

KNIME Server Release Notes and Update Guide

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Version 4.9 (last updated on 2019-07-18)



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Release Notes

KNIME Server 4.9 is a feature release of the 4.x release line. All clients that have worked with KNIME Server 4.8 will continue to work with KNIME Server 4.9 without restrictions.

New Features

For a list that includes the new Analytics Platform 4.0 features see [here](#).

Highlighted new functionality is:

- Remote Workflow Editor (moves from preview to full release)
- Scheduling improvements [what's new](#)
- [Workflow Pinning](#) (KNIME Server Large)
- Properties Editor [executor requirements](#) and [job pool](#)
- Create User Directories on First Login [info](#)
- Permissions for Individual Users [documentation](#)

A detailed changelog for [Changelog \(KNIME Server 4.9\)](#) is also available.

SOAP Services Removed

As announced before the release of KNIME Server 4.7. The KNIME Server's SOAP API has been fully removed from the code base of KNIME Server 4.8 and 4.9. All functionality is available via the KNIME Server REST API.

Configuration options

i With fresh installations of KNIME Server 4.9.1 via the installer, `autoDeploy=false` is the new default setting in `<apache-tomee>/conf/server.xml`. If you follow the update instructions then this change will not affect you, but if you were putting a new war file into the webapps directory of a running Tomcat instance then this will no longer work. To restore the previous default behaviour you can change `autoDeploy="true"`. For detailed description of the setting see the [Tomcat documentation](#).

For new installations of the KNIME Server (since KNIME Server 4.8) the Linux Runlevel service names have changed from `apache-tomee.service` to `knime-server.service`. Full details

are available in the [KNIME Server Installation Guide](#). Existing KNIME Server installations of KNIME Server that are updated will not be affected by this change.

Executor Logging

Executors now also log the job id. In order to do so a new parameter (%J) has been introduced in the executors log settings. This parameter is added automatically when updating the executor if the log settings haven't been modified. In case of modified log settings the parameter has to be added manually:

- browse to <executor-workspace>/ .metadata/knime/log4j3.xml
- add %J to the parameter tag with the name="ConversionPattern" in the "log file" -appender, e.g.

```
<param name="ConversionPattern" value="%d{ISO8601} : %-5p : %t : %J : %c{1} : %N : %I : %m%n" />
```

This parameter can be also added to the ConversionPattern-tag of the "knimeConsole" -appender.

New options in knime-server.config

The following new options are available in the knime-server.config. Full details at https://docs.knime.com/2019-06/server/server_admin_guide/index.pdf

The options all relate to the new 'Create User Directories on login' option. Not adding the options to the knime-server.config (or adding them but setting defaults) will result in the same behaviour as previous versions of the KNIME Server.

- com.knime.server.user_directories.directory_location=<location>
- com.knime.server.user_directories.parent_directory_owner=<owner>
- com.knime.server.user_directories.owner_permissions=<permission>
- com.knime.server.user_directories.inherit_permissions=<true|false>
- com.knime.server.user_directories.groups=<group1>:<permission1>,<group2>:<permission2>,...
- com.knime.server.user_directories.users=<user1>:<permission1>,<user2>:<permission2>,...
- com.knime.server.user_directories.world_permissions=<permission>

Community Extensions

The community extensions underwent some changes that may affect you. Specifically, some extensions moved between update sites, we created some new categories, and all extensions needed changes that mean that older versions (e.g. those compatible with KNIME Analytics Platform 3.7) will not work with KNIME Analytics Platform 4.0. In short the changes mean that contributions in the `Community Extensions (Trusted)` and `Community Extensions (Experimental)` (previously named `Stable Community Contributions`) update sites use the same copy of one of the four following license files:

- GPLv2 (<http://www.gnu.org/licenses/gpl-2.0.html>)
- GPLv3 (<http://www.gnu.org/licenses/gpl-3.0.html>)
- BSD (<https://opensource.org/licenses/BSD-3-Clause>)
- Apache Ver 2.0 (<http://www.apache.org/licenses/LICENSE-2.0.html>)

Extensions in `KNIME Partner Extensions` may use different licenses.

Update sites are available at:

- Analytics Platform Update Site: <http://update.knime.com/analytics-platform/4.0>
- Community Extensions (Trusted): <http://update.knime.com/community-contributions/trusted/4.0>
- Community Extensions (Experimental): <http://update.knime.com/community-contributions/4.0>
- KNIME Partner Extensions: <http://update.knime.com/partner/4.0>

Due to those changes some extensions have moved between update sites.

In the case that your executor does not have any community extensions installed then you do not need to take any further action.

If you have community extensions installed currently, you should first check that they are available in KNIME Analytics Platform 4.0. If yes, you may proceed with your update as standard.

If you have updates that are not available using the default update sites, then you may add those update sites as additional arguments to the `update-rmi.sh` script, or via the preferences page if you are doing a graphical update of the executor.



The `update-rmi.sh` has a bug in the case that you wish to update an executor that has the following extensions installed: KNIME Workflow Executor for Apache Spark (Preview) (**com.knime.features.bigdata.knosp.feature.group**)

That may be fixed by commenting out the following lines from the `update-rmi.sh` (58-62):

```
` #if $(grep -q com.knime.features.bigdata "${TEMP}/installed.");  
then # OLD_BD_FOUND=1 # sed -i -e  
's/com.knime.features.bigdata.feature.group/org.knime.features.bigdata.conne  
ctors.feature.group/;  
s/com.knime.features.bigdata.spark.feature.group/org.knime.features.bigdata.  
spark.feature.group/' "${TEMP}/installed." # sort -u "${TEMP}/installed." >  
"${TEMP}/installed1." && mv "${TEMP}/installed1." "${TEMP}/installed." #fi `
```

Then run `update-rmi.sh` and manually update (or remove) the extension as per the instructions https://docs.knime.com/2019-06/server/server_admin_guide/index.pdf.

Update

This document guides you through the steps that are needed to update an existing KNIME Server installation from version 4.8 to 4.9 or apply a bugfix for version 4.9. You will find a complete guide to installing KNIME Server in the [KNIME Server Installation Guide](#), and a complete description of all configuration options in the [KNIME Server Administration Guide](#). If you have any questions or need assistance with the update process, please contact your dedicated KNIME support specialist.

Prerequisites

Server

- This guide assumes you already have either KNIME Server 4.8.x or KNIME Server 4.9.x running. If you wish to update from a previous version you must study the intermediate update guides to identify configuration changes that may apply, and you may wish to consider a fresh installation in order to update the underlying TomEE application server.

Client & Executor

- KNIME Analytics Platform clients need at least KNIME ServerSpace 4.0 otherwise it will not be able to talk to the server.
- KNIME Server 4.9 requires at least KNIME Analytics Platform 4.0 as executor with the corresponding *KNIME Executor Connector* version 4.9 installed on the server side.
- New KNIME WebPortal features are available with any [supported web browser](#).

Backup

Even though all the data on the server should be preserved during the update it is highly recommended to create a backup of all important data (see [KNIME Server Administration Guide](#) for backup information).

Application server

Backup existing configuration

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Before performing an update, make a backup of `<tomEE-folder>/conf/Catalina/localhost/knime.xml`. The name of the file might be different if the `.war` file had a different name (e.g. `com.knime.enterprise.server.xml` or `ROOT.xml`).

Failure to backup this file will result in scheduled jobs failing to run.

1. Download the updated war file `com.knime.enterprise.server_4.9.x.war` from the download page.
2. Stop TomEE.
3. Delete the existing folder `<tomEE-folder>/webapps/knime` (or similar if the `.war` file had a different name).
4. Copy the new `com.knime.enterprise.server_4.9.x.war` over the existing war file (usually `<tomEE-folder>/webapps/knime.war`). Please note that it needs to be the same file name as this is what is referred to as context in the application.
5. Check if the `knime.xml` file that you backed up before still exists. If not copy the backup to the previous location.
6. Follow the steps below on updating the KNIME Server Executor, specifically watch out to merge changes to the `knime.ini` in the workflow repository (`<server repository>/config/knime.ini`), if any.
7. Start TomEE.

Note that it is **not** possible to run multiple KNIME Server instances in one TomEE installation.

KNIME Server Executor

You must update the KNIME Server Executor to at least version 3.5 and the KNIME Executor connector to version 4.9.

If possible, start the executor installation in graphical mode (using the correct installation user!). If you have internet access, go to *File* → *Update KNIME...* and it will suggest updating to the new version. Follow the steps in the wizard. If you don't have direct internet access, you must download the zipped update sites from the [commercial downloads page](#) (contact the KNIME support team if you don't have access to this page). Then register the ZIP files in *File* → *Preferences* → *Install/Update* → *Available Software Sites* and go to *File* → *Update KNIME...*

If you cannot start the graphical user interface, under Linux you can use the `update-rmi.sh` script that is in the root of the executor installation. Call the script on the command line and provide a list of update sites that contain the new versions of the installed extensions and all installed extension will be updated (given that an update is available):

```
./update-rmi.sh https://update.knime.com/analytics-platform/4.0
```

If you get error messages when executing `update-rmi.sh` about missing "installable units", make sure that you have provided all necessary update sites.

Preference file and knime.ini file

Make sure the preference file is valid and merge your changes from the old `knime.ini` file to the new `knime.ini` file!

Installing a new KNIME Server Executor

You can also install a completely new KNIME Server Executor instead of updating an existing executor. To install KNIME Analytics Platform 4.0 from scratch you will need to run it as the user that owns the Installation.

Once logged in as the correct user, install KNIME Analytics Platform together with all the extensions needed for the workflows that will be executed on the server. Also install all "KNIME Server-Side Extensions" from the KNIME.com update site (you may need to enable this update site in the KNIME preferences under "Available Update Sites"). If you use the KNIME WebPortal, also install the KNIME Report Designer extensions.

Set relevant preferences in KNIME and export to `<server repository>/config/preferences.epf`.

Similarly, be sure to copy your new `knime.ini` file (from the KNIME Analytics Platform installation folder) to your server repository (`<server repository>/config/knime-rmi.ini`).

Please refer to the [KNIME Server Administration Guide](#) for more details about installing a KNIME Server Executor.

After installation, you need to point the KNIME Server to the new installation location. If you have a symbolic link on a Linux system that is used to start the KNIME Server Executor, simply remove this link and re-define it pointing to the new installation folder. If you do not have a symbolic link, you need to change the value of the `com.knime.server.executor.knime_exe` configuration option.

KNIME Server license

The KNIME Server license continues working with the new server. If you haven't received a license file or if it is not working correctly, please contact KNIME or your dedicated KNIME support partner.

Changelog (KNIME Server 4.9)

KNIME Server 4.9.1 (released August 15, 2019)

Enhancements

- [SRV-1746] - Improve message displayed in ProgressMonitor when downloading via REST (KNIME Explorer)
- [SRV-2384] - OAuth: Increase buffer time to fetch new access token for KNIME Hub (KNIME Explorer)
- [SRV-2532] - Remove unrelated actions from KNIME Server (KNIME Explorer)
- [SRV-2539] - Allow 'Open in KNIME Hub' and 'Copy KNIME Hub URL' for Components. (KNIME Explorer)
- [SRV-2174] - Integration of ChemDraw sketcher in the WebPortal
- [SRV-2471] - Add options for new DB framework to preferences.epf.template (Installer)
- [SRV-2519] - Update JDK Recommendation in installer to OpenJDK (Installer)
- [SRV-2520] - Set autoDeploy=false in server.xml for new installations (Installer)

Bugfixes

- [SRV-1953] - Dynamically set URL in OpenAPI Server object
- [SRV-2530] - REST API not accessible when running behind frontend proxy in some configurations
- [SRV-2230] - File Download node does not work in WebPortal with KNIME Server Small license
- [SRV-2280] - Customizations: Several parameters are not applied
- [SRV-2353] - Server version shown on WebPortal login page even if setting to hide is active
- [SRV-2365] - Cannot import workflows groups (.knar) directly to KNIME Server/Hub
- [SRV-2369] - KNIME Server Connection node list My-KNIME-Hub as an option, but doesn't work with it
- [SRV-2371] - Reset problem in remote workflow editor
- [SRV-2379] - Components drag'n'dropped from the hub get inconsistent names

- [SRV-2383] - Attempt to move an item onto itself results in deletion
- [SRV-2385] - Shown snapshot comment cut off after first line on macOS
- [SRV-2469] - REST Explorer: Incorrect cache update yields errors when copying/moving workflows and workflow groups
- [SRV-2482] - Fix 404 website after login to Server/Hub via OAuth
- [SRV-2484] - Cannot change root context for mount-points in the KNIME Explorer
- [SRV-2514] - Standby causes KNIME Hub to logout
- [SRV-2515] - Analytics Platform checks for licenses on Hub and fails

KNIME Server 4.9.0 (released June 27, 2019)

Enhancements

- [SRV-602] - Allow setting permissions for individual users in REST interface
- [SRV-1171] - Allow setting permissions for individual users in permissions dialog
- [SRV-2094] - REST API changes for send email notification on success/failure
- [SRV-696] - Email to other user if workflow fails
- [SRV-841] - Scheduling of jobs only in certain hours of the day (intra-day)
- [SRV-864] - New Server Execution Option: Notify on failure and Notify upon completion.
- [SRV-2093] - Dialog changes for 'Notify on success/failure'
- [SRV-1225] - Send mail notification on failed jobs only
- [SRV-2135] - SaveReportAction to store reports in workflow repository
- [SRV-2171] - Save Report dialog
- [SRV-1299] - Keep scheduled times after switch to daylight saving time (e.g. always at 11, 17 and 19) also if gran < 6 hours
- [SRV-1502] - Enable reader/writer dialogs to browse server repository
- [SRV-1553] - Explorer search bar doesn't resolve KNIME URLs
- [SRV-1588] - Consistency of warning message when changing the default Mount ID for a KNIME Server
- [SRV-1626] - Create user directories on first login
- [SRV-1648] - Allow choosing which recycle bin is shown when connected to multiple servers
- [SRV-1654] - Use REST interface in WorkflowDownloadApplication

- [SRV-1988] - Workflow Hub mountpoint
- [SRV-2234] - Add authentication to workflow hub mount point
- [SRV-2156] - KNIME Explorer UX for setting 'properties'
- [SRV-2170] - Show variables output in remote workflow editor
- [SRV-2180] - Enable workflow coach in remote workflow editor
- [SRV-1822] - Ask user to reload job if swapped in remote workflow editor
- [SRV-2317] - Make timeout for queued jobs configurable
- [SRV-1262] - Add job ID to executor's log file output
- [SRV-916] - Log final job status to server log

Bugfixes

- [SRV-1157] - Server error message is too long for dialog
- [SRV-1907] - Typo in overwrite workflow with saved job dialog
- [SRV-2039] - Problem sorting table columns in table view
- [SRV-2212] - Deadlock when rendering more than one report per job in distributed executor
- [SRV-2228] - Loaded jobs with notification settings/actions are not swapped automatically
- [SRV-2347] - Overwriting a Server item without creating a snapshot - explained behavior is not correct
- [SRV-2238] - Cache is not refreshed when connection to server is lost
- [SRV-2307] - Workflow (directory) still created when hub upload limit is exceeded
- [SRV-2308] - Copy from Examples to Hub doesn't yield usual error
- [SRV-2310] - Uploading of Workflows with \ in the names should be forbidden
- [SRV-2329] - ServerSpace should only show available options for Workflow Hub (e.g. recycle bin, snapshots)

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