

## Technical Note



### Subject: PowerSuite control in Windows 7 and options for 64-bit Operating System Environments

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#### PowerSuite control in 64-bit Operating System Environments

PowerSuite is marketed and sold as compatible with 32-bit types of different Windows Operating Systems (e.g. XP, Windows 7). With Microsoft discontinuing support for the popular Windows XP platform, many PowerSuite users are being forced into different Operating Systems. Windows 7 64-bit has become the most popular choice. Though PowerSuite is not marketed or sold as 64-bit compatible, there are different options that exist and these primarily depend on the specific model of potentiostat.

**Note:** VersaStudio fully supports both 32-bit and 64-bit versions of Microsoft's Operating Systems. VersaStudio does not support any of the instruments discussed here.

#### GPIB-controlled potentiostats

The most popular supported models of these potentiostats are the 273A, 263A, 283.

For GPIB-controlled PAR potentiostats, the communications is handled through the National Instruments interface.

Users can download and install 64-bit compatible versions of the National Instruments drivers. This will allow these models to be operated from within modern host computers.

Windows 7 64-bit drivers from National Instruments are available here:

<http://search.ni.com/nisearch/app/main/p/bot/no/ap/tech/lang/en/pg/1/sn/catnav:du,n19:Windows.Win7,n8:3.25.123.785,ssnav:ndr/>

#### CorrWare software package

An alternative solution for the GPIB-controlled potentiostats is to control the potentiostat by CorrWare. CorrWare has many advantages as an environment; one of which is full 32-bit and 64-bit compatibility. Additionally in some applications CorrWare has some improved functionality -- faster switching between experiment actions, more flexibility in data point acquisition.

#### PARSTAT-series of potentiostats

The most popular models of these potentiostats are the PARSTAT2273, 2263, 2253.

These devices communicate with the host computer using our **EZUSB.SYS** driver.

This driver is only compatible with 32-bit Operating Systems. This driver is not compatible with 64-bit Operating Systems.

For users of PARSTAT potentiostats that are installing a new system or are being forced into new computers with Microsoft's decision to obsolete support for Windows XP; we have the following options:

1.) Select a 32-bit version of the modern operating system (e.g. Windows 7 32-bit). Windows 8 32-bit has been tested and functional, however, but users will need to acknowledge the unsigned driver is acceptable to be installed.

2.) If using a PC with 64-bit Operating System, work with the user's local IT departments to create a 32-bit image on that machine. This replaces the host operating system.

3.) Download and install a Virtual Machine (such as " Windows XP Mode") from Microsoft. This installs as a "Windows Virtual PC" and is accessible from the Start --> Programs menu.

Note: With XP support discontinued; some IT departments are not allowing XP Mode operation on Windows 7 machines. However, this mode can be set to not have network access. This often satisfies the IT department requirements.

Most Windows 7 PC Operating Systems include this XP Mode free of charge, but it must be downloaded and installed from Microsoft.

Details on how to download and install Windows Virtual PC and Windows XP Mode can be found here: <http://windows.microsoft.com/en-us/windows7/install-and-use-windows-xp-mode-in-windows-7>

The above link also contains the necessary links to access the downloads area to obtain the Windows Virtual PC and Windows XP Mode.

Should XP Mode not be a suitable or permissible solution by the local IT Department, the next possibility is to consider using some other means to install a Virtual Machine on the Windows 7 64-bit host PC.

One can create a Virtual Machine within the Windows Virtual Machine which is explained under the "Create a virtual machine and install a guest operating system" topic in the "Virtual PC Help" that is found by clicking the "?" in the upper right corner of the Windows XP Mode window after it has been opened.

There are also programs such as "VMware Player" that allow one to install various Operating Systems as Virtual Machines. In this case, it would be ideal to install Windows 7 32-bit as the Virtual Machine when a PC running it as the host Operating System cannot be made available.

The use of Virtual Machines is effective and is done by our Support Team routinely during our work supporting legacy equipment. However, the novice needs to read existing documentation available through Microsoft via the "Virtual PC Help" that is found by clicking the "?" in the upper right corner of the Windows XP Mode window after it has been opened. Particular attention should be paid to: A.)

"Configuring a Virtual Machine" and the pertinent sub topics. B.) "Using a virtual machine" and the pertinent sub topics. A number of other useful topics are listed. including, "Use a USB device in a virtual machine".

The particulars on the use of Virtual Machines are often unique for each user as accessibility and guidelines are different for end-users. Therefore the most effective means to implement this solution is to work locally with your IT department or Microsoft online resources. Local IT Departments should also be

used as the primary resource for general questions on the operation of Virtual Machines, as they will be well versed in the basics that most users will want and need to know.

Note: there are two (2) versions of Windows Home.

Windows 7 **Home Professional** does support XP Mode and thus those comments about running PowerSuite on a 64-bit machine are relevant. Windows 7 **Home Premium** does not support XP Mode.

Any questions or comments regarding this software or process should be forwarded to Dr. Rob Sides, Product Manager (rob.sides@ametek.com).