

# Upgrade Guide

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## Introduction

If you are upgrading your current Joget v5 or v6 to Joget DX, here are your options and step by step guides. We recommended you to follow the steps in [Run Joget DX In A New Folder And Use My Existing Database](#) steps below due to the updated Apache Tomcat and JRE files that comes with the latest Joget DX 7 installer.

Read [What's New in Joget DX](#)

Download [Joget DX](#).

## Updating to Joget DX 7.0.26

If you are running on Java 11 prior to version 11.0.4, you will need to upgrade to the latest Java 11 version (11.0.13) due to a Java bug that causes a JVM crash <https://bugs.openjdk.java.net/browse/JDK-8210457>. Click [here](#) to read the change log.

## What's New In Joget DX Installation Files

The following are new in Joget DX:

- Joget DX uses Glowroot for [Application Performance Management](#); thus a new "-javaagent" argument is needed in the startup "joget-start.bat or .sh" script, example below:

```
set JAVA_OPTS=-Xmx768M -Dwflow.home=./wflow/ -javaagent:./wflow/aspectjweaver-1.8.5.jar -javaagent:./wflow/glowroot/glowroot.jar
```

- Joget DX has new runtime Glowroot files in ".\wflow\glowroot\". You can retrieve these files from a fresh install of Joget DX.
- Joget DX has a higher default maximum memory allocation pool for the JVM in "-Xmx768M". Joget DX requires more Java heap space and if your server has additional RAM, do allocate more @-Xmx@ memory for better performance.
- Joget DX installation is running on "apache-tomcat-8.5.41".
- Joget DX installation is running on Java "jre11.0.2". However Joget DX can still run on Java 8.

## Run Joget DX In My Existing v5/v6 Folder

1. Backup your Joget v6 installation files and v6 database.
2. Install Joget DX in a new folder using the Windows or Linux Installer from <https://www.joget.org/product/joget-dx/> . We will copy some files from here to your Joget v5/v6 folders.
3. Make the above changes in startup script (add new "-javaagent" argument and "-Xmx" value) and copy in the Glowroot files to ".\wflow\glowroot\".
4. Delete all the files in "**work**" folder in ".\apache-tomcat-8.5.41" folder. These are cache files and can be safely deleted.
5. Delete the "**jw**" and "**jwdesigner**" folders in ".\apache-tomcat-8.5.41\webapps" folder. Joget will re-create the "/jw" folder on startup.
6. Delete the "**jw.war**" and "**jwdesigner.war**" files.
7. Copy Joget DX's "**jw.war**" file into ".\apache-tomcat-8.5.41\webapps\". The source "jw.war" file is located in the same path as in v5/v6.
8. If necessary, edit the database configuration file ".\wflow\app\_datasource-default.properties" to point to your existing v6 database.
9. Start Joget Apache Tomcat and monitor the joget.log and catalina.log for errors.

## Run Joget DX In A New Folder And Use My Existing Database

A second quicker option where Joget DX is a new installation (recommended due to the updated Apache Tomcat and JRE files that comes with the latest Joget DX 7 installer):

1. Backup your Joget v6 database or clone it for Joget DX's use (Joget DX will automatically create the new tables and fields it needs).
2. Install Joget DX in a new folder using the Windows or Linux Installer from <https://www.joget.org/product/joget-dx/>.
3. Copy over all files from v6 ".wflow\*" folder to the same folder in Joget DX.
4. Ensure Joget DX can access the v6 database (check the database settings in "app\_datasource-default.properties" file using a text editor).
5. Optional: Edit the "./apache-tomcat-8.5.41/conf/server.xml" if you wish to run Joget DX on a different port instead of "8080".
6. Edit the "joget-start.bat or .sh" file using a text editor to set a higher "-Xmx" memory for better performance.
7. Start Joget Apache Tomcat and monitor the joget.log and catalina.log for errors.

## Run Joget DX In A New Folder And Use The Default New Database

Fastest option, especially as a development server:

1. Download the Joget DX Windows or Linux Installer from <https://www.joget.org/product/joget-dx/>.
2. Run the "joget-enterprise-setup-7.0.exe" installer if you are on Windows or unzip the "joget-enterprise-setup-7.0.tar.gz" if you are on Linux.
3. Follow the on screen installer prompt if you are on Windows.
4. Joget DX comes with MariaDB database but you can change the default database to [MySQL](#), [Oracle](#) or [PostgreSQL](#) .
5. Click on "joget-start.bat" or "joget-start.sh" to start Joget DX.
6. In your browser, type in the url address "<http://localhost:8080/jw>" to run Joget DX.
7. Export all the apps from v5/v6 and import them into Joget DX.

## Post Installation Notes

Use this guide [Troubleshooting - Common Errors](#) to learn how to solve start up errors in your Joget DX.

Download and install new plugins specially for Joget DX from <https://archives.joget.org/addons/> to try out:

- [Process Enhancement Plugin](#)
- [Report Builder](#)
- [API Builder](#)

To save time in the initial DX testing, you can delay the copying of the ".wflow/app\_formuploads" folder (may be too many files) and ".wflow/app\_plugins" folder (to first test Joget DX with zero custom plugin) until after everything is running smoothly.

## Additional Documentation

### General Upgrade Flow



**Compatibility:** Please test the upgrade on a **development** or **test** environment first.

**Licensing:** For the Enterprise & Professional Edition, upgrades between major versions (e.g. v5/v6 to DX 7/8) requires re-activation with a new license, so users with an active Enterprise Software Subscription are required to request for a new license.

**IMPORTANT:** Starting from v6.0.15 & DX, JAVA 8 is required due to fixes for vulnerability issues of a dependent library.

1. Prepare a test server that mimics the production server as close as possible in all possible aspects (e.g. user setup, networking environment, cpu/memory capabilities, database) without cloning the production's database server. Start with a fresh new database.
2. Once you are ready with the test server, you may try to start with a fresh database without the data but just the Apps loaded in. Run through all the functionalities of your Apps to see if everything works as expected.
3. If Step 2 goes well, you may then try to clone the existing production database to see how your Apps fare with the existing production data. Run through all the functionalities of your Apps again to see if everything works as expected.
4. If you have integrated Joget Workflow with other solutions, you will also need to test them accordingly.
5. When you are ready, please continue to the next step.

## Updating Joget Workflow Using jw.war



Do not upgrade directly in a production server without prior testing.

1. Locate the new **jw.war** file from either the:
  - a. [Downloadable Installers](#) (in the /apache-tomcat-x.x.x/webapps directory); or
  - b. The [Enterprise Support Site](#) for Enterprise Software Subscribers.
2. Stop Apache Tomcat / Joget.
3. Backup the existing installation data (Please refer to [Joget Workflow Deployment Best Practices](#))
4. Delete the existing **jw.war** and **jw** directories in "**Joget Installation Directory**/apache-tomcat-x.x.x/webapps".
5. Delete the Apache Tomcat working directories i.e. the "**jw**" directort in "**Joget Installation Directory**/apache-tomcat-x.x.x/work/Catalina/localhost".
6. Copy the new **jw.war** file into the Apache Tomcat webapps directory "**Joget Installation Directory**/apache-tomcat-x.x.x/webapps".
7. Start Apache Tomcat / Joget Workflow.

Note: The old jwdesigner.war process builder has been deprecated and need not be copied to your new Joget installation.



### Note on Upgrading Joget

If in your earlier Joget version you changed the security [key and salt hash](#), remember to edit the customApplicationContext.xml file and add in your original key and salt hash after upgrading your Joget else you will not be able to log in to Joget with your admin account.