Implementing a Test Environment for EPDM

TITLE:	Implementing a Test Environment for EPDM
DATE:	01/03/2014
SUBJECT:	Test Environment use for EPDM
ABSTRACT:	Comprehensive guide for the purpose of testing functionality for EPDM.
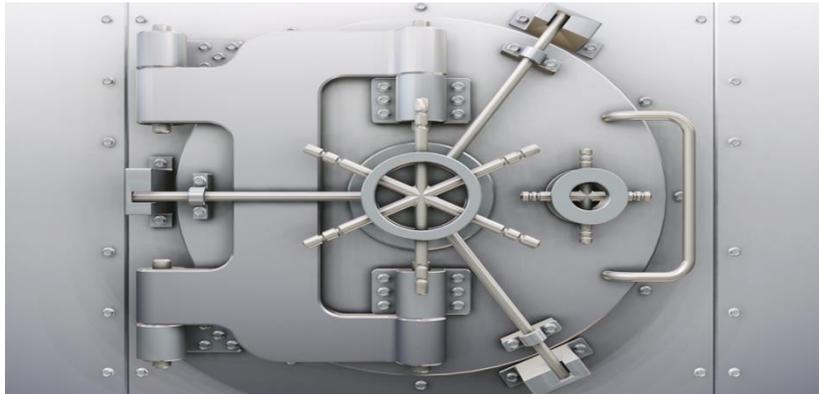
This guide is written for users of SolidWorks Enterprise PDM. The goal of this guide is to ensure that all components of the Enterprise environment are in running order before performing the production upgrade or install.

There are two possible scenarios where this guide can be useful: An upgrade from an existing version of EPDM, or a new installation of EPDM. Testing a new version or initial version of EPDM in a "sandbox" environment (a separate environment from the production) is a critical procedure when preparing for an install. As with any software upgrade or install, workflows and procedures may be modified or applied differently than what users may be used to. As a result, it is important to test these new procedures to ensure complete functionality.

Testing environments should, generally, be setup in environments that match existing systems that are already in use. This includes hardware, operating systems, and any software that is also running on a user's system.

This is not a troubleshooting guide. If you have any technical issues with SolidWorks, please contact Hawk Ridge Systems technical support.

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Setting up a Test System

An EPDM client system must be located on a supported Windows operating system. For a list of system requirements for EPDM, please visit the following link:

http://www.solidworks.com/sw/support/PDMSystemRequirements.html

Please note that neither Hawk Ridge Systems, nor SolidWorks recommend any specific hardware configuration.

When designating a new server computer for testing, ensure that it adheres to the requirements specified in the above link, and that all Windows updates have been performed.

New Installation of EPDM

If you are planning on installing EPDM for the first time, it would be advised to install the components while following the installation guides located on our knowledgebase, which can be found here:

https://support.hawkridgesys.com/forums/

Importing an Existing EPDM Installation to a New System

It is very common to want to test an upgrade of EPDM before deploying it to the production environment. This is done to ensure that there are no potential compatibility issues during the upgrade process which would corrupt the installation. In order to accomplish this, it would be necessary to install the current production version of EPDM on a new server system, and then migrate the EPDM application settings over so that it can mimic the existing production server. Once that is done, you may be able to run through the actual upgrade on the test system. In order to copy your settings over, you may follow these instructions:

If you are only moving the SQL server, follow the steps in blue.
If you are only moving the Archive server, follow the steps in black.
If you are moving both the SQL and Archive servers, follow all steps (This is what you will be doing).

On the old server(s)

1) SQL: Backup vault database and ConisioMasterDB and copy them to the new server (Instructions for backing up SQL can be found on our knowledgebase).
2) Backup Archive Server settings and copy it to the new server (Launch the Archive server configuration utility, then click "Tools > Backup settings…").
3) Copy the file vault archives to the new server (In order to find where these are, you can open the Archive server configuration utility, right click on your database name, select properties, and note the path for the Archive locations).
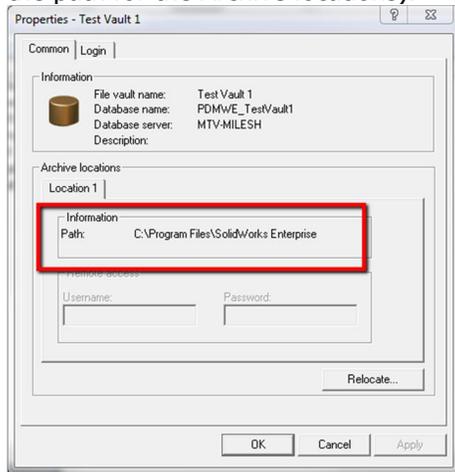
On the new SQL server

1) Restore the database backup (Instructions for restoring a SQL can be found on our knowledgebase).

2) Update restored database with the name of the new archive server.
   a. **ArchiveServers** and **SystemInfo** tables need to be updated.
      i. In a replicated environment, the **ArchiveServers** table contains each replicated server. Be sure to update only the moved server entry. Do not change the **VaultName** entry.
3) To allow indexing of the moved file vault database, create a linked server entry:
   a. In SQL Management Studio, right-click on the moved file vault database and select New Query.
   b. Enter the following command in the query window, then press Execute (F5) to run the query.

   Exec Sys_IndexServerLink 1

      i. If indexing is already set up on the old server, remove and recreate the index catalog on the new server using the Indexing node in the Administration tool.

On the new Archive Server

1) Restore the backup settings (Launch the Archive server configuration utility, then click "Tools > Backup settings…").
2) Update and verify the following registry keys:

a. **HKEY_LOCAL_MACHINE\SOFTWARE\SolidWorks\Applications\PDMWorks Enterprise\ArchiveServer\Computers\<local>\Archives**
   i. Ensure that the **(Default)** value points to the folder you copied the archive files to.
b. **HKEY_LOCAL_MACHINE\SOFTWARE\SolidWorks\Applications\PDMWorks Enterprise\ArchiveServer\Vaults\"*vault name*"**
   i. Update the **Server** value to the new SQL server name and make sure **SQLDbName** matches the restored file vault database name.
c. **HKEY_LOCAL_MACHINE\SOFTWARE\SolidWorks\Applications\PDMWorks Enterprise\ArchiveServer\Vaults\"*vault name*"\ArchiveTable**
   i. Make sure all paths point to the copied archive folders.

Updating Client Registry Keys

1) Update the following keys:
   a. **HKEY_LOCAL_MACHINE\SOFTWARE\SolidWorks\Applications\PDMWorks Enterprise\Databases*"vault name"***
      i. Update the DbServer (SQL Server) and ServerLoc (Archive Server) values with the new server names
         1. On 64 bit clients you will also have to update the same keys under: **HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\SolidWorks\Applications\PDMWorks Enterprise\Databases*"vault name"***
2) On each client delete: **HKEY_CURRENT_USER\Software\Solidworks\Applications\PDMWorks Enterprise\ConisioAdmin**

Testing the Install and Environment

Once the system is prepared, it will be time to install and/or upgrade the EPDM installation. As you proceed with installing the Archive and database server components, make note of how long the install takes, as this data will need to be taken into account when upgrading the production environment. Of course, also note of any failures during the install/upgrade and investigate further. Please contact Technical Support with any installation or upgrade failures.

If the desired version of EPDM was installed/upgraded successfully, it is normally advised to test the various functionality of EPDM. To do this, it would be advised to create a "sandbox" environment where a new test vault is created, and various files can be used inside it. There are several test that should be performed once the "sandbox" vault is created. These would include, but are not limited to the following:

Operation	Comment	Result
Add Files	Test with various file formats that are commonly used in production.	
Check in	Verify that files are routed to appropriate workflows and set to read-only after check in.	
Check out	Verify that files are made writable and can be updated.	
Change State	Verify that workflow conditions and actions trigger properly.	
Get version	Verify that versions can be cached properly.	
Update cards	Verify that values in data cards update as expected and mapped variables update appropriate custom properties.	
Integration with applications	Verify that you can open, work with and save files from various applications used in production.	
SolidWorks add-in	Verify that operations with the SolidWorks add-in work as expected.	
BOM	Confirm that the various BOMs used in production work as expected.	
Preview	Ensure files can be previewed properly.	
User permissions	Log in as different users with varying permission levels and make sure permissions work as expected.	