Work Order Plus Advanced Feature Manual

Chapter 1: Utilities

Work Order Plus provides several utilities to calculate standard cost, export routing from Standard Product Routing and recover order transaction level statistics.

Print Costed Bill of Material

Application Overview

Print Costed Bill Of Material prints a selected range of parent items and "rolls up" the costs from the costs of their components. There is an option to print the variance between the parent item cost on file and the cost calculated from the components. You can select to print active items, obsolete items and forecasted items.

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

In Elliott 7.5, the report can include costs from routing, like labor cost, overhead and outside processes. It will calculate based on the default routing in the item master file. If the item does not have a default routing or the default routing does not exist, it will roll up bill of material only.

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. 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 be displayed:
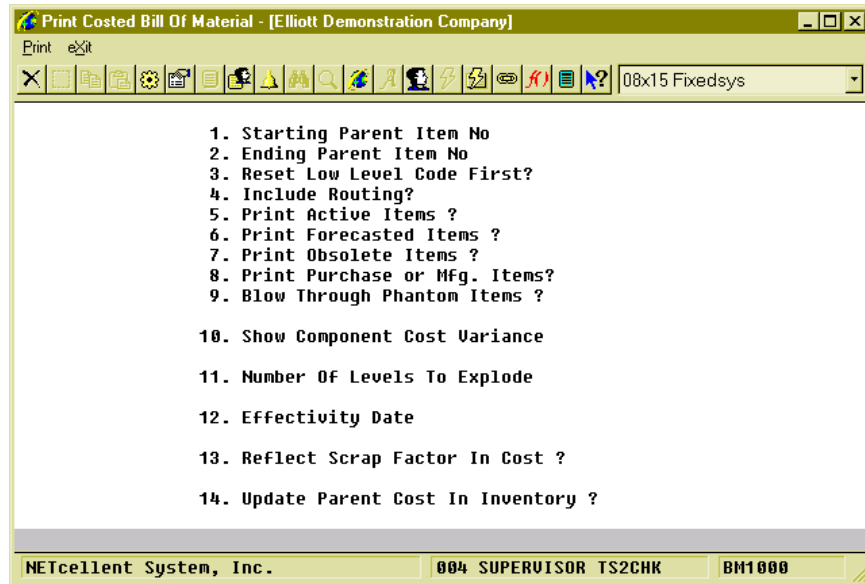
(Figure 1) Print Costed Bill of Material Selection Screen

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 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 Costed Bill Of Material. Default is the starting parent item number.
3. Reset Low Level Code First?	**Y** or **N**. Enter **Y** to run the "Reset Low Level Code" program to make sure the update sequence is correct before the roll-up. This field defaults to **Y** if all parent items are selected.

Name	Type and Description
4. Include Routing?	**Y** or **N**. Enter **Y** to include routing cost if the selected items have default routing. This field defaults to **Y** if routing records exist.
5. Print Active Items?	**Y** or **N**. Enter **Y** to print active items. This field defaults to **Y**.
6. Print Forecasted Items?	**Y** or **N**. Enter **Y** to print forecasted items. This field defaults to **N**.
7. Print Obsolete Items?	**Y** or **N**. Enter **Y** to print obsolete items. This field defaults to **N**.
8. Blow Through Phantom Items?	**Y** or **N**. Component items and subassemblies which are neither stocked nor controlled but 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**.
9. Show Component Cost Variance?	**Y** or **N**. Answer **Y** to print the variance between the calculated cost of the parent item and the cost in the Item File. Default is **N**.
10. Number Of Levels To Explode?	2 numeric digits. The number of levels to explode must be 11 to obtain correct cost. Default is **11**.
11. Effectivity Date	A date in the standard date format. Enter the effectivity date to use for printing items. This date will be used to include or exclude items. Leave this field blank to include all items. You will not be prompted to enter this field unless both active and forecasted items have been selected for printing. Default is blank.
12. 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.

Name	Type and Description
	Defaults to **N**.
13. Update Parent Cost In Inventory?	**Y** or **N**. Answer **Y** to update the cost in the Inventory Item File for the parent item using the total cost of components for the parent.. Selecting **Y** will set the number of levels to explode in field #8 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 the costs of all sub-assemblies should 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:	
14. Cost Type To Display?	Only **A**, **S**, or **R** is allowed. Enter the item cost to use 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 - [Elliott Demonstration Company]

Print eXit

`08x15 Fixedsys`

```
            1. Starting Parent Item No          All
            2. Ending Parent Item No
            3. Reset Low Level Code First?      N
            4. Include Routing?                 Y
            5. Print Active Items ?             Y
            6. Print Forecasted Items ?         N
            7. Print Obsolete Items ?           N
            8. Print Purchase or Mfg. Items?    M
            9. Blow Through Phantom Items ?     N

           10. Show Component Cost Variance     N

           11. Number Of Levels To Explode      11

           12. Effectivity Date

           13. Reflect Scrap Factor In Cost ?  N

           14. Update Parent Cost In Inventory ?  N

Field Number ?
NETcellent System, Inc.             004 SUPERVISOR TS2CHK     BM1000
```

(Figure 2) Print Costed Bill of Material Selection Screen

```
                    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 FLANGE           Flange w/ 6 holes           Low Level Code  2   Default Routing: DEF      Cost On File       80.0000
                                                                                    Default Routing
-Operation- Operation                    Work   Dept Qty-Per-Batch   Est    Direct-Labor-Rate Grade Direct-Lab-Hrs Direct-Lab-Amnt
  No T ID   Description                   Center      Drawing Number   /     Shared-Labor-Rate Grade Shared-Lab-Hrs Shared-Lab-Amnt
                                                      Machine-No      Std        Machine-Rate    Md    Machine-Hrs    Burden-Amnt

   10 M PRE  Material Preparation         WHS    GEN                  Est      1.000000 Hours 50         1.00        20.0000
                                                                                             30
                                                                              1.000000 Hours  R         1.00         0.2100
```

(Figure 3) Print Costed Bill of Material Report

Purge Complete Production Orders
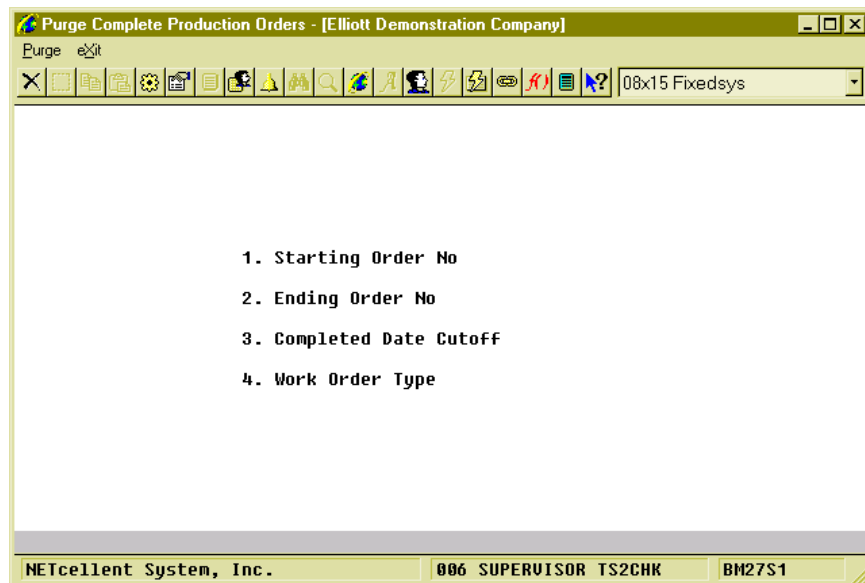
Application Overview

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 no longer needed.

Select a range of order numbers and a cut-off 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 option is 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 be displayed:

```
Purge Complete Production Orders - [Elliott Demonstration Company]
Purge  eXit

   1. Starting Order No

   2. Ending Order No

   3. Completed Date Cutoff

   4. Work Order Type

NETcellent System, Inc.        006 SUPERVISOR TS2CHK        BM27S1
```

(Figure 4) Purge Complete Production Order Selection Screen

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 cut-off 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.
4. Work Order Type	1 alphanumeric character. Valid entries are: O - Legacy Work Order M - Material Work Order P - Plus Work Order Enter the type of production order to purge. Defaults to the value in BOMP Global Setup.

```
Purge Complete Production Orders - [Elliott Demonstration Company]
Purge  eXit
X                                              08x15 Fixedsys




              1. Starting Order No        All

              2. Ending Order No

              3. Completed Date Cutoff    11/01/10

              4. Work Order Type          P




Field Number ?
NETcellent System, Inc.          006 SUPERVISOR TS2CHK     BM27S1
```
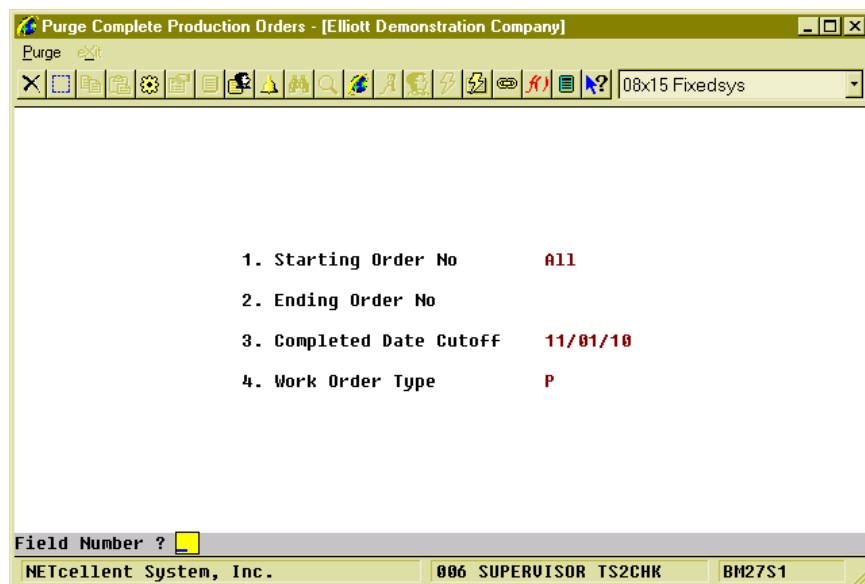
(Figure 5) Purge Complete Production Order Selection Screen

```
                    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
```

(Figure 6) Purge Complete Production Order Journal for Material Work Order

```
                P L U S   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: Order No 200001 thru 200001
        Thru Completed Date 11/01/10

Order# Lc Item-No        Item-Description          Qty-Ordered Completed  Unit-Price Start    Last-Trx Status
Order-Desc                                                     Scrapped   Unit-Cost  Due-Date Job-No


200001 LA FLANGE         Flange w/ 6 holes             100.00    100.00   90.0000 02/13/10 02/13/10
                                                     Estimated      .00   47.2501 02/13/10    TEST

         -Operation- WC  Description                   Completed Direct-Labor-Plan-Time LG Act-DL-Hrs Act-DL-Amnt
         Num  T ID   Dept                          E/S Scrapped  Shared-Labor-Plan-Time LG Act-SL-Hrs Act-SL-Amnt
                                                             Machine-Plan-Time    Op Act-Mc-Hrs Burden-Amnt

         10 M PRE   WHS  Material Preparation        E   100.00  1.000000 Hours 40       1.00      15.00
                    GEN                                     .00   .000000         30       .00        .00
                                                           1.000000 Hours R       1.00       .01

           Oper Seq Comp-Item-No   Comp-Item-Description      QTY-Per    Report-Qty   Unit-Price   Unit-Cost   MTL-Amnt

             10 010 FLANGE-ORG     Original Flange w/o hole  1.000000       100.00     40.0000     40.0000   4,000.00

         20 P LAT   LAT  Trimming and Shaving        E   100.00   .250000 Hours 50        .25       5.00
                    CNC                                     .00  80.000000 Qty/Hr 40      1.25      18.75
                                                          80.000000 Qty/Hr R      1.25     101.25

         30 P MIL   MIL  Milling                     E   100.00   .250000 Hours 50        .25       5.00
                    CNC                                     .00   .300000 Hr/Qty 40      30.00     450.00
                                                           .300000 Hr/Qty R     30.00     130.00


     1 Orders Purged
```

(Figure 7) Purge Complete Production Order Journal for Plus Work Order

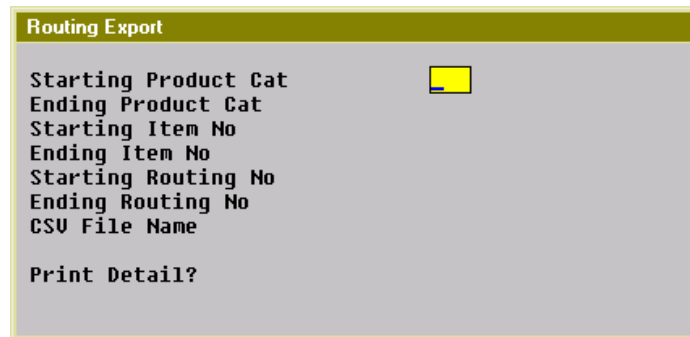## *Standard Product Routing Export*

Application Overview

The Standard Product Routing Export utility allows you to export routings from the Standard Product Routing module to a spreadsheet. This spreadsheet is well-formatted for the BOMP routing import.

Several things are not supported in this export process:
- "Tool" in Standard Product Routing is not supported in BOMP Routing, so they will not be exported.
- "Note" in Standard Product Routing will not be exported.
- "Pointer" in Standard Product Routing is not supported in BOMP Routing, so they will not be exported. This means "General Routing" is not supported in BOMP Routing, either.

Run Instructions

Main Menu ➔ Manufacturing ➔ Processing ➔ Routing Entry ➔ Export

(Figure 8) Standard Product Routing Export Selection Screen

Entry Field Descriptions

Name	Type and Description
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of product routings to export. Press the **F7 Key** to search for an existing product category. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of product routings to export. Press the **F7 Key** to search for an existing product category. Defaults to the starting product category.
Starting Item No	15 alphanumeric characters.

Name	Type and Description
	Enter the starting item number for a range of product routings to export. 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**.
Ending Item No	15 alphanumeric characters.
	Enter the ending item number for a range of product routings to export. 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 item number.
Starting Routing No	5 alphanumeric characters.
	Enter the starting routing number for a range of product routings to export.
	Defaults to **All**.
Ending Routing No	5 alphanumeric characters.
	Enter the ending routing number for a range of product routings to export.
	Defaults to the starting routing number.
CSV File Name	50 alphanumeric characters
	Enter the path and file name for the export file.
	Defaults to the last entry.
Print Detail?	**Y** or **N**.
	Enter **Y** to print a report for the exported routings.
	Defaults to **N**.

(Figure 9) Standard Product Routing Export Selection Screen

Reset Order Transaction Data

Application Overview

The **Reset Order Transaction Data** utility restores order statistics at the transaction level if a data integrity issue were to occur. This will recover order data, like reported quantity, labor hours, production cost, etc. from transactions not posted.

Run Instructions

Main Menu ➔ Util_Setup ➔ Global Setup ➔ Utilities ➔ Reset Order Transaction Data
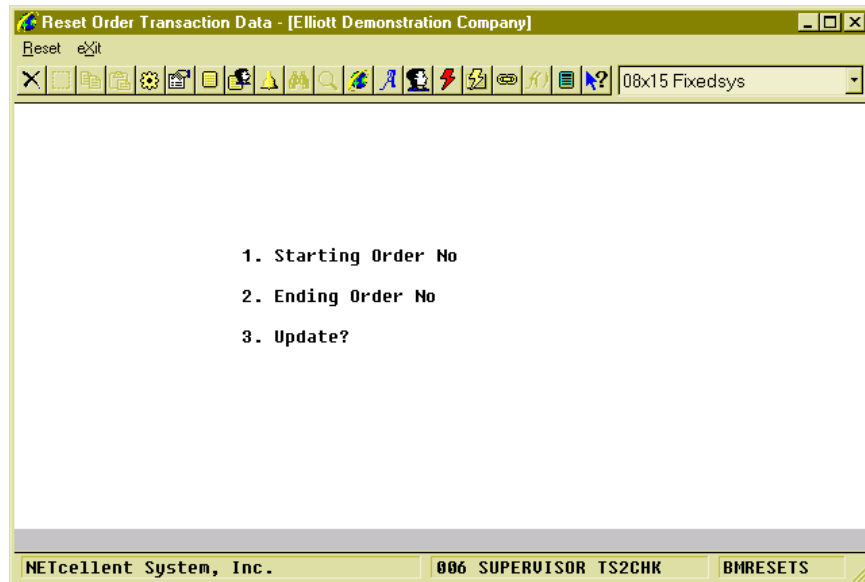
(Figure 10) Reset Order Transaction Data Selection Screen

Entry Field Descriptions

Name	Type and Description
1. Starting Order No	6 numeric digits. Enter the starting order number for a range of work orders to reset. Defaults to **All**.
2. Ending Order No	6 numeric digits. Enter the ending order number for a range of work orders to reset. Defaults to the starting order number.
3. Update?	**Y** or **N**. Enter **Y** if you want to reset all data. Defaults to **N**.

(Figure 11) Reset Order Transaction Data Selection Screen

(Figure 12) Reset Order Transaction Data Report

Chapter 2: Cost Master

The Cost Master enables the Standard Product Costing feature in Macola's Manufacturing Module for Work Order Plus. This allows you to create a separate environment to build cost from bill of material and routing, inspect, fine tune, and eventually roll-up to the Standard Cost in the Item master. Our implementation adopts most of the original concepts from Macola's Standard Product Costing, but enhances the user interface and selection criteria. In addition, Cost Master provides audit tools so the detail of each standard cost update can be reviewed in the future.

Each cost master record stores the cost of one item. If the item is a purchased item, the cost could be the last purchase cost. If the item is a manufactured item, the cost of the parent item would include costs from all components and subcomponents, as well as the costs from production and subassemblies. The components of a parent item are defined in Bill of Material while the manufacturing process is defined in Standard Routing. For instance, parent item **P** is made from components **C1, C2** and **C3**. **C3** is made from components **C31** and **C32**. **C1**, **C2**, **C31** and **C32** are purchased items.

```
                      P
        ┌─────────────┼─────────────┐
      (1)           (1)           (1)
       C1            C2            C3
                            ┌──────┴──────┐
                          (1)           (1)
                          C31           C32
```
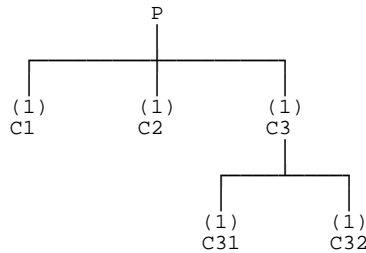
The cost structure of each item is as follows:

	C_{31}	C_{32}	C_3	C_1	C_2	P
Material V/A	15	15	0	10	20	0
Material Total	15	15	30	10	20	60
Production V/A	0	0	40	0	0	50
Production Total	0	0	40	0	0	90
Total Unit Cost	15	15	70	10	20	150

The above table shows how cost for each item is stored and calculated. Each column represents the data of one cost master record. The last row shows the total unit cost of each item. Parent item P, for example, costs $150 where $60 is from material and $90 is from production. Material cost of parent item P includes the cost from every component and subcomponent. Likewise, the production cost contains the cost from producing the item and all subassemblies. The $90 production cost is from both the assembly of the parent item P, which costs $50, and the assembly of component C3, which costs $40.

You can find two types of cost in the chart above, Value Added and Total. Value Added refers to extra features of an item (product, service, etc.) that go beyond the standard expectations while adding little or no cost. Total cost is the sum of the value added and cost from all the subcomponents. To illustrate, the assembly of C3 costs $40 so the value

added is $40. The total material cost of $30 is from the material value added of C31 and C32.

Inspecting and calculating item costs can be extremely complicated and time consuming. Plus, the cost can be incorrect if not calculated in the right sequence, which is from the bottom of the production structure to the top.   This solution provides a separate environment to calculate cost so any change will not affect the item cost. In addition, it offers tools to help you process multiple items at once and provides the screens and reports needed for inspection and evaluation. In the following sections you will learn the purpose and instructions of each program.

The following is a simple outline of the chapter:
- **Processing** – Provides all the applications to update cost masters in batch.
- **Maintenance** – Screen applications to review or edit single or plural cost master records.
- **Inquiry** – Inquiry applications to review cost master audit history.
- **Report** – All reports to inspect and evaluate cost master.

Processing

The Processing menu provides all the utilities to create build-up cost in batch and update standard cost. There are four steps to build up standard cost:

- Create cost master record for each item, either manually or through Create Cost Master from Item File.
- Update unit cost of all purchased items through Roll Last Cost to Current Value-Add Material Cost.
- Build up cost from routing through Recalculate Current Value-Add Cost from Routing.
- Rollup bill of material cost from lower levels through Current Total Cost Build-up.

Use "Current to Standard Roll" to update standard cost in the item master. You can use "Create Cost Master from Item File" to create cost master records if you have never used this feature before.

Roll Last Cost to Current Value-Add Material Cost

Application Overview

This feature is used to update the latest unit cost for all selected cost master of purchased items. You can select a range of cost master to update by item number, product category, buyer/analyst code and material cost type. You can choose to update the latest unit cost from last cost, average cost or standard cost, or you can use the last purchase cost or price code if they are available.

(Figure 13) Roll Last Cost to Current V/A Material Cost Selection Screen

Entry Descriptions

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters.

Name	Type and Description
	Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to the starting product category.
Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Use Which Cost?	1 alphanumeric character. Valid entries are: **R** - Last cost **S** - Standard cost **A** - Average cost Enter the type of unit cost to roll to the cost master. Defaults to **R**.
Override If Last Purchase Cost Exists?	**Y** or **N**. Enter **Y** to use Last Purchase Cost as the unit cost. If it is available, it will override last/standard/average cost. Defaults to **Y**.
Override If Price Table Exist	**Y** or **N**. Enter **Y** to use the Price Code Table to obtain the unit cost. The program uses Order Minimum, Economic Order Quantity and Order Multiple to determine the price level and selects the minimum price as the unit cost. If it is available, it will override last/standard/average/last purchase cost.

Name	Type and Description
	Defaults to **Y**.
Roll If Mtrl Cost Field Is Fixed?	**Y** or **N**. Enter **Y** if you want to update cost masters where the material cost is fixed. Defaults to **N**.

(Figure 14) Roll Last Cost to Current V/A Material Cost Selection Screen

Recalculate Current Value-Add Cost from Routing

Application Overview

This program calculates the routing cost for manufactured items and updates labor, overhead and other costs to the cost master. Selected items should have a default routing since the calculation is based on it.

(Figure 15) Recalculate Current V/A Cost from Routing Selection Screen

Entry Descriptions

Name	Type and Description
Starting Item No	15 alphanumeric characters.
	Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description.
	Defaults to **All**.
Ending Item No	15 alphanumeric characters.
	Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description.
	Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters.
	Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only.
	Defaults to **All**.
Ending Product Cat	3 alphanumeric characters.
	Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only.
	Defaults to the starting product category.
Buyer Code	2 alphanumeric characters.
	Enter the buyer/analyst code for a range of cost masters to update. Press the **F7**

Name	Type and Description
	Key to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Recalculate Fixed Cost Fields?	**Y** or **N**. Enter **Y** to update cost masters for which the cost is fixed. Defaults to **N**.

(Figure 16) Recalculate Current V/A Cost from Routing Selection Screen

Current Total Cost Build-up

Application Overview

This application will accumulate the new current total cost for selected manufactured items through the bill of material. It accumulates the material, labor, and overhead cost from each component to build up the total cost of the parent item. The program processes the cost master of the lowest level components first. As a result, the component cost will be built up before that of the parent items. This is the last step for cost calculation, so make sure you have completed editing the current value added cost.

```
Current Total Cost Buildup Selection

  Starting Item No                        [        ]
  Ending Item No
  Starting Product Cat
  Ending Product Cat
  Buyer Code
  Material Cost Type
  Reset Low Level Code First?
  Process Only Items w/
   Last Change Date On or Prior to
  Including Scrap?
```

(Figure 17) Current Total Cost Buildup Selection Screen

Entry Descriptions

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the

Name	Type and Description
	F7 Key to search for an existing product category. Press the F1 Key to select items that have no product category only. Defaults to the starting product category.
Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the F7 Key to search for an existing product category. Press the F1 Key to select items that have no buyer code only. Defaults to All.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the F7 Key to search for an existing material cost type. Press the F1 Key to select items that have no material cost type only. Defaults to All.
Reset Low Level Code First?	Y or N. Enter Y reset low level codes of all items before cost build-up. This will make sure the update sequence is correctly from components to parent items, but may take a while depending on your inventory size. Defaults to Y.
Process Item Only w/ Last Change Date On or Prior to	A date in the standard date format (MM/DD/YY). The application only builds up cost for items that have been changed on or before this date. Defaults to the system date.
Include Scrap?	Y or N. Enter Y to include the scrap factor in the cost build-up. It will increase the unit cost of selected items. Defaults to N.

```
Current Total Cost Buildup Selection

 Starting Item No                          All
 Ending Item No
 Starting Product Cat                      All
 Ending Product Cat
 Buyer Code                                All
 Material Cost Type                        All
 Reset Low Level Code First?               Y
 Process Only Items w/
  Last Change Date On or Prior to          11/09/10
 Including Scrap?                          N

 Any Change ? N
```
(Figure 18) Current Total Cost Buildup Selection Screen

Current to Standard Roll

Application Overview

The **Current to Standard Roll** application updates the cost from the cost master to the standard cost in the item master file. You can select a range of items to update through the last build-up date, item number, product category, buyer/analyst code and material cost type. You can also review each item before updating.

If the cost master is changed after cost build-up, you may need to rebuild it again before you can update the standard cost of the item.

```
Current to Standard Roll Selection

Starting Last Build-Up Date          _ / /
Ending Last Build-Up Date
Starting Item No
Ending Item No
Starting Product Cat
Ending Product Cat
Buyer Code
Material Cost Type
Do You Wish To Review Each Item?
```

(Figure 19) Current to Standard Roll Selection Screen

Entry Descriptions

Name	Type and Description
Starting Last Build-Up Date	A date in the standard date format (MM/DD/YY). Enter the starting date for a range of cost masters that were built up during this period of time to update. Defaults to "**Earliest**".
Ending Last Build-Up Date	A date in the standard date format (MM/DD/YY). Enter the ending date for a range of cost masters that were built up during this period of time to update. Defaults to the system date.
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description.

Name	Type and Description
	Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to the starting product category.
Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Do You Wish To Review Each Item?	**Y** or **N**. Enter **Y** to review each item before updating. In the review screen, you can use the **F1 Key** to update, press the **Enter Key** to skip the item or press the **F2 Key** to toggle between Main Screen and View of Percentage Total. Defaults to **N**.

(Figure 20) Current to Standard Roll Selection Screen

```
BOMP Cost Master Main Menu - [Elliott Demonstration Company]               _ □ ×
Maintenance  Inquiry  Processing  Reports  eXit
X |□|🗐|🗐|⚙|🗗|🗏|🗗|🔺|🔍|🗐|🔍|🗐|🗐|🗐|🗐|🗐|🗐|ℱ)|🗐|▶?|08x15 Fixedsys            ▼
Cost Master Review Screen
 Item# DRIVE-SHAFT      Universal Joint Drive Shaft    Last Changed  @ 09/26/10
 Uom: EA Cat : FG                                      Last Built    @ 09/26/10
 M/P: MM Rtg#: DEF                                     Last Standard @ 06/17/10

 ================================= Main Screen ==================================
 Type              Cur-V/A    Cur-Total    Std-V/A    Std-Total     Var%
 Direct Labor Hrs   0.9333       3.9333     0.9333       3.9333
 Shared Labor Hrs   0.2500       0.8750     0.2500       0.8750
 Total Labor Hrs    1.1833       4.8083     1.1833       4.8083

 Machine Hrs        0.9333       3.5583     0.9333       3.5583
 ------------------------------------------------------------------------------
 Material Amount    0.0000     290.0000     0.0000     634.0000    54.26%
 Direct Lab Amt    15.0000      75.0000    15.0000      75.0000
 Shared Lab Amt     2.5000      11.8750     2.5000      11.8750
 Burden Amount     12.6213      17.6663    12.6213      17.6663
 Outside Amount     9.0000       9.0000     9.0000       9.0000

 Total Amount      39.1213     403.5413    39.1213     747.5413    46.02%

 F1=Restandardize This Item, Enter=Skip This Item, F2=View Pct of Total  □

 Area: 0202 1033                     006 SUPERVISOR TS2CHK        BMCSTMNU
```

(Figure 21) Review screen before update

Zero Out Current Cost

Application Overview

The **Zero Out Current Cost** application can clear out selected fields in cost master for selected items. You can choose which cost or hour fields to zero out. You can also choose a range of cost masters through item number, product category, buyer/analyst code and material cost type.

```
Zero Out Current Cost Selection

Starting Item No                    _____
Ending Item No
Starting Product Cat
Ending Product Cat
Buyer Code
Material Cost Type
Zero Out Direct Labor Hours ?
Zero Out Shared Labor Hours ?
Zero Out Machine Hours ?
Zero Out Material Cost ?
Zero Out Direct Labor Cost ?
Zero Out Shared Labor Cost ?
Zero Out Burden Cost ?
Zero Out Outside Cost ?
```

(Figure 22) Zero Out Current Cost Selection Screen

Entry Descriptions

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only.

Name	Type and Description
	Defaults to the starting product category.
Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Zero Out Direct Labor Hours ?	**Y** or **N**. Enter **Y** to zero out the value added and total of direct labor hours. Defaults to **N**.
Zero Out Shared Labor Hours ?	**Y** or **N**. Enter **Y** to zero out the value added and total of shared labor hours. Defaults to **N**.
Zero Out Machine Hours ?	**Y** or **N**. Enter **Y** to zero out the value added and total of machine hours. Defaults to **N**.
Zero Out Material Cost ?	**Y** or **N** Enter **Y** to zero out the value add and total of material cost. Defaults to **N**.
Zero Out Direct Labor Cost ?	**Y** or **N**. Enter **Y** to zero out the value added and total of direct labor cost. Defaults to **N**.
Zero Out Shared Labor Cost ?	**Y** or **N**. Enter **Y** to zero out the value added and total of shared labor cost. Defaults to **N**.
Zero Out Burden Cost ?	**Y** or **N**. Enter **Y** to zero out the value add and total of burden cost. Defaults to **N**.

Zero Out Outside Cost ?	**Y** or **N**.
	Enter **Y** to zero out the value add and total of outside process cost.
	Defaults to **N**.

(Figure 23) Zero Out Current Cost Selection Screen

Create Cost Master from Item File

Application Overview

The **Create Cost Master from Item File** application creates cost master records based on the item master file. This application will not override existing cost master records, but only create records for missing items. Since the program creates a cost master record for every item, no selection screen is provided.
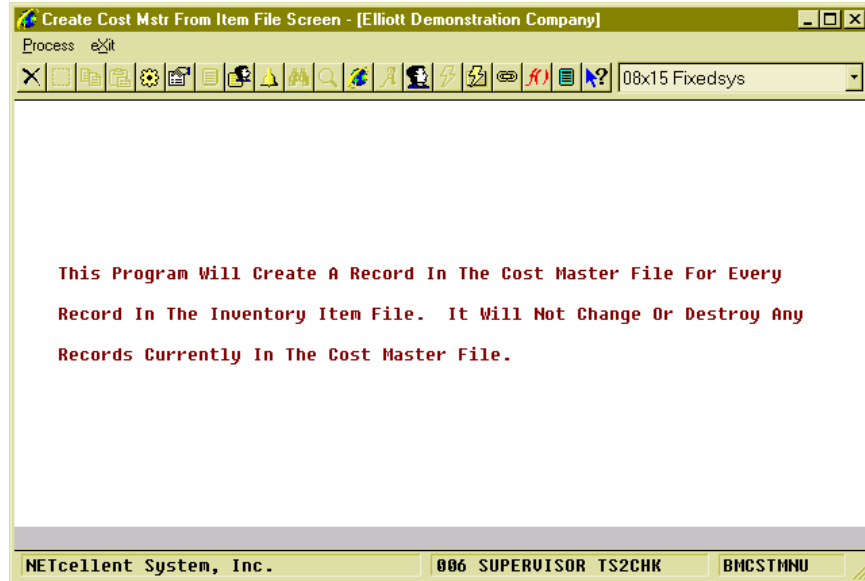
(Figure 24) Create Cost Master from Item File

Maintenance

In the Processing Menu, you can calculate, build up and update the cost automatically in a batch, but it is more likely you will want to edit the individual cost master manually and inspect each record before continuing to the next stage. Therefore, the Maintenance Menu provides tools to review and modify single or plural cost master records. The first menu item allows you to view and edit one cost master, while the second menu item allows you to select a range of items to review and drill down for more detail.

Maintenance by One Cost Master

In the Cost Master Maintenance screen, you can review every detail of a cost master record and modify the value added cost. You can prevent the modified value from being overwritten by any batch processing application, like batch updating purchased item cost from last cost, by making it fixed.
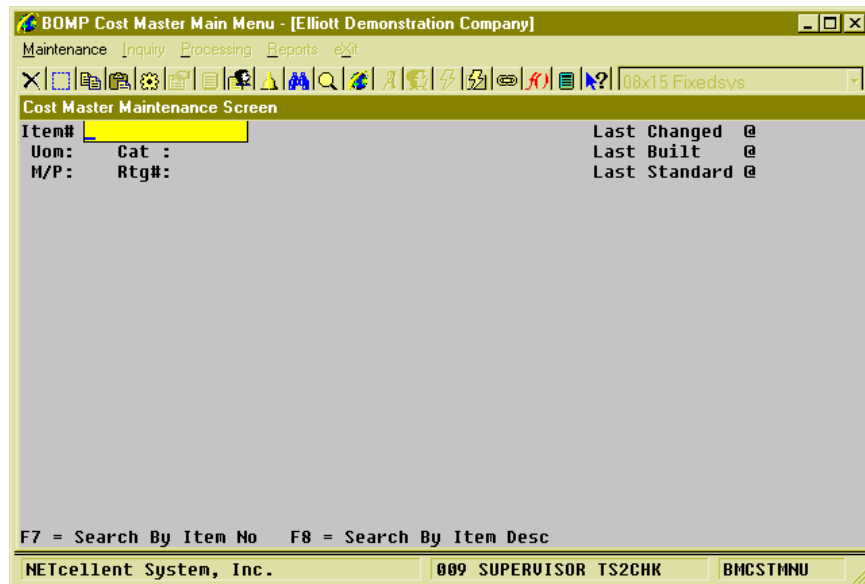
(Figure 25) Initial Screen for Cost Maintenance Screen

When this screen is brought up from the Cost Master main menu, the system will prompt for an item number first. You can type in an item number, regardless if it has a cost master record. If the item does not have a cost master record, the system will ask if you want to create the record immediately, as shown in Figure 26.

(Figure 26) Prompt if creating cost master immediately

(Figure 27) Main Screen of Cost Master Maintenance

After a valid item number is entered, the system will display all information about the item cost master. The top left of the screen displays basic information about the item. Three dates are displayed on the top right of the screen, the date when any of the value added fields was changed, the date when the total cost was built up from components, and the date when the cost was updated to the item standard cost. The main screen displays the hour information between the first and the second separator line, while the cost information is listed below the second separator line. The first two columns of numbers represent the current value, whereas the last two columns of numbers represent the standard value from the last update.

(Figure 28) Percentage of Total Screen of Cost Master Maintenance

You can toggle to the Percentage of Total screen with the **F1 Key**. This screen demonstrates the percentage of individual value to total value, such as percentage of material cost to total cost.

Several function keys are available in this screen:

- **Up/Down Key**– Navigate the highlight bar among different hour and cost rows.
- **Enter Key** – Drill down to the detail of selected hours or costs. The system displays the breakdown of value added, except for material costs where a break down of total cost is given.
- **F1 Key** – Toggle between Main Screen and Percentage of Total Screen.
- **F2 Key** – Change the current value added field. Once the field is modified, it will be automatically fixed.
- **F3 Key** – Bring up a list of inquiry selections. The options include:
  - o Audit Inquiry – Audit history for this cost master
  - o Production Routing Inquiry – Default standard routing of this item
  - o Stock Status Inquiry – Quantity on hand, allocation, etc. of the item
- **F4 Key** – Bring up a list of advanced options. The options include:
  - o Fix/Release highlighted value added field
  - o Fix all value added fields
  - o Release all value added fields
- **F5 Key** – Legend.

Maintenance by List of Cost Masters

Instead of individually inspecting each item, you can evaluate and maintain plural cost masters through this feature. The system prompts for a spectrum of criteria for the range of cost masters. The selected cost masters and summary information will be displayed on the screen where you can add, remove or drill down the records.

Selection Screen

```
Cost Master Maintenace Selection

Starting Item No                    _____
Ending Item No
Starting Product Cat
Ending Product Cat
Buyer Code
Material Cost Type
Manufacture or Purchase
Select Obsoleted Cost Master?
Select by Total Cost Variance
Select by V/A Cost Variance
```

(Figure 29) Cost Master List Selection Screen

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to the starting product category.

Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Manufacture or Purchase	1 alphanumeric character. Valid entries are: **M** – Manufactured items only **P** – Purchased items only **B** – Both Defaults to **B**.
Select Obsolete Cost Master?	**Y** or **N**. Enter **Y** to include obsolete items. Defaults to **N**.
Select by Total Cost Variance	1 alphanumeric character, followed by a two digit percentage amount. Valid entries are: **N** – No selection for total cost variance. **O** – Select records with a positive total cost variance falling within the specified range. **U** – Select records with a negative total cost variance falling within the specified range. **B** – Select records with an absolute value of total cost variance falling within the specified range. Enter the method to select records by total cost variance. If you select **O**, **U** or **B**, you need to enter the range of the variance to include. Defaults to **N**.
Select by V/A Cost Variance	1 alphanumeric character, followed by a two digit percentage amount. Valid entries are: **N** – No selection for total cost variance. **O** – Select records with a positive value added cost variance falling within the specified range. **U** – Select records with a negative value added cost variance falling within the specified range **B** – Select records with an absolute value of value added cost variance falling within the specified range. Enter the method to select records by value added cost variance. If you select **O**, **U** or **B**, you need to enter the range of the variance to include. Defaults to **N**.

List Screen

(Figure 30) Cost Master List Screen

This screen displays a list of selected items and their cost master information. You can review the cost and the cost variance from the last update. You can add or remove a cost master. You can also drill down on an item for more detail.

Several functions are available in this screen:
- **Up/Down/Page Up/Page Down Key** – Navigate the highlight bar among different items.
- **Enter Key** – Drill down to Cost Master Maintenance.
- **Insert Key** – Add a new Cost Master. The highlight bar will be moved to the end of the list and you are required to enter an item number.
- **Delete Key** – Delete a Cost Master.
- **F2 Key** – Drill down to Cost Audit Inquiry for the highlighted item.
- **F3 Key** – Drill down to Routing Inquiry for the default routing of the highlighted item. This inquiry program will display the operations and, if allowed, the cost of the routing. The program will use the current total cost from cost master to calculate material cost.
- **F4 Key** – Drill down to Stock Inquiry for the highlighted item.
- **F5 Key** – Legend.

Inquiry

Cost Audit Inquiry

Every time the system updates the unit cost of an item from a cost master (through Current to Standard Roll), an audit record will be created. The audit records the cost value before and after the update so you can review them later. The Cost Audit Inquiry program provides an interface to review the audit history of one item. It will list all audit records and allow you to drill down for more detail.
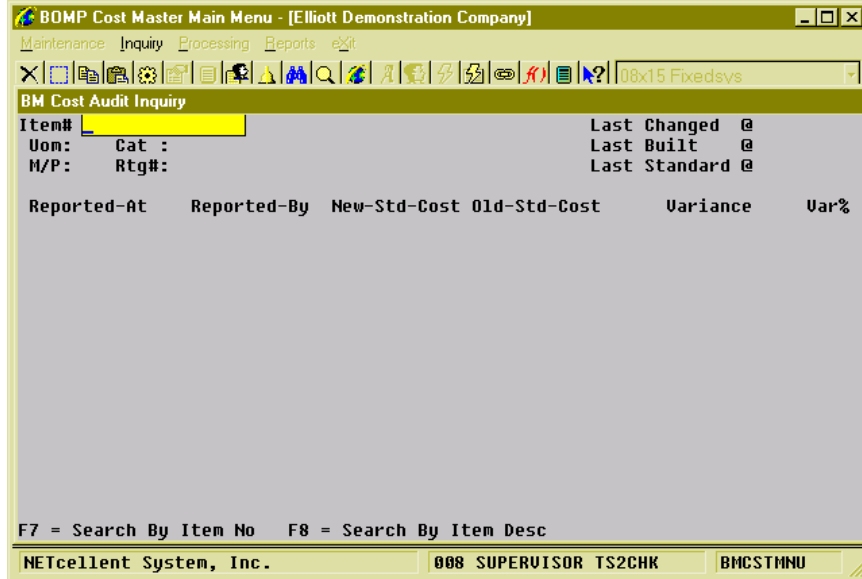
(Figure 31) Cost Audit Inquiry, Item Number Entry

If you bring up Cost Audit Inquiry from the Cost Master Main Menu, the system will prompt for an item number first. Otherwise, the program will directly display the audit history.
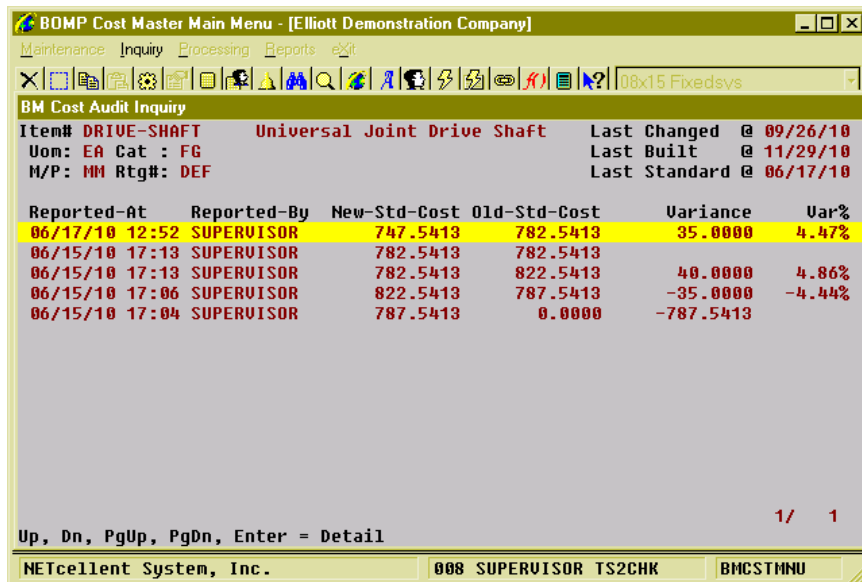
(Figure 32) Cost Audit Inquiry, Audit History

After an item number is given, the screen will display all audit records of the item. Each line shows the new value, the old value and the value variance in cost for one update. You can press the **Enter key** to drill down for more detail of one audit record. In the detail screen, you can use the **F1 key** to toggle between the main screen, which shows both total value and value added amount, and the Percentage of Total screen, which shows the percentage of one type amount to total amount.

(Figure 33) Cost Audit Inquiry, One Audit Record – Main Screen

(Figure 34) Cost Audit Inquiry, One Audit Record – Percentage Screen
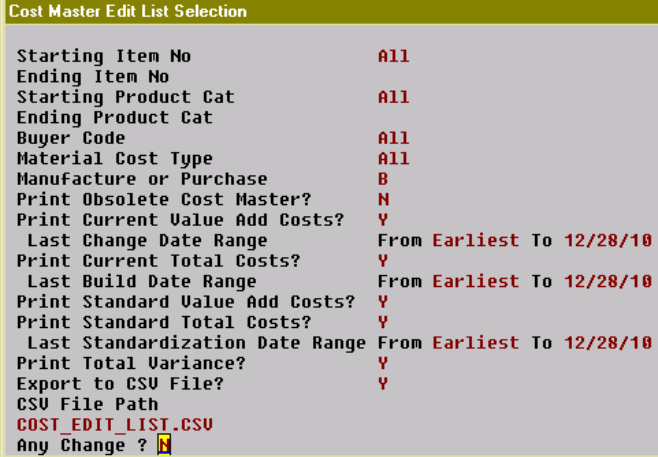
Report

Cost Master Edit List

Application Overview

The **Cost Master Edit List** program prints cost detail of each cost master. It provides a wide range of selection criteria to narrow down the data. You can select cost master by item number, product category, buyer/analyst code, etc. You can select records changed, built up or standardized within a range of dates. You also can select cost masters which have a certain variance range, compared to the last standard unit cost. Plus, you can export all records to a CSV file.

Entry Descriptions

(Figure 35) Cost Master Edit List Selection Screen

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.

Starting Product Cat	3 alphanumeric characters.
	Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only.
	Defaults to **All**.
Ending Product Cat	3 alphanumeric characters.
	Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only.
	Defaults to the starting product category.
Buyer Code	2 alphanumeric characters.
	Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only.
	Defaults to **All**.
Material Cost Type	2 alphanumeric characters.
	Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only.
	Defaults to **All**.
Manufacture or Purchase	1 alphanumeric character.
	Valid entries are: **M** – Manufactured item only **P** – Purchased item only **B** – Both
	Defaults to **B**.
Print Obsolete Cost Master?	**Y** or **N**.
	Enter **Y** to include obsolete items.
	Defaults to **N**.
Print Current Value Add Costs?	**Y** or **N**.
	Enter **Y** to print current value added costs on the report.
	Defaults to **Y**.
Last Change Date Range	Two dates in the standard date format (MMDDYY) to define a date range.
	Enter a range of dates when the current value added records were changed. This is only available if you choose to print current value added cost.
	The first date defaults to earliest and the second date defaults to the system date.

Print Current Total Costs?	**Y** or **N**. Enter **Y** to print current total costs on the report. Defaults to **Y**.
Last Build Date Range	Two dates in the standard date format (MMDDYY) to define a date range. Enter a range of dates when the current total cost of the selected records were built up. This is only available if you choose to print current total cost. The first date defaults to earliest and the second date defaults to the system date.
Print Standard Value Add Costs?	**Y** or **N**. Enter **Y** to print standard value added costs on the report. Defaults to **Y**.
Print Standard Total Costs?	**Y** or **N**. Enter **Y** to print standard total costs on the report. Defaults to **Y**.
Last Standardization Date Range	Two dates in the standard date format (MMDDYY) to define a date range. Enter a range of dates when the selected records rolled up the cost to the item standard cost. This is only available if you choose to print standard value added cost or standard total cost.. The first date defaults to earliest and the second date defaults to the system date.
Print Total Variance?	**Y** or **N**. Enter **Y** to print total cost variance between current value and standard value, and the current total cost and standard total cost will always be printed. Selecting **Y** will prompt for more selections by variance range. If you choose to print current total and standard total, the default is **Y**. Otherwise, the default is **N**.
Export to CSV File?	**Y** or **N**. Enter **Y** to export results to a CSV file. Defaults to the last entry.
CSV File Path	50 alphanumeric characters. Enter the file name and path of the export file. Defaults to the last entry.

Sub-Entry for "Print Total Variance" Description

If you select **Y** for Print Total Variance, more criteria will be available to select by variance percentage. This variance is the difference between the current value and standard value. By default, all conditions are turned off and the system will not select any record based on the variance range. Selecting a condition, like "Total Cost Variance%", prompts for a variance percentage range. If multiple conditions are turned on, only cost master records which satisfy all conditions will be included.

(Figure 36) Cost Master Edit List Selection Screen, Variance Range Selection

Name	Type and Description
Total Cost Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: N - No selection O - Only positive variance U - Only negative variance B - Both positive and negative variance Enter whether to select records based on the total cost variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.
Direct Labor Hours Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: N - No selection O - Only positive variance U - Only negative variance B - Both positive and negative variance Enter whether to select records based on the direct labor hour variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.

Shared Labor Hours Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the shared labor hour variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.
Machine Hours Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the machine hour variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.
Material Cost Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the material cost variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.
Direct Labor Cost Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the direct labor cost variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.

Shared Labor Cost Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the shared labor cost variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.
Burden Cost Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the burden cost variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.
Outside Cost Variance %?	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the outside process cost variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.

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

Range:  All Items
        All Category
        All Buyer/Analyst
        All Material Type
Include Both Manufacture And Purchase Items, And Exclude Obsolete Items

  Type     Updated@ Dir-Lab-Hr  Shr-Lab-Hr  Machine-Hr    Material-Amount Direct-Labor-Amt Shared-Labor-Amt       Burden-Amt       Outside-Amt Total-Amt

Item# DRIVE-SHAFT          Universal Joint Drive Shaft      Cat: FG   Routing#: DEF    Uom: EA Mfg/Pur: MM Buyer/Anl:        Mat Type: A  Activity Code: A

  Cur V/A 09/26/10  3.833333   0.250000   3.833333    0.0000          66.2500 67.86%    2.5000   2.56% 28.8833 29.58%  0.0000              97.6333
  Std V/A 06/15/10  3.833333   0.250000   3.833333    0.0000          66.2500 67.86%    2.5000   2.56% 28.8833 29.58%  0.0000              97.6333
  Cur Ttl 12/28/10  6.833333   0.875000   6.458333  295.0000  63.16% 126.2500 27.03%   11.8750   2.54% 33.9283  7.26%  0.0000             467.0533
  Std Ttl 06/15/10  6.833333   0.875000   6.458333  330.0000  65.73% 126.2500 25.15%   11.8750   2.37% 33.9283  6.76%  0.0000             502.0533
  Ttl-Var                                             35.0000 100.00%                                                                      35.0000
  Var%                                                10.61 %                                                                               6.97 %

Item# PC                   Parent Item (Mother Board)       Cat: FG   Routing#: PC100 Uom: EA Mfg/Pur: M  Buyer/Anl: BC Mat Type: A  Activity Code: A
                           Personal Computer

  Cur V/A 06/17/10  0.000000   0.000000   0.000000    0.0000           0.0000            0.0000          0.0000          0.0000               0.0000
  Std V/A 06/15/10  0.000000   0.000000   0.000000    0.0000           0.0000            0.0000          0.0000          0.0000               0.0000
  Cur Ttl 12/28/10  7.866666   1.750000   7.116666 2942.4200  92.84% 150.0000   4.73%  23.7500   0.75% 35.3326  1.11% 18.0000  0.57% 3169.5026
  Std Ttl 06/15/10  7.866666   1.750000   7.116666 3700.4200  94.22% 150.0000   3.82%  23.7500   0.60% 35.3326  0.90% 18.0000  0.46% 3927.5026
  Ttl-Var                                            758.0000 100.00%                                                                     758.0000
  Var%                                                20.48 %                                                                              19.30 %

     2 Cost Master(s) Printed
```

(Figure 37) Cost Master Edit List Report

Value Added from Routing Report

Application Overview

The **Value Added from Routing Report** prints the hours and costs from the routings of each manufactured item. These values are calculated based on the current setup of each routing. You can review these values before posting to cost master.

You can select items by item number, product category, buyer/analyst code, etc. and print each operation in the selected routings.

Entry Descriptions

(Figure 38) Value Add From Routing Report Selection Screen

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only.

Name	Type and Description
	Defaults to the starting product category.
Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Print Obsolete Cost Master?	**Y** or **N**. Enter **Y** to include obsolete items. Defaults to **N**.
Print Default Routing Only?	**Y** or **N**. Enter **Y** to print the default routing of each item only. Enter **N** to print every routing of each item. Defaults to **Y**.
Print Summary or Detail?	1 alphanumeric character Valid entries are: **S** - Summary. One routing per line. **D** - Detail. Print every operation of each routing. Enter the detail level for this report. Defaults to **S**.
Compare To Current?	**Y** or **N**. Enter **Y** to compare the selected routing to current values in the cost master. Select **Y** and you will be able to select routings by variance percentage. Defaults to **N**.
Select V/A Total Var Pct	1 alphanumeric entry and 2 variance percentage entries. The variance percentage entries have 3 digits and 2 decimals. Valid entries are: **N** - No selection **O** - Only positive variance **U** - Only negative variance **B** - Both positive and negative variance Enter whether to select records based on the value added cost variance percentage. If **O**, **U** or **B** is selected, a percentage range, from 0 to 999.99, is required. Defaults to **N**.

```
                    V A L U E   A D D   F R O M   R O U T I N G   S U M M A R Y   R E P O R T

Item Header Legend: Cat=Product Categody, MP=Manufacture or Purchase, T=Material Type, BA=Buyer/Analysist
Range:  All Items
        All Category
        All Buyer/Analyst
        All Material Type
Exclude Obsolete Items
Print Default Routing For Each Item Only

Item-No          Item-Description       Uom Cat MP T BA Rtg#     Labor-Hrs   Machine-Hrs   Labor-Amt   Burden-Amt   Outside-Amt  Non-Mat-Amt

DRIVE-SHAFT      Universal Joint Drive Shaft  EA FG  MM A   DEF    0.933333     0.933333     15.0000      12.6213      9.0000      36.6213

DRIVE-SHAFT LTD Drive Shaft Limited Edition   EA FG  MM A   DEF    3.833333     3.833333     66.2500      28.8833      0.0000      95.1333
                 W/ Serialized Elliott Sticker!

FLANGE           Flange w/ 6 holes       EA C   MM 3   DEF    1.500000     1.312500     30.0000       2.5225      0.0000      32.5225

        3 Item(s) Printed
        3 Routing(s) Printed
```

(Figure 39) Value Add From Routing Report

Cost Explosion Report

Application Overview

The **Cost Explosion Report** prints a number of cost levels for each selected parent item, breaking it down into component amounts and value added amounts from routings for each level.

You can select items by item number, product category, buyer/analyst code, etc. and print current value or standard value. The value added cost or total cost can be printed in single level or multi-levels as well. It offers the option of blowing through phantom items (non-stocked, non-controlled component items) to print the components of the phantom item in place of the phantom item itself.

Entry Descriptions

```
Cost Explosion Report Selection

Starting Item No                 All
Ending Item No
Starting Product Cat             All
Ending Product Cat
Buyer Code                       All
Material Cost Type               All
Manufacture or Purchase          B
Print Obsolete Cost Master?      N
Current or Standard Cost?        C
Print Total Cost or Value Add?   T
Single/Indented(Multi-Level)?    S
Blow Through Phantom Item?        N/A
Page Break for Each Parent Item? Y

Any Change ? N
```

(Figure 40) Cost Explosion Report Selection Screen

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.

Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to the starting product category.
Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Manufacture or Purchase	1 alphanumeric character. Valid entries are: **M** – Manufactured item only **P** – Purchased item only **B** – Both Defaults to **B**.
Print Obsolete Cost Master?	**Y** or **N**. Enter **Y** to include obsolete items. Defaults to **N**.
Current or Standard Cost?	1 alphanumeric character Valid entries are: **C** - Current value **S** - Standard value from last roll-up Defaults to **C**.

Print Total Cost or Value Add?	1 alphanumeric character. Valid entries are: T - Total Cost V - Value Add Cost Enter **T** to print the total cost of each component. Enter **V** to print the value added cost of each component. Defaults to **T**.
Single/Indented(Multi-Level)?	1 alphanumeric character. Valid entries are: S - Single level for components. I - Indented multi-levels for components. If printing total cost, defaults to **S**. If printing value added, defaults to **I**.
Blow Through Phantom Item?	**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. This option is only available if printing multi-levels. Otherwise, **"N/A"** will be displayed. Defaults to **N**.
Page Break for Each Parent Item?	**Y** or **N**. Enter **Y** to start a new page for each parent item. Defaults to **Y**.

```
                         S I N G L E   L E V E L    C U R R E N T   C O S T   E X P L O S I O N   R E P O R T
A = Activity Flag (A-Active, F-Forecast, O-Obsolete)
Lst-Upd = Last Build-up Date
Range:  All Items
        All Category
        All Buyer/Analyst
        All Material Type
Include Both Manufacture And Purchase Items, And Exclude Obsolete Items

                                                                  -- Extended Hours -- ------------- Extended Amount --------------
     Component-Item-No          Description            Qty-Per UoM Lst-Upd    Labor   Machine  Material    Labor   Burden  Outside     Total
For Parent-Item-Number DRIVE-SHAFT      Universal Joint Drive Shaft      Uom: EA  Category: FG   Mfg/Pur: MM  Mtrl-Cost-Type: A
     TUBE                       Connecting Tube        1.000000 EA 12/28/10 0.000000 0.000000  10.0000   0.0000   0.0000   0.0000  10.0000
     FLANGE                     Flange w/ 6 holes      2.000000 EA 12/28/10 3.625000 2.625000  80.0000  69.3750   5.0450   0.0000 154.4200
     SPIDER-UNIT                Spider Unit            2.000000 EA 12/28/10 0.000000 0.000000  80.0000   0.0000   0.0000   0.0000  80.0000
     FIXED-JOINT                Fixed-Length Joint     1.000000 EA 12/28/10 0.000000 0.000000  20.0000   0.0000   0.0000   0.0000  20.0000
     SLIP-JOINT                 Sliding Sleeve Type Slip Joint 1.000000 EA 12/28/10 0.000000 0.000000 100.0000   0.0000   0.0000   0.0000 100.0000
     Parent Value Added Costs:                                     09/26/10 1.183333 0.933333   0.0000  17.5000  12.6213   9.0000  39.1213
     Parent Total Costs On Cost Master File:                       12/28/10 4.808333 3.558333 290.0000  86.8750  17.6663   9.0000 403.5413

        1 Item(s) Printed
```

(Figure 41) Cost Explosion Report

Missing or Zero Item Cost Report

Application Overview

The **Missing or Zero Item Cost Report** prints all missing cost masters or those containing a zero value. This application provides 5 options: missing record, current value-added of zero, current total value of zero, standard value-added of zero, and standard total of zero.

The options to select items by item number, product category and buyer/analyst code, etc. are also available.

Entry Descriptions

(Figure 42) Missing or Zero Item Cost Report Selection Screen

Name	Type and Description
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.
Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.

Ending Product Cat	3 alphanumeric characters.
	Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only.
	Defaults to the starting product category.
Buyer Code	2 alphanumeric characters.
	Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only.
	Defaults to **All**.
Material Cost Type	2 alphanumeric characters.
	Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only.
	Defaults to **All**.
Manufactured or Purchased	1 alphanumeric character.
	Valid entries are: **M** – Manufactured items only **P** – Purchased items only **B** – Both
	Defaults to **B**.
Print Obsolete Cost Master?	**Y** or **N**.
	Enter **Y** to include obsolete items.
	Defaults to **N**.
Select No Cost Record At All?	**Y** or **N**.
	Enter **Y** to print items without a cost master.
	Defaults to **Y**.
Select Cur Value Added Cost = Zero	**Y** or **N**.
	Enter **Y** to print cost masters with a zero value in the current value added cost.
	Defaults to **Y**.
Select Cur Total Cost = Zero	**Y** or **N**.
	Enter **Y** to print cost masters with a zero value in the current total cost.
	Defaults to **Y**.
Select Std Value Added Cost = Zero	**Y** or **N**.
	Enter **Y** to print cost masters with a zero value in the standard value added cost.
	Defaults to **Y**.

Select Std Total Cost = Zero	Y or N.
	Enter Y to print cost masters with a zero value in the standard total cost.
	Defaults to Y.

```
                    M I S S I N G   O R   Z E R O   I T E M   C O S T   R E P O R T
Range:  All Items
        All Category
        All Buyer/Analyst
        All Material Type
Include Both Manufacture And Purchase Items, And Exclude Obsolete Items
Select If No Cost Record At All
Include If Current Value Add = Zero, Current Total = Zero, Standard Value Add = Zero, Standard Total = Zero

                                                    ---------- Costs = Zero ----------  Last-Chg  Last-Build  Last-Std
Item-No        Item-Description       Uom  Missing  Cur-V/A  Cur-Tot  Std-V/A  Std-Tot    Date       Date       Date
CPU            Mother Board For Parent  EA            Yes               Yes              06/17/10   12/28/10   06/15/10
               Central Processing
DATA-BUS       Data Bus/Buffer 25 Meg   EA    Yes       P/M: P  Stock: Y  Ctl: Y  Act: A  Buyer/Anl: 1
               Data - Buffer
FLANGE         Flange w/ 6 holes        EA                             Yes      Yes     12/28/10   12/28/10
PC             Parent Item (Mother Board) EA          Yes               Yes              06/17/10   12/28/10   06/15/10
               Personal Computer


     4 Item(s) Printed
```

(Figure 43) Missing or Zero Item Cost Report Selection Screen

Auditing Report

Application Overview

The **Auditing Report** prints out all audit history records for the selected items. Each audit history record contains before and after update values.

You can select cost masters by item number, product category, buyer/analyst code, etc. and audit history can be selected by date and sorted by item number or date.

Entry Descriptions

(Figure 44) Auditing Report Selection Screen

Name	Type and Description
Sort By	1 alphanumeric character. Valid entries are: I - Sort by item number D - Sort by date Enter the method to sort audit history on the report. Defaults to **I**.
Starting Date	A date in the standard date format (MM/DD/YY). Enter the starting date of a date range of audit history to print. Defaults to **Earliest**.
Ending Date	A date in the standard date format (MM/DD/YY). Enter the ending date of a date range of date of audit history to print. Defaults to the system date.
Starting Item No	15 alphanumeric characters. Enter the starting item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to **All**.

Ending Item No	15 alphanumeric characters. Enter the ending item number for a range of cost masters to update. Press the **F7 Key** to search for an item by item number or press the **F8 Key** to search for an item by item description. Defaults to the starting item number.
Starting Product Cat	3 alphanumeric characters. Enter the starting product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to **All**.
Ending Product Cat	3 alphanumeric characters. Enter the ending product category for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no product category only. Defaults to the starting product category.
Buyer Code	2 alphanumeric characters. Enter the buyer/analyst code for a range of cost masters to update. Press the **F7 Key** to search for an existing product category. Press the **F1 Key** to select items that have no buyer code only. Defaults to **All**.
Material Cost Type	2 alphanumeric characters. Enter the material cost type for a range of cost masters to update. Press the **F7 Key** to search for an existing material cost type. Press the **F1 Key** to select items that have no material cost type only. Defaults to **All**.
Manufactured or Purchased	1 alphanumeric character. Valid entries are: **M** – Manufactured items only **P** – Purchased items only **B** – Both Defaults to **B**.
Print Obsolete Cost Master?	**Y** or **N**. Enter **Y** to include obsolete items. Defaults to **N**.
Print Detail or Summary	1 alphanumeric character. Valid entries are: **S** - Summary format. One audit history per line. **D** - Detail format. Includes the breakdown of hour and cost.

Defaults to **S**.

```
                                                    A U D I T   S U M M A R Y   R E P O R T

Range:  Date            Earliest       Thru 12/28/10
        All Item
        All Category
        All Buyer/Analyst
        All Material Type
Include Both Manufacture And Purchase Items, And Exclude Obsolete Items
Sort By Item No

Item-No          Description                 UoM MP Cat Buy Date     Time    Rtg#   Old-Avg  Old-Lst  Old-Std  New-Std Cost-Var Cst-Var% All-Loc-Qty

DRIVE-SHAFT      Universal Joint Drive Shaft  EA MM FG     01/15/10 17:04:16 DEF    255.3567 255.3567 438.5413 787.5413 349.0000- 79.58-%   64.00

                                                          04/15/10 17:06:47 DEF    255.3567 255.3567 787.5413 822.5413  35.0000-  4.44-%   60.00

                                                          07/15/10 17:13:44 DEF    255.3567 255.3567 822.5413 782.5413  40.0000   4.86 %  102.00

                                                          10/15/10 12:52:37 DEF    255.3567 255.3567 782.5413 747.5413  35.0000   4.47 %   23.00


        4 Audit Record(s) Printed
        1 Item(s) Printed
```

(Figure 45) Auditing Report

Chapter 3: Advanced Features

Exception Handling

Mistakes occur on a daily basis preventing us from collecting accurate information, accidentally and intentionally. For example, an operator may forget to log off at the end of the day or forget to log in after a lunch break; an operator may forget to report for an operation or report an incorrect quantity; a worker may sign into a wrong work center or department. Elliott provides a way to correct these entries through Exception Handling.

Exception Handling is a set of tools to change records in one or more databases for unusual situations. Functions are available in most screen interfaces through the F4 function key, such as Work Center Operation and Operator Time Clock Inquiry. Operators can only access authorized functions as defined in the Operator File.

When an operator attempts to use a function, the system will verify several things:
- The privilege, defined in the Operator File and in User Global Security, to access one function.
- The severity level of the exception. The severity level is a number from 0, for the least severe, to 9, for the most severe. The severity level can vary for the same function, depending on the circumstance. For instance, the severity level of changing the log off time of a time clock record from a week ago from 7PM to 6PM would be 2 if the one hour was for a non-productive activity, like a meeting. The severity level would be 7 if the one hour was for a posted production. It is considered more serious because the time clock change does not fix the extra labor cost for the work order.
- The authorized level of the operator to handle exceptions. Each operator has 3 authorization levels; a level to handle his own exceptions, a level to handle exceptions for his department, and a level to handle all the others. If any of these exceed the severity level of the exception, the operator is granted permission to handle it.

The severity level is defined in the following table.

Criteria Level	Information Only?	Causes a Data Integrity Issue?	Impacts Many Transactions?	Happens Frequently?
0	Yes	No	No	Yes
1	Yes	No	No	No
2	No	No	No	Yes
3	No	No	No	No
4	No	No	Yes	Yes
5	No	No	Yes	No
6	No	Yes	No	Yes
7	No	Yes	No	No
8	No	Yes	Yes	Yes
9	No	Yes	Yes	No

When handling a certain exception, the system may prompt for additional information and a confirmation. The confirmation screen displays the nature and detail of the exception. If the authorization level of the operator is not high enough to handle the exception, it will prompt for a supervisor ID and password.

If the change affects work order production cost, corrections will be made to the production transaction records. In addition, the system may:
- Create an exception record. You can review these records by printing an Exception Report.
- Trigger an Elliott system activity, a general event which can be subscribed to in the company setup (Program: SYACTLOG, Type: SYACTLOG). The system will notify the subscriber whenever this event is triggered.

Time Clock Related Exception

This section will list all available time clock related exception handles in the system and how to use them. The handles are:

        Force Logoff
        Reassign Current Time Clock
        Change Ending Time
        Add Time Clock
        Delete Time Clock
        Split Time Clock
        Merge Time Clock with Next
        Add Time Clock Detail
        Reassign Time Clock Detail
        Delete Time Clock Detail
        Split Time Clock Detail
        Merge Time Clock Detail with Next

Force Logoff

The system forces an operator logged into the system over a specific duration to log off. This duration is defined in BOMP Global Setup field 26, Force Logoff If Logon Over This Hours.

Security Control	None.
Severity Level	0.
How to Access	Automatically triggered in Work Order Production. The operator is required to enter a comment about the exception.
Exception Record?	Yes.
Elliott Activity?	Yes.

Reassign Current Time Clock

If an operator entered a wrong operation number for his current activity, he can change it to another in Work Order Production.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Reassign Time Clock".
Severity Level	2 through 9.
How to Access	At the Order Number field in Work Order Production, press **F4** to bring up the Exception Handle options and select "Reassign Current Time Clock". Specify the detail of the activity: a special operation, an order operation, a work center or a department.
Exception Record?	Yes.
Elliott Activity?	Yes.

Change Ending Time

If an operator begins work on another job and does not report to Elliott, the operator or a manager can use this function to correct it. For example, an operator returns from a 30 minute lunch break and discovers he did not log off before leaving. The system will prompt for the ending time of the previous activity and what the next activity will be.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Edit (Slip/Merge)".
Severity Level	2 through 9.
How to Access	This function can be accessed through various interfaces: • At the Order Number field in Work Order Production, press **F4** to bring up the Exception Handle options and select "Change Ending Time". • At the Current Labor View in Work Center Operation, highlight an operator and press **F4** to bring up the Exception Handle options. Select "End Current Labor". • At the Time Clock view or Time Clock Detail view in Operator Time Clock, press **F4** to bring up the Exception Handle options. Select "Change" → "End Current Labor". Specify the detail of the next activity: a special operation, an order operation, a work center or a department. Enter the ending time of the previous activity.
Exception Record?	Yes.
Elliott Activity?	Yes.

Add Time Clock
A new time clock record can be added in Operator Time Clock. The new record will not have any detail. Another exception handle can specify the activity.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Add Time Clock".
Severity Level	2.
How to Access	At the Time Clock view in Operator Time Clock, press **F4** to bring up the Exception Handle options and select "Add". Enter the starting and ending time of the time clock record. This period of time cannot overlap other time clock records.
Exception Record?	Yes.
Elliott Activity?	Yes.

Delete Time Clock
A time clock record and all the details can be removed in Operator Time Clock.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Remove Time Clock".
Severity Level	2 through 9.
How to Access	At the Time Clock view in Operator Time Clock, highlight a record and press **F4** to bring up the Exception Handle options and select "Remove".
Exception Record?	Yes.
Elliott Activity?	Yes.

Split Time Clock
A time clock record can be split in Operator Time Clock. For example, an operator logs off 1 hour later than when he actually stopped working. A manager can split his time at the right point and remove the latter time clock record.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Edit (Slip/Merge)".
Severity Level	2.
How to Access	At the Time Clock view in Operator Time Clock, highlight a record and press **F4** to bring up the Exception Handle options and select "Change" → "Split". Enter the time of the split point and whether the previous time clock end was for a meal break or an end-of-day log off.
Exception Record?	Yes.
Elliott Activity?	Yes.

Merge Time Clock with Next

Two time clock records can be merged in Operator Time Clock. These two records should be continuous in time.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Edit (Slip/Merge)".
Severity Level	2.
How to Access	At the Time Clock view in Operator Time Clock, highlight a record and press **F4** to bring up the Exception Handle options and select "Change" → "Merge with Next".
Exception Record?	Yes.
Elliott Activity?	Yes.

Add Time Clock Detail

Activity detail can be added to a time clock record in Operator Time Clock. The detail can be a production, a special operation, or a period of time where the operator signed into a work center. The time of the activity should be within one of the time clock records and should not overlap other activities.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Add Time Clock".
Severity Level	2 through 9.
How to Access	At the Time Clock Detail view in Operator Time Clock, press **F4** to bring up the Exception Handle options and select "Add". Enter the activity detail and the starting and ending time.
Exception Record?	Yes.
Elliott Activity?	Yes.

Reassign Time Clock Detail

The activity of one time clock detail can be changed to another through this function. For example, you can change a period of time from "idle" to "machine maintenance".

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Reassign Time Clock".
Severity Level	2 through 9.
How to Access	At the Time Clock Detail view in Operator Time Clock, highlight a record and press **F4** to bring up the Exception Handle options and select "Change"→"Reassign". Select the new activity type: a production, a special operation or a location.
Exception Record?	Yes.
Elliott Activity?	Yes.

Delete Time Clock Detail

A time clock detail can be removed. This will label the period of time as "undefined".

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Remove Time Clock".
Severity Level	2 through 9.
How to Access	At the Time Clock Detail view in Operator Time Clock, highlight a record and press **F4** to bring up the Exception Handle options and select "Remove".
Exception Record?	Yes.
Elliott Activity?	Yes.

Split Time Clock Detail

This is an editing function which allows you to split one time clock detail into two.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Edit (Slip/Merge)".
Severity Level	2.
How to Access	At the Time Clock Detail view in Operator Time Clock, highlight a record and press **F4** to bring up the Exception Handle options and select "Change"→"Split". Enter the split point time.
Exception Record?	Yes.
Elliott Activity?	Yes.

Merge Time Clock Detail with Next

This is an editing function which allows you to merge two continuous time clock details into one.

Security Control	Operator File → "20. Operator Time Clock" → "Allow To Edit (Slip/Merge)".
Severity Level	2.
How to Access	At the Time Clock Detail view in Operator Time Clock, highlight a record and press **F4** to bring up the Exception Handle options and select "Change"→"Merge with Next".
Exception Record?	Yes.
Elliott Activity?	Yes.

Production Related Exception

This section will list all the available production related exception handlers in the system and how to use them:

> Substitute Work Center
> Change Work Center
> Substitute Operation ID
> Change Operation ID
> Modify Operation Detail
> Modify Production Detail
> Modify Transaction Data
> Cancel Production
> Create Missing Transaction
> Override Post Exception
> Create Reverse Transaction
> Reopen a Work Order

Substitute Work Center

The work center of one operation can be substituted to that defined in work center file through this exception handle rather than changing it in Production Order Entry. For example, if the work center of one operation is ASM1 and its substitute is ASM2, you can substitute the work center of the operation to ASM2 through this function. The function is not available once the operation has begun.

Security Control	In Operator File → "19. Production Detail" → "Allow to Substitute Work Center".
Severity Level	0.
How to Access	There are 2 ways to access this function: • At the Plan Quantity field in Work Order Production, press **F4** to bring up the "Change Operation" options and select "Change to Work Center ". • At the transaction date field in Production Transaction Processing, press **F4** to bring up the "Change Operation" options and select "Change to Work Center ".
Exception Record?	Yes.
Elliott Activity?	Yes.

Change Work Center

The work center of one operation can be changed with this function instead of changing it in Production Order Entry. This function is not available once the operation has begun.

Security Control	In Operator File → "19. Production Detail" → "Allow to Change Work Center".
Severity Level	0.
How to Access	There are 2 ways to access this function: • At the Plan Quantity field in Work Order Production, press **F4** to bring up the "Change Operation" options and select "Change Work Center".

	• At the transaction date field in Production Transaction Processing, press **F4** to bring up the "Change Operation" options and select "Change Work Center". Enter a work center ID.
Exception Record?	Yes.
Elliott Activity?	Yes.

Substitute Operation ID

The operation ID of one operation can be substituted to the one defined in the operation ID. For example, if the operation ID of one operation is PAN and the substitute is OUT, you can substitute the operation ID to OUT through this function. The system will copy all values from the operation ID to the operation. This function is not available once the operation has begun.

Security Control	In Operator File → "19. Production Detail" → "Allow to Substitute Operation ID".
Severity Level	0.
How to Access	There are 2 ways to access this function: • At the Plan Quantity field in Work Order Production, press **F4** to bring up the "Change Operation" options and select "Change to Operation ID". • At the transaction date field in Production Transaction Processing, press **F4** to bring up the "Change Operation" options and select "Change to Operation ID".
Exception Record?	Yes.
Elliott Activity?	Yes.

Change Operation ID

The operation ID of one operation can be changed. The system will copy all values in the operation ID to the operation. This function is not available once the operation has begun.

Security Control	In Operator File → "19. Production Detail" → "Allow to Change Operation ID".
Severity Level	0.
How to Access	There are 2 ways to access this function: • At the Plan Quantity field in Work Order Production, press **F4** to bring up the "Change Operation" options and select "Change Operation ID". • At the transaction date field in Production Transaction Processing, press **F4** to bring up the "Change Operation" options and select "Change Operation ID". Enter an Operation ID.
Exception Record?	Yes.
Elliott Activity?	Yes.

Modify Operation Detail

Every detail in one operation can be directly maintained. This function is not available once the operation has begun.

Security Control	In Operator File → "19. Production Detail" → "Allow To Modify Operation Detail".
Severity Level	0.
How to Access	There are 2 ways to access this function: • At the Plan Quantity field in Work Order Production, press **F4** to bring up the "Change Operation" options and select "Modify Operation". • At the transaction date field in Production Transaction Processing, press **F4** to bring up the "Change Operation" options and select "Modify Operation". Every detail of the operation can be maintained.
Exception Record?	Yes.
Elliott Activity?	Yes.

Modify Production Detail

The order number, operation number and plan quantity can be changed for one production to those of another production if the new production is in the same work center and not complete.

Security Control	In Operator File → "19. Production Detail" → "Allow to Modify Production Detail".
Severity Level	0.
How to Access	This function can be accessed through any "Production Detail Maintenance" drill down. For example, in Work Center Operation of Started Production View, highlight a record and press **F3** to bring up Advanced Options and select "Production Detail Maintenance". The order number, operation number and plan quantity of the production can be changed. In addition, you can change it into a batch production.
Exception Record?	Yes.
Elliott Activity?	Yes.

Modify Transaction Data

The complete quantity, material and serial number transaction values of one production can be changed with this function. This production must be complete, but not posted.

Security Control	In Operator File → "19. Production Detail" → "Allow To Modify Transaction Data".
Severity Level	0.
How to Access	This function can be accessed through any "Production Detail Maintenance" drill down. For example, in Work Center Operation of Complete Production View, highlight a record and press **F3** to bring up Advanced Options and select "Production Detail Maintenance".

	You can change various values of a transaction, including complete quantity, scrap quantity and materials.
Exception Record?	Yes.
Elliott Activity?	Yes.

Cancel Production

If a work order is cancelled after the production has started, you can use this function to cancel all productions of the work order.

Security Control	In Operator File → "19. Production Detail" → "Allow to Cancel Production".
Severity Level	2 through 9.
How to Access	Anywhere you can highlight a production. For example, in Work Center Operation of Started Production View, highlight a record and press **F4** to bring up Exception Handling options and select "Cancel Production". Or at the Qty Complete field in Work Order Production, press **F4** to bring up Exception Handling options and select "Cancel Production". Specify if the labor for the production remains productive or not.
Exception Record?	Yes.
Elliott Activity?	Yes.

Create Missing Transaction

The system will verify all operations were reported properly when the last operation is posted. If not, the most restrictive scenario will not allow the transaction to be posted. Some screen programs will provide a way for you to create missing transactions based on the default values in the routing. After the transactions are created, you can continue the post routine.

Security Control	None.
Severity Level	2 or 3, depending on the number of transactions.
How to Access	Immediately posting a transaction after reporting and all conditions are satisfied, this handler will automatically pop up.
Exception Record?	Yes.
Elliott Activity?	Yes.

Override Post Exception

If a problem prevents you from posting a transaction, you can turn on a flag to override every related exception. However, these exceptions exist for a reason and you should evaluate the situation before turning this flag on.

Security Control	In Operator File → "19. Production Detail" → "Allow To Override Post Exception".
Severity Level	0.
How to Access	In Production Transaction Processing, bring up a transaction in Change mode and on field 5, Qty Complete, press **F5** to move to the "Override Posting Exception?" field and enter **Y**.
Exception Record?	Yes.
Elliott Activity?	Yes.

Create Reverse Transaction

Posted transactions update inventory, G/L distributions and related databases. Transactions with an incorrect quantity or cost causes serious problems in your system, but you can create a reverse transaction to fix it. The system will attempt to restore back to the status before the bad transaction was posted. While this method can correct quantity and production cost related issues, this feature has limitations:

- It cannot deal with serialized or lot parent item or components.
- It cannot destroy printed or completed transfer tickets for multi-bin.
- It cannot destroy PO Receiving records for outside processing operations.
- It cannot restore average unit cost for the parent item.

Security Control	In Global Default Security or User Global Security setup → "Allow User to Enter BOMP +WO Reverse Trx".
Severity Level	0.
How to Access	In Production Transaction Processing, add a new transaction. Enter the order number and operation number of the bad transaction. At the "Qty Complete" field, press **F7** to select the posted bad transaction. After the reverse transaction is created, post it.
Exception Record?	No.
Elliott Activity?	No.

Reopen a Work Order

Completed or closed work orders can no longer be reported. The work order must be reopened if you want to report more transactions, including reverse transactions, and this will change the order status to "Reopen". After all the transactions are reported, the work order must be completed or closed.

Security Control	In Global Default Security or User Global Security setup → "Allow User to Re-open a BOMP +WO".
Severity Level	0.
How to Access	In Production Order Processing menu, click on the "Reopen" menu selection and enter a completed work order number.
Exception Record?	No.
Elliott Activity?	No.

Production Activity Related Exception

Production activity is a period of time when a work order is active. This section will list all the available exception handles related to it and the way to use them:

       Add a Production Activity
       Reassign a Production Activity
       Split a Production Activity
       Merge Production Activity with Next
       Cancel a Production Activity

Add a Production Activity

A new activity history record can be added for a production. The new activity will increase the machine hours of the production and will not have any direct labor, so this function is only available if the activity is in a work center where machine hours are not necessarily the same as labor hours based on the work center setting.

Security Control	In Operator File → "21. Production Activity?" → "Allow to Add Activity".
Severity Level	2 through 9.
How to Access	This function is available in Work Center Operation of the Work Center Activity View or in Production Activity Inquiry of the Production Activity View. Press **F4** to bring up the Exception Handling options and select "Add Activity". You need to specify the starting and ending time of the activity.
Exception Record?	Yes.
Elliott Activity?	Yes.

Reassign a Production Activity

An activity can be reassigned to another work order. You may need this if the operator mistyped the order number or operation number. If every activity in one production should be reassigned to another production, the option to reassign the whole production is available as well.

Security Control	In Operator File → "21. Production Activity?" → "Allow to Reassign Activity".
Severity Level	2 through 9.
How to Access	This function is available in Work Center Operation of the Work Center Activity View or in Production Activity Inquiry of the Production Activity View. Press **F4** to bring up the Exception Handling options. • Select "Change Activity" → "Reassign to Existing Production" or "Reassign to New Production". This will only reassign one activity. • Select "Change Production" → "Reassign to Existing Production" or "Reassign to New Production". This will reassign every activity of selected production. You may need to enter additional information about the new production.
Exception Record?	Yes.
Elliott Activity?	Yes.

Split a Production Activity

This is an editing function which allows you to split one activity into two.

Security Control	In Operator File → "21. Production Activity?" → "Allow to Edit (Split/Merge)".
Severity Level	2.
How to Access	This function is available in Work Center Operation of the Work Center Activity View or in Production Activity Inquiry of the Production Activity View. Press **F4** to bring up the Exception Handling options and select "Change Activity"→"Split". Enter the split point time.
Exception Record?	Yes.
Elliott Activity?	Yes.

Merge Production Activity with Next

This is an editing function which allows you to merge two activities into one. These two activity should be continuous and for the same production.

Security Control	In Operator File → "21. Production Activity?" → "Allow to Edit (Split/Merge)".
Severity Level	2.
How to Access	This function is available in Work Center Operation of the Work Center Activity View or in Production Activity Inquiry of the Production Activity View. Press **F4** to bring up the Exception Handling options and select "Change Activity" → "Merge with Next".

Exception Record?	Yes.
Elliott Activity?	Yes.

Cancel a Production Activity

If you want to exclude the production time of a particular activity from a work order, you can cancel one activity. By canceling an activity, the total production time will decrease and may reduce the overhead cost as well. This function can be used when the operator scanned and recorded time for a wrong work order. After canceling an activity, you need to specify whether all the operators who contribute times in this activity remain productive or not.

Security Control	In Operator File → "21. Production Activity?" → "Allow To Cancel Activity".
Severity Level	2 through 9.
How to Access	This function is available in Work Center Operation of the Work Center Activity View or in Production Activity Inquiry of the Production Activity View. Press **F4** to bring up the Exception Handling options and select "Cancel Activity". Specify whether the labor for this activity is to remain productive.
Exception Record?	Yes.
Elliott Activity?	Yes.

Elliott Event

There are many events in Elliott to which you can subscribe; some are specific for work orders. These events provide first-time notification when important things happen. You can filter out less important notifications with a user-defined rule. For example, you can subscribe to events triggered when an operator clocks out for the day and works less than 8 hours.

Subscribe in Item Master File

Work Order Added
Triggered when a new work order is added.
- Program: BM1701
- Type: ADDWO

Work Order Changed
Triggered when order quantity or dates are changed for a work order.
- Program: BM1701
- Type: CHGWOQD

Work Order Deleted
Triggered when a work order is deleted.
- Program: BM1701
- Type: DELWO

Traveler Printed
Triggered when the traveler of a work order is printed.
- Program: BM20P3T
- Type: TRAVELER

Pick List Printed
Triggered when the pick list of a plus work order is printed.
- Program: BM20P3
- Type: MATPICKL

Production Started
Triggered when an operation is started.
- Program: BMWOPROD
- Type: PRODBEG

Transaction Posted
Triggered when a transaction for plus work order is posted.
- Program: SYINVAL3
- Type: PRODEND

Parent Item Produced

Triggered when the parent item for plus work order is produced.

- Program: SYINVAL3
- Type: LPRODEND

Subscribe in Operator Maintenance

Operator Logon

Triggered when an operator logs into the company.

- Program: BMWOPROD
- Type: LOGON

Operator Logoff in the End of Day

Triggered when an operator clocks out for the day.

- Program: BMWOPROD
- Type: ENDOFDAY

Operator Meal Break Start

Triggered when an operator takes a meal break.

- Program: BMWOPROD
- Type: MEALBEG

Operator Meal Break End

Triggered when an operator returns from a meal break.

- Program: BMWOPROD
- Type: MEALEND

Operator Normal Break Start

Triggered when an operator takes a normal break.

- Program: BMWOPROD
- Type: BREAKBEG

Operator Normal Break End

Triggered when an operator returns from a normal break.

- Program: BMWOPROD
- Type: BREAKEND

Operator Special Operation Start

Triggered when an operator starts a special operation.

- Program: BMWOPROD
- Type: SPOPRBEG

Operator Special Operation End

Triggered when an operator ends a special operation.
- Program: BMWOPROD
- Type: SPOPREND

Subscribe System Activities Logging

To subscribe to System Activities Logging, go to Company Setup and click on the Events button on the top-right side of the screen, and press the **F5** key to insert a new event. All Elliott Activities will trigger the one with type of SYACTLOG and program name of SYACTLOG.
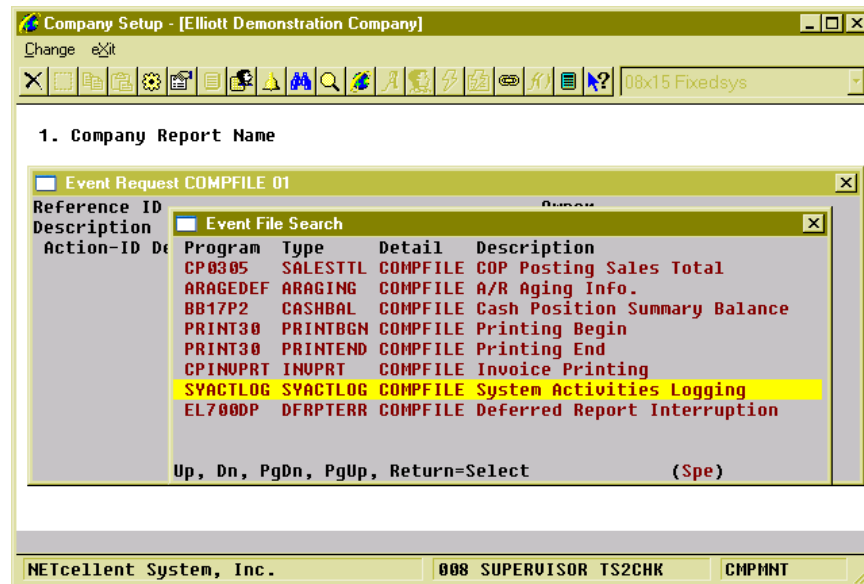
(Figure 46) Subscribe an Elliott Activities Logging Event

To subscribe to events for a work order, use the filter provided. The programs in work order plus only trigger two types of Elliott Activity, those related to production and those related to time clock.

Production Related Activity
- **Activities File:** IMITMFIL
- **Category:** BMPORDE0, BMPORDE1, BMPORDE2…BMPORDE9. The last digit is the severity level.
- **Status:** 1 if severity level is between 0 and 1; 5 if severity level is between 2 and 5; 4 if severity level is between 6 and 9.

Time Clock Related Activity
- **Activities File:** SYOPRFIL
- **Category:** SYTIMEE0, SYTIMEE1, SYTIMEE2… SYTIMEE9. The last digit is the severity level.
- **Status:** 1 if severity level is between 0 and 1; 5 if severity level is between 2 and 5; 4 if severity level is between 6 and 9.

(Figure 47) Filter for the Event Subscription.