

Sentinel Driver for Windows NT

User's Guide

The Sentinel Driver

The Sentinel Driver is used by Microsoft Windows NT-based applications that are protected by Sentinel hardware keys. The driver makes it possible for the protected applications to communicate with the keys under the Windows NT operating system.

The driver must be installed on every Windows NT system on which the protected application is to be run. When the driver is installed, it must obtain information about each parallel port on the system. Typically, all ports are configured automatically. You will need to manually configure a port only if the port is not detected correctly or if you want the Sentinel Driver to ignore the port when searching for keys.

Installation of the Sentinel Driver is done through the Sentinel Portable Driver installer. The installation disk contains drivers for X86-based, MIPS, DEC Alpha, Power PC machines.

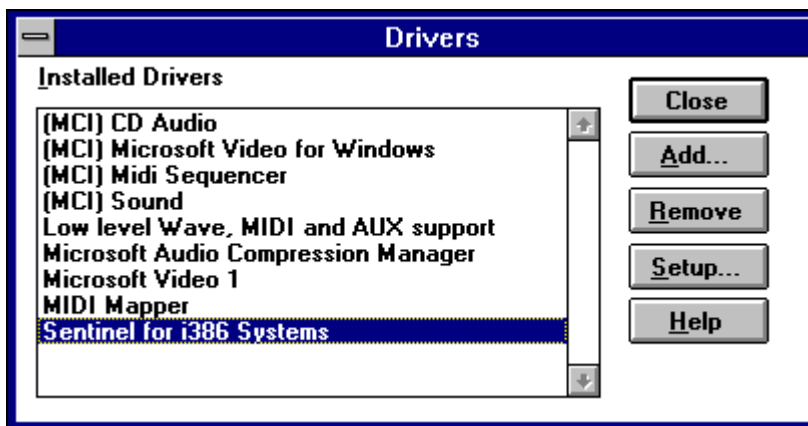
Installing the Sentinel Driver

Please refer to the "Windows NT Driver Installation Procedure" section in the README.TXT at the root of the Sentinel Portable Driver diskette for more information.

Changing your port configuration

After the Sentinel Driver has been installed, you can access it through the Control Panel if you need to change the way you configured your parallel ports.

- 1 Click on the Windows NT *Main* group window.
- 2 Double-click the *Control Panel* icon.
- 3 Double-click the *Drivers* icon.



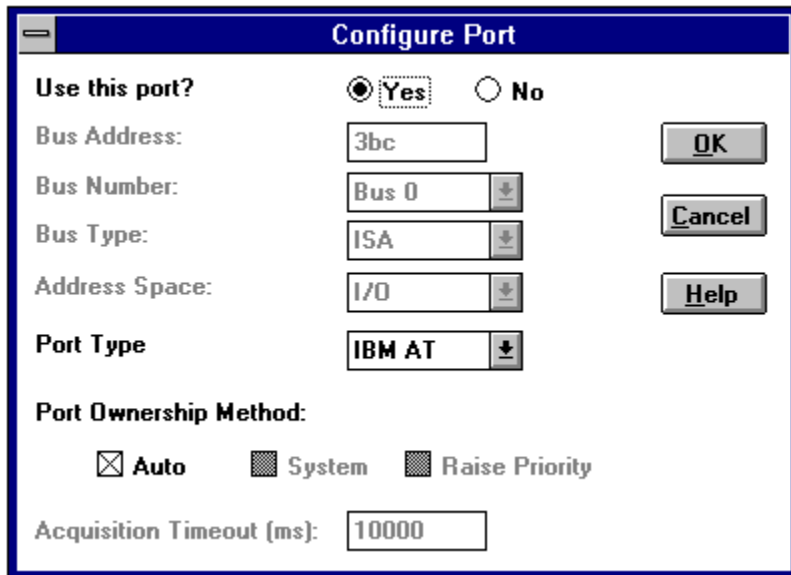
- 4 Click the *Sentinel* option and click *Setup*.
- 5 All parallel ports currently defined in the system are displayed. The *Created By* column shows whether the port was defined by the system or the user. (System-defined ports are those known to the Windows NT operating system; these are configured automatically.) The *Use?* column shows whether the Sentinel Driver should use this port when searching for Sentinel keys. The *DOS Address* column shows the address used by DOS and Win16 applications which are capable of using the **Windows NT** Sentinel Driver to access this port. The value in this column will be filled in after you reboot the system following installation. Use the *Setup* function (see

step 5) to view the Sentinel Driver configuration.

Choose one of the following:

To add a user-defined port, click *Add* and go to step 10. Note that when the system starts up, NTDetect finds all parallel ports and their data values. The only reason for adding a port is if NTDetect does not find a port or the data for a port is incorrect. Therefore, you will probably never need to use the *Add* button. To modify a port, highlight it, click *Edit*, and go to step 10. You can modify any data for a user-defined port. For a system-defined port, the only parameter you can change is whether the port should be used by the Sentinel Driver.

To remove a user-defined port, click *Remove*. This button is active only when the scroll bar is on a user-defined port.



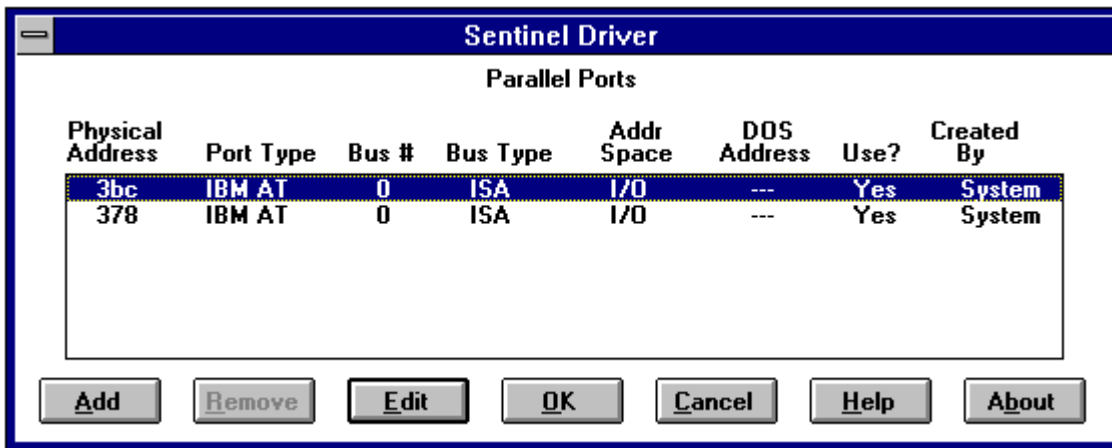
- 6 The port's current configuration is shown. If you are adding a user-defined port, system defaults are shown. If you are editing a system-defined port, the only field enabled for change is *Use this port?*.

Complete the screen as follows, then click *OK*. You should be able to obtain the requested information from your computer documentation.

- Use this port?** Click *Yes* if you want the Sentinel Driver to search this port for a Sentinel key. Click *No* if this port is not to be used by the Sentinel Driver. This setting has no effect on any other applications.
- Bus Address** Enter the port's bus address. This is computer-dependent; for most machines, it is usually one of the hexadecimal values 3BC, 378, or 278.
- Bus Number** If the bus number is not 0, pull down the list box and select the correct number. Usually, the bus number is 0.
- Bus Type** Pull down the list box and select the port's bus type. This is usually ISA (Industry Standard Architecture), EISA (Extended Industry Standard Architecture), or MicroChannel (typical of IBM PS/2 machines).
- Address Space** Pull down the list box and select the correct address space (usually I/O).
- Port Type** Pull down the list box and select the port type. Select the "Autodetect" method unless you need to change it.
- Port Ownership Method** Use the "Auto" method unless you need to change it. This allows the Sentinel

Driver to choose the best method of acquiring exclusive access to the parallel port, depending on the what your version of Windows NT provides.

Acquisition Timeout (ms) If you need to, you can change the maximum amount of time the Sentinel Driver waits to acquire the parallel port before returning an error. This time is in milliseconds. If you want the Sentinel Driver to wait as long as it takes, enter **-1** in this field.



7 You return to this window after working with a port. You can then add or edit another port. When all ports are configured correctly, click *OK*.

Note that if a port is configured incorrectly, Sentinel keys on that port will not be accessible by the protected application.

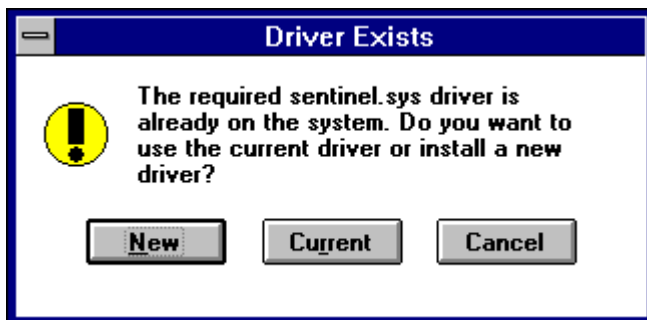
8 A "System Setting Change" message box appears. To put the driver into effect right now, click *Restart Now*. To have the change take effect the next time you quit and restart Windows NT, click *Don't Restart Now*.

9 Remove the distribution diskette from your drive and store it in a safe place for backup.

10 To put the new configuration into effect, quit and restart Windows NT.

Upgrading to a new version of the driver

If you receive a new version of the Sentinel Driver, repeat the installation procedure. The following question will appear:



Click the *New* option to upgrade to the new version of the driver.

If the message "Unable to install the driver file. There may be a problem with your system..." appears during the process of upgrading to a new version of the Sentinel Driver, stop the Sentinel Driver by entering **NET STOP SENTINEL** on the command line and repeat the installation procedure.

For more information

For help during any step of the installation process, click the *Help* button. You should also read the README.TXT file provided on the distribution diskette.

Please direct any questions or comments to the company that provided you with the Sentinel Driver.

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