MICRO FOCUS

ALM Octane

Software Version: 16.0.300

Upgrade Guide for Windows

Legal Notices

Disclaimer

Certain versions of software and/or documents ("Material") accessible here may contain branding from Hewlett-Packard Company (now HP Inc.) and Hewlett Packard Enterprise Company. As of September 1, 2017, the Material is now offered by Micro Focus, a separately owned and operated company. Any reference to the HP and Hewlett Packard Enterprise/HPE marks is historical in nature, and the HP and Hewlett Packard Enterprise/HPE marks are the property of their respective owners.

Warranty

The only warranties for products and services of Micro Focus and its affiliates and licensors ("Micro Focus") are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Micro Focus shall not be liable for technical or editorial errors or omissions contained herein. The information contained herein is subject to change without notice.

Restricted Rights Legend

Contains Confidential Information. Except as specifically indicated otherwise, a valid license is required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

Contents

Upgrade

This document describes how to upgrade an existing installation of an on-premises ALM Octane server on Windows.

In this topic:

- "Upgrade paths" below
- "Prepare for upgrade" on the next page
- "Step 1: Deploy the new version and start ALM Octane" on page 6
- "Step 2: Configure and upgrade cluster nodes" on page 6
- "Step 3: Upgrade spaces in ALM Octane" on page 7
- "Step 4: Verify that spaces upgraded successfully" on page 7
- "Step 5: Stop all ALM Octane servers" on page 7
- "Step 6: Restart the ALM Octane servers" on page 7

Upgrade paths

ALM Octane allows you to choose between two upgrade paths:

- **Short-term path (STP)**. Upgrade to each new service pack (for example, from 16.0.200 to 16.0.300). If you choose this path, you will need to go through all the interim service packs in order to upgrade to the following release.
- **Long-term path (LTP)**. Upgrade directly from one release to the next (for example from 15.1.20 to 16.0.100, to the next LTP release), without having to upgrade to each of the interim service packs.

The current version is a **service pack**, meaning that you can only upgrade to 16.0.300 from 16.0.200. If you have not yet upgraded to ALM Octane 16.0.200, upgrade now.

Prepare for upgrade

Before upgrading, review the following:

1. Check that all spaces are up to date, first in **Settings > Site > Spaces**, and then in **Settings > Site > POST UPGRADE JOBS.** Delete any spaces that you do not want to upgrade to prevent problems in future upgrades.

2. Verify that your server machine, and if relevant, all cluster nodes, meet all prerequisites.

   This includes checking the supported versions for all third party tools, such as Elasticsearch, and upgrading accordingly. For details, see "Prerequisites" in the *ALM Octane Installation Guide for Windows*.

3. Stop the ALM Octane service on the server, and if relevant, on all cluster nodes.

4. Create backups of:

   - The repository located in **C:\Program Files\Octane\repo** (or in a cluster installation: \\MACHINE_NAME\REPO_NAME)

   - Existing ALM Octane configuration files including **octane.conf**

   - Your database

   - Elasticsearch

   - If you are using ALM Octane Synchronizer, back up :

     - **C:\Program Files\Octane\wrapper\wrapper.conf**

     - **service.locator.properties (C:\Program Files\Octane\webapps)**

   For recommendations on making these backups, see Best practices for backing up ALM Octane data in the ALM Octane Help Center.

5. Take note of any special aspects of your configuration, such as:

Special configuration	Recommendation
Did you install ALM Octane to a location other than **C:\Program Files\Octane**?	Refer to the location you used while upgrading.
Did your organization's DBA make changes to database schemas, such as the addition of tables or columns?	Define an exception file. The exception file instructs ALM Octane to ignore manual changes to the database schemas during installation. For details, see "Using exception files for manual database changes" in the *ALM Octane Installation Guide for Windows*.

6. Before upgrading, remove all patches or hotfixes at **WEB-INF/lib** and **WEB-INF/classes**.

Step 1: Deploy the new version and start ALM Octane

1. Download the ALM Octane package.

   https://www.microfocus.com/en-us/products/application-lifecycle-management-octane-on-prem/download

2. Download and deploy the new version of ALM Octane using:

   ```
   setup.exe
   ```

3. On the server machine, select **Start > ALM Octane > Start ALM Octane**.

4. Check the **C:\Program Files\octane\log\wrapper.log** file. If you do not see the "Server is ready!" message, correct the errors shown in the log.

   - If you encounter a recoverable error in the **wrapper.log** or **upgrade.log** files, fix the problem and restart the server to resume upgrade.

   - If the log file contains the error message "The value https://<server URL> is invalid URL", refer to the section Upgrading non-standard top-level domains.

   - The following is required if you configured trust on the ALM Octane server, when connecting to a remote location such as the database server. If your Java trust store (**<java_ home>/jre/lib/security/cacerts**) uses a non-default password, enter this password in **octane.conf** in the **java-default-trust-store-password** parameter.

> **Caution:** Do not use ALM Octane until you have completed "Step 3: Upgrade spaces in ALM Octane" on the next page.

Step 2: Configure and upgrade cluster nodes

After the upgrade on the first node has completed successfully, you can upgrade the remaining nodes in a cluster.

To configure and upgrade cluster nodes:

1. Deploy the new version of ALM Octane to each node.

2. On each node, select **Start > ALM Octane > Start ALM Octane**.

3. Check the **C:\Program Files\octane\log\wrapper.log** file. If you encounter a recoverable error in the **wrapper.log** or **upgrade.log** files, fix the problem and restart the server to resume upgrade.

> **Caution:** Do not use ALM Octane until you have completed "Step 3: Upgrade spaces in ALM Octane" on the next page.

Step 3: Upgrade spaces in ALM Octane

After upgrading, log into ALM Octane as the site admin to upgrade each space.

To upgrade spaces in ALM Octane:

1. In a browser, navigate to **<*ServerURL*>:<*port*>/ui?site**.
2. Log in with the user name and password defined in the **octane.conf** file.

   To upgrade all spaces at once, log in as the site admin.
3. Click **Site** and then click the **Spaces** tab.
4. Select one or more spaces and click **Upgrade**.

   Upgrade is available only if the space needs to be upgraded.
5. Individual workspaces are upgraded in the background.

> **Note:** Until all of the post-upgrade jobs have completed, some data may be unavailable in trend graphs and other Elasticsearch-related features.

Step 4: Verify that spaces upgraded successfully

Verify that all spaces were upgraded successfully from the previous version. To verify that a space has been upgraded, check that:

- The space status is **Active** (or Inactive if it was previously deactivated).
- The space version is updated to the current version.

In addition, check that all post-upgrade jobs were completed in **Settings > Site > POST UPGRADE JOBS**.

Step 5: Stop all ALM Octane servers

Clear caches by stopping all ALM Octane servers.

> **Note:** All of the servers must be stopped before you restart any of them.

Step 6: Restart the ALM Octane servers

After you stop all of the servers, you can restart them.

Troubleshooting a Data upgrader failure

In Oracle environments, if you have a space with more than 500 workspaces, space upgrade may fail with an error message that includes: **Data upgrader FixVulnerabilitiesCountOfWIUpgrader failed**. The space will go into SUSPENDED status. This is a known issue that will be fixed in a future release.

If you encounter this error, perform the following:

1. While the space is in SUSPENDED mode, set the hidden site parameter **UPG_ FixVulnerabilitiesCountOfWIUpgrader_ENABLE** to **false**. This should be done when no other spaces are being upgraded.

2. Resume the upgrade.

3. After the upgrade completes, set the site parameter back to **true**. You can now upgrade other spaces if needed.

The **FixVulnerabilitiesCountOfWIUpgrader** data upgrader handles the count of vulnerabilities. Following this workaround, the vulnerabilities count in this space may be inaccurate. This will be fixed in an upcoming release.

Rollback

This section describes how to roll back after upgrading an on-premises ALM Octane server. This may be necessary if for some reason the upgrade fails or performance is slow.

Depending on when you want to roll back, there are different steps to perform.

> **Note:** To roll back you need the pre-upgrade backups of all configuration files. This includes **octane.conf** from each node, and the folder in which you stored the repository, such as **C:\Program Files\Octane\repo** (or <Repository folder> for cluster configuration).

In this topic:

- "After the upgrade's setup validation phase" below
- "After site schema has been upgraded" below
- "After space schema has been upgraded" on the next page
- "After upgrade completed" on page 11
- "After upgrading cluster nodes" on page 11

After the upgrade's setup validation phase

You can roll back after the upgrade's setup validation phase, whether it passed or failed.

If the upgrade reached setup validation, the following have been modified:

- Previously-deployed files
- ALM Octane configuration files, including **octane.conf**

To roll back the deployed files, including octane.conf

1. Uninstall the new ALM Octane version using Windows **Add/Remove Programs**.
2. Install the previous ALM Octane version, as described in the ALM Octane Help Center > Installation Guide for Windows (for the previous version).
3. Revert to backups of ALM Octane configuration files, including **octane.conf**.
4. If necessary, copy back the folder in which you stored the repository, such as **C:\Program Files\Octane\repo**.
5. Start the ALM Octane service.

After site schema has been upgraded

You can roll back after the site schema has been upgraded.

If the upgrade upgraded the site schema, the following has been modified:

- Previously-deployed files
- Elasticsearch indexes
- ALM Octane configuration files, including **octane.conf**
- The site schema

To roll back the site schema

1. Stop the ALM Octane service.
2. Revert to a backup of the site schema.
3. Revert to a backup of Elasticsearch indexes.
4. Uninstall the new ALM Octane version using Windows **Add/Remove Programs**.
5. Install the previous ALM Octane version, as described in the ALM Octane Help Center > Installation Guide for Windows (for the previous version).
6. If necessary, copy back the repository folder located in **C:\Program Files\Octane\repo** (or <Repository folder> for cluster configuration).
7. Revert to backups of ALM Octane configuration files, including **octane.conf**.
8. Start the ALM Octane service.

After space schema has been upgraded

If the upgrade upgraded the space schema, the following have been modified:

- Previously-deployed files
- Elasticsearch indexes
- ALM Octane configuration files, including **octane.conf**
- The site schema
- The space schema

Rolling back a single space is relevant after upgrade of a space failed. In this case, fixes are required depending on the cause of the failure, as seen in the logs and in the UI.

> **Note:** This is only relevant if the space upgrade failed with **CORRUPTED** status. If it ended in **SUSPENDED** status, implement the fixes as instructed in the logs and in the UI, and then resume upgrade. No rollback actions are required.

To roll back changes to the space schema:

1. Revert to the backup of the space schema.
2. Revert to the backups of Elasticsearch indexes related to the specific space.

Space-specific indexes can be identified by the space logical name embedded in their name, using the pattern **mqm_{space logical name}_***.

Note: There are multiple Elasticsearch indexes for each space. Make sure to roll back all of them.

3. Revert to the repository backup of this specific space.

4. Fix what caused the upgrade to fail.

5. Run the following API to repair the space:

   `POST {octane server}/admin/shared_spaces/repair?ids={space_id}`

   Tip: To repair multiple spaces, provide the **space_ids** separated by commas.

6. Upgrade again.

After upgrade completed

If the upgrade completed successfully, the following have been modified:

- Previously-deployed files
- ALM Octane configuration files, including **octane.conf**
- The site schema
- The space schema(s)
- Elasticsearch indexes
- ALM Octane repository files

To roll back the entire upgrade

1. Follow the procedure "To roll back the site schema" on the previous page.
2. Revert to backups of all space schemas.
3. Revert to backups of all Elasticsearch indexes.
4. Revert to backup of the previous repository.

After upgrading cluster nodes

If you upgraded additional cluster nodes, the following has been modified on the cluster nodes:

- Previously-deployed files
- ALM Octane configuration files, including **octane.conf**

To roll back the previously-deployed files

1. Uninstall the new ALM Octane version using Windows **Add/Remove Programs**.
2. Install the previous version on a node.
3. Revert to backups of ALM Octane configuration files, including **octane.conf**.

4. Deploy ALM Octane on each cluster node as described in the ALM Octane Help Center > Installation Guide for Windows (for the previous version).

5. Start the ALM Octane service on each cluster node.

Send Us Feedback

Let us know how we can improve your experience with the Upgrade Guide for Windows.

Send your email to: docteam@microfocus.com