

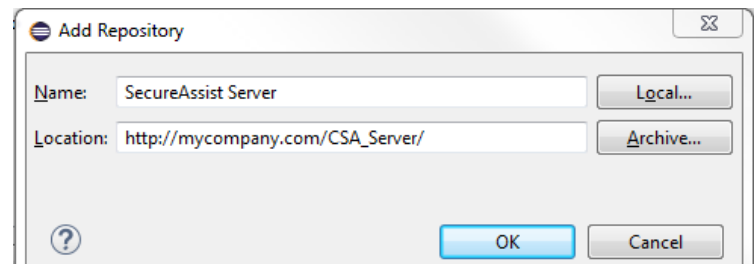
Getting Started with SecureAssist Eclipse

July 2015

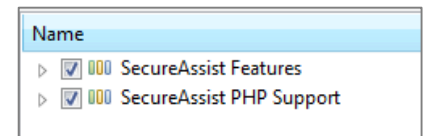
SecureAssist is an IDE plug-in that points out common security vulnerabilities in real time as you're coding. When you open a file, it quickly runs in the background and populates an Issue List with any problems. At any time, you can review the issues in the list and read guidance about why the code might be a problem. SecureAssist even shows you sample code for how to fix it yourself before the problem ever goes into the security review process.

Install

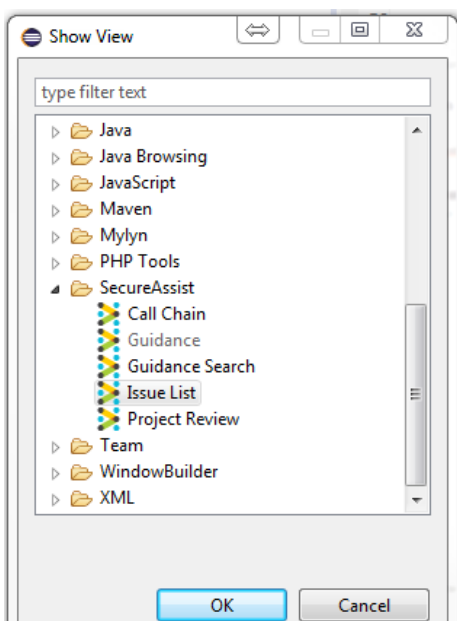
1. Go to **Help -> Software Updates or Help -> Install New Software**.
2. Click **Add Site** (or **Add** in some Eclipse versions).
3. If your company is using the SecureAssist Enterprise Portal, add the URL to the server. If you have a local installer for the plug-in (e.g., if you downloaded a trial from Codiscope.com), click **Local** and browse for the folder where the installer is located.
4. From the **Available Software**, select **SecureAssist Features**.
5. Click **Next** through any remaining dialogs, accept the terms of the license, and restart Eclipse when prompted.



Add your Enterprise Portal URL or browse for a local installer.



Select SecureAssist features.



Select your views.

Opening Views

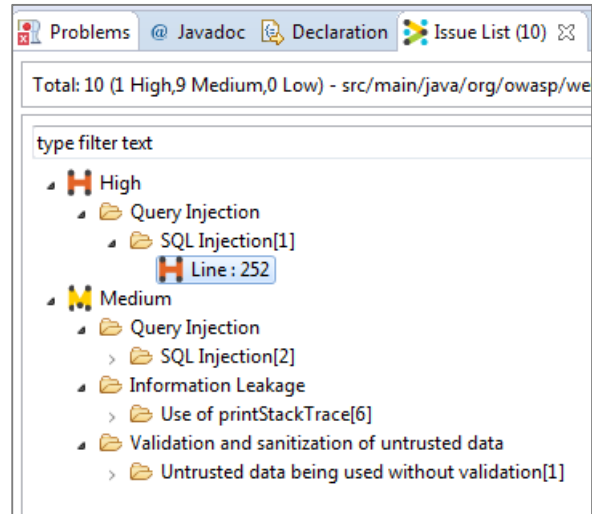
SecureAssist has several views to work with. The Issue List is the primary view and displays potential security vulnerabilities in your active file. The first time you restart Eclipse after installing SecureAssist, you must manually select at least the Issue List for SecureAssist to function. You can drag and drop views by their title bar to arrange them as you like.

1. Open a file in Eclipse.
2. Select **Window -> Show View -> Other** to open the Show View dialogue, then expand the SecureAssist folder to display the SecureAssist views.
3. Select Issue List and any other desired views, then click **OK**. The views you selected will now appear in the Eclipse Workbench.

Scanning

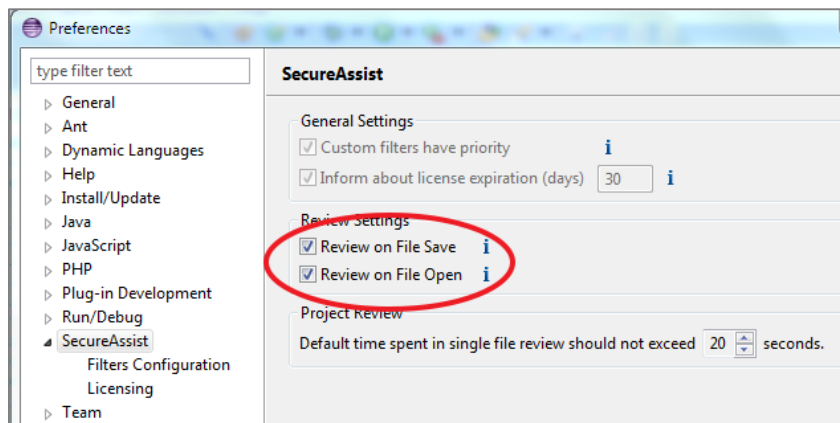
You don't have to do anything special to scan your code with SecureAssist. When you open a file, SecureAssist automatically reviews that file for potential security bugs and populates the Issue List if anything is found. Scans are also done whenever a file is saved, or when you request one by clicking the **Review File** button in the Issue List view.

You can adjust when scans happen in the SecureAssist Preferences: **Window -> Preferences -> SecureAssist -> Review Settings**.



Issue List identifies possible problems in your code.

Click the Review File button to scan on demand.

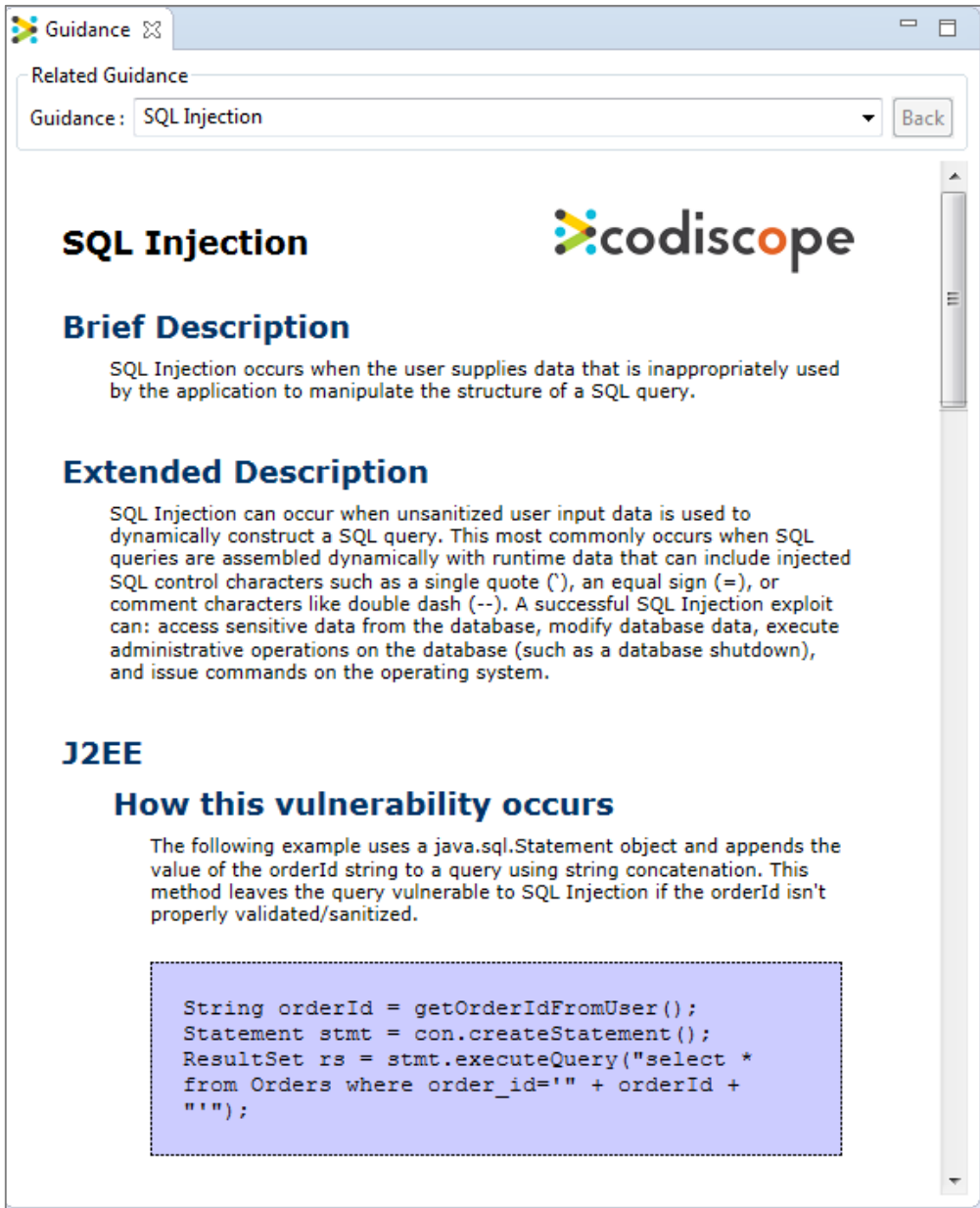


Adjust your review settings.

Reviewing and Fixing Issues

If SecureAssist finds an issue, it's indicated in three ways: it's shown in the Issue List view, in the code margin by a colored marker, and in the other margin with an icon.

To read an explanation about why that code is a potential security concern, open the Guidance view by either double-clicking the line number of the issue in the Issue List, or right-clicking the SecureAssist icon in the left code margin and selecting **Show Guidance** from the menu.




Guidance

Related Guidance

Guidance: SQL Injection Back

SQL Injection



Brief Description

SQL Injection occurs when the user supplies data that is inappropriately used by the application to manipulate the structure of a SQL query.

Extended Description

SQL Injection can occur when unsanitized user input data is used to dynamically construct a SQL query. This most commonly occurs when SQL queries are assembled dynamically with runtime data that can include injected SQL control characters such as a single quote ('), an equal sign (=), or comment characters like double dash (--). A successful SQL Injection exploit can: access sensitive data from the database, modify database data, execute administrative operations on the database (such as a database shutdown), and issue commands on the operating system.

J2EE

How this vulnerability occurs

The following example uses a `java.sql.Statement` object and appends the value of the `orderId` string to a query using string concatenation. This method leaves the query vulnerable to SQL Injection if the `orderId` isn't properly validated/sanitized.

```
String orderId = getOrderIdFromUser();
Statement stmt = con.createStatement();
ResultSet rs = stmt.executeQuery("select *
from Orders where order_id='" + orderId +
"");
```

The Guidance view provides a description of the vulnerability, an example of code that causes it, a preferred code example that you can follow to avoid the issue, and additional information. It's like having a software security expert with you whenever you need him!

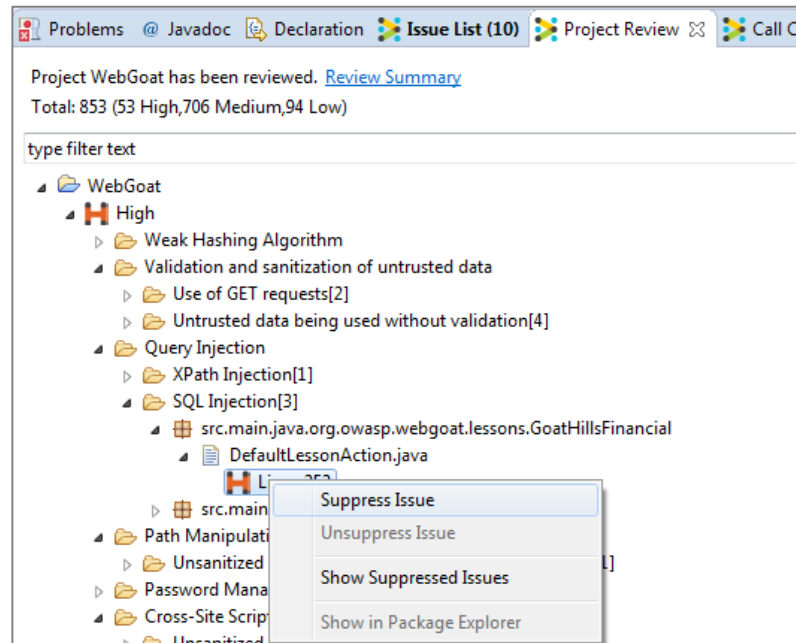
The Guidance view: problem identification, sample code, preferred code you can use, and more.

Suppressing Issues

Just as a spellchecker in your word processor might identify a misspelling that you don't want to correct, you can suppress an issue that SecureAssist finds if you wish.

1. In the Issue List view, right-click the instance of the issue and select **Suppress Issue**. This will hide that specific issue from view for the remainder of the session.

Suppress issues.



2. If you change your mind, right-click the issue again and select **Unsuppress**.
3. If you want to stop seeing results for a given vulnerability altogether, you can deactivate the rule: In the Issue List, right-click the instance of the issue and select **Deactivate rule**. You can select whether to deactivate it just in the active file, or for all files for the whole session.

Getting Help

We hope this document has helped you get started with SecureAssist. You can submit a support request at support.codiscope.com. You will also find other manuals, release notes, system requirements, and more.

Thanks for using Codiscope SecureAssist!