

Using myDAQ with the NI ELVISmx Arbitrary Waveform Generator Soft Front Panel

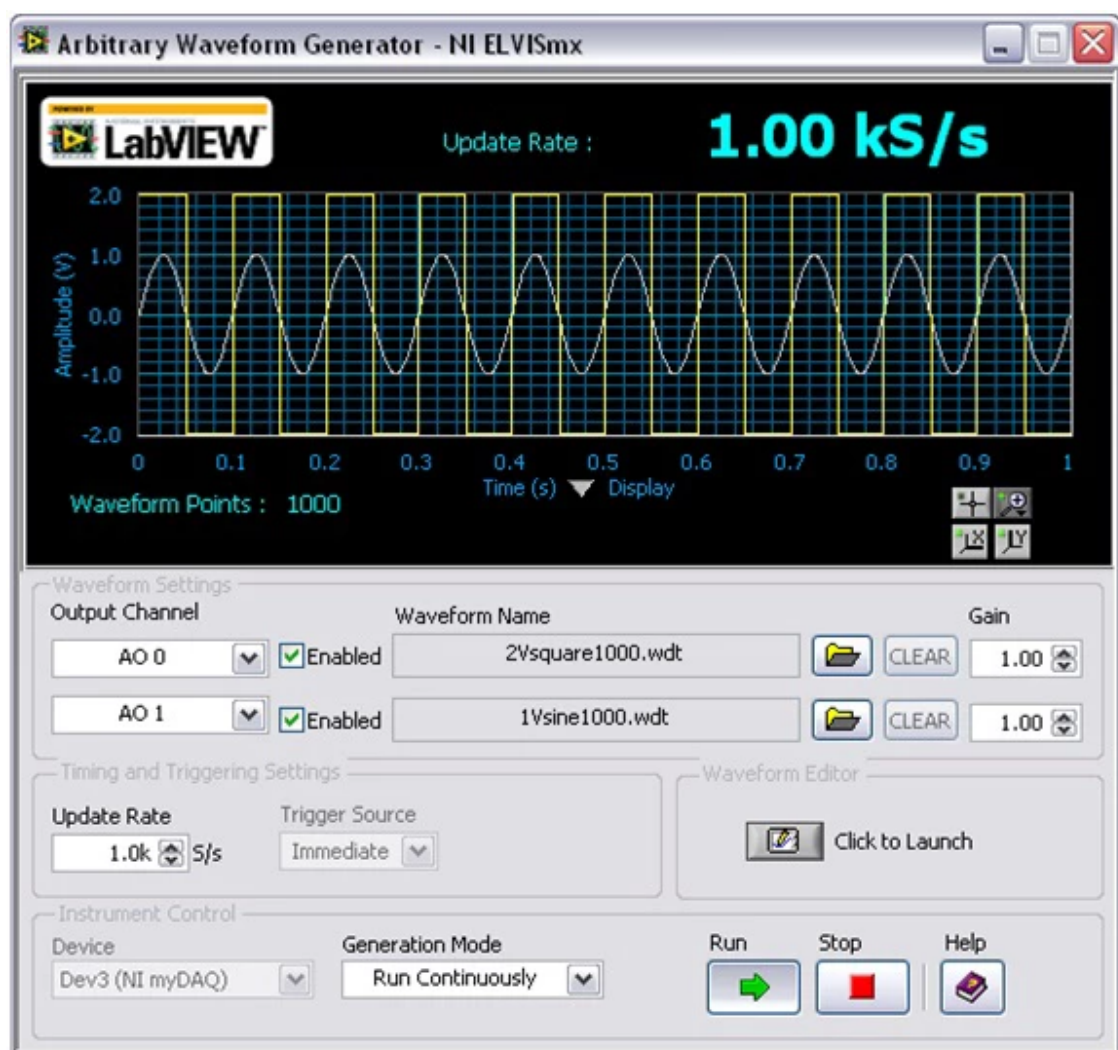
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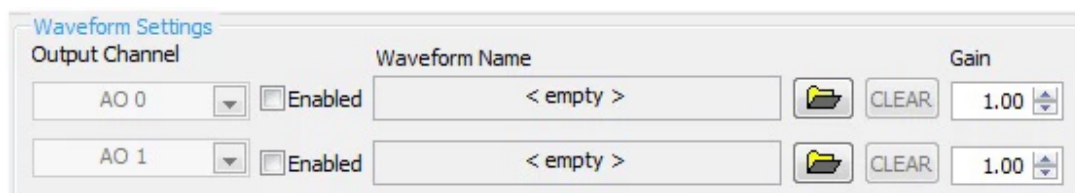
Overview

The NI ELVISmx arbitrary waveform generator (ARB) generates voltage signals using the analog output capabilities of NI myDAQ. You can create and load a variety of signal types into the ARB using the NI Waveform Editor software.



Waveform Settings

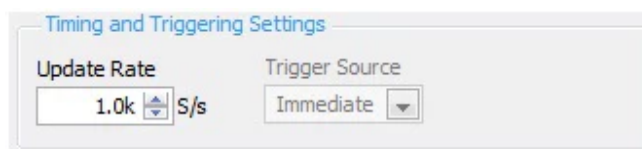
The waveform settings section of the Arbitrary Waveform Generator soft front panel enables the user select what waveform file is used to generate a signal on either output channel. Separate files are selected for the different Output channels.



The Waveform Settings panel is titled "Waveform Settings". It contains two rows, one for "AO 0" and one for "AO 1". Each row has a dropdown menu for the output channel, an "Enabled" checkbox, a text field for the "Waveform Name" (currently showing "< empty >"), a folder selection icon, a "CLEAR" button, and a "Gain" spinner set to "1.00".

Timing and Triggering Settings

The timing and triggering settings section of the Arbitrary Waveform Generator soft front panel enables the user select the generation rate (in number of samples per second). In addition to the update rate you can set the source for the external trigger. You can select Immediate or any available PFI lines.



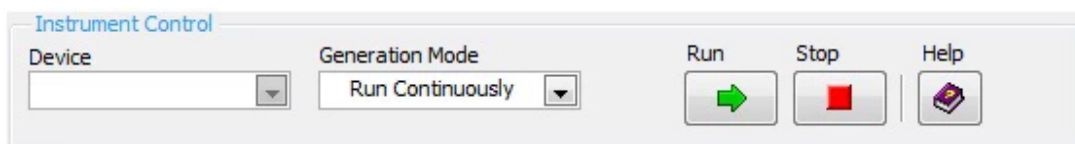
The Timing and Triggering Settings panel is titled "Timing and Triggering Settings". It contains two main settings: "Update Rate" with a spinner set to "1.0k" and a unit of "S/s", and "Trigger Source" with a dropdown menu currently set to "Immediate".

Waveform Editor

The Waveform Editor section of the Arbitrary Waveform Generator allows the user launch the Waveform Editor application. The NI Waveform Editor offers the ability to hand draw waveforms, built in waveforms, and a import utility.

Instrument Control

The Instrument Control settings section of the Arbitrary Waveform Generator allows the user to select which device they are using to output a signal and if they'd like to run continuously, or once. This section also holds stop button and a link to the help section for the Function Generator in the NI ELVISmx help.



The Instrument Control panel is titled "Instrument Control". It features a "Device" dropdown menu, a "Generation Mode" dropdown menu set to "Run Continuously", and three buttons: "Run" (green arrow), "Stop" (red square), and "Help" (purple book icon).

The device drop down selection box allows a user to select any myDAQ or ELVIS unit that is connected to the system. The device list, which includes the device numbers, is pulled from the devices and interfaces that can be seen in Measurement and Automation Explorer. To test or rename each device, see the [Configuring and Testing your myDAQ in Measurement and Automation Explorer page](#).

Related Links

» [Using myDAQ with ELVISmx Software Instruments](#)