IVI 2014

The IVI Foundation has updated its specifications to require that certain features are included in all IVI compliant drivers. These updates are all included in the IVI-2014 generation. The following updates are included in the IVI-2014 generation:

- Starting with IVI-2014, there are special rules for drivers that are built on an underlying interface provided by the instrument vendor, such as SCPI. These drivers will be required to provide:

  - Source code in the programming language used by the driver provider.
  - Documentation of each function and attribute in the driver in terms of the underlying interface.
  - A "Direct IO" mechanism for sending commands to the instrument. Using this, an application can use the driver API for most of the application, and, in places where the driver has shortcomings, the application can send commands to the instrument via the driver without having to manage access to the I/O session.

- Test systems frequently need to fine tune the settings on an instrument and need to avoid the overhead of calling a high-level configure function. IVI conventionally provides this functionality by providing attributes (also known as properties) for each configuration parameter. Starting with IVI-2014 drivers are required to provide attributes for programming all parameters that are available through configure functions.

- IVI-2014 takes measures to ensure that all IVI drivers are of high quality. All IVI drivers are required follow an IVI-specified process for testing. This process requires that all entry points be tested with parameters that exercise the valid ranges of each setting as well as out-of-range values. In addition to the explicit test requirements, drivers are required to ship documentation of the various test setups they are tested with and any issues exposed by the tests.

- IVI-2014 takes measures to ensure that users can easily get started with IVI drivers. The IVI Foundation now provides sample documentation to driver developers that will assist them in providing documentation for first time users. IVI requires driver developers use the sample documentation or its equivalent.