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About this Guide

This guide provides a reference source to the list of options and functionality available for creating and running workflows. It is not intended to be read from start to finish, but rather to be consulted as necessary for information on specific functionality.

This guide is intended for end users and records managers.

This guide provides an overview as well as task based instructions for creating and running workflows using Objective:

- Process-centric Workflows
- Object-centric Workflows
- Creating a workflow and a workflowable object
- Defining workflow tasks
- Monitoring workflows and workflow slips

This guide assumes that you are familiar with the appropriate Windows or Solaris server environments supported by Objective ECM.

Additional Documentation Resources

The following table describes the end-user functionality available in Objective Navigator and the relevant documentation available.

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Table 1

For information on System Administration see, the Objective ECM Server Administration Guide.

General Overview of Workflow

If you examine what you do on a daily basis, you will discover that you perform many tasks in order to achieve an end result. A task must be completed in order for something to happen. Usually, tasks require individuals to complete, approve or relay something, according to a set of rules that the task creator has defined. These rules determine when a task is deemed to be finished and could be as simple as completing a form, or as complex as requiring the approval of several individuals who each need to first complete a task of their own. Each task may require certain actions to be performed in order to complete the task.

For example, the tasks that must be completed when you want a new desk could be as follows:

- Complete a Purchase Order requisition.
- Send the Purchase Order requisition to your manager for approval. Your manager may need to speak to others in your organisation before approving it.
- After it has been approved, the requisition would be relayed to the Purchasing department for processing, which most likely would mean that more tasks would have to be performed by the Purchasing department.
- Once processed, the desk would be ordered, which may involve even more tasks.

A process is a collection of tasks that are accomplished in a particular order, by particular individuals.

The result may be the product of one or many different processes. The term Workflow is used to describe all of the processes that are performed to accomplish a business goal.
What is Objective Workflow

The Objective Workflow system allows you to create and define tasks that form part or all of your particular business process also known as Workflow. Once the tasks have been created and are part of the Workflow, the Objective Workflow system automatically monitors your tasks, other people’s tasks and reminds you to complete a task within a timeframe, or alerts you that someone else’s task is overdue. You do not have to worry about scheduling resources or forgetting a vital part of a process - since, as far as possible, the Objective Workflow system will automate the process for you.

Note: The Objective Workflow system supports two ways to use workflow. One method that can be used is process-centric, the other is object-centric.

The Workflow Definition

The Workflow Editor is used to create the Workflow definition. The Workflow definition can be thought of as the template, that is, a model, of the business process. A Workflow object is similar to an Objective document (that is, an object with meta-data pointing to a file). The Workflow definition is that file (that is, the contents of the Workflow document). Actual instances of the tasks (and other objects) aren’t created until the Workflow is run however.

The Workflow Definition is created by users via the Workflow Editor which is a part of the Navigator. The Workflow definition shows you all the task definitions that belong to a Workflow and the order in which they must be completed. The Workflow definition can contain nested Workflows and can also contain task definitions that, optionally, run related Workflows. A Workflow can be saved, released and published in Objective much like other Objective documents.

In the same way that Microsoft Word is opened when you open a Word document, the Workflow Editor is automatically opened when you create or open a Workflow definition. This can be done by creating a new Workflow (New > New Workflow) or by creating a new version of an existing Workflow. Unlike Microsoft Word, the Workflow Editor is a part of the Objective Navigator (and not a third-party product).

![Figure 1](image1.png)

The Workflow definition shows you the Workflow task definitions and the actions that are available to complete an instance of that task.

For example:

![Figure 2](image2.png)

Task (Approval), Actions (Approve and Reject).

---

1 A task definition is a template for a task instance.
2 Nested Workflows are used to simplify the Workflow. That is, break it into discrete smaller processes rather than have a large complex diagram.
This window also allows you to add fields, define details using the Task Definition dialog box and define attachments for the Workflow. For more information see Using the Workflow Editor.

The Workflow Slip

![Figure 3](image)

When a Workflow is run, a Workflow Slip

![Figure 4](image)

is created. An Objective Workflow Slip can be thought of as an instance of a particular process/Workflow. It stores the current progress through the process/Workflow. You can think of it as a checklist of the tasks that have been started or completed, when they were completed, and who they were completed by.

The Workflow Slip does not store anything about tasks that have not yet started. When all of the tasks in a particular process have been completed, the Workflow Slip is completed. The Slip doesn’t store what is coming up but it does know the Workflow it was initiated from and the Workflow knows what is supposed to happen next. You can have many different Slips active at the same time based on the same Workflow. An example of this might be ‘raising a purchase order’. Each Slip would be associated with a different purchase order number but each Slip would have the same set of tasks to be completed. This means those task instances will have the same name, instructions, and checklist items but they are still unique. They have their own creation date, assigned to, and completed by details.

The Slip is moved through the Workflow as each user chooses to action a task. Tasks are linked to each other by task actions. This determines the typical sequence in which tasks are processed. In the following example the Raise Purchase Requisition task would be processed before the Approve Requisition task and Complete, Approve and Reject are all task actions.

![Figure 5](image)

It is also possible to access supporting information via a Slip if required. The mechanism used to do this is for the Workflow designer to add Objective objects as attachments to the Workflow at design time. When the Workflow is run and the Slip processes a task which has attachments, the attachments are made available to you. For example, a ‘List of Approved Suppliers’ Microsoft Word document could be presented to you in the first task.

When you complete a task, the Slip registers that the task has been actioned and the Workflow system creates the next task instance defined in the Workflow and adds it to the Slip (thus progressing the Slip). This task will be available to the user or group specified for that task.

The Slip knows its due date. If a task is taking too long to complete, an alarm can be used to alert people via email. Alternatively, an alarm can be used to process the Slip along a particular task action, for example ‘Reject’ if actions are taking too long.

It is also possible to set a priority on a Slip when you run a Workflow.

![Figure 6](image)
The Slip is stored inside either an ‘Active’ folder or a ‘Completed’ folder within the ‘Workflow System’ folder at the top level of the Hierarchy. However, accessing Slips in this fashion is typically done when using process-centric Workflows (for more information, see Active/Complete Folders). Object-centric Workflows allow you to access Slip information from a particular object (for example, a File or folder) in addition to these Workflow system folders.

When the Workflow has been completed and all the tasks have been actioned, the Slip associated with it moves automatically from the ‘Active’ folder to the ‘Completed’ folder.

**The Tasks Window**

When a Workflow is run a Workflow Slip is created. As the Workflow Slip progresses,

![Figure 7](image)

tasks are assigned to the users defined as part of the Task definition’s Workgroup assignment strategy. The tasks and the Workflow Slips to which they belong appear in your Tasks window, which is accessible by choosing Windows > Tasks Window.

The Tasks Window shows the tasks that have been assigned to you. This is a type of search window designed specifically for tasks. Criteria that you can specify for the results (above the inherent “assigned to you” criteria) include whether the task instances are available (that is, not locked by someone else), whether they are locked by you, or whether the tasks are overdue, suspended or completed recently.

To quickly access a task, right-click it and choose what you wish to do. Alternatively, you can select the task and choose what to do from the Commands menu. If you double-click the task, a Task Properties dialog box opens.

On completion of a task, the Workflow Slip will progress to the next task.

In the case of automatic (Background) or decision tasks, Objective evaluates the outcome of the task automatically and progresses the Workflow Slip accordingly.

For more information see Working on Tasks.

**The Two Ways Of Using Workflow**

There are two ways you can use Workflows, namely:

- Process-centric Workflow
- Object-centric Workflow

Process-centric Workflow has been the traditional way of adding structure and control to a business process in Objective and it is still possible to create and use Workflows in this manner if required.

The following illustration summarises the key components and interaction in a process-centric Workflow:

![Figure 8](image)

Process-centric Workflows put the process and task list (Workflow Slip) at the centre of the user experience. In this manner the user must work through the Slip/task to find the information that is important to performing their Case function. Object-Centric Workflow functionality places the information that the user deals with as the centre of the user experience, with processing occurring via the object.
Object-Centric Workflow

In object-centric Workflow, familiar and traditionally static objects such as documents, folders and files take on a new dynamic dimension. Instead of being related to workflow processes and tasks as referenced objects, these entities are seen as owning the processes to which they belong.

When you begin work on a process such as raising a purchase order, the first thing you tend to do is create a File or folder. Then a sheet might be attached to the File (or folder) that lists the steps that have to be followed in order for the purchase order to be approved and sent to the supplier. The steps might involve the following:

2. Create a File or folder for this purchase order transaction.
4. Complete a purchase requisition.
6. Obtain approval from manager.
8. Obtain approval from purchasing department.
10. Purchasing department issues purchase order to the supplier.

As each step is completed it is ticked off, in other words, the Workflow Slip progresses to the next step.

The folder or File and associated Workflow details can be stored anywhere in the Objective Global folder, subject to privileges of course. This means you can locate the information where it makes sense to your organisation and everyone can find it easily.

The following illustration summarises the key components and interaction in an object-centric Workflow.

Objective Workflow Icons

The following icons are used in Objective Workflow:

<table>
<thead>
<tr>
<th>ICON</th>
<th>MEANING</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Figure 11" /></td>
<td>A Workflow is a ‘design definition’ that represents a business process and consists of a set of tasks which have to be completed in a pre-defined sequence. You can think of a Workflow as being similar to a process map that contains the ‘design logic’ for a business process. An example of a Workflow definition would be “raise purchase order”.</td>
<td>All folder dialog boxes</td>
</tr>
<tr>
<td>ICON</td>
<td>MEANING</td>
<td>LOCATION</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td><img src="411x781" alt="Figure 12" /></td>
<td>A Workflow Slip represents a Workflow being performed, for example ‘raise purchase order number 12433’. Another way to think of a Workflow Slip is that it contains the ‘actual data’ for a Workflow transaction. It is possible to have lots of Workflow Slips being processed concurrently.</td>
<td>A Task dialog box inside a Workflow System folder - either Active folder or Completed folder.</td>
</tr>
<tr>
<td><img src="165x781" alt="Figure 13" /></td>
<td>A task represents an available task to action.</td>
<td>A Task dialog box</td>
</tr>
<tr>
<td><img src="104x781" alt="Figure 14" /></td>
<td>Indicates a workflow alarm.</td>
<td></td>
</tr>
<tr>
<td><img src="411x760" alt="Figure 15" /></td>
<td>A locked task prevents others from actioning the task.</td>
<td>A Task dialog box</td>
</tr>
<tr>
<td><img src="165x740" alt="Figure 16" /></td>
<td>A completed task indicates that the task has been completed.</td>
<td>A Task dialog box</td>
</tr>
<tr>
<td><img src="165x719" alt="Figure 17" /></td>
<td>A suspended task allows a task to be set aside until such time as it can be completed.</td>
<td>A Task dialog box</td>
</tr>
<tr>
<td><img src="165x678" alt="Figure 18" /></td>
<td>An animate button which is used to allow you to view the progress of a Workflow Slip.</td>
<td>A Task dialog box</td>
</tr>
<tr>
<td><img src="165x646" alt="Figure 19" /></td>
<td>A task is an individual step in a business process. Tasks are one of several building blocks used in the design of a Workflow definition.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td><img src="165x598" alt="Figure 20" /></td>
<td>A decision task allows different paths to be taken based on the result of the decision. Decisions are performed by the system (not the user) based on data associated with the Slip or a stored procedure.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td>ICON</td>
<td>MEANING</td>
<td>LOCATION</td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>----------</td>
</tr>
<tr>
<td>Rendezvous Task</td>
<td>A rendezvous task represents a processing point where the Workflow will wait until all required information (note ‘information’, not other tasks) has been made available after which the Workflow process will then be allowed to continue beyond the rendezvous task.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td>Background Task</td>
<td>A background task is used to make the Workflow pass control over to either a stored procedure or separate external process to perform additional processing. Once the processing has been completed by the stored procedure/separate process Objective will then move on to the next task in the Workflow.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td>Split Task</td>
<td>A Split task allows parallel tasks to be carried out. All actions resulting from a Split task must be fed into a corresponding Join task. Note: When a Workflow progresses past a ‘Split’ all attachments for the task are shown in both branches of the ‘Split’. This is because attachments are managed per Workflow Slip, and the Workflow Slip (when between a ‘Split’ and a ‘Join’) manages multiple tasks.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td>Join Task</td>
<td>A Join task will cause all inbound tasks into the Join task to wait until all paths have been completed, and only then will it allow the Join task to be completed and for processing to continue.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td>Nested Workflow Task</td>
<td>A Nested Workflow task is used when you want to include a separate workflow inside the workflow you are currently working on. The nested Workflow will, in effect, become a Sub Workflow in the current (parent) Workflow.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td>Start Task</td>
<td>A Start task represents the entry point into the Workflow. There can only be one Start task in a Workflow design definition.</td>
<td>The Workflow Editor dialog box</td>
</tr>
<tr>
<td>Finish Task</td>
<td>A Finish task terminates the Workflow. It is possible to have a number of Finish tasks in a workflow design definition. Note: If the Finish task is from a nested Workflow, then it resumes the parent Workflow by actioning the Nested task definition with the action that has the same name as the end point in the child Workflow definition.</td>
<td>The Workflow Editor dialog box</td>
</tr>
</tbody>
</table>

**Table 2**

**Creating A Process-Centric Workflow**

Process-centric Workflow is the traditional way of using Workflows within Objective.

When you create a Workflow, you are building a business process that you and others will follow when you are working to accomplish a goal. This process contains tasks. Each task begins when the previous task is completed but some tasks can be worked on and completed simultaneously. This is called parallel processing.
Objective Workflow uses a Split task to start parallel processing and a Join task to signify the completion of parallel processing. The types of tasks used in your Workflow are defined using the Workflow Editor, which is what you use when creating a Workflow.

Note: Whether you can create a Workflow is dependent upon having Create privileges on the folder in which you wish to add a new Workflow.

**Using The Workflow Editor**

The Workflow Editor allows you to create tasks, define them, and join them to one another to produce a Workflow. Once the Workflow has been produced, it is saved and becomes an object in Objective, subject to Objective’s functions such as version control and security.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>Close</td>
<td>Close the window.</td>
</tr>
<tr>
<td></td>
<td>Save</td>
<td>Saves the workflow (a minimum of one task must be joined to a Start and End point).</td>
</tr>
<tr>
<td></td>
<td>Page Setup</td>
<td>Brings up the standard Windows Page Set-Up dialog box</td>
</tr>
<tr>
<td></td>
<td>Print</td>
<td>Print the Workflow window.</td>
</tr>
<tr>
<td>Edit</td>
<td>Undo</td>
<td>Undo the last action.</td>
</tr>
<tr>
<td></td>
<td>Cut</td>
<td>Cuts the selected tasks or text and places it on the clipboard.</td>
</tr>
<tr>
<td></td>
<td>Copy</td>
<td>Copies the selected tasks or text and places it on the clipboard.</td>
</tr>
<tr>
<td></td>
<td>Paste</td>
<td>Pastes the contents of the clipboard into the Workflow Editor window (tasks only - not connections).</td>
</tr>
<tr>
<td></td>
<td>Clear</td>
<td>Clears the selected tasks.</td>
</tr>
<tr>
<td></td>
<td>Select All</td>
<td>Selects all items in the Workflow Editor window.</td>
</tr>
<tr>
<td></td>
<td>Preferences</td>
<td>Allows you to set preferences:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Snap to Grid.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Default Names for tasks/Initial Actions/User Actions.</td>
</tr>
<tr>
<td>Workflow</td>
<td>Add Task</td>
<td>Adds a task. The equivalent of clicking the task icon on the Button Bar.</td>
</tr>
<tr>
<td></td>
<td>Add Action</td>
<td>Adds a task action. The equivalent of double-clicking on the task and then selecting the Actions tab in the Task Definition dialog box.</td>
</tr>
<tr>
<td></td>
<td>Validate Workflow</td>
<td>This is used to validate the Workflow design in order to check that it complies with the Workflow system’s processing rules. This includes checking that the Workflow can be completed if it is started. For example, validation would fail if you had a task with no possible outgoing path that leads to an end-point. Additionally, all tasks must be accessible from the start point and have a list of valid actions. It is recommended that you validate a Workflow prior to releasing and publishing it.</td>
</tr>
<tr>
<td></td>
<td>Animate Slip Progress</td>
<td>This is disabled when designing a Workflow, but you can select this option via the Slip Status Window which displays a runtime version of the Workflow Editor for a Workflow Slip. For more information, see The Slip Status Window.</td>
</tr>
<tr>
<td></td>
<td>Task Definition</td>
<td>Brings up the Task Definition dialog box.</td>
</tr>
<tr>
<td></td>
<td>Slip Definition</td>
<td>Allows the addition of a description about the purpose of the Workflow, setting of available priorities and roles, and allows the automatic attachment of specific objects to be attached to the Workflow Slip whenever this Workflow is run. It also allows fields to be added that will be attached to each Workflow Slip.</td>
</tr>
<tr>
<td></td>
<td>Workflow Properties</td>
<td>Displays the Objective Properties dialog box for the Workflow objects.</td>
</tr>
<tr>
<td>Menu</td>
<td>Item</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Handy</td>
<td>Standard Objective menu</td>
<td>User defined menu.</td>
</tr>
<tr>
<td>Windows</td>
<td>Standard Objective Menu</td>
<td></td>
</tr>
</tbody>
</table>

### Table 3

**Adding/Creating A Workflow**

Note: In order to add Workflow objects, an Objective Administrator must have assigned the appropriate permissions to you.

1. From the Commands or right-click menu, click New > New Workflow.

The Create New Workflow dialog box is displayed.

2. Define the relevant fields, and click OK.

Note: When assigning a Catalogue to an Object, a user must have 'Edit' privileges to a particular Catalogue's field in order to change its value. If a user does not have the ‘Edit’ privilege, then the Catalogue field will not be available.

Objective will create the Workflow object, assign it an Objective ID number and open a Workflow Editor window:

![Figure 28](image)

Note: Workflow objects are always assigned an Objective extension of `.OBW`

Decide on what kind of task you wish to create, for example, from a single task, a decision task, or a Split task (created concurrently with a Join task).

3. Click the appropriate task icon, located on the left side of the window.
5. Click the area of the Workflow Editor that you want to place the task.
7. Define the task. For more information see Defining Tasks.
9. Repeat until all your tasks have been entered and you have created a set of tasks. You join the tasks together by clicking on the pipe handle of the source task and dragging a pipe connector onto the destination task.

Note: You cannot view properties for Split, Join, and Finish tasks.

7. Ensure that all tasks are joined either to another task or to a Finish task.
9. Define the Slip properties. For more information see Defining the Slip Properties.
11. Save your Workflow.
13. Return to the folder Window in which you started.
15. Release and Publish the Workflow so others can begin to use it.
Workflow Slip Definition

A Workflow Slip Definition enables you to customize a Workflow Slip. That is, you can configure the fields such as roles, priorities, attachments, and so on, that appear on the Workflow Slip.

In addition, you can define default values for the Workflow Slip fields, thus enabling you to start a Workflow silently. Starting a Workflow silently means that the Create Workflow Slip does not appear when a Workflow is run.

Defining The Workflow Slip Properties

To define the workflow slip properties:

1. Select a Workflow.
2. Click Slip Definitions from the Workflow menu. A Workflow Slip Definitions dialog box is displayed.
3. On the General tab:
   - In Run Workflow:
     (i) Select Silently: Create Workflow Slip options are not displayed to silently start a Workflow.
     (ii) Select Only with case objects to run a Workflow on a case object.
     (iii) Select Only as a nested or associated workflow to run a Workflow as a nested or associated Workflow.
   - In Workflow Slip Name, retain the default pattern for the Workflow Slip name.

   OR

   - Click Edit to define a new pattern for the Workflow Slip name.
     An Edit Number Generator dialog box opens. For instructions on generating a number pattern using the Automatic Number Generator, see ‘Creating Fields’ in the Objective Foundation and EDM User Guide.

     - Select Read Only: the Workflow Slip name cannot be modified to disable the editing of the Workflow Slip name.

Note: The Workflow Slip name in the default pattern is generated by the Navigator. If you change the default pattern of the Workflow Slip name, then the Objective ECM Server generates the Workflow Slip name. You can define whether users can edit a Workflow Slip name in the default pattern, that is, the Workflow Slip name generated by the Navigator. However, the system does not allow users to edit a Workflow Slip name generated by the Objective ECM Server. That is, when you change the default pattern of the Workflow Slip name, the Select Read Only – the Workflow Slip name cannot be modified checkbox becomes unavailable.

5. In Workflow Slip Priorities:
   (a) Select a value from the drop-down list, and then click Add to add a priority to the Workflow definition.
   (c) Select the priority, and then click Remove to remove a priority from the Workflow definition.
   (e) Select Default to make a priority as the default priority on the Workflow Slip.
   (g) In Default Due-Date, perform one action:
     (i) Select Set by Priority to default the Slip’s due date to that specified by the Slip’s priority.
     (k) Select Due after to set a default date based on a specified time period.
   (m) Select No Due Date.

8. On the Roles tab:
   - To add a role to the Workflow Slip, select a role from the drop-down list, and then click Add.
   - To remove a role from the Workflow Slip, select a role from the Role area, and then click Remove.
   - To set a default for a user-defined role:
     (i) Select a user-defined role from the Role area.
     (ii) Click Edit Default. A Set Default Role Value dialog box is displayed.
     (iii) In User or Group of Set Default Role Value dialog box, perform one action:
       (a) Select a user or group from the drop-down list.
       (b) Click OK. The selected user or group is added as the default assignee to the Workflow Slip Definition.

     Note: Only user-defined roles can have default values assigned.

7. On the Alarms tab, define the alarms for the Workflow Slip:
   - To add an alarm, click Add. The Workflow Slip Definition dialog box opens. A Workflow Slip alarm is generated based on a calculation which uses the Workflow Slip creation date as the starting point.
   - Indicate the timeframe in which to trigger the alarm by selecting the when the workflow slip begins and specifying the conditions for triggering an alarm.
   - From the Action drop-down list, select the way an alarm will be actioned.
- Send an alarm message via e-mail: if the task is not completed, an email will be sent to a user or user group you specify in the E-mail message area.
- Complete: if the task is not completed when an alarm is activated, then the task will be actioned in accordance with a specified scenario.
- Run an Automation Script: if the task is not completed when the alarm is activated, you can automatically run a pre-defined Objective Case Management Extensions (ObjCMX) script to action a task by selecting the automation script and optionally pass in script parameter(s) specified in the Script Parameter dialog box. For more information, see the Objective Case Management Extensions User Guide.
- External alarm handler: if the task is not completed, the external handler (for example, some custom Java code) will be automatically executed based on the parameter you specified in the Enter registered name of alarm handler box.

8. On the Catalogue tab, perform the following to select fields that will be made available on the Task Definition dialog box:

- To add all the fields defined in a catalogue:
  - Choose the Select a catalogue of fields radio button.
  - Select a catalogue from the drop-down list.
- OR
  - Click [Image 73x568 to 89x584].

  ![Figure 30](Image)
  A Select Object dialog box opens. Search for and select the field, and then click Select.

- To add one or more specific fields:
  - Choose the Select specific fields radio button.
  - Select a field from the drop-down list.
- OR
  - Click [Image 73x449 to 87x461].

  ![Figure 31](Image)
  A Select Object dialog box opens. Search for and select the field, and then click Select.

- Click Add.
- Click OK.

In Fields, enter the default value for each required field. Default values defined here belong to the Workflow Slip fields and are used when you run the Workflow.

Notes:

When you first add fields to the Slip Definition, any default values defined in the associated Catalogue Field definitions are shown. You can change any values on this screen to define a default value for the Workflow Slip Field, which will be used when the Workflow is run. Any changes to the default values for the Workflow Slip Fields will not be made to the Catalogue Field definitions. Likewise, any changes made to the default values in the Catalogue Field definitions at any stage will not affect the default values in the Workflow Slip Field definitions.

If the Workflow is to be run silently, all mandatory fields (identified by an M indicator) must have a default value defined to avoid errors occurring. If you are not running Workflows silently, the mandatory fields can be completed when the Workflow is run.

9. Click the Requirements tab to add, for example, requirements that you want to make available to Rendezvous tasks that will be added to a workflow design definition.

![Figure 32](Image)
Creating An Object-Centric Workflow

‘Object-centric Workflow’ is a term used to represent the situation where you can run a Workflow from an object such as a document, File or folder. When you do this, the particular object is said to be a Workflowable object. While it is possible to run a Workflow from various objects, for example, document, using the procedures described below it is probably more likely that you will want to do this from a File or folder.

Note: When you start a Workflow from, for example a folder, in Objective terms, you are said to be starting a ‘Case’. Depending on the type of industry your organisation operates in, this term may be different, for example, you would start a ‘Case’ if you work in the legal profession.

A typical sequence to create Object-centric Workflows would be:

1. Make an Object Type or Subtype, for example, folder Workflowable
2. Create the Workflow
4. Create the Object (Workflowable)
6. Start a Case (optional as this can be done automatically)

These steps are explained below. A folder is used as the Workflowable object in the example that follows.

Make An Object Type Or Subtype Workflowable

The following Object Types and Subtypes can be made workflowable:

- Document
- Document Subtypes
- Electronic Object
- Electronic Object Subtypes
- File
- File Subtypes
- Folder
- Folder Subtypes
- Groups
- Group Subtypes
- Physical Document
- Physical Document Subtypes
- Report
- Search
- User
- Workflow

To make an object type workflowable:

1. Go to the Top Level folder > Object Types > folder.
2. Select a folder.
4. Right-click the folder and then select New Object Type.

A Type Definition dialog box is displayed.

4. In the Type Definition dialog box, select Objects of this type can be used by workflows.
5. Click OK.

In this example, a Workflow called ‘Purchase Order’ is created. You would design a Workflow in a similar manner to that described earlier except that after you have saved and released your Workflow you would specify which Object Types or Subtypes can use the Workflow:

1. Select a Workflow.
2. From the commands or right-click menu, click Properties.
3. Click the Case Objects tab to specify which Object Types/Sub Types can run this Workflow, and whether a New Workflow Slip dialog box should be presented whenever a new ‘Workflowable’ Object is created, which in this example would be a folder of Object Type ‘Purchase Order’ (AutoStart).

You can also specify whether or not this Workflow can only be run once or multiple times against an instance of the Object Type. For example, if you create a Purchase Order folder, for example, PO123 – that can only have a single Purchase Order generated and hence should only be allowed to run through the Purchase Order Workflow once. However, this doesn’t prevent that Purchase Order folder from being run against other Workflows.
4. Click OK.

Now, whenever anyone creates a folder of Subtype ‘Purchase Order’ a New Workflow Slip dialog box is displayed at the time the Workflowable folder is created. This is because AutoStart was enabled ‘Purchase Order’ Properties dialog box while creating the Workflow (as shown above).

Note: If the Workflowable object is an Objective File then all aspects of it will be subject to the same records management processes as a standard Objective File. In other words, the Workflow Slip information generated will be subject to the same disposal schedules as the File itself.

1. Right-click the folder (or File) in which you want to create a Workflowable Object, and, in this example, select New > New folder because we want to create a Purchase Order folder.

2. From the Create New folder dialog box provide details as normal only ensure that the Type selected is Purchase Order.

In this example, the Purchase Order folder SubType is Workflowable.

3. Click OK to create the Purchase Order folder.

5. Because the AutoStart option had been enabled earlier, the Create slip for workflow dialog box is displayed.

7. Enter the required details and click OK to start the processing.

Note: If the Workflowable object has not been set to automatically present a new Workflow Slip upon creation then you will need to manually run a Workflow. How to do this is explained in the following section.

To Run Another Workflow Against The Workflowable Object

Even if a Workflowable object has been made to automatically present a New Workflow Slip dialog box when the Workflowable object is created, you may also want to run Workflows for the Workflowable object on subsequent occasions on a manual basis (in Objective Navigator, you can also right-click an object, point to Run Workflow on the shortcut menu, and then select a workflow from the list, if applicable).

1. Select the Workflowable Object, in this case a folder, and then right click the object.

2. Select Properties.

4. Click the Workflow tab. You can view and sort all associated Workflow Slips.

6. Select the Workflow you want to run and click Run. You will see the new Workflow Slip added to the pane below. If you want to see how far a Workflow Slip has progressed you would double-click it to view the details.

Roles

Objective Workflow contains the following kinds of roles:

- System roles: the default roles provided in an Objective Workflow.
- User-defined roles: the roles that are introduced by a user.

Note: The roles icon for system roles is greyed-out.

The following are the System Roles:

- Slip owner: the user who was selected as the owner when the Workflow was run. By default, a Slip owner is the user who runs the Workflow.
- Task owner: the user who has the task locked to him/her.
- Case owner: the owner of the case object (only available to workflows running against case objects).
Rather than having to decide beforehand who will perform a particular task in a Workflow, it is possible to define roles for a Workflow. The role is assigned at runtime for the Workflow instance (that is, Workflow Slip).

**Design Time Aspects**

<table>
<thead>
<tr>
<th>Role Definition</th>
<th>Roles are defined for a Workflow when the Workflow definition is being designed. In the above example, the Workflow definition designer created an ‘Action Officer’ role (Workflow &gt; Slip definition &gt; Roles tab. For more information see the roles tab of Defining Slip Properties.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role Allocation</td>
<td>The Workflow definition designer would then assign the role to a particular task (select the task, then select Task Definition &gt; Assign To tab.</td>
</tr>
<tr>
<td>Task Definition</td>
<td>‘Roles’ tab - designer specifies which roles are visible, read-only or mandatory for each task in the workflow. The “Start Task” roles tab determines which roles appear on the Create Slip dialog box when a workflow is run.</td>
</tr>
</tbody>
</table>

**Table 4**

**Runtime Aspects**

Assigning Users to Roles: you can assign workflow slip roles to users from the Roles tab of the Task window.

**Defining Tasks**

**Use Case**

Dan, a developer in a State Government Department, is tasked with creating a correspondence management workflow to put the correct processes and procedures around communications between government departments and elected members of parliament. Clear documentary evidence of ministerial documents received and advice provided by a Department to a sitting member is vitally important to ensuring transparency and accountability in the transaction of Parliamentary business.

To do this, Dan creates two main Workflows:
- Incoming Correspondence
- Response Correspondence

For each workflow, Dan creates several tasks with actions, checklists and document attachments to be completed before the correspondence lifecycle can be finalised. Dan also:
- Assigns tasks to relevant correspondence reviewers
- Assigns an alarm to each main task
- Builds automation scripts to re-route assignment/response tasks if an alarm is raised
- Builds parallel approval process workflows to support the correspondence lifecycle

When you add a task definition into the Workflow Editor window, you must also define what that task definition is and what needs to be done to complete an instance of that task. This is done after the task has been created by using the Task Definition dialog box.
The Task Definition Dialog Box

The Task Definition dialog box allows you to define the task and any Actions, Alarms, Workgroups and Attachments that this task may be associated with the task.

1. Create the task definition by either clicking on the appropriate task icon on the Workflow Editor button bar or on the Workflow menu, click Add Task. Click the map to position your task. Access the Task Definition dialog box from the Workflow menu and click Task Definition. You can also select the newly created task and double-click the mouse.

The Task Definition dialog box is displayed:

The Task Definition dialog box shows the task name and object identifier, the date of creation, to whom the task is assigned, the task status and actions available.

There are also several tabs in this dialog box help you to define the task. They are:

- Actions
- Alarms
- Assign To
- Attachments
- Roles
- Fields
- Associated Workflows

Note: You can choose to show or hide any of the tabs on the Task Definition dialog box except the Task tab, from the Hide Tab.

Applying Your Changes
While defining your task, you can click Apply at any time to update your task and then Close to close the dialog box when appropriate. Alternatively click OK to close the dialog box and apply your changes in one step.

The Task Tab

On the Task tab you can:

The Actions Tab

- Type or change the name of your task.
- Add Instructions for the task.
- Create a Checklist. Click Add, and then type the first item that must be completed. Continue until you have created your checklist. To modify or remove items, click Edit or Delete.

On the Actions tab you can:

- Define whether users can Suspend or Delegate the task. If these options are selected, then users who are assigned the task may suspend it or reassign it to another user. You can also define whether tasks will be able to jump to another task (not using the prescribed actions).
- Define what actions those users can take when they work on the task. Click Add to add other possible actions to this task. Click Edit or Delete to change existing actions for this task.

Note: An action is the operation a user takes to complete the processing for a task. For example, if the task is called 'Approve Expense Claim', then the actions associated with that task might be either 'Approve' or 'Reject'.

- It is possible to do ‘ad hoc’ transitions between tasks. In other words, a Workflow Slip can be promoted (or demoted), that is ‘jump’, directly from one task to another on the same Workflow definition - even when there is no prescribed action joining them. This jumping capability allows more analysis effort to be put into designing the main flows rather than predicting all the possible exception flows.

Note 1: A jump can only be performed from a manual task as this is the only time a user can choose this option once a Workflow is running.

Note 2: A jump can only be performed by a user with the appropriate permissions to do so.

For more information see Jumping to Other Tasks in a Workflow.

The Alarms Tab

Alarms are used to monitor the processing time of tasks. You can define multiple alarms to be set off at specific times after a task becomes available (these alarms are in the form of messages that can be sent to specific users/groups or roles, or trigger an action, or invoke a background handler).

Creating a Task Alarm

To create a task alarm:

1. Open or create a workflow, then right-click it, and, on the shortcut menu, click Edit New Version, and then Create.
2. In the Workflow Editor window, double-click the task you need.
3. In the Task Definition dialog box, click the Alarms tab.
4. Click Add to add new alarms, and Edit to edit alarms that you have already created.
5. When you click Add or Edit, the Task Definition Alarms dialog box is displayed.
6. Click the Alarm tab.
A Workflow Slip alarm is generated based on a calculation which uses the Workflow Slip creation date as the starting point.

A task alarm is generated based on a calculation which uses either the Workflow Slip or task commencement date as the starting point.

In the Raise an alarm pane specify the conditions for triggering an alarm.

From the On alarm list, select the way an alarm will be triggered:
- Send an alarm message via e-mail: if the task is not completed, an email will be sent to a user or user group you specify in the E-mail message area.
- Complete: if the task is not completed when an alarm is activated, then the task will be actioned in accordance with a specified scenario.
- Run an Automation Script: if the task is not completed when the alarm is activated, you can automatically run a pre-defined Objective Case Management Extensions (ObjCMX) script to action a task by selecting the automation script and optionally pass in script parameter(s) specified in the Automation script properties pane.
- External alarm handler: if the task is not completed, the external handler (for example, some custom Java code) will be automatically executed based on the parameter you specified in the Enter registered name of alarm handler box.

7. Click the Catalogue tab, and, from the Fields list, select any required catalogue fields.

9. Click the Privileges tab, and, from the User Privileges list, select a user, or user group, that will be assigned the corresponding alarm permissions; click Add and select or clear the relevant check-boxes.
- Note: A Task Owner is the person who has the task locked to him/her.
- A Slip Owner is the person selected as the owner when a Workflow was run (by default, this is the person who ran the Workflow).

11. Click the Settings tab, and select the following check-boxes as required:
- Task alarm can be suspended: if selected, the user with the corresponding permissions would be able to manually suspend the alarm, the alarm will be automatically suspended or resumed, depending on the status of a linked task, if the Automatically suspend and resume alarm with the task check box is selected.
- Task alarm can be cancelled: if selected, a user with the corresponding permissions would be able to manually cancel an alarm. Note that cancelled alarms cannot be edited.

**Updating a Task Alarm**

10. Select the Automatically arm task alarm check box: the workflow service will create the alarm when an linked task or slip is created (you would clear this check box only if you have a custom workflow and its associated code).

12. Release and publish the workflow.

To update a task alarm:

1. Right-click on the workflow to which a task alarm was assigned, click Edit New Version on the shortcut menu and then click Create.
Finding a Task Alarm
2. Double-click the required task, and, in the Task Definition dialog box, click the Alarms tab.
4. Select a task alarm and click Edit.
6. Update the required detail(s), click OK to save your changes, and release the workflow.

Important: A task alarm will not be included in search results if the related workflow (and, consequently, its task) has not been run yet, that is, a task alarm is not included in search results until the related task becomes active.

To find a task alarm:
1. In Navigator, open the Find Objects window.

Suspending a Task Alarm
2. From the Find list, select Workflow alarms.
4. Select the Search object metadata check box, choose required search criteria from the drop-down list(s), and then type in the name of the workflow alarm.
6. Click Search.

To suspend a task alarm
1. Find the required task alarm.
2. In the Find Objects dialog box, right-click the task alarm displayed in the search results.
4. On the shortcut menu, click Suspend Alarm.

The task alarm’s status in the Date Due column will be changed to ‘Suspended’.

Tip: You can also double-click a task alarm, click the Actions tab, select a required action type, and then click Action.

Resuming a Task Alarm
To resume a task alarm:
1. Find the required task alarm.

Cancelling a Task Alarm
2. In the Find Objects dialog box, right-click the task alarm displayed in the search results.
4. On the shortcut menu, click Resume Alarm.

To cancel a task alarm:
1. Find the required task alarm.

The Assign To Tab
2. In the Find Objects dialog box, right-click the task alarm displayed in the search results.
4. On the shortcut menu, click Cancel Alarm.

When assigning workflow tasks, you can:
- Assign the Workflow task to user, group or role, and/or specify a ‘strategy’ to be used to be used by the Workflow system when assigning the task.
- Specify whether the nominated user, group, or role must be notified by email when a task has been assigned to a user, group, or role.

Choose an assignment method:
- Assign task to all users/groups/roles in list
- Select from list when completing previous task
- Run an automation script to select assignees
- Use an external handler to select assignees
- Use a stored procedure to select assignees

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign task to all users, groups, or roles in list</td>
<td>With this mechanism, all users specified in the potential assignee list will be assigned the task. If the task is assigned to a single user, the task will be automatically locked when the user opens it. If the task is assigned to a group, then a user has to explicitly lock and/or unlock it. Note: This assignment method allows the map designer to create a list of potential assignees for the task. The map designer can specify that a particular user should be assigned the task, or a group, or a role or a combination.</td>
</tr>
</tbody>
</table>
Using this mechanism, the Workflow system will force the user actioning the previous task to select someone from the assignee list as the new task’s assignee.

You can automatically run a pre-defined Objective Case Management Extensions (ObjCMX) script to select the user(s) to which the task should be assigned. When using automation scripts to select an assignee, you must select the pre-defined script and optionally pass in script parameter(s) specified in the Script Parameter dialog box.

This mechanism specifies that you want to use a third party supplied Java class to work out the user to assign the task to. When the Workflow system loads a task definition that uses this allocation strategy, it makes a call to the third party class. This allows for third parties to provide integration with their systems. For example, if they had an external system that they wanted to use, they could write a class using our framework and Objective would call it. Within their class they can call out any systems.

Note: If using an external handler or stored procedure, you can also select the Notify via Email check box on the Assign To tab: if selected, the user(s) will receive an email as soon as they are assigned a task.

This mechanism is used where you want to use a stored procedure for task assignment.

Note: To use a stored procedure, an Objective consultant must have defined the procedure in your database. Stored procedures will always have the prefix ‘WAD_’.

Note: If you drag multiple users or groups into this pane, the task will be actioned by whoever chooses to action that task first.

Using this option, you can select a pre-defined email template (.obet file) for the assignment emails. The email template selected is then used for all assignment emails sent for this task. If you wish to search for a particular email template, click on the Email Template icon and search for all .obet files.

Straightforward workflow task actions can be embedded into the email body and the assignee can then action the manual task directly from their email client, without the need to login to an Objective ECM client to perform the action. That is, actions that do not require the user to select the next assignee.

Note: The last published version of the email template is used for the assignment emails.

For more information, see ‘Creating Email Templates’ in the Objective ECM Email User Guide.

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select from list when completing previous task</td>
<td>Using this mechanism, the Workflow system will force the user actioning the previous task to select someone from the assignee list as the new task’s assignee.</td>
</tr>
<tr>
<td>Run an Automation Script to select assignees</td>
<td>You can automatically run a pre-defined Objective Case Management Extensions (ObjCMX) script to select the user(s) to which the task should be assigned. When using automation scripts to select an assignee, you must select the pre-defined script and optionally pass in script parameter(s) specified in the Script Parameter dialog box.</td>
</tr>
<tr>
<td>Use an external handler to select assignees</td>
<td>This mechanism specifies that you want to use a third party supplied Java class to work out the user to assign the task to. When the Workflow system loads a task definition that uses this allocation strategy, it makes a call to the third party class. This allows for third parties to provide integration with their systems. For example, if they had an external system that they wanted to use, they could write a class using our framework and Objective would call it. Within their class they can call out any systems. Note: If using an external handler or stored procedure, you can also select the Notify via Email check box on the Assign To tab: if selected, the user(s) will receive an email as soon as they are assigned a task.</td>
</tr>
<tr>
<td>Use a stored procedure to select assignees</td>
<td>This mechanism is used where you want to use a stored procedure for task assignment. Note: To use a stored procedure, an Objective consultant must have defined the procedure in your database. Stored procedures will always have the prefix ‘WAD_’. Note: If you drag multiple users or groups into this pane, the task will be actioned by whoever chooses to action that task first.</td>
</tr>
<tr>
<td>Select the email template you want this task’s assignment emails to use</td>
<td>Using this option, you can select a pre-defined email template (.obet file) for the assignment emails. The email template selected is then used for all assignment emails sent for this task. If you wish to search for a particular email template, click on the Email Template icon and search for all .obet files. Straightforward workflow task actions can be embedded into the email body and the assignee can then action the manual task directly from their email client, without the need to login to an Objective ECM client to perform the action. That is, actions that do not require the user to select the next assignee. Note: The last published version of the email template is used for the assignment emails. For more information, see ‘Creating Email Templates’ in the Objective ECM Email User Guide.</td>
</tr>
</tbody>
</table>

Table 5

The Attachments Tab

From the Attachments tab you can:

- Define whether users can add or remove attachments to the Slip.
- Define whether attachments should automatically be removed (this task only) from the Slip when the task has been completed (that is, no user intervention required).
- Define attachments that will be automatically added to the Slip when the task begins. You might, for example, want to add a set of instructions which a user needs to follow in order to perform the task, but once the task has been completed they are then removed. Attachments can be any object in Objective and are added by selecting an object and then selecting Add or Remove as required. To remove an attachment, select it from the list and click Remove.

Note: Bear in mind that when a Workflow progresses past a ‘Split’ all attachments for the task are shown in both branches of the ‘Split’. This is because attachments are managed per Workflow Slip, and the Workflow Slip (when between a ‘Split’ and a ‘Join’) manages multiple tasks.

The Roles Tab

From the Roles tab you can:
The Fields Tab

- Add, from the Roles list, a user-defined role for the task.
- Define whether the Role will be visible, read-only, or mandatory for the task.

From the Fields tab you can:

- Add, from the Case Field list, catalogue or system fields that will be displayed on a task.
- Define whether the above fields will be visible, read-only, or mandatory for a particular task.

Tip: To modify the name of a displayed task field, select it on the Fields tab, then click Edit Display, type in a new name and click OK.

The Requirements Tab

On the Requirements tab you can:

The Associated Workflows Tab

- Manually add new requirements
- Edit current requirements
- Manually remove requirements

An Associated Workflow may, optionally, be started by the person responsible for completing a manual task. An Associated Workflow, if specified, will form a part of a task. It is not the same thing as a nested Workflow (a nested Workflow is in effect itself a task in its own right).

An associated Workflow will be started in parallel, that is, will start when the task starts. Associated workflows are always initiated at the discretion of a user. You can configure a mandatory completion of Associated Workflows, that is, they will have to be completed before the main workflow can be progressed to the next task.

On the Associated Workflows tab you can nominate other Workflows that can optionally be started in conjunction with this Workflow. It is possible to add a number of Workflows to the list here.

Where the Workflow is tied to a Workflowable object such as a folder or File, the Workflows which are run in parallel to the Workflow initiating them will all point to the same object.

The manual task definition that defines the list of associated workflows can define that if a particular associated workflow is initiated from the task (note that associated workflows are only initiated at the discretion of the current Task owner) then that workflow must be completed before the current task can be actioned. This is done by ticking the Must Complete option.

Example

Dan creates a 'Consider Community Submission' task as part of the Incoming Correspondence workflow. This workflow is run with an application file as its workflowable (case) object. The 'Consider Community Submission' task may have two associated workflows including 'Conduct Review Meeting' and 'Meet with Community Stakeholders'.

Now, depending on the details of a particular submission, a review meeting and/or community stakeholder meeting may not be necessary. So, the person Dan assigned to the 'Consider Community Submission' task can optionally choose to launch these associated workflows from this task. If the 'Meet with Community Stakeholders' workflow was marked as 'Must Complete', and if that workflow was launched for this submission, then the 'Consider Community Submission' task could not be completed until the associated Meet with Community Stakeholders' workflow had ended (including cancellation).

If the 'Meet with Community Stakeholders' is not marked as 'Must Complete' then the 'Consider Community Submission' task could be actioned regardless of whether the 'Meet with Community Stakeholders' had been completed or not. If the 'Meet with Community Stakeholders' workflow was not launched, then the 'Consider Community Submission' task can be actioned regardless of whether the associated workflow was marked as 'Must Complete'.

The Hide tab

To show or hide a tab:

1. Click on the Hide tab. All tabs are shown by default.
2. Enable the checkbox next to any tab you wish to hide.
4. Click OK.

The Start Task dialog box enables you to configure a Create Workflow Slip dialog box. That is, you can define whether the users can view and edit the fields or assign roles to other users during the running of a Workflow.

To configure a Create Workflow Slip dialog box:

1. In Navigator, select a workflow.
4. Click Create.

The Workflow Definition is opened in Workflow Editor.
4. In the Workflow Editor, select the Start task, and then click Task Definition from the Workflow menu.

6. On the Roles tab, for each role, perform one of the following:
   - To display the field on the Workslip and disable editing of the field, retain the default selection, that is, Visible and Read Only are selected.
   - To display the field and enable editing of the field, retain Visible selection, and then clear Read Only selection.
   - To display the field and make it mandatory, clear Read Only selection, and then select Mandatory. Note that the workflow cannot be started until a value is specified in the mandatory field.

6. On the Fields tab, for each field, define whether you want a field to be visible, read-only, or mandatory.

8. On the Attachments tab, you can attach a document to a workflow slip (attachments can be used when additional information is required, for example, if an application form to be processed is part of a workflow):
   - Drag and drop a document.
   - OR
   - Select a document from the drop-down list, and click Add.

   Note: To delete an attachment from a workflow slip, select a document in the Attachments area, and then click Remove.

8. Click OK.

The Decision Task Definition dialog box allows you to define the task and any actions associated with the task. A decision task automatically evaluates the defined conditions or stored procedure to determine the path taken to the next task.

1. Create a decision task by clicking on the decision icon on the Workflow Editor button bar. Click the map to position your decision task.

2. Provide a title for your decision task, and ‘fix’ the title by clicking on the icon of the new decision task that you have just created.

4. Access the Task Definition dialog box for the decision task by either double clicking on the icon of the new decision task or by selecting Workflow > Task Definition from the right-click menu.

The Task Definition dialog box for the decision task is displayed.

There are two tabs in this dialog box that you can define. They are:

**The Task Tab**

- Task
- Actions
On the Task tab you can:

**The Actions Tab**
- Provide a name for the decision task.
- Include a description of the task which can be up to 255 characters long.

On the Actions tab you can:
- Add an action to determine which task is next. You can also use a stored procedure to determine the conditions for each of the actions, by selecting the Database Stored Procedure option. Using the stored procedure option means that you define one stored procedure for all of the actions defined (the stored procedure must choose which action to take). Using defined conditions however requires an expression to be defined for each action (see below). These expressions are evaluated in the same order as the actions are defined and the first expression that is true will trigger the corresponding action to be executed.

![Figure 42](image)

- Select one of the following:
  - Search
  - Workflow Slip to test the action against a Workflow Slip.
  - Case Object to test the action against a Case Object.
  - If you select an action and then click Add or Edit, the Take Action dialog box is displayed.
  - Database Stored Procedure.
  - Select the Stored Procedure from the drop down list. If you don’t provide a name for either the separate process or stored procedure an error message is displayed.
After typing the Action Name, you then specify what conditions need to be satisfied for the action to be taken. Select the values from the drop-down lists, then click OK when finished. The Move Up and Move Down buttons can be used on the Actions tab to ensure that the actions are executed in the correct order.

The Rendezvous Task Definition Dialog Box

The Rendezvous Task Definition dialog box enables you to create a processing point where the workflow waits until all required information is provided. Once the required information is provided, the workflow process is allowed to continue.

1. Create a rendezvous task by clicking on the rendezvous icon on the Workflow Editor button bar. Click the map to position your rendezvous task.
2. Provide a title for your rendezvous, and fix the title by clicking on the icon of the new rendezvous that you have just created.
3. Access the Task Definition dialog box for the rendezvous task by either double clicking on the icon of the new rendezvous task or by selecting Workflow > Task Definition from the right-click menu.
4. The Task Definition dialog box for the rendezvous task is displayed.
There are several tabs in this dialog box that you can define. They are:

**The Task Tab**
- Task
- Alarms
- Requirements
- Matching
- Error

On the Task tab you can:

**The Alarms Tab**
- Provide a name for the task
- Include a description for the task

On the Alarms tab, you can define alarms that are used to monitor the processing time of tasks. You can define multiple alarms to be set off at specific times after the task becomes available. The options available when adding an alarm are:

- Send an alarm message via email
- Invoke an external alarm handler
- Expire (that is, use an alarm to trigger an ‘Expire’ action rather than sending an email)

Note: It is recommended that you always set an ‘Expire’ action for a rendezvous task. Selecting the ‘Expire’ action will enable the rendezvous task to expire at the predetermined time.

**The Requirements Tab**

On the Requirements tab you can:

- Specify requirements that need to be satisfied in order before processing can continue beyond the rendezvous task.
- Click Add to add your requirements.

![Figure 46](image)

Note: the name that you specify for a requirement will need to be the exact name that either a stored procedure or external process can recognise (see Matching).

**The Matching Tab**

On the Matching tab you can:

- Specify either a stored procedure (essentially a program stored in the database) or an external process which will be used to verify that the requirements have been met. When a document is added to Objective, the document is added to a queue in which a background process of Objective will try to match the document to the rendezvous task by calling, for example, the stored procedure.
- It is also possible to manually match requirements if required.
Figure 47

Note: If you do not provide a name for either the separate process or stored procedure an error message is displayed. If you don’t know what it will be called but want to continue designing the Workflow you could, as a suggestion, put in a dummy name for now, and change it later on.

Note: The External Handler option provides you with the ability to directly reference the external process. You specify the name that was used to register the separate process in the supplied text field under the External Handler option. A third party developer or Objective consultant can use the Task Handler Framework (part of the API supplied to developers/consultants) to write the external handler for the rendezvous task. The developer/consultant will then register the handler with Objective and give it a unique name. This name is what the Workflow System will use to look up the remote Task handler.

The Error Tab

With the Error tab you can:

- Specify an error message that should be sent in the event that something goes awry with the rendezvous task processing.
- Either add a user to the To box of the Error tab, you can drag and drop a user from the All Users window, or select Expire from the Action drop-down list.
The Background Task Definition Dialog Box

The Background Task Definition dialog box allows you to make the workflow pass control over to either a stored procedure or separate external process to perform additional processing. Once the processing has been completed the process/stored procedure will determine which action to use in order to complete the task. It is possible to create a background task with a variety of outcomes as well as define an error handler (like an alarm) that decides what to do if the stored procedure or process has a problem performing the task.

1. Create a background task by clicking on the Background icon on the Workflow Editor button bar. Click the map to position your background task.

2. Provide a title for your background task, and ‘fix’ the title by clicking on the icon of the new background task that you have just created.

4. Access the Task Definition dialog box for the background task by either double-clicking on the icon of the new background task or by selecting Workflow > Task Definition from the shortcut menu.

6. The Task Definition dialog box for the background task is displayed.

There are several tabs in this dialog box that you can define. They are:

**The Task Tab**
- Task
- Actions
- Alarms
- Automation
- Error

On the Task tab you can:

**The Actions Tab**
- Provide a name for the task.
- Include a description for the task which can be up to 255 characters long.

On the Actions tab you can:

- Define the actions available for processing the task. Click Add to add possible actions to this task. Note that you can create an action that will go to another task if an error situation arises when a slip processes the background task. This will be discussed further shortly.
- Click Edit or Remove to change existing actions for this task.
The Alarms Tab

On the Alarms tab you can:

- Specify an alarm. If the background task has not finished by a certain time, the alarm will be sent.

The options available when adding an alarm are:

- Send an alarm message via email
- Call an external handler
- Run an automation script and optionally setup script parameters to pass in to the script. You can also run a pre-defined Objective Case Management Extensions (ObjCMX) script to action a task by selecting the automation script and optionally pass in script parameter(s) specified in the Automation script properties pane. Note: for more information on automation scripts, see the Objective Automated Extensions Engine User Guide.
- Complete (or other action that has been defined, that is, use the alarm to trigger an action rather than sending an email)

Note: Selecting the Complete action notifies Objective that the action has been completed after a specified period of time.

The Automation Tab

On the Automation tab you can:

- Complete (or other action that has been defined, that is, use the alarm to trigger an action rather than sending an email)
- Run an automation script and optionally setup script parameters to pass in to the script. You can also run a pre-defined Objective Case Management Extensions (ObjCMX) script to action a task by selecting the automation script and optionally pass in script parameter(s) specified in the Automation script properties pane. Note: for more information on automation scripts, see the Objective Automated Extensions Engine User Guide.
- Specify either a separate external process (Java class) or stored procedure which will be used to perform background processing.
- If you want to specify a stored procedure either use the drop-down list or type directly into the drop-down list if you know the name of it.

Note: If you don't provide a name for either the separate process or stored procedure an error message is displayed. If you don't know what it will be called but want to continue designing the Workflow you could, as a suggestion, put in a dummy name for now, and change it later on.

Note: The External Handler option provides you with the capability to refer directly to the external process. You can specify the name the Task handler was registered with. The Task handler framework (part of Objective API) allows a developer/Objective consultant to register a Task handler with a specific name. The task definition needs to refer to this handler by its registered name.

From the Back-off Strategy list on the Automation tab, you can select a strategy for how frequently the Objective ECM Server will attempt a task that is not ready to be completed (applies to background tasks only). This strategy is meaningless for handlers that complete the task the first time they are requested. A back-off strategy is only applied to the tasks that are not completed when they are attempted. It determines the time of the next execution attempt for the task (strictly speaking the strategy determines how many automation runs will be skipped and it uses this to calculate the next execution time).

A task handler will respond to the Objective ECM Server to define whether a task should be completed or not. Although a handler would typically perform the designated behaviour and complete the task the first time it is called, other handlers may be waiting on some external stimulus and would not complete the task. Tasks may also not complete due to a handler error.

A back-off strategy reduces the load on the Objective ECM Server because a task with a long life-time would not be evaluated every run of the automation engine. Back-off strategies are based on the number of times the task has been attempted and they gradually increase the time between execution attempts. In other words, the number of runs that the task will skip is increased each time the handler indicates a task is not ready to be completed.

Note: In a worst-case scenario, a long-running task will be executed once within a 24-hour interval, which is the default upper limit of the delta time applied to get the Next Execution Time.

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No tasks will be put on hold; all the tasks will be re-evaluated during every run of the automation engine. In other words the delta for the next execution time is simply the automation engine frequency (by default this is five minutes). There is no reduction on the Objective ECM Server load with this option.</td>
</tr>
<tr>
<td>Mild</td>
<td>The number of automation engine runs skipped is based on the formula $11^{\text{numAttempts}}$ (number of attempts the task has been tried). Initially this means it will skip only one run for a number of runs before gradually increasing this. At the default frequency of five minutes, it will take about 10 days to finally reach the 24 hour upper limit. A task would have been evaluated 58 times to reach this point.</td>
</tr>
<tr>
<td>Moderate</td>
<td>The number of automation engine runs skipped is based on the formula $15^{\text{numAttempts}}$. At the default frequency it takes about 25 days to reach the 24 hour upper limit. A task would have been evaluated 14 times to reach this point.</td>
</tr>
<tr>
<td>Aggressive</td>
<td>As above but with the formula $2^{\text{numAttempts}}$. This translates to 1d to reach the 24 hour upper limit (at the default frequency) and 8 executions.</td>
</tr>
</tbody>
</table>

Table 6

The more aggressive the back-off strategy, the lower the load on the Objective ECM Server for non-completing background tasks. The fidelity (that is, timeliness) of the execution drops off with the more aggressive strategies however. In other words, the external stimulus may now be available to complete a background task but because it was not available for a long time previously we will have to wait up to a day before the automation engine recognizes the task is ready to be completed.

The Error Tab

On the Error tab you can:
- Specify an error message that should be sent to either a user or another task (via an Action) in the event that something goes awry with the background task processing.
- To add a user to the To box of the Error tab, select either Role or User/Group. If you want to specify a user or group you can drag and drop a user from the All Users window, alternatively select the Action from the drop-down list that you want to trigger in the event that an error arises. Note that you must have defined the Action you want to use previously via the Actions tab.
Using the nested Workflow task it is possible to add other Workflows to the present Workflow as Sub Workflow Definitions. This has the following advantages:

- The business process can be broken into more manageable portions
- Sub Workflow Definitions can be updated without invalidating the existing Workflow Slip.
- Sub Workflow Definitions can be potentially re-used elsewhere, that is, several Workflow Definitions may share the same common Sub Workflow definition.

Note: When defining a workflow that points to a nested Workflow definition and you specify the Workflow that you want to use, the task definition stores the latest released and published version of the nested Workflow. If the nested workflow is subsequently updated, then the parent workflow will still point to the previous version. This means that when you define a Workflow that uses a Nested Workflow Definition, the parent definition will not break if the Nested Workflow definition is subsequently updated. For example, the end points of a Nested Workflow determine the actions for the parent task. If you were to change or add end-points in a new version of the nested task then the parent task definition would have problems trying to find an action that does not exist.

If you change the nested workflow and wish to have those changes incorporated in the parent workflow, then you must do the following for the Parent workflow:

1. Create a new version of the parent workflow.
2. Re-attach the nested workflow to the parent map (this involves re-selecting it in the nested workflow task definition dialog box).
3. Save and release the parent workflow as a published map.

Sub workflows end/exit-point names are tied to the parent workflows' join names. If you decide to change the sub workflow exit point names and wish to have those reflected in the parent workflow then you must update the parent workflow to ensure it uses the newer version sub workflow.

There are a couple of rules that need to be followed when using Nested Workflows. These rules are needed so that the Catalogue used by the Slip is the super-set of the fields used by the Workflow tree (that is, the parent Workflow and all of its nested Workflows).

- If the parent Workflow uses a dynamic Catalogue (that is, you have selected fields rather than choosing a catalogue), nothing special is required. When the Workflow is saved, the system will traverse the Workflow tree and automatically

3 When you define the Slip's fields, you also have the option of specifying a Catalogue that already exists. You do this when selecting an existing Catalogue by choosing one defined in the Catalogues Folder.
grow the dynamically generated Catalogue to encompass the fields used by the nested Workflows (regardless of whether the Nested Workflows use dynamic or existing Catalogues).

- If the parent Workflow uses an existing Catalogue, the Nested Workflows can only contain fields that exist in the existing Catalogue. Because the Catalogue is not dynamically generated by the system, the Catalogue cannot grow to encompass fields used by the Nested Workflows. Therefore:

- If the Nested Workflow uses a dynamic Catalogue, the fields specified must be contained by the parent Workflow's Catalogue.
- If the Nested Workflow uses an existing catalogue, all of the fields in the Nested Workflow's existing catalogue must exist in the parent's existing Catalogue.

1. Create a Nested Workflow task by clicking on the Nested Workflow icon on the Workflow Editor button bar. Click the map to position your Nested Workflow task.
2. Provide a title for your Nested Workflow task, and fix the title by clicking on the icon of the new Nested Workflow task that you have just created.
4. Access the Task Definition dialog box for the Nested Workflow task by either double-clicking on the icon of the new Nested Workflow task or by selecting Workflow > Task Definition from the right-click menu.
6. The Task Definition dialog box for the Nested Workflow task is displayed.

![Figure 55](image-url)

There are tabs in this dialog box that you can define. They are:

**The Task Tab**
- Task
- Workflow

On the Task tab you can:
1. Provide a name for the nested task.

**The Workflow Tab**
2. Include a description of the nested task.

On the Workflow tab you can:
- Specify a Workflow which is to be nested within this Workflow definition.
Creating A New version Of A Workflow

Once created, your Workflow object becomes like most other objects in Objective, that is, subject to security, distribution, approvals and version control. Version control is important when creating and maintaining Workflow objects, since previous versions are virtually a ‘snapshot’ of a business process at a particular time in your organisation’s history.

All active Workflow Slips follow the version of the Workflow that they were created from, regardless of whether new versions of the Workflow are published.

If you are in the process of editing a Workflow and a user chooses to run it, all Slips generated from that Workflow will follow the last published version of the Workflow. Workflows started after your changes have been published will use the new version of the Workflow.

Note: Objective does not notify users working on tasks that the Workflow has been changed.

Editing An Existing Workflow

To edit an existing workflow:

- Select a Workflow from your folder.
- Choose Commands > Edit New Version to lock the Workflow so it can be modified.
- Enter in a reason for your changes.
- Make your changes to the Workflow and save them using File > Save.
- Close the Workflow Editor window.
- Release the Workflow. You have the options of Release as Published and / or setting Corporate Value to it. Corporate Value prevents the Workflow from being deleted.
It is possible to do ‘ad hoc’ transitions between tasks. In other words, the Workflow system can promote, that is ‘jump’, directly from one task to another on the same Workflow definition (the Slip just ‘records’ the jump taking place) - even when there is no pre-defined action joining them. This jumping capability allows more analysis effort to be put into designing the main flows rather than predicting all the possible exception flows.

**Design Time Aspects**

To permit jumping, a task definition will need to have the Task Definition > Actions tab > Jump to another task within this Workflow option ticked. This option is available from the Workflow Editor when defining the task definition (note that it only applies to manual tasks). For more information see The Task Definition.

**Runtime Aspects**

At runtime, the actual jump to another task is performed as follows:

1. Right-click an object (workflowable) and select Properties from the right-click menu. The object’s Properties dialog box opens.
2. On the Workflow tab, right-click a Workflow Slip (whose Workflow design permits jumping to other tasks) and then select Properties. The Slip’s Properties dialog box is displayed.
3. Click Progress. The Workflow definition is displayed and the progress of the Slip through the definition of tasks will be indicated as shown below (green=completed, red=in progress).
4. Double-click the current task, which in this example is Raise Requisition. On the Actions tab you will be able to jump to another task. You can do this by selecting the Override… option, choosing a Destination Task and then clicking Jump To.
5. Click Jump To to make the jump.
6. You will be prompted with the following dialog box:
7. Click OK and close the Slip definition and Workflow Slip’s Properties dialog box if you have finished working with them.
8. If you had elected to jump to the ‘Finish’ task as in the above example you will be able to see that the Workflow Slip has been completed in the Properties dialog box for the workflowable object as shown below:

---

**Ad-Hoc Processing Rules**

1. An ad-hoc transition can only be performed ‘from’ a manual task as that is the only time a user can choose this option.
2. An ad-hoc transition can be performed ‘to’ all task types in the same ‘path’. A ‘Path’ is defined to mean a list of tasks that won’t be run concurrently. It includes all tasks in a workflow up to and including a splitter task.
3. Ad-hoc processing is restricted to tasks in the same Workflow definition (that is, you can’t jump up/down into/out of nested maps).
4. The splitter task then suspends the current path and creates n (n >= 2) concurrent paths.
5. When the joiner is triggered (that is, when all child paths have completed) then the parent ‘path’ is resumed.

The Workflow definition outline shown below contains 3 paths:

- Path 1 = Start, Alpha, Nestie, Split #1, Epsilon
- Path 2 = Beta, Dec1, Join1
- Path 3 = Back1, Rendzvs1, Gamma, Join1

Path’s 2 and 3 are children of path 1. Notice how the joiner is displayed in both children paths.

---

This means that:
From task alpha, you can jump to:
Start, Nestie, Split #1 and Epsilon

From Beta you can jump to:
Dec1 and Join1

From Gamma you can jump to:
Back1, Rendzvs1 and Join1

If you jump to a joiner, then the current “path” is completed but the joiner may or may not wait depending on whether it is waiting for the other paths to reach it.

Notice how you can jump right over the split/join from alpha if you want to.

Running A Workflow From The Workflow

This is the traditional process-centric way or running Workflows.

1. Select a Workflow, then on the Commands or right-click menu click Run Workflow. Alternatively, drag an object such as a document, a template, or a file onto a Workflow. This will act as your attachment to the Workflow.

2. The New Workflow Slip dialog box is displayed. You have the option of associating this Slip with a Workflowable Object (Case). Add a comment and any attachments that the Slip may require. If you dragged an object onto a Workflow initially, then that object will already appear as an attachment. Also complete any Field information that is specific to this Slip and select a priority, and roles as appropriate.

4. You will receive a message from Objective telling you that the Slip has been successfully launched and is now underway. All users that have the first task/s assigned to them in the Workflow, will now have those tasks appear as ‘available’ to them through their Tasks window.

When a Workflow has been launched and a Slip has been created for that Workflow, you may find that you have Workflow tasks available to you. Your tasks are displayed through the Task Window (F7), which is where you action a task to progress the Workflow from the current task to the next one in the process. Where the Objective Xlink - Mail Gateway is installed you will receive an email message to inform you that a Task is waiting to be performed.

The Tasks Window Commands Menu

<table>
<thead>
<tr>
<th>COMMANDS MENU OPTION</th>
<th>ACTION/DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Progress</td>
<td>Display the Workflow Editor dialog box and show the progression of that particular Workflow Slip.</td>
</tr>
<tr>
<td>History</td>
<td>List the history of the Workflow Slip by task and each task’s status.</td>
</tr>
<tr>
<td>Lock (Unlock) Task</td>
<td>Toggle between locking the task (preventing others from actioning it) and unlocking the task (making it available to others).</td>
</tr>
<tr>
<td>Suspend (Resume) Task</td>
<td>Toggle between suspending the task (to stop any work being done on it) and resuming the task (when processing can again take place).</td>
</tr>
<tr>
<td>Delegate Task</td>
<td>Allows you to delegate or reassign the Task to another user. Only the person of the member of the group to whom the task has been assigned, can delegate it.</td>
</tr>
<tr>
<td>Take Action</td>
<td>Allows you to perform an action on the task. Once an action has been taken, the Slip is passed to the next task.</td>
</tr>
<tr>
<td>Attachments</td>
<td>Displays any attachments that are required for this task, as read-only information.</td>
</tr>
<tr>
<td>Checklist</td>
<td>Shows and lets you mark off the checklist of items needed to action this task.</td>
</tr>
<tr>
<td>Send</td>
<td>Send reference by mail to a user or group.</td>
</tr>
<tr>
<td>Reports (Reporting Module Only)</td>
<td>Allow users to select a Report to run on the Workflow task (if any available).</td>
</tr>
<tr>
<td>Properties</td>
<td>View the Task Definition dialog box. This dialog box displays all details of the selected task.</td>
</tr>
</tbody>
</table>

Table 7

Actioning And Completing A task

You can access the Task window from any hierarchy (folder or group) window in Objective.
1. For the Windows menu, click Task Window. Your Task window is displayed.

2. Select workflow tasks from the drop-down menu on the Type field.

4. Tick the boxes that describe the Status of the tasks that you wish to display. Click Show to update the display. A task icon without a status icon signifies that it is available to you. If it has a pencil beside it then you have already locked the task to work on. A tick icon next to the task means it has already been completed.

6. Select an available task, then click Commands > Lock Task.

Note: You can select a task that you have already locked and unlock it, if you have decided not to work on it. If the task is locked, no one else can work on it.

Once you have chosen to work on this task and have locked it, you can perform any duties that are required by this task. For more information see The Task Definition. Once you have finished and wish to action this task, click Commands > Take Action and the appropriate action or right-click and choose Take Action from the right-click menu. The Take Action dialog box is displayed.

5. Enter a comment, and click OK.

Note: The Comment box provides a record of what you accomplished and/or why the task was completed with this action. The number of allowed characters for each comment is hard capped at 1600, to allow space for email headers and footers. When anyone views the history of that Workflow Slip, your comments are displayed.

**Bulk Action Workflow Tasks**

Users can select multiple workflow tasks and complete an action in bulk:

1. Hold CTRL and select the desired workflow tasks.

2. Right Click and select Take Action.

4. Select an action from the available options.

- If all tasks have a missing mandatory field/role, an error message will be displayed and the action aborted.
- If some tasks have a missing mandatory field/role, you will be asked if you want to continue only for the tasks that have complete mandatory field/role values.
- Task properties windows will not be displayed automatically when bulk actioning workflow tasks.
- If the tasks have differing assignee requirements, an error message will be displayed and the action aborted.

4. A Take Action dialog box is displayed.
6. Complete the assignee and comment fields. Click OK.

From the Tasks window, a Task Properties dialog box is slightly different to that of the Workflow Editor (for more information, see The Task Definition). The following example is the Task Properties dialog box for a task called ‘Complete Response’:

![Figure 64](image)

The Task Properties dialog box shows the task name and object identifier, the task status, to whom the task is assigned and any actions available.

There are several tabs that you can work on or view:

**The Actions Pane**
- Details
- Requirements
- Associated Workflows
- Alarms
- History

The Actions pane is displayed on the lower section of the left-hand pane on the Task Properties dialog box. Unless the task is complete and no actions apply, the Actions pane is visible regardless of which tab you select from the Task Properties dialog box.

On the Actions pane you can:

**The Details Tab**
- View the available actions for this task.
- Jump to another task (if the task permits). You can do this by selecting the Override option, choosing a Destination Task and then clicking on the Jump To. For more information see Jumping to Other Tasks in a Workflow.
- Action this task by selecting an action, then click the Complete. A task can also be actioned by selecting Take Action from the Commands menu in the Tasks window.

On the Details tab you can view:
- The task’s Objective Id
- The date that the task was created (made available)
- The assignee for the task

If the task has been completed, then you can also view:
- The action taken
- The comment made when the action was taken
Note: The information shown on the Details tab varies according to the data defined for the task. For instance, if instructions are included for the task the Instructions pane is shown with the instruction text. If no instructions exist, the Instructions pane is hidden from view. Similarly, Checklist and case object details are only shown if they exist for the task. Use the scroll bar to move up and down the Details Tab to view all information associated with the task.

You can expand and minimise all panes by clicking on the chevron adjacent to each individual pane.

<table>
<thead>
<tr>
<th>PANE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructions pane</td>
<td>View the instructions for the task.</td>
</tr>
<tr>
<td>Checklist pane</td>
<td>View or check off the Checklist for this task.</td>
</tr>
<tr>
<td></td>
<td>You can also do this by selecting Checklist from the Commands menu on the Tasks window.</td>
</tr>
<tr>
<td>Case Object pane</td>
<td>View the case objects for the task by selecting Open or view the metadata for the case object by selecting Properties.</td>
</tr>
<tr>
<td>Attachments pane</td>
<td>• View whether users can add attachments to this task.</td>
</tr>
<tr>
<td></td>
<td>• View whether users can remove attachments from this task.</td>
</tr>
<tr>
<td></td>
<td>• View the list of attachments for this task, which can be modified if the user has “Add” and “Remove” privileges for this task. If the user has “Add” privileges, they can drag and drop new attachments into the attachments pane. If the user has “Remove” privileges, they can remove attachments by selecting the attachment they wish to remove, then click the Remove button. Standard commands are also available on any attachments by using the right-click menu.</td>
</tr>
<tr>
<td>Roles pane</td>
<td>On the Roles pane you can view and assign which user or user group will perform each of the roles listed by selecting a user or user group from the drop-down list.</td>
</tr>
<tr>
<td>Fields pane</td>
<td>• View the fields and the values specific to this Slip.</td>
</tr>
<tr>
<td></td>
<td>• Modify or add values to the fields, if required (and update case objects).</td>
</tr>
</tbody>
</table>

Table 8

The Requirements Tab

On the Requirements tab you can view:

• Specify requirements that need to be satisfied in order before processing can continue.
• Select Add to add your requirements.

Note: the name that you specify for a requirement will need to be the exact name that either a stored procedure or external process can recognise.

The Associated Workflows Tab

On the Associated Workflows Tab you can start a separate workflow from the task that will run in addition to the current workflow. For more information see The Associated Workflows Tab.

The Alarms Tab

The Alarms tab lists all alarms created for the task. If the task has been completed, you can also view:

• The action taken
• The comment made when the action was taken

For more information see The Alarms Tab.

The History Tab

On the History tab you can view the following details for the previous task:

• Date created
• Task name
• Completed on
- Completed by
- Action taken
- Comment

If there was no previous task, the fields will not contain any information.

From the History tab you can:

- Choose to view the workflow progress by selecting Show Progress. The Workflow Editor window opens for you to view the progress of each task. Tasks that are marked in green have been completed (actioned), while tasks that are marked in red indicate that this is the current task.
- Choose to view the workflow progress by selecting Show History. The History window opens showing the completed tasks for this workflow.

When someone else starts a Workflow and you are part of the Workgroup chosen to action a task in that Workflow, you will receive automatic notification when you should begin work. This is called a task notification.

The notification is done through your email application.

Note: You should ensure that your email application is running or you will only receive notification next time you start it.

If you don’t have the Objective Xlink Mail Gateway, you will get an alias in your In Tray. Otherwise, it goes to your mail tool.

Objective will send an email message to you, similar to the following.

![Figure 66](image)

Double-click the Objective reference to the task and Objective will automatically locate the task for you.

**Actioning a Task From the Email Notification**

Using the Objective Email Template Editor, a straightforward workflow task action can be embedded into the email body of the notification. If your email notification does contain a workflow task action, you can action the task directly from your email client, without the need to login to an Objective ECM client to perform the action. A straightforward task action is one that requires a single action and one that does not require the user to select the next assignee.

For more information, see The Assign To Tab.

For more information on the Email Template Editor, see the Objective ECM Email User Guide.

**When A Task Is Overdue**

When a task is defined, the designer of the Workflow has the option to send a message to a particular user when that task is overdue. This message is called an Alarm Notification.

The notification is done through your email application.

Note: You should ensure that your email application is running or you will only receive notification next time you start it.

If you don’t have the Objective Xlink - Mail Gateway, an Alarm Notification is displayed in your In Tray. Otherwise, it goes to your mail tool.
Objective will send an email message to you. When you receive the email, double-click the Objective reference to the task and Objective will locate the task for you.

**Using A Workflow**

This chapter describes the two events associated with using a Workflow:

- Running a Workflow (which creates the Workflow Slip and assigns tasks to users).
- Working on tasks (assigned to users by the Workflow Slip).

Once a Workflow has been created and published, any user with Open privileges to that Workflow can run it.

You can run a Workflow from:

- A Workflowable Object
- A Workflow object.

You can start a Workflow silently, that is, disable the Create Slip dialog box from appearing during the running of a Workflow. To start a Workflow silently, you must perform the following:

- Select Start Workflow Silently in the General tab of Workflow Definition.
- Define default values for Workflow Slip metadata such as priorities, due date, roles, and so on in the Workflow definition.

This is the object-centric way of running Workflows.

1. Select the Workflowable object. This might, for example, be a folder or File. Right-click the icon of the Workflowable Object, and then select Properties. Click the Workflow tab (alternatively, right-click on a workflowable object, and, on the shortcut menu, point to Run Workflow, and choose it from the list of available workflows). The following dialog box is displayed.

![Figure 67](image)

2. Select the Workflow tab, then select a Workflow from the drop-down list and click Run.
3. The Create Slip for Workflow dialog box is displayed. You can change the name to a more representative name of the unique transaction (unless the name is read-only).
4. Complete details as required and then click OK.
5. The Workflow will now run and you will see details of the Workflow Slip appear in the dialog box shown in step 1 earlier.

Note: Another way of running the workflow via the workflowable object is to drag it onto a Workflow and drop it. And yet another way is to run the Workflow (via the Workflow itself) and then select the Case object that you want to use (empty by default) via the Case field on the Create slip for workflow dialog box.

**Monitoring Workflows**

Once a Workflow has been created and is in active use, you can monitor the progress of Workflow Slips and the status of tasks in the Workflow Slips. You can then identify any problem areas and any potential or real bottlenecks in the Workflow process.

**Workflowable Objects**

For Workflowable objects it is possible to see Workflow Slips details as follows.
1. Select the Workflowable object.
2. From the right-click menu, select Properties.
3. Click the Workflow tab. You will see a list of Workflow Slips that apply to the object.

This is the traditional way of monitoring Workflow Slips, that is, when using process-centric Workflows.

In the Top Level Folder, there is a folder called 'Workflow System' that is automatically created by Objective when it is installed. When a Workflow is run, the Slip created is placed into a Subfolder called 'Active'. It remains in this Subfolder while it still has incomplete tasks. Once all tasks associated with the Slip have been completed the Slip moves to a Subfolder called 'Completed'.

The 'Active' and 'Completed' Subfolders exist in a folder named after the Workflow in the 'Workflow System' folder.

1. Navigate to the 'Workflow System' folder.
2. Find the folder with the same name as the Workflow.
3. Unroll that folder and view either the contents of the 'Active' or the 'Completed' folder.

You are able to cancel a Workflow Slip if you have Administration privileges to that Slip. When you cancel a Slip, the Workflow will stop and the task will be deleted from your task list. This will occur when you next click Show from within your task list. A cancelled Slip will be indicated by a cancelled Slip icon.

To cancel a Slip:

1. Select the Slip from within the Workflow System folder.
2. From the Commands or shortcut menu, click Cancel Workflow Slip.
3. The Cancel Workflow Slip dialog box is displayed. Click OK to cancel the Workflow Slip.

Note: For Workflows that you use regularly, you may want to add an alias to the Active or Completed Workflow System folder to your Handy folder, for easy access.

You can double-click a Slip to view details about the tasks for that Slip in the Slip's Properties dialog box.

<table>
<thead>
<tr>
<th>TAB</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details</td>
<td>Provide a comment for the Workflow Slip.</td>
</tr>
<tr>
<td>Attachments</td>
<td>• Add attachments to the Workflow Slip</td>
</tr>
<tr>
<td></td>
<td>• Remove attachments from the Workflow Slip</td>
</tr>
<tr>
<td>Catalogue</td>
<td>Modify data</td>
</tr>
<tr>
<td>Role assignment</td>
<td>Change role assignments.</td>
</tr>
<tr>
<td>Requirements</td>
<td>• Manually Add new requirements</td>
</tr>
<tr>
<td></td>
<td>• Edit current requirements</td>
</tr>
<tr>
<td></td>
<td>• Manually Remove requirements</td>
</tr>
<tr>
<td>Priority / Due</td>
<td>• Select/change priority level</td>
</tr>
<tr>
<td></td>
<td>• Change the date due.</td>
</tr>
<tr>
<td>Case Object</td>
<td>• Open the workflowable object from which the Workflow was run</td>
</tr>
<tr>
<td></td>
<td>• View the Properties of the workflowable object from which the Workflow was run</td>
</tr>
<tr>
<td>Audit</td>
<td>View audit events</td>
</tr>
</tbody>
</table>

**Table 9**

The Slip History Window

The Slip History window displays all completed and pending tasks for that Slip and their status. To access the Slip History window for a Slip, perform one action.
Click History on a Slip Properties dialog box.
Select a task, and then click Commands > History.

A History of the associated Slip is displayed.

The Commands menu on the Slip History window is identical to that on the Tasks window, so you can work with tasks from either one.

Close this window when you have finished or use the Window menu to switch to another Objective window.

**The Slip Status Window**

The status of the Slip is viewed through the Slip Status window, which graphically displays the state of each task for the Slip in the Workflow as a whole.

1. To view the status of the Workflow Slip
2. Click Progress on a Workflow Slip’s Definition dialog box
3. Select a task, and then click Tasks > Progress from the Tasks menu in the Tasks dialog box

The Slip Status window is displayed.

Tasks that are marked in green have been completed (actioned), while tasks that are marked in red indicate that this is the current task.

You can click the Animate Workflow Progress

**Figure 70**

You can select a task in this window, view its properties and view other associated information through the Map menu. Close this window when you have finished, or use the Windows menu to switch to another Objective window.
**Searching Workflow Slips by Name Of Slip**

It is possible to search for all the Workflow Slips by specifying the name of the Workflow Slip as the search criteria.

**Searching Workflow Slips and Workflows**

It is possible to build up quite complex search criteria and search on a several objects as shown below.

Note that, when searching for a workflow task, if you choose, for example, User Assigned, you can then select Contains from the drop-down list and specify an assigned user (if, for example, "User Smith" is an assigned user and also a member of a certain user group, then the Contains / User Smith search results would display both the assigned user, and a user-group "User Smith" is included in).

**Using Workflow Search Criteria**

Objective's search criterion allows you to search for anything held in Objective. Each criterion has specific operators and input characteristics that help to refine Objective's searching.

When you have the Workflow Module of Objective installed, you have a number of Workflow specific Objects that you can search for.

You can use Objective's search function to help monitor tasks and Workflows.

The following is a list of additional search criteria that can be used when searching for an Objective Workflow Object. Please refer to 'Search Criterion' in the Objective Foundation and EDM User Guide for a list of standard Objective Object search criteria. Many of the standard search criteria can also be used for Workflow related searches.
<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>OPERATOR</th>
<th>INPUT REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Completed</td>
<td>*(is after / is after (date) /</td>
<td></td>
</tr>
<tr>
<td></td>
<td>is before / is before (date) /</td>
<td></td>
</tr>
<tr>
<td></td>
<td>is blank / is exactly / is not</td>
<td></td>
</tr>
<tr>
<td></td>
<td>blank / is not on (date) / is on</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(date) / is today / is yesterday</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/ is during this week / is during</td>
<td></td>
</tr>
<tr>
<td></td>
<td>this month / is during this year /</td>
<td></td>
</tr>
<tr>
<td></td>
<td>is during this quarter year / is</td>
<td></td>
</tr>
<tr>
<td></td>
<td>during this half year / is during</td>
<td></td>
</tr>
<tr>
<td></td>
<td>this year / is during this month /</td>
<td></td>
</tr>
<tr>
<td></td>
<td>is during last week / is during</td>
<td></td>
</tr>
<tr>
<td></td>
<td>last month / is during last year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/ is during last quarter year /</td>
<td></td>
</tr>
<tr>
<td></td>
<td>is during last half year / is during</td>
<td></td>
</tr>
<tr>
<td></td>
<td>last year)*</td>
<td>In the Pop-up calendar, click the date that you want to use. The arrow keys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>can be used to scroll forward and backward through the months.</td>
</tr>
<tr>
<td>Date Suspended</td>
<td>As above</td>
<td>In the Pop-up calendar, click the date that you want to use. The arrow keys</td>
</tr>
<tr>
<td></td>
<td></td>
<td>can be used to scroll forward and backward through the months.</td>
</tr>
<tr>
<td>Workflow</td>
<td><em>(is / is not)</em></td>
<td>Type in a Workflow, select a Workflow from the drop-down list or drag and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>drop a Workflow into the selection.</td>
</tr>
<tr>
<td>Workflow Slip</td>
<td><em>(is / is not)</em></td>
<td>Type in a Workflow Slip, select a Workflow Slip from the drop-down list or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>drag and drop a Workflow Slip into the selection.</td>
</tr>
</tbody>
</table>

### Table 10

**Reviewing And Approving Workflows**

For more information on reviewing workflows, see Reviewing Documents and Workflows in the Objective ECM Objects User Guide.

For more information on approving workflows, see Approving Documents and Workflows in the Objective ECM Objects User Guide.