**How to Use the Array Size Function Tutorial**

Functions -> Programming -> Array -> Array Size

Start by opening the Functions palette and select the Programming palette. Under Programming select Array where you should find the Array Size function.

The Array Size function takes in an array type data structure and outputs an array of numeric I32 values. The output I32 values in the array indicate the size of each dimension of the input array. (i.e. the value at the 3rd index of the output array gives the size of the 3rd dimension of the input array).

For example, Figure 1 shows how a 5 x 5 x 5 x 5 x 5 x 5 array is initialized and processed into an array of dimension sizes by the Array Size function (Click here for how to initialize an array).

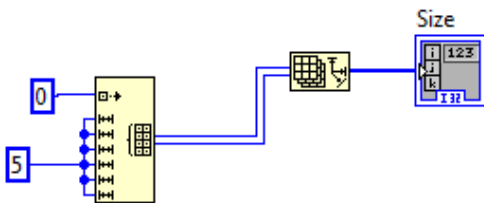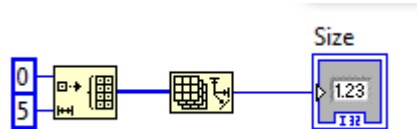Figure 1   Figure 2

If the input array is one dimensional, the Array Size function will return a single I32 value which is NOT in an array as shown in Figure 2.

The Array Size function can also be used with the For Loop structure and the Index Array function to perform and element-wise operation on an Array structure. The general idea is illustrated in Figure 3 below.
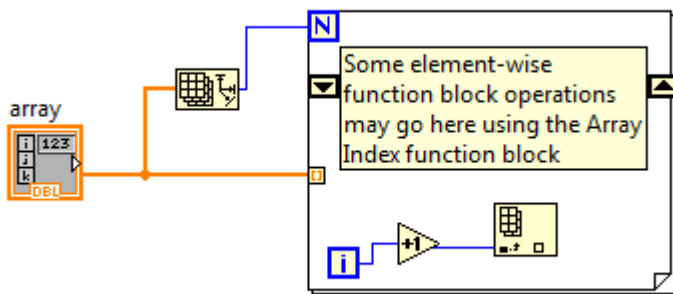

Figure 3

Notice that the iteration goes up to the maximum index of the input Array. Also notice that the indexing of Arrays in LabView starts at 1 not 0 but the iteration count starts at 0 so we must add one to the iteration count to keep it consistent with the Array indexing.