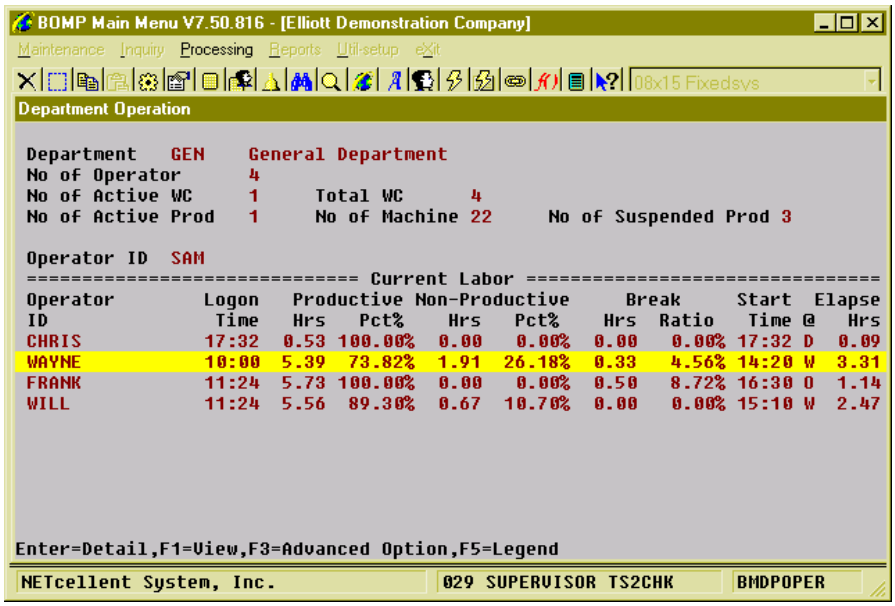
The following functions are available:

- Use the **F1 Key** to toggle between different views and monitor the status of a department or shop.
- Drill down to Work Center/Operation Inquiry and other related interfaces.

View

This interface contains three views, **Current Labor View**, **Active Work Center View** and **All Work Center View**. Use the F1 Key to toggle between views. The operator may see fewer views based on the security settings.

Current Labor View



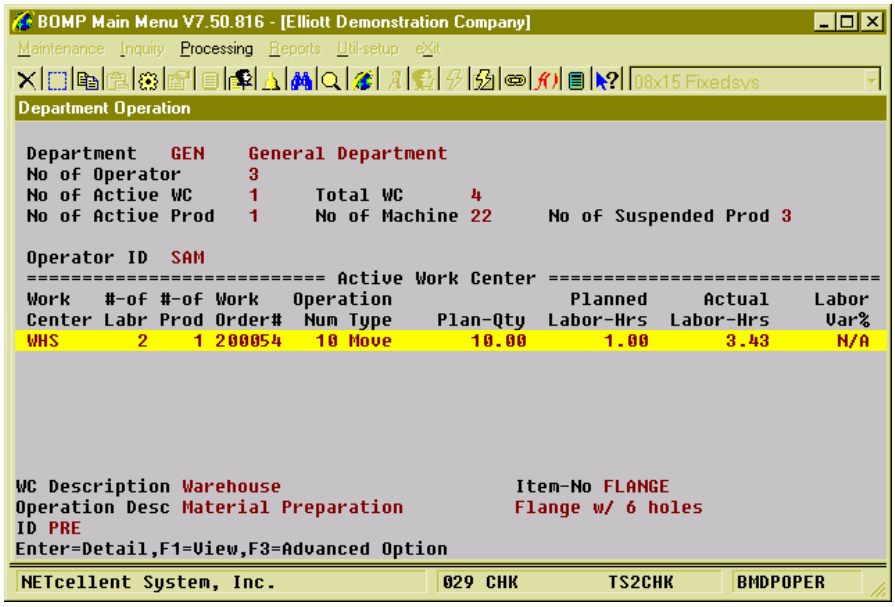
(Figure 11) Department Operation, Current Labor View

This view shows all operators currently working in this department. These include operators signing into this department, operators signing into a work center which is in this department and operators directly working on a production which is in this department. The system will display the performance of each operator for the current day in productive hours, non-productive hours and break time and their respective percentages of total hours.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. The system will update the time of each operator automatically.
- Use the **Enter Key** to drill down to Operator Time Clock Inquiry.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up Advanced Options.
- Use the **F5 Key** to bring up the legend.

Active Work Center View



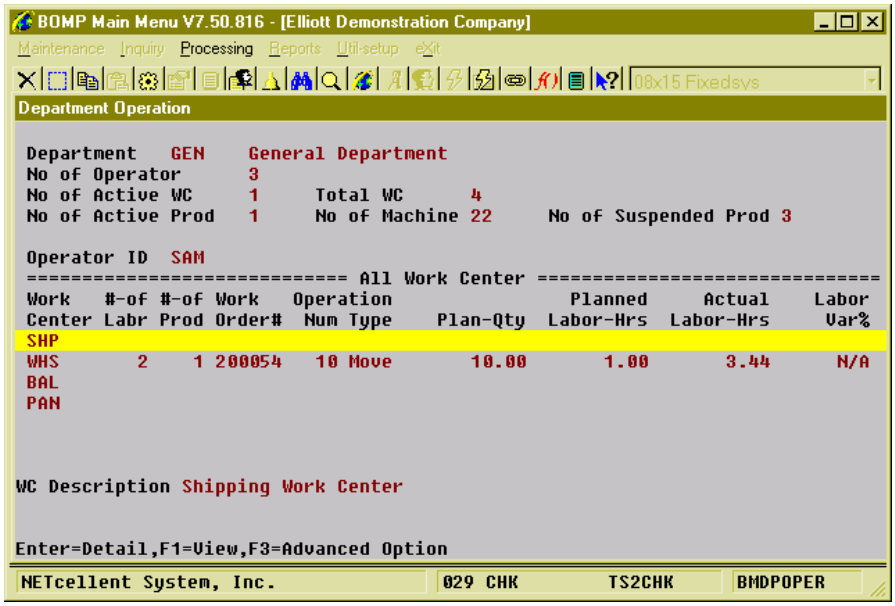
(Figure 12) Department Operation, Active Work Center View

This view shows all work centers which are currently active. A work center is active if an open production time record is present for the work center. The system will display brief production information for each work center. Only one production per work center will be displayed, but you drill down to each work center for more detail.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. The system will update the time of each operator automatically.
- Use the **Enter Key** to drill down Work Center Inquiry.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up the Advanced Options menu. The options include production detail inquiry and production activity inquiry.

All Work Center View



(Figure 13) Department Operation, All Work Center View

This view shows all work centers which belong to this department. If production is taking place in a work center, the system will show additional information about the production. The system will display the number of workers currently in a work center, even if this work center is not active.

The following functions are available in this view:

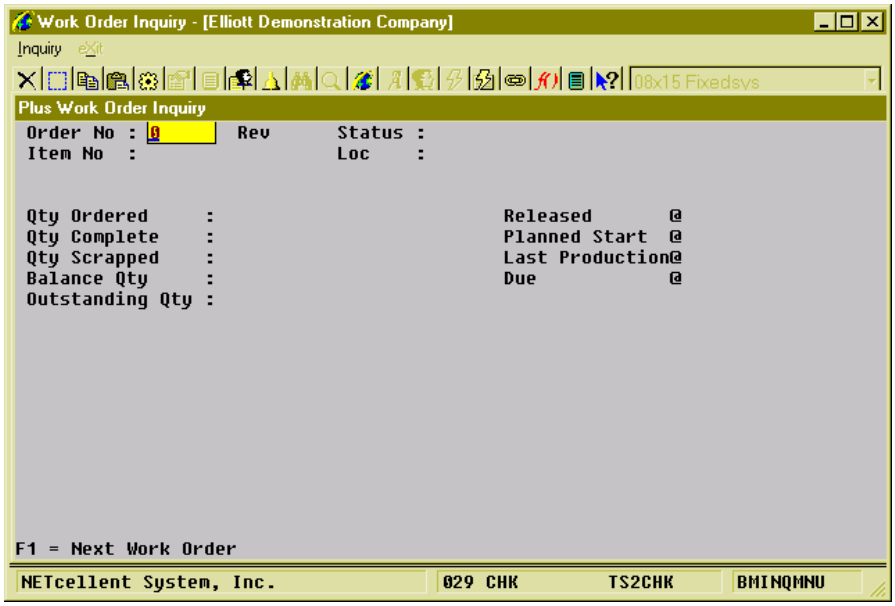
- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. The system will update the time of each operator automatically.
- Use the **Enter Key** to drill down Work Center Inquiry.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up the Advanced Options menu. The options include the production detail inquiry and production activity inquiry.

Work Order Inquiry

How to Access:

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Inquiry ➔ Work Order Inquiry ➔ Inquiry ➔ Plus Work Order

Or drill-down from another interface



(Figure 14) Work Order Inquiry

Application Overview

Work Order Inquiry is an interface that provides work order header information as well as current production progress. Current production progress, like Complete Quantity, Scrapped Quantity and Last Production Date, will be updated whenever a transaction for this work order is created. Also, this interface displays routing, bill of materials and production transactions for the work order in different views and drill downs are available for more detail.

A work order number must be specified unless you have drilled down to Work Order Inquiry from another interface, ex. Sales Order Inquiry. All the information about the work order will be displayed.

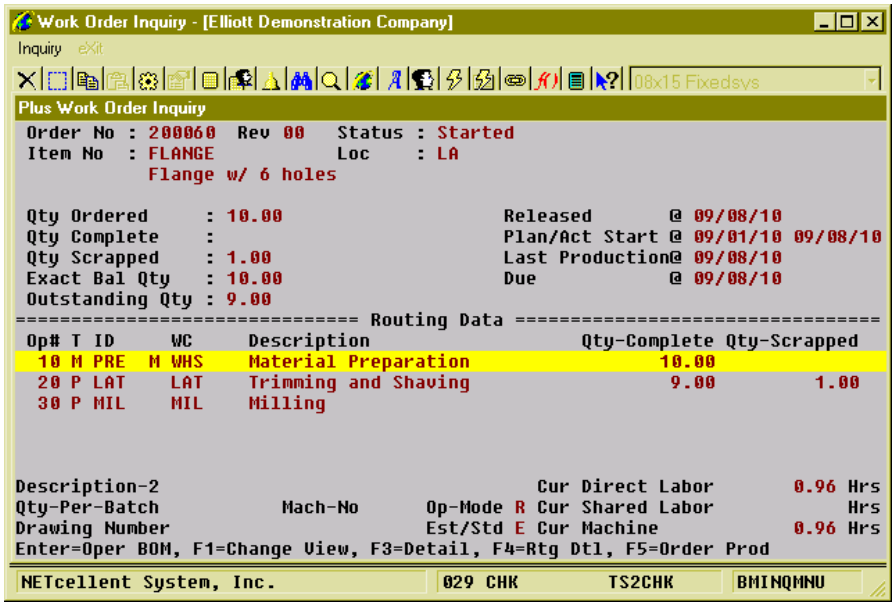
Basic information from the work order header will be displayed on the top four lines, including item number, production location, order status and revision number. If this work order was copied from a COP order, sales order information will be displayed on the top-right side. The middle of the screen displays numeric statistics about the order, including quantity ordered, quantity completed, balance quantity, planning start and due dates, and actual start date. "Balance Qty" is for orders where the ordered quantity is not an exact quantity. "Exact Bal Qty" is for orders where the order quantity is an exact quantity. Balance Quantity of an order is the difference between quantity ordered and

quantity reported. If order quantity is an exact quantity, balance quantity is ordered quantity minus completed quantity. Otherwise, balance quantity is ordered quantity minus completed quantity and scrapped quantity. "Outstanding Qty" is the number of pieces that have been started but not yet finished.

Views

Below the numeric statistics is a view of the work order. Like many other interfaces in WO+, Work Order Inquiry has three views, Routing View, Bill of Material View and Production Transaction View. Use the F1 Key to toggle between these views.

Routing View



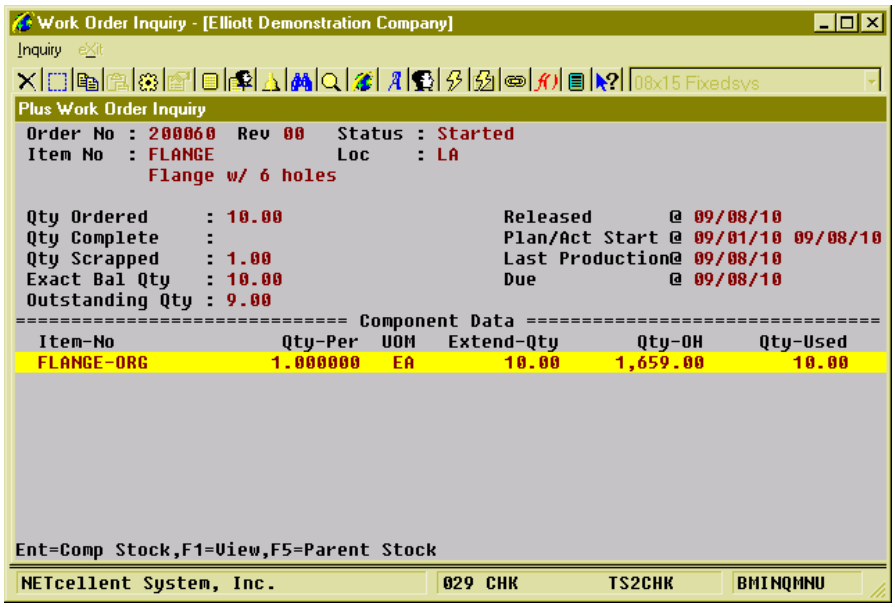
(Figure 15) Work Order Inquiry, Routing View

This view shows all operations in the routing of the work order. The system will display detail information of one operation on the bottom of the screen. The current quantity of each operation will appear to the right of each operation line and the hours will appear on the bottom-right.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to drill down to the bill of material of one material issued point operation. The system will display an "M" on the left of the operation's Work Center to identity material issued points.
- Use the **F1 Key** to toggle to another view.
- Use the **F2 Key** to drill down to Sales Order Inquiry if the Work Order was copied from COP.
- Use the **F3 Key** to drill down to Production Inquiry by Operation for more details.
- Use the **F4 Key** to bring up the Order Routing Inquiry for more detail.
- Use the **F5 Key** to bring up the Production Inquiry by Order screen.

Bill of Material View



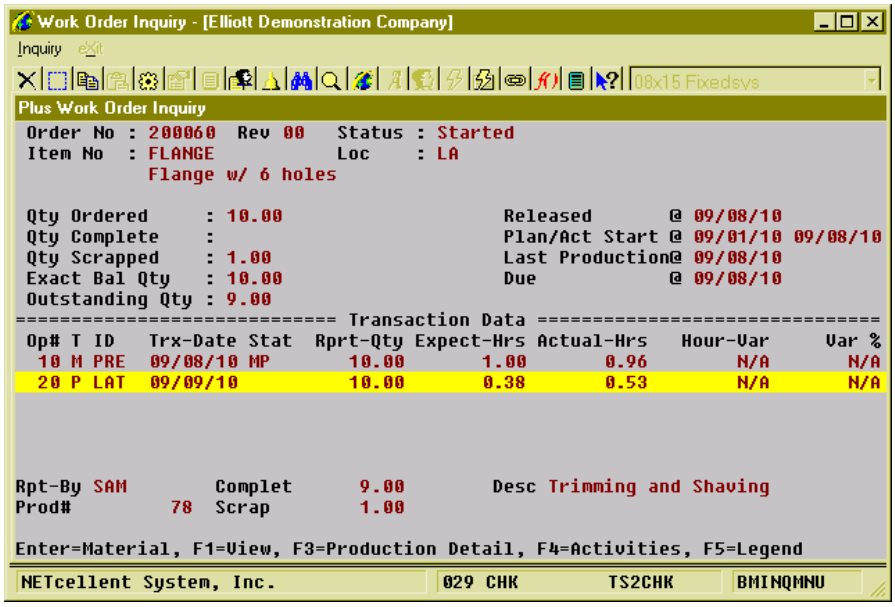
(Figure 16) Work Order Inquiry, Component View

Bill of Material View displays all components planned to be used or already used to produce the parent item. Each line displays one component and the quantity to use in the work order. If the component has been issued, the system will show the quantity used during the production. If one component was used in 2 or more operations, the system will consolidate the different operations into one record and display an asterisk "*" to the left of the item number.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to drill down to Stock Status Inquiry for the highlighted component.
- Use the **F1 Key** to toggle to another view.
- Use the **F2 Key** to drill down to Sales Order Inquiry if the Work Order was copied from COP.
- Use the **F3 Key** to bring up serial numbers created for the parent item.
- Use the **F4 Key** to bring up serial numbers issued for the highlighted component.
- Use the **F5 Key** to drill down to Stock Status Inquiry for the parent item.

Production Transaction View



(Figure 17) Work Order Inquiry, Transaction View

Production Transaction View displays all reported production transactions, posted and unposted. The system will display reported quantity, which is the sum of completed quantity and scrapped quantity, of one transaction. The expected labor hours and actual labor hours are displayed as well. If the operation uses standard value, instead of estimated, the hour variance will be displayed on the right of each line.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to bring up material issued for this transaction.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to drill down to Production Detail if this transaction was created through a scanning interface.
- Use the **F4 Key** to drill down to Production Activity Inquiry if this transaction was created through a scanning interface.
- Use the **F5 Key** to bring up the legend.

Production Inquiry for Work Order

Application Overview

Production Inquiry for Work Order is an interface to monitor the current status of a work order. The main difference between this and Work Order Inquiry is this will instantly update quantity and hours, regardless if productions have been reported. Work Order Inquiry only displays statistics from reported production transactions. This interface is more suitable for monitoring productions. **Figure 18** shows that operation 30 has already used 2.33 hours of labor, but no quantity has been reported because the operation is still in production. The interface provides a view to monitor all operators involved in the work order. It is more useful if the WO+ time clock solution is used to report productions, otherwise Work Order Inquiry is sufficient for general inquiries.

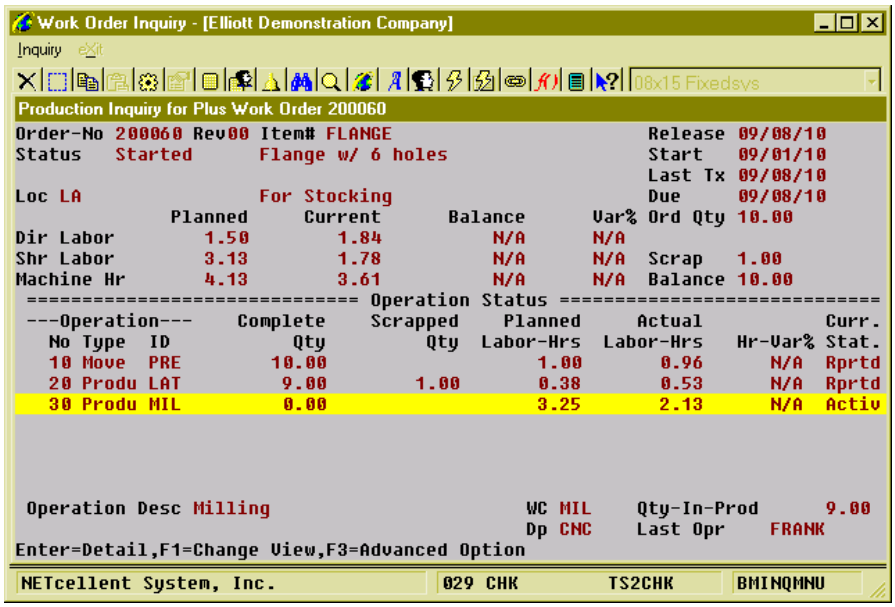
This interface is not available from any of Elliott's menus, but can be accessed by drilling down from other interfaces, like with the **F5 Key** in Work Order Inquiry or through Advanced Options in Work Center Operation.

General work order information is displayed above the separator line on the top-left and the hour evaluation in shown below it. On the right side, all the dates related to the work order and the quantity information are displayed. Different views of the work order are displayed below the separator line. You can highlight a line and drill down for more information.

Views

This interface has different views for a work order. They are Operation View, Labor View and Production View. Each view shows a perspective of the work order and you can toggle between the different views with the **F1 Key**.

Operation View



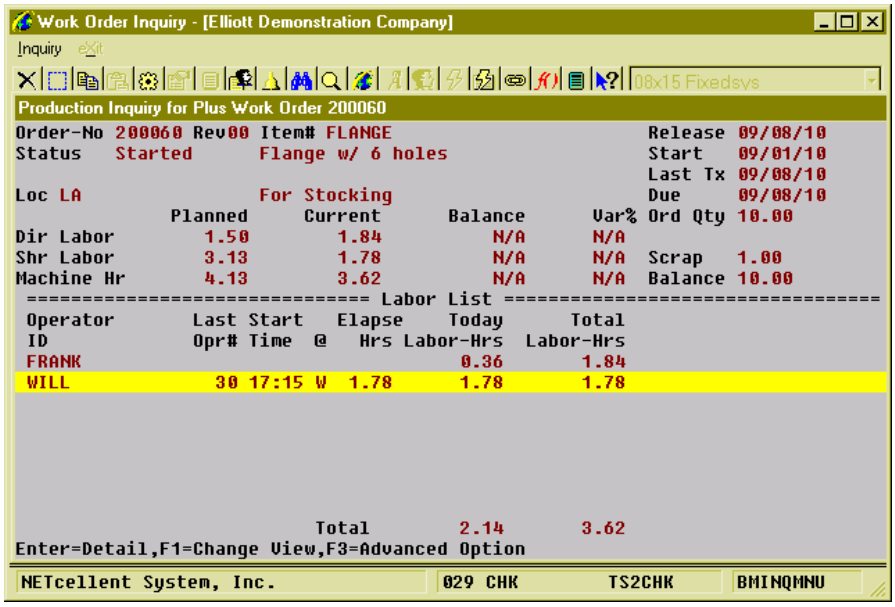
(Figure 18) Production Inquiry for Work Order, Operation View

Operation View provides the current status of each operation in the routing of the work order. The status includes the actual hours spent and the quantity completed. If the parent items are in production, the system will also include the labor hours and show the in-production quantity on the bottom-right side.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. The statistics of an operation will be updated when the operation is highlighted.
- Use the **Enter Key** to drill down to Production Inquiry of an Operation.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up Advanced Options.

Labor View



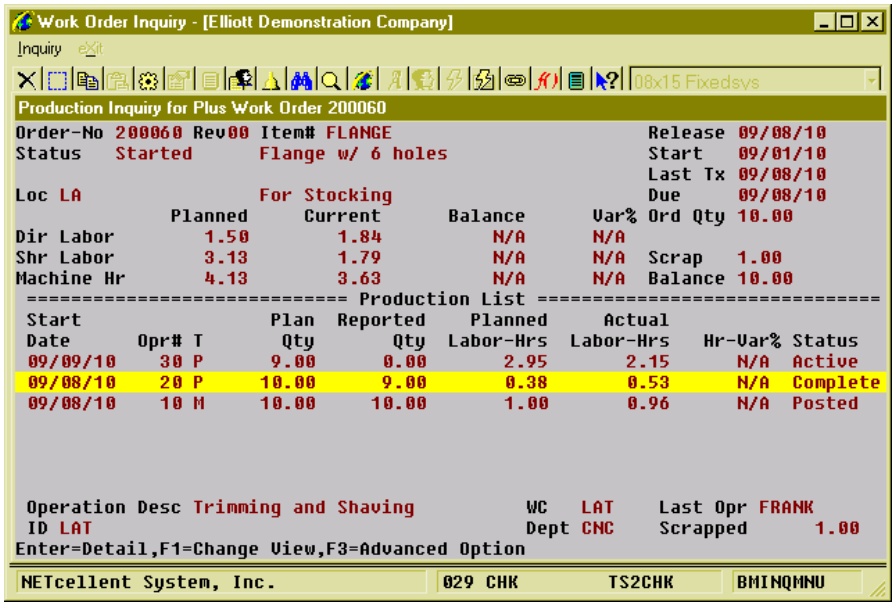
(Figure 19) Production Inquiry for Work Order, Labor View

If the WO+ time clock system is used to track time and report production, the system can report which operator is involved in the production of a certain work order. This Labor View provides a summary of all labor involved in the production, whether direct labor or shared labor. This view will list laborers by operator ID and the hours the operator contributed.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. All statistics will be updated when navigating the highlighted bar.
- Use the **Enter Key** to drill down to Operator's Time Clock Inquiry.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up Advanced Options.

Production View



(Figure 20) Production Inquiry for Work Order, Production View

Each Operation should take at least one production to complete and some may take more than one production. This Production View lists all productions for the work order along with their current status.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. All statistics will be updated when navigating the highlighted bar.
- Use the **Enter Key** to drill down to Production Detail.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up Advanced Options. Options include Production Detail and Production Activity Inquiry.

Production Inquiry for Operation

Application Overview

Production Inquiry for Operation is an interface to monitor the current status of an operation in a work order routing. Similar to Production Inquiry for Work Order, this interface instantly reflects the operation's current status and includes all unfinished productions.

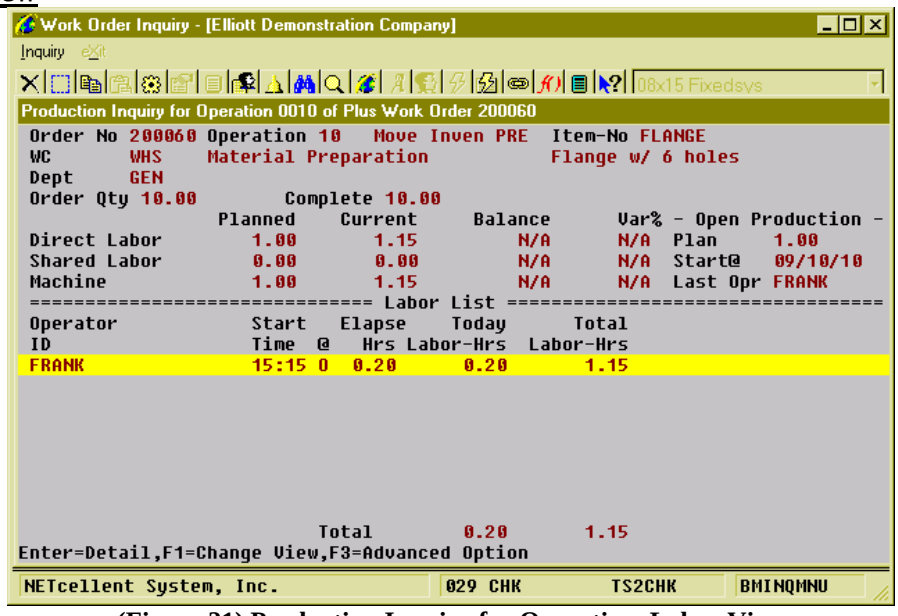
This interface cannot be accessed through any Elliott menu selection, but you can drill down from another interface, like Production Inquiry for Work Order or the Advanced Options in other interfaces.

The interface will display information for the selected operation on the top of the screen. A brief evaluation of this operation will be displayed above the separator line. If the operation is in production, open production information will be shown to the right of the evaluation data.

Views

The interface has two views, Labor View and Production View. Use the **F1 Key** to toggle between them.

Labor View



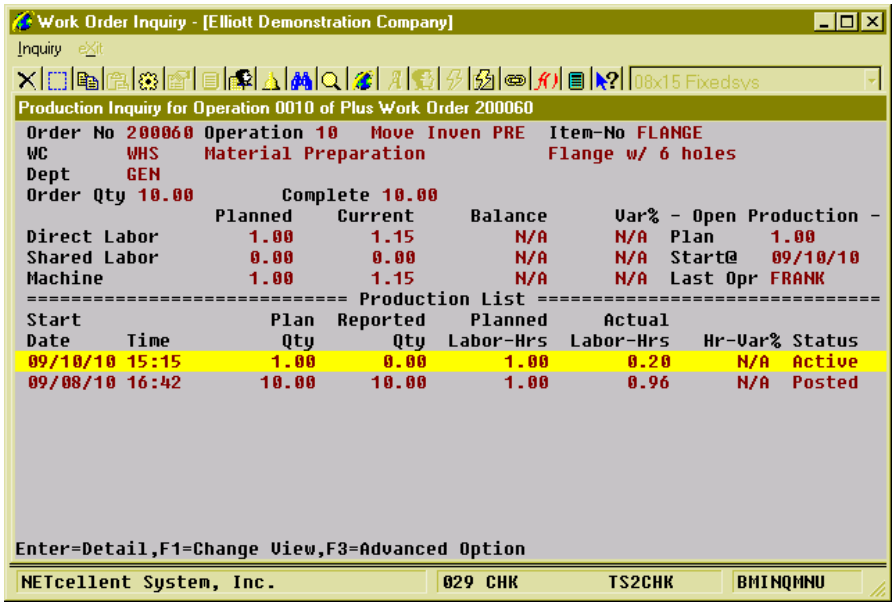
(Figure 21) Production Inquiry for Operation, Labor View

This view lists all operators who have contributed time to the operation, including direct and shared labor. If the operator is currently working on the operation, the system will show when the operator started and for how long.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. All statistics will be updated when navigating the highlighted bar.
- Use the **Enter Key** to drill down to Operator's Time Clock Inquiry.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up Advanced Options.

Production View



(Figure 22) Production Inquiry for Operation, Production View

Although it may take more than one production to finish an operation, Production View will list all productions for the operation. These include complete productions and open productions. A production is open if it has not been reported. The summary information of all open productions will be shown on the right side above the separator line.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. All statistics will be updated when navigating the highlighted bar.
- Use the **Enter Key** to drill down to Production Detail.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to bring up Advanced Options. Options include Production Activity Inquiry and Production Detail Inquiry.

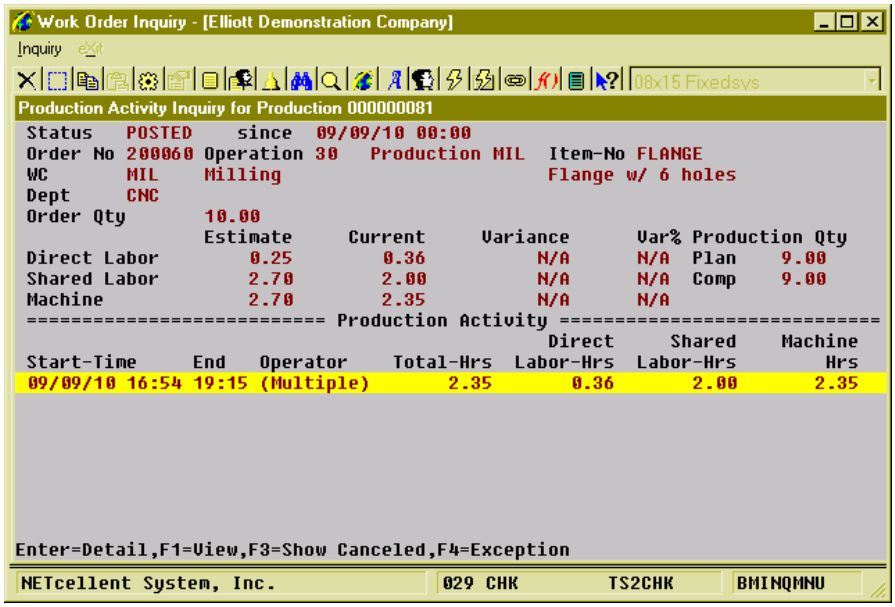
Production Activity Maintenance/Inquiry

Application Overview

Production Activity Maintenance/Inquiry is an interface to maintain or inquire all activities about a production. These activities are periods of time when the production is active. Usually it only takes one activity to finish a production, but the final operation can span across a meal break or more than one day creating more than one activity for a production. This interface provides information about each activity and all labor involved. A supervisor can use this interface to maintain some of the data in advance. Since it provides a high level of detail, it can be used for auditing.

This interface is not available from any of Elliott's menus, but can be accessed by drilling down whenever a production is specified from almost all the other screen programs provided in Work Order Plus.

The interface will display information about the production on the top five lines, which includes production status, order number, operation number, product item number and work center. Above the separator line is the performance hours for labor and machine. To the right of the performance chart is the quantity information for the production.

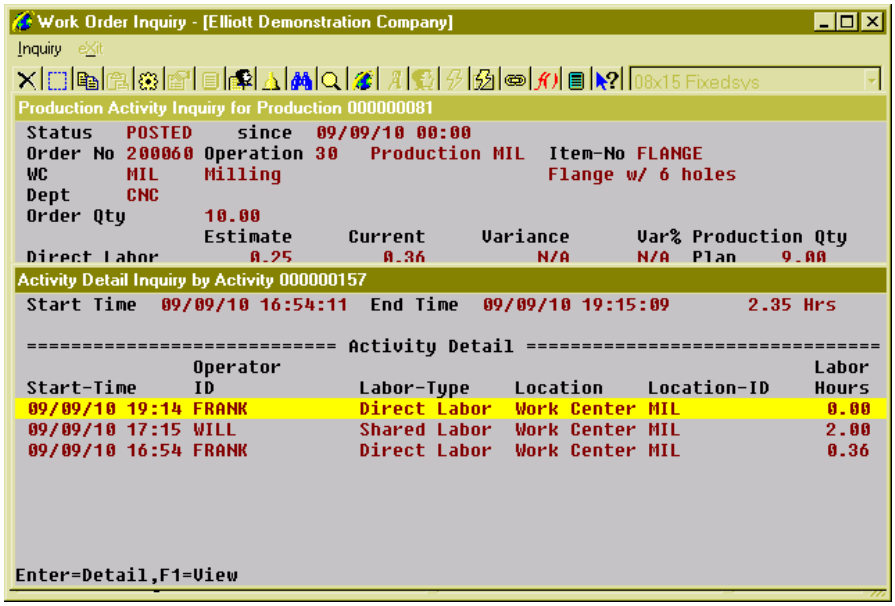


(Figure 23) Production Activity, Activity View

Views

This interface has two views, Activity View and Labor View. Press the **F1 Key** to toggle between them.

Activity View



(Figure 24) Production Activity, Activity Labor Detail

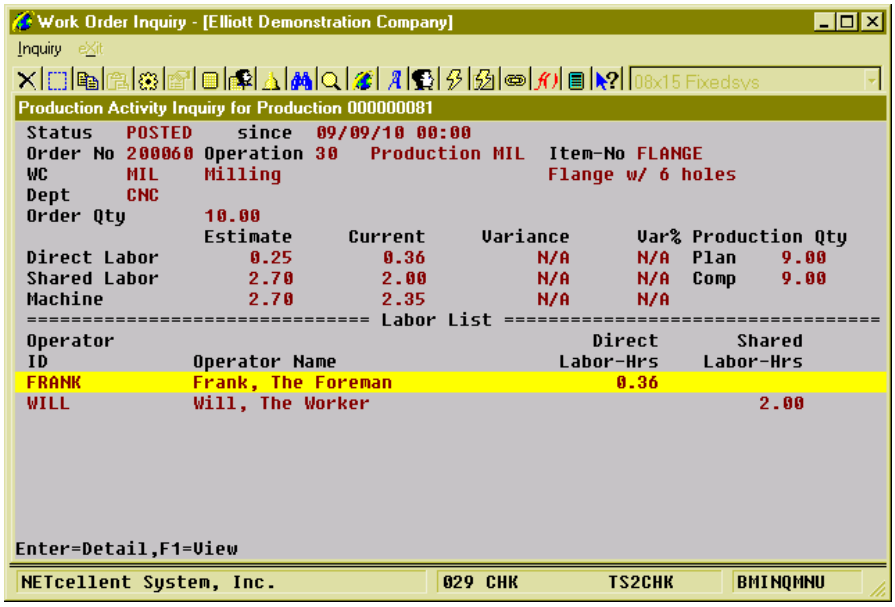
This view lists all activities of the production. Each activity represents a period of time when the production was active. When a production is active, the system will gather machine hours and labor hours spent on the activity and you can drill down to Activity Labor Detail for more information.

For each activity, the system will display the starting and ending time, Direct Labor Hours, Shared Labor Hours and Machine Hours. Also, the operator working on the activity will be displayed. If more than one operator is working at the same time, the system will display "(Multiple)".

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. All statistics will be updated when navigating the highlighted bar.
- Use the **Enter Key** to drill down to Activity Labor Detail.
- Use the **F1 Key** to toggle to another view.
- Use the **F3 Key** to show or hide cancelled activity. An activity can be cancelled through Exception Handling when an interruption of production occurs.
- Use the **F4 Key** to handle exceptions. Options includes adding activity, splitting activity, merging activity, canceling activity and canceling a whole production.

Labor View



(Figure 25) Production Activity, Labor View

Labor view summarizes labor contributed to this production by operator ID. For each operator, the system will display the ID, name and hours in Direct Labor and Shared Labor.

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar. All statistics will be updated when navigating the highlighted bar.
- Use the **Enter Key** to drill down to Operator's Time Clock Inquiry.
- Use the **F1 Key** to toggle to another view.

Production Detail

Application Overview

Production Detail Maintenance/Inquiry/Reporting is a multipurpose interface for one production. It can be used to inquire the transaction detail of a production, change the order number, operation number and reported quantity of a production and report production transaction data. If the production is a Batch Production, which contains more than one work order, the interface will look different than the one for a single transaction production. The mode can be changed Single Transaction Mode to Batch Mode.

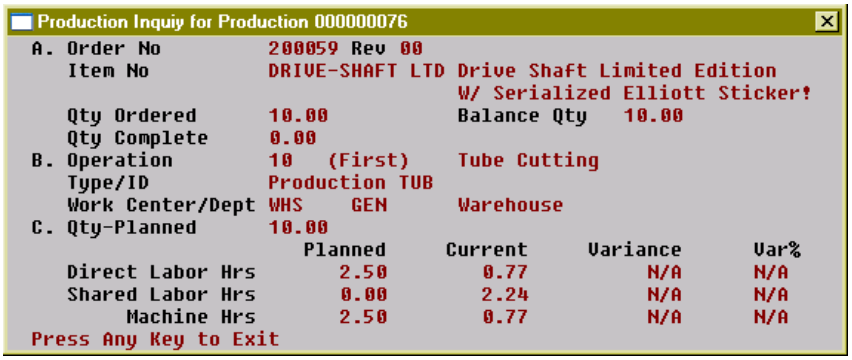
This interface is not available from any of Elliott's menus, but can be accessed by drilling down from almost all the other screen programs provided in Work Order Plus. The interface will be different according to the need of the program that drilled down to it.

Compared to the Production Activity interface, this is more focused on the operations and reported transactions of one work order.

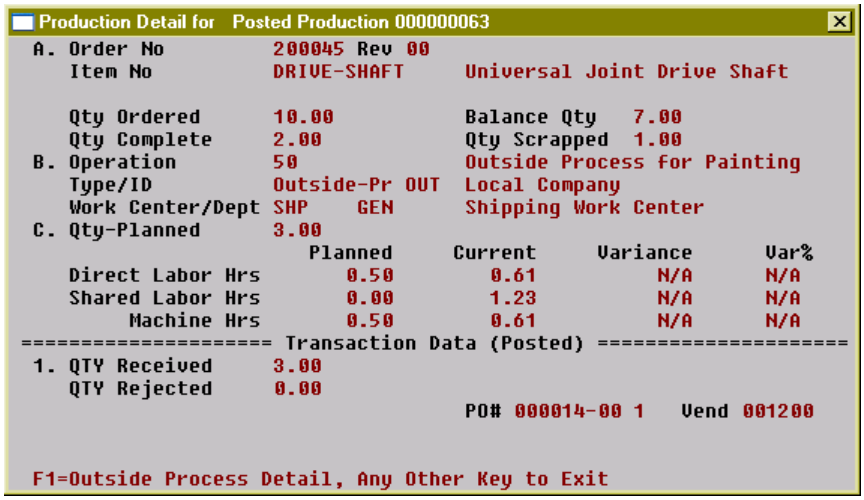
Inquiry Mode

One of the most basic functions for this interface is inquiry. Highlight a production in another interface and press the **Enter Key** to bring up Production Detail Inquiry. This interface will display information about the work order and operation of the production and the evaluation in machine and labor hours. If production has been reported, the reported quantity and additional information will be displayed. If the production is a Batch Production, all work orders and operations will be displayed.

Single Transaction Mode

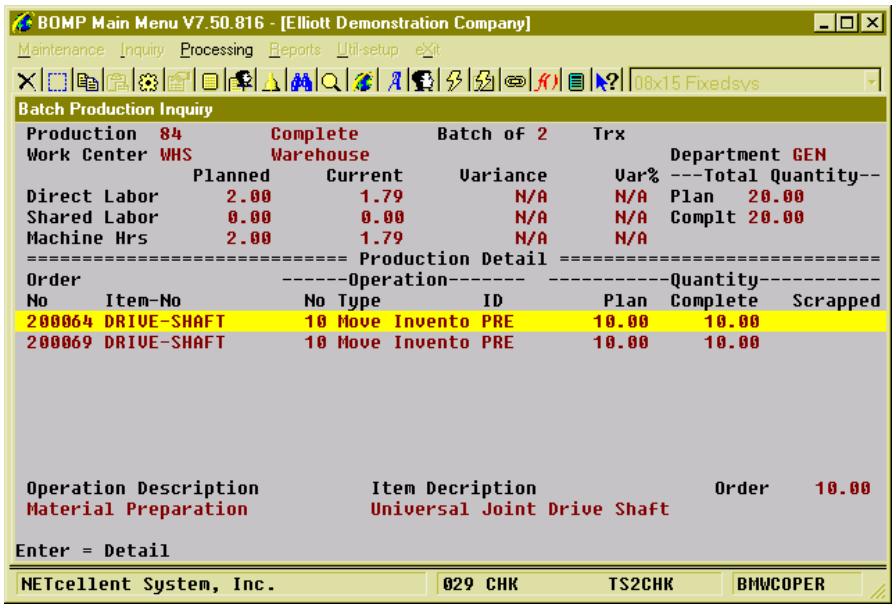


(Figure 26) Production Detail. Inquiry for a new production.



(Figure 27) Production Detail. Inquiry for a reported production

Batch Mode

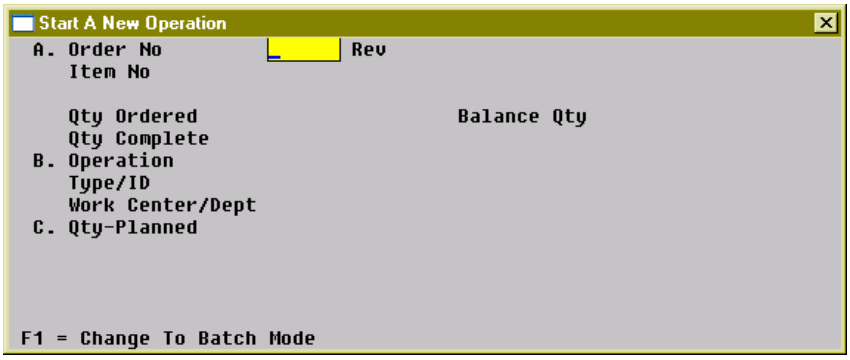


(Figure 28) Production Detail. Inquiry for a reported Batch Production

Add Mode

This interface can be used to add a new production. Usually Work Order Operation will be used to start a new production by entering a Work Order Number and Operation Number before gathering machine hours and labor hours, but the interface only allows starting one work order at a time. This interface is required to start a Batch Production. Press the **F1 Key** at the "Order No" field in Work Order Operation to bring up this interface. Also, the interface is called when adding a new production in Work Center Operation or if an exception occurs.

Single Transaction Mode



(Figure 29) Production Detail. Add a Single Trx Production

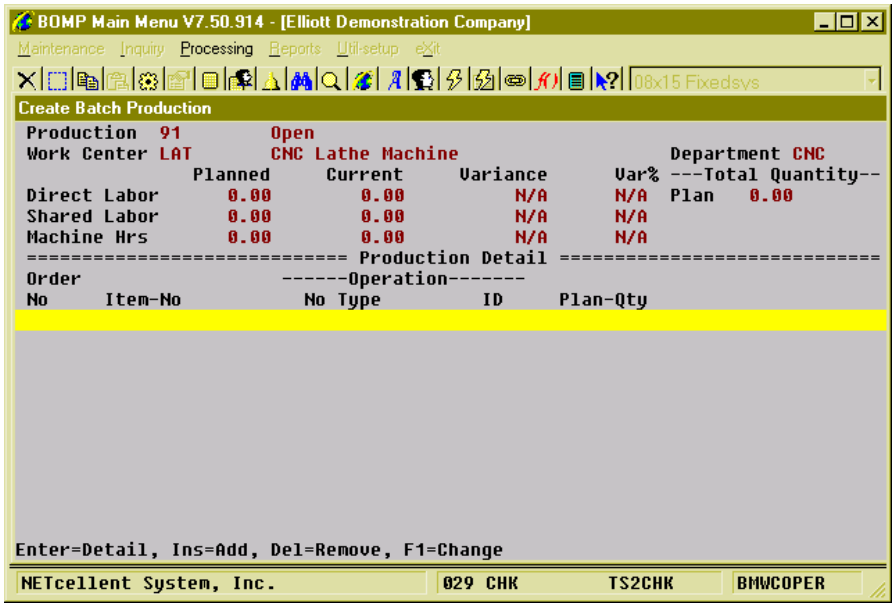
Single transaction mode is used to initiate adding a new production in Work Center Operation. Enter the Work Order Number, Operation Number and Planned Quantity, or press the F1 Key at the "Order No" field to change to Batch mode.

Batch Mode

If this interface is called from Work Order Operation, it will default to Batch Mode. Either by this method or if it was changed from Single Transaction Mode, the system will allow you to add multiple operations into the production.

The following functions are available in this interface:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to view detail.
- Use the **Insert Key** to add a new operation.
- Use the **Delete Key** to delete one operation.
- Use the **F1 Key** to change detail.

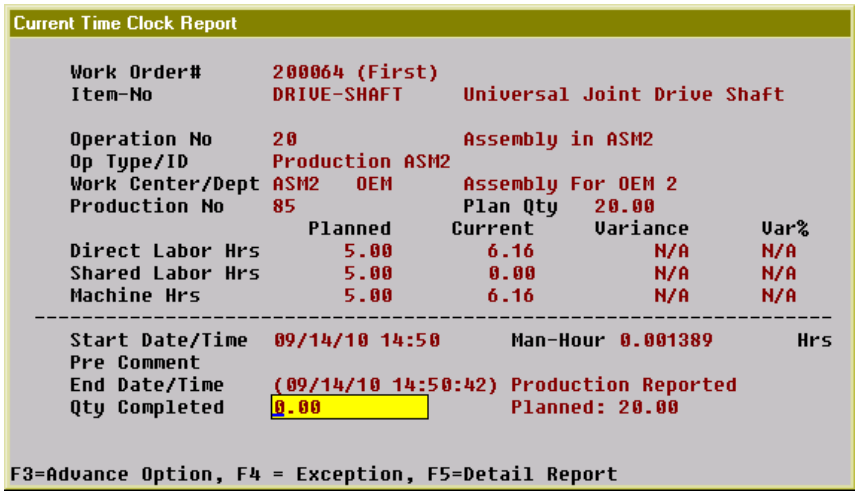


(Figure 30) Production Detail. Add a Batch Production

Reporting Mode

This interface can be used to report production. Since production reporting is integrated into the time clock system in Work Order Plus, normally you would report completed quantity in Work Order Production. If you need to report additional information, like scrapped quantity, or if you report production through the Work Center Operation interface, the system will bring up this interface for detailed reporting.

There are two ways to bring up Production Detail in reporting mode, through Work Order Production and through Work Center Operation. When reporting the quantity completed in Work Order Production, press the **F5 Key** for detail reporting (Figure 31). In Work Center Operation and in Started Production View, highlight one production and press the **F2 Key** for reporting.



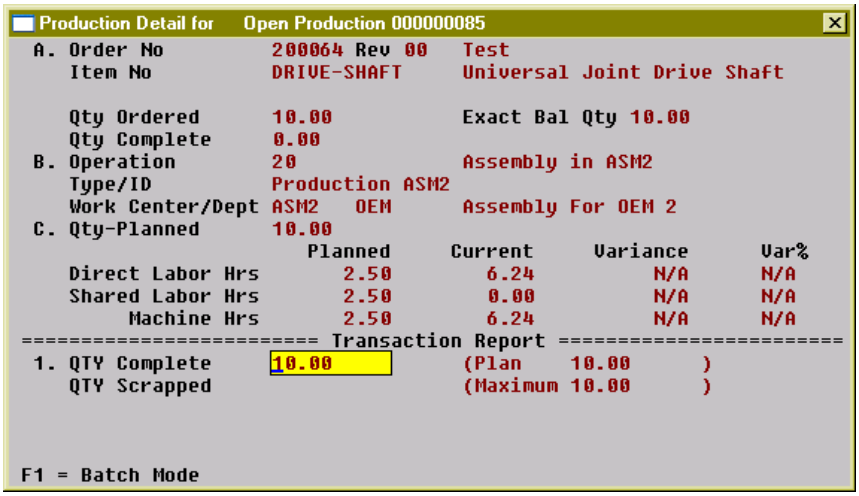
(Figure 31) Work Order Production. Reporting Production.

Single Transaction Mode

Several fields need to be entered for each transaction:

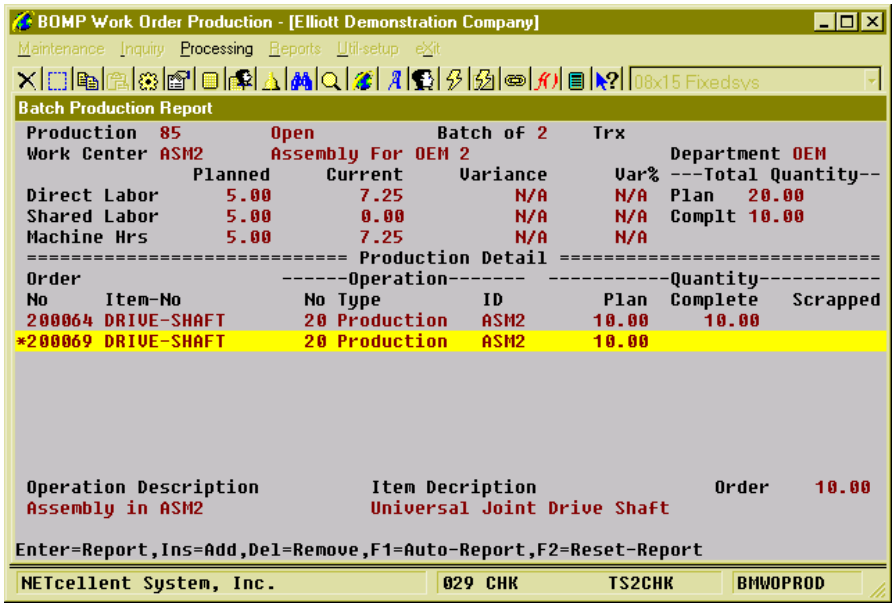
- Complete Quantity and Scrapped Quantity (optional).
- Order Complete Flag (for last operation).
- Actually Issued Materials.
- Outside Process Information, like PO Number and Vendor Number.
- Serial/Lot Information.

To change a single transaction production into a batch production, press the **F1 Key** in the "Qty Complete" field (Figure 32).



(Figure 32) Production Detail Reporting. For Single Transaction Production.

Batch Mode



(Figure 33) Production Detail Reporting. For Batch Production.

Batch Mode of the interface looks different than the Single Transaction Mode. Every production detail must be reported before leaving the interface or the system will abort the whole reporting process. Any production detail not reported will have an asterisk "*" on the left. Figure 33 shows Order# 200064 is reported while Order# 200069 is not.

The following functions are available in this interface:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to report one transaction. The system will bring up a screen similar to the one for single transaction reporting.
- Use the **Insert Key** to add a new operation.
- Use the **Delete Key** to delete one operation.

- Use the **F1 Key** to automatically report for every operation in the production. This will remove reported transactions and report each transaction based on the planned quantity. If an error occurs, the system will abort the routine.
- Use the **F2 Key** to delete all reported transactions. This will not delete operations, but only the transactions.

Maintenance Mode

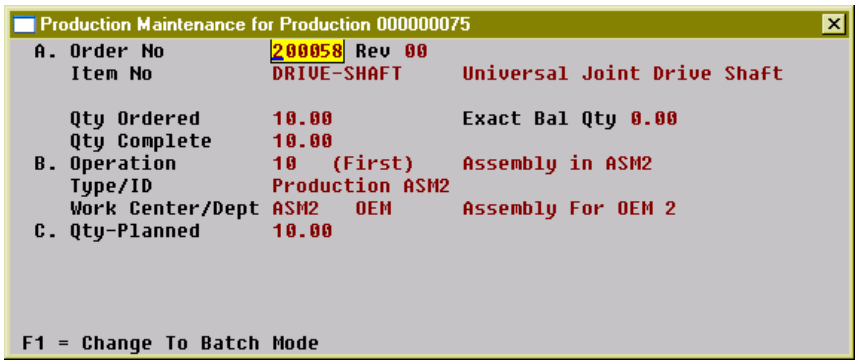
This interface can be used to maintain a production. The Operation and Plan Quantity of a production may be changed, as well as Completed Quantity of a production transaction in maintenance mode. The Order Number, Operation Number and Planning Quantity can be changed if the production has not been reported. Otherwise, only the reported data, like complete quantity and issued materials, can be changed.

To bring up the Production Detail screen in Maintenance mode, use Advanced Options in the Work Center Operation interface. In Started Production view, Complete Production View and Work Center Activity view, use the **F3 Key** to bring up Advanced Options and select "Production Detail Maintenance". The interface will be different based on the production status.

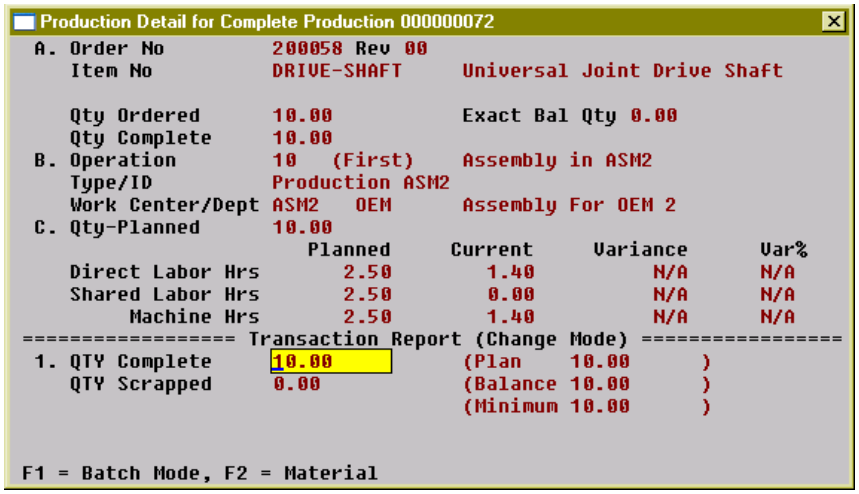
Before Production Detail Maintenance appears, the system will pop up an Exception Handling screen. Changing production data is considered an exception and the operator should have authority to continue. Otherwise, supervisor credentials can be entered to continue.

Single Transaction Mode

Production Detail Maintenance will be entered in two stages. While maintaining a production which has not been reported yet, you can change Work Order Number, Operation Number and Planned Quantity. The operation may be changed to another which is in the same work center. Once the production is reported, only the transaction data, like Complete Qty and materials issued, can be changed..



(Figure 34) Production Detail Maintenance. For Single Transaction Production. Not Reported



(Figure 35) Production Detail Maintenance. For Single Transaction Production. Reported

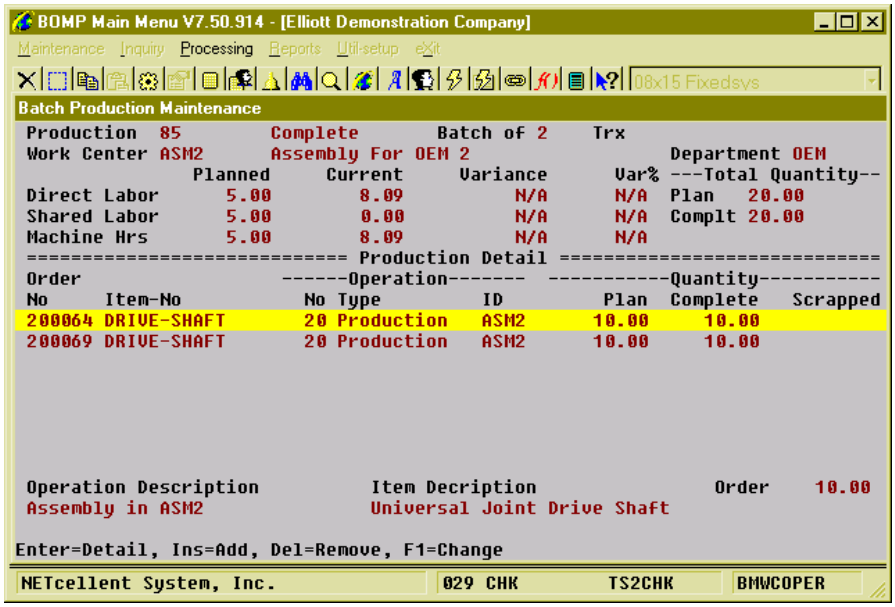
Batch Mode

If the production is a Batch Production, the system will bring up a different interface which lists all operations in the production. If the production has not been reported, the Order Number, Operation Number and Plan Quantity can be changed. If production has been reported, only reported data for each operation can be changed. Operations can be added or deleted to the production.

Changing complete quantity, adding a new work order or deleting an existing work order for a completed production may change the cost distribution. For example, if the batch production increases from 2 work orders to 3 work orders, each work order would distribute less labor cost. The production cost of a posted work order transaction cannot be changed.

The following functions are available in this interface:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to inquire single production detail.
- Use the **Insert Key** to add a new work order. New work orders need to be reported if maintaining a completed production.
- Use the **Delete Key** to remove a work order. Posted transactions cannot be removed.
- Use the **F1 Key** to change data.



(Figure 36) Production Detail Maintenance. For Batch Production. Reported

Operator Time Clock Inquiry/Maintenance

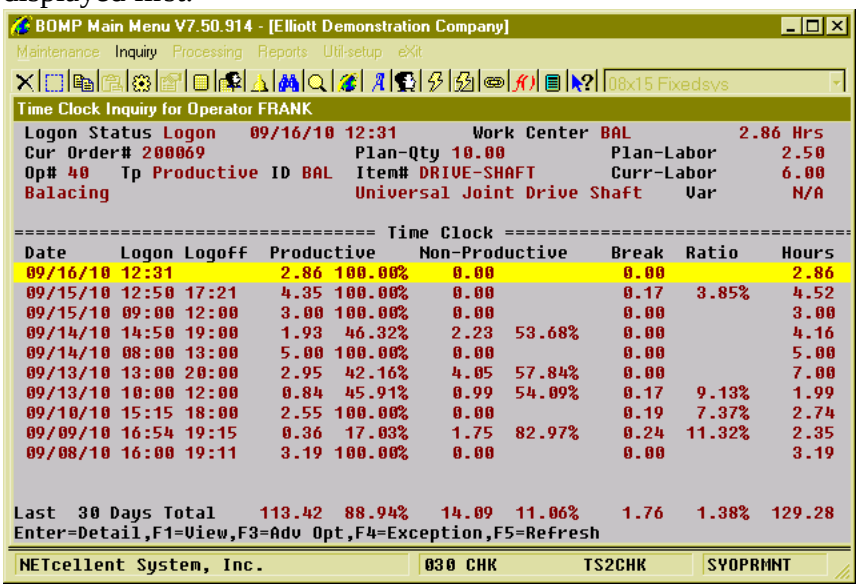
Application Overview

Operator Time Clock Inquiry/Maintenance is an interface to browse the time clock history of an operator. A time clock entry is a record of a period of time when an operator is at work. For example, an operator arrives to work at 8am, has meal break from 12pm to 1pm, and leaves at 5pm. The operator will have 2 time clock records: one starts at 8am and ends at 12pm, while the other starts at 1pm and ends at 5pm. Each time clock record is called a **Time Clock Session** in WO+. This operator could work for multiple work orders in a session or take a break or have a meeting in the same session. The detail activities are called **Time Clock Detail** in WO+. Time clock detail can be labor for a production or for other activities. This application provides an interactive interface to inquire these history records. Advanced editing of the time clock session details are available in maintenance mode.

This interface is not available from any of Elliott's menus, but can be accessed by drilling down from Operator Inquiry with the **F1 Key**. Also, it can be selected from Advanced Options in Work Order Production or Work Center Operation.

The most current operator activity is displayed above the separator line. If the operator is working on a production, brief information about the production, like order number, item number, operation number and planned quantity, will be displayed. Below the separator line would display different information for different views.

By default, all of the time clock data for an operator is displayed. The data is not refreshed unless the **F5 Key** is pressed or a field is edited. You can specify how many days to display by default in BOMP Global Setup field 34, **Default Days to Show on Oper Time Clock Scrn**. It can be overridden from this interface. The most recent records are displayed first.



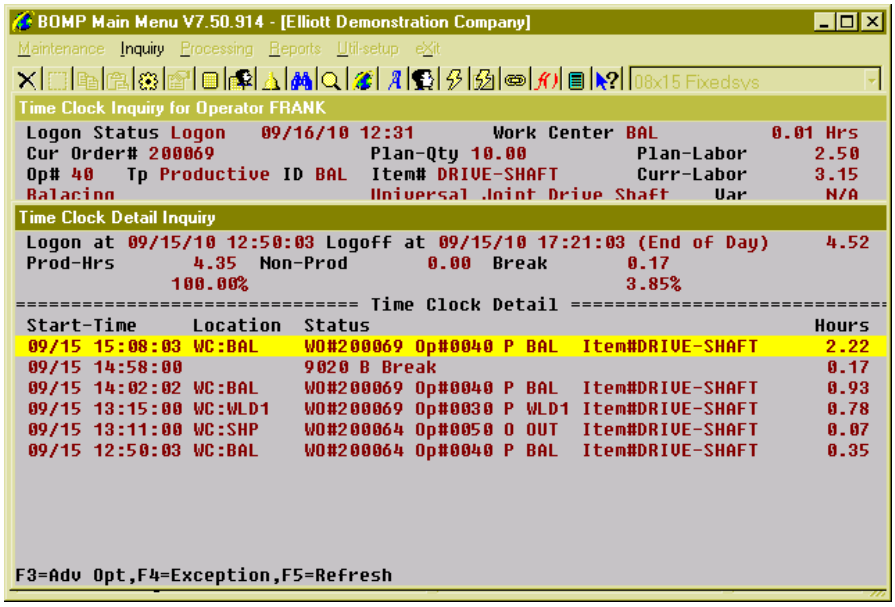
(Figure 37) Operator Time Clock, Time Clock Session View

Views

This interface consists of five views, Time Clock Session View, Time Clock Detail View, Direct Labor View, Shared Labor View and Special Operation View. Use the **F1 Key** to toggle between these views.

Time Clock Session View

Time Clock Session View lists all sessions of one operator. Each session has a starting time and ending time. If a session has no ending time, it is a current session that has not ended. Normally an operator will have two sessions each day. One starts when the operator arrives for work and ends for a lunch break. The second starts when the operator returns and ends when the operator leaves for the day. For each session, the system calculates the hours spent in productive activities, non-productive activities and breaks. The system displays the hours and respective percentage of total hours. The total performance evaluation of all sessions are displayed on the bottom of the screen.

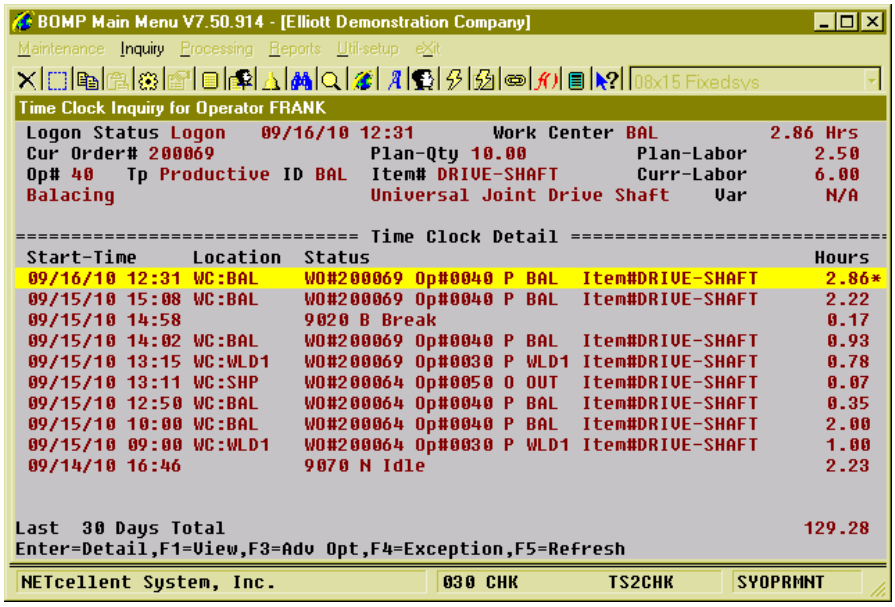


(Figure 38) Operator Time Clock, Detail of one Session

The following functions are available in this view:

- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to drill down to session detail as shown in Figure 38.
- Use the **F1 Key** to change View.
- Use the **F3 Key** to bring up Advanced Options. Options include changing display date and exception mark. The exception mark is an asterisk "*" on the left of one session line and indicates that the session record has been modified through Exception Handling.
- Use the **F4 Key** to bring up Exception Handling options.
- Use the **F5 Key** to refresh all records.

Time Clock Detail View



(Figure 39) Operator Time Clock, Time Clock Detail View

Time Clock Detail View lists all session details of an operator. Time clock details are detail records describing what the operator did during a time clock session. For each detail record, the system will display a brief description. The first record will be the last activity for the operator. If it is current activity, the system will display an asterisk "*" to the right of the line.

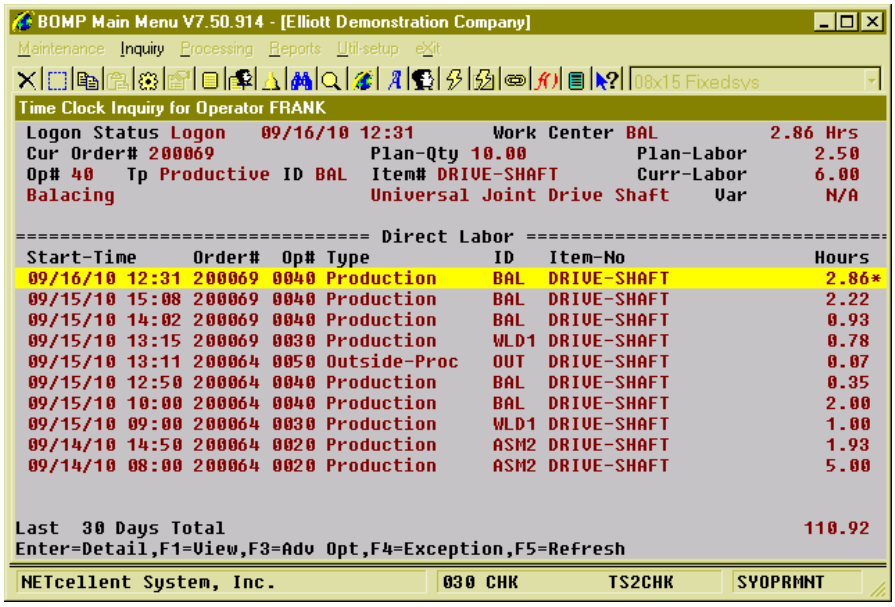
The status of a time clock detail may be "Undefined". This means the operator is present, but activity has not been specified. For example, an operator arrives at the company and clocks into Elliott, but the manager has not assigned a job to the operator. The operator can report himself as idle. It may be time clock history was edited and a detail record was removed.

The following functions are available in this view:

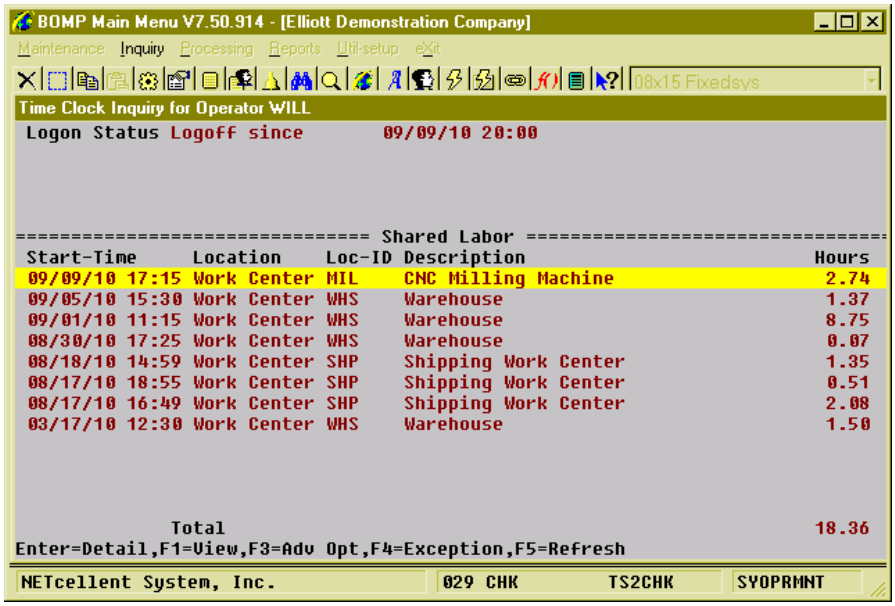
- Use **Up**, **Down**, **Page Up** and **Page Down** to navigate the highlighted bar.
- Use the **Enter Key** to drill down to Production Detail if the operator is working on a production for that session detail.
- Use the **F1 Key** to change View.
- Use the **F3 Key** to bring up Advanced Options. Options include further drill-downs, changing display date and display of the exception mark. The exception mark is an asterisk "*" to the left of one session line, indicating that the session record has been modified through Exception Handling.
- Use the **F4 Key** to bring up Exception Handling options.
- Use the **F5 Key** to refresh all records.

Direct Labor View, Shared Labor View and Special Operation View

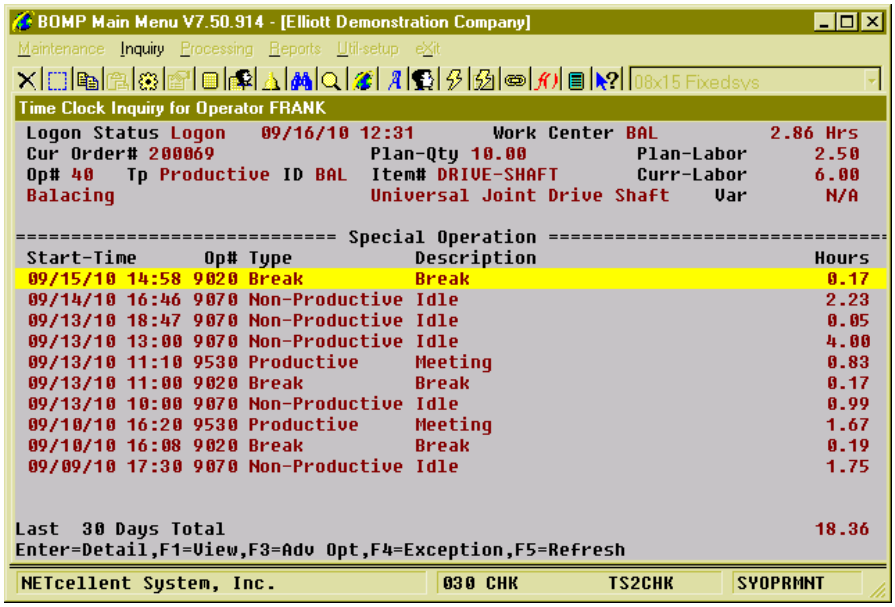
These three views are subsets of Time Clock Detail View. Direct Labor View lists all session details for direct labor. Shared Labor View lists all session details for shared labor. Special Operation View lists all session details which are not directly related to a production. Available functions are the same as those in Time Clock Detail View.



(Figure 40) Operator Time Clock, Direct Labor View



(Figure 41) Operator Time Clock, Shared Labor View



(Figure 42) Operator Time Clock, Special Operation View

Chapter 2: Reports

Production Schedule Report

Application Overview

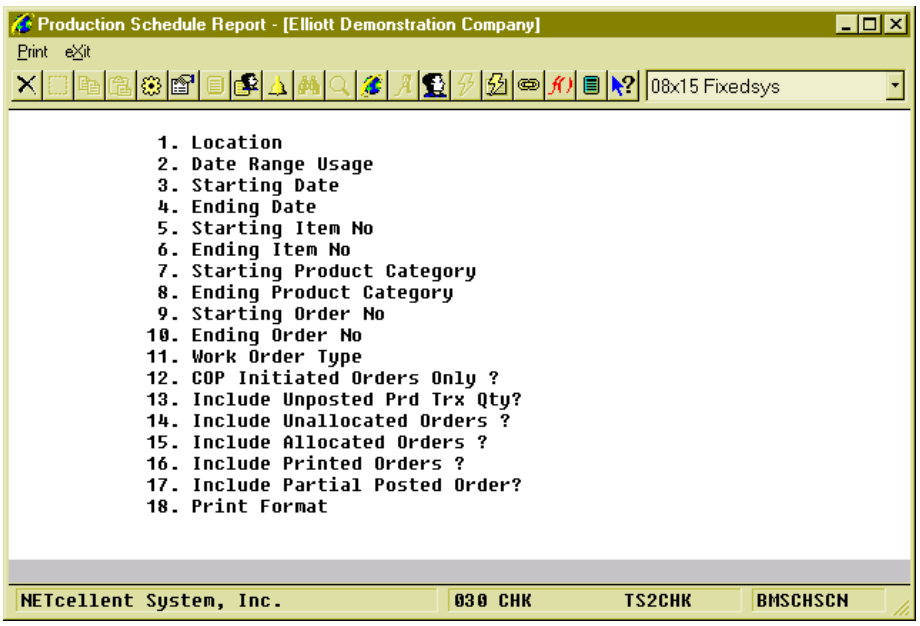
The **Production Schedule Report** prints a list of items scheduled to be produced. These items are entered through orders in the **Production Order Entry** application, copied from **Customer Order Processing**, or from **MRP Firm Planned Orders**.

The report is based on production transactions that have been posted, but unposted production transactions that have been entered can be included.

Parameters for the report include due date or start date, item numbers, and order numbers. The report may be printed for any one location or all locations.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Production Schedule Report ➔ Print ➔ Production Schedule Report.



(Figure 43) Production Schedule Report Entry Screen

The following options are available:

* Select the desired mode from the **Production Schedule Report** menu bar.
* Enter the data requested on the screen.

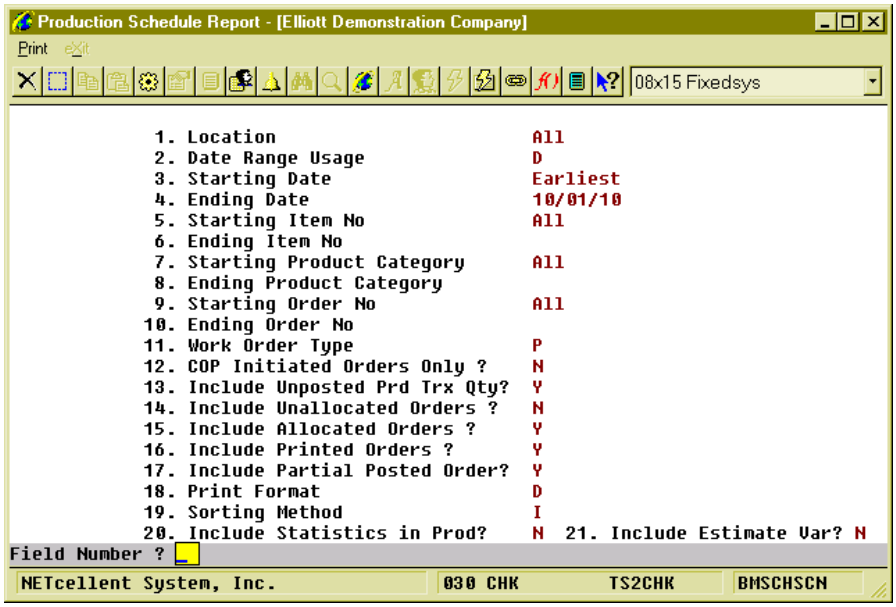
To return to the menu bar, press the **ESC** or **F10** key. To leave this application, press **X** for **EXIT** when positioned at the menu bar.

Entry Field Descriptions

Name	Type and Description
1. Location	2 alphanumeric characters. Enter the location for which you want the report printed. Defaults to All.
2. Date Range Usage	1 alphabetic character. Valid entries are: D = Due date range S = Start date range Enter D to print the report based on a range of start dates from production work orders. Enter S to print the report based on a range of due dates from production work orders. Defaults to D.
3. Starting Date	A date in the standard date format. Enter the starting date for the range of production orders you wish to print. Defaults to Earliest.
4. Ending Date	A date in the standard date format. Enter the ending date for the range of production orders you wish to print. Entry is required if the starting date is Earliest, otherwise the default is the starting date.
5. Starting Item Number	15 alphanumeric characters. Enter the starting item number for the range of items you wish to print. Defaults to All.
6. Ending Item Number	15 alphanumeric characters. Enter the ending item number for the range of items you wish to print. Defaults to the starting item number.
7. Starting Product Category	3 alphanumeric characters. Enter the starting product category for the range of items you wish to print. Defaults to All.
8. Ending Product Category	3 alphanumeric characters.

Name	Type and Description
	Enter the ending product category for the range of items you wish to print. Defaults to the starting product category.
9. Starting Order Number	6 numeric digits. Enter the starting production order number for the range of orders you wish to print. Defaults to All.
10. Ending Order Number	6 numeric digits. Enter the ending production order number for the range of orders you wish to print. Defaults to the starting order number.
11. Work Order Type	1 alphanumeric character. Valid Entries are: O - Legacy Work Order M - Material Work Order P - Plus Work Order Enter the work order type you wish to include. Defaults to the value in BOMP Global Setup.
12. COP Initiated Orders Only?	Y or N. Enter Y to only include orders copied from the COP package. Enter N to include all production work orders. Defaults to N.
13. Include Unposted Prd Trx Qty?	Y or N. Enter Y if you wish to include production transactions that have not been posted. Enter N to include only posted production transactions. Defaults to Y.
14. Include Unallocated Orders?	Y or N. Enter Y if you wish to include production work orders which have not allocated inventory. Defaults to N.
15. Include Allocated Orders?	Y or N. Enter Y if you wish to include production work orders which have allocated inventory. Defaults to Y.
16. Include Printed Orders?	Y or N. Enter Y if you wish to include printed production work orders.

Name	Type and Description
	Defaults to Y.
17. Include Partial Posted Order?	Y or N. Enter Y if you wish to include partially reported production work orders. Defaults to Y.
18. Print Format	1 alphanumeric character. If "Work Order Type" is "O" or "M", valid entries are: D - Detail format. Include material information. B - Brief format. One order per line. If "Work Order Type" is "P", valid entries are: D - Detail format. Include both routing and material. R - Routing information only. M - Material information only B - Brief format. One order per line. Enter report format you wish to print. These formats are for different detail levels. Defaults to B.
19. Sorting Method	1 alphanumeric character. Valid entries are: I - Sort by Item Number. Actual sorting sequence is Location/Item No/Date/Order No D - Sort by Date. Actual sorting sequence is Location/Date/Item No/Order No. W - Sort by Work Center. Actual sorting sequence is Location/Work Center/Date/Item No/Order No. Enter the sorting sequence for the report. This option is only available if "Work Order Type" is "P". Defaults to I.
20. Include Statistics in Prod?	Y or N. Enter Y if you want to include quantities and hours from unfinished productions. The system will include planned quantities and actual labor hours spent. This option is only available if "Work Order Type" is "P". Defaults to N.
21. Include Estimate Var?	Y or N. Enter Y if you want to show variance regardless of the operation's "Estimate/Standard" flag. Otherwise, the system will print "N/A" for the variance. This option is only available if "Work Order Type" is "P". Defaults to N.



(Figure 44) Production Schedule Report Entry Screen

P L U S P R O D U C T I O N S C H E D U L E R E P O R T B Y I T E M N O

Ranges: From Earliest Thru 10/01/10
All Items
All Product Categories
All Order Numbers
Include Allocated, Printed, Partial Posted Work Orders
Statistic Includes Unposted Production Transactions

Location: LA Los Angeles

Item-No	Description	Due-Date	Strt-Dte	Order#	Rev	Qty-Order	Completed	Balance-Qty	Job-No	Status
DRIVE-SHAFT	Universal Joint Drive Shaft	02/13/10	02/13/10	200000	00	10.00	.00	10.00		Started
		02/24/10	02/17/10	200013	00	10.00	.00	10.00		New-Allocated
		02/25/10	02/18/10	200014	00	10.00	.00	10.00	002051	New-Allocated
		02/25/10	02/18/10	200015	00	10.00	.00	10.00	002052	New-Allocated
		03/05/10	02/26/10	200018	00	1.00	.00	1.00	ABC	New-Allocated
		03/13/10	03/06/10	200002	00	30.00	.00	30.00		Started
		03/16/10	03/09/10	200019	00	10.00	.00	10.00		Started
		03/22/10	03/15/10	200020	00	5.00	.00	5.00		New-Allocated
Item DRIVE-SHAFT	Subtotal:							86.00		
FLANGE	Flange w/ 6 holes	02/13/10	02/06/10	200003	00	100.00	20.00	80.00		Partial Rptd
		02/22/10	02/15/10	200008	00	100.00	30.00	70.00		Partial Rptd
Item FLANGE	Subtotal:							150.00		
Location Total:		10 Orders						236.00	Items	

(Figure 45) Production Schedule Report for Plus Work Order

Work Center Rough Cut Report

Application Overview

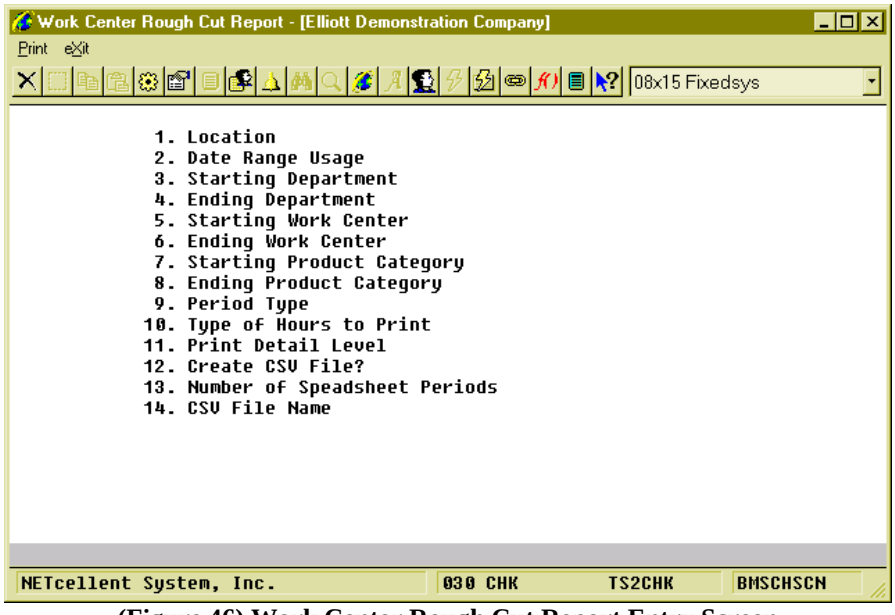
This report generates an estimation of work center capacity over a period of time. The period can be by day, a week, two weeks or a month. The system calculates all the labor and machine hours left from all unfinished work orders in each work center for each period of time and prints them out. This makes it easy to spot if a work center is out of resources, in labor or machine hours, for that period of time. For example, multiple work orders may require 50 hours to finish and are due in one week, but the factory only operates for 40 hours a week. The report would highlight the capacity problem so the orders could be rescheduled.

The parameters for the report include Location, Department, Work Center, a time period of daily, weekly, bi-weekly or monthly, a production work order type, a range of product categories, the detail level of the report, and the date type to use to calculate capacity. The date type can be Due Date, Start Date or Middle Date, the date halfway between Due Date and Start Date for a work order. For example, the start date may be 9/1/2010, the due date 9/8/2010 and it takes 8 hours to finish. Select Start Date and the system will add 8 hours to 9/1/2010. Select Middle Date and the system will add 8 hours to 9/4/2010.

The selected data can be exported to a CSV file and has more detail than the report.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Production Schedule Report ➔ Print ➔ Work Center Rough Cut Report.

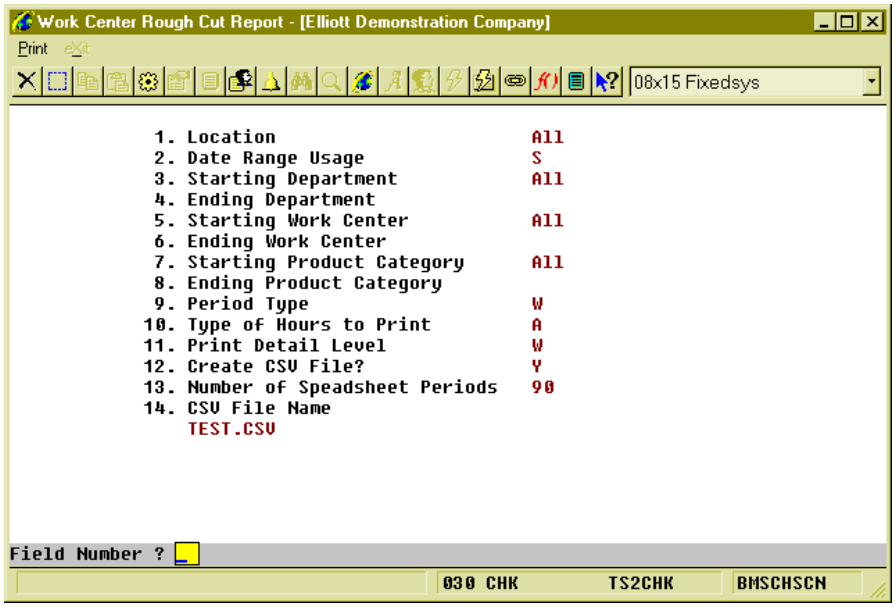


(Figure 46) Work Center Rough Cut Report Entry Screen

Entry Field Descriptions

Name	Type and Description
1. Location	2 alphanumeric characters. Enter a location for the report. The location field supports a wildcard format. Defaults to **All**.
2. Date Range Usage	1 alphabetic character. Valid entries are: D = Due Date S = Start Date M = Middle Date, halfway between the start date and due date. Enter the date type to use. Enter **D** if you want to use the due date. Enter **S** if you want to use the start date. Enter **M** if you want to use the middle date, halfway between the start date and due date. Defaults to **S**.
3. Starting Department	4 alphanumeric characters. Enter the starting department of the range of departments to print. Defaults to **All**.
4. Ending Department	4 alphanumeric characters. Enter the ending department of the range of departments to print. Defaults to the starting department.
5. Starting Work Center	6 alphanumeric characters. Enter the starting work center of the range of work centers to print. Defaults to **All**.
6. Ending Work Center	6 alphanumeric characters. Enter the ending work center of the range of work centers to print. Defaults to the starting work center.
7. Starting Product Category	3 alphanumeric characters Enter the starting product category for the range of items to include on the report. Defaults to **All**.
8. Ending Product Category	3 alphanumeric characters. Enter the ending product category for the range of items to include on the report. Defaults to the starting product category.
9. Period Type	1 alphanumeric character.

Name	Type and Description
	Valid entries are: D - Daily W - Weekly B - Bi-weekly M - Monthly Enter the length of each period. Defaults to W.
10. Type of Hours to Print	1 alphanumeric character. Valid entries are: A - All, including direct labor, shared labor and machine hours. D - Direct labor only. S - Shared labor only. L - Sum of both direct labor and shared labor. M - Machine hours only. Enter the capacity hour type to print. Defaults to A.
11. Print Detail Level	1 alphanumeric character. Valid entries are: L - Location Level, one location per line. D - Department Level, one department per line with a location subtotal. W - Work Center Level, one work center per line with department and location subtotals. O - Work Order Level, one work order per line with work center, department and location subtotals. Enter the detail level to print for the report. Defaults to W.
12. Create CSV File?	Y or N. Enter Y if you wish to export the result to a CSV file. Defaults to the last entry.
13. Number of Speadsheet Periods	2 numeric digits. Enter the number of periods to export to the CSV file. The range can be from 18 to 90. Defaults to the last entry.
14. CSV File Name	50 alphanumeric characters. Enter the path and file name for the CSV export file. Defaults to the last entry.



(Figure 47) Work Center Rough Cut Report Entry Screen

W O R K C E N T E R R O U G H C U T R E P O R T Loc:All

T = Hour Type (D = Direct Labor, S = Shared Labor, L = Total Labor, M = Machine Hour)
Range: Use Start Date
For All Departments
For All Work Centers
For All Category

Lc	Dept	WC#	Description		T	Total	Balance	09/13/10	09/20/10	09/27/10	10/04/10	10/11/10	10/18/10
LA	GEN	PAN	Paint Booth		D	13.00	0.00	13.00					
					S								
					M	13.00	0.00	13.00					
		SHP	Shipping Work Center		D	44.50	0.00	14.00	20.50	10.00			
					S								
					M	44.50	0.00	14.00	20.50	10.00			
		WHS	Warehouse		D	8.00	0.00	4.00					4.00
					S								
					M	8.00	0.00	4.00					4.00
	Department	GEN	General Department	Total	D	65.50	0.00	31.00	20.50	10.00			4.00
					S								
					M	65.50	0.00	31.00	20.50	10.00			4.00
	Location	LA	Los Angeles	Total	D	65.50	0.00	31.00	20.50	10.00			4.00
					S								
					M	65.50	0.00	31.00	20.50	10.00			4.00
	Grand Total				D	65.50	0.00	31.00	20.50	10.00			4.00
					S								
					M	65.50	0.00	31.00	20.50	10.00			4.00

(Figure 48) Work Center Rough Cut Report

The “Balance” column represents the hours left before the first period.

Single Level Where Used Report by Order

Application Overview

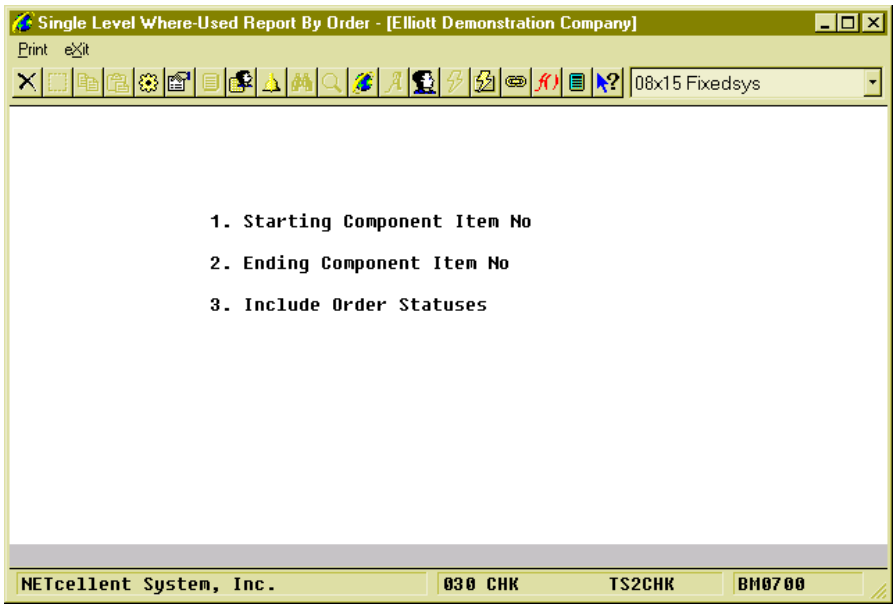
Single Level Where Used Report by Order prints the single level work orders for a selected range of components.

Enter the range of components and order status to include and the work orders are located and printed on the report.

NOTE: This application only includes Plus Work Orders due to the database structure.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Single Level Where-used Report ➔ Print ➔ By Order

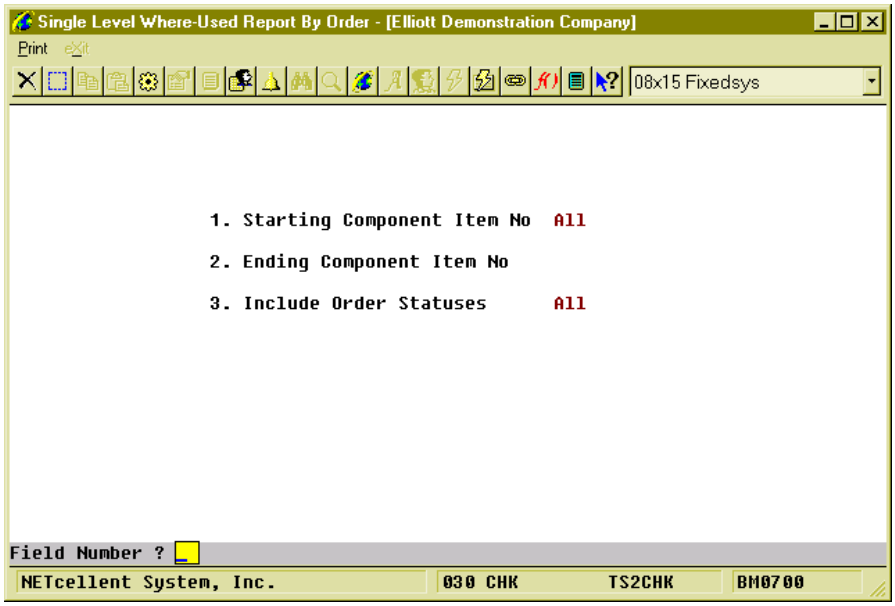


(Figure 49) Single Level Where-Used Report by Order Entry Screen

Entry Field Descriptions

Name	Type and Description
1. Starting Component Item No	15 alphanumeric characters. Enter the starting item number for the range of components to print. Defaults to All.
2. Ending Component Item No	15 alphanumeric characters. Enter the ending item number for the range of components to print. Defaults to the starting component item number.

Name	Type and Description
3. Include Order Status	1 alphanumeric character. Valid entries are: N - New P - Printed S - Started I - Partially Reported C - Completed R - Reopened Enter the order status of the work orders to include on the report. You can select up to 5 statuses. Defaults to All.



(Figure 50) Single Level Where-Used Report by Order Entry Screen

```
                              S I N G L E   L E V E L   W H E R E - U S E D   B Y   O R D E R

Ranges: Component Items FLANGE          Thru FLANGE
Include Orders w/ Any Status

Component Item FLANGE           Flange w/ 6 holes              U/M:  EA  Low Level Code  2  Engnr Relse


  Order# Loc Item-No               Prod   Order-Qty  Oper T ID   WC     Seq             QTY-Per U/M    Plan-Qty Sub Pick-Seq
  Job-No Item-Description           Cat      Start   Operation-Description                          Issued-Qty
                                          Due-Date

  200000 LA  DRIVE-SHAFT            FG        10.00   10 M PRE  WHS     20           2.000000  EA       20.00  N
         Universal Joint Drive Shaft       02/13/10  Material Preparation                              .00
                                           02/13/10

  200002 LA  DRIVE-SHAFT            FG        30.00   10 M PRE  WHS     20           2.000000  EA       60.00  N
         Universal Joint Drive Shaft       03/06/10  Material Preparation                              .00
                                           03/13/10

  200006 LA  DRIVE-SHAFT LTD        FG         2.00   20 M PRE  WHS     20           2.000000  EA        4.00  N
         Drive Shaft Limited Edition       02/04/10  Material Preparation                             4.00
         W/ Serialized Elliott Sticker!    02/18/10

  200014 LA  DRIVE-SHAFT            FG        10.00   10 M PRE  WHS     20           2.000000  EA       20.00  N
  002051 Universal Joint Drive Shaft       02/18/10  Material Preparation                              .00
                                           02/25/10


                                                                          Total Planned Qty :      104.00
         Component FLANGE          In      4 Orders,       4 Operations   Total Issued Qty :        4.00

                   1 Component Printed
```

(Figure 51) Single Level Where-Used Report by Order

Production History Report for WO+

Application Overview

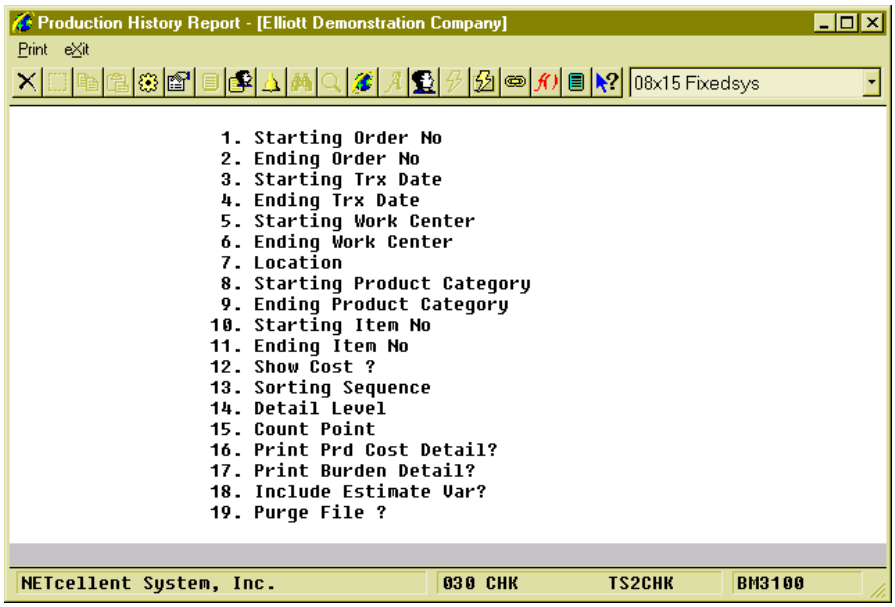
The **Production Transaction History Report** prints production transactions reported for selected production orders. It prints the number of items reported in each transaction and the total amount reported as of a specified date.

You may elect to print the report, purge the data, or both. Parameters for the production order transactions to print include order number, transaction date, work center, location, and item number. The sorting sequence can be by item or by order number and various levels of detail can be selected to print on the report.

Only production transactions that have been posted in the **Post Production Transactions** application can be included on the report.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Production History Report ➔ Print ➔ Plus Work Order



(Figure 52) Product History Report for WO+ Entry Screen

The following options are available:

- Select the desired mode from the **Production Transaction History Report** menu bar.
- Enter the data requested on the screen.

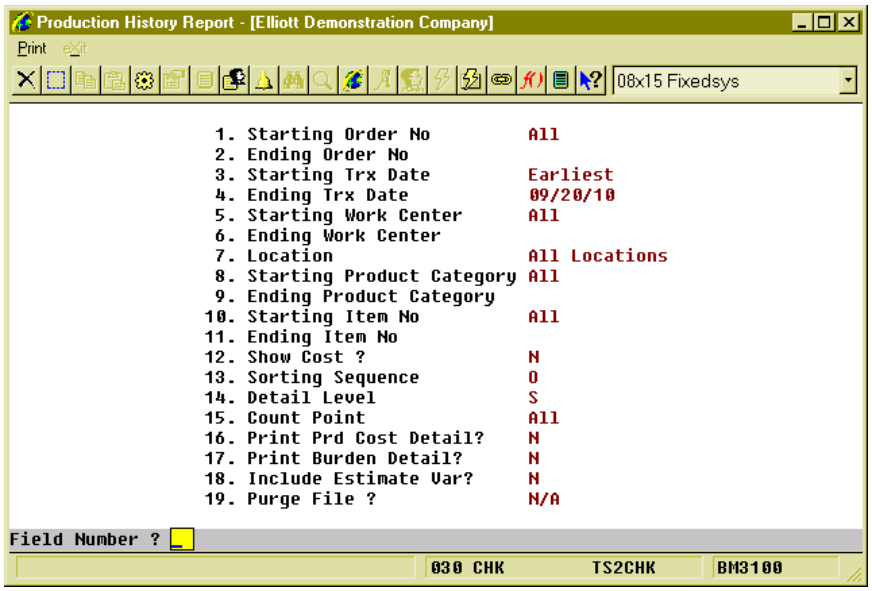
To return to the menu bar, press the **ESC** or **F10** key. To leave this application, press **X** for **EXIT** when positioned at the menu bar.

Entry Field Descriptions

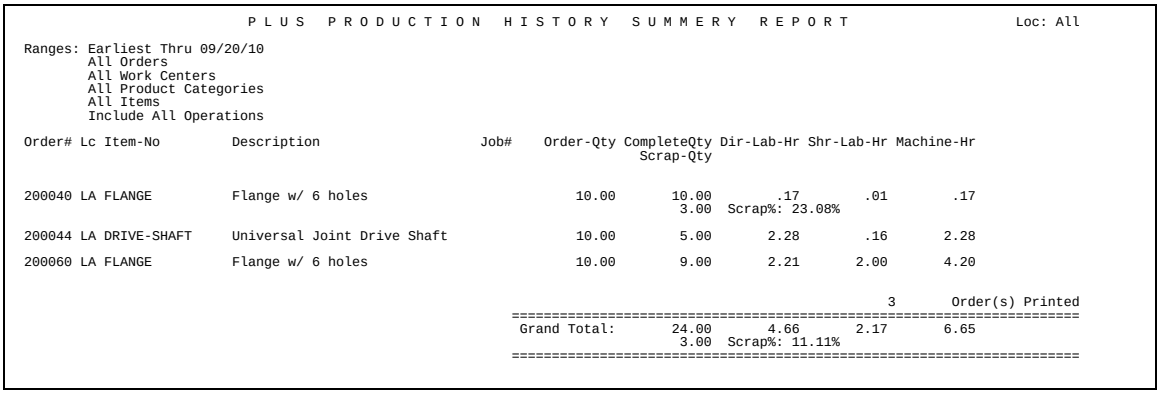
Name	Type and Description
1. Starting Order No	6 numeric digits. Enter the first production order number to appear on the report. The default is All.
2. Ending Order No	6 numeric digits. Enter the last production order number to appear on the report. The default is the starting order number.
3. Starting Trx Date	A date in the standard date format. Enter a starting transaction date for the range of transactions to print on the report. Default is earliest.
4. Ending Trx Date	A date in the standard date format. Enter an ending transaction date for the range of transactions to print on the report. Defaults to the starting date. If the starting date is EARLIEST, defaults to the current date.
5. Starting Work Center	6 alphanumeric characters. Enter starting work center ID for the range of transactions to print. Defaults to All.
6. Ending Work Center	6 alphanumeric characters. Enter ending work center ID for the range of transactions to print. Defaults to the starting work center ID.
7. Location	2 alphanumeric characters. Enter the transaction location for the report. The location field supports wildcard formats. Defaults to All.
8. Starting Product Category	3 alphanumeric characters. Enter the starting product category for the range of transactions to print. Press the F1 Key to select transactions for parent items which have no product category. Press the F7 Key to search for existing product categories. Defaults to All.

9. Ending Product Category	3 alphanumeric characters. Enter the ending product category for the range of transactions to print. Press the F7 Key to search for existing product categories. Defaults to the starting product category.
10. Starting Item No	15 alphanumeric characters. Enter the starting item number for the range to be printed. Press the F7 key to search by item number or press the F8 key to search by item description. The default is All.
11. Ending Item No	15 alphanumeric characters. Enter the ending item number for the range to be printed. Press the F7 key to search by item number or press the F8 key to search by item description. The default is the starting item number.
12. Show Cost?	Y or N. Enter Y if you want to print cost related information on the report. This option is only available if the Elliott user is allowed to view cost information. Defaults to N.
13. Sorting Sequence	1 alphanumeric character. Valid entries are: O - By Order Number I - By Item Number Enter the sorting sequence for transactions to print on the report. Defaults to O.
14. Detail Level	1 alphanumeric character. Valid entries are: D - Include all transaction details. B - Brief transaction information. S - Order/Item Summary. Enter the detail level to print on the report. Defaults to S.
15. Count Point	1 alphanumeric character. Valid entries are: M - Material Issued Point Only. Only transactions which issue materials will be printed. Y - Y Count Point Only. Only transactions that finish the parent item will be printed. In WO+, these are transactions for the last operation. B - Both Material Issued Point and Y Count Point. Space - All. Enter the type of transaction to print on the report. Defaults to All.

16. Print Prd Cost Detail?	Y or N. Enter Y if you want to print how production cost for the parent item is calculated. The report will print the amount from each operation and material. This is for the last operation, which is a Y Count Point. Defaults to N.
17. Print Burden Detail?	Y or N Enter Y to print how burden cost is calculated. The report will print each burden type from labor hours, machine hours, etc. Defaults to N.
18. Include Estimate Var?	Y or N Enter Y to print variance in hour and/or quantity for transactions, even if the operation statistics are estimated instead of standard. Otherwise, the report will print "N/A" in the variance fields. Defaults to N.
19. Purge File?	Y or N. Enter Y to purge the Production Transaction History File for the range selected. Defaults to N.



(Figure 53) Product History Report for WO+ Entry Screen



P L U S P R O D U C T I O N H I S T O R Y S U M M E R Y R E P O R T Loc: All

Ranges: Earliest Thru 09/20/10
All Orders
All Work Centers
All Product Categories
All Items
Include All Operations

Order#	Lc	Item-No	Description	Job#	Order-Qty	CompleteQty / Scrap-Qty	Dir-Lab-Hr	Shr-Lab-Hr	Machine-Hr
200040	LA	FLANGE	Flange w/ 6 holes		10.00	10.00 / 3.00	.17	.01	.17
						Scrap%: 23.08%			
200044	LA	DRIVE-SHAFT	Universal Joint Drive Shaft		10.00	5.00	2.28	.16	2.28
200060	LA	FLANGE	Flange w/ 6 holes		10.00	9.00	2.21	2.00	4.20
								3	Order(s) Printed
			Grand Total:		24.00	4.66	2.17		6.65
						3.00			
						Scrap%: 11.11%			

(Figure 54) Product History Report for WO+

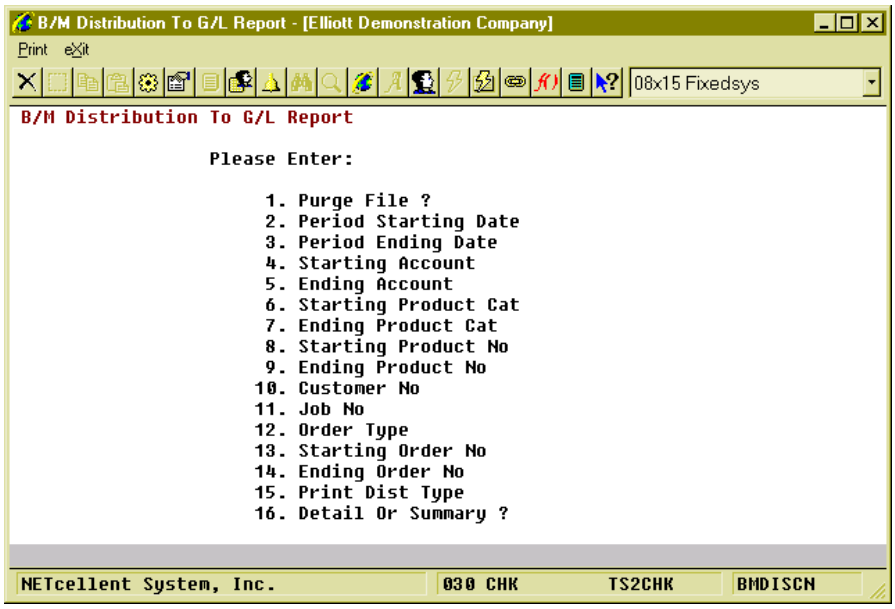
B/M Distribution Report

Application Overview

Prior to Elliott 7.5, distribution were created in the I/M Distribution To G/L File when BOMP production transactions were posted. Elliott 7.5 adds B/M Distribution To G/L File for all Legacy, Material and Plus Work Order distributions. The B/M Distribution Report prints the information from this file to verify exactly which accounts were updated and the amounts posted.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ B/M Distribution Report



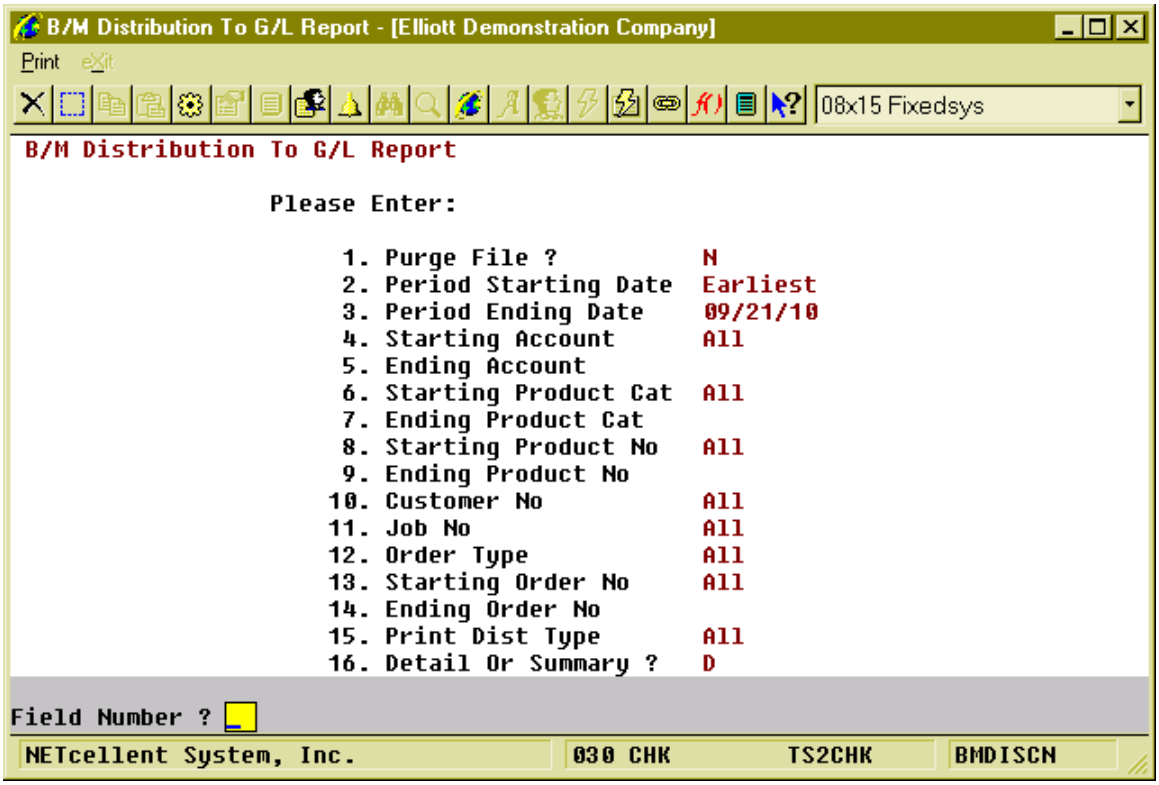
(Figure 55) B/M Distribution Report Entry Screen

Entry Field Descriptions

Name	Type and Description
1. Purge File ?	Y or N. Do not purge if you interface with the General Ledger package. Defaults to N.
2. Period Starting Date	A date in the standard date format. Enter the beginning date of the period to print on the report. Defaults to EARLIEST.

3. Period Ending Date	A date in the standard date format. Enter the ending date of the period to print on the report. Defaults to the starting date. If the starting date is EARLIEST, the defaults will be the current date.
4. Starting Account	An account in standard account format. Enter the starting account number of the range of accounts to print on the report. Press the F7 Key to search for an account by account number. Press the F8 Key to search for an account by account description. Defaults to All.
5. Ending Account	An account in standard account format. Enter the ending account number of the range of accounts to print on the report. Press the F7 Key to search for an account by account number. Press the F8 Key to search for an account by account description. Defaults to the starting account number.
6. Starting Product Cat	3 alphanumeric characters. Enter the starting product category of the range of parent items to print on the report. Press the F1 Key for parent items that have no product category. Press the F7 Key to search existing production categories. Defaults to All.
7. Ending Product Cat	3 alphanumeric characters. Enter the ending product category of the range of parent items to print on the report. Press the F1 Key for parent items that have no product category. Press the F7 Key to search existing production categories. Defaults to the starting product category.
8. Starting Product No	15 alphanumeric characters. Enter the starting item number of a range of parent items to print on the report. Press the F7 Key to search for an item by item number. Press the F8 Key to search for an item by item description. Defaults to All.
9. Ending Product No	15 alphanumeric characters. Enter the ending item number of a range of parent items to print on the report. Press the F7 Key to search for an item by item number. Press the F8 Key to search for an item by item description. Defaults to the starting product number.

10. Customer No	6 alphanumeric characters. Enter a customer number and work order distributions for the customer that have been copied from COP will be printed. Press the F1 Key to select work orders not copied from COP. Press the F7 Key to search for a customer by customer number. Press the F8 Key to search for a customer by customer name. Defaults to All.
11. Job No	6 alphanumeric characters. Enter the job number for distributions to print. Press the F1 Key to print distributions without a job number. Press the F7 Key to search for a Job Number if the BOMP module uses job numbers. Defaults to All.
12. Order Type	1 alphanumeric character. Valid entries are: Space - All O - Legacy Work Order M - Material Work Order P - Plus Work Order Enter the type of orders to include on the report. Defaults to All.
13. Starting Order No	6 numeric digits. Enter starting work order number for a range of work orders to print on the report. Defaults to All.
14. Ending Order No	6 numeric digits. Enter ending work order number for a range of work orders to print on the report. Defaults to the starting order number.
15. Print Dist Type	1 alphanumeric character. Valid entries are: 1 for Labor absorb, 2 for Material usage, 3 for Outside process absorb, 5 for Burden absorb, 6 for Inc-WIP, 7 Dec-WIP, 8 for Finish good or Cost of good sold. Enter up to four distribution types to print on the report. Defaults to All.
16. Detail Or Summary ?	1 alphabetic character. Enter D to print the full detail of every distribution. Enter S and all transactions for a single date for an account will be summarized and print on one line. Defaults to D.



(Figure 56) B/M Distribution Report Entry Screen

B O M P D I S T R I B U T I O N T O G E N E R A L L E D G E R D E T A I L R E P O R T

Range: Print Report Only
All Transaction Dates In Detail
All Product Categories
All Product No
All Customers
All Jobs

Decrease In Work-In-Process

Account No	Description	Trx Date	Order No	Product No	Amount Removed	Quantity	Unit-Cost	Amount Distributed
01136-10000-00000	Inventory - WIP	09/21/10	P200062	FLANGE	Full	10.00	2.0210-	20.21CR
		09/21/10	P200062	FLANGE	Full	10.00	1.7010-	17.01CR
		09/21/10	P200062	FLANGE	Full	10.00	6.3000-	63.00CR
		09/21/10	P200062	FLANGE	Full	10.00	40.0000-	400.00CR
		09/21/10	P200062	FLANGE	Full	10.00	45.0000-	450.00CR
							Account Total:	950.22CR
							Section Total:	950.22CR

Finished Goods / Cost Of Goods Sold

Account No	Description	Trx Date	Order No	Product No	Quantity	Unit-Cost	Amount Distributed
01105-00000-00000	Inventory - Components/Assem.	09/21/10	P200062	FLANGE	10.00	77.2100	772.10
						Account Total:	772.10
04250-00000-00000	Standard Cost Variance	09/21/10	P200062	FLANGE	10.00	17.8120	178.12
						Account Total:	178.12
						Section Total:	950.22
						Grand Total:	.00

(Figure 57) B/M Distribution Report

WIP Report

Application Overview

After production has started and before work orders are closed, the WIP Account may contain an amount. This WIP Report will print all unfinished work orders and their WIP amount.

The summary format prints one line per work order and the detail format prints the WIP amount at the operation level for each work order. You can print the outside WIP amount, the inside WIP amount or both.

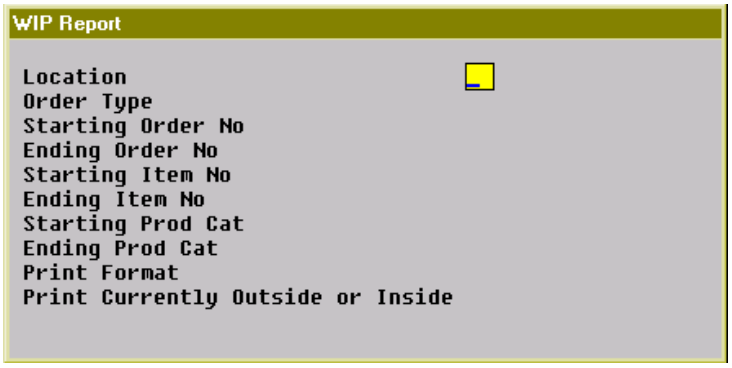
Parts sent outside the company for processing will distribute to the outside WIP amount. This report can separate outside and inside WIP amounts. The system calculates outside pieces based on unfinished productions with outside process operations. Unfinished productions have been started, but not yet reported. They are also called Open Productions in WO+.

The WIP Report supports both Legacy Work Orders and Plus Work Orders. Material Work Orders are excluded because they have no WIP.

Printing a legacy work order in detail format will list all components of a selected work order. The component WIP amount total may vary from the actual WIP amount of the order since the WIP amount of a component is based on current unit cost. The unit cost can vary from when the WIP amount occurs. This can happen if Average or Last Cost is used as the Inventory Cost Method, or if Standard Cost is used and the standard cost of the component is changed.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Work in Process Report ➔ Print ➔ WIP Report



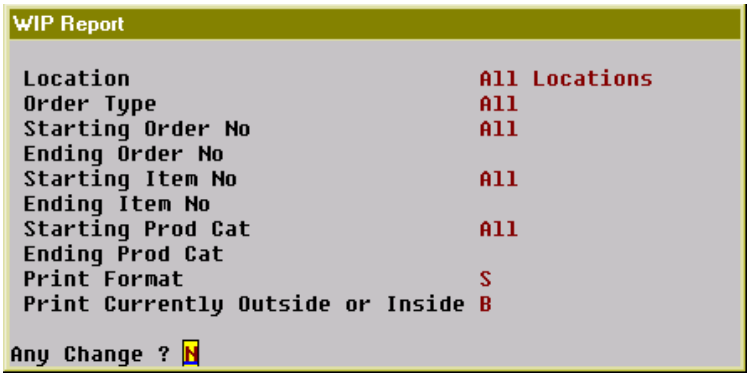
(Figure 58) WIP Detail Report Entry Screen

Entry Field Descriptions

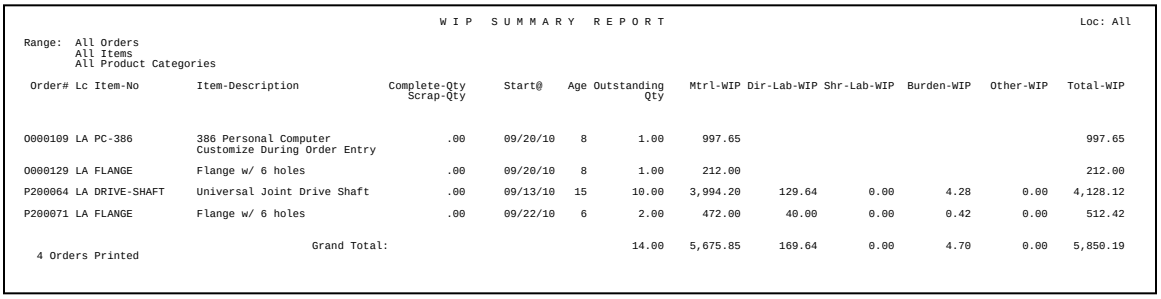
Name	Type and Description

Name	Type and Description
Location	2 alphanumeric characters. Enter the location of work orders to print on the report. The field supports a wildcard format. Defaults to **All**.
Order Type	1 alphanumeric character. Valid entries are: **Space** - All **O** - Legacy Work Order only **P** - Plus Work Order only Enter the type of work order to print on the report. Defaults to **All**.
Starting Order No	6 numeric digits. Enter the starting order number of a range of orders to print on the report. Defaults to **All**.
Ending Order No	6 numeric digits Enter the ending order number of a range of orders to print on the report. Defaults to the starting order number.
Starting Item No	15 alphanumeric characters Enter the starting item number of a range of parent items to print on the report. Press the **F7 Key** to search for an item by item number. Press the **F8 Key** to search for an item by description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number of a range of parent items to print on the report. Press the **F7 Key** to search for an item by item number. Press the **F8 Key** to search for an item by description. Defaults to the starting item number.
Starting Prod Cat	3 alphanumeric characters. Enter the starting product category of a range of parent items to print on the report. Press the **F7 Key** to search for a product category. Defaults to **All**.
Ending Prod Cat	3 alphanumeric characters. Enter the ending production category of a range of parent items to print on the report. Press the **F7 Key** to search for a product category. Defaults to the starting product category.
Print Format	1 alphanumeric character. Valid entries are:

Name	Type and Description
	D - Detail format. Includes routing and components. S - Summary format. One order per line. Enter the format you want to print for the report. Defaults to S.
Print Currently Outside or Inside	1 alphanumeric character. Valid entries are: B - Both Outside and Inside WIP. S - Print Outside and Inside WIP separately. Only available if Print Format is S. O - Outside WIP only. I - Inside WIP only. Enter the WIP amount type to print. Defaults to B.



(Figure 59) WIP Detail Report Entry Screen



W I P S U M M A R Y R E P O R T Loc: All

Range: All Orders
All Items
All Product Categories

Order#	Lc	Item-No	Item-Description	Complete-Qty / Scrap-Qty	Start@	Age	Outstanding Qty	Mtrl-WIP	Dir-Lab-WIP	Shr-Lab-WIP	Burden-WIP	Other-WIP	Total-WIP
O000109	LA	PC-386	386 Personal Computer Customize During Order Entry	.00	09/20/10	8	1.00	997.65					997.65
O000129	LA	FLANGE	Flange w/ 6 holes	.00	09/20/10	8	1.00	212.00					212.00
P200064	LA	DRIVE-SHAFT	Universal Joint Drive Shaft	.00	09/13/10	15	10.00	3,994.20	129.64	0.00	4.28	0.00	4,128.12
P200071	LA	FLANGE	Flange w/ 6 holes	.00	09/22/10	6	2.00	472.00	40.00	0.00	0.42	0.00	512.42
			Grand Total:				14.00	5,675.85	169.64	0.00	4.70	0.00	5,850.19

4 Orders Printed

(Figure 60) WIP Detail Report

WIP Variance Report

Application Overview

The WIP Variance Report prints out the WIP Variance Amount, Standard Cost Variance Amount and Scrap Amount for each production transaction. The transactions are posted through the Post Production Transactions program to create these variance amounts.

During the production, Work-In-Process amounts may accumulate due to material, labor, burden or outside process costs put into a work order. Once the work order is complete, the WIP amount becomes the production cost of the parent item. The system will create G/L distributions for both the WIP Account and the Finished Goods Account. If the system is unable to distribute the amount left in the WIP Account to the Finished Goods Account, **WIP Variance** amount occurs. These situations occur when:

- Reporting zero quantity in the last operation to complete a Plus Work Order that contains a WIP amount will distribute the amount to the WIP Variance Account.
- If a Plus Work Order is a disassembly order, where the order quantity is negative, the production cost not related to material is distributed to the WIP Variance Account instead of the Finished Goods Account or the Inventory Account of the component. The variance between the sum of the material cost and parent item cost is distributed to the WIP Variance Account as well, instead of Standard Cost Variance Account.

Only Legacy and Plus Work Orders can have a WIP Variance Amount.

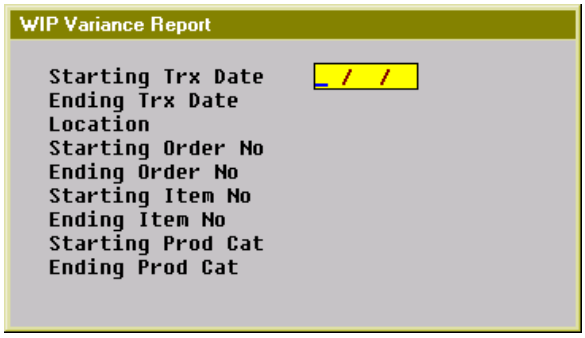
Standard Cost Variance amount may be present if Standard Cost is used as the Inventory Cost Method. Legacy, Material and Plus Work Orders will have this amount when the production cost differs from the standard cost.

Scrap amount will be present only for Plus Work Orders. This feature needs to be set by changing BOMP Global Setup field 44, Report Scrap to a Separate Account, to "Y" and set a valid scrap account in field 45, WO+ Scrap Account. Any piece scrapped during production will have the production cost distribute to the Scrap Account. The system only calculates a scrap amount when posting a transaction for the last operation, therefore you will only find a scrap amount in the Y Count Point transaction.

If a production transaction creates G/L distribution records for any variance account, the amount will be stored in transaction history and will be printed on this report if selected. The report can select transaction history records by a range of transaction dates, locations, order numbers, parent item numbers and product categories.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Work in Process Report ➔ Print ➔ WIP Variance Report

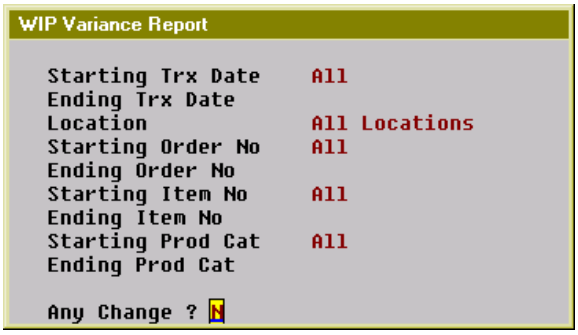


(Figure 61) WIP Variance Report Entry Screen

Entry Field Descriptions

Name	Type and Description
Starting Trx Date	A standard date format. Enter the starting date of a range of transactions to print. Defaults to All.
Ending Trx Date	A standard date format. Enter the ending date of a range of transactions to print. Defaults to the starting date.
Location	2 alphanumeric characters. Enter the location of work orders to print on the report. The field supports a wildcard format. Defaults to All.
Starting Order No	6 numeric digits. Enter the starting order number of a range of orders to print on the report. Defaults to All.
Ending Order No	6 numeric digits Enter the ending order number of a range of orders to print on the report. Defaults to the starting order number.
Starting Item No	15 alphanumeric characters Enter the starting item number of a range of parent items to print on the report. Press the F7 Key to search for an item by item number. Press the F8 Key to search for an item by description. Defaults to All.

Name	Type and Description
Ending Item No	15 alphanumeric characters. Enter the ending item number of a range of parent items to print on the report. Press the F7 Key to search for an item by item number. Press the F8 Key to search for an item by description. Defaults to the starting item number.
Starting Prod Cat	3 alphanumeric characters. Enter the starting product category of a range of parent items to print on the report. Press the F7 Key to search for a product category. Defaults to All.
Ending Prod Cat	3 alphanumeric characters. Enter the ending production category of a range of parent items to print on the report. Press the F7 Key to search for a product category. Defaults to the starting product category.



(Figure 62) WIP Variance Report Entry Screen

```
                              W O R K   I N   P R O C E S S   V A R I A C E   R E P O R T                          Loc: All

Ranges: All Dates
Range:  All Orders
        All Items
        All Product Categories

 Order# Lc Item-No           Qty-Ordered  Opr# T ID   WC     Dept     Qty-Complete Prd-Unt-Cst   Mtrl-Amnt WIP-Variance WIP-Var/Qty
  TRX-Date Description                    Description                  Qty-Scrapped Std-Unt-Cst  Labor-Amnt Std-Cost-Var     SCV/Qty
  CP Job-No                                                                 Scrap-%             Burden-Amnt  Scrap-Amnt
                                                                                                 Other-Amnt

O000131 LA FLANGE                   2.00                                      1.00      80.0000
  09/28/10 Flange w/ 6 holes                                                          80.0000                  172.00     172.0000

M100005 LA DRIVE-SHAFT             10.00                                      2.00     414.6500
  02/23/10 Universal Joint Drive Shaft                                                414.6500                  189.30-     94.6500-

P200026 LA FLANGE                  10.00- 0010 M PRE  WHS    GEN              5.00-                  0.00       20.01       4.0020-
  04/08/10 Flange w/ 6 holes              Material Preparation                   .00                  20.00
                                                                                                        .01

P200040 LA FLANGE                  10.00  0030 P MIL  MIL    CNC              7.00      60.1814       0.00
  05/11/10 Flange w/ 6 holes              Milling                             3.00       7.5400       0.14      368.49      52.6414
  Y                                                                         30.00 %                 10.01

P200042 LA FLANGE                  10.00  0030 P MIL  MIL    CNC               .00       0.0000       0.00        2.10
  05/11/10 Flange w/ 6 holes              Milling                              .00       7.5400       0.00
  Y                                                                                                     .00


                                                                                      Grand WIP Variance:       22.11
                                                                                      Grand Std Cost Var:      351.19

  5 Transactions Printed
```

(Figure 63) WIP Variance Report

Labor Performance Report

Application Overview

The Labor Performance Report prints the productivity of each selected operator. The operator's time is categorized into 4 types: productive, non-productive, break time (payable break) and meal break time (non-payable break). For example, an operator reports for a production department for 9 hours. Seven hours are productive, 0.8 hours are non-productive, 0.2 hours are for a break and 1 hour is for a meal break. The report sums up the hours of each category for a period of time, which can be a day, a month, a year, etc.

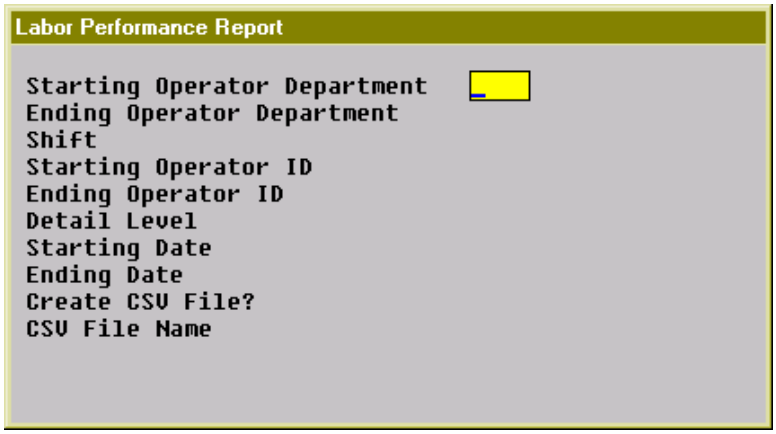
The report prints a percentage or ratio of each type of time. The productive hours and non-productive hours are added to give total work time and the percentage of productive and non-productive hours are calculated based on this total work time. Break time and meal break time are compared to total work time for their respective ratios. Based on these percentages and ratios you can get an idea of how much time an operator spent on productive and non-productive activities.

Select operators by a range of operator departments, shifts and operator ID's. Different levels of detail can be printed, such as yearly, monthly, daily or for each session. In addition, the performance data can be exported to a CSV file.

The WO+ Time Clock system must be used to gather labor hours for this report.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Production Analysis Report ➔ Print ➔ Labor Performance Report.

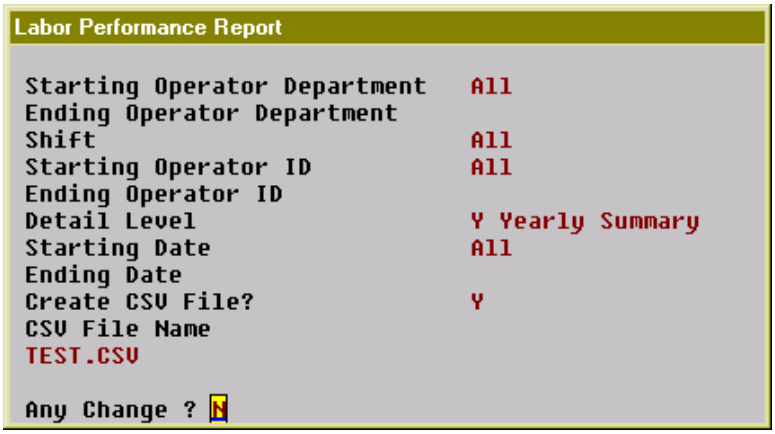


(Figure 64) Labor Performance

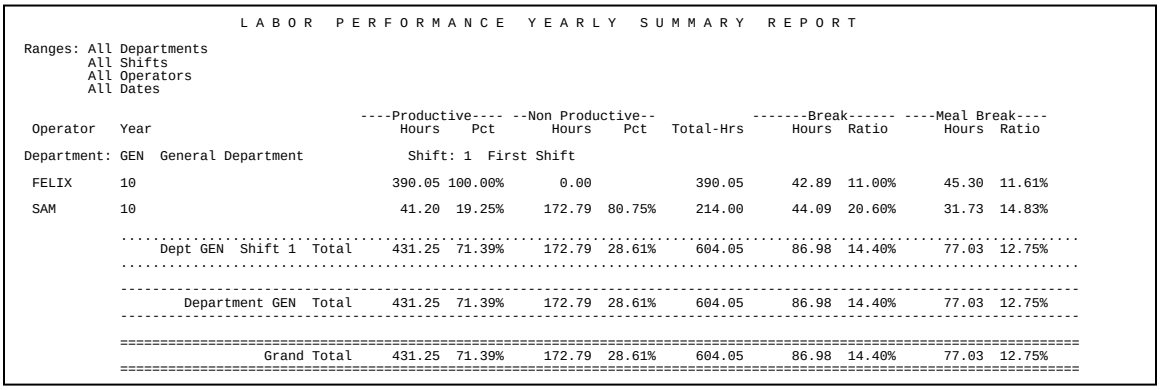
Entry Field Descriptions

Name	Type and Description
Starting Operator Department	4 alphanumeric characters. Enter the starting operator department for a range of operators to print. This is the department defined in the operator file and is not related to where the operator was working during that time period. Press the F7 Key to search for an existing department ID. Press the F1 Key if you want to print only operators without a department. Defaults to All.
Ending Operator Department	4 alphanumeric characters. Enter the ending operator department for a range of operators to print. Press the F7 Key to search for an existing department ID. Defaults to the starting operator department.
Shift	2 alphanumeric characters Enter the shift for the range of operators to print. Press the F1 Key to select operators without a shift ID. Press the F7 Key to search for an existing shift ID. Defaults to All.
Starting Operator ID	10 alphanumeric characters. Enter the starting operator ID for a range of operators to print. Press the F7 Key to search for an existing operator ID. Defaults to All.
Ending Operator ID	10 alphanumeric characters. Enter the ending operator ID for a range of operators to print. Press the F7 Key to search for an existing operator ID. Defaults to the starting operator ID.
Detail Level	1 alphanumeric character. Valid entries are: Y - Yearly M - Monthly D - Daily S - Session T - Time Clock Detail Enter the detail level for the report. Defaults to Y.
Starting Date	Standard date format. Enter the starting date for a range of time clock records to print. Defaults to All.
Ending Date	Standard date format

Name	Type and Description
	Enter the ending date for a range of time clock records to print. Defaults to the starting date.
Create CSV File?	Y or N. Enter Y to export results to a CSV file. Defaults to the last entry.
CSV File Name	50 alphanumeric characters. Enter the file name and path for the CSV file. Defaults to last entry.



(Figure 65) WIP Variance Report



L A B O R P E R F O R M A N C E Y E A R L Y S U M M A R Y R E P O R T

Ranges: All Departments
All Shifts
All Operators
All Dates

Operator	Year	----Productive---- Hours	Pct	--Non Productive-- Hours	Pct	Total-Hrs	-------Break------ Hours	Ratio	----Meal Break---- Hours	Ratio
Department: GEN	General Department	Shift: 1	First Shift							
FELIX	10	390.05	100.00%	0.00		390.05	42.89	11.00%	45.30	11.61%
SAM	10	41.20	19.25%	172.79	80.75%	214.00	44.09	20.60%	31.73	14.83%
Dept GEN	Shift 1 Total	431.25	71.39%	172.79	28.61%	604.05	86.98	14.40%	77.03	12.75%
Department GEN	Total	431.25	71.39%	172.79	28.61%	604.05	86.98	14.40%	77.03	12.75%
Grand Total		431.25	71.39%	172.79	28.61%	604.05	86.98	14.40%	77.03	12.75%

(Figure 66) WIP Variance Report

Production Hours Variance Report

Application Overview

The Production Hour Variance Report prints a selected range of operators and their efficiency for a period of time. The efficiency is based on the hour variance by comparing planned hours for each work order and actual hours. If the operator worked faster than expected, the variance would be positive. This report can be used to further analyze the productive hours of an operator.

The report can be sorted by operator or work center. When sorted by operator, the sorting sequence is the operator department, shift and operator ID. The overall production hour variance of each individual will be printed, no matter where the operator was working. On the other hand, selecting to sort by work center will make the sorting sequence by work center department, work center, shift and operator ID. Then the hour variance of an operator will be printed for each work center.

Various detail levels can be printed: department summary, work center summary, shift summary, operator summary and production detail. You can select a range of operators by Operator ID, shift and department ID. When it is sorted by work center, you can select a range of work centers as well. Also, you can select a range of production finished dates.

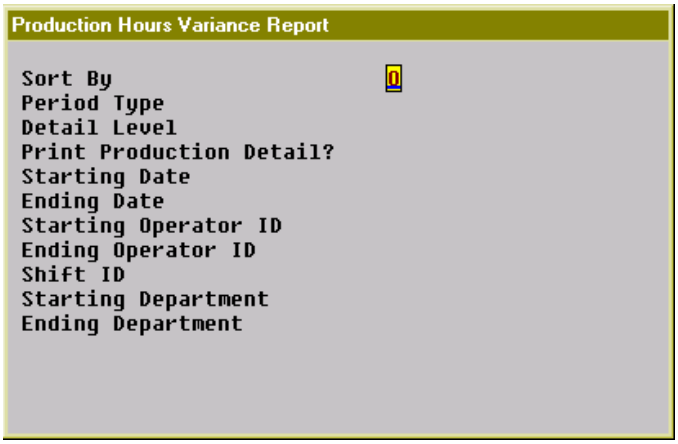
The report separates labor hours into direct labor and shared labor. Direct labor is the labor directly reported for the work order and is required to report production. Shared labor does not need to report production and the time is shared with the work order.

When multiple workers collaborate on the same work order, the planned hours will be divided by each operator. For instance, the planned hours for a work order is 4 hours and it takes 6 hours to finish it. One operator worked for the whole 6 hours and another operator joined in the last 2 hours. The Planned Hours for the first operator is 3 hours and Actual Hours is 6 hours, so the variance is 3 hours. The Planned Hours for the second operator is 1 hour and Actual Hours is 2 hours, so the variance is 1 hour. This only occurs with shared labor.

Because this report needs information about each operator, you must use the WO+ time clock system to gather the required data.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Production Analysis Report ➔ Print ➔ Production Hours Variance Report



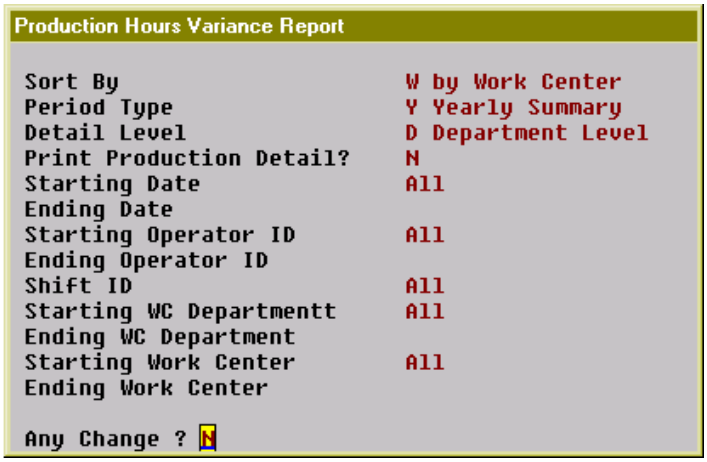
(Figure 67) Production Hours Variance Selection Screen

Entry Field Descriptions

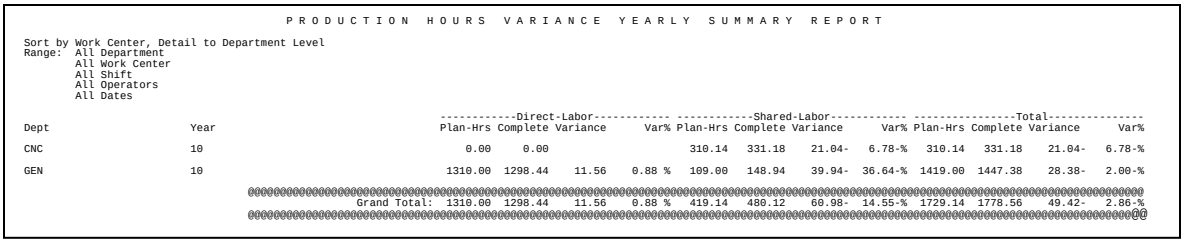
Name	Type and Description
Sort By	1 alphanumeric character. Valid entries are: O - By operator. The sort sequence is operator department, shift, and operator ID. W - By work center. The sort sequence is work center department, work center, shift, and operator ID. This provides a break down of hour variance by work center. Enter the sorting sequence for the report. Defaults to O.
Period Type	1 alphanumeric character Valid entries are: Y - Yearly M - Monthly D - Daily Enter the length of each period of time to evaluate in the report. Defaults to Y.
Detail Level	1 alphanumeric character Valid entries are: O - Operator Summary. S - Shift Summary. W - Work Center Summary. This option is only valid if the report is sorted by work center. D - Department Summary. When the report is sorted by Operator, this is Operator's Department. Otherwise, this is the Work Center's Department. Enter the detail level you want to print on the report.

Name	Type and Description
	Default to D
Print Production Detail?	Y or N. Enter Y to print hour variance for each production. Defaults to N.
Starting Date	Standard date format. Enter the starting date for a range of finish dates. Defaults to All.
Ending Date	Standard date format. Enter the ending date for a range of finish dates. Defaults to the starting date.
Starting Operator ID	10 alphanumeric characters. Enter the starting operator ID for a range of operators to print. Press the F7 Key to search for an existing operator ID. Defaults to All.
Ending Operator ID	10 alphanumeric characters. Enter the ending operator ID for a range of operators to print. Press the F7 Key to search for an existing operator ID. Defaults to the starting operator ID.
Shift ID	2 alphanumeric characters. Enter the shift ID of operators to print on the report. Press the F1 Key to select operators without a shift ID. Press the F7 Key to search for an existing shift ID. Defaults to All.
Starting WC/Oper Department	4 alphanumeric characters. Enter the starting department ID for a range of departments to print on the report. When the report is sorted by operator, the department is the home department of the selected operators. When the report is sorted by work center, the department is the department of the selected work centers. Press the F7 Key to search for an existing department ID. Defaults to All.
Ending WC/Oper Department	4 alphanumeric characters. Enter the ending department ID for a range of departments to print on the report. Press the F7 Key to search for an existing department ID. Defaults to the starting department ID.
Starting Work Center	6 alphanumeric characters. Enter the starting work center ID for a range of work centers to print on the report. This selection is only available if the report is sorted by work center. Press the F7

Name	Type and Description
	Key to search for an existing work center ID. Defaults to **All**.
Ending Work Center	6 alphanumeric characters. Enter the ending work center ID for a range of work centers to print on the report. This selection is only available if the report is sorted by work center. Press the F7 Key to search for an existing work center ID.



(Figure 68) Production Hours Variance Selection Screen



P R O D U C T I O N H O U R S V A R I A N C E Y E A R L Y S U M M A R Y R E P O R T

Sort by Work Center, Detail to Department Level
Range: All Department
All Work Center
All Shift
All Operators
All Dates

Dept	Year	Direct-Labor Plan-Hrs	Direct-Labor Complete	Direct-Labor Variance	Direct-Labor Var%	Shared-Labor Plan-Hrs	Shared-Labor Complete	Shared-Labor Variance	Shared-Labor Var%	Total Plan-Hrs	Total Complete	Total Variance	Total Var%
CNC	10	0.00	0.00			310.14	331.18	21.04-	6.78-%	310.14	331.18	21.04-	6.78-%
GEN	10	1310.00	1298.44	11.56	0.88 %	109.00	148.94	39.94-	36.64-%	1419.00	1447.38	28.38-	2.00-%
Grand Total:		1310.00	1298.44	11.56	0.88 %	419.14	480.12	60.98-	14.55-%	1729.14	1778.56	49.42-	2.86-%

(Figure 69) Production Hours Variance Report

Production Cost Variance Report

Application Overview

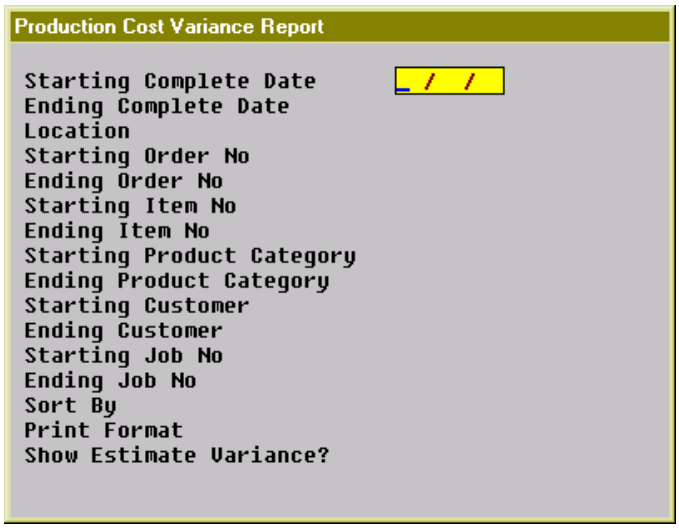
The Production Cost Variance Report prints the cost variance between planned cost and actual production cost for selected items. Planned production cost is calculated based on the routing for each work order, while the actual production cost is gathered through reporting. The report provides the scrap percentage for each selected item.

The report can be sorted by item, product category, customer or job. When sorted by item, you can print a summary or the order detail of each item. When sorted by product category, you can print the category summary, item summary or order detail for each selected item. If work orders were copied from COP and you want to know the production cost variance for each customer, you can sort the report by customer. If you use job numbers for work orders, you can print cost variance by job number.

The report only includes completed production work orders and you can select orders by complete date, location, work order number, parent item number, product category, customer number and job number.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Production Analysis Report ➔ Print ➔ Production Cost Variance Report



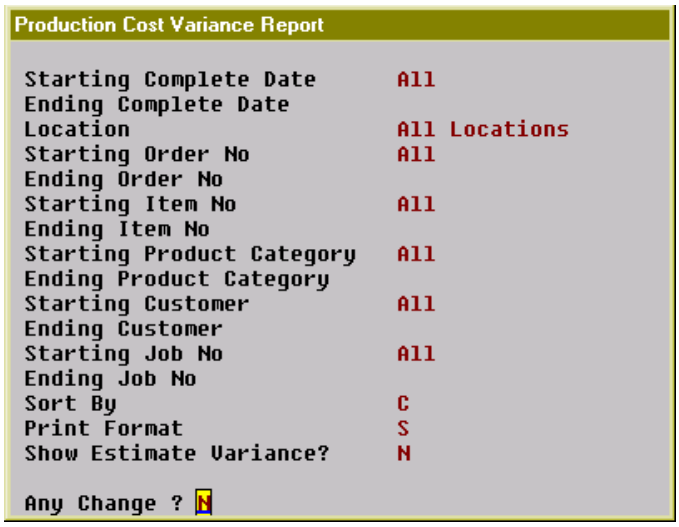
(Figure 70) Production Cost Variance Selection Screen

Entry Field Descriptions

Name	Type and Description
Starting Complete Date	Standard date format. Enter the starting complete date for a range of production work orders to print on the report. The complete date of a work order is the last transaction date of the order. Defaults to **All**.
Ending Complete Date	Standard date format. Enter the ending complete date for a range of production work orders to print on the report. Defaults to the starting complete date.
Location	2 alphanumeric characters. Enter the location for a range of production work orders to print on the report. This field supports a wild card format. Defaults to **All**.
Starting Order No	6 numeric digits Enter the starting order number for a range of production work orders to print on the report. Defaults to **All**.
Ending Order No	6 numeric digits. Enter the ending order number for a range of production work orders to print on the report. Defaults to the starting order number.
Starting Item No	15 alphanumeric characters. Enter the starting product number for a range of production work orders to print on the report. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending product number for a range of production work orders to print on the report. Defaults to the starting item number.
Starting Product Category	3 alphanumeric characters. Enter the starting product category for a range of production work orders to print on the report. Press the **F1 Key** to select products without a product category. Defaults to **All**.
Ending Product Category	3 alphanumeric characters.

Name	Type and Description
	Enter the ending product category for a range of production work orders to print on the report. Defaults to the starting product category.
Starting Customer	6 alphanumeric characters. Enter the starting customer number for a range of production work orders copied from COP. Press the F1 Key to select work orders not copied from COP only. Defaults to All.
Ending Customer	6 alphanumeric characters. Enter the ending customer number for a range of production work orders copied form COP. Defaults to the starting customer number.
Starting Job No	6 alphanumeric characters. Enter the starting job number for a range of production work orders to print on the report. Press the F1 Key to select work order without a job number only. Defaults to All.
Ending Job No	6 alphanumeric characters. Enter the ending job number for a range of production work orders to print on the report. Defaults to the starting job number.
Sort By	1 alphanumeric character. Valid entries are: I - By item number. The sorting sequence is item number and order number. P - By product category. The sorting sequence is category, item number and order number. C - By customer number. The sorting sequence is customer number, category, item number and order number. J - By job number. The sorting sequence is job number, item number and order number. Enter the sorting sequence for the report. Based on the sorting sequence, you can choose different print formats. Defaults to I.
Print Format	1 alphanumeric character. Valid entries are: S - Item/Category/Customer/Job summary, depending on the sort sequence. C - Category summary. Only available when the sort sequence is C. I - Item summary. Only available when the sort sequence is P, C or J. D - Order detail. Print all work orders for selected items. Enter the print format for the report. This determines the detail level of the report. Defaults to S.
Show Estimate Variance?	Y or N.

Name	Type and Description
	Enter Y to print the variance, even if the variance is estimated. By selecting Y, the report will reveal the variance fields available. Defaults to N.



(Figure 71) Production Cost Variance Selection Screen

```
                          P R O D U C T I O N   V A R I A N C E   I T E M   S U M M A R Y   R E P O R T                Loc:All

Range:  All Complete Date
        All Order No
        All Item No
        All Product Cat
        All Job No

                                                          Order     Complete -------Scrap------- ----------Materal-Cost----------
Item#           Item-Description                Cat     Quantity    Quantity    Quantity Percent     Actual    Variance      Var%

DRIVE-SHAFT LTD Drive Shaft Limited Edition     FG         20.00       20.00                        6,500.00

FLANGE          Flange w/ 6 holes               C         140.00      138.00        8.00   5.79%   6,290.00
```

```
--------Labor/Burden-Cost-------      Other --------------Total-------------- ---------------Unit---------------
    Actual    Variance      Var%       Cost      Actual    Variance      Var%  Production     Std-Cost      Var%

  1,322.40                             0.00    7,822.40                          391.1200     502.0533   22.09 %

    914.98      252.29   21.61 %       0.00    7,204.98      252.29    3.38 %     52.2100      80.0000   34.73 %
```

(Figure 72) Production Cost Variance Report

Exception Report

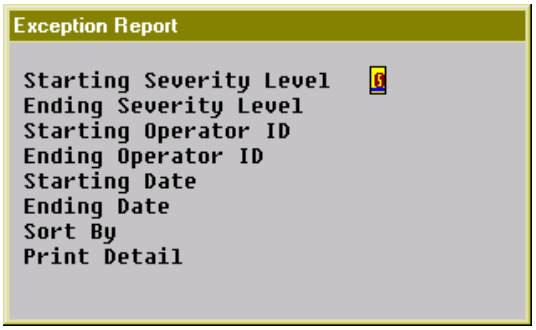
Application Overview

The Exception Report prints all exception records. Exception records are created when the user performs exception handling functions. These functions can be modifying time clock data, canceling a production, reassigning a job or changing a routing.

Each exception record has a severity level ranging from zero, for the least severe, to nine, for the most severe, and is assigned based on the impact to the system. For example, changing time clock data where the time has already been distributed to a posted production transaction would create a data integrity issue and the system will assign 9, the highest severity level, to this exception record.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Reports ➔ Production Analysis Report ➔ Print ➔ Exception Report

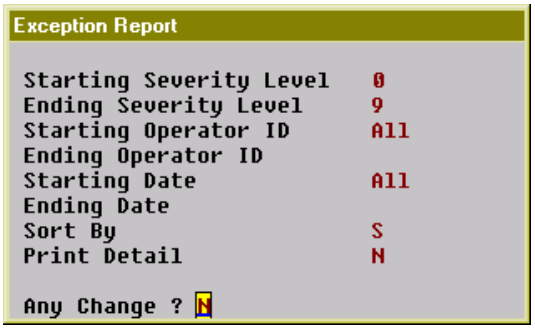


(Figure 73) Exception Report Selection Screen

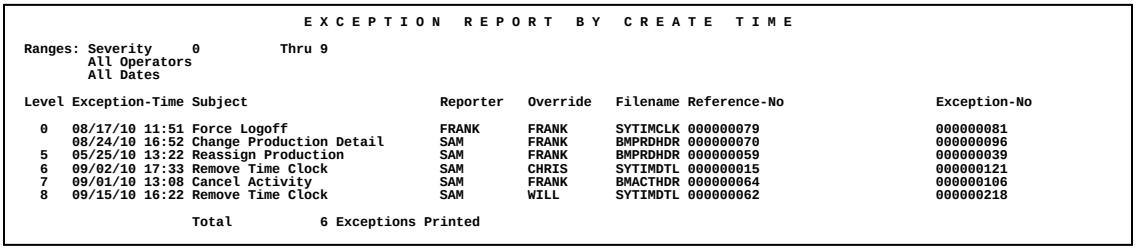
Entry Field Descriptions

Name	Type and Description
Starting Severity Level	1 numeric digit. Enter the starting severity level for a range of exception records to print. The range can be from 0 to 9. Zero is the least severe and nine is the most severe. Defaults to 0.
Ending Severity Level	1 numeric digit. Enter the ending severity level for a range of exception records to print. The range can be from 0 to 9. Zero is the least severe and nine is the most severe. Defaults to 9.
Starting Operator ID	10 alphanumeric characters. Enter the starting operator ID for a range of exceptions for the selected operators. Press the F1 Key to select exceptions not assigned to an operator. Defaults to All.

Name	Type and Description
Ending Operator ID	10 alphanumeric characters. Enter the ending operator ID for a range of exceptions for the selected operators. Defaults to the starting operator ID.
Starting Date	Standard date format (MM/DD/YY). Enter the starting date when the exceptions occurred. Defaults to **All**.
Ending Date	Standard date format (MM/DD/YY). Enter the ending date when the exceptions occurred. Defaults to the starting date.
Sort By	1 alphanumeric character. Valid entries are: S - Sort by severity level T - Sort by time Enter the sort method for the report. Defaults to S.
Print Detail	Y or N. Enter Y to print additional details for each exception record. Defaults to N.



(Figure 74) Exception Report Selection Screen



```
                    E X C E P T I O N   R E P O R T   B Y   C R E A T E   T I M E

Ranges: Severity     0          Thru 9
        All Operators
        All Dates

Level Exception-Time Subject                       Reporter   Override   Filename Reference-No                Exception-No

  0   08/17/10 11:51 Force Logoff                  FRANK      FRANK      SYTIMCLK 000000079                   000000081
      08/24/10 16:52 Change Production Detail      SAM        FRANK      BMPRDHDR 000000070                   000000096
  5   05/25/10 13:22 Reassign Production           SAM        FRANK      BMPRDHDR 000000059                   000000039
  6   09/02/10 17:33 Remove Time Clock             SAM        CHRIS      SYTIMDTL 000000015                   000000121
  7   09/01/10 13:08 Cancel Activity               SAM        FRANK      BMACTHDR 000000064                   000000106
  8   09/15/10 16:22 Remove Time Clock             SAM        WILL       SYTIMDTL 000000062                   000000218

                     Total          6 Exceptions Printed
```

(Figure 75) Exception Report Selection Screen