



QAD Enterprise Applications  
Enterprise Edition

# Training Guide QAD Product Change Control

70-3242-2017EE  
QAD 2017 Enterprise Edition  
Workspace: 10USA > 10USACO  
April 2017

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ProductChangeControl\_TG\_v2017 EE/mdf

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# QAD Product Change Control Change Summary

The following table summarizes significant differences between this document and the last published version.

<b>Date/Version</b>	<b>Description</b>	<b>Reference</b>
April 2017/v2017 EE	Rebranded for QAD 2017 EE	--
April 2016/v2016 EE	Rebranded for QAD 2016 EE, added link in Preface	--
April 2015/v2015 EE	Rebranded for QAD 2015 EE	--
March 2014/v2014 EE	Rebranded for QAD 2014 EE	--
September 2013/v2013.1 EE	Rebranded for QAD 2013.1 EE	--
March 2013/v2013 EE	Rebranded for QAD 2013 EE	--
September 2012/v2012.1 EE	Rebranded for QAD 2012.1 EE	--
June 2012/v2012 EE	Rebranded for QAD 2012 EE; minor text corrections throughout	--



# **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 Edition (EE). The course includes hands-on 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

- 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.

### Virtual Environment Information

The hands-on exercises in this book should be used with the latest Enterprise Edition learning environment in the 10USA > 10USACO workspace. When prompted to log in, specify *demo* for user ID and *qad* for password.

## Additional Resources

If you encounter questions on QAD software that are not addressed in this book, several resources are available. The QAD corporate Web site provides product and company overviews. From the main site, you can access the QAD Learning or Support site and the QAD Document Library. Access to some portions of these sites depends on having a registered account.

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

## QAD Learning Center

To view available training courses, locations, and materials, use the QAD Learning Center. Choose Education under the Services tab to access this resource. In the Learning Center, you can reserve a learning environment if you want to perform self-study and follow a training guide on your own.

## QAD Document Library

To access release notes, user guides, training guides, and installation and conversion guides by product and release, visit the QAD Document Library. Choose Document Library under the Support tab. In the QAD Document Library, you can view HTML pages online, print specific pages, or download a PDF of an entire book.

For more information, see [QAD Master Data User Guide](#).

To find a resource, you can use the navigation tree on the left or use a powerful cross-document search, which finds all documents with your search terms and lets you refine the search by book type, product suite or module, and date published.

## QAD Support

Support also offers an array of tools depending on your company's maintenance agreement with QAD. These include the Knowledgebase and QAD Forums, where you can post questions and search for topics of interest. To access these, choose Visit Online Support Center under the Support tab.

## 4 Training Guide — Product Change Control

Chapter 1

# **Introduction to Product Change Control**

## Course Overview

### Course Overview

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



2008-PCC-III-030

### Learning Objectives

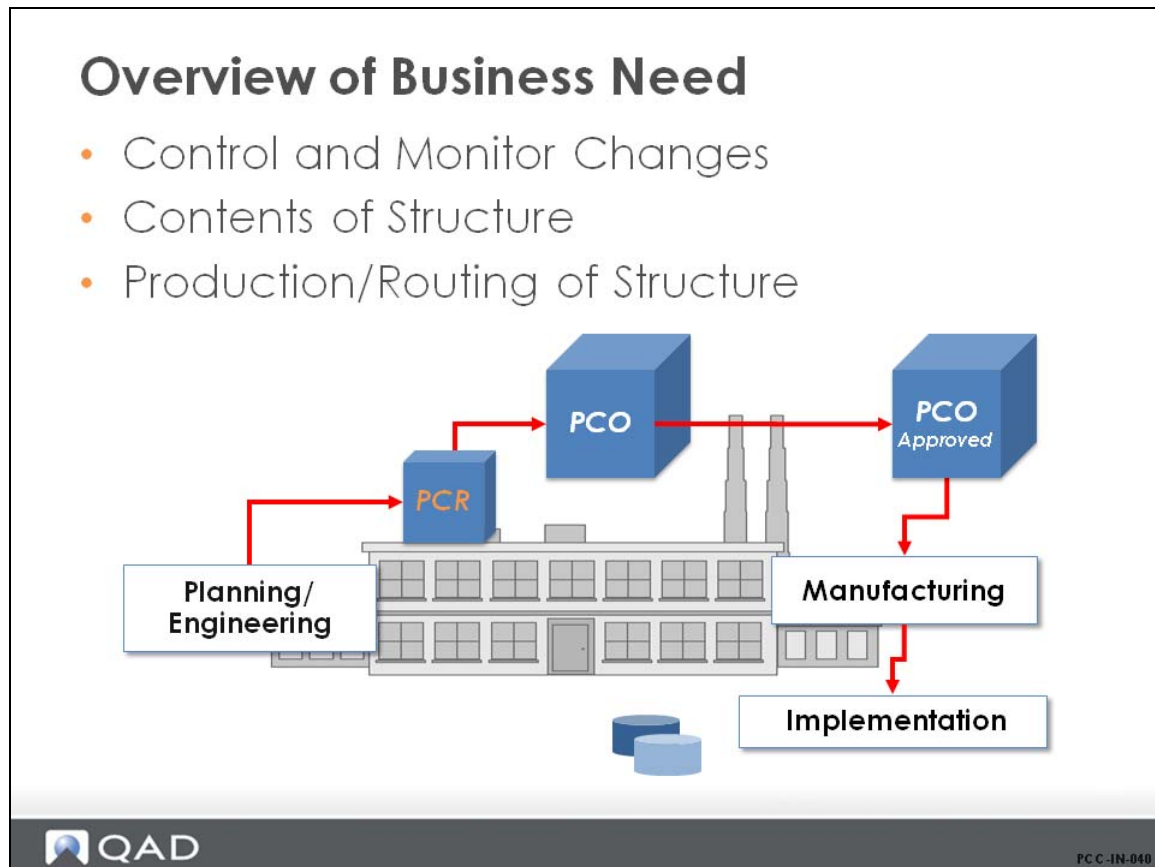
- Identify key business issues that affect the setup tasks
  - What these business issues are
  - How they might affect setup
  - Why should these issues be considered prior to setup
- Specific implementation setup procedures for Product Change Control
  - Identify required versus optional setup procedures
- 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 Edition
- Setup implications of these issues

## Overview of Business Needs



The Product Change Control module of QAD EE 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 EE 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 EE

### Requests for Changes

Need to ensure:

- Accurate notification
- Security measures to establish authorization levels
- Established methods for timely communication between involved parties

### Planned Changes

Need 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

## Terminology

### Product Change Terminology

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



PCC-III-120

*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.

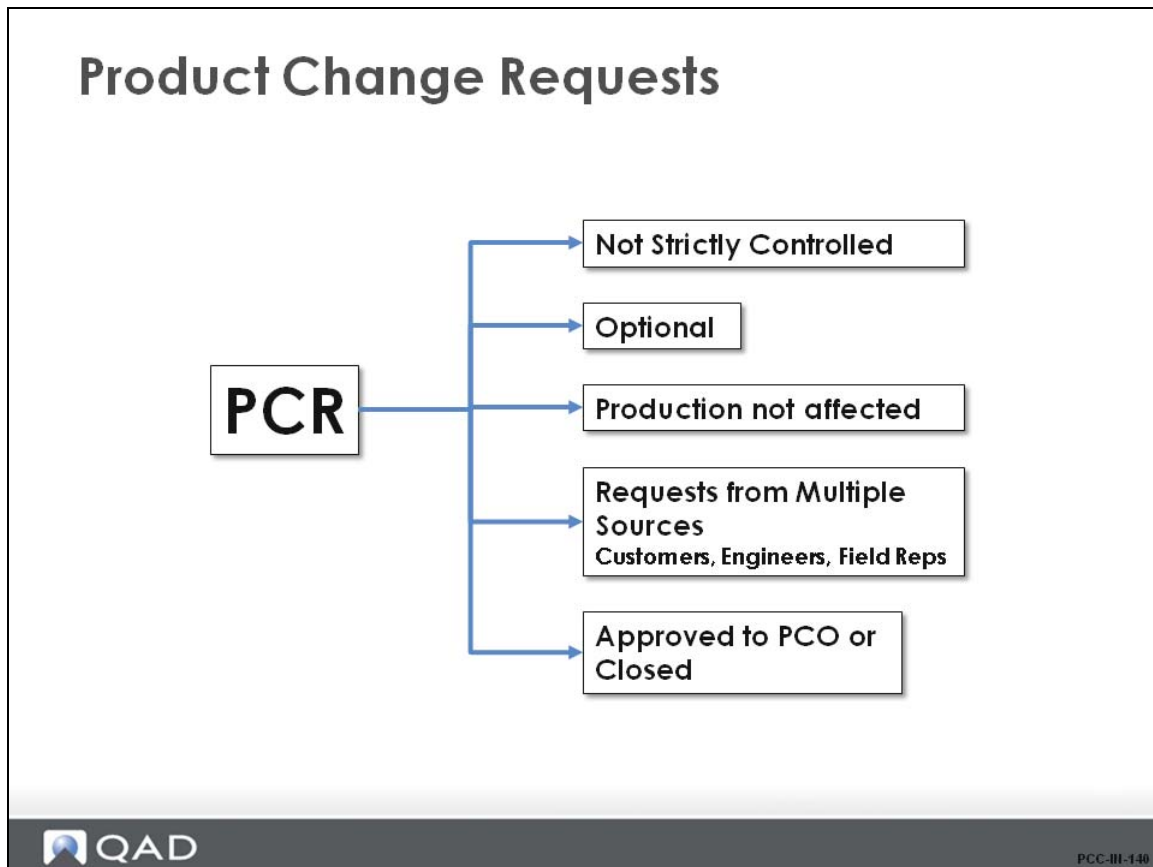
*Product Change Order (PCO).* A change document that details changes to a production process and is moved through a defined approval sequence before updating production tables.

*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.

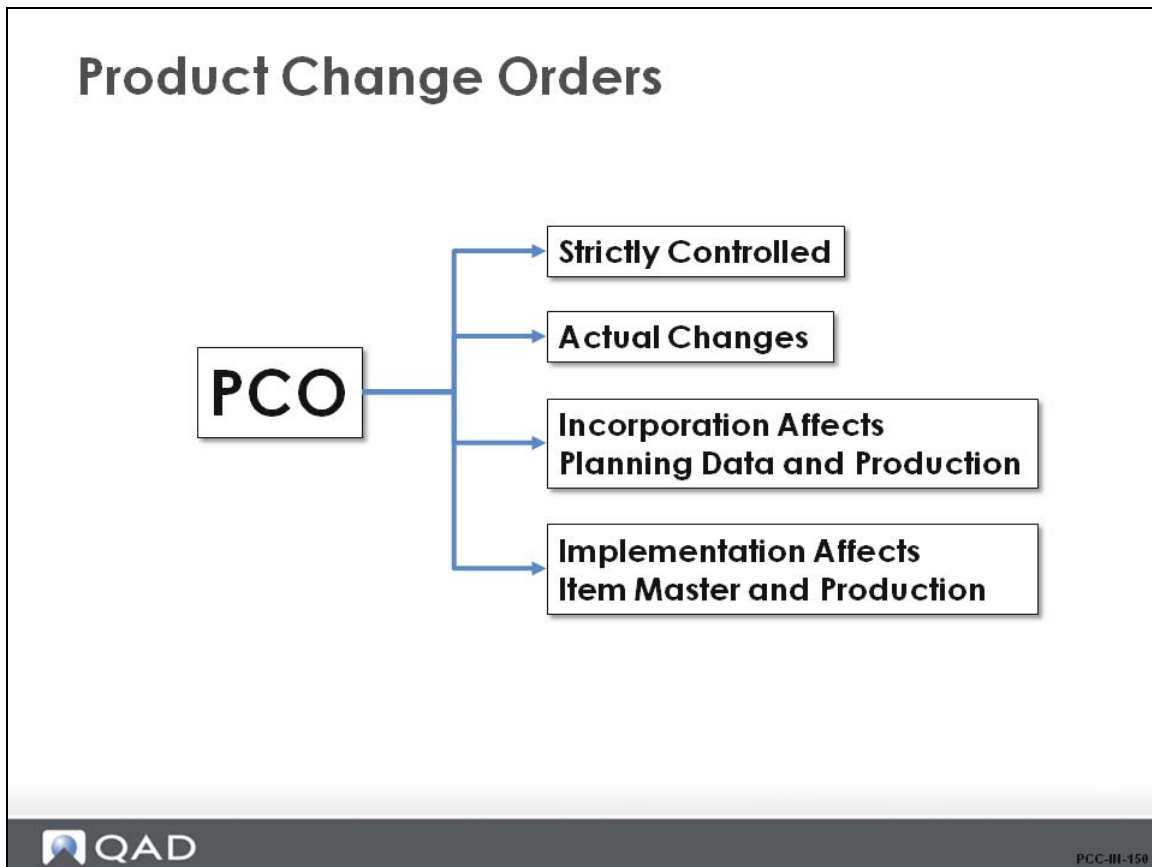
*Disposition.* Validated against predefined values entered in Generalized Codes Maintenance, if any. The disposition of the PCO or PCR. This field is user-defined.

## Product Change Requests (Optional)



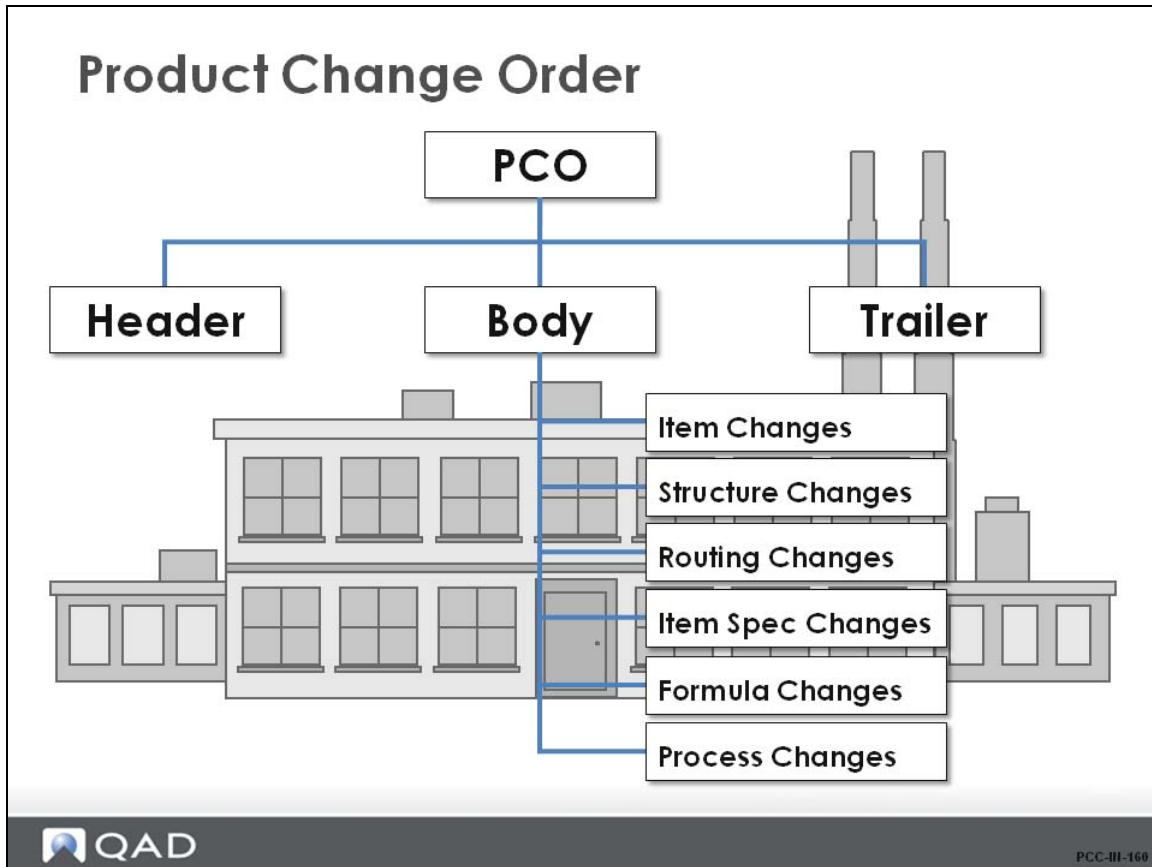
- Can be used in the same way that sales quotes precede sales orders
- Planning data and production not affected
- Optional
- Requests come from many sources
  - Customers
  - Field Reps
  - Engineers
- PCRs are not strictly controlled
- Can be approved to a PCO or rejected/unapproved and closed
- More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

## Product Change Orders



- Required in PCC
- Very strictly controlled
- Affect Planning Data when Incorporated
- Affect 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)

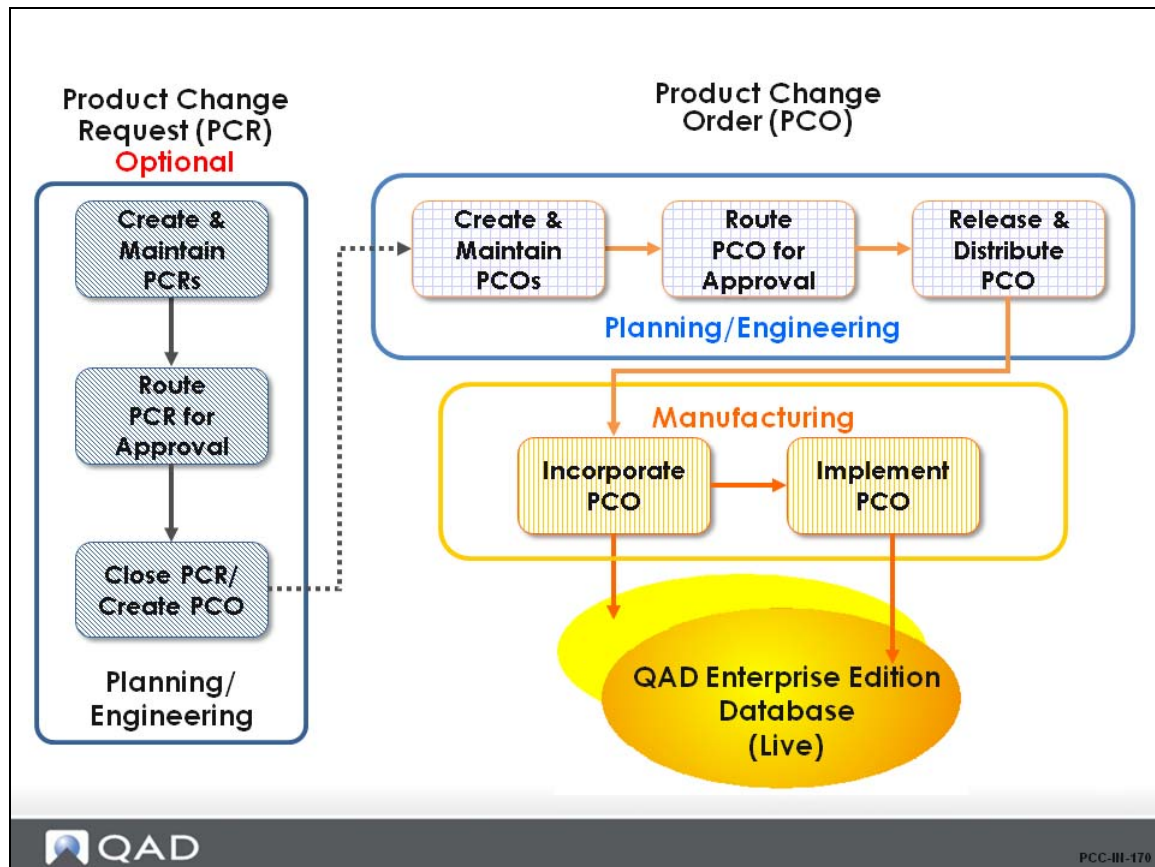
### Trailer

- Close or reopen a PCO

Displays information for the release process:

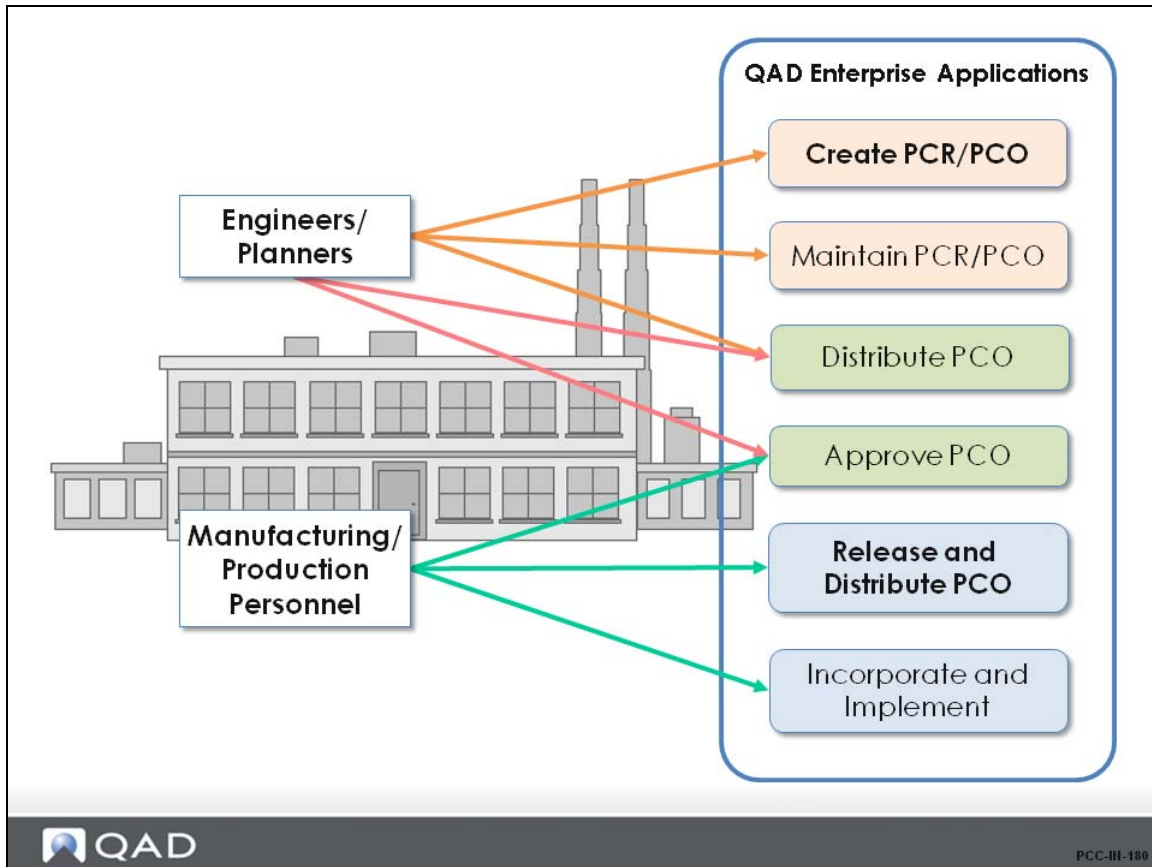
- Routing slip
- Distribution group
- Date submitted
- Date approved

## 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

## 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 Overview

### Business Considerations

- Control/Manage Changes
- Approval Methods
- Inventory Management
- Approvals
- Change Notifications
- Broad Contact Inclusion
- Import/Export PCR/PCOs
- Product Data Management (PDM)Topic



2008-PCC-BU-020

Several business issues need to be considered before setting up QAD EE. This section does not discuss all potential issues, but presents some issues to generate thought and discussion.

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

## Control/Manage Changes

### Control/Manage Changes

- Definition
  - 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 is critical.
- Why Consider?
  - Can effect budgets and standard costs
  - Inventory issues
- Functionality in QAD Enterprise Edition
  - 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



PCC-BU-030

## Approval Methods

### Approval Methods

- Definition
  - Who can approve a change and what types of conditional approval or rejection and rerouting are allowed
- Why Consider?
  - Can effect implementation time
- Functionality in QAD Enterprise Edition
  - 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



PCC-BU-040

## Inventory Management

### Inventory Management

- Definition
  - Controlling obsolete and new items, product structures, and change implementation timing effects 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 Edition
  - Mandatory implementation dates
  - Cost Impact Report
- Setup Implications
  - Accurate effectivity dates



PCC-BU-050

## Approvals

### Approvals

- Definition
  - Assigning approval to proposed changes and allowing changes to enter QAD Enterprise Edition planning data and production data
- Why Consider?
  - Strict control of who can approve changes
- Functionality in QAD Enterprise Edition
  - 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



PCC-BU-060

## Change Notifications

### Change Notifications

- Definition
  - 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 Edition
  - Distribution Notification can be sent to non QAD Enterprise Edition users
    - Distributors, Field Reps, Resellers, Consultants
- Setup Implications
  - E-mail and groups setup



PCC-BU-070

## Broad Contact Inclusion

### Broad Contact Inclusion

- Definition
  - 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 Edition
  - Distribution outside QAD Enterprise Edition users
- Setup Implications
  - E-mail and groups setup



PCC-BU-060

## Import/Export PCR/PCOs

### Import/Export PCR/PCOs

- Definition
  - 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 Edition
  - ASCII file is easy to import into other programs
  - Archival data remains accessible



PCC-BU-090

## Product Data Management (PDM)

### Product Data Management (PDM)

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



PCC-BU-100

### 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.
- 2 Additional information needed to successfully implement Product Change Control for this company.

Do not look ahead in this training guide or at the QAD EE 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**

## PCC Set Up Overview

### Set Up Product Change Control

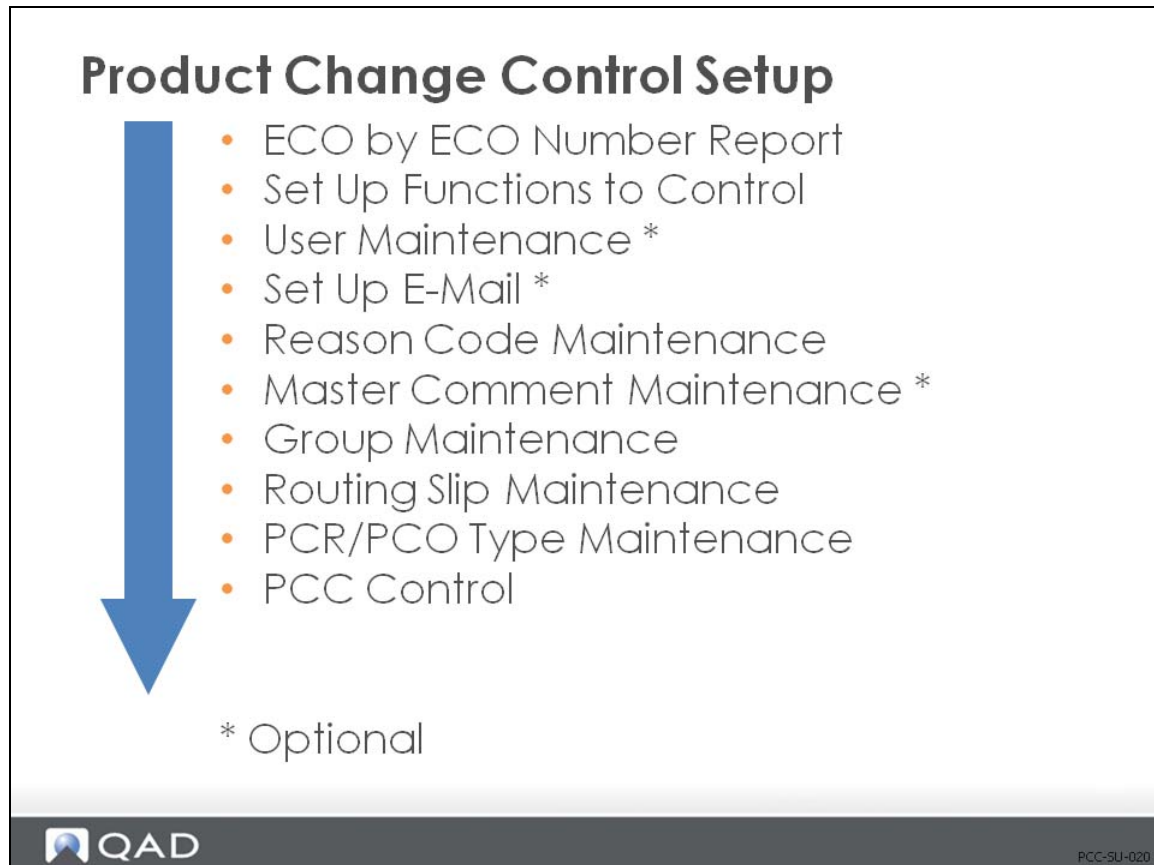
In this section you learn how to:

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



PCC-SU-010

## Product Change Control Setup



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

The setup procedures for PCC assume general implementation of QAD EE 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
Set Up E-Mail	IT
Set Up Severity Codes	IT and Management
Set Up 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

## Prepare to Use PCC

### 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



2008-PCC-SU-030

- 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 EE 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.

## ECO by ECO Number Report (13.13.3)

## ECO by ECO Number Report

ECO by ECO Number Report X

Go To Actions Copy Print Preview Attach

ECO Number:  To:

Item Number:  To:

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

New **ECO by ECO Number Report**  
10USA

Number: \*000000\* Description:  
Created By: QAD  
Date: 05/17/10

Item Number	Description	UM	Rev	Old	New	Upd	Start	End
01010	Medical Ultrasound	EA	D		D	Yes	05/17/10	
01020	Implantable Ultrasound	EA	A		A	Yes	05/17/10	
01030	Consumer Ultrasound	EA	A		A	Yes	05/17/10	
01040	Industrial Ultrasound	EA	CC		CC	Yes	05/17/10	
02002	Electrical Connector	EA	3		3	Yes	05/17/10	
02200	Motor Asm 8 Way Seat Adj 24V amp 2 hp	EA	2		2	Yes	05/17/10	
50001	Probe Unit - 10 Mhz	EA	AA		AA	Yes	05/17/10	
50002	Probe Unit - 500 kHz	EA	B		B	Yes	05/17/10	
52200	Motor Mounting Plate Asm 8 Way	EA	2		2	Yes	05/17/10	
52201	Motor Mtg Plate 8 Way	EA	2		2	Yes	05/17/10	
62201	24V Amp 2HP, 1/2 Dia	EA	3		3	Yes	05/17/10	
62202	Pem Nut #6 .0125	EA	3		3	Yes	05/17/10	
62203	Stud Press Fit #6 1/4"	EA	3		3	Yes	05/17/10	


End of Report

**QAD** PCC-SU-060

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


## Record ECO Data

### 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

PCC-SU-050

- Enabling PCC is irreversible

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

## Set Up PCC Functions

### Set Up PCC Functions to Control

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



2008-PCC-SU-070

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

### Exercise: Preliminary Setup

- 1 Verify Workspace: From the workspace menu select 10USACO.

**Note** The workspace name appears in the top window frame.

### Exercise: 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.

Verify the company address for QMI USA Division, enter 10-100, Business Relation 10-USA-CO.

### Exercise: Print Existing ECOs

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

- 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.

## Set Up Functions to Control

### Product Change Control Setup



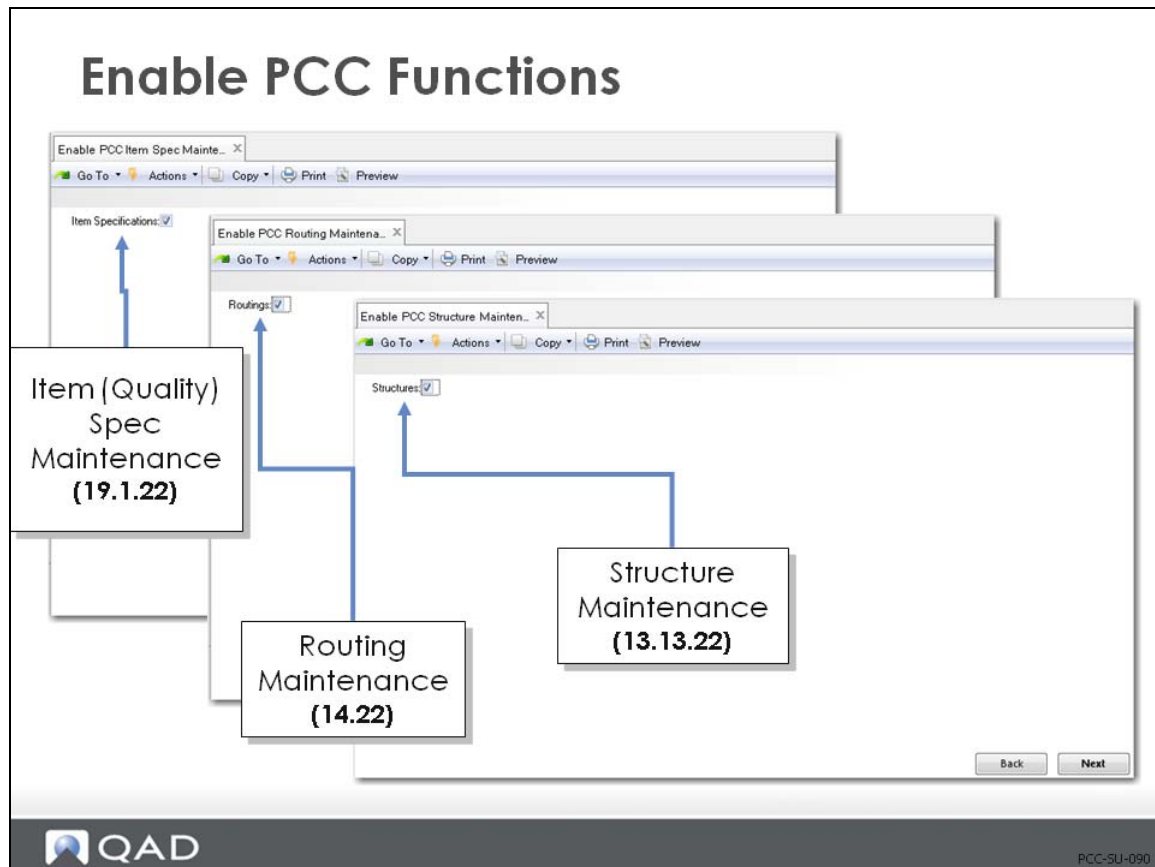
- ECO by ECO Number Report
- **Set Up Functions to Control**
- User Maintenance \*
- Set Up E-Mail \*
- Reason Code Maintenance
- Master Comment Maintenance \*
- Group Maintenance
- Routing Slip Maintenance
- PCR/PCO Type Maintenance
- PCC Control

\* Optional



PCC-SU-080

## Enable PCC Functions



We are covering three processes:

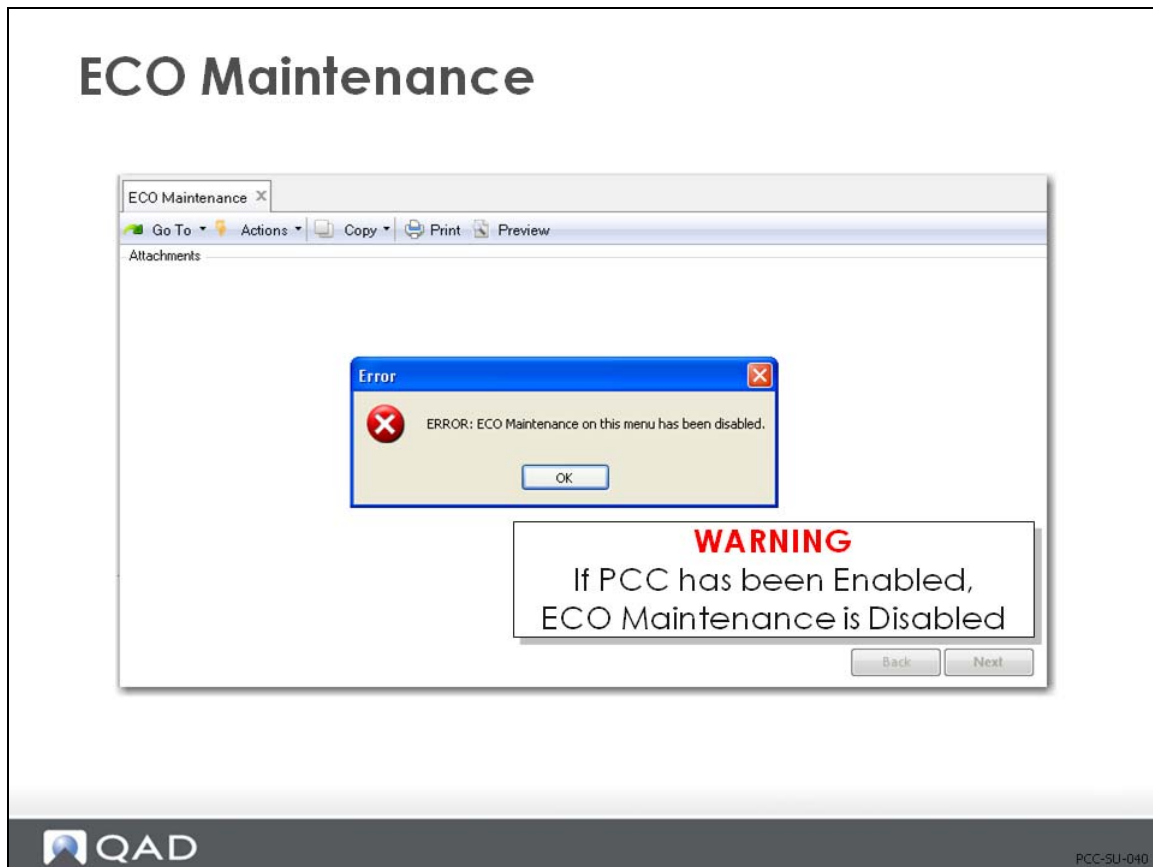
- 1 Structure Maintenance
- 2 Routing Maintenance
- 3 Item Spec Maintenance

Each process is activated separately.

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

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.

### Exercise: 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.

### Exercise: Set Up a Cost Center

- 1 Use Cost Center Code Maintenance (25.3.20.1) to set up a Cost Center for a prototype Medical Ultrasound in the General Ledger.

Field	Data
Cost Center	Pro
Description	Prototype
Active	Yes

### Exercise: Set Up Workspace/Account Control

- 1 Use Domain/Account Control (36.9.24); Uncheck Verify GL Accounts.

### Exercise: Set Up Product Line Information

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

Field	Data
Product Line	11
Description	Prototype
Taxable	No
Tax Class	<blank>
Default Cost Center	Pro

### Inventory Accounts

- 2 Click Next through all accounts, accept all defaults.

## Exercise: 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.
- 5 Use Item Status Code Maintenance (1.1.5) to add another status code to the following restricted transactions for item status code Proto:

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

## Exercise: Set Up Site Data

- 1 Use Site Maintenance (1.1.13) to enter (Verify) site information for the Ultrasound Mfg Site.

Field	Data
Site	10-100
Description	Ultrasound Mfg Site
Domain	10USA
Entity	10USACO
Default Inventory Status	Y-Y-N
Automatic Locations	No
EMT Supplier	<blank>
External Supplier	No
Transfer Variance Account	6820

### Exercise: Set Up Location Data

- 1 Use Location Maintenance (1.1.18) to set up (verify) stock locations at site 10-100.

Field	Data
Site	10-100
Location	020
Description	Components

- 2 Set up a location for finished goods inventory at site 10-100.

Field	Data
Site	10-100
Location	010
Description	Finished Goods Inventory

## Create User IDs

### Create User IDs

- Define Users Who
  - Create PCRs/PCOs
  - Authorize PCRs/PCOs
  - Receive PCRs/PCOs Notification



2008-PCC-SU-100

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

## User Maintenance (36.3.1)

# 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



2008-PCC-SU-120

- 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.


## User Maintenance

### 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 PCC-SU-110

- Add new users
- Make changes to existing users

## E-Mail Definition Maintenance (36.4.20)

**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:

Set up each available E-Mail program

Delete Back Next


QAD PCC-SU-140

- 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
  - pccmail01.p sends “HAS BEEN SUBMITTED FOR APPROVAL” (3757)
  - pccmail02.p sends “IS READY FOR YOUR APPROVAL” (3758)
  - pccmail03.p sends “HAS BEEN APPROVED” (3759)
  - pccmail04.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.


## Set Up E-Mail

### 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


PCC-SU-130

- 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 Maintenance to assign e-mail addresses.

## User Maintenance (36.3.1)

### 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: PRI

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:

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

Delete    Back    Next


PCC-SU-150

- Return to the User Maintenance screens to assign e-mail addresses
- Full addresses are required, including the workspace 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 (36.2.17)

**Reason Codes Maintenance**

Reason Type: ELEC  
Reason Code: REJECT

Description:

Reason Codes to Identify Severity of Rejection


Delete Back Next

QAD PCC-SU-170

- 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


## Reason Codes Maintenance

### 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

 QAD PCC-SU-160

### 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.

## Exercise: Set Up User IDs

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

There are many fields required for the user ID security setup. For this exercise most of the required fields will have the same value. These are the common values:

Field	Data
Language	US
Country	USA
Access Location	Primary
Enabled Reason	OAD_DEF
Password	<blank>
Authorize user for all licensed products	Yes (Click Next, then Back)
Is all information correct	Yes

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 Accountant	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 EE. Continue with the User ID exercise.

## 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

Value	Comments
7	Prototype Rev
8	Prototype Rev
A	Production Release
B	Production Release
C	Production Release
D	Production Release
E	Production Release
F	Production Release
G	Production Release
H	Production Release

*Use copy paste for comments.*

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 through FGI
FUP	Requires field upgrade


### Exercise: Set Up Reason Code Severity Levels

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

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


## Master Comment Maintenance

### Product Change Control Setup



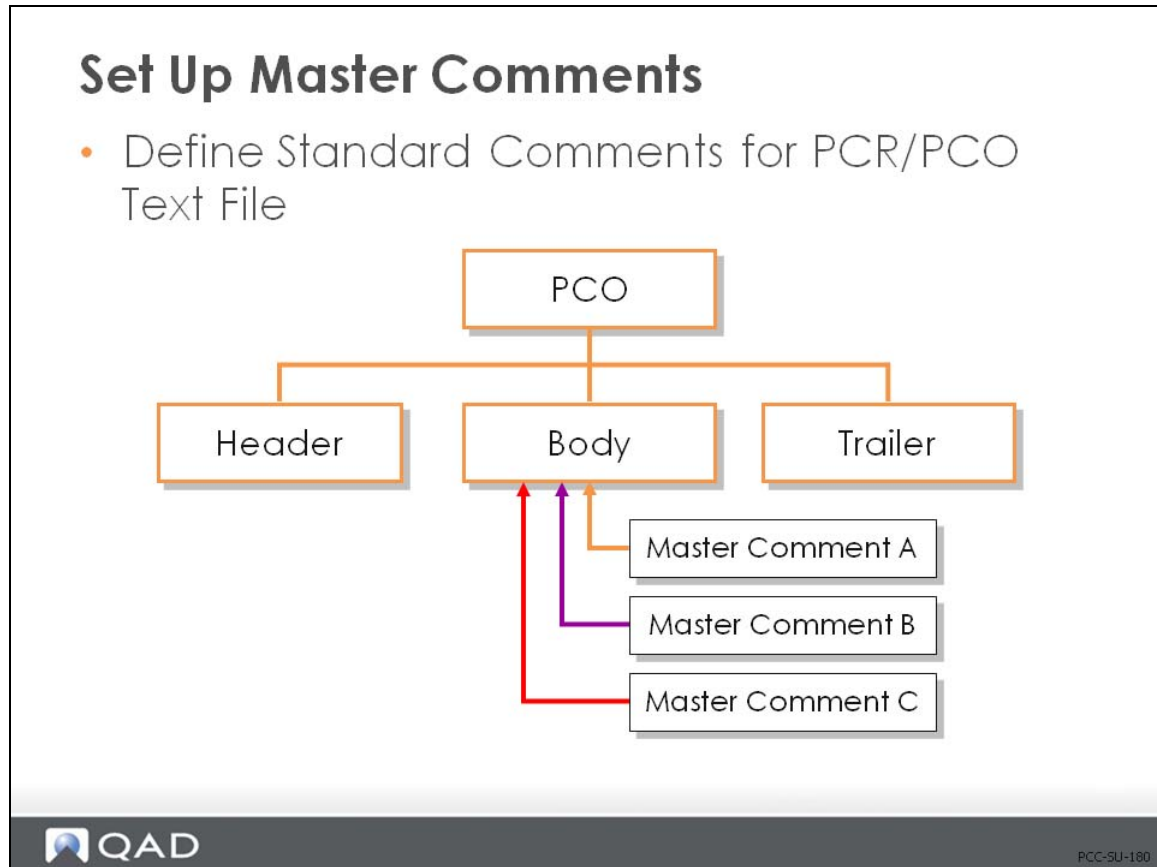
- ECO by ECO Number Report
- Set Up Functions to Control
- User Maintenance \*
- Set Up E-Mail \*
- Reason Code Maintenance
- **Master Comment Maintenance \***
- Group Maintenance
- Routing Slip Maintenance
- PCR/PCO Type Maintenance
- PCC Control File

\* Optional

PCC-SU-190

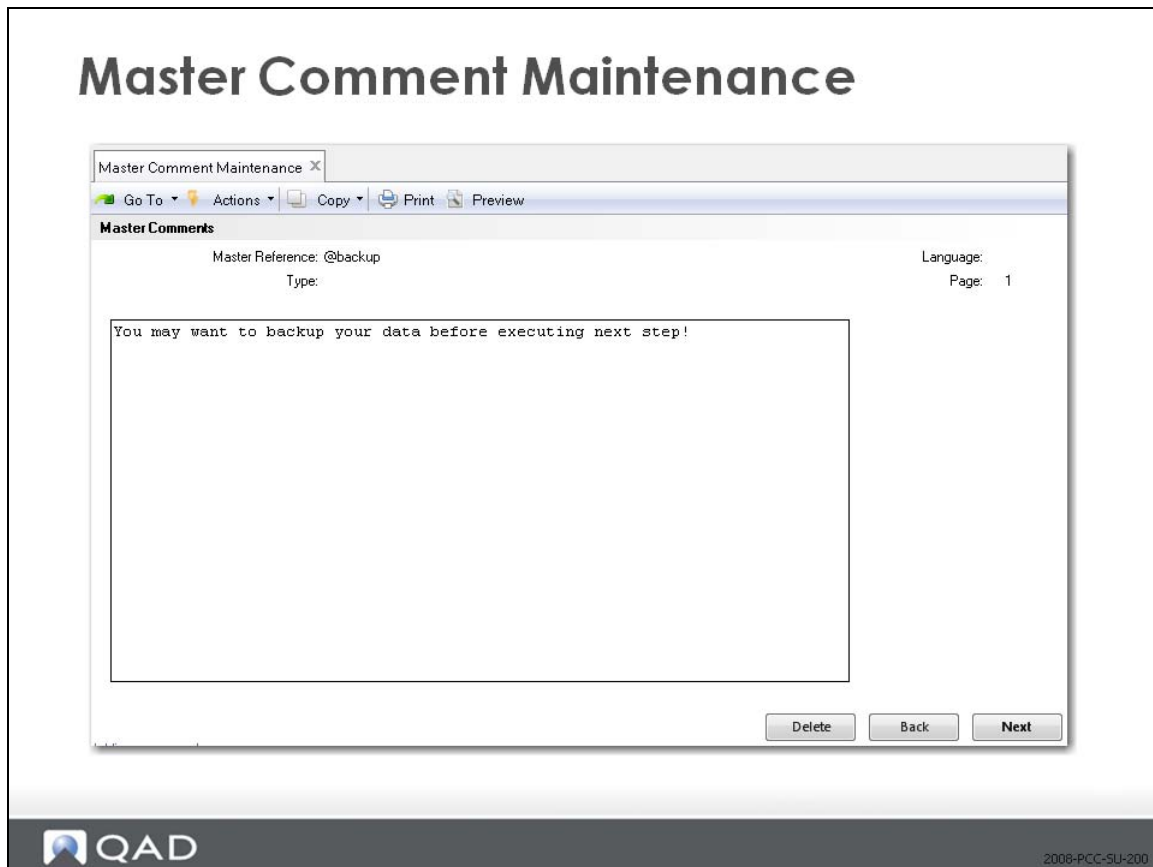
- Useful for:
  - Disclaimers
  - Policies
  - Checklists
  - Surveys
  - Standard Procedures
  - Disposition Forms

## Set Up Master Comments



Standard comments are used to copy into the PCO body.

## 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

Comment text has no owner and therefore is not private.


## Group Maintenance

### 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

PCC-SU-220

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

## Create Groups

### Create Groups

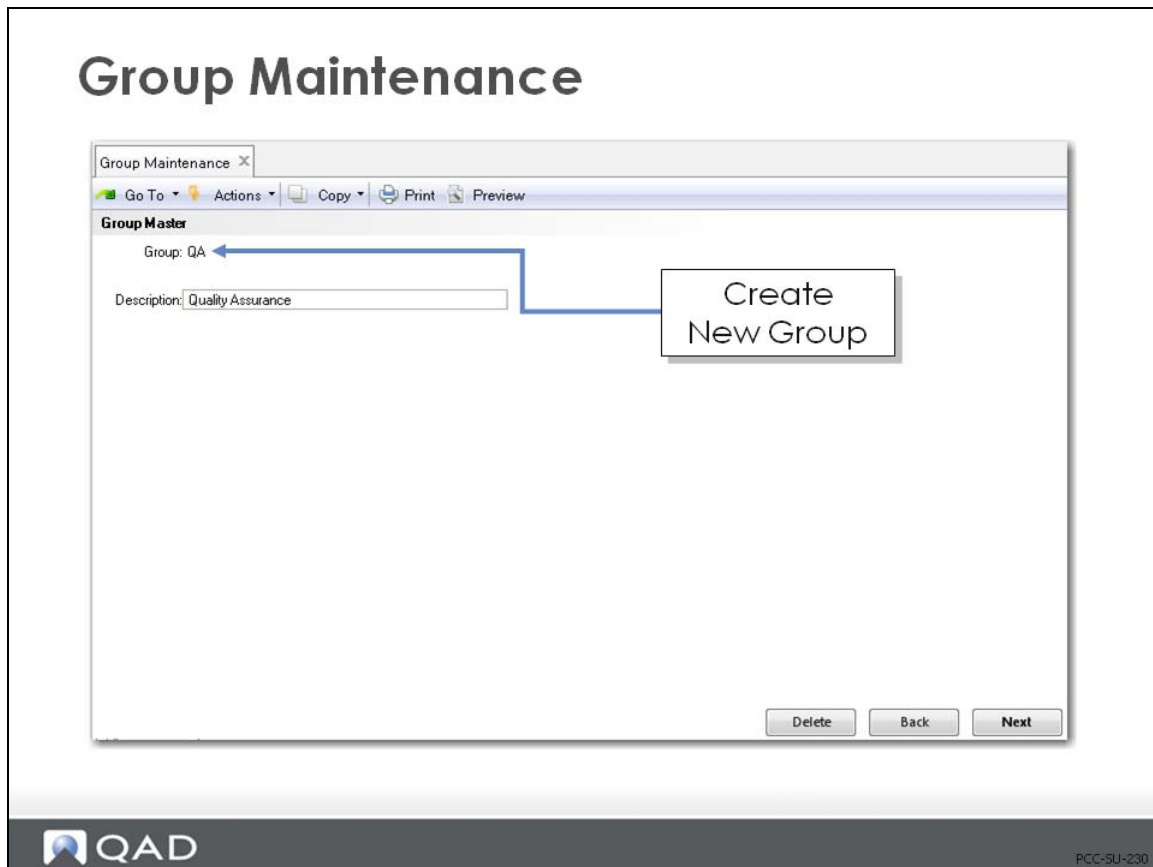
- Type Indicates in Which Part of PCR/PCO Process is Group Used
  - Design
  - Approve
  - Distribute



2008-PCC-SU-210

- QAD EE 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

## Group Maintenance (1.9.1.1)



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

## Add Users

**Group Maintenance**

Group: QA

Description: Quality Assurance

**Add Users**

User ID: acct      PCC User

Expire Date: 12/31/2008

Copies: 1

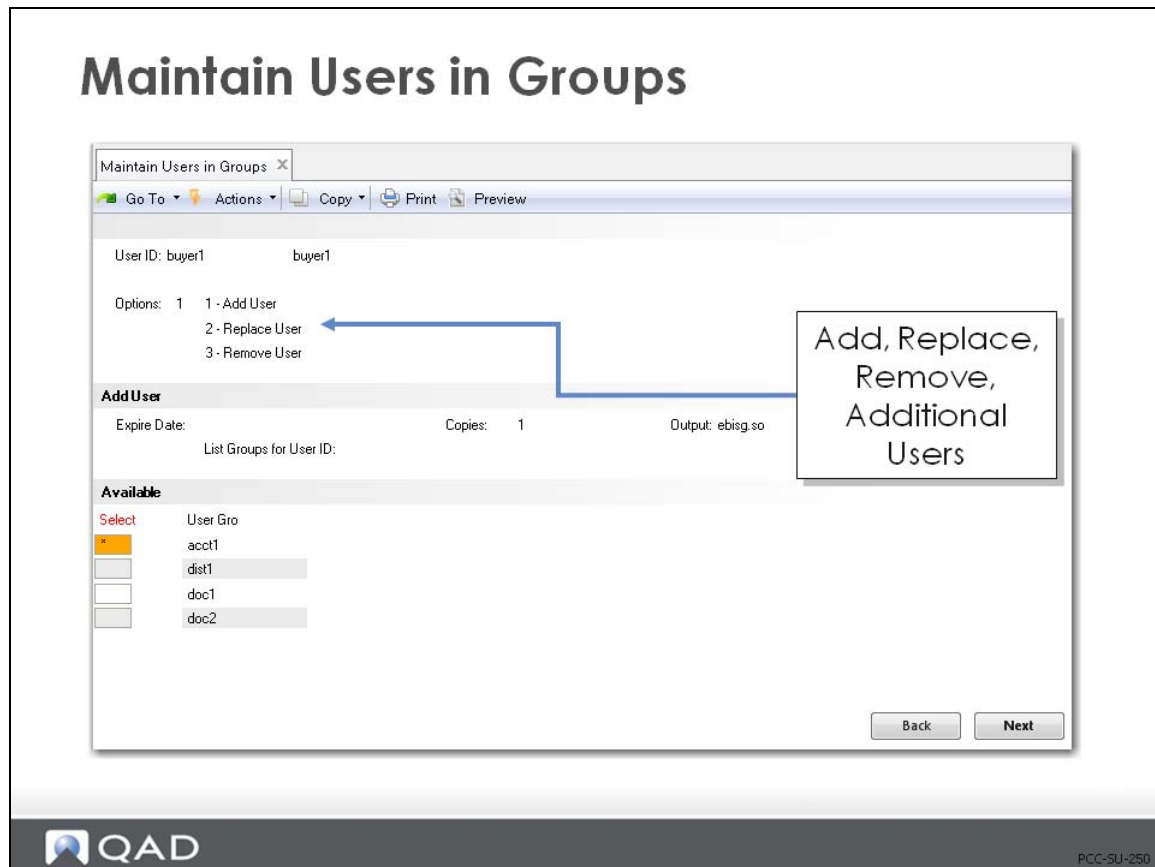
Output: PCCfile

Delete    Back    Next

QAD PCC-SU-240

- 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

## Exercise: Set Up PCC Groups

- 1 Use Drill Down Lookup Maintenance (36.4.8.1) to add the following information:

Drill Down/Lookup	Drill Down
Field	ecm_ecr_dspn
Calling Procedure	<blank>
Procedure to Execute	gplu072.P

- 2 Use Group Maintenance (1.9.1.1) to create PCC groups and assign members to the groups. Enter group name and click Next. Enter description and click Next. Enter user ID and click Next. Expire Date, Copies, and Output fields are not required for this exercise, leave blank. click Next, the cursor returns to the User ID field, enter the next User ID, continue until all users for this group are entered. Click the 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
		Your Login
Eng/Apv	Engineering Approval	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
Dist	PCO Distribution List	Pln1
		Mfg1
		Acct
		Your Login

- 3 Use Group Browse (1.9.1.2) to check your work.

## Exercise: Set Up Item Master

- 1 Use Item Master Maintenance (1.4.1)

Field	Data
Item Number	01010P
Description	Medical Ultrasound Prototype
UM	EA

Field	Data
Prod Line	11
Design Group	Design
Status	Proto
Rev	2
Lot/Serial	S
Site	10-100
Location	010

Click Next through all frames until Item Number field is highlighted, then Back.

### Exercise: Set Up Item Data

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

Item#	Description	Prod Line	Design Grp	Status	Rev
50001	Probe Unit - 10 Mhz	11	Design	Active	A
02003	Standard Connector	11	Design	Active	A
62050	Beryllium Copper (discrete PO)	11	Design	Active	A
90031	Packaging	11	Design	Active	A
60004	Transducer - 10 Mhz	11	Design	Active	A
60001	Durable Plastic Housing	11	Design	Active	A
60002	Display / Readout	11	Design	Active	A
60003	Keyboard	11	Design	Active	A
60005	Battery	11	Design	Active	A
60006	Monitor Cable	11	Design	Active	A
60007	Movable Cart	11	Design	Active	A
60008	Printer	11	Design	Active	A
60050	Base Unit / CPU	11	Design	Active	A
90093	Shipping Carton	11	Design	Active	A

### Exercise: Set Up Inventory Data

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

Item#	Lot/Serial	Site	Location
01010P	S	10-100	010
50001	S	10-200	020
02003		10-100	020
62050		10-202	200
90031		10-200	020
60004	S	10-100	020
60001		10-100	020
60002		10-100	020
60003		10-100	020
60005		10-100	020

Item#	Lot/Serial	Site	Location
60006		10-100	020
60007		10-100	020
60008		10-100	020
60050	S	10-100	020
90093		10-100	020

### Exercise: Set Up Item Planning Data

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

Item#	Order Qty	Pur/Mfg	Mfg LT	Pur LT
01010P	1	M	1	

Review parts information as to P or M, and other variables.

### Exercise: Set Up Item Cost Data

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

Item#	Price	G/L Cost Material	Curr Cost Material
01010P	\$2,500.00		

Review parts information as to G/L Cost Material and Current Cost Material.

### Exercise: Set Up Product Structures

- 1 Use Product Structure Maintenance (13.5) to enter the following product structure data for parent item 01010P.

Drag and Drop 01010P from Product Structure frame into the lower frame.

- 2 Drag and Drop the following components onto 01010P in the lower frame.

Component

Item#
50001
60001
60002
60003
60005
60006
60007
60008
60050
90093

**Note** Click the plus sign on 50001 to see the components needed to make 1 unit of 50001.

**Important** Highlight the items in the lower frame and Click Product Structure Maintenance in the frame above to review data, such as number needed, unit of measure.

**Important** Click the Save Icon at the top of the screen.

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

### Exercise: Set Up a Department

- 1 Use Department Maintenance (14.1) to set up a department for the production of the Medical Ultrasound Prototype by entering the following information:

Field	Data
Department	130
Description	Med Ultrasound Prototype
Default Sub-Account	Mech
Default Cost Center	Pro

Click Next until back in Department field, Click Back.

### Exercise: Set Up a Work Center


- 1 Use Work Center Maintenance (14.5) to set up a work center for Medical Ultrasound Prototype assembly by entering the following data:

Field	Data
Work Center	1005
Description	Prototype Assembly
Department	0400
Setup Rate	25.00
Labor Rate	20.00
Lbr Bdn%	100.00

Save and Exit.


## Routing Slip Maintenance

### 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


PCC-SU-270

- 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).

## Define Routing Slips

### Define Routing Slips

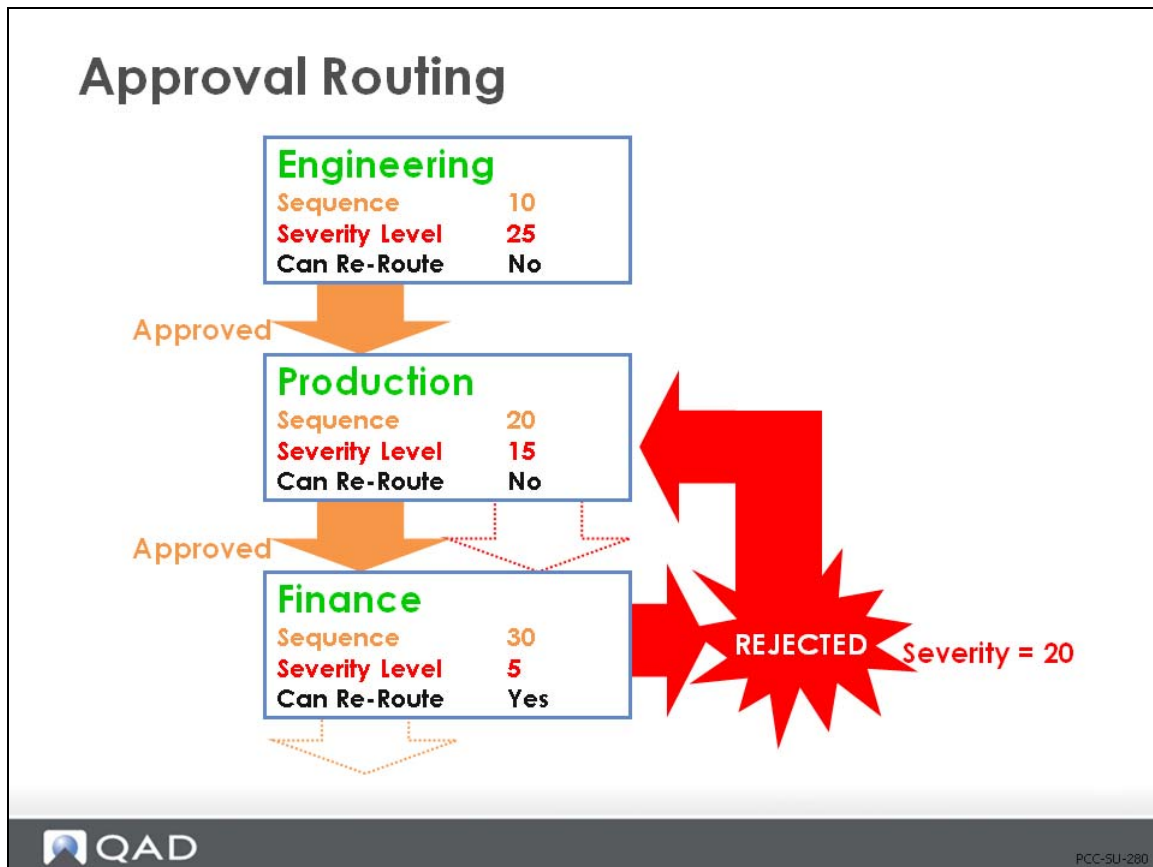
- Who Approves
- In What Order
- When Approved, Who is Notified



2008-PCC-SU-260

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

## 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 (1.9.1.5)

### Routing Slip Maintenance

Routing Slip Maintenance X
Go To Actions Copy Print Preview

Routing Slip: newprod1

**Routing Slip Maintenance**

Description:


Severity List:

Users Notified At Submit:

Users E-mailed At Submit:

Users Notified At Approval:

Users E-mailed At Approval:


2008-PCC-SU-290

- 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 EE users
- Check accuracy carefully because QAD EE cannot verify these addresses

## Detail Maintenance

# Routing Slip Maintenance

Routing Slip Maintenance X
Go To Actions Copy Print Preview

Routing Slip: newprod1

**Detail Maintenance**

Group: NewProd1      New Products Team 1

Sequence:

Severity Level:

Can Re-Route:

Notify When Next:

2008-PCC-SU-300

- Sequence specifies sign-off order
  - To provide for sequence additions, you can number them 10, 20, 30.
- 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 (1.9.1.7)

The screenshot shows a web browser window titled "Routing Slip Copy". The browser's address bar contains "Copy Routing Slip: NPIntro" and "To: NPI". The page has a menu bar with "Go To", "Actions", "Copy", "Print", and "Preview". The main content area contains the following fields:

- Description:
- Severity List:
- Users Notified At Submit:
- Users E-mailed At Submit:
- Users Notified At Approval:
- Users E-mailed At Approval:

At the bottom right of the form, there are two buttons: "Back" and "Next". The QAD logo is visible in the bottom left corner, and the text "2008-PCC-SU-310" is in the bottom right corner.

- 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)

## Exercise: Set Up Routing and Quality Specification

- 1 Use Routing Maintenance (14.13.1) to set up routing by entering the following data for Routing Code 50001:

Operation	10	20
Work Center	1005	1050
Description	Assemble Probe Unit	Test Probe Unit
Setup Time	1.0	0.0
Run Time	0.4	0.1

- 2 Use Item Specification Maintenance (19.1.13) to set up a specification for the test at operation 20 of the 50001 Probe Unit - 10 Mhz assembly.

Field	Data
Item Number	50001
Routing/Procedure	50001
Operation	20
Document	Probe-Test
Number	1

- 3 Use Routing Maintenance (14.13.1) to set up routing by entering the following data for Routing Code 01010P:

Operation	10	20	30
Work Center	1005	1050	1060
Description	Assemble Prototype	Test Prototype	Package Prototype
Setup Time	1.0	0.0	0.5
Run Time	0.4	0.1	0.1

- 4 Use Item Specification Maintenance (19.1.13) to set up a specification for the test at operation 20 of the 01010P Medical Ultrasound Prototype assembly.

Field	Data
Item Number	01010P
Routing/Procedure	01010P
Operation	20
Document	CPU-Test
Number	1

## Exercise: Set Up Routing Slips

- 1 Use Routing Slip Maintenance (1.9.1.5) to set up a routing slip for PCOs.  
Enter the following:

Field	Data
Routing Slip	PCO-R1
Description	PCO Routing Slip R1
Severity List	PCO

- 2 Click 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

### Exercise: 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 Enter the following information in Routing Slip Maintenance (1.9.1.5):

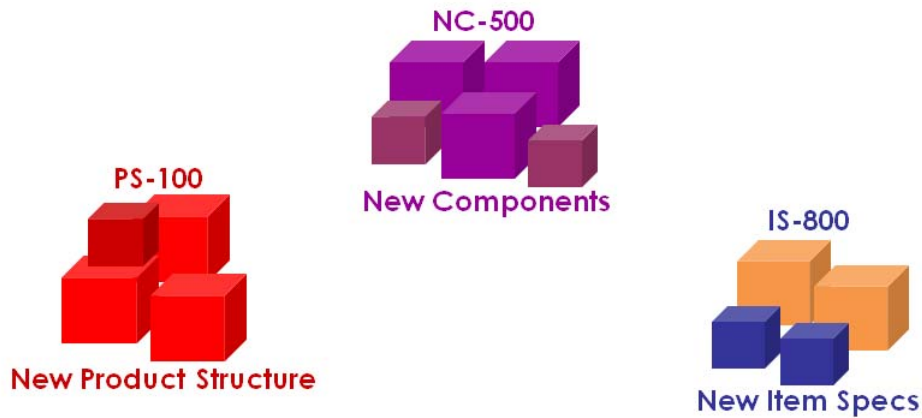
Field	Data
Routing Slip	PCR-R1
Description	PCR Routing Slip R1
Severity List	PCO

- 3 Click Next and select Yes, to copy routing details.
- 4 Use Routing Slip Maintenance (1.9.1.5) to modify the PCR routing slip.
- 5 Select PCR-R1, advance to the Detail Maintenance frame.
- 6 With your cursor in the Group field, press the down arrow until Mfg/Apv appears in the field.
- 7 Click Enter, click Delete, (Confirm Delete).
- 8 Press the down arrow until Pln/Apv appears in the field.
- 9 Click Enter, click Delete, (Confirm Delete).
- 10 Use the up and down arrow keys to verify that only Eng/Apv and Qual/Apv remain. Leave all values the same.
- 11 Exit function.

## Define Documents

### Define Documents

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




2008-PCC-SU-320

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


## PCR/PCO Type Maintenance

### 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

 PCC-SU-330

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

## PCR/PCO Type Maintenance (1.9.1.9)

### PCR/PCO Type Maintenance

PCR/PCO Type Maintenance
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

 QAD
PCC-SU-340

- 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
- Assign an existing routing slip to use with this document
- Distribution group selected will be notified when these are Released and Distributed


## PCC Control

### 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

PCC-SU-360

- 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

## Set Up PCC Control

### Set Up PCC Control

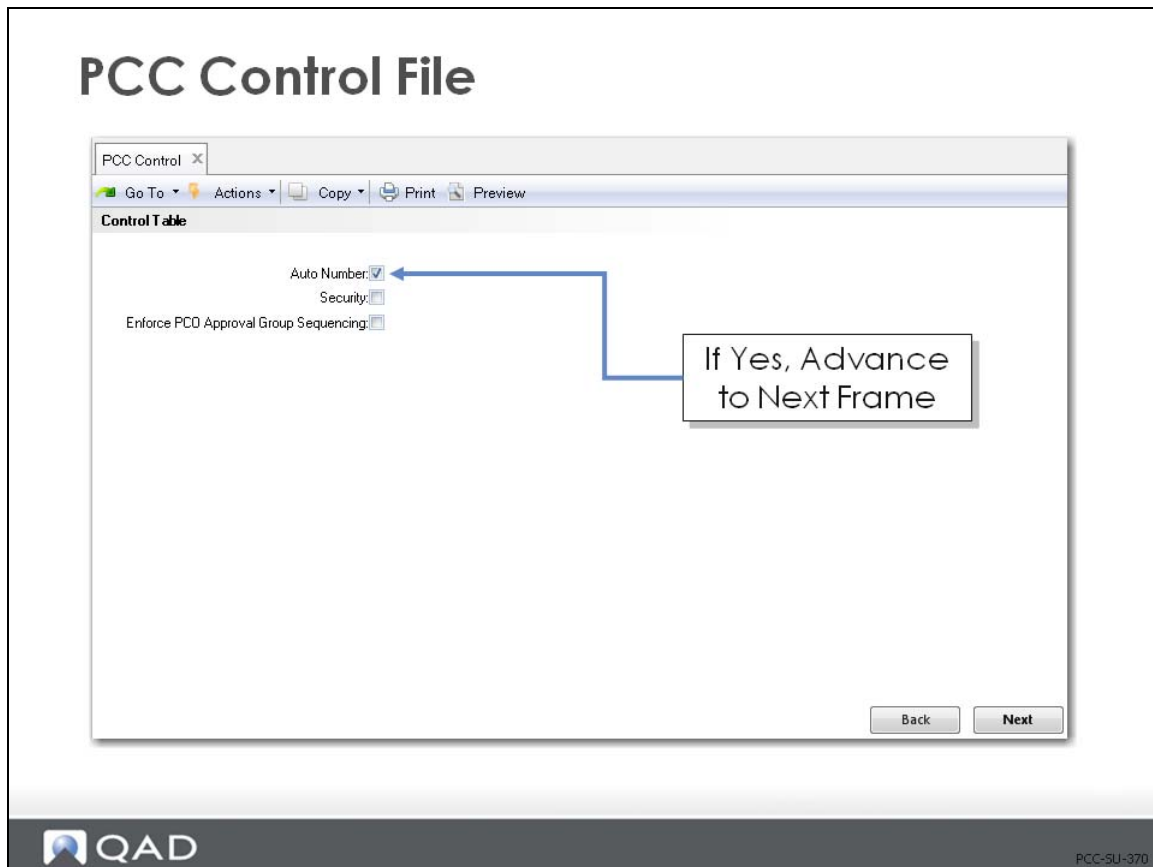
- Settings are for both PCOs and PCRs
  - Select and Define Security
  - Select and Define Autonumbering



2008-PCC-SU-350

- 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

## 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)

Prefix	Next PCR/PCD
None	6
	0
NP	100001
SS	200000
CR	300000
PI	400000
	0
	0
	0
	0
	0
	0

Document Format

Back Next

QAD PCC-SU-380

Prefixes:

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

**Exercise: Set Up PCR/PCO Type Maintenance**

- 1 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

**Exercise: Set Up PCC Control**

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

Field	Data
Auto Numbers	Yes
Security	No
Enforce PCO Approval Grp Sequence	No
PCO	1000
PCR	8000

## Summary

### 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



PCC-SU-390



Chapter 4

# **Process Product Change Orders**

## Process Product Change Orders

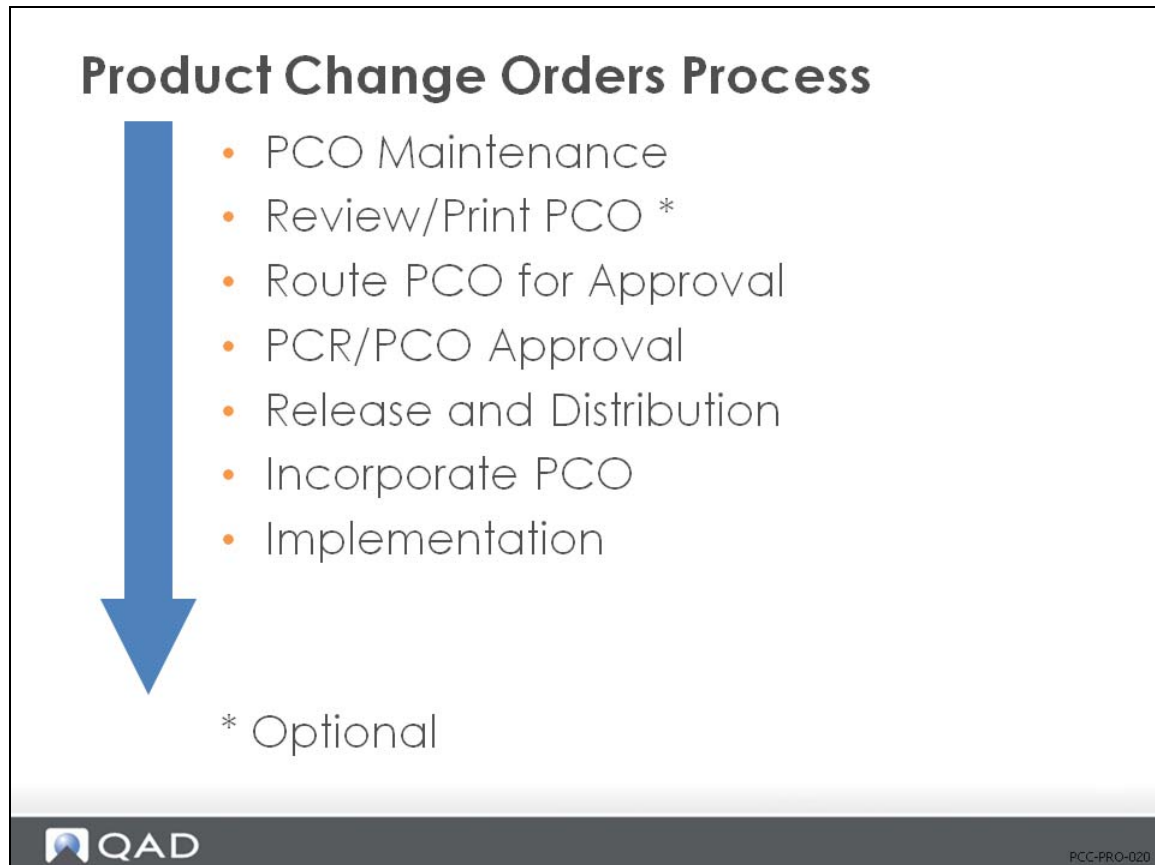
In this section you learn how to:

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



PCC-PRO-010

## Product Change Orders Process




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

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


## Create/Maintain PCO

### Create/Maintain PCO



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

\* Optional

 PCC-PRO-050

- 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

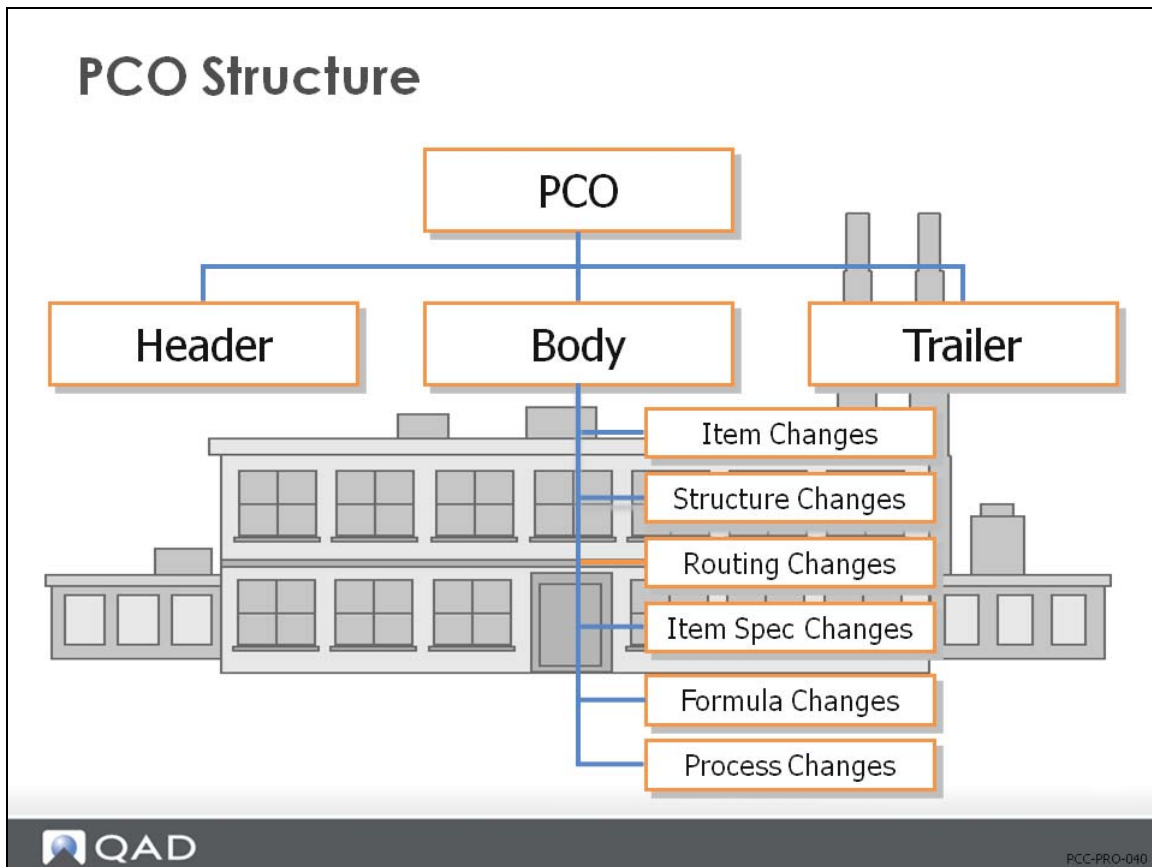
### Create/Maintain PCO

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



2008-PCC-PRO-030

## 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

## PCO Maintenance

### 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


PCC-PRO-060


- 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 Data 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 table, not in the PCO.


**Important** This function is the only function in PCO Maintenance that directly affects QAD EE production tables.

## Enter Header

### 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

 PCC-PRO-070

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

## PCO Maintenance (1.9.2.13)

### PCO Maintenance Header

The screenshot shows a web browser window titled "PCO Maintenance" with a menu bar containing "Go To", "Actions", "Copy", "Print", "Preview", and "Attach". The form content is as follows:

Number: PC008008	ID:	Domain: PC0
Type: CHGORDER	Design Group: DESIGN	Created By: qmi

Below the table, there are several input fields:

- Title: Redesign of Medical Ultrasound
- Reason: A major upgrade of the PCU installed as part of 01010 is required to increase its competitive advantage
- Class: Design
- Originator: Field
- User Code 1: [Dropdown]
- User Code 2: [Dropdown]

A callout box with a blue border and white background points to the Class, Originator, and User Code fields. The text inside the callout box reads: "User Fields, Do Not Affect Processing (optional)".

PCC-PRO-080

- 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

## Select PCR/PCO Function Maintenance

### PCO Maintenance Header

Number: PCO08008      ID:      Domain: PCO

Type: CHGORDER      Design Group: DESIGN      Created By: qmi      10/26/2011

Title: Redesign of Medical Ultrasound

Reason: A major upgrade of the PCU installed as part of 01010 is required to increase its competitive advantage

Class: Design


Originator: Field

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

With this you can:


- Change PCO Number
- Close a PCO to another PCO
- Copy from PCR/PCO to a PCO
- Copy to PCR/PCO from a PCO


PCC-PRO-090


- 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

## Add Text

### 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 PCC-PRO-100

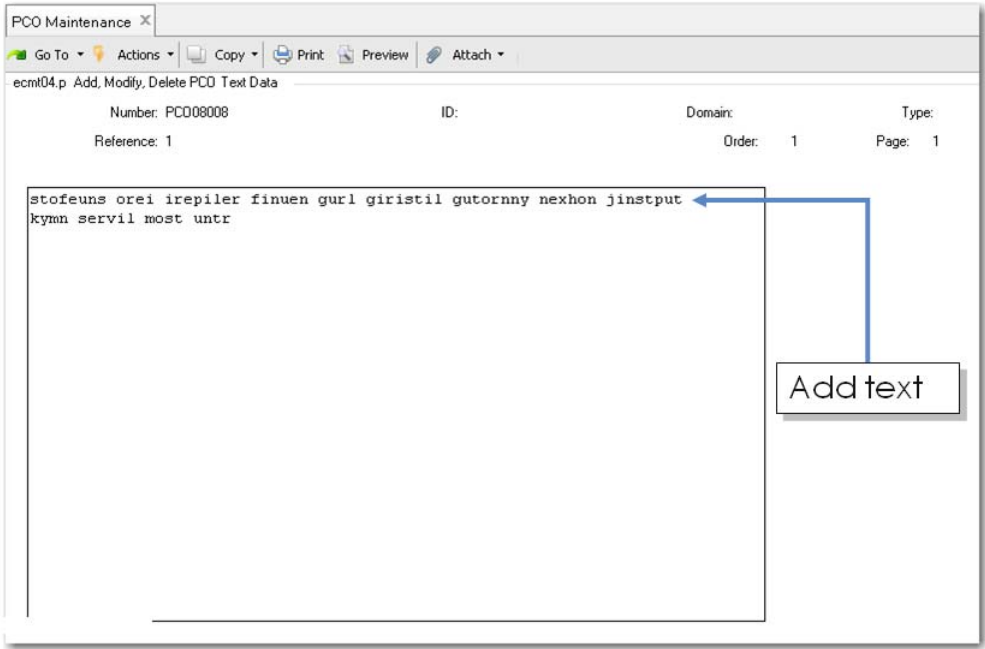
- Adding text is optional
  - Manually enter or modify transaction comments
  - Copy Master Comments to PCO

## Text Data Maintenance

The screenshot displays the 'PCO Maintenance Header' window. The window title is 'PCO Maintenance X'. The header information includes: Number: PCO08008, ID: (blank), Domain: PCO, Type: CHGORDER, Design Group: DESIGN, Created By: qmi, and Date: 10/26/2011. A list of maintenance options is shown, with 'Text Data Maintenance' selected. A blue arrow points from this option to a 'Text Data Maintenance' dialog box. The dialog box contains two options: 'Add, Modify, Delete PCO Text Data' (which is highlighted) and 'Copy Text from Master Comments into PCO'. The QAD logo is visible in the bottom left corner, and the document ID 'PCC-PRO-110' is in the bottom right corner.

- Add, Modify, Delete PCO Text Data
  - Selection menu moves you to Text Data Maintenance menu
  - Choose to create new text data or modify or delete an existing text data

## Add, Modify, Delete PCO Text Data



The screenshot displays the 'PCO Maintenance Header' window in QAD. The window title is 'PCO Maintenance' and the menu bar includes 'Go To', 'Actions', 'Copy', 'Print', 'Preview', and 'Attach'. The main content area shows the following fields:

Number:	ID:	Domain:	Type:
PCO08008			
Reference:	Order:	Page:	
1	1	1	

Below the fields is a large text area containing the following text:

```
stofeuns orei irepiler finuen gurl giristil gutornny nexhon jinstput  
kymm servil most untr
```

A blue arrow points from a box labeled 'Add text' to the end of the text in the text area, indicating where to click to add new text.

QAD PCC-PRO-120

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

## Copy Text from Master Comments into PCO

The screenshot displays the 'PCO Maintenance Header' window. At the top, the title 'PCO Maintenance Header' is centered. Below the title, the window header includes a tab labeled 'PCO Maintenance' and a menu bar with options: 'Go To', 'Actions', 'Copy', 'Print', 'Preview', and 'Attach'. The main content area shows metadata for a PCO: Number: PCO08008, ID: (blank), Domain: PCO, Type: CHGORDER, Design Group: DESIGN, Created By: qmi, and Date: 10/26/2011. A 'Select PCR/PCO Section' dropdown menu is open, listing options: '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', and 'Trailer Maintenance'. A blue arrow points from 'Text Data Maintenance' in the dropdown to a secondary 'Text Data Maintenance' menu. This secondary menu contains the options 'Add, Modify, Delete PCO Text Data' and 'Copy Text from Master Comments into PCO', with the latter option highlighted in blue. The QAD logo is visible in the bottom left corner, and the text 'PCC-PRO-130' is in the bottom right corner.

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

## Master Comments Copy Selection


### PCO Maintenance Header

The screenshot displays the 'PCO Maintenance Header' interface. At the top, there is a 'Starting Master Reference' field containing '@FINANCE'. Below this, a 'Master Comments Copy Selection' pop-up is shown, listing various keywords such as @FLOW:, @FP, @FS, @fs-purp, @FSM, @GL, @go, @GTM, and @help. A table to the right of the list shows columns for 'T' and 'Language', with 'ke us' listed for each row. A callout box titled 'Useful for:' lists several applications: Surveys, Checklists, Disclaimers, Disposition Forms, Policies, and Standard Procedures. Another callout box titled 'Add Text By Copying' points to the copy icon in the interface's toolbar. A third callout box titled 'Enter to Select' points to the keyword list.


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

## Specify Changes

### 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 PCC-PRO-150

Identify the proposed changes considered on this PCO.

## Item Data Maintenance

**PCO Maintenance Body Changes**

PCO Maintenance X

Go To Actions Copy Print Preview Attach

Number: PCO08008 ID: Domain: PCO  
 Type: CHGORDER Design Group: DESIGN Created By: qmi 10/26/2011

Title: Redes Select PCR/PCO Section

Reason: A major part of its component

- 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

Class: Design

Originator: Field

**Item Data Maintenance**

- Add, Modify, Delete PCO Item Data
- Direct Item Master Access

**Item Changes**

QAD PCC-PRO-160

- Proposed Item Master changes
- Directly affects production tables
- 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).

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

### PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' window with the following fields and callouts:

- Item Changes:** A callout box pointing to the 'ID' field.
- Opens Item Data Maintenance Information:** A callout box pointing to the 'Item Number' field.
- Select Item Number:** A callout box pointing to the 'Item Number' field.

Fields visible in the interface include:

- Number: PC008008
- Title: Redesign of Medical Ultrasound
- Domain: PCO
- Item Number: 01010P
- Description: Medical Ultrasound
- Unit of Measure: EA
- Prototype
- End Product:
- Comments:
- Prod Line: 11
- Added: 10/18/2011
- Design Group: DESIGN
- Item Type:
- Status: Proto
- Group:
- Drawing:
- Drawing Loc:
- Size:
- Disposition:
- Price Break Category:
- Released Rev: 2
- New Revision:

PCC-PRO-170

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

## Exercise: Create a PCO with Item Changes

**Important** The data used in these exercises might 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.

In the Item Master there are three types of Batteries: 60021, 60022, and 60023. They are in product line 20, Electronic Products. Your company procedures require you to route the changes through a PCO.

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

Let QAD EE assign the PCO number. The number will be assigned when you complete the Type and Design group fields and click Next.

- 2 Advance to the Type field and enter the following:

Field	Data
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:

Field	Data
Title	Change Product Line
Reason	All Batteries moving to Component Materials

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

- a Add items:

60021	RevB
60022	RevB
60023	RevB

- b For each, set Comments to No.
  - c Change the Product Line on each to 20.
  - d Verify the Item Type for each is = ELEC, and Group = ELECTRON. Edit if necessary.
- 6 Click Back, choose Trailer Maintenance.
    - a Using the Mandatory field, assign an implementation date no later than the last day of next month.
    - b Disposition: UAI; click Next, click Back.
  - 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

### PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' window with the following details:

- Number: PCO08008
- ID:
- Domain: PCO
- Type: CHGORDER
- Design Group: DESIGN
- Created By: qmi
- 10/26/2011

The 'Reas' section is expanded to show 'Structure Data Maintenance' selected. The 'Structure Data Maintenance' sub-menu is open, showing the following options:

- Copy Product Structure into PCO
- Copy Where-Used into PCO
- PCR/PCO Detail Maintenance - Product Structures
- Replace Product Structure Component

A callout box labeled 'Product Structure Changes' points to the 'Structure Data Maintenance' option in the main menu.

- 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 can 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.

## Copy Product Structure into PCO

## PCO Maintenance Body Changes

**PCO Maintenance**

ecm08.p Copy Product Structure into PCO

Number: PCO08008 ID: Domain: PCO

Title: Redesign of Medical Ultrasound

Structure/Formula Copy

Parent Item: 01010 Medical Ultrasound

Effective Date: 10/26/2011 Rev. Levels: 1

Destination Structure: 01010 Medical Ultrasound

Component Item	Description	Reference
01	Probe Unit - 10 Mhz	
01	Durable Plastic Housing	
00002	Display / Readout	
1	Keyboard	
* 1	Battery	
1	Monitor Cable	
1	Movable Cart	

**Annotations:**

- Select Parent (points to Parent Item field)
- Product Structure Changes
- Enter to Select (points to the table)
- Copy Original Structure to Indicate PCO Changes (points to the table)

**QAD** PCC-PRO-190

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

## Copy Where Used into PCO

### PCO Maintenance Body Changes

The screenshot shows the 'PCO Maintenance' window with the following details:

- Menu Bar:** Go To, Actions, Copy, Print, Preview
- Title:** Redesign of Medical Ultrasound
- Number:** PCO08008
- Where Used Copy Table:**

Component Item	Description	UM	Eff Date	Rev	Levels
50001	Probe Unit - 10 Mhz	EA	10/26/2011		1
- Parent Item Table:**

Level	Parent Item	Description	Reference
1	01010	Medical Ultrasound	
1	01010P	Medical Ultrasound	
1	01040	Industrial Ultrasound	
1	01040-002	Industrial Ultrasound	
1	01040-004	Industrial Ultrasound	
1	01040P	Industrial Ultrasound	
1	01041	Portable 10mhz	

- 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

## PCR/PCO Detail Maintenance – Product Structures

## PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' window for 'Medical Ultrasound'. Key fields include:

- Number: PCO08008
- Title: Redesign of Medical Ultrasound
- Parent Item: 01010P
- Component Item: 50001
- Quantity Per: 1.0 EA
- Scrap: 0.00%
- Structure Type: A, D, J, X, P, or O

Callout boxes indicate: 'Product Structure Changes' (top right), 'Change Items in the Bill' (middle right), and 'A, D, J, X, P, or O' (bottom center).

PCC-PRO-210

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

## Replace Product Structure Component

### PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' application window. At the top, there is a search bar for 'Component Item' with the value '50001' and 'Unit of Measure: EA'. Below this is a 'Component Replacement List' table with columns for 'Component Item', 'Description', and 'Multiplier'. A 'Replace with Item' field is located at the bottom. Annotations include a box labeled 'Previously selected for PCO' pointing to a component in the list, and another box labeled 'Replacement Component' pointing to the 'Replace with Item' field.

- Replaces one component item with another across multiple bills of material
  - Select the component in any previous Structure Data Maintenance step
  - Searches product structure records already included in the PCO and sets end effective dates for replacements
  - Adds additional product structures to the PCO with the substitution
- Other detailed product structure data is copied from the existing record

## Exercise: Create a PCO with Product Structure Changes

The Probe Unit – 10Mhz (50001) uses Transducer – 10 Mhz (60004). The current product structure assumes that no scrap is involved in the Probe Unit. Your recent experience shows a 5% scrap involved.

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

Let QAD EE assign the PCO number.

Field	Data
Assign Type	PCO
Design Group	DESIGN

Write down the PCO number assigned for later reference: \_\_\_\_\_

Field	Data
Title	Add Scrap
Reason	50001 to be modified: Component 60004 shows 5% Scrap

- 2 Continue past the header. Choose Structure Data Maintenance. From this menu select Copy Product Structure into PCO.
  - a Parent Item = 50001. Click Next.
  - b Select 60004 by clicking on the item number.  
An asterisk appears when the component is selected.  
Click Next then Back to complete the transaction.
- 3 From the menu choose Structure Data 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 = 50001 and Component Item = 60004). 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. Click Next.
  - d Click Back, choose Trailer Maintenance.
  - a Using the Mandatory field, assign an implementation date no later than one month from today.
  - b Disposition: UAI, click Next, click Back.
- 4 Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO to be certain your changes were all included.

## Routing Data Maintenance

### PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' window with the following fields:

- Number: PCO08008
- Type: CHGORDER
- ID:
- Design Group: DESIGN
- Domain: PCO
- Created By: qmi

The 'Reason: A m' dropdown menu is open, showing the following options:

- 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

The 'Routing Data Maintenance' option is selected, and a callout box shows the following sub-options:

- Copy Routing to PCR/PCO
- PCR/PCO Detail Maintenance - Routing
- PCR/PCO Detail Maintenance - Routing (Rate Based)

- 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

## Copy Routing to PCR/PCO

## PCO Maintenance Body Changes

PCO Maintenance

ecm111.p Copy Routing to PCR/PCO

Number: PCO08008 ID: Domain:

Title: Redesign of Medical Ultrasound

Routing Copy

Routing/Procedure: 01010P Assemble Prototype

Effective Date: 10/26/2011

Destination Routing Code: 01010P Medical Ultrasound

Operation: 10 To: 30

Op	Description
10	Assemble Prototype
20	Test Prototype
30	Package Prototype

Routing Changes

Copy Original Routing to Modify in PCO

Enter to Select

QAD PCC-PRO-240

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

## PCR/PCO Detail Maintenance – Routing

# PCO Maintenance Body Changes

PCO Maintenance
Go To Actions Copy Print Preview Attach (1)

ecm13.p PCR/PCO Detail Maintenance - Routing (Rate Based)

Number: PC008008      ID:      Domain:

Routing Code: 01010P      Medical Ultrasound

Operation: 20      Deactivate:

Standard Operation:

Work Center: 1050      Product Test

Machine:

Description:

Machines per Operation:       Milestone Operation:

Overlap Units:       Subcontract LT:

Queue Time:       Setup Crew:

Wait Time:       Run Crew:

Setup Time:       Tool Code:


Hourly Production Rate:       Supplier:

Move Time:       Inventory Value:

Yield Percent:       Subcontract Cost:

Comments:

Change  
Operations  
in Routing


PCC-PRO-250

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

PCR/PCO Detail Maintenance – Routing (Rate Based)

## PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' window for a 'Rate Based' routing. The interface includes a menu bar with 'Go To', 'Actions', 'Copy', 'Print', 'Preview', and 'Attach (1)'. The main data area shows the following details:

- Number: PCO08008
- Routing Code: 01010P
- Operation: 20
- Deactivate:
- Standard Operation:
- Work Center: 1050
- Machine: Product Test
- Description: Test Prototype
- Machines per Operation: 1
- Overlap Units: 0
- Queue Time: 0.25
- Wait Time: 0.25
- Setup Time: 0.0
- Hourly Production Rate: 10.0
- Move Time: 0.0
- Yield Percent: 100.00%
- Domain: Medical Ultrasound
- Milestone Operation:
- Subcontract LT: 0
- Setup Crew: 1.00
- Run Crew: 1.00
- Tool Code: [Dropdown]
- Supplier: [Search]
- Inventory Value: 0.00
- Subcontract Cost: 0.00
- Comments:

Routing Rate Based Changes

**QAD**

PCC-PRO-260

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

**Exercise: Create a PCO with Routing Changes**

- 1 In this exercise, use PCO Maintenance (1.9.2.13) to modify the routing for the 50001 Probe Unit – 10 Mhz assembly to add a standard rework step.

Let QAD EE assign the PCO number.

Field	Data
Assign Type	PCO
Design Group	DESIGN

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:

Field	Data
Title	Adding Rework
Reason	50001: Adding rework routing

Continue past the header.

- 3 Select Routing Data Maintenance, then enter the following in PCR/PCO Detail Maintenance - Routing:

Field	Data
Routing Code	50001
Operation	30
Work Center	1005
Description	Rework as required
Milestone Operation	No
Comments	No

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

## Item Specification Maintenance

**PCO Maintenance Body Changes**

The screenshot shows the 'PCO Maintenance' window with the following details:

- Number: PCO08008
- ID:
- Domain: PCO
- Type: CHGORDER
- Design Group: DESIGN
- Created By: qni

The 'Reas' section contains a list of maintenance options:

- 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

The 'Item Specification Maintenance' option is highlighted, and a callout box shows the following options:

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

A callout box labeled 'Item Spec Changes' points to the 'Item Specification Maintenance' option in the list.

**QAD**

PCC-PRO-270

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

## Copy Item Specification from Quality Module

### PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview Attach

ecqmcpy.p Copy Item Specification from Quality Module

Number: PCO08008 ID: Domain: PCO

Title: Redesign of Medical Ultrasound

---


Item Number: 01010P Medical Ultrasound

Routing/Procedure: 01010P Assemble Prototype

Quality Module - Item Specification Detail Records

Number	Op	Characteristic	Specification
Measure			
<input type="text" value="1"/>	20	Test Script Successfully	Y
Y/N			

Copy Original  
to Modify in  
PCO


PCC-PRO-280

- 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

## PCR/PCO Detail Maintenance – Item Specification

## PCO Maintenance Body Changes

The screenshot shows the 'PCR/PCO Detail Maintenance - Item Specification' window. The window title is 'PCO Maintenance' and the file name is 'eccc4mt.p'. The window contains the following information:

- Number: PCO08008
- ID:
- Domain: PCO
- Title: Redesign of Medical Ultrasound

Below this information, there is a table with the following data:

Item Number: 01010P	Medical Ultrasound
Routing/Procedure: 01010P	Assemble Prototype
Operation: 20	
Number:	

Below the table, there is a 'Deactivate:' checkbox and a list of fields for 'Number:', 'Characteristic:', 'Attribute:', 'Test Method:', 'Specification:', and 'Measure:'. There is also a 'Comments:' checkbox.

Three callout boxes are present:

- 'Selected Item Spec' points to the table above.
- 'Item Spec Changes' points to the 'Attribute:' field.
- 'Change Quality Tests' points to the 'Test Method:' field.

The QAD logo is in the bottom left corner, and 'PCC-PRO-290' is in the bottom right corner.

- 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 has found that the test procedure for 50001 is not strict enough.

- 1 Use PCO Maintenance (1.9.2.13) to modify the Quality Management specifications to make the inspection use stricter standards.

Let QAD EE assign the PCO number.

Field	Data
Assign Type	PCO
Design Group	DESIGN

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:

Field	Data
Title	Test Spec
Reason	Modifying Item Specs for 50001

- 3 Continue past the header. Choose Item Specification Maintenance. From this menu select Copy Item Specification from Quality Module.
  - a Item Number = 50001; Routing Code = 50001
  - b Click in the number field (an asterisk should appear next to the sequence). click Next to continue.
- 4 Click Back and choose Item Specification Maintenance, then PCR/PCO Detail Maintenance – Item Specification. Tab down to modify each of the records copied in the last step.
  - a For Test Sequence 1, Voltage, change the specifications to a range of  $0.4 \leq \text{Voltage} \leq 1.0$
- 5 Save the record without adding any information to the trailer. Click Next, Back and Back.
- 6 Use PCR/PCO Detail Inquiry (1.9.2.8) to review your PCO and verify that your changes were all included.

## Formula Data Maintenance

### PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' window for PCO08008. The interface includes a menu bar with 'Go To', 'Actions', 'Copy', 'Print', 'Preview', and 'Attach'. Below the menu, the PCO details are shown: Number: PCO08008, ID: (blank), Domain: PCO, Type: CHGORDER, Design Group: DESIGN, Created By: qmi, and Date: 10/26/2011. A 'Reason' dropdown menu is open, listing various maintenance options. A callout box labeled 'Formula Changes' points to the 'Formula Data Maintenance' option in the list. A second callout box, titled 'Formula Data Maintenance', shows the following options: 'Copy Formula Into PCO', 'Copy Where-Used into PCO', 'PCR/PCO Detail Maintenance - Formulas', and 'Replace Formula Component'. The QAD logo and 'PCC-PRO-300' are visible at the bottom of the screenshot.

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

## Copy Formula into PCO

### PCO Maintenance Body Changes

PCO Maintenance x

Go To Actions Copy Print Preview Attach

ecmt08.p Copy Formula Into PCO

Number: PCO08008 ID: Domain: PCO

Title: Redesign of Medical Ultrasound

Structure/Formula Copy

Parent Item: 01010P Medical Ultrasound UM: EA

Effective Date: 10/26/2011 Rev: Levels: 1

Destination Formula: 01010P Medical Ultrasound

Level	Component Item	Description	Reference	T
1	50001	Probe Unit - 10 Mhz		
1	60001	Durable Plastic Housing		
1	60002	Display / Readout		
1	60003	Keyboard		
1	60005	Battery		
1	60006	Monitor Cable		
1	60007	Movable Cart		

Enter to Select

QAD PCC-PRO-310

- 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

## Copy Where Used into PCO

## PCO Maintenance Body Changes

PCO Maintenance x

ecmt03.p Copy Where-Used into PCO

Number: PCO08008 ID: Domain: PCO

Title: Redesign of Medical Ultrasound

Where Used Copy

Component Item	Description	UM	Eff Date	Levels
50001	Probe Unit - 10 Mhz	EA	10/26/2011	1

Formula Changes

Level	Parent Item	Description	Reference
1	01010	Medical Ultrasound	
1	01010P	Medical Ultrasound	
1	01040	Industrial Ultrasound	
1	01040-002	Industrial Ultrasound	
1	01040-004	Industrial Ultrasound	
1	01040P	Industrial Ultrasound	
1	01041	Portable 10mhz	

Change Several Formulas based on Where Used

Enter to Select

QAD PCC-PRO-320

- 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

PCR/PCO Detail Maintenance – Formulas

## PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' application window. At the top, the title bar reads 'PCO Maintenance'. Below it is a menu bar with options: 'Go To', 'Actions', 'Copy', 'Print', 'Preview', and 'Attach'. The main content area shows the following details:

- Number: PC008008
- ID: (blank)
- Domain: PCO
- Title: Redesign of Medical Ultrasound
- Parent Item: 01010P (highlighted with a blue box)
- Component Item: 50001 (highlighted with a blue box)
- Medical Ultrasound
- Probe Unit - 10 Mhz
- Reference: (blank)
- Batch Size: 0.0 EA
- Deactivate:
- Quantity Per: 1.0 EA
- Quantity Type: B (dropdown menu)
- Batch Percent: 0.0
- Scrap: 0.00%
- Lead Time Offset: (blank)
- Op: (blank)
- Structure Type:
- Mandatory:
- Forecast Percent: 100.00%
- Option Group: (blank)
- Process: (blank)
- Remarks: (text area)
- Comments:

Two callout boxes are overlaid on the screen:

- 'Formula Changes' points to the 'Parent Item' and 'Component Item' fields.
- 'Change Records in Formula' points to the 'Forecast Percent' field.

The QAD logo is in the bottom left corner, and 'PCC-PRO-330' is in the bottom right corner.

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

## Replace Formula Component

### PCO Maintenance Body Changes

The screenshot shows the 'PCO Maintenance' application window. The title bar reads 'PCO Maintenance x'. The menu bar includes 'Go To', 'Actions', 'Copy', 'Print', 'Preview', and 'Attach'. The main content area is titled 'ecmt10.p Replace Formula Component'. It displays the following information:

- Component Item: 50001
- Description: Probe Unit - 10 Mhz
- Unit of Measure: EA

Below this information is a table titled 'Component Replacement List' with the following columns: Component Item, Description, and Multiplier. A 'Replace with Item' button is located at the bottom left of the table. A callout box points to this button with the text 'Replace Component 50001 with 50002'. Another callout box points to the table with the text 'Replace Components'.

**QAD**

PCC-PRO-340

- 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)**

QMI's Anesthetic Gel (70005) needs to have the Lidocaine increased in the formula because of patient complaints that it is not as effective as it should be.

- 1 Use Formula Maintenance (15.5) to delete the existing formula for (Parent) 70005, (Component) 80040.
  - a Rebuild the formula with Quantity Type P, and Batch Percent 5.5.
- 2 Use Formula Maintenance (15.5) to delete the existing formula for (Parent) 70005, (Component) 80012.
  - b Rebuild the formula with Quantity per Batch <blank>, Quantity Type P, Batch Percent 75.885.
- 3 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.

Let QAD EE assign the PCO number.

Field	Data
Assign Type	PCO
Design Group	DESIGN

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:

Field	Data
Title	Formula Change
Reason	Modifying 70005 to use more 80040 Concentration strength from supplier increased.

- 5 Continue past the header. Choose Formula Data Maintenance. From this menu select Copy Formula into PCO.
  - a Parent Item = 70005
  - b Select components 80040 and 80012 (an asterisk should appear next to each sequence).
- 6 Choose Formula Data Maintenance, then PCR/PCO Detail Maintenance – Formulas. Arrow down to access both records copied in the previous step.
  - a For 80040, change the Batch Percent from 5.5 to 5.6. click Next. The Quantity Per changes automatically.
  - b For 80012, change the Batch Percent from 75.885 to 75.785. Click Next. The Quantity Per changes automatically.
- 7 Save the record without adding any information to the trailer.
- 8 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

### PCO Maintenance Body Changes

The screenshot displays the 'PCO Maintenance' window with the following details:

- Number: PCO08008
- ID:
- Domain: PCO
- Type: CHGORDER
- Design Group: DESIGN
- Created By: qmi
- 10/26/2011

The 'Select PCR/PCO Section' dropdown menu is open, showing the following options:

- 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

The 'Process Data Maintenance' section is highlighted, and a callout box shows the following options:

- Copy Processes to PCR/PCO
- PCR/PCO Detail Maintenance - Processes

A 'Process Changes' box is also visible on the right side of the screen.

PCC-PRO-350

- Copy processes
- Modify existing processes with Detail Maintenance

**Note** Routings cannot be maintained with this function

- Use Routing Data Maintenance for routing processes

## Copy Processes to PCR/PCO

# PCO Maintenance Body Changes

The screenshot shows the 'PCO Maintenance' window with the following details:

- Number: PC008008
- ID: (blank)
- Domain: PCO
- Title: Redesign of Medical Ultrasound
- Process Copy:
  - Routing/Procedure: 01010P
  - Effective Date: 10/26/2011
  - Destination Process: 01010P
  - Operation: (blank)
  - To: Medical Ultrasound

The operations table is as follows:

Op	Description
10	Assemble Prototype
20	Test Prototype
30	Package Prototype

Callouts in the image:

- A box labeled "Copy to PCO for Changes" points to the top right button.
- A box labeled "Enter to Select" points to the '30' operation in the table.

QAD logo and PCC-PRO-360 are visible at the bottom of the screenshot.

- 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

## PCR/PCO Detail Maintenance – Processes

## PCO Maintenance Body Changes

PCO Maintenance x

ecmt12.p PCR/PCO Detail Maintenance - Processes

Number: PCO08008 ID: Medical Ultrasound Domain:

Routing Code: 01010P Batch Quantity: 0.0 EA

Operation: 30 Deactivate:

Standard Operation: Pack

Work Center: 1060 Machine:

Description: Package Prototype

Machines per Operation: 1 Milestone Operation:

Overlap Units: 0 Subcontract LT: 0

Queue Time: 0.25 Setup Crew: 1.00

Wait Time: 0.25 Run Crew: 1.00

Setup Time: 0.5 Tool Code:

Run Time/Batch Qty: 0.0 Supplier:

Run Time: 0.1 Inventory Value: 0.00

Move Time: 0.0 Subcontract Cost: 0.00

Yield Percent: 100.00% Comments:

**Process Changes**

**Change Processes**

**QAD** PCC-PRO-370

- 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)**

- 1 The pill molding process has a scrap factor that has never been figured into the process. Select the process operation for the pill (05003) and use PCO Maintenance (1.9.2.13) to create a PCO for a yield of 98%.

Let QAD EE assign the PCO number.

Field	Data
Assign Type	PCO
Design Group	DESIGN

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:

Field	Data
Title	Process Change
Reason	Modifying 05003 to change yield scrap factor of 2%

- 3 Continue past the header. Choose Process Data Maintenance, then Copy Processes to PCR/PCO.
  - a Routing Code = 70050.
  - b Select process 60 (an asterisk should appear next to the process).
- 4 Return and choose Process Data Maintenance, then PCR/PCO Detail Maintenance – Processes. Arrow down to modify the record copies in the previous step.
  - a For 70050 operation 60, 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.

## Enter Trailer

### Create/Maintain PCO

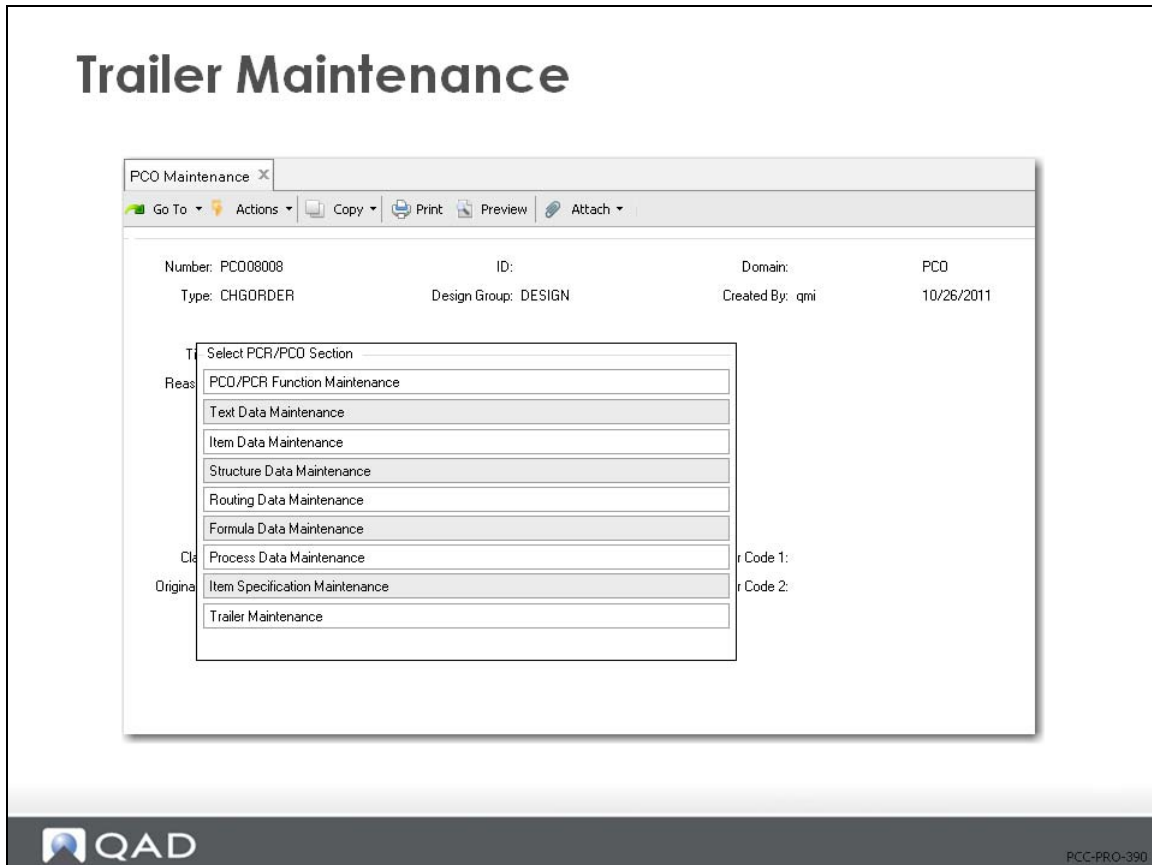


- PCO Maintenance
- Enter Header
- Add Text
- Specify Changes
  - Item Changes
  - Product Structure Changes
  - Routing Changes
  - Item Spec Changes
  - Formula Changes
  - Process Changes
- **Enter Trailer**



PCC-PRO-380

## 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

## Trailer Maintenance

**Trailer Maintenance**

PCO Maintenance x

Go To Actions Copy Print Preview Attach

ecm/trl.p Trailer Maintenance

Number: PCO08008 ID: Domain: PCO

Title: Redesign of Medical Ultrasound

Expected Cost: 1,000.00

Mandatory: 11/30/2011

Routing Slip: Design

Distribution: ENG

Disposition: [Dropdown]

Submitted:

Approved:

Released:

Distributed:

Effective:

Implemented:

Closed Date:

Closed:

PCO Ref: [Text]

Optional Fields

Can only Close Before Distribution

Tracking Fields for System

QAD 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

## Review/Print PCO

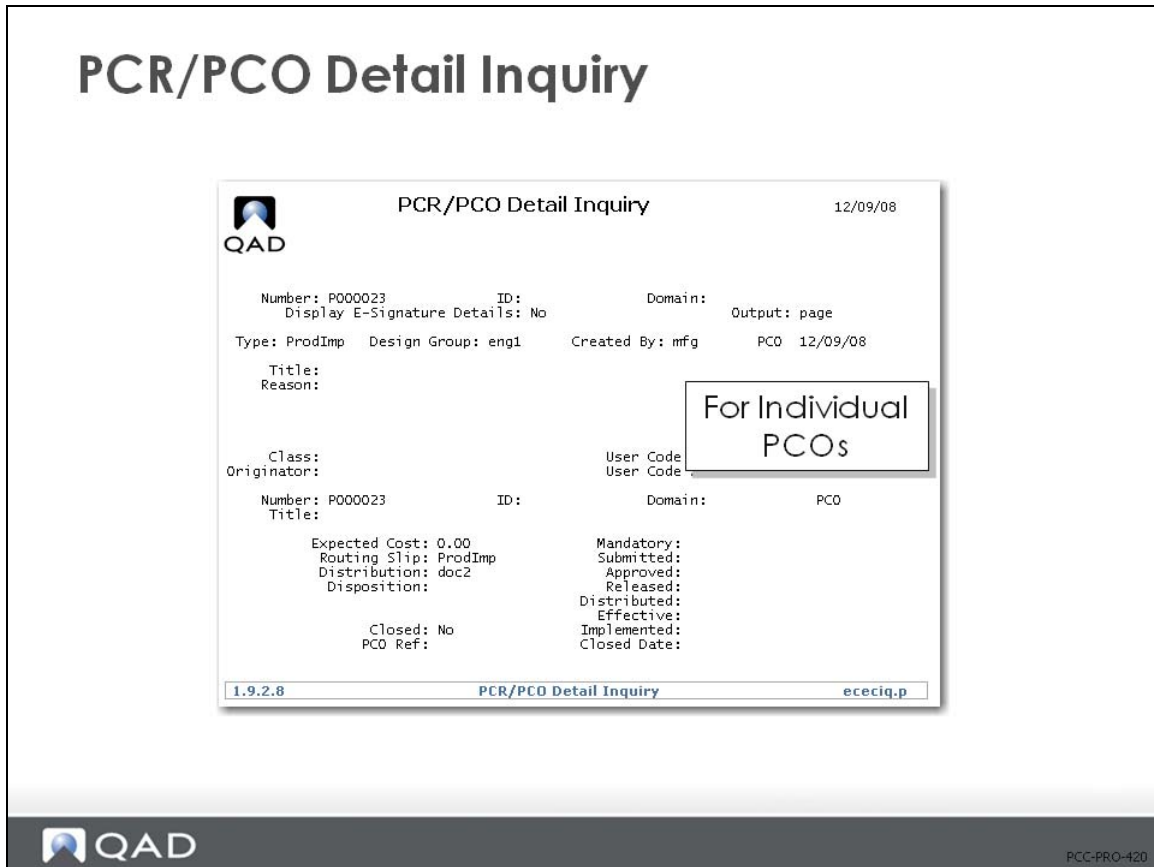
### Create/Maintain PCO



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

\* Optional

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.

## PCR/PCO Status Browse (1.9.11)

## PCR/PCO Status Browse

The screenshot displays the 'PCR/PCO Status Browse' application window. The search criteria are set to 'Number' starting with 'PCO01000'. The table below shows the results:

Number	ID	Database	Title	Status	Approved Date
PCO01000			Change Product Structure	Incorp	7/12/2010
PCO02000			Review Test Specification	Approved	5/17/2010
PCO02001			Redesign Ultrasound	Submit	
PCO02002			Operation Change	Submit	
PCO02003			Drawing Update	Closed	5/17/2010
PCO08000			Change Product Line	Incorp	10/19/2011
PCO08001			Add Scrap	Released	10/19/2011
PCO08002			Adding Rework	Approved	10/19/2011
PCO08003			Test Spec	Unsubmit	
PCO08004			Formula Change	Unsubmit	
PCO08005			Process Change	Unsubmit	

Callouts in the image indicate that the 'Status' column is used to check the status of a record and that a blank status value represents a pre-submission.

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

## Print PCR/PCO (1.9.9.1)

## Print PCR/PCO

Print PCR/PCO
Go To Actions Copy Print Preview

Number: <input type="text"/>	To: <input type="text"/>	For Ranges of PCOs																				
ID: <input type="text"/>	To: <input type="text"/>																					
Domain: <input type="text"/>	To: <input type="text"/>																					
Type: <input type="text"/>	To: <input type="text"/>																					
Design Group: <input type="text"/>	To: <input type="text"/>																					
Created By: <input type="text"/>	To: <input type="text"/>																					
Status: <input type="text"/>	To: <input type="text"/>																					
User Code 1: <input type="text"/>	To: <input type="text"/>																					
User Code 2: <input type="text"/>	To: <input type="text"/>																					
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Pre-submission: <input checked="" type="checkbox"/></td> <td style="width: 33%;">Comment Page: <input type="text" value="1"/> To: <input type="text" value="99"/></td> <td style="width: 33%;"></td> </tr> <tr> <td>Submitted: <input type="checkbox"/></td> <td>Text Order: <input type="text" value="1"/> To: <input type="text" value="99"/></td> <td></td> </tr> <tr> <td>Approved: <input type="checkbox"/></td> <td>Approvals: <input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>Released: <input type="checkbox"/></td> <td>Distributed: <input checked="" type="checkbox"/></td> <td></td> </tr> <tr> <td>Incorporated: <input type="checkbox"/></td> <td>PCO/PCR: <input type="text" value="PCO"/></td> <td></td> </tr> <tr> <td>Implemented: <input type="checkbox"/></td> <td>Display E</td> <td></td> </tr> <tr> <td>Closed: <input type="checkbox"/></td> <td></td> <td></td> </tr> </table>			Pre-submission: <input checked="" type="checkbox"/>	Comment Page: <input type="text" value="1"/> To: <input type="text" value="99"/>		Submitted: <input type="checkbox"/>	Text Order: <input type="text" value="1"/> To: <input type="text" value="99"/>		Approved: <input type="checkbox"/>	Approvals: <input checked="" type="checkbox"/>		Released: <input type="checkbox"/>	Distributed: <input checked="" type="checkbox"/>		Incorporated: <input type="checkbox"/>	PCO/PCR: <input type="text" value="PCO"/>		Implemented: <input type="checkbox"/>	Display E		Closed: <input type="checkbox"/>	
Pre-submission: <input checked="" type="checkbox"/>	Comment Page: <input type="text" value="1"/> To: <input type="text" value="99"/>																					
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Released: <input type="checkbox"/>	Distributed: <input checked="" type="checkbox"/>																					
Incorporated: <input type="checkbox"/>	PCO/PCR: <input type="text" value="PCO"/>																					
Implemented: <input type="checkbox"/>	Display E																					
Closed: <input type="checkbox"/>																						
Batch ID: <input type="text"/>																						

Example: Print all PCOs Pre-submission

- 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

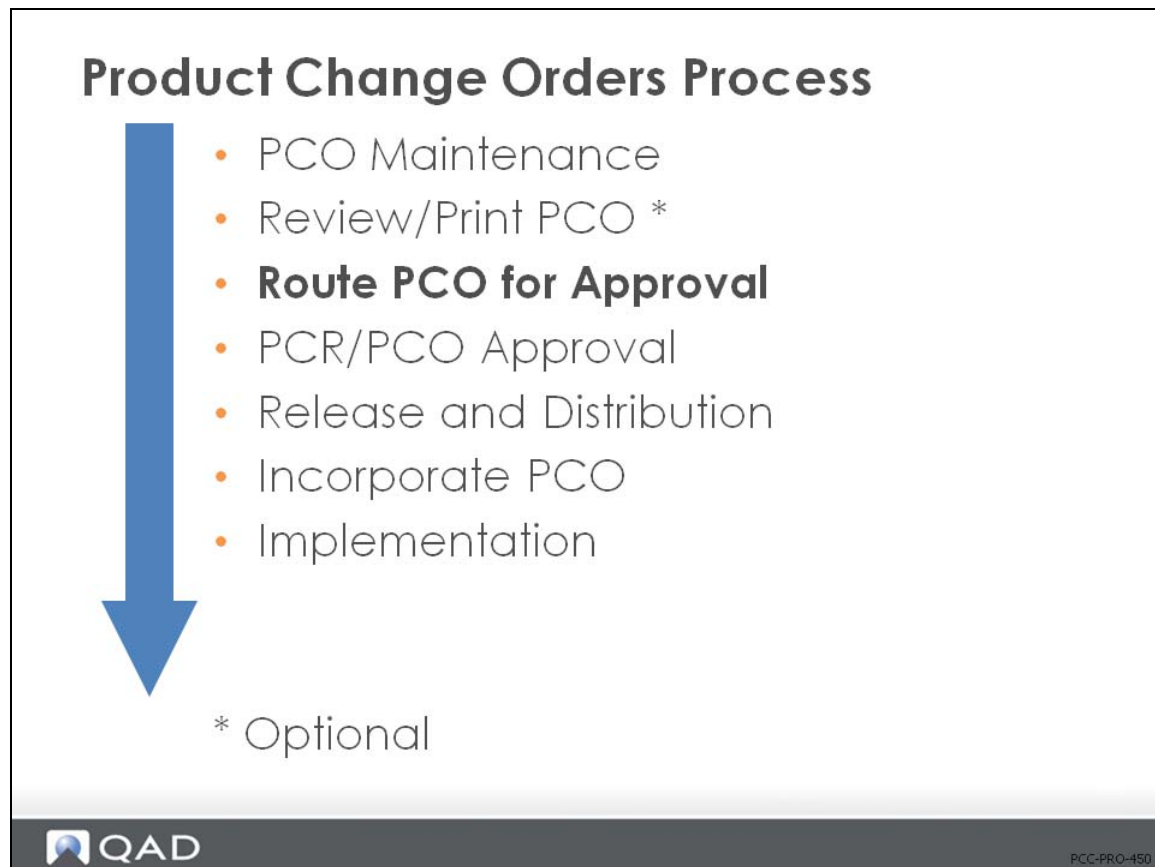
## Exercise: Check Status and Print PCOs

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. Make a note of the 6 you have created.
- 2 Use Print PCR/PCO (1.9.9.1) to print the PCOs you created. Enter the PCO Number fields (from and to) that you have created, and enter the following:

Field	Data
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 EE 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)

## Route PCO for Approval

The screenshot shows a web application window titled "Route PCO for Approval". It features a menu bar with "Go To", "Actions", "Copy", "Print", "Preview", and "Attach". Below the menu bar, there are fields for "Number: PC008008", "ID:", "Domain:", "Document Type: PCO", "Type:", "Dsgn Group:", "By:", and "Unsubmit Only: ".

The main content area is divided into two frames. The top frame contains a table with the following data:

Number	ID	Database	Title	By	Sub Date
PC008008			Redesign of Medical Ultras	qmi	

The bottom frame contains a table with the following data:

Number	ID	Domain	Title	By	Sbmt	Cmt
PC008008			Redesign of Medical Ultras	qmi	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Callout boxes indicate the workflow: "Select in the Top Frame" points to the first row in the top frame, and "Move to the Bottom Frame to Approve" points to the first row in the bottom frame. The bottom frame shows the "Sbmt" checkbox checked for the first row.

**QAD**

PCC-PRO-460

- 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

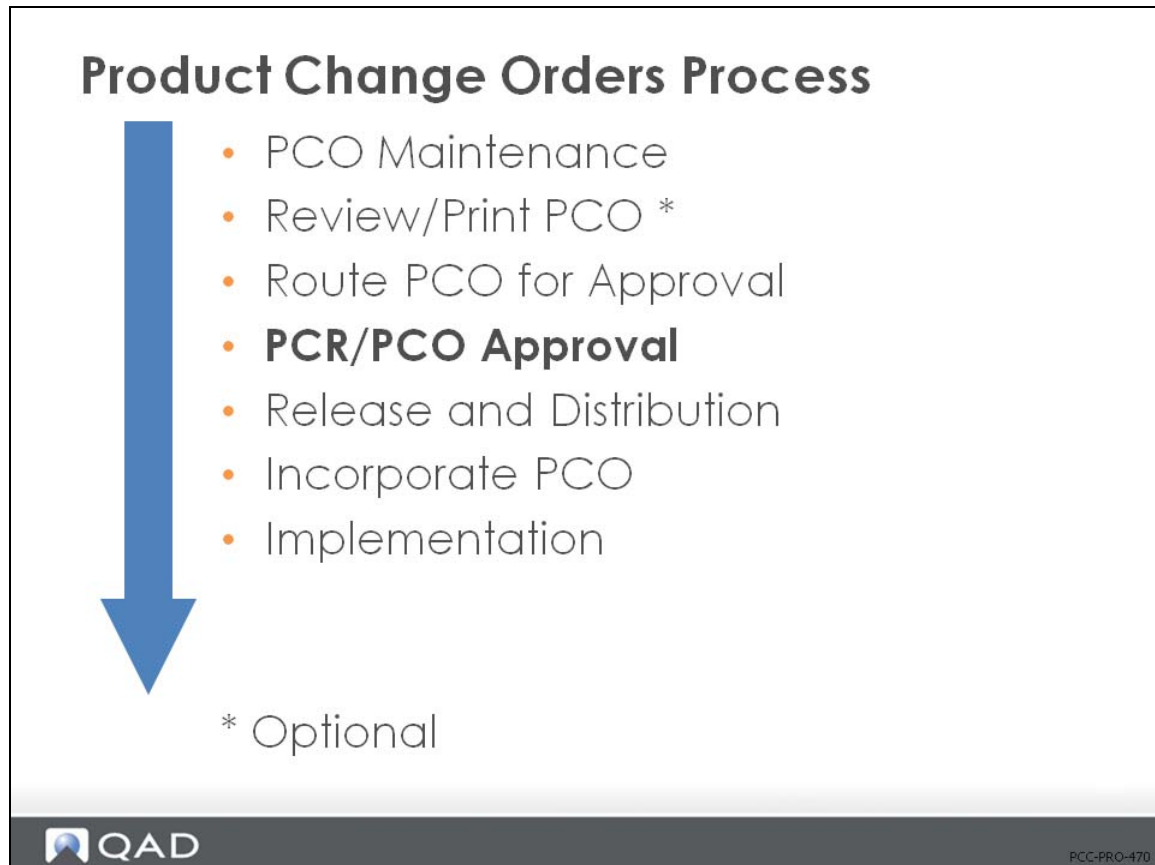
## Exercise: Route PCOs for Approval

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, enter Type = PCO and Dsgn Group = Design, leave Unsubmit Only = Yes. This will filter for just your unsubmitted PCOs.
  - a Select a PCO in the first frame and click Next.
  - b When it appears in the second frame, verify Sbmt = Yes. Click 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	Unsubmit

## 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)

## PCR/PCO Approval

Number: \_\_\_\_\_ Document Type: PCO

Appr Group: \_\_\_\_\_ User ID: qmi Next Only:  Unsigned Only:

DocNbr	Appr Grp	Seq	Appr	ByReRt
PCO02001	DESIGN	0	<input type="checkbox"/>	<input type="checkbox"/>
PCO02002	ENG	0	<input type="checkbox"/>	<input type="checkbox"/>

Shows Pending Only

**QAD** PCC-PRO-480

- 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

## Detail Approval Maintenance (1.9.6.13)

Detail Approval Maintenance

Number: PC008002      ID:      Domain:      Doc Type: PC0

Group	Description	Seq	Re-Rt Level	ReRoute	Approved
Eng/Apv	Engineering Approval	0	10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mfg/Apv	Mfg. Manager Approval	0	30	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pln/Apv	Buyer/Planner Approval	0	20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Qual/Apv	Quality Eng. Approval	0	10	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**WARNING**  
This Function Overrides Normal Approval Process

Group	Seq	Appr Date	Aprv By	Cmt
Eng/Apv	0	10/19/2011	qmi	<input type="checkbox"/>

QAD PCC-PRO-490

- 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.

## Approval Browse (1.9.6.2)

## Approval Browse

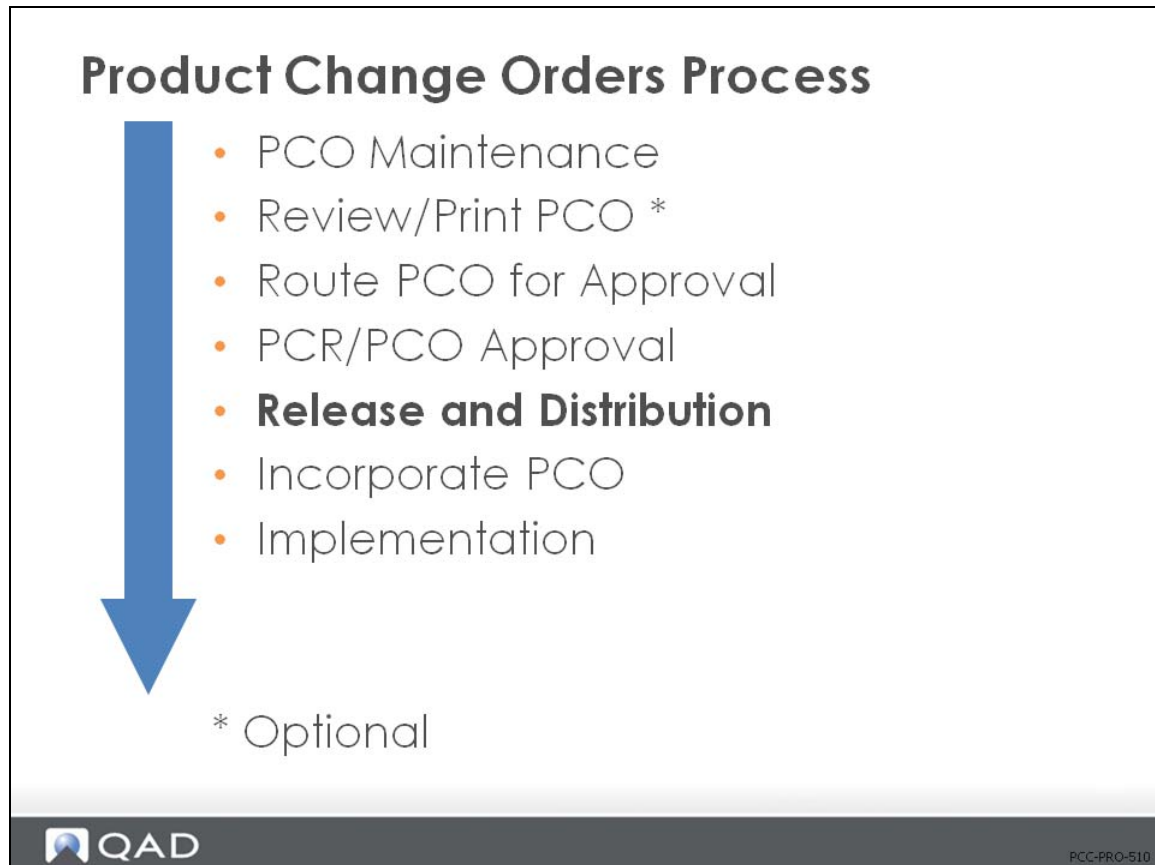
Number	ID	Database	Document Type	Routed Date	Sequence	Approval Group	Date Approved	Routing Slip
PCO02000		PCO	PCO	5/17/2010	1	DESIGN	5/17/2010	NewProd
PCO02000		PCO	PCO	5/17/2010	2	ENG	5/17/2010	NewProd
PCO02000		PCO	PCO	5/17/2010	3	PRODMGM		
PCO02001		PCO	PCO	5/17/2010	0	DESIGN		
PCO02002		PCO	PCO	5/17/2010	0	ENG		
PCO02003		PCO	PCO	5/17/2010	1	DESIGN		
PCO02003		PCO	PCO	5/17/2010	2	ENG		
PCO02003		PCO	PCO	5/17/2010	3	PRODMGMT	5/17/2010	NewProd
PCR01001		PCR	PCR	5/17/2010	0	DESIGN		Design
PCR01004		PCR	PCR	5/17/2010	1	DESIGN		NewProd
PCR01004		PCR	PCR	5/17/2010	2	ENG		NewProd
PCR01004		PCR	PCR	5/17/2010	3	PRODMGMT		NewProd
PCR01005		PCR	PCR	5/17/2010	1	DESIGN	10/20/2011	NewProd

Similar to PCR/PCO  
Status Browse  
(1.9.11)

QAD PCC-PRO-500

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

## 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 (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 can 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: Approve PCOs

Approve your first three PCOs, using PCR/PCO Approval (1.9.6.1).

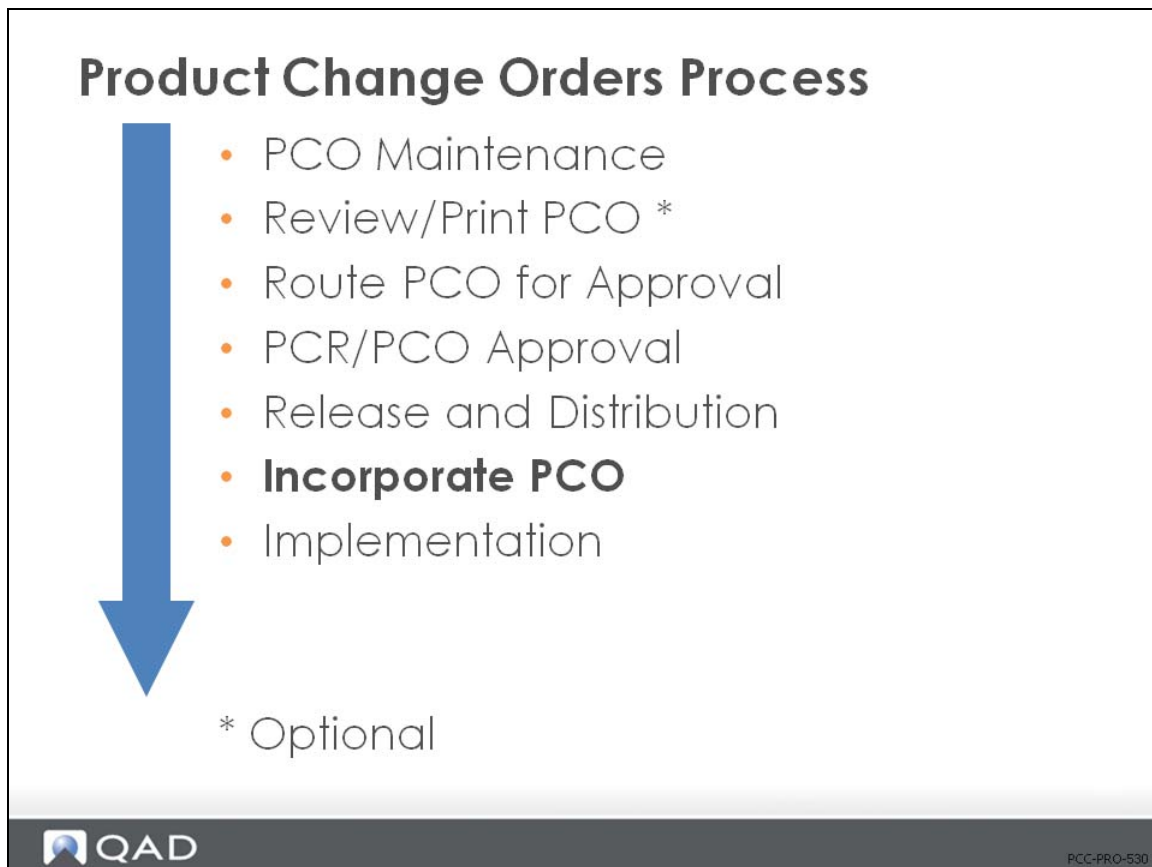
- 1 Select the first three PCOs you created in these exercises (refer to the PCO numbers you recorded). Enter the first PCO number, make sure that Document Type is PCO, and leave Unsigned Only = Yes.

**Note** Be sure to enter your login as User ID (qmi).

This will filter for just the unsubmitted PCOs. Ensure the Document Type is set to PCO.

- a Select a PCO in the first frame and click Next.
  - b When it appears in the second frame, verify Appr = Yes. Click Next to submit. Continue until all are approved. Approve for all Appr Grps.
- 2 Use PCR/PCO Status Browse (1.9.11) to review your PCOs to verify that their status changed from Submitted to Approved.

## Incorporate PCO



- Incorporation specifies an effective date for PCO changes to move into the production tables
- 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 tables once there is an effectivity date
- Makes data available to MRP, DRP, and other pre-production QAD EE modules
- Until implemented, a PCO incorporation date can be changed and re-incorporated

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

## Incorporation Selection (1.9.7.4)

**Incorporation Selection**

Number: PCO ID: Domain:  
 Type: Created By: Unincorporated Only:

Number	PCO ID	Database	Title	Eff Date
NPD01000			Intro of 6-Way Seat Adjustor	
PCD08001			Add Scrap	

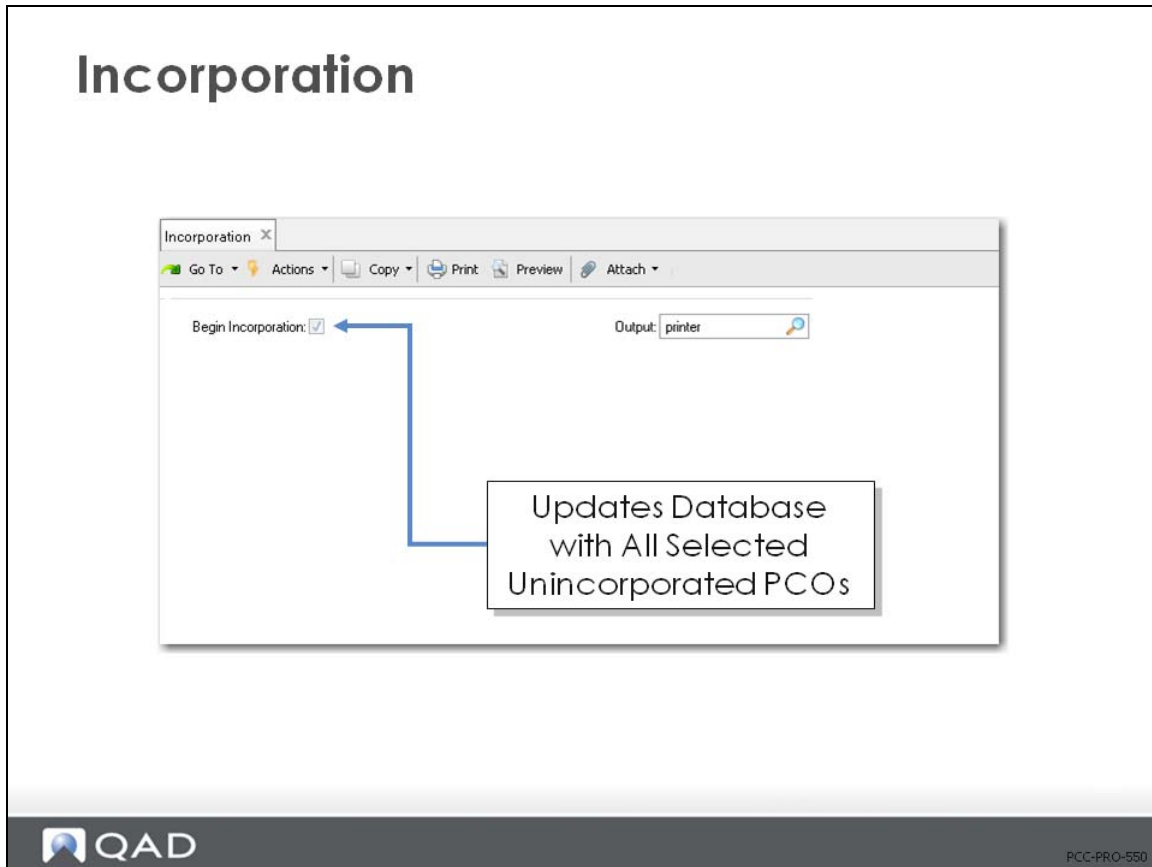
Select to Run Incorporation Next

Number	PCO ID	Database	Title	Eff Date
NPD01000			Intro of 6-Way Seat Adjustor	

QAD PCC-PRO-540

- Displays released and distributed PCOs, beginning with PCO specified in Number
- Unincorporated Only allows you to filter display to pending PCOs
- If two PCOs change data for the same item, they must be incorporated in revision level sequence
  - Select PCOs for incorporation and specify incorporation date
- Incorporation does not happen until Incorporation (1.9.7.5) is run

## 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 (1.9.7.3)

# Incorporation Planning Report

Number	ID	Domain	Site	Effective	Cost Method (Cur)	Output
PCO08000			10-100	10/26/2011	GL	printer

Evaluate PCO  
Inventory Effects  
**Optional Report**

QAD PCC-PRO-560

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

### Exercise: Release and Distribute PCO

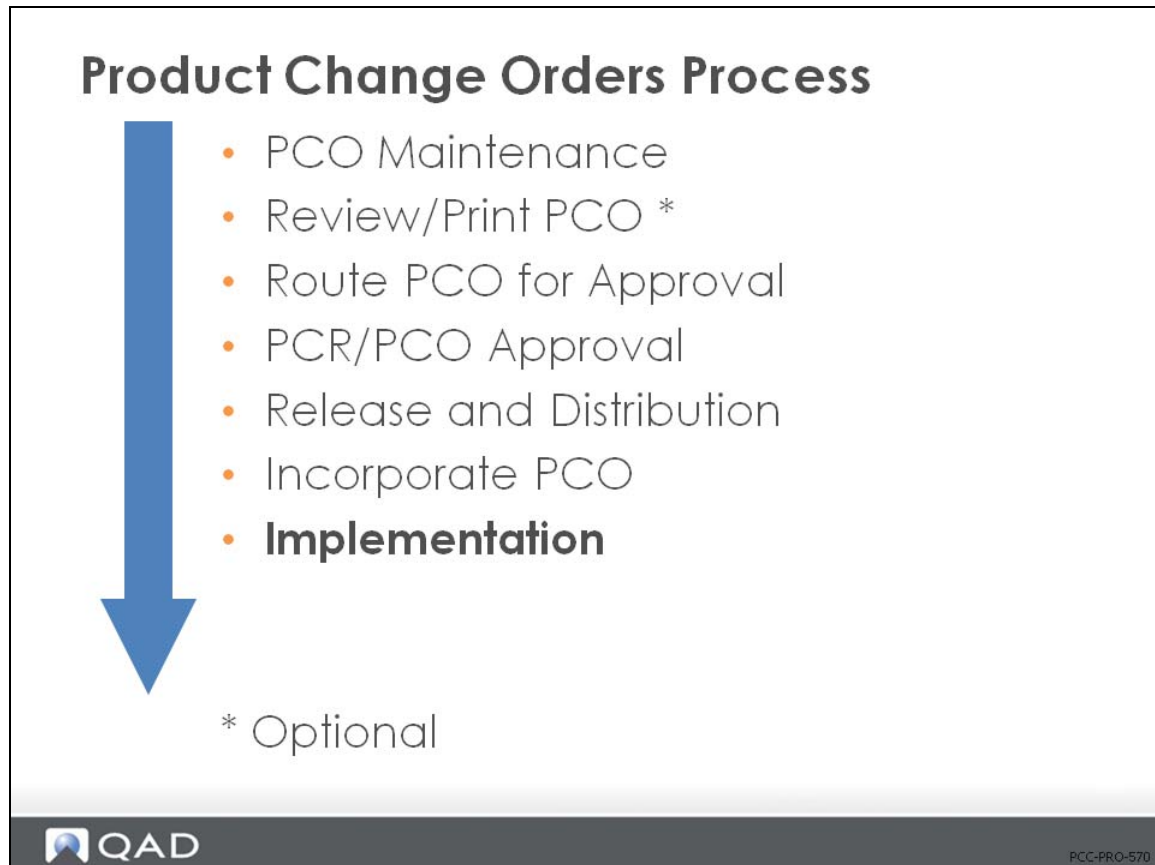
Use Release and Distribution (1.9.7.1) to release and distribute your first PCO. Incorporate these changes into QAD EE for planning consideration.

- 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 click 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.

### Exercise: Incorporate 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. Enter your initials if PAGE or PRINTER is not allowed. Ignore warning message.
- 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.

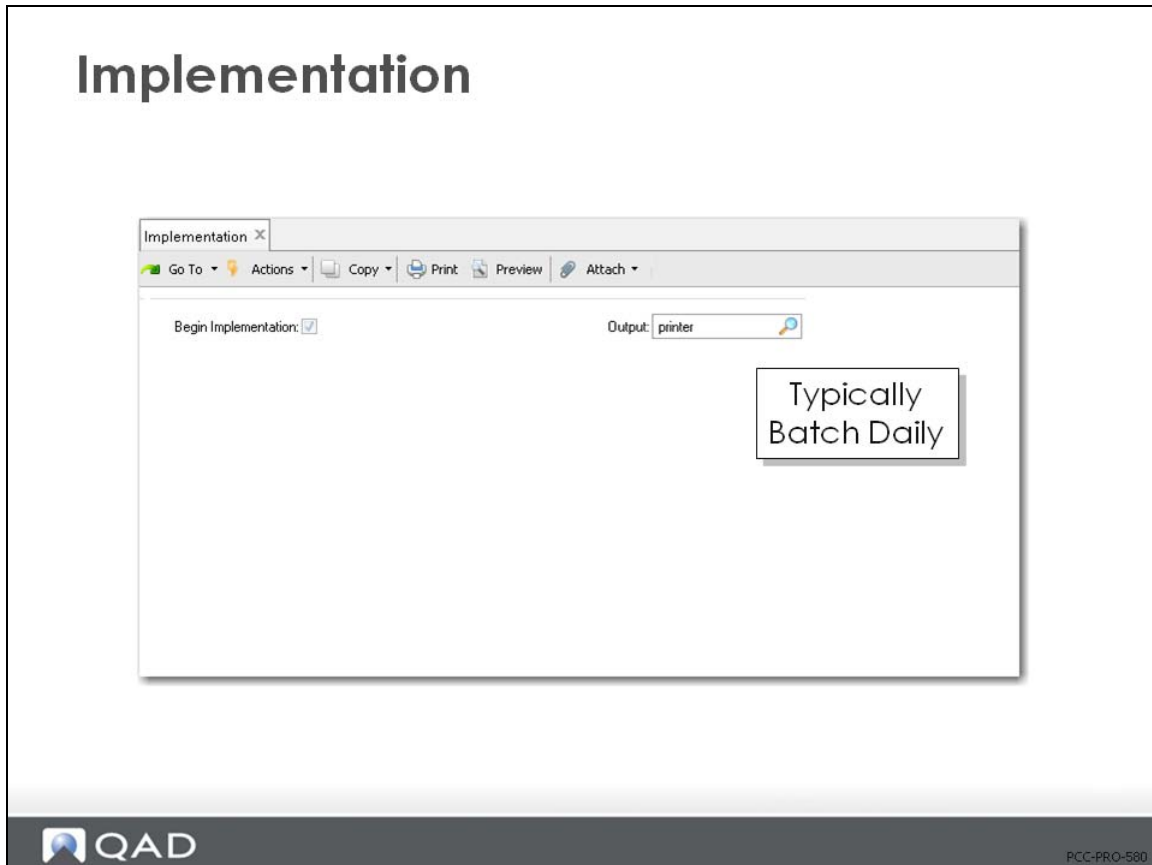
## Implementation



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

## 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

## Exercise: Implement PCOs

Use PCR/PCO Approval (1.9.7.1) to implement the PCOs incorporated 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	Unsubmit

Use PCR/PCO Status Browse to verify the status.

## Summary

### 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

### Miscellaneous PCR/PCO Functions

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



2008-PCC-PRO-600

- PCR/PCO Import/Export (1.9.13)
  - Export PCO data to an ASCII text file
  - Import to restore archived data
- PCR/PCO Delete/Archive (1.9.15)
  - Archive or delete closed records from the database

## Course Overview

### Course Overview

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



2008-PCC-PRO-620

**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 Pill, 05003. Use PCO Maintenance (1.9.2.13) to create a PCO for a yield of only 98%.

- 1 Let QAD EE assign the PCO number.

Field	Data
Assign Type	PCO
Design Group	DESIGN

**Exercise: Implement PCO**

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

- 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

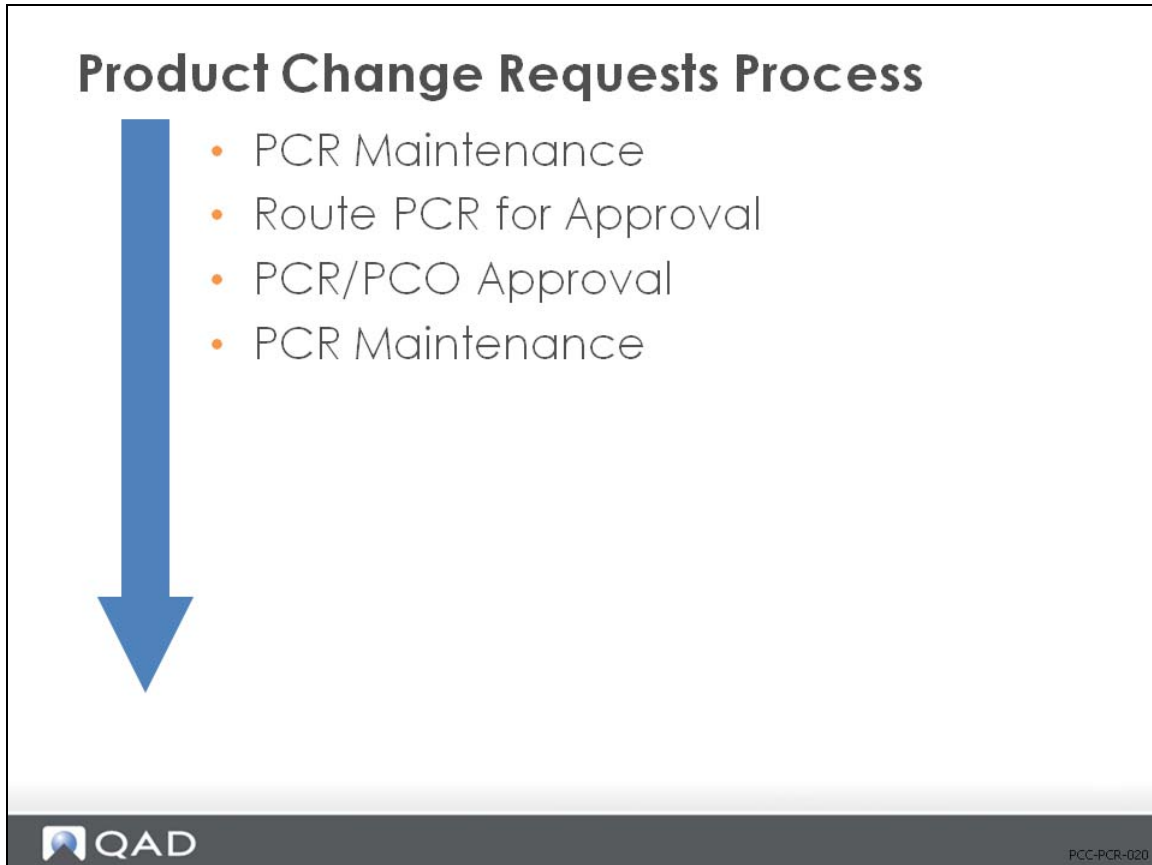
In this section you learn how to:

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



PCC-PCR-010

## Product Change Requests Process



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

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

## Create Maintain PCR

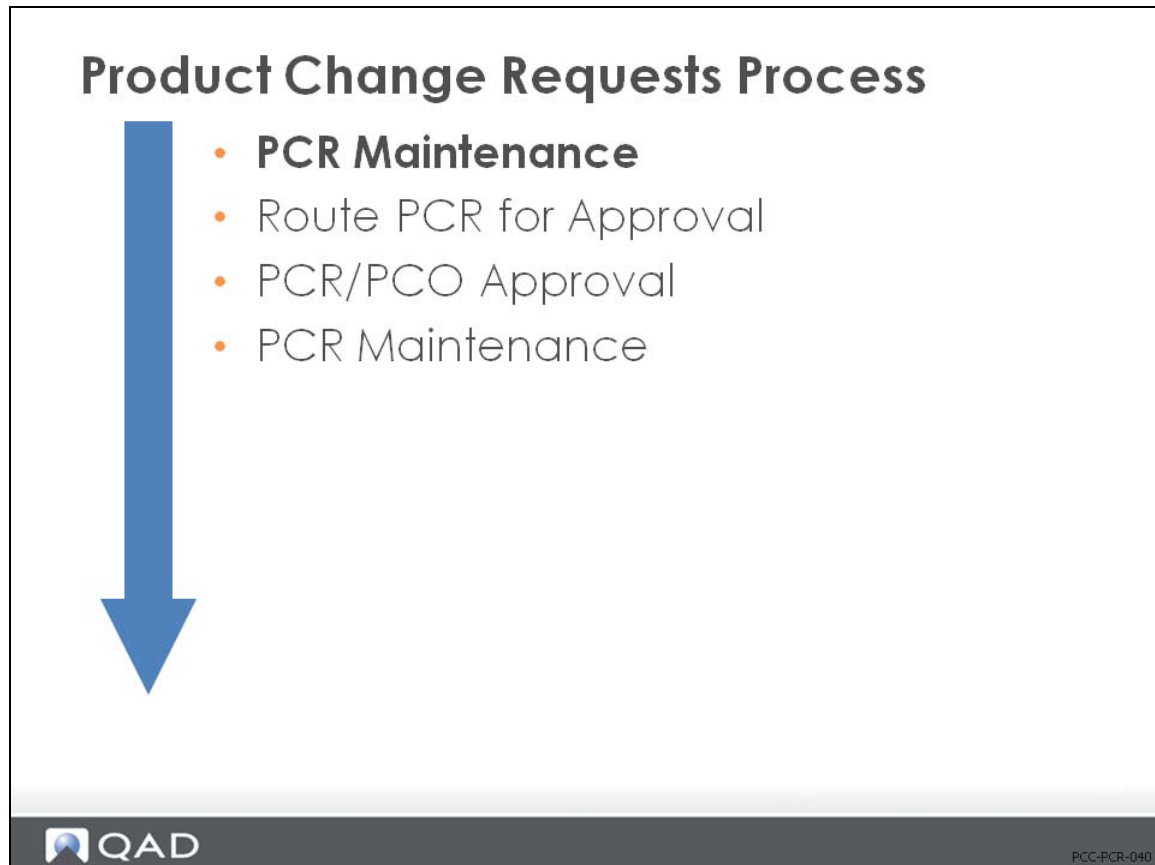
### Create/Maintain PCR

- 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)



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 (1.9.2.1)

# PCR Maintenance

PCR Maintenance X
Go To Actions Copy Print Preview Attach

Number: PCR01005	ID:	Domain: PCR	
Type: PROD	Design Group: PRODMGMT	Created By: rgk	5/17/2010

Title:

Reason: 

Item 01030 will need to be replaced with a new digital technology


Class:

Originator:

User Code 1:

User Code 2:

**Create New Request**


PCC-PCR-050

- PCRs are unique for each Number, ID, and Domain combination
  - ID and Domain 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 Domain as another PCR, you will receive a warning that related PCRs exist

## PCR Maintenance Options

The screenshot displays the 'PCR Maintenance' window. The main form contains the following information:

- Number: PCR01005
- Type: PROD
- Title: Product Replacement
- Reason: Item 01030 will need to be replaced with new technology
- Class:
- Originator: Marketing
- ID: [blank]
- Design Group: PRODMGMT
- Domain: PCR
- Created By: rgk
- Date: 5/17/2010

A pop-up menu is open over the form, listing the following options:

- 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

Annotations in the image include:

- A callout box stating: "Similar Interface Menus as PCO Maintenance (1.9.2.13)"
- A callout box pointing to the 'Trailer Maintenance' option: "Only Selection with No Additional Menu"

The QAD logo is visible in the bottom left corner, and the reference code 'PCC-PCR-060' is in the bottom right corner.

- 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

## PCR Maintenance Options Lower Levels

### PCR Maintenance

**Select PCR/PCO Section**

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

**Text Data Maintenance**

■

Add, Modify, Delete PCR Text Data

Copy Text from Master Comments into PCR

**Formula Data Maintenance**

■

Copy Formula Into PCR

Copy Where-Used into PCR

PCR/PCO Detail Maintenance - Formulas

Replace Formula Component

**Item Data Maintenance**

■

Add, Modify, Delete PCR Item Data

Direct Item Master Access

**Process Data Maintenance**

■

Copy Processes to PCR/PCO

PCR/PCO Detail Maintenance - Processes

**Structure Data Maintenance**

■

Copy Product Structure into PCR

Copy Where-Used into PCR

PCR/PCO Detail Maintenance - Product Structures

Replace Product Structure Component

**Item Specification Maintenance**

■

Copy Item Specification from Quality Module

PCR/PCO Detail Maintenance - Item Specification

**PCO/PCR Function Maintenance**

■

Convert PCR to PCO

Change PCR Number

Close PCR To PCO

Copy PCR From PCO/PCR

Copy PCR To PCO/PCR


**Routing Data Maintenance**

■

Copy Routing to PCR/PCO

PCR/PCO Detail Maintenance - Routing

PCR/PCO Detail Maintenance - Routing (Rate Based)


PCC-PCR-070

## Exercise: Create PCR with Where-As Changes

You received a request to make black cases (industrial housing) in place of your existing white cases. To analyze the feasibility of this product change, you need a new paint similar to 60060 White Paint, and you need Where-As replacements to substitute the new paint. In this exercise you create a PCR to evaluate and approve these changes before converting them to PCOs.

- 1 Let QAD EE assign the PCR number. The number will be assigned when you complete the Type and Design group fields and click Next.

Field	Data
Assign Type	PCR
Design Group	DESIGN

**a** Notice the different numbering from the PCOs in the last chapter.

**b** Write down the PCR 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:

Field	Data
Title	New Paint
Reason	New Item 60061 Black paint Where-as to Replace 60060

- 3 Click Next to continue past the header. Choose Item Data Maintenance, then select Add, Modify, Delete PCR Item Data.

**a** Add the item record for 60060 White paint to your PCR.

**b** End Product = Yes.

**c** Comments = Yes. Add a comment to instruct “Being replaced by Black Paint.”

**d** Exit the PCR and print the record, or review the Detail Inquiry (1.9.2.8) and write down the Item Data information about 60060. You need it to create the new item 60061. Return to PCR Maintenance when you have the 60060 information.

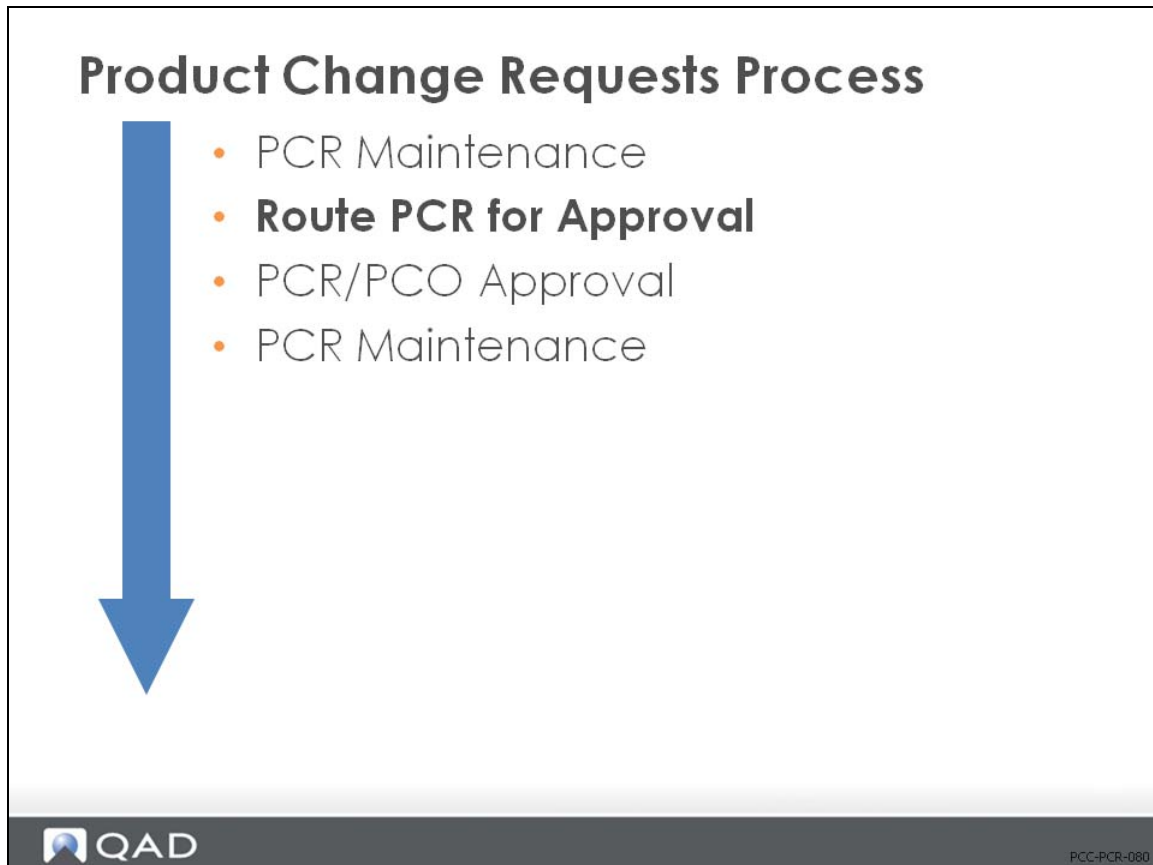
- 4 Re-enter the PCR Maintenance function and choose Item Data Maintenance from the menu, then select Direct Item Data Access.

**a** Add a new item 60061 Black paint. Be sure to use the same Product Line, Unit of Measure, Status Code, and all other Item Data codes as 60060. Refer back to your copied record for accuracy.

An alternative method to add the new item to the Item Master would be to use Item Master Copy (1.4.12) and copy the 60060 record to create the 60061.

- 5 Return and choose Item Data Maintenance, then Add, Modify, Delete PCR Data.
  - a In the last step you added the item to the Item Master but not to the PCR. Add the new item record for 60061 Black Paint to the PCR. End product = Yes, Comments = No.
- 6 Return and choose Structure Data Maintenance. Then select Copy Where Used into PCR.
  - a Component Item = 60060.
  - b Select each product structure by clicking it with the mouse. An asterisk appears next to each parent item number. Click Next to save the records.
- 7 Select Structure Data Maintenance and then Replace Product Structure Component.
  - a Component Item = 60060.
  - b Replace with Item = 60061, Multiplier = 1.0 (a one-for-one replacement).
  - c Click Back to Continue and Please Confirm Update = Yes.
- 8 Choose Structure Data 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 60060 with Deactivate = Yes and the new item number 60061 with Deactivate = No.
- 9 Save the record, click Next, 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 using PCR/PCO Detail Inquiry (1.9.2.8).

## 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 (1.9.2.4)

### Route PCR for Approval

Route PCR for Approval X


Go To Actions Copy Print Preview Attach

Number: PC002001 ID: Domain: Document Type: PCR  
 Type: Dsgn Group: By: Unsubmit Only:

Number	ID	Database	Title	By	Sub Date
PCR01000			Universal Power Adapter	rgk	
PCR01002			New Potential Supplier		
PCR01003			Process Suggestion		

Route to Users for Approving PCR

Number	ID	Domain	Title	By	Sbmt	Cmt
PCR01000			Universal Power Adapter	rgk	<input checked="" type="checkbox"/>	<input type="checkbox"/>

 PCC-PCR-090

- 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 click 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 Sbmt 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

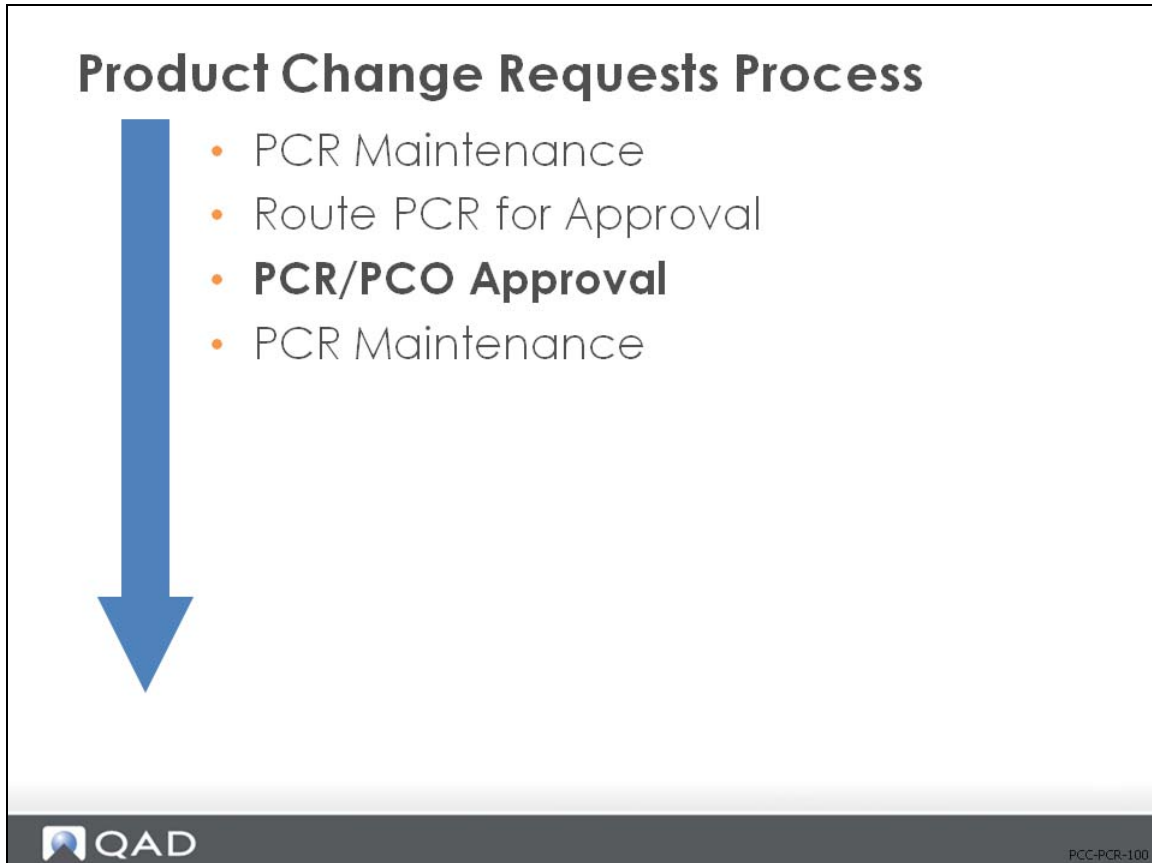
## Exercise: Route PCR for Approval

- 1 Allow QAD EE to automatically select the PCR available for submittal.
  - a Doc Type = PCR and Unsubmt Only = Yes. Click Next to continue.
  - b Click Next to accept the PCR in the first frame. Sbmt = Yes in the second frame. Click Next.

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).

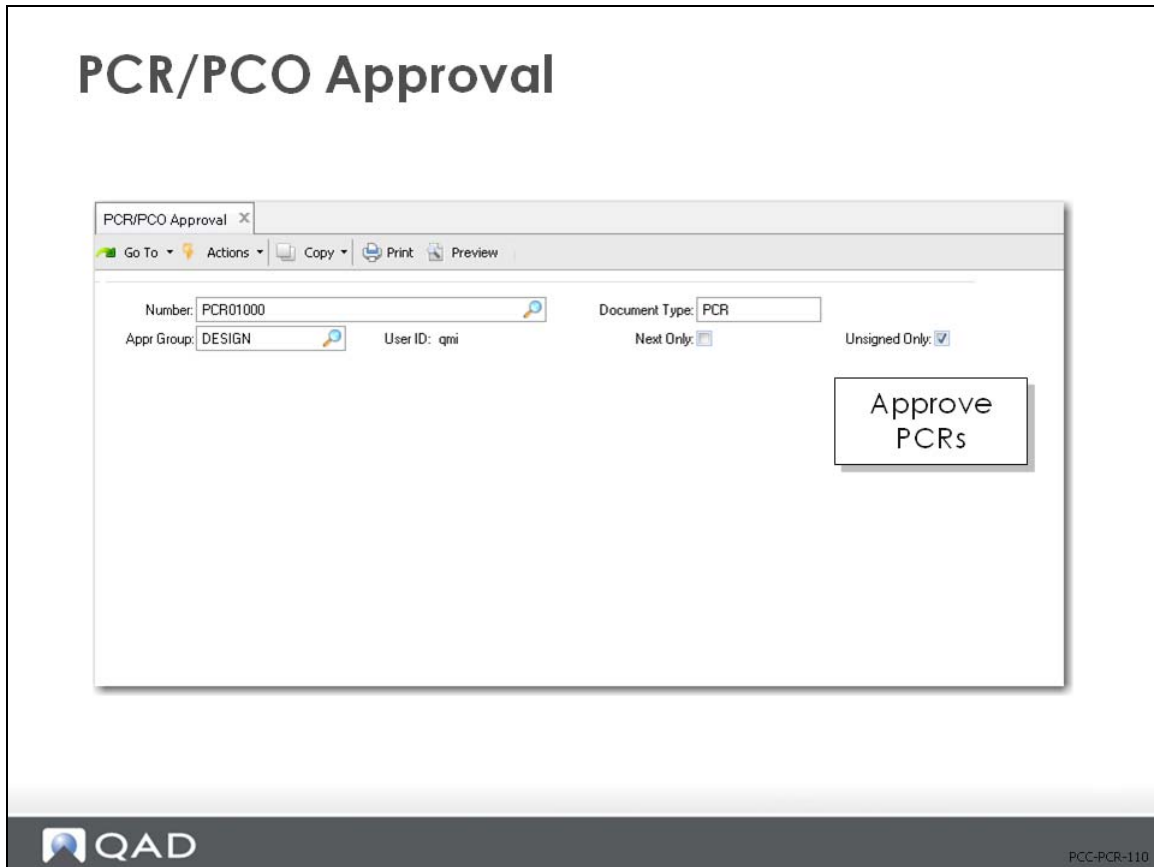
## Approve PCR



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
- Use the arrow keys to scroll through the documents in the second frame and click 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 to No
  - An asterisk appears in the last column in the second frame to give visibility to any PCR that was rejected and rerouted

## Close PCR to PCO

The screenshot displays the 'PCR Maintenance' window in the QAD system. The window title is 'PCR Maintenance' and it includes a menu bar with 'Go To', 'Actions', 'Copy', 'Print', and 'Preview'. The main content area shows the following details:

- Number: PCR08000
- Type: request
- ID: Design Group: new1
- Domain: PCR
- Created By: mfg
- Title: New Colorant
- Reason: New Part 88-8000 Black Colorant
- Where as to replace 88-6000

A box labeled 'PCR Specific Functions' points to a list of functions under the heading 'PCO/PCR Function Maintenance':

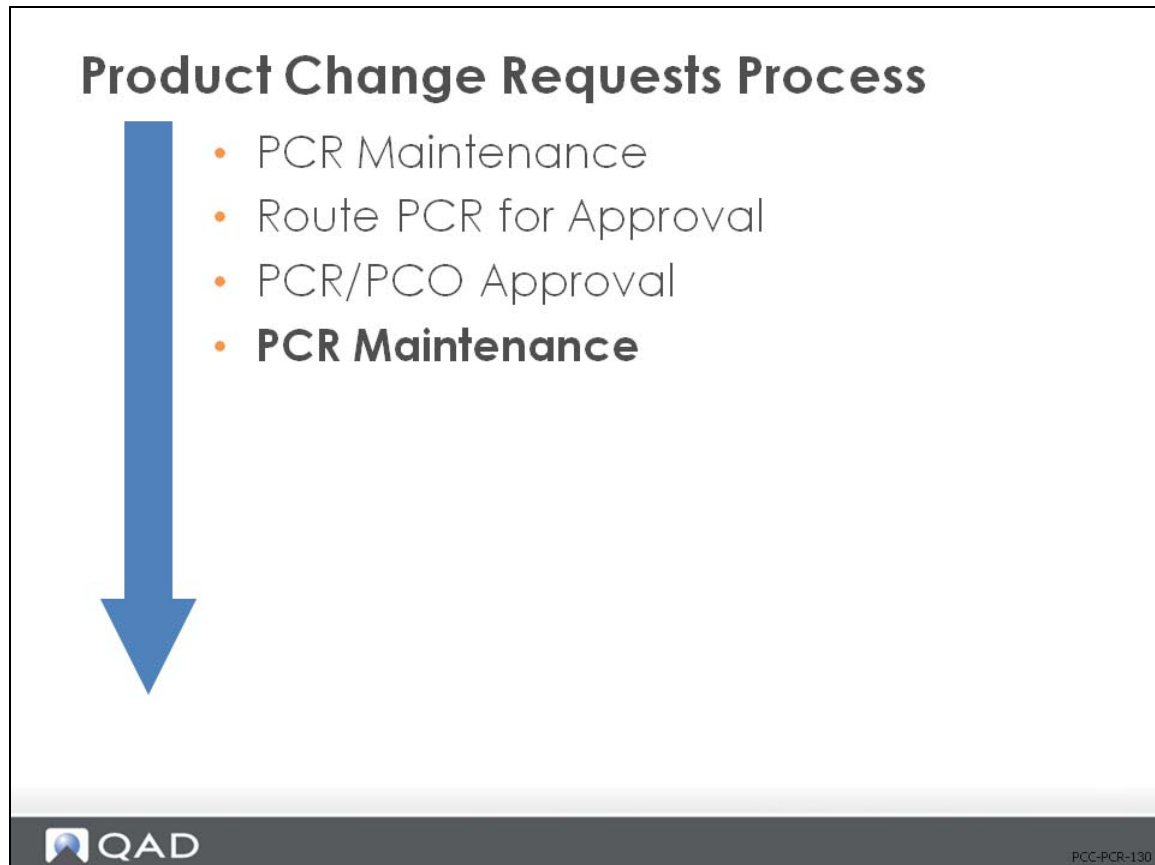
- Convert PCR to PCO
- Change PCR Number
- Close PCR To PCO
- Copy PCR From PCO/PCR
- Copy PCR To PCO/PCR

At the bottom of the window are three buttons: 'Delete', 'Back', and 'Next'. The QAD logo is visible in the bottom left corner, and the document number '2008-PCC-PCR-120' is in the bottom right corner.

**Exercise: Approve PCR**

- 1 Allow QAD EE to automatically select the PCR available for approval.
  - a Doc Type = PCR, User ID = your login, and Unsigned Only = Yes. Click Next to continue.
  - b Click Next to accept the PCR in the first frame. Sbmt = Yes in the second frame. Click Next.  
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).

## 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)

## PCR Maintenance

PCR Maintenance x
Go To Actions Copy Print Preview Attach

Number: PCR01000  
Type: COST

Title: Universal Power Adapter  
Reason: Might be able to save money using


Class:  
Originator: Service

ID:  
Design Group: ENG

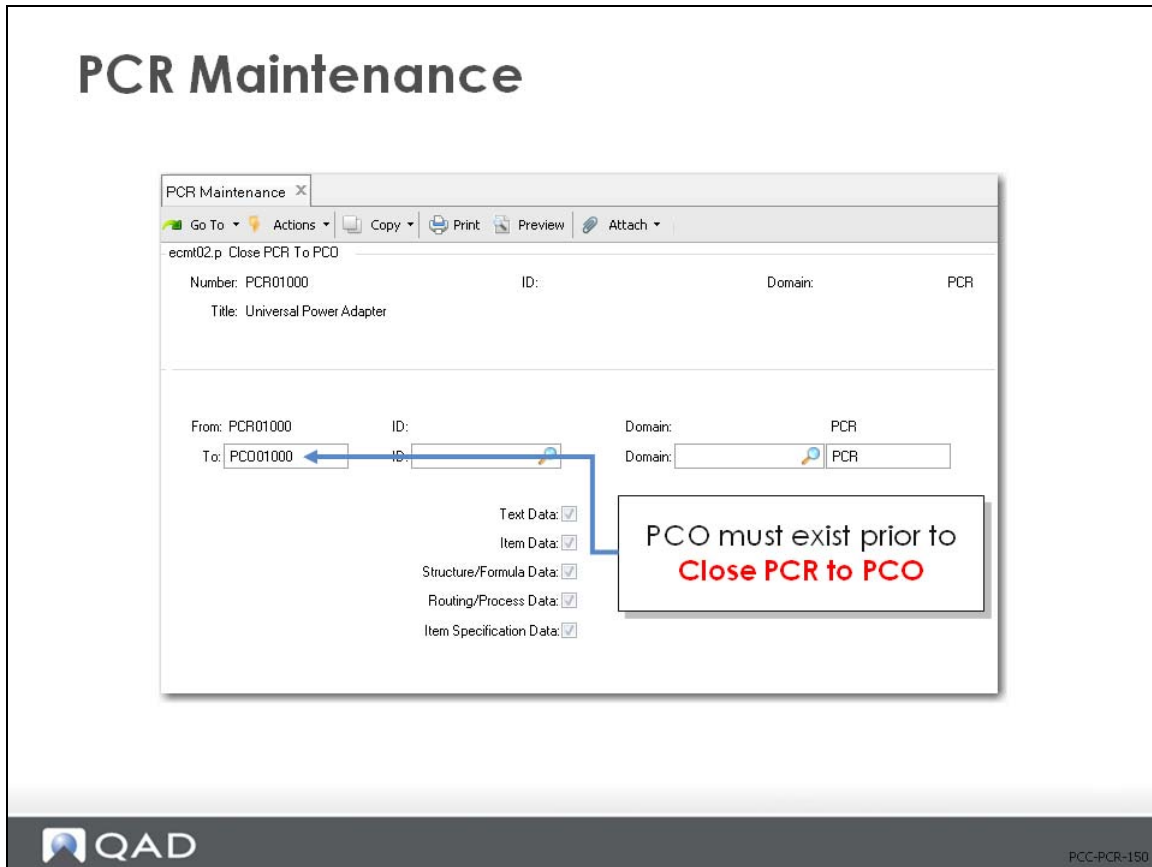
Domain:  
Created By: rgl

Select PCR/PCD Section  
 PCD/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

PCR Specific Functions


PCC-PCR-140

## 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

## Convert PCR to PCO

The screenshot displays the 'PCR Maintenance' window with a sub-dialog titled 'Convert PCR to PCO'. The dialog shows the following fields and options:

- Number: PCR08000
- Title: New Colorant
- From: PCR08000
- To: PCR08000
- Domain: PCR (highlighted in a blue box)
- Domain: PCO (highlighted in a blue box)
- Text Data:
- Item Data:
- Structure/Formula Data:
- Routing/Process Data:
- Item Specification Data:
- Begin process:

A callout box contains the text: 'Convert keeps Numbering Changes Type'. At the bottom of the dialog are 'Back' and 'Next' buttons. The QAD logo is visible in the bottom left corner, and 'PCC-PCR-160' is in the bottom right corner.

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**

- 1 Your company requires a new PCO that will only contain the contents of this PCR.
  - a Create a new PCO. Allow QAD EE 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.

Field	Data
Title	New Paint Applied
Reason	PCR Changes Approved. Production Order for Black Paint.

- 2 Return to PCR Maintenance, select your Black Paint PCR, and click Next 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 a Status of Closed. The new PCO should show Status of blank. The PCO is now ready for routing.

Hint: Use PCR/PCO Status Browse (1.9.11).

## Summary

### Product Change Requests Process Summary



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



Chapter 6

# **Business Issues**

## 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 to be gathered 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.

Appendix A

# **Reports, Inquiries, Browsers**

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, domain, 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, domain, 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, domain, 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, domain, site, start effective date, and costing method.

Menu	Menu Name	Function/Purpose
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 production data; Qty Type and Structure Type display data from the PCO. 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.
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, domain, 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, domain, 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, domain, 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

<b>Menu</b>	<b>Menu Name</b>	<b>Function/Purpose</b>
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.

# Product Information Resources

QAD offers a number of online resources to help you get more information about using QAD products.

[QAD Forums \(community.qad.com\)](http://community.qad.com)

Ask questions and share information with other members of the user community, including QAD experts.

[QAD Knowledgebase \(knowledgebase.qad.com\)\\*](http://knowledgebase.qad.com)

Search for answers, tips, or solutions related to any QAD product or topic.

[QAD Document Library \(www.qad.com/documentlibrary\)](http://www.qad.com/documentlibrary)

Get browser-based access to user guides, release notes, training guides, and so on; use powerful search features to find the document you want, then read online, or download and print PDF.

[QAD Learning Center \(learning.qad.com\)\\*](http://learning.qad.com)

Visit QAD's one-stop destination for all courses and training materials.

\*Log-in required

