




BLACKDUCK | Hub

Getting Started

Version 4.7.1



This edition of the *Getting Started* refers to version 4.7.1 of the Black Duck Hub.

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Please send your comments and suggestions to:

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The Hub documentation

The documentation for the Hub consists of online help and these documents:

Title	File	Description
Release Notes	release_notes_bd_hub.pdf	Contains information about the new and improved features, resolved issues, and known issues in the current and previous releases.
Installing Hub using Docker Compose	hub_install_compose.pdf	Contains information about installing and upgrading the Hub using Docker Compose.
Installing Hub using Docker Swarm	hub_install_swarm.pdf	Contains information about installing and upgrading the Hub using Docker Swarm.
Installing Hub using Kubernetes	hub_install_kubernetes.pdf	Contains information about installing and upgrading the Hub using Kubernetes.
Installing Hub using OpenShift	hub_install_openshift.pdf	Contains information about installing and upgrading the Hub using OpenShift.
Getting Started	hub_getting_started.pdf	Provides first-time users with information on using the Hub.
Scanning Best Practices	hub_scanning_best_practices.pdf	Provides best practices for scanning.
Getting Started with the Hub SDK	getting_started_hub_sdk.pdf	Contains overview information and a sample use case.
Report Database	report_db_bd_hub.pdf	Contains information on using the report database.

Hub integration documentation can be found on [Confluence](#).

Training

Black Duck Academy is a one-stop resource for all your Black Duck education needs. It provides you with 24x7 access to online training courses and how-to videos.

New videos and courses are added monthly.

At Black Duck Academy, you can:

- Learn at your own pace.
- Review courses as often as you wish.
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Customer Success Community

The Black Duck Customer Success Community is our primary online resource for customer support, solutions, and information. The Customer Success Community allows users to quickly and easily open support cases and monitor progress, learn important product information, search a knowledgebase, and gain insights from other Black Duck customers. The many features included in the Customer Success Community center around the following collaborative actions:

- Connect – Open support cases and monitor their progress, as well as, monitor issues that require Engineering or Product Management assistance
- Learn – Insights and best practices from other Black Duck product users to allow you to learn valuable lessons from a diverse group of industry leading companies. In addition, the Customer Hub puts all the latest product news and updates from Black Duck at your fingertips, helping you to better utilize our products and services to maximize the value of open source within your organization.
- Solve – Quickly and easily get the answers you're seeking with the access to rich content and product knowledge from Black Duck experts and our Knowledgebase.
- Share – Collaborate and connect with Black Duck staff and other customers to crowdsource solutions and share your thoughts on product direction.

[Access the Customer Success Community](#). If you do not have an account or have trouble accessing the system, please send an email to communityfeedback@blackducksoftware.com or call us at +1 781.891.5100 ext. 5.

To see all the ways you can interact with Black Duck Support, visit:

<https://www.blackducksoftware.com/support/contact-support>.

Chapter 1: Logging in to the Hub

The Black Duck Hub is a risk management tool designed to help you manage the logistics of using open source software in your organization.

Using the Hub, you can:

- Scan your code and identify open source software that exists in your code base.
- View the generated Bill of Materials (BOM) for your software projects.
- View vulnerabilities that have been identified in open source components.
- Assess your security, license, and operational risk.

Logging in to the Black Duck Hub lets you search projects that may be restricted to team members or company employees.

Note: You must have a username and password to access the Hub. Contact your system administrator if you do not have a username. If the Hub is configured to use LDAP, you may be able to log in to the Hub using those credentials.


⚙️ To log in to the Hub

1. Using a browser, navigate to the Hub URL supplied by your system administrator. Typically the URL is in the format `https://<server hostname>`.
2. Enter the username and password provided by your Hub administrator.

Note: Your password is case sensitive.

3. Click **Login**.

When you log in, the Hub displays your Dashboard page.

 **Project Dashboard**

Projects

Components

Security

Summary

Security Risk
Number of Projects

High

0

Medium

0

Low

0

None

0

Project Name	Tier	Last Updated	Versions	Security Risk	License Risk	Operational Risk
No Results Found.						

sample

×

Add Filter

License Risk
Number of Projects

High

0

Medium

0

Low

0

None

0

Operational Risk
Number of Projects

High

0

Medium

0

Low

0

None

0

When you first log in after installing the Hub, an empty Dashboard page appears. For information to appear in the Hub, you need to scan your code and map your code to a project.

Chapter 2: Scanning your code

Black Duck component scanning is scanning functionality that provides an automated way to determine the set of open source software (OSS) components that make up a software project. Component scanning helps organizations manage their use of open source binaries by identifying and cataloging OSS components in order to provide additional metadata such as license, vulnerability, and OSS project health for those components.

Tip: Want to Learn More? Check out the [Black Duck Hub: Using the Hub Scanner](#) course on Black Duck Academy. You will learn how to use both the Hub Scanner and CI plug-ins to generate an inventory of open source components found in your application along with a mapping to known open source vulnerabilities associated with those components.

Hub Scanner client requirements

A Windows 7 or later, Mac OS X 10.9 or later, or Linux 64-bit system is required to run the Hub Scanner. Client systems must have a minimum of 6 GB of RAM.

Running a component scan using the Hub Scanner 2.x

The Hub Scanner 2.x provides a new interface (GUI) to make it easier to scan code.

With the Hub Scanner, you can:

- [Create a scan file](#) to be uploaded at a later time.
- [Scan files and immediately upload](#) the scan file to the Hub.
- [View scans](#) in the Hub.
- [Manage scan files](#).
- [Upload scan files](#) directly to the Hub.

To use the Hub Scanner GUI:

1. Use the Hub UI to obtain a user access token with read and write access.
2. Download and install the Hub Scanner.
3. Configure the Hub Scanner with your Hub server settings and complete the installation process.
4. Use the Hub Scanner to scan and/or upload your files.

Note: An error message appears if you exceed the scan size limit, which is typically 5 GB. Contact Customer Support if you receive this message.

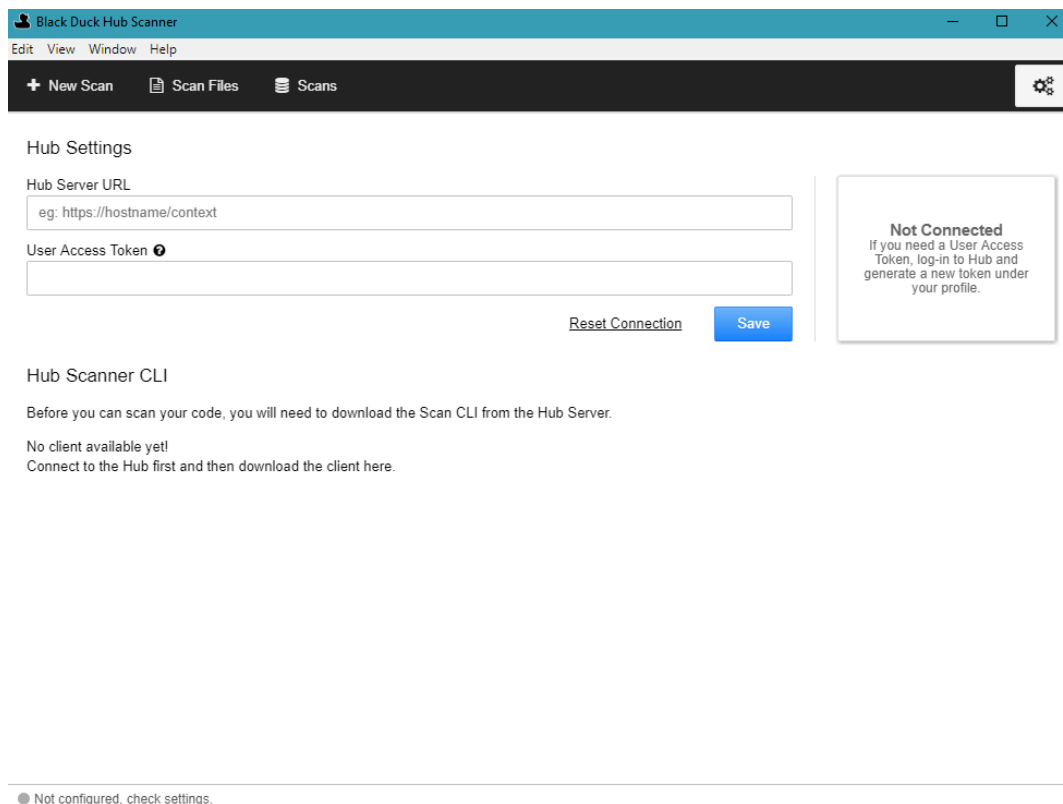
Downloading and installing the Hub Scanner

1. Log in to the Hub.
2. Navigate to the drop-down menu under your username, and select **Tools**.
3. Select the operating system you wish to use in the **Hub Scanner** section and select the **Desktop** link to download the Hub Scanner 2.x. The Desktop version is not available for Linux.
4. Run the executable to install the Hub Scanner GUI.

Configuring the Hub Scanner

After installing the Hub Scanner GUI, continue the installation process by configuring your Hub settings and downloading the Hub Scanner client.

1. After installing the Hub Scanner, the Settings page appears.



Black Duck Hub Scanner

Edit View Window Help

+ New Scan Scan Files Scans

Hub Settings

Hub Server URL

eg: https://hostname/context

User Access Token ?

Reset Connection Save

Hub Scanner CLI

Before you can scan your code, you will need to download the Scan CLI from the Hub Server.

No client available yet!
Connect to the Hub first and then download the client here.

Not Connected
If you need a User Access Token, log-in to Hub and generate a new token under your profile.

Not configured, check settings.

You can also click  to display this page.

2. Enter the following information:

- The Hub Server URL. Enter the URL to the Hub server as you would type it in the browser, for example `https://servername:8443/`

If required, enter context information, for example, if the X-Forwarded-Prefix header is being specified in a proxy server/load balancer configuration.

- Enter your user access token.
3. Click **Save**. The Hub Scanner connects to the Hub server and displays the version of the Hub you are connected to and the Hub Scan CLI.
 4. Download the Hub Scan CLI from the Hub server.

The Hub Scanner client is downloaded and installed.

Proxy Support

Accessing the Hub Scanner through a proxy is now supported. The Hub Scanner uses your system proxy settings for both Windows and Mac. The Hub Scanner automatically uses your system proxy setup, unless proxy authentication is required. Configuring proxy authentication is accomplished in the same manner as configuring proxy settings in the Hub. If you are required to manually enter your proxy settings, you must supply:

- Your Hub server URL.
- Port number.
- Whether authentication is required.
- Your user name and password.
- If a proxy is enabled and authentication is required, you may have to re-enter your user name and password.

Certificates

When connecting to the Hub: if you connect to a Hub instance with an insecure SSL certificate, you are prompted to view and trust the certificate. Select the **Always trust <Hub instance sever name> to trust** option.

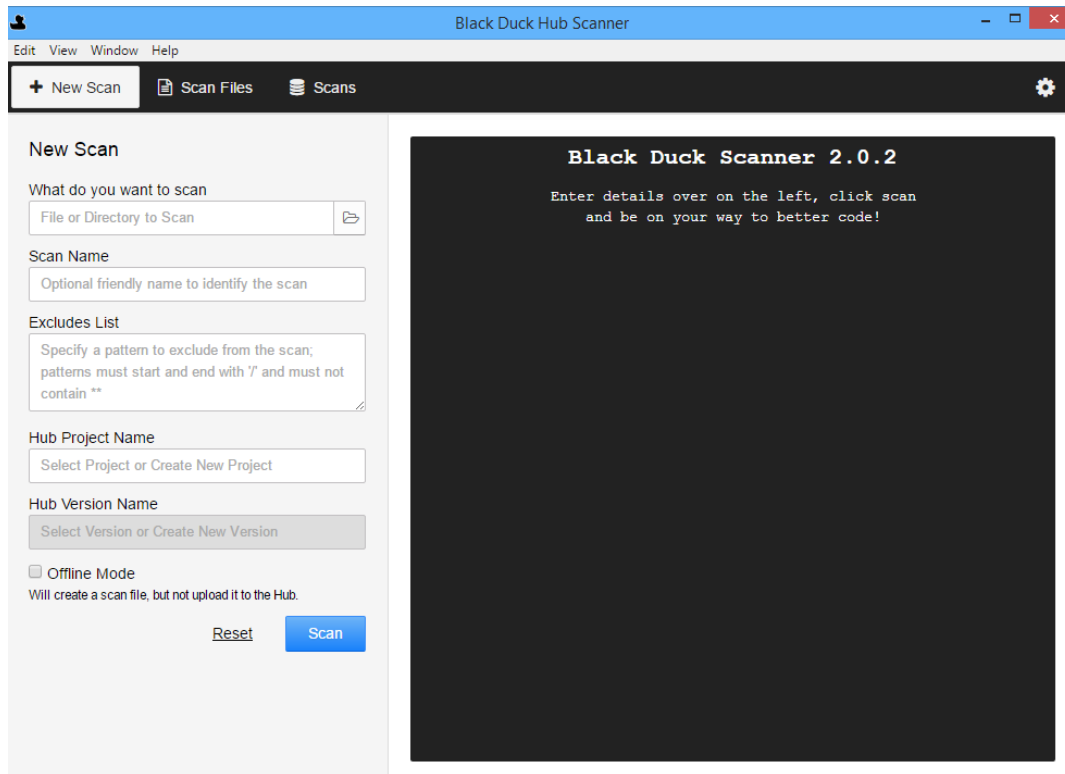
Note: On the Mac OS, even though you have accepted the certificate, your key store may display more options than were originally presented. For the SSL certificate, you must select the *Always trust* option. This prevents future prompts asking you about trusting certificates.


Creating a scan file

You can use the Hub Scanner to output the scan to a file which you can later upload to the Hub by using the Hub Scanner, either by using the GUI, (as described below), the command line, or by using the Hub UI.

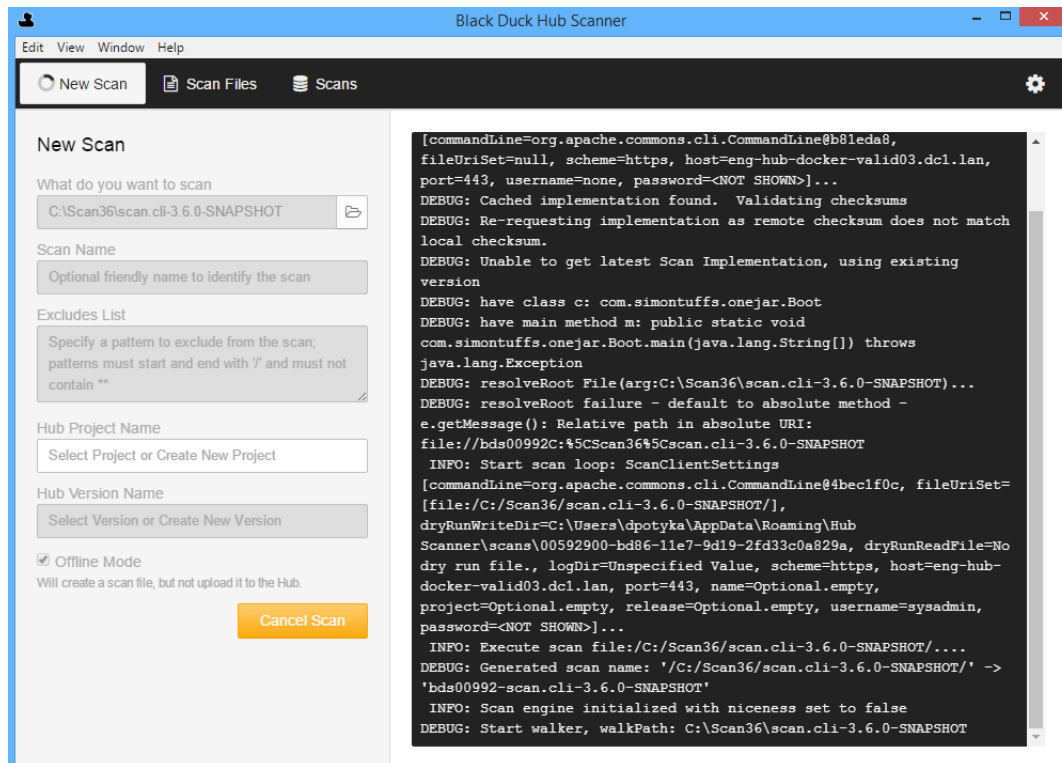
⚙️ To create a scan file:

1. Click **New Scan**.



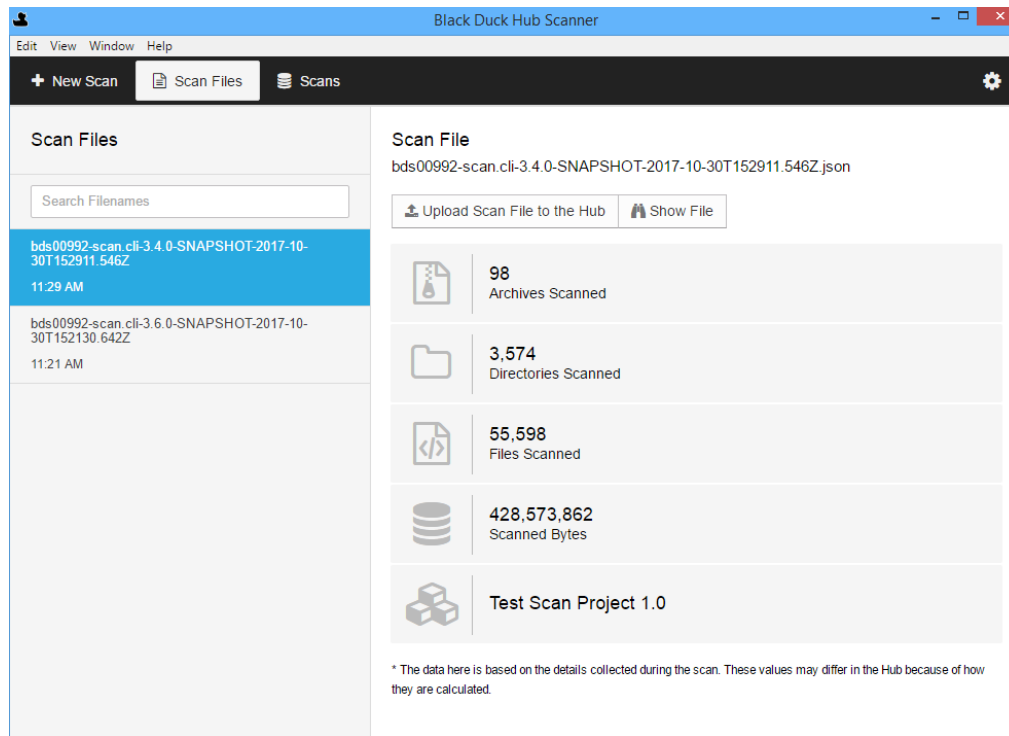
2. In the **What do you want to scan** field, enter the file or directory to scan or click  to open a dialog box to select the directory or file to scan.
3. Optionally, enter the following:
 - **Scan Name.** The name of the scan.
 - **Excludes List.** Specify a list of directories to exclude from the scan. Directories should be separated by commas or new lines and have leading and trailing forward slashes (/). For more information, refer to the Hub online help.
 - **Hub Project Name.** The name of the [project](#) to which you want to map the scan results.
 - **Hub Version Name.** The version of the project to which you want to map the scan results.
4. Select **Offline Mode**.
5. Click **Scan**.

The status of the scan appears along with an option to cancel the scan.



When the scan is complete, select the **Scan Files** tab to view information on the completed scan. From this tab, you can:

- View scan information by selecting the scan name in the left column. Scan information appears in the right column:



Use this tab to manage your scan, as described in the next section.

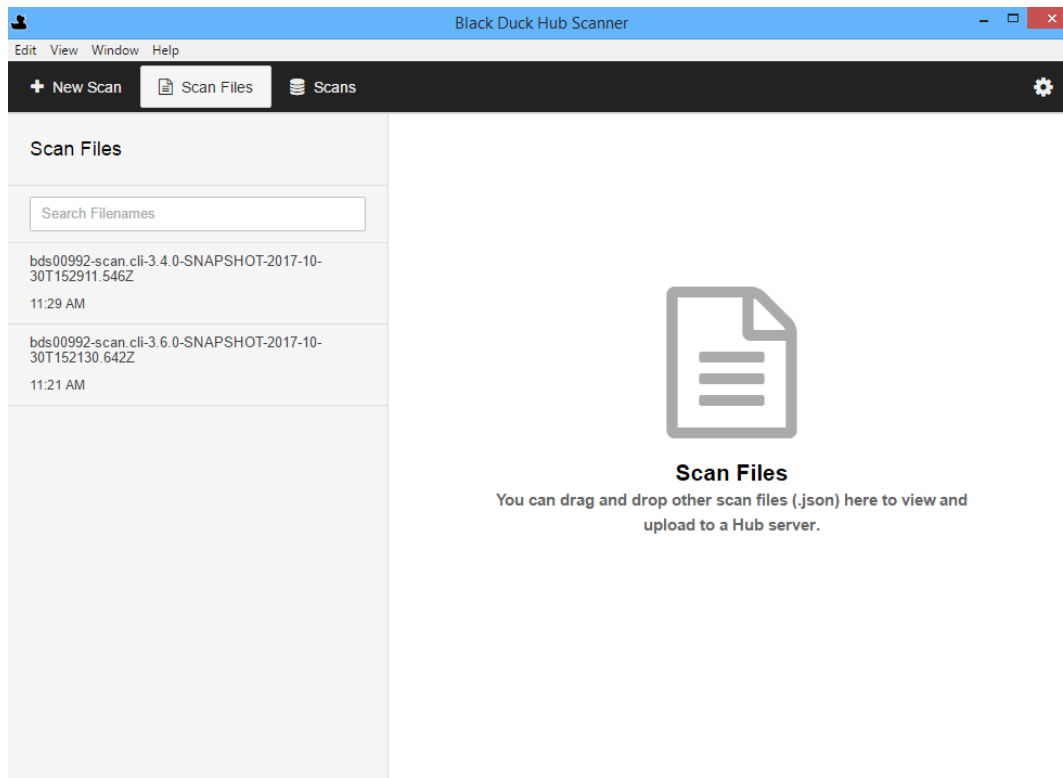
Managing scans

Use the **Scan Files** tab to manage your scans.

1. Click **Scan Files**.

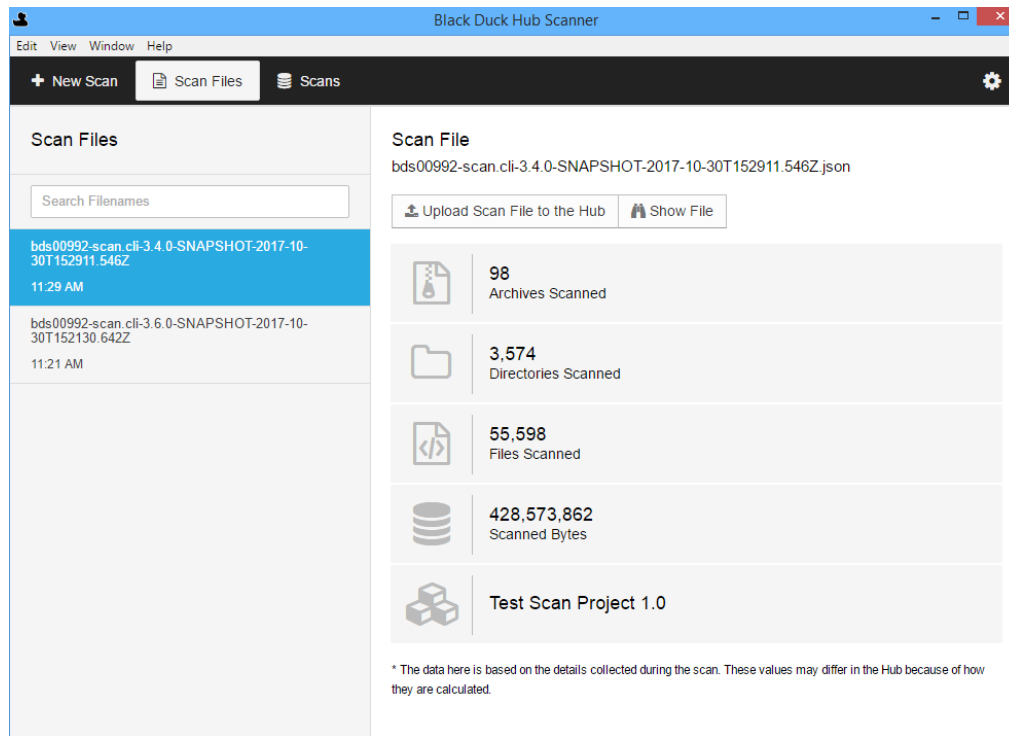
A list of scans appears in the left column of the tab.

Drag and drop scans from your local machine to this tab to manage them.



From this tab, select a scan and:

- View information on the contents of the scan:



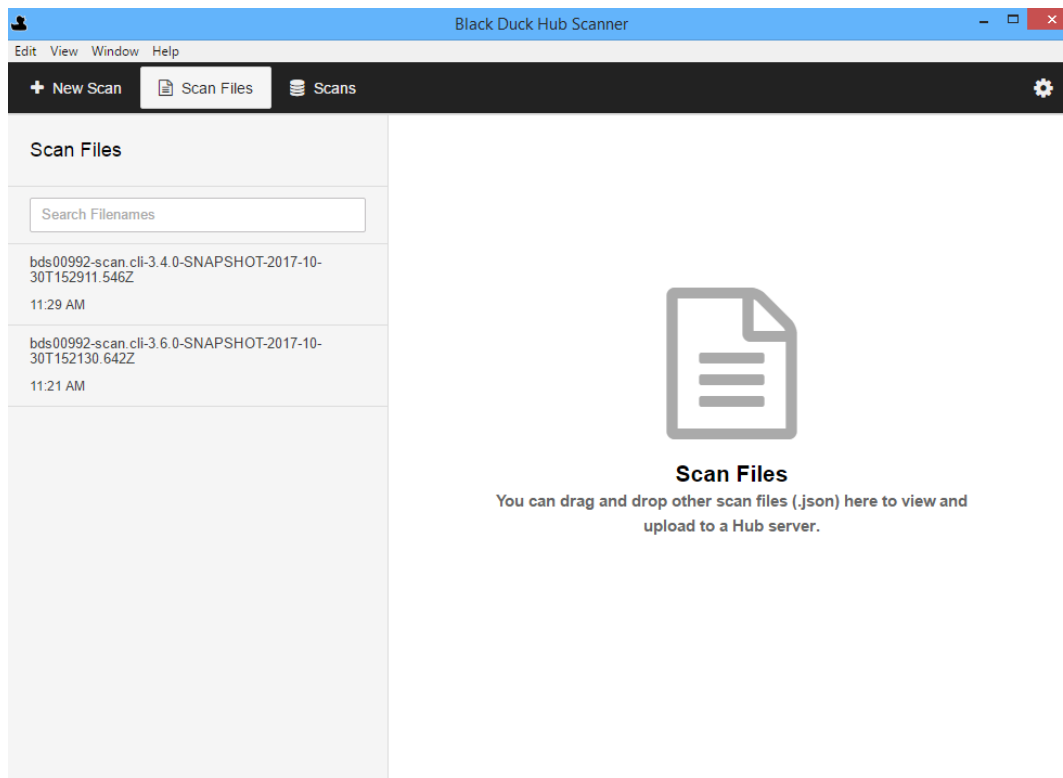
- View the location of the file on your system by clicking **Show File**.
- Upload the file, as described in the next section.
- Delete the scan by hovering over the scan name in the left column and clicking **Delete**. Click **Yes** to confirm.

Uploading scan files to the Hub

You can use the Hub Scanner to upload scan files to the Hub.

Drag and drop scan files on your local machine to the **Scan Files** tab.

1. Click **Scan Files**.



2. Select the file to upload.
3. Click **Upload Scan File to the Hub**. The Upload Progress window appears showing you the status of the upload. Close the window when the process is complete.

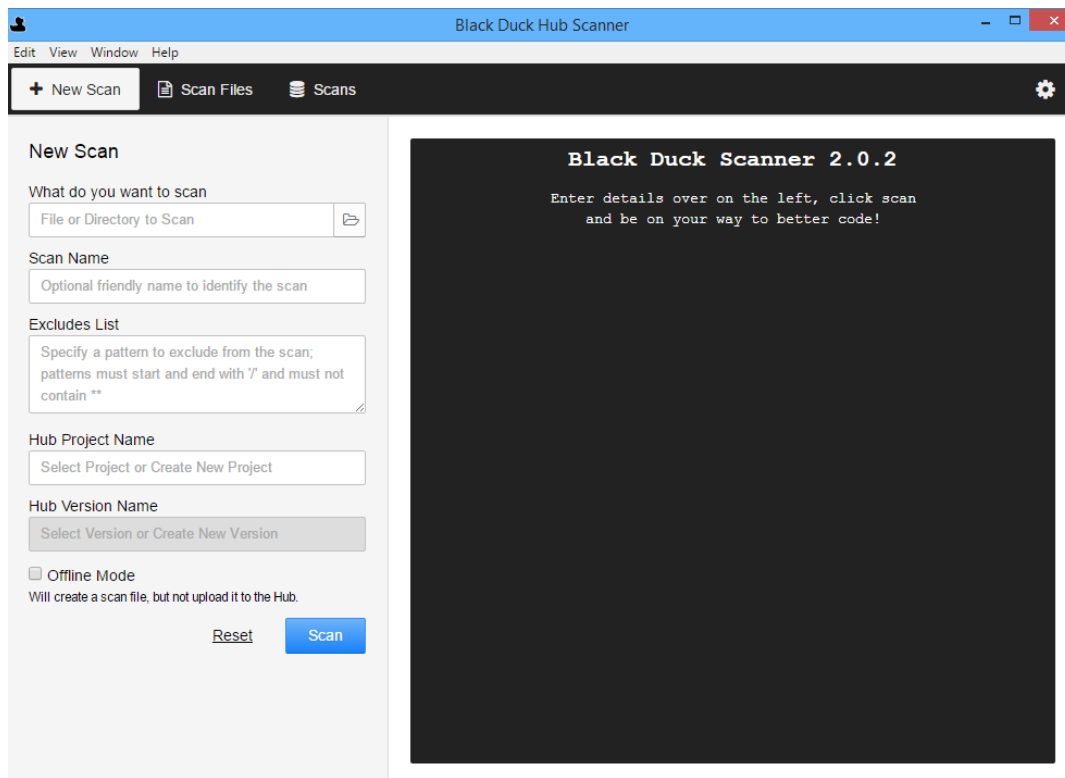
You can confirm that the scan has been uploaded by clicking **Scans** and viewing the uploaded file.


Scanning directly to the Hub

Use this procedure to scan and upload the scan file directly to the Hub.

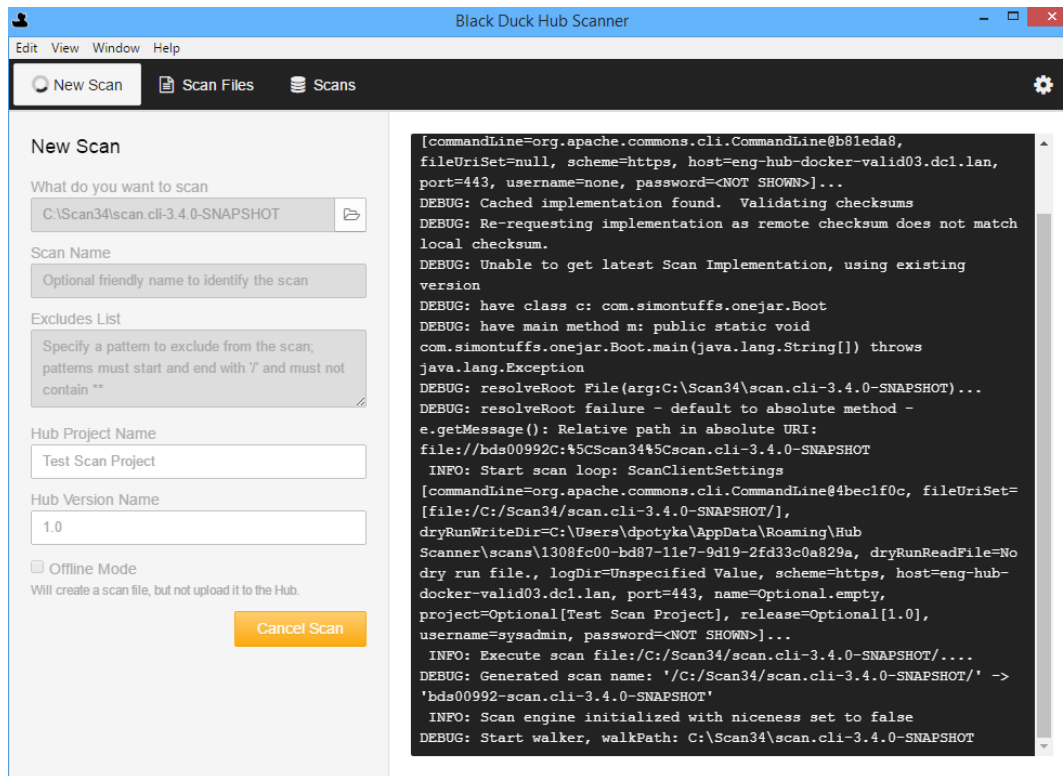
If you enter a project name and version, the scan is also automatically mapped. If you do not select a project name or version name, the file is uploaded but not mapped.

1. Click **Scan**.



2. In the **What do you want to scan** field, enter the file or directory to scan or click  to open a dialog box to select the directory or file to scan.
3. Optionally, enter the following:
 - **Scan Name.** The name of the scan.
 - **Excludes List.** Specify a pattern to exclude from the scan. Use the command line to specify a directory or directories you want to exclude from scanning. For more information, refer to the Hub online help.
 - **Hub Project Name.** The name of the [project](#) to which you want to map the scan results.
 - **Hub Version Name.** The version of the project to which you want to map the scan results.
4. Clear the **Offline Mode** option.
5. Optionally, select **Snippet Scanning** if you have purchased a snippet scanning license.
6. Click **Scan**.

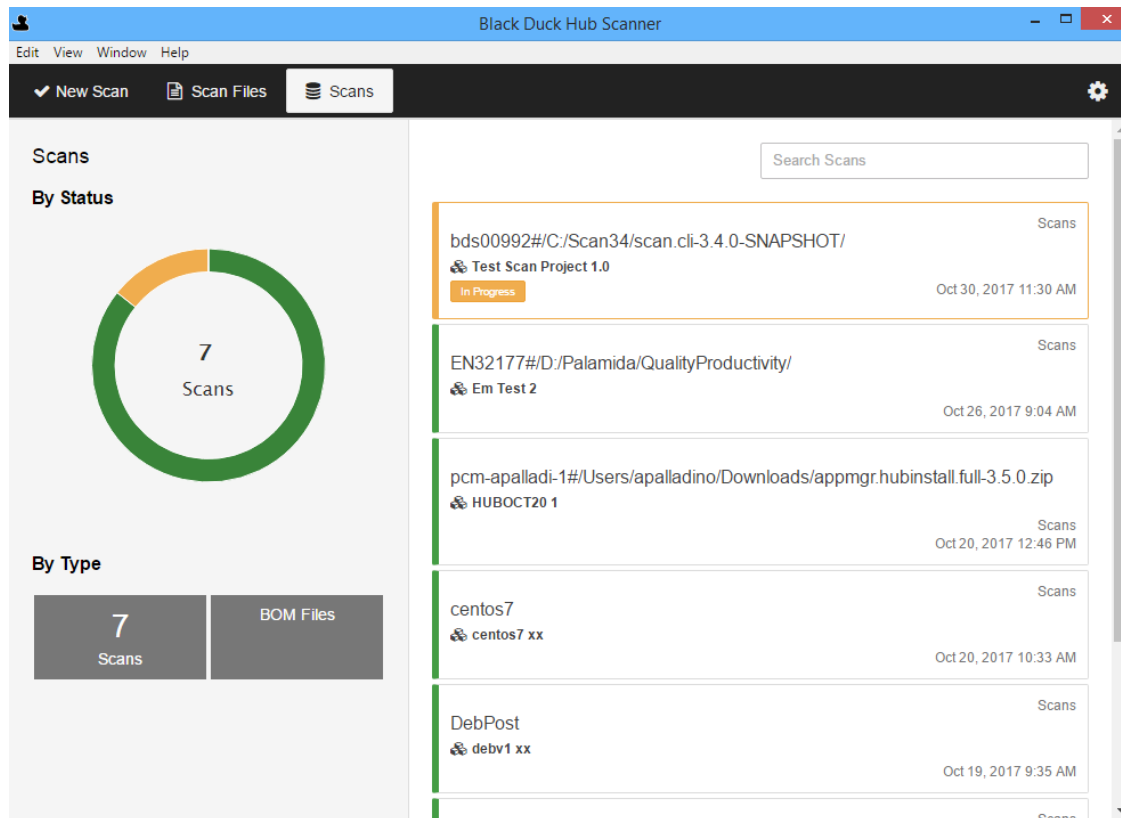
The status of the scan appears on the right side of the window. An option to cancel the scan appears.



You can view the uploaded scan using the **Scans** tab as described in the next section.

Viewing Scans

You can view the scans that have been uploaded to the Hub UI by clicking **Scans**:



This tab displays the following information:

- The left side of the tab shows uploaded scans by status and by type (Scans and BOM files).
- The right side of the page lists the scans and shows the following information for each scan:
 - Name
 - Project and project version scan is mapped to or indicates that the scan is not mapped to a project.
 - Type (Scan or BOM file)
 - Date and time scan was uploaded to the Hub.

Note that information will not appear for BOM files.

Use the filter to limit the scans shown.

Select a scan to open the *Scan Name* page in the Hub for the selected scan.

Note: The number of scanned bytes displayed in the Hub Scanner may differ from the number of scanned bytes shown in the Hub. This is because of how the Hub calculates and counts the number of bytes used. This is normal, and is expected to occur in some scans.

Creating a project

A project is the base unit in the Hub. A project can be both a stand-alone development project and part

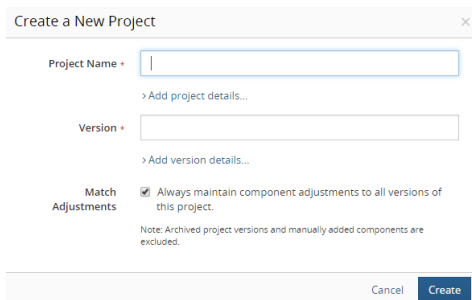
of another project. For example, Apache Tomcat is a project in its own right but it may also be part of other, larger projects. You must create the projects that you want to make available for search by other developers in your organization.

Note that a project or application is limited to 10GB of Managed Code base.

Tip: Want to Learn More? Check out the [Black Duck Hub: Creating Projects](#) course on Black Duck Academy. You will learn how to create and save a Black Duck Hub project as well as how to change overall project settings.

⚙ To create a project

1. Log in to the Hub.
2. Click **+ Create Project** at the top of any page.



3. In the Create a New Project dialog box, enter a project name. This name must be unique among projects in the Hub, although it can have the same name as a project in the Black Duck KB.

Tip: As a best practice, you should think about how other users will search for your projects when creating project names. For example, if your project is related to 3D graphics, naming it "3DGraphics" means that the user must type the entire project name in order to find your project. If you use a space or an underscore in the name, for example, "3D Graphics" or "3D_Graphics", the additional separator characters will allow users to locate the project using the search term "3D".

4. Optionally, select **Add project details** to enter additional information such as:

- Description.

Tip: As a best practice, you should think about how other users will search for your projects when creating project descriptions. The description should be specific about what the project does and how it is unique, so that it is easily distinguishable from other similar projects.

- Name of the project owner in the **Owner** field.

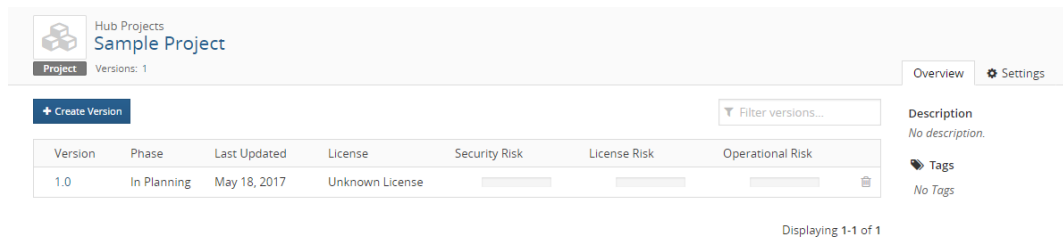
Note: If the user you add is not already a project member, the Hub adds the user to the project team.

- Select a tier. ¹

Note: To assign an application ID to a project, create the project, as described here, and then [modify the project settings](#).

5. Type the version for this project in the **Version** field.
6. Optionally, select **Add version details** to enter additional information such as the planned release date, the project phase, and the method in which the project is being delivered.
7. By default, edits to a version of this project apply to all versions of this project, excluding archived versions and manually added components. Clear this option if you want edits to apply to specific versions only.
8. Click **Create**.

The Hub displays the *Project Name* page.




Mapping a scan to a project

Mapping a scan adds the scan data to the BOM of a project version.

Note: You can scan a Docker image or file directory location or archive more than once, but you only have to map it to a project version once. As long as the host and path used to uniquely identify the scanned location or image does not change, the Hub automatically updates the BOM of the project with any new information discovered during subsequent scans.

To map a scan to a project

1. Log in to the Hub and click the expanding menu () icon.
2. Select **Scans**.

¹A tier lets you categorize projects in terms of importance to your company. Tier 1 projects are defined as those that are most critical to the company, where Tier 5 projects are defined as least critical.


Scans 198.93 MB / ∞ Unlimited

+ Add - Delete Filter scans... Add Filter

Type	Name	Scan Size	Status	Last Updated	Mapped to
Scan	readline6_6.3-8_DEB-scan1	143.30 KB	Complete	Oct 13, 2017	Readline6_6.3-8_DEB 0.1
Scan	readline6_6.3-8_SOURCE-scan1	2.35 MB	Complete	Oct 13, 2017	Readline6_6.3-8_SOURCE 0.1
BOM File	ComplexBomMainProject_2015-12-04 10:28:23	1.19 MB	Complete	Oct 12, 2017	Sample Project 2.0
Scan	bds00992#/C:/Scan36/	195.24 MB	Complete	Oct 11, 2017	Sample Project 1.0

Displaying 1-4 of 4

3. Do one of the following:

- Click  and select **Map to Project** in the row of the scan that you want to map.
- Select the path of the scan you want to map to open the *Scan Name* page.

Scans
bds00992#/C:/Scan36/
Host: bds00992 | Scan Initiated By: sysadmin | Updated: 2:23 PM

Scan Details - for the last completed scan

Host	bds00992	Match Count	399
Path	/C:/Scan36/	Files	59,172
Created on	Aug 2, 2017	Folders	3,574
		Scan Size	195.24 MB

Delete Scan

Map Scan to Project Version

Map to Project Create Project

This scan is not mapped to any versions.

Scan History

Status	Components	Host	Path	Scan Size	Last Updated	Scan Initiated By
complete	399 Matches	bds00992	/C:/Scan36/	195.24 MB	2:23 PM	

Select **Map to Project**.

4. Start typing the name of a project to progressively display matches in the **Project** field.

If necessary, select **Create Project** to create a new project and version.

5. Select the project version to which you want to map the component scan.

If necessary, select **Create Version** to create a new version for a project.

6. Click **Save**.

The Hub displays the name and version of the project to which you mapped the component scan.

Select the link to open the BOM page.

Note: The Hub displays an aggregate project version BOM. If a component version appears more than once in an archive, it is only displayed in the BOM once.

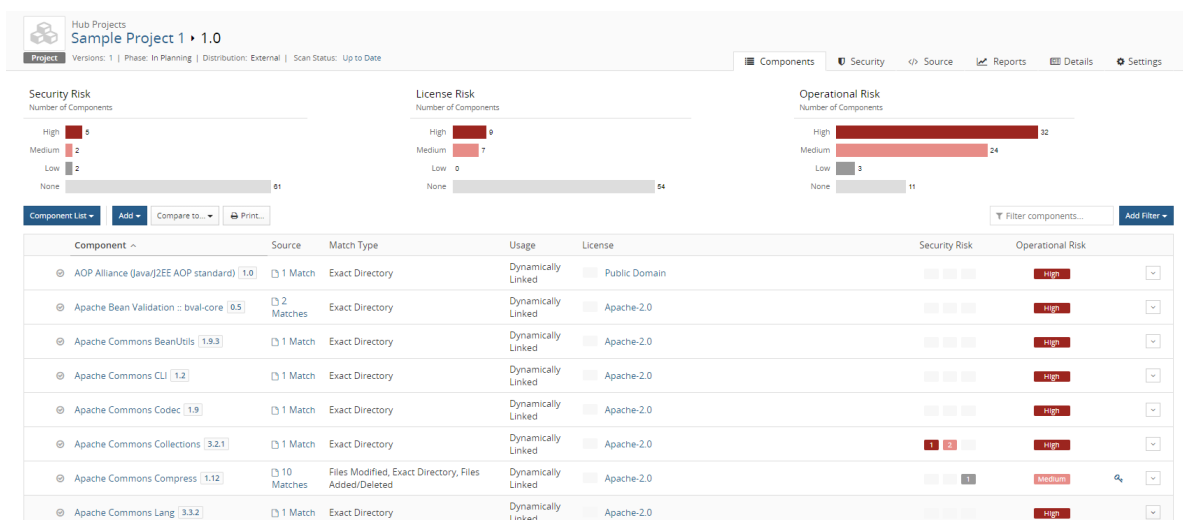
Chapter 3: Viewing your BOM

Once you have mapped a component scan to a project version, the results automatically create the project version's BOM.

⚙️ To view a project version's BOM

1. Log in to the Hub.
2. Locate the internal project using the **Projects** tab on the Dashboard.
3. Select the name of the internal project to go to the Hub Internal Projects page.
4. Select the version name of the project that you want to view.

The **Components** tab shows you the BOM.



By default, the BOM displays a "flat" view of components where all components found are listed at the same level. Select **Component Tree** to view a hierarchical view which is based on file system relationships.

Adjusting the component and/or component version in a BOM

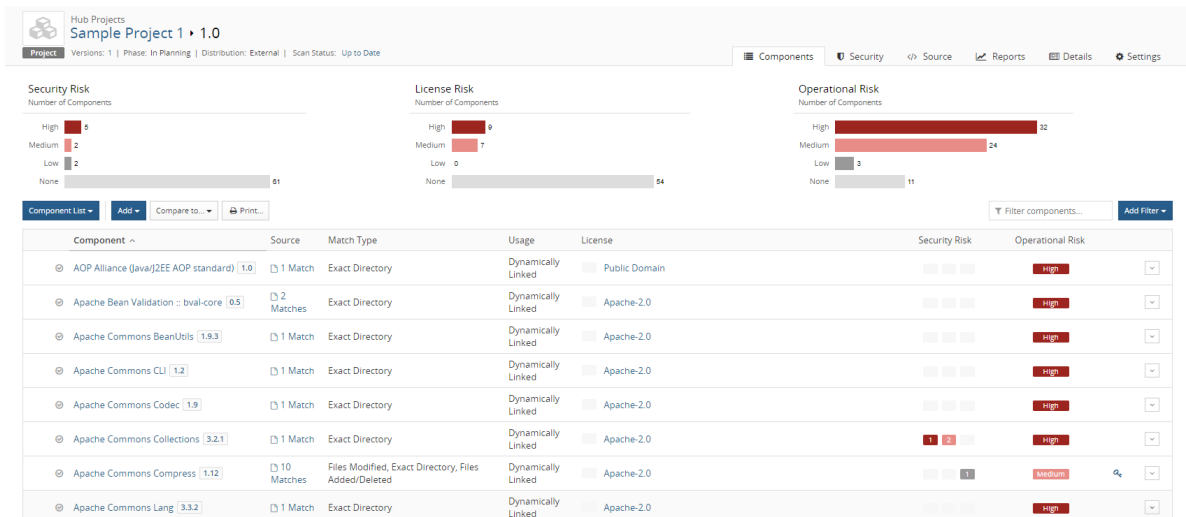
Once you have mapped a component scan to a project version, the scan results automatically create the

project version's BOM. Although component scanning automatically discovers the open source component and component version from most archive files by comparing them to components in the Black Duck KB, you may be using a version of the component that is not available in the Black Duck KB, or you may be using a modified version of a component. You can adjust the component and version for a component in a BOM.


- If the component/version is available in the Black Duck KB, users with the appropriate role can adjust the component or component version, as described below.
- If the component version of a component is not available in the Black Duck KB, users with the Component Manager role can create a custom version and add it to the BOM.

To select an alternate component and/or version match for a component in a BOM

1. Log in to the Hub.
2. Locate the project using the **Projects** tab on the Dashboard.
3. Select the name of the project to go to the *Project Name* page.
4. Select the version name to open the **Components** tab and view the BOM.



Component	Source	Match Type	Usage	License	Security Risk	Operational Risk
AOP Alliance (Java/JEE AOP standard) 1.0	1 Match	Exact Directory	Dynamically Linked	Public Domain	High	High
Apache Bean Validation : bval-core 0.5	2 Matches	Exact Directory	Dynamically Linked	Apache-2.0	High	High
Apache Commons BeanUtils 1.9.3	1 Match	Exact Directory	Dynamically Linked	Apache-2.0	High	High
Apache Commons CLI 1.2	1 Match	Exact Directory	Dynamically Linked	Apache-2.0	High	High
Apache Commons Codec 1.9	1 Match	Exact Directory	Dynamically Linked	Apache-2.0	High	High
Apache Commons Collections 3.2.1	1 Match	Exact Directory	Dynamically Linked	Apache-2.0	High	High
Apache Commons Compress 1.12	10 Matches	Files Modified, Exact Directory, Files Added/Deleted	Dynamically Linked	Apache-2.0	Medium	Medium
Apache Commons Lang 3.3.2	1 Match	Exact Directory	Dynamically Linked	Apache-2.0	High	High

5. In the component list view of the BOM, click  and select **Edit** to open the Edit component dialog box.
6. Type the name of the OSS component in the **Component** field, and select the alternate match.
7. Select the version of the component from the **Version** list. The list contains all versions of the component that are available in the Black Duck KB.
8. Click **Save**.

The component and version for the BOM entry are updated. The BOM adjustment indicator appears in right corner of table row to indicate that the component and/or version were changed from the one automatically discovered in the component scan:

Component List

Add

Compare to...

Print

Filter components...

Add Filter

Component ^	Source	Match Type	Usage	License	Security Risk	Operational Risk
<div><div>⊕</div><div>Apache Commons Logging</div><div>1.2.0</div></div>	<div><div>1</div> Match</div>	Exact Directory	Dynamically Linked	<div><div></div> Apache-2.0</div>	<div><div></div><div></div><div></div></div>	<div>High</div> <div></div>

Selecting a different license for a component in a BOM

You can select a license for a component used in a BOM that is different from the component's declared license that is identified in the Black Duck KB.

⚙️ To select a different license for an OSS component in the project version's BOM

1. Log in to the Hub.
2. Locate the project using the **Projects** tab on the Dashboard.
3. Select the name of the project to go to the *Project Name* page.
4. Select the version name to open the **Components** tab and view the BOM.
5. Select the existing license to open the *Component Name Version* Component License dialog box.

Component Name Version Component License

☒ Include in Notices File Report

Attribution Statement >

License
 (Artistic License 1.0 OR GNU General Public License v1.0 or later)

Artistic License 1.0
 (Artistic-1.0)

GNU General Public License
 v1.0 or later
 (GPL-1.0+)

Artistic License 1.0
Weak Reciprocal

The Artistic License

=====

Preamble

The intent of this document is to state the conditions under which a Package may be copied, such that the Copyright Holder maintains some semblance of artistic control over the development of the package, while giving the users of the package the right to use and distribute the Package in a more-or-less customary fashion, plus the right to make reasonable modifications.

Definitions:

- * "Package" refers to the collection of files distributed by the Copyright Holder, and derivatives of that collection of files created through textual modification.
- * "Standard Version" refers to such a Package if it has not been modified, or

Save Changes

Close

Note that this version of the *Component Name Version* Component License dialog box is for those users that have the premium offering as with this module you can use this dialog box to exclude components from the Notices File report, add attribution statements, and edit license text.

6. Backspace to clear the field and then type the name of the license that you want to assign, and

from the list of suggestions, select the one you want.

7. Click **Save Changes**.

The assigned license is updated. If the new license carries a different type of license risk than the previous one, the license risk calculations for the component and for the project version are updated.

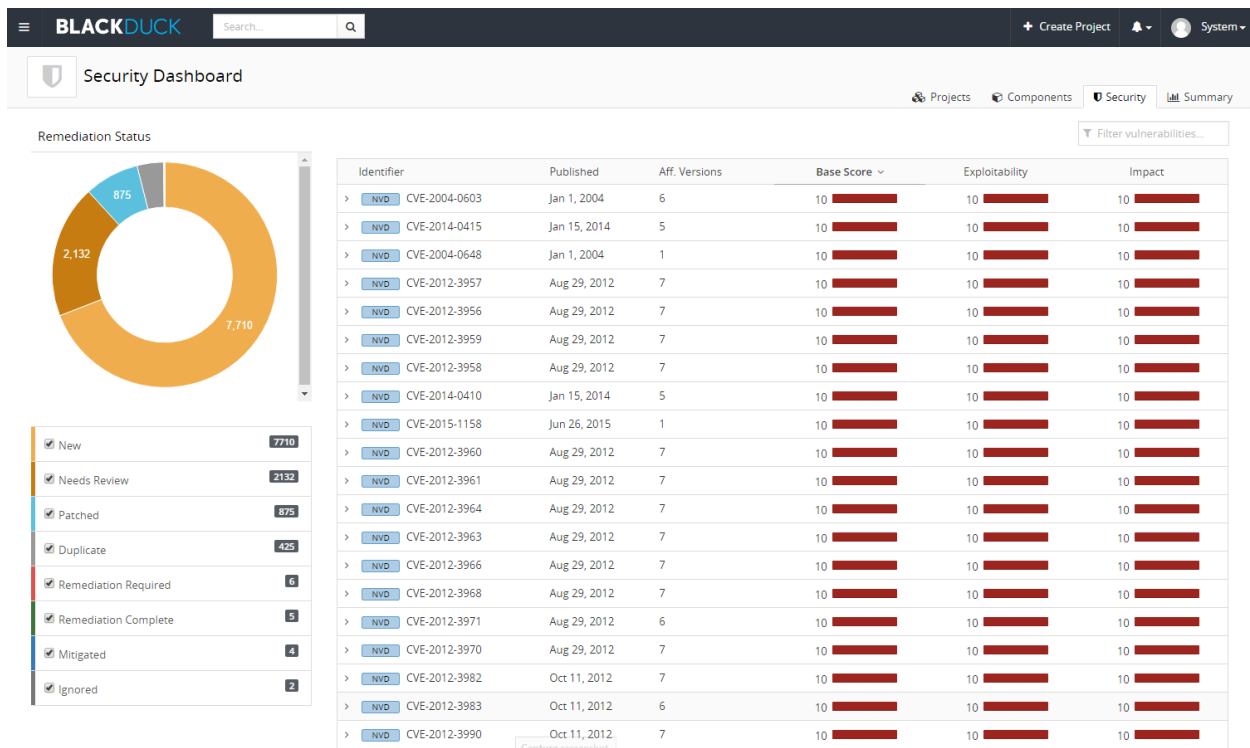
Chapter 4: About security risk

After scanning your code and mapping it to projects you can:

- Select the **Security** tab to [view all the vulnerabilities](#) that exist within your projects and their remediation status.
- Select the **Projects** tab to [view the projects](#) that have a version that has a component that has a vulnerability.
- Select the **Components** tab to view the [vulnerabilities of your components](#).
- Select the **Summary** tab to [view the overall health](#) of the projects you have permission to view and identify areas of concern.

Viewing all security vulnerabilities

Use the Security Dashboard to identify and manage risk. This dashboard lists all the security vulnerabilities that affect your projects.



Using the Security Dashboard is an efficient way to:

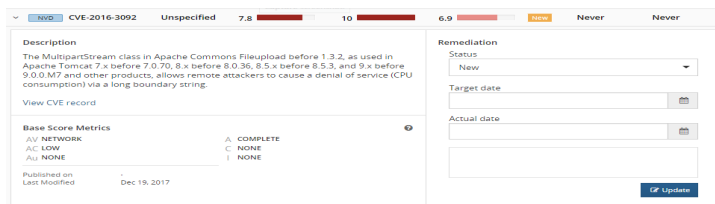
- Identify the remediation status of all the vulnerabilities in your projects.
- Review the severity of the vulnerability to determine if remediation is required.

To use the Security Dashboard to identify and manage risk

1. Log in to the Hub.
2. From the Dashboard, click the **Security** tab to display the Security Dashboard.
3. You can use:
 - The table filter field to filter the vulnerabilities shown in the table by identifier.
 - The **Aff. Versions** column to view the number of project versions affected by this vulnerability. Use this column to identify the vulnerabilities that are affecting the greatest number of versions of your projects.
 - The Remediation Status chart to view the remediation status of all vulnerabilities that exist within all projects and the number of vulnerabilities with each remediation status.

By default, the chart displays all remediation statuses. Clear the check box to hide the vulnerabilities with that remediation status.

- The table to view more information on a vulnerability by selecting > next to the vulnerability that interests you.



Select to view the BDSA record, the CVE record, or the full record (VulnDB):

- a. Review the information to determine if remediation is required.
- b. If remediation is required, select one or more of the affected projects and click **Remediate**.

You can also select  in the row of a project and select **Update Remediation Plan**.

- c. Enter remediation details, such as a target date and a status, and click **Update**.

In the **Affected Projects** tab or section, view the files related to a vulnerability by selecting

 in the row of a project and selecting **View related files**. The **Source** tab appears filtered to display the affected files.

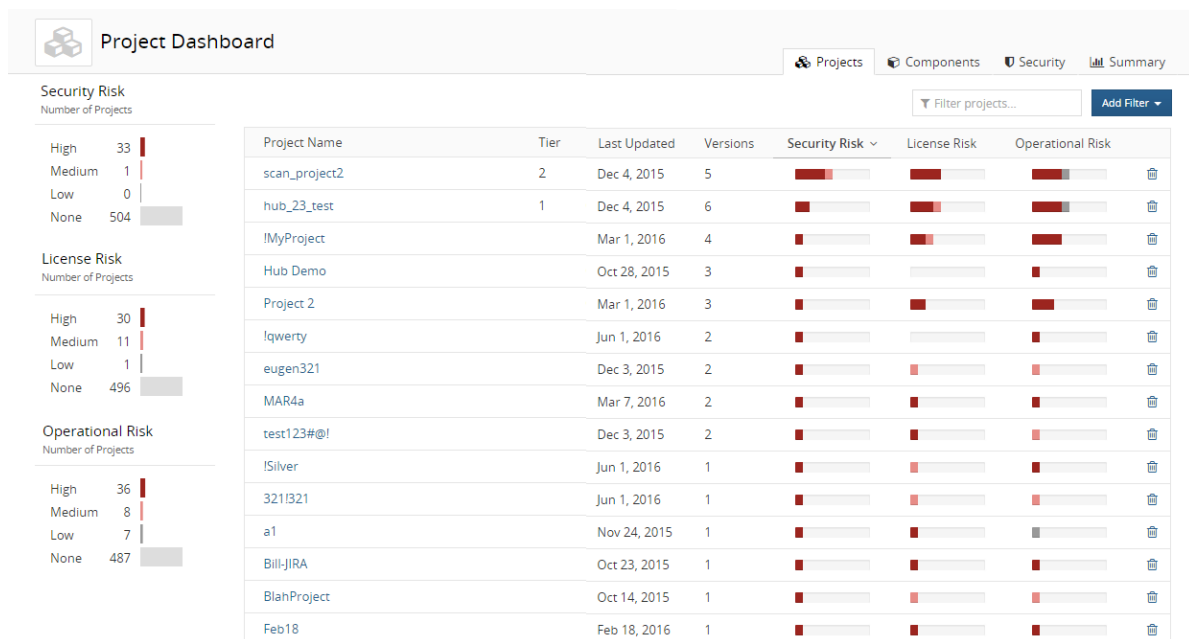
Note: A single vulnerability can be present multiple times in the remediation status pie chart since it can have multiple different remediation types within a single BOM or across multiple project version BOMs. However, a single vulnerability is listed in only one row in the table.

Viewing the security vulnerabilities of your projects and project versions

Use the Project Dashboard to view the types and severity of risk that are associated with the components that are in one or more versions of your projects. This dashboard provides an overall view of risk across all of your projects.

⚙️ To view the security vulnerabilities

1. Log in to the Hub.
2. From the Dashboard, select the **Projects** tab to display the Project Dashboard.



From this page:

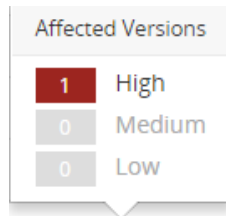
- Use the Security Risk graph to view the number of projects that have high, medium, low, or no security risk.



Select one or more values in the graph or use the filters at the top of the table to view the projects that have one or more security risk levels.

Note: The Security Risk graph displays the highest security risk level for a project, not all security levels affecting a project. Select a project name to open a page which lists all security risk levels for all versions of that project.

- Select a bar in **Security Risk** column in the table to see the number of versions of this project that are affected by a security risk.



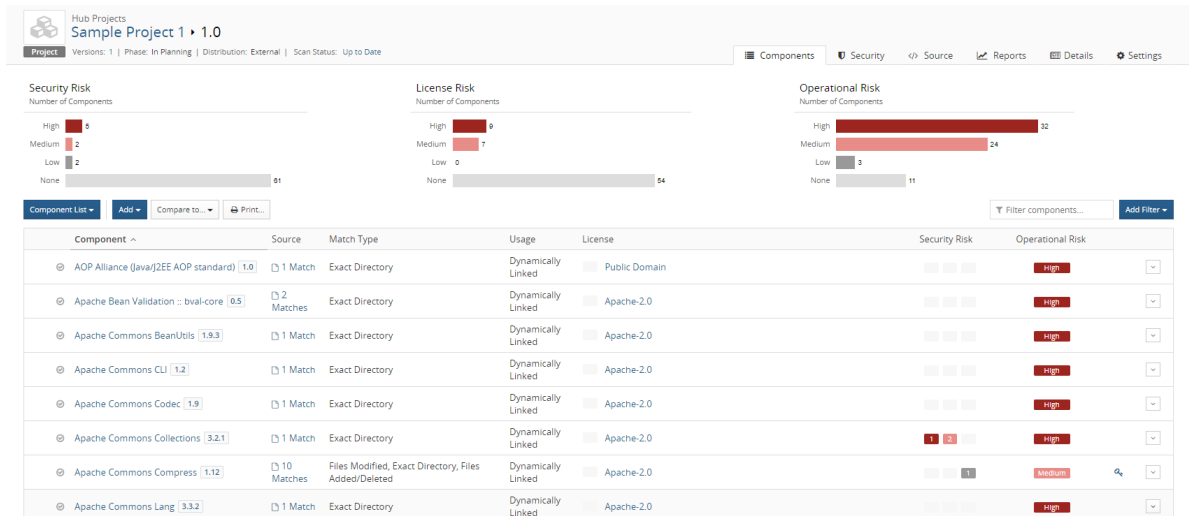
Use this column to identify the vulnerabilities that are affecting the greatest number of your projects.

3. Select a project name to view a page that lists all versions of this project.

The screenshot shows the 'Sample Project' page in Black Duck Hub. The page header includes 'Hub Projects', 'Sample Project', and 'Versions: 2'. There are tabs for 'Overview' and 'Settings'. A 'Create Version' button is on the left. A search bar 'Filter versions...' and an 'Add Filter' button are on the right. The main table has columns: Version, Phase, Last Updated, License, Security Risk, License Risk, and Operational Risk. Two versions are listed: 1.0 and 2.0, both in 'In Planning' phase, updated on Oct 16, 2017 and Oct 17, 2017 respectively, with 'Unknown License'. The 'Security Risk' column shows a red bar for version 1.0 and a grey bar for version 2.0. The 'License Risk' and 'Operational Risk' columns show red bars for both versions. To the right of the table, there are sections for 'Description' (No description), 'Tags' (No Tags), and a 'Displaying 1-2 of 2' footer.

Version	Phase	Last Updated	License	Security Risk	License Risk	Operational Risk
1.0	In Planning	Oct 16, 2017	Unknown License	High	High	High
2.0	In Planning	Oct 17, 2017	Unknown License	Medium	High	High

4. Select a version with security risks to view a page which shows the BOM for this version of the project.



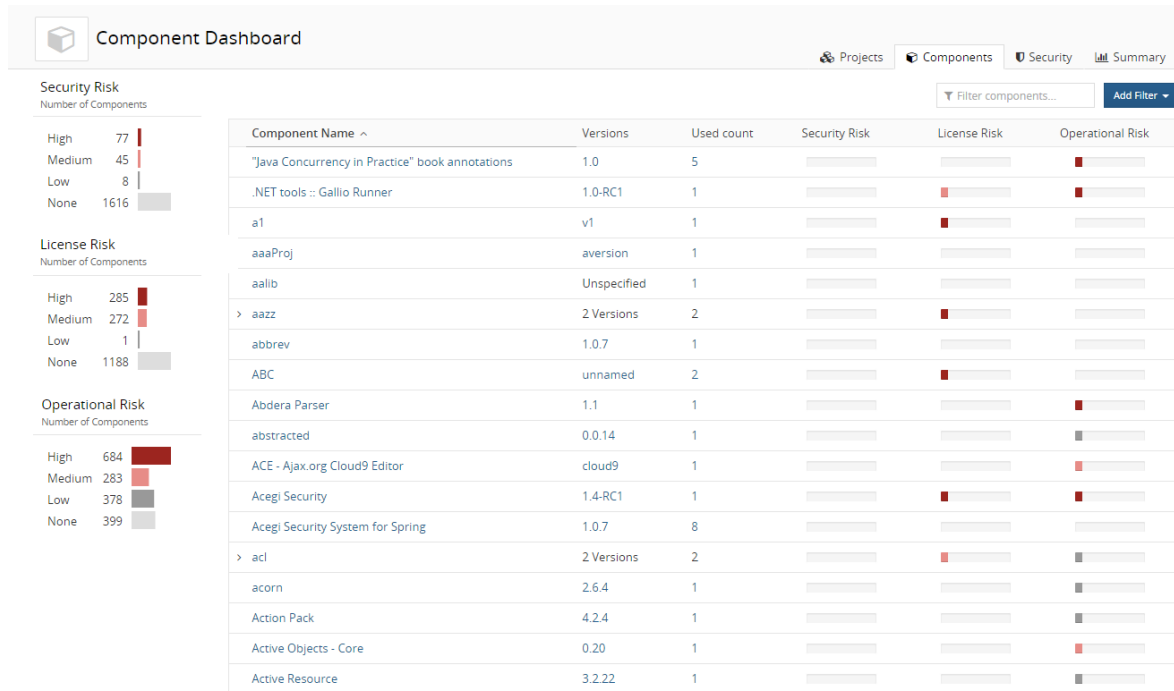
5. Use this page to view more information on the component and component version.

Viewing security vulnerabilities associated with your components

Use the Component Dashboard to view all components in your projects; components shown are top-level (parent) and subcomponents. The right side of the page displays a list of the components used in one or more of your projects. On the left side of the page risk graphs show the total number of components, used in one or more of your projects, which have each severity of security, license, and operational risks associated with them. From this page, you can drill down and view more information on these components and their vulnerabilities.

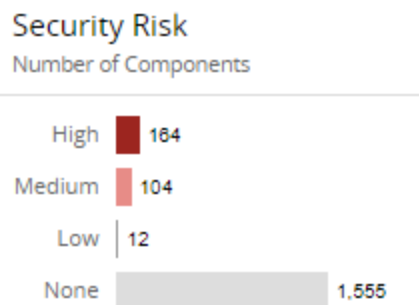
To view vulnerabilities of components in your projects

1. Log in to the Hub.
2. Select the **Components** tab to display the Component Dashboard.



From this page:

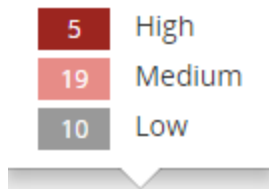
- Use the **Security Risk** graph to view the total number of components, used in one or more of your projects, that have high, medium, low, or no security risk.



Select a value in the **Security Risk** graph to view the components that have that security risk level.

Note: This graph lists the number of components which have this level of security risk as their *highest* risk level – it is not the total number of components which have this risk level. For example, if you select to view components with a medium risk level, only those components that have medium as the highest risk level appear in the table; components that have both high *and* medium vulnerabilities are not shown.

- Select a bar in **Security Risk** column in the table to identify the components that have the greatest number of vulnerabilities.

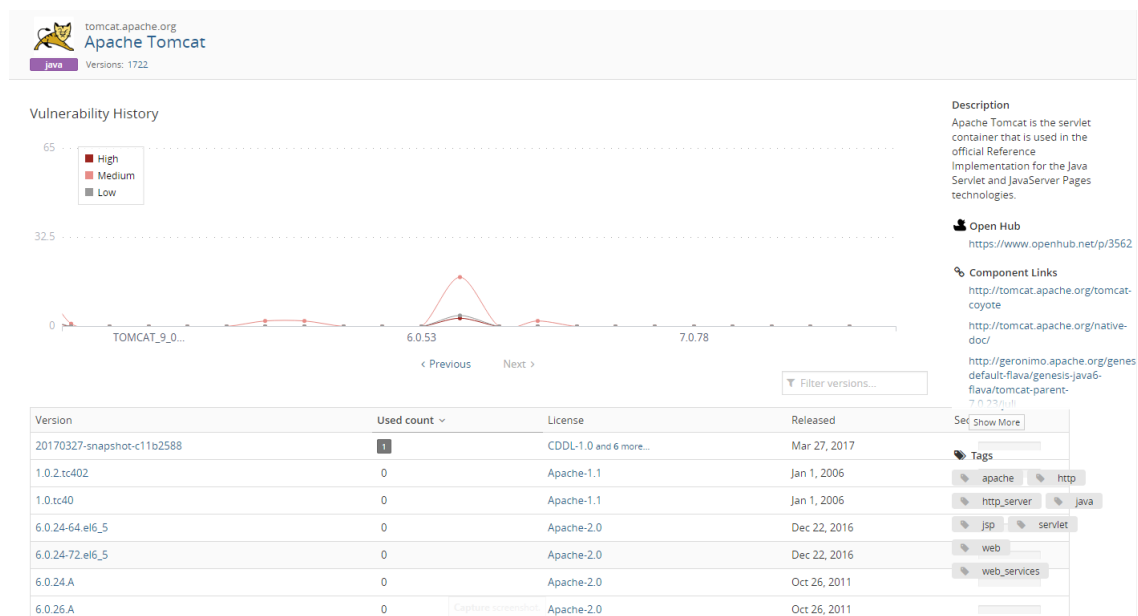


For each version of a component, the values for each risk level are calculated as:

of vulnerabilities * the number of files affected by the vulnerability for each version of the project

For components that have multiple versions, the total value equals the sum of all versions.

3. Click > for components with multiple versions to view a list of the versions used in your projects.
4. Optionally, to view the vulnerabilities for a specific version of a component:
 - Select a component name to view all versions of this component, along with a description:



The **Used count** column shows the number of project versions that use this version of this component. A graph at the top of the page shows a history of high, medium, and low vulnerabilities for each version of this component.

- Select a component version to view a page which lists all projects and associated versions that use this version of this component. The number of vulnerabilities, a brief description, and associated licenses with this project also appear on this page.

wwwantlr.org
ANTLR ▸ 2.7.7
 java Versions: 100 | Phase: Released | Distribution: External

Security Cryptography Details

Where Used

Project	Version	Tier	Released	Distribution	Phase
HUBSEPT29	2		Never	External	In Development

Displaying 1-1 of 1

0 Vulnerability

Description
 ANOther Tool for Language Recognition (ANTLR) is the name of a parser generator that uses LL(k) parsing. ANTLR is the successor to the Purdue Compiler Construction Tool Set (PCCTS), first developed in 1989, and is under active development. Its maintainer is professor

Show More

Released on Sep 6, 2006

Licenses
 ANTLR Software Rights Notice **Permissive**

Open Hub
<https://www.openhub.net/p/5424>

Component Links
<http://github.com/antlr/antlr4/>
<https://github.com/antlr/antlr4>
<http://www.antlr.org/antlr4-runtime>

Show More

Tags
 antlr c c# code_generator compiler generator grammar java language parser parsing programming python

Click the **Security** tab to view a list of the vulnerabilities for this version of the component.

tomcat.apache.org
Apache Tomcat ▸ 1.2.5
 java Versions: 462 | Phase: Released | Distribution: External

Security Details

Filter Vulnerabilities

Identifier	Published	Base Score	Exploitability	Impact
> NVD CVE-2013-2185	Jan 19, 2014	7.5	10	6.4
> NVD CVE-2002-0493	Aug 12, 2002	7.5	10	6.4
> NVD CVE-2013-6357	Nov 13, 2013	6.8	8.6	6.4
> NVD CVE-2013-4444	Sep 11, 2014	6.8	8.6	6.4
> NVD CVE-2013-4286	Feb 26, 2014	5.8	8.6	4.9
> NVD CVE-2016-5388	Jul 18, 2016	5.1	4.9	6.4
> NVD CVE-2007-1860	May 25, 2007	5	10	2.9
> NVD CVE-2001-0590	Aug 2, 2001	5	10	2.9
> NVD CVE-2014-0075	May 31, 2014	5	10	2.9
> NVD CVE-2000-1210	Mar 22, 2002	5	10	2.9
> NVD CVE-2008-0128	Jan 22, 2008	5	10	2.9

Click > to view more information on a vulnerability.

▼ NVD CVE-2016-3092 Unspecified 7.8 10 6.9 New Never Never

Description

The MultipartStream class in Apache Commons Fileupload before 1.3.2, as used in Apache Tomcat 7.x before 7.0.70, 8.x before 8.0.36, 8.5.x before 8.5.3, and 9.x before 9.0.0.M7 and other products, allows remote attackers to cause a denial of service (CPU consumption) via a long boundary string.

[View CVE record](#)

Base Score Metrics

AV NETWORK	A COMPLETE
AC LOW	C NONE
Au NONE	I NONE

Published on
Last Modified Dec 19, 2017

Remediation

Status
New

Target date

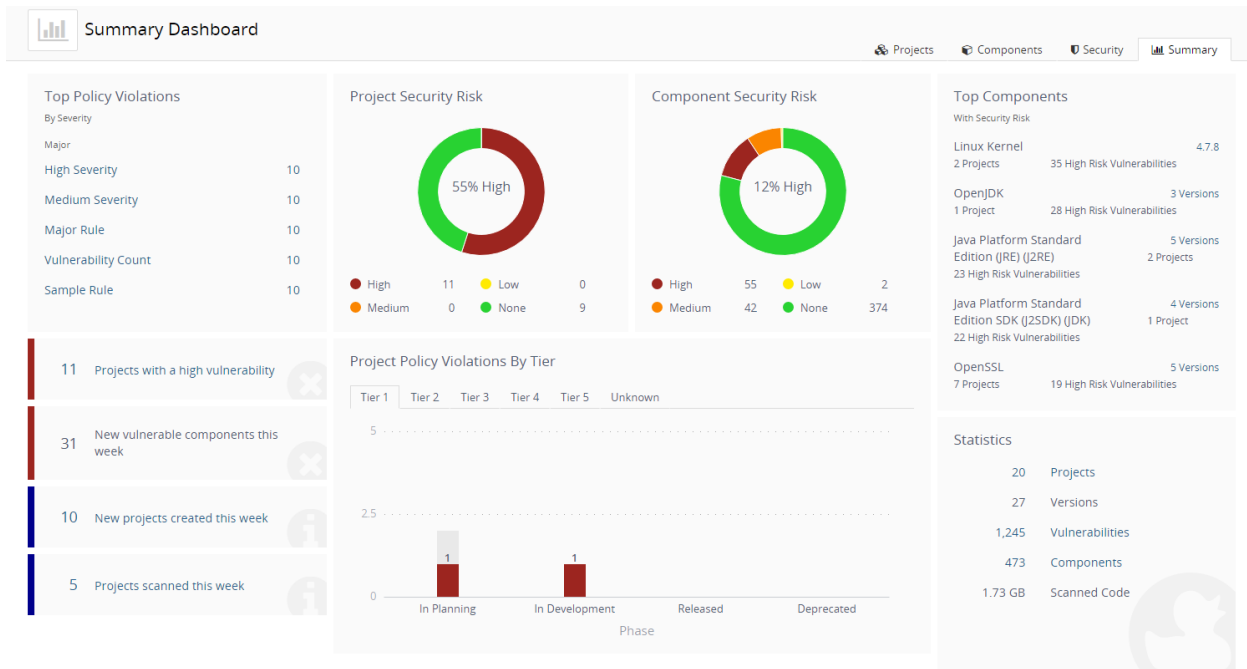
Actual date

[Update](#)

Select the link shown to view more information. Users with the Security Manager role who are members of the project or have project-group privileges can optionally remediate this vulnerability.

Viewing the health of your projects

Use the **Summary** tab to view the overall health of your projects and identify areas of concern. The page consists of widgets that provide business critical information which you can use to quickly assess areas where you need to focus your attention.



Note: The **Summary** tab only displays information for the projects you have permission to view.

The following table describes each widget shown on the **Summary** tab and, where available, how to view additional information.

Description	More Information
<p>The Top Policy Violations widget displays up to the top five policy violations across all projects that you have permission to view.</p> <p>Policy rules are listed by severity level and then by the number of policy violations, in descending order. If policy rules do not have severity levels assigned to them, the widget displays the top five policy violations, in descending order by the number of violations.</p> <ul style="list-style-type: none"> • If you do not have the Policy Management module, this widget will not appear on the page. • A message appears if you have the Policy Management module but do not have any policy rules configured or have any policy violations. 	<p>Select a policy rule to view the Projects tab filtered to display the projects with a version that violate that policy rule.</p>
<p>The Project Security Risk widget displays the number of projects you have permission to view that have a high, medium, low, or no security risk as the highest level of risk.</p> <p>Note that this widget counts the highest security risk level for a project, not all security levels affecting a project. For example, if a project has high and medium security risks, it is counted as a project with high security risk; it is not included as a project with medium security risks.</p>	<p>Hover over the graph to view the number of projects with that level of security risk.</p>
<p>The Component Security Risk widget displays the number of components in projects you have permission to view that have high, medium, low, or no security risk.</p> <p>Note that the widget counts only the highest security risk for a component. For example, if a component has high and medium security risks, it is counted as one component with a high security risk.</p>	<p>Hover over the graph to view the number of components with that level of security risk.</p>
<p>The Top Components with Security Risk widget displays up to the top five components used in the projects you have permission to view. The information shown for each component is:</p> <ul style="list-style-type: none"> • Component name and number of versions used in your projects. If only one version is used, the specific version is listed here. • Number of your projects that have this component. • Number of security risks in this component, with the highest security risk listed here. <p>Components are organized by security risk, with those components with the highest risk listed first.</p>	<p>Select the number of versions link to view the Component Dashboard page.</p> <p>Select the specific version to view the Component Version Details page.</p>
<p>The Projects have a high vulnerability widget displays the number of projects with versions that contain components with a high security risk.</p>	<p>Select the text to view the Projects tab filters to show the projects that have versions that have high security risk.</p>

Description	More Information
The New vulnerable components this week widget displays the number of components the Black Duck KB mapped a vulnerability to in the past seven days, including today.	N/A.
The New projects created this week widget displays the number of projects that you have permission to view that have been created in the past seven days, including today.	Select the text to view the Projects tab which lists the projects created in the past week.
The Projects scanned this week widget displays the number of projects with scans from the past seven days, including today.	Select the text to view the Projects tab showing projects that have project versions with scans from the past week.
<p>The Project Policy Violations by Tier widget displays the total number of projects by phase that have a policy violation, grouped by tiers.</p> <ul style="list-style-type: none"> • If you do not use tiers for your projects, projects are grouped in a single category called Unknown. • If you do not have the Policy Management module, this widget displays Projects by Tier. 	For each tier, hover over a bar to see the number of projects in this phase and the number of projects in this phase with a policy violation.
<p>The Statistics widget displays the following information:</p> <ul style="list-style-type: none"> • Projects lists the number of your projects. • Versions lists the number of project versions for your projects. • Vulnerabilities lists the number of vulnerabilities in your projects. • Components lists the number of components used in your projects. • Scanned Code lists the number of GBs scanned for all scans. 	<p>Select the projects value to view the Projects tab listing all projects you can view.</p> <p>Select the vulnerability value to view the Security tab filtered to show the vulnerabilities with a New, Needs Review, or Remediation Required status.</p> <p>Select the components value to view the Components tab showing all components used in the projects you can view.</p>