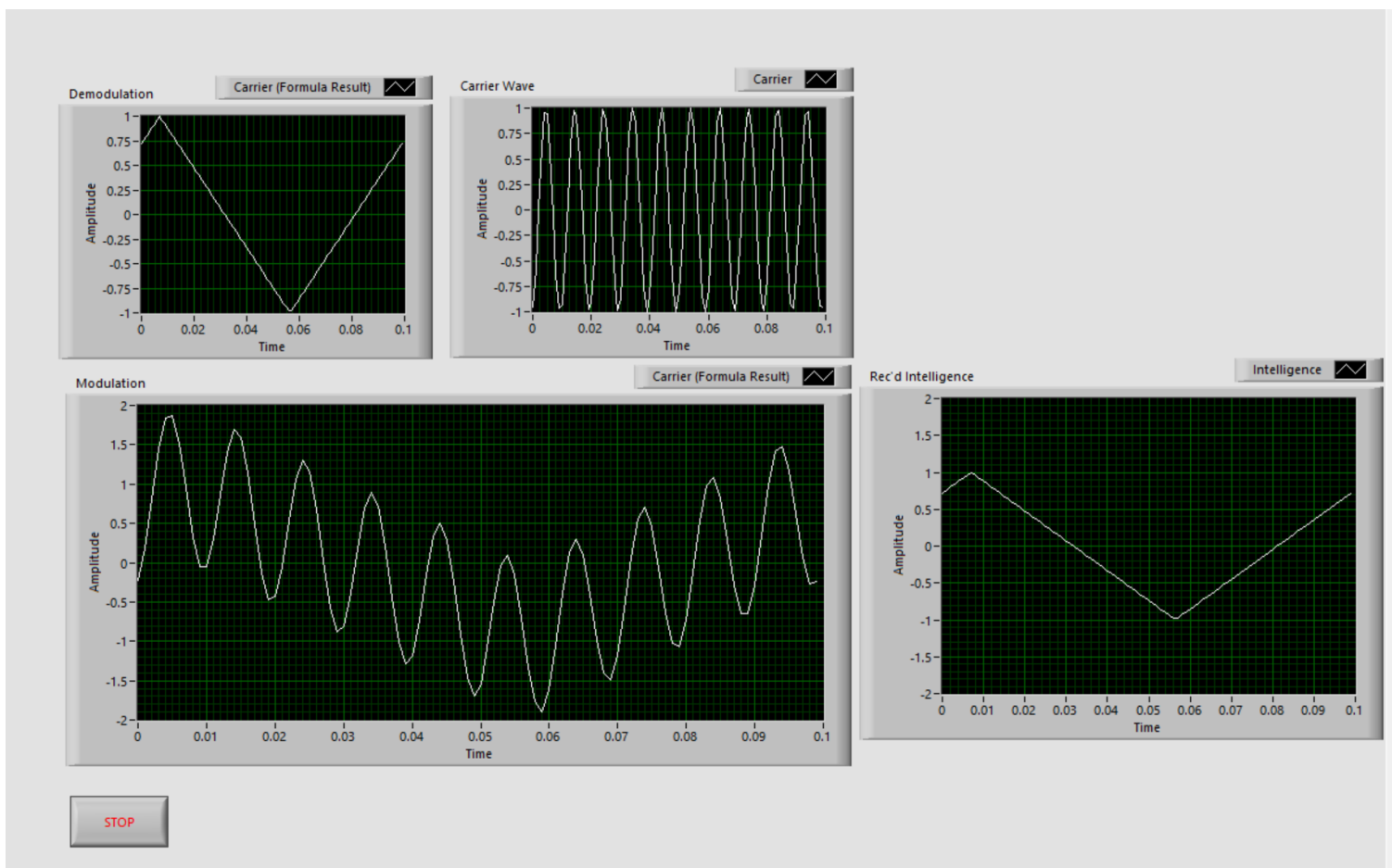
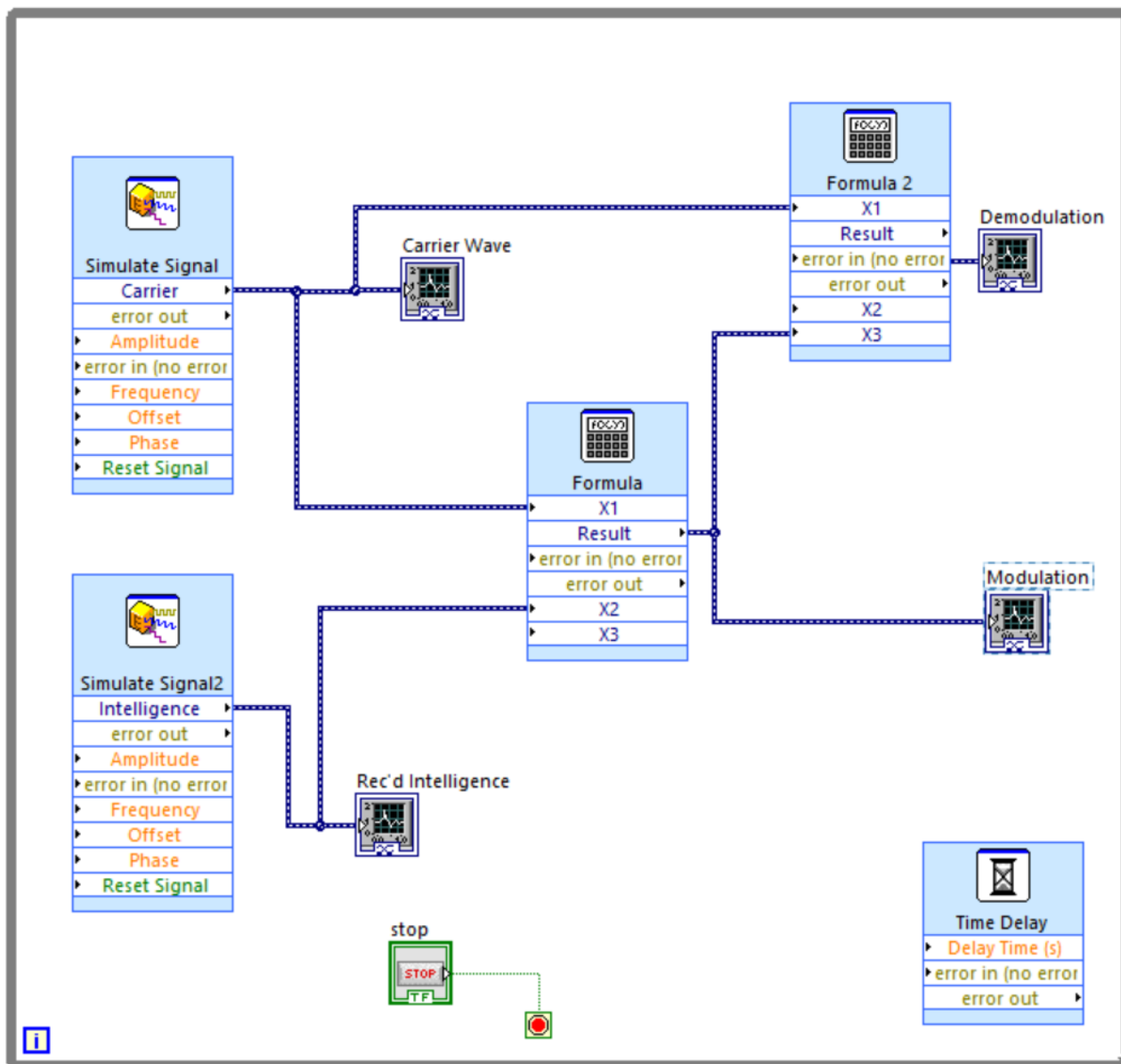


Activity 04

Creating a Signal Analogy in LabVIEW 2017

Final version of the Activity:

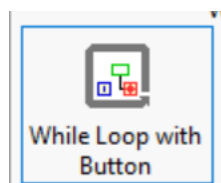




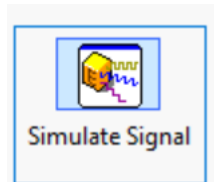
Steps:

Open a blank VI by selecting **File >> New VI**
On Block Diagram

Right click
 Express
 Exec Control
 While Loop with button



Right click
Express
Signal Analysis
Simulate Signal



Configure Simulate Signal [Simulate Signal2]

Signal

Signal type: Sine

Frequency (Hz): 60 Phase (deg): 0

Amplitude: 0.1 Offset: 0 Duty cycle (%): 50

☒ Add noise

Noise type: Uniform White Noise

Noise amplitude: 0.1 Seed number: -1 Trials: 1

Timing

Samples per second (Hz): 1000 ☐ Simulate acquisition timing

Number of samples: 100 ☒ Run as fast as possible

☐ Integer number of cycles

Actual number of samples: 100

Actual frequency: 60

Result Preview

Time Stamps

☒ Relative to start of measurement

☐ Absolute (date and time)

Reset Signal

☐ Reset phase, seed, and time stamps

☒ Use continuous generation

Signal Name

☐ Use signal type name

Signal name: 60 Hz and Noise

Add a second Signal

Configure Simulate Signal [Simulate Signal2]

Signal

Signal type: Triangle

Frequency (Hz): 10.1 Phase (deg): 0

Amplitude: 1 Offset: 0 Duty cycle (%): 50

☐ Add noise

Noise type: Uniform White Noise

Noise amplitude: 0.6 Seed number: -1 Trials: 1

Timing

Samples per second (Hz): 1000 ☐ Simulate acquisition timing

Number of samples: 100 ☒ Run as fast as possible

☐ Integer number of cycles

Actual number of samples: 100

Actual frequency: 10.1

Result Preview

Time Stamps

☒ Relative to start of measurement

☐ Absolute (date and time)

Reset Signal

☐ Reset phase, seed, and time stamps

☒ Use continuous generation

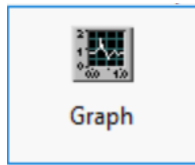
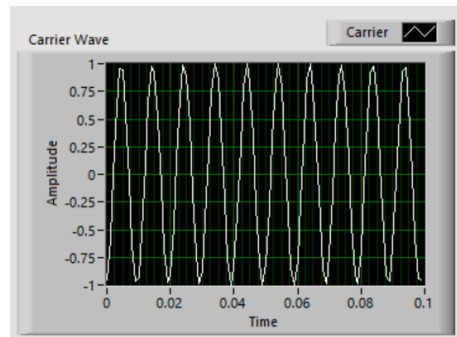
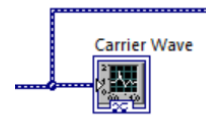
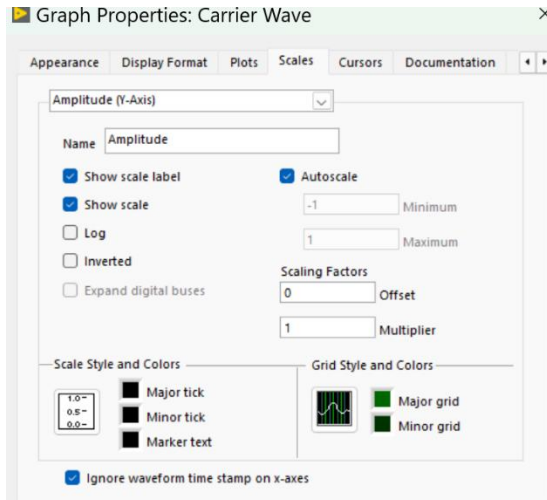
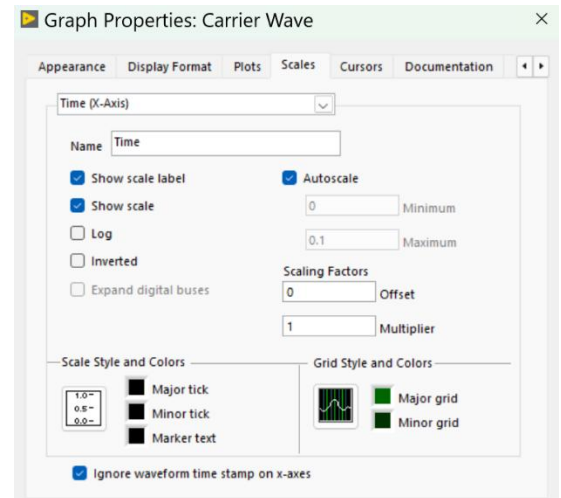
Signal Name

☐ Use signal type name

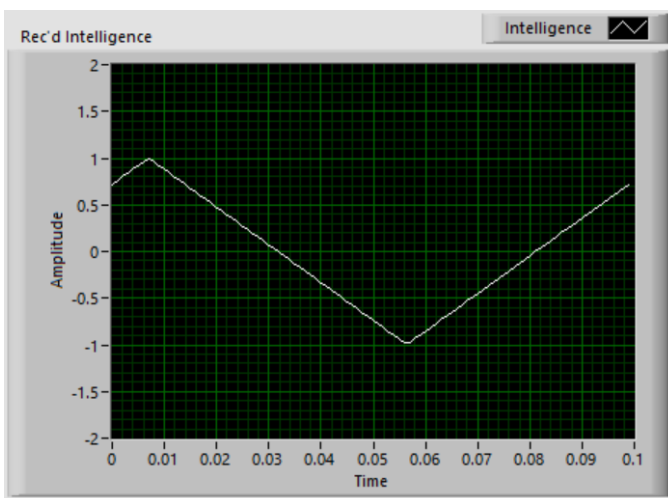
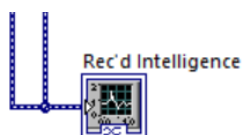
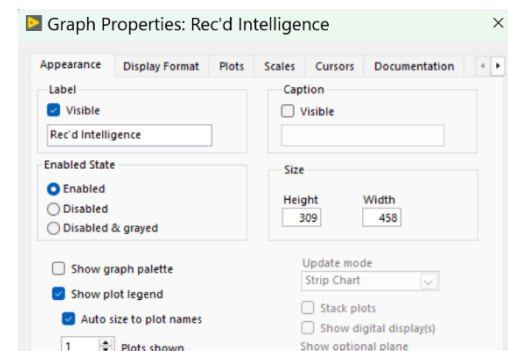
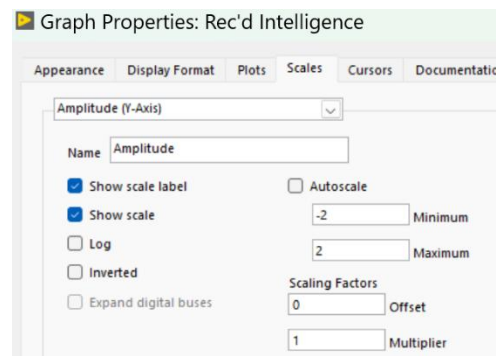
Signal name: Intelligence

On the Front Panel

Right click
Express
Graph Indicator
Graph

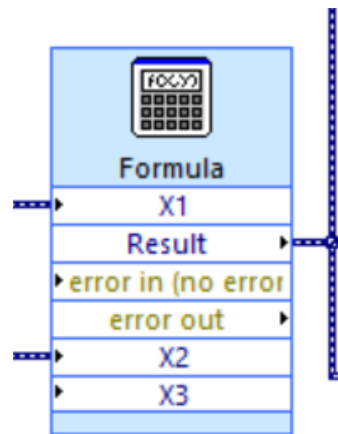
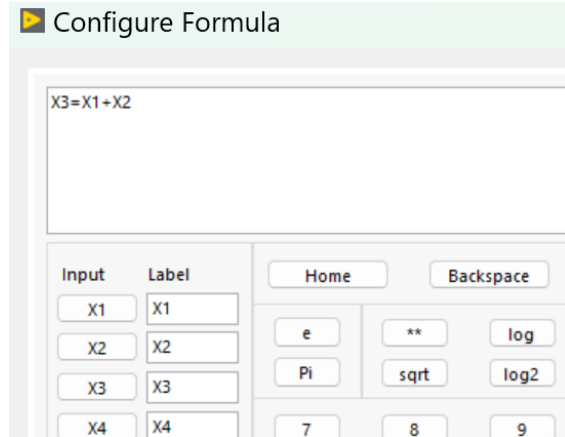


Add a second graph for Rec'd Intelligence

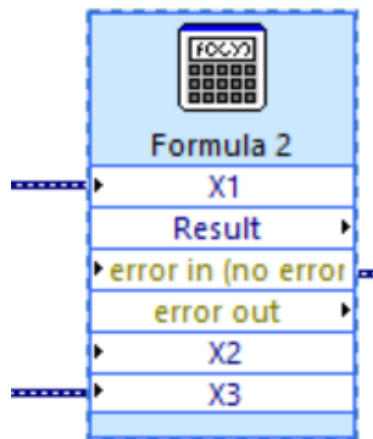
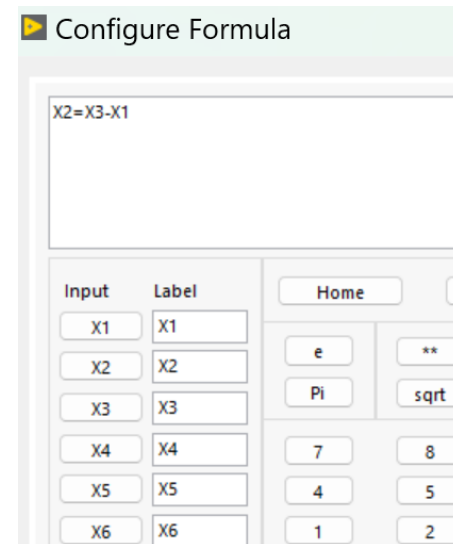


On the Block Diagram

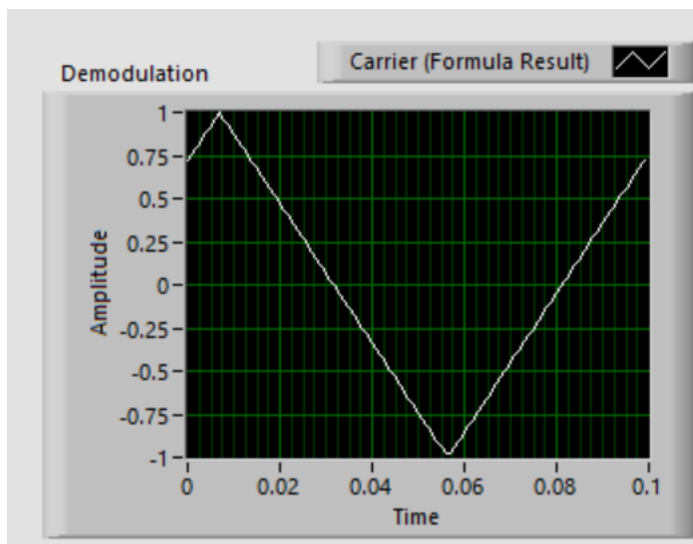
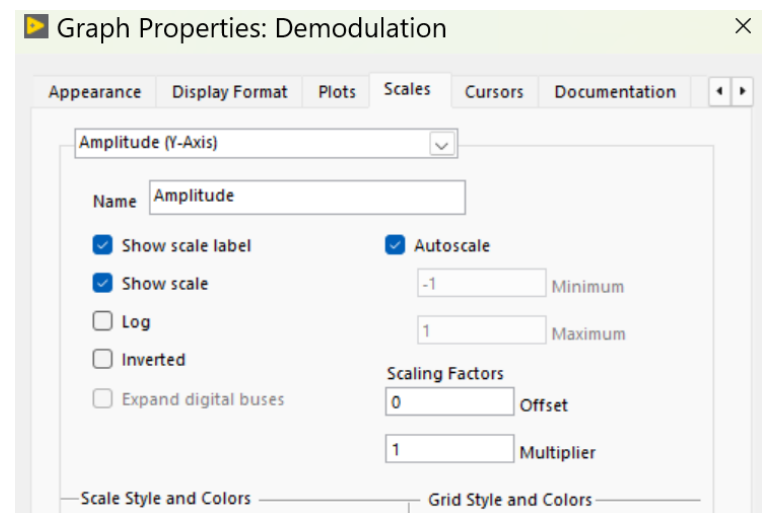
Right click
Express
Arith and Compar
Formula

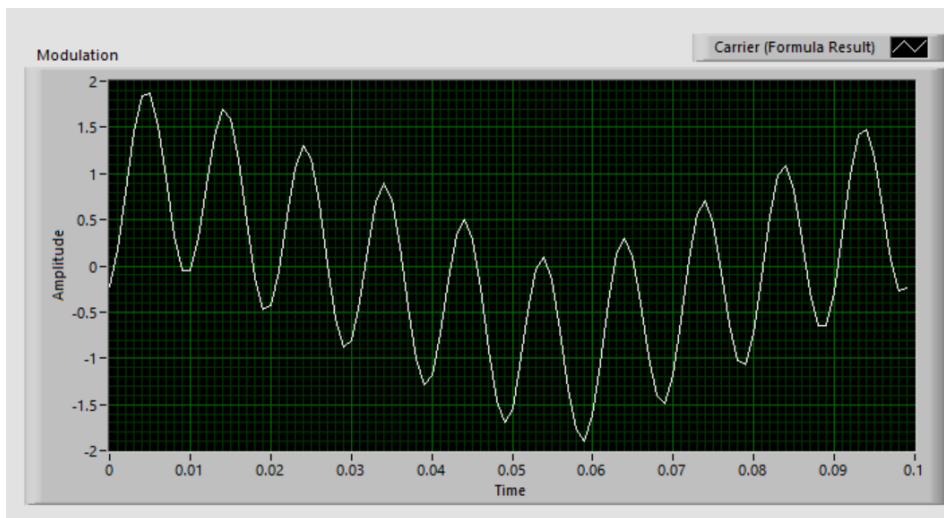
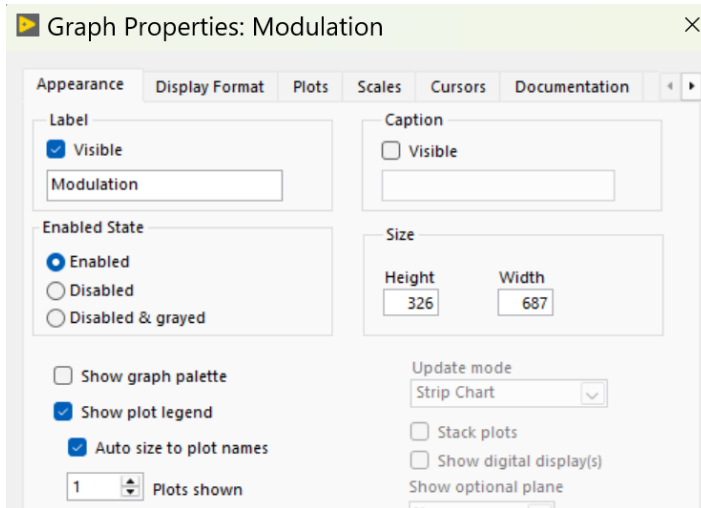
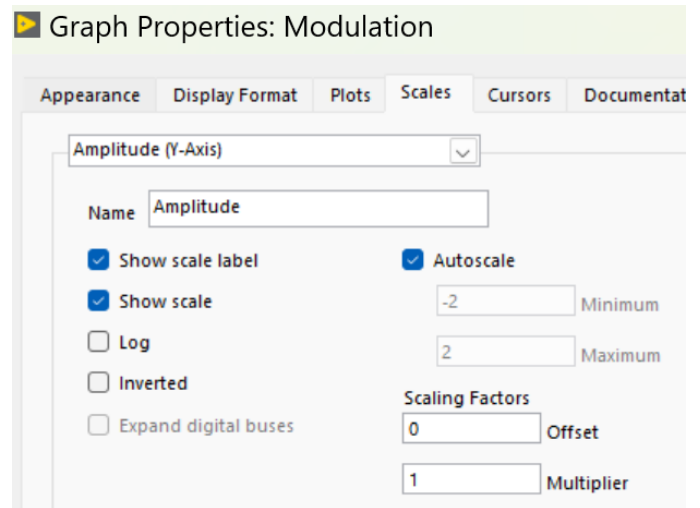


Add a second formula



Add 2 more graphs to the Front Panel





Add a Time Delay of 0.125 Sec if the graphs are moving too fast.

