KEYENCE

LK-G3000 Series LabVIEW measuring instrument drivers

Reference Manual

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2. Introduction

The LK-G3000 Series LabVIEW measuring instrument drivers provides a communication interface for controlling the LK-G3000. The drivers have been created based on the LabVIEW standard plug-and-play measuring instrument driver template, which allows selection of VI from the LabVIEW function pallet (instrument I/O), in a similar way to many other plug-and-play measuring instrument drivers.

3. Operating Environment

The following operating environment and National Instruments LabVIEW 8.6 or later （32 bit）-usable environment are required to use the LK-G3000 Series LabVIEW measuring instrument drivers. In addition, LK-Navigator needs to be installed.

CPU	Pentium 400MHz or greater
Memory	64 MB or greater
HDD free space	2 MB or greater
I/F	USB 1.1 or USB 1.1 compatible
OS	Windows 98, Windows 98SE, Windows ME, Windows 2000, Windows XP, Windows Vista, Windows 7 Home Premium / Professional / Ultimate

4. Installation Steps

Follow the installation steps described below to install the LK-G3000 Series LabVIEW measuring instrument driver.
(1) Copy the entire folder containing "Keyence LK-G3000" to the instr.lib folder of LabVIEW.
   Location of the instr.lib folder Example: C:¥Program Files(x86)¥National Instruments¥LabVIEW 2012¥instr.lib
(2) Click Tools > Advanced > Mass Compile in LabView.
(3) Select the "Keyence LK-G3000" folder copied to instr.lib in "Select a directory to be compiled" and click the "Current folder".
(4) Click "Mass compile".
   * Bad VI: When the warning message "Keyence LK-G3000.lvlib: VI Tree.vi" occurs, click "Done".

This completes the installation. However, you need to restart LabVIEW in order to use it.
* To uninstall LabVIEW, delete the file copied to the instr.lib folder in step (2) .

5. How to Use Instrument Drivers

Select View > Functions Palette >Instrument I/O > Instr Drivers > "Keyence LK-G3000" to select driver VI or sample VI.

＜Overview of sample VI＞
GetCalcData
→ Obtain the measurement value and display it in the graph.

6. Instrument Drivers Package

Each of the VI instrument drivers are made from each of the DLL. Refer detail about how to use to "ReadMe.htm" in [HeppFiles] folder. We provide a part of the DLL as VI. The following are the VI which can be used.

VI name	DLL function name
LKIF_GetCalcData	Measurement Value Output - LKIF_GetCalcData
LKIF_SetTiming	Timing ON/OFF - LKIF_SetTiming
LKIF_SetZero	Auto-zero ON/OFF - LKIF_SetZero
LKIF_SetReset	Reset - LKIF_SetReset
LKIF_SetPanelLock	Panel Lock - LKIF_SetPanelLock
LKIF_SetProgramNo	Program Change - LKIF_SetProgramNo
LKIF_GetProgramNo	Program Check - LKIF_GetProgramNo
LKIF_GetFigureData	Statistical Results Output - LKIF_GetFigureData
LKIF_ClearFigureData	Clearing Statistics - LKIF_ClearFigureData
LKIF_DataStorageStart	Starting the Data Storage - LKIF_DataStorageStart
LKIF_DataStorageStop	Stopping the Data Storage - LKIF_DataStorageStop
LKIF_DataStorageInit	Initializing the Data Storage - LKIF_DataStorageInit
LKIF_DataStorageGetData	Outputting the Data Storage - LKIF_DataStorageGetData
LKIF_DataStorageGetStatus	Data Storage Accumulation Status Output - LKIF_DataStorageGetStatus
LKIF_GetLight	Receive Light Waveform - LKIF_GetLight

7. Error code

The error code that each of the VI output in **error out** output terminal is 0x80000.