# HP Database and Middleware Automation

## Release Notes

### Software version: 10.22 / December 2014

This document provides an overview of the changes made to HP Database and Middleware Automation (HP DMA) for the 10.22 release. It contains the following important information not included in the manuals.

## In This Version

HP DMA 10.22 is an incremental step forward, incorporating many new or enhanced features when compared to HP DMA 10.21.

### Release Highlights

HP DMA 10.22 includes customer requested enhancements as well as workflow, platform, REST API and documentation quality improvements.  In addition to miscellaneous defect fixes, nearly 50 customer-issued Change Requests have been addressed in this release.  Important highlights include:

- SQL Server "Always-on Availability Groups" provisioning and configuration are now supported. Coupled with support for SQL Server *rolling patches* delivered in HP DMA 10.21, HP DMA 10.22 further enhances the lifecycle management of clustered SQL Server environments.
- Oracle workflow improvements to DB Refresh now support Transportable Tablespaces and Oracle Data Appliance (ODA).  Improvements include environment prerequisite validation checks and Oracle Client Install.
- DB2 support has been extended to allow multiple DB2 instances on the same OS instance.
- Improved support for Sybase 15.7. Specifically, Sybase 15.7 instance provisioning has been extended to support raw devices as well as the file system that was supported in HP DMA 10.21.
- New WebSphere and JBoss workflows enable code release management.
- Platform improvements address overall HP DMA Server performance and extend Master Workflow capability to allow two or more parallel workflows to run concurrently.
- Numerous documentation improvements, including new whitepapers for Oracle and HP DMA Client Sizing, High Availability and Disaster Recovery Solutions, and WebSphere and JBoss workflows.
- As a result of these changes, many workflows have been modified and some have been replaced or deprecated.  Refer to the *HP DMA 10.22 Support Matrix* for specific details:

[HP DMA 10.22 Support Matrix](#)

See Documentation Updates for information about accessing this web site.

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# Installation Notes

Installation requirements and instructions for installing HP DMA 10.22 are documented in the *HP DMA Installation Guide*. The document file is included on the HP DMA DVD as:

DMA_10.22_Documentation/DMA_10.22_Installation_Guide.pdf

# Platform Requirements

The HP DMA version 10.22 server requires:

- Red Hat Enterprise Linux version 5.8 or 6.1 (or later), 64-bit,

Or

- SUSE Enterprise Linux version 11 (or later), 64-bit.

See the *HP DMA Installation Guide* for additional information, including sizing requirements.

This document is available at the following web site:

https://softwaresupport.hp.com/

See Documentation Updates for information about accessing this web site.

## Supported Browsers for HP DMA

The HP DMA web UI supports the following browsers:  Chrome, Firefox, and Internet Explorer 8, 9, 10, and 11.

## Supported HP DMA Target Platforms

HP DMA supports managed target servers that use the following operating systems:

- Linux

- Solaris

- AIX

- Windows

- HP-UX

For details regarding the operating systems and versions supported by each HP DMA workflow, see the *HP DMA Support Matrix*.  This document is available at the following web site:

https://softwaresupport.hp.com/

See Documentation Updates for information about accessing this web site.

# HP DMA Solution Packs

The HP DMA version 10.22 solution packs are included on the installation media. This includes the following solution packs:

| DVD Directory Name | Solution Packs |
|---|---|
| DMA_10.22_Database_Solution_Packs | Database Compliance<br>Database Provisioning<br>Advanced Database Provisioning<br>Database Patching<br>Advanced Database Patching<br>Database Release Management<br>Database Refresh |
| DMA_10.22_Middleware_Solution_Packs | Application Server Provisioning<br>Application Server Patching<br>Application Server Configuration Management<br>Application Server Release Management |
| DMA_10.22_Server_and_Client | Discovery<br>Promote |

> The Discovery solution pack is not automatically installed when the HP DMA server is installed. You must import it manually, as you would any other solution pack. See the *HP DMA Quick Start Tutorial* for instructions. This document is available at the following web site:
>
> https://softwaresupport.hp.com/
>
> See Documentation Updates for information about accessing this web site.

# HP DMA Installation and Removal Scripts

The HP DMA installation and removal scripts are included in the **DMA_10.22_Install** folder:

| File Name | Description |
|---|---|
| dma_install.sh<br>install-options.txt<br>installhelperscript.sh | Tools that automate the installation of HP DMA. |
| dma_remove.sh<br>remove-options.txt<br>removehelperscript.sh | Tools that automate the removal of HP DMA. |

# Backward Compatibility

**To use HP DMA 10.00 or HP DMA 10.01 Content on the HP DMA 10.22 Platform**:

If you desire to continue to use HP DMA 10.00 or HP DMA 10.01 content on the HP DMA 10.22 platform, you must install the HP DMA 10.01 Content Forward Compatibility Solution Pack. To do this, contact HP support by going to:

http://support.openview.hp.com/

Open a support case for Database and Middleware Automation and request the HP DMA 10.01 Content Forward Compatibility Solution Pack.

**To use HP DMA 10.10 (or later) Content on the HP DMA 10.22 Platform**:

HP has improved the upgrade experience. Existing HP DMA 10.10 (or later) workflows will run on HP DMA 10.22 without any changes.

**To take advantage of the HP DMA 10.22 features and enhancements:**

To use any new features or enhancements of the new HP DMA 10.22 workflows, after you have upgraded the HP DMA server you must import the HP DMA 10.22 solution pack, make a copy of the pertinent HP DMA 10.22 workflow, and then merge your customizations into it.

The benefit is that you can now upgrade one workflow at a time, which allows you to upgrade workflows over a period of time rather than all at once.

# Fixed Issues

To display details about each software fix, click the Change Request's link in the table to go to the HP Software Online Support web site. The first time you click a link, you must enter your HP passport information (see Support).

**Note**: In the user interface, workflow names may include a version (for example, v2 or v3).

| Change Request | Area | Description |
|---|---|---|
| QCCR1D184235 | Common | The workflowrunner function library has been updated to handle unicode characters. |
| QCCR1D188206 | Common | The Discovery workflow was revised to eliminate redundant API calls, as well as unnecessary API calls for information gathering. This update is intended to improve the amount of time Discovery takes. |
| QCCR1D189321 | Common | The envapi function has been revised to accept tuple object types. |
| QCCR1D190045 | Common | A call that was processing parameters was stripping out the empty parameter values from the API, and the default values were being used incorrectly. This call in the workflowrunner function library has been revised to ensure that empty parameter values remain in place. |
| QCCR1D190946 | Common | Print statements and logging have been modified to handle encodings other than UTF-8. |

| Change Request | Area | Description |
|---|---|---|
| QCCR1D190334 | DB2 | The DB2 – Home workflow has been revised to address a disk space issue encountered by AIX servers. |
| QCCR1D187470 | Documentation | Sizing information for DMA Clients has been added to the *HP DMA Installation Guide* (Chapter 1, Pre-installation Requirements > Sizing Recommendations > HP DMA Client Sizing). |
| QCCR1D188005 | Documentation | The Trust SSL Certificates and Trust All Certificates workflow parameters are no longer used in the product. Until they are removed from the product (when the workflows are updated due to additional workflow changes), the documentation has been updated to show that they are deprecated and that the parameter in the dma.xml file is used instead. |
| QCCR1D190609 | Documentation | In the white papers:<br><br>• *Standardize Oracle Grid Standalone Provisioning Using HP DMA*<br>• *Standardize Oracle RAC Provisioning using HP DMA*<br><br>The example value for the runinstaller parameters has been revised. The old value was **–ignoreSysPrereq**.  The new value is **–ignoreSysPrereqs**. |
| QCCR1D191512 | Documentation | Both the *HP DMA Installation Guide* and the *HP DMA Administrator Guide* have been updated to include appropriate instructions for configuring DMA listening on HTTP ports.<br><br>In the section "Special Configurations" > "Change the Default Port and Security Level", instruction 3a provides information for a secure port and instruction 3b provides information for a non-secured port. |
| QCCR1D191518 | Documentation | The *DMA Installation Guide, DMA Troubleshooting Guide*, and *DMA Administrator Guide* have been revised to include an example for SSL SAN certificates.<br><br>The revised sections are:<br><br>• "Configure SSL on the HP DMA Server"<br>• "Use a Proxy Server with HP DMA" |
| QCCR1D191627 | Documentation | The following workflow Documentation tabs have been updated to reflect support for Windows2012r2 OS and SQL server 2014:<br><br>• MS SQL – Install Standalone SQL Instance<br>• MS SQL – Upgrade Standalone<br>• MS SQL – Install Cluster<br>• MS SQL – Add Cluster Node |

| Change Request | Area | Description |
|---|---|---|
| QCCR1D192278 | Documentation | HP DMA provides a process for generating a Self-Signed SSL certificate and pushing it out to the managed servers. The process supports both first time certificates and renewal of certificates.<br><br>This update is described in a new white paper, *Update Self-Signed SSL Certificate in HP DMA 10.2x*, which is available via HP Passport on HPLN (log in required):<br><br>https://hpln.hp.com/node/21829/attachment<br><br>This information is also available in the *HP DMA Installation Guide* and the *HP DMA Troubleshooting Guide* at Troubleshooting > Maintenance > Update Self-Signed SSL Certificate. |
| QCCR1D190981 | MS SQL | The MS SQL Create Database Workflow – SQL 2012 requires .NET 3.5 on Windows 2012. The workflow will check for .NET 3.5, and attempt to install if it is not already present. If the installation attempt fails, then the user is notified that .NET 3.5 must be installed before proceeding with the workflow. |
| QCCR1D185147 | Oracle | The Oracle – Export Database via Data Pump workflow has been revised. Specifically, the step Validate Oracle Database has been changed to only return tuple values (instead of three) in cases when a username and password have been specified. |
| QCCR1D187644 | Oracle | In the Oracle - Refresh Database via Data Pump workflow, a new parameter, Cleanup Database, has been added to the Advanced Parameters step. This parameter will drop all non-default users before importing a dump file. |
| QCCR1D187885 | Oracle | In the Oracle – Refresh Database via Data Pump workflow, a new parameter, Cleanup Database, has been added to the Advanced Parameters step. This parameter will drop all non-default users before importing a dump file. In addition, this parameter will also drop and re-create the XML database using standard Oracle scripts. |
| QCCR1D187963 | Oracle | The Oracle – Export Database via Data Pump workflow has been revised to address issues impacting AIX 7.1 users. |
| QCCR1D188156 | Oracle | The Oracle – Export and Refresh Database via Data Pump workflow has been revised to address an issue refreshing XML objects inside the database. |
| QCCR1D188357 | Oracle | In the Oracle – Provision Database workflow, a validation step was revised to ensure that ownership of the extract or download location remains unchanged, and that only the temporary directory created for staging gets changed. |
| QCCR1D189107 | Oracle | The Oracle – Export Database via Data Pump workflow has been revised so that it will not complete successfully when there is an error in the Data Pump log file. |
| QCCR1D189287 | Oracle | The Oracle – Provision Client workflow has been revised so that installation will complete even if there is an existing oraInventory file. |

| Change Request | Area | Description |
|---|---|---|
| QCCR1D189683 | Oracle | The Oracle – Patch Home and Databases workflow has been revised. The Gather step has been modified to include a call to the python module to set defaults, which will only set a default if the given value is blank. |
| QCCR1D189688 | Oracle | The Discover Oracle Databases workflow has been revised to address an issue that occurred when the Oracle Group information was not present in the orainst.loc files. |
| QCCR1D190480 | Oracle | The validate_datapump_dumpfile function has been updated to look for patterns in the header information as a means of verifying Oracle import jobs. |
| QCCR1D190560 | Oracle | The Gather Oracle Client Parameters step of the Oracle - Provision Client workflow has been revised to address an issue that occurred when the values for Download Location and Staging Directory are different. |
| QCCR1D191516 | Oracle | The Oracle - Provision Client workflow has been revised to include a step that enables Oracle users to change ownership of downloaded files (to ensure that they can unzip the files). |
| QCCR1D192411 | Oracle | The Oracle – Export and Refresh Database via Data Pump and Oracle – Refresh Database via Data Pump workflows have been revised to ensure that users specified (in the cleanup_users_exclude parameter) to run the Data Pump process are not dropped. |
| QCCR1D192426 | Oracle | The Oracle – Provision Client workflow has been revised to check the Oracle inventory to ensure that the user has the appropriate permissions before attempting to install an Oracle client. |
| QCCR1D186708 | Platform | There is a new script, cancelWorkflow.sh, which cancels workflows that are running when the HP DMA Server is restarted. You can find details about how to use this script in the *HP DMA Installation Guide* and the *HP DMA Troubleshooting Guide* section Troubleshooting > Run Time Errors > Workflows Stuck in Perpetual Running State. |
| QCCR1D187559 | Platform | A new parameter, "com.hp.dma.core.action.Schedulerskipchecklevel" has been added in the dma.xml file. If `value=1`, then two or more different deployments of the same workflow can run simultaneously. If `value=2`, then only one deployment of a given workflow can run (this is the default value). You can find details about how to use this script in the *HP DMA Installation Guide* and the *HP DMA Troubleshooting Guide* section Troubleshooting > Run Time Errors > Deployments Are Skipped if Another Deployment of the Same Workflow is Running. |

| Change Request | Area | Description |
|---|---|---|
| QCCR1D188207 | Platform | The Thread Pool size has been increased to 40 to improve HP DMA performance.<br><br>This update is described in more detail in a new troubleshooting section ("Performance Issues") in both the *HP DMA Installation Guide* and the *HP DMA Troubleshooting Guide*. |
| QCCR1D188540 | Platform | There is a new section ("Performance Issues") in the *HP DMA Installation Guide* and the *HP DMA Troubleshooting Guide* that explains how to set the Thread Pool Size parameters to improve HP DMA performance. |
| QCCR1D188839 | Platform | Devices added through the HP SA Nested Policy show up in the HP DMA user interface. |
| QCCR1D190070 | Platform | When parameters are initialized to the default empty values, the input parameters are correctly initialized. |
| QCCR1D190514 | Platform | Occasionally, when a large number of workflows were running, a workflow could abort with Java errors. The jython.jar file has been rebuilt to resolve this issue. |
| QCCR1D190836 | Platform | Users running master workflows require:<br><br>• Read and deploy permissions for the organization<br>• Execute permission on the master workflow deployment<br>• Read permission on the subflow workflow<br><br>If running a workflow such as Discovery, which writes/updates certain custom fields, ensure that the restricted user has write permission on the organization.<br><br>Users running workflows in these contexts do not have to be the workflow creator. |
| QCCR1D190959 | Platform | Users can run a master workflow against two or more servers in parallel. |
| QCCR1D193831 | Platform | DMA completely cleans up all artifacts on Windows targets upon workflow completion. |
| QCCR1D187768 | Promote | The Download Software step of the Promote workflow has been revised to process unmapped parameters. |
| QCCR1D187501 | Sybase | The Provision Sybase ASE 15 Server workflow has been updated. Specifically, the Sybase - Advanced Parameters step has been revised to address an issue with the server page size. |

# Enhancements

To display details about each software enhancement, click the Change Request's link in the table to go to the HP Software Online Support web site. The first time you click a link, you must enter your HP passport information (see Support).

| Change Request | Area | Description |
|---|---|---|
| QCCR1D186767 | DB2 | The DB2 Compliance workflow has been revised to address an issue that occurred when there was more than one DB2 instance. |
| QCCR1D187932 | DB2 | The DB2 Patching workflow has been revised to compare the list of instances on the target DB2 machine with those found in the specified DB2 installation. The first instance found is exported using the DB2INSTANCE environment variable (to set it as default instance). This enhancement helps DB2 run system commands. |
| QCCR1D192278 | Documentation | The *HP DMA Installation Guide* has been revised to include information about how to roll out internally-signed SSL certificates to hundreds of targets. You can find details about how to use this script in the *HP DMA Installation Guide* and the *HP DMA Troubleshooting Guide* section at Troubleshooting > Maintenance > Update Self-Signed SSL Certificate. |
| QCCR1D180561 | MS SQL | The MS SQL - Install Clustered SQL Instance workflow has been revised to include new Advance parameters for SQL Cluster that will help expedite the process when users need to customize parameters for a SQL Server 2012/2008 Cluster. |
| QCCR1D187964 | MS SQL | The MS SQL - Upgrade Standalone SQL Instance workflow has been revised to allow for installation of the .NET Framework 4.0. |
| QCCR1D184521 | Oracle | The Oracle – Export Database via Data Pump workflow has been revised to include new, customizable Data Pump parameters. |
| QCCR1D186271 | Oracle | HP DMA has been enhanced to verify patches when a standalone database is installed in a clustered environment. Oracle tools now checks whether or not the database type is RAC; if the type is not RAC, then it runs the standalone methods. |
| QCCR1D188370 | Oracle | There is a new workflow, Oracle - Migrate Database TTS, that migrates a database from host A to host B using the transportable tablespace migration method. If endian conversion is required, then it will apply for the datafiles. For example, you could use this workflow to migrate a database from Solaris Spark (large endian) to Linux x86 (small endian). |
| QCCR1D190481 | Oracle | The Oracle – Provision Database Software workflow has been revised to verify that Oracle updates the inventory.xml file after provisioning and that it also verifies permission for the oraInventory directory before the workflow begins. |

| Change Request | Area | Description |
|---|---|---|
| QCCR1D190479 | Oracle | The following workflows contain a new Advanced parameter, Show Log File, which when set to True will print or export the log file to the Console and History pages:<br>• Oracle – Export Database via Data Pump<br>• Oracle – Export and Refresh Database via Data Pump<br>• Oracle – Refresh Database via Data Pump |
| QCCR1D190600 | Oracle | The Oracle – Provision Database workflow has been revised to include a new parameter, Local Listener, which will enable users to bypass using GRID listener if GRID is found. |
| QCCR1D191434 | Oracle | The Oracle – Provision Database workflow has been revised to validate the step that verifies the specified permissions of the Oracle Base; if Oracle does not own the directory or have a group that has rights to the directory, then directory ownership is changed to the Oracle user specified. |
| QCCR1D169568 | Platform | Apache Tomcat on the DMA Server has been upgraded from Version 7.0.47 to Version 7.0.54. |
| QCCR1D169574 | Platform | The DMA Server JRE has been upgraded from version 1.7.0_45-b18 to 1.7.0_60-b1. |
| QCCR1D193148 | Platform | This enhancement provides a rest API that can move a server between organizations, and retains all the custom fields, databases and instances. This operation is allowed only for users with Administrator permission.<br>To learn how to use this new API, access the HP DMA API documentation at:<br>**https://<dma_server>:8443/dma/api**<br>Navigate to Environment APIs > Servers > Modify the value of the organization for the server. |

## Support

You can visit the HP Software support web site at:

https://softwaresupport.hp.com/

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support site to:

• Search for knowledge documents of interest
• Submit and track support cases and enhancement requests
• Download software patches
• Manage support contracts
• Look up HP support contacts
• Review information about available services

- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require an active support contract. To find more information about support access levels, go to the following URL:

**http://h20230.www2.hp.com/new_access_levels.jsp**

To register for an HP Passport ID, go to the following URL:

**http://h20229.www2.hp.com/passport-registration.html**

Or click the **New users - please register** link on the HP Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

## Documentation Updates

The first page of this release notes document contains the following identifying information:

- Version number, which indicates the software version.
- Publish date, which changes each time the document is updated.

To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

https://softwaresupport.hp.com/

This site requires that you register for an HP Passport and sign-in. To register for an HP Passport ID, go to:

**http://h20229.www2.hp.com/passport-registration.html**

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