



EnterWorks 10.x
How to Refresh the DEV or QA Database from PROD

Revised 5/5/2019

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1 Notices

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1.1 Trademarks

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2 Document Conventions

This EnterWorks document uses the following typographic conventions:

Convention	Usage
pathnames	Pathnames are shown with backslashes, as for Windows systems.
Courier New font	Denotes sample code, for example, Java, IDL, and command line information. May be used to denote filenames and pathnames, calculations, code samples, registry keys, URLs, messages displayed on the screen. If <i>italicized</i> and in angle brackets (< >), it denotes a variable.
Calibri Font (bold)	When used in body text, it denotes an object, area, list item, button, or menu option within the graphical user interface; or a database name or database-related object. (Examples: the Save button; the Product tab; the Name field; the SKU repository) Can also be used to denote text that is typed in a text box. (Example: Type " trackingNo " in the Name field)
<u>Blue underlined text</u>	Words, phrases or numbers in blue are active links that can be clicked. Clicking these active links will bring the user to the required information, steps, pages chapters, or URL.

3 Document Terminology

This document uses the following terminology:

Convention	Usage
<p>“EnterWorks” and “Enable”</p>	<p>The EnterWorks Enable product is now referred to simply as “EnterWorks”. Some system components and images in this document may still retain the name “Enable”.</p>
<p>“master” and “slave”</p>	<p>In computing environments, the term “master” has historically been used to describe a process that controls other processes. The controlled processes have been referred to as “slaves”. Precisely does not find these terms acceptable. We are in the process of replacing them with “controller” and “workers” in our documentation, displayed content, and underlying architecture. In the meantime, for further information or instructions on changing the terms in is played content, please contact your EnterWorks account representative.</p>

4 Overview

This document contains the step by step instructions that must be followed to refresh a DEV/QA Enable environment from a backup of the PROD Enable databases.

At a high level, the following steps must be performed:

1. Backup the Environment-specific data in the DEV/QA data model to files.
2. Optionally Export all DAMMaster records to a file.
3. Backup the Environment-specific data in the EPIM and EPX databases to files.
4. Backup the Enable databases for DEV/QA (as a safety precaution)
5. Backup the Enable databases for PROD
6. Restore the PROD Enable databases into the DEV/QA database.
7. Restore the Environment-specific data to EPIM and EPX databases from files
8. Restore the Environment-specific data in DEV/QA from the files.
9. Cleanup Interactive EPX Workflows
10. Optionally Restore the DAMMaster records from file
11. Optionally Replace the DAMRoot files in DEV/QA from PROD

Details for each of these steps are provided in the following sections.

5 Backup the Environment-specific Data in DEV/QA to Files

The following list of repositories may contain environment-specific data that needs to be restored once the backup of the Enable PROD database has been restored to the Enable DEV/QA database:

Repository	Possible Localization Needed
DAMConfig	Some of the entries contain environment-specific settings: <ul style="list-style-type: none"> • SourceFolder – if set to network directory • DestinationFolder – if set to network directory • UNCPATH – if set to network directory • DamAssetURL – points to environment-specific location • DamAssetPath – if set to network directory • EPIMURL – points to environment-specific location • DamTempFolder – if set to network directory • SourceFolderOnDemand – if set to network directory
DAMVariants	The attribute Output Path may point to a network directory
DAMMaster	(only if the DEV/QA DAMRoot is NOT going to be refreshed)

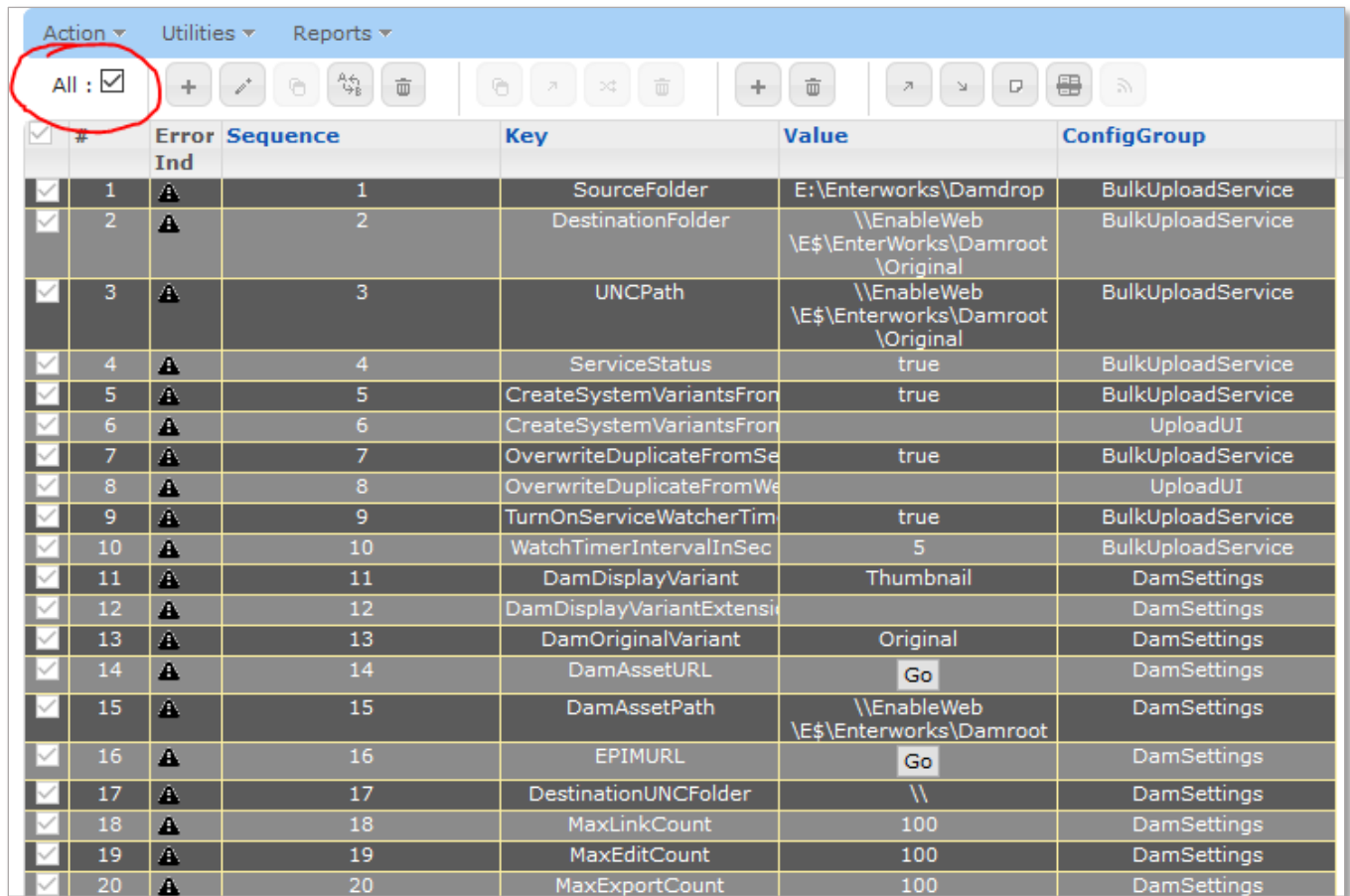
Repository	Possible Localization Needed
Scheduled Exports	<p>Some attributes may have environment-specific settings:</p> <ul style="list-style-type: none"> • Postprocess Values – if Post-Processing is configured, some parameters may have environment-specific settings, such as a network directory • Target Path – if Target Type=File, FTP, or S3 AND if set to network directory • Target Email – if Target Type=Email AND addresses are specific to environment • Target FTP – if Target Type=FTP and ftp server is unique to environment • Target FTP Port – if Target Type=FTP and FTP server uses different port for each environment • Target FTP User – if Target Type=FTP and credentials are environment-specific • Target FTP User Password – if Target Type=FTP and credentials are environment-specific • Target S3 Access Key – if Target Type=S3 and credentials are environment-specific • Target S3 Secret Key - if Target Type=S3 and credentials are environment-specific • Target S3 Is Role Based Auth - if Target Type=S3 and credentials are environment-specific • Target S3 Endpoint - if Target Type=S3 and S3 location is environment-specific • Target S3 Region - if Target Type=S3 and S3 location is environment-specific • Target S3 Bucket Name - if Target Type=S3 and S3 location is environment-specific • Email To – if specified and addresses are environment-specific

Repository	Possible Localization Needed
Scheduled Imports	<p>Some attributes may have environment-specific settings:</p> <ul style="list-style-type: none"> • Preprocess Values – if Pre-Processing is configured, some parameters may have environment-specific settings, such as a network directory • Import Directory Name – if set to network directory • Source FTP – if Source Type=FTP and FTP server is environment-specific • Source FTP Port – if Source Type=FTP and FTP server is environment-specific • Source FTP User – if Source Type=FTP and FTP server credentials environment-specific • Source FTP User Password – if Source Type=FTP and FTP server credentials environment-specific • Source FTP Path – if Source Type=FTP and FTP server location is environment-specific • Source FTP List Gaps – if Source Type=FTP and FTP server location is environment-specific • Source S3 Access Key – if Source Type=S3 and S3 credentials are environment-specific • Source S3 Secret Key – if Source Type=S3 and S3 credentials are environment-specific • Source S3 Is Role Based Auth – if Source Type=S3 and S3 credentials are environment-specific • Source S3 Endpoint – if Source Type=S3 and S3 location is environment-specific • Source S3 Region – if Source Type=S3 and S3 location is environment-specific • Source S3 Bucket Name – if Source Type=S3 and S3 location is environment-specific • Source S3 Path – if Source Type=S3 and S3 location is environment-specific • Email To – if specified and addresses are environment-specific
CN_Registry	<p>If CN_Send_Email=Yes and CN_Email_To has environment-specific e-mail addresses</p> <p>If Workflow settings CN_Property_Value references any environment-specific value</p>
MQ_Registry	<p>If message queue settings are environment-specific</p>

Repository	Possible Localization Needed
Configuration	If any entries are environment-specific
Home Page/Dashboard Widgets	While not repository content, the Home Page/Dashboard Widgets might be set up differently in each EnterWorks Environment.

The contents of each of these repositories must be saved for later restore by performing the following steps:

1. Open the repository in the Enable UI.
2. Check the **All** checkbox:



3. Click the export icon. The export records window appears.
4. Check the **Use Advanced Options** checkbox:

Export 23 record(s)

Message:
Exporting all records based on selected criteria.

Export Options:

Current View

Defined Template:

Use Advanced Options

Next Cancel

5. Click **Next**.
6. Make sure **Output Format** is set to **Excel Workbook (xlsx)**
7. Make sure the **Preference** is set to **All Attributes**:

Export 23 record(s)

Message:
Exporting all records based on selected criteria.

File Name:

File Encoding:

Output Format:

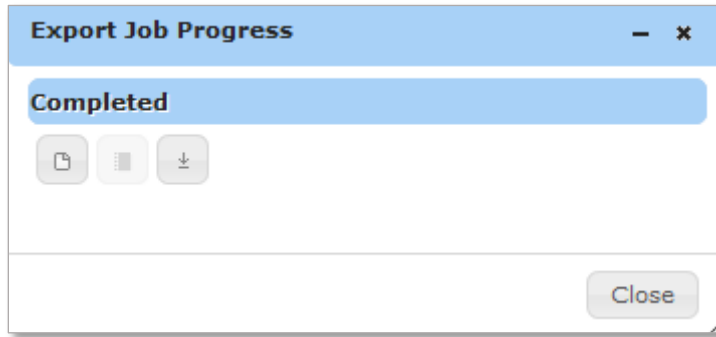
Preference:

Transmit:

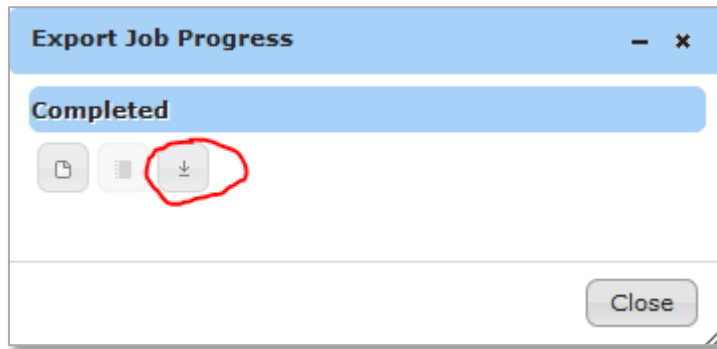
Effective Date:

Export Cancel Reset

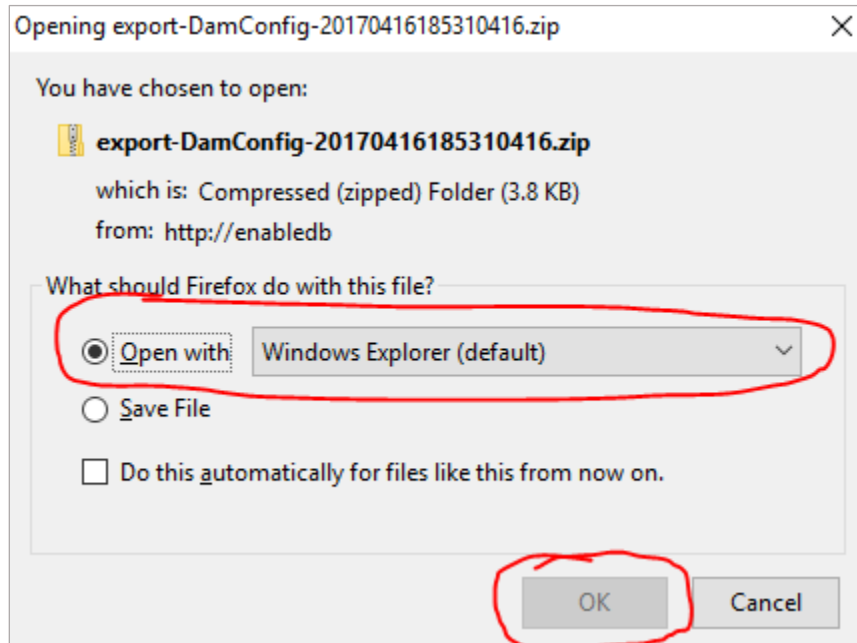
8. Click **Export**
9. Wait for the **Export Job Progress** prompt to show **Completed**:



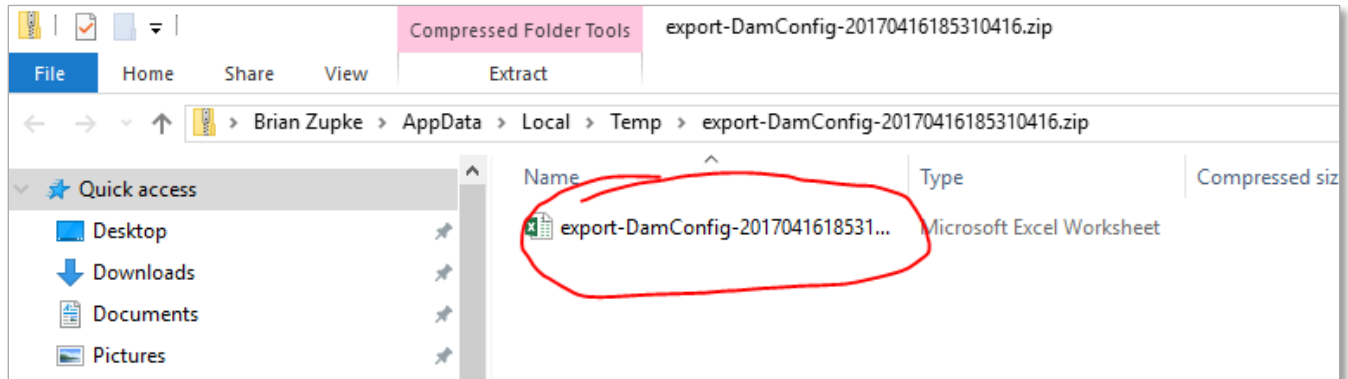
10. Click the download file icon:



11. Select **Open with Windows Explorer** and click **OK**:



12. Copy the file to a local directory for later use:



13. Close the Windows Explorer window.
14. Click **Close**.
15. Repeat the above steps for the next repository in the list.
16. Stop all EnterWorks services on DEV/QA.

6 Backup the Environment-Specific Settings in the EPIM and EPX Databases

There are some settings in the EPIM and EPX databases that must be captured and restored after the refresh of those databases from PROD by performing the following steps:

TODO: Transmission Options

1. Using SQL Server Management Studio Query Tool open a query for the EPX database.
2. Execute the following query:

```
select 'update S_PROFILE_VALUE set PROFILE_VALUE_STRING = ''' + pv.PROFILE_VALUE_STRING
+
''' where PROFILE_VALUE_ID = ' + cast(pv.PROFILE_VALUE_ID as varchar)
from S_PROFILE_VALUE pv where PROFILE_VALUE_ID in (1, 4)
```

3. Copy the results of the query to a text editor.
4. Execute the following query:

```
select 'update S_SERVER SET SERVER_UID=''' + SERVER_UID + ''', NAME=''' + NAME +
''', SOAP_SERVICE_URL=''' + SOAP_SERVICE_URL + ''' WHERE SERVER_ID = 1'
from S_SERVER
```

5. Copy the results of the query to the same text editor
6. Save contents of the text editor to file named "RestoreEPXEnvironmentSettings.sql" for later use.
7. Open a New Query window to the EPIM database.
8. Copy the following lines to a new Text Editor window:

```
-- Clear the B_SERVER_PROPERTY table (of the PROD values)
DELETE from B_SERVER_PROPERTY
SET IDENTITY_INSERT B_SERVER_PROPERTY ON

-- Repopulate the B_SERVER_PROPERTY table with the original values

----- COPY RESULTS OF QUERY BETWEEN HERE -----

----- COPY RESULTS OF QUERY BETWEEN HERE -----

SET IDENTITY_INSERT B_SERVER_PROPERTY OFF

-- Reset the SERVER_PROPERTY_ID
BEGIN
DECLARE @id INTEGER
select @id= max(SERVER_PROPERTY_ID)+1 FROM B_SERVER_PROPERTY
DBCC CHECKIDENT ('B_SERVER_PROPERTY', RESEED, @id)
END
```

9. Execute the following query:

```
select 'INSERT INTO
B_SERVER_PROPERTY(SERVER_PROPERTY_ID,PROPERTY_KEY,PROPERTY_VALUE,PROPERTY_TYPE,DESCRIPTIO
N) ' +
'VALUES(' + cast(SERVER_PROPERTY_ID as VARCHAR)+' ,'' ' + isnull(PROPERTY_KEY, 'NULL') +
'', '' +
isnull(PROPERTY_VALUE, 'NULL') +
'', '' + isnull(PROPERTY_TYPE, 'NULL') + '', '' + isnull(DESCRIPTION, 'NULL') + ''')'
from B_SERVER_PROPERTY
```

10. Copy the results of the query and paste it in the text editor window between the two **COPY RESULTS OF QUERY BETWEEN HERE** lines.
11. Save the contents of the text editor to a file named “RestoreEPIMEnvironmentSettings.sql” for later use.

7 Backup the Enable databases for DEV/QA

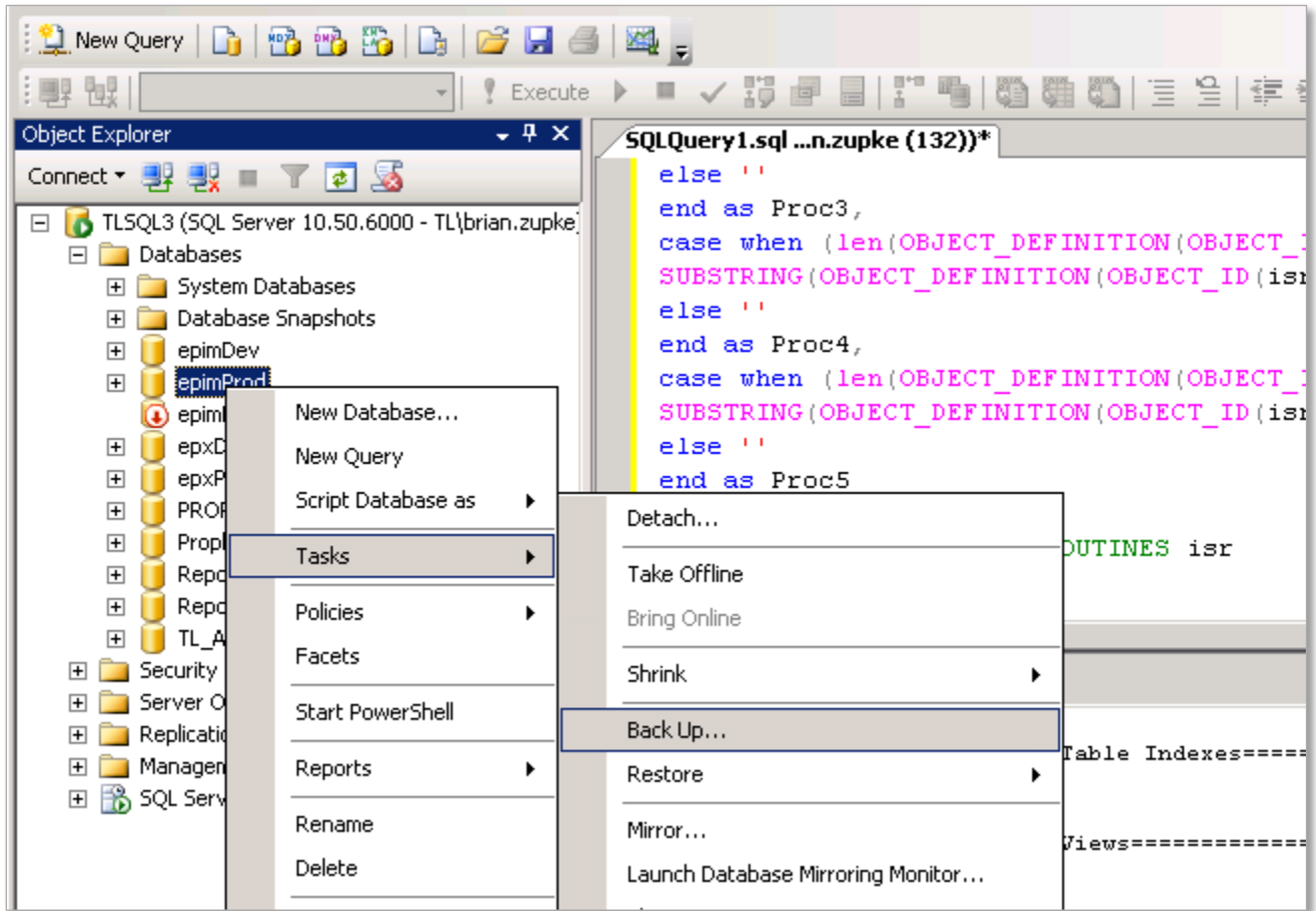
Since the DEV/QA databases (EPIM and EPX) are going to be restored from a backup of the PROD databases, a backup of each should be created as a safety measure. If the refresh proceeds normally, these backups will not be needed. The DEV/QA Enable services should not be running while the backup and restore operations are being performed. For details on how to back up the databases, follow the steps in the next section but while connected to the DEV/QA database instead

Note: The application logins for the DEV/QA databases should be verified prior to the restore from the PROD backups. The user names can be found in the <drive>:\Enterworks\EPX\bin\conf\Enterworks.properties file. The passwords are defined in the same file but the EPX password is encrypted. Verification the user/passwords should be verified before proceeding with the refresh procedure.

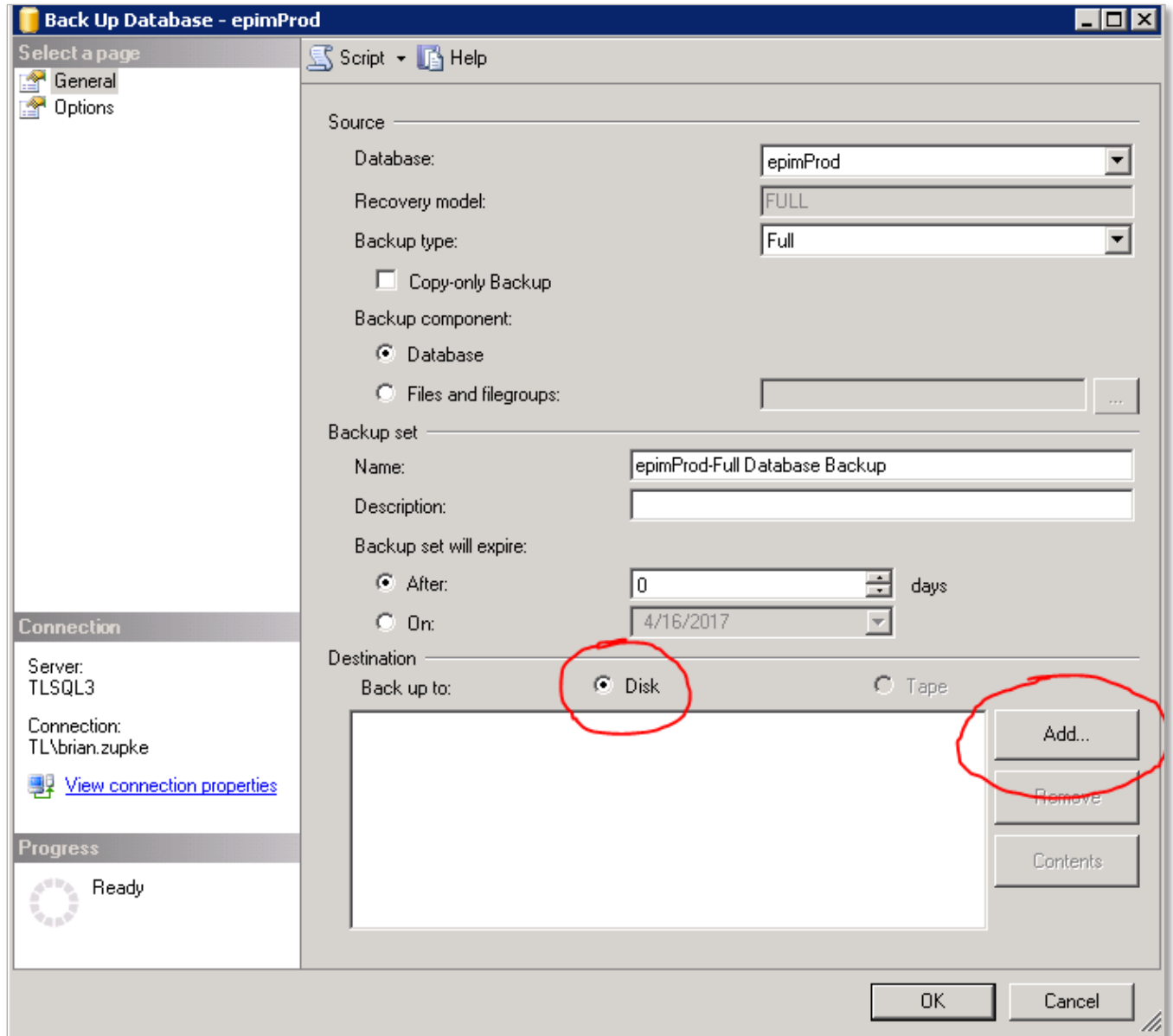
8 Backup the Enable databases for PROD

Backup the Enable PROD databases (EPIM and EPX) to files using SQL Server Management Studio by performing the following steps:

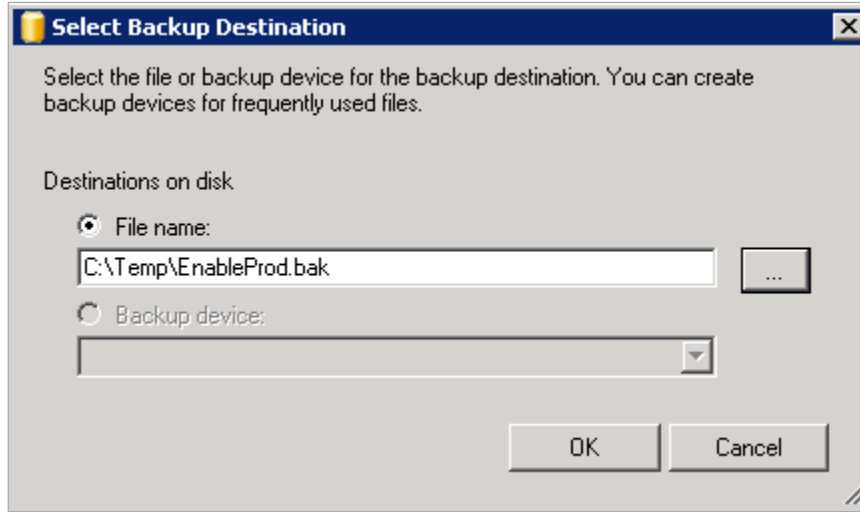
1. Log into the database server using SQL Server Management Studio.
2. Right-click on the EPIM PROD (e.g., **epimProd**) database and select **Tasks->Backup...** from the pop-up menu:



3. Change the **Destination** to **Disk** and click **Add**:



4. Set the file name to an accessible directory and specify an appropriate name (e.g., **EnableProd.bak**):

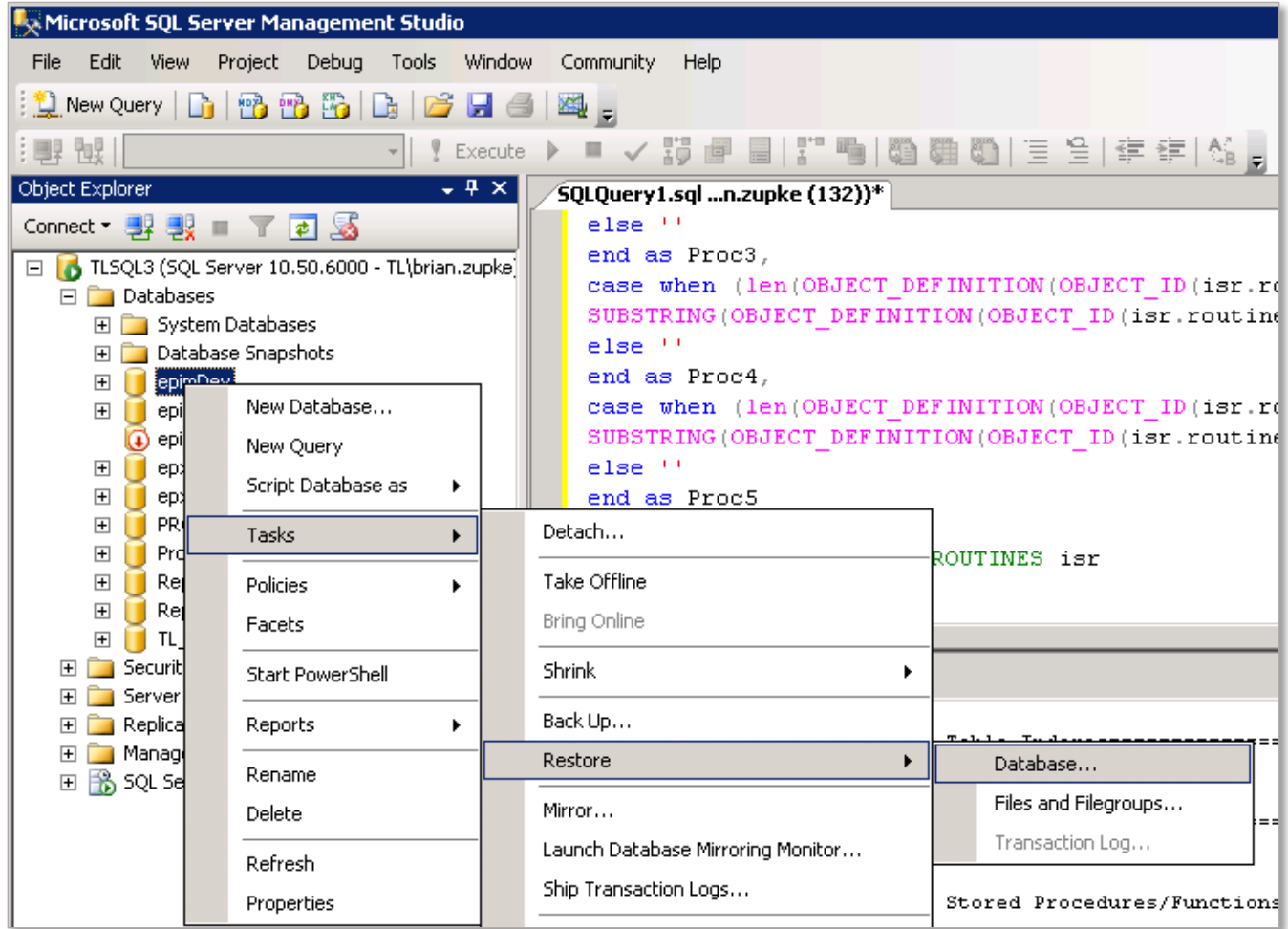


5. Click **OK**.
6. Wait for the backup to complete.
7. Repeat the above steps for the EPX database and name the backup file appropriately.

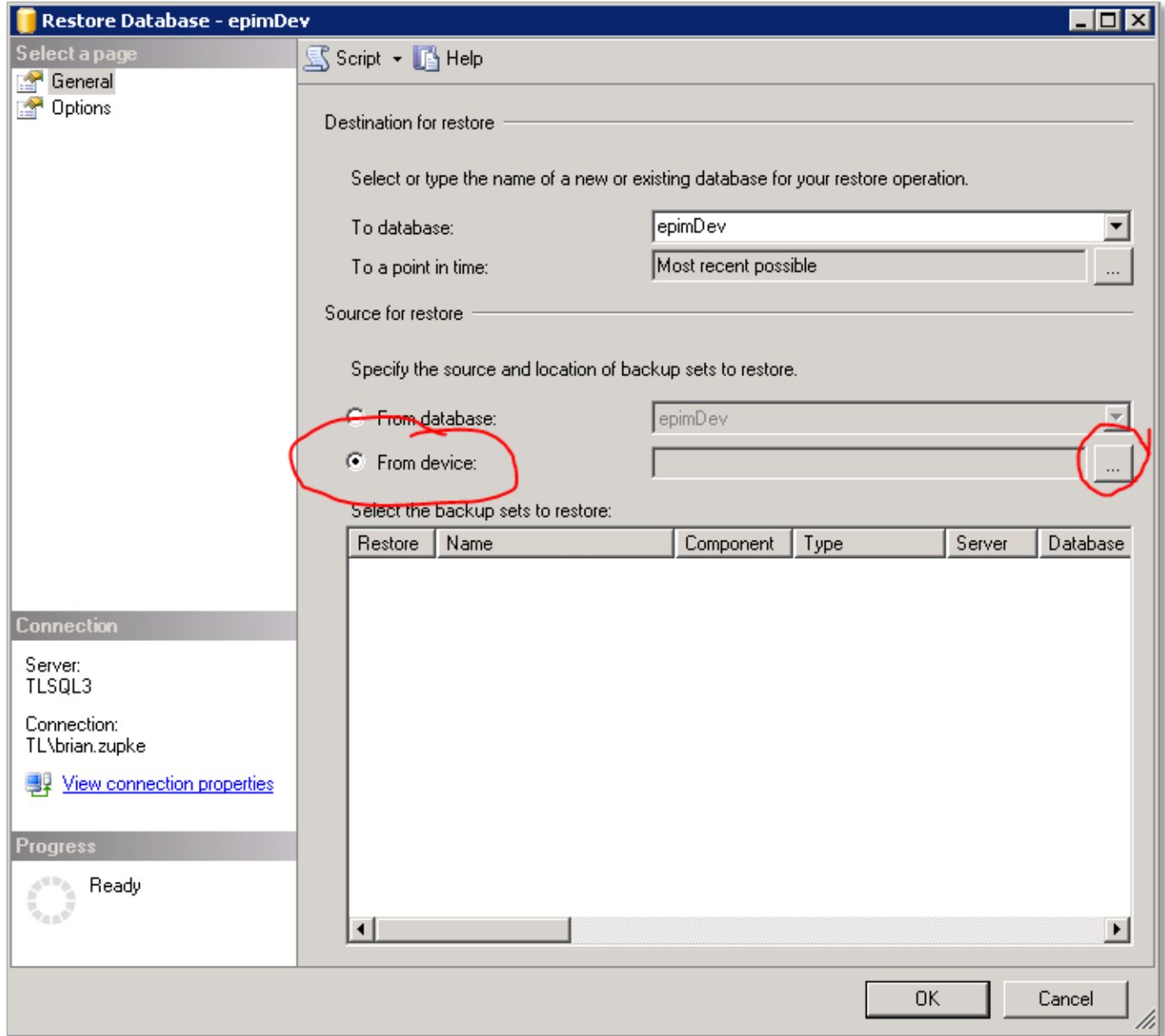
9 Restore the PROD Enable databases into the DEV/QA databases.

Once the backups of the Enable PROD databases have been created, they need to be restored to the Enable DEV/QA databases by performing the following steps:

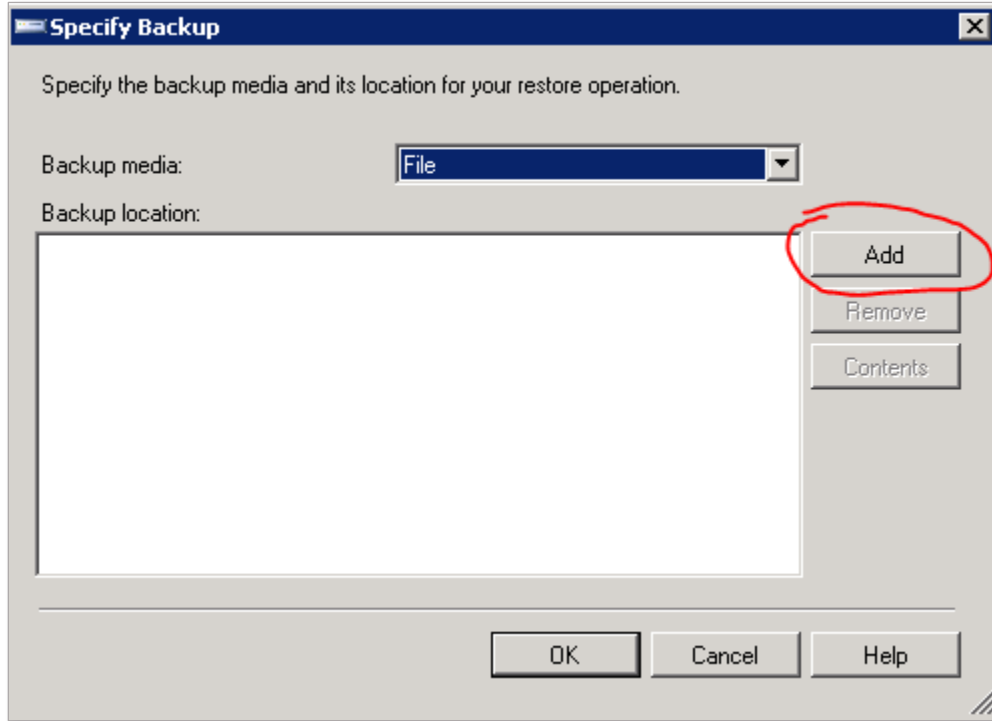
1. Log into the database server using SQL Server Management Studio.
2. Right-click on the EPIM database (e.g., **epimDev**) and select **Tasks->Restore->Database...** from the pop-up menu:



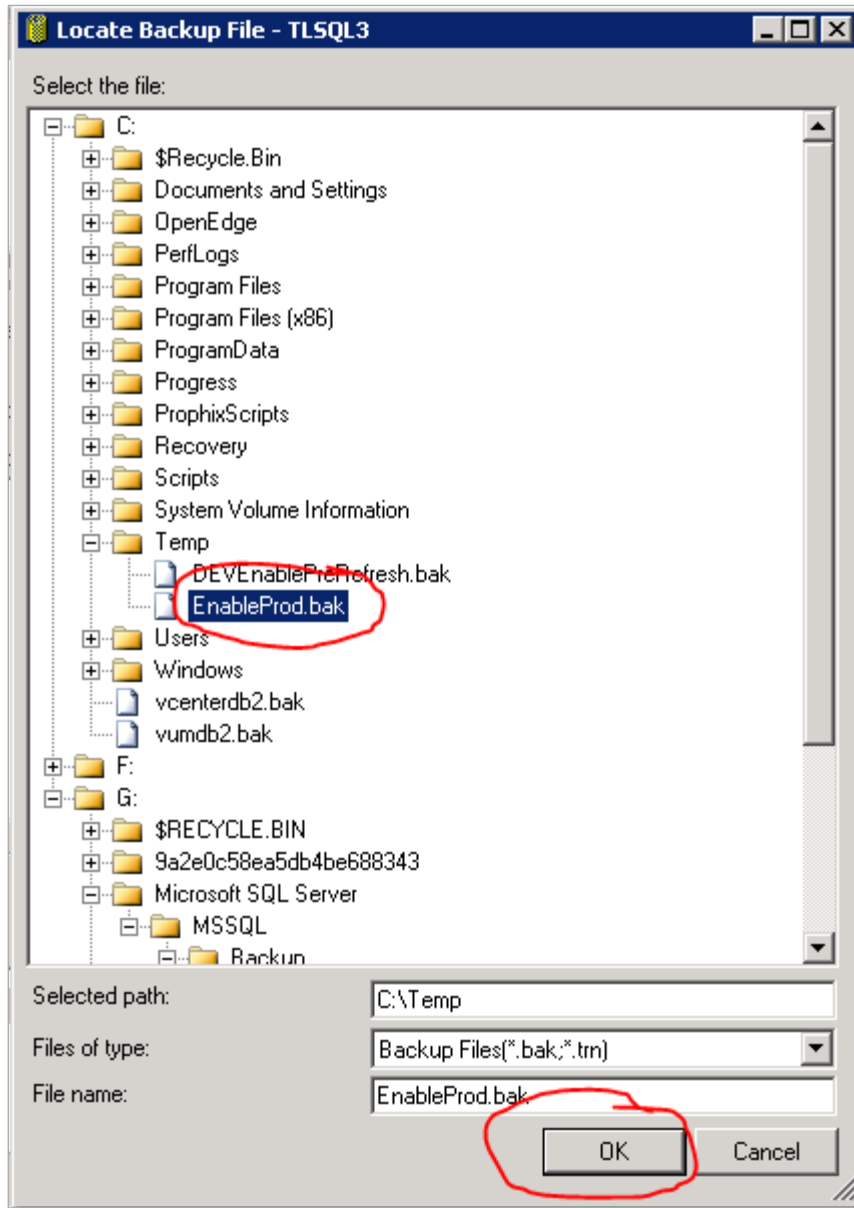
3. Set the **Source for Restore** to **From device** and click ...:



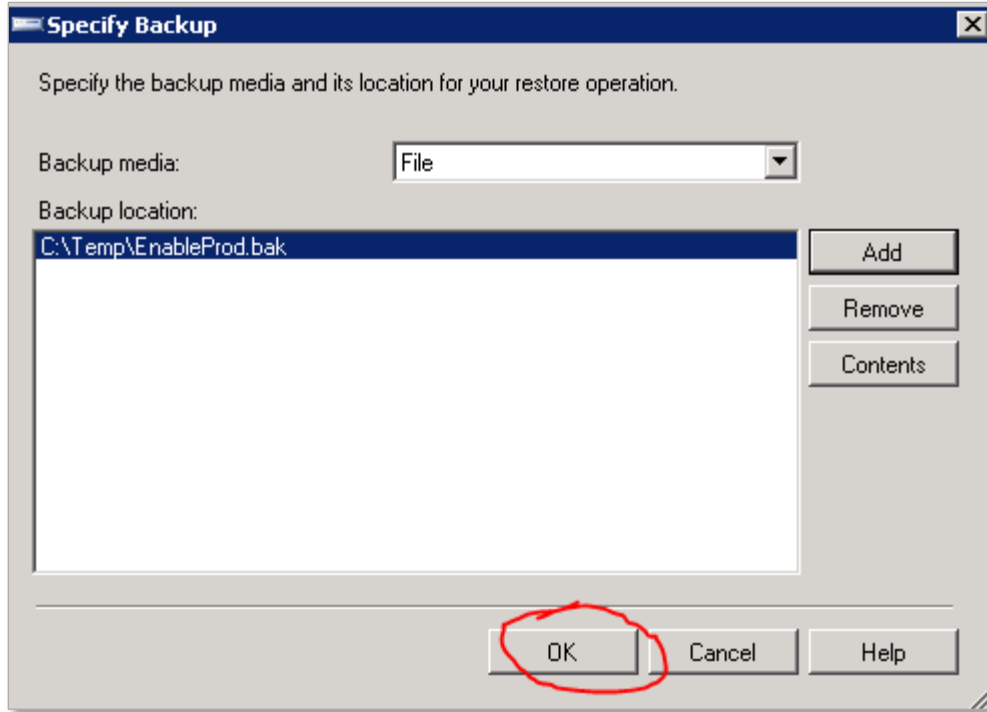
4. Click **Add**:



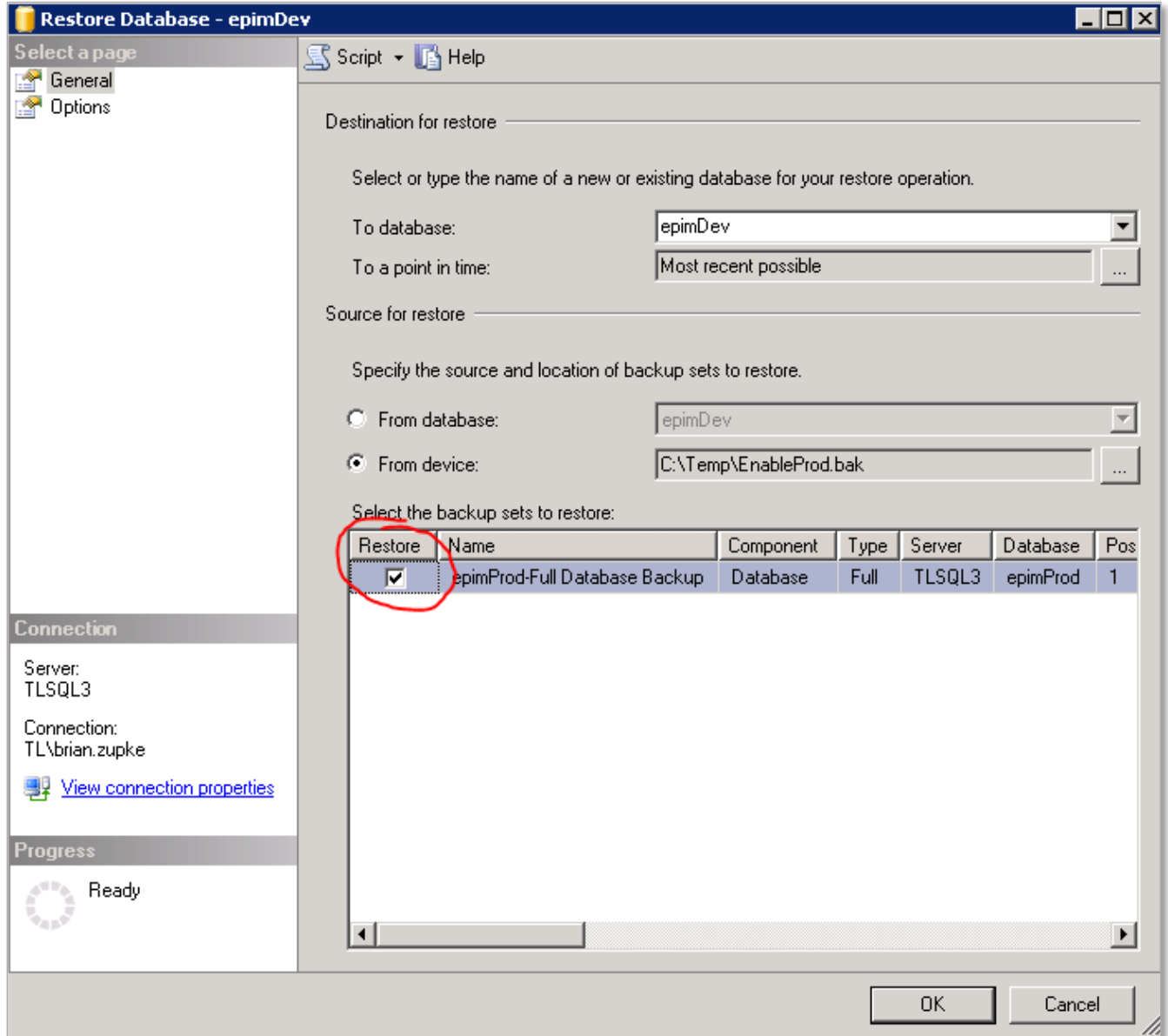
5. Select the backup file from the Enable PROD database and click **OK**:



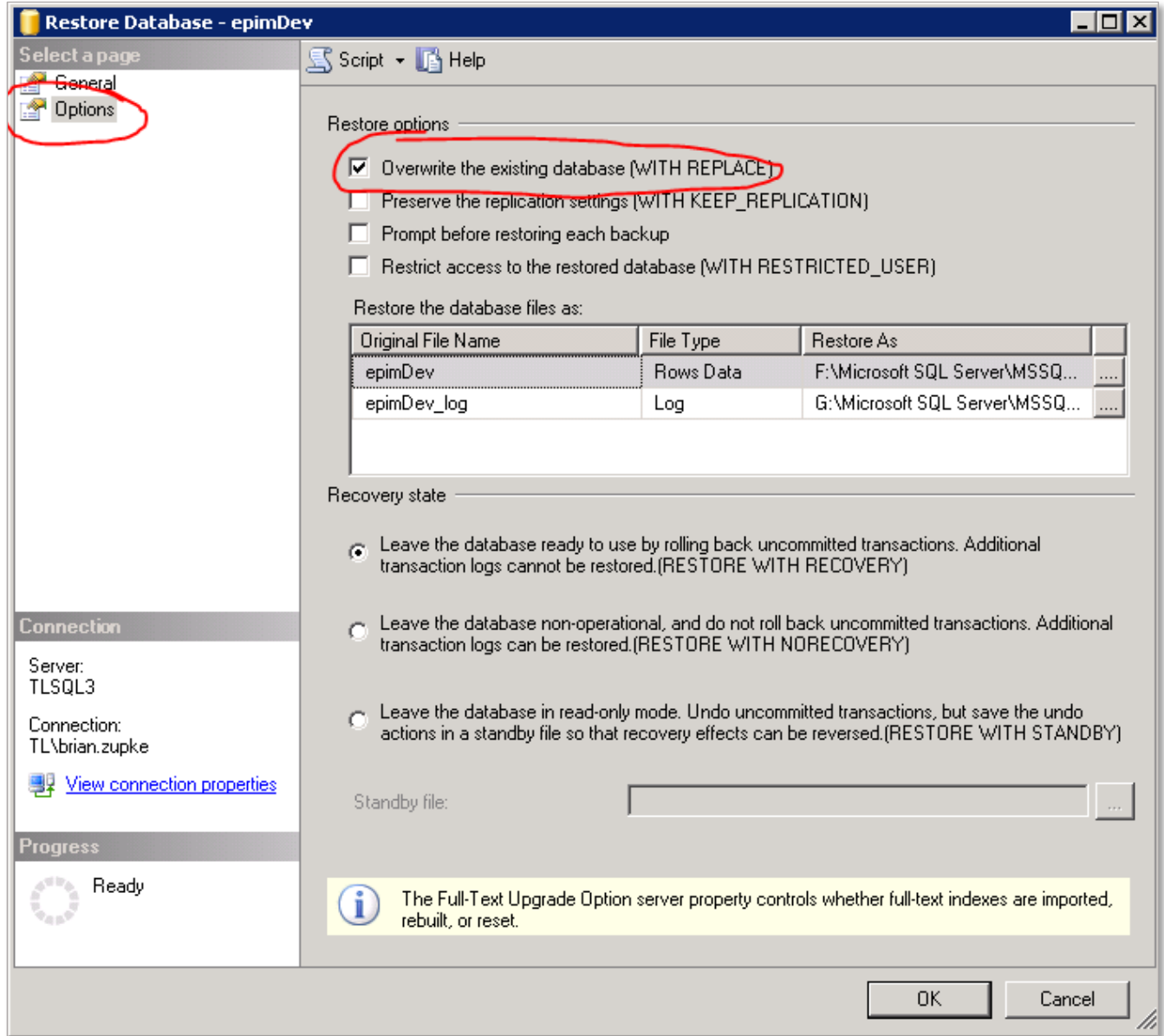
6. Click **OK**:



7. Check the **Restore** checkbox for the listed backup set list:



8. Click **Options** and check the **Overwrite the existing database** checkbox:



9. Click **OK**.
10. Wait for the restore to complete.
11. Repeat the above steps for the EPX database using the corresponding backup file.

10 Restore the Environment-Specific Data in the DEV/QA Databases from files

1. Using SQL Server Management Studio Query Tool open a query for the EPX database.
2. Load the SQL previously saved in the file "RestoreEPXEnvironmentSettings.sql"
3. Execute the SQL

4. Open a new query for the EPIM database.
5. Load the SQL previously saved in the file “RestoreEPIMEnvironmentSettings.sql”
6. Execute the SQL
7. Delete all records from the following tables (unless transferring work items from the source):
 - a. B_WORK_ITEM_VERSION_ITEM
 - b. B_WORK_ITEM_VERSION
 - c. B_WORK_ITEM
8. Log into the EPIM database using SQL Server Management Studio and the user/password that was originally defined for the DEV/QA environment
9. Verify the EPIM tables can be accessed.
10. If the login fails, try the user user/password for PROD. If that succeeds change the password back to the original value for DEV/QA
11. Log into the EPX database using SQL Server Management Studio and the user/password that was originally defined for the DEV/QA environment
12. Verify the EPX tables can be accessed.
13. If the login fails, try the user user/password for PROD. If that succeeds change the password back to the original value for DEV/QA
14. Restart the EnterWorks EPIM services only.

Warning: DO NOT restart the EPX services until the steps in the next section have been completed. This will ensure no data is pulled from or pushed to PROD resources as the environment specific settings have not yet been restored.

15. Log into Enable using the UI.

NOTE: All Enable users and passwords will now be the same as PROD – any users or different passwords in DEV/QA will have been removed/overwritten by the restore from PROD.

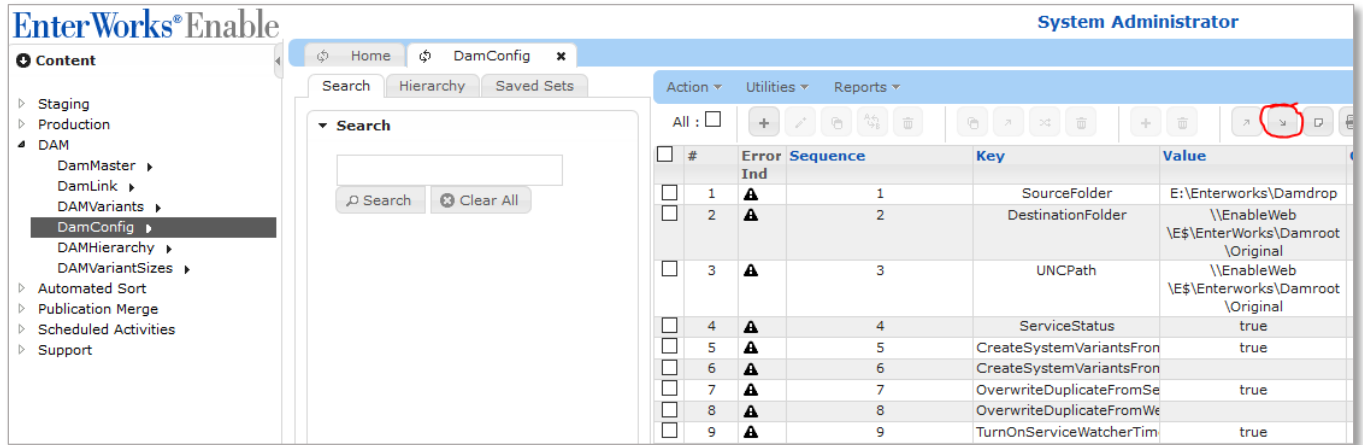
11 Restore the Environment-specific data in DEV/QA from the files.

Once the Enable PROD backup has been restored to the DEV/QA database, the environment-specific data must be restored from files created in the first section for each of the following repositories:

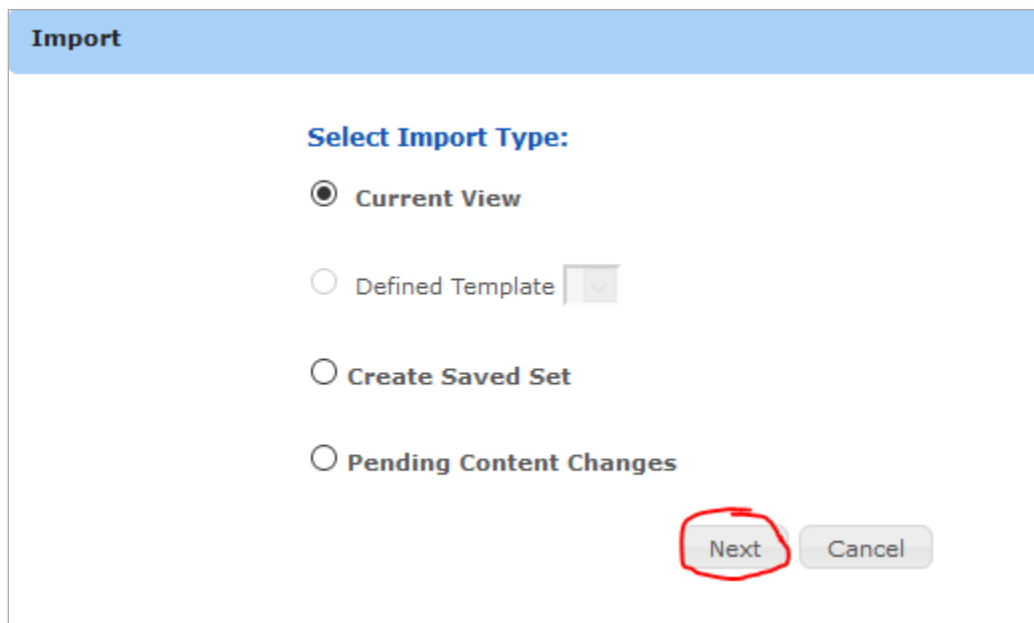
- DAMConfig
- DAMVariants
- DAMMaster (if not transferring the assets from PROD)

1. Log into the Enable UI.

2. Open the target repository
3. Click the import file icon:



4. Click **Next**:



5. Click **Browse**:

Setup Import

File Name: Browse... No file selected.
The file upload size limit is set to 1000 MB.

Options

File Format: Delimited Excel 97 - 2003 (xls) Excel Workbook (xlsx)

File Encoding: DEFAULT

Language: English

Save Records Imported From Source As Set

Saved Set Name: [new]

Saved Set Description:

Send Above Saved Set To Workflow

Save Records In Repository but Not Imported From Source As Set

Saved Set Name:

Saved Set Description:

Advanced Options

NOTE: Only columns with names that match the profile column names will be mapped. The file must for all of the primary key fields.

Next
Cancel

6. Select the corresponding export file from the local directory that was created in the first section of this document.
7. Click **Next**:

Setup Import

File Name: PreRrefreshDAMConfig.xlsx
The file upload size limit is set to 1000 MB.

Options

File Format: Delimited Excel 97 - 2003 (xls) Excel Workbook (xlsx)
File Encoding:
Language:

Save Records Imported From Source As Set
Saved Set Name:

Saved Set Description:
 Send Above Saved Set To Workflow

Save Records In Repository but Not Imported From Source As Set
Saved Set Name:
Saved Set Description:

Advanced Options

NOTE: Only columns with names that match the profile column names will be mapped. The file must contain data for all of the primary key fields.

8. Verify all columns are mapped and click **Finish**:

Map Column Names to Attributes

Update all records on partial key matching

Preview File

Column Position	Column Name	Repository Attribute
1	Sequence	Sequence ** (Primary Key 1) ▾
2	Key	Key ▾
3	Value	Value ▾
4	ConfigGroup	ConfigGroup ▾

Preview File

Back **Finish** Cancel Clear

9. Wait for the import to complete.
10. Repeat the above steps for the next repository.
11. Update the records in the Scheduled Exports and Scheduled Imports to change the environment-specific settings to appropriate values for the DEV/QA environment.

Note: Scheduled Exports and Scheduled Imports may have environment-specific settings in different attributes, such as the target attributes, import directory, pre-/post-processing arguments, etc. The records in the two repositories must be reviewed (attribute by attribute) for any environment-specific settings and then updated to the appropriate values for DEV/QA. The exports previously generated from the DEV/QA environment can be used as a reference but will not necessarily be a complete list of environment-specific settings that need to be updated. For example, a Scheduled Export or Scheduled Import with environment-specific settings may have been defined only in PROD and not DEV/QA – for these there will be no exact reference that can be used to restore the environment-specific values.

It is also possible that the Scheduled jobs in the restored DEV/QA environment are not to be scheduled at the same frequency as PROD or even at all. Each job that is configured to be scheduled must be reviewed and updated as appropriate for the DEV/QA environment.

12. Stop and Restart all EnterWorks Services

12 Cleanup Interactive EPX Workflows

If there are interactive workflows in EPX and the workflows (with work items) are not being migrated, then all work items, including the ones that have not completed should be purged from these workflows by performing the following steps.

1. Run the Design Console on the application server containing EPX and log in as user system.
2. Expand the Process Flows folder under the Process Modeling folder.
3. Shift-select all of the interactive workflows in the list.
4. Right-click on one of the selected workflows and select Purge Work Items...
5. Click the Selected radio button for In Process Flow.
6. Uncheck the Delete only completed work items checkbox.
7. Click OK.
8. Click Yes on the Confirm work item purge prompt.

13 Replace the DAMRoot files in DEV/QA from PROD

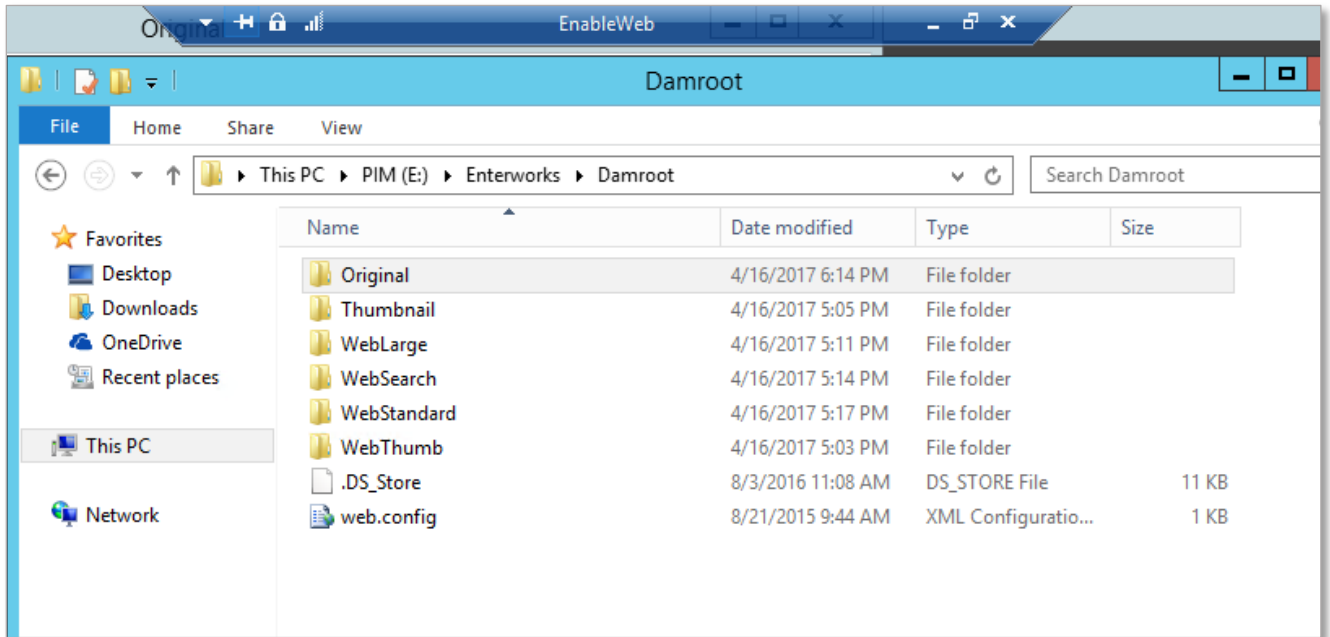
The database restore completely replaces the contents of the DAMMaster repository, which points to files in the DAMRoot folder. Prior to the refresh, the file locations for files residing in both DEV/QA and PROD may not be in the same folder under DAMRoot. Therefore, either the DEV/QA DAMMaster repository must be restored to the values prior to the refresh from PROD, or the DEV/QA DAMRoot folder contents must be replaced with the PROD DAMRoot folder.

To restore the DEV/QA DAMRoot repository, perform the following steps:

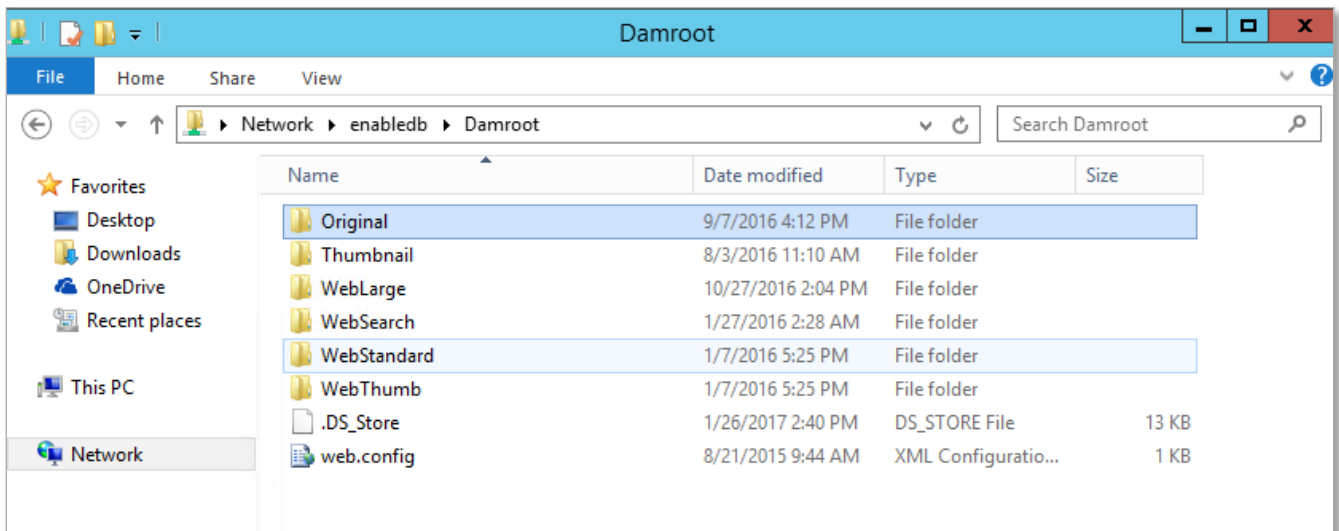
1. Log into the Enable UI as an Administrator
2. Open the DAMMaster repository.
3. Check the All checkbox.
4. Click the Delete icon.
5. Click OK on the confirmation prompt.
6. Wait for all records to be deleted.
7. Import the DAMMaster file created prior to the refresh from PROD.

To refresh DAMRoot from PROD, performing the following steps:

1. Open a Remote Desktop session on EnableWeb.
2. Open a File Browser window and point it to the DAMRoot directory for the DEV/QA environment (the location is defined in the restored DAMConfig repository):



3. Select and delete all folders in this directory. **WARNING: Be absolutely sure the Windows Explorer is pointing to the DEV/QA file system before deleting any files.**
4. Open a second Windows Explorer window and point it to the PROD DAMRoot folder (this assumes the PROD DAMRoot is network-accessible – if it is not, the files will need to be transferred through any available medium):



5. Copy all folders from the PROD directory to DEV/QA (this will take a while).
6. Once the copy is complete, all images should correctly appear in the DAMMaster and Product repositories.