

VEE Pro 9.33

Keysight's software products make you more productive, so you can focus on solving engineering problems, not on programming. Keysight VEE is a powerful intuitive graphical language environment that provides you the quick and easy path to measurement analysis.



Keysight VEE 9.33 Features

- Windows 10 operating system supportability
- Microsoft Office Excel 2013, 2016 and Office 365 supportability
- Multithreading and multicore programming support
- SCPI completion
- Private UserFunction
- LXI support
- Conditional breakpoints and breakpoints window
- Error call stack
- Integrated database support
- Supporting custom menu in XML format
- Enhanced default preferences dialog box
- NaN and Infinity support
- Toolbars for VEE objects
- More Windows standard dialog boxes

For Faster Programming

Keysight VEE (Visual Engineering Environment) is an easy-to-use graphical language environment that provides a quick path to measurement and analysis.

- Select and edit objects from pull-down menus or toolbars and connect them to each other by wires to specify the program's flow, mimicking the order of tasks you want to perform.
- Illustrate objects and connections between them with color coding for easy program differentiation.
- Create programs easier and faster with SCPI completion, code completion and code insight.
- Debug programs on the fly and quickly test and update codes with Conditional Breakpoints, Watch Window and Output Window.
- Improve your system performance with multithreading technology and multicore programming.

Keysight VEE can be used as a standalone solution or as part of a custom in-house solution, and includes all the capabilities and support you need to be successful.

Test and Measure Efficiently

Keysight VEE verifies instrument addresses and other parameters at runtime and allows users to change these parameters without reconfiguring programs. The software handles different data types automatically, providing automatic conversion and data handling capabilities with minimal complex programming.

Generate optimized codes with Keysight VEE's compiler, and further enhance those codes with the built-in Profiler. The Profiler analyzes critical sections of code to save development time when fine-tuning the programs.

Keysight VEE Pro comes standard with a RunTime execution engine that provides the ability to distribute run- only Keysight VEE Pro applications at no additional cost. The users are allowed to redistribute the RunTime installer.

A Better User Experience

Designed for engineers and scientists who need to quickly create and automate measurements and tests, Keysight VEE comes with features that help users do their job faster and more effectively.

The Modern Integrated Development Environment with dockable tool windows gives users a more modern and streamlined programming experience, while numerous sample programs, demos and context- sensitive help provide support for beginner and veteran programmers alike.

Software and Hardware Compatibility

Keysight VEE interfaces with popular software and hardware tools, and provides easy, menu-driven control of database. Keysight VEE uses the .NET Framework and ActiveX to simplify common tasks, and supports industry standard instrument drivers, including IVI-COM and *VXIplug&play*. Users may also use SCPI or the .dll library supplied with many instruments.

Keysight VEE Pro supports all popular programming languages, including Visual Basic, C/C++, Visual C# and all.NET compliant languages.

Keysight VEE Pro supports various instruments and data acquisition devices, and works with surface-mount machines, robots and other manufacturing equipment via the .NET Framework or supplied ActiveX libraries.

Keysight VEE Pro can communicate with any instrument from any vendor using GPIB, LAN, USB, RS-232, VXI and LXI, and controls most standard instruments' plug-in cards with an instrument driver, a vendor-supplied DLL or with Keysight VEE Pro's direct IO capability.

Powerful Features for Increased Productivity

MATLAB Script and the MathWorks Signal Processing Toolbox are embedded in Keysight VEE Pro at no additional cost, and come with 1800 MATLAB functions, more than 1000 of the most popular MATLAB analysis and visualization functions preprogrammed as one-click objects.

Built-in MATLAB functions include:

- Numeric computation
- Engineering and scientific graphics (2D, 3D, waterfall, bar, pie)
- Signal processing
- Arrays and matrix math

Evaluate Keysight VEE Pro

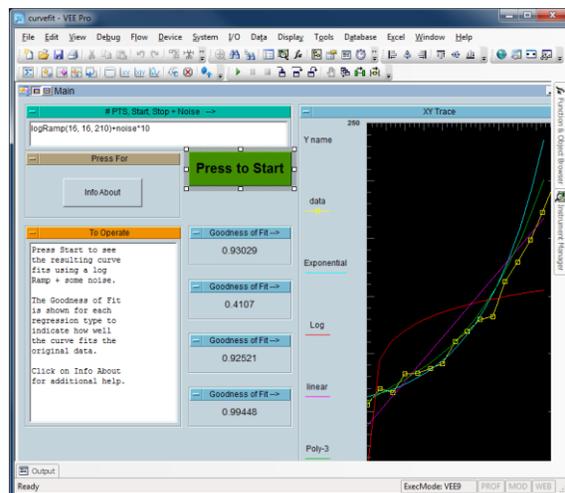
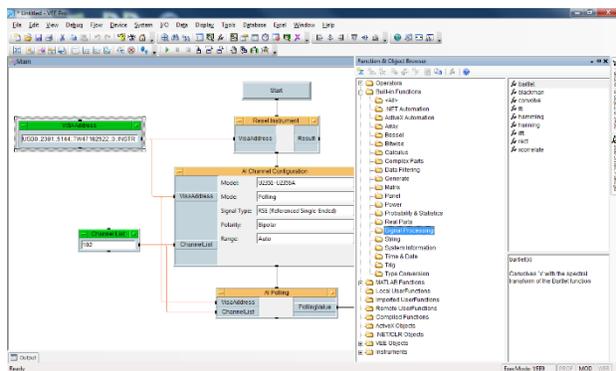
Test a trial version of Keysight VEE Pro and see its benefits for yourself. Download a free, fully functional 30-day evaluation copy.

For more information, visit www.keysight.com/find/vee_download

A Complete Solution

There is no need to buy expensive add ons to get the full set of Keysight functionality. Keysight VEE includes all the capabilities and support you need to be successful, including:

- Built-in MATLAB Script and Signal Processing Toolbox
- Menu-driven control of Excel and databases
- Unlimited RunTime distribution of your Keysight VEE Pro applications
- Localized documentation



Minimum System Requirements for Keysight VEE Pro 9.33

Prior to installing Keysight VEE Pro 9.33, Keysight VEE Student, and Keysight VEE Runtime, ensure that your PC meets the following minimum system requirements for installation and operation.

System requirements		
Operating System	Windows 7 SP1 (32- and 64-bit)	Windows 8, 8.1 and 10 (32- and 64-bit ¹)
Processor	1 GHz 32-bit (x86), 1 GHz 64-bit (x64), no support for Itanium 64	
Minimum RAM	1 GB minimum	
Minimum disk space	1.5 GB available hard disk space, includes:	2.5 GB available hard disk space, includes:
	<ul style="list-style-type: none"> 1 GB available for Microsoft.NET Framework 4.6 	<ul style="list-style-type: none"> 2 GB available for Microsoft.NET Framework 3.5 and 4.6
	<ul style="list-style-type: none"> 100 MB for Keysight IO Libraries Suite 	<ul style="list-style-type: none"> 100 MB for Keysight IO Libraries Suite
Pre-requisite		
Microsoft Office 2013, 2016 or Office 365 (If using Office products with Keysight VEE Pro or Keysight VEE Student)		
Keysight IO Libraries Suite 16.3.16603.3 or higher (This is only needed when you communicate with instruments using Keysight VEE)		
Microsoft .NET Framework 3.5 SP1 ²		
Connectivity options for instrumentation		
Keysight 82357B USB/GPIB Interface		
Keysight E5810B LAN/GPIB/USB Gateway		
Keysight 82350C PCI High-Performance GPIB Interface Card		
USB connecting directly to instruments supporting the USB/TMC protocol		
Standard RS-232		
LAN connect to instruments supporting the VXI-11 protocol		
National Instruments I/O hardware using NI 488 version 1.5 (or higher) ³		
National Instruments I/O hardware using NI VISA version 3.0 (or higher) ³		

- 32-bit application running on WOW64 (Windows-on-Windows) emulator.
- Microsoft.NET Framework 3.5 SP1 is not included in Windows 8. The Keysight VEE installation package will prompt you to download and install Microsoft.NET Framework 3.5 SP1 from the Internet. Please refer to <http://msdn.microsoft.com/en-us/library/hh506443.aspx> for more information.
- Keysight VEE no longer provides official NI supportability. However, the NI interface is still available.

Keysight VEE Comparison Table

	Keysight VEE 9.33		Keysight VEE 8.5			Keysight VEE 8.0		Keysight VEE 7.5
	Pro	Student	Pro	Express	Student	Pro	Express	Pro
Development Tools								
MultiThreading	●	●						
Multicore Programming	●	●						
SCPI Completion	●	●						
Private UserFunction	●	●						
Toolbars for VEE Objects	●	●						
Enhanced Default Preferences dialog box	●	●						
Color Coding	●	●	●	●	●			
Modern Integrated Development Environment [IDE]	●	●	●	●	●			
Microsoft Windows 10 Support	●	●						
Microsoft Office 2013, 2016, Office 365 Support	●	●						
Programmatic Properties for VEE Objects	●	●	●	●	●	●	●	
Code Completion and Code Insight	●	●	●	●	●	●	●	
Minimap	●	●	●	●	●	●	●	
Project Explorer Window	●	●	●	●	●	●	●	●
.NET ActiveX and IVI-COM Support	●	●	●	●	●	●	●	●
Support for Microsoft .NET Controls	●	●	●	●	●	●	●	●
The Callable Server Feature	●		●			●		●
The Remote Function Feature	●		●			●		●
Creating RunTime Version of Keysight VEE Programs and Secured Version of Keysight VEE Objects	●		●			●		●
General vTools and USB Modular DAQ vTools	●	●						

Debugging Tools								
Conditional Breakpoints	•	•						
Error Call Stack	•	•						
Output Window	•	•	•	•	•			
Watch Window and Edit and Continue	•	•	•	•	•	•	•	
Breakpoints	•	•	•	•	•	•	•	•
Automatic Error Handling	•	•	•	•	•	•	•	•
Show Data Flow and Show Execution Row	•	•	•	•	•	•	•	•
Line Probe and Object Probe	•	•	•	•	•	•	•	•
Step-into, Step-out and Step-over	•	•	•	•	•	•	•	•
Connectivity Tools								
LXI Support	•	•						
Industry-standard Connectivity	1	1	1	2	1	1	2	3
Dynamically Change VISA Interface and Address	•	•	•	•	•			
Using Keysight IO Monitor to Monitor Instant Communications	•	•	•	•	•			
Instrument Manager Auto-detect and Configure of Instruments	•	•	•	•	•	•	•	•
VEE I/O Configuration File Saved with Program	•	•	•	•	•	•	•	•
Other Tools								
Integrated Database Library	•	•						
Custom Menu in XML Format	•	•						
MATLAB 2007a Support	•	•	•	•	•			
Built-in MATLAB Engine	•		•					
MATLAB Script Objects	•		•			•		•
Integrated Excel Library	•	4	•		4	•		•
Integrated Database Library	•	•	•	•	•	•	•	•

1. GPIB, RS-232, GPIO, USB, LAN, VXI.

2. GPIB, RS-232, GPIO, USB, LAN, VXI.

3. Keysight USB only.

4. Support only when MATLAB is installed on your machine.

Keysight VEE Education 9.33 has all the features of Keysight VEE Pro 9.33 and comes packaged with 10 standalone licenses. Keysight VEE 9.33 does not come with an express version.

Ordering Information

Note: All products listed below are structured as options under the W4000D product number. VEE Pro 9.33 is available through online download only.

System requirements	Notes
Keysight VEE Pro 9.33 Software (W4000D-1TP)	Includes the full feature of Keysight VEE Pro 9.33
Keysight VEE Pro 9.33 Student Software (W4000D-2TP) (for students only)	Includes the full feature of Keysight VEE Student 9.33
Keysight VEE Pro Education 9.33 (W4000D-3TP) (for education customers only)	Includes 10 licenses of Keysight VEE Pro 9.33
Upgrade licenses	Notes
Upgrade from Keysight VEE Pro 8.5 to Keysight VEE Pro 9.33 (W4000D-5TP)	
Upgrade from Keysight VEE Pro 8.0 to Keysight VEE Pro 9.33 (W4000D-6TP)	
Upgrade from Keysight VEE Pro 7.5 and below to Keysight VEE Pro 9.33 (W4000D-7TP)	
Upgrade from Keysight VEE Express to Keysight VEE Pro 9.33 (W4000D-8TP)	
Additional options	Notes
Keysight VEE Education 9.33 10-license upgrade option (W4000D-4TP)	Includes 10 licenses to upgrade from version 9.3 or earlier to VEE Education 9.33 (W4000D-3TP)

For additional ordering information, technical policy, part numbers, and pricing assistance please refer to: www.keysight.com/find/vee

Learn more at: www.keysight.com

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

