




# BLACKDUCK

Hub Integration for NuGet  
Version 1.0.0



This edition of the *Hub Integration for NuGet* refers to version 1.0.0 of the Black Duck Hub Integration for NuGet.

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**Please send your comments and suggestions to:**

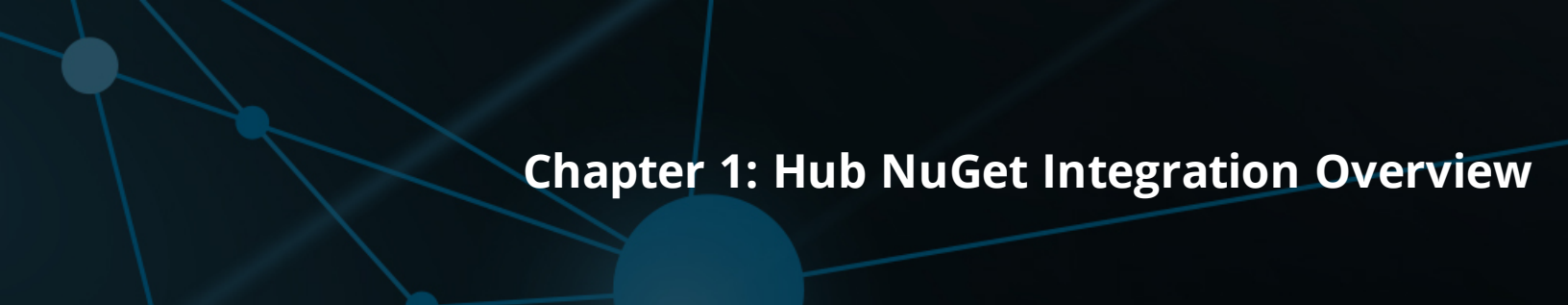
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# Chapter 1: Hub NuGet Integration Overview

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

The Hub NuGet integration provides the ability to automatically build, deploy, and scan a project in Black Duck Hub. The integration accomplishes this by generating a Black Duck I/O (BDIO) formatted file containing the dependency information gathered from the NuGet project. The file is generated in the target folder of the project. The Hub NuGet integration also has the ability to upload the Black Duck I/O file up to the Hub to create a code location in the Hub. To generate the file and upload the contents to the Hub, NuGet must be configured on a project, and execute goals specific to this integration.

The Hub NuGet integration runs on the command line to build the project or solution.

### 2.1 Installation Prerequisites

Before you install the Hub NuGet integration, ensure that:

- You know the host name and port for the Hub server.
- You have a user account with administrator privileges on the Hub system that you can use for the integration.
- You have connectivity to the internet. The machine that hosts your NuGet server must be able to connect to the machine executing the Hub NuGet integration.

### 2.2 Downloading and Installing the Hub NuGet Integration

You can download and install the Black Duck Hub NuGet integration as follows.

**\* To download and install the Hub NuGet integration:**

1. Navigate to the command prompt containing the project to scan.
2. Execute the command: `nuget.exe install Hub-NuGet`. This downloads and installs the latest Hub NuGet integration.

# Chapter 3: Configuring the Hub NuGet Integration

You can run the command `Hub-NuGet.1.0.0\tools\buildBom.exe -h` to view all configuration options. You can also specify configuration options on the command line; this overrides values in the actual configuration file without altering it.

## \* To configure the Hub NuGet integration:

1. The required parameters are:
  - a. **User name:** Type your user name.
  - b. **Password:** Type your password.
  - c. **Hub URL:** Type the URL and port number for your Hub server.

# Chapter 4: Using the Hub NuGet Integration

The following topics discuss Hub NuGet integration usage and options.

## 4.1 Common Usage Scenarios

The following examples outline typical usage scenarios for the Hub NuGet integration. When executing a Hub NuGet command, the integration looks for your solution file.

### Creating BDIO without sending BDIO to the Hub

If you only want to create Black Duck Input/Output files (BDIO) without deploying the BDIO to the Hub, use the command: `Hub-NuGet.1.0.0\tools\buildBom.exe --hub_deploy_bdio=false`.

### Creating BDIO and sending BDIO to the Hub

To execute a Hub NuGet process, enter the command: `Hub-NuGet.1.0.0\tools\buildBom.exe --hub_url=http://Your_hub_instance:8080 --hub_username=sysadmin --hub_password=blackduck`

This command:

- Finds a single solution file.
- Executes based on that solution file in that location.
- Creates the BDIO.
- Sends the BDIO to the Hub.

### Processing a solution file

To specify one solution file to process, run the command: `Hub-NuGet.1.0.0\tools\buildBom.exe --hub_url=http://Your_hub_instance:8080 --hub_username=sysadmin --hub_password=admin --solution_path=C:\your_solution_file_location`

The integration only processes one solution file at a time. You must run the command once for each solution file to be processed. There are no practical limits to the number of projects contained within your solutions file.

### Excluding one or more projects during processing

To exclude one or more projects, run the command: `Hub-NuGet.1.0.0\tools\buildBom.exe --excluded_modules=Name-of_project-to-exclude1,Name_of_project_to_exclude2`

List each project to exclude, separated by commas. In the comma-separated list of project to exclude, do not use spaces after each comma.

## 4.2 Editing the Application Settings

The Hub NuGet integration features an application settings configuration file. This enables you to store your user name, password, Hub server URL, and preferences to fit your workflow. An example of the application settings configuration file is as follows.

```

hubnugetapp.config
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <appSettings>
    <add key="solution_path" value="" />
    <add key="hub_url" value="" />
    <add key="hub_username" value="sysadmin" />
    <add key="hub_password" value="blackduck" />
    <add key="packages_repo_url" value="https://api.nuget.org/v3/index.json" />
    <!-- Proxy Settings-->
    <add key="hub_proxy_host" value="" />
    <add key="hub_proxy_port" value="" />
    <add key="hub_proxy_username" value="" />
    <add key="hub_proxy_password" value="" />
    <!-- Optional Parameters-->
    <add key="hub_project_name" value="" />
    <add key="hub_version_name" value="" />
    <add key="hub_timeout" value="120" />
    <add key="hub_scan_timeout" value="300" />
    <add key="hub_output_directory" value="" />
    <add key="excluded_modules" value="" />
    <add key="hub_ignore_failure" value="false" />
    <add key="hub_create_flat_list" value="true" />
    <add key="hub_create_bdio" value="true" />
    <add key="hub_deploy_bdio" value="true" />
    <add key="hub_create_report" value="true" />
    <add key="hub_check_policies" value="false" />
    <add key="hub_code_location_name" value="" />
  </appSettings>
</configuration>

```

You can edit the file, or specify the application setting values on the command line as you scan a project. Values entered on the command line do not overwrite the values in the configuration file.

For more information, refer to Hub NuGet Option Switches on page 8.

## 4.3 Hub NuGet Option Switches

Option switches bring added versatility to the Hub NuGet integration. Command line parameters override the configuration file values, but does not change those values within the configuration file. Available option switches and their usage is as follows.

Switch syntax is `Hub-NuGet.1.0.0\tools\buildBom.exe --<switch_option>`.

`Hub-NuGet.1.0.0\tools\buildBom.exe --ignore_failure` Continues processing, but does not fail the process. Displays a message for any failures at the end of the process.

To view the properties used during an execution, add the `-v` option switch to the command: `Hub-`



```
NuGet.1.0.0\tools\buildBom.exe --app_settings_file=.\hubnugetapp.config --  
excluded_modules=ExcludedProject1 --hub_url http://your_hub_instance:8080 -v
```

This lists all property values in the configuration file. Password values are masked. The integration creates an output folder, and you can edit this value to determine the location of your output folder. The output folder contains a sub-folder for each processed project, and each sub-folder contains the BDIO, reports, and the flat list of dependencies, where applicable.

### Application settings as switches

The following are entries from the application settings file; any of which can be used on the command line as switches. These settings can be specified for a scan on the command line; doing so takes precedence over the application settings file, but does not change or overwrite the values in the application settings file.

- `--app_settings_file=VALUE`: The file path for the application settings; this overrides all other settings.
- `--solution_path=VALUE`: The path to the solution file to find dependencies
- `--hub_url=VALUE`: The URL to which the Hub connects.
- `--hub_username=VALUE`: The user name to authenticate with the Hub.
- `--hub_password=VALUE`: The password to authenticate with the Hub.
- `--packages_repo_url=VALUE`: The URL of the NuGet repository from which the integration retrieves the packages.
- `--hub_proxy_host=VALUE`: The host URL of the proxy server.
- `--hub_proxy_port=VALUE`: The port of the proxy server.
- `--hub_proxy_username=VALUE`: The user name to authenticate with the proxy.
- `--hub_proxy_password=VALUE`: The password to authenticate with the proxy.
- `--hub_project_name=VALUE`: The name of the project in the Hub to map.
- `--hub_version_name=VALUE`: The version name for the project in the Hub to map.
- `--hub_timeout=VALUE`: The timeout value for each http connection to the Hub.
- `--hub_scan_timeout=VALUE`: The time in seconds to wait for the code location to be updated in the Hub.
- `--hub_output_directory=VALUE`: The directory path to output the BDIO files.
- `--excluded_modules=VALUE`: The names of the projects in a solution to exclude from BDIO generation.
- `--hub_ignore_failure=VALUE`: If `true`: log the error, but do not throw an exception.
- `--hub_create_flat_list=VALUE`: If `true`, the dependencies display as a flat list.
- `--hub_create_bdio=VALUE`: If `true`, BDIO files are generated in the output directory.
- `--hub_deploy_bdio=VALUE`: If `true`, the BDIO files in the output directory are uploaded to the Hub.
- `--hub_create_report=VALUE`: If `true`, the risk report is generated in the output directory.
- `--hub_check_policies=VALUE`: If `true`, checks to see if the project contains policy violations in the Hub.
- `--hub_code_location_name=VALUE`: If `true`, overrides the code location to insert into the

BDIO file.

- `-, -h, --help`: Displays information for using the Hub NuGet integration.
- `-v, --verbose`: Displays additional messages and information when running the Hub NuGet integration.

Refer to the following sections should issues arise during use of your Hub plugin instance.

**Tip:** After major releases of Hub, check for updated versions of your Black Duck plugins and their installation prerequisites. Changes to the APIs, schema, and SDK versions may require updated versions of the integration plugins.

### 5.1 Development and Testing Errors

If an error message is generated that states *During development and testing the following errors were encountered*, use the following solutions:

- If you get a message that reads *Service Unavailable*, either the Hub server can't be reached, or the request to the server is invalid. Contact your Hub server administrator.
- If you get a *Precondition failed* error message, then the request to the server is invalid. Verify that your global configuration is correct, and verify that the job configuration is correct. If you are still getting this message after you have checked your configuration, contact your Black Duck technical account manager.
- If you get a *Not Found (404) - Not Found* error message, then the request to the server is invalid. Contact your Black Duck technical account manager.

# Chapter 6: Hub NuGet Integration Release Notes

## Changes in Release 1.0.0

- First release of product.

# Chapter 7: Black Duck Support

If you have questions or find issues, contact Black Duck Software.

For the latest in web-based support, access the Black Duck Software Customer Support Web Site:  
<https://www.blackducksoftware.com/support/contact-support>

To access a range of informational resources, services and support, as well as access to Black Duck experts, visit the Black Duck Customer Success portal at:  
<https://www2.blackducksoftware.com/support/customer-success>

You can also contact Black Duck Support in the following ways:

- **Email:** [support@blackducksoftware.com](mailto:support@blackducksoftware.com)
- **Phone:** +1 781.891.5100, ext. 5
- **Fax:** +1 781.891.5145
- **Standard working hours:** Monday through Friday 8:00 AM to 8:00 PM EST

**Note:** Customers on the **Enhanced Customer Support Plan** are able to contact customer support 24 hours a day, 7 days a week to obtain Tier 1 support.

If you are reporting an issue, please include the following information to help us investigate your issue:

- Name and version of the plugin or integration product.
- Black Duck product name and version number.
- Third-party integrated product and version; for example:
  - Visual Studio
  - MSBuild
  - TFS
  - Artifactory
  - Eclipse
  - Jenkins
  - Maven, and others.
- Java version.
- Black Duck KnowledgeBase version, where applicable.
- Operating system and version.
- Source control management system and version.
- If possible, the log files, configuration files, MSBuild project files, or Project Object Model (POM) XML files, as applicable.

## 7.1 Training

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

View the full catalog of online courses and try some free courses at: <http://academy.blackducksoftware.com>.

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

## 7.2 Services

If you would like someone to perform Black Duck Software tasks for you, please contact the Black Duck Services group. They offer a full range of services, from planning, to implementation, to analysis. They also offer a variety of training options on all Black Duck products. Refer to <https://www.blackducksoftware.com/services/> for more information.