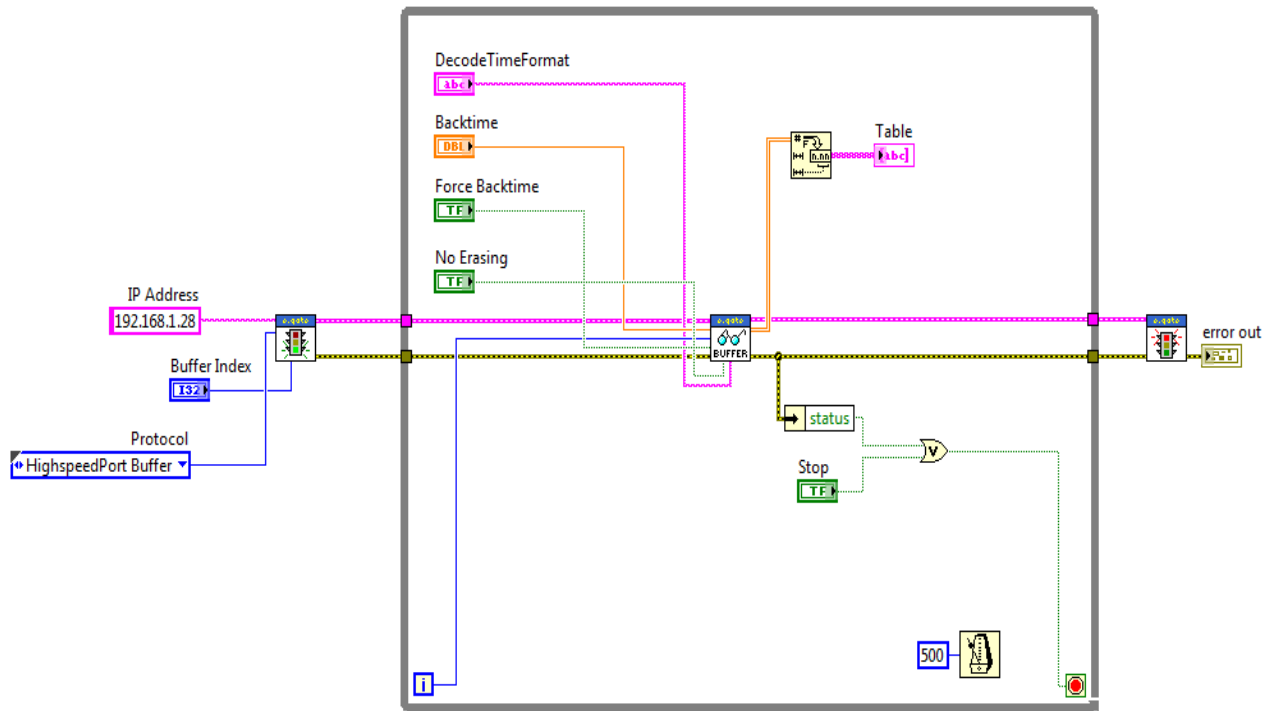


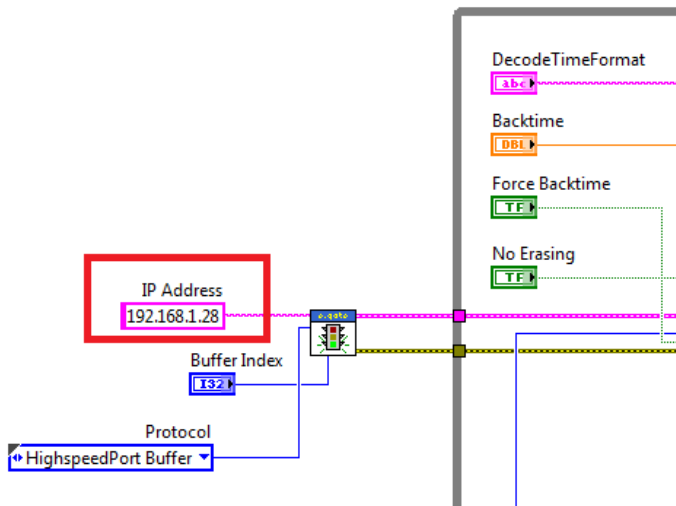
LabVIEW is software commonly used in test automation. Due to an open architecture, Gantner Instruments DAQ hardware is capable of interfacing with 3rd party software such as LabVIEW. This guide will describe how to use the Gantner Instruments drivers to achieve an interface between a Gantner controller and LabVIEW program.

Procedure:

1. Install the latest version of *test.commander*. To download the latest software file available, click the following link, scroll down to the *Downloads* section, and search for *test.commander*:
<https://www.gantner-instruments.com/resources/downloads-and-support-tools/>
2. Configure the hardware using *test.commander*. You may use the following guide:
https://gi-productbase.gantner-instruments.com/en/rest_api/downloads/public/243/
3. Configure the individual channels using *ICP 100*. You may use the following guide:
https://gi-productbase.gantner-instruments.com/en/rest_api/downloads/public/244/
4. Download the LabVIEW drivers using the following link:
https://gi-productbase.gantner-instruments.com/en/rest_api/downloads/public/217/
5. Install the LabVIEW drivers using the following Installation guide:
https://gi-productbase.gantner-instruments.com/en/rest_api/downloads/public/274/
6. Download the example program using the following link:
https://gi-productbase.gantner-instruments.com/en/rest_api/downloads/public/220/
7. Open the sample program in LabVIEW. It should look like the following:



8. Change the *IP address* shown in the red box below to that of the connected controller:



9. Configuration information of the connected I/O channels can be obtained from *e.gate Configuration Out* as shown in the red box below:

e.gate Configuration Out

connection ID: TCP

IPAddress: 192.168.1.28

BufferIndex: 0

StateMessage: freerunning

StateCode: 14

HeaderSize: 576

BufferSize: 7998475

IsBigEndian: 0

Version: 107

ChannelCount: 17

FrameLength: 76

StartTime: 36526

dActTimeToSecondFactor: 1E-9

StartTimeToDayFactor: 1

BufferFillRate: 760000

SampleRate: 10000

ChannelData

0

VariableName: Voltage

VarType: IO

DataDirection: IO

DataType: Float

DataTypeIndex: FLOAT

Precision: 3

FieldLength: 8

ByteCount: 4

Format: %8.3f

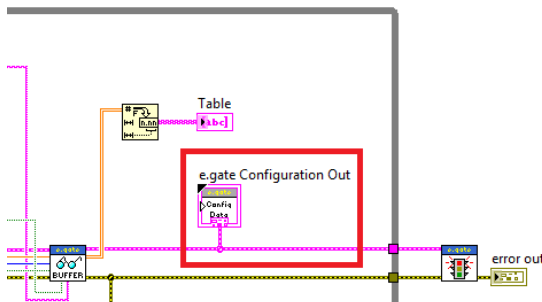
Unit: V

InputAccessOffset: 0

OutputAccessOffset: 0

InputAccessIndex: 0

OutputAccessIndex: 0



10. In the red box below, data is inserted into an array that is indexed based on channel #:

Index	Value 1	Value 2	Value 3	Value 4
1	-0.261012	-35.849731	25.862602	27.875544
0	-0.261288	-35.845673	25.862602	27.875544
	-0.262038	-36.015099	25.862602	27.875544
	-0.262031	-35.586746	25.862602	27.875544
	-0.261841	-35.476215	25.862602	27.875544
	-0.261821	-35.425217	25.862602	27.875544
	-0.260804	-35.832603	25.862602	27.875544
	-0.259947	-35.818001	25.862602	27.875544
	-0.260322	-35.755215	25.862602	27.875544
	-0.260035	-35.761074	25.862602	27.875544
	-0.260636	-35.384384	25.862602	27.875544

11. It can be observed that the data from the controller is now available within the LabVIEW environment. The data can be manipulated accordingly once available. This is the main VI used to read the buffer from the Gantner controller. The other VIs in the library can be used to perform other specific tasks, such as ASCII write, synchronization of the time stamp to the PC, etc.

Quick Start Guide

Interfacing Gantner Data Measurement with LabVIEW

You may contact a local Gantner Instruments Technical Support specialist if additional assistance with LabVIEW integration is needed. The contact information for your domestic Gantner Instruments Sales and Service location is available on our website at: www.gantner-instruments.com/resources/support/.