Keysight IO Libraries Suite 2024(for Windows)

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What is the Keysight IO Libraries Suite?

The Keysight IO Libraries Suite is a collection of libraries and utility programs. The IO libraries (SICL, VISA, VISA.NET, and VISA COM) enable instrument communication for a variety of development environments (Keysight VEE Pro, Microsoft Visual Studio, etc.) that are compatible with GPIB, USB, LAN, RS-232, PXI, AXIe, and VXI test instruments from a variety of manufacturers. Several utility programs help you quickly and easily connect your instruments to your PC.

Establishing communication between your instruments and your PC is as easy as 1, 2, 3:

1. Install the IO Libraries Suite: Get all the software you need to connect instruments to your PC via GPIB, USB, LAN, and other standard interfaces.
2. Install Instrument Software and Connect Your Instruments: Install any software and drivers that come with your instruments. Connect cables and apply power.
3. Run Keysight Connection Expert to Identify and Communicate with Instruments: See connected instruments, send commands to your instruments, and configure the settings.

What's New in Keysight IO Libraries Suite 2024

New Feature(s):

- KDI utility updated from version 3.2 to 3.4

Defect Fixes

- Resolved issue related to the M9537A Chassis displaying inaccurate information in the Keysight Connection Expert. The underlying issue, a legacy issue with the M9506A sys module driver, was resolved by assigning the lowest child sys module to the chassis in the cascade relationship.
- Resolved defect in ktvisa32.cs causing build errors for 32-bit applications in IOLS 2023 and 2023 Update 1. The fix involves changing attribute values to signed 32-bit, ensuring compatibility.
- Resolved critical defect causing Keysight PSS IC-CAP & WaferPro Express crashes on Linux with PCI-GPIB card.
- Resolved defect blocking keyboard interrupts during USB INSTR sessions. The issue, specific to USB INSTR and caused by a handler problem in the SetConsoleCtrlHandler API, is resolved in this version.
- Resolved USB plug-and-play detection issue for Argo instruments (N7731C).

Note: Windows on ARM Feature Support

Windows on ARM does not support the following features:

- Serial Interface or Serial Instrument
- GPIB Interface or GPIB Instrument
- Remote GPIB, Remote Serial, and Remote USB

Getting Started

System Requirements

Keysight has tested IO Libraries Suite 2024 on the following system configurations. In general, the product should run on any x86 or x64 (except Itanium) processor. Note that performance may be impacted with less powerful systems.

#	Operating System	Processor Speed	Available Memory (Limited RAM on older PCs can cause longer installation times)	Available Disk Space (Minimum disk space required for installation may be higher than actual space utilized)	Minimum Display

1	Windows 11 on ARM (64-bit x86 emulated applications or ARM64EC applications)	2.40 GHz, 8 Core	4 GB minimum	2.5 GB hard disk space: • 2 GB for Microsoft .NET Framework 4.6 • 100 MB for Keysight IO Libraries Suite	1024x768, 96, or 120 DPI
2	Windows 11 (64-bit): • Home • Pro • Enterprise	1 GHz 32-bit (x86) 1 GHz 64-bit (x64) *No support for Itanium64 or Windows 11 RT*	1 GB minimum	2.5 GB hard disk space: • 2 GB for Microsoft .NET Framework 4.6 • 100 MB for Keysight IO Libraries Suite	1024x768, 96, or 120 DPI
3	Windows 10 (32/64-bit): • Home • Pro • Enterprise	1 GHz 32-bit (x86) 1 GHz 64-bit (x64) *No support for Itanium64 or Windows 10 RT*	1 GB minimum	2.5 GB hard disk space: • 2 GB for Microsoft .NET Framework 4.6 • 100 MB for Keysight IO Libraries Suite	1024x768, 96, or 120 DPI
4	Windows 8 and Windows 8.1 (32/64-bit): • Core • Pro • Enterprise	1 GHz 32-bit (x86) 1 GHz 64-bit (x64) *No support for Itanium64 or Windows 8 RT*	1 GB minimum	2.5 GB hard disk space: • 2 GB for Microsoft .NET Framework 4.6 • 100 MB for Keysight IO Libraries Suite	1024x768, 96, or 120 DPI
5	Windows 7 SP1 (32/64-bit): • Starter • Home Basic • Home Premium • Professional • Ultimate • Enterprise	1 GHz 32-bit (x86) 1 GHz 64-bit (x64) *No support for Itanium64*	1 GB minimum	1.5 GB hard disk space: • 1 GB for Microsoft .NET Framework 4.6 • 100 MB for Keysight IO Libraries Suite	1024x768, 96, or 120 DPI
6	Windows Server 2016 (64-bit)/ Windows Server 2012 (64-bit, Standard)	1.4 GHz (x64 processor) 1.3 GHz (Dual Core) *No support for Itanium64*	1 GB minimum	2.5 GB hard disk space: • 2 GB for Microsoft .NET Framework 4.6 • 100 MB for Keysight IO Libraries Suite	1024x768, 96, or 120 DPI
7	Windows Server 2008 R2 SP1 (64-bit): • Standard • Enterprise	1.4 GHz (x64 processor) 1.3 GHz (Dual Core) *No support for Itanium64*	1 GB minimum	1.5 GB hard disk space: • 1 GB for Microsoft .NET Framework 4.6 • 100 MB for Keysight IO Libraries Suite	1024x768, 96, or 120 DPI

Other Requirements

Windows version 8.1 and Windows Server version 2012 R2 require Windows update 2919355 *before* Keysight IO Libraries can be properly installed.

Licensing

See the License Grant at the end of this file to determine whether you are licensed to install this software.

Support for Older Operating Systems

Keysight recommends you use the current version of the IO Libraries Suite. It supports the newest interfaces and operating systems and has the most advanced features. If you need to install an earlier version to support an older interface or operating system, go to IO Libraries Suite to locate legacy versions.

Installing the Software

To install Keysight IO Libraries Suite:

1. Disconnect any USB instruments, USB/GPIB converters, PXI and AXIe chassis, and FireWire (IEEE 1394)/VXI interfaces that are connected to your PC.
2. Close all applications running on the PC.
3. Install the software:

   - If you have the IO Libraries disk, insert it and double-click Autorun/auto.exe.
   - If you download from www.keysight.com, download and run IO Libraries Suite 2024.

   When you install, select Typical to install with recommended settings, or Custom to:

   - Install the IO Libraries Suite in another directory (32-bit operating systems only).
   - Use Keysight 32-bit VISA with another vendor's VISA on the same PC in side-by-side mode. For details, see Non-Keysight 32-bit VISA Detected on www.keysight.com or to the IO Libraries Suite Help following installation.
4. Re-connect any devices that you disconnected before installation.

(Optional) Silent (Command Line) Installation Mode

For silent installation, use the /s option. For example:
IOLibSuite_version.exe /s /z"typical"

For more information, see this page:

IO Libraries Suite: Can the IO Libraries be installed as a silent install?

Known Issues

Missing Components in VISA COM Applications
Ivi.Visa.Interop.dll is missing in the 32-bit VISA COM applications. The workaround to fix the issue is as follows:

- Install .NET Framework 3.5
  You can install .NET Framework 3.5 using the IO Libraries Suite installer with the net35 directive. For example: **IOLibSuite_version.exe /s /z"typical;net35"**
- Uninstall VISA shared component
- Repair IO Library Suite to install VISA shared component

Another way to fix the issue is as follows:

- Open Visual Studio developer command window with elevated privilege
- Change to *C:\Program Files (x86)\IVI Foundation\VISA\VisaCom\Primary Interop Assemblies*
- Run "IviPiaRegistration.bat"

Feature Obsolescence Note

Here is the list of features no longer supported in IO Libraries Suite 2024 or future releases:

Feature	Details
VXI Interface	IO Libraries Suite 2024 will not support VXI on Windows 8 or Windows 11.
Operating System Support	Support for Windows 7, Windows 8.1, and Windows 10 32-bit will be removed in the upcoming release.
IO Libraries Suite Upgrade	Upgrades from IO Libraries Suite 18.0 or earlier versions will not be possible with the upcoming release of the IO Libraries Suite.
.NET Framework 3.5 Install	Installing .NET Framework 3.5 as a part of IO Libraries is being removed with the upcoming release.

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