

Guide: Using Firebug

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Using Firebug

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We recommend that you use the FireFox browser to execute your programs. Firebug is the associated debugger that can be used to debug your programs.

A. Installing Firebug

Firebug can be downloaded from <https://getfirebug.com/> . Once you have downloaded the program, you can simply drag it onto the Firefox browser to install it. Since you may need to install it on various machines in room 310, it may be easiest to keep a downloaded version in your folder for the course on the G drive.

B. Executing a program within Firebug

To run Firebug, simply click the Firebug icon in the upper right-hand corner of the Firefox browser. If you don't see the icon, then you probably haven't installed Firebug. Please see us if you have any problems with the installation. Also be sure that you click the drop-down arrow next to the Firebug icon and select Enable All Panels.

Once Firebug is operational, you can simply drag a file containing your HTML and JavaScript code onto the Firefox browser. Results from executing the program should appear in the top portion of the Firefox window and information related to the Firebug debugger should appear in the bottom portion of the Firefox window.

If you don't see your HTML/JavaScript in the bottom window, then you will probably want to select the Script tab for debugging purposes.

If Firefox discovers errors in attempting to execute your code, you will find the number of errors listed next to the Firebug icon in the upper right corner of the Firefox window. The actual errors will appear toward the bottom of the Firefox window. You may have to change the size of individual windows (with the mouse) to see all of the errors.

C. Stepping through the code and setting breakpoints

Firebug can be used in a variety of ways to help you step through your code and thus debug the code. You will see various icons for this in the upper middle portion of the Firebug window.

F10 (Step over) icon: This allows you to step through each line of code, but does not go through each line of code in a function.

F11 (Step into) icon: This allows you to go through each line of code, including code within a function.

Shift + F11 (Step out) icon: This allows you to step out of a function.

F8 (Continue): This allows you to execute all of the code, as opposed to executing the code line-by-line.

These icons are generally used in association with breakpoints that you will set. You set a breakpoint where you think that there might be a problem with your code. To set the breakpoint, click in the Firebug window on the extreme left of the line that you wish to set the breakpoint for. Once you've set a breakpoint, click the icon for reloading the current page (near the middle upper portion of the Firefox browser window). Then try stepping through the code using F10.

You can unset a breakpoint simply by clicking on the breakpoint.

D. The Watch window

As you step through the program line-by-line, watch what happens in the Watch window (the lower right-hand portion of the Firebug window). You will need to check this window to see whether the values for various variables are making sense.

E. Revising and rerunning your program

Once you've found a bug, you likely will need to revise your code in Notepad++. After revising the code, be sure to save it. Then you can reload the saved code by simply clicking the icon for reloading the current page (near the middle portion of the Firefox browser window).