BLACKDUCK

BY SYNOPSYS®

Release Notes

Version 2020.12.0

This edition of the *Release Notes* refers to version 2020.12.0 of Black Duck.

This document created or updated on Thursday, December 17, 2020.

Please send your comments and suggestions to:

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Contents

Black Duck documentation

The documentation for Black Duck consists of online help and these documents:

Title	File	Description
Release Notes	release_notes.pdf	Contains information about the new and improved features, resolved issues, and known issues in the current and previous releases.
Installing Black Duck using Docker Swarm	install_swarm.pdf	Contains information about installing and upgrading Black Duck using Docker Swarm.
Installing Black Duck using Kubernetes	install_kubernetes.pdf	Contains information about installing and upgrading Black Duck using Kubernetes.
Installing Black Duck using OpenShift	install_openshift.pdf	Contains information about installing and upgrading Black Duck using OpenShift.
Getting Started	getting_started.pdf	Provides first-time users with information on using Black Duck.
Scanning Best Practices	scanning_best_practices.pdf	Provides best practices for scanning.
Getting Started with the SDK	getting_started_sdk.pdf	Contains overview information and a sample use case.
Report Database	report_db.pdf	Contains information on using the report database.
User Guide	user_guide.pdf	Contains information on using Black Duck's UI.

Black Duck integration documentation can be found on Confluence.

Customer support

If you have any problems with the software or the documentation, please contact Synopsys Customer Support.

You can contact Synopsys Support in several ways:

- Online: https://www.synopsys.com/software-integrity/support.html
- Email: software-integrity-support@synopsys.com
- Phone: See the Contact Us section at the bottom of our support page to find your local phone number.

Another convenient resource available at all times is the online customer portal.

Synopsys Software Integrity Community

The Synopsys Software Integrity Community is our primary online resource for customer support, solutions, and information. The 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 Software Integrity Group (SIG) customers. The many features included in the 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 SIG 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 Synopsys 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 SIG experts and our Knowledgebase.
- Share – Collaborate and connect with Software Integrity Group 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, click here to get started, or send an email to community.manager@synopsys.com.

Training

Synopsys Software Integrity, Customer Education (SIG Edu) 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 Synopsys Software Integrity, Customer Education (SIG Edu), you can:

- Learn at your own pace.
- Review courses as often as you wish.
- Take assessments to test your skills.
- Print certificates of completion to showcase your accomplishments.

Learn more at https://community.synopsys.com/s/education.

Chapter 1: Product Announcements

Announcements for Version 2020.12.0

New containers and changes to system requirements

There are two additional containers: BOM Engine and RabbitMQ (now a required container) for the 2020.12.0 release.

The minimum system requirements to run a single instance of all containers are:

- 6 CPUs
- 26 GB RAM for the minimum Redis configuration; 29 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 250 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

The minimum hardware that is needed to run Black Duck with Black Duck - Binary Analysis are:

- 7 CPUs
- 30 GB RAM for the minimum Redis configuration; 33 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 350 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

Note: An additional CPU, 2 GB RAM, and 100 GB of free disk space will be needed for every additional binaryscanner container.

Ending support for Internet Explorer 11

Support for Internet Explorer 11 is deprecated and Synopsys will be ending support for Internet Explorer 11 starting with the Black Duck 2021.2.0 release.

Japanese language

The 2020.10.0 version of the UI, online help, and release notes has been localized to Japanese.

Announcements for Version 2020.10.0

New containers and changes to system requirements postponed to the 2020.12.0 release

Black Duck had announced previously that there would be two additional containers: BOM Engine and RabbitMQ (now a required container), for the 2020.10.0 release. This requirement has been postponed to the 2020.12.0 release.

For the 2020.12.0 release, the minimum system requirements to run a single instance of all containers will be:

- 6 CPUs
- 26 GB RAM for the minimum Redis configuration; 29 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 250 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

For the 2020.12.0 release, the minimum hardware that is needed to run Black Duck with Black Duck - Binary Analysis will be:

- 7 CPUs
- 30 GB RAM for the minimum Redis configuration; 33 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 350 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

Note: An additional CPU, 2 GB RAM, and 100 GB of free disk space will be needed for every additional binaryscanner container.

Japanese language

The 2020.8.0 version of the UI, online help, and release notes has been localized to Japanese.

Announcement for Version 2020.8.0

Deprecation of PostgreSQL version 9.6 for external databases

Synopsys will be deprecating support for PostgreSQL version 9.6 for external databases starting with the Black Duck 2021.6.0 release.

As of the Black Duck 2021.6.0 release, Black Duck will only support PostgreSQL version 11.x for external databases.

Deprecated API in 2020.10.0 release

In the Black Duck 2020.10.0 release, the /api/catalog-risk-profile-dashboard API will return HTTP 410 (GONE) and as of the Black Duck 2020.12.0 release, this API will not be available.

A new API to replace /api/catalog-risk-profile-dashboard will be announced in the 2020.10.0 release.

Japanese language

The 2020.6.0 version of the UI, online help, and release notes has been localized to Japanese.

Announcement for Version 2020.6.1

Ending support for Internet Explorer 11

Support for Internet Explorer 11 is deprecated and Synopsys will be ending support for Internet Explorer 11 starting with the Black Duck 2021.2.0 release.

Announcement for Version 2020.6.0

New containers and changes to system requirements in future releases

2020.8.0 release

In the **2020.8.0 release**, a new Redis container will be added to Black Duck. This container will enable more consistent caching functionality in Black Duck and will be used to improve application performance.

The following will be the minimum hardware that will be needed to run a single instance of all containers:

- 5 CPUs
- 21 GB RAM for the minimum Redis configuration; 24 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 250 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

The following will be the minimum hardware that will be needed to run Black Duck with Black Duck - Binary Analysis:

- 6 CPUs
- 25 GB RAM for the minimum Redis configuration; 28 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 350 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

Note: An additional CPU, 2 GB RAM, and 100 GB of free disk space is needed for every additional binaryscanner container.

2020.10.0 release

For the **2020.10.0** release, Black Duck will be adding two additional containers: BOM Engine and RabbitMQ, which will be a required container. These containers will be used to improve application performance, primarily improving project version BOM performance.

Initial testing indicates that minimum system requirements to run a single instance of all containers will be the following:

- 6 CPUs
- 26 GB RAM for the minimum Redis configuration; 29 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 250 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

Initial testing indicates that the minimum hardware that is needed to run Black Duck with Black Duck - Binary Analysis will be the following:

- 7 CPUs
- 30 GB RAM for the minimum Redis configuration; 33 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 350 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

Note: An additional CPU, 2 GB RAM, and 100 GB of free disk space is needed for every additional binaryscanner container.

Note that these system requirements are based on initial testing results. Final system requirements may be less than what is indicated here, but will not be more than what is listed here.

Deprecating Internet Explorer 11 support

Synopsys will be deprecating support for Internet Explorer 11 starting with the Black Duck 2021.2.0 release.

PostgreSQL 11 support for external databases

Black Duck now supports PostgreSQL 11.7 for new installs that use external PostgreSQL. While PostgreSQL 9.6 continues to be fully supported for external PostgreSQL instances, Synopsys recommends PostgreSQL 11.7 for new installs that use external PostgreSQL.

For users of the internal PostgreSQL container, PostgreSQL 9.6 remains the supported version for Black Duck 2020.6.0.

Announcement for Version 2020.2.0

Individual file matching

As previously announced, to reduce false positives due to ambiguous matches, performing individual file matching as a part of signature scanning is no longer the default behavior for Black Duck CLI and Synopsys Detect scans.

Individual file matching is the identification of a component based purely upon the checksum information of a single file. In Black Duck, for a small set of file extensions (`.js`, `.apklib`, `.bin`, `.dll`, `.exe`, `.o`, and `.so`), regular signature scanning matches files to components based upon a checksum match to the one file. Unfortunately, this matching is not always accurate and produced a fair amount of false positives. In order to improve upon the overall developer experience across the broad Synopsys customer base, individual file matching is no longer the default behavior and instead is now an optional capability.

Upgrading to 2020.2.0 will turn individual file matching off and may cause some components to drop off the

BOM. To estimate the impacts to your BOM, please look for components with only the match type of "Exact File" to see components that may drop from your BOM. Please note, if you are scanning docker images, "Exact File" matches are not impacted by this change.

The Signature Scanner has a new parameter to enable individual file matching. if you are using Synopsys Detect to scan, version 6.2 will have a new parameter to support turning on/off individual file matching, with the default being "off".

Docker Compose support

As announced previously, Docker Compose is no longer a supported orchestration method with the 2020.2.0 release.

Announcement for Version 2019.12.0

Upgrading Black Duck

During the upgrade process, as part of the changes made to the reporting database, a migration script will run to purge rows that are no longer used in the `audit_event` table. This migration script may take some time to run, depending on the size of the `audit_event` table. As a guide, the migration script ran approximately 20 minutes for an `audit_event` table sized at 350 GB.

To determine the size of the audit event table:

Do one of the following:

- From the `bds_hub` database, run the following command:

  ```
  SELECT pg_size_pretty( pg_total_relation_size('st.audit_event') );
  ```

- Log in to the Black Duck UI with the system administrator role and do the following:

  1. Click the expanding menu icon  and select **Administration**.

     The Administration page appears.

  2. Select **System Administration** to display the System Information page.
  3. Select **db** in the left column of the page.
  4. Scroll to the **Table Sizes** section. Find the `total_tbl_size` value for the `audit_event` tablename.

For on-premise Kubernetes and OpenShift users, before upgrading, disable the liveness check (`--liveness-probes false`), upgrade Black Duck, and then wait for the user interface to appear. Once the user interface appears, enable the liveness check (`--liveness-probes true`).

After the migration script runs, Synopsys *strongly recommends* running the `VACUUM` command on the `audit_event` table to optimize PostgreSQL performance.

- Depending on your system usage, running the `VACUUM` command can reclaim a significant amount of disk space no longer in use by Black Duck.

- By running this command, querying performance will be improved.

Note: If you do not run the `VACUUM` command, there may be a degradation of performance.

Note that this command requires twice the amount of disk space currently being used by the `audit_event` table.

Important: You must ensure you have enough space to run the `VACUUM` command, otherwise, it will fail by running out of disk space and possibly corrupting the entire database.

To run the VACUUM command for Docker Compose and Docker Swarm users with containerized PostgreSQL database deployments:

1. Determine the size of the `audit_event` table as previously described.
2. Determine the container ID of the PostgreSQL container by running the following command:

   ```
   docker ps
   ```

3. Run the following command to manage the PostgreSQL container:

   ```
   docker exec -it <container_ID> psql bds_hub
   ```

4. Run the following command:

   ```
   VACUUM FULL ANALYZE st.audit_event;
   ```

For Docker Compose and Docker Swarm users with an external PostgreSQL database deployment: determine the size of your `audit_event` table, execute the `VACUUM` command and, once complete, restart your deployment.

For on-premise Kubernetes and OpenShift users, refer to the Synopsys Operator upgrade instructions for more information.

Individual File Matching in the upcoming 2020.2.0 release

To reduce false positives due to ambiguous matches, starting in Black Duck version 2020.2, performing individual file matching as a part of signature scanning will no longer be the default behavior for Black Duck CLI and Synopsys Detect scans.

Individual file matching is the identification of a component based purely upon the checksum information of a single file. In Black Duck, for a small set of file extensions (`.js`, `.apklib`, `.bin`, `.dll`, `.exe`, `.o`, and `.so`), regular signature scanning matches files to components based upon a checksum match to the one file. Unfortunately, this matching is not always accurate and produces a fair amount of false positives. These false positives require you to spend additional effort to review and adjust the BOM. Though some users may desire this level of precision and granularity in their BOMs, a majority of customers do not desire or need this level of matching. Therefore, based upon customer and field input, in order to improve upon the overall developer experience across the broad Synopsys customer base, individual file matching will no longer be the default behavior and instead will become an optional capability.

This may cause some components to drop off your BOM, which may or may not be desired. Therefore, in the Black Duck 2020.2 release, Synopsys will provide mechanisms so that you can re-enable individual file

matching, including in the CLI, Synopsys Detect, and Synopsys Detect (Desktop).

Docker Compose support

As of December 31, 2019, Docker Compose in no longer supported.

Chapter 2: Release Information

Version 2020.12.0

New and Changed Features in Version 2020.12.0

New containers and changes to system requirements

There are two additional containers: BOM Engine and RabbitMQ (now a required container) for the 2020.12.0 release.

The minimum system requirements to run a single instance of all containers are:

- 6 CPUs
- 26 GB RAM for the minimum Redis configuration; 29 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 250 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

The minimum hardware that is needed to run Black Duck with Black Duck - Binary Analysis are:

- 7 CPUs
- 30 GB RAM for the minimum Redis configuration; 33 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 350 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

Note: An additional CPU, 2 GB RAM, and 100 GB of free disk space will be needed for every additional binaryscanner container.

Password configuration

Users with the Super User role can now set password requirements for *local* Black Duck accounts. If enabled, Black Duck ensures that the new password meets your requirements and also rejects passwords that are considered weak, such as "password", "blackduck", or a user's username or email address.

Super Users can:

- define the minimum password length.
- define the minimum number of character types for the password. Possible character types are lowercase

letters, uppercase letters, numbers, or special characters.

- select whether to enforce the password requirements on current users when they log in to Black Duck.

By default, *password requirements are enabled* and have these settings:

- The minimum password length is eight characters.
- Only one character type is required.
- Password requirements are not enforced on current users when logging in to Black Duck.

License enhancements

So that you can successfully manage license risk, Black Duck now gives you the ability to create new or edit existing multi-license scenarios for the components in your BOM.

Vulnerability Impact Analysis enhancements

- A new project version report, `vulnerability_matches_date_time.csv`, has been added. It lists the component, vulnerability data, and vulnerability impact analysis data for each component potentially reached by a vulnerability. This report has the following columns:
  - Component name
  - Component id
  - In use
  - Component version name
  - Version id
  - Channel version origin
  - Origin id
  - Origin name id
  - Vulnerability Id
  - Vulnerability source
  - CVSS Version
  - Security Risk
  - Base score
  - Overall score
  - Solution available
  - Workaround available
  - Exploit available
  - Called Function
  - Qualified Name
  - Line Number
- A new table, vulnerability method matches (`vulnerability_method_matches`), has been added to the report database. It has the following columns:
  - `id`. ID.

  - `project_version_id`. UUID of the project version where the reachable vulnerability appears.
  - `vuln_source`. Source of the vulnerability. For vulnerability impact analysis, the value is BDSA.
  - `vuln_id`. Vulnerability ID, such as BDSA-2020-1234.
  - `qualified_name`. Name of the class the function is called on.
  - `called_function`. Name of the vulnerable function call in your code that makes the vulnerability reachable.
  - `line_number`. Line number in your code where the vulnerable function is called.
- The vulnerability reports (vulnerability remediation report, vulnerability status report, and the vulnerability update report) now have a new column, "Reachable", added to the end of the report, to denote whether the security vulnerability is reachable (true) or not reachable (false).

BOM computation information

Black Duck now provides detailed information on the status of the computation of the project version BOM.

The new **Status** indicator (replacing the Components indicator) in the project version header in the Black Duck UI provides the current status of the BOM and notifies you of the state of the processing of BOM events. For more information, a new BOM Processing Status dialog box lists the events that are pending, processing, or have failed.

Black Duck also provides the ability to configure the frequency of the BOM event cleanup job (VersionBomEventCleanupJob) which clears those BOM events that might be stuck because of processing errors or topology changes.

Policy enhancements

- Policy management now provides the ability to create policy rules based on these custom fields:
  - Component custom fields for Boolean, Date, Drop Down, Multiple Selections, Single Selection, and Text field types.
  - Component version custom fields for Boolean, Date, Drop Down, Multiple Selections, Single Selection, and Text field types.
- You can now distinguish between declared and deep (embedded) license data when creating policy rules for these conditions:
  - License
  - License expiration date
  - License family

Note: Any existing policy rules using these license conditions will now only apply to declared licenses. You must create a separate policy rule for deep (embedded) licenses for these license conditions.

Report enhancements

The vulnerability reports (vulnerability remediation report, vulnerability status report, and the vulnerability update report) that were previously only available at the global or project level are now available for project versions.

Configuration of snippet file size

You can now modify the default maximum file size that will be scanned for snippets and select a value from

1MB to 16MB.

Configuration of the clean up of unmapped code locations

Black Duck purges unmapped code location data every 365 days. You can disable this feature, such that unmapped code location data is not purged, or set the retention period to a lower number of days if you scan regularly and want to discard the data frequently.

Access tokens

The options for the scope of user access tokens are now Read or Read and Write.

Supported browser versions

- Safari Version 14.0.1 (14610.2.11.51.10)
- Chrome Version 87.0.4280.88 (Official Build) (x86_64)
- Firefox 83.0 (64-bit)
- Internet Explorer 11 11.630.19041.0

  Note that support for Internet Explorer 11 is deprecated and Synopsys will be ending support for Internet Explorer 11 starting with the Black Duck 2021.2.0 release.
- Microsoft Edge 87.0.664.60 (Official build) (64-bit)

Container versions

- blackducksoftware/blackduck-postgres:1.0.16
- blackducksoftware/blackduck-authentication:2020.12.0
- blackducksoftware/blackduck-webapp:2020.12.0
- blackducksoftware/blackduck-scan:2020.12.0
- blackducksoftware/blackduck-jobrunner:2020.12.0
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.8
- blackducksoftware/blackduck-registration:2020.12.0
- blackducksoftware/blackduck-nginx:1.0.26
- blackducksoftware/blackduck-documentation:2020.12.0
- blackducksoftware/blackduck-upload-cache:1.0.15
- blackducksoftware/blackduck-redis:2020.12.0
- blackducksoftware/blackduck-bomengine:2020.12.0
- sigsynopsys/bdba-worker:2020.09-1
- blackducksoftware/rabbitmq:1.2.2

API enhancements

- Added ability to sort projects (api/projects) by the createdAt field.
- Added the ability to filter to the api/projects endpoint for projects created before/after a date.

- Added the API for displaying vulnerability matches as part of the Vulnerability Impact Analysis feature.

  GET /api/projects/{projectId}/versions/{projectVersionId}/vulnerabilities/{vulnerabilityId}/vulnerability-matches

- Added the following BOM endpoints:
  - Get BOM status summary:

    GET /api/projects/{projectId}/versions/{projectVersionId}/bom-status

  - List a BOM's events:

    GET /api/projects/{projectId}/versions/{projectVersionId}/bom-events

  - Delete a failed BOM event:

    DELETE /api/projects/{projectId}/versions/{projectVersionId}/bom-events/{bomEventId}

  - Delete all failed events from a BOM:

    DELETE /api/projects/{projectId}/versions/{projectVersionId}/bom-events

- New password settings endpoints:
  - Get password settings:

    GET /api/password/security/settings

  - Get system password settings:

    GET /api/password/management/settings

  - Update system password settings:

    PUT /api/password/management/settings

  - Validate password:

    POST /api/password/security/validate

- The /api/catalog-risk-profile-dashboard API now returns HTTP 404 (Not Found).

Japanese language

The 2020.10.0 version of the UI, online help, and release notes has been localized to Japanese.

Fixed Issues in 2020.12.0

The following customer-reported issues were fixed in this release:

- (Hub-24839). Fixed an issue where some component origin IDs could not be selected from the Add/Edit Component dialog box.
- (Hub-24911). Fixed an issue where a failed KBUpdateJob skipped component updates.
- (Hub-25230). Fixed an issue where the license text window did not appear when the user attempted to

open or edit license text.

- (Hub-25452). Fixed an issue so that the **Discovery Type** filter is automatically added when a license type is selected when viewing license search results page in the **Source** tab.
- (Hub-25489). Fixed an issue where the filter in the **Source** tab was reset when the subfolder was changed.
- (Hub-25603). Fixed an issue so that the path shown in the **Matched File Path** field in the Snippet View dialog box on the **Source** tab refreshed when an alternative path was selected.
- (Hub-25681). Fixed an issue where the Protex BOM Tool failed to import licenses for generic/unspecified component versions.
- (Hub-25715). Fixed an issue where the Active status in the Custom Fields Management page could not be modified unless the mouse was used.
- (Hub-25739). Fixed an issue where all comments for a BOM component could not be viewed.
- (Hub-25874). Fixed an issue where the `bom_component_custom_fields_date_time.csv` report listed different data than the `components_date_time.csv` report even though the data was in the same column name.
- (Hub-26442). Fixed an issue whereby a scan could not be deleted inside a project version by a project owner.
- (Hub-26496). Fixed an issue where a policy violation for license risk was still triggered although the license risk had changed when the component's usage was changed.

Version 2020.10.1

New and Changed Features in Version 2020.10.1

Container versions

- blackducksoftware/blackduck-postgres:1.0.13
- blackducksoftware/blackduck-authentication:2020.10.1
- blackducksoftware/blackduck-webapp:2020.10.1
- blackducksoftware/blackduck-scan:2020.10.1
- blackducksoftware/blackduck-jobrunner:2020.10.1
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.8
- blackducksoftware/blackduck-registration:2020.10.1
- blackducksoftware/blackduck-nginx:1.0.26
- blackducksoftware/blackduck-documentation:2020.10.1
- blackducksoftware/blackduck-upload-cache:1.0.15
- blackducksoftware/blackduck-redis:2020.10.1
- sigsynopsys/bdba-worker:2020.09-1
- blackducksoftware/rabbitmq:1.2.2

Fixed Issues in 2020.10.1

The following customer-reported issues were fixed in this release:

- (Hub-25489). Fixed an issue where the filters selected in the **Source** tab were reset when a different folder was selected.
- (Hub-25515). Fixed an issue when the host instance was running TLS 1.3 where the Signature Scanner failed when uploading and displayed the following error message: "ERROR: Unable to secure the connection to the host".
- (Hub-25791). Fixed an issue where significant increases in scan time occurred after upgrading from version 2020.4.2 to version 2020.6.1/2020.6.2.
- (Hub-26027). Fixed an issue where Black Duck displayed the following error message: "ERROR: The application has encountered an unknown error. (Bad Request) error.{core.rest.common_error" when attempting to upload a Synopsys Detect scan.
- (Hub-26085). Fixed an issue where binary scans added a second empty scan.

Version 2020.10.0

New and Changed Features in Version 2020.10.0

New custom component dashboards

So that you can easily view the component versions that are important to you, in 2020.10.0, the Component Dashboard has been replaced with custom component dashboards based on your saved component searches. Black Duck now provides the ability for you to search for components used in your projects using a variety of attributes, save the search, and then use the Dashboard page to view dashboards from those saved searches.

For each component version, the custom component dashboards display the following information:

- Number of project versions using this component version and for each project version, the phase, license, review status, and security risks
- Number of vulnerabilities by risk category
- License and operational risk
- Policy violations
- Approval status
- Date the component version was first detected
- Date when the component was released, according to the Black Duck KnowledgeBase
- Number of new versions
- Date when a vulnerability for the component was last updated

Component and Black Duck KnowledgeBase search enhancements

Searching for components has been enhanced by the attributes you can use to search for the component and the information shown in the search results. The UI has also been enhanced so that you can easily differentiate searches for components used in your projects and searches for components in the Black Duck KnowledgeBase.

While the search attributes for Black Duck KnowledgeBase searches has not changed, the following attributes are available when searching for component versions used in your Black Duck projects:

- Security risk
- License risk
- Operational risk
- Policy rule
- Policy violation severity
- Review status
- Component approval status
- First detected
- License family
- Missing custom field data
- Release date
- License
- Vulnerability CWE
- Vulnerability reported date

For each component version matching your search criteria, the following information is shown:

- Number of project versions using this component version and for each project version, the phase, license, review status and security risks
- Number of vulnerabilities by risk category
- License and operational risk
- Policy violations
- Approval status
- Date the component version was first detected
- Date when the component was released, according to the Black Duck KnowledgeBase
- Number of new versions
- Date when a vulnerability for the component was last updated

These component search results can now be saved and view in the Dashboard page, as described previously.

For each KnowledgeBase component search result, the following information is shown:

- Number of project versions that use this component and a list of each project version, its phase, component version used, and associated security risk
- Commit activity trend
- Last commit date
- Number of component versions
- Tags for this component

Enhancement to saved searches

Black Duck now provides the ability to filter and sort saved searches on the Dashboard page.

License conflicts

In the 2020.10.0 release, Black Duck now provides the ability for you to designate incompatible custom license terms. You can define the custom license terms for forbidden or required actions that are in conflict with Black Duck KnowledgeBase terms or with your custom license terms.

Note: Currently, you cannot view incompatible license terms in a project version BOM. This ability will be available in a future Black Duck release.

License Management Enhancements

These three new filters have been added to the **License Terms** tab in License Management:

- Is Associated with License(s)
- Has Incompatible Term(s)
- Responsibility

New component usage

Black Duck has added an "Unspecified" usage which you can use to indicate that you need to investigate the usage of the component. You may find it useful to use this usage as the default value instead of existing defaults such as Dynamically Linked to eliminate confusion about whether the component is assigned its true usage value or the default value.

New tier

Black Duck has added a tier 0, which you can use to designate as the most critical tier.

Due to this new tier, these default policy rules have been modified to include tier 0:

- No External Tier 0, Tier 1 or Tier 2 Projects With More Than 1 High Vulnerability
- No External Tier 0, Tier 1 or Tier 2 Projects With More Than 3 Medium Vulnerabilities

There is no change to the existing tiers.

Enhancements to custom fields

The following enhancements have been made to custom fields

- Black Duck now provides the ability for you to denote that a custom field is required.
  - A warning message "* Additional fields are required" appears when viewing custom field information. However, users can still view and save non-custom field information and information for non-required custom fields on the page if data is not entered for the required custom field.
  - A new filter, "Missing Custom Field Data", has been added to the BOM so that you can view those components in the project version BOM which are missing information.
- An option to clear the selection has been added when viewing custom field information for Boolean and single select field types.

Allowed signature lists

Signature lists define the signatures Black Duck sends to the Black Duck KnowledgeBase web service to

identify the open source software contained in the your scanned code. The Signature Scanner now has two new parameters which you can use to create allowed signature lists for binary or source file extensions. Each list is optional and works independently of the other list.

- **--BinaryAllowedList *x, y, x*** where *x*, *y*, *z* are the approved file extensions for SHA-1 (binary) files.
- **--SourceAllowedList *a, b, c*** where *a*, *b*, *c*, are the approved file extensions for clean SHA-1 (source code) files.

Enhancements to vulnerability impact analysis

The following enhancements have been made to vulnerability impact analysis:

- A new column, "Reachable", has been added to the end of the `security_date_time.csv` project version report to denote whether the security vulnerability is reachable (true) or not reachable (false).
- A new filter, "Reachable", has been added to the project version **Security** tab.

Report enhancements

The following reports have been enhanced:

- A new column, "Comments", has been added to the end of the `components_date_time.csv` project version report and lists the comments for each component.
- A new column, "Match type", has been added to the end of the `vulnerability-status-report_date_time.csv` report to identify the match type.

Enhancements to the Report Database

The following columns have been added to the component matches table (`component_matches`):

- `match_confidence`. Represents the confidence in the match, excluding snippet, binary, or partial file matches.
- `match_archive_context`. Local path to the archived file relative to the project's root directory.
- `snippet_confirmation_status`. Review status of the snippet matches.

HTTP/2 and TLS 1.3

To improve security and rendering of the Black Duck UI in a browser, Black Duck now supports HTTP/2 and TLS 1.3 in the Black Duck NGINX webserver. Note that the Black Duck NGINX Webserver continues to support HTTP/1.1 and TLS 1.2.

Change to jobs for purging scans

The BomVulnerabilityNotificationJob and the LicenseTermFulfillmentJob now also remove old audit events.

API enhancements

- Added an endpoint to determine the Single Sign-On (SSO) status of Black Duck.

  GET /api/sso/status

- Added endpoints for retrieving SAML/LDAP configurations (Admin use only).

- Read SSO configuration:

  GET /api/sso/configuration

- Download an IDP metadata file:

  GET /api/sso/idp-metadata

- These SSO endpoints were also added:
  - Update SSO configuration:

    POST /api/sso/configuration

  - Upload an IDP metadata file:

    POST /api/sso/idp-metadata

- Added the following BOM hierarchical component endpoints:
  - List hierarchical root components:

    GET /api/projects/{projectId}/versions/{projectVersionId}/hierarchical-components

  - List hierarchical children components:

    GET /api/projects/{projectId}/versions/{projectVersionId}/components/{componentId}/hierarchical-components/{hierarchicalId}/children

  - List hierarchical children component versions:

    GET/api/projects/{projectId}/versions/{projectVersionId}/components/{componentId}/versions/{componentVersionId}/hierarchical-components/{hierarchicalId}/children

- New fields were added to the notifications API for vulnerabilities to enable further classification of notifications. These notifications involve vulnerability information that has changed in a BOM and includes the following fields:
  - vulnerabilityNotificationCause

    Information about the kind of vulnerability event that occurred and triggered a notification such as a vulnerability was added or removed, changed comment, changed remediation details, changed severity of vulnerability, or the status changed.

  - eventSource

    Information about the source that generated the notification, such as a scan, Black Duck KB update, or user actions such as remediation, reprioritization, or adjustment.

- The /api/catalog-risk-profile-dashboard API now returns HTTP 410 (GONE).

Supported browser versions

- Safari Version 13.1.2 (14609.3.5.1.5)
- Chrome Version 86.0.4240.80

- Firefox 82 (64-bit)
- Internet Explorer 11.572.19041.0

  Note that support for Internet Explorer 11 is deprecated and Synopsys will be ending support for Internet Explorer 11 starting with the Black Duck 2021.2.0 release.

- Microsoft Edge 86.0.622.51 (Official build) (64-bit)

Container versions

- blackducksoftware/blackduck-postgres:1.0.13
- blackducksoftware/blackduck-authentication:2020.10.0
- blackducksoftware/blackduck-webapp:2020.10.0
- blackducksoftware/blackduck-scan:2020.10.0
- blackducksoftware/blackduck-jobrunner:2020.10.0
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.6
- blackducksoftware/blackduck-registration:2020.10.0
- blackducksoftware/blackduck-nginx:1.0.26
- blackducksoftware/blackduck-documentation:2020.10.0
- blackducksoftware/blackduck-upload-cache:1.0.15
- blackducksoftware/blackduck-redis:2020.10.0
- sigsynopsys/bdba-worker:2020.09
- blackducksoftware/rabbitmq:1.2.2

Japanese language

The 2020.8.0 version of the UI, online help, and release notes has been localized to Japanese.

Fixed Issues in 2020.10.0

The following customer-reported issues were fixed in this release:

- (Hub-20559, 22100). Fixed an issue where snippet adjustments were lost when scanning the same code location from a different root directory or when cloning a project version.
- (Hub-21421). Fixed an issue where the print functionality did not work for large projects.
- (Hub-23705, 25560). Fixed an issue where users could not delete reports that they created.
- (Hub-23709). Fixed an issue whereby the following scan.cli.sh warning message appeared when scanning: "Unable to find manifest from all manifests."
- (Hub-24330). Fixed an issue whereby an error message ("Duplicate key value violates unique constraint") appeared when importing a Protex project into Black Duck version 2019.10.3.
- (Hub-24673). Fixed an issue whereby navigating from a Dashboard page failed if there were more than 32,000 components.
- (Hub-24675). Fixed an issue whereby the root_bom_consumer_node_id was set incorrectly
- (Hub-24871). Fixed an issue with PostgreSQL database growth since release 2019.10.0.

- (Hub-24772). Fixed an issue where the default `.pdf` filename when printing a BOM was not the project name and version name.
- (Hub-24839). Fixed an issue where some component origin IDs could not be selected from the Add/Edit Component dialog box.
- (Hub-24947). Fixed an issue whereby search results when adding a project to a BOM were listed inconsistently.
- (Hub-25171). Fixed an issue whereby the vulnerability count was not updated when remediated using an API until after a rescan (PUT /api/projects/{projectId}/versions/{projectVersionId}/components/{componentId}/versions/{componentVersionId}/origins/{originId}/vulnerabilities/{vulnerabilityId}/remediation).
- (Hub-25219). Fixed an issue with creating reports through the API, wherein specifying a locale such as "locale" : "ja_JP" was ignored. Now, the locale field correctly sets the language of the generated report.
- (Hub-25234). Fixed an issue where the **Print** button to print a BOM was occasionally missing bar graph counts.
- (Hub-25240). Fixed an issue where browser or API calls for a specific vulnerability (BDSA-2020-1674) failed.
- (Hub-25241). Fixed an issue where the VersionBomComputationJob failed for scans with the following error message: "Data integrity violation (Constraint:not_null, Detail: on column source_start_lines)".
- (Hub-25244). Fixed an issue whereby manually added components were deleted from the BOM after upgrading to Black Duck release 2020.4.2.
- (Hub-25247). Fixed an issue whereby the following error message appeared in the Black Duck PostgreSQL logs: "ERROR: duplicate key value violates unique constraint "scan_component_scan_id_bdio_node_id_key".
- (Hub-25321). Fixed an issue where when scrolling the BOM page, text appeared in areas on the page where text should not appear.
- (Hub-25324). Fixed an issue where the Scan *Name* page did not word wrap.
- (Hub-25478). Fixed an issue where the security risk filter on the Security page became invisible.
- (Hub-25508). Fixed an issue where old media types (v4 and v5) did not always work for the policy rules API (GET /api/projects/{projectId}/versions/{projectVersionId}/components/{componentId}/versions/{componentVersionId}/policy-rules).
- (Hub-25522, 25523). Fixed an issue where formatting issues appeared in the BOM print preview window in Chrome for Black Duck version 2020.8.0.
- (Hub-25548). Fixed an issue where selecting new component matches in the hierarchical view did not update component matches in the Source view.
- (Hub-25570). Fixed an issue whereby the Security Dashboard page only partially loaded.
- (Hub-25608). Fixed an issue where vulnerabilities were counted twice in the "New Vulnerabilities" and "New Remediated Vulnerabilities" categories in the Vulnerability Update report.
- (Hub-25649). Fixed an issue where the policy violation popup windows on the Dashboard page would not close.
- (Hub-25841). Fixed an issue whereby numbers entered into a custom field of type Text were converted into a date format.

Version 2020.8.2

New and Changed Features in Version 2020.8.2

Black Duck version 2020.8.2 is a maintenance release and contains no new or changed features.

Fixed Issues in 2020.8.2

The following customer-reported issues were fixed in this release:

- (Hub-24871). Fixed an issue with PostgreSQL database growth since release 2019.10.0.
- (Hub-25967). Fixed an issue whereby the usage of a component could not consistently be modified.

Version 2020.8.1

New and Changed Features in Version 2020.8.1

Ability to clean up unmapped code locations by time

Black Duck now gives you the ability to configure a scan purge cron job by setting the blackduck.scan.processor.scanpurge.cronstring variable in the `blackduck-config.env` file for Docker Swarm implementations.

Policy enhancement

Black Duck now provides you the ability to create a policy for the remediation status of a vulnerability.

Container versions

- blackducksoftware/blackduck-postgres:1.0.13
- blackducksoftware/blackduck-authentication:2020.8.1
- blackducksoftware/blackduck-webapp:2020.8.1
- blackducksoftware/blackduck-scan:2020.8.1
- blackducksoftware/blackduck-jobrunner:2020.8.1
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.6
- blackducksoftware/blackduck-registration:2020.8.1
- blackducksoftware/blackduck-nginx:1.0.25
- blackducksoftware/blackduck-documentation:2020.8.1
- blackducksoftware/blackduck-upload-cache:1.0.15
- blackducksoftware/blackduck-redis:2020.8.1
- sigsynopsys/bdba-worker:2020.06-2
- blackducksoftware/rabbitmq:1.2.1

Fixed Issues in 2020.8.1

The following customer-reported issues were fixed in this release:

- (Hub-24149). Fixed an issue with the Protex BOM Tool which displayed an "ERROR StatusLogger Unrecognized..." error message regardless of the operation performed.
- (Hub-24480). Fixed an issue whereby components imported from Protex lost their ignored status when Black Duck was upgraded to version 2020.4.1.
- (Hub-25254). Fixed an issue where a policy violation was incorrectly triggered after the distribution type was changed.
- (Hub-25269, 25416). Fixed an issue whereby a long running query was blocking scans or causing a deadlock in the PostgreSQL database.
- (Hub-25387). Fixed an issue whereby the KbUpdateJob was intermittently failing.
- (Hub-25509). Fixed an issue with the rapid increase in the size of the database in Black Duck version 2020.4.2.

Version 2020.8.0

New and Changed Features in Version 2020.8.0

Ability to analyze the impact of a vulnerability

To help you to prioritize which vulnerabilities you should address first, Black Duck can now determine if any external public methods called by your Java applications are potentially involved in a known vulnerability. Black Duck can identify the called fully qualified public functional names in your source code and match them to the known function names being exploited by a vulnerability. By knowing whether any external public methods called by your Java applications are potentially involved in a known vulnerability, you can prioritize what vulnerabilities you need to concentrate on.

This feature is available in Synopsys Detect version 6.5 or later (and Synopsys Detect (Desktop) that uses Synopsys Detect 6.5 and later) for Java applications only.

Note the following:

- Synopsys Detect only discovers vulnerabilities in Java public methods that call potentially vulnerable functions.
- This feature displays reachable functions for BDSAs only.

New container and system requirements

A new Redis container has been added to Black Duck. This container enables more consistent caching functionality in Black Duck and will improve application performance.

The minimum hardware needed to run a single instance of all containers is now:

- 5 CPUs
- 21 GB RAM for the minimum Redis configuration; 24 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 250 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

The minimum hardware needed to run Black Duck with Black Duck - Binary Analysis is now:

- 6 CPUs
- 25 GB RAM for the minimum Redis configuration; 28 GB RAM for an optimal configuration providing higher availability for Redis-driven caching
- 350 GB of free disk space for the database and other Black Duck containers
- Commensurate space for database backups

Note: An additional CPU, 2 GB RAM, and 100 GB of free disk space is needed for every additional binaryscanner container.

Custom system announcements

System Administrators can now create custom sign-on and post sign-on messages to your Black Duck users.

For example, use system announcements to tell your users about upcoming events or if you need to show a disclaimer indicating what happens for unauthorized use.

There are four types of messages that you can create:

- Login. A message that appears to the user when they are logging in to Black Duck.
- Banner. A message that appears at the top of every page.
- Footer. A message that appears in the footer of every page.
- Welcome. A message that appears after the user logs in to Black Duck.

Enhancements to project version reports

New upgrade guidance project version report

A new report, `project_version_upgrade_guidance_`*`date_time`*`.csv`, has been added to the project version reports.

This report includes:

- component version details, including origin information and total vulnerabilities
- short term upgrade guidance for the component (if any), including the version/origin to upgrade to and its details such as total vulnerabilities
- long term upgrade guidance for the component (if any), including the version/origin to upgrade to and its details such as total vulnerabilities

Columns in this report are:

- Component Id
- Component Version Id
- Component Origin Id
- Component Name
- Component Version Name
- Component Origin Name
- Component Origin Id
- Component Origin Version Name

- Total Known Vulnerabilities
- Short Term Recommended Version Id
- Short Term Recommended Version Name
- Short Term Recommended Component Origin Id
- Short Term Recommended Origin Name
- Short Term Recommended Origin Id
- Short Term Recommended Origin Version Name
- Short Term Critical Vulnerability
- Short Term Critical High Vulnerability
- Short Term Medium Vulnerability
- Short Term Low Vulnerability
- Long Term Recommended Version Id
- Long Term Recommended Version Name
- Long Term Recommended Component Origin Id
- Long Term Recommended Origin Name
- Long Term Recommended Origin Id
- Long Term Recommended Origin Version Name
- Long Term Critical Vulnerability
- Long Term High Vulnerability
- Long Term Medium Vulnerability
- Long Term Low Vulnerability

New columns added to the `security_date_time.csv` report

These new columns have been added to the end of the `security_date_time.csv` project version report:

- CVSS Version. Version of the vulnerability scoring system: CVSS 2.0 or CVSS 3.x.
- Match type.

Enhancements to the Signature Scanner

Two new properties have been added to the Signature Scanner to control how scan data is streamed (buffered) from the Signature Scanner to Black Duck. In rare cases, you may need to modify these values to better suit your network, for example, decreasing the values if there are issues with your network or increasing the default values if your network is highly stable.

- **–max-request-body-size**. Size of the main request that uploads the scan data for scanned paths.
- **–max-update-size** Buffers an update request to inform Black Duck when the Signature Scanner has completed uploading the data of individual URIs (scanned paths).

API enhancements

- Provide the last login date for a specific Black Duck user.

  GET /api/users/{userId}/last-login

Upon upgrade to 2020.8.0, the last login date for all users defaults to the upgrade date but after that uses the actual login data. By default, this endpoint will show all users who have not logged in the past 30 days, but you can add a `?sinceDays=` query parameter to change the lookback period to any number of days required. This will also show users who have been created but never logged into the system.

- Find dormant users.

  GET /api/dormant-users

- Added the following endpoints for announcements:
  - Create login announcement.

    POST /api/manage-announcement/login

  - Create welcome announcement.

    POST /api/manage-announcement/welcome

  - Create banner announcement.

    POST /api/manage-announcement/banner

  - Create footer announcement.

    POST /api/manage-announcement/footer

  - Edit login announcement.

    PUT /api/manage-announcement/login/{announcementId}

  - Edit welcome announcement.

    PUT /api/manage-announcement/welcome/{announcementId}

  - Edit banner announcement.

    PUT /api/manage-announcement/banner/{announcementId}

  - Edit footer announcement.

    PUT /api/manage-announcement/footer/{announcementId}

  - Delete login announcement.

    DELETE /api/manage-announcement/login/{announcementId}

  - Delete welcome announcement.

    DELETE /api/manage-announcement/welcome/{announcementId}

  - Delete banner announcement.

    DELETE /api/manage-announcement/banner/{announcementId}

- Delete footer announcement.

  DELETE /api/manage-announcement/footer/{announcementId}
- Get login announcement.

  GET /api/manage-announcement/login
- Get welcome announcement.

  GET /api/manage-announcement/welcome
- Get banner announcement.

  GET /api/manage-announcement/banner
- Get footer announcement.

  GET /api/manage-announcement/footer
- Get login announcement by ID.

  GET /api/manage-announcement/login/{announcementId}
- Get welcome announcement by ID.

  GET /api/manage-announcement/welcome/{announcementId}
- Get banner announcement by ID.

  GET /api/manage-announcement/banner/{announcementId}
- Get footer announcement by ID.
- GET /api/manage-announcement/footer/{announcementId}
- Get user login announcement.

  GET /api/announcement/login
- Get user welcome announcement.

  GET /api/announcement/welcome
- Get user banner announcement.

  GET /api/announcement/banner
- Get user footer announcement.

  GET /api/announcement/footer
- Get user login announcement by ID.

  GET /api/announcement/login/{announcementId}

  - Get user welcome announcement by ID.

    GET /api/announcement/welcome/{announcementId}

  - Get user banner announcement by ID.

    GET /api/announcement/banner/{announcementId}

  - Get user footer announcement by ID.

    GET /api/announcement/footer/{announcementId}

  - Suppress welcome announcement.

    POST /api/announcement/welcome/{announcementId}/suppress

- Added new optional originUrl field for API origin responses.
- Added a BOM API (api/projects/id/versions/id/components) reference to api/projects/id/versions/id/references.
- Added createdByUserName in the response for api/codelocations/id/scan-summaries.
- Added componentType field to /api/projects/versions/hierarchical-components and if an item's componentType is SUB_PROJECT it will also have project and projectVersion links in its metadata.
- Added relatedVulnerability link under the vulnerabilityWithRemediation block to /api/projects/{projectId}/versions/{projectVersionId}/vulnerable-bom-components.
- Added remediationCreatedBy and remediationUpdatedBy to /api/projects/{projectId}/versions/{projectVersionId}/vulnerable-bom-components
- Deprecated endpoint:

  - Listing remediation options: GET /api/components/{componentId}/versions/{componentVersionId}/remediating.

    This endpoint has been replaced by GET /api/components/{componentId}/versions/{componentVersionId}/upgrade-guidance.

Supported browser versions

- Safari Version 13.1.2 (14609.3.5.1.5)
- Chrome Version 84.0.4147.125 (Official Build) (64-bit)
- Firefox 79.0 (64-bit)
- Internet Explorer 11.450.19041.0

  Note that support for Internet Explorer 11 is deprecated and Synopsys will be ending support for Internet Explorer 11 starting with the Black Duck 2021.2.0 release.

- Microsoft Edge 44.19041.423.0
- Microsoft EdgeHTML 18.19041

Container versions

- blackducksoftware/blackduck-postgres:1.0.13
- blackducksoftware/blackduck-authentication:2020.8.0
- blackducksoftware/blackduck-webapp:2020.8.0
- blackducksoftware/blackduck-scan:2020.8.0
- blackducksoftware/blackduck-jobrunner:2020.8.0
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.6
- blackducksoftware/blackduck-registration:2020.8.0
- blackducksoftware/blackduck-nginx:1.0.25
- blackducksoftware/blackduck-documentation:2020.8.0
- blackducksoftware/blackduck-upload-cache:1.0.15
- blackducksoftware/blackduck-redis:2020.8.0
- sigsynopsys/bdba-worker:2020.03-1
- blackducksoftware/rabbitmq:1.2.1

Japanese language

The 2020.6.0 version of the UI, online help, and release notes has been localized to Japanese.

Fixed Issues in 2020.8.0

The following customer-reported issues were fixed in this release:

- (Hub-23467). Fixed an issue where the Scan page displayed a "Server did not respond in time" error message when there are more than 1,300 matches.
- (Hub-23892). Fixed an issue whereby the **Scan Size** column was empty on the Scans page.
- (Hub-23937, 24799). Fixed an issue where the License Management page failed to load.
- (Hub-24009). Fixed an issue whereby the bom-import failed intermittently with a 400 code in the Synopsys Detect output and the `hub_scan_errors.log` listed "Failed saving document data for document null".
- (Hub-24112). Fixed an issue so that users can now return to the match count filter view when a node is no longer selected on the project version **Source** tab.
- (Hub-24278). Fixed an issue where the binary scan file failed to upload with the following error message: Unknown status code when uploading binary scan: 0, null.
- (Hub-24291). Fixed an issue whereby the BOM page displayed "The application has encountered an unknown error" when attempting to display more than 32,767 components.
- (Hub-24407). Fixed an issue whereby the error message "Unable to deserialize from string" appeared when cloning snippets.
- (Hub-24432). Fixed an issue whereby the Dashboard page would not load when attempting to display more than 32,000 projects.
- (Hub-24451). Fixed an issue whereby HUB_PROXY_PASSWORD_FILE docker secret was ignored on calls to the Black Duck KnowledgeBase using an authenticating proxy.
- (Hub-24480). Fixed an issue whereby component modifications were lost when importing Protex into

Black Duck 2020.4.1.

- (Hub-24529). Fixed an issue whereby policy violations were incorrectly triggered for components with a patched status as denoted by the Black Duck KnowledgeBase.
- (Hub-24583, 25244). Fixed an issue whereby manually added components were deleted when the Black Duck KnowledgeBase was updated.
- (Hub-24646). Fixed an issue which occurred upon upgrading Black Duck where a KnowledgeBase license was updated on the License Management page, however, no user was identified as making the change.
- (Hub-24673). Fixed an issue when navigating from the Dashboard page to the Components page failed if there are more than 32,000 components.
- (Hub-24716). Fixed an issue whereby a vulnerability notification appeared for ignored components.
- (Hub-24739). Fixed an issue whereby the LDAP users' email addresses could not be modified.
- (Hub-24740). Fixed an issue whereby the `bom_component_custom_fields_date_time.csv` report showed ignored components only.
- (Hub-24758). Fixed an issue whereby the side-by-side snippet view did not completely highlight the matched code on the left side of the project version **Source** tab.
- (Hub-24845). Fixed an issue whereby the **Statistic** section in the **Summary** tab was not updated.
- (Hub-24866). Fixed an issue whereby the Signature Scanner reported a Bad Request error when attempting to scan an entire root on a disk while excluding some of the root's subdirectories.
- (Hub-24885). Fixed an issue whereby attempting to view matches in the project version **Source** tab from the hierarchical view resulted in 'The application has encountered an unknown error' message.
- (Hub-24968). Fixed an issue whereby the following error message "The Black Duck server did not respond in time." appeared when attempting to view the Security Dashboard.
- (Hub-25072). Fixed an issue whereby "The application has encountered an unknown error." error message appeared when creating a policy for a component with a tilde (~) character in its name.
- (Hub-25115). Fixed an issue where scanning failed if there were more than 32,767 parameters.
- (Hub-25166) Fixed an issue and added a pre- and post- command to fix a postgres-init pod in an Istio environment.

Version 2020.6.2

New and Changed Features in Version 2020.6.2

Black Duck version 2020.6.2 is a maintenance release and contains no new or changed features.

Fixed Issues in 2020.6.2

The following customer-reported issue was fixed in this release:

- (Hub-24918). Fixed an issue where scanning did not consistently return results as the BdioDataTransferJob and VersionBomComputation jobs were not reading scan data correctly.

Version 2020.6.1

New and Changed Features in Version 2020.6.1

Black Duck version 2020.6.1 is a maintenance release and contains no new or changed features.

Fixed Issues in 2020.6.1

The following customer-reported issues were fixed in this release:

- (Hub-23970). Fixed an issue whereby the notices file could not be generated if the copyright option was selected.
- (Hub-24106). Fixed an issue where the KbUpdate Job failed as the KnowedgeBase service could not be accessed.
- (Hub-24651). Fixed an issue whereby a user with the Project Manager and BOM Manager roles could not use the release phase filter on the /api/projects/ page.
- (Hub-24721). Fixed an issue whereby the BOM component report failed when Black Duck Security Advisories (BDSA) was not a licensed module.
- (Hub-24739). Fixed an issue whereby LDAP users' email addresses could not be modified.
- (Hub-24765). Fixed an issue whereby snippets were not always identified when scanned using the SNIPPET_MATCHING option.

Version 2020.6.0

New and Changed Features in Version 2020.6.0

New Project Dashboard with saved searches

Black Duck provides dashboards so that you can view the types and severity of risk and policy violations that are associated with the components that are in one or more versions of your projects. Dashboards provide an overall view across all of your projects and project versions.

So that you can view the projects and project versions that are important to you, in 2020.6.0, the Project Dashboard has been replaced with two new default dashboards and the ability for you to create an unlimited number of custom dashboards.

Black Duck displays these two default dashboards:

- **Watching**. Your watched projects.
- **My Projects**. All of your projects, including projects that you are not watching.

These dashboards display information on the new Dashboard page at the project level. This Dashboard page replaces the Project Dashboard page.

In addition, you can create custom dashboards so that you can quickly view the project versions that are important to you. Black Duck now provides the ability for you to search for projects using a variety of attributes, save the search, and then use this page to view dashboards from those saved searches. Dashboards based on saved searches display information at the project version level.

The information shown for the **Watching** and **My Projects** dashboards is updated in real time. A new job, SearchDashboardRefreshJob, refreshes your custom dashboards every five minutes.

Click 

to display the dashboards. If not displayed, select **Dashboard** to display these dashboards.

Project search enhancements

Searching for projects has been enhanced by the attributes you can use to search for the project and the information shown in the search results.

You can now search for projects in Black Duck using the following attributes:

- Watching. Select whether this project is a watched project.
- Security Risk.
- License Risk.
- Operational Risk.
- Policy Rule. Select a policy rule from the list to find the projects that violate this policy.
- Policy Violation. Severity level of the policy rule.
- Distribution.
- Last Scanned Date.
- Release Phase.
- Tier.

Search results show the project versions that meets your search criteria. For each project version, you can view the number of:

- Results found and the time the database was last updated.
- Components with the highest level of security, license, or operational risk.
- Components for each risk category.
- Components with the highest policy severity level for this project version.
- Components with policy violations by severity level.

For each project version, the search results also show:

- Number of components in this project version.
- Last scan date.
- When this project version was last updated.
- License of this project version.
- Phase for this project version.
- Distribution of this project version.

Search results can now be saved and view in the Dashboard, as described previously.

Embedded copyright statement detection

Black Duck can now detect instances of embedded copyright statements. By enabling detection of copyright data when scanning code, users focused on license compliance can reduce license compliance risks by detecting and managing open source software and proprietary copyrights statements.

With this feature, Black Duck performs a search for copyright string text and displays the text found in the **Source** tab.

Optionally, upload your source files so that reviewers can view discovered copyright text in the file from within

the **Source** tab.

Cloning projects

Black Duck now provides you the ability to clone projects. Use project cloning to fork an existing project to a new project. Cloning helps reduce your workload by using the data, analysis, and resolutions you defined in an existing project as a baseline for a new project.

Users who can create projects can clone projects. For each project, select the versions you wish to clone and the project's attributes, such as the project's settings or project members and groups.

Policy management enhancements

- Policy management now provides the ability to create policy rules based on:
  - License expiration date
  - BOM component custom fields for Boolean, Date. Drop Down, Multiple Selections, Single Selection, and Text field types.
  - Project filters now includes project custom fields for Boolean, Multiple Selections, and Text field types.
- The logic for evaluating license policy conditions for components with multiple licenses has been modified, which may result in new policy violations or components no longer triggering a policy violation:

  When evaluating components with multiple licenses for policy rules created using one or more of these license conditions: license, license status, license family and/or license expiration date, each license is evaluated and *all* license conditions must be true for a policy violation. If license risk is included as a policy condition, license risk is evaluated independently: all licenses for the component are evaluated, not just the license that met the other license policy conditions. Therefore, a policy violation can be triggered if one license meets the policy rule for multiple conditions while another license for that component meets the license risk condition.

PostgreSQL 11.7 supported for external databases

Black Duck now supports PostgreSQL 11.7 for new installs that use external PostgreSQL. While PostgreSQL 9.6 continues to be fully supported for external PostgreSQL instances, Synopsys recommends PostgreSQL 11.7 for new installs that use external PostgreSQL.

For users of the internal PostgreSQL container, PostgreSQL 9.6 remains the supported version for Black Duck 2020.6.0.

Numeric usernames supported for external PostgreSQL databases

External PostgreSQL instances now support usernames that consist of only numeric characters.

Notices File report enhancements

Licenses in the Unknown licenses family are now excluded from the Notices File report.

Global vulnerability reports now available for individual projects

The Vulnerability Remediation report, Vulnerability Status report, and Vulnerability Update report can now be run for one or more projects to which you have access,

To differentiate whether a report is at the global or project level, the file name for these reports have been

modified to:

- vulnerability-remedation-report_all_assigned_projects_*YYYY-MM-DD_HHMMSS* (time stamp in UTC) for a global version of the report
- vulnerability-remedation-report_*YYYY-MM-DD_HHMMSS* (time stamp in UTC) for one or more projects
- vulnerability-status-report_all_assigned_projects_*YYYY-MM-DD_HHMMSS* (time stamp in UTC) for a global version of the report
- vulnerability-status-report_*YYYY-MM-DD_HHMMSS* (time stamp in UTC) for one or more projects
- vulnerability-update-report_all_assigned_projects_*YYYY-MM-DD_HHMMSS* (time stamp in UTC) for a global version of the report
- vulnerability-update-report_*YYYY-MM-DD_HHMMSS* (time stamp in UTC) for one or more projects

Additional information added to the source project version report

The `source_date_time.csv` report has been enhanced with the following information:

- The Scan column has been added to the end of the report. As a project version BOM can have multiple scans mapped to a project version, this column lists the scan where this match was found.
- The Path column now displays information for dependency matches. For a direct dependency, the column shows the ID of the dependency and displays the match content value. For transitive dependencies, the column shows the full dependency path from the top level component to the declared component.

Support for CVSS v3.1

Black Duck now supports CVSS v3.1 scores. CVSS v3.1 is an update to the scoring standard which clarifies how scoring is performed. While no new metric vectors or values were created, overall scores may change based upon the clarification.

Reporting database enhancements

The following columns have been added to the component_vulnerability table to support CVSS 3.x:

- severity_cvss3
- base_score_cvss3
- exploit_score_cvss3
- impact_score_cvss3
- temporal_score_cvss3

Option to retain partial snippet adjustments when rescanning

Black Duck now provides a setting so that you can apply identifications from partial snippet matches when rescanning files. This minimize the number of snippet matches you need to re-identify.

New audit events

An audit event will now appear when a user:

- Creates a policy and Black Duck evaluates a project version.
- Updates a policy and Black Duck evaluates a project version.
- Enables a policy and Black Duck evaluates a project version.
- Disables a policy and Black Duck clears the corresponding policy violations.
- Deletes a policy and Black Duck clears the corresponding policy violations.

New information icon on BOM page

The BOM page now uses the information icon ( ) to indicate whether there is an adjustment or custom field additional information.

- Hover over the icon indicates whether there is an adjustment or there are additional fields.
- Select the icon to open the Component Details dialog box which displays additional information.

API enhancements

- Added a new endpoint to provide a list of component import events that occurs during a matching operation.

  GET /api/bom-import/{graphId}/component-import-events

- Added a new endpoint to provide a count of component import events (by status) that occurs during a matching operation.

  GET /api/bom-import/{graphId}/component-import-events-count

- Added an API to find out which scan a BOM belongs to, which provides a list of entries discovered by the associated scan.

  GET /api/scan/{scanId}/bom-entries

- Added support for copyright search and a new filter was added for copyright search for the Source view API.

- Improved the latest-scan summary API

  GET /api/codelocations/{codeLocationId}/latest-scan-summary

Supported browser versions

- Safari Version 13.1.1 (14609.2.9.1.3)
- Chrome Version 83.0.4103.97 (Official Build) (64-bit)
- Firefox 77.0.1 (64-bit)
- Internet Explorer 11.836.18362.0
- Microsoft Edge 44.18362.449.0

Container versions

- blackducksoftware/blackduck-postgres:1.0.13
- blackducksoftware/blackduck-authentication:2020.6.0
- blackducksoftware/blackduck-webapp:2020.6.0

- blackducksoftware/blackduck-scan:2020.6.0
- blackducksoftware/blackduck-jobrunner:2020.6.0
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.6
- blackducksoftware/blackduck-registration:2020.6.0
- blackducksoftware/blackduck-nginx:1.0.25
- blackducksoftware/blackduck-documentation:2020.6.0
- blackducksoftware/blackduck-upload-cache:1.0.14
- sigsynopsys/bdba-worker:2020.03-1
- blackducksoftware/rabbitmq:1.0.3

Japanese language

The 2020.4.0 version of the UI, online help, and release notes has been localized to Japanese.

Fixed Issues in 2020.6.0

The following customer-reported issues were fixed in this release:

- (Hub-20003). Fixed an issue so that the Add Component dialog box now identifies custom components.
- (Hub-22599) Fixed an issue whereby the UI timed out when cloning a project version.
- (Hub-22695) Fixed an issue whereby manually identified components were missing after cloning a project version and rescanning.
- (HUB-22812) Fixed an issue where filters were ignored when printing a BOM.
- (HUB-23502) Fixed an issue where Black Duck deployed on Openshift native mode without the --certificate-file-path parameter did not generate the 'subject alternative names' in certificates.
- (HUB-23601) Fixed an issue so that the **Owners** drop-down menu on the *Project Name* **Settings** tab displayed all possible selections.
- (HUB-23736) Fixed an issue whereby the HierarchicalVersionBomJob did not run successfully.
- (HUB-23798) Fixed an issue where a 404 error appeared when editing subprojects as a component from the Component dashboard.
- (HUB-23909, 23925) Fixed an issue where the project version **Security** tab did not provide the ability to view vulnerabilities regardless of their status.
- (Hub-23984) Fixed an issue wherein all projects were returned for the GET /api/projects endpoint for a user with no roles assigned.
- (Hub-23985) Fixed an issue whereby selecting a match or using the "Reveal In File Tree" option did not scroll to the file in the source tree.
- (Hub-23994) Fixed an issue whereby Black Duck - Binary Analysis did not clean up uploaded binary files.
- (Hub-24011) Fixed an issue whereby a "413 Request Entity Too Large" error message appeared for a snippet scan.
- (Hub-24040) Fixed an issue whereby the jobrunner hung and jobs did not complete.
- (Hub-24097) Fixed an issue where edits made to usage were not preserved after updating the component version.

- (Hub-24107) Fixed an issue where the Notices File report failed with too many parameters when the copyright option was selected.
- (Hub-24239) Fixed an issue where the api/projects/<projectid>/versions/<versionid>/policy-status displayed a 400 error.
- (Hub-24286) Fixed an issue where soft deleted component versions still appeared in the *Component Name Version* page.
- (Hub-24308) Fixed an issue whereby an empty subproject displayed "componentCount Component" as the source on the BOM page.

Version 2020.4.2

New and Changed Features in Version 2020.4.2

Container Version

- sigsynopsys/bdba-worker:2020.03-1

Fixed Issues in 2020.4.2

The following customer-reported issues were fixed in this release:

- (Hub-22837). Fixed an issue whereby not all components in project version BOMs were not being updated with new vulnerability data.
- (Hub-23581). Fixed an issue whereby the webapp container kept restarting.
- (Hub-23869). Fixed an issue where embedded license search results were not displayed when snippet scanning was enabled unless the upload source option was also enabled.
- (Hub-24006). Fixed an issue whereby using the License Management page to update licenses with a large number of components caused the webapp container to crash.

Version 2020.4.1

New and Changed Features in Version 2020.4.1

Black Duck version 2020.4.1 incorporates scanning improvements.

Fixed Issues in 2020.4.1

The following customer-reported issues were fixed in this release:

- (Hub-22188). Fixed an issue whereby a scan failed with the error message "Parent of <path> does not exist."
- (Hub-22251). Fixed an issue with scan failures due to Black Duck KnowledgeBase communication issues. To help prevent communication issues, retries of Black Duck KnowledgeBase communication with the Black Duck server are now in incremental intervals.
- (Hub-22559). Fixed an issue whereby the scans remain in the post-scan phase, but the results uploaded successfully to Black Duck.
- (Hub-23465). Fixed an issue with a slow UPDATE scan_composite_leaf query for large projects

Version 2020.4.0

New and Changed Features in Version 2020.4.0

Enhanced management of copyright statements

Users with the new global Copyright Editor role can now easily manage open source copyright statements for their organization so that the full list of copyright holders can be included in your notices file report.

Users with the Copyright Editor role can:

- View all copyright statements for a component version.
- Create or edit custom copyright statements.
- Edit Black Duck KnowledgeBase copyright statements
- Revert an edited Black Duck KnowledgeBase copyright statement to its original text.
- Activate or deactivate copyright statements.

Black Duck manages copyright statements by the origin name/id for a component version. Therefore, edits made to copyright statements for an origin for a component version apply to all BOMs that use that component version origin. This enables you to reuse data across your organization and reduce your workload.

Global remediation status

Black Duck now provides the ability for users with the new Global Security Manager role to set a global default remediation status for security vulnerabilities. After you set a global remediation status, when that vulnerability appears in new BOMs, it will automatically get the global remediation status you defined.

So that you can easily find globally remediated vulnerabilities, there is now a **Default Remediation Status** filter on the Security Dashboard.

Policy categories

Black Duck now provides categories which you can now use to group your policies. Using a new category filter provided on the Policy Management page and on the BOM page, this feature makes it easy for you to find policies (on the Policy Management page) or policy violations (on the BOM page) by category.

Possible categories are component, security, license, operational, and uncategorized (which is the default value).

All policies created prior to the 2020.4.0 release are grouped in the uncategorized category.

Reporting database enhancements

New columns have been added to these tables in the reporting database:

- Component table
  - `review_status`
  - `reviewed_by`
  - `security_critical_count`
  - `security_high_count`

- security_medium_count
- security_low_count
- security_ok_count
- license_high_count
- license_medium_count
- license_low_count
- license_ok_count
- operational_high_count
- operational_medium_count
- operational_low_count
- operational_ok_count

- Component policy table
  - overridden_at
  - description
  - severity
- Component vulnerability table
  - temporal_score
  - attack_vector
  - solution_available
  - workaround_available
  - published_on
  - updated_on
- Project table
  - created_at
- Project version table
  - created_on
  - updated_at
  - security_critical_component_count
  - security_high_component_count
  - security_medium_component_count
  - security_low_component_count
  - security_ok_component_count
  - license_high_component_count
  - license_medium_component_count
  - license_low_component_count
  - license_ok_component_count
  - operational_high_component_count

- `operational_medium_component_count`
- `operational_low_component_count`
- `operational_ok_component_count`

A new view has also been added to the `reporting` schema of `bds_hub` for component comments.

The reporting database uses materialized views. As Excel does not support materialized views, using Excel with the reporting database is no longer supported. Therefore, the documentation for using Excel has been removed from the *Report Database* guide.

Bulk remediation by origin

To make it easier to perform bulk remediation on the vulnerabilities of a single component with multiple origin IDs, the **Affected Projects** tab for the BDSA and CVE record has been enhanced to display the origins used in each project version.

Remediation guidance

For components in your BOM that have vulnerabilities, Black Duck provides guidance as to what other component versions are available and whether there is a version that has fewer security vulnerability than the component version used in your BOM. You can use this information to guide you in determining how to remediate a security vulnerability.

This feature is no longer a beta feature and is now available to all customers.

Ability to disable creation of users upon successful LDAP and SAML authentication

Black Duck now provides the ability to disable the automatic creation of users upon successful LDAP or SAML authentication.

Enhancements to custom fields

Black Duck now provides the ability to add new or edit existing options for the dropdown, single, and multiple selection custom fields.

New jobs

These jobs have been added to Black Duck:

- JobMaintenanceJob, which manages data retention and cleanup for existing jobs.
- NotificationPurgeJob, which manages data retention for existing notifications.
- ReportPurgeJob, which manages data retention for existing reports.
- SystemMaintenanceJob, which maintains system-related activities.

API enhancements

- Added the logo or primary language fields for the custom components API.
- Added the critical risk priority that shows critical risks if using CVSS 3 scoring to the /api/components endpoint.
- Added the capability for remediation comments to /api/projects/:projectId/versions/:versonId/vulnerable-bom-components

- Added a "migrated" flag to component and version responses in the response body when the source IDs differ from the retrieved IDs that are returned from the KnowledgeBase.
- Added a public API for the latest scan summary: /api/codelocations/:codeLocationId/latest-scan-summary
- Added a new field to the following endpoint: GET /api/projects/\{projectId}/versions/\{projectVersionId}/components to show a component type for each entry, such as KB_COMPONENT, CUSTOM_COMPONENT, or SUB_PROJECT.

Removal of the zookeeper container

The zookeeper container has been removed.

- After upgrading to 2020.04.0, you can manually remove the following volumes as they are no longer used and nothing references them:
  - zookeeper-data-volume
  - zookeeper-datalog-volume
- The jobrunner API is deprecated.

  You should not develop new queries using this API as it will be removed and replaced in a future release.
- If you used the terminateJob function of the Jobs API to terminate a job, it will now always return false when called.

  Jobs currently cannot be cancelled. This functionality will be re-implemented using a different mechanism in a future release.

Container versions

- blackducksoftware/blackduck-postgres:1.0.13
- blackducksoftware/blackduck-authentication:2020.4.0
- blackducksoftware/blackduck-webapp:2020.4.0
- blackducksoftware/blackduck-scan:2020.4.0
- blackducksoftware/blackduck-jobrunner:2020.4.0
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.6
- blackducksoftware/blackduck-registration:2020.4.0
- blackducksoftware/blackduck-nginx:1.0.23
- blackducksoftware/blackduck-documentation:2020.4.0
- blackducksoftware/blackduck-upload-cache:1.0.13
- sigsynopsys/bdba-worker:2020.03
- blackducksoftware/rabbitmq:1.0.3

Note that the container sigsynopsys/appcheck-worker-<version> has been renamed to sigsynopsys/bdba-worker-<version>.

Removal of the bdio database

As mentioned in the 2019.10.0 release notes, the bdio database has now been completely removed from Black Duck .

Changes to the `external-postgres-init.pgsql` initialization file for external PostgreSQL

The `external-postgres-init.pgsql` initialization file was modified to make it more compatible with other deployment methods such as Kubernetes.

When you configure an external PostgreSQL instance, you must edit the `external-postgres-init.pgsql` file in the `docker-swarm` directory and do the following:

- Replace POSTGRESQL_USER with blackduck
- Replace HUB_POSTGRES_USER with blackduck_user
- Replace BLACKDUCK_USER_PASSWORD with the password that you use for blackduck_user

Using synopsysctl to install or upgrade Black Duck using Kubernetes or OpenShift

As of the 2020.4.0 release, synopsysctl is now the recommended method to install or upgrade Black Duck using Kubernetes or OpenShift.

This change enables Synopsys to include a broader range of Black Duck product enhancements in future releases, while retaining full functionality to manage the applications in your cluster.

Click here for more information on synopsysctl.

Supported browser versions

- Safari Version 13.1 (14609.1.20.111.8)
- Chrome Version 80.0.3987.162 (Official Build) (64-bit)
- Firefox Version 74.0 (64-bit)
- Internet Explorer 11.657.18362.0
- Microsoft Edge 44.18362.449.0
- Microsoft EdgeHTML 18.18363

Japanese language

The 2020.2.0 version of the UI, online help, and release notes has been localized to Japanese.

Fixed Issues in 2020.4.0

The following customer-reported issues were fixed in this release:

- (Hub-15549). Fixed an issue whereby the policy rule filter in the BOM displayed disabled policies.
- (Hub-19745). Incorporated Content Security Protocols (CSP) in HTTP headers.
- (Hub-21044). Fixed snippet matching to ignore false positive matches to import and include statements.
- (Hub-21299). A new **Upload Scans** button was added to the project version **Settings** tab so that a user with only the project code scanner role could upload scans without viewing information that the user does not have permission to see.

- (Hub-21395). Fixed an issue whereby the scan size of bz2 files was not calculated correctly.
- (Hub-22187). Fixed an issue whereby inactive group roles were displayed for the user on the My Profile page.
- (Hub-22609). Fixed an issue whereby the scan failed when scanning an OVA file with BDBA.
- (Hub-22657). Fixed an issue whereby the Signature Scanner CLI displayed "ERROR StatusLogger..." error messages.
- (Hub-22675). Fixed an issue whereby the `crypto_date_time.csv` file reported the incorrect value in the "In Use" column.
- (Hub-22692). Fixed an issue whereby a notification was not received when a scan exceeded the license limit.
- (Hub-22753). Fixed an issue whereby notifications were not being pruned correctly.
- (Hub-22852). Fixed an issue whereby deep license data search did not show the source code of certain file types.
- (Hub-22937). Fixed an issue whereby incorrect search results appeared for a related vulnerability.
- (Hub-22988). Fixed an issue whereby the Where Used value shown for a license in License Management displayed an incorrect number of components for components that did not have any versions.
- (Hub-23097). Fixed an issue whereby the policy override information displayed the incorrect reviewer after the project version was cloned.
- (Hub-23139). Fixed an issue whereby the user could not open the Vulnerability Update report in HTML format.
- (Hub-23175). Fixed an issue whereby selecting a component version link in the Search results never loaded the page.
- (Hub-23217). A message now appears on the BOM page indicating when the BOM is being rebuilt.
- (Hub-23237). Fixed an issue whereby the "Error: cannot accumulate arrays of different dimensionality" error message appeared when accessing the project version.
- (Hub-23258). Fixed an issue whereby an audit_event caused blocked queries and timeouts.
- (Hub-23296). Fixed an issue whereby policy violations for licenses were not triggered when deep license data was enabled.
- (Hub-23306). Fixed an issue whereby paging was broken for the endpoint api/search/components.
- (Hub-23333). Fixed an issue whereby the tooltip did not show the file path for transitive dependencies.
- (Hub-23378). Fixed an issue whereby running more than one instance of Synopsys Detect with the Signature Scanner enabled caused the scan to fail with the following error: "ERROR: zip END header not found".
- (Hub-23523). Fixed an issue whereby the ReportingDatabaseTransferJob failed with an error stating that a key was duplicated.
- (Hub-23602). Fixed an issue whereby a user with the project manager role did not have permission to view the origin ID information in the Reference Files dialog box when viewing deep license data.
- (Hub-23845). Fixed an issue whereby Internet Explorer 11 was not compatible with Black Duck.

Version 2020.2.1

New and Changed Features in Version 2020.2.1

Improved embedded license search performance

Black Duck has improved performance when uploading source files for embedded license detection.

Fixed Issues in 2020.2.1

The following customer-reported issues were fixed in this release:

- (Hub-22325). Fixed an issue whereby Black Duck snippet scanning failed if an empty folder was scanned.
- (HUB-22955). Fixed an issue whereby the KBComponentUpdateJob failed with the following error: No object exists with that ID.
- (Hub-22982). Fixed an issue whereby in the BOM page, the component count for security vulnerabilities was inconsistent with how values were calculated in previous versions of Black Duck.

Version 2020.2.0

New and Changed Features in Version 2020.2.0

Individual file matching

Individual file matching as a part of signature scanning is no longer the default behavior for the Black Duck CLI and Synopsys Detect scans.

This change may cause some components to drop off your BOM, which may or may not be desired. Therefore, in the Black Duck 2020.2.0 release, you can re-enable individual file matching.

The Signature Scanner has a new parameter **--individualFileMatching** which has three options so that you can enable individual file matching:

- **source**. Performs individual file matching only on files with this extension: `.js`.
- **binary**. Performs individual file matching on files with these extensions: `.apklib`, `.bin`, `.dll`, `.exe`, `.o`, and `.so`.
- **all**. Performs individual file matching on all files with these extensions: `.js`, `.apklib`, `.bin`, `.dll`, `.exe`, `.o`, and `.so`.

if you are using Synopsys Detect to scan, version 6.2 will have a new parameter to support turning on/off individual file matching, with the default being “off”.

Docker Compose

As Docker Compose is no longer supported, the Docker Compose directory has been removed from the distribution and the *Installing Black Duck using Docker Compose* guide is no longer provided.

Embedded license detection

Black Duck can now detect instances of embedded open source licenses not declared by the Black Duck KnowledgeBase for a component.

By enabling detection of deep license data when scanning code, users focused on license compliance can view the licenses that were detected in their open source to ensure there are no problematic licenses and that all licenses are accounted for in their BOM.

With this feature, Black Duck performs a search for license string text and displays the licenses found in the **Source** tab.

Optionally, upload your source files so that BOM reviewers can view discovered license text from within the **Source** tab.

The Signature Scanner has a new parameter **--license-search** to enable searching for embedded licenses. A property to enable deep license data detection will be available in Synopsys Detect version 6.2 and later.

Deep license data added to reports

The component project version report, `components_date_#.csv`, and the component additional fields report, `bom_component_custom_fields_date_#.csv`, have been enhanced to include deep license data.

The new columns are:

- Deep License Ids
- Deep License Names
- Deep License Families

These fields were added to the end of the `components_date_#.csv` report and prior to the custom fields columns in the `bom_component_custom_fields_date_#.csv` report.

Deep license data has also been added to the Notices File report. This information can be seen in the list of licenses shown for a component as shown in the **Components** section of the report and in the license text shown in the report.

Additional information added to security project version report

The `security_date_time.csv` report has been enhanced and the following fields have been added to the end of the report:

- Overall score
- CWE Ids
- Solution available
- Workaround available
- Exploit available

Improved formatting of copyright reporting in Notices report - Beta

Additional improvements have been made to the formatting of copyright reporting in the Notices report. This feature is *optional* and is currently a Beta feature.

New project version BOM filter

A new filter has been added to the BOM page so that you can view those components that have or do not have comments.

Project version Security tab

The **Published** column has been added to the table shown in the project version **Security** tab.

Consolidated job

To improve job scheduling, a new job, KbUpdateJob, replaces the following jobs:

- KbComponentUpdateJob
- KbVersionUpdateJob
- KbVulnerabilityUpdateJob
- KbVulnerabilityBdsaUpdateJob

External PostgreSQL database

For users with an external PostgreSQL database, Synopsys recommends upgrading to version 9.6.16 as it includes performance-related fixes. This is the version in the database container.

Also, if your third-party database provider permits it, Synopsys recommends that external PostgreSQL users tune their database by running the following commands:

```
alter system set autovacuum_max_workers = 8 ;
alter system set autovacuum_vacuum_cost_limit = 800 ;
```

and then restart PostgreSQL.

If your third-party database provider does not permit tuning, you do not need to do anything.

Unmapped code locations

Black Duck now provides the capability for you to schedule the cleanup of code locations not mapped to a project version. Configure the BLACKDUCK_HUB_UNMAPPED_CODE_LOCATION_CLEANUP and BLACKDUCK_HUB_UNMAPPED_CODE_LOCATION_RETENTION_DAYS properties in the `blackduckconfig.env` file.

API Enhancements

- A new matched components endpoint:

  /api/projects/{projectId}/versions/{projectVersionId}/matched-components

- The following endpoint now returns a matchConfidencePercentage:

  /projects/{projectId}/versions/{projectVersionId}/matched-files

- New vulnerability reports endpoint to show status of all created vulnerability reports:

  /api/vulnerability-reports

- The following endpoints are intended as a replacement for the existing remediation guidance feature:

  /api/components/{componentId}/versions/{componentVersionId}/upgrade-guidance

  /api/components/{componentId}/versions/{componentVersionId}/origins/{originId}/upgrade-guidance

- Added ignored field to the vulnerable BOM components endpoint, which enables filtering based on

ignored and unignored components:

GET /api/projects/{projectId}/versions/{projectVersionId}/vulnerable-bom-components

Supported browser versions

- Safari Version 13.0.4 (14608.4.9.1.4)
- Chrome Version 80.0.3987.100 (Official Build) (64-bit)
- Firefox Version 72.0.2 (64-bit)
- Internet Explorer 11.657.18362.0
- Microsoft Edge 44.18362.449.0
- Microsoft EdgeHTML 18.18363

Container versions

- blackducksoftware/blackduck-postgres:1.0.11
- blackducksoftware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.6
- blackducksoftware/blackduck-zookeeper:1.0.3
- blackducksoftware/blackduck-nginx:1.0.17
- blackducksoftware/blackduck-upload-cache:1.0.12
- blackducksoftware/blackduck-authentication:2020.2.0
- blackducksoftware/blackduck-webapp:2020.2.0
- blackducksoftware/blackduck-scan:2020.2.0
- blackducksoftware/blackduck-jobrunner:2020.2.0
- blackducksoftware/blackduck-registration:2020.2.0
- blackducksoftware/blackduck-documentation:2020.2.0
- sigsynopsys/appcheck-worker:2019.12
- blackducksoftware/rabbitmq:1.0.3

Japanese Language

The 2019.12.0 version of the UI, online help, and release notes has been localized to Japanese.

Fixed Issues in 2020.2.0

The following customer-reported issues were fixed in this release:

- (Hub-20742). Optimized the queries for retrieving data for the Affected Projects page.
- (Hub-20821). Fixed an issue whereby an error message stating that the Black Duck search service was unavailable appeared when adding a component or project.
- (Hub-21833). Fixed a filter issue whereby a user could view components of all projects, instead of just their projects.
- (Hub-22181). Fixed an issue whereby component name and version links were missing on the **Source** tab.
- (Hub-22267). Fixed an issue where the **Created By** column was empty in vulnerability reports.

- (Hub-22310). Fixed an issue whereby the base score for a vulnerability was different in the UI versus in an exported report.
- (Hub-22335). Fixed an issue whereby custom fields were not visible unless the user had the global project viewer role.
- (Hub-22380). Fixed an issue whereby after cloning a project version, notifications for policy violations were still triggered although the policy had been overridden.
- (Hub-22466). Fixed an issue whereby inactive users were not hidden when selecting project owners.
- (Hub-22510). Fixed an issue whereby custom components could not be found when adding or editing a component.
- (Hub-22615). Fixed an issue whereby the KBreleaseupdatejob kept failing.
- (Hub-22626). Fixed an issue whereby scans remained in the post-scan phase but results were uploaded successfully to Black Duck.
- (Hub-22677). Fixed an issue whereby a component could not be unignored.
- (Hub-22681). Fixed an issue whereby adding a subproject that contained snippets skewed the subproject's component count.
- (Hub-22709). Fixed an issue whereby only 10 values were shown for the dropdown project custom field when creating a policy.
- (Hub-22805). Fixed an issue whereby the `source_date_time.csv` report was empty.
- (Hub-22811). Fixed an issue whereby "role "blackduck_user" does not exist" was seen when attempting to install Black Duck with an external database.
- (Hub-22850). Fixed an issue whereby the `license_term_fulfillment_date_time.csv` report was empty.

Version 2019.12.1

New and Changed Features in Version 2019.12.1

SSO security enhancement

Black Duck has improved the security of the communication between Black Duck and Single Sign-On (SSO) providers. Black Duck now requires that you provide an assertion signature as part the signed response when you configure your SSO Identity Provider (IdP). Although Synopsys does not recommend it, if your IdP is unable to provide this signature, you can disable this added security. Refer to the installation guide for more information.

API enhancement

- New API to update the remediation status of a vulnerability. BOM Component Version vulnerability remediation enables users to read or update the vulnerability remediation status and to add a comment.

  Components added without an origin can be accessed with:

  https://.../api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/vulnerabilities/{vulnerabilityId}/remediation

  Components added with an origin can be accessed with:

https://.../api/projects/{projectId}/versions/{versionId}/components/{componentId}/versions/{componentVersionId}/origins/{originID}/vulnerabilities/{vulnerabilityId}/remediation

Container information

The 2019.12.0 release notes listed the incorrect version of the blackducksoftware/blackduck-upload-cache container. The correct version is blackducksoftware/blackduck-upload-cache:1.0.12.

Fixed Issues in 2019.12.1

The following customer-reported issue was fixed in this release:

- (Hub-21861). Fixed an issue whereby code locations were "broken" after upgrading.
- (Hub-22091). Fixed an issue whereby scanning failed in the `scan.cli` after upgrading to version 2019.12.0.
- (Hub-22737, 22851). Fixed an issue whereby a job failed with an error message indicating there were too many parameters.
- (Hub-22781). Fixed an issue whereby the Edit Component dialog box did not load component or license information.

Version 2019.12.0

New and Changed Features in Version 2019.12.0

Enhancements to the Black Duck UI

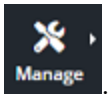
The overall navigation of the Black Duck UI has been improved in this release. Enhancements include:

- A new fixed navigation system appears in the left-hand section of the page. Menu options are:
  - 

. Displays the last dashboard you viewed.
  - 

. A new menu option to view the most recent search results.
  - 

. Displays the Scans page.
  - 

. Displays the Reports page.
  - 

. A new menu option from which you can select: Component Management, Custom Fields Management, License Management, or Policy Management.
  - 

. Displays the Administration page. Note that managing custom field is now available using the

option.

- A new Help menu, located on the top navigation bar, provides easy access to the Black Duck online help, integrations help, and API documentation.
- Managing user access tokens has been moved from the My Profile page to a separate page available from the user menu located on the top navigation bar.
- The Tools page has been updated.
- A new filter option, Match Ignore, has been added to the BOM page.

Redesign of project version Security tab

The project version **Security** tab has been redesigned with a new layout, new filters, and new columns added to the vulnerabilities table.

You can now quickly see the CWE ID and whether an exploit, workaround, or solution is available for a vulnerability without having to drill down to view this information.

Deep level license data

Black Duck now provides the ability to manage your deep licenses (also known as sub-licenses or embedded licenses) which may exist in your open source components. Managing this deep license data reduces the risk of license infringement and makes it easier to understand and report on deep licenses and their risks in the open source being used.

Deep license data is not enabled by default; you must enable including deep license data to your BOM components. Once enabled, any deep licenses, as determined by the Black Duck KnowledgeBase, are automatically active.

Note: Depending upon the number of components and number of deep licenses, enabling the viewing of deep license data can impact the BOM calculation scan time. Adding deep license data to your BOM can affect your license risk and can trigger policy violations.

Copyright data included in Notices report – BETA

An option to include the deduplicated copyright statements obtained from the Black Duck KnowledgeBase to the Notices report is now available. This make is easy for you to include the full list of copyright holders for the open source components you use in your notice reports.

This feature is *optional* and is currently a Beta feature and results may include poorly formatted or missing copyrights. A known issue is the truncation of copyright statements which contain special characters. Synopsys plans to add additional capabilities around copyright discovery and reporting in future releases.

Please send any feedback on errors or improvements to your Synopsys representative or to our customer support organization.

Custom license family enhancements

- To eliminate confusion, the Restricted Third Party Proprietary license family has been renamed to Restrictive Third Party Proprietary.

- KnowledgeBase licenses are now associated with the Restrictive Third Party Proprietary license family. This may affect your license risk and can trigger policy violations.

Policy management enhancement

Policy management now provides the ability to create policy rules based on these vulnerability conditions:

- CWE IDs
- Exploit Available
- Overall Score
- Solution Available
- Workaround Available

Enhancements to the report database

New views have been added to the `reporting` schema of `bds_hub` for project, project version, and BOM component custom fields.

BOM status

The header in the project version BOM page (also known as the project version **Components** tab) now includes the status of components, indicating whether processing is occurring to update the BOM.

Custom Scan Signatures

The Custom Scan Signatures feature is now available to all customers.

Custom Fields enhancements

Black Duck now provides the ability to delete custom fields.

API enhancements

- Custom fields are prevented from being deleted if they are in use in a policy.

  The DELETE endpoint for custom fields returns an error if the custom field is being used in a policy.

Support for non-root user ID/Group IDs

This release adds support for running Black Duck images using non-root user IDs/Group IDs in `.yml` configuration files for Kubernetes.

Supported browser versions

- Safari Version 13.0.3 (14608.3.10.10.1)
- Chrome Version 78.0.3904.108 (Official Build) (64-bit)
- Firefox Version 71.0 (64-bit)
- Internet Explorer 11.476.18362.0
- Microsoft Edge 44.18362.449.0
- Microsoft EdgeHTML 18.18363

Container changes

- blackducksoftware/blackduck-postgres:1.0.10
- blackducksofware/blackduck-cfssl:1.0.1
- blackducksoftware/blackduck-logstash:1.0.5
- blackducksoftware/blackduck-zookeeper:1.0.3
- blackducksoftware/blackduck-nginx:1.0.14
- blackducksoftware/blackduck-upload-cache:1.0.11
- sigsynopsys/appcheck-worker:2019.12
- blackducksoftware/rabbitmq:1.0.2

Renamed job

The KbReleaseUpdateJob has been renamed to the KbVersionUpdateJob to better describe the purpose of the job.

New audit event

An audit event will now appear when the Black Duck KnowledgeBase deprecates a component or component version.

Japanese language

The 2019.10.0 version of the UI, online help, and release notes has been localized to Japanese.

Fixed Issues in 2019.12.0

The following customer-reported issues were fixed in this release:

- (Hub-13468). Fixed an issue whereby the Used Count value shown in the Black Duck UI was incorrect.
- (Hub-16211, 16713, 17562). Fixed an issue whereby the BOM appeared up-to-date, however, processing was still occurring.
- (Hub-16950). Removed external images from the webapp container.
- HUB-17685). Fixed an issue whereby the policy violation status was not updated after the policy violation for reviewed components no longer occurred.
- (Hub-17841). Fixed an issue whereby the `scans.csv` project version report displayed the code location ID in the Scan ID field.
- (Hub-18257). Removed gravatar from Black Duck.
- (Hub-18978). Fixed an issue whereby a component could not be deleted from a project version.
- (Hub-20997, 21968). Fixed an issue whereby not all matched components were listed on the Scans > Components page.
- (Hub-21205). Fixed an issue whereby an input parsing request error was received when attempting to view match results on the **Source** tab.
- (Hub-21319). Fixed an issue whereby the scan history showed matches, however, the Scans > Components page showed no results.
- (Hub-21353). Fixed an issue whereby the license for a component version could not be modified.
- (Hub-21369). Fixed an issue whereby filtering a component search by primary language did not work

correctly.

- (Hub-21538). Fixed an issue whereby the Snippet View window on the **Source** tab did not appear when using Edge and IE 11 browsers.
- (Hub-21606). Fixed an issue whereby the "New projects created this week" filter returned all projects.
- (Hub-21614). Fixed an issue whereby side-by-side matched code was not highlighted in the Snippet View window on the **Source** tab.
- (Hub-21664). Fixed an issue whereby the corresponding matched lines in the source code pane did not change when the alternative match was selected on the **Source** tab.
- (Hub-21735). Fixed an issue an whereby a "createOrUpdateMany.arg1.compositePath required" error appeared when trying to update a blank dependency's component on the **Source** tab.
- (Hub-21751). Revised the text on the SAML logout page.
- (Hub-21785). Fixed an issue whereby the filter on the **Source** tab did not display all existing files and/or directories.
- (Hub-21793). Fixed an issue whereby the Black Duck 2019.8.0 AMI was missing images.
- (Hub-21796). Fixed an issue whereby changes to a file or directory match made to a child directory propagated to the parent directory on the **Source** tab.
- (Hub-21817). Fixed an issue whereby icons were missing on the Tools page.
- (Hub-21960). Fixed an issue whereby the VersionBomComputationJob was failing with the following error message: duplicate key value violates unique constraint "uidx_vuln_remediation_release_vuln_id.
- (Hub-22042). Fixed an issue whereby links to deprecated integrations were still shown on the Tools page.
- (Hub-22090). Fixed an issue whereby updating the status for a component version on the component version **Settings** tab was unsuccessful.
- (Hub-22094, 22477). Fixed an issue whereby LDAP authentication was unsuccessful after upgrading to version 2019.10.0.
- (Hub-22165). Fixed an issue whereby the API endpoint GET /api/vulnerabilities/{vulnerabilityId}/affected-projects was missing access controls.
- (Hub-22167). Fixed an issue whereby selecting an empty license from the License Management table displayed a 404 error.
- (Hub-22175). Fixed an issue whereby the file path no longer appeared when hovering over a matched file on the **Source** tab.

Chapter 3: Known Issues and Limitations

The following is a list of known issues and limitations in Black Duck:

- When scanning with the Signature Scanner CLI, Synopsys Detect (Desktop), or Synopsys Detect, you may see error messages that starts with the following:

  ```
  ERROR StatusLogger Unrecognized
  ```

  You can ignore these messages. These errors do not impact the scans and will not cause the scan to fail.

- The **Overview** tab for the *Component Name* page shows CVSS 2.0 data, even if you selected to view CVSS 3.0 (NVD or BDSA) data.
- If you are using an LDAP directory server to authenticate users, consider the following:
  - Black Duck supports a single LDAP server. Multiple servers are not supported.
  - If a user is removed from the directory server, Black Duck user account continues to appear as active. However, the credentials are no longer valid and cannot be used to log in.
  - If a group is removed from the directory server, Black Duck group is not removed. Delete the group manually.
- Tagging only supports letters, numbers, and the plus (+) and underscore (_) characters.
- If Black Duck is authenticating users, user names are not case sensitive during login. If LDAP user authentication is enabled, user names are case sensitive.
- If a code location has a large bill of materials, deleting a code location may fail with a user interface timeout error.