Programmatically Determine DAQmx Device Name when Deploying Executables

Introduction

When preparing a program to be built into an executable meant for deployment, it may be advantageous to include code that will detect all devices on the deploymnet machine, determine which one is the correct device, and then output it's DAQmx resource name for use within the exectable. This will cut down on confusion for any operators who may be running the executable and unfamiliar with LabVIEW or the DAQmx device resource naming paradigm.

The example program downloadable here uses a DAQ System Property node to return an array containing the DAQmx resource names of all of the hardware on the computer. Is then uses a for loop to interate through each resource name, obtaining the Product Type and Serial number of that specific device. These can be compared to the desired value for the device that was deployed with the code. When a match is found, the for loop is exited and the DAQmx Device name is output for use in the acquisition code.

Note: If you have multiple devices of the same type on the computer, this code will stop after it comes across the first one. In the case of mulitple devices, it may be best to use the serial number as the identifier instead of the product type.

Steps to Complete

1. Enter the Product Type of the device you want to acquire from, ex USB-6009 or PXI-4472

2. Enter the channels of the device you want to acquire from, beginning with a "/", ex "/ai0:3" to acquire from analog input channels 0, 1, 2, and 3.

3. Configure the Maximum and Minimum expected values of the acquisition, as well as the desired Timing Properties.

4. Run the VI. It will now search the system for the matching product and acquire on the configured channel.