



QAD Enterprise Applications
Standard Edition

Training Guide Product Change Control

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About This Course

Course Description

QAD designed this course to cover the basics of preparing to set up and use the Product Change Control (PCC) functions of QAD Enterprise Applications. The course includes hands-on activities and exercises that allow students to practice key concepts and processes in PCC.

Course Objectives

By the end of this class, students will:

- Analyze some key business decisions before setting up PCC
- Determine business requirements for setting up and using PCC
 - Product Change Orders (PCOs)
 - Product Change Requests (PCRs)
- Understand the relationships of components
- Set up so that PCC will best match the business rules

Audience

- Engineers
- Appropriate business managers
- Implementation consultants and members of implementation teams
- Key end users

Prerequisites

- Initial QAD Enterprise Applications Setup training course
- Product Structures and Formulas training course
- Work Centers and Routings training course

Course Credit and Scheduling

QAD designed this course to take 6 - 8 hours.

Product Help

All QAD products ship with integrated help systems. A properly installed QAD application will display help when you press the Help key (F1), or access it through the menu. The help covers the normal use of the product.

QAD Web Resources

The QAD website provides product and company overviews. The Print Solution option on the opening page provides a means of compiling desired content into a document specialized to your industry, business implementation, and needs.

<http://www.qad.com/>

From QAD's main site, you can access QAD's Learning or Support sites.

QAD Learning Portal for Training Opportunities

To view available training courses, locations, and materials, use the QAD Learning Portal. Choose Learning under the Global Services tab to access this resource.

QAD Support for Product Documentation and the QAD Knowledgebase

To access release notes, user guides, installation and conversion guides by product and release, visit the Support website. Support also offers an array of tools depending on your company's maintenance agreement with QAD. These include the Knowledgebase and direct links to QAD Support experts.

Choose Support under the Global Services tab.

Any QAD customer can register for a QAD web account by accessing the Support web site and clicking the Accounts link at the top of the screen. Your customer ID number is required. Access to certain areas is dependent on the type of agreement you have with QAD.

CHAPTER 1

Introduction to Product Change Control



Course Overview

- ▲ Introduction to Product Change Control
- ▲ Business Considerations
- ▲ Set up Product Change Control
- ▲ Process Product Change Orders
- ▲ Process Product Change Requests

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Course Overview

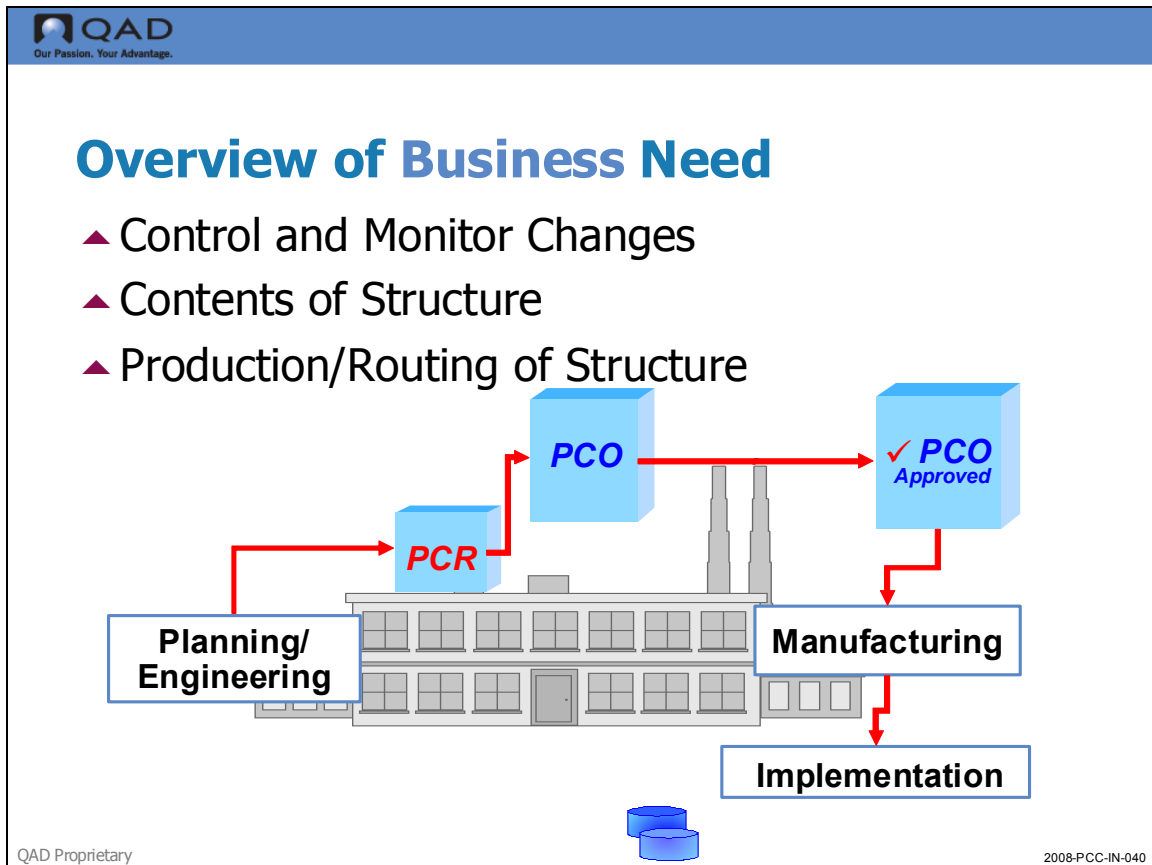
Learning Objectives

- Identify key business issues that affect the setup tasks
 - What these business issues are
 - How they might affect setup
 - Why should these issues be considered prior to setup
- Specific implementation setup procedures for Product Change Control
 - Identify required versus optional setup procedures
- Understand general processing flow for PCOs, with primary and alternative procedures

Understand general processing flow for PCRs, an optional procedure

Pre Setup Business Issues

- Key business issues that affect setup and process procedures
- Definitions of these issues
- Some reasons to consider the issues
- The functionality of these procedures in the context of QAD Enterprise Applications
- Setup implications of these issues



Overview of Business Needs

The Product Change Control module of QAD Enterprise Applications can help you meet your business requirements in three major ways:

- 1 Evaluate, define, approve, and incorporate proper change control. PCC provides an integrated process to support your business requirements.
- 2 Control and monitor changes to the contents of the product or its product structures.
- 3 Leave an audit trail for legal, economic, and regulatory agencies to review. PCC is a tool that will do that for you.

Typical Characteristics

Product changes have some common characteristics:

- Close teamwork to coordinate incorporation and implementation
- Input from many groups, including methods to prioritize different inputs
- Close and careful monitoring to ensure accuracy

Various groups involved in the product changes include:

- Engineers
- Planners
- Approvers

Solution Characteristics

Using PCC to introduce changes into QAD Enterprise Applications can provide a framework for complete change management, including control over:

- Item Engineering data
- Product Structures
- Routings
- Formulas
- Processes
- Specifications

Limitations

- Item-Site data must be maintained locally
- Cannot automatically control:
 - Alternate Routings
 - Co/By-Product Structures

Milestone Events

- Need to track, evaluate and manage three stages during product change:
 - Request for change is placed
 - Plans to initial changes are designed
 - Actual changes are incorporated and implemented in QAD Enterprise Applications

Requests for Changes

- Need to ensure:
 - Accurate notification
 - Security measures to establish authorization levels
- Desire to establish methods for timely communication between involved parties

Planned Changes

- Desire to:
 - Minimize the costs involved
 - Coordinate all changes with all concerned groups—engineers, sales persons, production staff, purchasers
 - Coordinate change information across geographic and database separation, such as minimizing downtime and information lag

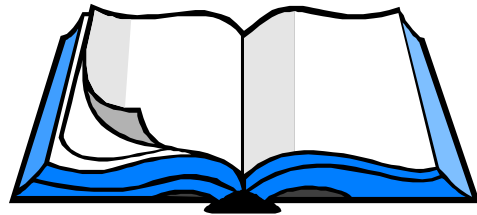
Actual Change Implementation

- Need to ensure:
 - Accurate effective dates are established
 - Approvals have been correctly assigned, controlled, and verified
 - Changes to planning data and production are both accurate and timely



Product Change Terminology

- ▲ Product Change Request (PCR)
- ▲ Product Change Order (PCO)
- ▲ Revision Level
- ▲ Effective Dates
- ▲ Disposition



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Terminology

Product Change Request (PCR). An optional change document used as a template for a full change order. They tend to have a shorter lifecycle, they do not affect production, and multiple PCRs can exist for an item whereas only one order can exist. Once approved, is either closed or converted into a PCO for further work.

Product Change Order (PCO). A change document that details changes to a production process and is moved through a defined approval sequence before updating production tables.

Revision Level. An engineering change level for an item. Typically used in place of a number change to control modifications that do not change the form, fit, or function of an item.

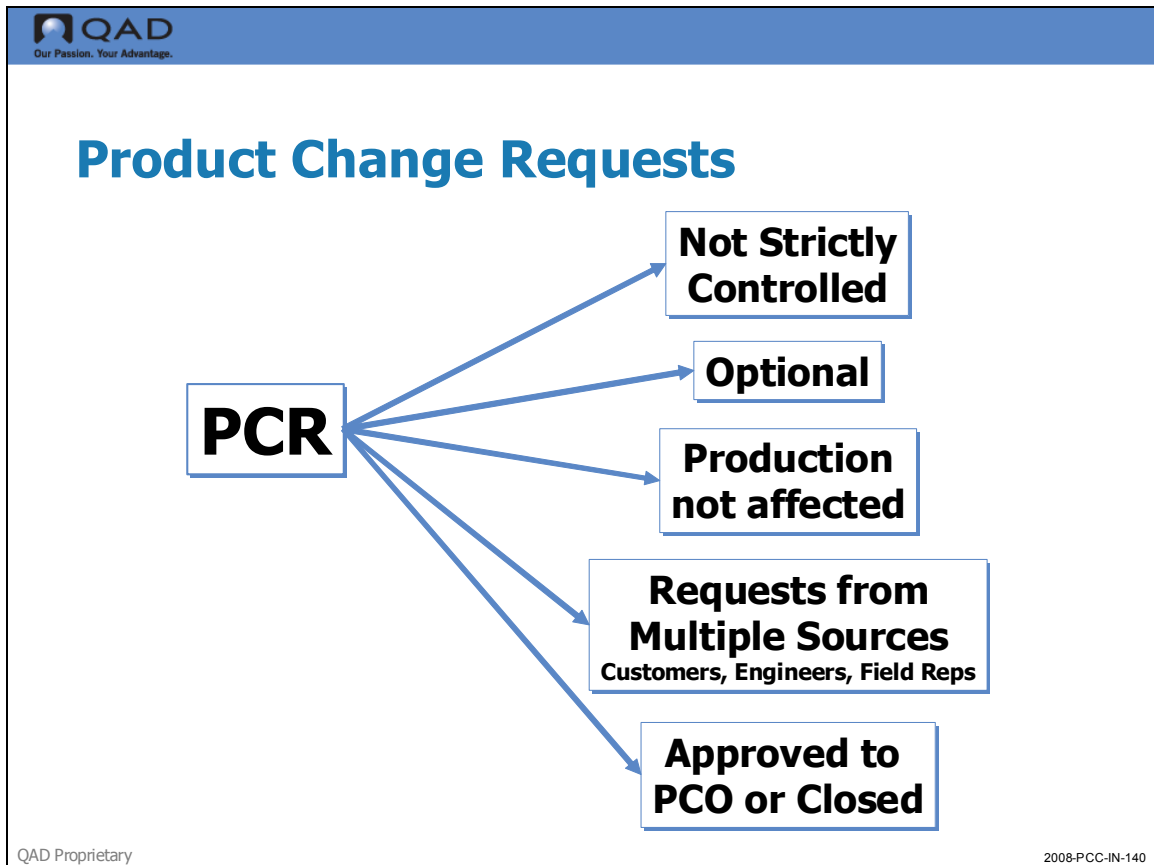
Effective Date. The date when a component or an operation is to be added or removed from a bill of material or assembly process.

Used in the explosion process to create demands for correct items. Normally, bill of material and routing systems provide for an effectivity start date and stop date for each relationship. Can be controlled by serial number rather than date.

Disposition. Validated against predefined values entered in Generalized Codes Maintenance, if any.

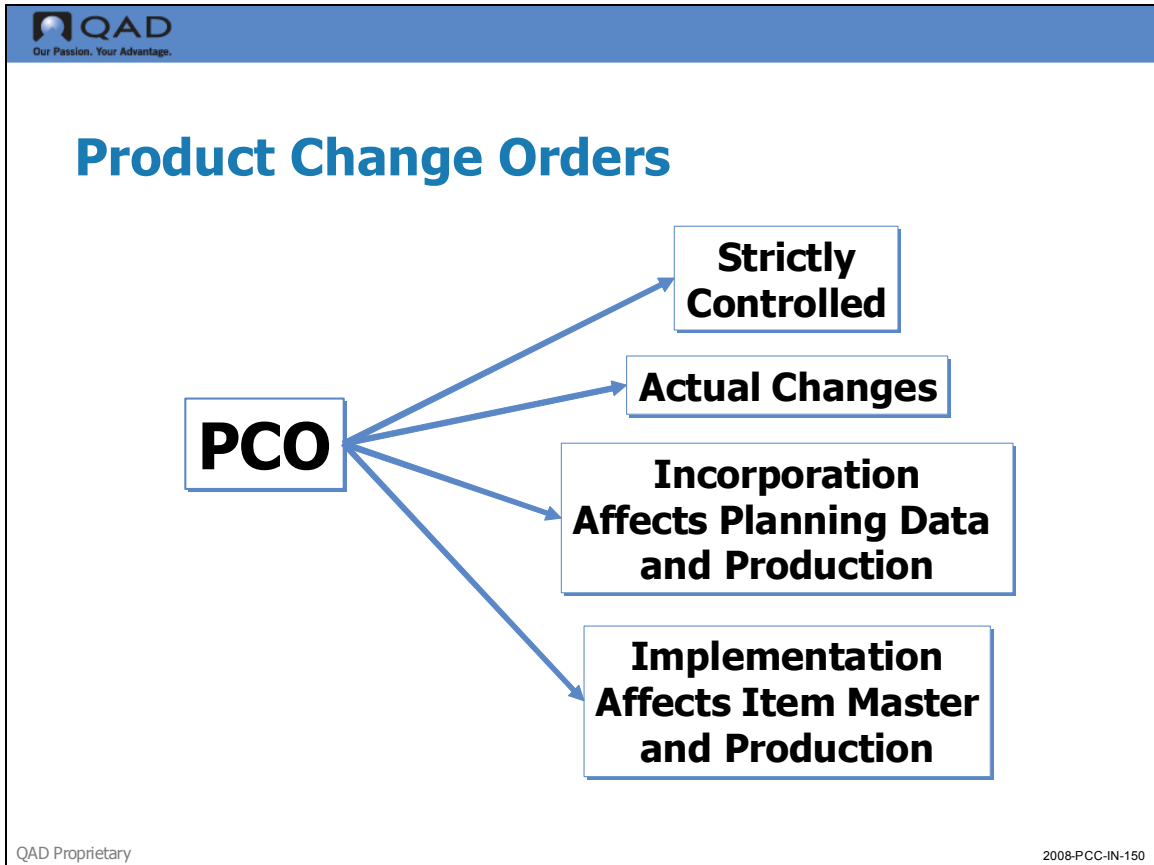
The disposition of the PCO or PCR.

This field is user-defined.



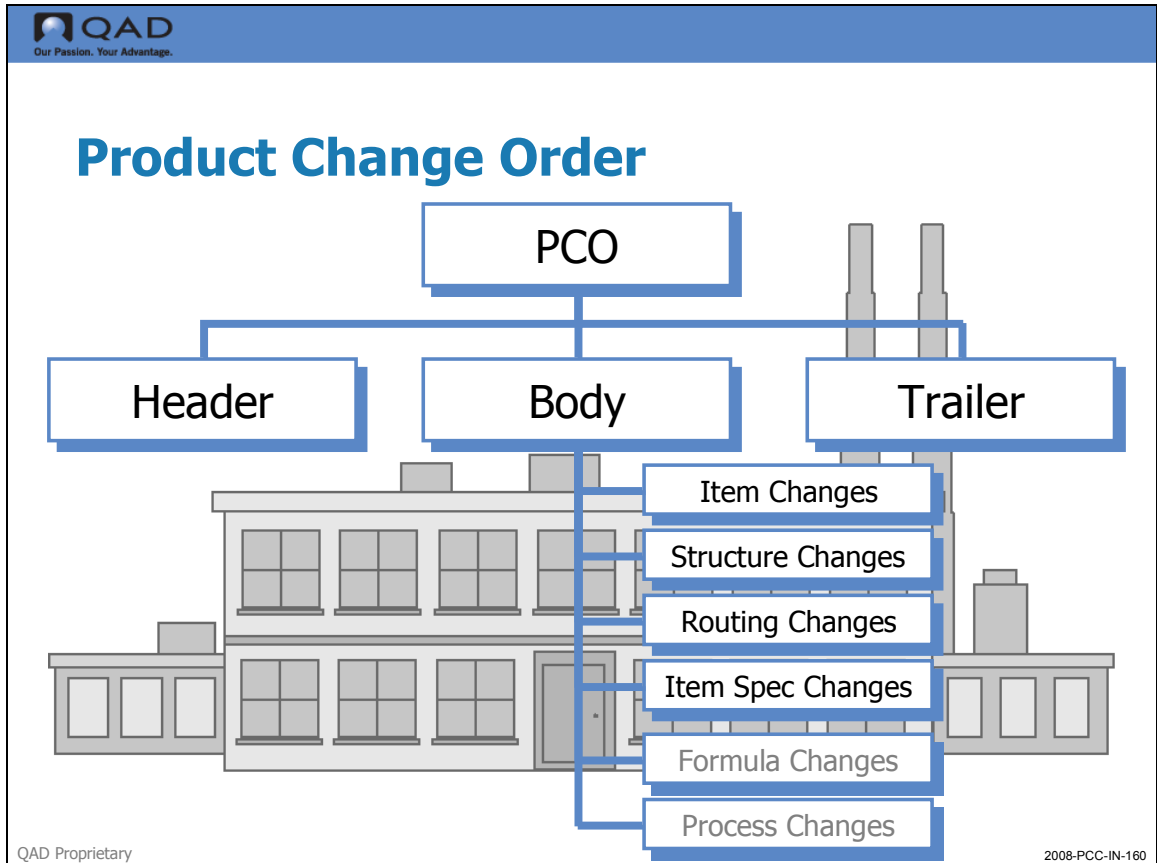
Product Change Requests (optional)

- Can be used in the same way Sales Quotes precede Sales Orders
- Planning data and production not affected
- Optional
- Requests come from many sources
 - Customers
 - Field Reps
 - Engineers
- PCRs are not strictly controlled
- Production is not affected
- Can be approved to a PCO or rejected/unapproved and closed
- More than one PCR can exist for an item



Product Change Orders

- Required in PCC
- Very strictly controlled
- Affects Planning Data when Incorporated
- Affects Item Master when Incorporated
- Only one PCO can exist per item



Product Change Order

Header

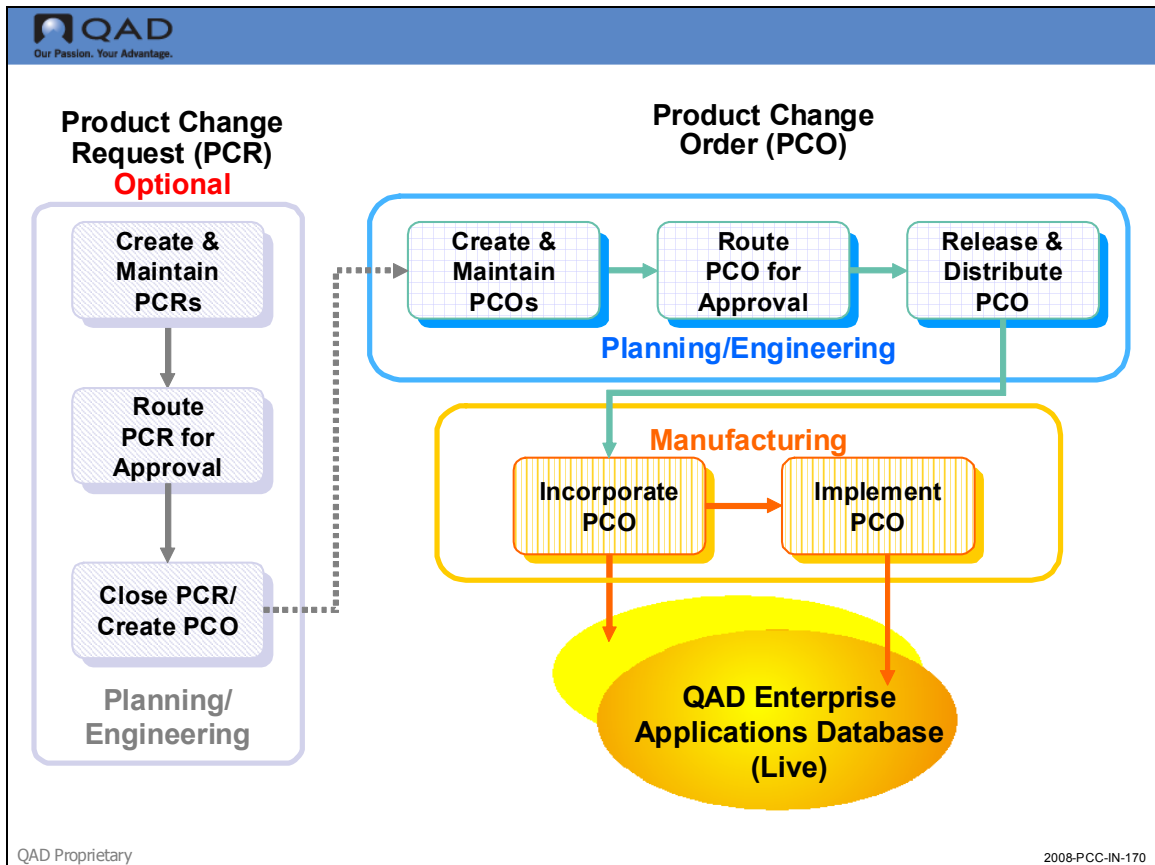
Generic change information

Body

- Specific changes for:
 - Items, Product Structure, Routing, and Item Specs
 - Formulas and Processes, if applicable (optional in this training guide)

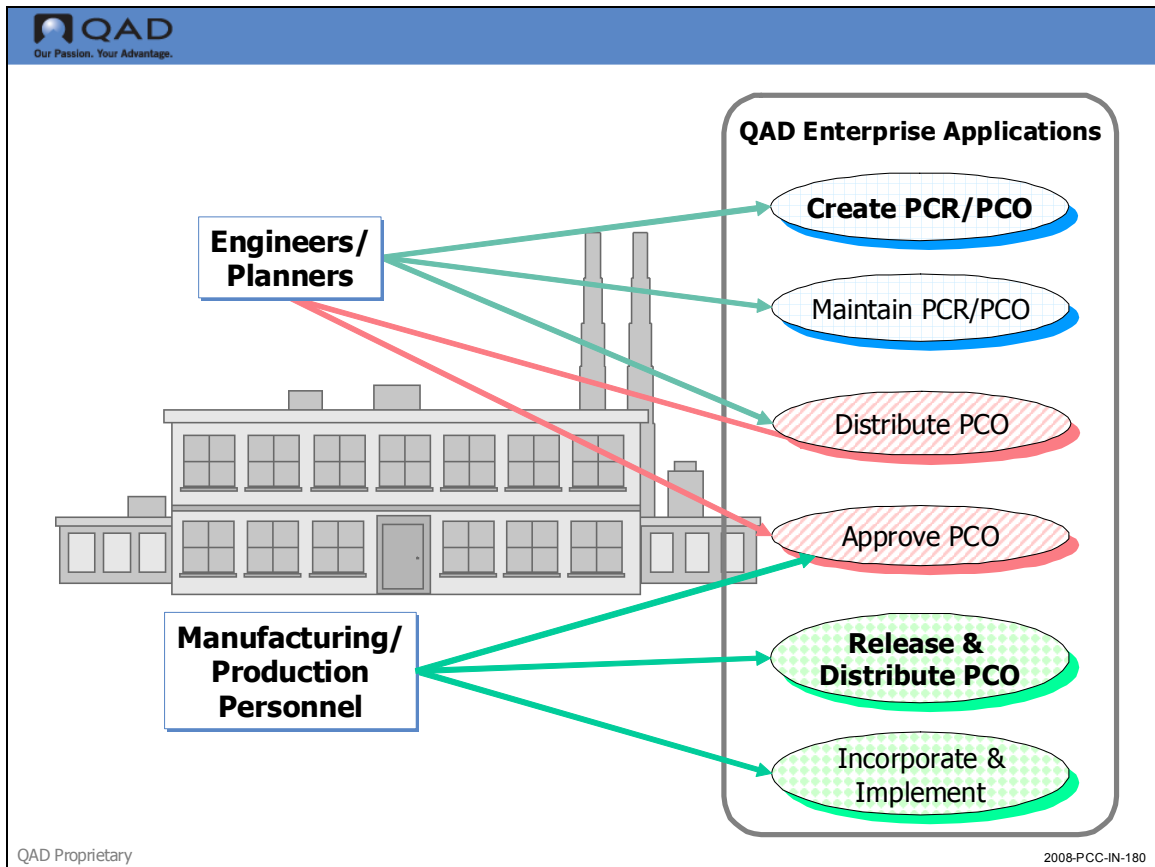
Trailer

- Close or reopen a PCO
- Displays information for the release process:
 - Routing slip
 - Distribution group
 - Date submitted
 - Date approved



Product Change Life Cycle

- After PCOs are approved by Planning/Engineering, they are released to Manufacturing
- Incorporating a PCO puts it into Production with an Effective Date
 - Incorporation makes the information available to Planning Data
- When the Effective Date is reached, the PCO is implemented into Production
 - Changes move into the item master files



Product Change Control Users

- Distributing PCOs is often done by either engineers or planners
- Approving PCOs is often done by engineers, planners, and/or production personnel

Discussion Questions

- 1 How are multiple PCRs for a single item merged into a single order?
- 2 What kinds of data is controlled by PCC?
- 3 What is the difference between incorporating and implementing a change order?

CHAPTER 2

Business Considerations



Business Considerations

In this section you learn how to:

- ▲ Identify key business considerations before setting up Product Change Control (PCC)
- ▲ Set up Product Change Control in QAD Enterprise Applications
- ▲ Process Product Change Orders (PCOs) in QAD Enterprise Applications
- ▲ Process Product Change Requests (PCRs) in QAD Enterprise Applications

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Considerations

- Control/Manage Changes
- Inventory Management
- Change Notifications
- Import/Export PCRs/PCOs
- Approval Methods
- Approvals
- Broad Contact Inclusion
- Product Data Management

There are several business issues to take into consideration before setting up QAD Enterprise Applications. This section does not discuss all potential issues, but presents some issues to generate thought and discussion.



Control/Manage Changes

- ▲ Changes made to your items, product structures, routings, item specs, formulas, or processes can have significant effects on your financials and production. Controlling and managing the types of changes, access to change administration, and timing of changes are critical.
- ▲ Why Consider?
 - Can affect budgets and standard costs
 - Inventory issues
- ▲ Functionality in QAD Enterprise Applications
 - Security controls over who has authority to issue or approve product changes
 - Routing severity manages rejections and reapprovals
- ▲ Setup Implications
 - Must set up users and security, approval groups, severity lists, and routing procedures

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Control/Manage Changes



Approval Methods

- ▲ Who can approve a change and what types of conditional approval or rejection and rerouting are allowed
- ▲ Why Consider?
 - Can affect implementation time
- ▲ Functionality in QAD Enterprise Applications
 - E-mail distribution can streamline approval process
 - Approval groups and security can control approval methods and access
- ▲ Setup Implications
 - E-mail systems must be setup
 - User security and groups must be assigned

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Approval Methods



Inventory Management

- ▲ Controlling obsolete and new items, product structures, and change implementation timing affects available inventory
- ▲ Why Consider?
 - Disposition for obsolete items
 - Scrap/Reject
 - Rework
 - Cost of changes
 - Existing Work Orders and Purchase Orders
 - Implementation may be delayed to use up old items first
- ▲ Functionality in QAD Enterprise Applications
 - Mandatory implementation dates
 - Cost Impact Report
- ▲ Setup Implications
 - Accurate effectivity dates

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Inventory Management



Approvals

- ▲ Assigning approval to proposed changes and allowing changes to enter QAD Enterprise Applications planning data and production data
- ▲ Why Consider?
 - Strict control of who can approve changes
- ▲ Functionality in QAD Enterprise Applications
 - Use PCR to evaluate change effects before converting to PCO
 - Strict control of who belongs to approval groups
- ▲ Setup Implications
 - Severity lists, groups, and routing setup

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Approvals



Change Notifications

- ▲ Announcing product changes have been submitted and/or approved
- ▲ Why Consider?
 - Various departments need to be prepared for product changes
 - Sales
 - Marketing
 - Production
 - Finance
 - Engineering
 - Customers
- ▲ Functionality in QAD Enterprise Applications
 - Distribution Notification can be sent to non QAD Enterprise Applications users
 - Distributors, Field Reps, Resellers, Consultants
- ▲ Setup Implications
 - E-mail and groups setup

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Change Notifications



Broad Contact Inclusion

- ▲ Some product changes made need to be announced outside your company
- ▲ Why Consider?
 - May be a bigger change than just an internal decision
- ▲ Functionality in QAD Enterprise Applications
 - Distribution outside QAD Enterprise Applications users
- ▲ Setup Implications
 - E-mail and groups setup

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Broad Contact Inclusion



Import/Export PCR/PCOs

- ▲ Saving product change text to ASCII files for import into other databases, or importing restored archives
- ▲ Why Consider?
 - Geographic separation of databases
- ▲ Functionality in QAD Enterprise Applications
 - ASCII file is easy to import into other programs
 - Archival data remains accessible

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Import/Export PCR/PCOs



Product Data Management (PDM)

- ▲ Strict internal control over access to documents and other product data
- ▲ Why Consider?
 - Confidentiality
 - Trade secrets
- ▲ Functionality in QAD Enterprise Applications
 - Not part of the PCC module
 - Import/export information to PDM programs

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Product Data Management (PDM)

Focusing Exercise

Individually, or in small groups, examine your company, or a company your instructor suggests, against the business issues discussed in this chapter. Consider the following:

- 1 The business expectations given this type of company, and
- 2 Additional information you may need to elicit to successfully implement Product Change Control for this company.

Do not look ahead in this training guide or at the QAD Enterprise Applications software. The purpose of this exercise is to help you focus on what is important to this company about Product Change Control. There are no right or wrong answers.

CHAPTER 3

Set Up Product Change Control



Set Up Product Change Control

In this section you learn how to:

- ▲ Identify key business issues you need to consider before setting up Product Change Control in QAD Enterprise Applications
- ▲ Set Up Product Change Control in QAD Enterprise Applications
- ▲ Process Product Change Orders (PCOs) in QAD Enterprise Applications
- ▲ Process Product Change Requests (PCRs) in QAD Enterprise Applications

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Set Up Product Change Control



Our Passion. Your Advantage.

Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

* Optional

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Product Change Control Setup

This illustration is a suggested setup sequence of master files for the Product Change Control module, which is based on information that flows from one master file to another and prerequisites that need to be accomplished before setting up a file.



Prepare to Use PCC

- ▲ Changing to PCC permanently disables ECN module
- ▲ Need to re-enter old ECOs
- ▲ ECOs are not converted automatically
- ▲ Print all existing ECOs before enabling PCC

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Prepare to Use PCC

- 1 If there are any existing Engineering Change Orders (ECOs) in the database:
Enter Engineering Change Notice (ECN) data manually into the PCC module
- 2 As you prepare to use PCC, remember that the major benefit your business gains is that changes are expressed at the data level for product structures and routings, so that QAD Enterprise Applications can execute your instructions.
For example, a typical PCO might say, “Release new part B and obsolete old part A.”
Effective upon release of the PCO, the product structure for C has been changed from 1 EA A to 1 EA B.

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ECO by ECO Number Report

ECO by ECO Number Report X

Go To Actions Copy Print Preview

ECO Number:
Item Number:

To:
To:

**Leave Fields Blank
To Print All
Existing ECOs**

ECO by ECO Number Report
United States

12/05/08 13:02:40
Page: 1

Number: *000000* Description:
Created By: qad.inc
Date: 12/14/94

Item Number	Description	UM	Rev	Old	New	Start	End
05-0579	Prototype Ink Cart.HQ	EA	A		A	03/22/02	
0924218-0000	w/wire .045CB 40#	LB	3		3	03/22/02	
0924743-0002	w/wire .035 409CB 40#	LB	3		3	03/22/02	
0990689-0002	U-Bolt Clamp	EA	3		3	03/22/02	
0990711-0007	U-Bolt Clip	EA	3		3	03/22/02	
0991150-0008	Rod Bracket	EA	3		3	03/22/02	
0992913-0009	Bracket	EA	3		3	03/22/02	
0993792-0008	Bracket	EA	3		3	03/22/02	
0993793-0003	Bracket	EA	3		3	03/22/02	
0994485-0008	MLF-SHL/WRAP 7.24x11.02	EA	3		3	03/22/02	
0995576-0018	M & E Assy 7.24 x 11.02 XC35-5K214-FC	EA	1		1	03/22/02	
1018975-0242	Single Wall Tubing 3.5"	EA	3		3	03/22/02	
1020380-0092	Single Wall Tubing 3.5"	EA	3		3	03/22/02	
1020797-0051	Single Wall Tubing 3.5"	EA	3		3	03/22/02	

ECO by ECO Number Report (13.13.3)

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ECO by ECO Number Report (13.13.3)

- Print all existing ECOs
- Keep the report to use as the basis for keying new PCOs



Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

* Optional

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Record ECO Data

- Enabling PCC is irreversible

You must print existing ECO information for manual conversion to PCRs or PCOs



Set Up PCC Functions to Control

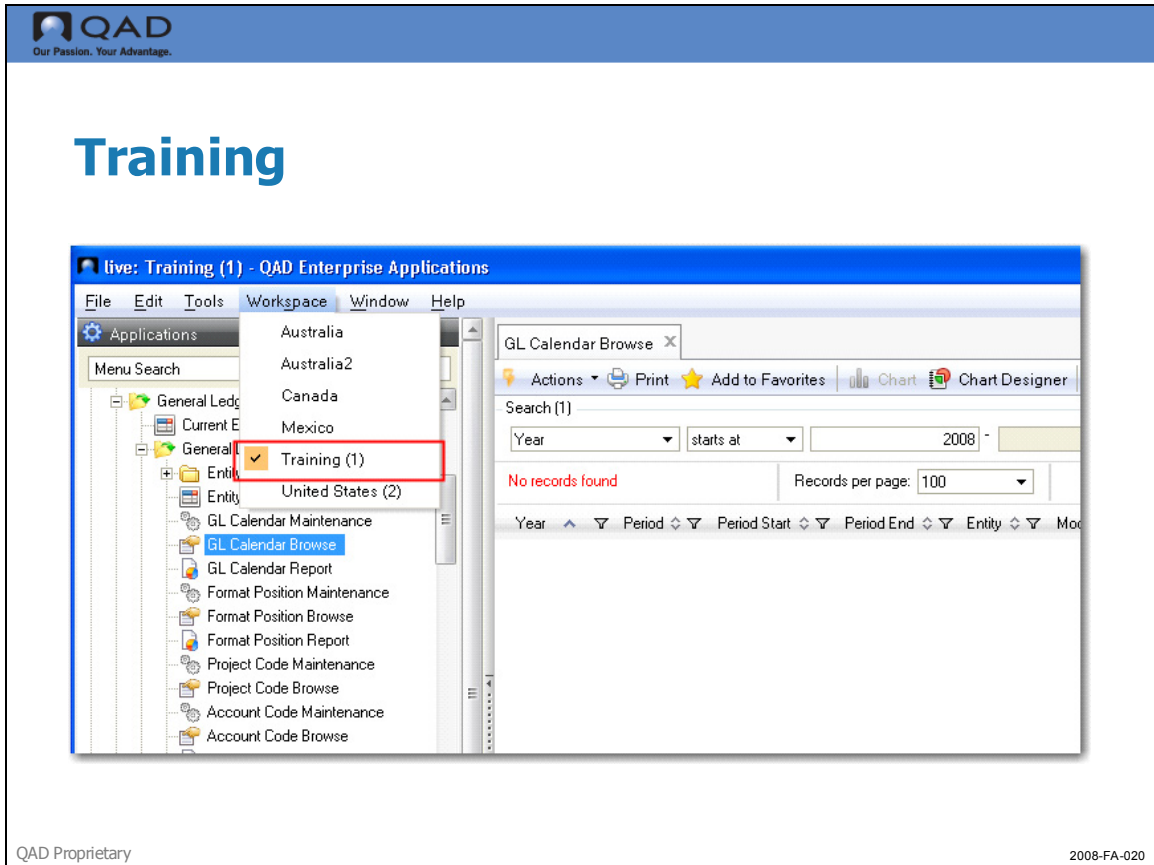
- ▲ Different Maintenance Functions are Controlled Separately
 - Structure Maintenance (Disables ECO)
 - Routing Maintenance
 - Item (Quality) Spec Maintenance

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2008-PCC-SU-070

Set Up PCC Functions

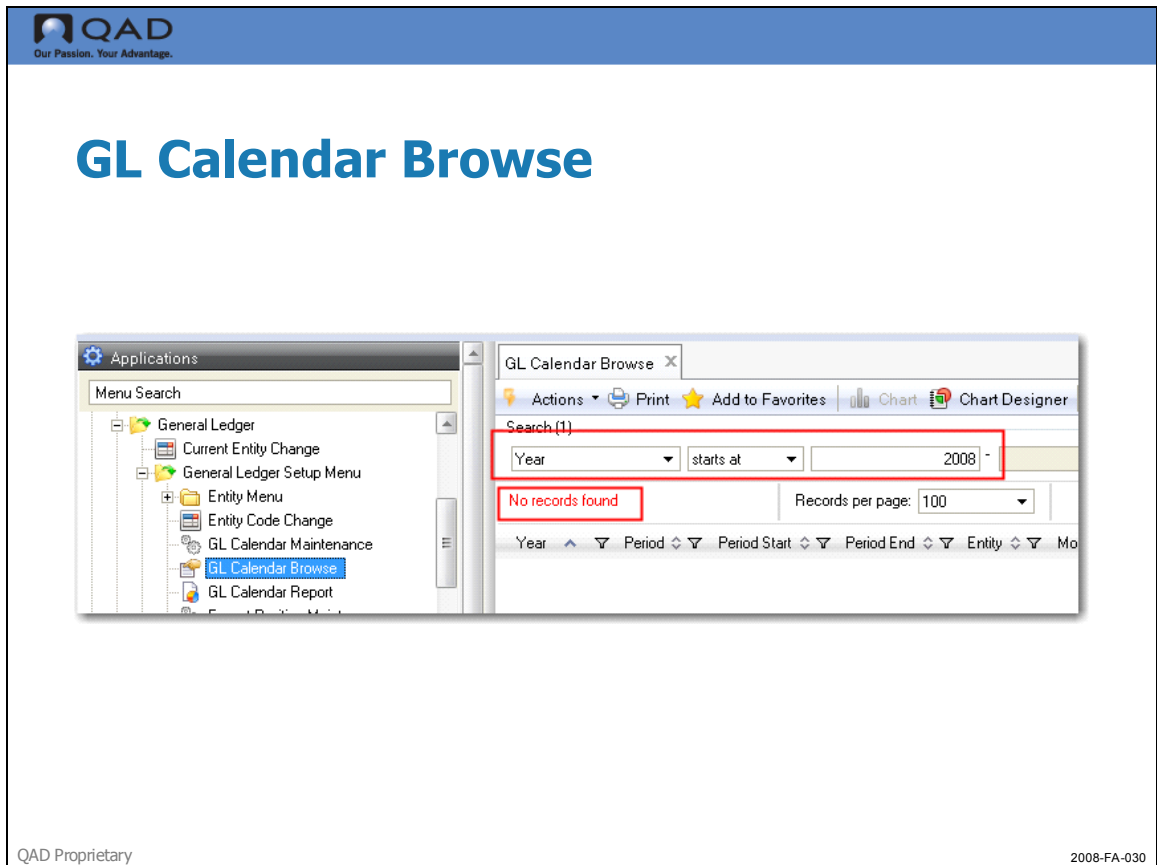
- ECO is disabled by the PCC Structure Maintenance
- Different functions can be controlled
- Each function is activated separately



First Activity: Preliminary Setup

First Activity for all 2008 SE Courseware

- 1 Verify Domain: From the workspace menu select Training.
 - a Note the domain name appears in the top window frame.

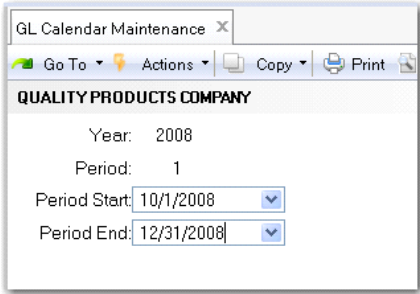


2 Verify GL Calendar Period

- a Use GL Calendar Browse (25.3.5).
- b Start search at current year.
- c You should see a list of months for the current year.
- d If you find "No Records" continue to step 3.

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GL Calendar Maintenance



GL Calendar Maintenance X

Go To Actions Copy Print

QUALITY PRODUCTS COMPANY

Year: 2008

Period: 1

Period Start: 10/1/2008

Period End: 12/31/2008

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3 Use GL Calendar Maintenance (25.3.4)

- a Enter the current year, then as a shortcut enter one period whose dates will cover the term of your training event.

Setup Exercises

Set Up Addresses and Company Name

In this exercise, use Company Address Maintenance (2.12) to customize the screens and reports to show your company name.

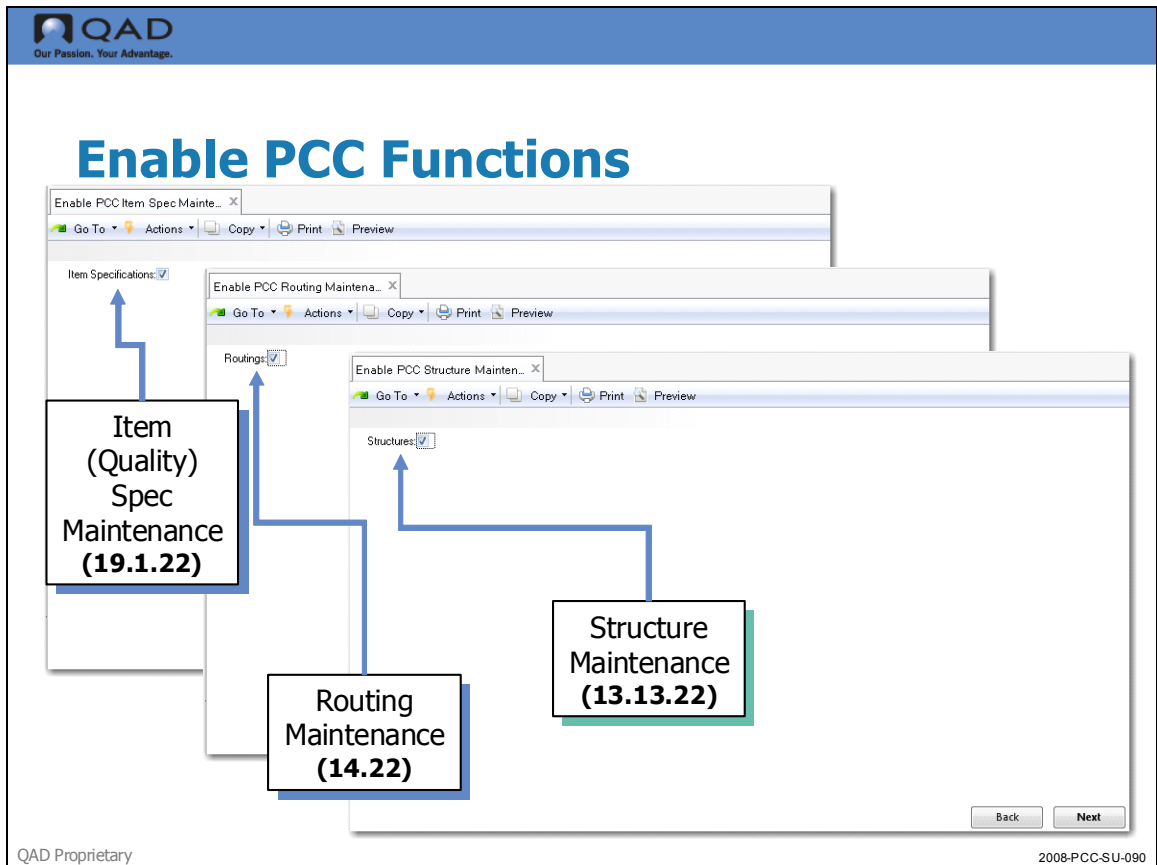
- 1 Add the company address for Magic Boxes Inc., Company ID = 12, has already been entered into the system. Personalize your database by replacing the Quality Products company name with your name in address code 10000.
- 2 Enter your name under the Address codes ~reports and ~screens. This causes your name to be displayed on the top of all reports and at the top of all the menu screens.

Note Menu screen changes may not take effect until reentering QAD Enterprise Applications.

Print Existing ECOs

In this exercise use ECO by ECO Number Report (13.13.3) to print the existing ECOs before enabling PCC.

- 1 In an environment where you have ECOs, print the ECO by ECO Report.
In a live database you would use this report to create new PCOs later.
For the purposes of these exercises you can print to PAGE.



Enable PCC Functions

Each process is activated separately.

Important Enabling PCC makes changes to your database that cannot be reversed.



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Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ **Set Up Functions to Control**
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

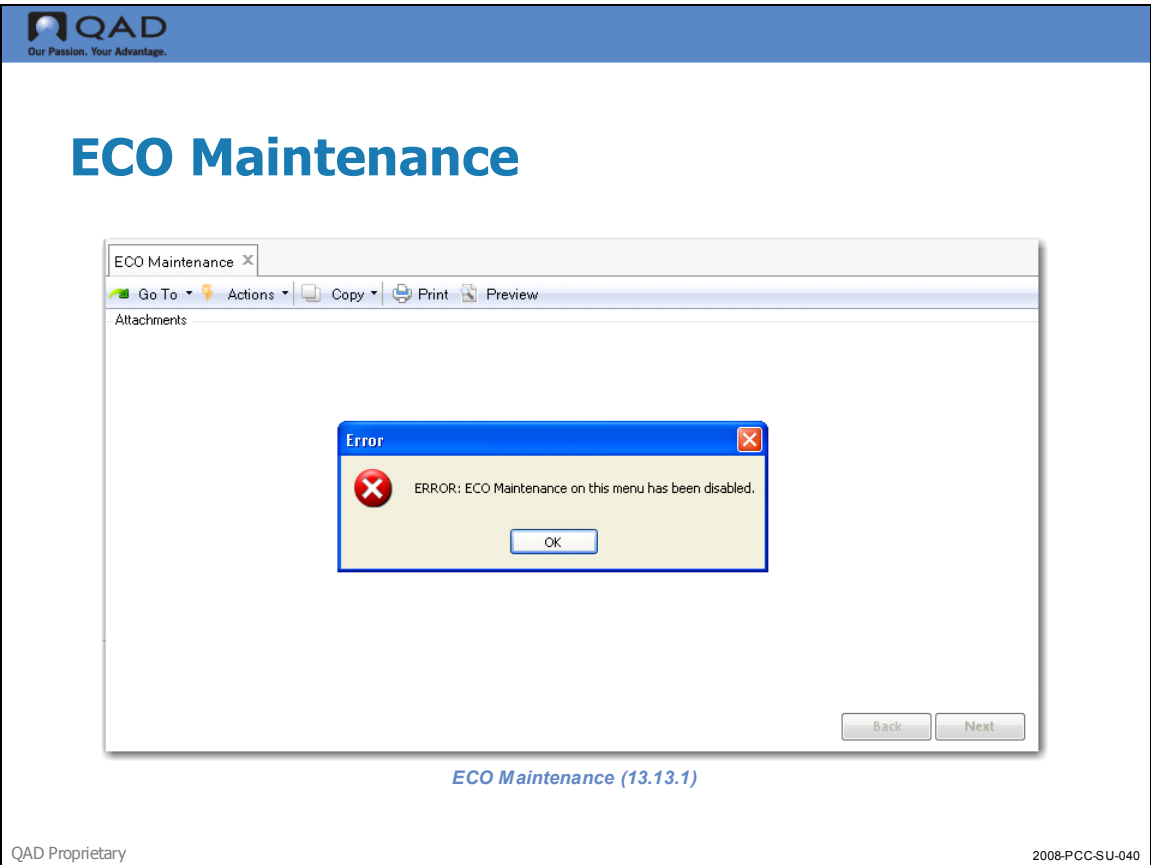
* Optional

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Set Up Functions to Control

- We are covering three processes
 - Structure Maintenance
 - Routing Maintenance
 - Item Spec Maintenance

If your manufacturing process uses Formulas, you need to activate Formula Maintenance (15.22) to create PCRs or PCOs for formula changes. Menu numbers 13.13.22, 14.22, and 19.1.22



ECO Maintenance

Important Once PCC has been enabled, you can no longer access ECO Maintenance

Setup Exercises

Set Up PCC Processes

In this exercise you ensure that PCC is enabled for several processes.

- 1 Use Enable PCC Product Structure Maintenance (13.13.22) to enable PCC product structure maintenance.
- 2 Use Enable PCC Routing Maintenance (14.22) to enable PCC routing maintenance.
- 3 Use Enable PCC Item Spec Maintenance (19.1.22) to enable PCC item spec maintenance.
- 4 Use Enable PCC Formula Maintenance (15.22) to enable both Formulas and Processes.

Note Formula and Process changes are optional exercises. However, you must enable Formula Maintenance for PCC if you plan to do any of the optional formula or processing exercises in this training guide.

Set Up a Cost Center

Use Cost Center Code Maintenance (25.3.20) to set up a Cost Center for Magic Box in the General Ledger.

Cost Center:	12
Description:	Magic Box
Active:	Yes
From Account:	1035
To Account:	9510

Set Up Product Line Information

Use Product Line Maintenance (1.2.1) to set up the following product line information:

Product Line:	12
Description:	Magic Box
Taxable:	No
Tax Class:	<blank>

Inventory Accounts

Inventory Acct:	1500	12
Inv Discrep Acct:	5900	12
Scrap Acct:	5800	12
Work in Progress Acct:	1600	12
Method Variance Acct:	6200	12
Cost Revalue Acct:	1550	12

Sales Accounts

Sales Acct:	3000	12
Sales Disc Acct:	3900	12
COGS Material Acct:	5050	12
COGS Labor Acct:	6860	12
COGs Burden Acct:	6480	12
COGS Overhead Acct:	6495	12
COGS Subcontract Acct:	5070	12

Set Up Item Status Codes

Use Item Status Code Maintenance (1.1.5) to add a new item status code.

- 1 Use your down arrow to display existing item status codes.
 - a Advance your cursor to the next frame.
 - b Review the restricted transactions for the item status code.
- 2 Add a new item status code, Exper, with a description of Experimental.
- 3 Add the following Restricted Transaction Codes:
 - ADD-PS
 - ADD-SO
 - ADD-WO
 - ISS-SO
 - ISS-WO
- 4 Save your changes.

Item Status Codes

Use Item Status Code Maintenance (1.1.5) to enter the following restricted transactions for item status code Proto:

Item Status:	Proto
Description:	Prototype
Restricted Transactions:	ADD-SO
	ISS-DO
	ISS-SO

Set Up Site Data

Use Site Maintenance (1.1.13) to enter site information for the Magic Box Plant.

Site:	12
Description:	Magic Box Plant
Entity:	1000
Default Inventory Status:	OI-NO
Automatic Locations:	No
Database:	<blank>
EMT Supplier	<blank>
External Supplier:	No
Transfer Variance Acct:	5030 12

Set Up Location Data

Use Location Maintenance (1.1.18) to set up a Stock location at Site 12.

Site:	12
Location:	Stock
Description:	Component Stock Room

Set up a location for finished goods inventory at Site 12.

Site:	12
Location:	FGI
Description:	Finished Goods Inventory

Set Up Inventory Control

Use the Inventory Control (3.24) to enter the following information:

Summarized Journal:	Yes
Journal Reference Method:	10
Default Site:	12



Create User IDs

▲ Define Users Who

- Create PCRs/PCOs
- Authorize PCRs/PCOs
- Receive PCRs/PCOs Notification

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Create User IDs

Each member of a group must be defined as a user in QAD Enterprise Applications

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User Maintenance

User Maintenance x

Go To Actions Copy Print Preview

User ID: demo User Name: Demo User

Language: us Variant:

Country Code: usa Restricted: ☐

User Type: Employee Access Location: PRIMARY

Time Zone: PST/PDT

E-mail Def: 500

E-mail Address: demo@qaddemo

Menu Style: A (A - Icons B - Tear Off C - Character)

Menu Substitution: ☐

Remark:

System Access

Active: ☒ Last Logon: 9/12/2008 08:57 PST/PDT

Active Reason: QAD_DEF QAD Default

Force Password Change: ☐

Update Password: ☐ Last Password Change: 12/16/2004

Delete Back Next

User Maintenance (36.3.1)

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User Maintenance (36.3.1)

- Assign User ID and User Name

At this stage, validate that the user records exist and are correct. You'll add e-mail notification and assign users to groups later on.



Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

* Optional

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User Maintenance

- Make changes to existing users

Add new users

E-Mail Definition Maintenance

E-mail System: Windows
 Operating System: Win32
 Start Effective: 12/5/2008
 End Effective:

Description: Windows Email

Path and Program Name:
 C:\Windows\apps\omgui\omgui.exe

Command Line Parameters:

Sender: _____ Sequence: ☐
 Recipient: _____ Sequence: ☐
 Subject: _____ Sequence: ☐
 Message Text File: _____ Sequence: ☐
 Message Text String: _____ Sequence: ☐

Start Effective: 12/5/2008
 End Effective:

E-Mail Command:

Delete Back Next

E-Mail Definition Maintenance (36.4.20)

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E-Mail Definition Maintenance (36.4.20)

- Use E-Mail Definition Maintenance (36.4.20) to set up each available e-mail program.
- Name the system you are defining
- Choose your platform
- Assign the path and program name
- If more than one e-mail choice is available, assign additional systems
 - See your System Administrator
- There are four programs responsible for e-mailed messages in the PCC module.
 - pmail01.p sends “HAS BEEN SUBMITTED FOR APPROVAL” (3757)
 - pmail02.p sends “IS READY FOR YOUR APPROVAL” (3758)

- pemail03.p sends “HAS BEEN APPROVED” (3759)
- pemail04.p sends “HAS BEEN RELEASED AND DISTRIBUTED” (3760)

Note The e-mail System field of E-Mail Definition Maintenance must match the e-mail Definition field of User Maintenance



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Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
 - Define E-Mail Systems
 - Define Users' E-Mail Addresses
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

* Optional

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Set Up E-Mail

- Various reports in PCC can be routed via e-mail
- Very effective for PCC notification
- E-mail information is very system/implementation specific
- There are no default values for e-mail Definition Maintenance (36.4.20)

After setting up all available e-mail systems, return to the User files to assign e-mail addresses

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User Maintenance

User Maintenance x

Go To Actions Copy Print Preview

User ID: demo User Name: Demo User

Language: us Variant: Country Code: usa Restricted: Access Location: PRIMAR User Type: Employee Time Zone: PST/PDT E-mail Def: 500 E-mail Address: demo@qaddemo.com Menu Style: A (A - Icons B - Tear Off C - Character) Menu Substitution: Remark:

Complete E-Mail address in User Maintenance

System Access

Active: Last Logon: 9/12/2008 08:57 PST/PDT
Active Reason: QAD_DEF QAD Default
Force Password Change: Last Password Change: 12/16/2004
Update Password:

Delete Back Next

User Maintenance (36.3.1)

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User Maintenance (36.3.1)

- Return to the User Maintenance screens to assign e-mail addresses
- Full addresses are required, including the domain name

Note Because e-mail systems are unique and must have exact information supplied in setup, there is no corresponding exercise for this procedure.

Reason Codes Maintenance

Reason Type: ELEC
Reason Code: REJECT

Description: Electrical Malfunction

Reason Codes to Identify Severity of Rejection

Delete Back Next

Reason Codes Maintenance (36.2.17)

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Reason Code Maintenance (36.2.17)

- Severity codes are assigned as reason codes
- If rerouting is enabled, severity codes must be numerical and hierarchical
 - Rerouting logic looks for greater than or equal to numeric values
- Use numerical and hierarchal codes if you want to enable rerouting logic
- Assign the type
- Description field prints on displays and reports



Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
 - Define Levels of Rejection for Rerouting
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

* Optional

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Set up Severity Codes

- Severity codes define levels of rejection or conditional approval

If rerouting is enabled, severity codes determine who needs to reapprove PCR/PCO

Setup Exercises:

Set Up User IDs

Use User Maintenance (36.3.1) to set up the following user IDs:

User ID	Language	User Name	Employee
Eng1	US	Engineer1	Yes
Eng2	US	Engineer2	Yes
Pln1	US	Planner1	Yes
Pln2	US	Planner2	Yes
Mfg1	US	Mfg. Manager1	Yes
Mfg2	US	Mfg Manager2	Yes
QEng1	US	Quality Engineer1	Yes
QEng2	US	Quality Engineer2	Yes
Acct	US	Cost Account	Yes
Your Login	US	Your Name	Yes

Note There are no default values for E-Mail Definition Maintenance (36.4.20) because e-mail systems vary widely. When implementing PCC in your business, you need to set up the system parameters before using e-mail notification.

There are no exercises for setting e-mail in this training course, because of the system-specific administration. Your e-mail system administrator needs to be involved in setting up the parameters of e-mail within QAD Enterprise Applications. Continue with the User ID exercise.

Set Up Generalized Codes

Use Generalized Codes Maintenance (36.2.13) to enter the following:

Field Name: pt_rev

Value	Comments
1	Prototype Rev
2	Prototype Rev
3	Prototype Rev
4	Prototype Rev
5	Prototype Rev
6	Prototype Rev
7	Prototype Rev
8	Prototype Rev
A	Production Release
B	Production Revision
C	Production Revision
D	Production Revision
E	Production Revision
F	Production Revision
G	Production Revision
H	Production Revision

Continue entering the following generalized codes: Field Name: ECM_ECR_DSPN

Value	Comments
UAI:	Use as is
POO:	Rework parts on order
WIP:	Rework WIP
FGI:	Revise thru FGI
FUP:	Requires field upgrade

Set Up Reason Code Severity Levels

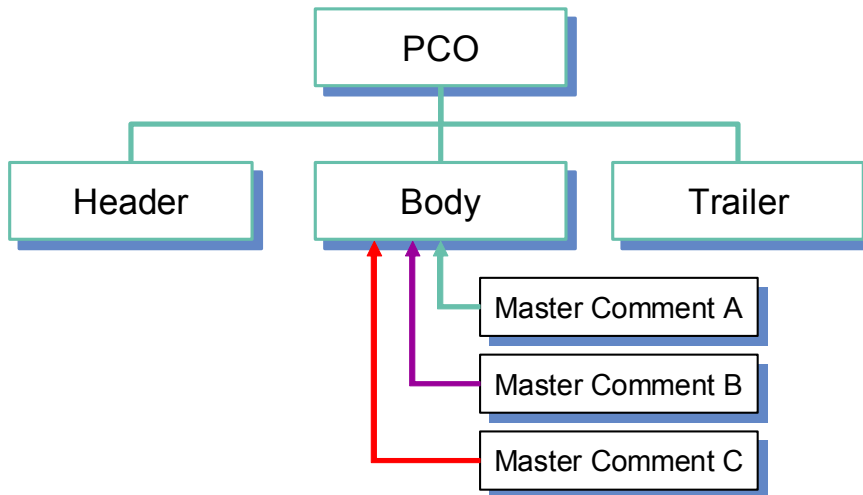
Use Reason Code Maintenance (36.2.17) to enter the information below in order to set up reason code severity levels.

Reason Code	Reason Type	Description
10	PCO	No effect parts/process
20		Rework parts on order
30		Rework on order/WIP
40		Rework thru WIP/scrap
50		Effect thru FGI
60		Rework thru FGI/scrap
70		Rework thru field units
80		Replace field units



Set Up Master Comments

- ▲ Define Standard Comments for PCR/PCO Text File



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Set up Master Comments

Standard comments are used to copy into the PCO body.

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Master Comment Maintenance

Master Comment Maintenance

Go To Actions Copy Print Preview

Master Comments

Master Reference: @backup
Type:

Language:
Page: 1

You may want to backup your data before executing next step!

Delete Back Next

Master Comment Maintenance (1.12)

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Master Comment Maintenance (1.12)

- Assign a reference for the comment
- Comment text can be up to 99 pages of free-form text, accessible by reference code, type, language, and page number
- Associate comments with entities by setting Master Reference equal to an item number or customer or supplier code

Note Comment text has no owner and therefore is not private.


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Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control File

* Optional

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Master Comment Maintenance

- Useful for:
 - Disclaimers
 - Policies
 - Checklists
 - Surveys
 - Standard Procedures

Disposition Forms



Create Groups

- ▲ Type Indicates in Which Part of PCR/PCO Process is Group Used
 - Design
 - Approve
 - Distribute

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Create Groups

- QAD Enterprise Applications does not distinguish different types of groups
 - Type is how it is used, not how it is defined
 - Group names should reflect their type
- Users can be in more than one group, and more than one type of group

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Group Maintenance

Group Maintenance X

Go To Actions Copy Print Preview

Group Master

Group: QA

Description: Quality Assurance

Create New Group

Delete Back Next

Group Maintenance (1.9.1.1)

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Group Maintenance (1.9.1.1)

- Specify a unique group name
- Give a brief description of how the group is used in PCC



Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance *
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

* Optional

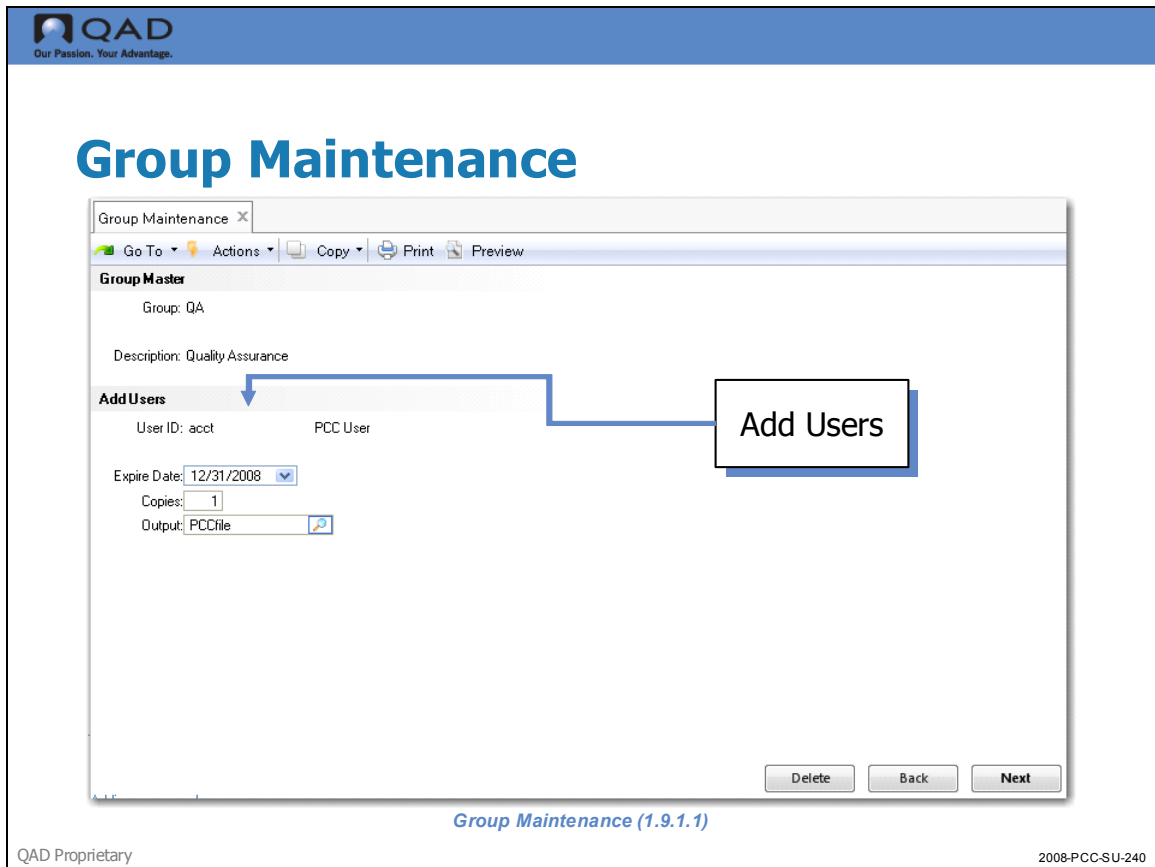
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Group Maintenance

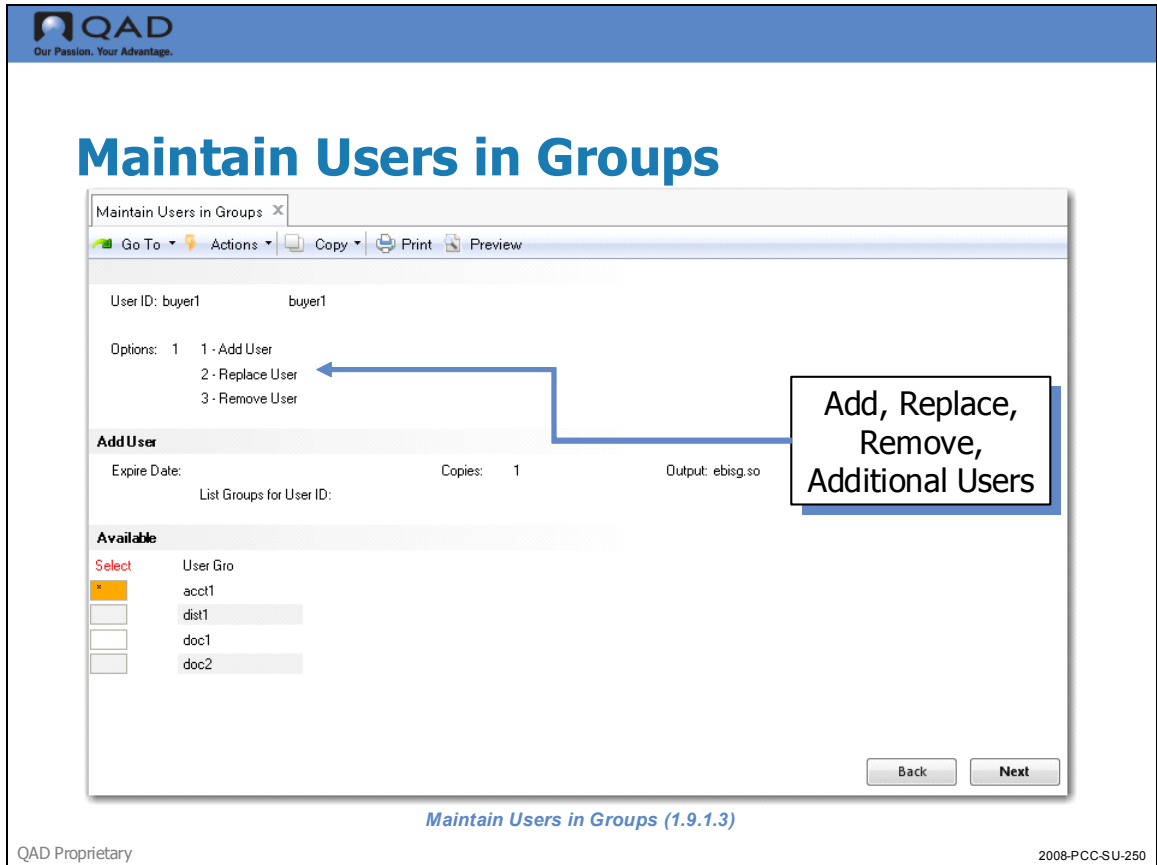
- Users added to groups must be previously defined in User Maintenance (36.3.1)
- You can specify a date when user membership expires in a group
- You can also specify the number of copies of a PCR or PCO they should receive and the output device to be used

Users may also receive e-mail messages, based on the routing slip attached to a PCO or PCR



Add Users

- Expire date is optional for assigning when group membership ends
- If copies is set = 0, the user receives only e-mail
- If copies is set = 1 or above, this assigns the number of printouts at the specified Output



Maintain Users in Groups (1.9.1.3)

Add Users

- Add new users
- Change user attributes
- Replace users
- Remove users
- Available groups shows PCC groups to which the user does not yet belong

Replace Users

- Works like adding users to groups
- Specify both the current user ID and the user ID of the person who will replace them
- Update the replacing user's attributes and groups by specifying the same ID in both fields

Remove Users

- Delete users from groups
- You must remove users from group membership if you plan to delete a user ID

Setup Exercises:

Help

Use Window Help Maintenance (36.4.21) to add the following information:

Field:	ECM_ECR_DSPN
Calling Procedure:	<blank>
Procedure to Execute:	GPLU072.P

Set Up PCC Groups

Use Group Maintenance (1.9.1.1) to create PCC groups and assign members to the groups. Enter group name and press NEXT. Enter description and press NEXT. Enter user ID and press NEXT. Enter Expire Date, Copies, Output, press Next. Press BACK button to enter next group. Repeat until all user IDs are entered.

Group	Description	User IDs
Design	PCC Design Group	Eng1
		Eng2
		Qeng1
		QEng2
Design	Engineering Approval	Your Login
Eng/Apv		Eng2
		Eng2
		Your Login
Pln/Apv	Buyer/Planner Approval	Pln1
		Pln2
		Your Login
Mfg/Apv	Mfg. Manager Approval	Mfg1
		Mfg2
		Your Login
Qual/Apv	Quality Eng. Approval	QEng1
		QEng2
		Your Login

Group	Description	User IDs
Dist	PCO Distribution List	Pln1 Mfg1 Acct Your Login

Set Up Item Master

Item Number:	12-100
Description:	Magic Box, Packaged
UM:	EA
Prod Line:	12
Design Group:	Design
Status:	Proto
Rev:	2
Lot/Serial Control:	S
Site:	12
Location:	FGI

Set Up Item Data

Use Item Data Maintenance (1.4.3) to enter the item data information below.

Item#	Description	Prod Line	Design Grp	Status	Rev
12-100	Magic Box Assy	12	Design	AC	A
12-101	Assembly	12	Design	AC	A
12-102	PCB Assy	12	Design	AC	A
12-103	Packaging Material	12	Design	AC	A
12-104	Label	12	Design	AC	A
12-105	Switch	12	Design	AC	A
12-115	Sub-assembly	12	Design	AC	A
AP12-101	Assembly procedure for Magic Box	12	Design	AC	A
AP12-100	Assembly procedure for packaging Magic Box	12	Design	AC	A

Set Up Inventory Data

Use Item Inventory Data Maintenance (1.4.5) to enter the following inventory data:

Item#	Lot/Serial	Site	Location
12-100	S	12	FGI
12-101	L	12	Stock
12-102	S	12	Stock
12-103		12	Stock
12-104		12	Stock
12-105		12	Stock
12-115	L	12	Stock

Set Up Item Planning Data

Use Item Planning Maintenance (1.4.7) to enter the following item planning data:

Item#	Order Qty	Pur/Mfg	Mfg LT	Pur LT
12-100	10	M	1	
12-101	10	M	1	
12-102	10	P		5
12-103	10	P		2
12-104	10	P		12
12-105	10	P		5
12-115	10	P		12

Set Up Item Cost Data

Use Item Cost Maintenance (1.4.9) to enter the following item cost data:

Item#	Price	G/L Cost Material	Curr Cost Material
12-100	5,000.000		
12-101			
12-102			25.00
12-103			1.25
12-104			0.05
12-105	15.00		1.25
12-115			35.00

Set Up Product Structures

Use Product Structure Maintenance (13.5) to enter the following product structure data for parent item 12-100:

Component

Item#	Qty Per	UM	Structure Type
12-101	1	EA	--
12-103	1	EA	--
12-104	1	EA	--
AP12-100	1	EA	D

Enter the following for parent item 12-101:

12-102	1	EA	--
12-105	1	EA	--
12-115	1	EA	--
AP12-101	1	EA	D

Review Product Structure Inquiry

Verify the product structure data using Product Structure Inquiry (13.6) .

Set Up a Department

Use Department Maintenance (14.1) to set up a department for the production of the Magic Box by entering the following information:

Department:	Dept
Description:	Magic Box Production

Set Up a Work Center

Use Work Center Maintenance (14.5) to set up a work center for Magic Box Assembly by entering the following data:

Work Center:	Magic
Description:	Magic Box Assembly
Department:	Dept
Setup Rate:	25.00
Labor Rate:	20
Lbr Bdn %:	100.00



Define Routing Slips

- ▲ Who Approves
- ▲ In What Order
- ▲ When Approved, Who is Notified

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2008-PCC-SU-260

Define Routing Slips

- Identifies who needs to approve and who needs notification
- Routing details are PCC specific
- Provides a platform for obtaining ISO 9000 certification



Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ **Routing Slip Maintenance**
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

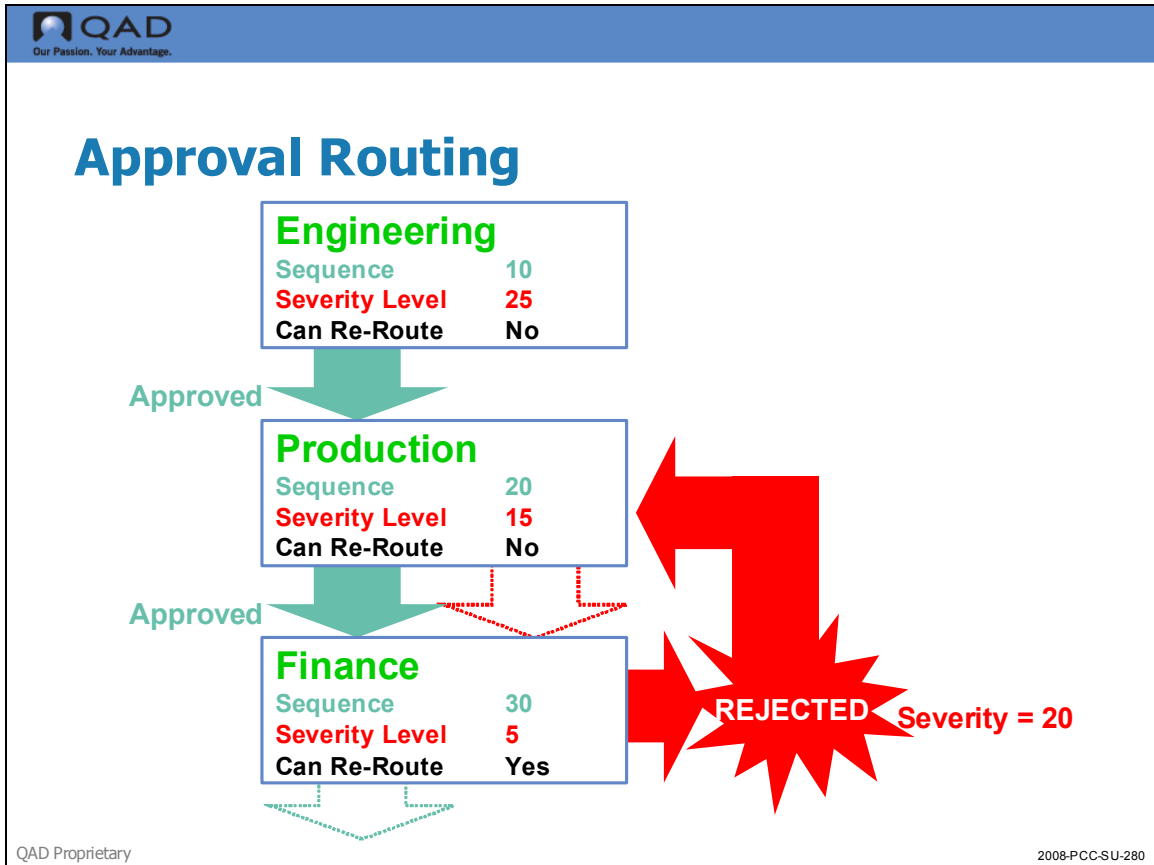
▲ * Optional

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2008-PCC-SU-270

Routing Slip Maintenance

- The same routing slip can be used for both PCOs and PCRs
- Create new routing slips in Routing Slip Maintenance (1.9.1.5)
- Copy from existing slips to a new slip in Routing Slip Copy (1.9.1.7)



Approval Routing

- Sequence indicates order of approval
 - Each group must have a different sequence number
- Can Re-Route indicates whether group can reroute PCR/PCO if rejected
- Severity Level determines whether a rejected/rerouted PCR/PCO is rerouted to this group
 - In our example, the Finance group assigned rerouting severity = 20
 - If the Severity is greater than or equal to the Severity Level assigned to a group, the group must reapprove
 - If the Severity had been 25, it would have rerouted to the Engineering group
- Rerouting is not related to approval sequence

Routing Slip Maintenance

Routing Slip: newprod1

Routing Slip Maintenance

Description: New Product Introduction

Severity List: Produce

Users Notified At Submit:

Users E-mailed At Submit: demo

Users Notified At Approval:

Users E-mailed At Approval: demo

Delete Back Next

Routing Slip Maintenance (1.9.1.5)

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Routing Slip Maintenance (1.9.1.5)

- Specify unique routing slip name and a short description
- Identify the name of the severity list (a reason code)
 - Should be numerical and hierarchical
- Assign users based on when they are involved in the process
- Users e-mailed are non-QAD Enterprise Applications users
- Check accuracy carefully because QAD Enterprise Applications cannot verify these addresses

Routing Slip Maintenance

Go To Actions Copy Print Preview

Routing Slip: newprod1

Detail Maintenance

Group: NewProd1 New Products Team 1

Sequence: 0

Severity Level: 0

Can Re-Route: ☒

Notify When Next: ☒

Delete Back Next

Routing Slip Maintenance (1.9.1.5)

QAD Proprietary 2008-PCC-SU-300

Detail Maintenance

- Sequence specifies sign-off order
 - To provide for sequence additions, you may want to number 10, 20, 30, etc.
- Severity Level indicates at which level this group provides reapproval
 - The higher the value, the less likely the group will have to reapprove rejected PCRs/PCOs
- Can Re-Route streamlines reject/reroute process if set = Yes
 - If set = No, each rejected document must be reapproved by every group in the routing
- Notify Next sends notification to group members when they are next in the approval process

Routing Slip Copy

Copy Routing Slip: NPIntro To: NPI

Description: New Product Introduction

Severity List: Produce

Users Notified At Submit:

Users E-mailed At Submit: fab

Users Notified At Approval:

Users E-mailed At Approval: fab

Back Next

Routing Slip Copy (1.9.1.7)

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Routing Slip Copy (1.9.1.7)

- Allows you to create a new routing slip based on a previously created one
- Lists of users notified at submission and approval are copied
- Copy function will query if you want to copy routing detail
- Further editing is done in Routing Slip Maintenance (1.9.1.5)

Setup Exercises:

Set Up Routing

Use Routing Maintenance (14.13.1) to set up routing by entering the following data for Routing Code 12-101:

Operation 10:	10	20
Work Center:	Magic	Magic
Description:	Assemble Magic Box	Test Magic Box
Setup Time:	1.0	0.0
Run Time:	0.4	0.1

Set up routing by entering the following data for Routing Code 12-100:

Operation 10:	10
Work Center:	Magic
Description:	Test Magic Box
Setup Time:	0.5
Run Time:	0.1

Set Up Routing Slips

Use Routing Slip Maintenance (1.9.1.5) to set up a routing slip for PCOs.

1 Enter the following:

Routing Slip:	PCO-R1
Description:	PCO Routing Slip R1
Severity List:	PCO

2 Press NEXT, enter the following in Detail Maintenance.

Group	Eng/Apv	Mfg/Apv	Pln/Apv	Qual/Apv
Sequence:	0	0	0	0
Severity Level:	10	30	20	10

3 Place check marks in the following boxes for all of the groups:

Check:	Can Re-Route
Check:	Notify When Next

Set Up a PCR Routing List

Use Routing Slip Copy (1.9.1.7) to enter the following:

- 1 Copy Routing Slip: PCO-R1 To: PCR-R1.
- 2 Press NEXT until the cursor returns to the initial field.
- 3 Enter the following information in Routing Slip Maintenance (1.9.1.5):

Routing Slip:	PCR-R1
Description:	PCR Routing Slip R1

- 4 Press NEXT and select Detail Maintenance.
- 5 With your cursor in the Group field, press the down arrow until Mfg/Apv appears in the field.
- 6 Press the F5 Key (Confirm Delete).

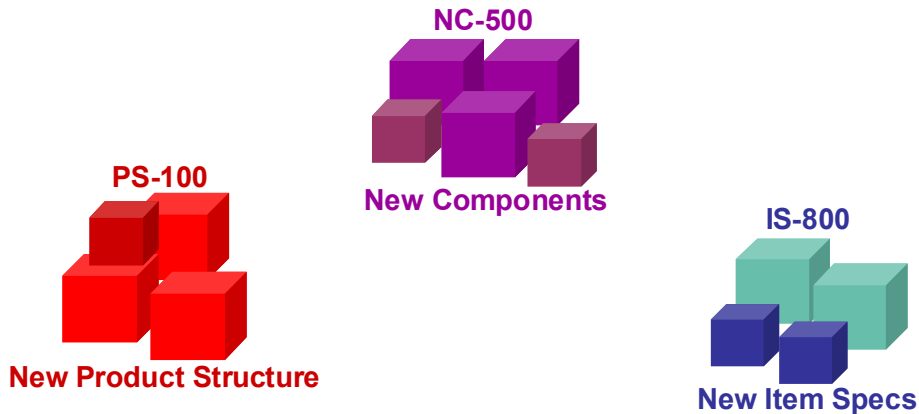
- 7 Press the down arrow until Pln/Apv appears in the field.
- 8 Press the F5 Key (Confirm Delete).
- 9 Use the up and down arrow keys to verify that only Eng/Apv and Qual/Apv remain. Leave all values the same.
- 10 Exit function.

Annotation Clean up UI language above



Define Documents

- ▲ Set up Different PCR/PCO Document Types
 - Each can be numbered differently in PCC Control File



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Define Documents

Valid document types are selected when creating a new PCR/PCO



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Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ **PCR/PCO Type Maintenance**
- ▲ PCC Control

▲ * Optional

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PCR/PCO Type Maintenance

- Change types involve careful planning:
 - Should document be PCR or PCO?
 - Type of routing slip?
 - Distribution group?
 - Prefix and number for this document?

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PCR/PCO Type Maintenance

PCR/PCO Type Maintenance X

Go To Actions Copy Print Preview

Type: PCOType1
Design Group: elec1

Description: Basic Change Order
Document Type: PCO
Prefix: PCO
Routing Slip: PCO-RT1
Distribution: elec1

Define Documents

Delete Back Next

PCR/PCO Type Maintenance (1.9.1.9)

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PCR/PCO Type Maintenance (1.9.1.9)

- Assign a unique type to new document
- Assign Design Group authorized to make changes to this document type
- Select whether this document is a PCR or a PCO
- Prefix is also assigned in PCC Control (1.9.24) for autonumbering
 - Warning message will notify you if the prefix is not in the control program yet
- Assign an existing routing slip to use with this document
- Distribution group selected will be notified when these are Released and Distributed



Set Up PCC Control

- ▲ Settings are for both PCOs and PCRs
 - Select and Define Security
 - Select and Define Autonumbering

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Set Up PCC Control

- Security has the option to check user IDs during approval
- Autonumbering can generate document numbers for PCR/PCO documents
 - Manual override of these numbers is still available



Product Change Control Setup



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

▲ * Optional

QAD Proprietary 2008-PCC-SU-360

PCC Control

- Numbering
- Security
- Groups
 - Design groups to create/maintain PCRs/PCOs
 - Approval groups to sign off on PCRs/PCOs
 - Distribution groups to notify when PCO is released
- Routing slips for approvals
- Document types

PCC Control File

PCC Control

Go To Actions Copy Print Preview

Control Table

Auto Number: ☒ ← If Yes, Advance to Next Frame

Security: ☐

Enforce PCO Approval Group Sequencing: ☐

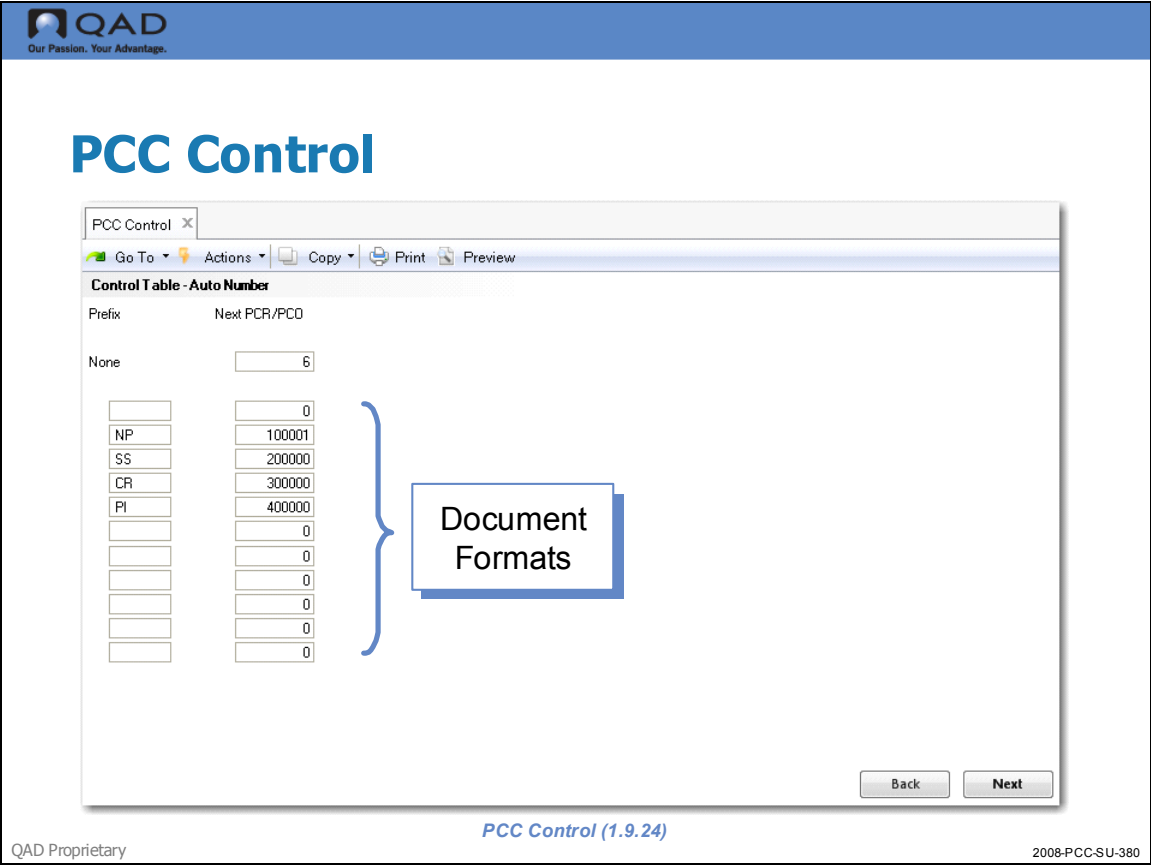
Back Next

PCC Control (1.9.24)

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PCC Control (1.9.24)

- Automatically assign prefixes and numbers to new PCR or PCO, as defined in next frame.
- Select Security option to require password during PCO approval.
- Specify whether groups must approve PCOs in the order shown in Routing Slip Maintenance.



PCC Control (1.9.24)

Prefixes:

- Prefixes are limited to three characters
- Prefixes correspond to existing Document Types

Setup Exercises:

Set Up PCR/PCO Type Maintenance

Use PCR/PCO Type Maintenance (1.9.1.9) to enter the following data:

Type:	PCO	PCR
Design Group:	Design	Design
Description:	PCO Document	PCR Document
Doc Type:	PCO	PCR
Prefix:	PCO	PCR
Routing Slip:	PCO-R1	PCR-R1
Distribution:	DIST	Design

Set Up PCC Control

Use the PCC Control (1.9.24) to enter the following data in the indicated fields:

Auto Numbers:	Yes
Security:	No
PCO	1000
PCR	8000
PCO Approval Group:	No



Product Change Control Setup Summary



- ▲ ECO by ECO Number Report
- ▲ Set Up Functions to Control
- ▲ User Maintenance *
- ▲ Set Up E-Mail *
- ▲ Reason Code Maintenance
- ▲ Master Comment Maintenance *
- ▲ Group Maintenance
- ▲ Routing Slip Maintenance
- ▲ PCR/PCO Type Maintenance
- ▲ PCC Control

▲ * Optional

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Summary of Product Change Control Setup

CHAPTER 4

Process Product Change Orders



Process Product Change Orders

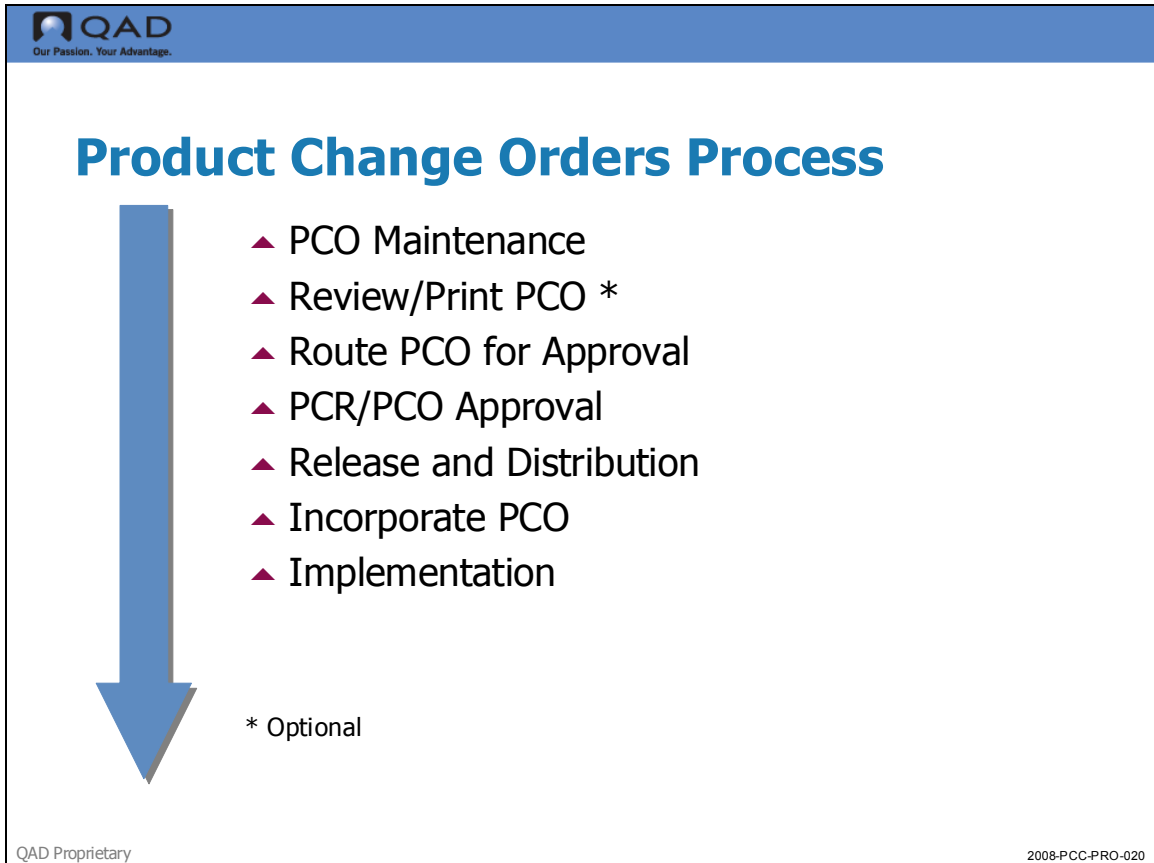
In this section you learn how to:

- ▲ Identify key business issues you need to consider before setting up Product Change Control in QAD Enterprise Applications
- ▲ Set up Product Change Control in QAD Enterprise Applications
- ▲ Process Product Change Orders (PCOs) in QAD Enterprise Applications
- ▲ Process Product Change Requests (PCRs) in QAD Enterprise Applications

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Process Product Change Orders



Product Change Orders Process

This illustration is a suggested process sequence of master files for the Product Change Control module, for Product Change Orders, which is based on information that flows from one master file to another and prerequisites that need to be accomplished.



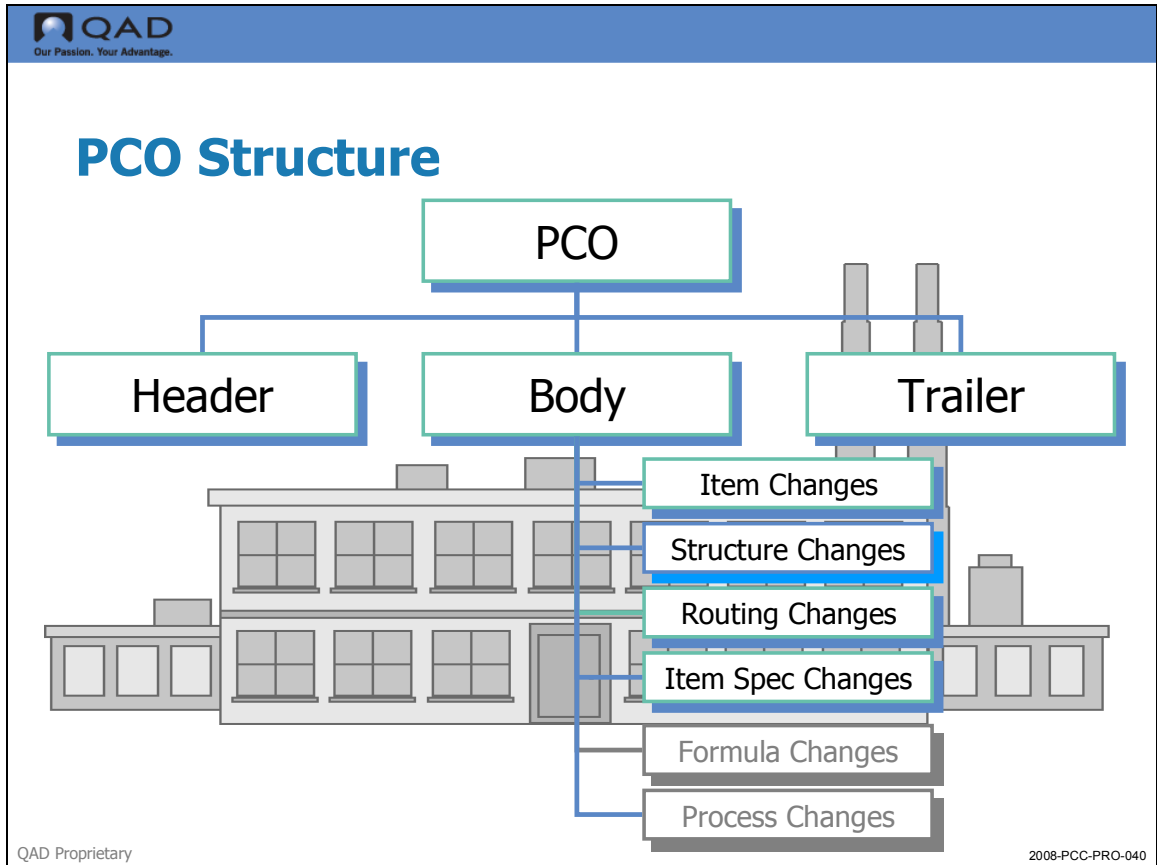
Create/Maintain PCO

- ▲ The Product Change Order Includes
 - PCO Number
 - Who will process the PCO
 - Tracking methods for controlling the release of this information

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Create/Maintain PCO



Product Change Order Structure

- PCOs have three main parts
 - Header
 - Body (optional text)
 - Trailer
- Changes are specified in the Body
 - We will discuss Item, Product Structure, Routing, and Item Spec changes
 - Formula and Process changes are optional to this discussion



Create/Maintain PCO



- ▲ PCO Maintenance
 - ▲ Review/Print PCO *
 - ▲ Route PCO for Approval
 - ▲ PCR/PCO Approval
 - ▲ Release and Distribution
 - ▲ Incorporate PCO
 - ▲ Implementation

* Optional

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Create/Maintain PCO

- Creating and maintaining PCOs is done in PCO Maintenance (1.9.2.13)
- After completing the first screen, a menu will appear that gives you access to functions which allow detail modification of the product change order
 - Use your arrow keys to select a menu option
 - Each menu item (except Trailer Maintenance) leads to another menu
 - Select from the menu to bring up a screen to perform a function



Create/Maintain PCO



- ▲ PCO Maintenance
 - ▲ Enter Header
 - ▲ Add Text
 - ▲ Specify Changes
 - Item Changes
 - Product Structure Changes
 - Routing Changes
 - Item Spec Changes
 - Formula Changes
 - Process Changes
 - ▲ Enter Trailer

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PCO Maintenance

- PCO creation can be broken down into the following steps:
 - Enter Header
 - Add Text (optional)
 - Specify Changes
 - Enter Trailer

Direct Item Master Access, a function under the Item File Maintenance Menu, gives you access to all items in the database. The modifications you perform using Direct Item Master Access take place in the item master files, not in the PCO.

Important This function is the only function in PCO Maintenance that directly affects QAD Enterprise Applications production files.



Create/Maintain PCO



- ▲ PCO Maintenance
 - ▲ Enter Header
 - ▲ Add Text
 - ▲ Specify Changes
 - Item Changes
 - Product Structure Changes
 - Routing Changes
 - Item Spec Changes
 - Formula Changes
 - Process Changes
 - ▲ Enter Trailer

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Enter Header

- Number the PCO document
- Identify type and design group
- Add any user-specific information

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PCO Maintenance Header

PCO Maintenance x

Go To Actions Copy Print Preview

Number: PCO00023	ID:	Domain:	PCO
Type: ProdImp	Design Group: eng1	Created By: mfg	12/8/2008

Title: Major Redesign of Coolers

Reason: A major enhancement to the motor installed as part of the QASIS cooler is required to increase its competitive advantage.

Class: Design

Originator: Field

User Code 1:

User Code 2:

User Fields, Do Not Affect Processing (optional)

Delete Back Next

PCO Maintenance (1.9.2.13)

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PCO Maintenance (1.9.2.13)

- Number is filled in automatically if PCC Control (1.9.24) is set for Autonumbering
- Break up large PCOs by assigning multiple PCOs with the same number and different IDs
- Type and Design Group will determine approval cycle, distribution group, and autonumbering for the PCO number (if applicable)
- The user-defined fields (highlighted in the picture above) do not affect processing and are optional fields

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PCO Maintenance Header

PCO Maintenance (1.9.2.13)

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Select PCR/PCO Function Maintenance

- A section menu allows you to complete other parts of the PCO
 - Only enabled processes appear on the section menu
- Accessing PCO/PCR Function Maintenance allows you to:
 - Change a PCO Number
 - Close a PCO to another PCO
 - Copy either to or from PCR/PCO to or from another PCO



Create/Maintain PCO



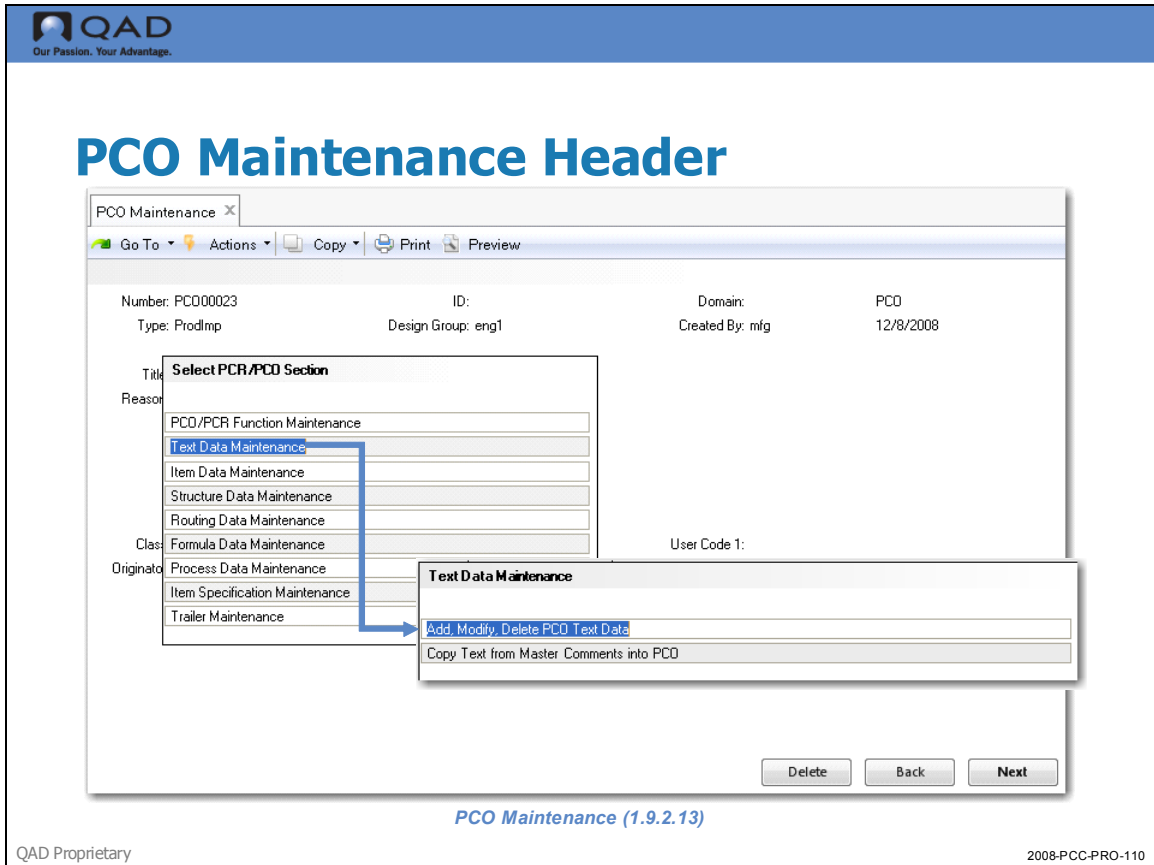
- ▲ PCO Maintenance
- ▲ Enter Header
- ▲ Add Text
- ▲ Specify Changes
 - Item Changes
 - Product Structure Changes
 - Routing Changes
 - Item Spec Changes
 - Formula Changes
 - Process Changes
- ▲ Enter Trailer

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Add Text

- Adding text is optional
 - Manually enter or modify transaction comments
 - Copy Master Comments to PCO



Text Data Maintenance

- Add, Modify, Delete PCO Text Files
 - Selection menu moves you to Text File Maintenance menu
 - Choose to create a new text file or modify or delete an existing text file



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PCO Maintenance Header

PCO Maintenance

Go To

Actions

Copy

Print

Preview

ecmt04.p Add, Modify, Delete PCO Text Data

Number: PCO00023

ID:

Domain:

Type:

Reference: 1010000

Order: 1

Page: 1

The QASIS cooler provides state of the art cooling for office and home use.

It includes optional features like:

Alternate power cords for US and European customers.

Alternate power sources, including battery access.

Alternate motors, one geared for home use and one for heavy industrial.

Add text

Delete

Back

Next

PCO Maintenance (1.9.2.13)

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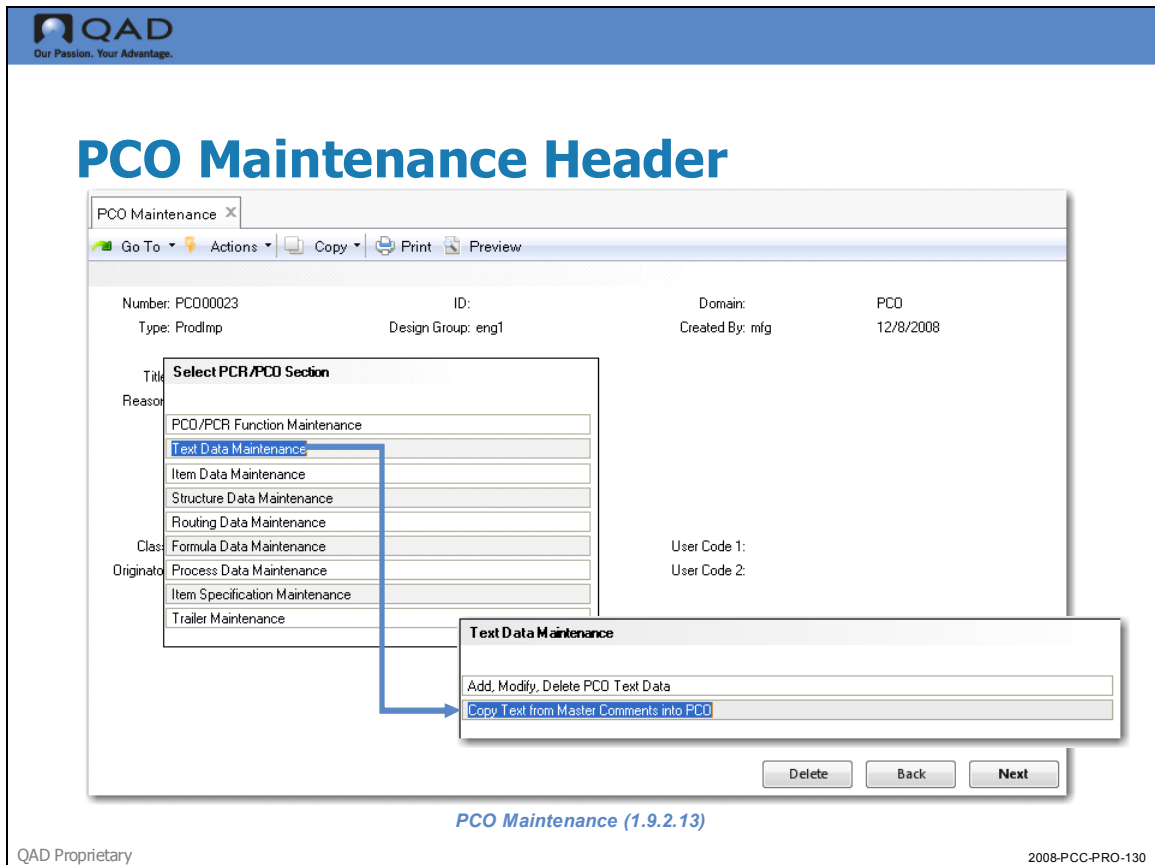
2008-PCC-PRO-120

Add, Modify, Delete PCO Text Files

Works the same way as other transaction comments in QAD Enterprise Applications.

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Copy Text from Master Comments into PCO

- Selection menu moves you to Text File Maintenance menu
- Choose to copy text from Master Comments

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PCO Maintenance Header

PCO Maintenance

Go To Actions Copy Print Preview

ecmt03.p Copy Text from Master Comments into PCO

Number: PC000023 ID: Domain: PC0

Title: Major Redesign of Coolers

Starting Master Reference: @Finance

Type:

Language: us

PCO Maintenance

Go To Actions Copy Print Preview

ecmt03.p Copy Text from Master Comments into PCO

Number: PC000023 ID: Domain:

Title: Major Redesign of Coolers

Master Comments Copy Selection

Keyword

@FINANCE

@FLOW:

@FP

@FS

@fs-purp

@FSM

@GL

@go

@GTM

@help

T

ke

ke

ke

Language

us

us

us

us

us

us

us

us

us

us

Add Text By Copying

Enter to Select

Useful for:

• Surveys

• Disclaimers

• Policies

• Standard Procedures

• Checklists

• Disposition Forms

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0

Master Comments Copy Selection

Enter master reference and type in a pop-up frame, or select from a list of comments.



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Create/Maintain PCO



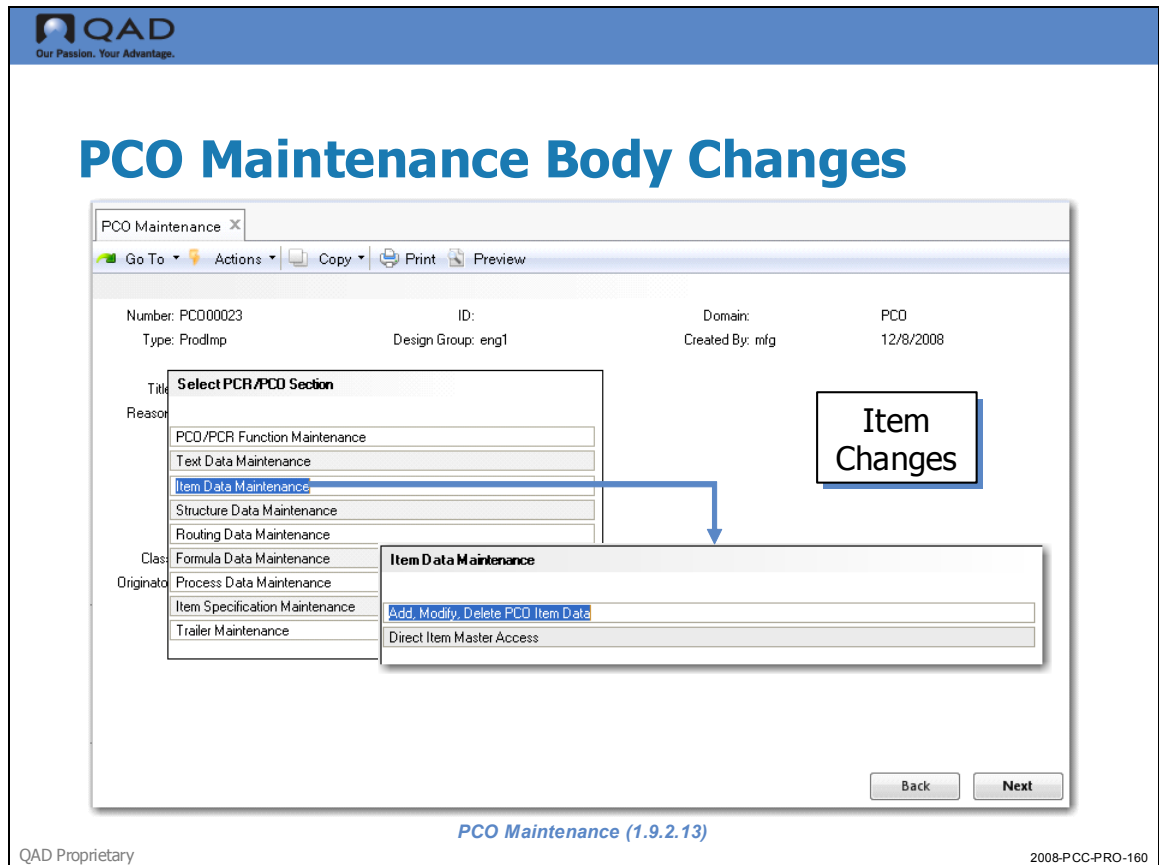
- ▲ PCO Maintenance
- ▲ Enter Header
- ▲ Add Text
- ▲ **Specify Changes**
 - Item Changes
 - Product Structure Changes
 - Routing Changes
 - Item Spec Changes
 - Formula Changes
 - Process Changes
- ▲ Enter Trailer

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2008-PCC-PRO-150

Specify Changes

Identify the proposed changes considered on this PCO



Item Data Maintenance

- Proposed Item Master changes
- Directly affects Production files
- Possibly to enter new item numbers with Direct Item Master Access, rather than Item Data Maintenance (1.4.3), as part of a PCO

Note Some companies require all Item Data Maintenance to be maintained through the PCC function, not through Item Data Maintenance (1.4.3)

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PCO Maintenance Body Changes

PCO Maintenance

Go To Actions Copy Print Preview

ecmt06.p Add, Modify, Delete PCO Item Data

Number: PC000023 ID: **Item Changes** Domain: PCO

Title: Major Redesign of Coolers

Item Number: 10-10000 Description: OASIS(TM) SYSTEM
Unit of Measure: EA INDUST MODEL

End Product: Comments: ☒

Prod Line: 1000 Item Type: CONFIG Drawing: 10-10000
Added: 5/28/1992 Status: AC Drawing Loc: Size:
Design Group: eng1 Group: DISCRETE Disposition: Price Break Category:

Current Rev: AB Released Rev: AB New Revision:

Select Item Number

Delete Back Next

PCO Maintenance (1.9.2.13)

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Opens Item Data Maintenance Information

Item Data Maintenance — Add, Modify, Delete PCO Data Files

- Change existing items
 - Only one PCO per item
- Does not support:
 - Item-Site data
 - Item Planning data
 - Inventory data
 - Cost and price data

Product Change Orders (PCOs) Exercises

Important The data used in these exercises may not be the same as the data shown in the screen captures in this lesson. You must have completed all the setup exercises before you can work on the processing exercises.

Create a PCO with Item Changes

In your Item Master there are three types of Batteries, 30-100, 30-1000, and 30-10000. They were used in several different product lines in the past and now you will consolidate them all under the same product line. Your company procedures require you to route the changes through a PCO.

Use PCO Maintenance (1.9.2.13) to create a new PCO to route these proposed changes to the Item Master.

- 1 Let QAD Enterprise Applications assign the PCO number. The number will be assigned when you complete the Type and Design group fields and press NEXT.
- 2 Advance to the Type field and enter the following:

Type:	PCO
Design Group:	DESIGN

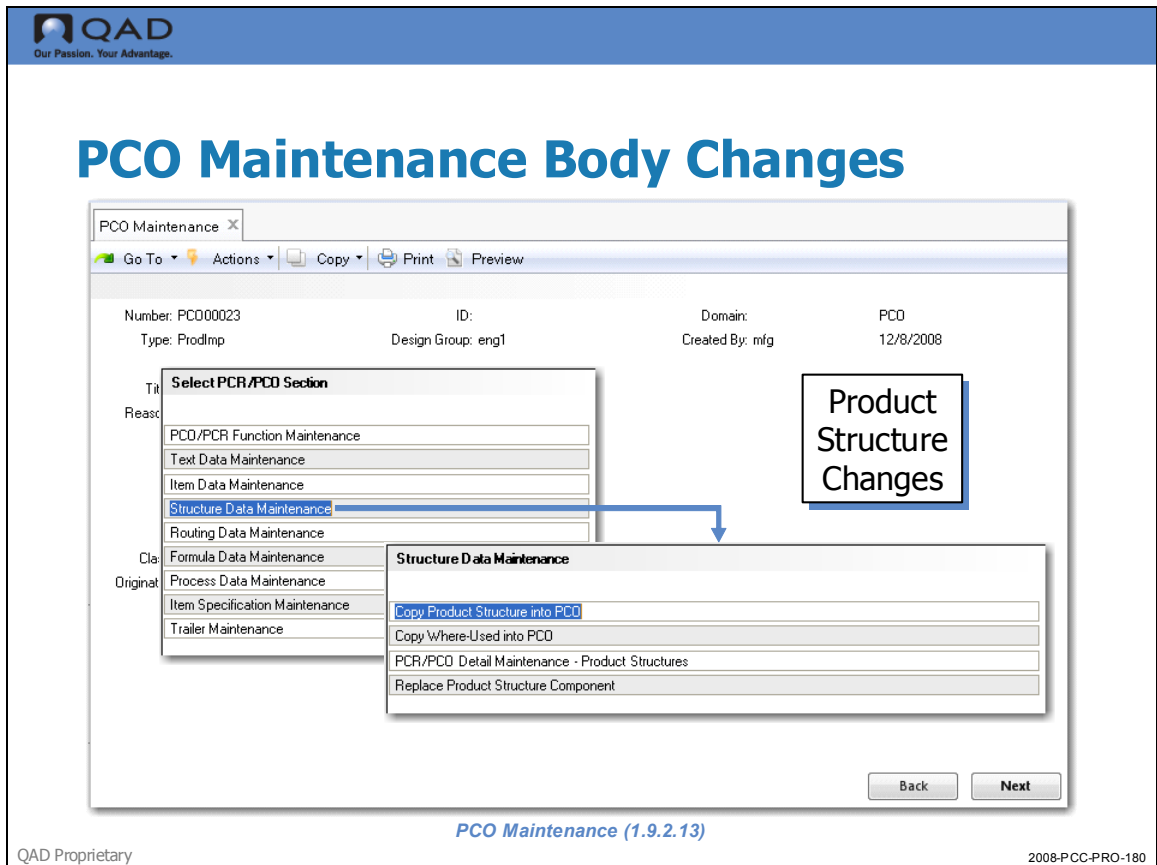
- 3 Write down the PCO number assigned for later reference: _____
- 4 Title and Reason fields are optional. Leave them blank, or create a simple description for this PCO:

Title:	Change Product Line
Reason:	All Batteries moving to Electronics

- 5 Select Item Data Maintenance and then choose Add, Modify, Delete PCO Item Data.
 - a Add items:

30-100	Rev B
30-1000	Rev B
30-10000	Rev B

- b** For each, set Comments to No.
 - c** Change the Product Line on each to 2000.
 - d** Verify the Item Type for each is = ELEC, and Group = ELECTRON.
- 6** When you return, choose Trailer Maintenance.
 - a** Using the Mandatory field, assign an implementation date no later than the last day of next month.
 - b** Disposition: UAI
- 7** Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO to verify that your changes were all included.



Structure Data Maintenance

- Copy product structures or where-used to the PCO to propose changes
- Maintain changes with Detail Maintenance
- Proposed component replacements throughout multiple bills

Note You cannot delete a product structure from within PCO Maintenance since structures may contain “as of” information. Instead, deactivate the structure by entering an end-effective date. Because delete is not available, structure add and structure edit functions are separate. This distinguishes the structure maintenance functions in PCO Maintenance from all other maintenance programs.

PCO Maintenance Body Changes

Product Structure Changes

Select Parent

Copy Original Structure to Indicate PCO Changes

Enter to Select

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PCO Maintenance X

Go To Actions Copy Print Preview

ecmt08.p Copy Product Structure into PCO

Number: 110-1000
Title:

Domain: PCO

Structure/Formula Copy

Parent Item
10-10000

PCO Maintenance X

Go To Actions Copy Print Preview

ecmt08.p Copy Product Structure into PCO

Number: 110-1000
Title:

Domain: PCO

Structure/Formula Copy

Parent Item	Description	UM
10-10000	OASIS(TM) SYSTEM	EA

Enable QXtend Outbound

Level	Component Item	Description
1	22-110	Power Cord Europe West
1	22-120	Power Cord USA
1	22-130	Power Cord Universal
1	30-100	Backup Alkaline
1	30-1000	Backup atomic
1	30-10000	Backup thermonuclear
1	55-100	Evaporator
1	66-100	Motor 440 AC 3 phase

POWER CABLES
POWER CABLES
POWER CABLES
BACKUP
BACKUP
BACKUP
STANDARD
MOTOR

Back Next

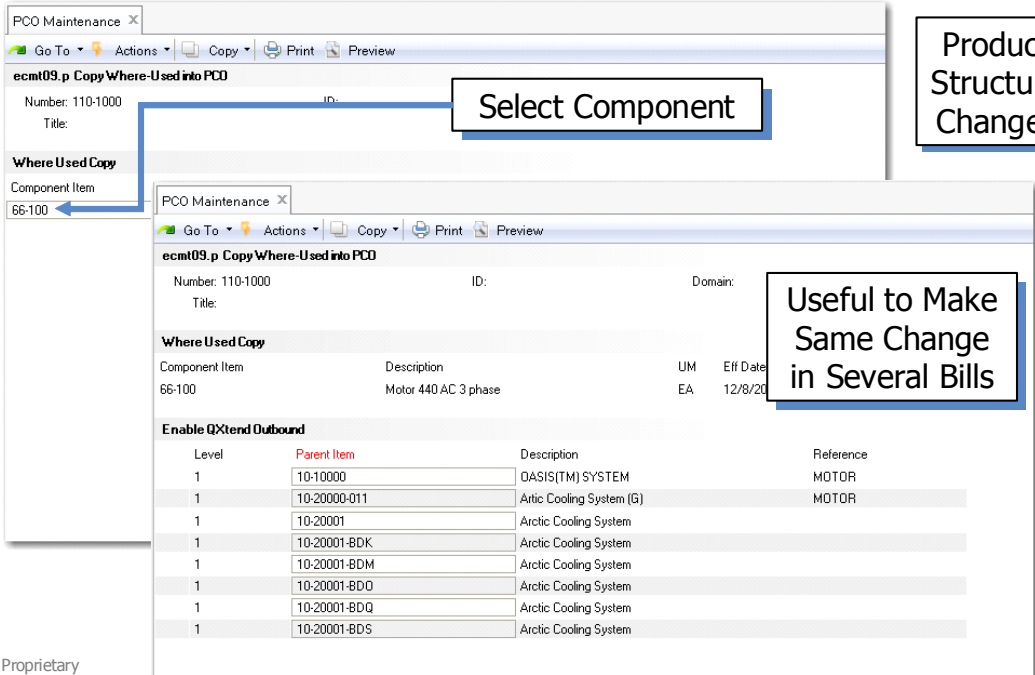
QAD Proprietary 2008-PCC-PRO-190

Copy Product Structure into PCO

- Specify Parent Item
- Current Bill of Materials displays
- Select or de-select items from the bill to copy into the PCO



PCO Maintenance Body Changes



Product Structure Changes

Useful to Make Same Change in Several Bills

Level	Parent Item	Description	Reference
1	10-10000	OASIS(TM) SYSTEM	MOTOR
1	10-20000-011	Arctic Cooling System (G)	MOTOR
1	10-20001	Arctic Cooling System	
1	10-20001-BDK	Arctic Cooling System	
1	10-20001-BDM	Arctic Cooling System	
1	10-20001-BDO	Arctic Cooling System	
1	10-20001-BDQ	Arctic Cooling System	
1	10-20001-BDS	Arctic Cooling System	

Product Structure Changes

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Copy Where Used into PCO

- Works the same as Copy Product Structure into PCO except:
 - Displays bill of material as indented where-used bill of material
- Useful for making the same change to several product structures

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PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview

ecmt07.p PCR/PCO Detail Maintenance - Product Structures

Number: 110-1000 ID: Domain: PCO

Title:

Parent Item: 10-10000 OASIS(TM) COOLING SYSTEM

Component Item: 66-100 Motor 440 AC 3 phase

Reference: Batch Size:

Deactivate: ☐

Quantity Per: 1.0 EA Scrap: 0.00%

Quantity Type: Batch Percent: 0.0 Lead Time Offset: Op:

Structure Type: Sequence Number:

Mandatory: ☒ Forecast Percent: 100.00%

Default Option: ☒ Option Group:

Remarks: Process:

Comments: ☐

A, D, J, X, P, or O

Change Items in the Bill

Product Structure Changes

Back Next

PCO Maintenance (1.9.2.13)

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PCR/PCO Detail Maintenance - Product Structures

- Add items to product structures
- Delete product structure records
 - Sets an end effective date when PCO is incorporated
- Edit product structure changes

Create a PCO with Product Structure Changes

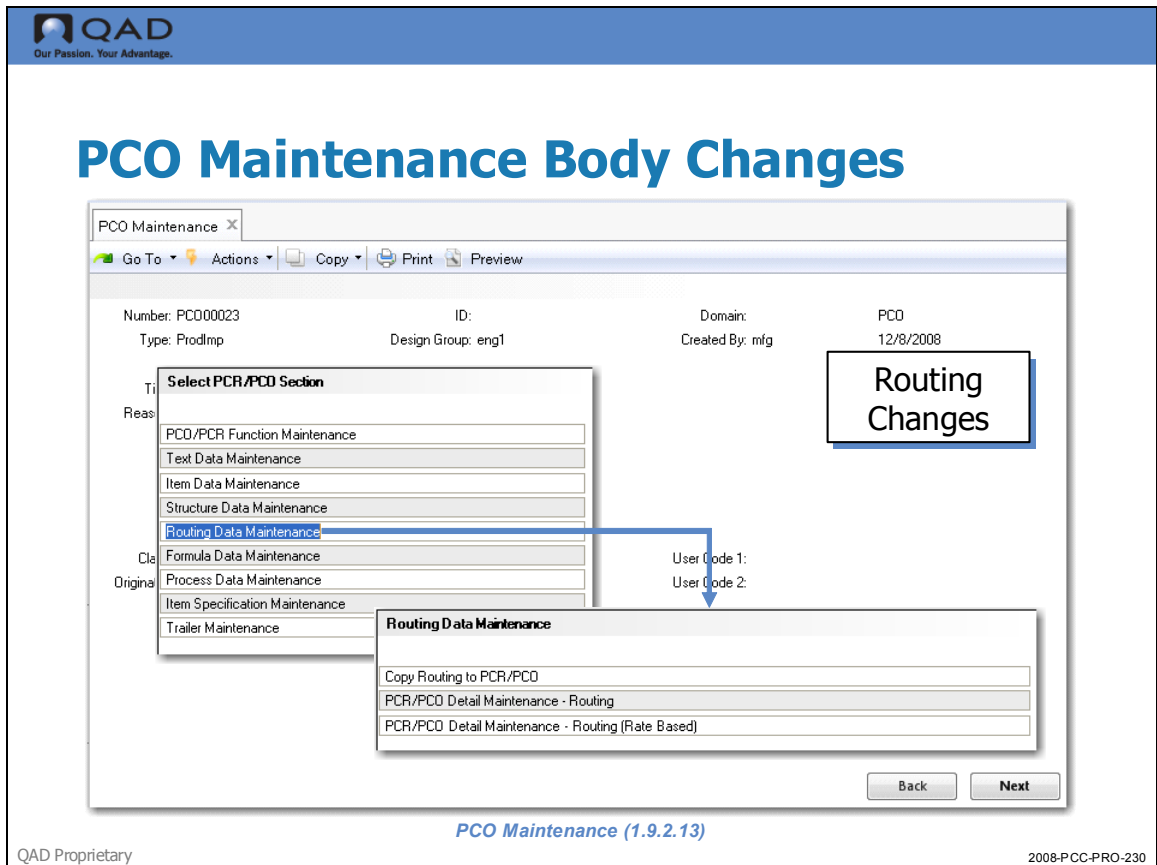
The Nomad (TM) Solar Powered Cooling System (10-15001) uses a 44-110 automotive control unit. The current product structure assumes that there is no scrap involved in the control unit. Your recent experience shows a 5% scrap involved.

In this exercise, use PCO Maintenance (1.9.2.13) to create a new PCO to make this change.

- 1 Let QAD Enterprise Applications assign the PCO number.
 - a Assign Type = PCO, Design group = DESIGN
 - b Write down the PCO number assigned for later reference: _____
- 2 Title and Reason fields are optional. Leave them blank, or create a simple description for this PCO:

Title:	Add Scrap
Reason:	10-15001 to be modified Component 44-110 shows 5% scrap

- 3 Continue past the header. Choose Structure Data Maintenance. From this menu select Copy Product Structure into PCO.
 - a Parent Item = 10-15001. Press NEXT.
 - b select 44-110, press NEXT to select the component.
An asterisk appears when the component is selected.
- 4 Return and choose Structure File Maintenance and then PCR/PCO Detail Maintenance - Product Structures.
 - a When you arrow down, you should see that one record was copied into the PCO (Parent Item = 10-15001 and Component Item = 44-110). If you do not see this record, repeat step three above until the component is copied successfully.
 - b Deactivate should remain = No (Do not delete the component).
 - c Specify a 5% scrap. Accept all the remaining default fields. Press NEXT.
 - d When you return, choose Trailer Maintenance.
 - a Using the Mandatory field, assign an implementation date no later than one month from today.
 - b Disposition: UAI
- 5 Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO to be certain your changes were all included.



6

Routing Data Maintenance

- For both standard and rate-based routing
- Copy routings to the PCO
- Edit routings with Detail Maintenance
 - Both standard routings and routings that are rate based

Note Processes are not maintained with this function

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PCO Maintenance Body Changes

PCO Maintenance

Go To Actions Copy Print Preview

ecmt11.p Copy Routing to PCR/PCO

Number: 110-1000 ID: Domain:

Title:

Routing Copy

Routing/Procedure Description Eff Date

10-10000 ASSEMBLE PER SPEC 12/8/2008

Enable QXtend Outbound

Op	Description
10	ASSEMBLE PER SPEC
20	INSPECT PER PROC-009

Back Next

PCO Maintenance (1.9.2.13)

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Copy Routing to PCR/PCO

- Start with a copy of existing routing to simplify editing
- Bring routing records into PCO for modification
- Displays the operation for a routing to select which steps to include

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PCO Maintenance Body Changes

PCO Maintenance ✕

Go To ▾ Actions ▾ Copy ▾ Print ▾ Preview ▾

ecmt12.p PCR/PCO Detail Maintenance - Routing

Number: 110-1000
Routing Code: 10-10000
Operation:

ID:
QASIS(TM) SYSTEM
Batch Quantity:

Domain:
1.0 EA

Deactivate: ☐
Standard Operation:
Work Center: 10000
Machine:
Description: ASSEMBLE PER SPEC
Machines per Operation: 1
Overlap Units: 0
Queue Time: 0.0
Wait Time: 0.0
Setup Time: 0.0
Run Time/Batch Qty: 0.0
Run Time: 0.0
Move Time: 0.0
Yield Percent: 100.00%

Milestone Operation: ☒
Subcontract LT: 0
Setup Crew: 0.00
Run Crew: 2.00
Tool Code:
Supplier:
Inventory Value: 0.00
Subcontract Cost: 0.00
Comments:

Change
Operations in
Routing

Delete Back Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-250

PCR/PCO Detail Maintenance - Routing

- Operations to a routing
- Delete operation steps
 - Sets an end effective date when the PCO is incorporated
- Edit routing changes

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PCO Maintenance Body Changes

PCO Maintenance x

Go To

Actions

Copy

Print

Preview

ecmt13.p PCR/PCO Detail Maintenance - Routing (Rate Based)

Number: 110-1000

ID:

Domain:

Routing Code: 10-10000

OASIS(TM) SYSTEM

Operation:

Deactivate:

Standard Operation:

Work Center: 10000

Machine:

ASSEMBLY.QASIS(TM) UNITS

Description: ASSEMBLE PER SPEC

Machines per Operation: 1

Overlap Units: 0

Queue Time: 0.0

Wait Time: 0.0

Setup Time: 0.0

Hourly Production Rate: 0.0

Move Time: 0.0

Yield Percent: 100.00%

Milestone Operation:

Subcontract LT: 0

Setup Crew: 0.00

Run Crew: 2.00

Tool Code:

Supplier:

Inventory Value: 0.00

Subcontract Cost: 0.00

Comments:

Back

Next

PCO Maintenance (1.9.2.13)

QAD Proprietary

2008-PCC-PRO-260

PCR/PCO Detail Maintenance - Routing (Rate Based)

Same differences as between standard Routing Maintenance (14.13.1) and Routing Maintenance (Rate Based) (14.13.2)



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Exercise:

Create a PCO with Routing Changes

In this exercise, use PCO Maintenance (1.9.2.13) to modify the routing for the 44-110 Automotive Control Unit to add a standard inspection step.

- 1 Let QAD Enterprise Applications assign the PCO number.
 - a Assign Type = PCO, Design group = DESIGN
 - b Write down the PCO number assigned for later reference: _____
- 2 Title and Reason fields are optional. Leave them blank, or create a simple description for this PCO:

Title:	Adding Rework
Reason:	44-110 Adding standard rework routing

- 3 Continue past the header.
- 4 Select Routing File Maintenance, then enter the following in PCR/PCO Detail Maintenance - Routing:

Routing Code:	44-110
Operation:	15
Standard Operation:	Rework
Milestone Operation:	No
Comments:	No

- 5 Save the record without adding any information to the trailer.
- 6 Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO and verify that the changes were all included.

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PCO Maintenance Body Changes

PCO Maintenance

Go To Actions Copy Print Preview

Number: PCO00023 ID: Domain: PCO
Type: ProdImp Design Group: eng1 Created By: mfg

Item Spec Changes

Select PCR/PCD Section

PCO/PCR Function Maintenance
Text Data Maintenance
Item Data Maintenance
Structure Data Maintenance
Routing Data Maintenance
Formula Data Maintenance
Process Data Maintenance
Item Specification Maintenance
Trailer Maintenance

Item Specification Maintenance

Copy Item Specification from Quality Module
PCR/PCD Detail Maintenance - Item Specification

User Code 2:

Back Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-270

Item Specification Maintenance

- Copy quality records to PCO
- Manage changes to the quality tests associated with an item

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PCO Maintenance Body Changes

PCO Maintenance

Go To Actions Copy Print Preview

ecqmcpy.p Copy Item Specification from Quality Module

Number: 10-10000

ID:

Domain:

PCO

Title:

Item Number: 90-100

Standard Coolant

Routing/Procedure: 90-100

Copy Original to Modify in PCO

Back

Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-280

Copy Item Specification From Quality Module

- Bring item specification records into PCO for modification
- Select from current sequence of steps for a given parent item and routing
- Once records are copied, use PCR/PCO Detail Maintenance - Item Specification to modify
 - Start with a copy of existing routing to simplify editing

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PCO Maintenance Body Changes

The screenshot shows the 'PCO Maintenance - Item Specification' window. The window title is 'PCO Maintenance'. The menu bar includes 'Go To', 'Actions', 'Copy', 'Print', and 'Preview'. The main content area displays the following information:

- Number: 10-10000
- ID:
- Domain: PCO
- Title:

Below this, there are two main sections:

- Item Specification Section:** Contains fields for 'Item Number' (90-100), 'Routing/Procedure' (90-100), 'Operation' (0), and 'Number'. A callout box labeled 'Selected Item Spec' points to this section.
- Change Quality Tests Section:** Contains fields for 'Deactivate' (checkbox), 'Number', 'Characteristic', 'Attribute', 'Test Method', 'Specification', 'Measure', and 'Comments'. A callout box labeled 'Change Quality Tests' points to this section.

At the bottom right, there are 'Back' and 'Next' buttons. A callout box labeled 'Item Spec Changes' points to the 'Item Specification' section.

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-290

PCR/PCO Detail Maintenance - Item Specification

- Add test steps
- Deactivate test steps
 - Sets an end effective date when PCO is incorporated
- Modify existing test steps

Exercise:

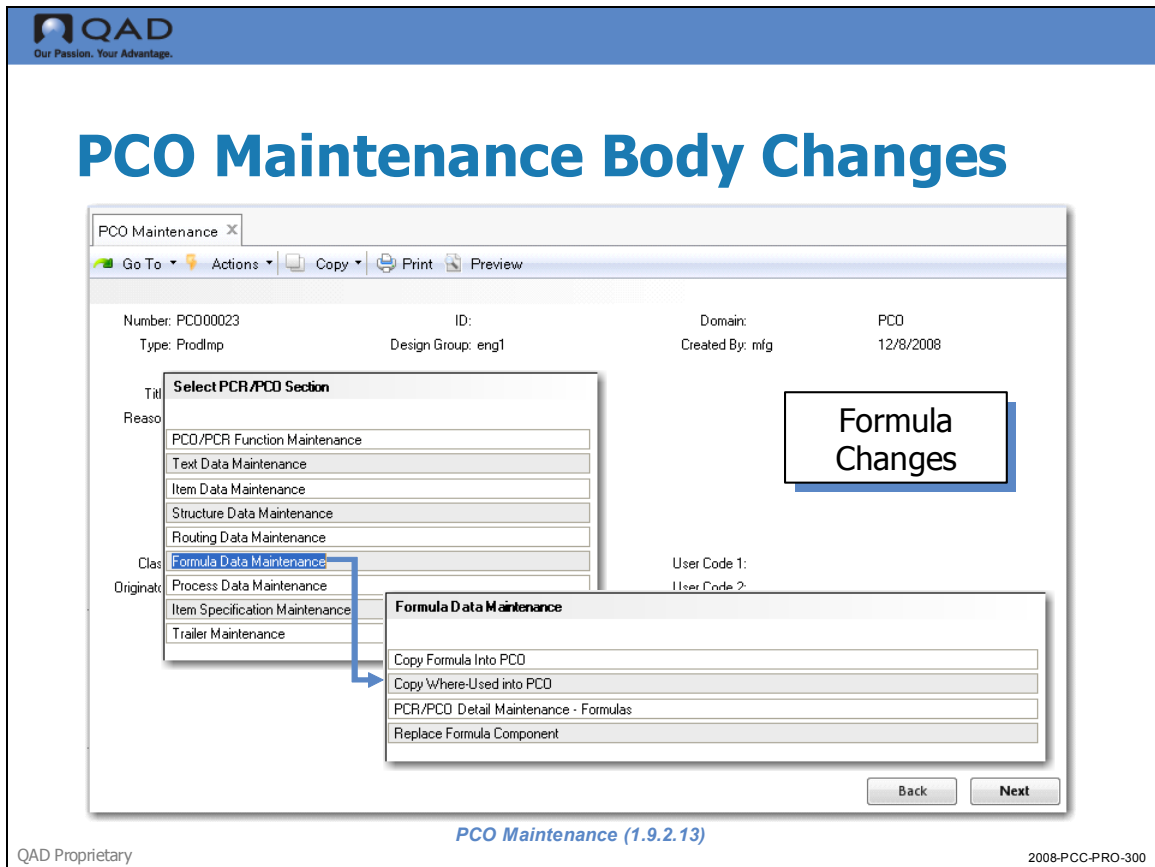
Create a PCO with Item Spec Changes

Engineering found that the inspection procedure for 10-15001 is not strict enough. In this exercise, use PCO Maintenance (1.9.2.13) to modify the Quality Management specifications to make the inspection use stricter standards.

- 1 Let QAD Enterprise Applications assign the PCO number.
 - a Assign Type = PCO, Design group = DESIGN
 - b Write down the PCO number assigned for later reference: _____
- 2 Title and Reason fields are optional. Leave them blank, or create a simple description for this PCO:

Title:	Tighter Rework
Reason:	Modifying Item Specs for 10-15001

- 3 Continue past the header. Choose Item Specification Maintenance. From this menu select Copy Item Specification from Quality Module.
 - a Item Number = 10-15001; Routing Code = 10-15000
 - b Select each sequence number (an asterisk should appear next to each sequence). Press NEXT and to continue.
- 4 Return and choose Item Specification Maintenance, then PCR/PCO Detail Maintenance - Item Specification. Arrow down to modify each of the three records copied in the last step.
 - a For Test Sequence 1, Width, change the specifications to a range of 14 | 14.10.
 - b For Test Sequence 2, Height, change the range to 3.75 | 3.85.
 - c For Test Sequence 3, Depth, change the range to 11.95 | 12.05.
- 5 Save the record without adding any information to the trailer.
- 6 Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO and verify that your changes were all included.



Formula File Maintenance

- Use Enable PCC Formula Maintenance (15.22) to access formula options
- Use Formula File Maintenance to:
 - Copy processes to the PCO
 - Copy where used
 - Maintain process records with Detail Maintenance
 - Replace components in multiple bills

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PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview

ecmt08.p Copy Formula Into PCO

Number: 90-100 ID: Domain: PCO

Title:

Structure/Formula Copy

Parent Item	Description	UM	Eff Date	Rev	PCO
10-10000	OASIS(TM) SYSTEM	EA	12/8/2008		1

Enable QXtend Outbound

Level	Component Item	Description	Reference
1	22-100	Power Cord UK	POWER CABLES
1	22-110	Power Cord Europe West	POWER CABLES
1	22-120	Power Cord USA	POWER CABLES
1	22-130	Power Cord Universal	POWER CABLES
1	30-100	Backup Alkaline	BACKUP
1	30-1000	Backup atomic	BACKUP
1	30-10000	Backup thermonuclear	BACKUP
1	55-100	Evaporator	STANDARD

Enter to Select

Back Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-310

Copy Formula into PCO

- Specify Parent Item
- Displays current bill of material
 - You select records to copy into PCO
 - Modify any selected records with PCR/PCO Detail Maintenance - Formulas

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PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview

ecmt09.p Copy Where-Used into PCO

Number: 90-100 ID: Domain: PCO

Title:

Where Used Copy

Component Item	Description	UM	Eff Date	
88-6000	GREY COLORANT	L	12/8/2008	1

Enable QXtend Outbound

Level	Parent Item	Description	Reference
1	88-100	CASE AUTO-UNIT	
1	88-1000		
1	88-300	BOTTLE, PLASTIC, 1 LITRE	

Enter to Select

Formula Changes

Change Several Formulas based on Where Used

Back Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-320

Copy Where Used into PCO

- Works the same as Copy Formula into PCO except:
 - Displays bill of material as indented where-used bill of material
- Useful to make the same change to several formulas

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PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview

ecmt07.p PCR/PCO Detail Maintenance - Formulas

Number: 90-100 ID: Domain: PCO

Title:

Parent Item: 90-100
Component Item: 90-4000

Standard Coolant
HYDROGEN OXIDE, LIQUID

Reference: Batch Size: 1.0 LT

Deactivate: ☐

Quantity Per: 750.0 L Scrap: 0.00%

Quantity Type: B Lead Time Offset:

Batch Percent: 75.0 Op:

Structure Type:

Mandatory: ☒ Sequence Number:

Default Option: ☒ Forecast Percent: 100.00%

Remarks: Option Group:

Comments: Process:

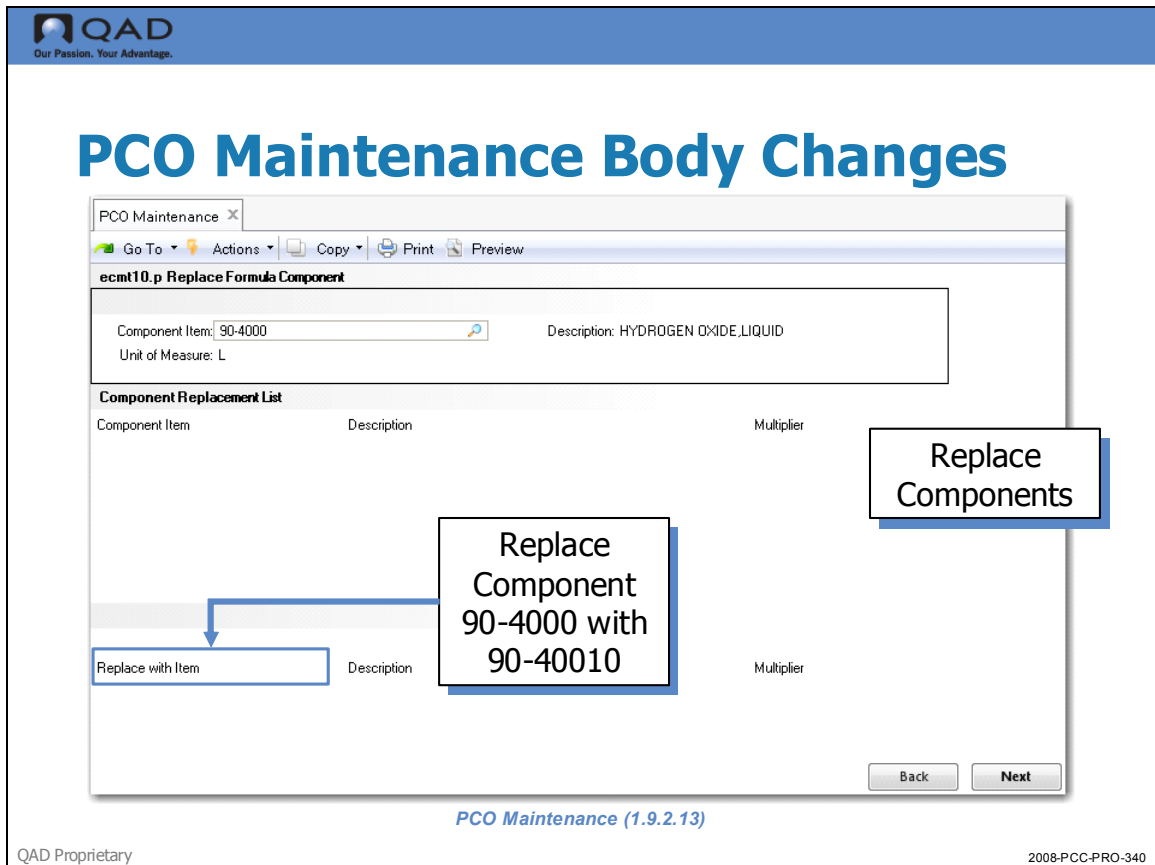
Delete Back Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-330

PCR/PCO Detail Maintenance - Formulas

- Add items to formulas
- Delete formula records
 - Sets end effective date when PCO is incorporated
- Edit formula changes



Replace Formula Component

- Replace one component with another across multiple bills of material
 - Searches formula records already included in the PCO and marks the formulas as deactivated
 - Adds new formulas with the new component in place of the old component
- Modified quantities are multiplied against the Multiplier value
- Other detailed formula data is copied from the existing record

Exercise:

Create a PCO with Formula Changes (optional)

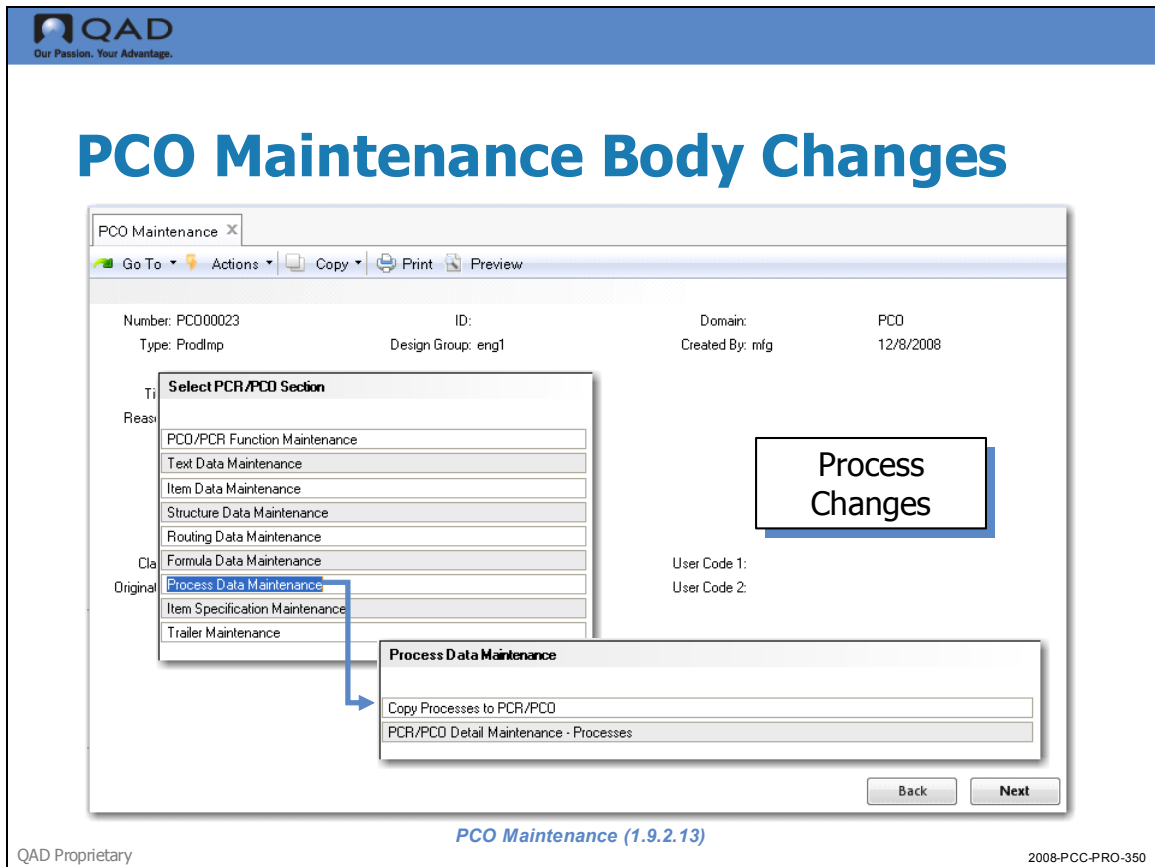
Koolaire (TM) Coolant Standard, Scented (90-100) needs to have the perfume reduced in the formula because the supplier has started making the perfume in stronger concentration

In this exercise, use PCO Maintenance (1.9.2.13) to create a PCO to indicate the reduction of one component and the increase of other components by percentage.

- 1 Let QAD Enterprise Applications assign the PCO number.
 - a Assign Type = PCO, Design group = DESIGN
 - b Write down the PCO number assigned for later reference: _____
- 2 Title and Reason fields are optional. Leave them blank, or create a simple description for this PCO:

Title:	Formula Change
Reason:	Modifying 90-100 to use less 90-2000 Concentration strength from supplier increased

- 3 Continue past the header. Choose Formula File Maintenance. From this menu select Copy Formula into PCO.
 - a Parent Item = 90-100
 - b Select components 90-2000 and 90-4000 (an asterisk should appear next to each sequence).
- 4 Choose Formula File Maintenance, then PCR/PCO Detail Maintenance - Formulas. Arrow down to access both records copied in the previous step.
 - a For 90-2000, change the Batch Percent from 10 to 8. Press NEXT. The Quantity Per changes automatically.
 - b For 90-4000, change the Batch Percent from 75 to 77. Press NEXT. The Quantity Per changes automatically.
- 5 Save the record without adding any information to the trailer.
- 6 Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO and verify that your changes were all included.



Copy Processes to PCR/PCO

- Copy processes
- Modify existing processes with Detail Maintenance

Note Routings cannot be maintained with this function

- Use Routing File Maintenance for routing processes

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PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview

ecmt11.p Copy Processes to PCR/PCO

Number: 90-100 ID: Domain: PCO
Title:

Routing Copy

Routing/Procedure	Description	Eff Date
10-15000	ASSEMBLE PER SPEC	12/8/2008

Enable QXtend Outbound

Op	Description
10	ASSEMBLE PER SPEC
20	INSPEC PER PROC-009

Enter to Select

Copy to PCO for Changes

Back Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-360

Copy Processes to PCR/PCO

- Copy process records to PCO for modification
- Displays operations and lets you select which steps to include
- Once the records are copied, use PCR/PCO Detail Maintenance - Processes to modify
 - Start with a copy of existing processes to simplify editing

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PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview

ecmt12.p PCR/PCO Detail Maintenance - Processes

Number: 90-100 ID: Domain:

Routing Code: 90-100 Standard Coolant

Operation: Batch Quantity: 1.0 LT

Deactivate: ☐

Standard Operation:

Work Center: EFC1

Machine:

Description:

Machines per Operation:	1	Milestone Operation:	☒
Overlap Units:	0	Subcontract LT:	0
Queue Time:	0.0	Setup Crew:	0.00
Wait Time:	0.0	Run Crew:	0.00
Setup Time:	0.0	Tool Code:	
Run Time/Batch Qty:	0.0	Supplier:	
Run Time:	0.0	Inventory Value:	0.00
Move Time:	0.0	Subcontract Cost:	0.00
Yield Percent:	100.00%	Comments:	☐

Change Processes

Process Changes

Back Next

PCO Maintenance (1.9.2.13)

QAD Proprietary 2008-PCC-PRO-370

PCR/PCO Detail Maintenance - Processes

- Add operations to a process
- Deactivate operation steps
 - Sets an end effective date when PCO is incorporated
- Edit process changes

Exercise:

Create a PCO with Process Changes (optional)

The plastic bottle molding process has a scrap factor that has never been figured into the process. Select the process operation for the 1-liter Plastic Bottle, 88-300, and use PCO Maintenance (1.9.2.13) to create a PCO for a yield of only 98%.

- 1 Let QAD Enterprise Applications assign the PCO number.
 - a Assign Type = PCO, Design group = DESIGN
 - b Write down the PCO number assigned for later reference: _____
- 2 Title and Reason fields are optional. Leave them blank, or create a simple description for this PCO:

Title:	Process Change
Reason:	Modifying 88-300 to change yield scrap factor of 2%

- 3 Continue past the header. Choose Process File Maintenance, then Copy Processes to PCR/PCO.
 - a Routing Code = 88-300
 - b Select process 10 (an asterisk should appear next to the process).
- 4 Return and choose Process File Maintenance, then PCR/PCO Detail Maintenance - Processes. Arrow down to modify the record copies in the previous step.
 - a For 88-300 operation 10, change the Yield Percent to 98%.
- 5 Save the record without adding any information to the trailer.
- 6 Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO and verify that your changes were all included.



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Create/Maintain PCO

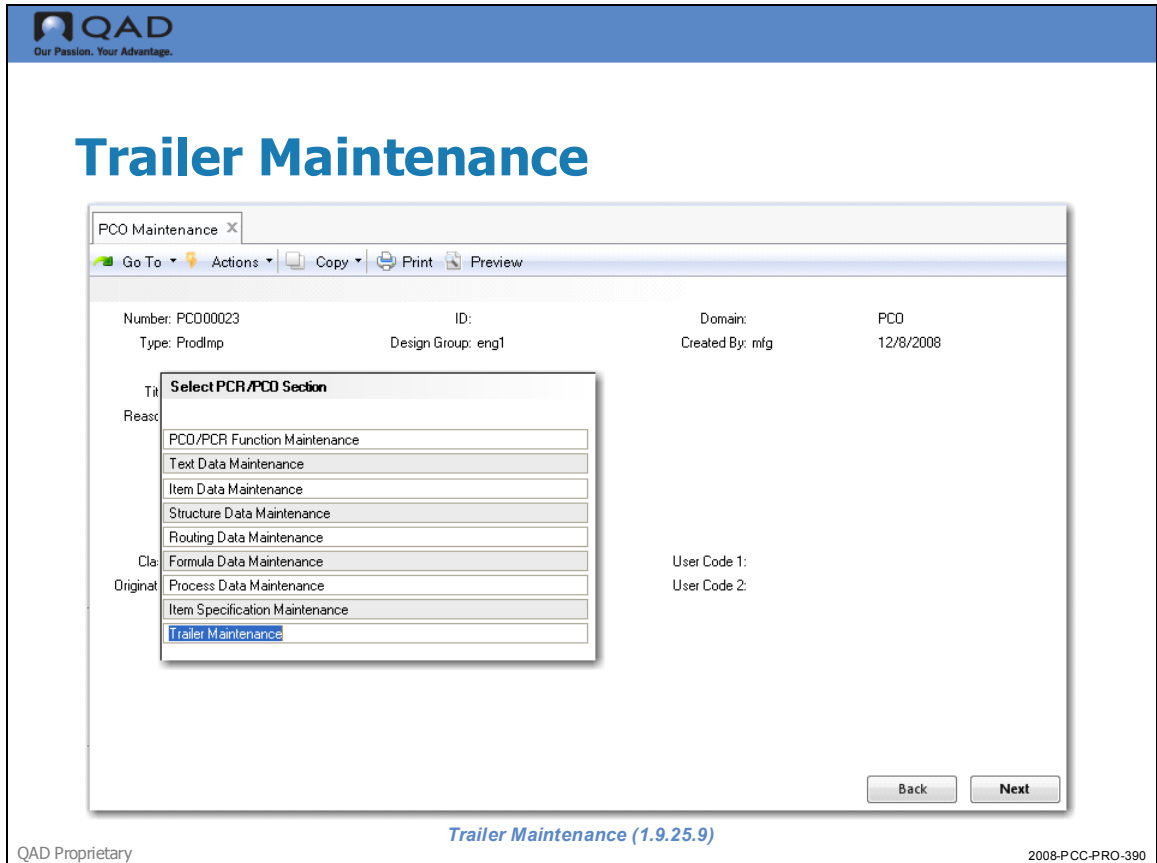


- ▲ PCO Maintenance
- ▲ Enter Header
- ▲ Add Text
- ▲ Specify Changes
 - Item Changes
 - Product Structure Changes
 - Routing Changes
 - Item Spec Changes
 - Formula Changes
 - Process Changes
- ▲ Enter Trailer

QAD Proprietary

2008-PCC-PRO-380

Enter Trailer



Trailer Maintenance (1.9.25.9)

- Can be used to close or reopen a PCO (before it is distributed)
- Displays information for the release process:
 - Routing slip
 - Distribution group
 - Date submitted
 - Date approved
- The only option that appears in the PCO maintenance section menu for closed, but undistributed, PCOs

The screenshot shows the 'Trailer Maintenance' form in the QAD system. The form is titled 'PCO Maintenance' and includes fields for 'Number: P000023', 'ID:', 'Domain: PCO', and 'Title:'. Below these are fields for 'Expected Cost: 12,000.00', 'Routing Slip: ProdImp', 'Distribution: doc2', 'Disposition:', 'Mandatory: 12/9/2008', 'Submitted:', 'Approved:', 'Released:', 'Distributed:', 'Effective:', 'Implemented:', and 'Closed Date:'. There are also checkboxes for 'Closed' and a 'PCO Ref:' field. Annotations with blue arrows point to various fields: 'Optional Fields' points to 'Disposition:', 'Can only Close Before Distribution' points to 'Closed', and 'Tracking Fields for System' points to the tracking fields. The form has 'Delete', 'Back', and 'Next' buttons at the bottom.

Trailer Maintenance

PCO Maintenance x

Go To Actions Copy Print Preview

ecmtrl.p Trailer Maintenance

Number: P000023 ID: Domain: PCO

Title:

Expected Cost: 12,000.00

Routing Slip: ProdImp

Distribution: doc2

Disposition:

Mandatory: 12/9/2008

Submitted:

Approved:

Released:

Distributed:

Effective:

Implemented:

Closed Date:

Closed:

PCO Ref:

Optional Fields

Can only Close Before Distribution

Tracking Fields for System

Delete Back Next

Trailer Maintenance (1.9.25.9)

QAD Proprietary 2008-PCC-PRO-400

- Closed = Yes closes the PCO
 - A PCO cannot be reopened after it is distributed
- Disposition is an optional user-defined code for describing arrangement, grouping, and urgency of PCO
 - Generalized codes validated against ecm_ecr_dspn
- Mandatory is optional, indicating the latest day by which the PCO must be implemented



Create/Maintain PCO



- ▲ PCO Maintenance
- ▲ Review/Print PCO *
- ▲ Route PCO for Approval
- ▲ PCR/PCO Approval
- ▲ Release and Distribution
- ▲ Incorporate PCO
- ▲ Implementation

* Optional

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2008-PCC-PRO-410

Review/Print PCO



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PCR/PCO Detail Inquiry



QAD

PCR/PCO Detail Inquiry12/09/08

Number: P000023ID:Domain:Output: page

Display E-Signature Details: No

Type: ProdImpDesign Group: eng1Created By: mfgPCO 12/09/08

Title:Reason:

Class:Originator:User Code 1User Code 2

Number: P000023ID:Domain:PCO

Expected Cost: 0.00Mandatory:Submitted:Approved:Released:Distributed:Effective:Implemented:Closed Date:Closed: NoPCO Ref:

1.9.2.8PCR/PCO Detail Inquiryececig.p

PCR/PCO Detail Inquiry (1.9.2.8)

PCR/PCO Detail Inquiry (1.9.2.8)

Prints similar to Print PCR/PCO (1.9.9.1) but designed for just a single inquiry



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PCR/PCO Status Browse

PCR/PCO Status Browse

Actions | Print | Add to Favorites | Chart | Chart Designer | Refresh

Search

Number is not null Search Clear All

Viewing 1 - 10 of 10 Records per page: 100

Number	ID	Database	Title	Status	Approved Date	Submitted
0000000			Initialize ECNs to current revision level	Closed		
00000001			New request for change	Unsubmit		
00000005			Test PCR	Approved	09/09/2008	
1234			Disable ECO Maintenance on Product Structure Menu	Closed	12/10/1994	
1235			Disable ECO Maintenance on Product Structure Menu	Closed	11/30/1994	
NP001000			Intro of 6 way Seat Adjustor	Released	01/16/2001	
NP100000			test pco	Submit		
pco10000			Disable PCO Maintenance in Product Structures Menu	Closed		
pco50000			Disable PCO Maintenance in Product Structures Menu	Closed		
PO000023				Unsubmit		

Check Status

Blank Status is Pre-Submission

PCR/PCO Status Browse (1.9.11)

QAD Proprietary

2008-PCC-PRO-430

PCR/PCO Status Browse (1.9.11)

- Status shown as a column in the browse
- Blank status is Pre-submission

Print PCR/PCO

Go To Actions Copy Print Preview

Number: To:

ID: To:

Domain: To:

Type: To:

Design Group: To:

Created By: To:

Status: To:

User Code 1: To:

User Code 2: To:

For Ranges of PCOs

Pre-submission: ☒ Submitted: ☐

Approved: ☐ Released: ☐

Incorporated: ☐ Implemented: ☐

Closed: ☐ Comment Page: 1 To: 99

Text Order: 1 To: 99

Approvals: ☒ Distributed: ☒

PCO/PCR: PCO

Example: Print all PCOs Pre-submission

Back Next

Print PCR/PCO (1.9.9.1)

QAD Proprietary 2008-PCC-PRO-440

Print PCR/PCO (1.9.9.1)

- Provides a complete printout of all PCO/PCR information for ranges of PCOs/PCRs
 - Prints header and status information, then (as appropriate) the approval group detail, item master detail, BOM detail in indented format, routing, process, and formula information, item specification data, and all text comments
 - Bill of materials section of the report prints only the PCO bill and includes the current Qty Per from the product structure or formula record and the PCO Qty Per
 - If a component has been deactivated, DEACTIVATED prints in the PCO Qty Per column

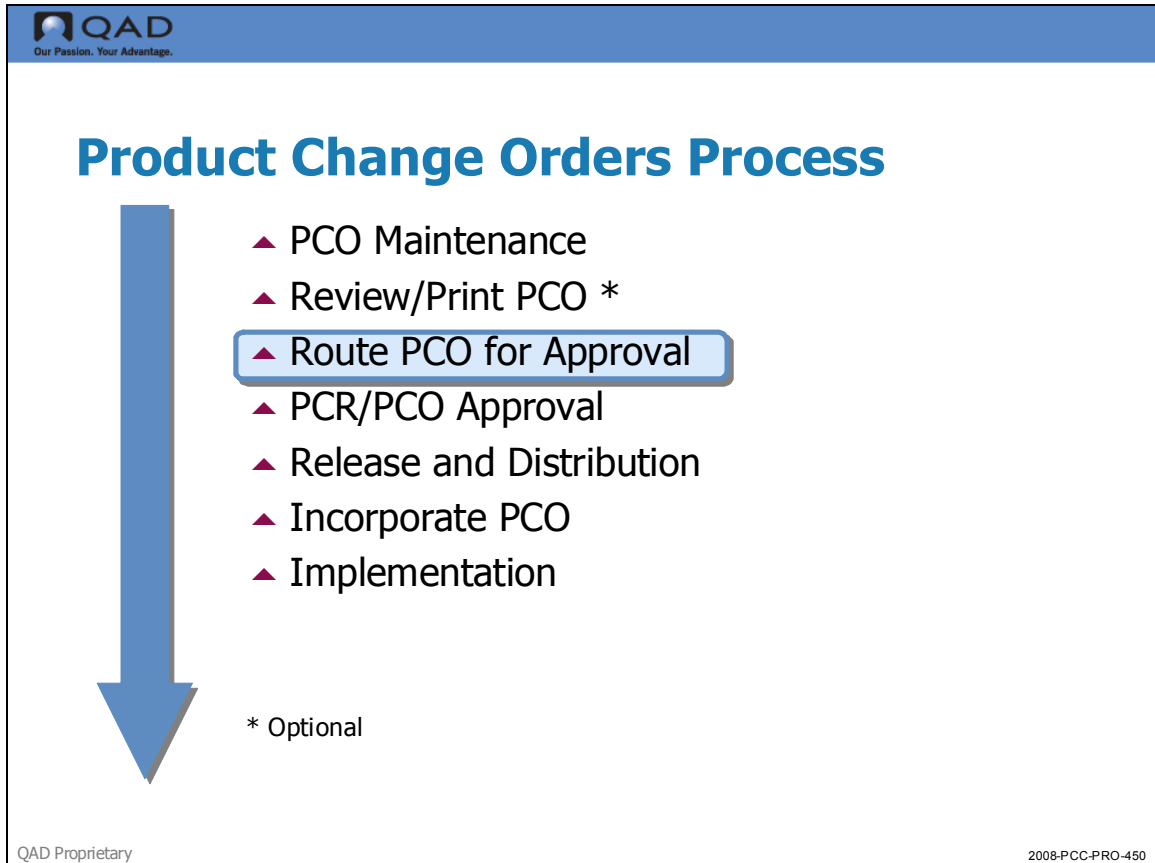
Exercise:

Check Status and Print PCOs

In each of the exercises above you reviewed individual PCOs with a Detail Inquiry.

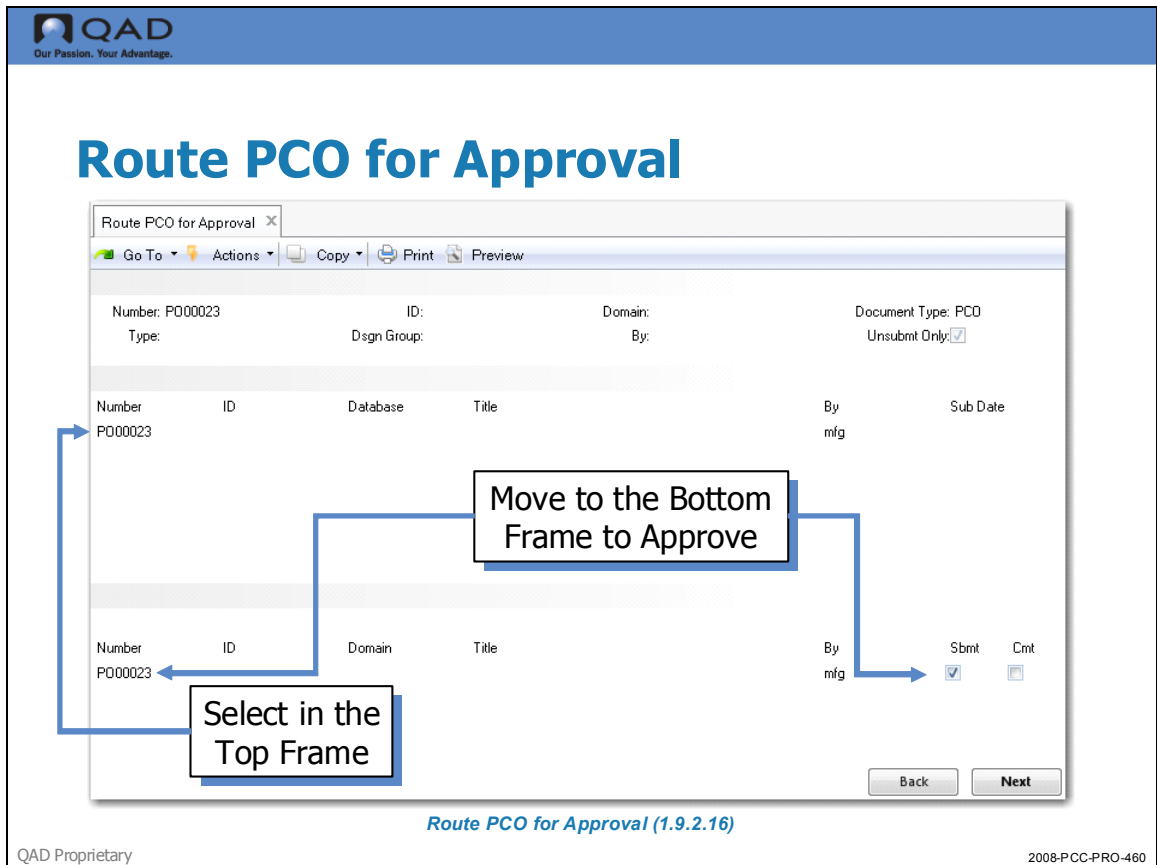
- 1 In this exercise, use PCR/PCO Status Browse (1.9.11) to review the status of all the PCOs created in the exercises above.
- 2 Use Print PCR/PCO (1.9.9.1) to print the PCOs you created. Leave the PCO Number field blank and enter the following:

Pre-submission:	Yes
All other status fields:	No
PCO/PCR	PCO
Output device:	PAGE



Route PCO for Approval

- Send the PCO to members of the Approval group for their consideration, approval, comment, rejection, or reapproval
- Once the PCO has been routed, QAD Enterprise Applications restricts any changes to the document to ensure that the approved version is the most current version



Route PCO for Approval (1.9.2.16)

- Lists PCOs in order, beginning with the PCO you enter in the first frame
 - Unsubmit Only = Yes selects all PCOs that have not been routed for approval yet
- When you select a PCO for submittal in the top frame, it copies to the bottom frame
 - Submit = Yes submits the PCO for approval

Exercise:

Route PCOs for Approval

Submit your first three PCOs to start the routing and approval process, using Route PCO for Approval (1.9.2.16).

- 1 Select the first three PCOs you created in these exercises (refer to the PCO numbers you recorded). Leave the number field blank and leave Unsubmit Only = Yes. This will filter for just the unsubmitted PCOs.
 - a Select a PCO in the first frame and press NEXT.
 - b When it appears in the second frame, verify Sbmt = Yes. Press NEXT to submit.
- 2 Use PCR/PCO Status Browse (1.9.11) to review your PCOs to verify that their status changed. You should see:

three records with Status:	Submit
the remaining PCOs with Status:	<blank>



Product Change Orders Process



- ▲ PCO Maintenance
- ▲ Review/Print PCO *
- ▲ Route PCO for Approval
- ▲ PCR/PCO Approval
- ▲ Release and Distribution
- ▲ Incorporate PCO
- ▲ Implementation

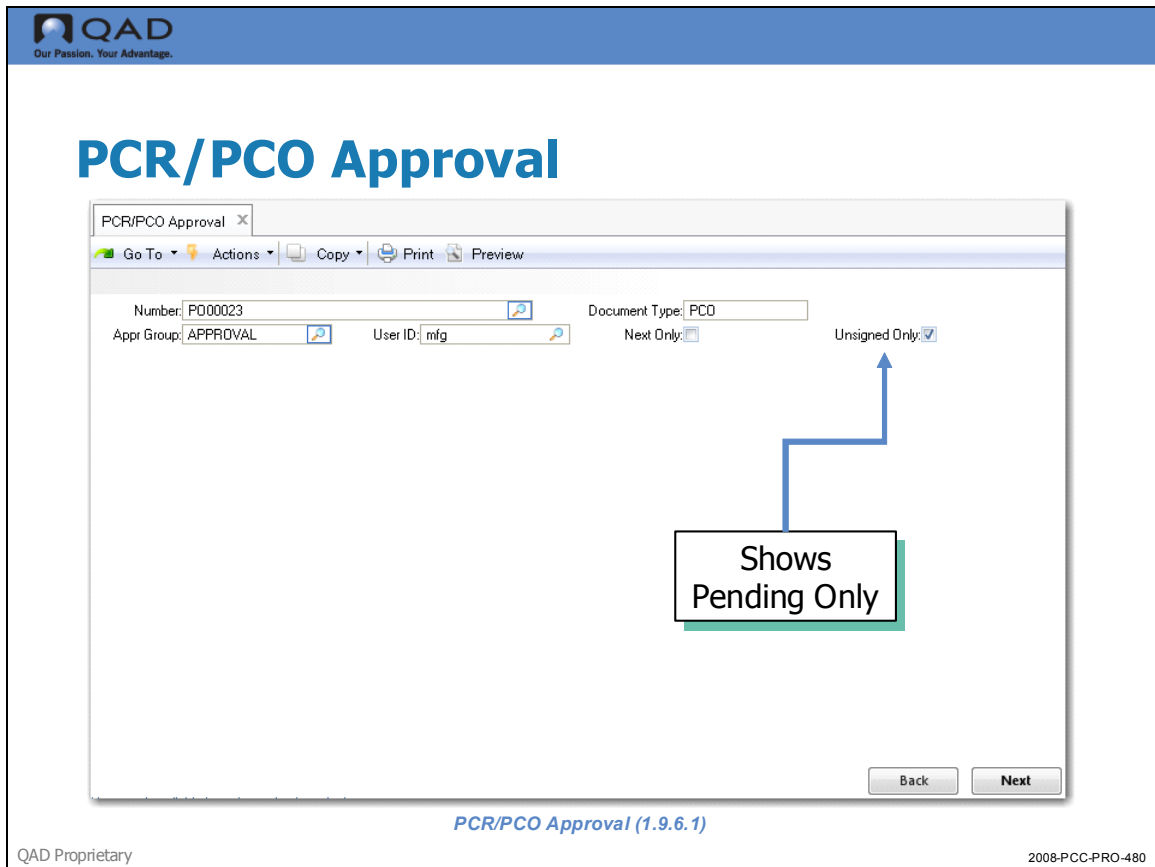
* Optional

QAD Proprietary

2008-PCC-PRO-470

PCR/PCO Approval

- Assign approval, rejection, or reapproval
 - Severity levels must be used to allow approval groups to reroute PCOs for reapproval
- When the PCO has been routed, the recipients enter their approval, comments, rejection, or reapproval



PCR/PCO Approval (1.9.6.1)

- When Unsigned Only = Yes, only pending approvals display (use = No to change prior approval)
- Select PCO for approval in top frame
- Set Appr = Yes in lower frame to approve
- If disapproved and routing slip allow for rerouting, a prompt display asks for the reroute level

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Detail Approval Maintenance

Detail Approval Maintenance x

Go To Actions Copy Print Preview

Number: P000023 ID: Domain: Doc Type: PCO

Group	Description	Seq	Re-Rt Level	ReRoute	Approved
eng1	Engineering Group	0	0	☐	☐
NewProd1	New Products Team 1	10	0	☒	☐
MfgEng1	Manufacturing Eng	20	0	☒	☐
ToolEng	Tool Engineering	30	0	☒	☐
mfg1	Mfg Planning	40	0	☒	☐

Group Seq

APPROVAL

WARNING
This Function Overrides Normal Approval Process

Appr Date Aprv By Cmt

Back Next

Detail Approval Maintenance (1.9.6.13)

QAD Proprietary 2008-PCC-PRO-490

Detail Approval Maintenance (1.9.6.13)

- Allows override of the normal approval process
- Disapproved documents will not be rerouted

Important Should be password controlled since it provides administrative override of normal approval process



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Approval Browse

Approval Browse

Actions | Print | Add to Favorites | Chart | Chart Designer | Refresh

Search

Number starts at Search Clear All

Viewing 1 - 29 of 29 Records per page: 100

Number	ID	Database	Document Type	Routed Da	Sequence	Approval Group	Date Approved	Routing Slip	Approved	Approver ID
P000023			PCD	12/09/2008	70	acct1		ProdImp	No	
P000023			PCD	12/09/2008	0	eng1		ProdImp	No	
P000023			PCD	12/09/2008	40	mfg1		ProdImp	No	
P000023			PCD	12/09/2008	20	MfgEng1				
P000023			PCD	12/09/2008	10	NewProd1				
P000023			PCD	12/09/2008	60	Purch1				
P000023			PCD	12/09/2008	50	QC1				
P000023			PCD	12/09/2008	30	ToolEng				
00000005			PCR	09/09/2008	10	doc1	09/09/2008			
00000005			PCR	09/09/2008	50	exec1	09/09/2008	request1	Yes	exec
NP100000			PCD	09/09/2008	70	acct1		NPIntro	No	
NP100000			PCD	09/09/2008	40	mfg1		NPIntro	No	
NP100000			PCD	09/09/2008	20	MfgEng1		NPIntro	No	
NP100000			PCD	09/09/2008	10	NewProd1	09/09/2008	NPIntro	Yes	newprod
NP100000			PCD	09/09/2008	60	Purch1		NPIntro	No	

Similar to PCR/PCO
Status Browse
(1.9.11)

Approval Browse (1.9.6.2)

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Approval Browse (1.9.6.2)

- Browse the approval status of various PCRs/PCOs
- Very similar to PCR/PCO Status Browse (1.9.11)



Product Change Orders Process



- ▲ PCO Maintenance
- ▲ Review/Print PCO *
- ▲ Route PCO for Approval
- ▲ PCR/PCO Approval
- ▲ Release and Distribution
- ▲ Incorporate PCO
- ▲ Implementation

* Optional

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Release and Distribute PCO

When the approval process is complete and there are no more rerouting steps for reapproval, the PCO moves to Release and Distribution

- Release signals a change in ownership
- Distribution is based on the routing slip
 - Release is final and irrevocable once it is distributed

Release and Distribution

Number: PC000023 ID: Domain: Type: ProdImp Created By: admin Unreleased Only: ☒

If Blank, Released & Distributed now

If Batched, Released now, Distributed with Batch

Number	ID	Domain	Title	Rels	Cmt	Batch ID
				☐	☐	

Back Next

Release and Distribution (1.9.7.1)

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Release and Distribution (1.9.7.1)

- Select PCOs in the first frame, scroll through second frame, and select a PCO for release/distribution
- Set Rels = Yes and enter a valid Batch ID or leave blank
 - Once you enter a Batch ID, the PCO is released; the PCO is distributed when the specified batch is executed
 - If Batch ID is left blank, then the PCO is released and distributed immediately
- Released PCOs may be unreleased if they have not been distributed
 - Run Release and Distribution with Unreleased Only = No, select the PCO, and then set Rels = No
- Distributed PCOs cannot be unreleased or modified

- When a PCO is released and/or distributed, its status changes and the dates of release and distribution are recorded
- When the PCO is distributed, it is printed for all members of the distribution group and becomes visible to Incorporation Selection (1.9.7.4)

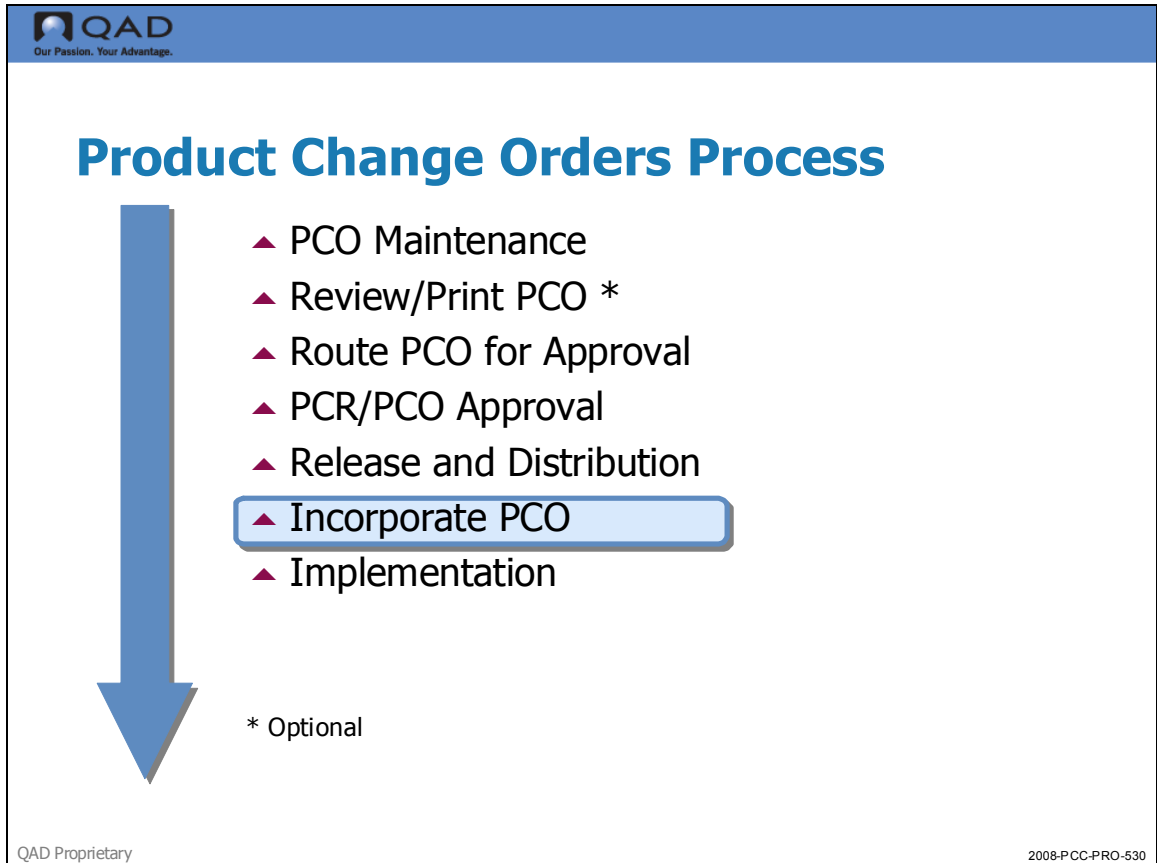
Exercise:

Route PCOs for Approval

Submit your first three PCOs to start the routing and approval process, using Route PCO for Approval (1.9.2.16).

- 1 Select the first three PCOs you created in these exercises (refer to the PCO numbers you recorded). Leave the number field blank and leave Unsubmit Only = Yes. This will filter for just the unsubmitted PCOs.
 - a Select a PCO in the first frame and press NEXT.
 - b When it appears in the second frame, verify Sbmt = Yes. Press NEXT to submit.
- 2 Use PCR/PCO Status Browse (1.9.11) to review your PCOs to verify that their status changed. You should see:

three records with Status:	Submit
the remaining PCOs with Status:	<blank>



Incorporate PCO

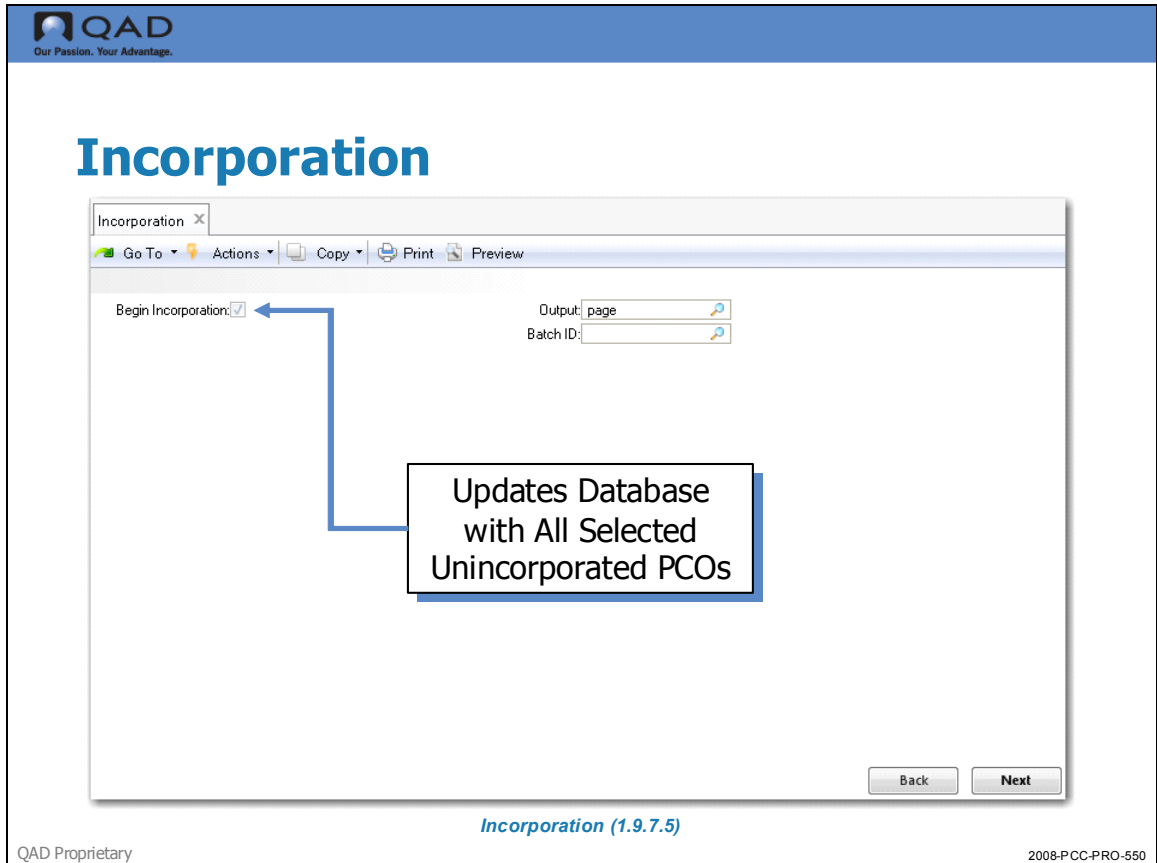
- Incorporation specifies an effective date for PCO changes to move into the production files
- Makes the changes available for planning
- Moves the changes in the PCO that affect product structures, formulas, processes, routings, and item specifications into the planning files once there is an effectivity date
- Makes data available to MRP, DRP, and other pre-production QAD Enterprise Applications modules
- Until implemented, a PCO incorporation date may be changed and re-incorporated

Note Incorporation of different revisions of the same parent item must be done in revision sequence.



Ince

-



Incorporation (1.9.7.5)

- Updates the production database with all unincorporated PCOs that have effectivity dates
- Normally run as a batch process

Incorporation Planning Report

Number ID Domain Site Effective Cost Method (Cur) Output

PC000023 12/9/2008 GL

Evaluate PCO Inventory Effects
Optional Report

Back Next

Incorporation Planning Report (1.9.7.3)

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Incorporation Planning Report (1.9.7.3)

- Incorporation makes PCO information available to planning
- Use this optional report to evaluate the effects of the PCO on inventory

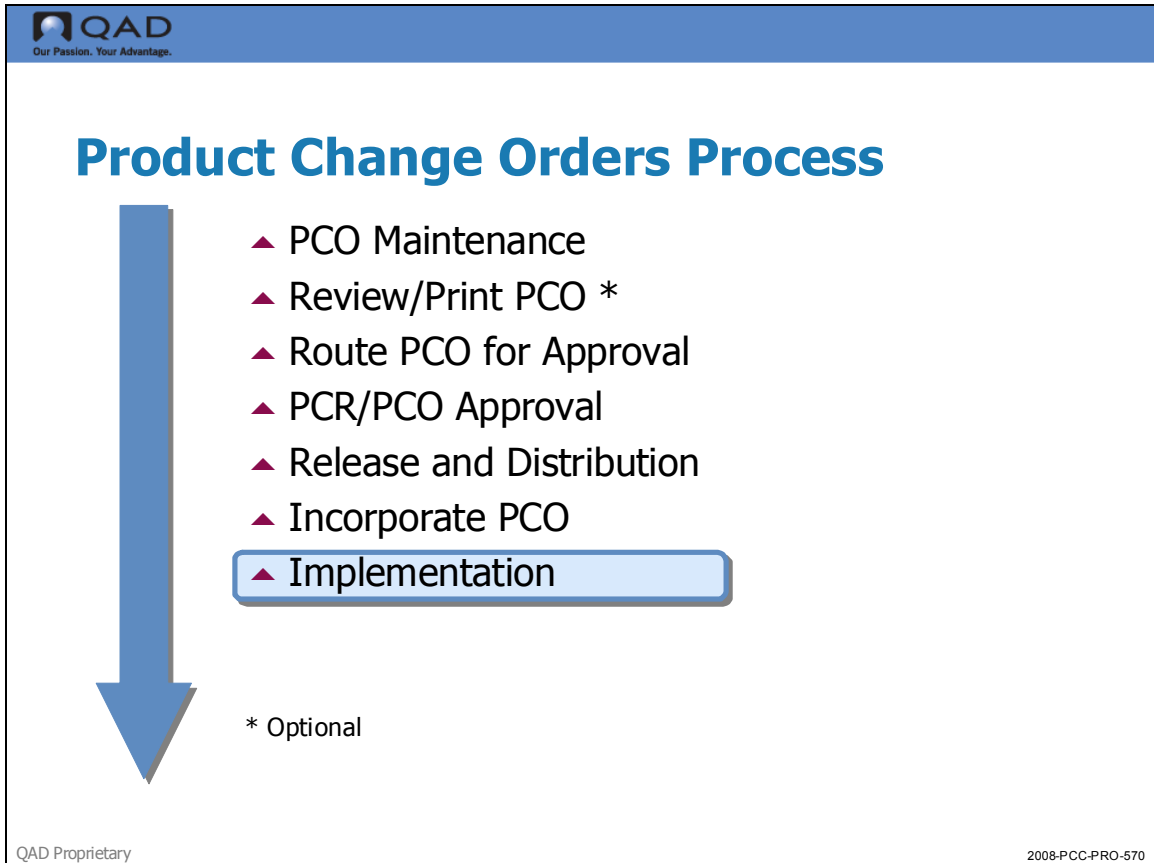
Exercise:

Exercise:

Release and Incorporate PCO

Use Release and Distribution (1.9.7.1) to release and distribute your first PCO. Incorporate these changes into QAD Enterprise Applications for planning consideration.

- 1 Select your first PCO for release.
 - a Leave the Number field blank
 - b Type = PCO
 - c Unreleased Only = Yes
- 2 Then select the first PCO in the top frame to copy to the bottom frame. Verify Rels = Yes and press NEXT to release (leave Batch ID blank). You should see a message that the PCO was distributed successfully.
- 3 Use PCR/PCO Status Browse (1.9.11) to review your PCOs and verify the PCO that was released and distributed. You should now see Status = Released for your first PCO.
- 4 Use Incorporation Selection (1.9.7.4) to select your released PCO for incorporation. Leave the Number field blank, Type = PCO, and Unincorporated Only = Yes.
 - a Select the PCO in the first frame to bring it into the bottom frame. Assign the Eff Date = today.
- 5 Use Incorporation (1.9.7.5) to incorporate all PCOs with effective dates for today.
- 6 Use PCR/PCO Status Browse (1.9.11) to review your PCOs and verify the latest status change. You should now see Status = Incorp for your first PCO.



Implementation

Copies changes to item data records from incorporated PCOs when effective dates are reached.

- Dependent on the effectivity date of the Incorporated PCOs
- Usually run as a daily batch

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Implementation

Implementation x

Go To Actions Copy Print Preview

Begin Implementation: ☒

Output:
Batch ID:

Typically
Batch Daily

Back Next

Implementation (1.9.7.13)

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Implementation (1.9.7.13)

- Begin Implementation = Yes, and then specify an output device
- Typically this function is run automatically every day
 - Can specify a Batch ID to execute daily

Setup Product Change Control (PCC)

The setup procedures for PCC assume general implementation of QAD Enterprise Applications has already been accomplished. The chapter outlines both required and optional setup procedures.

What is the procedure?	Who is responsible?
Record ECO Data	IT and Management
Create User IDs	IT
Setup E-Mail	IT
Setup Severity Codes	IT and Management
Setup Master Comments	Cross-Functional Management Team
Define Document Types	PCC Management
Create Groups	PCC Management
Design Routing Slips	PCC Management
Set Up PCC Control	PCC Management

Process Product Change Orders (PCOs)

What is the procedure?	Who is responsible?
Create/Maintain PCO	Document Control
Review/Print PCO	Document Control
Route PCO	End User
Approve PCO	Approval Group
Release and Distribute PCO	Document Control
Incorporate PCO	Document Control
Implement PCO	Document Control

Process Product Change Requests (PCRs)

What is the procedure?	Who is responsible?
Create/Maintain PCR	Document Control
Route PCR	Document Control
Approve PCR	Approval Group
Close PCR to PCO	Document Control

Exercise:

Approve PCOs

Use PCR/PCO Approval (1.9.6.1) to approve the first two PCOs submitted in the last exercise.

- 1 Leave the number field blank, select DocType = PCO, and review Unsigned Only = Yes. Select just the first two PCOs submitted. Mark each APPROVED.
- 2 Use PCR/PCO Status Browse (1.9.11) to review your PCOs and verify that their status changed. You should see:

two PCOs with Status:	Approval
one PCO with Status:	Submit
the remaining PCOs with Status:	<blank>



Product Change Orders Process Summary



- ▲ PCO Maintenance
- ▲ Review/Print PCO *
- ▲ Route PCO for Approval
- ▲ PCR/PCO Approval
- ▲ Release and Distribution
- ▲ Incorporate PCO
- ▲ Implementation

* Optional



Miscellaneous PCR/PCO Functions

- ▲ PCR/PCO Import/Export (1.9.13)
- ▲ PCR/PCO Close (1.9.14)
- ▲ PCR/PCO Delete/Archive (1.9.15)

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Miscellaneous PCR/PCO Functions

- PCR/PCO Close (1.9.14)
 - Close or reopen any PCO that has not been assigned an effectivity date
- PCR/PCO Import/Export (1.9.13)
 - Export PCO data to an ASCII text file
 - Import to restore archive files
- PCR/PCO Delete/Archive (1.9.15)
 - Archive or delete closed records from the database



Course Overview

- ✓ Introduction to Product Change Control
- ✓ Business Considerations
- ✓ Set up Product Change Control
- ✓ Process Product Change Orders (PCOs)
- ▲ Process Product Change Requests (PCRs)

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b Disposition: UAI

- 3** Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO to be certain your changes were all included.

Create a PCO with Process Changes (optional)

The plastic bottle molding process has a scrap factor that has never been figured into the process. Select the process operation for the 1-liter Plastic Bottle, 88-300, and use PCO Maintenance (1.9.2.13) to create a PCO for a yield of only 98%.

- 1** Let QAD Enterprise Applications assign the PCO number.

a Assign Type = PCO, Design group = DESIGN

Implement PCO

Use Implementation (1.9.7.13) to implement your incorporated PCO fully into QAD Enterprise Applications.

- 1 Run the implementation process.
- 2 Use PCR/PCO Status Browse (1.9.11) to review your PCOs to verify the latest status change. You should now see Status = Closed for your first PCO since it has completed the full processing cycle: Created/Routed/Approved/ Distributed/Incorporated/Implemented (Closed).

CHAPTER 5

Processing Product Change Requests



Process Product Change Requests

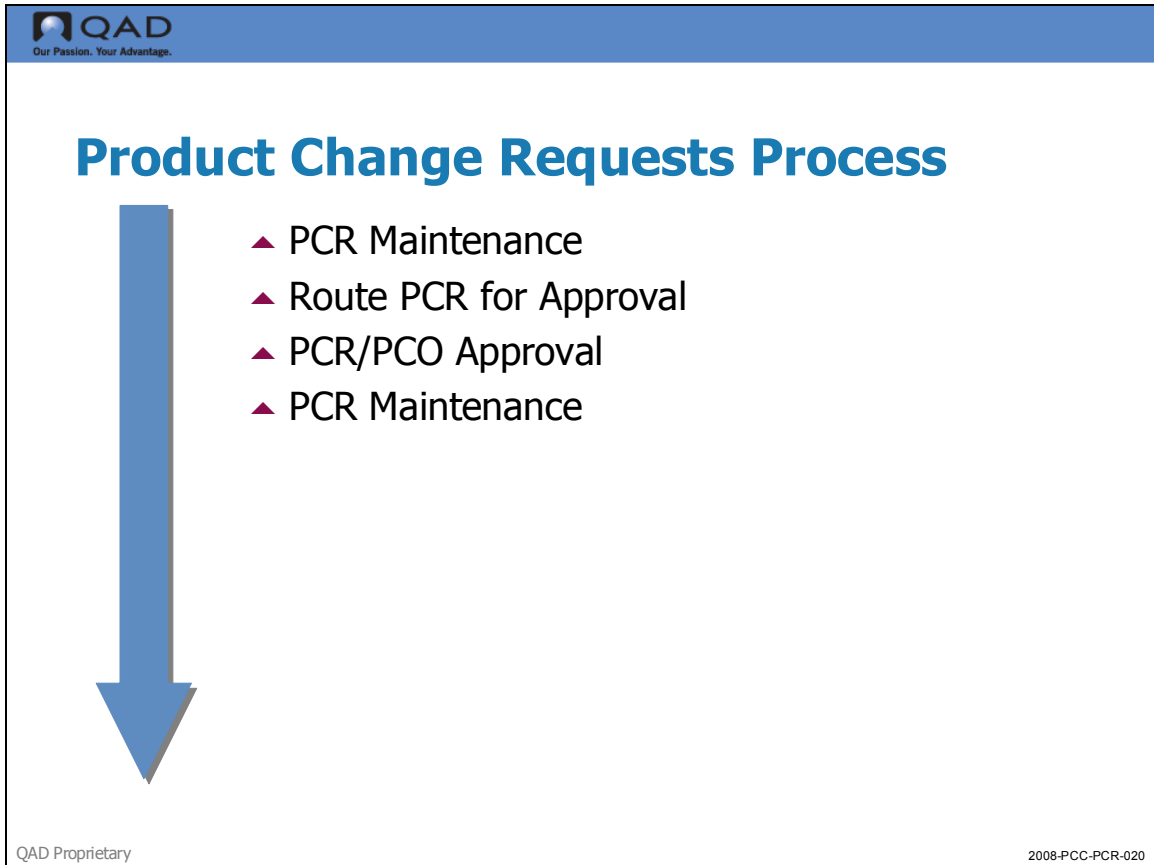
In this section you learn how to:

- ▲ Set up Product Change Control in QAD Enterprise Applications
- ▲ Identify key business issues you need to consider before setting up Product Change Control in QAD Enterprise Applications
- ▲ Process Product Change Orders (PCOs) in QAD Enterprise Applications
- ▲ Process Product Change Requests (PCRs) in QAD Enterprise Applications

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In this section you learn how to process Product Change Requests (PCRs) in QAD Enterprise Applications.



Product Change Requests Process

This illustration is a suggested process sequence of master files for the Product Change Requests, which is based on information that flows from one master file to another and prerequisites that need to be accomplished.



Create/Maintain PCR

- ▲ PCR Maintenance (1.9.2.1) does not create any financial transactions
 - Financial personnel should be aware of all PCRs since most product changes will have financial consequences if they are approved and incorporated
- ▲ Similar to PCOs, you must enable the appropriate functions on the related menus to maintain product structures, routings, item specifications, and formulas:
 - Enable PCC Product Structure Maintenance (13.13.22), Enable PCC Routing Maintenance (14.22), Enable PCC Item Specification Maintenance (19.1.22), Enable PCC Formula Maintenance (15.22)

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2008-PCC-PCR-025

Create Maintain PCR



Product Change Requests Process



▲ PCR Maintenance

- ▲ Route PCR for Approval
- ▲ PCR/PCO Approval
- ▲ PCR Maintenance

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2008-PCC-PCR-030

PCR Maintenance

- Design and build Product Change Requests (PCRs)
- All of the functions required to create product changes are contained in this program
- Submitted PCRs can be modified using PCO Maintenance, but a warning displays
 - Closed PCRs can be accessed, but the only menu option available is Trailer Maintenance
- CIM load is not used to load data into PCR Maintenance
 - Use PCR/PCO Import/Export (1.9.13)

PCR Maintenance

Number: PCR08000 ID: Domain: PCR
 Type: request Design Group: new1 Created By: mfg 12/9/2008

Title: New Colorant
 Reason: New Part 88-8000 Black Colorant
 Where as to replace 88-6000

Class: User Code 1:
 Originator: User Code 2:

Delete Back Next

PCR Maintenance (1.9.2.1)

QAD Proprietary 2008-PCC-PCR-040

PCR Maintenance (1.9.2.1)

- PCRs are unique for each Number, ID, and Database combination
 - ID and Database are typically used to split up large or complex engineering changes into more than one PCR
 - If you open a PCR with the same Number, but different ID or Database as another PCR, you will receive a warning that related PCRs exist

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PCR Maintenance

PCR Maintenance

Go To Actions Copy Print Preview

Number: PCR08000 ID: Domain: PCR
Type: request Design Group: new1 Created By: mfg 12/9/2008

Title: New Colorant
Reason: New Part 88-8000 Black Col
Where as to replace 88-8000

Class:
Originator:

Select PCR/PCO Section

- PCO/PCR Function Maintenance
- Text Data Maintenance
- Item Data Maintenance
- Structure Data Maintenance
- Routing Data Maintenance
- Formula Data Maintenance
- Process Data Maintenance
- Item Specification Maintenance
- Trailer Maintenance

Similar Interface Menus as PCO Maintenance (1.9.2.13)

Only Selection with No Additional Menu

Delete Back Next

PCR Maintenance (1.9.2.1)

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PCR Maintenance Options

- Just like PCO Maintenance, pop-up menus allow you to select which kinds of changes to make
- Just like PCO Maintenance, a second pop-up menu gives you access to detail modification
 - Each menu item (except Trailer Maintenance) leads to another menu
- Trailer Maintenance is the only menu option that can be used for closed PCRs

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PCR Maintenance Options Lower Levels

Exercise:

Create PCR with Where-As Changes

You received a request to make black cases in place of your existing grey cases. To analyze the feasibility of this product change, you need a new colorant similar to 88-6000 Grey Colorant, and you need Where-As replacements to substitute the new colorant. In this exercise you create a PCR to evaluate and approve these changes before converting them to PCOs.

- 1 Let QAD Enterprise Applications assign the PCR number. The number will be assigned when you complete the Type and Design group fields and press Go.
 - a Assign Type = PCR, Design group = DESIGN
 - b Notice the different numbering from the PCOs in the last chapter.
 - c Write down the PCO number assigned for later reference: _____

Hint: Use PCR Maintenance 1.9.2.1

- 2 Title and Reason fields are optional. Leave them blank, or create a simple description for this PCR:

Title	New Colorant
Reason	New Item 88-8000 Black Colorant Where-As to Replace 88-6000

- 3 Press Go to continue past the header. Choose *Item File Maintenance*, then select *Add, Modify, Delete PCR Item Files*.
 - a Add the item record for 88-6000 Grey Colorant to your PCR.
 - b End Product = Yes.
 - c Comments = Yes. Add a comment to instruct “Being replaced by Black Colorant.”
 - d Exit the PCR and print the record, or review the Detail Inquiry and write down the Item Data information about 88-6000. You need it to create the new item 88-8000. Return to PCR Maintenance when you have the 88-6000 information.
- 4 Choose *Item File Maintenance*, then select *Direct Item Master Access*.

- a Add a new item 88-8000 BLACK COLORANT. Be sure to use the same Product Line, Unit of Measure, Status Code, and all other Item Data codes as 88-6000. Refer back to your copied record for accuracy.
- 5 Return and choose *Item File Maintenance*, then *Add, Modify, Delete PCR Files*.
 - a In the last step you added the item to the Item Master but not to the PCR. Add the new item record for 88-8000 Black Colorant to the PCR. End product = Yes, Comments = No.
- 6 Return and choose *Structure File Maintenance*. Then select *Copy Where Used into PCR*.
 - a Component Item = 88-6000
 - b Select each product structure by pressing Enter. An asterisk appears next to each parent item number. Press Go to save the records.
- 7 Select *Structure File Maintenance* and then *Replace Product Structure Component*.
 - a Component Item = 88-6000
 - b Replace with Item = 88-8000, Multiplier = 1.0 (a one-for-one replacement).
 - c Press End to Continue and *Please Confirm Update* = Yes.
- 8 Choose *Structure File Maintenance* and then *PCR/PCO Detail Maintenance - Product Structures*.
 - a Review the records created with this copy procedure. Arrow down to scroll through each record. You should see that the product structure records include the old item number 88-6000 with *Deactivate* = Yes and the new item number 88-8000 with *Deactivate* = No.
- 9 Save the record without adding any information to the trailer.
- 10 Review your PCR to be certain your changes were all included. Note the double records for product structure changes.

PCR/PCO Detail Inquiry 1.9.2.8



Product Change Requests Process



- ▲ PCR Maintenance
- ▲ Route PCR for Approval
- ▲ PCR/PCO Approval
- ▲ PCR Maintenance

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2008-PCC-PCR-070

Route PCR

- Similar to PCOs, the PCRs are selected for routing through the approval cycle.
- Used to place product change requests (PCRs) into the approval cycle

Route PCR for Approval

Number: 00000001 ID: Domain: Document Type: PCR
 Type: Dsgn Group: By: Unsubmt Only: ☒

Number	ID	Database	Title	By	Sub Date
00000001			New request for change	ssj	
PCR08000			New Colorant	mfg	

Route to Users for Approving PCR

Number	ID	Domain	Title	By	Sbm	Cmt
00000001			New request for change	ssj	☒	☐

Back Next

Route PCR for Approval (1.9.2.4)

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Route PCR for Approval (1.9.2.4)

- Based on the selection criteria in the first frame, a listing of PCRs appears in the second frame
 - Use the arrow keys to scroll through the list and press NEXT to select an entry
 - In the bottom frame change the submission status of the PCR and attach comments
- Once submitted, the PCR becomes visible to PCR/PCO Approval (1.9.6.1)
 - Its status changes to Submit in PCR/PCO Status Browse (1.9.11) and a submission date is attached

See in this training guide: Print PCR/PCO

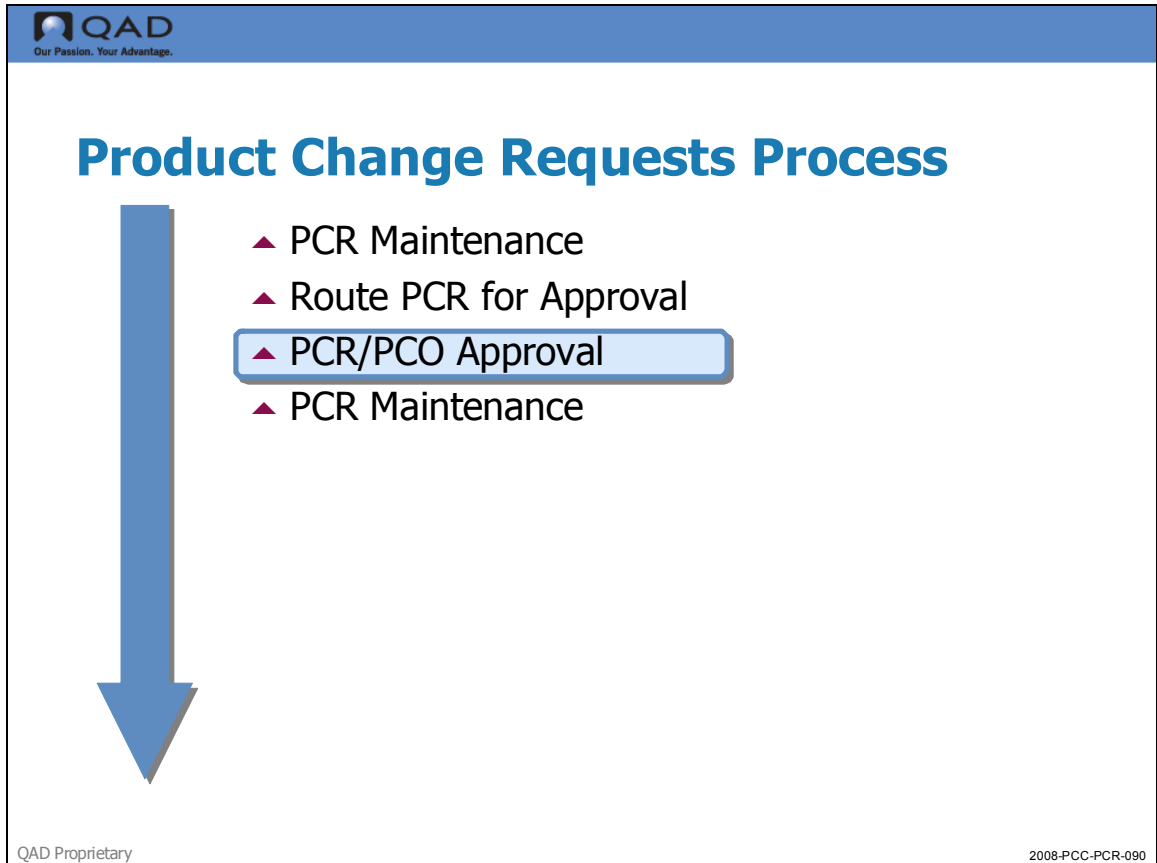
- Submitted PCRs can be unsubmitted by running Route PCR for Approval with the Unsubmit Only = No, and then changing Sbmmt from Yes to No
 - If anyone has approved the PCR, it will not display for update
 - The approval must be reversed in PCR/PCO Approval (1.9.6.1) before it can be unsubmitted

Exercise:

Route PCR for Approval

In this exercise, you route your PCR for approval.

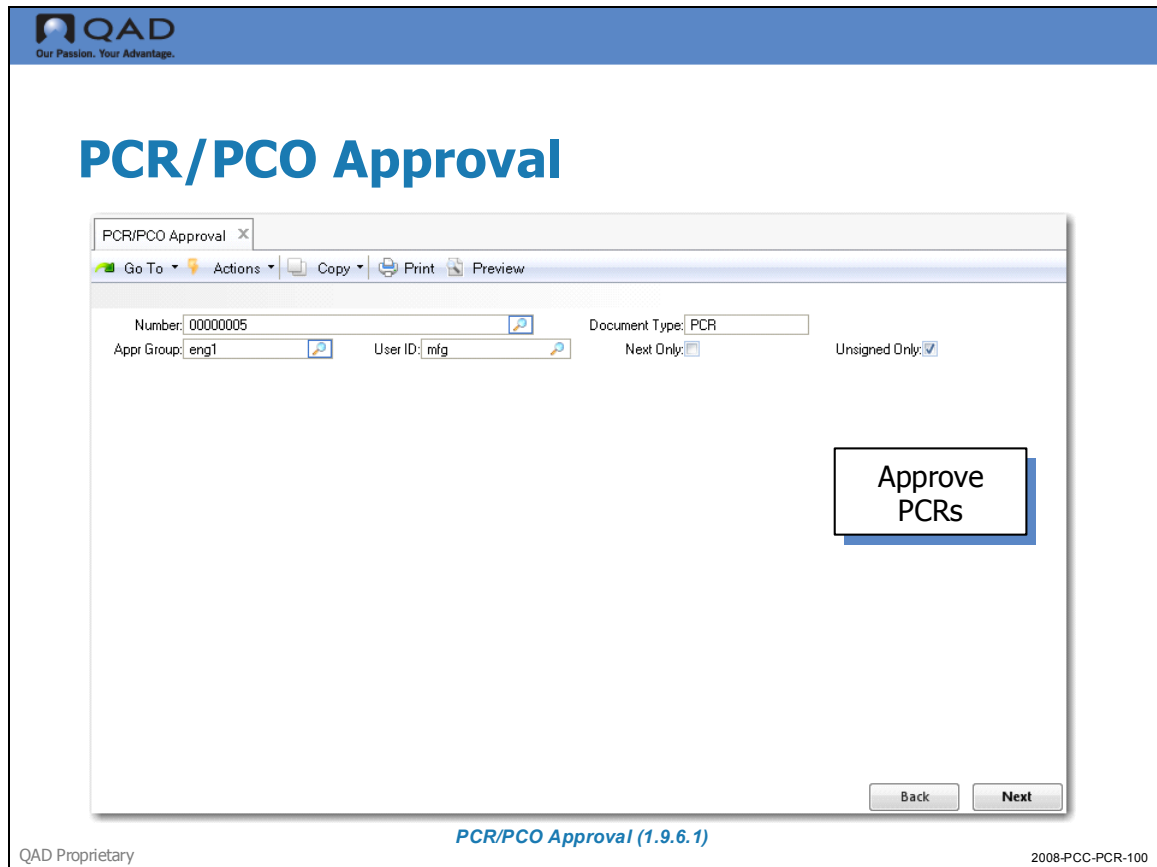
- 1 Allow QAD Enterprise Applications to automatically select the PCR available for submittal.
 - a *Doc Type* = PCR and *Unsubmt Only* = Yes. Press Go to continue.
 - b Press Enter to accept the PCR in the first frame. *Sbmt* = Yes in the second frame. Press Go.
Hint: Use Route PCR for Approval 1.9.2.4
- 2 Review your PCR to see the status change. The Status should be = *Submit*.
Hint: Use PCR/PCO Status Browse 1.9.11



Approve PCR

Similar to PCOs, PCRs are examined for approval, comments, rejection, or reapproval.

PCR Maintenance (1.9.2.1) is the same as PCO Maintenance (1.9.2.13) except for the Convert PCR to PCO and Close PCR to PCO functions, which are only options when you modify a PCR.



PCR/PCO Approval (1.9.6.1)

- Based on the selection criteria in the first frame, a listing of documents appears in the second frame
- If the Security = Yes in the PCC Control (1.9.24), you are prompted for a password before entering the second frame

See in this training guide: PCC Control

- Use the arrow keys to scroll through the documents in the second frame and press NEXT to select an entry
- In the bottom frame, approve or reject the selected change document and attach comments to the PCR

- If you reject the PCR and you belong to a group that can reroute rejected changes, you are prompted to enter a reroute level
 - If specified, all groups with a lower reroute number who previously approved the PCR have their approvals set = No
 - An asterisk appears in the last column in the second frame to give visibility to any PCR that was rejected and rerouted

See in this training guide: PCR/PCO Approval



Close PCR to PCO

- ▲ After approving the proposed changes in the PCR, convert the PCR to a PCO to follow PCO processing procedures.

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2008-PCC-PCR-115

Close PCR to PCO

Exercise:

Approve PCR

In this exercise, you approve your PCR.

- 1 Allow QAD Enterprise Applications to automatically select the PCR available for approval.
 - a *Doc Type = PCR, Appr Group = APPROVAL, and Unsigned Only = Yes. Press Go to continue.*
 - b *Press Enter to accept the PCR in the first frame. Sbmt = Yes in the second frame. Press Go. Hint: Use PCR/PCO Approval 1.9.6.1*
- 2 Review your PCR to see the status change. The Status should be = *Approved*.
Hint: Use PCR/PCO Status Browse 1.9.11



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Product Change Requests Process



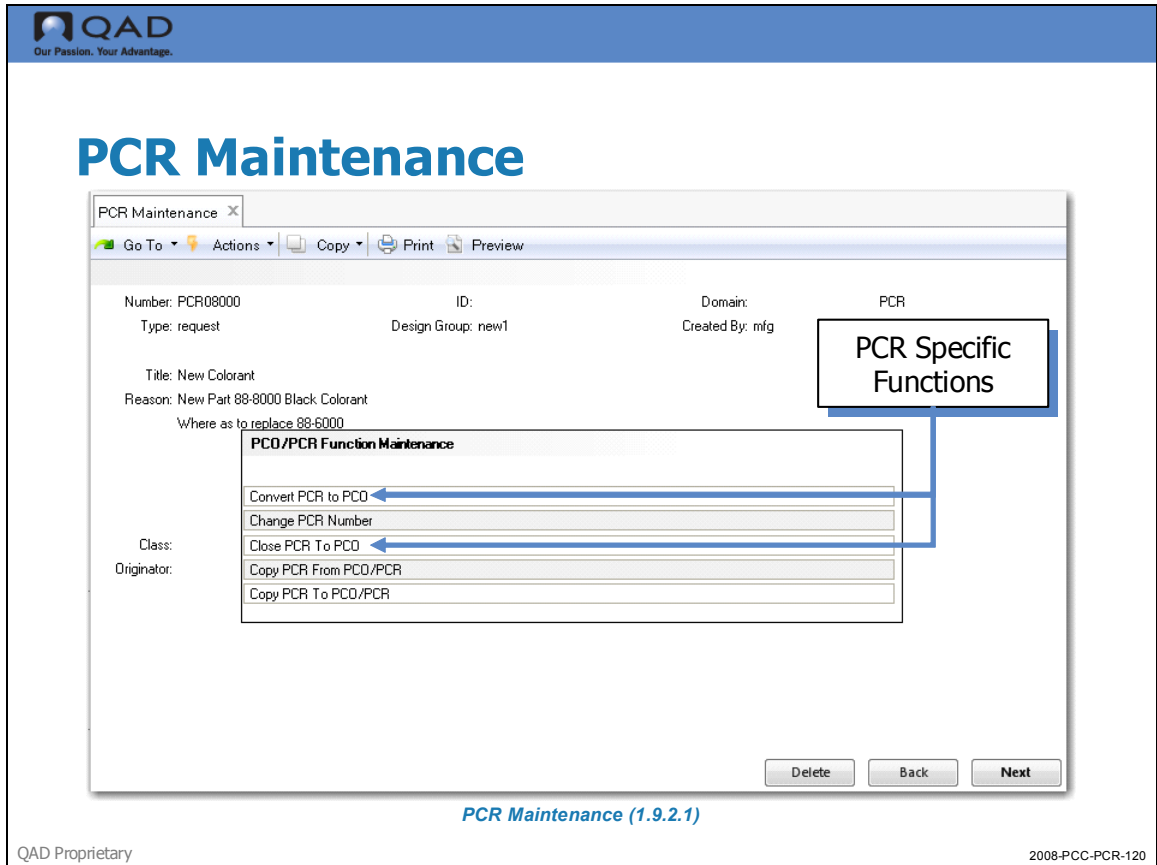
- ▲ PCR Maintenance
- ▲ Route PCR for Approval
- ▲ PCR/PCO Approval
- ▲ PCR Maintenance

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2008-PCC-PCR-110

PCR Maintenance

- PCR Maintenance (1.9.2.1) is the same as PCO Maintenance (1.9.2.13) except for the Convert PCR to PCO and Close PCR to PCO functions, which are only options when you modify a PCR



PCR Maintenance (1.9.2.1)

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PCR Maintenance

PCR Maintenance x

Go To Actions Copy Print Preview

ecmt02.p Close PCR To PCO

Number: PCR08000 ID: Domain: PCR
Title: New Colorant

From: PCR08000 ID: Domain: PCR
To: PCO01050 ID: Domain: PCO

Text Data: ☒
Item Data: ☒
Structure/Formula Data: ☒
Routing/Process Data: ☒
Item Specification Data: ☒

**PCO must exist prior to
Close PCR to PCO**

Back Next

PCR Maintenance (1.9.2.1)

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PCO/PCR Function Maintenance

Close PCR to PCO

- Used to merge details from PCR to an existing PCO
- PCO must exist first before using this function; it cannot create a new PCO

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PCR Maintenance

PCR Maintenance x

Go To Actions Copy Print Preview

ecmt02.p Convert PCR to PCO

Number: PCR08000 ID: Domain: PCR
Title: New Colorant

From: PCR08000 ID: Domain: PCR
To: PCR08000 ID: Domain: PCO

Text Data: ☒
Item Data: ☒
Structure/Formula Data: ☒
Routing/Process Data: ☒
Item Specification Data: ☐

Begin process
Yes No

Convert keeps Numbering
Changes Type

Back Next

PCR Maintenance (1.9.2.1)

QAD Proprietary 2008-PCC-PCR-140

Convert PCR to PCO

Changes document types from PCR to PCO, but does not change the number, when you provide the new PCO type and design group

Exercise:

Close PCR to PCO

In this exercise, you close the PCR to a new PCO. You create the PCO and then use Close PCR to PCO.

- 1 Your company requires a new PCO that will only contain the contents of this PCR.
 - a Create a new PCO. Allow QAD Enterprise Applications to automatically assign the next number. Type = PCO, Design Group = DESIGN.

Hint: Use PCO Maintenance 1.9.2.13

- b Write down the PCO number assigned for later reference: _____
 - c Finish the header of the new PCO and exit without adding any changes or trailer information.

Title	New Colorant Applied
Reason	PCR Changes Approved Production Order for Black Colorant

- 2 Return to PCR Maintenance, select your Black Colorant PCR, and press Go until you move past the header.

Hint: Use PCR Maintenance 1.9.2.1

- 3 Select *PCO/PCR Function Maintenance*. Then choose *Close PCR to PCO*.
 - a Assign the PCO number you recorded in the previous step. Verify that the To: document is a PCO document type.
 - b Affirm copying the PCR data to the PCO. Ignore the message *Warning: Target Exists; Duplicated Records Will Not Copy*. Assign *Continue?* = Yes.
 - c Further Detail changes to the PCR are not allowed. At this point you can modify the trailer of your PCR. For the purposes of these exercises, there are no trailer modifications.
- 4 Review your PCR and PCO Status. The old PCR should show *Status* = Closed. The new PCO should show *Status* = blank. The PCO is now ready for routing.

Hint: Use PCR/PCO Status Browse 1.9.11



Product Change Requests Process Summary



- ▲ PCR Maintenance
- ▲ Route PCR for Approval
- ▲ PCR/PCO Approval
- ▲ PCR Maintenance

CHAPTER 6

Business Issues and a Case Study

Business Issues

Examine your company against the business issues discussed in the Pre-Setup Business Issues chapter of the Product Change Control training module.

Consider the following:

- 1 What are the business requirements for PCC?
- 2 Additional information you may need to gather in order to successfully set up Product Change Control for your company.
- 3 Define what the change control environment is at your company.
- 4 What functions approve changes?
- 5 Do people approve manufacturing inspection?
- 6 Are component drawings and assembly drawings and procedures approved by the same or different functions?
- 7 Do you need multiple revisions to be active at the same time?
- 8 Do you support services as well as manufacturing environments?
- 9 What are the criteria by which you determine if an item document is changed to a new revision or issued a new part number?
- 10 Are there cost change or downward compatibility issues?
- 11 Is your proposal to change an authorization one step (PCO only) or two steps (PCRs and PCOs)?

The purpose of this exercise is to help you focus on what is important for your company about Product Change Control.

Case Study

Magic Box Failure and Fix Activity

The subject of this activity is a product known as the Magic Box. The part number is 12-100.

You work for a company that manufactures, sells, and services capital equipment. The products are electro/mechanical devices that are large enough to require on-site service and repair.

Shortly after releasing the new model of the product, disaster struck. Field units began to fail. The service calls came pouring in. In spite of the best efforts of your Service Engineers, the failures, electrical in nature, kept occurring. The failures only occur when the machines are running above 80% of their maximum rate.

Following an exhaustive and heroic effort of the combined engineering groups, a solution was found. The bad news is that the mother board, part number 12-102, must be replaced with a newly designed PCB assembly, part number 12-112.

Here are the facts as we know them today:

- 1 The fabricator for the new PCB can begin delivering part number 12-112 at a rate of 100 per week from their prototype line until the production line tooling is available. The first delivery of 100 mother boards will arrive one week from this coming Monday and will continue at 100 per week for three additional deliveries. After that, the production tooling will meet all of our production needs.
- 2 There are currently 224 Magic Boxes in the field. The Marketing Vice President has directed that units in the field be upgraded prior to building new systems or retro-fitting Finished Goods Inventory (FGI). The Field Engineers will require a new Service Procedure containing the new systems test routine.
- 3 The reworking of FGI requires a unique set of instructions contained in a newly written, but yet to be released document. Its release is critical to the availability of the 330 Magic Boxes that are currently held by Quality Control with a quarantine status.
- 4 All Work in Process (WIP) and future orders will be built using the revised assembly procedure containing the additional systems test routine as well as the changes associated with the new mother board.

Your task is to write the change order(s) that will govern the activities and document release or revisions that remedy the current crisis. Be sure that the information you include in your documentation is sufficient to provide Purchasing, Production, Planning, Quality Control, and Field Service all of the instruction that is required to accomplish their tasks with only one possible interpretation.

CHAPTER 7

Reports, Inquiries, Browsers

Product Change Control

Menu	Menu Name	Function/Purpose
1.9.1.2	Group Browse	Displays all groups and their users. Information shown includes group, description, user ID, user name, user expire date, copies, and output.
1.9.1.6	Routing Slip Browse	Displays all routing slips. Information shown includes routing slip, description, severity list, modified date, and modified by ID.
1.9.1.10	PCR/PCO Type Browse/Inquiry	Displays all PCC types. Information shown includes type, document type, description, routing slip, design group, and distribution.
1.9.2.2	PCR Browse	Displays only PCR data. Information shown includes PCR number, ID, database, title, type, design group, routing slip, approved date, and closed date.
1.9.2.8	PCR/PCO Detail Inquiry	Displays PCO details for a specific PCO. Information shown includes header and status information for each PCO; then approval group detail, item master detail, PCO BOM detail in indented format, routing, process, and formula information, and item specification data as applicable to the PCO; all text comments; and all trailer information.
1.9.2.14	PCO Browse	Displays all ECOs/PCOs/PCRs. Information shown includes PCO number, ID, database, title, type, design group, routing slip, approved date, released date, and closed date.
1.9.6.2	Approval Browse	Displays PCO approval. Information shown includes PCO number, ID, database, document type, routed date, sequence, group, date approved, routing slip, approved, approver ID, and location/version.
1.9.7.3	Incorporation Planning Report	Prints for an Incorporated PCO and associated site, cost effects by either Current or GL Costing. Information shown includes parent item number, component item number(s), indication of selected components on the PCO, original quantity required, final quantity required, quantity on hand, quantity on order, projected usage, balance, value, PCO number, ID, database, site, start effective date, and costing method.
1.9.9.1	Print PCR/PCO	Prints all PCO/PCR information for any individual or range of PCOs or PCRs, as well as by status. Information shown includes header and status information for each PCO/PCR, then approval group detail; item master detail; PCO/PCR BOM detail in indented format; routing, process, and formula information; item specification data, and all text comments, as applicable to the PCO/PCR. The bill of materials section prints only the PCO or PCR bill and includes the current Qty Per from the product structure or formula record and the PCO Qty Per. The UM, PH and ISS fields show data from the live database; Qty Type and Structure Type display data from the PCO database. If a component has been deactivated on the bill, DEACTIVATED prints in the PCO Qty Per column.
1.9.9.3	Affected Structures/ Formulas Inq	Displays the structure/formula component information for the parent item and PCO number requested. Information shown includes item level, component item, item description, item UM, original item quantity, and PCC item quantity per.

Menu	Menu Name	Function/Purpose
1.9.9.4	Structure/ Formula Impact Report	Prints structure/formula effects of PCC, with a summarized bill of materials. Information shown includes PCO number, ID, database, type, design group, created by, creation date, title, reason, class, originator, user code (1) and (2), parent item, component item(s), indicator for selected components of structure/formula, item description, original quantity required, net change previously released PCO, net change this PCO, and final quantity required.
1.9.9.6	Item Revision History Browse/Inquiry	Displays historical item revisions. Information shown includes item number, PCO number, ID, database, title, status, new revision number, and start effective date.
1.9.11	PCR/PCO Status Browse	Displays all ECOs/PCOs/PCRs. Information shown includes number, ID, database, title, status, approved date, and submitted date.
13.13.2	ECO Inquiry/ Browse	Displays all ECOs/PCOs in the database. Information shown includes PCO number, creation date, created by, item number, item description, old rev, new rev, start and end effective dates.
13.13.3	ECO by ECO Number Report	Prints all ECOs/PCOs in the database, in PCO number order. Information shown includes PCO number, PCO description, created by, PCO creation date, item number, item description, item UM, item rev, old/new revision, start/end effective dates
13.13.4	ECO by Item Report	Prints ECOs/PCOs in the database, in item number order. Information shown includes item number, revision, item description, PCO number, PCO creation date, created by, start/end effective dates, old/new revision, and comments
36.2.18	Reason Codes Browse/Inquiry	Displays reason codes. Information shown includes reason type, reason code, and description.
36.3.19	User Browse/ Inquiry	Displays user IDs. Information shown includes user ID, user name, language, groups, and e-mail address.

