VISA Data Types

The VISA Library defines a special set of data types. The IVI Library also uses some of these data types. The data types strictly define the type and size of the parameters and therefore promote the portability of the functions to new operating systems and programming languages.

A subset of the VISA data types has been defined for use in the development of LabWindows/CVI instrument drivers and are accessible as user-defined data types. The following table shows these special data types for instrument drivers.

VISA Type Name	Definition
`ViInt16`	Signed 16-bit integer
`ViInt32`	Signed 32-bit integer
`ViInt64`	Signed 64-bit integer
`ViUInt16`	Unsigned 16-bit integer
`ViUInt32`	Unsigned 32-bit integer
`ViUInt64`	Unsigned 64-bit integer
`ViReal64`	64-bit floating-point number
`ViInt16[]`	An array of `ViInt16` values
`ViInt32[]`	An array of `ViInt32` values
`ViInt64[]`	An array of `ViInt64` values
`ViReal64[]`	An array of `ViReal64` values
`ViChar[]`	A string buffer
`ViConstString`	A read-only string
`ViRsrc`	An instrument driver resource descriptor (`string`)
`ViSession`	An instrument driver session handle
`ViStatus`	An instrument driver return status type
`ViBoolean`	Boolean value
`ViBoolean[]`	An array of `ViBoolean` values

Note LabWindows/CVI adds the `ViInt64`, `ViUInt64`, and `ViInt64[]` data types only when you select **CVI 8.5 and later** as the FP file format.

To use these special user-defined data types in an instrument driver, complete the following steps:

1. Add the VISA data types to the function panel file by using the **Options»Data Type** command in the Function Panel Editor. Then click the **Add VISA Types** button in the Edit Data Type List dialog box (../fpeoptionsdatatypes/).
2. Include the `vpptype.h` file in the instrument driver header file.

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