

Accessing and Using the Javadocs

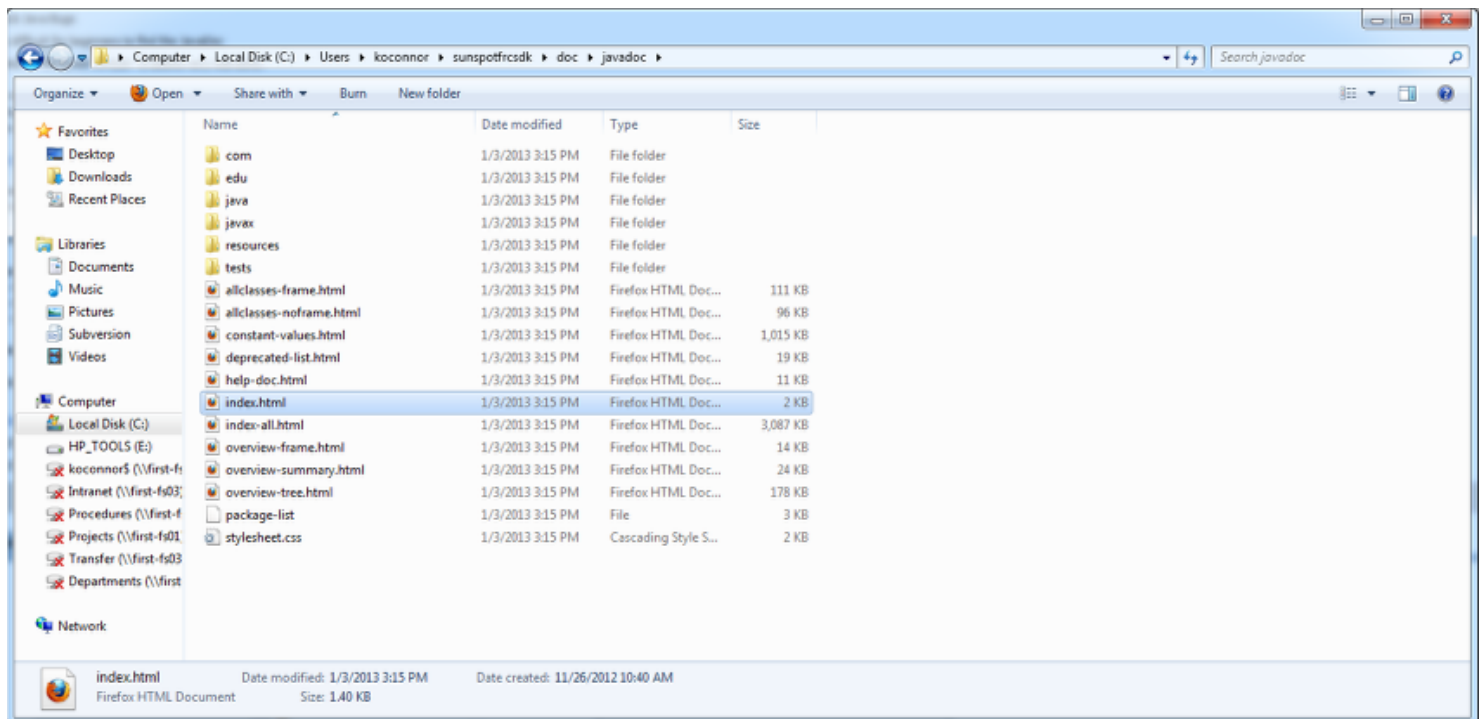
Accessing and Using the Javadocs

One of the primary sources of documentation for the WPILibJ code is the Javadoc documentation generated from specially formatted comments embedded throughout the code. This document will explain what it contained in these documents, how to access them and how to connect them to NetBeans when developing code.

Overview of Javadoc

Javadoc is a tool used to generate HTML documentation from Java source code. This documentation contains summaries of classes and methods, descriptions of parameters and return values, information about deprecated classes and/or methods and details about hierarchy of classes.

Finding the Javadoc



The Javadoc documentation for WPILibJ is installed with the FRC plugins. To locate the Javadoc, browse to your User folder (on Windows 7 this is C:\Users*Username*), then browse to sunspotfrcsdk/doc/javadoc. Double click on the index.html file to open it in your default webbrowser.

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Navigating the Javadoc

The screenshot shows the 2013 FRC Java API Javadoc page. It features a left-hand sidebar with a package browser (1) and a class browser (2). The top navigation bar (3) includes links for Overview, Package, Class, Use, Tree, Deprecated, Index, and Help. The main display area (4) shows the '2013 FRC Java API' title and two tables of classes. The first table, 'Java ME library', lists classes like java.io, java.lang, and javax.microedition.io. The second table, 'WPILibJ', lists classes like edu.wpi.first.wpilibj, edu.wpi.first.wpilibj.buttons, and edu.wpi.first.wpilibj.camera.

2013 FRC Java API

Java ME library

java.io	Provides classes for input and output through data streams.
java.lang	MID Profile Language Classes included from Java 2 Standard Edition.
java.lang.ref	Provides support for weak references.
java.util	Contains the collection classes, and the date and time facilities.
javax.microedition.io	Classes for the Generic Connection framework.
javax.microedition.midlet	The MIDlet package defines Mobile Information Device Profile applications and the interactions between the application and the environment in which the application runs.
javax.microedition.rms	The Mobile Information Device Profile provides a mechanism for MIDlets to persistently store data and later retrieve it.

WPILibJ

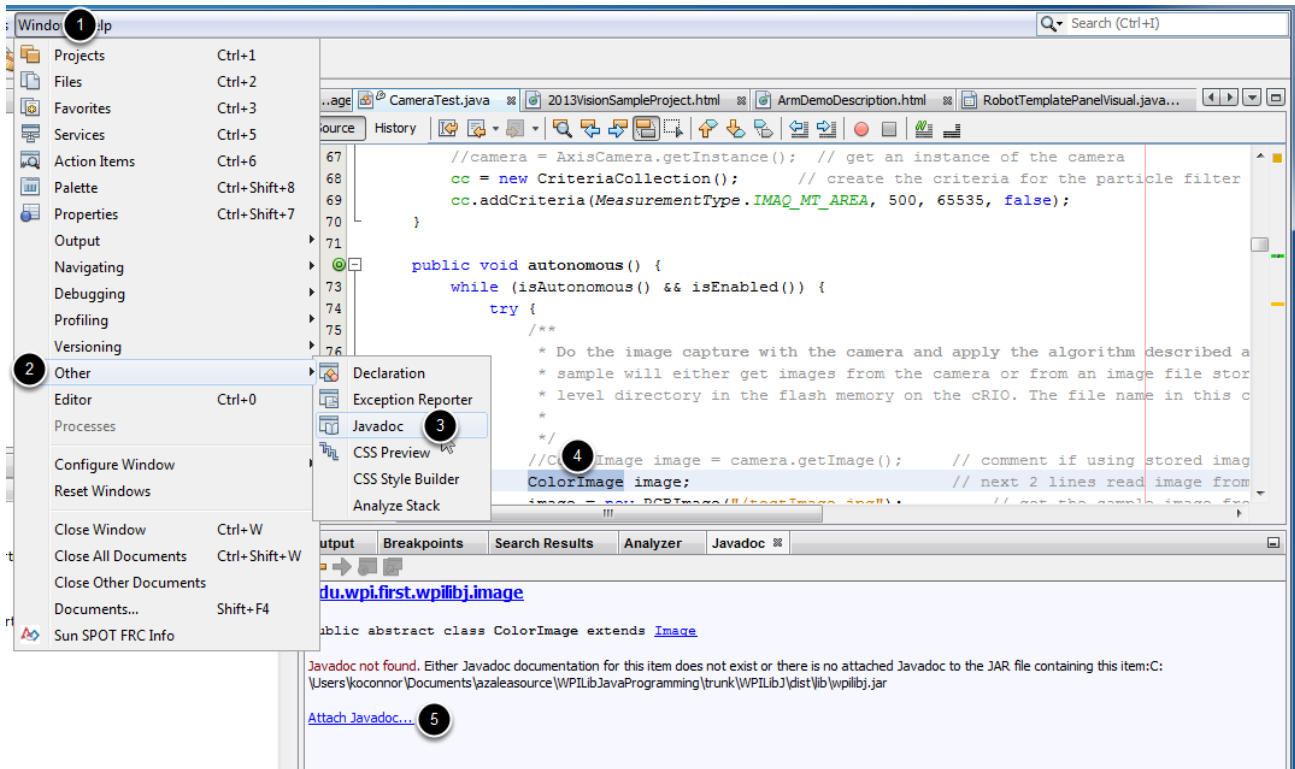
com.ni.rio	
edu.wpi.first.wpilibj	The WPI Robotics library (WPILibJ) is a set of Java classes that interfaces to the hardware in the FRC control system and your robot.
edu.wpi.first.wpilibj.buttons	
edu.wpi.first.wpilibj.camera	Provides classes for interfacing to the camera.
edu.wpi.first.wpilibj.can	
edu.wpi.first.wpilibj.command	
edu.wpi.first.wpilibj.communication	Provides classes for communicating with the driver station and synchronizing with C/C++ code.
edu.wpi.first.wpilibj.fpga	

The Javadoc HTML pages have 4 main components:

1. Package Browser - This pane is visible on all pages and allows for browsing to the page for any of the packages in the API
2. Class Browser - This pane is visible on all pages and allows for browsing to the page for any class in the API
3. Nav Bar - This bar is visible at the top of every page and allows for browsing to a few main overview pages
4. Main Display - This is the portion of the page that changes to display the appropriate information for each level of the Javadoc

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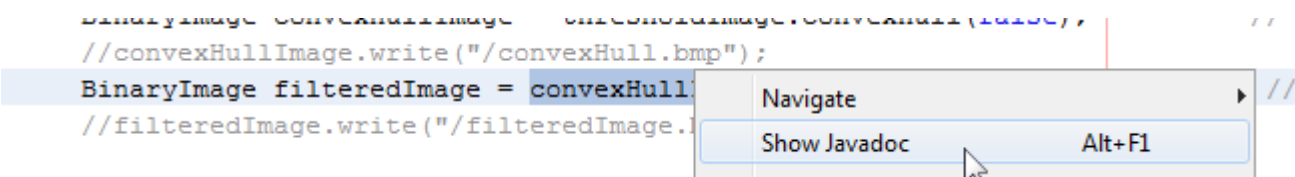
Linking the Javadoc to the Library in Netbeans



It is also possible to access the Javadoc for a particular package, class or method from Netbeans. To do this, first the Javadoc must be linked to the library:

1. Click **Window**
2. Hover over **Other** to expand the menu
3. Select **Javadoc** to display the Javadoc window in the bottom pane
4. Highlight a class, method or package from WPILib
5. In the bottom pane, click the **Attach Javadoc...** link
6. In the dialog that appears, click **Browse**
7. Browse to the Javadoc folder *USER*\sunspotfrcsdk\doc\javadoc then click **Add ZIP/ Folder**
8. Click **OK**.

Accessing the Javadoc from Netbeans



Accessing and Using the Javadocs

There are a few ways to use the Javadoc from within Netbeans:

1. Select the desired package, class or method name, right-click and select **Show Javadoc**. This will launch your default web browser and navigate to the Javadoc for the selected item.
2. Highlight the desired package, class or method name and click on the Javadoc tab in the bottom pane (if this tab is not present you can re-add it as shown in the step above)
3. When using code completion, hover over an item in the list and the Javadoc will be shown.