PeopleSoft®

PeopleSoft Engineering 8.8 PeopleBook

December 2003

PeopleSoft Engineering 8.8 PeopleBook
SKU FSCM88EGG-B 1203

Open Source Disclosure

PeopleSoft takes no responsibility for its use or distribution of any open source or shareware software or documentation and disclaims any and all liability or damages resulting from use of said software or documentation. The following open source software may be used in PeopleSoft products and the following disclaimers are provided.

Apache Software Foundation

This product includes software developed by the Apache Software Foundation (http://www.apache.org/). Copyright (c) 1999-2000 The Apache Software Foundation. All rights reserved.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

OpenSSL

Copyright (c) 1998-2003 The OpenSSL Project. All rights reserved.

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SSLeay

Copyright (c) 1995-1998 Eric Young. All rights reserved.

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Loki Library

Copyright (c) 2001 by Andrei Alexandrescu. This code accompanies the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied". Copyright (c) 2001. Addison-Wesley. Permission to use, copy, modify, distribute and sell this software for any purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation.

Contents

About These PeopleBooks

PeopleBooks provide you with the information that you need to implement and use PeopleSoft applications.

This preface discusses:

- PeopleSoft application prerequisites.
- PeopleSoft application fundamentals.
- Related documentation.
- Typographical elements and visual cues.
- Comments and suggestions.
- Common elements in PeopleBooks.

Note. PeopleBooks document only page elements that require additional explanation. If a page element is not documented with the process or task in which it is used, then either it requires no additional explanation or it is documented with common elements for the section, chapter, PeopleBook, or product line. Elements that are common to all PeopleSoft applications are defined in this preface.

PeopleSoft Application Prerequisites

To benefit fully from the information that is covered in these books, you should have a basic understanding of how to use PeopleSoft applications.

See *Using PeopleSoft Applications.*

You might also want to complete at least one PeopleSoft introductory training course.

You should be familiar with navigating the system and adding, updating, and deleting information by using PeopleSoft windows, menus, and pages. You should also be comfortable using the World Wide Web and the Microsoft Windows or Windows NT graphical user interface.

These books do not review navigation and other basics. They present the information that you need to use the system and implement your PeopleSoft applications most effectively.

PeopleSoft Application Fundamentals

Each application PeopleBook provides implementation and processing information for your PeopleSoft database. However, additional, essential information describing the setup and design of your system appears in a companion volume of documentation called the application fundamentals PeopleBook. Each PeopleSoft product line has its own version of this documentation.

The application fundamentals PeopleBook consists of important topics that apply to many or all PeopleSoft applications across a product line. Whether you are implementing a single application, some combination of applications within the product line, or the entire product line, you should be familiar with the contents of this central PeopleBook. It is the starting point for fundamentals, such as setting up control tables and administering security.

Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on the PeopleSoft Customer Connection web site. Through the Documentation section of PeopleSoft Customer Connection, you can download files to add to your PeopleBook Library. You'll find a variety of useful and timely materials, including updates to the full PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM.

Important! Before you upgrade, you must check PeopleSoft Customer Connection for updates to the upgrade instructions. PeopleSoft continually posts updates as the upgrade process is refined.

See Also

PeopleSoft Customer Connection web site, http://www.peoplesoft.com/corp/en/login.asp

Ordering Printed Documentation

You can order printed, bound volumes of the complete PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM. PeopleSoft makes printed documentation available for each major release shortly after the software is shipped. Customers and partners can order printed PeopleSoft documentation by using any of these methods:

- Web
- Telephone
- Email

Web

From the Documentation section of the PeopleSoft Customer Connection web site, access the PeopleSoft Press web site under the Ordering PeopleBooks topic. The PeopleSoft Press web site is a joint venture between PeopleSoft and Consolidated Publications Incorporated (CPI), the book print vendor. Use a credit card, money order, cashier's check, or purchase order to place your order.

Telephone

Contact CPI at 800 888 3559.

Email

Send email to CPI at psoftpress@cc.larwood.com.

See Also

PeopleSoft Customer Connection web site, http://www.peoplesoft.com/corp/en/login.asp

Typographical Conventions and Visual Cues

This section discusses:

- Typographical conventions.
- Visual cues.

Typographical Conventions

The following table contains the typographical conventions that are used in PeopleBooks:

Typographical Convention or Visual Cue	Description
Bold	Indicates PeopleCode function names, method names, language constructs, and PeopleCode reserved words that must be included literally in the function call.
Italics	Indicates field values, emphasis, and PeopleSoft or other book-length publication titles. In PeopleCode syntax, italic items are placeholders for arguments that your program must supply. We also use italics when we refer to words as words or letters as letters, as in the following: Enter the number 0, not the letter *O*.
KEY+KEY	Indicates a key combination action. For example, a plus sign (+) between keys means that you must hold down the first key while you press the second key. For ALT+W, hold down the ALT key while you press W.
`Monospace font`	Indicates a PeopleCode program or other code example.
" " (quotation marks)	Indicate chapter titles in cross-references and words that are used differently from their intended meanings.

Typographical Convention or Visual Cue	Description
. . . (ellipses)	Indicate that the preceding item or series can be repeated any number of times in PeopleCode syntax.
{ } (curly braces)	Indicate a choice between two options in PeopleCode syntax. Options are separated by a pipe (|).
[ ] (square brackets)	Indicate optional items in PeopleCode syntax.
& (ampersand)	When placed before a parameter in PeopleCode syntax, an ampersand indicates that the parameter is an already instantiated object. Ampersands also precede all PeopleCode variables.
(ISO)	Information that applies to a specific country, to the U.S. federal government, or to the education and government market, is preceded by a three-letter code in parentheses. The code for the U.S. federal government is USF; the code for education and government is E&G, and the country codes from the International Standards Organization are used for specific countries. Here is an example: (GER) If you're administering German employees, German law requires you to indicate special nationality and citizenship information for German workers using nationality codes established by the German DEUEV Directive.
Cross-references	PeopleBooks provide cross-references either below the heading "See Also" or on a separate line preceded by the word *See*. Cross-references lead to other documentation that is pertinent to the immediately preceding documentation.

Visual Cues

PeopleBooks contain the following visual cues.

Notes

Notes indicate information that you should pay particular attention to as you work with the PeopleSoft system.

Note. Example of a note.

A note that is preceded by *Important!* is crucial and includes information that concerns what you must do for the system to function properly.

Important! Example of an important note.

Warnings

Warnings indicate crucial configuration considerations. Pay close attention to warning messages.

Warning! Example of a warning.

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other PeopleSoft reference and training materials. Please send your suggestions to:

PeopleSoft Product Documentation Manager PeopleSoft, Inc. 4460 Hacienda Drive Pleasanton, CA 94588

Or send email comments to doc@peoplesoft.com.

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions.

Common Elements in These PeopleBooks

As of Date	The last date for which a report or process includes data.
Business Unit	An ID that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.
Description	Enter up to 30 characters of text.
Effective Date	The date on which a table row becomes effective; the date that an action begins. For example, to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when you can view and change the information. Pages or panels and batch processes that use the information use the current row.
Once, Always, and **Don't Run**	Select Once to run the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to Don't Run. Select Always to run the request every time the batch process runs. Select Don't Run to ignore the request when the batch process runs.
Report Manager	Click to access the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).

Process Monitor	Click to access the Process List page, where you can view the status of submitted process requests.
Run	Click to access the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.
Request ID	An ID that represents a set of selection criteria for a report or process.
User ID	An ID that represents the person who generates a transaction.
SetID	An ID that represents a set of control table information, or TableSets. TableSets enable you to share control table information and processing options among business units. The goal is to minimize redundant data and system maintenance tasks. When you assign a setID to a record group in a business unit, you indicate that all of the tables in the record group are shared between that business unit and any other business unit that also assigns that setID to that record group. For example, you can define a group of common job codes that are shared between several business units. Each business unit that shares the job codes is assigned the same setID for that record group.
Short Description	Enter up to 15 characters of text.

See Also

Using PeopleSoft Applications

PeopleSoft Process Scheduler

PeopleSoft Engineering Preface

This preface discusses:

- PeopleSoft application fundamentals.
- Common elements in this PeopleBook.
- Pages with deferred processing.

Note. PeopleSoft Supply Planning Multisite Material Planner and PeopleSoft Supply Planning Advanced Multisite Planner are referred to collectively in this PeopleBook as PeopleSoft Supply Planning.

PeopleSoft Application Fundamentals

The *PeopleSoft Engineering 8.8 PeopleBook* provides you with implementation and processing information for your PeopleSoft Engineering system. However, additional, essential information describing the setup and design of your system resides in companion documentation. The companion documentation consists of important topics that apply to many or all PeopleSoft applications across the Financials, Enterprise Service Automation, and Supply Chain Management product lines. You should be familiar with the contents of these PeopleBooks.

These companion PeopleBooks contain information that applies specifically to PeopleSoft Engineering.

- *PeopleSoft Application Fundamentals for FIN, ESA, and SCM PeopleBook*
- *PeopleSoft Setting Up Procurement Options PeopleBook*
- *PeopleSoft Managing Items PeopleBook*
- *PeopleSoft Supply Chain Management Integration PeopleBook*

Pages With Deferred Processing

Several pages in PeopleSoft Engineering operate in deferred processing mode. Most fields on these pages are not updated or validated until you save the page or refresh it by clicking a button, link, or tab. This delayed processing has various implications for the field values on the page, for example, if a field contains a default value, any value you enter before the system updates the page overrides the default. Another implication is that the system updates quantity balances or totals only when you save or otherwise refresh the page.

See Also

PeopleSoft PeopleTools PeopleBook: Application Designer

Common Elements Used in This PeopleBook

As of Date	The last date for which a report or process includes data.
Description	Freeflow text up to 30 characters.
Effective Date	Date on which a table row becomes effective; the date that an action begins. For example, if you want to close out a ledger on June 30, the effective date for the ledger closing would be July 1. This date also determines when you can view and change the information. Pages and batch processes that use the information use the current row.
EmplID (employee ID)	Unique identification code for an individual associated with your organization.
Language or Language Code	The language in which you want the field labels and report headings of your reports to print. The field values appear as you enter them. Language also refers to the language spoken by an employee, applicant, or non-employee.
Process Frequency group box	Designates the appropriate frequency in the Process Frequency group box: • *Once* executes the request the next time the batch process runs. After the batch process runs, the process frequency is automatically set to *Don't Run*. • *Always* executes the request every time the batch process runs. • *Don't Run* ignores the request when the batch process runs.
Report ID	The report identifier.
Report Manager	This button takes you to the Report List page, where you can view report content, check the status of a report, and see content detail messages (which show you a description of the report and the distribution list).
Process Monitor	This button takes you to the Process List page, where you can view the status of submitted process requests.
Run	This button takes you to the Process Scheduler request page, where you can specify the location where a process or job runs and the process output format.
Run Control ID	A request identification that represents a set of selection criteria for a report or process.
User ID	The system identifier for the individual who generates a transaction.
SetID	An identification code that represents a set of control table information or TableSets. A TableSet is a group of tables (records) necessary to define your company's structure and processing options.
Short Description	Freeflow text up to 15 characters.
Standard Unit of Measure (UOM)	A type of unit used for quantifying in PeopleSoft systems, and usually associated with items. Depending on the application, units of measure might describe dimensions, weights, volumes, or amounts of

	locations, containers, or business activities. Examples include inches, pounds, work hours, and standard cost dollars.
Unit (Business Unit)	An identification code that represents a high-level organization of business information. You can use a business unit to define regional or departmental units within a larger organization.

See Also

PeopleSoft PeopleTools PeopleBook: Using PeopleSoft Applications

PeopleSoft PeopleTools PeopleBook: Process Scheduler

CHAPTER 1

Getting Started with PeopleSoft Engineering

This chapter discusses the integrations and implementation steps required to set up PeopleSoft Engineering.

PeopleSoft Engineering Integrations

PeopleSoft Engineering integrates with these PeopleSoft products:

- PeopleSoft Manufacturing
- PeopleSoft Cost Management
- PeopleSoft Inventory

PeopleSoft Manufacturing

You can take advantage of the integration between PeopleSoft Engineering and PeopleSoft Manufacturing to:

- Maintain both engineering bills of material and manufacturing BOMs.
- Maintain both engineering and manufacturing routings.
- Transfer BOMs and Routings between PeopleSoft Engineering and PeopleSoft Manufacturing.
- Maintain document versions associated with component lists and operation lists used in the production process.
- Make mass changes to manufacturing BOMs using ECOs.
- View engineering change orders (ECOs).

PeopleSoft Cost Management

PeopleSoft Cost Management uses PeopleSoft Engineering data to calculate the cost of an item based on an engineering BOM (EBOM) and an engineering routing. Using PeopleSoft Cost Management, you define engineering versions and calculate the effects of engineering changes on existing items. In addition, you can also use an engineering version for cost estimates.

PeopleSoft Inventory

PeopleSoft Engineering accesses items in PeopleSoft Inventory to enable you to specify EBOM components that are still pending (pre-approved) in PeopleSoft Inventory. This enables you to complete item initialization and approval independent of EBOM maintenance.

If a co-product can be manufactured on multiple BOMs, you define within PeopleSoft Inventory an associated primary BOM that determines which BOM is used to explode the item to lower levels.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook

PeopleSoft Managing Costs 8.8 PeopleBook

PeopleSoft Inventory 8.8 PeopleBook

PeopleSoft Engineering Implementation

PeopleSoft Setup Manager enables you to review a list of setup tasks for your organization for the products that you are implementing. The setup tasks include the components that you must set up, listed in the order in which you must enter data into the component tables, and links to the corresponding PeopleBook documentation.

Other Sources of Information

In the planning phase of your implementation, take advantage of all PeopleSoft sources of information, including the installation guides, table-loading sequences, data models, and business process maps. A complete list of these resources appears in the preface in the*PeopleSoft Application Fundamentals for Financials, Enterprise Service Automation, and Supply Chain Management PeopleBook*, with information about where to find the most current version of each.

See Also

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook

PeopleSoft Setup Manager for Financials, Enterprise Service Automation, and Supply Chain Management 8.8 PeopleBook

CHAPTER 2

PeopleSoft Engineering Overview

This chapter discusses how to:

- Examine the PeopleSoft Engineering product strategy.
- Work with an independent engineering workbench.
- Use the robust engineering change request (ECR) and engineering change order (ECO) functionality.
- Manage PeopleSoft Engineering documents.
- Generate and examine item costs within PeopleSoft Engineering.
- Exchange data between PeopleSoft Engineering and PeopleSoft Manufacturing.
- Make bills of material (BOM) mass changes using Mass Maintenance.
- Import BOMs from external sources.
- Display PeopleSoft Engineering inquiries.
- Communicate BOM and engineering changes to suppliers.
- List PeopleSoft Engineering reports.
- Put it all together.

Examining the PeopleSoft Engineering Product Strategy

Customers are now asking ERP software providers: “What can you do to support the engineering requirements of my business?” This is a reasonable question because companies can achieve significant benefits through improved coordination between the engineering and manufacturing sides of their businesses.

Reviewing Traditional MRPII Systems

Traditional MRPII systems focused on a company’s manufacturing operations through the production planning, scheduling, tracking, materials management, and accounting functions. Engineering input to that system consisted of bills of material that were often manually rekeyed into the MRP system. What happened in the product design, development, prototyping, and approval stages was invisible to the MRP system and most of its users. These engineering functions were supported by a number of computer systems including CAD systems, project management systems, project costing, and Product Data Management (PDM). When the BOM was finally approved, it was thrown over the wall to manufacturing to be rekeyed into the MRPII system.

Increasing Engineering Process Participation

In traditional systems, many manufacturing system users, who should be participants in the engineering process, aren't able to participate because of the lack of integration between the manufacturing system and the supporting engineering systems. This list demonstrates how different enterprise participants outside the engineering department need to be involved in the process:

- Vendors need to:
  - Provide component quotes.
  - Participate in the design process.
- Purchasing needs to:
  - Provide and track quotes.
  - Look at the short- and long-term availability of components.
  - Look at short- and long-term contracts and pricing.
- Accounting must evaluate costs, to determine the potential return on investment (ROI) for products.
- Manufacturing needs to determine whether the designs can be manufactured.
- Planners need visibility to future new product requirements so that they can properly plan for new materials and capacity.
- Sales and marketing must review products, for customer feedback.

The engineering system is also involved with product changes that can impact all of the groups mentioned. The ability to effectively coordinate the tasks of all of the participants in the design and approval process and give them timely access to the right information can help businesses to:

- Improve quality.
- Reduce costs.
- Shorten the time to market.

This is where PeopleSoft Engineering and its workflow-enabled system comes in.

Responding to Requirements

In response to these customer requirements, PeopleSoft Engineering provides both specific functionality and openness to other systems. It provides an engineering workbench environment consisting of:

- Engineering bills of material (EBOMs)
- Engineering routings (ERTGs)
- ECRs
- ECOs
- EBOM cost roll-up capability
- Online BOM comparisons
- Seamless integration to a leading document management vault

This functionality, combined with the workflow-enabled PeopleSoft architecture, enables you to manage the routing, approval, and notification of ECRs, ECOs, new BOMs or routings, and existing BOM or routing changes.

Managing Change

We provide all of this because we know that while constant change is a fact of life in today's competitive environment, how you manage that change determines your success. From a product perspective, companies are constantly looking for product improvements to differentiate themselves from their competitors. For that reason, change is good. However, product changes and new product introductions can impact nearly every part of your organization as well as your customers and vendors. PeopleSoft Engineering is a dynamic product designed to help you manage product introduction and change processes throughout your enterprise by enabling you to manage all types of product data and structures.

You can tailor the PeopleSoft Engineering implementation and complexity to meet your business needs; you can use it to simply maintain new and pending product structures or to manage the engineering change order approval process throughout your organization.

PeopleSoft Engineering delivers:

- An independent engineering *workbench* that isolates changes from production data.
- ECR, ECO functionality, and complete change process support.
- Optionally communicate and share BOM, ECR, and ECO information with vendors if PeopleSoft Engineering is installed.
- Mass BOM maintenance by ECO or by mass maintenance code.
- Innovative PeopleSoft Navigator and workflow capability.
- Seamless enterprise document management integration.
- Integration with PeopleSoft Cost Management and PeopleSoft Manufacturing (ERP integration).
- The ability to import BOMs from external sources.
- Diverse inquiries.
- Reports.

Working with an Independent Engineering Workbench

PeopleSoft Engineering provides a *workbench* where you can create and maintain engineering data without affecting production. This workbench enables you to:

- Define engineering bills of material (and alternates), routings (and alternates), multiple outputs, and item revisions that incorporate all manufacturing BOM features, including a full range of inquiries, online/background looping verification, prototyping, and multiple configurations.

  You can specify both pending and approved items as components on an engineering BOM. In addition, you can specify component placeholders in cases where the item number isn't yet known. When managing engineering BOMs using ECOs, you can view pending ECO information within EBOM and revision pages.

- Transfer manufacturing BOMs and routings into the engineering workbench when you need to modify existing manufacturing BOMs or routings.

  Additionally, you can use an existing engineering BOM as the basis for new engineering item BOMs by copying the existing BOM within PeopleSoft Engineering. You can also copy routings from manufacturing or PeopleSoft Engineering. The system maintains a date/time audit trail of BOM and routing movement.

- Compare engineering BOMs.

  At any point during the development process, you can compare engineering BOMs online with manufacturing BOMs or other engineering BOMs.

- Perform cost calculations and cost comparisons of changes within engineering BOMs and routings.

  This enables you to analyze the impact of engineering change orders (ECOs) on product costs or to estimate the cost of a new manufactured item.

- Receive, review, and maintain engineering change requests (ECRs) that you can, optionally, convert to engineering change orders (ECOs).

- Maintain and route ECOs within workflow so that multiple users can be involved in creating, reviewing, and implementing changes.

- Make mass changes to manufacturing or engineering BOMs, using engineering mass maintenance.

  Mass maintenance enables you to change, obsolete, and introduce new components to several BOMs, with a single process.

- Import bills of material from external systems into PeopleSoft Engineering.

- Create a revision scheme and automatically add revisions to assemblies and components as part of the engineering change process.

Using the Robust ECR and ECO Functionality

PeopleSoft Engineering provides complete change process support. While ECRs are an optional feature of PeopleSoft Engineering—you can use ECOs with or without them—they empower individuals in your organization to suggest manufacturing process improvements and to report product defects directly to the engineering department. Change requests can then be reviewed and, when appropriate, approved and converted into ECOs.

Introducing ECR Features

ECR functionality includes:

- Automatic generation of ECR numbers. Multiple numbering prefixes for various ECR classifications.

- Descriptive text, requested priority, department, and requester.

- Details on associated assemblies and revisions requiring change, the type of change required, and association of any supporting documentation with the ECR.

- Relation of the ECR to existing ECOs in the system, as well as to any pertinent documents.

- Unlimited user-defined reason and action codes for the ECR.

- Submission of the ECR to workflow for approval processing.

  If the ECR is approved, it can then be converted into an ECO and linked to the original ECR requesting the change.

Understanding ECO Features

An engineering department needs to efficiently manage and document required assembly and component changes. PeopleSoft Engineering answers this need with its engineering change order (ECO) functionality. You can use ECOs to manage the various activities that are required to implement multiple types of engineering changes.

By defining your own ECO types, you can group and classify ECOs that serve different purposes. For example, you might define one ECO type to manage complex bill of material configuration changes and supporting processes. Another you might use to define simple documentation changes that perhaps require a minimal number of steps. We designed engineering ECOs to help you define the scenarios that make sense in your environment.

ECO functionality includes:

- The ability to document the addition of new assembly items and item revisions.
- Coordinating, scheduling, and releasing changes to PeopleSoft Manufacturing.
- Automatic generation of ECO numbers.

  Multiple numbering prefixes for various ECO types.
- ECO text, priority, responsible department, and engineer/user.
- Details on assemblies and revisions requiring change, type of change required, and association of any supporting documentation with the ECO at the header and item levels.

  Inclusion of reference ECOs.
- Unlimited user-defined reasons and action/impact codes for the ECO that can, for example, describe inventory dispositions.
- (Optional) User-defined ECO approval types.

  ECO approval types are predefined by you and are comprised of an optional list of activities that represent the phases or milestones through which the ECO can be promoted. In addition, ECO approval types enable you to define and associate user-defined workflow approval processing for different types of ECOs.
- Submission of the ECO into workflow for user-defined approval processing.

  As ECOs pass through various approval points, you can, optionally, promote the ECO activity for a particular ECO. This provides ECO visibility and enables you to determine where it is within its life cycle.
- Making mass EBOM or MBOM changes by specifying single or multiple mass maintenance codes on an ECO.
- Optionally automatic creation of revision numbers for items on the ECO.
- Optionally transferring EBOMs and ERTGs to production using ECOs.

  Within an ECO, you can define a list of BOMs and/or routings that can be transferred from manufacturing to engineering, modified with the ECO/Engineering process, and then released (transferred) back to manufacturing in a controlled manner.

Managing PeopleSoft Engineering Documents

PeopleSoft Engineering provides a complete document management solution that gives you, and selected members of your company, access to up-to-date, online information. It keeps a detailed history of changes made to any documentation and limits access to documents, where necessary.

Using an embedded document management system, you can securely vault multiple types of documents, checking documents in and out of the vault while maintaining multiple document versions. You can perform online document queries seamlessly and then view documents directly, launching them from within PeopleSoft applications. Within PeopleSoft Engineering, you can associate pertinent documents to ECRs, ECOs, item revisions, engineering bills of material and routings; within PeopleSoft Manufacturing, you can associate them to manufacturing bills of material; and within PeopleSoft Manufacturing, you can associate them to component and operation lists.

With PeopleSoft Engineering's embedded document control you can:

- Associate vault documents with PeopleSoft data such as ECRs, ECOs, item revisions, and bills of material.

  You can define these associations loosely so that as new versions of documents are vaulted, they are automatically associated within PeopleSoft.

- Build intelligence into the document vault so that you can complete engineering-centric lookups.

- Access and launch documents out of the vault directly from within PeopleSoft Engineering.

  This feature is provided transparently using PeopleSoft.

- Maintain multiple renditions of a document.

  For example, you can vault and maintain documents in native formats and provide a vendor-neutral viewable rendition for the *viewing* audience in PeopleSoft.

- Run online queries against the document vault and retrieve results from within PeopleSoft Engineering.

- Using workflow, route documents online, within engineering, to appropriate personnel for review, markup, and approval.

- Copy document associations online within PeopleSoft.

  For example, an ECO might be used to manage several types of documents, such as spreadsheets, CAD, and text; yet only pertinent associated documents are copied to the item revision and made available for the general viewing audience.

See Also

Chapter 12, "Managing Documents," page 185

Generating and Examining Item Costs Within PeopleSoft Engineering

There is a tight connection between PeopleSoft Engineering and PeopleSoft Cost Management. Within PeopleSoft Cost Management, you can roll up and calculate the cost of new products and determine what effect ECOs will have on an existing product's cost. When you specify existing items as components on the engineering BOM, their costs, along with any pending item costs, are included in the calculation of item costs within PeopleSoft Engineering. By calculating costs in different engineering versions, you can compare the engineering cost version to the production cost version. Additionally, you can compare an engineering cost version to other engineering cost versions. PeopleSoft Engineering also provides a costed engineering BOM that enables you to analyze costs at all levels of the product structure.

PeopleSoft Cost Management integration features include:

- A costed engineering BOM inquiry.
- Engineering cost versions.
- Engineering cost roll-ups.
- Cost versions comparison reporting.

Exchanging Data Between PeopleSoft Engineering and PeopleSoft Manufacturing

PeopleSoft Engineering is tightly integrated with PeopleSoft Manufacturing. You can:

- (Optional) Copy bills of material and routings from PeopleSoft Manufacturing to PeopleSoft Engineering and from PeopleSoft Engineering back to PeopleSoft Manufacturing, without having to use an ECO.

  These copies contain *same as except* functionality.

- Transfer new and modified bills of material and routings from PeopleSoft Engineering to PeopleSoft Manufacturing from an approved ECO.

  The system maintains an audit trail of what bill and/or routing was transferred at what date and time. With this feature, you can be certain that only approved items and valid BOMs and routings will be released into production.

- You can also transfer BOMs and routings from PeopleSoft Engineering to PeopleSoft Manufacturing or from PeopleSoft Manufacturing to PeopleSoft Engineering, by item list or range.

Making BOM Mass Changes Using Mass Maintenance

PeopleSoft Engineering enables you to make mass engineering or manufacturing BOM changes, using the mass maintenance feature. This enables you to:

- Create mass maintenance codes that enable you to add, change, and obsolete component items on several bills of material in a single process.
- Execute changes in a *Verify only* or *Verify and apply change* mode.
- Optionally 'stage' BOM changes so that changes can be reviewed and modified online prior to moving mass changes to MBOMs or EBOMs.
- Apply changes to BOMs, with or without the use of ECOs.
- Apply changes to engineering BOMs or manufacturing BOMs.
- Make changes to manufacturing BOMs by transferring them to the engineering workbench and then transferring them back or by making these changes directly to the manufacturing BOMs, if wanted.
- Optionally automatically create revisions for BOMs included within an engineering change (without ECOs).

Importing BOMs from External Sources

With the PeopleSoft Bill of Material EIP and Item Master EIP, you can:

- Import new and changed items and item revisions into the PeopleSoft system.
- Import new and changed bills of materials into PeopleSoft Engineering or PeopleSoft Manufacturing.
- Validate and correct errors on imported bills of materials in a separate BOM staging pages.

See Also

Chapter 1, "Getting Started with PeopleSoft Engineering," page 1

Appendix A, "Delivered Workflows for PeopleSoft Engineering," page 209

Displaying PeopleSoft Engineering Inquiries

A diverse set of inquiries is available with PeopleSoft Engineering including:

- Single-level engineering BOM.
- Multilevel indented engineering BOM.
- Summarized engineering BOM.
- Costed engineering bill of material inquiry.
- Item where-used inquiry.
- Compare engineering BOMs and routings.
- Engineering Master Routing where-used.
- BOM mass maintenance exceptions.
- BOM and routing transfer/copy audit.

Communicating BOM and Engineering Changes to Suppliers

You can use PeopleSoft Engineering to enable suppliers to receive BOM and engineering changes.

See Chapter 13, "Managing BOMs and Engineering Changes for Suppliers," page 195.

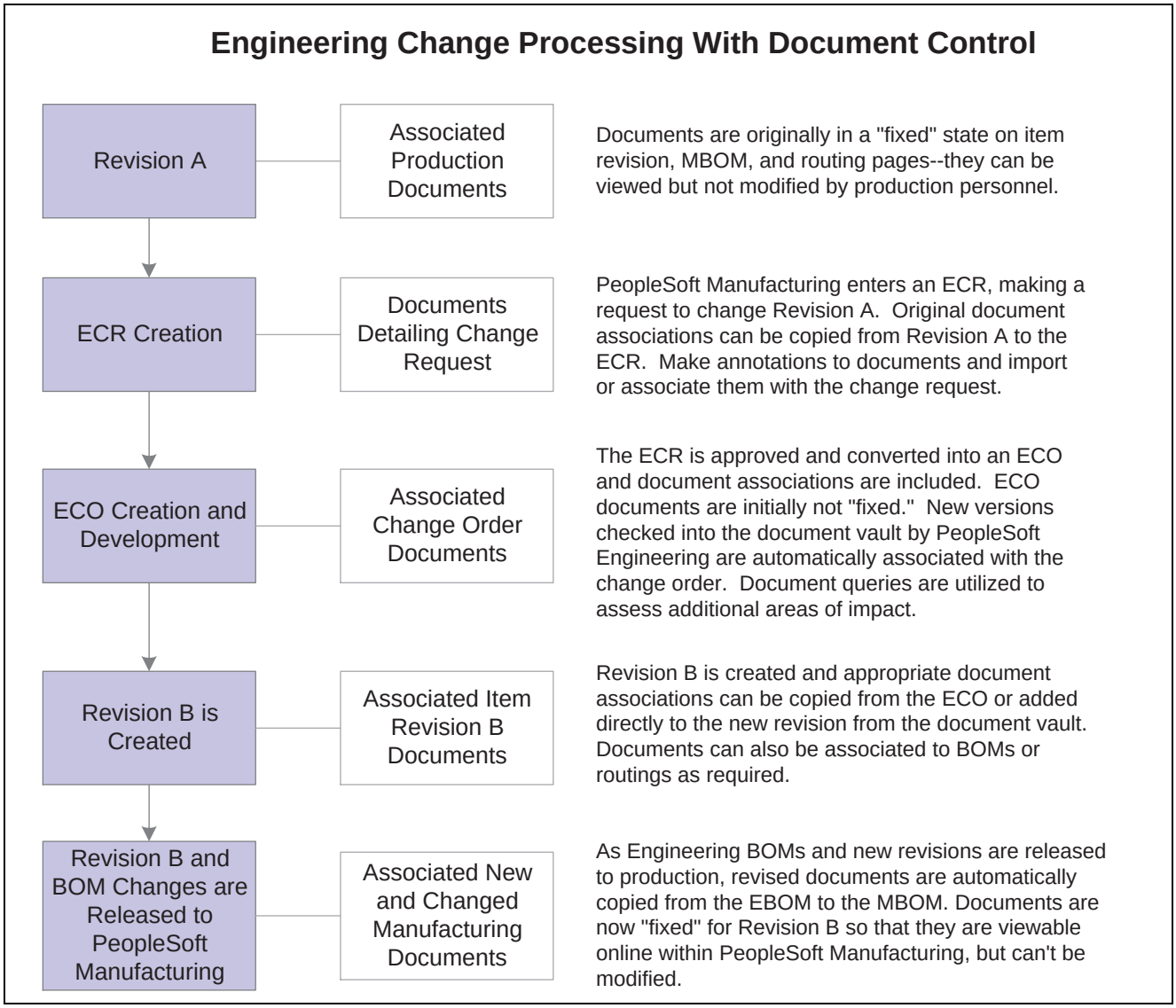
Listing PeopleSoft Engineering Reports

These reports are available:

- Engineering BOM Report.
- Engineering BOM Compare Report.
- Engineering BOM Costed Report.
- Item Where Used Report.
- Engineering Routing Report.
- Engineering Routing Compare Report.
- Engineering Master Routing Where Used Report.
- ECO Report.

Putting It All Together

PeopleSoft Engineering consists of many interrelated parts. This diagram provides a simplified example of how the various parts (including ECRs, ECOs, item revisions, EBOMs, ERTGs, and associated documents) can be connected. When combined with processes such as creating and viewing engineering change requests and engineering change orders, viewing BOMs, documents and attachments, you can include vendor participation as well.



Engineering change processing with document control

See Also

Chapter 13, “Managing BOMs and Engineering Changes for Suppliers,” page 195

CHAPTER 3

Structuring PeopleSoft Engineering

This chapter discusses how to:

- Set up PeopleSoft Engineering tables.
- Set engineering options.
- Configure your document management system.
- Define engineering codes.
- Define engineering change order (ECO) approval types.

Setting Up PeopleSoft Engineering Tables

Because of PeopleSoft Engineering's relational design, the order in which you make decisions about how you'll use PeopleSoft Engineering is not necessarily the order in which you enter information into the system. Although certain pages can be considered as a group when making important processing or implementation decisions, you must work with some pages before others when you set up your system for the first time.

These sections outline, from an engineering perspective, the steps that you need to take to:

- Define engineering-related system and business unit defaults.
- Define engineering data.

See Chapter 1, "Getting Started with PeopleSoft Engineering," page 1.

See *PeopleSoft Manufacturing 8.8 PeopleBook*, "Getting Started with PeopleSoft Manufacturing".

Setting Engineering Options

To set up PeopleSoft Engineering business unit-related options, use the Engineering Options component (ENG_OPTIONS).

Use engineering options to control the ability to copy engineering BOMs (EBOMs) and engineering routings (ERTGs) to manufacturing. You can also indicate whether you want to automatically delete EBOMs and ERTGs once you transfer them to manufacturing. You can also enable workflow for engineering change requests (ECRs) and ECOs.

This section discusses how to set engineering options.

Page Used to Set Engineering Options

Page Name	Object Name	Navigation	Usage
Engineering Options	BUS_UNIT_OPT_EG	Set Up Financials/Supply Chain, Business Unit Related, Engineering, Engineering Options	Define engineering options.

Setting Engineering Options

Access the Engineering Options page.

Allow EBOM copies to MBOM

As an alternative to using engineering transfers to move BOMs and routings between PeopleSoft Engineering and PeopleSoft Manufacturing, you can additionally copy engineering BOMs and routings to manufacturing using the BOM and routing copy processes. By selecting this check box, you can make copies of EBOMs to MBOMs using selective or *same as except* functionality. When copying in this manner, the MBOM is completely replaced by the EBOM.

If you clear this check box, you're ensuring that all BOMs transferred from PeopleSoft Engineering are completed by using engineering transfers only.

Allow ERTG copies to MRTG

Select this check box to allow users to copy engineering routing into PeopleSoft Manufacturing using selective or *same as except* functionality. When copying in this manner, the manufacturing routing is completely replaced by the engineering routing.

If you clear this check box, you're ensuring that all routings transferred from PeopleSoft Engineering are completed by using engineering transfers only.

Delete EBOMs upon Transfer

Select this check box to have the system delete EBOMs from the engineering database as they are transferred to PeopleSoft Manufacturing, using the Engineering Transfer pages. This option applies only when you are transferring EBOMs to PeopleSoft Manufacturing.

Delete ERTGs upon Transfer

Select this check box to have the system delete ERTGs from the engineering database as they are transferred to PeopleSoft Manufacturing, using the Engineering Transfer pages. This option applies only when you are transferring ERTGs to PeopleSoft Manufacturing.

Engineering Workflow Options

Use these options to control whether you use workflow in your ECR or ECO approval processing. Options are:

- Use ECR Workflow: Select if you want a workflow notification sent when an ECR is saved.
- Use ECO Workflow: Select in order to access the Submit (workflow) button on the ECO Workflow page in the ECO Maintenance component.

Note. All PeopleSoft applications include example business processes, but don't include Approval Rule Sets. Therefore, you must create Approval Rule Sets for both ECRs and ECOs before you define the workflow options on this page.

If you want workflow to manage your ECRs, the workflow business process name must be set to ENGINEERING_ECR_NOTIFY. In addition, you'll need to define your workflow approval rule set as ECR Approval.

Note. The naming convention that you use here is extremely important because workflow PeopleCode depends on it.

To set up workflow for ECOs, you must define the business process name and the approval rule set using the ECO Approval Types page. You must associate ECO Approval Types and Business Process Names, using that page, before you select the Use ECO Workflow check box.

When using ECO workflow and an approval type associated to workflow approval rule set is established, then once the ECO is submitted for workflow processing, a workflow approval list (sequential list of roles and role users) is generated and stored with the ECO. At that time, appropriate notifications based on the target role name are generated, using email, worklist, or both; based on this list, by step order. If all approvers are set up in the approval rule set with step 1, then all approvers will be notified at the same time. Otherwise, the approvers at step 1 are notified first. When all approvers in step 1 have approved the ECO, then all approvers in step 2 are notified.

You approve ECOs in PeopleSoft Engineering by using the ECO Maintenance - Approval page. Each approving role user must have access to this page in order to approve the ECO workflow step.

Approvers have two ways to process an ECO workflow and mark a worklist item as worked. Either approvers can manually mark the worklist item as worked or they can go to the ECO Maintenance - Approval page. They can access this page either using a URL from an email notification or by using the navigation system. Once the vendor approves the ECO, the item will be marked as worked if it is a worklist item. This way, the ECO will be deleted from the worklist.

See Also

PeopleSoft PeopleTools PeopleBook: Workflow

Chapter 3, "Structuring PeopleSoft Engineering," Defining ECO Approval Types, page 17

Configuring Your Document Management System

The Documentum server (document database) must first be installed and accessible from the PeopleSoft NT server (UNIX is not supported). When accessing Documentum functions through a PeopleSoft Documentum-enabled internet page, the application server accessed using the PeopleSoft page must contain the appropriate Documentum runtime libraries and access to the Documentum server.

Note. If you have any questions regarding the compatibility of your Documentum system with PeopleSoft Engineering, please contact your account manager.

Prior to using PeopleSoft Engineering with Documentum:

1. Verify that Documentum is installed and that specific Documentum library files (DLLs) are installed on the application servers.
2. Define Documentum options by using the Set Up Financials/Supply Chain, Common Definitions navigation.

Prerequisites

Before you use PeopleSoft Documentum integration for the first time, make sure that:

- The Documentum Enterprise Document Management System (EDMS) is installed and accessible by way of Documentum client applications (namely, RightSite).
- These DLL files exist in your PSTools/Bin/Server/Winx86 directory on your application server(s), which need to support Documentum.
  - DMCL40.DLL (Documentum API Library)
  - DMCLVB40.DLL (Documentum Visual Basic API)
- The Documentum initialization file (DMCL.INI) is present in the WINNT directory (Windows NT environment) on your application servers, which need to support Documentum.

Note. The Documentation files (DMCL40.DLL, DMCLVB40.DLL, and DMCL.INI) are delivered with the Documentum application. You can access and copy these files to the appropriate directories after installing Documentum client products such as WorkSpace and SmartSpace.

- You have defined the URL paths for launching Documentum and viewing documents.

  Select PeopleTools, Utilities, URLs to update these URL identifiers:

  - DOCUMENTUM_LAUNCH: This one should be the http:// address used to launch Documentum's web interface.

    Example: http://machinename/rs-bin/RightSite.dll/SSI4 (SSI4 is the executable name for SmartSpace).

  - DOCUMENTUM_VIEW: This one should be the partial http:// address used to view documents.

    It's similar to the launch path, but without the SSI4 executable at the end. Example: http://machinename/rs-bin/RightSite. dll.

Defining Engineering Codes

To define action codes, use the Action Codes component (EG_ACTION_CD).

To define activity codes for ECOs, use the ECO Activity Codes component (EG_ACTIVITY).

To define classification codes, use the Classification Codes component (EG_CLASSIFICATION).

To define approval type codes for ECOs, use the Approval Type component (EG_ECO_APPR_ACTY).

To define priority codes, use the Priority Codes component (EG_PRIORITY).

There are several types of engineering codes that you can optionally define prior to using PeopleSoft Engineering. They include reason, priority, classification, action, and engineering activity codes. You can also set up automatic numbering for ECOs and ECRs.

You define reason codes and set up automatic numbering for ECOs and ECRs using pages in the Set Up Financials/Supply Chain, Common Definitions, Codes and Auto Numbering navigation.

See Also

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook, "Defining Financials and Supply Chain Management Common Definitions"

Pages Used to Define Engineering Codes

Page Name	Object Name	Navigation	Usage
Classification Codes	EG_CLASSIFICATION	Set Up Financials/Supply Chain, Product Related, Engineering, Classification Codes, Classification Codes	(Optional) Define classification codes. By associating these codes with ECOs later, you can use these classification codes to denote type of change.
Priority Codes	EG_PRIORITY_CD	Set Up Financials/Supply Chain, Product Related, Engineering, Priority Codes, Priority Codes	(Optional) Denote an ECR's or ECO's priority from the perspective of a requestor or ECO analyst. The system can use this code within the ECR and ECO maintenance pages.
Action Codes	EG_ACTION_CD	Set Up Financials/Supply Chain, Product Related, Engineering, Action Codes, Action Codes	(Optional) Define action codes denoting the impact a specific ECR or ECO change will have on areas such as existing production and inventory.
ECO Activity Codes	EG_ACTY_CD	Set Up Financials/Supply Chain, Product Related, Engineering, ECO Activity Codes, ECO Activity Codes	(Optional) Define generic ECO activity codes that can represent phases or milestones pertinent to your engineering change process. Once you have defined these activities, you can link them sequentially with the ECO Approval Types page, to form ECO approval types that you can later associate with ECOs.

Defining ECO Approval Types

ECO approval types enable you to define a sequence of ECO activities that are defined with the ECO Activity Codes page. You can then associate this sequence of activities with an ECO to denote the appropriate ECO phases, or milestones through which the ECO must be promoted prior to final ECO approval. In addition, ECO approval types enable ECO workflow approval processing when you specify Business Process Name and Approval Rule Set.

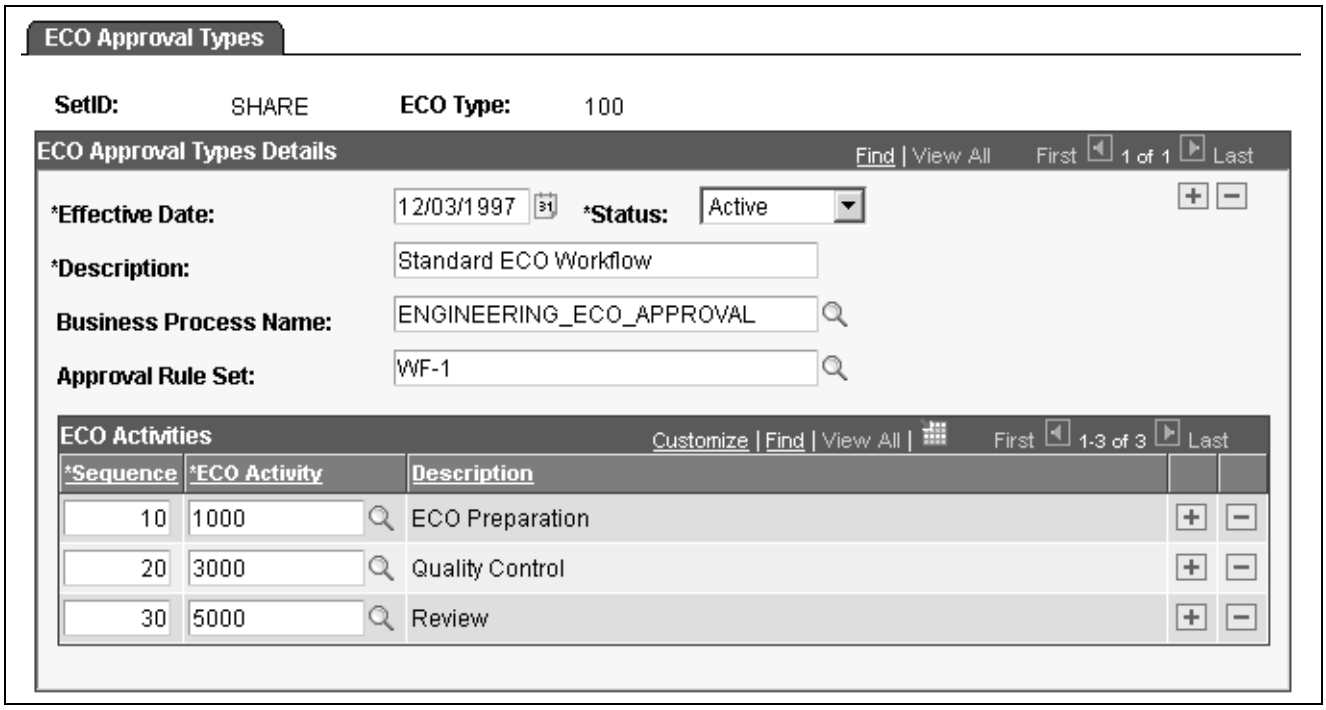
This section discusses how to define ECO approval types.

Page Used to Define ECO Approval Type

Page Name	Object Name	Navigation	Usage
ECO Approval Types	EG_WF_RTG_TYPE	Set Up Financials/Supply Chain, Product Related, Engineering, ECO Approval Types, ECO Approval Types	Define a sequence of ECO activities that are defined with the ECO Activity Codes page.

Defining ECO Approval Types

Access the ECO Approval Types page.



ECO Approval Types page

To use workflow approval processing for ECOs associated with this ECO approval type, you need to specify an ECO type business process name and Approval Rule Set.

By later associating an ECO type with an ECO, you can both track the sequential list of activities through which the ECO must be promoted (order of promotion) and set an ECO's current activity. When an ECO approval type is defined containing ECO activities, all activities must be promoted prior to final ECO approval.

Approval Rule Set Defines the sequence of users to include for the ECO workflow. The sequence of users is established and visible on the ECO once the ECO is submitted for workflow.

Sequence and ECO Activity Optionally select the sequence of ECO activities that make up the ECO type. ECO activities enable you to define user-defined statuses through which the ECO will progress, in addition to the standard ECO statuses of *Pending*, *Approved*, and *Released*. For example, you can have one ECO routing for an item configuration change and another sequence for the change process needed to modify production documents.

You can enter an unlimited number of ECO activities.

Note. The presence of ECO activities has no bearing on workflow approval routes, and can be used with or without workflow.

Using workflow with ECO approval types is independent of the number of ECO activities through which the ECO must be promoted. For example, you can define an ECO type associated to an approval rule set that requires several user approvals but has only a single activity to be promoted.

See Also

PeopleSoft PeopleTools PeopleBook: Workflow

CHAPTER 4

Maintaining Engineering Bills of Material

This chapter provides an overview of PeopleSoft Engineering bills of material (EBOMs) and discusses how to:

- Maintain EBOMs.
- Copy and transfer EBOMs.
- Delete EBOMs.
- Check the EBOM verification status.

Understanding PeopleSoft Engineering Bills of Material

Bills of material (BOMs) are structural designs that form the basis of all your item and product structures. To complete important tasks, such as material planning, allocating materials to production, or cost roll-ups, you need accurate and reliable BOMs. Also, as you modify existing products and introduce new products, you need the ability to isolate BOM changes from your production environment. With PeopleSoft Engineering, you can manage and develop EBOMs without affecting your manufacturing BOMs (MBOMs).

In the engineering environment, you can design product structures before you determine and assign all the item attributes. PeopleSoft Engineering enables you to use pending items (preapproved) defined within PeopleSoft Inventory, so that you can complete item initialization and approval independent of EBOM maintenance.

EBOMs differ from MBOMs in that:

- EBOMs are isolated from manufacturing and aren't visible within PeopleSoft Supply Planning or PeopleSoft Manufacturing.
- EBOMs have *relaxed* edit checks.

  For example, you can use component *placeholders* on EBOMs when you don't know the actual item number.
- You can add EBOMs for assemblies (and components) that are added in PeopleSoft Inventory, in a pending state.

If you have enabled PeopleSoft Workflow, when a change is made to MBOM or an EBOM, the system uses the BOM Change workflow to send a notification to the manufacturing engineer (or other role) that a BOM has been changed.

See Also

Appendix A, "Delivered Workflows for PeopleSoft Engineering," page 209

Prerequisites

Before you begin defining and maintaining EBOMs, these steps might be required:

- Define assembly items with business unit attributes in PeopleSoft Inventory; you don't need to approve them, however.
- Decide how to maintain BOMs for assembly items: by effectivity date or by revision.
- Maintain revisions for revision controlled assembly items.
- Decide whether to verify EBOMs online and define component revision settings.
- Determine multiple output BOM considerations.
- (Optional) Assign associated primary BOMs as part of defining multiple outputs.
- Decide whether to allow EBOMs to be copied to PeopleSoft Manufacturing and whether you want to delete EBOMs when they're transferred back to PeopleSoft Manufacturing.
- Determine whether to use the embedded document management system to access revision, assembly, and component documents.

Common Elements Used in This Chapter

BOM State

Select a BOM state. Values are:

- *Engineering:* Select to view EBOMs.
- *Manufacturing:* Select to view MBOMs.

Verify BOM

Indicates whether the system performs online loop checking. Set this option at the manufacturing business unit level with the MFG Business Unit Options page.

On the MFG Business Unit Options page, you can elect to always verify online or never verify online. The check box on the Engineering BOM Summary page reflects the manufacturing option that you select.

If you select to always verify online, the system checks for looping BOMs as you maintain the assembly or end item's bill. This prevents you from adding the end item as one of its components at this level or any lower levels. If you select to never verify online, loop checking runs as a deferred process.

BOM Type

Select the type of BOM that you are creating. Values are:

- *Production:* Uses MBOMs as the basis for manufacturing assemblies or end items.
- *Rework:* Enables you to optionally create rework BOMs when you have a standard rework process where you include additional components.

For example, if you have a repair kit of components that you always issue when an item is reworked, you can define that repair kit here. As with MBOMs, you can define a primary rework BOM and up to 98 alternates by creating BOM codes. Rework BOMs aren't required to create rework production IDs.

Per Select whether the quantity is per assembly *(Asy)* or per order *(Ord)*.

If there are any outstanding engineering change orders (ECOs) pending for the item, and you have selected the ECO Pending Alert check box on the ECO Item Status page, the system displays this button next to the assembly item ID. Click this button to view information about the pending ECOs associated with this item.

Click the Item Search button to access the Item Search Criteria page to locate a different item.

Prerequisites

This section explains how to set up prerequisite tasks.

Defining Items for Use in PeopleSoft Engineering

With PeopleSoft Inventory, there is a single point of entry for all items that you use within PeopleSoft Manufacturing. Unlike your production environment, where an item must be approved before it can be accessed within the system, PeopleSoft Engineering can make use of inventory items defined in a pending or approved state, as long as item business unit attributes are defined. For example, when associating an item with a BOM, you can (within PeopleSoft Engineering) immediately access pending items on ECOs and EBOMs.

In addition to using items in a pending state, PeopleSoft Engineering enables you to use placeholder items within BOM maintenance prior to formal component item definition. Placeholder items enable you to define EBOM structure and component information before you enter component item information into the system.

To use pending items or cost component items within PeopleSoft Engineering, you must first define business unit attributes for the items.

The system won't transfer an item from engineering to manufacturing unless the item status is *Active*.

Note. The content in this section is only part of what you need to know to define business unit attributes for items. Other relevant information, because it's common to many applications, is located in the *PeopleSoft Application Fundamentals PeopleBook.*

See Also

Chapter 4, "Maintaining Engineering Bills of Material," Maintaining EBOM Summaries, page 30

PeopleSoft Managing Items 8.8 PeopleBook, "Defining Items," Modifying Item Attributes for the Business Unit

Maintaining BOMs by Revisions or Effectivity Dates

You can maintain item BOMs by:

- Revisions
- Effectivity dates

When you define your assembly items, use the BOM Usage group box to determine whether you manage your BOMs by using revisions.

You can indicate that you automatically generate revisions for the item. While you can define at the business unit level that all items in your business unit use automatic revisions by default, you can at the item level change that setting for specific items. Prior to using automatic revisions, you must set up a revision scheme with the Manufacturing Options component.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Maintaining BOMs by Revisions or Effectivity Dates

Maintaining Revisions

You can maintain revisions, including associated text, documents, and attachments. The item revisions that you create apply to EBOMs and MBOMs.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Maintaining Revisions

Verifying EBOMs Online and Defining Component Revision Settings

You can choose how to handle EBOM Online Verification and define component revision default settings on the MFG Business Unit Options page.

Note. When EBOMs are complex and deep, it is suggested that you select Never Verify Online, to improve EBOM maintenance performance, and then run the EBOM verification process from the Engineering BOM Verification page.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Defining Your Business Unit Structure," Setting Up Manufacturing Business Unit Production Options

Chapter 4, "Maintaining Engineering Bills of Material," Checking EBOMs for Loops, page 52

Multiple Output BOM Considerations

There are some conceptual differences between *single-output BOMs* (one primary item) and *multiple output BOMs* (at least one co-product is defined). When you create a *multiple* output BOM with a primary and at least one co-product, consider these points regarding single-output and multiple output BOMs.

Single-Output BOMs

BOM quantity is a scaling device field that enables you to enter a product structure when the assembly specifications are in a base greater than one unit. With BOM quantity, you determine the assembly quantity to which the component's quantity per assembly (QPA) or per order is applied:

- If the BOM quantity is greater than 1, enter the component quantity in terms of the BOM quantity.
- If the BOM quantity is set to 1, the component quantity is the amount of the component required to make one unit.

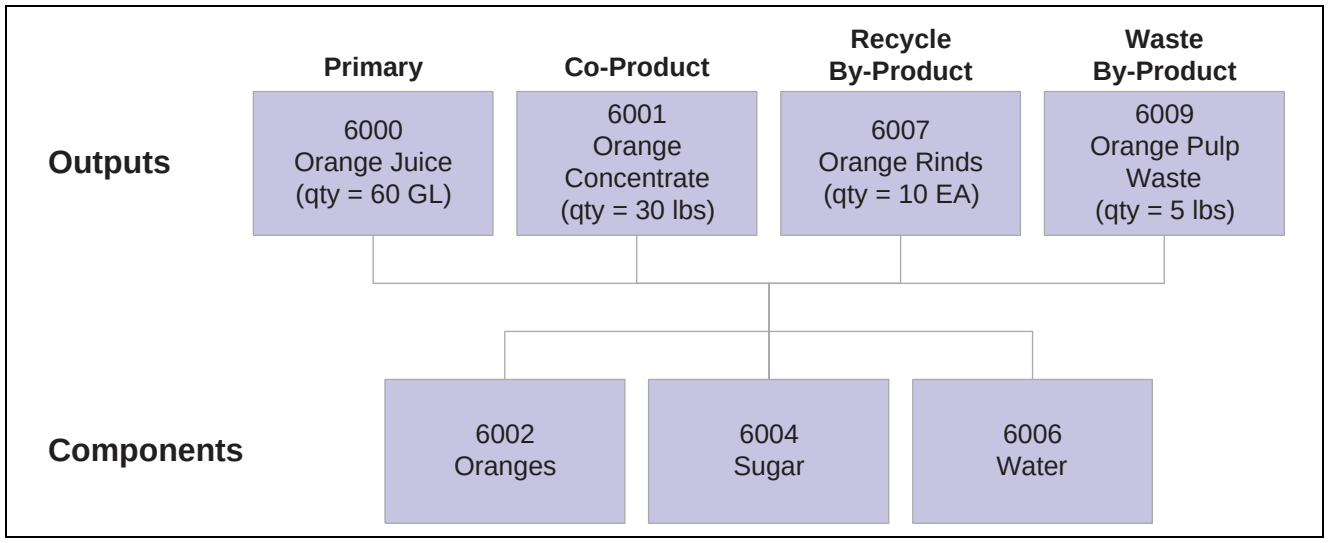
Use BOM quantity for batched bills or when you know that you will only make a certain quantity of an item at a time.

Multiple Output BOMs

When you define multiple outputs (co-products) for a BOM, you are indicating that:

- At least two end-items are coming out of production, one of which is the primary item.
- The item ID that is specified for the BOM represents a batch item, in addition to representing the primary item to be completed.

This BOM structure is defined for item ID 6000, or, in other words, item ID 6000 is a batch item. The output for batch item 6000 includes primary item 6000, as well as co-product 6001, recycle by-product 6007, and waste by-product 6008.



BOM with multiple outputs

When used on a multiple output BOM, BOM quantity represents the in-process quantity for the BOM item ID as a batch item (as opposed to the item ID as a primary item).

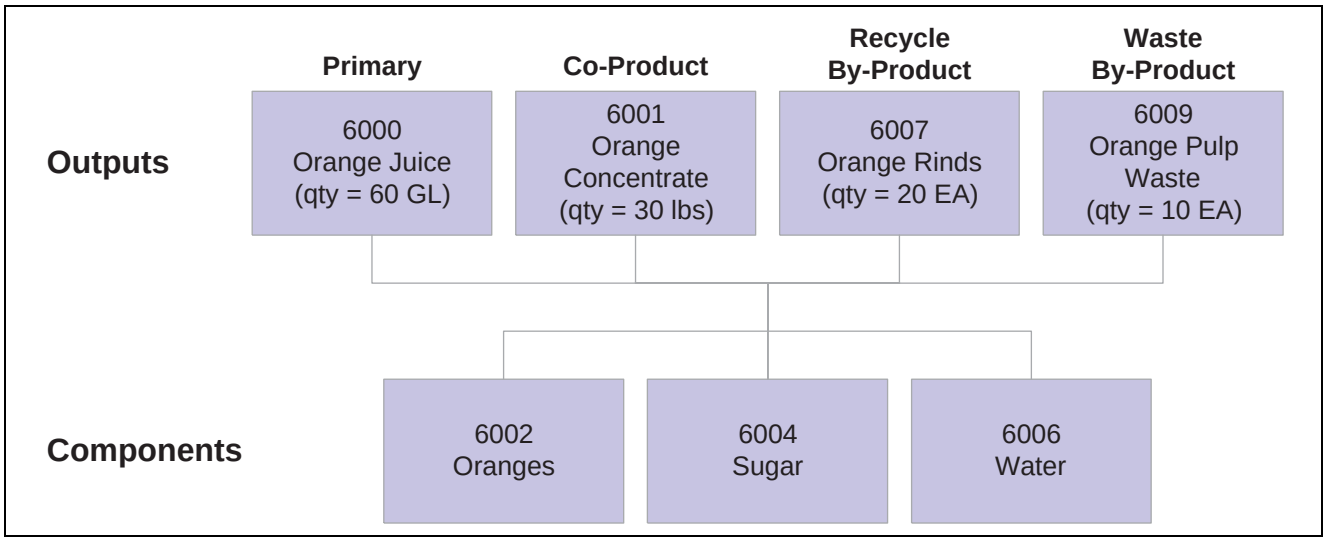
For example, when the BOM structure has a BOM quantity defined as 150, the in-process units of the batch are 150. This also indicates that routing times (planning and costing), as well as rates, are in terms of a single batch unit.

Also, when creating production (IDs or schedules), you must also define the production quantity in terms of batch units. For example a production ID is added for 150 of the batch item 6000 to produce 60 gallons of 6000 and 30 pounds of 6001.

Multiple Output BOMs: Using Yield by Operation

This BOM example illustrates the effect of yield by operation with a 50 percent yield for one operation.

Note. When using yield by operation, the ending quantities for the by-products (recycle or waste) are based on the *operation* start quantity, not the BOM (batch) quantity.



BOM with multiple outputs (using yield by operation)

Assigning Associated Primary BOMs

Assign associated primary BOMs if you plan to define BOM co-products.

See *PeopleSoft Manufacturing 8.8 PeopleBook,* "Maintaining Bills of Material," Prerequisites.

Defining Engineering Copy and Delete Options

Copy and delete options control copying engineering BOMs (EBOMs) and engineering routings (ERTGs) to manufacturing.

See Chapter 3, "Structuring PeopleSoft Engineering," Setting Engineering Options, page 13.

Using Document Management

If you plan to use the Documentum embedded document management system to access revision, assembly, and component documents, use the Component Options page to define which function buttons are available on the EBOM document management pages.

See Also

Chapter 12, "Managing Documents," page 185

Maintaining Engineering Bills of Material

With the Engineering BOMs maintenance pages, you can create and maintain the product structure for the engineering version of a manufactured item at a summary or detailed level.

Note. You can view, but not modify or add, MBOMs from these pages. Make changes to MBOMs by transferring or copying EBOMs to MBOMs or by maintaining MBOMs directly within PeopleSoft Manufacturing.

In addition to creating a primary EBOM (with a BOM code equal to 1), you can specify up to 98 alternate EBOMs, by entering additional BOM codes (greater than 1) in the page displayed prior to accessing the Define Engineering Routings pages.

When you need to do additional or repair work on a completed assembly, you can create rework BOMs. This is useful if you have a standard rework process that requires additional components. As with MBOMs, you can define a primary rework BOM and up to 98 alternates, using BOM codes.

Create rework BOMs by selecting *Rework* as the production type when you add a BOM on the BOM Maintenance pages. Rework BOMs are always single-level BOMs. Also, PeopleSoft Cost Management doesn't consider rework BOMs for any type of cost maintenance.

The rework BOM doesn't include the assembly being reworked as a component. In PeopleSoft Manufacturing, when you firm up or release the rework production ID, the system copies the rework BOM to create a component list, and then adds the assembly being reworked. Rework BOMs can't include multiple outputs; the system automatically includes the assembly being reworked as an output when production is created.

This section discusses how to:

- Maintain EBOM summaries.
- Specify assembly attachments.
- Define EBOM outputs.
- View the vendor access list.
- Maintain EBOM component details.
- Specify component attachments.
- Add substitute components.

See Also

Chapter 6, "Displaying Engineering Bills of Material," page 87

Pages Used to Maintain Engineering Bills of Material

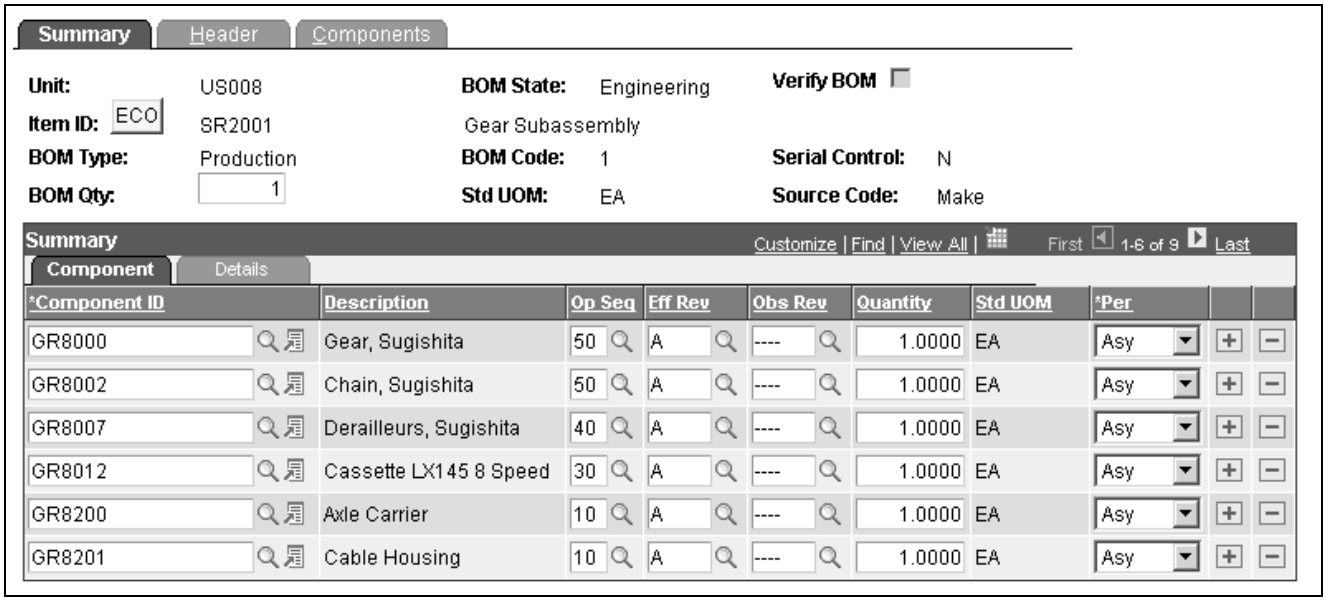
Page Name	Object Name	Navigation	Usage
Engineering BOMs - Summary	EG_BOM_MAINT	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Summary	Maintain all components that comprise a production EBOM for an assembly in a business unit. Additionally, you can create and maintain a rework BOM to define a standard kit of components for use in repair. You can also indicate which components can be recovered if the assembly is torn down into component parts. Maintain BOMs a single level at a time.
Engineering BOMs - Pending ECOs	EG_ECO_DISP_SP	Click the ECO button next to the assembly item ID from any page in the Engineering BOMs component.	View information about pending ECOs that are associated with the BOM's assembly item.
Engineering BOMs - Header: Assembly Text	EG_BOM_TEXT	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Header, Assembly Text	Associate text with any assembly. This is useful for EBOMs without revision control because text explanations can, in part, make up for the lack of engineering change notices, attached new drawings, and design documents.
Engineering BOMs - Header: Assembly Attachments	EG_BOM_ATT	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Header, Assembly Attachments	Associate attachments with your EBOMs.
Engineering BOMs - Header: Assembly Documents	EG_BOM_DC	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Header, Assembly Documents	Associate, access, and manage engineering assembly BOM documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.
Engineering BOMs - Header: Outputs	EG_BOM_OUTPUTS	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Header, Outputs	Define EBOM outputs.
Engineering BOMs - Header: Vendor Access List	EG_SS_BOMVND_LST	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Header, Vendor Access List	Access the current list of vendors who have access to a specific item.

Page Name	Object Name	Navigation	Usage
Engineering BOMs - Components: Component Details	EG_COMP_MAINT	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Component Details	Add EBOM component details, attach component text, and manage component documents. You can also add reference designators, component dimensions, and substitute components.
Engineering BOMs - Components: Text	EG_COMP_TEXT	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Text	Attach and maintain component text. This is useful for BOM types without revision control because text explanations can, in part, make up for the lack of engineering change notices, attached new drawings, and design documents.
Engineering BOMs - Components: Attachments	EG_COMP_ATT	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Attachments	Associate attachments with your components.
Engineering BOMs - Components: Documents	EG_COMP_DC	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Assembly Documents	Associate, access, and manage component documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.
Engineering BOMs - Components: Reference Designators	EG_COMP_DESIG	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Reference Designators	Associate reference designators with a component of an assembly item that has an EBOM attached to it. The designator is any alphanumeric code that you use to determine where a component is placed in an assembly. The electronic industry often uses reference designators for positioning of components on circuit boards.
Engineering BOMs - Components: Dimensions	EG_COMP_DIM	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Dimensions	Specify and maintain EBOM component dimensions.

Page Name	Object Name	Navigation	Usage
Engineering BOMs - Components: Substitutes	EG_COMP_SUB	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Substitutes	Add substitute components.
Copy Business Unit Substitute Items	EN_BOM_SUB_ITEM_SP	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Engineering BOMs, Components, Substitutes Click the Copy BU Substitute Items button.	View and copy valid substitutes for the component. **Note.** Changes to the BOM maintenance substitute list in PeopleSoft Advanced Planning Client do not transfer back to the transaction system.

Maintaining EBOM Summaries

Access the Engineering BOMs - Summary page.



Engineering BOMs - Summary page

Assembly Item Information

Item ID

Displays the item ID.

When you add an EBOM, the assembly item can be pending approval or an approved item, and must contain business unit item attributes. You can add the assembly item information by using the Item Definition and Define Business Unit Item pages in PeopleSoft Inventory. Only owned or consigned items that aren't stage-date controlled can have a bill, and must also have a source code of either *Make* or *Buy.*

Also, assembly items must use a Standard Cost profile for all their books.

Note. You can't add the end item to the rework BOM as a component. The system automatically assigns the reworked item as a component when you release a rework production ID in PeopleSoft Manufacturing.

BOM Qty (BOM quantity) Enter the BOM quantity.

When BOMs contain a single-item output, then BOM quantity is a scaling device that enables you to enter a product structure when the end item's specifications are in a base greater than one unit. With BOM Qty, you determine the assembly quantity to which the component's QPA or per order is applied. If the BOM quantity is greater than 1, you enter the component quantity in terms of the BOM quantity. If set to 1, the component quantity is the amount of the component required to make one unit. You can use BOM Qty for batched bills or if you know you will make only a certain quantity of an item at one time.

For multiple output BOMs, the BOM quantity must match the primary item's average order quantity (AOQ) as defined on the Define Business Unit Item - Manufacturing: General page. If you change the BOM quantity, the system asks if you want to update the AOQ with the newly entered BOM quantity. Keeping the two quantities in sync ensures correct costing of the output items.

Sort Option Select an option. Values are:

- *Component*
- *Effectivity*
- *Op Sequence* (operation sequence)
- *Pos Number* (position number)

Note. Maintaining BOM information is less restrictive in PeopleSoft Engineering than in PeopleSoft Manufacturing because you can use pending, released, or nonexistent items. PeopleSoft Engineering ensures, however, that all items exist and are approved prior to transferring or copying the BOM back into PeopleSoft Manufacturing for use in manufacturing.

Component Information

Component ID Enter IDs for the lower-level items that you want to be part of the end item's EBOM. Components can be owned, nonowned, or nonowned and consigned with a source code of *Make, Buy, Floor Stock,* or *Expense.*

Additionally, all output and component items must use a Standard Cost profile for all their books.

Comp Rev Appears if any component on the bill is under revision control.

For items under revision control, you can associate specific component revisions with the assembly item. Depending on how you set business unit level manufacturing options on the MFG Business Unit Options page, the system allows you to leave Comp Rev clear, displays a default

value in the Comp Rev field, or requires that you select a component revision for each revision-controlled component.

If the system is set up to use component revision by default, the revision column initially displays the current revision. When you enter effective dates, the revision updates with the component revision effective on the date specified.

Note. If a component is a revision-controlled assembly, you can't enter a revision for the item. The column isn't accessible, and the current revision is always used. This ensures consistency with PeopleSoft Cost Management and PeopleSoft Supply Planning, which use the current assembly revision when exploding assemblies.

Op Seq (operation sequence)

Enter where you need the component in the manufacturing or rework process. The operation sequence refers to an operation on the assembly item's routing. For production EBOMs, this is the item's production routing; for rework EBOMs, it's the item's rework routing.

The default operation sequence is *0* (the first operation), which means that you need the component at the beginning of the manufacturing process. If you set the operation sequence for all items to *0*, the system assumes that all items are needed at the beginning of production and therefore need to be issued at the start of the first operation. If the component's issue method is *Issue* or *Replenish*, the system issues the items to the default WIP location for the production area in which the production or rework takes place.

When replacing a discontinued *(use up)* item on the BOM, the obsolete date of the discontinued item may be the projected use up date as calculated by the planning engine.

Eff Rev (effective revision) and **Obs Rev** (obsolete revision)

If you are using revisions, enter valid revisions.

Eff Date (effective date) and **Obs Date** (obsolete date)

If you are using effectivity dates, enter these dates for the components of the assembly item. You can view dates by revision, if any exist, but you aren't required to use one.

The obsolete date or revision must be later than the effective date. The component is effective from the start date, or the beginning of time, of the effective revision through the end date, or the end of time, of the obsolete revision.

Note. These fields refer to the effective and obsolete revisions of the assembly, not the component on the assembly.

Quantity

Enter the number of each component that you need in the parent assembly to manufacture or rework the specified batch quantity. If the component is serial-controlled, you must enter a whole number.

If the quantity is per assembly, the quantity represents the number of that component required to manufacture one end item.

If the quantity is per order, then the component quantity is a fixed amount, regardless of the production quantity.

Entering Component IDs

You can add a placeholder for a component item that doesn't yet exist or for which the item number isn't yet known. Do this by entering any value in the Component ID field. The system displays the item description placeholder. Placeholder items exist only on the EBOM and aren't automatically added to the inventory item files.

You can maintain placeholder component information, such as effectivity dates or revisions, QPA, reference designators, and documents on the EBOM. When you determine the true item number, replace the placeholder by typing over the placeholder ID. If the placeholder item ID eventually becomes the permanent item ID, you don't need to take any action. Once added, the system displays the item's real description.

These restrictions apply to entering items and components:

- You can't generate costs for a placeholder item.
- A component can't be the same as its parent, and you can't have overlapping effectivity dates for the same component.
- While you can create 99 MBOMs per assembly, Production BOM Code 1 is always the primary MBOM.
- You can't create an EBOM for a non-inventory item or an item that has a source code of *Floor Stock* or *Expense.*
- While components can be nonowned items, assemblies can't.
- The system doesn't allow staged date controlled items and configured items as components on BOMs.

Components can, however, have any source code except *Planning.*

Note. When adding a component with an item status of *Hold* or *Discontinue,* you receive a warning message. Similarly, when updating components with an item status of *Hold* or *Discontinue,* you receive a warning message at save time. In both cases, the message doesn't prevent you from performing the action. However, if you try to add an inactive item, the system prevents you from adding the item.

Defining the Operation Sequence

You define the operation sequence on the item's routing by using the Routing Definition Summary page. When maintaining the EBOM, you can select any operation on the assembly item's routing, even if you haven't defined the routing. Once you establish the routing, you can select the valid operation sequences for all corresponding routing codes and types by clicking the Op Seq Detail button. For MBOMs, the system displays operation sequences only for production routings. For rework BOMs, the system displays operation sequences only for rework routings.

Note. If a master routing is in use, then valid operation sequences include all engineering and manufacturing sequences associated with the item's master routing.

Because a work center is associated with the routing's operation, PeopleSoft Manufacturing uses the operation information to determine the work center to which to deliver the component. A storage area is assigned to every work center. When the component's issue method is *Issue* or *Replenish,* the component is issued to the work center and stocked in and consumed from the work center's WIP location storage area. When the component's issue method is *Kit,* the work center is still the indicator for material delivery. The production ID, however, is charged directly for the component and is not consumed from the WIP location.

For kit components, when the operation sequence is set to zero, it's assumed that the component item is kitted at the first operation.

If you enter the BOM before the routing, you can return to the BOM Summary page and add the relevant operation sequence after entering the routing.

Note. If the EBOM assembly has a reference or master routing other than itself, then the Op Seq fields reflect the master routing operations on this page and others in this component.

Quantity Precision Rules

To provide greater flexibility when defining EBOMs, the Quantity field need not follow the quantity precision rules defined for the item. The system issues a warning if you define a decimal quantity value for an item whose quantity precision value is a whole number.

Not enforcing quantity precision for quantity gives you flexibility that you might need. For example, suppose that one B0004 component is required to make two assembly A0001s. When defining the BOM, the QPA for B0004 is 0.5. If you apply the rounding rules for precision to the QPA, then the system rounds the QPA for B0004 to 1, and thereby inflates the production costs.

You can maintain quantity per with a precision of four places to the right of the decimal. Depending on the installation setting, a calculated QPA (calculated by dividing the quantity per by the BOM quantity) can be defined with a precision from 4 to 10 decimal places. Calculated QPA is determined as: Component QPA/BOM Qty.

For example, if a calculated QPA results in 6.54321, and the installation setting is set to 4 places, the system recognizes this as 6.5432. The system uses this calculated QPA to determine the cost of the assembly items and to plan and schedule components.

See Also

PeopleSoft Managing Items 8.8 PeopleBook, "Defining Items," Modifying Item Attributes for the Business Unit

Chapter 4, "Maintaining Engineering Bills of Material," Verifying EBOMs Online and Defining Component Revision Settings, page 24

PeopleSoft Manufacturing 8.8 PeopleBook, "Issuing Material to Production," Understanding Component Issue Methods

Chapter 7, "Structuring Engineering Routings," Defining Master Routings, page 128

PeopleSoft Manufacturing 8.8 PeopleBook, "Understanding PeopleSoft Manufacturing," Quantity Rounding Exceptions in PeopleSoft Manufacturing

Specifying Assembly Attachments

Access the Engineering BOMs - Header: Assembly Attachments page.

Assembly Attachments

File Ext (file extension) Select the type of media that you want to attach.

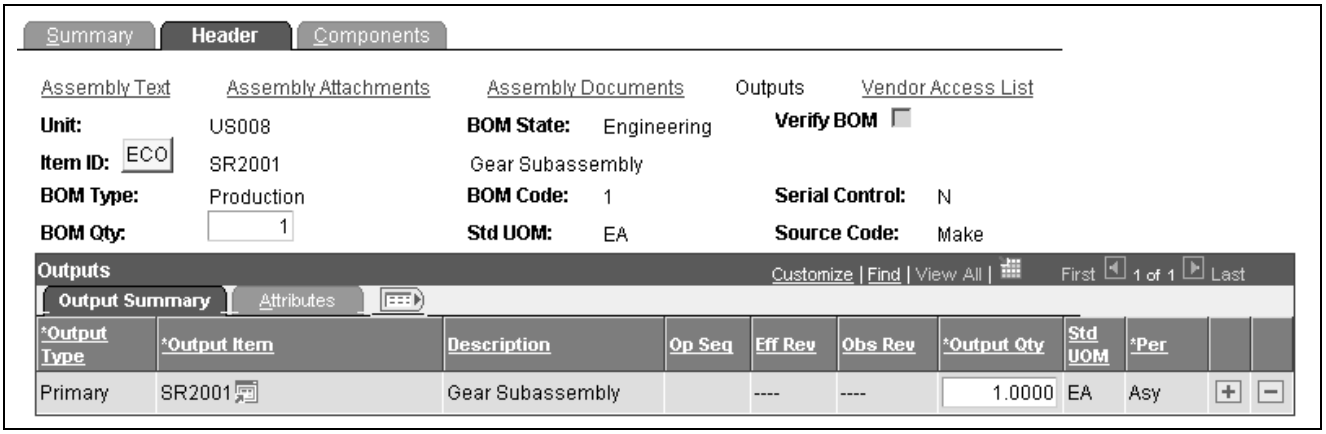
 Click the Attachments button to launch the multimedia object attached to the assembly.

Note. You must set up file extensions on the File Locations page.

Attachments have no integration or relation to the embedded document management functionality. They are most useful when you aren't using the document management functionality.

Defining EBOM Outputs

Access the Engineering BOMs - Header: Outputs page.



Engineering BOMs - Header: Outputs page: Output Summary tab

The detail portion of the page minimally contains the end item as the primary item, and you can't delete this. As a result, if you aren't maintaining multiple outputs, you can bypass this page, and the primary item is defined as the only output.

When there is only a primary output for an EBOM, all fields in the row are unavailable for entry or selection. The default settings are:

- Effectivity dates: Beginning to the end of time
- Percentage fields: 100 percent
- Output Qty: 1

If you insert another co-product (not by-product), then the primary's output quantity, allocation percentage, and cost percentage become available. Conversely, if you delete all the co-products from the EBOM, then all the fields on the primary item become unavailable and are set to the defaults.

If you are maintaining a rework BOM, the Output Summary page lists only the reworked item as the end item. You can't define co-products or by-products with rework.

BOM Qty (BOM quantity) Displays the default value from the BOM Summary page. You can change the quantity in the header portion of this page.

Output Type

Displays an output type for the output item. Output items can't be Floor Stock or Expense items. Waste and Recycle items must be Buy items.

Values are:

- *Co-Product:* An item that is produced as part of the manufacturing process, along with the Primary output. It shares the cost of the process, and there may be independent demand in PeopleSoft Supply Planning for this item. The system checks whether this item's associated primary is set to itself, the default. It then asks if you want to update the co-product's associated primary to this primary assembly item. For example, when item B is created, its associated primary BOM is set to B. If B is added as a co-product to A, the system asks if it should change B's associated primary to A.

  Examples of co-products are:

  - Orange juice and orange concentrate in drink processing.
  - Chicken drumsticks, chicken breasts, and thighs in meat processing.

- *Primary:* The EBOM has only one output.
- *Recycle* (by-product): A product that you use as an input to other processes.

  The by-product is incidental to the process and has a relief (negative) cost. Examples of Recycle by-products are orange pulp and rinds.

- *Waste* (by-product): A product that needs disposal. The by-product is incidental to the process and has a disposal (positive) cost. Waste by-products could also have no cost associated with them. There is often no independent demand for by-products.

Output Item

Displays the output item, which must be an existing, inventory, and standard costed item. You can also add by-products and co-products.

Op Seq (operation sequence)

Displays all the operations on all routing codes, not just the primary routing. This field operates in a similar fashion for outputs as it does for the components. The difference is that for components, a nonexistent operation sequence means that it's needed at the first operation; for outputs, a nonexistent operation sequence means that it is generated at the last operation.

This field isn't available for input for any co-product items because the co-product is generated only at the last operation. Specify operation sequences for by-products. If the operation sequence specified on the output doesn't exist on the routing selected for production, then the by-product is generated at the last operation on the routing.

Eff Date (effective date) and **Obs Date** (obsolete date)

These fields appear when the assembly item is revision-controlled by date. For the primary item and any co-products, these fields display the beginning time (01/01/1900 or ---) and the ending time (12/31/2099 or ---), and the fields aren't available for input. Only by-products have accessible effectivity dates.

Eff Rev (effective revision) and **Obs Rev** (obsolete revision)

These fields appear when the assembly item is revision-controlled by revision.

Output Qty (output quantity)

The batch BOM quantity, which you can change only if there are additional co-products, appears by default as the output quantity for the primary item. This quantity is considered to be in the output item's standard unit of measure (UOM). Enter a quantity for each output.

Note. Because co-products can have different UOMs, the quantities for all the co-products don't need to add up to the BOM quantity.

For single output EBOMs (no co-products), the output quantity on the primary item needs to be the same as the BOM quantity. Therefore, if you change the BOM quantity, the system checks to see if the primary item is the only co-product on the EBOM. If so, the system updates the primary item's output quantity to the BOM quantity. If the EBOM already contained additional co-product outputs, and you delete all these additional outputs from the EBOM, the system warns that the primary output quantity will be reset to the BOM quantity. In addition, if BOM quantity is used, it is recommended that you set BOM quantity the same as you set the item's AOQ defined on the Define Business Unit Item - Manufacturing: General page.

Note. For multiple output items, the BOM quantity for the batch BOM item must match the AOQ defined for the item.

Note. For by-products (recycle or waste), the BOM quantity is based on the *operation start quantity.* A QPA for the by-product is calculated by dividing the by-product output quantity by the BOM quantity. The QPA is applied to the operation start quantity to determine the expected output quantity of the by-product.

This field works the same for outputs as it does with the components. For example, suppose that the BOM quantity is 200 and the production quantity is 400. Then for an Asy quantity code with an output quantity of 3, the output quantity produced is 6.

If the quantity code is *Ord*, the quantity output is 3, regardless of the production quantity. *Asy* appears by default as the quantity code for the co-products; you can't change it.

Restrictions for Output Type and Output Item

These restrictions apply to the Output Type and Output Item fields:

- An item can't be a co-product and by-product on the same BOM.
- A primary item can't be added to or deleted from an EBOM.

The system always adds the assembly or end item for which the BOM is created as the primary output item.

- By-product items must have a *Buy* source code.
- co-product items must have a *Make* source code.
- co-product items can't be a phantom or configured items.

- A co-product item can't be the same as the primary item.
- An item can't be both a co-product and a component on the same EBOM.

However, an item can be both a by-product and a component on the same EBOM.

- As long as the effectivity dates don't overlap, the item can exist as a by-product more than once on the BOM at different operations or at the same operation.
- An item can't be both a waste and a recycle by-product on the same EBOM.
- Additional outputs can't be added to rework BOMs, phantom EBOMs, or configured item EBOMs.

Attributes Tab

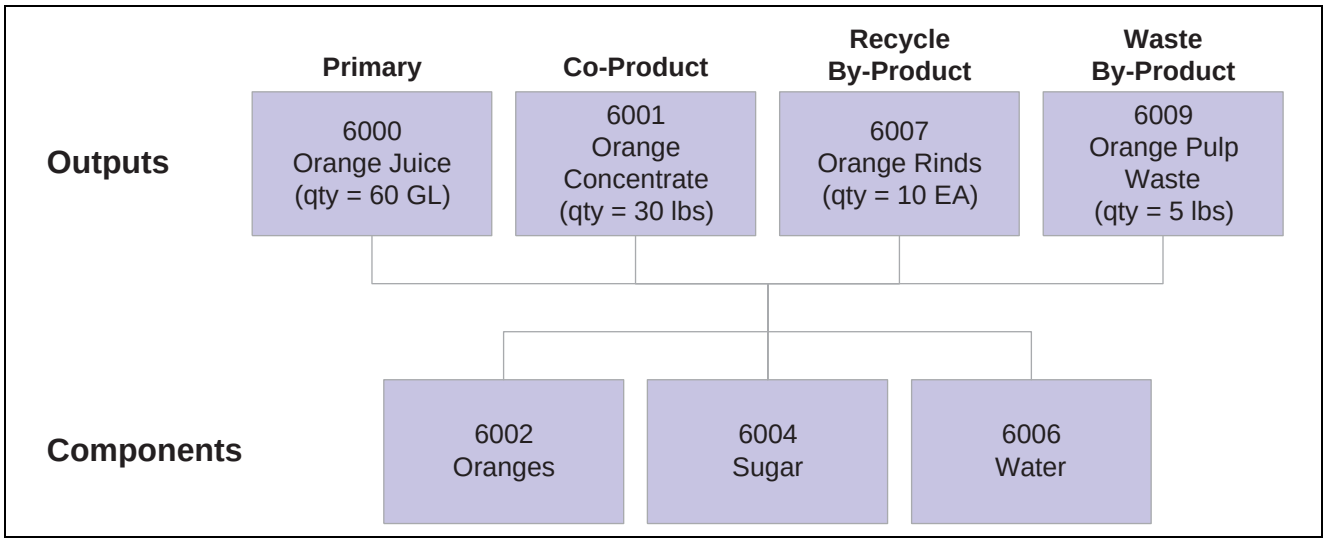
Select the Attributes tab.

Res % (resource allocation percentage) — Determines how much of the BOM batch quantity each co-product and primary represents. The system uses this percentage at completion time to determine what percentage of the components should be consumed for each co-product.

Cost % — Determines how to distribute the cost across the co-products. The cost percentage indicates the percentage of the total batch costs to be applied to the primary or co-products.

The Res % and Cost % fields enable you to distribute resource allocation and cost differently for each co-product. For each percentage, the total of all co-product percentages must add up to 100 percent. For the primary item, a value of 100 appears by default as both of these percentages. You can't set the resource and cost percentages to 0.

For example, in this BOM structure, the primary output (6000) equals 60 gallons and co-product (6001) equals 30 pounds. The resource allocation percentages for the primary and co-products don't need to be proportional to the output quantity; you can set them to any percentage as long as the percentages total 100. For this structure, the percentages are set to 60 percent for item 6000 and 40 percent for Item 6001:



Viewing resource allocation percentages

When completing against the co-products, the system can use the resource allocation percentage to determine what proportion of the batch quantity is consumed. In this case, if you did a partial completion of 15 pounds of 6001, then the proportion of the batch quantity completed is:

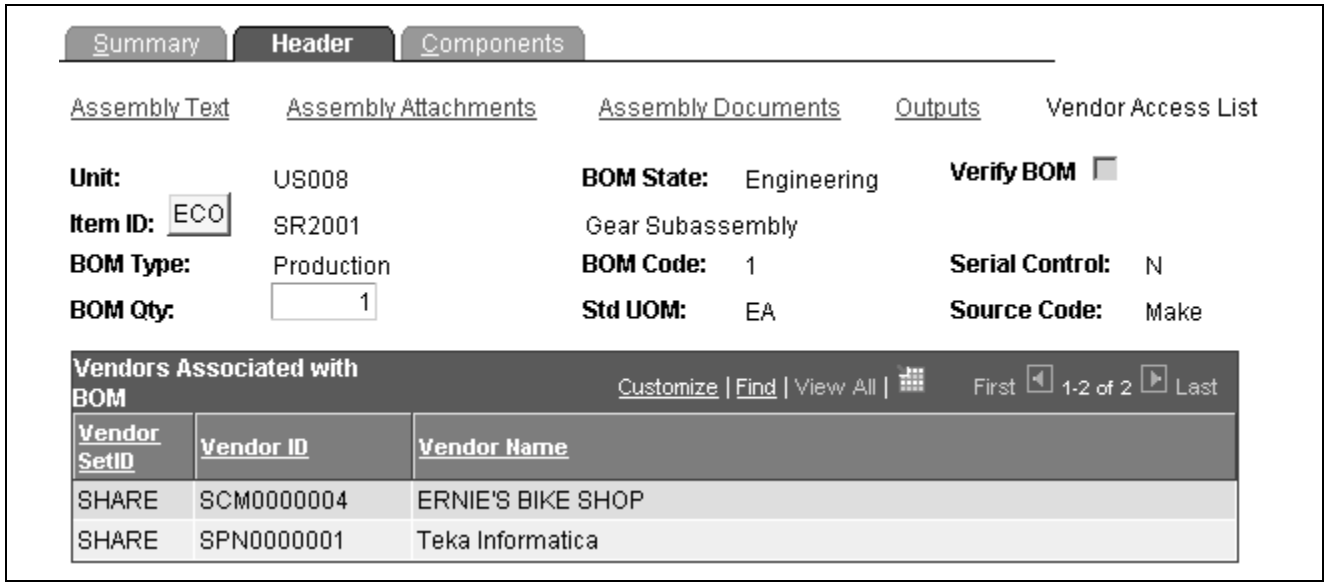
(15/30) x *(40%) = 20% of the batch*

This translates into a consumption of 25 percent of the components, earned labor hours, and so on. The system also uses the resource percentage to show, on BOM inquiries, how much material each output uses when exploding down the levels.

The resource allocation percentage enables the outputs to be in different UOMs, because the percentage specifies the relationship between the co-products, the primary, and the batch quantity.

Viewing the Vendor Access List

Access the Engineering BOMs - Header: Vendor Access List page.



Engineering BOMs - Header: Vendor Access List page

BOM Access by Vendor Click to access the BOM Access by Vendor page.

Send Email to Vendors Click to send email. The email contains two URLs):

- A URL that sends the recipient to the Engineering BOM Maintenance - Summary page.
- A URL that sends the recipient to the Bill of Material inquiry page in PeopleSoft Engineering.

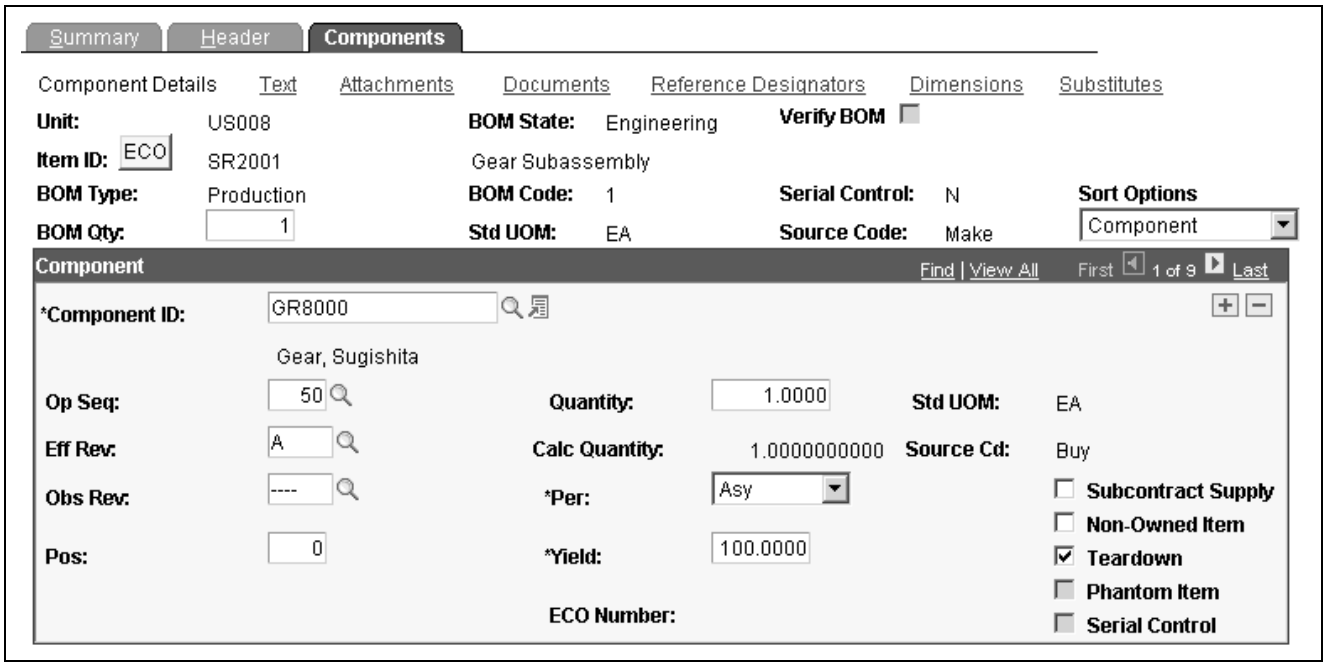
See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining Vendor Access Lists

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

Maintaining EBOM Component Details

Access the Engineering BOMs - Components: Component Details page.



Engineering BOMs - Components: Component Details page

Component

If a component is a revision-controlled assembly, you can't enter a revision for the item. The field isn't accessible, and the system always uses the current revision. This ensures consistency with PeopleSoft Cost Management and PeopleSoft Supply Planning, which use the current assembly revision when exploding assemblies.

Note. When adding a component with item status of *Hold* or *Discontinue*, you receive a warning message. Similarly, when updating components with an item status of *Hold* or *Discontinue*, you receive a warning message at save time. In both cases, the warning message doesn't prevent you from performing the action.

Pos (position number) Enter an optional numeric value. This can be, for example, a number that you want to associate with a component on an EBOM drawing or on a list of all components on an EBOM.

If the quantity is per assembly, then when the system determines component requirements in PeopleSoft Supply Planning, it divides the quantity per by the BOM quantity, and then multiplies that result by the demand or order quantity.

If the quantity is per order, the system uses the quantity per regardless of the demand quantity or order size. In other words, a quantity per order (QPO) is a fixed amount, regardless of the order size. For example, if your QPO is 100, then whether your order size is 1 or 10000, the quantity issued to production is 100.

Note. The quantity per assembly may be different for original items and their substitutes.

To provide greater flexibility when defining EBOMs, the Quantity field need not follow the quantity precision rules defined for the item. The system issues a warning when you define a decimal quantity value for an item whose quantity precision value is a whole number.

Phantom Item and **Serial Control**

Display-only check boxes. The values for the component item appear by default from the PeopleSoft Inventory definition. These fields don't pertain to placeholder items.

Yield %

Displays the expected percentage of usable components within a group of components issued to production. If you know that components can be damaged during the issuing or assembly process, account for that loss here. A component yield of 100 percent assumes that the entire quantity of the component is usable and that none of it will be scrapped. A yield of 90 percent assumes that 10 percent of the component issued is unusable or scrapped.

The default value is *100*.

The system considers yield in the planning and cost management processes. For planning, it inflates component requirements to account for expected loss during the assembly process. When scheduling the number of components to use in production, the system divides the required quantity by the yield value to derive the scheduled quantity.

For example, suppose that an assembly has a demand of 100 units and the quantity per assembly is 1, with a yield of 90 percent. Then, planning requires 111 components (100/. 90). If the expected 10 percent yield loss occurs, 11 components (111 x .10) are unusable, leaving you the original required 100 components. When calculating the cost of the assembly, the system includes the component yield loss, thereby increasing the cost contribution of the component.

ECO Number

Indicates whether the EBOM was updated by using the Engineering BOM Mass Maintenance by ECO process. The number represents the last ECO number that updated the component on the assembly. If no ECO has run against this component on this assembly, the field is blank.

Subcontract Supply (subcontractor supply)

Select if you are subcontracting all or part of your manufacturing process and the outside vendor supplies the component.

Non-Owned Item

Select if you don't own the component, and the customer supplies the component.

Teardown

Select to designate the component as output from a teardown order. Then, when you create a teardown order based on a BOM (as opposed to the original production ID) for this item, the system copies the BOM components to the teardown output list when it releases production. This enables the system to keep teardown outputs in sync with component changes on the MBOM.

The Teardown check box applies only to teardown orders and has no effect on production or rework orders. However, the teardown check box on the BOM is also copied to the component list for regular production IDs (original production ID). Therefore, if you teardown based on an original production ID, the check box on the original production ID's component list determines the structure of the teardown output list for the teardown production ID.

If you selected Default Teardown BOM Component on the Manufacturing Business Unit Options page, the system designates all components as teardown outputs on all BOMs for all items in this business unit. For all items where this default is in place, the system selects the Teardown check box when adding a component to a BOM. Teardown components can't be subcontractor-supplied, because those components aren't tracked within PeopleSoft Manufacturing.

Note. Only items with a source code of *Make* or *Buy* can be teardown components. Planning, expensed, service, and floor stock items can't be teardown components.

Phantom Item and Serial Control Display fields for the component item; values appear by default from the PeopleSoft Inventory definition. These fields don't pertain to placeholder items.

Subcontracting

EBOMs can handle all subcontracting or non-subcontracting scenarios including scenarios in which:

- You do your manufacturing in-house and you supply all components.
- A subcontractor supplies some components, where outside processing is performed.
- Your customer supplies some components, and you are the subcontractor.

In some instances, you may want to maintain the full product structure of the assembly item, even though you aren't providing all the components necessary to manufacture the item.

Here's a typical scenario:

1. You send a partially completed assembly to a subcontractor.
2. The subcontractor adds a component.
3. The subcontractor returns the altered assembly to you.

This scenario has implications for PeopleSoft Supply Planning, PeopleSoft Manufacturing, and PeopleSoft Cost Management, once the EBOM is copied to manufacturing.

When exploding demand for components stemming from an assembly requirement, the system doesn't include subcontracted supplied components. Scheduling components for production also excludes subcontracted supplied components. These subcontracted components aren't included in the production picking plan and they aren't issued to a WIP location storage area. For the purposes of costing, subcontracted supplied components aren't included in the assembly cost.

Here's a list of valid subcontractor supply and nonowned field combinations:

Subcontract Supply Check Box	Non-Owned Item Check Box	Meaning of the Combination	Valid Combination?
Selected	Selected	A subcontractor supplies the component.	Yes
Cleared	Selected	You are the subcontractor, and your customer supplies the component.	Yes
Cleared	Cleared	You supply the component.	Yes
Selected	Cleared	Not applicable.	No

See Also

Chapter 4, "Maintaining Engineering Bills of Material," Maintaining EBOM Summaries, page 30

Chapter 4, "Maintaining Engineering Bills of Material," Verifying EBOMs Online and Defining Component Revision Settings, page 24

PeopleSoft Managing Items 8.8 PeopleBook, "Defining Items," Modifying Item Attributes for the Business Unit

PeopleSoft Managing Items 8.8 PeopleBook, "Defining Items"

PeopleSoft Manufacturing 8.8 PeopleBook, "Understanding PeopleSoft Manufacturing," Quantity Rounding Exceptions in PeopleSoft Manufacturing

Specifying Component Attachments

Access the Engineering BOMs - Components: Attachments page.

Attachments

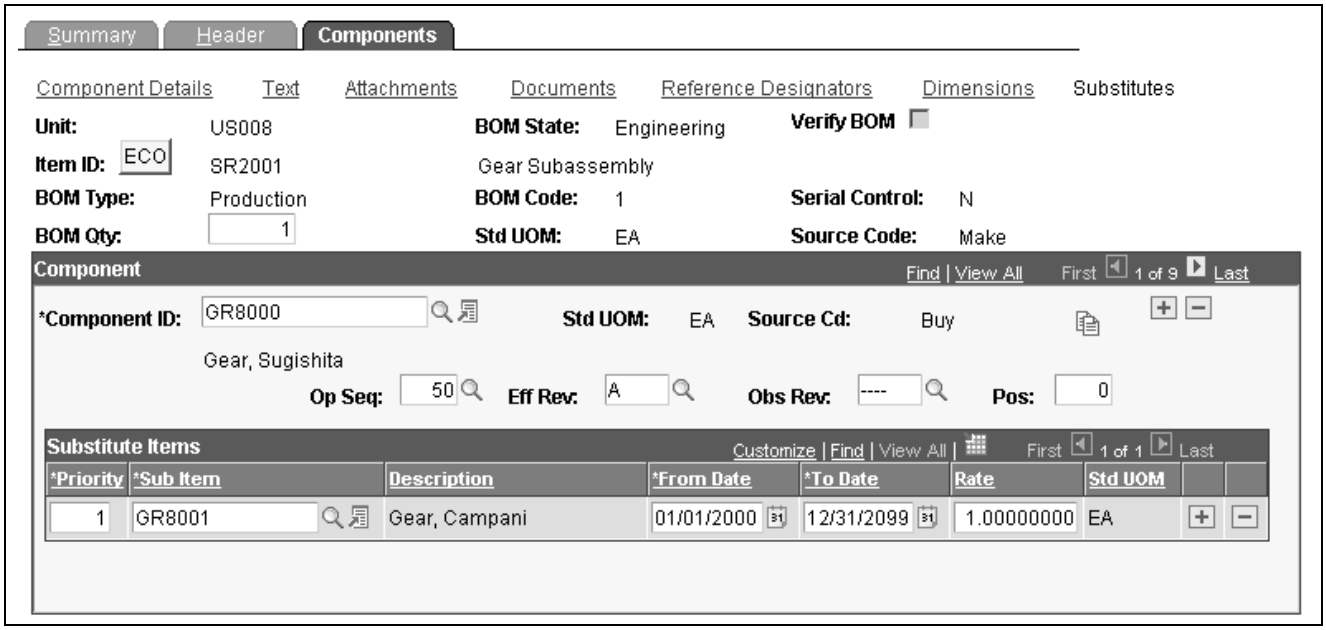
File Ext (file extension) Select the type of media that you want to attach.

Note. You must set up file extensions on the File Locations page in Set Up Financials/Supply Chain, Common Definitions.

Attachments have no integration or relation to the embedded document management functionality. They are most useful if you aren't using the document management functionality.

Adding Substitute Components

Access the Engineering BOMs - Components: Substitutes page.



Engineering BOMs - Components: Substitutes page

Component

Click the Copy BU Substitute Items button to copy business unit level substitutes to the BOM level.

Substitute Items

Sub Item (substitute item) Select the item that you want to add.

Substitute items must be unique for the item. You can't enter the same item twice as a substitute with different dates. For example, Substitute 1000 with effective dates from 01/01/99 to 02/01/99 and Substitute 1000 with effective dates from 02/01/00 to 08/30/00 couldn't be substitutes for the same item. You need to define a different substitute for the second set of effective dates.

Note. A substitute item cannot be a phantom item. Also, where substitutes exist, you cannot change the item to a phantom.

Note. If no substitute items are defined for an item designated as *Discontinued*, there may be a shortage of that item if demand exceeds existing quantity on hand. If a substitute is defined for that item, PeopleSoft Supply Planning suggests the substitute when the quantity on hand for the discontinued item runs out.

Std UOM (standard unit of measure) Displays the standard UOM, which can be different for the substitute and the original component.

Copying and Transferring EBOMs

You can easily copy or transfer EBOMs. Copying EBOMs is useful when you want to copy an existing item's BOM to a different item's BOM. It also allows *same as except* type functionality. PeopleSoft Engineering transfers are most useful for transferring several BOMs that are associated with a change between manufacturing and engineering.

This section discusses how to:

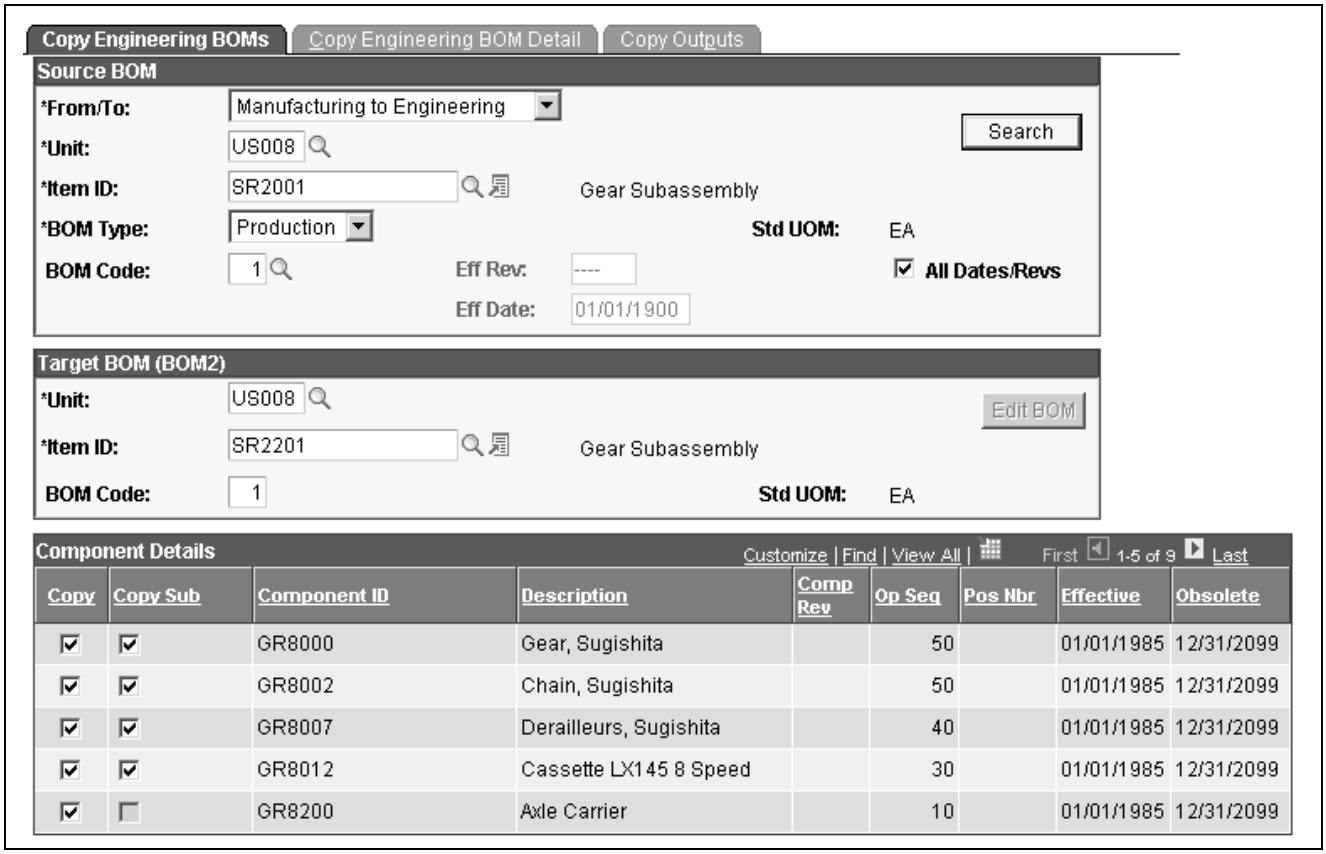
- Copy EBOMs.
- View the copy EBOM details.
- Copy EBOM outputs.
- Transfer EBOMs.

Pages Used to Copy and Transfer EBOMs

Page Name	Object Name	Navigation	Usage
Copy Engineering BOMs	EG_BOM_COPY	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Copy EBOMs, Copy Engineering BOMs	Copy EBOMs.
Copy Engineering BOM Detail	EG_BOM_COPY_DET	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Copy EBOMs, Copy Engineering BOM Detail	Provide a larger view of the BOM that you are copying.
Copy Outputs	EN_BOM_COPY_OUT	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Copy EBOMs, Copy Outputs	Copy engineering outputs.
Engineering Transfer - Transfer Selection	EG_ENGTRNS_REQ	Engineering, BOMs and Revisions, Engineering Changes, Engineering Transfers, Transfer Selection	Define transfer criteria for BOMs and routings.
Engineering Transfer - ECO Selection	EG_ENGTRNS_REQ2	Engineering, BOMs and Revisions, Engineering Changes, Engineering Transfers, ECO Selection	Define the ranges of ECOs by which you want to transfer BOMs, routings, or both.
Engineering Changes - Assembly Selection	EG_ENGTRNS_REQ3	Engineering, BOMs and Revisions, Engineering Changes, Engineering Transfers, Assembly Selection	Make engineering transfers by assembly item.

Copying Engineering BOMs

Access the Copy Engineering BOMs page.



Copy Engineering BOMs page

Source BOM

From/To Select from the list. Values are:

- *Manufacturing to Engineering:* Use to begin making design changes to existing MBOMs.
- *Engineering to Manufacturing:* Use to copy engineering changes to manufacturing and freely include or exclude components using the Same as Except functionality on the Copy Engineering BOM Detail page.

  You control the ability to copy EBOMs to MBOMs with the Engineering Options page. The assembly item and all of its components must be approved items in PeopleSoft Inventory before you can copy the BOM to manufacturing.
- *Engineering to Engineering:* Use to copy EBOMs from one business unit or item ID combination to another, to streamline operations.

  Alternatively, if different items have similar structures, you can copy the structure of one item to another within the same business unit.

During the copying process, you can include or exclude certain components and substitutes. Using Define Engineering Routings pages, you can then change the new structure as needed.

Note. The BOM type of the target BOM (BOM2) and the source BOM must be the same. You don't enter the BOM type in the Target BOM (BOM2) group box.

To enter the target BOM (BOM2):

1. Enter as the target BOM (BOM2) the business unit, item ID, and BOM code to which you are copying.

   The item must be a valid Make or Buy item in the target business unit. You can't copy a BOM to a Floor Stock or Expensed item.

2. (Optional) Select the Copy Engineering BOM Detail tab to copy assembly and component text, documents, and attachments.

   If you are copying a source assembly or end item that's revision-controlled to a target that's a non-revision-controlled item, then the system uses the source component's revision effectivity dates to determine the effectivity and obsolete dates of the target item's components. The target BOM also updates with any component revisions specified on the source bill.

   Note. You can copy assembly and component documents for the same item from one BOM code to another. You can't, however, copy assembly and component documents for different items: in this latter case, the Copy Documents fields are unavailable for entry or selection.

3. Click the Save button.

   If the specific BOM already exists at the target business unit, a message asks whether to overwrite the existing BOM with the information that you are copying. If you overwrite the existing BOM, the system deletes the BOM in the target business unit and adds the source BOM.

   Note. You can't copy a BOM to a target business unit or item ID if the assembly item or any of its components isn't defined in the target. If one or more components don't exist in the target business unit, you can cancel the selection for those components, and then add the balance of the BOM. Then, you can add the missing components in the target business unit and use the BOM maintenance pages to complete the BOM structure.

   You can't copy a BOM to itself.

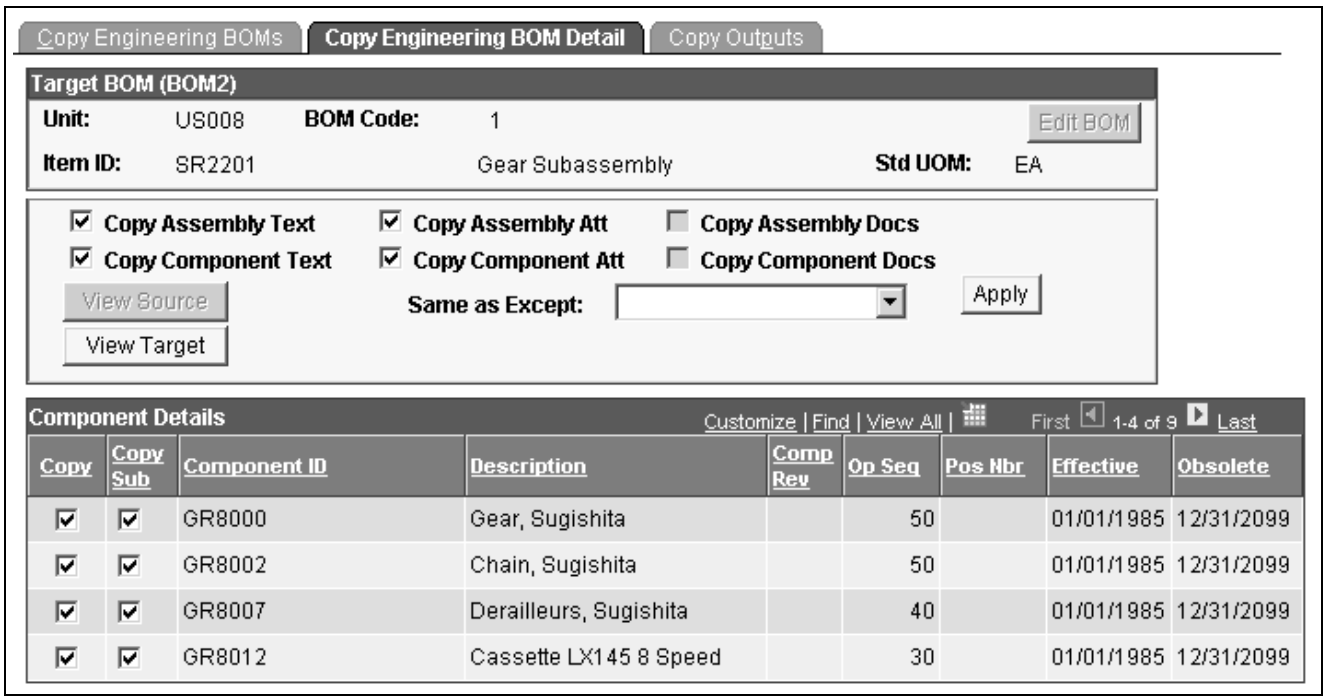
4. Click the Edit BOM button to access the appropriate BOM Summary page, where you can edit attributes on the target BOM (BOM2).

See Also

Chapter 4, "Maintaining Engineering Bills of Material," Maintaining EBOM Summaries, page 30

Viewing the Copy EBOM Details

Access the Copy Engineering BOM Detail page.



Copy Engineering BOM Detail page

Data on this page appear by default from the Copy Engineering BOMs page, and the fields operate the same as the fields on that page.

You can copy any assembly and component text, attachment, or document.

Note. You can copy documents only if you select identical source BOM and target BOM (BOM2) item IDs. When you copy a BOM, the system creates an audit of the copy including date, time, and user who performed the copy.

Same as Except

Select a value to indicate how you want the BOM copied. You can use the Same as Except values in any combination. For example, you can initially select *Exclude All*, click Apply, and then select *Include Item Range.* You can also select *Include/Exclude Item Range* multiple times, clicking the Apply button after each selection, to include or exclude chunks of items. The effect is cumulative, not exclusive.

Values are:

- *Exclude All:* The system copies no components to the target BOM.

  You can still select a component's Copy check box to select specific components or component revisions. You can also select a substitute's Copy Sub check box to select specific substitutes.

  Note. To exclude a range of dates or revisions, select *Exclude All*, and then include portions (by revision or date) that you want.

- *Exclude Item Range:* The system doesn't copy the range of component IDs that you enter in the edit box.

- *Exclude Pos Range* (exclude position range): The system doesn't copy the range of position numbers that you enter in the edit box.
- *Include All:* The system marks all components on the source BOM to copy.

  You can still clear a specific component's Copy check box or select *Exclude All* to clear all check boxes.
- *Include Item Range:* Works like the exclude feature, except that you enter the range of items that you want to copy.
- *Include Pos Range:* Works like the exclude feature, except that you enter the position numbers that you want to copy.
- *Include Date Range:* Enables you to copy all components that are in effect between the specified dates.
- *Include Revision Range:* Enables you to copy all components that are in effect between the specified revisions.

Apply Click after you select your same as except values.

View Source Click to have the system display items that you copy and the copy choices that you make.

View Target Click to view how the BOM will look after the copy.

See Also

Chapter 11, "Processing ECRs and ECOs," Transferring BOMs and Routings, page 175

Copying EBOM Outputs

Access the Copy Outputs page.

Data on this page appears by default from the Copy Engineering BOMs page. Fields on this page operate the same as fields on the page and fields on the Copy Engineering BOM Detail pages.

Component Details

Copy Select to designate, at the row level, that you want an output row copied from the source to the target BOM. The primary item and co-products are always copied.

Transferring EBOMs

While the copy BOM functionality is useful when same as except copies are required, it copies only one BOM at a time. Using the engineering transfers BOMs functionality enables you to transfer at once multiple single-level BOMs within a business unit. You can transfer BOMs:

- As part of the ECO process.
- By assembly items: Either a list or range of items.

You can transfer BOMs from engineering to manufacturing or from manufacturing to engineering. Transferring BOMs from engineering to manufacturing requires that all BOM items exist and are approved. So, while you can set up an item as pending, or even use placeholders when you design an EBOM, the item must be defined and approved before it's transferred to manufacturing.

Deleting EBOMs

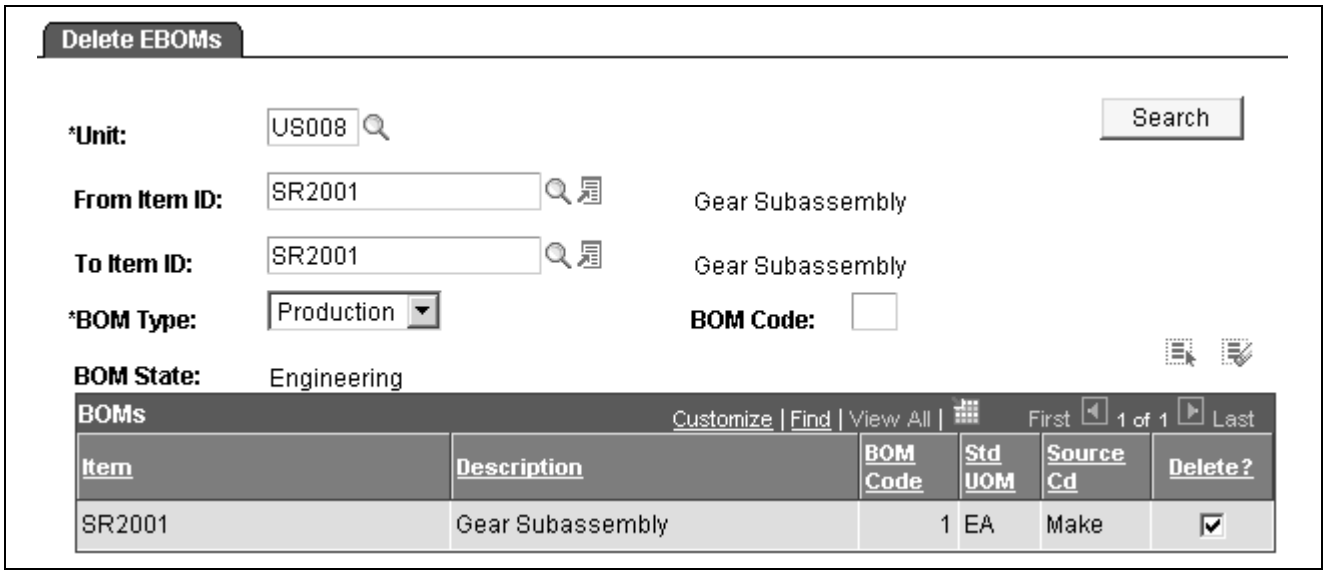
This section discusses how to delete EBOMs.

Page Used to Delete EBOMs

Page Name	Object Name	Navigation	Usage
Delete EBOMs	EG_BOM_DELETE	Engineering, BOMs and Revisions, Maintain EBOMs and Revisions, Delete EBOMs, Delete EBOMs	Delete EBOMs for any or all assembly items.

Deleting EBOMs

Access the Delete EBOMs page.



Delete EBOMs page

Search Click to display the list of production or rework BOMs for the assembly items that you are deleting.

Click the Select All button to select each Delete? check box next to each assembly.

Click the Deselect All button to clear each Delete? check box next to each assembly.

You can delete production or rework BOMs.

For each assembly, the system deletes all EBOM components regardless of effectivity date or revision. All assembly EBOMs scheduled for deletion have header, outputs, related text, attachments, components, and reference designators deleted.

If you leave the BOM Code field blank, then the system deletes all BOMs, regardless of code. To delete only a specific BOM code, enter a value in the BOM Code field.

The Delete Engineering BOMs process checks and warns you of these conditions:

- BOM is used in a production area.
- Production exists in the *Entered* status.
- Production is planned, but a BOM and routing haven't yet been frozen for production.
- Assembly item is present on pending or approved ECOs that haven't been released to manufacturing.

Checking the EBOM Verification Status

This section discusses how to:

- Check EBOMs for loops.
- Delete EBOM verification rows.
- Display EBOM verification status summaries.
- Display EBOM verification status details.

Pages Used to Check the EBOM Verification Status

Page Name	Object Name	Navigation	Usage
Engineering BOM Verification	EN_BOM_VERIFY_REQ	Engineering, BOMs and Revisions, Identify Looping EBOMs, Engineering Looping Verification, Engineering BOM Verification	Check EBOMs for unwanted loops.
Delete EBOM Verification Rows	EN_BOM_VERIF_DEL	Engineering, BOMs and Revisions, Identify Looping EBOMs, Delete Verification Details, EBOM Verification Rows	Delete records created by the EBOM Verification Request process (ENPBEXPV) by process instance.
EBOM Verification Status	EN_BOM_VERIFY_STAT	Engineering, BOMs and Revisions, Identify Looping EBOMs, EBOM Verification Status, BOM Verification Status	View, on a summary level, a list of all verified EBOMs or a list of all looping EBOMs discovered as a result of running the Verification Request page.
BOM Verification Detail	EN_BOM_VERIFY_DET	Manufacturing Definitions, BOMs and Revisions, Identify Looping BOMs, BOM Verification Status, BOM Verification Status Click a Detail link.	View a detailed list of all looping BOM components discovered as a result of running the BOM Verification Request page.

Checking EBOMs for Loops

Access the Engineering BOM Verification page.

BOM Code Enter the code for the BOM that you want to verify.

Depth Determine how many levels to verify.

Delete Rows, If No Errors Select to delete BOM explosion table records. The verification request process adds a series of records to the BOM Explosion table. These records take up space and are useless, if there are no looping BOMs. You can also use the Delete EBOM Verification Rows page to save space.

The EBOM verification COBOL SQL process (ENPBEXPV) checks for loops within EBOM structures only. Once you copy the EBOM to manufacturing, run the BOM verification within PeopleSoft Manufacturing to verify the BOM within manufacturing.

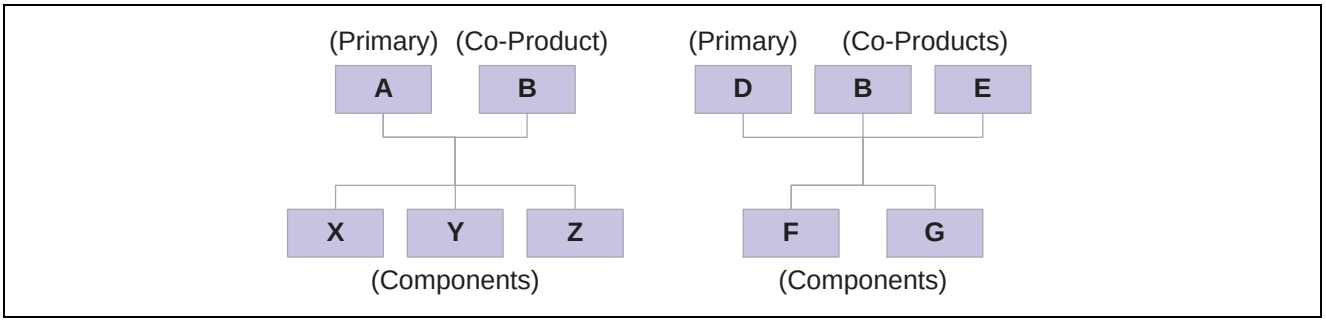
Instead of running this process, you can use Online BOM Verification to check for loops. You set the Online BOM Verification option at the manufacturing business unit level with the MFG Business Unit Options page. However, to improve BOM maintenance performance when BOMs are complex and deep, use the scheduled verification process and set Online BOM Verification to Never Verify Online.

Engineering BOM Verification looks at just the primary EBOM and routing, when exploding at levels greater than 1. If there is more than one way to make a specific co-product output, tell the system which EBOM is the primary way to make that co-product and, therefore, which EBOM to verify for that co-product. To tell the system which EBOM to verify, select an associated primary BOM on the Define Business Unit Item - Manufacturing: General page.

Note. Both MBOMs and EBOMs use the same associated primary; there isn't one specific to MBOMs.

Output Example

In this example, B is an output on two different processes:



Output example

Consider the two structures:

- In the first structure, A is the primary (item), with B as the co-product, and X, Y, and Z are components.
- In the second structure, D is the primary, and B and E are co-products, with F and G as the components.

Because there are two ways to make the same product (B), you need to decide which structure to use when exploding to lower levels. Therefore, you need to signify a primary structure associated with each item that may exist as a co-product, but not as a primary. To do this, assign an associated primary EBOM.

When exploding to lower levels, the system checks whether there is an associated primary defined for this item. If there is an associated primary item, the system uses it to explode to lower levels.

If exploding EBOM code 2 for the co-product, and an associated primary was defined, then the system uses EBOM code 2 for the associated primary, also.

For instance, if the system is exploding B (in the diagram) for EBOM code 2, and A is the associated primary, then the system looks for an item with an EBOM code 2 to explode. If EBOM code 2 doesn't exist for A, then the explosion stops for this item, and the system generates an error. This same logic is used for BOM verification, inquiries, and costing.

You receive a message only if the system finds a looping BOM. You can view the results of the verification process by using the BOM Verification Status page.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Assigning Associated Primary BOMs

Deleting EBOM Verification Rows

Access the Delete EBOM Verification Rows page.

The verification request process adds a series of records to the BOM Explosion table. These records take up space and are useless if there are no looping BOMs. You can use this page to delete these records by process instance.

Displaying EBOM Verification Status Summaries

Access the EBOM Verification Status page.

All BOM paths verified Select to enable the system to display all verified BOMs by top-level assembly.

BOMs with errors only Select to enable the system to display all looping BOMs, along with the specific looping lower-level assembly and component items.

Search Click to check for looping BOMs. If the system does not detect any loops, a message appears. If the system detects any looping BOMs, they appear at the bottom of this page.

Details Click for any top-level assembly with errors to access the BOM Verification Detail page.

Displaying EBOM Verification Status Details

Access the EBOM Verification Detail page.

Lvl (level) Indicates the level where the loop in a BOM occurred.

Component ID Indicates the specific component where the loop in a BOM occurred.

BOM Code Indicates the BOM code for the BOM in which the loop occurred.

Pos Nbr (position number), **Op Seq, Eff Date, Obs Date,** and **Associated Primary BOM** This additional information appears for the BOM in which the loop occurred.

CHAPTER 5

Making Mass Engineering BOM Changes

This chapter provides an overview of mass BOM changes and describe:

- Defining BOM mass maintenance codes.
- Making BOM mass changes and create automatic revisions.
- Correcting BOM messages using the staged BOMs process.
- Processing staged BOMs.

Understanding Mass BOM Changes

Engineering and production departments need the ability to apply additions and changes en masse directly to BOMs. Engineering can use this functionality to more easily implement approved changes on an engineering change order (ECO). Production also needs this functionality because not all changes go through engineering. You can also apply mass maintenance directly to manufacturing BOMs.

PeopleSoft Engineering mass maintenance enables you to apply, in a single process, the same set of changes, by ECO or Mass Maintenance Code (MMC), to many manufacturing or engineering BOMs. For example, you can change all occurrences of one component for another or even add components to an assembly. Without this functionality, you would need to change one BOM at a time. Mass maintenance is a powerful tool that can increase your productivity tremendously.

The BOM mass maintenance code setup page enables you to define a MMC that can then be applied to an assembly range, assembly list, or an ECO-affected item. A MMC enables you to define a specific set of component changes such as reference designator and component dimension changes: a component can be added and associated BOM information can be changed. The MMC also enables you to designate that specific multiple output values are to be changed or added. You can even designate that automatic revisions are to be generated for revision-controlled items. You can then place the MMCs on ECOs and later execute the MMC changes for that particular ECO. There also is an inquiry that enables you to view all BOM mass maintenance exceptions.

See Chapter 10, “Creating Engineering Change Orders (ECOs),” Creating and Maintaining ECOs, page 152.

Note. In addition to generating mass maintenance changes to BOMs, the mass maintenance process also enables you to create new revision numbers automatically based on a revision scheme you define for the business unit.

Note. If you are utilizing the Agile™ third-party integration to PeopleSoft Manufacturing, we highly recommend that you do *not* use the mass maintenance functionality as in this scenario, Agile™ is considered the master for all bills of materials.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Maintaining BOMs by Revisions or Effectivity Dates

Example Scenarios for Mass BOM Changes

Depending on your business needs, there are several ways you can complete a mass update of BOMs. You can mass update either EBOMs and/or MBOMs; in either case, you can use ECOs or not use ECOs, to achieve the update. You have the further option, in the case of MBOM changes, either to directly change the MBOMs on the manufacturing side or to make the changes in engineering by using the transfer functionality. In addition, you can choose to update BOMs directly, or you can choose to stage and validate your mass maintenance BOM changes so that you can then review and modify the mass maintained version prior to completing the updates to your production BOM. Let's look at some example scenarios.

Scenario 1: Updating EBOMs With or Without Using ECOs

To update EBOMs using ECOs:

1. Create an ECO with the desired impacted assemblies listed on it. For example, if you are obsoleting a component, you can identify and create the list of impacted assemblies by using the where used search within ECO maintenance.
2. If the BOMs are in manufacturing, use this ECO to transfer the BOMs to engineering.
3. If not already done, create the MMC, and associate it with impacted assemblies within ECO maintenance. You need to do this because the process to run all MMCs for the ECO is done by ECO number.
4. Process BOM Mass Maintenance by ECO and specify Engineering BOMs.

To update EBOMs using MMCs:

1. If the BOMs are in manufacturing, transfer the desired assemblies by item range or list to engineering.
2. If not already done, create the MMC.
3. Process BOM Mass Maintenance by MMC and specify the MMC, Engineering BOMs, and the desired assemblies by item range or list.

Scenario 2: Updating EBOMs for Use Up Items Using ECOs

When utilizing use-up functionality (using substitute items on the BOM) you can use an ECO to make permanent BOM changes once you know the phase out date of the component. Let's take as an example the case where item A will be discontinued, and item B will be replacing A on five of six existing BOMs, and item C will be replacing A on one of six existing BOMs. In this case, you most likely will have already defined Item B as a valid substitute for component A on these six BOMs. Once the use-up date is determined (based on information from planning), you can use this information to make changes on the BOM. For example you could:

- Create an ECO (ECO-A, for example) and place all six items on the ECO. Run Process Engineering Transfer to copy the MBOMs to EBOMs specifying ECO-A.
- Create a MMC (MMC-100, for example). For sequence 10 (for example), specify search criteria that will uniquely identify the five assembles for which you will be replacing component item A with item B. For sequence 20, specify search criteria that will uniquely identify the one assembly for which you will be replacing component item A with item C. When defining the effective date of new components B and C

you can specify the scheduled date within the MMC. This indicates the scheduled date for the ECO. Or, if you already know the exact date of the changeover, you can specify that date as the effective date.

- Place MMC-100 on the ECO lines associated with the six assemblies to be updated.
- When the quantity on hand goes to zero, using the use up information from planning, you can use this date as the ECO schedule date.
- Run Process Mass Maintenance by ECO to make the component changes for you.
- Approve ECO-A.
- Run Process Engineering Transfer to copy the EBOMs to MBOMs specifying ECO-A.

Note. In the second bullet of this scenario, you must be careful to uniquely identify the five assemblies versus the one assembly. Since you are associating the same MMC with all six assemblies, you want to make sure that all six won't have item A replaced with item B and/or item A replaced with item C. An alternative solution is to create two separate MMCs. For example, create MMC-100, which defines the replacement of component item A with item B, and create MMC-200, which defines the replacement of component A with item C. Then, in third bullet, place MMC-100 on the ECO lines of the five assemblies for which item A should be replaced with B and on the other assembly, place MMC-200 to replace item A with C.

Scenario 3: Updating MBOMs Using ECOs

You can update MBOMs using ECOs in two ways. You can transfer the MBOMs to EBOMs, make the changes, and transfer them back to manufacturing, or you can make the changes directly to the MBOMs within manufacturing. The transfer scenario is as follows:

1. Create an ECO with the desired assemblies on it.
2. Use this ECO to transfer the BOMs to engineering.
3. If not already done, create the MMC and document it on the ECO. You need to do this because the process to run all MMCs for the ECO is done by ECO number.
4. Process BOM Mass Maintenance by ECO and specify Engineering BOMs.
5. Approve the ECO.
6. Use this ECO to transfer the BOMs back to Manufacturing.

To directly update MBOMs in manufacturing using ECOs:

1. Create an ECO with the desired assemblies on it.
2. If not already done, create the MMC, and document it on the ECO. You need to do this because the process to run all MMCs for the ECO is done by ECO number.
3. Approve the ECO.
4. Process BOM Mass Maintenance by ECO and specify Manufacturing BOMs.

Scenario 4: Updating MBOMs Using MMCs Without ECOs

You can also update MBOMs using MMCs in two ways. You can transfer the MBOMs to EBOMs, make the changes, and transfer them back or make the changes directly to the MBOMs within production. The transfer scenario is as follows:

1. Transfer the desired BOMs, by item range or list, to engineering.

2. If not already done, create the MMC.
3. Process BOM Mass Maintenance by MMC, and specify Engineering BOMs.
4. Transfer the desired assemblies, by item range or list, back to Manufacturing.

To directly update MBOMs in production, using MMCs:

1. If not already done, create the MMC.
2. Process BOM Mass Maintenance by MMC, and specify the MMC, Manufacturing BOMs, and the desired assemblies, by item range or list.

Defining Engineering BOM Mass Maintenance Codes

To define engineering BOM Mass Maintenance codes, use the BOM Mass Maintenance component (EBOM_MASS_MAINT).

This section provides an overview of BOM mass maintenance codes and discusses how to:

- Identify specific BOMs for change.
- Enter reference designator search criteria.
- Enter substitute item search criteria.
- View assembly/component matches.
- Change components.
- Enter component dimensions change criteria.
- Enter component reference designator change criteria.
- Enter component substitute change criteria.
- Add components.
- Enter component substitute add criteria.

See Also

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook, "Defining Financials and Supply Chain Management Common Definitions"

PeopleSoft Manufacturing 8.8 PeopleBook, "Understanding PeopleSoft Manufacturing," Quantity Rounding Exceptions in PeopleSoft Manufacturing

Understanding Engineering BOM Mass Maintenance Codes

With the BOM Mass Maintenance pages, you can create and maintain BOM mass maintenance codes (MMC). These pages enable you to specify multiple BOM component or output changes and additions, including substitute items. A mass maintenance code consists of Search pages which allow you to identify existing components that will be impacted, Change pages which allow you to change instances of those specific components on specific BOMs, and Add pages which allow for the introduction of new components and detail information. After you have used these pages to define MMCs, you can then implement these changes directly, by using the Process BOM Mass Maintenance pages or by optionally associating MMCs to Engineering Change Orders (ECOs) and implementing the changes by ECO processing.

Note. To maintain components for revision-controlled BOMs en masse, you must enter effective and obsolete dates for the revision within these pages, regardless of whether the revision is controlled by revision name or by effectivity date.

Prior to accessing any mass maintenance code pages, you must select a Business Unit and Mass Maintenance Code. The Mass Maintenance Code value can be automatically generated.

Note. Any MMCs created in PeopleSoft Engineering are available only in engineering, and MMCs created in PeopleSoft Manufacturing are available only in manufacturing.

Note. To provide greater flexibility when defining EBOMs, we don't require the Quantity field to follow the quantity precision rules defined for the item. A warning will be issued if you define a decimal quantity value for an item whose quantity precision value is a whole number. This is an example of when you may need the quantity precision flexibility. If 1 B0004 component is required to make 2 assembly A0001s, then when defining the BOM, the QPA for B0004 would be 0. 5. If you applied the rounding rules to the QPA, then it would round the QPA for B0004 to 1, and thereby inflate the production costs.

Mass BOM Changes - Example

To better understand how you can use these pages to effect desired mass change, let's look at an example.

To obsolete a component on several BOMs and introduce another component in its place:

1. Create an MMC code by entering the search criteria (on the Search page) that identifies the component you want to obsolete.
2. Specify the date the component is to become obsolete (or choose one of the available options) on the Change page.
3. Add the new component information on the Add page, this includes required information such as operation sequence and effective date for the new component.
4. Add additional component information with the dimensions, reference designator, or substitutes links as required.
5. Process the BOM Mass Maintenance and isolate the BOMs to be changed by specifying the appropriate ECO or, if using MMCs without ECOs, by assembly item list or range.

Prerequisites

Prior to making BOM mass maintenance changes, the appropriate assemblies, BOMs, and if you're using ECRs, ECOs, and mass maintenance codes associated with ECOs need to be defined in engineering.

You also need to define as revision-controlled with automatic revisions any items for which you plan to create automatic revisions.

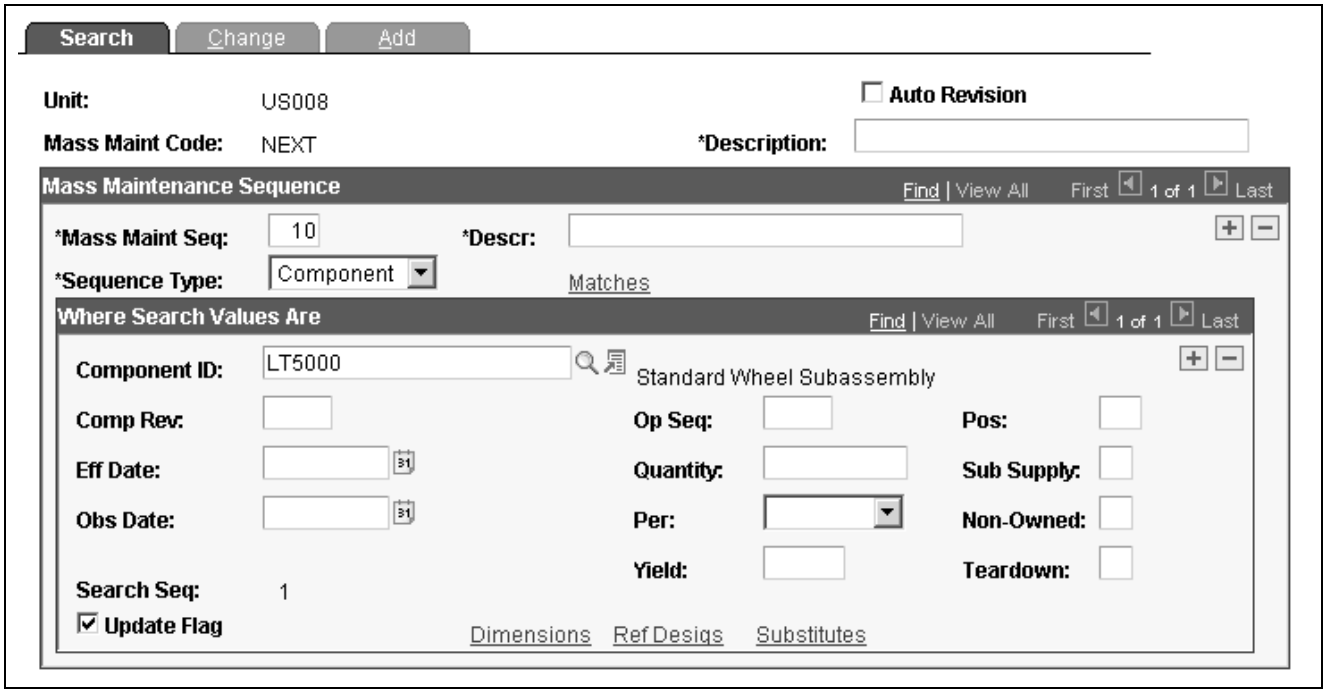
Pages Used to Define BOM Mass Maintenance Codes

Page Name	Object Name	Navigation	Usage
Search	EN_BOM_MMC_SRCH	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Search	Identify which specific outputs or component(s), and therefore BOMs, to change.
Search - Dimensions	EN_BOM_MMC_DIM_	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Search Click the Dimensions link.	Enter component dimension search criteria.
Search - Reference Designator	EN_BOM_MMC_REF_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Search Click the Ref Desigs (reference designators) link.	Enter reference designator search criteria.
Search − Substitutes	EN_BOM_MMC_SUB_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Search Click the Substitutes link.	Search for substitutes everywhere they are used.
Assembly/Component Matches	EN_BOM_MMC_VW_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Search Click the Matches link.	View the number of assemblies that match the search criteria you have entered and to view matching BOMs.
Change	EN_BOM_MMC_NEW	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Change	Specify new component values, once you have selected the set of components that you want to change with the Search page.
Change - Dimensions	EN_BOM_MMC_DIM2_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Change Click the Dimensions link.	Make mass changes to component dimensions.

Page Name	Object Name	Navigation	Usage
Change - Reference Designators	EN_BOM_MMC_REF2_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Change Click the Ref Desigs (reference designators) link.	Make mass changes to reference designators.
Change − Substitutes	EN_BOM_MMC_SUB2_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Change Click the Substitutes link.	Mass change a substitute everywhere it's used.
Add	EN_BOM_MMC_ADD	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Add	Add components or outputs to assemblies. The system will add these components or outputs to each BOM identified by the values you entered on the Search page. Use the Process BOM Mass Maintenance pages to designate, at a later time, the specific assemblies to be affected by these changes.
Add − Dimensions	EN_BOM_MMC_DIM3_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Add Click the Dimensions link.	Add component dimensions, if you are adding by the *Component* Sequence Type.
Reference Designators - Add	EN_BOM_MMC_REF3_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Add Click the Ref Desigs (reference designators) link.	Add reference designators, if you are adding by the *Component* Sequence Type.
Add - Substitutes	EN_BOM_MMC_SUB3_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, BOM Mass Maintenance Codes, Add Click the Substitutes link.	Add a substitute everywhere it's required.

Identifying Specific BOMs for Change

Access the BOM Mass Maintenance Code - Search page.



BOM Mass Maintenance Codes - Search page

Before you associate any changes or additions to an MMC, you can use the Search page to identify which specific outputs, components, or component revisions (and, therefore BOMs) to change. When adding components, you can use the Search page to further identify the BOM(s) to which the new component should be added. For example, you may want to add component ID LT5001 only to BOMs that already have a component ID called LT5000 and a 12/31/97 obsolete date or perhaps where you already have component ID LT5000 and LT5001 defined. Similarly, you can use the Search page to further identify the BOMs to which the new output should be added.

Note. In this component, the fields displayed vary, depending on your selection in the Sequence Type field. The page examples in this section are based on selecting *Component* in the Sequence Type field. If you select *Output*, the system doesn't display the Component ID, Component Rev (component revision), Quantity, Yield, Pos (position), Sub Supply (supplied by subcontractor), Non-Owned, and Teardown fields. It also doesn't display the Dimensions, Ref Desigs (reference designators), and Substitutes buttons. Instead, it displays the Output Item, Output Type, Output Qty (output quantity), Res % (resource allocation percentage), and Cost % (cost allocation percentage) fields.

You may want to universally change the status of or add a new substitute item. You can search Substitutes by item or substitute. You can also search by item and substitute. If you want to search for an item or substitute only, enter the original or substitute item in the Component ID field.

If you want to search by both original and substitute, enter the original item in the Component ID field and use the Substitutes link.

Auto Revision By selecting this option, you will, for this mass maintenance code, apply schemes that automatically update revisions when a change event occurs. You actually generate the automatic revisions when you run the mass maintenance functionality, either by using mass maintenance by Engineering Change Order (ECO) or BOM Mass Maintenance by Mass Maintenance Code (MMC). When selecting the auto revision flag on

the mass maintenance code and then specifying the MMC on the ECO and item, you are indicating that a revision will be created for the ECO item. You cannot override the Rev Up flag on the ECO.

Mass Maint Seq (mass maintenance sequence) and **Descr** (description)

Enter a mass maintenance sequence number and its description. The mass maintenance sequence number enables you to set up more than one set of changes for a single mass maintenance code.

Note. The maximum number of sequence numbers that you can enter for a specific mass maintenance code is 20.

You can use sequence numbers to set up "or" conditions. For example, if you want to change BOM components where the current Component ID is LT5000 or Component ID is LT5001, then create one sequence where the Component ID is LT5000 and a second sequence where the component ID is LT5001. The system will apply designated changes in the sequence number order.

Note. Each change sequence applies to the original BOM, not to the BOM as it would look after previous sequences have been applied.

Sequence Type

Select *Component* or *Output.*

If you select *Component*, enter the component search values. This optionally includes standard BOM fields such as Component ID, Comp Rev (component revision), operation sequence, effectivity and obsolete dates, and quantity Per. The system will search for values that meet, at the same time, all the criteria you enter.

Note. The Eff Date (effective date) and Obs Date (obsolete date) you enter indicates the precise date on which the component becomes effective or obsolete on the BOM.

If you select *Output* as your Sequence Type, then you can, optionally, select the Output Item and Output Type. You can also enter an Output Quantity, Res % (resource percentage), and Cost % (cost allocation percentage).

If you don't want to change a specific component, then leave the Component ID field blank, and select criteria based on the other fields. If you leave any field on the Component Search page blank, the system searches for BOM components without considering the blank search field. For example, If you leave Component ID blank and just enter a Yield of *50*, then all components with a yield of 50 are selected.

If you want to search for multiple components or outputs within a sequence, use the Where Search Values Area group box to enter "and" searches for more than one component or output on a bill of material.

Update Flag

While searching for BOMs that contain multiple components or outputs, you may only want to make changes to a subset of all components or outputs. Select this check box to indicate which components or outputs you want updated by the mass maintenance process.

See Also

Chapter 4, “Maintaining Engineering Bills of Material,” Defining EBOM Outputs, page 35

Viewing Assembly/Component Matches

Access the Assembly/Component Matches page.

Count Click this button to view the number of assemblies that match the search criteria you have entered. The page displays Engineering and Manufacturing BOM totals. These values are the number of EBOMs and MBOMs that will be affected, assuming you plan to run mass maintenance processing for all BOMs in the business unit that meet the search criteria. The actual EBOMs or MBOMs to be changed can be determined by assembly list, by range, or with assemblies associated with ECOs when the mass maintenance code is applied later.

Note. If you anticipate that a large number of BOMs will be affected by the search criteria, use the Count button before attempting to View BOMs, to avoid viewing too much data online.

View BOMs Click this button to view Engineering or Manufacturing assembly matches to the criteria you entered. This display of assembly matches lists the assemblies that can be affected by this Mass Maint Seq (mass maintenance sequence). When the Mass Maint Code (mass maintenance code) is applied later, this list of assemblies can be further restricted, by supplying a range of assemblies, a specific list of assemblies, or an ECO that contains assemblies with BOM changes.

If you selected *Output* as the Sequence Type on the Search page, then the assembly matches will display Output Item and Output Type instead of Component ID.

Entering Reference Designator Search Criteria

Access the Reference Designators - Search page.

For a given sequence you can search using multiple reference designators. If you enter more than one reference designator, the system will search for BOM components, using a logical “and” between reference designators. If you want to search references designators using an “or” logical, you must use multiple sequences.

Entering Substitute Items Search Criteria

Access the Component Substitutes - Search page.

You can narrow the search by using all or any combination of the substitute item search criteria.

Sub Item (substitute item) Enter a value if you want to search for a specific component substitute on a BOM.

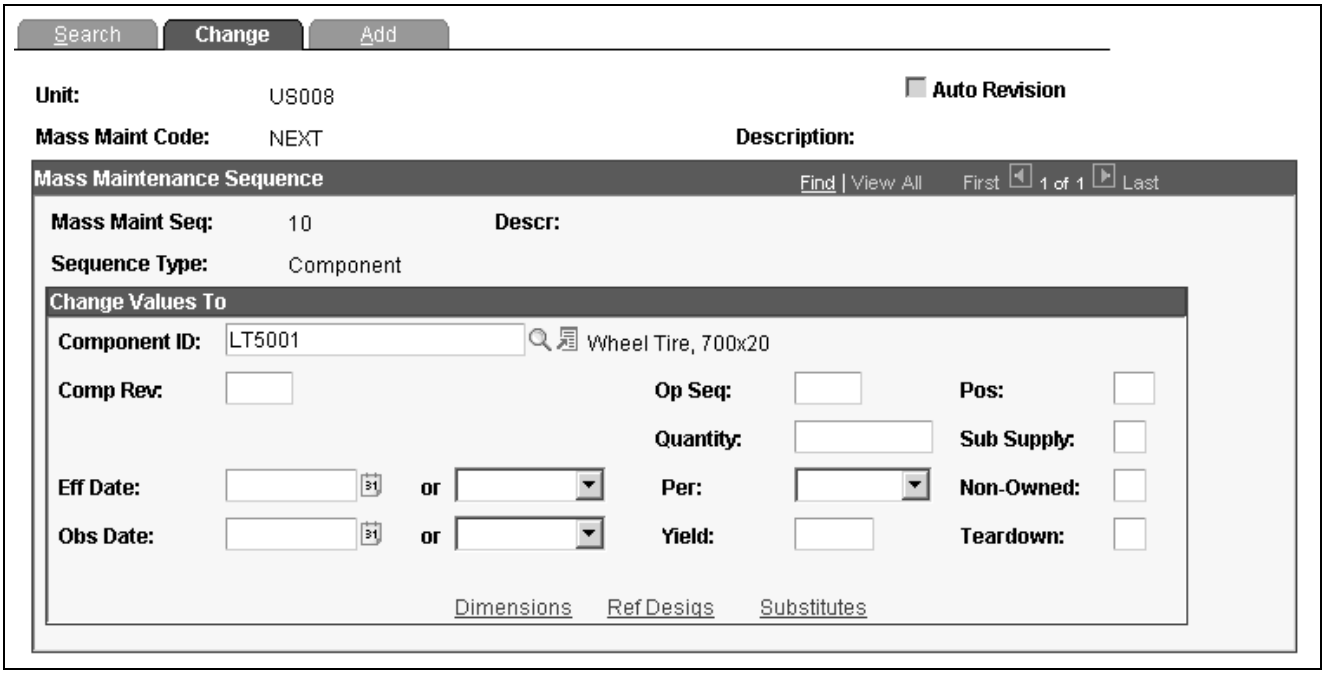
If you want to search for a specific component substitute with a particular priority, then enter both the Sub Item and the Priority.

If you want to search for a specific component substitute with a particular conversion rate, then enter both the Sub Item and the conversion Rate.

From Date and **To Date** Enter values for these fields if you want to narrow the search.

Changing Components

Access the BOM Mass Maintenance Code - Change page.



BOM Mass Maintenance Codes - Change page

Component ID Enter a new value if you intend to change the component ID field.

Note. This would typically be done for correcting BOMs. If you intend to keep history of a component change, you should leave this field alone.

Output Item and **Output Type** If you selected *Output*, enter the required output change-to data on this page. The effectivity dates operate the same as they do for a component Sequence Type.

Using Automatic Revisions and Effectivity Dates

Eff Date (effective date) and **Obs Date** (obsolete date) These values determine the specific effectivity date changes mass maintenance will make to the BOM for the searched components. For example, to obsolete components leave the Eff Date field blank and specify an obsolete date or use the second field next to the Obs Date to derive an obsolete date for the component.

In the second field you can select *Prior Date*, or *Schd Date* for the obsolete date.

If you select *Schd Date* for the effective date, then, at process time, the system translates this into the process run date.

Obs Date (obsolete date) Select one of these values:

- *Prior Date:* The day before the schedule date which is the process run date. This is used for example to obsolete a component the day before a new component will take its place.
- *Schd Date* (scheduled date): This date varies, depending on whether you selected the Auto Revision check box on the Search page. This for example can be used to obsolete a component on the run date when no component is to take its place.

If revisions aren't automatically incremented, the schedule date is the run date of the process.

If revisions are being automatically incremented, the obsolete date will have the obsolete date of the newly created revision.

Auto Revision If this check box is selected, and you specify the schedule date for both the effective date and the obsolete date, the system displays a warning that the component will be effective for only one day.

Note. You can enter only one Eff Date. Therefore, if you specify a calendar date and then select *Schd Date*, the system clears the calendar date. Similarly, if you select a Schd Date and then enter a calendar date, the system clears the Schd Date. The Obs Date fields operate in the same manner.

This table outlines the automatic revision impact that the second set of Eff Date and Obs Date values will have both on revisions and the dates reflected on the BOMs. This example applies only to items that have been defined as revisions controlled on the Define Business Unit Item - Manufacturing: General page.

Also, there is an example of how the dates will change on the BOM if the scheduled date is 06/15/02 on the ECO and the newly created revision is the latest revision for the item.

Change Obsolete Date to	None	Schd Date (scheduled date)	Prior Date
When Effective Date = *None*	Creates new automatic revision. There is no BOM component effectivity date mass change. Example: Both Eff Date and Obs Date are unchanged.	Creates new automatic revision. The system changes the obsolete date on the selected BOMs to the obsolete date of the new automatic revision. Example: Eff Date is unchanged; Obs Date is 12/31/2099 (Obs date of new Revision added on 6/15/02).	Creates new automatic revision. The system changes the obsolete date on the selected BOMs to the obsolete date of the revision just prior to the newly added automatic revision. Example: Eff Date is unchanged; Obs Date is 06/14/02 (one day before new Revision is active).
When Effective Date = *Schd Date*	Creates new automatic revision. The system changes the BOM effective date to the scheduled date of the ECO, if the mass maintenance process is run by ECO, or to the run date, if the process is run by MMC. Example: Eff Date is 06/15/00; (start date of new Revision) Obs Date is unchanged.	Creates new automatic revision. The system changes the BOM effective date to the scheduled date of the ECO, if the mass maintenance process is run by ECO, or to the run date, if the process is run by MMC. The system changes the obsolete date on the selected BOMs to the obsolete date of the new revision. Example: Eff Date is 06/15/02 (start date of new Revision); Obs Date is 12/31/2099.	This combination isn't allowed because it would cause the effective date of the component to be after the due date. You must select another combination.

As you can see from this table, with the exception of the *Schd Date* and *Prior Date* combination, all scenarios are valid and will lead to the automatic generation of revisions for revision control/automatic revision items.

This table is for items that have *not* been defined as using automatic revisions.

Change Obsolete Date to	None	Schd Date (scheduled date)	Prior Date
When Effective Date = *None*	There is no BOM component effectivity date mass change. Example: Both Eff Date and Obs Date are unchanged.	The system changes the obsolete date on the selected BOMs to the scheduled date of the ECO if the mass maintenance process is run by ECO or to the run date if the process is run by MMC. Example: Eff Date is unchanged; Obs Date is 06/15/02.	The system changes the obsolete date on the selected BOMs to the date prior to the scheduled date of the ECO if the mass maintenance process is run by ECO or to the date prior to the run date if the process is run by MMC. Example: Eff Date is unchanged; Obs Date is 06/14/02.
When Effective Date = *Schd Date*	The system changes the BOM effective date to the scheduled date of the ECO if the mass maintenance process is run by ECO or to the run date if the process is run by MMC. Example: Eff Date is 06/15/02; Obs Date is unchanged.	The system changes the BOM effective date and the obsolete date to the scheduled date of the ECO if the mass maintenance process is run by ECO or to the run date if the process is run by MMC. Example: Eff Date is 06/15/02; Obs Date is 06/15/02.	This combination isn't allowed. You must select another combination.

Note. Automatic revision is operative only for items that are defined as using automatic revisions on the Define Business Unit Item - Manufacturing: General page. The system uses the ECO schedule date to create revisions when mass maintenance is used in conjunction with an ECO. It uses the run date of the mass maintenance process to create revisions when mass maintenance is run by mass maintenance code as a standalone.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Maintaining BOMs by Revisions or Effectivity Dates

Entering Component Dimensions Change Criteria

Access the Component Dimensions - Change page.

Enter the existing dimension on the Component Dimensions - Search page (optional), and then enter a new value on the Component Dimensions - Change page: both pages are accessed by clicking buttons on the appropriate page. Entering the existing dimension on the Component Dimensions - Search page is necessary only when it needs to be part of the search criteria. For example, if you want to change the weight for all occurrences of component LT5000 to 10, then enter *10* on the Change page. If it should be changed only where its current weight is 9, then enter *9* on the Search page and 10 on the Change page.

Entering Component Reference Designator Change Criteria

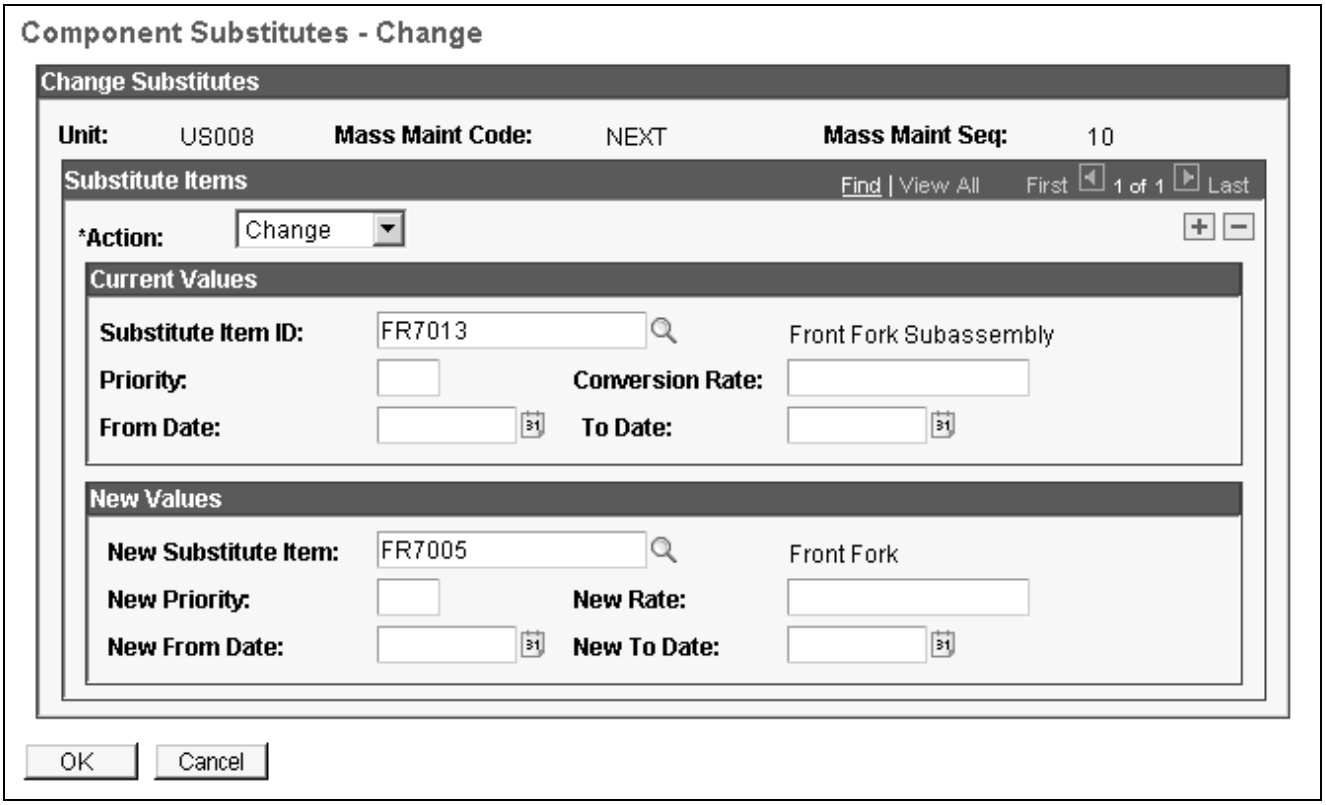
Access the Reference Designators - Change page.

To add, change, or delete reference designators, specify the reference designator(s) on the Reference Designators - Search page only if it needs to be part of the search criteria.

Otherwise, use the Reference Designators - Change page to specify an Action of *Add*, *Change*, or *Delete*. When adding, specify only the new reference designator; when deleting, specify only the reference designator to be deleted; when changing, specify the current and new reference designators.

Entering Component Substitute Change Criteria

Access the Component Substitutes - Change page.



Component Substitutes - Change page

Action Select a value:

- *Add*
- *Change*
- *Delete*

Adding, changing, and deleting component substitutes works in a similar fashion as the reference designators, except that you have more information to maintain.

If adding a new substitute, specify all the required new values.

If deleting a substitute, specify as many of the current values as necessary to execute the delete. If changing substitute information, enter the current and new values.

For example, if you want to delete all occurrences of LT5001 as a substitute, then enter only LT5001 as the substitute item. If you want to delete only the substitute LT5001, if it has priority 1, then enter LT5001 as the substitute item and 1 as the priority.

Current Values

Substitute Item ID This is the current default value that comes from the business unit.

Priority, Conversion Rate, From Date, and **To Date** If deleting a substitute, specify as many of the current values to execute the delete.

For example, if you want to delete all occurrences of LT5001 as a substitute, then only enter LT5001 as the Substitute Item ID.

If you only want to delete the substitute LT5001 if it has priority 1, then enter *LT5001* as the Substitute Item ID and *1* as the Priority.

If changing substitute information, enter the current values.

New Values

New Substitute Item Enter the value for the new substitute component.

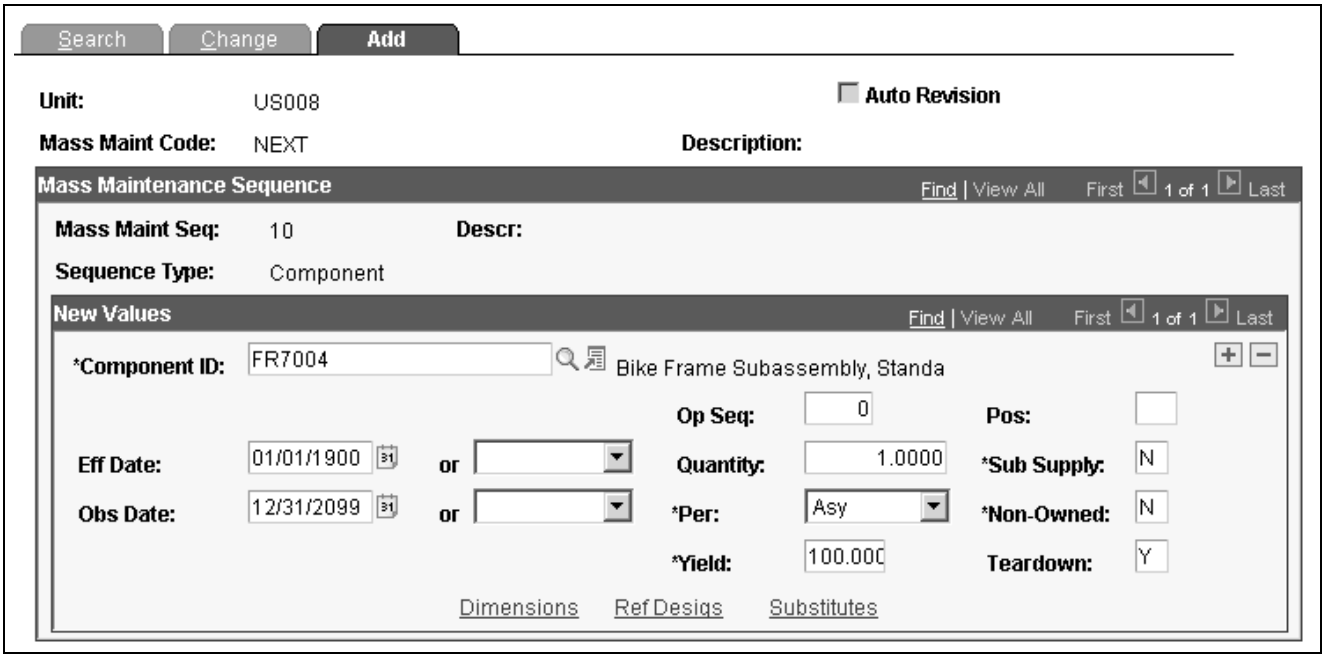
If you're adding a new substitute, you must specify all the required new values.

New Priority, New From Date, New To Date, and **New** (conversion) **Rate** If you want to change the parameters of the new substitute item, enter values where applicable. Otherwise, any values you don't specify here for the new substitute item priority, effective dates, and conversion rate will remain unchanged on the BOM.

You can also change the parameters for the original item here. Enter only the fields you want to change.

Adding Components

Access the BOM Mass Maintenance Code - Add page.



BOM Mass Maintenance Codes - Add page

Note. Automatic revision is operative only for items that are defined as using automatic revisions on the Define Business Unit Item - Manufacturing: General page. The system uses the ECO schedule date to create revisions when mass maintenance is used in conjunction with an ECO. It uses the run date of the mass maintenance process to create revisions when mass maintenance is run as a standalone.

Component ID

You must select a component and if you selected a Sequence Type of *Component* on the BOM Mass Maintenance Code - Search page.

Enter associated values you want to add to the selected BOMs that meet the search criteria specified with the Component Search page.

You can add multiple components per Mass Maint Seq (mass maintenance sequence) code.

You can also add a placeholder item as a component. If the MMC is later applied to manufacturing BOMs that don't allow placeholders, then the process will flag that BOM change as an exception, and the BOM won't be changed.

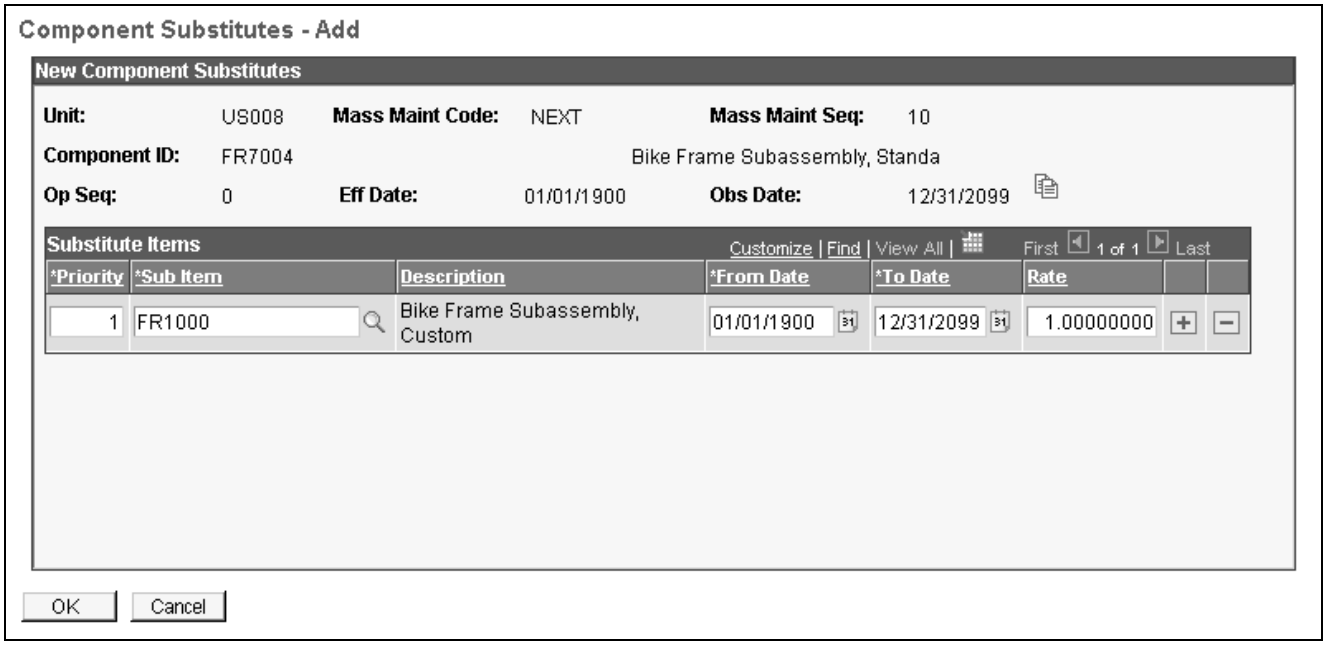
Output Item and **Output Type**

If you selected a Sequence Type of *Output* on the BOM Mass Maintenance - Search page, you must enter values and any additional required output data.

Note. The values you select on these pages are subject to the same validation checks that apply to any EBOM or MBOM component or output values. Some of these checks occur when you create the mass maintenance code, and the remaining validation checks occur at the time the MMC is applied.

Entering Component Substitute Add Criteria

Access the Component Substitutes - Add page.



Component Substitutes - Add page

Click the Copy Substitute button to display all valid substitute items for the business unit.

If you want to add all valid substitute items for the business unit, click OK.

If you don't want to add all valid substitute items for the business unit, enter each individual Sub Item (substitute item) you want to add. Plus the Priority, From Date, To Date, and conversion Rate for each substitute.

Note. Substitute items must be unique for the item. You can't enter the same item twice as a substitute with different dates. For example, Substitute A with effective dates from 01/01/99 to 02/01/99 and Substitute A with effective dates from 02/01/00 to 08/30/00 couldn't be substitutes for the same item. In this case, define a different substitute for the second set of effective dates.

Making BOM Mass Changes and Creating Automatic Revisions

This section provides an overview of how to make BOM mass changes and create automatic revisions and discusses how to:

- Make mass changes by ECO.
- Make mass changes by mass maintenance code.
- Use assembly item options.
- Select assemblies by items where used.
- View mass maintenance exceptions.

Understanding Making BOM Mass Changes and Creating Automatic Revisions

You can make BOM mass changes, as well as create automatic revisions, in two ways: by Engineering Change Order (ECO) or by Mass Maintenance Code (MMC). While the processing in each case is similar, the way in which the assemblies you want to change are determined differs.

Both mass maintenance processes can generate automatic revisions.

To create automatic revisions (no BOM changes) using mass maintenance by ECO:

1. Create the ECO itself and include items (make or buy) which you want to auto rev and select the auto rev check box.
2. Run the mass maintenance by ECO process (an MMC isn't required for this case).
3. The system will then create a new revision effective on the ECO schedule date.

To update BOMs and create automatic revisions using the mass maintenance by MMC process:

1. Define the mass maintenance code (MMC), using the BOM Mass Maintenance component.
2. Create the ECO itself and attach the MMC to one or more items on the ECO. (If the MMC is defined with the Auto Rev check box selected and the ECO item is revision controlled and defined to allow automatic revisions, the Auto Rev flag on the ECO will be selected and unavailable for selection.)
3. Run the mass maintenance by MMC process.
4. The system will then create a new revision, effective on the ECO schedule date.

Note. You can also include additional items on the ECO that aren't impacted by the MMC but are to be auto-revisioned by listing them and selecting the Auto Rev check box on the ECO. When the mass maintenance process by ECO runs, it creates new revisions for these items as well.

To create automatic revisions using the mass maintenance by MMC process:

1. Define the MMC using the BOM Mass Maintenance component.
2. Run the mass maintenance by MMC process.
3. The system will then create a new revision effective on the mass maintenance by MMC process run date.

Common Elements Used in This Section

Update Options Select your option:

- *Validate and Update:* The process will validate and update the BOMs, depending on the update option you select (Only if all BOMs are valid or Any valid BOMs).
- *Only if all BOMs are valid:* The system will update all BOMs, but only if they have no error exceptions. If even one BOM has an error, the system won't update any BOMs.

  Any valid BOMs: The system will update any BOM that doesn't have errors.

With either option, view the non-valid BOMs with the Engineering Mass Maintenance Exceptions page.

- *Validate Only:* The process will validate the BOM, but won't update BOMs under any circumstances. The system makes the Only if all BOMs are valid and Any valid BOMs options unavailable for selection.
- Use *Validate Only* and the Mass Maintenance Exceptions page to determine whether there are any validation problems with BOMs. You can then make any necessary corrections, before you actually update the BOMs.

Staged BOM Data Options Select a option to determine what should be done with the data that was used during the Mass Maintenance process:

Delete Stage Results: The system doesn't save any results of the Mass Maintenance process, and you can't use the Mass Maintenance Staged BOMs component to view the changed BOMs or correct errors.

Stage Results: You can use the Mass Maintenance Staged BOMs component to:

- View which BOMs were updated by the Mass Maintenance process.
- Correct BOMs that returned an Error status.
- Resubmit the process.

If you choose to Stage Results, select whether or not to run Mass Maintenance in Report Only Mode. If you select this option, you can only view the results of the Mass Maintenance process in the Mass Maintenance Staged BOMs component. If you don't select this option, you can use the Mass Maintenance Staged BOMs component to view the staged BOMs, update errors and submit corrected BOMs for reprocessing.

Engineering validation Use the validation options to determine how the BOM should be validated. This option allows placeholders to be added to BOMs.

Manufacturing validation This option is stricter than Engineering validation, requiring that components both exist in the business unit and are approved. If you opt to update MBOMs (by setting the BOM State to Manufacturing) then Manufacturing validation is required. If you are updating EBOMs (by setting the BOM State to Engineering) the stricter Manufacturing validation is an optional choice.

Pages Used to Make BOM Mass Changes and Create Automatic Revision

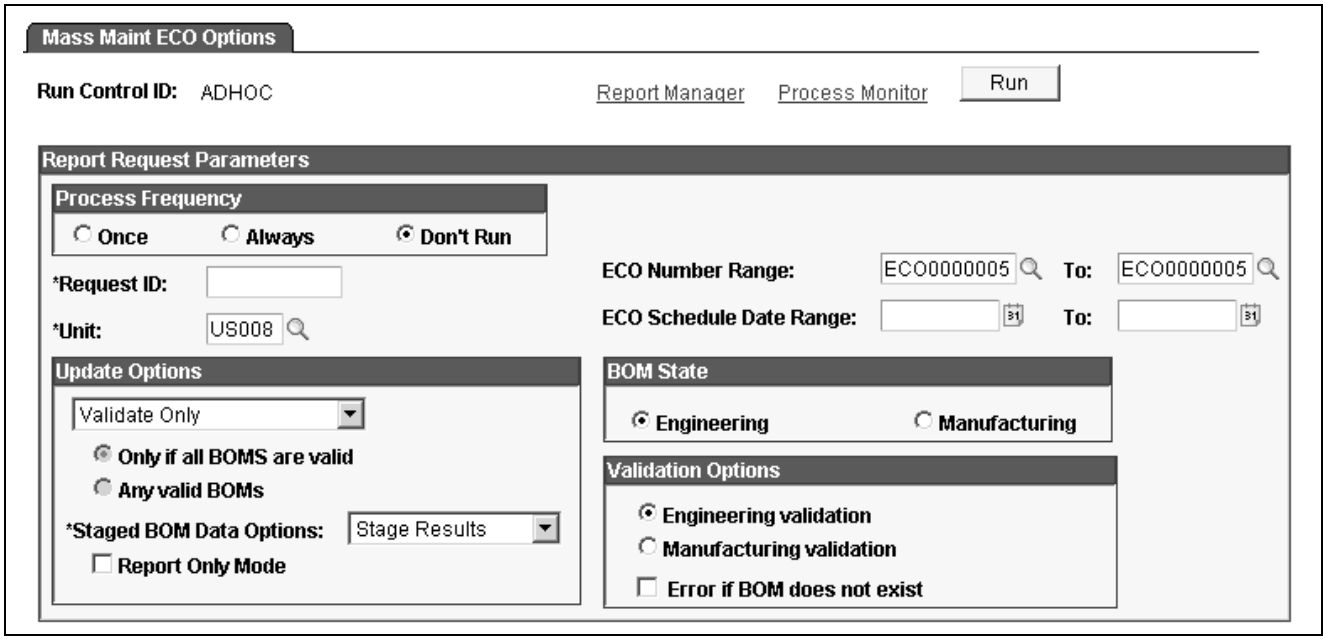
Page Name	Object Name	Navigation	Usage
Mass Maintenance ECO Options	EN_MASSMNT_REQ	Engineering, Engineering Changes, Apply Mass Changes by ECO, Mass Maint ECO Options	Define the ECO options for the BOM Mass Maintenance COBOL SQL process (ENPMMAIN).

Page Name	Object Name	Navigation	Usage
Mass Maintenance Code Options	EN_MASSMNT_REQ2	Engineering, BOMs and Revisions, EBOM Mass Changes, Apply EBOM Mass Maint Changes by MMC, Mass Maint Code Options	Define the MMC options for the BOM Mass Maintenance COBOL SQL process (ENPMMAIN).
Assembly Item Options	EN_MASSMNT_REQ3	Engineering, BOMs and Revisions, EBOM Mass Changes, Apply EBOM Mass Maint Changes by MMC, Assembly Item Options	Choose the items to which the BOM Mass Maintenance process will be applied.
Select Assemblies by Items Where Used	EG_BOM_WHEREUSE_SP	• Engineering, BOMs and Revisions, EBOM Mass Changes, Apply EBOM Mass Maint Changes by MMC, Assembly Item Options Click the Where Used link. • Engineering, Engineering Changes, Maintain ECRs, Header - Header Click the Where Used link. • Engineering, Engineering Changes, Maintain ECOs, Header - Header Click the Where Used link. • Engineering, Engineering Changes, Engineering Transfers, Assembly Selection Click the Where Used link.	Quickly populate affected assemblies into the primary page.
Select Assemblies by Items Where Used: Enter Dimensions	EN_BOM_DIM_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, Apply EBOM Mass Maint Changes by MMC, Assembly Item Options, Select Assemblies by Items Where Used Click the Dimensions link.	Specify the dimensions of the component.

Page Name	Object Name	Navigation	Usage
Select Assemblies by Items Where Used: Reference Designators	EG_BOM_WU_REF_SP	Engineering, BOMs and Revisions, EBOM Mass Changes, Apply EBOM Mass Maint Changes by MMC, Assembly Item Options, Select Assemblies by Items Where Used Click the Ref Desig (reference designator) link.	Specify the reference designator of the component.
Mass Maint Except	EN_MMC_TRN_STAT	Engineering, BOMs and Revisions, EBOM Mass Changes, Mass Maintenance Exceptions, Mass Maint Except	View the reasons BOMs weren't changed by the BOM Mass Maintenance process.

Making Mass Changes by ECO

Access the Mass Maint ECO Options process page.



Mass Maint ECO Options page

You have two ECO Options: you can enter just an ECO Number Range or both an ECO Number Range and an ECO Schedule Date Range.

The system will use the BOM Mass Maintenance Code(s) (MMC) you specify on an ECO to make the mass changes and create automatic revisions.

If the mass maintenance code on the ECO has been set to include automatic revisions, then the system will also automatically create revisions. Revisions will be effective as of the ECO Schedule date.

Note. Only items that (on the Define Business Unit Item - Manufacturing: General page) have been defined as revision-controlled with automatic revisions and also set up to use auto revisions (on the BOM Mass Maintenance - Search page) will be auto revision incremented.

The system will also use the BOM Code and BOM Type you specified on the ECO Maintenance - Items Affected page to determine what BOMs to change. If you left the BOM Code field blank, the MMC will apply to all BOM codes. There can be one MMC for all BOM changes on an ECO or there can be a different MMC for each BOM change on the ECO.

Note. When running BOM Mass Maintenance (ENPMMAIN) to create new revisions only, you must run the process with the Update Option of *Validate and Update* to create new revision numbers. *Validate*, in this context, means that all BOMs are valid for update (including no duplicate components and overlapping effectivity dates) it doesn't mean that the system will check for loops. To check for looping BOMs, you must run the BOM verification process after you have run the Mass Maintenance page.

Error if BOM does not exist If you select this check box and the ECO includes any assemblies for which no BOM exists, this will be treated as an error condition.

For any MBOM or EBOM that is updated by this BOM Mass Maintenance process (ENPMMAIN), the ECO Number field on the BOM and EBOM maintenance Component Details pages will be updated with the ECO Number used in this process. The ECO Number shown on the component details will be the last ECO number that updated the component on the assembly. The ECO button on the same page reflects any pending ECOs.

This process will also update the mass maintenance code status on the ECO Mass Maintenance page. For BOMs that had an error exception, the system sets the status to *Error.* For BOMs that were updated, the status is set to *Success*. Finally, for BOMs that weren't affected by the MMC (that is, they didn't meet the search criteria) the system sets the status to *No Affect.*

If you resubmit this process again against the same ECO(s), the system will process only the BOMs whose mass maintenance status is either *Pending, Error,* or *No Affect*.

Any ECO items that were both successfully changed and were only flagged with a BOM change (no routing change) on the ECO Header or Items Affected page, will be released. If all items on the ECO are released, then the ECO itself will also be released.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Maintaining BOMs by Revisions or Effectivity Dates

Making Mass Changes by Mass Maintenance Code

Access the Mass Maint Code Options page.

Unit and **Mass Maintenance Code** Enter values to apply to a range or list of assemblies.

If the Mass Maintenance Code has been set to include automatic revisions, the system will also automatically create revisions. Revisions will be effective as of the run date of this process.

Note. Only items that have been defined as revision-controlled with automatic revisions and also set up to use auto revisions (with the BOM Mass Maintenance - Search page) will be auto-revision incremented.

Update Options Select one of the values:

- *Validate and Update*: Validates and updates the BOMs, depending on the update option based on:
- *Only if all BOMs are valid*
- *Any valid BOMs*
- *Validate Only*: Validates any valid BOMs.

  You can use Validate Only and the Mass Maintenance Exceptions page to determine whether there are any validation problems with BOMs. You can then make any necessary corrections, before you actually update the BOMs.

Staged BOM Data Option Select an option to determine what should be done with the data that was used during the Mass Maintenance process:

- *Delete Stage Results:* The system doesn't save any results of the Mass Maintenance process, and you can't use the Mass Maintenance Staged BOMs component to view the changed BOMs or correct errors.
- *Stage Results:* You can use the Mass Maintenance Staged BOMs component to see which BOMs were updated by the Mass Maintenance process, correct BOMs that returned an *Error* status and resubmit the process.

Report Only Mode Select this option if you want to view the results of the Mass Maintenance process by using the Mass Maintenance Staged BOMs component.

If you don't select Report Only Mode, you can use the Mass Maintenance Staged BOMs pages to view the staged BOMs, update errors and submit corrected BOMs for reprocessing.

See Also

Chapter 5, "Making Mass Engineering BOM Changes," Making Mass Changes by ECO, page 76

Using Assembly Item Options

Access the Assembly Item Options process page.

Item Options Select one of these options:

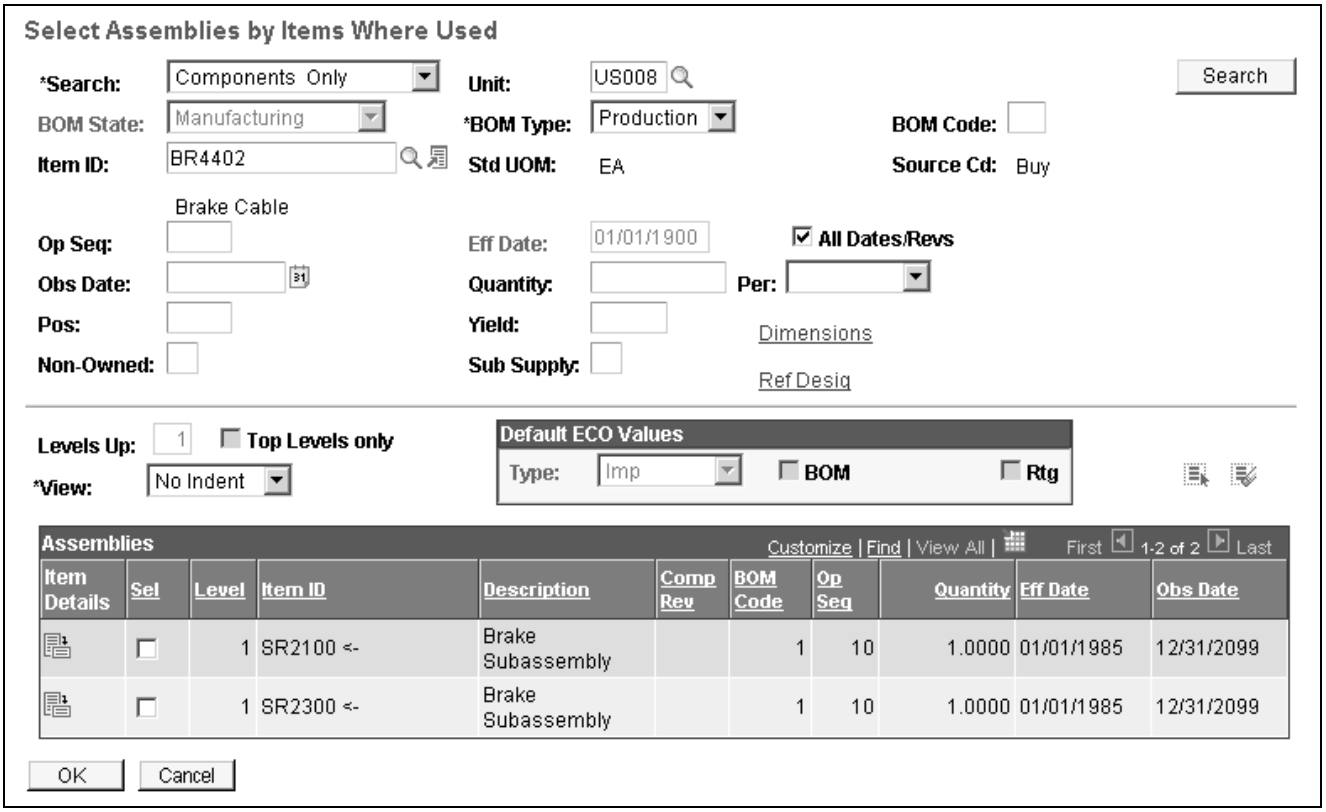
- Range. Also select the BOM Type and BOM Code.
- List of Assembly Items.

Click the Search button to populate the List of Assembly Items field.

Run Click to run this request. The Process Scheduler runs the ENPMMAIN process at user-defined intervals.

Selecting Assemblies by Items Where Used

Access the Select Assemblies by Items Where Used page.



Select Assemblies by Items Where Used page

This page can be accessed from the ECO maintenance pages, the ECR maintenance pages, the Engineering transfer pages, or the Mass Maintenance by MMC pages.

Search field — If you select *Components Only* in this field, the system displays basic component information.

If you select *Outputs Only*, the system displays basic output information, including Output Type, BOM Code, Output Qty (output quantity), and effectivity dates.

Sel (select) — Select the check box for all the outputs you would like transferred to the main page.

Item ID, Op Seq, (operation sequence), effectivity dates, and **BOM Code** — Enter values for these fields.

Search button — Click this button to populate the page.

View — Select either *Indented* or *No-Indent.*

Sel (select) Select the check box for all the components you would like transferred to the main page.

Comp Rev (component revision) This field is displayed if the component is revision-controlled. If you enter a component revision, the Select Assemblies by Items Where Used page returns all assemblies where that component is an exact match or where the current revision is used.

If you leave the field blank, the system returns assemblies that use any revision of the component.

ECO or ECR Maintenance Pages

If you have accessed this page from either ECO or ECR maintenance pages, you can:

- Change BOM State to either *Engineering* or *Manufacturing.*
- Select Default ECO Values. These values include the ECO item Type and whether or not the item requires a BOM change (BOM check box) or Routing change (Rtg check box). When accessed from ECO maintenance pages, there is an additional default value called Rev Up. This check box is available for selection only if you have selected a Type of *IMP* and if you have selected the BOM check box.

Note. This is only a default value; therefore, when the selected items are returned to the ECO, the Rev Up check box will be selected only for the items that are auto-revision controlled.

Engineering Transfer or Process BOM Mass Maintenance by MMC Pages

If you have accessed this page from either the Engineering Transfer or Process BOM Mass Maintenance by MMC pages, then BOM State is unavailable for selection. BOM State reflects the selection you made on the From/To field on the Transfer Selection page or the BOM State selection on the BOM Mass Maintenance Codes pages, respectively.

View Select an option: *Indented* or *No-Indent.*

Search field Values are:

- *Components Only:* System displays basic component information, and all higher-level subassemblies or assemblies that contain the selected item.
- *Components and Substitutes:* System displays all higher-level subassemblies or assemblies that contain the selected item, including substitutes.
- *Outputs Only:* System displays basic output information, including Output Type, BOM Code, Output Qty (output quantity), and effectivity dates.
- *Substitutes Only:* System displays substitutes for the selected item.

Sel (select) You can then select this check box for all components you would like to have transferred to the main page.

If the component is revision controlled, a Comp Rev field displays and you can use it as part of the search. If you enter a component revision, the Select Assemblies by Items Where Used page returns all assemblies where that component is an exact match or where the current revision is used.

If you leave revision blank on a revision-controlled component, this page will return assemblies, which use any revision of the component

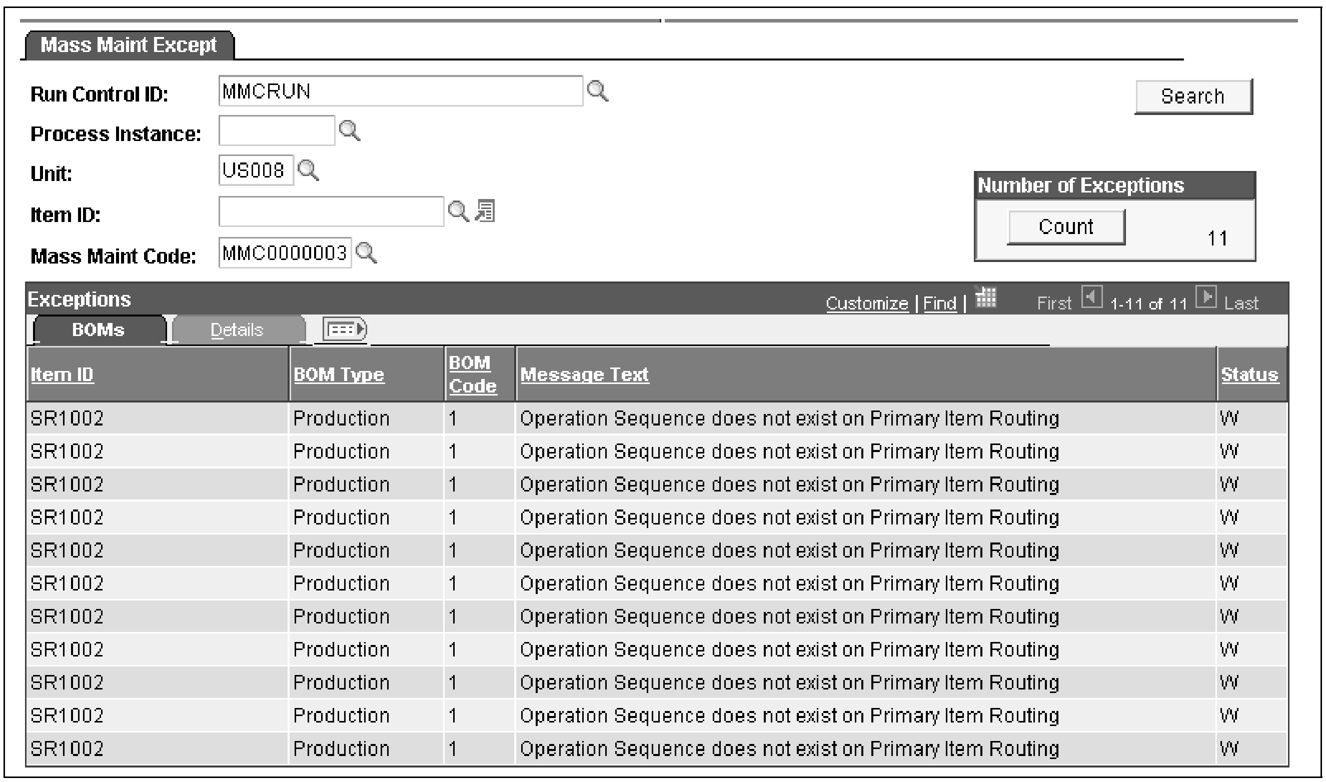
Outputs Only: If you select this option, the system will display basic output information, including Output Type, BOM Code, Output Qty (quantity), and effectivity dates. You can then select the Sel check box for all the outputs you would like to have transferred to the main page; then click OK.

See Also

Chapter 10, “Creating Engineering Change Orders (ECOs),” Entering ECO Header Information, page 156

Viewing Mass Maintenance Exceptions

Access the Mass Maint Except page.



Mass Maint Except

Run Control ID: MMCRUN

Search

Process Instance:

Unit: US008

Item ID:

Mass Maint Code: MMC0000003

Number of Exceptions

Count 11

Exceptions Customize | Find | First 1-11 of 11 Last

BOMs Details

Item ID	BOM Type	BOM Code	Message Text	Status
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W
SR1002	Production	1	Operation Sequence does not exist on Primary Item Routing	W

Mass Maint Except page

Click the Count button to view the Number of Exceptions.

After you have reviewed the exceptions and made any needed changes to the BOMs or mass maintenance data, you can re-execute the mass maintenance process.

If you ran mass maintenance in update mode by ECO, any ECO items that had errors are noted on the Maintain ECO Mass Maintenance page for each ECO BOM that had an error. If you rerun the mass maintenance process by ECO, the mass maintenance process attempts to apply changes to just those BOMs in error, as well as to any BOMs with a status of *No Affect* or any new BOMs added to the ECO with a mass maintenance status of *Pending*.

You can view the reasons BOMs (displayed by Item ID, BOM Type, and BOM Code) weren’t changed by the BOM Mass Maintenance process.

Validation Checks

All requested changes made with either of the Process EBOM Mass Maintenance pages will be validated before any EBOM or MBOM changes are made. The system checks the interaction of all components and outputs on the product structure: these same checks are made within the BOM maintenance pages.

See the troubleshooting documentation on the PeopleSoft Customer Connection website.

Viewing and Correcting BOM Messages Using Staged BOMs

As part of the mass maintenance process, you can correct BOM messages with data errors using the Staged BOMs pages. You can view each BOM message and correct the errors using these pages. You can then change the Status to *Reprocess*, and submit the BOM for reprocessing immediately, or use the MMC Staged BOM process to reprocess a range of BOMs.

This section discusses how to:

- View the staged BOM status.
- Correct staged BOM summary errors.
- Correct staged BOM multiple output summary errors.

Pages Used to View and Correct Mass Maintenance Staged BOMs

Page Name	Object Name	Navigation	Usage
Update Staged EBOM Details - BOM Status	EN_TRN_BOM_STAT	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, BOM Status	View, and possibly update, the results from a BOM Mass Maintenance process. **Note.** You must have run BOM Mass Maintenance with the Staged BOM Data Options of *Stage Result.*
Update Staged EBOM Details - Summary	EN_TRN_BOM_HDR	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, Summary	View and update the results from a BOM Mass Maintenance process.
Header: Assembly Text	EN_TRN_BOM_TEXT	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, Header, Assembly Text	View and update the results from a BOM Mass Maintenance process.
Header: Outputs	EN_TRN_BOM_OUT	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, Header, Outputs	View and update the results from a BOM Mass Maintenance process.
Components - Component Details	EN_TRN_BOM_CMP	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, Components, Component Details	View and update the results from a BOM Mass Maintenance process.
Components - Reference Designators	EN_TRN_BOM_CMPDESG	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, Components, Reference Designators	View and update the results from a BOM Mass Maintenance process.
Components - Dimensions	EN_TRN_BOM_CMPDIM	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, Components, Dimensions	View and update the results from a BOM Mass Maintenance process.
Components - Substitutes	EN_TRN_BOM_SUB	Engineering, BOMs and Revisions, EBOM Mass Changes, Update Staged EBOM Details, Components, Substitutes	View and update the results from a BOM Mass Maintenance process.

Viewing the Staged EBOM Status

Access the Update Staged EBOM Details - BOM Status page.

BOMs Tab

BOM State Indicates whether it's a *Manufacturing* or *Engineering* BOM. The BOM State must be valid or the system considers the message an error.

BOM Code Enables you to assign a primary and up to 98 alternate BOMs. There must be a BOM Code or the system considers the message an error.

Status Indicates the eligibility of this BOM for further processing. You can receive BOM error messages with any of these statuses:

- *Complete:* You can't update the staged results for this BOM in Data Definition Maintenance because the BOM has already been updated in the system. You can only view the BOM when it's in this status. You can't modify it.
- *Error:* There is at least one data validation error in the staged results for this BOM. You can change to *Cancelled* or *Reprocess.*
- *In Process:* When processing of a transaction is initiated, the status of the transaction record is set to In Process.
- *Incomplete:* An Incomplete transaction is a transaction that's still being created by the transaction pages. The status will change to new when the transaction is ready to be processed by the background processes. The system won't process an incomplete transaction.
- *New:* The staged results are valid, but the original BOM hasn't been updated yet. The BOM is eligible for update and reprocessing. You can change to *Cancelled* or *Reprocess.*
- *Reprocess:* When you correct errors using the Transaction Maintenance Detail pages, change the BOM status to Reprocess.

BOM Type Indicates whether you have received a *Production* or *Rework* BOM. *Production* BOMs are used as the basis for manufacturing assemblies. You use *Rework* BOMs when you have a standard rework process where you include additional components to repair BOMs. The BOM Type must be valid or the system considers the message an error.

If you are correcting multiple messages, you can manually change the *Error* status of each message to *Reprocess* after you've corrected the data. Then run the BOM Loader process to reprocess the data for multiple messages. The system changes *Reprocess* and *New* messages to the *Complete* status after confirming that there are no errors in the message.

To correct a single message, select the Reprocess check box to set the message status to *Reprocess* and click OK or Apply to initiate the validation background process.

Messages

In the Messages scroll area, the system displays the error Message, the Result of the message, and the BOM details for the message.

This page lists all the errors and warnings for the BOM, whether it's for the overall BOM, a specific component or output. The Result column indicates the severity of the message. *W* indicates a warning and doesn't stop the BOM from being valid. *E* indicates an error and must be fixed for the BOM to be valid.

Correcting Staged BOM Summary Errors

Access the Update Staged EBOM Details - Summary page.

Component ID, Comp Rev (component revision), **Op Seq** (operation sequence), **Eff Date** (effective date) and **Obs Date** (obsolete date), **Quantity**, and quantity **Per** — You can change values for these fields.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Maintaining BOM Summaries

Correcting Staged BOM Multiple Output Header Errors

Access the Header - Outputs page.

For each output, you can change the output type, output item, source code, resource allocation percentage, and cost allocation percentage.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Outputs

Processing Staged EBOMs

After you've viewed and corrected your staged BOMs, run the MMC Stage process (EN_BOM_MSG) to reprocess the BOMs.

Page Used to Process Staged EBOMs

Page Name	Object Name	Navigation	Usage
MMC Stage Process - MCC Stage	EN_RUN_BOMSTAGE	Engineering, BOMs and Revisions, EBOM Mass Changes, Process Staged EBOMs, MMC Stage	Reprocess corrected staged BOMs using the MMC Stage Application Engine process (EN_BOM_MSG).

Running the Staged EBOMs Application Engine Process

Access the MMC Stage page.

Update Options — Select an option:

- *Validate Only:* Validates the data but doesn't load or change BOM tables.
- *Validate and Transfer:* Validates the data, loads and changes BOM tables.

Re-process any Errors

If you are processing a large number of BOMs, you can correct the errors in the BOM pages but leave the status as *Error*. You then select this check box while running the BOM Loader process, and the system reprocesses transactions with the statuses of *New*, *Reprocess*, and *Error*.

If this check box is cleared, then only transactions with statuses of *New* and *Reprocess* will be processed. This option is only applicable when *Validate Only* or *Validate and Transfer* is selected.

Purge Stage and Error Records

Select this check box if you want to delete the error transactions from the staging table once you have run this process.

If you select *Validate and Transfer* and Purge Stage and Error Records, then the BOMs will first be validated and then transferred to the BOM tables. If any of the BOMs were invalid, the BOM tables won't be updated, but it will still be deleted from the Stage and Error records.

If you select *None* and Purge Stage and Error Records, then the BOMs won't be validated or changed. The Stage and Error records will be purged. This combination can be used to clean up after you have completed processing BOMs.

Run

Click to run this request. The Process Scheduler runs the Staged BOMs Application Engine process at user-defined intervals.

CHAPTER 6

Displaying Engineering Bills of Material

This chapter discusses how to:

- Display EBOM structures.
- Display summarized EBOMs.
- Display EBOM costs.
- Compare MBOMs and EBOMs.
- View item where-used information.
- View EBOM and routing transfer and copy data.

Note. All references to BOMs in PeopleSoft Engineering refer to EBOMs, unless there is a specific reference to manufacturing BOMs (MBOMs).

Displaying Engineering BOM Structures

This section lists common elements and discusses how to:

- Display engineering BOM structures.
- Display engineering BOM substitutes.
- Display engineering BOM outputs.
- Display engineering BOM component details.

See Also

Chapter 4, "Maintaining Engineering Bills of Material," page 21

Common Elements Used in This Section

BOM State Displays *Engineering* by default. You can also view manufacturing BOMs by selecting *Manufacturing* on the selection criteria page.

BOM Type Select a BOM type. Values are:

- *Production:* This is the default EBOM type.

  Manufacturing production BOMs can be used for standard manufacturing processes.

- *Rework:* Create rework EBOMs when you have a standard kit of components used in rework or repair.

View View summary data with these options:

- *Indented with Dates*
- *Indented with Revs* (indented with revisions)
- *Non-Indented with Dates*
- *Non-Indented with Revs*

The indented options provide an indented (tree) EBOM structure for the selected depth.

All Dates/Revs Select this check box to search all effective dates and revisions for the item's EBOM.

Eff Date (effective date) and **Obs Date** (obsolete date) Displays the beginning and ending dates for the EBOM.

Pages Used to Display Engineering BOM Structures

Page Name	Object Name	Navigation	Usage
Engineering BOMs inquiry - Summary	EN_BOM_INQUIRY	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Summary	View EBOM component structure at a summary level, including the indented EBOM structure.
Output List inquiry	EN_BOM_LIST_OUT_SP	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Summary Click the Outputs link on the Attributes tab.	View lower-level items for the selected EBOM.
Component Substitutes inquiry	EN_BOM_INQ_SUB	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Summary Click the Substitutes link on the Attributes tab.	Display EBOM component substitute items.
Engineering BOM inquiry - Header: Assembly Text	EN_BOM_INQ_HEADER	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Header, Assembly Text	Display EBOM assembly text.
Engineering BOM inquiry - Header: Assembly Attachments	EN_BOM_INQ_ATT	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Header, Assembly Attachments	Display EBOM assembly attachments.

Page Name	Object Name	Navigation	Usage
Engineering BOM inquiry - Header: Assembly Documents	EN_BOM_INQ_DC	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Header, Assembly Documents	Display engineering assembly documents in the embedded document management system. By using the Documentum Component Options page in the Set Up Financials/Supply Chain navigation, you control the document management buttons that appear on this page. Inquiry pages can have only the View Document Detail and/or View Document Contents buttons available.
Engineering BOM inquiry - Header: Outputs	EN_BOM_INQ_OUTS	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Header, Outputs	Display EBOM outputs.
Engineering BOM inquiry - Comp Detail: Component Details	EN_BOM_INQUIRY_D	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Comp Detail, Component Details	Display EBOM component detail such as effectivity date or revision, quantity, yield, and unit of measure.
Engineering BOM inquiry - Comp Detail: Text	EN_BOM_INQ_D_TXT	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Comp Detail, Text	Display EBOM component text.
Engineering BOM inquiry - Comp Detail: Attachments	EN_BOM_INQ_CATT	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Comp Detail, Attachments	Display EBOM component attachments.
Engineering BOM inquiry - Comp Detail: Documents	EN_BOM_INQ_CDC	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Comp Detail, Documents	Display engineering component documents in the embedded document management system. By using the Component Options page in Set Up Financials/Supply Chain, you control the document management buttons that appear on this page. Inquiry pages can have only the View Document Detail and the View Document Contents buttons available.

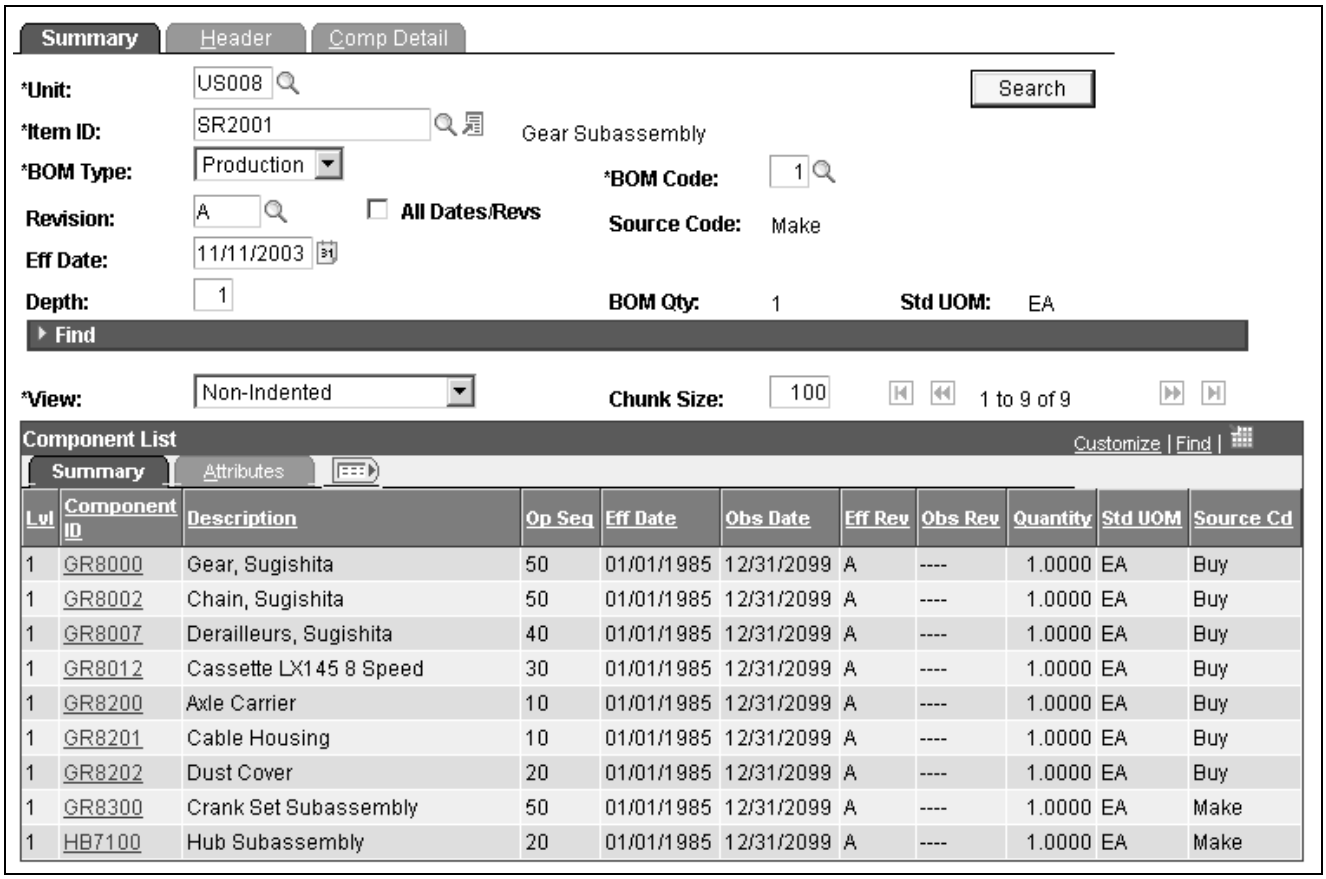
Page Name	Object Name	Navigation	Usage
Engineering BOM inquiry - Comp Detail: Reference Designators	EN_BOM_INQ_REF	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Comp Detail, Reference Designators	Display EBOM component reference designators.
Engineering BOM inquiry - Comp Detail: Dimensions	EN_BOM_INQ_CDIM	Engineering, BOMs and Revisions, Review EBOM Information, Engineering BOMs, Comp Detail, Dimensions	Display EBOM component dimensions.
EBOM Report	EN_BOM_REPORT	Engineering, BOMs and Revisions, Reports, Bills of Material, EBOM Report	Generate a hard-copy report (ENS1000) for either engineering or manufacturing BOMs.

See Also

Chapter 4, "Maintaining Engineering Bills of Material," page 21

Displaying Engineering BOM Structures

Access the Review EBOM Information - Summary page.



Lvl	Component ID	Description	Op Seq	Eff Date	Obs Date	Eff Rev	Obs Rev	Quantity	Std UOM	Source Cd
1	GR8000	Gear, Sugishita	50	01/01/1985	12/31/2099	A	----	1.0000	EA	Buy
1	GR8002	Chain, Sugishita	50	01/01/1985	12/31/2099	A	----	1.0000	EA	Buy
1	GR8007	Derailleurs, Sugishita	40	01/01/1985	12/31/2099	A	----	1.0000	EA	Buy
1	GR8012	Cassette LX145 8 Speed	30	01/01/1985	12/31/2099	A	----	1.0000	EA	Buy
1	GR8200	Axle Carrier	10	01/01/1985	12/31/2099	A	----	1.0000	EA	Buy
1	GR8201	Cable Housing	10	01/01/1985	12/31/2099	A	----	1.0000	EA	Buy
1	GR8202	Dust Cover	20	01/01/1985	12/31/2099	A	----	1.0000	EA	Buy
1	GR8300	Crank Set Subassembly	50	01/01/1985	12/31/2099	A	----	1.0000	EA	Make
1	HB7100	Hub Subassembly	20	01/01/1985	12/31/2099	A	----	1.0000	EA	Make

Engineering BOM Inquiry - Summary page: Summary tab

Unit, Item ID, BOM Type, BOM Code, Eff Date (effective date), and **Revision** — Enter the basic information about the BOMs.

Depth — Indicate the number of levels that you want to view by specifying the depth to be displayed. If you select a depth of *1*, this page displays only the top level of the EBOM.

Note. You can select any valid BOM code. However, the system always calculates lower levels based on the primary BOM code *1*, regardless of the depth that you enter.

After you make your selections, click the Search button to view the data. The system sorts the summary in this sequence:

1. Assembly
2. Subassembly
3. Component
4. Operation sequence
5. Effective date

Note. If a component revision is specified during BOM maintenance, the component revision appears on this tab. If the component is revision-controlled but the field is left blank because this is the current revision, this inquiry displays the current revision code for the component, based on the top-level effective date or revision entered.

Click a component ID to access component details.

Attributes Tab

Select the Attributes tab.

Outputs — Click this link to view the outputs for lower-level items (if it is a multiple output BOM).

Substitutes — Click this link to view substitute data, if substitutes exist.

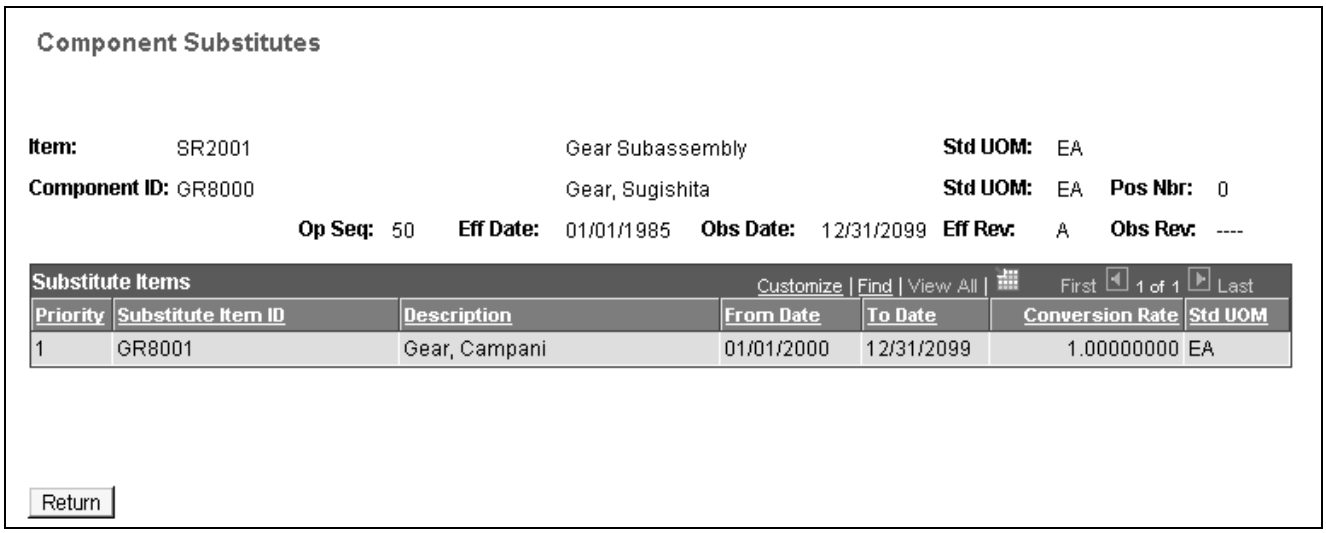
See Also

Chapter 4, “Maintaining Engineering Bills of Material,” Defining EBOM Outputs, page 35

Chapter 4, “Maintaining Engineering Bills of Material,” Adding Substitute Components, page 43

Displaying Engineering BOM Substitutes

Access the Component Substitutes page.



Component Substitutes page

Substitutes and related data such as conversion rate and effectivity dates appear in order of priority.

Displaying Engineering BOM Outputs

Access the Review EBOM Information - Header: Outputs page.

Note. Regardless of the depth entered, only outputs for the top-level item appear on this page. You can, however, use the BOM Inquiry - Summary: Summary: Attributes page to view lower-level outputs. To do this, click the Outputs link, which appears only if the component has multiple outputs on its BOM.

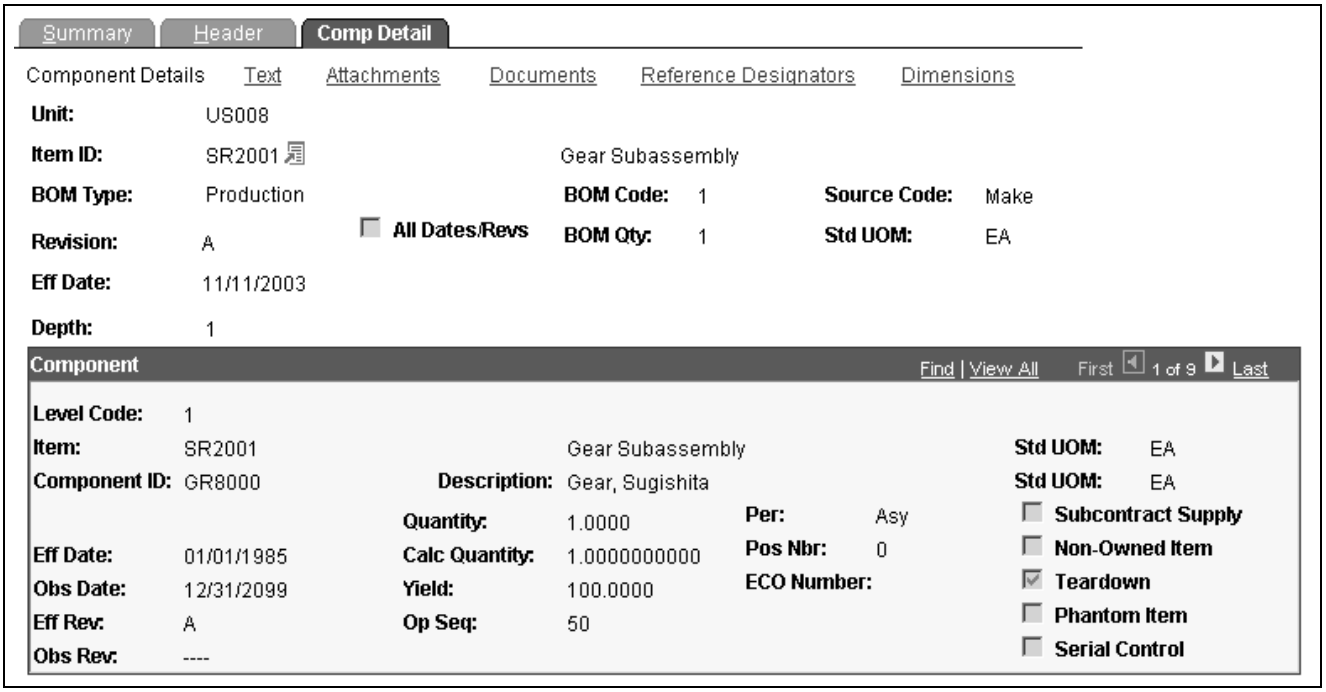
The system explodes primary co-products only for the BOM code specified. You can't enter a co-product and see it exploded downward. Rather, enter the primary with which the co-product is associated to view co-product details.

See Also

Chapter 4, "Maintaining Engineering Bills of Material," Defining EBOM Outputs, page 35

Displaying Engineering BOM Component Details

Access the Comp Detail - Component Details page.



Component Details inquiry page

The header data (such as item ID, BOM type, BOM code, and revision, or effective date) are default values from the EBOM Inquiry - Summary page.

Standard component data (such as Comp Rev, Op Seq, effectivity dates, yield, subcontract supply, and teardown) appears.

Displaying Summarized Engineering BOMs

This section discusses how to:

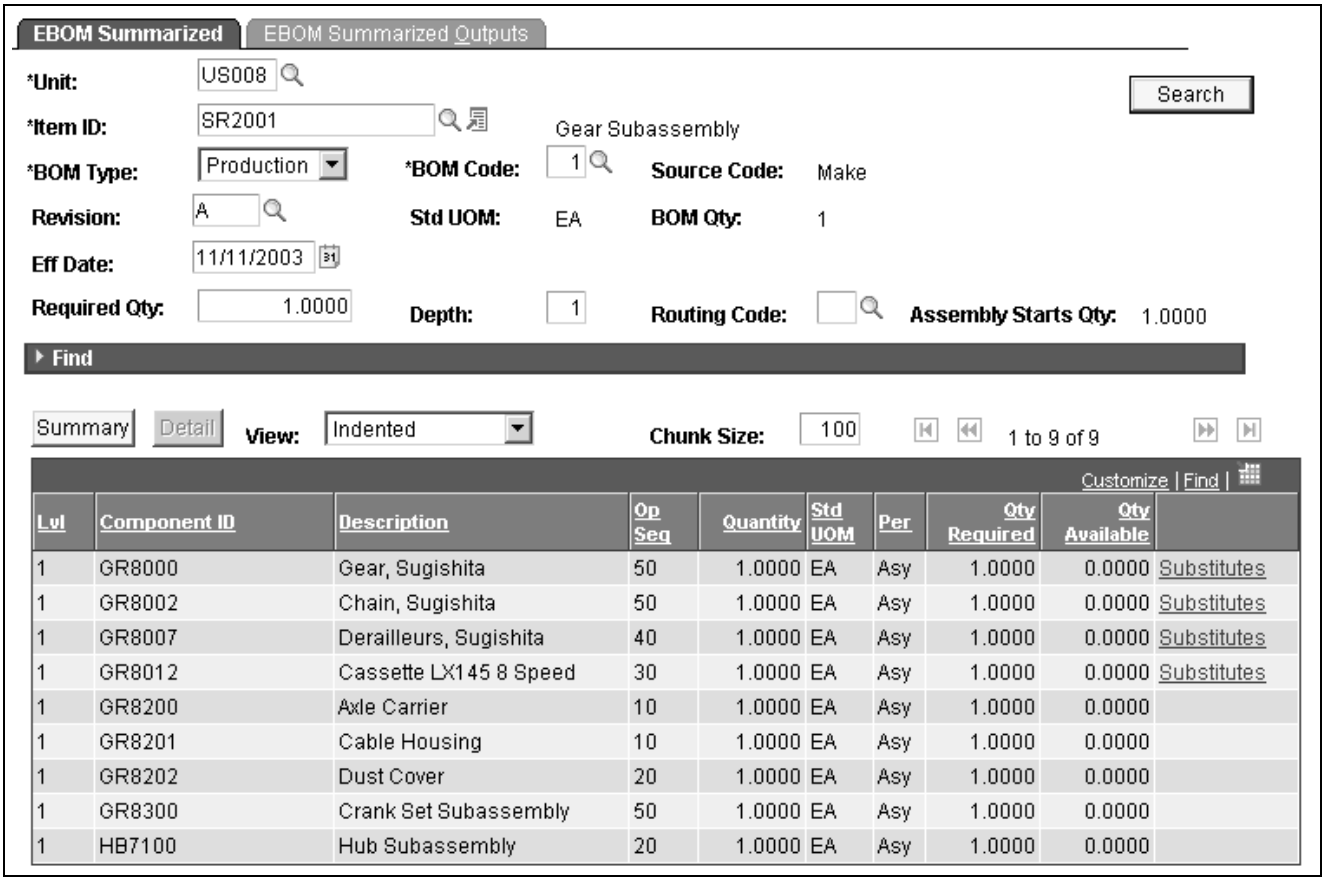
- Display summarized engineering BOMs.
- Display summarized outputs.

Pages Used to Display Summarized Engineering BOMs

Page Name	Object Name	Navigation	Usage
EBOM Summarized inquiry	EN_BOM_SUMMARY	Engineering, BOMs and Revisions, Review EBOM Information, EBOM Summarized, EBOM Summarized	View, at all levels, all the components that comprise an assembly's product structure. This page specifically enables you to view the quantity of components needed in an assembly regardless of level. You can also use it to determine component requirements, at all levels, based on a specific assembly demand quantity.
EBOM Summarized Outputs inquiry	EN_BOM_SUMM_OUTS	Engineering, BOMs and Revisions, Review EBOM Information, EBOM Summarized, EBOM Summarized Outputs	View output items by output type.

Displaying Summarized Engineering BOMs

Access the Engineering BOM Summarized - EBOM Summarized inquiry page.



Lvl	Component ID	Description	Op Seq	Quantity	Std UOM	Per	Qty Required	Qty Available	
1	GR8000	Gear, Sugishita	50	1.0000	EA	Asy	1.0000	0.0000	Substitutes
1	GR8002	Chain, Sugishita	50	1.0000	EA	Asy	1.0000	0.0000	Substitutes
1	GR8007	Derailleurs, Sugishita	40	1.0000	EA	Asy	1.0000	0.0000	Substitutes
1	GR8012	Cassette LX145 8 Speed	30	1.0000	EA	Asy	1.0000	0.0000	Substitutes
1	GR8200	Axle Carrier	10	1.0000	EA	Asy	1.0000	0.0000	
1	GR8201	Cable Housing	10	1.0000	EA	Asy	1.0000	0.0000	
1	GR8202	Dust Cover	20	1.0000	EA	Asy	1.0000	0.0000	
1	GR8300	Crank Set Subassembly	50	1.0000	EA	Asy	1.0000	0.0000	
1	HB7100	Hub Subassembly	20	1.0000	EA	Asy	1.0000	0.0000	

Engineering BOM Summarized - EBOM Summarized inquiry page

Unit, Item ID, BOM Type, BOM Code, Eff Date, and **Revision** — Select information to specify the BOM that you want to display.

Search — Click to display the summarized BOM.

Required Qty (required quantity) — To determine the total number of each component required at all levels to produce a particular quantity of the assembly item, enter the required quantity for the assembly item. The system multiplies each component's quantity per assembly by this required quantity to determine the component required quantity displayed on the lower half of the page.

Click the Search button again to display the calculated required quantities.

To view a summarized BOM, enter a required quantity of *1*.

Depth — Enter the BOM depth. If you select a depth of *1*, this page displays only the top level of the BOM.

Note. You can select any valid BOM code, but regardless of the depth that you enter, the system calculates all lower levels based on the primary BOM code (1).

Routing Code — Select the appropriate routing for the item.

Assembly Starts Qty Displays the beginning quantity required based on the required quantity. This amount accounts for any operation yield loss during the production process.

Summary This button lists only the component ID, description, and quantity required, and summarizes the total required quantity for the component across all levels. The quantity required accounts for both component yield and operation yield. The current quantity available from business items attributes also appears.

Detail This button provides data for all fields and enables the View field. You can view summary data either *Indented* or *Non-Indented*. The indented option provides an indented (tree) BOM structure for the selected depth.

You can toggle back and forth between summary and detail information.

The system sorts the summary alphanumerically by component ID for level 1 items and summarizes the displayed data by quantity, regardless of where the component occurs in the product structure.

When substitute items or multiple outputs exist for a component, those links appear following the Qty Available field.

See Also

Chapter 4, “Maintaining Engineering Bills of Material,” Defining EBOM Outputs, page 35

Chapter 4, “Maintaining Engineering Bills of Material,” Adding Substitute Components, page 43

Displaying Summarized Outputs

Access the Engineering BOM Summarized - EBOM Summarized Outputs inquiry page.

Note. The system explodes only primary co-products for the BOM code specified. Only outputs at the top level appear, regardless of the depth entered.

Expected Output Qty Represents the anticipated output of each primary, co-product, recycle, and waste product, based on the required quantity that you enter. This is calculated as:

((Required Qty / BOM Qty) * Output Quantity)

Displaying Engineering BOM Costs

This section provides an overview of engineering BOM costs and discusses how to:

- Display EBOM summary costs.
- Display output costs.
- Display EBOM component detail costs.

Understanding Engineering BOM Costs

To determine the costing impact of EBOM changes to an assembly, you can display the costs of an assembly, its components, and outputs by cost type and cost version. This is especially useful for determining the costing impact of engineering BOM changes on an assembly.

The Costed EBOM component performs a mini cost roll-up on the assembly that you enter. It calculates the assembly's cost (including all outputs) by summarizing the cost of the components and outputs based on the BOM in effect on the date specified or for the revision specified. Routing costs are not recalculated.

Here is how the system performs the cost roll-up:

- It looks at the components and outputs in effect for the selected BOM code, based on the as of date, and it uses BOM code *1* for all lower levels.
- To value the components, it uses the existing costs associated with the item for the cost type and cost version selected.

  This includes any This Level and Lower Level labor, machine, subcontracting, and overhead costs for the component (when the component is a subassembly).
- It includes the routing cost by using the existing This Level labor, machine, subcontracting, and overhead costs for the cost type and cost version based on the cost roll-up performed.

Note. Expensed and planning items are not included in the cost roll-up. No costs are required for expensed or planning items because no quantity on hand is maintained in inventory.

You maintain cost types and versions within PeopleSoft Cost Management. Cost types enable you to do costing simulations and what-if analyses and to calculate new standard costs prior to updating your production costs. Cost versions are iterations of a particular cost calculation for a cost type. You can have multiple versions of costs for each cost type. Cost roll-ups for production items are calculated by cost type and cost version. Within PeopleSoft Engineering, you specify engineering cost versions for the cost types defined in PeopleSoft Cost Management. This enables you to perform cost roll-ups on the EBOM. You can't display costed EBOM information for rework EBOMs.

Once you've performed the engineering BOM cost roll-up using the selected cost type and engineering cost version, BOM code, and routing code, you can use this inquiry to determine what impact subsequent changes to the BOM have on the item's cost.

See Also

PeopleSoft Managing Costs 8.8 PeopleBook, "Defining the Cost Foundation for Makeable Items"

Pages Used to Display Engineering BOM Costs

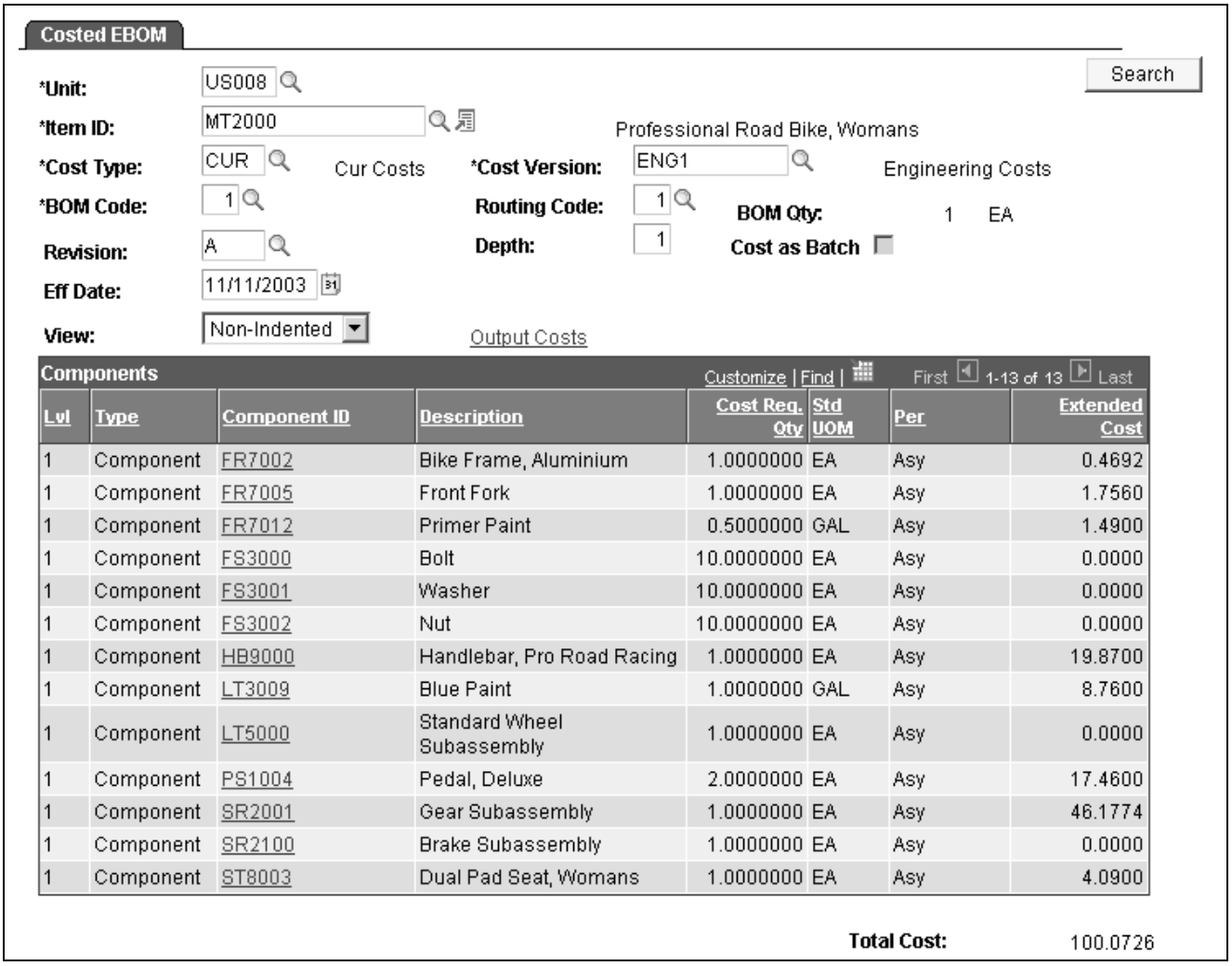
Page Name	Object Name	Navigation	Usage
Engineering BOM Costed - Costed EBOM inquiry	EN_BOM_INQ_COSTED	Engineering, BOMs and Revisions, Review EBOM Information, Costed EBOMs, Costed EBOM	Display EBOM summary costs.
Output Costs inquiry	EN_BOMCOST_OUT_SP	Engineering, BOMs and Revisions, Review EBOM Information, Costed EBOMs, Costed EBOM Click the Output Costs link.	Display, by output type, all lower-level costing details for each co-product based on the costing percentage split.
Detailed Item Costs inquiry	EN_ITEMCOST_OUT_SP	Engineering, BOMs and Revisions, Review EBOM Information, Costed EBOMs, Costed EBOM, Output Costs Click an Output Items field value on any of the Output Costs inquiry pages.	Display This Level Costs and Lower Level Costs by cost element for the selected item ID and output type.
Component Detail Costs inquiry	EN_ITEMCOST_SP	Engineering, BOMs and Revisions, Review EBOM Information, Costed EBOMs, Costed EBOM Click a Component ID field value.	Display EBOM component details. With this page, you can display the Extended This Level Cost and Extended Lower Level Costs by cost element for the selected component item, cost type, and cost version.
EBOM Costed Report	EN_BOM_COST_REPORT	Engineering, BOMs and Revisions, Reports, EBOM Costed, EBOM Costed Report	Generate a hard-copy report (ENS1010) that lists in detail associated engineering BOM costs.

See Also

Appendix B, “PeopleSoft Engineering Reports,” ENS1010 - BOM Cost Report, page 220

Displaying Engineering BOM Summary Costs

Access the Engineering BOM Costed - Costed EBOM inquiry page.



Engineering BOM Costed - Costed EBOM inquiry page

Unit, Item ID,Cost Type, Cost Version, BOM Code, and **Routing Code**

Select the appropriate information for the BOM that you want to view.

Cost Version

Select an engineering cost version that is valid for the cost type selected. Also, to correctly calculate the total cost, costs for each of the assembly item's purchased components must exist for the cost type and cost version selected. This is accomplished by rolling up the cost type and version within PeopleSoft Cost Management.

BOM Code

As long as the BOM exists, you can enter a BOM code other than the one used for the latest cost type version where a roll-up was performed. In this case, the Output Costs page does not display any cost version cost details, because the cost details do not exist (no roll-up was performed). In addition, if you enter a BOM code that doesn't exist for a cost version, the routing code is cleared and no This Level costs are included in the calculations.

When the BOM code is valid for a cost version, then the routing code must be valid for the cost version as well, because this is used to calculate the This Level costs for the inquiry.

Eff Date or **Revision** — Enter this information for the BOM that you want to view. You can select any valid BOM code, but regardless of what depth you enter, the system calculates all lower levels based on the primary BOM code.

Cost as Batch — If the item and BOM code entered is a multi-output item (that is, it has co-products), then the Cost as Batch check box is selected and is display-only. In this case, the results rendered by the inquiry represent the total cost of the batch (as opposed to one unit of the batch) and the required quantities, and the extended cost calculated is for the entire batch (based on the BOM quantity).

If the item is a single output item having a BOM quantity greater than one, you have the option to cost as batch. In this case, you can choose to cost the item in terms of the production of one unit of the end item or choose to cost as batch, in which all component costs and This Level Costs are scaled up based on the BOM quantity (similar to a multi-output item).

In other words, the purpose of the Cost as Batch is to allow single output items (which are normally displayed based on a quantity of 1) to have the component and output quantities and costs displayed based on their full BOM quantities. For example, if an item had a BOM quantity of 10 and the check box is cleared, then the costs would appear based on a BOM quantity of 1. If the check box was selected, costs would appear based on a BOM quantity of 10.

View — Select how you want to view summary data: *Indented* or *Non-Indented*. The indented option provides an indented (tree) BOM structure for the selected depth.

After you've made your selections, click the Search button to display component costed information for as many levels as you entered in the Depth field. The system derives the cost of the assembly from the component's This Level and Lower Level costs for the cost type, version, BOM, and routing code selected. It calculates cost for all assemblies and subassemblies that fall within the depth selected. If the BOM code entered is not 1, then the outputs within the Output Costs link reflect the outputs for the BOM code entered, and the components listed for level 1 are based on that BOM code. Lower levels always use BOM code 1. The routing code entered is used solely to determine This Level costs included in the calculation for inquiry total costs.

Note. While you can run a Costed EBOM Summary inquiry for a purchased item that has an EBOM, the system calculates only the material costs, based on the material costs for the components specified and the cost type and version that you select.

Extended Cost — Displays the extended cost, which is the component's cost for the cost type and version specified, multiplied by the cost required quantity standard unit of measure. The Cost Required Qty Std UOM represents the quantity needed for each component to build the item ID specified. This depends on the Cost as Batch setting; if it's selected, it would be the required quantity to build the batch, and if it's not selected it's the required quantity to build one of the items. The Cost Required Qty Std UOM factors in assembly BOM quantity, component quantity per assembly or order, and component yield. Even though they have only a purchased cost associated with them,

by-products also appear. If the by-product is a recycle by-product, then the cost is negative; if it's a waste by-product, then the cost is positive, unless the item doesn't have a purchase cost, in which case the cost is zero.

Note. If the component is displayed as a subassembly, only the This Level costs appear on this page for the subassembly. Lower Level costs for the subassembly appear within the child components of the subassembly.

Total Cost

Displays the total cost, which is the sum of all the extended costs of all components on an EBOM for a specific effectivity date or revision, plus any This Level costs for the item. The system computes the costs for each component, and then sums for the assembly item.

For assemblies that have by-products: Even though they have only a purchased cost associated with them, by-products also appear. If it's a recycle by-product, the cost impact is negative and is subtracted from the total cost. If it's a waste by-product, the cost is positive, and is added to the total (unless the item didn't have a purchase cost, in which case the cost is zero).

Revision-Controlled EBOMs: Depth Information

It is best to select the maximum depth for revision-controlled EBOMs.

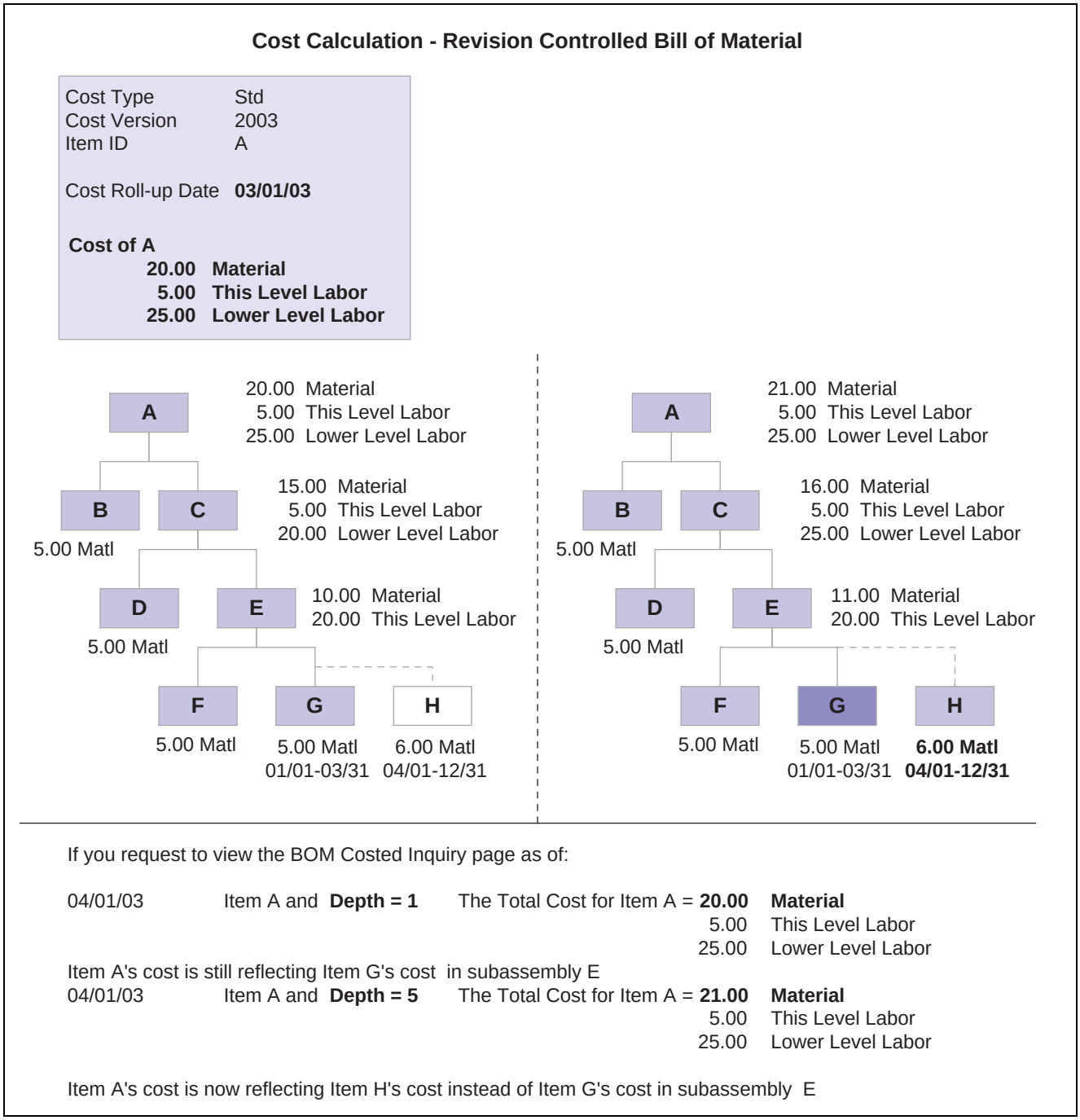
There are times when the same revision-controlled EBOM may reflect different costs. For example:

If you enter a depth *less than* the maximum number of levels for the costed EBOM, the lower-level costs displayed reflect the costs generated by the original cost roll-up for this cost version and date.

If, however, you enter the *maximum depth* for the costed EBOM, the lower-level costs displayed reflect the most current BOM and routing, not the cost version that you entered on the Costed EBOM Summary page.

In addition, if changes occur to the EBOM and routing after the cost roll-up, the cost of the EBOM where you have entered a depth less than the maximum may reflect something different from the cost from the maximum depth EBOM. Both of these costed EBOMs are considered correct, depending on the depth that you enter.

This example illustrates the cost calculation for a revision-controlled bill of material. This case can apply to either a manufacturing BOM or engineering BOM:



Cost calculation example

See Also

PeopleSoft Managing Costs 8.8 PeopleBook, "Defining the Cost Foundation for Makeable Items"

Chapter 6, "Displaying Engineering Bills of Material," Displaying Engineering BOM Component Detail Costs, page 104

Displaying Output Costs

Access the Output Costs inquiry page.

Note. Due to rounding differences, you may see a small variance (+ or − 0.0003) between the cost version costs and the inquiry costs in this inquiry. This occurs when the system displays the costed BOM results for an item that's either a batch item or has batch assembly items at lower levels.

Item Cost Details Tab

Select the Item Cost Details tab.

Displaying item cost details

Cost Version Item Cost Displays the last stored cost.

Inquiry Item Cost Displays the new cost of the item being queried.

Delta Displays the difference between the cost version item cost and the inquiry item cost.

Batch Cost Details Tab

Select the Batch Cost Details tab.

You can select this tab only if you selected Cost as Batch on the Costed BOM page.

This tab displays BOM cost broken down by output type. For example, a process has two co-products: A and B. co-product A has a cost allocation percentage of 60, and co-product B has a cost percentage of 40. One row displays A, with 60 percent of the costs, and another row displays B, with 40 percent of the costs.

Inquiry Batch Cost Displays the total cost from the Costed BOM page multiplied by the cost percentage of the primary product or co-product.

Note. The cost percentages must equal 100.

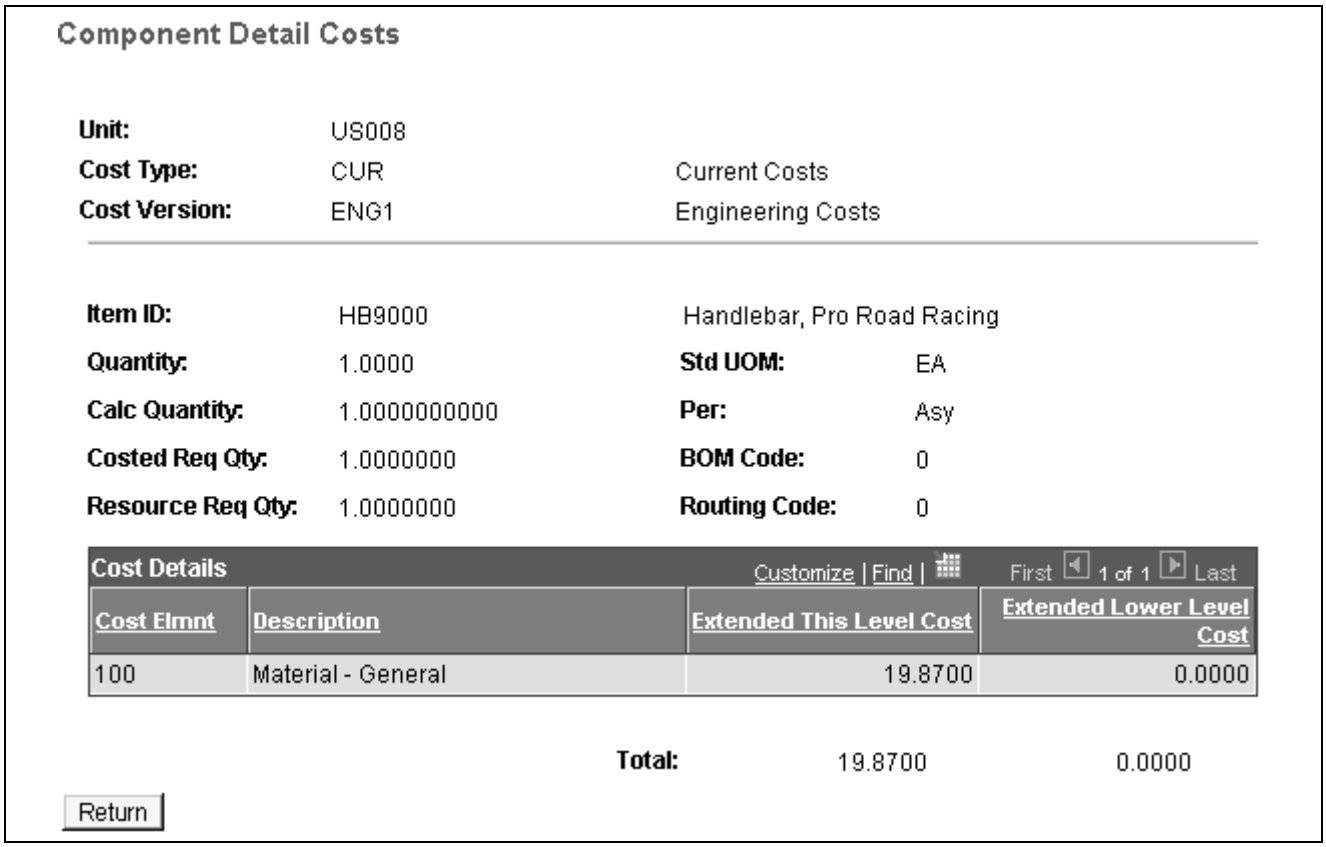
See Also

Chapter 4, "Maintaining Engineering Bills of Material," Defining EBOM Outputs, page 35

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Assigning Associated Primary BOMs

Displaying Engineering BOM Component Detail Costs

Access the Component Detail Costs inquiry page.



Component Detail Costs inquiry page

Cost Elmnt (cost element) Displays a category of costs defined by you, such as materials, labor, or overhead.

Extended This Level Cost Displays the item's extended cost of putting the components together. This cost is also known as the conversion cost.

Extended Lower Level Cost Displays the item's extended cost of its components prior to their assembly at this level.

Total The field on the left sums the This Level Costs for all cost elements, and the field on the right sums the Lower Level Costs for all cost elements.

Example

If A is a component on an assembly and is itself a subassembly composed of components B and C, and the cost of B is 20.00, and the cost of C is 30.00, then A's Lower Level Cost is 50.00 (not considering extended costs). If the cost of putting B and C together is 25.00, then A's This Level Cost is 25.00. For the assembly on which A is a component, the top-level assembly's Lower Level Cost is 75.00 (A's This Level Cost plus the Lower Level Cost).

Rounding

PeopleSoft Cost Management calculates the different extended costs by multiplying cost by the calc quantity. It then displays the cost results to four decimal places for viewing purposes. Calc quantity can represent a value from 4 to 10 decimal places. The QPA rounding setting determines the decimal range for the calc quantity.

Note. The content of this section is only part of what you need to know to define QPA rounding. Other relevant information, because it is common to many applications, is located in *PeopleSoft Application Fundamentals PeopleBook.*

See Also

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook, "Setting Installation Options for PeopleSoft Applications"

Comparing Engineering BOMs

This section lists common elements and discusses how to:

- Select BOMs to compare.
- Compare component detail differences.
- Compare substitute item differences.
- Compare assembly outputs.

See Also

Chapter 4, "Maintaining Engineering Bills of Material," page 21

Common Element Used in This Section

Differences Displays the differences between the two BOMs. Values are:

- *Added:* The component ID has been added to the compare BOM (BOM2).
- *Deleted:* The component has been deleted from the compare BOM (BOM2).

  The system determines whether a component has been deleted, by comparing the component IDs, operation sequences, and effectivity dates; this is what makes a component unique within a BOM.
- *Chg BOM1:* If you have made a component change, you see the components listed.

  The system lists a change when any information other than component ID, operation sequence, or effective date has changed.
- *Chg BOM2:* If you have made a component change, you see the components listed.

The system lists a change when any information other than component ID, operation sequence, or effective date has changed.

Pages Used to Compare Engineering BOMs

Page Name	Object Name	Navigation	Usage
Compare Engineering BOMs - BOM Selections inquiry	EG_BOM_COMPARE1E	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections	Compare a baseline BOM to an engineering BOM within the same business unit. You can compare any two EBOMs or compare an EBOM to an MBOM.
Compare Engineering BOMs - Component Details: Component Details inquiry	EG_BOM_COMPARE2	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Component Details, Component Details	Compare component ID BOM differences, including standard unit of measure and source code.
Compare Engineering BOMs - Component Details: Attachments inquiry	EG_BOM_COMPARE8	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Component Details, Attachments	Compare the component attachment differences between two BOMs.
Compare Engineering BOMs - Component Details: Documents inquiry	EG_BOM_COMPARE7	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Component Details, Documents	Compare component document differences for two BOMs.
Compare Engineering BOMs - Component Details: Reference Designators inquiry	EG_BOM_COMPARE9	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Component Details, Reference Designators	Compare the reference designator differences between two BOMs.
Compare Engineering BOMs - Component Details: Dimensions inquiry	EG_BOM_COMPARE5	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Component Details, Dimensions	Compare component dimensions for two BOMs.
Compare Engineering BOMs - Component Details: Substitutes inquiry	EG_BOM_COMPARE_SUB	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Component Details, Substitutes	Compare substitute item differences for EBOM comparison.

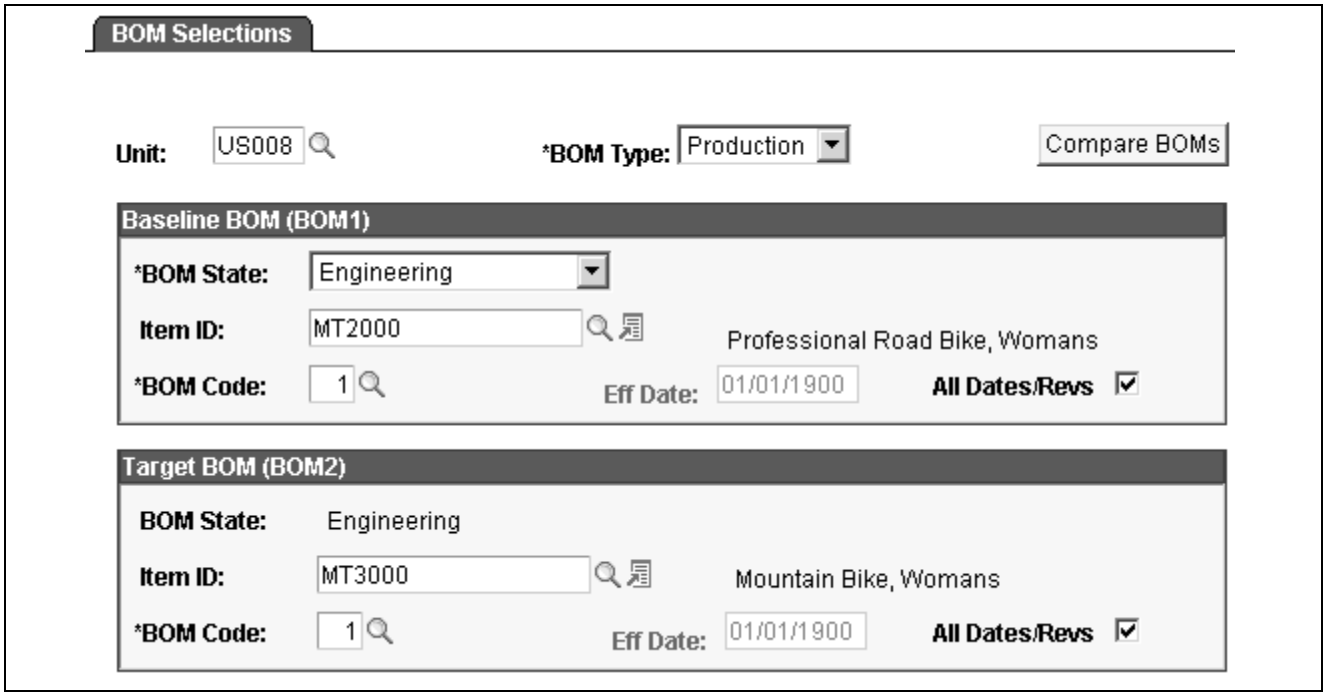
Page Name	Object Name	Navigation	Usage
Compare Engineering BOMs - Assy Header: Differences inquiry	EG_BOM_COMPARE1D	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Assy Header, Differences	Compare the assembly differences of two BOMs, specifically BOM types, BOM quantity, and text.
Compare Engineering BOMs - Assy Header: Attachments inquiry	EG_BOM_COMPARE1C	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Assy Header, Attachments	Compare the assembly attachment differences of two BOMs.
Compare Engineering BOMs - Assy Header: Documents inquiry	EG_BOM_COMPARE1B	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Assy Header, Documents	Compare the document differences of two BOMs.
Compare Engineering BOMs - Assy Header: Outputs inquiry	EG_BOM_COMPARE10	Engineering, BOMs and Revisions, Review EBOM Information, Compare EBOMs, BOM Selections, Assy Header, Outputs	Compare the output differences of two BOMs.
Engineering BOM Compare Report - EBOM Compare Report	EN_BOM_COMP_REPORT	Engineering, BOMs and Revisions, Reports, EBOM Comparison, EBOM Compare Report	Select the engineering BOMs, or the manufacturing and engineering BOMs that you want to compare.
Engineering BOM Compare Report - Print Options	EN_BOM_COM_REPORT2	Engineering, BOMs and Revisions, Reports, EBOM Comparison, EBOM Compare Report, Print Options	Select details that you want to appear in the Engineering BOM Compare report (ENS1005).

See Also

Appendix B, “PeopleSoft Engineering Reports,” ENS1005 - Compare BOMs Report, page 218

Selecting BOMs to Compare

Access the Compare EBOMs - BOM Selections inquiry page.



Compare EBOMs - BOM Selections inquiry page

Baseline BOM (BOM1)

Item ID Select an item for the baseline BOM.

BOM Code Select a BOM code for the baseline BOM. You can select any valid BOM code, but regardless of what depth you enter, the system calculates all lower levels based on the primary BOM code.

Eff Date Enter the effective date for the baseline BOM if you do not want to use all dates and revisions.

All Dates/Revs Select to compare all effective dates and revisions for the baseline BOM.

Target BOM (BOM2)

Item ID Select an item for the baseline BOM.

BOM Code Select a BOM code for the baseline BOM. You can select any valid BOM code, but regardless of what depth you enter, the system calculates all lower levels based on the primary BOM code.

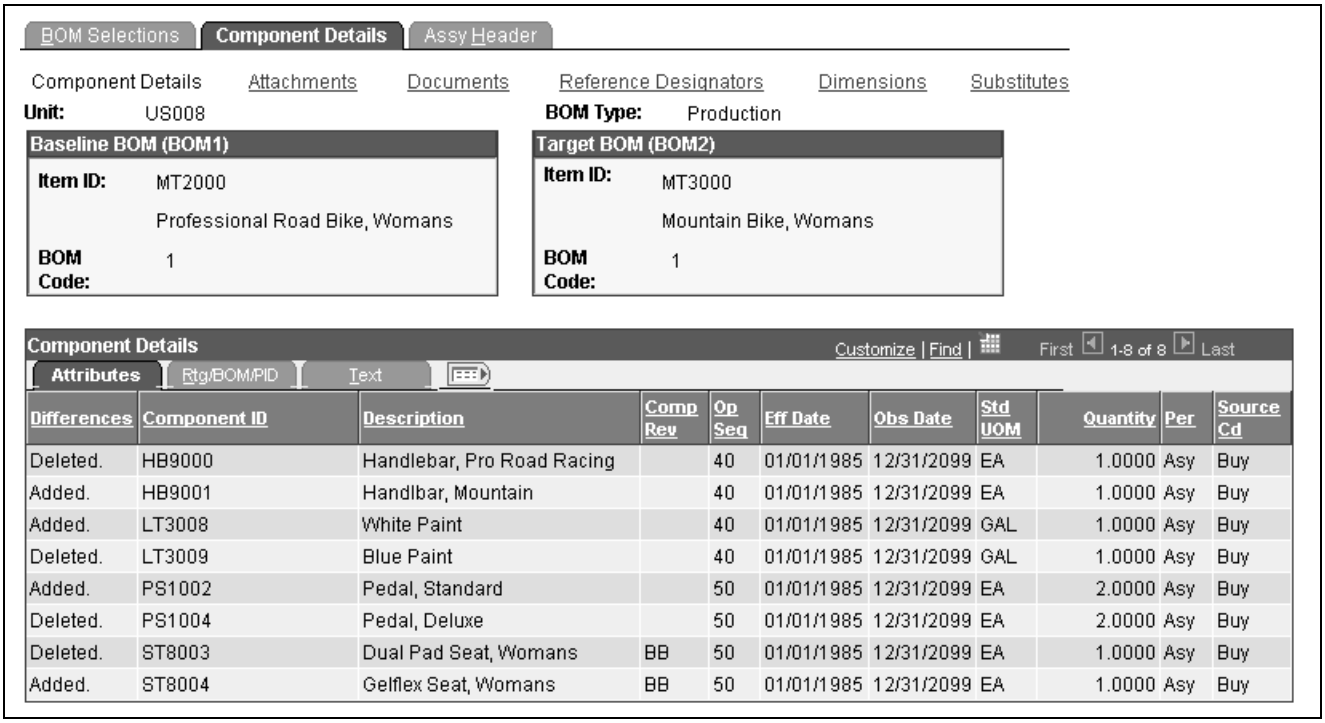
Eff Date Enter the effective date for the baseline BOM if you do not want to use all dates and revisions.

All Dates/Revs Select to compare all effective dates and revisions for the baseline BOM.

Compare BOMs Click this button to compare the selected BOMs.

Comparing Component Detail Differences

Access the Component Details - Component Details page.


BOM Selections | Component Details | Assy Header

Component Details | Attachments | Documents | Reference Designators | Dimensions | Substitutes

Unit: US008 **BOM Type:** Production

Baseline BOM (BOM1)

Item ID: MT2000
Professional Road Bike, Womans
BOM Code: 1

Target BOM (BOM2)

Item ID: MT3000
Mountain Bike, Womans
BOM Code: 1

Component Details Customize | Find | First 1-8 of 8 Last

Attributes | Rtg/BOM/PID | Text

Differences	Component ID	Description	Comp Rev	Op Seq	Eff Date	Obs Date	Std UOM	Quantity	Per	Source Cd
Deleted.	HB9000	Handlebar, Pro Road Racing		40	01/01/1985	12/31/2099	EA	1.0000	Asy	Buy
Added.	HB9001	Handlbar, Mountain		40	01/01/1985	12/31/2099	EA	1.0000	Asy	Buy
Added.	LT3008	White Paint		40	01/01/1985	12/31/2099	GAL	1.0000	Asy	Buy
Deleted.	LT3009	Blue Paint		40	01/01/1985	12/31/2099	GAL	1.0000	Asy	Buy
Added.	PS1002	Pedal, Standard		50	01/01/1985	12/31/2099	EA	2.0000	Asy	Buy
Deleted.	PS1004	Pedal, Deluxe		50	01/01/1985	12/31/2099	EA	2.0000	Asy	Buy
Deleted.	ST8003	Dual Pad Seat, Womans	BB	50	01/01/1985	12/31/2099	EA	1.0000	Asy	Buy
Added.	ST8004	Gelflex Seat, Womans	BB	50	01/01/1985	12/31/2099	EA	1.0000	Asy	Buy

Component Details: Component Details page: Attributes tab

The header data consists of default values from the Compare EBOMs - BOM Selections inquiry page.

Rtg/BOM/PID Tab

This page displays routing, BOM, and production ID differences between the selected BOMs.

Subs Exist If substitutes exist for a component, this field is selected. If no substitutes exist, this field is unavailable for selection.

Sub Supply Selected if the component is supplied by a subcontractor. If the component is not a subcontracted item, the field is unavailable for selection.

Comparing Substitute Item Differences

Access the Component Details - Substitutes page.

The header data consists of default values from the Compare EBOMs - BOM Selections inquiry page.

Substitute Items Tab

Select the Substitute Items tab.

The system displays the substitute differences, including the substitute item ID, description, and the original component ID.

Attributes Tab

Select the Attributes tab.

The system displays the substitute differences, including the substitute item ID, operation sequence, effective date, priority, standard unit of measure, and conversion rate.

Comparing Assembly Outputs

Access the Assy Header - Outputs page.

The header data consists of default values from the Compare EBOMs - BOM Selections inquiry page.

Dates Tab

Select the Dates tab.

This page displays output date differences, including information such as output type, output item, operation sequence, and effectivity dates.

Attributes Tab

Select the Attributes tab.

This page displays attribute differences, including information such as output type, output item, standard unit of measure, quantity per, source code, serial control, and resource allocation and cost allocation percentages.

Viewing Item Where-Used Information

This section discusses how to view item where-used information.

Pages Used to View Item Where-Used Information

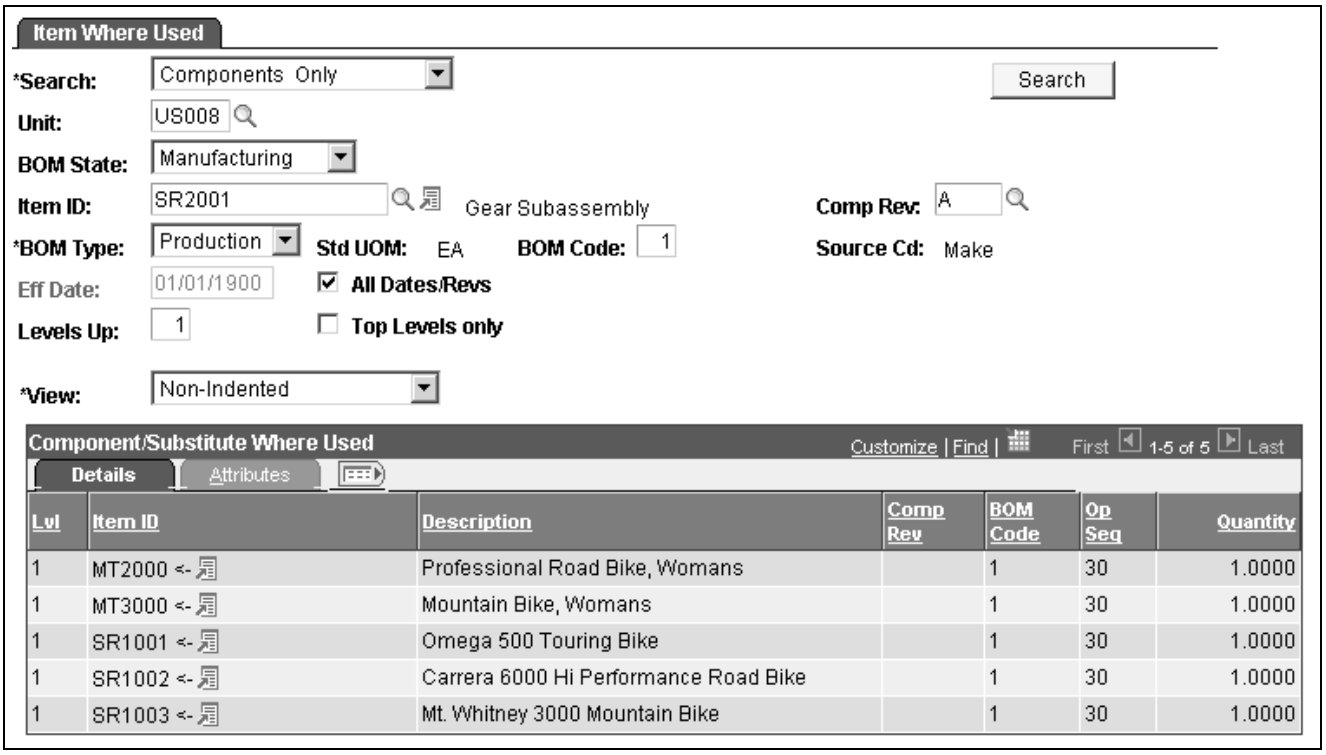
Page Name	Object Name	Navigation	Usage
Item Where Used inquiry	EG_BOM_WHEREUSED	Engineering, BOMs and Revisions, Review EBOM Information, Item Where Used, Item Where Used	View all of the EBOMs on which an item appears. You'll find this information useful when you want to analyze the impact that a change in an item can have on all existing BOMs.
Item Where Used report	EN_WHEREUSED_RPT	Engineering, BOMs and Revisions, Reports, Item Where Used	Generate the Components/Substitutes Where Used Report (ENS2000). You can generate a hard-copy report that lists all the EBOMs on which a component appears. You'll find this information useful when you want to analyze the impact that a component change can have on all existing EBOMs or MBOMs.

See Also

Appendix B, "PeopleSoft Engineering Reports," ENS2000 - Item Where Used Report, page 220

Viewing Item Where-Used Information

Access the Item Where Used inquiry page.



Lvl	Item ID	Description	Comp Rev	BOM Code	Op Seq	Quantity
1	MT2000 <-	Professional Road Bike, Womans		1	30	1.0000
1	MT3000 <-	Mountain Bike, Womans		1	30	1.0000
1	SR1001 <-	Omega 500 Touring Bike		1	30	1.0000
1	SR1002 <-	Carrera 6000 Hi Performance Road Bike		1	30	1.0000
1	SR1003 <-	Mt. Whitney 3000 Mountain Bike		1	30	1.0000

Item Where Used inquiry page: Details tab

Search Select a value to display only certain types of data. Values are: *Components Only, Components and Substitutes, Outputs Only,* and *Substitutes Only.*

Unit, Item ID, BOM Type, Eff Date or Revision, BOM Code, and **Levels Up** Enter this information about the item, as appropriate.

Levels Up Enter *1*, to view only the item's parent assembly. The larger the number, the higher the level; for example, level 3 is three levels higher in the BOM structure than the item. To view only the final end item in which the selected item is an item, select Top Levels only. If you have requested more than one level, an arrow appears next to the item's immediate parent in the Item ID field.

Note. Do not confuse the Levels Up field with the Depth field on the BOM inquiry pages. Levels Up looks up the BOM structure; Depth looks down the structure. The Levels Up field is available only for BOM code 1.

Search Click to retrieve the selected item where-used information.

If you selected *Components Only* or *Components and Substitutes,* the system displays all higher-level subassemblies or assemblies that contain the selected item. You also see the levels at which the items appear in the higher-level items. The left arrow (←) in the display points to the item that directly uses the item selected.

Components and Substitutes and *Substitutes Only* appear if the component for the item is a substitute.

If you selected *Outputs Only,* the system displays information by output type, including:

- Item ID
- BOM Code
- Op Seq
- Output Quantity

If the component is revision-controlled, a Comp Rev field also appears as a search parameter. If you enter a component revision, this page returns all assemblies where that component matches or is blank. If you leave the component revision blank, the inquiry returns assemblies that use any revision of the component.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Understanding PeopleSoft Manufacturing," Component Use Up

Viewing BOM and Routing Transfer and Copy Data

The system makes a BOM Transfer/Copy Audit page entry for each EBOM transferred or copied to production. You can display all items whose EBOMs or BOMs you have copied or transferred by selecting by viewing the BOM Transfer/Copy Audit page.

Similarly, the system makes a Routing Transfer/Copy Audit page entry for each engineering routing (ERTG) transferred or copied to production. You can display all items whose ERTGs or manufacturing routing (MRTG) you have copied or transferred by viewing the Routing Transfer/Copy Audit page.

See Also

Chapter 11, "Processing ECRs and ECOs," Transferring BOMs and Routings, page 175

CHAPTER 7

Structuring Engineering Routings

This chapter discusses how to:

- Maintain engineering routings.
- Define master routings.
- Copy and transfer engineering routings.
- Delete engineering routings.
- Compare engineering routings.

Understanding Engineering Routings

Engineering departments need the ability to maintain and utilize engineering routings (ERTGs) without impacting current manufacturing routings. They also can require the ability to create *what-if* scenarios with routings, determine the costing impact of new and modified routings, and place routings under engineering change control.

Prerequisites

Prior to creating and maintaining engineering routings, you must, minimally, perform these steps within PeopleSoft Manufacturing:

- Define work centers where jobs or tasks will be performed.
- Define your conversion codes, if you want to calculate conversion costs: these codes can be the same codes as defined for manufacturing.
- Define your conversion rates (labor, machine, and overhead rates or costs) if you want to calculate conversion costs: these rates can be the same as those defined for manufacturing.

When defining engineering routings, you have several options regarding the information that you want to associate with a routing. This information is maintained in PeopleSoft Manufacturing. These steps are optional:

1. Define your resources.

   Resources can be crews (people), machines, or tools. You can associate resources with a work center.

2. Define the master list of tasks to be performed in the manufacturing process.

Tasks are useful if the same task is performed when manufacturing several items. You need only define the processing information once on the task and then assign the task to the engineering routings of these items.

3. You can also define any count points.

   Count points are an automated way to predefine where in the item's routing you want to record completions and scrap costs. If an operation is designated as a count point, assembly completions must be recorded at that operation. Material will only be consumed, and labor and overhead will only be earned, up to the previous count point.

   Note. Count points can be used only on production IDs.

If you have enabled PeopleSoft Workflow, the system uses the Routing Change workflow to send notification to the manufacturing engineer (or other defined role) that a change has been made to a routing.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Understanding PeopleSoft Bills of Material and Routings"

PeopleSoft Manufacturing 8.8 PeopleBook, "Defining Work Centers"

PeopleSoft Manufacturing 8.8 PeopleBook, "Defining Resources"

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Tasks"

PeopleSoft Managing Costs 8.8 PeopleBook, "Defining the Cost Foundation for Makeable Items"

PeopleSoft Manufacturing 8.8 PeopleBook, "Completing Operations and Recording Scrap," Recording End Item Completions Using Count Points

Appendix A, "Delivered Workflows for PeopleSoft Engineering," page 209

Common Elements Used in This Chapter

Routing Type Select a routing type. Values are:

- *Production:* Default routing type.

  Production routings can be used for standard manufacturing processes.

- *Rework:* You can create rework routings when you have a standard rework process.

  Rework routings list the routing steps that are commonly used to rework an assembly.

  Note. Rework routings are available when creating rework production IDs.

- *Teardown:* Teardown routings are used when you are breaking an assembly down into its component parts and returning the components back to inventory.

Teardown routings can differ from the production routing, but can use any of the existing tasks or work centers defined for production. Teardown outputs can be produced at any operation. No operation that produces teardown outputs can be a subcontracted operation.

Note. Teardown routings are available when creating teardown production IDs.

Maintaining Engineering Routings

By using the Define Engineering Routings component, you can create and maintain engineering routings (ERTGs). This includes defining the engineering routing code, operations, scheduling options, routing times, conversion costs, routing text, documents, attachments, and the associated tasks, count points, work centers, and resources. You can specify an engineering routing by business unit for any manufactured or purchased item.

Note. You can view, but not modify or add, production routings (MRTGs) from this component. Introduce new changes to production routings by either transferring or copying ERTGs to MRTGs or by maintaining MRTGs directly within PeopleSoft Manufacturing.

When you modify an engineering routing that is a master routing, the impact to other items sharing the routing is reflected within PeopleSoft Engineering; for example in engineering cost roll-ups. No changes are reflected for items sharing the routing within manufacturing until the engineering routing is transferred back to manufacturing.

Note. Planning and production references in this section are pertinent only after the Engineering routing has been copied or transferred to manufacturing. There is no direct interface between PeopleSoft Engineering and PeopleSoft Supply Planning.

This section discusses how to:

- Define engineering routing operations.
- Define engineering routing header information.
- Specify engineering routing header attachments.
- Define resources used on engineering routings.
- Set engineering routing schedule options.
- Define engineering routing operation times and rates.
- Associate conversion cost codes with an operation.
- Specify engineering routing operation attachments.

Common Elements Used in This Section

If there are any outstanding engineering change orders (ECOs) pending for the item, and you have checked the ECO Pending Alert check box on the ECO Item Status page, the system displays this button next to

the assembly Item ID. Click this button to view information about the pending ECOs associated with this item.

If the item's routing is a master (or reference) routing currently used by another item, the system displays this button. If you click this button, the system displays the Master Routing Where Used inquiry page. You can use this inquiry to determine whether the changes made to a routing are applicable to all items for which it's a reference routing.

Pages Used to Maintain Engineering Routings

Page Name	Object Name	Navigation	Usage
Define Engineering Routings - Summary	EN_RTG_SUMMARY	Engineering, Routings, Define Engineering Routings, Summary	Assign item operations and attach tasks and work centers to an engineering routing.
Define Engineering Routings - Header: Description	EN_RTG_HEADER	Engineering, Routings, Define Engineering Routings, Header, Description	Define information such as priority and whether you want to copy routings to production and planning.
Define Engineering Routings - Header: Documents	EN_RTG_HEADER_DC	Engineering, Routings, Define Engineering Routings, Header, Documents	Associate, access, and manage engineering routing header documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.
Define Engineering Routings - Header: Attachments	EN_RTG_HEADER_ATT	Engineering, Routings, Define Engineering Routings, Header, Attachments	Attach files to the engineering routing header information.
Define Engineering Routings - Operations: Resources	EN_RTG_RESOURCE	Engineering, Routings, Define Engineering Routings, Operations, Resources	Define engineering routing resources.
Define Engineering Routings - Operations: Scheduling	EN_RTG_SCHED	Engineering, Routings, Define Engineering Routings, Operations, Scheduling	Select from among several possible alternative operation scheduling options for engineering routings; including Simultaneous Setup and Queue, Planning Intensity, and Operation Overlap.
Define Engineering Routings- Operations: Times	EN_RTG_TIME	Engineering, Routings, Define Engineering Routings, Operations, Times	Use as part of planning and costing considerations, to define engineering routing operation times and rates for an operation.

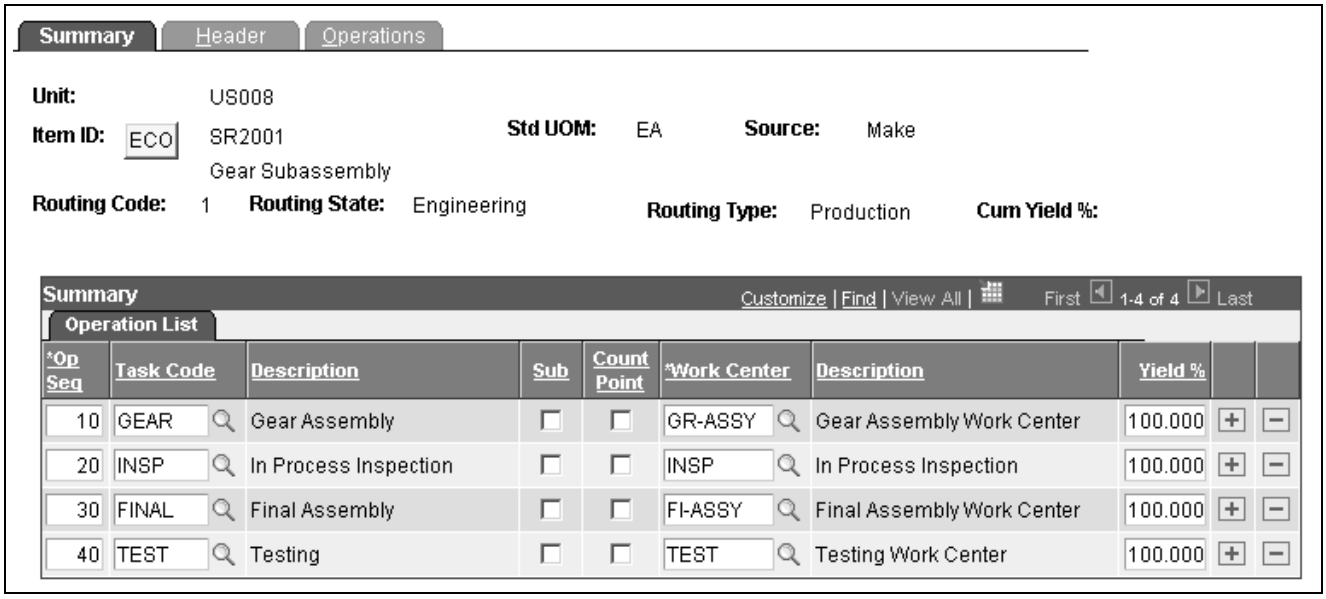
Page Name	Object Name	Navigation	Usage
Define Engineering Routings- Operations: Conv Cost Codes	EN_RTG_CONCOST	Engineering, Routings, Define Engineering Routings, Operations, Conv Cost Codes	Associate conversion cost codes with an operation. Conversion rates or costs are associated with each code. The system uses these rates or costs to determine the labor, machine, and overhead cost of the operation.
Define Engineering Routings- Operations: Text	EN_RTG_OP_TXT	Engineering, Routings, Define Engineering Routings, Operations, Text	Attach text to an operation.
Define Engineering Routings - Operations: Documents	EN_RTG_OP_DC	Engineering, Routings, Define Engineering Routings, Operations, Documents	Associate, access, and manage engineering routing operation documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.
Define Engineering Routings - Operations: Attachments	EN_RTG_OP_ATT	Engineering, Routings, Define Engineering Routings, Operations, Attachments	Specify engineering routing operation attachments.
Eng Routing Report - Routing Report	RUN_ENS1001	Engineering, Routings, Engineering Routing Report, Routing Report	Generate a Routing Report (ENS1001) of engineering For manufacturing routings.

See Also

Appendix B, "PeopleSoft Engineering Reports," ENS1001 - Routing Report, page 216

Defining Engineering Routing Operations

Access the Define Engineering Routings - Summary page.



Define Engineering Routings - Summary page

Note. You can add engineering routings only for assembly items that are both owned and approved. Additionally, you can maintain routings only for those items whose business unit item attributes Used in Mfg option is selected.

Note. You cannot add a routing for floor stock, planning, expensed, or configured items.

Routing Code By entering a routing code, you give the engineering routing a unique numeric identifier. The system reserves a Routing Code of *1* for an item's primary routing and uses it as the default routing for planning and costing (in PeopleSoft Supply Planning, PeopleSoft Cost Management, and PeopleSoft Manufacturing) including production conversion cost calculations.

You can specify up to 98 alternate engineering routings for production, rework, or teardown routing types by entering additional routing codes (greater than *1*) for the same routing type.

Routing Type Select a type depending on the kind of operations you are tracking.

Note. When adding a routing for an item with item status of *Hold* or *Discontinue*, you will receive a warning message.

Note. You will receive a warning if you modify an item's routing that is used by another item.

Op Seq (operation sequence) Enter the operation sequence. We recommend that you increment operation sequence numbers by a set amount (*5* or *10*) to enable insertion of additional operations at a later date.

The operation sequences defined here correspond to the operation sequences you specified for components on the item's BOM. If you have not assigned operation sequences to the item's BOM, and you want to issue a component to

the operation's WIP location, you should return to the EBOM Maintenance component, and associate an operation sequence to each component.

If you maintaining an MBOM, the operation sequences should correspond to the components on the MBOM.

When you assign operation sequences to a component (within either EBOM or MBOM maintenance), the system displays the valid operations when you select an operation sequence from the available options in EBOM Maintenance.

Note. If the assembly has a reference or master routing different from itself, then the Op Seq fields will reflect master routing operations on the EBOM and MBOM maintenance pages.

If you enter a Task Code for the Op Seq, the system copies all related task and resource data, including whether the task is subcontracted, the work center, queue, setup, run, and post-production time information to the operation.

You have the option not to enter the Task Code, but then you'll need to enter data manually, including work center, routing time, resource, scheduling options, text attachments, and conversion rate code data, on the subsequent pages. If you haven't predefined tasks, you should examine all succeeding pages to ensure that you set up the correct data for the designated item operation.

If you change the Task Code on this page, the system deletes the old task information and copies the associated new task information into the item's engineering routing. Once you specify the task on the engineering routing, the system doesn't reflect the changes you make to the task information on the Define Task page and the Task Time page in the Task Definition component.

If you enter a task, the system displays whether the task is Sub (subcontracted) and the Work Center associated with the task. If you haven't entered a task, you must enter a work center for the operation. You can change whether the task is subcontracted and the work center for this task on this engineering routing without affecting the default task information. If you change the work center, the system automatically deletes the resources defined for the old work center and then adds the resources associated with the new work center. Additionally, if you are maintaining conversion costs by work center, the system adds the new conversion rates and deletes the old rates.

Count Point (optional) Select this check box if you want to define an operation step as an operation count point. A count point indicates where in the operation process you would like to record completions and scrap. Count points can be used only on production IDs.

By default, this check box shows the count point setting from the Task Definition page.

Important! If you are using count points, the last operation step and any subcontracted operations must be defined as count points.

See Also

Chapter 7, "Structuring Engineering Routings," Prerequisites, page 113

PeopleSoft Manufacturing 8.8 PeopleBook, "Completing Operations and Recording Scrap," Recording End Item Completions Using Count Points

Defining Engineering Routing Header Information

Access the Define Engineering Routings - Header: Description page.

Copy Routing to Production — Select this check box if you want to copy the routing to the operation lists within PeopleSoft Manufacturing. This enables you to track operation details and record production completions at specific operations. If you choose not to copy the routing to production, the system still uses the routing to calculate costs and calculate planning start/end order and schedule dates.

If a rework routing is specified, this field is automatically selected and is unavailable for selection.

Copy Routing to Planning — If you are using PeopleSoft Supply Planning, you can schedule, at the operation level, while optimizing resources by selecting this check box. The system doesn't copy rework or teardown routings to Planning as possible production options, so the check box is unavailable for rework or teardown routings.

However, if a rework or teardown routing has been copied to production for a specific production ID, that routing becomes the operation list that is used as the production option for that specific production ID. All this also applies to teardown routings as well.

Priority — Enter a routing priority. Priority specifies the order that PeopleSoft Planning should use to consider alternate routings when planning production. The lower the priority number, the higher the priority. Rework and teardown routings have no priority.

Note. Planning and production references in this section are pertinent only after the Engineering routing has been copied or transferred to manufacturing. There is no direct interface between PeopleSoft Engineering and PeopleSoft Supply Planning.

See Also

PeopleSoft Managing Items 8.8 PeopleBook, "Defining Items," Modifying Item Attributes for the Business Unit

Chapter 7, "Structuring Engineering Routings," Defining Master Routings, page 128

Specifying Engineering Routing Header Attachments

Access the Define Engineering Routings - Header: Attachments page.

File Ext (file extension) — Select the type of media you want to attach.

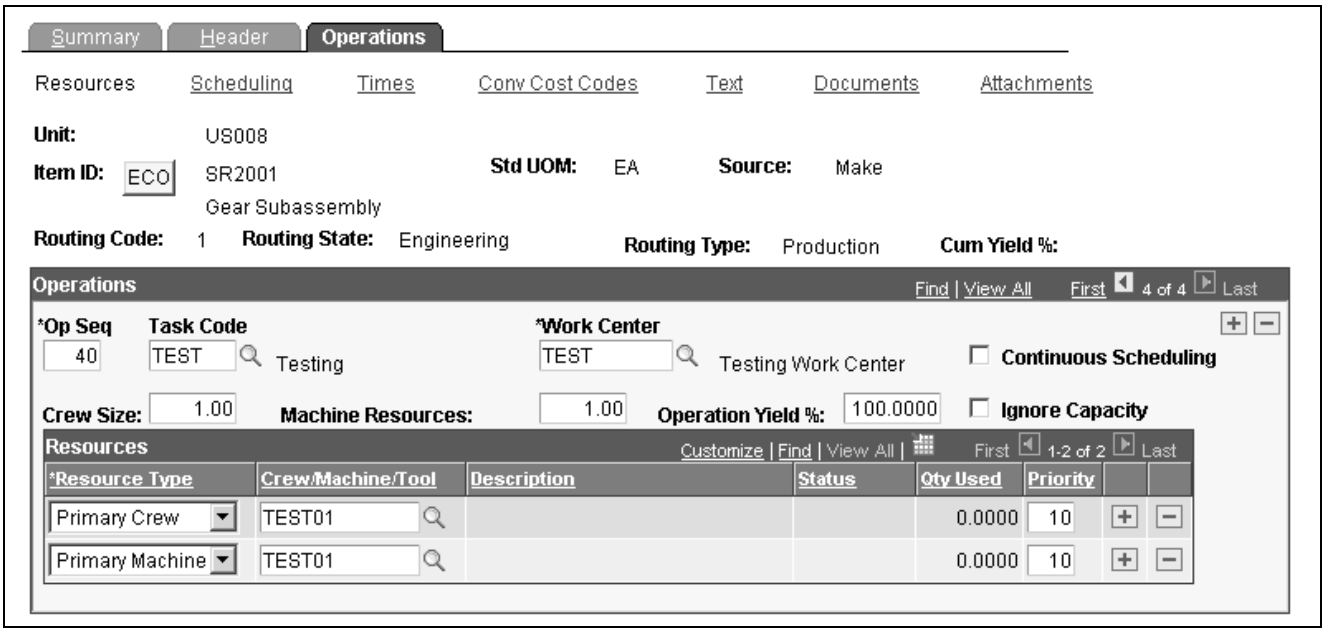
Document ID and Description — Enter the file name and description of the multimedia item you're attaching

 — Click the Attachments button to launch the multimedia object attached to the engineering routing header.

Note. You must set up file extensions in advance on the File Locations page in the Set Up Financials/Supply Chain, Common Definitions navigation.

Defining Resources Used on Engineering Routings

Access the Define Engineering Routings - Operations: Resources page.



Define Engineering Routings - Operations: Resources page

The values for Op Seq (operation sequence), Task Code, and Work Center are defaults from the Define Engineering Routings - Summary page, but they can be changed here.

Continuous Scheduling Select this option to complete the corresponding operation in a single run of continuous valid calendar time, with no gaps allowed between shifts.

Ignore Capacity Select this option to prevent the PeopleSoft Supply Planning solvers from analyzing and resolving capacity issues impacting the work center. When this box is selected, capacity issues, although not recognized by the solvers, will appear in the Supply Planning Violations Workbench if they are before the capacity fence defined for the planning instance.

By selecting the Ignore Violations check box on non-critical work centers, you enable the solvers to ignore these work centers and focus on critical work centers for capacity repair. Clear this check box to generate what-if scenarios.

Operations

You can change Crew Size and Machine Resources if you have specified a task. These are defaults from the task specified. If you haven't specified a task, they are defaults from the work center. Crew Size is the number of people at the work center. Machine Resources is the number of machines at the work center.

Resources

Operation resources associated with the engineering routing operation are default values from the task specified. If no task is specified, the default values are from the work center. Specifying resources on the engineering routing operation is optional. You can delete existing resources if they aren't appropriate for use with the manufactured item.

Resource Type and **Crew/Machine/Tool**

To change a primary resource or add additional resources, select the resource type (*Primary Crew, Primary Machine, Primary Tool, Alternate Crews, Alternate Machines, and Alternate Tools*) and resource (Crew/Machine/Tool) you want to associate with the operation. The resource must have been previously associated with the work center.

You can have only one each of these Resource Types on a routing:

- *Primary Crew*
- *Primary Machine*
- *Primary Tool*

  However, you can have unlimited:

  - *Alternate Crews*
  - *Alternate Machines*
  - *Alternate Tools*

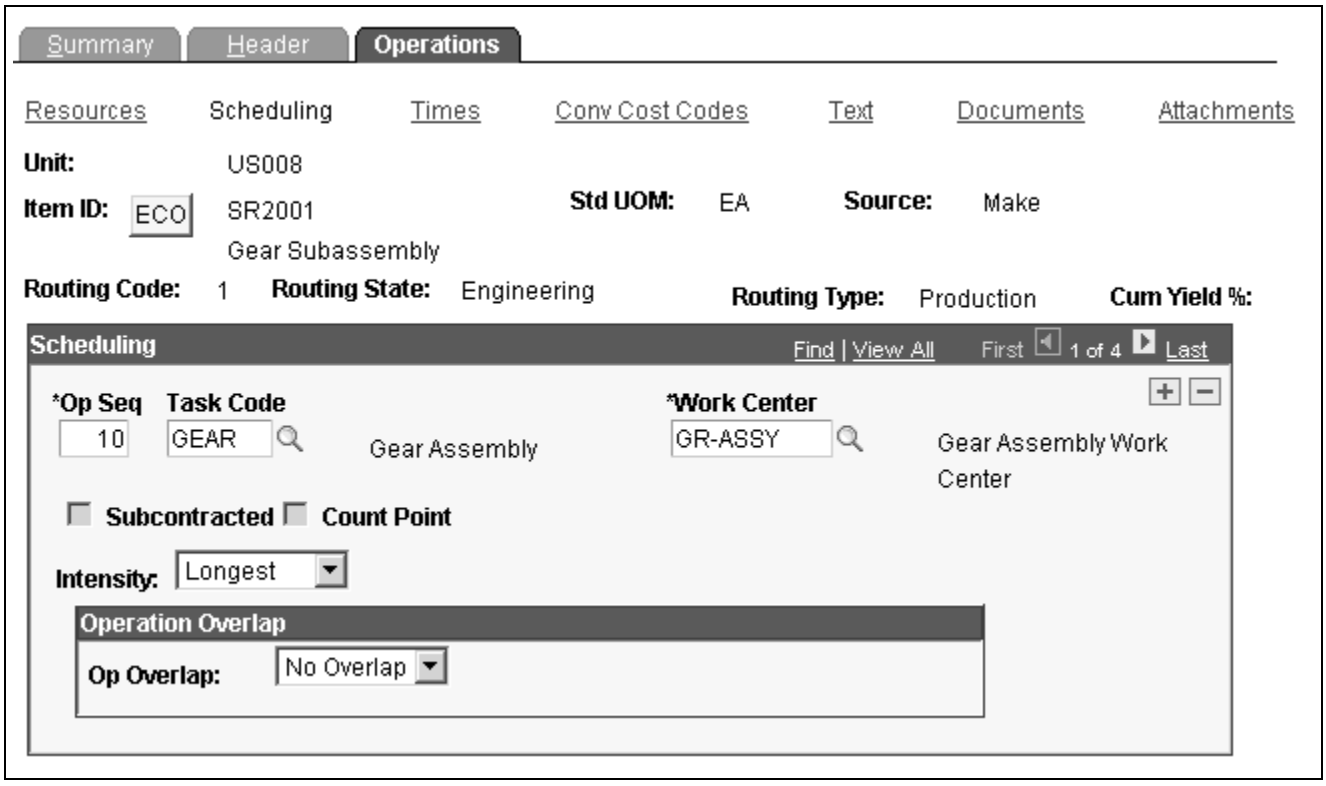
Qty Used (quantity used)

If the resource changed or a tool is added, you have the option to enter the quantity used.

Note. You can't associate crew and machine resources with subcontracted tasks or operations.

Setting Engineering Routing Schedule Options

Access the Define Engineering Routings - Operations: Scheduling page.



Define Engineering Routings - Operations: Scheduling page

The values for Op Seq (operation sequence), Task Code, and Work Center are defaults from the Define Engineering Routings - Summary page, but can be changed here.

If the operation sequence is a count point, the Count Point check box is selected. This field is display only and is a default from the Define Engineering Routings - Summary page.

Simultaneous Setup and Queue

Select this check box if setup can occur during the queue time of an operation. If this option is selected, the system considers the longer of the two times when determining production start or end dates.

Note. You can't select Simultaneous Setup and Queue for the first operation in an engineering routing. You also can't select it if you are using PeopleSoft Supply Planning.

Intensity

Use Intensity to determine the basis of your scheduling. You can base the start and end dates of the operation on the operation's *Labor Time* (labor intensive) or *Machine Time* (machine intensive). Alternately, you can base the start and end dates on the *Longest* time (longest of the two times, evaluated for each time type within the operation) or on the *Cumulative* time (the sum of the *Machine Time* and *Labor Time*).

Op Overlap (operation overlap)

Operation overlap enables you to indicate that a subsequent operation can begin prior to the completion of the prior operation. Options include:

- *No Overlap:* No operation overlap.
- *Percentage:* An overlap by percentage of elapsed run time completed.

  If you select Percentage, the Overlap % (overlap percentage) field appears. This is the percentage of processing run time remaining at one operation before the next operation can start. An Overlap % of *100* means that the next operation can begin setup at the same time as the current operation's start of run. An overlap time of *5* percent means that 95 percent of the operation run must be completed before the next can start.

  Note. The operation overlap percentage can't be less than *0* or more than *100*, and there can be no overlap on the last engineering routing operation sequence. Operation overlap shouldn't be defined on the operation before a subcontracted operation since all assemblies and subassemblies must be sent to the subcontractor as a batch. Since the vendor can send the item back in multiple batches, the system allows, on a subcontracted operation, operation overlap for send ahead quantity and percentage.

- *Send Ahead:* Overlap by a specific quantity completed at the operation.

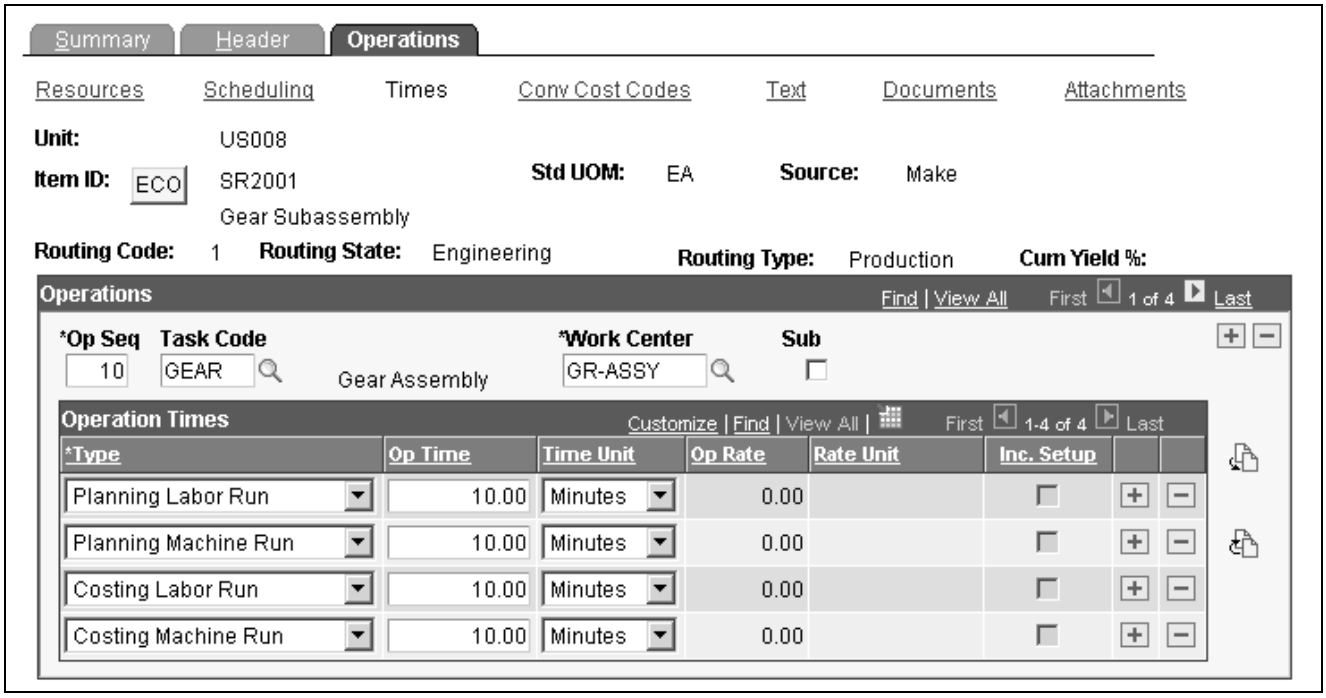
  If you select *Send Ahead*, the Send Ahead field appears. Enter the number of units that need to be accumulated or finished before they can be sent to the next operation and the next operation can begin. The Send Ahead quantity must be a positive number.

Note. If an operation has a fixed run rate assigned to it, the preceding operation can't have a send ahead quantity assigned to it because fixed run operations assume the entire quantity is available at the beginning of the run. For example, operation 1 can't have a Send Ahead quantity assigned if operation 2 has a fixed run time.

Note. For multiple output batch items, the Send Ahead quantity or percentage overlap is specified in terms of the BOM quantity as defined on the primary item's BOM.

Defining Engineering Routing Operation Times and Rates

Access the Define Engineering Routings - Operations: Times page.



Define Engineering Routings - Operations: Times page

Operations

The values for Op Seq (operation sequence), Task Code, and Work Center are defaults from the Define Engineering Routings - Summary page, but can be changed here.

If you have already associated a Task Code with an operation, and you change the task, the system deletes the existing task information, including work center, resources, task times, and scheduling options and adds the new task information for the specific operation. Additionally, if you define your conversion rates at the task level, the system deletes the old task rates and adds the new rates.

You can insert a new operation in the same manner as on the Define Engineering Routings - Summary page.

You can change the Work Center for this task as it applies to this engineering routing sequence. If you change the work center, the system deletes the resources associated with the old work center and adds the new work center's resources. If you maintain conversion rates at the work center level, the system deletes the old rates and adds the new rates.

If the task is subcontracted, the Sub (subcontracted) check box is selected, and the Vendor ID field displays.

Note. You can specify only labor times for a subcontracted operation.

Operation Times

In the Operation Times group box, the times or run rates are default values from the task information, if you have specified one. You can modify the manufacturing times or rates for fixed run, post production, run, and setup for the task. Changing the times and run rates here has no effect on the default master task information. If you didn't specify a task, you can enter the times necessary to complete this operation.

If you are changing the operation costing times and run rates after the item's cost has been calculated and updated, the modification results in-process change variances for the item during any production subsequent to the change. These variances continue until the item's cost is recalculated and updated. If you are changing the operation from a regular task to a subcontracted one, you can't select machine times or rates for the operation.

Select an operation time Type and then enter an Op Time (operation time) or Op Rate (operation rate). You can specify operation rates only for planning or costing run time.

If you enter an Op Time, then Time/Rate Unit gives the option of *Days, Hours*, or *Minutes.* For example, if you enter 5 in the Op Time field and *Days* in the Time/Rate Unit field, 1 unit is completed every 5 days for the operation. The system determines the number of hours in a day by the work center's average daily hours, as defined in the Work Center Definition page.

If you enter an Op Rate, then Time/Rate Unit gives the option of *Units/Day, Units/Hour,* or *Units/Minute.* For example, if you enter *3* in the Op Rate field and *Units/Day* in the Time/Rate Unit field, 3 units are completed every day for the operation.

Note. If you are defining routing times for a multiple output batch item (at least one co-product on the item's BOM), then both the routing times and rates for costing and planning must be in terms of the in-process batch item's quantity (BOM Qty) and not in terms of a primary or co-product. For example, if the BOM Qty for Item ID 10001 is 1000, and the BOM's primary output quantity for 10001 is 500 (meaning for every batch of 1000 you anticipate getting 500) the routing times and rates must be defined in terms of the 1000 and not 500.

Note. You can change any production times or rates for the task, for the specific item engineering routing, without affecting the master task information. If you make a change here, and you want to make the task data identical, you also need to make the change on the Task Time page. The converse is also true. Once you have associated times or rates with an operation, changing the task master data won't affect the data on this page.

Inc. Setup (include setup) You can select this check box for your operation lead time calculation, but only for the *Planning Labor Setup* and *Planning Machine Setup* operation types.

This check box is cleared and is unavailable for selection in all other cases.

Setup, if specified for the first operation, is always included in the lead time calculation. If you don't select Inc. Setup, setup can begin prior to any production units arriving at the work center. The system will assume that

setup can occur at any time after the start of production and won't include it as part of the item's lead time, except at the first operation.

The system allows only queue and intransit as well as planning and costing labor setup, run, fixed run, and post production times for Sub (subcontracted) tasks and operations. You can't specify machine times. If you are using PeopleSoft Supply Planning, you can't use queue times.

Costing Considerations

In order to calculate costs for a specific item, operation, or time type, you must have a corresponding costing rate type defined for a given Engineering cost version. For example, if you had a costing fixed run time of 5 hours defined on the task here, you should also have defined, within PeopleSoft Cost Management, an engineering cost version and conversion code combination.

If you intend to cost the operation using a fixed amount per unit (as opposed to a rate per hour) you must include a corresponding costing operation time Type. The costing operation time can represent the amount of time to complete the task, and the system will use it to calculate earned hours. However, the system will use the amount per unit in calculating the cost, regardless of the time specified. If you don't specify a costing time, the system won't include the per-unit cost, even if there's a rate defined for the code assigned to the task.

Note. You can use the costing information (codes and rates) specified on engineering routings within engineering cost versions, as long as the routing remains in PeopleSoft Engineering. Once the routing is transferred to PeopleSoft Manufacturing, item costs must be generated and updated using a non-engineering cost version.

PeopleSoft Supply Planning Considerations

If you are using PeopleSoft Supply Planning, you need to be aware that:

- If, in the item planning attributes, you've elected to maintain rates based on routings (as opposed to a lead time), you must define labor or machine planning times (setup, run, or fixed run) in order for PeopleSoft Supply Planning to schedule operations and determine work center capacity.
- PeopleSoft Supply Planning doesn't consider queue times, even if they are specified for the task.
- If you have indicated that setup isn't included for scheduling purposes (setup can begin at any time after the start of production), the system won't consider it for capacity planning purposes.

Note. PeopleSoft Engineering has no direct interface with PeopleSoft Supply Planning, but these PeopleSoft Supply Planning considerations apply once you transfer the engineering routing to PeopleSoft Manufacturing.

See Also

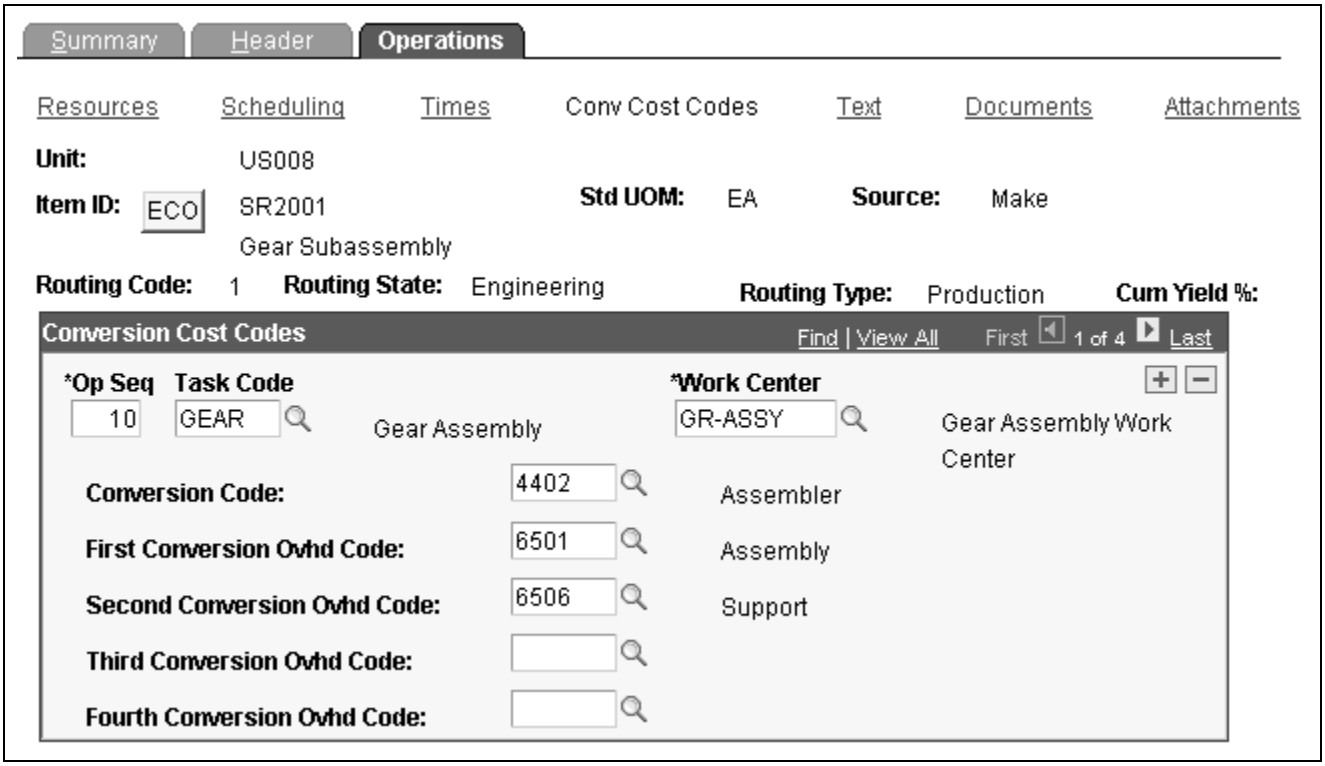
PeopleSoft Manufacturing 8.8 PeopleBook, "Defining Work Centers"

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Tasks"

PeopleSoft Managing Costs 8.8 PeopleBook, "Defining the Cost Foundation for Makeable Items," Defining the Cost Foundation

Associating Conversion Cost Codes With an Operation

Access the Define Engineering Routings - Operations: Conv Cost Codes page.



Define Engineering Routings - Operations: Conv Cost Codes (conversion cost codes) page

The values for Op Seq (operation sequence), Task Code, and Work Center are defaults from the Define Engineering Routings - Summary page, but can be changed here. If you are maintaining conversion rates at the work center level, the system displays the Conversion Codes associated with the operation's work center. If you are maintaining conversion rates at the task level, and you entered a Task Code, it displays the Conversion Codes associated with the operation's task.

Conversion Code — To change the labor, machine, or overhead cost for a specific operation on an engineering routing, select the Conversion Code that the system will use to determine the new labor and machine costs.

First Conversion Ovhd Code, Second Conversion Ovhd Code, Third Conversion Ovhd Code, and **Fourth Conversion Ovhd Code** — You can also select up to four conversion overhead codes in the conversion overhead code fields. The system will use these codes to calculate the overhead costs associated with the operation.

Note. If your labor or machine rate is in cost per unit, and you want to include the cost in the cost roll-up calculation, you must have selected a corresponding costing rate type. For example, if *Labor Run Rate* (cost) is .50 USD per unit, the routing operation must have an entry for costing labor run time in order for the .50 USD to be included in the operation's cost.

Note. The rates displayed are the current rates that are used in production to calculate earned labor, machine, and overhead costs. These costs are copied into a frozen production rate record during the production cost update and inventory revaluation process and are based on the rates associated with the cost type and version used to calculate the new production costs.

Specifying Engineering Routing Operation Attachments

Access the Define Engineering Routings - Operations: Attachments page.

The values for Op Seq (operation sequence), Task Code, and Work Center are defaults from the Define Engineering Routings - Summary page, but can be changed here. Specify the operation sequence that requires the attachment.

File Ext (file extension) Select the type of media you want to attach.

Document ID and Description Enter the file name and description of the multimedia item you're attaching

Note. You must set up file extensions in advance on the File Locations page in the Set Up Financials/Supply Chain, Common Definitions navigation.

Defining Master Routings

To assign an item family routing, use the Item Family Routing Assignment component (EN_RTG_FAMILY). To assign a routing to a specific group of items, use the Item Group Routing Assignment component (EN_RTG_GROUP).

You can define master or reference routings in PeopleSoft Inventory with the Define Business Unit Item - Manufacturing: General page. If many items have the same processing steps, you can create a master routing that many items can use as their individual routing.

See *PeopleSoft Manufacturing 8.8 PeopleBook*, "Structuring Routings," Defining and Viewing Master Routings.

Pages Used to Define and View Master Routings

Page Name	Object Name	Navigation	Usage
Define Business Unit Item - Manufacturing: General	MFG_ATTRIB	Items, Define Items and Attributes, Define Business Unit Item, Manufacturing, General	Define the reference item routing to be used for the master routing.
Item Family Routing	EN_RTG_FAMILY	Items, Define Controls, Item Family Routing, Family Rtg Assignment	Designate the item who's routing will be the representative routing for the selected item family
Item Group Routing	EN_RTG_GROUP	Items, Define Controls, Item Group Routing, Group Rtg Assignment	Designate the item who's routing will be the representative routing for the selected item group.
Master Routing Where Used (inquiry)	EN_RTG_MST_WH_USED	Engineering, Routings, Eng Master Routing Where Used, Master Routing Where Used	View master routing where used information for an item.
Master Rtg Where Used Report	RUN_ENS1003	Engineering, Routings, Eng Master Routing Where Used Report	Generate the EG Master Routing Where Used Report (ENS1003).

See Also

PeopleSoft Managing Items 8.8 PeopleBook, "Defining Items," Defining Manufacturing Information for an Item

Appendix B, "PeopleSoft Engineering Reports," ENS1003 - Master Routing Where Used Report, page 218

Copying and Transferring Engineering Routings

Instead of entering new engineering routings from scratch, you may find it easier to copy or transfer them and then make modifications.

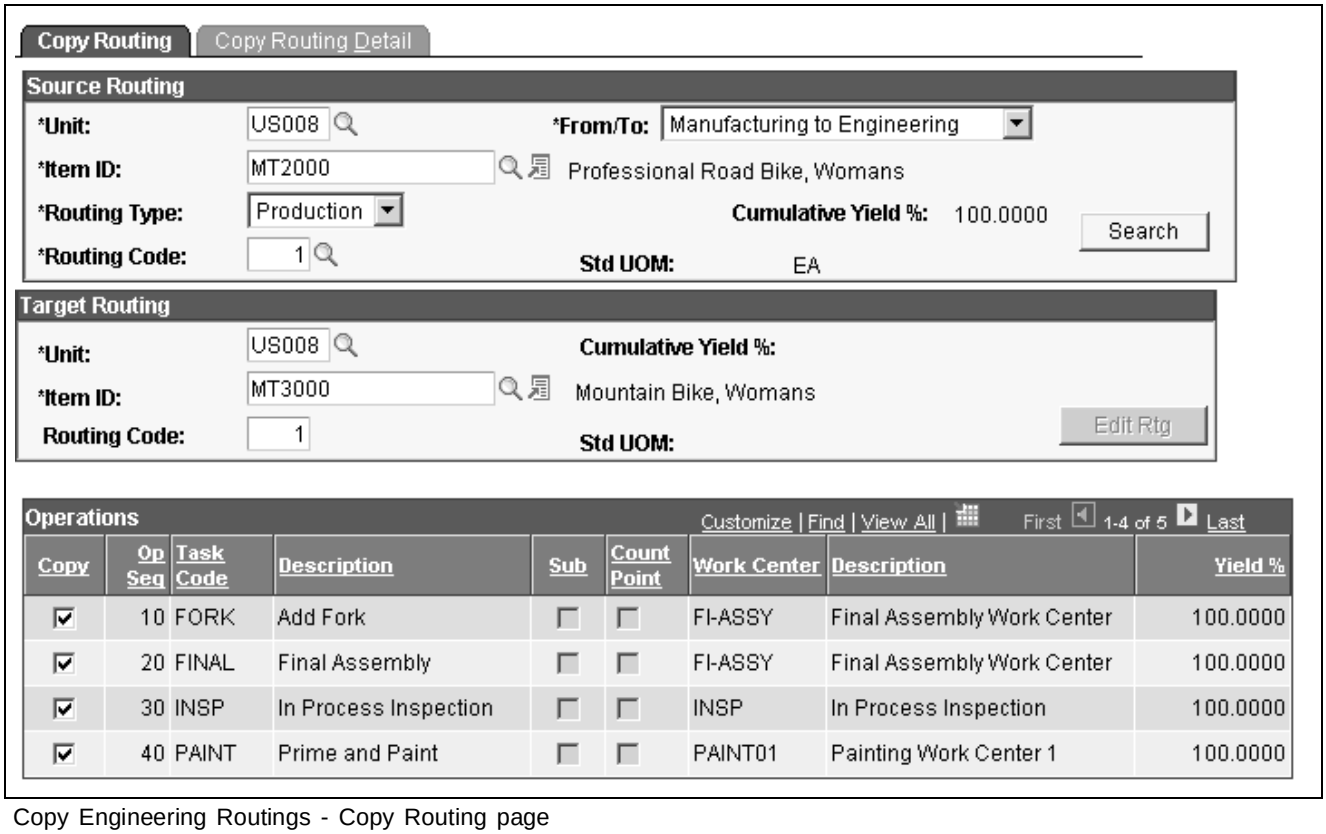
This section discusses how to copy and transfer engineering routings.

Pages Used to Copy and Transfer Engineering Routings

Page Name	Object Name	Navigation	Usage
Copy Engineering Routings - Copy Routing	EG_RTG_COPY	Engineering, Routings, Copy Engineering Routings, Copy Routing	Copy routing data from one item to another within a business unit or across business units. The copy function can also be used to transfer information between manufacturing and engineering, depending on your business unit options.
Copy Engineering Routings - Copy Routing Detail	EG_RTG_COPY_DET	Engineering, Routings, Copy Engineering Routings, Copy Routing Detail	Review the data the system will copy.
Routing Transfer/Copy Audit	EG_RTG_AUDIT	Engineering, Routings, Routing Transfer/Copy Audit	Display all items whose manufacturing or engineering routings you have copied or transferred.

Copying Engineering Routings Summary

Access the Copy Routing page.



Copy Engineering Routings - Copy Routing page

Source Routing

From/To You can copy routings from Engineering to Engineering, Engineering to Manufacturing, or from Manufacturing to Engineering.

Item ID Select the item that whose routing you want to copy or transfer.

Routing Code Select the routing code for the source business Unit and Item ID combination.

Routing Type Select a routing type for the source routing. Once you select a routing type, the system automatically selects the same routing type for the target routing.

Search Click this button to display the engineering routing information associated with source business unit and item.

Target Routing

Item ID and Unit Select values. If you want to use one item's engineering routing as the basis for the engineering routing of another item with similar processing, enter the same business unit for both the source and target. You can't select as the target an item with a source code of Floor Stock, Expense, or Planning.

Item ID Select the item whose routing you want to copy.

Routing Code Enter a routing code for the target routing.

Copy Select this check box to copy any specific row of data.

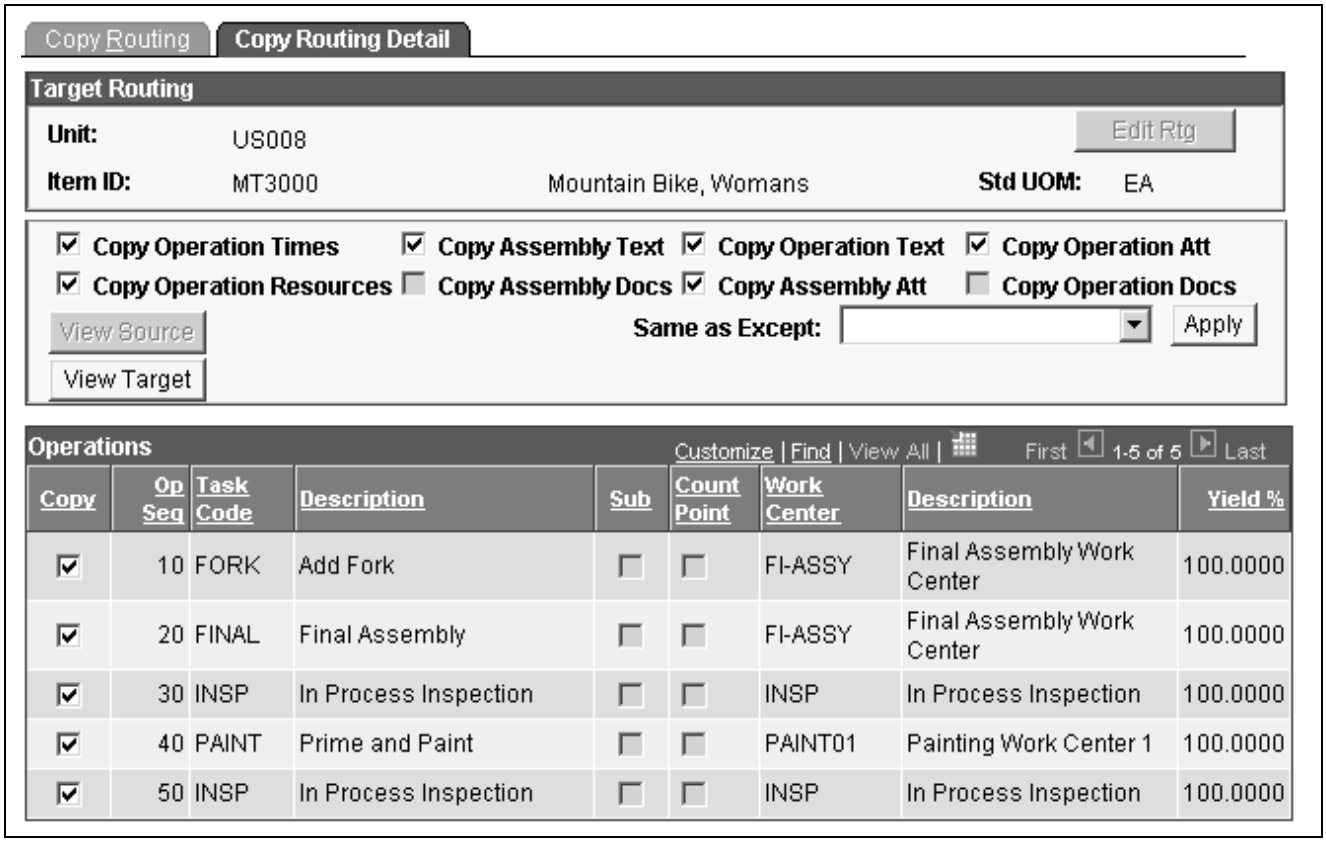
Sub (subcontracted) This check box is selected if the operation is subcontracted.

Count Point If the source routing or target routing contains an operation sequence that is a count point, this check box is selected.

Save The routing is copied once you click Save.

Copying Engineering Routings Detail

Access the Copy Routing Detail page.



Copy Engineering Routings - Copy Routing Detail page

You have the option to copy the associated routing operation times, resources, text, attachments, and documents. You can also copy the assembly text, attachments, and documents.

Copy When the source item's engineering routing is first displayed, all Copy check boxes are selected. You can choose which operation to copy or not copy by clearing the appropriate check boxes.

Same as Except You can also control which operations to copy by using this field.

If you want to copy only a few of the operations, select the *Exclude All* option, and click the Apply button. This clears all the Copy check boxes. You can then select only the operations you want to copy, by selecting the appropriate check boxes.

As an alternative, you can exclude by range, by selecting *Exclude Op Seq Range* (exclude operation sequence range). When you select this option, the system displays the From/To Seq Nbr (from/to sequence number) fields. You can enter the range of operations you want to exclude and then click the Apply button. You can do multiple iterations of ranges, clicking the Apply button after you select each range.

If you have cleared the operations' check boxes, and you want to select them, select *Include All* or *Include Op Seq Range*. These options work the same as *Exclude All*, except that now the Copy check boxes are selected for all operations or for the range of operations specified.

View Target Click this button to see what the target item's engineering routing will look like when copied.

View Source Click this button to see the source item's engineering routing and the operations selected to copy.

If the exact business unit, item ID, engineering routing type, and routing code combination already exists as the target, the system prompts you to overwrite the existing routing. If you overwrite the engineering routing, the system deletes the target routing and replaces it with the source routing.

When you click Save, the system completes the copy. At that time, the system activates the Edit Rtg (edit routings) button; by clicking it, you can edit the source item's engineering routings on the Define Engineering Routings - Summary page.

When you copy routings from one item to another, you can't copy document associations to the new item. To make copies of the actual documents for the new item routing, you must first copy the documents within Documentum and then associate the copied documents to the new item routing.

Transferring Engineering Routings

You can also transfer engineering routings and make inquiries on them (as well as on your routing copies) using the same process you use for transferring BOMs.

See Chapter 11, "Processing ECRs and ECOs," Transferring BOMs and Routings, page 175.

Deleting Engineering Routings

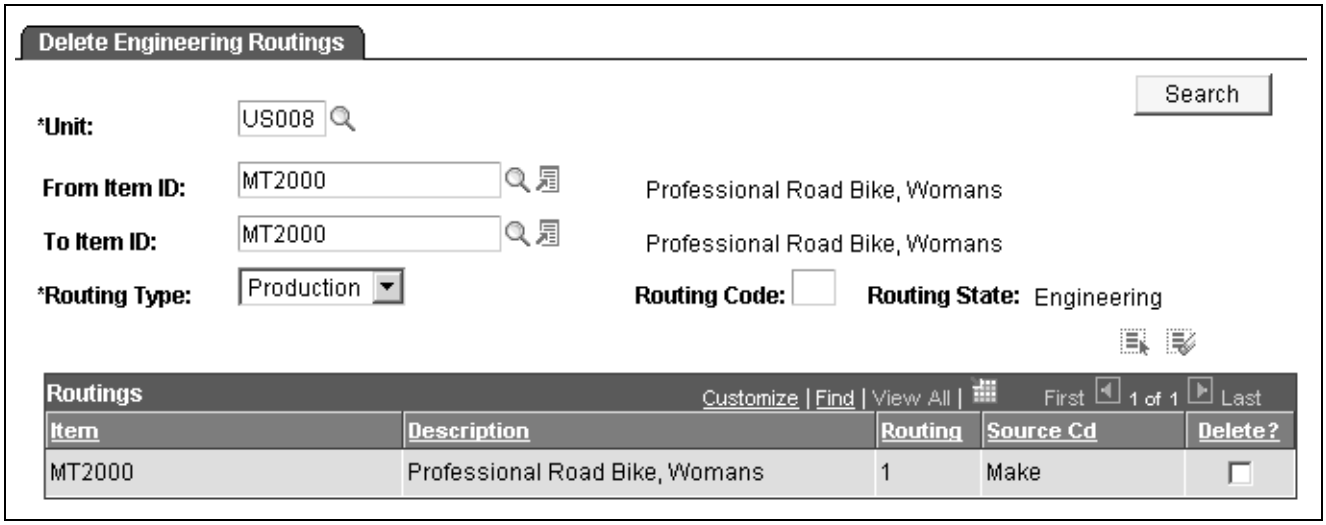
You can also delete engineering routings.

Page Used to Delete Engineering Routings

Page Name	Object Name	Navigation	Usage
Delete Engineering Routings	EG_RTG_DELETE	Engineering, Routings, Delete Engineering Routings, Delete Engineering Routings	Delete routings for a range of items.

Deleting Engineering Routings

Access the Delete Engineering Routings page.



Delete Engineering Routings page

From Item ID, To Item ID, Routing Type, and **Routing Code** Select values for the routing you want to delete.

Search Click to retrieve the selected routings.

Delete? Select this check box for any item whose routing you want to delete. You can also clear the check box for any routings you don't want to delete.

Click the Select All button to select all the Delete? check boxes.

Click the Deselect All button to clear all the Delete? check boxes.

Comparing Engineering Routings

Within the same business unit, you can extensively compare any two engineering routings or compare an engineering routing to a manufacturing routing.

This section discusses how to:

- Select routings for comparison.
- Compare header detail differences.
- Compare operation detail differences.
- Compare operation resource differences.
- Compare operation time differences.

Common Elements Used in This Section

Click the Item Search button to select a different item.

Differences

This field displays the differences between the two routings. If you have made a change to routing operations, you will see the routings listed as *Chg RTG1* and *Chg RTG2*, respectively. The system lists a change when any information differs between two matching operation sequences. Differences include:

- *Added:* An element has been added to the engineering routing (RTG2).
- *Deleted:* An element been deleted from the engineering routing (RTG2).
- *Chg RTG1:* If you have made a change to routing operations for RTG1. The system lists a change when any information differs between two matching operation sequences.
- *Chg RTG2:* If you have made a change to routing operations for RTG2. The system lists a change when any information differs between two matching operation sequences.

Pages Used to Compare Engineering Routings

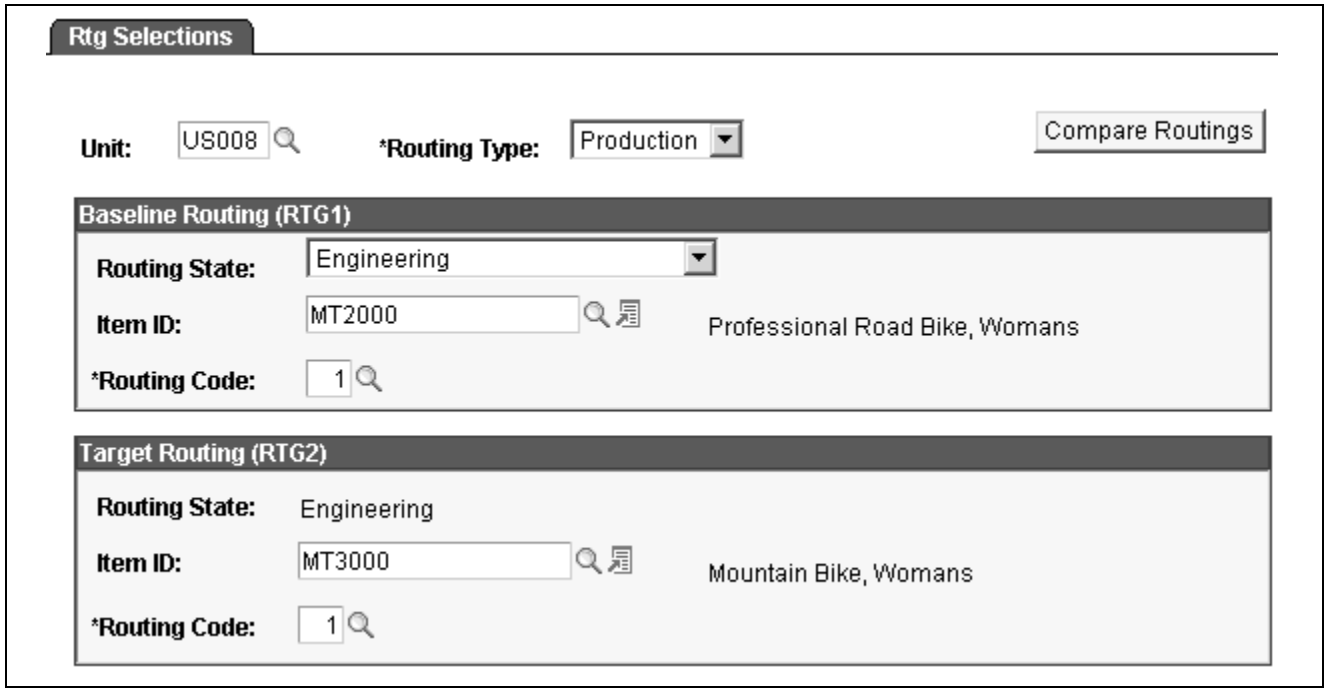
Page Name	Object Name	Navigation	Usage
Routing Comparison - Rtg Selections	EG_RTG_INQ_CMP	Engineering, Routings, Routing Comparison, Rtg Selections	Select the engineering routings you want to compare.
Routing Comparison - Header: Details	EG_RTG_HDR_CMP	Engineering, Routings, Routing Comparison, Header, Detail	Display the routing header data for both routings being compared.
Routing Comparison - Header: Documents inquiry	EG_RTG_HDC_CMP	Engineering, Routings, Routing Comparison, Header, Documents	Compare the header document differences of two routings.
Routing Comparison - Header: Attachments	EG_RTG_HATT_CMP	Engineering, Routings, Routing Comparison, Header, Attachments	Compare the header attachment differences of two routings.
Routing Comparison - Operations: Details	EG_RTG_OPS_CMP	Engineering, Routings, Routing Comparison, Operations, Details	Compare the operation differences of two routings.
Routing Comparison - Operations: Resources	EG_RTG_RSRC_CMP	Engineering, Routings, Routing Comparison, Operations, Resources	Compare the operation resource differences of two routings.
Routing Comparison - Operations: Times	EG_RTG_TIME_CMP	Engineering, Routings, Routing Comparison, Operations, Times	Compare the operation time differences of two routings.
Routing Comparison - Operations: Documents	EG_RTG_OPDC_CMP	Engineering, Routings, Routing Comparison, Operations, Documents	Compare the operation document differences of two routings.
Routing Comparison - Operations: Attachments inquiry	EG_RTG_OPAT_CMP	Engineering, Routings, Routing Comparison, Operations, Attachments	Compare the operation attachment differences of two routings.
Routing Compare Report	RUN_ENS1002	Engineering, Routings, Eng Routing Comparison Report, Routing Compare Report	Use the Routing Compare report (ENS1002) to compare two engineering routings, an engineering routing and a manufacturing routing, or two routings for the same item, based on two routing codes.

See Also

Appendix B, “PeopleSoft Engineering Reports,” ENS1002 - Compare Routings Report, page 217

Selecting Routings for Comparison

Access the Routing Comparison - Rtg Selections page.



Routing Comparison - Rtg Selections inquiry page

Baseline Routing (RTG1)

The Routing State default is *Engineering*, but you can also select *Manufacturing.*

Select an Item ID and a Routing Code for the first routing you're using for this comparison.

Target Routing (RTG2)

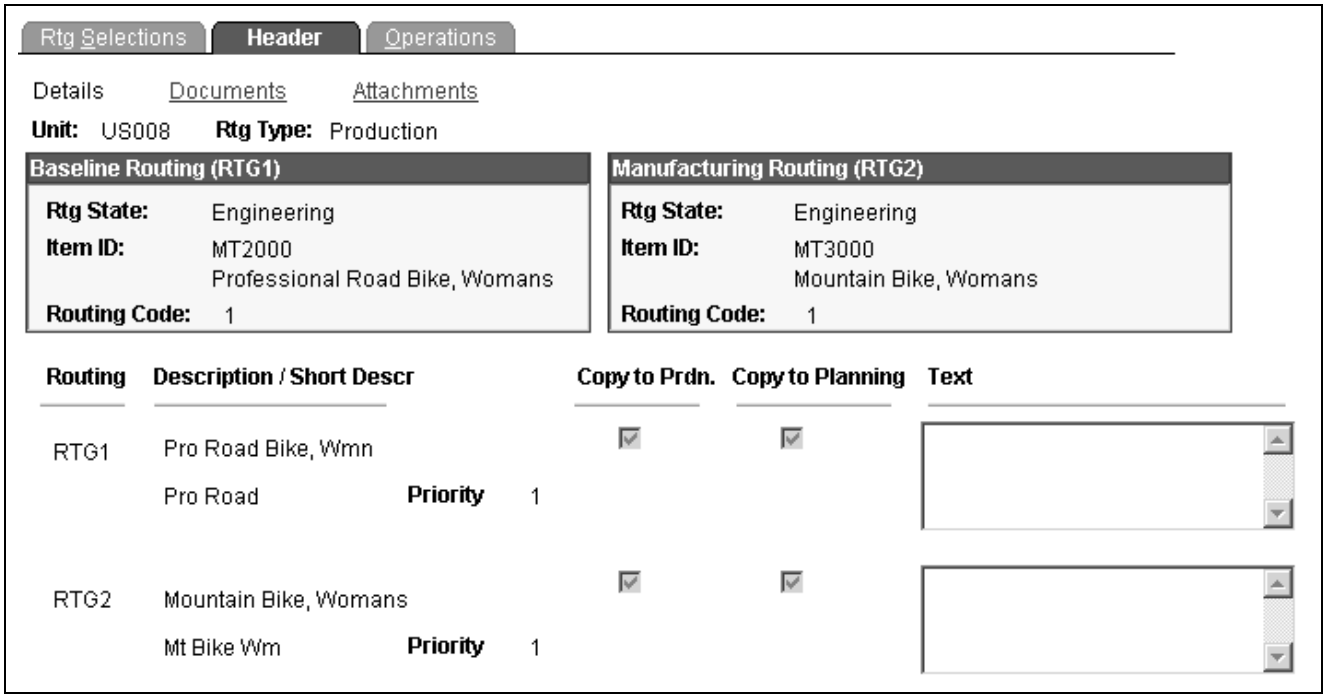
The Routing State default is *Engineering.*

Select an Item ID and a Routing Code for the target routing.

Click the Compare Routings button to display the two routing comparisons.

Comparing Header Detail Differences

Access the Routing Comparison - Header: Details inquiry page.

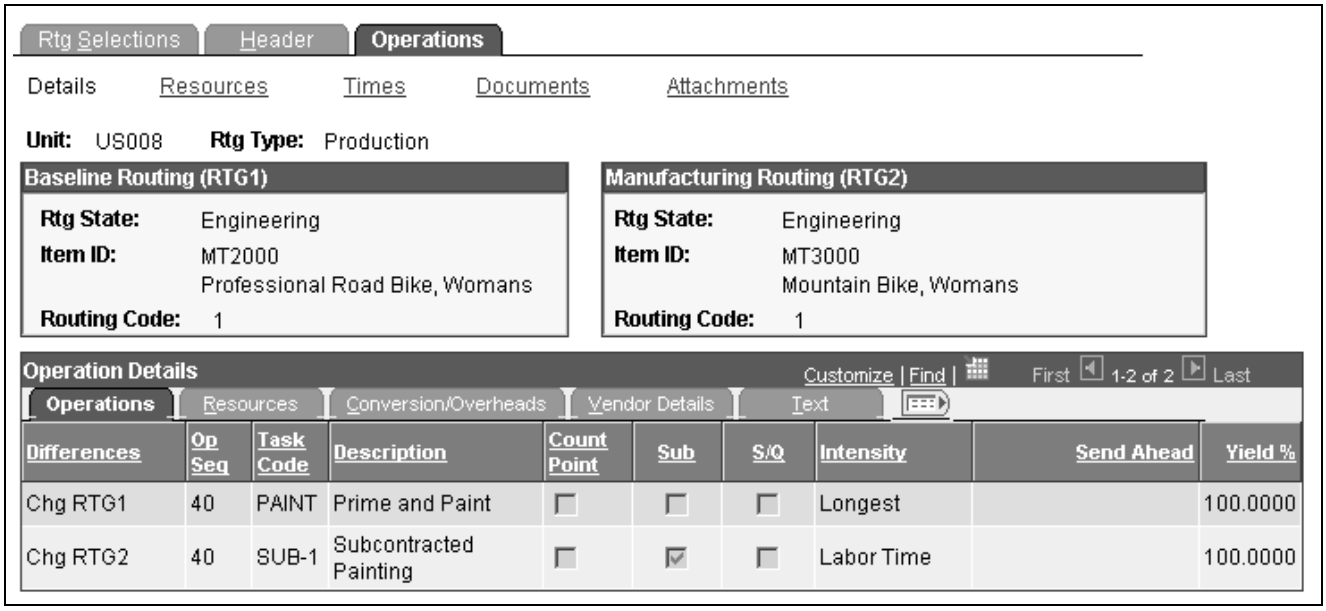


Routing Comparison - Header: Details inquiry page

The system displays the routing header data for both routings, including Routing, Description, Priority, and Text, and whether the routing is to be copied to production or PeopleSoft Supply Planning.

Comparing Operation Detail Differences

Access the Routing Comparison - Operations: Details inquiry page.



Routing Comparison - Operations: Details inquiry page: Operations tab

This page displays any differences in operation sequence, task code, simultaneous setup and queue—not available if PeopleSoft Supply Planning is installed—and other information.

Resources Tab

Select the Resources tab.

The system displays the operation sequence, work center, crew size, and machine resources.

Conversion/Overheads Tab

Select the Conversion/Overheads tab.

The system displays the Op Seq (operation sequence), Conversion Code and Description, as well as the conversion overhead codes (Overhead1, Overhead 2, Overhead 3, and Overhead 4).

Vendor Details Tab

Select the Vendor Details tab.

The system displays the Op Seq (operation sequence), Vendor ID, and Vendor Name: you can access the vendor fields only if the operation is subcontracted.

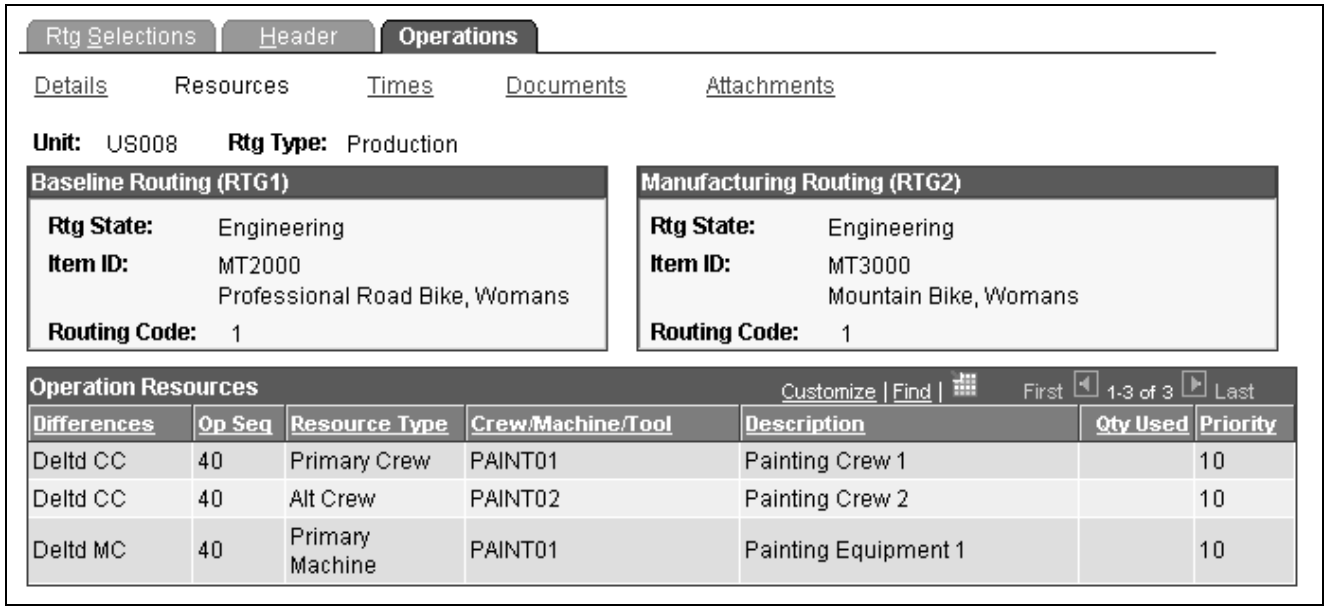
Text Tab

Select the Text tab.

The system displays the Op Seq (operation sequence) and any associated operation text.

Comparing Operation Resource Differences

Access the Routing Comparison - Operations: Resources inquiry page.

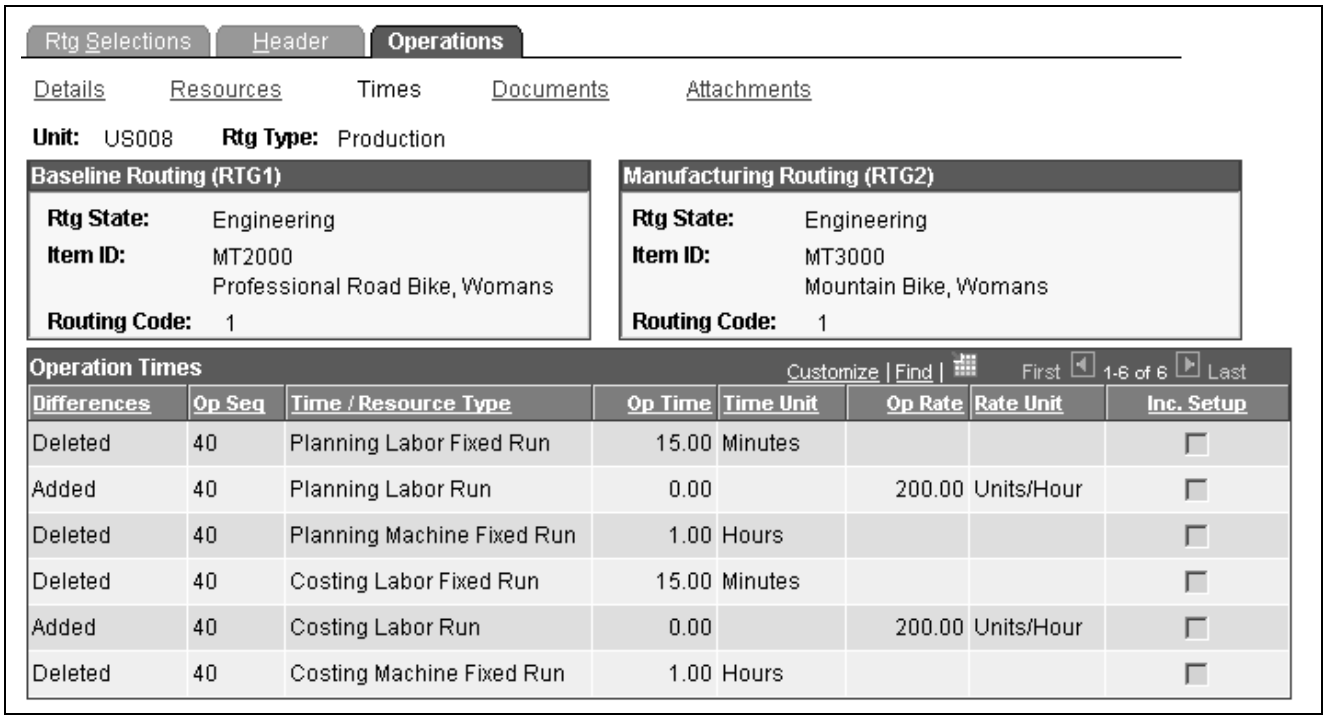


Routing Comparison - Operations: Resources inquiry page

The system displays the Op Seq (operation sequence), Resource Type, Crew/Machine/Tool, Qty Used (quantity used), and Priority.

Comparing Operation Time Differences

Access the Routing Comparison - Operations: Times inquiry page.



Differences	Op Seq	Time / Resource Type	Op Time	Time Unit	Op Rate	Rate Unit	Inc. Setup
Deleted	40	Planning Labor Fixed Run	15.00	Minutes			☐
Added	40	Planning Labor Run	0.00		200.00	Units/Hour	☐
Deleted	40	Planning Machine Fixed Run	1.00	Hours			☐
Deleted	40	Costing Labor Fixed Run	15.00	Minutes			☐
Added	40	Costing Labor Run	0.00		200.00	Units/Hour	☐
Deleted	40	Costing Machine Fixed Run	1.00	Hours			☐

Routing Comparison - Operations: Times inquiry page

The system displays operation Op Seq (operation sequence), Time/Resource Type, Op Time (operation time), Time Unit, Op Rate (operation rate), Rate Unit, and Inc. Setup (includes setup).

CHAPTER 8

Costing Items That Reside Within PeopleSoft Engineering

PeopleSoft Engineering takes full advantage of the functionality available within PeopleSoft Cost Management by defining PeopleSoft Engineering-specific cost versions and related data. You can roll up and calculate the cost of new or changed products, as well as estimate the cost of newly designed manufactured items. When you specify existing items as components on the engineering BOM (EBOM), the system includes their costs, along with any pending item costs, in calculating the cost of the item, based on the EBOM. By calculating costs for different engineering versions, you can compare the engineering cost version to the production cost version. Additionally, you can run cost comparisons between two engineering cost versions. PeopleSoft Engineering also provides a costed EBOM that enables you to analyze costs at all levels of the engineering product structure.

This chapter discusses how to:

- Use PeopleSoft Cost Management functionality to cost items within PeopleSoft Engineering.
- Calculate item costs for items within PeopleSoft Engineering.

Using PeopleSoft Cost Management Functionality to Cost Items Within PeopleSoft Engineering

You can apply all PeopleSoft Cost Management data and processes to calculate the cost of items within PeopleSoft Engineering. These include:

- Using any PeopleSoft Cost Management cost foundation data such as cost types, elements, groups, conversion codes, and conversion overhead codes when determining engineering BOM costs.
- Defining engineering cost versions.
- Defining conversion rates and conversion overhead rates for engineering cost versions.
- Maintaining forecasted and additional item costs that are specific to an engineering cost version.
- Copying cost structures, as well as item costs and rates, between nonengineering and engineering cost versions.
- Rolling up engineering cost versions.
- Viewing item costs generated for engineering versions and comparing regular and engineering cost versions.
- Viewing costed engineering BOMs.

Calculating Item Costs for Items Within PeopleSoft Engineering

PeopleSoft Cost Management uses this information when calculating item costs for items within PeopleSoft Engineering:

- Engineering cost version data.
- Engineering BOMs or manufacturing BOMs, depending on the option that you select.
- Engineering routings or manufacturing routings, depending on the option that you select.

  PeopleSoft Cost Management bases any engineering cost roll-up on a master routing if you have defined them for specific items.

See Also

PeopleSoft Managing Costs 8.8 PeopleBook, "Defining the Cost Foundation for Makeable Items"

CHAPTER 9

Creating Engineering Change Requests (ECRs)

This chapter provides an overview of PeopleSoft Engineering ECRs and discusses how to create and maintain ECRs.

Understanding PeopleSoft Engineering ECRs

To more efficiently manage, organize, and prioritize the product change process within your organization, PeopleSoft Engineering provides ECR functionality. With ECRs you can:

- Report product defects.
- Suggest improvements.
- List items and related affected information.

Note. ECRs are not required within PeopleSoft Engineering. You can use engineering change orders (ECOs) with or without them.

See Also

Chapter 2, "PeopleSoft Engineering Overview," page 3

Prerequisites

To use priority, reason, and action codes, you need to define the codes before using the ECR-related pages. To have the system automatically generate your ECR numbers, set up automatic numbering for ECRs by using the Automatic Numbering page.

You need to define revisions prior to selecting them on the Items Affected or ECR Header pages.

If you will use the embedded document management system to access ECR and ECR item documents, you can define what function buttons will be available on the ECR document management pages by using the Documentum Component Options page.

See Also

Chapter 3, "Structuring PeopleSoft Engineering," Defining Engineering Codes, page 16

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook, "Defining Financials and Supply Chain Management Common Definitions"

Chapter 12, "Managing Documents," page 185

Creating and Maintaining ECRs

This section lists common elements and discusses how to:

- Enter ECR header information.
- (Optional) Assign ECR header reason and action codes.
- Manage ECR attachments.

See Also

Chapter 5, "Making Mass Engineering BOM Changes," Selecting Assemblies by Items Where Used, page 79

Common Element Used in This Section

Where Used Click this link to access the Select Assemblies by Items Where Used page. Use this page to find the item's information needed to populate the Items Affected region of the page.

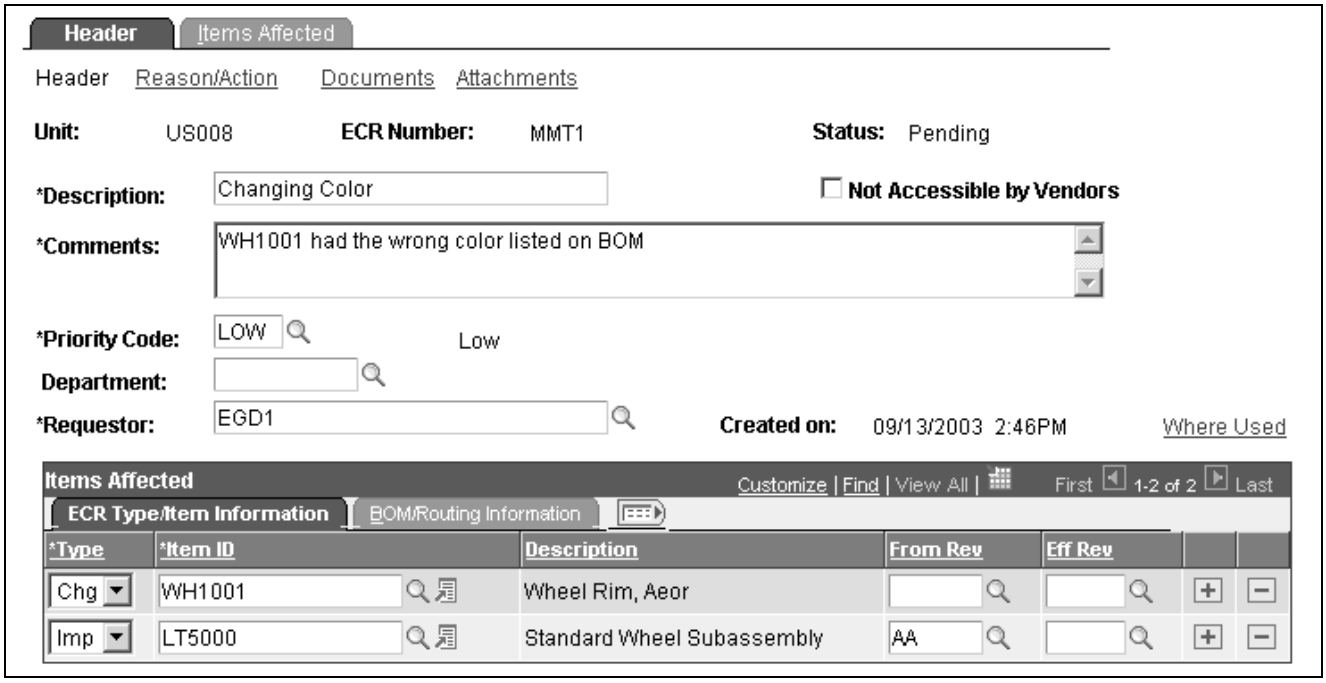
Pages Used to Create and Maintain ECRs

Page Name	Object Name	Navigation	Usage
Header - Header	EG_ECR_HEADER	Engineering, Engineering Changes, Maintain ECRs, Header, Header	Maintain ECR header information including items affected data. For quick entry, this page contains all fields required for the ECR.
Header - Reason/Action	EG_ECR_REASONS	Engineering, Engineering Changes, Maintain ECRs, Header, Reason/Action	(Optional) Associate reason and action codes with an ECR.
Header - Documents	EG_ECR_DC	Engineering, Engineering Changes, Maintain ECRs, Header, Documents	Associate, access, and manage pertinent ECR documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.

Page Name	Object Name	Navigation	Usage
Header - Attachments	EG_ECR_ATT	Engineering, Engineering Changes, Maintain ECRs, Header, Attachments	Attach multimedia objects, or files, that relate directly to the ECR. Once attached, you can view these objects directly from this page.
Items Affected - Detail	EG_ECR_ASSY	Engineering, Engineering Changes, Maintain ECRs, Items Affected, Detail	Associate one or more new, changing, or impacted items to a specific ECR. You can also optionally add or edit revisions and EBOMs. See Chapter 9, "Creating Engineering Change Requests (ECRs)," Entering ECR Header Information, page 145.
Items Affected - Reason/Action	EG_ECR_ASSY_RES	Engineering, Engineering Changes, Maintain ECRs, Items Affected, Reason/Action	(Optional) Associate reason and action codes for each item affected by an ECR.
Items Affected - Document	EG_ECR_ASSY_DC	Engineering, Engineering Changes, Maintain ECRs, Items Affected, Document	Associate, access, and manage pertinent item documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.
Items Affected - Attachment	EG_ECR_ASSY_ATT	Engineering, Engineering Changes, Maintain ECRs, Items Affected, Attachment	Attach multimedia objects, or files, that relate to the affected item. Once attached, you can view these objects directly from this page.
Approve/Convert ECRs	EG_ECR_APPROVAL	Engineering, Engineering Changes, Approve/Convert ECRs, Approve/Convert ECRs	Change the status of an ECR and optionally convert ECRs into ECOs. See Chapter 11, "Processing ECRs and ECOs," page 167.

Entering ECR Header Information

Access the Header - Header page.



Header - Header page: ECR Type/Item Information tab

ECR Number Displays *NEXT,* if this is a new ECR and you are using automatic numbering. You can also manually number the ECR.

Status Displays *Pending,* when you add an ECR. This status represents the overall state of the ECR. Other statuses include*Canceled, Denied, Approved,* and *Converted.*

Not Accessible by Vendors If you are using PeopleSoft Engineering, this check box is available; select it to prevent access to a specific ECR. Therefore, if vendors have been granted access with the BOM Access by Vendor page in PeopleSoft Manufacturing, you can deny them access to a specific ECR.

Priority Code Select the change request's priority code. You define priority codes, which denote an ECR's using the Engineering Priority Codes page.

Requestor and Department Enter a requestor and department responsible for the ECR. Departments are defined in the PeopleSoft General Ledger business unit.

Created on Displays by default the current date and time, when you enter an ECR.

Items Affected

Type Select the type of change. Values are:

- *Chg* (change): The ECR requests a change to an existing item.
- *New*: The ECR requests a new item to be introduced.
- *Imp* (impacts): A changed or new item impacts this item.

  For example, a new or changed component item has an effect on the assembly item.

Item ID Select the changed, impacted, or new item ID. You can specify Make, Buy, Floor Stock, or Expensed items; however, you cannot specify Planning items.

If the request is for a new item ID that does not exist on the Item Definition page, you can enter a placeholder item here. You can associate multiple items with a single ECR.

Note. If you list an impacted item, you must also list the corresponding new or changed item that impacts it.

From Rev (from item revision) Enter the originating revision on which you are basing the change. If the item ID is revision-controlled, then you can access this field. If the item ID is not revision-controlled, this field is display-only.

Note. The from and effective revisions need to be defined with the Revision Maintenance page prior to using them here. You can add multiple ECRs that affect the same item revision.

Eff Rev (effective item revision) Select the new revision that will be in effect after the change is implemented. If the item ID is revision-controlled, you can access this field; otherwise, it is display-only. You must have already defined this revision in the system, and the effective item revision can't have a start date that is prior to the From Rev. After you enter the effective revision, the system displays the start date of the revision in the Eff Date (effective date) field.

If the item isn't revision-controlled, you can enter the effective date for the change. Enter the new effectivity date for which the changes will be in effect.

Both Eff Rev and Eff Date fields are for informational purposes only. If you make changes to the BOM, the component ID effective and obsolete dates or revisions on the BOM should reflect this effective revision or date.

Send Email to Vendors Click this link to send email to vendors.

The email will contain one or two URLs. One URL sends the recipient back to this Maintain ECRs - Header: Header page. A second URL sends the recipient to the Change Request Detail page in PeopleSoft Engineering.

View Email Log Click this link to access the Email Log page, where you can view the entire thread of messages sent regarding the ECR.

Vendor Access List Click this link to access the Vendor Access List page, where you can view the list of vendors that can have access to this ECR information.

BOM/Routing Information Tab

Select the BOM/Routing Information tab.

BOM Chg (BOM change) Select this check box if the item that you selected will need a BOM introduction or will change as a result of the ECR. After the ECR is converted to an ECO, this field (along with the BOM Type and BOM Code fields) is used by the BOM transfer and mass maintenance functionality to transfer BOMs between PeopleSoft Engineering and Manufacturing. When you select BOM

Chg, and you later run the engineering transfer or mass maintenance functions, the system assumes that a BOM is to be transferred or changed.

If you select this check box, the BOM Type and BOM Code fields are available for selection.

If you clear this check box, the BOM Type and BOM Code fields are unavailable for selection, and *Production* appears by default as the BOM type.

BOM Type Select a type. Values are:

- *Production:* Use production BOMs as the basis for manufacturing.
- *Rework:* You can create rework BOMs when you have a standard rework process, where you need to include additional components.

  As with production BOMs, you can define a primary rework BOM and up to 98 alternates, by creating BOM codes.

Rtg Chg (routing change) Select this check box if the item that you selected will need a routing change as a result of the ECR. This field, along with the Routing Type and Routing Code fields, is used by the engineering transfer functionality to transfer routings between PeopleSoft Engineering and PeopleSoft Manufacturing. When you select Rtg Chg, and you later run the engineering transfer function, the system assumes that a routing is to be transferred or changed.

If you select this check box, the Routing Type and Routing Code fields are available for selection.

If you clear this check box, the Routing Type and Routing Code fields are unavailable for selection, and *Production* appears by default as the routing type.

Routing Type Select a type. Values are:

- *Production:* Default routing type.

  Production routings can be used for standard manufacturing processes.
- *Rework:* You can create rework routings when you have a standard rework process.

  Rework routings list routing steps that are commonly used, when reworking an assembly.
- *Teardown:* The Teardown routing is used when you are breaking an assembly down into its component parts and returning the components back to inventory.

  Teardown routings can differ from the production routing, but can utilize any of the existing tasks or work centers defined for production.

If you enter a value in the BOM Code or Routing Code field, you are indicating that the codes associated with the item ID are impacted by the ECO. If either of those fields is left blank, you are indicating that all BOM or routing codes for the item ID are impacted. If the BOM Chg check box is selected, this indicates that one or more BOMs for the item is impacted by the ECR and the BOM Code field becomes available. Likewise, if the Rtg Chg check box is selected, this indicates that one or more routings for the item is impacted by the ECR, and the Routing Code field becomes available.

If the item's routing is a master (or reference) routing that is currently used by another item, then the Mst Rtg (master routing) display-only check box is selected.

Note. You can, at the business unit level, control whether ECR workflow is enabled. By selecting the appropriate check boxes, you control whether the system will send ECR workflow notification. If you have enabled workflow for ECR processing, then as you add ECRs, the system creates a workflow notification, with a status of *Pending*, for the designated ECR/ECO analyst. The ECR/ECO analyst can then choose to approve or reject the request.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

Appendix A, "Delivered Workflows for PeopleSoft Engineering," page 209

Assigning ECR Header Reason and Action Codes

Access the Header - Reason/Action page.

Reason Code and **Action Code**	Select values for these fields. Reason codes reflect why the change is required. Action codes are based on engineering codes and represent the foreseen potential impact of the request. You can add unlimited reason and action codes.
Text	Enter additional reason and action codes.

Note. These reasons and actions apply to the overall ECR and are not item-specific.

See Also

Chapter 3, "Structuring PeopleSoft Engineering," Defining Engineering Codes, page 16

Managing ECR Attachments

Access the Header - Attachments page.

File Ext (file extension)	Select the type of media that you want to attach. You set up file extensions using the File Locations page.
Document ID and **Description**	Enter the file name and description of the multimedia file that you're attaching.

Note. Attachments have no integration or relation to the embedded document management functionality. They are most useful if you aren't using the document management functionality.

CHAPTER 10

Creating Engineering Change Orders (ECOs)

This chapter provides an overview of PeopleSoft Engineering ECOs and discusses how to create and maintain ECOs.

Understanding PeopleSoft Engineering ECOs

An engineering department needs to manage and document required item changes efficiently. You can use ECOs to manage the various activities required to implement multiple types of engineering changes. PeopleSoft Engineering ECOs enable you to manage and document item additions and BOM changes by giving you the ability to list items and associated information. You can also generate a report containing pertinent ECO information.

See Also

Chapter 2, “PeopleSoft Engineering Overview,” page 3

Prerequisites

To use priority, reason, classification, and action codes when you maintain ECOs, you need to define the codes before you begin using the ECO-related pages. To have the system automatically generate your engineering change request (ECR) or ECO numbers, set up automatic numbering for ECRs and ECOs by using the Automatic Numbering page in the Set Up Financials/Supply Chain, Common Definitions navigation.

You need to define revisions prior to selecting them on the Items Affected or ECO Header pages. Or, if you are going to automatically increment revisions by using the BOM Mass Maintenance process, you need to define the revision scheme prior to running the BOM Mass Maintenance process.

You also need to create ECO approval types and their associated activity codes to employ engineering ECO types and ECO activities.

To attach mass maintenance codes to ECOs, it’s simplest if you have already defined mass maintenance codes with the BOM Mass Maintenance Code component. You could, however, create the ECO first, then create the mass maintenance code, and, as a final step, update the ECO with the mass maintenance code.

If you plan to use the embedded document management system to access ECO and ECO item documents, you can define what function buttons are available on the ECO document management pages by using the Documentum Component Options page.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Defining Your Business Unit Structure," Setting Up Manufacturing Business Unit Production Options

Chapter 12, "Managing Documents," page 185

Creating and Maintaining ECOs

With PeopleSoft Engineering, you can efficiently create and maintain ECOs, including the definition of top-level information and items affected, as well as workflow data.

This section lists common elements and discusses how to:

- Enter ECO header information.
- (Optional) Assign ECO reason and action codes.
- Manage header attachments.
- Review statuses.
- Maintain ECO workflow.
- View approval information data.

Common Elements Used in This Section

Status Represents the overall state of the ECO. Values include: *Pending, Canceled, Denied, Approved,* and *Released.*

You can change the overall status of the ECO with the Approve ECOs page.

When you add an ECO, the system sets the status to *Pending.*

Note. You must set this status to *Approved* before engineering BOMs can be transferred to manufacturing.

Type Select the type of change. Values are:

- *Chg* (change): The ECO makes a change to an existing item.
- *New:* The ECO introduces a new item.
- *Imp* (impacts): A changed or new item impacts this item (for example, a new or changed component item has an effect on the assembly item to which it reports).

  You can run the where-used inquiry by clicking the Search button, to determine the assembly items impacted by the new or changed component.

Click the View Related Links button in the Item ID column to access any one of these pages:

- Add Rev: Click this link to access the Revision Maintenance page to add a new revision for an item that has no revisions.
- Edit Rev: Click this link to access the REV Maintenance page to edit an existing revision for the item.
- Add Engineering BOM: Click this link to access the EBOM Maintenance page to add a new engineering BOM for the item.
- Edit Engineering BOM: Click this link to access the EBOM Maintenance page to edit an existing engineering BOM for the item.
- Add Manufacturing BOM: Click this link to access the BOM Summary page to add a new manufacturing BOM for the item.
- Edit Manufacturing BOM: Click this link to access the BOM Summary page to edit an existing manufacturing BOM for the item.
- Add Engineering Rtg: Click this link to access the Engineering Routing Summary page to add a new engineering routing for the item.
- Edit Engineering Rtg: Click this link to access the Engineering Routing Summary page to edit an existing engineering routing for the item.
- Add Manufacturing Rtg: Click this link to access the Routing Summary page to add a new manufacturing routing for the item.
- Edit Manufacturing Rtg: Click this link to access the Routing Summary page to edit an existing manufacturing routing for the item.
- Item Search: Click this link to access the Item Search Criteria page and select a different item.
- Master Rtg Where Used: Click this link to access the Master Routing Where Used Inquiry page to display master routing where used information.

  If the item's routing is a master (or reference) routing currently being used by another item, this link is available.

BOM Type Select a type. Values are:

- *Production:* Use production BOMs as the basis for manufacturing assemblies.
- *Rework:* You can create rework BOMs when you have a standard rework process, where you need to include additional components.

  As with production BOMs, you can define a primary rework BOM and up to 98 alternates, by creating BOM codes.

Routing Type Select a type. Values are:

- *Production:* Default routing type.

  Production routings can be used for standard manufacturing processes.
- *Rework:* You can create rework routings when you have a standard rework process.

  Rework routings list routing steps that are commonly used, when reworking an assembly.

- *Teardown:* The Teardown routing is used when you are breaking an assembly down into its component parts and returning the components back to inventory.

  Teardown routings can differ from the production routing, but can utilize any of the existing tasks or work centers defined for production.

Click the Attachments button to launch the multimedia object attached to the ECO.

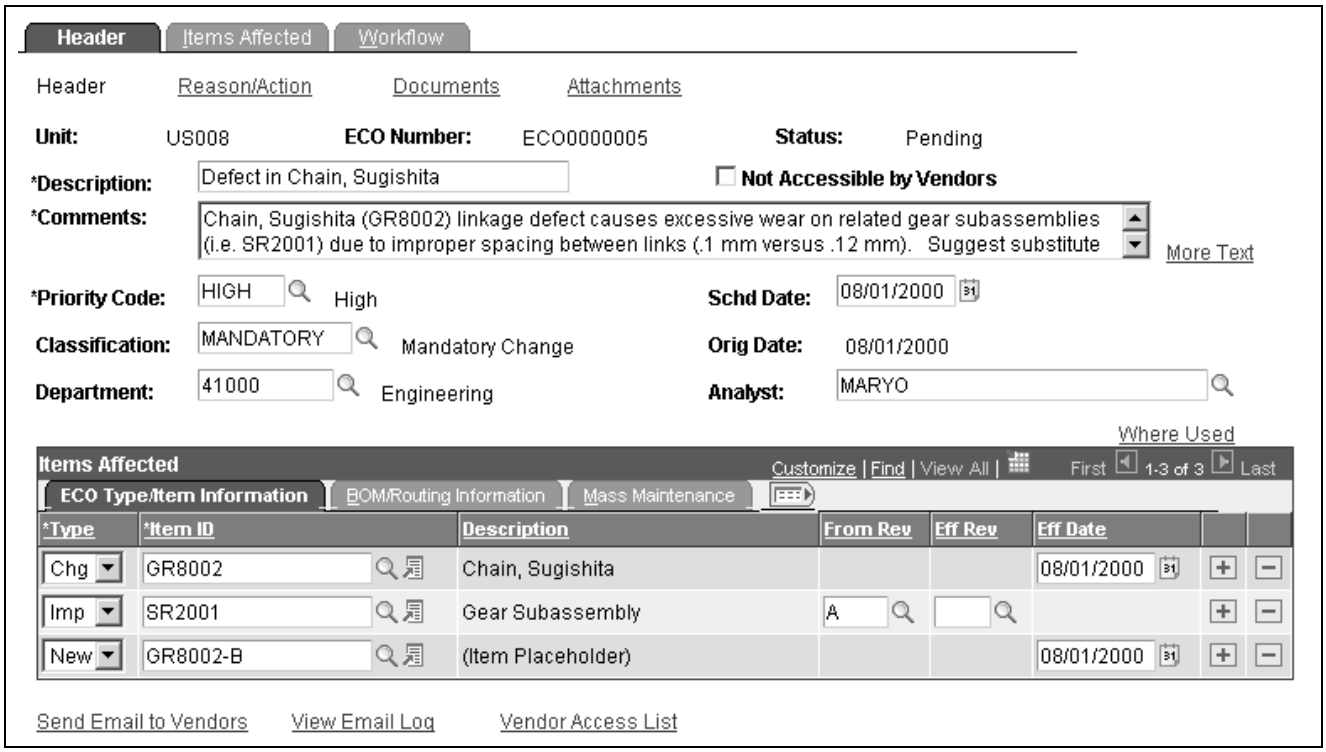
Pages Used to Create and Maintain ECOs

Page Name	Object Name	Navigation	Usage
Approve/Convert ECRs	EG_ECR_APPROVAL	Engineering, Engineering Changes, Approve/Convert ECRs, Approve/Convert ECRs	Change the status of an ECR, and optionally convert ECRs into ECOs. See Chapter 11, "Processing ECRs and ECOs," page 167.
Maintain ECOs - Header: Header	EG_ECO_HEADER	Engineering, Engineering Changes, Maintain ECOs, Header, Header	Maintain ECO header information including items affected data. For quick entry, this page contains all the fields required on the ECO.
Email Log	EG_SS_EMAIL_LOG	Engineering, Engineering Changes, Maintain ECOs, Header, Header Click the View Email Log link.	View the thread of messages for a particular ECO. If this page is blank, no emails have been sent regarding this ECO.
Vendor Access List	EG_SS_ECOVND_LST	Engineering, Engineering Changes, Maintain ECOs, Header, Header Click the Vendor Access List link.	View a list of vendors that can have access to this ECO.
Header: Reason/Action	EG_ECO_REASONS	Engineering, Engineering Changes, Maintain ECOs, Header, Reason/Action	(Optional) Associate reason and action codes with an ECO.
Maintain ECOs - Header: Documents	EG_ECO_DC	Engineering, Engineering Changes, Maintain ECOs, Header, Documents	Associate, access, and manage pertinent ECO documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.
Header: Attachments,	EG_ECO_ATT	Engineering, Engineering Changes, Maintain ECOs, Header, Attachments	Attach multimedia objects, or files, that relate directly to the ECO. Once attached, you can view these objects directly from this page.

Page Name	Object Name	Navigation	Usage
Items Affected: Detail	EG_ECO_ASSY	Engineering, Engineering Changes, Maintain ECOs, Items Affected, Detail	• Associate one or more new, changing, or impacted items to a specific ECO. • Optionally add or edit revisions and EBOMs. • Select an ECO default mass maintenance code. • Define automatic revisions to be generated for parent assemblies.
Items Affected: Reason/Action	EG_ECO_ASSY_RES	Engineering, Engineering Changes, Maintain ECOs, Items Affected, Reason/Action	(Optional) Associate reason and action codes for each item affected by an ECO. See Chapter 10, "Creating Engineering Change Orders (ECOs)," Entering ECO Header Information, page 156.
Maintain ECOs - Items Affected: Document	EG_ECO_ASSY_DC	Engineering, Engineering Changes, Maintain ECOs, Items Affected, Document	Associate, access, and manage pertinent item documents in the embedded document management system. See Chapter 12, "Managing Documents," page 185.
Maintain ECOs - Items Affected: Attachments	EG_ECO_ASSY_ATT	Engineering, Engineering Changes, Maintain ECOs, Items Affected, Attachment	Attach multimedia objects, or files, that relate to the affected item. Once attached, you can view these objects directly from this page.
Items Affected: Status	EG_ECO_ASSY_SCHD	Engineering, Engineering Changes, Maintain ECOs, Items Affected, Status	Review the engineering BOM and production release status for each item affected, as well as activate an ECO pending alert button on several related pages.
Workflow	EG_ECO_ROUTINGS	Engineering, Engineering Changes, Maintain ECOs, Workflow	Assign the ECO type, submit the ECO to workflow, define the ECO requestor, and associate related ECRs and ECOs.
Approval	EG_IC_ECO_REVIEW	Engineering, Engineering Changes, Maintain ECOs, Approval	Enter ECO approval information data and approve individual ECO workflow steps.
ECO Report	EG_ECO_REPORT	Engineering, Engineering Changes, ECO Report	Generate an ECO report (EGS1000).

Entering ECO Header Information

Access the Header - Header page.



Header: Header page: ECO Type/Item Information tab

ECO Number — Displays *NEXT,* if this is a new ECO and you are using automatic numbering.

Status — Displays *Pending,* when you add an ECR. This status represents the overall state of the ECR. Other statuses include *Canceled, Denied, Approved,* and *Converted.*

Description, Comments, Priority Code, and **Department** — Displays default values from the ECR, if the ECO was converted from an ECR. Otherwise, you must enter the information.

Not Accessible by Vendors — Select to block access to a specific ECO. Therefore, even if vendors have been granted access with the BOM Access by Vendor page in PeopleSoft Manufacturing, you can deny them access to a specific ECO.

Department — Select or change the department responsible for the ECO. Departments are defined in the PeopleSoft General Ledger business unit.

Schd Date (scheduled release date) — Enter a date to identify when the ECO is scheduled to be released to manufacturing. This date does not represent the scheduled effectivity dates or revisions for the assemblies being changed. When you run the BOM Mass Maintenance process to automatically create new revisions, the scheduled release date is the effective date of any created revisions.

Orig Date (original release date) — Displays the original ECO scheduled date. This field is display only; the system sets it the first time that you save the ECO.

Where Used Click this link to access the Select Assemblies by Items Where Used page, where you can find the item information that you need to populate the Items Affected region of the page.

Items Affected

Type Select the type of change.

Item ID Select the changed, impacted, or new item ID. You can specify Make, Buy, Floor Stock, or Expensed items; however, you cannot specify PeopleSoft Supply Planning items.

If the request is for a new item ID that doesn't yet exist on the Item Definition page, enter a placeholder item here.

Note. If you list an impacted item, you must also list the corresponding new or changed item that impacts it. You can associate multiple items with a single ECO.

From Rev (from item revision) Enter the originating revision on which you are basing the change. If the item ID is revision-controlled, then you can access this field. If the item ID is not revision-controlled, this field is display-only. You can add multiple ECOs that affect the same item revision.

Note. The from and effective revisions need to be defined with the Revision Maintenance page prior to using them here.

Eff Rev (effective item revision) Select the new revision that is in effect after the change is implemented. If the item ID is revision-controlled, you can access this field; otherwise, it is display-only. You must have already defined this revision in the system, and the effective item revision can't have a start date that is prior to the From item revision. After you enter the effective revision, the system displays the start date of the revision in the Eff Date (effective date) field.

If the item is not revision-controlled, you can enter the effective date for the change. Enter the new effectivity date for which the changes are in effect.

Both Eff Rev and Eff Date fields are for informational purposes only. If you make changes to the BOM, the component ID effective and obsolete dates and revisions on the BOM should reflect this effective revision or date.

Send Email to Vendors Click to send email to vendors, if you have enabled external access to suppliers for PeopleSoft Engineering information.

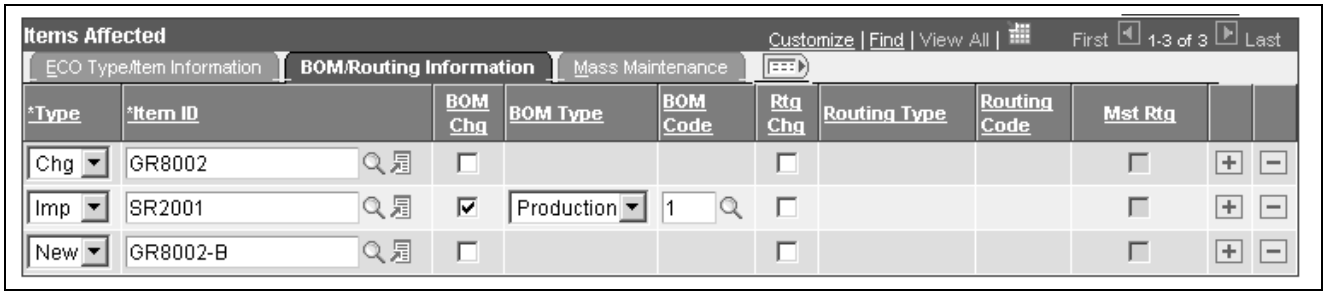
The email contains one or two URLs. One URL sends the recipient back to the Header: Header page. A second URL sends the recipient to the Change Order Detail page.

View Email Log Click to access the Email Log page, where you can view the entire thread of messages sent regarding the ECO.

Vendor Access List Click to access the Vendor Access List page, where you can view the list of vendors that can have access to this ECO information.

BOM/Routing Information Tab

Select the BOM/Routing Information tab.



BOM/Routing Information tab

BOM Chg (BOM change) Select if the item that you selected will need a BOM change as a result of the ECO. This field, along with the BOM Type and BOM Code fields, is used by the BOM transfer and mass maintenance functionality to transfer BOMs between PeopleSoft Engineering and PeopleSoft Manufacturing. When you select BOM Chg, and you later run the engineering transfer or mass maintenance functions, the system assumes that a BOM is to be transferred or changed.

If you select this check box, the BOM Type and BOM Code fields are available for selection.

If you clear this check box, the BOM Type and BOM Code fields are unavailable for selection, and *Production* appears by default as the BOM type.

Rtg Chg (routing change) Select if the item that you selected will need a routing change as a result of the ECO. This field, along with the Routing Type and Routing Code fields, is used by the engineering transfer functionality to transfer routings between PeopleSoft Engineering and PeopleSoft Manufacturing. When you select Rtg Chg, and you later run the engineering transfer function, the system assumes that a routing is to be transferred or changed.

If you select this check box, the Routing Type and Routing Code fields are available for selection.

If you clear this check box, the Routing Type and Routing Code fields are unavailable for selection, and *Production* appears by default as the routing type.

Mst Rtg (master routing) Selected if the item's routing is a master (or reference) routing that is currently used by another item; this check box is display-only.

If you enter a value in the BOM Code or Routing Code field, you are indicating that the codes associated with the item ID are impacted by the ECO. If either field is left blank, you are indicating that all BOM and routing codes for the item ID are impacted. If the BOM Chg check box is selected, this indicates that one or more BOMs for the item is impacted by the ECO, and the BOM Code field becomes available. Likewise, if the Rtg Chg check box is selected, this indicates that one or more routings for the item is impacted by the ECO, and the Routing Code field becomes available.

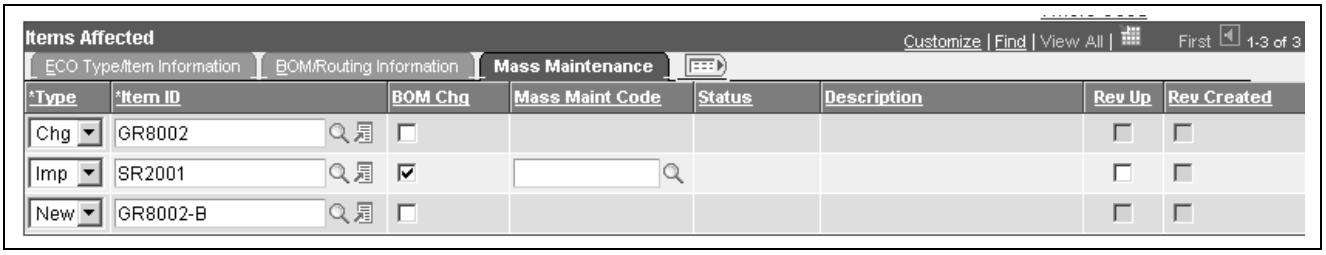
Indicating BOM and routing changes on the ECO has this impact in PeopleSoft Engineering:

- Engineering transfers use this information to transfer and validate specified BOMs or routings to and from PeopleSoft Engineering.
- The mass maintenance code is applied to all BOM codes specified when run (when mass maintenance is specified for the item ID).
- If you run the Mass Maintenance process combined with the auto revision feature, new revisions are created for the BOM items.

  In addition, new BOM components are introduced to the BOMs effective for the new automatic revisions.

Mass Maintenance Tab

Select the Mass Maintenance tab.



Maintaining mass maintenance information for the ECO

When an ECO is impacting several BOMs (for example phasing out a component and adding a revised component), you can implement the actual BOM changes by listing the impacted assemblies on the ECO and associating a Mass Maintenance Code (MMC). This code specifies the details of the change. This tab enables you to associate the MMC with the impacted assemblies. After saving this information on the ECO, you can use Mass Maintenance by ECO to implement changes to the BOMs.

Mass Maint Code (mass maintenance code) Select the code that will be the ECO default MMC. You can then use this default or select a different MMC for the ECO-affected items displayed. The MMC status appears as a display-only field.

Note. You can specify an MMC for an item only if you select the BOM Chg check box. You can change the MMC for an item at any time, except when the status for the MMC is *Success.*

Click the View Related Links button in the Mass Maint Code column to access one of these links:

Add Mass Maintenance Code: Click this link to access the BOM Mass Maintenance page to add a new mass maintenance code.

Update Mass Maintenance Code: Click this link to access the BOM Mass Maintenance page to update an existing mass maintenance code.

Rev Up (automatic revisions) Selected by default if the associated MMC is set to use automatic revision and if the associated affected item is both revision-controlled and set to automatic revisions.

You can select this check box to manually automatically revision the item, if the item is set up to automatically increment the revision and the MMC is blank or the MMC used does not specify automatic revision. If you decide to automatically increment the revision for the item, then select this check

box, and run the BOM Mass Maintenance by ECO process for the ECO in order to complete the automatic revisioning for the item.

You can also use this check box to automatically increment the revisions of higher-level assemblies. If you set Type to *Imp* (impacted), and the item is defined to use revision-controlled and automatic revisions, you can select Rev Up to indicate that this item's BOM is to be automatically incremented to the next revision when the mass maintenance by ECO process is run.

Note. The Rev Up feature cannot be run with the mass maintenance by MMC process nor can it be run within PeopleSoft Manufacturing.

Click the Look Up Mass Maintenance Code button to find additional parent assemblies in which to automatically create revisions.

Rev Created (automatic revision created)

This check box indicates that the BOM Mass Maintenance by ECO process has been run for this ECO and the revision has been successfully created. This field is always display-only.

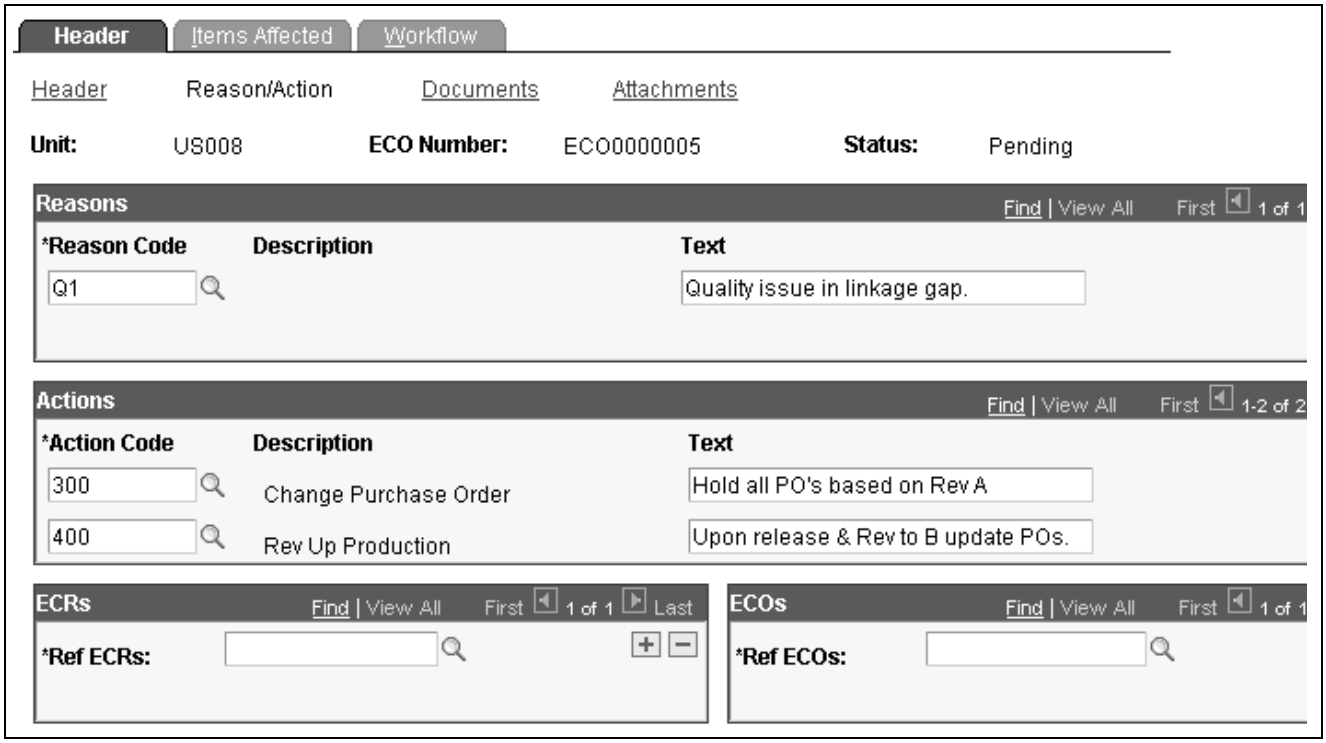
See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

Chapter 5, "Making Mass Engineering BOM Changes," page 55

Assigning ECO Reason and Action Codes

Access the Header − Reason/Action page.



Header - Reason/Action page

Reason Code and **Action Code**
Select reason codes and action codes. Reason codes reflect why a change is required. Action codes are based on engineering codes and represent the foreseen potential impact of the request. You can add unlimited reason and action codes.

Text
Enter additional reason and action codes.

Note. These reasons and actions apply to the overall ECO and are not item-specific.

Ref ECRs (reference ECRs) and **Ref ECOs** (reference ECOs)
Link an ECO to one or more existing ECRs or ECOs.

If the ECO was originally converted from an ECR, the system automatically populates the Ref ECRs field with the original ECR from which it was converted.

See Also

Chapter 3, "Structuring PeopleSoft Engineering," Defining Engineering Codes, page 16

Managing Header Attachments

Access the Header - Attachments page.

File Ext (file extension)
Select the type of media that you want to attach. You set up file extensions by using the File Locations page.

Document ID and **Description**
Enter the file name and description of the multimedia file that you're attaching.

Note. Attachments have no integration or relation to the embedded document management functionality. They are most useful if you aren't using the document management functionality.

Reviewing Statuses

Access the Items Affected: Status page.

Engineering BOM Exists
In the Engineering BOM Status group box, this check box is display-only. The system selects it if an engineering BOM currently exists for the item ID and BOM code combination.

User ID and Copy Date/Time
Displays the user ID and the date and time of copy, if the BOM was copied into engineering. If you specified a BOM code for this item's BOM, then the copy information refers to that particular BOM code. If the BOM code is blank, then the copy information refers to the last BOM code that was copied to engineering.

Engineering Routing Exists
In the Engineering Routing Status group box, this check box is display-only. The system selects it if an engineering routing currently exists for the item ID and routing code combination.

User ID and Copy Date/Time Displays the user ID and the date and time of copy, if the routing was copied into engineering. If you specified a routing code for this item's routing, then the copy information refers to that particular routing code. If the routing code is blank, then the copy information refers to the last routing code that was copied to engineering.

Release Date Enter the release date. The release date is the scheduled release date of the item ID and BOM and routing changes to production, by using the Approve ECO page, the engineering transfer process, or the BOM mass maintenance process.

Note. Today's date initially appears by default as the release date. It can be modified until the BOM, routing, or both are released by using the Engineering Transfers process, at which time the Release Date field is updated with the actual transfer date and becomes unavailable for input.

Release Status Select the production release status. Values are:

- *Canceled:* The new or changed item was never implemented, and revised items are canceled.
- *Pending:* The new or change item is in the approval process and is pending release.
- *Released:* The new or changed item is released from the responsible ECO/engineering department and has been implemented.

  If the BOM or Rtg check box is selected for the item, the system sets the status to *Released,* when you transfer an EBOM or engineering routing to manufacturing by using the Engineering Transfers pages. In this case, you can't set the status to *Released* manually. If the BOM and Rtg check boxes aren't selected, you can enter the release status.

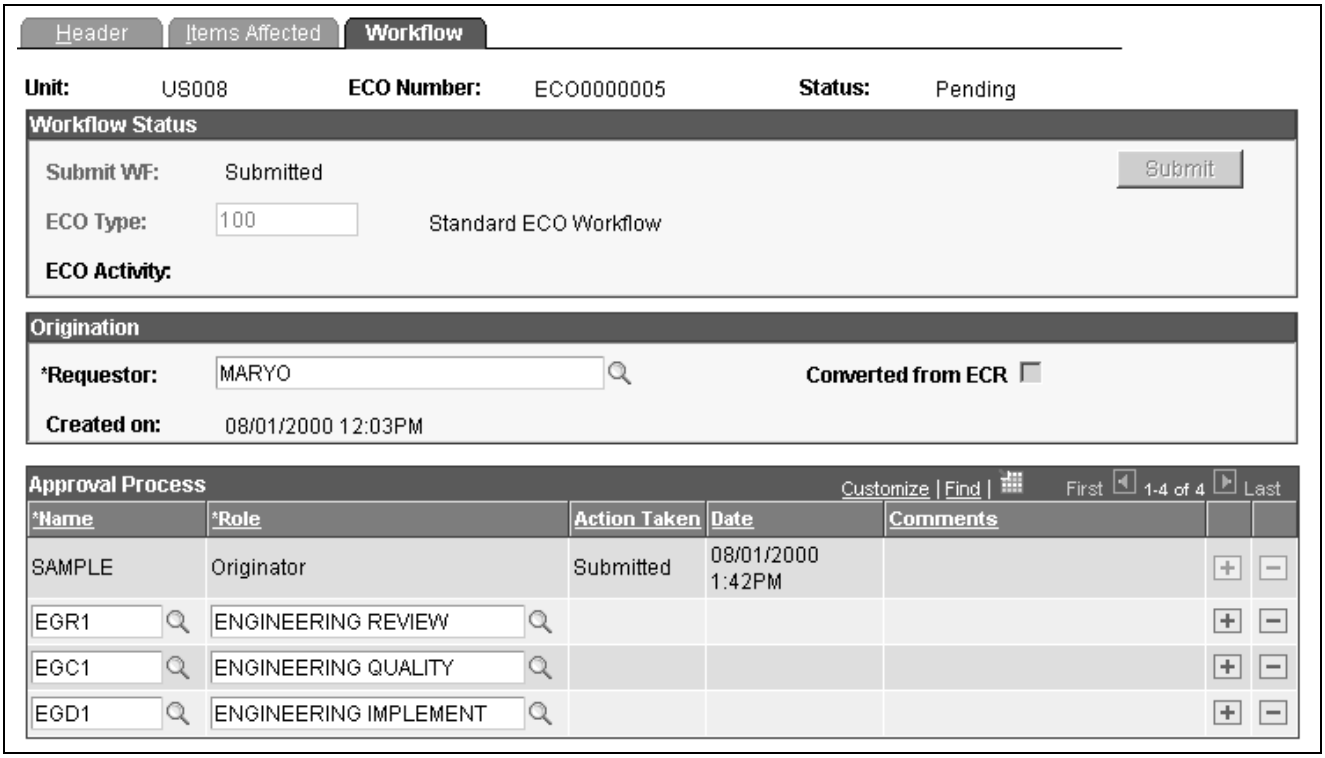
Orig Date (original date) Displays the original release date for the ECO item.

ECO Pending Alert Select to make pending ECOs visible within EBOM, MBOM, item revision, and routing maintenance pages.

When you select the ECO Pending Alert check box, the ECO button appears on these pages when information (such as item revisions) is maintained for the item with an ECO against it. When you click the ECO button, you can display the pending ECO, effective revision for the change, and associated text describing the change. Once the ECO is released, the ECO button no longer appears.

Maintaining the ECO Workflow

Access the Workflow page.



ECO Maintenance - Workflow page

ECO Type (ECO approval type)

You can optionally associate the ECO with an ECO type. When you specify an ECO type, the ECO Activity field displays the first sequence and ECO activity, as defined within that ECO type. ECO approval types enable you to associate the ECO with a sequential routing of activities through which the ECO must move and which must be promoted prior to its completion. To promote or demote ECO activities, use the Promote ECO Activity page. You can use this feature independently of workflow.

If workflow has been enabled with the Engineering Options page, and the ECO type has a business process and approval rule set associated with it, then the ECO can be routed through steps defined within the approval rule set so that role users can approve, deny, or recycle an ECO. When the ECO is routed within workflow, the current activity appears. These role users access ECO approval processing by way of the worklist.

Note. You can't change the ECO Type field once the ECO has been submitted to workflow.

Submit

If workflow has been enabled with the Engineering Options page, and the ECO type has a business process and approval rule set associated with it, you can click this button (which also saves the ECO) to initiate workflow approval processing as defined for the ECO type that you specified. Once workflow has been initiated, the system displays *Submitted* in the Submit WF (submit workflow) field, and the field is unavailable. If the workflow has been submitted, a list of users and related roles to which the workflow is submitted appears in the Approval Process scroll area. The list of users is originally derived from the ECO type and approval rule

set associated with it. Once created, this list can be modified to include or exclude additional users for this particular ECO. As long as you don't click the Submit button, workflow won't be initiated. If workflow hasn't been enabled, this field is unavailable for selection.

Requestor Enter the name of the requestor in the Origination group box. The value of this field appears by default from an associated ECR if converting an ECR created the ECO.

Converted from ECR and Created on If the ECO was created from a converted ECR, then this display-only check box is selected and the created on time stamp displays the time that the ECR was converted to an ECO. If the ECO wasn't converted from an ECR, then the created on time stamp displays the current time by default and is display only.

After an ECO is submitted for workflow, the list of approvers is determined and displayed in the Approval Process group box. The person who submits the ECO for workflow processing is listed as the originator. You can add or delete approvers from the workflow Approval Process as long as the person has not yet approved the workflow entry for the ECO. Once the approver has taken an action, all the fields are unavailable for selection. When a new approver is added, the step for the new approver is set at the next step by the system. For example, if AMS2 is at step 2, and the Add button is clicked, the new approver is added with step 3. This means that the new approver is notified when all approvers at step 2 have approved the ECO.

When a workflow approver approves an ECO, the approver in the next step is notified with an email or worklist entry. The method by which each approver is notified depends on the workflow rules set up using the Workflow System Rules page. If an approver denies or recycles an ECO, then the approver in the previous step is notified, and the action taken is reset to *Pending.*

See Also

Chapter 3, "Structuring PeopleSoft Engineering," page 13

Appendix A, "Delivered Workflows for PeopleSoft Engineering," page 209

Viewing Approval Information Data

Access the Maintain ECOs - Approval page.

For multiple step approval, the Maintain ECOs - Approval page is visible only if all of these statements are true:

- The current user is the current approver in the list of approvers, as displayed in the Approval Process group box on the Maintain ECOs - Workflow page.
- The action is not *Approved.*
- All approvers at the previous steps have already approved the prior ECO workflow approval status.

For single-step approval, the Approval page is visible if the current user is in the list of approvers and the approval action is not set to *Approved.*

You need to grant privileges to ECO approvers for these objects:

- On the Permission Lists - Pages page, you need to add WORKLIST.

  The approver uses this to access ECOs that need to be reviewed.
- On the Permission Lists - Component Interface page, you need to add WORKLISTENTRY.

This component interface is used to mark an ECO as worked after the ECO is reviewed or approved.

See Also

Chapter 3, “Structuring PeopleSoft Engineering,” Setting Engineering Options, page 13

CHAPTER 11

Processing ECRs and ECOs

This chapter provides an overview of ECR and ECO processing and discusses how to:

- Approve and convert ECRs.
- Promote ECO activities.
- Approve ECOs.
- View approved, denied, and recycled ECO activities.
- Transfer BOMs and routings.
- Make mass BOM changes by ECO and automatically create new item revisions by ECO.

Understanding ECR and ECO Processing

The complexity of your change processes determines which, if any, of these process steps you need to take. Processing and transferring steps for PeopleSoft Engineering include:

- Approving ECRs and converting them to ECOs.
- Approving and promoting ECOs through their sequence of ECO activities.
- Approving ECOs.
- Displaying approved, denied, and recycled ECO activity.
- Transferring EBOMs to production by way of ECOs.
- Auditing EBOM release and copy.

Note. All of these steps are optional, except for approving ECOs, which is required when you release EBOMs back to production.

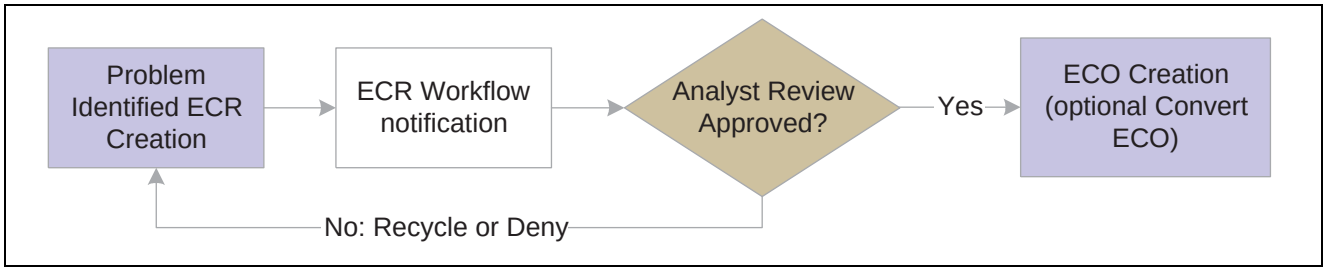
ECR and ECO approval processing are integrated with the Workflow Virtual Approver. This enables you to define multistep approval processing, including approve, deny, and recycle functionality.

See Also

Appendix A, "Delivered Workflows for PeopleSoft Engineering," page 209

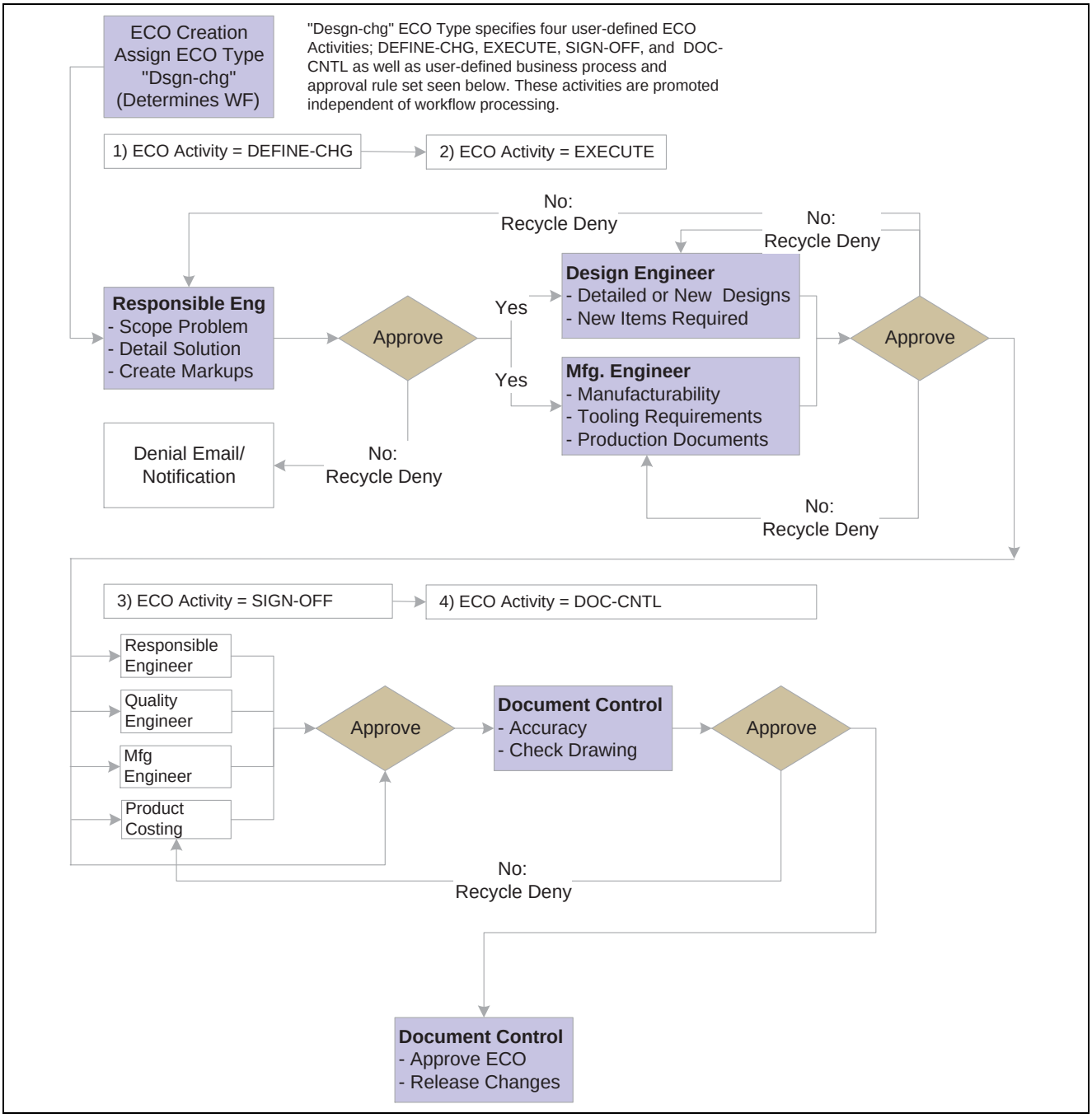
Reviewing an ECR and ECO Workflow Processing Example

This diagram illustrates the ECR workflow approval process:



ECR processing workflow

This diagram illustrates the ECO workflow approval process:



ECO workflow processing

Prerequisites

If you intend to generate ECO numbers automatically, you must set up automatic numbering for ECOs prior to converting ECRs to ECOs, by using the Automatic Numbering page.

If you plan to use PeopleSoft Workflow with ECRs or ECOs, you must define the PeopleSoft Workflow business processes and approval rules, as well as ECO activities and ECO approval types, before you process the ECOs.

See Also

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook, "Defining Financials and Supply Chain Management Common Definitions"

Approving and Converting ECRs

PeopleSoft Engineering enables you to efficiently track and manage engineering change processes.

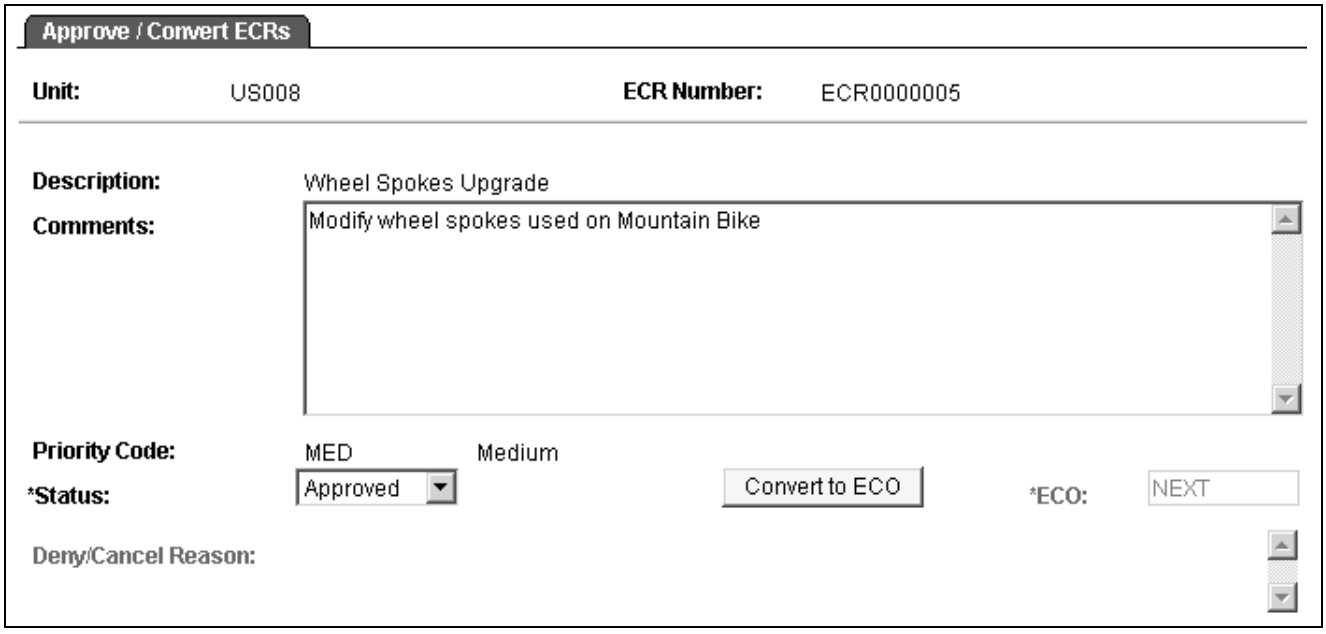
This section discusses how to approve and convert ECRs.

Page Used to Approve and Convert ECRs

Page Name	Object Name	Navigation	Usage
Approve/Convert ECRs	EG_ECR_APPROVAL	Engineering, Engineering Changes, Approve ECRs/Create ECOs, Approve/Convert ECRs	Change the status of ECRs, and optionally convert ECRs into ECOs.

Approving and Converting ECRs

Access the Approve/Convert ECRs page.



Approve/Convert ECRs page

Status Select an ECR status. Values are:

- *Approved:* Activates the Convert to ECO button.
- *Converted:* Set automatically by the system when you convert an ECR.

- *Denied* or *Canceled:* Activates the Deny/Cancel Reason field.
- *Pending:* No action occurs.

To approve an ECR:

1. Select *Approved* as the status.
2. Click the Save button.

   Approving an ECR does not convert the ECR to an ECO.

   Upon save, if you have PeopleSoft Workflow enabled, the ECO is sent to a list of defined roles for approval.

To convert an ECR to an ECO:

1. Select *Approved* as the status.
2. Click the Convert to ECO button.
3. Enter an ECO number.

   If you have set up automatic numbering for ECOs, then the system automatically generates an ECO number when you save the information.
4. Click the Save button.

   The ECO is not created until you click this button.

Additional Information

When you convert an ECR to an ECO, the system:

- Enters by default the ECR header information in the ECO header.
- Reflects the converted ECR reference number on the ECO, and marks the ECO as converted from an ECR.
- Copies by default the ECR reason codes and action codes to the ECO.
- Reflects the ECR *assemblies affected* data in the ECO.
- Copies the ECR header and assembly document associations to the ECO.
- Sets the status of the new ECO to *Pending.*

After you convert an ECR to an ECO, the originating ECR remains unaffected except that the system changes its ECR status to *Converted.* At this point, you can modify the ECO without any effect on the original ECR. Once you convert an ECR, you can no longer change its status.

Note. If ECR workflow is enabled, you can define workflow processing and approval rules to route the ECR to the appropriate role.

See Also

Chapter 9, “Creating Engineering Change Requests (ECRs),” Entering ECR Header Information, page 145

Promoting ECO Activities

ECO activities represent phases or milestones associated with an ECO. You can promote the activities independently or in coordination with workflow approval processing. As an example, if you are not using workflow, you can still set up the static list and promote or demote the ECO. The system ensures that if activities exist, they all must be promoted before the ECO can be approved. If you are using both workflow and activities, the system routes the ECO workflow to the various steps and role users based on workflow-defined rules.

While you probably want to use one method or another, you could also independently continue to promote the ECO through the static list of activities.

This section discusses how to promote ECO activities.

See Also

Appendix A, "Delivered Workflows for PeopleSoft Engineering," page 209

Page Used to Promote ECO Activities

Page Name	Object Name	Navigation	Usage
Promote ECO Activity	EG_ECO_UP_ACTY	Engineering, Engineering Changes, Promote ECO Activity, Promote ECO Activity	Promote or demote ECOs through their lifecycle of ECO activities if you are using ECO approval types that have activities defined.

Promoting ECO Activities

Access the Promote ECO Activity page.

Promote Click to change the current status from *Pending* to *Approved* and to advance the ECO to the next activity within the sequence of ECO activities listed.

Once all ECO activities have been approved and promoted, you can approve the ECO itself.

Demote Click to change the current activity to the previous activity listed, thus demoting the ECO. When you demote an ECO, the system automatically resets the status of the activity being demoted to *Pending*.

Note. Promoting and demoting ECOs has no bearing on PeopleSoft Workflow approval processing.

Approving ECOs

You must approve an ECO prior to transferring EBOM and engineering routing changes to production by using the Engineering Transfer pages.

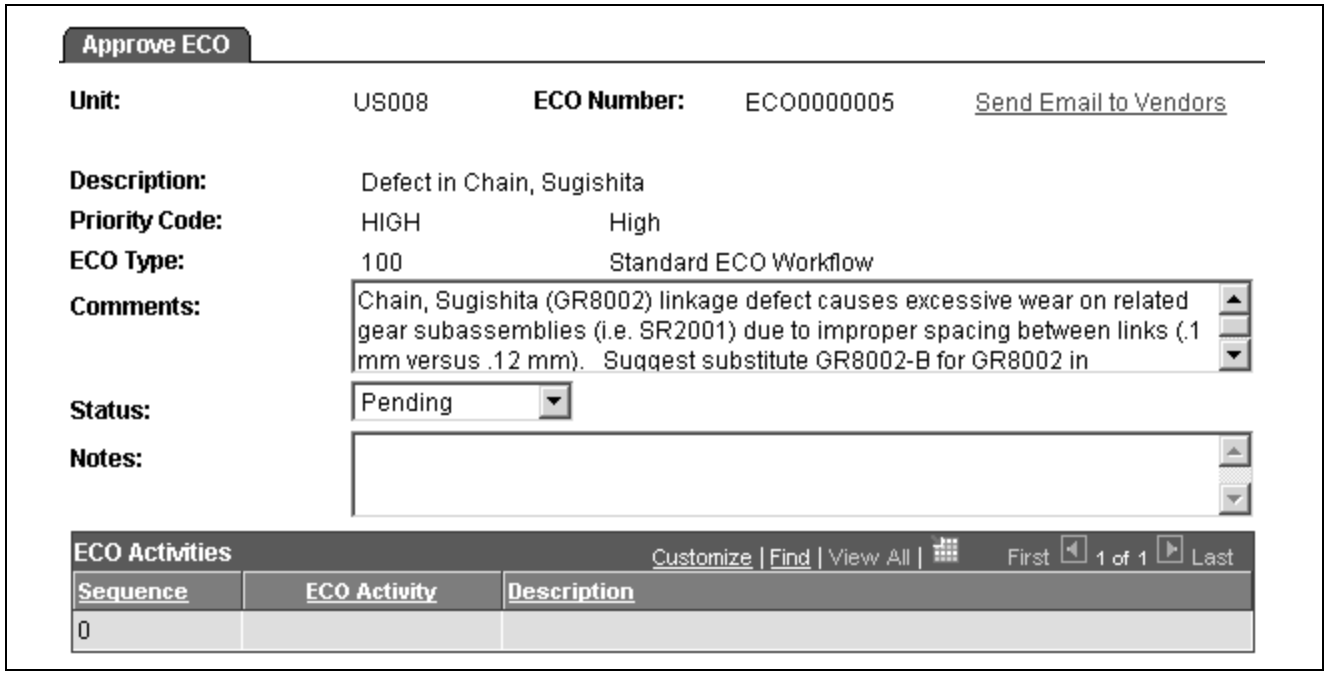
This section discusses how to approve ECOs.

Page Used to Approve ECOs

Page Name	Object Name	Navigation	Usage
Approve ECO	EG_ECO_APPROVAL	Engineering, Engineering Changes, Approve ECOs, Approve ECOs	Change an ECO's status, including approving an ECO.

Approving ECOs

Access the Approve ECO page.



Approve ECO page

When you enter a new ECO, the system automatically sets the ECO status to *Pending.* Once you approve the ECO for release, or if the ECO is denied or canceled, you can use this page to change the status accordingly.

Once the ECO is approved, and all BOMs and routings are transferred to production, the system automatically sets the ECO status to *Released.*

Status Select a status. Values are: *Approved, Canceled, Denied, Pending,* and *Released.*

If there are no items on the ECO that require BOMs to be transferred with engineering transfers, you can set the status of the ECO to *Released* on this page.

To release ECOs that contain items, including BOM or routing changes in addition to items without BOM or routing changes (such as purchase item changes):

1. Set the ECO status to *Approved* on this page.

   This is required to release BOM and routing changes to production.

2. Run the Engineering Transfers process to transfer all BOM and routing changes to production.

If the ECO that you are releasing is for items without BOM or routing changes, you do not need to perform step 3.

3. Set the ECO status to *Released.*

   This enables you to automatically release in one step all items that have no BOM or routing changes.

Note. Approving an ECO has no bearing on PeopleSoft Workflow approval processing.

Send Email to Vendors Click to send email to vendors.

The email contains one or two URLs. One URL sends the recipient to the Maintain ECOs - Header page in PeopleSoft Engineering. A second URL sends the recipient to the Change Order Detail page.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

Viewing Approved, Denied, and Recycled ECO Activities

This section discusses how to view approved, denied, and recycled ECO activities.

Page Used to View Approved, Denied, and Recycled ECO Activities

Page Name	Object Name	Navigation	Usage
ECO Workflow Approval inquiry	EG_ECO_OPR_APPR	Engineering, Engineering Changes, Review ECO Information, ECO Workflow Approval	If you are using ECO approval types and workflow approval processing, you can use this page to view approved, denied, or recycled ECO activity by user ID.

Viewing Approved, Denied, and Recycled ECO Activities

Access the ECO Workflow Approval inquiry page.

You can view approved, denied, or recycled ECO activity by user ID. When ECO activities are denied or recycled by using workflow, this page can be triggered by a workflow event. This enables previous role users to view the ECO activity that was denied or recycled, who denied or recycled it, and any associated notes. In addition, you can use this page to view ECO activities that have been approved by users within workflow.

Transferring BOMs and Routings

While the BOM and routing copy functionality enables you to copy a single BOM or routing, you can also transfer multiple BOMs or routings at the same time. You can transfer them by assembly items, either a list or range of items, but it is more powerful to transfer BOMs and routings as part of the workflow approval/ECO release to manufacturing process. In either case, all BOM and routing data, including multiple outputs, is transferred.

This section discusses how to:

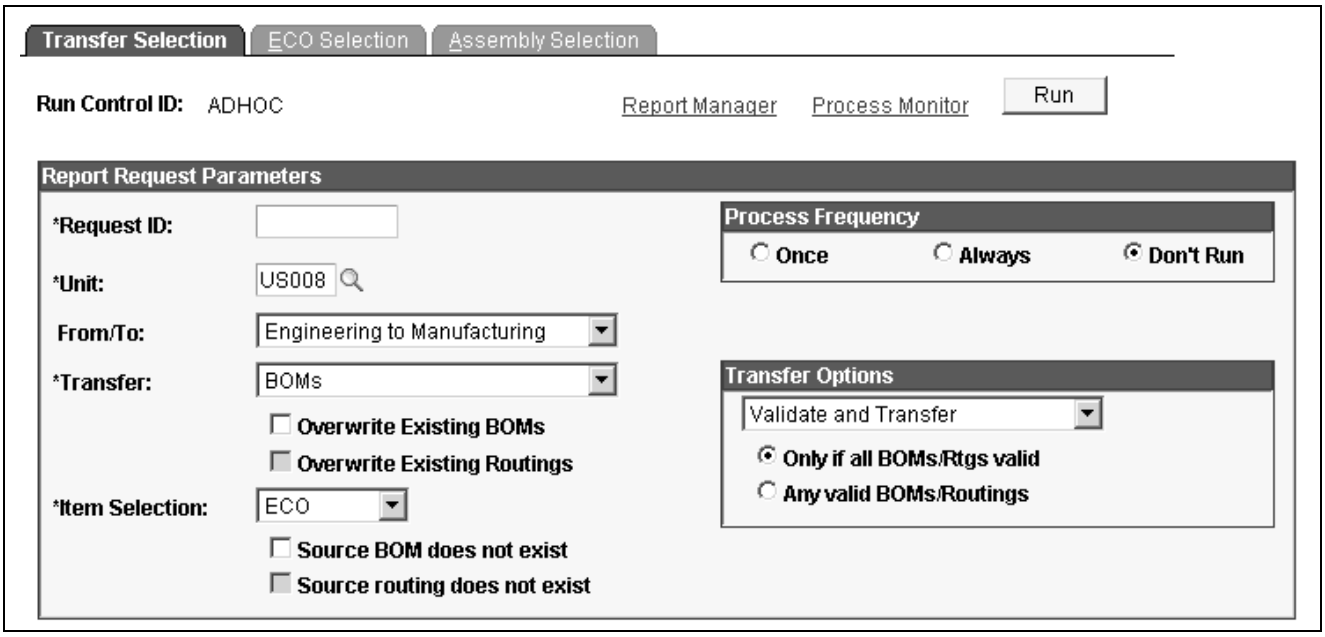
- Make transfer selections.
- Select ECO transfer ranges.
- Select item transfer options.
- View BOM exceptions.
- View routing exceptions.

Pages Used to Transfer BOMs and Routings

Page Name	Object Name	Navigation	Usage
Engineering Transfer - Transfer Selection	EG_ENGTRNS_REQ	Engineering, Engineering Changes, Engineering Transfers, Transfer Selection	Define BOM and routing transfer criteria for the Engineering Transfer COBOL SQL process (ENPBTRNS).
Engineering Transfer - ECO Selection	EG_ENGTRNS_REQ2	Engineering, Engineering Changes, Engineering Transfers, ECO Selection	Define the ranges of ECOs by which you want to transfer BOMs and routings. All BOM and routing data, including all BOM outputs, is transferred.
Engineering Transfer - Assembly Selection	EG_ENGTRNS_REQ3	Engineering, Engineering Changes, Engineering Transfers, Assembly Selection	Make engineering transfers by assembly item.
Transfer Exceptions - BOM Exception	EN_BOM_TRN_STAT	Engineering, Engineering Changes, Review ECO Information, Transfer Exceptions, BOM Exception	View BOM exceptions that weren't valid or transferred, as well as the reason why the BOM wasn't valid or transferred.
Transfer Exceptions - Routing Exception	EN_RTG_TRN_STAT	Engineering, Engineering Changes, Review ECO Information, Transfer Exceptions, Routing Exception	View routing exceptions that weren't valid or transferred, as well as the reason why the routing was not valid or transferred.
BOM Transfer/Copy Audit	EG_BOM_AUDIT	• Engineering, Engineering Changes, BOM Transfer/Copy Audit • Engineering, BOMs and Revisions, Review EBOM Information, BOM Transfer/Copy Audit	View all items whose EBOMs or MBOMs you have copied or transferred. The system makes a BOM Transfer/Copy Audit page entry for each EBOM transferred or copied to production.
Routing Transfer/Copy Audit	EG_RTG_AUDIT	• Engineering, Engineering Changes, Routing Transfer/Copy Audit • Engineering, Routings, Routing Transfer/Copy Audit	View all items whose manufacturing or engineering routings you have copied or transferred. The system also makes a Routing Transfer/Copy Audit page entry for each engineering routing transferred or copied to production. You can view all items whose engineering routings or manufacturing routings you have copied or transferred.

Making Transfer Selections

Access the Engineering Transfer - Transfer Selection page.



Engineering Transfer - Transfer Selection page

From/To Select the direction of the transfer: *Engineering to Manufacturing* or *Manufacturing to Engineering.*

Transfer Select what you want to transfer: *BOMs*, *Routings*, or *BOMs and Routings.*

If you are transferring BOMs and routings by ECOs, then this transfer option is used in conjunction with the BOM and Rtg check boxes on the ECO to determine whether the BOM, routing, or both are transferred.

Transfer Options Select the transfer option. Values are:

- *Validate and Transfer:* This option validates the BOMs and routings and transfers them, depending on whether you select the Only if all BOMs/Rtgs valid (only if all BOMs and routings are valid) and Any valid BOMs/Routings options.
- *Validate Only:* This option validates the BOMs and routings, but doesn't transfer them.

  When you select this option, the Only if all BOMs/Rtgs valid and Any valid BOMs/Routings options are not available for selection.

  You can use *Validate Only* in conjunction with the Transfer Exceptions pages to see if there are any problems with the BOMs or routings. You can then make any necessary corrections before you transfer the BOMs and routings.

Note. *Validate,* in this context, means that all BOMs and routings are valid for transfer (no placeholders, all items are approved in PeopleSoft Inventory, items aren't staged date-controlled); it doesn't mean that the system checks for loops. It is recommended that you run the BOM Verification process after you have transferred an EBOM to manufacturing.

Only if all BOMs/Rtgs valid Select to enable the system to transfer all BOMs and routings, but only if they are *all* valid; in other words, they have no exceptions. When transferring BOMs, if even one BOM has an error, the system won't transfer any BOMs. When transferring routings, if even one routing has an error, the system won't transfer any routings. Finally, if you are transferring both BOMs and routings, if either one BOM or routing has an error, the system won't transfer any BOMs or routings.

Any valid BOMs/Routings Select to enable the system to transfer any valid BOMs and routings; in other words, those with errors won't be transferred. In either case, you can view the nonvalid BOMs and routings by using the Transfer Exceptions pages.

Overwrite Existing BOMs Select to enable the system to completely replace the existing BOMs.

If you don't select this option, and the system finds an existing BOM for an item, the system won't transfer the BOM, and will display a message in the Transfer Exceptions pages and treat it as an error.

Overwrite Existing Routings Select to enable the system to completely replace the existing routings.

If you don't select this option, and the system finds an existing routing for an item, the system won't transfer the routing, and will display a message in the Transfer Exceptions pages and treat it as an error.

Item Selection Select one of these options:

- *ECO:* Make the transfer by ECO.

  This option activates the fields on the ECO Selection page.

- *Item:* Make the transfer by item.

  This option activates the fields on the Assembly Selection page.

Source BOM does not exist If you are transferring BOMs by ECOs, select if you want an exception to appear on the BOM Exceptions pages. If you don't select this option, the system displays a warning if the source BOM doesn't exist. By selecting this option, you can prevent the transfer of all BOMs on an ECO if, for example, an item on the ECO has been flagged as requiring a BOM change when no BOM exists for the item.

Source routing does not exist If you are transferring routings by ECOs, select if you want an exception to appear on the Routing Exceptions pages. If you don't select this option, the system displays a warning if the source routing doesn't exist.

Note. The Source BOM does not exist and Source routing does not exist check boxes apply only to transfers by ECO. If you choose assembly *Item* as your item selection, these check boxes are unavailable for selection.

Selecting ECO Transfer Ranges

Access the Engineering Transfer - ECO Selection page.

You can enter an ECO number range with or without the ECO schedule date range.

Transferring from PeopleSoft Engineering to PeopleSoft Manufacturing

If you are transferring from PeopleSoft Engineering to PeopleSoft Manufacturing, only approved ECOs appear as possible choices in the ECO Number Range From and To fields.

Note. The BOMs and routings for items are validated and transferred on approved ECOs if they have the appropriate BOM Chg (BOM change) or Rtg Chg (routing change) check boxes selected on the Maintain ECOs - Header: BOM/Rtg Information page or on the Maintain ECOs - Items Affected - Detail: BOM/Rtg Information page; these BOMs and routings must also have an item release status of *Pending.* When you are transferring BOMs, BOM validations occur only for items that have the BOM Chg check box selected; when you are transferring routings, the routing validations occur only for items that have the Rtg Chg check box selected. Transfers are also based on the BOM type/BOM code and routing type/routing code selected. If you leave the BOM code blank, then all BOMs for the item are transferred. Similarly, if you leave the routing code blank, all routings for the item are transferred. After the transfer is successfully made, the system updates the assembly item status to *Released.* If all BOM codes or all routing codes for the item are being transferred, all BOMs and routings must be transferred successfully before the item status can be updated to *Released.*

After you transfer BOMs from PeopleSoft Engineering to PeopleSoft Manufacturing by ECO, the system automatically updates the related ECO's header status to *Released*, if all the BOMs and routings related to the ECO are released. The system also updates the individual ECO assembly items to *Released*, if it was transferred successfully. This status is reflected on the Maintain ECOs- Items Affected: Status page.

This table illustrates what check boxes you need to select in the Items Affected group box on the ECO Header page or the Items Affected page, for individual ECO assembly items to be released on approved ECOs when you successfully transfer BOMs and routings:

When Transferring	Use These Check Boxes	Sets Release Status To
Only BOMs	BOM Chg check box must be selected; Rtg Chg check box must be cleared.	Released
Only routings	Rtg Chg check box must be selected; BOM Chg check box must be cleared.	Released
Both BOMs and routings	Both BOM Chg and Rtg Chg check boxes must be selected if both BOM codes and routing codes are being transferred. The BOM Chg check box must be selected if only BOM codes are being transferred. The Rtg Chg check box must be selected if only routing codes are being transferred.	Released

Note. If, for an individual ECO assembly item, you are transferring only BOMs or only routings, but you selected both the BOM Chg and Rtg Chg check boxes on the Maintain ECOs - Header: BOM/Rtg Information page or on the Maintain ECOs - Items Affected - Detail: BOM/Rtg pages, then that item won't be set to *Released* on the Maintain ECOs - Items Affected: Status page. If you only have the BOM Chg check box selected or the Rtg Chg check box selected, and you transfer both BOMs and routing, then the ECO assembly item is released after a successful transfer of the BOM or routing.

BOM Transfer Errors

These BOM transfer errors prevent the release of an ECO:

- Assembly/Component/Output/Substitute item does not exist in target business unit.
- Assembly/Component/Output/Substitute item has a status other than *Active, Hold,* or *Discontinue* prior to transferring to manufacturing.
- You have not selected Existing BOMs as an overwrite option, and the BOM exists in the target.
- The *quantity per* value contains a decimal value when the quantity code is per order and the component/output item is serial-controlled.

  PeopleSoft Inventory items can have decimal and whole number quantity precisions for each unit of measure (UOM). This validation applies not only to serial-controlled items, which are a subset of whole number items, but also to all items whose standard UOM has a quantity precision of whole number.
- The calculated QPA for a component is less than the allowed precision as specified in the manufacturing installation page (Qty per assembly / BOM qty).

  If, for example, the allowed precision is 4, then the calculated QPA can't be less than .0001 for the component/operation sequence.
- Component ID or Output ID is a configured item.
- The source BOM doesn't exist, and you have selected the Source BOM does not exist check box (error option), when transferring by ECOs, on the Transfer Selection page.

BOM Transfer Warnings

There are five BOM transfer warnings:

- An operation sequence doesn't exist on the to be transferred item's primary routing (routing code 1).
- The source BOM doesn't exist and you have not selected the Source BOM does not exist check box, when transferring by ECOs, on the Transfer Selection page.
- Assembly/Component/Output/Substitute items have a status of *Hold* or *Discontinue* prior to copying to manufacturing.
- The *quantity per* value contains a decimal value when the quantity code is per assembly, and the component/output item is serial-controlled or its standard UOM has a quantity precision of Whole Number.

Routing Transfer Errors

These routing transfer errors prevent the release of an ECO:

- The source routing doesn't exist and you have selected the Source routing does not exist check box, when transferring by ECOs, on the Transfer Selection page.

- You have not selected Overwrite Existing Routings, and the routing exists in the target.
- Routing's assembly item isn't approved.

Routing Transfer Warnings

There are two routing transfer warnings:

- An operation sequence doesn't exist on the to be transferred primary item routing (routing code *1*).
- The source routing doesn't exist, and you have *not* selected the Source routing does not exist check box, when transferring by ECOs, on the Transfer Selection page.

Note. The existence of BOM and routing transfer warning messages doesn't prevent the release of an ECO.

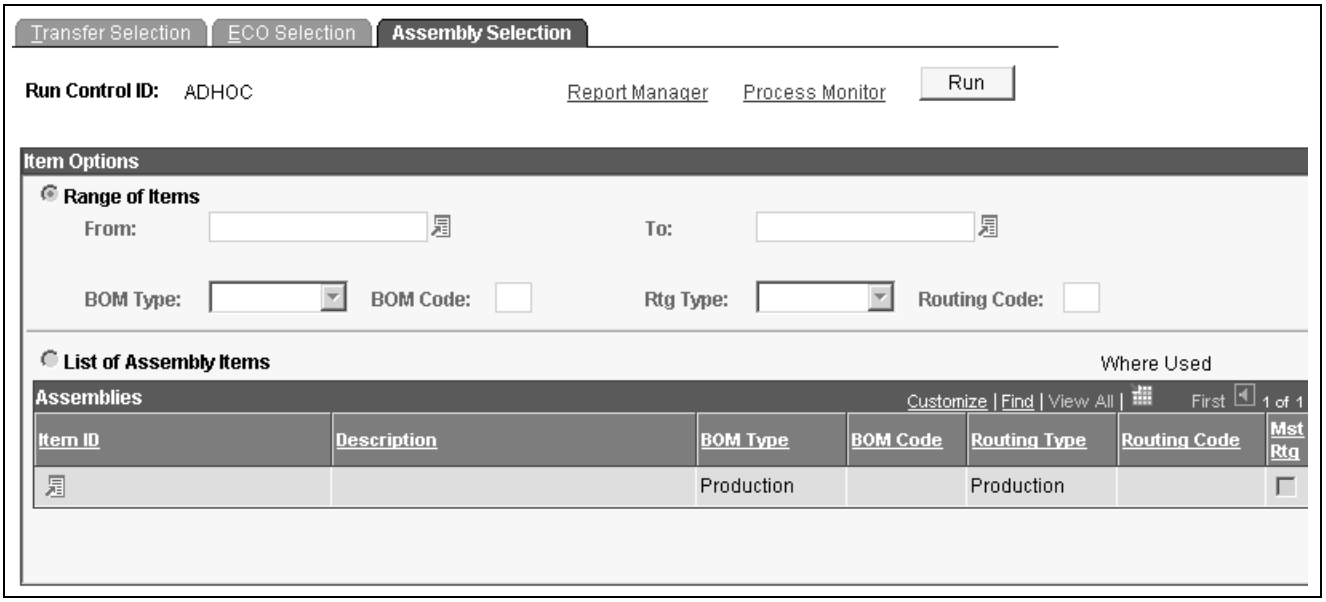
Transferring from PeopleSoft Manufacturing to PeopleSoft Engineering

If you are transferring from PeopleSoft Manufacturing to PeopleSoft Engineering, only pending ECOs appear as possible choices in the ECO Range From and To fields.

Note. The BOMs and routings for items are validated and transferred on pending ECOs if they have the appropriate BOM Chg or Rtg Chg check boxes selected on the Maintain ECOs - Header: BOM/Rtg Information page or on the Maintain ECOs - Items Affected - Detail: BOM/Rtg page; these BOMs and routings must have an item release status of *Pending.*

Selecting Item Transfer Options

Access the Engineering Transfer - Assembly Selection page.



Engineering Transfer - Assembly Selection page

Item Options

You can select a range of items, and then select the from and to range of items, as well as the BOM type, BOM code, routing type, and routing code. If you enter a specific value in the BOM Code or Routing Code fields, then you are indicating that those specific codes associated with the range of items are to be transferred. If either of these fields is left blank, then you are indicating that all BOM and routing codes are to be transferred. In either case, all BOM outputs are transferred.

You can also select a list of assembly items, which enables you to select individual items.

If you select List of Assembly Items, and click the Search button, the system displays the Select Assemblies by Items Where Used page.

Note. If you are transferring by list of assembly items, the items should have BOMs or routings associated with them.

For both item options:

- If you are transferring from PeopleSoft Engineering to PeopleSoft Manufacturing, the system displays EBOMs if you're transferring BOMs and engineering routings (ERTGs), if you're transferring routings.
- If you are transferring from PeopleSoft Manufacturing to PeopleSoft Engineering, the system displays MBOMs if you're transferring BOMs and manufacturing routings if you're transferring routings.
- If, however, you are transferring both BOMs and routings, the system displays all approved or pending inventory items that aren't staged-dated.

Click the Item Search/Mst Rtg Where Used button to access either of these links:

- Item Search: Click to select a different item.
- Mst Rtg Where Used: Click to access the Master Routing Where Used inquiry page.

Mst Rtg (master routing) If the item's routing is a master (or reference) routing that is currently used by another item, then this check box is selected. This is a display-only field.

Note. When you transfer a BOM, it fully replaces the target BOM and all associated reference designators, text, document associations, and attachments. Similarly, when you transfer a routing, it fully replaces the target routing.

If you have selected the Delete EBOMs upon Transfer option on the Engineering Options page, the system automatically deletes the EBOM from PeopleSoft Engineering after making the transfer to PeopleSoft Manufacturing. This option doesn't apply when transferring from PeopleSoft Manufacturing to PeopleSoft Engineering. A similar process occurs for routings if you selected the Delete ERTGs upon Transfer option on the Engineering Options page.

When you run the engineering transfer process, the system logs the number of BOMs and routings processed and transferred, as well as the number of exceptions and warnings. You can view this information by using the message log from the Maintain EBOMs and Revs or Process Change Orders navigation. To create a Background Process report, use the Background Process page on the Maintain EBOMs and Revs or Process Change Orders navigation.

See Also

Chapter 5, “Making Mass Engineering BOM Changes,” page 55

Viewing BOM Exceptions

Access the Transfer Exceptions - BOM Exception page.

Count If you’re not sure how many messages you have, click this button before you populate the page. When you click this button, the system displays the number of BOM exceptions and routing exceptions that will be displayed, given the entered search criteria.

Viewing Routing Exceptions

Access the Transfer Exceptions - Routing Exception page.

Count If you’re not sure how many messages you have, click this button before you populate the page. When you click this button, the system displays the number of BOM exceptions and routing exceptions that will be displayed, given the entered search criteria.

Making Mass BOM Changes by ECO and Automatically Creating New Item Revisions by ECO

You can make mass BOM changes and automatically create new item revisions.

See Chapter 5, “Making Mass Engineering BOM Changes,” page 55.

CHAPTER 12

Managing Documents

This chapter provides an overview of document management in PeopleSoft Engineering and discusses how to:

- Add new documents or new versions of existing documents to the vault.
- Associate documents with pages and copy document associations.
- Manage documents in PeopleSoft Engineering.

Understanding Document Management in PeopleSoft Engineering

When integrated with the Documentum Enterprise Document Management System (EDMS), PeopleSoft Engineering provides a complete document management solution that gives selected members of your company access to up-to-date, online information, while keeping a detailed history of changes made to any document and securing access to documents, where necessary.

Using this integrated document management system, you can securely vault multiple types of documents. You can seamlessly perform online document queries and then view documents directly, launching them from within PeopleSoft applications. You can associate documents with ECRs, ECOs, item revisions, BOMs, manufacturing routings, production component lists, and production operation lists.

Prerequisites

Before you begin using Documentum, you must complete these steps:

- Install the Documentum Server (document database) and make sure that it is accessible from the PeopleSoft NT server.

  When accessing Documentum functions by way of a PeopleSoft Documentum-enabled internet page, the application server accessed using the PeopleSoft page must contain the appropriate Documentum runtime libraries and access the Documentum server.

  Note. It is highly recommended that you carefully assess your organization's document management requirements and put in place an overall document management strategy prior to or in conjunction with your PeopleSoft implementation.

- Indicate that Documentum is installed and also define all document installation options (such as Documentum Docbase Name and Document Object Type) using the Installation Options - Documentum page in the Set Up Financials/Supply Chain, Install navigation.

  You can also define these installation option fields by using the Document Product Options page, also in the Set Up Financials/Supply Chain navigation.

- Decide for each individual document-enabled component, what level of access capabilities you will make available.

  With the Documentum Component Options page, you control which components are document-enabled, as well as the document management buttons that the system displays in the individual document-enabled pages within the group.

  For example, let's say that you want users to only view, but not query, ECO documents. By using the Documentum Page Options component, you determine which PeopleSoft pages within components are document-enabled.

- Set search fields based on PeopleSoft criteria.

  To use the Unit, Item ID, and Revision fields on the Query page to narrow searches, you must first select the Use BU/Item/Rev Attributes field on the Document Product Options page. Also, before you enable this feature, you must make modifications to document attributes within Documentum (a modification), to support the addition of business unit, item ID, and item revision.

Note. The BU/Item/Rev Attributes feature applies only to the use of Documentum with PeopleSoft Engineering.

See Also

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook, "Defining Financials and Supply Chain Management Common Definitions"

Chapter 3, "Structuring PeopleSoft Engineering," Configuring Your Document Management System, page 15

Examining the Embedded Document Management System

Physical documents are always vaulted within Documentum. When a document becomes associated with a PeopleSoft page, only a minimal amount of information regarding that document is stored within PeopleSoft, such as document object ID, name, and title. PeopleSoft from Documentum, as required, retrieves all other information pertaining to the document, such as the author, checkout status, and version. In short, Documentum owns the documents, and the PeopleSoft system manages associations or references to them.

Note. To uniquely identify documents, the Documentum object ID is stored within the PeopleSoft database for each associated document. If the object ID changes for a document within Documentum, you must reestablish document associations within the PeopleSoft system. Under normal use, object IDs within Documentum don't change for a particular document version.

Document User Types

Three types of users can interact with documents:

- Contributors: Users who actually introduce new or revised documents within the document vault.
- Coordinators: Users who maintain and manage the coordination of documents within the system.
- Consumers: Users who require access to various documents.

The typical roles of each of these user types include:

- Document contributor role: The document contributor adds new documents or versions of existing documents to the Documentum Docbase, using Documentum client or web-based applications such as WorkSpace or RightSite.
- Document coordinator role: The document coordinator administers the document vault coordination required with the Documentum EDMS.

  This includes organization of documents in cabinets and folders as well as defining security. You can't manage this function by using the PeopleSoft system.
- Document consumer role: The document consumer accesses various documents from within PeopleSoft pages and Documentum applications.

  Consumers are end users who need to query, access, and use documents. Using PeopleSoft pages, consumers also manage PeopleSoft document associations with Documentum. By associating documents with PeopleSoft pages, the consumer creates a dynamic link between PeopleSoft pages and documents within the vault.

See Also

Chapter 12, "Managing Documents," Associating Documents to Pages and Copying Document Associations, page 187

Adding New Documents or New Versions of Existing Documents to the Vault

You must use a Documentum client or web-based application, such as RightSite, WorkSpace, or SmartSpace, to contribute new documents or versions to the vault. From within PeopleSoft Documentum-enabled pages, you can launch Documentum web-based applications (such as RightSite) by clicking a button once you have set up the correct URL entry for your Documentum installation.

Associating Documents to Pages and Copying Document Associations

You can associate or link documents to the originating page in one of two ways:

- Run a query against the Documentum vault and choose which documents to associate to the page. With this action, you create the initial association of a vaulted document to a PeopleSoft page. There is no limit to the number of times you can query and associate documents to a PeopleSoft page.
- Click the Copy button on any document-enabled page to copy a selected list of document associations (not the document itself) from other PeopleSoft Engineering or Manufacturing document-enabled pages. This feature enables you to replicate document associations throughout document-enabled pages. For example, you can copy documents associated with the item REV Documents page to the ECR Documents page as new requests for change are entered or you can deploy documents associated with an ECO to an item's routing for use within.

Managing Documents in PeopleSoft Engineering

By providing pages that include an embedded document management system, PeopleSoft Engineering enables you to access and manage related documents.

This section discusses how to:

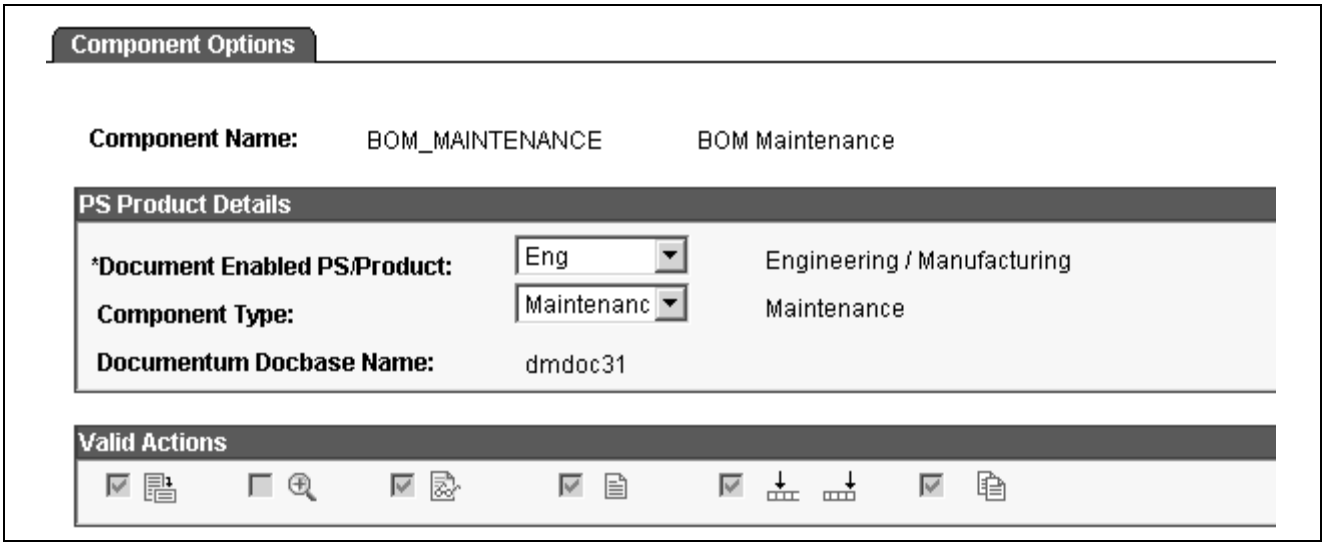
- Display document-enabled pages.
- Sign in to the Documentum Docbase.
- Query documents.
- Search for specific versions of a document.
- Copy document associations.
- Disassociate documents from pages.
- View, edit, check in and out, and fix documents.
- Modify page objects and PeopleCode.
- Print documents.

Pages Used to Manage Documents in PeopleSoft Engineering

Page Name	Object Name	Navigation	Usage
Component Options	DC_PNLGRP	Set Up Financials/Supply Chain, Common Definitions, Documentum, Component Options	Control, by product and component, the document management buttons that the system displays in document components.
Document Details	DC_DOC_DETAILS_SP	Click the Document Detail button on any document-enabled page or Search Results page.	View information about the selected document from the document vault.
Query	DC_QRY_REQ_SP	Click the Query button on any document-enabled page.	Make attribute selections to narrow the focus of your search. You can also use it to associate documents with the original document-enabled page.
Search Results	DC_QRY_RESULT_SP	Click the Start Query button on the Query page.	Display each document in the database that matches the query criteria that you entered on the Query page.
Copy Document Associations	DC_COPY_SP	Click the Copy button on any document-enabled page.	Associate or link documents to the originating page.

Displaying Document-Enabled Pages

Access the Component Options page.



Component Options page

With this page, you control the document management buttons that the system displays on any of the document-enabled pages. For demonstration purposes, we used the Revision Maintenance - Documents page. You could also use any of the other document-enabled pages as an example because the embedded document functionality, including Query and Search Results pages, is virtually identical.

After you select your business unit (and item ID), the system displays a list of all documents associated with the particular revision of the item. This list includes the document name and title, as defined in Documentum, and whether the document is fixed.

This table contains a summary of the buttons that you can click within document-enabled pages, and the actions that they perform.

	Click to view document detail.
	Click to query the Documentum database.
	Click to view document contents.
	Click to launch Documentum.
	Click to fix or unfix versions.
	Click to copy document associations.
	Click to clear all check boxes.
	Click to select all check boxes.

Signing In to the Documentum Docbase

To access (query or view) associated documents in the document database from PeopleSoft pages, you must be signed in to Documentum.

The first time during a session that you click any of the buttons on the document-enabled page, the system prompts you to sign in to Documentum.

Note. Once you successfully sign in to Documentum, you'll remain signed in until you end your session by closing the browser.

Querying Documents

Access the Query page.

Format Select the Documentum document file format. This isn't necessarily the same as the file extension. For example, you define a Microsoft Word document in Documentum as having a file format of msw6 (created with either Word 6.0 for the Mac or Word 6.0 or 7.0 for Windows), but the file extension is *.doc*.

Search Options Except for the optional Document contains word(s) search and Version Option, each field has these search options:

- *begins with*
- *Contains*
- *ends with*
- *is equal to*
- *is greater than or equal to*
- *is greater than*
- *is less than or equal to*
- *is less than*
- *is not equal to*

Specify to query by all versions or a specific version; *CURRENT* is the specific version default. When you query by all versions or by a specific version that isn't current, the document can only be associated with a PeopleSoft page as *fixed*. The specific version can be any version label defined in Documentum; however, if you specify a document as *not fixed* on a PeopleSoft page, the version label used to identify the current document is always CURRENT.

The Unit, Item ID, and Revision fields enable you to narrow searches based on PeopleSoft criteria. To access these fields, you must first have selected the Use BU/Item/Rev Attributes field on the Document Product Options page on the Set Up Financials/Supply Chain navigation. Before you enable this feature, you must modify document attributes within Documentum.

Searching by Using the Keywords Field

Within Documentum, you have the ability to maintain multiple keywords for each version of a document. The Keyword(s) field on the Query page enables you to search on one or more of these keywords. To search on more than one key word, separate each keyword with a comma.

Searching by Using the Document Contains Word(s) Field

If you have enabled full-text indexing of documents within Documentum, you can search within the document itself for strings that you enter here.

See Also

PeopleSoft 8.8 Application Fundamentals for Financial Management Solutions, Enterprise Service Automation, and Supply Chain Management PeopleBook, "Defining Financials and Supply Chain Management Common Definitions"

Searching for Specific Versions of a Document

Access the Search Results page.

Display document detail or view documents by selecting the Sel (select) check box and clicking either the Document Detail button or View button.

Select the Sel check box and click OK to associate documents back with the originating document-enabled page.

Click the Select All button to include all documents to be associated. When you click this button, the system selects all of the Sel check boxes.

Click the Deselect All button to clear all of the Sel check boxes.

Copying Document Associations

Access the Copy Document Associations page.

The fields on the Copy Document Associations page vary, depending on your Copy From selection from the available options.

Note. When you associate documents, the system retrieves the document name and title from the document database at the time the document is associated with a page. If you change the name and title later in the document database, the change isn't automatically reflected within PeopleSoft pages. You must disassociate and reassociate the document to PeopleSoft pages to reflect changes to name and title. However, all other document attributes (such as author and format) aren't stored within the PeopleSoft pages, so if any one of these attributes is changed in Documentum, you don't need to reassociate the document with the page.

Disassociating Documents from Pages

You can disassociate documents from a document-enabled page by clicking the Delete button associated with the row that you want to disassociate. Disassociating documents from pages has no impact on the document within the document database because it does not delete the document.

Viewing, Editing, Checking In and Out, and Fixing Documents

Viewing Documents

Click the View button on the document-enabled page to launch the selected document for viewing only. When you view a document using PeopleSoft pages, the system retrieves a local copy of the document from the Documentum server (by using Documentum RightSite).

Editing, Checking In, and Checking Out Documents

Click the Launch Documentum button on the document-enabled page to access documents for check out, check in, canceling checkout, and editing. You perform these functions directly within Documentum applications.

Fixing Documents

Click the Fix Vers (fix version) button on the document-enabled page to fix this document association on this page to the specific document version currently selected. The fix only applies to the document as it relates to the current page. Therefore, if you fix the document to the Revisions Documents page, the system doesn't fix it to any of the other document-enabled pages, such as ECR and ECO.

When you fix an associated document to a page, the currently displayed version of the document is *permanently* associated with the page, without regard to future document revisions. When you fix a document to a PeopleSoft page, subsequent versions of the document aren't automatically associated with this page. Typically you won't fix a particular document to the page until the version of the document is final.

As an example, you might find it necessary, during the life of a particular ECO, to set associated documents to *not fixed* so that as engineering checks in new versions of design documents, they are always visible from within the ECO page. Once the ECO is approved, the design documents can be *fixed* to permanently associate appropriate versions with the PeopleSoft page.

Changing a document to fixed does this:

- The version currently associated with the page becomes fixed to the originating page so that any subsequent checked-in versions of the document aren't associated with this page.
- The document, while fixed, can no longer be checked out from this page.
- The Fixed check box on the documents page changes from *N* to *Y.*

Click the Unfix Vers (unfix version) button on the document-enabled page to *unfix* a fixed document, thereby reassociating the page document with the current version.

Warning! If you *unfix* a document and then *fix* it again, the fixed document becomes by default the latest (most current) version, as defined within the document database, and might not be the same as the version that was originally fixed.

For example, you fix a document to a PeopleSoft ECO page at version 1.0, and afterward you check versions 1.1 and 1.2 of the document into the document database. Then, if you *unfix* and *fix* the document again in the ECO Page, the fixed version of the ECO page is 1.2 instead of the 1.0 version prior to unfixing. This enables you to correct a document association that has been fixed prematurely.

Likewise, if you fix the document at version 1.2, but it should have been fixed at 1.0, you can query the document again for version 1.0. When you query a specific version, it is associated with the page as *fixed*.

Note. Be sure to delete the original document association, if you want. It's possible to have more than one version of the same document associated with a page.

See Also

Chapter 12, "Managing Documents," Displaying Document-Enabled Pages, page 189

Modifying Page Objects and PeopleCode

Depending on your document management requirements, you might want to modify Documentum and potentially PeopleSoft page objects and PeopleCode to meet your own business requirements. One such example is document revision numbering techniques. This can include:

- Adding the Revision field as a user-defined attribute.
- Modifying Documentum code to generate the revision number.
- Modifying page objects and PeopleCode to gain access and visibility to revision numbers within the PeopleSoft system.

Printing Documents

Printing documents from the client is dependent on the client software that you are using to view documents. To print a document, you must first launch the document in view mode.

See Also

Documentum documentation

CHAPTER 13

Managing BOMs and Engineering Changes for Suppliers

This chapter provides an overview of bills of material (BOMs) and engineering changes for suppliers and discusses how to:

- View BOMs.
- View, add, or update engineering change requests (ECRs).
- View engineering change orders (ECOs) workflow.

Understanding BOMs and Engineering Changes for Suppliers

This section lists prerequisites for BOM inquiries and engineering changes for suppliers and discusses:

- Capabilities to share PeopleSoft Engineering information.
- Attachments and email capability.
- Functionality reflected in PeopleSoft Manufacturing and PeopleSoft Engineering.

Prerequisites

Before your suppliers can access specific inquiries, you must:

- Set up secured external access for suppliers.

  To give access to PeopleSoft Engineering information for suppliers, you must establish appropriate external facing internet access. Implementations for this vary by customer site depending on firewall configurations. However, the basic setup provides external supplier access to only the SUPPLIER registry—by way of a uniform resource locator (URL)—within your PeopleSoft system.

- Define vendors by using the Vendor Information component in PeopleSoft Purchasing.

  See *PeopleSoft Setting Up Procurement Options 8.8 PeopleBook,* “Maintaining Vendor Information”.

- Enable suppliers to log in.

  Set up supplier profiles by associating vendors with a user ID. Use the Vendor User Setup component in PeopleSoft Purchasing to associate each user ID with one or multiple vendor codes. Then when a supplier user logs in to PeopleSoft Engineering, the system determines to which vendor the user is associated. If a user is associated with multiple vendors, the Select Vendor page enables the user to select from a list which vendor the user is interested in viewing. If no vendor code is assigned to the user, then the system administrator must assign a vendor code to a user ID.

If you have installed PeopleSoft eSupplier Connection, you can also enable suppliers to allow their own employees access to PeopleSoft Engineering. Providing this direct access relieves your own employees of the task of administering access permissions. You always retain control of the type of access that each supplier's users are allowed.

See *PeopleSoft Setting Up Procurement Options 8.8 PeopleBook*, "Maintaining Vendor Information," Vendor Profiles.

See Chapter 13, "Managing BOMs and Engineering Changes for Suppliers," Selecting a Vendor for BOMs, page 200.

See *PeopleSoft eSupplier Connection 8.8 PeopleBook*, "Maintaining Vendor Information," Self-Service Security for Vendors.

- Define BOM, ECR, and ECO access privileges by vendor.

  Before your suppliers can access the ECR, ECO, and BOM data that you want them to view and, in the case of ECRs, possibly create or update, you must give the suppliers, from within the PeopleSoft system, access to the data at the item level. With the BOM Access by Vendor page, you can associate business unit items with vendors, thereby granting suppliers item access by vendor code. Specify the business unit items (including BOM type and BOM code) to which each supplier has access, and specify whether suppliers can view the associated BOMs, ECRs, and ECOs.

  See *PeopleSoft Manufacturing 8.8 PeopleBook*, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors.

- Set up supplier BOMs, attachments, and email capability.

  See Chapter 13, "Managing BOMs and Engineering Changes for Suppliers," Attachments and Email Capability, page 197.

- Set up supplier-related BOMs and engineering changes functionality with Documentum.

  If you have installed Documentum, the suppliers view documents associated with BOMs, ECOs, and ECRs within PeopleSoft Manufacturing and PeopleSoft Engineering.

  See Chapter 12, "Managing Documents," page 185.

- Be aware of the ways in which supplier-related BOMs and engineering changes are reflected in PeopleSoft Manufacturing and PeopleSoft Engineering.

  See Chapter 13, "Managing BOMs and Engineering Changes for Suppliers," Attachments and Email Capability, page 197 and Chapter 13, "Managing BOMs and Engineering Changes for Suppliers," Functionality Reflected in PeopleSoft Manufacturing and PeopleSoft Engineering, page 198.

- Determine whether you'll implement workflow and whether the supplier is included as an approval step in workflows defined by ECO type.
- (Recommended) Define procedures regarding timing of supplier access (controlled for each ECO).

Capabilities to Share PeopleSoft Engineering Information

Because today's business world often requires more outsourcing, there's a need to share information more effectively between customers and their suppliers. With PeopleSoft Engineering, you can:

- Collaborate with suppliers regarding engineering information that you control as a customer.
- Provide internet access to suppliers so that they can access BOM structures and documents through the internet.

- Provide suppliers with the ability to view, create, or update ECRs, as well as review and approve ECOs and any supplier-related ECO workflow steps.
- Send workflow-generated notifications or specific email notifications (or both) containing links to quickly direct suppliers to pertinent information.
- Establish which BOMs, ECRs, and ECOs can be viewed and accessed by specific suppliers.
- Attach any documents that support new product introductions or the change process.

Attachments and Email Capability

Suppliers can view, upload, and delete attachments in PeopleSoft Engineering. Following is a summary of the functionality and what you must know before starting to use attachments:

- Using links, suppliers can view attachments for BOMs at both the header and component level.

  Suppliers can't, however, add or delete attachments to BOMs.

- Using links, suppliers can view attachments for ECOs at both the header and item level.

  Suppliers can add attachments for ECOs (if you grant them add ECO attachment privileges on the BOM Access by Vendor page). The system adds the attachment to the file server and creates an attachment row. The supplier can only change the description. While in the same session, suppliers can, prior to saving, delete any ECO attachments that they've added. This is because suppliers do not "own" the ECO, thus preventing suppliers from deleting attachments added internally.

- Using links, suppliers can view attachments for ECRs at both the header and item level.

  Suppliers can also add attachments for ECRs (if you grant them add ECR attachment privileges on the BOM Access by Vendor page). Unlike for ECOs, suppliers can delete attachment rows that are added in the same session, as well as delete existing rows (allowed because the supplier "owns" the ECR).

- In cases where suppliers are allowed to delete attachments (such as ECRs), they are actually deleting attachment rows only from the page; the file itself isn't deleted from the file server.

  This helps prevent suppliers from deleting files (by file name) that you own.

- As is the case for all PeopleSoft applications, in PeopleSoft Engineering, file extensions of documents uploaded by suppliers must be already defined within general options.

  For each ECR or ECO attachment format that you accept from suppliers, you must define an extension on the File Locations page in the Define General Options navigation.

Note. File extensions are case-sensitive on the File Locations page. Therefore, you may need to define both .DOC and .doc extensions on the File Locations page to accept uppercase and lowercase attachments from suppliers.

- You can maintain the ATTACHMENT URL identifier by using the URL Maintenance page in PeopleTools.

  You must set up this URL to point to the File Transfer Protocol (FTP) location where you'll store secured supplier attachments. Define this URL to point to the same location as attachments defined in file locations and file executables, because PeopleSoft Manufacturing and PeopleSoft Engineering ECR or ECO or BOM attachments must point to the same location to share the same documents. If, for security reasons, you do not want to do this, then you can store attachments in a separate location. If PeopleSoft Manufacturing and PeopleSoft Engineering ECOs or ECRs or BOMs must share attachments, then you must replicate files (outside of the PeopleSoft system) in both locations.

Note. In setting up the ATTACHMENT URL identifier, the URL string syntax must be defined as an FTP location. In contrast, "file attachments" doesn't utilize FTP.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

Supplemental Instructions for PeopleSoft 8.4 Supply Chain Management Installation

Functionality Reflected in PeopleSoft Manufacturing and PeopleSoft Engineering

The supplier-related BOM inquiry and engineering change functionality is reflected in PeopleSoft Manufacturing and PeopleSoft Engineering. Following is a list describing how to use the pages in each application:

- Use the BOM Access by Vendor page in PeopleSoft Manufacturing to define privileges for viewing ECO and BOM data and, in the case of ECRs, to add information.
- Send email to suppliers from these pages: ECO Maintenance - Header, ECR Maintenance - Header, Approve ECO, and Engineering BOM Maintenance - Header: Vendor Access List in PeopleSoft Engineering, and BOM Maintenance - Header: Vendor Access List in PeopleSoft Manufacturing.

Note. Each email message contains two URLs.

- Access the vendor access list from these pages to display a list of vendors who have access to a specific item: EBOM Maintenance Header, ECR Header - Header, and ECO Header - Header in PeopleSoft Engineering, and BOM Maintenance Header in PeopleSoft Manufacturing.
- On both the PeopleSoft Engineering ECO Header - Header and ECR Header - Header pages, use the Not Accessible by Vendors field to block access to a specific ECO or ECR.

  Therefore, even if suppliers have been granted access on the BOM Access by Vendor page in PeopleSoft Manufacturing, you can deny them access to a specific ECO.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining Vendor Access Lists

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

Chapter 9, "Creating Engineering Change Requests (ECRs)," Entering ECR Header Information, page 145

Common Elements Used in This Chapter

Set filter options Click to view requests for different business units or to view non-pending change requests.

Return to Vendor List	Click to return to the Select Vendor page.
Documents	This group box is accessible only if Documentum is installed.

Viewing BOMs

Use these pages to view BOMs for all items to which you have given access with the BOM Access by Vendor page. Prior to selecting which item BOMs to view, if the user is associated with multiple vendors (that is, if the user is representing multiple vendor sites as a corporate vendor user), the supplier sees a Select Vendor page.

This section discusses how to:

- Select a vendor for BOMs.
- Select BOMs.
- Narrow the search for BOMs.
- View BOMs.
- View component details.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

Chapter 13, "Managing BOMs and Engineering Changes for Suppliers," Prerequisites, page 195

Pages Used to View Supplier-Related BOMs

Page Name	Object Name	Navigation	Usage
Select Vendor	EN_SS_VND_LIST	Review Product Design, View Bills of Material	Select the vendor whose information you want to appear on the BOM.
Select Bill of Material	EN_ICBOMVNDLST	• Review Product Design, View Bills of Material (if not associated with multiple vendors) • Click one of the vendor names on the Select Vendor page (if associated with multiple vendors).	Select an item whose BOM is to be viewed.
Filter Options	EN_IC_BOM_SEARCH	Click the Set filter options link on the Select Bill of Material page.	Narrow the search for BOMs.
Bill of Material	EN_ICBOMINQ_HDR	Click an item ID on the Select Bill of Material page.	View BOMs.
Component Detail	EN_ICBOMINQ_COMP	Click an item ID on the Bill of Material page.	View BOM component detail.

Selecting a Vendor for BOMs

Access the Select Vendor page.

A list of the vendors to which your suppliers are linked appears. Select the vendor whose information you want to display. The system then displays the Select Bill of Material page, which lists the items available to that vendor.

Selecting BOMs

Access the Select Bill of Material page.

Item IDs Displays the IDs to which the vendor has been granted access with the BOM Access by Vendor page.

Note. The component item identifiers displayed in the Item ID field are those of the vendor if defined for the vendor and item combination with the Purchasing Attributes component in PeopleSoft Inventory. If no vendor and item information exists, then the customer item appears. View both vendor and customer item IDs on the Component Detail page. Define vendor item IDs using the Item Vendor page in PeopleSoft Inventory.

Set filter options Click to view rework and to view engineering bills of material (EBOMs).

See Also

PeopleSoft Purchasing 8.8 PeopleBook, "Defining Purchasing Item Information," Defining Purchasing Item Vendor Relationship Attributes and Priorities

Narrowing the Search for BOMs

Access the Filter Options page.

Search Criteria Enter your search criteria, including BOM state (*Manufacturing* or *Engineering*) and BOM type (*Production* or *Rework*).

Viewing BOMs

Access the Bill of Material page.

As of Revision Select to limit your search if the item is revision-controlled.

Level Select a level to display components in that level.

Refresh button Click to refresh the Components list after supplier changes the value for As of Revision and/or Level fields.

Quantity Per Displays the quantity per order or assembly.

Item ID Click to view component details for this item.

Return to Selected Bill of Material Click to return to the Select Bill of Material page.

Send Email Click to send email. The email will contain a URL to this specific Bill of Material page, as well as a URL to the BOM Maintenance - Summary page in PeopleSoft Manufacturing (if the BOM is a manufacturing BOM) or the Engineering BOM Maintenance - Summary page in PeopleSoft Engineering (if the BOM is an EBOM).

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material"

Viewing Component Details

Access the Component Detail page.

This page displays the dimensions, reference designators, attachments, substitute items, and manufacturer's information of the component.

Return to Bill of Material Click to return to the Bill of Material page.

Viewing, Adding, or Updating ECRs

Using these pages, your suppliers can view and even add or update ECRs to which you have given them access using the BOM Access by Vendor page. If the login role is associated with multiple vendors, prior to selecting the ECRs in which the supplier is interested, the supplier sees a Select Vendor page.

This section discusses how to:

- Select a vendor for ECRs.
- Select ECRs.
- Set ECR filter options.
- View change request detail.
- View item-affected details.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

Pages Used to View, Add, or Update Supplier-Related ECRs

Page Name	Object Name	Navigation	Usage
Select Vendor,	EG_SS_VND_LIST	Review Product Design, Engineering Change Request	Select a vendor for ECRs.
Select Change Request	EG_IC_ECR_LIST	• Select Review Product Design, Engineering Change Request (if not associated with multiple vendors) • Click one of the vendor names on the Select Vendor page (if associated with multiple vendors).	Select ECRs to view and, if given the appropriate privileges, update.
Filter Options	EG_IC_ECR_SEARCH	Click the Set filter options link on the Select Change Request page.	Narrow the search for ECRs.
Change Request Detail	EG_IC_ECR_HDR	Click a request number, click the Add a Change Request button, or click the Edit button on the Select Change Request page.	View ECR detail information.
Engineering Change Request - Item Affected Detail	EG_IC_ECR_ASSY_RES	Click the Item Details button in the Items Affected group box on the Change Request Detail page.	View ECR item-affected information.

Selecting a Vendor for ECRs

Access the Select Vendor page.

A list of the vendors to which your suppliers are linked appears. Your suppliers can select the vendor whose information they want to view. The system then opens the Select Change Request page, which displays the ECRs available to that vendor.

Selecting ECRs

Access the Select Change Request page.

A list of all pending change requests appears for the default business unit to which the access has been granted.

Item ID

The component identifiers that appear in this column are those of the supplier if they are defined for the vendor and item combination with the Purchasing Attributes component in PeopleSoft Inventory. If no vendor and item information exists, then the customer item appears. You can define vendor item IDs using the Item Vendor page in PeopleSoft Inventory.

Suppliers can view a particular ECR if they created the ECR or if they have been given access to at least one of the affected items that the ECR impacts. If a supplier has ECR update privileges, then the supplier can submit new ECRs and update change requests created by the supplier. The supplier owns any request added by the supplier and can modify only change requests that the supplier owns. Suppliers can edit their ECRs but not your internally created ECRs. If the supplier doesn't have update privileges, then the supplier can only view ECRs; all change request fields are display-only, and all Add, Upload an Attachment, Delete, and Save buttons on the Change Request Detail page are unavailable.

Add a Change Request and Edit

If you have granted update ECR privileges to a supplier, then the system displays these buttons, enabling the supplier to add a new ECR or edit an existing ECR. These buttons access the Change Request Detail page.

Note. Suppliers are not prompted for business units when adding new requests. All change requests created by suppliers are created for the default business unit defined on the User Preferences page for the supplier user.

Note. The ECR Maintenance - Header page has a Not Accessible by Vendors check box, which, if selected, blocks vendor access to specific ECRs. Therefore, even if vendors have been granted access on the BOM Access by Vendor page, you can prevent vendor access to specific ECRs.

See Also

Chapter 9, "Creating Engineering Change Requests (ECRs)," Creating and Maintaining ECRs, page 144

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

Chapter 9, "Creating Engineering Change Requests (ECRs)," Creating and Maintaining ECRs, page 144

PeopleSoft Purchasing 8.8 PeopleBook, "Defining Purchasing Item Information," Defining Purchasing Item Vendor Relationship Attributes and Priorities

Setting ECR Filter Options

Access the Filter Options page.

Search for additional change requests by description, status, priority, and item.

Viewing Change Request Detail

Access the Change Request Detail page.

Upload an Attachment, Delete, and **Add**

These buttons are available if a supplier clicked the Add a Change Request or Edit buttons to access this page. These buttons enable suppliers to add, upload, or delete data on this page.

If the supplier has add ECR attachments capability (defined with the BOM Access by Vendor page), the supplier can upload new attachments or delete attachments as part of adding or modifying an ECR.

If the supplier accessed this page by selecting a specific request number on the Select Change Request page, this page is display-only, and these buttons are unavailable.

Items Affected

If the supplier owns the change request, then the supplier can enter any item in this group box. The supplier has limited access to the item prompt table; the system displays only items to which the supplier has been granted access. Any valid item entered is accepted by the system. To enter a brand new item, the supplier must select *New* in the Type column.

Reasons and Actions

If the supplier owns the change request, then the supplier can add or delete items in these group boxes.

Return to Select Change Request

Click to return to the Select Change Request page.

Send Email

Click to send email. The email contains a URL back to this specific Change Request Detail page, as well as a URL to the ECR Maintenance - Header page in PeopleSoft Engineering.

Save

This button is available if the supplier clicks the Add a Change Request or Edit buttons on the Select Change Request page.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Sending Email to Vendors

Viewing Item-Affected Details

Access the Engineering Change Request - Item Affected Detail page.

Add, Upload an Attachment, and **Delete**

These buttons are available if the supplier clicked the Add a Change Request or Edit buttons on the Select Change Request page to access the Item Affected Detail page. These buttons enable the supplier to add, upload, or delete data on this page.

If the supplier accessed the Change Request Detail page (the page used to access the Item Affected Detail page) by selecting a specific request

	number on the Select Change Request page, then both the Change Request Detail page and the Item Affected Detail page are display-only.
Return to Change Request Detail	Click to return to the Change Request Detail page.
View Production BOM and **View Engineering BOM**	If the supplier clicks these links, the system displays the Bill of Material page, which lists the current affected item. These links are unavailable if the affected item doesn't have a BOM or if the supplier doesn't have access to the BOM.

See Also

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

Viewing ECOs/Workflow

Using these pages, your suppliers can view ECOs to which you have given them access. If a supplier is associated with multiple vendors, prior to selecting the ECOs in which the supplier is interested, the supplier sees a Select Vendor page.

This section discusses how to:

- Select a vendor for ECOs.
- Select ECOs.
- View change order detail.
- View item-affected detail.

See Also

Chapter 10, "Creating Engineering Change Orders (ECOs)," page 151

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

Pages Used to View Supplier-Related ECOs/Workflow

Page Name	Object Name	Navigation	Usage
Select Vendor	EG_SS_VND_LIST	Review Product Design, Engineering Change Order	Select the vendor whose information you want to view on ECOs. Your vendor must be linked to more than one vendor for the system to display this page. Otherwise, it goes directly to the Select Change Order page.
Select Change Order	EG_IC_ECO_LIST	• Select Review Product Design, Engineering Change Order (if not associated with multiple vendors) • Click one of the vendor names on the Select Vendor page (if associated with multiple vendors).	Select an ECO from a list of all pending change orders for the default business unit to which access has been granted. Suppliers can view a specific ECO if granted access to at least one affected item on the order. A supplier can also view a change order if the supplier is one of the approvers of the order. When the supplier is an approver, it isn't required that the affected items be set up on the BOM Access by Vendor page.
Filter Option	EG_IC_ECO_SEARCH	Click the Set filter options link on the Select Change Order page.	Set ECO filter options to narrow the search for ECOs.
Change Order Detail	EG_IC_ECO_HEADER	Click an order number on the Select Change Order page.	View ECO detail information.
Engineering Change Order - Item Affected Detail	EG_IC_ECO_ASSY_RES	Click an item ID in the Items Affected group box on the Change Order Detail page.	View ECO item-affected information.

Selecting a Vendor for ECOs

Access the Select Vendor page.

Select the vendor whose item information you want to appear. The system then opens the Select Change Order page, which displays the ECOs available to that vendor.

Selecting ECOs

Access the Select Change Order page.

Item ID The component item identifiers in this column are those of the supplier if they are defined for the vendor and item combination using the Purchasing Attributes component in PeopleSoft Inventory. If no vendor and item

information exists, then the customer item appears. You can define vendor item IDs using the Item Vendor page in PeopleSoft Inventory.

Note. The ECO Maintenance - Header page contains a Not Accessible by Vendors check box, which, if selected, blocks access to specific ECOs. Therefore, even if suppliers have been granted access on the BOM Access by Vendor page, you can prevent supplier access to specific ECOs.

Viewing Change Order Detail

Access the Change Order Detail page.

Upload an Attachment If a supplier has the capability to add ECO attachments (defined with the BOM Access by Vendor page), the supplier can upload new attachments. If the privilege is granted, the Save button is available. While in the same session, the supplier can also delete attachments prior to saving. Once an attachment is uploaded and the ECO is saved, the supplier can't delete the attachment.

Return to Select Change Order Click to return to the Select Change Order page.

Send Email Click to send email. The email contains a URL to this specific Change Order Detail page, and a URL to the ECO Maintenance - Header page in PeopleSoft Engineering.

Approval Action If a supplier is listed in the Approval Process group box as the current approver, then the Approval Action group box becomes visible, and the supplier can approve, deny, or recycle the ECOs. Otherwise, this group box is unavailable.

When the supplier is included as an approver within a workflow step, the supplier can be automatically notified by email. This email contains a URL to the originating ECO page for the specific ECO requiring approval. When PeopleSoft Engineering is enabled for suppliers, the supplier can also access pertinent workflow information by using the task worklist pagelet functionality.

Comments After reviewing the ECO, a supplier can enter text in this field. Then, if the vendor step is the next step for approval, the supplier can approve, deny, or recycle the ECO by clicking the appropriate buttons.

Approve button If a supplier clicks this button, the approver in the next step of the approval process is notified by email and worklist entry.

Deny and Recycle buttons If the supplier clicks either of these buttons, the approver in the previous step is notified. Furthermore, when denied or recycled, the current action is reset, and the originator of the ECO is notified by email. To indicate when the originator (the person who submitted the ECO for workflow) should be notified in the approval process, use the System Workflow Rules page in the General Options navigation.

Viewing Item-Affected Detail

Access the Engineering Change Order - Item Affected Detail page.

Upload an Attachment	If a supplier has the capability to add ECO attachments (defined with the BOM Access by Vendor page), the supplier can upload new attachments. If the privilege is granted, the Save button is available. While in the same session, the supplier can also delete attachments prior to saving. Once an attachment is uploaded and the ECO is saved, the supplier can't delete the attachment.
Return to Change Order Detail	Click to return to the Change Order Detail page.
View Production BOM and **View Engineering BOM**	If a supplier clicks either of these links, the system opens the Bill of Material page, which displays the current affected item. These links are unavailable if the affected item doesn't have a BOM or if the supplier doesn't have access to the BOM.

See Also

Chapter 10, "Creating Engineering Change Orders (ECOs)," Creating and Maintaining ECOs, page 152

PeopleSoft Manufacturing 8.8 PeopleBook, "Maintaining Bills of Material," Defining BOM Access Privileges for Vendors

APPENDIX A

Delivered Workflows for PeopleSoft Engineering

This appendix discusses delivered workflows for PeopleSoft Engineering.

See Also

PeopleTools 8.44 PeopleBook: PeopleSoft Workflow

PeopleTools 8.44 PeopleBook: Using PeopleSoft Applications

Chapter 9, "Creating Engineering Change Requests (ECRs)," page 143

Chapter 10, "Creating Engineering Change Orders (ECOs)," page 151

Chapter 11, "Processing ECRs and ECOs," page 167

Delivered Workflows for PeopleSoft Engineering

This section discusses PeopleSoft Engineering workflows. The workflows are listed alphabetically by workflow name.

ECO Approval Routing

The section discusses the ECO Approval Routing workflow.

Description

Event Description	PeopleSoft Engineering creates an ECO and submits it for approval.
Action Description	Routes the ECO to various roles for approval, denial, change. When the ECO is submitted, a list of approval users is determined and stored with the ECO. Ad-hoc users can be added for ECO specific approvals.
Notification Method	Worklist

Workflow Objects

Event	ENGINEERING_ECO_APPROVAL
Workflow Action	ECO NOTIFICATION
Role	User Defined
Approval Rule Set	WF-1 (sample)

ECO Notification

The section discusses the ECO Notification workflow.

Description

Event Description	PeopleSoft Engineering creates an ECO.
Action Description	Notifies the requester that an ECO has been created.
Notification Method	Worklist

Workflow Objects

Event	ENGINEERING_ECO_APPROVAL
Role	Requester

ECR Creation Notification

The section discusses the ECR Creation Notification workflow.

Description

Event Description	Create an ECR.
Action Description	Notifies PeopleSoft Engineering that an ECR has been created.
Notification Method	Worklist

Workflow Objects

Event	ENGINEERING_ECR_NOTIFY
Workflow Action	ECR NOTIFICATION
Role	Engineering

Promote ECO

The section discusses the Promote ECO workflow.

Description

Event Description	ECO approval.
Action Description	Notifies the roles defined in the approval routing that an ECO has been created.
Notification Method	Worklist

Workflow Objects

Event	ENGINEERING_ECO_APPROVAL
Workflow Action	UPGRADE_ECO_ACTIVITY
Role	User Defined

APPENDIX B

PeopleSoft Engineering Reports

PeopleSoft applications offer a wide range of query and reporting possibilities. In addition to the standard reports that we deliver, we also provide reporting tools that you can use to create new reports.

This appendix provides an overview of PeopleSoft Engineering reports and enables you to:

- View summary tables of all reports.
- View report details.
- View standard financial reports.

Note. For samples of these and other reports in your application, see the PDF files published on CD-ROM with your documentation (for online users) or *PeopleSoft 8 (SP2) Reporting Tools* (for hard-copy users).

See Also

PeopleSoft PeopleTools PeopleBook: Process Scheduler

PeopleSoft Engineering Standard Reports: General Description

This table lists the PeopleSoft Engineering reports, sorted alphanumerically by report ID. The reports listed are all Structured Query Reports (SQRs). If you need more information about a report, refer to the report details at the end of this appendix.

Report ID and Report Name	Description	Navigation	Run Control Page
EGS1000 ECO Report	Lists ECO information for an item or range of items for a specific business unit for a specific date or range of dates. Includes department, classification, ECO status, priority, and the name of the requestor. Can be sorted by classification and ECO number; ECO number; item, schedule date, and priority; priority, schedule date, and ECO number; schedule date, priority, and ECO number; or status, schedule date, and ECO number.	Engineering, Engineering Changes, ECO Report, ECO Report	EG_ECO_REPORT
ENS1000 BOM Report	Lists the components on either manufacturing or engineering BOMs.	Engineering, BOMs and Revisions, Reports, Bills of Material, EBOM Report	EN_BOM_REPORT
ENS1001 Routing Report	Lists the routing information for both PeopleSoft Manufacturing and PeopleSoft Engineering routings.	Engineering, Routings, Engineering Routing Report, Routing Report	RUN_ENS1001
ENS1002 Compare Routings Report	Lists the differences between two manufacturing routings, two engineering routings, or one manufacturing routing and one engineering routing. Comparisons can also be based on the same item with different routing codes.	Engineering, Routings, Eng Routing Comparison Report, Routing Compare Report	RUN_ENS1002
ENS1003 Master Routing Where Used Report	Lists all items that reference another item as its master routing along with production data. This report is used in both PeopleSoft Manufacturing and PeopleSoft Engineering.	Engineering, Routings, Eng Master Rtg Where Used Rpt, Master Rtg Where Used Report	RUN_ENS1003
ENS1005 Compare BOMs Report	Lists the differences between a manufacturing and an engineering BOM, or two engineering BOMs.	• Engineering, BOMs and Revisions, Reports, EBOM Comparison, EBOM Compare Report • Engineering, BOMs and Revisions, Reports, EBOM Comparison, EBOM Compare Report, Print Options	EN_BOM_COMP_REPORT
ENS1010 BOM Cost Report	Lists the component costs on either manufacturing or engineering BOMs.	Engineering, BOMs and Revisions, Reports, EBOM Costed, EBOM Costed Report	EN_BOM_COST_REPORT

Report ID and Report Name	Description	Navigation	Run Control Page
ENS2000 Item Where Used Report	Lists all the BOMs on which an item appears either as a component or a substitute for a component. You'll find this information useful when you want to analyze the impact that component changes can have on all existing BOMs.	Engineering, BOMs and Revisions, Reports, Item Where Used	EN_WHEREUSED_RPT

PeopleSoft Engineering Reports: A to Z

This section provides detailed information about fields for the individual reports in PeopleSoft Engineering. The reports are listed alphanumerically by report ID.

EGS1000 - ECO Report

Status Select a status. The status indicates where the ECO is in the approval process. You can route notification to the appropriate role user specified for the given workflow step, using workflow virtual approval processing, if enabled. You can print a report for ECOs with these statuses:

- *Approved:* The ECO can be routed to the next appropriate user as defined within the approval rule set associated with the ECO type.
- *Canceled:* Workflow notification can be routed back to the previous role user who submitted the ECO or approved the previous activity.
- *Converted:* The ECO was converted from an ECR by the system.

  The ECR number is referenced on the report.
- *Denied:* Workflow notification can be routed back to the previous role user who submitted the ECO or approved the previous activity.
- *Pending:* If you select this status, you can enter and save Notes text, but no workflow is sent by the system.

Sort Options Select how you want the report to be sorted. Values are:

- *Classification, ECO Number*
- *ECO Number*
- *Item, Sched Date* (schedule date), *Priority*
- *Priority, Sched Date, ECO Number*
- *Sched Date, Priority, ECO Number*
- *Status, Sched Date, ECO Number*

ENS1000 - BOM Report

Print Options

These options denote detailed information that you may want to appear on the hard-copy report. You can select all attributes of the BOM or selected attributes. Attributes include:

- Substitutes: Substitute items for the BOM components, if any exist.
- Lower Level Outputs: Primary, co-product, and by-product items at lower levels of the BOM.
- Component Dimensions: Actual dimensions of the component, such as height, length, width, and weight.
- Reference Designators: The alphanumeric code that you can use to determine where a component is placed in an assembly.
- Component Text: Any text associated with the BOM components.
- Component Attachments: The names of any associated assembly attachments.
- Component Documents: The names of any associated assembly documents.

Note. The names of component documents print only if PeopleSoft Engineering is installed.

- Assembly Text: Any text associated with the assembly.
- Assembly Attachments: Names of any attachments (files) such as CAD drawings or product specifications.
- Assembly Documents: Names of any associated documents used during assembly, such as CAD drawings or product specifications.

Note. The names of any assembly documents print only if PeopleSoft Engineering is installed.

ENS1001 - Routing Report

Print Options

These options denote detailed information that you may want to appear on the report. You can select all or selected attributes to print, such as:

- Header Documents: Any text associated with the routing header information.
- Header Attachments: Any attachments (files) associated with the routing header information.
- Operation Resources: Resources that are being used at the operation step.
- Operation Time: The times necessary to complete this operation.

  This may include tasks and run rates such as fixed run, post production, run, and setup times.
- Conversion Code: Cost codes that determine the labor, machine, outside processing, and overhead cost of the operation.

- Operation Documents: Lists the names of any documents associated with the operation, such as CAD drawings or product specifications.
- Operation Attachments: Lists the names of routing operation attachments.

ENS1002 - Compare Routings Report

You use this report to compare baseline and target routing information.

Baseline Routing (RTG1):

Select a routing state. Values are: *Engineering* or *Manufacturing.*

Select an item ID range and a valid routing code.

Target Routing (RTG2):

Engineering appears by default as the routing state; it is a display-only field.

Select an item ID and a valid routing code.

To compare one routing code to another (for example, the primary routing to one of the item's alternates), enter the primary routing code (1) as the from and to routing for the Baseline Routing (RTG1). Then enter as the Target Routing (RTG2) the alternate routing code to which you want to compare the primary.

To see if any of an item's routings are comparable to another item's routing, enter the baseline routing codes (1 to 99 to compare the primary and all alternates) and the target's routing code to which all routings will be compared.

Print Options

These options denote detailed information that you may want to appear on the report. You can select all of the listed attributes, or selected attributes. Attributes include:

- Header Detail: Information such as routing type, routing code, and routing state is printed on the report.
- Header Documents: Any documents associated with the routing header information.
- Header Attachments: Any attachments (files) associated with the routing header information.
- Ops Sequence (operation sequence): The operation step that components or tasks may be added.
- Subcontractor Detail: If the operation step is a subcontracted operation, the vendor information is printed on the report.
- Operation Text: Any text associated with the operation step.
- Conversion Code: Cost codes that determine the labor, machine, outside processing, and overhead cost of the operation.
- Operation Resources: Resources that are being used at the operation step.
- Operation Time: The times necessary to complete this operation.

  This may include tasks and run rates such as fixed run, post production, run, and setup times.

- Operation Documents: Lists the names of any documents associated with the operation, such as CAD drawings or product specifications.

  Note. The Operation Documents print option is available only if you have PeopleSoft Engineering installed.

- Operation Attachments: Lists the names of routing operation attachments.

ENS1003 - Master Routing Where Used Report

Print Production Details Select this check box if you want to print production information for all dates or a range of dates. The report includes all production whose start date falls within the criteria selected.

Status Selection You can include production by selecting any of these statuses:

- Entered
- Firmed
- Released
- In Process
- Pend Complete (pending complete)
- Complete
- Clsd Labor (closed to labor)
- Clsd Acctg (closed to accounting)
- Canceled

ENS1005 - Compare BOMs Report

Use the Compare BOM Report to compare any two engineering BOMs or a manufacturing BOM and an engineering BOM within the same business unit. Using this report, you can compare one or more baseline BOMs to one target BOM. In the Baseline BOM (BOM1) group box, specify the item ID BOM that serves as the basis for comparison. The baseline BOM may have an engineering or manufacturing BOM state. The item ID that you specify in the Target BOM (BOM2) group box is the BOM that you are comparing with the baseline BOM (BOM1). The target BOM has an engineering BOM state.

Differences This field behaves the same way for all pages in this group. It displays the differences between the two BOMs. Values are:

- *Added:* The component ID has been added to the compare BOM (BOM2).
- *Deleted:* The component has been deleted from the compare BOM (BOM2).

  The system determines whether a component has been deleted, by comparing the component IDs, operation sequences, and effectivity dates; this is what makes a component unique within a BOM.

- *Chg BOM1:* If you have made a component change, you see the components listed.

The system lists a change when any information other than component ID, operation sequence, or effective date has changed.

- *Chg BOM2:* If you have made a component change, you see the components listed.

  The system lists a change when any information other than component ID, operation sequence, or effective date has changed.

The report includes component and assembly differences between the two BOMs so that you can use it to track changes.

Baseline BOM (BOM1):

Select the BOM state. Values are: *Engineering* or *Manufacturing.*

Select an item ID and a valid BOM code from the available options.

To use the BOM with a code of *1*, select *1* in both fields. You can also compare all the existing BOMs for the item to the target routing by selecting the appropriate BOM codes.

Select the All Dates/Revs check box to compare all effective dates and revisions for the baseline BOMs. To compare a BOM with a specific effective date, clear the All Dates/Revs check box, and enter the specific effective date.

Target BOM (BOM2):

Engineering appears by default as the BOM state; it is display-only.

Select an item ID and a valid BOM code for the target BOM.

Select the All Dates/Revs check box to compare all effective dates and revisions for the BOM. To compare a BOM with a specific effective date, enter the specific effective date.

Print Options

These options denote detailed information that you may want to appear on the hard-copy report. You can select all attributes of the BOM or selected attributes. Attributes include:

- Component Documents: The names of any associated assembly documents.

  Note. The names of component documents prints only if PeopleSoft Engineering is installed.

- Component Attachments: The names of any associated assembly attachments.
- Component Text: Any text associated with the BOM components.
- Reference Designators: The alphanumeric code that you can use to determine where a component is placed in an assembly.
- Substitutes: Substitute items for the BOM components, if any exist.
- Component Dimensions: Actual dimensions of the component, such as height, length, width, and weight.
- Top Level Outputs: Parent assembly items only.

- Assembly Header: Any text associated with the assembly.
- Assembly Documents: Names of any associated documents used during assembly, such as CAD drawings or product specifications.

Note. The names of any assembly documents print only if PeopleSoft Engineering is installed.

- Assembly Attachments: Names of any attachments (files), such as CAD drawings or product specifications.

ENS1010 - BOM Cost Report

Cost as Batch Select this check box if the BOM has multiple outputs.

Print Lower Level Outputs Select this check box if you want the hard-copy report to include the costs of multiple output items for components that are end items.

ENS2000 - Item Where Used Report

You can select all or a range of components, substitutes, or outputs, if any exist for the component. If you select Components, the system searches to see if the items are specified as a component on a BOM. If you select Substitutes, the system searches to see if the item is a substitute item on a BOM. If you select All, the system checks to see if the item is a component or a substitute.

Select the All Dates/Revs check box to search all effective dates and revisions for the BOM. To search for components or substitutes effective on a specific date, enter an effective date.

Set Levels Up to *1*, to view only the component's parent assembly. The larger the number, the higher the level. For example, level *3* is three levels higher in the bill of material structure than the component.

Glossary of PeopleSoft Terms

absence entitlement This element defines rules for granting paid time off for valid absences, such as sick time, vacation, and maternity leave. An absence entitlement element defines the entitlement amount, frequency, and entitlement period.

absence take This element defines the conditions that must be met before a payee is entitled to take paid time off.

accounting class In PeopleSoft Enterprise Performance Management, the accounting class defines how a resource is treated for generally accepted accounting practices. The Inventory class indicates whether a resource becomes part of a balance sheet account, such as inventory or fixed assets, while the Non-inventory class indicates that the resource is treated as an expense of the period during which it occurs.

accounting date The accounting date indicates when a transaction is recognized, as opposed to the date the transaction actually occurred. The accounting date and transaction date can be the same. The accounting date determines the period in the general ledger to which the transaction is to be posted. You can only select an accounting date that falls within an open period in the ledger to which you are posting. The accounting date for an item is normally the invoice date.

accounting split The accounting split method indicates how expenses are allocated or divided among one or more sets of accounting ChartFields.

accumulator You use an accumulator to store cumulative values of defined items as they are processed. You can accumulate a single value over time or multiple values over time. For example, an accumulator could consist of all voluntary deductions, or all company deductions, enabling you to accumulate amounts. It allows total flexibility for time periods and values accumulated.

action reason The reason an employee's job or employment information is updated. The action reason is entered in two parts: a personnel action, such as a promotion, termination, or change from one pay group to another—and a reason for that action. Action reasons are used by PeopleSoft Human Resources, PeopleSoft Benefits Administration, PeopleSoft Stock Administration, and the COBRA Administration feature of the Base Benefits business process.

action template In PeopleSoft Receivables, outlines a set of escalating actions that the system or user performs based on the period of time that a customer or item has been in an action plan for a specific condition.

activity In PeopleSoft Enterprise Learning Management, an instance of a catalog item (sometimes called a class) that is available for enrollment. The activity defines such things as the costs that are associated with the offering, enrollment limits and deadlines, and waitlisting capacities.

In PeopleSoft Enterprise Performance Management, the work of an organization and the aggregation of actions that are used for activity-based costing.

In PeopleSoft Project Costing, the unit of work that provides a further breakdown of projects—usually into specific tasks.

In PeopleSoft Workflow, a specific transaction that you might need to perform in a business process. Because it consists of the steps that are used to perform a transaction, it is also known as a step map.

agreement In PeopleSoft eSettlements, provides a way to group and specify processing options, such as payment terms, pay from a bank, and notifications by a buyer and supplier location combination.

allocation rule In PeopleSoft Enterprise Incentive Management, an expression within compensation plans that enables the system to assign transactions to nodes and participants. During transaction allocation, the allocation engine traverses the compensation structure from the current node to the root node, checking each node for plans that contain allocation rules.

alternate account A feature in PeopleSoft General Ledger that enables you to create a statutory chart of accounts and enter statutory account transactions at the detail transaction level, as required for recording and reporting by some national governments.

AR specialist Abbreviation for *receivables specialist.* In PeopleSoft Receivables, an individual in who tracks and resolves deductions and disputed items.

arbitration plan In PeopleSoft Enterprise Pricer, defines how price rules are to be applied to the base price when the transaction is priced.

assessment rule In PeopleSoft Receivables, a user-defined rule that the system uses to evaluate the condition of a customer's account or of individual items to determine whether to generate a follow-up action.

asset class An asset group used for reporting purposes. It can be used in conjunction with the asset category to refine asset classification.

attribute/value pair In PeopleSoft Directory Interface, relates the data that makes up an entry in the directory information tree.

authentication server A server that is set up to verify users of the system.

base time period In PeopleSoft Business Planning, the lowest level time period in a calendar.

benchmark job In PeopleSoft Workforce Analytics, a benchmark job is a job code for which there is corresponding salary survey data from published, third-party sources.

book In PeopleSoft Asset Management, used for storing financial and tax information, such as costs, depreciation attributes, and retirement information on assets.

branch A tree node that rolls up to nodes above it in the hierarchy, as defined in PeopleSoft Tree Manager.

budgetary account only An account used by the system only and not by users; this type of account does not accept transactions. You can only budget with this account. Formerly called "system-maintained account."

budget check In commitment control, the processing of source transactions against control budget ledgers, to see if they pass, fail, or pass with a warning.

budget control In commitment control, budget control ensures that commitments and expenditures don't exceed budgets. It enables you to track transactions against corresponding budgets and terminate a document's cycle if the defined budget conditions are not met. For example, you can prevent a purchase order from being dispatched to a vendor if there are insufficient funds in the related budget to support it.

budget period The interval of time (such as 12 months or 4 quarters) into which a period is divided for budgetary and reporting purposes. The ChartField allows maximum flexibility to define operational accounting time periods without restriction to only one calendar.

business event In PeopleSoft Receivables, defines the processing characteristics for the Receivable Update process for a draft activity.

	In PeopleSoft Sales Incentive Management, an original business transaction or activity that may justify the creation of a PeopleSoft Enterprise Incentive Management event (a sale, for example).
business unit	A corporation or a subset of a corporation that is independent with regard to one or more operational or accounting functions.
buyer	In PeopleSoft eSettlements, an organization (or business unit, as opposed to an individual) that transacts with suppliers (vendors) within the system. A buyer creates payments for purchases that are made in the system.
catalog item	In PeopleSoft Enterprise Learning Management, a specific topic that a learner can study and have tracked. For example, “Introduction to Microsoft Word.” A catalog item contains general information about the topic and includes a course code, description, categorization, keywords, and delivery methods. A catalog item can have one or more learning activities.
catalog map	In PeopleSoft Catalog Management, translates values from the catalog source data to the format of the company’s catalog.
catalog partner	In PeopleSoft Catalog Management, shares responsibility with the enterprise catalog manager for maintaining catalog content.
categorization	Associates partner offerings with catalog offerings and groups them into enterprise catalog categories.
channel	In PeopleSoft MultiChannel Framework, email, chat, voice (computer telephone integration [CTI]), or a generic event.
ChartField	A field that stores a chart of accounts, resources, and so on, depending on the PeopleSoft application. ChartField values represent individual account numbers, department codes, and so forth.
ChartField balancing	You can require specific ChartFields to match up (balance) on the debit and the credit side of a transaction.
ChartField combination edit	The process of editing journal lines for valid ChartField combinations based on user-defined rules.
ChartKey	One or more fields that uniquely identify each row in a table. Some tables contain only one field as the key, while others require a combination.
checkbook	In PeopleSoft Promotions Management, enables you to view financial data (such as planned, incurred, and actual amounts) that is related to funds and trade promotions.
Class ChartField	A ChartField value that identifies a unique appropriation budget key when you combine it with a fund, department ID, and program code, as well as a budget period. Formerly called *sub-classification.*
clone	In PeopleCode, to make a unique copy. In contrast, to *copy* may mean making a new reference to an object, so if the underlying object is changed, both the copy and the original change.
collection	To make a set of documents available for searching in Verity, you must first create at least one collection. A collection is set of directories and files that allow search application users to use the Verity search engine to quickly find and display source documents that match search criteria. A collection is a set of statistics and pointers to the source documents, stored in a proprietary format on a file server. Because a collection can only store information for a single location, PeopleSoft maintains a set of collections (one per language code) for each search index object.

collection rule In PeopleSoft Receivables, a user-defined rule that defines actions to take for a customer based on both the amount and the number of days past due for outstanding balances.

compensation object In PeopleSoft Enterprise Incentive Management, a node within a compensation structure. Compensation objects are the building blocks that make up a compensation structure's hierarchical representation.

compensation structure In PeopleSoft Enterprise Incentive Management, a hierarchical relationship of compensation objects that represents the compensation-related relationship between the objects.

condition In PeopleSoft Receivables, occurs when there is a change of status for a customer's account, such as reaching a credit limit or exceeding a user-defined balance due.

configuration parameter catalog Used to configure an external system with PeopleSoft. For example, a configuration parameter catalog might set up configuration and communication parameters for an external server.

configuration plan In PeopleSoft Enterprise Incentive Management, configuration plans hold allocation information for common variables (not incentive rules) and are attached to a node without a participant. Configuration plans are not processed by transactions.

content reference Content references are pointers to content registered in the portal registry. These are typically either URLs or iScripts. Content references fall into three categories: target content, templates, and template pagelets.

context In PeopleCode, determines which buffer fields can be contextually referenced and which is the current row of data on each scroll level when a PeopleCode program is running.

In PeopleSoft Enterprise Incentive Management, a mechanism that is used to determine the scope of a processing run. PeopleSoft Enterprise Incentive Management uses three types of context: plan, period, and run-level.

control table Stores information that controls the processing of an application. This type of processing might be consistent throughout an organization, or it might be used only by portions of the organization for more limited sharing of data.

cost profile A combination of a receipt cost method, a cost flow, and a deplete cost method. A profile is associated with a cost book and determines how items in that book are valued, as well as how the material movement of the item is valued for the book.

cost row A cost transaction and amount for a set of ChartFields.

current learning In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's in-progress learning activities and programs.

data acquisition In PeopleSoft Enterprise Incentive Management, the process during which raw business transactions are acquired from external source systems and fed into the operational data store (ODS).

data elements Data elements, at their simplest level, define a subset of data and the rules by which to group them.

For Workforce Analytics, data elements are rules that tell the system what measures to retrieve about your workforce groups.

dataset A data grouping that enables role-based filtering and distribution of data. You can limit the range and quantity of data that is displayed for a user by associating dataset rules with user roles. The result of dataset rules is a set of data that is appropriate for the user's roles.

delivery method In PeopleSoft Enterprise Learning Management, identifies the primary type of delivery method in which a particular learning activity is offered. Also provides default values for the learning activity, such as cost and language. This is primarily used to help learners search the catalog for the type of delivery from which they learn best. Because PeopleSoft Enterprise Learning Management is a blended learning system, it does not enforce the delivery method.

In PeopleSoft Supply Chain Management, identifies the method by which goods are shipped to their destinations (such as truck, air, rail, and so on). The delivery method is specified when creating shipment schedules.

delivery method type In PeopleSoft Enterprise Learning Management, identifies how learning activities can be delivered—for example, through online learning, classroom instruction, seminars, books, and so forth—in an organization. The type determines whether the delivery method includes scheduled components.

directory information tree In PeopleSoft Directory Interface, the representation of a directory's hierarchical structure.

document sequencing A flexible method that sequentially numbers the financial transactions (for example, bills, purchase orders, invoices, and payments) in the system for statutory reporting and for tracking commercial transaction activity.

dynamic detail tree A tree that takes its detail values—dynamic details—directly from a table in the database, rather than from a range of values that are entered by the user.

edit table A table in the database that has its own record definition, such as the Department table. As fields are entered into a PeopleSoft application, they can be validated against an edit table to ensure data integrity throughout the system.

effective date A method of dating information in PeopleSoft applications. You can predate information to add historical data to your system, or postdate information in order to enter it before it actually goes into effect. By using effective dates, you don't delete values; you enter a new value with a current effective date.

EIM ledger Abbreviation for *Enterprise Incentive Management ledger.* In PeopleSoft Enterprise Incentive Management, an object to handle incremental result gathering within the scope of a participant. The ledger captures a result set with all of the appropriate traces to the data origin and to the processing steps of which it is a result.

elimination set In PeopleSoft General Ledger, a related group of intercompany accounts that is processed during consolidations.

entry event In PeopleSoft General Ledger, Receivables, Payables, Purchasing, and Billing, a business process that generates multiple debits and credits resulting from single transactions to produce standard, supplemental accounting entries.

equitization In PeopleSoft General Ledger, a business process that enables parent companies to calculate the net income of subsidiaries on a monthly basis and adjust that amount to increase the investment amount and equity income amount before performing consolidations.

event A predefined point either in the Component Processor flow or in the program flow. As each point is encountered, the event activates each component, triggering any PeopleCode program that is associated with that component and that event. Examples of events are FieldChange, SavePreChange, and RowDelete.

In PeopleSoft Human Resources, also refers to an incident that affects benefits eligibility.

event propagation process In PeopleSoft Sales Incentive Management, a process that determines, through logic, the propagation of an original PeopleSoft Enterprise Incentive Management event and creates a derivative (duplicate) of the original event to be processed by other objects.

	Sales Incentive Management uses this mechanism to implement splits, roll-ups, and so on. Event propagation determines who receives the credit.
exception	In PeopleSoft Receivables, an item that either is a deduction or is in dispute.
exclusive pricing	In PeopleSoft Order Management, a type of arbitration plan that is associated with a price rule. Exclusive pricing is used to price sales order transactions.
fact	In PeopleSoft applications, facts are numeric data values from fields from a source database as well as an analytic application. A fact can be anything you want to measure your business by, for example, revenue, actual, budget data, or sales numbers. A fact is stored on a fact table.
forecast item	A logical entity with a unique set of descriptive demand and forecast data that is used as the basis to forecast demand. You create forecast items for a wide range of uses, but they ultimately represent things that you buy, sell, or use in your organization and for which you require a predictable usage.
fund	In PeopleSoft Promotions Management, a budget that can be used to fund promotional activity. There are four funding methods: top down, fixed accrual, rolling accrual, and zero-based accrual.
generic process type	In PeopleSoft Process Scheduler, process types are identified by a generic process type. For example, the generic process type SQR includes all SQR process types, such as SQR process and SQR report.
group	In PeopleSoft Billing and Receivables, a posting entity that comprises one or more transactions (items, deposits, payments, transfers, matches, or write-offs). In PeopleSoft Human Resources Management and Supply Chain Management, any set of records that are associated under a single name or variable to run calculations in PeopleSoft business processes. In PeopleSoft Time and Labor, for example, employees are placed in groups for time reporting purposes.
incentive object	In PeopleSoft Enterprise Incentive Management, the incentive-related objects that define and support the PeopleSoft Enterprise Incentive Management calculation process and results, such as plan templates, plans, results data, user interaction objects, and so on.
incentive rule	In PeopleSoft Sales Incentive Management, the commands that act on transactions and turn them into compensation. A rule is one part in the process of turning a transaction into compensation.
incur	In PeopleSoft Promotions Management, to become liable for a promotional payment. In other words, you owe that amount to a customer for promotional activities.
item	In PeopleSoft Inventory, a tangible commodity that is stored in a business unit (shipped from a warehouse). In PeopleSoft Demand Planning, Inventory Policy Planning, and Supply Planning, a noninventory item that is designated as being used for planning purposes only. It can represent a family or group of inventory items. It can have a planning bill of material (BOM) or planning routing, and it can exist as a component on a planning BOM. A planning item cannot be specified on a production or engineering BOM or routing, and it cannot be used as a component in a production. The quantity on hand will never be maintained. In PeopleSoft Receivables, an individual receivable. An item can be an invoice, a credit memo, a debit memo, a write-off, or an adjustment.
KPI	An abbreviation for *key performance indicator.* A high-level measurement of how well an organization is doing in achieving critical success factors. This defines the data value or calculation upon which an assessment is determined.

LDIF file Abbreviation for *Lightweight Directory Access Protocol (LDAP) Data Interchange Format file.* Contains discrepancies between PeopleSoft data and directory data.

learner group In PeopleSoft Enterprise Learning Management, a group of learners who are linked to the same learning environment. Members of the learner group can share the same attributes, such as the same department or job code. Learner groups are used to control access to and enrollment in learning activities and programs. They are also used to perform group enrollments and mass enrollments in the back office.

learning components In PeopleSoft Enterprise Learning Management, the foundational building blocks of learning activities. PeopleSoft Enterprise Learning Management supports six basic types of learning components: web-based, session, webcast, test, survey, and assignment. One or more of these learning component types compose a single learning activity.

learning environment In PeopleSoft Enterprise Learning Management, identifies a set of categories and catalog items that can be made available to learner groups. Also defines the default values that are assigned to the learning activities and programs that are created within a particular learning environment. Learning environments provide a way to partition the catalog so that learners see only those items that are relevant to them.

learning history In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's completed learning activities and programs.

ledger mapping You use ledger mapping to relate expense data from general ledger accounts to resource objects. Multiple ledger line items can be mapped to one or more resource IDs. You can also use ledger mapping to map dollar amounts (referred to as *rates*) to business units. You can map the amounts in two different ways: an actual amount that represents actual costs of the accounting period, or a budgeted amount that can be used to calculate the capacity rates as well as budgeted model results. In PeopleSoft Enterprise Warehouse, you can map general ledger accounts to the EW Ledger table.

library section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan (or template) and that is available for other plans to share. Changes to a library section are reflected in all plans that use it.

linked section In PeopleSoft Enterprise Incentive Management, a section that is defined in a plan template but appears in a plan. Changes to linked sections propagate to plans using that section.

linked variable In PeopleSoft Enterprise Incentive Management, a variable that is defined and maintained in a plan template and that also appears in a plan. Changes to linked variables propagate to plans using that variable.

load In PeopleSoft Inventory, identifies a group of goods that are shipped together. Load management is a feature of PeopleSoft Inventory that is used to track the weight, the volume, and the destination of a shipment.

local functionality In PeopleSoft HRMS, the set of information that is available for a specific country. You can access this information when you click the appropriate country flag in the global window, or when you access it by a local country menu.

location Locations enable you to indicate the different types of addresses—for a company, for example, one address to receive bills, another for shipping, a third for postal deliveries, and a separate street address. Each address has a different location number. The primary location—indicated by a *1*—is the address you use most often and may be different from the main address.

logistical task In PeopleSoft Services Procurement, an administrative task that is related to hiring a service provider. Logistical tasks are linked to the service type on the work order so that different types of services can have different logistical tasks. Logistical tasks include both preapproval tasks (such as assigning a new badge or ordering a new

	laptop) and postapproval tasks (such as scheduling orientation or setting up the service provider email). The logistical tasks can be mandatory or optional. Mandatory preapproval tasks must be completed before the work order is approved. Mandatory postapproval tasks, on the other hand, must be completed before a work order is released to a service provider.
market template	In PeopleSoft Enterprise Incentive Management, additional functionality that is specific to a given market or industry and is built on top of a product category.
match group	In PeopleSoft Receivables, a group of receivables items and matching offset items. The system creates match groups by using user-defined matching criteria for selected field values.
MCF server	Abbreviation for *PeopleSoft MultiChannel Framework server.* Comprises the universal queue server and the MCF log server. Both processes are started when *MCF Servers* is selected in an application server domain configuration.
merchandising activity	In PeopleSoft Promotions Management, a specific discount type that is associated with a trade promotion (such as off-invoice, billback or rebate, or lump-sum payment) that defines the performance that is required to receive the discount. In the industry, you may know this as an offer, a discount, a merchandising event, an event, or a tactic.
meta-SQL	Meta-SQL constructs expand into platform-specific Structured Query Language (SQL) substrings. They are used in functions that pass SQL strings, such as in SQL objects, the SQLExec function, and PeopleSoft Application Engine programs.
metastring	Metastrings are special expressions included in SQL string literals. The metastrings, prefixed with a percent (%) symbol, are included directly in the string literals. They expand at run time into an appropriate substring for the current database platform.
multibook	In PeopleSoft General Ledger, multiple ledgers having multiple-base currencies that are defined for a business unit, with the option to post a single transaction to all base currencies (all ledgers) or to only one of those base currencies (ledgers).
multicurrency	The ability to process transactions in a currency other than the business unit's base currency.
national allowance	In PeopleSoft Promotions Management, a promotion at the corporate level that is funded by nondiscretionary dollars. In the industry, you may know this as a national promotion, a corporate promotion, or a corporate discount.
node-oriented tree	A tree that is based on a detail structure, but the detail values are not used.
pagelet	Each block of content on the home page is called a pagelet. These pagelets display summary information within a small rectangular area on the page. The pagelet provide users with a snapshot of their most relevant PeopleSoft and non-PeopleSoft content.
participant	In PeopleSoft Enterprise Incentive Management, participants are recipients of the incentive compensation calculation process.
participant object	Each participant object may be related to one or more compensation objects. See also *compensation object.*
partner	A company that supplies products or services that are resold or purchased by the enterprise.
pay cycle	In PeopleSoft Payables, a set of rules that define the criteria by which it should select scheduled payments for payment creation.
pending item	In PeopleSoft Receivables, an individual receivable (such as an invoice, a credit memo, or a write-off) that has been entered in or created by the system, but hasn't been posted.

PeopleCode PeopleCode is a proprietary language, executed by the PeopleSoft application processor. PeopleCode generates results based upon existing data or user actions. By using business interlink objects, external services are available to all PeopleSoft applications wherever PeopleCode can be executed.

PeopleCode event An action that a user takes upon an object, usually a record field, that is referenced within a PeopleSoft page.

PeopleSoft Internet Architecture The fundamental architecture on which PeopleSoft 8 applications are constructed, consisting of a relational database management system (RDBMS), an application server, a web server, and a browser.

performance measurement In PeopleSoft Enterprise Incentive Management, a variable used to store data (similar to an aggregator, but without a predefined formula) within the scope of an incentive plan. Performance measures are associated with a plan calendar, territory, and participant. Performance measurements are used for quota calculation and reporting.

period context In PeopleSoft Enterprise Incentive Management, because a participant typically uses the same compensation plan for multiple periods, the period context associates a plan context with a specific calendar period and fiscal year. The period context references the associated plan context, thus forming a chain. Each plan context has a corresponding set of period contexts.

plan In PeopleSoft Sales Incentive Management, a collection of allocation rules, variables, steps, sections, and incentive rules that instruct the PeopleSoft Enterprise Incentive Management engine in how to process transactions.

plan context In PeopleSoft Enterprise Incentive Management, correlates a participant with the compensation plan and node to which the participant is assigned, enabling the PeopleSoft Enterprise Incentive Management system to find anything that is associated with the node and that is required to perform compensation processing. Each participant, node, and plan combination represents a unique plan context—if three participants are on a compensation structure, each has a different plan context. Configuration plans are identified by plan contexts and are associated with the participants that refer to them.

plan template In PeopleSoft Enterprise Incentive Management, the base from which a plan is created. A plan template contains common sections and variables that are inherited by all plans that are created from the template. A template may contain steps and sections that are not visible in the plan definition.

planned learning In PeopleSoft Enterprise Learning Management, a self-service repository for all of a learner's planned learning activities and programs.

planning instance In PeopleSoft Supply Planning, a set of data (business units, items, supplies, and demands) constituting the inputs and outputs of a supply plan.

portal registry In PeopleSoft applications, the portal registry is a tree-like structure in which content references are organized, classified, and registered. It is a central repository that defines both the structure and content of a portal through a hierarchical, tree-like structure of folders useful for organizing and securing content references.

price list In PeopleSoft Enterprise Pricer, enables you to select products and conditions for which the price list applies to a transaction. During a transaction, the system either determines the product price based on the predefined search hierarchy for the transaction or uses the product's lowest price on any associated, active price lists. This price is used as the basis for any further discounts and surcharges.

price rule In PeopleSoft Enterprise Pricer, defines the conditions that must be met for adjustments to be applied to the base price. Multiple rules can apply when conditions of each rule are met.

price rule condition In PeopleSoft Enterprise Pricer, selects the price-by fields, the values for the price-by fields, and the operator that determines how the price-by fields are related to the transaction.

price rule key In PeopleSoft Enterprise Pricer, defines the fields that are available to define price rule conditions (which are used to match a transaction) on the price rule.

process category In PeopleSoft Process Scheduler, processes that are grouped for server load balancing and prioritization.

process group In PeopleSoft Financials, a group of application processes (performed in a defined order) that users can initiate in real time, directly from a transaction entry page.

process definition Process definitions define each run request.

process instance A unique number that identifies each process request. This value is automatically incremented and assigned to each requested process when the process is submitted to run.

process job You can link process definitions into a job request and process each request serially or in parallel. You can also initiate subsequent processes based on the return code from each prior request.

process request A single run request, such as a Structured Query Report (SQR), a COBOL or Application Engine program, or a Crystal report that you run through PeopleSoft Process Scheduler.

process run control A PeopleTools variable used to retain PeopleSoft Process Scheduler values needed at runtime for all requests that reference a run control ID. Do not confuse these with application run controls, which may be defined with the same run control ID, but only contain information specific to a given application process request.

product category In PeopleSoft Enterprise Incentive Management, indicates an application in the Enterprise Incentive Management suite of products. Each transaction in the PeopleSoft Enterprise Incentive Management system is associated with a product category.

programs In PeopleSoft Enterprise Learning Management, a high-level grouping that guides the learner along a specific learning path through sections of catalog items. PeopleSoft Enterprise Learning Systems provides two types of programs—curricula and certifications.

progress log In PeopleSoft Services Procurement, tracks deliverable-based projects. This is similar to the time sheet in function and process. The service provider contact uses the progress log to record and submit progress on deliverables. The progress can be logged by the activity that is performed, by the percentage of work that is completed, or by the completion of milestone activities that are defined for the project.

project transaction In PeopleSoft Project Costing, an individual transaction line that represents a cost, time, budget, or other transaction row.

promotion In PeopleSoft Promotions Management, a trade promotion, which is typically funded from trade dollars and used by consumer products manufacturers to increase sales volume.

publishing In PeopleSoft Enterprise Incentive Management, a stage in processing that makes incentive-related results available to participants.

record group A set of logically and functionally related control tables and views. Record groups help enable TableSet sharing, which eliminates redundant data entry. Record groups ensure that TableSet sharing is applied consistently across all related tables and views.

record input VAT flag Abbreviation for *record input value-added tax flag*. Within PeopleSoft Purchasing, Payables, and General Ledger, this flag indicates that you are recording input VAT

	on the transaction. This flag, in conjunction with the record output VAT flag, is used to determine the accounting entries created for a transaction and to determine how a transaction is reported on the VAT return. For all cases within Purchasing and Payables where VAT information is tracked on a transaction, this flag is set to Yes. This flag is not used in PeopleSoft Order Management, Billing, or Receivables, where it is assumed that you are always recording only output VAT, or in PeopleSoft Expenses, where it is assumed that you are always recording only input VAT.
record output VAT flag	Abbreviation for *record output value-added tax flag*. See *record input VAT flag*.
reference data	In PeopleSoft Sales Incentive Management, system objects that represent the sales organization, such as territories, participants, products, customers, channels, and so on.
reference object	In PeopleSoft Enterprise Incentive Management, this dimension-type object further defines the business. Reference objects can have their own hierarchy (for example, product tree, customer tree, industry tree, and geography tree).
reference transaction	In commitment control, a reference transaction is a source transaction that is referenced by a higher-level (and usually later) source transaction, in order to automatically reverse all or part of the referenced transaction's budget-checked amount. This avoids duplicate postings during the sequential entry of the transaction at different commitment levels. For example, the amount of an encumbrance transaction (such as a purchase order) will, when checked and recorded against a budget, cause the system to concurrently reference and relieve all or part of the amount of a corresponding pre-encumbrance transaction, such as a purchase requisition.
regional sourcing	In PeopleSoft Purchasing, provides the infrastructure to maintain, display, and select an appropriate vendor and vendor pricing structure that is based on a regional sourcing model where the multiple ship to locations are grouped. Sourcing may occur at a level higher than the ship to location.
relationship object	In PeopleSoft Enterprise Incentive Management, these objects further define a compensation structure to resolve transactions by establishing associations between compensation objects and business objects.
remote data source data	Data that is extracted from a separate database and migrated into the local database.
REN server	Abbreviation for *real-time event notification server* in PeopleSoft MultiChannel Framework.
requester	In PeopleSoft eSettlements, an individual who requests goods or services and whose ID appears on the various procurement pages that reference purchase orders.
role	Describes how people fit into PeopleSoft Workflow. A role is a class of users who perform the same type of work, such as clerks or managers. Your business rules typically specify what user role needs to do an activity.
role user	A PeopleSoft Workflow user. A person's role user ID serves much the same purpose as a user ID does in other parts of the system. PeopleSoft Workflow uses role user IDs to determine how to route worklist items to users (through an email address, for example) and to track the roles that users play in the workflow. Role users do not need PeopleSoft user IDs.
roll up	In a tree, to roll up is to total sums based on the information hierarchy.
run control	A run control is a type of online page that is used to begin a process, such as the batch processing of a payroll run. Run control pages generally start a program that manipulates data.
run control ID	A unique ID to associate each user with his or her own run control table entries.

run-level context In PeopleSoft Enterprise Incentive Management, associates a particular run (and batch ID) with a period context and plan context. Every plan context that participates in a run has a separate run-level context. Because a run cannot span periods, only one run-level context is associated with each plan context.

search query You use this set of objects to pass a query string and operators to the search engine. The search index returns a set of matching results with keys to the source documents.

section In PeopleSoft Enterprise Incentive Management, a collection of incentive rules that operate on transactions of a specific type. Sections enable plans to be segmented to process logical events in different sections.

security event In commitment control, security events trigger security authorization checking, such as budget entries, transfers, and adjustments; exception overrides and notifications; and inquiries.

serial genealogy In PeopleSoft Manufacturing, the ability to track the composition of a specific, serial-controlled item.

serial in production In PeopleSoft Manufacturing, enables the tracing of serial information for manufactured items. This is maintained in the Item Master record.

session In PeopleSoft Enterprise Learning Management, a single meeting day of an activity (that is, the period of time between start and finish times within a day). The session stores the specific date, location, meeting time, and instructor. Sessions are used for scheduled training.

session template In PeopleSoft Enterprise Learning Management, enables you to set up common activity characteristics that may be reused while scheduling a PeopleSoft Enterprise Learning Management activity—characteristics such as days of the week, start and end times, facility and room assignments, instructors, and equipment. A session pattern template can be attached to an activity that is being scheduled. Attaching a template to an activity causes all of the default template information to populate the activity session pattern.

setup relationship In PeopleSoft Enterprise Incentive Management, a relationship object type that associates a configuration plan with any structure node.

share driver expression In PeopleSoft Business Planning, a named planning method similar to a driver expression, but which you can set up globally for shared use within a single planning application or to be shared between multiple planning applications through PeopleSoft Enterprise Warehouse.

single signon With single signon, users can, after being authenticated by a PeopleSoft application server, access a second PeopleSoft application server without entering a user ID or password.

source transaction In commitment control, any transaction generated in a PeopleSoft or third-party application that is integrated with commitment control and which can be checked against commitment control budgets. For example, a pre-encumbrance, encumbrance, expenditure, recognized revenue, or collected revenue transaction.

SpeedChart A user-defined shorthand key that designates several ChartKeys to be used for voucher entry. Percentages can optionally be related to each ChartKey in a SpeedChart definition.

SpeedType A code representing a combination of ChartField values. SpeedTypes simplify the entry of ChartFields commonly used together.

staging A method of consolidating selected partner offerings with the offerings from the enterprise's other partners.

statutory account Account required by a regulatory authority for recording and reporting financial results. In PeopleSoft, this is equivalent to the Alternate Account (ALTACCT) ChartField.

step In PeopleSoft Sales Incentive Management, a collection of sections in a plan. Each step corresponds to a step in the job run.

storage level In PeopleSoft Inventory, identifies the level of a material storage location. Material storage locations are made up of a business unit, a storage area, and a storage level. You can set up to four storage levels.

subcustomer qualifier A value that groups customers into a division for which you can generate detailed history, aging, events, and profiles.

Summary ChartField You use summary ChartFields to create summary ledgers that roll up detail amounts based on specific detail values or on selected tree nodes. When detail values are summarized using tree nodes, summary ChartFields must be used in the summary ledger data record to accommodate the maximum length of a node name (20 characters).

summary ledger An accounting feature used primarily in allocations, inquiries, and PS/nVision reporting to store combined account balances from detail ledgers. Summary ledgers increase speed and efficiency of reporting by eliminating the need to summarize detail ledger balances each time a report is requested. Instead, detail balances are summarized in a background process according to user-specified criteria and stored on summary ledgers. The summary ledgers are then accessed directly for reporting.

summary time period In PeopleSoft Business Planning, any time period (other than a base time period) that is an aggregate of other time periods, including other summary time periods and base time periods, such as quarter and year total.

summary tree A tree used to roll up accounts for each type of report in summary ledgers. Summary trees enable you to define trees on trees. In a summary tree, the detail values are really nodes on a detail tree or another summary tree (known as the *basis* tree). A summary tree structure specifies the details on which the summary trees are to be built.

syndicate To distribute a production version of the enterprise catalog to partners.

system function In PeopleSoft Receivables, an activity that defines how the system generates accounting entries for the general ledger.

TableSet A means of sharing similar sets of values in control tables, where the actual data values are different but the structure of the tables is the same.

TableSet sharing Shared data that is stored in many tables that are based on the same TableSets. Tables that use TableSet sharing contain the SETID field as an additional key or unique identifier.

target currency The value of the entry currency or currencies converted to a single currency for budget viewing and inquiry purposes.

template A template is HTML code associated with a web page. It defines the layout of the page and also where to get HTML for each part of the page. In PeopleSoft, you use templates to build a page by combining HTML from a number of sources. For a PeopleSoft portal, all templates must be registered in the portal registry, and each content reference must be assigned a template.

territory In PeopleSoft Sales Incentive Management, hierarchical relationships of business objects, including regions, products, customers, industries, and participants.

TimeSpan A relative period, such as year-to-date or current period, that can be used in various PeopleSoft General Ledger functions and reports when a rolling time frame, rather

	than a specific date, is required. TimeSpans can also be used with flexible formulas in PeopleSoft Projects.
trace usage	In PeopleSoft Manufacturing, enables the control of which components will be traced during the manufacturing process. Serial- and lot-controlled components can be traced. This is maintained in the Item Master record.
transaction allocation	In PeopleSoft Enterprise Incentive Management, the process of identifying the owner of a transaction. When a raw transaction from a batch is allocated to a plan context, the transaction is duplicated in the PeopleSoft Enterprise Incentive Management transaction tables.
transaction state	In PeopleSoft Enterprise Incentive Management, a value assigned by an incentive rule to a transaction. Transaction states enable sections to process only transactions that are at a specific stage in system processing. After being successfully processed, transactions may be promoted to the next transaction state and "picked up" by a different section for further processing.
Translate table	A system edit table that stores codes and translate values for the miscellaneous fields in the database that do not warrant individual edit tables of their own.
tree	The graphical hierarchy in PeopleSoft systems that displays the relationship between all accounting units (for example, corporate divisions, projects, reporting groups, account numbers) and determines roll-up hierarchies.
unclaimed transaction	In PeopleSoft Enterprise Incentive Management, a transaction that is not claimed by a node or participant after the allocation process has completed, usually due to missing or incomplete data. Unclaimed transactions may be manually assigned to the appropriate node or participant by a compensation administrator.
universal navigation header	Every PeopleSoft portal includes the universal navigation header, intended to appear at the top of every page as long as the user is signed on to the portal. In addition to providing access to the standard navigation buttons (like Home, Favorites, and signoff) the universal navigation header can also display a welcome message for each user.
user interaction object	In PeopleSoft Sales Incentive Management, used to define the reporting components and reports that a participant can access in his or her context. All Sales Incentive Management user interface objects and reports are registered as user interaction objects. User interaction objects can be linked to a compensation structure node through a compensation relationship object (individually or as groups).
variable	In PeopleSoft Sales Incentive Management, the intermediate results of calculations. Variables hold the calculation results and are then inputs to other calculations. Variables can be plan variables that persist beyond the run of an engine or local variables that exist only during the processing of a section.
VAT exception	Abbreviation for *value-added tax exception.* A temporary or permanent exemption from paying VAT that is granted to an organization. This terms refers to both VAT exoneration and VAT suspension.
VAT exempt	Abbreviation for *value-added tax exempt.* Describes goods and services that are not subject to VAT. Organizations that supply exempt goods or services are unable to recover the related input VAT. This is also referred to as exempt without recovery.
VAT exoneration	Abbreviation for *value-added tax exoneration.* An organization that has been granted a permanent exemption from paying VAT due to the nature of that organization.
VAT suspension	Abbreviation for *value-added tax suspension.* An organization that has been granted a temporary exemption from paying VAT.
warehouse	A PeopleSoft data warehouse that consists of predefined ETL maps, data warehouse tools, and DataMart definitions.

work order In PeopleSoft Services Procurement, enables an enterprise to create resource-based and deliverable-based transactions that specify the basic terms and conditions for hiring a specific service provider. When a service provider is hired, the service provider logs time or progress against the work order.

worksheet A way of presenting data through a PeopleSoft Business Analysis Modeler interface that enables users to do in-depth analysis using pivoting tables, charts, notes, and history information.

worklist The automated to-do list that PeopleSoft Workflow creates. From the worklist, you can directly access the pages you need to perform the next action, and then return to the worklist for another item.

XML schema An XML definition that standardizes the representation of application messages, component interfaces, or business interlinks.

yield by operation In PeopleSoft Manufacturing, the ability to plan the loss of a manufactured item on an operation-by-operation basis.

zero-rated VAT Abbreviation for *zero-rated value-added tax.* A VAT transaction with a VAT code that has a tax percent of zero. Used to track taxable VAT activity where no actual VAT amount is charged. Organizations that supply zero-rated goods and services can still recover the related input VAT. This is also referred to as exempt with recovery.

Index

C

D

E

F

G

H

I

S

T

U

V

W

PeopleSoft®

PeopleSoft Engineering 8.8 Reports

December 2003

PeopleSoft Engineering 8.8 Reports
SKU FSCM88EGG-R 1203

Open Source Disclosure

PeopleSoft takes no responsibility for its use or distribution of any open source or shareware software or documentation and disclaims any and all liability or damages resulting from use of said software or documentation. The following open source software may be used in PeopleSoft products and the following disclaimers are provided.

Apache Software Foundation

This product includes software developed by the Apache Software Foundation (http://www.apache.org/). Copyright (c) 1999-2000 The Apache Software Foundation. All rights reserved.

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE APACHE SOFTWARE FOUNDATION OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

OpenSSL

Copyright (c) 1998-2003 The OpenSSL Project. All rights reserved.

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

SSLeay

Copyright (c) 1995-1998 Eric Young. All rights reserved.

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Loki Library

Copyright (c) 2001 by Andrei Alexandrescu. This code accompanies the book:

Alexandrescu, Andrei. "Modern C++ Design: Generic Programming and Design Patterns Applied". Copyright (c) 2001. Addison-Wesley. Permission to use, copy, modify, distribute and sell this software for any purpose is hereby granted without fee, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation.

Contents

About This PeopleBook

PeopleBooks provide you with the information that you need to implement and use PeopleSoft applications.

This preface discusses:

- Related documentation.
- Comments and suggestions.

Related Documentation

This section discusses how to:

- Obtain documentation updates.
- Order printed documentation.

Obtaining Documentation Updates

You can find updates and additional documentation for this release, as well as previous releases, on the PeopleSoft Customer Connection web site. Through the Documentation section of PeopleSoft Customer Connection, you can download files to add to your PeopleBook Library. You'll find a variety of useful and timely materials, including updates to the full PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM.

Important! Before you upgrade, you must check PeopleSoft Customer Connection for updates to the upgrade instructions. PeopleSoft continually posts updates as the upgrade process is refined.

See Also

PeopleSoft Customer Connection web site, http://www.peoplesoft.com/corp/en/login.asp

Ordering Printed Documentation

You can order printed, bound volumes of the complete PeopleSoft documentation that is delivered on your PeopleBooks CD-ROM. PeopleSoft makes printed documentation available for each major release shortly after the software is shipped. Customers and partners can order printed PeopleSoft documentation by using any of these methods:

- Web
- Telephone
- Email

Web

From the Documentation section of the PeopleSoft Customer Connection web site, access the PeopleSoft Press web site under the Ordering PeopleBooks topic. The PeopleSoft Press web site is a joint venture between PeopleSoft and Consolidated Publications Incorporated (CPI), the book print vendor. Use a credit card, money order, cashier's check, or purchase order to place your order.

Telephone

Contact CPI at 800 888 3559.

Email

Send email to CPI at psoftpress@cc.larwood.com.

See Also

PeopleSoft Customer Connection web site, http://www.peoplesoft.com/corp/en/login.asp

Comments and Suggestions

Your comments are important to us. We encourage you to tell us what you like, or what you would like to see changed about PeopleBooks and other PeopleSoft reference and training materials. Please send your suggestions to:

PeopleSoft Product Documentation Manager PeopleSoft, Inc. 4460 Hacienda Drive Pleasanton, CA 94588

Or send email comments to doc@peoplesoft.com.

While we cannot guarantee to answer every email message, we will pay careful attention to your comments and suggestions.

CHAPTER 1

PeopleSoft Engineering Reports

PeopleSoft applications offer a wide range of query and reporting possibilities. In addition to the standard reports that we deliver, we also provide reporting tools that you can use to create new reports.

This appendix provides an overview of PeopleSoft Engineering reports and enables you to:

- View summary tables of all reports.
- View report details.
- View standard financial reports.

Note. For samples of these and other reports in your application, see the PDF files published on CD-ROM with your documentation (for online users) or *PeopleSoft 8 (SP2) Reporting Tools* (for hard-copy users).

PeopleSoft Engineering Standard Reports: General Description

This table lists the PeopleSoft Engineering reports, sorted alphanumerically by report ID. The reports listed are all Structured Query Reports (SQRs). If you need more information about a report, refer to the report details at the end of this appendix.

Report ID and Report Name	Description	Navigation	Run Control Page
EGS1000 ECO Report	Lists ECO information for an item or range of items for a specific business unit for a specific date or range of dates. Includes department, classification, ECO status, priority, and the name of the requestor. Can be sorted by classification and ECO number; ECO number; item, schedule date, and priority; priority, schedule date, and ECO number; schedule date, priority, and ECO number; or status, schedule date, and ECO number.	Engineering, Engineering Changes, ECO Report, ECO Report	EG_ECO_REPORT
ENS1000 BOM Report	Lists the components on either manufacturing or engineering BOMs.	Engineering, BOMs and Revisions, Reports, Bills of Material, EBOM Report	EN_BOM_REPORT

Report ID and Report Name	Description	Navigation	Run Control Page
ENS1001 Routing Report	Lists the routing information for both PeopleSoft Manufacturing and PeopleSoft Engineering routings.	Engineering, Routings, Engineering Routing Report, Routing Report	RUN_ENS1001
ENS1002 Compare Routings Report	Lists the differences between two manufacturing routings, two engineering routings, or one manufacturing routing and one engineering routing. Comparisons can also be based on the same item with different routing codes.	Engineering, Routings, Eng Routing Comparison Report, Routing Compare Report	RUN_ENS1002
ENS1003 Master Routing Where Used Report	Lists all items that reference another item as its master routing along with production data. This report is used in both PeopleSoft Manufacturing and PeopleSoft Engineering.	Engineering, Routings, Eng Master Rtg Where Used Rpt, Master Rtg Where Used Report	RUN_ENS1003
ENS1005 Compare BOMs Report	Lists the differences between a manufacturing and an engineering BOM, or two engineering BOMs.	• Engineering, BOMs and Revisions, Reports, EBOM Comparison, EBOM Compare Report • Engineering, BOMs and Revisions, Reports, EBOM Comparison, EBOM Compare Report, Print Options	EN_BOM_COMP_REPORT
ENS1010 BOM Cost Report	Lists the component costs on either manufacturing or engineering BOMs.	Engineering, BOMs and Revisions, Reports, EBOM Costed, EBOM Costed Report	EN_BOM_COST_REPORT
ENS2000 Item Where Used Report	Lists all the BOMs on which an item appears either as a component or a substitute for a component. You'll find this information useful when you want to analyze the impact that component changes can have on all existing BOMs.	Engineering, BOMs and Revisions, Reports, Item Where Used	EN_WHEREUSED_RPT

CHAPTER 2

Report Samples

This chapter provides report samples.

For the online samples of these reports, see the PDF files that are published on CD-ROM with your online documentation.

SELECTION CRITERIA

Business Unit:	US008 COLORADO BIKE MFG/OUTDOOR
Department:	All
Classification:	All
Requestor:	All
Analyst:	All
ECO Approval Status:	All
Priority Code:	All
Sort Option:	Priority,Schd Date,ECO Number
Print Text:	Y
ECO Nbr Range:	All
Date Range:	All
Item ID Range	All
Print ECO Header:	Y

ECO Number: ECO0000005 Description : Defect in Chain, Sugishita
Priority Code: HIGH Classification: MANDATORY
Department: 41000 Activity:
Schedule Date: 08/01/2000 ECO Approval Status: Pending
Requestor: MARYO Analyst: MARYO
Vendor Access: Yes
Text: Chain, Sugishita (GR8002) linkage defect causes excessive wear on related gear subassemblies (i.e. SR2001) due to improper spacing between links (.1 mm versus .12 mm).

Item ID	Type	Auto Rev	From Rev	Eff Rev	Rev Date	BOM	Rtg	BOM Code/ Type	Rtg Code/ Type	Mass Maint Code/Status	Prdn Rel Status	EBOM Copy Date	ERtg Copy Date
GR8002	Chg	N			08/01/2000	N	N	Production	Production		Pending		
SR2001	Imp	N	A		08/01/2000	Y	N	Production	Production		Pending		
GR8002-B	New	N			08/01/2000	N	N	Production	Production		Pending		

End of Report

SELECTION CRITERIA

User ID :	VP1
Run Control ID:	ProcessSweep
Bus. Unit :	US008
Items Range :	MT2000 To MT2000
BOM State :	Engineering
BOM Type :	Production
BOM Code :	All
Eff Date/Revision :	All Dates / Revisions
Number of levels Deep :	10
Print Substitutes :	Yes
Print Lower Level Outputs:	Yes
Print Component Dimensions:	Yes
Print Reference Designators:	Yes
Print Component Text:	Yes
Print Component Attachments:	Yes
Print Component Documents:	Yes
Print Assembly Text:	Yes
Print Assembly Attachments:	Yes
Print Assembly Documents:	Yes

Bus. Unit : US008
Item ID : MT2000
BOM Type : Production
BOM Code : 1
BOM Qty : 1
BOM Descr :
Source CD : Make

Lvl	Substitute/ Component ID	Description	Comp Rev	Source Code	Pri/ Op Seq	Eff Date	Obs Date	Eff Rev	Obs Rev	Quantity	UOM	Asy/ Ord	Pos Nbr	Yield	Sub	Non Own	Ph	Ser	ECO
1	.FR7002	Bike Frame, Aluminium		Buy	10	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.3000 Length: 10.0000 Width: 0.3000 FT Weight: 7.0000 LBS Vol: 0.9000 CUF																	
1	.FR7005	Front Fork	BB	Buy	10	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
1	.FR7012	Primer Paint		Buy	40	01/01/1985	12/31/2099	A	---	0.5000	GAL	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
1	.FS3000	Bolt		FlrS	10	01/01/1985	12/31/2099	A	---	10.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
1	.FS3001	Washer		FlrS	10	01/01/1985	12/31/2099	A	---	10.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
1	.FS3002	Nut		FlrS	10	01/01/1985	12/31/2099	A	---	10.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
1	.HB9000	Handlebar, Pro Road Racing		Buy	40	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 6.0000 Length: 28.0000 Width: 0.7500 IN Weight: 2.0000 LBS Vol: 126.0000 CUI																	
1	.LT3009	Blue Paint		Buy	40	01/01/1985	12/31/2099	A	---	1.0000	GAL	ASY	0	100.0	N	N	N	N	
	Size:	Height: 12.0000 Length: 12.0000 Width: 12.0000 IN Weight: 1.0000 GAL Vol: 1.0000 CUF																	
1	.LT5000	Lot Item		Make	30	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
1	.PS1004	Pedal, Deluxe		Buy	50	01/01/1985	12/31/2099	A	---	2.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 2.0000 Length: 3.0000 Width: 5.0000 IN Weight: 1.0000 LBS Vol: 30.0000 CUI																	
1	.SR2001	Ship Serial Item		Make	30	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
2	..GR8000	Gear, Sugishita		Buy	50	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
*	GR8001	Gear, Campani		Buy	1	01/01/2000	12/31/2099			1.0000		ASY							
2	..GR8002	Chain, Sugishita		Buy	50	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
*	GR8003	Chain, Campani		Buy	1	01/01/2000	12/31/2099			1.0000		ASY							
2	..GR8007	Derailleurs, Sugishita		Buy	40	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000 Weight: 0.0000 Vol: 0.0000																	
*	GR8008	Deraileers, Avid		Buy	1	01/01/2000	12/31/2099			1.0000		ASY							

Bus. Unit : US008
Item ID : MT2000
BOM Type : Production
BOM Code : 1
BOM Qty : 1
BOM Descr :
Source CD : Make

Lvl	Substitute/ Component ID	Description	Comp Rev	Source Code	Pri/ Op Seq	Eff Date	Obs Date	Eff Rev	Obs Rev	Quantity	UOM	Asy/ Ord	Pos Nbr	Yield	Sub	Non Own	Ph	Ser	ECO
2	..GR8012	Cassette LX145 8 Speed		Buy	30	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000								Weight: 0.0000					Vol:				0.0000
*	GR8011	Cassette LX150 9 Speed		Buy	1	01/01/2000	12/31/2099			1.0000	ASY								
2	..GR8200	Axle Carrier		Buy	10	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000								Weight: 0.0000					Vol:				0.0000
2	..GR8201	Cable Housing		Buy	10	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000								Weight: 0.0000					Vol:				0.0000
2	..GR8202	Dust Cover		Buy	20	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000								Weight: 0.0000					Vol:				0.0000
2	..GR8300	Crank Set Subassembly		Make	50	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000								Weight: 0.0000					Vol:				0.0000
2	..HB7100	Hub Subassembly		Make	20	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000								Weight: 0.0000					Vol:				0.0000
1	.SR2100	Serial Item		Make	50	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	Y	
	Size:	Height: 0.0000 Length: 0.0000 Width: 0.0000								Weight: 0.0000					Vol:				0.0000
1	.ST8003	Dual Pad Seat, Womans	BB	Buy	50	01/01/1985	12/31/2099	A	---	1.0000	EA	ASY	0	100.0	N	N	N	N	
	Size:	Height: 5.0000 Length: 10.0000 Width: 10.0000						IN		Weight: 3.0000	LBS				Vol:				500.0000 CUI

End of Report

PeopleSoft Engineering
Routing Report

Report ID : ENS1001
Business Unit : US008

Run Date: 11/24/2003
Run Time: 16:03:55

SELECTION CRITERIA

User ID:	VP1
Run Control ID:	EN_ProcessSweep
Business Unit :	US008
Rtg State	Engineering
Rtg Type	Production
Item ID:	All
Rtg Code	1
PRINT OPTIONS	All

PeopleSoft Engineering
Routing Report

Report ID : ENS1001
Business Unit : US008

Run Date: 11/24/2003
Run Time: 16:03:56

Item ID	Description	Rtg Code	Rtg State	Rtg Type	Copy to Prdn	Copy to Plng	Priority
LT5000	Wheel Subassembly	1	Engineering	Production	Yes	Yes	1

Header Text

Header Documents

Document Name	Fixed	Title
No data found		

Header Attatchments

File Ext	Document Name	Description
No data found		

Operation Sequence Summary

Op Seq	Task Code	Description	Sub	Count Pt	Work Center	Description	Crew Size	Mach. Res.	S/Q	Intensity	Overlap	Op Yield
10	WHEEL	Wheel Assembly	No	No	WHEEL	Wheel Subassembly	4	0		Labor Time	No Overlap	100.0000

Routing Resources

Resource Type	Crew/Mach/Tool	Description	Status	Qty Used	Priority
Primary Crew	ASSY05	Assembly Crew 5	Available	0	10

Rtg Time

Time/Resource Type	OP Time/Rate	Time/Rate Unit	Incl Setup
Planning Labor Run	**3.00**	Minutes	No
Costing Labor Run	**3.00**	Minutes	No

Conversion Codes

Conversion Code	Description	Overhead1	Overhead2	Overhead3	Overhead4
4402	Mixing	6501	6506		

Operation Documents

Document Name	Fixed	Title
No data found		

Report ID : ENS1001
Business Unit : US008

Item ID	Description	Rtg Code	Rtg State	Rtg Type	Copy to Prdn	Copy to Plng	Priority
	Wheel Subassembly	1	Engineering	Production	Yes	Yes	1

Header Text

Operation Attatchments

File Ext	Document ID	Description
No data found		

Operation Sequence Summary

Op Seq	Task Code	Description	Sub	Count Pt	Work Center	Description	Crew Size	Mach. Res.	S/Q	Intensity	Overlap	Op Yield
20	INSP	In Process Inspectio	No	No	INSP	In Process Inspectio	1	1		Longest Time	No Overlap	100.0000

Routing Resources

Resource Type	Crew/Mach/Tool	Description	Status	Qty Used	Priority
Primary Crew	INSP01	Inspection Team	Available	0	10
Primary Machine	AUTOINSP	Automated Inspection		0	10

Rtg Time

Time/Resource Type	OP Time/Rate	Time/Rate Unit	Incl Setup
Planning Labor Run	**100.00**	Units per Hour	No
Planning Machine Run	**400.00**	Units per Hour	No
Costing Labor Run	**100.00**	Units per Hour	No
Costing Machine Run	**400.00**	Units per Hour	No

Conversion Codes

Conversion Code	Description	Overhead1	Overhead2	Overhead3	Overhead4
4406	Quality Assurance	6500	6504	6505	

Operation Documents

Document Name	Fixed	Title
No data found		

PeopleSoft Engineering
Routing Compare Report

Report ID : ENS1002
Business Unit : US008

Run Date: 11/24/2003
Run Time: 16:04:55

SELECTION CRITERIA

User ID: VP1

Run Control ID: EN_ProcessSweep

Business Unit : US008

Rtg Type Production

Baseline RTG1
Rtg State Engineering

Item ID: LT5000

Rtg Code 1 Thru 1

Target RTG2
Rtg State Engineering

Item ID: MT3000

Rtg Code 1

PeopleSoft Engineering
Routing Compare Report

Report ID : ENS1002
Business Unit : US008

Run Date: 11/24/2003
Run Time: 16:04:56

Routings		Item ID	Description	Rtg State	Rtg Type	Rtg Code
Baseline	RTG1	LT5000	Wheel Subassembly	Engineering	Production	1
Target	RTG2	MT3000	Mountain Bike, Womans	Engineering	Production	1

Header Detail

Routings	Description	Short Descr	Copy to Prdn	Copy to Plng	Priority
RTG1	Wheel Subassembly	Wheel Assy	Yes	Yes	1
	Text:				
RTG2	Mountain Bike, Womans	Mt Bike Wm	Yes	Yes	1
	Text:				

Header Attatchments

Differences	File Ext	Document ID	Description

Operations

Differences	Op Seq	Task Code	Description	Sub	Work Center	Description	Crew Size	Mach. Res.	Intensity	S/Q	Overlap	Ship Ahead	Yield %
Added	50	INSP	In Process Inspectio	No	INSP	In Process Inspectio	1	1	Longest Time		No Overlap	0	100.0000
Changed RTG1	10	WHEEL	Wheel Assembly	No	WHEEL	Wheel Subassembly	4	0	Labor Time		No Overlap	0	100.0000
Changed RTG1	20	INSP	In Process Inspectio	No	INSP	In Process Inspectio	1	1	Longest Time		No Overlap	0	100.0000
Changed RTG1	30	FINAL	Final Assembly	No	FI-ASSY	Final Assembly Work	1	1	Longest Time		No Overlap	0	100.0000
Changed RTG1	40	TEST-S	Testing - Subassembl	No	TEST-SA	Testing Work Center	1	1	Longest Time		No Overlap	0	100.0000
Changed RTG2	10	FORK	Add Fork	No	FI-ASSY	Final Assembly Work	1	1	Longest Time		No Overlap	0	100.0000
Changed RTG2	20	FINAL	Final Assembly	No	FI-ASSY	Final Assembly Work	1	1	Longest Time		No Overlap	0	100.0000
Changed RTG2	30	INSP	In Process Inspectio	No	INSP	In Process Inspectio	1	1	Longest Time		No Overlap	0	100.0000
Changed RTG2	40	SUB-1	Subcontracted Painti	Yes	SUB-1	Paint	1	0	Labor Time		No Overlap	0	100.0000

Operation Text

Differences	Op Seq	Text
Added	50	
Changed RTG1	10	
Changed RTG1	20	
Changed RTG1	30	
Changed RTG1	40	
Changed RTG2	10	
Changed RTG2	20	
Changed RTG2	30	
Changed RTG2	40	

PeopleSoft Engineering
Routing Compare Report

Report ID : ENS1002
Business Unit : US008

Run Date: 11/24/2003
Run Time: 16:04:56

Routings		Item ID	Description	Rtg State	Rtg Type	Rtg Code
Baseline	RTG1	LT5000	Wheel Subassembly	Engineering	Production	1
Target	RTG2	MT3000	Mountain Bike, Womans	Engineering	Production	1

Rtg Time Differences	Op Seq	Time/Resource Type	OP Time/Rate	Time/Rate Unit	Incl Setup
Added	50	Planning Labor Run	100.00	Units per Hour	No
Added	50	Planning Machine Run	400.00	Units per Hour	No
Added	50	Costing Labor Run	100.00	Units per Hour	No
Added	50	Costing Machine Run	400.00	Units per Hour	No
Changed RTG1	20	Planning Labor Run	100.00	Units per Hour	No
Changed RTG1	20	Planning Machine Run	400.00	Units per Hour	No
Changed RTG1	20	Costing Labor Run	100.00	Units per Hour	No
Changed RTG1	20	Costing Machine Run	400.00	Units per Hour	No
Changed RTG1	30	Planning Labor Run	15.00	Minutes	No
Changed RTG1	30	Planning Machine Run	15.00	Minutes	No
Changed RTG1	30	Costing Labor Run	15.00	Minutes	No
Changed RTG1	30	Costing Machine Run	15.00	Minutes	No
Changed RTG1	40	Planning Labor Run	6.00	Minutes	No
Changed RTG1	40	Costing Labor Run	6.00	Minutes	No
Changed RTG2	20	Planning Labor Run	15.00	Minutes	No
Changed RTG2	20	Planning Machine Run	15.00	Minutes	No
Changed RTG2	20	Costing Labor Run	15.00	Minutes	No
Changed RTG2	20	Costing Machine Run	15.00	Minutes	No
Changed RTG2	30	Planning Labor Run	100.00	Units per Hour	No
Changed RTG2	30	Planning Machine Run	400.00	Units per Hour	No
Changed RTG2	30	Costing Labor Run	100.00	Units per Hour	No
Changed RTG2	30	Costing Machine Run	400.00	Units per Hour	No
Changed RTG2	40	Planning Labor Run	200.00	Units per Hour	No
Changed RTG2	40	Costing Labor Run	200.00	Units per Hour	No

PeopleSoft Bills and Routings
Master Routing Where Used Report

Report ID : ENS1003
Business Unit : US008

Run Date: 11/24/2003
Run Time: 16:47:19

SELECTION CRITERIA

User ID:	VP1
Run Control ID:	ADHOC
Business Unit :	US008
Routing State:	Engineering
Routing Type:	Production
Item ID:	All
Print Production Details:	Yes
Start Date:	All
Requested Prod. Status:	Entered Firmed Released In Process Pend Complete Complete Clsd Labor Clsd Actg Cancelled

PeopleSoft Bills and Routings
Master Routing Where Used Report

Report ID : ENS1003
Business Unit : US008

Run Date: 11/24/2003
Run Time: 16:47:19

Ref Rtg Item	Description	Uom	Planner Cd	Lot Control	Serial Control	Revision Control	Routing Code
SR1001	Serial Item	EA	AW	No	Yes	Yes	0

Prdn ID	Area	Area Description	Status	Type	BOM Code	Revision	Start Date	Start Time	Due Date	Due Time
PRD00122	FINAL		In Process	Production	1		07/28/2000	20:00:00	08/02/2000	23:00:00
PRD00123	FINAL		In Process	Production	1		08/01/2000	20:36:00	08/02/2000	13:06:00
PRD00220	FINAL		In Process	Production	1		08/01/2000	22:06:00	08/02/2000	13:06:00
PRD00124	FINAL		Released	Production	1		08/02/2000	12:30:00	08/03/2000	22:30:00
PRD00125	FINAL		Entered	Production	1		08/02/2000	12:30:00	08/03/2000	22:30:00

Item ID	Description
LT5010	Custom Road Bicycle

Prdn ID	Area	Area Description	Status	Type	BOM Code	Revision	Start Date	Start Time	Due Date	Due Time
PRD00206	CUSTOM	Custom Bike Production	Released	Production	1		08/07/2000	21:30:00	08/03/2000	23:00:00
PRD00208	CUSTOM	Custom Bike Production	Released	Production	1		08/07/2000	21:30:00	08/03/2000	23:00:00
PRD00267	CUSTOM	Custom Bike Production	Completed	Production	0		11/18/2003	09:14:00	08/03/2000	18:14:36
PRD00235	CUSTOM	Custom Bike Production	Completed	Production	0		11/18/2003	21:34:00	08/03/2000	14:34:40
PRD00232	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	12:38:00	08/03/2000	13:38:34
PRD00261	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	09:12:00	08/03/2000	18:12:20
PRD00284	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	10:58:00	08/03/2000	19:58:37
PRD00250	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	17:09:00	08/03/2000	18:09:48
PRD00265	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	17:14:00	08/03/2000	18:14:36
PRD00281	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	18:58:00	08/03/2000	19:58:37
PRD00273	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	18:56:00	08/03/2000	19:56:21
PRD00258	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	17:12:00	08/03/2000	18:12:20
PRD00237	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	19:34:00	08/03/2000	14:34:40
PRD00276	CUSTOM	Custom Bike Production	In Process	Production	0		11/19/2003	10:56:00	08/03/2000	19:56:21
PRD00253	CUSTOM	Custom Bike Production	Pend Cmpl	Production	0		11/19/2003	09:09:00	08/03/2000	18:09:48
PRD00239	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	14:34:00	08/03/2000	14:34:40
PRD00244	CUSTOM	Custom Bike Production	Completed	Production	0		11/19/2003	13:36:00	08/03/2000	14:36:11
PRD00228	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	11:08:00	08/03/2000	13:38:34
PRD00230	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	08:38:00	08/03/2000	13:38:34
PRD00231	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	10:08:00	08/03/2000	13:38:34
PRD00234	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	11:04:00	08/03/2000	14:34:40
PRD00238	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	11:04:00	08/03/2000	14:34:40
PRD00241	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	11:06:00	08/03/2000	14:36:11
PRD00243	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	11:06:00	08/03/2000	14:36:11
PRD00246	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	14:39:00	08/03/2000	18:09:48
PRD00279	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	16:28:00	08/03/2000	19:58:37
PRD00277	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	16:28:00	08/03/2000	19:58:37
PRD00271	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	16:26:00	08/03/2000	19:56:21
PRD00269	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	16:26:00	08/03/2000	19:56:21
PRD00264	CUSTOM	Custom Bike Production	Completed	Production	0		11/20/2003	15:44:00	08/03/2000	18:14:36

SELECTION CRITERIA

User ID: VP1

Run Control ID: EN_PageSweep

Business Unit : US008

Type Production

Baseline BOM1
BOM State Engineering

Item ID: MT3000

BOM Code 1.00 Thru 1.00

Target BOM2
BOM State Engineering

Item ID: SR2001

BOM Code 1.00

BOM		Item ID	Description	BOM State	BOM Type	BOM Code
Baseline	BOM1	MT3000	Mountain Bike, Womans	Engineering	Production	1
Target	BOM2	SR2001	Ship Serial Item	Engineering	Production	1

Component Operations Sequence

Differences	Component ID	Description	Comp Rev	OP Seq	Eff Date	Obs Date	Teardown	Yield	Pos Nbr	Non Own	Sub Supply	UOM	Qty	Per	Subs Exist	Serial Control
Deleted	FR7002	Bike Frame, Aluminium		10	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Deleted	FR7005	Front Fork	BB	10	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Deleted	FR7012	Primer Paint		40	01/01/1985	12/31/2099	Yes	100.0	0	No	No	GAL	0.5	Assembly	No	No
Deleted	FS3000	Bolt		10	01/01/1985	12/31/2099	No	100.0	0	No	No	EA	10	Assembly	No	No
Deleted	FS3001	Washer		10	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	10	Assembly	No	No
Deleted	FS3002	Nut		10	01/01/1985	12/31/2099	No	100.0	0	No	No	EA	10	Assembly	No	No
Deleted	HB9001	Handlbar, Mountain		40	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Deleted	LT3008	White Paint		40	01/01/1985	12/31/2099	Yes	100.0	0	No	No	GAL	1	Assembly	No	No
Deleted	LT5000	Lot Item		30	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Deleted	PS1002	Pedal, Standard		50	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	2	Assembly	No	No
Deleted	SR2001	Ship Serial Item		30	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Deleted	SR2100	Serial Item		50	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	Yes
Deleted	ST8004	Gelflex Seat, Womans	BB	50	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Added	GR8000	Gear, Sugishita		50	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	Yes	No
Added	GR8002	Chain, Sugishita		50	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	Yes	No
Added	GR8007	Derailleurs, Sugishita		40	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	Yes	No
Added	GR8012	Cassette LX145 8 Speed		30	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	Yes	No
Added	GR8200	Axle Carrier		10	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Added	GR8201	Cable Housing		10	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Added	GR8202	Dust Cover		20	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Added	GR8300	Crank Set Subassembly		50	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No
Added	HB7100	Hub Subassembly		20	01/01/1985	12/31/2099	Yes	100.0	0	No	No	EA	1	Assembly	No	No

BOM		Item ID	Description	BOM State	BOM Type	BOM Code
Baseline	BOM1	MT3000	Mountain Bike, Womans	Engineering	Production	1
Target	BOM2	SR2001	Ship Serial Item	Engineering	Production	1

Component Substitutes

Differences	Substitute Item ID	Description	Component ID	Op Seq	Eff Date	Priority	Std UOM	Conv Rate	From Date	To Date
Added	GR8001	Gear, Campani	GR8000	50	01/01/1985	1	EA	1.000	01/01/2000	12/31/2099
Added	GR8003	Chain, Campani	GR8002	50	01/01/1985	1	EA	1.000	01/01/2000	12/31/2099
Added	GR8008	Deraileers, Avid	GR8007	40	01/01/1985	1	EA	1.000	01/01/2000	12/31/2099
Added	GR8011	Cassette LX150 9 Speed	GR8012	30	01/01/1985	1	EA	1.000	01/01/2000	12/31/2099

Component Documents

Differences	Component ID	Op Seq	Eff Date	Document Name	Title	Fixed

Component Attatchments

Differences	Component ID	Op Seq	Eff Date	File Ext	Document ID	Description

Component Text

Differences	Component ID	Op Seq	Eff Date	Text

Component Reference Designators

Differences	Component ID	Op Seq	Eff Date	Reference Designator

Component Dimensions

Differences	Component ID	Op Seq	Eff Date	Size	Height	Length	Width	Weight	Volume	UOM Dim	UOM Weight	UOM Vol
Deleted	FR7002	10	01/01/1985		0.30	10.00	0.30	7.00	0.90	FT	LBS	CUF
Deleted	FR7005	10	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	FR7012	40	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	FS3000	10	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	FS3001	10	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	FS3002	10	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	HB9001	40	01/01/1985		6.00	28.00	0.75	2.00	126.00	IN	LBS	CUI
Deleted	LT3008	40	01/01/1985		12.00	12.00	12.00	1.00	1.00	IN	GAL	CUF
Deleted	LT5000	30	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	PS1002	50	01/01/1985		1.50	3.00	5.00	0.75	22.50	IN	LBS	CUI
Deleted	SR2001	30	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	SR2100	50	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Deleted	ST8004	50	01/01/1985		5.00	10.00	8.00	2.50	400.00	IN	LBS	CUI
Added	GR8000	50	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Added	GR8002	50	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Added	GR8007	40	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Added	GR8012	30	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Added	GR8200	10	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Added	GR8201	10	01/01/1985		0.00	0.00	0.00	0.00	0.00			
Added	GR8202	20	01/01/1985		0.00	0.00	0.00	0.00	0.00			

Added	GR8300	50	01/01/1985	0.00	0.00	0.00	0.00	0.00
Added	HB7100	20	01/01/1985	0.00	0.00	0.00	0.00	0.00

Outputs (Top Level)

Differences	Output Item ID	Description	OP Seq	Eff Date	Obs Date	Type	Qty	Per	Std UOM	Res%	Cost%	Serial Control
Deleted	MT3000	Mountain Bike, Woman	0	01/01/1900	12/31/2099	Primary Item	1	Assembly	EA	100	100	No
Added	SR2001	Ship Serial Item	0	01/01/1900	12/31/2099	Primary Item	1	Assembly	EA	100	100	No

Assembly Header

BOM	Description	Short Descr	Text
BOM1	Mt Bike, Woman's	Mt Bike, W	
BOM2	Gear Subassy Production BOM	Gear Assy	

Assembly Documents

Differences	Document Name	Title	Fixed

Assembly Attatchments

Differences	File Ext	Document ID	Description

End of Report

SELECTION CRITERIA

User ID :	VP1
Run Control ID:	ADHOC
Bus. Unit :	US008
Items Range :	MT2000 To MT2000
Cost Type :	CUR
Cost Version :	ENG1
BOM State :	Engineering
Bom Code :	1
Routing Code :	1
Eff Rev :	A
Cost as Batch :	N
Print Lower Level Outputs :	Y
Number of levels Deep :	1

Bus. Unit : US008
Item ID : MT2000
BOM Code : 1 Routing Code : 1
BOM Qty : 1.00
Cost as Batch : N

Lvl	Type	Component ID	Description	Source Code	Op Seq	Costed Req Qty	UOM	Asy/ Ord	Yield	Extended Cost
1	Component	.FR7002	Bike Frame, Aluminium	Buy	10	1.0000	EA	ASY	100.00	0.4692
1	Component	.FR7005	Front Fork	Buy	10	1.0000	EA	ASY	100.00	1.7560
1	Component	.FR7012	Primer Paint	Buy	40	0.5000	GAL	ASY	100.00	1.4900
1	Component	.FS3000	Bolt	Floor Stck	10	10.0000	EA	ASY	100.00	0.0000
1	Component	.FS3001	Washer	Floor Stck	10	10.0000	EA	ASY	100.00	0.0000
1	Component	.FS3002	Nut	Floor Stck	10	10.0000	EA	ASY	100.00	0.0000
1	Component	.HB9000	Handlebar, Pro Road Racing	Buy	40	1.0000	EA	ASY	100.00	19.8700
1	Component	.LT3009	Blue Paint	Buy	40	1.0000	GAL	ASY	100.00	8.7600
1	Component	.LT5000	Lot Item	Make	30	1.0000	EA	ASY	100.00	19.2196
1	Component	.PS1004	Pedal, Deluxe	Buy	50	2.0000	EA	ASY	100.00	17.4600
1	Component	.SR2001	Ship Serial Item	Make	30	1.0000	EA	ASY	100.00	53.0971
1	Component	.SR2100	Serial Item	Make	50	1.0000	EA	ASY	100.00	54.6111
1	Component	.ST8003	Dual Pad Seat, Womans	Buy	50	1.0000	EA	ASY	100.00	4.0900

Total Component Cost: 180.8230

Output Costs:

Type	Output Item/ Description	Associated Primary BOM	Cost %	Output Quantity	UOM	Asy/ Ord	Item Cost Version Cost	Item Report Cost	Delta
Primary	MT2000 Standard Item	MT2000	100	1.0000	EA	ASY	180.8230	180.8230	0.0000

Bus. Unit : US008
Item ID : MT2000
BOM Code : 1 Routing Code : 1
BOM Qty : 1.00
Cost as Batch : N

Item Cost by Version

Output Item ID	Cost Element	Description	This Level	Lower Level	Total Item Output Cost
MT2000	100	Material - General	0.0000	51.6700	
	101	Material - Gears	0.0000	53.0971	
	102	Material - Wheels	0.0000	38.4392	
	103	Material - Brakes	0.0000	35.3915	
	104	Material - Frames	0.0000	2.2252	
		Total	0.0000	180.8230	180.8230

End of Report

SELECTION CRITERIA

User ID:	VP1
Run Control ID:	PageSweep
Bus. Unit :	US008
Item Range :	FS3000 To FS3000
BOM State :	Engineering
BOM Type :	Production
BOM Code :	1
Eff Date :	11/24/2003
Search :	Components Only
Number of levels Deep :	10

Bus. Unit : US008
Component ID : FS3000
BOM Type : Production
BOM Code : 1
Source CD : FlrS

Lvl	Item ID	Description	Comp Rev	Source Code	Op Seq	Eff Date	Obs Date	Eff Rev	Obs Rev	Quantity	Asy/ Ord	Uom	Pos Nbr	Yield	Sub	Non Own	Ph	Ser	ECO
1	.MT2000	Standard Item		Make	10	01/01/1985	12/31/2099			10.0000	ASY	EA	0	100.0	N	N	N	N	
1	.MT3000	Mountain Bike, Womans		Make	10	01/01/1985	12/31/2099			10.0000	ASY	EA	0	100.0	N	N	N	N	

End of Report