

# Seeker

## Interactive Application Security Testing

**Easy-to-use  
enterprise-scale  
IAST that accurately  
identifies and verifies  
vulnerabilities**

### Overview

Seeker®, our interactive application security testing solution, gives you unparalleled visibility into your web app security posture and identifies vulnerability trends against compliance standards (e.g., OWASP Top 10, PCI DSS, GDPR, and CWE/SANS Top 25). Seeker enables security teams to identify and track sensitive data to ensure that it is handled securely and not stored in log files or databases with weak or no encryption. Seeker's seamless integration into CI/CD workflows enables fast IAST security testing at DevOps speed.

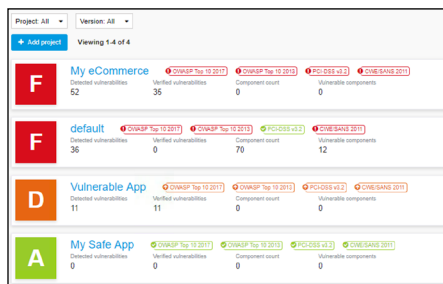
Unlike other IAST solutions, which only identify security vulnerabilities, Seeker can also determine whether a security vulnerability (e.g., XSS or SQL injection) can be exploited, thus providing developers with a risk-prioritized list of verified vulnerabilities to fix in their code immediately. Using patented methods, Seeker quickly processes hundreds of thousands of HTTP(S) requests, identifies vulnerabilities, and reduces false positives to near zero. This enables security teams to focus on actual verified security vulnerabilities first, greatly improving productivity and reducing business risk. It's like having a team of automated pen testers assessing your web applications 24-7.

Seeker applies code instrumentation techniques (agents) inside running applications and can scale to address large enterprise security requirements. It provides accurate results out of the box and doesn't require extensive, lengthy configuration. With Seeker, your developers don't have to be security experts, because Seeker provides detailed vulnerability descriptions, actionable remediation advice, and stack trace information and identifies vulnerable lines of code.

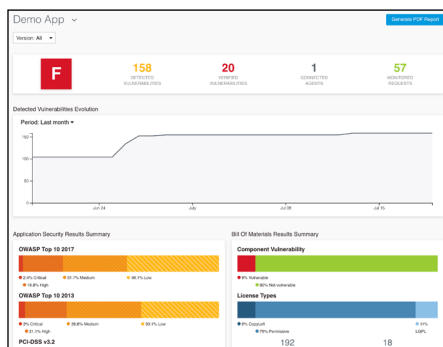
Seeker continuously monitors any type of testing applied to web apps and seamlessly integrates with automated CI build servers and test tools. Seeker leverages these tests (e.g., manual QA of log-in pages or automated functional tests) to automatically generate multiple security tests.

Seeker also includes Black Duck Binary Analysis, our software composition analysis (SCA) solution, which identifies third-party and open source components, known vulnerabilities, license types, and other potential risk issues. Seeker and Black Duck analysis results are presented in a unified view and can be sent automatically to Jira, so developers can triage them as part of their normal workflow.

Seeker is ideal for microservices-based app development as it can bind together multiple microservices from a single app for assessment.



Project security grades based on security vulnerability status.



Comprehensive dashboard view of top security vulnerabilities.

## Continuous quick, actionable results

Comprehensive analysis results contain all the information necessary to address vulnerabilities:

- A clear explanation of the risk
- Runtime memory values and context
- A technical description
- The vulnerable lines of code
- Relevant, context-based remediation instructions

Multiple detailed panes show the dataflow and the impact of malicious inserted parameters (e.g., dynamic SQL concatenation). The results also show whether identified vulnerabilities have been auto-verified as exploitable or eliminated as false positives.

Seeker also integrates Black Duck Binary Analysis:

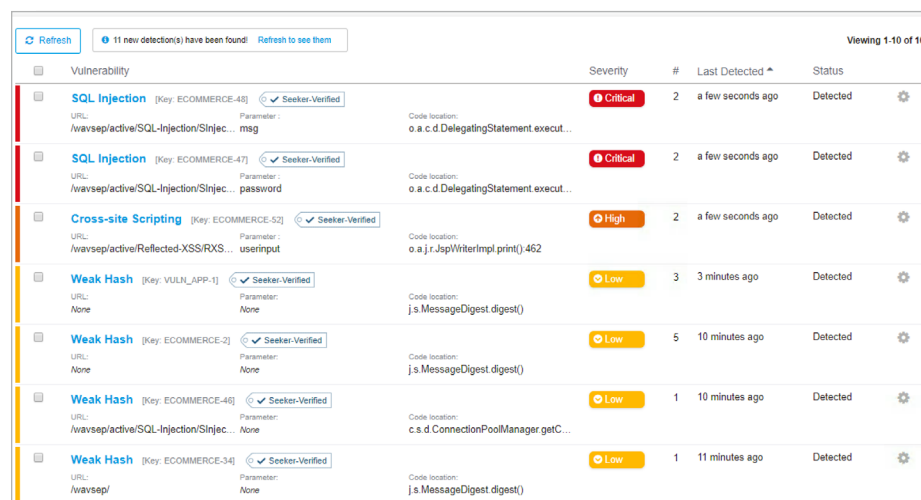
- Sends application binaries for SCA analysis and uploads the analysis results to the Seeker dashboard

## Only enterprise-scale IAST solution with active verification

Seeker's unique active verification feature allows it to process hundreds of thousands of HTTP(S) requests and quickly eliminate false positives from identified vulnerabilities, for near-zero false positives. For enhanced test coverage, Seeker's parameter identification feature detects unused parameters and retests them using malicious values, thus exploring more potential application attack surfaces, hidden parameters, and back doors.

Benefits:

- Both security and development teams see greatly improved productivity.
- Lower overall costs / fewer resources are required for dynamic application security testing (DAST) or manual pen testing.



Vulnerability	Severity	#	Last Detected	Status
<b>SQL Injection</b> [Key: ECOMMERCE-48] <span>✓ Seeker-Verified</span> URL: /wvsep/active/SQL-Injection/Sinjec... msg Parameter: msg Code location: o.a.c.d.DelegatingStatement.execut...	Critical	2	a few seconds ago	Detected
<b>SQL Injection</b> [Key: ECOMMERCE-47] <span>✓ Seeker-Verified</span> URL: /wvsep/active/SQL-Injection/Sinjec... password Parameter: password Code location: o.a.c.d.DelegatingStatement.execut...	Critical	2	a few seconds ago	Detected
<b>Cross-site Scripting</b> [Key: ECOMMERCE-52] <span>✓ Seeker-Verified</span> URL: /wvsep/active/Reflected-XSS/RXS... userInput Parameter: userInput Code location: o.a.j.r.JspWriterImpl.print() 462	High	2	a few seconds ago	Detected
<b>Weak Hash</b> [Key: VULN_APP-1] <span>✓ Seeker-Verified</span> URL: None Parameter: None Code location: j.s.MessageDigest.digest()	Low	3	3 minutes ago	Detected
<b>Weak Hash</b> [Key: ECOMMERCE-2] <span>✓ Seeker-Verified</span> URL: None Parameter: None Code location: j.s.MessageDigest.digest()	Low	5	10 minutes ago	Detected
<b>Weak Hash</b> [Key: ECOMMERCE-46] <span>✓ Seeker-Verified</span> URL: /wvsep/active/SQL-Injection/Sinjec... Parameter: None Code location: c.s.d.ConnectionPoolManager.getC...	Low	1	10 minutes ago	Detected
<b>Weak Hash</b> [Key: ECOMMERCE-34] <span>✓ Seeker-Verified</span> URL: /wvsep/ Parameter: None Code location: j.s.MessageDigest.digest()	Low	1	11 minutes ago	Detected

## Easy to deploy and use

Seeker uses instrumentation techniques and runtime analysis to continuously monitor, identify, and verify security vulnerabilities in web applications, typically during integration testing and QA, right up to the production deployment stage of the software development life cycle (SDLC). Applications can be on-premises, microservices-based, or cloud-based. Seeker supports modern app development methodologies and technologies. Simply deploy agents at each tier or node of an application that runs code (Docker containers, virtual machines, cloud instances, etc.), and they'll track every action performed on the running app. Analysis results are available in real time, without the need for any special scans.

Not only does Seeker analyze code line by line, correlating dataflow and runtime code execution in real time; it also examines the interaction of the code with your sensitive data across all application tiers and components. This technology identifies vulnerabilities that pose a real threat to critical data, including complex vulnerabilities and logical flaws no other technology can detect.

Seeker's integration with eLearning provides contextual help and training for developers and DevOps teams. It allows them to gain in-depth understanding of vulnerabilities and remediate them easily and in real time.

## Get started with Seeker right away

- **Fits seamlessly into CI/CD workflows.** Native integrations and web APIs provide seamless integration with the tools you use for on-premises, cloud-based, microservices-based, and container-based development.
- **Deploys quickly and easily.** Seeker provides real-time analysis with near-zero false positives, out of the box.
  - Accurate out of the box with no extensive configuration or tuning
  - No need for website log-in credentials or special scans
  - Active verification takes into account input validation libraries and custom functions to sanitize inputs (e.g., SQL injection vulnerabilities)
  - Scalable in large enterprise environments
- **Works with virtually any type of test method.** Seeker's nonobtrusive passive monitoring option allows it to work with existing test automation, manual or functional tests, automated web crawlers and more.

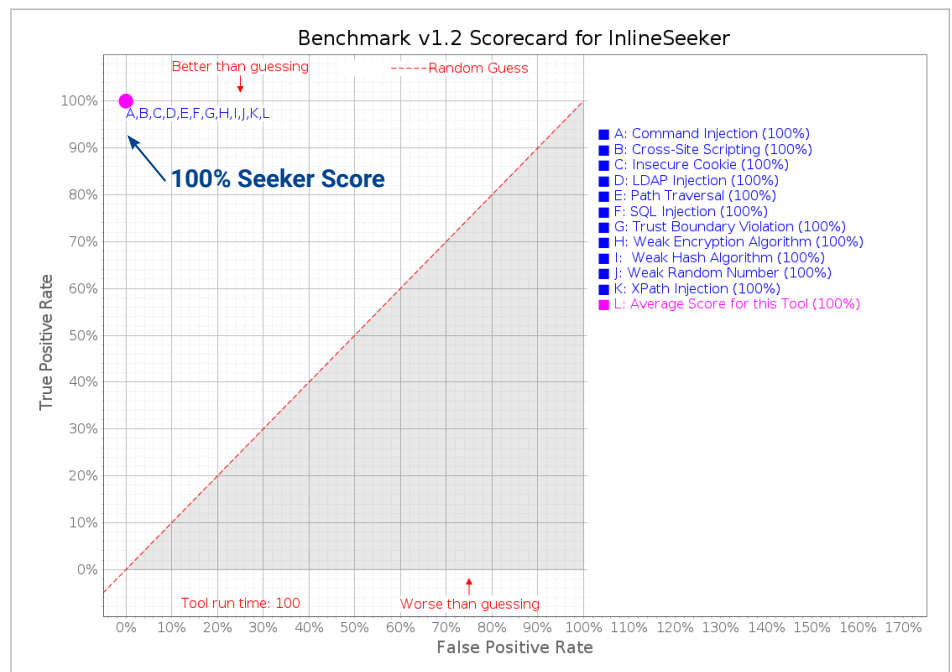
## URL discovery and coverage of your web app

Automated URL mapping provides a clear view of the test coverage of a web app and graphically shows what has already been tested. You can easily compare coverage differences between different versions of the same app.

## Sensitive-data tracking

Seeker's unique ability to track sensitive data is an industry first. Users can mark data as sensitive (e.g., credit card numbers, usernames, and passwords) so that these data can be tracked whenever they are stored unencrypted in a log, database, or file. Tracking sensitive data can help you achieve compliance with the sections of PCI DSS that require data encryption, as well as other industry standards and regulations such as GDPR. This enables substantial gains in productivity and time savings over manual inspection, as well as savings in costs and resources.

## Highest OWASP Benchmark Score



## Supported languages

- ASP.NET
- C#
- Clojure
- Gosu
- Groovy
- Java
- JavaScript (Node.js)
- Scala (incl. Lift)
- VB.NET

## Supported platforms

### Languages/testing platforms

- Java
  - Any Java EE server
  - GlassFish
  - JBoss
  - Tomcat
  - WebLogic
  - WebSphere
- .NET (2.0 or higher)
  - IIS
- Node.js (6 or higher)
  - Express
  - Hapi
  - Koa

## Runtime/frameworks

- .NET/CLR
  - ASP.NET MVC
  - Enterprise Library
  - Entity Framework
  - NHibernate
  - Ninject
  - NVelocity
  - OWASP ESAPI
  - SharePoint
  - Spring.NET
  - Telerik
  - Unity
- Java/JVM
  - Enterprise JavaBeans (EJB)
  - Grails
  - GWT
  - Hibernate
  - OWASP ESAPI
  - Play
  - Seam
  - Spring
  - Struts
  - Vaadin
  - Velocity

## Technologies

- Databases
  - DB2
  - HSQLDB
  - MongoDB
  - MS SQL
  - MySQL
  - Oracle
  - PostgreSQL
  - SQLite
- Application types
  - Ajax
  - JSON
  - Microservices
  - Mobile (over HTTP/S)
  - RESTful
  - Single-page applications
  - Web (incl. HTML5)
  - Web APIs
  - Web services

## Cloud platforms

- Azure PaaS
- AWS
- Google Cloud
- Pivotal Cloud Foundry

## 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](http://www.synopsys.com/software).

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