

GENDAQ LabVIEW Demo



Version: 2013-09-26

Author: Thomas Markwitz, Product Manager Test & Measurement, HBM Germany

Status: public



Intro

LabVIEW can be used to control Genesis High Speed systems through HBM's Perception software. HBM Perception has an implemented COM Interface (ActiveX) which can be used for data exchange with LabVIEW. After installation the user can build his own VIs using the Genesis High Speed ActiveX library.

The demo application shows how

- to connect to your Genesis High Speed System
- control your measurement (start, stop, pause)
- read live measurement values (extract of measurement values)

This demo is available in two different versions:

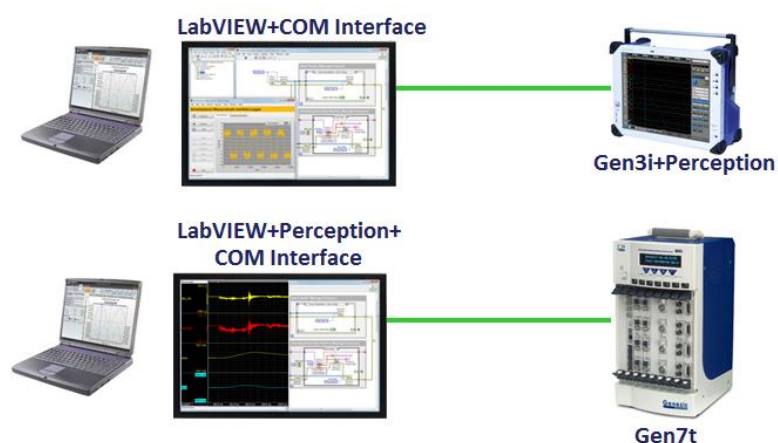
- Installable version including LabVIEW runtime (No LabVIEW installation necessary)
- Native LabVIEW application with source code

Measurement values are always stored on the Genesis hardware to guarantee maximum performance. If you want to work with them in LabVIEW you have to import them using PNRF reader.

Preconditions

- Perception including RPC installed
- GEN DAQ LabVIEW Demo installed on PC

Topology

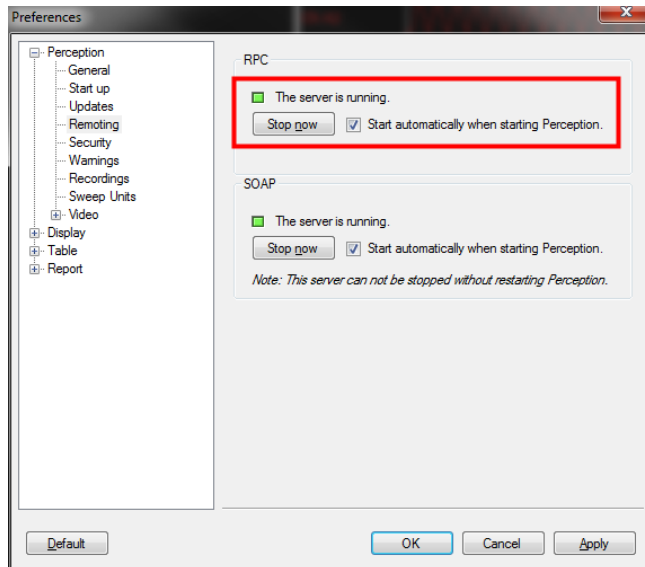


Step by Step description

Step 1: Install Gen DAQ LabVIEW Demo (Skip this step if you want to use native LabVIEW project)

Step 2: Preparations

- Start Perception
- Open an existing project or create a new one with preconfigured settings for continuous recording.
- Establish a connection between your Perception PC and the Genesis HighSpeed Hardware. (Skip this step if you are using Gen2i, Gen3i, Simulator)
- Start RPC Server (in menu *File->Preferences*):
It's highly recommended to enable checkbox "Start automatically when starting Perceiving", so you don't need to start it the next time.



- Test connection by clicking on the "Start the recording" button in Perception.
=> If recording starts, everything is fine and you can stop recording again.

Step 3: Open and start the demo application

- Open GenDAQ LabVIEW Demo (available in Windows start menu under HBM/Programming examples.
- Start GenDAQ LabVIEW Demo by clicking on the small icon with the arrow

Step 4: Establish connection

- Enter IP address of PC/HW where Perception is installed (Genesis HW is controlled through Perception)
Enter "127.0.0.1", if Perception and GenDAQ LabVIEW demo are installed on the same PC.
Enter "127.0.0.1", if GenDAQ LabVIEW demo is installed on GEN3i.
- Click on Connect button
⇒ Connection state LED should switch to green
(To disconnect use the corresponding button)

Step 5: In the channel drop down menu choose the signal you want to record

Step 6: Click on start button to start the recording

- ⇒ **RUN Led in Acquisition state sections should switch to green and in the live view you should see the recorded signal**

To stop and pause the recording, use the corresponding buttons. Use Exit button to stop the application.