



# Autodesk® Vault Professional: You Got It—Now What?

Brian Verboort – M2 Technologies, Inc.

**PL2915** Whether you have had Autodesk Vault Professional software for a while and aren't using it to its full potential or you just got Vault Professional through a recent purchase or upgrade—let's put it to use. We cover practical workflows, including when to use (and when not to use) categories, items, change orders, change order routings, and lifecycle states.

## Learning Objectives

At the end of this class, you will be able to:

- Identify the Benefits of Vault Professional
- Upgrade existing Vault Installation
- Plan Practical Workflows for Vault Professional
- Configure Vault Professional Functions & Workflows

## About the Speaker

*As Director of Solution Engineers at M2, Brian is responsible for managing and direction of the technical team providing technical support to M2 customers, helping to solve their most complex design challenges. His duties include developing software customization's to meet customers' workflow requirements, providing Tech Support for all Autodesk Manufacturing products and facilitating training of all supported software.*

*Brian has extensive experience providing consulting services, facilitating on-site product demonstrations, performing engineering and manufacturing department process analysis, as well as providing product training, implementation and technical support.*

*Brian is an Autodesk Authorized Consultant (AAC) and an Autodesk Inventor Certified Expert (ICE) and an Autodesk Certified Instructor (ACI) and contributed to creation of The Autodesk Inventor Essentials Plus by Delmar Learning. Brian has been invited numerous times to present at Autodesk University.*

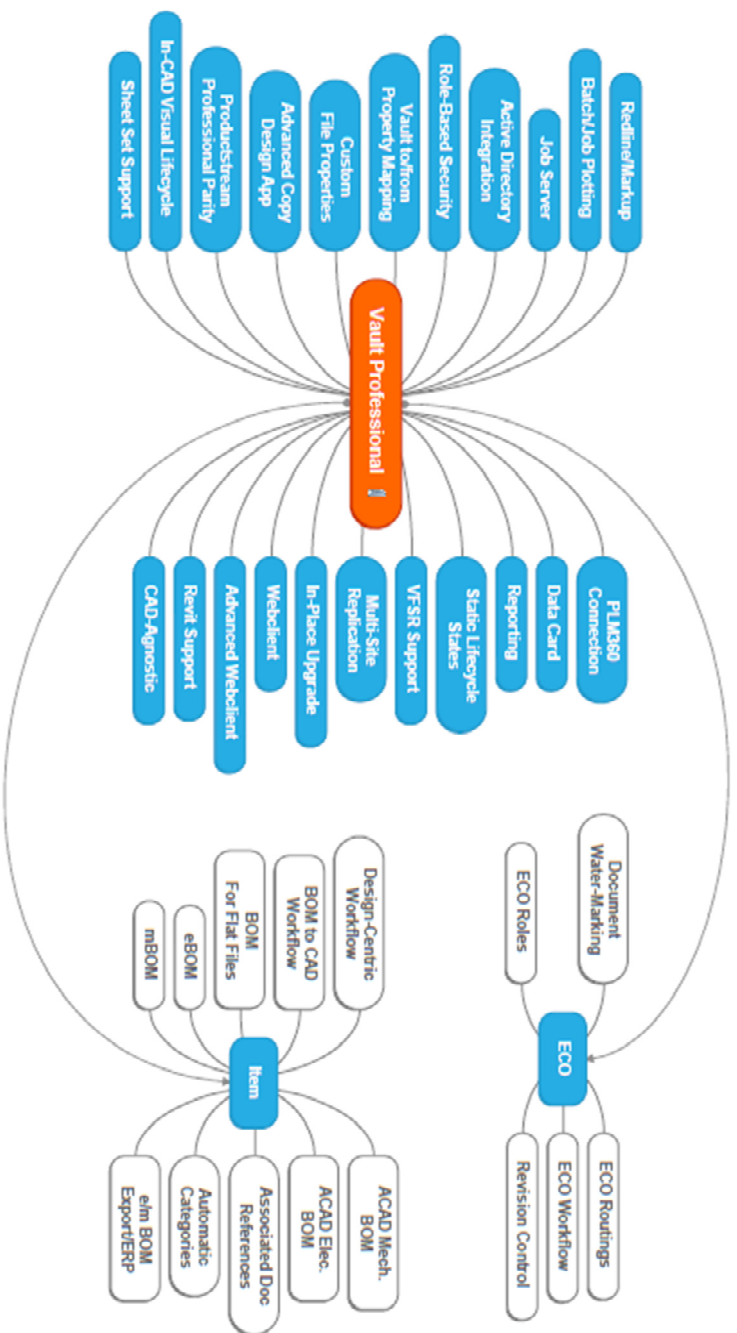
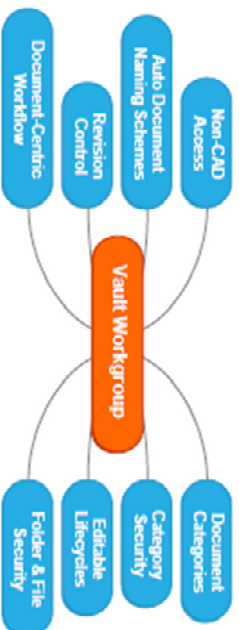
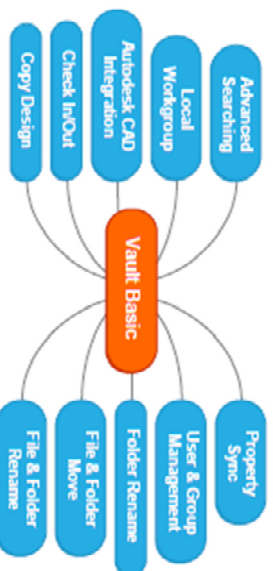
#BRIANVERBOORT

<http://www.linkedin.com/profile/view?id=4103886>

# Functional Benefits of Vault Professional

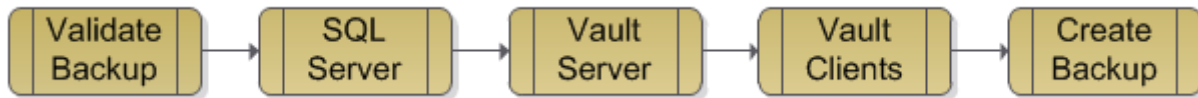
Table 1: Vault Family Functional Matrix

Feature	Autodesk® Vault Basic	Autodesk® Vault Workgroup	Autodesk® Vault Professional
Autodesk CAD Integration	✓	✓	✓
File Management Tools	✓	✓	✓
Single Workgroup	✓	✓	✓
Fast Searching	✓	✓	✓
Data Reuse Tools	✓	✓	✓
File Revision Control and Lifecycles		✓	✓
Automatic File Naming		✓	✓
Access for Non-CAD Users		✓	✓
File and Folder Security		✓	✓
Reporting		✓	✓
Server Based DWF Publishing		✓	✓
Multi-Site Replication			✓
'Query, View, and Print' Web Client			✓
Custom Objects			✓
Bill of Material Management			✓
Engineering Change Management			✓
PLM 360 Integration			✓
Coexist with Enterprise Business Systems			✓

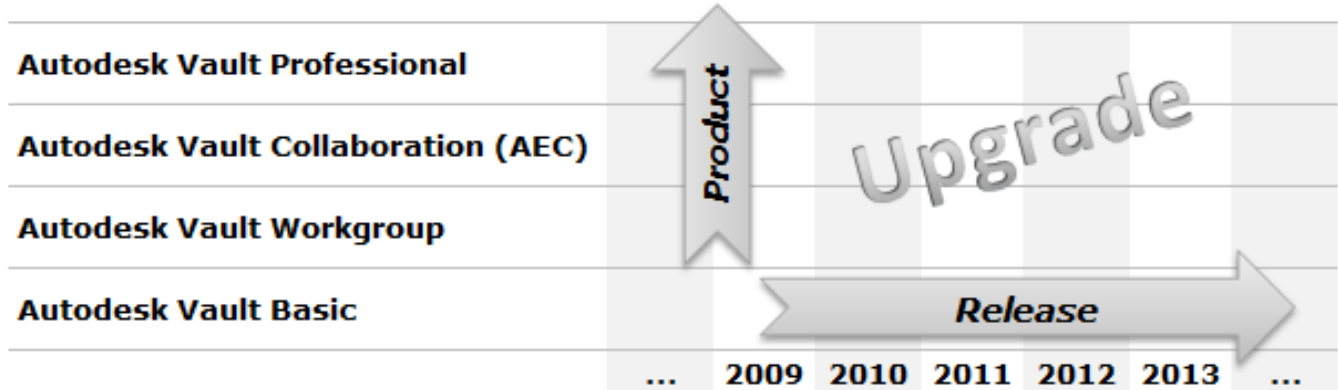


## Upgrade Existing Vault Installation

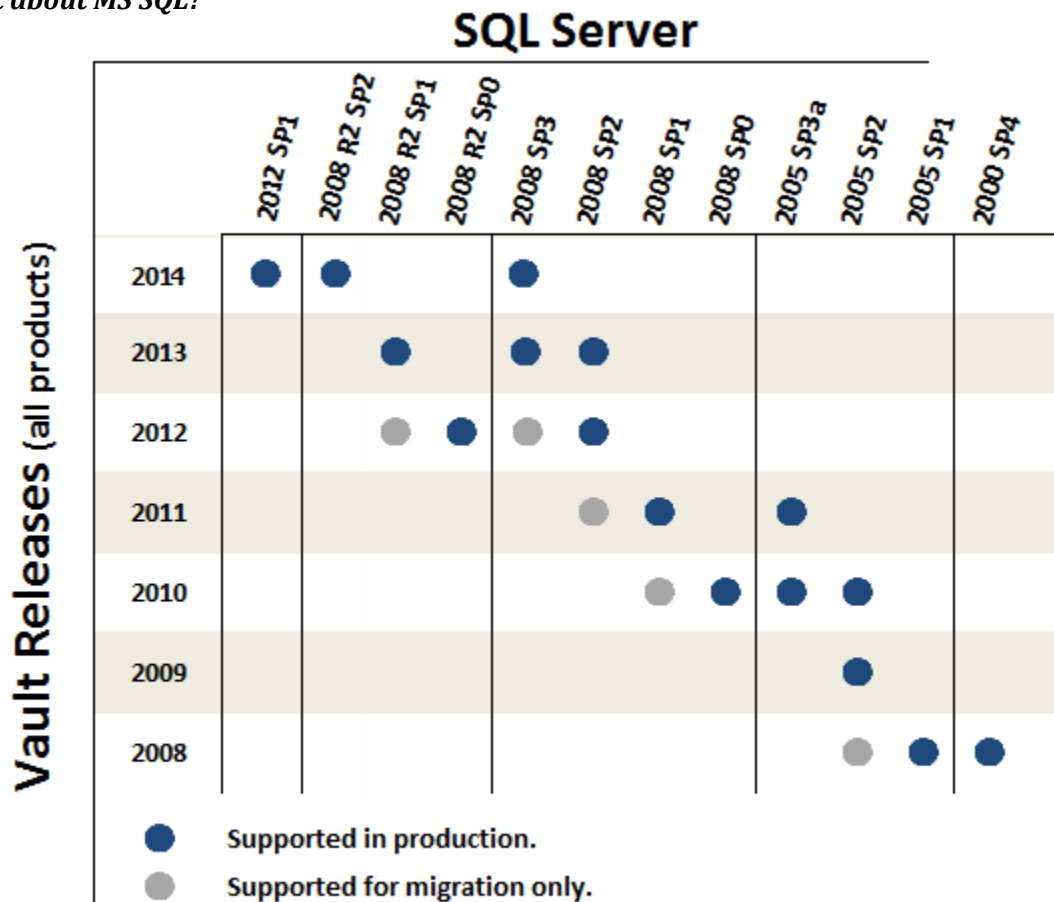
### In-Place Upgrade Process



*Do I qualify for In-Place Upgrade?*



*What about MS SQL?*



*See the documentation for each release of Vault for details about supported SQL products.*

*The absolute best upgrade resource is found here...*

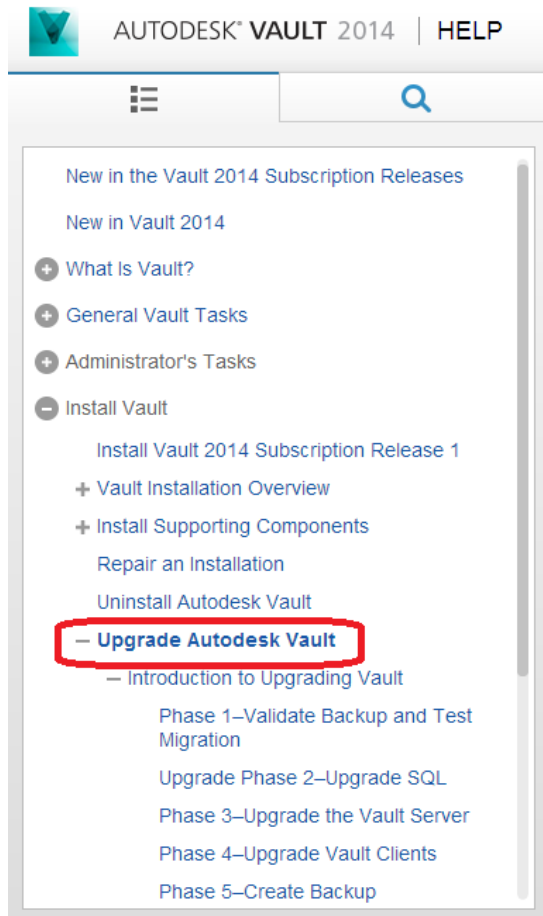


Figure 1: Best Upgrade Resource

<http://help.autodesk.com/cloudhelp/2014/ENU/Vault/files/GUID-F7C93287-98E9-4950-93A0-E7A3BC96181E.htm>

## Tuning the User Interface pre-rollout

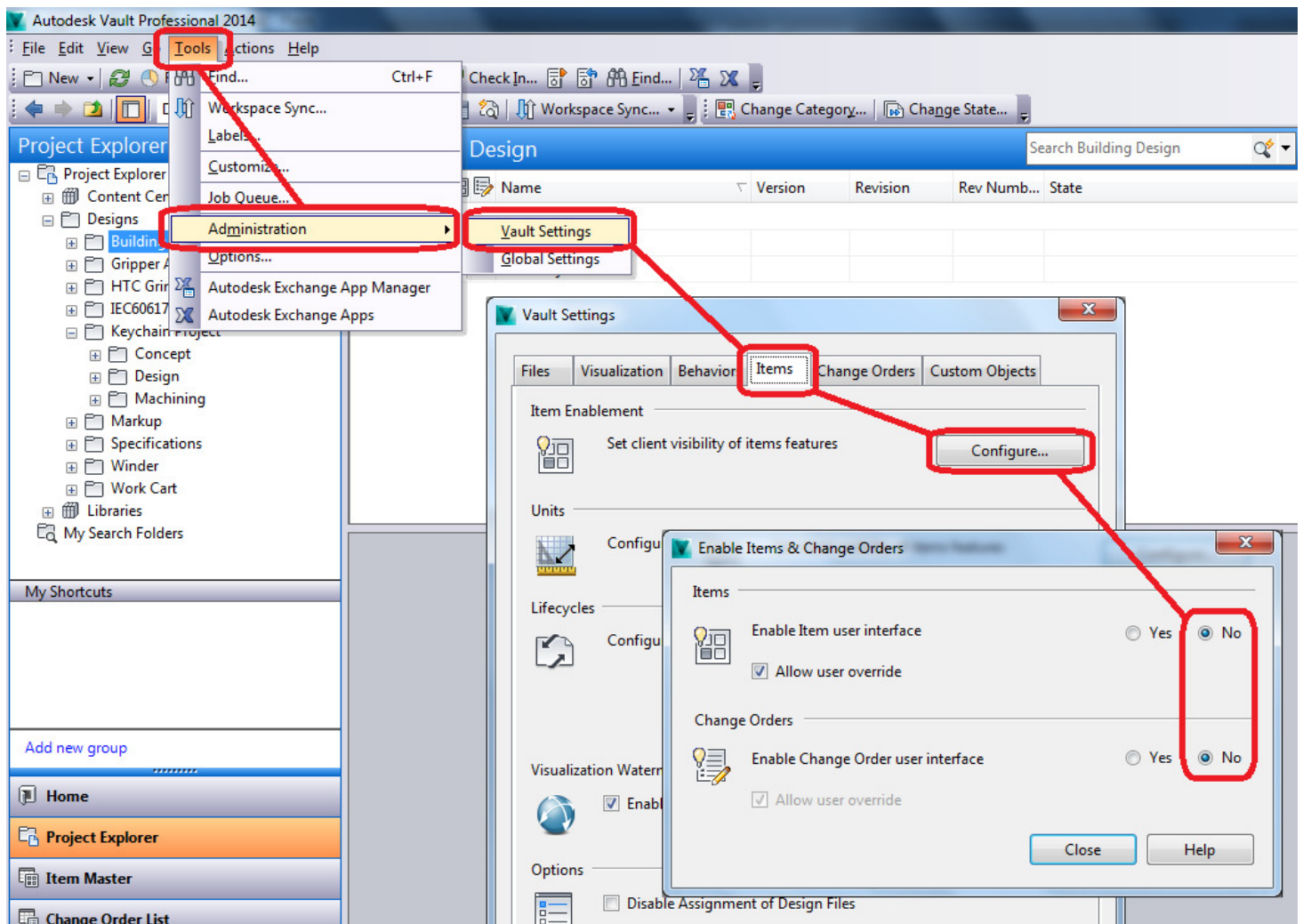


Figure 2: Disable ECO & Item UI

# Plan Practical Workflows for Vault Professional

## Release & Revision & BOM Management Scenarios

### 1). Document-Centric: Lifecycles Using Categories

*Existing Vault Collaboration method.*

*Release accomplished on a file-by-file basis*

### 2). Document-Centric: Lifecycles + ECO Workflow

*Same as above, plus ECO routing, signoffs notifications & approval.*

### 3). Document-Centric: Item(s) + ECO Workflow

*Above with Items assigned to document(s)*

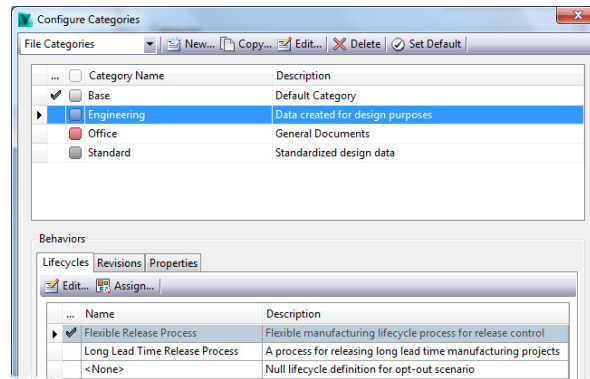
### 4). Design-Centric Item Lifecycles

*Design BOM with Item-specific lifecycle states*

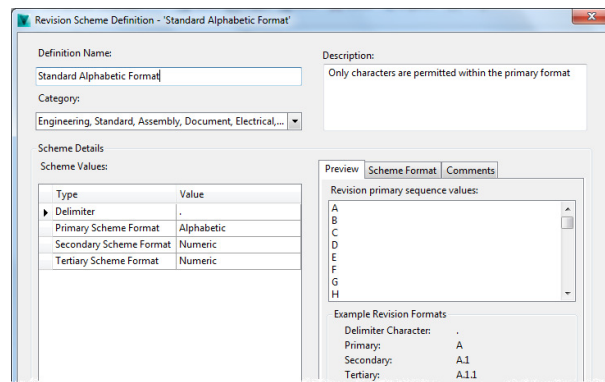
### 5). Design-Centric Item Lifecycles + ECO Workflow

*Design BOM with Items, ECO routing, signoffs notifications & approval.*

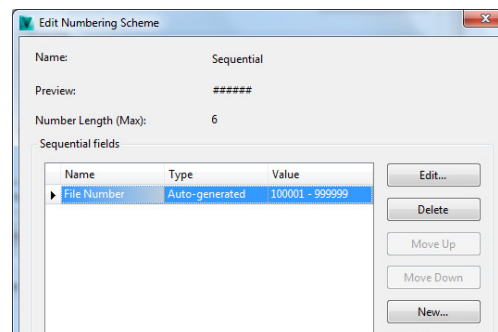
#### ■ What's a Category?



#### ■ What's A Revision Scheme?



#### ■ What Is a Numbering Scheme?



- What's a Lifecycle?

**Lifecycle Definition - 'Basic Release Process'**

Definition Name: Basic Release Process

Description: Basic manufacturing lifecycle process for release control

Category: Standard

**Lifecycle Details**

Lifecycle States:

Name	Description
Work in Progress	State for free-form design...
For Review	State for targeted design...
Released	State for controlling acce...
Obsolete	State for retirement

General Transitions Security Control Comments

State Name: Work in Progress

State Description: State for free-form design creation and modifications

- What's an ECO?

**ECO-000004 - Closed**

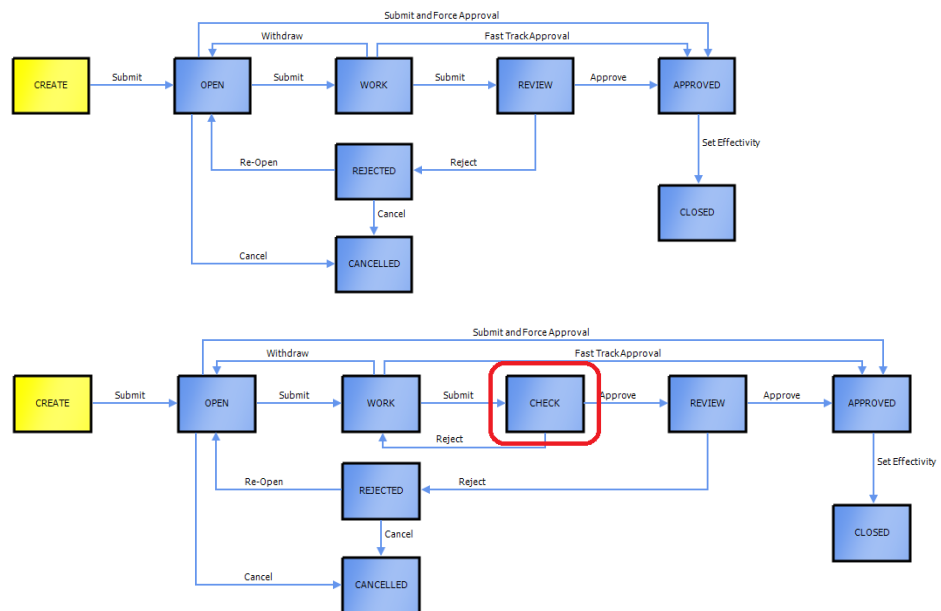
File Edit View Actions Help

General Records Comments Files Routing Status

Associated Records: Look For: All

Name	Revision	State (Historical)	Title	State
Keychain	A	Released	Keychain.i...	Released
Small Button	A	Released	Small Butt...	Released
Large Button	A	Released	Large Butt...	Released
Front	A	Released	Front.ipt	Released
Back	A	Released	Back.ipt	Released

- What's an ECO Routing/State?



- What's an Item?

**MitzyWorkTable1 - Work In Progress - Item (Read Only)**

File Edit View Actions Help

General History Bill of Materials Where Used Change Order View

Number: MitzyWorkTable1

Category: Assembly

Title: MitzyWorkTable1

Description:

Units: Each

Associated files:

File Name	Version
Casters3.dwg	1
LiftJack.dwg	1
MitzyWorkTable1.dwg	1
TENNANT CAP.dwg	1
SpreaderBeamCart.dwg	1
Layon Arm Basic.dwg	1
HitchBall.dwg	1
McMaster 96068A219.dwg	1
Payson 028-30H.dwg	1
FloorLock575.dwg	1

Properties:

Name	Value
Equivalence Value	MitzyWorkTable1

Lifecycle State: Work In Progress

Revision: A

Last Updated By: Administrator

Last Updated: 11/27/2013 11:23 PM



## BOM Management Scenarios

### 1). Flat Files: Many files in 1 Finished Good Item

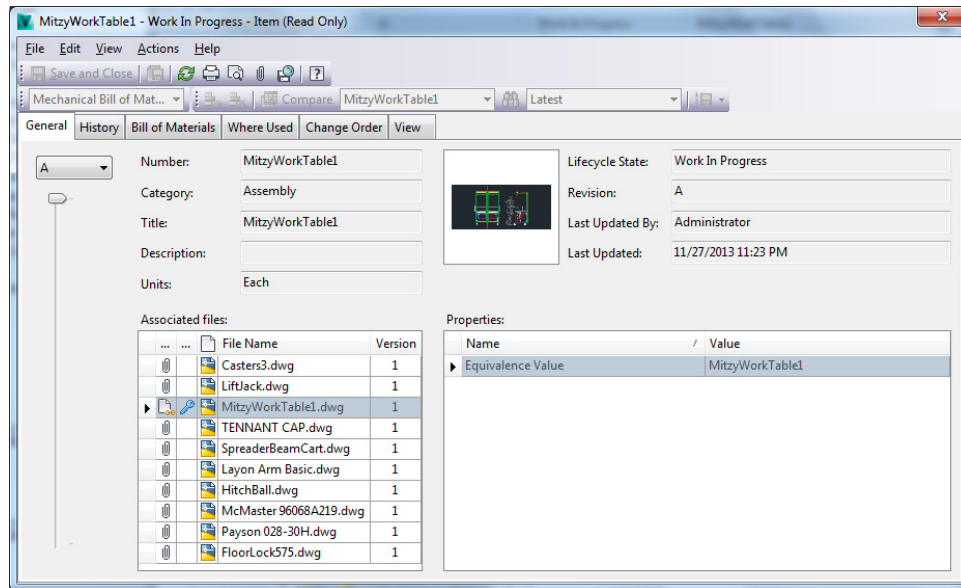


Figure 3: Many Files in One Item (file List)

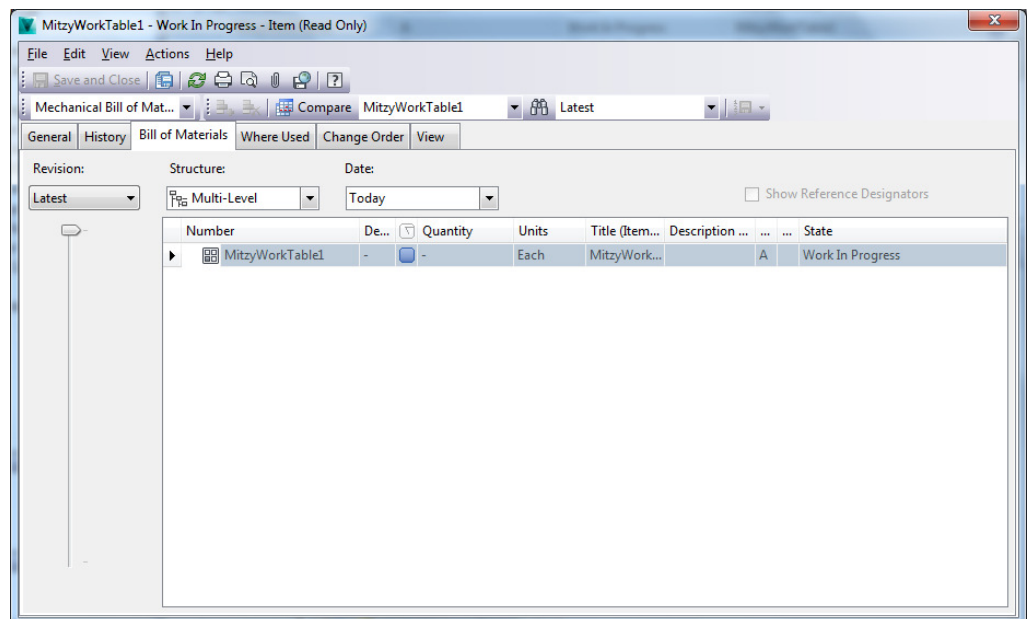


Figure 4: Many Files in One Item (BOM List)

## 2). Flat Files: One Item for each file + Finished Good Item

**MitzyWorkTable1 - Work In Progress - Item (Read Only)**

File Edit View Actions Help

Mechanical Bill of Mat... Compare MitzyWorkTable1 Latest

General History Bill of Materials Where Used Change Order View

Number: MitzyWorkTable1  
 Category: Assembly  
 Title: MitzyWorkTable1  
 Description:  
 Units: Each

Lifecycle State: Work In Progress  
 Revision: A  
 Last Updated By: Administrator  
 Last Updated: 11/27/2013 11:23 PM

Associated files:

File Name	Version
Casters3.dwg	1
LiftJack.dwg	1
MitzyWorkTable1.dwg	1
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Layon Arm Basic.dwg	1
HitchBall.dwg	1
McMaster 96068A219.dwg	1
Payson 028-30H.dwg	1
FloorLock575.dwg	1

Properties:

Name	Value
Equivalence Value	MitzyWorkTable1

**MitzyWorkTable1 - Work In Progress - Item (Read Only)**

File Edit View Actions Help

Mechanical Bill of Mat... Compare MitzyWorkTable1 Latest

General History Bill of Materials Where Used Change Order View

Revision: Latest Structure: Multi-Level Date: Today

☐ Show Reference Designators

Number	De...	Quantity	Units	Title (Item...	Description ...	...	...	State
MitzyWorkTable1	-	-	Each	MitzyWork...		A		Work In Progress
LiftJack	1	1	Each	LiftJack		A		Work In Progress
SpreaderBeamCart	1	1	Each	SpreaderB...		A		Work In Progress
McMaster 96068A...	1	1	Each	McMaster ...		A		Work In Progress
Payson 028-30H	1	1	Each	Payson 02...		A		Work In Progress
Casters3	1	1	Each	Casters3		A		Work In Progress
FloorLock575	1	1	Each	FloorLock...		A		Work In Progress
HitchBall	1	1	Each	HitchBall		A		Work In Progress
TENNANT CAP	1	1	Each	TENNANT...		A		Work In Progress
Layon Arm Basic	1	1	Each	Layon Ar...		A		Work In Progress

Figure 5: One Item for each file & Finished Good Item (BOM List)

### 3). Engineering BOM Items + MFG BOM Items

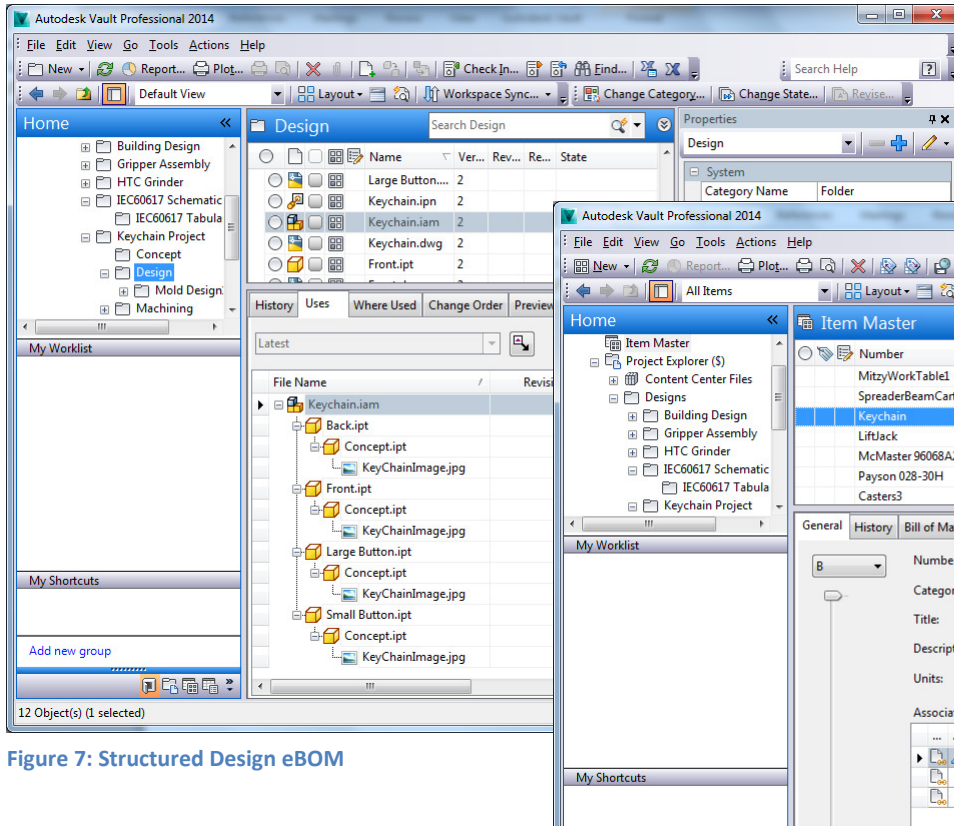


Figure 7: Structured Design eBOM

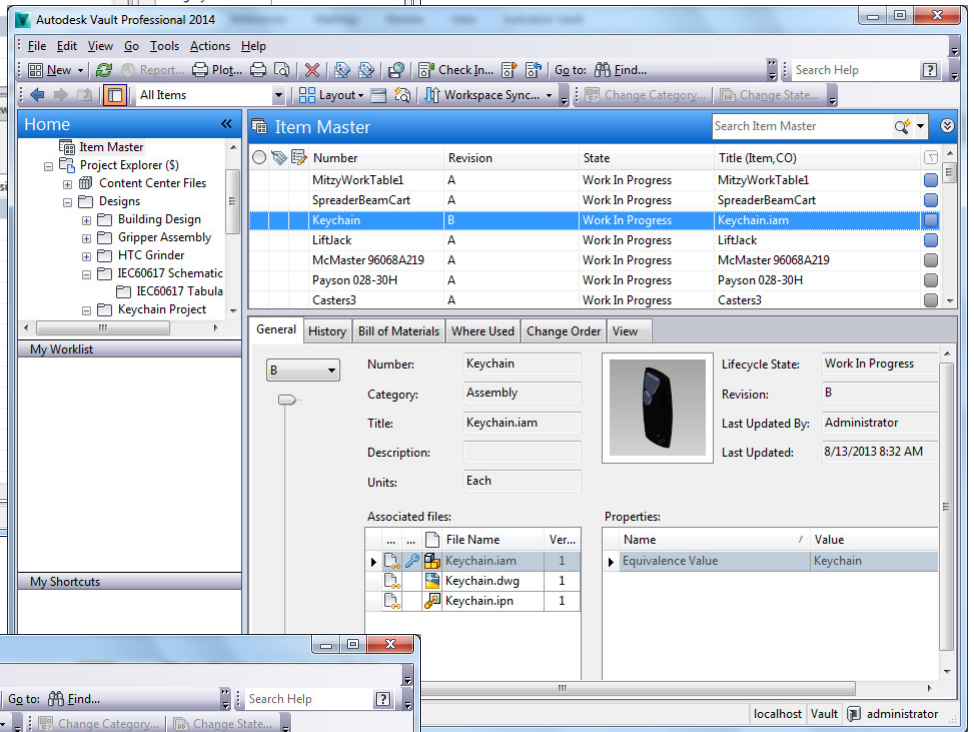


Figure 6: eBOM Files in Item

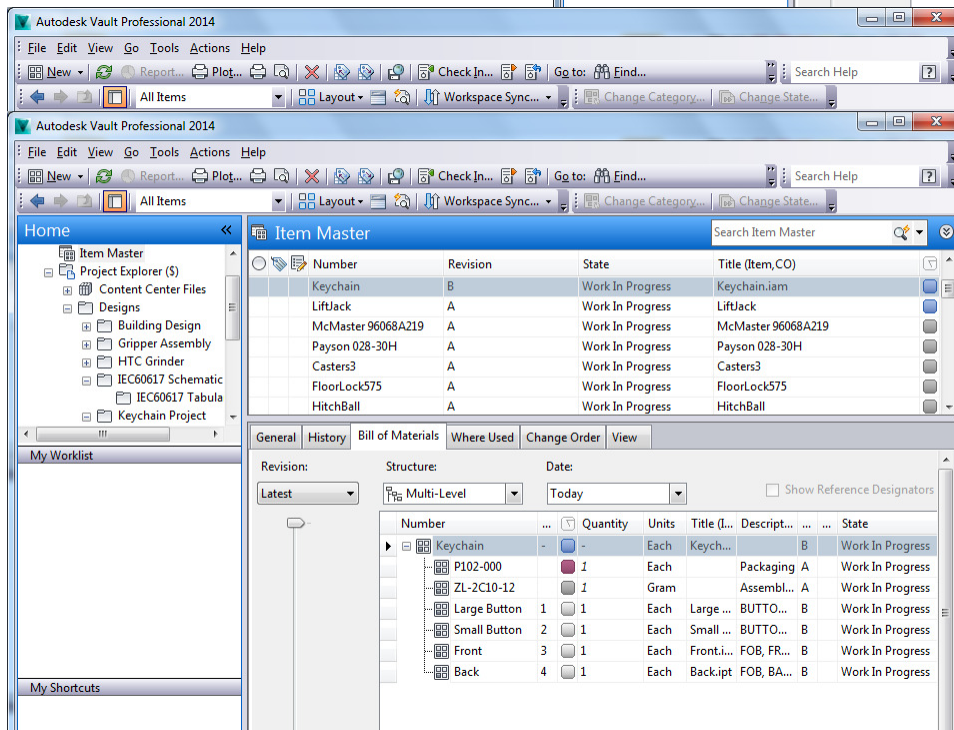
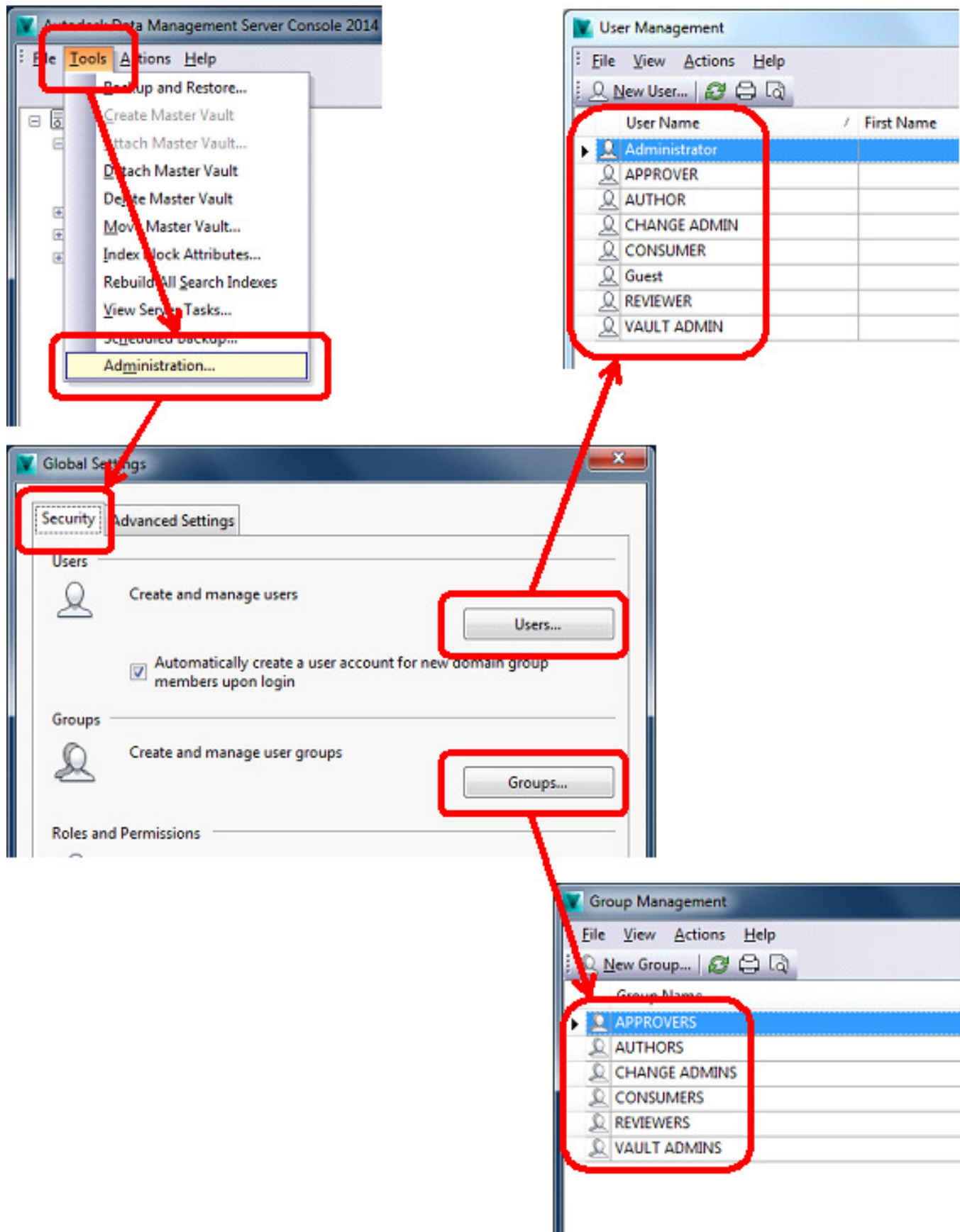


Figure 8: eBOM and mBOM in Item

## Configure Vault Professional Functions & Workflows

### Creation of Users and Groups to support ECO Process





## Adding Users to Groups

The 'APPROVERS' group configuration window shows the following details:

- Group Name:** APPROVERS
- Email:** (empty field)
- Roles:** Document Consumer
- Vaults:** Vault
- Groups:** (empty field)
- Enable group:** ☒
- Group Members:** A list containing 'APPROVER' with 'Add...' and 'Remove' buttons.
- Buttons:** OK, Cancel, Help.

Figure 1: APPROVERS Group

The 'REVIEWERS' group configuration window shows the following details:

- Group Name:** REVIEWERS
- Email:** (empty field)
- Roles:** Document Editor (Level 1), Item Reviewer, Change Order Edit
- Vaults:** Vault
- Groups:** (empty field)
- Enable group:** ☒
- Group Members:** A list containing 'REVIEWER' with 'Add...' and 'Remove' buttons.
- Buttons:** OK, Cancel, Help.

Figure 2: REVIEWERS Group

The 'CHANGE ADMINS' group configuration window shows the following details:

- Group Name:** CHANGE ADMINS
- Email:** (empty field)
- Roles:** Document Editor (Level 2), Document Manager (Level 2), Iter
- Vaults:** Vault
- Groups:** (empty field)
- Enable group:** ☒
- Group Members:** A list containing 'CHANGE ADMIN' with 'Add...' and 'Remove' buttons.
- Buttons:** OK, Cancel, Help.

Figure 3: CHANGE ADMINS Group

The 'CONSUMERS' group configuration window shows the following details:

- Group Name:** CONSUMERS
- Email:** (empty field)
- Roles:** Document Consumer
- Vaults:** Vault
- Groups:** (empty field)
- Enable group:** ☒
- Group Members:** A list containing 'CONSUMER' with 'Add...' and 'Remove' buttons.
- Buttons:** OK, Cancel, Help.

Figure 4: CONSUMERS Group

## Adding Users to Groups Cont...

Group: AUTHORS

Group Name: AUTHORS

Email:

Roles...: Document Editor (Level 1), Document Manager (Level 1), Ch...

Vaults...: Vault

Groups...:

☒ Enable group

Group Members:

- AUTHOR

Buttons: Add..., Remove, OK, Cancel, Help

Figure 5: AUTHORS Group

Group: VAULT ADMINS

Group Name: VAULT ADMINS

Email:

Roles...: Administrator, Content Center Administrator

Vaults...: Vault

Groups...:

☒ Enable group

Group Members:

- VAULT ADMIN

Buttons: Add..., Remove, OK, Cancel, Help

Figure 6: VAULT ADMINS Group

GROUP NAME	"TEMPLATE" USER NAME	VAULT USER ROLE(S)	ECO ROLE(S)
VAULT-ADMINS	Vault-Admin	Administrator, Content Center Administrator	
CHANGE-ADMINS	Change-Admin	Change Order Editor (Level 2) Document Editor (Level 2) Document Manager (Level 2) ERP Manager Item Editor (Level 2) Item Reviewer	Approver Change Administrator Notification User Change Requestor
AUTHORS	Author	Change Order Editor (Level 1) Document Editor (Level 1) Document Manager (Level 1) Item Editor (Level 2) Item Reviewer	Responsible Engineer Reviewer Notification User Change Requestor
APPROVERS	Approver	Change Order Editor (Level 1) Item Reviewer	Approver Reviewer Notification User Change Requestor
REVIEWERS	Reviewer	Change Order Editor (Level 1) Item Reviewer	Approver Reviewer Notification User Change Requestor
CONSUMERS	Consumer	Document Consumer	

Figure 9: Groups, Users, Vault & ECO Roles

## Create ECO Numbering Scheme

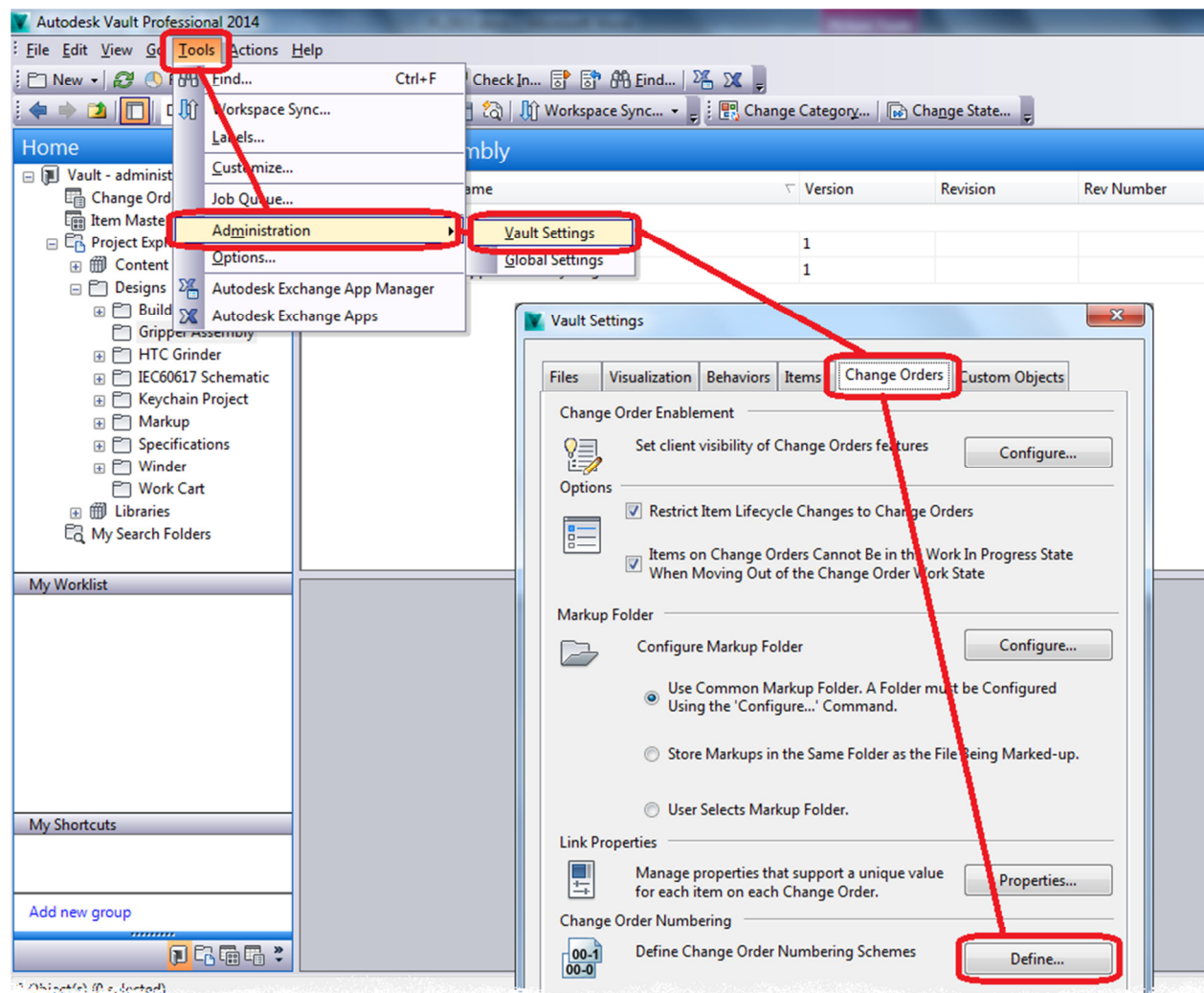


Figure 10: Define a New ECO Numbering Scheme

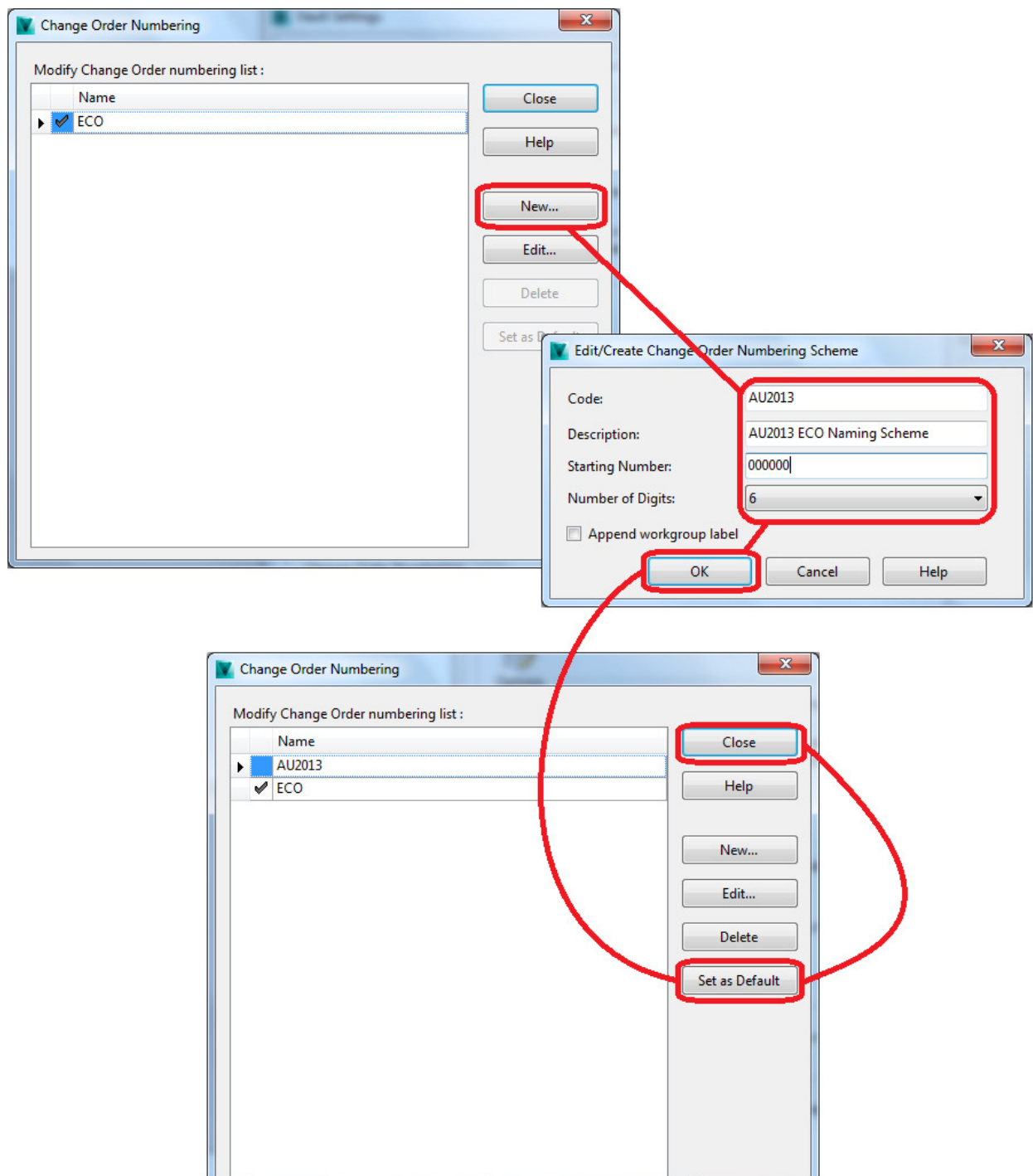


Figure 11: Configure a New ECO Numbering Scheme



## Configure ECO Behaviors

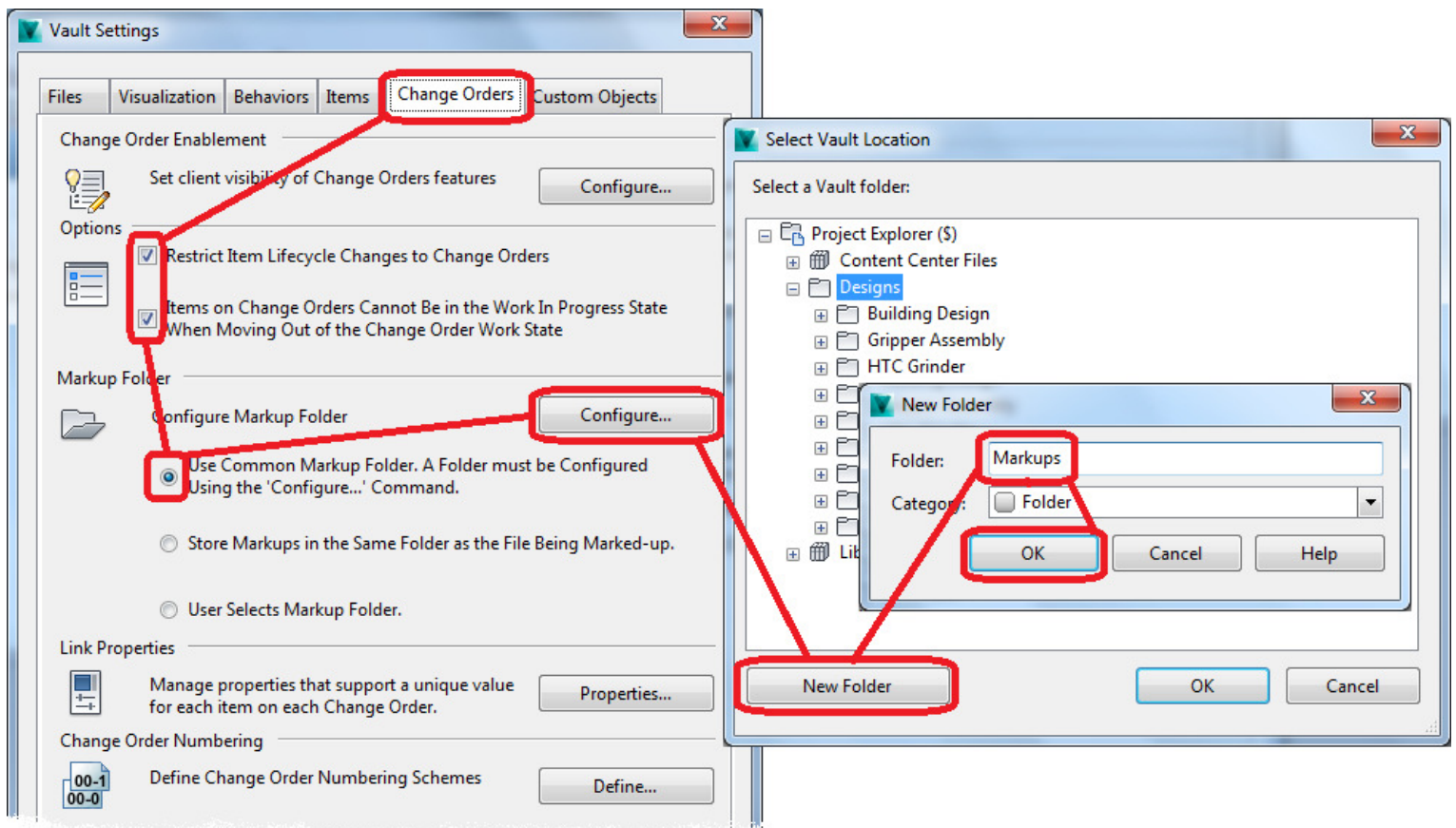


Figure 12: ECO Behaviors & Configure Markup Folder

## Create ECO Routing

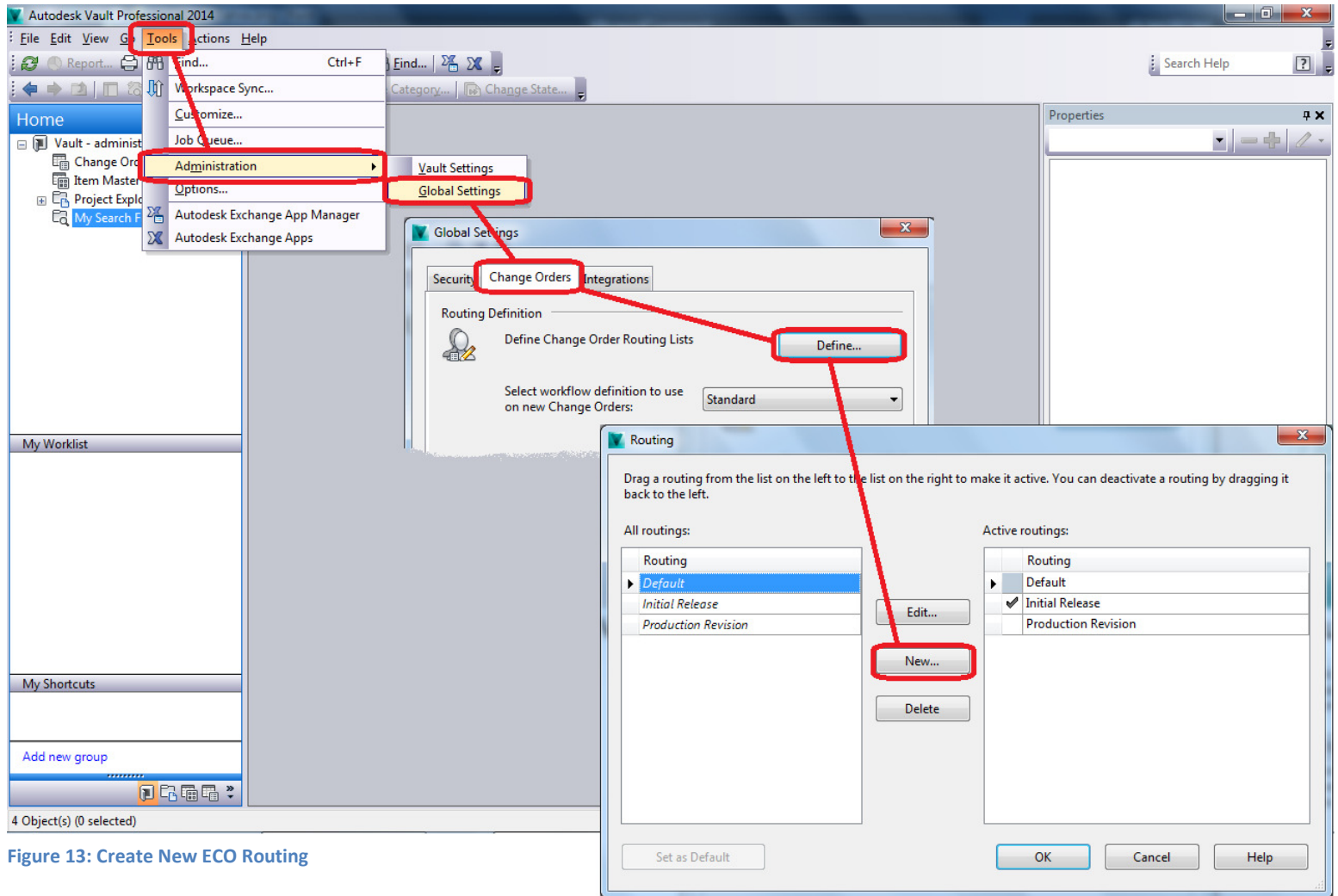


Figure 13: Create New ECO Routing

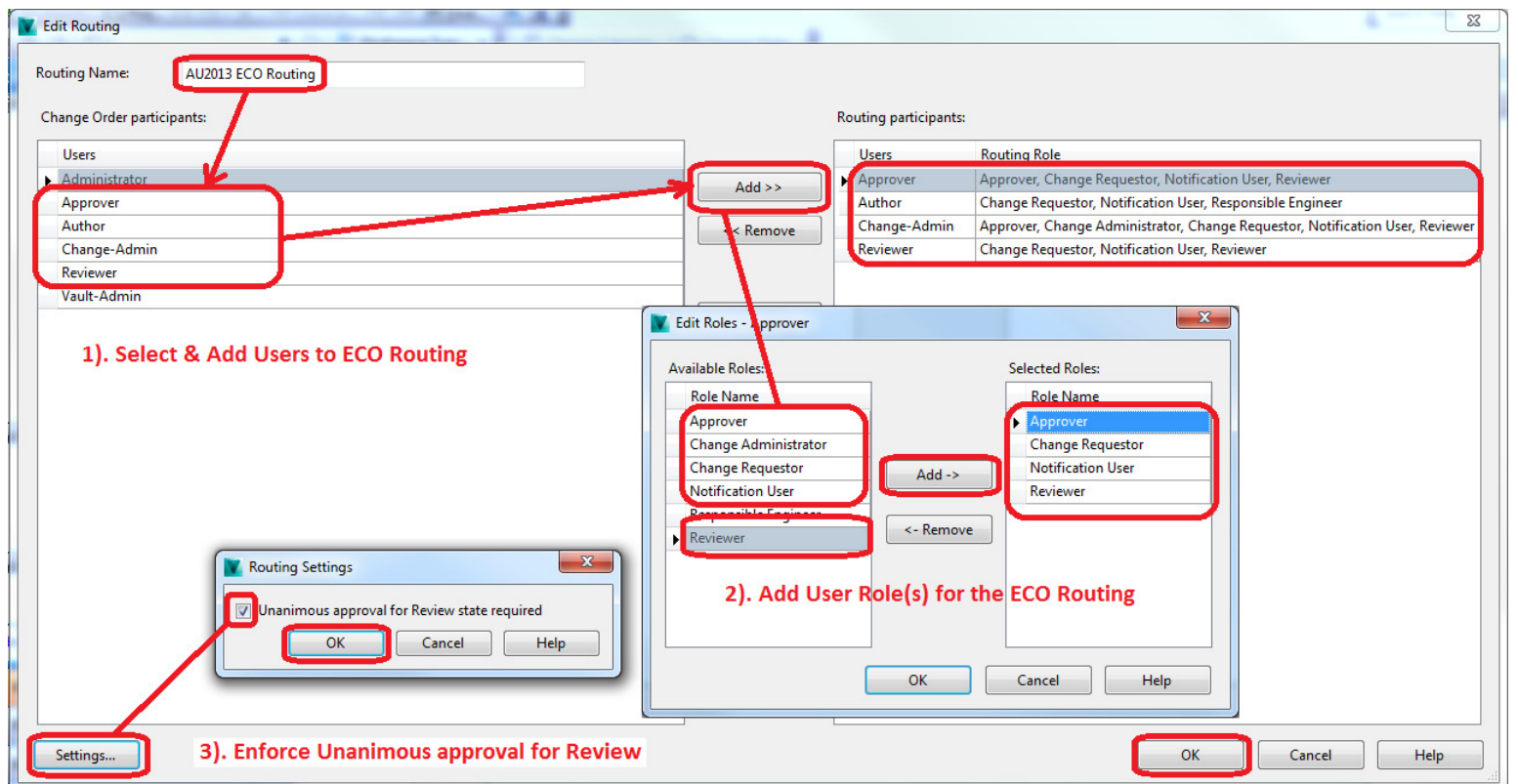


Figure 14: Add Users & Assign ECO Roles

GROUP NAME	"TEMPLATE" USER NAME	VAULT USER ROLE(S)	ECO ROLE(S)
VAULT-ADMINS	Vault-Admin	Administrator, Content Center Administrator	
CHANGE-ADMINS	Change-Admin	Change Order Editor (Level 2) Document Editor (Level 2) Document Manager (Level 2) ERP Manager Item Editor (Level 2) Item Reviewer	Approver Change Administrator Notification User Change Requestor
AUTHORS	Author	Change Order Editor (Level 1) Document Editor (Level 1) Document Manager (Level 1) Item Editor (Level 2) Item Reviewer	Responsible Engineer Reviewer Notification User Change Requestor
APPROVERS	Approver	Change Order Editor (Level 1) Item Reviewer	Approver Reviewer Notification User Change Requestor
REVIEWERS	Reviewer	Change Order Editor (Level 1) Item Reviewer	Approver Reviewer Notification User Change Requestor
CONSUMERS	Consumer	Document Consumer	

Figure 15: Groups, Users, Vault & ECO Roles

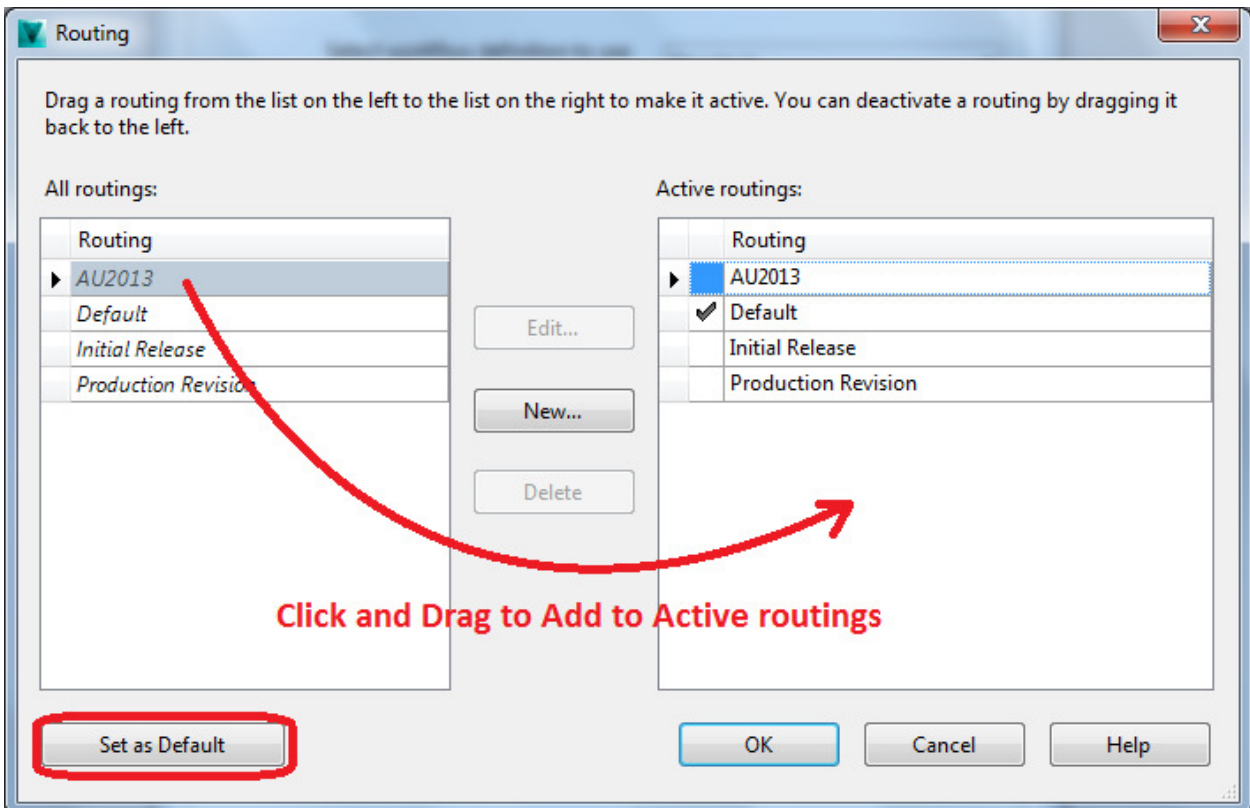


Figure 16: Add ECO Routing to Active and Set Default

## Create Item(s)

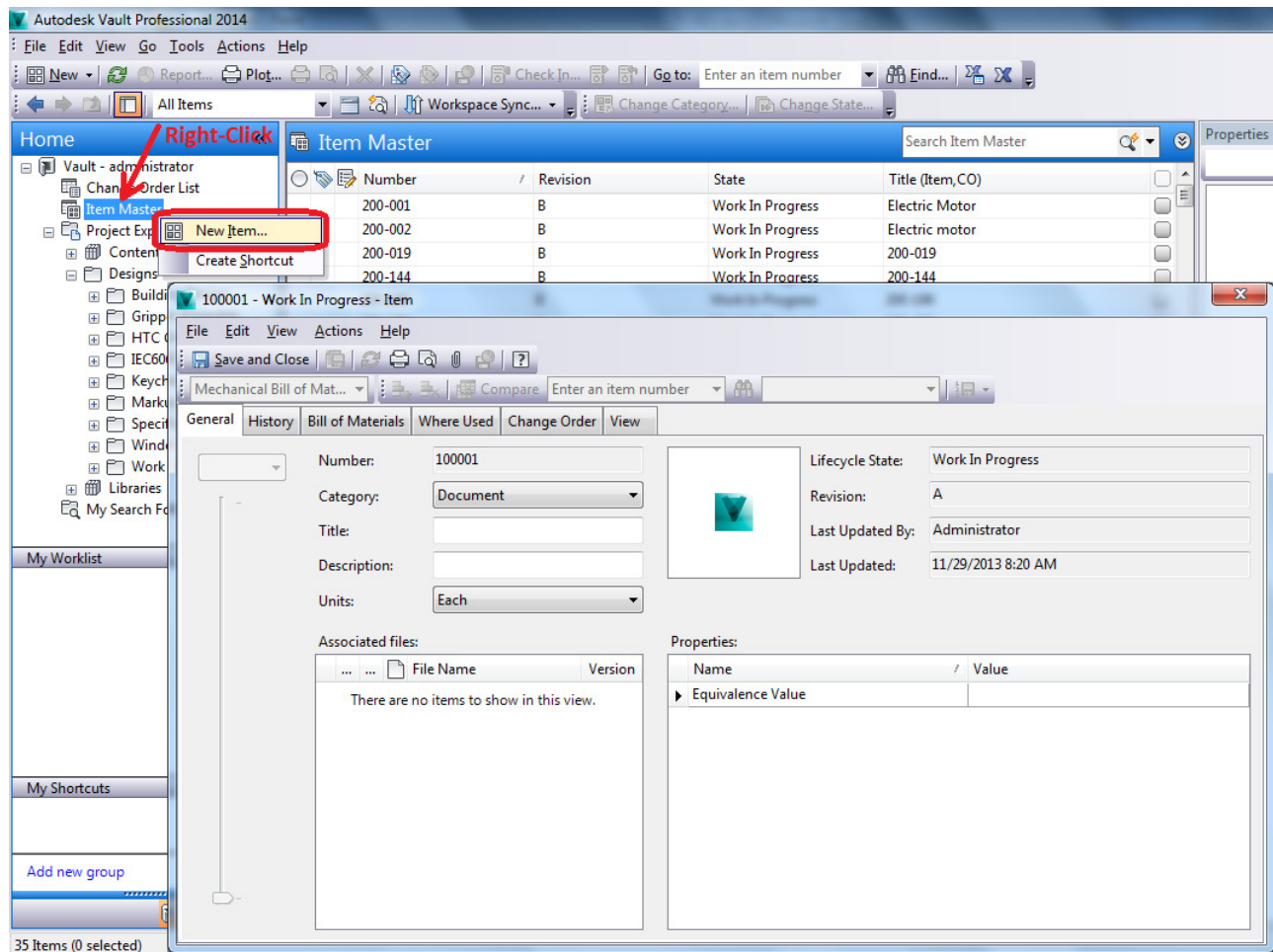


Figure 18: Creating a Empty Item

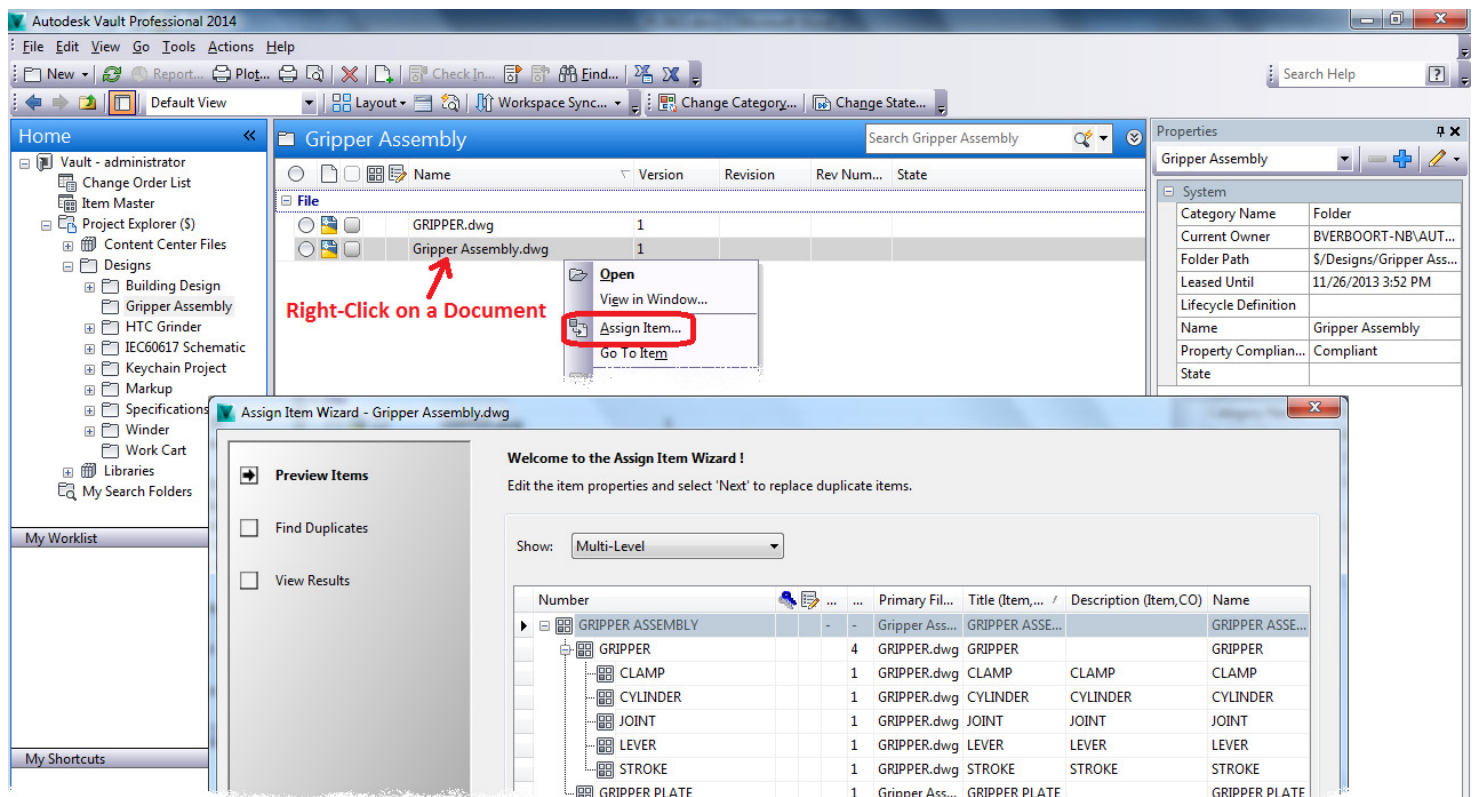


Figure 17: Assigning an Item to Document(s)



## Create ECO For Files

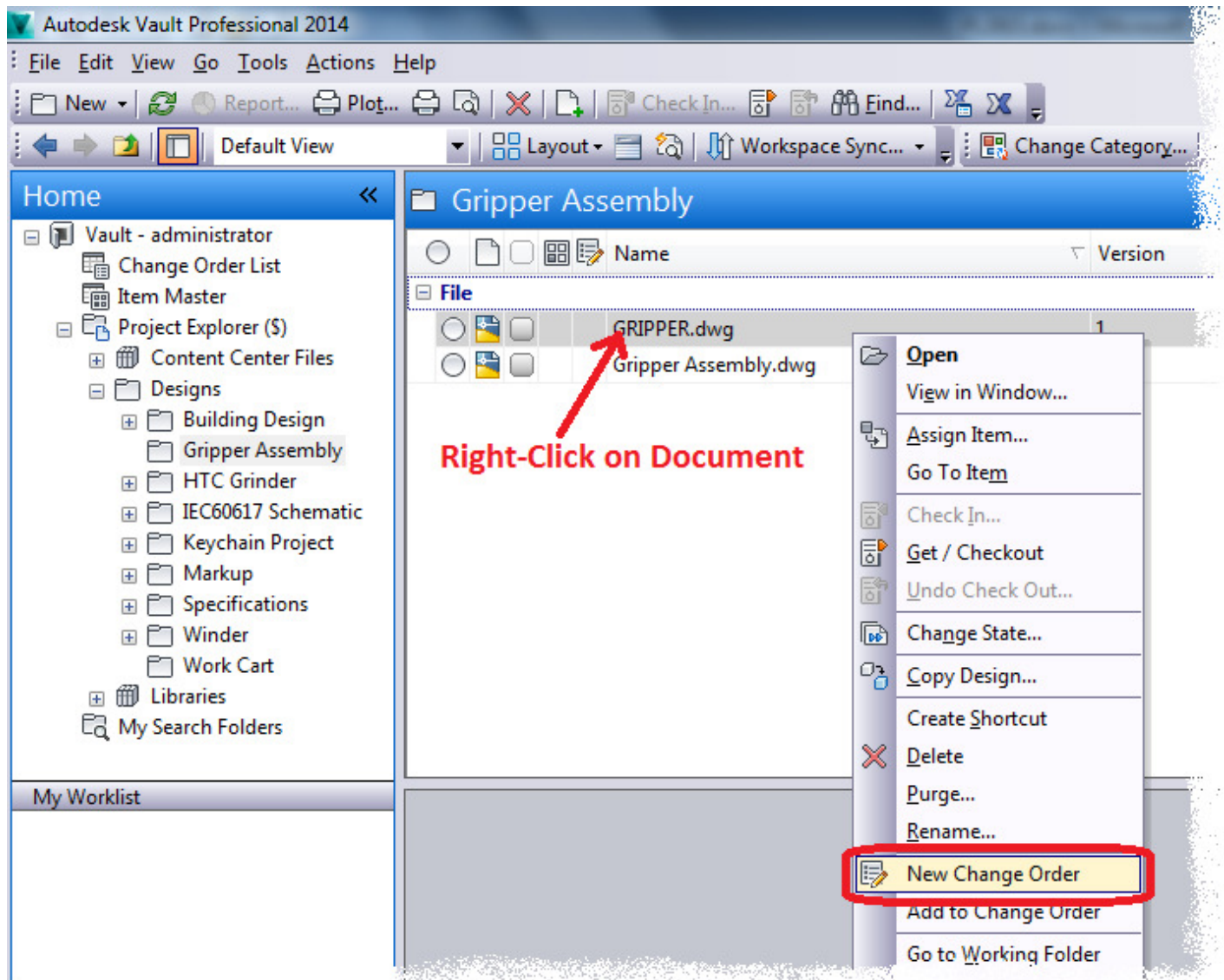


Figure 19: New ECO from Document

## Create ECO For Items

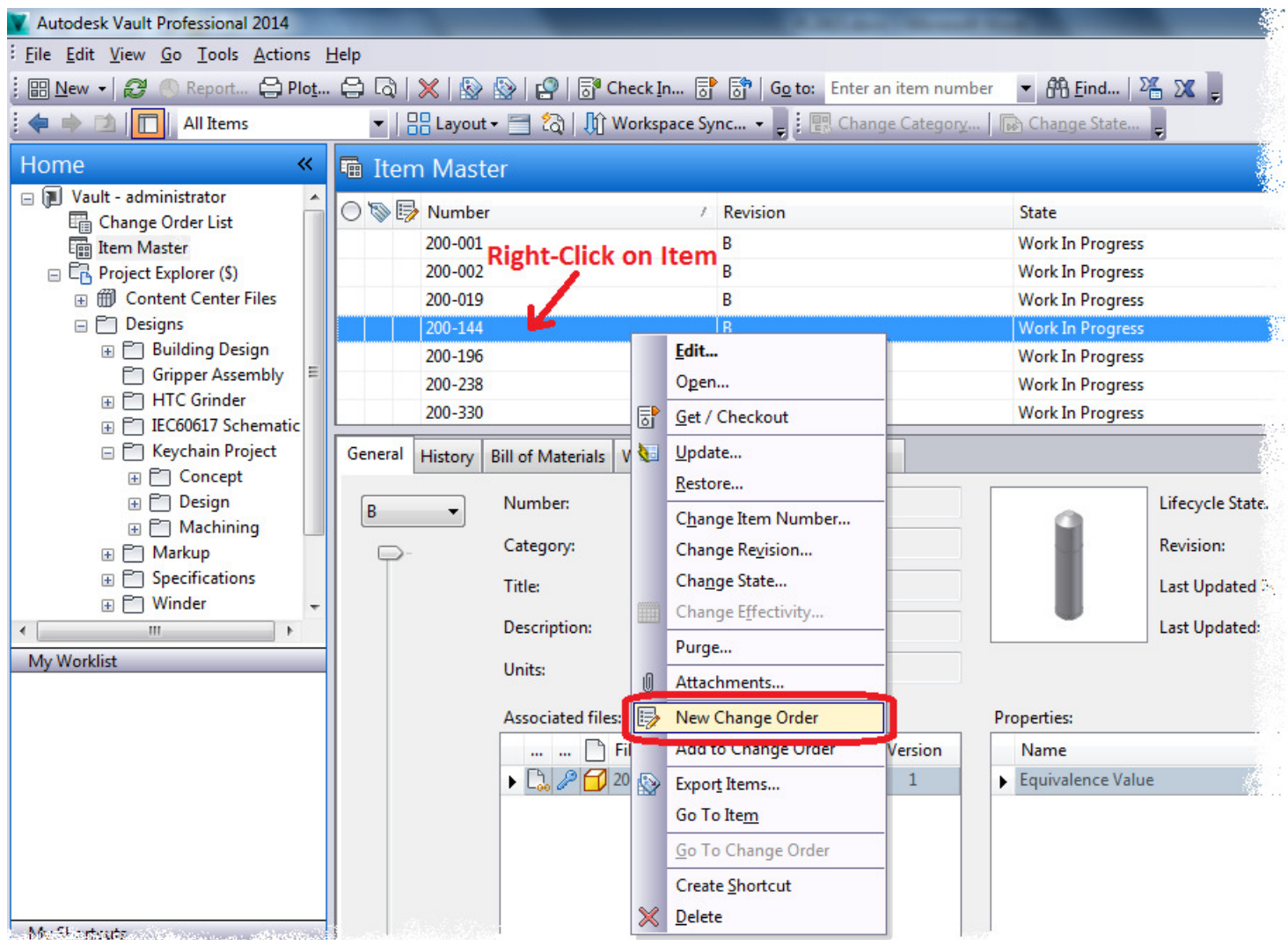


Figure 20: New ECO from Item



