

Frequently Asked Questions

Title: Driver Support for 32bit and 64bit Windows Operating Systems. AND Running a 32bit EXE under 64bit Windows

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Card/Board/Module: all current cards: 2000/4000/8000PCI[e] series, UNET/UNET2 series

Operating System: all Windows (32bit, 64bit)

Question:

- What do I need in order to install the card under Windows ? Hardware driver for the Device Manager, Software driver for applications programming.
- How can I get my 32bit Windows applications running on my 64bit Windows machine ?
- Do the software tools packages work under Windows 7 ? Windows 10 ?
- Do the software tools packages work under 64bit Windows ?

Answer:

All Excalibur cards require **(a) hardware installation** disk for the given operating system (32bit or 64bit), and **(b) software tools installation** for the card/module.

- The software tools for all of our current products (M4K modules for the 2000/4000/UNET and M8K modules for the 8000/UNET2 series cards) are packaged with a single set of source code, and with DLLs, LIBs and demo programs compiled for both 32bit and 64bit Windows.
- Software tools packages are installed to folder **C:\Excalibur\Protocol Software Tools**. Subfolder **Source** contains source code for the API function, compiled DLLs, source code & executables for demo programs (32bit and 64bit).
- The compiled demo programs are in subfolder **Source\demos_protocol\bin** (for 32bit), and **Source\demos_protocol\bin64** (for 64bit).
- The installation package filename on the webpage will generally include an indicator for software tools (**st**), 32bit support (**win32**), 64bit support (**win64**).
- Older products (and legacy products) are generally packaged as 32bit Windows software tools drivers, and sometimes as native 64bit Windows software tools drivers.
- **64bit Windows support for 32bit software tools:** The 32bit software tools for our current cards and modules will also run under 64bit Windows. Hence, using current 32bit DLLs and a 32bit application EXE, will run under 64bit Windows.

(a) Hardware installation is quite straightforward. When you install the card in the machine, the Add New Hardware Wizard will ask for a disk. You need to supply the hardware installation. The necessary files can be found at URL www.mil-1553.com/kernel-drivers.

Please see file **Installation Instructions.pdf** for more information on installation. For **UNET** products, the installation information is found in the UNET product user's manual (in subfolder Manuals).

File names will be hw-pci-osname.zip for PCI cards. The osname will be **w2k** for 32bit Windows (all flavors), and **winx64** for 64bit flavors. For example, hw-pci-w2k.zip and hw-pci-winx64.zip.

We also have hardware drivers for 64bit Windows 10 **SecureBoot**, filename hw-pci-winx64-Secure-Boot-Win10.zip.

NOTE: If the card was not properly installed, then you might see a device listed in the Device Manager with a **yellow** question mark ("?") icon, perhaps called "PCI Device". Right click and select Update Driver, or Install Driver, and install the necessary driver from the appropriate hardware installation disc

In Windows 7 and 10, if the card name is listed under Excalibur PCI Cards, and there is a small **blue** question mark ("?") on the icon, then this is OK. The card is properly recognized.

If the Device Manager complains that the driver is not **signed**, then we suggest that you first install all outstanding Windows updates. Then, try updating the driver.

(b) Software tools installation for the card/module:

Start at URL <http://www.mil-1553.com/4000-family> to download software tools for the M4K/M8K family of modules for EXC-2000/4000/8000PCI[e] cards. Click on the name of appropriate module to get to the webpage containing all the installation packages available for free download for that product. Please also check URL www.mil-1553.com/applications for any applications programs that may pertain to your module. If your card is not of these families, please navigate the list on the left side of the screen (under the heading **Downloads**) to find your card and the list of available software downloads.

You have three options for software installation:

Option (b-1) - For 32bit Windows, you install software tools (file name on the webpage will be product-st-win.zip or product-st-win32-win64.zip). You can then run your compiled 32bit application, (make sure to access the DLLs from the appropriate subfolder of the target installation folder), or from the folder where we installed the software tools DLLs.

Option (b-2) - Running 64bit application under 64bit Windows: For 64bit Windows, you can install generic 32-64bit software tools, or native 64bit software tools (file name on the webpage will be product-st-winx64.zip). You can then run your compiled native 64bit application, either from its own folder or from the folder where we installed the software tools.

Option (b-3) - Running 32bit application under 64bit Windows: If you want to run a 32bit application under 64bit Windows, you will need to create a folder containing the 32bit EXE, and the full set of necessary 32bit DLLs (available at folder **C:\Excalibur\Protocol Software Tools\Source\lib\excMSVisual\Win32\Release** or **\Debug**), or copy these DLLs to C:\Windows\SysWOW64.

Note that a full set of DLLs means: a module level dll (e.g., Exc1553PxMs.dll), and card level dll (Exc4000Ms.dll), a dll for extracting packets from the card/module memory (ExcUnetMs.dll), and third party dlls (ftd2xx.dll, ftd3xx.dll).