

Finding API specs on the web

The Java API specifications describe what each class that comes with Java is for and how it is to be used. These specifications are on the world wide web, so you have to be connected to the internet to use them. You can download the specs, but they take a lot of space. If you can usually work with a connection to the internet, you are better off doing that rather than downloading.

Where to find the Java API specifications

At the time of this lecture, Java Standard Edition 6 has been released. Its specifications are at this URL:

<http://java.sun.com/javase/6/docs/api/>

Bookmark it! If you forget it and don't have access to the course website, google something like "Java API".

Components of the Java specification window

Visit the API specs in some browser. The small pane on the upper left contains a list of the Java packages, and the pane on the lower left contains a list of all classes in those packages (as well as items called interfaces). Both panes are scrollable, so you can easily find what you are looking for.

The main pane on the right contains a horizontal button bar, whose items are self-explanatory. The lower part of the main pane contains a list of packages in the Java API. The word *deprecated* means 'lessened in value'. Java uses the term for classes and methods that have been superceded by better ones. You can still use the deprecated ones.

How to access the spec of a particular class

Let's access class `Math` in package `java.lang`. First, use the scroll bar in the upper left pane to make `java.lang` visible, and click on it. The lower pane changes to show only the interfaces and classes in that package, making it easier to find what we want. Use the scroll bar in the lower pane to make `Math` visible and click on it. The description of class `Math` appears in the main pane.

Scroll down slowly, and you will see a "summary" of the fields and methods in class `Math`. These summaries tell you a little about the fields and methods of the class. For example, here, the first entry summarizes function `abs`, and we see that it has attribute **static**, that it produces a **double** value, and that it has a **double** parameter (named `a`). Also, it returns the absolute value of a **double** value.

Click on the underlined word `abs`, which is a link to another part of the same web page. The main pane changes to display a more extensive description of the method. This description even tells you what "absolute value" means.

What else can you do?

We have shown you the basic ideas of looking at specifications of classes and methods. There are a few other things you can do using the icons at the top of the web page. For example, clicking `Index` will open a page that contains an alphabetical listing of all the packages, classes, interfaces, methods, and fields in the API packages.

Experiment with the different features in order to get a good idea what is available in the Java API specs. Use this tool regularly, whenever you need help with some predefined Java class.

We suggest that you browse the spec of class `String`, also in package `java.lang`. This will help you learn about an important class as it gives you some facility with browsing the API package.

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