Getting Started

with

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QuickUSB Library Contents

The QuickUSB Library contains all of the necessary documentation, sample applications, and utility programs to help get you started with QuickUSB. The following is a quick look of what is installed with the QuickUSB Library:

Software Library

- **Standard Windows DLL and LIB Libraries**
  A standard Windows DLL function library for use with any language that supports standard Windows DLLs (C, C++, VB, Java, Delphi, ...).

- **.NET Assembly**
  A .NET assembly for the QuickUSB API for use in any .NET 2.0 capable language (C#, VB .NET, ...).

- **Linux Library**
  A standard Linux library for use on many Linux distributions.

Documentation

- **QuickUSB Module Datasheet, Target Interface, and Mechanical Drawings**
  Information regarding the capabilities of QuickUSB, signal interfaces, and mechanical drawings.

- **QuickUSB Getting Started Guide**
  This guide, which aids in installing the QuickUSB Library.

- **QuickUSB User Guide**
  A comprehensive guide on how to use the QuickUSB API, design hardware for QuickUSB, and how to deploy software for QuickUSB.

- **QuickUSB Software License Agreement (SLA)**
  The software license for using the QuickUSB Library and firmware.

Samples

- **Numerous Sample Projects with Source**
  A number of sample applications with source code and project files written in C, C++, C#, VB6, Delphi, and more. Each sample clearly demonstrates how to program software using QuickUSB.

Utility Applications

- **QuickUSB Diagnostics**
  A utility to view information about QuickUSB Modules, perform read/write command and data transfers, configure GPIO ports, view/edit the QuickUSB settings and defaults, and read/write the RS-232 ports, SPI ports, and I2C port. Use of the application is fully documented in the QuickUSB Diagnostics User Guide and application source code is provided as a sample written in VB6.

- **QuickUSB Programmer**
  The utility used to program QuickUSB firmware into a module. Use of the programmer is fully documented in the QuickUSB Programmer User Guide.

QuickUSB Setup

Install the Library and Drivers

Please do not connect the QuickUSB Module to your computer until you have successfully installed the QuickUSB Library. If you are upgrading from a previous version of the QuickUSB Library, please uninstall the older version of the library before installing the newer version.

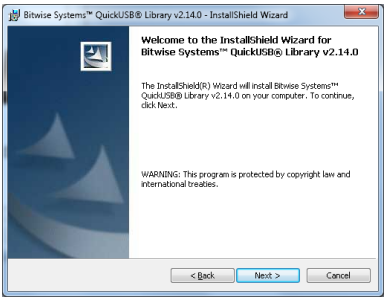
To begin, insert the QuickUSB Library CD into your CD-ROM drive. The setup program should automatically begin and display the QuickUSB welcome screen. If the setup program does not automatically begin navigate to "My Computer", open the CD-ROM drive, and execute the setup.exe file.

The following 10 steps help to quickly guide you through the QuickUSB Library installation process:

Step 1: QuickUSB Welcome Screen

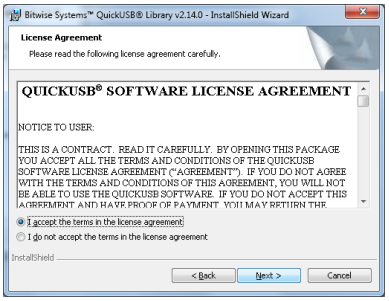
To continue with the installation, click the "Next" button.

Step 2: Setup Wizard Welcome Screen



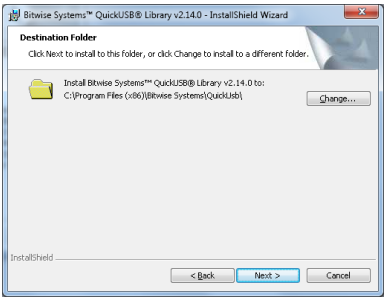
To continue with the installation, click the "Next" button.

Step 3: QuickUSB Software License Agreement



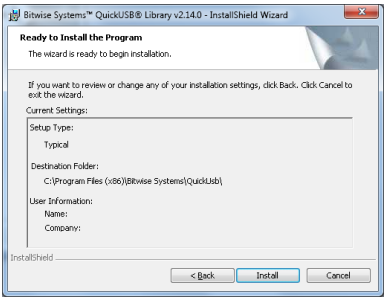
Please take some time to read through the SLA and understand the terms of the agreement. If you agree with the license, select "I Agree" and then click "Next".

Step 4: Installation Preferences



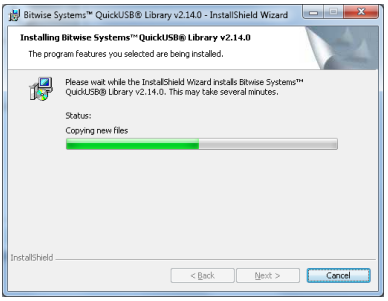
Choose the library installation directory and click the "Next" button to continue.

Step 5: Confirm Installation



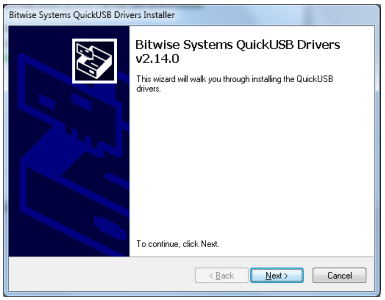
Verify all information is correct and the click the "Next" button to begin the installation of the library.

Step 6: Installing Library



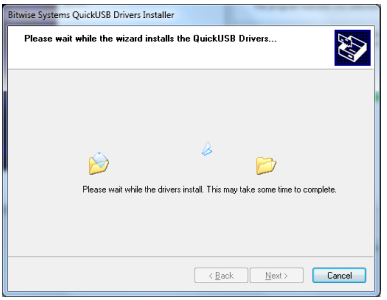
The setup wizard now displays the progress of the QuickUSB Library.

Step 7: QuickUSB Driver Installation



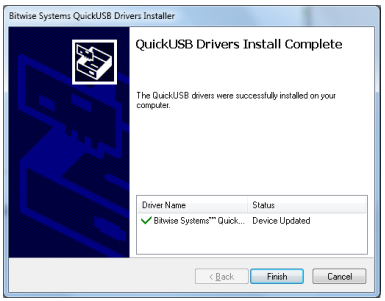
When the wizard is ready to install the QuickUSB drivers, the above screen will pop up. To begin the installation of the drivers, click "Next".

Step 8: Installing Driver



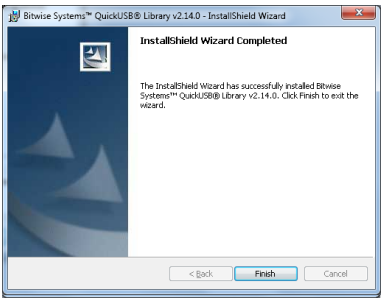
The setup wizard now installs the QuickUSB drivers to your computer.

Step 9: Driver Installation Complete



Once the drivers have been installed, click on the "Finish" button.

Step 10: Library Installation Complete



The installation has successfully completed. Click on the "Finish" button to exit the setup wizard.

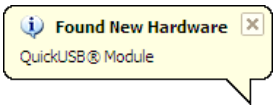
Connect the QuickUSB Module

You are now ready to connect your QuickUSB Module to your computer. Please connect the QuickUSB Module to you computer now.

If you are running Windows Vista or later Windows will automatically identify the QuickUSB Module and associate the correct driver with the module. In that case you are ready to use your module. Verify this by running the QuickUSB Diagnostics tool that installed with the library.

If you are running Windows XP or earlier, additional dialogs may appear prompting for additional driver information when you connect your module to your computer. Follow the next few steps to finalize the installation of the QuickUSB Drivers. Please note that you may have to repeat this process each time the module is plugged into a different USB port on your PC for the first time.

Step 1: Module is detected by Windows

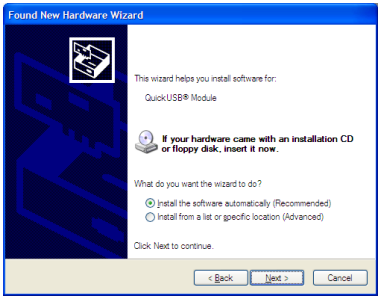


Windows detects the presence of the QuickUSB Module.

Step 2: Found New Hardware Wizard

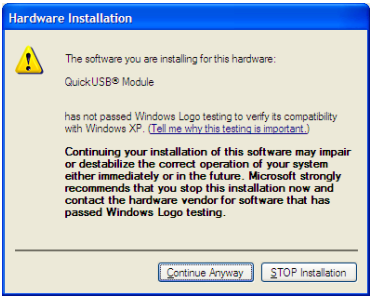
Choose to not have Windows search Windows Update for the drivers by selecting “No, not at this time” and clicking the “Next” button.

Step 3: Driver Location



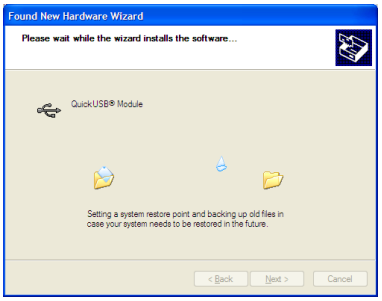
Since the QuickUSB drivers were installed with the library, Windows can locate the drivers automatically. Choose the recommended “Install the software automatically” option and click “Next”.

Step 4: Windows Logo Testing



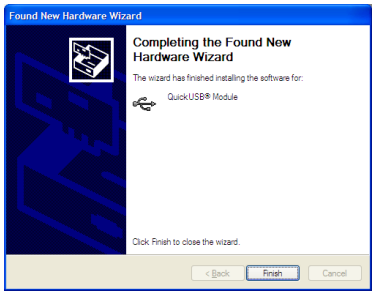
Windows will warn that the QuickUSB drivers have not passed Windows Logo testing. Click “Continue Anyway” to continue with the driver installation.

Step 5: Copying Files



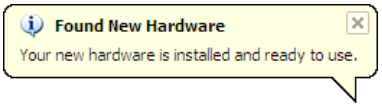
Windows is now installing the QuickUSB driver.

Step 6: Completing Driver Install



The QuickUSB driver has successfully been installed. Click "Finish" to exit the installation wizard.

Step 7: QuickUSB Hardware is Ready



Windows may display a pop-up indicating that the QuickUSB Module has successfully been installed and is ready for use.

Running the Diagnostics Application

Once you have successfully installed the QuickUSB Library, the best way to explore the capabilities of the QuickUSB Module is to run the QuickUSB Diagnostics application. This application allows you to interact with your module without writing any software. Run the Diagnostics application and connect a QuickUSB Module to your computer (if one is not already connected). If everything has properly installed and is working correctly, then the Diagnostics application should detect your connected module and display information about.

With this application you are able to perform read/write command and data transfers, configure GPIO ports, view/edit the QuickUSB settings and defaults, and read/write the RS-232 ports, SPI ports, and I2C port. Use of the application is fully documented in the QuickUSB Diagnostics User Guide and application source code is provided as a sample written in VB6 located in the following directory: "<Installation Directory>\Samples\VB6\QuickUsbDiag".

New in the v2.14.0 Release

- Updated the QuickUSB drivers and DLLs to fully support 32- and 64-bit Windows XP, Vista, and 7.
- Added a new driver setup program and installation merge module that allows QuickUSB developers to distribute the QuickUSB driver and DLLs.
- Added a .NET assembly to add QuickUSB support to any .NET 2.0 capable programming language.
- Added two new QuickUSB API functions, QuickUsbReadStorage and QuickUsbWriteStorage, which allow you to read and write up to 2 KB of non-volatile memory.
- Added the QuickUsbStorageCs C#.
- Added SPI clock polarity and clock phase control settings. Also updated the QuickUSB Diagnostics application to control the new SPI settings.
- Optimized SPI and FPGA serializer routines to add over a 10X speed increase. Now both SPI and FPGA configuration can operate at rates over 500 Kbps.
- Added a 3D CAD STEP of the QuickUSB Module.
- Added the AsyncReadTestMulti sample.
- Updated all QuickUSB documentation.
- Added a Visual Studio sample setup application demonstrating how to use the new driver merge module.

Troubleshooting

- **I've upgrade my QuickUSB Library from a previous version. How can I tell that I am using the latest QuickUSB drivers and DLLs?**

  The easiest way to check what version of QuickUSB drivers and DLLs you are using is to run the QuickUSB Diagnostics or Programmer Application and in the menu bar select "Help" → "About". A dialog will popup which will tell you the QuickUSB application version, driver version, and DLL version.

- **Why can't I see my module in the Diagnostic or Programmer applications?**

  The most likely reason a module doesn't appear in the Diagnostic or Programmer application is that the drivers are not correctly associated with the module. Navigate to "<Installation Directory>\Drivers\v2.14.0" and run the setup.exe file. This program will attempt to install the QuickUSB drivers and DLLs. If you continue to experience issues please customer support at support@quickusb.com.

- **Why is my driver version being reported as v0.0.0?**

  This will occur if you have installed the QuickUSB driver but have not yet connected a module to your PC. Connect a module to your PC and once Windows associates the QuickUSB driver with the device, the correct driver version will be reported by the API.