LifeCycle Manager Administration Guide

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Version Log

The version log describes the changes between versions of this document.

Part Number	Release Date	Description
1.0	2013-02	Initial 10.1.0.0 version
2.0	2013-05	GA version 10.1.0.0
3.0	2013-12	Update to version 10.1.1.0
4.0	2014-05	Update to version 10.1.2.0

Contents

Overview

1

What is LifeCycle Manager?

LifeCycle Manager is a framework that facilitates standardized and uniform installation, maintenance, and management of M3 products. This framework enables administration and customization of several servers and products from a centralized location. For information about supported platforms, see the System Requirements in *LifeCycle Manager Installation Guide*.

Intended Audience

This document is primarily meant for LifeCycle Manager users and administrators who manage M3 and Lawson products.

LifeCycle Manager Roles and Security

There are three levels of users in a LifeCycle Manager environment:

- LifeCycle Manager Administrators

  Members of this group are allowed to execute all tasks throughout the server environment.
- Product Installation Administrators

Members of this group are allowed to administer and perform tasks on a specific product installation, as well as on all product installations that are children to it.

Note: An administrator group can be defined for each product installation.

To be able to set the administrator group for a product installation, you need to be administrator for the parent of that product installation (or be a LifeCycle Manager administrator). This exception also applies to the Adding a Path and Removing a Path tasks.

- Viewers

  All users that can log on to LifeCycle Manager can view information about managed servers and installed applications. The users, however, are not allowed to perform any task, unless the task is explicitly defined as a “viewer task”.

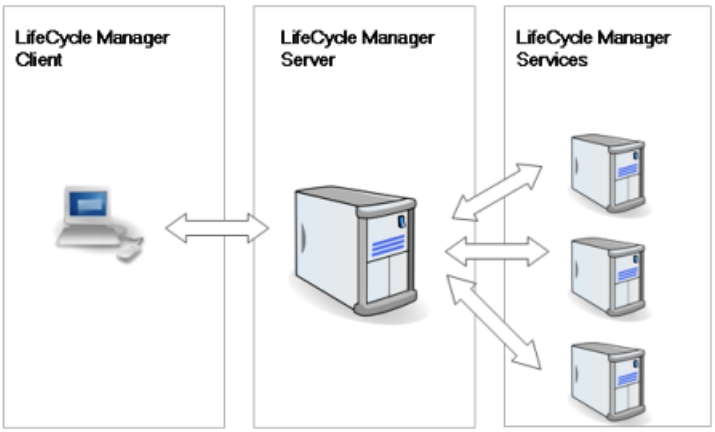
LifeCycle Manager Architecture

LifeCycle Manager is a framework that helps in installing, managing, and maintaining several M3 and Lawson products, service packs, fix packs, and fixes.

It comprises the following:

- LifeCycle Manager Server – containing database, product packages and associated scripts
- LifeCycle Manager Service – containing installed services that are administered with the help of LifeCycle Manager Server
- LifeCycle Manager Client – containing product plug-ins

The LifeCycle Manager Client connects to the LifeCycle Manager Server, which, in turn, connects to each LifeCycle Manager Service as shown in the following diagram:



LifeCycle Manager Server

A LifeCycle Manager Server must first be installed in the network before a service can be installed. A LifeCycle Manager Service is installed on all servers that are managed using LifeCycle Manager, such as application servers and database servers.

LifeCycle Manager Service

A LifeCycle Manager Service receives scripts and packages from the LifeCycle Manager Server, then executes the scripts. The progress and logs are sent back to the LifeCycle Manager Server, which, in turn, forwards the information to the client.

The Service also exposes local resources to the client. For example, the Service allows the client to browse certain folders and read log files.

Note: When upgrading the LCM Server the services will be updated as well.

LifeCycle Manager Client

LifeCycle Manager Client is the user interface for the LifeCycle Manager Server. The Client can browse the content on the servers, and enable LifeCycle Manager Server to perform tasks, for example, "install service pack A for product B installed on server C".

The LifeCycle Manager Server then performs the task by copying scripts and packages to a LifeCycle Manager Service, which executes the scripts and send progress and logs back to the client. Each script requires certain input. It is the responsibility of the client to retrieve this input, for example, by executing a wizard.

The clients can receive new plug-ins that enable them to administer new products, and update existing products.

Logging on to the LifeCycle Manager Client

Use this procedure to log on to the LifeCycle Manager Client.

❑ Log on to the LifeCycle Manager Client

___**1** On the Start menu, click the LCM-Client shortcut. It will have the name provided during the installation.

Important: If you installed the LifeCycle Manager Client under the Program Files folder and have User Account Control (UAC) enabled and did not change the compatibility level for the LifeCycle Manager.exe file, then you must right-click the LifeCycle Manager Client shortcut (for example, LCM-Client) and select Run as administrator from the menu.

The LifeCycle Manager login page is displayed.

___**2** Provide necessary information. Consider the following fields:

User	Specify your LifeCycle Manager user name.
Password	Specify the corresponding password for the user.

Server	Specify the IP address or domain name of the LifeCycle Manager Server.
Port	Specify the LifeCycle Server port number. The default value is 4060.
Workspace	Accept default path to the workspace, or click the Browse button to select a different workspace location.

___**3** Click Log On. The server certification information window is displayed when the LifeCycle Manager Client connects to a server for the first time.

___**4** Click Yes to accept the certificate. A message is displayed asking you to update the client.

___**5** Click Yes then click OK to restart LifeCycle Manager. The LifeCycle Manager login page is displayed.

___**6** Specify the required information and click Log On. LifeCycle Manager is now started. A dialog box is displayed if a new Java configuration file for Grid applications is available on the CCSS server.

___**7** Click Yes to review the changes. A compare window is displayed.

___**8** Click Apply New Version to apply the new configuration file.

Note: For more information regarding Retrieving Grid Java Configuration see the *LifeCycle Manager Administration Guide*.

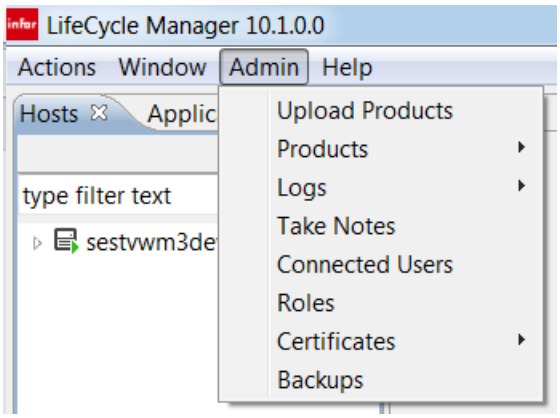
Important: If you attempt to log on to a version of LifeCycle Manager Server earlier than 10.1.2.0 using your newly installed client, a message is displayed informing you that an earlier version of LifeCycle Manager Client is required to connect to that server.

Using the Admin Menu

2

Admin Menu

The Admin menu provides common work management functions for LifeCycle Manager. The Admin menu is only visible for LifeCycle Manager administrators. You can access these management functions from the Admin menu as shown below:



The following sections provide information about the different menu options in the Admin menu.

Upload Products / Manage Products

This feature allows you to upload or disable a product, and unregister its non-applied components. For more information about uploading and disabling a complete product or unregistering its components, see Uploading a Product, Disabling a Product and Unregistering a Product Component.

Take Notes

This feature allows you to create a note for reference. For more information about creating notes, see Taking Notes

Connected Users

This feature allows you to see all users currently logged in or connected to the LifeCycle Manager Server. For more information about viewing connected users, see Viewing Connected Users.

Roles

This feature allows you to view all groups declared in the LDAP server, including the list of members as well as the corresponding administrated products of each group. This feature also allows you to clear the LDAP cache. For more information about LDAP groups, see Viewing Roles and Clearing the LDAP Cache.

Trace Logs

This feature allows you to view trace logs. For more information about viewing logs, see Viewing Client or Server Logs.

Product Logs

This feature allows you to view logs for different products whenever a log path is specified in the product package. An example of a product package containing log paths is WebSphere Application Server (WAS). A log path is created for each application server when you perform the following tasks: attach a WAS middleware, create a WAS profile, create an application server in WAS, and start an application server.

For more information about viewing product logs, see Viewing Product Logs.

Validate Dependencies

This feature gives an overview of products that are affected by product dependencies between different versions of installed products. The feature could also check dependencies in middleware and operating system versions. The information here does not replace the System Requirements for the installed products. Instead, it complements the requirements specified in the corresponding Installation Guide in order to help system administrators trace possible problems in the installation.

For more information about viewing product dependencies, see Uploading a Product Dependency Package and Viewing Product Dependencies.

Backups

This feature allows you to instantly back up the LifeCycle Manager Server by pressing the Backup Now button. You can also view the backup properties information from the lcm.properties file. For more information about backing up files, see Backing Up the LifeCycle Manager Server and Changing Backup Settings.

Monitor Certificates

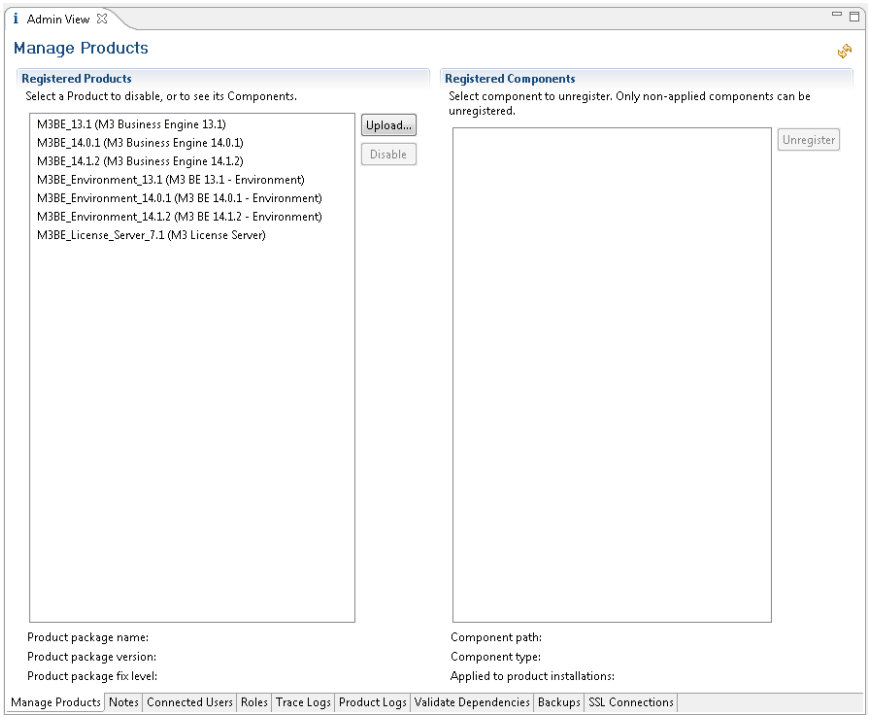
This feature allows you to add or remove SSL connections, or to check SSL certificates retrieved from the said connections. For more information, see Managing SSL Connections.

Uploading a Product

Use this procedure to upload a product to the LifeCycle Manager Server.

To upload products

1 Select Admin > Upload Products. The Admin view is displayed and the Manage Products tab is opened by default.



2 Click Upload. The Select packages to upload window is displayed.

3 Select a package to upload.

4 Click Open. A progress window is displayed followed by a verifying package window.

5 Click Yes to register the package on the LifeCycle Manager Server.

6 When the task is finished, a window indicating a successful registration is displayed. Click OK.

7 A window is displayed asking you if you want to update your client. Perform one of the following actions:

- Click Yes if you are finished uploading the package.
- Click No if you have more packages to upload.

8 When the update of the client is finished, a window is displayed informing that the client needs to restart. Click OK to restart the client.

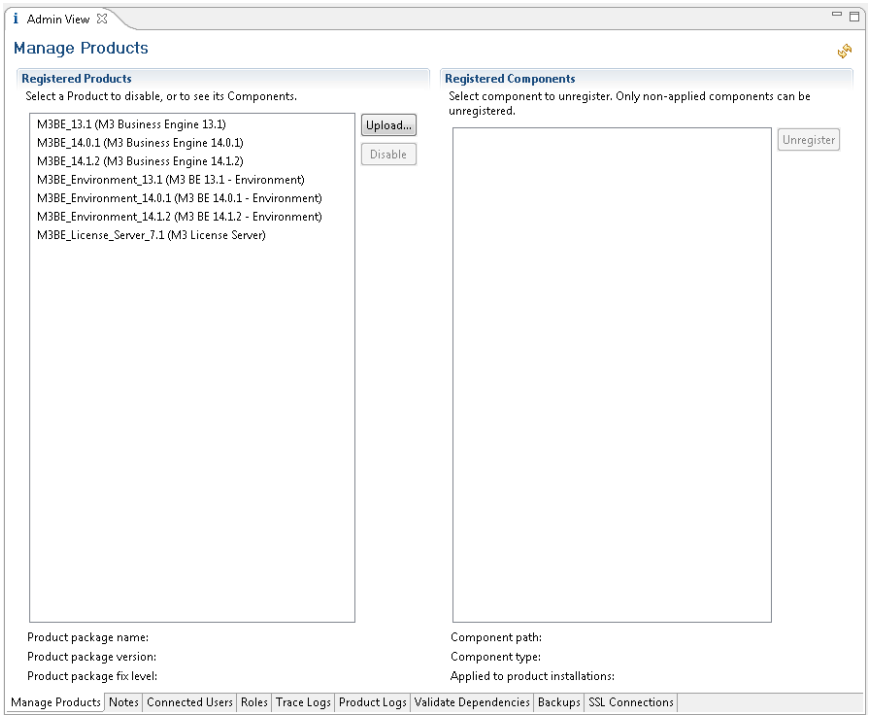
The product package uploaded to the LifeCycle Manager Server is now included in the list of Registered Products in the Manage Products tab.

Disabling a Product

Use this procedure to disable a product in the LifeCycle Manager Server.

To disable a product

1 Select Admin > Products > Manage Products. The Admin view is displayed and the Manage Products tab is opened by default.



2 Select a product in Registered Products. A list of components is displayed in Registered Components.

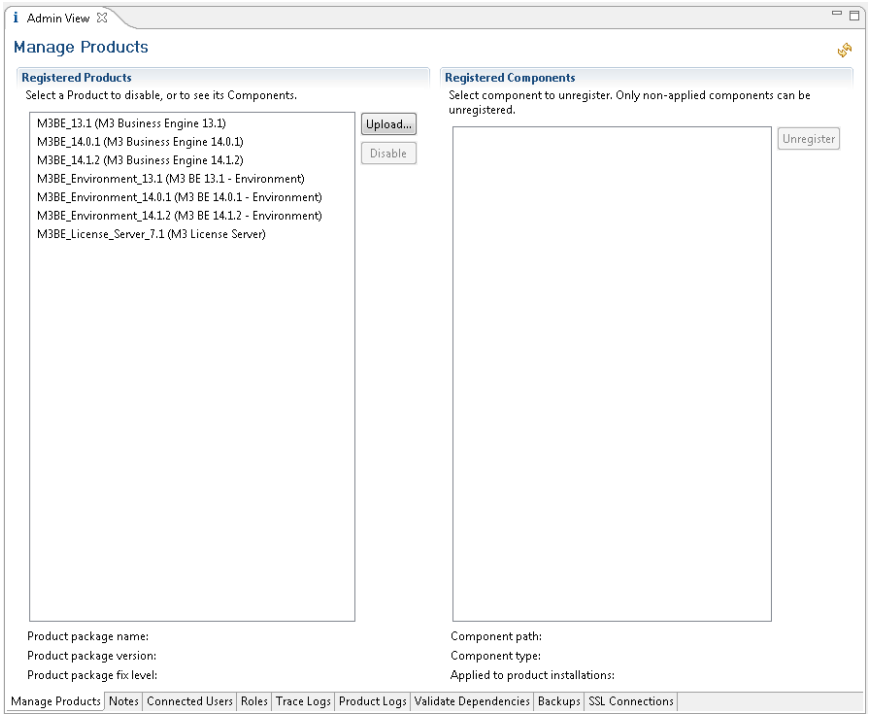
3 Click Disable. The product is now disabled in the LifeCycle Manager Server and is grayed out in the list of Registered Products in the Manage Products tab, and the CCSS channel in Retrieve Fixes is removed. You can no longer install this product in LifeCycle Manager.

Unregistering a Product Component

Use this procedure to unregister one or more product components from the LifeCycle Manager database, and remove it from the LifeCycle Manager Server.

To unregister a product component

1 Select Admin > Products > Manage Products. The Admin view is displayed and the Manage Products tab is opened by default.



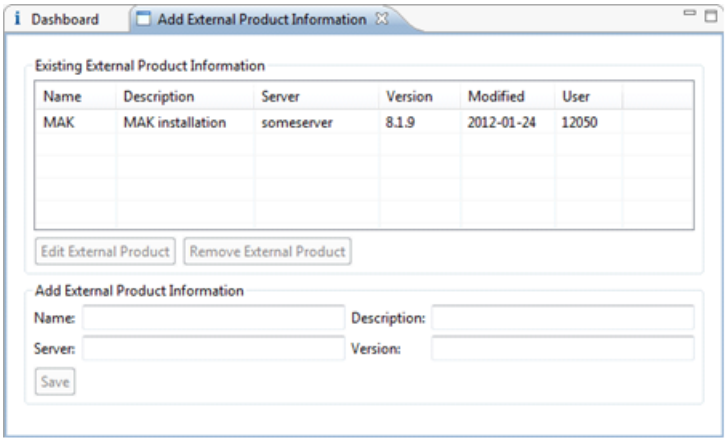
2. Select a product in Registered Products. A list of components is displayed in Registered Components.
3. Select a product component in the list. Only non-applied components displayed in black font are allowed to be unregistered.
4. Click Unregister. The Confirm Unregistration window is displayed.
5. Click Yes. A progress window is displayed.
6. When the task is finished, another window is displayed, notifying you that the unregistration is successful. Click OK.

   The product component selected is now unregistered from the LifeCycle Manager database and removed from the LifeCycle Manager server.

Adding External Product Information

This task allows you to add information about products that are not installed or maintained by LifeCycle Manager. The menu option is only available for LifeCycle Manager administrators.

1. Select Admin > Products > Add External Products.



2 Fill in the fields to add information about other products. Click Save.

Information you add here will be included when product information is exported. For more information, see "Export Product Information" in the *LifeCycle Manager User Guide*.

Uploading a Product Dependency Package

Use this procedure to upload Product Dependencies. Some Infor products that are maintained in LifeCycle Manager have included a product dependency package in their product package. If the product dependency package is not included, you can upload one, if there is one available for the product.

To upload a product dependency package

1 Select Admin > Products > Validate Dependencies. The Admin view is displayed and the Validate Dependencies tab is opened by default.

2 Click Upload. The Select packages to upload window is displayed.

3 Browse the location of the dependency package that you want to upload.

4 Click Open. A progress window is displayed.

5 When the task is finished, a window is displayed. Click OK or click View log. You can also go to the Logs tab to view the log file.

The dependency package uploaded to the LifeCycle Manager Server is now included in the list of Products in the Validate Dependencies tab.

You can now view the product installations that violate the dependency rules for that product. When there are no violations found, the tab will be blank. For more information, see Viewing Product Dependencies.

Viewing Product Dependencies

Use this procedure to view Product Dependencies. Some Infor products that are maintained in LifeCycle Manager have included a product dependency package in their product package. If the product dependency package is not included, then you must upload one first, if there is one available for the product. For more information, see Uploading a Product Dependency Package .

To view product dependencies

1. Select Admin > Products > Validate Dependencies. The Admin view is displayed and the Validate Dependencies tab is opened by default.
2. Select a Product in the list.

   The Detailed Information section displays any violations in dependency rules or mismatches in name or version numbers between a product and its required or recommended dependencies. A message at the end of this section compares the installed product against the required or recommended installations.

Retrieving Grid Java configuration

Use this procedure to retrieve a configuration file from the CCSS server. The configuration file contains information on which Grid applications should be running on 32-bit or 64-bit Java. The file is then used by Grid when deploying a Grid application or when scaling out to a new host.

To retrieve a Grid Java configuration file

1. Select Admin > Products > Retrieve Grid Java Configuration.
2. Click Yes to confirm retrieval of Java configuration for Grid applications.
3. Click OK.

Viewing Product Logs

Use this procedure to view Product logs. You can only view Product logs for Infor products, which are maintained by LifeCycle Manager, that have added the functionality to display their log files here.

To view product logs

1. Select Admin > Logs > Product Logs. The Admin view is displayed and the Product Logs tab is opened by default.
2. Select a product in the first list. The second list will automatically be populated with available product logs.
3. Select a Product log in the second list. The selected product log file is opened in the Product Logs tab.

Viewing Client or Server Logs

Use this procedure to view all LifeCycle Manager Server and Client logs.

To view client or server logs

1. Select Admin > Logs > Trace Logs. The Admin view is displayed and the Trace Logs tab is opened by default.
2. Select the type of log you want to view in the list. Consider the following options:
   - Client.log shows error, warnings, and other information from the LifeCycle Manager Client side.
   - Server.log shows error, warning, and other information from the LifeCycle Manager Server side. It can be found on the LifeCycle Manager Server.
3. Click Save Zip if you want to save the log file.

Taking Notes

Use this procedure to create notes for reference in the Take Notes tab.

To take notes

1. Select Admin > Take Notes. The Admin view is displayed and the Take Notes tab is opened by default.
2. Click Insert Timestamp. The current date and user are displayed in the first line of the notepad.
3. Type the content of your note and other comments.
4. Click Save to save your note. A message that your note is saved to the server is displayed.

Viewing Connected Users

Use this procedure view all users connected to the LifeCycle Manager Server.

To view connected users

- Select Admin > Connected Users. The Admin view is displayed and the Connected Users tab is opened by default.

  The users connected to the server and the corresponding hosts of the users are displayed in the list.

Viewing Roles

Use this procedure to view all connected LDAP groups and LDAP users that are administrating installed products in LifeCycle Manager.

To view Roles

1. Select Admin > Roles. The Admin view is displayed and the Roles tab is opened by default.
2. Select a group in Connected LDAP Groups. The list of Administrated Products and members of the selected LDAP group are displayed.

Clearing the LDAP Cache

Use this procedure to clear the LDAP cache. The LDAP cache contains information about LDAP group membership of LifeCycle Manager (LCM) users. When a user's LDAP group membership changes, it takes up to one hour before the LDAP cache is reset enabling the user to login using the new LDAP group membership rights.

To clear the LDAP cache

1. Select Admin > Roles. The Admin view is displayed and the Roles tab is opened by default.
2. Click the Clear LDAP cache button at the upper right section of the Roles tab.
3. When the task is finished, a window is displayed informing you that the LDAP cache was successfully cleared. Click OK.

Monitoring Certificates

Use this procedure to check certificates stored in keystores.

To manage Keystore Certificates

1 Select Admin > Certificates > Monitor Certificates. The Admin view is displayed and the Monitor Certificates tab is opened by default.

2 Perform one of the following actions:

Check certificate	This option allows you to view information about a certificate, including expiration date.
Unregister certificate	This option allows you to unregister the selected certificate.

Managing SSL Connections

Use this procedure to add or remove SSL connections or check SSL certificates retrieved from these connections.

To manage SSL connections

1 Select Admin > Certificates > Monitor Certificates. The Admin view is displayed and the Monitor Certificates tab is opened by default.

2 Perform one of the following actions:

Check certificates	This option allows you to view information about a certificate, including expiration date.
Edit connection	This option allows you to change the host, port, and description of an SSL connection.
Remove Connection	This option allows you to delete any selected or added SSL connection.

3 If you want to add an SSL connection, provide the following information. Consider the following fields:

Host	Type the Host of the SSL Connection.
Port	Type the Port of the SSL Connection.
Description	Type a description of the new SSL Connection.

4 Click Save to apply the changes.

Retrieving Trusted Signing Certificates

All product packages uploaded to LifeCycle Manager are signed with a code-signing certificate trusted by LifeCycle Manager.

Use this task to retrieve the latest trusted signing certificates from the CCSS server. The menu option is only available for LifeCycle Manager administrators.

1 Select Admin > Certificates > Retrieve Trusted Signing Certificates.

A Confirm retrieval message box appears.

2 Click Yes to retrieve the latest certificates.

An message box appears with a list of certificates that have been retrieved from the CCSS server.

Backing Up the LifeCycle Manager Server

Use this procedure to back up the LifeCycle Manager Server. The following components are included in the backup:

- lcm.properties file
- Database (lcmdb folder)
- Client files (client folder)
- Certificates (JSSE folder)
- Log files (log folder)
- Uploaded product packages (products folder)
- CCSS packages of the EXTERNAL_FIX type that are only accessible from the download site **`http://<lcmserver>:4062/ccss/`** (ccss folder).
- Infocenter (online help) webarchives (war folder)
- Grid files (grid folder, only applicable if any Grid is installed)

For more information about changing the backup settings in the lcm.properties file, see Changing Backup Settings.

To back up the LifeCycle Manager Server

1 Select Admin > Backups. The Admin view is displayed and the Backups tab is opened by default.

Important: The status of the backup settings is displayed in Backup Properties. The green text Backup Path Set is displayed when backup settings are set in LCM.properties. Otherwise, the red text No Backup Path Set is displayed.

2 Click Backup Now to backup the database.

3 If you want to restore a backup, a script named **`restoreLCM`** exists in the script-folder in the LifeCycle Manager Server installation.

Changing Backup Settings

You can configure the backup settings for the LifeCycle Manager Server database directly in the lcm.properties file. The lcm.properties file is located at *LCMInstallDir***LCM-Server**.

The following properties need to be configured:

database.backup.host=10.20.30.40	Only valid for Linux. This is the host where the backups will be stored. The backup host must be trusted by the user owning the LifeCycle Manager Server. If the backup was not configured during installation, this must be configured manually. **Note:** It is recommended to place the backup on a server different from the server where LifeCycle Manager Server is installed.
database.backup.path=	For Windows: The path needs 4 backslashes before the IP address (or name), and 2 backslashes between IP address (or name) and folder names. The folder names must exist and be shared. For example: **`database.backup.path=\\\\10.20.30.40\\lcmbackup`** **Note:** It is recommended to place the backup on a server different from the server where LifeCycle Manager Server is installed. For Linux: **`database.backup.path=/u01/app/LCMBackup`**

database.backup.path.user=	This is the user having the necessary privileges to access and create files on the backup host under the specified backup path. For Windows: **`database.backup.path.user=Domain\\Benny`** **Note:** If the backup server is a member of a domain, then use *`Domain`*`\\`*`User`*. If the backup server is not a member of a domain then use *`Server`*`\\`*`User`*. For Linux: **`database.backup.path.user=lcm`**
database.backup.path.password= ##018Ui4uo1Y=	This is the password of the backup user. Type the password in clear text. This password is encrypted when the LifeCycle Manager Server is restarted. **Important:** The backup user password cannot end with @
database.backup.weekday=-1	This is the backup schedule for the database. Every day (-1) or once a week (1=SUNDAY, ..., 7=SATURDAY).
database.backup.hour=1	This is used to set the hour at which the database is backed up (0-23).
database.backup.days=-1	This is used to select the option to never remove backup (-1) or delete after set number of days (0-999).

General Tasks

3

Installing a Product

There are many ways to install a product in the LifeCycle Manager Server. You can use any of the following options to launch the Install wizard:

- Use the Install Product task in the Actions menu.
- Right-click an object in the Hosts or Applications tab and select Install Product in the context menu.
- Click the Install Product task on the Dashboard.

For more information about product-specific installation procedures, see the Installation Guide for the product to be installed.

Attaching a Product or Middleware

There are many ways to attach a middleware or product in the LifeCycle Manager Server. You can use any of the following options to launch the Attach wizard:

- Use the Attach Product task in the Actions menu.
- Right-click an object in the Hosts or Applications tab and select Attach Product in the context menu.
- Click the Attach Product task on the Dashboard.

For more information about attaching a product or middleware, see the *LifeCycle Manager User Guide*. For more information about product-specific installation procedures, see the Installation Guide for the product installation.

Setting the Admin Group

Use this procedure to set the group that administers installed products or attached middleware. Persons belonging to the Admin group can change and delegate certain tasks to a specific group of users or administrators.

Important: Only existing groups in LDAP are visible and can be set through this task. Contact your system administrator for changing or setting up LDAP groups.

To set the admin group

1. Right-click a product installation or an attached middleware.
2. Select Set Admin Group > Set Admin Group.

   Tip: You can also set the admin group by clicking Set Admin Group on the Dashboard.

3. If you want to use a filter when searching for groups in LDAP, select the option Search filter.
4. Click Next. The Admin group Information window is displayed.
5. Select an LDAP group in the list that will administer the product installation. The Search status field displays the total number of groups found.
6. Click Next. The Summary window is displayed.
7. Verify the property values, and click Finish.
8. When the task is finished, a window is displayed. Click OK or click View log. You can also go to the Logs tab to view the log file.

   The selected group is now set to administer the product installation.

Detaching a Middleware

Use this procedure to remove any attached middleware from a server.

To detach a middleware

1. Right-click a middleware that you want to detach.
2. Select Detach Middleware. The Detach Middleware window is displayed.

   Tip: You can also detach a middleware by clicking the task Detach Middleware on the Dashboard.

3. Click Next. The Summary window is displayed.
4. Verify the property values, and click Finish.
5. When the task is finished, a window is displayed. Click OK or click View log. You can also go to the Logs tab to view the log file.

   The selected middleware is now detached from the server.

Adding a Path

Use this procedure to add paths to a product installation to allow a product administrator to browse them on a remote server.

To add a path

1. Right-click a product installation.
2. Select Set Admin Group > Add Path. The Path information window is displayed.

   Tip: You can also add a path by clicking the task Add Path on the Dashboard.

3. Click Select. The Browse window is displayed.
4. Select a path on the remote server that you want to add to the product installation and click OK.
5. Click Next. The Summary window is displayed.
6. Verify the property values, and click Finish.
7. When the task is finished, a window is displayed. Click OK or click View log. You can also go to the Logs tab to view the log file.

   The path is now added to the product installation.

Removing a Path

Use this procedure to remove any added path from the product installation.

To remove a path

1. Right-click a product installation.
2. Select Set Admin Group > Remove Path. The Path information window is displayed.

   Tip: You can also remove a path by clicking the task Remove Path on the Dashboard.

3. Select a path that you want delete in the list.
4. Click Next. The Summary window is displayed.
5. Verify the property values, and click Finish.
6. When the task is finished, a window is displayed. Click OK or click View log. You can also go to the Logs tab to view the log file.

   The path is now removed from the product installation.

Updating a LifeCycle Manager Service Name

Use this procedure to update the name of a LifeCycle Manager Service.

To update a LifeCycle Manager Service name

1. Log on to the LifeCycle Manager Client as administrator.
2. Right-click the LifeCycle Manager Service that you want to rename.
3. Select Host > Change Name. The Change Name window is displayed with the current name of the LifeCycle Manager Service.

   Tip: You can also update the service name by clicking the task Change Name on the Dashboard.

4. Type the new name of the LifeCycle Manager Service.
5. Click Next. The Summary window is displayed.
6. Verify the property values and click Finish.
7. Log on to the server hosting the LifeCycle Manager Service as local administrator.
8. Stop the LifeCycle Manager Service by performing one of the following actions depending on the applicable platform:

Platform	Action
Windows	Stop the Windows service
IBM I	Stop the subsystem
Unix	Run the command **`stoplcm`** as the user lcm

9 Perform one of the following actions depending on the applicable platform where LifeCycle Manager Service is running:

Platform	Action
Windows	Run the script **`renameWindowsService.cmd`** found in the service folder of the LifeCycle Manager Service installation path
IBM I	Run the script **`renameLcmService.qsh`** found in the service folder of the LifeCycle Manager Service installation path.
Unix	Run the script **`renameLcmService`** found in the service folder of the LifeCycle Manager Service installation path.

10 Log on to the LifeCycle Manager Client.

11 Verify that you have a connection to the LifeCycle Manager Service.

Updating a LifeCycle Manager Service IP Address

Use this procedure to change the IP address of LifeCycle Manager Service. If the IP address of a server hosting a LifeCycle Manager Service has changed, you need to perform certain steps to make LifeCycle Manager aware of the said change.

To update a LifeCycle Manager Service IP address

1 Log on to the server hosting the LifeCycle Manager Service as local administrator.

2 Stop the LifeCycle Manager Service by performing one of the following actions depending on the applicable platform:

Platform	Action
Windows	Stop the Windows service
IBM I	Stop the subsystem
Unix	Run the command as the user *lcm*: **`stoplcm`**

3 In a text editor, open the file lcmService.properties found in the lib folder of the LifeCycle Manager Service installation path.

4 Take note of the current IP address in the file.

5 Edit the lcmservice.ip property with the new IP address of the server hosting the service or the fully qualified domain name (FQDN).

6 Save the changes in the file lcmService.properties.

7 Run the script **`updateCertificate`** found in the script folder of the LifeCycle Manager Service installation path.

8 Log on to the LifeCycle Manager Client as administrator.

9 Select the server with the changed IP address.

10 Verify that the new IP address is shown in the Information pane on the Dashboard.

Detaching a Database

Use this procedure to detach a database. The database is not physically removed but it is no longer visible or cannot be used from within LifeCycle Manager.

To detach a database

1 Right-click a database that you want to detach.

2 Select Detach Database. The Detach Database window is displayed.

Tip: You can also detach the database by clicking the task Detach Database on the Dashboard.

3 Verify the name of the database that you want to detach.

4 Click Next. The Summary window is displayed.

5 Verify the property values, and click Finish.

6 When the task is finished, a window is displayed. Click OK or click View log. You can also go to the Logs tab to view the log file.

The database is now detached.

General Tasks for SQL Server

4

Attaching a SQL Server instance

Use this procedure to attach a SQL Server instance.

To attach a SQL Server instance

1. Right-click your SQL Server middleware node, and select Attach SQL Server instance. If no new instances can be found a message box is displayed.
2. Accept the default path to the logs, tables and indexes or select a new path. Click Next.
3. Select the instance name to attach, and click Next.
4. From the Summary screen, verify the property values, and click Finish.
5. When the task is finished a dialog appears. Click OK.
6. To view the log file, either click View log or go to the Logs view.

Detaching a SQL Server instance

Use this procedure to detach a SQL Server instance. The instance is not physically removed but it is no longer visible or cannot be used from within LifeCycle Manager.

To detach a SQL Server instance

Note: Make sure that no databases are attached to the instance to be removed.

1. Right-click your SQL Server instance node, and select Detach SQL Server instance.
2. Click Yes to accept and detach the SQL Server instance.
3. When the task is finished, a dialog box appears. Click OK.
4. To view the log file, either click View log or go to the Logs view.

Changing the default root directory for database files

Use this procedure to change the root directory for database files for a SQL Server instance.

To change the root directory for database files

1. Right-click your SQL Server instance node, and select Change default root directory for database files.
2. Select a path to the logs, tables and indexes, and click Next.
3. On the Summary screen, verify the property values, and click Finish.
4. When the task is finished, a dialog appears. Click OK.
5. To view the log file, either click View log or go to the Logs view.

Managing Hosts and Spaces

5

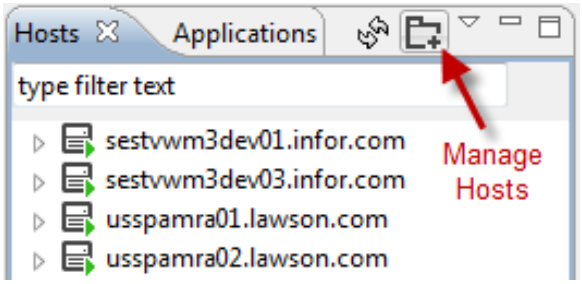
Managing Hosts

You can use the manage host functionality to perform these actions:

- Filter and sort the list of hosts in the Hosts view.
- Add a special kind of host, an "external host".

To filter and sort the list of hosts in the Host view

1 On the Hosts tab, click Manage Hosts to open the Manage Hosts dialog.



2 Use the check boxes next to the list of hosts to select the hosts that will be displayed in the Hosts tab.

3 To sort the list of hosts, select the Use default sorting (name) check box. The list will be sorted by name.

If you clear the Use default sorting (name) check box, you can select a host in the list and use the Up and Down buttons to move the host in the list.

To add an external host

Note: An external host differs from a host that has a LifeCycle Manager service installed. An external host only has a name, an address, and a description. Some products can register a product on an external host, but because it has no LifeCycle Manager service installed it cannot perform actions remotely.

1 In the Manage Hosts dialog, click Add External. The Add External Host dialog is displayed.

2 Specify the required information and click Finish.

Field	Description
Name	Specify a name for this host.
Address	Specify the address, either the IP address or the FQDN name.
Description	Specify a description for this host.

Managing Spaces

The LifeCycle Manager installation has these pre-defined spaces: Production, Test, Development, and Other. Each space has a name, a type, an abbreviation, and a description.

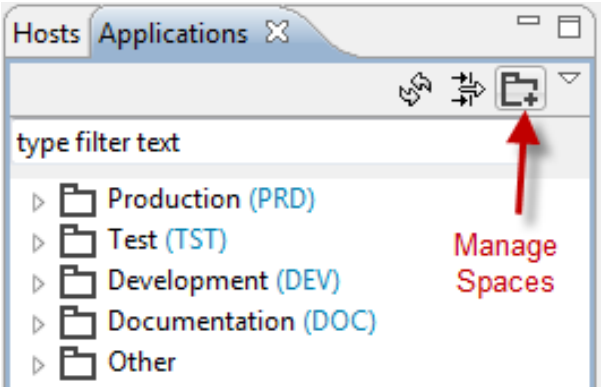
Products that do not belong to another space can be found in the Other space.

You can use the Manage Spaces dialog to perform these actions:

- Sort and filter spaces.
- Add, edit, and remove spaces.

To filter and sort the list of spaces in the Applications view

1 On the Applications tab, click Manage Spaces to open the Manage Spaces dialog.



2 Select the Use default sorting (type and name) check box to sort the list first by space type, then by space name.

3 Use the check boxes next to the list of spaces to select the spaces that will be displayed in the Applications tab.

To add a space

1 In the Manage Spaces dialog, click New.... The Add Space dialog is displayed.

2 Specify the required information.

Field	Description
Name	Specify the name of your space.
Type	Select the type of your space. These types are available: • PRODUCTION • TEST • DEVELOPMENT A product that installs into a space of a test type could choose to configure the product differently compared to when it installs into a space of the production type.
Abbreviation	Specify a three letter abbreviation. This is used by products to default name system entities such as databases, schemas, and environments. If used in a correct way, support personnel and customers will benefit from a common naming standard.

Description	Specify a description for your space.

3 Click Finish.

To edit a space

1 Select a space in the Manage Spaces dialog.

2 Click Edit.... The Edit Space dialog is displayed. You can only change the description.

To remove a space

1 Select a space in the Manage Spaces dialog.

2 Click Remove. You can remove a space if it does not have any installed applications. You cannot remove the Production, Test, Development, or Other space.

Security Administration

6

Changing the Password of an LDAP Bind User

If you are using Active Directory to validate users, LifeCycle Manager gives a warning in advance when the password of the LDAP bind user will expire. The number of days is determined by the ldap.days.before.password.expiration property.

When the password of the LDAP bind user expires, no user can log on to the LifeCycle Manager. Therefore, it is important that you change the password of the bind user before it expires.

Important: The bind user password cannot end with @

After changing the password of the bind user in the domain, edit lcm.properties and enter the new password in the property ldap.bind.password.x. You must type the password in clear text. It is encrypted when the LifeCycle Manager Server is restarted. For more information, see the *LifeCycle Manager Installation Guide*.

Running LifeCycle Manager in a Non-secure Mode

It is possible to run LifeCycle Manager in a non-secure mode which means that no validation towards an LDAP server is done. This action is not recommended for production environments, but can be useful in test and demo environments.

LDAP validation is enabled by default, but it can be disabled by setting the property ldap.validation in lcm.properties to *false*.

When LDAP validation is disabled, the only user who can log on to LifeCycle Manager is **lcmdemo** with lcmdemo as password. This user is granted all privileges and is considered a LifeCycle Manager administrator.

Changing the SSL Certificate

LifeCycle Manager uses a self-signed certificate by default for SSL communication with clients and services. It is possible to replace this certificate with a real certificate issued by a trusted Certificate Authority. However, it may take several weeks to receive the certificate from the Certificate Authority.

The SSL Certificate can be checked using the Monitor Certificates feature from the Admin menu. For more information, see Monitor Certificates.

Requesting a New Certificate

Use this procedure to request a new certificate.

To request a new certificate

1. For Windows:

   Log on to the LifeCycle Manager Server as Windows administrator.

   For Linux:

   Log on to the LifeCycle Manager Server as *root*.
2. Open a command prompt.
3. Go to the JSSE directory in the LifeCycle Manager Server installation path.
4. Create a backup of the servercert keystore file.
5. Create another copy of the servercert keystore file using a different filename. For example, servercert.new.
6. Locate and take note of the password for the servercert keystore in the keystore.password property.of the lcm.properties file

   Important: You will use this password whenever it is prompted in the following steps.
7. Run the following command to delete the ‘server’ alias in the keystore:

   ```
   keytool -delete -alias server -keystore servercert.new
   ```
8. Run the following command to generate a new ‘server’ alias with a new private key in the keystore:

keytool -genkey -alias server -keyalg RSA -dname *distinguished_name* **-keystore servercert.new**

The *distinguished_name* should have the following format:

"CN=*fully_qualified_domain_name_of_LCM_server*,OU=*organizational_unit*,O=*company*,L=*location*,C=*country_code*"

where OU and L are optional.

For example, "**CN=server.company.com,OU=Development,O=Infor,L=Linkoping,C=SE**".

9 Run the following command to generate a certificate request:

keytool -certreq -alias server -file certreq.txt -keystore servercert.new

10 Send the certificate request to a trusted Certificate Authority. It may take several weeks before you receive a valid certificate from the Certificate Authority.

Changing a Certificate

Use this procedure to change a certificate, for example, when you need to change your temporary certificate after you receive a new certificate.

To change a certificate

1 For Windows:

Log on to the LifeCycle Manager Server as Windows administrator.

For Linux:

Log on to the LifeCycle Manager Server as *root*.

2 Open a command prompt.

3 Go to the JSSE directory in the LifeCycle Manager Server installation path.

4 Run the following command to import the certificate chain that you received from the Certificate Authority into the keystore:

keytool -import -alias server -file *p7b_file* **-keystore servercert.new**

The *p7b_file* is a PKCS #7 file that you should have received from your Certificate Authority. This file contains the issued certificate for the LifeCycle Manager Server and all issuer certificates in the chain up to the root certificate of the Certificate Authority.

5 For Windows:

Stop the LifeCycle Manager Server Windows service LCM-Server.

For Linux:

Stop the LifeCycle Manager Server service: **# service lcm-server stop**

6 Replace the servercert file with the servercert.new file.

7 For Linux only. Change the owner of all files in the JSSE directory to *lcm:lcmgroup*:

```
# chown -R lcm:lcmgroup
```

8 For Windows:

Restart the LifeCycle Manager Server Windows service LCM-Server.

For Linux:

Restart the LifeCycle Manager Server service: `# service lcm-server start`

Updating a LifeCycle Manager Service Public Certificate

Use this procedure to update the public certificate for each LifeCycle Manager Service you have installed.

To update a LifeCycle Manager Service public certificate

1 Stop the LifeCycle Manager Service by performing one of the following actions depending on the applicable platform:

Platform	Action
Windows	Stop the Windows Service LCM-Service:*service_name*.
IBM I	Stop the subsystem.
Unix	Run the command **`stoplcm`** as user lcm.

2 Create a backup of the keystore file named *service_name*cert located in the JSSE folder of the LifeCycle Manager Service installation path.

3 Delete the *service_name*cert keystore file.

4 Run the script **`updateCertificate`** located in the script folder of the LifeCycle Manager Service installation path.

5 Restart the LifeCycle Manager Service by performing one of the following actions depending on the applicable platform:

Platform	Action

Windows	Start the Windows Service LCM-Service:*service_name*.
IBM I	Start the service by using the script **`restartService.qsh`**.
Unix	Run the command **`startlcm`** as user lcm.

General Tasks for Java

7

Changing the LifeCycle Manager Server JVM on Windows

Use this procedure to change the LifeCycle Manager Server JVM on Windows.

Before you start Make sure that the correct JVM version is installed on your platform. For more information, see System Requirements in the *LifeCycle Manager Installation Guide*.

To change the LifeCycle Manager Server JVM on Windows

1. Run the **`removeWindowsService.cmd`** script located in the **LCM_server_installation_path/** service folder.
2. Using a text editor, open the **`setEnv.cmd`** script located in the **LCM_server_installation_path/** service folder.
3. Insert the path to the new JDK. For example:

   ```
   @set JAVA_HOME="D:\jdk1.7.0_64"
   ```

4. Run the **`createWindowsService.cmd`** script located in **LCM_server_installation_path/service**.

Changing the LifeCycle Manager Server JVM on Linux

Use this procedure to change the LifeCycle Manager Server JVM on Linux.

Before you start Make sure that the correct JVM version is installed on your platform. For more information, see System Requirements in the *LifeCycle Manager Installation Guide*.

To change the LifeCycle Manager Server JVM on Linux

1. Log on as root.
2. Change the current directory to the service folder where the LCM Server is installed. The default path is **/u01/app/LCM-Server/service**.
3. Remove the old link by running the command:

   ```
   # rm lcmserverjava
   ```
4. Create a new link by running the command: **`# ln –s`** *`<path to the java install folder>`* **`lcmserverjava`**.

   For example:

   ```
   # ln –s /usr/java32/jdk1.7.0_51 lcmserverjava
   ```
5. Restart the LifeCycle Manager Server by running the command:

   ```
   # service lcm-server restart
   ```

Changing the LifeCycle Manager Service JVM on Windows

Use this procedure to change the LifeCycle Manager Service JVM on Windows.

Before you start Make sure that a correct JVM version is installed on your platform. For more information, see System Requirements in *LifeCycle Manager Installation Guide*.

To change the LifeCycle Manager Service JVM on Windows

1. Open a command prompt.
2. Change the current directory to the **Service** folder where the LCM Service is installed. The default path is found in **E:\LifeCycle\<service name>\service**
3. Run the script **`removeWindowsService.cmd`**.
4. Change the current directory to the folder where the LCM Service is installed. The default path is found in **E:\LifeCycle\<service name>**.
5. Remove the old link by running the command: **`rmdir lcmservicejava`** .

6 Create a new link by running the command: **`mklink /J lcmservicejava`** *<path to the java install folder>*.

For example:

`mklink /J lcmservicejava E:\jdk1.7.0_u45_32bit`

7 Change the current directory to the **Service** folder where the LCM Service is installed. The default path is found in **E:\LifeCycle\<service name>\service**

8 Run the script **`createWindowsService.cmd`**.

Changing JVM on IBM i

Use this procedure to change the JVM on IBM i.

Before you start Make sure that a correct JVM version is installed on your platform. For more information, see System Requirements in *LifeCycle Manager Installation Guide*.

To change JVM on IBM i

1 Sign on a 5250 session as user *QSECOFR* or an equivalent user.

2 Type **`qsh`** on the command line and press Enter to start a qshell.

3 Change the current directory to the folder where the LCM Service is installed. The default path is found in **`/LifeCycle/`***<service name>*.

4 Remove the old link by running the command: **`rm lcmservicejava`**.

5 Create a new link by running the command: **`ln –s`** *<path to the java install folder>* **`lcmservicejava`**

For example:

`ln –s /QOpenSys/QIBM/ProdData/JavaVM/jdk70/32bit lcmservicejava`.

6 Change the current directory to the service folder. The default path is found in **`/LifeCycle/`** *<service name>***`/service`**.

7 Restart the LifeCycle Manager Service by running the command **`restartService.qsh`**.

Changing JVM on AIX

Use this procedure to change the JVM on AIX.

Before you start Make sure that a correct JVM version is installed in directory **/usr/java***x* where *x* is the Java version. For more information, see System Requirements in the *LifeCycle Manager Installation Guide*.

To change JVM on AIX

1. Sign on as the user *root*.
2. Change the current directory to where the LCM Service is installed. The default path is found in **/u01/app/LCM10/**<*service name*>.
3. Remove the old link by running the command: **# rm lcmservicejava**
4. Create a new link by running the command: **# ln –s <path to the java install folder> lcmservicejava**

   For example:

   # ln –s /usr/java7_32 lcmservicejava
5. Sign in as user *lcm*.
6. Stop the LifeCycle Manager Service by running the command **stoplcm**.
7. Start the LifeCycle Manager Service by running the command **startlcm**.

Changing JVM on Linux

Use this procedure to change the LifeCycle Manager Server JVM on Linux.

Before you start Make sure that a correct JVM version is installed on your platform. For more information, see System Requirements in the *LifeCycle Manager Installation Guide*.

To change JVM on Linux

1. Log in as user *root*.
2. Change current directory to the folder where the LCM Service is installed. The default path is found in **/u01/app/lcm/**<*service name*>.
3. Remove the old link by running the command:

   # rm lcmservicejava
4. Create a new link by running the command: **# ln –s** <*path to the java install folder*> **lcmservicejava**.

   For example:

```
# ln –s /usr/java32/jdk1.7.0_51 lcmservicejava
```

5 Sign in as user *lcm*.

6 Stop the LifeCycle Manager service by running the command **`stoplcm`**.

7 Start the LifeCycle Manager service by running the command **`startlcm`**.

Updating a Java link

Use this procedure to change an existing Java middleware link to a newer update version of your Java installation. When installing a LifeCycle Manager Service, a Java middleware is attached, and a link to your java installation path is created. A link is also created when you attach a new version.

For example, if you installed the service with a JDK in **`E:\jdk1.7.0_u45_32bit`**, then a link named **`java1.7.0_32bit`** is created in the service installation path as well as a java node named **`Java 1.7.0 32-bit`** is attached in the LCM Client. If you want to use a different update version of Java 1.7 instead, you can use this task to modify the link to point out the preferred version.

Before you start Make sure that a correct JVM version is installed on your platform. For more information, see System Requirements in the *LifeCycle Manager Installation Guide*.

To update the Java link

1 Right-click the Java middleware node.

2 Select Update Java link.

3 Click Select and provide the path to where preferred Java update version is installed.

4 Click Next. A notification message is displayed.

5 Click OK. The Summary window is displayed.

6 Verify the property values and click Finish.

7 When the task is finished, a window is displayed. Click OK or click View log. You can also go to the Logs tab to view the log file.

Note: You will need to restart any Grid nodes utilizing this java link for the change to take effect.

Managing Infor Applications

8

Files with the extension .inforapp or .lawsonapp (for example an Infor Smart Office Mashup) can be uploaded, installed and maintained via LifeCycle Manager. These products may be developed and distributed by Infor, or created by you using development tooling such as the Enterprise Mashup Designer.

These applications have dependencies to other Infor products and can have several component types (for example Grid and LSO) and are therefore installed and maintained in different ways.

For general high-level information on how to upload, install and maintain an Infor application file, follow these steps.

For detailed information on how to install products developed by Infor, see the product documentation.

Uploading an Infor Application to LifeCycle Manager

1. Log in to the LifeCycle Manager Client as an administrator.
2. Click Admin > Upload Products.
3. On the Manage Products page, click Upload. Select the package(s) to upload and click Open.
4. When the task is finished, a dialog appears. Click OK.
5. If the Update dialog is displayed. Click Yes to update and restart your client.

   The name of the Infor Application will show up in the Registered Products list on the Admin view.

Install an Infor Application

1. In LifeCycle Manager Client, click Actions > Install Product.
2. In the Install wizard, select the product to install and click Next.
3. In the Select space for the application page, select the space where you want to install your Infor Application and click Next.

4 In the Select instance for component type page(s), the available locations in the selected space are listed. Select the location where you want to install your Infor Application and click Next.

   Note: On these pages (if several) you will see what component type the .inforapp or .lawsonapp has. It could, for example, be LSO and/or Grid. If it has dependencies to both LSO and GRID, Infor recommends that you select the same location for the Grid component as for the LSO component.

5 If it is a Grid component, select the host to deploy to in the drop-down list and click Next.

6 In the Summary dialog, click Finish to complete the installation.

7 When the task is finished, a dialog appears. Click OK.

   For post-installation instructions on how to configure your Infor product, refer to the specific product documentation.

Upgrade an Infor Application

1 Upload the new version of the .inforapp or .lawsonapp.

2 Double-click on the product (for example LSO) that the .inforapp or .lawsonapp has dependencies to.

3 In the Information section of the Dashboard, select the Infor Applications tab.

4 Click on the "component" link.

5 Right-click the selected component and select Upgrade.

6 In the Select version page, choose the version you want to upgrade to and click Next.

7 In the Summary page, click Finish.

   For post-installation instructions on how to configure your Infor product, refer to the specific product documentation.

Uninstall an Infor Application

1 Double-click on the product (for example LSO) that the .inforapp or .lawsonapp has dependencies to.

2 In the Information section of the Dashboard, select the Infor Applications tab.

3 Click on the "component" link.

4 Right-click the selected component and select Uninstall.

5 In the Uninstall application page, select Uninstall application and click Next.

6 In the Summary page, click Finish.