



## **Sondex Driver Packages**

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## 1 Introduction

This document describes the installation of Sondex driver packages on Windows 2000, Windows XP and Windows Vista (x86 32-bit editions only).

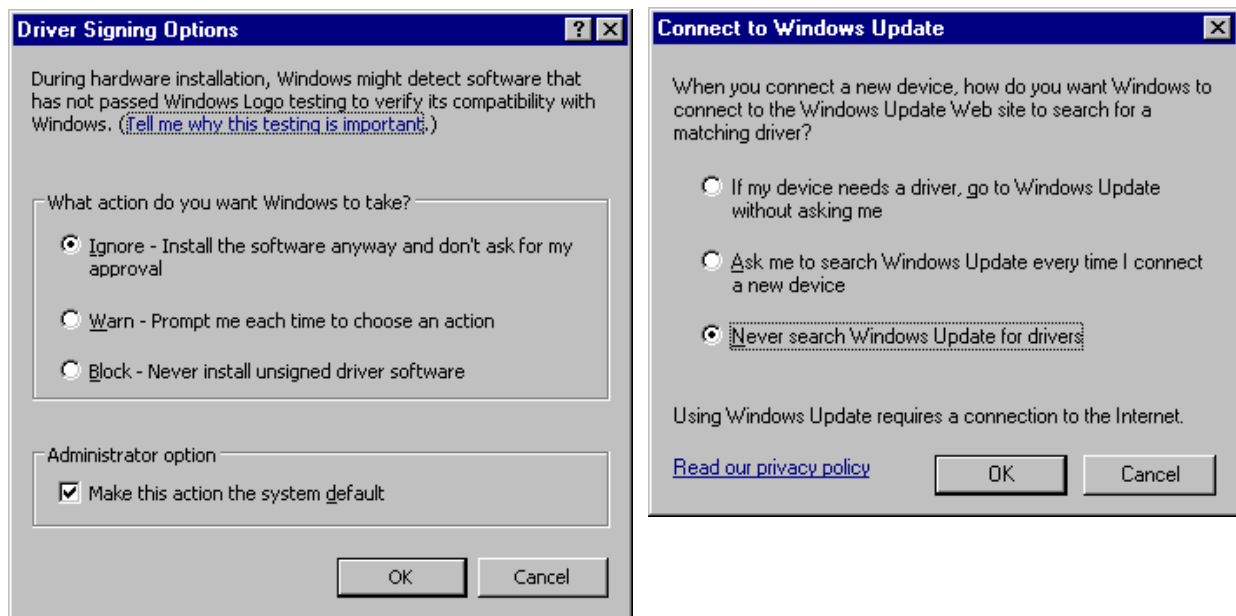
Driver packages are single executable files which, when run, pre-install all the necessary files in the system's driver store. When the device is then connected to the system, Windows automatically locates the necessary files in the driver store and installs the driver in the normal way. You no longer have to tell Windows where to find the drivers.

Customers using older versions of Windows (e.g. Windows 98) cannot use these packages; they must continue to use the old collections of inf and sys files.

## 2 Driver Signing

The drivers within the packages are digitally signed by Sondex. However, they are not WHQL certified (i.e. they have not been submitted to Microsoft for testing under their Windows Logo program). However Windows 2000 and Windows XP still detect the drivers as unsigned, as they only know about Microsoft certification, but Windows Vista correctly identifies them as signed by Sondex.

This means that the system must be configured to accept unsigned drivers (via Control Panel, System, Hardware, Driver Signing, set to Ignore or Warn). Also, it is a good idea to switch off the option to search Windows Update for drivers (via Control Panel, System, Hardware, Windows Update, set to Never or Ask).



### 3 Package Details

#### 3.1 SNDXUSB

This package contains drivers for the following Sondex USB devices:

- ULP Ultralink Panel
- MFP Multifinger Panel
- PLP Production Logging Panel
- MCU Memory Control Unit
- ULM Ultralink Module (Mk1, Mk2 and Mk3)

It should be installed with all 32-bit versions of Warrior, Memlog and Ultrawire Memlog, or any other programs which use these devices.

Note that these devices go through a two-stage process when connecting, each stage requiring a different driver. When the device initially connects, the loader driver downloads the firmware to the device from the PC. The device then disconnects and reconnects as a different device and the normal driver takes over.

#### 3.2 SXSDSUSB

This package contains drivers for USB devices from SDS. Note that Sondex DRS systems contain at least one device from SDS (e.g. a DIU for depth and tension etc) so this package will normally be required if running Sondex Warrior V7.02 or later.

**Do not install this package with Sondex Warrior V7.00 or V7.01.**

These earlier versions of Sondex Warrior require drivers contained in a different package (see next section).

**Do not install this package with any other release of Warrior (e.g. from SDS).**

SDS releases of Warrior have their own driver install for their devices, this package is not required and could conflict.

These SDS devices also go through a two-stage process when connecting, similar to the Sondex ones.

#### 3.3 SXSDSOLD

This is the equivalent package for SDS devices for use with Sondex Warrior V7.01 or earlier. It should only be necessary to use this package if you are going back to an older version of Sondex Warrior.

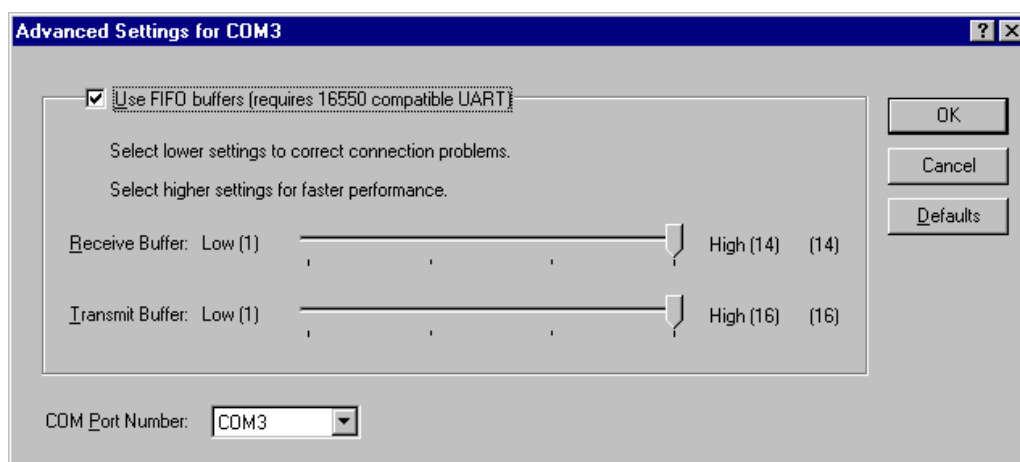
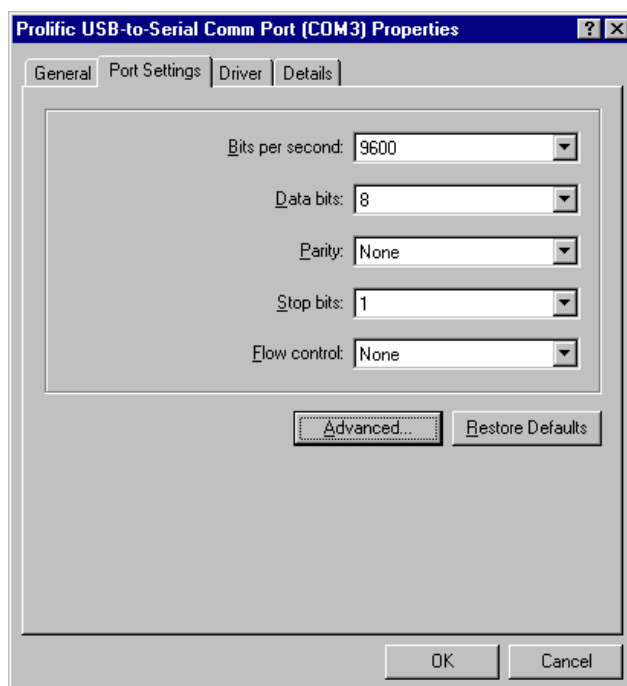
**Do not install this package with later versions of Sondex Warrior or with any other release of Warrior (e.g. from SDS).**

### 3.4 SXPL2303

This package is for the Prolific PL-2303 USB to Serial Adapter which is used in a number of Sondex systems. There is one inside each DRS013 (for a remote MTL display) and the adapter is also used to connect to various serial devices from USB (e.g. a DTR).

Once the device is connected and the driver is loaded, a new serial port is added to the system. The port number that is assigned (e.g. COM3) depends on what other serial ports are already in the system and can change if the device is plugged into a different USB port.

You can find out which port number has been assigned by looking in Device Manager. It is also possible to change the port number here. The application software will need to be configured to use the correct port number.

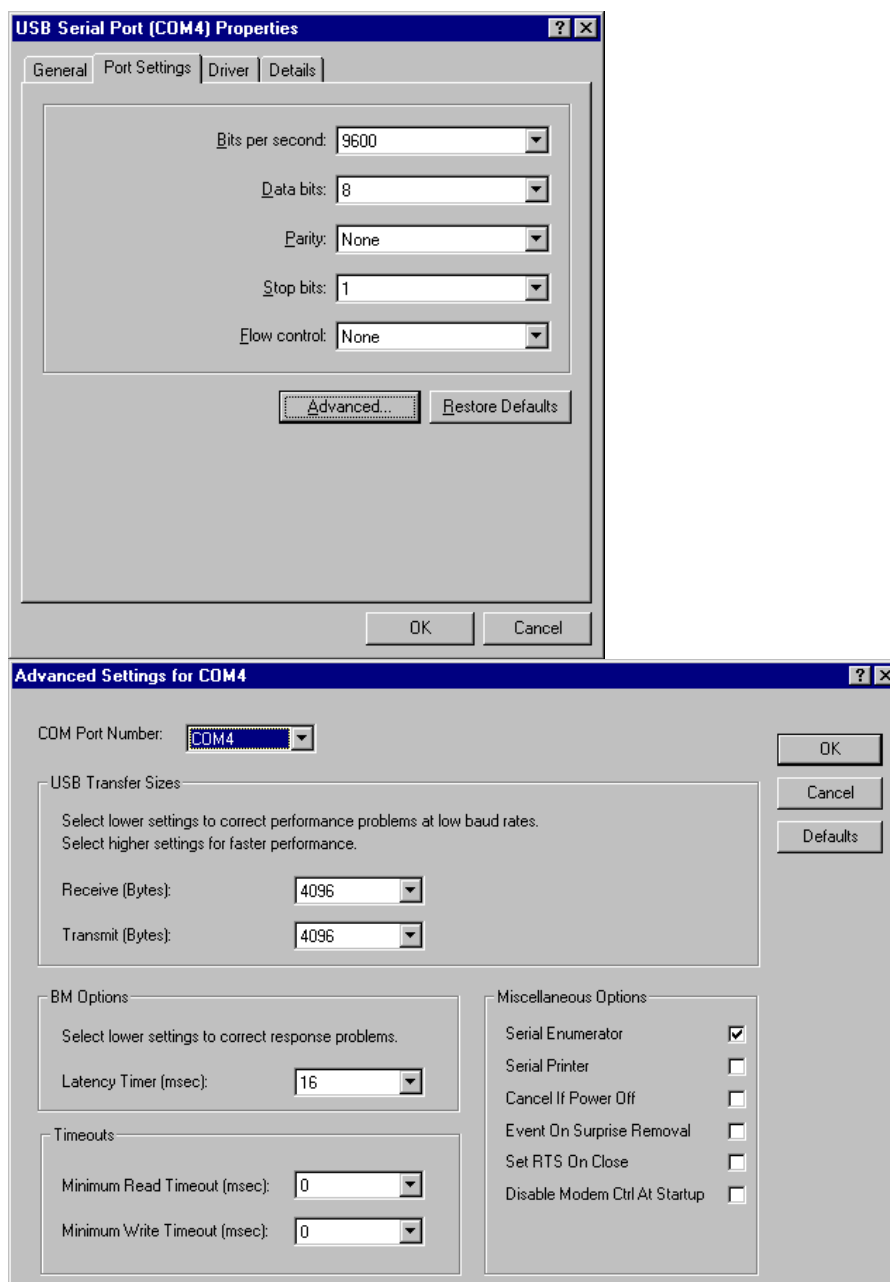


### 3.5 SXFTDI

This package is for Sondex devices which use USB to serial chips from FTDI:

- HMU Hades Memory Download Unit
- UCU Ultrawire Control Unit
- VLP Video Logging Panel
- IBT IBus Tester

The first two devices will be detected as normal USB devices and will appear in Device Manager as Universal Serial Bus controllers. The other two will appear as USB serial ports, similar to the Prolific devices. Again the port number that is assigned will depend on what else is in the system and can change if the device is plugged into a different USB port. Again the application software will need to be set to use the correct port number.



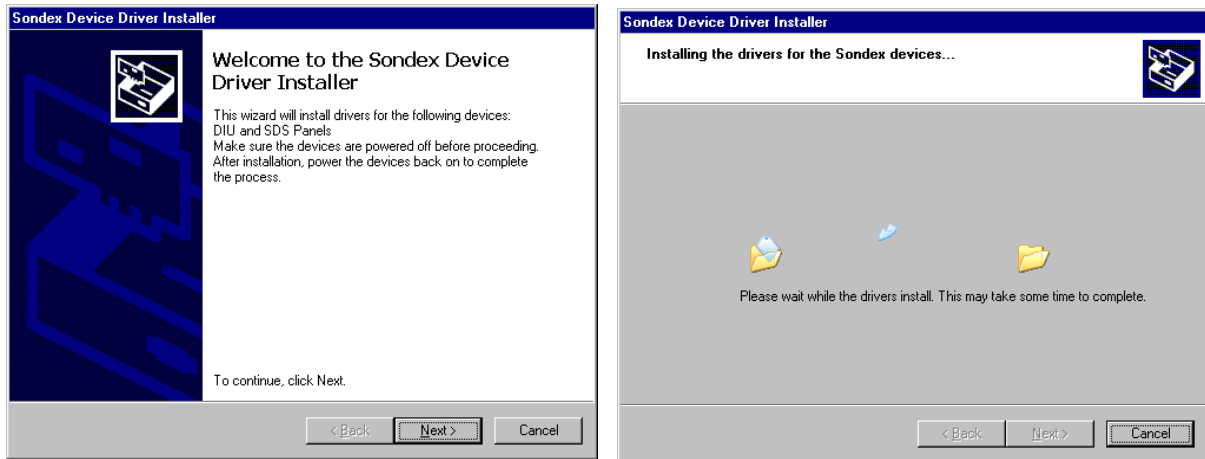
## 4 Package Installation

Before installing a package it is important that the devices that the package is for are switched off or, for devices which take their power from the USB cable like the USB to serial adapters, unplugged from the system. **Devices which go through a two-stage process to download their firmware MUST be switched off to clear the existing firmware from their memory.**

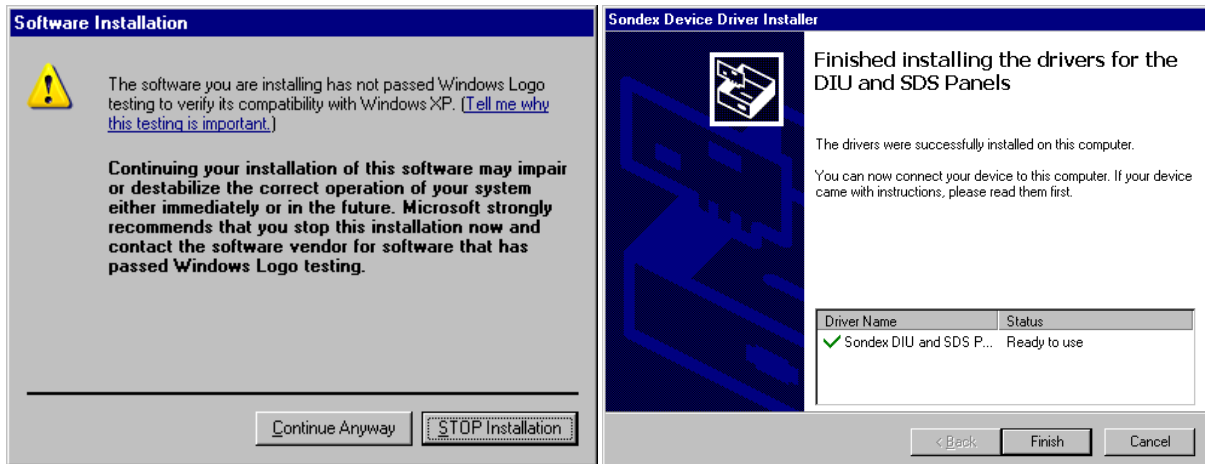
If an older version of a package has already been installed for a device, it is a good idea to uninstall it first before installing the newer package. See the next section for uninstall instructions. On Windows 2000 only, before installing these packages for the first time, the Sondex Driver Cleaner program must be run (see the instructions later in this document).

In general, you will need to be a local administrator on the machine to install drivers.

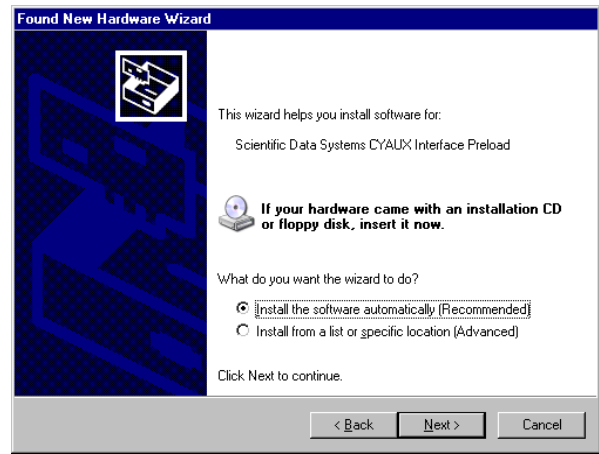
To install a package, run the package exe file. Shown below are examples of the screens that will be displayed:



If the system is set to Warn for unsigned drivers, the following screen will appear. Select Continue Anyway.



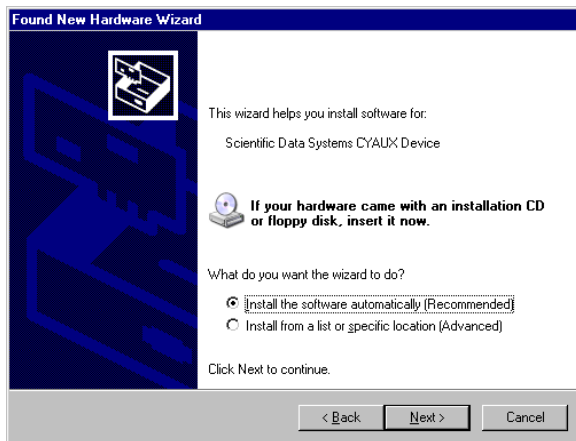
At this point, the drivers have been pre-installed in the driver store. Now connect the device(s) and the normal Found New Hardware Wizard will appear. If the system is set to Ask about searching Windows Update for drivers, select No on that dialog and select Install the software automatically on the next dialog:



Again you will get a message about unsigned drivers if the system is set to Warn.



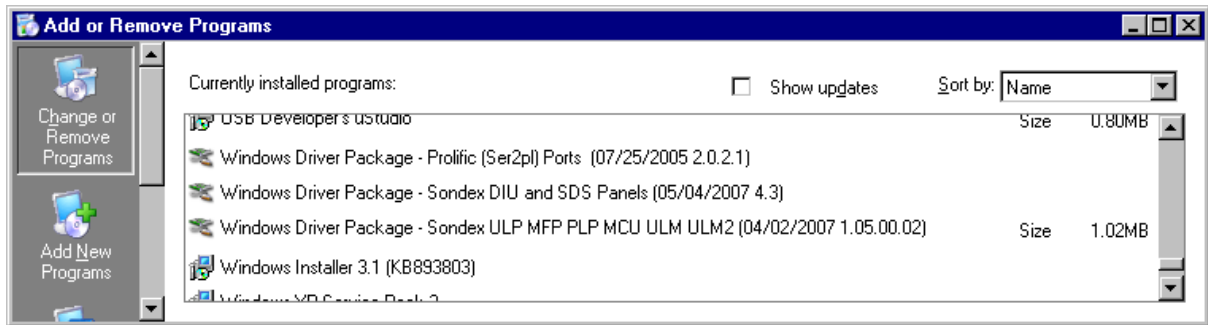
The drivers have now been installed. This device is an example of one which requires the two-stage load, so immediately the process is repeated for the second stage:



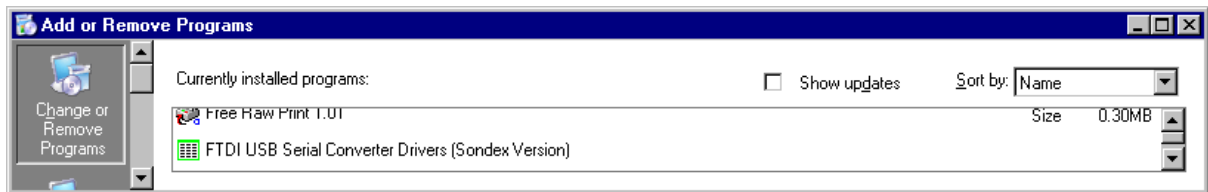
The drivers are now installed. If another USB port is used, the Found New Hardware process will be repeated automatically (there is no need to run the package executable again).

## 5 Package Uninstallation

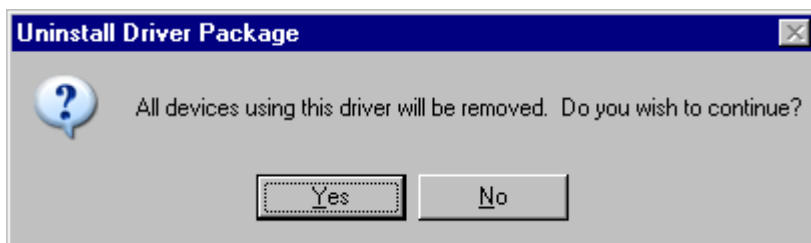
All the packages, when installed, have an entry in Add or Remove Programs for uninstallation. All of them, except the FTDI ones, are listed as a Windows Driver Package with a description:



The FTDI one is special, as it has its own uninstaller, and it appears by itself:



Click on the appropriate driver package and select Change/Remove. When prompted to uninstall the package, select Yes.



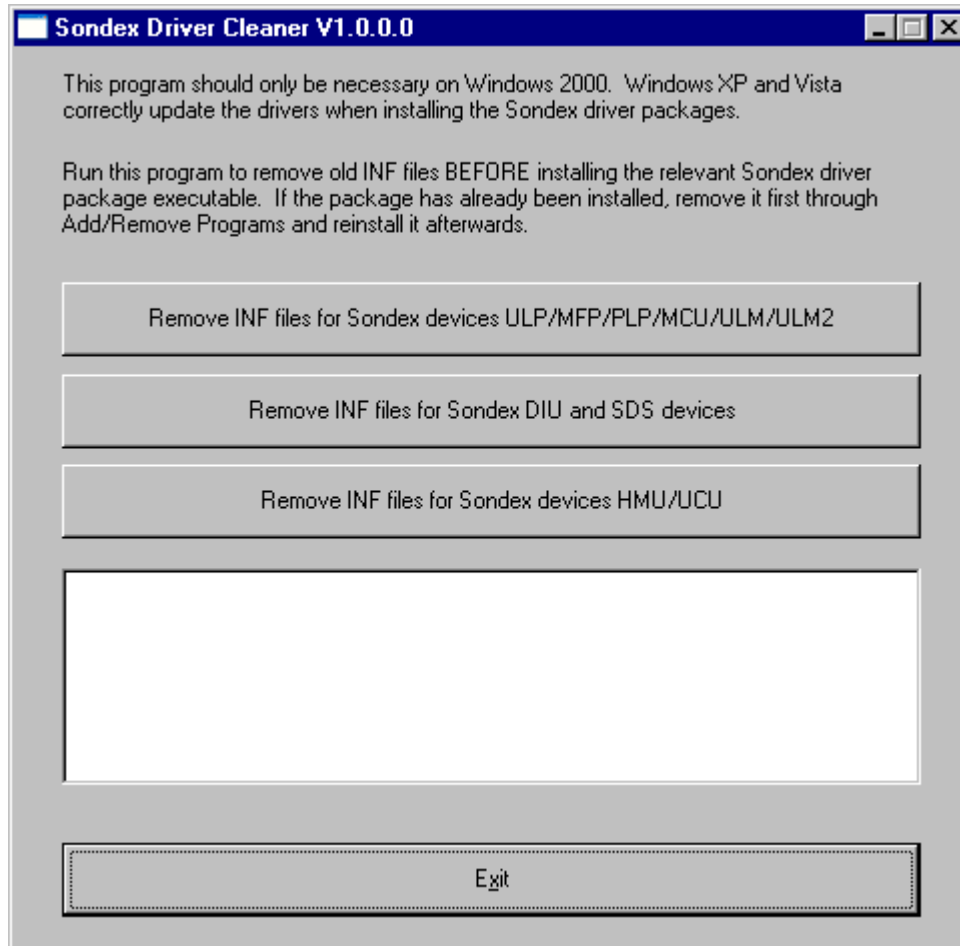
## 6 Sondex Driver Cleaner Program

Device drivers are identified to the system using inf files. During the installation process, they are copied to the system's Inf directory and renamed to oemnnn.inf, where nnn is the next available number. A binary version of this file, oemnnn.pnf is also created. When an updated driver is loaded, another oemnnn.inf and pnf are created.

Normally, Windows is able to determine which is the latest driver to use. However, on Windows 2000, there is a documented problem which prevents the system finding the latest and an older one may be loaded. Usually this is only a problem when changing from the old system of individual inf and sys files to the new system of driver packages. Once a driver package is installed, uninstalling it will remove the oemnnn inf pnf files it created and installing an updated package will be successful.

To cater for this situation, Sondex has provided a driver cleaner program which will remove old inf and pnf files from a system prior to installing a driver package. It should only be necessary to run this program once and only on Windows 2000.

Run the program before installing any driver packages (if you have already installed them then uninstall them through Add/Remove Programs).



Select the appropriate Remove INF commands to remove the old inf files. A list of the files deleted will appear in the list box.

## 7 Other Drivers

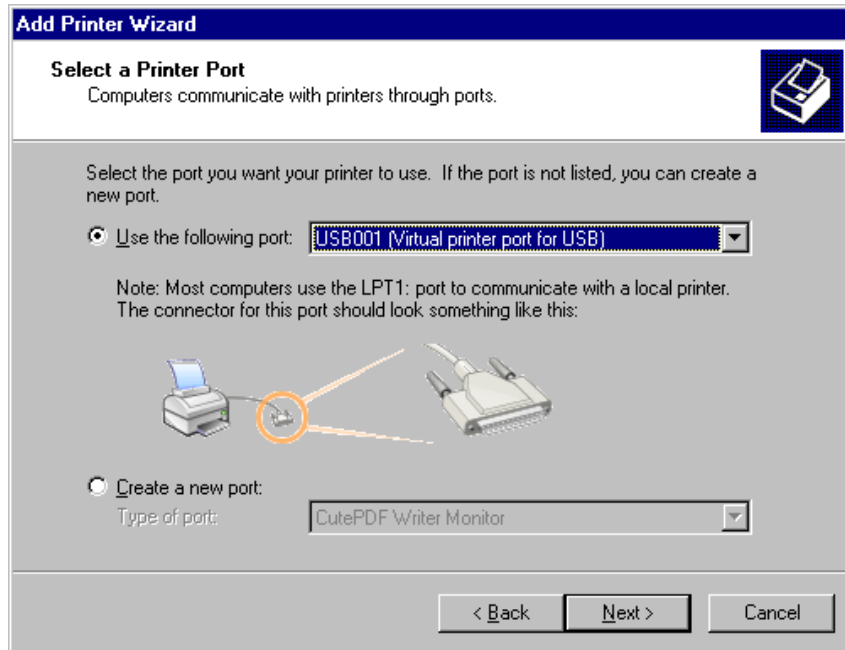
Other drivers may have to be installed on the system for correct operation of the software.

### 7.1 Hardlock Driver

This driver is for the Hardlock keys (dongles) that protect various software packages including Warrior and various programs from Sondex. Run the HLDRV32 program to install.

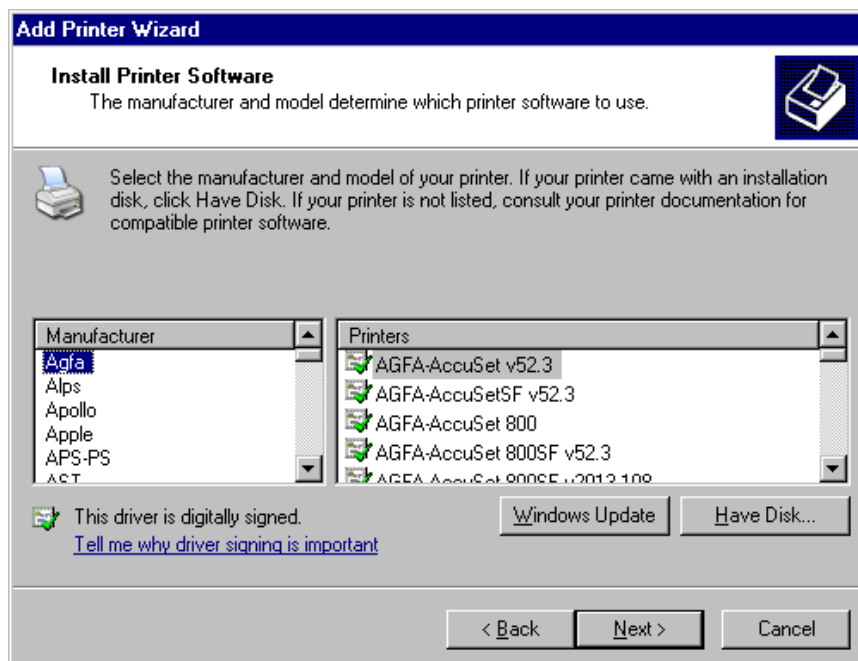
## 7.2 Printrex Printer Driver

This driver needs to be installed if you have a Printrex plotter attached to the system. Run the Add Printer Wizard to install the driver. When prompted for the printer port, select the USB virtual printer port (assuming the Printrex is attached to a USB printer adapter):



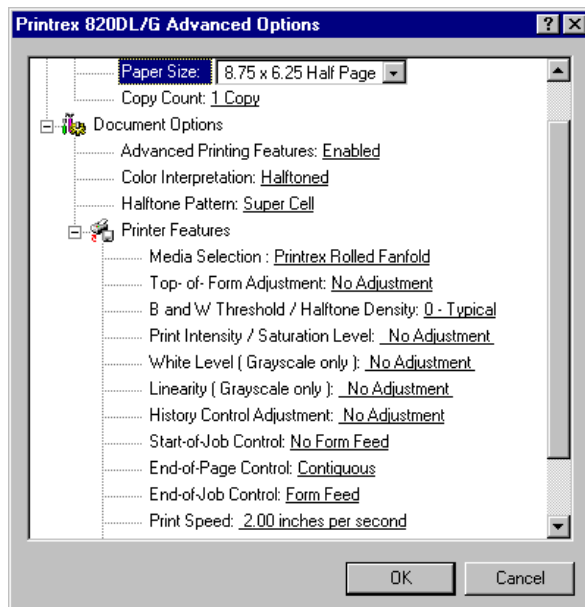
Note that each time the USB printer adapter is used in a different USB port, a new virtual port is created (USB001, USB002 etc). For easiest use, always keep the adapter on the same port.

Then when prompted for the manufacturer, select Have Disk and browse to the directory where you have copied the driver files (e.g. C:\Drivers\Printrex):



Then select the model (usually an 820DL/G for Sondex supplied plotters) and the drivers will be installed.

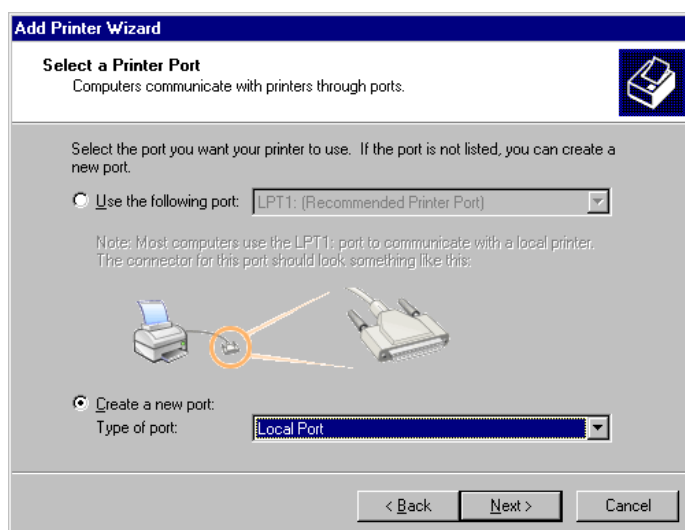
The driver will need to be configured properly and there is a manual which describes this, MN-WLP-DRIVER. Sondex recommends using 8.75 x 6.25 Half Page for the paper size (or 8.5 x 6.25 Half Page if using narrower paper), Printrex Rolled Fanfold for the Media Selection, No Form Feed for Start-of-Job Control, Contiguous for End-of-Page Control and Form Feed for End-of-Job Control:

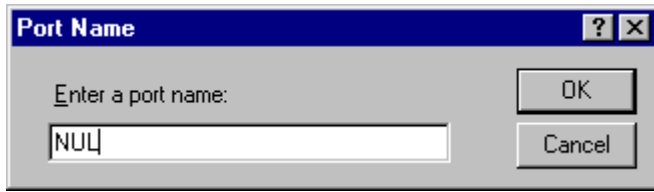


### 7.3 SDS TIFF Printer Driver

This is a printer driver that allows documents to be printed from any application (e.g. Word or Excel) to a file in TIFF format. This TIFF file can then be included in Warrior plot jobs to form part of the final log delivered to the customer.

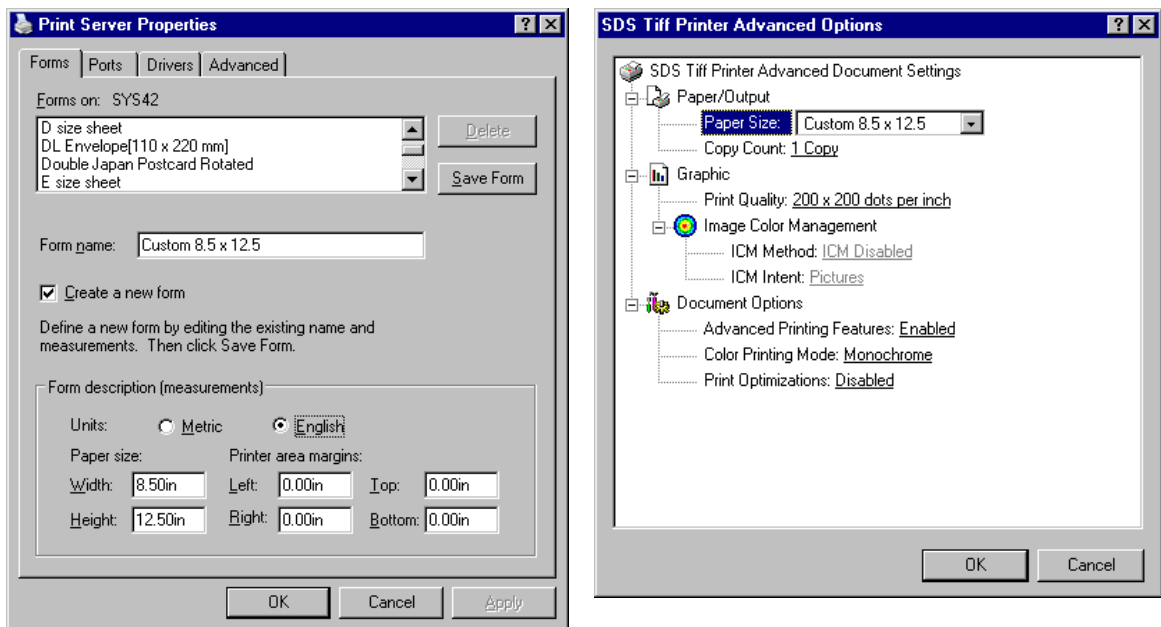
Use the Add Printer Wizard to install. When asked for the port, choose to create a new Local Port and call it NUL.





Then when prompted for the manufacturer, select Have Disk and browse to the directory where you have copied the driver files (e.g. C:\Drivers\SdsTiff).

Again the driver will need to be configured properly after installation. The paper size needs to be set to the size of the paper of the final output. For a Printrex best results will normally be obtained by creating a custom paper size of 8.5 x 12.5 inches (equal to two Printrex half-pages) in Print Server Properties and then selecting this in the SDS Tiff Printer Properties – Advanced – Printing Defaults:



Also in this dialog switch Print Optimizations to Disabled for best results. If final printing is to a monochrome device switch the Color Printing Mode to Monochrome.

## 7.4 ASPI Driver

This driver is needed to create LIS tapes from Warrior on a SCSI tape drive (e.g. a DAT drive).

The standard ASPI drivers are supplied by Adaptec (the manufacturer of the SCSI card in DRS systems) but they do not support Windows Vista. For details of possible alternative ASPI drivers for Vista, please contact Sondex.

To install the Adaptec ASPI drivers, follow the instructions in the Readme.txt file.