Getting started with J-DSP HTML5

To start J-DSP HTML5, type the URL, http://jdsp.engineering.asu.edu/jdsp.html. With the mouse navigate to the upper left frame where it says "Start Center" and press "Start." Press "Start J-DSP HTML5" button to open the software in a new tab. The J-DSP environment appears and is ready for programming a DSP simulation. Please note that it few seconds to download the program, the first time it's launched on a particular device.

To program a simulation that involves a signal, a filter, and a plotter proceed with the following steps. Click using left mouse button and hold the Sig Gen button on the left, and drag it in the white workspace area. Note that the signal generator block is established. Similarly, create a Filter and a Plot block. Note that each block has signal input(s) designated by round ports on the left and signal output(s) to the right. Some blocks carry parameter inputs and outputs at the bottom and top of the block respectively. For example, the Filter block has a coefficient input on the bottom and a coefficient output on the top. Parameter inputs are used to interface and run functions such as filter design, frequency response, pole-zero plot, etc.

To select a block, click once. You can then move it by placing the mouse arrow over it, holding down the left mouse button and dragging the box to a new location. To delete a block, simply select it and press the "delete" key on your keyboard. To link blocks, click once pointer is on the round port on the right side of the signal generator box and while holding the mouse button down, drag the mouse arrow to the port on the left side of the filter box. Release the mouse button to create a connection between the two boxes. The Coeff. block is used to specify filter coefficients. The block is connected to the Filter block parameter input as shown below. Now, connect the Filter block to the Plot block so that your editor window looks like the block diagram shown below (Figure 1). Note that you can view the dialog box of each block by double clicking on the block (see Figure. 2).
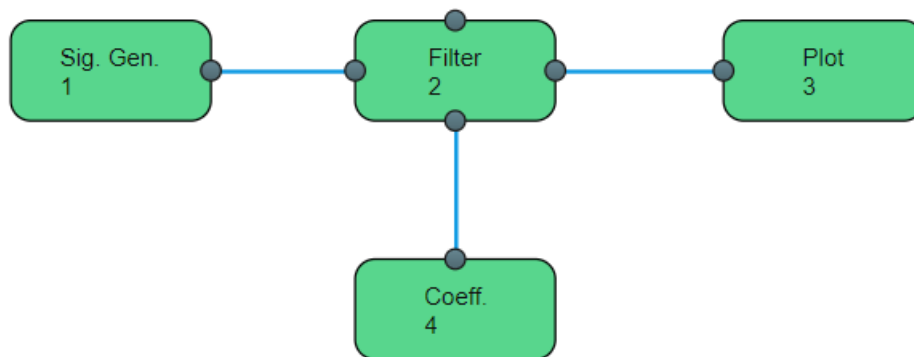

Figure 1: Block Diagram in J-DSP HTML5

Figure 2: Dialog Menu for signal blocks in J-DSP HTML5

Figure 3 shows the simulation for the above mentioned block diagram. The signal chosen using the dropdown menu in the signal generator dialog is delta and a set of coefficients are entered using coefficient dialog. The output is observed in the plot dialog.
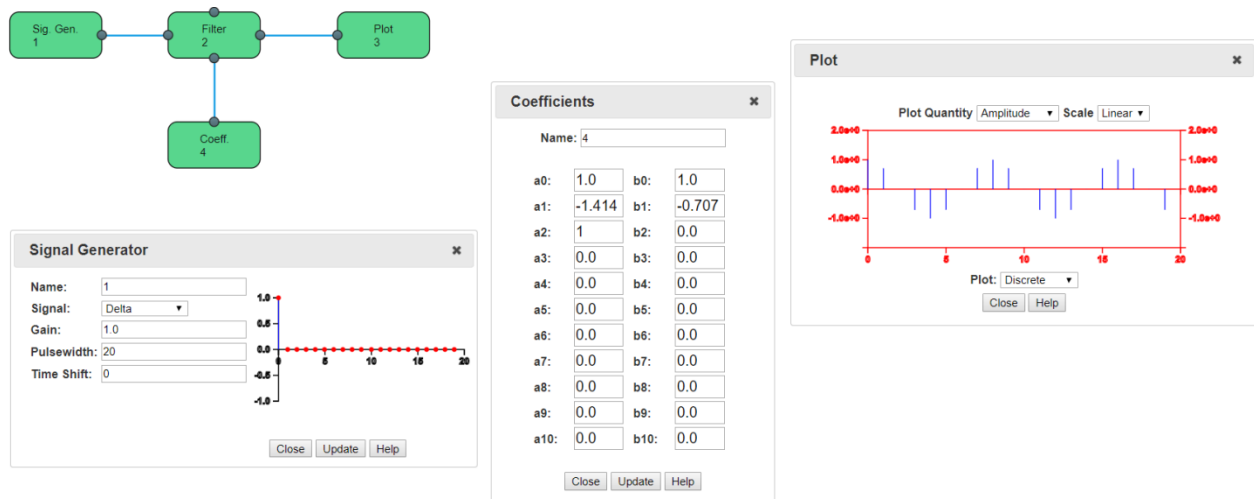

Figure3: Simulation for unit impulse (delta signal) and set of filter coefficients. The output is observed in the plot dialog.

Each block has a help button at the bottom. It can be clicked to see details about the working and connection of a particular block. Figure 4 shows the signal generator help dialog.
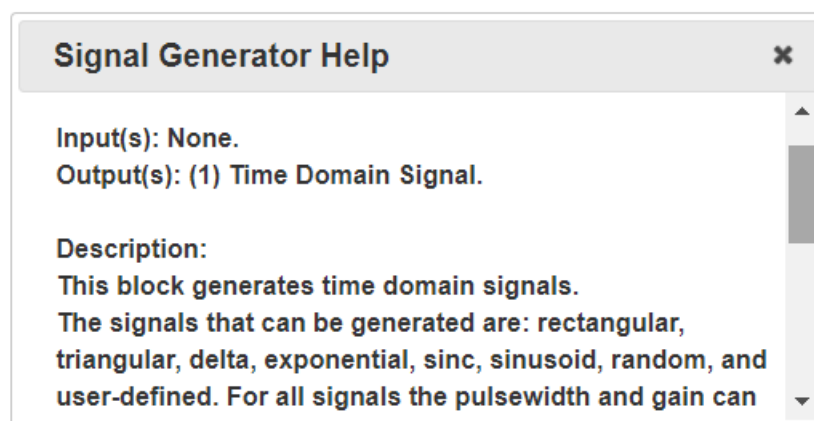

Figure 4: Help dialog for the Signal Generator