

Production Entry

BOM Processing for Pro Series

Lahey

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1. Overview

- ◆ Introduction
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- ◆ Understanding Lahey Production Entry
- ◆ Real-Life Scenarios
- ◆ Other Lahey Products

◆ *Chapter 1: Overview*

Introduction

Lahey Production Entry is a bill of materials processor. Bills of materials are the foundation for most manufacturing companies, as well as, a timesaving vehicle for any company that maintains and tracks inventory. Production Entry is a perfect compliment to Inventory Control, providing features like single-level distribution kits to complex structures for the most sophisticated manufacturer. These structures provide the necessary framework for efficient inventory management and powerful manufacturing calculations.

Featuring completely seamless integration with Pro Series, Production Entry adheres to the Pro Series programming and interface standards. This guarantees the highest level of productivity by delivering the same intuitive operation no matter which Pro Series module is in use. Users are also able to take advantage of convenient Pro Series features like, File Browsers, Key Changes, and the Business Status Report. All data files are updated in real time, providing up-to-the-minute access to your company's most valuable asset—information.

Your first step to using Production Entry begins by installing Inventory Control. This module includes settings for multiple warehouse locations, the inventory costing method, cost decimals, and inventory item characteristics. After you create your inventory files, Inventory Control automatically maintains inventory costs and quantities by sharing its information with other applications.

Accounts Receivable, Sales Orders, Purchase Orders, and Production Entry share the inventory file with Inventory Control, so as you enter a transaction that affects inventory, your inventory balances always reflect the most up-to-date information. You can also add items or make changes to the inventory files directly from these modules.

Production Entry has a variety of uses, which include bill of material definition, processing instructions, engineering change history, product costing, order configuration, sales kits, and backflushing. You can add other Lahey modules to provide component allocation, Material Requirement Planning, routing, and fixed capacity scheduling.

Features

- *New Feature!* **BOM Yields:** Supports the definition of component quantities entered in bills of materials to produce a finished quantity other than an each.
- *New Feature!* **Available To Sell Hotkey:** Allows bill of material component availability to be viewed during sales order entry.
- *New Feature!* **Work Centers:** Prompts for a work center ID during bill of material maintenance in order to specify when a component part is used when Work Orders is installed.
- *New Feature!* **CAD2MRP:** Imports bills of materials from AimaSoft's BOMlink, a leading add-in for AutoCad®.
- *New Feature!* **Auto Completion Logs:** Suppresses the prompt for transaction logs and automatically creates a file for each day's production.
- *New Feature!* **Auto Backorder:** Inserts kit components that are out-of-stock during shipment as backordered line items on the sales order.
- **BOM Configurator:** Supports a finished good configuration session where components can be displayed, added, changed, or deleted while creating sales orders.
- **Modular BOM Types:** Provides for an option list to be displayed and one option to be selected from the components listed.
- **Variable Component Types:** Prompts for component quantity during bill of material processing allowing for the default required quantity to be changed.
- **Sales Order Note Types:** Bill of Material information can now be saved into the sales order line item note and/or memo field.

- **Edit Components:** Allows components to be displayed, added, changed, or deleted while using Post Completed Manufacturing.
- **Multiple Revision Support:** Maintains a separate field for a bill of materials revision level for an unlimited number of combinations of the same bill of material.
- **Handles Complex Bills of Materials:** Prints bills of materials containing up to 99 levels from a top-level bill of materials.
- **LIFO, FIFO, Average Weighted, and Standard Cost Support:** Conforms to the costing method selected in Inventory Control.
- **Multiple Location Support:** Prompts for inventory item location to provide accurate allocation and on-hand values for each item used in the manufacturing process.
- **Inventory Item Serial Number and Lot Number Support:** Tracks serial numbers and lot numbers for specified items.
- **Real-Time Costing:** Uses up-to-date costs from Inventory Control during report generation and transaction processing.
- **Up to 5 Decimal-Place Cost:** Maintains up to 5 decimal-place cost throughout the manufacturing process.
- **Global Item Replacement:** Allows you to replace one component item with another component item within a user-defined range of bills of materials.
- **Stock Pull Lists:** Prints individual exploded and indented bill of materials to help with stock pulls.
- **Bill of Material Notes:** You can maintain note text of unlimited length for each bill of material component.
- **Reverse Transactions:** You can enter a negative quantity to reverse a manufacturing process.


Understanding Lahey Production Entry

This section contains some of the basic concepts behind the program: the inventory file, the bill of materials file, modular BOMs, and how Production Entry handles effective dates and costs.

The Inventory File

Each material or part a company uses, makes, or sells must have a record in the inventory file. This includes raw materials (parts and materials that are purchased from vendors), parts that they make (parts used in a finished product), labor (service items necessary to produce the item), and the finished products themselves.

The inventory file can include non-physical items, such as labor and capacity. Production Entry tracks the usage of these items and includes the cost in the final product. If you choose to use these types of items, be sure to set the type to *Service* or *Expense*, respectively.

	<i>For more information about inventory types, see “Understanding Inventory Control” in the Inventory Control manual.</i>
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The Bill of Materials Files

The bills of materials files contain the “recipe” that lists the items and quantities needed to make a parent part. *A parent part is the top-level part on a single-level bill of material.* Finished goods may contain one or many parent parts.

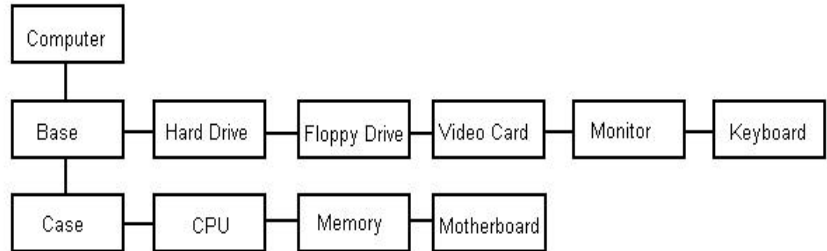


Each assembly or component that a company makes must have a bill of materials.

The bill of materials must define the finished product down to the raw material required to make each part. Each subassembly produced during the manufacturing process must be identified and reflected in the bill of materials.

Establishing a bill of materials starts with creating single-level bills that consist of a parent and some number of components. A component may be raw material, labor, a purchased part, or a separate parent part.

Let's take an example from MVP Computers, a company that makes computer systems. The bill of materials for one of its computer systems is shown below:



Notice that this bill of materials contains two levels: the major components that make up the computer (base, hard drive, floppy drive, video card, monitor, and keyboard), and the lowest level, which make up the base unit (case, CPU, memory, and motherboard). Lahey Production Entry supports bills of materials with up to 99 levels.

Here are some relationships for this bill of materials:

- the *computer* is the finished good
- the *computer* and *base* are parent parts
- the *base*, *HDD*, *FDD*, *video card*, *monitor*, and *KYBD* are components of the computer
- the *case*, *CPU*, *memory*, and *motherboard* are components of the base

To define a bill of materials for MVP's computer system in Production Entry, you would create two bills of materials: one for the *computer* and one for the *base*.

Modular BOMs and Components

A modular BOM should be created when there is more than one choice for the same component on a finished good. The components specified in a modular BOM are presented to the user as a list of approved options where one component could be selected instead of another.

Suppose a computer distributor markets a high-end computer called the XPS2000. The XPS2000 is made up of a base unit, floppy drive, keyboard, mouse, video card, RAM, HDD, and monitor. Everything but the RAM, HDD, and monitor would be a standard component of the XPS2000. The others would be considered modular components of the XPS2000. Here's how to structure the BOMs:

BOM	B-Type	Component	C-Type	Description	Qty
XPS2000	Standard				
		BASE	Standard	XPS Base	1
		FDD	Standard	Floppy Drive	1
		KYBD	Standard	Keyboard	1
		MSE-PS2	Standard	PS/2 Mouse	1
		VID4MB	Standard	4MB Video Card	1
		XPS-HDD	Modular	HDD Options	1
		XPS-MON	Modular	Monitor Options	1
		XPS-RAM	Modular	RAM Options	1
XPS-HDD	Modular				
		HDD-4GB	Standard	4GB Hard Drive	1
		HDD-6GB	Standard	6GB Hard Drive	1
		HDD-9GB	Standard	9GB Hard Drive	1
XPS-MON	Modular				
		MON15	Standard	15" Monitor	1
		MON17	Standard	17" Monitor	1
		NOMON	Standard	No Monitor	1
XPS-RAM	Modular				
		RAM32	Standard	32MB Simm	1
		RAM64	Standard	64MB Simm	1

This table illustrates the dramatic efficiency that modular BOMs can deliver. The system can accomplish in four bills of materials, what could have required 18 standard bills of materials (1 finished good BOM x 3 hard disk options x 3 monitor options x 2 RAM options).

Each modular component for the finished good is controlled by a modular BOM. When creating a modular BOM, you are specifying a list of options that can be selected, not the components to make them.

When a transaction is created for XPS2000, the system will stop during bill of material explosion when it gets to each of the modular components and ask which one of the options you want to select. It will also display on-hand availability and the component's full description from Inventory Control Item Master file. This information empowers the user to make an intelligent option selection based on real-time inventory availability.

Variable Components

A component should be marked as a variable component when the quantity required can vary even though the component item number remains the same. Wire, cable assembly, and tubing manufacturers typically benefit from this feature since it is not necessary to have a separate part number for each possible quantity.

Suppose a computer cable company manufactures a modem cable. The modem cable would always use the same connectors on each end of the cable, but the length of the cable could vary. Here's how to structure the BOM:

BOM	B-Type	Component	C-Type	Description	Qty
CBL-MDM	Standard				
		CON-DB25M	Standard	DB25 Connector	1
		CON-DB9F	Standard	DB9 Connector	1
		CBL-11GY	<i>Variable</i>	Cable	10

When a transaction is created for CBL-MDM, the system will stop during bill of material explosion when it gets to a variable component and prompt for the component quantity.

Effective Dates

In order to keep track of the different versions of a bill of materials, the program gives each line a beginning date (the date to begin using a line) and an ending date (the date a line was deleted, changed, or inactivated).

You can specify a particular version of a bill of materials by referring to its effective date. This tells the program to use all lines that are active as of that date.



When you delete a line from a bill of materials, you have the choice of either permanently deleting the line, or updating the ending date only. In order to maintain an accurate engineering change history, it is more desirable to update the ending date instead of deleting a component.

Calculating Costs

To help keep track of the costs associated with each product your company makes, the program looks to the Inventory Control file for up-to-date costs. Inventory Control supports four methods of inventory costing: average weighted cost, LIFO, FIFO, and standard costing. When you first create your data files for Inventory Control, select the costing method you want to use.



Production Entry will conform to the costing method selected from within Inventory Control when processing manufacturing transactions; however, average cost is used when printing costed bill of material reports in a LIFO/FIFO environment.



For more information about inventory costing methods, see “Understanding Inventory Control” in the Inventory Control manual.

Real-Life Scenarios

In the real world, there are many kinds of uses for Production Entry. Here are some notes about how to use the program in different real-life scenarios.

Backflushing

Some manufacturers build finished goods for stock before any orders are received from customers. Backflushing provides for the deduction of component parts used in a bill of materials by the production count of finished goods produced. Work orders are not used and component parts are not allocated since this type of manufacturer stocks a sufficient level of component parts necessary to keep the manufacturing process in operation. Production Entry provides a simple, streamlined solution for this type of manufacturer.

Engineering

Production Entry has several useful features for companies or teams that engineer and prototype new products. The cost information provided by the bill of materials is vital, since it indicates whether making the product is economically feasible. The program's ability to keep different versions of a bill of materials, each with a different revision level, is also useful for providing a historical engineering record.

Kits

There are many businesses that do not manufacture a finished product, but still require a bill of materials capability. They assemble some components to form a kit product, where the kit is never considered to be in stock. Component parts are reduced from inventory when the finished good is assembled and shipped from a sales order.

Materials-Based Manufacturer

Production Entry serves as the foundation for manufacturing companies that are looking to control their raw materials in the production of repetitive, discrete (or distinct) finished goods. Material Requirement Planning (MRP) is a technique to calculate when components are required based on time-phased required dates from sales orders, purchase orders, and work orders. Time-phased MRP is accomplished by exploding the bill of materials created in Production Entry, adjusting for inventory quantities on-hand or on-order, and offsetting the net requirements by the appropriate lead times.



Call Lahey at **818/735-7300** or visit **<http://www.lahey.net/wo.htm>** for more information on Lahey Work Orders, a separate Pro Series module that provides component allocation, MRP reporting, and routing with operations and work centers.

Operations-Based Manufacturer

This type of manufacturer is looking to control raw materials and plant resources. Manufacturing Resource Planning (MRPII) is a method for the effective planning of all components and routes of a manufacturing company. MRPII includes many advanced and sometimes sophisticated elements, but mainly involves MRP with fixed capacity scheduling in the middle-market where Pro Series is sold.



Call Lahey at **818/735-7300** or visit **<http://www.lahey.net/sc.htm>** for more information on Lahey Shop Control, a separate Pro Series module that offers forward and backward scheduling, fixed capacity scheduling, and what-if work orders.

Options-Based Assembler

A common example of an options-based assembler is the computer distributor. The company can take advantage of Production Entry's flexible bill of materials system to efficiently handle numerous configurations with ease. With support for modular bills of materials and modular components, users maintain fewer bills of materials and have the ability to configure to order from Sales Orders.

Process Manufacturing

This type of manufacturer combines raw materials based on a recipe or formula to produce a batch of finished goods. Typical process-oriented companies include food and chemical manufacturers. Lot number tracking, extended decimal quantity support for raw material ingredients, batch yields, and comprehensive quality control documentation are common issues that concern these types of companies.

By making some simple changes to the Pro Series data dictionary, Production Entry can be adapted to address the extended decimal quantity requirements for raw material ingredients. Our Work Orders module supports lot number tracking of raw materials and finished goods. Please visit our Online Knowledgebase at <http://www.lahey.net/kb/qpeenv01/htm> for more information on making changes to the Pro Series data dictionary.



While Production Entry now supports calculating batch yields, there is currently no support in any Lahey module for producing quality control documentation.

Other Lahey Products

Lahey offers an expansive line of seamlessly integrated ERP modules:

Work Orders

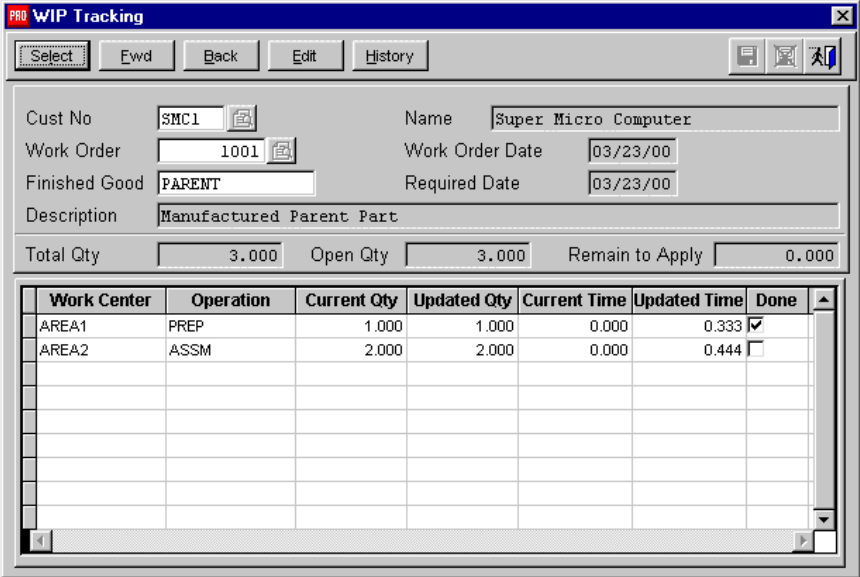
Work Orders is designed for manufacturing firms that require work order processing, component allocation, routing and Material Requirement Planning (MRP) features. Work Orders can be automatically generated from sales order requirements, inventory shortages, or inventory forecast requirements. By defining work centers and operation steps, users can create flexible labor routes.

The screenshot shows the 'Enter Work Orders' window with the following data:

Work Order	1021	Work Order Date	04/23/99
Sales Order #		Sales Order Date	04/10/99
Finished Good	A2EW	Required Date	04/23/99
Description	Uninterruptible Power Supply Protection		
Cust No.		Status	Exploded
Company		Required Qty	1.000
		Stock U/M	EACH
BOM Number	A2EW	Revision Level	
Description	Analog II Exterior Wafer		
Finish Loc	PLANT2	Route	
Description	Production Plant 2	Job	
Store		Bin	
Serial Number		Lot Number	
On Hand	0.000	Allocated	0.000
		On Order	0.000

Shop Control

Shop Control provides shop floor capacity scheduling, what-if planning capabilities, and WIP tracking for production managers that require Manufacturing Resource Planning (MRPII). It imports open work orders with defined routes, identifies bottlenecks, and calculates work order completion dates. What-if plan orders can be created to view resource requirements without affecting real-time purchasing decisions.



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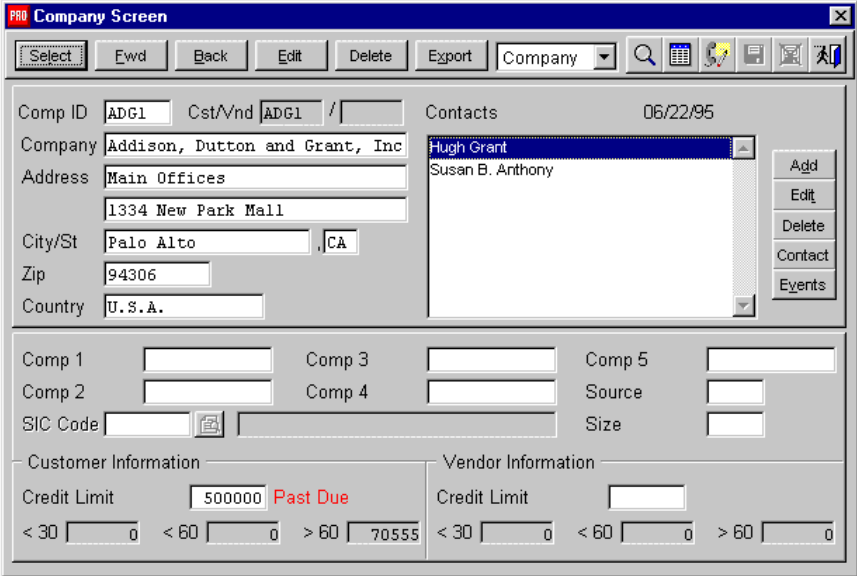
Warehouse Manager

Warehouse Manager supports the planning and tracking of inventory movement between warehouse locations. Bill of ladings can be printed for warehouse transfer or sales order transactions. An optional item description and other attributes can be assigned to each inventory item for rules-based handling of National Motor Freight Classification (NMFC) codes that universally identify the contents being shipped. Distributor Requirement Planning (DRP) reports are available to ensure the proper time phasing for on-hand inventory, sales order required dates, and purchase order dates.

Item	Qty	U/M	Description
A2EW	12.000	EA	Uninterruptible Power Supply Protection
BACD	30.000	EA	Backup Drive, 3.0 GB Parallel/SCSI(w/2 cartridges)

Customer Service

Customer Service tracks customer, vendor, and prospect events for an unlimited number of contact names per company. It provides unlimited notes for each contact event and a follow-up field for effective contact management and customer service. Each contact record supports eight phone numbers, nine user-defined fields, and additional fields for personal information management. Single-click access to critical data puts information at your fingertips.



◆ Chapter 1: Overview

Project Accounting

Project Accounting provides a budget and costing tool for project accounting and job cost management. Its design allows for up to four levels of cost tracking with project, phase, category, and cost-type definition. The job account mask supports the optional use of phases and/or categories and cost-types are user-definable.

The screenshot shows a software window titled "PRO Job Maintenance, Detail Screen". It contains a form with the following fields and values:

Job	ADCAMP	Description	Ad Campaign for New Line		
Customer No.	AHCL	Company	Argentina Hanover Corporation		
Phase	DESIGN	Started	10/01/93	Completed	/ /
Category	BRAN	Description	Design		
Code	AD	Description	Brainstorm/Creative Session		
	Estimate	Budget	Actual		
Quantity	0.000	20.000	3.000		
Unit Cost	0.0000	50.0000	333.33		
Amount	0.00	1000.00	1000.00		

For More Information

Call Lahey at **818/735-7300** or visit <http://www.lahey.net> for more information on seamlessly integrated ERP modules for Pro Series.

2. *Installing the Program*

- ◆ Quick Start
- ◆ Running the Setup Program
- ◆ Updating Your Installation
- ◆ Installing Updates
- ◆ Trial Version Limitations
- ◆ Manual Installation

◆ *Chapter 2: Installing the Program*

Quick Start

This section contains a checklist of the steps necessary to install Lahey applications for Pro Series. Be sure to complete each step in order and do not proceed to the next step until you have completed the previous step.

- Install and link all of your Pro Series modules. See the Pro Series Installation Guide for instructions.
- Read the Overview (Chapter 1) for each Lahey application you are installing.
- Install the Lahey application. See “Running the Setup Program” in this chapter.
- Update your installation with data dictionary changes, custom program files, and custom screen files for Pro Series applications, if necessary. See “Updating Your Installation” in this chapter.
- If you are installing a trial version of a Lahey application, see "Trial Version Limitations" in this chapter.

Once you have done all of these steps, you are ready to handle the tasks that make up the day-to-day routine of working with the program: maintaining key application tables, processing transactions, and printing reports.

Running the Setup Program



Make sure you have done a complete backup of your Pro Series installation before installing a Lahey application. The Lahey installation procedure may install modified versions of Pro Series program files.

The instructions in this section tell you how to install a Lahey application using Windows NT, Windows 98, or Windows 95.



For linking purposes, be sure that you have already installed and linked all of your Pro Series applications *before* installing a Lahey application.

Starting SBTINSTW

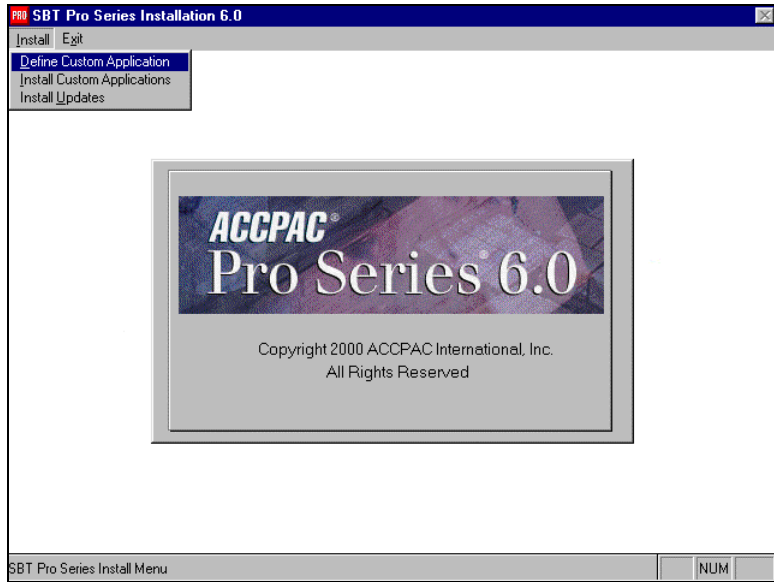
1. Start Microsoft Windows in the normal mode.
2. From the **Start** menu, select **Run**.
3. In the Open field, type the drive letter and path where Pro Series has been installed followed by SBTINSTW.EXE and click on OK. For example, to call SBTINSTW.EXE in a directory called PRO on drive S:, your command line should look like this:

S:\PRO\SBTINSTW.EXE



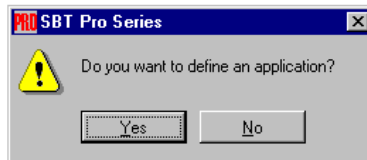
If you have any problems starting or running the Pro Series installation program, please contact your Pro Series reseller or Pro Series Technical Support at 415/444-9700. Lahey has not modified these routines.

Once you've started SBTINSTW, the system will prompt you to ensure you have made a complete backed-up of your system and then you'll see the following screen:



Define the Application

Select **Install | Define Custom Application**. You will see the following prompt:



Select **Yes**
No

to add the Lahey application.
to return to the **Install** menu.

◆ Chapter 2: Installing the Program

Next, specify the floppy disk drive from which you want to copy the application files. Enter the drive letter, insert the program disk for the application into that drive, select **OK** and then select **Ready**.

Once the installation program has updated the Pro Series application database, you will see a prompt that says the application is defined. Select **OK** to proceed.

Install Applications



For linking purposes, be sure that you have already installed and linked all of your Pro Series applications *before* installing a Lahey application.

Select **Install | Install Custom Applications**. To install an application, highlight it, and press the space bar. “Yes” appears in the Selected column. Press **<Enter>** to continue. You will see a screen for entering paths for the data and program files.

The default paths are separate subdirectories under the main system directory you specified upon starting the Pro Series installation program. The default directory for data files is named `..\xxDATA` and the default directory for program files is named `..\xx` (where `xx` is the two-digit application ID).

When you enter a directory that does not exist, you will see a message telling you that the directory does not exist and asking you if you want to create one.

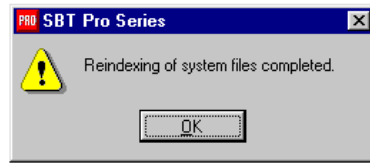
Select	Yes	to have the install program create the directory you have specified.
	No	to reenter the directory.

After you enter both paths, you will have these options:

Select	Install	to have the install program create the directory you have specified.
	Edit	to reenter the directory.

Next, specify the floppy disk drive from which you want to install the application files. Enter the drive letter, insert the program disk for the application into that drive, select **OK** and then select **Ready**.

When the installation program has copied the application files and updated the data dictionary, you will see the following dialog box:



Click **OK** to close the dialog box and complete the installation process.



In certain cases, you may be prompted with a Select Installed Applications to Update from Data Dictionary dialog box.



For more information about the Update from Data Dictionary dialog box, see “Running the Pro Series Setup Program” in the Pro Series Conversion Guide.

Updating Your Installation

In order to be able to take advantage of a Lahey application from within Pro Series applications, it is sometimes necessary to manually copy customized versions of Pro Series files into your installation and update the data dictionary for linked applications.

Installing Lahey-Enhanced Pro Series Files

The enhanced files are located on your Lahey distribution disk and they must be manually copied into the affected program directory. These Lahey-enhanced files must match the version and build number of your Pro Series application.



The enhanced program files are specific to the current build of your Pro Series installation. Be sure to get updated files from Lahey when installing subsequent builds from SBT. These files are located in the download section of our web site at <http://www.lahey.net>.

The following table outlines which files are modified for each Lahey application:

Lahey Application	Lahey-Enhanced Files
Customer Service	None
Production Entry	SOPOST.PRG, SOSHIP.PRG and SOSHPP.PRG <i>(Only necessary if processing BOM configurator or sales kit transactions.)</i>
Project Accounting	APPOSD.PRG, APPOSD.VCX, APPOSD.SPR, APPOST.PRG, APPREC.PRG, APRECR.PRG, ARMINV.VCX, ARPOSD.VCX, ARPOST.PRG, ICPOST.PRG, ICTRAN.PRG, ICISSU.VCX, POPOSD.VCX, ICRCPT.VCX, POPOSD.VCX, POPOST.PRG, PORECP.PRG, PRPCHK.PRG, PRPOSP.PRG, PRPOSP.VCX, PRPOST.PRG, SOPOSD.VCX, SOPOST.PRG, SOSHIP.PRG, SOSHPP.PRG
Shop Control	None
Warehouse Manager	None
Work Orders	None

Changing Data Structures in the Pro Series Data Dictionary

The data dictionary is maintained in System Manager. Select **Maintain | Dictionary | Tables**. Enter the table name in the **Table ID** field, then select **Field**.



The Pro Series Trial Version does not allow you to update from the data dictionary.

The following table outlines which tables are modified for each Lahey application:

Lahey Application	Table Name	Necessary Action
Customer Service	None	None
Production Entry	SOTRAN, SOYTRN	Change WONO, C,10
Project Accounting	ARDIST, ARTRAN, ARYDST, ARYTRN, ICDIST, ICTRAN, ICYDST, ICYTRN, POTRAN, POYTRN, PRDIST, PRRODT, PRYDST, SOTRAN, SOYTRN	Add JOBCODE, C,10 Add PHASE, C,6 Add SUBCODE, C,4 (Add JCCODE, C,1 to all xxDIST/xxYDST tables)
	APDIST, APYDST	Change JOBCODE, C,10
	PRDTPT, PREMPT, PRPAYT, PRXPST, PRYDPT	Change PROJECT, C,10
Shop Control	None	None
Warehouse Manager	ICITEM	Add BLCLASS, C,4 Add CUBEAMT, N, 5, 0 Add CASEPACK, N, 6, 0
Work Orders	SOTRAN, SOYTRN	Change WONO, C,10

◆ Chapter 2: Installing the Program

Once you have recorded all your changes to the data dictionary, exit to the **System Manager** main menu. From the **Transaction** menu, select **System Recovery**, then **Update from Data Dictionary**.

Select the applications you have updated for the company you are using, press the <**Space**> bar to select the application, then press <**Enter**>. Select **Yes** to the **Rebuild all indexes?** prompt, then select **Update**.



For more information on updating the Data Dictionary, see “Using the System Recovery Utilities, Update from Data Dictionary” in the System Manager manual.

Installing Updates

Updates are disks from Lahey that contain new program files for your version of Pro Series. They are not an *upgrade*, but rather, they are in-line enhancements and refinements to the features of the version you already have.

1. Start the Pro Series Windows setup program, SBTINSTW.EXE. For more information on how to do this, refer to Starting SBTINSTW in the section “Running the Setup Program” of this manual.
2. Select the **Install Updates** option on the **Install** menu.

When you select **Install Updates**, you must first specify which drive to copy the updated file from, then insert the first disk for the update into that drive. The program checks to see if the disk is an update disk or the first of a full set of disks for an application.



Lahey update disks contain the most up-to-date versions of all program, screen, and report files, as well as files that have not changed since the application began shipping.



If you have made modifications to your program, screen, or report form files, you should back up those files before installing any update disk. The update program overwrites all existing files.

Trial Version Limitations



Extreme caution should be taken when installing a trial module in a "live" installation. When you open a trial module, the entire installation is set into a trial mode and can destroy live data if file sizes of "live" data are larger than the Pro Series trial mode allows. To avoid this problem, you must exit Pro Series from the trial module before opening a "live" module.

Here are the limitations for trial version modules:

Application	Table Name	Number of Records
Accounts Payable	APVEND	50 Vendors
Accounts Receivable	ARCADR ARCUST	50 Ship-To Addresses 50 Customers
Customer Service	CCPROS	25 Companies
Inventory Control	ICITEM	50 Items
Payroll	PREMPL	15 Employees
Production Entry	PEBMHD	5 BOM Headers
Project Accounting	PAMAST	5 Projects
Purchase Orders	APVEND	50 Vendors
Sales Orders	ARCADR ARCUST	50 Ship-To Addresses 50 Customers
Shop Control	SCMAST	25 Plan Orders
Warehouse Manager	WMMAST	5 Transfers
Work Orders	WOMAST WORTHD	25 Work Orders 5 Routes

Manual Installation



This is an optional method for installing an application or update. If you have already successfully installed an application or update using SBTINSTW, you do *not* need to follow the instructions in the remainder of this section.

1. Insert the Lahey Production Entry Program Disk into your floppy disk drive.
2. From a DOS prompt, create the Production Entry program and data directories if they do not already exist.

Change to the drive and directory where Pro Series has been installed. For example, you might type (substitute the correct drive and path for your installation throughout these steps):

```
S: and press <Enter>
CD \PRO and press <Enter>
```

Once you are in the Pro Series command directory, you can create the Production Entry program and data file directories. For example, type:

```
MD PE and press <Enter>
MD PEDATA and press <Enter>
```

◆ Chapter 2: Installing the Program

3. Extract all the files from the distribution disk into the program directory. From the Pro Series command directory, type:

```
CD PE and press <Enter>  
A:ZIPPEC01 PE????.* and press <Enter>
```



If the extraction process encounters any existing files with the same name, type Y to overwrite the existing file.

4. Copy the extracted files over the existing files. From the Production Entry program directory, type:

```
COPY *._XP *.FXP and press <Enter>  
COPY *._C? *._C? and press <Enter>  
COPY *._PX *.SPX and press <Enter>  
COPY *._R? *.FR? and press <Enter>  
ERASE *._?? and press <Enter>  
CD .. and press <Enter>
```

5. Extract the sample and system data files into the data directory. From the Pro Series command directory, type:

```
CD PEDATA and press <Enter>  
A:ZIPPEC01 PE????99.?? and press <Enter>  
A:ZIPPEC01 SY*.?? and press <Enter>
```

6. Copy the extracted sample and system data files over the existing files. From the Production Entry data directory, type:

```
COPY *._BF *.DBF and press <Enter>  
COPY *._PT *.FPT and press <Enter>  
ERASE *._?? and press <Enter>  
CD .. and press <Enter>
```

7. Start FoxPro and get to a command line. There are many ways to get to a FoxPro command line. You can use the **FoxPro Access** option from the Pro Series **File** menu, run SBTDOTW for Windows, or SBTDOT for DOS.

8. Update the Pro Series installed applications file. There must be one record for each company and application in this database. Be sure to use the correct paths for your installation. From the FoxPro command line, type:

```
USE syodata EXCLUSIVE and press <Enter>
DELETE ALL FOR applid = "PE" and press <Enter>
PACK and press <Enter>
APPEND BLANK and press <Enter>
BROWSE and press <Enter>
99 in the COMPID field press <Enter>
PE in the APPLID field press <Enter>
S:\PRO\PEDATA\ in the ADOSDBF field and press <Enter>
S:\PRO\PEDATA\ in the ADOSNDX field and press <Enter>
S:\PRO\PE\ in the ADOSPRG field and press <Enter> until
    you reach the CHKRULE field
T in the CHKRULE field
F in the CONFRME field
F in the CONFRMS field and press <Enter>
<Esc> to exit the record
USE sysdata EXCLUSIVE and press <Enter>
DELETE ALL FOR sysid = "PE" and press <Enter>
PACK and press <Enter>
APPEND FROM pedata\sysdata and press <Enter>
```

9. Update the Pro Series data dictionary files. From the FoxPro command line, type:

```
USE sydappl EXCLUSIVE and press <Enter>
DELETE ALL FOR applid = "PE" and press <Enter>
PACK and press <Enter>
APPEND FROM A:\PE.ADD and press <Enter>
USE sydflds EXCLUSIVE and press <Enter>
DELETE ALL FOR LEFT(tablid, 2) = "PE" and
    press <Enter>
PACK and press <Enter>
APPEND FROM pedata\sydflds and press <Enter>
USE sydindx EXCLUSIVE and press <Enter>
DELETE ALL FOR LEFT(tablid, 2) = "PE" and
    press <Enter>
PACK and press <Enter>
APPEND FROM pedata\sydindx and press <Enter>
USE sydtabl EXCLUSIVE and press <Enter>
DELETE ALL FOR LEFT(tablid, 2) = "PE" and
    press <Enter>
PACK and press <Enter>
APPEND FROM pedata\sydtabl and press <Enter>
USE sydtapp EXCLUSIVE and press <Enter>
DELETE ALL FOR LEFT(tablid, 2) = "PE" and
    press <Enter>
```

◆ Chapter 2: Installing the Program

```
PACK and press <Enter>
APPEND FROM pedata\sydtapp and press <Enter>
USE sydproc EXCLUSIVE and press <Enter>
DELETE ALL FOR applid = "PE" and press <Enter>
PACK and press <Enter>
APPEND FROM pedata\sydproc and press <Enter>
```

10. Update the Production Entry data structures and index files. Start Pro Series and select **System Manager** from the **Programs** menu. Select **System Recovery** from the **Transaction** menu. Select **Update From Data Dictionary** and select all Production Entry companies in the browse window. Be sure to rebuild all index files.



The demonstration version of Pro Series does not allow you to update file structures. If you are working with a demonstration version, you need to select **Reindex Application Files** instead of **Update from Data Dictionary**.

3. *Setup and Maintenance*

- ◆ Starting Production Entry
- ◆ Setting up Production Entry
- ◆ Bills of Materials
- ◆ Changing Bills of Materials
- ◆ Import Bills of Materials

◆ *Chapter 3: Setup and Maintenance*

Starting Production Entry



Before starting the program, you need to install Lahey Production Entry on your computer or network. See the chapter called “Installing the Program” in this manual for more information.

Double-click on the Pro Series icon.

Concurrent Sessions in Separate Windows

Do not launch multiple instances of Pro Series on the same computer. Although the system may appear to function normally within the two concurrently running windows, memory conflicts prohibit data files from being updated correctly.

Logging In

If your Pro Series installation requires a login, you will see a box where you enter your user ID and, if necessary, a password.

Select **File | Open | Production Entry**. If you only have one company using Production Entry, that company is loaded automatically, and you will see the Production Entry Main Menu.

If you have more than one company, you see a list for selecting the company you want to work with. To select the company from the list, use the arrow keys to highlight the company you want to work with and then press **<Enter>**. You can also select a company from the list with your mouse by using your primary mouse button to highlight the company you want to work with and then using your secondary mouse button to select it. After selecting a company, you will see the Production Entry Main Menu.

Selecting a Company

Once you are in Lahey Production Entry, you can select to work with a different company by selecting **File | Company** option.

Setting up Production Entry



Before you can enter new company information for Production Entry, you must first add the company and its applications (including Inventory Control) in System Manager. See “Companies, Adding Applications” in the System Manager manual for more information.

Once you have created a company using System Manager and added Production Entry as an application, you can enter specific information for the Production Entry company.

System Settings Screen

You see the following screen below when you finish entering the Production Entry data and program file paths in System Manager. You can return to this screen later by selecting **File| Change Setup Information** in Production Entry.

Production Entry: System Settings for Company 99

System Settings | Screen Labels | Link Settings | System Options

Company: Professional Software, Incorporated

Company Address and Telephone

Autonumber Transactions

Next transaction number: 1002

Maximum BOM levels: 99

Start line numbers at: 10


Increment line numbers by: 10

Default method of explosion: Top

Autonumber Transactions: Select this option if you want the program to assign a unique number to each transaction, beginning with the number you entered for Next Transaction Number. You can use transaction numbers to track your bill of material activity. If you want to enter the numbers manually, leave the option unselected. You cannot change transaction numbers if this setting is selected.


Next transaction number: If you choose to have Production Entry automatically assign transaction numbers, enter the next transaction number to use.

Maximum BOM levels: This is the maximum number of levels of parent parts that a bill of materials can contain.

 Entering a small number will limit the complexity of your bill of materials structures; entering an unnecessarily large number will make the program explode transactions more slowly.

Start line numbers at: Enter the default starting line number for use on bills of material component lists.

Increment line numbers by: Enter the default value for incrementing line numbers when used on bills of material component lists.

 Use a value of 10 if your bills of materials contain lower level parent parts or if you have 100 or more component parts on a single level.

Default method of explosion: Select the default level of explosion to be used:

- | | | |
|--------|---------------|---|
| Select | Bottom | to bypass any parent parts on the top and lower levels of the bill of materials and allocate to the bottom-most level of the exploded bill of materials. |
| | Smart | to reduce component parts based on on-hand inventory balances. If sufficient quantities of a subassembly part are not available, Smart will use up the available parts before proceeding to the next lower level on the BOM tree. |
| | Top | to only consume component items on the top level of the bill of materials. |

◆ Chapter 3: Setup and Maintenance

Screen Labels Screen

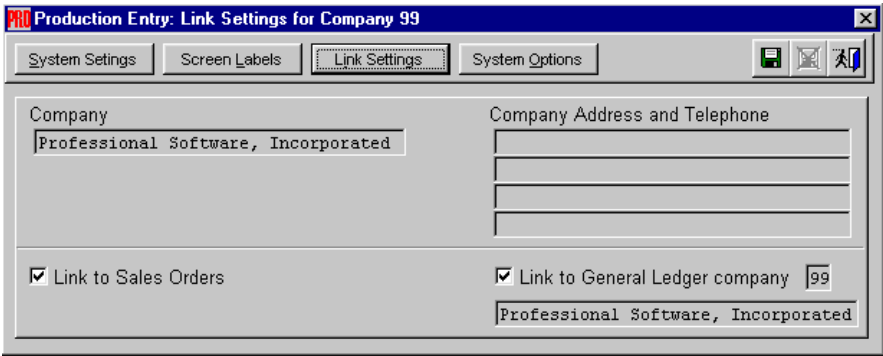
Select this option to change the default screen labels Production Entry uses. You will see the following screen:

Screen Labels allow a company to customize key terminology used throughout Production Entry without changing a single line of the program's source code. The following table shows some examples of how changing key terminology can service different types of manufacturing companies:

Industry	Default Term	Customized Term
Bakery	Bill of Material	Recipe
	Component	Ingredient
Chemical	Bill of Material	Formula
	Component	Raw Material


Link Settings Screen

Select this option to change the default link settings Production Entry uses. You will see the following screen:



Link to Sales Orders: Select to create the link to Sales Orders.

Link to General Ledger: This option will be automatically selected if Inventory Control is linked to the General Ledger, and will specify the General Ledger company Inventory Control is linked to.

 See Chapter 6 in this manual for more information about linking with other Pro Series applications.

System Options Screen

Select this option to change the default options Production Entry uses. You will see the following screen:

PRO Production Entry: System Options for Company 99

System Settings Screen Labels Link Settings System Options

Company
Professional Software, Inc.

Company Address and Telephone
1234 4th Street
Suite # 555
Your Town, XX 99999-9999 USA
415/444-9000

Explode Return Sales Orders on Shipment
 Use Finished Locations for Component Usage
 Search Stores and/or Bins for stock
 Don't Allow Serialized Components
 Automatically Create Daily Completion Logs

Explode Return Sales Orders on Shipment: Select this option to allow sales kit explosion on return sales order shipments.

Use Finished Location for Component Usage: Select this option to have components pulled from the same location that is specified as the finished good location no matter what location is defined in the bill of materials.

Search Stores and/or Bins for Stock: Select this option to have the system automatically select any store and/or bin location based on inventory availability.

Don't Allow Serialized Components: Select this option to suppress serialized items for the bill of materials detail. By selecting this option, Production Entry will allow you to create work orders with finished quantities greater than one.

Automatically Create Daily Completion Logs: Select this option to have the system automatically create daily transaction logs when using the Post Completed Manufacturing screen. Log files will be created in a YYYYMMDD.OUT format.

Completing the Installation

Whatever configuration options you choose, you save your installation preferences by choosing **Save**.

You then see several prompts about adding application notes and copying data from an existing installation. Refer to the installation instructions.

When you finish responding to the final step questions, the program tells you that the installation is complete. You are now ready to switch from System Manager to the new Production Entry installation you have added. Select **File | Open | Production Entry**. If you have more than one company using Production Entry, select the company you want to use.

Changing Setup Information

You can return to the setup screen at any time to change the information by selecting **File | Change Setup Information**.

Deleting a Company

To delete a company from your Pro Series system, you must first remove any applications installed for that company. See “Companies, Deleting Companies” in the System Manager manual for more information.

Deleting an Application

To remove only Production Entry information for an established company, switch to System Manager and select **Maintain | Companies | Companies**. Enter the company number, and select **Appls** from the top of the screen. Enter **PE** as the application ID. When Production Entry is displayed, choose **Delete** and confirm that you want to delete the Production Entry data.



You must delete the application data from all installed companies before you can remove the application for your Pro Series installation.

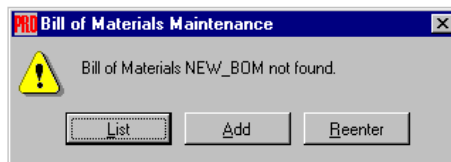
Bills of Materials

Select **Bills of Materials** from the **Maintain** menu. Enter the inventory item number of the parent part you want to create the bill of materials for, and then press <Enter>.



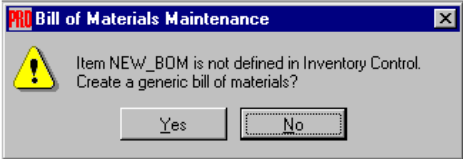
Lahey Production Entry allows you to create a generic bill of materials that can be used to make an unlimited number of finished good items. Each finished good item must exist as an *item* in the inventory item file before it can be associated with a bill of materials.

When the new parent part is not found in the BOM Header file, you will see this message:

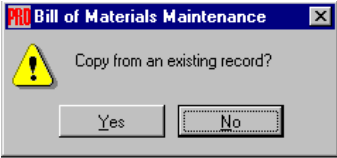


Select	List	to list the current bills of materials.
	Add	to add the bill of materials.
	Reenter	to reenter the bill of materials.

When you select to add a new parent part, you will see the following prompt *only if* Production Entry *was not* able to find a matching item number in the Inventory Item file:



When you select to add a new parent part, you will see this prompt if there are other bills of materials to select from:



Copying from an Existing Bill of Materials

To copy a component list from an existing parent part, select **Yes** at the prompt above. You're asked for the BOM number and revision level of the bill of materials you want to copy from. When you enter a valid selection, the program will copy the records. After completion of the last field in the BOM Header, you will be given the opportunity to edit the components. If you do not edit at this time, you may do so later. For more information on editing bills of materials, see the "Changing a Bill of Materials" section of this manual.

◆ Chapter 3: Setup and Maintenance

Adding a New Bill of Materials

If you are not copying from an existing bill of materials, select **No** at the copy from prompt to add a new bill of materials. You will see a screen like this:

Select	Evnd	Back	Edit	Delete	BOM Header				
BOM Number	NEW_BOM		Revision Level						
Description	Description for New Bill of Materials								
Effective Date	03/23/00		Revised on	/	/	:	:		
BOM Status	Active		<input type="checkbox"/>	Kit during SO Entry					
BOM Type	Standard		<input type="checkbox"/>	Configure during SO Entry					
SO Note Type	Notes not added		<input type="checkbox"/>	Generate WO on SO Entry					
			<input type="checkbox"/>	Explode on SO Shipment					
Drawing Number			Total Lead Time					0	

BOM Header Screen

Revision Level: Enter the revision level for this bill of material. This field is used on the Bills of Materials report. This field is usually a number or letter representing the number of times this bill of materials has been changed. A bill of materials may have multiple revisions, each defined by a different revision level. Production Entry requires that the first revision level entered for a bill of materials be blank.



Production Entry will allow only one revision level per parent part number to be specified as a finished good at one time. This prevents an operator from using the wrong revision of a bill of materials during bill of material processing.

Description: Enter the description for this bill of materials. If the bill of materials number is found in the inventory item file, you will see the description for that item.

Effective Date: Enter the date that you will start using this bill of materials.


Revised On: This field is maintained by Production Entry and is updated each time you save any changes on the main bill of materials screen.

BOM Status: This field indicates the current status for this bill of materials

- | | | |
|--------|-----------------|---|
| Select | Active | if this bill of materials is available for use. |
| | Hold | if this bill of materials has not yet been approved for use. |
| | Obsolete | if this bill of materials is no longer used and should be archived when closing the period or year. |

BOM Type: This field indicates the type of single-level bill of materials you are adding.

- | | | |
|--------|-----------------|---|
| Select | Custom | if this bill of materials is for a one-time use. |
| | Modular | to create a list of component options where a user can select one option. |
| | Outside | this option is reserved for future use. |
| | Phantom | this option is reserved for future use. |
| | Standard | if this bill of materials is for regular use. |

 *For more information about BOM types, see “Understanding Production Entry” in Chapter 1 of this manual.*

SO Note Type: This list box allows you to specify, on a bill of materials-by-bill of materials basis, what BOM information is passed to the Sales Orders transaction file while creating a sales order. The BOM information you specify can be passed to the note field, the memo field, or both the note and memo fields. Information in the note field prints on the sales order, the packing slip, and the invoice (if specified in SO setup); the memo field prints on the internal pick ticket report.

Select **BOM description into memo**
 BOM description into notes
 BOM description into both
 BOM note into memo
 BOM note into notes
 BOM note into both
 Component list into memo
 Component list into notes
 Component list into both
 Notes not added

Kit during SO Entry: By checking this option, the system will place the BOM components as line items on the sales order instead of the finished good item. Generally speaking if you check this box, you would not check the Generate WO on SO Entry or Explode Kit on SO Shipment options.

Configure during SO Entry: By checking this option, the system will open a configuration screen when you add a finished good item to a sales order. As of this release, the BOM Type must be set to Standard in order for this setting to work properly.

Generate WO on SO Entry: This option is not yet operational. By checking this option, the system will automatically create a work order when you save each line of the sales order. This feature requires the purchase of our Work Orders module.

Explode on SO Shipment: Production Entry works with Sales Orders to enable you to record the depletion of an item’s components when it is shipped from Sales Orders. Use for kit inventory items where you need to get the components out of inventory when you ship the top-level parent part. Generally speaking if you check this box, you would not check the Kit during SO Entry and Generate WO on SO Entry options.



For more information about using BOMs from within Sales Orders, see “Linking with Sales Orders” in Chapter 6 of this manual.

Drawing Number: Enter the engineering drawing number for this bill of materials.

Total Lead Time: Enter the total lead time in days necessary to manufacture this bill of materials.

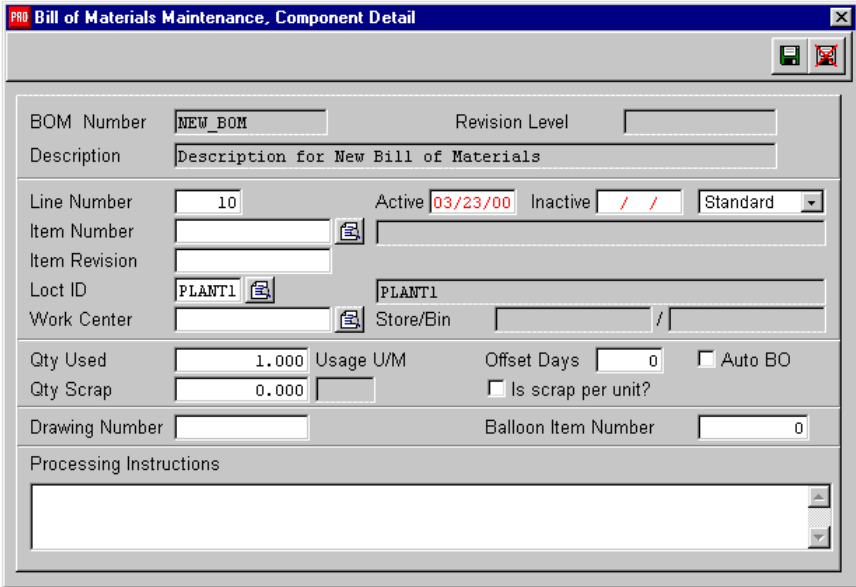
After entering information on the main bill of materials screen, select the **Save** icon. You will see the following prompt:



Select **Yes** to view the Components screen.
Select **No** to return to the BOM Header screen.

Component Detail Screen


If you choose to add or edit components, you will see the following screen:



Line Number: The program automatically assigns each entry a line number. These numbers start and increment by the value established in the company setup screen. You can type over the default numbers with any line number you like, as long as you don't repeat a number already used on this bill of materials.

Active: Enter the date that this item is to be included in the bill of material.

Inactive: Enter the date that this item is to become inactive and therefore not included in the bill of materials.

 For more information about active and inactive dates, see "Understanding Production Entry" in Chapter 1 of this manual.

◆ Chapter 3: Setup and Maintenance

Component Type: This list box controls how this component will behave during bill of material processing.

Select	Standard	for the value in Item Number field to be validated against the Inventory Control Item Master table and the value in the Quantity Used field to be fixed.
	External	in order to have purchase order bids automatically created during the bill of material explosion process. This feature is only available within the Work Orders module.
	Modular	for the value in the Item Number field to be validated against the BOM Header table for modular BOM types and the value in the Quantity Used field to be fixed.
	Variable	for the value in the Item Number field will be validated against the Inventory Control Item Master table and the value in the Quantity Used field could be changed during any explosion process.

Item Number: Enter the inventory item number that is a component of the parent part. Components can be raw materials, purchased parts, labor, or other parent parts.

Item Revision: Enter the revision level for this component when the item number of this component is a parent part of another bill of materials with a revision level. This field is used on the Bill of Materials report.

Location ID: Enter the warehouse location to be used when pulling this component from stock for production on this bill of materials.



The default for this field is from the “Mfg WIP” location stored in the company setup information of Inventory Control when multiple locations are being used.

Work Center: Enter the work center where this material will be used.



This field is only enabled when Lahey Work Orders is installed.

Store/Bin: Enter the store or bin location to be used when pulling this component from stock for production on this bill of materials.

Quantity Used: Enter the quantity of this component required to complete this parent part, excluding the quantity scrapped. When entering service or labor items, the quantity represents the amount of time required.

Quantity Scrap: Enter the quantity of this component that is usually broken, lost, or wasted during the manufacturing process. When entering service or labor items, the quantity represents the amount of setup time required.

Production offset days: Enter the number of days it takes to acquire or manufacture this component. This field is reported on the bill of materials listings.

Is scrap per unit?: Select this option if this is a charge that applies once to a work order, regardless of how many units of a parent part are produced.



The best way to handle a one-time setup cost is to enter **0** for quantity, **1** for scrap, and select this option. Then enter the total setup cost within Inventory Control for this item.

Auto BO: Check this box to automatically place an out-of-stock component of a kit exploding during SO shipment as a backordered line item.

Drawing Number: Enter the engineering drawing number for this component of the bill of materials.

Balloon Item Number: Enter the engineering drawing reference number for this component of the bill of materials. These are also known as reference designators.

Processing Instructions: Record any notes for this component when processing this bill of materials. Processing notes will appear on the work order traveler for this bill of materials.

After entering information on the bill of materials lines screen and selecting **Save**, you will return to the **Components** screen.

◆ Chapter 3: Setup and Maintenance

Finished Goods Screen

The **Finished Goods** screen is used to associate finished good item numbers with a bill of materials.



A finished good item number will be *automatically* entered in the **Finished Goods** screen if Production Entry was able to find a matching item number in the Inventory Item file when the bill of materials was created and that item is not already in use on another bill of materials

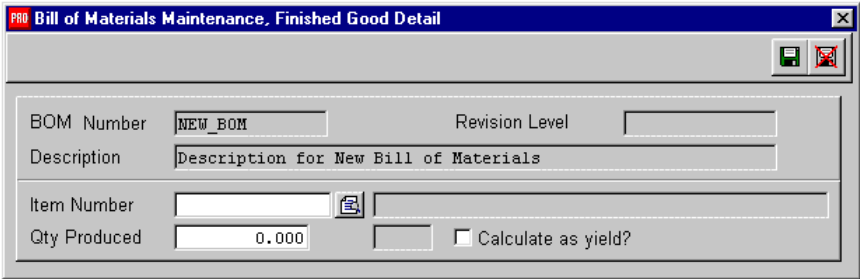
To access the **Finished Goods** screen, select **Maintain | Bills of Materials**, and then select the bill of materials you wish to work with from the **BOM Header** screen. After selecting **Finished Goods** from the list box at the top of the **BOM Header** screen, you will see the following screen:

Item Number	Description	Qty. Prod.

- Select** **Select** to choose a different bill of materials record.
- Fwd** to advance one record.
- Back** to go back one record.
- Add** to associate an inventory item number to the current bill of materials
- Edit** to change the information on the Finished Goods Detail screen for a selected finished good.
- Delete** to remove a selected finished good from being associated to the current bill of materials.
- Config** (this option is reserver for future use)

Finished Good Detail Screen

If you choose to enter finished goods, you will see the following screen:



Item Number: Enter the item number of the product or parent part produced by this bill of materials. You can have an unlimited number of finished goods per bill of materials.



Once an inventory item number is used as a finished good item for one bill of materials, it cannot be used as a finished good item on another bill of materials.

◆ Chapter 3: Setup and Maintenance

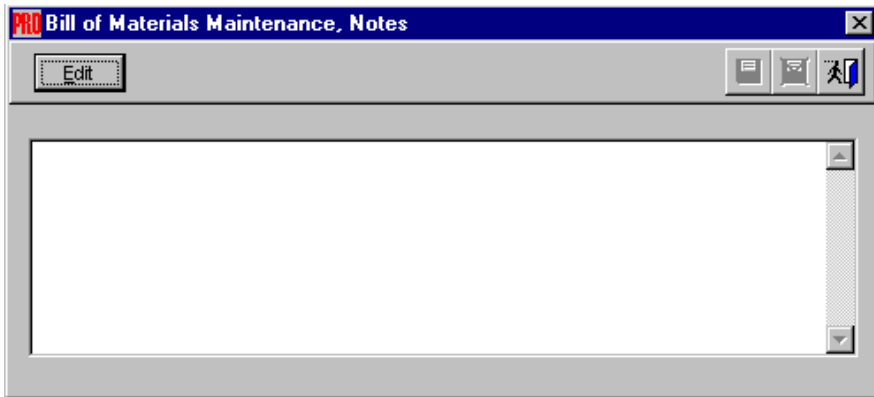
Quantity Produced: Enter the quantity of the finished good item produced by this bill of materials.

Calculate as yield?: Check this box in order to have the program recognize the component quantities entered as a quantity other than an each.

Notes Screen

The **Notes** screen is used to enter notes about a bill of materials. The **Notes** screen can be accessed by selecting the **Notes** icon from any bill of materials maintenance screen.

If you choose to enter notes, you will see this screen:



You can use notes to record additional information about a bill of materials, such as processing notes or specifications. Bill of material notes are kept in one scrolling window and their size is limited only by available disk space.

Select	Fwd	to move to the next BOM record's Note field.
	Back	to move to the previous BOM record's Note field.
	Edit	to add or change a BOM record's Note field. If adding a new entry, the current date and User ID will be automatically entered.

Changing Bills of Materials

From time to time, you'll want to examine or change a bill of material's information. To do so, select **Bill of Materials** from the **Maintain** menu. Enter or select the parent part number and revision level of the bill of materials you want to change.

Press <F2> or click on the browse button to see a list of all existing bills of materials. You can then choose the one you want by using the mouse or the up and down arrow keys to move through the list, and pressing <Enter> when the highlight bar is on the record you want.

Finding a Field

The following is an alphabetical listing of all bill of material fields and the bill of materials data screen on which they appear. Use this list as a quick reference guide to locating the field you view or edit. Complete information about each of the fields is located in "Bills of Materials," the previous section of this manual.

<u>Field</u>	<u>Screen</u>
Active	Component Detail
Auto Backorder	Component Detail
Balloon Item Number	Component Detail
Bin	Component Detail
BOM Description	BOM Header
BOM Number	BOM Header, Components, & Finished Goods
BOM Status	BOM Header
BOM Type	BOM Header
Calculate as yield?	Finished Goods Detail
Component Type	Component Detail
Configure during SO Entry	BOM Header
Drawing Number	BOM Header & Component Detail
Effective Date	BOM Header

◆ Chapter 3: Setup and Maintenance

<u>Field</u>	<u>Screen</u>
Explode on SO Shipment?	BOM Header
Generate WO on SO Entry	BOM Header
Inactive	Component Detail
Is scrap per unit?	Component Detail
Item Number	Component Detail & Finished Goods Detail
Item Revision	Component Detail
Kit during SO Entry	BOM Header
Line Number	Component Detail
Location ID	Component Detail
Processing Instructions	Component Detail
Production Offset Days	Component Detail
Quantity Produced	Finished Goods Detail
Quantity Scrap	Component Detail
Quantity Used	Component Detail
Revised On	Component Detail
Revision Level	BOM Header, Components, & Finished Goods
SO Note Type	BOM Header
Store	Component Detail
Work Center	Component Detail
Total Lead Time	BOM Header

Using the Command Buttons

Once the bill of materials header record is displayed, the following options are available:

Use	Select	to find another bill of materials record.
	Fwd	to move forward to the next bill of materials record in the file.
	Back	to move to the previous bill of materials record in the file.
	Edit	to change the currently displayed record.
	Delete	to delete the current bill of materials.
	BOM Header	to change or display the main record or the current bill of materials.
	Components	to change or display the detail lines for the current bill of materials.
	Finished Goods	to change or display the finished goods associated with the current bill of materials.
	Notes	to view, add, or change a note about this bill of material.
	Exit	to return to the main menu.

◆ Chapter 3: Setup and Maintenance

Editing a Bill of Materials Record

To change the currently displayed bill of materials information, select **Edit** from the options at the top of the screen. Use the arrow keys or your mouse to move the cursor to any highlighted field, and make your changes. See the “Bill of Materials” section of this manual for detailed descriptions of each field.

Some fields cannot be edited after you have created the bill of materials record. In most cases these are fields containing information that is automatically updated by Lahey Production Entry, or another application’s transactions that update the bill of materials file.

When you have finished editing a bill of materials data screen you will have the following options:

Select	Save	to save your changes.
	Edit	to edit the screen again.
	Cancel	to quit without saving any changes.

Deleting a Bill of Materials


Select **Delete** from the options at the top of the screen to delete this bill of materials from the bill of materials file. You must confirm that you want to delete it.



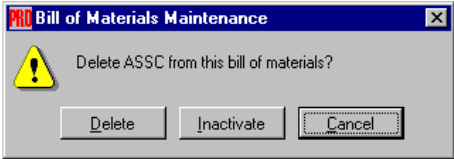
You cannot recall a deleted bill of materials. If you delete a bill of materials in error, you must recreate the header and detail records.

Deleting a Detail Line


When you delete a line from a bill of materials, you have a choice to delete the line or mark the line inactive. Inactive lines can be referred to during processing by specifying an effective date that includes the inactive line.

 *You cannot recall a deleted line on a bill of materials. If you delete a line in error, you must recreate the detail record.*

To delete a detail line on the bill of materials, select **Delete** from the options at the top of the screen. You will see the following prompt:



- | | | |
|--------|-------------------|-------------------------------------|
| Select | Delete | to delete the detail line item. |
| | Inactivate | to inactivate the detail line item. |
| | Cancel | to cancel without deleting. |

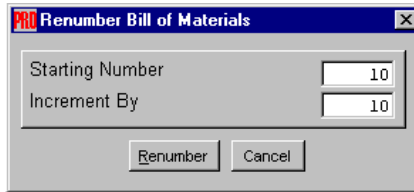
 If you accidentally inactivate a detail line item, you can reactivate the detail line item by selecting **Edit** and removing the end date.

◆ Chapter 3: Setup and Maintenance

Renumbering Lines

Renumbering is usually used after inserting or deleting a line in the bill of materials and want the sequence numbers to be evenly numbered again.

To renumber the sequence lines on the bill of materials, select **Renum** from the options at the top of the screen. You will see a pop-up screen with this prompt:



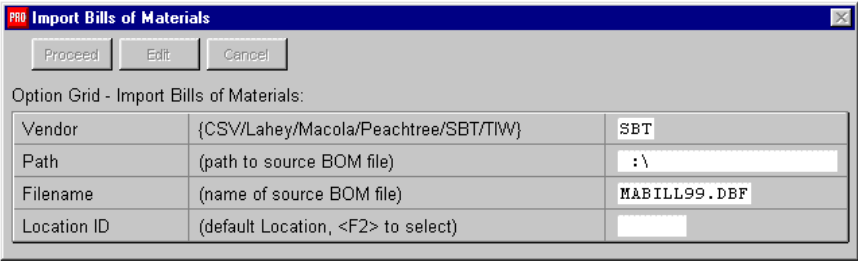
The image shows a dialog box titled "PRO Renumber Bill of Materials". It has a standard Windows-style title bar with a close button (X) on the right. The main area of the dialog contains two text input fields. The first field is labeled "Starting Number" and contains the value "10". The second field is labeled "Increment By" and also contains the value "10". Below these fields are two buttons: "Renumber" and "Cancel".

When you have entered the starting number and increment values you will have the following options:

Select	Renumber	to proceed with renumbering.
	Cancel	to quit without renumbering.

Import Bills of Materials

This menu option allows you to import bills of materials from other manufacturing software products after you have completed creating the data files for Production Entry. After selecting this feature, you will see the following option grid:



Vendor:

- Select **CSV** to import from a Comma Separated Value file format.
- Lahey** to import from Lahey Manufacturing Control v2.5 or v3.0.
- Macola** to import from Macola v6.0.
- PCA** to import from Peachtree Accounting.
- SBT** to import from SBT Manufacturing for Series 6, Series 6.35, Series 7, VisionPoint, and VisionPoint2000.
- TIW** to import from TIW Workshop.



You can import bills of materials created in AutoCad® with AimaSoft’s BOMlink add-in, which uses the CSV file format. For more information on CAD2MRP using BOMlink, please visit <http://www.aimasoft.com>.

◆ *Chapter 3: Setup and Maintenance*

The CSV file should be formatted in the following order:

BOMNO, LINENO, QTY, ITEM, DESCRIPTION, BULKQTY

Path: Enter the filename path where the source Bill of Materials files are located.

Filename: Enter the filename of the source Bill of Materials files.

Company Number: Enter the destination Production Entry company number that will receive the converted bills of materials.

Location ID: Enter the default item location for the imported bills of materials.

Select	Proceed	to import the selected Bill of Materials file.
	Edit	to edit the selections in the option grid.
	Cancel	to cancel the Bill of Materials import.

4. *Working with the Program*

- ◆ Post Completed Manufacturing
- ◆ Replacing Bill of Materials Items
- ◆ Closing the Period or Year

◆ *Chapter 4: Working with the Program*

Post Completed Manufacturing

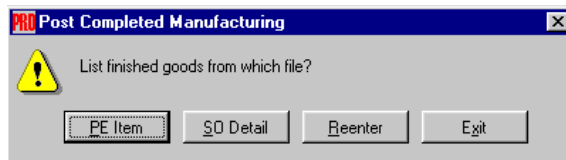
Some manufacturers build finished goods for stock regardless of when orders are received from customers. To increase a manufactured item's on-hand quantity and reduce component quantities in a single step through Production Entry, select **Transaction | Post Completed Manufacturing**.

If you are linked to Sales Orders, you can enter a sales order number or press <F2> to see a list of sales order items from the sales order transaction file.

If this transaction is to produce finished goods for stock and not to fill a sales order, leave the sales order number blank. Enter the finished good item number or press <F2> to see a list of finished good item numbers. If you enter a finished good item number is not found in the finished good item file, you will see this message:



If you press <F2> in the finished good field, you will see this message:



◆ Chapter 4: Working with the Program

Once a valid sales order number or finished item is entered, you will see this screen:

The screenshot shows a software window titled "Post Completed Manufacturing". At the top, there are three buttons: "Post", "Edit", and "Components". To the right of these buttons are three small icons: a floppy disk, a red 'X', and a magnifying glass. The main area of the window contains several data entry fields:

- Transaction #: 1001
- Transaction Date: 04/23/99
- Sales Order #: (empty)
- Finished Good: TESTSC
- Description: (empty)
- Cust No.: (empty)
- Company: (empty)
- Stock U/M: EACH
- BOM Number: TESTSC
- Revision Level: (empty)
- Description: TEST SC
- Finish Loct: PLANT2
- Description: Production Plant 2
- Finished Qty: 0.000
- Store: (empty)
- Bin: (empty)
- Serial Number: (empty)
- Lot Number: (empty)
- On Hand: 0.000
- Allocated: 0.000
- On Order: 0.000

Customer Number: If you did not select a sales order upon entering this screen, you can edit this field. You can optionally enter a customer number for whom this product was built. There are several ways you can select a customer:

- Enter the customer code and press **<Enter>**.
- Press **<F2>** or click on Search in the customer number to select from a list of existing records.

Finished Location: Enter or press <F2> to select the inventory location receiving this manufactured item. If you changed the screen label in the company setup information of Inventory Control for location, that screen label is used here.



The default for this field is from the “Mfg Completion” location stored in the company setup information of Inventory Control.

Completed: Enter the date that the manufacturing of this item was completed. The default is the current system date.

Finished Quantity: Enter the quantity of the item you received from manufacturing.



By default, the finished quantity must be 1 for serialized items. You can change this behavior if you are not using lot numbered or serial numbered components. See “System Options Screen” in the Setting up Production Entry section of Chapter 3 in this manual.

Store/Bin: If you are using stores and/or bins, enter the name of the store and/or bin where the manufactured item is being received. If you changed the screen labels in the company setup information of Inventory Control for stores or bins, those screen labels are used here.

Serial Number: If you have manufactured an item that uses serial numbers, enter the serial number for the unit you are receiving.

Lot Number: If you have manufactured an item that uses lots, enter the lot number for the units you are receiving.

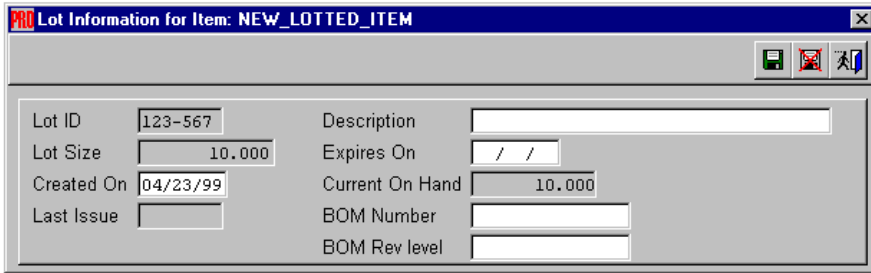


You must assign the entire receipt line item quantity to the same lot. If you are manufacturing an item in multiple lots, enter a separate transaction for each lot quantity. Once you enter a lot number for an item, you can enter additional information about the lot, such as description and expiration date.

◆ Chapter 4: Working with the Program

Entering Lot Information

If you entered a lot number for this item, you must enter information about the lot to which it is assigned. You will see this screen:



Lot ID	123-567	Description	
Lot Size	10.000	Expires On	/ /
Created On	04/23/99	Current On Hand	10.000
Last Issue		BOM Number	
		BOM Rev level	

Lot ID: This is the lot ID you entered for the receipt of this manufactured item.

Description: Enter a brief description of the lot.

Expires on: Enter the date on which the manufactured items in the lot expire. This is for informational purposes only.

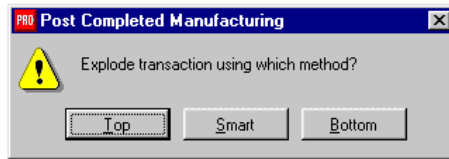
Created on: This field shows the date you created the lot record, which is the current system date.

When you have finished entering the lot information, select **Save**. You can view lot information at a later time by selecting **Item in Lot** from **Maintain | Inventory Items**.

Saving the Transaction

Select	Post	to complete this transaction.
	Edit	to edit this screen.
	Components	to add, edit, or delete BOM components.

If you have set the maximum BOM levels greater than 1 in the System Information screen, you will see this prompt:



Select	Top	to only reduce the stock on hand for the top level of this bill of materials.
	Smart	to reduce component parts based on on-hand inventory balances. If sufficient quantities of a subassembly part are not available, Smart explosion will use up the available parts before proceeding to the next lower level on the bill of materials tree.
	Bottom	to bypass any stock on hand that you have for any parent parts on this bill of materials and reduce inventory from the bottom-most level of the exploded bill of materials.



It is very important to understand the implications of your answer to this prompt. Selecting the wrong choice can cause your on-hand values in your inventory file to be incorrect.

For example, let's say that you build cable assemblies and there are two phases to your manufacturing process. The first phase consumes raw cable, connectors and labor. The second phase consumes the semi-completed cable, molding compound and more labor to complete the cable assembly.

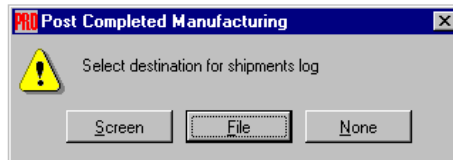
If you are posting completed manufacturing for the cable assembly that you actually sell and you already have the semi-completed cable in stock, you would

◆ Chapter 4: Working with the Program

select **No** to the explosion prompt. This prevents the program from reducing the on-hand values of the raw cable, connectors and labor a second time. The program will only reduce the on-hand values of the semi-completed cable, molding compound and the additional labor to complete the cable assembly.

However, if your manufacturing process is more or less instantaneous, then you would select **Yes** to the explosion prompt. This would allow the program to reduce the on-hand values of the raw cable, connectors, base labor, molding compound and completion labor all in one step.

When you choose to proceed, you will see this prompt:



You will not see this prompt if you have checked the **Automatically Create Daily Completion Logs** option in the System Options screen. Log files created by Pro Series are stored by default in your Pro Series system directory and have a filename extension of `.OUT`.

The shipment log is a line-by-line record of the bills of materials processed. If transaction processing fails for any reason, this log will provide information on what was completed before the interruption. This information can be valuable in the event of an error. We recommend that you save this log to a disk file.

Select	Screen	to display the shipment log on screen.
	File	to create a disk file record of the shipment processing. The log will also show on your screen.
	None	to process the transactions without monitoring the progress.

Replacing Bill of Material Items

Select this option to replace one component inventory item number with another inventory item. Use the option grid to specify the old and new detail items and to define the range of bills of materials on which to make this change. When selecting this menu option you will see this screen:

Option Grid - Global Component Replacement:		
Old Component	(current item in BOM detail)	<input type="text"/>
New Component	(new item number for BOM detail)	<input type="text"/>
Beg Finished Good	(portion or blank for all)	<input type="text"/>
End Finished Good	(portion or blank for all)	<input type="text"/>
Beg BOM Number	(portion or blank for all)	<input type="text"/>
End BOM Number	(portion or blank for all)	<input type="text"/>
Effective Dates	(begin and end or blank for all)	<input type="text"/> / / <input type="text"/> / /
Revision Dates	(begin and end or blank for all)	<input type="text"/> / / <input type="text"/> / /
BOM Type	{All/Cst/Mod/Out/Ptm/Std/Var}	Standard
Update Date/Time	{Y/N} (update revision date/time)	Y

Old and New Detail Item: Enter the inventory item number you want to replace and the inventory item number you want to use to replace it. These fields are required and may not be blank.

You can use any combination of the following options to limit the search range:

Beginning and Ending Finished Item: Enter all or part of the finished good item number in either or both of the fields to search through bills of materials with item numbers within that range. These fields are optional and can be blank.

◆ Chapter 4: Working with the Program

Beginning and Ending BOM Number: Enter all or part of the BOM number in either or both of the fields to search through bills of materials with item numbers within that range. These fields are optional and can be blank.

Effective Dates: Enter dates in either or both of these fields to search through bills of materials with an effective date within that range. These fields are optional and can be blank.

Revision Dates: Enter dates in either or both of these fields to search through bills of materials with a revision date within that range. These fields are optional and can be blank.

BOM Type:

Select	Standard	to include only standard bill of materials.
	Custom	to include only custom bill of materials.
	Both	to include all types of bill of materials

Update Date/Time:

Select	Yes	to update the bill of materials revision date.
	No	to skip the update of the revision date.

Once you have completed the option grid and submit it for processing, the program gives you several opportunities to reconsider before proceeding with the global change.

First the program offers you three choices:

Select	Proceed	to proceed with the global replacement.
	Edit	to make changes to the option grid entries.
	Cancel	to return to the Maintain menu without processing the option grid entries.

If you choose to **Proceed** you are presented with a list of the bills of materials that met your selection criteria. You must tag each bill of materials that you want the global replacement to affect. Use the cursor arrow keys to highlight the desired bill of materials and press the space bar to select or deselect that bill of materials. Press <**Enter**> to submit you choices for processing.

If you press <**Enter**> without having tagged any bills of materials, you will see this prompt:



Though replacing bill of material items is technically a revision, the system will not designate it as such. If you wish to track the replacement as a revision, do not use this procedure, revise the work order.

If you have tagged any bills of materials, you will see this prompt:

Select	Yes	to proceed with the global item replacement.
	Cancel	to return to the Maintain menu without processing the option grid entries.

Closing the Period or Year

There are several reasons to close the period or year for Lahey Production Entry. During the period or year closing the program optimizes the application's data files. At the same time, the program gives you the opportunity to archive or purge obsolete bills of materials.

You close the period or year for all Pro Series applications using the options on the **Period Close** submenu in System Manager. Refer to your System Manager manual for information on using the period close options.



You should not close the period unless you have made a backup copy of all your data files (those files ending in .DBF or .FPT)



It's a good idea to close Production Entry, Sales Orders, Purchase Orders, Inventory Control, and Accounts Receivable on the same schedule to keep the data files they share from getting out of sync.

When you choose to close the period or year for Production Entry, you will see the following option grid:

Option Grid - Production Entry Period and Year Closing:		
Purge YTD BOMs	{Yes/No}	Yes
Archive Obs BOMs	{Yes/No}	Yes

Purge Year-To-Date Bills of Materials: Select **Yes** to have the program remove all of the obsolete bills of materials in the bill of materials history files.

Archive Obsolete Bill of Materials: Select **Yes** to have the program move all of the obsolete bills of materials in the bill of materials current files to the history files.

You should only purge or archive data if you have previously backed up your data files and are in need of storage space on your hard disk. Otherwise, you should keep this data, which you can use to print a variety of reports.



If you do delete the work order transaction history files, you are asked to enter the deletion password, which is **DESTRUCT**.

◆ *Chapter 4: Working with the Program*

5. *Reports and Inquires*

- ◆ Selecting the Output Destination
- ◆ Customizing Reports
- ◆ Bills of Materials
- ◆ Finished Goods
- ◆ Parents
- ◆ Components
- ◆ Where Used
- ◆ Unused Items
- ◆ Manufacturing Journal

◆ *Chapter 5: Reports and Inquires*

Selecting the Output Destination

The option to print or display is available for all reports in Production Entry. You might indicate your choice by selecting a command button, selecting an option button, or clicking an icon, but the choice is always available.



You can quit most printing routines by pressing <Esc>. If you choose this option, the program will close all data files to protect them from damage before returning you to the previous screen.

Option Grids

When you select a report from one of the options on the Print menu, you see a report option grid, which defines the scope of the report. Detailed explanations of each report's options are found later in the chapter.

This is an example of a report option grid:

Order by	{Item/Description}	Item
Include only	{All/Inventory/Service/Expense}	All
Beginning Item	(<F2> to list, or blank for all)	
Ending Item	(<F2> to list, or blank for all)	
Item Class	(<F2> to list, or blank for all)	To
Misc. Code	(range or blank for all)	To
Commodity Code	(range or blank for all)	To

◆ Chapter 5: Reports and Inquires

Producing a report is a three-step process.

1. Complete the option grid to select the data you want.
2. After completing the option grid, click **Generate** to compile the information for the report according to the option grid criteria.
3. After the program has assembled the data for the report, choose the report output destination.

Click **Preview** to display the report on your screen.
 Print to send the report to a printer or save it to a disk file.

After the program prints or displays the report, you return to the option grid. You can print and display the report as many times as you like before exiting.

To make changes to the report:

Click **Reenter** to change your option grid responses.
 Modify to create a customized report for this company.

Any time you change your responses on an option grid, you must select **Generate** again to update the version of the report that is stored for viewing.

Displaying Reports

Use the **Preview** button to display a report before you print. You can look at entire pages to check the layout or zoom in on a particular portion to check details.

The window displays a mock-up of your report. A special toolbar offers quick access to a number of special commands.

You can also use the scroll bars to move forward and backward through the report, or scroll right and left to see its entire width.

Clicking anywhere on the document window changes the magnification. From the full-page view, the first click zooms you in on the portion of the page you clicked on. The second click returns you to the full-page view.

Printing or Exporting Reports

After generating a report, select **Print** to choose an output destination (i.e., print or export data to a disk file).

Click	Print Only	to send output to the default printer.
	Print and Fax/Email	(available only when Message Master is set up) to send output to the printer and fax or e-mail the report.
	Fax/Email Only	(available only when Message Master is set up) to fax or e-mail the report to selected recipients.
	Export	to save the data as a spreadsheet or text.
	Setup	to go to the Windows Print Setup dialog box. You can use it to set print job properties or select another printer.
	Cancel	to return to the option grid.

If you choose to print a report, Pro Series sends the output to the default printer who's ID is displayed in the dialog box.

If you choose to export a report, you see a dialog box that enables you to specify the name and format of the file to which you are exporting.

Customizing Reports

This section contains information on the customizing the report forms for your Production Entry system.

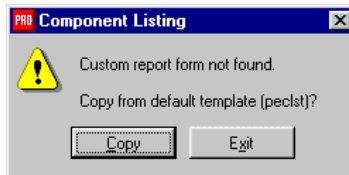
You can customize reports using the **Modify** option on the report option grid. This option opens the Visual FoxPro Report Designer, which contains a variety of tools that make it easy to modify your reports. For example, you can include a corporate logo, or rearrange the layout of the reports. For more information about the Report Designer, see your Visual FoxPro documentation.



Customizing report forms could alter export results when exporting to external applications. See your System Manager documentation for details.

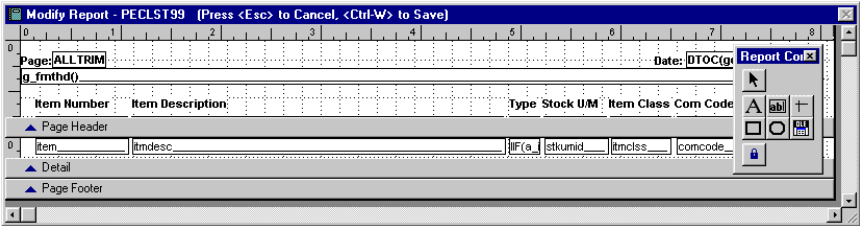
You can keep one modified version of each report, in addition to the standard version. If a modified form exists, you see the **Standard** and **Custom** buttons at the upper-right part of the report option grid. When you click **Modify**, the system assumes that you are customizing the version of the report whose button is selected.

The first time you customize a report, when you click **Modify**, the following dialog box appears:



Click	Copy	to copy the report from the default report template.
	Exit	to cancel this option and return to the option grid.

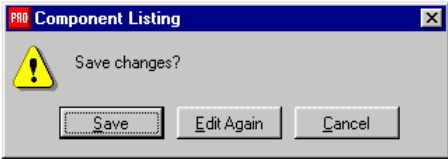
You see a standard Visual FoxPro form editor window, in which you can edit and move the report form fields.



You can add text or images (such as company logos) to any report form.

Avoid using the options on the right-click context menus—some of these options may not work properly with Pro Series reports—instead, use the options from the pull-down menus in the form editor.

When you finish, press <Ctrl-W> to save your changes. The following dialog box appears:



- Click **Save** to save the customized report.
- Edit Again** to return to the Visual FoxPro Report Designer.
- Cancel** to cancel the modifications.

◆ Chapter 5: Reports and Inquires

When you save your changes, a **Standard** and a **Custom** version of the report are saved. The standard version is the default report and has the default report name. The custom version contains your modifications and has the company number appended to the report name. For example, if you customize a report for company number 99 with a default report name of “PECLST,” the customized report name will be “PECLST99.”



You can only save one customized version of each report.

When you choose to print a customized report, you see the **Standard** and **Custom** options at the top of the option grid. Select the version of the report you want to display, print, or modify.

Because Pro Series only allows one customized version of each report, if you choose to modify the standard version a second time, you are prompted to replace the existing custom version with a standard version before you can proceed.

Click	Yes	to overwrite the existing custom version of the report with the standard version. (You will lose all previous modifications to the report.)
	No	to update the existing custom version of the report. (You will retain any previous modifications to the report.) When you finish making changes to the report, press <Ctrl-W> to save it. The program asks you to confirm that you want to save your changes.

Bills of Materials

This report contains the bill of material information for the parent part number(s) you select. Select **Bills of Materials** from the **Print** menu.

BOM Number: Enter one or more characters to include only parent part numbers beginning with the characters you specify.

Revision Level: Enter one or more characters to include only revision levels beginning with the characters you specify.

BOM Type:

Select	All	to include all types of bills of materials.
	Modular	to include only modular bills of materials.
	Phantom	to include only phantom bills of materials.
	Standard	to include only standard bills of materials.
	Custom	to include only custom bills of materials.

Cost Location:

Select	All	if you want to use costs from the Item Master file.
	Specific	if you want to use costs from the Item Location file.

Cost Method:

Select	Average	if you want to use the average cost value for each item.
	Standard	if you want to use the standard cost value for each item.
	Last	if you want to use the last cost value for each item.

Include Costs:

Select **Inventory** if you want to use inventory costs.
None if you do not want costs.
Roll-up if you want to use the cost roll-up capability to get the most up-to-date production costs.



If you answer **None** to this option, the report will include longer item descriptions, inventory type codes, and component lead times.

Report Type:

Select **Exploded** to see a report which shows a total for each component at each level of the bill of materials.
Top Level to see a report which shows a total only for the top-level parent part numbers in the bill of materials.
Summary to see a report which shows a total for each component at each level without the scrap and per unit fields.

Quantity Multiply Factor: Enter a number other than 1.000 here if you want to multiply all quantities and costs by a constant factor. This helps to calculate total costs when items are made in quantity. This will be used if the BOM will be used for manufacturing without creating a work order.

Effective Date: Enter a date in this field to select which version of the bill of materials you want to use for the report.

Update Parents:

Select **Yes** to update the standard cost of the parent part.
No to leave parent part's standard cost unchanged.

Finished Goods

This report shows which finished good items that are produced by your bill of materials. Select **Finished Goods** from the **Print** menu.

BOM Number: Enter one or more characters to include only parent part numbers beginning with the characters you specify.

Revision Level: Enter one or more characters to include only revision levels beginning with the characters you specify.

Finished Good: Enter a portion of, or an entire Finished Good item number to see the report for bills of materials with finished good item numbers in that range.

Parents

This report includes information about those inventory items that have bills of materials and that are also included in another item's bill of materials. Select **Parents** from the **Print** menu.

Order By:

Select	Item	to sort the report by item number.
	Description	to sort the report by item description.

Include Only:

Select	All	to see the report for all inventory items.
	Inventory	to see the report for those items with the inventory type "Inventory".
	Service	to see the report for those items with the inventory type "Service".
	Expense	to see the report for those items with the inventory type "Expense".

Beginning Item, Ending Item: Enter item codes in either or both of these fields to see the report for items in that range.

Item Class, Misc. Code, Commodity Code: Enter class, miscellaneous, or commodity codes in either or both of the fields available for each option to see the report for items with codes in that range.

Components

This report lists information about all items that are also included in any bill of materials, but do not themselves have a bill of materials. Select **Components** from the **Print** menu.

Order By:

Select	Item	to sort the report by item number.
	Description	to sort the report by item description.

Include Only:

Select	All	to see the report for all inventory items.
	Inventory	to see the report for those items with the inventory type of “Inventory”.
	Service	to see the report for those items with the inventory type of “Service”.
	Expense	to see the report for those items with the inventory type of “Expense”.

Beginning Item, Ending Item: Enter item codes in either or both of these fields to see the report for item sin that range.

Item Class, Misc. Code Commodity Code: Enter class, miscellaneous, or commodity codes in either or both of the fields available for each option to see the report for items with codes in that range.

Where Used

This report lists each inventory item and indicates which parent parts it is used in. Select **Where Used** from the **Print** menu.

Include Only:

Select	All	to see the report for all inventory items.
	Inventory	to see the report for those items with the inventory type of "Inventory".
	Service	to see the report for those items with the inventory type of "Service".
	Expense	to see the report for those items with the inventory type of "Expense".

Beginning Item, Ending Item: Enter item codes in either or both of these fields to see the report for items in that range.

Item Class, Misc. Code, Commodity Code: Enter class, miscellaneous, or commodity codes in either or both of the fields available for each option to see the report for items with codes in that range.

Unused Items

This report lists each inventory item that is not used on any bill of materials. Select **Unused Items** from the **Print** menu.

Order By:

- Select **Item** to sort the report by item number.
- Description** to sort the report by item description.

Include Only:

- Select **All** to see the report for all inventory items.
- Inventory** to see the report for those items with the inventory type of “Inventory”.
- Service** to see the report for those items with the inventory type of “Service”.
- Expense** to see the report for those items with the inventory type “Expense”.

Beginning Item, Ending Item: Enter item codes in either or both of these fields to see the report for items in that range.

Item Class, Misc. Code, Commodity Code: Enter class, miscellaneous, or commodity codes in either or both of the fields available for each option to see the report for items with codes in that range.

Manufacturing Journal

This report gathers manufacturing-oriented transaction information from the Inventory Control transaction files, as well as the Inventory Distribution files when linked to General Ledger. Select **Manufacturing Journal** from the **Print** menu.

File to Use:

Select	Current	to see the report for current period work orders.
	History	to see the report for prior period work orders.
	Both	to see the report for all work orders.

Order by:

Select	Account	to sort the report by GL account number (this option is only available when linked to General Ledger).
	Date	to sort the report by transaction date.
	Document	to sort the report by document number.
	Item	to sort the report by item number.
	Location	to sort the report by lob number.

Application:

Select	All	to include transactions from all applications.
	PE	to include only Production Entry transactions.
	AR	to include only Accounts Receivable transactions.
	PO	to include only Purchase Order transactions.
	SO	to include only Sales Order transactions.

Location: Enter location IDs in either or both of these fields to see the report for items in locations within that range.

Beginning Account, Ending Account: Enter General Ledger account numbers in either or both of these fields to see the report for General Ledger account numbers within that range (this option is only available when linked to General Ledger).

Transaction Date: Enter dates in either or both of these fields to see only transactions whose date falls within that range.

◆ *Chapter 5: Reports and Inquires*

6. *Linking with Other Applications*

- ◆ Linking Overview
- ◆ About General Ledger Linking
- ◆ Linking with Accounts Receivable
- ◆ Linking with Sales Orders
- ◆ Tracking IC and GL Activity

◆ *Chapter 6: Linking with Other Applications*

Linking Overview

Lahey Production Entry links with other Pro Series applications to create a flexible, integrated accounting system. It enables you to generate transactions in one application, which in turn updates related information in another application's data files.

There are actually two types of linking. One method works by creating postings that do not immediately affect another application's data, but are held until you decide to release them to the linked application. This is how Inventory Control links to General Ledger.

The other linking method integrates the Lahey Production Entry data with Inventory Control, Sales Orders, Purchase Orders, and Accounts Receivable. Transactions in these applications directly affect the inventory files, such as when you create an invoice, receive a purchase order, or close a work order.

The following sections describe how Lahey Production Entry works with other Pro Series applications.

About General Ledger Linking

By linking Inventory Control with General Ledger, you can accurately account for variations in your inventory values, and produce detailed financial reports that include your company's inventory operations. Inventory Control lets you determine how detailed you want the linking information to be. You can specify unique general ledger accounts for each item, for all items at a location, or simply use the same general ledger accounts for all items and locations.

How Does Linking Work?

Linking works by using the general ledger account numbers you assign in Inventory Control to create balanced debit and credit postings from inventory transactions. These postings are not automatically transferred to General Ledger. Instead, the Inventory Control postings are accumulated in a holding file, and you release them to General Ledger as necessary.

In General Ledger, you must choose to update your account balances with the postings you released from Inventory Control. This gives you complete control over the flow of information between the two applications.

Lahey Production Entry links to General Ledger through Inventory Control. When work orders are closed, Production Entry will create balanced debit and credit postings from component costs to finished goods.



The **Item Control** field is the account that is used for all inventory transactions posted by Production Entry. You can create one general ledger account for raw materials and finished good inventory or one account for raw materials and a second account for finished goods.



For more information on assigning general ledger account numbers to inventory items, see “Linking with General Ledger” in the Inventory Control manual.

Linking with Accounts Receivable

Lahey Production Entry and Accounts Receivable share the same inventory file. This means that you only have to enter an item in one place for both programs to be able to use the record. In addition, it means that the inventory file contains information about past product sales from Accounts Receivable and about upcoming requirements from Production Entry.

If you have Sales Orders, Lahey Production Entry, and Accounts Receivable, the “life cycle” of an order might go something like this:

Sales Orders: Receive customer purchase order. Enter the sales order and schedule the customer required dates.

Purchase Orders: Enter purchase orders based upon the recommended reorder report in Inventory Control. Receive the purchase orders.

Production Entry: Manufacture the item. Post the completed manufacturing.

Sales Orders: Ship the sales order. Create an invoice.

Accounts Receivable: Receive the customer payment. Enter a cash receipt.

Setting Up the Link

Linking with Accounts Receivable is a very simple process -- all you need to do is install both programs and assign the same company number to each application.

Linking to Sales Orders

Lahey Production Entry and Sales Orders use the same inventory file. When you enter a sales order, Sales Orders updates the Allocated, SO quantity in the inventory file; and when an order is shipped, the Allocated, SO quantity is reset and the On Hand Quantity is reduced.

Once you are linked, you can selectively pull sales order transactions directly into Production Entry while you are posting completed manufacturing.

To create the link with Sales Orders, follow these steps:

1. Install Sales Orders and Lahey Production Entry, if you haven't already done so, and create the data files for both applications. The data files must use the same company number.
2. Start Production Entry. Select **Change Setup Information** from the **File** menu.
3. Click on the Link Settings button.
4. Select the option "Link to Sales Orders".

Kitting a Bill of Materials during SO Entry

If you have predictable, repetitive sets of item numbers that need to be entered on many sales orders, you can save valuable data entry time during order entry by creating a bill of materials for those set of items. Instead of entering those set of items one at a time on every order, you can enter a single item that triggers the components to be automatically added as individual lines items on the sales order.



Using this feature gives you to ability to ship individual line items at different times, which would not be possible if the line items were set as components within a bill of materials.

Configuring a Bill of Materials during SO Entry

Production Entry provides an additional interface that works seamlessly from within the order entry process to enable a finished good's components to be selected, changed or deleted.

Line	Type	Item	Description	Required	Scrap	Lot
10	S	FLOP120	3.5" Super Floppy	3.000	0.00	WH1
20	M	HD10.0G	10.0 GB EIDE Ultra DMA 9.0	3.000	0.00	WH1
30	M	SVGA17	17" SVGA .25 mm dot pitch	3.000	0.00	WH1

Generating a Work Order during SO Entry

When Work Orders is installed, use this option for build-to-order environments to immediately create work orders and allocate components in real time from sales orders as they are entered.



It is important to select this option if you are using the Configure during SO Entry option for finished goods that will be created from a work order in order for the custom configuration to be processed correctly.

◆ Chapter 6: Linking with Other Applications

Exploding a Bill of Materials during SO Shipment

Production Entry can work with Sales Orders to enable you to record the depletion of an item's components when it is shipped from a sales order. This is appropriate for kit inventory where you need to get the components out of inventory when you ship the top-level parent part.



If the bill of materials for a top-level item contains parent parts that you also want reduced to their components during shipment, you must answer select this option for each subassembly's bill of materials as well.



Do not use Post Completed Manufacturing to build finished goods and also mark the same bill of materials to explode during sales order shipment. This will result in the over-consumption of component parts and duplicate postings of finished goods.

System Requirements for Advanced BOM Handling in Sales Orders

- Install the Lahey-Enhanced versions of selected Sales Orders files.
- Select the appropriate transaction option on the BOM Header screen for each bill of materials.
- Be sure you have assigned at least one finished good to the bill of materials that you want to automatically explode.



For more information on Lahey-Enhanced files, see "Updating your Installation" in Chapter 2 of this manual.



To designate individual bills of materials with these options in Sales Orders, please see the section titled “BOM Header Screen” in Chapter 3 of this manual.



For more information on finished good items, see “Bills of Materials, Finished Good Screen” in Chapter 3 of this manual.

Available to Sell Hotkey

You can program a hotkey with PEHKAS.PRG that allows bill of material component availability to be viewed during sales order entry in order for the sales staff to predict accurate delivery dates for parent parts:

16 available + 0 able to build = 16.000 to sell of WIDGET. <Esc> to Exit.							
Component	Level	On-Hand Qty	MRP Qty	ATB Qty	Unit Qty	Maximum Qty	
RM-BOLT	.1	-7.000	-1.000	0.000	1.000	-8.000	
CABL16-BLK	.1	1,025.000	-205.000	0.000	5.000	164.000	
RM-WASHER	.1	-14.000	-2.000	0.000	2.000	-8.000	
RM-NUT	.1	-7.000	-1.000	0.000	1.000	-8.000	



For more information on hotkeys, see “Adding Custom Hotkeys” in the Setup & Maintenance chapter of the System Manager manual.

Tracking IC and GL Activity

If you have several Pro Series applications installed for a company, the following table may help you understand what's going on "behind the scenes". It provides an overview of how various transactions in other applications affect Inventory Control, as well as the postings to General Ledger.

<u>Application-Event</u>	<u>Effect on Inventory Control</u>	<u>Effect on General Ledger</u>
SO-enter sales order	Alloc, WO increased for finished goods	None
PO-enter purchase order	On Order, PO increased for component parts	None
PO-receive purchase order	On Order, PO decreased and On Hand Qty increased for component parts	DR:Item Control-RM CR:PO Clearing
PE-complete manufacturing	On Hand Qty increased for finished goods	DR:Item Control-FG CR:Item Control-RM
SO-ship sales order AR-invoice created	Alloc, SO decreased and On Hand Qty decreased for finished good	DR:Cost of Sales CR:Item Control-FG DR:Accts Receivable CR:Sales
AP-invoice PO receipt	Updates billed flag	DR:PO Clearing CR:Accts Payable
AR-enter cash receipt	None	DR:Cash CR:Accts Receivable
AP-print checks	None	DR:Accts Payable CR:Cash

7. Sample Reports

- ◆ Bill of Materials Listing
- ◆ Finished Good Listing
- ◆ Parent Listing
- ◆ Component Listing
- ◆ Where Used Listing
- ◆ Unused Item Listing

◆ *Chapter 7: Sample Reports*

Bill of Materials Listing (Exploded with Costs)

Level	Item Number	Revision Level	Item Description Location ID:	Qty Used	Stock U/M	Type	Unit Cost	Ext Cost	
				Qty Scrap	P/U Scrap?	Lead Operation	Work Center		
Page: 1									
Professional Software, Incorporated Exploded Bill of Materials Listing All BOM Numbers, All Revision Levels Quantity Multiplication Factor = 1.000 As of 06/23/95, with Costs Rolled-up									
Date: 06/23/95 at 5:15 PM									
=====									
BOM Number: A2EW Revision Level: Description: Analog II Exterior Wafer									
0				1.000			463.69901	463.69901	
.1	AIRC		Analog Interface RAM Card	2.000	EACH	INV	125.20588	250.41176	
			WH1	0.000	Yes	0			
.1	ASSC	BLK	Analog Super Segment Cable	3.000	FT	INV	71.09575	213.28725	
			WH1	0.000	Yes	0			
..2	CABL16-BLK		Wire, 16 ga, Black Vinyl	15.000	FT	INV	4.25000	63.75000	
			WH1	0.000	Yes	0			
..2	CSCA		Code Switch/Cable Assembly	3.000	PACK6	INV	16.61525	149.53725	
			WH1	0.000	Yes	0			
BOM Number: ASSC Revision Level: BLK Description: Analog Super Segment Cable									
0				1.000			71.09575	71.09575	
.1	CABL16-BLK		Wire, 16 ga, Black Vinyl	5.000	FT	INV	4.25000	21.25000	
			WH1	0.000	Yes	0			
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6	INV	16.61525	49.84575	
			WH1	0.000	Yes	0			
BOM Number: ASSC Revision Level: GRN Description: Analog Super Segment Cable									
0				1.000			91.72135	91.72135	
.1	CABL16-GRN		Wire, 16 ga, Green Vinyl	10.000	FT	INV	4.18756	41.87560	
			WH1	0.000	Yes	0			
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6	INV	16.61525	49.84575	
			WH1	0.000	Yes	0			
BOM Number: ASSC Revision Level: RED Description: Analog Super Segment Cable									
0				1.000			113.78085	113.78085	
.1	CABL16-RED		Wire, 16 ga, Red Vinyl	15.000	FT	INV	4.26234	63.93510	
			WH1	0.000	Yes	0			
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6	INV	16.61525	49.84575	
			WH1	0.000	Yes	0			

Bill of Materials Listing (Top Level with Costs)

Page: 1		Professional Software, Incorporated Top Level Bill of Materials Listing All BOM Numbers, All Revision Levels Quantity Multiplication Factor = 1.000 As of 06/23/95, with Costs Rolled-up					Date: 06/23/95 at 5:15 PM	
Level	Item Number	Revision Level	Item Description Location ID:	Qty Used Qty Scrap	Stock U/M P/U Scrap?	Type Lead Operation	Unit Cost	Ext Cost Work Center
BOM Number: A2EW		Revision Level:	Description: Analog II Exterior Wafer	1.000			463.69901	463.69901
.1	AIRC		Analog Interface RAM Card WH1	2.000 0.000	EACH Yes	INV 0	125.20588	250.41176
.1	ASSC	BLK	Analog Super Segment Cable WH1	3.000 0.000	FT Yes	INV 0	71.09575	213.28725
BOM Number: ASSC		Revision Level: BLK	Description: Analog Super Segment Cable	1.000			71.09575	71.09575
.1	CABL16-BLK		Wire, 16 ga, Black Vinyl WH1	5.000 0.000	FT Yes	INV 0	4.25000	21.25000
.1	CSCA		Code Switch/Cable Assembly WH1	3.000 0.000	PACK6 Yes	INV 0	16.61525	49.84575
BOM Number: ASSC		Revision Level: GRN	Description: Analog Super Segment Cable	1.000			91.72135	91.72135
.1	CABL16-GRN		Wire, 16 ga, Green Vinyl WH1	10.000 0.000	FT Yes	INV 0	4.18756	41.87560
.1	CSCA		Code Switch/Cable Assembly WH1	3.000 0.000	PACK6 Yes	INV 0	16.61525	49.84575
BOM Number: ASSC		Revision Level: RED	Description: Analog Super Segment Cable	1.000			113.78085	113.78085
.1	CABL16-RED		Wire, 16 ga, Red Vinyl WH1	15.000 0.000	FT Yes	INV 0	4.26234	63.93510
.1	CSCA		Code Switch/Cable Assembly WH1	3.000 0.000	PACK6 Yes	INV 0	16.61525	49.84575
BOM Number: COMP486		Revision Level: 1.00	Description: 486 computer	1.000			857.84721	857.84721
.1	AIRC		Analog Interface RAM Card WH1	1.000 0.000	EACH No	INV 0	125.20588	125.20588
.1	VGA13		13" VGA Color Monitor WH1	1.000 0.000	EACH No	INV 0	318.37128	318.37128
.1	FLOP35		3.5" Floppy Disk WH1	1.000 0.000	DOZEN No	INV 0	0.27005	0.27005
.1	MOUSESR		Serial Mouse WH1	1.000 0.000	EACH No	INV 0	92.00000	92.00000
.1	HD80		80 MB Hard Disk WH1	1.000 0.000	EACH No	INV 0	322.00000	322.00000

Bill of Materials Listing (Summarized with Costs)

Level	Item Number	Revision Level	Item Description	Qty Used	Stock U/M	Type	Unit Cost	Ext Cost
Page: 1								
Professional Software, Incorporated Summarized Bill of Materials Listing All BOM Numbers, All Revision Levels Quantity Multiplication Factor = 1.000 As of 06/23/95, with Costs Rolled-up								
Date: 06/23/95 at 5:15 PM								
=====								
BOM Number: A2EW		Revision Level:		Description: Analog II Exterior Wafer				
0				1.000			463.69901	463.69901
.1	AIRC		Analog Interface RAM Card	2.000	EACH	INV	125.20588	250.41176
.1	ASSC	BLK	Analog Super Segment Cable	3.000	FT	INV	71.09575	213.28725
.2	CABL16-BLK		Wire, 16 ga, Black Vinyl	15.000	FT	INV	4.25000	63.75000
.2	CSCA		Code Switch/Cable Assembly	9.000	PACK6	INV	16.61525	149.53725
BOM Number: ASSC		Revision Level: BLK		Description: Analog Super Segment Cable				
0				1.000			71.09575	71.09575
.1	CABL16-BLK		Wire, 16 ga, Black Vinyl	5.000	FT	INV	4.25000	21.25000
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6	INV	16.61525	49.84575
BOM Number: ASSC		Revision Level: GRN		Description: Analog Super Segment Cable				
0				1.000			91.72135	91.72135
.1	CABL16-GRN		Wire, 16 ga, Green Vinyl	10.000	FT	INV	4.18756	41.87560
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6	INV	16.61525	49.84575
BOM Number: ASSC		Revision Level: RED		Description: Analog Super Segment Cable				
0				1.000			113.78085	113.78085
.1	CABL16-RED		Wire, 16 ga, Red Vinyl	15.000	FT	INV	4.26234	63.93510
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6	INV	16.61525	49.84575
BOM Number: COMP486		Revision Level: 1.00		Description: 486 computer				
0				1.000			857.84721	857.84721
.1	AIRC		Analog Interface RAM Card	1.000	EACH	INV	125.20588	125.20588
.1	VGA13		13" VGA Color Monitor	1.000	EACH	INV	318.37128	318.37128
.1	FLOP35		3.5" Floppy Disk	1.000	DOZEN	INV	0.27005	0.27005
.1	MOUSESR		Serial Mouse	1.000	EACH	INV	92.00000	92.00000
.1	HD80		80 MB Hard Disk	1.000	EACH	INV	322.00000	322.00000

Bill of Materials Listing (Exploded without Costs)

Level	Item Number	Revision Level	Item Description Location ID	Qty Used	Stock	U/M	Type	Operation
				Scrap	P/U	Scrap?	Lead	Work Center
BOM Number: A2EW				Revision Level: Description: Analog II Exterior Wafer				
0				1.000				
.1	AIRC		Analog Interface RAM Card	2.000	EACH		INV	
			WH1	0.000	Yes		0	
.1	ASSC	BLK	Analog Super Segment Cable	3.000	FT		INV	
			WH1	0.000	Yes		0	
..2	CABL16-BLK		Wire, 16 ga, Black Vinyl	15.000	FT		INV	
			WH1	0.000	Yes		0	
..2	CSCA		Code Switch/Cable Assembly	9.000	PACK6		INV	
			WH1	0.000	Yes		0	
BOM Number: ASSC				Revision Level: BLK Description: Analog Super Segment Cable				
0				1.000				
.1	CABL16-BLK		Wire, 16 ga, Black Vinyl	5.000	FT		INV	
			WH1	0.000	Yes		0	
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6		INV	
			WH1	0.000	Yes		0	
BOM Number: ASSC				Revision Level: GRN Description: Analog Super Segment Cable				
0				1.000				
.1	CABL16-GRN		Wire, 16 ga, Green Vinyl	10.000	FT		INV	
			WH1	0.000	Yes		0	
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6		INV	
			WH1	0.000	Yes		0	
BOM Number: ASSC				Revision Level: RED Description: Analog Super Segment Cable				
0				1.000				
.1	CABL16-RED		Wire, 16 ga, Red Vinyl	15.000	FT		INV	
			WH1	0.000	Yes		0	
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6		INV	
			WH1	0.000	Yes		0	
BOM Number: COMP486				Revision Level: 1.00 Description: 486 computer				
0				1.000				
.1	AIRC		Analog Interface RAM Card	1.000	EACH		INV	
			WH1	0.000	No		0	
.1	VGA13		13" VGA Color Monitor	1.000	EACH		INV	
			WH1	0.000	No		0	
.1	FLOP35		3.5" Floppy Disk	1.000	DOZEN		INV	
			WH1	0.000	No		0	
.1	MOUSESSL		Serial Mouse	1.000	EACH		INV	
			WH1	0.000	No		0	
.1	HD80		80 MB Hard Disk	1.000	EACH		INV	
			WH1	0.000	No		0	

Bill of Materials Listing (Top-Level without Costs)

Line #	Item Number	Revision Level	Item Description Location ID	Qty Used	Stock	U/M	Type	Operation	
				Qty Scrap	P/U	Scrap?	Lead	Work Center	
				=====					
Page: 1		Professional Software, Incorporated					Date: 06/23/95 at 5:15 PM		
		Top Level Bill of Materials Listing							
		All BOM Numbers, All Revision Levels							
		Quantity Multiplication Factor = 1.000							
		As of 06/23/95							
BOM Number: A2EW		Revision Level:		Description: Analog II Exterior Wafer					
100	AIRC		Analog Interface RAM Card	2.000	EACH		INV		
			WH1	0.000	Yes		0		
200	ASSC	BLK	Analog Super Segment Cable	3.000	FT		INV		
			WH1	0.000	Yes		0		
BOM Number: ASSC		Revision Level: BLK		Description: Analog Super Segment Cable					
100	CABL16-BLK		Wire, 16 ga, Black Vinyl	5.000	FT		INV		
			WH1	0.000	Yes		0		
200	CSCA		Code Switch/Cable Assembly	3.000	PACK6		INV		
			WH1	0.000	Yes		0		
BOM Number: ASSC		Revision Level: GRN		Description: Analog Super Segment Cable					
100	CABL16-GRN		Wire, 16 ga, Green Vinyl	10.000	FT		INV		
			WH1	0.000	Yes		0		
200	CSCA		Code Switch/Cable Assembly	3.000	PACK6		INV		
			WH1	0.000	Yes		0		
BOM Number: ASSC		Revision Level: RED		Description: Analog Super Segment Cable					
100	CABL16-RED		Wire, 16 ga, Red Vinyl	15.000	FT		INV		
			WH1	0.000	Yes		0		
200	CSCA		Code Switch/Cable Assembly	3.000	PACK6		INV		
			WH1	0.000	Yes		0		
BOM Number: COMP486		Revision Level: 1.00		Description: 486 computer					
100	AIRC		Analog Interface RAM Card	1.000	EACH		INV		
			WH1	0.000	No		0		
200	VGA13		13" VGA Color Monitor	1.000	EACH		INV		
			WH1	0.000	No		0		
300	FLOP35		3.5" Floppy Disk	1.000	DOZEN		INV		
			WH1	0.000	No		0		
400	MOUSESRL		Serial Mouse	1.000	EACH		INV		
			WH1	0.000	No		0		
500	HD80		80 MB Hard Disk	1.000	EACH		INV		
			WH1	0.000	No		0		

◆ Chapter 7: Sample Reports

Bill of Materials Listing (Summarized without Costs)

Level	Item Number	Revision Level	Item Description	Qty Used	Stock U/M
Page: 1					
Professional Software, Incorporated Summarized Bill of Materials Listing All BOM Numbers, All Revision Levels Quantity Multiplication Factor = 1.000 As of 06/23/95					
Date: 06/23/95 at 5:15 PM					
=====					
BOM Number: A2EW					
		Revision Level:	Description: Analog II Exterior Wafer	1.000	
0					
.1	AIRC		Analog Interface RAM Card	2.000	EACH
.1	ASSC	BLK	Analog Super Segment Cable	3.000	FT
..2	CABL16-BLK		Wire, 16 ga, Black Vinyl	15.000	FT
..2	CSCA		Code Switch/Cable Assembly	9.000	PACK6
BOM Number: ASSC					
		Revision Level: BLK	Description: Analog Super Segment Cable	1.000	
0					
.1	CABL16-BLK		Wire, 16 ga, Black Vinyl	5.000	FT
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6
BOM Number: ASSC					
		Revision Level: GRN	Description: Analog Super Segment Cable	1.000	
0					
.1	CABL16-GRN		Wire, 16 ga, Green Vinyl	10.000	FT
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6
BOM Number: ASSC					
		Revision Level: RED	Description: Analog Super Segment Cable	1.000	
0					
.1	CABL16-RED		Wire, 16 ga, Red Vinyl	15.000	FT
.1	CSCA		Code Switch/Cable Assembly	3.000	PACK6
BOM Number: COMP486					
		Revision Level: 1.00	Description: 486 computer	1.000	
0					
.1	AIRC		Analog Interface RAM Card	1.000	EACH
.1	VGAI3		13" VGA Color Monitor	1.000	EACH
.1	FLOP35		3.5" Floppy Disk	1.000	DOZEN
.1	MOUSESRL		Serial Mouse	1.000	EACH
.1	HD80		80 MB Hard Disk	1.000	EACH

Finished Good Listing

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Professional Software, Incorporated
Finished Goods Listing
All BOM Numbers, All Revision Levels
All Finished Items

Item Number      Item Description
=====
BOM Number:  A2EW           Revision Level:
Description:  Analog II Exterior Wafer
A2EW         Analog II Exterior Wafer

BOM Number:  ASSC           Revision Level: BLK
Description:  Analog Super Segment Cable
ASSC         Analog Super Segment Cable

BOM Number:  COMP486        Revision Level: 1.00
Description:  486 computer
COMP486     486 Computer System, VGA Monitor, 80 MB Drive

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Parent Listing by Item Number

Page: 1	Professional Software, Incorporated	Date: 06/23/95 at 5:15 PM						
	Parent Listing							
	All Items							
	Ordered by Item Number							
BOM Number	Revision Level	BOM Description	Typ	Stock	U/M	Class	C Code	M Code
=====	=====	=====	=====	=====	=====	=====	=====	=====
A2EW		Analog II Exterior Wafer		INV	EACH			
ASSC	BLK	Analog Super Segment Cable		INV	FT			
ASSC	GRN	Analog Super Segment Cable		INV	FT			
ASSC	RED	Analog Super Segment Cable		INV	FT			
COMP486	1.00	486 computer		INV	EACH			

Parent Listing by Item Description

Page: 1		Professional Software, Incorporated			Date: 06/23/95 at 5:15 PM			
		Parent Listing						
		All Items						
		Ordered by Item Description						
BOM Number	Revision Level	BOM Description	Typ	Stock	U/M	Class	C Code	M Code
=====	=====	=====	=====	=====	=====	=====	=====	=====
COMP486	1.00	486 computer	INV		EACH			
A2EW		Analog II Exterior Wafer	INV		EACH			
ASSC	BLK	Analog Super Segment Cable	INV		FT			
ASSC	GRN	Analog Super Segment Cable	INV		FT			
ASSC	RED	Analog Super Segment Cable	INV		FT			

Component Listing by Item Number

Item Number	Item Description	Type	Stock	U/M	Item Class	Com Code	Misc Code
AIRC	Analog Interface RAM Card	INV		EACH			
ASSC	Analog Super Segment Cable	INV		FT			
CABL16-BLK	Wire, 16 ga, Black Vinyl	INV		FT			
CABL16-GRN	Wire, 16 ga, Green Vinyl	INV		FT			
CABL16-RED	Wire, 16 ga, Red Vinyl	INV		FT			
CSCA	Code Switch/Cable Assembly	INV		PACK6			
FLOP35	3.5" Floppy Disk	INV		DOZEN			
HD80	80 MB Hard Disk	INV		EACH			
MOUSESRL	Serial Mouse	INV		EACH			
WGA13	13" VGA Color Monitor	INV		EACH			

Component Listing by Item Description

Item Number	Item Description	Type	Stock	U/M	Item Class	Com Code	Misc Code
VGA13	13" VGA Color Monitor	INV		EACH			
FLOP35	3.5" Floppy Disk	INV		DOZEN			
HD80	80 MB Hard Disk	INV		EACH			
AIRC	Analog Interface EAM Card	INV		EACH			
ASSC	Analog Super Segment Cable	INV		FT			
CSCA	Code Switch/Cable Assembly	INV		PACK6			
MOUSESRL	Serial Mouse	INV		EACH			
CABL16-BLK	Wire, 16 ga, Black Vinyl	INV		FT			
CABL16-GRN	Wire, 16 ga, Green Vinyl	INV		FT			
CABL16-RED	Wire, 16 ga, Red Vinyl	INV		FT			

Where Used Listing

Page: 1		Professional Software, Incorporated Where Used Listing All Items				Date: 06/23/95 at 5:15 PM				
Line #	BOM Number	Revision Level	Loct	BOM Description	Qty Used	Stock U/M	Type	Qty Scrap	P/U	Lead
Item Number: AIRC										
	100 COMP486	1.00	WH1	486 Computer System, VGA Monitor, 80 MB	1.000	EACH	INV	0.000	No	0
	100 A2EW		WH1	Analog II Exterior Wafer	2.000	EACH	INV	0.000	Yes	0
Item Number: ASSC										
	200 A2EW		WH1	Analog II Exterior Wafer	3.000	EACH	INV	0.000	Yes	0
Item Number: CABL16-BLK										
	100 ASSC		WH1	Analog Super Segment Cable	5.000	FT	INV	0.000	Yes	0
Item Number: CABL16-GRN										
	100 ASSC		WH1	Analog Super Segment Cable	10.000	FT	INV	0.000	Yes	0
Item Number: CABL16-RED										
	100 ASSC		WH1	Analog Super Segment Cable	15.000	FT	INV	0.000	Yes	0
Item Number: CSCA										
	200 ASSC		WH1	Analog Super Segment Cable	3.000	FT	INV	0.000	Yes	0
	200 ASSC		WH1	Analog Super Segment Cable	3.000	FT	INV	0.000	Yes	0
	200 ASSC		WH1	Analog Super Segment Cable	3.000	FT	INV	0.000	Yes	0
Item Number: FLOP35										
	300 COMP486	1.00	WH1	486 Computer System, VGA Monitor, 80 MB	1.000	EACH	INV	0.000	No	0
Item Number: HD80										
	500 COMP486	1.00	WH1	486 Computer System, VGA Monitor, 80 MB	1.000	EACH	INV	0.000	No	0
Item Number: MOUSESRL										
	400 COMP486	1.00	WH1	486 Computer System, VGA Monitor, 80 MB	1.000	EACH	INV	0.000	No	0
Item Number: VGA13										
	200 COMP486	1.00	WH1	486 Computer System, VGA Monitor, 80 MB	1.000	EACH	INV	0.000	No	0

Unused Item Listing by Item Number

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Professional Software, Incorporated
 Unused Item Listing
 All Items
 Ordered by Item Number

Item Number	Item Description	Typ Class	C Code	M Code
=====	=====	===	=====	=====
A2EW	Analog II Exterior Wafer	INV		
CAD2	Drafting Software, Version 2.0	INV		
CAD3	Drafting Software, Version 3.0	INV		
COMP386	386 Computer System, VGA Monitor, 40 MB Drive	INV		
COMP486	486 Computer System, VGA Monitor, 80 MB Drive	INV		
CONSULT	Consulting	SRV		
DD15MB	1.5 MB Floppy Disk Drive	INV		
FLOP525	5.25" Floppy Disk	INV		
GRAPH1	Deluxe Graphics Software	INV		
HD40	40 MB Hard Disk	INV		
MONO3	ABC II Green Monitor	INV		
MOUSEBUS	Turbo Bus Mouse	INV		
PRNDOT132	Dot Matrix Printer, 132 Column	INV		
PRNDOT80	Dot Matrix Printer, 80 Column	INV		
PRNLASR	Laser Printer	INV		
REPAIR	Repair and Maintenance	SRV		
SHIP	Shipping Charges	SRV		
SHIP_FED_EX	Federal Express Shipping Charges	SRV		
SHIP_UPS	UPS Shipping Charges	SRV		
SPREAD1	Spreadsheet Software, Version 1.0	INV		
WP55	Word Processor, Version 5.5	INV		
WP60	Word Processor, Version 6.0	INV		
_FINANCE_CHARGE	Finance Charge	SRV		
_MANUAL_INVOICE	Manual Invoice	SRV		

Unused Item Listing by Item Description

Item Number	Item Description	Typ	Class	C Code	M Code
DD15MB	1.5 MB Floppy Disk Drive	INV			
COMP386	386 Computer System, VGA Monitor, 40 MB Drive	INV			
HD40	40 MB Hard Disk	INV			
COMP486	486 Computer System, VGA Monitor, 80 MB Drive	INV			
FLOP525	5.25" Floppy Disk	INV			
MONO3	ABC II Green Monitor	INV			
A2EW	Analog II Exterior Wafer	INV			
CONSULT	Consulting	SRV			
GRAPH1	Deluxe Graphics Software	INV			
PRNDOT132	Dot Matrix Printer, 132 Column	INV			
PRNDOT80	Dot Matrix Printer, 80 Column	INV			
CAD2	Drafting Software, Version 2.0	INV			
CAD3	Drafting Software, Version 3.0	INV			
SHIP_FED_EX	Federal Express Shipping Charges	SRV			
_FINANCE_CHARGE	Finance Charge	SRV			
PRNLASR	Laser Printer	INV			
_MANUAL_INVOICE	Manual Invoice	SRV			
REPAIR	Repair and Maintenance	SRV			
SHIP	Shipping Charges	SRV			
SPREAD1	Spreadsheet Software, Version 1.0	INV			
MOUSEBUS	Turbo Bus Mouse	INV			
SHIP_UPS	UPS Shipping Charges	SRV			
WP55	Word Processor, Version 5.5	INV			
WP60	Word Processor, Version 6.0	INV			

◆ *Notes*