# **Black Duck**

Software Composition Analysis

Secure and manage open source throughout the software supply chain

## Overview

Black Duck is a comprehensive solution for managing security, license compliance, and code quality risks that come from the use of open source in applications and containers. Named a leader in software composition analysis (SCA) by Forrester, Black Duck gives you unmatched visibility into third-party code, enabling you to control it across your software supply chain and throughout the application life cycle.

# An integrated solution for source and binaries

Only Black Duck combines versatile open source risk management with deep binary inspection to provide a best-in-class SCA solution that helps you minimize risks associated with open source and other third-party software. In a time when open source composes 70% of the average codebase, Black Duck empowers your development, operations, procurement, and security teams to:

- Find and fix security vulnerabilities at each stage in the SDLC, with detailed, vulnerability-specific remediation guidance and technical insight.
- Eliminate risk of open source license noncompliance and safeguard your intellectual property by using the industry's largest open source knowledge base to identify which of 2,750 licenses are relevant to the open source in your applications (including code snippets from larger components).
- Avoid development cost overruns and combat code decay with operational risk metrics associated with poor open source code quality.
- Scan virtually any software, firmware, and source code to generate a comprehensive bill of materials (BOM) of what's inside.
- Automatically monitor for new vulnerabilities that affect your BOM, with custom
  policies and workflow triggers to accelerate remediation and reduce your risk
  exposure.

## Discover

- Identify open source in code, binaries, and containers.
- Detect partial and modified components.
- Automate scanning with DevOps integrations.

## **Protect**

- Map components to known vulnerabilities.
- **Identify** license and component quality risks.
- Monitor for new vulnerabilities in development and production.

# Manage

- Set and enforce open source use and security policies.
- Automate policy enforcement with DevOps integrations.
- Prioritize and track remediation activities.

# Key benefits

# Get deeper, more streamlined analysis

Black Duck identifies more open source, with greater accuracy, using a unique multifactor detection technology to generate and validate a complete BOM to track declared components, unique file hash signatures, dependencies resolved during a build, and open source code snippets. Black Duck applies these scanning methods in an efficient manner, bringing security and compliance to every stage and role in the SDLC. This includes Rapid Scan in the IDE, and integrations with CI/CD and binary repository tools for deeper analysis during build and post-build stages.

# Find and fix vulnerabilities quickly

Black Duck's open source security risk insight combines curated data from public sources (e.g., NVD) and detailed, proprietary analysis from the Synopsys Cybersecurity Research Center (CyRC). Get notified of new vulnerabilities weeks before they are published in the NVD (reducing your window of exposure), and benefit from our exclusive enhanced vulnerability data and Black Duck Security Advisories (BDSAs), including:

- Critical risk metrics, vulnerability-specific technical insight, exploit details, and impact analysis
- CVSS 2 and CVSS 3 scoring and CWE classification data
- · Common Attack Pattern Enumeration and Classification (CAPEC)
- · Temporal scoring not provided by the NVD
- Component-level upgrade and remediation guidance, mitigating factors, and compensating controls
- Vulnerability impact analysis to determine if the vulnerable code is being called by the application
- · Custom vulnerability risk scoring to match your company risk profile
- Vulnerabilities are prioritized for remediation across multiple critical data points, including severity, solution availability, exploitability, CWE, and reachability

# Automatically enforce security and use policies

Configure your open source security and use policies based on a comprehensive array of criteria, including license type, vulnerability severity, open source component version, and more. Enforce policies with automatic workflow triggers, notifications, and bidirectional Jira integration for accelerated remediation initiation and reporting.

# Identify open source risks, even without source code

With Black Duck in your toolkit, you can quickly and easily analyze vendor-supplied binaries to identify weak links in your software supply chain without access to the source code. Get deep, actionable risk metrics to make informed decisions about your use and procurement of technologies before they put you at risk. Black Duck's intelligent scan client automatically determines if the target software is source or a compiled binary, then identifies and catalogs all third-party software components, associated licenses, and known vulnerabilities affecting your applications.

# Black Duck | Source & Package Manager Scanning

Black Duck only **\*** BDBA only

# Scanning

## Languages

- С
- · C++
- · C#
- Clojure
- Erlang
- Golang
- Groovy
- Java
- JavaScript <a>I</a>
- Kotlin
- Node.js
- · Objective-C
- Perl
- Python 🗖
- PHP 🗖
- R 🗖
- Ruby
- Scala
- Swift
- · .NET Cloud technologies

## Package Managers

- NuGet
- Hex □
- Vndr
- Godep 🗖
- Dep 🗖
- Maven
- Gradle
- Npm 🗖
- CocoaPods
- Cpanm
- Conda
- Pear
- Composer
- Pip 🗖
- Packrat
- RubyGems
- SBT □
- Bazel
- Cargo
- C/C++ (Clang)
- GoLang
- · Erlang/Hex
- Rebar
- Python
- Yarn
- · Yocto

## **BDBA Package Manager Support**

- · Distro-package-manager: Leverages information from a Linux distribution package manager database to extract component information.
- The remaining four methods are only applicable to Java bytecode:
  - pom: Extracts the Java package, group name, and version from the pom.xml or pom.properties files in a JAR file.
  - manifest: extracts the Java package name and version from the entries in the MANIFEST.MF file in a JAR file.
  - jar-filename: Extracts the Java package name and version from the iar-filename.
  - hashsum: Uses the sha1 checksum of the JAR file to look it up from known Maven Central registered Java projects.

## Binary formats

- · Native binaries
- · Java binaries
- .NET binaries
- · Go binaries

### Compression formats

- Gzip (.gz)
- bzip2 (.bz2)
- LZMA (.lz)
- LZ4 (.lz4) \*\*
- · Compress (.Z)
- XZ (.xz)
- Pack200 (.jar)
- UPX (.exe)
- Snappy
- DEFLATE
- zStandard (.zst) \*

### Archive formats

- ZIP (.zip, .jar, .apk, and other derivatives)
- XAR (.xar) \*
- 7-Zip (.7z)
- ARJ (.arj)
- TAR (.tar)
- VM TAR (.tar)
- · cpio (.cpio)
- · RAR (.rar)
- LZH (.lzh) \*
- Electron archive (.asar) \*
- DUMP

## Installation formats

- · Red Hat RPM (.rpm)
- Debian package (.deb)
- Mac installers (.dmg, .pkg)
- Unix shell file installers (.sh, .bin)
- · Windows installers (.exe, .msi, .cab)
- vSphere Installation Bundle (.vib)
- Bitrock Installer \*
- · Installer generator formats that are supported:
  - − 7z, zip, rar self extracting .exe \*
  - MSI Installer \*
  - CAB Installer \*
  - InstallAnywhere \*\*
  - Install4J \*
  - InstallShield \*
  - InnoSetup \*
  - Wise Installer \*
  - Nullsoft Scriptable Install System (NSIS) \*
  - WiX Installer \*

### Firmware formats

- Intel HEX X
- SREC \*
- U-Boot \*
- Arris firmware \*
- Juniper firmware \*\*
- Kosmos firmware \*\*
- Android sparse file system \*
- Cisco firmware \*\*

### File systems / disk images

- ISO 9660 / UDF (.iso) \*
- Windows Imaging \*\*
- ext2/3/4 \*\*
- JFFS2 \*
- UBIFS **≭**
- RomFS \*
- Microsoft Disk Image \*
- Macintosh HFS \*\*
- VMware VMDK (.vmdk, .ova) \*
- QEMU Copy-On-Write (.qcow2) \*\*
- VirtualBox VDI (.vdi) \*
- QNX-EFS, IFS \*
- NetBoot image (.nbi) \*
- FreeBSD UFS \*

### **Container Formats**

Docker

# **Black Duck | Integrations**

# Cloud technologies

## **Cloud platforms**

- · Amazon Web Services
- · Google Cloud Platform
- · Microsoft Azure
- · Pivotal Cloud Foundry

## **Container platforms**

- Docker
- OpenShift
- · Pivotal Cloud Foundry
- · Kubernetes Package managers

### **Databases**

PostgreSQL

## DevOps tools

### **IDEs**

- · Eclipse
- · Visual Studio IDE
- IntelliJ IDEA
- WebStorm
- PyCharm
- RubyMine
- PhpStorm
- · VS Code
- · Android Studio

### **Continuous integration**

- Jenkins
- · TeamCity
- Bamboo
- Team Foundation Server
- · Travis CI
- CircleCI
- · GitLab CI
- · Visual Studio Team Services
- Concourse CI
- · AWS CodeBuild
- Codeship
- Azure DevOps
- · GitHub Actions
- OpenShift

## Workflow and notifications

- Jira
- Slack
- Email
- SPDX
- · Azure Boards
- · Microsoft Teams

## Binary and source repositories

- · Artifactory
- Nexus

## **Application security suites**

- IBM AppScan
- · Micro Focus Fortify
- SonarQube
- ThreadFix
- · Cybric
- Code Dx
- Fortify
- ZeroNorth

# The Synopsys difference

Synopsys helps development teams build secure, high-quality software, minimizing risks while maximizing speed and productivity. Synopsys, a recognized leader in application security, provides static analysis, software composition analysis, and dynamic analysis solutions that enable teams to quickly find and fix vulnerabilities and defects in proprietary code, open source components, and application behavior.

For more information about the Synopsys Software Integrity Group, visit us online at www.synopsys.com/software.

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# Code Dx

Automated AppSec at the speed of DevOps

## Overview

Code Dx enables you to implement DevSecOps in your organization by automating application security processes throughout the entire SDLC. Our platform automatically determines the appropriate tests to execute at scale (SAST, DAST, SCA, etc.). It then automatically prioritizes your most exploitable vulnerabilities by correlating thousands of results from multiple AppSec tools. As a result, you get a complete picture of risk visibility for your organization's entire software portfolio from one centralized hub.

### Code Dx offers:

- · Test execution
- · Automated prioritization
- Risk visibility

# Automation makes AppSec faster and more scalable

Without automation	With automation
No bird's-eye view of results	One centralized platform to see everything
Difficult to scale AppSec with DevOps	Scale on demand
Friction between security and DevOps teams	Security and development work in harmony
Vulnerabilities found too late in SDLC	Save remediation costs by fixing earlier in SDLC
No centralized record of AppSec processes	AppSec system of record for accountability

# Code Dx advantages

- · Customizable, extensible correlation rules
- Machine learning—based automated prioritization through Triage Assistant
- 20+ compliance standards
- · Complete two-way integration with Jira issue tracker
- 16 open source testing tools built-in out of the box
- Integrates with 70+ tools—more than twice the competition





- Automatically configures and runs your AppSec tools from a centralized console
- · Automatically selects the best available AppSec tools for your codebase
- Supports 70+ of the most popular SCA, SAST, DAST, and IAST tools
- Integrates and scales to move at the speed of DevOps
  - Out-of-the-box integrations with Jira, Jenkins, Visual Studio, Eclipse, and other issue trackers
  - Performance clusters enable ultra-fast correlation and vulnerability prioritization
- · Feeds into a system of record that tracks all AppSec testing activities



# Automated prioritization

- Automatically identifies and scores vulnerability issues with the Code Dx AppSec Correlation Engine
- Uses our machine-learning Triage Assistant to identify which vulnerabilities are most critical and recommend them for remediation
- Prioritizes based on compliance standards such as NIST, PCI, HIPAA, DISA, OWASP Top 10
- · Automatically sends high-priority vulnerabilities to developers' issue trackers (e.g., Jira) for remediation
  - Links to the exact line of code for each defect to be viewed



# Risk visibility

- Provides a 360-degree view of risk for each application: custom code, third-party components, network where software resides
- · Identifies vulnerability risk for your third-party software, custom code, and live deployments
- Provides correlated risk scores for your code before it is released
- Maintains a system of record for all the AppSec testing and remediation tasks for each application, throughout its lifetime
- · Covers three attack surfaces: custom code, third-party, network

# The Synopsys difference

Synopsys helps development teams build secure, high-quality software, minimizing risks while maximizing speed and productivity. Synopsys, a recognized leader in application security, provides static analysis, software composition analysis, and dynamic analysis solutions that enable teams to quickly find and fix vulnerabilities and defects in proprietary code, open source components, and application behavior. With a combination of industry-leading tools, services, and expertise, only Synopsys helps organizations optimize security and quality in DevSecOps and throughout the software development life cycle.

For more information, go to www.synopsys.com/software.

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# Coverity Static Analysis

Quickly find and fix critical security and quality issues as you code

# **Benefits**

- · Get improved visibility into security risk. Cross-product reporting provides a holistic, more complete view of a project's risk using best-in-class AppSec tools.
- Deployment flexibility. You decide which set of projects to do AppSec testing for: on-premises or in the cloud.
- · Shift security testing left. Developers get high-fidelity incremental analysis results in seconds as they code, so they can fix any issues prior to the buildtest phase.
- Support developers. Enable your teams to fix software defects quickly, easily, and correctly by supplying all the context, details, and advice they need to understand how to fix issues.
- · Context-specific eLearning (available to eLearning customers) specific to CWEs identified in developers' own code provides immediate security training when they need it. Developers don't need to be security experts.

## Overview

Coverity® gives you the speed, ease of use, accuracy, industry standards compliance, and scalability that you need to develop high-quality, secure applications. Coverity identifies critical software quality defects and security vulnerabilities in code as it's written, early in the development process when it's least costly and easiest to fix. Precise actionable remediation advice and context-specific eLearning help your developers understand how to fix their prioritized issues quickly, without having to become security experts. Coverity seamlessly integrates automated security testing into your CI/CD pipelines and supports your existing development tools and workflows. Choose where and how to do your development: on-premises or in the cloud with the Polaris Software Integrity Platform™ (SaaS), a highly scalable, cloud-based application security platform. Coverity supports 22 languages and over 70 frameworks and templates.

Coverity includes Rapid Scan, a fast, lightweight static analysis engine that can be used to scan web and mobile applications, microservices, and infrastructure-as-code (IaC) configurations. Rapid Scan runs automatically, without additional configuration, with every Coverity scan and can also be run as part of full CI builds with conventional scan completion times. Rapid Scan can also be deployed as a standalone scan engine in Code Sight™ or via the command line interface, as well as in automated build pipelines, For this use case, Rapid Scan provides actionable early results in seconds for most projects. It's easy to use: simply point to a directory or Git repository—no setup is required. Broad support for platforms and file formats makes it easy to scan IaC configuration files. API and configuration checkers can help identify API misuse and vulnerable configurations in settings files. This is ideal for developers who want immediate analysis feedback, while they are coding and with every code commit. Support for multiple analysis output formats (SARIF, JSON, and console) as well as GitHub Actions and GitLab CI provides pipeline scan automation and issue management support. Rapid Scan can also assign issues to a policy file to automatically break builds.

# **Key features**

# Fast and accurate analysis

- With the Code Sight<sup>™</sup> integrated development environment (IDE) plugin, developers get accurate analysis in seconds in their IDE as they code. Coverity gives developers all the information they need to fix identified issues including descriptions, categories, severity, CWE data, defect location, detailed remediation guidance, and dataflow traces, as well as issue triage and management features within their IDE.
- Coverity's Point and Scan desktop application enables users to onboard applications (including an IaC build capture feature) simply by pointing to the source code. For development teams that prefer a command line interface, the Coverity CLI feature

provides similar functionality.

# Comprehensive reporting and compliance visibility

Coverity on Polaris provides organizations with a holistic view of their applications' risk posture at different software development life cycle (SDLC) stages.

- · Security teams can get a centralized aggregated risk profile of their entire application portfolio. APIs enable importing results into other risk reporting tools.
- · You can filter identified vulnerabilities by category, view trend reports, prioritize remediation of vulnerabilities based on criticality, and manage security policy compliance (e.g., OWASP Top 10, CWE Top 25, and PCI DSS) across teams and projects.
- "Issues over time" reports show severity levels over different timeframes and give you immediate information about the security posture of your projects. PDF report downloads allow auditors to maintain detailed compliance records.

In addition, Coverity provides best-in-class identification of code quality issues for C/C++ and the most comprehensive coverage of standards related to safety, security, and reliability (e.g., MISRA®, CERT C/C++, CERT Java, DISA STIG, ISO 26262, ISO/IEC TS 17961, and AUTOSAR®), as well as quality issues described in Nvidia's CUDA C++ guidelines.

# Enterprise scalability and agility

- · With Coverity on Polaris, organizations don't need to install and maintain costly on-premises equipment but can elastically scale their application security testing to meet their growing business needs.
- Polaris setup is as simple as logging into a URL, then downloading and installing the command line interface (CLI) or running it through your CI workflows to start analysis of your source code.
- · Since the Coverity analysis engines run on a highly available cloud platform, Coverity on Polaris can easily scale to accommodate thousands of developers and projects and handle millions of issues with high performance and uptime.

# Software development life cycle integrations

- The Code Sight plugin requires zero configuration and can be downloaded from the marketplace websites for Visual Studio, Visual Studio Code, Eclipse, IntelliJ, WebStorm, PyCharm, PhpStorm, and RubyMine.
- · Coverity also has legacy native integrations for IDEs (e.g., Visual Studio, Eclipse, IntelliJ, RubyMine, Wind River Workbench, and Android Studio), source code management (SCM) solutions, issue trackers (e.g., Jira and Bugzilla), CI build tools (e.g., Jenkins and Azure DevOps), and application life cycle management (ALM) solutions.
- · REST APIs are available to support other build automation solutions as well as importing analysis results into other enterprise or custom tools.
- · Coverity on Polaris provides additional plugins and integrations for automated cloud-based security testing during development and pre-deployment stages.
- · REST APIs are available for importing analysis results into security and risk reporting tools. Refer to the Polaris datasheet for additional information.

# Comprehensive issue management dashboards

- Development managers are able to create "issues over time" trendline charts showing overall security risk and compliance to industry standards (e.g., OWASP Top 10 and CWE Top 25) and how individual developers or entire project teams are doing in clearing their prioritized issues.
- · You can easily view reporting dashboards of Industry Recognized Priority Lists, Top 5 Issues Types, and Technical Risk Indicators so that you can focus on issues that matter most to your organization and prioritize them.
- · Predefined filters allow you to filter and group issues by CWE, standards taxonomy, priority list, risk indicator, path, and individual developer owners.

# Expanded standards compliance and vulnerability detection

Coverity Extend is an easy-to-use software development kit (SDK) that allows developers to detect unique defect types. The SDK is a framework for writing program analyzers, or checkers, to identify custom or domain-specific defects. Coverity CodeXM is a domainspecific functional programming language that enables developers to develop their own custom checkers easily. These customized checkers support compliance with corporate security requirements and industry standards or guidelines.

# Coverity Static Analysis | Technical Specification

## Supported languages and platforms

- Apex
- C/C++\*
- C#\*
- CUDA
- Java\*#
- JavaScript\*#
- PHP\*#
- Python\*

- ASP.NET
- · Objective-C
- Go
- JSP
- Ruby\*
- Swift\*#
- Fortran

- Scala
- VB.NET
- iOS
- Android
- · TypeScript#
- Kotlin
- \*These languages are currently supported by Coverity's Point and Scan desktop application and the Coverity CLI feature.
- \*These languages are supported by Rapid Scan to scan for security vulnerabilities in source code.

# Supported IaC platforms and file formats

### **Platforms**

- Terraform
- · AWS CloudFormation
- Kubernetes
- Helm
- ELK

### File formats

- JSON
- YAML
- HCL (Terraform)
- HTML
- · XML

- plist
- TOML
- · Properties
- · Vue template
- JSX
- TSX

# Cloud deployment support

- · Coverity Connect can be run in containers in AWS and GCP public clouds
- Support for cloud-native technologies: Docker and Kubernetes

# Supported frameworks

Coverity supports over 70 different frameworks for Java, JavaScript, C#, and other languages. Coverity also supports security modeling of major cloud provider API frameworks for cloud-native JavaScript apps that interact with AWS services (EC2, S3, DynamoDB, IAM) and Google Cloud Storage APIs (GCP).

### Java

- · Android SDK
- · Apache Shiro
- Axis
- DWR
- Enterprise Java Beans (EJBs)
- · GWT
- Hibernate
- iBatis
- Java Frameworks
- Java Persistence API (JPA)
- Javax.websocket
- JAX RS
- · JAX WS
- JEE
- JSF/Facelets
- · JSP and JSP Standard Tag Library (JSTL)

- ReactiveX (RxJava, Reactor)
- · Restlet
- Spring Boot
- Spring Framework
- · Struts
- Terasoluna
- Tiles
- Vert.x
- WS XML-RPC

- ASP.NET Core MVC/ASP.NET MVC
- · ASP.NET Core Web API
- ASPINET ASMX Web Services
- · ASP.NET Web Forms
- · Identity Server
- MassTransit
- · Razor templates
- · WCF Services

# JavaScript/TypeScript

### Client-side

- Angular
- · Angular JS
- · Apache Cordova
- Backbone
- Bootstrap
- Ember
- HTML5 DOM APIs/Ajax
- jQuery
- Mithril
- · React/ Preact
- · Socket.IO
- Swig
- Vue

### Server-side

- Angular server-side rendering (Express and Hapi engines)
- Express
- Fastify
- Hapi
- Koa
- · Mean.io
- Node
- · Passport
- · React server-side rendering (Next.js)
- Restify
- · SAP XS Classic and Advanced
- · Socket.IO
- Vue server-side rendering

### Template engines

- Consolidate
- doT.is
- EJS
- Handlebars
- Hogan
- Jade
- · koa-views
- · Lodash (templating)
- Marko
- Mustache
- Nunjucks
- Pug
- Swig
- Twig
- Underscore (templating)
- Vision

## Major libraries

- Axios
- Google Cloud APIs (Storage)
- Mongoose / MongoDB
- · Request
- Sequelize
- Sqlx
- Swashbuckle
- · Underscore / Lodash

### GO

• Echo

### PHP

Symfony

# Python

- Flask
- Django

## Ruby

· Ruby on Rails

## Rapid Scan IaC Frameworks

- · Android
- · Apache Cordova
- · Apache Kafka
- · Apache Struts
- Apache Zookeeper
- · Apollo GraphQL
- · AWS Cloudformation
- Consul
- Express
- · Grails® framework
- GraphQL
- Istio
- · Jakarta Server Faces
- · Java/Jakarta EE
- Kubernetes
- mybatis
- NodeJS
- OpenAPI
- Postman
- RabbitMQ
- React
- Socket.IO
- Spring
- Terraform
- · Vue.js

# Supported platforms

- · Windows
- Linux
- Mac OS X
- · Solaris
- · AIX
- NetBSD
- FreeBSD

# SDLC native integrations

#### **SCM**

- AccuRev
- Apache Subversion (SVN)
- · CVS
- Git
- Mercurial (Hg)
- · Perforce Helix
- Team Foundation Server SCM

### Legacy IDEs

- · IBM Rational Team Concert
- · QNX Momentics
- · Wind River Workbench

### CI build servers

- Jenkins
- Azure DevOps Server

## Code Sight supported IDEs\*

- Visual Studio for VB.NET, C#, C/C++, JavaScript, PHP, Python, Ruby, TypeScript
- Visual Studio Code for C# (.NET Core), C/ C++, Java, JavaScript, PHP, Python, Ruby, TypeScript
- Visual Studio Code (Rapid Scan) for Java, JavaScript, and TypeScript
- Eclipse for Java, JavaScript, C/C++, PHP, Python, Ruby, TypeScript
- IntelliJ for Java, JavaScript, PHP, Python, Ruby, TypeScript
- · WebStorm for JavaScript, TypeScript
- · PyCharm for Python
- PhpStorm for PHP
- RubyMine for Ruby

## Issue tracking

- Jira
- Bugzilla

# Supported compilers

- Analog Devices Blackfin
- Analog Devices SHARC
- Analog Devices TigerSHARC
- ARM C/C++
- · Borland C++
- CEVA BXx
- CEVA XC16
- CEVA-X2
- CEVA-XC4500Clang
- Cosmic C
- Freescale CodeWarrior
- GNU GCC/G++
- GHS PowerPC on Windows
- Green Hills C/C++/EC++
- · HI-TECH PICC
- IAR C/C++
- IBM AIX
- IBM XLC
- Intel C++ for Windows
- JDK for Mac OS X
- · Keil compilers
- Marvell MSA
- MPLAB XC8
- Nvidia CUDA Compiler (NVCC)
- OpenJDK
- · QNX C/C++
- · Renesas C/C++

- · SNC C/C++
- SNC GNU C/C++
- SONY PS4 SDK
- · STMicroelectronics GNU C/C++
- STMicroelectronics ST Micro C/C++
- · Sun (Oracle) CC
- · Sun/Oracle JDK
- · Synopsys MetaWare C and C++
- · Tasking for ARM Cortex and TriCore
- · TI Code Composer
- · Visual Studio
- · Wind River C/C++

(This list is not exclusive)

### Critical checks

- API usage errors
- Best practice coding errors
- · Buffer overflows
- · Build system issues
- · Class hierarchy inconsistencies
- Code maintainability issues
- · Concurrent data access violations
- Control flow issues
- Cross-site request forgery (CSRF)
- Cross-site scripting (XSS)
- · Deadlocks
- · Error handling issues
- · Hard-coded credentials
- · Incorrect expression

- · Insecure data handling
- · Integer handling issues
- · Integer overflows
- Memory-corruptions
- · Memory-illegal accesses
- Null pointer dereferences
- · Path manipulation
- Performance inefficiencies
- Program hangs
- Race conditions
- · Resource leaks
- Rule violations
- Security best practices violations
- Security misconfigurations
- SQL injection
- · Uninitialized members

The latest Rapid Scan analysis engine announcements and release updates (standalone use case) can be found here.

This datasheet applies to Coverity 2021.12.0 and later releases.

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<sup>\*</sup> For the latest CodeSight and supported IDE version numbers, see https://dev.sig-docs.synopsys.com/codesight/topics/support\_matrix/r\_code\_sight\_ support\_matrix.html