SolidWorks® World 2011

SolidWorks Enterprise PDM Dispatch Hands-on

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## Lesson 1: Dispatch

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Introduction
About This Hands-on Session

The goal of this hands-on session is to teach you how to configure and create a Dispatch action using the SolidWorks Enterprise PDM software.

The intended audience for this session is SolidWorks Enterprise PDM vault administrators.

Prerequisites

Students attending this session are expected to have the following:

- Basic experience with the SolidWorks software.
- Experience with the Windows™ operating system.
- Completed the course *Administering SolidWorks Enterprise PDM*.
- Completed the course *Using SolidWorks Enterprise PDM CAD Editor*.

Session Design Philosophy

This session is designed around a process- or task-based approach to training. Rather than focus on individual features and functions, a process-based training session emphasizes the process and procedures you follow to complete a particular task. By utilizing case studies to illustrate these processes, you learn the necessary commands, options and menus in the context of completing a task.

Recommended Length

The recommended minimum length of this session is one hour.

Conventions Used in this Book

This manual uses the following typographic conventions:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bold Sans Serif</td>
<td>SolidWorks Enterprise PDM commands and options appear in this style. For example, <em>Insert, Boss</em> means choose the <em>Boss</em> option from the <em>Insert</em> menu.</td>
</tr>
<tr>
<td>Typewriter</td>
<td>Feature names and file names appear in this style. For example, <em>Sketch1</em>.</td>
</tr>
<tr>
<td>17 Do this step</td>
<td>Double lines precede and follow sections of the procedures. This provides separation between the steps of the procedure and large blocks of explanatory text. The steps themselves are numbered in sans serif bold.</td>
</tr>
</tbody>
</table>

Windows® 7

The screen shots in this manual were made using SolidWorks Enterprise PDM running on Windows® 7. You may notice differences in the appearance of the menus and windows if you are running Windows® XP or Windows Vista®. These differences do not affect the performance of the software.
Upon successful completion of this lesson, you will be able to:

- Install the Dispatch add-in.
- Create a new Dispatch action script.
- TIME PERMITTING: Use logic within a Dispatch action script.
SolidWorks Enterprise PDM Dispatch lets you automate tasks and processes in Enterprise PDM. The module is configurable to accommodate support for many types of tasks or processes.

Dispatch integrates seamlessly into an Enterprise PDM vault and can be made to trigger on a number of events. For instance, an administrator might create a Dispatch action script that triggers whenever a document is added to the vault. The triggered Dispatch action script might, for example, initiate an action that renames the document using a newly generated serial number.

A new test vault or sandbox vault should be used when creating new Dispatch action scripts. This ensures that you will not inadvertently change or delete production vault data.

In this case study we will create a new test vault, load the Dispatch add-in, and create and modify a Dispatch action script that renames a selection of files.

1. Open Administration tool.
   Select Start > All Programs > SolidWorks Enterprise PDM > Administration.
2 **Create Test vault.**

Right-click `<server-name>` and select **Create new vault...** from the menu.

At the *Welcome* dialog click **Next >**.

Type **SWW_Dispatch** for the **Vault name:** and click **Next >**.

At the *Select vault root* dialog click **Next >**.

At the *Choose database* dialog click **Next >**. (*MS-SQL database server* should be set to *(local)*).

At the *Select regional settings* dialog click **Next >**.

At the *Create the admin user* dialog click **Next >**.

At the *Configure vault* dialog click **Next >**. (*The Default standard configuration will be used.*)
At the Select configuration details dialog, under Add-ins, check Dispatch and click Next >.

At the Review information dialog click Finish.
At the Completed dialog click Close.

Loading Dispatch Add-in

The Dispatch add-in may be installed after vault creation:

- Right-click the vault name and select Import...
- Select Files of type: Add-ins (*.CAF)
- Browse to <install_dir>\Default Data
- Select Dispatch.caf
Additionally, the Dispatch add-in can be added by manually loading the program .dll files. Please refer to the online help for more information on loading the Dispatch add-in.

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**Local View**

3 **Create local view.**

The **SWW_Dispatch** vault will now appear under the `<server-name>` in the Administration tool.

Right-click **SWW_Dispatch** and select the **Create local view**.

![Create Local View](image)

At the login dialog enter **admin** as the **User Name:**; leave the **Password:** blank and click **Log In.**

![Login Dialog](image)

At the **Browse For Folder** dialog select the **C:** drive and click **OK.**

At the prompt **Do you want to make the file vault view accessible for all users on this computer?**, click **Yes.**

![Accessibility Prompt](image)
At the vault login dialog enter admin as the **User Name:**; leave the **Password:** blank and click **Log In.**

The local view is displayed.

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**Vault Preparation**  
Before adding files to the vault, you will need to ensure that a serial number is defined and assigned to the appropriate file cards.

**4 Create serial number.**  
Open the SolidWorks Enterprise PDM Administration tool and login into the **SWW_Dispatch** vault as **admin.**

Expand the tree, right-click **Serial Numbers** and select **New Serial Number.**
For **Name:** type Document Number and set **Format string:** to **Counter value** of 8.

Click **OK**.

5 **Set serial number on file cards.**
Expand the **Cards** node then expand **File Cards**.
Double click on **SolidWorks Assembly Card** to open.
Select the **Document Number** edit-box and set the **Default Value** to **Serial Number** of Document Number.
Click the Save icon to save the file card.

Repeat the procedure for the **SolidWorks Drawing Card** and the **SolidWorks Part Card**.

6 **Add sample files.**

Browse to the folder:

C:\SolidWorks Training Files\SolidWorks Enterprise PDM CAD Editor\Lesson04\Exercises

and copy the folder Tool Vise into the local view of the vault.
Browse into the **Tool Vise** folder and select a file to ensure that the data card has issued a serial number for the **Doc Number**.

Select all the files and check in.

### Create Dispatch Action Script

The Dispatch tool can be accessed via Administration tool or from the File Explorer.

**Accessing Dispatch from the Administration tool.**

1. Log in to the vault where the Dispatch add-in is installed as a user with permission to administrate add-ins.
2. Expand Add-ins.
3. Do one of the following:
   - Right-click **Dispatch** and select **Administrate Actions**.
   - Double-click **Dispatch** to display the Properties - Dispatch dialog box. In the left pane, click **Administrate Actions**.

**Accessing Dispatch from the File Explorer.**

You can access Dispatch from File Explorer if you are logged in as **Admin** in the vault where Enterprise PDM Dispatch is installed.

- Click **Tools > Administrate Actions**.
The next step is to write a Dispatch action script that will rename each file using the value stored in the Document Number variable for each file.

7 **Create Dispatch action.**
   In File Explorer vault view, click **Tools > Administrate Actions**.

8 **Add new action.**
   Click the **Add** button in the Administrate Actions dialog.

9 **Define action name and activation.**
   Set **Action name:** to Rename SW File.
   
   Set **Description:** to Dispatch action to rename file using Document Number variable.
   
   For **Activation**, check **Menu command** and enter Rename SolidWorks File as the command text. (The Dispatch action will be run by selecting a file and right-clicking the new command.)
10 Define variables.
Click the Variables... button to define a dispatch variable to hold the file card value of the Document Number variable and a dispatch variable to hold the file extension.

Click the Add button.

Set Name: to d_filename.

Set Type: to Variable value from selected file(s) datacard.

Set Data card variable: to Document Number.
Click the **Add** button.

Set **Name:** to `d_fileext`.

Set **Type:** to **Static string**.

Set **Value:** to `Right(%NameOfSelectedFile%, 6)`

**Important!** The value `Right(%NameOfSelectedFile%, 6)` is **case sensitive**.

Click **OK**.
11 Define rename action.
In the Edit Action dialog, click the Add button and select Rename file.

Click OK.
Select the arrow to the right of Path to file to rename: and select File Variables > Path to selected file(s).
Set **New filename**: %d_filename%.%d_fileext%.

**Note**
These values can also be obtained by clicking on the right arrow and selecting the appropriate Userdefined Variables.

Click **OK**.

Click **OK** to completed Dispatch action.

Click **OK** to close Administrate Actions dialog.

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**Test Dispatch Action Script**

The Dispatch action will now appear on the right-click menu.

**Note**: In order to make any modifications to a file it must first be checked out.

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**12 Check out files.**

Select all the files, right-click and select **Check out**.

**Important!** Files **MUST** be checked out before attempting to rename files.
13 Rename file. Select `cap screw.SLDPRT`, right-click and select *Rename SolidWorks File*. 

![Image](image.png)

**Note** You may need to refresh the view (**F5** key) to see the filename update.

**Question:** What happens when you try to run the Dispatch action on multiple files? 
Try multi-selecting the `upper plate.SLDPRT` and `upper plate.SLDDRW` and right-click select *Rename SolidWorks File*.

**Handling Multiple Documents** If a block is not specified using **For all documents** and **End for all documents**, the scripted commands run only once, even if multiple documents are selected.

14 Edit Dispatch action. In File Explorer vault view, click **Tools > Administrate Actions**. Double-click the **Rename SW File** action in the Administrate Actions dialog to edit.
In the Edit Action dialog, click the **Add** button and select **For all documents**.

Click **OK**.

In the Edit Action dialog, click the **Add** button and select **End for all documents**.

Click **OK**.

15 **Reorder action.**

The Rename file action needs to be contained within the block.

Select the **For all documents** action and click the **Move up** button.

Click **OK** to save edits.

Click **OK** to close Administrate Actions dialog.
16 Test edits.
Multi-select eccentric.SLDPRT and locking handle.sldprt, right-click and select Rename SolidWorks File.

Note
You may need to refresh the view (F5 key) to see the filename update.

Adding Logic
Dispatch control logic actions commands can be used to provide additional programming like control within the Dispatch action script.

For example, the Rename SolidWorks File action script requires that the files to be acted on are checked out.

The Dispatch action commands Yes-No MessageBox, Jump and Label can be used to ask the user if the files are checked out and take action based on the answer.

17 Add logic to Dispatch action.
In File Explorer vault view, click Tools > Administrate Actions.
Double-click the Rename SW File action in the Administrate Actions dialog to edit.
In the Edit Action dialog, click the Add button and select Label.
Click OK.
For Label name: enter END.
Click OK.
In the Edit Action dialog, click the **Add** button and select **Yes-No Messagebox**.

Click **OK**.

For **Prompt string**: enter *Are all files to be renamed checked out?*.

Click the arrow to the right of **Variable name**: the **Set variables** dialog appears.

Click the **Add** button.

Set **Name** to `d_yesno`.

Set **Type** to **Runtime variable**.

Click **OK**.
In the *Yes-No Messagebox* dialog, under **Selectable choices for Yes-NO** set **Yes Value:** to 1 and set **NO-Value** to 0.

Click **OK**.

Select the **Yes-No Messagebox** action and click the **Move up** button until the command is at the top of the list.
In the Edit Action dialog, click the Add button and select Jump.
Click the arrow to the right of If... select Userdefined Variables > d_yesno.

Click the = (Equals to) radio button and type 0 into the edit-box below. Select END in ... then goto label edit-box.

Click OK.
Make sure the **Jump** action is located under the **Yes-No Messagebox** action.

Click **OK** to save edits.

Click **OK** to close Administrate Actions dialog.

**18 Test logic.**

Multi-select files that have not been renamed and test script logic.

**Note**

You may need to refresh the view (**F5** key) to see the filename update.
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