Introduction to workflows

Workflows help people to collaborate on documents and to manage project tasks by implementing business processes on documents and items in a Microsoft Office SharePoint Server 2007 site. Workflows help organizations to adhere to consistent business processes, and they also improve organizational efficiency and productivity by managing the tasks and steps involved in business processes. This enables the people who perform these tasks to concentrate on performing the work rather than managing the workflow.

What are workflows?

Workflow is sometimes described as a series of tasks that produce an outcome. In the context of Microsoft SharePoint Products and Technologies, workflow is defined more narrowly as the automated movement of documents or items through a sequence of actions or tasks that are related to a business process. Workflows can be used to consistently manage common business processes within an organization by enabling the organization to attach business logic to documents or items in a SharePoint list or library. Business logic is basically a set of instructions that specifies and controls the actions that happen to a document or item.

Workflows can streamline the cost and time required to coordinate common business processes, such as project approval or document review, by managing and tracking the human tasks involved with these processes. For example, in an Office SharePoint Server 2007 site, you can add a workflow to a document library that routes a document to a group of people for approval.

When the document author starts this workflow on a document in that library, the workflow creates document approval tasks, assigns these tasks to the workflow participants, and then sends e-mail alerts to the participants with task instructions and a link to the document to be approved.
While the workflow is in progress, the workflow owner (in this case, the document author) or the workflow participants can check the Workflow Status page to see which participants have completed their workflow tasks. When the workflow participants complete their workflow tasks, the workflow ends, and the workflow owner is automatically notified that the workflow has completed.

Workflows not only support existing human work processes but also extend the ways in which people can collaborate and work with documents, lists, and libraries. Site users can start and participate in workflows by using customizable forms that are accessible from the document or item in a SharePoint list or library. Additionally, the workflow functionality in Office SharePoint Server 2007 is tightly integrated with the 2007 Microsoft Office system. The following workflow tasks can be performed either in an Office SharePoint Server 2007 site or directly within certain client programs that are part of the 2007 Office release:

- View the list of workflows that are available for a document or item.
- Start a workflow on a document or item.
- View, edit, or reassign a workflow task.
- Complete a workflow task.

**Workflows that are included in Office SharePoint Server 2007**

An Office SharePoint Server 2007 site includes several workflows that address common business scenarios:

- **Approval**: This workflow routes a document or item to a group of people for approval. By default, the Approval workflow is associated with the Document content type, and thus it is automatically available in document libraries.

- **Collect Feedback**: This workflow routes a document or item to a group of people for feedback. Reviewers can provide feedback, which is then compiled and sent to the person who initiated the workflow. By default, the Collect Feedback workflow is associated with the Document content type, and thus it is automatically available in document libraries.

- **Collect Signatures**: This workflow routes a Microsoft Office document to a group of people to collect their digital signatures. This workflow must be started in a client program that is part of the 2007 Office release. Participants must complete their signature tasks by adding their digital signature to the document in the relevant Microsoft Office program. By default, the Collect Signatures workflow is associated with the Document content type, and thus it is automatically available in document libraries. However, the Collect Signatures workflow appears for a document in the document library only if that document contains one or more Microsoft Office Signature Lines.

- **Disposition Approval**: This workflow, which supports records management processes, manages document expiration and retention by allowing participants to decide whether to retain or delete expired documents. The Disposition Approval workflow is intended for use primarily within a Records Center site.

- **Three-state**: This workflow can be used to manage business processes that require organizations to track a high volume of issues or items, such as customer support issues, sales leads, or project tasks.

Each of the above workflows can be customized for your organization in several ways. For example, when you add a workflow to a list, library, or content type to make it available for use on documents or items, you can customize the tasks lists and history lists where information about the workflow is stored.

When a site user starts a workflow on a document or item, the user may have the option to further customize the workflow by specifying the list of participants, a due date, and task instructions.
About adding a workflow to a list, library, or content type
Before a workflow can be used, it must be added to a list, library, or content type to make it available for documents or items in a specific location. You must have the Manage Lists permission to add a workflow to a list, library, or content type. In most cases, the site administrators or individuals who manage specific lists or libraries perform this task.

The availability of a workflow within a site varies, depending on where it is added:
- If you add a workflow directly to a list or library, it is available only for items in that list or library.
- If you add a workflow to a list content type, it is available only for items of that content type in the specific list or library with which that content type is associated.
- If you add a workflow to a site content type, that workflow is available for any items of that content type in every list and library to which an instance of that site content type was added. If you want a workflow to be widely available across lists or libraries in a site collection for items of a specific content type, the most efficient way to achieve this result is by adding that workflow directly to a site content type.

When you add a workflow to a list, library, or content type, you can customize the workflow for its specific location by specifying various options:
- The name for this instance of the workflow
- The tasks list where workflow-related tasks are stored
- The history list that records all of the events that are related to the workflow
- The way that you want the workflow to be started
- Additional options that are specific to the individual workflow, for example, how tasks are routed to participants, what circumstances complete the workflow, and what actions occur after the workflow is completed

When you add a workflow to a list, library, or content type, you make it available for documents or items in a specific location; you do not start the actual workflow.

Starting a workflow on a document or item
After a workflow is added to a list, library, or content type and thereby made available for use, you can start this workflow on a document or item (if the workflow is configured to allow it to be started manually). To start a workflow, you select the workflow that you want from the list of workflows available for the document or item. If necessary, you may also need to fill out a form with the information that the workflow requires. Depending on how the workflow was designed and configured, you might have the option to further customize the workflow when you start it on a document or item by customizing such options as participants, due date, and task instructions.

Modifying a workflow in progress
After a workflow is started on an item, you may need to make changes to how the workflow behaves. For example, after a workflow starts, the person who started the workflow might need to add additional participants. Or a workflow participant might need to reassign his or her task to another person or request a change to the document or item that is the focus of the workflow. You can modify some of the predefined workflows that are included in Office SharePoint Server 2007 while the workflow is in progress.
Completing workflow tasks
Any workflow event that requires human interaction is represented by a workflow task. When a workflow assigns a task to a workflow participant, the task recipient can either complete that task or request changes to the workflow itself by editing the workflow task form. In Office SharePoint Server 2007, workflow participants can complete workflow tasks on the SharePoint site or directly within a client program that is part of the 2007 Office release. When a workflow participant completes a workflow task or requests a change to the workflow, this prompts the server to move the workflow to the next relevant step.

Tracking the status of workflows
Workflow owners and participants can follow the progress of a workflow by checking the status page that is associated with the workflow. The status page includes status information about outstanding workflow tasks. It also includes history information that is relevant to the workflow.

![Training documents - View Workflow Reports](image)

Office SharePoint Server 2007 also includes reporting tools that provide an aggregate analysis of workflow history. Organizations can use this analysis to locate bottlenecks in processes or to determine whether a group is meeting the performance targets for a given business process. Office SharePoint Server 2007 includes several predefined Microsoft Office Excel reports that can be used with any workflow. Additionally, workflow history information is available as a SharePoint list data source that can be used and analyzed in other programs, such as Microsoft Office Visio 2007, Microsoft Office Access 2007, or custom business process monitoring solutions.

Use an Approval workflow
The Approval workflow routes a document or item that is saved to a list or library to a group of people for approval. By default, the Approval workflow is associated with the Document content type and it is thus automatically available in document libraries.

How does the Approval workflow work?
The Approval workflow supports business processes that involve sending a document or item to colleagues or managers for approval. The Approval workflow makes an approval business process more efficient by managing and tracking all of the human tasks involved with the process and by providing a record of the process after it is completed.

If workflows are available, you can start an Approval workflow directly from a document or item in a list or library. To start a workflow, you select the workflow that you want to use, and then you fill out a workflow initiation form that specifies the workflow participants (approvers), a due date, and any relevant task instructions. After a workflow starts, the server assigns tasks to all participants.
If e-mail alerts are enabled for the server, the server also sends e-mail alerts to all participants.

To complete this task:

1. Review Test User 2.docx.
2. Perform the specific activities required for this task.
3. Use the Edit this task button to mark the task as completed. (If you cannot update this task, you might not have access to it. Click here to request access.)

Participants can choose to approve, reject, or reassign their approval tasks. They can also request a change to the document or item to be approved. Participants have the option of completing their workflow tasks from either the Microsoft Office SharePoint Server 2007 Web site or from directly within certain programs that are part of the 2007 Microsoft Office system. While the workflow is in progress, the workflow owner or the workflow participants can view the Workflow Status page to see which participants have completed their workflow tasks. When the workflow participants complete their workflow tasks, the workflow ends, and the workflow owner is automatically notified that the workflow is complete.

By default, the Approval workflow is associated with the Document content type and it is thus automatically available in document libraries. The default Approval workflow for document libraries is a serial workflow, in which tasks are assigned to participants one at a time. A version of the Approval workflow is also associated by default with Pages libraries in a publishing site, and the workflow can be used to manage the approval process for the publication of Web pages. You can customize these pre-associated versions of the Approval workflow to meet the needs of your organization, or you can add a completely new version of the Approval workflow to a list, library, or content type.

Add or change an Approval workflow for a list, library, or content type
Before a workflow can be used, it must be added to a list, library, or content type in order to make it available for documents or items in a specific location. You must have the Manage Lists permission to add a workflow to a list, library, or content type. In most cases, site administrators or individuals who manage specific lists or libraries perform this task.

If you want to add an Approval workflow to a list, library, or content type, or if you want to change an Approval workflow that is already associated with a list, library, or content type, you follow the same steps.
1) To open the Add a Workflow page or the Change a Workflow page for the list, library, or content type for which you want to add or change a workflow, do one of the following:

a) **For a list or library:**
   - Open the list or library for which you want to add or change a workflow.
   - On the Settings menu, click List Settings, or click the settings for the type of library that you are opening.
     (1) For example, in a document library, click Document Library Settings.
   - Under Permissions and Management, click **Workflow settings**.

b) **For a list content type:**
   - Open the list or library that contains the instance of the list content type for which you want to add or change a workflow.
   - On the Settings menu, click List Settings, or click the settings for the type of library that you are opening.
     (1) For example, in a document library, click Document Library Settings.
   - Under **Content Types**, click the name of the content type.
     **Note:** If the list or library is not set up to allow multiple content types, the **Content Types** section does not appear on the Customize page for the list or library.
   - Under **Settings**, click **Workflow settings**.

c) **For a site content type:**
   - On the home page for the site collection, on the Site Actions menu, point to Site Settings, and then click Modify All Site Settings.
   - Under **Galleries**, click **Site content types**.
   - Click the name of the site content type for which you want to add or change a workflow, and then click **Workflow settings**.
     **Note:** If workflows have already been added to this list, library, or content type, this step takes you directly to the Change Workflow Settings page, and you need to click **Add a workflow** to go to the Add a Workflow page. If no workflows have been added to this list, library, or content type, this step takes you directly to the Add a Workflow page.
2) On the Change Workflow Settings page, click **Add a workflow** or click the name of the workflow for which you want to change the settings.

3) Do one of the following:
   a) If you are adding a workflow, on the Add a Workflow page, in the **Workflow** section, click the **Approval** workflow template.
   b) If you are changing the settings for a workflow, on the Change a Workflow page, change the settings that you want to change according to the following steps.

4) In the **Name** section, type a unique name for the workflow.

5) In the **Task List** section, specify a tasks list to use with this workflow.

   Notes:
   - You can use the default Tasks list or you can create a new one. If you use the default Tasks list, workflow participants will be able to find and view their workflow tasks easily by using the **My Tasks** view of the Tasks list.
   - If the tasks for this workflow will reveal sensitive or confidential data that you want to keep separate from the general Tasks list, you should create a new tasks list.
   - If your organization will have numerous workflows or if workflows will involve numerous tasks, you should create a new tasks list. In this instance, you might want to create tasks lists for each workflow.

6) In the **History List** section, select a history list to use with this workflow. The history list displays all of the events that occur during each instance of the workflow.

   Note: You can use the default History list or you can create a new one. If your organization will have numerous workflows, you might want to create a separate history list for each workflow.

7) In the **Start Options** section, specify how, when, or by whom a workflow can be started.
8) If you want to use this Approval workflow to manage content approval for a library, select the **Start this workflow to approve publishing a major version of an item** check box.

**Notes:**
- Specific options may not be available if they are not supported by the workflow template that you selected.
- The option **Start this workflow to approve publishing a major version of an item** is available only if support for major and minor versioning is enabled for the library and if the workflow template that you selected can be used for content approval.

9) If you are adding this workflow to a site content type, specify whether you want to add this workflow to all content types that inherit from this content type in the **Update List and Site Content Types** section.

**Note:** The **Update List and Site Content Types** section appears on the Add a Workflow page only for site content types.

10) Click **Next**.

11) On the Customize Workflow page, specify the options that you want for how tasks are routed, the default workflow start values, how the workflow is completed, and what actions happen when the workflow is successfully completed.

**Note:** You are not required to specify options in every section.

### Workflow Tasks

<table>
<thead>
<tr>
<th>To</th>
<th>Do this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign tasks to all participants at once (parallel workflow)</td>
<td>Select the <strong>All participants simultaneously (parallel)</strong> button.</td>
</tr>
</tbody>
</table>
| Assign tasks to one participant at a time (serial workflow)  
If you make the workflow a serial workflow, one participant must complete a task before the next participant receives a task. | Select the **One participant at a time (serial)** button. |
| Allow workflow participants to reassign their tasks to other people | Select the **Reassign the task to another person** check box. |
| Allow workflow participants to request a change to the document or item to be approved before completing a task | Select the **Request a change before completing the task** check box. |
## Default Workflow Start Values

<table>
<thead>
<tr>
<th><strong>To</strong></th>
<th><strong>Do this</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Specify a default list of participants for all instances of this workflow</td>
<td>Type the names of people who you want to participate when this workflow is started, or click Approvers to select people and groups from the directory service. <strong>Note:</strong> If you set up this workflow as a serial workflow, add the names of the workflow participants in the order in which you want the tasks to be assigned.</td>
</tr>
<tr>
<td>Assign a single task to groups</td>
<td>Select the Assign a single task to each group entered (Don't expand groups) check box. Select this option if you plan to specify groups as workflow participants, and you want only one task to be assigned to the group instead of individual tasks for every group member.</td>
</tr>
<tr>
<td>Allow people who start the workflow to change or add participants</td>
<td>Select the Allow changes to the participant list when this workflow is started check box. This option is selected by default. If you want to prevent people who start the workflow from being able to change or add participants, clear this check box.</td>
</tr>
<tr>
<td>Specify a default message that appears with each task</td>
<td>Type a message or instructions in the text box.</td>
</tr>
<tr>
<td>Specify a due date for parallel workflows</td>
<td>Type or select a date under Tasks are due by (parallel).</td>
</tr>
<tr>
<td>Specify how long serial workflow participants have to complete workflow tasks</td>
<td>Under Give each person the following amount of time to finish their task (serial), type a number, and then select either Day(s) or Week(s) as the increment of time.</td>
</tr>
<tr>
<td>Specify a list of people who should receive alerts (not task assignments) when the workflow is started</td>
<td>Under Notify Others, type the names of the people you want to be notified, or click CC to select people and groups from the directory service.</td>
</tr>
</tbody>
</table>
# Complete the Workflow

Specify when you want the workflow to be completed. If you do not select any options, the workflow will be completed when all tasks are finished.

**To** | **Do this**
---|---
Specify that a parallel workflow is complete when a specific number of participants complete their tasks | Select the **Following number of tasks are finished** check box, and then type a number. **Note:** This option is not available if your workflow is a serial workflow.
Specify that a workflow is complete when the document or item is rejected | Select the **Document is rejected** check box.
Specify that a workflow is complete when the document or item is changed | Select the **Document is changed** check box.

**Post-completion Workflow Activities**

Specify the actions you want to occur after the workflow has been successfully completed.

**To** | **Do this**
---|---
Update the approval status for a document or item after the workflow is complete | Select the **Update the approval status (use this workflow to control content approval)** check box. **Notes:**
- If you are using this Approval workflow to manage content approval (moderation) for a library, and you selected the **Start this workflow to approve publishing a major version of an item** check box on the Add a Workflow page, this option is selected by default.
- If you did not select the **Start this workflow to approve publishing a major version of an item** check box on the Add a Workflow page because you do not want this workflow to be the default content approval workflow for a library, you can select the **Update the approval status (use this workflow to control content approval)** check box to make this workflow a secondary content approval workflow that specific users can start manually.

12) Click **OK**.
Start an Approval workflow on a document or item

You can manually start an Approval workflow on a document or item directly from the list or library where it is saved. The options available to you when you start the workflow may vary depending on how that workflow was customized when it was added to the list, library, or content type for the item. You must have at least the Edit Items permission to start a workflow. Some workflows may require that you also have the Manage Lists permission to start a workflow on a document or item.

Note: If you want to ensure that workflow participants receive e-mail alerts and reminders about their workflow tasks after you start a workflow, check with your server administrator to verify that e-mail is enabled for your site.

1) If the list or library is not already open, click its name on the Quick Launch.
   a) If the name of your list or library does not appear, click View All Site Content, and then click the name of your list or library.

2) Point to the name of the document or item for which you want to start a workflow, click the arrow that appears, and then click Workflows.

3) Under Start a New Workflow, click the name of the Approval workflow that you want to start.

4) Type the names of the people you want to approve the document or item on the Approvers line, or click Approvers to select people and groups from the directory service.

   Note: If your workflow is a serial workflow, type or select the names of the workflow participants in the order in which you want the tasks to be assigned.

5) If you are including groups as workflow participants, select the Assign a single task to each group entered (Do not expand groups) check box if you want only one task notification to be assigned to the group instead of individual task notifications for every group member.
6) If you want to include a message or specific task instructions, type this information in the text box under **Type a message to include with your request**.

7) To specify when the task should be completed, under **Due Date**, do one of the following:
   a) For a serial workflow, type a number, and then select either **Day(s)** or **Week(s)** as the increment of time.
   b) For a parallel workflow, type or select a date under **Tasks are due by**.

8) If you want other people to receive notifications (not task assignments) when the workflow is started, type their names on the **CC** line, or click **CC** to select people and groups from the directory service.

9) Click **Start**.

**Complete an Approval workflow task**
Participants in an Approval workflow can complete their workflow tasks from either the list or library where the item or document is located or from directly within certain programs that are part of the 2007 Office release.

**Complete an Approval workflow task on the server**
1) Go to the **Tasks** list for the site, and then select **My Tasks** on the **View** menu to locate your workflow task.

   **Note:** If the workflow does not use the default **Tasks** list, then your workflow task may not appear in the **Tasks** list. To locate your workflow task, open the list or library where the workflow item is saved. Point to the item that you want, click the arrow that appears, and then click **Workflows**. On the Workflow Status page, under **Running Workflows**, click the name of the workflow in which you are a participant. Under **Tasks**, locate your workflow task.
2) Point to the name of the task that you want to complete, click the arrow that appears, and then click **Edit Item**.

3) Do one of the following:
   a) **To approve the item**, type any comments that you want to send to the workflow owner in the text box provided, and then click **Approve**.
   b) **To reject the item**, type any comments that you want to send to the workflow owner in the text box provided, and then click **Reject**.
   c) **To reassign the approval task to another person**, click **Reassign task**, specify to whom you want to assign the task, and then click **Send**.
   d) **To request a change to the item to be approved**, click **Request a change**, specify to whom you want to assign the change request, provide information about the change requested, and then click **Send**.

**Note**: Depending on how the workflow was customized when it was added to the list, library, or content type for this item, the options to reassign the task or request a change may not be available.