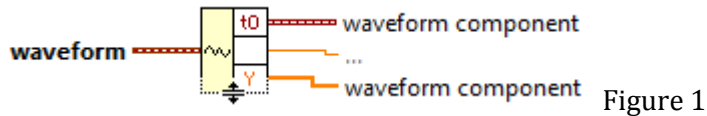**How to Use the Get Waveform Components Function Tutorial**

Functions -> Programming -> Waveform -> Get Waveform Components

Start by opening the Functions palette and opening the Programming sub-palette. From here select the Waveform sub-palette where you will find the Get Waveform Components function.

The Get Waveform Components function takes in a Waveform data type and separates it into its original components which may be arrays or waveform components as shown in Figure 1. Notice that this is essentially an inverse function of the Build Waveform function.

 Figure 1

An example of the Get Waveform Components function is shown in Figure 2. Here we simple allow the user to specify the input values and time offset for each sample which his fed into a Build Waveform function. The result is a waveform data type which is decomposed by the Get Waveform Components function.
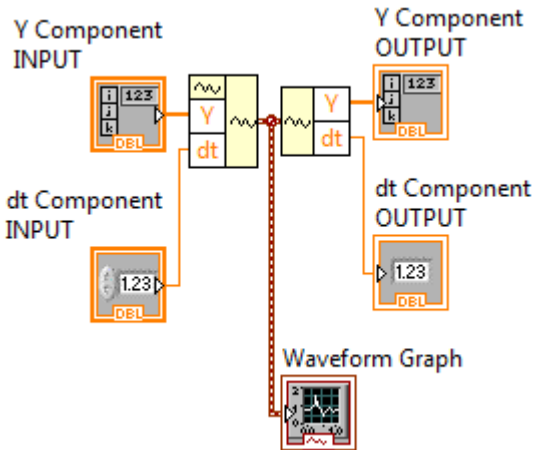

Figure 2

Notice that the Get Waveform Components function is analogous to the inverse operation of the Build Waveform function except it is not able to synthesize the original waveform the new waveform in superposed with.

We can also verify this by observing the front panel indicators and controls which produce the same values for the corresponding waveform components as shown in Figure 3.
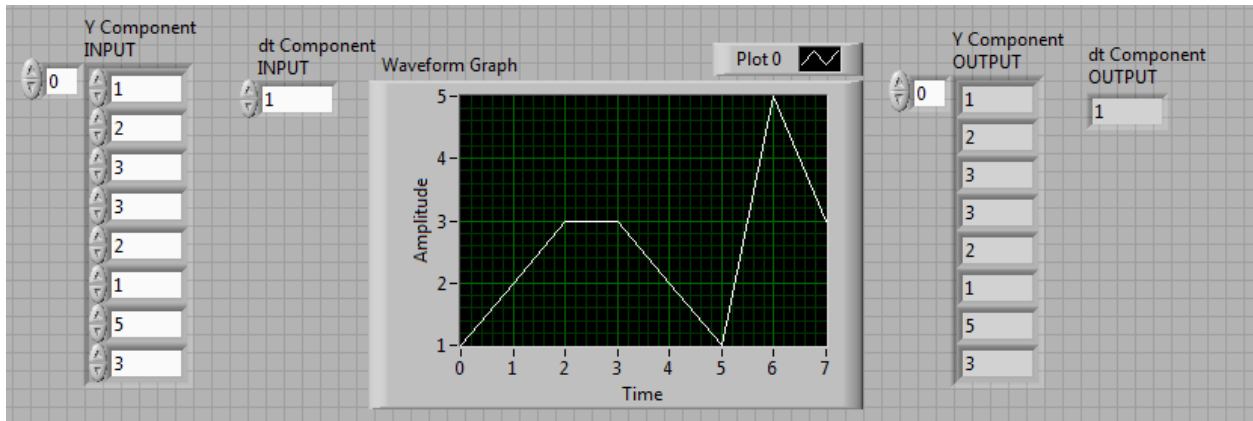
Figure 3