Agilent T&M Programmers Toolkit 1.1 for Visual Studio® .NET Read Me

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The T&M Toolkit is software that works with Microsoft's® Visual Studio® .NET, and turns Visual Studio .NET into a great programming environment for the rapid development of Test and Measurement oriented applications and tools.

Installation

Run the exe file that you have downloaded from the Web. This self-extracting zip file creates the setup files in the directory where you run it. **NOTE** You must uninstall Agilent T&M Toolkit 1.0 before installing Toolkit 1.1. Choose setup.exe to launch the installation process. Once the installation is complete, run Visual Studio .NET and verify that the main menu contains a menu item entitled T&M Toolkit.

Licensing

The Agilent T&M Programmers Toolkit 1.1 is a licensed product. The licensing activation is accomplished by putting a license file in the {installation directory}AgilentTMProgrammersToolkit 1.1LicenseFiles. To get your license file, connect to: http://www.agilent.com/find/codeword

At this location, there is a brief process that generates a license file. The file and installation instructions for it are emailed to you.

FAQs

Where is the manual? There is a Getting Started Manual (ToolkitGettingStarted.pdf) for the Toolkit in the installation sub-directory called "Docs". The default installation directory is C:Program FilesAgilentTMProgrammersToolkit 1.1DocsToolkitGettingStarted.pdf

Combined System Requirements for Visual Studio .NET & Agilent T&M Toolkit

Development Environment:
Microsoft's Visual Studio .NET Release 2002 or 2003 Standard Edition or better

Operating System Version:
Windows NT 4.0 (SP 6.0a or later)
Windows 2000 Professional (SP 2 or later)
Windows XP Professional

Unsupported for Development: Microsoft Windows 95, 98, ME, and XP Home

Supported for Run Time: Microsoft Windows 98, ME, NT, 2000, XP, and XP Home

Processor:
Pentium II 450 MHz or better

Memory:
Recommend: 256 MB or more
Windows® NT® 4.0 Workstation: 64 MB minimum
Windows 2000 Professional: 96 MB minimum
Windows XP Professional: 160 MB minimum

Free Disk Space:
500 MB minimum on the system drive
2.5 GB on the installation drive
100 MB for Agilent T&M Toolkit

Peripherals:
A display with a minimum 800x600 resolution, 256 colors. Only small fonts are supported.
LAN interface

USB Requirements:
A USB port
IO Libraries version M.01.01.04 or higher
Windows XP SP1 required for USB 2.0
See IO Libraries documentation for further details

Product Dependencies

* The VEE Wrapper Generator requires VEE 6.03 or greater. The patch to upgrade VEE 6.01 versions to 6.03 is in the root directory where download_toolkit_1_1.exe is unzipped. The files are named 603VeePro.exe and 603VeeRun.exe.

* The VXI*plug&play* Wrapper Generator can only wrap VXI*plug&play* drivers that are already installed on your computer. You can download drivers for Agilent/HP instruments from:

http://www.agilent.com/find/drivers

* The IO Monitor requires installation of version M.01.01.04 or higher of the Agilent IO Libraries. Note: The Agilent IO libraries can be installed "side-by-side" with the NI VISA Library.

Manuals

The PDF version of the "Getting Started Guide" and the "QuickStart Card" can be found in the Docs directory of the root installation directory of the Agilent T&M Toolkit.

Known Issues

You have Visual Studio .NET 2002 installed. You install Visual Studio .NET 2003 without uninstalling Visual Studio 2002. At a later date, you uninstall Visual Studio 2002. This will break Visual Studio .NET 2003. This is a known Microsoft bug. See the Knowledge Base article Q317417.

T&M Toolkit supports help for installations of the English version of Visual Studio .NET. Help files for foreign language versions are not provided.

For Agilent IO Monitor, testing shows that it is quite possible to overwhelm a computer's resources when tracing multiple I/O layers in a tight looping structure. Agilent recommends that you trace a single layer in these instances.

When using the IO Monitor to trace a program that uses the DirectIO class, if an error occurs such as I/O timeout you will get a different exception than you would get when not tracing with the IO Monitor. Instead of the normal Agilent.TMFramework.InstrumentIO.VisaException you may get either a System.Runtime.InteropServices.COMException or a System.Runtime.InteropServices.ExternalException with a message of "An internal error occurred. Please contact your I/O vendor".

On Windows 98, if you install an IVI-C or IVI-COM object while the Instrument Explorer is open, you can potentially corrupt the information in the Config Store. We recommend that you close all applications while doing any installations.

Microsoft has informally acknowledged that there may be a memory leak in the large object heap for Visual Studio .NET 2002 with Service Pack 1 applied. There is no information about when a fix will be available.

If you encounter errors adding a reference to an IVI-COM driver in a C#, VB.NET, or Managed C++ project, it is very likely that the IVI-COM driver vendor did not provide a primary interop assembly for their driver. A primary interop assembly is required to use an IVI-COM driver with the T&M Toolkit. You will need to ask the driver vendor to supply you with primary interop assemblies for the driver. In general, Microsoft recommends using primary interop assemblies when the COM interfaces defined in a component will be passed between two or more managed DLLs. Microsoft has provided an article, "Calling COM Components from .NET Clients", on the MSDN website (http://msdn.microsoft.com/), which provides a good explanation of the issues involved.

If you are using the Instrument Session Wizard to create a session for an IVI-COM driver, and you are pasting sample code into a Managed C++ Project, the wizard attempts to add the appropriate IVI-COM driver References to your Project. This may fail with an error similar to the following: "Add Project Reference of 'C:Program FilesIVIBinAgilent34401.dll' failed with error: 'Exception from HRESULT: 0x8013110B.'. Try adding the Reference manually via Project->Add Reference." There is a known bug in Visual Studio .NET 2003 regarding a Wizard adding COM References to a Managed C++ project. You can add the reference manually, by selecting the menu Project->Add Reference, or by right-clicking "References" in the Solution Explorer. For an IVI-COM driver, choose the COM tab, and either Browse to the driver using the path from the error message, or choose it from the list of COM references, for example "IVI Agilent 34401 (Agilent Technologies) 1.0 Type Library".

Uninstall Notes

There is one application installed with the T&M Toolkit that appears in Add/Remove Programs. Its title is "Agilent VisaCom". When the T&M Toolkit is uninstalled, it also uninstalls this application. Do NOT uninstall it separately.

If the T&M Toolkit is uninstalled, Visual Studio pauses and displays a message the next time it is started. The message box says:

"Help is updating to reflect your recent changes. This may take several minutes."

This is caused by the removal of the Agilent T&M Toolkit Help from Visual Studio .NET. It is normal and does take more than a minute.

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