IVI Foundation and Specifications

Purpose: Summarize the work of the consortium
Introduce the technical material with big picture

Topics:
- The Consortium
- The Driver Specifications

Time: Approximately 8:00 minutes
What is IVI?

The primary purpose of the Consortium is to:

• Promote the development and adoption of standard specifications for programming test instrument
• Focus on the needs of the people that use and develop test systems who must take off-the-shelf instrument drivers and build and maintain high-performance test systems
• Build on existing industry standards to deliver specifications that simplify interchanging instruments and provide for better performing and more easily maintainable programs

From IVI Foundation By-laws
IVI fit with other specs

- SCPI
- GPIB
- HiSLIP
- VXI-11
- VISA/VISA-COM
- VISA/VISA-COM plug & play
- VXI
- T&M Specific Protocols/Standards
- AXIe 1.0
- AXIe 2.0
- AXIe 3.1
- PCI, PCIe, Compact PCI
- USB
- USB
- Ethernet
- VXI
- PXI
- PXI-2 and PXI-6: Software
- VISA/VISA-COM message/register
- Instrument Capabilities
- Programming Interfaces for C/C++/C#/VB, LabVIEW, etc
- IO Interfaces & SW Protocols
- T&M Specific Protocols/Standards
- Physical Connection

2013-04-13
IVI fit with other specs

- SCPI
- IVI 4.x (Classes)
- IVI 3.x (Arch)
- VISA/VISA-COM
- VXI-11
- HiSLIP
- GPIB
- LXI
- USB TMC
- USB
- VME
- PXI
- AXIe 1.0
- AXIe 2.0
- AXIe 3.1
- Instrument Capabilities
- Programming Interfaces for C/C++/C#/VB LabVIEW, etc
- IO Interfaces & SW Protocols
- T&M Specific Protocols/Standards
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- PCI, PCIe & Compact PCI
- PXI-2 and PXI-6: Software
- VXI plug&play
- IVI 6.3 PXI plug-in
IVI Fit with Other Specs

- SCPI provided necessary standards based on GPIB needs
  - Command strings natural match to GPIB
  - HiSLIP allows connection to LXI
- VXIplug&play added drivers necessary for VXI
  - Used with other I/O to provide necessary driver
- IVI enhances VXIplug&play with new features & support for current tools