HP Database and Middleware Automation

For Red Hat Enterprise Linux

Software Version: 10.00

Installation Guide

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Contents

Introduction

This document shows you how to install the HP Database and Middleware Automation (HP DMA) version 10.0 server and connect HP DMA 10.00 to HP Server Automation.

Audience

This guide is intended for system administrators who want to install HP Database and Middleware Automation (HP DMA) version 10.00.

Document Map

The following table shows you how to navigate this guide:

Topic	Description
Pre-Installation Requirements	Information about the requirements to install HP DMA, including what is on the DVD, supported products and platforms, sizing requirements, how to set up the Oracle database, and other requirements.
How to Install HP DMA	Detailed instructions for how to install HP DMA 10.00, including how to install the HP DMA server, how to integrate with HP Server Automation, how to start HP Database and Middleware Automation, and how to set up HP Database and Middleware Automation to be used.
How to Uninstall HP DMA	Instructions for how to uninstall HP DMA 10.00.
How to Upgrade HP DMA	Instructions for how to upgrade HP DMA 10.00.
How to Deactivate Outdated Versions of HP DMA	Instructions for how to deactive outdated versions of HP DMA 10.00.
Reference Information	Links to more information about HP DMA, HP Server Automation, and reference information for the HP DMA baseline command.

Chapter 1

Pre-Installation Requirements

You need to meet the following requirements before you can install the HP DMA 10.00:

Topic	Description
DVD Contents	A description of the contents of the HP DMA 10.00 DVD that is required for the installation.
Supported Products and Platforms	A list of the required products, platforms, hardware, and software.
Sizing Recommendations	Information about the minimum recommended CPU count, RAM, and disk space for the HP DMA server and the HP DMA database server.
Create and Configure the Oracle Database	A description of how the Oracle Database needs to be configured before it can be used by HP DMA 10.00.
Other Requirements	A list of all other pre-installation requirements for HP DMA 10.00.

DVD Contents

This topic describes the folders and files that are included on the purchased HP DMA 10.00 DVD.

Top level folder

Readme.txt	Last minute corrections to instructions and information about files on the media

DMA_10.0_Server_and_Client folder

dma-server-10.00-0.x86_64.rpm	The rpm file that will install the HP DMA 10.00 server.
dma-sa-client-10.00-0.x86_64.rpm	The rpm file that will install the HP DMA 10.00 client that enables HP DMA to integrate with HP Server Automation (SA).
Discovery.zip	Solution pack containing workflows that you can use to discover: • Oracle, SQL Server, and Sybase databases on target servers. • IBM WebSphere and Oracle Weblogic middleware applications on target servers.

DMA_10.0_Documentation

buildinfo.txt	Information about how this DVD was constructed
DMA_10.0_Installation_Guide.pdf	*HP DMA 10.00 Installation Guide*—this document
DMA_10.0_Administrator_Guide.pdf	*HP DMA 10.00 Administrator Guide*
DMA_10.0_User_Guide.pdf	*HP DMA 10.00 User Guide*
DMA_10.0_Release_Notes.pdf	*HP DMA 10.00 Release Notes*
DMA_10.0_Support_Matrix.pdf	*HP DMA 10.00 Solution Pack Support Matrix*

DMA_10.0_Database_Solution_Packs folder

AdvancedDBPatching.zip	Tools that you can use to automate Oracle Database patching CRS or Grid Home, RAC Home, CRS Patchset, Grid Standalone Patch, and Standalone Grid.
AdvancedDBProvisioning.zip	Tools that you can use to automate Oracle Database provisioning, including CRS, ASM, RAC, and Dataguard.
DBCompliance.zip	Tools that you can use to audit your database environment for compliance with a specific security benchmark— for Oracle, MS SQL, and Sybase databases.

DMA_10.0_Database_Solution_Packs folder (continued)

DBPatching.zip	Tools that you can use to patch database components in an efficient, automated way—for Oracle, SQL Server, and Sybase databases.
DBProvisioning.zip	Tools that you can use to create and install new databases—for Oracle, SQL Server, and Sybase databases.
DBRefresh.zip	Tools that you can use to move the contents of a database. For Oracle databases you can use RMAN or Data Pump. For SQL Server databases you can backup and restore. For Sybase Databases you can dump and load.
DBReleaseManagement.zip	Tools that you can use to update any schema, data, server configuration, or security settings—for Oracle, SQL Server, and Sybase databases.

DMA_10.0_Middleware_Solution_Packs folder

ASPatching.zip	Tools that you can use to automate the process of applying fixes and updates to application servers—for IBM WebSphere and Oracle WebLogic.
ASProvisioning.zip	Tools that you can use to automate the process of installing application servers—for IBM WebSphere, Oracle WebLogic, and JBoss.
ASReleaseManagement.zip	Tools that you can use to automate the process of backing up, deploying, and restoring IBM WebSphere application servers and deploying and configuring Oracle WebLogic application servers.

Supported Products and Platforms

Operating System Requirements

HP DMA 10.00 can be installed on the following platform:

Red Hat Enterprise Linux version 6.1 (or later) 64-bit

> **Note:** Although HP DMA will work on other Linux operating systems, HP will only support this certified version.

Hardware Requirements

See the Sizing Recommendations on next page.

Software Requirements

- HP Server Automation version 9.1.x or 9.0.6

  > **Note:** You must purchase this license separately.

- Oracle Database Enterprise Edition version 11g R2 (or later)

  > **Note:** HP does not provide the Oracle Database license to run HP DMA.

Sizing Recommendations

This topic suggests deployment sizing guidelines to help you decide the hardware and infrastructure that you need to deploy HP DMA in your environment. This topic suggests the minimum recommended CPU count, RAM, and disk space for the HP DMA server and the HP DMA database server—the server that houses your Oracle database.

Tip: This topic does not give sizing recommendations for HP Server Automation (SA). The assumption is that SA is already up and running in your environment.

HP DMA Deployment Modes

HP DMA supports the following deployment options:

- Single Server: Install both the HP DMA server and the HP DMA database on a single server
- Dual Server: Install HP DMA on one server and create the HP DMA database on a separate server

Deployment sizing categories

Category	Number of DMA Clients
Small	<100
Medium	<500
Large	1,500+

Note: The number of clients is not an exact measure for sizing. Sizing depends greatly on what you do with the operational system.

Recommended Sizing for HP DMA Components

Sizing recommendations for deploying the HP DMA server:

Category	Number of CPUs (2.66 GHz)	RAM	Disk Space
Small	1	4 GB	25 GB
Medium	2	8 GB	50 GB
Large	4	16 GB	100 GB

Note: The recommendations are minimum requirements for what will be installed. These recommendations are based on dual core installation.

Sizing recommendations for deploying the HP DMA database server:

Category	Number of CPUs (2.66 GHz)	RAM	Disk Space
Small	4	4 GB	50 GB
Medium	4	8 GB	100 GB
Large	4	16 GB	250 GB

Tip: When considering sizing for these types of deployments, each sizing recommendation should be considered independently of whether or not the components are installed on the same server or on different servers. In other words, these sizing recommendations are additive.

Create and Configure the Oracle Database

This topic describes how to create and configure the Oracle database that will be used by HP DMA.

You need a username and password for this Oracle database.

Depending on how your company manages Oracle Database, do one of the following things:

- Have your Oracle database administrator (DBA) create the Oracle Instance and the two tablespaces.
- Perform the Steps to Create and Configure the Oracle Database below.

Your Oracle Database database must be up and running before installing HP DMA.

Steps to Create and Configure the Oracle Database

This topic guides you through the steps to create and configure an Oracle database that will be used by HP DMA 10.00.

In the commands that follow, replace the variables (found within <>'s) with values appropriate for your environment:

Variable	Example	Description
<database_username>	dma	Oracle database username
<database_password>	myOraclePassword	Oracle database password
<Oracle_SID>	dma	Oracle Database Instance
<DMA_data_file>	`/u01/app/oracle/oradata/dma/dma_data1.ora`	Fully qualified path to the `hpdma_data` file
<file_size>	100	File size in MB, a number from 1 to 10000
<DMA_indx_file>	`/u01/app/oracle/oradata/dma/dma_indx.ora`	Fully qualified path to the `hpdma_indx` file

On your Oracle Database system do the following:

1. Have your DBA create an Oracle Database Enterprise Edition version 11g R2 (or later) database to be used by HP DMA. Make sure the Oracle Listener and database are up and running.
2. Connect to the Oracle database and create the `hpdma_data` and `hpdma_indx` tablespaces.

   Tip: Consult your DBA on the autoextends options.

- In most cases run this command: `sqlplus / as sysdba`
- If you have multiple databases set up with remote authentication configured, run the following command instead:

  `sqlplus /@<Oracle_SID> as sysdba`

`create tablespace hpdma_data datafile '<DMA_data_file>' size <file_size>M autoextend on;`

`create tablespace hpdma_indx datafile '<DMA_indx_file>' size <file_size>M autoextend on;`

`exit;`

3. If you do not already have an existing user, create the user, and give the user permissions. For example:

   `create user <database_username> identified by <database_password> default tablespace hpdma_data;`

   `grant connect,resource to <database_username>;`

   `grant create public synonym to <database_username>;`

Other Requirements

HP Server Automation (SA)

HP Server Automation needs to be up and running.

The person who integrates HP DMA with SA—probably your SA administrator—needs the following:

- Root access to the SA server
- Ability to create users, groups, and permissions
- OGSH (SA global shell) access

This person should have the highest possible administrative rights. Although these rights may not be needed for all steps, they will help the process go smoothly.

Servers

You need a separate server for HP DMA. It cannot be on the same server as the SA core server.

Ports

The following ports need to be available:

- HP DMA: 8443 is the default port, but HP DMA can be configured to use a different port if necessary.
- Oracle Database: the Oracle port needs to match how the database is configured—1521 is the default.
- SA: the SA port is 1032.

Firewalls

The firewalls need to have the following ports open:

- Incoming on the port configured for HP DMA
- Outgoing on the ports configured for Oracle Database and SA

The firewalls need to allow SA managed servers running HP DMA workflows to access the HP DMA server on port 8443—or a proxy server can be used.

Privileges

To install packages on all UNIX®-type machines you must log on as a user that has root permissions.

Chapter 2

How to Install HP DMA

This section contains the following topics and should be performed in order:

Topic	Description
Install the HP DMA Server	Step-by-step instructions about how to install the HP DMA 10.00 server.
Integrate HP DMA with HP Server Automation	Step-by-step instructions about how to integrate HP DMA 10.00 with HP Server Automation, to install the HP DMA client software, install the HP Server Automation APX, configure the APX, and install the policy.
Start HP DMA	Directions to start HP DMA 10.00.
Set Up HP DMA	General information about how to use HP DMA 10.00 to set up the connector, roles, capabilities, and targets, and to import a solution pack.

Install the HP DMA Server

This topic guides you through the steps to install the HP DMA server.

In the commands that follow, replace the variables (found within <>'s) with values appropriate for your environment:

Variable	Example	Description
<database_username>	dma	Oracle Database username—must be the same username that you used when you created your Oracle database in Steps to Create and Configure the Oracle Database on page 16
<database_password>	myOraclePassword	Oracle Database password—must be the same password that you used when you created your Oracle database in Steps to Create and Configure the Oracle Database on page 16
<DMA_server>	dma.mycompany.com	Fully qualified hostname to the HP DMA server
<Oracle_SID>	dma	Oracle Database Instance—must be the same instance that you used when you created your Oracle database in Steps to Create and Configure the Oracle Database on page 16
<Oracle_Server>	oracle.mycompany.com	Fully qualified hostname to the Oracle Database server—must be the same server that you used when you created your Oracle database in Steps to Create and Configure the Oracle Database on page 16
<jdbc_string>	`jdbc:oracle:thin:@`*<Oracle_Server>*`:1521/`*<Oracle_SID>*	Java Database Connectivity (jdbc) connection string

On your Red Hat Enterprise Linux 6.1 HP DMA server (*<DMA_server>*) do the following:

1. Get the dma-server-10.00-0.x86_64.rpm file from the HP DMA 10.00 DVD under the DMA_10.0_Server_and_Client folder.
2. Run the following commands as root to install the HP DMA server:

   ```
   $ cd DMA_10.0_Server_and_Client
   ```

   ```
   $ rpm -ivh dma-server-10.00-0.x86_64.rpm
   ```

   Note: You only run the installation command one time.

3. Baseline your database. This will create your schema and put the database into the default state. Run the following commands as root. For example:

   ```
   $ cd /opt/hp/dma/server/tomcat/webapps/dma/WEB-INF
   ```

> **Note:** Replace the arguments with values appropriate for your environment. For readability, the options are listed on separate lines—you need to build the command in a single line.
>
> For a full description of all the baseline options, see HP DMA Baseline Options on page 40.
>
> The following command does not baseline the connector. You will configure the connector later (see Configure the Connector on page 27).

```
$ sh ./dmaBaselineData.sh --create-tables
--create-context
--database-username <database_username>
--database-password <database_password>
--jdbc-connection-string <jdbc_string>
--dma-hostname <DMA_server>
```

4. On your HP DMA server, copy the client library packages from the HP Server Automation server to the HP DMA server `lib` folder. For example:

   > **Tip:** This step should be performed by an SA administrator.

   ```
   $ cd /opt/hp/dma/server/tomcat/webapps/dma/WEB-INF/lib/
   ```

   > **Note:** If the `opswclient.jar` and `twistclient.jar` files already exist in the folder, skip the rest of this step.

   ```
   $ scp root@<SA_Server>:/opt/opsware/twist/extlib/client/
   opswclient.jar .
   ```

   ```
   $ scp root@<SA_Server>:/opt/opsware/twist/extlib/client/
   twistclient.jar .
   ```

5. On your HP DMA server, give read access to the user. For example:

   ```
   $ chmod +r opswclient.jar
   ```

   ```
   $ chmod +r twistclient.jar
   ```

6. On your HP DMA server, give read access to both the group. For example:

   ```
   $ chown hpdma:hpdma opswclient.jar
   ```

   ```
   $ chown hpdma:hpdma twistclient.jar
   ```

> **Note:** You have completed installing the initial stage—the command line setup—of the HP DMA Server.
>
> In the next stage you will integrate HP DMA with HP Server Automation.

Integrate HP DMA with HP Server Automation

This stage of the installation process integrates HP DMA with HP Server Automation.

HP DMA uses HP Server Automation (SA) as an agent infrastructure. HP DMA integrates with SA to authenticate users, associate users with groups, and determine user privileges. HP DMA uses SA to acquire knowledge of servers and to send requests to execute workflows on servers. Before HP DMA can actually work, you have to perform a series of integration steps on your SA system as well as on your new HP DMA server.

You should work closely with your SA administrator to perform the tasks listed below. Your SA administrator may have guidelines or policies for specific aspects of the integration—for example, setting up SA users with HP DMA access privileges. Furthermore, your SA administrator may have implemented a fine-grained security model requiring different users to perform different tasks in the list below. It is a good idea to delegate the actual SA integration to your SA administrator.

Note: Any server that will be used as an HP DMA target needs to be managed by SA. It must also have the HP DMA Client policy.

Overview of the HP DMA/SA integration steps:

1. Determine SA groups that will have HP DMA access privileges.
2. Determine the SA user that HP DMA will use to connect to SA. This user must be permitted to access SA APIs.
3. Install the HP DMA client components on the SA server.
4. Install the HP DMA Automation Platform Extension (APX) on the SA server.
5. Install the HP DMA Client policy on the SA server.
6. Attach and remediate the HP DMA Client policy on all SA managed servers that will be used as HP DMA targets.

In the commands that follow, replace the variables (found within <>'s) with values appropriate for your environment:

Variable	Example	Description
<SA_ Server>	saserver.mycompany.com	Fully qualified hostname of the HP Server Automation server
<DMA_ server>	dma.mycompany.com	Fully qualified hostname of the HP DMA server

Requirements

- Make sure that you have met all the requirements in Pre-Installation Requirements on page 10.
- You have already installed and configured the HP DMA server software. If you have not done so, see Install the HP DMA Server on page 20.
- The HP DMA server and client need to be installed on the same system—the HP DMA server.

Install the HP DMA Client for SA

Note: The HP DMA client software is used to create an HP DMA software policy in HP Server Automation (SA). This needs to be done once per SA mesh.

Get the dma-sa-client-10.00-0.x86_64.rpm file from the HP DMA 10.00 DVD under the DMA_10.0_Server_and_Client folder, and then run the following commands as root:

```
$ cd DMA_10.0_Server_and_Client
```

```
$ rpm -ivh dma-sa-client-10.00-0.x86_64.rpm
```

Install the HP Server Automation APX

This topic describes how to set up the groups and users who will access the SA Automation Platform Extension (APX).

Tip: The following steps must be performed by an SA administrator.

Your SA administrator may have a security model that is more fine-grained. Follow your SA policies for naming and granting permissions to groups.

On the SA server to which HP DMA will connect, do the following:

1. Create an SA group, for example, DMA Admins.

   Note: This group will be used to handle HP DMA administrative duties. Later you will register this group as an HP DMA role (see Register HP DMA Roles on page 28) and after that give this role the capabilities to be an HP DMA administrator (see Assign HP DMA Capabilities on page 29).

2. Add at least one SA user to the DMA Admins group.
3. Create an SA group, DMA Workflow Runners.

   Note: This group will be used to handle running HP DMA workflows. Later you will register this group as an HP DMA role (see Register HP DMA Roles on page 28) and after that give this role Login Access capability (see Assign HP DMA Capabilities on page 29).

4. Add one or more SA users to the DMA Workflow Runners group.
5. Create more SA groups as you need them. For more information, see the *HP DMA 10.00 Administrator Guide*.
6. Create an SA user—for example, dma_connector_user—who will install the client files policy (see Install the HP DMA Client Files Policy on next page) and will configure the connector (see Configure the Connector on page 27).

   Note: This user does not need to be a member of either of the groups you just created.

Import the APX

This topic describes how to configure the SA Automation Platform Extension (APX).

Tip: The following steps must be performed by an SA administrator.

The requirements for the SA user (<*SA_APX_User*>) who imports the APX are:

- This SA user has been granted OGSH (SA global shell) access.
- This SA user needs the following permission under the **Automation Platform Extension** section:

  Manage Extensions—Read & Write
- This SA user needs to have Read, Write, and Execute permission on the / (root folder) to upload the APX to `/DMA_APX`.

1. On the HP DMA server, copy the HP DMA APX to the SA server. For example:

   ```
   $ scp -P 2222 /opt/hp/dma/server/client_bits/westapx.zip
   <SA_APX_user>@<SA_Server>:/tmp
   ```

2. Log in to the SA server global shell, and install the APX using the defaults, for example:

   ```
   $ ssh -p 2222 <SA_APX_user>@<SA_Server>
   $ cd /tmp
   $ unzip westapx.zip
   $ cd com.hp.dma.conn.sa.westapx
   $ apxtool import -f /DMA_APX
   ```

   Note: This creates the `/DMA_APX` folder.

3. The SA administrator must grant list, read, and execute permission to the DMA Workflow Runners group for the `/DMA_APX` folder. This is done from the SA Java client UI.

Install the HP DMA Client Files Policy

This topic describes how to create a DMA_Client folder that will contain the policy files.

Tip: The following steps must be performed by an SA administrator using the HP Server Automation Client.

The requirements for the SA user (<*SA_Policy_User*>) who installs the policy are:

- The SA user (<*SA_Policy_User*>) needs the following permissions under the **Policy Management** section:

  Manage Software Policy—Read & Write
- The SA user (<*SA_Policy_User*>) needs the following permissions under the **Package**

Management section:

Manage Package—Read & Write

To install the DMA Client Files policy on your SA Server, <*SA_Server*>:

1. Create a folder `/DMA_Client` and grant list, execute, and read permission to the SA user that you created in Install the HP Server Automation APX on page 23, step 6—for example, dma_connector_user.

   Note: The SA user (<*SA_Policy_User*>) needs read, write, and execute permission for the `/DMA_Client` folder to upload the policy.

2. Copy, as root, `upload.tar`, `publicKey`, and `dmaPolicy.jar` from the HP DMA server to the SA server. For example:

   ```
   $ mkdir -p /tmp/upload_bits

   $ cd /tmp/upload_bits

   $ scp root@<dma_server>:/opt/hp/dma/server/client_bits/upload.tar .

   $ scp root@<dma_server>:/opt/hp/dma/server/tomcat/webapps/dma/
   WEB-INF/publicKey .

   $ scp root@<dma_server>:/opt/hp/dma/server/tomcat/webapps/dma/
   WEB-INF/lib/dma.jar dmaPolicy.jar
   ```

3. On the SA Server, untar the `upload.tar` file into a known folder, run the `dma_upload` script using your SA account. For example:

   ```
   $ tar -xvf upload.tar

   $ sh ./dma_upload.sh -u <SA_Policy_User> -p <SA_Policy_Password>
   -d /DMA_Client -k /tmp/upload_bits/publicKey
   ```

4. *Optional:* To verify that the policy has been properly uploaded, perform the following in the HP Server Automation Client:

   Go to **Library** > **By Folder** > `DMA_Client`

   The `DMA_Client` folder should be populated. Verify that DMA Client Files—Software Policy is included.

5. For each server that will be used as an HP DMA target, attach and remediate the DMA Client Files policy.

Note: This completes the installation steps.

Next you should start HP DMA (see Start HP DMA on next page).

Start HP DMA

The first time you start HP DMA you need to log in as the default initial HP DMA administrator (`dma_initial_admin`) to configure the operating environment.

1. Start the HP DMA 10.00 server as root, for example:

   ```
   $ service dma start
   ```

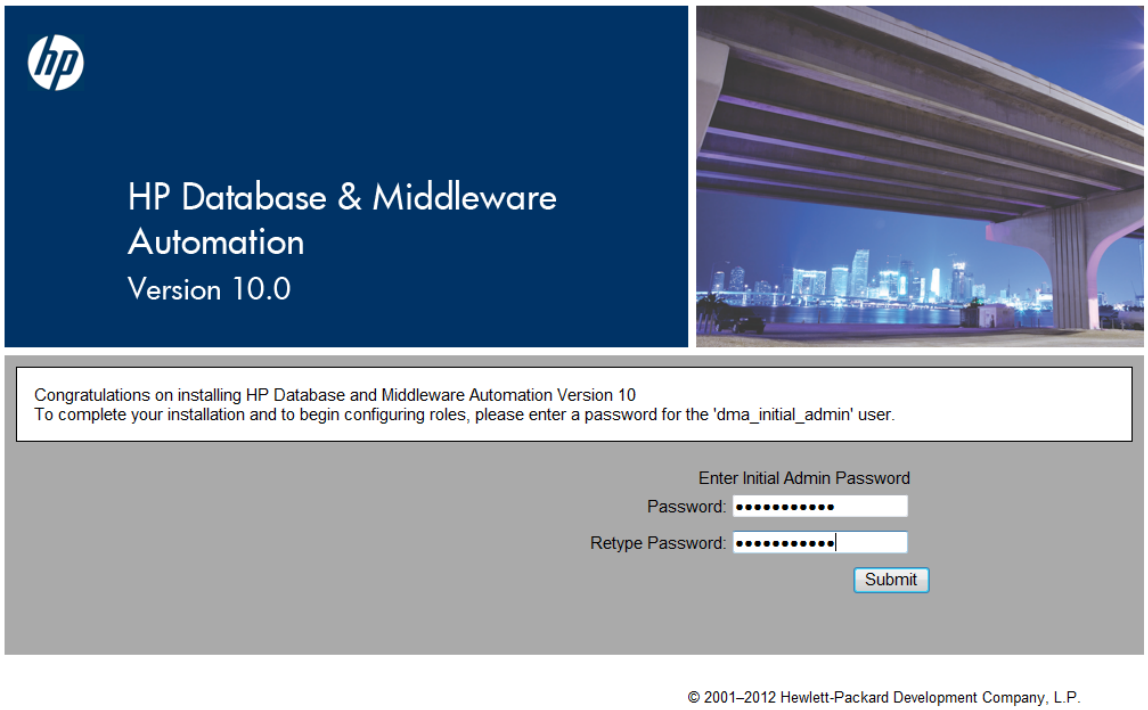
2. Use a web browser to connect to the HP DMA server:

   `https://<DMA_Server>:8443/dma`

   where *<DMA_Server>* is the fully qualified hostname of your HP DMA server.

3. Accept the certificates.

   You will see the following page:



4. Enter an initial password for the dma_initial_admin user, retype the password, and then click **Submit**.

5. To log in, enter `dma_initial_admin` for the username, enter the new password for the password, and then click **Login**.

Note: Next you should complete the HP DMA setup using the user interface, see Set Up HP DMA on next page.

Set Up HP DMA

Note: Two HP DMA administrators must configure the HP DMA operating environment.

The initial default administrator, dma_initial_admin, must perform the following steps:

- Configure the Connector below
- Register HP DMA Roles on next page
- Assign HP DMA Capabilities on page 29

Next, an HP DMA user whose role has Administrator capability—for example, the DMA Admins role—must perform the following steps :

- Add Available Targets on page 29
- Import an HP DMA Solution Pack on page 32

Configure the Connector

This topic describes how to configure the connector that enables HP DMA and SA to communicate.

Note: You only do this once.

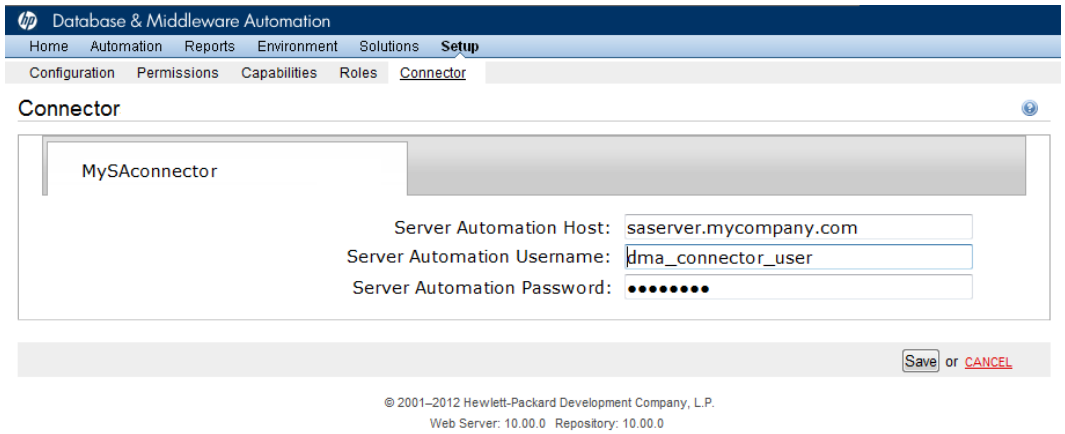
While you are logged in as the initial HP DMA administrator, dma_initial_admin, do the following:

1. On the connector page, click the **Add Connector** button in the lower right corner.

   If you are not on the connector page, go to **Setup** > **Connector**.

2. Specify a name for your connector, and then click **Enter**.
3. Specify the Server Automation Host, Server Automation Username, and Server Automation Password for your connector:

   This is the SA user that you created in Install the HP Server Automation APX on page 23, step 6—for example, dma_connector_user.



4. Click **Save**.

Register HP DMA Roles

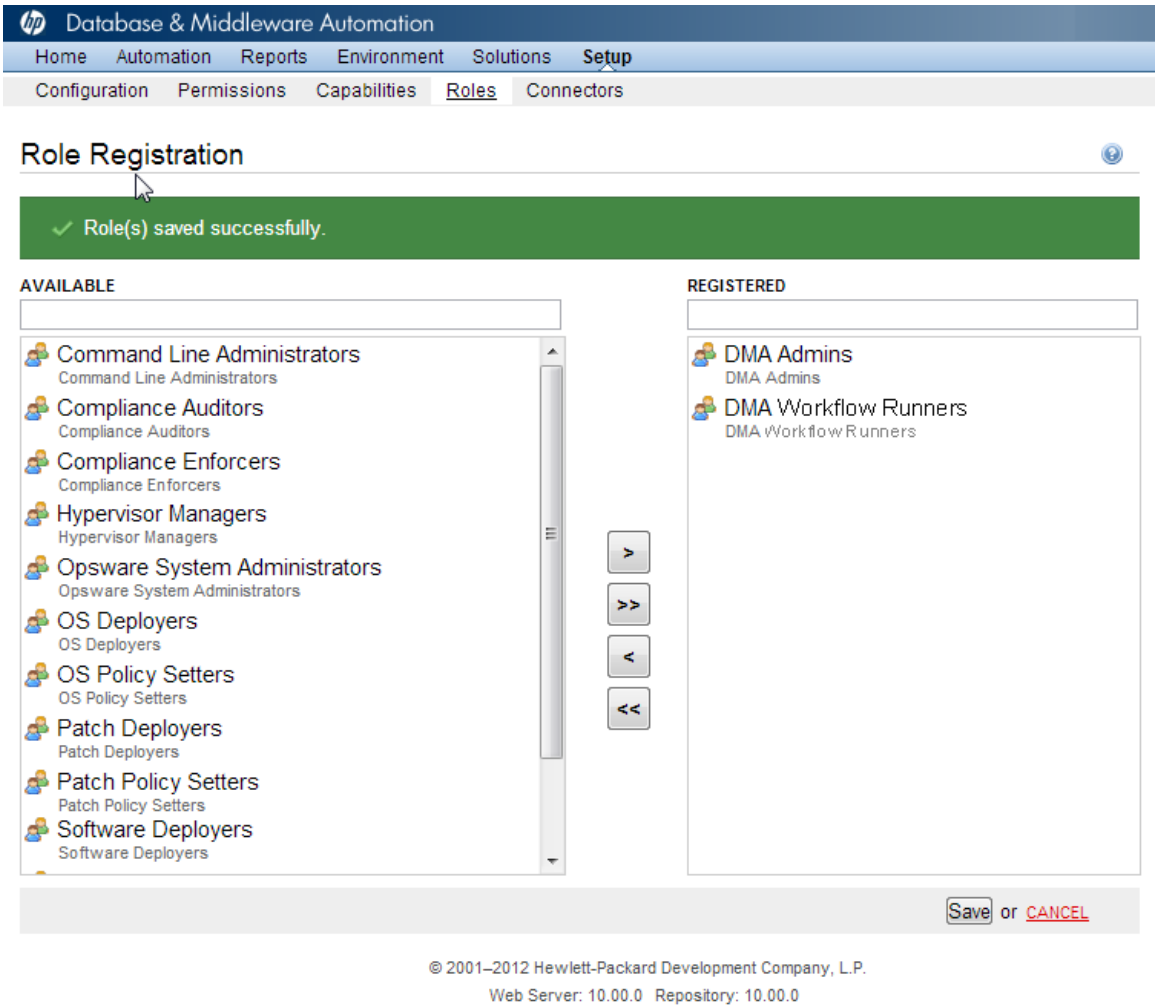
HP DMA obtains the complete set of available roles from HP Server Automation—including the groups that your SA administrator set up in Install the HP Server Automation APX on page 23.

While you are logged in as the initial HP DMA administrator, dma_initial_admin, do the following to register the roles that you want to use:

1. Go to **Setup** > **Roles**.

   The roles that are available to be registered are listed on the left. The roles that are already registered are listed on the right.

2. Select an AVAILABLE user-group on the left (for example: DMA Admins or DMA Workflow Runners), and then click the > button. The selected role moves to the REGISTERED list on the right.



3. Click the **Save** button to save your changes.

Assign HP DMA Capabilities

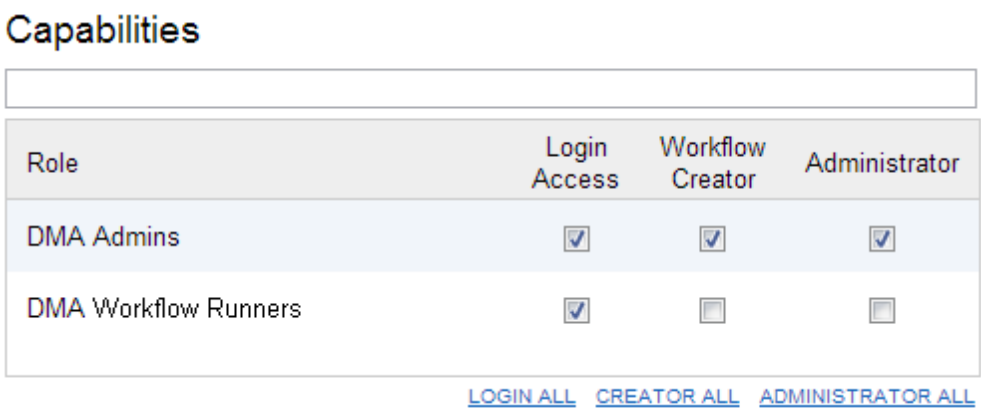
Capabilities are collections of related privileges. You need to assign capabilities for each role registered in the previous step.

While you are logged in as the initial HP DMA administrator, dma_initial_admin, do the following to assign capabilities to roles:

1. Go to **Setup** > **Capabilities** .
2. Select a role on the left.
3. To assign a capability to a role, select the desired capabilities.

   For example, if DMA Admins is your HP DMA administrator role, assign Login Access, Workflow Creator, and Administrator capabilities. If DMA Workflow Runners is your role for only running workflows, assign Login Access capability.

   Note: To be able to import solution packs the role must have Administrator capability.



4. Click **Save** in the lower right corner.
5. Log out of HP DMA.

   Note: This will log you out as the default initial administrator, dma_initial_admin.

Add Available Targets

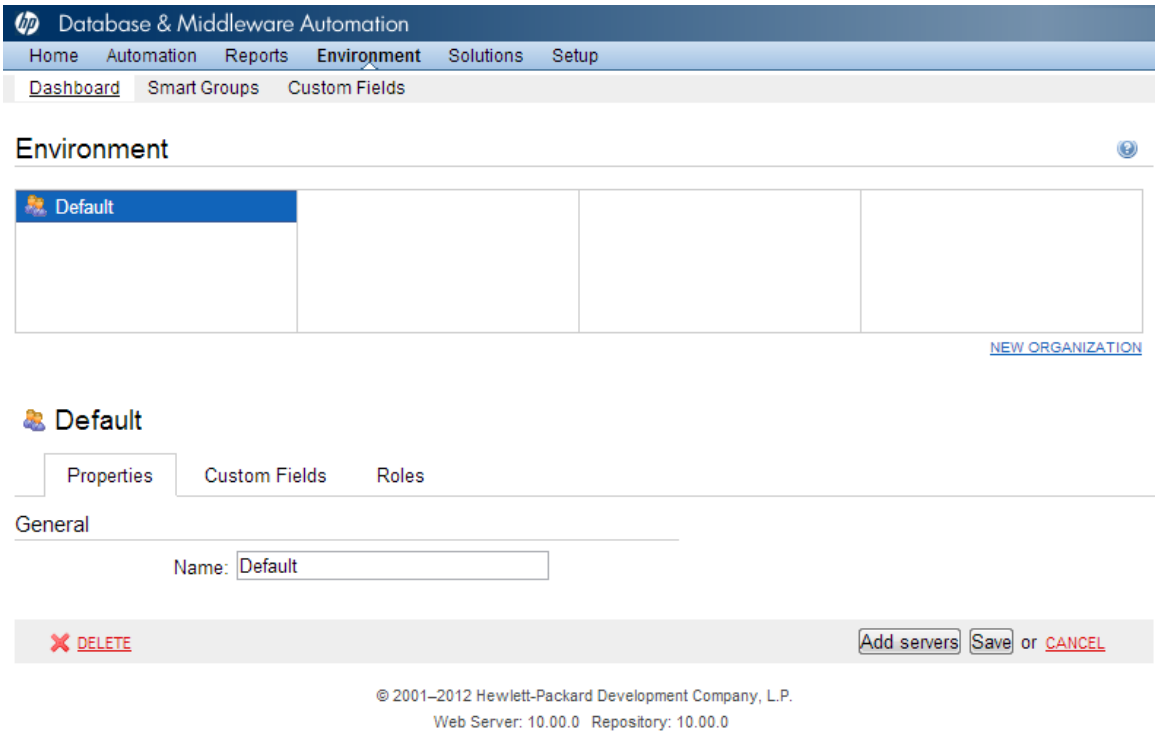
You need to make target servers available to HP DMA users.

Log in to HP DMA as a user with Administrator capabiliity—for example, a user with the DMA Admins role.

To add servers:

1. Go to the **Environment** page.
2. In the top Environment box, click **Default**.

Note: If you desire to create and use other organizations, refer to the *HP DMA 10.00 Administrator Guide*.

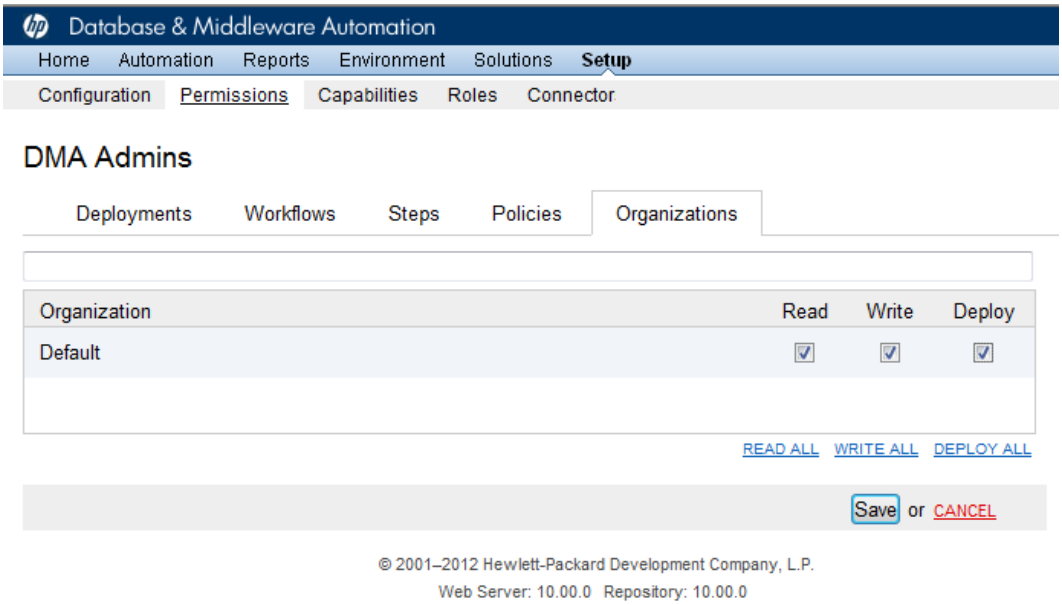


3. Click **Add servers** in the lower right corner. A new page will appear.
4. Select any servers that you want to use as HP DMA targets.

5. Click **Add** and then click **Save** in the lower right corner.

To grant user roles permission to access the servers:

1. Go to **Setup** > **Permissions**.
2. Select the name of the role to which you want to grant server permissions, for example: DMA Admins.
3. Click **Organizations**.
4. Select the desired permissions, for example: Read, Write, and Deploy.



5. Click **Save** in the lower right corner.

Import an HP DMA Solution Pack

You are now ready to import solution packs. These instructions apply to any solution pack.

Tip: You should import the Discovery solution pack first. It is not automatically installed in HP DMA 10.00 (and later). You must import it if you want to use the discovery workflows.

To access the solution pack:

The HP DMA 10.00 DVD provides solution packs in the following folders:

- `DMA_10.0_Server_and_Client` contains the Discovery solution pack (`Discovery.zip`).
- `DMA_10.0_Database_Solution_Packs` contains all of the database solution packs (provisioning, advanced provisioning, patching, advanced patching, compliance, refresh, and release management).
- `DMA_10.0_Middleware_Solution_Packs` contains all of the application server solution packs (provisioning, patching, and release management).

Caution: Always check to see if there are more recent versions of the HP DMA solution packs available online. Due to frequent releases, it is possible that the solution packs provided on the HP DMA 10.00 DVD have since been updated.

To get the most recent version of a solution pack:

1. Go to the following web site: HP Software Support Online
2. Go to the Self-Solve tab, and sign in using your HP Passport credentials (see Support on page 4 for more information).
3. On the Advanced Search page, specify the following search criteria:

Product:	Database and Middleware Automation Solution Packs
Version:	All Versions
Operating System:	All Operating Systems
Document Type:	Patches

4. Click **Search**.
5. If there is a more recent version of the solution pack that you want to import, do the following:
   a. Click the link for the solution pack that you want to import (for example: discovery 10.0x).
   b. Click the **DOWNLOAD PATCH** link, and download the ZIP file that contains the patch.
   c. From the patch ZIP file, extract the ZIP file that contains the solution pack.

      Note: This ZIP file may be included in a larger ZIP file that contains multiple solution packs.

To import the solution pack:

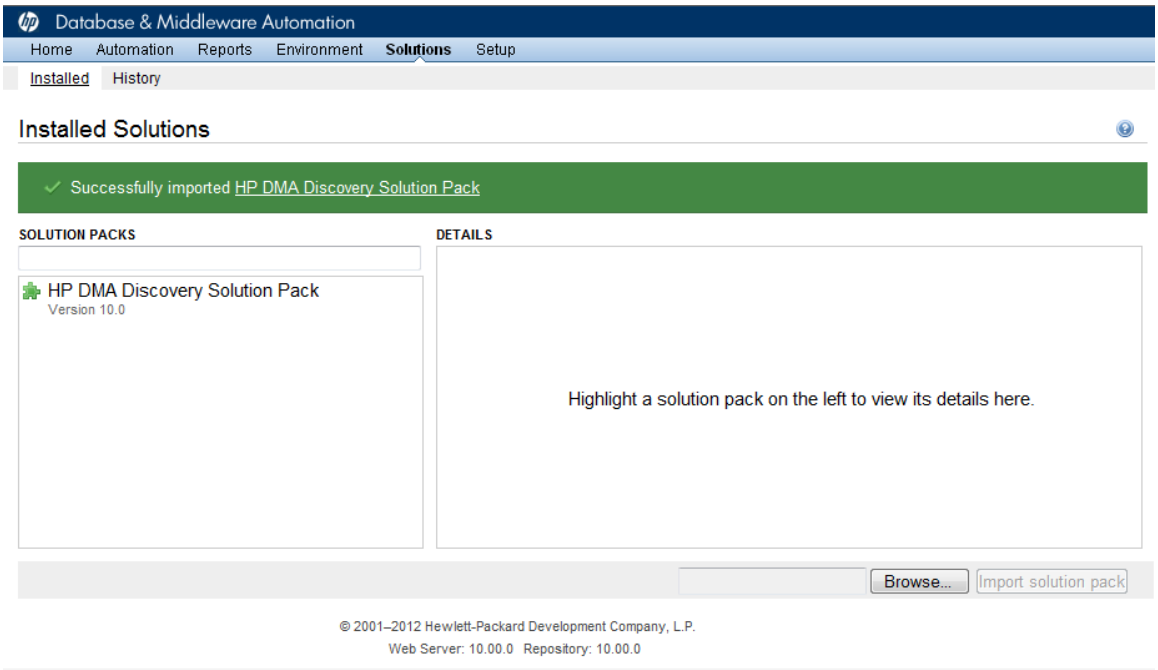
While you are logged in to HP DMA as an HP DMA administrator—for example, a user with the DMA Admins role—do the following:

1. On the Solutions > Installed tab, click the **Browse** button in the lower right corner. The Choose File dialog opens.

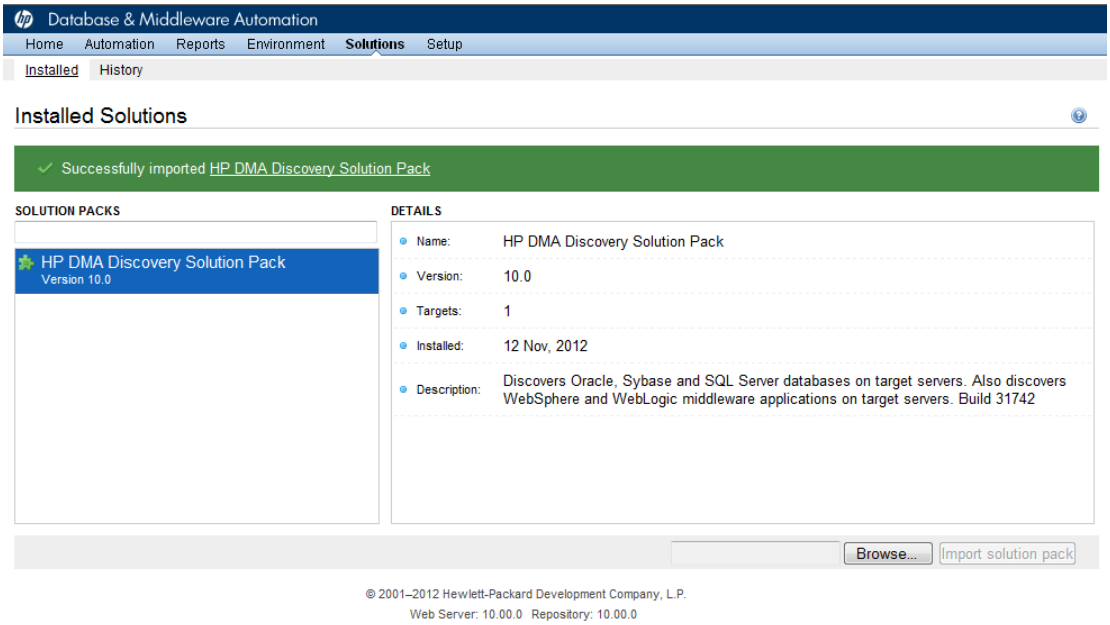
   Note: This button and the dialog that subsequently opens may have different names depending on the browser that you are using.

2. Locate and select the desired solution pack ZIP file—either from the HP DMA 10.00 DVD or from HP Software Support Online—then click **Open**.

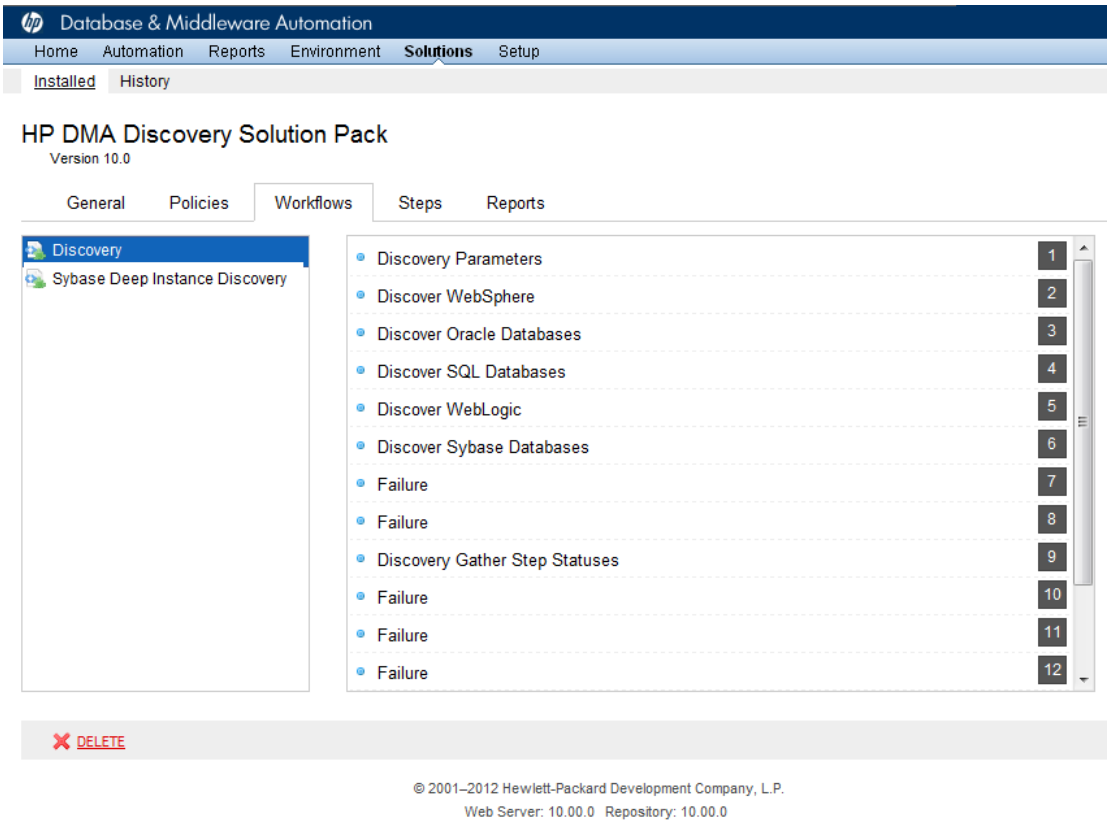
3. Click **Import solution pack**.



To view basic information about the solution pack, hover your mouse over its name in the left pane:



To view detailed information about the solution pack, click its name in the left pane. To view a list of the workflows that the solution pack contains, go to the Workflows tab.



Chapter 3

How to Uninstall HP DMA

Run the following commands as root to uninstall HP DMA:

```
$ rpm -e dma-server-10.00-0.x86_64
```

```
$ rpm -e dma-sa-client-10.00-0.x86_64
```

To finish cleaning up after you uninstall HP DMA, you can remove the following folders:

```
/opt/hp/dma/server
```

```
/var/opt/hp/dma/work/dma
```

```
/var/log/hp/dma
```

Chapter 4

How to Upgrade HP DMA

Note: HP DMA 10.00 cannot be upgraded from a previous version of HP DMA.

How to Deactivate Outdated Versions of HP DMA

You may want to deactivate outdated versions of HP DMA that came with HP Server Automation (SA).

Note: When SA 9.1x was installed, HP DMA 9.1x was automatically installed with it. HP DMA 10.00 supersedes HP DMA 9.1x. To avoid confusion you may want to deactive HP DMA 9.1x in your SA installation

If you are using HP DMA 9.1x, it is possible to run HP DMA 9.1x and HP DMA 10.00 in parallel. Make sure to update your HP DMA 10.00 before deactivating HP DMA 9.1x.

To deactive HP DMA 9.1x, simply rename the file `dma.xml` on the SA server. For example:

```
$ mv /opt/opsware/da/conf/Catalina/localhost/dma.xml
/opt/opsware/da/conf/Catalina/localhost/dma.xml.disabled
```

Tip: If you want to reactivate HP DMA 9.1x simply rename the file back to `dma.xml`.

Chapter 5

Reference Information

This chapter group of topics contains the following information:

Topic	Description
HP Documentation	Links to additional HP DMA documentation.
HP DMA Baseline Options	The complete list of all the `dmaBaselineData.sh` options.

HP Documentation

The following HP DMA manuals are included on your HP DMA 10.00 DVD:

- *HP DMA 10.00 Installation Guide* (this document)
- *HP DMA 10.00 Administrator Guide*
- *HP DMA 10.00 User Guide*
- *HP DMA 10.00 Release Notes*
- *HP DMA 10.00 Solution Pack Support Matrix*

These documents—and any updates—are part of the HP DMA documentation library, which is available on the HP Software Product Manuals web site:

http://h20230.www2.hp.com/selfsolve/manuals

This web site also contains:

- Information about specific solution packs and workflows—see the HP DMA solution pack user guides.
- Documentation for HP Server Automation.

HP DMA Baseline Options

The following table gives a complete list of all the `dmaBaselineData.sh` options:

Option	Example Argument Value	Description
-?,--help		Print this usage message.
-c,--create-tables		Create tables for database.
-cc,--create-context		Create a context file with the specified settings.
-context,--deployed-context-file <dma.xml>	dma.xml	Fully qualified path to the deployed context file to get database connection settings.
-dbh,--database-hostname <arg>	oracle.mycompany.com	The database hostname for the Java Database Connectivity (jdbc) connection.
-dbp,--database-port <arg>	1521	The database port for the Java Database Connectivity (jdbc) connection.
-dbpw,--database-password <dbpasswordValue>	dbpassword	The password used to connect to the database.
-dbs,--database-sid <arg>	dma	The database SID for the Java Database Connectivity (jdbc) connection.
-dbts,--database-tablespace <arg>	/u01/app/oracle/oradata/dma	The base directory for the database tablespace creation.
-dbtype,--database-type <arg>	oracle	(optional) The underlying database type default: oracle.
-dbu,--database-username <dbusernameValue>		The username used to connect to the database.
-dmah,--dma-hostname <dmahostnameValue>	dma.mycompany.com	Set the fully qualified hostname of the DMA server.
-e,--erase		Erase existing data and add baseline data.
-jdbccs,--jdbc-connection-string <connectionString>	jdbc:<DBTYPE>:thin:@<HOST>:1521:<SID>	The Java Database Connectivity (jdbc) Connection String used to connect to the database.

Option	Example Argument Value	Description
-okeys,--overwrite-keys		Overwrite public and private key in the database if they exist **Caution:** Do not do this unless instructed to by HP Support.
-privkey,--private-key-file <privateKeyFilename>		File containing the private key.
-pubkey,--public-key-file <publicKeyFilename>		File containing the public key.
-sahostname,--server-automation-hostname <sahostnameValue>	saserver.mycompany.com	The fully qualified hostname of the SA server.
-sapassword,--server-automation-password <sapasswordValue>		The password used to connect to SA.
-sausername,--server-automation-username <sausernameValue>		The username used to connect to the SA.
-sqlfile,--baseline-sqlfile <baselineSQLfile>		The baseline file containing SQL insert statements
-t,--test		Test the underlying database connection.