## Micro Focus Fortify Software

Software Version: 20.2.0

## **System Requirements**

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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 on January 15, 2021. To check for recent updates or to verify that you are using the most recent edition of a document, go to:

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## **Preface**

## **Contacting Micro Focus Fortify Customer Support**

Visit the Support website to:

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- Create and manage technical assistance requests
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- Download software
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https://www.microfocus.com/support

#### For More Information

For more information about Fortify software products: https://www.microfocus.com/solutions/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 Micro Focus Product Documentation website:

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

## **Change Log**

The following table lists revisions made to this document.

Changes		
<ul> <li>"Libraries" on page 13 - New supported libraries (Dapper, aiopg, and Azure Resource Manager Templates) added with Micro Focus Software Security Content 2020 Update 4</li> <li>"Build Tools" on page 16 and "Compilers" on page 17 - New supported versions for xcodebuild, and swiftc that are available with Micro Focus Fortify Static Code Analyzer version 20.2.2</li> </ul>		
<ul> <li>"Fortify ScanCentral DAST Sensor" on page 31 - Prerequisite content for ScanCentral DAST sensors running outside of a Docker container Updated:</li> <li>"Build Tools" on page 16 and "Compilers" on page 17 - New supported</li> </ul>		
<ul> <li>Build Tools of page 10 and Compilers of page 17 - New supported versions for xcodebuild, and swiftc that are available with Micro Focus Fortify Static Code Analyzer version 20.2.1</li> <li>"Service Integrations for Fortify Static Code Analyzer Tools" on page 19 and "Service Integrations for Fortify Software Security Center" on page 26 - Added support for Jira Cloud</li> <li>"Acquiring Fortify Software" on page 53 - Added Fortify ScanCentral DAST ZIP package to the list of available packages</li> </ul>		

## Introduction

This document provides the details about the environments and products that Micro Focus supports for this version of Micro Focus Fortify Software, which includes:

- Micro Focus Fortify Static Code Analyzer and Fortify Static Code Analyzer Tools (Micro Focus Fortify Audit Workbench and Secure Code Plugins)
- Micro Focus Fortify Software Security Center Server
- Micro Focus Fortify ScanCentral SAST
- Micro Focus Fortify ScanCentral DAST
- Micro Focus Fortify WebInspect Agent
- Micro Focus Fortify WebInspect
- Micro Focus Fortify WebInspect Enterprise
- Micro Focus Fortify License and Infrastructure Manager

## **Software Delivery**

Micro Focus Fortify Software is delivered only electronically. It is not available on disc. See "Acquiring Fortify Software" on page 53 for more information.

#### Software Licenses

Micro Focus Fortify Software products require a license.

For Micro Focus Fortify WebInspect, Micro Focus Fortify WebInspect Enterprise, and Micro Focus Fortify ScanCentral DAST you will receive an email with instructions for how to activate your product.

For all other Fortify Software products described in this document, you must download the Fortify license for your purchases from either the Fortify Customer Portal (https://support.fortify.com) or Micro Focus Fortify Customer Support (https://www.microfocus.com/support). To access either location, use the credentials that Micro Focus Fortify Customer Support has provided.

To download the Fortify license from the Fortify Customer Portal:

- 1. Log onto the Fortify Customer Portal.
- 2. Click **Download Licenses**, and then click the link for the license you want to use.

## Fortify Static Code Analyzer Requirements

This section describes the system requirements for Micro Focus Fortify Static Code Analyzer, and the Fortify Static Code Analyzer Tools (including the Secure Code Plugins).

## **Hardware Requirements**

Fortify recommends that you install Micro Focus Fortify Static Code Analyzer on a high-end processor with at least 16 GB of RAM. If you plan to scan dynamic languages such as JavaScript, TypeScript, Python, PHP, or Ruby, Fortify recommends that you have 32 GB of RAM. If your software is complex, you might require more RAM. See the content about improving performance in the *Micro Focus Fortify Static Code Analyzer User Guide* for more information.

Increasing the number of processor cores and increasing memory both result in faster processing.

## **Software Requirements**

Micro Focus Fortify Static Code Analyzer requires Java 8. The Fortify SCA and Applications installer installs OpenJDK/JRE 1.8.0\_181.

Translating .NET and Visual Studio C/C++ projects requires the Windows operating system and the .NET Framework version 4.7.2 or later.

#### Platforms and Architectures

Micro Focus Fortify Static Code Analyzer supports the platforms and architectures listed in the following table.

Operating System	Platforms
Windows	Windows 8.1, 10
	Windows Server 2012 R2
	Windows Server 2016
	Windows Server 2019
Linux	Red Hat Enterprise Linux 6 update 5 and later
	Red Hat Enterprise Linux 7.x
	SUSE Linux Enterprise Server 12
macOS	10.14, 10.15

Fortify Static Code Analyzer Tools (including Secure Code Plugins) support the platforms and architectures listed in the following table.

Operating System	Platforms
Windows	8.1, 10
Linux	Red Hat Enterprise Linux 6 update 5 and later
	Red Hat Enterprise Linux 7.x
	SUSE Linux Enterprise Server 12
macOS	10.14, 10.15

## Languages

Micro Focus Fortify Static Code Analyzer supports the programming languages listed in the following table.

Language / Frameworks	Versions
.NET Framework	2.0-4.8
.NET Core	2.0-3.1
ABAP/BSP	Note: Fortify ABAP Extractor is supported on a system running SAP release 7.02, SP level 0006.
ActionScript	3.0
Apex	36
ASP.NET	2.0-4.8
C#	5, 6, 7, 8
C/C++	See "Compilers" on page 17.
Classic ASP (with VBScript)	2.0, 3.0
COBOL	IBM Enterprise COBOL for z/OS 6.1 (and earlier) with CICS, IMS, DB2, and IBM MQ

Language / Frameworks	Versions
ColdFusion	8, 9, 10
Go	1.12, 1.13
	Note: Scanning Go code is supported on Windows and Linux.
HTML	5 and earlier
Java (including Android)	5, 6, 7, 8, 9, 10, 11, 12, 13, 14
JavaScript	ECMAScript 2015–2020
JSP	1.2, 2.1
Kotlin	1.3.50
MXML (Flex)	4
Objective-C/C++	See "Compilers" on page 17.
PHP	5.3, 5.4, 5.5, 5.6, 7.0, 7.1
PL/SQL	8.1.6
Python	2.6, 2.7, 3.x (3.8 and earlier)
Ruby	1.9.3
Scala	2.11, 2.12, 2.13
	<b>Note:</b> Scanning Scala code requires a standard Lightbend Enterprise Suite license
Swift	5
	Note: See "Compilers" on page 17 for supported swiftc versions.
T-SQL SQL Server 2005, 2008, 2012	
TypeScript	2.8, 3.x, 4.0
VBScript	2.0, 5.0

Language / Frameworks	Versions
Visual Basic (VB.NET)	11, 14, 15.x, 16.0
Visual Basic	6.0
XML	1.0

#### Libraries

Micro Focus Fortify Static Code Analyzer supports the libraries and frameworks listed in this section with dedicated Fortify Secure Coding Rulepacks and vulnerability coverage beyond the core language.

#### Java

	Adobe Flex Blaze DS	Apache Slide	IBM WebSphere	OpenCSV	Spring Data JPA
	Ajanta	Apache Spring	Java Annotations	Oracle Application	Spring Data
	Amazon Web Services	Security (Acegi)	Jackson	Development	MongoDB
	(AWS) SDK	Apache Struts	Java Excel API	Framework (ADF)	Spring Data Redis
	Amazon Web Services	Apache Tapestry	JavaMail	Oracle BC4J	Spring HATEOAS
	(AWS) Lambdas	Apache Tomcat	JAXB	Oracle OA Framework	Spring JMS
	Apache Axiom	Apache Torque	Jaxen	Oracle JDBC	Spring JMX
	Apache Axis	Apache Util	JAX-RS	Oracle tcDataSet	Spring Messaging
	Apache Beehive	Apache Velocity		Oracle XML Developer	Spring Webflow
	NetUI	۸ ۱۸/ز ماده +	JBoss	Kit (XDK)	Corina Wah Floor
	Apache Catalina	Apache Wicket	JDesktop	Oracle tcDataSet	Spring WebFlux
	Apache Cocoon	Apache Xalan	JDOM	OWASP Enterprise	Spring WebSockets
	Apache Commons	Apache Xerces	Jetty	Security API (ESAPI)	Spring WS
	Apache Commons	ATG Dynamo	JGroups	OWASP HTML	Spring Security
	CSV	Castor	ison-simple	Sanitizer	Stripes
	Apache ECS	Display Tag	JTidy Servlet	OWASP Java Encoder	Sun JavaServer Faces
	Apache Hadoop	Dom4j	JXTA	Plexus Archiver	(JSF)
	Apache	GDS AntiXSS		Realm	Tungsten
	HttpComponents	Google Android	JYaml	Restlet	Weblogic
	Apache Jasper	Google Web Toolkit	Liferay Portal	SAP Web Dynpro	WebSocket
	Apache Log4J	Gson	Lombok	Saxon	XStream
	Apache Lucene Apache MyFaces		MongoDB	SnakeYAML	YamlBeans
		Hibernate	Mozilla Rhino		ZeroTurnaround ZIP
		iBatis	MyBatis	Spring and Spring MVC	Zero i urriarouriu ZIP
	Apache OGNL				Zip4J

	Apache ORO	IBM MQ	Netscape LDAP API	Spring Boot	
	Apache POI			Spring Data	
	Apache SLF4J			Commons	
	Scala				
	Akka HTTP	Scala Slick			
	Scala Play				
	.NET				
	ADODB	Log4Net	Microsoft Web	NHibernate	SharpZipLib
	ASP.NET SignalR	Microsoft .NET	Protection Library	NLog	SQLite .NET
	Castle ActiveRecord	WebSockets	MongoDB	Npgsql	SubSonic
CsvHelper	CsvHelper	Microsoft ADO.NET	MySql .Net Connector	Open XML SDK	Sybase ASE
	Entity Framework	Microsoft NFT		Data Provide	

DB2 .NET Provider **ApplicationBlocks** DotNetZip Microsoft ASP.NET fastJSON

IBM Informix .NET Provider

Dapper

Json.NET

MVC Microsoft ASP.NET Web API

Microsoft

Microsoft Azure SDK for .NET

Framework, .NET Core, and .NET Standard Microsoft My

Framework Microsoft Practices EnterpriseLibrary Microsoft SharePoint Oracle Data Provider for .NET OWASP AntiSamy

Saxon

Sharp Compress

ib

T Provider

E ADO.NET Data Provider

Xamarin

Xamarin Forms

YamlDotNet

C

ActiveDirectory LDAP **CURL Library** SQLite MySQL OpenSSL **POSIX Threads** WinAPI Apple System GLib Netscape LDAP Logging (ASL) ODBC JNI Sun RPC

Services

#### C++

**Boost Smart Pointers** STL MFC WMI

#### **SQL**

Oracle ModPLSQL

#### **PHP**

ADOdb PHP DOM PHP Mcrypt PHP PostgreSQL PHP XML Advanced PHP PHP Extension PHP Mhash PHP Reflection PHP XMLReader Debugging PHP Mysql PHP SimpleXML PHP Zend PHP Hash CakePHP PHP OCI8 PHP OpenSSL PHP Smarty

PHP Debug

#### JavaScript/TypeScript/HTML5

Angular iOS JavaScript Bridge Node.js Core React Router

Express JS jQuery Node.js Azure Storage Underscore.js

Helmet JS-YAML React

Python

Jinja2 MySQLdb PyMongo six aiopg Amazon Web Services libxml2 Twisted Mail psycopg2 **PyYAML** (AWS) Lambdas lxml pycrypto requests urllib3 Django memcache-client simplejson WebKit pycurl httplib2 \_mysql pylibmc

Ruby

MySQL SQLite Thor

pg Rack

#### **Objective-C**

**AFNetworking** Apple Apple Apple SBJson CoreFoundation LocalAuthentication WatchConnectivity Apple AddressBook SFHFKeychainUtils Apple CoreLocation Apple MessageUI Apple WatchKit Apple AppKit SSZipArchive Apple CoreServices Apple Security Apple WebKit Apple CFNetwork ZipArchive Apple CoreTelephony **Apple Social** Hpple Apple ClockKit **ZipUtilities** Apple UIKit Objective-Zip Apple Foundation Apple CommonCrypto ZipZap Apple HealthKit Realm Apple CoreData

#### **Swift**

Alamofire	Apple CoreLocation	Apple MessageUI	Apple WatchKit	Zip
Apple AddressBook	Apple CommonCrypto	Apple Security	Apple WebKit	ZipArchive
Apple CFNetwork	Apple Foundation	Apple Social	Realm	ZIPFoundation
Apple ClockKit	Apple HealthKit	Apple UIKit	SSZipArchive	ZipUtilities
Apple CoreData	Apple	Apple	SQLite	ZipZap
Apple	LocalAuthentication	WatchConnectivity		

#### Configuration

Core Foundation

Adobe Flex (ActionScript)	iOS Property List  J2EE Configuration	Java Apache Tomcat Configuration	Java OWASP AntiSamy	Microsoft .NET Configuration
Configuration  Ajax Frameworks	Java Apache Axis	Java Blaze DS Java Hibernate	Java Spring and Spring MVC	Microsoft Silverlight Configuration
Azure Resource Manager Templates	Java Apache Log4j Configuration	Configuration	Java Spring Boot	Oracle Application Development
Build Management	Java Apache Spring Security (Acegi)	Java iBatis Configuration	Java Spring Mail  Java Spring Security	Framework (ADF) PHP Configuration
Docker Configuration (Dockerfiles)	Java Apache Struts	Java IBM WebSphere Java MyBatis	Java Spring WebSockets	WS-SecurityPolicy
Google Android Configuration		Configuration	Java Weblogic	XML Schema

#### **COBOL**

Auditor	DLI
SQL	CICS

## MQ **Go**

GORM logrus

## **Build Tools**

Micro Focus Fortify Static Code Analyzer supports the build tools listed in the following table.

<b>Build Tool</b>	Versions	Notes
Ant	1.10.x and earlier	
Bamboo	(see the Atlassian Marketplace for	The Fortify App for Bamboo is available from the

<b>Build Tool</b>	Versions	Notes
	supported versions)	Atlassian Marketplace.
Gradle	6.6.x and earlier	The Fortify Static Code Analyzer Gradle build integration supports the following language/platform combinations:  Java/Windows, Linux, and macOS  Kotlin/Windows and Linux  C/Linux  C++/Linux
Jenkins	(see the Jenkins Plugin Index for supported versions)	The Fortify Jenkins plugin is available from the Jenkins Plugins Index at https://plugins.jenkins.io/fortify.
Maven	3.0.5, 3.5.x, 3.6.x	
MSBuild	4.x, 12.0, 14.0, 15.x, 16.4, 16.6	
Xcodebuild	11, 11.1, 11.2.1, 11.3, 11.3.1, 11.4.1, 11.5, 11.6, 11.7, 12, 12.0.1, 12.1, 12.2, 12.3	

## Compilers

Micro Focus Fortify Static Code Analyzer supports the compilers listed in the following table.

Compiler	Versions	Platform
gcc	GNU gcc 4.9, 5.x	Windows, Linux, macOS
g++	GNU g++ 4.9, 5.x	Windows, Linux, macOS
OpenJDK javac	9, 10, 11, 12, 13, 14	Windows, Linux, macOS
Oracle javac	7, 8, 9	Windows, Linux, macOS
cl	2015, 2017, 2019	Windows
Intel C++ Compiler	icc 8.0	Linux
Clang	11.0.0, 11.0.3, 12.0.0 <sup>1</sup>	macOS

Compiler Versions		Platform
Swiftc	5.1, 5.1.2, 5.1.3, 5.2.2, 5.2.4, 5.3, 5.3.1, 5.3.2 <sup>1</sup>	macOS

<sup>&</sup>lt;sup>1</sup>Fortify Static Code Analyzer supports applications built in the following Xcode versions: 11, 11.1, 11.2.1, 11.3, 11.3.1, 11.4.1, 11.5, 11.6, 11.7, 12, 12.0.1, 12.1, 12.2, 12.3.

## **Secure Code Plugins**

The following table lists the supported integrated development environments (IDE) for the Micro Focus Fortify Secure Code Plugins.

Plugin / Extension	IDE and Version
Fortify Eclipse Plugins (Complete and Remediation)	Eclipse 2018-x, 2019-x, 2020-03 (4.15)
Fortify Analysis Plugin	Android Studio 3.3, 3.4, 3.5 IntelliJ IDEA 2019.x, 2020.x
Fortify Remediation Plugin	Android Studio 3.3, 3.4, 3.5 IntelliJ IDEA 2019.x, 2020.x PyCharm 2019.x, 2020.x WebStorm 2019.x, 2020.x
Fortify Visual Studio Extension	Visual Studio 2015 Community, Professional, and Enterprise  Visual Studio 2017 Community, Professional, and Enterprise  Visual Studio 2019 Community, Professional, and Enterprise
	<b>Note:</b> The Fortify Visual Studio Extension is not compatible with Visual Studio Express.

Plugin / Extension	IDE and Version	Notes
Security Assistant Plugin for Eclipse	Eclipse 2018-x, 2019-x, 2020-x	
Security Assistant Extension for Visual Studio	(see the Visual Studio Marketplace for supported versions)	Security Assistant Extension for Visual Studio is available from the Visual Studio Marketplace.

#### Single Sign-On (SSO)

Fortify Audit Workbench, the Eclipse Complete plugin, and the Fortify Visual Studio Extension support the following SSO methods to connect with Fortify Software Security Center:

- SPNEGO/Kerberos SSO
   Supported on the Windows platform only.
- X.509 SSO

**Note:** Fortify Audit Workbench and the Secure Code Plugins can use a token-based authentication with Fortify Software Security Center, which removes the requirement to configure SSO directly for these tools.

## Service Integrations for Fortify Static Code Analyzer Tools

The following table lists the supported service integrations for Micro Focus Fortify Audit Workbench and the Fortify Secure Code Plugins.

Service	Versions	Supported Tools
Bugzilla	5.0.x	Audit Workbench, Eclipse Plugin, Visual Studio Extension
Micro Focus Application Lifecycle Management (ALM)/ Quality Center Enterprise (QC)	12.50	Audit Workbench, Eclipse Plugin
Azure DevOps Server (formerly TFS)	2019	Audit Workbench, Eclipse Plugin, Visual Studio Extension

Service	Versions	Supported Tools	
Azure DevOps (formerly VSTS)	n/a	Audit Workbench, Eclipse Plugin	
<b>Note:</b> Only basic user password authentication is supported.			
Jira	7.11 and later 8.x	Audit Workbench, Eclipse Plugin	
Jira Cloud	n/a	Audit Workbench, Eclipse Plugin	
Fortify Software Security Center Bug Tracker	20.2.0	Audit Workbench, Eclipse Plugin, Visual Studio Extension	

## **Fortify Software Security Content**

Micro Focus Fortify Secure Coding Rulepacks are backward compatible with all supported Fortify Software versions. This ensures that Rulepacks updates do not break any working Fortify Software installation.

# Fortify Software Security Center Server Requirements

This section describes the system requirements for the Micro Focus Fortify Software Security Center server.

## Hardware Requirements

Micro Focus Fortify Software Security Center requires the hardware specifications listed in the following table.

	Component	Minimum	Recommended
Application server	Java heap size	4 GB	24 GB
Database server	Processor	Quad-core	Eight-core
	RAM	8 GB	64 GB

#### **Database Hardware Requirements**

Fortify recommends an eight-core processor with 64 GB of RAM for the Fortify Software Security Center database. Using less than this recommendation can impact Fortify Software Security Center performance.

Use the following formula to estimate the size (in GB) of the Fortify Software Security Center database disk space:

((<Total\_Issues>\*30 KB) + <Total\_Artifacts>) ÷ 1,000,000

#### where:

- < Total\_Issues > is the total number of issues in the system
- < Total\_Artifacts > is the total size in KB of all uploaded artifacts and scan results

**Note:** This equation produces only a rough estimate for database disk space allocation. Do not use this formula to estimate disk space requirements for long-term projects. Disk requirements for Fortify Software Security Center databases increases in proportion to the number of projects, scans, and issues in the system.

## Database Performance Metrics for Minimum and Recommended Hardware Requirements

The following table shows performance metrics (number of issues discovered per hour) for Fortify Software Security Center configured with the minimum and the recommended hardware requirements.

Database	Issues per Hour Minimum Configuration	Issues per Hour Recommended Configuration
MySQL	362,514	2,589,385
Oracle	231,392	3,020,950
SQL Server	725,028	3,625,140

#### **Platforms and Architectures**

Micro Focus Fortify Software Security Center supports the platforms and architectures listed in the following table.

Operating System	Versions	
Windows	Server 2012 R2	
	Server 2016	
	Server 2019	
Linux	Red Hat Enterprise Linux 6 update 5 and later	
	Red Hat Enterprise Linux 7.x, 8	
	SUSE Linux Enterprise Server 12, 15	

**Note:** Although Fortify Software Security Center has not been tested on all Linux variants, most distributions are not known to have issues.

## **Application Servers**

Micro Focus Fortify Software Security Center supports Apache Tomcat version 9.x for the following JDK versions:

- Red Hat OpenJDK 11
- SUSE OpenJDK 11
- Oracle JDK 11
- Zulu OpenJDK 11 from Azul (installation of fontconfig, DejaVu Sans font, and DejaVu Serif font is required on the server)

Fortify only supports the deployment of a single Fortify Software Security Center instance. Furthermore, that instance must not be behind a load balancer.

## Fortify Software Security Center Database

Micro Focus Fortify Software Security Center requires that all database schema collations are case-sensitive.

Fortify Software Security Center supports the databases listed in the following table.

Database	Versions	Collation / Character Set	Driver
MySQL	8.0 (Community Edition)	utf8_bin, latin1_ general_cs	The driver is included in the Fortify Software Security Center WAR file.  MariaDB Connector/J 2.6.0  Driver class: org.mariadb.jdbc.driver
Oracle	12c Release 2 19c	AL32UTF8 for all languages WE8MSWIN1252 for US English	Oracle Database 12c Release 2 (12.2.x) JDBC Driver  Driver class: oracle.jdbc.OracleDriver  JAR file: ojdbc8.jar (for Java 11)
SQL Server	2017 2019	You must use the case-sensitive (CS) option when choosing your collation method. For example:  SQL_ Latin1_ General_ CP1_CS_AS	The driver is included in the Fortify Software Security Center WAR file.  Microsoft JDBC Driver 8.2 for SQL Server  Driver class:  com.microsoft.sqlserver. jdbc.SQLServerDriver

**Note:** Fortify does not support the direct conversion from one database server type to another, such as converting from MySQL to Oracle. To do this, you must use the Server API to move data from your current Fortify Software Security Center instance to a new Fortify Software Security Center instance that uses the database server type you want to use going forward. Micro Focus Professional Services can assist you with this process.

# Deploying Fortify Software Security Center to a Kubernetes Cluster (Optional Deployment Strategy)

If you plan to deploy Micro Focus Fortify Software Security Center on a Kubernetes cluster, you must make sure that the following requirements are met.

#### Kubernetes: Versions 1.16-1.19

- Persistent volume support
- (Recommended) A load balancer service
- At least 7 GB of RAM and 1 CPU on a single node (with default configuration)
- Maximum usage: 28 GB of RAM and 8 CPUs on a single node (with default configuration)
- 4 GiB of storage for persistent volume (with default configuration)

#### Locally-Installed Tools Required

- A kubectl command-line tool (Recommended) Use the same version as the Kubernetes cluster version (1.16–1.19)
- Helm command-line tool, versions 3.0–3.3
- Air-gapped installation only (Recommended) A Docker client and server installation (any version)

#### **Additional Requirements**

- Kubeconfig file for the Kubernetes cluster
- Docker Hub account with access to Fortify Software Security Center images

**Note:** If you need access to Fortify Docker Organization on Docker Hub, contact FortifyDocker@microfocus.com with your first name, your last name, and your Docker account name. Micro Focus Fortify will then give you access to the Fortify Docker organization that contains the Fortify Software Security Center images.

- DNS name for the Fortify Software Security Center web application (address used to access the service)
- Java keystore for setting up HTTPS (For details, see the Micro Focus Fortify Software Security
  Center User Guide) The keystore must contain a CA certificate and a server certificate for the Fortify
  Software Security Center DNS name with an associated private key.
  - Keystore password
  - · Private key password
- An installed Oracle, SQL Server, or MySQL for database server
  - Database server host name
  - Name of the Fortify Software Security Center database

- Username and password for an account that has permission to manage the Fortify Software Security Center schema and data
- (Oracle or MySQL database only) An HTTP server that is accessible from the Kubernetes cluster for distributing the JDBC driver. For supported driver versions, see "Fortify Software Security Center Database" on page 22.
- Fortify Software Security Center license

#### **Browsers**

Fortify recommends that you use one of the browsers listed in the following table and a screen resolution of 1400 x 800.

Browser	Version
Google Chrome	65.0 or later
Microsoft Edge	38 or later
Mozilla Firefox	59.0 or later
Safari	11

## **Authentication Systems**

Micro Focus Fortify Software Security Center supports the following directory services:

• LDAP: LDAP 3 compatible

**Important!** Although Fortify supports the use of multiple LDAP servers, it does not support the use of multiple LDAP servers behind a load balancer.

• Windows Active Directory Service

#### Single Sign-On (SSO)

Fortify Software Security Center supports:

- Central Authorization Server (CAS) SSO
- HTTP Headers SSO (Oracle SSO, CA SSO)
- SAML 2.0 SSO
- SPNEGO/Kerberos SSO
- X.509 SSO

## **BIRT Reporting**

Micro Focus Fortify Software Security Center custom reports support Business Intelligence and Reporting Technology (BIRT) Designer version 4.7.

Installation of fontconfig, DejaVu Sans font, and DejaVu Serif font on the server is required for reporting.

## Service Integrations for Fortify Software Security Center

Micro Focus Fortify Software Security Center supports the service integrations listed in the following table.

Service	Applications	Versions
Bug tracking	Bugzilla	5.0.x
	Micro Focus Application Lifecycle Management (ALM)/ Quality Center Enterprise (QC)	12.50
	Jira	7.1x through 8.x
	Jira Cloud	n/a
	Azure DevOps Server (formerly TFS)	2019
	Azure DevOps (formerly VSTS)	n/a
	<b>Note:</b> Only basic user password authentication is supported.	
Authentication	Active Directory	2008, 2012
Dynamic assessments	Micro Focus Fortify WebInspect Enterprise	20.2.0

## Fortify ScanCentral SAST Requirements

Micro Focus Fortify ScanCentral SAST has three major components: a ScanCentral Controller, ScanCentral clients, and ScanCentral sensors.

## Fortify ScanCentral SAST Application Server

Micro Focus Fortify ScanCentral SAST supports Apache Tomcat version 9.0.x for Java 8.

## Fortify ScanCentral SAST Controller Hardware Requirements

Fortify recommends that you install the ScanCentral SAST Controller on a high-end 64-bit processor running at 2 GHz with at least 8 GB of RAM.

#### **Disk Space Requirements**

To estimate the amount of disk space required on the machine that runs the Fortify ScanCentral SAST Controller, use one of the following equations equation:

Intended Use	Equation
Remote scan only	<pre><number_jobs_per_day> x (<avg_mbs_size> + <avg_fpr_size> + <avg_sca_ log_size="">) x <number_days_data_is_persisted></number_days_data_is_persisted></avg_sca_></avg_fpr_size></avg_mbs_size></number_jobs_per_day></pre>
Remote translation and scan	<pre><number_jobs_per_day> x (<avg_archived_project_with_dependencies_size> +   <avg_fpr_size> + <avg_sca_log_ size="">) x <number_days_data_is_persisted></number_days_data_is_persisted></avg_sca_log_></avg_fpr_size></avg_archived_project_with_dependencies_size></number_jobs_per_day></pre>

By default, data is persisted for seven days.

## Fortify ScanCentral SAST Controller Platforms and Architectures

The Fortify ScanCentral SAST Controller supports the platforms and architectures listed in the following table.

Operating System	Versions	
Windows	Server 2012 R2	
	Server 2016	
	Server 2019	
Linux	Red Hat Enterprise Linux 6 update 5 and later	
	Red Hat Enterprise Linux 7.x, 8	
	SUSE Linux Enterprise Server 12, 15	

# Fortify ScanCentral SAST Client and Sensor Hardware Requirements

Fortify ScanCentral SAST clients and sensors run on any machine that supports Micro Focus Fortify Static Code Analyzer. Because ScanCentral SAST clients and sensors are installed on build machines running Micro Focus Fortify Static Code Analyzer, the hardware requirements are met.

See "Fortify Static Code Analyzer Requirements" on page 9 for hardware, software, and platform and architecture requirements.

#### Sensor Disk Space Requirements

To estimate the amount of disk space required on the machine that runs a ScanCentral sensor, use one of the following equations:

Intended Use	Equation
Remote scan only	<number_of_scans> x (<average_mbs_size> + <average_fpr_size> + <average_ SCA_Log_Size&gt;) x <number_days_data_is_persisted></number_days_data_is_persisted></average_ </average_fpr_size></average_mbs_size></number_of_scans>
Remote translation and scan	<pre><number_jobs_per_day> x (<avg_archived_project_with_dependencies_size> +   <avg_project_with_dependencies_size> + <avg_fpr_size> + <avg_sca_log_ size="">) x <number_days_data_is_persisted></number_days_data_is_persisted></avg_sca_log_></avg_fpr_size></avg_project_with_dependencies_size></avg_archived_project_with_dependencies_size></number_jobs_per_day></pre>

By default, data is persisted for seven days.

## Languages and Build Tools for Fortify ScanCentral SAST Sensor Project Translation

Micro Focus Fortify ScanCentral SAST supports offloading project translation to ScanCentral sensors for the following languages and build tools.

#### Languages

Fortify ScanCentral SAST supports offloading project translation to ScanCentral sensors for the following languages. See "Languages" on page 11 for specific supported versions.

• .NET applications in C# and Visual Basic (VB.NET) (.NET Core, .NET Standard, ASP.NET)

**Note:** Translation of .NET applications require .NET Framework version 4.7.2 or later.

- ABAP
- Apex
- Classic ASP

- ColdFusion
- Java
- JavaScript
- PHP
- PL/SQL
- Python
- Ruby
- T-SQL
- TypeScript
- Visual Basic 6.0

#### **Build Tools**

Fortify ScanCentral SAST supports the build tools listed in the following table.

<b>Build Tool</b>	Version	
Gradle	6.x	
Maven	3.x	
MSBuild	4.x, 12.0, 14.0, 15.x, 16.4, 16.6	

## Fortify ScanCentral DAST Requirements

Before you install Micro Focus Fortify ScanCentral DAST, make sure that your system meets the requirements described in this section.

#### **Architectural Best Practices**

Follow these best practice guidelines when you install Fortify ScanCentral DAST:

- Install the DAST Global Service, DAST API, and Fortify License and Infrastructure Manager (LIM) on the same VM or on separate VMs.
- Do not install the Fortify WebInspect sensor (container or classic installation) on the same VM as any of the other DAST components.

For more information about the Fortify ScanCentral DAST components, see the *Micro Focus Fortify ScanCentral DAST Configuration and Usage Guide*.

## Fortify ScanCentral DAST Configuration Tool

This topic describes the software and hardware requirements for the machine on which the configuration tool runs to configure settings for the Fortify ScanCentral DAST components.

#### **Software Requirements**

The Fortify ScanCentral DAST Configuration Tool runs on and works with the software packages listed in the following table.

Package	Versions	
Windows	Windows 10	
	Windows Server 2019	
.NET Platform	.NET Core 3.1	

#### **Hardware Requirements**

Fortify recommends that you use the Fortify ScanCentral DAST Configuration Tool on a system that conforms to the supported components listed in the following table.

Component	Requirement	Notes
RAM	2+ GB	Recommended
	1 GB	Minimum

## Fortify ScanCentral DAST Database Requirements

Fortify ScanCentral DAST requires the database server listed in the following table.

Package	Versions	Notes
SQL Server	SQL Server 2019	No scan database limit
(English-language version only)		

#### **Database Recommendations**

Fortify recommends that you configure the database server on a separate machine from either Micro Focus Fortify Software Security Center or any other Fortify ScanCentral DAST components.

The Fortify ScanCentral DAST SQL database requires case-insensitive collation.

**Important!** This is opposite the requirement for Fortify Software Security Center databases as described in "Fortify Software Security Center Database" on page 22.

## Fortify ScanCentral DAST Core Components VM

This topic describes the hardware and software requirements to run the DAST Global Service and DAST API containers.

#### **Software Requirements**

The DAST Global Service and DAST API containers run on and work with the software packages listed in the following table.

Software	Version
Windows	Windows 10 Pro
	Windows Server 2019
Docker	18.09 or later

#### **Hardware Requirements**

Fortify recommends that you use the DAST Global Service and DAST API containers on a system that conforms to the supported components listed in the following table.

Component	Requirement
RAM	32 GB
Processor	8 Core

## Fortify ScanCentral DAST Sensor

When running a Fortify ScanCentral DAST sensor outside of a container, such as a sensor service on the same machine as a Fortify WebInspect installation, you must install the ASP.NET Core Runtime 3.1.x (Hosting Bundle).

## Fortify ScanCentral DAST Ports and Protocols

This section describes the ports and protocols that the Fortify ScanCentral DAST components use to make required and optional connections.

#### **DAST API Required Connections**

The following table lists the ports and protocols that the DAST API container uses for required connections.

Endpoints	Port	Protocol	Notes
Fortify Software Security Center	80	HTTP	If SSL is not configured, the port on the host running the container is forwarded to port 80 on the container.
DAST Global Service DAST Sensor Service			Host port mapping is customizable to the container port.
Fortify Software Security Center DAST Global Service DAST Sensor Service	443	HTTPS	If SSL is configured, the port on the host running the container is forwarded to port 443 on the container.  Host port mapping is customizable to container port.
SQL Server	1433	TCP	This is the default SQL Server port.

## **DAST Global Service Required Connections**

The DAST Global Service does not expose any ports.

The following table lists the ports and protocols that the DAST Global Service container uses for required connections.

Endpoint	Port	Protocol	Notes
SQL Server	1433	TCP	This is the default SQL Server port.

## **Fortify DAST Sensor Required Connections**

The DAST Sensor does not expose any ports.

The DAST Sensor communicates with the DAST API over the port that is exposed on the host running the DAST API container.

### Fortify ScanCentral DAST Browsers

Fortify recommends that you use one of the browsers listed in the following table and a screen resolution of 1400 x 800.

Browser	Version
Google Chrome	65.0 or later
Microsoft Edge	38 or later
Mozilla Firefox	59.0 or later
Safari	11

### Standalone Web Macro Recorder Requirements

Fortify ScanCentral DAST allows you to download and use a standalone version of the Web Macro Recorder tool. The Web Macro Recorder tool runs on and works with the software packages listed in the following table.

Package	Versions
Windows	Windows 10
	Windows Server 2019

#### Running as Administrator

The standalone Web Macro Recorder tool requires administrative privileges for proper operation of all features. Refer to the Windows operating system documentation for instructions on changing the privilege level to run the Web Macro Recorder tool as an administrator.

## Fortify WebInspect Agent Requirements

Micro Focus Fortify WebInspect Agent technology is delivered for production application logging and protection .

#### **Platforms and Architectures**

Fortify WebInspect Agent supports 32-bit and 64-bit applications written in Java 5, 6, 7, 8, and 10.

## **Java Runtime Environments**

Fortify WebInspect Agent supports the Java runtime environments listed in the following table.

JRE	Major Versions
IBM J9	5 (SR10 and later)
	6 (SR6 and later)
Oracle HotSpot	5, 6, 7, 8
Oracle JRockit	5, 6 (R27.6 and later)

**Note:** The Java agent is supported on Windows, Linux, and Unix.

## **Java Application Servers**

Fortify WebInspect Agent supports the Java application servers listed in the following table.

Application Server	Versions
Apache Tomcat	6.0, 7.0, 8.0, 9.0
IBM WebSphere	7.0, 8.0, 8.5, 8.5.5
Oracle WebLogic	10.0, 10.3, 11g, 11gR1, 12c
Red Hat JBoss Enterprise Application Platform	7.3.0 and earlier
Jetty	9.3
WildFly	20.0.1 and earlier

## .NET Frameworks

Fortify WebInspect Agent supports .NET Framework versions 2.0, 3.0, 3.5, 4.0, and 4.5–4.8.

## **IIS for Windows Server**

Fortify WebInspect Agent supports Internet Information Services (IIS) versions 6.0, 7.0, 7.5, 8, 8.5, and 10.0.

## Fortify WebInspect Requirements

Before you install Micro Focus Fortify WebInspect, make sure that your system meets the requirements described in this section.

## **Running as Administrator**

Micro Focus Fortify WebInspect requires administrative privileges for proper operation of all features. Refer to the Windows operating system documentation for instructions on changing the privilege level to run Fortify WebInspect as an administrator.

## Hardware Requirements

Fortify recommends that you install Micro Focus Fortify WebInspect on a system that conforms to the supported components listed in the following table. Fortify does not support beta or pre-release versions of operating systems, service packs, and required third-party components.

Component	Requirement	Notes
Processor	2.5 GHz quad-core or faster	Complex applications might benefit from additional cores.
RAM	16 GB	Complex applications might benefit from additional memory.  Fortify recommends 32 GB of memory to scan with single-page application (SPA) support.
Hard disk	40 GB	Using SQL Express and storing scans locally requires additional disk space per scan.
Display	1280 x 1024	

## **Software Requirements**

Micro Focus Fortify WebInspect runs on and works with the software packages listed in the following table.

Package	Versions	Notes
Windows	Windows 10	Recommended
		Important! Not all builds of Windows 10 support .NET Framework 4.8. Refer to Microsoft's website to identify Windows 10 builds that support .NET Framework 4.8.
	Windows 8.1	
	Windows Server 2016	
	Windows Server 2019	
.NET Platform	.NET Framework 4.8	
SQL Server	SQL Server 2014 SP3	Recommended
(English-language versions only)		No scan database limit
versions only)	SQL Server 2012 SP4	No scan database limit
	SQL Server 2016 SP2	No scan database limit
	SQL Server 2017	No scan database limit
	SQL Server 2019	No scan database limit
SQL Server Express	SQL Server 2017	Recommended
(English-language versions only)	Express	10 GB scan database limit
	SQL Server 2012 Express SP4	10 GB scan database limit
	SQL Server 2014 Express SP3	10 GB scan database limit
	SQL Server 2016 Express SP2	10 GB scan database limit

Package	Versions	Notes
	SQL Server 2019 Express	10 GB scan database limit
Browser	Internet Explorer 11	Recommended
	Internet Explorer 10	
Portable Document Format	Adobe Acrobat Reader 11	Recommended
	Adobe Acrobat Reader 8.1.2	Minimum

#### Support for Postman

Postman collection version 2.1 is required for conducting scans in Fortify WebInspect. You do not need to install Postman on the machine where the Fortify WebInspect REST API is installed.

However, you must install the following third-party software on the machine where the Fortify WebInspect REST API is installed:

- Node.js 10.16.3 LTS and the included Node Package Manager (NPM)
- Newman command-line collection runner 4.5.1

#### **Notes on SQL Server Editions**

When using the Express edition of SQL Server:

- Scan data must not exceed the database size limit. If you require a larger database or you need to share your scan data, use the full version of SQL Server.
- During the installation you might want to enable "Hide advanced installation options." Accept all
  default settings. Micro Focus Fortify WebInspect requires that the default instance is named
  SQLEXPRESS.

When using the full edition of SQL Server:

- You can install the full version of SQL Server on the local host or nearby (co-located). You can
  configure this option in Fortify WebInspect Application Settings (Edit > Application Settings >
  Database).
- The account specified for the database connection must also be a database owner (DBO) for the named database. However, the account does not require sysadmin (SA) privileges for the database server. If the database administrator (DBA) did not generate the database for the specified user, then the account must also have the permission to create a database and to manipulate the security permissions. The DBA can rescind these permissions after Fortify WebInspect sets up the database, but the account must remain a DBO for that database.

## **WebInspect on Docker**

Fortify WebInspect on Docker has the requirements listed in the following table.

Package	Version	Notes
Docker Enterprise	18.09 or later	
Windows	Windows Server 2016	Recommended
	Windows 10	

## Fortify WebInspect Ports and Protocols

This section describes the ports and protocols Micro Focus Fortify WebInspect uses to make required and optional connections.

#### **Required Connections**

The following table lists the ports and protocols Micro Focus Fortify WebInspect uses to make required connections.

Direction	Endpoint	URL or Details	Port	Protocol	Notes
Fortify WebInspect to target host	Target host	Scan target host	Any	НТТР	Fortify WebInspect must connect to the web application or web service to be scanned.
Fortify WebInspect to SQL database	SQL Server Express or SQL Server Standard/Enterprise	SQLEXPRESS service on localhost or SQL TCP service locally installed or remote host	1433	SQL TCP	Used to maintain the scan data and to generate reports within the Fortify WebInspect application.
Fortify WebInspect to Certificate Revocation List (CRL)	Verisign CRL	http://crl.verisign.com/pca3.crl or http://csc3-2004- crl.verisign.com/ CSC3-2004.crl	80	НТТР	Offline installations of Fortify WebInspect or Fortify WebInspect Enterprise require you to manually download and apply the CRL from Verisign. Fortify WebInspect products prompt for these lists from Windows and their absence can cause problems with the application. A one-time download is sufficient, however Fortify recommends that you download the CRL as part of regular maintenance.

#### **Optional Connections**

The following table lists the ports and protocols Micro Focus Fortify WebInspect uses to make optional connections.

Direction	Endpoint	URL or Details	Port	Protocol	Notes
Fortify WebInspect to Fortify License activation server	Remote Fortify Licensing Service	https://licenseservice. fortify.microfocus.com	443	HTTPS over SSL	For one-time activation of a Fortify WebInspect Named User license. You may optionally use the following:  • An offline activation process instead of using this direct connection  • Upstream proxy with authentication instead of a direct connection
Fortify WebInspect to SmartUpdate server	Remote SmartUpdate service	https://smartupdate. fortify.microfocus.com	443	HTTPS over SSL	Used to automatically update the Fortify WebInspect product. SmartUpdate is automatic when opening the product UI, but can be disabled and run manually. Can optionally use upstream proxy with authentication instead of a direct connection.
Fortify WebInspect to Fortify Support Channel server	Remote Fortify Support Channel service	https://supportchannel. fortify.microfocus.com	443	HTTPS over SSL	Used to retrieve product marketing messages and to upload Fortify WebInspect data or product suggestions to Micro Focus Fortify Customer Support. Message check is automatic when opening the product UI, but can be disabled and run manually. Can optionally use upstream proxy with authentication instead of a direct connection.
Fortify WebInspect to Fortify WebInspect Telemetry server	Remote Fortify WebInspect Telemetry and performance reporting service	Note: Accessing this URL in a browser does not display any content.	443	HTTPS over SSL	The Telemetry service provides an automated process for collecting and sending Fortify WebInspect usage information to Micro Focus. Our software developers use this information to help improve the product.
Fortify WebInspect	Fortify WebInspect LIM	Lease Concurrent User license	443	Web services over SSL	Required for Fortify WebInspect client to lease and use a

Direction	Endpoint	URL or Details	Port	Protocol	Notes
to Fortify License and Infrastructure Manager (LIM)	(Local Licensing Service)				Concurrent User license maintained in a LIM license pool. You can detach the client license from LIM after activation to avoid a constant connection.
Fortify WebInspect API listener	Local machine API, or network IP address	http://localhost:8083/ webinspect/api	8083 or user- specified	НТТР	Use to activate a Fortify WebInspect API Windows Service. This opens a listening port on your machine, which you can use locally or remotely to generate scans and retrieve the results programmatically. This API can be SSL enabled, and supports Basic or Windows authentication.
Fortify WebInspect to Fortify WebInspect Enterprise	Fortify WebInspect Enterprise server	User-specified Fortify WebInspect server	443 or user- specified	HTTP or HTTPS over SSL	The Enterprise Server menu connects Fortify WebInspect as a client to the enterprise security solution to transfer findings and user role and permissions management.
Fortify WebInspect sensor service to Fortify WebInspect Enterprise	Fortify WebInspect Enterprise server	User-specified Fortify WebInspect server	443 or user- specified	HTTP or HTTPS over SSL	Separate from the Fortify WebInspect UI, you can configure the local installation as a remote scan engine for use by the enterprise security solution community. This is done through a Windows Service. This constitutes a different product from Fortify WebInspect desktop and is recommended to be run on its own, non-user-focused machine.
Browser to Fortify WebInspect	localhost	Manual Step-Mode Scan	Dynamic, 8081, or user- specified	HTTP or HTTPS over SSL	Fortify WebInspect serves as a web proxy to the browser, enabling manual testing of the target web server through Fortify WebInspect.
Fortify WebInspect to Quality Center Enterprise (ALM)	QC server	User-specified ALM server	Server- specified	HTTP or HTTPS over SSL	Permits submission of findings as defects to the ALM bug tracker.

#### **Connections for Tools**

The following table lists the ports and protocols that the Micro Focus Fortify WebInspect tools use to make connections.

Tool	Direction	Endpoint	Port	Protocol	Notes
Web Proxy	To target host	localhost	8080 or user- specified	HTTP or HTTPS over SSL	Intercepts and displays web traffic
Web Form Editor	To target host	localhost	Dynamic, 8100, or user- specified	HTTP or HTTPS over SSL	Intercepts web traffic and captures submitted forms
Login or Workflow Macro Recorders	To target host	localhost	Dynamic, 8081, or user- specified	HTTP or HTTPS over SSL	Records browser sessions for replay during scan
Web Discovery	Fortify WebInspect machine to targeted IP range	Target host network range	User- specified range	HTTP and HTTPS over SSL	Scanner for identifying rogue web applications hosted among the targeted scanned IP and port ranges Use to provide targets to Fortify WebInspect (manually)

## **Fortify WebInspect Agent**

For system requirements, see "Fortify WebInspect Agent Requirements" on page 33.

## WebInspect Software Development Kit (SDK)

The WebInspect SDK requires the following software:

- Visual Studio 2013 or 2015
- .NET Framework 4.6.1

**Important!** Visual Studio Express versions do not support third-party extensions. Therefore, these versions do not meet the software requirements to use the WebInspect SDK.

## Software Integrations for Fortify WebInspect

The following table lists products that you can integrate with Micro Focus Fortify WebInspect.

Product	Versions	
Micro Focus Fortify WebInspect Enterprise	20.2.0	
Micro Focus Application Lifecycle Management (ALM)	11.5, 12.01, 12.21, 12.53	
<b>Note:</b> You must also install the ALM Connectivity tool to connect Fortify WebInspect to ALM.		
Micro Focus Fortify Software Security Center	20.2.0	
Micro Focus Unified Functional Testing	11.5	

# Fortify WebInspect Enterprise Requirements

Before you install Micro Focus Fortify WebInspect Enterprise, make sure that your systems meet the requirements described in this section.

**Note:** Product versions that are not specifically listed in this document are not supported.

#### Installation and Upgrade Requirements

You can upgrade directly from Micro Focus Fortify WebInspect Enterprise 20.1.0 to Fortify WebInspect Enterprise 20.2.0. You cannot upgrade directly from any other versions of Fortify WebInspect Enterprise. For detailed information about upgrades, see the *Micro Focus Fortify WebInspect Enterprise Installation and Implementation Guide*.

Integration with Micro Focus Fortify Software Security Center is optional. If you are integrating Fortify WebInspect Enterprise with Fortify Software Security Center, then you must install and run Fortify Software Security Center 20.2.0 before you install a new instance of Fortify WebInspect Enterprise or upgrade from Fortify WebInspect Enterprise 20.1.0. You can install Fortify Software Security Center and Fortify WebInspect Enterprise on the same or different machines. Using separate machines might improve performance.

#### Integrations for Fortify WebInspect Enterprise

You can integrate Micro Focus Fortify WebInspect Enterprise with the following components:

- Micro Focus Fortify WebInspect sensors 20.2.0
- Micro Focus Fortify WebInspect Agent 20.2.0

#### Fortify WebInspect Enterprise Database

Fortify recommends that you configure the database server on a separate machine from either Micro Focus Fortify Software Security Center or Micro Focus Fortify WebInspect Enterprise.

The Fortify WebInspect Enterprise Server SQL database requires case-insensitive collation.

**Important!** This is opposite the requirement for Fortify Software Security Center databases as described in "Fortify Software Security Center Database" on page 22.

## **Hardware Requirements**

The following table lists the hardware requirements for the Micro Focus Fortify WebInspect Enterprise server.

Component	Requirement	Notes
Processor	3.0 GHz quad-core or faster	Recommended
	2.5 GHz dual-core	Minimum
RAM	16 GB	Recommended
	8 GB	Minimum
Hard disk	100+ GB	Recommended
	20+ GB if using a local database	
	5 GB if using a remote database	
Display	1920 x 1080	Recommended
	1280 x 1024	Minimum

# **Software Requirements**

Micro Focus Fortify WebInspect Enterprise server runs on and works with the software packages listed in the following table.

Package	Versions	Notes
Windows	Windows Server 2016	Recommended
	Windows Server 2019	
.NET Platform	.NET Framework 4.8	
Web Server	IIS 10	Recommended
	IIS 7.5, 8.0, 8.5	
SQL Server	SQL Server 2014 SP3	Recommended
(English-language versions only)		No scan database limit
versions only)	SQL Server 2012 SP4	No scan database limit
	SQL Server 2016 SP2	No scan database limit
	SQL Server 2017	No scan database limit
	SQL Server 2019	No scan database limit
Browser	Mozilla Firefox 75 or later	Recommended
	Google Chrome 81 or later	
	Microsoft Edge 81 or later	
	Internet Explorer 11	

# **Administrative Console Requirements**

This section describes the hardware and software requirements for the Micro Focus Fortify WebInspect Enterprise Administrative Console.

You do not need to install the Fortify WebInspect Enterprise Administrative Console on the same machine as the Web Console of the Fortify WebInspect Enterprise server. The two consoles have different system requirements. In addition, you can install multiple Administrative Consoles on different machines connected to the same Fortify WebInspect Enterprise server.

#### **Hardware Requirements**

The following table lists the hardware requirements for Fortify WebInspect Enterprise Administrative Console.

Component	Requirement	Notes
Processor	2.5 GHz dual-core	Minimum
RAM	4 GB	Minimum
Hard disk	2 GB	
Display	1980 x 1080	Recommended
	1280 x 1024	Minimum

#### **Software Requirements**

The Fortify WebInspect Enterprise Administrative Console runs on and works with the software packages listed in the following table.

Package	Versions	Notes
Windows	Windows 10	Recommended
	Windows 8.1	
	Windows Server 2016	
	Windows Server 2019	
.NET	.NET Framework 4.8	

## Fortify WebInspect Enterprise Ports and Protocols

This section describes the ports and protocols Micro Focus Fortify WebInspect Enterprise uses to make required and optional connections.

#### **Required Connections**

The following table lists the ports and protocols Micro Focus Fortify WebInspect Enterprise uses to make required connections.

Direction	Endpoint	URL or Details	Port	Protocol	Notes
Fortify WebInspect Enterprise Manager server to SQL database	SQL Server Standard/Enterprise	SQL TCP service on locally installed or remote host	1433 or user- specified	SQL TCP	Used to maintain the scan data and full Enterprise environment. Custom configurations of SQL Server are permitted, including port changes and encrypted communication.
Fortify WebInspect Enterprise Manager machine to Fortify Software Security Center server	Fortify Software Security Center server	urity Center specified user- HTTPS ver Fortify specified over SSL Software		As a modular add-on, Fortify WebInspect Enterprise requires a connection to its core Fortify Software Security Center server.	
Center Server	er Security Center server		<b>Note:</b> This connection is required only if you integrate Fortify WebInspect Enterprise with Fortify Software Security Center.		
Sensor machines to Fortify WebInspect Enterprise Manager server	Fortify WebInspect Enterprise server	User- specified Fortify WebInspect Enterprise server	443 or user- specified	HTTPS over SSL	Communication is two-way HTTP traffic, initiated in-bound by the Fortify WebInspect sensor machine.
Browser users to Fortify WebInspect Enterprise server UI	Fortify WebInspect Enterprise server	User- specified Fortify WebInspect Enterprise server	443 or user- specified	HTTPS over SSL	You can configure Fortify WebInspect Enterprise not to use SSL, but tests indicate that it might affect the product usability.
Browser user to Fortify Software Security Center UI	Fortify Software Security Center server	User- specified Fortify Software Security Center server	8180 or user- specified	HTTP or HTTPS over SSL	You can configure the Fortify Software Security Center server on any available port during installation.

#### **Optional Connections**

The following table lists the ports and protocols Micro Focus Fortify WebInspect Enterprise uses to make optional connections.

Direction	Endpoint	URL or Details	Port	Protocol	Notes
Fortify WebInspect desktop machines to Fortify WebInspect Enterprise Manager server	Fortify WebInspect Enterprise server	User-specified Fortify WebInspect Enterprise server	443 or user- specified	HTTPS over SSL	Communication is two-way HTTP traffic, initiated in-bound by the Fortify WebInspect desktop machine.
Fortify WebInspect Enterprise Manager machine to Fortify License activation server	Fortify Licensing Service	https://licenseservice. fortify.microfocus.com	443	HTTPS over SSL	For one-time activation of the Fortify WebInspect Enterprise server license as well as periodic checks during an update. You may optionally use the following:  • An offline activation process instead of using this direct connection  • Upstream proxy with authentication instead of a direct Internet connection  Important! If you use the offline activation process, then you must also use the offline SmartUpdate process. For more information, see the Micro Focus Fortify WebInspect Enterprise User Guide or the WebInspect Enterprise Administrative Console help.

Direction	Endpoint	URL or Details	Port	Protocol	Notes
Fortify WebInspect Enterprise Manager machine to SmartUpdate server	SmartUpdate	https://smartupdate. fortify.microfocus.com	443	HTTPS over SSL	Used to acquire product updates as well as all connected clients (Fortify WebInspect sensors and Fortify WebInspect desktop). The administrator manually runs SmartUpdate, however Fortify recommends that you set up an automated schedule. New client releases are held in reserve until the Fortify WebInspect Enterprise administrator marks them as Approved, at which time they are automatically distributed from the Fortify WebInspect Enterprise Manager server. Can support the use of an upstream proxy with authentication instead of a direct Internet connection.  Important! Access to the SmartUpdate server also requires access to the licensing server. If you have restrictions on outgoing traffic, you must add both the SmartUpdate server and the licensing server to your allow list.
Fortify WebInspect Enterprise Manager machine to mail server	User's mail server	Email alerts	25 or user- specified	SMTP	Used for SMTP alerts for administration team. To enable mobile TXT alerts, you can use an SMTP-to-SMS gateway address.
Fortify WebInspect Enterprise Manager machine to SNMP Community	User's SNMP Community	SNMP alerts	162 or user- specified	SNMP	Used for SNMP alerts for administration team.

#### **Connections for Tools**

The following table lists the ports and protocols that the Micro Focus Fortify WebInspect Enterprise tools use to make connections.

Tool	Direction	Endpoint	Port	Protocol	Notes
Web Proxy	To target web application	localhost	8080 or user-specified	HTTP or HTTPS over SSL	Intercepts and displays web traffic

Tool	Direction	Endpoint	Port	Protocol	Notes
Web Form Editor	To target web application	localhost	Dynamic, 8100, or user-specified	HTTP or HTTPS over SSL	Intercepts web traffic and captures submitted forms
Login or Workflow Macro Recorders	To target web application	localhost	Dynamic, 8081, or user-specified	HTTP or HTTPS over SSL	Records browser sessions for replay during scan
Web Discovery	To targeted IP range	localhost	User-specified range	HTTP and HTTPS over SSL	Scanner for identifying rogue web applications hosted among the targeted scanned IP and port ranges  Use to provide targets to Fortify WebInspect (manually)

## Fortify WebInspect Enterprise Sensor

A Micro Focus Fortify WebInspect Enterprise sensor is a Micro Focus Fortify WebInspect sensor that runs scans on behalf of Fortify WebInspect Enterprise. See "Fortify WebInspect Requirements" on page 35 for more information.

To run a scan from Fortify WebInspect Enterprise, you must have at least one instance of Fortify WebInspect connected and configured as a sensor.

## Fortify WebInspect Enterprise Notes and Limitations

- You can connect any instance of Micro Focus Fortify Software Security Center to only one instance
  of Micro Focus Fortify WebInspect Enterprise, and you can connect any instance of Fortify
  WebInspect Enterprise to only one instance of Fortify Software Security Center.
- For a Fortify WebInspect Enterprise environment to support Internet Protocol version 6 (IPv6), you must deploy the IPv6 protocol on each Fortify WebInspect Enterprise Administrative Console, each Fortify WebInspect Enterprise sensor, and the Fortify WebInspect Enterprise server.

# Fortify License and Infrastructure Manager Requirements

This section describes the hardware and software requirements for Micro Focus Fortify License and Infrastructure Manager (LIM).

## Hardware Requirements

Fortify recommends that you install the LIM on a system that conforms to the supported components listed in following table. Beta or pre-release versions of operating systems, service packs, and required third-party components are not supported.

Component	Requirement	Notes
Processor	2.5 GHz single-core or faster	Recommended
	1.5 GHz single-core	Minimum
RAM	2+ GB	Recommended
	1 GB	Minimum
Hard disk	50+ GB	Recommended
	20 GB	Minimum
Display	1280 x 1024	Recommended
	1024 x 768	Minimum

# **Software Requirements**

LIM runs on and works with the software packages listed in the following table.

Package	Versions	Notes
Windows Server	Windows Server 2012, 2012 R2	
	Windows Server 2016	
	Windows Server 2019	
Web Server	IIS 8.5	Recommended
	IIS 7.5, 8.0, 10	
.NET Platform	.NET Framework 4.5, 4.6.1	
	ASP.NET4.5, 4.6	
Browser	Internet Explorer 11	Recommended
	Mozilla Firefox 51.0	Recommended
	Mozilla Firefox 44.0, 47.0, 69.0	

## **Version Compatibility Matrix**

This section provides compatibility information for Micro Focus Fortify Software components.

## Fortify Software Component Compatibility

Micro Focus Fortify Software version 20.2.0 works with the component versions listed in the following table.

Component	Version
Micro Focus Fortify Software Security Center	20.2.0
Micro Focus Fortify Static Code Analyzer Tools (Micro Focus Fortify Audit Workbench, Fortify Secure Code Plugins, and Fortify Custom Rules Editor)	20.2.0
Micro Focus Fortify WebInspect Agent	20.2.0
Micro Focus Fortify WebInspect	20.2.0
Micro Focus Fortify WebInspect Enterprise	20.2.0

## **FPR File Compatibility**

Earlier versions of Micro Focus Fortify Software products cannot open and read FPR files generated by later versions of Fortify Software products. For example, Micro Focus Fortify Audit Workbench 19.1.0 cannot read 20.2.0 FPR files. However, later versions of Fortify Software products can open and read FPR files generated by earlier versions of Fortify Software products. For example, Fortify Audit Workbench version 20.2.0 can open and read version 19.1.0 FPR files.

FPR version numbers are determined as follows:

- The FPR version is the same as the version of the analyzer that initially generated it. For example, an FPR generated by Fortify Software version 20.2.0 also has the version number 20.2.0.
- The FPR version is the same as the version of the Micro Focus Fortify Software Security Center or Micro Focus Fortify Static Code Analyzer Tool used to modify or audit the FPR.
- If you merge two FPRs, the resulting FPR has the version of the more recently generated FPR. For example, if you merge a version 19.1.0 FPR with a version 20.2.0 FPR, the resulting FPR has the version number 20.2.0.

You can only open 20.2.0 FPR files with Fortify Software Security Center or Fortify Static Code Analyzer Tools version 20.2.0 or later.

#### **Caution Regarding Uploading FPRs to Fortify Software Security Center**

Fortify Software Security Center keeps a project file that contains the latest scan results and audit information for each application. Fortify Audit Workbench and the Secure Code Plugins also use this project file for collaborative auditing.

Each time you upload an FPR to Fortify Software Security Center, it is merged with the existing project file. If the FPR has a later version number than the existing project file, the existing project file version changes to match the FPR. For Fortify Audit Workbench and the Secure Code Plugins to work with the updated FPR, they must be at least the same version as the FPR. For example, Fortify Audit Workbench 19.1.0 cannot open and read a 20.2.0 FPR.

# Virtual Machine Support

You can run Micro Focus Fortify Software products on an approved operating system in virtual machine environments. You must provide dedicated CPU and memory resources that meet the minimum hardware requirements. If you find issues that cannot be reproduced on the native environments with the recommended processing, memory, and disk resources, you must work with the provider of the virtual environment to resolve them.

**Note:** If you run Fortify Software products in a VM environment, Fortify strongly recommends that you have CPU and memory resources fully committed to the VM to avoid possible performance degradation.

## Technologies no Longer Supported in this Release

The following technologies and features are no longer supported in Fortify Software:

- Application Server (Micro Focus Fortify Software Security Center):
  - JDK 8 for Apache Tomcat
- Bug Trackers:
  - Team Foundation Server (TFS) 2015 and 2017
- Databases (Fortify Software Security Center):
  - MySQL 5.7 (Community Edition)
  - SQL Server 2016
- Fortify Software Security Center (deployment to a Kubernetes cluster only):
  - Kubernetes versions 1.14 through 1.15

## Technologies to Lose Support in the Next Release

The following technologies and features are scheduled for deprecation in the next Micro Focus Fortify Software release:

- Fortify Static Code Analyzer support for all Swift, Xcode, and Objective-C/C++ versions will follow the deprecation path Apple Inc. adopts.
- Build Tools:
  - Xcodebuild 11, 11.1, 11.2.1, 11.3, and 11.3.1
- Compilers (Fortify Static Code Analyzer):
  - Intel C++ Compiler
  - cl 2015
- Integrated Development Environments (IDEs):
  - Android Studio 3.x
  - Eclipse 2018-x, 2019-x
  - JetBrains IntelliJ IDEA, WebStorm, and PyCharm 2019.x
  - Visual Studio 2015 (Fortify Visual Studio Extension)
- Languages (Fortify Static Code Analyzer):
  - Analysis of Java 5 and 6

# **Acquiring Fortify Software**

Micro Focus Fortify Software is available as an electronic download. For instructions on how to download the software from Micro Focus Fortify Customer Support (https://www.microfocus.com/support), click **Contact Us / Self Help** from the Software Licenses and Downloads page to review the videos and the *Quick Start Guide*.

The following table lists the available packages and describes their contents.

File Name	Description
Fortify_SCA_and_Apps_ <version>_Windows.zip</version>	Fortify SCA and Applications installer for Windows  This installer includes the following components:  Fortify Static Code Analyzer  Fortify Audit Workbench  Fortify Custom Rules Editor  Fortify Plugin for Eclipse

File Name	Description			
	Fortify Analysis Plugin for IntelliJ and Android Studio			
	Fortify Extension for Visual Studio			
	Fortify Scan Wizard			
	Sample applications			
	Note:			
	<ul> <li>Fortify Software Security Content (Rulepacks and external metadata) can be downloaded during the installation.</li> </ul>			
	<ul> <li>The package includes the Fortify Remediation Plugin for Eclipse, the Fortify Security Assistant Plugin for Eclipse, and the Fortify Remediation Plugin for JetBrains and Android Studio IDEs.</li> </ul>			
Fortify_SCA_and_Apps_ <version>_ Windows.zip.sig</version>	Signature file for the Fortify SCA and Applications package for Windows			
Fortify_SCA_and_Apps_	Fortify SCA and Applications installer for Linux			
<pre><version>_Linux.tar.gz</version></pre>	The installer includes the following components:			
	Fortify Static Code Analyzer			
	Fortify Audit Workbench			
	Fortify Custom Rules Editor			
	Fortify Plugin for Eclipse			
	Fortify Analysis Plugin for IntelliJ and Android Studio			
	Fortify Scan Wizard			
	Sample applications			
	Note:			
	<ul> <li>Fortify Software Security Content (Rulepacks and external metadata) can be downloaded during the installation.</li> </ul>			
	<ul> <li>The package includes the Fortify Remediation Plugin for Eclipse, the Fortify Security Assistant Plugin for Eclipse, and the Fortify Remediation Plugin for JetBrains and Android Studio IDEs.</li> </ul>			
Fortify_SCA_and_Apps_ <version>_Linux.tar.gz.sig</version>	Signature file for Fortify Static Code Analyzer for Linux			

File Name	Description
Fortify_SCA_and_Apps_	Fortify SCA and Applications installer for macOS
<version>_Mac.tar.gz</version>	This installer includes the following components:
	Fortify Static Code Analyzer
	Fortify Audit Workbench
	Fortify Custom Rules Editor
	Fortify Plugin for Eclipse
	Fortify Analysis Plugin for IntelliJ and Android Studio
	Fortify Scan Wizard
	Sample applications
	Note:
	Fortify Software Security Content (Rulepacks and external metadata) can be downloaded during the installation.
	<ul> <li>The package includes the Fortify Remediation Plugin for Eclipse, the Fortify Security Assistant Plugin for Eclipse, and the Fortify Remediation Plugin for JetBrains and Android Studio IDEs.</li> </ul>
Fotify_SCA_and_Apps_ <version>_Mac.tar.gz.sig</version>	Signature file for the Fortify SCA and Applications package for macOS
Fortify_SSC_Server_ <version>.zip</version>	Fortify Software Security Center
Fortify_SSC_Server_ <version>.zip.sig</version>	Signature file for Fortify Software Security Center
Fortify_ScanCentral_ Controller_< <i>version&gt;</i> .zip	Fortify ScanCentral SAST Controller
Fortify_ScanCentral_ Controller_ <version>.zip.sig</version>	Signature file for Fortify ScanCentral SAST Controller

File Name	Description
ScanCentral_DAST_ <version>.zip</version>	Fortify ScanCentral DAST package  This package includes:  Configuration Tool EXE  Scanner service and supporting bits
ScanCentral_DAST_ <version>.zip.sig</version>	About Fortify Software Documentation (PDF)  Signature file for Fortify ScanCentral DAST
SecurityToolkit_ <version>.zip</version>	Fortify WebInspect Toolkit package for use with Fortify WebInspect Enterprise
WebInspect_64_ <version>.zip</version>	Fortify WebInspect 64-bit package  This package includes:  Installer  About Fortify Software Documentation (PDF)
WebInspect_Agent_ <version>.zip</version>	Fortify WebInspect Agent package
WI_Enterprise_ <version>.zip</version>	Fortify WebInspect Enterprise package  The package includes the following components:  • Fortify WebInspect Enterprise server  • Fortify WebInspect Enterprise Administrative Console  • About Fortify Software Documentation (PDF)

# **About Verifying Software Downloads**

This topic describes how to verify the digital signature of the signed file that you downloaded from the Micro Focus Fortify Customer Support site. Verification ensures that the downloaded package has not been altered since it was signed and posted to the site. Before proceeding with verification, download the Fortify Software product files and their associated signature (\*.sig) files. You are not required to verify the package to use the software, but your organization might require it for security reasons.

#### Preparing Your System for Digital Signature Verification

**Note:** These instructions describe a third-party product and might not match the specific, supported version you are using. See your product documentation for the instructions for your version.

To prepare your system for electronic media verification:

- 1. Navigate to the GnuPG site (http://www.gnupg.org).
- 2. Download and install GnuPG Privacy Guard version 1.4.x or 2.2.x.
- 3. Generate a private key, as follows:
  - a. Run the following command (on a Windows system, run the command without the \$ prompt):

```
$ gpg --gen-key
```

- b. When prompted for key type, select DSA and Elgamal.
- c. When prompted for a key size, select 2048.
- d. When prompted for the length of time the key should be valid, select key does not expire.
- e. Answer the user identification questions and provide a passphrase to protect your private key.
- 4. Download the Micro Focus GPG public keys (compressed tar file) from the following location: https://entitlement.mfgs.microfocus.com/ecommerce/efulfillment/digitalSignIn.do
- 5. Extract the public keys.
- 6. Import each downloaded key with GnuPG, as follows:
  - Rungpg --import <Path\_to\_Key>/<File\_Name\_of\_Key>

#### Verifying Software Downloads

To verify that the signature file matches the downloaded software package:

- 1. Navigate to the directory where you stored the downloaded package and signature file.
- 2. Run the following command:

```
gpg --verify <Signature_File_Name> <Downloaded_File_Name>
```

3. Examine the output to make sure that you receive verification that the software you downloaded is signed by Micro Focus Group Limited and is unaltered. Your output will include something similar to the following:

```
gpg: Signature made Fri, Oct 06, 2017 10:37:56 PM PDT using RSA key ID
AA71A9CF
gpg: checking the trustdb
gpg: 3 marginal(s) needed, 1 complete(s) needed, PGP trust model
gpg: depth: 0 valid: 3 signed: 0 trust: 0-, 0q, 0n, 0m, 0f, 3u
gpg: next trustdb check due at 2025-12-07
gpg: Good signature from "Micro Focus Group Limited RSA-2048-12"
```

**Note:** A warning message might indicate that the public key is not known to the system. You can ignore this warning or set up your environment to trust these public keys.

# **Assistive Technologies (Section 508)**

In accordance with section 508 of the Rehabilitation Act, Micro Focus Fortify Audit Workbench has been engineered to work with the JAWS screen reading software package from Freedom Scientific. JAWS provides text-to-speech support for use by the visually impaired. With JAWS, labels, text boxes, and other textual components can be read aloud, providing greater access to these technologies.

Micro Focus Fortify Software Security Center works well with the ChromeVox screen reader.

# Send Documentation Feedback

If you have comments about this document, you can contact the documentation team by email.

**Note:** If you are experiencing a technical issue with our product, do not email the documentation team. Instead, contact Micro Focus Fortify Customer Support at <a href="https://www.microfocus.com/support">https://www.microfocus.com/support</a> so they can assist you.

If an email client is configured on this computer, click the link above to contact the documentation team and an email window opens with the following information in the subject line:

#### Feedback on System Requirements (Fortify Software 20.2.0)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to FortifyDocTeam@microfocus.com.

We appreciate your feedback!