opentext

OpenText™ Fortify Static Code Analyzer

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Applications and Tools Guide

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Open Text Corporation

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Documentation Updates

The title page of this document contains the following identifying information:

- Software Version number
- Document Release Date, which changes each time the document is updated
- Software Release Date, which indicates the release date of this version of the software

This document was produced for OpenText™ Fortify Applications and Tools CE 24.2 on May 14, 2024. To check for recent updates or to verify that you are using the most recent edition of a document, go to:

https://www.microfocus.com/support/documentation

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Preface

Contacting Customer Support

Visit the Support website to:

- Manage licenses and entitlements
- Create and manage technical assistance requests
- Browse documentation and knowledge articles
- Download software
- Explore the Community

https://www.microfocus.com/support

For More Information

For more information about Fortify software products:

https://www.microfocus.com/cyberres/application-security

About the Documentation Set

The Fortify Software documentation set contains installation, user, and deployment guides for all Fortify Software products and components. In addition, you will find technical notes and release notes that describe new features, known issues, and last-minute updates. You can access the latest versions of these documents from the following Product Documentation website:

https://www.microfocus.com/support/documentation

To be notified of documentation updates between releases, subscribe to Fortify Product Announcements on the OpenText Fortify Community:

https://community.microfocus.com/cyberres/fortify/w/announcements

Fortify Product Feature Videos

You can find videos that highlight Fortify products and features on the Fortify Unplugged YouTube channel:

https://www.youtube.com/c/FortifyUnplugged

Change Log

The following table lists changes made to this document. Revisions to this document are published between software releases only if the changes made affect product functionality.

Software Release / Document Version	Changes
24.2.0	Updated:
	 Added ability to install the Fortify ScanCentral SAST client as a component of the Applications and Tools Guide installer (see "About Fortify Static Code Analyzer Applications and Tools" on page 8, "Installing Fortify Applications and Tools Silently (Unattended)" on page 13), and "Locating Log Files" on page 19)
	 Added options for updated issue report versions (see "BIRTReportGenerator Command-Line Options" on page 28)
	 Description for the FPRUtility -1oc option (see "Displaying Analysis Results Information from an FPR File" on page 35)
	Removed:
	 The com.fortify.model.PersistenceStrategy property from the fortify.properties file was removed because it has only one valid value
23.2.0	Added:
	Moved all the content from the Fortify Static Code Analyzer Applications and Tools Properties Reference Guide to this document (see "Configuration Options" on page 42)
	Updated:
	 The REST version of the fortifyclient utility is now installed in the bin directory (see "About Fortify Static Code Analyzer Applications and Tools" on page 8)
	 The Fortify Applications and Tools installer can detect a locally installed Fortify Static Code Analyzer in the default location for use by applications that perform analysis with it (see "About Installing Fortify Static Code Analyzer Applications and Tools" on page 11)

Software Release / Document Version	Changes
	Added the OWASP MASVS 2.0 and OWASP API Top 10 reports (see "BIRTReportGenerator Command-Line Options" on page 28)
23.1.0	Initial release of this document

Chapter 1: Getting Started

This chapter describes the OpenText™ Fortify Static Code Analyzer applications and tools and how to install them.

This section contains the following topics:

About Fortify Static Code Analyzer Applications and Tools	8
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About Fortify Static Code Analyzer Applications and Tools

The Fortify Applications and Tools installation includes applications and Fortify Secure Code Plugins that enable you to scan your code with Fortify Static Code Analyzer and view the analysis results so you can fix vulnerability issues. The command-line tools enable you to generate reports based on the analysis results, work with Fortify Project Results (FPR) files, and securely transfer objects to and from OpenText™ Fortify Software Security Center.

The following table describes the Fortify Static Code Analyzer applications and tools that you can install with the Fortify Applications and Tools installer.

Application or Tool	Description	More Information
OpenText™ Fortify Audit Workbench	Provides a graphical user interface for Fortify Static Code Analyzer analysis results that helps you organize, investigate, and prioritize analysis results so that developers can fix security flaws quickly.	OpenText™ Fortify Audit Workbench User Guide in Fortify Static Code Analyzer and Tools Documentation

Application or Tool	Description	More Information
OpenText™ Fortify Plugin for Eclipse	Adds the ability to run Fortify Static Code Analyzer scans (either locally or remotely using OpenText™ Fortify ScanCentral SAST) on the entire Java codebase of a project from the Eclipse IDE. The analysis results are displayed, along with descriptions of each of the security issues and suggestions for their elimination.	OpenText™ Fortify Plugin for Eclipse User Guide in Fortify Static Code Analyzer and Tools Documentation
OpenText™ Fortify Analysis Plugin for IntelliJ IDEA and Android Studio	Adds the ability to run Fortify Static Code Analyzer scans (either locally or remotely using Fortify ScanCentral SAST) on the entire codebase of a project from IntelliJ IDEA and Android Studio. To view the analysis results, upload them to Fortify Software Security Center or open them in Fortify Audit Workbench.	OpenText™ Fortify Analysis Plugin for IntelliJ IDEA and Android Studio User Guide in Fortify Static Code Analyzer and Tools Documentation
OpenText™ Fortify Extension for Visual Studio	Adds the ability to run Fortify Static Code Analyzer scan (either locally or remotely using Fortify ScanCentral SAST) on solutions and projects from Visual Studio. The analysis results are displayed, along with descriptions of each of the security issues and suggestions for their elimination. This extension also includes remediation functionality that works with analysis results stored on a Fortify Software Security Center server.	OpenText™ Fortify Extension for Visual Studio User Guide in Fortify Static Code Analyzer and Tools Documentation

Application or Tool	Description	More Information
OpenText™ Fortify ScanCentral SAST client	Enables you to offload Fortify Static Code Analyzer analysis to Fortify ScanCentral SAST, which can perform remote translation and scan of your applications. Users of Fortify Software Security Center can direct Fortify ScanCentral SAST to upload the analysis results to the server.	OpenText™ Fortify ScanCentral SAST Installation, Configuration, and Usage Guide in Fortify Software Security Center Documentation
Fortify Scan Wizard	Provides a graphical user interface that enables you to prepare a script to scan your code with Fortify Static Code Analyzer (either locally or remotely using Fortify ScanCentral SAST) and then optionally upload the results to Fortify Software Security Center.	"Fortify Scan Wizard" on page 24
Fortify Custom Rules Editor	Provides a graphical user interface to create and edit custom rules.	Not applicable
BIRTReportGenerator ReportGenerator	Command-line tools to generate BIRT reports and legacy reports based on a Fortify Project Results (FPR) file.	"Generating Analysis Reports from the Command Line" on page 27
FPRUtility	 Command-line tool that enables you to: Merge audited projects Verify FPR signatures Display information from an FPR file including: Any errors associated with the analysis Number of issues Filtered lists of issues in different formats Lines of code for analyzed files List of analyzed functions 	"Working with FPR Files from the Command Line" on page 33

Application or Tool	Description	More Information
	 Mappings for a migrated project Combine or split source code files and audit projects into FPR files Alter an FPR 	
fortifyclient	Command-line utility to create Fortify Software Security Center authentication tokens and securely transfer objects to and from Fortify Software Security Center.	OpenText™ Fortify Software Security Center User Guide in Fortify Software Security Center Documentation

The following table describes an application that is included in the Fortify Static Code Analyzer Applications and Tools download package. This application is installed separately from the Fortify Applications and Tools installer.

Application	Description	More Information
Fortify Security Assistant Plugin for Eclipse	Provides alerts to potential security issues as you write your Java code. The alerts give you detailed information about security risks and recommendations for how to secure the potential issue.	OpenText™ Fortify Security Assistant Plugin for Eclipse User Guide in Fortify Security Assistant Plugin for Eclipse Documentation

About Installing Fortify Static Code Analyzer Applications and Tools

See the Fortify Software System Requirements document to make sure that your system meets the minimum requirements for each software component you plan to install. For a description of the applications and tools that you can install, see "About Fortify Static Code Analyzer Applications and Tools" on page 8. You must provide a Fortify license file for the Fortify Static Code Analyzer Applications and Tools installation.

Fortify recommends that you install Fortify Static Code Analyzer before installing Fortify Applications and Tools. The Fortify Applications and Tools installer can detect an existing Fortify Static Code

Analyzer that is locally installed in the default location or in the same root folder where you plan to install Fortify Applications and Tools. If the installer successfully detects the location, the applications that require the location of Fortify Static Code Analyzer (Fortify Audit Workbench and the Fortify Extension for Visual Studio) will have the location automatically configured.

The following table lists the different methods of installation.

Installation Method	Instructions
Perform the installation using a standard install wizard	"Installing Fortify Static Code Analyzer Applications and Tools" below
Perform the installation silently (unattended)	"Installing Fortify Applications and Tools Silently (Unattended)" on the next page
Perform a text-based installation on non-Windows systems	"Installing Fortify Applications and Tools in Text-Based Mode on Non-Windows Platforms" on page 15

Installing Fortify Static Code Analyzer Applications and Tools

To install Fortify Static Code Analyzer applications and tools:

- 1. Run the installer file for your operating system to start the Fortify Applications and Tools Setup Wizard:
 - Windows: Fortify Apps and Tools <version> windows x64.exe
 - Linux: Fortify_Apps_and_Tools_<*version>*_linux_x64.run
 - macOS: Fortify_Apps_and_Tools_<*version>*_osx_x64.app.zip Uncompress the ZIP file before you run the APP installer file.

where <version> is the software release version.

- 2. Click Next.
- 3. Review and accept the license agreement, and then click **Next**.
- 4. Choose where to install Fortify Applications and Tools, and then click **Next**.

Important! Do not install Fortify Applications and Tools in the same directory where Fortify Static Code Analyzer is installed.

- 5. (Optional) Select the components to install, and then click **Next**.
- 6. Specify the path to the fortify.license file, and then click **Next**.
- 7. Specify if you want to migrate from a previous installation of Fortify Applications and Tools on your system.

Migrating from a previous Fortify Applications and Tools installation preserves Fortify Applications and Tools artifact files. For more information, see "About Upgrading Fortify Static Code Analyzer Applications and Tools" on page 16.

To migrate artifacts from a previous installation:

- a. In the Applications and Tools Migration page, select Yes, and then click Next.
- b. Specify the location of the existing Fortify Applications and Tools installation on your system, and then click **Next**.

To skip migration of artifacts from a previous release, leave the Applications and Tools Migration selection set to **No**, and then click **Next**.

- 8. If you are installing the Fortify Extension for Visual Studio, do the following:
 - a. Specify whether to install the extensions for the current install user or for all users. The default is to install the extensions for only the current install user.
 - b. Click Next.
- 9. Click **Next** on the Ready to Install page to install Fortify Applications and Tools.
- 10. Click **Finish** to close the Fortify Applications and Tools Setup Wizard.

Installing Fortify Applications and Tools Silently (Unattended)

A silent installation enables you to complete the installation without any user prompts. To install silently, you need to create an option file to provide the necessary information to the installer. Using the silent installation, you can replicate the installation parameters on multiple machines.

Important! Do not install Fortify Applications and Tools in the same directory where Fortify Static Code Analyzer is installed.

To install Fortify Applications and Tools silently:

- 1. Create an options file.
 - a. Create a text file that contains the following line:

```
fortify license path=cense file location>
```

where < license_file_location > is the full path to your fortify.license file.

b. Add more installation instructions, as needed, to the options file.

To obtain a list of installation options that you can add to your options file, open a command prompt, and then type the installer file name and the --help option. This command displays each available command-line option preceded with a double dash and the available parameters enclosed in angle brackets. For example, if you want to see the progress of the install displayed at the command line, add unattendedmodeui=minimal to your options file. The command-line options are case-sensitive.

For the enable-components option on Windows, you can specify the AWB_group parameter to install Fortify Audit Workbench, Fortify Custom Rules Editor, the default bug tracker plugins, and associate FPR files with Fortify Audit Workbench. To install specific plugins, list each plugin by parameter name (the Plugins_group parameter does *not* install all plugins and you do not need to include it).

The following example Windows options file specifies the location of the license file, a request to migrate from a previous release, installation of Fortify Audit Workbench (associate FPR files with Fortify Audit Workbench), Fortify Scan Wizard, Fortify Custom Rules Editor, the default bug tracker plugins, Fortify ScanCentral SAST client, Fortify Extension for Visual Studio 2022 for all users, and sets the target Fortify Applications and Tools installation directory:

```
fortify_license_path=C:\Users\admin\Desktop\fortify.license
MigrateTools=1
enable-components=AWB_group,ScanCentralClient,VS2022
VS_all_users=1
installdir=C:\FortifyApps
```

The following example is an options file for Linux and macOS that specifies the location of the license file, a request to migrate from a previous release, installation of Fortify Audit Workbench, the Fortify Plugin for Eclipse, Fortify Scan Wizard, the default bug tracker plugins, Fortify ScanCentral SAST client, and sets the target Fortify Applications and Tools installation directory:

```
fortify_license_path=/opt/Fortify/fortify.license
MigrateTools=1
enable-components=AWB,Eclipse,ScanWizard,ScanCentralClient
installdir=/opt/FortifyApps
```

- 2. Save the options file.
- 3. Run the silent install command for your operating system.

Note: You might need to run the command prompt as an administrator before you run the installer.

Windows	Fortify_Apps_and_Tools_< <i>version></i> _windows_x64.exemode unattendedoptionfile < <i>full_path_to_options_file></i>
Linux	./Fortify_Apps_and_Tools_< <i>version></i> _linux_x64.runmode unattendedoptionfile < <i>full_path_to_options_file></i>
macOS	You must uncompress the ZIP file before you run the command. Fortify_Apps_and_Tools_ <pre></pre>

The installer creates an installer log file when the installation is complete. This log file is in the following location depending on your operating system.

Windows	<pre>C:\Users\<username>\AppData\Local\Temp\FortifyAppsAndTools- <version>-install.log</version></username></pre>	
Linux macOS	<pre>/tmp/FortifyAppsAndTools-<version>-install.log</version></pre>	

Installing Fortify Applications and Tools in Text-Based Mode on Non-Windows Platforms

You perform a text-based installation on the command line. During the installation, you are prompted for information required to complete the installation. Text-based installations are not supported on Windows systems.

Important! Do not install Fortify Applications and Tools in the same directory where Fortify Static Code Analyzer is installed.

To perform a text-based installation of Fortify Applications and Tools, run the text-based install command for your operating system as listed in the following table.

Linux	./Fortify_Apps_and_Tools_< <i>version></i> _linux_x64.runmode text
macOS	You must uncompress the provided ZIP file before you run the command.
	Fortify_Apps_and_Tools_< <i>version></i> _osx_x64.app/Contents/MacOS/installbuilder.shmode text

Adding Trusted Certificates

Connection from the Fortify Static Code Analyzer applications and tools to other Fortify products and external systems might require communication over HTTPS. Some examples include:

- The Fortify Static Code Analyzer applications and tools such as Fortify Audit Workbench, Fortify
 Extension for Visual Studio, and Fortify Scan Wizard typically require an HTTPS connection to
 communicate with Fortify Software Security Center. By default, these tools do not trust self- or
 locally-signed certificates.
- Fortify Static Code Analyzer configured as a Fortify ScanCentral SAST sensor uses an HTTPS connection to communicate with the Controller.

When using HTTPS, Fortify Static Code Analyzer applications and tools will by default apply standard checks to the presented SSL server certificate, including a check to determine if the certificate is trusted. If your organization runs its own certificate authority (CA) and the Fortify Static Code Analyzer applications and tools need to trust connections where the server presents a certificate

issued by this CA, you must configure the Fortify Static Code Analyzer applications and tools to trust the CA. Otherwise, the use of HTTPS connections might fail.

You must add the trusted certificate of the CA to the Fortify Applications and Tools keystore. The Fortify Applications and Tools keystore is in the <tools_install_dir>/jre/lib/security/cacerts file. You can use the keytool command to add the trusted certificate to the keystore.

To add a trusted certificate to the Fortify Applications and Tools keystore:

1. Open a command prompt, and then run the following command:

```
<tools_install_dir>/jre/bin/keytool -importcert -alias <alias_name> -
cacerts -file <cert_file>
```

where:

- <alias_name> is a unique name for the certificate you are adding.
- <cert_file> is the name of the file containing the trusted root certificate in PEM or DER format.
- 2. Enter the keystore password.

Note: The default password is changeit.

3. When prompted to trust this certificate, select yes.

About Upgrading Fortify Static Code Analyzer Applications and Tools

To upgrade Fortify Applications and Tools, install the new version in a different location than where your current version is installed and choose to migrate settings from the previous installation. This migration preserves and updates the Fortify Applications and Tools artifact files located in the <tools_install_dir>/Core/config directory.

If you choose not to migrate any settings from a previous release, Fortify recommends that you save a backup of the following data if it has been modified:

- <tools install dir>/Core/config/CustomExternalMetadatafolder
- <tools install dir>/Core/config/server.properties file
- <tools_install_dir>/Core/config/fortify.properties file

After you install the new version, you can uninstall the previous version. For more information, see "About Uninstalling Fortify Applications and Tools" on the next page.

Upgrading the Fortify Extension for Visual Studio

If you have administrative privileges and are upgrading from a previous version of the Fortify Applications and Tools for any supported version of Visual Studio, the installer will overwrite the existing Fortify Extension for Visual Studio. If the previous version was installed without administrative privileges, the installer will also overwrite the existing Fortify Extension for Visual Studio without requiring administrative privileges.

Note: If you do not have administrative privileges and you are upgrading the Fortify Extension for Visual Studio that was previously installed using an administrative privileged user account, you must first uninstall the Fortify Extension for Visual Studio from Visual Studio using an administrative privilege account.

About Uninstalling Fortify Applications and Tools

This section describes how to uninstall Fortify Static Code Analyzer applications and tools. You can use the standard install wizard, or you can perform the uninstallation silently. You can also perform a text-based uninstallation on non-Windows systems.

Uninstalling Fortify Applications and Tools

To uninstall Fortify Applications and Tools:

1. Run the uninstall command located in the <tools_install_dir> for your operating system:

Windows	Uninstall_FortifyAppsAndTools_ <version>.exe Alternatively, you can do the following: a. Select Start > Settings > Apps > Apps & features. b. From the list of programs, select Fortify Applications and Tools <version>, and then click Uninstall.</version></version>
Linux	Uninstall_FortifyAppsAndTools_< <i>version></i>
macOS	Uninstall_FortifyAppsAndTools_< <i>version></i> .app

- 2. You are prompted to indicate whether to remove the entire application or individual components. Make your selection, and then click **Next**.
 - If you are uninstalling specific components, select the components to remove on the Select Components to Uninstall page, and then click **Next**.
- 3. You are prompted to indicate whether to remove all application settings. Do one of the following:
 - Click **Yes** to remove the application setting folders for the applications installed with the

version of Fortify Applications and Tools that you are uninstalling.

• Click **No** to retain the application settings on your system.

Uninstalling Fortify Applications and Tools Silently

To uninstall Fortify Applications and Tools silently:

- 1. Navigate to the installation directory.
- 2. Type one of the following commands based on your operating system:

Windows	<pre>Uninstall_FortifyAppsAndTools_<version>.exemode unattended</version></pre>
Linux	./Uninstall_FortifyAppsAndTools_< <i>version></i> mode unattended
macOS	<pre>Uninstall_FortifyAppsAndTools_ <version>.app/Contents/MacOS/installbuilder.shmode unattended</version></pre>

Note: The uninstaller removes the application setting folders for the applications installed with the version of Fortify Applications and Tools that you are uninstalling.

Uninstalling Fortify Applications and Tools in Text-Based Mode on Non-Windows Platforms

To uninstall Fortify Applications and Tools in text-based mode, run the text-based install command for your operating system, as follows:

- 1. Navigate to the installation directory.
- 2. Type one of the following commands based on your operating system:

Linux	./Uninstall_FortifyAppsAndTools_< <i>version></i> mode text	
macOS	<pre>Uninstall_FortifyAppsAndTools_ <version>.app/Contents/MacOS/installbuilder.shmode text</version></pre>	

Samples

The Fortify Applications and Tools installation includes (optional) sample bug tracker plugins, an analysis results file that was scanned with Fortify Static Code Analyzer, and more. The following table describes the samples in the <tools install dir>/Samples folder.

Folder Name	Description
advanced	Javadoc for public-api
bugtrackers	Source code for supported bug tracker plugins
fortifyclient	Source code for the REST API-based client to securely transfer objects to and from Fortify Software Security Center
fprs	Sample Fortify Project Results (FPR) file from the analysis of a WebGoat project

Locating Log Files

By default, log files for Fortify Static Code Analyzer applications and tools are written to the following directory:

- Windows: C:\Users\<username>\AppData\Local\Fortify\<tool_name>-<version>\log
- Non-Windows: <userhome>/.fortify/<tool_name>-<version>/log

The following table lists log file directory associated with each Fortify Static Code Analyzer application and command-line tool.

Application / Tool	Log File Directory
Fortify Audit Workbench	AWB- <version></version>
Fortify Plugin for Eclipse	Eclipse.Plugin- <version></version>
Fortify Analysis Plugin for IntelliJ IDEA and Android Studio	<pre>IntelliJAnalysis-<version></version></pre>
Fortify Extension for Visual Studio	VS <vsversion>-<version></version></vsversion>
Fortify Scan Wizard	ScanWizard-< <i>version</i> >

Application / Tool	Log File Directory
Fortify Custom Rules Editor	CRE- <version></version>
Fortify ScanCentral SAST client	scancentral-< <i>version</i> >
BIRTReportGenerator	BIRT- <version></version>
ReportGenerator	<pre>ReportCommandlineInterface- <version></version></pre>
fortifyclient	FortifyClient- <version></version>
FPRUtility	FPRCommandlineInterface- <version></version>

Related Documents

This topic describes documents that provide information about Fortify software products.

Note: You can find the Fortify Product Documentation at https://www.microfocus.com/support/documentation. Most guides are available in both PDF and HTML formats.

All Products

The following documents provide general information for all products. Unless otherwise noted, these documents are available on the Product Documentation website.

Document / File Name	Description
About Fortify Software Documentation	This paper provides information about how to access Fortify product documentation.
About_Fortify_Docs_< <i>version</i> >.pdf	Note: This document is included only with the product download.
Fortify Software System Requirements	This document provides the details about the environments and products supported for this version of Fortify Software.
Fortify_Sys_Reqs_< <i>version></i> .pdf	Formy Software.
Fortify Software Release Notes	This document provides an overview of the changes made to Fortify Software for this release and important

Document / File Name	Description
FortifySW_RN_< <i>version</i> >.pdf	information not included elsewhere in the product documentation.
What's New in Fortify Software <version> Fortify_Whats_New_<version>.pdf</version></version>	This document describes the new features in Fortify Software products.

Fortify ScanCentral SAST

The following document provides information about Fortify ScanCentral SAST. This document is available on the Product Documentation website at

https://www.microfocus.com/documentation/fortify-software-security-center.

Document / File Name	Description
OpenText™ Fortify ScanCentral SAST Installation, Configuration, and Usage Guide SC_SAST_Guide_ <version>.pdf</version>	This document provides information about how to install, configure, and use Fortify ScanCentral SAST to streamline the static code analysis process. It is written for anyone who intends to install, configure, or use Fortify ScanCentral SAST to offload the resource-intensive translation and scanning phases of their Fortify Static Code Analyzer process.

Fortify Software Security Center

The following document provides information about Fortify Software Security Center. This document is available on the Product Documentation website at

https://www.microfocus.com/documentation/fortify-software-security-center.

Document / File Name	Description
OpenText™ Fortify Software Security Center User Guide SSC_Guide_ <version>.pdf</version>	This document provides Fortify Software Security Center users with detailed information about how to deploy and use Fortify Software Security Center. It provides all of the information you need to acquire, install, configure, and use Fortify Software Security Center. It is intended for use by system and instance administrators, database administrators (DBAs), enterprise security leads,

Document / File Name	Description
	development team managers, and developers. Fortify Software Security Center provides security team leads with a high-level overview of the history and current status of a project.

Fortify Static Code Analyzer

The following documents provide information about Fortify Static Code Analyzer. Unless otherwise noted, these documents are available on the Product Documentation website at https://www.microfocus.com/documentation/fortify-static-code.

Document / File Name	Description
OpenText™ Fortify Static Code Analyzer User Guide SCA_Guide_ <version>.pdf</version>	This document describes how to install and use Fortify Static Code Analyzer to scan code on many of the major programming platforms. It is intended for people responsible for security audits and secure coding.
OpenText™ Fortify Static Code Analyzer Custom Rules Guide SCA_Cust_Rules_Guide_ <version>.zip</version>	This document provides the information that you need to create custom rules for Fortify Static Code Analyzer. This guide includes examples that apply rule-writing concepts to real-world security issues.
	Note: This document is included only with the product download.
OpenText™ Fortify License and Infrastructure Manager Installation and Usage Guide LIM_Guide_ <version>.pdf</version>	This document describes how to install, configure, and use the Fortify License and Infrastructure Manager (LIM), which is available for installation on a local Windows server and as a container image on the Docker platform.

Fortify Static Code Analyzer Applications and Tools

The following documents provide information about Fortify Static Code Analyzer applications and tools. These documents are available on the Product Documentation website at https://www.microfocus.com/documentation/fortify-static-code-analyzer-and-tools.

Document / File Name	Description
OpenText™ Fortify Static Code Analyzer Applications and Tools Guide SCA_Apps_Tools_ <version>.pdf</version>	This document describes how to install Fortify Static Code Analyzer applications and tools. It provides an overview of the applications and command-line tools that enable you to scan your code with Fortify Static Code Analyzer, review analysis results, work with analysis results files, and more.
OpenText™ Fortify Audit Workbench User Guide AWB_Guide_ <version>.pdf</version>	This document describes how to use Fortify Audit Workbench to scan software projects and audit analysis results. This guide also includes how to integrate with bug trackers, produce reports, and perform collaborative auditing.
OpenText™ Fortify Plugin for Eclipse User Guide Eclipse_Plugin_Guide_ <version>.pdf</version>	This document provides information about how to install and use the Fortify Complete Plugin for Eclipse.
OpenText™ Fortify Analysis Plugin for IntelliJ IDEA and Android Studio User Guide IntelliJ_AnalysisPlugin_Guide_ <version>.pdf</version>	This document describes how to install and use Fortify Analysis Plugin for IntelliJ IDEA and Android Studio.
OpenText™ Fortify Extension for Visual Studio User Guide VS_Ext_Guide_ <version>.pdf</version>	This document provides information about how to install and use the Fortify extension for Visual Studio to analyze, audit, and remediate your code to resolve security-related issues in solutions and projects.

Chapter 2: Fortify Scan Wizard

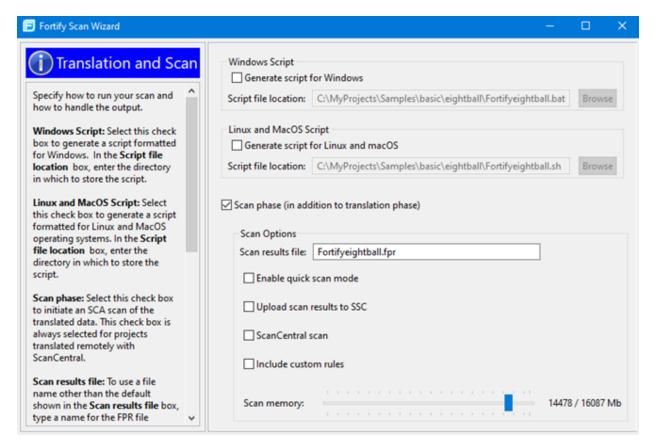
Fortify Scan Wizard is an application with a graphical interface that enables you to easily generate a script to perform Fortify Static Code Analyzer commands for Windows, Linux, and macOS systems. You can run the generated script to analyze your code with Fortify Static Code Analyzer. You can specify to run your analysis locally or use Fortify ScanCentral SAST to run all or part of the analysis remotely.

This section contains the following topics:

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Preparing to use Fortify Scan Wizard

Fortify Scan Wizard uses the information you provide to create a script with the commands for Fortify Static Code Analyzer to scan project code and optionally upload the analysis results to Fortify Software Security Center. You can use Fortify Scan Wizard to create a script that runs your scans locally or sends them to Fortify ScanCentral SAST for all or part of the analysis.



To use Fortify Scan Wizard, you need access to the build directory of the projects you want to scan. The following table describes some of the required information you will need, depending on how you will analyze the project and if you want to upload the scan results to Fortify Software Security Center.

Important! If Fortify Software Security Center or the Fortify ScanCentral SAST Controller uses an SSL connection from an internal certificate authority or a self-signed certificate, you must add the certificate to the Java keystore for Fortify Static Code Analyzer (see the *OpenText™ Fortify Static Code Analyzer User Guide*).

Task	Requirements
Perform a local analysis with Fortify Static Code	Fortify Static Code Analyzer installed on the system where the generated script will be run.
Analyzer	You can generate the script on a different platform without Fortify Static Code Analyzer, and then transfer the script to the system where it will be run.
Perform a remote analysis (translation and scan phases) with Fortify ScanCentral SAST	 Either a Fortify ScanCentral SAST client installed with the Fortify Static Code Analyzer installation or a standalone Fortify ScanCentral SAST client installation (see the OpenText™ Fortify ScanCentral SAST Installation, Configuration, and Usage Guide for instructions) A Fortify ScanCentral SAST Controller URL
	Note: If you are also uploading analysis results to Fortify Software Security Center, then you do not need to specify a Controller URL. The Fortify ScanCentral SAST that is integrated with the Fortify Software Security Center server is used in this case.
	• Your project must be in a language that Fortify ScanCentral SAST supports for translation. See the <i>Fortify Software System Requirements</i> for a list of supported languages.
Perform a local Fortify Static Code	A Fortify ScanCentral SAST client installed with the Fortify Static Code Analyzer installation
Analyzer translation and a remote scan with Fortify ScanCentral SAST	A Fortify ScanCentral SAST Controller URL
Upload analysis results to	A Fortify Software Security Center server URL
Fortify Software Security Center	Note: If you are using Fortify ScanCentral SAST, the Fortify

Task	Requirements
	Software Security Center server must be integrated with the Fortify ScanCentral SAST Controller.
	Your Fortify Software Security Center login credentials
	Note: If you do not have Fortify Software Security Center login credentials, you must have an application name and version that exists in Fortify Software Security Center.
	An authentication token of type ToolsConnectToken
	Note: If you do not have a token, you can use Fortify Scan Wizard to generate one. To do this, you must have Fortify Software Security Center login credentials.

Important! If you generate a script for a Windows system, you cannot run that script on a non-Windows system. Likewise, if you generate a script for a non-Windows system, you cannot run it on a Windows system.

Starting Fortify Scan Wizard

To start Fortify Scan Wizard, do one of the following, based on your operating system:

• On Windows, select Start > All Programs > Fortify Applications and Tools < version > Scan Wizard.

You can also open a Command Prompt window, and then type scanwizard.

- On Linux, navigate to the <tools_install_dir>/bin directory, and then run ScanWizard from the command line.
- On macOS, navigate to the <tools_install_dir> directory, and then double-click the ScanWizard.app icon.

Chapter 3: Command-Line Tools

This chapter describes the tools that you can run from a Command Prompt window.

This section contains the following topics:

Generating Analysis Reports from the Command Line	27
Working with FPR Files from the Command Line	33

Generating Analysis Reports from the Command Line

There are two command-line tools that you can use to generate analysis reports:

• BIRTReportGenerator—Generates issue reports from FPR files that are based on the Business Intelligence and Reporting Technology (BIRT) system.

Note: To generate BIRT reports on a Linux system running OpenJDK, you must install fontconfig, DejaVu Sans fonts, and DejaVu Serif fonts.

ReportGenerator—Generates legacy reports from FPR files. You can specify a report template or
use the default report template. See the OpenText™ Fortify Audit Workbench User Guide for a
description of the available report templates.

Generating Issue Reports

Use the BIRTReportGenerator command-line tool to generate issue reports that are based on the BIRT system. The basic command-line syntax to generate an issue report is:

```
BIRTReportGenerator -template <template_name>
-source <audited_proj>.fpr -format <format>
-output <report_file_name>
```

The following is an example of how to generate an OWASP Top 10 2021 report with additional options:

```
BIRTReportGenerator -template "owasp top 10" -source auditedProj.fpr
-format pdf -ShowSuppressed --Version "owasp top 10 2021"
--UseFortifyPriorityOrder -output MyOWASP_Top10_Report.pdf
```

See Also

"BIRTReportGenerator Command-Line Options" on the next page

"Troubleshooting BIRTReportGenerator" on page 31

BIRTReportGenerator Command-Line Options

The following table describes the BIRTReportGenerator options.

BIRTReportGenerator Option	Description
-template <template_name></template_name>	(Required) Specifies the report template name. The valid values for <template_name> are "CWE Top 25", "CWE/SANS Top 25", "Developer Workbook", "DISA CCI 2", "DISA STIG", "FISMA Compliance", GDPR, MISRA, "OWASP API Top 10", "OWASP ASVS 4.0", "OWASP MASVS 2.0", "OWASP Mobile Top 10", "OWASP Top 10", "PCI DSS Compliance", and "PCI SSF Compliance".</template_name>
	Note: You only need to enclose the report template name in quotes if the <i><template_name></template_name></i> includes a space. The template name values are case-insensitive.
-source <audited_proj>.fpr</audited_proj>	(Required) Specifies the audited project on which to base the report.
-format pdf doc html	(Required) Specifies the generated report format.
	Note: The format values are case-insensitive.
-output <report_file.***></report_file.***>	(Required) Specifies the file to which the report is written.
	Note: If you specify a file that already exists, that file is overwritten.
-searchQuery <query></query>	Specifies a search query to filter issues before generating the report. For example:
	-searchQuery audited:false
	For a description of the search query syntax, see the OpenText™ Fortify Audit Workbench User Guide.
-ShowSuppressed	Include issues that are marked as suppressed.

scription
lude issues that are marked as removed.
lude issues that are marked as hidden.
ecifies a filter set to use to generate the report (for ample, -filterSet "Quick View").
ecifies the version for the template. The template sion values are case-insensitive.
Templates that are not listed here have only one version available. If you do not specify a version and multiple versions are available, BIRTReportGenerator uses the most recent version based on the external metadata used when the FPR was created. The BIRTReportGenerator help displays current report versions. OpenText periodically deprecates older report versions, however these versions are still available for FPR files that were created before the report version was deprecated.
deprecat

BIRTReportGenerator Option	Description
	 For the "CWE Top 25" template, the version is "CWE Top 25 < version>" (for example, "CWE Top 25 2023") For the "CWE/SANS Top 25" template, the version is "<version> CWE/SANS Top 25" (for example, "2011 CWE/SANS Top 25")</version> For the "DISA STIG" template, the version is "DISA STIG < version>" (for example, "DISA STIG 5.3") For the "FISMA Compliance" template, the version is "NIST 800-53 Rev < version>" (for example, "NIST 800-53 Rev 5") For the MISRA template, the available versions are "MISRA C 2012" or "MISRA C++ 2008" For the "OWASP Mobile Top 10" template, the version is "OWASP Mobile Top 10 < version>" (for example, "OWASP Top 10" template, the version is "OWASP Top 10 < version>" (for example, "OWASP Top 10 < version>" (for example, "OWASP Top 10 2023") For the "PCI DSS Compliance" template, the version is "PCI < version>" (for example, "PCI 4.0") For the "PCI SSF Compliance" template, the version is "PCI < version>" (for example, "PCI 4.0") For the "PCI SSF Compliance" template, the version is "PCI SSF < version>" (for example, "PCI 5SF < version>" (for example
IncludeDescOfKeyTerminology	Include the Description of Key Terminology section in the report.
IncludeAboutFortify	Include the About Fortify Solutions section in the report.
SecurityIssueDetails	Provide detailed descriptions of reported issues. This option is not available for the Developer Workbook template.
UseFortifyPriorityOrder	Use Fortify Priority Order instead of folder names to categorize issues. This option is not available for the Developer Workbook and PCI Compliance templates.

BIRTReportGenerator Option	Description
-h -help	Displays detailed information about the options.
-debug	Displays debug information that can be helpful to troubleshoot issues with BIRTReportGenerator.

Troubleshooting BIRTReportGenerator

Occasionally, you might encounter an out of memory error when you generate a report. You might see a message similar to the following in the command-line output:

```
java.lang.OutOfMemoryError: GC overhead limit exceeded
```

To increase the memory allocated for BIRTReportGenerator, add the -Xmx option to the BIRTReportGenerator command. In the following example, 32 GB is allocated to BIRTReportGenerator to run a report:

```
BIRTReportGenerator -template "DISA STIG" -source myproject.fpr -format PDF -output myproject_report.pdf -Xmx32G
```

Generating a Legacy Analysis Report

Use the ReportGenerator command-line tool to generate legacy reports. The legacy reports include user-configurable report templates. The basic command-line syntax to generate a legacy analysis report is:

```
ReportGenerator -source <audited_proj>.fpr -format <format> -f <report_
file_name>
```

The following is an example of how to generate a PDF report using the Fortify Scan Summary template and additional options:

```
ReportGenerator -source auditedProj.fpr -format pdf -template
ScanReport.xml -showSuppressed -user Alex -f MyFortifyReport.pdf
```

ReportGenerator Command-Line Options

The following table describes the ReportGenerator options.

ReportGenerator Option	Description
-source <audited_proj>.fpr</audited_proj>	(Required) Specifies the audited project on which to base the report.

ReportGenerator Option	Description
-format pdf xml	(Required) Specifies the generated report format.
-f <report_file.***></report_file.***>	(Required) Specifies the file to which the report is written.
	Note: If you specify a file that already exists, that file is overwritten.
-template <template_name></template_name>	Specifies the report template. If not specified, ReportGenerator uses the default template. The default template is located in <tools_install_dir> /Core/config/reports/DefaultReportDefinition.xm 1.</tools_install_dir>
	Note: Enclose the <i><template_name></template_name></i> in quotes if it contains any spaces.
	See the OpenText [™] Fortify Audit Workbench User Guide for a description of the available report templates and how to customize them.
-user <i><username></username></i>	Specifies a user name to add to the report.
-showSuppressed	Include issues marked as suppressed.
-showRemoved	Include issues marked as removed.
-showHidden	Include issues marked as hidden.
-filterSet <filterset_ name></filterset_ 	Specifies a filter set to use to generate the report (for example, -filterset "Quick View").
-verbose	Displays status messages to the console.
-debug	Displays debug information that can be helpful to troubleshoot issues with ReportGenerator.
-h	Displays detailed information about the options.

Working with FPR Files from the Command Line

Use the FPRUtility command-line tool located in $< tools_install_dir > / bin$ to perform the following tasks:

- "Merging FPR Files" below
- "Displaying Analysis Results Information from an FPR File" on page 35
- "Extracting a Source Archive from an FPR File" on page 39
- "Altering FPR Files" on page 41
- "Allocating More Memory for FPRUtility" on page 41

Merging FPR Files

The FPRUtility -merge option combines the analysis results from two FPR files into a single FPR file. The values of the primary project are used to resolve conflicts. When you merge two FPR files, copies of both the primary analysis results and the secondary analysis results are stored in the merged FPR. When you open a merged FPR in Fortify Audit Workbench or Fortify Software Security Center, removed issues are determined as those that exist in the secondary analysis results but not in the primary analysis results. Similarly, new issues are those that exist in the primary analysis results, but not in the secondary analysis results.

To merge FPR files:

```
FPRUtility -merge -project <primary>.fpr -source <secondary>.fpr \
-f <merged>.fpr
```

To merge FPR files and set instance ID migrator options:

```
FPRUtility -merge -project <primary>.fpr -source <secondary>.fpr \
-f <merged>.fpr -iidmigratorOptions "<iidmigrator_options>"
```

FPRUtility Data Merge Options

The following table lists the FPRUtility options that apply to merging data.

FPRUtility Option	Description
-merge	Merges the specified project and source FPR files.
-project <primary>.fpr</primary>	Specifies the primary FPR file to merge. Conflicts are resolved using the values in this file.
-source <i><secondary></secondary></i> .fpr	Specifies the secondary FPR file to merge. The primary project

FPRUtility Option	Description
	overrides values if conflicts exist.
-f <merged>.fpr</merged>	Specifies the name of the merged FPR file to contain the result of the merged files.
	Note: When you specify this option, neither of the original FPR files are modified. If you do not use this option, the primary FPR is overwritten with the merged results.
-forceMigration	Forces the migration, even if Fortify Static Code Analyzer and the Rulepack versions of the two projects are the same.
-ignoreAnalysisDates	Specifies to ignore the analysis dates in the primary and secondary FPR files for the merge. Otherwise, the secondary FPR is always updated with the primary FPR.
-useSourceIssueTemplate	Specifies to use the filter sets and folders from the issue template in the secondary FPR.
<pre>-useMigrationFile <mapping_file></mapping_file></pre>	Specifies an instance ID mapping file. This enables you to modify mappings manually rather than using the migration results. Supply your own instance ID mapping file.
-iidmigratorOptions <iidmigrator_options></iidmigrator_options>	Specifies instance ID migrator options. Separate included options with spaces and enclosed them in quotes. Some valid options are:
	-i provides a case-sensitive file name comparison of the merged files
	• -u <scheme_file> tells iidmigrator to read the matching scheme from <scheme_file> for instance ID migration</scheme_file></scheme_file>
	Note: Wrap <-iidmigrator_options> in single quotes ('-u <scheme_file>') when working from a Cygwin command prompt.</scheme_file>
	Windows example:
	<pre>FPRUtility -merge -project <pre></pre></pre>

FPRUtility Option	Description
-debug	Displays debug information that can be helpful to troubleshoot issues with FPRUtility.

FPRUtility Data Merge Exit Codes

Upon completion of the -merge command, FPRUtility provides one of the exit codes described in the following table.

Exit Code	Description
0	The merge completed successfully.
5	The merge failed.

Displaying Analysis Results Information from an FPR File

The FPRUtility -information option displays information about the analysis results. You can obtain information to:

- Validate signatures
- Examine any errors associated with the FPR
- Obtain the number of issues for each analyzer, vulnerability category, or custom grouping
- Obtain lists of issues (including some basic information). You can filter these lists.
- Obtain the list of analyzed files and the number of lines of code (LOC) for each file. You can also compare the LOC with another FPR.

To display signature information for the analysis:

```
FPRUtility -information -signature -project ct ,fpr -f <output>.txt
```

To display a full analysis error report for the FPR:

```
FPRUtility -information -errors -project ct ct>.fpr -f <output>.txt
```

To display the number of issues per vulnerability category or analyzer:

```
FPRUtility -information -categoryIssueCounts -project ct <pr
```

To display the number of issues for a custom grouping based on a search:

```
FPRUtility -information -search -query <search_expression> \
[-categoryIssueCounts] [-analyzerIssueCounts] \
[-includeSuppressed] [-includeRemoved] \
-project <project>.fpr -f <output>.txt
```

Note: By default, the result does not include suppressed and removed issues. To include suppressed or removed issues, use the -includeSuppressed or -includeRemoved options.

To display information for issues in CSV format:

```
FPRUtility -information -listIssues \
-search [-queryAll | -query <search_expression>] \
[-categoryIssueCounts] [-analyzerIssueCouts] \
[-includeSuppressed] [-includeRemoved] \
-project <project>.fpr -f <output>.csv -outputFormat CSV
```

To display information for all issues from the most recent scan (excluding suppressed and removed issues) using the Quick View filter set:

```
FPRUtility -information -listIssues \
-search -queryAllExistingUnsuppressed \
-filterSet "Quick View" \
[-categoryIssueCounts] [-analyzerIssueCouts] \
-project <project>.fpr -f <output>.txt
```

To display a comparison of the number of lines of code for analyzed files in two FPRs:

```
FPRUtility -information -loc -project compareTo <oldproject>.fpr -f <output>.txt
```

FPRUtility Information Options

The following table lists the FPRUtility options that apply to project information.

FPRUtility Option	Description	
-information	Displays information for the project.	
Specify one of the following options to indicate what information to display:		
-signature	Displays the signature for analysis results and rules.	
-mappings	Displays the migration mappings report.	

FPRUtility Option	Description			
-errors	Displays a full error report for the FPR.			
-versions	Displays the Fortify Static Code Analyzer and Fortify Secure Coding Rulepacks versions used in the static scan.			
-functionsMeta	Displays all functions that the static analyzer encountered in CSV format. To filter which functions are displayed, include - excludeCoveredByRules, and -excludeFunctionsWithSource.			
-categoryIssueCounts	Displays the number of issues for each vulnerability category.			
-analyzerIssueCounts	Displays the number of issues for each analyzer.			
-search <query_option></query_option>	 Use -search -query <search_expression> to display the number of issues in the result of your specified search expression. To display the number of issues per vulnerability category or analyzer, add the optional -categoryIssueCounts and -analyzerIssueCounts options to the search option. Use the -includeSuppressed and -includeRemoved options to include suppressed or removed issues.</search_expression> Use -search -queryAll to search all the issues in the FPR including suppressed and removed issues. Use -search -queryAllExistingUnsuppressed to search all the issues in the FPR excluding suppressed and removed issues. 			
-loc	Displays the list of analyzed files each with the number of lines of code (LOC) in the following format:			
	<pre><filename>: <total_loc> (<executable_loc>)</executable_loc></total_loc></filename></pre>			
	where <total_loc> is the approximate number of lines that contain code constructs (comments are excluded).</total_loc>			
	Note: Ignore the <executable_loc> metric. It is no longer used.</executable_loc>			
	For FPR files created using Fortify Static Code Analyzer version 24.2 and later, the <executable_loc> value always matches the <total_loc> value. Also, <total_loc> includes all lines of code (including comments and blank lines).</total_loc></total_loc></executable_loc>			
	Use -compareTo <pre>/project>.fpr with this option to compare the number of lines of code with another FPR. The comparison output includes the following information:</pre>			
	+ indicates new analyzed files			
	- indicates removed analyzed files			

FPRUtility Option	Description			
	 * indicates files with a different number of lines of code. The difference in the number of lines of code is shown next to the executable LOC number as in (+N or -N). For example: 			
	LOC number as in (+N or -N). For example:			
	* ProjectA/main.jsp: 115 +15 (85 +15)			
	In the previous example, the comparison shows that the number of lines			
	of code in main.jsp is different between the two FPR files. There are 15 additional total LOC.			
-project <project>.fpr</project>	Specifies the FPR from which to extract the results information.			
-listIssues	Displays the location for each issue in one of the following formats:			
	<pre><sink_filename>:<line_num> or</line_num></sink_filename></pre>			
	<pre><sink_filename>:<line_num>(<category> <analyzer>)</analyzer></category></line_num></sink_filename></pre>			
	You can also use the -listIssues option with -search and with both issueCounts grouping options. If you group by -categoryIssueCounts, then the output includes (<analyzer>) and if you group by</analyzer>			
	-analyzerIssueCounts, then the output includes (<category>).</category>			
	If you specify the -outputFormat CSV option, then each issue is displayed on one line in the format:			
	<pre>"<instanceid>", "<category>", "<sink_filename>:<line_num>", "<analyzer>"</analyzer></line_num></sink_filename></category></instanceid></pre>			
-filterSet <filterset_ name></filterset_ 	Displays only the issues and counts that pass the filters specified in the filter set. Filter sets are ignored without this option.			
	Important! You must use -search with this option.			
-f <output></output>	Specifies the output file. The default is System.out.			
-outputFormat TEXT CSV	Specifies the output format. The default value is TEXT.			
-debug	Displays debug information that can be helpful to troubleshoot issues with FPRUtility.			

FPRUtility Signature Exit Codes

Upon completion of the -information -signature command, FPRUtility provides one of the exit codes described in the following table.

Exit Code	Description
0	The project is signed, and all the signatures are valid.
1	The project is signed, and some, but not all, of the signatures passed the validity test.
2	The project is signed but none of the signatures are valid.
3	The project had no signatures to validate.

Extracting a Source Archive from an FPR File

The FPRUtility -sourceArchive option creates a source archive (FSA) file from a specified FPR file and removes the source code from the FPR file. You can extract the source code from an FPR file, merge an existing source archive (FSA) back into an FPR file, or recover source files from a source archive.

To archive data:

```
FPRUtility -sourceArchive -extract -project ct project for -f <output_</pre>
```

To archive data to a directory:

```
FPRUtility -sourceArchive -extract -project / recoverSourceDirectory -f <output_dir>
```

To add an archive to an FPR file:

```
FPRUtility -sourceArchive -mergeArchive -project ct ct cource <old_source_archive>.fsa -f project_with_archive>.fpr
```

To recover files that are missing from an FPR file:

```
FPRUtility -sourceArchive -fixSecondaryFileSources \
-payload <source_archive>.zip -project ct cproject>.fpr -f <output>.fpr
```

FPRUtility Source Archive Options

The following table lists the FPRUtility options that apply to working with the source archive.

FPRUtility Option	Description
-sourceArchive	Creates an FSA file so that you can extract a source archive.
One of: -extract	Use the -extract option to extract the contents of the FPR file.
-mergeArchive -fixSecondaryFileSources	Use the -mergeArchive option to merge the contents of the FPR file with an existing archived file (-source option).
	Use the -fixSecondaryFileSources option to recover source files from a source archive (-payload option) missing from an FPR file.
-project <project>.fpr</project>	Specifies the FPR to archive.
-recoverSourceDirectory	Use with the -extract option to extract the source as a directory with restored source files.
-source <old_source_archive>.fsa</old_source_archive>	Specifies the name of the existing archive. Use only if you are merging an FPR file with an existing archive (-mergeArchive option).
-payload <source_archive>.zip</source_archive>	Use with the -fixSecondaryFileSources option to specify the source archive from which to recover source files.
<pre>-f <pre>ct_with_archive>.fpr <output_archive>.fsa <output_dir></output_dir></output_archive></pre></pre>	Specifies the output file. You can generate an FPR, a directory, or an FSA file.
-debug	Displays debug information that can be helpful to troubleshoot issues with FPRUtility.

Altering FPR Files

Use the FPRUtility -trimToLastScan option to remove the previous scan results from a merged project (FPR). This reduces the size of the FPR file when you no longer need the previous scan results. This can also reduce the time it takes to open an FPR in Fortify Audit Workbench.

To remove the previous scan from the FPR:

FPRUtility -trimToLastScan -project <merged project>.fpr [-f <output>.fpr]

FPRUtility Alter FPR File Options

FPRUtility Option	Description
-trimToLastScan	Removes the previous scan results from a merged project.
-project <merged_project>.fpr</merged_project>	Specifies the merged FPR to alter. If this project is not a merged project, then the FPR file remains unchanged.
-f <output>.fpr</output>	Specifies the name of the altered output file. If you do not specify this option, then the merged FPR is altered.

Allocating More Memory for FPRUtility

Performing tasks with large and complex FPR files might trigger out-of-memory errors. By default, 1000 MB is allocated for FPRUtility. To increase the memory, add the -Xmx option to the command line. For example, to allocate 2 GB for FPRUtility, use the following command:

FPRUtility -Xmx2G -merge -project roject output>.fpr

Chapter 4: Configuration Options

The Fortify Applications and Tools installer places a set of properties files on your system. Properties files contain configurable settings for Fortify Static Code Analyzer applications and tools. Some properties described in this chapter already exist in the properties file, and some of them you must add yourself. You can modify any of the properties in the configuration file with a text editor.

This section contains the following topics:

Properties File Format	42
Configuration Options for Java-Based Applications and IDE Plugins	42
Configuration Options for Fortify Extension for Visual Studio	58
Shared Configuration Options	61

Properties File Format

In a properties file, each property consists of a pair of strings: the first string is the property name and the second string is the property value.

```
com.fortify.log.console=false
```

As shown above, the property disables console logging. The property name is com.fortify.log.console and the value is set to false.

Configuration Options for Java-Based Applications and IDE Plugins

This section describes the properties to configure the following Java-based Fortify Static Code Analyzer applications.

- Fortify Audit Workbench
- Fortify Custom Rules Editor
- Fortify Plugins for Eclipse, IntelliJ IDEA, and Android Studio

The following table lists the Fortify Static Code Analyzer application acronyms used in this section.

Acronym	nym Fortify Application / Plugin / Extension	
AWB	Fortify Audit Workbench	

Acronym	Fortify Application / Plugin / Extension
CRE	Fortify Custom Rules Editor
ECP	Fortify Plugin for Eclipse
IAP	Fortify Analysis Plugin for IntelliJ IDEA and Android Studio

Where to Find the Properties File

The location of the properties file fortify.properties varies for the different Fortify Static Code Analyzer applications. The following table provides the location of the properties file for the applications described in this chapter.

Fortify Application	Property File Location
AWB, CRE	<tools_install_dir>/Core/config</tools_install_dir>
	Note: After you specify the location of the Fortify Static Code Analyzer executable from Fortify Audit Workbench, the location of the properties file changes to <sca_install_dir>/Core/config for AWB.</sca_install_dir>
ECP	<pre><eclipse_install_dir>/plugins/com.fortify.dev.ide.eclipse_ <version>/Core/config or if Eclipse was installed with an installer: <userhome>/.p2/pool/plugins/com.fortify.dev.ide.eclipse_ <version>/Core/config</version></userhome></version></eclipse_install_dir></pre>
IAP	<pre><ide_product_plugins_dir>/Core/config The following is an example location on Windows:</ide_product_plugins_dir></pre>
	<pre>C:\Users\<username>\AppData\Roaming\JetBrains\Idea<version> \plugins\Fortify\config</version></username></pre>

Java-Based Applications and IDE Plugin Properties

Some properties described in this section already exist in the fortify.properties file, and some of them you must add yourself. The colored boxes in the Details column indicate which Fortify Static Code Analyzer applications use the property. To find this properties file for the various products, see "Where to Find the Properties File" above.

The following table describes the properties in the fortify.properties file.

Property	Details				
com.fortify. audit.ui.DisableAddingFolders	If set to true, disables the add folder functionality. Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify.	If set to true, disable	es bug tracker inte	gration.		
audit.ui.DisableBugtrackers	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify.	If set to true, remov	es the ability to ed	lit custom tags.		
audit.ui.DisableEditing CustomTags	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. audit.ui.DisableSuppress	If set to true, disables issue suppression.				
audii.ui.DisableSuppress	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. AuthenticationKey	Specifies the directory to store the encrypted Fortify Software Security Center authentication token.				
	Default: \${com.fortify.WorkingDirectory}/config/tools				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify.	If set to true, Fortify Audit Workbench runs in debug mode.				
awb.Debug	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	

Property	Details				
com.fortify. awb.javaExtensions	Specifies the file extensions (comma-delimited) to treat as Java files during a scan.				
	If this property is em	•			
	for Eclipse recognize .java, .jsp, and .jspx files as Java files. The property only determines whether a project includes Java files and to add Java-specific controls to the Advanced Scan wizard.				
	Default: none				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. awb.forceGCOnProjectClose	If set to true, garbage collection is run and heap space is released when you close a project. This reduces the increased Java process memory consumption when working with small FPR files. When Fortify Audit Workbench runs with G1GC garbage collection, the Java process can return free memory back to the operating system when the project is closed. Default: false Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. awb.LinuxFontAdjust	Specifies the font size to use on Linux platforms. Fortify Audit Workbench adds the specified size to original font size. Default: 0				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. awb.MacFontAdjust	Specifies to tune font size for the macOS platform. Fortify Audit Workbench adds the specified size to the original font size.				
	Default: 2 Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. awb.WindowsFontAdjust	Specifies to tune the font size for the Windows platform. Fortify Audit Workbench adds the specified size to original font size.				

Property	Details			
	Tools Affected:			
	AWB	ECP	CRE	IAP
com.fortify. Debug	If set to true, runs the Fortify Static Code Analyzer applications in debug mode. Default: false Tools Affected:			
	AWB	ECP	CRE	IAP
com.fortify. DisableDescriptionXML Escaping	If set to true, disables XML escaping in issue descriptions (for example, changing " in XML/FVDL to "). Default: false Tools Affected:			
	AWB	ECP	CRE	IAP
com.fortify. DisableExternalEntry Correlation	If set to true, parses URL in the ExternalEntries/Entry element in the FVDL file. Default: false <externalentries></externalentries>			
com.fortify. DisableMinVirtCallConfidence Computation	If set to true, disables computing minimum virtual call confidence. Fortify Audit Workbench and the Fortify Plugin for Eclipse use this attribute to compute minimum virtual call confidence and enable issue filtering. For example, you can use it to filter out all issues that contain a			

Property	Details	Details				
	virtual call with confidence lower than 0.46.					
	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. DisableRemovedIssue Persistance	If set to true, disabl from the FPR file).	les removed issue p	oersistence (clears	removed issues		
reisistatice	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify.	If set to true, disables rendering issue description into reports.					
DisableReportCategory Rendering	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. DisplayEventID	If set to true, displa view.	ys the event ID in t	he issue node tool	tip in the Issues		
	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify.	If set to true, runs t	he plugin in debug	mode.			
eclipse.Debug	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. InstallationUserName	Specifies the default user name for logging in to Fortify Software Security Center for the first time.					
	Default: \${user.na	ame}				
	Tools Affected:					
	AWB	ECP	CRE	IAP		

Property	Details				
com.fortify.	Specifies the locale (for rules and metadata only). The possible values are:				
locale	en (English)				
	es (Spanish)				
	ja (Japanese)				
	ko (Korean)				
	pt_BR (Brazilian Por	rtuguese)			
	zh_CN (Simplified Ch	hinese)			
	zh_TW (Traditional (Chinese)			
	Default: en				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. model.CheckSig	If com.fortify.modecom.fortify.mode	del.UseIssuePan el.MinimalLoadi el.IssueCutoffS	gnature in the FPR file. eIssueParseFilters is set to true, then malLoad is set to true, ueCutoffStartIndex is not null, ueCutoffEndIndex is not null,		
	com.fortify.model.IssueCutoffByCategoryStartIndex is not null or com.fortify.model.IssueCutoffByCategoryEndIndex is not null, com.fortify.model.CheckSig is false, and the signature in FPRs are not verified.				
	Default: true (normal) / false (minimum load)				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. model.CustomDescriptions Header	Specifies a custom prefix for the description header. It prepends the text in the Description/Recommendation header, so that you see "My Recommendations" instead of "Custom Recommendations."				
	Note: To update description headers, Fortify recommends that you use the <customdescriptionrule> rule with the <header> element text instead.</header></customdescriptionrule>				
	Default: none				

Property	Details						
	Tools Affected:						
	AWB	ECP	CRE	IAP			
com.fortify. model.DisableChopBuildID	If set to true, does r 250 characters.	not shorten the bui	ld ID, even if the bu	uild ID exceeds			
	Default: false						
	Tools Affected:						
	AWB	ECP	CRE	IAP			
com.fortify.	If set to true, disabl	es loading the Con	textPool section	of the FVDL file.			
model. Disable Context Pool	You can configure this property if com.fortify.model.Minima not set to true. If com.fortify.model.MinimalLoad is set to then com.fortify.model.DisableContextPool is automaticatrue.						
	Default: false						
	Tools Affected:	Tools Affected:					
	AWB	ECP	CRE	IAP			
com.fortify. model.DisableDescription	If set to true, disabl FVDL file.	es loading the Des	cription section	from the			
	not set to true. If co	You can configure this property if com.fortify.model.MinimalLoad is not set to true. If com.fortify.model.MinimalLoad is true, then com.fortify.model.DisableDescription is automatically set to true.					
	Default: false						
	Tools Affected:						
	AWB	ECP	CRE	IAP			
com.fortify. model.DisableEngineData	If set to true, disables loading the EngineData section of the FVDL file to save memory when large FPR files are opened. This data is displayed on the Analysis Information tab of Project Summary view. The property is						
	useful if too many analysis warnings occur during a scan. However, Fortify recommends that you instead set a limit for						
	com.fortify.mode	el.MaxEngineErr	orCount to open I	PR files that			

Property	Details					
	Also see "com.fortify	.model.MaxEngine	ErrorCount " on pa	ge 53		
	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.DisableProgramInfo	If set to true, disabl Workbench.	es use of the code	navigation feature	s in Fortify Audit		
	You can configure this property if com.fortify.model.MinimalLoad not true. If com.fortify.model.MinimalLoad is set to true, then the property is automatically set to true.					
	Also see "com.fortify.model.MinimalLoad " on page 54 Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.DisableProgramPoint	<pre>If set to true, disables loading of the ProgramPoint section from the runtime.fvdl file. Default: false Tools Affected:</pre>					
	AWB	ECP	CRE	IAP		
com.fortify.	If set to true, disabl	es replacing the co	nditional description	on.		
model.DisableReplacement Parsing	You can configure the not set to true. If conproperty is automatic	om.fortify.mode	•			
	Also see "com.fortify.model.MinimalLoad " on page 54					
	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.DisableSnippets	If set to true, disable You can configure the set to false. If com-	nis property if com.	fortify.model.	MinimalLoad is		

Property	Details				
	com.fortify.mode	el.DisableSnipp	ets is automatical	ly set to true.	
	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. model.DisableUnified	If set to true, disabl the FVDL file.	es loading the Uni	fiedInductionPo	ool section from	
Inductions	You can configure the not set to true. If continue, then com. fortify, automatically set to	s set to true,			
	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. model.DisableUnifiedPool	If set to true, disables loading the UnifiedNodePool section from the FVDL file.				
	You can configure this property if com.fortify.model.MinimalLoad is set to false. If com.fortify.model.MinimalLoad is true, then com.fortify.model.DisableUnifiedPool is automatically set to true. If the value is not specified or false, this property is set to none.				
	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. model.DisableUnifiedTrace	If set to true, disabl	es loading the Uni	fiedTracePools	ection from the	
	You can configure this property if com.fortify.model.MinimalLoad is not set to true. If com.fortify.model.MinimalLoad is true, then com.fortify.model.DisableUnifiedTrace is automatically set to true.				
	Default: false				
	Tools Affected:				
	AWB	ECP	CRE	IAP	

Property	Details					
com.fortify. model.EnableSource Correlation	If set to true, takes data flow source into consideration for issue correlation. The default is false because correlations with runtime results might not be reliable with this setting enabled.					
	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.ExecMemorySetting	Specifies the JVM he Workbench uses to s			ortify Audit		
	Default:					
	600—iidmigrator					
	300—fortifyupdate					
	Tools Affected:	Tools Affected:				
	AWB	ECP	CRE	IAP		
com.fortify. model.ForcelIDMigration	If set to true, forces running Instance ID migration during a merge. Default: false Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.FullReportFilenames	If set to true, uses the full file name in reports. Default: false Tools Affected: Also used the FPRUtility command-line tool					
	AWB	ECP	CRE	IAP		
com.fortify. model.IIDmigratorOptions	Specifies iidmigrator options (space-delimited values). Default: none Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.lssueCutoffByCategory StartIndex	Specifies the start inc					

Property	Details					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.lssueCutoffByCategory EndIndex	Specifies the end incomplete Default: java.lang					
	AWB	ECP	CRE	IAP		
com.fortify. model.lssueCutoffStartIndex	Specifies the start index for issue cutoff. Select the first issue (by nun to load.					
	Default: 0					
	Tools Affected:		995			
	AWB	ECP	CRE	IAP		
com.fortify. model.lssueCutoffEndIndex	Specifies the end income to load.	dex for issue cutoff	. Select the last issi	ue (by number)		
	Default: java.lang.Integer.MAX_VALUE					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.MaxEngineErrorCount	Specifies how many load. To allow an un			warnings to		
	Fortify recommends that you keep the default value of 3000 because this can speed up the load time of large FPR files.					
	Default: 3000					
	Tools Affected: Also used by FPRUtility					
	AWB	ECP	CRE	IAP		
com.fortify.	Specifies the merge resolve strategy to one of the following:					
model.MergeResolveStrategy	• DefaultToImpo	erValue (use prim rtValue (use seco ompt for project to	ndary project)			

Property	Details					
	Default: DefaultToMasterValue					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.MinimalLoad	If set to true, minim	izes the data loade	ed from an FPR file.			
	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify.	Specifies the numbe	r of threads used t	o process FPR files			
model. NP rocessing Threads	-	If the com.fortify.model.PersistDataToDisk property is set to true, this value defaults to one thread.				
	If the number specific Fortify Static Code A	analyzer tools use t	he number of avail			
	as the number of threads to process FPR files. Also see: "com.fortify.model.PersistDataToDisk " below					
	Default: Number of available processors					
	Tools Affected: Also used by FPRUtility					
	AWB	ECP	CRE	IAP		
com.fortify. model.PersistDataToDisk	If set to true, enable footprint and uses the	-		•		
	Default: false					
	Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.PersistenceBlockSize	This property specifies the number of attribute values that comsingle block of attributes. These blocks are cached to disk and ras needed. A larger number decreases the total number of cach increases the file size and the amount of memory that is read in Default: 250 Tools Affected:					

Details	Details				
AWB	ECP	CRE	IAP		
			e value blocks		
Default: queue is unb	ounded				
Tools Affected:					
AWB	ECP	CRE	IAP		
the impact of an issue is greater than or equal to the threshold, the considered High. If the impact of an issue is less than the threshold, issue is considered Low. Issues are then categorized as follows: • Critical—High Impact and High Likelihood • High—High Impact and Low Likelihood • Medium—Low Impact and High Likelihood • Low—Low Impact and Low Likelihood Also see "com.fortify.model.PriorityLikelihoodThreshold" below Default: 2.5F					
AWB	ECP	CRE	IAP		
If the likelihood of an issue is considered Hi threshold, the issue is follows: • Critical—High Imp • High—High Impac • Medium—Low Imp	ssue is greater tha gh. If the likelihood considered Low. Is act and High Likeli t and Low Likelihoo pact and High Likel and Low Likelihood	in or equal to the l of an issue is les ssues are then ca shood ihood d	threshold, the ss than the tegorized as		
	This property specifies that can exist in the property specifies under the sum of the sum of the specifies that the sum of the sum	This property specifies the maximum nuthat can exist in the producer/consumer Default: queue is unbounded Tools Affected: AWB ECP Specifies the threshold for issue impact. the impact of an issue is greater than or considered High. If the impact of an issue issue is considered Low. Issues are then exist issue is considered Low. Issues are then exist issue is considered Low. Impact and High Likeliened High—High Impact and Low Likelihood Medium—Low Impact and Low Likelihood Also see "com.fortify.model.PriorityLikeliened Low—Low Impact and Low Likelihood If the likelihood of an issue is greater that issue is considered High. If the likelihood threshold, the issue is considered Low. Is follows: Critical—High Impact and High Likeliened High—High Impact and Low Likelihood Medium—Low Impact and High Likeliened Low—Low Impact and Low Likelihood Likelihood Low—Low Impact and Low Likelihood Low—Low Impact and Low—Likelihood Low—Low Impact and Low—Likelihood L	This property specifies the maximum number of attribute that can exist in the producer/consumer queue. Default: queue is unbounded Tools Affected: AWB ECP CRE Specifies the threshold for issue impact. The valid values the impact of an issue is greater than or equal to the thre considered High. If the impact of an issue is less than the issue is considered Low. Issues are then categorized as for the considered High Impact and High Likelihood High—High Impact and Low Likelihood High—How Impact and Low Likelihood Medium—Low Impact and Low Likelihood Low—Low Impact and Low Likelihood Also see "com.fortify.model.PriorityLikelihood.Threshold" Default: 2.5F Tools Affected: AWB ECP CRE Specifies the threshold for issue likelihood. The valid valued if the likelihood of an issue is greater than or equal to the issue is considered High. If the likelihood of an issue is less threshold, the issue is considered Low. Issues are then catefollows: Critical—High Impact and High Likelihood High—High Impact and Low Likelihood Medium—Low Impact and High Likelihood Medium—Low Impact and High Likelihood Medium—Low Impact and Low Likelihood Low—Low Impact and Low Likelihood Also see "com.fortify.model.PriorityImpactThreshold" about the impact and Low Likelihood		

Property	Details					
	AWB	ECP	CRE	IAP		
com.fortify. nodel.report.useSystemLocale	If set to true, uses the system locale for report output. If set to false, uses com.fortify.locale in the fortify.properties file. If a value is not specified, the tool uses java.util.Locale.getDefault(). Default: false Tools Affected:					
	AWB	ECP	CRE	IAP		
com.fortify. model.ReportLineLimit	Specifies the charace Default: 500 Tools Affected:	ter limit for each iss	sue code snippet in	reports.		
	AWB	ECP	CRE	IAP		
com.fortify. model.UseIIDMigrationFile	Specifies the full path of the instance ID migration file to use. Default: none Tools Affected: Also used by FPRUtility					
	AWB	ECP	CRE	IAP		
com.fortify. model.UselssueParseFilters	If set to true, respects the settings in the IssueParseFilters.properties configuration file. This file is in the following directories: AWB— <tools_install_dir>/Core/config ECP—<eclipse_install_dir>/plugins/com.fortify. dev.ide.eclipse_<version>/Core/config Default: false Tools Affected:</version></eclipse_install_dir></tools_install_dir>					
	AWB	ECP	CRE	IAP		
com.fortify. model.UseOldIIDMigration Attributes	If set to true, uses a while merging similar Default: false		_	e ID migration		
	Tools Affected:					

Property	Details				
	AWB	ECP	CRE	IAP	
com.fortify. RemovedIssuePersistanceLimit	Specifies how many Default: 1000	removed issues to	keep when you sav	ve an FPR.	
	Tools Affected: AWB	ECP	CRE	IAP	
com.fortify. SCAExecutablePath	Specifies the file pat Tools Affected:	zer.exe.			
	AWB	ECP	CRE	IAP	
com.fortify. search.defaultSyntaxVer	Specifies whether to enabled in search sy		OR operators in sea	arches. These are	
	 To block the use of the AND and OR operators, set the value to 1. To use ANDs and ORs without parentheses, set the value to 2. 				
	Default: 2 Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. StoreOriginalDescriptions	If set to true, stores original plain text issue descriptions (before parsing) as well as the parsed ones with tags replaced with specific values. Default: false Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. taintFlagBlacklist	Specifies taint flags to exclude (comma-delimited values). Default: none Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. tools.iidmigrator.scheme	Set this property to Fortify Static Code A handled by Fortify S	analyzer using a cu	stom matching sch	eme. This is	

Property	Details				
	scheme, contact Cus	tomer Support.			
	Default: none				
	Tools Affected:				
	AWB	ECP	CRE	IAP	
com.fortify. UseSourceProjectTemplate	This property determines the issue template to use when merging analys information from two audit projects. If set to true, it forces the use of filter sets and folders from the issue template associated with the original scan results (secondary project). The issue template from the new scan results (primary project) is used by default.				
	Default: false				
	Tools Affected: Also	o used by FPRUtili	ty		
	AWB	ECP	CRE	IAP	
com.fortify. WorkingDirectory	Specifies the working directory that contains all user configuration ar working files for all Fortify Static Code Analyzer applications and Jav IDE plugins. To configure this property, you must have write access t directory.				
	Defaults:				
	Windows—\${win32.LocalAppdata}/FortifyNon-Windows—\${user.home}/.fortify				
	Tools Affected:				
	AWB	ECP	CRE	IAP	

Configuration Options for Fortify Extension for Visual Studio

This section describes the properties Fortify Extension for Visual Studio uses . The properties are listed in alphabetical order based on the files in which they belong.

Fortify Extension for Visual Studio Properties

Some properties described here already exist in the fortify properties file, and some of them you must add yourself. The following table describes the properties in the $<tools_install_i$

dir>/Core/config/fortify.properties file.

Property	Details
com.fortify. audit.ui.DisableBugtrackers	If set to true, disables bug tracker integration.
	Default: false
com.fortify. audit.ui.DisableSuppress	If set to true, disables issue suppression.
	Default: false
com.fortify. AuthenticationKey	Specifies the directory used to store the encrypted Fortify Software Security Center authentication token.
	<pre>Default: \${com.fortify.WorkingDirectory}/config/VS<vs_ version="">-<extension_version></extension_version></vs_></pre>
com.fortify. Debug	If set to true, runs all Fortify Static Code Analyzer tools in debug mode.
	Default: false
com.fortify.	Specifies the custom prefix for the description header. It prepends the
model.CustomDescriptionsHeader	text in the Description/Recommendation header, so that you see "My Recommendations" instead of "Custom Recommendations."
	Note: To update description headers, Fortify recommends that
	you use the <customdescriptionrule> rule with the <header> element text instead.</header></customdescriptionrule>
	Default: none
com.fortify.	If set to true, forces running Instance ID migration during a merge.
model.ForcelIDMigration	Default: false
com.fortify. model.PriorityImpactThreshold	Specifies the threshold for issue impact. The valid values are 0.0F–5.0F. If the impact of an issue is greater than or equal to the threshold, the issue is considered High. If the impact of an issue is less than the threshold, the issue is considered Low. Issues are then categorized as follows:
	Critical—High Impact and High Likelihood
	High—High Impact and Low Likelihood
	Medium—Low Impact and High Likelihood
	Low—Low Impact and Low Likelihood
	Also see "com.fortify.model.PriorityLikelihoodThreshold " on the next page

Property	Details
	Default: 2.5F
com.fortify. model.PriorityLikelihoodThreshold	Specifies the threshold for issue likelihood. The valid values are 0.0F–5.0F. If the likelihood of an issue is greater than or equal to the threshold, the issue is considered High. If the likelihood of an issue is less than the threshold, the issue is considered Low. Issues are then categorized as follows:
	Critical—High Impact and High Likelihood
	High—High Impact and Low Likelihood
	Medium—Low Impact and High Likelihood
	Low—Low Impact and Low Likelihood
	Also see "com.fortify.model.PriorityImpactThreshold" on the previous page
	Default: 2.5F
com.fortify. model.UseIIDMigrationFile	Specifies the full path of the instance ID migration file to use. Default: none
com.fortify. SCAExecutablePath	Specifies file path to sourceanalyzer.exe.
com.fortify. search.defaultSyntaxVer	Specifies whether to use the AND and OR operators in searches. These are enabled in search syntax by default. • To block the use of the AND and OR operators, set the value to 1.
	• To use ANDs and ORs without parentheses, set the value to 2.
	Default: 2
com.fortify. tools.iidmigrator.scheme	Set this property to migrate instance IDs created with different versions of Fortify Static Code Analyzer using a custom matching scheme. This is handled by Fortify Static Code Analyzer. If you need a custom matching scheme, contact Customer Support.
	Default: none
com.fortify. visualstudio.vm.args	Specifies JVM options. Default: -Xmx256m
com.fortify. VS.Debug	If set to true, runs the Fortify Extension for Visual Studio in debug mode.
	Default: false

Property	Details
com.fortify. VS.DisableCIntegration	If set to true, disables C/C++ build integration in Visual Studio. Default: false
com.fortify. VS.disableMigrationCheck	If set to true, disables instance ID migration checking. Default: false
com.fortify. VS.DisableReferenceLibDirs AndExcludes	If set to true, disables using references added to a project. Default: false
com.fortify. VS.ListProjectProperties	If set to true, lists the Visual Studio project properties in a log file. Default: false
com.fortify. VS.NETFrameworkRoot	Specifies the file path to the .NET Framework root. Default: none
com.fortify. WorkingDirectory	Specifies the working directory that contains all user configuration and working files for Fortify Extension for Visual Studio. To configure this property, you must have write access to the directory. Default: \${win32.LocalAppdata}/Fortify

Azure DevOps Server Configuration Property

The property for the Azure DevOps Server is stored in the TFSconfiguration.properties. This file is located in the Fortify working directory in the config\VS<*vs_version>-<sca_version>* directory.

Note: The TFSconfiguration.properties file is created only after the first time you configure a connection to your Azure DevOps Server from the Fortify Extension for Visual Studio.

The following property is in the TFSconfiguration.properies file:

server.url

Details: Specifies the Azure DevOps Server location.

Default: none

Shared Configuration Options

This section describes the properties shared by Fortify Static Code Analyzer applications and command-line tools.

Server Properties

Because some values in this file are encrypted (such as proxy user name and password), you must use the scapostinstall tool to configure these properties. For information about how to use the scapostinstall tool, see the $OpenText^{TM}$ Fortify Static Code Analyzer User Guide.

Other properties are updated using command-line tools, and standalone applications (such as Fortify Audit Workbench). Fortify recommends that you use these tools to edit the properties in this file instead of editing the file manually.

The following table describes the properties in the <tools_install_dir>/Core/config/server.properties file.

Note: After you specify the location of the Fortify Static Code Analyzer executable from Fortify Audit Workbench or Fortify Extension for Visual Studio, the location of the properties file changes to <sca_install_dir>/Core/config.

Property	Details
autoupgrade.server	Specifies the automatic update server. This enables users to check for new versions of the Fortify Static Code Analyzer and the Fortify Applications and Tools installer on a Fortify Software Security Center server and run the installer if an update is available. Default: http://localhost:8180/ssc/update-
	site/installers
install.auto.upgrade	If set to true, enables Fortify Audit Workbench automatic update feature.
	Default: false
oneproxy.http.proxy.port	Specifies the proxy server port to access bug trackers.
	Default: none
oneproxy.http.proxy.server	Specifies the proxy server name to access bug trackers.
	Default: none
oneproxy.https.proxy.port	Specifies the proxy server port to access bug trackers
	through an SSL connection.
	Default: none
oneproxy.https.proxy.server	Specifies the proxy server name to access bug trackers through an SSL connection.
	Default: none
	Detauit: none

Property	Details
rp.update.from.manager	If set to true, updates security content from Fortify Software Security Center instead of from the Fortify Rulepack update server.
	Default: false
rulepack.auto.update	If set to true, updates security content automatically.
	Default: false
rulepack.days	Specifies the interval (in days) between security content updates.
	Default: 15
rulepackupdate.proxy.port	Specifies the proxy server port to access the Fortify Rulepack update server (uploadclient.proxy.port is used if rp.update.from.manager is set to true).
	Also see "rp.update.from.manager " above
	Default: none
rulepackupdate.proxy.server	Specifies proxy server name to access the Fortify Rulepack update server (uploadclient.proxy.server is used if rp.update.from.manager is set to true). Also see "rp.update.from.manager" above
	Default: none
rulepackupdate.server	Specifies the Fortify Rulepack update server location.
	Default: https://update.fortify.com
rulepackupdate.SocketReadTimeoutSeconds	Specifies the socket read timeout value to use when updating Fortify security content with the fortifyupdate utility.
	Default: 180 seconds
uploadclient.proxy.port	Specifies the proxy server port to access the Fortify Software Security Center server.
	Default: none
uploadclient.proxy.server	Specifies the proxy server name to access the Fortify Software Security Center server.
	Default: none
uploadclient.server	Specifies the URL of the Fortify Software Security Center

Property	Details
	server.
	Default: http://localhost:8180/ssc

Command-Line Tools Properties

The following table describes the properties in the <tools_install_ dir>/Core/config/fortify.properties file that the command-line tools use.

Property	Details
com.fortify.log.console	Specifies whether logging messages are written to the console. Logging information is always written to the log file.
	Default: false

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