About the tool

Jaguar is a fault localization tool for Eclipse. The tool shows a list of methods that are more suspicious of being buggy. Jaguar uses the JUnit results to pinpoint bug candidates.

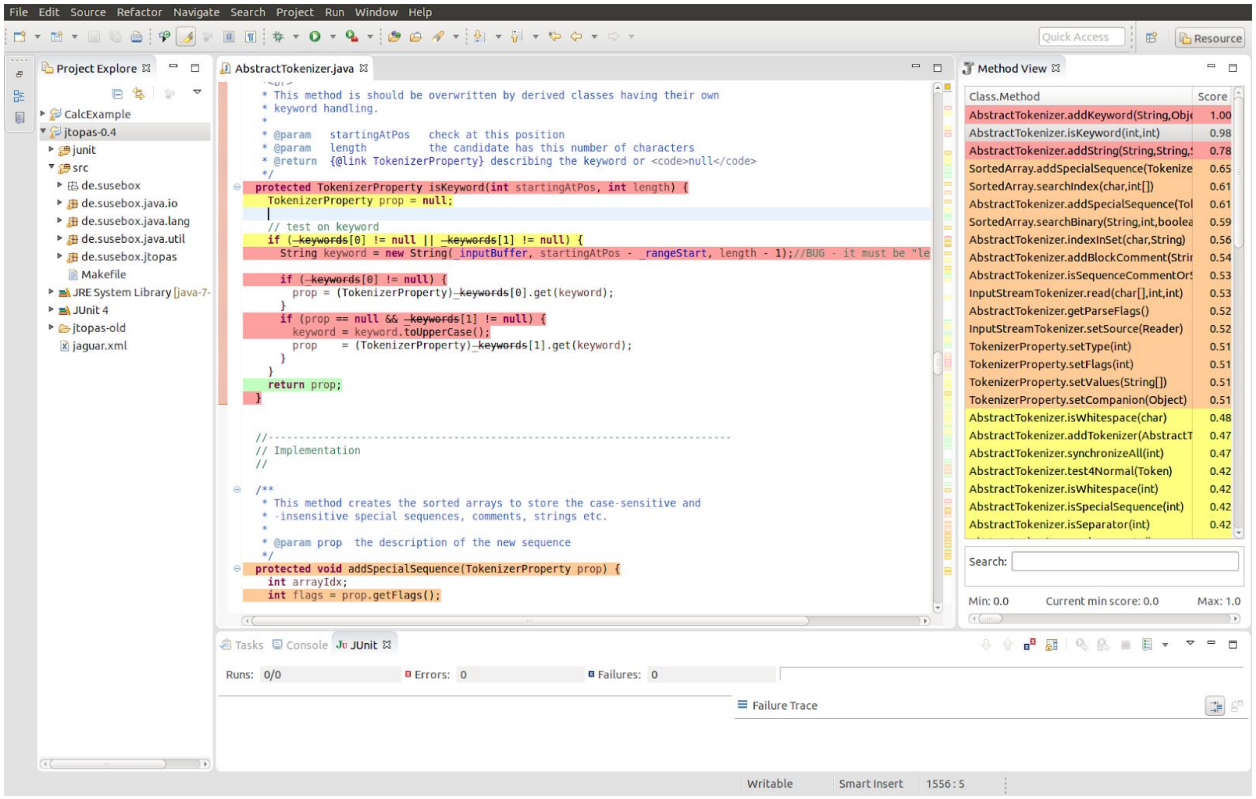

Figure 1: Eclipse's Jaguar plugin

Figure 1 shows the Jaguar plugin at the right side of Eclipse. Figure 2 shows details of the tool - Area 1 has the most suspicious methods, which are placed in descending order of score. The score indicates how likely the method is to contain the bug. The higher the score, the more suspicious it is.

The colors represent four suspiciousness score levels: red represents the most suspicious bug candidates, orange is the second suspiciousness level, yellow are the moderate bug candidates, and green the least suspicious ones.

Navigation

When you click on a method in Jaguar, the file that contains this method is opened in the Editor area (see Figure 1). Jaguar also provides a slider widget to filter methods that are equal or higher than the selected score (shown in Area 3). The tool also provides a text search filter, shown in Area 2, which can be used to search for specific terms in the code.

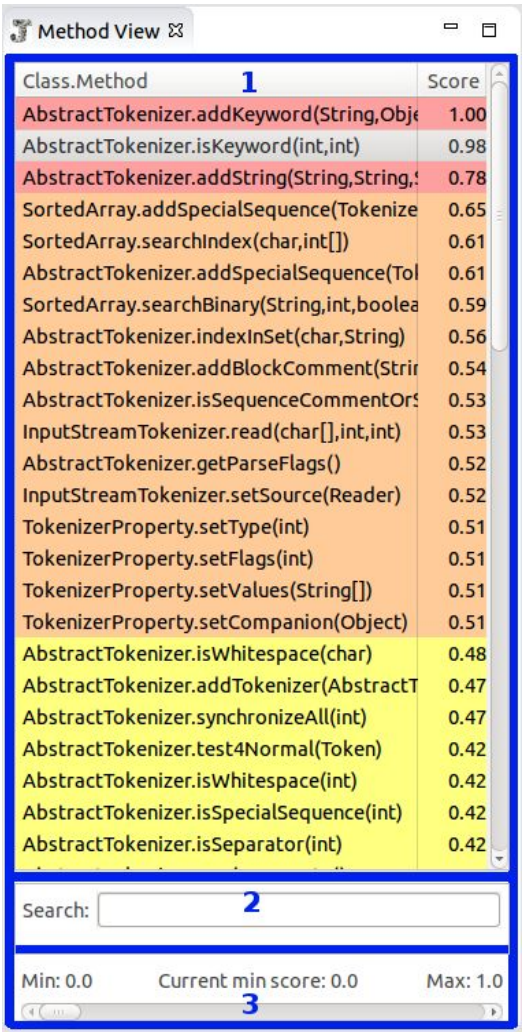

Figure 2: Jaguar view

Video

We prepared a video which shows an example of Jaguar in use. You can open the file jaguar.mp4 located on the desktop area to see the video.

Try Jaguar

On the desktop area, click on the **Try Jaguar** icon to explore the tool before starting your assigned tasks. The **jtopas** program is included as an example of use.

1. Right-click on the jtopas project
2. Select the option **Jaguar > Run Jaguar**
3. The plugin will be opened on the right side of Eclipse
4. Click on the methods to see their suspicious statements and their code.
5. The bug is in the method **AbstractTokenizer.isKeyword(int,int)** at line **1559: String keyword = new String(_inputBuffer,startingAtPos-_rangeStart,length-1);** The value assigned to instantiate **keyword** should be **length** instead of **length - 1**.
6. Close Eclipse and read the **instructions.pdf file** to get started on your tasks.