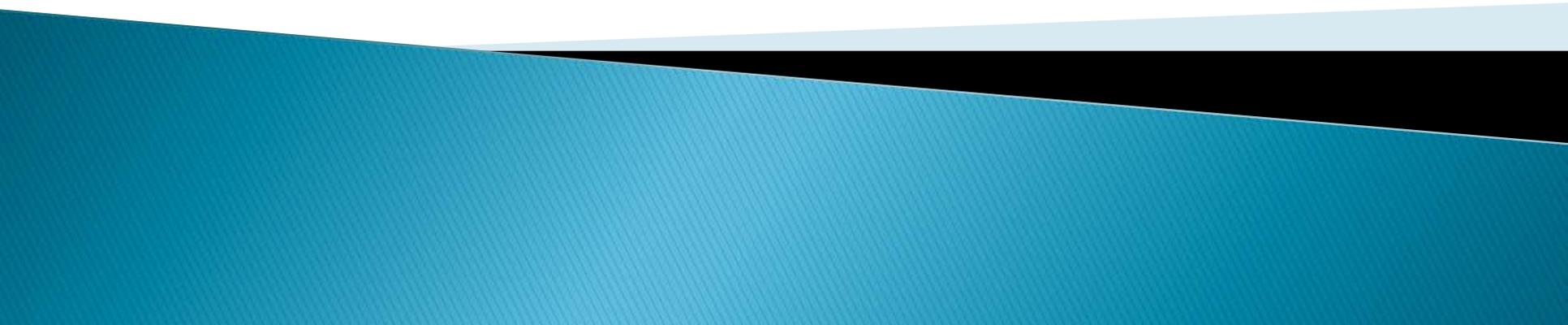


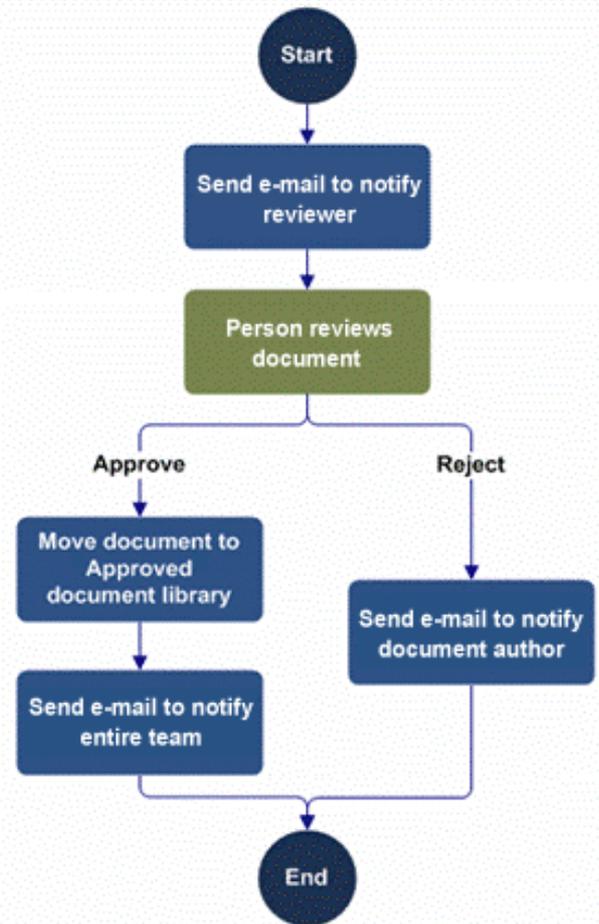
# Creating a Custom Workflow in SharePoint Designer

SharePoint 2010



# What is a workflow?

- ▶ Workflows are a series of actions that correspond to a work process
  - For example a document approval process
- ▶ Workflows can control most aspects of a SharePoint 2010 site, list, library, or list item
- ▶ Workflows can include both actions performed by people and actions performed by the workflow



# What is a workflow?

- ▶ Workflow participants interact with the workflow through the designated Tasks list
- ▶ A workflow can create a task for someone and remain paused until the task is marked complete

## Email notification

### Tasks - Please approve DNDO Project Design

Feedback Loop [sharepoint@eota.energy.gov]

Sent: Mon 3/5/2012 10:05 AM

To: Paul Stoudenmire

Task assigned by Stoudenmire, Paul on 3/5/2012.

Due by 10:05:00 AM

Approval started by Stoudenmire, Paul on 3/5/2012 10:05 AM  
Comment: Please approve

To complete this task:

1. Review [DNDO Project Design](#).
2. Perform the specific activities required for this task.
3. Use the **Open this task** button to mark the task as completed. (If you cannot access to it.)

## Task List notification

### My Document Review/Approval Tasks

<input type="checkbox"/> Title	Status	Due Date	% Complete	Outcome	Related Content
<a href="#">Please approve DNDO Project Design</a> <span>NEW</span>	Completed	3/6/2012	100 %	Approved	<a href="#">DNDO Project Design</a>

# What is a workflow?

- ▶ You can create a workflow that the user initiates, or a workflow that is initiated automatically based on an event, such as when a list item is created or changed

**Step 1**

If Current Item:Approval Status equals 0:#Approved

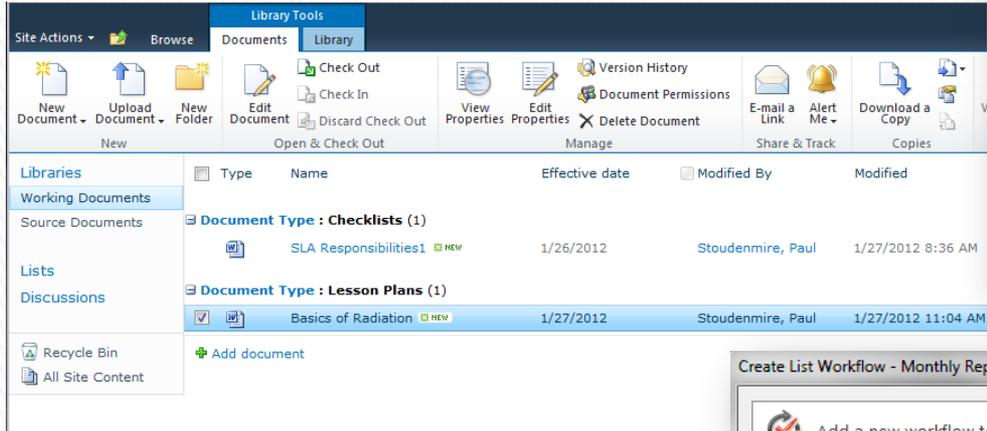
- Copy item in this list to this list
- then Email these users
- then Log this message to the workflow history list

# What is a workflow?

- ▶ 3 basic steps:
  1. Chose the type of workflows you want to create: list, reusable list, or site
  2. Use the workflow editor to choose and assemble the conditions and actions that define the steps of the workflow
  3. Save and publish the workflow

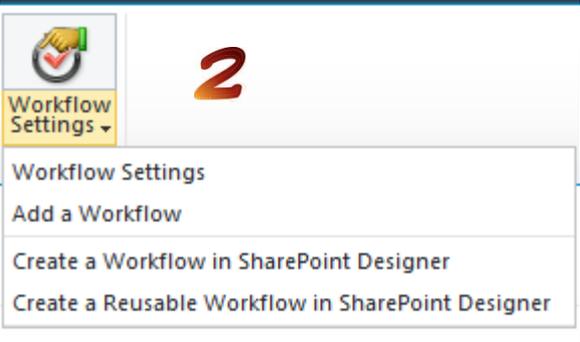
# Starting the Workflow Editor

**1**



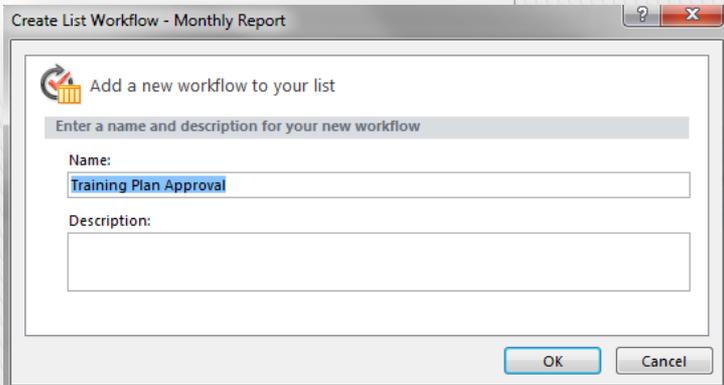
The screenshot shows the SharePoint 2010 interface. The 'Library Tools' ribbon is active, and the 'Workflow' button is highlighted in the 'Manage' group. A large red number '1' is overlaid on the top left of the interface.

**2**



The 'Workflow Settings' dropdown menu is open, showing options: 'Add a Workflow', 'Create a Workflow in SharePoint Designer', and 'Create a Reusable Workflow in SharePoint Designer'. A large red number '2' is overlaid on the top right of the menu.

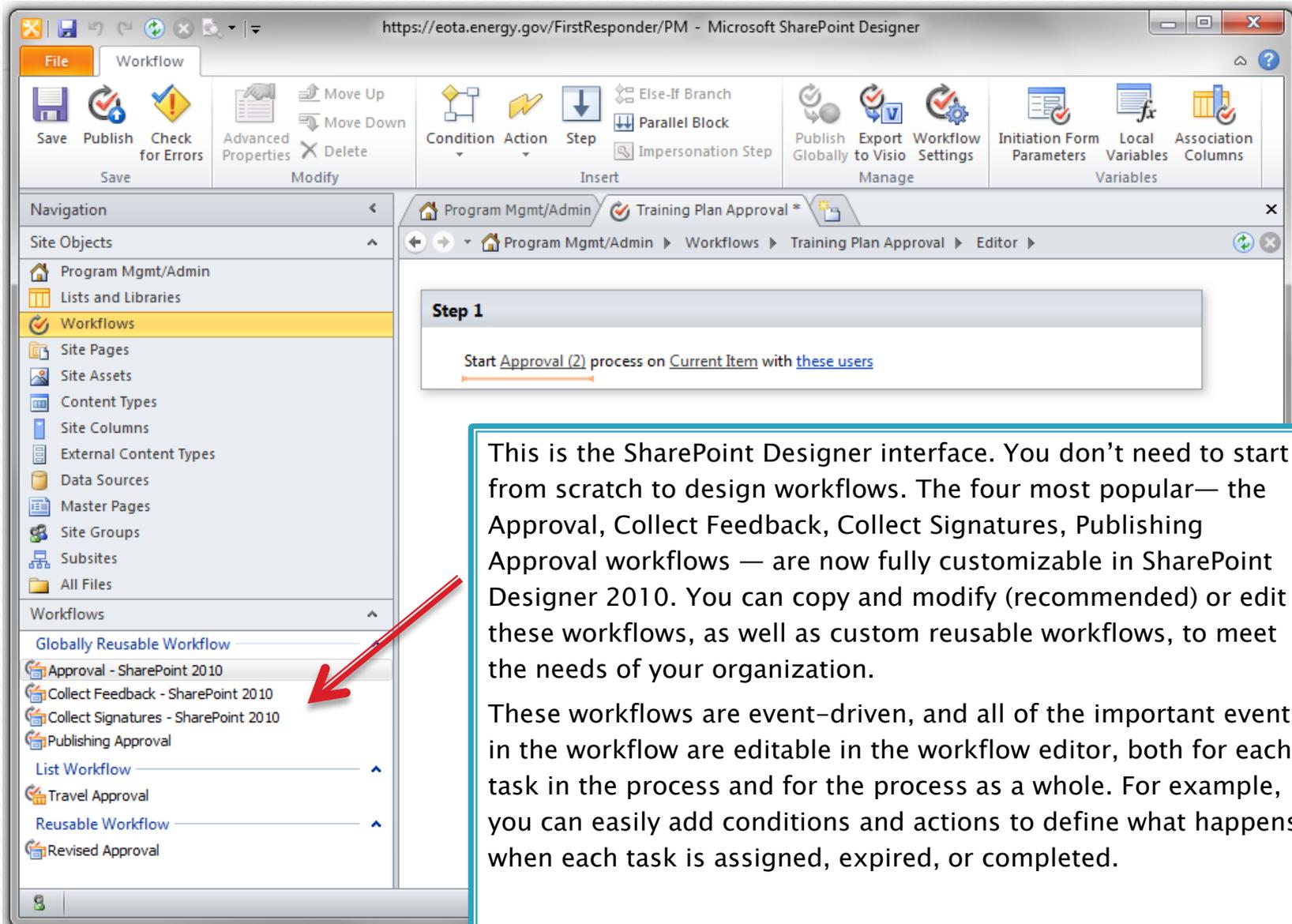
**3**



The 'Create List Workflow - Monthly Report' dialog box is open. It contains a text input field for the workflow name, which is filled with 'Training Plan Approval'. There is also a larger text input field for the description. The dialog has 'OK' and 'Cancel' buttons at the bottom. A large red number '3' is overlaid on the bottom left of the dialog.

1. Navigate to list or library the workflow will manage
2. Select Workflow and Create Workflow in SharePoint Designer
3. Name the Workflow

# SharePoint Designer



The screenshot displays the Microsoft SharePoint Designer 2010 interface. The title bar shows the URL: <https://eota.energy.gov/FirstResponder/PM> - Microsoft SharePoint Designer. The ribbon is set to 'Workflow' and includes the following groups: 'Save' (Save, Publish, Check for Errors), 'Modify' (Move Up, Move Down, Delete, Advanced Properties), 'Insert' (Condition, Action, Step, Else-If Branch, Parallel Block, Impersonation Step), 'Manage' (Publish Globally, Export to Visio, Workflow Settings), and 'Variables' (Initiation Form Parameters, Local Variables, Association Columns). The left-hand 'Navigation' pane shows 'Workflows' selected under 'Program Mgmt/Admin'. The 'Workflows' list includes: Globally Reusable Workflow, Approval - SharePoint 2010, Collect Feedback - SharePoint 2010, Collect Signatures - SharePoint 2010, Publishing Approval, List Workflow, Travel Approval, Reusable Workflow, and Revised Approval. A red arrow points from the 'Approval - SharePoint 2010' workflow in the list to the main editor area. The main editor area shows the 'Training Plan Approval' workflow with a single step: 'Start Approval (2) process on Current Item with these users'.

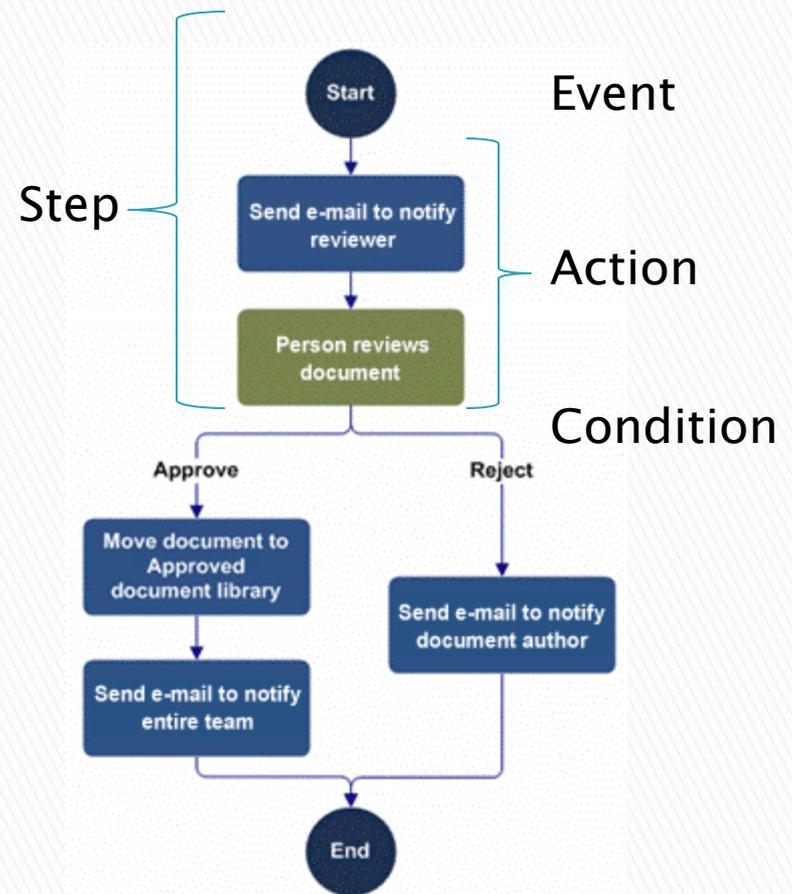
This is the SharePoint Designer interface. You don't need to start from scratch to design workflows. The four most popular— the Approval, Collect Feedback, Collect Signatures, Publishing Approval workflows — are now fully customizable in SharePoint Designer 2010. You can copy and modify (recommended) or edit these workflows, as well as custom reusable workflows, to meet the needs of your organization.

These workflows are event-driven, and all of the important events in the workflow are editable in the workflow editor, both for each task in the process and for the process as a whole. For example, you can easily add conditions and actions to define what happens when each task is assigned, expired, or completed.

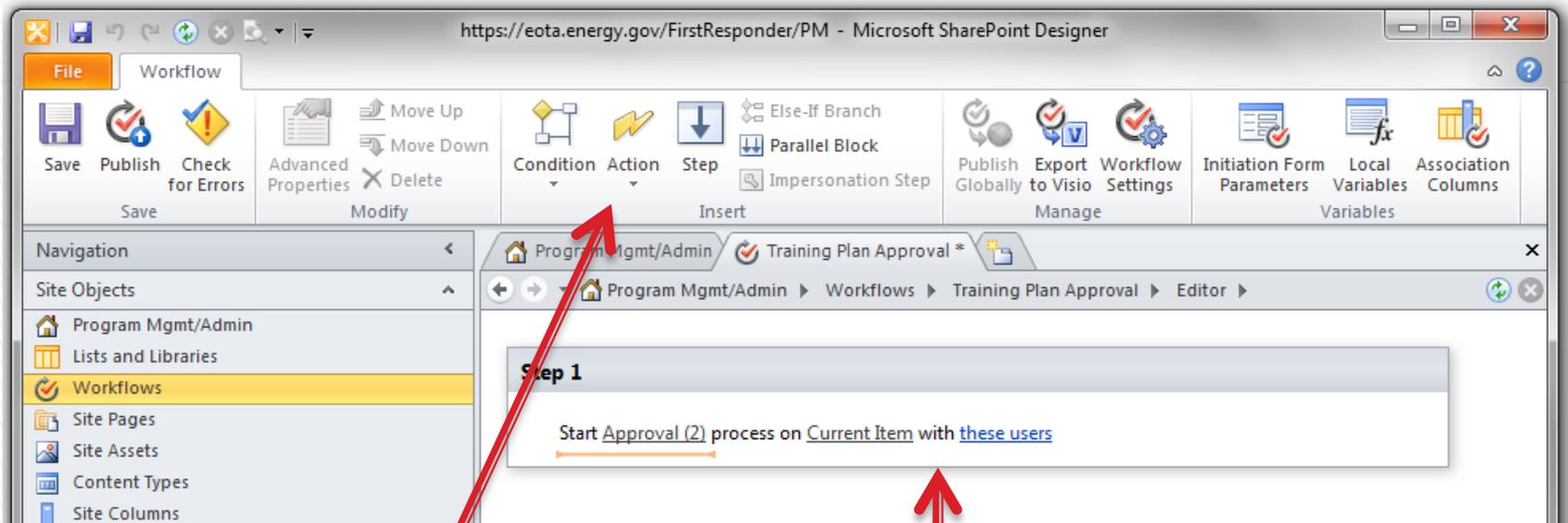
# Events, actions, conditions and steps

- ▶ Building blocks of a workflow
  - A workflow consists of one or more steps
  - Each step consists of actions and any associated conditions
  - Each workflow is initiated by an event

Use MS Visio to layout your workflow BEFORE you start Designer. Visio flows done in Visio 2010 can be imported into Designer



# Events, actions, conditions and steps

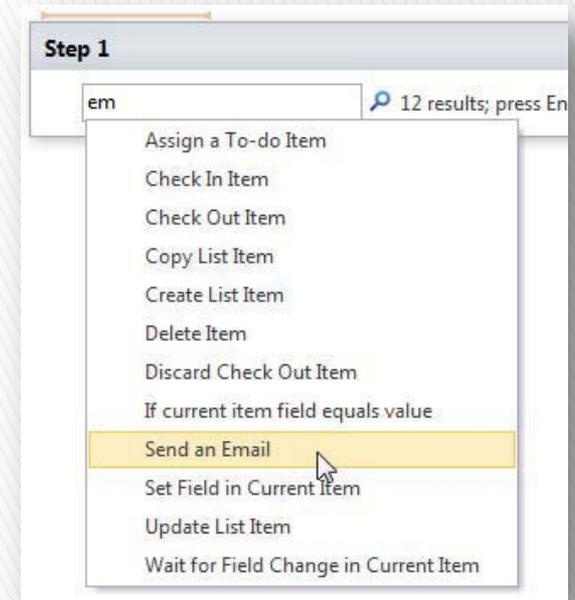


Events, actions, conditions and steps can be edited from the ribbon menu or by selecting items in the statement

- ▶ An event starts or initiates a workflow
- ▶ Events can also manage the timing of actions within a workflow, such as waiting for the status of an item to change
- ▶ Three events that can start a workflow:
  - An item is created
  - An item is changed
  - A workflow participant clicks a start button on the SharePoint site
- ▶ Workflows can start manually or automatically

# Actions

- ▶ SharePoint provides a set of ready-made, reusable actions for you to incorporate into your workflow:
  - Create, copy, change, or delete list items
  - Create a task for someone on the Tasks list of your team site
  - Collect data from a participant that can be referenced later in the workflow
  - Log workflow information to a History list to use for repudiation or workflow debugging
  - Set workflow variables or perform calculations
  - Check items in or out
  - Send an e-mail message
  - Pause or stop the workflow

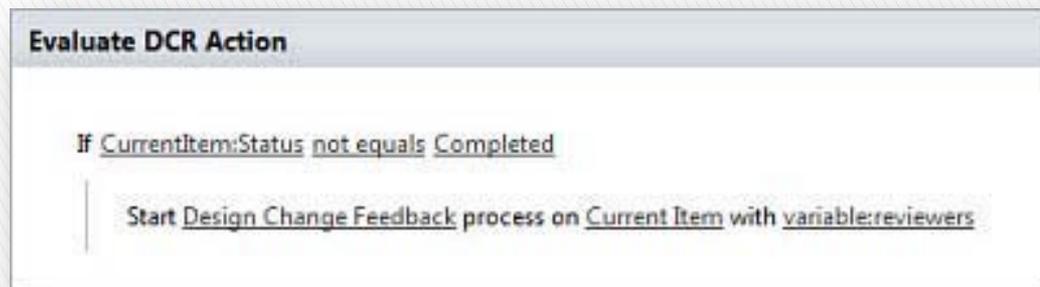


# Actions

- ▶ SharePoint Server 2010 includes three new task actions:
  1. Start Approval Process
  2. Start Feedback Process
  3. Start Custom Task Process
- ▶ The “big three” workflows included in SharePoint Server 2010 — the Approval, Collect Feedback, and Collect Signatures workflows — are built with these actions

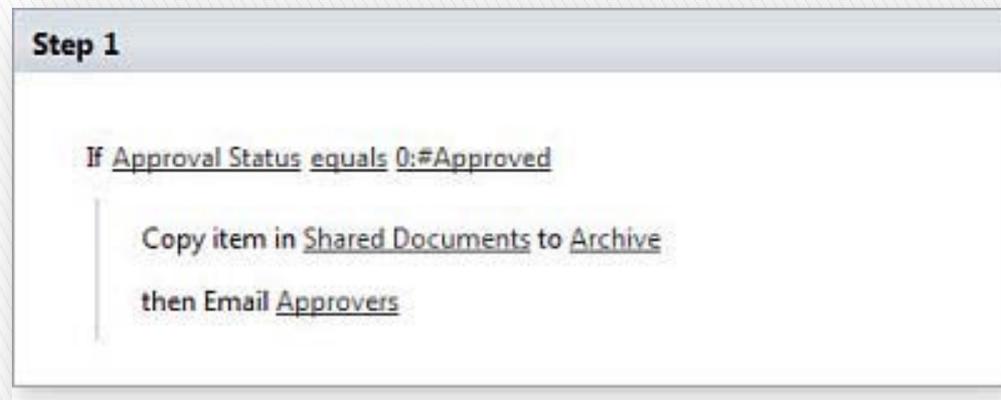
# Actions

- ▶ A workflow can contain any number of actions
- ▶ Actions can be performed by the workflow
- ▶ Or, actions might be performed by workflow participants
  - For example, in an approval workflow the act of actually reviewing and approving the document is done by a workflow participant. Actions done by a workflow participant are represented by tasks assigned to that person in the designated Tasks list



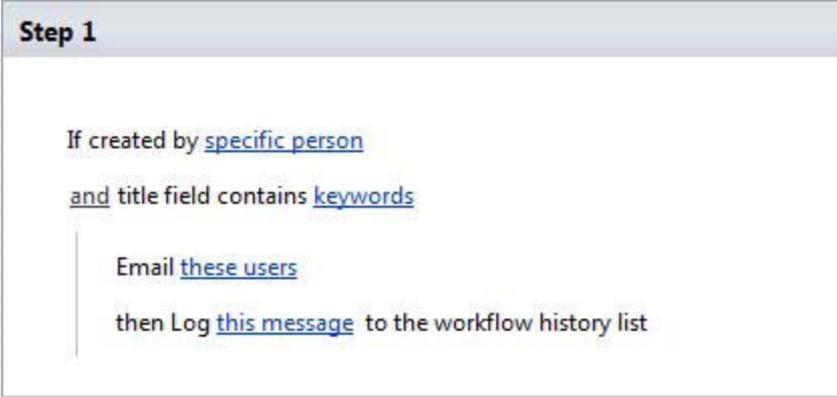
# Conditions

- ▶ Rules that apply conditional logic to SharePoint sites, lists, items and content types
- ▶ Establishes a condition where the workflow performs the associated action only if that condition is true.
  - For example, you can create a rule where the workflow copies a document and sends a reviewer an e-mail message if an item is approved



# Conditions

- ▶ Add multiple conditions per branch.
  - For example, you can create a rule where a reviewer is sent an e-mail message only if an item is both (1) created by a specific person and (2) the document title contains specific keywords



The screenshot shows a configuration window for a workflow rule, titled "Step 1". The conditions are listed as follows:

- If created by [specific person](#)
- [and](#) title field contains [keywords](#)

The actions are listed as follows:

- Email [these users](#)
- then Log [this message](#) to the workflow history list

# Conditions

- ▶ Associate multiple actions with one condition
  - For example, you can create a rule where if an item is created by a specific person, then (1) the reviewer is sent an e-mail and (2) workflow information is logged to the History list

The screenshot displays a workflow rule configuration interface with two steps. Step 1 is titled "Step 1" and contains a condition: "If Approval Status equals 0:#Approved". Below the condition, there are two actions: "Copy item in Shared Documents to Archive" and "then Email Approvers". Step 2 is titled "Step 2" and contains a single action: "Log [%Current Item:Title%] with [%Current... to the workflow history list".

**Step 1**

If Approval Status equals 0:#Approved

Copy item in Shared Documents to Archive

then Email Approvers

**Step 2**

Log [%Current Item:Title%] with [%Current... to the workflow history list

# Steps

- ▶ A workflow is comprised of one or more steps. Each step can contain numerous actions and associated conditions
- ▶ Steps allow you to group conditions and actions so that one set of rules (conditions and actions) can be evaluated and performed before a second set

