

Altiris™ Workflow from Symantec Installation and Configuration Guide

Version 7.0



Workflow 7.0 Installation and Configuration Guide

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- Operating system

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About Workflow 7.0 and installation

This chapter includes the following topics:

- [About Workflow 7.0](#)
- [Prerequisites for Workflow 7.0](#)
- [Operating system compatibility](#)
- [Where to get more information about Symantec Workflow 7.0](#)
- [About installing Workflow 7.0](#)

About Workflow 7.0

Symantec Workflow 7.0 provides the Workflow 7.0 capability of advanced logic and workflow to Symantec Management Console and the Symantec solutions.

For more information on Workflow 7.0, see the Workflow 7.0 User's Guide.

See [“Where to get more information about Symantec Workflow 7.0”](#) on page 12.

Workflow 7.0 is not a single piece of software. It has five main pieces—Workflow Solution, Workflow Designer, Workflow Server, client tools, and Process Manager. The following table describes each piece:

Table 1-1 Pieces of Workflow 7.0

Software piece	Description
Workflow Solution	<p>Workflow Solution is the piece of Workflow 7.0 that is installed as an integrated solution on the Symantec Management Platform and is accessible through the Symantec Management Console. It facilitates licensing and reports with the platform. It also integrates Workflow Designer and Workflow Server with Symantec Management Platform. This integration lets Workflow interact with other solutions, such as creating tasks that other solutions can use. The solution piece also lets you distribute components through the Symantec Management Console.</p>
Workflow Designer	<p>Workflow Designer is the tool used to design processes. It contains components that you can arrange into processes and then publish to a Workflow Server. It should be installed on computers other than the Symantec Management Platform host. Installation of Workflow Designer is not required. Workflow Designer is dependent on Workflow Server to be able to publish workflows.</p> <p>For more information about Workflow Designer, see the <i>Workflow 7.0 User's Guide</i>.</p>
Workflow Server	<p>Workflow Server runs and manages published workflow projects. It should be installed on any computer to which you want to publish: a designated server or your local computer. It is installed automatically when you install Workflow 7.0. Typically, you should designate a server as the production Workflow server and install Workflow Server on that server so there is a central location for all production-ready workflows.</p> <p>For more information, see the <i>Workflow Solution User's Guide</i>.</p>
Process Manager	<p>Process Manager is a Web portal used to manage published processes that include human interaction. It should be installed on a central Process Manager server. Installation of Process Manager is not required. For a development and testing environment, install Process Manager on a design computer. For a production environment, install it on a central server.</p> <p>For more information, see the <i>Workflow 7.0 User's Guide</i>.</p>

Table 1-1 Pieces of Workflow 7.0 (*continued*)

Software piece	Description
Client tools	<p>Workflow client tools are a tool set that supports Workflow 7.0.</p> <p>The tools are as follows:</p> <ul style="list-style-type: none"> ■ Business TimeSpan Editor ■ Composer Theme Editor ■ Configuration and Logging Tool ■ Local Machine Info Editor ■ Messaging Console ■ Notification Server Credentials Tool ■ Profiler Tool, Scheduler Tool ■ Server Extensions Configurator ■ Task Tray Tool ■ Tool Preferences Editor

Prerequisites for Workflow 7.0

Workflow 7.0 includes a number of pieces that can be installed on the same or different computers. If you install all of them on one computer, that computer must meet all the prerequisites listed in the table below. If you install only one piece listed below, the host computer must meet the prerequisites for that piece.

Table 1-2 Workflow prerequisites

Workflow piece	Prerequisites
Workflow Solution	<p>Here are the prerequisites for Workflow Solution:</p> <ul style="list-style-type: none"> ■ Symantec Management Platform 7.0 SP1, HotFix 1 or greater ■ Microsoft .NET Framework 3.5 ■ Symantec Management Platform Webservice 7.0
Workflow Server	<p>Workflow Server has one prerequisite:</p> <ul style="list-style-type: none"> ■ Microsoft IIS 5.x or 6.x

Table 1-2 Workflow prerequisites (*continued*)

Workflow piece	Prerequisites
Workflow Designer	<p>Here are the prerequisites for Workflow Designer:</p> <ul style="list-style-type: none"> ■ Microsoft .NET Framework 3.5 ■ Workflow Server—Gets installed automatically during Workflow Designer installation. ■ Optional: Microsoft IIS 5.x or 6.x —An internal Web server is delivered with Workflow Designer that can be used with the debugger.
Process Manager	<p>Here are the prerequisites for Process Manager:</p> <ul style="list-style-type: none"> ■ Microsoft .NET Framework 3.5 ■ Microsoft IIS 5.x or 6.x ■ Microsoft SQL Server 2005 or SQL Express ■ Workflow Server - Gets installed automatically during Workflow Designer installation.

Operating system compatibility

Workflow 7.0 is compatible with several operating systems. Although you can run Workflow Designer, Server, Process Manager, and Solution on many operating systems, run them only on the operating systems listed below in a production environment.

Table 1-3 Operating system compatibility

Designer	Server	Process Manager	Solution
<ul style="list-style-type: none"> ■ Windows XP SP3 32-bit ■ Windows Vista SP2 32-bit 	<ul style="list-style-type: none"> ■ Windows Server 2003 R2 SP2 32-bit ■ Windows Server 2003 R2 SP2 64-bit 	<ul style="list-style-type: none"> ■ Windows Server 2003 R2 SP2 32-bit ■ Windows Server 2003 R2 SP2 64-bit 	Workflow Solution supports all operating systems supported by Symantec Management Console.

Where to get more information about Symantec Workflow 7.0

For more information, refer to the information sources in the following table.

Table 1-4 Where to get more information

Information source	Location
Workflow SWAT	www.workflowswat.com
Symantec Management Platform 7.0 Release Notes	https://kb.altiris.com
Altiris 7.0 Planning and Implementation Guide	https://kb.altiris.com
Installing the Symantec Management Platform 7.0 products	https://kb.altiris.com
Knowledge Base	https://kb.altiris.com
Symantec Connect	http://www.symantec.com/connect/

About installing Workflow 7.0

Depending on whether you are installing Workflow for the first time, the installation process has three main steps: installing through Symantec Installation Manager, downloading the installer through Symantec Management Console, and running the installer.

See “[Installing Workflow for the first time](#)” on page 14.

Workflow 7.0 has only one installer for numerous pieces. While installing you can click which pieces of Workflow 7.0 you want to install.

See “[About Workflow 7.0](#)” on page 9.

Although you have a lot of flexibility with how you install Workflow 7.0, every installation must conform to the following parameters:

- Workflow Solution must be installed in Symantec Installation Manager.
- Workflow Server must be installed on every computer running Workflow 7.0 (this is done automatically with every Workflow install).

Although Workflow Server always gets installed with Workflow Designer or Process Manager, you should designate a server as the production Workflow server and install Workflow Server on that server. This creates one central location for all production-ready workflows.

You do not have to install either Workflow Designer or Process Manager when you install Workflow Server. For a typical production environment, install Process Manager only on a central server, and install Workflow Designer only on design

computers. For a development and testing environment, install these two pieces of Workflow on a design computer.

Installing Workflow for the first time

Refer to the following steps if you are installing Workflow for the first time. If you are upgrading from Workflow 6.5, see the following section:

See [“Upgrading from Workflow 6.5”](#) on page 15.

Installing Workflow has three main steps: installing through Symantec Installation Manager, downloading the installer through Symantec Management Console, and running the installer.

Table 1-5 Process for installing Workflow 7.0

Step	Action	Description
Step 1	Install Workflow through the Symantec Installation Manager	Installing Workflow through the Symantec Installation Manager makes Workflow available in Symantec Management Console. Once you have installed Workflow through the Symantec Installation Manager you can download the installer through the Symantec Management Console. See “Installing Workflow Solution through Symantec Installation Manager” on page 21.
Step 2	Download the Workflow installer through Symantec Management Console	A link to the Workflow installer is available in Symantec Management Console. Clicking this link downloads the Workflow installer to your local computer. See “Downloading the Workflow installer through the Symantec Management Console ” on page 22.

Table 1-5 Process for installing Workflow 7.0 (*continued*)

Step	Action	Description
Step 3	Install Workflow	<p>Run the Workflow installer to install Workflow on your local computer. There is only one installer for all the pieces of Workflow.</p> <p>See “Installing Workflow Server” on page 27.</p> <p>See “Installing Workflow Designer” on page 29.</p>

Upgrading from Workflow 6.5

Refer to the following steps if you are upgrading Workflow 6.5 to Workflow 7.0. If you are installing Workflow for the first time, see the following section:

See [“Installing Workflow for the first time”](#) on page 14.

You can disrupt currently-running Workflow 6.5 processes by installing Workflow 7.0 if you do not keep the same persistence settings. Ideally, you should use the same persistence settings for Workflow 7.0 that you used for Workflow 6.5. During installation you can set the persistence setting for Workflow 7.0. If the persistence setting in Workflow 6.5 is not supported in Workflow 7.0, version your projects so you do not overwrite the currently-running processes.

See [“Versioning a process”](#) on page 19.

If you do not know what persistence settings your current version of Workflow is using, refer to the following section:

See [“Determining a project's persistence setting”](#) on page 17.

Symantec recommends using the following steps to upgrade your currently-running processes from Workflow 6.5 to Workflow 7.0:

Table 1-6 Process for upgrading currently-running processes

Step	Action	Description
Step 1	Backup your projects	<p>Create packages for all your projects, and store these packages on a safe directory.</p> <p>For more information on creating a project package, see the <i>Workflow 7.0 User's Guide</i>.</p> <p>www.alitis.com/support/documentation.aspx</p>

Table 1-6 Process for upgrading currently-running processes (*continued*)

Step	Action	Description
Step 2	Backup the Ensemble database	Create a backup of your Ensemble database. Store the database backup on a safe directory.
Step 3	Install Workflow 7.0 on a testing computer	<p>Install Workflow 7.0 on a testing computer.</p> <p>See “Installing Workflow for the first time” on page 14.</p> <p>If you already have a testing computer setup up with Workflow 7.0, you do not need to set up another one.</p> <p>While you are installing on your testing computer, make sure you do the following:</p> <ul style="list-style-type: none"> ■ Use the same Workflow persistence settings as your Workflow 6.5 configuration. If you do not know what persistence setting you are using in Workflow 6.5, see the following section: See “Determining a project's persistence setting” on page 17. If you are using a persistence setting that is not supported by Workflow 7.0, see the following section: See “Versioning a process” on page 19. ■ Set Workflow 7.0 to have access to a Symantec Management Platform 7.0 server (NS 7).
Step 4	Revise your projects	<p>Open each project and make the necessary changes for it to be compatible with Workflow 7.0 and Symantec Management Platform 7.0. Change any old Notification Server components and settings.</p> <p>If you can use the same persistence setting for your Workflow 7.0 projects as you used for your Workflow 6.5 projects.</p> <p>See “Determining a project's persistence setting” on page 17.</p>
Step 5	Publish revised projects to Workflow 7.0 computer	Publish the revised projects to the Workflow 7.0 computer. For more information on publishing projects, see the <i>Workflow 7.0 User's Guide</i> .
Step 6	Test revised projects	Conduct thorough tests to ensure that your projects are working properly in a Workflow 7.0 and Symantec Management Platform 7.0 environment. If you encounter any problems, fix the project and republish.

Table 1-6 Process for upgrading currently-running processes (*continued*)

Step	Action	Description
Step 7	Install Workflow 7.0 on production computer	Install Workflow 7.0 on your production computer. When you install, make sure you use the same persistence setting as you 6.5 configuration. See “Installing Workflow Server” on page 27. See “Installing Workflow Designer” on page 29.
Step 8	Publish revised projects to production computer	Publish all of your revised projects to the Workflow 7.0 production computer. For more information on publishing projects, see the <i>Workflow 7.0 User's Guide</i> .

Determining a project's persistence setting

Persistence refers to how a running process is stored in memory to improve the performance of Workflow 7.0. Persistence is set at the project level, but most projects use the default setting that was set when Workflow was installed (almost always file-based). For Workflow 6.5 projects, the persistence setting is configured under the project's **Publishing** data tab in the **Work Queue Service Name** property.

The best way to determine a project's persistence setting is to open the project and look at its **Work Queue Service Name** property under the **Publishing** data tab.

For more information on data tabs, see the *Workflow 7.0 User's Guide*.

The following table describes persistence options:

Table 1-7 Persistence options

Persistence option	Description
LogicBase.Components.Ensemble.WSWorkQueue	Uses Ensemble SQL database settings. The workflow project uses the Ensemble database for persistence. There is no Workflow 7.0 equivalent of this setting.

Table 1-7 Persistence options (*continued*)

Persistence option	Description
LogicBase.Components.Default.ExchangeAdapters. LogicBaseExchangeWorkQueue	<p>Uses Exchange for persistence. This is the most common persistence setting. This setting uses either file-based or SQL-based persistence over Exchange.</p> <p>For information on determining whether this setting uses file-based or SQL-based persistence, see the following section:</p> <p>See “To determine the default persistence setting in the Configuration and Logging Tool” on page 18.</p> <p>The Workflow 7.0 equivalent of this is Exchange (file-based) or SQL-based persistence. You can set this when you install Workflow 7.0.</p>
LogicBase.Core.Workflow.FileSystemAdapters. FileSystemWorkQueue	<p>Uses direct file-based persistence.</p> <p>There is no Workflow 7.0 equivalent of this setting.</p>
LogicBase.Core.Models.Workflow.InMemoryWorkQueue	<p>Uses internal Workflow memory.</p> <p>There is no Workflow 7.0 equivalent of this setting.</p>
LogicBase.Core.Workflow.SQLServerAdapters. SQLServerWorkQueue	<p>Uses direct SQL-based persistence.</p> <p>There is no Workflow 7.0 equivalent of this setting.</p>

Your projects are probably set to use **LogicBase.Components.Default.ExchangeAdapters.LogicBaseExchangeWorkQueue**. If this is the case, you can determine whether the exchange is set to file-based or SQL-based persistence in the Configuration and Logging Tool.

See [“To determine the default persistence setting in the Configuration and Logging Tool”](#) on page 18.

If any of your projects use a persistence setting other than **LogicBase.Components.Default.ExchangeAdapters.LogicBaseExchangeWorkQueue**, you should version them to avoid losing process data.

See [“Versioning a process”](#) on page 19.

To determine the default persistence setting in the Configuration and Logging Tool

- 1 Open the Configuration and Logging Tool.
 - Start > Programs > Altiris > Workflow Designer > Tools > Configuration and Logging Tool.**
- 2 Click the **Exchange Configuration** tab.

3 In the left pane, click **local.config : LBQ_Local_Defaults**.

4 In the right pane, double-click **local.workflow-**.

If the **Deliver To Queue** property is set to **LBME.Workflow** (with a prefix), the default persistence setting is file-based.

If the **Deliver To Queue** property is set to **workflowsqlexchange** (with a prefix), the default persistence setting is SQL-based.

Versioning a process

If you have a Workflow 6.5 project that uses a persistence setting that is not supported in Workflow 7.0, version the project so you do not lose any process data (such as tasks). Process versioning is handled in IIS. When you publish a workflow project, a new virtual directory is created in IIS, unless one of the same name already exists. If an identical one exists, the new process overwrites the process already published there. A new virtual directory must be created to contain the updated process while the old process is allowed to run in its virtual directory. The following steps assume that you have a currently running process you are replacing with an updated version.

Versioning works only with the “Publish Application to Server” publishing option. Because the other publishing options do not let you set the virtual directory name, you cannot use versioning with them.

To version a process

1 In Workflow Designer, when you are ready to publish your updated process, click **File > Publish Project > Publish Application to Server**.

2 In the Virtual Directory field, add the updated version number to the end of the name of the virtual directory.

For example, if the old process is in a virtual directory called “PurchaseOrder,” call the new virtual directory “PurchaseOrder2.0.” If you publish without changing the name of the virtual directory, your new process will completely replace the old one and break any of its current instances.

3 Complete the publishing process as normal.

4 Repoint the invocation links to the virtual directory of the updated process.

In other words, whatever invoked the old process (such as Process Manager service catalog item or external link) must be repointed to the new virtual directory that contains the process.

5 After the old process has finished all activity, delete its virtual directory.

Installing Workflow 7.0

This chapter includes the following topics:

- [Installing Workflow Solution through Symantec Installation Manager](#)
- [Downloading the Workflow installer through the Symantec Management Console](#)
- [Possible installation configurations](#)
- [Installing Workflow Server](#)
- [Installing Workflow Designer](#)
- [Installing Process Manager](#)
- [Configuring Workflow 7.0](#)

Installing Workflow Solution through Symantec Installation Manager

See “[About installing Workflow 7.0](#)” on page 13.

Before you can download the Workflow 7.0 installer through the Symantec Management Console, you need to install Workflow 7.0 through the Symantec Installation Manager. Installing Workflow 7.0 through the Symantec Installation Manager registers Workflow as an available product in the Symantec Management Console.

The following Knowledge Base article provides more information on the Symantec Installation Manager:

<https://kb.altiris.com/article.asp?article=45732&p=1>

To install Workflow 7.0 through the Symantec Installation Manager

- 1 In the Symantec Installation Manager, click **Install new products**.
Navigate to the Symantec Installation Manager by clicking **Start > Programs > Altiris > Symantec Installation Manager**.
Make sure you are using the correct XML file in Symantec Installation Manager settings. You should use <http://www.solutionsam.com/solutions/pl/symantec.pl.xml>.
- 2 Set the filter to **None**.
Symantec Workflow Solution 7.0 appears when you set the filter to **None**.
- 3 Click the **Symantec Workflow Solution 7.0** check box, and then click **Review selected products**.
Depending on what you have already installed, you may need to install other prerequisites. The Symantec Installation Manager alerts you if you need to install prerequisites.
- 4 Click **Next**.
- 5 Complete the installation wizard.
Let the Workflow download finish before you start the installation.
- 6 (Optional) migrate links from Notification Server.
Select this option if you want to migrate links to your old item actions, dialog workflows, and tasks from Notification Server 6.5 to the Symantec Management Console.
See [“Migrating links from Notification Server 6.5 to Symantec Management Platform 7.0”](#) on page 35.

Downloading the Workflow installer through the Symantec Management Console

See [“About installing Workflow 7.0”](#) on page 13.

Once you have installed Workflow Solution in the Symantec Installation Manager, you can download the Workflow 7.0 installation file through the Symantec Management Console. You need to download the installer before you can install Workflow.

See [“Installing Workflow for the first time”](#) on page 14.

See [“Installing Workflow Solution through Symantec Installation Manager”](#) on page 21.

To download the installation file through the Symantec Management Console

- 1 In the Symantec Management Console, on the **Settings** menu, click **All Settings**.
- 2 In the left pane, expand **Service and Asset Management**, and then expand **Workflow**.
- 3 Double-click **Manage Workflow Servers**.
- 4 In the right pane, click **Download Symantec Workflow Server and Designer (All license levels)**.
- 5 Run the installer.

See [“Installing Workflow for the first time”](#) on page 14.

Possible installation configurations

Before you run the Workflow 7.0 installer, you should decide what installation configuration you want to use. You can install the pieces of Workflow 7.0 in a number of different configurations based on organizational need. For example, you can reduce the processing load by installing background processing on a different server than your primary Workflow server.

Refer to the following list for some common installation configurations:

- **Testing configuration**
Testing configurations commonly install all the pieces of Workflow 7.0 on a single server. Alternately, you can install Workflow Server and Process Manager on virtual machines to simulate a multiple-server configuration for testing purposes.
- **Designer configuration**
Designer configuration commonly install only Workflow Server and Workflow Designer on a development computer. The task tray application on the development computer is configured with the Workflow Server and Process Manager server used for production publishing.
- **Separate background processing configuration**
A separate background processing configuration installs background processing on a different server than the primary Workflow server to reduce processing load.
See [“Installing with separate background processing”](#) on page 24.

Installing with separate background processing

You can install the background processing for Workflow 7.0 on a different server than your primary Workflow server. Background processing refers to timeouts and escalations in your workflow processes.

Table 2-1 Installing with separate background processing

Step	Action	Description
Step 1	Install Workflow 7.0 on the primary server	<p>Install Workflow Server, Designer, Client Tools, Process Manager Database, Process Manager Portal, and Process Manager Portal Core on the primary Workflow server.</p> <p>The primary server is the central location where you publish your processes. The primary server may also be the primary Process Manager server, depending on your configuration.</p> <p>Install Workflow 7.0 normally on your primary server, using the following settings:</p> <ul style="list-style-type: none"> ■ Deselect Background Processing. ■ Select all other pieces you want to run on the primary server. ■ Use all default settings, including SQL persistence with a Process Manager database connection setting.
Step 2	Install background processing on the secondary server	<p>Install only Workflow Server and background processing on the secondary Workflow server.</p> <p>Install Workflow 7.0 normally on your secondary server, using the following settings:</p> <ul style="list-style-type: none"> ■ Select only Background Processing and Workflow Server. ■ Select Show Advanced Settings During Installation. ■ For persistence settings, select Based on SQL server database and Custom Settings for the database connection. ■ For the custom database connection string, use the following: <pre>Data Source=(Name of primary server);Initial Catalog=Ensemble;User ID=sa;Password=Your password;Pooling=true;Connection Timeout=300;</pre>
Step 3	Connect the primary and secondary servers	<p>Edit the task tray settings on the primary and secondary servers to connect them.</p> <p>See “Adding connection settings between the primary and secondary servers” on page 25.</p>

Table 2-1 Installing with separate background processing (*continued*)

Step	Action	Description
Step 4	Test the configuration	Create and publish a test project to test the separate background processing. See “Testing a separate background processing configuration” on page 26.

Adding connection settings between the primary and secondary servers

After you have installed Workflow 7.0 in a separate background processing configuration, edit the task tray settings on the primary server (main Workflow server) and the secondary server (background processing server).

To add connection settings

- 1 On the primary server, add the secondary server to the task tray connection settings.
 - On the primary server, double-click the task tray application.
 - Click **Add**.
 - Configure the settings for your secondary server, and then click **OK**.
- 2 On the secondary server, add the primary server to the task tray connection settings.
 - On the secondary server, double-click the task tray application.
 - Click **Add**.
 - Configure the settings for your primary server, select **LogicBase_ProcessManager** for the server role, and then click **OK**.
- 3 Click the **Default Server** drop-down list and click the primary server.

Note: Because the default polling interval is set to twenty-four hours, the background processing may not start immediately. If you want it to start immediately, reduce the polling interval (**Workflow Server Configuration > AutoTriggerInfo > Polling Service List Interval Minutes**). Remember to reset the polling interval after background processing has registered.

Testing a separate background processing configuration

After you have installed Workflow 7.0 in a separate background processing configuration and configured connections between your primary and secondary servers, Symantec recommends testing the configuration. Test the configuration by creating a Workflow-type project with timeouts, publish the project to both servers, invoke the process from the primary server only, and then see if the timeouts work. If the timeouts appear in the Log Viewer in the Logging and Configuration Tool, you have successfully set up the separate background processing configuration.

To test a separate background processing configuration

- 1 On the primary server, open Workflow Designer and create a Workflow-type project.
- 2 In the workspace of the open project, add a **Get Current Date** component and connect it after the Start component.
- 3 Add a **Create Log Entry** component after the **Get Current Date** component.
- 4 In the **Create Log Entry** editor, set the **Log Entry Level** to **Error**.
- 5 Add a **Dialog Workflow** component after the **Create Log Entry** component.
- 6 In the **Dialog Workflow** component editor, set the **Task Source Type** to **ProcessManagerTaskSource**.
- 7 Under **Task Assignments**, assign the task to the **All Users** group.
- 8 Under the **Event Configuration** tab, add two escalations set at two and four minutes respectively.
- 9 In the **Decision Model** of each escalation, add a **Create Log Entry** component set to the **Error** level.
- 10 Under the **Event Configuration** tab, under **Timeout Configuration**, set the timeout span to five minutes.
- 11 In the **Timeout Process**, add a **Create Log Entry** component set to the **Error** level.
- 12 Under the **Event Configuration** tab, open the **Start Process** and add a **Send Email** component.

Configure the Send Email component to send an email to an address you can access. In the **HTML Content**, add the **ResponsePageLink**.
- 13 Save and publish your project to both your primary and secondary servers.
- 14 Run the process on only the primary server. Do not run it on the secondary server.

- 15 Wait at least five minutes so that the escalations run.
- 16 On the secondary server, open the Logging and Configuration tool, and then look under the Log Viewer tab.

If the error level logs from your test project appear in the Log Viewer, you have successfully installed Workflow 7.0 in the separate background processing configuration.

Installing Workflow Server

See [“Installing Workflow for the first time”](#) on page 14.

If you are upgrading from Workflow 6.5, see the following section:

See [“Upgrading from Workflow 6.5”](#) on page 15.

After you have installed Workflow Solution in the Symantec Installation Manager and downloaded the installation file through the Symantec Management Console, you are ready to install Workflow Server.

See [“About installing Workflow 7.0”](#) on page 13.

See [“Installing Workflow Solution through Symantec Installation Manager”](#) on page 21.

See [“Downloading the Workflow installer through the Symantec Management Console ”](#) on page 22.

Workflow 7.0 has a single installer. Although you must install Workflow Server, installing other pieces of Workflow 7.0 is optional. During installation you can select which pieces you want to install on the local computer.

See [“About Workflow 7.0”](#) on page 9.

See [“Installing Workflow Designer”](#) on page 29.

To install Workflow Server

- 1 Run the Workflow installer.

The installer is located in the directory to which you downloaded it. By default the Workflow installer is downloaded to the desktop. If you have not yet downloaded the installer, you can download it through the Symantec Management Console.

See [“Downloading the Workflow installer through the Symantec Management Console”](#) on page 22.

- 2 In the Server Roles step, click the pieces of Workflow 7.0 that you want to install on the local computer, and then click **Next**.

If you want to install only Workflow Server, select only that piece. The installation steps on the left are affected by the options that you choose. The more options you select on the right, the more steps you will have on the left.

See [“About Workflow 7.0”](#) on page 9.

Background processing refers to non-human process actions, such as timeouts and escalations. If you check the check box to enable background processing, background processing will run on the local computer. If you uncheck the check box to enable background processing, that processing will not run at all. You can install background processing on a different computer. Installing background processing on a different computer may enhance the performance of Workflow 7.0. To install background processing on a different computer, run the Workflow 7.0 installer on that computer and enable background processing.

Clicking **Show Advanced Settings During Installation** lets you edit the default installation location and ORM settings.

- 3 On the **Server Configuration** step, select which Web site and base URL you want to use.

The Web site mentioned here is the IIS Web site to which your projects will be published by default.

Base URL refers to a resolvable URL to access the Workflow Server. If you are installing on a design-only computer (not a publishing server), the base URL can be the local computer name or IP address. If you are installing on a publishing server with an externally accessible URL, use that URL.

The Task Tray is one of the client tools of Workflow 7.0. Leave the check box marked to run it after installation.

- 4 On the **Notification Server Credentials** step, configure the NS options.

Contact your network administrator if you need help.

- 5 On the **Workflow Persistence** step, click a persistence option.

Note: If you are currently running Workflow 6.5, make sure you use the same persistence settings for Workflow 7.0.

If you install Workflow 7.0 with different persistence settings than your currently running 6.5 version, all current tasks will become non-functional.

See [“Upgrading from Workflow 6.5”](#) on page 15.

See [“Determining a project's persistence setting”](#) on page 17.

If you cannot determine your persistence setting from Workflow 6.5, use **Exchange** for your Workflow 7.0 installation.

- 6 After you have passed the system check, click **Next** and then click **Install**.
You will be notified when the installation has completed successfully.

Installing Workflow Designer

If you are upgrading from Workflow 6.5, see the following section:

See [“Upgrading from Workflow 6.5”](#) on page 15.

After you have installed Workflow Solution through the Symantec Installation Manager and downloaded the installation file through the Symantec Management Console, you are ready to install Workflow Designer and Process Manager.

See [“About installing Workflow 7.0”](#) on page 13.

See [“Installing Workflow Solution through Symantec Installation Manager”](#) on page 21.

See [“Downloading the Workflow installer through the Symantec Management Console ”](#) on page 22.

Workflow 7.0 has a single installer. Although you must install Workflow Server, installing other pieces of Workflow 7.0 is optional. During installation you can select which pieces you want to install on the local computer.

See [“About Workflow 7.0”](#) on page 9.

You can install Workflow on as many client computers as you need.

See [“Installing Workflow Server”](#) on page 27.

To install Workflow Designer

- 1 Run the Workflow Solution Setup file.

The installer is located in the directory to which you downloaded it. By default the Workflow installer is downloaded to the desktop. If you have not yet downloaded the Workflow installer, you can download it through the Symantec Management Console.

See [“Downloading the Workflow installer through the Symantec Management Console”](#) on page 22.

- 2 In the Server Roles step, click the pieces of Workflow 7.0 that you want to install on the local computer, and then click **Next**.

See [“About Workflow 7.0”](#) on page 9.

If you want to install only Workflow Server, select only that piece. The installation steps on the left are affected by the options that you choose. The more options you select on the right, the more steps you will have on the left.

You should always check Workflow Server.

Clicking **Show Advanced Settings During Installation** lets you edit the default installation location and ORM settings.

- 3 On the **Server Configuration** step, select which Website and base URL you want to use.

The Website mentioned here is the IIS Website on which your projects will be published.

Base URL refers to a resolvable URL to access the Workflow Server. If you are installing on a design-only computer (not a publishing server), the base URL can be the local computer name or IP address. If you are installing on a publishing server with an externally accessible URL, use that URL.

- 4 On the **Workflow Designer Tasks** step, configure the installation options.

Old Tool Preferences refers to task tray application settings and Workflow Designer tool settings (configured in **File > Edit Tool Preferences** in the Workflow loading window) carried over from your previous installation of Workflow.

- 5 On the **Notification Server Credentials** step, configure the Notification Server options.

Contact your network administrator if you need help.

- 6 On the **Workflow Persistence** step, click a persistence option.

Note: If you are currently running Workflow 6.5, make sure you use the same persistence settings for Workflow 7.0.

If you install Workflow 7.0 with different persistence settings than your currently running 6.5 version, all current tasks will become non-functional.

See [“Upgrading from Workflow 6.5”](#) on page 15.

See [“Determining a project's persistence setting”](#) on page 17.

If you cannot determine your persistence setting from Workflow 6.5, use **Exchange** for your Workflow 7.0 installation.

- 7 After you have passed the system check, click **Next** and then click **Install**.
You will be notified when the installation has completed successfully.

Installing Process Manager

If you are upgrading from Workflow 6.5, see the following section:

See [“Upgrading from Workflow 6.5”](#) on page 15.

After you have installed Workflow Solution through the Symantec Installation Manager and downloaded the installation file through the Symantec Management Console, you are ready to install Workflow Designer and Process Manager.

See [“About installing Workflow 7.0”](#) on page 13.

See [“Installing Workflow Solution through Symantec Installation Manager”](#) on page 21.

See [“Downloading the Workflow installer through the Symantec Management Console”](#) on page 22.

Workflow 7.0 has a single installer. Although you must install Workflow Server, installing other pieces of Workflow 7.0 is optional. During installation you can select which pieces you want to install on the local computer.

See [“About Workflow 7.0”](#) on page 9.

You can install Workflow on as many client computers as you need.

See [“Installing Workflow Server”](#) on page 27.

To install Process Manager

- 1 Run the Workflow Solution Setup file.

The installer is located in the directory to which you downloaded it. By default the Workflow installer is downloaded to the desktop. If you have not yet downloaded the Workflow installer, you can download it through the Symantec Management Console.

See [“Downloading the Workflow installer through the Symantec Management Console”](#) on page 22.

- 2 In the Server Roles step, click the pieces of Workflow 7.0 that you want to install on the local computer, and then click **Next**.

See [“About Workflow 7.0”](#) on page 9.

If you want to install only Process Manager, select only that piece. The installation steps on the left are affected by the options that you choose. The more options you select on the right, the more steps you will have on the left.

If you want to install the Process Manager Database and the Process Manager Portal on the same computer, select both of them and click **Next**. You should always click Process Manager Portal Core if you are installing Process Manager.

You should always click Workflow Server and background processing unless you have a specific reason for not doing so.

Clicking **Show Advanced Settings During Installation** lets you edit the default installation location, database replication, advanced cube reporting, system accounts access (ASPNET, Network Service), and ORM settings.

- 3 On the **Server Configuration** step, select which Website and base URL you want Process Manager to use.

Base URL refers to a resolvable URL to access the Workflow Server. If you are installing on a design-only computer (not a publishing server), the base URL can be the local computer name or IP address. If you are installing on a publishing server with an externally accessible URL, use that URL.

- 4 On the **Notification Server Credentials** step, configure the Notification Server options.

Contact your network administrator if you need help.

- 5 On the **Database Connection** step, configure a connection to a Process Manager database.

- 6 On the **Database Configuration** step, configure whether you are installing a new database or updating an existing database.

- 7 On the **Database Replication**, configure a replication database.
- 8 On the **Advanced Cube Reporting** step, install and configure cube reporting.
- 9 On the **System Accounts Access** step, configure which system accounts can access the Process Manager database.
- 10 On the **Process Manager Configuration** step, configure the virtual directory for Process Manager and the other settings.
- 11 On the **Process Manager Authentication** step, configure the ID and password for the administrator user and the type of authentication.

If you choose Active Directory authentication, click **Add** to add an Active Directory server.

- **AD Server Domain:** this is the name of the domain or the AD host computer name.
 - **Email Domain Name:** this is the email address for the AD domain. You can set this however you want.
 - **Auto Create Users on Initial Login:** this option syncs Process Manager with Active Directory while Process Manager is installing. Symantec recommends using this option.
 - **Default User Groups:** checking the **All Users** group sets the Active Directory **All Users** group to sync with the Process Manager **All Users** group. Symantec recommends using this configuration.
 - **Dynamically Select TimeZone:** this option uses the time zone of the local computer accessing Process Manager.
 - **AD Server TimeZone:** this is the time zone of the Active Directory host server.
 - **Container:** this is the item group that will be transferred to Process Manager. Symantec recommends selecting **Users**.
 - **Credentials to connect to AD:** credentials used by Process Manager to connect with Active Directory. Use administrator credentials.
- 12 After configuring the Active Directory server, click **OK**.

The wizard pauses for a moment to attempt to connect with Active Directory. If the connection fails, a dialog box opens with a failure message. If the connection succeeds, the wizard returns to the Process Manager authentication screen.

- 13 On the **Workflow Persistence** step, click a persistence option.

Note: If you are currently running Workflow 6.5, make sure you use the same persistence settings for Workflow 7.0.

If you install Workflow 7.0 with different persistence settings than your currently running 6.5 version, all current tasks will become non-functional.

See [“Upgrading from Workflow 6.5”](#) on page 15.

See [“Determining a project's persistence setting”](#) on page 17.

If you cannot determine your persistence setting from Workflow 6.5, use **Exchange** for your Workflow 7.0 installation.

- 14 On the **Symbus ORM** step, configure the ORM.
- 15 After you have passed the system check, click **Next** and then click **Install**.
You will be notified when the installation has completed successfully.

Configuring Workflow 7.0

Once you have installed Workflow 7.0, you are ready to configure it.

See [“About Workflow 7.0”](#) on page 9.

See [“Installing Workflow Solution through Symantec Installation Manager”](#) on page 21.

See [“Downloading the Workflow installer through the Symantec Management Console ”](#) on page 22.

See [“Installing Workflow Server”](#) on page 27.

See [“Installing Workflow Designer”](#) on page 29.

See [“Licensing Workflow Server, Workflow Designer, and Process Manager”](#) on page 37.

See [“Migrating links from Notification Server 6.5 to Symantec Management Platform 7.0”](#) on page 35.

Configuration involves the following steps:

Table 2-2 Process for configuring Workflow 7.0

Step	Action	Description
Step 1	Migrating processes from Notification Server 6.5	<p>During the installation process you have the option of migrating from Notification Server 6.5. Migration is not required. Migration brings all of your old published projects from Notification Server 6.5 into Symantec Management Console 7.0. Migrated processes are non-functional until you republish them.</p> <p>See “Migrating links from Notification Server 6.5 to Symantec Management Platform 7.0” on page 35.</p>
Step 2	License Workflow Server, Workflow Designer, and Process Manager	<p>After you install Workflow, you should apply a license.</p> <p>See “Licensing Workflow Server, Workflow Designer, and Process Manager” on page 37.</p>
Step 3	Build the Altiris component libraries	<p>Using Workflow's component generators, build the Altiris component libraries for components that can integrate with the Altiris solutions.</p> <p>For more information about building the Altiris component libraries, see the <i>Workflow 7.0 User's Guide</i>.</p>
Step 4	Import the Altiris component libraries	<p>Importing the Altiris components into a project makes them available for you to use.</p> <p>For more information about building the Altiris component libraries, see the <i>Workflow 7.0 User's Guide</i>.</p>

Migrating links from Notification Server 6.5 to Symantec Management Platform 7.0

See [“Configuring Workflow 7.0”](#) on page 34.

You can migrate the links to all your published Notification Server 6.5 projects to Symantec Management Platform 7.0 when you install Workflow 7.0 through

the Symantec Installation Manager. However, instead of migrating, you can simply republish all Notification Server 6.5 processes to the 7.0 platform server. Migrating your published projects does not bring them over to the 7.0 Symantec Management Platform server in a functional form; they will be broken when they come over to 7.0. All 6.5 projects must be updated with 7.0 components and republished on the 7.0 server for them to work. Therefore, you should republish instead of migrating. The only advantage of migration is seeing links to your projects in the Symantec Management Console. It can be helpful to see them in the 7.0 console even though they will not work until you republish the projects to the 7.0 platform server.

You have the option of migrating the links to all your published Notification Server 6.5 projects while installing Workflow 7.0 through Symantec Installation Manager. Migrating is easier if you have not yet installed Symantec Management Platform. If you have installed the platform, you can still migrate, but there are some additional steps.

To migrate links from Notification Server 6.5

- 1 On your Symantec Management Platform 7.0 server, install Workflow 7.0 through Symantec Installation Manager.

You do not need to have SMP installed on the server yet to install Workflow 7.0.

See [“To install Workflow 7.0 through the Symantec Installation Manager”](#) on page 22.

- 2 At the end of the installation, click **Run Notification 6 Migration Wizard**, and then click **Finish**.
- 3 In the dialog box that appears, click **Get Migration Wizard install package for Notification Server 6 data report**. Do not click OK.
- 4 In the open dialog box, copy the **Symantec_Migration_Package** file over to your Notification Server 6.5 computer.

Do not click OK on the Symantec Installation Manager dialog box yet.

For reference, the migration package on your 7.0 server is in C: > Program Files > Symantec Installation Manager > MigrationPackage.

- 5 On your 6.5 server, run the **Symantec_Migration_Package** executable file. You should see the following dialog box when it is finished:
- 6 Click **Ok**.

- 7 Complete the Notification Server upgrade wizard. When you see the **Exporter Configuration** dialog box, on the left, uncheck all the solutions except for Workflow Solution, and then click **Next**.
If Workflow 7.0 does not appear in the list, abort migration.
- 8 Click **Next** even if you see the message, Fails to meet baseline requirements.
If you see a dialog box indicating that the product readiness check has not been satisfied by Workflow, click **Yes**.
- 9 Click **Next**.
- 10 When the data export finishes, click **Finish**.
- 11 Navigate to **C: > Program Files > Altiris > Upgrade > Data** and copy the newly created .adb file over to your 7.0 server.
The files in C: > Program Files > Altiris > Upgrade > Data are named by date. Make sure that you get the file with the correct date.
- 12 After you have copied over the .adb file, on your 7.0 server click **OK** on the Notification Server 6 Migration Wizard Instructions dialog box.
- 13 In the resulting dialog box, click **Browse**, and select the .adb file that you just moved over from your 6.5 server.
- 14 Click **Next**.
- 15 In the **Exporter Configuration** dialog box, on the left, uncheck all the solutions except Workflow Solution, and then click **Next**.
If Workflow 7.0 does not appear in the list, abort migration.
- 16 Complete the wizard.
- 17 To see your migrated links, open the Symantec Management Console and click **Manage > Workflows**.
Your migrated project links appear in the tree structure on the left under Published Workflows.

Licensing Workflow Server, Workflow Designer, and Process Manager

See “[Configuring Workflow 7.0](#)” on page 34.

Workflow is not licensed by the designer or server computer but only by the Symantec Management Platform server. Once a platform server has a Workflow license, you can have as many Workflow installations as you want, provided that those installations have access to the platform server.

For information about adding licenses, see the *Workflow 7.0 User's Guide*.

See [“Where to get more information about Symantec Workflow 7.0”](#) on page 12. The following table lists and describes the three licensing levels of Workflow 7.0.

Table 2-3 Levels of Workflow 7.0

Licensing level	Description
Process Automation Server	<p>This is the lowest license level. The Symantec Management Platform comes equipped with Process Automation Server. You can run as many Process Automation Servers as you would like.</p> <p>Process Automation Server includes the following features:</p> <ul style="list-style-type: none"> ■ Integration with only Platform-based solutions ■ Only the eight Platform component generators are available in Workflow Designer ■ Basic Process Manager <p>This includes full customization, some pre-built webparts, organization management, Active Directory integration, task list, and service catalog.</p> ■ Full component API <p>The full component API is available for developers.</p>
Workflow 7.0	<p>This is the middle license level. Workflow 7.0 requires an additional license; it does not come with the Symantec Management Platform. When you add a Workflow 7.0 license through the Symantec Management Console, any Process Automation Servers that are connected to it become fully licensed Workflow 7.0 Servers that can communicate with any external system (not only platform solutions).</p> <p>Workflow 7.0 license level includes the following features:</p> <ul style="list-style-type: none"> ■ Integration with any system (not only Platform-based solutions) ■ All component generators are available in Workflow Designer ■ Full Process Manager <p>This includes all the functions of the basic Process Manager, and it adds process view pages, reporting, knowledge base, and document management.</p> ■ Full component API available <p>The full component API is available for developers.</p>

Table 2-3 Levels of Workflow 7.0 (*continued*)

Licensing level	Description
Workflow 7.0 Enterprise option	The Workflow 7.0 Enterprise option is not currently available.

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