This Page Intentionally Blank

Overview

Package Overview

How To Use This Manual

When most people receive a new product, they want to use it right away. Unfortunately, this is not quite possible when dealing with computer hardware and software. This manual is intended to serve as a reference guide in describing the functionality and the application of the **Bill Of Material Processor** package.

The first few sections of this manual are intended to introduce you to the **Bill Of Material Processor (BOMP)** system so you can get started quickly. The latter sections are for reference when you have specific questions about each of the **Bill Of Material Processor** applications. These applications are described later in this section under **BOMP Menu Bar Selections and Definitions**.

We suggest you first read the **System Manager** manual. The **Package Overview** section of this manual gives an overview of the **Bill Of Material Processor** package. The **General Operator Instructions** in the **System Manager** manual explain how to enter and edit data and the use of special keys on the keyboard. The **Startup** section gives step-by-step instructions on how to load the programs, create the data files, and enter the initial data. The **Processing Procedures** section gives direction in daily, period, and year ending procedures.

Scan each of the **BOMP** sections to understand how each of the **BOMP** applications work. A very basic description of each of these applications is also contained under the heading **BOMP Menu Bar Selections and Definitions** that is part of this **Package Overview**. Sample screens and reports are included under each of the appropriate **BOMP** applications. These are a guide to show you the type of screens and reports that may be obtained from the system.

A General Explanation Of Bill Of Material Processor

Bill Of Material Processor (BOMP) is the key application package to the pure manufacturing function of the **Elliott** manufacturing system. **BOMP** has been greatly enhanced to replace the functions in **Elliott's** manufacturing system, **Shop Floor Control (SFC)**, **Material Requirements Planning (MRP)**, **Master Scheduling (M/S)**, and **Standard Product Costing (SPC)**.

The only prerequisite package for **BOMP** is **Inventory Management (I/M)**.

Here is a brief statement on the scope and basic functions of **BOMP**:

The cleanest way to view the manufacturing industry is probably by using Oliver Wight's breakdown **(Production and Inventory Management in the Computer Age** - CBI Publishing Co.), namely as four subsets of manufacturing companies:

1) **One-Piece Product** - make to order

2) **One-Piece Product** - make to stock

3) **Assembled Product** - make to order

4) **Assembled Product** - make to stock

After each subset is understood, realize that the majority of manufacturing firms are a mix of the above. All manufacturers have bills of material (product structures) to define what materials (components) are required in what quantities to manufacture end-items (finished goods). There are no exceptions.

A job shop with a one-piece product (e.g., a forging shop that hammers out rough tractor treads, rough camshafts, etc.) may not have a real need for the capability to constantly access a computerized bill of material. However, even here if better controls are desired for costing (via standard costing) or time-phased material requirements (via **MRP**), the bills must be maintained on the computer. **BOMP** creates and maintains bills of material on-line. Bills of material are stored in the Product Structure File. This allows each user to access the same bill as any other user because the bills are all centrally located; i.e., engineering is making changes to the same bill as manufacturing is building to, purchasing is buying from, and cost accounting is costing from.

The **BOMP** Product Structure File is very complex and it is the key hub to your operation. It is important that the Product Structure File be as accurate as possible before implementing any of the manufacturing functions.

Each Product Structure record shows a relationship between two items. One item is called the parent item and the other the component item. A parent is an assembly (finished good), sub-assembly or any other name for a created/fabricated/produced/manufactured product. A parent item is always made up of one or more (usually more) component items, or parts. Your basic components are raw materials and/or purchased parts. To most manufacturing firms, components are those materials that their manufacturing process starts with; to a generator job shop, an engine is a component; to an engine manufacturer, a rough piston casting is a component; to a foundry, steel bar stock is a component, etc.

Besides indicating the parent-component relationship, **BOMP** maintains other data in the Product Structure File, of which some key fields are: Quantity-Per, i.e., how many of the component it takes to make one parent; attaching operating, i.e., the operation in the manufacturing process where the component is actually needed to assemble this parent, and of course sequence number, which is provided so the user can specify component sequence when listing or displaying the structure.

Each **Product Structure** record knows whom the parent is and if there are other components (other **Product Structure** records) for this same parent. Part of the complexity here is that another file, the Item File, is needed to complete the scenario, which is why **I/M** is a prerequisite for **BOMP**.

The Item File contains the master data for all items (components and parents) e.g., description, unit of measure, on-hand, etc. An item can be a component in one product structure and at the same time a parent in another. Additionally, an item can be a component at level 1 of one product structure and at the same time a component at level 3 of that same product structure and/or another structure. **BOMP** keeps all this straight, so you will not be allowed to get into trouble by doing such things as adding a component to itself or deleting an item from the system that still is used in some other structure. By keeping all this straight, **BOMP** provides some very useful functions to other **Elliott** packages. (See **Additional Features And Interfaces**).

Elliott

BOMP Menu Bar Selections And Definitions

There are many functions, which can be performed by this **BOMP** package.

Maintenance

Product Structure File

Allows entry of the basic information about every product structure. This is where you define what the parent item is and what components are needed for the parent item.

Feature/Option Configuration File

Allows the user to create feature item structures with multiple options for each. This allows end items to be customized to customer specifications.

Job Code File

Allows the user to specify valid job numbers.

Labor Grade File

Allows the user to specify labor grades for work orders.

Department File

Allows maintenance of departments used in work orders.

Work Center File

Allows maintenance of work centers used in work orders.

Operation ID File

Allows maintenance of operation IDs used in work orders.

Production Routing File

Allows maintenance of production routings used in work orders. An import function will allow you to import from a CSV file.

Special Operation File

Allows maintenance of special operations used in work orders.

Cost Master File

Allows maintenance of costs of product structures. There are several functions to calculate and manipulate the cost. Various reports are available.

Inquiry

Single Level Bill Of Material Inquiry

Shows the components of a parent one level down.

Indented Bill Of Material Inquiry

Displays all components of a parent, by level, on all lower levels.

Single Level Where-Used Inquiry

Displays all parents within one level of a component.

Feature/Option Configuration Inquiry

Allows a view of various option configurations for feature items.

Item File Inquiry

Allows a view of information from the Inventory Item File without being able to change it. Also, notes associated with each inventory item may be viewed.

Work Order Inquiry

Allows a view of information from the Inventory Item File without being able to change it. Also, notes associated with each inventory item may be viewed.

Stock Status Inquiry

This is the standard stock status inquiry from the Inventory Management module.

Operator Inquiry

Displays information about operators, including time clock entries.

Processing

Production Order Entry

Allows entry of production orders, specifying the location, quantity, price, and due date for the item being produced. Production orders include legacy work orders, material work orders, plus work orders and base work orders.

Production Transaction Processing

Allows you to report progress toward completion of a production order as of a specified date. There are three options for processing, legacy work orders, material work orders and plus work orders.

Engineering Change Processing

Allows you to make changes to product structures and then wait until the appropriate date before implementing the changes through the **Post Engineering Changes** application.

Post Production Transactions

Allows you to update inventory levels, based on Production Transactions through a specified date. There is a separate post function for legacy work orders, material work orders and plus work orders.

Post Engineering Changes

Allows you to implement designated engineering changes through a specified date.

Copy COP Orders Into BOMP

Allows you to copy customer orders for feature items or regular manufactured items from **COP** directly into the **BOMP** Production Order File.

Issue Serial/Lot Component Items

Allows you to issue serial/lot items required to produce parent items.

Purge Complete Production Orders

Allows you to remove completed production orders from the Order File.

Reset Low Level Codes

Allows you to automatically reset the lowest level of an inventory item compared to the product structures.

Set Component Activity Flags

Allows you to automatically update the activity status of specified component items in a product structure.

Resequence Component Items

Allows you to resequence the components of a product structure.

Print Costed Bill Of Material

If you are using Average, Standard, or Last costing method (as defined in **I/M Setup**), this application will calculate the new cost for the parent by totaling the cost of all valid components required for the parent. If you are using LIFO/FIFO costing, you may use the Average, Standard, or Last cost to calculate the new parent cost.

Print Picking List By Bill

This will print a Picking List. It will show the number of components to be picked for the number of parent items requested.

Print Production Work Orders

Allows you to print production orders entered through **Production Order Entry**. There is a separate function for legacy work orders, material work orders and plus work orders.

Resequence Feature/Option Items

Allows you to resequence the components of feature and option items.

Work Order Production

Allows production to be reported for a work order.

Work Center Time Clock

Allows time clock entries to be made and maintained for a work center.

Work Center Operation

Allows production to be reported for a work center.

Department Time Clock

Allows time clock entries to be made and maintained for a department.

Department Operation

Allows production to be reported for a department.

Reports

Production Schedule Report

Prints a schedule of work orders to be completed or a work center rough cut report.

Single Level Bill Of Material Report

Prints a report of the components of a parent one level down.

Indented Bill Of Material Report

Prints a report of all components of a parent, by level, on all lower levels.

Single Level Where-Used Report

Prints a report that shows all parents of a component one level up by item or by order.

End Item Where-Used Report

Prints a report that displays all parents for a selected range of component items by end item code.

Option Item Where-Used Report

Prints a report that displays all feature items for a selected range of option items.

Summarized Bill Of Material Report

Reports on all components of a parent summarized by item for all lower levels.

Gross Requirements Report

Prints a report on a selected number of levels of components for a selected quantity of a parent item, summarizing for each component, the total quantity required at all levels. Summarizes requirements for multiple parent items and quantity combinations.

Job Distribution History Report

Prints a record of work order distributions to accounts by job number.

Engineering Change History Report

Prints a list of engineering changes posted to specified product structures.

Production Transaction History Report

Prints a report of production transactions for legacy work orders, material work orders or plus work orders.

Audit Trail Report

Shows the additions, changes and deletions to the Product Structure File.

Work Order Report

Prints a detail report for legacy work orders, material work orders or plus work orders.

Work In Process Report

A WIP report or WIP variance report can be printed.

B/M Distribution Report

This is a standard distribution report for Bill Of Materials.

Production Analysis Reports

These are reports that can assist with evaluating productions and include Labor Performance, Production Hours Variance, Production Cost Variance and Exception.

Util Setup

BOMP Setup

Allows you to tailor the **Bill Of Material Processor** package to fit your needs. The information in this file tracks production and engineering order sequencing, as well as assigning capabilities to allow changes to order costs and item prices. Serial/Lot batch processing and work in process (WIP) accounts are also maintained from **BOMP Setup**.

Print Spooled Reports

This will allow you to display to the screen or to print all reports that were sent to the hard disk drive from **BOMP** applications.

A Summary Of The Bomp Functions

Add a new component to product structure.

Set up an item with a feature/option configuration.

Change the data, which refers to the relationship between a component and its parent.

Inquire on a Product Structure record.

Enter production work orders.

Print a production work order.

Report production for work orders.

Delete a component from a product structure (Note: this does not mean that it will be deleted from the **I/M Item File**).

Replace an obsolete item with a replacement item in all places where the obsolete item appears as a component.

Record an engineering change that can be posted at a later date.

Copy a product structure for one parent to a different parent with automatic resequencing.

List/Display product structures in several formats:

1) **Single level** - shows all components of a parent one level down.

2) **Single level where used** - shows all parents within one level of a component.

3) **Indented** - shows all components of a parent by level.

4) **Indented (or End-Item) where used** - shows all parents of a component by level on all upper levels.

5) **Summarized** - shows all components of a parent summarized by item for all lower levels.

Note: Product structure maintenance may be performed on-line or through the **Engineering Change Processing** application.

Normal Mode Of Operation Of Bomp

Once **BOMP** is initialized and the Product Structure File is loaded (see section on **Product Structure File Maintenance**), the usual mode of operation would be as follows.

Startup

The major files of **BOMP**, the I/M Inventory Item File, the Feature/Option Configuration File, and optionally, the Job Code File, need to be set up. You would set up these files completely if you were already maintaining your product structures some other way, i.e., using a service bureau, using another system, etc. Otherwise, you would do best to set up these files partially if you are just getting into your

first **BOMP** installation. This is called the incremental phased approach where you set up one or two complete product lines and run with that until you understand the package better, then add product lines gradually until they are all on the system.

The Inventory Item File is set up via **Inventory Management (I/M)**, which is a prerequisite for **BOMP**. See **I/M's Item File Maintenance** and **Inventory Location Control** applications.

The Product Structure File is set up in **BOMP** via the **Product Structure File Maintenance** application. The Feature/Option Configuration File is set up via the **Feature/Option Configuration File Maintenance** application. The Job Code File is set up via the **Job Code File Maintenance** application.

Daily

Normally, the engineering department (occasionally manufacturing, purchasing or cost accounting) will have daily updates or engineering changes (a dozen or so). They will be entered via **Engineering Change Processing**. Also, all of the above departments will want to see displays and/or reports showing some product structure in its various formats, i.e., single level, indented, etc.

If you are operating in an **MPC** environment, daily entry of items to be produced and quantity and due date needed would be done. Normally production work orders to be released to manufacturing would be printed. Reporting finished goods produced via production transaction processing and posting would also be done daily.

Monthly

Nothing unique happens normally on a monthly basis in the **BOMP** package.

On-Request

You may print out or inquire into the Bills of Material, Production Requirements, and Production History at any time.

Yearly

Nothing unique happens normally on an annual basis in the **BOMP** package.

Additional Features And Interfaces

The following is a list of additional features and interfaces to other packages that have not yet been mentioned:

Interface With Customer Order Processing

Product Structures

BOMP's Production Order Entry application has the ability to copy orders for product structure parents from **COP**. Stocked components for those parent items are allocated (reserved) to ensure availability during production. When and where the allocation occurs depends on your system's configuration. For

specific examples of allocation scenarios, see the **Package Overview** section of the **I/M** manual.

Note: Non-stocked parent items cannot be processed in **BOMP** unless the "Process Non-Stocked Parents In BOMP" flag is set to **Y** in **I/M Setup**. Non-stocked "Purchased" items will not be allowed in **BOMP Production Order Entry** regardless of this flag setting. Only "Manufactured" non-stocked parents will be authorized by setting this flag to **Y**. "Manufactured" non-stocked parent's components will not be allocated nor quantities on hand reduced in **COP** Order Processing if this flag is set to **Y**.

Feature Items

The **Copy COP Orders Into BOMP** application will import orders for feature items entered in **COP Order Entry**. These are converted into production orders to be sent through the production process. For more information on processing orders for feature items, see the **Feature Item Processing** section of this **Package Overview**.

Interface With Material Requirements Planning

MRP absolutely requires **Bill Of Material Processor** for any gross-to-net requirements generation, by definition. In addition, full **MRP** will take net requirements, offset these by their lead time and plan (suggest) orders where net requirements have gone negative. **BOMP** allows for the entry of a production order and the copying of a specific firm planned order from **MRP** to initiate the production cycle.

Interface With Master Scheduling

Production orders entered in **BOMP** may be merged into **M/S** for items that are properly flagged in the **I/M** Master File.

Product Structures

Product Options

BOMP supports negative a quantity-per product structure relationship, which allows the user to establish optional components (at any level) for the same parent item. The normal technique is to establish a product structure with all its components, including one of the optional components. Then, set up smaller product structures with **1)** one component with a negative quantity-per that matches (or offsets) one of those previously mentioned optional components, and **2)** another component which is an alternate (or replacement) optional component. This bill can then be added during **COP's Customer Order Entry** as another line item and in essence offset the unwanted optional component and replace it with the desired optional component.

Obsolete/Forecasted Bills

For users who need more than an active or deleted status for their bills, they can specify obsolete bills (for those they do not want to use now but want to keep on file) and forecasted (or planning) bills for use with **MRP** in generating requirements for top-level sub-assemblies. A simplified example of using forecasted bills is as follows: the sales forecast for autos is 100; passing it through a forecasted bill which is structured with one component called automatic transmission with a quantity-per of .7, and with the other component called manual transmission with a quantity-per of .3. The result would be net requirements for 70 autos with automatic transmissions and 30 with manual. **MRP** could turn around and use those forecasted top-level net requirements as real input to gross requirements for the remainder of the affected product structure.

Users who wish to gradually phase out an obsolete item can specify the replacement item as the sole component of the obsolete item in the bill, thus allowing use of either.

Shrink/Scrap

There is also a shrink/scrap factor in the Product Structure File, which allows the user to specify what portion, if any, of the component is expected not to survive the rigors of being made into its parent item. **BOMP** and **MRP** will then be allowed to more closely ascertain the correct component usage. For example, take a component called bacon. You need four pieces of bacon per one breakfast (parent); if the shrinkage is 20%, you will correctly need five pieces of bacon to start in order to end up with four when you get breakfast. This would specify a 25% scrap factor to indicate the necessary increase needed of the raw material.

The **BOMP** production order processing system utilizes the scrap factor in the Product Structure File for allocation, de-allocation, and the relieving of quantity-on-hand for components involved in producing a finished product. The only way not to use the scrap factor is to not enter it in the product structure.

Effectivity Date

This is the date that an item will become effective if the item is forecasted. This is the date that the item should become active. If the item is forecasted, then on the effectivity date, you should change the item's activity status to active and clear the effectivity date. You may also accomplish this by utilizing the **Set Component Activity Flags** application.

This date is used as a cutoff type date. It will either include or exclude items from reports based on their activity status and effective/obsolete dates. This will only occur if both active and forecasted items are selected, and an effectivity date is selected for the report. The effectivity date is entered in the Product Structure File and applies only to the specified component item for the specified parent item.

Forecasted items become active on their effectivity date and will appear only if their effectivity date is on or before the effectivity date given for printing of the report.

Active items become obsolete on their obsolete date and will appear only if their obsolete date is later than the effectivity date given for printing of the reports.

Most applications will automatically compare an item's effectivity date and the current date to determine its status. You may change an item's status manually through change mode in the **Product Structure File Maintenance** application. You may automatically change the status of a range of items by running the **Set Component Activity Flags** application.

Obsolete Date

This is the date that an active item will become obsolete. Unless designated, obsolete items or active items past their obsolete date will not print on specified reports.

BOMP Production System

As the central hub of the **Material Production Control (MPC)** environment (which also includes **I/M**, **COP**, **MRP**, and **M/S**) **BOMP** provides a system for entering, reporting, and tracking production of manufactured items. This is accomplished through several key applications accessible from the **BOMP** main menu bar.

Order Entry

The first of these is the **Production Order Entry** application. It allows for entry of orders with such information as quantity, price, due date, etc. Start dates for each order will be automatically calculated based on the lead-time for the item(s).
Orders for product structure parents may be copied directly into this application from the **MRP** or **COP**

packages. Orders for feature items may be copied via the **Copy COP Orders Into BOMP** application. Once copied, customer and firm planned orders are converted to production orders and may be handled as if they had been manually entered.

Printing Of Work Orders

When an order is ready to go to the shop floor, it is printed via the **Print Production Work Orders** application. Once a work order is printed, it may no longer be changed in **Production Order Entry**.

Work In Process (WIP)

The **Increase WIP?** flag in **Print Production Work Orders** has a great impact on how material values are tracked. If **Y** is entered for that flag, on-hand and allocated quantities will be reduced in the Item File for the raw materials required completing the orders being printed. Also, credit distributions will be made to the asset accounts of those raw materials and a debit distribution will be created for the WIP account entered in **BOMP Setup**.

If the **Increase WIP ?** flag is set to **W**, the distributions will still be made to the appropriate accounts, but Item File on-hand and allocated quantities will not be affected until transactions are posted. If the flag is set to **N**, no distributions will be made and item quantities will not be affected when the work order is printed.

Reporting Production

As production is completed, it is reported through the **Production Transaction Processing** application. For each work order, it allows reporting on quantity produced, production date, and whether the order is to be considered complete. Although a work order will usually be printed before production is reported on it, this is not required as long as the WIP option is not being used (see above).

Production transactions do not affect inventory levels until they are posted in the **Post Production Transactions** application. They may be modified or deleted up until that time.

Production Scheduling

In **BOMP**, the **Production Schedule Report** is the main tool for checking the upcoming production schedule. It gives the start and due date for each order, along with the status and quantity reported for each. The most useful tool for looking at past production is the **Production Transaction History Report**. It provides a complete history of all transactions recorded for a specified range of work orders and dates.

Feature Items

Processing

The processing of feature type items by the **COP** and **BOMP** packages is based on the assumption that these items are strictly make-to-order (non-stocked) products. The feature item may, however, be flagged a stocked to facilitate serializing and/or lotting capabilities.

When entering feature items on orders in **COP** in the **MPC** environment, the feature item and its selected components (option items) are immediately allocated by the system to provide an instant picture of their availability. Using the **Copy COP Orders Into BOMP** application to mass copy these orders eliminates the need to re-enter them in **BOMP** and the possibility of errors in reporting the exact configuration of the

parent item to manufacturing.

Over-production of a make-to-order product is always a possibility. If the additional production can be shipped as an increase to the original customer order, this can easily be accomplished through **COP**'s **Order Billing** application. That application will allow for overshipment up to the quantity reported as produced for the related production order in the **Production Transaction Processing** application.

Due to a variety of causes, such as cancellation of an order after the product has been manufactured, it may be necessary to retain the product as inventory stock. The solution here is to assign the item a new (unique) inventory number, and stock it in a separate location. This will make it much easier to track via stock Status reporting until it can be disposed of.

The recommended procedure for this depends on, (1) if the item was originally flagged as stocked, and (2) exactly when the order was cancelled.

If the original feature item was stocked, it should be issued from the original location and then received into the new location as the new item. This can be accomplished through **I/M**'s **Inventory Transaction Processing**. If the original item was non-stocked, use the same procedure but eliminate the issue step.

If the product was shipped and returned by the customer, place it back in stock by using a credit memo in **COP**. When it is returned to inventory, make sure to use the new item number and location.

For more information on reporting production, and over- and under-production, see the **Production Transaction Processing** section of this manual.

Deleting A COP Order After Copying To BOMP

Deleting an order containing a feature item as a line item or deleting a feature item line item is accomplished through **COP** in the same manner as for any other ordered item as long as production has not begun.

If the production work order has been printed, or if any production has been reported, neither the line item nor the related production order may be deleted. In this case, the order must be terminated in the **Production Transaction Processing** application, and manufacturing must be notified to stop any further production. This scenario is handled as under-production in the **Feature Items Processing** section of this **Package Overview**. If the actual production has already occurred, you may deal with the "extra" item(s) using the procedures described above in the **Processing** section.

Quantity Allocations

Refer to I/M Package Overview section for specific allocation examples.

Startup

Application Overview

Before proceeding with this section, you must have already created all directories and loaded the **Elliott** Programs. This is a fairly automated process. For further instructions, please refer to the installation section of the **System Manager** manual.

Setup Procedure

In order to begin using the **Bill Of Material Processor** system, the following steps must be completed after creating the data files.

1.   The **Inventory Maintenance package [I/M]** is a necessary prerequisite. **I/M** must be installed and fully functional before **BOMP** can be installed.

2.   The **BOMP** control data must be entered through the **BOMP Setup** application in the **Util_setup** window.

3.   Enter product structure data using **Product Structure File Maintenance**.

4.   Enter feature/option data using **Feature/Option File Maintenance** if applicable.

5.   Enter job code data using **Job Code File Maintenance** if applicable.

The above steps will load the system with the necessary information to process the next month's transactions. Many more reports and capabilities may be used through experience with the system and familiarity with this manual.

The application sections in this manual may be used to obtain specific information on each application.

Chapter 1: Chart of Accounts

Some accounts for WO+ are required and some are optional. We suggest adding all of these accounts before using WO+. The accounts are:
* Inventory Asset Account **(required)**
* Labor Absorb **(required)**
  o   To absorb labor cost during the production. Each work center has its own labor absorb account, therefore it is possible to have multiple labor absorb accounts.
* Burden Absorb **(required)**
  o   To absorb burden cost during the production. Each work center has its own burden absorb account as well.
* Work In Process **(required)**
  o   Before the parent item is complete the production cost will be distributed to a temporary account, the Work-In-Process (WIP) Account.
* Work In Process Variance **(required)**
  o   Exceptions that cannot be resolved to another variance account will be distributed to the WIP Variance Account. These exceptions include:
     ▪   The labor cost, burden cost and cost difference between parent item and components for a disassembly order.

- Any amount remaining in the WIP account when closing an order by reporting a complete quantity of zero in the last step will be distributed to the WIP Variance Amount.
- Standard Cost Variance **(optional)**
  - The difference between standard unit cost of a parent item and actual cost once the production is complete will go to the Standard Cost Variance Account. Make sure this account exists if your Inventory Cost Method is Standard Cost.
- Outside Process Absorb **(optional)**
  - To absorb cost of outside processes. If routings have an outside process, make sure this absorb account exists. Currently Elliott contains only one Outside Process Absorb Account, located in BOMP global setup.
- Scrap **(optional)**
  - WO+ can separate the cost amount in scrapped pieces during the production from the Finished Goods account into a scrap account. This amount is calculated based on several assumptions when the order is closed. If this feature is enabled, make sure this account exists.

The following figure shows the relationship between each account.
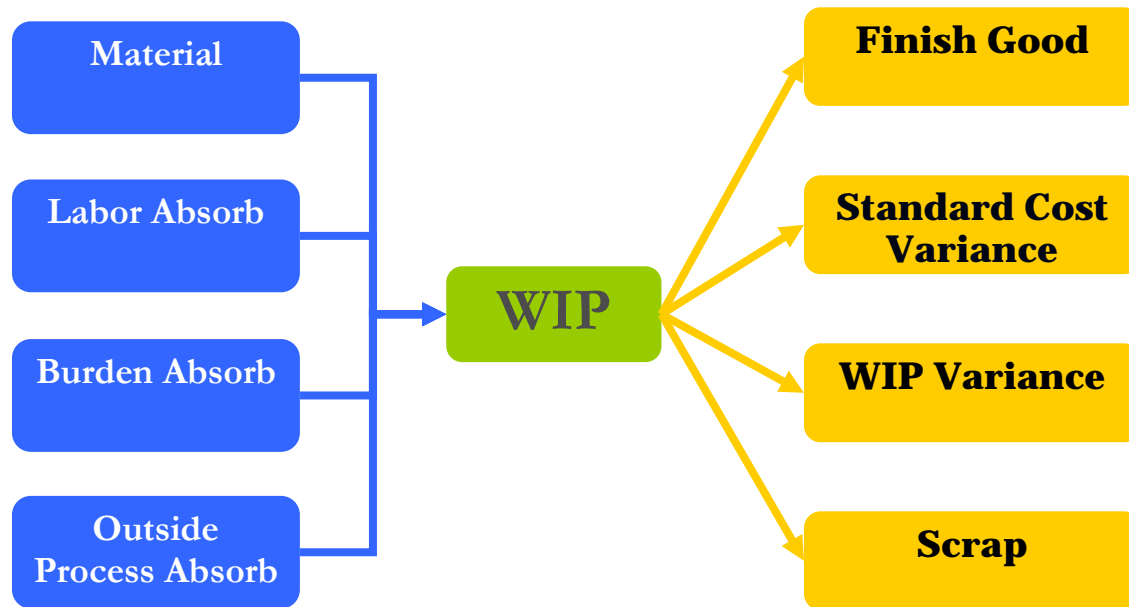
(Figure 1) Relationship between different accounts

Before parent items are finished each production transaction will create distributions which credit the components' inventory account, the labor absorb account, the burden absorbed account and the outside process absorb account, as well as distributions which debit the Work-In-Process account. When the parent items are finished the production transactions will create distributions which credit the Work-In-Process account as well as distributions which debit the parent item's inventory account. Distributions to the variance accounts may occur as well.

Elliott

Processing Procedures

Daily Processing Checklist

In performing this checklist, complete each step before moving on to the next step.

☐   *Step 1*   Copy new orders for feature items into production order entry
       - Select **Copy COP Orders Into BOMP - Copy** application

☐   *Step 2*   Go into Production Order Entry and copy the orders from **MRP** or **COP** by using the **F4** key from field number 2 in the add selection
       - Select **Production Order Entry - Add, F4 Copy** application

☐   *Step 3*   Enter new production orders manually
       - Select **Production Order Entry - Add** application

☐   *Step 4*   Verify the transactions by printing an edit list
       - Select **Production Order Entry - List** application

☐   *Step 5*   Determine which orders should be produced for the day by printing a schedule report
       - Select **Production Schedule Report - Print** application

☐   *Step 6*   Send the work orders out to be produced. If you are using Serial/Lot items, there is room on the work order to identify the serial/lot numbers for all of the components AND for the finished item
       - Select **Print Production Work Orders - Print** application

☐   *Step 7*   Report and verify what items were actually produced for the day. If you are using Serial/Lot items, you would report the serial/lot number for the parent (finished) item
       - Select **Production Transaction Processing - Add** application
       - Select **Production Transaction Processing - List** application

☐   *Step 8*   Post the production transactions
       - Select **Post Production Transactions - Post** application

☐   *Step 9*   If you are using Serial/Lot items, you need to identify which components and their Serial/Lot numbers were used in the production of the finished items (These serial/lot numbers that were used in the production of the finished item should have been identified on the work order)
       - Select **Issue Serial/Lot Component Items - Issue** application

Periodic Processing Checklist

The frequency of the following steps is based on your company's procedures. These applications are recommended to maintain your Elliott environment.

☐   *Step 1*   Perform Daily Processing Checklist (Detailed in its entirety on the proceeding page - *Step 1 through Step 9*)
       - All reports should be spooled to disk to allow for backup retention

☐   *Step 2*   It is recommended that periodic maintenance be performed on your product structures, feature/options and job files

      - Select **Product Structure File Maintenance** application
      - Select **Feature/Option Configuration File Maintenance** application
      - Select **Job Code File Maintenance** application

☐   *Step 3*   Enter and verify the engineering changes to the product structure
      - Select **Engineering Change Processing - Add** application
      - Select **Engineering Change Processing - List** application

☐   *Step 4*   Post the engineering changes
      - Select **Post Engineering Changes - Post** application

☐   *Step 5*   With the engineering changes posted, set the low level codes for proper reporting
      - Select **Reset Low Level Codes - Reset** application
      - **Note:** This application excludes other users from the use of the Inventory Item file and may consume a considerable amount of time based on the size of your Item file and the number of product structures you have. It is recommended to perform this application at a time when a minimal number of users are on the system.

☐   *Step 6*   Update the component activity flags (forecasted, active or obsolete)
      - Select **Set Component Activity Flags - Set** application

☐   *Step 7*   Reset the component sequence numbers for ease of reporting and to help in making additional changes
      - Select **Resequence Component Items - Resequence** application

☐   *Step 8*   Print the Job Distribution History Report
      - Select **Job Distribution History Report - Print** application

☐   *Step 9*   Report what engineering changes took place over the period
      - Select **Engineering Change History Report - Print** application

☐   *Step 10* Report the production that was completed for the period and report the serial/lot numbers that were produced
      - Select **Production Transaction History Report - Print** application

☐   *Step 11* Perform a backup
      - Make a period end backup of your ENTIRE Elliott system to keep for auditing purposes. Label and date this backup "***Periodic ___/___/___ End Backup***"

Applications As Needed Checklist

☐   *Step 1*   Perform the following applications as needed:
      - Single Level Bill Of Material Inquiry
      - Indented Bill Of Material Inquiry
      - Single Level Where-Used Inquiry
      - Feature/Option Configuration Inquiry
      - Item File Inquiry
      - Print Costed Bill Of Material Report
      - Print Picking List by Bill
      - Print Production Schedule Report
      - Print Single Level Bill Of Material Report
      - Print Indented Bill Of Material Report
      - Print Single Level Where-Used Report
      - Print End Item Where-Used Report

- Print Option Item Where-Used Report
- Print Summarized Bill Of Material Report
- Print Gross Requirements Report
- Print Audit Trail Report

Year End Processing Checklist

In performing this checklist, complete each step before moving on to the next step.

☐   *Step 1*   Perform Periodic Processing Checklist (Detailed in its entirety on the proceeding page - *Step 1 through Step 9*)
- Save the backup labeled "***Periodic End Backup***" with your other periodic backups

☐   *Step 2*   Perform reports as needed. See the Applications As Needed Checklist for examples and spool the reports to disk

☐   *Step 3*   Perform a backup
- Make a final year-end backup and keep for auditing purposes. Label this backup "***Final Year 19___ End Backup***"

BOMP Main Menu

Application Overview

This section presents the menu of **Bill Of Material Processor** applications that are available to the user. The menu consists of six pull down windows.

The **Maintenance** window contains applications to maintain the **BOMP** package.

The **Inquiry** window allows you to view Bill of Material structures and inventory item information without the ability to change any record.

The **Processing** window is where most of your activity will take place. Entering transactions and posting/updating this information to other files.

The **Reports** window presents a wide selection of management and analysis reports that will assist you in making company decisions.

The **Util_setup** window accesses files that need to be set up in order to tailor the software to meet your company's needs.

After an application has been run to completion, the **BOMP** menu bar will display once again and allow entry of another application.

BOMP Maintenance Pull Down Window

BOMP Inquiry Pull Down Window
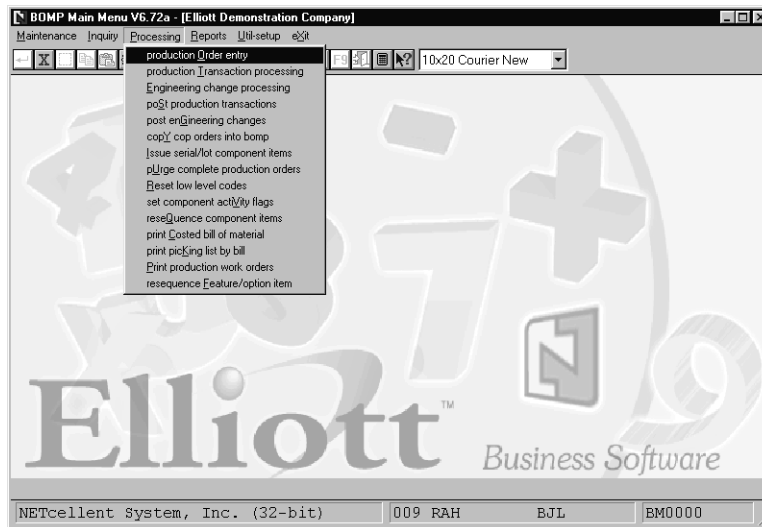
BOMP Processing Pull Down Window
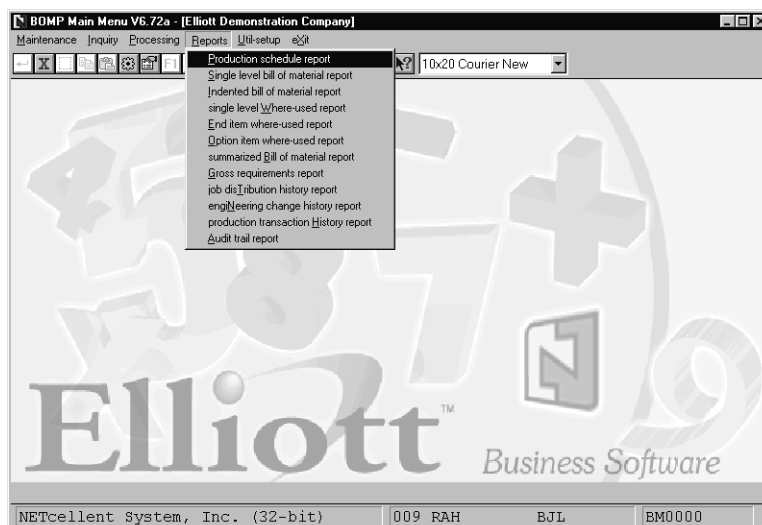
BOMP Reports Pull Down Window

BOMP Util_setup Pull Down Window

Maintenance

Product Structure File Maintenance

Application Overview

This application enables the user to maintain the Product Structure File. Numbers of related records from this file make up the various bills of material and so the Product Structure File is the main file in the **BOMP** package.

This file and the bills of material, which can be stored in it, become a very important tool in the manufacturing environment. In addition to containing design and manufacturing specifications, it can also be used for forecasting and product scheduling.

The following is a brief explanation of the contents of the records stored in this file with some hints as to how this file might be utilized.

Product Structure Maintenance

A product structure is created by specifying relationships between pairs of items where the lower one is a component that is assembled with other components to create the higher item which is called a parent. A parent will usually have relationships with two or more component items. However, it is allowed for a parent to have a single component. A component may be used in many different assemblies, each of which would be considered a parent. Each of these component-parent relationships needs to be specified in the Product Structure File. See Product Structure example below.

In addition to the parent and component numbers, the Product Structure record includes the following fields:

a) The sequence number of the component within this structure. Components will display and print according to this sequence number, which is entered by the user.

b) The quantity per assembly. This field assigns the quantity of components per parent item. The magnitude of the quantity can be expressed in either integer or decimal form and can be either positive or negative. This wide choice makes the file useful for different types of bills.

c) Where the component attaches to the operation. One of the important considerations of the capability to specify this operation is that the user can now see if any of his shortages are, in fact, not crucial until later in the assembly if **Shop Floor Control** is being used.

d) Shrink/scrap factor. This gives the user the capability of being more accurate in estimating component usage.

e) The activity code indicating whether this parent-component relationship is currently active, planned for future, or obsolete. The capability of noting obsolete items allows the user to maintain structures he no longer wants to use but, for whatever reason, does not want to delete. He can leave them on file to be reviewed later to then determine if they should be modified or deleted.

f) The effectivity date indicates the date that a forecasted item should become active. For a more detailed explanation of the effectivity date, refer to the **Package Overview** section of this manual.

g) The obsolete date indicates the date that an active item should become obsolete. For a more

detailed explanation of the obsolete date, refer to the **Package Overview** section of this manual.

h) User-Information field. This can be a date or any user-defined code.

i) The reference designator can be used to show a routing of a component item. It may contain information pertinent to this component for this parent. For example, it may describe additional processing procedures, replacement parts, references to schematics or blueprints, machining tolerances, or inspections to be performed.

Types Of Bills

In addition to the Bill Of Material designed by engineering and used by manufacturing, there are other bills, which are used in planning and scheduling. These so-called pseudo-bills differ most from the Bill Of Material where there is a product with many different options.

Forecasted bills (pseudo-bills) are an artificial grouping of items, in bill of material format, used to facilitate master scheduling and/or material planning. For example, forecasted bills can be used in master scheduling to explode requirements properly for optional components. These bills are also called planning bills.

A modular bill is a type of planning bill, which is arranged in product modules. It is often used in companies where the product has many optional features, e.g. automobiles. This type of bill is designed and maintained in the **Feature/Option Configuration File Maintenance** application.

Copy Structure

The copy structure feature provides the ability to copy the structure of an existing bill to a new item number. Then modifications can be made to create a new assembly without starting from scratch. A new activity code, a new effectivity date, a new obsolete date, and a new user-defined field can be specified for the new bill.

Mass Replace

Replacing an obsolete part with another is simple with the mass replace feature. After the user specifies the obsolete and replacement item numbers the old part, wherever it occurs in all bills, is replaced by the new part. This feature can also be used to phase out obsolete items by making the replacement item the sole component of the obsolete item in the bill.

Product Structure Example

Structuring bills of material can be confusing until you do some, and then it becomes much easier. A bill of material is, by definition, a parts list. By structuring a bill of material you get a product structure i.e., a breakdown of the parts list in a manner resembling the stages in which the product is built. A good example is a motherboard for a personal computer. This motherboard has the following components:

1. 1 CPU (CPU)
2. 1 Video-CD (VID)
3. 1 Input/Output (I/O)

The motherboard (MB) structure would be shown as:

```
                        MB
           ┌─────────────┼─────────────┐
          (1)           (1)           (1)
          CPU           VID           I/O
```
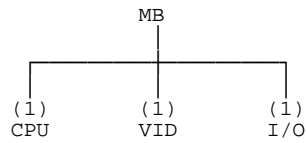
NOTE: The numbers in ( ) in the diagram indicate the quantity-per.

Continuing to the next level, the CPU is made of:

1. 1 Clock (C)
2. 1 Data-Bus/Buffer (DB)
3. 1 Memory Manager (MM)
4. 1 Monitor-ROM (M)
5. 1 2 Meg. Ram (MR)
6. 1 Ram Address Multiplexer (RM)
7. 1 CPU Reset (CR)
8. 1 280 Micro Processor (MP)

The (CPU) structure would be shown as:

```
                            CPU
      ┌──────┬──────┬──────┬──────┬──────┬──────┬──────┐
     (1)    (1)    (1)    (1)    (1)    (1)    (1)    (1)
      C     DB     MM     M      MR     RM     CR     MP
```
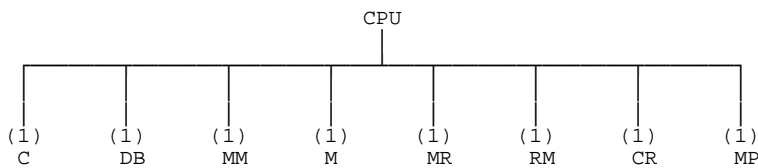
You should know a few things here.

1) There generally is a lower level for any part unless that part is purchased. If you buy or purchase a part, that means you are not manufacturing it yourself. If you are not manufacturing it yourself, there is no need here for its components, since you will not use them for this part.

2) You must have unique item numbers for all items (parents, sub-assemblies, and components) used in Product Structure.

3) As you can see, the use of significant item numbers (i.e., the number tells you something significant about the item) can quickly become limiting and therefore is not recommended; i.e., non-significant item numbers.

4) Load the Product Structure (P/S) File via the **Product Structure File Maintenance** application. Notice that each P/S record has one field for parent item and one for component item. Each P/S record shows one relationship, and one way to load the P/S File is one product line at a time, one level at a time. For example, the above Mother Board may be entered as follows:

```
P/S File
Maintenance      Parent      Component      Quantity-Per

1st Entry        PC          CPU            1
2nd Entry        PC          VID            1
3rd Entry        PC          I/O            1
```

And then the CPU's structure may be entered as:

```
1st Entry       CPU          C             1
2nd Entry       CPU          DB            1
3rd Entry       CPU          MM            1
4th Entry       CPU          M             1
5th Entry       CPU          MR            1
6th Entry       CPU          RM            1
7th Entry       CPU          CR            1
8th Entry       CPU          MP            1
```

Note: All the reports and inquiries will show components in the sequence they were entered. The only way to alter this sequence is to use the field labeled Sequence Number. The sort for bills of material is by sequence number within parent item number. This is important not only because it allows components in alternating sequences, but also because you can now specify the same components several times on the same level for a common parent. This circumstance does arise once in a while e.g., left and right-handed knobs where the right-handed one is used in operation 20, but the left-handed one is not used until operation 50.

The key to becoming good at handling product structures is practice. If it seems confusing, start by entering a non-complex structure of anything you want and look at the reports. Once you have the basic understanding, then you may want to analyze some of the evolutionary terms like planning bills, pseudo bills, super bills, modular bills, etc. However, you must understand the simple bill of material relationship.

One concern that frequently seems to arise is the situation where one large piece of material is used for smaller pieces of various sizes; when the various sizes are not consistent, and all go with different products. Examples are:

- large sheet metal from which parts are pressed or stamped out, each part going to a different product.

- wood boards from which smaller pieces are cut, varying by order.

- rolls of tubing, wire, cable, etc. from which various lengths are cut for various requirements.

BOMP does not handle the above directly. A way it can be handled is with a two-pronged approach. First, all such product structures are set up so the components (that come from the larger pieces) indicate a specific size i.e., a 2' x 5' metal piece, 2' x 4' wood piece or 10' of a certain cross-section tubing, wire, cable, etc. It disregards the larger piece, per se. An optional way is to determine which type of order will first cut into the larger piece. Then, you can discern what non-related components are by-products of the extracting operation, set up the structure including all components to be extracted, but use a negative quantity-per on the non-related by-products.

Second, regardless of the above method, the size of by-product issues are handled more directly through a combination of more efficient manufacturing processes, statistical process control and a scrap/rework department charged with getting scrapped material back in production.

Bill of Material Product Structure Import

This is an add-on feature. This utility can be used to either import a new product structure or modify an existing product structure. Modifying an existing product structure may cause a quantity allocation integrity issue, if the parent item already has activity. Since this problem can be easily resolved through the Reset Qty Allocation utility, the import utility will only give a warning message when this happens. Contact Netcellent or your Elliott reseller for more information about this utility.

Run Instructions

Select **Product Structure File** from the pull down **BOMP Maintenance** window. The following screen will then be displayed:

```
Product Structure File Maintenance - [Elliott Demonstration Company]          _ □ X
Add  Change  Delete  copY-structure  Mass-replace  eXit

        1. Parent Item No


        2. Component Item No

        3. Sequence No

        4. Qty Per Assembly

        5. Attaching Operatn

        6. Shrink/Scrap Fctr

        7. Activity Flag
        8. Effective Date
        9. Obsolete Date
       10. Usr Information



NETcellent System, Inc. (32-bit)     004 RAH      BJL        BM0100
```

Product Structure File Maintenance Entry Screen

The following options are available:

* Select the desired mode from the **Product Structure File** menu bar
* A menu will then be displayed, allowing you to choose one of these options:
  Add New Product Structure Items
  Change Product Structure Items
  Delete Product Structure Items
  Copy Product Structures
  Mass Replace Items in Product Structure File
* 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

Add, Change, Delete

Name	Type and Description
The Sequence Number Will Default To The Last Used Sequence Number Plus The Following Increment Please	3 numeric digits (999). Enter the increment, which will be used when adding new product structure records to determine the next default sequence number. The increment is added

Elliott

Name	Type and Description
Enter The Sequence Increment Value	to the last sequence number used by the parent to determine the default.
1. Parent Item No	15 alphanumeric characters. Enter the item number, which will be used as the parent item. This is the item whose components are being defined by this new product structure record. This item must already exist in the Inventory Item File. The item may not be a product feature, kit item or component of a kit (ie. field #73 in the Inventory Item File may not be set to **F** or **K**). In add mode, pressing the **F1** key for the parent item number after the first product structure record has been added will default the item number to the last item number entered; the sequence number to the last sequence number on file for this parent, plus the increment entered; and default the activity flag and user-defined field to the values last entered for this parent. Press the **F7** key to search for an item by number or press the **F8** key to search for an item by description. In change mode, you are not allowed to change this key field. After the parent item number is entered, the Inventory Item File is read, and the item description and unit of measure are automatically displayed.
2. Component Item No	15 alphanumeric characters. Enter the item number, which will be used for the component in the **Product Structure** record. This item must exist in the Inventory Item File. In change and delete modes, if the **F1** key is pressed, the next component for this parent is displayed until the right record is found or there are no more product structure records for this parent.
Component Item No (continued)	In the add mode, press the **F7** key to search for an item by number or press the **F8** key to search for an item by description. In add and change mode, press the **F6** key to search for existing component items. In change mode, once a component is selected, you are not allowed to change this key field. This capability exists in the **Engineering Change Processing** application. After the component item number is entered, the Inventory Item File is read and the item description and unit of measure are automatically displayed.
3. Sequence No	3 numeric digits (999). Enter the sequence number, which will be used with the parent item number to uniquely identify this Product Structure record. The sequence number may not be zero and must be unique for this product structure. The default for this field is the last used sequence number for this parent item plus the increment. In change mode, you are not allowed to change this key field.
4. Qty Per Assembly	10 numeric digits with 6 decimal places and optional minus sign (9999.999999-). Enter the quantity per assembly for this Product Structure record. This is the number of component items needed to make this one parent. An entry is not

Name	Type and Description
	required.
5. Attaching Operatn	4 numeric characters. Enter the number of the operation in this parent's routing, where this component is first used or attached.
6. Shrink/Scrap Fctr	4 numeric digits with 1 decimal place (999.9). Enter the percentage of this component, which it is anticipated will be lost due to scrap, shrinkage, etc. This factor may be included in several reports to help determine the actual gross requirements for a particular product. An item designated as a serial item, may not have a shrink/scrap factor.
7. Activity Flag	1 alphanumeric character. This field can have one of three values: **A** = Active **F** = Forecasted **O** = Obsolete An active item is one currently in use, or being sold to customers. A forecasted item is one, which is forecasted to be active in the near future. An obsolete item is one which is no longer a standard part, though there may still be a supply of the item on hand which can be sold or used in manufacturing processes. In the **Bill Of Material Processor** package, this is mainly an informational field, although it is used in other manufacturing packages. **Material Requirements Planning**, for example, will not plan orders for an obsolete item. The field defaults to **A**, or Active.
8. Effective Date	A date in the standard date format. Enter the effectivity date for this item. If the item has is an active item, you must leave the field blank. If the item is forecasted, this is the date the item should become active. This field may be updated automatically in the **Set Component Activity Flags** application. For a more detailed explanation of the effectivity date, refer to the **Package Overview** section of this manual. This field defaults to no effectivity date.
9. Obsolete Date	A date in the standard date format. Enter the obsolete date for this item. If the item is active, this is the date the item should become obsolete. If the item has no obsolete date, you may leave the field blank. This field may be utilized to change the activity flag in the **Set Component Activity Flags** application. For a more detailed explanation of the obsolete date, refer to the **Package**

Name	Type and Description
	Overview section of this manual. This field defaults to no obsolete date.
10. Usr Information	6 alphanumeric characters. The name for this field may be defined by the user in the **BOMP Setup** application. The field can be used for any purpose the user desires. This field is not displayed if the user-defined field in **BOMP Setup** is blank.
F6 = Reference Designator	3 lines of 60 alphanumeric characters each. This field can be used to show a routing of a component item. It will be printed on work orders and may be shown on several reports and inquiry applications.

Copy Structure

Name	Type and Description
1. From Item No	15 alphanumeric characters. Enter the item number of the parent or sub-assembly you want to copy from. This is the parent item whose components are being copied to a new or existing product structure record. This item must already exist in the Inventory Item File. Press the **F7** key to search for an item by number or press the **F8** key to search for an item by description.
2. To Item Number	15 alphanumeric characters. Enter the item number you want to copy the preceding information into.
3. Increment	3 numeric digits (999). Enter the increment, which will be used when adding new product structure records to determine the next default sequence number. The increment is added to the last sequence number used by the parent to determine the default.
4. Activity Flag	1 alphanumeric character. One of three values may be entered: **A** = Active **F** = Forecasted **C** = Copy Current Flag An active item is one currently in use, or being sold to customers. A forecasted item is one, which is forecasted to be active in the near future. An obsolete item is one, which is no longer in use. If the field is set to **A** or **F**, all copied items will have their activity flags set to that status. If the field is set to **C**, the current status of all components' activity flags will be copied to the new product structure. In the **Bill Of Material Processor** package, this is mainly an informational field although it is used in other manufacturing packages. **Material Requirements Planning**, for example, will not plan orders for an obsolete item.
5. Effective Date	A date in the standard date format. Enter the effectivity date for the components of the new parent item number. If

Name	Type and Description
	the item is forecasted, this is the date the item should become active. If the item is currently active, you should leave the field blank. For a more detailed explanation of the effectivity date, refer to the **Package Overview** section of this manual. This field defaults to no effectivity date.
6. Obsolete Date	A date in the standard date format. Enter the obsolete date for the components of the new parent item number. If the item is active, this is the date the item should become obsolete. If the item is already obsolete, you may leave the field blank. For a more detailed explanation of the effectivity date, refer to the **Package Overview** section of this manual. This field defaults to no obsolete date.
7. Usr Information	6 alphanumeric characters. Enter the user-defined field for the components of the new parent item number. The name for this field may be defined by the user in the **BOMP Setup** application. If the field name is not defined in **BOMP Setup** this field will not be displayed. The field can be used for any purpose the user desires.

Mass Replace

Name	Type and Description
1. Obsolete Item No	15 alphanumeric characters. Enter the obsolete item number that you want to mass replace. This item must already exist in the Inventory Item File.
2. Replacement Item No	15 alphanumeric characters. Enter the replacement item number. This item must already exist in the Inventory Item File.

Product Structure File Maintenance

Reference Designator

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ▶ Product Structure File Maintenance - [Elliott Demonstration Company]   _□×│
├─────────────────────────────────────────────────────────────────────────┤
│ Add  Change  Delete  copY-structure  Mass-replace  eXit                   │
├─────────────────────────────────────────────────────────────────────────┤
│ ↵ X □ ▣ ▦ ⊛ ⊡ F1 F2 F3 F4 F5 F6 ▦ Q F9 ▦ ▤ ▶? 10x20 Courier New  ▼      │
├─────────────────────────────────────────────────────────────────────────┤
│                                                                           │
│                                                                           │
│           1. From Item No     PC            Parent Item (Mother Board)    │
│                                             Personal Computer             │
│                                             Unit Of Measure EA            │
│                                                                           │
│           2. To Item No       CPU           Mother Board For Parent       │
│                                             Central Processing            │
│                                             Unit Of Measure EA            │
│                                                                           │
│           3. Increment        10                                          │
│                                                                           │
│           4. Activity Flag    A                                           │
│                                                                           │
│           5. Effective Date                                               │
│                                                                           │
│           6. Obsolete Date                                                │
│                                                                           │
│           7. Usr Information                                              │
│                                                                           │
│                                                                           │
├─────────────────────────────────────────────────────────────────────────┤
│ Field Number ? □                                                          │
├─────────────────────────────────────────────────────────────────────────┤
│ NETcellent System, Inc. (32-bit)        004 RAH      BJL      BM0100      │
└─────────────────────────────────────────────────────────────────────────┘
```

Product Structure File (Copy Structure)

```
┌─────────────────────────────────────────────────────────────────────────┐
│ ▶ Product Structure File Maintenance - [Elliott Demonstration Company]   _□×│
├─────────────────────────────────────────────────────────────────────────┤
│ Add  Change  Delete  copY-structure  Mass-replace  eXit                   │
├─────────────────────────────────────────────────────────────────────────┤
│ ↵ X □ ▣ ▦ ⊛ ⊡ F1 F2 F3 F4 F5 F6 ▦ Q F9 ▦ ▤ ▶? 10x20 Courier New  ▼      │
├─────────────────────────────────────────────────────────────────────────┤
│                                                                           │
│                                                                           │
│                                                                           │
│           1. Obsolete Item No     16SX-1        Personal Computer 386SX   │
│                                                 Kit No1                    │
│                                                                           │
│                                                                           │
│           2. Replacement Item No  16SX-2        Personal Computer 386SX   │
│                                                 Kit No2                    │
│                                                                           │
│                                                                           │
│           3. Starting Item Number All                                     │
│                                                                           │
│                                                                           │
│           4. Ending Item Number                                           │
│                                                                           │
├─────────────────────────────────────────────────────────────────────────┤
│ Field Number ? □                                                          │
├─────────────────────────────────────────────────────────────────────────┤
│ NETcellent System, Inc. (32-bit)        004 RAH      BJL      BM0100      │
└─────────────────────────────────────────────────────────────────────────┘
```

Product Structure File (Mass Replace)

This Page Intentionally Blank

Feature/Option Configuration File Maintenance

Application Overview

The **Feature/Option Configuration File Maintenance** application enables the user to maintain the Feature/Option Configuration File. This application allows the user to design a "modular" bill of material, that is, a bill that offers the user a choice of components when configuring a parent item. This facilitates the customization of a product according to individual customer's specifications. For example, when using **COP Order Entry** to order a personal computer for a customer, the user has instant access to price, cost, and quantity available information for all available monitors, keyboards, memory boards, etc. In addition to **COP Order Entry**, the feature/option configurations developed in this application are utilized by the **Feature/Option Configuration Inquiry** and **Production Order Entry** applications in **BOMP**.

Feature Items

A feature item is the parent item of a modular bill of material. A Feature Item must be designated as such in the **I/M** Item File (field #73), and may not be either a parent or component in the Product Structure File.

Feature Numbers And Descriptions

After defining a feature item, which will have component options, assigned to it, the user will be prompted to enter a Feature Number and Description. These codes will represent a group of specific options available to the configuration.

Required Features

Some components are necessary for a parent item to be built (such as a CPU for a personal computer). Other components (such as a mouse) are not critical to the operation of the parent item but may be desired by some customers. This application enables the user to decide whether each Feature Number is required or elective. If a feature number is designated as "required", the person performing production order entry or inquiry <u>must</u> choose an Option from the list provided. If there is only one option for a requited feature number, it will be selected automatically during ordering. If a feature number is designated as "Optional" (elective), the person entering may elect not to choose any item from the option list.

It is recommended that required features are the first to be entered when designing this structure.

Option Items

An option item is one of a group of similar components organized under a feature number. One of these options may be selected during the configuration of a feature item.

After defining a Feature Number, the user will be prompted to enter an Option Number followed by an Option Item Number. An option number is similar to a feature number in that it is only used to keep track of an item's position in the feature/option structure.

The Option Item Number entered should be the Inventory Item number of the component the user wishes

to include as an option. An option item may be a parent or component in a product structure but may not be designated as a feature or kit item in the Inventory Item File (field #73). Once the Option Item Number is entered, the Option Item's description and unit price will be displayed automatically. The user will then be prompted to enter the quantity of option items required per feature item.

Options should be entered and maintained in a descending frequency of expected usage (ie. the most commonly used options should be entered first). This will speed the order entry process for feature items.

Run Instructions

Select **Feature/Option Configuration File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

Feature/Option Configuration File Entry Screen

The following options are available:

    * Select the desired mode from the **Feature/Option Configuration File** 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. Feature Item	15 alphanumeric characters. Enter the item number, which will be used as the feature item. This is the item whose features are being defined by this feature/option record. This item must already exist in the Inventory Item File and must be defined as a feature item (ie. field #73 in the Inventory Item File must be set to **F**). In change or delete mode, press the **F1** key to search for existing feature items that have options defined. In add mode, press the **F7** key to search for a feature item by number or press the **F8** key to search for a feature item by description. In change mode, you are not allowed to change this key field. After the Feature Item Number is entered, the Inventory Item File is read, and the item description and unit of measure are automatically displayed.
2. Feature No	3 numeric characters. Enter the feature number, which will be used with the Feature Item structure to uniquely identify a list of options available for the Feature Item. The feature number may not be zero and must be unique for this Feature Item. In add and change mode, press the **F7** key to view existing product features. In change mode, you are not allowed to change this key field.
3. Feature Description	2 lines of 30 alphanumeric characters each. Enter the description of the feature number. Only the first line will be displayed in a window when the feature number has been selected due to screen space limitations. The full description will be printed on reports.
4. Required Feature ?	**Y** or **N**. If this product feature **must** be selected for this feature item, enter **Y**. If this product feature is optional for this feature item, enter **N**. Entry is required.
Option No	3 numeric characters. Enter the option number, which will be used with the product feature number to uniquely identify an option that is available. In change mode, press the **F2** key to delete the option. The system automatically increments the option numbers by one. If you wish to allow for future insertion of new options, you can manually set the increment to a greater value such as 5 or 10.
Option Item No	15 alphanumeric characters. Enter an item number, which will be used with the option number to uniquely identify this option. This item must exist in the Inventory Item File. In add and change mode, press the **F7** key to search for an item by number. Press the **F8** key to search for an item by description.
Item Description	2 lines of 30 characters each. The description is automatically displayed. Due to screen space limitations, only the first line of description will be shown. On reports and other documents, both lines will be printed.

Name	Type and Description
Qty/Per	10 numeric digits with 6 decimal places and an optional minus sign (9999,999999-). Enter the quantity of this option item to be used in producing one of these feature items. Defaults to one (1).
C	**Y** or **N**. This field controls whether or not users are allowed to change the quantity of this option used per parent feature item. Enter **Y** to allow the quantity per feature item for this option to be changed in **COP's Order Entry** application and **BOMP's Production Order Entry** application. Enter **N** to prevent the quantity per entered above from being changed during order entry. Defaults to **N**.
S	**Y** or **N**. This field controls how the pricing for this option is determined during ordering of a feature item in **COP**. Enter **Y** to have the system look for applicable special price codes in the Price Code File for this item, customer, etc. Enter **N** to automatically bring up the item's selling price from the Item File. A "sale" on this item could affect how the price is determined. See the **Item File Maintenance** section of the **I/M** manual for more information on sale pricing. Defaults to **N**.

Feature/Option List

Name	Type and Description
Starting Feature Item	15 alphanumeric characters. Enter the starting feature item or press **RETURN** for **All**.
Ending Feature Item	15 alphanumeric characters. Enter the ending feature item. Defaults to the starting Feature item.

```
 Feature/Option Configuration File Maint - [Elliott Demonstration Company]        _ □ ×
Add  Change  Delete  List  eXit
↵ X □ ⊡⊞ ⚙ ⊡ F1 F2 F3 F4 F5 F6 ⚏ Q F9 ⟐ 目 ▶? 10x20 Courier New    ▼

    * 1. Feature Item          PC-386           386 Personal Computer
                                                Customize During Order Entry
    * 2. Feature No            001              Unit Of Measure EA

      3. Feature Description  Base PC 386 Personal Computer


      4. Required Feature ?    Y

    Opt No Option Item No  Item Description             Qty/Per    C   S
 5.
 6.
 7.
 8.
 9.
10.
11.


Field Number ? _
NETcellent System, Inc. (32-bit)      004 RAH       BJL       BM1501
```

Product Features Window

```
 Feature/Option Configuration File Maint - [Elliott Demonstration Company]        _ □ ×
Add  Change  Delete  List  eXit
↵ X □ ⊡⊞ ⚙ ⊡ F1 F2 F3 F4 F5 F6 ⚏ Q F9 ⟐ 目 ▶? 10x20 Courier New    ▼

      1. Feature Item

      2. Feature No

      3. Feature Description
                        ┌─Feature/Option List──────────────────────────┐
                        │ Feature/Option List                        × │
      4. Required F      │                                              │
                        │ Starting Feature Item  All                   │
    Opt No Option It     │                                           Qty/Per    C   S
 5.                      │ Ending Feature Item                          │
 6.                      │                                              │
 7.                      │ Any Change ? N                               │
 8.                      └──────────────────────────────────────────────┘
 9.
10.
11.


NETcellent System, Inc. (32-bit)      004 RAH       BJL       BM1501
```

Feature/Option List

This Page Intentionally Blank
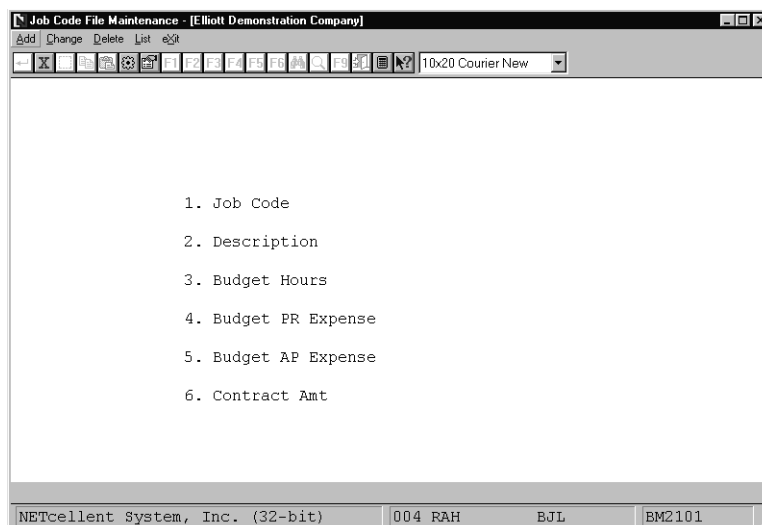
Job Code File Maintenance

Application Overview

A job is a particular project or activity for which you are tracking expenses and billings. This file is used to keep track of all of the valid job numbers being used and their associated budgets. When new **BOMP** transactions are entered into the system, the production expense amounts can be distributed among any of the jobs that have been entered into the **Job Code File**.

Job Code File Maintenance can only be used if the Use Job Numbers in **BOMP Setup** is set to **Y**.

Run Instructions

Select **Job Code File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

```
Job Code File Maintenance - [Elliott Demonstration Company]
Add  Change  Delete  List  eXit

        1. Job Code

        2. Description

        3. Budget Hours

        4. Budget PR Expense

        5. Budget AP Expense

        6. Contract Amt

NETcellent System, Inc. (32-bit)      004 RAH      BJL      BM2101
```

Job Code File Maintenance Entry Screen

The following options are available:

- * Add job codes
- * Change existing job codes
- * Delete existing job codes
- * Print a Listing of job codes, their descriptions and budgeted expenses

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.

Elliott

Entry Field Descriptions

Name	Type and Description
1. Job Code	6 alphanumeric characters. Enter the code that you would like to assign to the job being entered. In the change or delete mode, press the **F7** key to search for code.
2. Description	30 alphanumeric characters. Enter a description of the job, which will make it clear to the operator at a glance whether or not he has entered the correct code.
3. Budget Hours	8 numeric digits with 2 decimal place and optional minus sign (999,999.99-). Enter the number of hours that are budgeted for this job.
4. Budget PR Expense	11 numeric digits with 2 decimal places and optional minus sign (999,999,999.99-). Enter the amount of **Payroll** expenses that are budgeted for this job.
5. Budget AP Expense	11 numeric digits with 2 decimal places and optional minus sign (999,999,999.99-). Enter the amount of **Accounts Payable** expenses that are budgeted for this job.
6. Contract Amt	11 numeric digits with 2 decimal places and optional minus sign (999,999,999.99-). Enter the total contract amount for this job.

Labor Grade

Run Instructions

Select **Labor Grade File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

(Figure 2) Labor Grade Maintenance Screen

Labor Grade is used to estimate the hourly rate of a level of labor. The system will use this rate to calculate labor cost for each work order.

Entry Field Descriptions

Name	Type and Description
1. Labor Grade	2 alpha-numeric characters. Labor Grade for a labor level.
2. Description	30 alpha-numeric characters. Description of the Labor Grade.
3. Current Rate	13 numeric digits with 6 decimal places and an optional minus sign.

Name	Type and Description
	Current labor rate of the labor grade. This rate should be a little higher than the average salary of this level if labor insurance, benefits, etc. are part of the labor cost. The basic rule of thumb is to use 10% more than the average salary.
Last Rate	13 numeric digits with 6 decimal places and an optional minus sign. Display only. This is the rate prior to the current rate.
Last Change	A standard date format and an Elliott User ID. Display only. This is the date this labor grade was changed and the Elliott User who changed it.

There are 2 BOMP Global Setup fields requiring a Labor Grade for a default value. Remember to set them after creating new labor grades.

Department

Run Instructions

Select **Department File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

```
BOMP Department File Maintenance - [Elliott Demonstration Company]          _ □ ×
Add  Change  Delete  List  eXit
X □ ▣ ▣ ⚙ ▧ ▤ ▣ ⚠ ♚ Q ▣ ℛ ☃ ⚡ ▨ ⊕ ƒ() ▤ ▸?  08x15 Fixedsys          ▼


   1. Department ID           CNC
   2. Description             CNC Machine Department
   3. Def Labor Absorb Acct   07030-00000-00000  Labor Absorbed - Default
   4. Def Burden Absorb Acct  07130-00000-00000  Burden Absorbed - Default
   5. Def Direct Labor Grade  50                 Level 50 - Skilled
   6. Def Shared Labor Grade  40                 Level 40 - Junior Skilled
   7. Machine Hrs Calc Method S                  Separately Tracking
      End By Def If Labor End N

   ----------- Normal Burden ------------  -------- Burden in Setup Mode --------
   8. Pct / Labor Amount 0.000000    %  16. Pct / Labor Amount 0.000000    %
   9. Pct / Material Amt 0.000000    %  17. Pct / Material Amt 0.000000    %
  10. Amt / Unit Weight $0.000000       18. Amt / Unit Weight $0.000000
  11. Amt / Unit Volume $0.000000       19. Amt / Unit Volume $0.000000
  12. Amt / Prod Qty    $0.100000       20. Amt / Prod Qty    $0.000000
  13. Amt / Dirc Lab Hr $0.000000       21. Amt / Dirc Lab Hr $0.000000
  14. Amt / Shar Lab Hr $0.000000       22. Amt / Shar Lab Hr $0.000000
  15. Amt / Machine Hr  $1.000000       23. Amt / Machine Hr  $0.500000

Field Number ? ▯
NETcellent System, Inc.              029 SUPERVISOR TS2CHK        BMDEPMNT
```

(Figure 3) Department Maintenance Screen

A Department can be a building or floor in the company, a group of work centers, or a group of operators or workers. The Department ID field can be found in both the **Work Center** file and the **Operator** file, which acts as a group ID. So, you can have "Department of the Work Center" and "Department of Operator". They can share the same ID or have different ones.

Departments can be used for the following:
- A Department can be an analysis, evaluation and management unit for a group of work centers or a group of operators.
- Managers can monitor the status of work centers in a department.
- An operator can report labor for a department with multiple work centers. The labor of this operator will be automatically distributed to all the work centers.
- Department managers can have special rights to handle exceptions happening in the department.
- The Department provides default values when adding a new work center.

All the fields in this table are similar to those in the Work Center file, except for Department ID (4 alpha-numeric characters) and Description (30 alpha-numeric characters), so the detail of each field will be described in the Work Center section. This means the Department can provide default values when adding a Work Center.

Departments can be based on your company's physical departments, but may refer to a virtual department. You may already have departments in Shop Floor and can use the entries to create departments in BOMP. The department tables for these two modules are separate and serve only their respective module.

Work Center

Run Instructions

Select **Work Center File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

```
BOMP Work Center File Maintenance - [Elliott Demonstration Company]          _ □ ✕
Add  Change  Delete  List  eXit
✕ □ ▣ ▣ ▧ ▣ ▤ ▣ ⚠ ▨ Q ▣ A ▨ ⚡ ▨ ▣ f() ▤ ▣?  08x15 Fixedsys            ▼
* 1. Work Center ID          LAT
  2. Description             CNC Lathe Machine
  3. Department              CNC              CNC Machine Department
  4. Labor Assorb Account    07030-00000-00000 Labor Absorbed - Default
  5. Burden Assorb Account   07130-00000-00000 Burden Absorbed - Default
  6. Def Direct Labor Grade  50               Level 50 - Skilled
  7. Def Shared Labor Grade  40               Level 40 - Junior Skilled
  8. Substitute Work Center
  9. No Of Machines          1
 10. Machine Hrs Calc Method S               Separately Tracking
     End By Def If Labor End N
=========== Normal Burden ============= ======== Burden in Setup Mode ========
 11. Pct / Labor Amount 0.000000      % 19. Pct / Labor Amount 0.000000      %
 12. Pct / Material Amt 0.000000      % 20. Pct / Material Amt 0.000000      %
 13. Amt / Unit Weight $0.000000        21. Amt / Unit Weight $0.000000
 14. Amt / Unit Volume $0.000000        22. Amt / Unit Volume $0.000000
 15. Amt / Prod Qty    $1.000000        23. Amt / Prod Qty    $0.000000
 16. Amt / Dirc Lab Hr $0.000000        24. Amt / Dirc Lab Hr $0.000000
 17. Amt / Shar Lab Hr $0.000000        25. Amt / Shar Lab Hr $0.000000
 18. Amt / Machine Hr  $1.000000        26. Amt / Machine Hr  $0.500000

Field Number ? ▢

NETcellent System, Inc.            029 SUPERVISOR TS2CHK      BMWCMNT
```

(Figure 4) Work Center Maintenance Screen

Work Center can be regarded as a single machine, multiple machines that are similar or a work place, like a workbench, shipping area, a CNC machine or assembly line. Each work center carries its own burden setup, so the system will calculate burden cost based on these values for production at this work center. Also, the way to operate the machine is defined through the Machine Hour Calculation Method.

Entry Field Descriptions

Name	Type and Description
1. Work Center ID	6 alpha-numeric characters. Work Center ID.
2. Description	30 alpha-numeric characters.

Name	Type and Description
	Description of this work center.
3. Department	4 alpha-numeric characters. Can be blank. Multiple work centers can belong to one department. By assigning a department ID, it is possible to evaluate the performance of work centers and summarize the evaluation for the department. If department ID is given, most of the following fields default to values in the department file.
4. Labor Absorb Account	Default Account format. Labor Absorb Account for this work center. Different labor absorb accounts can be defined for different work centers. Defaults to BOMP Global Setup or Department file.
5. Burden Absorb Account	Default Account format. Burden Absorb Account for this work center. Different burden absorb accounts can be defined for different work centers. Defaults to BOMP Global Setup or Department file.
6. Def Direct Labor Grade	2 alpha-numeric characters. Default labor grade for direct labor at this work center. Any operation in this work center will default to this labor grade in the operation file. Defaults to BOMP Global Setup or Department file.
7. Def Shared Labor Grade	2 alpha-numeric characters. Default labor grade for shared labor at this work center. Any operation in this work center will default to this labor grade in the operation file. Defaults to BOMP Global Setup or Department file.
8. Substitute Work Center	6 alpha-numeric characters. The substitute for this work center. If there is more than one similar work center function and it is possible to change the production routing from one to another, this field defines the substitute for this work center. The operator can change the production to this work center in certain situations.
9. No of Machines	2 numeric digits. Number of machines in the work center. One work center can represent more than one machine. This field indicates how many machines are in this work center and the system will give a warning if an operator tries to report work on more machines than the capacity. 0 - This work center has no machines or the capacity should be bypassed. The default is 0.

Name	Type and Description
10. Machine Hour Calculation Method	1 alpha-numeric character. "M", "C" or "S" This field indicates how the machine is operated and so defines how the machine hours will be collected for production at this work center. <u>Options</u> **M** - All crew members are operating the same machine at one time. A Machine Hour is equal to the hours the crew spends on it. (Machine Hours = Labor Hours) **C** - Each crew member is operating their own machine. A Machine Hour is the sum of the hours that each member spends on it. (Machine Hours = Labor Hours times Number Of Crew Members) **S** - There is no direct relationship between Labor Hours and Machine Hours. This may be a situation where the machine can run independently without an operator involved, like a Computer Numerical Controlled (CNC) Machine. Defaults to BOMP Global Setup or Department file.
End By Def If Labor End	"Y" or "N" This determines the default of whether a machine will continue or be suspended when an operator leaves it if the Machine Calculation Method is "S". The operator can override this during production. Defaults to BOMP Global Setup or Department file.
11. Pct / Labor Amount	10 numeric digits with 6 decimal places and an optional minus sign. Normal Burden from percentage of Labor Amount.
12. Pct / Material Amt	10 numeric digits with 6 decimal places and an optional minus sign. Normal Burden from percentage of Material Amount.
13. Amt / Unit Weight	12 numeric digits with 6 decimal places and an optional minus sign. Normal Burden from per unit of parent item weight.
14. Amt / Unit Volume	12 numeric digits with 6 decimal places and an optional minus sign. Normal Burden from per unit of parent item volume.
15. Amt / Prod Qty	12 numeric digits with 6 decimal places and an optional minus sign. Normal Burden from per piece processed in production.
16. Amt / Dirc Lab Hr	12 numeric digits with 6 decimal places and an optional minus sign. Normal Burden from per hour of Direct Labor.
17. Amt / Shar Lab Hr	12 numeric digits with 6 decimal places and an optional minus sign. Normal Burden from per hour of Shared Labor.
18. Amt / Machine Hr	12 numeric digits with 6 decimal places and an optional minus sign.

Name	Type and Description
	Normal Burden from per Machine Hour.
19. Pct / Labor Amount	10 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from percentage of Labor Amount.
20. Pct / Material Amt	10 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from percentage of Material Amount.
21. Amt / Unit Weight	12 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from per unit of parent item weight.
22. Amt / Unit Volume	12 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from per unit of parent item volume.
23. Amt / Prod Qty	12 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from per piece processed in production.
24. Amt / Dirc Lab Hr	12 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from per hour of Direct Labor.
25. Amt / Shar Lab Hr	12 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from per hour of Shared Labor.
26. Amt / Machine Hr	12 numeric digits with 6 decimal places and an optional minus sign. Burden in Setup Mode from per Machine Hour.

These parameters allow the operator to configure burden driven by different reasons, either when a machine is operating normally or when a machine is in setup mode. There are two sets of burden parameters for each work center, one for the machine in setup mode and another for normal mode.

Setting these parameters to accurate values requires experience. However, a quick suggestion is to compare the overhead amount each month with information accessible at the time, like the labor dollar amount of that month, labor hours or machine hours. They initially can be reasonable estimates and tuned over time to provide a better estimate for production burden cost.

Based on figure 14, in normal mode, each processed parent item would cost $1 and each machine hour used to produce it will cost $1. So if 10 pieces were produced and the process time at this work center was 2 hours, the burden cost would be $12 ($1 x 10 + $1 x 2).

Operation ID

Run Instructions

Select **Operation ID File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

```
BOMP Operation ID File Maintenance - [Elliott Demonstration Company]          _ □ X
Add  Change  Delete  List  eXit
X □ 🖹 🖺 ⚙ 🖆 🗐 📇 ⚠ 🔍 🔍 💫 🅰 🔋 ⚡ 🔋 🔗 ƒ) 🗐 ▶?  08x15 Fixedsys          ▼

         * 1. Operation ID            LAT
           2. Operation Type          P
           3. Description             Trimming and Shaving

           4. Work Center             LAT     CNC Lathe Machine
           5. Direct Labor Grade      50      Level 50 - Skilled
           6. Shared Labor Grade      40      Level 40 - Junior Skilled
           7. Qty per Batch           0
           8. Estimate/Standard       E
           9. Est Direct Labor        0.250000         Hours
          10. Est Shared Labor        80.000           Qty/Hr
          11. Est Machine Time        80.000           Qty/Hr
          12. Machine No
          13. Machine Operation       R
          14. Drawing Number
          15. Substitute Operation ID
          16. Prompt Pre Comment      N
          17. Prompt Post Comment     N


Field Number ? ▢

NETcellent System, Inc.            029 SUPERVISOR TS2CHK        BMOIDMNT
```

(Figure 5) Operation ID Maintenance Screen

Production Routings for manufactured items usually vary from one to another and it is possible to have thousands of routings for a company. However, similar operations could be given the same **Operation ID**, grouped together in a category. This would make maintaining the operations easier. There are several ways to maintain the operations through the Operation ID:

- All operations using the same ID can be updated when any value is changed in the Operation ID file. To enable this feature, set field 48, **Mass Change Routing thru Oper ID Maint,** to "Y" or "A" in BOMP Global Setup.
- Export production routings to a spreadsheet and sort it by Operation ID.

In addition to the maintenance benefit, the Operation ID can speed up the process to create a new routing. The Operation ID record contains every field in the Operation file and these fields serve as default values. These values will be loaded when an operator creates a new operation or changes an operation ID for one operation.

Plus, the Operation ID can be useful when the routing needs to be changed during the production. For example, products may be configured to have an outside process where they are sent to a local store for painting, but the production is changed and the operator needs to paint it in the shop. Rather than

modifying the routing through the order entry interface, the operator can change the current operation from one Operation ID to another and all the values will be replaced with the current operation.

Operation ID can be used as an evaluation and analysis unit. The 12 Month Report can be used to analyze the scrap percentage and the cost of pieces processed over past year for each operation ID.

Operation ID was only a text field in Macola's Standard Product Routing Module. Work Order Plus makes this field more powerful by creating a table for the ID, which makes it more useful and meaningful as a management and analysis tool. Although the Operation ID is optional, we recommend utilizing this table.

Field Descriptions:
* Most of the fields are the same as those in Product Routing and will be discussed in that section.
* **Substitute Operation ID** (field 15) – When production plans change, the operator can change the operation ID of the current operation to its substitute. The substitute Operation ID may or may not be similar.

Production Routing

Run Instructions

Select **Production Routing File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

(Figure 6) Routing Maintenance

Production Routing describes how each parent item is manufactured, step by step. Each manufactured item can have multiple routings and one can be the default routing. Each routing has one or more operations (or steps) and each operation can represent one step in the manufacturing process. In the figure above, production of DRIVE-SHAFT takes 6 steps: Material Preparation, Assembly, Welding, Balancing, Outside Processing for painting, and Packaging. Each step defines one operation in the routing file.

Under the Production Routing Maintenance menu, three functions can be found, Maintenance, List and Import. The Maintenance function will bring up the maintenance screen shown above. The List function will print out selected routings and can be used to export routings to a CSV file. The Import function imports operations from a CSV file.

Enter an Item Number and Routing Number in the Maintenance screen and the system will list all the operations for this routing. The cost information will appear to the right of each operation and below that displays a summary of cost information. Display of the cost information is subject to several security flags. They may need to be turned on for managers and turned off for others.

Several functions can be found on this screen:
- **To create a routing**, simply enter a new routing number.
- A routing can be copied from another manufactured item if it shares the same routing structure. The system will provide this option through the **F5 key** if the current routing is empty.
- Press the **F3 Key** to remove the routing.
- Use the **F2 Key** to change Routing Header Description.
- The **Insert Key** can be used to add an operation. The **Delete Key** can be used to remove an operation. Press the **Enter Key** to change the operation detail.
- Use the **F4 Key** to change the operation number.
- Press the **F1 Key** to view material in each operation. This is based on the BOMP Global Setup.
- If this routing is not the default routing of the item, the user can set it through the **F5 Key**.

(Figure 7) Operation Detail

Figure 17 shows the detail information of an operation when an operator is adding or changing it. Most of the fields are the same as those in Operation ID.

Entry Field Descriptions

Name	Type and Description
Operation Number	4 numeric digits 1 through 8999. Operation Number of one production step. This should be a number from 1 to 8999. Workers in the production department should work on routing operations in sequence by the operation number.
Operation ID	4 alpha-numeric characters. This should be a valid Operation ID or blank. If the Operation ID is given in add mode, the rest of the fields default to values in that Operation ID. In change mode, the system will ask the operator if the new Operation ID should override the rest of the fields with values from that ID.
Operation Type	1 alpha-numeric character. Type of this operation. **Options** S - Setup or Miscellaneous Operation. For machine setup or to gather miscellaneous labor. This type of operation can be skipped if it is not a material issue point. I - Inspection Operation. P - Production Operation. M - Moving Operation. O - Outside Process. This type of operation has outside process information like vendor number and FOB cost. Defaults to "P" or the value in the Operation ID file.
Description	Two fields of 30 alpha-numeric characters. Each operation can have 2 description lines.
Work Center	6 alpha-numeric characters. The work center is where this operation takes place. Production burden cost will be calculated based on the burden parameters in this work center.
Direct Labor Grade	2 alpha-numeric characters. Default direct labor grade of this operation. This will be used as a standard for evaluation variance. Also, if an operator creates a production transaction through Production Transaction Processing, this will be used to calculate labor cost by default. Defaults to the value in the work center file.
Shared Labor Grade	2 alpha-numeric characters. Default shared labor grade of this operation. This will be used as a standard for evaluation variance. Also, if an operator creates a production transaction through

Name	Type and Description
	Production Transaction Processing, this will be used to calculate labor cost by default. Defaults to the value in the work center file.
Qty Per Batch	6 numeric digits. Number of pieces which will be processed in one batch. For example, if this is 10 (qty per batch), then it will place 15 pieces into 2 batches. If each batch takes 2 hours, the system would estimate it needs 4 hours to process 15 pieces. 0 - no batch or 1 piece per batch.
Estimate/Standard	"S" or "E" Whether all values for this operation are estimated or standard value. If they are standard values, a variance between standard value and actual value may exist and will be presented on various screens and reports. Otherwise, the variance is not applicable by default. Default to "E"
Direct Labor	In "Hr/Qty" or "Hr/Batch" measurement, 10 numeric digits with 4 decimal places and an optional minus sign. In "Qty/Hr" or "Batch/Hr" measurement, 10 numeric digits with 3 decimal places and an optional minus sign. In "Fixed Hrs" measurement, 12 numeric digits with 6 decimal places and an optional minus sign. The number of direct labor hours to process each piece or batch. The measurement can be Hours per Qty/Batch, Qty/Batch per Hours or a fixed hour. This value will be used for performance evaluation. F1 - toggle to Hours per Qty/Batch. F2 - toggle to Qty/Batch per Hour. F3 - toggle to Fixed Hours.
Shared Labor	In "Hr/Qty" or "Hr/Batch" measurement, 10 numeric digits with 4 decimal places and an optional minus sign. In "Qty/Hr" or "Batch/Hr" measurement, 10 numeric digits with 3 decimal places and an optional minus sign. In "Fixed Hrs" measurement, 12 numeric digits with 6 decimal places and an optional minus sign. The number of shared labor hours to process each piece or batch. The measurement can be Hours per Qty/Batch, Qty/Batch per Hours or a fixed hour. This value will be used for performance evaluation. F1 - toggle to Hours per Qty/Batch. F2 - toggle to Qty/Batch per Hour. F3 - toggle to Fixed Hours.
Machine Time	In "Hr/Qty" or "Hr/Batch" measurement, 10 numeric digits with 4 decimal places and an optional minus sign. In "Qty/Hr" or "Batch/Hr" measurement, 10 numeric digits with 3 decimal places and an optional minus sign. In "Fixed Hrs" measurement, 12 numeric digits with 6 decimal places and an optional minus sign. The number of machine hours to process each piece or batch. The measurement can be Hours per Qty/Batch, Qty/Batch per Hours or a fixed hour. This value will be used for performance evaluation.

Name	Type and Description
	F1 - toggle to Hours per Qty/Batch. F2 - toggle to Qty/Batch per Hour. F3 - toggle to Fixed Hours.
Machine Operation	"R" or "S" The mode in which the machine is running for this operation. "R" - Run Mode. If the machine is in run mode, the system will use Normal Burden in the work center to calculate burden. "S" - Setup Mode. The system will use Burden in Setup Mode in the work center to calculate burden.
Machine No	4 alpha-numeric characters. Machine number used for this operation. There is no limitation on the text.
User Defined Code	15 alpha-numeric characters. User Defined Code for this operation. The literal for this field is defined in BOMP Global Setup. In figure 17, it is set to "Drawing Number".
Prompt Pre Comment	"Y" or "N" Whether the operator needs to enter a comment when starting the operation.
Prompt Post Comment	"Y" or "N" Whether the operator needs to enter a comment when ending the operation
Outside Process Extra Fields	If operation type is "O" for outside process, the operator needs to enter extra outside process related fields including Purchase Order Number, Purchase Order Line, Vendor Number and cost information.
PO No	If the Purchase Order package is on, the standard PO format will be used. If the PO package is off, 10 alpha-numeric characters. The Purchase Order number of the outside process. This can be blank. If the PO package is on, this should be an existing PO. It can be a Blanket PO.
PO Line No	3 numeric digits. Purchase Order Line Item number of this outside process. This field is available if the PO number is given. If the PO package is on, the item number for this line item should not exist in the Item file.
Vendor Number	6 alpha-numeric characters. The Vendor number of this outside process. This field is available to change if the PO number is not given or the PO package is off. Otherwise, it should be the same as that in the purchase order.
FOB Cost	10 numeric digits with 4 decimal places and an optional minus sign. Free On Board or Freight On Board cost per piece for the outside process. This is a standard value for the operation. If the operator entered an existing PO, the system may override this value with that in the PO Line Item with the appropriate BOMP

Name	Type and Description
	Global Setup.
Extra Cost	10 numeric digits with 4 decimal places and an optional minus sign. Extra cost per piece for outside process, like tax or extra burden. The system always uses the value defined in the operation to calculate the outside process cost.
Fixed Cost	9 numeric digits with 2 decimal places and an optional minus sign. Fixed cost per transaction for an outside process. The cost is the same no matter how many pieces are sent for an outside process.

Work Order Plus provides a feature to update all uncompleted work orders when a value in a Production Routing is changed. This can be turned on by changing field 49, Mass Change Routing thru Product Routing Mnt, in BOMP Global Setup to "Y" or "A". When values are changed in an operation the system will ask if the operator wants to update all orders.

In addition to maintaining production routings one by one, operators can export all routings to a CSV file, edit the export file and import them back into the system.

If you have routings in the Standard Product Routing module, Elliott provides a tool to export all routings to a WO+ compatible CSV file (Main Menu → Manufacturing → Standard Product Routing → Processing → Routing Entry → Export). You can import them through Routing Import in BOMP. Standard Product Routing allowed a pointer to be created in an operation that pointed to a general routing. Since BOMP does not support pointers, the export process will create an operation entry for each operation in the general routing when a pointer is encountered. Also, the system will not export any Tool or Note entries.

Special Operation

Run Instructions

Select **Special Operation File** from the pull down **BOMP Maintenance** window. The following screen will be displayed:

(Figure 8) Special Operation

In Work Order Plus, every action is defined as a 4-digit number so operators can use this number to report their time. This number is a routing operation number for all actions directly related to production. For actions not directly related to production, it is a **Special Operation.** In the Labor Performance module, this kind of code is called an Indirect Code. So, the operator will enter an ID and password and a special operation number to report a break, but the time reported would never be absorbed into any production.

Entry Field Descriptions

Name	Type and Description
1. Operation Number	4 numeric digits. Enter a number for this Special Operation. The Special Operation number should be 9000 or greater since 0 through 8999 are reserved for routing operations. Numbers 9000 through 9499 are reserved for system-defined special operations that are built into the system and cover all the basics, like break (9020), meal break (9040), and end of day log off (9030). You can create new special operations by using numbers 9500 through 9999.
2. Operation Type	1 alpha-numeric character. Enter a type for the operation. User-defined operations (from 9500 to 9999) can only use "P" and "N" types. **Options** P - Productive type. Time an operator contributes to this type of activity will be regarded as productive, ex. machine maintenance. N - Non-Productive type. Time an operator contributes to this type of activity will be regarded as non-productive. L - Logon type. This type of operation logs the operator onto the system. B - Break type. This type of operation represents a payable break. M - Meal Break type. This type of break represents a non-payable break. An operator taking a meal break is regarded as logged off the system, but not left for the day. E - End of Day type. This type of special operation is used when operators are leaving the facilities for the day. The operator will be logged off the system. D - Monitor Department type. This type of special operation allows the operator to change the time reported into shared labor for a specified department. W - Monitor Work Center type. This type of special operation allows the operator to change the time reported into shared labor for a specified work center.
3. Description	30 alpha-numeric characters. Enter a description for this special operation.
4. Obsolete?	"Y" or "N". Enter the obsolete status of this operation. An obsolete operation will not be an option for the operator to choose. Some of the system-defined special operations can be obsolete.
5. Prompt for Pre-Comment?	"Y" or "N". Enter whether to prompt for a comment when the operation is started. For "L" type special operations the system will prompt for a comment when the operator logs on. For "W" and "D" types the system will prompt for a comment when the operator clocks in to a work center or a department.
6. Prompt for Post-Comment?	"Y" or "N". Enter whether to prompt for a comment when the operation has ended. For "E" type special operations the system will prompt for a comment when the operator logs off.

Name	Type and Description
	For "W" and "D" types the system will prompt for a comment when the operator clocks out from a work center or department.

Addition information about system-defined operations:

- The Operator can never select "Logon" (9010). This operation only serves to determine if the operator needs to enter a logon comment. The system can automatically logon the operator when first clocking into the system.
- Only "B"(Break), "P"(Productive) and "N"(Non-Productive) operation types are available in the Operator Time Clock. "L"(Logon), "M"(Meal Break), "E"(End of Day), "W"(Monitor Work Center) and "D"(Department) operation types are used for special functions and not recording time.
- Only 9050(Non-Productive) and 9060(Productive) of the system-defined operations can be obsolete.

Note: The Edit List can print a barcode of the operation number for all selected operations.

Inquiry

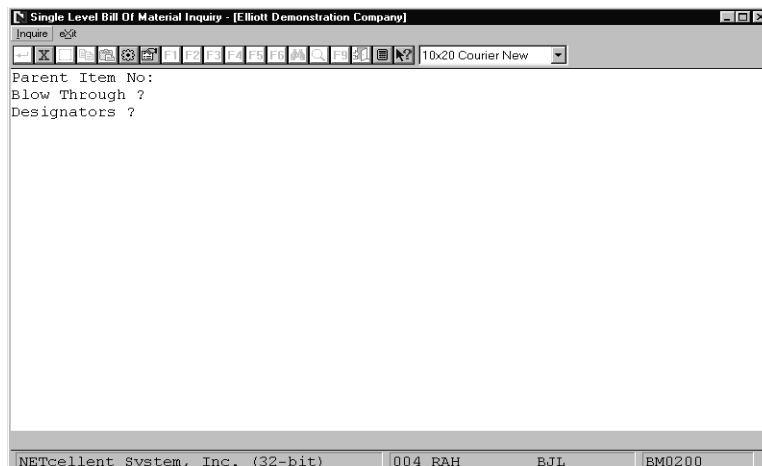## *Single Level Bill Of Material Inquiry*

Application Overview

The **Single Level Bill Of Material Inquiry** allows you to display a single level bill of material for the entered parent item. It does not show any components more than one level down.

It offers the option of blowing through phantom items (non-stocked, non-controlled component items) to show the phantom's components in place of the phantom item.

It also offers the option of displaying the reference designators defined in the **Product Structure File Maintenance** application.   The description and low level code (Llc) are displayed for parent and component items.

Run Instructions

Select **Single Level Bill Of Material** from the pull down **BOMP Inquiry** window. The following screen will then be displayed:

```
┌─────────────────────────────────────────────────────────────────────┐
│ ⬚ Single Level Bill Of Material Inquiry - [Elliott Demonstration Company]    _ □ X │
│ Inquire  eXit                                                          │
│ ─ X  ▣ ▣ ⚙ ▣ F1 F2 F3 F4 F5 F6 ▥ Q F9 ▨ ▤ ▚? 10x20 Courier New  ▼    │
│ Parent Item No:                                                        │
│ Blow Through ?                                                         │
│ Designators ?                                                          │
│                                                                        │
│                                                                        │
│                                                                        │
│                                                                        │
│                                                                        │
│                                                                        │
│                                                                        │
│                                                                        │
│                                                                        │
│ NETcellent System, Inc. (32-bit)       004 RAH      BJL      BM0200    │
└─────────────────────────────────────────────────────────────────────┘
```

Single Level Bill Of Material Entry Screen

The following options are available:

* Select the desired mode from the **Single Level Bill Of Material** 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
Parent Item No:	15 alphanumeric characters. Enter the item number of the parent item for which you wish to see a bill of material. Press the **F7** key to search for an item by number or press the **F8** key to search for an item by description.
Blow Through ?	**Y** or **N**. Component items, which are neither stocked nor controlled, are known as phantom items. Answering **Y** to this question allows you to blow through phantom items to the real component items, which are down one level. Default is **N**.
Designators ?	**Y** or **N**. Answering **Y** to this question allows the reference designator for each component item to be displayed. Default is **N**.

Item Search By Number

Single Level Bill of Material Inquiry

F E A T U R E   /   O P T I O N   L I S T

Ranges: All Products

```
Feature Item    Description
                Feature/Description              Rqd?

PC-386          386 Personal Computer
                Customize During Order Entry

                001  Base PC 386 Personal Computer        Y

                     Opt   Option Item     Description                    Qty/Per  Chg?  Spl?    Unit Price

                     001   BOX-386-1       Basic SM Box w/7 Exp 6-16 1-8  1.000000  N    N        399.0000
                     002   BOX-386-2       Adv Box HDps 8 Exp 32 5-16 2-8 1.000000  N    N        499.0000

                002  Memory-MHZ Options For PC-386         Y

                     Opt   Option Item     Description                    Qty/Per  Chg?  Spl?    Unit Price

                     001   MEM-MHZ-1       12 Mhz 2 Meg Motherboard Opt   1.000000  N    N        200.0000
                     002   MEM-MHZ-2       16 Mhz 2 Meg Motherboard Opt   1.000000  N    N        225.0000
                     003   MEM-MHZ-3       16 Mhz 4 Meg Motherboard Opt   1.000000  N    N        248.0000
                     004   MEM-MHZ-4       16 Mhz 6 Meg Motherboard Opt   1.000000  N    N        276.0000

                003  Monitor Options For PC-386            Y

                     Opt   Option Item     Description                    Qty/Per  Chg?  Spl?    Unit Price

                     001   MON-NEC-1       NEC Multisync 2A EGA Monitor   1.000000  N    N        405.0000
                     002   MON-NEC-2       NEC Multisync 3DS VGA Monitor  1.000000  N    N        575.0000
                     003   MON-NEC-3       NEC Multisync 4DS VGA Monitor  1.000000  N    N        985.0000
                     004   MON-NEC-4       NEC Multisync 5D 20 Monitor    1.000000  N    N      2,334.0000
                     005   MON-KPT-1       Keypoint 4 Super VGA Monitor   1.000000  N    N        399.0000
```

Elliott

Indented Bill of Material Inquiry

Application Overview

The **Indented Bill Of Material Inquiry** application is used to quickly and easily finds the Bill of Material for an entered parent item.

It offers the option of blowing through phantom items (non-stocked, non-controlled component items) to show the phantom's components in place of the phantom item.

It also allows the operator to choose the number of levels he wishes the screen to display and to choose whether or not he wishes to see active items, obsolete items, and/or forecasted items.

If the number of levels to explode is set to 11, all subsequent levels of components are displayed. If a component is used in more than one sub-assembly within a given product structure, it will appear under every sub-assembly in which it is used.

It also offers the option of displaying the reference designators defined in the **Product Structure File Maintenance** application.

Run Instructions

Select **Indented Bill Of Material** from the pull down **BOMP Inquiry** window. The following screen will then be displayed:

Indented Bill of Material Inquiry Entry Screen

The following options are available:

    *   Select the desired mode from the **Indented Bill Of Material** 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. Parent Item No	15 alphanumeric characters. Enter the item number of the parent item for which you wish to see a bill of material. Press the **F7** key to search for an item by number or press the **F8** key to search for an item by description.
2. Blow Through?	**Y** or **N**. Component items, which are neither stocked nor controlled, are known as phantom items. Answer **Y** to this question allows you to blow through phantom items to the real component items, which are down one level. Default is **N**.
3. No Of Levels To Explode	2 numeric digits (99). Enter the number of levels you wish to see. Default is **11**.
4. Show Active Items?	**Y** or **N**. Enter **Y** to show active items or **N** to decline. This field defaults to **Y**.
5. Show Forecasted Items?	**Y** or **N**. Enter **Y** to show forecasted items or **N** to decline. This field defaults to **N**.
6. Show Obsolete Items?	**Y** or **N**. Enter **Y** to show obsolete items or **N** to decline. This field default to **N**.
7. Effectivity Date	A date in the standard date format. Enter the effectivity date you wish to use for displaying items. This date will be used to determine whether to include or exclude items. If you press **RETURN**, no selection will be made based upon effectivity date. You will not be prompted to enter this field unless both active and forecasted have been selected for display. Default is no selection based on effectivity date.
8. Show Reference Designators?	**Y** or **N**. Answering **Y** to this question allows the reference designator for each component item to be displayed. Default is **N**.

Indented Bill of Material (Screen #1)

Indented Bill of Material Inquiry (Screen #2)

This Page Intentionally Blank

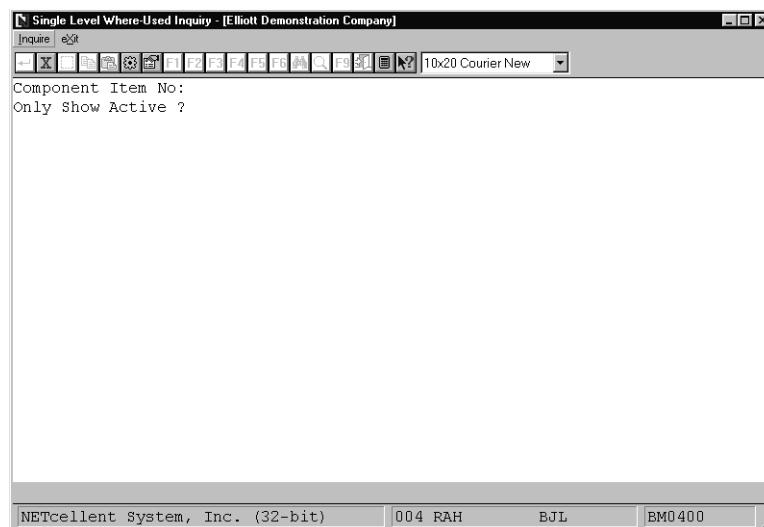## *Single Level Where-Used Inquiry*

Application Overview

The **Single Level Where-Used Inquiry** application is used to easily and quickly finds the immediate parent items of an entered component item.

The operator may choose either to display all immediate parent items of the entered component item or only the active ones.

Run Instructions

Select **Single Level Where-Used** from the pull down **BOMP Inquiry** window. The following screen will then be displayed:

Single Level Where-Used Entry Screen

The following options are available:

* Select the desired mode from the **Single Level Where-Used** 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. Component Item No:	15 alphanumeric characters. Enter the item number of the component item whose immediate parents you wish to see. Press the **F7** key to search for an item by number or press the **F8** to search for an item by description.
2. Only Show Active?	**Y** or **N**. Enter **Y** to display only active parents or **N** to display all parent items. This field defaults to **N**.

Single Level Where Used Inquiry
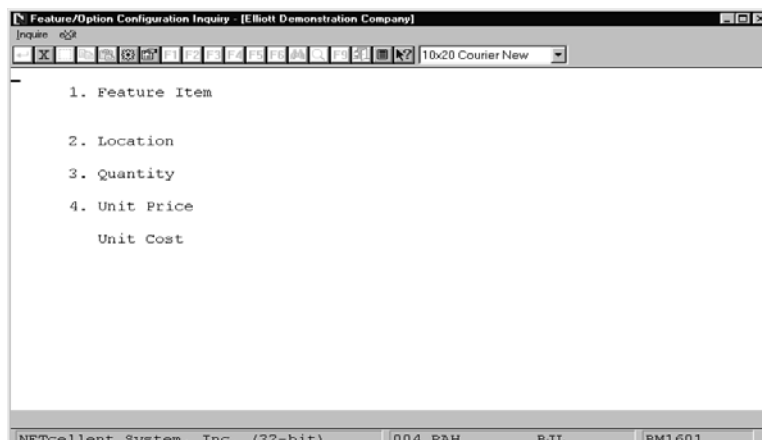
Feature/Option Configuration Inquiry

Application Overview

The **Feature/Option Configuration Inquiry** application provides an easy way to display various "what-if" configurations of feature items. The user can select different options for a feature item and analyze their affect on the item's cost and price. The application also allows the user to manipulate individual unit prices of selected options if **BOMP Setup** is set accordingly. This application is a useful tool for determining if a feature/option structure has been created to provide the most logical entry of orders in **BOMP** and **COP**.

This application is for informational or test purposes only. For example, it can be used to ensure proper configuration of features to provide maximum ease of order entry (i.e. required features entered with the lowest feature numbers). No production orders will be created from the configurations entered here.

Run Instructions

Select **Feature/Option Configuration** from the pull down **BOMP Inquiry** window. The following screen will then be displayed:

Feature/Option Configuration Inquiry Entry Screen

The following options are available:

> *   Select the desired mode from the **Feature/Option Configuration** 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. Feature Item	15 alphanumeric characters. Enter the item number, which will be used as the feature item. Press the **F1** key to search for Feature Items by number.
2. Location	2 alphanumeric characters. Enter the location code of the warehouse from which inventory for the feature/option will be pulled. The quantity of each option available at this location will be displayed. Press the **F7** key to search for Location codes.
After entering the Feature Item and the Location Code, you may change either field. These first two fields will determine the quantity available of the options.	
3. Quantity	A standard quantity format with an optional minus sign. Enter the amount of the Feature Items you wish to estimate. The unit price and unit cost will be multiplied by this quantity to determine the extended price and cost. Defaults to one.
4. Unit Price	10 numeric digits with 4 decimal places and an optional minus sign. This is the selling price per unit of the Feature Item based on the options selected. This field is automatically calculated and will be displayed after all options are selected.
Unit Cost	10 numeric digits with 4 decimal places and an optional minus sign. This is the cost per unit of the Feature Item based on the options selected. This field is automatically calculated and will be displayed after all options are selected. This field will not display unless the Display And Print Item Costs? flag in **BOMP Setup** is set to **Y**.

Feature Selection For Product Window

Name	Type and Description
Ftr	3 numeric digits. Select the desired feature code. This number must already exist in the **Feature/Option Configuration File Maintenance** application. Press the **F7** key to search for product features. Press **RETURN** to select the default or next feature number. After all options are selected, you may press the **F2** key while on this field to remove the feature number from the configuration. If it is a required feature, you will be required to re-add it before leaving the screen. The feature number, its description and whether the feature number is required or optional is displayed at the bottom of the window.

Name	Type and Description
	All required features must be selected to exit this procedure without canceling the inquiry.
Opt	3 numeric digits. Automatically displayed.

A window will display the available options that have been defined for this particular feature code. The option item number, description, unit price, and the availability of this option at this location will be displayed. Use the arrow keys, page up or page down to highlight a desired option. Press **RETURN** to select the option.

Once the option has been selected, press the **F7** key to redisplay the options window. |
| Option Item No | The inventory item number will automatically display. |
| Item Description | The item description will automatically display. |
| Qty/Per | 10 numeric digits with 6 decimal places and an optional minus sign (9,999.999999-).

The quantity of the selected option requited to make one of the feature items is displayed. This value was defined in the **Feature/Option Configuration File Maintenance** application and may only be changed if the change field for this option is set to **Y** in that application.

The unit cost will total at the bottom of this column if field #7 Display And Print Item Cost? in **BOMP Setup** is set to **Y**. If set to **N**, this total will not display. |
| Unit Price | The unit price for each option selected will automatically display. A unit price total is displayed at the bottom of the window. If field #6, Allow Change To Order Prices? in **BOMP Setup** is set to **Y**, the unit price may be changed. If field #6 is set to **N**, the unit price cannot be changed. |

Feature/Option Configuration Inquiry

Elliott

Feature Selection For Product

Product Feature Search

Feature Option Search

Feature Selection For Product Completed

This Page Intentional Blank

Item File Inquiry

Application Overview

Many occasions may arise where you will want to quickly inquire into the Inventory Item File. **Item File Inquiry** gives you a rapid procedure to display on the screen all or a portion of an Inventory Item. This application allows you to view the item without the ability to change any of the information displayed. The Item Notes section allows you to view the pertinent information that was defined in **I/M's Item File Maintenance** Notes section. All of the information and field descriptions that are displayed to the screen may be found in the **Item File Maintenance** section under **Maintenance** of the **I/M** manual.

Run Instructions

Select **Item File Inquiry** from the pull down **BOMP Inquiry** window. The following screen will then be displayed:

Item File Inquiry Entry Screen

The following options are available:

    *   Select the desired mode from the **Item File Inquiry** 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.

Item File Inquiry (Base Data)

Item File Inquiry (Management Data)

Item File Inquiry (Manufacturing Data)

Item File Inquiry (Notes)

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.

Run Instructions

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Inquiry ➔ Work Order Inquiry ➔ Inquiry ➔ Plus Work Order
Or drill-down from another interface

(Figure 9) Work Order Inquiry

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 10) 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 11) 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 12) 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.

This Page Intentionally Blank

Elliott

Processing

Production Order Entry

Application Overview

The **Production Order Entry** application allows the entry of production orders. These orders may be later modified, deleted, or printed on the Production Order Edit List. Once the orders are verified as correct, they may be printed on the **Production Schedule Report**.

Entry of orders in this application automatically adjusts the quantity allocated levels of component items and the quantity on order levels of parent items.

Order Status

A production order is assigned one of several statuses based on what stage of the production process it has reached. An order that has only been entered has a status of "New". After a work order has been printed in the **Print Production Work Orders** application, its status displays as "Printed". Only orders that have not been printed may have changes made to them. If progress on the order is recorded through the **Production Transaction Processing** application, its status is changed to "Partially Reported". Once a transaction is posted with a complete status indicated, it is considered "Complete".

Work orders that have not been printed or had production reported may be changed or deleted in this application.   Once they have begun the production process they must be handled through the **Production Transaction Processing** application. See that section and the **Package Overview** section of this manual for information on changing and deleting orders.

Frequently, the quantity of an item eventually manufactured does not match the original quantity entered on the order. For information on handling over-production and under-production, see the **Production Transaction Processing** and **Package Overview** sections of this manual. For information on handling cancelled orders, overshipments, and returns from customers, see the **Package Overview** section of this manual.

Material Work Order

The BOMP (Bill of Material and Production) module has been greatly improved by the introduction of Material Work Order. There are now two different types of work orders supported in Elliott V7.4, "Material Work Order" and "Legacy Work Order."

"Legacy Work Order" refers to the original BOMP work order. It provides an easy way of entering production work orders and back flushes the materials at time of production reporting or printing of the work order (with WIP option). The main weakness of the Legacy Work Order is it does not have the ability to capture the bill of materials per work order. If you change the bill of material structure and have outstanding Work Orders in the process of production, based on the previous bill of material structure, you will have an integrity issue.

In addition to the "capture of bill of material" issue, when the work order is completed and the material is back flushed, there is no way to report any variance. Variance can happen when there is a defective component or simply production waste. Variance can also happen if there is a substitution of components. In the past, this type of variance was typically handled by a manual adjustment through

I/M Inventory Transaction Processing.

Material Work Order is designed to address the shortcomings of the Legacy Work Order.   Not only will it capture the bill of materials when the Material Work Order is created, it also allows the user to change the copied bill of material if necessary. Upon production completion, the user has the flexibility to report variance of quantity, as well as substitute different components. Since this new type of work order offers total flexibility with component materials, we call it "Material" Work Order.

Material Work Order is a super set of Legacy Work Order. Therefore, the default choice now is to create a Material Work Order. We are still supporting the Legacy Work Order for backward compatibility. Most of the menu choices in BOMP Processing now have two choices, "Material Work Order" and "Legacy Work Order." At this moment we do not support the WIP option with Material Work Order. Therefore if you need to use WIP, you will need to continue using the Legacy Work Order.

Run Instructions

Select **Production Order Entry** from the pull down **BOMP Processing** window and then **Process** and **Legacy Work Order**. The following screen will then be displayed:

Production Order Entry Processing Entry Screen

The following options are available:

* Select the desired mode from the **Production Order Entry** 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. Order No	6 numeric digits. Enter the production order number, which will be used to track the order through the production process. In add mode, press the **F1** key to display the next sequential production order number. In change mode, once this field is displayed it may not be changed.
Order Status	Automatically displayed.

Name	Type and Description
	The current status of the production order is automatically displayed. The status will be displayed as new, work order printed, partially reported, or complete.
2. Item No	15 alphanumeric characters. Enter the number of the item to be produced. This item must be in the Inventory Item File and may not be designated as a kit item. If the entered item is a Feature Item, a window will be displayed after the quantity field to allow selection of Feature options. Add mode offers the following function key options: F1 - Searches for Feature Items F4 - Searches for Firm Planned Orders **if** the **MRP** package is installed. F4 - If the **MRP** package is not installed, but the **COP** package is installed, this key searches for customer orders that have manufactured parent items. F7 - Searches for items by number. F8 - Searches for items by description. In change mode, this key field is automatically displayed and may not be changed.
3. Location	2 alphanumeric characters. Enter the location where the item will be produced. This location must be in the **I/M** Location File. In add mode, press the **F7** key to search for Location Codes. In change mode, this field is automatically displayed and may not be changed. In add mode, the location will default to the one entered for the previous production order.
4. Quantity	A standard quantity format with an optional minus sign. Enter the quantity of the item to be produced. If the item is a feature item, the Feature Selection window will appear after a value is entered in this field. In add and change modes, press the **F1** key to calculate the recommended quantity to be ordered. The recommended quantity will be for the location entered above in field #3. To calculate for another location, press the up arrow while the recommended quantity window is displayed. Default is **1**.
Qty. Rptd.	A quantity in the standard format. In change mode, this field will automatically display the quantity already reported as produced in **Production Transaction Processing**. New orders should not show any quantity reported.
5. Unit Price	10 numeric digits with 4 decimal places and an optional minus sign. Enter the unit-selling price for the item. It is the selling price entered in field #16 of the Inventory Item File. This field may only be changed if the Allow Change To Order Prices flag in **BOMP Setup** is set to **Y**.
Ext. Price	9 numeric digits with two decimal places and an optional minus sign (9,999,999.99). This field is calculated by multiplying the quantity to be produced by the selling price.
6. Unit Cost	10 numeric digits with 4 decimal places and an optional minus sign.

Name	Type and Description
	Enter the cost for each unit of the item. The default is the unit cost determined in the Inventory Item File.
	This field will only be displayed if the Display And Print Item Costs flag in **BOMP Setup** is set to **N**.
Ext. Cost	9 numeric digits with two decimal places and an optional minus sign (9,999,999.99).
	Calculated by multiplying the quantity to be produced by the unit cost.
7. Due Date	A date in the standard date format.
	Enter the date the finished item is due. Entry is required. The start date will be automatically determined based on the lead-time of the item being produced.
8. Job Number	6 alphanumeric characters.
	Enter the job number associated with the production order. The job number must be in the Job Code File if the Use Job Numbers? flag is set to **Y** in **BOMP Setup**.
	Entry is not allowed if the Use Job Numbers? flag is set to **N** in **BOMP Setup**.
	Defaults to no job number.
9. Description	30 alphanumeric characters.
	Enter any additional information relative to the production order.
	If the order was copied from **COP**, this field will display the Customer Name, Number and **COP** Order Number. If the order was copied from **MRP**, the **MRP** order number will be displayed.
10. Alloc. Inventory	**Y** or **N**.
	Enter **Y** to allocate inventory immediately or **N** to allocate when the production work order is printed.
	This field defaults to **N**.

Material Work Order Entry

In addition to the previous 10 fields, the following will appear on the Material Work Order entry screen.

Name	Type and Description
11. Material Issue	1 alphanumeric character; **P** = Print Work Order or **R** = Production Reported.
	Enter **P** to print the work order immediately.
	This field defaults to **R**.

Feature Selection For Product Window

Name	Type and Description

Name	Type and Description
Ftr	3 numeric digits.
	Select the desired feature code. This number must already exist in the **Feature/Option Configuration File Maintenance** application. Press the **F7** key to search for product feature. Press the **F2** key to remove the feature number from the feature item. Press **RETURN** to select the default or next feature number.
	The feature number, its description and whether the feature number is required or optional is displayed at the bottom of the window.
	All required features must be selected to exit this procedure without canceling the order.
Opt	3 numeric digits. Automatically displayed.
	A window will display the available options that have been defined for this particular feature code. The option item number, description, unit price, and the availability of this option at this location will be displayed. Use the arrow keys, page up or page down to highlight a desired option. Press **RETURN** to select the option.
	Once the option has been selected, press the **F7** key to redisplay the options window.
Option Item No	The inventory item number will automatically display.
Item Description	The first 22 characters of the item description will automatically display. If the option item is a miscellaneous item, the description may be changed.
Qty/Per	10 numeric digits with 6 places and an optional minus sign (-9999.999999).
	This field may only be changed if the **C** (change) field for this option in the **Feature/Option Configuration File Maintenance** application is set to **Y**.
	If this field can be changed, enter the quantity of this option item needed to produce one of the feature items.
Qty/Per (continued)	Defaults to the quantity set in the **Feature/Option Configuration File Maintenance** application.
Unit Price	The unit price for each option selected will automatically display. A unit price total is displayed at the bottom of the window. If field #6, Allow Change To Order Prices? in **BOMP Setup** is set to **Y**, the unit price may be changed. If field #6 is set to **N**, the unit price cannot be changed.

Production Order Edit List

Name	Type and Description
Starting Order No	6 numeric digits.
	Enter the starting order number for the range of production orders you wish to print. Defaults to **All**.
Ending Order No	6 numeric digits.
	Enter the ending order number for the range of production orders you wish to print. Defaults to the starting order number.

Name	Type and Description
Include Order Statuses	1 alphabetic character. Enter the letter representing the order statuses you wish to include in the edit list. **N** = New **P** = Printed **I** = Partially Reported **C** = Complete Defaults to **All**.

Production Order Entry

Feature Selection For Product Number

Production Order Edit List (Select Order Status)

```
                    P R O D U C T I O N   O R D E R   E D I T   L I S T

Ranges: All Orders

Order No Loc Item No       Description             Quantity   Unit Price    Unit Cost Due Date Job No Status

    101  LA  PC-386        386 Personal Computer      5.000   1,318.9500      725.6500 02/21/92        Partially Reported
                          Customize During Order Entry                Description: In-House Work Stations

         Ftr Feature Description         Opt Option Item    Description                 Qty/Per   Unit Price    Unit Cost

         001 Base PC 386 Personal Computer  001 BOX-386-1   Basic SM Box w/7 Exp 6-16 1-8  1.000000   399.0000     311.0000

         002 Memory-MHZ Options For PC-386  002 MEM-MHZ-2   16 Mhz 2 Meg Motherboard Opt   1.000000   225.0000     167.0000

         003 Monitor Options For PC-386     005 MON-KPT-1   Keypoint 4 Super VGA Monitor   1.000000   399.0000       5.6500

         004 Keyboard Options For PC-386    002 KBD-CHC-2   Chicony KB-5181 Keyboard       1.000000    46.9500      38.0000

         005 Port Options For PC-386        001 PRT-386-1   Std 2 Serial 1 Parallel        1.000000   113.0000      99.0000

         006 Floppy Drive Options - PC-386  001 FLP-DSK-1   Single 5 1/4 HD Option         1.000000    44.0000      29.0000

         010 DOS Version Options For PC-386 001 DOS-MSF-1   MS Version 3.1 DOS Package     1.000000    92.0000      76.0000


    102  LA  PC-386        386 Personal Computer      1.000   2,150.9500    1,284.6500 02/26/92        Work Order Printed
                          Customize During Order Entry                Description: John Easterwood
```

This Page Intentionally Blank

Production Transaction Processing

Application Overview

The **Production Transaction Processing** application allows for reporting progress made toward completing production work orders. Transaction information will reside in a transaction file until it is posted through the **Post Production Transactions** application.

This application has been designed to provide the user with solutions to many common mis-reporting problems that may occur.

If over-production of an order occurs, components will be automatically deallocated and have quantity on-hand reduced. Also, finished goods will have quantity on-hand increased by the reported amount. This will take place regardless of whether the Work In Process (WIP) feature was selected when work orders were printed, or if the order was flagged as "complete" by a previously posted transaction.

Under-production, even to the extreme of reporting zero (0) items produced, can be handled by flagging the order as complete and posting the transaction. The technique commonly referred to as "back-flushing" will then be implemented by the system in this situation. Any transactions entered against the order after it is flagged as complete will be treated as over-production (see above).

Negative quantity transactions are also allowed by the system. You may enter negative quantities up to but not greater than the total quantity reported for the order to date. Regardless of the order's status, all quantity allocated and on-hand adjustments will be made automatically.

When processing Production Transactions for serialized end items, records are written to the Production Transactions and Serial/Lot Files simultaneously when answering **N** to the Any Changes? question at the bottom of the screen. If the **ESC** key is pressed at the Any Changes? question, these files are still updated. If the transaction is not desired, it must be deleted.

Elliott

Run Instructions

Select **Production Transaction Processing** from the pull down **BOMP Processing** window. The following screen will then be displayed:

```
Production Transaction Processing - [Elliott Demonstration Company]            _ □ X
Add  Change  Delete  List  Print label  eXit
  X                              10x20 Courier New  ▼


     1. Order No                        Order Status

        Item No


        Location

     2. Production Date

     3. Quantity

     4. Order Complete ?




NETcellent System, Inc. (32-bit)        005 RAH      BJL        BM1801
```

Production Transaction Processing Entry Screen

The following options are available:

* Select the desired mode from the **Production Transaction Processing** 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. Order No	6 numeric digits. Enter the number of the production order on which progress will be reported. The status, item number, description, location, and quantity remaining to be produced will be automatically displayed. In add mode, press the **F1** key to display the next production order number and its status information. In change mode, press the **F1** key to display the next production transaction.
Order Status	Automatically displayed.

Name	Type and Description
	The status of the order number will be displayed as new, work order printed, partially reported, or complete.
Item No	Automatically displayed.
	The number and description of the item being produced will be displayed.
Location	Automatically displayed.
	The location code and description of where the item is being produced will be displayed.
2. Production Date	A date in the standard date format.
	Enter the date the items being reported were produced. In add mode, press **RETURN** for the current date. In change mode, press the **F1** or **RETURN** key to display the next production transaction on file.
3. Quantity	8 numeric digits including 3 decimal places and an optional minus sign.
	Enter the quantity of items that are being reported as produced. This amount will automatically be deducted from the Qty Remaining field. If the quantity entered is greater than the quantity remaining, the user will be informed that this will over-produce the order and will be asked if this is Ok. A quantity of zero is allowed for the purpose of completing an order. A negative quantity is also allowed to reverse previously reported production.
	Default is the quantity remaining.
Qty Remaining	Automatically displayed.
	This is the difference between the quantity ordered and the quantity reported so far. When this quantity reaches zero, the order will be considered complete unless the user enters **N** in field #4. A negative quantity will be displayed if more items have been reported than were ordered.
4. Order Complete?	**Y** or **N**.
	If the order is considered complete, whether or not there is a quantity remaining, enter **Y**. If the order still has items to be produced, enter **N**. If there is any quantity remaining, the default is **N**. If quantity remaining is less than one, the default is **Y**.
	Note: If this flag is changed to **Y**, it may not be changed back to **N**. Also, the order will no longer appear on the **Production Schedule Report**.

The following entry will be requested when lot items are being produced.

Name	Type and Description
5. Lot Number	11 alphanumeric characters.
	15 alphanumeric characters if not using batch numbers in **BOMP Setup**.
	Enter the lot number of the item being produced. For more information on lot transactions, see the **Application Overview** section of the **Inventory Transaction Processing** application in the **I/M** manual.
6. Batch No	4 numeric digits.
	Enter the batch number of the item being produced.

Name	Type and Description
Exp Mo	2 numeric digits. (May not exceed 12) Enter the expiration month of the lot.
Yr	2 numeric digits. Enter the last two digits of the expiration year for the lot.

The following entry will be requested when serial items are being produced.

Name	Type and Description
Auto Increment Serial Number ?	**Y** or **N**. If **Y** is entered, the user will be prompted to enter a serial number and a starting batch number. The application will automatically assign serial numbers to all items being reported. The first item will have the starting batch number and each following serial/batch number will be incremented by one. If **N** is entered or if batch numbers are not specified in **BOMP Setup**, the user will be prompted to manually enter a serial number for each item. Default to **N**.
5. Serial Number	11 alphanumeric characters. 15 alphanumeric characters if not using batch numbers in **BOMP Setup**. Enter the serial number, which will be assigned, to the serialized item being produced. Entry is required.
6. Batch Number	4 numeric digits. Enter the batch number, which will be an extension of the item's serial number. Entry is required.

Production Transaction Edit List

Name	Type and Description
Starting Trx Date	A date in the standard date format. Enter the starting date for the range of production transactions to be printed. Defaults to **All**.
Ending Trx Date	A date in the standard date format. Enter the ending date for the range of production transactions to be printed. Defaults to the starting date.

Transaction Processing

Production Transaction Edit List

P R O D U C T I O N   T R A N S A C T I O N   E D I T   L I S T

Ranges: All Dates

Order No	Loc	Item No	Description	Quantity	Trx Date	Cmpl?	Job No	Serial/Lot Information
102	LA	PC-386	386 Personal Computer Customize During Order Entry	1.000	05/25/92	Yes		
104	LA	PC	Parent Item (Mother Board) Personal Computer	1.000	05/25/92	No		00000000A100022
104	LA	PC	Parent Item (Mother Board) Personal Computer	1.000	05/25/92	No		00000000A100023
104	LA	PC	Parent Item (Mother Board) Personal Computer	1.000	05/25/92	No		00000000A100024
104	LA	PC	Parent Item (Mother Board) Personal Computer	1.000	05/25/92	No		00000000A100025
104	LA	PC	Parent Item (Mother Board) Personal Computer	1.000	05/25/92	No		00000000A100026
104	LA	PC	Parent Item (Mother Board) Personal Computer	1.000	05/25/92	No		00000000A100027
104	LA	PC	Parent Item (Mother Board)	1.000	05/25/92	No		00000000A100028

Plus Work Order Production Transaction Entry

How to Access:
Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Process ➔ Production Transaction Processing
➔ Process ➔ Plus Work Order

(Figure 13) Production Transaction Processing for Plus Work Order

This is the traditional way to create, edit and delete production transactions. The operator needs to enter all the data of a transaction and is allowed to edit most of the fields, in most cases. If you are not planning to adopt the time clock system WO+ provides, you can always report production through this interface. Also, the Transaction Edit List can print out all the details of each transaction before they are posted. The list will print all warnings and errors a transaction would encounter during posting so a manager can correct them. Only some exceptions can be handled through this screen, like reversing a transaction or overriding a post exception.

What can be done here?
- Add a transaction.
- Edit a transaction. If the transaction was created through scanning, thus contained a production number, only certain fields can be modified.
- Delete a transaction. If the transaction was created through scanning, thus contained a production number, it cannot be deleted.
- Print the Edit List.
- Import transactions from a CSV file (not implemented yet).
- Create a reverse transaction from a posted transaction.
- If a transaction cannot be posted due to an exception, you can flag the transaction so the post program will override the exception.
- Change operation data.

Field Description

Name	Type and Description
1. Order No	6 numeric digits.

Name	Type and Description
	Enter the Work Order Number to report.
	F1 Key - In add mode, choose the next order number. In change and delete mode, choose the next transaction.
2. Operation No	4 numeric digits.
	Enter the operation number to report.
	F7 Key - Search for operation number.
3. Transaction Date	Standard date format
	Enter the date of the transaction.
	F4 Key - In add mode and if the operation has not been started, you can change the value of this operator, like Work Center, Default Labor Grade, etc.
	In change mode, press the **F1 Key** or leave this field blank and all transactions for this operation will be displayed. Enter a specific date and transactions reported on that date will be displayed.
	Defaults to the system date.
4. Operator ID	10 alpha-numeric characters.
	Enter the ID of the operator who reported this transaction. If an operator ID is given, the system will use the labor rate of this operator to calculate direct labor cost.
	The operator ID cannot be changed if this transaction was reported through scanning.
	F7 Key - Search Operator ID.
5. Qty Complete / Qty Received	Standard quantity format.
	Enter the quantity of pieces which are successfully processed for this operation.
	F2 Key - In change mode, change the issued material.
	F3 Key - In change mode, change the PO information for an outside process operation.
	F5 Key - In change mode, allow this transaction to override any exception that occurs during the post.
	F7 Key - In add mode, select a posted transaction from history to create a reverse transaction. The reverse transaction has the opposite values of that in the selected transaction for quantity, hour and cost.
	Defaults to the quantity completed from a previous operation, but not processed in the current operation.
Qty Scrapped / Qty Rejected	Standard quantity format.
	Enter the quantity scrapped during production. The operator cannot report scrap for Setup Operations.
	If this is an outside process operation in Add mode, the system will prompt for PO Information after the Rejected Quantity has been entered.

Name	Type and Description
	The default is zero.
6. Direct Labor Hrs	12 numeric digits with 6 decimal places and an optional minus sign.
	The direct labor hours used for this production. If this transaction was created manually, the system will calculate direct labor cost based on the time and operator's labor rate, if provided. If the operator ID is not provided, the system will use the standard direct labor rate defined in the Operation file.
	This field cannot be changed if the transaction was created through scanning.
	Defaults to the planned direct labor hours, which is calculated based on quantity and standard direct labor rate (Qty/Hrs, fixed hours, etc.).
7. Shared Labor Hrs	12 numeric digits with 6 decimal places and an optional minus sign.
	The shared labor hours used for this production. If this transaction was created manually, the system will calculate shared labor cost based on the time and standard shared labor rate defined in the Operation file.
	This field cannot be changed if the transaction was created through scanning.
	Defaults to the planned shared labor hours, which is calculated based on quantity and standard direct labor rate (Qty/Hrs, fixed hours, etc.).
8. Machine Hrs	12 numeric digits with 6 decimal places and an optional minus sign.
	The machine hours used for this production.
	This field cannot be changed if the transaction was created through scanning.
	Defaults to the planned machine hours, which is calculated based on quantity and standard machine rate (Qty/Hrs, fixed hours, etc.).
9. Order Complete?	"Y" or "N".
	Enter "Y" if this order is complete and is going to be closed. This field is only available if the transaction is for the last operation. The status of the order will be examined and if any error occurs, like when transactions are missing, the system will not allow the order to be closed.
	Default value is based on the order status. If all conditions are satisfied, the default is "Y".
10. Lot Information	If the parent item is a lot item and the transaction is for the last operation, the system will prompt for the lot information for the completed parent items.
	If the Serial/Lot Batch Number is used in BOMP (a flag in BOMP Setup), the system will prompt for 11 alpha-numeric characters for the Lot Number and 5 alpha-numeric characters for the Batch Number. Otherwise, the system will simply prompt for 15 alpha-numeric characters for the Lot Number.
	Also, the system will prompt for an expiration month and year.
Override Post Exception?	"Y" or "N".
	Indicate if the transaction should post if any exception occurs.
	This field cannot be directly accessed by entering a field number. The operator needs to press the F5 Key while in the quantity field. Also, the operator is required to have enough security to change this flag.

Name	Type and Description
	Defaults to "N".

Transaction Edit List Selection

(Figure 14) Production Transaction Edit List Selection

The Transaction Edit List can print out detailed information for each selected transaction. This includes any warnings or errors. You can print an edit list before posting and examine the statistics for any exception that might happen.

Name	Type and Description
Starting/Ending Order No	6 numeric digits. The range of order numbers to appear on the report. Defaults to **All**.
Starting/Ending Trx Date	A date in standard date format. The date range of the transactions to appear on the report.
Starting/Ending Work Center	6 alpha-numeric characters. The work center range to appear on the report. Defaults to **All**.
Location	2 alpha-numeric digits, with wildcard support. Select the production location.
Count Point	1 character. Select the operation type for the transactions. <u>Options:</u> M - Material Issue Point only. Y - Y Count Point only. B - Both Material Issue Point and Y Count Point only. Space - All. Defaults to **All**.

Name	Type and Description
Include Estimate Var?	"Y" or "N". Enter "Y" to print the cost variance for those operations which use estimated statistics, like labor hours per quantity, instead of standard statistics. Defaults to **"N"**.
Print Cost?	"Y" or "N". Enter "Y" to print the cost on the edit list. This flag is subject to several security flags and the BOMP Setup. If the operator is not authorized to view cost, this option will be not applicable. Defaults to "N".

Print Label

If labels are needed for the finished products, this program outputs an item number for the completed pieces in the selected range of work orders to a CSV file. For example, if 10 pieces of product in a work order are finished, this program will create 10 records in the CSV file. A barcode printing program, like Bartender, can be used to print the barcode labels from the CSV file. You can enable this feature and fine tune the parameters through the Barcode Printing Global Setup.

Report Additional Information

Issued Material Reporting

Materials will be used to manufacture parent items and they can be issued in certain operations based on the definition in each work order. Those operations which issue material are called Material Issue Points. In WO+, more than one operation can be a material issue point. For flexibility, even if an operation is not defined as a material issue point in the work order, you can still issue material in the operation. This might be a situation where the operator needs to return some materials when the order is complete. Also, material usage may be different between planning and production, therefore the operator can change the issued quantity or substitute material when reporting.

There are two modes to report material, Material Verification Mode and Material Confirmation Mode. You can switch from one mode to another though the BOMP Global Setup field 51, Enforce Material Verification in Production. The reporting screen will have two different modes.

(Figure 15) Issued Material Reporting Screen

How to bring up Issued Material Reporting?

Elliott will automatically pop up the Material Reporting screen when an operator is reporting for a material issue point. The screen will display all materials which are planned to be issued for this work order. At this point you can verify if the item number and quantity are correct.

Extra steps are required to bring up this screen if the operator wants to report issued material for an operation which is not a material issue point. This is available in Production Transaction Processing and Work Order Production.

If the operator is reporting production through Production Transaction Processing, the following steps are required:
1. In Add mode, populate every field for a transaction.
2. Select field 5, Qty Complete/Qty Received.
3. Press the **F2 Key** to bring up the Issued Material Reporting screen.
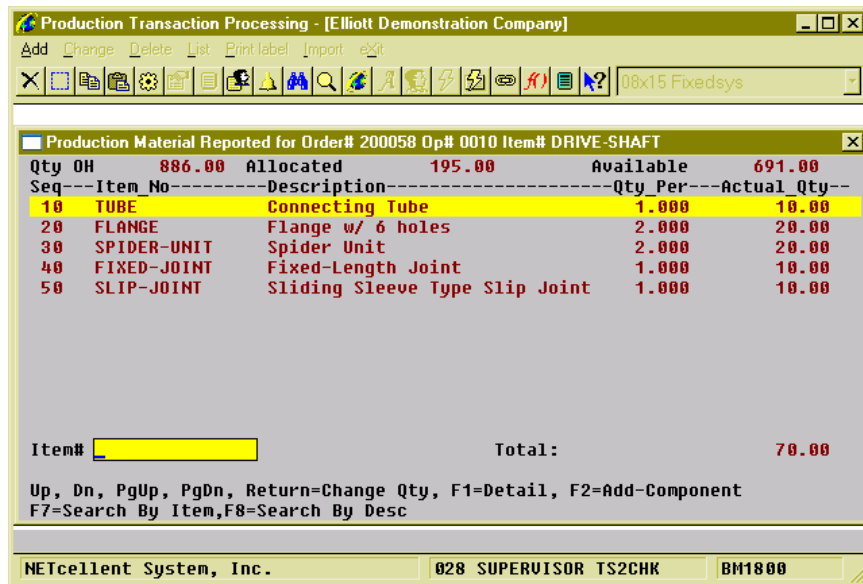
The following are required if reporting production through Work Order Production:
1. Enter a non-zero number in the Qty Completed field. The system will display "Production Reported" to the right of the quantity and prompt "Any Change?"
2. Answer "Y" to the question and cursor will move back to the Qty Completed field.
3. Press the **F5 Key** to bring up the Detail Reporting screen.
4. In the Qty Completed/Qty Received field, press the **F2 Key** to bring up the Issued Material Reporting screen.

Even if the operation is a Material Issue Point, the operator can use the same steps to bring up the Issued Material Reporting screen.

Depending on the BOMP Global Setup, the Issued Material Reporting screen can be one of two modes.

Material Confirmation Mode

(Figure 16) Issued Material Reporting. Confirmation Mode. Changing Material.

Setting BOMP Global Setup field 51, Enforce Material Verification in Production, to "N" will set this screen to Confirmation mode. In this mode, the system will display all materials based on the planned quantities in the work order bill of material and prompt, "Any change?" Respond with "N" to issue material based on this list. Otherwise the system will bring up the next stage, Change mode.

In Change mode, you can change the actual issued quantity and add substitute components. The first prompt is for an item number. Now the following can be performed in this screen:

- Press the **Up** or **Down Arrow Keys** to move the highlight bar. Press **Page Up** or **Page Down** to change to scroll a page at a time.
- Press the **Enter Key** to change Actual Issued Quantity for the highlighted component.
  - o A positive quantity means issue material with this amount.
  - o A zero quantity means the material is not used.
  - o A negative quantity means the components are being returned to stock. This is useful when the order is complete and there are some components left.
- Press the **F1 Key** to view and change the material detail. The detail includes material location and actual issued quantity.
- Press the **F2 Key** to add substitute material.
- Press the **F7 Key** or **F8 Key** to search the Item file.
- Enter a valid **Item Number**, **UPC** or **GTIN**.
  - o If the item is in the list, the system will move the cursor to that item and ask the operator to change the actual issued quantity.
  - o If the item is not in the list, the system will allow the operator to add the item as substitute material to the list.

Press the **Escape Key** to exit the screen.

Material Verification Mode

(Figure 17) Issued Material Reporting. Verification Mode.

Setting BOMP Global Setup field 51, Enforce Material Verification in Production, to "Y" will bring up this screen in Verification mode. In this mode, the operator needs to enter through every component required for this work order before exiting the screen. Therefore, the Confirmed Quantity of each component defaults to zero.

Verify through Accumulation

Each time an operator enters an item number, the system will accumulate the confirmed quantity of that component. If 10 pieces of one component are used during the production, the operator can enter the item number 10 times. The system not only accepts the Item Number, but the UPC or GTIN can be entered if they are defined.

Quantity to Accumulate

Each time the item number or UPC is entered, the system will accumulate the confirmed quantity by one. However, you can define this quantity to be the product of the **Package/Box Quantity** and **Quantity in Advance** for each entry. **Package/Box Quantity** is the quantity of a component packaged in one box. For example, the component TUBE in Figure 32 is packaged 5 per box (see Box Qty: 5) and scanning the barcode on the box confirms 5 pieces. The Package/Box Quantity is defined in the Item Master file and a BOMP Global Setup defines which field represents the package/box quantity. If the GTIN is scanned, the system will use the package quantity defined in the GTIN. **Quantity in Advance** is the number of component units to report. Figure 32 is configured to report 2 boxes of TUBE (see X This Qty: 2), so when the item is scanned the confirmed quantity of this component will accumulate 10 pieces.

(Figure 18) Issued Material Reporting. Verification Mode. Reporting

Scan and Manual Entry

The system will record which input method is used to verify these components, **Scan** or **Manual Entry**. If the barcode tag on each component is scanned for a component, the system sets entry method for that component to Scanned and an "**S**" will be displayed on the right side of the line (see the FLANGE line in Figure 33). If the confirmed quantity is modified, the line is considered a Manual entry and an "**M**" will be displayed on the right side of the line (see the TUBE line in Figure 33). When a UPC or GTIN is used, the system always considers it as scanned. Overriding the quantity is always considered a manual entry. Whether the item number is manually entered or scanned is defined in the BOMP Global Setup.

Exceptions

Exceptions can occur when verifying materials. Verifying too few or when a substitute material is to be used, the system will prompt for a supervisor password. Enter the correct password to override this exception. The BOMP Global Setup defines which actions are exceptions.

Functionality

During verification, the cursor always begins at the Item Number field. Several options are available:

- Press the **Up** or **Down Arrow Key** to move the highlight bar. Press **Page Up** or **Page Down** to scroll a page at a time.
- Scan an **UPC** or **GTIN Barcode**. The system will accumulate the confirmed quantity of the corresponding component. The system always considers this action as a scan.
- Scan or type in the **Item Number**. The system will accumulate the confirmed quantity of the corresponding component. The system will consider this action as a scan or manual entry based on the BOMP Global Setup.
- If the BOMP Global Setup field "Enter Qty Before or After" is set to "A" for After, the Qty in Advance field can be changed after the item number has been entered.
- If the BOMP Global Setup field "Enter Qty Before or After" is set to "B" for Before, the quantity can be entered in the Item Number field. If a quantity is entered, the system will use the quantity as Qty in Advance. This quantity can only be a limited length integer.
- Press the **F7 Key** or **F8 Key** to search the Item file.
- Press the **F1 Key** to view component detail.
- Press the **F2 Key** to add substitute material. When substitute material is added, the confirmed quantity will be set to zero and a quantity needs to be confirmed for this material.
- Press the **F3 Key** to directly accumulate for the highlighted component. This is always considered a manual entry. It may be an exception if defined as so in the BOMP Global Setup.

- Press the **F4 Key** to change Quantity in Advance.
- Press the **F5 Key** to directly change the confirmed quantity. This is always considered a manual entry. This is the only way to enter a negative quantity for the confirmed quantity.
    - A positive confirmed quantity means you are issuing material.
    - A quantity of zero means the material is not used.
    - A negative quantity means the components are being returned to stock. This is useful when the order is complete and some components are left.
- Press the **Escape Key** to exit verification. If any component is under-verified or over-verified, the system will display a warning.

PO Information

If an operation is an outside process, the system will prompt for PO related information about the production. This will happen in the Work Order Production interface when production starts and when production is reported.

```
Outside Process Additional Info

  1. PO #       000017-00
  2. PO Line#   1      PAINTING
  3. Vendor#    001200 Castings Inc.
  4. Receiver                 Ordered  20.00
  5. Inv/Doc # 100075        Received  0.00
     Comment   For Painting

Any Change ? N
```
(Figure 19) Outside Process Information

Field Description

Name	Type and Description
1. PO #	The standard PO format is used if the PO package is on. If the PO package is off, the format is 10 alpha-numeric characters. The purchase order number of the outside process. This can be blank. If the PO package is on, this should be an existing PO but not a blanket PO.
2. PO Line #	3 numeric digits. The purchase order line number for the PO of this outside process. This field is available if a PO number is entered. If the PO package is on, the item number for this line item should not exist in the item file.
3. Vendor#	6 alpha-numeric characters. The vendor number of this outside process. This field is available to change if the PO number is not entered or the PO package is off. Otherwise, it should be the same as the vendor number in the purchase order.
4. Receiver	3 alpha-numeric characters. Receiver of the outside process.
5. Inv/Doc #	8 alpha-numeric characters. Invoice Number or Document Number of the outside process. If the PO package is on, a valid invoice/document number should be entered. If the invoice/document does not exist, the system will create a new one and prompt for a comment for the record.

If the PO package is on, there are some benefits to linking a BOMP transaction to a PO line item.
- You can reference the data in BOMP back to Purchase Order.
- If the BOMP Global Setup field 36, Copy PO FOB Cost to WO+ Outside Process, is "Y", the system will use the FOB cost in the PO to calculate the outside process cost instead of that defined in order routing.
- If the BOMP Global Setup field 37, Update PO Receiving thru WO+ Outside Proc Rpt, is "Y", the system will automatically create a PO Receiving Transaction for the PO when the BOMP

transaction is posted. However, the system will not allow a greater quantity to be received for the item than listed on the PO.

Follow the instructions below to change this information after the transaction is created.

Use the following steps when reporting production through Production Transaction Processing:
4. In Add mode, populate every field for the transaction.
5. At Field Number, enter 5 for the "Qty Complete/Qty Received" field.
6. Press the **F3 Key** to bring up the Outside Process Additional Information screen.

Use the following steps when reporting production through Work Order Production:
5. Enter a non-zero number in the Qty Completed field. The system will display a "Production Reported" literal to the right of the quantity and prompt "Any Change?"
6. Answer "Y" and the cursor will move back to the "Qty Completed" field.
7. Press the **F5 Key** to bring up the Detail Reporting screen.
8. In the "Qty Completed/Qty Received" field, press the **F3 Key** to bring up the Outside Process Additional Information screen.

All fields can be left blank for this transaction.

Serial Number

A serial number will need to reported for serialized parent items or components when the serial number system is in use.

Serial Number for a Parent Item

(Figure 20) Parent Item Serial Number Report

After every field of the transaction has been entered for the last operation, the system will pop up a screen to let the operator enter the serial numbers for the newly created serialized parent items. They will need to be entered one by one. If 10 pieces are reported, 10 serial numbers should be entered as well. The transaction will be aborted if enough serial numbers are not reported.

Serial Number for Components

The Issued Material Reporting screen is used to report a serial number for an issued serialized component. The screen appears different for Confirmation mode and Verification mode. In Confirmation mode, the system will display an asterisk (*) for components in which serial numbers have not been reported (see Figure 36). Press Enter on this item and the Serial Number Reporting screen will pop up after entering the actual quantity. In Verification mode, the system will pop up a screen to enter serial numbers one by one after a valid item number has been entered. The quantity of issued materials is always the same as the number of serial numbers reported.

(Figure 21) Component Serial Number Report, Confirmation Mode

(Figure 22) Component Serial Number Report, Verification Mode

Lot Number

Lot Number for Parent Item

Reporting production for a parent lot item on the last operation will prompt for lot information. In the Work Order Production interface, the system will pop up a Lot Information screen after entering an amount in the Qty Completed field.

(Figure 23) Lot Number reporting in Work Order Production

Name	Type and Description
Lot Number	If Batch Number is not used, this is 15 alpha-numeric characters. Otherwise, it is 11 alpha-numeric characters. Lot Number for the finished parent item.
Batch Number	4 numeric digits. Batch number of the finished lot items. The system will combine the batch number (4 digits) and lot number (11 digits) into a 15 character lot number. Only available if BOMP Setup field 10, Use Serial/Lot Batch Numbers, is set to "Y".
Exp Mo	2 numeric digits. Must be a valid month. Month when the lot item expires.
Yr	2 numeric digits. Year when the lot item expires.

Elliott

<u>**Lot Number for Components**</u>

The lot number of issued lot items needs to be reported. It does not need to be reported immediately when reporting material.   Another process is used to report these lot numbers: Issue Serial/Lot Component Items.

How to Access:
Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Processing ➔ Issue Lot/Serial Component Items

```
Issue Serial/Lot Component Items - [Elliott Demonstration Company]
Issue  eXit

     * Order No              200059
     * Parent Item No        DRIVE-SHAFT LTD   Drive Shaft Limited Edition
     * Component Item No      ELLIOTT-STICKER  "powered by Elliott"
     * Location               LA Los Angeles
     * Purchase Order No      BM200059
     * Customer No
     * Order Date             08/23/10
     * Quantity               1.00

     1. Lot No

             *** Issue Records From Serial/Lot File ***

F7 = Search By Lot No
NETcellent System, Inc.          029 SUPERVISOR TS2CHK      BM2201
```

(Figure 24) Issued Serial/Lot Component Items

Each time a work order is selected, the system will bring up one component issued for the work order and the lot number for the component can be reported.

Engineering Change Processing

Application Overview

The **Engineering Change Processing** application allows the user to make modifications to a product structure without immediately implementing those changes in the production process. Modifications are stored in a separate file until the **Post Engineering Changes** application is run. At that time, the user may specify which changes are to be made to the Product Structure File.
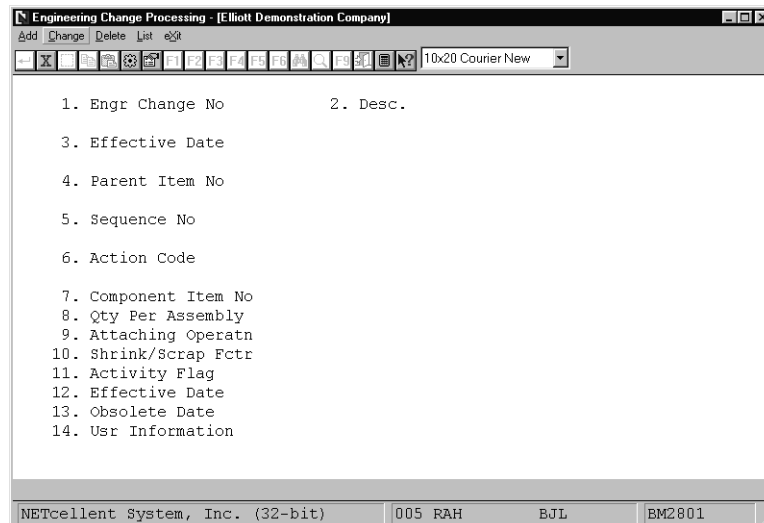
Before they are posted, engineering changes may be changed, deleted, and/or printed on the Engineering Change Edit List. After posting, engineering changes may be printed using the **Engineering Change History Report** application.

When making an engineering change, the user will be prompted to enter the parent item number of the product structure to be modified. This is followed by a brief description of what the change involves or any other relevant information that the user wants to be printed on the edit list and **Engineering Change History** report. The user will then be prompted to enter a sequence number. Components will display and print according to this sequence number. If the sequence number entered already exists in the product structure, the user may choose to either change or delete it. If the sequence number is new, it must be added to the product structure before it can be modified. The user may then enter specific

information related to the component item. For more information on product structures, consult the **Product Structure File Maintenance** application section of this manual.

Run Instructions

Select **Engineering Change Processing** from the pull down **BOMP Processing** window. The following screen will then be displayed:

```
 [N] Engineering Change Processing - [Elliott Demonstration Company]        _ □ ×
 Add  Change  Delete  List  eXit
 _ X  ▯ ▯ ▯ ◎ ▯ F1 F2 F3 F4 F5 F6 ▯ ▯ F9 ▯ ▯ ▯  10x20 Courier New  ▼


       1. Engr Change No          2. Desc.

       3. Effective Date

       4. Parent Item No

       5. Sequence No

       6. Action Code

       7. Component Item No
       8. Qty Per Assembly
       9. Attaching Operatn
      10. Shrink/Scrap Fctr
      11. Activity Flag
      12. Effective Date
      13. Obsolete Date
      14. Usr Information



 NETcellent System, Inc. (32-bit)      005 RAH      BJL      BM2801
```

Engineering Change Processing Entry Screen

The following options are available:

* Select the desired mode from the **Engineering Change Processing** menu bar.
* Enter the data requested on the screen.

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

Entry Field Descriptions

Name	Type and Description
1. Engr Change No	6 numeric digits. Enter the engineering change number. In add mode, press the **F1** key to bring up the next engineering change number on file.

Name	Type and Description
2. Desc.	3 lines of 30 alphanumeric characters each. Enter a description of the engineering change. This description will be printed on the Engineering Change Edit List and the Engineering Change History Report. A blank description is not allowed.
3. Effective Date	A date in the standard date format. Enter the date on which the engineering change should become effective. **Note**: Engineering changes do not affect product structures until posted in the **Post Engineering Changes** application. Default is the current date.
4. Parent Item No	15 alphanumeric characters. Enter the parent item number whose component will be affected by the engineering change. In add mode, press the **F7** key to search by item number or press the **F8** key to search by item description.
5. Sequence No	3 numeric digits. Enter the sequence number, which will be used with the parent item number in this product structure record. The sequence number may not be zero and a parent may not have records with the same sequence number. In add mode, press the **F1** key to search for the next available sequence number in the product structure. Press the **F7** key to search existing components. In change mode, press the **F1** key to search for sequence numbers already on file for this engineering change. Press the **F7** key to search for existing components, or the **F8** key to search for engineering changes.
6. Action Code	1 alphabetic character. Enter the action code representing what is to be done to this particular sequence number. The user may enter one of three values: **A** = Add **C** = Change **D** = Delete If the sequence number already exists in the product structure, it may only be changed or deleted. If the sequence number is new to the product structure, it may only be added.
7. Component Item No	15 alphanumeric characters. Enter the item number of the component to be linked to the sequence number. If the sequence number already exists in the product structure, the item number and description will display automatically. The user may change the item or leave it alone. Press the **F7** key to search for an item by number, or press the **F8** key to search for an item by description.
8. Qty Per Assembly	10 numeric digits with 6 decimal places and an optional minus sign (9999.999999-). Enter the quantity per assembly for this product structure record. This is the number of component items needed to make one parent. Entry is not required.
9. Attaching Operatn	4 numeric digits.

Name	Type and Description
	Enter the number of the operation in this parent's routing where this component is to be used or attached.
10. Shrink/Scrap Fctr	4 numeric digits including 1 decimal place (999.9). Enter the percentage of the component which is anticipated to be lost due to scrap, shrinkage, etc.
11. Activity Flag	1 alphanumeric character. Enter the desired value for the component's activity flag. This flag can have one of three values: **A** = Active **F** = Forecasted **O** = Obsolete An active item is one currently in use or being sold to customers. A forecasted item is one, which is forecasted to be active in the near future. An obsolete item is one which is no longer a standard part, though there may still be a supply of the item on hand which can be sold or used in other manufacturing processes.
12. Effective Date	A date in the standard date format. Enter the effectivity date for this component. If the item has no effectivity date, this field may be left blank. If the item is forecasted, this is the date the item should become active.
13. Obsolete Date	A date in the standard date format. Enter the obsolete date for this component. If the item has no obsolete date, this field may be left blank. If the item is active, this is the date the item should become obsolete.
14. Usr Information	6 alphanumeric characters. The name for this field may be defined by the user in the **BOMP Setup** application. The field can be used for any purpose the user desires. This field is not displayed if the user-defined field in **BOMP Setup** is blank.
F6 = Reference Designator	3 lines of 60 alphanumeric characters each. This field can be used to show a routing of a component item. It will be printed on work orders and may be printed on several reports.

Engineering Change Edit List

Name	Type and Description
Starting Change No	6 numeric digits. Enter the starting engineering change number for the range of engineering changes to be printed. Defaults to **All**.
Ending Change No	6 numeric digits.

	Enter the ending engineer change number for the range of engineering changes to be printed. Defaults to the starting engineering change number.
Effective Date Cutoff	A date in the standard date format. Enter the cutoff date for the range of engineering changes to be printed. Only engineering changes with effective dates on or before the date entered will be printed. Defaults to **All**.

Engineering Change Processing

Elliott

```
┌─────────────────────────────────────────────────────────────────────┐
│ Engineering Change Processing - [Elliott Demonstration Company]  _□X │
│ Add │ Change │ Delete  List  eXit                                     │
│ ←│X│▣│▤│▩│❂│▤│F1│F2│F3│F4│F5│F6│▤│▤│F9│▤│▤│■│▷? │10x20 Courier New │▼│ │
│                                                                       │
│     * 1. Engr Change No  9002    2. Desc.  CPU Information change. May │
│                                            redirect operation option if│
│       3. Effective Date  04/27/92          necessary. Status is optional.│
│                                                                       │
│     * 4. Parent Item No  PC                Parent Item (Mother Board) │
│                                            Personal Computer          │
│     * 5. Sequence No      10               Unit Of Measure EA         │
│                                                                       │
│       6. Action Code      C                                           │
│                                                                       │
│       7. Component Item No   CPU           Mother Board For Parent    │
│       8. Qty Per Assembly    1.000000      Central Processing         │
│       9. Attaching Operatn   30            Unit Of Measure EA         │
│      10. Shrink/Scrap Fctr   0.0                                      │
│      11. Activity Flag       A                                        │
│      12. Effective Date                                               │
│      13. Obsolete Date                                                │
│      14. Usr Information      UserIn                                  │
│                                                                       │
│   F6 = Reference Designator                                           │
│   Field Number ?  │   │                                               │
│─────────────────────────────────────────────────────────────────────│
│   NETcellent System, Inc. (32-bit)      │005 RAH     BJL    │BM2801  │
└─────────────────────────────────────────────────────────────────────┘
```

Sequence Number Selection

E N G I N E E R I N G   C H A N G E   E D I T   L I S T

Ranges: All Changes
        All Dates Printed

Change No	Change Description	Parent Item	Parent Description	Effective Date
9002	CPU Information change. May redirect operation option if necessary. Status is optional.	PC	Parent Item (Mother Board) Personal Computer	04/27/92

Seq	Action	Component Item	Qty Per	Um	Component Description	Llc	Attch	Scrap	Act	Stk	Ctl	P/M	Eff Date
10	C	CPU	1.000000	EA	Mother Board For Parent Central Processing CPU 386 operation position 30. Maintain inspection status for sub-assembly CPU. Operation position is portable as needed. Inspection operation may need additional queue.	1	30	.0	A	Y	Y	M	00/00/00

1 Changes Printed

This Page Intentionally Blank

Post Production Transactions

Application Overview

The **Post Production Transactions** application updates inventory levels of component and parent items based on production reported in the **Production Transaction Processing** application. Specifically, it adjusts the Quantity On Hand and Quantity On Order fields for produced items and the Quantity On Hand and Quantity Allocated fields for component items in the Inventory Item File.

Appropriate distributions are also created in the I/M Distribution To G/L File. Normal transaction processing will generate credits for the work-in-process account (if WIP was selected when work orders were printed) and debits for the appropriate finished goods asset account. Over-production reporting, or not setting the **Increase WIP?** flag to **Y** when printing production work orders, will result in the creation of credits for the asset accounts associated with the feature option and/or component items and a debit to the finished good asset account.

A transaction posting which completes an order prior to fulfilling the entire order quantity (under-production) will cause the creation of debits to the asset accounts for the appropriate feature options and/or components along with an offsetting credit to the work-in-process account. For more information on over-production and under-production see the **Production Transaction Processing** section of this manual.

During Posting, the application will create standard cost variance distributions in **G/L** if **I/M Setup** is set for standard costing. Distributions will only be created for production transactions where a discrepancy exists between the standard cost of the finished good and the sum of the components costs, and only if a purchase price variance account number has been entered in the Material Cost Type/Loc file for the material cost type of the finished good.

Before posting, it is recommended to print the edit list in the **Production Transaction Processing** application to verify exactly what transactions are on file. When a posting is performed, the system prints a journal of all transactions that were posted.

Run Instructions

Select **Post Production Transactions** from the pull down **BOMP Processing** window. The following screen will then be displayed:
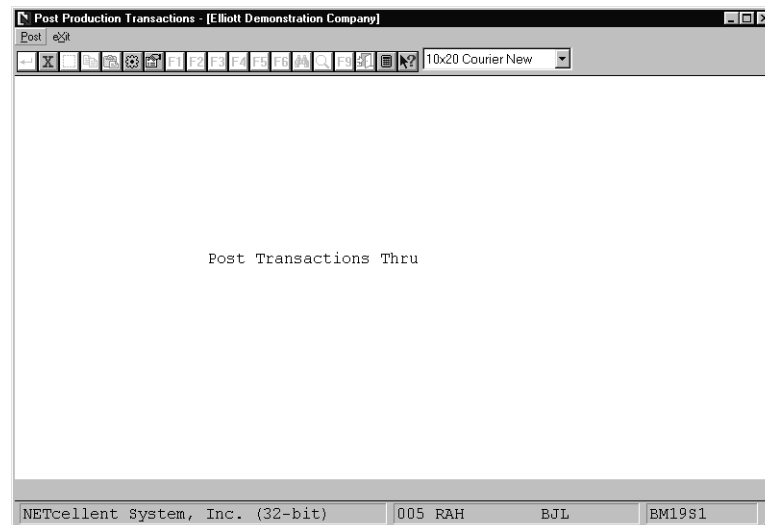
Post Production Transactions Entry Screen

The following options are available:

* Select the desired mode from the **Post Production Transactions** 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
Post Transactions Thru	A date in the standard date format. Enter the cutoff date for transactions to be posted. Only transactions with production dates on or before this date will be posted. Defaults to the system date.

```
 Post Production Transactions - [Elliott Demonstration Company]                    _ □ ×
 Post   eXit
 ← X □ ▣ ▣ ⚙ ▣  F1 F2 F3 F4 F5 F6 ▦ ⚲ F9 ▣ ▤ ▨  10x20 Courier New    ▼




                        Post Transactions Thru   05/01/00




 NETcellent System, Inc. (32-bit)        005 RAH      BJL       BM19S1
```

Post Production Transactions

```
                P R O D U C T I O N   T R A N S A C T I O N   R E G I S T E R

Ranges: Thru 12/01/92

Order No Loc Item No    Description             Quantity Trx Date  Cmpl? Job No  Serial/Lot Information
     102 LA  PC-386     386 Personal Computer    1.000   05/25/92  Yes
                        Customize During Order Entry

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100022
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100023
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100024
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100025
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100026
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100027
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100028
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100029
                        Personal Computer

     104 LA  PC         Parent Item (Mother Board)  1.000 05/25/92  No          00000000A100030
                        Personal Computer
```

Immediate Posting

If the transactions do not need to be reviewed, you can post the production immediately after creating it.

This needs to be enabled in BOMP Global Setup in fields 4, Enable Immediate Production Trx Posting, and 21, Immediately Post Completed Scan Trx for +WO. The first turns on the feature in the Production Transaction Processing screen and the second enables the feature in Work Order Production.

With this feature enabled, you will be prompted with "Do You Want To Post Immediately" once you have finished reporting a transaction. Selecting "Yes" will bring up the Print Options window for the post journal destination.
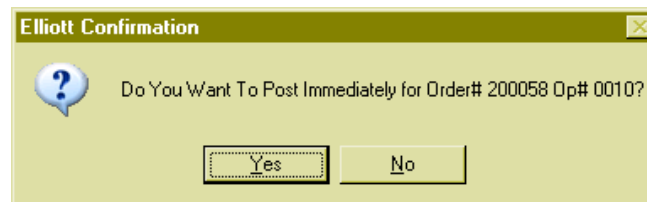
(Figure 25) Immediate Posting Confirmation

The system will provide a warning and solution if an exception occurs. If the exception is not handled, the system will not post the transaction immediately. Review the exceptions in the transaction edit list and correct them or override all exceptions before posting again.

If the transaction will close the order, the system will post all transactions of the order.

Elliott

Batch Posting

Transactions can be reviewed through the edit list before posting them as a batch. The post will allow you to select a range of work orders, dates, work centers and locations of the transactions, as well as the level of detail to print on the journal.

How to Access:
Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Processing ➔ Posting Production Transactions ➔ Post ➔ Plus Work Order

(Figure 26) Batch Post Transaction Routine

Field Description

Name	Type and Description
Starting/Ending Order No	6 numeric digits.
	The start and end of the range of order numbers. Defaults to **All**.
Post Transactions Thru	A date in the standard date format.
	Selects transactions with a transaction date on or before this date.
	Defaults to the system date.
Starting/Ending Work Center	6 alpha-numeric characters.
	The start and end of the range of work centers. Defaults to **All**.
Location	2 alpha-numeric digits with wildcard support.
	Select the production location.
Print Cost?	"Y" or "N".

Name	Type and Description
	Enter "Y" to print cost on the post journal. This flag is subject to several security flags and BOMP Setup. If the user is not authorized to view cost, this option will not be available. Defaults to "N".
Print Cost Detail?	"Y" or "N". Enter "Y" to print cost detail on the post journal. This cost details how the system calculates production cost in the Y Count Point. The system will list cost distributed from each operation and material. Default to "N".

Once a transaction is posted, it cannot be changed. However, WO+ provides a way to fix a bad transaction if it may cause serious problems. A transaction can be created with the opposite value of one posted. This transaction is called a **Reverse Transaction** and can be created in the Production Transaction Processing screen. This transaction will attempt to reverse most of the changes made by the bad transaction, including quantity, hours, distributions, and materials. However, it cannot recover 100% of the data to the status before the post due to the complexity of the transactions. For example, it cannot recover changed average cost and last cost, issued serial number or printed transfer batch. You should avoid using this often, but it can be used to deal with serious problems.

This Page Intentionally Blank

Post Engineering Changes

Application Overview

The **Post Engineering Changes** application transfers engineering changes from the Change File to the Product Structure File. This enables the user to design modifications to a product structure long before they are to be implemented. The Product Structure File itself (and therefore the production process) is not altered until the changes are posted through this application. Changes to be posted may be selected by entering a range of engineering change numbers and/or by setting a cutoff date for the effective date assigned to each change by the user. The application will flag changes that are inconsistent with the current product structures. Despite this, it is recommended to print out the edit list in **Engineering Change Processing** before posting.

Run Instructions

Select **Post Engineering Changes** from the pull down **BOMP Processing** window. The following screen will then be displayed:
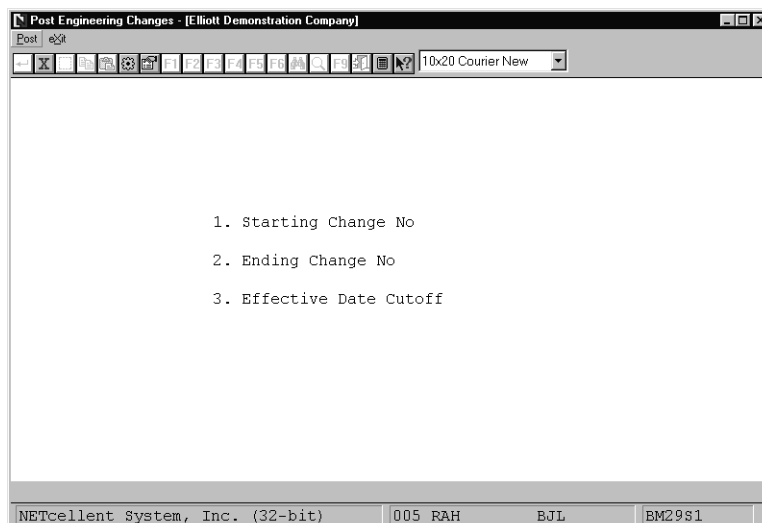
Post Engineering Changes Entry Screen

The following options are available:

> *   Select the desired mode from the **Post Engineering Changes** 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 Change No	6 numeric digits. Enter the starting engineering change number for the range to be posted. Defaults to **All**.
2. Ending Change No	6 numeric digits. Enter the ending engineering change number for the range to be posted. Defaults to the starting change number.
3. Effective Date Cutoff	A date in the standard date format. Enter the cutoff date for the range of engineering changes to be posted. Only changes whose effective dates (set in **Engineering Change Processing** application) fall on or before this date will be posted. Defaults to the current date.

```
┌─ Post Engineering Changes - [Elliott Demonstration Company] ──────── _ □ × ┐
│ Post  eXit                                                                  │
│ ←│X│□│▣▣▧│▤│F1│F2│F3│F4│F5│F6│▥│Q│F9│▨│▤│▶? 10x20 Courier New   ▼          │
│                                                                             │
│                                                                             │
│                                                                             │
│                                                                             │
│                                                                             │
│                                                                             │
│                 1. Starting Change No     All                              │
│                                                                             │
│                 2. Ending Change No                                        │
│                                                                             │
│                 3. Effective Date Cutoff   05/01/00                        │
│                                                                             │
│                                                                             │
│                                                                             │
│                                                                             │
│                                                                             │
│                                                                             │
│ Field Number ? □                                                           │
│ NETcellent System, Inc. (32-bit)    │005 RAH      BJL      │BM29S1         │
└─────────────────────────────────────────────────────────────────────────────┘
```

Post Engineering Changes

E N G I N E E R I N G   C H A N G E   R E G I S T E R

Ranges: All Changes
       Thru Effective Date 12/01/92

Change No	Change Description	Parent Item	Parent Description	Effective Date
9002	CPU Information change. May redirect operation option if necessary. Status is optional.	PC	Parent Item (Mother Board) Personal Computer	04/27/92

Seq	Action	Component Item	Qty Per	Um	Component Description	Llc	Attch	Scrap	Act	Stk	Ctl	P/M	Eff Date	Posting Note
10	C	CPU	1.000000	EA	Mother Board For Parent Central Processing	1	30	.0	A	Y	Y	M	00/00/00	Changed

                                   CPU 386 operation position 30. Maintain inspection status
                                   for sub-assembly CPU. Operation position is portable as
                                   needed. Inspection operation may need additional queue.

  1 Changes Posted

This Page Intentionally Blank

Copy COP Orders Into BOMP

Application Overview

The **Copy COP Orders Into BOMP** application allows the user to import orders for **Feature Items** entered in **Customer Order Processing**. Copied orders are automatically converted into production orders and may be sent through the production process as if they had been entered in **Production Order Entry**.

Once copied, an order from **COP** may be viewed via the **Production Order Entry** application but may not be changed. Until a work order has been printed or production has been reported, an order may still be changed or deleted in **COP**. For more information on production of feature items see **Feature Item Processing** in this manual's **Package Overview** section.

When they are copied, **COP** orders will be assigned the next sequential production order number. The **COP** order number, as well as the customer's name and number will be retained for reference on the generated **BOMP** production order.

A report listing the details of all copied orders will be created automatically when the application is run.

Note: COP Orders copied into **BOMP** must be new orders (ie. may not be selected for invoicing, etc.). The Quantity On Order field for the feature item will be the only Item File inventory level affected because **COP** automatically allocates controlled components when orders are entered.

Run Instructions

Select **Copy COP Orders Into BOMP** from the pull down **BOMP Processing** window. The following screen will then be displayed:

Copy COP Orders Into BOMP Entry Screen

The following options are available:

* Select the desired mode from the **Copy COP Orders Into BOMP** 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 COP Order No	6 numeric digits. Enter the starting **COP** order number for the range of orders to be copied. Defaults to **All**.
2. Ending COP Order No	6 numeric digits. Enter the ending **COP** order number for the range of orders to be copied. Defaults to the starting order number.
3. Request Date Cutoff	A date in the standard date format. Enter the cutoff date for the range of orders to be copied. Only **COP** orders with request dates (set in the **COP Order Entry** application) on or before this date will be copied. Entry is required.

Copy COP Orders Into BOMP

B O M P   O R D E R S   F R O M   C O P   R E P O R T

Ranges: All Orders
       Thru 02/26/92

Order No	Loc	Item No	Description	Quantity	Unit Price	Unit Cost	Due Date	Job No	COP Order No
111	LA	PC-386	386 Personal Computer Customize During Order Entry	2.00	2,690.9000	1,391.7500	02/24/92		001005 001

Ftr	Feature Description	Opt	Option Item	Description	Unit Price	Unit Cost
001	Adv Box HDps 8 Exp 32 5-16 2-8	002	BOX-386-2	Adv Box HDps 8 Exp 32 5-16 2-8	499.0000	401.0000
002	16 Mhz 6 Meg Motherboard Opt	004	MEM-MHZ-4	16 Mhz 6 Meg Motherboard Opt	276.0000	211.0000
003	NEC Multisync 4DS VGA Monitor	003	MON-NEC-3	NEC Multisync 4DS VGA Monitor	985.0000	5.6500
004	Fujitsu FKB-4700 Keyboard	003	KBD-FUJ-1	Fujitsu FKB-4700 Keyboard	56.9500	40.0000
005	SPL 2 Serial 1 Parallel W/Game	002	PRT-386-2	SPL 2 Serial 1 Parallel W/Game	150.0000	128.0000
006	5 1/4 HD - 3 1/2 HD Option	003	FLP-DSK-3	5 1/4 HD - 3 1/2 HD Option	99.0000	69.0000
007	Seagate ST1102A 89 MB	002	HDK-SEA-2	Seagate ST1102A 89 MB	305.0000	260.0000
008	Cardinal 2400 Baud Internal	001	MDM-CRD-1	Cardinal 2400 Baud Internal	83.0000	70.0000
009	OmniMouse 3-Button Ball Serial	003	MOU-OMN-3	OmniMouse 3-Button Ball Serial	49.9500	41.1000
010	MS Version 5.0 DOS Package	003	DOS-MSF-3	MS Version 5.0 DOS Package	215.0000	188.0000

This Page Intentionally Blank

Issue Serial/Lot Component Item

Application Overview

The **Issue Serial/Lot Component Item** application should be run after posting production transactions. This application will allow the issue of serial/lot components from the Serial/Lot File, and will ask for a serial/lot number to be used for the component. When the entry has been accepted, records will be updated in the Serial/Lot Transaction File.

Run Instructions

Select **Issue Serial/Lot Component Items** from the pull down **BOMP Processing** window. The following screen will then be displayed:


```
Issue Serial/Lot Component Items - [Elliott Demonstration Company]
Issue  eXit




        * Order No
        * Parent Item No
        * Component Item No
        * Location
        * Purchase Order No
        * Customer No
        * Order Date
        * Quantity

        1. Serial No




NETcellent System, Inc.          003 SUPERVISOR JOE        BM2201
```

Issue Serial/Lot Component Items Entry Screen

The following options are available:

* Select issue option from the **Issue Serial/Lot Component Items** 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
* Order No	6 numeric digits (999999). This is the order number from which the Serial/Lot components are to be issued. Press the **F1** key for the first order on file.
* Parent Item No	15 alphanumeric characters. This is the item which was entered as the production order line item. Display only.
* Component Item No	15 alphanumeric characters. This is the Serial/Lot component which has to be assigned a Serial/Lot number and issued from the Inventory Lot/Serial Transaction File. Display only.
* Location	2 alphanumeric characters. This is the location the Serial/Lot component will be issued from. This is also the order location. Change is not allowed to this field.
* Purchase Order No	8 alphanumeric characters. This is the package where the order originated (eg. BM = **BOMP**, CP = **COP**) followed by the original order number. Change is not allowed to this field.
* Customer No	6 alphanumeric characters. If the order was copied from **COP**, this will display the customer's number and name. If the order was entered in the **Production Order Entry** application, the field will be blank. Display only.
* Order Date	A date in the standard date format. This is the date the order was made. Display only.
* Quantity	This is the quantity of Serial/Lot components that needs to be issued for this order. Display only.

For Serial Components

Name	Type and Description
1. Serial Number	15 alphanumeric characters. This is the serial number of the component, which needs to be issued from the Inventory Lot/Serial Transaction File. Press the **F7** key to search by serial numbers.

For Lot Components

Name	Type and Description
1. Lot Number	15 alphanumeric characters.

		This is the lot number of the component, which needs to be issued from the Inventory Lot/Serial Transaction File. The entry of this field will be requested until the quantity is equal to 2000. Press the **F7** key to search by lot numbers.
2.	Exp Month	2 numeric characters. The entry of this field is required only if the quantity field is negative and the lot record does not exist in the Inventory Serial/Lot File.
3.	Exp Year	2 numeric characters. Same as #2 field entry.

This Page Intentionally Blank

Purge Complete Production Orders

Application Overview

The **Purge Complete Production Orders** application will delete selected orders from the **BOMP** Order File. This is designed to keep the data file from taking up disk space with orders, which are no longer needed.

The user may select a range of order numbers and must set a cutoff completion date to determine which completed orders will be purged.

Note: For an order to be purged from the Order File, it must have already been purged from the Production Transaction File. This is an option available in the **Production Transaction History Report** application.

Run Instructions

Select **Purge Complete Production Orders** from the pull down **BOMP Processing** window. The following screen will then be displayed:
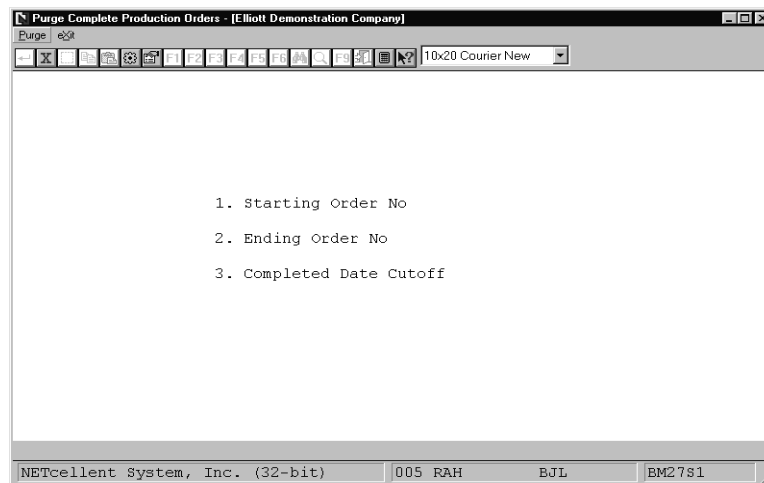
Purge Complete Production Orders
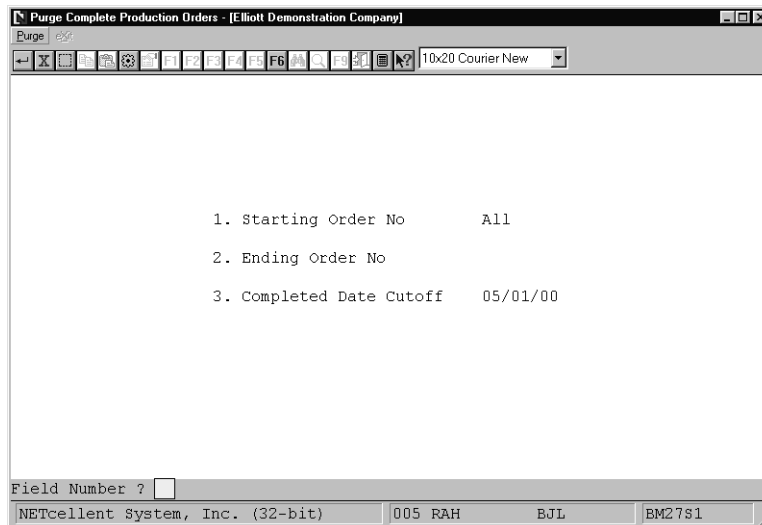
The following options are available:

* Select the desired mode from the **Purge Complete Production Orders** 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 starting order number of the range of orders to be purged. Defaults to **All**.
2. Ending Order No	6 numeric digits. Enter the ending order number of the range of orders to be purged. Default is the starting order number.
3. Completed Date Cutoff	A date in the standard date format. Enter the cutoff date for the range of orders to be purged. Only orders that were completed on or before this date will be purged. Entry is required.

```
1. Starting Order No        All

2. Ending Order No

3. Completed Date Cutoff     05/01/00
```

```
Field Number ?
NETcellent System, Inc. (32-bit)    005 RAH      BJL      BM27S1
```

Purge Complete Production Orders

Elliott

P R O D U C T I O N   O R D E R   P U R G E   L I S T

```
Ranges: All Orders
        Thru Completed Date 11/30/92

Order No Loc Item No      Description              Order Qty   Rptd. Qty   Unit Price   Unit Cost Due Date Last Trx Job No

   110  LA  PC-386        386 Personal Computer      3.000       3.000     2,549.9500    905.6500 04/01/92 04/06/92 PC-386
                          Customize During Order Entry

         Ftr Feature Description        Opt Option Item   Description                 Qty/Per   Unit Price   Unit Cost

         001 Base PC 386 Personal Computer  001 BOX-386-1   Basic SM Box w/7 Exp 6-16 1-8  1.000000    399.0000    311.0000

         002 Memory-MHZ Options For PC-386  001 MEM-MHZ-1   12 Mhz 2 Meg Motherboard Opt   1.000000    200.0000    140.0000

         003 Monitor Options For PC-386     007 MON-IDK-1   Idek 17 VGA Monitor            1.000000  1,425.0000      5.6500

         004 Keyboard Options For PC-386    003 KBD-FUJ-1   Fujitsu FKB-4700 Keyboard      1.000000     56.9500     40.0000

         005 Port Options For PC-386        001 PRT-386-1   Std 2 Serial 1 Parallel        1.000000    113.0000     99.0000

         006 Floppy Drive Options - PC-386  001 FLP-DSK-1   Single 5 1/4 HD Option         1.000000     44.0000     29.0000

         007 Hard Disk Options For PC-386   001 HDK-SEA-1   Seagate ST1089A 42 MB          1.000000    200.0000    181.0000

         010 DOS Version Options For PC-386 005 DOS-IBM-2   IBM Version 4.01 DOS Package   1.000000    112.0000    100.0000


    1 Orders Purged
```

This Page Intentionally Blank

Reset Low Level Codes

Application Overview

Reset Low Level Codes application resets the Low Level Codes for all items in the Inventory Item file.

After the operator has answered that you are sure you wish to do this, the processing takes place as a separate task detached from the terminal.

This application may consume a considerable amount of time and excludes other users from the use of the Inventory Item file.

This application should be run any time there is any question about the validity of the Low Level Codes in the Inventory Item file. Items, which have been part of a product structure record, will ordinarily have been given a Low Level Code greater than zero. If the product structure record is subsequently deleted, the items will remain in the Inventory Item file without having their Low Level Codes reset to zero. If these items are then added to a new product structure record without resetting the Low Level Codes, the Low Level Codes may end up higher than they should be. Incorrect Low Level Codes can create errors in adding product structure records.

Run Instructions

Select Reset Low Level Codes from the pull down BOMP Processing window. The following screen will then be displayed:
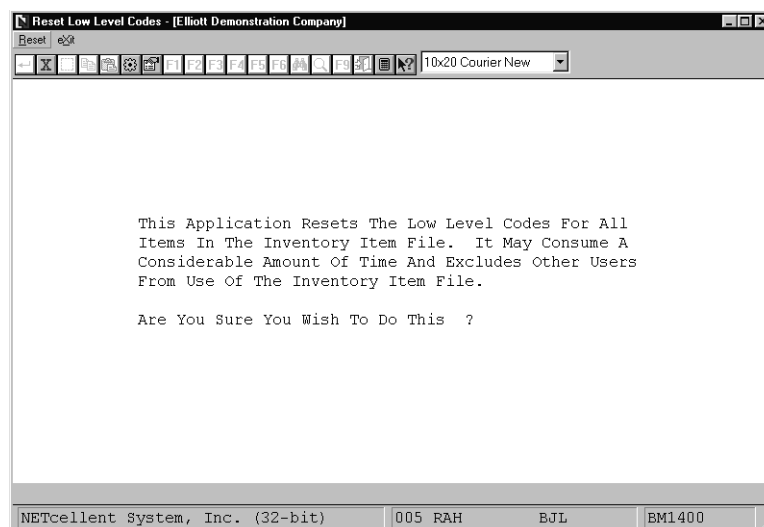
Reset Low Level Codes Entry Screen

The following options are available:

       *   Select the desired mode from the Reset Low Level Codes 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
Are You Sure You Want To Do This ?	Y or N. This application Resets The Low Level Codes for all items in the Inventory File. It may consume a considerable amount of time and excludes other users from use of the Inventory Item File. This screen displays a warning message. If you want to reset the low level codes enter Y. Enter N to decline. There is no default.
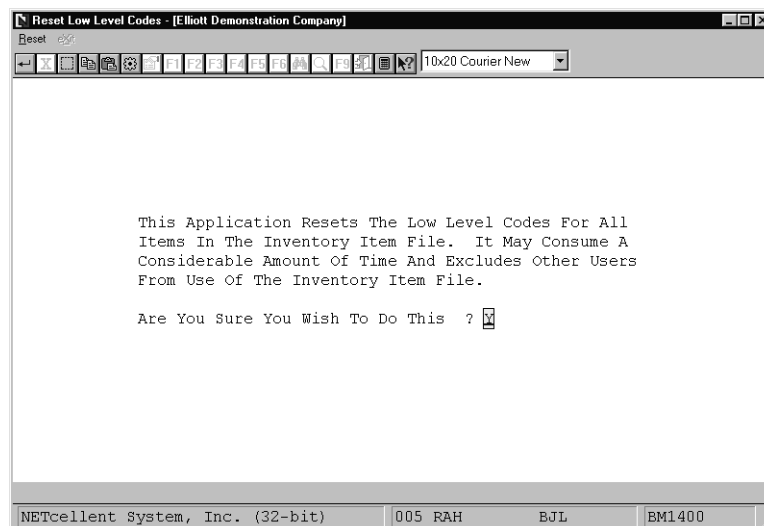
Reset Low Level Codes Warning Message
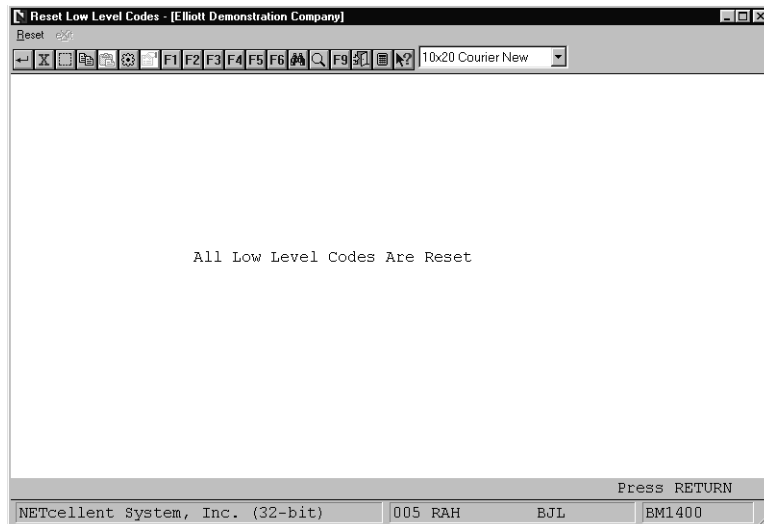
Low Level Codes Are Reset

This Page Intentionally Blank

Set Component Activity Flags
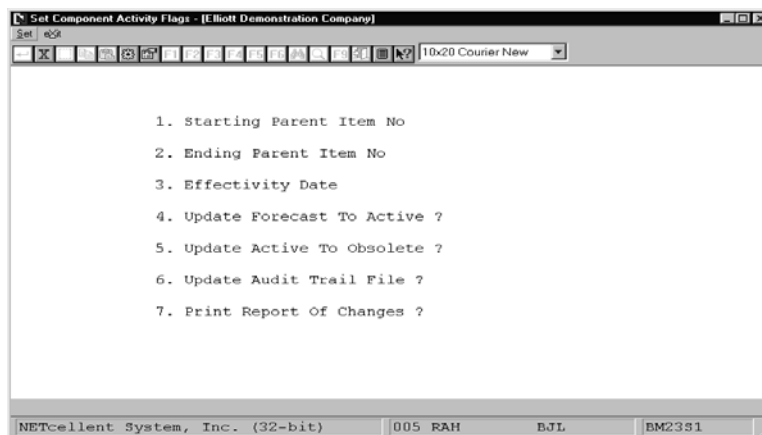
Application Overview

The **Set Component Activity Flags** application allows the user to automatically set the activity flags for a range of parent items. The application will update the activity flags of all components of selected parents as long as they meet the criteria set by the user. The user may choose to update all forecasted components to active and/or all active components to obsolete. The user must enter an effectivity date which is compared to the effective date, obsolete date, and current activity flag of a given component in the Product Structure File to determine if that component's flag should be reset.

The application gives the user the choice of whether or not to update the Audit Trail File with the changes to the flags. There is also an optional Activity Flag Update List, which can be printed to verify exactly which components were affected.

Run Instructions

Select **Set Component Activity Flags** from the pull down **BOMP Processing** window. The following screen will then be displayed:

Set Component Activity Flags Entry Screen

The following options are available:

* * Select the desired mode from the **Set Component Activity Flags** 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 Parent Item No	15 alphanumeric characters. Enter the starting parent item number for the range of parents whose components will be updated. Defaults to **All**.
2. Ending Parent Item No	15 alphanumeric characters. Enter the ending parent item number for the range of parents whose components will be updated. Defaults to the starting parent item number.
3. Effectivity Date	A date in the standard date format. Enter the effectivity date for components to be reset. The application will look at a component's status as of this date when determining if its flag should be reset. Defaults to the current date.
4. Update Forecast To Active	**Y** or **N**. Enter **Y** to update forecasted components to active. Defaults to **Y**.
5. Update Active To Obsolete?	**Y** or **N**. Enter **Y** to update active components to obsolete. Defaults to **Y**.
6. Update Audit Trail File?	**Y** or **N**. Enter **Y** to have the Audit Trail File updated with any changes to the activity flags. Entry of **Y** is not allowed if Keep Audit Trail On Product Structure is not specified in **BOMP Setup**. Defaults to **N**.
7. Print Report Of Changes?	**Y** or **N**. Enter **Y** to print the Activity Flag Update List to verify which components were updated. Defaults to **Y**.

Set Component Activity Flags

Elliott

A C T I V I T Y   F L A G   U P D A T E   L I S T

Ranges: All Items
        Effectivity Date: 11/30/92

Component Item	Seq No	Qty Per Parent	Um	Llc	Component Description	Attch Oper	Scrap Factor	Act Flg	Effective Date	Obsolete Date	New Flg
Parent Item CPU					Mother Board For Parent Central Processing	Low Level Code	1				
VGA	40	1.000000	EA	2	Monitor / Rom Monitor – Rom	30	.0	A		04/17/92	O
VGA	90	1.000000	EA	2	Monitor / Rom Monitor – Rom	30	.0	F	04/17/92		A

This Page Intentionally Blank

Resequence Component Items

Application Overview

When many changes are made to a product structure over a period of time, the sequence numbers of the component items can become disorganized or cluttered. This will not effect production but could make it difficult to read or make additional changes to the structure. The **Resequence Component Items** application allows the user to choose an increment and reassign component sequence numbers for selected parents based on that increment. For example, if a parent's sequence numbers read 2, 3, 5, 15, 16, 25; the user could select an increment of ten and reset the sequence numbers to 10, 20, 30, 40, 50, 60.

The application offers the option of purging obsolete components from the product structures being resequenced. It also allows the user to print a list detailing which components were resequenced along with their old and new sequence numbers.

Note: Caution should be used when selecting an appropriate increment to eliminate a possible wrap around from sequence number 999 to 1 for the item number range being selected.

Run Instructions

Select **Resequence Component Items** from the pull down **BOMP Processing** window. The following screen will then be displayed:
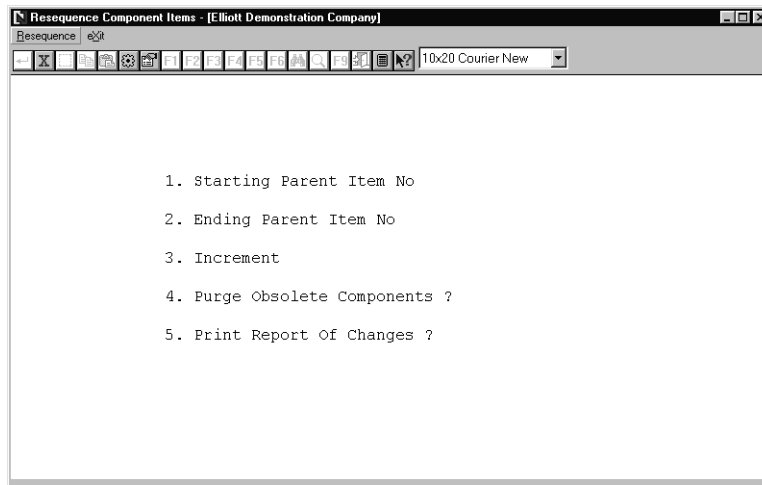
Resequence Component Items Entry Screen

The following options are available:

       *   Select the desired mode from the **Resequence Component Items** 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 Parent Item No	15 alphanumeric characters. Enter the starting parent item number for the range of parents whose components are to be resequenced. Defaults to **All**.
2. Ending Parent Item No	15 alphanumeric characters. Enter the ending parent item number for the range of parents whose components are to be resequenced. Defaults to starting parent item.
3. Increment	3 numeric digits. Enter the increment for the resequenced components. The first new sequence number will be the same as the increment then the program will skip that many digits between each following sequence number. For example, if the increment was set at five, the new sequence numbers would read 5, 10, 15, 20, etc. Defaults to 10.
4. Purge Obsolete Components?	**Y** or **N**. Enter **Y** to have all obsolete components purged from the range of product structures entered above. Enter **N** to have them retained for future reference. Defaults to **N**.
5. Print Report Of Changes?	**Y** or **N**. Enter **Y** to print a report of all changes made to sequence numbers. Enter **N** to decline. Defaults to **Y**.

```
┌──────────────────────────────────────────────────────────────────────────────┐
│ ▐ Resequence Component Items - [Elliott Demonstration Company]        _ □ ×    │
│ Resequence  exit                                                               │
│ ←│X│▣│▣│▣│⚙│▤│F1│F2│F3│F4│F5│F6│▥│▣│F9│▥│■│�?│ 10x20 Courier New    ▼          │
│                                                                                │
│                                                                                │
│                                                                                │
│                                                                                │
│                                                                                │
│            1. Starting Parent Item No      All                                 │
│                                                                                │
│            2. Ending Parent Item No                                            │
│                                                                                │
│            3. Increment                     10                                 │
│                                                                                │
│            4. Purge Obsolete Components ?   N                                  │
│                                                                                │
│            5. Print Report Of Changes ?     Y                                  │
│                                                                                │
│                                                                                │
│                                                                                │
│                                                                                │
│                                                                                │
│ Field Number ? ▁                                                               │
│ NETcellent System, Inc. (32-bit)     │005 RAH      │  BJL      │ BM24S1        │
└──────────────────────────────────────────────────────────────────────────────┘
```

Resequence Component Items

```
                     R E S E Q U E N C E D   C O M P O N E N T   L I S T

Ranges: All Items
        Increment:  10

Component Item  Old  New   Qty Per  Um Llc Component                Attch Scrap Act Effective Obsolete
                Seq  Seq     Parent         Description             Oper  Factor Flg   Date     Date

Parent Item CPU                 Mother Board For Parent     Low Level Code  1
                             Central Processing

CLOCK           10   10   1.000000 EA  2  25 Meg Clock For Mother Board  30   .0   A
                                         Clock - 25M

DATA-BUS        20   20   1.000000 EA  2  Data Bus/Buffer 25 Meg        30   .0   A
                                         Data - Buffer

MEMMGR          30   30   1.000000 EA  2  Memory Manager For CPU Board  30   .0   A
                                         MEM - Manager

VGA             40   40   1.000000 EA  2  Monitor / Rom                 30   .0   O            04/17/92
                                         Monitor - Rom

RAM-2MEG        50   50   1.000000 EA  2  2 Meg Ram For Mother Board    30   .0   A
                                         Ram - 2 Meg

RAM-ADDRES      60   60   1.000000 EA  2  Ram Address Multiplexer       30   .0   A
                                         Ram - Add - Mult

RESET-CPU       70   70   1.000000 EA  2  CPU Reset for Board           30   .0   A
                                         CPU - Reset
```

This Page Intentionally Blank

Print Costed Bill of Material

Application Overview

Print Costed Bill Of Material prints a selected range of parent items and "rolls up" their costs from the costs of their components. If you choose, it will show the variance between the parent items' cost on file and the cost calculated from the components. It also allows you to choose whether or not you wish the report to show active items, obsolete items and/or forecasted items.

As the costs are rolled up from the bill of material, it will explode through sub-assemblies if they are flagged as manufactured. It will not explode through any purchased inventory items. This is regardless of whether the items are flagged as stocked or non-stocked. If a sub-assembly is flagged as a purchased item, this is an error in the product structure and may be corrected using the Product Structure File Maintenance application.

An important feature of this application is the ability to update the cost in the Inventory Item File for the range of parent items selected. If the update cost option is chosen, the number of levels to explode will automatically be set to 11. Caution: Only parent items' sub-assemblies within the item range defined in fields #1 and #2 will have their costs updated. To avoid excluding any sub-assemblies, set the item range to All.

It also offers the option to include components' scrap factor in the calculated cost for each.

Run Instructions

Select Print Costed Bill Of Material from the pull down BOMP Processing window. The following screen will then be displayed:

Print Costed Bill of Material Entry Screen

The following options are available:

* Select the desired mode from the Print Costed Bill Of Material 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 Parent Item No	15 alphanumeric characters. Enter the item number of the parent item for which you wish to print a Print Costed Bill Of Material. Default is All.
2.	Ending Parent Item No	15 alphanumeric characters. Enter the item number of the last parent item for which you wish to print a Print Costed Bill Of Material. Default is the starting parent item number.
3.	Print Active Items?	Y or N. Enter Y to print active items or N to decline. This field defaults to Y.
4.	Print Forecasted Items?	Y or N. Enter Y to print forecasted items or N to decline. This field defaults to N.
5.	Print Obsolete Items?	Y or N. Enter Y to print obsolete items or N to decline. This field defaults to N.
6.	Blow Through Phantom Items?	Y or N. Component items and subassemblies which are neither stocked nor controlled but which are manufactured are known as phantom items. Answering Y to this question allows you to blow through phantom items to the real component items, which are down one level. Default is N.
7.	Show Component Cost Variance?	Y or N. If you answer Y to this question the variance between the calculated cost of the parent item and the cost that is in the Item File for this parent, will appear on the report.

Name	Type and Description
	Default is N.
8. Number Of Levels To Explode?	2 numeric digits (99). The number of levels to explode must be 11 to obtain correct cost. Default is 11.
9. Effectivity Date	A date in the standard date format. Enter the effectivity date you wish to use for printing items. This date will be used to determine whether to include or exclude items. If you press RETURN, no selection will be made based upon effectivity date. You will not be prompted to enter this field unless both active and forecasted have been selected for printing. Default is no selection based on effectivity date.
10. Reflect Scrap Factor In Cost?	Y or N. Enter Y to include each component's scrap factor in the calculation of the extended cost. Enter N to calculate the extended cost based solely on the quantity required per parent. Defaults to N.
11. Update Parent Cost In Inventory?	Y or N. If you answer Y, the appropriate cost in the Inventory Item File for the parent item will be updated using the total cost of components for the parent. If Y is selected, the number of levels to explode set in field #8 will automatically be set to 11. Note: If you set this field to Y but do not select All parent items in field #1, the costs of all sub-assemblies may not be updated. If it is important that the costs of all sub-assemblies be updated, set the parent item range to All. Default is N.
If the costing method defined in I/M Setup is LIFO or FIFO, parent costs may not be updated and field #11 will appear as follows:	
11. Cost Type To Display?	Only A, S, or R, is allowed. Enter the item cost to be used in printing the Costed Bill of Material. A = Average Cost S = Standard Cost R = Last Cost Entry is required. There is no default value.

Print Costed Bill of Material

```
              C O S T E D   B I L L   O F   M A T E R I A L

Ranges: All Items
        Active Items
        With No Blow Through
        No Selection On Basis Of Effectivity Date


Parent Item CPU          Mother Board For Parent      Low Level Code  1   Cost On File   2,103.4900
                         Central Processing
Component Item      Seq Low Lev  Component          Purchased  Act  Scrap  Uom   Qty Per      Item       Extended
                    No  Code     Description        Or Mfg     Flag Factor        Parent     Std Cost        Cost
CLOCK               10   2      25 Meg Clock For Mother Board  P    A      .0 EA  1.000000     12.5400      12.5400
                                Clock - 25M

DATA-BUS            20   2      Data Bus/Buffer 25 Meg        P     A      .0 EA  1.000000     15.4500      15.4500
                                Data - Buffer

MEMMGR              30   2      Memory Manager For CPU Board  P     A      .0 EA  1.000000     44.0000      44.0000
                                MEM - Manager

VGA                 40   2      Monitor / Rom                 P     A      .0 EA  1.000000    230.0000     230.0000
                                Monitor - Rom
```

Print Picking List By Bill

Application Overview

The Print Picking List By Bill application prints a Gross Requirements Explosion in Picking List Form for a parent item number.

It allows the operator to enter a parent item number and the quantity to be produced, generating the gross requirements for each component. It offers the option of including the components' scrap factors in the quantity calculation.

Run Instructions

Select Print Picking List By Bill from the pull down BOMP Processing window. The following screen will then be displayed:

Print Picking List By Bill Entry Screen

The following options are available:

    *   Select the desired mode from the Print Picking List By Bill 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. Parent Item No	15 alphanumeric characters. Enter the item number of the parent item for which you wish to print the Picking List by Bill.
2. Quantity Of Parent	A standard quantity format. Enter the quantity of the parent required for which you wish to print a Picking List by Bill.
3. Print By Item No Or Picking Sequence	I or P. This will determine whether the report will print in item number or picking sequence order. If you enter I the report will print in item number order. If you enter P the report will print in picking sequence order. Default is I.
4. Print User Defined Field	Y or N. This will determine whether the user defined field as defined in BOMP Setup is printed on the picking ticket. Default is N.
5. Reflect Scrap Factor In Qty ?	Y or N. Enter Y to include components' scrap factors in the calculation of quantity required. Default is N.

Print Picking List By Bill

```
              P I C K I N G   L I S T   B Y   B I L L

Qty-Requested
  Item-No            Description            Pick Seq  U/M

     1.000
PC                 Parent Item (Mother Board)
                     Personal Computer

                   ***** Components *****


CPU                Mother Board For Parent              EA ...............
   Bom Level =  1   Central Processing        Quantity      1.000000

INPUT/OUT          Subassembly Component                EA ...............
   Bom Level =  1   I/O Board For Computer    Quantity      1.000000

VIDEO-CD           Component/Sub Assmbly        A-5555-A EA ...............
   Bom Level =  1   Video Card For PC         Quantity      1.000000
```

This Page Intentionally Blank

Print Production Work Orders

Application Overview

The **Print Production Work Orders** application prints the physical work orders that instruct the production department what to produce. These orders may have been entered in the **Production Order Entry** application or copied from **Customer Order Processing** through the **Copy COP Orders Into BOMP** application.

A work order need not be printed before **BOMP** will allow production for the order to be reported in the **Production Transaction Processing** application. However, once a work order has been printed or had production reported, it may no longer be changed or deleted in the **Production Order Entry** application or in **COP**. For more information on modifying and deleting orders copied from **COP**, see the **Package Overview** section of this manual.

If one of the Work In Process (WIP) options is selected, **General Ledger** distributions will be generated in the I/M Distribution To G/L File. Credits will be created for the asset account associated with the feature option and/or component items as well as an offsetting debit to the work-in-process account number specified in the **BOMP Setup** application. If the user sets the **Increase WIP?** to **Y**, components' quantity on hand and allocated in the Inventory Item File can be reduced immediately.

The user may choose to print work orders for one or all locations, and also may define a range of order numbers to print. The user must specify a cutoff for order start dates. Orders with start dates after that date will not be printed. The user must decide whether to allow work orders to be printed more than once and also how many product structure levels to explode.

Run Instructions

Select **Print Production Work Orders** from the pull down **BOMP Processing** window. The following screen will then be displayed:

Print Production Work Orders Entry Screen

The following options are available:

> * Select the desired mode from the **Print Production Work Orders** 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 work orders are to be printed. Defaults to **All**.
2. Starting Order No	6 numeric digits. Enter the starting order number for the range of work orders to be printed. Defaults to **All**.
3. Ending Order No	6 numeric digits. Enter the ending order number for the range of work orders to be printed. Defaults to the starting order number.
4. Start Date Cutoff	A date in the standard date format. Enter the cutoff for order start dates. Only orders with start dates on or before this date will be printed. Entry is required.
5. Print Duplicates?	**Y** or **N**. Enter **Y** to allow the reprinting of work orders. Enter **N** to only include work orders which have not been previously printed. Defaults to **N**.
6. No Of Lvls To Explode?	2 numeric digits. Enter the number of product structure levels to be shown on the work orders. Enter 11 to show all levels. Defaults to 11.
7. Increase WIP?	1 alphabetic character. Valid entries are **Y**, **W**, or **N**. Enter **Y** to create credit distributions in the asset accounts for raw materials required to complete the order. An offsetting debit distribution will be created for the Work In Process (WIP) Account entered in **BOMP Setup**. Also, on-hand and allocated quantities will be reduced in the Inventory Item File. Enter **W** to create the asset and WIP account distributions but not affect inventory levels.
Increase WIP? (continued)	If **Y** or **W** is entered, when production for the order is entered and posted the WIP Account will be appropriately credited and the Finished Goods Asset Account will be debited for the items produced. Enter **N** to not use the WIP feature.

Name	Type and Description
	If **N** is entered, asset account distributions and inventory level adjustments will not be made until Production Transactions are posted. Also, no WIP Account distributions will occur.

```
 Print Production Work Orders - [Elliott Demonstration Company]                    _ □ ×
 Print  eXit
 ← X ▢ ▢ ◎ □ F1 F2 F3 F4 F5 F6 ▦ _ F9 ▨ ▤ ▶? 10x20 Courier New    ▼



              1. Location                All

              2. Starting Order No        All

              3. Ending Order No

              4. Start Date Cutoff        05/02/00

              5. Print Duplicates ?       N

              6. No Of Lvls To Explode ?  11

              7. Increase WIP ?           N



 Field Number ? ▢
 NETcellent System, Inc. (32-bit)     007 RAH        BJL        BM20S1
```

Print Production Work Orders

```
No Wip            P R O D U C T I O N   W O R K   O R D E R       Location: LA

  Order Item No        Description              Quantity Job No Due Date

   103 PC-386          386 Personal Computer      1.000       02/28/92
                       Customize During Order Entry

                                                        Batch No: ........

  Pick Loc Option Item    Description           Qty Needed Uom  Qty Used

           BOX-386-1      Basic SM Box w/7 Exp 6-16 1-8   1.000 EA  .........
           MEM-MHZ-1      12 Mhz 2 Meg Motherboard Opt    1.000 EA  .........
  BK23     MON-KPT-1      Keypoint 4 Super VGA Monitor    1.000 EA  .........
  BK23     KBD-CHC-1      Chicony KB-5191 Keyboard        1.000 EA  .........
           PRT-386-1      Std 2 Serial 1 Parallel         1.000 EA  .........
           FLP-DSK-4      Dual 5 1/4 HD Option            1.000 EA  .........
           HDK-SEA-1      Seagate ST1089A 42 MB           1.000 EA  .........
           MDM-CRD-1      Cardinal 2400 Baud Internal     1.000 EA  .........
  BK23     MOU-OMN-3      OmniMouse 3-Button Ball Serial  1.000 EA  .........
           DOS-MSF-3      MS Version 5.0 DOS Package      1.000 EA  .........

   Production Notes: ............................................................

                     ............................................................

                     ............................................................

                     ............................................................

   Produced By: .....................   Date: ..........   Quantity: .........
```

Work Order Production

How to Access:

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Maintenance ➔ Work Order Production

(Figure 27) Work Order Production, Typing Mode

This is the Time Clock Interface for Work Order Reporting. It is for workers who report when production starts and when production ends. When production ends, the system will ask for the production result of how many pieces are completed. It will collect labor time from these workers and add it to work orders as direct labor. There are only 3 stages in this screen:

- In the first stage, the operator needs to enter the Operator ID and password, which can be entered by scanning a badge.
- In the second stage, the operator needs to report the function, like progress on a work order or a special operation like a break.
- In the third stage, the operator needs to report how many pieces were finished for the production if working on a work order.
- Based on the BOMP Global Setup, control will return to the first stage or second stage.

The operator always needs to enter the activity. The system will determine if this ends an operation and prompt for additional information if necessary. At the end of the day, the operator needs to "start" a special operation, End of Day, to log off.

First Stage – Sign in

(Figure 28) Work Order Production, Scanning Mode

The operator must first enter an Operator ID and password. To manually type the data, you must enter the Operator ID, press Enter, type the password and press Enter again. On the other hand, you can scan the barcode on a badge. Press the **F1 Key** to toggle between scanning mode and manual mode. The barcode scanning mode will prompt for a much longer string to allow for both fields. After successfully authenticated, the system will display on the top 3 lines information about the operator and what this operator is currently doing.

The operator can currently log off the system, work on a production, work in a work center, or perform a special operation like a break. The system will display different details for different activities.

On the right side of the third line is a two decimal number (in figure 17 it is 0.89). This is the elapsed time of the current activity in hours.

The system will prompt for the order number after the first stage.

Second Stage – Next Activity

(Figure 29) Work Order Production, After First Stage

In the second stage, the operator can report what to do next. This can be to start a new production, resume a suspended production, report for a current production, start a break, go to a meeting or log off from the system at the end of the day. Each activity is defined as an operation in WO+ and each operation has its own number. These are the numbers that are entered in the second stage. They can be scanned if a barcode is provided for these numbers.

There are two operation types for different activities, Order Operation and Special Operation. Order Operations are those defined in the routing of work orders and are used for production activities. The work order number and order operations must be entered. Special Operations are for activities other than production related. Special Operations can represent a break, a meal break, a log off or other purpose. So to report production related activity, use the Order Operation and the operations listed on the Traveler. Otherwise, use a Special Operation. Figures 18 and 19 show the screens after entering an Order Operation or Special Operation respectively.

(Figure 30) Work Order Production, Start a Work Order

(Figure 31) Work Order Production, Start a Break

Field Description in Stage 2

Name	Type and Description
Order Number	6 numeric digits. The order number of an ongoing production. If a special operation will be entered, this field can be blank. **Function Keys** **F1** - Start a Batch Production. A Batch Production allows you to work on multiple work orders at the same time. Labor and Machine time will be distributed to each work order based on reported quantity. **F3** - Advanced Options. Options include inquiry of the current status (operator time clock or production status) and changing the interface behavior. - Operation Time Clock - Current Production Detail - Current Production Activity Inquiry - Production Inquiry for the Current Work Order - Production Inquiry for the Current Operation - Change ID Prompt Setting **F4** - Exception Handling. Exception handling options to change the activity time or change the current activity content. - Reassign Current Time Clock Activity - Change End Time **F7** - Enter a Production Number. If the Production Number is known, you can enter it instead of entering the order number and operation number. Normally, the system will automatically determine the proper production number after the order number and operation number are entered. Defaults to the current work order number.
Operation Number	4 numeric digits. The operation number of an ongoing activity. If the order number is blank, this field can only be a special operation. Otherwise, it can be both an order operation and special operation. **Function Key** **F7** - Search for an order operation, if the order number is not blank. Search for a special operation, if the order number is blank. **F8** - Search for a special operation, if the order number is not blank. The system determines the next activity based on the operation number. - If the operation number entered is the same as the current activity, this means the operator wants to end the current activity and the next activity has not been assigned. The system will change the operator's current activity to "Idle". - If the operation number is for a special operation (from 9000 thru 9999), the system will determine the next activity based on the operation type. - For a break, productive and non-productive operation types, the system will change the operator's current activity status. - For a meal break and End Of Day operation types, the system will log the operator off and the activity status.

Name	Type and Description
	o For monitor operation types, like W and D, the system will change the operator's activity to a work center or department shared labor. • If the operation number is an order operation, from 1 thru 8999, the system will try to determine the production number. o If the productions for this operation are not yet started, all completed or all worked on by another operator, the system will assume the operator wants to start a new production for this operation. o If any production is suspend or active without an operator and the production was previously worked on by the operator, the system will assume the operator wants to resume, continue or report for that production. o If the system is unable to determine the production number, a list of productions will be presented for the operator to choose from. If the operator is going to start a production for an outside process, the system will prompt for PO related information, like vendor number and PO number. You can enter this information now or when reporting.
Plan Quantity	Standard quantity format. Enter the planning quantity for a new production. **Function Key** **F4** - Change Operation. If this operation has not been started, you can change the value for this operation.
Confirmation	1 alpha-numeric character. After entering all information about the next activity, the system will prompt for confirmation. This confirmation question may vary based on the next activity. For example, if you want to start a suspended production, the system will prompt "S = Start This Operation, R = Report This Operation". The latter option will allow you to directly report for the production without scanning the same operation number again.

Elliott

Third Stage – Current Production Reporting


```
BOMP Work Order Production - [Elliott Demonstration Company]
Maintenance  Inquiry  Processing  Reports  Util-setup  eXit

X 🗅🖻🖻🎨📄📄🖈⚠🛗🔍🛗🖈🛗🔄🛗🖭ƒ)📄🔎 08x15 Fixedsys

┌─Current Time Clock Report─────────────────────────────────────────┐
Ope│                                                              │67
Cur│   Work Order#      200054                                    │rs
Wor│   Item-No          FLANGE            Flange w/ 6 holes        │
===│                                                              │====
Ord│   Operation No     10                Material Preparation     │
   │   Op Type/ID       Move Inven PRE                            │
   │   Work Center/Dept WHS    GEN        Warehouse               │
   │   Production No     67               Plan Qty    10.00        │
Ope│                    Planned      Current       Remain    Var% │
   │   Direct Labor Hrs     1.00        0.92         N/A     N/A  │
Wor│   Shared Labor Hrs     0.00        0.00         N/A     N/A  │
   │   Machine Hrs          1.00        0.92         N/A     N/A  │
Pro│   ─────────────────────────────────────────────────────────│
   │   Start Date/Time  08/16/10 18:41   Man-Hour 0.899167   Hrs │
   │   Pre Comment                                                │
   │   End Date/Time    08/16/10 19:34:59  Production Suspended   │
   │   Qty Completed    [10_        ]      Planned: 10.00         │
   │                                                              │
   │   F3=Advance Option, F4 = Exception, F5=Detail Report        │
   └──────────────────────────────────────────────────────────────┘

NETcellent System, Inc.          028 SUPERVISOR TS2CHK      BMWOPROD
```

(Figure 32) Work Order Production, Third Stage

If the operator's activity is for a special operation, like a break or meeting, the system will change the status to the next activity. The operator will not need to report for the current activity, except for a required comment. Otherwise, the operator will be required to report for the current production before starting the next activity. This will bring you to the third stage, current production reporting.

In most cases, the only requirement is to enter the quantity of completed pieces. However, WO+ provides several functions for different situations.

- Usually, only the completed pieces and the quantity need to be reported. **However, the quantity entered should not be zero.** If this operation is a material issued point, the system will show the list of issued material to confirm. If this operation is the last operation and the product is a serialized item, the system will prompt for a serial number.
- If the operator wants to stop working on the production, but the production is not completed, a zero can be entered in the Qty Completed field. This usually means production is suspended, but in some cases, like with a CNC Machine, the production can be continued without an operator. The literal right of the "End Date/Time" will indicate if the production will be reported, suspended or continued without an operator. You can report if a CNC machine will continue running or not by pressing **F3** for **Advance Option** and selecting the "**Machine On/Off**" to change the status of the machine. If the machine is off, production will be suspended. The default value is defined in each work center file through the "(Machine) End By Def If Labor End" field.
- If some pieces are scrapped during the production, the operator would need to report the quantity scrapped. There are two ways to report this.
  - If BOMP Global Setup field 52, Warning If Plan & Report Qty Are Different, is set to "Y", the operator will be prompted for the quantity scrapped. For example, the prompt for reporting 7 pieces when the planning quantity is 10 would be, "Did you scrap 3 pieces?" Respond with "Y" and the system will report 7 pieces completed and 3 pieces scrapped. Respond with "N" and the system will report 7 pieces completed and zero scrapped.
  - Whatever value is in the BOMP Global Setup, the operator can always press **F5** for **Detail Report** to report the scrapped quantity.
- If an error occurs when the operator enters a completed quantity, the system will ask you to use the **F5** option.
- Press **F3** for **Advance Options** to inquiry the current production or your time clock entries.

- If an exception occurs, the operator can press F4 for option to handle the exception. The system will provide a list of options based on the authorization in the operator file. If production has been reported for the operation, no option will be available.

If an operator reports complete quantity for the production, the system will prompt for addition information depending on the operation type.
- Material Issued Reporting Screen, if this operation is a material issued point.
- Serial Number Reporting Screen, if the parent item is a serialized item and the operation is the last operation.
- Lot Number Screen, if the parent item is a lot item and the operation is the last operation. The system will ask the operator to report this in the detail reporting screen.
- PO Information Screen, if the operation is an outside process operation.

Details about these screens can be found in the Report Additional Information section.

You will be prompted "Are you sure?" after the quantity is entered. This allows you to check your entry before continuing. Also, check the literal to the right of End Date/Time (it is "Production Suspended" in Figure 20). This literal will reflect the reporting status and can be the following:
- Production Reported – The operator successfully reported for the production.
- Production Suspended – The operator did not report for the production and will be suspended.
- Production Continued – The operator did not report for the production and will continue without an operator.
- Production Canceled – The operator canceled the production.

If the order is going to be closed, the system will display "Order Complete" to the right of the quantity. Press Enter to continue.

If a production is successfully reported, a production transaction will be created. If BOMP Global Setup field 21, Immediately Post For Completed Scan Trx, is "Y", the operator will be able to post this transaction immediately. Otherwise, a manager can review the production transactions before posting them.

After reporting the production, the prompt will return to the Operator ID field or Order Number field based on the BOMP Global Setup.

If the operator's next activity is a break, meal break or End Of Day logoff, the system skips the third stage and automatically suspends or continues the production based on the setup in the work center file.

Work Center Time Clock

How to Access:

Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Maintenance ➔ Work Center Time Clock

(Figure 33) Work Center Time Clock, 1st Stage

This is the Time Clock Interface for a Work Center. It allows the operator to log into a work center and the labor will be shared among any work orders currently active in this work center. This type of operator does not report about a work order or completed quantity, but only needs to clock in or out from one work center to another. This is suitable for assembly line workers or CNC machine operators.

This interface is simpler than Work Order Production and only needs two stages.
- In the first stage, a work center is selected.
- In the second stage, the operator will clock in or clock out.
- The second stage is repeated.

First Stage – Select a Work Center

An operator must first select a work center for this interface. The **F7 Key** can be pressed to search available work centers. The work center field may be left blank if the operator would like to start an activity for a special operation. This can be used at the beginning of a day when no job has been assigned to the operator.

Second Stage – Clock In/Out

(Figure 34) Work Center Time Clock, 2nd Stage

This stage will display all operators who are currently in this work center. The system will show basic statistics about this work center under the work center ID.

The system will prompt for an Operator ID in this stage. Like the first stage of Work Order Production, the operator can scan a barcoded badge or type the ID and password manually. In manual mode, the operator can use the Up and Down Arrow keys to select one operator. The system will select the highlighted Operator ID, but the password will still need to be entered.

After the operator ID and password have been entered, the behavior is fairly simple:
- If the operator has not clocked into the work center, the system will clock-in the operator and the labor will be shared among all work orders currently active in the work center. The Operator ID will be displayed in the list below, as well.
- If the operator has already clocked into the work center, the system will provide a list of choices for the next activity. The system will highlight one option based on the current time and operator profile. For example, if the operator's shift ends at 8:00pm, the default choice around 8:00pm will be End Of Day. If the operator's next activity is not listed, the last option of "Others" can be selected and a special operation number entered. (Figure 23)

(Figure 35) Work Center Time Clock, 2nd Stage, List of Special Operation

If a Work Center ID was not entered, for Special Operation Mode, the system will provide a list of special operations to choose from each time the operator logs in.

If an operator needs to change work centers, it is not necessary to clock-out from the current work center. You can simply walk to the new work center and clock into the computer at that work center. The system will automatically clock the operator out from the previous work center. If the production department does not have multiple computers, you can press the Escape key and enter a new work center ID to clock in.

Department Time Clock

How to Access:
Main Menu ➔ Distribution ➔ Bill of Material Processor ➔ Maintenance ➔ Department Time Clock

(Figure 36) Department Time Clock, 1st Stage

This is the Time Clock Interface for a Department. It allows an operator to clock into a department and the labor will be shared to all currently active work orders in the department. This interface is similar to Work Center Time Clock, but this one is for department managers or operators that monitor all machines in a department.

This interface has 2 stages.
- In the first stage, a department is selected.
- In the second stage, the operator will clock in or clock out.
- The second stage is repeated.

First Stage – Selected a Department

An operator must first select a department for this interface. Press **F7** to search available departments. The department field may be left blank if you want to start an activity for a special operation, like a break or meeting. This can be used at the beginning of the day when no job has been assigned to the operator.

Second Stage – Clock In/Out

(Figure 37) Department Time Clock, 2nd Stage

Once the Department ID has been entered, the system will display all operators who are currently working in this department, including those who clock into a work center and those who directly work on a work order. The system will show basic statistics about this department under the department field.

The system will prompt for an Operator ID and password. The operator can toggle between scanning mode and manual mode with the **F1 Key**. In manual mode, the operator can use the Up and Down Arrow Keys to select an operator ID. The operator will be clocked into this department if not clocked in. Otherwise, the system will provide a list of special operations for the operator to perform next.

General Time Clock

How to Access:
Main Menu ➔ Util-Setup ➔ Time Clock

(Figure 38) General Time Clock

This is a general and simplified Time Clock Interface that will only allow 3 functions: clock into the company, clock out for meal breaks and clock out at the end of the day. It is similar to a time card system used in most companies to record an employee's time and is independent from production.

This interface can be used for office employees who are not directly related to production. A computer can be placed at the company entrance for everyone to clock in each morning and clock out at night. Anyone who clocks in through this interface can still clock into a work center or department and report production through Work Order Production.

Once time is recorded, the system will display basic statistics about the production department at the top of the screen and list all operators who are currently in the company, no matter which work center or department. Like all the other time clock interfaces in WO+, the employee can type the ID and password or scan a barcoded badge. If the employee is not clocked in, the system will clock in. Otherwise, the system will clock out the employee and ask whether it is for a meal break or end of day.

(Figure 39) General Time Clock, Clock-Out Options

Reports

Production Schedule Report

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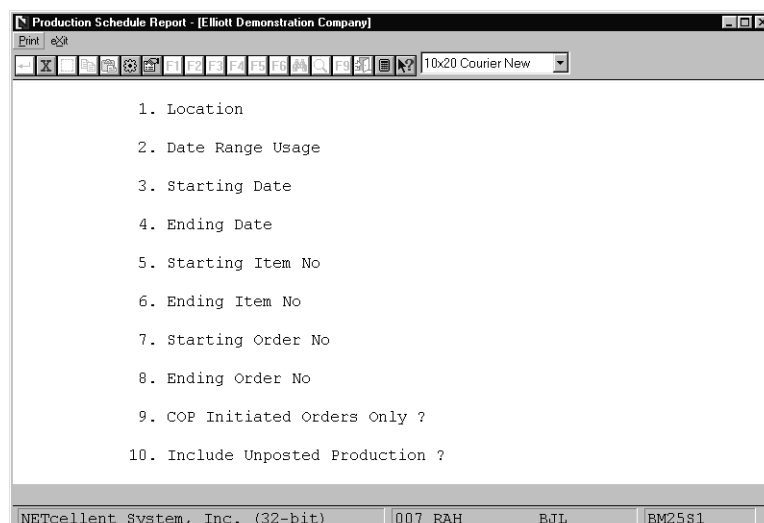
The **Production Schedule Report** prints a list of items scheduled to be produced. These items are entered through orders in the **Production Order Entry** application, copied from **Customer Order Processing**, or from **MRP Firm Planned Orders**.

The user may choose to print information based on production transactions that have been posted, or to also include unposted production transactions that have been entered.

The user may also determine the data to be printed based on due date/start date, item numbers, and order numbers. The report may be printed for any one location or all locations.

Run Instructions

Select **Production Schedule Report** from the pull down **BOMP Reports** window. The following screen will then be displayed:


```
Production Schedule Report - [Elliott Demonstration Company]
Print  eXit

 10x20 Courier New

            1. Location

            2. Date Range Usage

            3. Starting Date

            4. Ending Date

            5. Starting Item No

            6. Ending Item No

            7. Starting Order No

            8. Ending Order No

            9. COP Initiated Orders Only ?

           10. Include Unposted Production ?

NETcellent System, Inc. (32-bit)        007 RAH       BJL        BM25S1
```

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 No	15 alphanumeric characters. Enter the starting item number for the range of items you wish to print. Defaults to **All**.
6. Ending Item No	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 Order No	6 numeric digits. Enter the starting production order number for the range of orders you wish to print. Defaults to **All**.
8. Ending Order No	6 numeric digits. Enter the ending production order number for the range of orders you wish to print. Defaults to the starting order number.
9. COP Initiated Orders Only?	**Y** or **N**.

Name	Type and Description
	Enter **Y** to only include orders copied in from the **COP** package. Enter **N** to include all production work orders. Defaults to **N**.
10. Include Unposted Production?	**Y** or **N**. Enter **Y** if you wish to include production transactions, which have not been posted. Enter **N** to include only posted production transactions. Defaults to **Y**.

```
Production Schedule Report - [Elliott Demonstration Company]          _□X
Print

          1. Location                    All

          2. Date Range Usage            D

          3. Starting Date               Earliest

          4. Ending Date                 05/02/00

          5. Starting Item No            All

          6. Ending Item No

          7. Starting Order No           All

          8. Ending Order No

          9. COP Initiated Orders Only ?  N

          10. Include Unposted Production ?  Y

Field Number ?
NETcellent System, Inc. (32-bit)      007 RAH      BJL      BM25S1
```

Product Schedule Report

```
                    P R O D U C T I O N   S C H E D U L E   R E P O R T
Ranges: From Earliest Thru 11/30/92
        All Items
        All Orders
        Unposted Production Transactions Are Included

Location: LA Los Angeles

Item No          Description            Due Date Strt Dte Order No  Order Qty  Rptd. Qty  Sched Qty Job No Status
PC               Parent Item (Mother Board)
                 Personal Computer      02/21/92 02/21/92   104      100.000     25.000     75.000         Partially Reported
                                        05/25/92 05/25/92   112        1.000       .000      1.000         Work Order Printed
        Item Total:                                                                        76.000
PC-386           386 Personal Computer
                 Customize During Order Entry 02/21/92 02/21/92 101    5.000      4.000      1.000         Partially Reported
                                        02/25/92 02/25/92   109        1.000       .000      1.000         Work Order Printed
                                        02/28/92 02/28/92   103        1.000       .000      1.000         Work Order Printed
                                        07/25/92 07/25/92   111        4.000      1.000      3.000         Partially Reported
        Item Total:                                                                         6.000
```

This Page Intentionally Blank

Single Level Bill Of Material

Application Overview

Single Level Bill Of Material prints the single level components for a selected range of parent items. It does not print any components more than one level down.
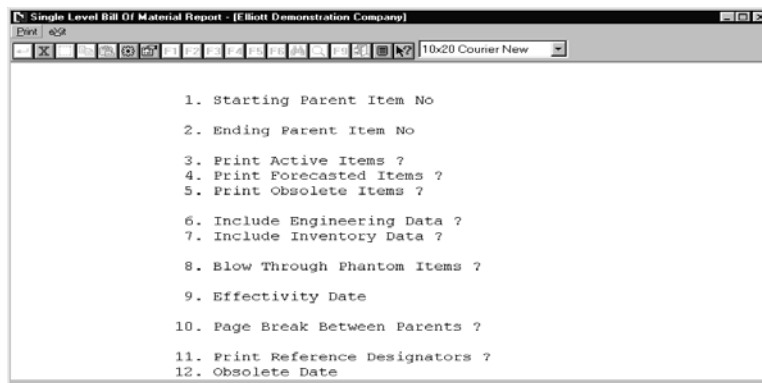
It offers the option of blowing through phantom items (non-stocked, non-controlled component items) to show the phantom item's components in place of the phantom item itself.

It also allows the operator to choose whether or not he wishes the report to show active items, obsolete items, and/or forecasted items.

The application also permits one to choose to include on the report engineering data, inventory data and/or reference designators.

Run Instructions

Select Single Level Bill Of Material from the pull down BOMP Reports window. The following screen will then be displayed:

Print Single Level Bill of Material Entry Screen

The following options are available:

* Select the desired mode from the Single Level Bill Of Material 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.

Elliott

Entry Field Descriptions

Name	Type and Description
1. Starting Parent Item No	15 alphanumeric characters.
	Enter the item number of the first parent item for which you wish to print a Single Level Bill of Material report.
	Default is to All.
2. Ending Parent Item No	15 alphanumeric characters.
	Enter the item number of the last parent item for which you wish to print a Single Level Bill of Material report.
	Default is the starting parent item number.
3. Print Active Items?	Y or N.
	Enter Y to print active items or N to decline.
	This field defaults to Y.
4. Print Forecasted Items?	Y or N.
	Enter Y to print forecasted items or N to decline.
	This field defaults to N.
5. Print Obsolete Items?	Y or N.
	Enter Y to print obsolete items or N to decline.
	This field defaults to N.
6. Include Engineering Data?	Y or N.
	Enter Y to include the engineering release or N to decline.
	This field defaults to N.
7. Include Inventory Data?	Y or N.
	Enter Y to include inventory data or N to decline. Inventory data reflects quantity on hand and quantity allocated totals for all locations. Quantity on order is for the default location only.
	This field defaults to N.
8. Blow Through Phantom Items?	Y or N.
	Component items, which are neither stocked nor controlled, are known as phantom items. Answering Y to this question allows you to blow through phantom items to the real component items, which are one level down.
	Default is N.
9. Effectivity Date	A date in the standard date format.
	Enter the effectivity date you wish to use for printing items. This date will be used to determine whether to include or exclude items. If you press RETURN, no selection

Name	Type and Description
	will be made based upon effectivity date.
	You will not be prompted to enter this field unless both active and forecasted have been selected for printing.
	Default is no selection based on effectivity date.
10. Page Break Between Parents?	Y or N.
	Enter Y for a page break between parent items or N to decline.
	This field defaults to N.
11. Print Reference Designators?	Y or N.
	Enter Y to print reference designators, or N to decline. Default is N.

```
 Single Level Bill Of Material Report - [Elliott Demonstration Company]

                1. Starting Parent Item No        All

                2. Ending Parent Item No

                3. Print Active Items ?            Y
                4. Print Forecasted Items ?        N
                5. Print Obsolete Items ?          N

                6. Include Engineering Data ?      N
                7. Include Inventory Data ?        N

                8. Blow Through Phantom Items ?    N

                9. Effectivity Date

               10. Page Break Between Parents ?    N

               11. Print Reference Designators ?   N
               12. Obsolete Date                   05/02/00
 Field Number ?

 NETcellent System, Inc. (32-bit)      002 RAH      BJL      BM0500
```

Print Single Level Bill of Material

```
              S I N G L E   L E V E L   B I L L   O F   M A T E R I A L

Ranges: All Items
        Active Items
        With No Blow Through
        No Selection On Basis Of Effectivity Date

Component Item Seq   Qty Per  Um Llc Component                 Attch Scrap Act Stk Ctl P/M
                No       Parent     Description                Oper Factor Flg Flg Flg Cde

Parent Item CPU            Mother Board For Parent      Low Level Code 1
                          Central Processing

CLOCK          10    1.000000 EA  2 25 Meg Clock For Mother Board    30   .0  A   Y   Y   P
                                    Clock - 25M

DATA-BUS       20    1.000000 EA  2 Data Bus/Buffer 25 Meg           30   .0  A   Y   Y   P
                                    Data - Buffer

MEMMGR         30    1.000000 EA  2 Memory Manager For CPU Board     30   .0  A   Y   Y   P
                                    MEM - Manager

VGA            40    1.000000 EA  2 Monitor / Rom                    30   .0  A   Y   Y   P
     Obsolete Date:  04/17/92       Monitor - Rom

RAM-2MEG       50    1.000000 EA  2 2 Meg Ram For Mother Board       30   .0  A   Y   Y   P
                                    Ram - 2 Meg
```

This Page Intentionally Blank

Indented Bill of Material Report

Application Overview
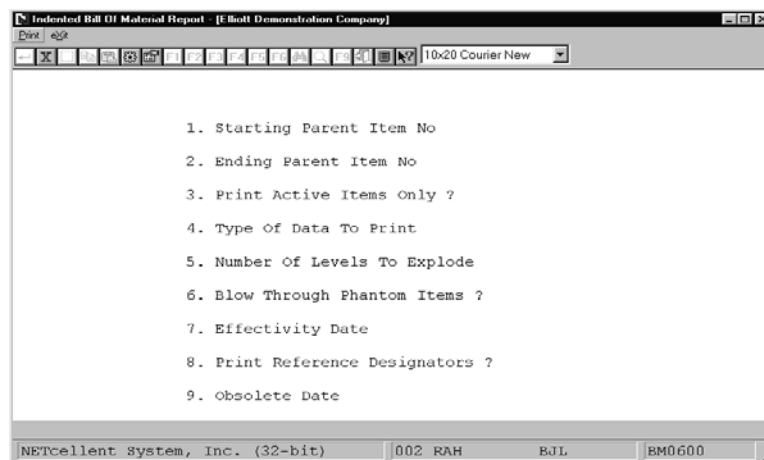
The Indented Bill Of Material Report prints a selected number of levels of the components for a selected range of parent items.

It allows the operator to choose the number of levels the report is to print and whether or not active items, obsolete items, and/or forecasted items are to be included.

For those components, which are printed, inventory data, engineering data and reference designators are optionally included.

Run Instructions

Select Indented Bill Of Material from the pull down BOMP Reports window. The following screen will then be displayed:

Indented Bill of Material Entry Screen

The following options are available:

>   *   Select the desired mode from the Indented Bill Of Material 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 Parent Item No	15 alphanumeric characters. Enter the starting item number for the range of items you wish to print. Default is All.
2. Ending Parent Item No	15 alphanumeric characters. Enter the ending item number for the range, which you are printing. Default is the starting parent item number.
3. Print Active Items Only?	Y or N. Enter Y to print active items only, or N to print all items. This field defaults to Y.
4. Type Of Data To Print	1 alphanumeric character. This field can have one of three values: S = Standard Data Only I = Inventory Data E = Engineering Data Inventory data reflects quantity on hand and quantity allocated totals for all locations. Quantity on order is for the default location only. Engineering drawing data includes engineering release and revision, and routing release, revision, and number. Default is S.
5. No Of Levels To Explode	2 numeric digits (99). Enter the number of levels you wish to see. Default is 11.
6. Blow Through Phantom Items?	Y or N. Component items, which are neither stocked nor controlled, are known as phantom items. Answering Y to this question allows you to blow through phantom items to the real component items, which are down one level.
7. Effectivity Date	A date in the standard date format. Enter the effectivity date you wish to use for print items. This date will be used to determine whether to include or exclude items. If you press RETURN, no selection will be made based upon effectivity date. You will not be prompted to enter this field unless you answered N to Print Active Items Only? Default is no selection based on effectivity date.
8. Print Reference Designators?	Y or N.

Name	Type and Description
	Enter Y to print reference designators or N to decline. Default is N.

Indented Bill Of Material Entry Screen

```
                          I N D E N T E D   B I L L   O F   M A T E R I A L

Ranges: Parent Item No PC             Thru PC
        Standard Data
        Active Items Only
        11 Levels With No Blow Through
        No Selection On Basis Of Effectivity Date

For Parent Item PC                    Parent Item (Mother Board)      Low Level Code  0   Engnr Relse
                                      Personal Computer

Lv Seq Component              Qty-Per  Um Ll Component                     Attch Scrap Act Stk Ctl PM Ord
       Item                   Parent         Description                   Oper  Factr Flg Flg Flg Cd Pol
  1  10 CPU                   1.000000 EA  1 Mother Board For Parent         30   .0  A   Y   Y  M  L
                                             Central Processing
  2  10  CLOCK                1.000000 EA  2 25 Meg Clock For Mother Board   30   .0  A   Y   Y  P  L
                                             Clock - 25M
  2  20  DATA-BUS             1.000000 EA  2 Data Bus/Buffer 25 Meg         30   .0  A   Y   Y  P  L
                                             Data - Buffer
  2  30  MEMMGR               1.000000 EA  2 Memory Manager For CPU Board   30   .0  A   Y   Y  P  L
                                             MEM - Manager
  2  50  RAM-2MEG             1.000000 EA  2 2 Meg Ram For Mother Board     30   .0  A   Y   Y  P  L
                                             Ram - 2 Meg
  2  60  RAM-ADDRES           1.000000 EA  2 Ram Address Multiplexer        30   .0  A   Y   Y  P  L
                                             Ram - Add - Mult
  2  70  RESET-CPU            1.000000 EA  2 CPU Reset for Board            30   .0  A   Y   Y  P  L
                                             CPU - Reset
  2  80  CPU-30MEG            1.000000 EA  2 Z80 Micro Processor 30 Meg     30   .0  A   Y   Y  P  L
                                             CPU - Z80
  2  90  VGA                  1.000000 EA  2 Monitor / Rom                  30   .0  A   Y   Y  P  L
                                             Monitor - Rom
  1  20 VIDEO-CD              1.000000 EA  1 Component/Sub Assmbly          30   .0  A   Y   Y  M  L
                                             Video Card For PC
  2  10  DISPLAY              1.000000 EA  2 Display Blanker For 25 MVideo  30   .0  A   Y   Y  P  L
                                             Display For Video Card
```

This Page Intentionally Blank

Single Level Where-Used Report

Application Overview
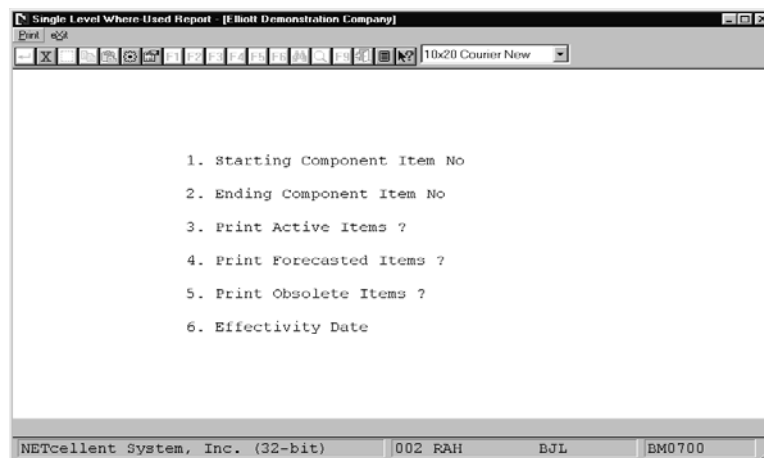
The Single Level Where-Used Report prints the single level parent for a selected range of component items.

A range of components is entered on the screen and the parents are located for each component. This is then printed on the Single Level Where-Used Report.

NOTE: The terms active, forecasted and obsolete refer here to structure records within the bills of material. For example, if you request to not show obsolete items, then if a component is flagged as obsolete within a particular parent, this particular parent will not be shown on the print-out. This will be the case, even if both the parent and component are flagged as active on the Inventory Item File.

Run Instructions

Select Single Level Where-Used from the pull down BOMP Reports window. The following screen will then be displayed:

Single Level Where-Used Report Entry Screen

The following options are available:

* Select the desired mode from the Single Level Where-Used 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.

Elliott

Entry Field Descriptions

Name	Type and Description
1. Starting Component Item No	15 alphanumeric characters. Enter the item number for the first component item for which you wish to print a Single Level Where-Used Report. Defaults to All.
2. Ending Component Item No	15 alphanumeric characters. Enter the item number of the last component item for which you wish to print a Single Level Where-Used Report. Defaults to the starting component item number.
3. Print Active Items?	Y or N. Enter Y to print active items or N to decline. This field defaults to Y.
4. Print Forecasted Items?	Y or N. Enter Y to print forecasted items or N to decline. This field defaults to N.
5. Print Obsolete Items?	Y or N. Enter Y to print obsolete items or N to decline. This field defaults to N.
6. Effectivity Date	A date in the standard date format. Enter the effectivity date you wish to use for printing items. This date will be used to determine whether to include or exclude items. If you press RETURN, no selection will be made based upon effectivity date. You will not be prompted to enter this field unless both active and forecasted have been selected for printing. Default is no selection based on effectivity date.

Single Level Where-Used Report

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


Ranges: All Component Items
        Active Items
        No Selection On Basis Of Effectivity Date


Parent               Qty Per  U/M  Llc   Parent                     Prod  Attch Act Stk Ctl  Engnr
Item                 Parent             Description                  Cat   Oper  Flg Flg Flg  Relse

Component Item CHAR-GEN           Character Generator At 25 Meg   Low Level Code  2  Engnr Relse
                                 Character - Gen - 25

VIDEO-CD             1.000000  EA    1   Component/Sub Assmbly         C       30   A   Y   Y
                             Video Card For PC

Component Item CLOCK             25 Meg Clock For Mother Board   Low Level Code  2  Engnr Relse
                                 Clock - 25M

CPU                  1.000000  EA    1   Mother Board For Parent       C       30   A   Y   Y
                             Central Processing

Component Item CPU               Mother Board For Parent        Low Level Code  1  Engnr Relse
                                 Central Processing

PC                   1.000000  EA    0   Parent Item (Mother Board)    PC      30   A   Y   Y
```

This Page Intentionally Blank

End Item Where-Used Report

Application Overview

The End Item Where-Used Report prints the end items that are parents at some level for a selected range of component items.

The operator can choose up to six different end item codes or default to All in defining the contents of this report.

The end item code, found on the Inventory Item record, is used to indicate whether the item is a salable item or only a component. Some items are salable as replacement parts and are also used as components of other items.

You can define the values of this field to be anything that you like, except for F and K, which are reserved for Feature and Kit Items. An example of how it could be used is included here for your reference.

> E = End Item Only
> C = Component Only
> R = Replacement Part

The application also allows the operator to choose whether or not he wishes to print active items, obsolete items, and/or forecasted items.

NOTE: The terms active, forecasted and obsolete refer here to structure records within the Bills of Material. For example, if you request to not show obsolete items, then if a component is flagged as obsolete within a particular parent, this particular parent will not be shown on the print-out. This will be the case, even if both the parent and component are still flagged as active on the Inventory Item File.

Run Instructions

Select End Item Where-Used from the pull down BOMP Reports window. The following screen will then be displayed:

End Item Where-Used Entry Screen

The following options are available:

* Select the desired mode from the End Item Where-Used 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 Component Item No	15 alphanumeric characters. Enter the item number of the first component item for which you wish to print an End Item Where-Used Report. Default is All.
2. Ending Component Item No	15 alphanumeric characters. Enter the item number of the last component item for which you wish to print an End Item Where-Used Report. Default is the starting component item number.

Name	Type and Description
3. Print Active Items?	Y or N. Enter Y to print active items or N to decline. This field defaults to Y.
4. Print Forecasted Items?	Y or N. Enter Y to print forecasted items or N to decline. This field defaults to N.
5. Print Obsolete Items?	Y or N. Enter Y to print obsolete items or N to decline. This field defaults to N.
6. End Item Codes To Print	Enter up to six (6) end item codes. Press the RETURN key twice to terminate entry if less than six codes are to be entered. Press the F1 key to select All. Defaults to those parents, which have no parents themselves and/or a low level code of zero.
7. Effectivity Date	A date in the standard date format. Enter the effectivity date you wish to use for printing items. This date will be used to determine whether to include or exclude items. If you press RETURN, no selection will be made based upon effectivity date. You will not be prompted to enter this field unless both active and forecasted have been selected for printing. Default is no selection based on effectivity date.

Note: "Y" must be entered in 3, 4 or 5 to print reports.

End Item Where-Used

E N D   I T E M   W H E R E - U S E D

Ranges: All Component Items
        Active Items
        Only Items At Highest Level Of Product Structure Included
        No Selection On Basis Of Effectivity Date

Level	Parent Item	Llc	U/M	Parent Description	Prod Cat	Attch Oper	Act Flg	Stk Flg	Ctl Flg	Engnr Relse	Summarized Qty Req
For Component Item CHAR-GEN				Character Generator At 25 Meg Character - Gen - 25	Low Level Code			2		Engnr Relse	
2	PC	0	EA	Parent Item (Mother Board) Personal Computer	FG	30	A	Y	Y		1.000000
For Component Item CLOCK				25 Meg Clock For Mother Board Clock - 25M	Low Level Code			2		Engnr Relse	
2	PC	0	EA	Parent Item (Mother Board) Personal Computer	FG	30	A	Y	Y		1.000000
For Component Item CPU				Mother Board For Parent Central Processing	Low Level Code			1		Engnr Relse	
1	PC	0	EA	Parent Item (Mother Board) Personal Computer	FG	30	A	Y	Y		1.000000

This Page Intentionally Blank

Option Item Where-Used Report
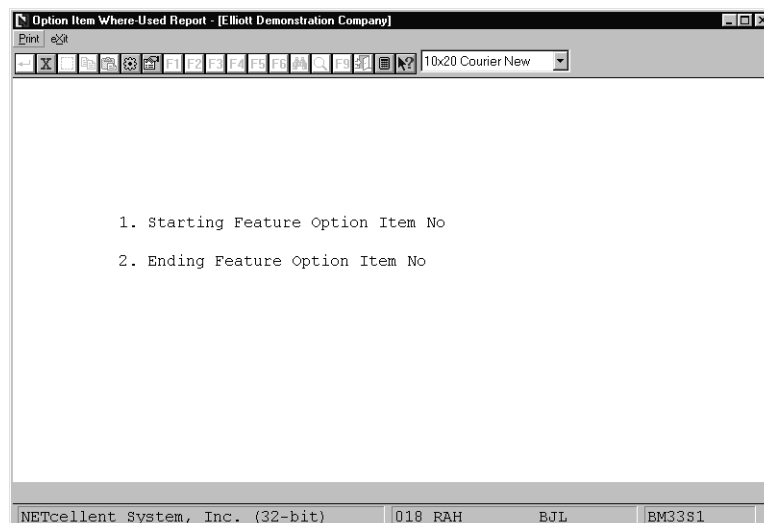
Application Overview

The **Option Item Where-Used Report** prints the feature items that are parents for a range of option items.

For each option item, the report prints the parent feature item along with a description of each. It also prints the feature number
under which the option item is located in the feature/option configuration.

Run Instructions

Select **Option Item Where-Used Report** from the pull down **BOMP Reports** window. The following screen will then be displayed:


```
Option Item Where-Used Report - [Elliott Demonstration Company]
Print  eXit

                                   10x20 Courier New




            1. Starting Feature Option Item No

            2. Ending Feature Option Item No






NETcellent System, Inc. (32-bit)    018 RAH      BJL       BM33S1
```

Option Item Where-Used Report Entry Screen

The following options are available:

> *   Select the desired mode from the **Option Item Where-Used 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 Feature Option Item No	15 alphanumeric characters. Enter the starting option 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. Defaults to **All** option items.
2. Ending Feature Option Item No	15 alphanumeric characters. Enter the ending option 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. Defaults to the starting feature option item number.

Option Item Where-Used Report

```
                  O P T I O N   I T E M   W H E R E - U S E D   R E P O R T

All Items Selected

Option Item        Option Item Description
     Feature Item        Feature Item Description                               Qty/Per   Feature No
BOX-386-1          Basic SM Box w/7 Exp 6-16 1-8

     PC-386               386 Personal Computer      Customize During Order Entry   1.000000   001
BOX-386-2          Adv Box HDps 8 Exp 32 5-16 2-8

     PC-386               386 Personal Computer      Customize During Order Entry   1.000000   001
DOS-IBM-1          IBM Version 3.2 DOS Package

     PC-386               386 Personal Computer      Customize During Order Entry   1.000000   010
DOS-IBM-2          IBM Version 4.01 DOS Package

     PC-386               386 Personal Computer      Customize During Order Entry   1.000000   010
DOS-MSF-1          MS Version 3.1 DOS Package

     PC-386               386 Personal Computer      Customize During Order Entry   1.000000   010
DOS-MSF-2          MS Version 3.3 DOS Package
```

This Page Intentionally Blank

Summarized Bill Of Material Report

Application Overview

The Summarized Bill Of Material Report application prints a selected number of levels of components for a selected range of parent items summarizing for each component the total required at all levels.
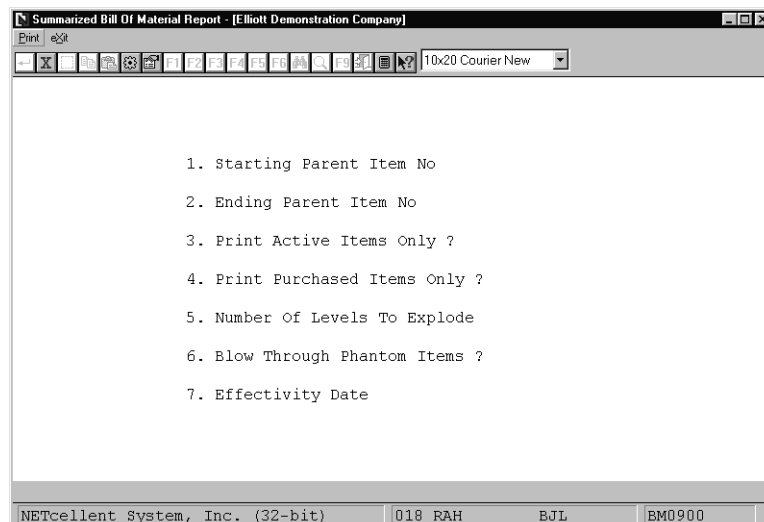
It offers the option of blowing through phantom items (non-stocked, non-controlled component items) to show the phantom item's components in place of the phantom item itself.

It also allows the operator to choose how many levels are to be printed.

The options to print active items only and purchased items only are also included.

Run Instructions

Select Summarized Bill Of Material from the pull down BOMP Reports window. The following screen will then be displayed:

Summarized Bill Of Material Entry Screen

The following options are available:

        *   Select the desired mode from the Summarized Bill Of Material 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 Parent Item No	15 alphanumeric characters. Enter the item number of the first parent item for which you wish to print a Summarized Bill Of Material Report. Default is All.
2. Ending Parent Item No	15 alphanumeric characters. Enter the item number of the last parent item for which you wish to print a Summarized Bill Of Material Report. Default is the starting parent item number.
3. Print Active Items Only?	Y or N. Enter Y to print active items only, or N to include active, forecasted, and obsolete items. This field defaults to Y.
4. Print Purchased Items Only?	Y or N. Enter Y to print purchased items only, or N to include purchased and manufactured items. This field defaults to Y.
5. Number Of Levels To Explode	2 numeric digits (99). Enter the number of levels you wish to see. Default is 11.
6. Blow Through Phantom Items?	Y or N. Component items, which are neither stocked nor controlled, are known as phantom items. Answering Y to this question allows you to blow through phantom items to the real component items, which are down one level. Default is N.
7. Effectivity Date	A date in the standard date format. Enter the effectivity date you wish to use for printing items. This date will be used to determine whether to include or exclude items. If you press RETURN, no selection will be made based upon effectivity date. You will not be prompted to enter this field unless you answer N to Print Active Items Only? Default is no selection based on effectivity date.

Print Summarized Bill Of Material

```
                    S U M M A R I Z E D   B I L L   O F   M A T E R I A L

Ranges: All Parent Items
        Active Items Only
        11 Levels With No Blow Through
        Purchased Items Only
        No Selection On Basis Of Effectivity Date
Inventory Quantities Reflect Totals For All Locations (On Order Quantity Is For The Default Location Only)

For Parent Item CPU               Mother Board For Parent      Low Level Code  1    Engnr Relse
                                  Central Processing

Component        Summarized   U/M Llc Component                    Qty        Qty       Qty    Act Stk Ctl P/M  Buy Comm
Item             Qty Req              Description                  On-Hand    Alloc   On-Order Flg Flg Flg Cde  Anl Code

CLOCK            1.000000  EA   2 25 Meg Clock For Mother Board   15.000     .000      20.000  A   Y   Y   P    2
                                 Clock - 25M

CPU-30MEG        1.000000  EA   2 Z80 Micro Processor 30 Meg       5.000     .000       .000   A   Y   Y   P    2
                                 CPU - Z80

DATA-BUS         1.000000  EA   2 Data Bus/Buffer 25 Meg          15.000     .000      50.000  A   Y   Y   P    1
                                 Data - Buffer

MEMMGR           1.000000  EA   2 Memory Manager For CPU Board    15.000     .000      40.000  A   Y   Y   P    2
                                 MEM - Manager

RAM-2MEG         1.000000  EA   2 2 Meg Ram For Mother Board       5.000     .000       .000   A   Y   Y   P    1
```

This Page Intentionally Blank

Gross Requirements Report

Application Overview

The Gross Requirements Report application prints a selected number of levels of components for a selected quantity of a parent item or items, summarizing for each component, the total quantity required at all levels.
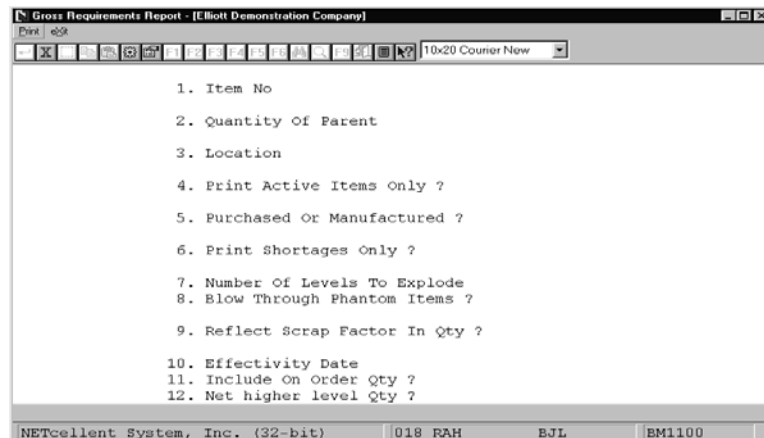
It offers the option of blowing through phantom items (non-stocked, non-controlled component items) to show the phantom item's components in place of the phantom item itself.

It also allows the operator to choose how many levels are to be printed.

The options to print active items only and purchased items only are also included.

Run Instructions

Select Gross Requirements from the pull down BOMP Reports window. The following screen will then be displayed:


```
1. Item No

2. Quantity Of Parent

3. Location

4. Print Active Items Only ?

5. Purchased Or Manufactured ?

6. Print Shortages Only ?

7. Number Of Levels To Explode
8. Blow Through Phantom Items ?

9. Reflect Scrap Factor In Qty ?

10. Effectivity Date
11. Include On Order Qty ?
12. Net higher level Qty ?
```

Gross Requirements Entry Screen

The following options are available:

* Select the desired mode from the Gross Requirements 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. Item No	15 alphanumeric characters. Enter the item number of the first parent item for which you wish to print a Gross Requirements Report. Press the F7 key to search by item number or press the F8 key to search by item description. After all of the data is entered for the first parent item and quantity to be evaluated, you may enter as many more as you wish. After the first parent item, press the ESC key to delete the parents already entered and begin again. Press the F1 key to view items already selected for the report. Press the F10 key to end item selection and print the report.
2. Quantity Of Parent	A standard quantity format. Enter the quantity of the parent for which you wish to print the Gross Requirements Report. Defaults to 1.
3. Location	2 alphanumeric characters. Enter the location for which the report will be printed. The item entered above must be stocked at the location entered here. Defaults to All locations.
4. Print Active Items Only?	Y or N. Enter Y to print active items only or N to include active, forecasted and obsolete items. This field defaults to Y.
5. Purchased Or Manufactured?	1 alphanumeric character. Valid entries are: P = Purchased M = Manufactured B = Both Enter P to print only purchased items; M to print only manufactured items, or B to print both. Defaults to P.
6. Print Shortages Only?	Y or N. Enter Y to only print items for which a shortage exists. Enter N to print all items. This allows you to easily see the items that require additional inventory to meet the specified requirements. Defaults to N.
7. Number Of Levels To	2 numeric digits (99).

Name	Type and Description
Explode?	Enter the number of levels you wish to see.
	Default is 11.
8. Blow Through Phantom Items?	Y or N.
	Component items, which are neither stocked nor controlled, are known as phantom items. Answering Y to this question allows you to blow through phantom items to the real component items, which are down one level.
	Default is N.
9. Reflect Scrap Factor In Qty?	Y or N.
	If Y is entered, the shrink/scrap factor entered in the Product Structure File Maintenance application will be included in the calculation of the quantity-required field in the report.
10. Effectivity Date	A date in the standard date format.
	Enter the effectivity date you wish to use for printing items. This date will be used to determine whether to include or exclude items. If you press RETURN, no selection will be made based upon effectivity date.
	You will not be prompted to enter this field unless you answer N to Print Active Items Only?
	Default is no selection based on effectivity date.

Print Gross Requirements Report

Function Key Options for Multiple Parents

Work File Search Pop-up Window

G R O S S   R E Q U I R E M E N T S   R E P O R T

Ranges: Active Items Only
        11 Levels With No Blow Through
        Both Purchased And Manufactured Items
        No Selection On Basis Of Effectivity Date
        Inventory Quantities Reflect Totals For Location LA
        '**' = Qty Required Exceeds Qty Available For Item

For Parent Item CPU   Mother Board For Parent   Low Level Code 1 Engnr Relse   Qty Requested   1.000
                             Central Processing

Item-No	Qty Required	Qty On-Hand	Qty Allocated	Qty Backordered	Qty On-Order	Bkord Code	Stk Sts	Pur Mfg	Stked?	Qty Short
CLOCK	25 Meg Clock For Mother Board Clock – 25M									
	1.000000	8.000	7.000-	.000	.000		Reo	Pur	Y	
CPU-30MEG	Z80 Micro Processor 30 Meg CPU – Z80									
	1.000000	2.000-	7.000-	.000	.000		O/S	Pur	Y	
DATA-BUS	Data Bus/Buffer 25 Meg Data – Buffer									
	1.000000	8.000	7.000-	.000	50.000			Pur	Y	
MEMMGR	Memory Manager For CPU Board MEM – Manager									
	1.000000	8.000	7.000-	.000	40.000			Pur	Y	
RAM-2MEG	2 Meg Ram For Mother Board Ram – 2 Meg									
	1.000000	2.000-	7.000-	.000	.000		O/S	Pur	Y	
RAM-ADDRES	Ram Address Multiplexer Ram – Add – Mult									
	1.000000	8.000	7.000-	.000	10.000			Pur	Y	

This Page Intentionally Blank

Job Distribution History Report

Application Overview
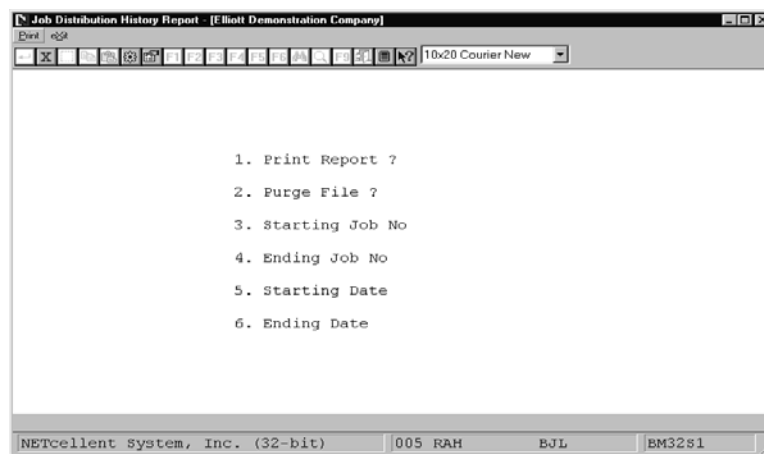
When a production order is entered through the Production Order Entry application, job numbers may be assigned to the production order. After printing the production work order, the user may then enter a transaction against the order. After posting the production transactions using the Post Production Transactions application, records are written to the Job History File.

The Job Distribution History Report prints by job number, records posted to the Job History File for the range of job numbers, and dates specified by the user. The report shows quantity, price, and cost figures as well as totals that have been applied to each job.

The Job Distribution History File may be purged when the report is printed, or the data may be retained on file for future reference.

Run Instructions

Select Job Distribution History Report from the pull down BOMP Reports window. The following screen will then be displayed:

Job Distribution History Report Entry Screen

The following options are available:

        *   Enter the data requested on the screen
        *   To exit press the ESC or F10 key when the cursor is positioned for entry of the first field 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. Print Report?	Y or N. Enter Y to print the report. Enter N if you do not wish to have the report printed, but do wish to purge the data file. ? The default is Y.
2. Purge File?	Y or N. Enter Y if you wish to have the Job Distribution File purged for the range selected to conserve disk space. Enter N if you wish to have all of the data in the Job Distribution File retained for future reference. The default is N.
3. Starting Job No	6 alphanumeric characters. Enter the first job to appear on the report. This field defaults to All.
4. Ending Job No	6 alphanumeric characters. Enter the last job to appear on the report. This field defaults to the starting job number to make it easy to print the report for a single job.
5. Starting Date	A date in the standard date format. Enter the beginning date of the period for which the report is to be printed. This field defaults to All.
6. Ending Date	A date in the standard date format. Enter the ending date of the period for which the report is to be printed. This field defaults to the starting date.

Job Distribution History Report

```
            B O M P   J O B   D I S T R I B U T I O N   H I S T O R Y   R E P O R T

Ranges: For All Jobs
        For All Dates

Job No  Description           Trx Date Order-No  Othr-Order Loc Item No        Quantity  Unit Price    Unit Cost    Distributed
        Account No        Description                                                                                   Amount

PC-386  PC-386 Personnel Computer

        01140-10000-00000  Inventory - Feature Item Goods

                            04/06/92   110  BM       LA  PC-386            3.000  2,549.9500     905.6500      2,716.95
                                                                                       Account Total:        2,716.95
                                                                                           Job Total:        2,716.95
                                                                                         Grand Total:        2,716.95
```

This Page Intentionally Blank

Engineering Change History Report

Application Overview

The **Engineering Change History Report** prints a record of engineering changes made to parent items in the Product Structure File through **Engineering Change Processing** and the **Post Engineering Changes** applications.

It provides information about each change, including the engineering change number; description of the change and which sequence numbers and components were affected. Also provided are the date the change was supposed to become effective and the date it was posted. The user may choose to print the report and to purge the Engineering Change File. Changes to be included in the report may be selected by change number and/or parent item number. The user may also set a cutoff date for changes posted to the Product Structure File. Any changes posted after the cutoff date will be excluded from the report.

Run Instructions

Select **Engineering Change History Report** from the pull down **BOMP Reports** window. The following screen will then be displayed:
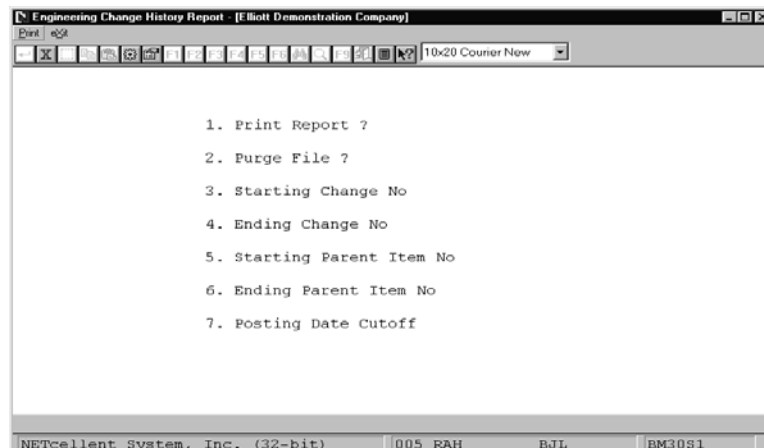
Engineering Change History Report

The following options are available:

      * Select the desired mode from the **Engineering Change 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. Print Report?	**Y** or **N**. Enter **Y** to print the report. Enter **N** if you do not wish to have the report printed but do wish to purge the data file. The default is **Y**.
2. Purge File ?	**Y** or **N**. Enter **Y** if you wish to have the Engineering Change History File purged for the range selected. Enter **N** if you wish to have all data in the Engineering Change History File retained for future reference. The default is **N**.
3. Starting Change No	6 numeric digits. Enter the first engineering change number to appear on the report. The default is **All**.
4. Ending Change No	6 numeric digits. Enter the last engineering change number to appear on the report. This field defaults to the starting job number.
5. Starting Parent Item No	15 alphanumeric characters. Enter the starting parent item number for the range of items to appear on the report. The default is **All**.
6. Ending Parent Item No	15 alphanumeric characters. Enter the ending parent item number for the range of items to appear on the report. The default is the starting parent item number.
7. Posting Date Cutoff	A date in the standard date format. Enter the posting cutoff date you wish to use for printing the report. Engineering changes posted after this date will not be printed. The default is **All**.

Engineer Change History Report

```
                    E N G I N E E R I N G   C H A N G E   H I S T O R Y   R E P O R T
Ranges: All Changes
        All Parent Items
        All Dates Posted

Change No  Change Description          Parent Item    Parent Description         Effective Date  Date Posted
   9001    CPU Information change. May  PC             Parent Item (Mother Board)   02/25/92       02/25/92
           redirect operation option if                Personal Computer
           necessary. Status is optional.

Seq Action Component Item    Qty Per  Um Component Description       Llc Attch Scrap Act Stk Ctl P/M Eff Date  Posting Note
10   C     CPU              1.000000 EA Mother Board For Parent       1   30    .0   A   Y   Y   M              Changed
                                        Central Processing
                                        CPU 386 operation position 30. Maintain inspection status
                                        for sub-assembly CPU. Operation position is portable as
                                        needed. Inspection operation may need additional queue.


   1 Changes Printed
```

This Page Intentionally Blank

Production Transaction History Report

Application Overview

The **Production Transaction History Report** application prints a record of production transactions reported for selected production orders. It allows the user to see how many items were reported in each transaction as well as the total amount reported as of a specified date.
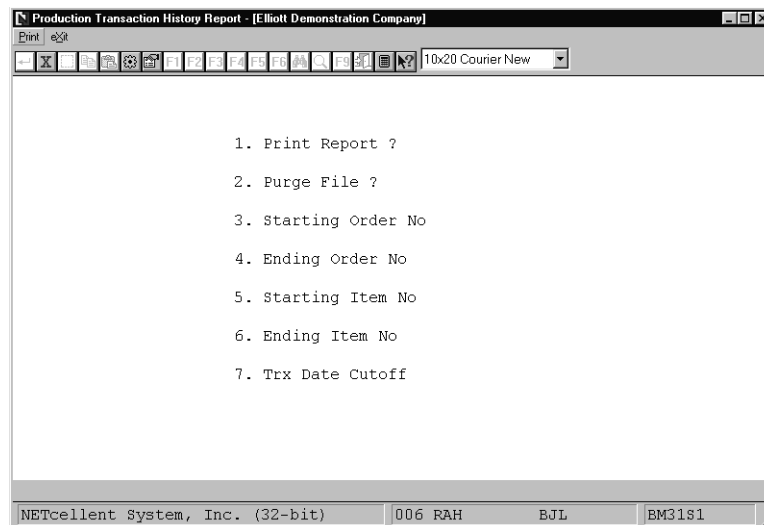
The user may elect to only print the report or to only purge the data file, or to do both. The user may also define a range of production orders whose transactions will be printed. If the user enters a transaction cutoff date, only transactions with production dates on or before that date will be printed. If no cutoff date is entered, all transactions will be printed.

Only production transactions that have been posted in the **Post Production Transactions** application are eligible to be included in this report.

Note: Complete order histories must be purged in this application before the orders can be purged from the Order File using the **Purge Complete Orders** application.

Run Instructions

Select **Production Transaction History Report** from the pull down **BOMP Reports** window. The following screen will then be displayed:


```
 Production Transaction History Report - [Elliott Demonstration Company]          _ □ ×
 Print  eXit

             1. Print Report ?

             2. Purge File ?

             3. Starting Order No

             4. Ending Order No

             5. Starting Item No

             6. Ending Item No

             7. Trx Date Cutoff




 NETcellent System, Inc. (32-bit)        006 RAH        BJL        BM31S1
```

Production Transaction History Report 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. Print Report?	**Y** or **N**. Enter **Y** to print the report. Enter **N** if you do not wish to have the report printed but do wish to purge the data file. The default is **Y**.
2. Purge File?	**Y** or **N**. Enter **Y** if you wish to have the Production Transaction History File purged for the range selected. Enter **N** if you wish to have all data in the file retained for future reference. The default is **N**.
3. Starting Order No	6 numeric digits. Enter the first production order number to appear on the report. The default is **All**.
4. Ending Order No	6 numeric digits. Enter the last production order number to appear on the report. This field defaults to the starting order number.
5. 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**.
6. 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 No.
7. Trx Date Cutoff	A date in the standard date format. Enter a transaction cutoff date. Only transactions with production dates on or before this date will be included in the reports.

Name	Type and Description
	Defaults is **All**.

Production Transaction History Report

```
                    P R O D U C T I O N   T R A N S A C T I O N   H I S T O R Y   R E P O R T

Ranges: All Orders
        All Items
        All Dates Printed

Order No Loc Item No        Description            Order Qty   Rptd. Qty Trx Date Cmpl? Job No Serial/Lot Information
    101  LA  PC-386         386 Personal Computer      5.000     4.000
                                                                 1.000 02/14/92  No
                                                                 1.000 02/17/92  No
                                                                 2.000 02/18/92  No

    104  LA  PC             Parent Item (Mother Board)  100.000  25.000
                                                                 1.000 02/17/92  No    PCA933333330001
                                                                 1.000 02/17/92  No    PCA933333330002
                                                                 1.000 02/17/92  No    PCA933333330003
                                                                 1.000 02/17/92  No    PCA933333330004
                                                                 1.000 02/17/92  No    PCA933333330005
                                                                 1.000 02/17/92  No    PCA933333330006
                                                                 1.000 02/17/92  No    PCA933333330007
                                                                 1.000 02/17/92  No    PCA933333330008
                                                                 1.000 02/17/92  No    PCA933333330009
                                                                 1.000 02/17/92  No    PCA933333330010
                                                                 1.000 02/17/92  No    PCA933333330011
                                                                 1.000 02/17/92  No    PCA933333330012
                                                                 1.000 02/17/92  No    PCA933333330013
                                                                 1.000 02/17/92  No    PCA933333330014
```

This Page Intentionally Blank
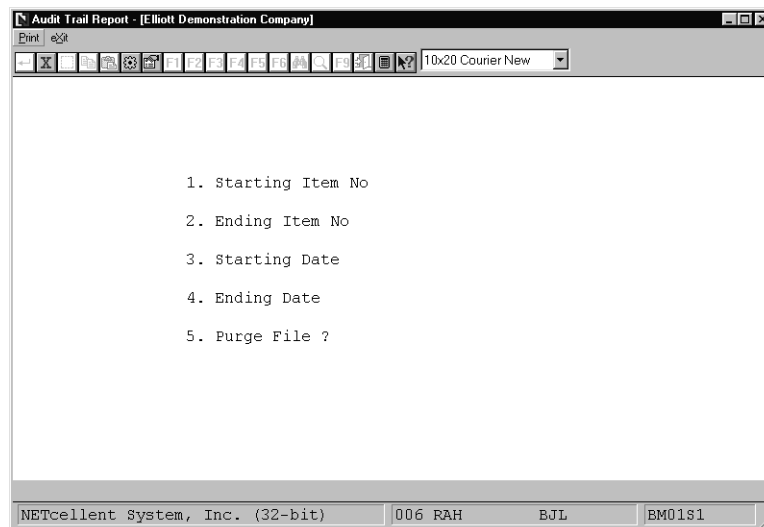
Audit Trail Report

Application Overview

The Audit Trail Report can be printed at any time showing all additions, changes and deletions to the Product Structure File.

Run Instructions

Select Audit Trail Report from the pull down BOMP Maintenance window. The following screen will be displayed:

Audit Trail Report Entry Screen

The following options are available:

  * Select the desired mode from the Audit Trail 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 Item No	15 alphanumeric characters. Enter the item number of the first item for which you wish to print an Audit Trail Report. Default is All.
2. Ending Item No	15 alphanumeric characters. Enter the item number of the last item for which you wish to print an Audit Trail Report. Default is the starting item number.
3. Starting Date	A date in the standard date format. Enter the starting date in the range you want to print, or press RETURN to default to All dates.
4. Ending Date	A date in the standard date format. Enter the ending date in the range you want to print. The default is the starting date.
5. Purge File ?	Y or N. Enter Y to purge the file or N to decline. Default is N.

Elliott

```
┌─────────────────────────────────────────────────────────────────────────┐
│ Audit Trail Report - [Elliott Demonstration Company]              _ □ X  │
│ Print  eXit                                                               │
│ ←│X│□│▣│⊙│□│F1│F2│F3│F4│F5│F6│AA│ᴀ│F9│◧│▤│�?│ 10x20 Courier New    ▼      │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│              1. Starting Item No  All                                     │
│                                                                           │
│              2. Ending Item No                                            │
│                                                                           │
│              3. Starting Date    All                                      │
│                                                                           │
│              4. Ending Date                                               │
│                                                                           │
│              5. Purge File ?      N                                       │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                           │
│ Field Number ?  □                                                         │
│ NETcellent System, Inc. (32-bit)        │006 RAH      │BJL    │BM01S1    │
└─────────────────────────────────────────────────────────────────────────┘
```

Audit Trail Report

```
                    P R O D U C T   S T R U C T U R E   F I L E   A U D I T   T R A I L

Ranges: All Dates
        All Parent Items
Actions: A = Addition   B = Before Change   C = Change   D = Deletion   R = Replace

Parent Item      Date  User-Id  Seq Description              Component Item     Qty-Per    Att Scrap Act  Usr Information
       Action    Time  Terminal No                          Orig Component                Oper      Flag

CPU            07/02/91         10 25 Meg Clock For Mother Board  CLOCK         1.000000   0030  .0  A
       A       05:51:42    2       Clock - 25M

CPU            02/25/92         10 25 Meg Clock For Mother Board  CLOCK         1.000000   0030  .0  A
       B       07:55:35    0       Clock - 25M

CPU            02/25/92         10 25 Meg Clock For Mother Board  CLOCK                    0030
       C       07:55:35    0       Clock - 25M

CPU            04/15/92         10 25 Meg Clock For Mother Board  CLOCK         1.000000   0030  .0  A
       B       09:45:05   16       Clock - 25M

CPU            04/15/92         10 25 Meg Clock For Mother Board  CLOCK                    0030
       C       09:45:06   16       Clock - 25M

CPU            04/17/92         10 25 Meg Clock For Mother Board  CLOCK         1.000000   0030  .0  A
       B       11:11:10    5       Clock - 25M

CPU            04/17/92         10 25 Meg Clock For Mother Board  CLOCK                    0030
```

Elliott

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


```
Production History Report - [Elliott Demonstration Company]
Print  eXit

                    1. Starting Order No
                    2. Ending Order No
                    3. Starting Trx Date
                    4. Ending Trx Date
                    5. Starting Work Center
                    6. Ending Work Center
                    7. Location
                    8. Starting Product Category
                    9. Ending Product Category
                   10. Starting Item No
                   11. Ending Item No
                   12. Show Cost ?
                   13. Sorting Sequence
                   14. Detail Level
                   15. Count Point
                   16. Print Prd Cost Detail?
                   17. Print Burden Detail?
                   18. Include Estimate Var?
                   19. Purge File ?

NETcellent System, Inc.        030 CHK      TS2CHK      BM3100
```

(Figure 40) 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 41) 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 Dir-Lab-Hr Shr-Lab-Hr Machine-Hr
                                                              Scrap-Qty

200040 LA FLANGE       Flange w/ 6 holes            10.00     10.00        .17        .01        .17
                                                              3.00  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%
                                                    =================================================================
```

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

```
┌─────────────────────────────────────────────────────────────────────┐
│ 🌎 B/M Distribution To G/L Report - [Elliott Demonstration Company]  _□×│
│ Print  eXit                                                           │
│ X □ ▣▣⚙▣□▣▲▲◮Q▣▲▣◢▣◉𝑓)▣▶? 08x15 Fixedsys              ▼ │
│ B/M Distribution To G/L Report                                        │
│                      Please Enter:                                    │
│                                                                       │
│                     1. Purge File ?                                   │
│                     2. Period Starting Date                           │
│                     3. Period Ending Date                             │
│                     4. Starting Account                               │
│                     5. Ending Account                                 │
│                     6. Starting Product Cat                           │
│                     7. Ending Product Cat                             │
│                     8. Starting Product No                            │
│                     9. Ending Product No                              │
│                    10. Customer No                                    │
│                    11. Job No                                         │
│                    12. Order Type                                     │
│                    13. Starting Order No                              │
│                    14. Ending Order No                                │
│                    15. Print Dist Type                                │
│                    16. Detail Or Summary ?                            │
│                                                                       │
│ NETcellent System, Inc.           030 CHK    TS2CHK    BMDISCN        │
└─────────────────────────────────────────────────────────────────────┘
```

(Figure 43) 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**.

Elliott

```
┌──────────────────────────────────────────────────────────────────────────┐
│ 🌏 B/M Distribution To G/L Report - [Elliott Demonstration Company]   _□×  │
│  Print  eXit                                                                │
│ ╔════════════════════════════════════════════════════════════════════════╗│
│ X□ 🗋🗐⚙🗊🗐🖳🔺🏭🔍🌏🎐🦊🔗ƒ)🗐▶?  08x15 Fixedsys               ▼ │
│ B/M Distribution To G/L Report                                             │
│                                                                            │
│              Please Enter:                                                 │
│                                                                            │
│                 1. Purge File ?              N                             │
│                 2. Period Starting Date    Earliest                        │
│                 3. Period Ending Date      09/21/10                        │
│                 4. Starting Account          All                           │
│                 5. Ending Account                                          │
│                 6. Starting Product Cat      All                           │
│                 7. Ending Product Cat                                       │
│                 8. Starting Product No       All                           │
│                 9. Ending Product No                                        │
│                10. Customer No               All                           │
│                11. Job No                    All                           │
│                12. Order Type               All                            │
│                13. Starting Order No         All                           │
│                14. Ending Order No                                          │
│                15. Print Dist Type           All                           │
│                16. Detail Or Summary ?       D                             │
│                                                                            │
│ Field Number ?  ▢                                                          │
│ NETcellent System, Inc.          030 CHK      TS2CHK      BMDISCN          │
└──────────────────────────────────────────────────────────────────────────┘
```

(Figure 44) B/M Distribution Report Entry Screen

```
                BOMP  DISTRIBUTION  TO  GENERAL  LEDGER  DETAIL  REPORT

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       Description          Trx      Order Product    Amount    Quantity   Unit-Cost        Amount
   No                              Date      No    No         Removed                             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       Description          Trx      Order Product          Quantity   Unit-Cost          Amount
   No                              Date      No    No                                           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
```

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.
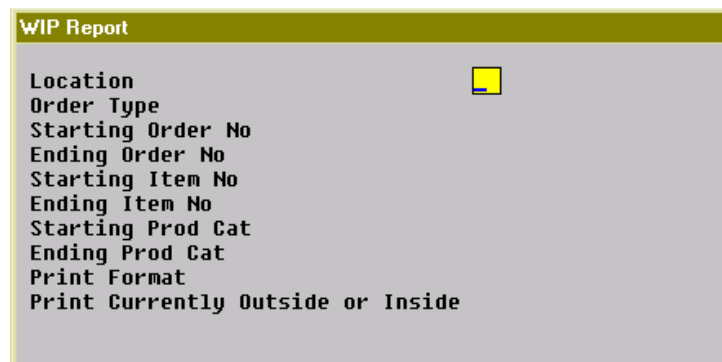
Parts sent outside the company for processing will distribute to the outside WIP amount. This report can separate outside and inside WIP amounts. The system calculates outside pieces based on unfinished productions with outside process operations. Unfinished productions have been started, but not yet 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 46) WIP Detail Report Entry Screen

Entry Field Descriptions

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.

Name	Type and Description
	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: 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:

Name	Type and Description
	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 47) 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    Start@   Age Outstanding   Mtrl-WIP Dir-Lab-WIP Shr-Lab-WIP  Burden-WIP   Other-WIP   Total-WIP
                                                               Scrap-Qty                        Qty


        O000109 LA PC-386         386 Personal Computer           .00      09/20/10   8     1.00       997.65                                                        997.65
                                  Customize During Order Entry
        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
```

Elliott

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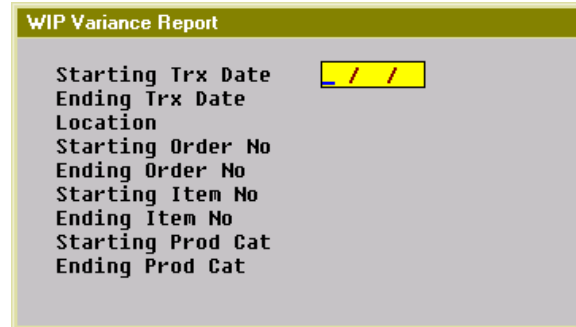
Standard Cost Variance amount may be present if Standard Cost is used as the Inventory Cost Method. Legacy, Material and Plus Work Orders will have this amount when the production cost differs from the standard cost.

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

WIP Variance Report

```
Starting Trx Date        _ /  /
Ending Trx Date
Location
Starting Order No
Ending Order No
Starting Item No
Ending Item No
Starting Prod Cat
Ending Prod Cat
```

(Figure 49) 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.

WIP Variance Report

```
Starting Trx Date      All
Ending Trx Date
Location               All Locations
Starting Order No      All
Ending Order No
Starting Item No       All
Ending Item No
Starting Prod Cat      All
Ending Prod Cat

Any Change ? N
```

(Figure 50) 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        368.49     52.6414
  05/11/10 Flange w/ 6 holes         Milling                        3.00       7.5400       0.14
  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
```

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.
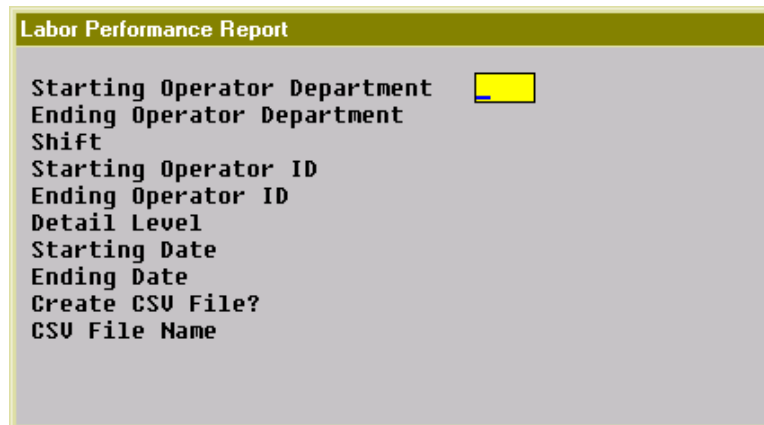
The report prints a percentage or ratio of each type of time. The productive hours and non-productive hours are added to give total work time and the percentage of productive and non-productive hours are calculated based on this total work time. Break time and meal break time are compared to total work 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 52) Labor Performance

Elliott

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.

```
Labor Performance Report

Starting Operator Department    All
Ending Operator Department
Shift                           All
Starting Operator ID            All
Ending Operator ID
Detail Level                    Y Yearly Summary
Starting Date                   All
Ending Date
Create CSV File?                Y
CSV File Name
TEST.CSV

Any Change ? N
```

(Figure 53) 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

                            ----Productive---- --Non Productive--          -------Break------ ----Meal Break----
 Operator   Year              Hours    Pct       Hours    Pct  Total-Hrs     Hours  Ratio      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%
            =======================================================================================================
```

Elliott

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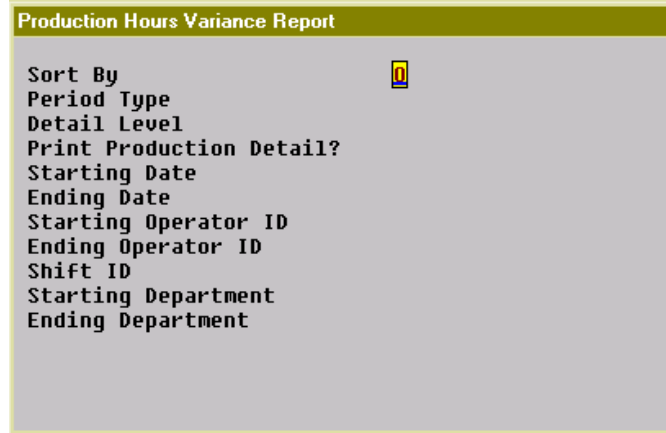
The report separates labor hours into direct labor and shared labor. Direct labor is the labor directly reported for the work order and is required to report production. Shared labor does not need to report production and the time is shared with the work order.

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 55) 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. Default to **D**

Elliott

Name	Type and Description
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 Key** to search for an existing work center ID.

Name	Type and Description
	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.

```
Production Hours Variance Report

Sort By                        W by Work Center
Period Type                    Y Yearly Summary
Detail Level                   D Department Level
Print Production Detail?       N
Starting Date                  All
Ending Date
Starting Operator ID           All
Ending Operator ID
Shift ID                       All
Starting WC Departmentt        All
Ending WC Department
Starting Work Center           All
Ending Work Center

Any Change ? N
```

(Figure 56) 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

                                          ------------Direct-Labor------------ ------------Shared-Labor------------ ----------------Total---------------
Dept               Year                   Plan-Hrs Complete Variance     Var% Plan-Hrs Complete Variance     Var% Plan-Hrs Complete Variance       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-%
                                          @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
```

Production Cost Variance Report
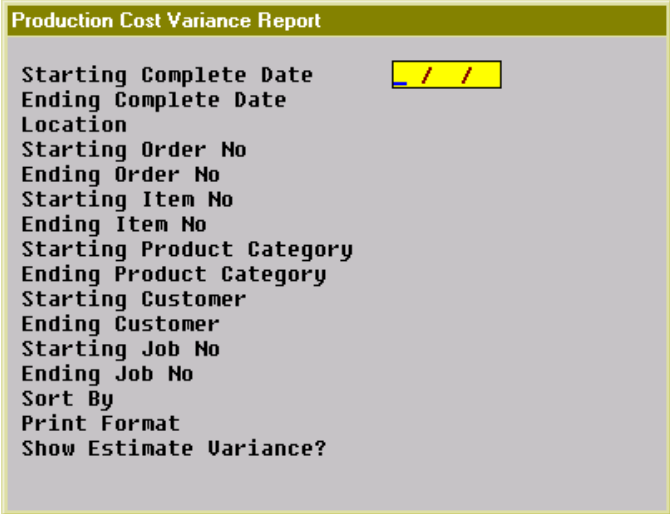
Application Overview

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

```
Production Cost Variance Report

 Starting Complete Date       _  /  /
 Ending Complete Date
 Location
 Starting Order No
 Ending Order No
 Starting Item No
 Ending Item No
 Starting Product Category
 Ending Product Category
 Starting Customer
 Ending Customer
 Starting Job No
 Ending Job No
 Sort By
 Print Format
 Show Estimate Variance?
```

(Figure 58) 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**.
	Enter **Y** to print the variance, even if the variance is estimated. By selecting **Y**, the

Name	Type and Description
	report will reveal the variance fields available. Defaults to **N**.

(Figure 59) Production Cost Variance Selection Screen

(Figure 60) Production Cost Variance Report
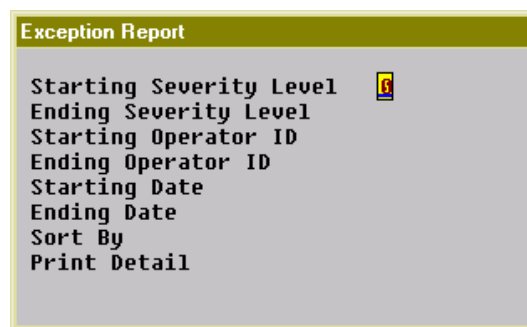
Exception Report

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

```
Exception Report

Starting Severity Level    0
Ending Severity Level
Starting Operator ID
Ending Operator ID
Starting Date
Ending Date
Sort By
Print Detail
```

(Figure 61) 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**.
Ending Operator ID	10 alphanumeric characters. Enter the ending operator ID for a range of exceptions for the selected operators.

Name	Type and Description
	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**.

Exception Report

```
Starting Severity Level    0
Ending Severity Level      9
Starting Operator ID       All
Ending Operator ID
Starting Date              All
Ending Date
Sort By                    S
Print Detail               N

Any Change ? N
```

(Figure 62) 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
```

This Page Intentionally Blank

Util-Setup

BOMP Setup

Application Overview

BOMP Setup, like Company Setup, is not an application that you will need to run frequently. Through this application you will answer some questions that will have a bearing on the way other applications in the package will run.

BOMP Setup is a very simple application, which allows you to add or change some key information in the BOMP Control File. However, the answers you give will affect the way in which other applications will run, so be sure to answer the questions in accordance with your real needs.

For example, companies can elect to keep an audit trail of the Product Structure File that monitors the file for additions and deletions of records as well as for changes to fields within the records. Other companies may choose not to keep this audit trail.

This audit trail is kept automatically by the Product Structure File Maintenance application only if selected here in Setup.

Several other yes/no option flags are set in BOMP Setup. These are the options to use job numbers to track production; the ability to change order prices during order processing; the option to display item costs on screens and reports; and the option to use serial/lot batch numbers with appropriate items.

This Setup application also provides for the optional entry of a user-defined field which becomes the name of the last field entered into the product structure record during Product Structure File Maintenance.

Other options available through BOMP Setup include establishing the production order and engineering change numbers. These will be automatically incremented when production orders and engineering changes are entered in the appropriate applications. BOMP Setup also assigns default work in process (WIP) account numbers for tracking materials during the production process.

Run Instructions

Select BOMP Setup from the pull down BOMP Util_setup window and the following will be displayed:

BOMP Setup Entry Screen

The following options are available:

* Select the desired mode from the BOMP Setup menu bar
* Enter the data requested on the screen

Note: If this is the first time that you have run BOMP Setup, then the program will ask you to enter the data for each of the fields on the screen. If this program has been run previously, the data entered at that time will be displayed and may be changed accordingly.

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. Keep Audit Trail On Product Structure File?	Y or N.

Name	Type and Description
	Your answer here determines whether or not changes to the Product Structure File will be recorded for later audit. Default is N.
2. Description For User Defined Field In Product Structure File	15 alphanumeric characters. Entry of this field is optional. This entry determines the name of an informational field in the product structure record. Since that field is informational and is not used by the package for processing, there are no additional restrictions to what may be entered here.
3. Next Legacy Work Order No	6 numeric digits. Enter the next Legacy Work Order number to be used during entry of production orders.
4. Next Engineering Change No	6 numeric digits. Enter the next Engineering Change number to be used during entry of engineering changes.
5. Next Material Work Order No	6 numeric digits. Enter the next Material Work Order number to be used during entry of production orders.
6. Next Plus Work Order No	6 numeric digits. Enter the next Plus Work Order number to be used during entry of production orders.
7. Use Job Numbers?	Y or N. Enter Y to use Job Numbers to track production related to a specific job. If N is entered, the user will still be allowed to enter information in Job Number fields in BOMP applications, but this information will not be posted to the Job History File. Default is N.
8. Allow Change To Order Prices?	Y or N. Enter Y to allow the user to change unit prices in the Feature/Option Configuration and Production Order Entry applications. Default is N.
9. Display And Print Item Costs?	Y or N. Enter Y to display and print item costs in the applicable BOMP application. Enter N to prevent item costs from being displayed. Default is N.
10. Use Serial/Lot Batch Numbers?	Y or N. Enter Y to allow the use of serial/lot batch numbers in tracking serial/lot items. This provides greater flexibility in tracking and the ability to increment serial/lot numbers when producing large quantities. Default is N.
11. Production WIP Account Number	An account number in the standard account number format. Enter the account to be used for tracking work in process (WIP). This account will keep track of the value of materials allocated during production until a finished item is reported. Entry is required.
12. Production WIP Variance Account	An account number in the standard account number format. Enter the account to be used for the variance in the value of components between when they are allocated and when a finished item is reported.

Name	Type and Description
	This account will only be used if an order is flagged as complete before all ordered items are produced. This would require that the value of unused components be transferred back from the WIP account to the various inventory asset accounts. If there was a change in the value of any of the component items during the production process, this account will show the variance.
13. Exclude Obsolete, Forecast, Both	O, F or B. Enter whether obsolete or forecast items or both should be excluded from Bill Of Material Processing.

BOMP Setup

Print Spooled Reports

Application Overview

Spooling reports to disk has many advantages, including being able to continue processing even when the printer is busy or not functioning. The Print Spooled Reports application allows you to print a spooled report as many times as needed. If the user wants to print several copies of the report, it is much faster to spool one copy of the report and print it several times. Also, when the program writes a report to the disk, it executes much faster than the time it would take for it to write the report directly to a local printer.

You should not delete a spooled report unless it has been printed correctly or if you are positive that a hard copy is not needed. If you neglect to delete spooled reports from the disk for a lengthy period of time, the disk could become very full. The maximum number of spooled reports is 400.

Run Instructions

Select Print Spooled Reports from the pull down BOMP Util-Setup menu. The following screen will display all reports you have spooled, (printed to disk).
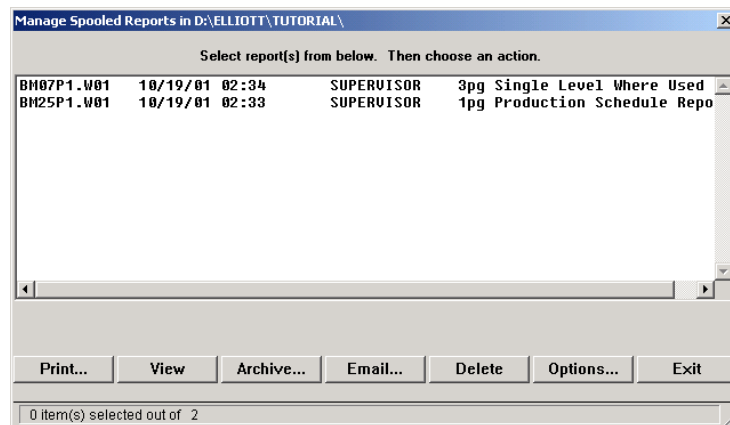

Print Spooled Reports Print Screen

The following options are available:

- The screen displays the reports, which have been spooled and are available for printing. The program will allow you to specify which reports you want to print, (highlight report and hit Ctrl Enter). Along with the names of the reports, the program will display the date and time the report was started, and the station number from which the report was printed. If this selection is run from the BOMP menu then only reports spooled to disk from BOMP will be displayed.

- Select the desired mode from the lower **Print Spooled Reports** menu bar

    Note: You can only select one report for viewing from this window
            E-mail will take you to your default e-mail program

Elliott

- Select Print takes you to the window shown below:
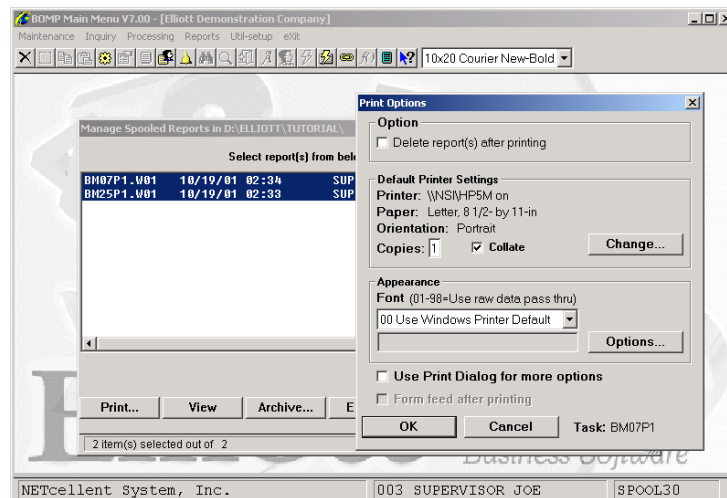
Option:	Delete Reports after printing
Change:	Change default printer Specify number of copies and Collate
Options:	Use Window Printer Default fonts or change to predefined font styles

Global Setup

BOMP Global Control

Elliott Main → Global Setup → Dist → BOMP Global Control

```
Global Setup V7.50.629 - [Elliott Demonstration Company]          _ □ ×
System  Acct  Dist  cop-Ctl  cop-Func  add-Ons  Utilities  eXit
X □ ▣ ▦ ⚙ ▣ ▤ 🖳 ⚠ ⚑ 🔍 ⮕ 𝒜 🕴 ⚡ ⚡ 📎 ⨍ 🗐 ▶? 08x15 Fixedsys              ▼

    BOMP Global Control
        1. Copy Regular Order To BOMP ?                    Y
        2. Default For Incr. WIP Flag When Print Wrk Ord?  N
        3. Mass Item Replace With Item No. Range Option ?  N
        4. Enable Immediate Production Trx Posting ?       Y
        5. Is Parent Item's Lot Same as Component's ?      N
        6. Warning If Enter WO for Parent Item W/O Comp?   Y
        7. Production Order 'Allocate Inventory' Default   Y
        8. Check Comp Availability When Enter BOMP WO?     Y
        9. Next Web BOMP Production Order No ?             900000
       10. Buffer Days to Use When Copy COP to BOMP WO?    1
       11. Change Feature/Option WO Copied from COP?       N
       12. Report Time for Plus Work Order                 Y
       13. Outside Process Absorbed Account          07300-00000-00000
       14. Default Labor Absorbed Account            07030-00000-00000
       15. Default Burden Absorbed Account           07130-00000-00000
       16. Def Copy Comp to Which Oper for Plus WO?        A
       17. Default Material Issue Point for Material WO    R
       18. Prompt for New Opertor ID for Each Actv. Scan   N
       19. Copy Reg Mfg Item WO from COP Base on Qty BO?   Y
       20. Copy Mfg Item From COP For This Vendor Only ?   SHPFLR
Field Number ? █
NETcellent System, Inc.           026 SUPERVISOR TS2CHK      NSCTLMN3
```

Figure 3A.1 shows the setup screen BOMP Global Control

1. Copy Regular Cop Orders Into BOMP

This enhancement allows you to copy a regular order with manufactured item(s) into BOMP as a work order (like feature/option item(s)). You can define a range of order numbers to copy into BOMP. The system will then create the production work orders.

1. Usage Instruction

This enhancement is very simple to use. It is similar to Standard Elliott's copy feature item to BOMP function. When you enable the enhancement (refer to Figure 71.1), the system will display a second option, "Copy Regular Mfg. Item" (as shown in Figure 71.2).
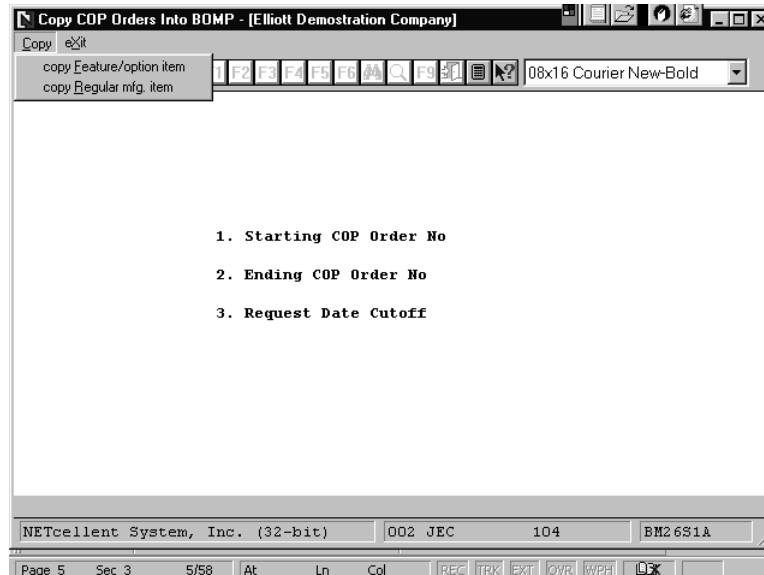

Figure 3A.3.

After enabling this function under Enhancements Setup, the system will display a second option, "Copy Regular Mfg. Item" when you select copy COP Order into BOMP.

2. Default For Incr. WIP Flag When Print Wrk Ord?

This is a convenient function. It allows you to predefine the default values to "Y" WIP Distribution and Inv Reduction, "W" WIP Distribution Only, or "N" NOWIP.
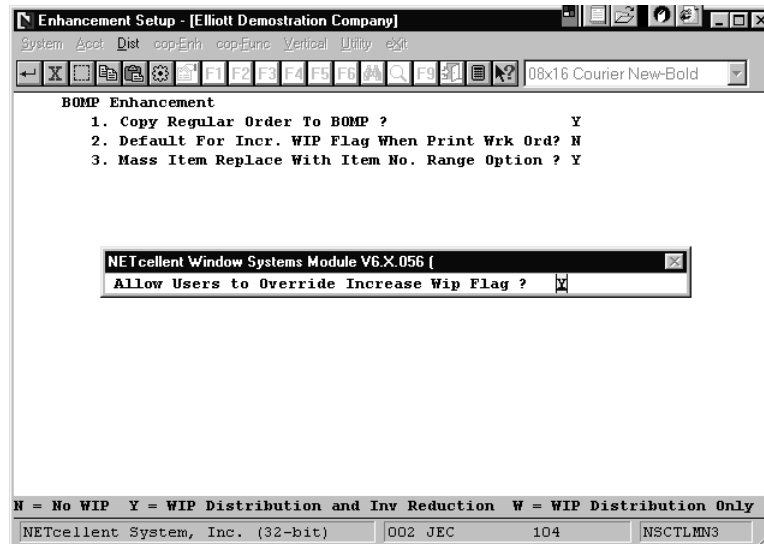

Figure 3A.4

Default For Incr. WIP Flag When Print Wrk Ord?

There are three options: "N" = No WIP, "Y" = WIP Distribution, and "W" = WIP Distribution Only.

3. Mass Item Replace With Item Number Range

This function enhances the Standard Elliott Mass Item Replace function in BOMP. The Standard Elliott function will replace all parent items with the new component(s). However, with this feature, you can define a range of parent items.
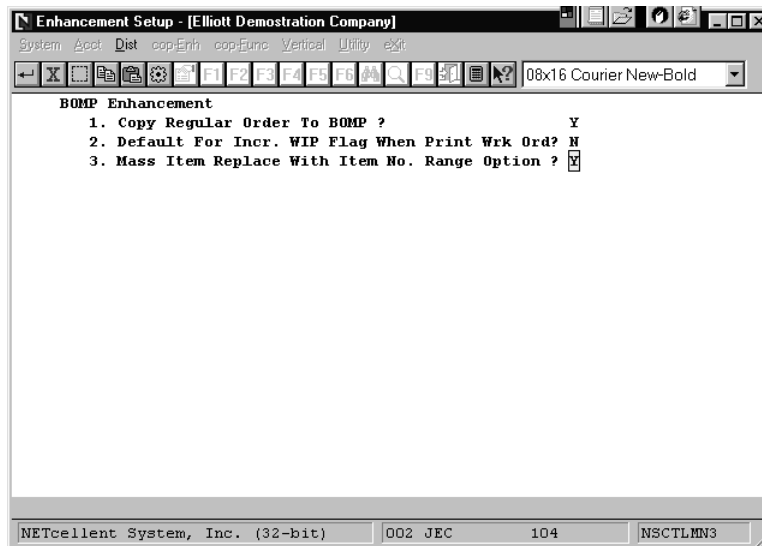

Figure 3A.5 shows the Mass Item Replace With Item No. Range Option enabled.

4. Enable Immediate Production Trx Posting?

Allows production transactions to be immediately posted.

5. Is Parent Item's Lot Same as Component's?

Indicate whether the parent and component share the same lot number.

6. Warning If Enter WO for Parent Item W/O Comp?

A warning can be given if a work order is entered for an item without components.

7. Production Order 'Allocate Inventory' Default

You can specify if a work order should allocate inventory by default.

8. Check Comp Availability When Enter BOMP WO?

The system can check the availability of components when a work order is entered for an item.

9. Next Web BOMP Production Order No?

Enter the next Web BOMP Order Number.

10. Buffer Days to Use When Copy COP to BOMP WO?

How many buffer days should the system use when an order is copied from COP?

11. Change Feature/Option WO Copied from COP?

Indicate whether feature and option items should be changed when copied from COP.

12. Report Time for Plus Work Order

Options:
- o "Y" (Default) – The system will track operator time and production time. Labor Cost and Burden Cost will be calculated based on time information for each production.
- o "N" – The system will not track any time information and assumes no Labor and Burden Cost for the production. A simplified interface will be provided for scanning work. The system can still provide the current status in the shop. (**Note: this flag cannot set to "N" at this moment.**)

13. Outside Process Absorbed Account

This account needs to be entered if the production routings include an outside process.

14. Default Labor Absorbed Account

Newly created Department and Work Center entries will default to this value for the labor absorb account. It can be overridden in at Department Level and Work Center Level.

15. Default Burden Absorbed Account

This account can be overridden at the Department Level and Work Center Level.

16. Def Copy Comp to Which Oper for Plus WO?

Plus Work Order introduces routings which contain one or more steps to complete parent items. If the material issue point is not specified, the system will pick a step as the default material issue point based on this setting.
Options:

- o A (Default) – Attached Operation. If the Attached Operation Number (5. Attaching Operation) is specified in the Product Structure, the system will use a corresponding operation if Operation Number exists in the routing. If Operation does not exist or the Attached Operation Number is blank, the system will use the first operation.
- o C – Currently Highlighted Operation. The highlighted operation will be used during data entry, like selecting a routing though Production Routing Maintenance. If there is no user interface, which is the case when a COP order is copied to BOMP, the first operation is used.
- o F – Always use the first operation.
- o L – Always use the last operation.

# 17. Default Material Issue Point for Material WO

Enter the default material issue point for Material Work Orders.

18. Prompt for New Operator ID for Each Actv. Scan

When operators select the Work Order Production function to report their jobs for a production, they will be prompted for an Operator ID and password. If this computer is shared by other operators, the system should prompt for the ID and password each time. Otherwise, the ID and password are only required the first time. This is the default setting for the whole Elliott system, but you can override this.
Options:
- o "Y" (Default) – The system always prompts for Operator ID and password.
- o "N" – The system only prompts for the Operator ID and password the first time selected.
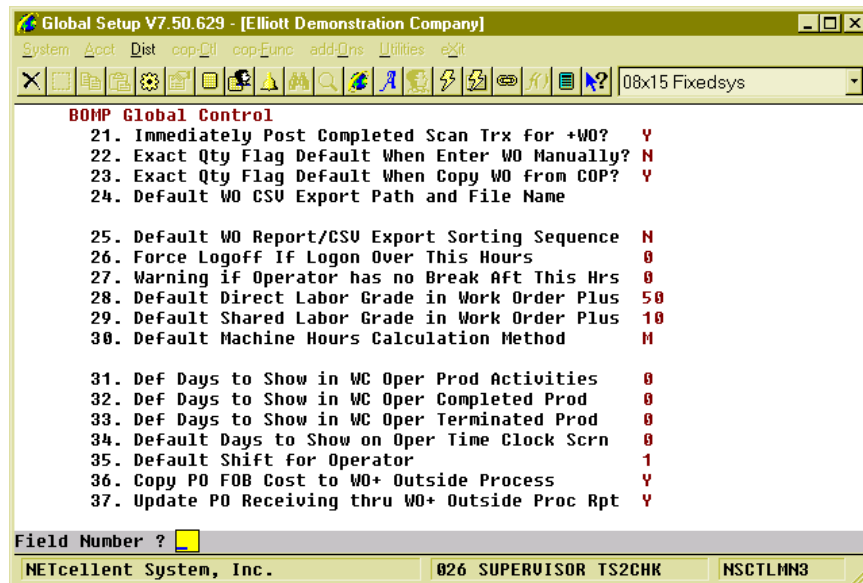
(Figure 64) BOMP Global Setup page 2

21. Immediately Post For Completed Scan Trx?

Allows an operator to immediately post the transaction that was reported through Work Order Production. Transactions reported in Production Transaction Processing use another flag to control immediate posting.
Options:
- o "Y" (Default) – Allows you to post the transaction immediately.
- o "N" – Not allow.

22. Default for Work Order Exact Qty Flag?

WO+ introduces a new flag for each work order, Exact Qty Flag, where selecting "Y" indicates the quantity completed must match the quantity ordered. This global setup field is the default value for Exact Qty Flag, which appears when a work order is created through Work Order Entry.
Options:
- o "N" (Default) – The default value is "N".
- o "Y" – The default value is "Y".

23. Default for WO Copy from COP Exact Qty Flag?

This is the default value of Exact Qty Flag when an order is copied from a COP Order.
Options:
- o "N" (Default) – The default value is "N".
- o "Y" – The default value is "Y".

24. Default WO CSV Export Path and File Name

Enter the default path and file name for the Work Order CSV export file.

25. Default WO Report/CSV Export Sorting Sequence

Enter the default sorting sequence for the Work Order report CSV export

26. Force Logoff If Logon Over This Hours

Operators may forget to log off of the system and this can cause problems with production reporting. This field indicates the number of hours before the system considers it an exception. When this is exceeded the system will log the operator off and create an exception log. End Of Day and Meal Break are both considered a logoff function.
Options:
- o 0 (Default) – 12 Hours

27. Warning if Operator has no Break Aft This Hrs

A warning is given when the number of hours logged in exceeds this value without a break, normal or meal break.
Options:

    o   0 (Default) – 6 Hours

28. Default Direct Labor Grade in Work Order Plus

Default value for the Direct Labor Grade field in Departments and Work Centers. This labor grade is used for evaluations.

29. Default Shared Labor Grade in Work Order Plus

Default value for the Shared Labor Grade field in Departments and Work Centers. This labor grade is used for evaluations.

30. Default Machine Hours Calculation Method

Default value for the Machine Hours Calculation Method in Departments and Work Centers. This flag describes how the machine is operated in the work center and how the machine hours can be calculated.
Options:
    o   "M" (Default) – Man-Hours. Use this option when all the crew members are operating the same machine at one time. A Machine Hour is equal to the hours the crew spends on it. (Machine Hours = Labor Hours).
    o   "C" – Crew-Hours. Use this option when each crew member is operating their own machine. A Machine Hour is the sum of the hours that each crew member spends on it. (Machine Hours = Labor Hours times Number Of Crew Members).
    o   "S" – This means Machine Hours is not always related to Labor Hours. This is for situations where the machine can run independently without an operator involved, like a Computer Numerical Controlled (CNC) Machine. If "S" is selected, the following question will appear:

Default Machine Ends by Default If Labor Ends

Since a machine can run without an operator, this flag indicates the default behavior of a work center machine when an operator leaves. You can always override this behavior.
Options:
    o   "Y" – The machine usually stops after the operator leaves.
    o   "N" – The machine keeps working after the operator leaves.

31. Def Days to Show in WC Oper Prod Activities

An option in the Work Center Operation/Inquiry screen shows all the production history of a work center. This value defines how many days will be displayed in this option. Qualified users can override this during the inquiry.
Options:
    o   0 (Default) – All records

32. Def Days to Show in WC Oper Completed Prod

An option in the Work Center Operation/Inquiry screen shows the completed production history of a work center. This value defines how many days will be displayed in this option. Qualified users can override this during the inquiry.
Options:
- o   0 (Default) – All records

33. Def Days to Show in WC Oper Terminated Prod

An option in the Work Center Operation/Inquiry screen shows the cancelled production history of a work center. This value defines how many days will be displayed in this option. Qualified users can override this during the inquiry.
Options:
- o   0 (Default) – All records

34. Default Days to Show on Oper Time Clock Scrn

This value defines how many days will be displayed in the Operator Time Clock Maintenance/Inquiry. Qualified users can override this during the inquiry.
Options:
- o   0 (Default) – All records

35. Default Shift for Operator

Default value for Operator file.

36. Copy PO FOB Cost to WO+ Outside Process

When products return from an outside process and the operator enters the Purchase Order Number of the outside process on the Production Transaction, this flag indicates if the system should use the most current FOB Cost in Purchase Order or the cost in Order Routing to calculate the outside process cost.
Options:
- o   "Y" (Default) – If a valid purchase order number is entered when reporting an Outside Process the system will use the FOB Cost from the PO Line Item instead of the one defined in Order Routing.
- o   "N" – Always use the pre-defined value in Order Routing.

37. Update PO Receiving thru WO+ Outside Proc Rpt

When an operator reports the Purchase Order Number for an Outside Process, this flag indicates if the system should create a PO Receiving Record when the production transaction is posted.
Options:
- o   "Y" (Default) – If a valid PO number is entered for outside processing, the system will create a PO Receiving Transaction once the transaction is posted.
- o   "N" – Never do PO Receiving though WO+.
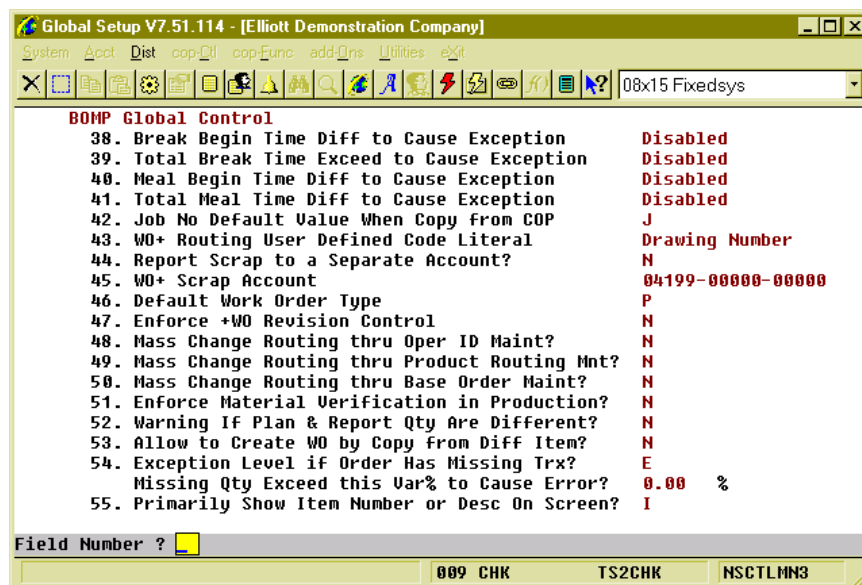
(Figure 65) BOMP Global Setup page 3

38. Break Begin Time Diff to Cause Exception

If an operator clocks out for a break earlier or later than the time defined in the Operator File and the difference in minutes is greater than this value, the system will consider this an exception and will notify the manager through an Elliott Event. The system will determine if it is 1st Break or 2nd Break based on the time it takes place. The manager can also specify a different value for each operator in the Operator File.

If the difference is negative, the operator took a break too early. If it is positive, the operator took a break too late.

Options:
- o   0 (Default) – Disable checking.

39. Total Break Time Exceed to Cause Exception

If an operator records a break time longer or shorter than the defined time in the Operator File and the difference in minutes is greater than this value, the system will consider this an exception and will notify the manager through an Elliott Event. The system will determine if it is 1st Break or 2nd Break based on the time it takes place. The manager can also specify a different value for each operator in the Operator File.

It is only considered an exception when the operator's break is too long.

Options:
- o   0 (Default) – Disable checking.

40. Meal Begin Time Diff to Cause Exception

If an operator records a meal break earlier or later than the time defined in the Operator File and the difference in minutes is greater than this value, the system will consider this an exception and notify the manager through an Elliott Event. The manager can also specify a different value for each operator in the Operator File.
Options:
> o   0 (Default) – Disable checking.

41. Total Meal Time Diff to Cause Exception

If an operator records a meal break longer or shorter than the time defined in the Operator File and the difference in minutes is greater than this value, the system will consider this an exception and notify the manager through an Elliott Event. The manager can also specify a different value for each operator in the Operator File.

It is only considered an exception when the operator's meal break is too long.

Options:
> o   0 (Default) – Disable checking.

42. Job No Default Value When Copy from COP

This flag will indicate which value will be used as the Job Number by default when a work order is copied from a COP sales order.
Options:
> o   "J" (Default) – Sales Order's Job Number
> o   "O" – Sales Order Number
> o   "C" – Customer Number

A Job Number will be automatically created if the Sales Order does not have a job number and Job Numbers are in use.

43. WO+ Routing User Defined Field Literal

This setting defines the literal for the 15 character user-defined field for each operation. The default value of "User Defined Field" will be used if the value is left blank.

44. Report Scrap to a Separate Account?

By default, the cost of scrap is absorbed into the Finished Goods account, or the Standard Variance account if the cost method is Standard Cost, and this increases the production cost or variance. Set this flag to "Y" if you want to separate this amount into another account. The system will use an algorithm to estimate this cost and distribute it to the scrap account.
Options:
> o   "N" (Default) – Not use another account for cost of scrap. The total production cost will increase due to scrap.
> o   "Y" – Use another account to absorb cost of scrap.

45. WO+ Scrap Account

Scrap Account Number. Enter this account number if you plan to absorb the cost of scrap with a scrap account.

46. Default Work Order Type

This flag was moved from the Available to Promise Global Setup to BOMP. Since we now have three 3 types of work orders, this flag indicates which is the major type in use. This will affect several areas, such as creating a work order through ATP processing. The default work order type will depend on this flag.
Options:
- o "P"(Default) – Plus Work Order
- o "M" – Material Work Order
- o "O" – Legacy Work Order

47. Enforce +WO Revision Control

After a Work Order is released to the shop floor, any change in order routing may cause confusion for the operators. Revision Control can prevent problems by requiring the operator to reprint the Traveler, which contains the order routing information, whenever the order routing is modified. Reporting for this work order will be suspended until the Traveler is reprinted.

The Revision Number of a Work Order is visible on many screen and reports. The original version of the order has a revision of zero.

Options:
- o "N" (Default) – Revision Control not enforced.
- o "Y" – Enforce Revision Control.

48. Mass Change Routing thru Oper ID Maint?

This global flag controls whether all the operations will be updated if a value is changed in the Operation ID file. These operations can be in Product Routing, Order Routing or Base Order.
Options:
- o "N" (Default) – Never update.
- o "Y" – Update if any value in the Operation ID is changed.
- o "A" – Always ask to update, regardless if any value is changed.

49. Mass Change Routing thru Product Routing Mnt?

This global flag controls whether all the work orders will be updated if a value is changed in the Product Routing file. These work orders can be Plus Work Orders or Base Work Orders.
Options:
- o "N" (Default) – Never update.
- o "Y" – Update if any value in the Product Routing is changed.
- o "A" – Always asks for update, no matter any value is changed or not.

50. Mass Change Routing thru Base Order Maint?

When user changes the value in Base Work Order, all the work orders which is copied from this base order can be updated or synchronized at once. These work orders can be Plus Work Order. This global setup indicates if user wants to use this feature.
Options:
- o "N" (Default) – Never Update.
- o "Y" – Update if any value in the Base Work Order is changed.
- o "A" – Always asks for update, no matter any value is changed or not.

51. Enforce Material Verification in Production?

Material Verification requires the operator to enter the item number or scan the UPC of each item used when reporting a production for the material. This feature can be activated with this global setup flag.
Options:
- o "N" (Default) – Do not verify.
- o "Y" – Use Material Verification.

If Material Verification is activated, another set of parameters will appear:
- o **"Use ItemUserAmt/OrdMultiple as Package Qty"** – This yes/no flag asks if you want to use the amount field in Extra Item Data or Order Multiple in the Item File as the package quantity. I/M Global Setup field 21, Use Which Item Field For Quantity/Box, defines which field to use.
- o **"Enter Qty Before Or After"** – By selecting "Before" operators only need to enter the item number or scan the UPC to accumulate the quantity. The quantity can be entered in this same field. The following flag determines if a numeric entered is the quantity or an item number. When "After" is selected the system will always prompt for a quantity after the item number is entered.
- o **"Max Digits For Pre-Scan Quantity"** – This sets the threshold for the quantity size if the previous flag is set to "Before". Since the "Before" setting will provide only one field, any number with this many digits or smaller will be considered a quantity and anything larger will be considered an item number.
- o **"Consider Item# Entry As Scan Or Manual"** – This flag determines whether a manually entered item number, instead of the UPC or GTIN, should be considered as a scan or a manual entry. Material Verification will keep track of scans versus manual entries. Entering a UPC or GTIN is always considered a scan.
- o **"Consider Manual Confirm as an Exception?"** – Manual entries can be considered an exception.
- o **"Consider Over Verify as an Exception"** – Reporting a quantity more than expected can be considered an exception.
- o **"Consider Under Verify as an Exception"** – Reporting a quantity less than expected can be considered an exception.
- o **"Consider Substitution as an Exception"** – Reporting a substitution component can be considered an exception.
- o **"Verification Exception Override Password"** – When one of the exceptions described above takes place, a password can be entered to override the exception. Operators who are not given this password should ask a supervisor to override it.
- o **"Wave File For Confirm"** – This is the wave file to play when a component is confirmed.
- o **"Wave File For Wrong Item"** – This is the wave file to play when a wrong item is entered.
- o **"Wave File For Alert"** – This is the wave file to play when an exception occurs.
- o **"Wave File For Over Or Under Verify"** – This is the wave file to play when the quantity verified for a component is over or under.

52. Warning If Plan & Report Qty Are Different?

A warning can be displayed if an operator reports a quantity which is different from the planned quantity when the production started.
Options:
- o "N" (default) – Do not warn.
- o "Y" – Warn every time this happens.

53. Allow to Copy from Another WO With Diff Item?

This flag determines if an operator is allowed to copy a routing and bill of material from another base plus work order to a plus work order and the item numbers on the two orders are different. The flag will not affect copying other orders to a base work order.
Options:
- o "N" (default) – Not allow.
- o "Y" – Allow, but warning when this happens.

54. Exception Level if Order Has Missing Trx?

The system will check for any missing transactions in the previous operations when posting a transaction for the last operation. For example, 98 pieces are reported for the first operation and now the operator wants to post 100 pieces to the last operation. The system would consider the first operation to be missing a transaction of 2 pieces. This flag determines if the missing transaction is an error, warning or not an exception.
Options:
- o "E" (default) – Consider it an error. The system will prevent an operator from posting this transaction.
- o "W" – Consider it a warning. The system will display a warning and ask the operator to confirm it.
- o "N" – Not an exception. The system will not display any warning. This means the operator should take responsibility if the wrong quantity is reported.

Another prompt will appear if this flag is "E" or "W": "**Missing Qty Exceed this Var% to Cause Error/Warning?**"
- o When the prior flag is set to "E" and a transaction is missing where the quantity of the transaction exceeds the variance percentage of the operation quantity, an error condition is raised. If the variance percentage is less than this value, then it is considered a warning. For example, the last operation reports 100 pieces and an operation is missing a transaction of 2 pieces. A warning occurs when the field is set to 5%. It will produce an error if it is set to 1%. Set it to zero if you always consider a missing transaction an error.
- o When the prior flag is set to "W" and the missing quantity exceeds the variance percentage, a warning is given.

55. Primarily Show Item Number or Desc On Screen?

You can select the item number or item description to be the primary display on the inquiry screens, depending on which one is more meaningful.
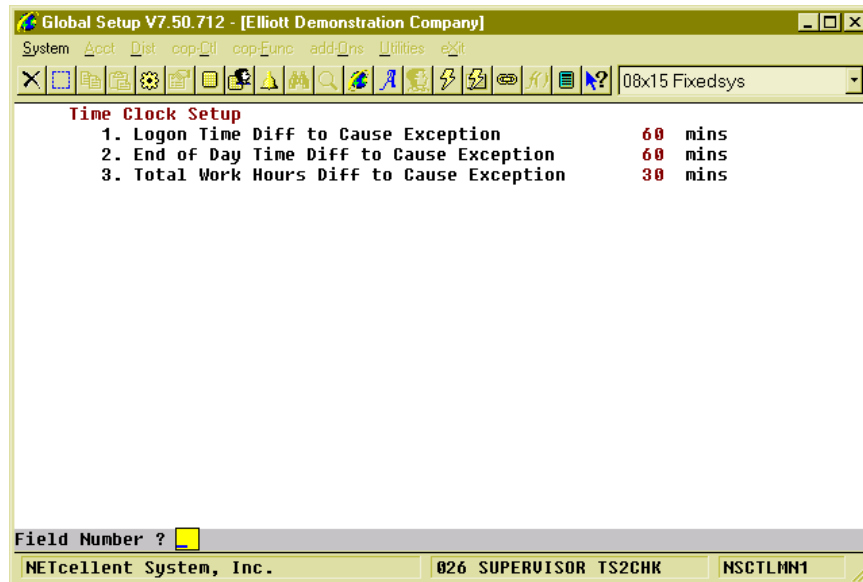Options:

- o I (default) – Display Item Number.
- o D – Display Item Description 1.

Time Clock Global Setup

How to Access:
Main Menu ➔ Util-Setup ➔ Global Setup ➔ System ➔ Time Clock Setup

(Figure 66) Time Clock Global Setup

1. Logon Time Diff to Cause Exception

If an operator logs onto the system earlier or later than the time defined in the Operator File and the difference in minutes is greater than this value, the system will consider this an exception and notify the manager through an Elliott Event. The manager can specify a different value for each operator in the Operator File.
Options:
  o   0 (Default) – Disable checking.

2. End of Day Time Diff to Cause Exception

If an operator logs off of the system earlier or later than the time defined in the Operator File and the difference in minutes is greater than this value, the system will consider this an exception and notify the manager through an Elliott Event. The manager can specify a different value for each operator in the Operator File.
Options:
  o   0 (Default) – Disable checking.

3. Total Work Hours Diff to Cause Exception

If an operator's working hours are more or less than the hours defined in the Operator File and the difference in minutes is greater than this value, the system will consider this an exception and notify

the manager through an Elliott Event. The manager can specify a different value for each operator in the Operator File.
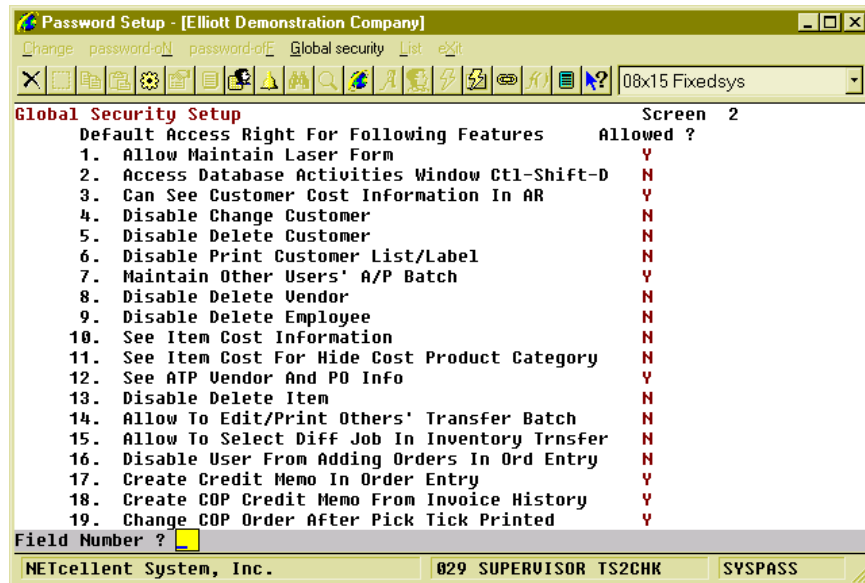
Options:
- o   0 (Default) – Disable checking.

Elliott

Security Setup

How to Access:
Main Menu ➔ Util_Setup ➔ Password Setup ➔ Global Security ➔ Global Default Security (for all users)
Main Menu ➔ Util_Setup ➔ Password Setup ➔ Global Security ➔ User Global Security (for one user)
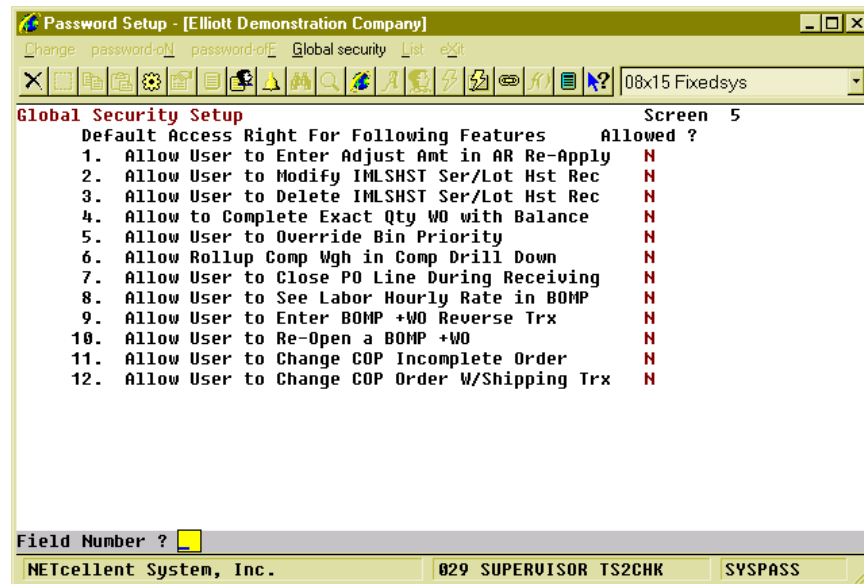

(Figure 67) Global Security Setup Screen 2

This is the Security Setup for Elliott. You can set a default value for these security flags through Global
Default Security and configure the flags for each Elliott user. The position of each flag on the screen may
vary between Global Default Security and User Global Security.

Screen 2, "10. See Item Cost Information"
    Options:
        o   "N" – Do not allow the user to view any item related cost, ex. Item Unit Cost and the
            material part of the production cost. This applies to both reports and screens in WO+.
            The Outside Process Cost counts as material cost.

(Figure 68) Global Security Setup Screen 2

Screen 5, "4. Allow to Complete Exact Qty WO with Balance"
Options:
- o "N" – The system will not allow an operator to close a production work order until the quantity reported is enough complete all the parent items.

The location of this flag may be different in User Global Security.

Screen 5, "8. Allow User to See Labor Hourly Rate in BOMP"
Options:
- o "N" – Do not allow the user to view labor rate related cost, including labor cost and burden cost. This applies to the reports and screens in WO+.

Screen 5, "9. Allow User to Enter BOMP WO+ Reverse Trx"
If an operator reported incorrect information in a production transaction and posted it, which can cause a dramatic change in production cost, an operator can create reverse transactions to offset all statistics of that posted transaction, including quantity, hours and costs. This flag indicates if the user has the right to create reverse transactions.

Screen 5, "10. Allow User to Re-Open a BOMP +WO"
If an operator needs to modify a transaction of a closed Work Order, the Work Order must be reopened first. This flag determines if the user has the right to reopen orders.

Screen 5, "13. Allow User to Use BOMP Work Order Import"
Allows the user to import Work Orders through CSV files.

Screen 5, "14. Allow User to Use BOMP Plus Work Order"
Allows the user to all the Plus Work Order features. If the user is not allowed to use WO+, the system will hide or disable all features related to WO+.