Introduction to the AgM9018 IVI-COM/C Instrument Driver

Driver Documentation

The Readme.txt file can be found in the *<Program Files>*\IVI Foundation\IVI\Drivers\AgM9018\ directory. It contains notes about installation, known issues, the driver's revision history, and IVI compliance information.

The driver help file, AgM9018.chm, can be found in the *<Program Files>*\IVI Foundation\IVI\Drivers\AgM9018 directory. It contains:

- General information about using the driver
- IVI compliance information
- Reference information for all methods and properties in the IVI-COM driver
- Reference information for all functions and attributes in the IVI-C wrapper
- Information about using the driver in a variety of development environments including Visual Studio (C#, VB, Cpp), Keysight VEE, MATLAB, and LabVIEW.
- Example programs

In addition to the .chm file, the driver installs MS Help Viewer driver help (VS2010 or newer) and may optionally install integrated driver help for Visual Studio 2005/2008 (this may increase the install time by several minutes).

Driver Examples and Source Code

Driver example programs (C#, C++, VB, VEE, MATLAB) can be found in the folder: *<Program Files>*\IVI Foundation\IVI\Drivers\AgM9018\Examples\   For instructions on building examples, refer to the "Examples Readme.txt" file in the Examples folder.

The IVI-COM/C driver source code, if optionally installed, can be found in the folder: *<Program Files>*\IVI Foundation\IVI\Drivers\AgM9018\Source\   The source code is a Visual Studio 2010 C++ project and may be updated to newer versions of Visual Studio.   To use the rebuilt driver, the driver dll in the build output directory must be registered using the regsvr32.exe utility or by setting the VS project C++ Linker settings to do so.

Connecting to the Instrument

The driver help topic "Driver Examples" documents program examples for Visual Studio (C#, Cpp, VB), Keysight VEE Pro, LabVIEW, and MATLAB.   Each of these examples illustrates how to connect to an instrument in the respective development environment.
The IVI resources page (http://ivifoundation.org/resources/default.aspx) has documents and videos that explain how to get started with an IVI-COM driver in different development environments:

Using IVI with Visual C++
Using IVI with Visual C# and Visual Basic .NET
Using IVI with Keysight VEE Pro
Using IVI with LabVIEW
Using IVI with LabWindows/CVI
Using IVI with MATLAB

Configuring Instrument Settings

The AgM9018 instrument driver application programming interface (API) includes methods and properties for setting instrument state variables, as well as methods for controlling the instrument and reading results from the instrument.   These are documented in the *AgM9018 IVI-COM Driver > IVI-COM Reference* help topic.

There are two driver API hierarchies that client programs may use to control the instrument.   The first is the instrument specific hierarchy.   This hierarchy can be used to access all of the functionality of the instrument.   This hierarchy is available to programs that use one of the driver constructors to instantiate the driver.   For more information on using the driver constructors, refer to the information on *Direct Driver Instantiation* in the   *AgM9018 IVI-COM Driver > Initializing the IVI-COM Driver* help topic.   For more information on using the instrument specific hierarchy, refer to the *AgM9018 IVI-COM Driver > IVI-COM Reference > Driver Hierarchy > IAgM9018* help topic.

The second hierarchy is the optional IVI Instrument Class compliant hierarchy which supports limited, basic instrument functionality common to most instruments of similar type.   To see if this driver supports an IVI Instrument Class, refer to the *IVI Compliance Information* help topic.   If supported, this hierarchy can be used to access the IVI class API for the *<ClassName>* class. This hierarchy is available to programs that use the IVI-COM class factory to instantiate the driver.   For more information on using the class factory, refer to the information on *COM Session Factory* in the   *AgM9018 IVI-COM Driver > Initializing the IVI-COM Driver* help topic.   For more information on using the class compliant hierarchy, refer to the *AgM9018 IVI-COM Driver > IVI-COM Reference > Driver Hierarchy > IIvi<ClassName>* help topic.

Configuring Driver Settings

IVI instrument drivers implement inherent capabilities including properties that control driver behavior, utility methods, and identifying information.   For more information on using the inherent capabilities, refer to the *AgM9018 IVI-COM Driver > IVI-COM Reference > Driver Hierarchy > IIviDriver* help topic.

Properties that control driver behavior such as   simulation, range checking, and instrument status checking can be enabled/disabled when initializing the driver or by using configuration information in the IVI Configuration Store.   For more information, refer to the *AgM9018 IVI-COM Driver > Initializing the IVI-COM Driver* help topic.

Known Issues

The readme.txt file can be found in the *<Program Files>*\IVI Foundation\IVI\Drivers\AgM9018 directory. It contains information about known issues.

Contact Support

If you have feedback or need help using this driver, contact Keysight Technical Support:
- Support, Manuals, & Downloads: http//www.keysight.com/find/support
- Contact Us: http://www.keysight.com/find/contactus
- Phone Support: +1 800 829-4444

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