




BLACKDUCK

Installing, Configuring, and
Using the Hub Plugin for
Artifactory

Version 1.0.0



This edition of the *Installing, Configuring, and Using the Hub Plugin for Artifactory* refers to version 1.0.0 of the Black Duck Hub Plugin for Artifactory.

This document created or updated on Wednesday, November 30, 2016.

Please send your comments and suggestions to:

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Chapter 1: Hub Artifactory Plugin Overview

The Black Duck Hub Artifactory Plugin is a new tool designed to help you manage the logistics of your Artifactory repositories and contents.

As a Hub and Artifactory user, the Hub Artifactory plugin enables you to:

- Run a component scan in a Artifactory job:
 - Scan multiple properties within the job workspace.
 - Create projects and releases in Black Duck Hub through the Artifactory job.
 - Set up CRON jobs to automate scanning of your Artifactory repositories.

After a scan is complete, the results are available on the Hub server.

Chapter 2: Installation Overview

The following sections provide a step-by-step guide to downloading and installing your Black Duck Hub Artifactory plugin.

Note: You can find Artifactory's documentation at:
<https://www.jfrog.com/confluence/display/RTF/Welcome+to+Artifactory>

2.1 Installation Prerequisites

Before you install the Hub Artifactory plugin, ensure that:

- Your Artifactory instance is up-to-date and fully patched.
- You know the host name and port for the Hub server.
- You have a user account with administrator privileges on the Hub system that you can use for the integration.
- You have connectivity to the internet. The machine that hosts your Artifactory server must be able to connect to the Hub server.

2.2 Downloading the Hub Artifactory Plugin

* To download the Hub Artifactory plugin:

1. Navigate to <https://github.com/blackducksoftware/hub-artifactory/releases/download/release%2F???????/hub-artifactory-0.0.1.zip>
2. Download and save the .zip file to a temporary location.

2.3 Installing the Hub Artifactory Plugin

After you have downloaded the Hub Artifactory zip file as described in Downloading the Hub Artifactory Plugin on page 5, use the following process to install your Hub Artifactory plugin.

* To install the Hub Artifactory plugin:

1. Log in to Artifactory as administrator.
2. Navigate to the location where you saved the Hub Artifactory zip file.
3. Unzip and extract the zip file to a directory on the machine hosting your Artifactory installation.
4. Place the `artifactory-plugin.properties` and `artifactory-plugin.groovy` files in: `.../path/to/your/artifactory/etc/plugins/`.
5. Create a `lib` folder in: `.../path/to/your/artifactory/etc/plugins/`, so that the path to

the `lib` folder is: `.../path/to/your/artifactory/etc/plugins/lib`.

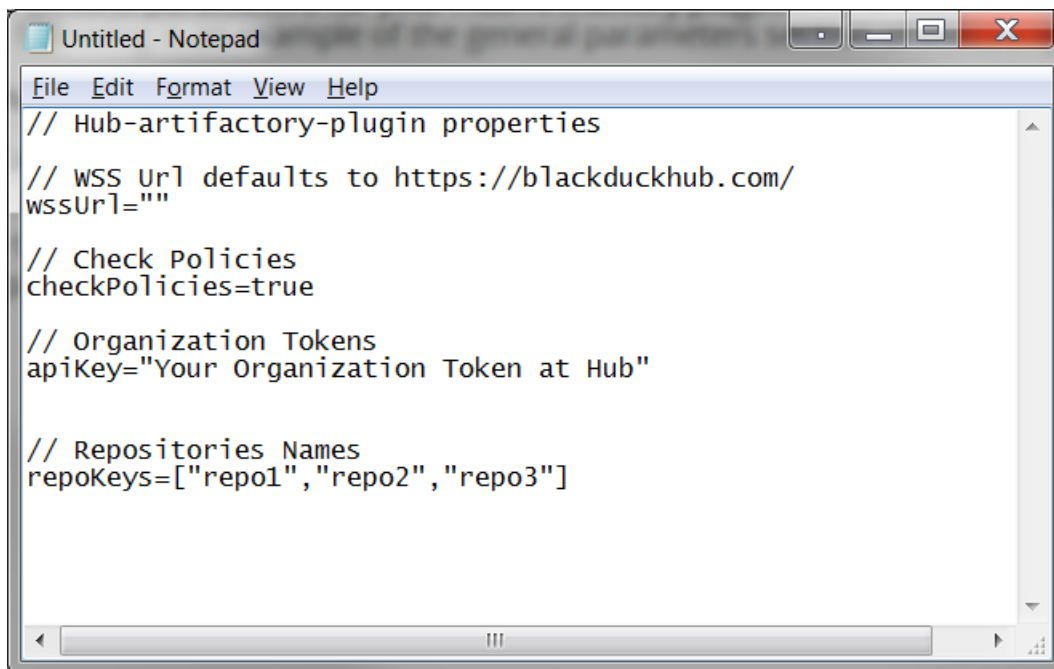
6. Download the latest version of the following jar files, and place them in the `lib` folder you created in the previous step:
 - `wss-agent-report`
 - `wss-agent-api-client`
 - `wss-agent-api`
7. Schedule the CRON job in the `artifactory-plugin.groovy` file. This is discussed in [Configuring the CRON Job](#) on page 9.
8. Restart Artifactory.

Chapter 3: Configuring the Hub Artifactory Plugin

Configure the *Properties* file to customize your Hub Artifactory plugin. This enables you to control the file types for scanning, and when the Artifactory properties are updated. You can also configure the properties for the CRON job.

3.1 Configuring Hub Artifactory General Parameters

You must configure the general parameters for your Hub Artifactory plugin. This is accomplished by editing the *Properties* file. The following is an example of the general parameters section of the *Properties* file.



```
File Edit Format View Help
// Hub-artifactory-plugin properties

// WSS Url defaults to https://blackduckhub.com/
wssUrl=""

// Check Policies
checkPolicies=true

// Organization Tokens
apiKey="Your Organization Token at Hub"

// Repositories Names
repoKeys=["repo1","repo2","repo3"]
```

* To configure the Hub Artifactory general parameters:

1. Log in to Hub Artifactory as administrator.
2. Go to `.../path/to/your/artifactory/etc/plugins/`, and locate the *Properties* file.
3. Open the *Properties* file in a text editor such as Notepad.
4. Edit the following parameters:

Attribute	Type	Description	Required
wssUrl	string	The URL to which the request is sent.	No
checkPolicies	boolean	Whether or not to send the check policies to the Hub.	No
apiKey	string	Unique identifier of the organization; can be retrieved from the administration page in your Hub account.	Yes
repoKeys	array	The list of the repositories to scan.	Yes

3.2 Configuring the Hub Artifactory Properties File

You can customize your Hub Artifactory plugin by editing the `Properties` file. The `Properties` file provides wide flexibility in customization based on your environment, and enables you to fine-tune your scans based on workflow, preferences, and changing day-to-day requirements.

✱ To configure the Hub Artifactory Properties file:

1. Log in to Hub Artifactory as administrator.
2. Go to `.../path/to/your/artifactory/etc/plugins/`, and locate the `Properties` file.
3. Open the `Properties` file in a text editor such as Notepad.
4. Edit the following properties:
 - `hub.url=http://int-hub02.dc1.1an:8080`: Provide the path to your Hub server.
 - `hub.timeout=120`: System timeout in seconds; 120 is the default.
 - `hub.username=sysadmin`: Type your Hub user name.
 - `hub.password=blackduck`: Type your Hub password.
 - `hub.proxy.host=`: Type your Hub proxy host URL.
 - `hub.proxy.port=`: Type your Hub proxy port number.
 - `hub.proxy.ignored.proxy.hosts=`: Type your Hub ignored proxy URLs.
 - `hub.proxy.username=`: Type your Hub proxy user name.
 - `hub.proxy.password=`: Type your Hub proxy password.
 - `hub.scan.memory=4096`: Type the amount of physical memory (in MB) to be allocated for Hub scanning. The default is 4096.
 - `hub.scan.verbose=true`: This determines the scan output; *verbose* generates additional information. Verbose output can be helpful when debugging or investigating issues; otherwise, *false* is recommended. Values are `true` (default) or `false`.
 - `hub.scan.dry.run=true`: A dry run scan enables you to create scan files, but the scan files are not submitted to the Hub. Values are `true` (default) or `false`.
 - `artifactory.repos.to.search=ext-release-local,libs-release`: Type the Artifactory repositories to be scanned.
 - `artifact.name.patterns=*.war,*.zip,*.tar.gz,*.hpi`: Determines the files you

want to be scanned. Specify the Artifactory file name patterns to include in your scans. You can specify only the archive file types (as shown in this example), or you can use wildcard searches for more specificity. For example, you could search on file names to locate any files with *MyProject* in the name by specifying `MyProject.*`.

5. Save and close the `Properties` file.
6. Restart Artifactory.

3.3 Configuring the CRON Job

You can configure the CRON job to determine when to automatically run the Hub Artifactory plugin. This enables you to set up Hub Artifactory scans to run automatically at your predetermined intervals.

✱ To configure the Hub Artifactory plugin CRON settings:

1. Log in to Hub Artifactory as administrator.
2. Go to `.../path/to/your/artifactory/etc/plugins/`, and locate the `artifactory-plugin.groovy` file.
3. Open the `artifactory-plugin.groovy` file in a text editor such as Notepad.
4. Locate a row in the `artifactory-plugin.groovy` file similar to:
`updateRepoWithWhiteSource(cron: "* * * * * ?")`
and schedule the job for a specific running time by editing the CRON parameters as follows:

CRON parameters

From left to right:

- 1 - Seconds
- 2 - Minutes
- 3 - Hours
- 4 - Day-of-Month
- 5 - Month
- 6 - Day of week
- 7 - Year (optional field)

Examples:

"0 42 10 * * ?" - Builds a trigger that fires daily at 10:42 am.

"0 0/2 8-17 * * ?" - Builds a trigger that fires every other minute, between 8am and 5pm, every day.

Tip: For more information on building your customized CRON settings, and to use an automated CRON building tool to make building your custom CRON settings easier, visit <http://www.cronmaker.com/>. You can build your CRON expressions using the automated builder, and then copy them into the `artifactory-plugin.groovy` file.

3.4 How the Hub Artifactory Properties are Updated

The Hub Artifactory plugin updates your properties metadata as follows.

- *Main function*: The Hub Artifactory plugin searches your Artifactory repositories, and scans your artifacts.
- *After scanning*: The Hub Artifactory plugin continuously updates your Artifactory metadata through and by using the properties. Afterward, all properties are updated.

Note: Black Duck scan time prevents additional scans of the same artifact until the last modified is updated. In other words: for each scan, the Hub Artifactory plugin only scans new or modified artifacts.



Chapter 4: Hub Artifactory Plugin Release Notes

Release 1.0.0

- Because this is release 1.0.0 of the Black Duck Hub Artifactory plugin, there are no release notes.

If you have questions, need help, or find issues, contact Black Duck Software. If you are reporting an issue, please include the following information to help us investigate your issue:

- Name and version of the plugin.
- Black Duck product name and version number.
- Third-party integrated product and version; for example, Artifactory, Eclipse, Jenkins, Maven, and others.
- For Black Duck Hub, the following third-party integrated products are supported:
 - Jenkins
 - TeamCity
 - Bamboo
 - Team Foundation Server (TFS)
 - Artifactory
 - Jira
 - Atlassian
 - JFrog Xray
- Java version.
- Black Duck KnowledgeBase version, where applicable.
- Operating system and version.
- Source control management system and version.
- If possible, the log files, configuration files, and Project Object Model (POM) XML files.

5.1 Training

Black Duck training courses are available for purchase. Learn more at <https://www.blackducksoftware.com/services/training>.

View the full catalog of our online offerings: <https://www.blackducksoftware.com/academy-catalog>.

When you are ready to learn, you can log in or sign up for an account: <https://www.blackducksoftware.com/academy>.

5.2 Services

If you would like someone to perform Black Duck Software tasks for you, please contact the Black Duck Services group. They offer a full range of services, from planning, to implementation, to analysis. They also offer a variety of training options on all Black Duck products. Refer to

<https://www.blackducksoftware.com/services/> for more information.