

Oracle® Enterprise Single Sign-on
Logon Manager
Best Practices: Packaging ESSO-LM for Mass Deployment
Release 11.1.1.2.0
E20406-01

December 2010

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Introduction

About This Guide

This guide describes best practices and recommended procedures for creating a custom MSI package that will be used to deploy ESSO-LM to end-users. This guide is intended for installation engineers and system administrators familiar with Windows Installer (MSI) packaging and enterprise-wide deployment of applications. By following the recommendations in this and other *ESSO-LM Best Practices* guides, you will implement an optimal ESSO-LM configuration.

Terms and Abbreviations

The following table describes the terms and abbreviations used throughout this guide:

Term or Acronym	Description
ESSO-LM	Oracle Enterprise Single Sign-On Logon Manager
Agent	ESSO-LM Client-Side Software
Console	ESSO-LM Administrative Console

Accessing ESSO-LM Documentation

We continually strive to keep ESSO-LM documentation accurate and up to date. For the latest version of this and other ESSO-LM documents, visit http://download.oracle.com/docs/cd/E15624_01/index.htm.

Packaging ESSO-LM for Mass Deployment

Overview

The most convenient way to mass-deploy ESSO-LM SSO is to create a customized MSI package and distribute it to end-user machines using a deployment tool of your choice. An end-user machine that has been configured and tested for production acts as a configuration “master” from which the target Agent configuration will be derived for inclusion in the package. Below is a high-level overview of the required steps. The steps are described in detail later in this guide.

1. Obtain the following:
 - a. The latest ESSO-LM installers.
 - b. The latest versions of the following documents:
 - *Best Practices: Packaging ESSO-LM for Mass Deployment* (this document)
 - *Best Practices: Deploying ESSO-LM with [your target repository]*
 - *Best Practices: Configuring the ESSO-LM Agent*
 - The *Installation and Setup* guide for your version of ESSO-LM
2. If performing an unattended (“silent”) installation, complete the steps in [Pre-Requisites for Unattended \(“Silent”\) Installations](#) .
3. Install the ESSO-LM Agent and the ESSO-LM Administrative Console on the “master” machine.
4. Place the base Agent MSI package in a working directory on the “master” machine.
5. Open the base Agent package in MS ORCA or another MSI package management tool and select the ESSO-LM components that you want installed on the end-user machines.
(For example, if your environment calls for a single primary logon method, you may want to exclude all but the desired authenticator.)

Warning: When saving the customized package in ORCA, use the **Save** function. If you use the **Save As** function, the package will be corrupted.

6. Configure ESSO-LM using the Console. Make sure you have read the *ESSO-LM Best Practices* guides listed above before you begin.
7. Generate the final MSI package using the Console. This package will contain the components selected in step 5 and configuration settings from step 6.
8. Test the package by deploying it on a pilot group of machines. Identify and correct any issues that may arise. Document the solutions as necessary.
9. Once the pilot deployment is successful, deploy the MSI package enterprise-wide using a third-party tool of your choice.

Pre-Requisites for Unattended (“Silent”) Installations

In order to successfully install ESSO-LM in unattended ("silent") mode, the Windows Management Instrumentation (WMI) service must be running before the installer is executed.

To check whether the WMI service is running, and start it if necessary, do the following on each target machine:

1. Open the System Management Console.
2. Open the **Services** snap-in.
3. Navigate to the **Windows Management Instrumentation** service and check its status and startup mode.
4. Depending on the status, do one of the following:
 - If the status is **Started**, the WMI service is running; proceed to the next section.
 - If the status is blank, check the service's startup type and start it as follows:
 - If the startup type is **Disabled**, do the following:
 1. Double-click the service.
 2. In the dialog box that appears, change the startup type to **Manual** or **Automatic**, as required by your environment.
 3. Click **Apply**.
 4. Click **Start** to start the service. The status changes to **Started**.
 - If the startup type is not **Disabled**, do the following:
 1. Double-click the service.
 2. In the dialog box that appears, Click **Start** to start the service. The status changes to **Started**.
 3. Click **OK**.
5. Click **OK** to close the service properties dialog box.

Step 1: Prepare the “Master” Machine

1. Create a working directory and copy `setup.msi` to that directory.
(Make sure to remove the “read-only” attribute from `setup.msi`, if present.)
2. Rename `setup.msi` to
`<company name>_esso-lm_<version>_agent_base_setup.msi`

Step 2: Select ESSO-LM Components for Inclusion in the Package

Note: This procedure uses Microsoft ORCA as an example. You can use another tool if desired.

1. Install MS ORCA. The tool is part of the Microsoft Windows SDK, which is available at:
<http://go.microsoft.com/fwlink?LinkID=55774>
2. Open the MSI package in ORCA and customize its contents as follows:
 - a. In the **Tables** pane, select **Feature**. The right-hand pane displays the package contents.
The shipping defaults (valid as of this document’s release) are shown in [Figure 1](#).

Tables	Feature	Feature_Parent	Title	Description	Disp...	Le...	Directory_	Attribu...
Error	Languages		Languages	Localized language supp...	10	1	INSTALLDIR	24
EventMapping	LDAP	Authenticators	LDAP	Plug-in that enables log...	12	101	INSTALLDIR	8
Extension	LDAPAuth	Authenticators	LDAP v2	Plug-in that enables log...	16	101	INSTALLDIR	8
Feature	MSAuth	Authenticators	Windows Logon v2	Plug-in that enables log...	10	101	INSTALLDIR	8
FeatureComponents	EventMgr	Extensions	Event Manager	This plug-in provides for...	10	101	INSTALLDIR	8
File	LogonMgr	Extensions	Logon Manager	This plug-in provides the...	4	1	INSTALLDIR	24
ISComponentExtended	SAP	LogonMgr	SAP Helper	Extension helper that a...	12	101	INSTALLDIR	8
ISCustomActionReference	SetupMgr	Extensions	Setup Manager	This plug-in provides the...	6	1	INSTALLDIR	24
Icon	SyncMgr	Extensions	Synchronization Manager	This plug-in provides for...	8	101	INSTALLDIR	8
InstallExecuteSequence	Core		Application	All necessary files and s...	2	1	INSTALLDIR	24
InstallUISequence	MainframeEmulators	LogonMgr	Mainframe Emulator Helper	Extension helper that a...	8	1	INSTALLDIR	8
LaunchCondition	DOSHelper	MainframeEmulators	Console Window Support	Support for Console win...	4	101	INSTALLDIR	8
ListBox	Authenticators		Logon Methods	Plug-ins that provide dif...	4	1	INSTALLDIR	24
ListView	AD_Sync	SyncMgr	Active Directory Synchr...	Synchronization plug-in ...	2	101	INSTALLDIR	8
Media	Chinese_Simplified_Pack	Languages	Chinese Simplified	Language pack that con...	2	101	INSTALLDIR	8
ModuleComponents	DOSWindowHelper	DOSHelper	DOS Window Support	Support for DOS windows	2	102	INSTALLDIR	8
ModuleDependency	French_Pack	Languages	French	Language pack that con...	2	101	INSTALLDIR	8
ModuleSignature	German_Pack	Languages	German	Language pack that con...	2	101	INSTALLDIR	8
MsiAssembly	Italian_Pack	Languages	Italian	Language pack that con...	2	101	INSTALLDIR	8
MsiAssemblyName	Japanese_Pack	Languages	Japanese	Language pack that con...	2	101	INSTALLDIR	8
MsiDigitalCertificate	JavaHelper	LogonMgr	Java Helper	Extension helper that a...	10	0	INSTALLDIR	8
MsiFileHash	JavaHelper_IBM	LogonMgr	IBM Java Helper	Extension helper that a...	14	0	INSTALLDIR	8
MsiPatchCertificate	Korean_Pack	Languages	Korean	Language pack that con...	2	101	INSTALLDIR	8
MsiSFCBypass	MSI_Only		installsript engine for si...		0	1	INSTALLDIR	24
Patch	MultiAuth	Authenticators	Authentication Manager	This feature adds the ca...	20	101	INSTALLDIR	8
ProgId	Not_WTS		Not_WTS		0	0	INSTALLDIR	8
Property	Portuguese_Pack	Languages	Portuguese	Language pack that con...	2	101	INSTALLDIR	8
RadioButton	SSOGina	MSAuth	GINA	GINA module that works...	2	0	INSTALLDIR	8
RegLocator	SSONP	MSAuth	Network Provider	Network Provider modul...	4	0	INSTALLDIR	8
Registry	Spanish_Pack	Languages	Spanish	Language pack that con...	2	101	INSTALLDIR	8

Figure 1 ORCA window showing the default configuration for the ESSO-LM package

- b. Include or exclude the desired components as follows:
- To include a component in the package and install it during deployment, set its **Level** value to **1**.
 - To include a component in the package without installing it during deployment, set its **Level** value to **101**. The component will be available for installation after deployment via the **Add/Remove Programs** applet in the Windows Control Panel.
 - To exclude a component from the package, set its **Level** value to **0**. The component will not be available for installation after deployment via the **Add/Remove Programs** applet.

Note: Package components are grouped by category, such as **Synchronization Manager** or **Event Manager**. To include a component that is a child of a given category, you must include that category in the package. For example, to include the **Active Directory Synchronizer**, you must also include its parent, the **Synchronization Manager** node.

Component names displayed in the **Title** column are consistent with the names displayed in the ESSO-LM installer. The default installer tree is shown in [Figure 2](#) on page 9.

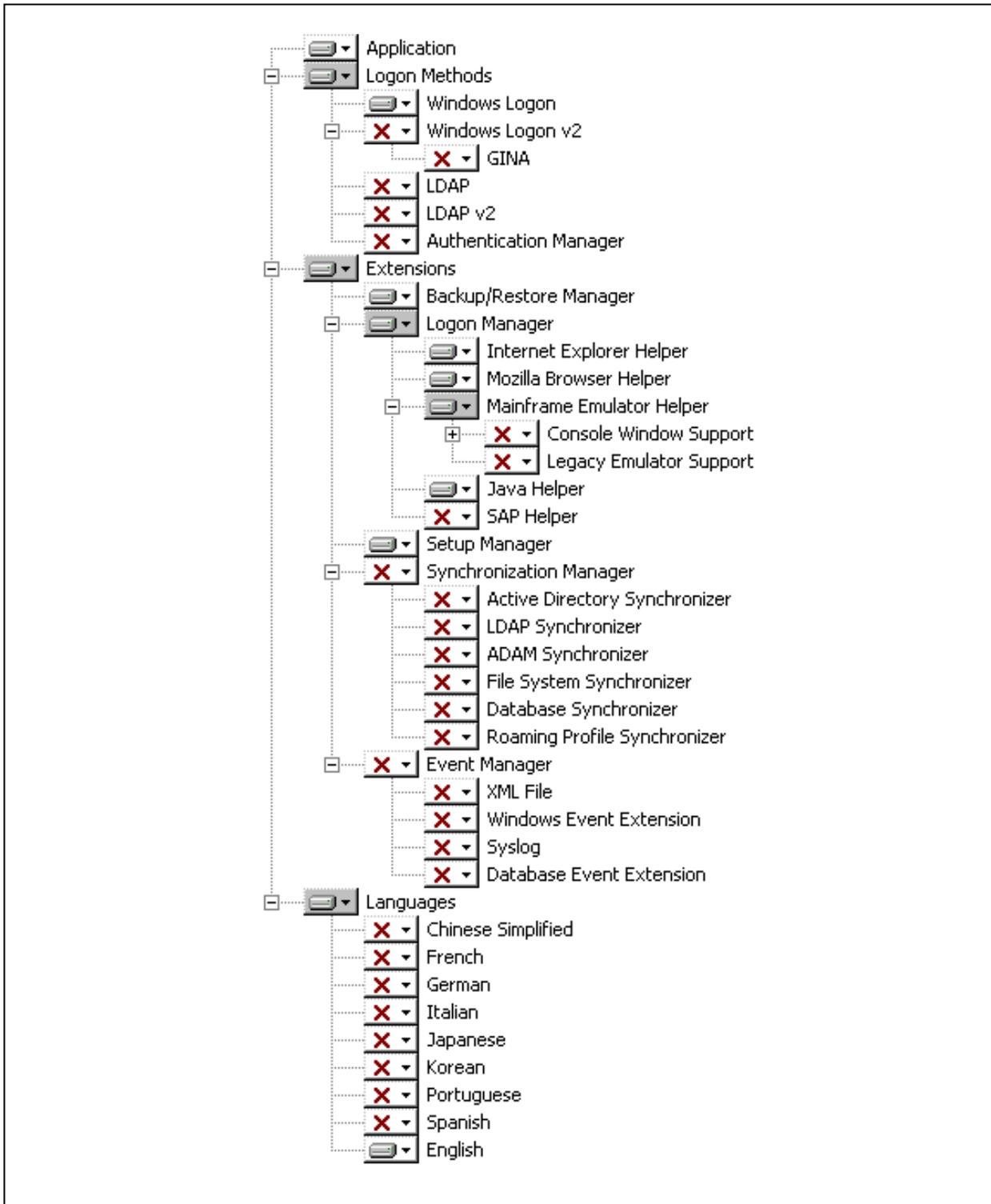


Figure 2 Default ESO-LM installer tree

Follow these guidelines when customizing the contents of the package:

- Do not change any values in the **Feature** table other than the **Level** values.
 - Do not change the **Level** value for the **Java Support** component. This component is installed automatically whenever a JRE or JDK is detected on the target system. To exclude Java support from the package, modify the **Level** value for the **JavaHelper** entries in the **Condition** table instead of the **Feature** table.
 - Do not include unneeded components, especially authenticators. For example, if your primary logon method will be **Windows Logon v2**, exclude the remaining authenticators from the package, unless your environment specifically calls to use them.
- c. Save the package using the **Save** command in the **File** menu.

Warning: If you save the package using the **Save As** command, the package will be corrupted.

For more information on using Microsoft ORCA, see <http://support.microsoft.com/kb/255905>.

Step 3: Prepare the Target Configuration Set

Prepare the target Agent configuration set as follows:

1. Start the ESSO-LM Administrative Console.
2. In the tree in the left-hand pane, right-click **Global Agent Settings** and select **Import** → **From Live HKLM** from the context menu that appears.
3. Rename the **Live** configuration set to properly identify it as package settings:
 - a. Under **Global Agent Settings**, right-click the **Live** node and select **Rename** from the context menu.
 - b. Enter **Package Settings** and hit **Enter**.
3. Blank the values of and exclude (disable) all settings that specify an absolute path to a file:

Caution: If you do not complete this step, deployment will fail on environments (such as Citrix) where the target installation path differs from the path hardcoded in the package. The installer automatically substitutes the correct paths during deployment.

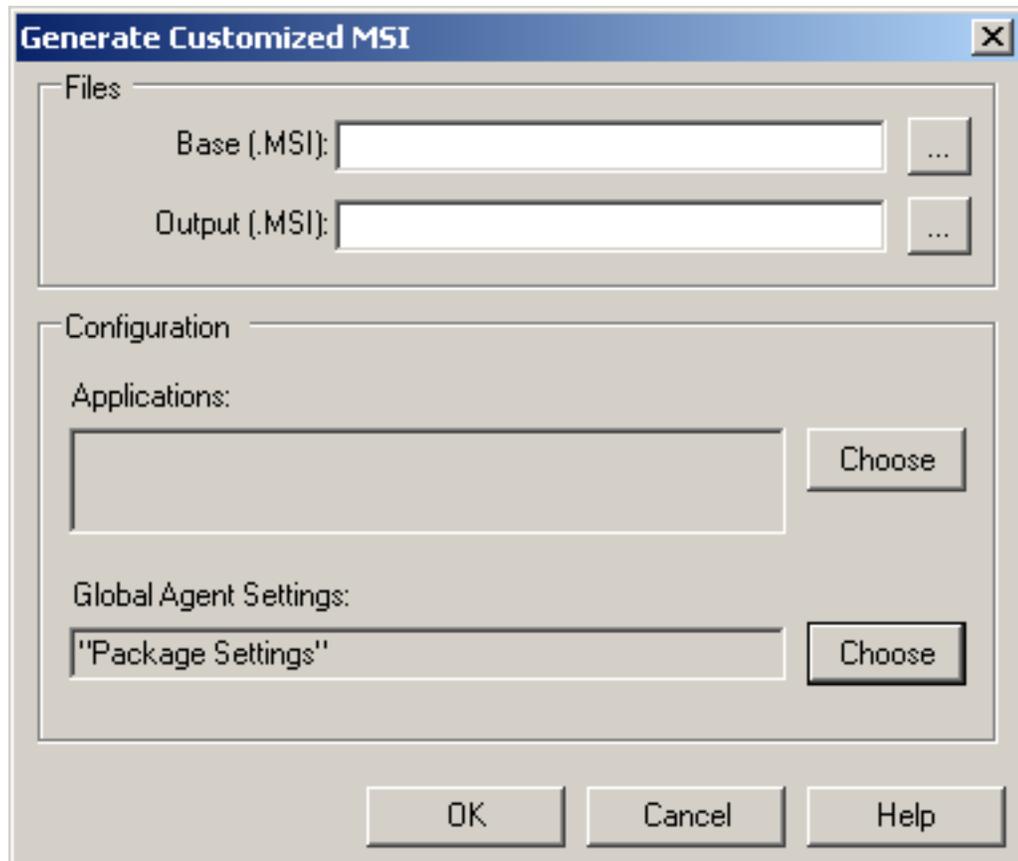
- a. For each event logging method under **Event Logging**, delete the value and deselect the check box for the **Extension location** setting. Do the same for the **Event Server Message Library location** setting under **Event Logging** → **Advanced**.
- b. For each included synchronizer under **Synchronization**, delete the value and deselect the check box for the **Extension location**.

Caution: Do **not** write these customized package settings to the local registry (i.e., use the **Write to Live HKLM** function). Doing so will break the configuration set and result in a non-functioning deployment.

4. Save the package settings to an XML file for future reference:
 - a. From the **File** menu, select **Save**.
 - b. When prompted, enter **Package Settings** as the file name and click **Save**.

Step 4: Generate the Final MSI Package

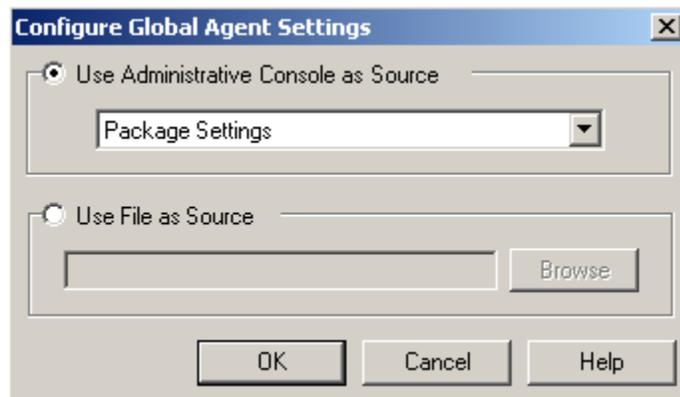
1. In the Console, select **Generate Custom MSI** from the **Tools** menu. The console displays the “Generate Customized MSI” dialog:



2. In the dialog, do the following:
 - a. In the **Base (.MSI)** field, click the **Browse (...)** button, navigate to the MSI package you modified using ORCA, and click **Open**.
 - b. In the **Output (.MSI)** field, click the **Browse (...)** button and name the output MSI file. Use the same name as in step **2a** but omit the word “base”. Click **Save**.

Caution: Do not include any application templates in the MSI package. Templates become outdated very quickly and for this reason should only be delivered to end-users via synchronization with the central repository.

- c. In the **Global Agent Settings** field, click **Choose**. The Console displays the “Configure Applications” dialog:



- d. In the dialog, make sure **Use Administrative Console as Source** is selected.
- e. Select **Package Settings** from the drop-down list and click **OK**.
- f. Click **OK** in the parent dialog and wait for the Console to generate the package.
- g. When the package has been successfully generated, the Console displays a confirmation message. Click **OK** to dismiss the message.

Step 5: Test the Package (Pilot Deployment)

Once you have generated your custom MSI package, test it by installing it on one or more pilot machines. Always install the package on a clean machine – that is, one that does not contain any ESSO-related files or registry entries. If you are using the same machine to test multiple packages, you must clean it up before installing a new package so that old settings and files do not remain. If the installer detects existing data, it will perform an upgrade instead of a normal installation, resulting in false problems and false positives during testing.

1. Delete the following directories:
 - `\Program Files\Passlogix` and all of its contents
 - On Windows Vista: `\Users\\AppData\Roaming\Passlogix`
 - On Windows 2000 and Windows XP:
`\Documents and Settings\\Application Data\Passlogix` and all its contents
2. Delete the following registry keys:
 - `HKEY_LOCAL_MACHINE\Software\Passlogix` including all sub-keys
 - `HKEY_CURRENT_USER\Software\Passlogix` including all sub-keys

When testing the package, look for any deployment and configuration problems; Oracle highly recommends that you set up a dedicated test environment so that you can perform a full range of staging tests, including the chosen global Agent settings, administrative overrides, synchronization with your central repository, and response to applications. The last item will require that you create a set of pilot templates and test them against a selected set of applications. This will let you spot and correct any application response issues that would have otherwise arisen (and been much more costly to resolve) in production.

Step 6: Deploy the Tested Package to End Users

When the package has been fully tested and verified, use a deployment tool (such as Microsoft Systems Management Server) to deploy ESSO-LM enterprise-wide.