

Manufacturing Job Costing

Passport Business Solutions TM

V 12.06

Passport Business Solutions
Manufacturing Job Costing User Documentation
Version 12.06
May 2018

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Understanding Manufacturing Job Costing

This chapter contains the following topics:

[Understanding Manufacturing Job Costing](#)

[Key Words and Concepts](#)

PRODUCT DESCRIPTION

PBS Manufacturing Job Costing helps you to prepare job cost estimates and customer price quotations for "make to order" items, to make final cost estimates for Shop Orders, and to accumulate and report actual costs of manufacturing "make to order" or standard products and components. Billings may also be captured for "make to order" products to allow computation of job profitability.

For job estimating and cost reporting, the five defined cost types are Purchased Material, Outside Processing, Labor, Burden, and Miscellaneous. The first four types are costs chargeable to inventory, and Miscellaneous Costs are usually non-inventory costs that can be readily identified with a specific manufacturing job.

You may elect to report actual costs for some or all of the manufacturing orders produced by your company. The entry of a Job Master record determines whether cost estimates and actual costs may be entered and reported for the related Shop Orders.

A Job may consist of one or more Shop Orders. Each Shop Order is identified by a Shop Order Number, optional Release Number, and an Item Number. The Job Master record identifies the basic six character Shop Order Number. Therefore, job costs and hours may be summarized for a number of related items (e.g. assembly, subassemblies and parts), or for several shop order lot releases for the same item, where the same basic Shop Order Number is assigned to all releases. Shop Order costs are summarized and reported for the individual shop orders within the job, and for the total Job.

Shop Order costs are also reported at more detailed levels such as purchased material item number, manufacturing operation sequence number and employee labor detail within operation, or miscellaneous cost code summary and detail charges.

If you setup all Shop Orders for Job Costing, several other Job Costing "by-product" reports will be useful. Employee labor detail, including indirect time by type and employee direct labor utilization levels, may be reported by employee. Indirect labor hour summaries, timephased job labor load hours, and estimated work-in-process inventory valuation reports are also available.

Major functions of PBS Manufacturing Job Costing are:

- Job estimating and quotation, primarily for estimating costs and quoting prices of "make to order" items. In this function, items estimated or quoted do not have to be on your Item Masters. In building cost estimates for these items, convenient options allow copying Item Master costs from a similar item, or copying and modifying Bill of Material and Routing operations for similar items. Optional printing of Customer Quotations and purging of estimates/quotes by date are also included.
- Job order maintenance including entry of Job Cost Masters, entry of related Shop Orders, entry of Shop Order cost estimates by cost type, and display or printing of job order cost estimates. You may also explode parent Shop Orders into manufactured component orders and purchased material requirements with this function.

- Job Purchase Order invoice processing of P.O.'s for materials, outside processing services, or miscellaneous purchased items for costed Shop Orders. This includes entry and listing of the applicable vendor invoice data. If you have installed PBS Manufacturing Purchase Order Processing, you may use a more integrated P.O. invoice entry and posting function in that package to distribute and post vendor invoices to jobs and to Accounts Payable. Stock issues of purchased materials, exceeding the value of items purchased for the job, are also reported and included in job material costs.
- Employee labor processing including entry, costing, and listing of direct labor time and quantity transactions for costed Shop Orders, and, optionally, of employee indirect labor time. If you use PBS Manufacturing Shop Floor Control, employee labor transactions may be entered with that package. Labor detail may be listed by Employee or by Shop Order.
- Miscellaneous costs entry, and listing of job miscellaneous costs by order and cost code.
- Job billing entry and listing of invoice amounts billed for the job. If you have installed PBS Manufacturing Customer Order Processing, entry of a valid Sales Order Number in the Job Cost Master will allow automatic posting of billings for the Sales Order to the job.
- Management reporting of actual job costs and hours vs. estimates, job profitability, employee labor history, and estimated work-in-process value.
- Shop labor load reporting for all costed jobs with labor operation estimates.

Supporting programs include maintenance of Work Centers, Labor Grade Rates, Employees, Miscellaneous Cost Codes, Labor Exception Codes, and Shop Order Material Requirements.

Some of the data maintained with Manufacturing Job Costing may also be accessed from other PBS Manufacturing modules. You may optionally use the Employees from Payroll. Bill of Material and Routing data maintained with the PBS Manufacturing Product Definition & Costing package may be used to develop job cost estimates. Inventory issues of stock materials to Shop Orders are automatically costed by Inventory Management.

System integration features, including the interfaces with other PBS Manufacturing applications, maximize productivity by eliminating duplicate data entry and posting functions.

KEY WORDS AND CONCEPTS

To understand how to use the Passport Business Solutions Manufacturing Job Costing, you should understand some key concepts and words that are used in this module.

Transactions

As used in accounting, transaction refers to a business event involving money and goods or services. For example, a transaction occurs each time you put gas in your car, since you pay money in exchange for gasoline (goods).

Because computer software deals primarily with business events that have already taken place, in the Passport Business Solutions software, transaction means the record of a completed business event involving money and goods or services.

The records of sales made and payments received are examples of transactions from the area of accounting called accounts receivable. The records of your purchases and the payments you make for such purchases are transactions from the accounting area called accounts payable. The records of quantities of goods received or sold are transactions from the area of accounting called inventory control.

In the Passport Business Solutions software, when a transaction is entered into the system (into a file or SQL table), it is often referred to as an entry.

Accounting

Accounting is the function, which provides quantitative information about economic entities through the collection, categorization, and presentation of financial records.

General Ledger Account Number

General Ledger account numbers are often formatted as cost centers, main accounts, and subaccounts with each part or segment classifying transactions in different ways. The Passport Business Solutions allows General Ledger account numbers to be configured in a variety of formats to suit the varying needs of different enterprises. Most examples used in the documentation are in Dept.-Main-Sub format. Refer to the *Company Information* chapter in the *PBS Administration* documentation for more information on account number setups or a complete explanation of possible account number arrangements

Cost centers are generally used to gather transactions by lines of authority and responsibility (such as division or department). Main accounts are used for primary designations (such as separating wage expense, rent expense and tax expense). Subaccounts are used to keep separate items in the same general ledger main account (such as notes due to different banks).

The minimum format in the Passport Business Solutions is a single segment account number consisting of a four-digit account number. The maximum format is a four segment account number. When four segments are used, they are sequenced as two cost centers (such as division and department), main account and subaccount. The full account number may not exceed 17 characters, including the characters in all the segments and required separators between segments. Except for the main account, the segments may be omitted or designated in length from one to eight

characters. The main account must be from four to eight characters. Use of letters is allowed on a segment-by-segment basis.

The layout of examples in the documentation is normally Dept.-Main-Sub. The setup is xxx-xxxx-xxx (dept. of three digits, a dash, main of five letters and subaccount of three letters).

Cost Centers

Refer to the *Cost Center/Sub Accounts* chapter in the *System* documentation for information concerning Cost Center numbers.

Accounts Receivable

Accounts Receivable pertains to sales made by your company and the amount of money it is owed.

Accounts Payable

Accounts Payable pertains to purchases and disbursements made by your company and the money your company owes.

Payroll

Payroll defines the wages you pay as an employer to your employees.

Data Organization

Most of the information you enter into your computer is stored on your disk. In order for computer programs to be able to locate specific pieces of information (within large masses of information), and to be able to process it logically, information must be organized in some predictable way. The Passport Business Solutions accounting software organizes your information for you automatically as it stores it on your disk.

There are five terms you should understand about the way the information is organized:

Character

A character is any letter, number, or other symbol you can type on your computer keyboard.

Field

A field is one or more characters representing a single piece of information. For example, a name, a date, and a dollar amount are all fields.

Record/Row

A record is a group of one or more related fields. This is usually called a row when using SQL tables. For example, the fields representing a customer's name, address, and account balance might be grouped together into a record called the customer record.

Entry

A record in a data file is often referred to as an entry.

Data File/Table

A data file is a group of one or more related records. A data file is often referred to simply as a file (without the word data). When using SQL it is referred to as a table.

Customers in Accounts Receivable is an example of a data file. Such a file is made up of several records, each of which contains the name, address, etc. for one customer.

Each file is kept separately from other files on the disk. Each table is separate in the SQL database.

(There are other types of files in addition to data files. For example, programs are stored on the disk as program files. However, references to *file* in this User documentation refer to data file unless specifically stated otherwise.)

Purge

When you purge data, you permanently remove information from the system. Once the information is purged, it cannot be recovered.

Compress

Compress means to make smaller. The *compress* selection reduces the number of records by adding the dollar amounts of several cleared entries together and creating a single balance forward entry with the same total amount.

Help

Help refers to descriptions of functions which appear on the screen. The help text gives you a quick reference to the highlights of functions while you are running the application.

While the focus is on the function or field select <Ctrl>+<F1> to access help on the graphical mode screens. Select the <F8> key in character mode.

ODBC

(pronounced as separate letters) ODBC is short for **Open DataBase Connectivity**. ODBC is a “pipe” that connects data from Passport Business Solutions files to popular ODBC compliant spreadsheet and reporting applications like MS Excel, Access and Crystal reports. ODBC requires a separate purchase. XDBC™ is the product name that allows PBS to interface with your data via ODBC.

Look-ups

Look-ups refer to a list of available entries for a particular field. There are two kinds of lookups: Data Lookup and Date Lookup.

Data Lookup

Many fields allow you to press a designated key <F8> to show all available records. For instance, when entering an invoice you may press this key at the Account number field to bring up a list of all G/L accounts. Selecting an entry from this list is often easier and faster than remembering the account number or stepping through all possible entries until the right one is reached. The lookups often have alternate data you can search on. For G/L accounts you can search on the account number and account description.

Date Lookup

The date lookup provides a point and click window for finding and entering date fields.

In Graphical mode the date lookup is available via the <F4> key. In Character mode (Windows only) you may access the date lookup via the <F7> key.

Note

In character mode, depending on where you press <F8>, this function will return a Look-up window or context sensitive Help. If a Look-up window is returned, pressing <F8> a second time will display Help for the field if available.

Spool

SPOOL is a computer term meaning to Save Printer Output Off-Line. Spooling is a technique that allows a report to be printed at a later time. Instead of reports going directly to a printer, they are saved as a disk file, which is usually a lot faster.

When a printer is available, all or some saved reports can be printed in one long run (for example, overnight).

Getting Started

This chapter contains the following topics:

Preparing to Use Manufacturing Job Costing	.....
Starting Manufacturing Job Costing	.....
Regular Use	.....
Passport Training and Support	.....

PREPARING TO USE MANUFACTURING JOB COSTING

Before getting started, ensure that the Manufacturing Job Costing software is installed on your computer. Refer to the Passport Business Solutions *PBS Administration* documentation to install the C/R module before proceeding.

Also, you may want to familiarize yourself with the main features of this module by reading the [Understanding Manufacturing Job Costing](#) chapter in this documentation.

Your Accountant

You should consult with your accountant before using Passport Business Solutions software. Your accountant should be familiar with your accounting software and can advise you on converting from your existing Manufacturing Job Costing system.

STARTING MANUFACTURING JOB COSTING

To begin using Manufacturing Job Costing, complete the following steps:

Pre-Set up

Step	Description
1	Study the PBS general features in the <i>System User</i> documentation.
2	Start M/J using the instructions in the Using Manufacturing Job Costing chapter in this documentation.
3	Company information is set up for you as part of the installation procedure. Use Company Information to modify the Controls for your company. Refer to the <i>Company Information</i> chapter in the <i>PBS Administration</i> documentation.
4	Enter your valid G/L accounts, using <i>Valid G/L accounts</i> . If you are also using the Passport Business Solutions General Ledger, you can enter your Chart of Accounts first, then use Setup valid G/L accounts within G/L to transfer accounts to Valid G/L Accounts.
5	Enter your M/J controls into Control information. Refer to the Control Information chapter in this documentation.

Before you install Manufacturing Job Costing:

1. Install PBS including Manufacturing Inventory Management and Product Definition and Costing.
2. If you want to integrate sales order entry and billing with Job Costing and other PBS Manufacturing applications, you must also have Customer Order Processing.
3. If you want to integrate all purchasing functions, including P.O. invoice distribution, with Job Costing and other packages, you must also have Purchase Order Processing.

If you need more comprehensive shop floor control functions than are provided by Manufacturing Job Costing reports, you may use Shop Floor Control before or after you start to use Manufacturing Job Costing.

Set Up Manufacturing Job Costing

You should setup your data in the following order before you proceed with the other functions of this package.

1. Enter the M/J Control Information.
2. If you have not already defined Labor Grades, use Product Definition & Costing to build the Labor Grade Rates. This will allow you to specify Labor Grades and corresponding rates in Work Centers.
3. If you have not already defined Work Centers, use Product Definition & Costing to build Work Centers. Labor & burden rates in this file are used to calculate estimated and actual job costs.
4. If you do not use Payroll, use Manufacturing Job Costing to build Employees. If Payroll is installed, the Employees entered in that package is used by Manufacturing Job Costing.
5. Build Miscellaneous Cost Codes, to define codes for any "non-inventory" costs that may be charged to jobs.
6. Build Labor Exception Codes to define any direct labor or indirect labor codes that may be referenced on employee labor transactions and labor reports.

After completing the preceding setup tasks, you may start to maintain job estimates and quotations, and enter and cost manufacturing jobs.

REGULAR USE

The remaining chapters in this documentation show you how to:

- T

PASSPORT TRAINING AND SUPPORT

If you have problems with the Passport Business Solutions software, contact your dealer or authorized consultant.

For the name and location of a Passport Software, Inc. dealer or an authorized consultant near you, contact Passport at 1-800-969-7900.

If you wish to receive support directly from Passport, please call our End User Support Department at 1-800-969-7900.

You can contact your own dealer for training; however, if your dealer does not offer training contact Passport at 1-800-969-7900.

Passport's web site is www.pass-port.com.

Also, if you have any suggestions for improving PBS, you may email us at suggestions@pass-port.com.

Using Manufacturing Job Costing

This chapter contains the following topics:

[Organization of this Documentation](#)

[Starting Manufacturing Job Costing](#)

ORGANIZATION OF THIS DOCUMENTATION

This documentation provides the information you need to use Passport Business Solutions Manufacturing Job Costing.

Organization

The following chapter is a guide to daily operations. It explains how to use the Passport Business Solutions Manufacturing Job Costing to perform various daily, weekly, and periodic tasks.

After the guide, the next few chapters provide instructions on entering basic information to set up the module according to your needs and to prepare you for daily operation.

The remainder of the guide contains chapters that you use most frequently. They describe how to use the Passport Business Solutions Manufacturing Job Costing on a daily basis.

The last few chapters describe selections that you might use periodically, including such selections as compressing cleared entries.

You can obtain additional information from the *System User* documentation, which contains chapters that describe features common to all Passport Business Solutions modules.

- Topics covered in the *System User* documentation include:
- General rules
- Help and Lookups
- Switching companies
- Defining menu selections
- Advanced features
- Using printers for reports and forms
- Glossary of terms

Help

Graphical Mode

Help is accessed via the <Ctrl>+<F1> key.

Character Mode

You can press the <F8> key at any time for on-line help about a task or selection you are currently using.

If a data window is displayed instead of Help, you must press <F8> a second time to retrieve Help.

Menus

A *menu* is a list of things from which something can be selected.

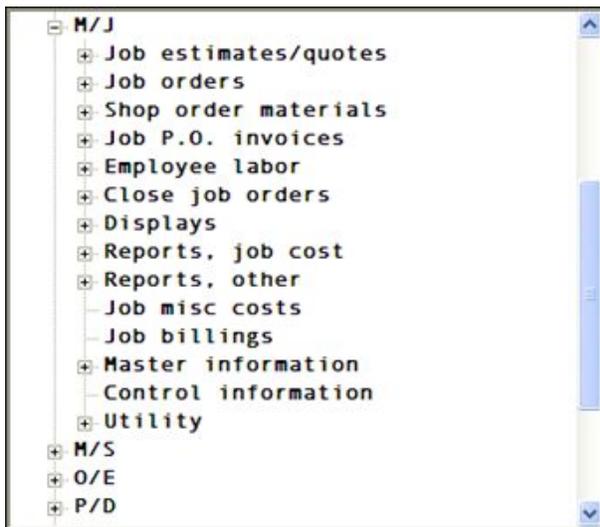
Selecting items from a menu on a computer is the way you tell your computer what you want to do.

The Windows version of Passport Business Solutions can have three different menu types. They are the Tree-view, Windows and Menu-bar types. All there menu types provide access to the same programs, with very few exceptions.

The SCO Open Server and Linux versions only use the Menu-bar.

Tree-view

The following screen is an example of the Tree-view menu.



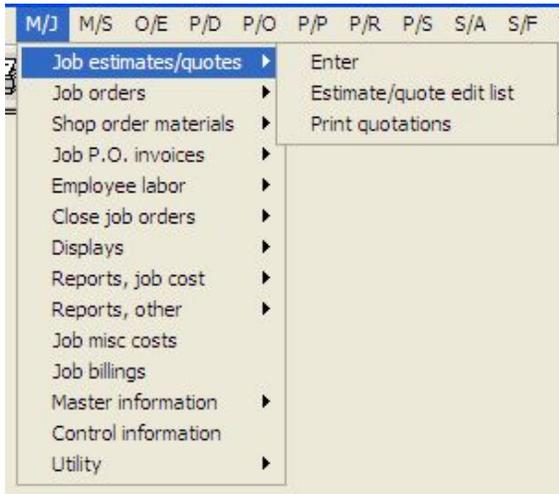
The “+” corresponds to expandable menu sections. One click will open the menu selection for the application or the sub-menu of a particular menu entry. Clicking on the “-” closes the menu item. Viewing application menus will cause a vertical slider bar to display: and sometimes depending on size and proportions of the screen and associate font, the slider bar as well. These sliders are mouse enabled.

In addition to the mouse-based menu operation, you can use the keyboard to navigate the tree-view menu. The home, end, page-up, page-down and arrow keys provide a quick and easy method of maneuvering around the menu.

To select the menu program use the Enter key or click on the menu line with the mouse.

Windows Menu

The Windows menu type is pull down type menu. Here is an example:



To access this menu, use the <F10> key or the mouse. After you select the menu, use the arrow keys or enter the first letter of the application to move the focus to the top of the menu. Then select the down arrow to open the menu.

You can use the arrow keys or mouse to navigate this menu. You may also enter the first letter to the menu selection to move the focus to that selection

Menu bar

The remainder of this section describes the functions of the Menu-bar. To navigate horizontally between individual modules use your keyboard's left and right arrow keys. Up to ten modules and your Passport Business Solutions System Manager may be displayed on the menu bar. If you are using more than ten modules, a **More** function is added to the menu bar. To access your additional modules, highlight **More** and press your <Enter> key.

To navigate vertically within a module you have two choices. You may use the up and down arrow keys on your keyboard or you may type the first letter of a displayed menu item. If more than one menu item starts with the same letter, pressing the letter again will position your cursor over the next menu item starting with that letter.

STARTING MANUFACTURING JOB COSTING

To start your Passport Business Solutions software, select one of the following options. If you are unsure how to proceed, please contact your supplier.

For Windows

Start->Programs->Passport Business Solutions->PBS

For UNIX/Linux

Ensure you are logged in as a user authorized to use Passport software. Refer to the *PBS Administration* documentation for more information.

Type the following:

```
cd /usr/pbs
```

or replace “/usr/pbs” with the name of your Passport top-level directory.

Then type the following:

```
pbs
```

Then when the master menu appears, select the module you wish to use from the master menu.

Multiple Companies

If you have set up your software to process information for more than one company (refer to *Define Multiple Companies* in the *PBS Administration* documentation), you will be prompted to enter the Company-ID.

Entering Your Initials

You are prompted to enter your initials.

Entering Passwords

You will be prompted to enter your password. For security, the characters you type will not display on the screen. A user may reset his or her password during login to PBS.

For the setup of users and passwords, refer to *PBS Users* chapter in the *PBS Administration* documentation.

Exiting Manufacturing Job Costing

To exit a Passport module, press <Esc> from the main menu. To exit a sub-menu, press <Esc> to return to a main menu. You can also exit out of the Windows menu by clicking on the Exit button.

If you exit PBS improperly, it may cause a data loss.

Guide to Daily Operations

This chapter contains the following topics:

[Manufacturing Job Costing Checklists](#)

[Daily Operations Checklist](#)

[Weekly Operations Checklist](#)

[Periodic/Monthly Operations Checklist](#)

MANUFACTURING JOB COSTING CHECKLISTS

The following checklists are provided as examples of how you might use Manufacturing Job Costing to perform various daily, weekly, and periodic tasks.

While we attempt to present the tasks in a logical order, you should adjust the checklist as necessary to meet your own needs. You may wish to consult with your accountant for advice on organizing your own checklists to ensure the efficiency and security of your business operations.

Note This chapter was intentionally left unfinished.

Daily Operations Checklist

Use the following guidelines for performing daily and periodic Manufacturing Job Costing tasks:

Each Day	Each Day as Needed

Weekly Operations Checklist

Use the following guidelines for performing weekly and periodic Manufacturing Job Costing tasks:

Each Week	Each Week as Needed

Periodic/Monthly Operations Checklist

Use the following guidelines for performing weekly and periodic Manufacturing Job Costing tasks:

Each Period	Each Period as Needed

Each Period	Each Period as Needed

Control Information

This chapter contains the following topics:

[Control Information](#)

CONTROL INFORMATION

M/J Control information is used by other programs in the Manufacturing Job Costing module. You set up these values when you install the module and may modify them later as necessary.

Select

Select *Control information* from the M/J menu.

The following screen displays:

```
Control information,

1. Next estimate/quote #           11
2. Next computer assigned job #    10
3. Quotation default terms desc   NET 30
4. Quotation default ship via desc UPS
5. Quotation default F.O.B. location SHIPPING POINT
6. Quotation default days valid   30
7. Labor estimating/report method Routing operation
8. Progress bill some jobs ?      Y
9. Progress billing liability acct 2240-000
                                   * Not on file *
10. Use option to post actual costs to Item Master ? Y
11. Include control character in printed barcodes ? N
12. Use RealWorld PR Employee file ? N

Field number to change ? 
```

1. Next estimate/quote

Entry Format: From 1 to 6 numeric digits.

Comments: This is the number that will be assigned to the next job estimate/quote entered. Each time a new estimate/quote is entered, this number is automatically increased by 1.

2. Next computer assigned job

Entry Format: From 1 to 6 numeric digits.

Comments: This is the number that may optionally be assigned to the next Job Cost Master record. You are not required to use the computer assigned number when you add Job Cost Masters.

3. Quotation default terms desc

Entry Format: Up to 15 alphanumeric characters. Space not allowed.

Comments: When you enter job estimates/quotes, this field will display as the default Terms entry if you are not quoting a customer that is in A/R Customers.

Note: Currently there is no option to use manufacturing without A/R which provides the list of customers including the customer terms.

4. Quotation default ship via desc

Entry Format: Up to 15 alphanumeric characters. Space not allowed.

Comments: When you enter job estimates/quotes, this field will display as the default Ship Via entry.

5. Quotation default F.O.B. location

Entry Format: Up to 15 alphanumeric characters. Space not allowed.

Comments: When you enter job estimates/quotes, this field will display as the default F.O.B. entry.

6. Quotation default days valid

Entry Format: Up to 2 numeric digits.

Comments: When you enter job estimates/quotes, this field will display as the default entry for number of days the quotation is valid.

7. Labor estimating reporting method

Entry Format: **R** = Routing Operation Number, or **W** = Work Center Number.

Comments: Enter **R** if you plan to copy Routings from Product Definition & Costing to Job Costing data, or if you wish to estimate and report job labor and burden by Routing Operation sequence number.

Enter **W** if you do not plan to use Routings from Job Costing, or if you wish to estimate and report labor and burden by Work Center without respect to specific Operation Numbers.

If you are already using method **R** it is not advisable to change to method **W**, since this could result in posting employee labor to the wrong Shop Order operation. This can happen if more than one operation for the order uses the same Work Center.

8. Progress bill some jobs ?

Entry Format: Y or N.

Comments: This answer will determine if you will be allowed to enter progress billing and progress billing liquidation amounts to job billing files.

The following entry is only required if you answered Y to the preceding question about progress billing and you answered Y to the Customer Order Processing interface question:

9. Progress billing liability account

Entry Format: Up to the number of digits specified for Main Account Size in System Information, plus an optional Sub-account entry up to the number of digits you specified for Sub-account Size.

Validation: The Account Number entered must be in your Valid Accounts. If not, this program asks if you wish to add the account.

Comments: Customer Order Processing billings distributed to this Account Number is posted to Job Costing as progress billings, or progress billing liquidations.

10. Use option to post actual costs to Item Master ?

Entry Format: Y or N.

Comments: This answer will determine if you will be allowed to post actual costs to the Item Master record when closing job shop orders.

11. Include control character in printed barcodes ?

Entry Format: Y or N.

Comments: If you answer Y, a "Field type" character (S for Shop Order #, R for Release Number, I for Item Number, O for Operation Number) is the first character printed within each encrypted barcode, followed by the actual data value. You should only use this option if you have a Shop Floor data collection system that uses the control character for data input validation and then strips the leading control characters from the resultant transaction fields.

If you answer N, only the identifier data values, without leading control characters, are included in the printed barcode symbols. This is more appropriate for on-line input reporting to an PBS Manufacturing standard transaction screen.

12. Use RealWorld PR Employee file ?

Entry Format: Y or N.

Comments: This field is set to N and is not changeable if System Information indicates the accounting system you use is Other.

If you use PBS Payroll, you may use the Employees maintained in that module by answering Y. If you chose not to use the Payroll Employees and want to maintain separate Employees in PBS Manufacturing M/J, answer N.

Master Information

This chapter contains the following topics:

[Employees](#)

[Miscellaneous Cost Codes](#)

[Labor Exception Codes](#)

EMPLOYEES

Use this function to identify all Employees that can be referred to in other manufacturing Job Costing programs. Any time an Employee identification is entered to another program, it is validated against the Employees entered here or the Payroll Employees, if you interface with PBS Payroll.

Select

Employees from the *Master information* menu. The following screen appears:

```
Master information (Employees)

* 1. Employee # 
  2. Name

<F1> = Next record, <F2> = Previous record, <F5> = Print
```

Enter the following fields:

1. Employee

Entry Format: Up to 4 numeric digits.

If the entry matches an existing Employee Number, the Employee Name is displayed.

2. Name

Entry Format: Up to 25 alphanumeric characters.

Employees List

Press <F5> to print an Employee list in either number or name sequence. Enter Starting and Ending values or press <F1> for "All" at the Starting value.

MISCELLANEOUS COST CODES

The Miscellaneous Cost Codes identifies valid "non-inventory" cost codes, with their respective descriptions, units of measure, standard costs, if any, and indication if purchase order costs may be charged to the code.

In PBS Manufacturing Job Costing, "inventory" cost types are defined as Purchased Materials, Purchased Outside Processes, Direct Labor, and Factory Burden. All other administrative, supply, or service costs that can be readily identified and charged to jobs are categorized as Miscellaneous Costs.

Select

Misc cost codes from the *Master information* menu. The following screen appears:

```
Master information (Misc cost codes)

* 1. Misc cost code   
  2. Description
  3. Unit of measure
  4. Standard cost/unit
  5. Charge purchase order costs to this code ?

<F1> = Next record, <F2> = Previous record, <F5> = Print
```

The fields you enter are:

1. Misc cost code

Entry Format: Up to 5 alphanumeric characters.

If the entry matches a code, the remaining fields are displayed.

2. Description

Entry Format: Up to 30 alphanumeric characters.

3. Unit of measure

Entry Format: Up to 4 alphanumeric characters.

4. Standard cost/unit

Entry Format: Up to 5 numeric digits plus 4 decimals, or Blank = "None".

5. Charge purchase order costs to this code ?

Entry Format: Y or N, defaults to N. If you answer N, you will not be allowed to distribute P.O. costs to this code.

Miscellaneous Cost Codes List

Press <F5> to print a report of all the Miscellaneous Cost Codes.

LABOR EXCEPTION CODES

Labor Exception Codes identifies valid shop Labor Exception Codes with their respective descriptions and a direct or indirect labor classification.

Direct labor exception codes may be entered with employee production/direct labor transactions, to indicate special problems or conditions that existed for a shop production activity being reported.

Indirect labor exception codes identify type of indirect labor, must be entered on employee indirect labor transactions, and are used for sorting and summing hours on an indirect labor report.

Use this function to identify all Labor Exception codes that can be referred to in production and labor reporting functions. Any time a Labor Exception Code is entered in another program, the code is validated against Labor Exception Codes.

Select

Labor exception codes from the *Master information* menu. The following screen appears:

```
Master information (Labor exception codes)

* 1. Labor exception code  
   2. Description
   3. Direct or indirect

<F1> = Next record, <F2> = Previous record, <F5> = Print
```

The fields you enter are:

1. Labor exception code

Entry Format: Up to 3 alphanumeric characters.

If the entry matches a code the remaining fields are displayed.

2. Description

Entry Format: Up to 20 alphanumeric characters.

3. Direct or indirect

Entry Format: **D** = Direct, **I** = Indirect

Comments: Indicates the type of production/labor reporting for which the code may be used.

Labor Exception Codes List

Press <F5> to print a report of all the Labor Exception codes.

Select a printer.

Job Estimates / Quotes

This chapter contains the following topics:

[Entering Job Estimates/Quotes](#)

[Estimate/Quote Edit List](#)

[Print Quotations](#)

ENTERING JOB ESTIMATES/QUOTES

Use this function to build estimated costs for "make to order" items. You may cost estimate and quote new items that your company has not previously manufactured and which are not yet on your Item Masters. You may use cost information from Item Masters, Bills of Material, or Routings for similar items to develop cost estimates for a new item.

Select

Enter from the *Job estimates/quotes* menu. The following screen appears:

```

Job estimates/quotes (Enter)
*Estimate/quote # 
1. Customer name
2. Address-1
3. Address-2
4. Address-3
5. Address-4
6. City
7. State
8. Zip code
9. County
10. cntry
11. Customer RFQ #
12. RFQ date
13. Salesman
14. Terms
15. Ship via
16. F.O.B.
17. Est delivery
18. Estimator ID
19. Estimate date
20. Supplying whse

Blank = add estimate
<F1> = next record, <F2> = previous record, <F5> = lookup by name & RFQ #
    
```

Enter the following fields:

* Estimate/quote

Entry Format: To add an Estimate/Quote, you must enter spaces to assign the next available Estimate/Quote Number from M/J Control Information.

To display an Estimate/Quote, enter its Number, up to 6 numeric digits, or press <F1> to look at consecutive numbers until the record you want appears.

Press <F5> to look up a record by Customer Name & RFQ Number.

1. Customer name

Entry Format: Up to 50 alphanumeric characters.

If you are adding an Estimate/Quote for a customer already in Customers you may search for the Customer name & address by entering only part of the Customer's name, or by pressing <F1> to display the next name in Customers.

If you pressed <F2> at Estimate/Quote Number to look up a record by Customer Name and RFQ Number, you may press <F1> here to find the next Customer Name in Estimates/Quotes.

2.-4. Address

Entry Format: Up to 60 alphanumeric characters in all four fields.

Default: If the Customer name is in Customers, the address is automatically entered when you add an Estimate.

6. City

Entry Format: Up to 45 alphanumeric characters.

7. State

Entry Format: Up to 23 alphanumeric characters.

8. Zip code

Entry Format: Up to 15 alphanumeric characters.

9. County

Entry Format: Up to 45 alphanumeric characters.

10. Country

Entry Format: Up to 3 alphanumeric characters.

11. Customer RFQ # (Request For Quotation Number)

Entry Format: Up to 15 alphanumeric characters

If you pressed <F2> at Estimate/Quote Number, to look up a record by Customer Name and RFQ Number, you may press <F1> here to find the next RFQ Number for the customer.

12. RFQ date

Entry Format: 6 numeric digits, in MMDDYY format.

13. Salesman

Entry Format: Up to 25 alphanumeric characters.

If the Customer Name is in Customers, the Sales Rep Number from the Customer is displayed as a default entry. Accept the default, or enter the Sales Rep Number up to 3 alphanumeric characters.

Validation: The entry must match a record in Sales Reps in which case the Name is displayed.

14. Terms

Entry Format: Up to 15 alphanumeric characters describing your payment terms for the customer.

If the Customer Name is in Customers, the Terms Code from the Customer is displayed as a default entry. Accept the default, or enter the Terms Code up to 3 alphanumeric characters.

Validation: The entry must match a record in Terms, in which case its Description is displayed.

15. Ship via

Entry Format: Up to 15 alphanumeric characters.

Default: The Ship Via description from M/J Control Information is displayed.

16. F.O.B.

Entry Format: Up to 15 alphanumeric characters.

Default: The F.O.B. location description from M/J Control Information is displayed.

17. Est delivery (Estimated delivery date or lead time)

Entry Format: Up to 15 alphanumeric characters.

18. Estimator ID

Entry Format: Up to 3 alphanumeric characters.

19. Estimate date

Entry Format: 6 numeric digits, in MMDDYY format, or press ENTER to accept the System Date default.

20. Supplying whse

Entry Format: Up to 2 alphanumeric characters, or Blank = "Main".

Validation: If not "Main", entry must match a record in I/M Warehouses.

When an Estimate/Quote is displayed, it's first Item Number, number of items estimated, price quotation date, and quotation print date, if any, are displayed near the bottom of the first screen.

Enter - Line Items

You may enter multiple Line Numbers, to be quoted or cost estimated, for each Estimate/Quote Number.

Within each Line Number you are allowed to establish multiple Item Number records; the end item that is to be billed, and any number of manufactured components of the end item. Estimated costs of manufactured components are automatically combined with the end item manufacturing cost estimates. When estimated costs of the end item are displayed, those values include estimated costs of any manufactured components with the same Line Number.

The fields you enter are:

1. Line #

Entry Format: Blank to add a new Line Number assigned by the program, or

Up to 2 numeric digits to retrieve an existing Line Item record, or

<F1> to find the next Line for the Estimate/Quote.

2. Item #

Entry Format: Up to 15 alphanumeric characters, or

<F1> for the next Item Number already available for this Line Number, or

If you want to enter an item in Item Masters but you don't know the Item Number, enter spaces Item Number to look it up by description. At the Description position you may enter any portion of the first 30 characters of the Description.

Validation: If the Item Number matches an Item Master, the Item Master must be coded as a Manufactured item.

Comments: This entry does not have to match an Item Master.

3.-4. Description

Entry Format: Up to 30 alphanumeric characters for each line. The second description line may be blank.

Default: If the Item Number is in Item Masters, and does not begin with "*" (designating a Misc. item), the Item Master description is automatically entered when you first add a line item record.

5. End item or billed ?

Entry Format: Y or N.

Validation: You are only allowed to enter one end item that is sold (Y answer) per Line Number.

Comments: N answer indicates a manufactured component part or subassembly of an end item is sold. You may enter multiple manufactured component items for each Line Number. When estimated costs are summed for an end item (answer Y) with components (answer N) on the same Line, estimated costs of the components will be included in the end item cost totals.

If you answer N, enter:

Mfg qty per end item

Entry Format: Up to 3 numeric digits. Zero not allowed.

Comments: Estimated unit costs of the manufactured component will be multiplied by this quantity when the program calculates total estimated costs of an end item for the same Line Number.

6. Stock (cost) unit

Entry Format: Up to 4 alphanumeric characters, specifying the item's Stock Unit of Measure.

Default: If the Item Number is in Item Masters, the Unit of Measure from the Item Master is automatically entered and cannot be changed.

7. Price unit

Entry Format: Up to 4 alphanumeric characters, specifying the item's Price unit of Measure.

Default: If the Item Number is in Item Masters with a designated Price Unit, that unit is automatically entered and cannot be changed.

If the Price Unit is not the same as Stock Unit, you enter the following ratio if it is not automatically entered from the Item Master:

Stock/price ratio

Entry Format: Up to 4 numeric digits plus 3 decimals.

8. Mfg lot qty

Entry Format: Up to 6 numeric digits.

Comments: If you change this value in an existing line item record, the program automatically recalculates and redisplay Estimated Unit Costs. Some estimated fixed costs (such as setup labor & burden, or total miscellaneous costs) are divided by this quantity when calculating unit costs.

9. Enter or recost estimates ?

Entry Format: Y or N.

Comments: If you answer Y, the program takes you to the Estimate Detail screen.

If you answered Y to "End item or billed ?", a "Sell quantity & price" table is displayed and you enter:

10.-14.

Up to 5 quoted quantity and unit price entries.

Sell-qty

(Selling quantity)

Entry Format: Up to 6 numeric digits, or enter zero to zero the line and all remaining quantity/price lines.

Validation: If not zero and not the first price line, must exceed the quantity on the previous price line.

Price

(per Price Unit)

Entry Format: Up to 7 numeric digits, plus 4 decimals.

If Unit Cost is not zero, you may press <F1> to enter Margin %, up to 2 digits plus 2 decimals, to calculate Price from Unit Cost and Margin %.

After each quantity and price line is entered, the program calculates and displays the following for that line:

Total margin

Extended price less extended cost for the selling quantity.

Margin %

Price less cost divided by price.

Labor hours

Extended direct labor hours for the selling quantity.

Earned/hour

Price less purchased materials, outside process, and miscellaneous costs divided by direct labor hours. This represents net sales dollars earned per direct labor hour, after deducting all purchase costs and non-factory costs from the gross sales amount.

When you enter Y to "Enter or recost estimates ?", the program takes you to the Detail Estimates screens. After you finish entering or recosting Detail Estimates, the line item screen is redisplayed with the Estimated Cost fields summarized.

Enter - Detail Estimates

The data you enter are:

1. Cost type

Entry Format: **P** = Purchased material, or **O** = Outside process, or **L** = Labor & burden, or **M** = Misc costs, or <F1> = copy material, outside, labor & burden costs from an Item Master record.

If you press <F1> at Cost Type, you are prompted to enter:

Copy costs from Item

Entry Format: Up to 15 alphanumeric characters.

Validation: The Item Number must be in Item Masters and it must be a manufactured Item.

You are not allowed to use this copy feature if the item being estimated is an end item, and you have also entered manufactured component items for the same Line Number. The program copies total unit costs from the Item Master, which normally include the costs of that item's components. It would be wrong to copy item total unit costs and again add costs of manufactured component items to those totals in this program.

If the copy item entry is valid, the Item Master total unit cost values are displayed and the program asks

"OK to copy costs from Item Master ?".

If you answer Y you are prompted to enter:

Est labor hrs/unit

Entry Format: Up to 4 numeric digits plus 3 decimals, or zero.

After you enter estimated labor hours per unit, the program asks "Any change?". Answer N to post the Item Master Costs and the labor hours as estimates.

If you enter a specific Cost Type and cost estimates presently on file for the line item were copied from an Item Master, the program asks if you want to delete all previously copied costs. If you answer Y, all previously copied costs for Purchased Material, Outside Processing, Labor, or Burden are zeroed and you must re-estimate those costs.

If you enter a specific Cost Type, you next enter:

Seq # increment

Entry Format: Up to 2 numeric digits.

If the Cost Type is Purchased Material press <F1> at this position to copy purchased components from an item bill of material. You are then prompted to enter the parent Item Number from which you wish to copy components.

If the Cost Type is Labor & Burden and M/J Control Information specifies Routing Operation for Labor Estimating/report method, press <F1> at this position to copy direct labor operations from an item routing. You are then prompted to enter the Item Number from which you wish to copy direct labor operations.

Comments: Each Estimate Detail record for an Item and Cost Type is assigned a sequence number. This field specifies the increment between sequence numbers to be automatically assigned by the program.

You are only allowed to copy bills or routings if Estimate Detail records are not already on file for the Cost Type. You may add, delete, or change Purchased Materials or Routing Operations after you copy bill of material or routing data.

2. Sequence

Entry Format: Up to 3 numeric digits, or

Blank = next avail seq # (automatic assign), or

<F1> to retrieve the next sequence.

Purchased Material entries are:

3. Component item

Entry Format: Up to 15 alphanumeric characters.

Comments: The entry does not have to match an Item Master. If it does match an Item Master, component Description and Stock Unit are automatically entered, and component inventory availability information is displayed.

4-5. Description

Entry Format: Up to 2 lines of 30 alphanumeric characters each.

When adding a record, if the Component Item Number is in Item Masters these fields are automatically entered, but are changeable.

6. Stock unit

Entry Format: Up to 4 alphanumeric characters, specifying the item's Stock Unit of Measure.

Default: If the Component Item Number matches an Item Master, Unit of Measure from the Item Master is automatically entered and cannot be changed.

7. Component qty per

Entry Format: Up to 3 numeric digits plus 4 decimals. Zero not allowed. You are then prompted to enter a parent quantity code (M for 1000 or space for 1 parent units) just before the parent's stock unit.

Comments: Quantity of component item used to make one unit or 1000 units of the parent item being estimated.

8. Scrap allow pct

Entry Format: Up to 3 numeric digits plus 1 decimal, or zero.

9. Mfg lot total qty

Entry Format: Up to 8 numeric digits plus 3 decimals.

Default: When you add a record, the displayed default value is calculated from parent item Lot Size, Component Quantity Per, and Scrap Allowance Percent. Press <F1> to enter another total quantity.

Comments: If you change this value, Component Quantity Per is automatically recalculated.

10. Purchase unit

Entry Format: Up to 4 alphanumeric characters.

If the Stock Unit differs from the Purchase Unit, enter:

Stk/purch ratio

Entry Format: Up to 4 numeric digits plus 3 decimals, the number of Stock Units per Purchased Unit.

11. Purch unit cost

Entry Format: Up to 6 numeric digits plus 4 decimals, or <F1> to enter Extended Cost.

Defaults: If the Component Item Number entered above is in Item Masters, this value is calculated by multiplying the Stock/Purchase Ratio times the item's Standard Material Cost.

Comments: If you did not use the <F1> option to enter Extended Cost, the Extended Cost is automatically calculated and displayed.

Ext cost

Entry Format: Up to 7 numeric digits plus 2 decimals.

Comments: When this field is entered, the Purchase Unit Cost is automatically calculated and displayed.

Stock unit cost

Parent unit cost

Comments: These values of Extended Cost divided by number of component Stock Units to be purchased, and Extended Cost divided by parent Lot Quantity, are automatically calculated and displayed.

12. Vendor name

Entry Format: Up to 25 alphanumeric characters, or spaces.

13.-14. Comments

Entry Format: Up to 2 lines of 30 alphanumeric characters each, or spaces.

Outside Process entries are:

3. Outside proc desc

Entry Format: Up to 30 alphanumeric characters.

Comments: You may enter up to 2 lines of description, spaces are not allowed on the first line.

4. Purchase unit

Entry Format: Up to 4 alphanumeric characters.

If the Stock Unit differs from the Purchase Unit, enter:

Stk/purch ratio

Entry Format: Up to 4 numeric digits plus 3 decimals, the number of Stock units per Purchase Unit.

5. Purch unit cost

Entry Format: Up to 6 numeric digits plus 4 decimals, or

<F1> to enter Extended Cost

Comments: If you don't use the <F1> option to enter Extended Cost, the Extended Cost is automatically calculated and displayed.

Ext cost

Entry Format: Up to 7 numeric digits plus 2 decimals.

Comments: When this field is entered, the Purchase Unit Cost is automatically calculated and displayed.

Stock unit cost

Comments: This value of Extended Cost divided by Lot Quantity is automatically calculated and displayed.

6. Vendor name

Entry Format: Up to 25 alphanumeric characters, or spaces.

7.-8. Comments

Entry Format: Up to 2 lines of 30 alphanumeric characters each, or spaces.

Labor & Burden entries are:

3. Work center

Entry Format: Up to 6 alphanumeric characters.

Validation: The Work Center Number must match a record in Work Centers, in which case various Work Center data, including rates, will display.

4. Est setup hours

Entry Format: Up to 2 numeric digits plus 3 decimals, or zero.

Press <F1> if you want to enter the time in minutes, after which the program will convert the value entered to hours.

Default: If the Work Center record contains a non-zero value for Average Setup Hours, it displays as the default, which you may override by pressing <F1>.

5. Production unit

Entry Format: Up to 4 alphanumeric characters.

Default: If the line item is in Item Masters, its Unit of Measure displays as the default.

Comments: Production Units may differ from inventory Stock Units if produced at machine operations that make multiple inventory units per machine cycle. For example, Stock Unit could be EACH, but Production Unit related to the machine run time standard could be HIT or CYC (for Cycle).

If the Production Unit differs from the item's Stock Unit of Measure, enter:

Stk/prod ratio

Entry Format: Up to 4 numeric digits, specifying the Stock Units per Production Unit. E.g. 4 EACH/HIT.

6. Est run hours

Entry Format: Up to 3 numeric digits plus 3 decimals, or zero.

Press <F1> if you want to enter the time in minutes, after which the program will convert the value entered to hours.

Comments: If the operation is machine paced, enter the machine hours standard. This may not be the same as run time labor hours, but you will enter the Labor Hours/Run Hours conversion ratio.

If you enter a non-zero value for Run Time Hours, enter:

per

(per quantity, related to run time hours)

Entry Format: Up to 4 numeric digits.

Default: The value of 1 displays as the default.

Comments: If the run time hours is for 1 unit of production, enter 1. Otherwise enter the number of production units related to the run time.

7. Labor hrs/run hr

Entry Format: Up to 1 numeric digits plus 2 decimals.

Default: If you are adding a record, 1.00 displays as the default entry.

Comments: If a machine is used for the operation, it may require several people (e.g. 2.00 labor hours per run hour), or may require less than a full time person (e.g. 0.50 labor hours per run hour) if one person simultaneously tends several machines.

Unit labor hours

Unit labor cost

Unit burden cost

Comments: These values are automatically calculated from entered values and Work Center rates and displayed.

8.-9. Opn description

Entry Format: Up to 2 lines of 30 alphanumeric characters each, or spaces.

Comments: If the Labor Reporting Method in M/J Control Information is Work Center, this entry is bypassed when you add a record but is changeable.

10.-11. Comments

Entry Format: Up 2 lines of to 30 alphanumeric characters each, or spaces.

Misc Costs entries are:

3. Misc cost code

Entry Format: Up to 5 alphanumeric characters.

Validation: Must match a record in Misc Cost Codes, in which case the cost code's description and "Charge P.O.'s ?" answer are displayed.

4. Misc units reqd

Entry Format: Up to 6 numeric digits, zero not allowed.

5. Misc unit cost

Entry Format: Up to 5 numeric digits, plus 4 decimals, or

<F1> to enter estimated Total Misc Cost.

Default: When adding a new record the Misc Cost Code standard cost is displayed as a default if it is not zero.

Comments: The Total Misc Cost is automatically calculated and displayed when Misc Unit Cost is entered.

6. Total misc cost

Entry Format: Up to 6 numeric digits, plus 2 decimals.

Comments: Misc Unit Cost is automatically calculated and displayed if Total Misc Cost is entered.

7.-9. Comments

Entry Format: Up to 30 alphanumeric characters.

Enter - Summary Screen

This screen appears after you press ESC (or TAB) at the Line Number position on the Line Item screen. Totals counts of items estimated, billable items, and priced items for the Estimate/Quote are displayed.

The following quotation data are entered if there are priced line items for the Estimate. If no line items are priced, the screen is displayed but data cannot be entered.

1. Quotation date

Entry Format: Up to 6 numeric digits in MMDDYY format.

2. Quoted by

Entry Format: Up to 25 alphanumeric characters.

3. Quote days valid

Entry Format: Up to 3 numeric digits.

Default: Quotation Default Days Valid from the M/J Control information, is displayed.

4.-7. Quote comments

Entry Format: Up to 4 lines of 30 alphanumeric characters each.

8. Print quotation ?

Entry Format: Y or N.

Comments: If you answer Y, quotation data from this Estimate/Quote will be printed the next time that you use the Print Quotations program.

ESTIMATE/QUOTE EDIT LIST

Select

Estimate/quote edit list from the *Job estimates/quotes* menu. The following screen appears:

```
Job estimates/quotes (Estimate/quote edit list)

Please enter:

1. List sequence          
2. Supplying warehouse
3. Starting estimate
4. Ending estimate
5. Starting estimator ID
6. Ending estimator ID
7. Print estimate detail ?

D = Date of estimate  E = Estimate/quote #
```

Enter the following fields:

1. List sequence

D = Date of estimate, or **E** = Estimate/quote #.

2. Supplying warehouse

Up to 2 alphanumeric characters, or Blank = "Main".

If the list sequence is by Estimate/quote #:

3. Starting estimate

Up to 6 numeric digits.

4. Ending estimate

Up to 6 numeric digits, or Blank = Starting value.

If the list sequence is by Date of estimate:

3. Starting estimate date

6 numeric digits in MMDDYY format.

4. Ending estimate date

6 numeric digits in MMDDYY format, or Blank = Starting value.

5. Starting estimator ID

Up to 3 alphanumeric characters, or <F1> = "All".

6. Ending estimator ID

Up to 3 alphanumeric characters, or Blank = Starting value.

7. Print estimate detail ?

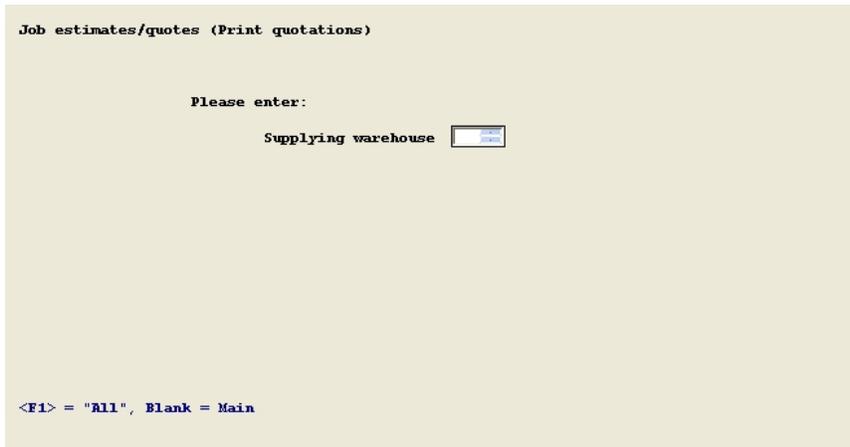
Y or N.

PRINT QUOTATIONS

This program prints all Quotations which are selected for printing and are for the specified Supplying Warehouse. Selection of a Quotation for printing is done on the Job Estimates/Quotes, Enter, summary screen.

Select

Print quotations from the *Job estimates/quotes* menu. The following screen appears:



```
Job estimates/quotes (Print quotations)

Please enter:
Supplying warehouse 

<F1> = "All", Blank = Main
```

Enter the following fields:

Supplying warehouse

Up to 2 alphanumeric characters, or Blank = "Main", or <F1> = "All".

If there are quotations to print for the selected warehouse, the program prompts

"Mount forms on printer & type DONE when ready".

Type DONE to proceed, or press ESC (or TAB) to exit the program.

The program asks **"Print alignment ?"**. Answer Y to print alignment characters on one form, or answer N to print the quotations. After they are printed, the program asks

"Quotations printed OK ?".

If you answer Y, the program changes the "Print quotation ?" answer to N in all related records. If you respond N to the printed OK question, you are given the option to reprint the quotations immediately or to exit to the menu.

Job Orders

This chapter contains the following topics:

Introduction to Job Orders	.....
Entering Job Orders	.....
Explode Shop Orders	.....
Print S.O. Routing	.....

INTRODUCTION TO JOB ORDERS

Use this function to maintain Job Masters for orders to be costed, the related Shop Orders, and Shop Order cost estimates. The entry of a Job Master record determines if cost estimates and actual costs may be entered and reported for related Shop Orders.

A Job may consist of one or more Shop Orders. Each Shop Order is identified by a Shop Order Number, optional Release Number, and an Item Number. The Job Master record identifies the basic six character Shop Order Number. Therefore, job costs and hours may be summarized for a number of related items (e.g. assembly, subassemblies and parts), or for several shop order lot releases for the same item, where the same basic Shop Order Number is assigned to all releases. Shop Order costs are summarized and reported for the individual shop orders within the job, and for the total Job.

ENTERING JOB ORDERS

This program allows you to maintain Job Masters, Shop Orders, and Shop Order cost estimates for costed jobs. Job masters may also be created with other PBS manufacturing modules or programs that add Shop Orders.

The sequence to follow in setting up Job Masters with Job Numbers, Shop Orders, and related records is somewhat dependent on how you use other PBS manufacturing modules.

If you use PBS Customer Order Processing, any Sales Order to be referenced in a Job Master record should be entered in Customer Order Processing before you use this program to add the Job Master. Referencing a valid Sales Order Number in the Job Master allows automatic posting of billings for that order to Job Costings. You may optionally create new Shop Orders and related Job Masters in Customer Order Processing when you add a Sales Order line item, in which case the Job Number will match the Sales Order Number.

If you use Customer Order Processing but you don't create Shop Orders with the Sales Order Entry program, a Sales Order Number referenced in the Job Master does not need to match the Job Number.

You may use Inventory Management or Shop Floor Control to enter Shop Orders for costed jobs before you add the Job Master in Job Costing. In this case you need to manually assign the Job Number so that it matches the previously entered Shop Order Number. You may optionally create the Job Master immediately upon adding the Shop Order with another package.

If you want this program to automatically assign Job Numbers from M/J Control Information, then it is best to also add all related Shop Orders with this program, after you enter the Job Master.

Select

Enter from the *Job orders* menu. The following screen displays:

```
Job orders (Enter)

* 1. Job order #      
* 2. Supplying warehouse
3. Entry date
4. Our sales order #
5. Customer name
6. Customer P.O. #
7. Requested ship date
8. Quoted sales value
9. Job comments
10.
11.
12.

<F1> = next record, <F2> = Previous record, Blank = assign new job #
```

Enter the following fields:

1. Job order

Entry Format: Up to 6 alphanumeric characters, or Blank = assign new Job Number from M/J Control Information, or <F1> to retrieve next Job Number.

Supplying warehouse

Entry Format: Up to 2 alphanumeric characters, or <F1> = "Any" (if Shop Orders for the job will be manufactured in several warehouses)

If the Job Number matches a Job Master, it's Warehouse displays as the default.

Validation: The number of open and closed Shop Orders that match the Job Order Number and Warehouse entries are then displayed. If you are adding a new Job Master and matching closed Shop Orders are on file, a message informs you about this condition, the program cancels your input, and the cursor returns to Job Order Number.

3. Entry date

Entry Format: 6 numeric digits in MMDDYY format, the System Date is the default.

4. Our sales order

Entry Format: Up to 6 numeric digits, or Blank = "None".

Comments: If SBS Customer Order Processing is installed, this entry must match an open Customer Sales Order. If it is a valid Sales Order Number, the program asks:

Post all billings to job ?

Answer Y or N.

Comments: A Y answer will cause the Post Invoices program in Customer Order Processing to automatically post all billings (except freight charges) for the designated Sales Order to Job Costing data.

If the Sales Order includes other line items that are unrelated to this job, answer N. If you want billing information on reports for this job, you may use the Process Job Billings function to enter selective billings for this job.

Fields 5 through 8 are requested only when you enter a Sales Order Number. If Customer Order Processing is installed, fields 5 through 7 are automatically entered from the specified Sales Order.

5. Customer name

Entry Format: Up to 25 alphanumeric characters. When entered, spaces are not allowed.

6. Customer P.O.

Entry Format: Up to 15 alphanumeric characters, or Blank.

7. Requested ship date

Entry Format: 6 numeric digits in MMDDYY format, or <F1> = Hold, or <F2> = Split, or Blank.

8. Quoted sales value

Entry Format: Up to 8 numeric digits plus 2 decimals, or Blank = Not specified.

9.-12. Job comments

Entry Format: Up to 4 lines of 30 alphanumeric characters each.

If you press <F3> to delete a record, the program will warn you that any Shop Order estimates or actual cost data for the job will also be deleted.

Enter - Shop Orders

If you answered Y to "Enter S.O.'s or cost estimates ?" this second screen displays for Shop Orders.

```
Job orders (Enter)
* 1. Shop order #   12   Rls # 
* 2. Item #
  3. Description
  4.
* 5. Warehouse
  6. Sales order #
  7. Qty ordered
     Qty received
  8. Lead time days
  9. Due date
 10. Start date
     Order status

<F1> = Next record, <F2> = Previous record
```

The fields you enter are:

1. Shop order

Entry Format: Not entered, displayed from previous Job Order screen.

Rls

Entry Format: Up to 2 numeric digits, or default of space.

Comments: Use of Release Numbers is optional, allowing Shop Order Numbers with multiple releases for different due dates.

2. Item

Entry Format: Up to 15 alphanumeric characters.

Validation: The Item Number must match an Item Master.

Comments: Enter spaces to select by description if you want to search for an Item Number by entering any portion of the first 30 characters of its Description.

Press <F1> to consecutively display Parent Item Numbers with the Shop Order Number and Release Number you have entered.

3. and 4. Description

Entry Format: Up to 30 alphanumeric characters for each line.

Default: The Item Master description fields are automatically entered when you first add a Shop Order. You may later modify that description from "Field number to change ?".

5. Warehouse

Entry Format: Up to 2 alphanumeric characters, or default.

Default: If the Job Master designates a specific Supplying Warehouse, that code is automatically entered to this screen from the Job Master.

If the Job Master designates "Any" Warehouse, either the Item's Primary Warehouse code, or the Warehouse code in the first Shop Order that matches the order identifier entries in Fields 1 and 2, is displayed as the default.

If this entry together with Shop Order Number, Release Number, and Item Number matches a Shop Order record the remaining data fields will display.

6. Sales order

Entry Format: Up to 6 numeric digits, or spaces.

Default: If a Sales Order Number is in the Job Master, that number is automatically entered to the Shop Order and cannot be changed in this program.

7. Qty ordered

Entry Format: Up to 8 numeric digits, without a minus sign.

Comments: The item's Inventory Unit Of Measure displays to the right of this entry.

Qty received This field is displayed only, since it may only be updated by other programs. It is initialized to zero when an order is added.

8. Lead time days

Entry Format: Up to 3 numeric digits without a minus sign.

Default: The displayed default is Lead Time Days from the Item Master record.

9. Due date

Entry Format: 6 numeric digits in MMDDYY format.

Validation: Must not match a date in Schedule Exception Dates.

Comments: If you change the Due Date of a Shop Order, the program asks "Reschedule other items with same S.O. # and Rls # by same number of days ?". Answer Y or N.

If you change the Start Date, or another entry that causes a new Start Date to be calculated, the program asks "OK to change date of S.O. material reqts ?". Answer Y or N.

For jobs comprised of multiple Shop Orders, these rescheduling options may be used to make consistent changes to Due Dates and Material Requirements dates for all related Shop Orders.

10. Start date

Entry Format: 6 numeric digits in MMDDYY format.

Default: The displayed default is automatically calculated from Lead Time Days and Due Date, using Schedule Exception Dates to exclude exception dates.

Validation: This entry must not match a date in Schedule Exception Dates.

Order status

Comments: Order Status is displayed. For new orders, this code is automatically set to **O** (Open) and is updated by other applications; it cannot be modified in Enter Shop Orders. Status codes are:

Order-Status Explanation

O = Open Added to Shop Orders, but not exploded.

E = Exploded Shop Order Material Requirement records for components are on file for the Shop Order. Status is changed to E by the Explode Shop Orders program or by the "Shop order materials" function.

I = Issued Some or all required components are issued to the Shop Order. Status is changed to I by the I/M "Inventory transactions" function.

C = Closed Order has been closed by the Close Shop Orders program and its record can no longer be modified by using Enter Shop Orders.

Close Shop Orders in the Close Job Orders function to remove the detail, before you delete the Shop Order.

If the order Status is **E** or **I**, you must first use Close Shop Orders to close the order, which removes Material Requirement and cost detail, before you delete the order. You may also use Purge Closed Shop Orders in Inventory Management to delete all Shop Orders that were closed on or before a date that you specify. A Shop Order will not be purged if a related Job Cost Master has not been closed and deleted.

If I/M Control Information indicates you use Shop Order Comments, press F6 at "Field number ot change ?" to enter:

1.-99. S.O. comments

Entry Format: Up to 99 lines of 45 alphanumeric characters each, in groups of 10 lines per screen.

Comments: If the answer is "N" to "Use shop order comments" in I/M Control Information, you will not be prompted to add S.O. comments.

If you do use comments, when you are adding or changing comments, press <F1> to put spaces in a comment field and in subsequent fields in the same group of 10. To delete all comments for a group of 10, press <F1> when the cursor is at the top comment field.

You may also press <F2> at the first comment field to copy the item master comments, if any.

If the Shop Order is not closed, the program asks "Enter shop order cost estimates ?". Answer Y to proceed with cost estimates entry.

You are only allowed to delete a Shop Order with an Order Status of **O** (Open) or **C** (Closed). You can delete an order with status **O** (Open) only if there is no related cost estimate or actual cost detail on file. If related cost detail records exist, you must delete those detail records, or use

Enter - Estimated Costs

If you answered Y to "Enter S.O. cost estimates ?" this third screen displays for Estimates.



If you use SBS Shop Floor Control, you may optionally create order cost estimates with the "Release routing operations" program.

The data you enter are:

1. Cost type

Entry Format: P = Purchased material, or

O = Outside process, or

L = Labor & burden, or

M = Misc costs, or

<F1> = copy from a job estimate/quote

If you press <F1> at Cost Type, you are prompted to enter:

Estimate/quote

Entry Format: Up to 6 numeric digits.

If you enter a valid number, the program displays the first line item for the Estimate/Quote and asks "Right estimate item ?". Answer Y or N, or press <F1> to display the next estimate item. If you answer

Y to this question, estimated unit costs to be copied are displayed and the program asks "OK to copy item estimate ?".

Validation: The Estimate/Quote Number must be in Estimate/Quotes.

You are not allowed to use this copy feature if detail estimates for labor or miscellaneous costs are already on file for the Shop Order. You may alter estimate records created from Estimate/Quotes after the data is copied.

Purchased Material

(Cost Type = P):

2. Unit cost/

Entry Format: Up to 7 numeric digits plus 4 decimals.

If there is a Bill of Material for the Shop Order Item Number, the following entry option displays on the screen:

<F1> = calculate from item bill of material.

Validation: When you use the <F1> option to calculate this cost from the item's bill, a message tells you how many purchased components were used in the calculation and how many of those components have been assigned a unit cost.

Comment: A message displayed tells you that "Material unit cost entered should be total cost per parent of purchased components added at this manufacturing level". Purchased Material Cost, calculated by this program from the item's Bill of Material, includes average or standard costs of purchased components in the single level bill.

Outside Process

(Cost Type = O):

2. Unit cost/

Entry Format: Up to 7 numeric digits plus 4 decimals, or default.

Default: If This Level Standard Outside Cost in the Item Master record for the Shop Order Item Number is greater than zero, it is the displayed default which you may override by pressing <F1>.

Labor & Burden

(Cost Type = L)

```

Job orders (Enter)
S.O. #: 12      Rls      Item #: MLRW-3      BLUE WAGON
                Ord qty: 2.ERCH

1. Cost type      Labor & burden      Seq # increment 1

2. Sequence #      
3. Work center #
4. Est setup hours
5. Production unit
6. Est run hours
7. Labor hrs/run hr

    Unit labor hours
    Unit labor cost
    Unit burden cost

8. Opn description
9.

                                Total: 4 operations

Blank = next avail seq #, <F1> = next record
    
```

Seq # increment

Entry Format: Up to 2 numeric digits, or ENTER for 1.

If there is a Routing for the Shop Order Item Number and the Labor Reporting Method in the M/J Control information is Routing Operation, the following entry option displays on the screen:

<F1> = copy direct labor operations from item routing.

Validation: When you press <F1> to copy Routing operations, you are not allowed to use this option if detail estimates for labor and burden are already on file for the Shop Order. You may modify Routing operations after they are copied.

Comments: Each Labor/Burden Detail record for a Shop Order Item is assigned a sequence number. This entry specifies the increment between sequence numbers to be automatically assigned by the program.

2. Sequence

Entry Format: Up to 3 numeric digits, or Blank = next avail seq #, or

<F1> = next sequence number.

3. Work center

Entry Format: Up to 6 alphanumeric characters.

Validation: The Work Center Number must match a record in Work Centers, in which case various Work Center fields will display.

If the Labor Estimating/Reporting Method in M/J Control Information is Work Center, you are only allowed to enter one Labor/Burden estimate for each Work Center used for the Item.

4. Est setup hours

Entry Format: Up to 2 numeric digits plus 3 decimals, or zero.

Press <F1> if you want to enter the time in minutes, after which the program will convert the value entered to hours.

Default: If Average Setup Hours is specified in the Work Center record, it displays as the default which you may accept by pressing ENTER or override by pressing <F1>.

5. Production unit

Entry Format: Up to 4 alphanumeric characters.

Default: If you are adding a record, Stock Unit of Measure from the Item Master displays.

Comments: Production Units may be different than inventory Stock Units produced at machine operations that make multiple inventory units per machine cycle. For example, Stock Unit could be EACH, but Production Unit related to the machine run time standard could be HIT or CYC (for Cycle).

If the Production Unit differs from the item's Stock Unit of Measure, you must enter:

Stk/prod ratio

Entry Format: Up to 4 numeric digits, specifying the Stock Units per Production Unit. E.g. 4 EACH/HIT.

6. Est run hours

Entry Format: Up to 3 numeric digits plus 3 decimals, or zero.

Press <F1> if you want to enter the time in minutes, after which the program will convert the value entered to hours.

Comments: If the operation is machine paced, enter the machine hours standard. This may not be the same as run time labor hours, but you will enter the Labor Hours/Run Hours conversion ratio.

If you enter a non-zero value for Run Time Hours the program asks for:

per

(per quantity, related to run time hours)

Entry Format: Up to 4 numeric digits, or accept the displayed default of 1.

Comments: If the run time hours is for 1 unit of production, enter 1. Otherwise enter the number of production units related to the run time.

7. Labor hrs/run hr

Entry Format: Up to 1 numeric digits plus 2 decimals.

Default: If you are adding a record, 1.00 displays as the default entry.

Comments: If a machine is used for the operation, it may require several people (e.g. 2.00 labor hours per run hour), or may require less than a full time person (e.g. 0.50 labor hours per run hour) if one person simultaneously tends several machines.

The program calculates and displays Unit Labor Hours, Unit Labor Cost, and Unit Burden Cost from the values you entered and the Work Center rates.

8.-9. Opn description

Entry Format: 2 lines of up to 30 alphanumeric characters each. Second line is optional.

When you display a Labor & Burden estimate record previously entered, the Work Center rates used to calculate the labor & burden costs may have been changed. In that case, the new costs will be displayed to the right of the old costs in a column labeled "Recosted:". You will be asked if you want to use these new recosted values. Answer Y if you wish the recosted values to replace the old costs, or N to leave the old estimate unchanged.

Misc Costs

(Cost Type = M)

2. Misc cost code

Entry Format: Up to 5 alphanumeric characters.

Validation: The Misc Cost Code must match a record in Misc Cost Codes, in which case the records description is displayed followed by the Misc Cost Code "Charge P.O.'s ?" field.

3. Misc units reqd

Entry Format: Up to 6 numeric digits, zero not allowed.

Comments: This is the total number of misc units required for the Shop Order.

4. Misc unit cost

Entry Format: Up to 5 numeric digits, plus 4 decimals, or <F1> to enter Total Misc Cost.

Default: When adding a new record the Misc Cost Code standard cost is displayed as a default if it is not zero.

Comments: The Total Misc Cost is automatically calculated and displayed when Misc Unit Cost is entered.

5. Total misc cost

Entry Format: Up to 6 numeric digits, plus 2 decimals.

Comments: The Misc Unit Cost is automatically calculated and displayed, if this field is entered.

When you have finished entering estimates, press ESC (or TAB) at cost type. An estimate summary screen will then display indicating the total unit costs at this level for Material Cost, Outside Cost, Labor Cost, Burden Cost, Misc Cost, and Direct Labor Hours. After this display you will be asked "Enter more estimates for this shop order?". Enter Y to return to Enter Estimates or N to return to Enter Shop Orders.

EXPLODE SHOP ORDERS

The Explode Shop Orders program appears on this menu as a convenience. You may optionally enter and explode Shop Orders with SBS Inventory Management, and use this package to enter Job Masters and Shop Order cost estimates.

This program explodes Shop Orders into Shop Order Material Requirements records, using Product Structures (bills of material) maintained in Product Definition & Costing. This process also increases the Quantity Allocated in Item Master or Branch Warehouse Item records for the components.

Shop Order Material Requirement records are the detail of a component item's total Quantity Allocated at a Warehouse, and are subsequently used to record actual issue quantity vs. required (planned usage) quantity for each controlled component used in making the parent item.

The program provides a multiple level explosion option which automatically creates Shop Orders as well as Material Requirements records for lower level manufactured components. Component orders are created only if available Quantity On Hand does not cover the new requirement; when created, they are assigned the same Shop Order and Release Numbers as the parent order being exploded.

Select

Explode shop orders from the *Job orders* menu. The following screen displays:

Explode criteria

Shop order #

Release #

Item #

Warehouse

Shop order status:

Single or multiple level

The single level explosion creates single level material requirements records for open shop orders.

The multiple level explosion creates single level material requirements records for open shop orders, and automatically creates shop order and material requirements records for lower level manufactured items.

<F1> = "All open shop orders"

When you select this program a message informs you that:

The single level explosion creates single level material requirement records for open shop orders.

The multiple level explosion creates single level material requirement records for open shop orders and automatically creates shop order and material requirement records for lower level manufactured items.

Enter the following fields:

Shop order #

Entry Format: Up to 6 alphanumeric characters, or <F1> = "All open shop orders" for a warehouse.

If you use the "All open shop orders" option, the entries for Release Number and Item Number are automatically bypassed.

Release #

Entry Format: Up to 2 numeric digits, or default of space.

Validation: Shop Order Number and Release Number must match a Shop Order record.

Item #

Entry Format: Up to 15 alphanumeric characters, or press <F1> to consecutively display Item Numbers with the Shop Order Number and Release Number you have entered.

Comments: The combination of Shop Order Number, Release Number, and Item Number must match a Shop Order.

Warehouse

Entry Format: Up to 2 alphanumeric characters, or default.

Default: Warehouse code in the first Shop Order matching your Shop Order Number, Release Number, and Item Number entries is displayed as the default.

Comments: At this point, if you have requested explosion of a specific Shop Order, the program checks to see that Order Status is **O** (Open) for the order matching your entries. If current Order Status is not "Open", the program informs you that the order cannot be exploded and returns you to the Shop Order Number entry position.

Single or multiple level

Entry Format: Drop down list box with the choices of *Single* Level Explosion or *Multiple* Level Explosion.

Component Effective Dates and Component Fit Times in Product Structure records are used in determining what components are required and the component requirement due dates. Due dates in component Material Requirement records are set equal to the Start Date of the parent order plus any Component Fit Time Days in the component's Product Structure record.

This explosion will "blow through" any component coded as a Transient (Purch/Mfg code in the component Item Master). The components of the Transient are allocated directly to the exploded parent order, and will appear on the parent order pick list.

The Shop Order Explosion Audit List will automatically print when the explosion is completed after which the program returns you to the Shop Order Number entry position.

This report verifies the explosion of the Shop Orders you have selected and lists any exceptions such as "Bill of material not found - Order not exploded".

The audit list for a multiple level explosion will also show any automatically created Shop Orders for manufactured components, or may inform you "Inventory applied - Order not Required" for the lower level manufactured item. If a parent Shop Order is made at a branch warehouse and its manufactured component is supplied by the primary warehouse, "Supplied by primary warehouse - Order not created" will appear for that component on a multiple level explosion audit list.

Another possible exception message on the Explosion Audit List also pertains to the automatic creation of component Shop Orders in a multiple level explosion. The explosion program cannot create a component Shop Order with an identifier (Shop Order Number, Release Number, Item Number, and Warehouse) that matches a Shop Order record already on file. In this situation a message "Duplicate record on file- Order not created" is listed with the required additional order quantity for the manufactured component item.

The duplicate Shop Order condition can occur if a manufactured component appears more than once in the indented bill of the parent item being exploded through multiple levels. To remedy this situation, you may wish to close the first Shop order created for the manufactured component and then add a shop order for the total requirement quantity.

PRINT S.O. ROUTING

These documents are printed from P/D Routings, not from the Shop Order labor estimate records maintained with this package.

The source of information printed on Shop Order Routings and optional barcoded reporting documents is P/D Routings and Shop Orders. Therefore, before you can print an order routing with this program, you must have previously defined the item's operations in Routings and entered the Shop Order.

If you have installed the Bar Code Print Utilities, this program also allows you to print bar coded routing documents used to simplify shop floor reporting of employee production and labor.

Select

Print S.O. routing from the *Job orders* menu. The following screen displays:

Shop orders (Print S.O. routing) Company 00 XYZ Company

File Options Tools Help

Print S.O. routing criteria

Shop order # [] [Search] Release # []

Ending Shop order # [] [Search]

Item # [] [Search]

Warehouse [] [Search]

Shop order status:

Print shop order comments

Print report

Print shop order routing

Number of copies [1]

Include alternate operations

Include standard times

Print bar codes

Print bar coded reporting form

Number of bar code copies []

Print order quantity & glue date

Print customer name

<F5> = Range of Shop Orders

OK Cancel

Enter the following fields:

Shop order

Up to 6 alphanumeric characters.

Release #

Up to 2 numeric digits, or default of space.

Shop Order Number and Release Number must match a Shop Order record.

Item #

Up to 15 alphanumeric characters, or press <F1> if you wish the program to consecutively display Item Numbers with the Shop Order Number and Release Number you have entered

Or, press <F2> to default to printing routings lists for "All" manufactured items to be made on the Shop Order Number and Release Number you entered.

If you enter an Item Number, it and the preceding entries must match a Shop Order.

Warehouse

Up to 2 alphanumeric characters, or default.

Warehouse in the first Shop Order matching the Shop Order Number, Release Number, and Item Number entries displays as default.

Print shop order comments

Check box where checked is yes and unchecked is no.

If I/M Control Information indicates you use Shop Order Comments, you may optionally print them on the routing and barcode reports.

Print shop order routing

Check box where checked is yes and unchecked is no.

Leave unchecked if you only want to print barcoded forms, in which case entries for [Number of copies](#), [Include alternate operations](#) and [Include standard times](#) are bypassed.

Number of copies

One numeric digit (1-9).

Include alternate operations

Check box where checked is yes and unchecked is no.

Include standard times

Check box where checked is yes and unchecked is no.

If you wish to print a barcoded reporting document, answer Y to the following question:

Print bar coded reporting form

Check box where checked is yes and unchecked is no.

Number of bar code copies

One numeric digit (1-9).

Entry is bypassed if the answer to the preceding question is N.

Print order quantity & due date

Check box where checked is yes and unchecked is no.

Pertains to barcoded document.

If you use the C/O package and the Sales Order reference in the Shop Order matches an open Customer Order, the program asks:

Print customer name

Check box where checked is yes and unchecked is no.

Pertains to barcoded document.

OK or Cancel

Select OK to print or Cancel to return back to the menu without printing.

Shop Order Materials

This chapter contains the following topics:

[Introduction to Shop Order Materials](#)

[Entering Shop Order Materials](#)

[Delete All Requirements For A S.O.](#)

INTRODUCTION TO SHOP ORDER MATERIALS

This Inventory Management function is included on the Manufacturing Job Costing menu for convenient access.

Shop Order Material Requirements are the detail of a component item's total Quantity Allocated at a Warehouse. These "pegged" requirement records, identified to specific parent item Shop Orders, are also used to record actual issue quantity vs. required (planned usage) quantity for each controlled component.

If your bills of material are very simple, you may use this function to define component material requirements for each parent order added in the "Shop orders" function, instead of using the "Explode" shop orders program to create these records with a computer bill of material.

If you use the "Explode" shop orders program, you may wish to use this function to adjust exploded Shop Order Material Requirements for subsequent bill of material revisions or for minor component changes related to a specific Shop Order. If no material has been issued to an exploded Shop Order, you may also delete all related Material Requirements with a single transaction and then re-explode the order using an updated bill of material.

ENTERING SHOP ORDER MATERIALS

Maintaining Shop Order Material Requirements also updates other data as follows:

- Addition of a Material Requirement record increases Quantity Allocated in the component Item Master or Branch Warehouse Item record by the Component Quantity Required. Change of Component Quantity Required in a Material Requirement record adjusts item Quantity Allocated. Deletion of a Material Requirement record decreases item Quantity Allocated.
- Addition of a Material Requirement record changes the Order Status code in the parent Shop Order record to E (Exploded), if Order Status was O (Open) before the Material Requirement was added. Deletion of all Material Requirement records for a Shop Order changes the Order Status code to O (Open) in the parent Shop Order record.

The combination of Shop Order Number, Release Number, Parent Item Number on the order, and Component Item Number establishes a unique Shop Order Material Requirement record.

Select

Enter from the *Shop order materials* menu.

The following screen displays:

```

Shop order materials (Enter)
* 1. Shop order #      ls #
* 2. Parent item #

* 3. Warehouse
   Parent qty ordered      Order due date
   Order start date

* 4. Component item #

5. Component qty per
6. Scrap allowance pct
7. Component due date
   Component qty reqd
   WIP qty scrapped
   Qty issued
   Issued date
   Returned date
   Pick list item ?
   Control method
<F1> = Next record, <F1> = Previous record
    
```

Enter the following fields:

1. Shop order

Entry Format: Up to 6 alphanumeric characters.

Rls

Entry Format: Up to 2 numeric digits, or default of space.

Validation: The combination of Shop Order Number and Release Number must match a Shop Order record.

2. Parent item

Entry Format: Up to 15 alphanumeric characters, or

Press F1 to consecutively display Item Numbers with the Shop Order Number and Release Number you have entered, until you answer Y to "Right item # ?"

Validation: The combination of Shop Order Number, Release Number, and Parent Item Number must match a Shop Order record.

3. Warehouse

Entry Format: Up to 2 alphanumeric characters, or default.

Default: The Warehouse code in the first Shop Order record on file matching your Shop Order Number, Release Number, and Item Number entries is displayed as the default.

Validation: This entry together with Shop Order Number, Release Number, and Parent Item Number must match a Shop Order record.

At this point, the program will tell you if the parent Shop Order you have identified is closed, in which case you are returned to the Shop Order Number entry position. If the Shop Order is not closed the following data is displayed from the Parent Shop Order record:

Parent Qty Ordered

Order Due Date

Order Start Date

4. Component item

Entry Format: Up to 15 alphanumeric characters.

Validation: Must match an Item Master.

When the combination of Shop Order Number, Release Number, Parent Item Number, and Component Item Number matches a record, then the remaining fields are displayed.

Comments: Enter spaces to select by description to search for an Item Number by entering any portion of the first 30 characters of its Description.

Press F1 to consecutively display Item Numbers with the Shop Order Number and Release Number you have entered, until you answer Y to the "Right item # ?" question.

5. Component qty per

Entry Format: Up to 3 numeric digits, plus 4 decimals.

Comments: If Product Definition & Costing is installed and the P/D Control Information entry is Y for "Use option to define product structure component qty per 1000 parent units ?", you are prompted to enter a parent quantity code (M for 1000 or space for 1 parent units) just before you enter the "Component quantity per" value.

Comments: The program will multiply this quantity by the Parent Order Quantity to calculate Component Quantity Required. If you entered a parent quantity code of "M", the Parent Order Quantity is divided by 1000 in this calculation.

6. Scrap allowance pct

Entry Format: Up to 3 numeric digits plus 1 decimal, or zero.

Comments: The calculated value of Component Quantity Required will be automatically inflated by this percentage.

7. Component due date

Entry Format: 6 numeric digits, in MMDDYY format, or default.

Default: Displayed default is Start Date of the parent Shop Order.

Validation: Must not match a date in Schedule Exception Dates.

After these entries the following additional data is automatically displayed from the Material Requirement record:

Component qty reqd Automatically calculated by the program as:

Parent Qty Ordered x Component Qty Per x (Scrap Allowance Pct / 100)

WIP qty scrapped

Set to zero when adding a record.

Qty issued

Set to zero when adding a record.

Issued date

Set to spaces when adding a record.

Returned date

Set to spaces when adding a record.

Pick list item ?

Set to Item Master value when adding a record.

Controlled item ?

Set to Item Master value when adding a record.

Except for indirect change to Component Qty Req'd by changing its calculation factors, you are not allowed to change the unnumbered fields which are updated by other Inventory Management programs.

You are not allowed to remove a Material Requirement record with a non-zero Qty Issued value. You must first return issued material to stock in Process Inventory Transactions before the delete is allowed in this application.

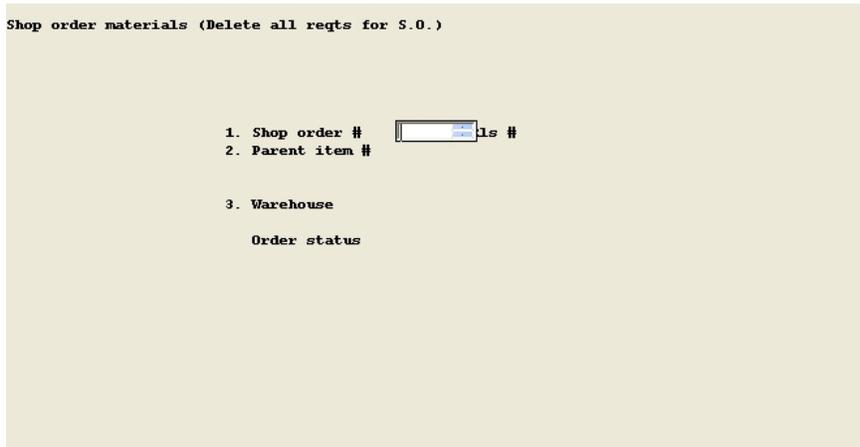
DELETE ALL REQUIREMENTS FOR A S.O.

Use this application to remove all Material Requirements records for a parent Shop Order that has a current Order Status Code of **E** (Exploded).

Select

Delete all reqts for S.O. from the Shop order materials menu.

The following screen displays:



Shop order materials (Delete all reqts for S.O.)

1. Shop order # Rls #

2. Parent item #

3. Warehouse

Order status

Enter the following fields:

1. Shop order # and Rls #
2. Parent item #
3. Warehouse

After entering the above fields, the Order Status displays.

If the Order Status is not E (Exploded), a message will inform you that "Delete not allowed for this order status". Otherwise, you are asked "**Are you sure ?**" Answer Y to delete all Material Requirements for the order.

You may also automatically delete Shop Order Material Requirements for orders with a status of E (Exploded) or I (Issued) by closing the parent Shop Order in Close Shop Orders.

Job P.O. Invoices

This chapter contains the following topics:

[Introduction to Job P.O. Invoices](#)

[Entering Job P.O. Invoices](#)

[Adjust Material Issues Cost](#)

INTRODUCTION TO JOB P.O. INVOICES

If you are not using PBS Manufacturing Product Purchasing, use this function to enter purchase order invoice amounts that you want charged directly to open jobs. These purchase amounts must be identified as Purchased Material, subcontracted Outside Processing, or Miscellaneous Costs for the open Shop Orders. Invoice amounts, or portions thereof, entered with this function only post to Manufacturing Job Costing data.

If you use PBS Manufacturing Product Purchasing, it is advantageous to use the "Purchase order invoices" function on that menu to make job cost distributions, since that invoice posting function is also integrated with Accounts Payable and Purchasing data. However, you may occasionally use these programs to identify and correct any job cost distribution errors made with the Purchasing module.

For each purchased component identified by a Shop Order Material record, the total value of issues to the Shop Order (at average or standard cost depending on your material inventory costing method) is accumulated by other programs. Manufacturing Job Costing compares each item's total issues value to its total direct purchase order invoice charges. The amount by which total material issues cost exceeds direct purchase charges is reported as the net Stock Issues material cost for the component. It is therefore important to receive and then issue all purchased materials for Shop Orders.

Another program here allows you to adjust the total purchased material issues cost in Shop Order Material records. This may be required if the unit material cost in an Item Master was incorrect when a material issue was transacted.

Outside processing purchase order charges may be entered for a subcontracted operation performed on the Shop Order item being manufactured, or for an outside operation performed on a stocked component before it is used in the Shop Order parent item. An example of the latter is a stocked un-plated metal part that is sent out for plating before using it on the parent item.

Purchase order invoice charges classified as Miscellaneous Costs should be entered with this function or with the invoice entry program in Product Purchasing. The Process Job Miscellaneous Costs function is intended for posting non-purchased miscellaneous costs, and for listing Miscellaneous Cost charges from all entry sources.

ENTERING JOB P.O. INVOICES

If PBS Manufacturing Product Purchasing is installed, a message warns you that entries made in this function will not be posted to Purchasing or Accounts Payable. Product Purchasing provides integrated vendor invoice processing programs. This program only updates Job Costing.

New entries for purchase order invoice costs are posted "on-line" as you complete each transaction. Previously entered transactions may be retrieved and changed or deleted.

Select

Enter from *Job P.O. invoices* menu.

The following screen displays:

```
Job P.O. invoices (Enter)

* 1. Cost type      
* 2. Warehouse
* 3. Shop order #   Rls
* 4. S.O. item #
* 5. Invoice date
  6. Vendor name
  7. Invoice #
  8. P.O. #         Rls
  9. P.O. line #

10. Misc cost code
11. Invoice qty
12. Invoice amount

P = Purchased material  O = Outside process  M = Misc costs
```

Enter the following fields:

1. Cost type

Entry Format: **P** = Purchased material, or **O** = Outside process, or **M** = Misc costs.

Default: Displays previous transaction entry, if any.

2. Warehouse

Entry Format: Up to 2 alphanumeric characters

3. Shop order

Entry Format: Up to 6 alphanumeric characters.

Validation: The combination of Shop Order Number and Warehouse must match a Job Master record on file.

Rls

Entry Format: Up to 2 numeric digits, or space, or <F1> to display the next P.O. invoice transaction already on file for the job.

Validation: When adding a transaction, the combination of Shop Order Number, Release Number and Warehouse must match an open Shop Order on file.

4. S.O. item #

Entry Format: Up to 15 alphanumeric characters, or <F1> to consecutively display manufactured Item Numbers for the Shop Order Number, Release Number and Warehouse you entered.

Validation: All of the Shop Order identification fields, including this entry, must match an open Shop Order on file.

5. Invoice date

Entry Format: 6 numeric digits, in MMDDYY format, or <F1> to display the next P.O. invoice transaction already on file for the Shop Order.

6. Vendor name

Entry Format: Up to 25 alphanumeric characters.

7. Invoice #

Entry Format: Up to 8 alphanumeric characters.

8. P.O. #

Entry Format: Up to 6 numeric digits.

RIs

Entry Format: Up to 2 numeric digits, or space.

Validation: Must match an open or closed P.O. Item on file.

9. P.O. line #

Entry Format: Up to 3 numeric digits.

Press <F1> to get and display consecutive line items, until the item you want appears.

If you are entering a Miscellaneous Cost, press F2 to indicate entry of a freight or misc. charge amount on the invoice.

Validation: If the Cost Type is Purchased Material, the P.O. Line Item Number must match a Component Item Number in a Shop Order Material record on file for the Shop Order.

If the Cost Type is Outside Process, the P.O. Line Item Number must either match the Shop Order Item Number, or a Component Item Number in a Shop Order Material record on file for the Shop Order.

The P.O. Line Item Number, Description, Quantity Ordered, Quantity Received, Purchase Unit, and Open/Closed indicator are displayed.

If the Cost Type is Miscellaneous Costs, you must enter:

10. Misc cost code

Entry Format: Up to 5 alphanumeric characters.

Validation: Must match a Misc. Cost estimate record on file for the Shop Order.

Comments: If Cost Type is not Misc. Cost, "Not applicable" displays and this entry is bypassed.

11. Invoice qty

Entry Format: Up to 8 numeric digits plus 3 decimals.

Comments: If you entered "Freight or Misc. cost" at P.O. Line Number , "Not applicable" displays and this entry is bypassed.

If cost type is Purchased Material or Outside Processing, the quantity in Stock Units displays if different from Purchase Units. If cost type is Misc. Cost and the cost code unit of measure is different from the Purchase Units, you are prompted to enter the equivalent Misc. quantity.

11. Invoice amount

Entry Format: Up to 7 numeric digits plus 2 decimals.

ADJUST MATERIAL ISSUES COST

This program allows you to adjust the total purchased material issues cost in Shop Order Material records. This may be required if the unit material cost in the Item Master File was incorrect when a material issue was transacted with Inventory Management or Purchase Order Processing programs.

Select

Adjust material issues cost from *Job P.O. invoices* menu.

The following screen displays:

```
Job P.O. invoices (Adjust material issues cost)

* Warehouse      
* Shop order #   Rls
* Item #        
* Component item #
```

Enter the following fields:

* Warehouse

Up to 2 alphanumeric characters

* Shop order

Up to 6 alphanumeric characters.

The combination of Shop Order Number and Warehouse must match a Job Master record on file.

Rls

Up to 2 numeric digits, or space.

The combination of Shop Order Number, Release Number and Warehouse must match an open Shop Order on file.

* S.O. item

Up to 15 alphanumeric characters, or <F1> to consecutively display manufactured Item Numbers for the Shop Order Number and Release Number and Warehouse you entered.

All of the Shop Order identification fields, including this entry, must match an open Shop Order on file, in which case the parent item Description displays.

***Component item #**

Up to 15 alphanumeric characters, or <F1> to consecutively display Component Item Numbers from Material Requirement records on file for the Shop Order.

All of the Shop Order Material Requirement identification fields, including this entry, must match a Shop Order Material Requirement on file, in which case the component Description displays.

The Quantity Issued, Total Issues Cost, and calculated Issues Unit Cost are displayed from the Material Requirement record, and the program asks "Any change to cost?". Answer Y if you want to change the Total Issues Cost, after which Issues Unit Cost will be automatically recalculated and redisplayed.

Employee Labor

This chapter contains the following topics:

Introduction to Employee Labor	.....
Entering Employee Labor	.....
Convert Batch Input	.....
Batch Edit List	.....
Post Converted Batch	.....
Batch Control Information	.....

INTRODUCTION TO EMPLOYEE LABOR

Use this function to enter employee direct labor hours and production quantity transactions for costed Shop Orders and employee indirect labor by indirect Labor Exception Code. Other programs display or print lists of employee transaction history by Employee and Date, or by costed Shop Order and Operation, and print Indirect Labor history by Labor Exception Code, Date, and Employee.

Another program allows you to purge employee detail labor history through a specified cutoff date. That program will delete all indirect labor transactions and direct labor transactions for closed jobs through the specified date. When a job is closed, direct labor detail transactions remain on file until they are purged, for the purpose of historical labor analysis by employee.

If you use PBS Manufacturing Shop Floor Control, you should use that module to enter and purge employee labor and production transactions. Shop Floor Control transactions entered for costed jobs will be posted from that module to Manufacturing Job Costing files. Shop Floor Control programs provide additional transaction validation and posting to the S/F data base, and accept transactions for Shop Orders that are not costed. Direct labor transactions entered in Manufacturing Job Costing only update Job Costing .

ENTERING EMPLOYEE LABOR

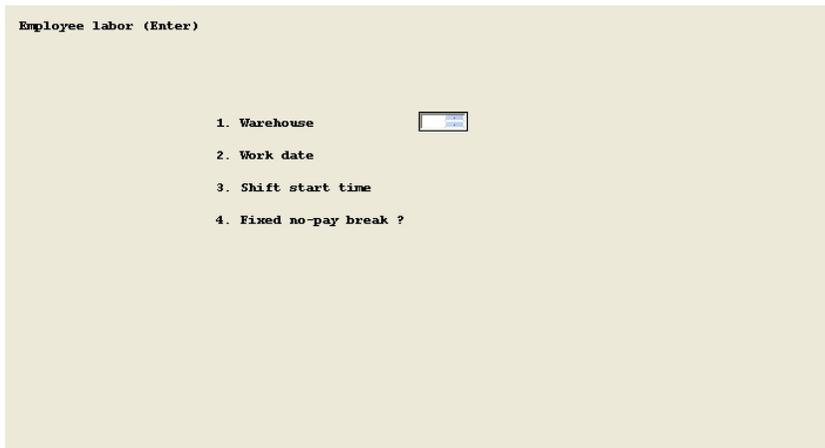
For ease of employee reporting, all time entries in this program are Start and End "clock times" for labor activities. The program calculates elapsed hours from the clock Start and End times.

For each group of work shift transactions, you enter the Shift Start Time once with an AM or PM designation. The program then automatically assigns AM or PM to all subsequent clock time entries, based on the Shift Start Time. Therefore, you do not use "military clock times" because all times are assigned AM or PM.

The entry format for clock times is numeric in HHMM or HMM format. You must enter one or two digits for hour, between 1 and 12, and two digits for minute, between 00 and 59.

Select

Enter from the *Employee labor* menu.



Employee labor (Enter)

1. Warehouse
2. Work date
3. Shift start time
4. Fixed no-pay break ?

Enter the following fields:

1. Warehouse

Entry Format: Up to 2 alphanumeric characters

2. Work date

Entry Format: 6 digits in MMDDYY format.

Validation: The date entered cannot be later than the System Date.

3. Shift start time

Entry Format: 3 or 4 numeric digits in HHMM format.

Comments: After you enter the Start Time you are prompted to enter A for AM, or P for PM.

4. Fixed no-pay break ?

Entry Format: Y or N.

Comments: Answer Y only if the meal break time is the same for all employees on the shift. The break time in minutes will be automatically deducted from all reported employee clock times which span the break period.

If you answer Y, you are prompted to enter:

5. Break start time

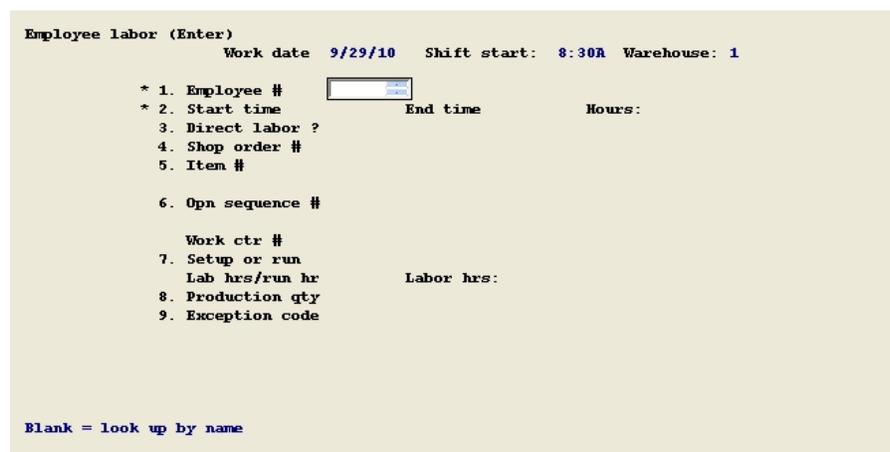
Entry Format: 3 or 4 numeric digits in HHMM format.

6. Break end time

Entry Format: 3 or 4 numeric digits in HHMM format.

Comments: The program will automatically enter the AM or PM designators, based on Shift Start Time, and will calculate and display the Break Hours.

The employee hours screen then displays:



Enter the following fields:

*** 1. Employee #**

Entry Format: Up to 4 numeric digits, or Blank = look up by name.

If you use the name lookup option, enter part or all of the Employee Name as it appears in the Employee File. The program will then display the first full Employee Name on file, if any, matching your entries. You may select that record or press <F1> to find more matching records.

Validation: This entry must match a record on the Employee file.

*** 2. Start time**

Entry Format: 3 or 4 numeric digits in HHMM format, or <F1> = next transaction already on file for employee & date

Default: When adding transactions, the Start Time for the first record added for an Employee and Date defaults to the Shift Start Time. Start Time for subsequent consecutive transactions added for

the same employee defaults to End Time of the previous transaction. You may override the displayed default.

End time

Entry Format: 3 or 4 numeric digits in HHMM format

Comments: The program automatically enters the AM or PM designators, based on Shift Start Time, and calculates and displays the elapsed Hours. If the times span a Fixed Break period entered on the prior screen, break hours are automatically deducted in the elapsed hours calculation.

3. Direct labor ?

Entry Format: Y or N. N indicates Indirect Labor.

4. Shop order #

Entry Format: Up to 6 alphanumeric characters.

Validation: There must be a Job Master record on file for this Shop Order Number and for the Warehouse entered on the preliminary screen to allow you to continue entering this record.

Comments: This field is bypassed and not changeable when entering Indirect Labor.

Rls #

Entry Format: Up to 2 numeric digits, or spaces.

5. Item #

Entry Format: Up to 15 alphanumeric characters, or <F1> = next item this order

Validation: There must be Shop Order on file that is not Closed for you to proceed beyond this entry.

Comments: This field is bypassed and not changeable when entering Indirect Labor.

6. Opn sequence #

Entry Format: Up to 3 numeric digits, or <F1> = next S.O. labor operation on file, or <F2> = enter alternate operation

If you press <F2>, you are prompted to enter an Alternate Number of 2 numeric digits after you enter the Operation Sequence Number.

Validation: The program checks for a Shop Order Labor & Burden record that matches your entries. If found, information from that record is displayed. If there is not a matching operation summary record on file, you are asked if you want to add it. If you answer Y, you are prompted to enter the Description, Operation Sequence Number, and Work Center Number for the new record.

Comments: This field is only entered for Direct Labor if M/J Control Information indicates Routing Operation is the Labor Estimating/Reporting Method.

Work ctr #

Entry Format: Up to 6 alphanumeric characters

Comments: This field is only entered if the M/J Control Labor Estimating/Reporting Method is set to Work Centers, or you are adding a new Shop Order Labor & Burden operation record.

This field is bypassed and not changeable when entering Indirect Labor.

7. Setup or run

Entry Format: **R** = Run, **S** = Setup.

Comments: This field is bypassed for Indirect Labor.

If you enter "Run", and Labor Hours/Run Hour in the S.O. Labor & Burden record is not 1.00, you are allowed to change the displayed ratio:

Lab hrs/run hr

Entry Format: Up to 1 numeric digits plus 2 decimals.

8. Production qty (or Rework qty or Scrap qty)

Entry Format: Up to 8 numeric digits plus 3 decimals.

Comments: If you are adding a new record, you may press <F1> to enter Rework Quantity or <F2> to enter a Scrap Quantity. When this field then redisplay as "Rework" or "Scrap" quantity, you may optionally press <F1> to change back the field entry to "Production" quantity.

"Rework" or "Scrap" entered is assumed to be item quantities previously reported as "Production" at this operation. Time reported with Scrap entries should only represent the time incurred to sort out and/or report the scrap, not including the original Production time. Likewise, time reported for Rework should exclude the original Production time at the operation.

This field is bypassed for Indirect Labor.

9. Exception code

Entry Format: Up to 3 alphanumeric characters. Space allowed only for Direct Labor transactions.

Validation: Must match a record on the Labor Exception Code File. If you are entering Indirect Labor, the Labor Exception Code record must indicate the code is used for Indirect Labor. If you are entering this code for Direct Labor, the Labor Exception Code must be for Direct Labor.

Comments: When you are adding a Direct Labor transaction, Exception Code is automatically bypassed but may be accessed from "Field number to change ?".

CONVERT BATCH INPUT

This program converts the ASCII batch input file named "LABOR.IMP", initially created by a shop floor data collection system, to the batch file format used by other PBS Manufacturing batch processing programs. The LABOR.IMP file must be copied into the main hard disk directory where PBS Manufacturing Software is installed, or this program will display a message "Batch input file not found".

Select

Convert batch input from the Employee labor menu.

Enter the following fields:

If there are unposted PBS Manufacturing batch input transactions still on file (from a previous run of this program), the program asks you:

"Converted batch file exists."

"(C) create new file or (A) add records to existing file"

If you have modified the original input file in the shop data collection system, you may reload that file by selecting the "(C) create new file" option. If you had previously converted only part of the day's transactions from the data collection system and want to add the remaining daily transactions before posting, select "(A) add records to existing file".

You are prompted to enter the Warehouse for which you are processing transactions. Enter up to 2 alphanumeric characters matching a record on the I/M Warehouses File, or spaces for "Main".

The program asks if there is "Any change" to your Warehouse entry. Answer "N" if you wish to proceed with the transaction conversion processing. When finished, the program displays a "Batch input converted" message.

BATCH EDIT LIST

This program prints an edit list of the converted labor batch transactions, and any error or warning messages.

Select

Batch edit list from the *Employee labor* menu.

```
Production & labor (Batch edit list)

Please enter:

1. Warehouse
2. Shift #
3. Starting employee #
4. Ending employee #

<F1> = "All"
```

Enter the following fields:

1. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All".

If you have more than one warehouse (or plant) and some employees split their time between warehouses, you should ask for "All" warehouses when printing a list for those employees.

2. Shift

One numeric digit, or <F1> = "All".

3. Starting employee

Up to 4 numeric digits, or <F1> = "All".

4. Ending employee

Blank = Starting value.

Some reported transaction errors may be corrected by modifying data in other Job Costing files and then rerunning this report, if you determine the input transaction is not accurate. Messages for these types of errors are:

E-Job Master not on file (No Job Master matching Shop Order Number)

E-Operation not on file (Not in Shop Order Labor Operations File).

E-Work center not on file (Work Center from matching Shop Order Labor Operation record not on W/C File)

E-Invalid exc code (Labor Exception Code reported is not on file, or the "Indirect"/"Direct" classification of the code does not match the transaction type.)

Transaction error types indicated by the following messages cannot be corrected by adjusting other Job Costing data files. Because employee clock entries are missing, they must be estimated and the related incomplete labor activities must be manually re-entered, using the "Enter" employee labor program on this menu.

E-Start time unknown (No "Start of shift" entry for employee)

E-Lunch time unknown ("Start lunch break" or "End lunch break" entry is missing for employee)

E-Break time unknown ("Start paid break" or "End paid break" entry is missing for employee)

The following "Warning" messages only point out a potential error, but do not prevent posting of related transactions.

W-Cum qty exceeds order (Total production quantity reported for the operation, including this transaction, exceeds the total Shop Order quantity)

W-Incomplete end of day (The last daily time entry for employee preceded the official shift ending time by more than the allowed "end cleanup" minutes in Batch Control Information)

POST CONVERTED BATCH

This program posts the valid converted batch transactions (those without Error messages), after printing the Employee Labor Batch Register, clears the PBS Manufacturing labor batch transactions file, and deletes the original LABOR.IMP file from the main PBS Manufacturing Software directory.

Select

Post converted batch from the *Employee labor* menu.



Enter the following fields:

Before posting and deleting the batch transactions, the program asks "**Are you sure ?**". Answer Y to proceed with the posting process. Upon completion, a message tells you how many valid transactions were posted from the batch.

IMPORTANT NOTES ABOUT INPUT BATCHES:

With the present version of PBS Manufacturing labor batch processing programs:

- Do not attempt to post a batch containing only part of a day's transactions. Obtain and convert the remaining transactions for the day, adding them to the previous partial batch, before running "Post converted batch". This does not prevent you from extracting and cumulatively converting shop data transactions several times each day, in order to print several daily Employee Labor Batch Edit Lists for evaluating daily labor activities. But don't post until all transactions for the day have been added to the PBS Manufacturing daily batch file. If you post a partial day's batch, you will lose the times of labor activities started in one partial batch and completed in the subsequent partial batch.
- Do not accumulate more than one complete day's (several day's) transactions in a single PBS Manufacturing daily batch file. When you have converted all of the transactions for one day, post the valid transactions for the day, determine necessary action on transaction errors unresolved prior to batch posting, and use the "Enter" program to input the previously incomplete labor transactions.

Always get back to shop employees on a timely basis to explain the effect of missing transactions and provide the necessary coaching to minimize future reporting discrepancies.

BATCH CONTROL INFORMATION

You must enter this information before using the other programs to process batch input transactions.

Select

Batch control information from the *Employee labor* menu.

```
Employee labor (Batch control information)

1. Early start of shift minutes allowed 
2. Early end of shift minutes allowed
3. Late end of shift minutes allowed
4. Indirect exception code - paid breaks
5. Indirect exception code - end cleanup

6. 1st shift start time
7. 2nd shift start time
8. 3rd shift start time

9. Minimum unpaid lunch time minutes
```

Enter the following fields:

1. Early start of shift minutes allowed

Entry Format: Up to 2 numeric digits. Cannot exceed 20. Zero not allowed.

Comment: If employees "clock in" no more than this number of minutes before the official shift start time (defined in fields 6,7,8), their daily start time will be automatically adjusted to the official shift start time. Earlier starts will be treated as paid time beginning with the employee's actual "clock in" time.

2. Early end of shift minutes allowed

Entry Format: Up to 2 numeric digits. Cannot exceed 20. Zero not allowed.

Comment: If employees report the end of their last daily labor activity no more than this number of minutes before the official shift end time (defined in Fields 6,7,8), the difference between an employee's last daily reporting time and the official shift end time will be automatically charged to an indirect labor "cleanup time" code (defined in Field 4). Earlier end times will be treated as an abnormally early quitting times and will not create paid cleanup time allowances.

3. Late end of shift minutes allowed

Entry Format: Up to 2 numeric digits. Cannot exceed 20. Zero not allowed.

Comment: If employees report the end of their last daily labor activity no more than this number of minutes after their official shift end time (defined in fields 6,7,8), their daily end time will be

automatically adjusted to the official shift end time. Later ending times will be treated as paid time, stopping with the employee's last reported activity end time.

4. Indirect exception code - paid breaks

Entry Format: Up to 3 alphanumeric characters.

Validation: Must match an record classified as "Indirect" labor on the Labor Exception Codes File.

Comments: Any paid break time reported by employees will be automatically assigned this Indirect labor code.

5. Indirect exception code - end cleanup

Entry Format: Up to 3 alphanumeric characters.

Validation: Must match an record classified as "Indirect" labor on the Labor Exception Codes File.

Comments: Any time between an employee's last reported daily activity ending time and the official end of shift time, will be automatically assigned this Indirect labor code (if within the limit defined in Field 2).

6. 1st shift start time

Entry Format: 3 or 4 numeric digits in HHMM format. Space not allowed.

End time

Entry Format: 3 or 4 numeric digits in HHMM format. Must exceed the shift start time.

7. 2nd shift start time and End time

8. 3rd shift start time and End time

Entry Format: 3 or 4 numeric digits in HHMM format, or space for "None".

9. Minimum unpaid lunch time minutes

Entry Format: Up to 2 numeric digits. Zero allowed.

Comments: If employee start and end clock times for an unpaid lunch period represent less than this minimum, ending clock time for the break is adjusted to the minimum allowed time.

Close Job Orders

This chapter contains the following topics:

Introduction to Close Job Orders	.....
Close Shop Orders	.....
Close Job	.....
Display Job Orders Status	.....

INTRODUCTION TO CLOSE JOB ORDERS

Use this function to close Shop Orders, and to close open jobs. Closing orders and jobs automatically prints order cost variance reports, optional order cost detail lists, and the final job summary for costed orders. Thereafter, closed job estimates and actual costs are available in summary format by Cost Type.

When a costed Shop Order is closed, the final cost variance reports for the order and order cost detail lists may optionally be printed, actual costs are summarized by Cost Type in the Shop Order record and cost detail records for the order are deleted. If a job is comprised of more than one Shop Order, each Shop Order may be closed when it is completed.

You must close all Shop Orders for a job, before you are allowed to close the job. When you close a job, the final Open Job Summary is printed, and the Job Master and Job Billing detail records are deleted.

Another program on this menu allows you to display the status of all Shop Orders for a requested job, to determine if the job is eligible for closing.

A section at the end of this chapter describes procedures for handling special situations where a Shop Order or Job Number was inadvertently closed too early, before all job costs were posted.

CLOSE SHOP ORDERS

Shop Orders, including those for costed jobs, may be closed with this program. If you use PBS Manufacturing Shop Floor Control, you may optionally use its "Shop Orders - Close" program to perform that procedure.

The program performs the following functions:

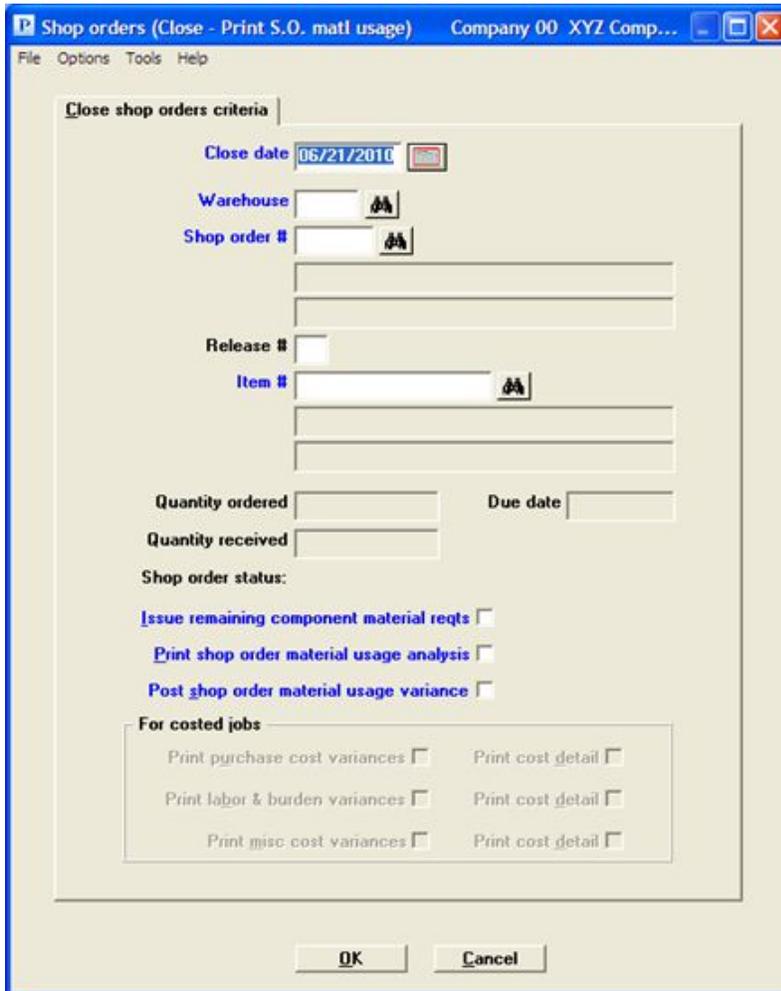
- Provides an option to automatically issue remaining component material requirements for the order. This feature automatically creates and posts issue transactions for previously unissued component requirement balances. When you select this option, you later select additional alternatives to issue balances of "Controlled items on pick list" and/or "Controlled items not on pick list". This feature should only be used for components where such estimation of actual usage is reasonably accurate.
- Optionally prints a Shop Order Material Usage Variance Analysis indicating actual vs. required (planned) issue quantities for each controlled component and the total materials usage cost variance for the order.
- Optionally creates Material Usage Variance History records, used to report total material usage variances by parent item.
- Adjusts Quantity On Order for the item ordered and Quantity Allocated for components, if there are remaining balances for the Shop Order at the time that it is closed. These adjustments are made to related Item Master or Branch Warehouse Item records.
- Deletes Shop Order Material Requirements records.

For costed jobs:

- Prints final cost variance reports for the order, and optionally prints order cost detail lists for material and outside costs, or for labor operations, or for miscellaneous costs.
- Summarizes cost detail by Cost Type and direct labor hours in the Shop Order record, and changes Shop Order Status to Closed.
- Deletes Shop Order Purchase and Miscellaneous Cost detail records for the order. Detail labor records remain on file for the purpose of Employee labor retrievals, until they are purged with another program.
- Optionally allows posting of actual unit costs to Item Masters.

Select

Close shop orders from the *Close job orders* menu. A screen like the following displays:



Enter the following fields:

Close date

Enter date in MMDDYY format, or accept the default System date.

Warehouse

Entry Format: Up to 2 alphanumeric characters

Shop order #

Entry Format: Up to 6 alphanumeric characters, or <F1> = "All completed orders"

Comments: "All completed orders" means all orders for which Quantity Received equals or exceeds Quantity Ordered.

Release #

Entry Format: Up to 2 numeric digits, or space.

Item #

Entry Format: Up to 15 alphanumeric characters, or press <F1> to consecutively display Item Numbers with the Shop Order Number and Release Number you have entered, until you find the Item Number you want.

Or, press <F2> for "All" manufactured items made on the Shop Order Number and Release that you entered.

Validation: For a specific Item Number entry, the combination of Shop Order Number, Release, Item Number, and Warehouse must match a Shop Order on file.

At this point, if you did not specify "All completed orders" for Shop Order Number and did not default to "All" for Item Number and a Shop Order on file matches your entries, the following order information is displayed:

Quantity ordered

Due date

Quantity received

Shop order status:

If the displayed Order Status is already Closed the program will return you to the Shop Order Number entry position; otherwise, the data you enter are:

Issue remaining component material reqts

Entry Format: Check box where checked is yes and unchecked is no. Default displayed is unchecked.

Print shop order material usage analysis

Entry Format: Check box where checked is yes and unchecked is no. Default displayed is unchecked.

Post shop order material usage variance

Entry Format: Check box where checked is yes and unchecked is no. Default displayed is unchecked.

Checked is to post to Material Usage Variance History File, or N. Defaults to answer in Field 5.

If you are closing a single Shop Order that is costed, or you specified "All completed orders" for Shop Order Number, the data you enter are:

For costed jobs

Print purchase cost variances

Entry Format: Check box where checked is yes and unchecked is no. If you check the box, you are then asked:

Print cost detail

Check this box if you also want an actual cost detail transaction list.

Print labor & burden variances

Entry Format: Check box where checked is yes and unchecked is no. If you check the box, you are then asked:

Print cost detail

Check this box if you also want an actual cost detail transaction list.

Print misc cost variances

Entry Format: Check box where checked is yes and unchecked is no. If you check the box, you are then asked:

Print cost detail

Check this box if you also want an actual cost detail transaction list.

OK or Cancel

Select OK to continue or Cancel to return to the menu.

After your entries, a message warns you that cost detail will be deleted after the final cost reports are printed for the order, and the program asks:

Are you sure?

Answer Yes to proceed.

If you checked the box to [Issue remaining component material reqts](#) you are next taken to the Issue *All Materials To a Shop Order* program and the data you enter are:

Issue controlled items on pick list

Issue controlled items not on pick list

Round up fractional requirement qtys

(to a whole number)

After your entries you are asked:

Are you sure?

After issues processing is completed, you are automatically returned to the Close Shop Order program.

If you checked the box to [Print shop order material usage analysis](#), that report is printed. Shop Order cost variance reports, with any detail transaction lists you requested, are printed. The program then asks "OK to close shop order?". Answer Yes to complete the file updating process, or No to cancel the order closing.

If the M/J Control Information "**Use option to post actual costs to Item Master ?**" is set to Y and a costed Shop Order being closed contains a non-zero Quantity Received, the program then displays Item Master cost update information and asks if it is "**OK to update item master unit costs ?**". The screen display includes "Updated item unit costs" that are calculated using actual costs per unit

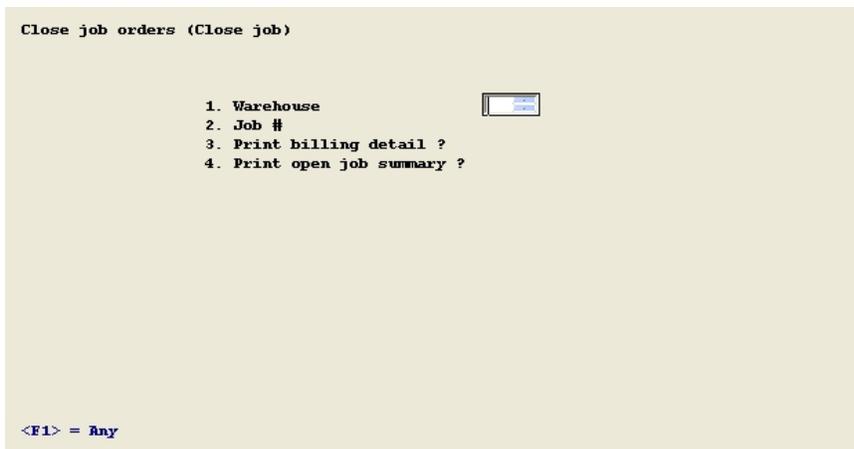
received for the Shop Order, and also shows the "Old item master unit costs". Answer Y to post the "Updated item master unit costs", or N to retain the "Old item master unit costs".

CLOSE JOB

Before you are allowed to close a costed job, you must first close all Shop Orders for that job. This program optionally prints the final Job Billings List and the Open Job Summary, then deletes the Job Master and Job Billing detail transactions. After the job is closed, its closed Shop Orders with summarized costs and hours remain on file until they are purged with another program. Closed Job Summary display and print programs on other menus in this module allow you to retrieve closed job cost and hours summaries.

Select

Close job from the *Close job orders* menu.



```
Close job orders (Close job)

1. Warehouse
2. Job #
3. Print billing detail ?
4. Print open job summary ?

<F1> = Any
```

Enter the following fields:

1. Warehouse

Entry Format: Up to 2 alphanumeric characters, or <F1> = "Any".

2. Job

Entry Format: Up to 6 alphanumeric characters.

Validation: The combination of Warehouse and this entry must match a Job Master record on file.

3. Print billing detail ?

Entry Format: Y or N.

4. Print open job summary ?

Entry Format: Y or N. The displayed default is Y.

If your entries match a Job Master, the program displays job billing totals and number of open and closed Shop Orders on file for the job. If the job shows an unliquidated progress billing balance, the program warns you about this condition and asks if you want to proceed with the closing.

If there are any open Shop Orders for the job, a message tells you that job closing is not allowed until the Shop Orders are closed.

If all Shop Orders for the job are closed a message reminds you that closing the job will delete the Job Master and Job Billing records after the requested reports are printed. The program asks "**Are you sure ?**". Answer Y to print the reports, after which the program asks "**OK to close ?**". Answer Y to delete the Job Master and Job Billing records, or N to cancel the closing.

The "Suggested Cost of Sales Adjustment" value, printed at the end of the Open Job Summary, is the difference between the actual "Total cost" of the job and the "Estimated COS to-date" summed from billing transactions. You would make this adjustment only if you use an actual cost method of inventory valuation.

DISPLAY JOB ORDERS STATUS

Use this program to display the status of Shop Orders for requested open jobs, to determine if the job's Shop Orders are closed.

The data you enter are:

Warehouse

Up to 2 alphanumeric characters, or <F1> = "Any".

Job

Up to 6 alphanumeric characters.

If you specified a valid open Job Number and Warehouse, the Shop Orders for the job are listed, with the following information displayed for each order:

S.O.-#

Shop Order Number. If not blank, Release Number appears below S.O. Number.

Item-#

Item Number. Item Description displays below the Item Number

Due-date Shop Order Due Date.

Quantity

Order

Quantity Ordered.

Recvd

Quantity Received to date.

Open/Clsd

Open or Closed status.

Special Situations - Recovering From Premature Order Closings

You might close a Shop Order before all costs are posted to that order. If this occurs, the system will not allow you to reopen the closed Shop Order but there is another way of recording the additional costs. If the job is still open, add another Shop Order with the same S.O. Number, Item Number, and Warehouse as the prematurely closed order, but give it a different Release Number. You may note in the Shop Order's Item Description that it is intended for recording "late costs" on the original order. If you need to post some delayed purchase costs, you may have to setup one or more Shop Order Material Requirement records for the new Shop Order Release. Then post the applicable added costs and close the additional Shop Order that you setup for this purpose.

If you already deleted the Job Master by closing the job before you discovered some unposted costs, you may re-enter the same Job Master (same Job Number and Warehouse) with the Enter Job

Orders function. The closed Shop Orders for the job will automatically be associated with the re-entered Job Master. You may then use the previously described procedure to open a new Shop Order Release for the purpose of posting additional cost transactions.

Re-entry of the Job Master after the job was closed will not restore job billing information that was deleted when the job was closed. You may want to re-enter billings with the "Job billings" function, so that billing and margin information is included in the Job Summary printed at the time of final job closing.

Job Miscellaneous Costs

This chapter contains the following topics:

[Entering Job Miscellaneous Costs](#)

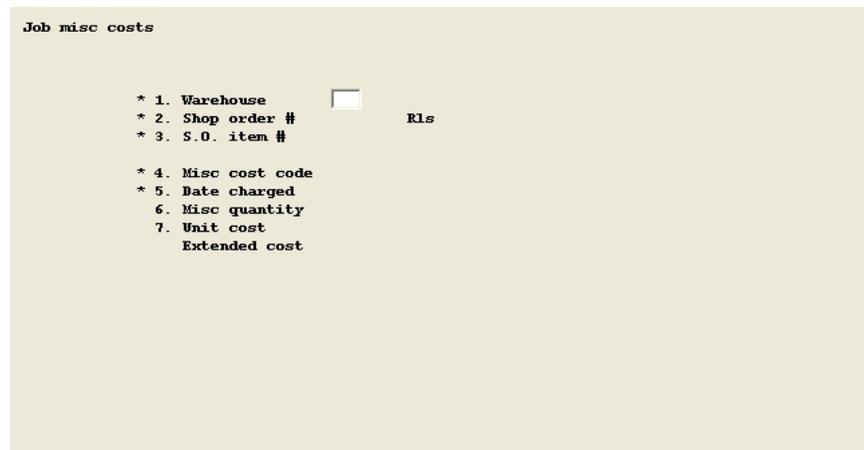
ENTERING JOB MISCELLANEOUS COSTS

Use this function to post or modify non-purchased miscellaneous costs. Purchase order invoice charges classified as Miscellaneous Costs should be entered with "Job P.O. invoices", or with the invoice entry program in Purchase Order Processing.

New entries for non-purchased miscellaneous cost charges to jobs are posted "on-line" as you complete each transaction.

Select

Job misc costs from the M/J menu.



```
Job misc costs

* 1. Warehouse      
* 2. Shop order #   Rls
* 3. S.O. item #
* 4. Misc cost code
* 5. Date charged
* 6. Misc quantity
* 7. Unit cost
   Extended cost
```

Enter the following fields:

1. Warehouse

Entry Format: Up to 2 alphanumeric characters

Default: Displays previous transaction entry, if any.

2. Shop order

Entry Format: Up to 6 alphanumeric characters.

Validation: The combination of Shop Order Number and Warehouse must match a Job Master record on file.

Rls

Entry Format: Up to 2 numeric digits, or space, or <F1> to retrieve the next record on file for the Warehouse and Shop Order.

Validation: When adding a transaction, the combination of Shop Order Number, Release Number and Warehouse must match an open Shop Order on file.

3. S.O. item

Entry Format: Up to 15 alphanumeric characters, or <F1> to consecutively display manufactured Item Numbers for the Shop Order Number, Release Number, and Warehouse you entered.

Validation: All of the Shop Order identification fields, including this entry, must match an open Shop Order on file.

4. Misc cost code

Entry Format: Up to 5 alphanumeric characters, or <F1> to search for the next Misc. Cost Code on file for the S.O.

Validation: Must match a Misc. Cost Code estimate record on file for the Shop Order.

If Purchase Order costs may be charged to the Misc. Cost Code, a message warns you of this condition and asks if you wish to continue entering a non-P.O. charge for the code.

5. Date charged

Entry Format: 6 numeric digits in MMDDYY format, or

<F1> to retrieve the next detail transaction already on file for the Shop Order and Misc. Cost Code.

Default: System Date displays as the default entry.

Comments: To retrieve a previously entered record, you must use <F1> at this position. This program allows entry of multiple transactions for the same Shop Order, Cost Code, and Date. If you don't use <F1>, the program assumes you are adding a record.

6. Misc qty

Entry Format: Up to 6 numeric digits plus 3 decimals.

7. Unit cost

Entry Format: <F1> to change the default displayed.

When overriding the default, you are allowed to enter up to 5 numeric digits plus 4 decimals, or press <F1> again to enter Extended Cost.

Comments: When you enter Unit Cost, the program calculates Extended Cost. When you enter Extended Cost, Unit Cost is automatically calculated.

"Before" and "After" transaction totals of Misc. Quantity and Misc. Cost are displayed for the Shop Order and Misc. Cost Code.

Job Billings

This chapter contains the following topics:

[Entering Job Billings](#)

ENTERING JOB BILLINGS

If you do not use Customer Order Processing to automatically post billings to jobs, you may use this function to enter job billing information. Billing transactions entered here only post to Manufacturing Job Costing files.

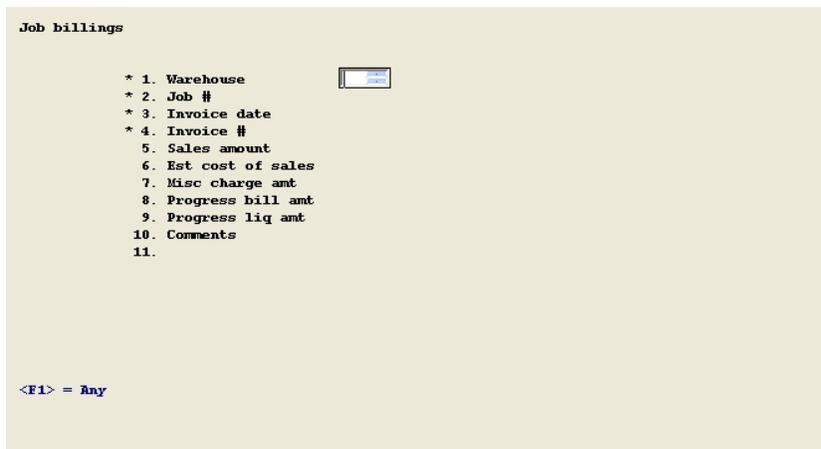
If installed on your system, it is desirable to use Customer Order Processing to automatically post job billing data. When you add a Job Master, enter the Sales Order Number and answer Y to "Post all billings to job?". If you create Shop Orders and Job masters with the Sales Order entry program, this field is automatically set to "Y".

New entries for job billings are posted "on-line" as you complete each transaction. Previously entered transactions, including any automatically posted by Customer Order Processing, may be retrieved and changed or deleted. Any data maintenance performed with this program only updates Job Costing files, and does not automatically update files from other manufacturing or accounting applications.

Select

Job billings from the M/J menu.

The following screen displays:



Enter the following fields:

1. Warehouse

Entry Format: Up to 2 alphanumeric characters, or <F1> = "Any".

Default: Displays previous transaction entry, if any.

2. Job

Entry Format: Up to 6 alphanumeric characters, or <F1> to retrieve the next open Job Number.

Validation: The combination of Warehouse and Job Number must match a Job Master on File, in which case the Customer Name and Sales Order Number (if specified) are displayed from the Job Master.

If you use PBS Manufacturing Customer Order Processing and the Job Master indicates that all job billings are automatically posted by the C/O package, a message warns you about this condition and asks if you wish to proceed with the entry.

3. Invoice date

Entry Format: 6 numeric digits in MMDDYY format, or <F1> to retrieve the next detail transaction already on file for the Job Number and Warehouse.

4. Invoice #

Entry Format: Up to 6 numeric digits.

5. Sales amount

Entry Format: Up to 8 numeric digits plus 2 decimals, with an optional minus sign, or zero.

Comment: A Credit Memo for a sales amount is designated by a negative value.

6. Est cost of sales (Estimated cost of items shipped)

Entry Format: Up to 8 numeric digits plus 2 decimals, with an optional minus sign, or zero.

Validation: If the previous entry of Sales Amount is a non-zero value, any non-zero entry in this field must have the same sign as the Sales Amount (an implied plus, or a minus sign).

7. Misc charge amt

Entry Format: Up to 7 numeric digits plus 2 decimals, with an optional minus sign, or zero.

Comment: A Credit Memo for a miscellaneous charge amount is designated by a negative value.

You are allowed to enter the next two fields only if the answer to "Progress bill some jobs ?" is Y in M/J Control Information. Otherwise, "Not applicable" is displayed at those entry positions and they are bypassed by the program.

8. Progress bill amt

Entry Format: Up to 7 numeric digits plus 2 decimals, or zero.

Comment: Represents a job progress billing amount, invoiced in advance of finished goods shipment. Suppliers should charge progress billings to a liability account, representing cash advances from customers. The liability is later "liquidated" as a subsequent customer billing credit, usually offset against the gross finished goods billing amount at time of shipment.

9. Progress liq amt

(Progress liquidation amount)

Entry Format: Up to 7 numeric digits plus 2 decimals, or zero.

Validation: Must not exceed the absolute value of the previous Sales Amount entry, but the sign must be opposite to the sign of the Sales Amount value.

For example, if Sales Amount is 1,000.00, the valid range of Progress Liquidation Amount is between -1,000.00 and zero. Also, the Liquidation Amount should not exceed the job's Progress Billing Balance before this transaction.

Comment: Represents a progress billing liquidation amount, netted against the gross billing for a finished goods shipment.

10.-11. Comments

(Billing transaction comments)

Entry Format: Up to 2 lines of 30 alphanumeric characters each, or Blank.

"Before" and "After" transaction totals of Sales, Estimated Cost Of Sales, Miscellaneous Charges billings, and Progress Balance are displayed for the job. Progress Balance is the net of the total Progress Billings to date and total Progress Liquidations to date.

Interfacing Customer Order Processing

To accomplish automatic posting of job billings from PBS Manufacturing Customer Order Processing, you must have that package installed. When you add a Job Master, enter the Sales Order Number and answer Y to "Post all billings to job ?", or add the Job Master and Shop Orders with the Sales Order entry program. You may only interface one Customer Sales Order Number to each Job Number. Since Customer Order Processing allows you to enter multiple line items, split deliveries, and Miscellaneous Charges on a Sales Order, this provides the capability to invoice everything for a given job with a single Sales Order.

You may also make progress billings and apply progress billing liquidations with the PBS Manufacturing Customer Order order entry and billing programs. To handle the progress billing interface, answer Y to "Progress bill some jobs ?" and then specify the Progress billing Liability Account Number in M/J Control Information.

You may use a "Miscellaneous Item Number" (Item Number beginning with the * character), for a Progress Billing line item on your Sales Order. First use Inventory Management to establish an Item Master record for that Misc. Item Number. Enter Y to "Is Item Sold", a zero Selling Price, and a Product Category Code representing "Progress Billing" in that Item Master. In the "Sales accounts" function in Customer Order Processing, reference the Product Category for Progress Billing to the Progress Billing Liability Account (in the Sales Account Number field).

When you enter the Misc. Item Number for Progress Billing to the Sales Order, the program will prompt you to enter the Description, Quantity, Unit Price. Enter the progress billing Description. a quantity of 1, and the progress amount in Unit Price, and zero Unit Cost. Then select the Progress Billing line item for billing in the C/O "Billing" function.

You may enter a Progress Billing Liquidation amount as a negative Misc. Charge amount, and the Progress Billing Liability Account as the Misc. Charge Account Number, when you use "Select orders" in Customer Order Processing to bill a job. You may enter "Progress Billing Liquidation" in the first

Comments field on the Order Summary screen. This will print to the left of the Misc. Charge amount on the invoice.

Displays

This chapter contains the following topics:

<u>Job Order Estimates</u>
<u>Job Purchase Costs</u>
<u>Job Labor & Burden</u>
<u>Employee Labor</u>
<u>Job Miscellaneous Costs</u>
<u>Job Billings</u>
<u>Open Job Summary</u>
<u>Closed Job Summary</u>
<u>S.O. Material Requirements</u>
<u>Job Order Status</u>

JOB ORDER ESTIMATES

This program displays estimated costs on file for costed orders.

Select

Job order estimates from the *Displays* menu. The following screen displays:

```

Displays (Job order estimates)
Job #: 11      Ent date: 1/28/10  Customer:
Whse: Main    Req ship:
Sls ord #: "None"

S.O.-#  Item-#          Due-date    Quantity    Estim-unit-costs
11      6001             2/14/10    Order:      10.000    EACH Matl:
        HANDLE BLACK   Recvd:      0           Outs:      .00
        O/C: Open      Labor:      .4050
        Est unit labor hrs: .027      Burd:      .5063

11      MLEW-2          5/20/10    Order:      10.000    EACH Matl:
        WAGONS        Recvd:      0           Outs:      .00
        O/C: Closed   Labor:      .3367
        Est unit labor hrs: .034      Burd:      .4209

Display more ? 
    
```

Enter the following fields:

Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

Starting Job

Up to 6 alphanumeric characters, or <F1> = "All"

The program displays the estimates summary list for Job Orders in the selected range, if any. If the list of shop orders for a job is longer than one screen, you are prompted to press ENTER to continue the list. If there are additional jobs on file matching your entries, the program asks if you wish to "Display more?".

For each job, Job Master summary information is displayed followed by this Shop Order information:

S.O.-#

Shop Order Number.

Release Number, if applicable.

Item-#

Item Number.

Item description.

Due-date

Due Date.

Est unit labor hrs

Estimated Unit Labor Hours.

Quantity

Order:

Quantity Ordered.

Recvd:

Quantity Received.

O/C:

Open or Closed status.

Estim-unit-costs

Matl:

Estimated Unit Material Cost.

Outs:

Estimated Unit Outside Cost.

Labor:

Estimated Unit Labor Cost.

Burd:

Estimated Unit Burden Cost.

Misc:

Estimated Unit Miscellaneous Cost.

JOB PURCHASE COSTS

This program displays a list of any job actual purchase costs on file for a requested Shop Order and purchase Cost Type.

Select

Job purchase costs from the *Displays* menu. The following screen displays:

Displays (Job purchase costs)

Cost type

Warehouse	S.O. #	Rls	Item #
-----------	--------	-----	--------

P = Purchased O = Outside process M = Misc cost S = Stock issues

Enter the following fields:

Cost type

P = Purchased material (invoice charges), or **O** = Outside process (invoice charges), or **M** = Misc cost (invoice charges), or **S** = Stock issues (of purchased material exceeding invoiced quantity and dollars)

Warehouse

Up to 2 alphanumeric characters

S.O.

Up to 6 alphanumeric characters.

Rls

Up to 2 numeric digits, or space.

Item

Up to 15 alphanumeric characters, or press <F1> to consecutively display parent Item Numbers for the Shop Order until you find the item you want.

The program then displays a list of the matching purchase cost detail, or informs you that no records on file match your entries.

Information displayed for purchase Cost Types other than Stock Issues is:

Inv-date

Invoice Date.

P.O. item #

Item Number for the Purchase Order line, followed by Item Description, or indication of a "Freight or misc charge" amount on the P.O.

P.O. #

Purchase Order Number

Rls

P.O. Release Number.

Line

P.O. Line Number.

Stock qty

Stock or misc. charge quantity of the P.O.

Misc qty

line item.

Actual-amt Actual invoice amount.

Inv#

Invoice Number.

Vendor

Vendor Name.

M-code

Miscellaneous cost code, displayed for Misc. Costs.

Shop Order purchases total amount for the Cost Type is displayed at the end of the Purchase Orders Cost list.

If the requested Cost Type is Stock Issues, data displayed is:

Component item #

Component material Item Number and Description.

Qty required

Quantity required from Shop Order Material record.

Unit

Stock Unit of Measure.

Issues qty

Quantity issued to-date for the Shop Order.

Issues cost

Costed value of quantity issued

P.O. chrg qty

Quantity directly charged from P.O. invoices.

P.O. chrg cost

Amount directly charged from P.O. invoices.

Net stk qty used

Net Stock Quantity Used, calculated as the Issues Quantity less the P.O. Charge Quantity.

Net stk cost

Net Stock Issues Cost, calculated as the total Issues Cost less the P.O. Charge Cost.

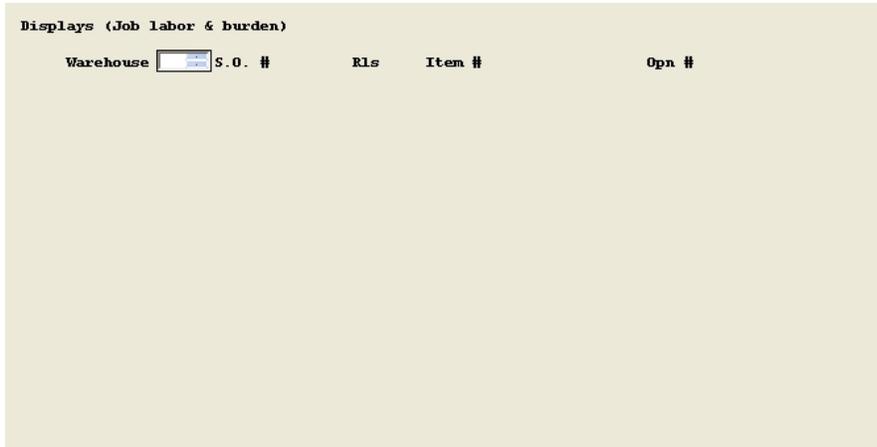
Total Net Cost of Stock Issues for the Shop Order is displayed at the end of the Stock Issues list. It is the sum of the Net Stock Costs for each component.

JOB LABOR & BURDEN

This program displays direct labor & burden summary and detail transactions by Shop Order Number.

Select

Job labor & burden from the *Displays* menu. The following screen displays:



Enter the following fields:

Warehouse

Up to 2 alphanumeric characters

S.O.

Up to 6 alphanumeric characters.

Rls

Up to 2 numeric digits, or space.

Item

Up to 15 alphanumeric characters, or <F1> = search for next Item Number for the order.

Opn

Up to 3 numeric digits, or <F1> = "All".

The following operation summary data are displayed for Shop Order Labor & Burden records on file that match your entries:

Opn

Operation Sequence Number.

Wrk-ctr

Work Center Number.

Operation-description

Quantity-run

Cumulative to date quantities for the order, in

Rework-qty

Stock Units.

Actual-lab-hrs

Actual cumulative labor hours reported to date.

Run

Run hours.

Setup

Setup hours.

Dir-lab-\$

Direct Labor Dollar Amount to date.

Burden-\$

Burden Dollar Amount to date.

Shop Order totals of Labor Hours, Direct Labor Dollars, and Burden Dollars are displayed , after which the program asks if you want to display detail transactions for each operation. Answer Y or N. When detail transactions are requested, you are prompted to enter the Operation Number for which you wish to see detail information.

EMPLOYEE LABOR

This program displays labor transactions by Employee Number and Date, with daily hour and direct labor utilization totals for the Employee.

Select

Employee labor from the *Displays* menu. The following screen displays:

Displays, other (Employee labor)										
		Employee # 1		JOHN RAMONE		Start date 1/05/05				
Date	Start	End	Lab-hrs	Exc	S.O.-#	Item-#	Run-qty	Opn Rlt	S/R	Dir-lab-\$
							Wrk-ctr			Burden-\$
11/20/09	11:30A	4:00P	4.500		103	2000		10	R	81.00 L
							26	WELD		121.50 B
	4:31P	5:45P	1.233		103	2000		30	R	14.80 L
							36	PB		18.50 B
	4:28P	4:31P	.050		103	2000		10	R	.90 L
							10	WELD		1.35 B
5.783 hrs for day;							5.783 direct hrs;	100.0 %	direct	
12/02/09	8:00A	8:30A	.500		105	2000		10	R	9.00 L
							2	WELD		13.50 B
	2:26P	2:30P	.067		105	2000		10	R	1.21 L
							6	WELD		1.82 B
.567 hrs for day;							.567 direct hrs;	100.0 %	direct	
1/13/10	1:56P	1:58P	.033		100	1000		10	R	.50 L
							1	P110		.63 B
Display more ? <input type="checkbox"/>										

Enter the following fields:

Employee

Up to 4 numeric digits, or Blank = look up by name.

If you use the name lookup option, enter part or all of the Employee Name as it appears in the Employee File. The program will then display the first full Employee Name on file, if any, matching your entries. You may select that record or press <F1> to find more matching records.

Start Date

6 numeric digits in MMDDYY format.

The following data are displayed for labor detail records on file that match your entries:

Date

Work Date.

Start

Start Time.

End

End Time.

Lab-hrs

Labor Hours.

Exc

Labor Exception Code.

S.O.-#

Shop Order Number, and optional Release Number.

Item-#

Item Number.

Run-qty

Run Quantity.

RW after the value indicates a Rework Quantity.

SC after the value indicates a Scrap Quantity.

Opn Alt

Operation Sequence Number and optional Alternate.

Wrk-ctr

Work Center Number.

S/R

S = Setup Hours, or R = Run Hours.

Dir-lab-\$

Direct Labor Dollar Amount.

Burden-\$

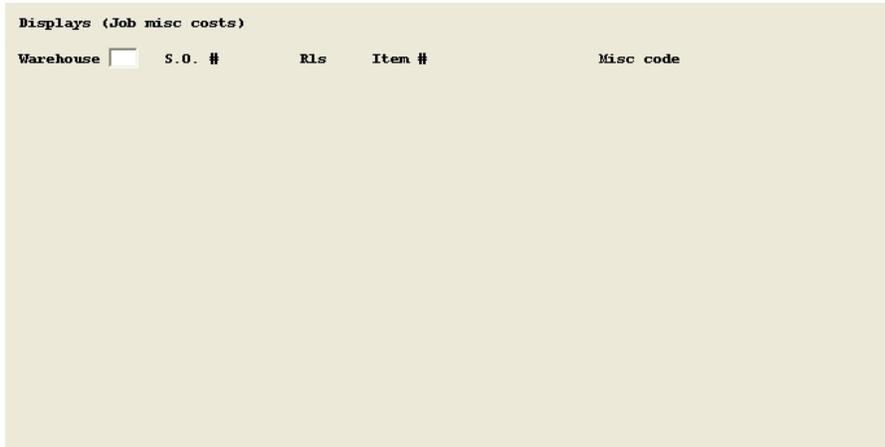
Burden Dollar Amount.

JOB MISCELLANEOUS COSTS

This program displays a list of any actual miscellaneous cost charges on file for a requested Shop Order and Miscellaneous Cost Code.

Select

Job misc costs from the *Displays* menu. The following screen displays:



Enter the following fields:

Warehouse

Up to 2 alphanumeric characters

S.O.

Up to 6 alphanumeric characters.

Rls

Up to 2 numeric digits, or space.

Item

Up to 15 alphanumeric characters, or <F1> to search parent Item Numbers for the Shop Order.

Misc code

Up to 5 alphanumeric characters, or <F1> = "All".

Summary cost information displayed is:

Misc code

Misc. Cost Code.

Description

Misc. Cost Code Description.

Actual quantity

Actual quantity of misc. units.

Unit

Unit of measure for misc. quantity.

Actual total cost

Actual total cost of misc. units.

Charge P.O.'s ?

Y or N, indicates if P.O. charges are allowed for the Misc. Cost Code.

After the summary list is displayed, you are asked if you want to display miscellaneous cost detail transactions for the order. If you answer Y, the data you enter are:

Misc code

Up to 5 alphanumeric characters, or <F1> to search for the next Misc. Cost Code on file for the order.

The following detail transaction information is displayed from records matching your entries:

Date

Transaction Date.

Actual-qty

Actual quantity (In units shown next to the Misc. Code).

Actual-amt

Actual extended cost amount.

P.O.-#

Purchase Order Number, if applicable.

RI

Purchase Order Release, if applicable.

Line

Purchase Order Line, if applicable.

Inv-#

Vendor Invoice Number, if applicable.

Vendor-name

Vendor Name, if applicable.

Misc. Cost Code quantity and amount totals for the Shop Order are displayed after the detail transaction lines.

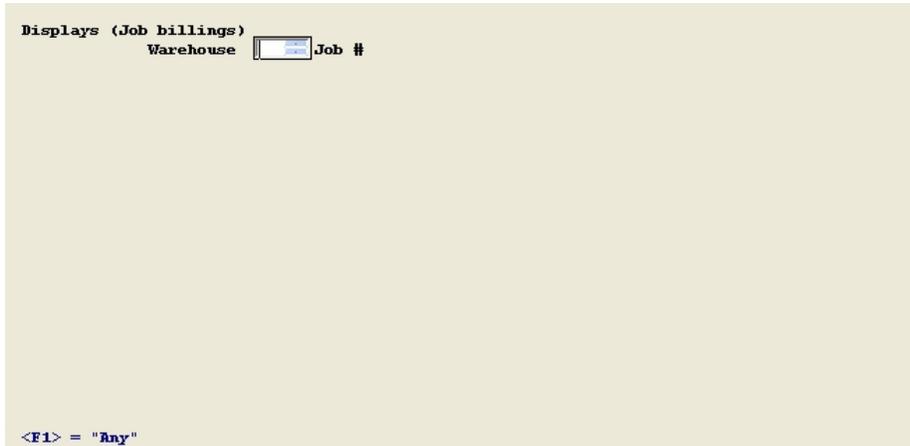
When you are finished displaying detail transactions, you may exit the screen when the cursor is at the Misc. Code entry position, and the program will return to the first summary display screen.

JOB BILLINGS

This program displays a list of job billing transactions on file for a requested Job.

Select

Job billings from the *Displays* menu. The following screen displays:



Enter the following fields:

Warehouse

Up to 2 alphanumeric characters, or <F1> = "Any".

Job

Up to 6 alphanumeric characters.

If you specified a valid open Job Number and Warehouse, Customer Name and Quoted Sales Value (if any) are displayed from the Job Master. This is followed by a chronological list of job billings, or a message telling you that there are no job billings on file.

Job billing information displayed is:

Invc-date

Invoice Date.

Invc-#

Invoice Number.

Sales-amount

Sales Amount invoiced.

Est COS

Estimated Cost of Sales amount.

Misc-chn-amt

Miscellaneous Charge amount invoiced.

Progr-bill

Progress Billing amount invoiced.

Progr-liq

Progress Liquidation amount applied to Sales Amount.

Src

Source of billing entry (CO = Customer Order Processing,

MJ = Manufacturing Job Costing)

Job totals of the detail billing transactions are displayed at the end of the list.

OPEN JOB SUMMARY

Use this program to view cost and hours summary information for the Shop Orders related to an open Job Number that you request.

Select

Open job summary from the *Displays* menu. The following screen displays:

Displays (Closed job summary)						
Warehouse	Main	Item #	1000	Display by Item #		Starting due date 1/01/10
Item-#	S.O.-#	Rls	Whse	Due-date	Qty-ordered	Customer-name
Description				Close-dte	Qty-recvd	Cust-PO-#
1000	180		Main	5/03/10	75.000	Undefined
WAGON BODY RED				4/29/10	75.000	
	Est-tot-cost	Actual-total	Est-unit-cost	Closed-order-actual-unit-cost		
	for-recvd-qty	cost	for-ord-qty	For-ord-qty	For-recvd-qty	
Material:	.00	831.80	.00	11.0907	11.0907	
Outside:	.00	.00	.00	.00	.00	
Labor:	.00	.00	.00	.00	.00	
Burden:	.00	.00	.00	.00	.00	
Misc:	.00	.00	.00	.00	.00	
Total cost:	.00	831.80	.00	11.0907	11.0907	
Direct hours:	.000	.000	.000	.000	.000	

Enter the following fields:

Warehouse

Up to 2 alphanumeric characters, or <F1> = "Any".

Job

Up to 6 alphanumeric characters.

If you specified a valid open Job Number and Warehouse, the job's Entry Date, Customer Name, Requested Ship Date, Sales Order Number, Customer P.O. Number, and Quote Value are displayed, followed by a list of Shop Orders for the job. Information displayed for each Shop Order is:

Rls

Shop Order Release Number, if any.

Item

Item Number.

Description

Item Description.

Open/Clsd

Open or Closed status.

Due-date

Due Date of order.

Qty-ordered

Quantity ordered.

Qty recvd

Quantity received (completed) to date.

Est-tot-cost-for-ord-qty

Estimated total cost for order quantity.

Actual-total-cost

Actual total cost to date.

Shop Order estimated and actual totals displayed are:

Matl:

Purchased material cost, including stock issues.

Outs:

Outside processing (subcontract) cost.

Labr:

Direct Labor cost.

Burd:

Burden cost.

Misc:

Miscellaneous costs.

Total cost:

Total of Material, Outside, Labor, Burden, and Miscellaneous Costs.

Direct hrs:

Direct labor hours.

The program will ask "Display more?". Answer Y to display additional Shop Orders on file for the job, or to display job summary totals after all of the job's Shop Orders have been listed. Total number of open and closed Shop Orders on file for the job, and the following totals are shown on the job summary screen.

Job-total-actual-costs

Purch material:

Purchased material cost, including stock issues.

Outside process:

Outside processing (subcontract) cost.

Direct labor:

Direct Labor cost.

Burden:

Burden cost.

Misc costs:

Miscellaneous costs.

Total cost:

Total of Material, Outside, Labor, Burden, and Miscellaneous Costs.

Direct hours:

Direct labor hours.

Job billing totals shown are:

Progress bill balance:

Net of progress billings less progress liquidations. Only displays if not zero.

Job sales billed:

Job sales amount billed.

Misc charge billed:

Job miscellaneous charge amount billed.

Total billed:

Sum of the Progress Bill Balance, Sales Amount Billed, and Misc. Charge Amount Billed.

Est COS to-date:

Estimated Cost of Sales to-date.

If all Shop Orders for the job are closed, the following profitability values are also displayed:

Total margin:

Total Billed less Estimated Cost of Sales.

Margin pct:

Margin Percent of Total Billed.

Earned/hour:

Total Billed less Purchased Material Cost less Outside Processing Cost less Misc. Costs, divided by Direct Hours.

CLOSED JOB SUMMARY

Use this program to view estimated vs. actual cost and hours summary information for closed Shop Orders, that you request by Job Number and Release or by Item Number.

Select

Closed job summary from the *Displays* menu. The following screen displays:



Enter the following fields:

Display by

I = Item Number, or J = Job Number.

Warehouse

Up to 2 alphanumeric characters, or <F1> = "Any".

If you display by Item Number, you enter:

Item

Up to 15 alphanumeric characters.

Starting due date

6 numeric digits in MMDDYY format, or <F1> = "Earliest".

If you display by Job Number, you enter:

Job

Up to 6 alphanumeric characters.

RIs

Up to 2 numeric digits, or Blank, or <F1> = "All".

Information displayed for each Shop Order within the requested range includes:

Item #

Item Number.

Description

Item Description.

S.O. #

Shop Order Number.

Rls

Shop Order Release Number, if any.

Whse

Warehouse.

Due-date

Due Date of order.

Close-date

Closed Date.

Qty-ordered

Quantity ordered.

Qty recvd

Quantity received (completed).

Customer name

Cust PO #

Customer purchase order number.

Est-tot-cost-for-recvd-qty

Estimated total cost for order quantity.

Actual-total-cost

Actual total cost.

Est-unit-cost-for-ord-qty

Estimated unit cost for order quantity.

Closed-order-actual-unit-cost

For-ord-qty

Actual unit cost for order quantity.

For-recvd-qty

Actual unit cost for received quantity.

Closed Shop Order estimated and actual values are displayed for:

Material:

Purchased material cost, including stock issues.

Outside:

Outside processing (subcontract) cost.

Labor:

Direct Labor cost.

Burden:

Burden cost.

Misc:

Miscellaneous costs.

Total cost:

Total of Material, Outside, Labor, Burden, and Miscellaneous Costs.

Direct hours:

Direct labor hours.

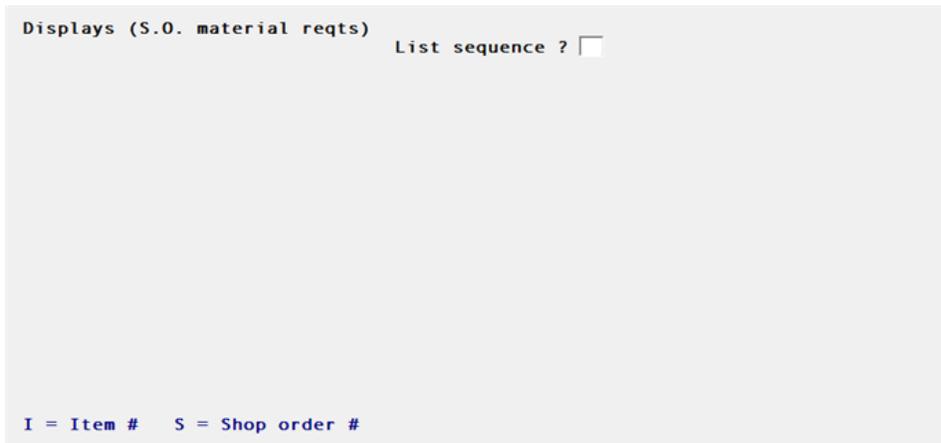
If there are more orders within the requested range, or if you are displaying by Job and are not yet at the job summary screen, the program will ask "Display more ?". Answer Y to display additional Shop Orders on file, or to display job summary totals including the number of open and closed Shop Orders on file for the job. If all Shop Orders for a requested Job and Release are closed, job total actual costs by Cost Type and total direct labor hours also display on the job summary screen.

S.O. MATERIAL REQUIREMENTS

Use this program to display the issue status of component material requirements for parent Shop Orders. You may request a screen listing of all requirements for a specific Component Item Number, which may originate from several parent orders. You may alternatively request a list of all component requirements for a specific parent Shop Order.

Select

S.O. material reqts from the *Displays* menu. The following screen displays:



```
Displays (S.O. material reqts)
List sequence ? 

I = Item #   S = Shop order #
```

Enter the following fields:

List Sequence

I to list all requirements for a specified component Item Number, or **S** to list all components required for a specified Shop Order.

Component item

If **I** was entered above, you are prompted to enter a specific component Item Number.

Enter spaces to select by description and search for an Item Number by entering any portion of the first 30 characters of its description.

S.O. # and RIs

If **S** was entered above, you are prompted to enter S.O. Number, Release Number, and Item Number.

After you enter a specific S.O. Number, you are requested to enter Release Number.

Item

Enter the Shop Order parent Item Number, or press <F1> to search. If you use <F1>, the program will display the Item Number from the first Shop Order on file that matches the S.O. Number and Release Number you entered and ask "Right Item #?". If your answer is N, the program looks for a another

matching Shop Order for a different Item Number. A Y answer means the Item Number entry is completed.

Whse

The default is either the Primary Warehouse for the requested Component Item or the Warehouse in the Shop Order record, depending on the List Sequence selected.

Information listed from Shop Order Material Requirements records is:

SO # & Rls &

Parent Shop Order identification, only displayed

Parent item #

when listing all requirements for a specified Component Item Number.

Comp item #

Component Item Number, only displayed when listing all records for a specific Shop Order.

Qty-per

Component quantity per parent.

SA-pct

Component Scrap Allowance Percent, if not zero.

Qty-reqd

Component total Quantity Required for the parent Shop Order.

WIP-scrap

Component Quantity Scrapped on the parent order.

Qty-issued

Component Quantity Issued to the parent order.

Reqt-bal

Quantity Required minus Quantity Issued.

Due-date

Due date of the component requirement quantity.

PL

Y or N, indicating if component item is printed on Pick Lists.

C Item Control Method (N = No control, R = Regular control, L = Lot # control, S = Serial # control). If not controlled, issues will not be reported.

JOB ORDER STATUS

Use this program to display the status of Shop Orders for requested open jobs, to determine if the job's Shop Orders are closed.

Select

Job order status from the *Displays* menu. The following screen displays:

Insert Screen.

Enter the following fields:

Warehouse

Up to 2 alphanumeric characters, or <F1> = "Any".

Job

Up to 6 alphanumeric characters.

If you specified a valid open Job Number and Warehouse, the Shop Orders for the job are listed, with the following information displayed for each order:

S.O.-#

Shop Order Number. If not blank, Release Number appears below S.O. Number.

Item-#

Item Number. Item Description displays below the Item Number

Due-date

Shop Order Due Date.

Quantity

Order

Quantity Ordered.

Recvd

Quantity Received to date.

Open/Clsd

Open or Closed status.

Reports, Job Cost

This chapter contains the following topics:

<u>Job Order Estimates</u>
<u>Job Purchase Costs</u>
<u>Job Labor and Burden</u>
<u>Employee Labor</u>
<u>Indirect Labor</u>
<u>Job Miscellaneous Costs</u>
<u>Job Billings</u>
<u>Open Job Summary</u>
<u>Purchase Cost Variances</u>
<u>Labor and Burden Variances</u>
<u>Miscellaneous Cost Variances</u>
<u>Job Work-In-Process</u>
<u>Closed Job Summary</u>

JOB ORDER ESTIMATES

This program lists cost estimates on file for costed orders.

See a [Job Order Estimates List](#) example in the Sample Reports appendix.

Select

Job order estimates from the *Reports, job cost* menu.

The following screen displays:

```
Reports, job cost (Job order estimates)

Please enter:

1. Warehouse
2. Starting job #
3. Ending job #
4. Starting entry date
5. Ending entry date
6. Print labor & misc
   estimates detail ?

<F1> = "All"
```

Enter the information as follows:

1. Warehouse

Up to alphanumeric characters, or <F1> = "All"

2. Starting job

Up to 6 alphanumeric characters, or <F1> = "All"

3. Ending job

Blank = Starting value.

4. Starting entry date

Enter in MMDDYY format, or <F1> = "All"

5. Ending entry date

Blank = Starting value.

6. Print labor & misc estimates detail ?

Y or N

JOB PURCHASE COSTS

Select this program to print a list of job actual purchase costs on file for a requested Shop Order and purchase Cost Type.

Select

Job purchase costs from the *Reports, job cost* menu.

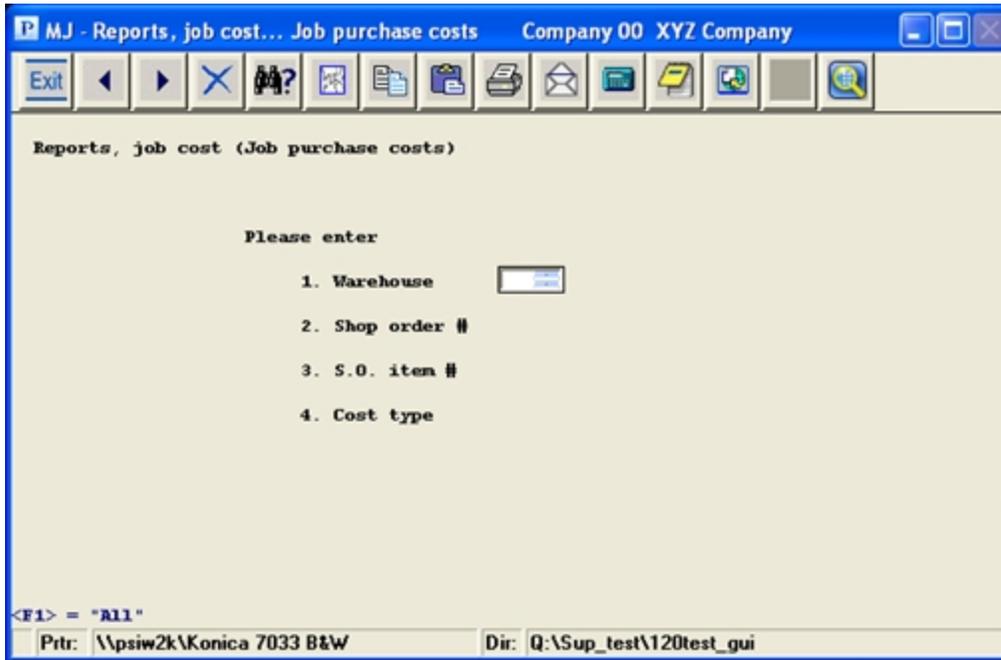
Graphical Mode

The following screen displays:

The screenshot shows a graphical user interface window titled "Reports, job cost (Job purchase costs) Company 00 XYZ Co...". The window has a menu bar with "File", "Options", "Tools", and "Help". The main area is titled "Job purchase cost criteria" and contains several input fields: "Warehouse" with a text box and a selection icon; "Shop order #" with a text box and a selection icon; "Release #" with a text box; "Item #" with a text box and a selection icon; and "Cost type" with a dropdown menu set to "All". At the bottom, there is a status bar showing "<F1> = 'All'" and two buttons: "OK" and "Cancel".

Character Mode

The following screen displays:



Enter the information as follows:

Warehouse

Up to 2 alphanumeric characters, or

<F1> = "All"

Shop order #

Up to 6 alphanumeric characters.

Release #

<F1> = "All"

Item #

Up to 6 alphanumeric characters, or <F1> = "All"

Cost type

Select either Purchased material, Outside process, Misc. costs, Stock issues or <F1> = "All".

JOB LABOR AND BURDEN

This report lists job actual labor and burden by Shop Order and Operation Sequence Number, with an option to print a list of employee labor detail for each operation. Operation to-date totals printed include Run and Rework Quantities, Setup and Run Labor Hours, and Direct Labor and Burden Costs. Total hours, labor costs, and burden costs are also summarized by Shop Order, and by Job (if more than one Shop Order is listed for the Job).

Select

Job labor & burden from the *Reports, job cost* menu.

The following screen displays:

```
Reports, job cost (Job labor & burden)

Please enter

1. Warehouse      [ ]
2. Shop order #
3. Item #
4. Operation seq #
5. Print operation detail transactions ?

<F1> = "All"
```

Enter the information as follows:

1. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

If you have more than one warehouse (or plant) and the job to be listed consists of several Shop Orders made in different warehouses, select "All" warehouses.

2. Shop order

Up to 6 alphanumeric characters, or <F1> = "All"

RIs

Up to 2 numeric digits, or <F1> = "All"

3. Item

Up to 15 alphanumeric characters, or <F1> = "All"

4. Operation seq

Up to 3 numeric digits, or <F1> = "All"

5. Print operation detail transactions ?

Y or N.

Answer Y if you want a list of employee detail transactions, by Shop Order Operation, to print after the Operation summary.

EMPLOYEE LABOR

This report lists direct and indirect labor transactions, by Employee Number and Date. Employee detail includes hours by Shop Order or indirect labor Exception Code, and the costed labor & burden amounts for direct labor transactions.

Employee total hours, total direct hours, and direct labor percentage are printed by date and in total for each employee.

Select

Employee labor from the *Reports, job cost* menu.

The following screen displays:

```
Reports, other (Employee labor)

Please enter:

1. Warehouse
2. Starting employee #
3. Ending employee #
4. Starting date
5. Ending date

<F1> = "All"
```

Enter the information as follows:

1. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

If you have more than one warehouse (or plant) and some employees split their time between warehouses, you should ask for "All" warehouses when printing a list for those employees.

2. Starting employee

Up to 4 numeric digits, or <F1> = "All".

3. Ending employee

Blank = Starting value.

4. Starting date

Enter in MMDDYY format.

5. Ending date

Blank = Starting value.

INDIRECT LABOR

This report lists indirect labor hours by indirect Labor Exception Code and date, for a range of dates that you specify. You have the option of printing hour totals for each date or the detail charges by employee within each date. Total indirect hours for the requested time period are summarized for each Exception Code.

Select

Indirect labor from the *Reports, job cost* menu.

The following screen displays:

```
Reports, other (Indirect labor)

Please enter

1. Warehouse
2. Starting exception code
3. Ending exception code
4. Starting date
5. Ending date
6. Print employee detail ?

<F1> = "All"
```

Enter the information as follows:

1. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

2. Starting exception code

Up to 3 alphanumeric characters, or <F1> = "All"

3. Ending exception code

Blank = Starting value

4. Starting date

Enter in MMDDYY format.

5. Ending date

Blank = Starting Date.

6. Print employee detail ?

Y or N.

Answer Y if you want to print employee detail for each date, or N if you just want daily totals by Exception Code.

JOB MISCELLANEOUS COSTS

Use this program to print a summary list of job miscellaneous costs on file for a requested Shop Order and Misc. Cost Code, with an optional list of detail transactions.

Select

Job misc costs from the *Reports, job cost* menu.

The following screen displays:

```
Reports, job cost (Job misc costs)

Please enter

1. Warehouse      
2. Shop order #
3. Item #
4. Misc cost code
5. Print cost code detail transactions ?

<F1> = "R11"
```

Enter the information as follows:

1. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

2. Shop order

Up to 6 alphanumeric characters.

RIs

Up to 2 numeric digits, or Blank, or <F1> = "All"

3. S.O. item

Up to 15 alphanumeric characters, or <F1> = "All"

4. Misc cost code

Up to 15 alphanumeric characters, or <F1> = "All"

5. Print cost code detail transactions ?

Y or N.

Answer Y if you want to print the Job Open Orders Misc. Costs Detail list.

JOB BILLINGS

Use this program to print a billing list for a range of open jobs that you specify.

Select

Job billings from the *Reports, job cost* menu.

The following screen displays:

```
Reports, job cost (Job billings)

Please enter:

1. Warehouse
2. Starting job #
3. Ending job #

<F1> = "All"
```

Enter the information as follows:

1. Warehouse

Up to alphanumeric characters, or <F1> = "All"

2. Starting job

Up to 6 alphanumeric characters, or <F1> = "All"

3. Ending job

Blank = Starting value.

OPEN JOB SUMMARY

Use this program to print a summary of estimated vs. actual costs, by Shop Order and Cost Type, for a range of jobs.

Select

Open job summary from the *Reports, job cost* menu.

The following screen displays:

```
Reports, job cost (Open job summary)

Please enter:

1. Warehouse 
2. Starting job #
3. Ending job #

<F1> = "All"
```

Enter the information as follows:

1. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

2. Starting job

Up to 6 alphanumeric characters, or <F1> = "All", or F2 = "All completed jobs"

3. Ending job

Blank = Starting value.

PURCHASE COST VARIANCES

Use this program to report variances of estimated less actual material and outside processing costs, by Shop Order and Cost Type, for Shop Orders that you request. An actual cost transaction detail list may optionally be printed.

Select

Purchase cost variances from the *Reports, job cost* menu.

The following screen displays:

Purchase cost variance criteria

Warehouse

Shop order #

Release #

Item #

Print material & outside cost detail

<F1> = "All"

OK Cancel

Enter the information as follows:

Warehouse

Up to 2 alphanumeric characters, or <F1> = "All".

Shop order

Up to 6 alphanumeric characters.

Release

Up to 2 numeric digits, or Blank, or <F1> = "All".

Item

Up to 15 alphanumeric characters, or <F1> = "All".

Print material & outside cost detail

Check mark where checked is yes and unchecked is no. The default is unchecked.

If you check this box the Job Open Orders Purchase Costs list will print after the variance report for the requested orders.

LABOR AND BURDEN VARIANCES

Use this program to report variances of estimated less actual direct labor hours and direct labor and burden costs, by Shop Order and Operation, for Shop Orders that you request. An actual hours and cost transaction detail list may optionally be printed.

Select

Labor & burden variances from the *Reports, job cost* menu.

The following screen displays:

Reports, job cost (Labor & burden variances) Company 00 XYZ Company

File Options Tools Help

Labor & burden variance criteria

Warehouse

Shop order #

Release #

Item #

Operation seq #

Print operation detail transactions

<F1> = "All"

OK Cancel

Enter the information as follows:

Warehouse

Shop order

Up to 6 alphanumeric characters.

Release

Up to 2 numeric digits, Blank, or <F1> = "All"

Item

Up to 15 alphanumeric characters, or <F1> = "All"

Operation seq #

Up to 2 numeric digits, or <F1> = "All".

Print operation detail transactions

Check mark where checked is yes and unchecked is no. The default is unchecked.

If you check this box, the Job Open Orders Labor & Burden Costs Detail list will print after the variance report for the requested orders.

MISCELLANEOUS COST VARIANCES

Use this program to report variances of estimated less actual miscellaneous costs, by Shop Order and Misc. Cost Code, for Shop Orders that you request. An actual miscellaneous cost transaction detail list may optionally be printed.

Select

Misc cost variances from the *Reports, job cost* menu.

The following screen displays:

The screenshot shows a software window titled "Reports, job cost (Misc cost variances)" for "Company 00 XYZ Company". The window has a menu bar with "File", "Options", "Tools", and "Help". The main content area is titled "Misc cost variance criteria" and contains several input fields: "Warehouse" (with a dropdown icon), "Shop order #" (with a dropdown icon and two empty lines below), "Release #" (with a dropdown icon), "Item #" (with a dropdown icon and two empty lines below), and "Misc cost code" (with a dropdown icon). There is also a checkbox for "Print operation detail transactions". At the bottom left, it says "<F1> = \"All\"". At the bottom center are "OK" and "Cancel" buttons.

Enter the information as follows:

Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

Shop order

Up to 6 alphanumeric characters.

Release

Up to 2 numeric digits, Blank, or <F1> = "All"

Item

Up to 15 alphanumeric characters, or <F1> = "All"

Misc cost code

Up to 5 alphanumeric characters, or <F1> = "All"

Print operation detail transactions

Check mark where checked is yes and unchecked is no. The default is unchecked.

If you check this box, the Job Open Orders Misc. Costs Detail list will print after the variance report for the requested orders.

JOB WORK-IN-PROCESS

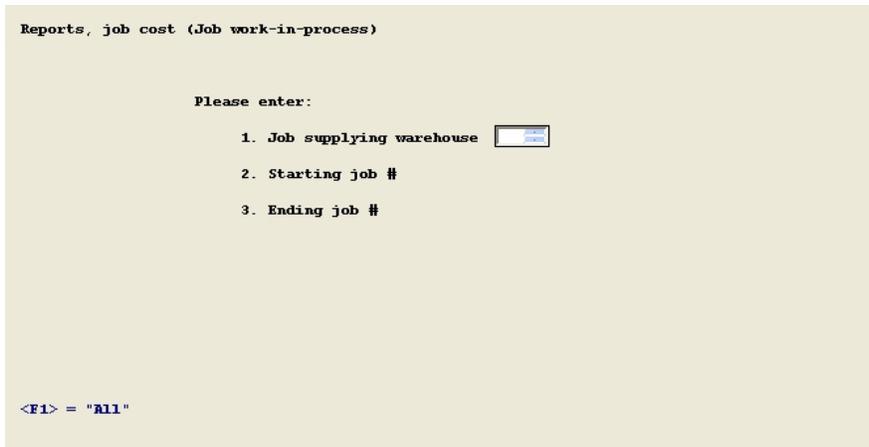
Use this program to print a report of estimated work-in-process inventory, at actual cost value, for a range of jobs that you request. The total actual costs accumulated for each job's Shop Orders reduced by the job's Estimated Cost of Sales to date. The resultant balance is the job's estimated work-in-process value.

To obtain a reasonably accurate WIP balance, all job shipments should be assigned an estimated cost before the billing is posted. If you use PBS Manufacturing Customer Order Processing, sales costing is done by assigning a total estimated Unit Cost to each customer order line item. Unit Cost is extended by the Quantity Shipped when you post invoices. If you use Manufacturing Job Costing to enter Job Billings, you enter the total estimated cost of sales for each billing transaction.

Select

Job work-in-process from the *Reports, job cost* menu.

The following screen displays:



```
Reports, job cost (Job work-in-process)

Please enter:

1. Job supplying warehouse 
2. Starting job #
3. Ending job #

<F1> = "All"
```

Enter the information as follows:

1. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

2. Starting job

Up to 6 alphanumeric characters, or <F1> = "All"

3. Ending job

Blank = Starting value.

CLOSED JOB SUMMARY

This program lists estimated and actual costs and hours summary information, by Shop Order and Cost Type, for closed jobs. The information may be requested by Job Number or by Item Number.

Select

Closed job summary from the *Reports, job cost* menu.

The following screen displays:

```
Reports, job cost (Closed job summary)

Please enter
1. Report by
2. Warehouse

I = Item #  J = Job #
```

Enter the information as follows:

1. Report by

I = Item Number, or J = Job Number.

2. Warehouse

Up to 2 alphanumeric characters, or <F1> = "All"

If you requested the report by Job Number:

3. Job

Up to 6 alphanumeric characters.

RIs

Up to 2 numeric digits, Blank, or <F1> = "All"

If you requested the report by Item Number:

3. Item

Up to 15 alphanumeric characters.

4. Starting due date

Enter in MMDDYY format, or <F1> = "Earliest"

Reports, Other

This chapter contains the following topics:

[S.O. Material Requirements](#)

[Job Labor Load](#)

S.O. MATERIAL REQUIREMENTS

Use this program to print a list of shop order material requirements in Component Item Number or in Shop Order Number sequence. Component total requirements and unissued requirement balances are listed for each using parent Shop Order. Warehouse total unissued balances by Component Item Number, for all using Shop Orders, are also printed when the report is run in Item Number sequence.

Select

S.O. material reqts from the *Reports, other* menu.

The following screen displays:

```
Reports, orders (S.O. material reqts)

Please enter:

1. Report sequence  
2. Starting
3. Ending
4. Starting warehouse
5. Ending warehouse

I = Component item #   S = Shop order #
```

Enter the information as follows:

1. Report sequence

I = Component Item Number, or S = S.O. Number.

2. Starting item

Requested entry is based on Sequence.

or

Starting S.O.

RIs #

3. Ending item

Requested entry is based on Sequence.

or

Blank = Starting value.

Ending S.O. #

Rls #

4. Starting warehouse

Up to 2 alphanumeric characters, or F1 = "All", or Blank = "Main".

5. Ending warehouse

Blank = Starting value.

The following entries are requested only if Sequence is I.

6. Starting S.O. #

F1 = "All"

Rls #

Up to 2 numeric digits or space.

7. Ending S.O. #

Blank = Starting value.

Rls #

Up to 2 numeric digits or space.

JOB LABOR LOAD

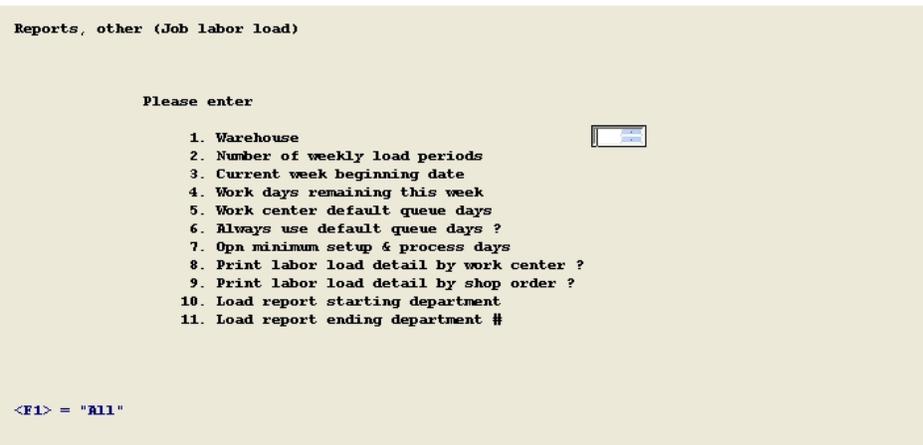
Use this program to print a summary report of timephased job labor load hours vs. Work Center capacity hours by week. Department totals for all Work Centers in each Department are also printed.

Optional detail load reports of the open operation hours by Work Center, and by Shop Order may also be printed after the summary listing. The detail listings also designate the customer, if any, from the Job Cost Master.

The following restrictions and assumptions apply to the reports:

- The same number of available Schedule Days in each week apply to all Work Centers. This is determined from the Schedule Exception Dates File maintained in Inventory Management.
- Work Center daily Labor Hour capacity defined in the Work Center records applies to all periods in the selected load planning horizon, up to a maximum of 60 weekly periods. If you use this program, you should define the Capacity Unit as Labor Hours in all Work Center records referred to in Shop Order Labor & Burden estimates.
- Only those open Shop Orders with labor estimates on the Shop Order Labor & Burden File, maintained in the Enter Job Orders program, will be included in reported labor load.
- The Due Date for each estimated Shop Labor Operation determines the weekly load period for the operation. Cumulative loads and capacities through each weekly period are shown on the summary.
- The Due Date for the last direct labor operation for an order is the Shop Order Due Date. Preceding operations are "set back" in time from the last operation, based on defined average Queue times at each operation's Work Center and the remaining labor setup and run time for each operation. Number of setup and run process days are determined by dividing the remaining operation labor time by the Work Center daily labor capacity. "Infinite capacity" is assumed to the extent that other operation loads in the same period are not considered when calculating the remaining process days for an operation - other loads are assumed to be reflected in the currently defined average Queue times.
- An operation is assumed completed when its reported total Run Quantity is not less than the Shop Order Quantity. Fractional run quantities may be reported in the Process Employee Labor function to indicate partial completions of large assemblies. Remaining run time hours is determined from the operation run quantity balance and the estimated labor run time per unit. Estimated setup hours are assumed to be completed if any Run Quantity has been reported for the operation.

Shop Floor Control will provide other capacity loading features such as varying the number of available schedule days by Work Center, varying a Work Center's defined daily capacity level by time period, and inclusion of Shop Orders that are not job costed in the reported loads. However, if you are a Job Shop that uses Job Costing for all Shop Orders you may find this program to be sufficient for labor planning and order scheduling or rescheduling.



The data you enter are:

1. Warehouse

Up to 2 alphanumeric characters, or F1 = "All".

2. Number of weekly load periods

Up to 2 numeric digits, between 1 and 60.

Any scheduled load hours preceding the current week will be reported as Past Due, and any scheduled load beyond the last week will be reported in a Beyond period.

3. Current week beginning date

6 numeric digits in MMDDYY format.

All other week beginning dates within the specified planning horizon will be calculated by the program.

4. Work days remaining this week

1 numeric digit, not greater than 7.

This value will be used as the number of remaining Schedule Days (capacity days) in the current week. For example, if you have a 5 day work week and are running the report on Wednesday morning, enter 3 as the remaining work days.

5. Work center default queue days

Up to 2 numeric digits plus 1 decimal, or zero.

This value will be used as a default for any operation Work Centers that do not have Average Queue days specified in the Work Center record.

Queue days are estimated wait time (backlog days) at the Work Center that will elapse before an available job can be started. It is used in determining scheduled Due Dates for open operations.

6. Always use default queue days ?

Y or N. Default displayed is N. Answer Y only if you wish the preceding entry to be used as an override value for all Work Centers.

Answer Y only if the current backlog is about equal in all defined Work Centers that have remaining work to be completed.

7. Opn minimum setup & process days

Up to 1 numeric digit plus 1 decimal, or zero.

This value will be used in determining operation lead time, only if it exceeds the calculated setup and run time remaining for the operation.

8. Print labor load detail by work center ?

Y or N. Answer Y if you want a report of the detail operation loads by Work Center to print after the load summary report.

9. Print labor load detail by shop order ?

Y or N. Answer Y if you want a report of the detail operation loads by Shop Order (first sorted by Warehouse and Shop Order Due Date) to print after the load summary report.

10. Load report starting department # ?

Up to 3 alphanumeric characters, Blank for N/A, or F1 = "All".

11. Load report ending department # ?

Blank = Starting value.

The Job Labor Load Summary Report has a column labeled "Open operation exceptions". This column contains counts, if any, of uncompleted operations by Work Center and Schedule Week that do not have time estimates on the Shop Order Labor Estimate records. It is an indication of additional load hours that may exist, but are not included on the report.

On the summary report "Cumulative Available Capacity Hours" by Work Center and week are the Cumulative Capacity Hours through that week less the Cumulative Load Hours. A negative Cumulative Available Capacity indicates that the Work Center is overloaded through that weekly period.

The Work Center Labor Load Detail list sequences the open shop order operations by Work Center and Operation Due Date.

The Shop Order Labor Load Detail list sequences the open shop order operations by Shop Order, Release, and Operation Number, after first sorting the shop orders by Warehouse and Shop Order Due Date.

Utility

This chapter contains the following topics:

<u>Purge Estimates/Quotes</u>
<u>Purge Employee Labor</u>
<u>Reset S.O. Labor and Burden</u>
<u>Reset S.O. Miscellaneous Costs</u>
<u>Reset Job Billings</u>

PURGE ESTIMATES/QUOTES

Use this program to purge (delete) all Estimate/Quote records with an Estimate Date through a specified calendar date.

Select

Purge estimates/quotes from the *Utility* menu.

The following screen displays:



```
Utility (Purge estimates/quotes)

Delete all estimates/quotes with estimate date thru 
```

Enter the information as follows:

Delete all estimates/quotes with estimate date thru _____

Enter the date as 6 numeric digits in MMDDYY format.

The program will ask "**Are you sure ?**". Answer N to cancel this procedure and exit; otherwise answer Y to delete the records. A message will inform you how many estimate/quote records have been deleted.

PURGE EMPLOYEE LABOR

Use this program to purge (delete) Employee indirect labor & closed job direct labor detail transactions with a Work Date through a calendar date that you specify.

The data you enter are:

**Delete employee indirect labor & closed job
direct labor detail transactions dated thru _____**

Enter the thru date as 6 numeric digits in MMDDYY format.

The program will ask "**Are you sure ?**". Answer N to cancel this procedure and exit; otherwise answer Y to delete the records. A message will inform you how many transactions have been deleted.

RESET S.O. LABOR AND BURDEN

RESET S.O. MISCELLANEOUS COSTS

RESET JOB BILLINGS

You will only need to use these functions on an exception basis. The programs should be run if:

1. You have restored the Shop Order Labor & Burden File, Employee Labor File, Shop Order Misc Cost File, Shop Order Purchase & Misc Cost File, Job Master File, or Job Billing File from a backup.
2. Or, you have selectively cleared out one or more of those files, using the Initialize Files utility.
3. Or, you know that you have lost some Job Costing records due to an unusual hardware problem.

This programs reset summary balances in selected Job Costing summary records to the sum of the balances in related detail files.

When you select the category of job data to be balanced, the programs display a brief description of the balancing procedure and asks "Are you sure?". Answer Y to start the processing or N to cancel your selection. When processing is completed an audit report automatically prints, listing any adjustments that were made to the totals fields.

Sample Reports

This appendix contains sample Manufacturing Job Costing reports.

JOB ORDER ESTIMATES LIST

Date 06/15/2010 Time 14:07:23

XYZ Company

Report-#0000 Page 0093

J O B O R D E R E S T I M A T E S L I S T

Job #: 11 Entry date: 1/28/10 Cust name: Req ship date: Split
 Whse: Main Sales ord #: "None" Cust P.O.: Quote value: Not specified

 S.O.-# Item-# Open/ Due-date Quantity --Estimated-unit-costs-and-hours-added-at-this-level-- Est-order-hrs
 Description Clsd

10 AT02100402H21 Open 1/27/10 Order: 10.123 EACH Matl: .00 Labr:120,000.8167 Hours: 9,999.999 101,229.990
 K A36M 1" X 36" X 4" Recvd: 0 Outs: .00 Burd:999,999.9999 Misc: .00 11,337,768.27
 ANCHOR BOLT PART GALV

Labor/burden estimates:	Seq #	Work ctr-#	Operation-description	SU-hrs	Run-hrs	Per	Lab-hrs /run-hr	Unit-lab hours	Unit-lab-cost	Unit-burd-cost
	30	P110	BLANK, PUNCH, FORM	.250	1.000/	100 EACH	1.00	.035	.5204	.6505
	40	SAW	Test op	.250	.050/	1 EACH	1.00	9,999.999	120,000.2963	999,999.9999
					Stk/prod ratio:	0				

1 shop orders for job; 1 open, 0 closed
 Job

Job total est hours: 101,229.990
 total est costs: 11,337,768.27

1 jobs listed

-- End of report --

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