

IBM Maximo for Utilities
Version 7 Release 6

Installation Guide



Note

Before using this information and the product it supports, read the information in “Notices” on page 15.

Compilation date: June 2016

This edition applies to version 7, release 6, modification 0 of Maximo for Utilities and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. Planning to deploy Maximo for Utilities

IBM® Maximo® for Utilities 7.6 must be installed with IBM Maximo Asset Management 7.6.0.6.

System requirements for Maximo for Utilities

Before you install Maximo for Utilities, your environment must meet all of the hardware and software requirements.

Administrative user rights are required for the installation of Maximo for Utilities.

The installation wizard requires access to the middleware servers that are installed with Maximo Asset Management to complete the installation. You need the administrative user IDs and passwords for the application server, database server, and directory server.

Enterprise system

You install Maximo for Utilities 7.6 on the administrative workstation where Maximo Asset Management 7.6.0.6 is installed.

A complete list of hardware and software requirements is available in the System Requirements section of the Maximo Asset Management wiki (www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM%20Maximo%20Asset%20Management/page/Other%20Maximo%20products%20system%20requirements).

Installation overview

The installation of IBM Maximo for Utilities 7.6 involves installing the product and configuring the software.

Before you begin

Ensure that IBM Maximo Asset Management 7.6 is installed on the computer where you are installing Maximo for Utilities 7.6.

If you previously installed Maximo for Utilities v7.5, ensure that the Maximo for Utilities directory is empty before installing Maximo for Utilities 7.6.

For more information, see the installation topics in the Maximo Asset Management 7.6 IBM Knowledge Center (http://www.ibm.com/support/knowledgecenter/SSLKT6_7.6.0/com.ibm.mam.doc/mam_install/c_ctr_plan_install.html).

For information about upgrading to IBM Maximo Asset Management 7.6, see the Maximo Upgrade Resources website (www.ibm.com/support/docview.wss?rs=3214&uid=swg21266217&context=SSLKT6).

Procedure

1. Back up the middleware servers and the administrative workstation.
2. Prepare the application server:

Application server	Task
WebSphere® Application Server	Ensure that the application server is started. The installation wizard connects to the application server by using the login information that you specify.
WebLogic Server	Ensure that the application server (MAXIMOSERVER) is stopped. If the application server is running, stop the server and wait a few minutes before you start the installation wizard. If the application server is not stopped, the installation process stops.

3. Install Maximo for Utilities.
4. Update the database and build and deploy the Maximo EAR file by using the configuration wizard.
5. If you use Oracle WebLogic Server, or if you deferred the configuration step, manually update the Maximo database and build and deploy the Maximo enterprise archive (EAR) file.

Configuration overview

You can use the Maximo Asset Management configuration wizard to configure a new deployment.

The configuration wizard is launched automatically when the installation wizard is complete. It is called IBM Tivoli®'s process automation engine configuration utility.

When you complete the configuration wizard, the Maximo for Utilities application starts automatically.

If you do not use the configuration wizard to automatically configure the product, you must manually update the database and build and deploy the enterprise archive (EAR) file. Maximo Asset Management includes a command line tool that you can use to manually build and deploy the EAR file. For more information, see Command line configuration (www.ibm.com/support/knowledgecenter/SSLKT6_7.6.0.5/com.ibm.mam.inswas.doc/install/c_IntroductionToTheCommandLineConfigurationProgram.html).

You are required to run the configuration wizard locally on the IBM WebSphere Application Server when you are preparing it for Maximo for Utilities deployment.

Restriction: The configuration wizard does not deploy the EAR file on Oracle WebLogic Server. If your environment includes Oracle WebLogic Server, you must manually deploy the EAR file.

When the installation and configuration steps are complete, you can customize Maximo for Utilities to suit your business needs.

Chapter 2. Installing Maximo for Utilities

You must install Maximo for Utilities on the administrative workstation and in the same directory where Maximo Asset Management is installed.

Procedure

1. Download the Maximo for Utilities product software from IBM Passport Advantage® and extract the installation image to a local directory.
2. Start the launchpad by double-clicking the launchpad file. If your computer is a Windows system, use the launchpad64.exe file. If your computer is a UNIX or Linux system, use the launchpad.sh file.
3. On the Install IBM Maximo Spatial Asset Management pane, click **Install**.
4. After you accept the terms in the license agreement, select the option to use the existing package group **IBM Tivoli's automation suite**.
5. Complete the installation wizard.
6. In the configuration wizard, select **Update Database and Build and Deploy Application EAR Files**.
7. Complete the configuration wizard.
8. When the installation is complete, verify that the Maximo for Utilities component was installed. Log in to Maximo for Utilities and view the system information from the **Help** menu.

Automatically building and deploying the EAR files

If you deferred the configuration step during installation, you can use the configuration wizard to update the Maximo database and build and deploy the EAR file.

Before you begin

Ensure that the installation of Maximo for Utilities is complete.

Procedure

1. Start the configuration wizard by double-clicking the ConfigUI file in the *install_home/ConfigTool* directory.
2. On the home screen of IBM Tivoli's process automation engine configuration utility, select **Update Database and Build and Deploy Application EAR Files**.
3. Complete the configuration wizard.

Manually building and deploying the EAR file

If you do not use the configuration wizard, you must manually update the Maximo database and build and deploy the EAR file. If your deployment uses Oracle WebLogic Server, you are required to complete the manual steps.

Maximo Asset Management includes a command line tool, which is located in the *install_home\ConfigTool\scripts* directory. Command-line configuration quickly updates configuration values without using the configuration wizard. You can use the command line tool to build and deploy the EAR file.

Building the EAR files

To deploy the product, you must update the Maximo database and build and deploy the Maximo EAR file.

Procedure

1. Open a command prompt and change to the *install_home\maximo\tools\maximo* directory.
2. Run the following command:
`updatedb`
3. Change to the *install_home\maximo\deployment* directory and run one of the following commands:

Option	Description
WebSphere Application Server	<code>buildmaximoearwas8</code>
Oracle WebLogic Server	<code>buildmaximoear</code>

Deploying the EAR files on WebSphere Application Server

If you did not use the configuration wizard, Maximo Asset Management includes a command line tool, which you can use to manually deploy the EAR file.

Before you begin

- Update the Maximo database and build the EAR file.
- Ensure that the application server is started.

About this task

The EAR file is installed on WebSphere Application Server during the Maximo Asset Management installation.

Deploying the EAR file starts the application server.

Procedure

1. Open a command prompt and change to the *install_home\ConfigTool\scripts* directory.
2. On Windows systems, run the following command:
`reconfigurePae.bat -action configureProducts -deploymaximoear`

On UNIX or Linux systems, run the following command:

```
reconfigurePae.sh -action configureProducts -deploymaximoear
```

Deploying the EAR file on Oracle WebLogic Server

After you build the EAR file, you must deploy it from the WebLogic Server console.

Before you begin

- Update the Maximo database and build the EAR file.
- On Windows: If the MAXIMOSERVER server is not running, start it from a command prompt.
- On UNIX: Ensure that the WebLogic Server daemon is running.

To view the WebLogic Server console, a Java™ virtual machine must be installed.

About this task

The Maximo EAR file is installed on WebLogic Server during the Maximo Asset Management installation.

Deploying the EAR file starts the application server.

Procedure

1. Open a command prompt and change to the mydomain directory.
 - On Windows systems, the directory path is *weblogic_home\user_projects\domain\mydomain*.
 - On UNIX or Linux systems, the directory path is *weblogic_home/mxadmin/oracle/user_projects/domains/mydomain*.
2. Start WebLogic Server.

On Windows systems, run the following command:

```
startWebLogic.cmd
```

On UNIX or Linux systems, run the following command:

```
./startWebLogic.sh
```
3. Specify the WebLogic Server user name and password.
4. Log in to the WebLogic Server console at `http://hostname:7001/console`.
5. In the WebLogic Server console, follow the instructions to deploy the `maximo.ear` file.

Chapter 3. Installing Maximo for Utilities silently

A silent installation is useful for installing Maximo for Utilities on any computers that are configured in the same way. Instead of using the installation programs, you run commands by using a generated response file that was created during the initial installation of Maximo for Utilities.

Before you begin

To create a response file during the installation of Maximo for Utilities, set the **record** environment variable. On a Windows computer, set **record=true**. On a UNIX or a Linux computer, export **record=true**. When you start the Maximo for Utilities launchpad, the response file is generated in the home directory of the user ID that started the program.

Alternatively, you can modify one of the sample response files that are provided in the installation image.

Ensure that the values in the response file are valid for the target system. The **installLocation** parameter and the **profile id** parameter must correspond with the existing Maximo Asset Management instance.

Procedure

1. Copy the response file and the compressed installation image to the target computer.
2. On the target computer, open a command prompt and change the directory to the location of the Installation Manager program.

Option	Description
Windows	cd C:\Program Files\IBM\InstallationManager\eclipse\tools\
Linux and UNIX	cd /opt/IBM/InstallationManager/eclipse/tools/

3. Silently start Installation Manager by running the following command:

```
imcl -input responsefilename  
-log logfilename -acceptLicense
```

The **-input** parameter determines the path to the response file, and the **-log** parameter determines the path to where the log files are written. The **-acceptLicense** parameter is used to accept the license automatically. For example, on Windows, run the following command:

```
imcl -input C:\tmp\Spatial_Silent_ResponseFile.xml  
-log C:\tmp\silent_install_log.xml -acceptLicense
```

4. After Maximo for Utilities is installed, update the Maximo Asset Management configuration and then rebuild and redeploy the application EAR file from the command line.

Option	Description
WebSphere Application Server	<p>From the R:\IBM\SMP\ConfigTool\scripts directory, run the reconfigurePae command.</p> <pre>reconfigurePae -action updateApplication [-updatedb] [-deploymaximoea] [-deployhelpear] [-wasuser userid] [-waspwd password]</pre>
WebLogic Server	<ol style="list-style-type: none"> 1. From the R:\IBM\SMP\ConfigTool\scripts directory, run the reconfigurePae command. <pre>reconfigurePae -action updateApplication [-updatedb]</pre> 2. Build the application EAR files. <pre>cd <i>install_home</i>\maximo\deployment buildmaximoea // build Maximo EAR</pre> 3. Deploy the application EAR files manually to the application server.

Chapter 4. Installing help locally

Product help for Maximo for Utilities is provided online in IBM Knowledge Center. If you want to install help locally, you can download IBM Knowledge Center and help packages from Fix Central.

Installing help

You can download help packages from Fix Central that contain the same documentation packages that are available online in IBM Knowledge Center. You add the help packages and configuration files to a local installation of IBM Knowledge Center

Procedure

1. To download a locally-installable version of IBM Knowledge Center and help packages from Fix Central, follow the instructions at <http://www-01.ibm.com/support/docview.wss?uid=swg24041962>.
2. Extract the IBM Knowledge Center package to the location where you want to install it. The default installation location is C:\KnowledgeCenter. If you install IBM Knowledge Center to a different location, you must update the path value in the *taxonomy.properties* file for each help package that you install.
3. Extract a help package to a temporary location. The extracted files include one or more plugin folders, a properties file and a taxonomy file.
4. Copy all *com.ibm.prod.doc* plugin folders from the help package to the *install_home/KnowledgeCenter/usr/content/KCXhtml* directory.
5. Copy the properties file to the configuration directory, for example to *install_home/KnowledgeCenter/usr/conf/SSLKT6_7.6.0.5.properties*.
6. Open the *taxonomy.properties* file in a text editor and update the path value, if necessary, to point to the installed location. For example, change the value of the Path property from C:/KnowledgeCenter/usr/content/KCXhtml to E:/IBM/SMP/KnowledgeCenter/usr/content/KCXhtml, where IBM Knowledge Center is installed at E:/IBM/SMP/KnowledgeCenter.
7. Replace the *install_home/KnowledgeCenter/usr/taxonomy/KC_taxonomy.ditamap* with the version of the *KC_taxonomy.ditamap* file that is included in the help package.
8. In the *install_home/KnowledgeCenter/bin* directory, click **startKC.bat** on Windows or **startKC.sh** on Linux or AIX to start IBM Knowledge Center.
9. In a browser, open http://install_home:port/kc to view the product help, for example <http://127.0.0.1:9090/kc>.
10. In Maximo for Utilities, redirect the application help links to point to your local installation of IBM Knowledge Center:
 - a. In the System Properties application, filter for *mx.help* properties.
 - b. Change the *mx.help.host* and *mx.help.port* properties to the host and port values for your local installation of IBM Knowledge Center, such as the default host value of 127.0.0.1 and default port value of 9090.
 - c. Change the *mx.help.path* property value from */support/knowledgecenter/* to */kc/*.
 - d. Save the changes and click **Live Refresh** to update the values in the product database.

11. To stop IBM Knowledge Center, in the *install_home/KnowledgeCenter/bin* directory, click **stopKC.bat** on Windows or **stopKC.sh** on Linux or AIX.

IBM Knowledge Center configuration

IBM Knowledge Center requires minimal configuration to run help packages for IBM products in your local environment. You can also configure it to provide different content in separate instances of IBM Knowledge Center or to run existing Eclipse help plugins in IBM Knowledge Center.

Changing the IBM Knowledge Center URL

If you install IBM Knowledge Center on your local computer, when you start the server, the help is available in a browser at the default URL of <http://localhost:9090/kc>. The host value changes, depending on where you install IBM Knowledge Center. If the default port is already in use, you can change the port value in the *kc_ant.properties* file in the *etc* directory.

If you want to provide different help to different audiences or if you want to host help for product versions that are not compatible with each other, you can install multiple instances of IBM Knowledge Center on the same computer. You rename the additional instances to unique directory names, such as *KnowledgeCenter2* and *KnowledgeCenter3*, and you configure the *kc_ant.properties* file in the *etc* directory so that each instance runs on a different port.

Maintaining taxonomy files

Each product version in the IBM software catalog has a unique taxonomy value that forms part of the URL for the product help on www.ibm.com. For example, the taxonomy value for Maximo Asset Management, version 7.6.0.5, is *SSLKT6_7.6.0.5*, and the URL for the product welcome page is http://www.ibm.com/support/knowledgecenter/SSLKT6_7.6.0.5/com.ibm.mam.doc/welcome.html. The *taxonomy.properties* file and the *KC_taxonomy.ditamap* file control the taxonomy values in IBM Knowledge Center.

Each help package includes a *taxonomy.properties* file that is specific to the product version. You must add this file to the *usr/conf* directory in IBM Knowledge Center. If you add help packages for multiple products to IBM Knowledge Center, the *usr/conf* directory must contain a separate *taxonomy.properties* file for each help package.

The *KC_taxonomy.ditamap* file lists each product version in the IBM software catalog, and the file is frequently updated as new products and new versions of products are released. A basic version of the *KC_taxonomy.ditamap* file is provided as a placeholder in the *usr/taxonomy* directory in IBM Knowledge Center but it does not contain a comprehensive list of product taxonomy values. You must replace this placeholder file with the version of the *KC_taxonomy.ditamap* that is included in the help package.

When you add multiple help packages to IBM Knowledge Center, each help package includes a *KC_taxonomy.ditamap* file. Because of the dynamic nature of this file, the included *KC_taxonomy.ditamap* files might be at different versions. Always use the most recent version of the file because taxonomy values are added to the file incrementally.

Troubleshooting

When you start IBM Knowledge Center after adding a new help package, index and cache files are created to enable faster search and retrieval of help topics. If the new help topics do not show in a browser, check if subdirectories were created for the product version in the runtime/diskcache and runtime/index directories. If these subdirectories were not created, check that the *taxonomy.properties* file exists in the usr/conf directory and that it contains the correct path to the main help plugin in the usr/content/KCXhtml directory. If the *taxonomy.properties* is in the correct location and contains the correct path to the help plugin, it is likely that you forgot to add the latest version of the KC_taxonomy.ditamap to the usr/taxonomy directory.

After troubleshooting, before you start IBM Knowledge Center, you can delete the product version subdirectories in the runtime/diskcache and runtime/index directories, to ensure that the content is fully refreshed.

Help components

Help components include a locally-installable version of IBM Knowledge Center and help packages that contain content plugins for product versions. You can download a locally-installable version of IBM Knowledge Center to deploy help packages in your local environment.

IBM Knowledge Center

A standalone help system that includes a WebSphere Application Server Liberty, version 8.5.5.x, embedded server. IBM Knowledge Center is distributed to Maximo customers on <https://www-933.ibm.com/support/fixcentral/>. IBM Knowledge Center is available for Windows, Linux, or AIX platforms and you can run IBM Knowledge Center on a local computer, server, or read-only media.

After you extract the IBM Knowledge Center package, you add product help packages to it to deploy help in your local environment. You can use IBM Knowledge Center to host help packages for several products at the same time, if the products are on compatible release versions. If you want to host help packages that are not compatible with one another, you can run additional instances of IBM Knowledge Center that you configure to run on different ports.

Help packages

Contain the same documentation that is available on <http://www.ibm.com/support/knowledgecenter> and include one or more content plugins that contain topics in their appropriate directories and the navigation files that control the table of contents for the topics. Help packages also include the following files that are required by IBM Knowledge Center:

- A *taxonomy.properties* file contains the taxonomy value for the product version and the path to the main *toc.ditamap* file for the plugin or plugins in the help package.
- The *KC_taxonomy.ditamap* file lists the taxonomy values for all products in the IBM software catalog. A basic version of this file is included in IBM Knowledge Center but this version of the file is not up-to-date. The *KC_taxonomy.ditamap* file that is included in the help package is the current version of the file when the help package is created.

Help packages include instructions for where to add the plugins and the additional files to IBM Knowledge Center.

IBM Knowledge Center versions

The locally-installable versions of IBM Knowledge Center are based on IBM Knowledge Center, version 1.5. This version has a different look and feel to IBM Knowledge Center, version 2.0, which is on <http://www.ibm.com/support/knowledgecenter>. The functionality is similar but there are some differences in navigation and search. PDF creation is not supported on the locally-installable version.

When a locally-installable IBM Knowledge Center, version 2.0, is available, it will be distributed to customers who want to update their local version.

Maximo Asset Management documentation library

The help packages in the documentation library mirror the product catalog and installation environment. Either the Maximo Asset Management help package or the Maximo Asset Management Multitenancy help package must be installed in the same IBM Knowledge Center environment where you install help packages for industry solutions and add-on products.

The Maximo Asset Management and Maximo Asset Management Multitenancy help packages contain multiple plug-ins. Help packages for industry solutions and add-on products contain one or more plug-ins. When a help package contains multiple plug-ins, one plug-in acts as the navigation plug-in. A navigation plug-in contains the main *toc.ditamap* file that controls the table of contents for all plug-ins in the help package. The *taxonomy.properties* file that is included in the help package specifies the path to the main *toc.ditamap* file.

Maximo Asset Management and Maximo Asset Management Multitenancy help packages include reuse plug-ins. These plug-ins contain topics only. Consuming plug-ins control the table of contents and metadata for the reused topics. The content is used extensively by other help plug-ins and you must install reuse plug-ins in IBM Knowledge Center to provide coherent content and ensure that links resolve.

Maximo Asset Management help package

This help package includes the following plug-ins:

com.ibm.mam.doc

Navigation plug-in, containing the welcome page and product overview, and help for planning, getting started, and managing financial processes.

com.ibm.mam.inswas.doc

Help for installing Maximo Asset Management on WebSphere Application Server.

com.ibm.mam.inswl.doc

Help for installing Maximo Asset Management on Oracle WebLogic Server.

com.ibm.mbs.doc

Reuse plug-in, containing help for administering Maximo Asset Management, application design, workflow design, working with Migration Manager, implementing high availability, and application help.

com.ibm.mif.doc

Reuse plug-in, containing help for integrating Maximo Asset Management data with external applications.

com.ibm.support.mbs.doc

Reuse plug-in, containing troubleshooting and support information for Maximo Asset Management and for industry solutions and add-on products. Troubleshooting topics for industry solutions and add-on products are visible only if that help plug-in is installed in IBM Knowledge Center.

Maximo Asset Management Multitenancy help package

This help package contains a subset of the plug-ins in the Maximo Asset Management help package and the content is aimed at tenants in a multitenancy environment. You cannot install Maximo Asset Management plug-ins and Maximo Asset Management Multitenancy plug-ins in the same instance of IBM Knowledge Center environment. If you want to support both libraries, you must configure separate instances of IBM Knowledge Center to support them.

This help package includes the following plug-ins:

com.ibm.mt.doc

Navigation plug-in, containing the welcome page and product overview, and help topics for planning, getting started, and managing financial processes. Content also includes topics that are specific to a tenant in a multitenancy environment.

com.ibm.mbs.doc

Reuse plug-in. Topics are filtered to exclude information that is not relevant to tenants in a multitenancy environment.

com.ibm.mif.doc

Reuse plug-in. Topics are filtered to exclude information that is not relevant to tenants in a multitenancy environment.

Industry solution and add-on help packages

The help packages for industry solutions and add-on products are intended for use with the associated version of the Maximo Asset Management help package. You can check which version of Maximo Asset Management or Maximo Asset Management Multitenancy is a prerequisite for an industry solution or add-on product version at <https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/IBM%20Maximo%20Asset%20Management/page/Other%20Maximo%20products%20system%20requirements>. You can install non-recommended versions of help packages together but some links might not resolve or some of the features that are described in topics might not be available to users.

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