

Working with TestPoint Application Software

Application Note #15, 4/9/2003

instruNet version >= 1.4 is compatible with TestPoint version >= 3.0. The instruNet to TestPoint interface files and documentation reside at directory:

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\ program files \ instruNet \ Application Software \ TestPoint \
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after installing instruNet >= 1.4 on a Windows computer. The Readme.txt file and the HpVee-iNet.doc files describe how to interface the two products.

instruNet is easily linked to TestPoint software via the instruNet-to-TestPoint Interface files. For information on the C functions inside the iNet32.dll, please see file INET_INT.C and INET_INT.H. The functions that are export out the DLL are accessible from TestPoint via the TestPoint DLL interface dialog. The parameters mappings from TestPoint to instruNet are Char = iNetINT8, Byte = iNetUINT8, integer = iNetINT16, long = iNetINT32, word = iNetUINT16, dword = iNetUINT32, float = iNetFLT32. This interface contains a TestPoint instruNet object with the following methods. For more details, please see the Programming Application Notes at www.instruNet.com, and the instruNet User's Manual.

Read_Channel(netNum, moduleNum, deviceNum, chanNum)

This routine reads an instruNet channel (e.g. voltage input) and returns it's realtime value in engineering units. The iNet_DLL() routine is a way of reading from instruNet a floating point number (or any other type of variable) with a VAR FLOAT parameter. For a description of this routine, please search "iNet_DLL" in file INET_INT.C. To use this to read a FLT32 value from instruNet, set the intention parameter to intention_getValue (1), set the argType parameter to iNetDT_FLT32 (5), and then define the last parameter as a VAR FLOAT (i.e. pointer to a 32bit floating point number, where the TestPoint floating point variable is loaded by the iNet_DLL() routine).

Write_Channel(netNum, moduleNum, deviceNum, chanNum, newValue)

This routine writes a value to an instruNet channel (e.g. voltage output).

Show Window

Opens the instruNet Network window, where the user can easily adjust the instruNet channel settings (e.g. sensorType).

Restore Settings

This method restores the instruNet channel settings that were previously stored to disk via the Store command in the instruNet Network window.

Save and Restore Channel Settings

The Read_instruNet_Settings() method reads all the instruNet settings into a 20KB array that can be stored in a TestPoint application file. And Write_instruNet_Settings() loads the 20KB settings array into instruNet.

High Speed Digitize

An interface that supports high speed digitizing. The Read_Channel() and Write_Channel() methods are useful when doing slow speed work (< 100samples/sec), yet are not fast enough to digitize at the 166Ks/sec rates, since they only read/write one point per call, as opposed to working with arrays of data with each call. If you press the Digitize button in the example, and it appears to freeze, please try increasing the sample rate and reducing the # of digitized points, since it might be waiting for a full scan.