# The Processing Web
## Create Custom Math functions and Parameters

The processing web is an oscilloscope function which allows the creation of custom math and parameter functions in the WaveMaster, WavePro 7000, and SDA Series oscilloscopes. Unlike the math traces, which are limited to two chained math functions each, the processing web allows users to chain multiple math and measurement functions together, limited only by processor memory.

A simple example of the creation of a custom parameter is shown in figure 1. This process measures the full wave rectified average value of the waveform in channel 1 and outputs it to the parameter P1. Figure 1 shows a view of the web editor which is accessed from the Display pull down menu. Input sources are shown on the left. These include input channels, math traces, and parameters. Output parameters or traces are selected using the measure or math tabs on the processing editor dialog box. They can also be selected from the math and measurement setup dialog boxes. In figure 2 the parameter P1 has been selected as an output and appears on the right side of the web editor.

The processing functions, like the absolute value math function and the mean value measurement function are selected by using the Add math and Add Measure
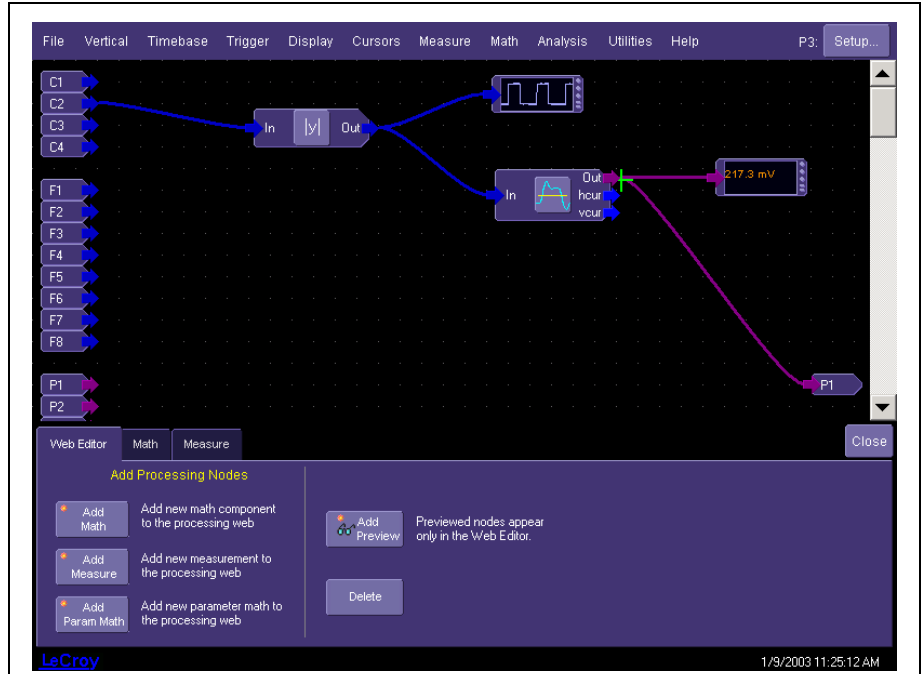


**Figure 1 Processing Web setup for measuring full wave rectified average voltage of the signal on channel 2and outputting it to the parameter P1**
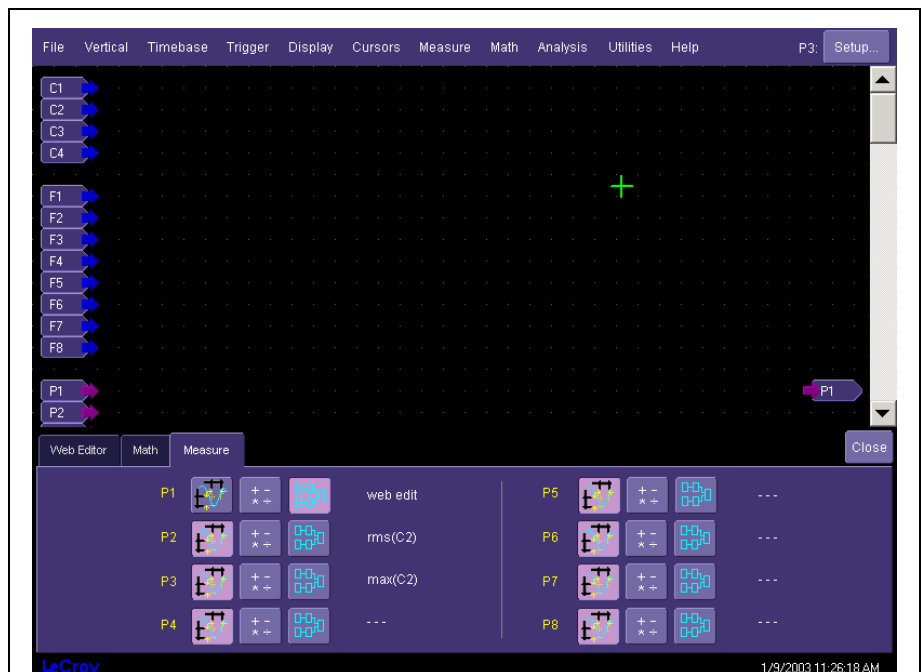


**Figure 2 - Selecting the output functions for the processing web**

buttons on the web editor. Once a math or measure process is displayed the controls associated with that function are accessed by simply pointing to or touching the process function. The appropriate controls will appear on the right side of the web editor.

Processes are linked together by touching/clicking on the output arrow of one of the sources and dragging to the inputs of the math or measure process. In this way the process flow can be controlled. The first step in this process is shown in figure 3, where channel 2 has been connected the input of the absolute value math process. Links can be deleted by pointing or touching the link. A 'scissor' icon will appear. Touching the link or clicking a mouse button will display the Delete connection dialog box.

Math or measure processes can be deleted by touching of double clicking on them until they are highlighted. Pressing the Delete button in the web editor dialog box will delete the selected function.

If you want to monitor the process operation you can add a preview window. Simply point or touch the output arrow of the process or input you want to monitor until it is highlighted then press the Add Preview button in the web editor. The preview window for a math process will be a waveform display like that shown in figure 4. Measure preview windows readout single
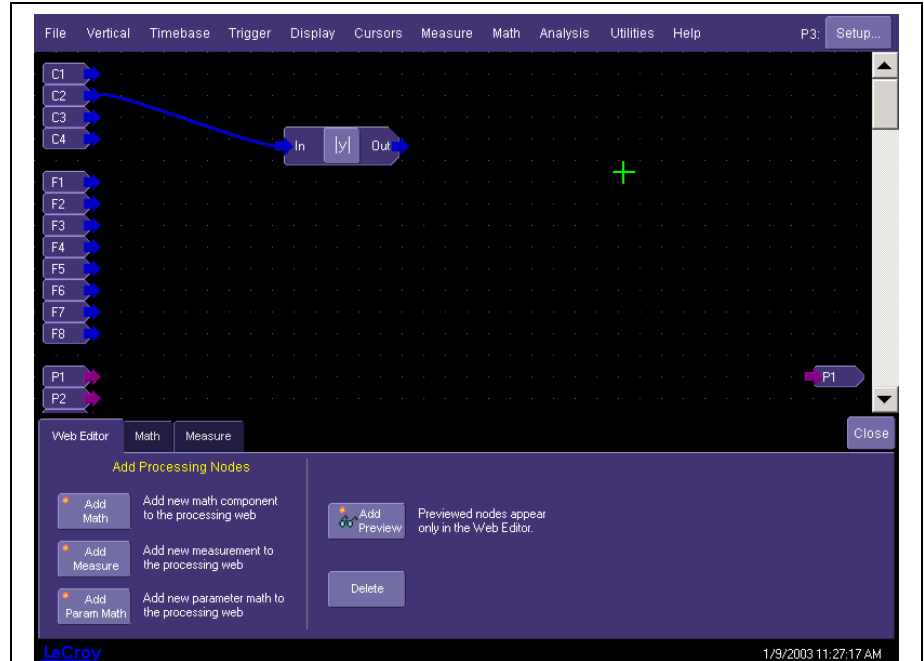


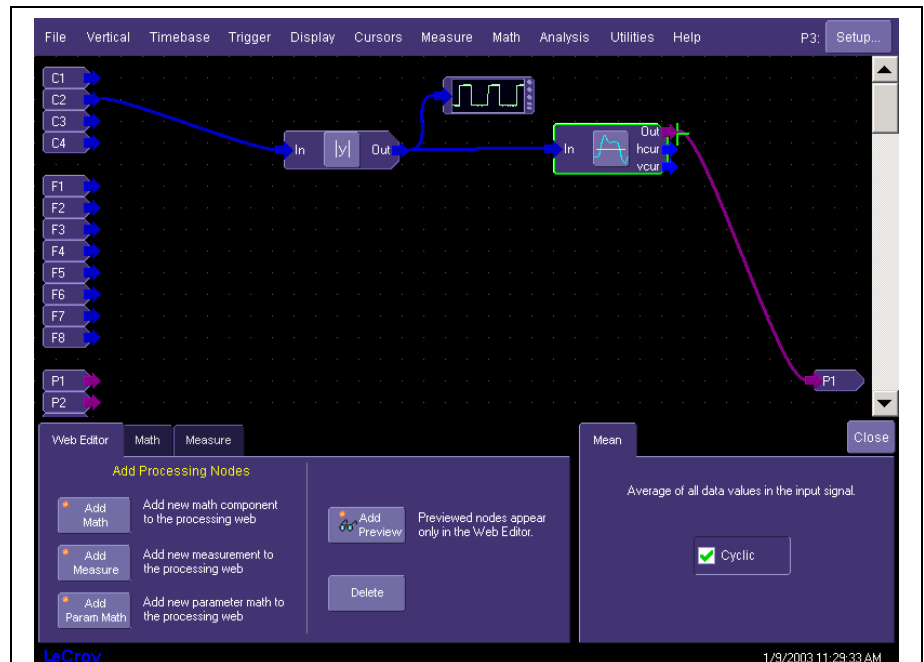**Figure 3 Beginning the process flow by connecting channel 2 to the math process.**



**Figure 4 Adding a preview window to the output of the math process**

parameters as shown on the right hand side of figure 1.

Using this unique and easily configured tool it is possible to extend the math and measurement functions of the scope to create

and unlimited number of custom functions.