Sentinel Protection Installer Version 7.4.0 (32-bit and 64-bit Windows) ReadMe

This readme provides information about Sentinel™ Protection Installer, its installation and few tips on using the related components (such as, the Sentinel License Monitor, Sentinel Protection Server, Sentinel Keys Server, Sentinel Keys License Monitor and the driver configuration program).

Who Should Read This Document?

This readme is for users who require Sentinel System Driver and/or Sentinel Protection Server and/or Sentinel Keys Server for accessing the Sentinel SuperPro, Sentinel UltraPro or Sentinel Hardware Keys.

Note: ISVs and developers who wish to integrate these components in their Windows Installer-based setups should refer to the Sentinel Protection Installer Help.

Product Overview

The Sentinel Protection Installer is an integrated installer of the following components:

- **Sentinel System Driver**: The device driver for communicating with the following hardware keys:
  - Sentinel Hardware Key
  - Sentinel Dual Hardware Key
  - Sentinel UltraPro Key
  - Sentinel SuperPro Key
  - Sentinel Pro Key
- **Sentinel Keys Server**: The server component required for protecting network applications with Sentinel Hardware Keys.
- **Sentinel Protection Server**: The server component required for protecting network applications with Sentinel SuperPro or Sentinel UltraPro Keys.

Installation

This section contains details regarding the installation.

Platforms Supported

- This installer can be run on Microsoft Windows 98/ME/2000/XP(32-bit and 64-bit)/ Server 2003(32-bit and 64-bit)/Vista(32-bit and 64-bit).
- The 32-bit Sentinel System Driver runs on Microsoft Windows 98, ME, 2000, XP (32-bit), Server 2003 (32-bit) and Vista (32-bit). The 64-bit Sentinel System USB Driver runs on Windows XP (64-bit), Server 2003 (64-bit) and Vista (64-bit).

  The 32-bit Sentinel System Parallel Driver runs on Microsoft Windows 98, ME, 2000, XP (32-bit) Server 2003 (32-bit) and Vista (32-bit). The 64-bit Sentinel System Parallel Driver runs on Windows XP (64-bit), Server 2003 (64-bit) and Vista (64-bit).
- The 32-bit Sentinel Protection Server runs on Microsoft Windows 98/ME/2000/XP (32-bit and 64-bit)/Server 2003(32-bit and 64-bit) and Vista(32-bit and 64-bit).
- The 32-bit Sentinel Keys Server is supported on Microsoft Windows 2000, XP (32-bit and 64-bit), Server 2003 (32-bit and 64-bit) and Vista(32-bit and 64-bit).

Where Should I Run This Installer

You must run this installer on the system where the hardware key is to be attached. This can be a stand-alone system or a network system (and multiple applications in the subnet access the keys concurrently).

Note: Internet installer does not include Windows installer 2.0

General Upgrade Information

The following points are useful if you are installing Sentinel Protection Installer for the first-time on a system:

- When you run the setup program, it will automatically update your version of the Windows Installer (to version 2.0) if necessary. It will not provide any prompt before doing this. If you are not sure you want to update the Windows Installer, do not run this program.
- After installing this software on Win98, if you have upgraded from Windows 98 to 2000, XP or Vista, you must first uninstall Sentinel Protection Installer using its *setup.exe* (and not through the **Add/Remove Programs** option in **Control Panel**), and then reinstall it.

Installation Notes

Note: **Administrator privileges required for installing this software**
In order to set up this software on Windows NT-based platforms, you must have Administrator privileges.

Double-click the *setup.exe* provided with this product to launch the installer. Please follow the on-screen instructions to complete the installation.

The Installed Directory Structure

The Sentinel Protection Server, Sentinel Keys Server and the Sentinel System Driver files are installed at the locations explained below.

Note: **Do not move the files**
Do not move any of the files installed or the files that are created subsequently at these locations (such as the *sntlpass.dat* file which is generated for canceling a license).

Component	Path	Description
Sentinel System Driver	❑ **On Windows 32-bit**: <OS Drive>\Program Files\Common Files\ Safenet Sentinel\Sentinel System Driver ❑ **On Windows 64-bit**: <OS Drive>\Program Files(x86)\Common Files\ Safenet Sentinel\Sentinel System Driver	Contains *SetupSysDriver.exe* (the driver configuration program) and few driver-related files.
Sentinel Keys Server	❑ **On Windows 32-bit**: <OS Drive>\Program Files\Common Files\Safenet Sentinel\Sentinel Keys Server ❑ **On Windows 64-bit**: <OS Drive>\Program Files(x86)\Common Files\Safenet Sentinel\Sentinel Keys Server	Contains the Sentinel Keys Server's executable (*sntlkeyssrvr.exe)* that installs Sentinel Keys Server, the Password Generation Utility (PwdGenUtility.exe), the Sentinel Keys License Monitor files in the *\root* directory, and the files for cancel license module.
Sentinel Protection Server	❑ **On Windows 32-bit**: <OS Drive>\Program Files\Common Files\SafeNet Sentinel\Sentinel Protection Server ❑ **On Windows 64-bit**: <OS Drive>\Program Files(x86)\Common Files\SafeNet Sentinel\Sentinel Protection Server	**On Windows 9x systems:** ❑ The *\Win9x* directory is created, which contains the Sentinel Protection Server's executable (*spnsrv9x.exe*), the Password Generation Utility (PwdGenUtility.exe), the Sentinel License Monitor files in the *\root* directory, and the files for cancel license module ❑ *loadserv.exe* ❑ *SPNSrvStop.exe* **On Windows NT-based systems:** ❑ The *\WinNT* directory is created, which contains the Sentinel Protection Server's executable (*spnsrvnt.exe*), the Password Generation Utility (PwdGenUtility.exe), the Sentinel License Monitor files in the *\root* directory, and the files for cancel license module ❑ *loadserv.exe* ❑ *SPNSrvStop.exe*

WARNING!
Make sure that *\root* directory and its files of Sentinel Protection Server or Sentinel Keys Server are neither moved or deleted. This directory must co-exist with the Sentinel Protection Server or Sentinel Keys Server executable on a system.

Late-breaking News!

When the license sharing was enabled and hearbeat interval was set too short, the Sentinel Protection Server consumed excessive CPU resources as soon as two or more clients timed-out simultaneously. This problem has been fixed in the Sentinel Protection Server included with this release.

Tips on Using Various Options

This section contains tips on using the various applications and options that might be of help while you use Sentinel System Driver and/or Sentinel Protection Server and/or Sentinel Keys Server.

About Sentinel License Monitor (For Sentinel UltraPro and Sentinel SuperPro keys)

Sentinel License Monitor shows the details of the Sentinel UltraPro and Sentinel SuperPro keys attached to a system and clients accessing them, via a Web browser. It is a convenient way to view and track the license activity and analyze application usage. You can view the following details about the keys connected to a system:

- Serial number, model number and hard limit of the key.
- Track how many licenses are currently in use.
- View the highest number of licenses issued by a key.
- Cancel the license issued to clients.
- Monitor the number of time-outs—the sessions that collapsed without properly releasing the license—recorded by the protection server for clients using licenses from a key.
- Details of the client (such as, the user name, login time, and client process ID) who have currently obtained the license(s) from the key.

Prerequisites for Launching the Sentinel License Monitor

Here are the specific requirements:

- Make sure that the Sentinel Protection Server version 7.4.0 or later is running on the system where the key is attached.
- The client must have Java 2 Runtime Environment (JRE) 1.5 or higher. If it does not already exist, you will be prompted for downloading it.
- The client must be running Internet Explorer version 5.0 (or higher) or Netscape Navigator version 4.6 (or higher).

Steps for Launching the Sentinel License Monitor

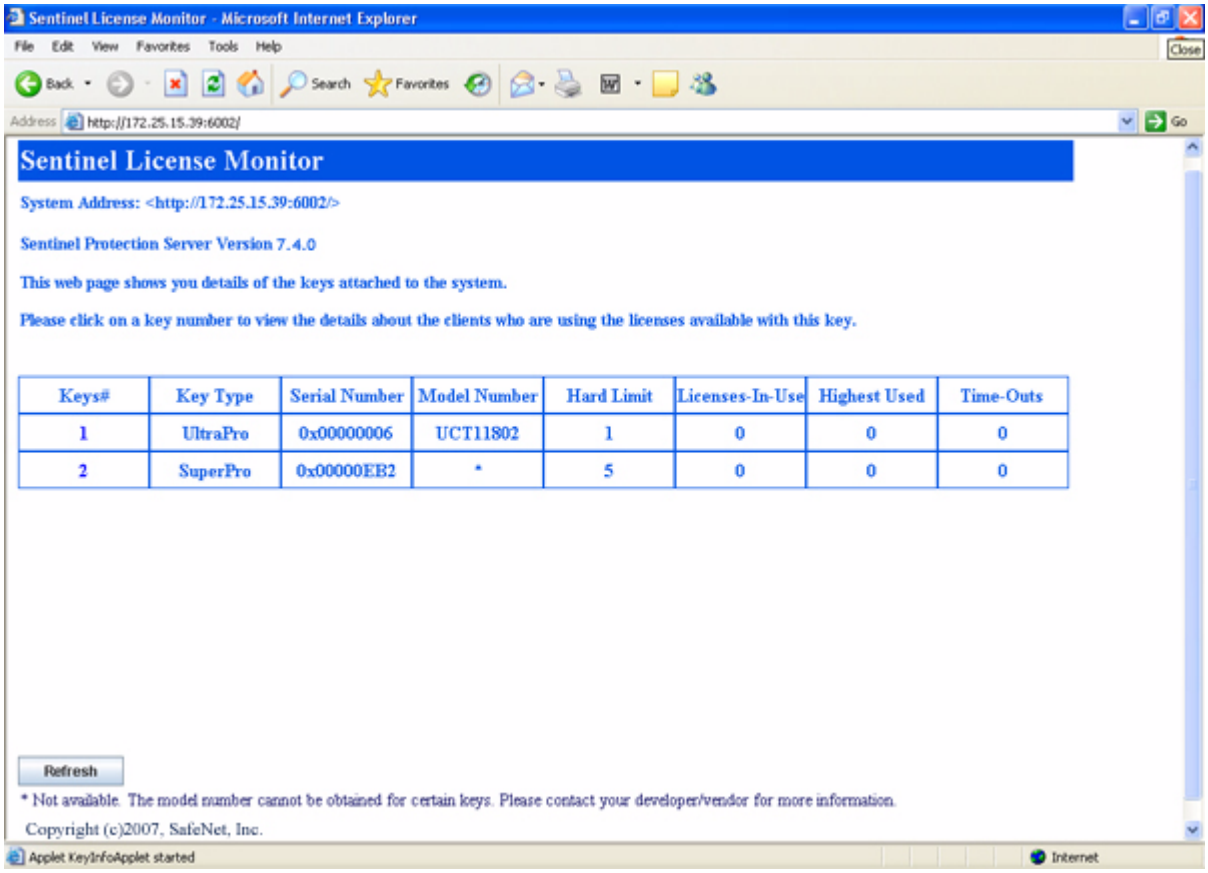
1. Open the Web browser on the system (Internet Explorer 5.0 or higher and NetScape Navigator version 4.6 or higher).
2. In the **Address Bar**, type the name or IP address of the system (where the hardware key is attached and protection server is running) in the following format:

   `http://IP address (or system name):HTTP port number.`

   For example,

   `http://198.168.100.254:6002`

Press the **Enter** key. The Sentinel License Monitor Web page is displayed.



Sentinel License Monitor

Cancelling a License

If desired, a system administrator can cancel the licenses issued to the clients from a key. This need might arise in situations when some other privileged client needs a license or an application terminates without releasing the license acquired.

Please follow the steps given below to cancel the licenses in the Sentinel License Monitor:

1. On the system where Sentinel Protection Server is installed, run the Password Generation utility[1] to generate the *sntlpass.dat* file. It is available at the following path:
   - **For Windows 32-bit**: *<OS drive>:\Program Files\Common Files\SafeNet Sentinel\Sentinel Protection Server*
   - **For Windows 64-bit**: *<OS drive>:\Program Files(x86)\Common Files\SafeNet Sentinel\Sentinel Protection Server.*

Note: Do remember the password specified as it will be required for authenticating the cancel license request (see step 6).

2. Restart the Sentinel Protection Server.
3. Launch the Sentinel Licenses Monitor using the steps described in the "Steps for Launching the Sentinel License Monitor" on page 5. The key information page will appear.
4. Select the key whose licenses are to be canceled. The license usage page will appear.
5. Select the **Cancel** check box(es) for the licenses to be canceled. You can cancel up to 10 licenses at a time.
6. Click **Cancel License Session**. A dialog box will appear prompting you to provide the same password specified in step 1.
7. Click **OK**. The key information page will appear.
8. You can verify for the license(s) canceled by launching the license usage page.

Note: **Unable to cancel a license**
The Sentinel License Monitor will not prompt you for any errors encountered while canceling a license. However, a license will not be canceled if there is excessive traffic in the network or you specified a wrong password in step 6.

About the Sentinel Keys License Monitor (for Sentinel Hardware keys)

Sentinel Keys License Monitor shows the details of the Sentinel keys attached to a system and clients accessing them, via a Web browser. It is a convenient way to view and track the license activity and analyze application usage. You can view the following details about the keys connected to a system:

- Serial number, hardware key type, hard limit and licenses-in-use of the keys attached.
- User limit and other details of the licenses used by a key.
- Information about the clients (such as, the user name, login time, and client process ID) who have currently obtained licenses from the key.
- Cancel the current license sessions.

1. The *PwdGenUtility.exe* for Windows and *PwdGenUtility* for Linux and Macintosh.

Prerequisites for Launching the Sentinel Keys License Monitor

Here are the specific requirements:

- Sentinel Keys Server must be running on the system where the key is attached.
- The client must have Java Runtime Environment (JRE) 1.5 or higher.
- The client must be running Internet Explorer version 5.0 (or higher)/ Netscape Navigator version 4.6 (or higher)/Mozilla FireFox version 1.0 (or higher)/FireFox version 1.0.or higher/Safari version 1.3 (or higher).

Steps for Launching the Sentinel Keys License Monitor

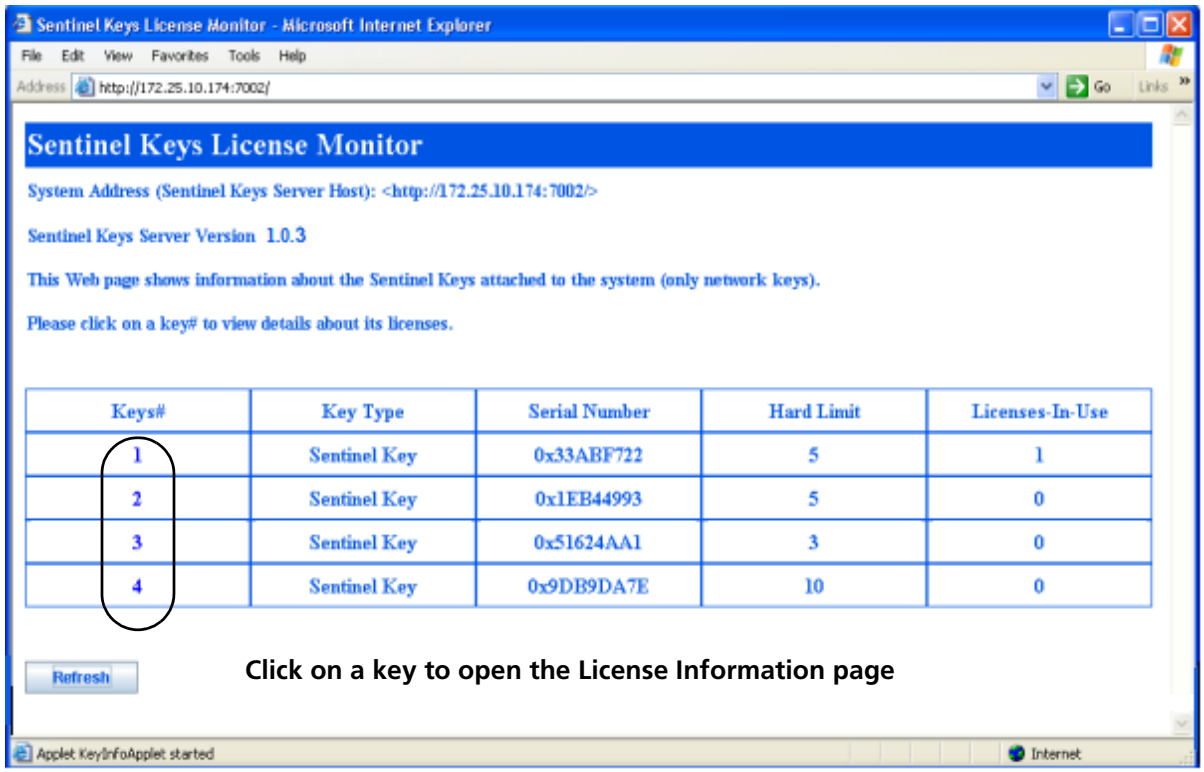
1. Open the Web browser on the system.
2. In the **Address Bar**, type the name or IP address of the system (where the hardware key is attached and Sentinel Keys Server is running) in the following format:

   ```
   http://IP address (or system name):HTTP port number.
   ```

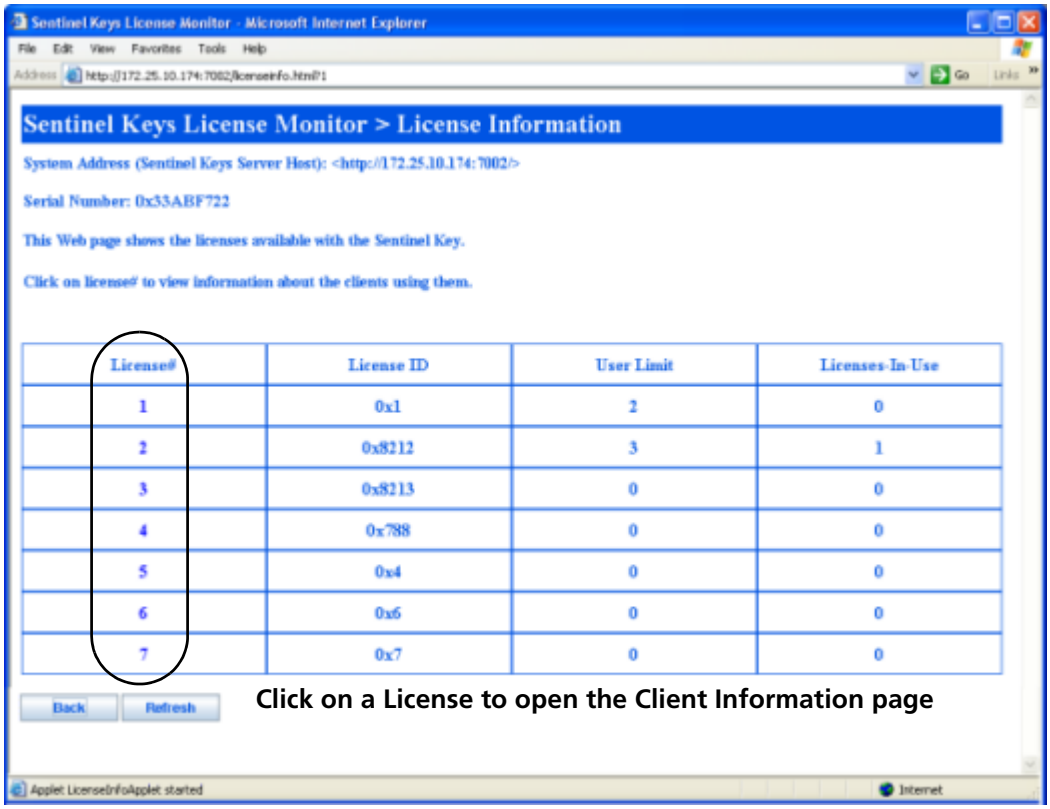
   For example,

   ```
   http://198.168.100.254:7002
   ```

3. Press the **Enter** key. The Sentinel Keys License Monitor Web page (an example is shown below) is displayed.



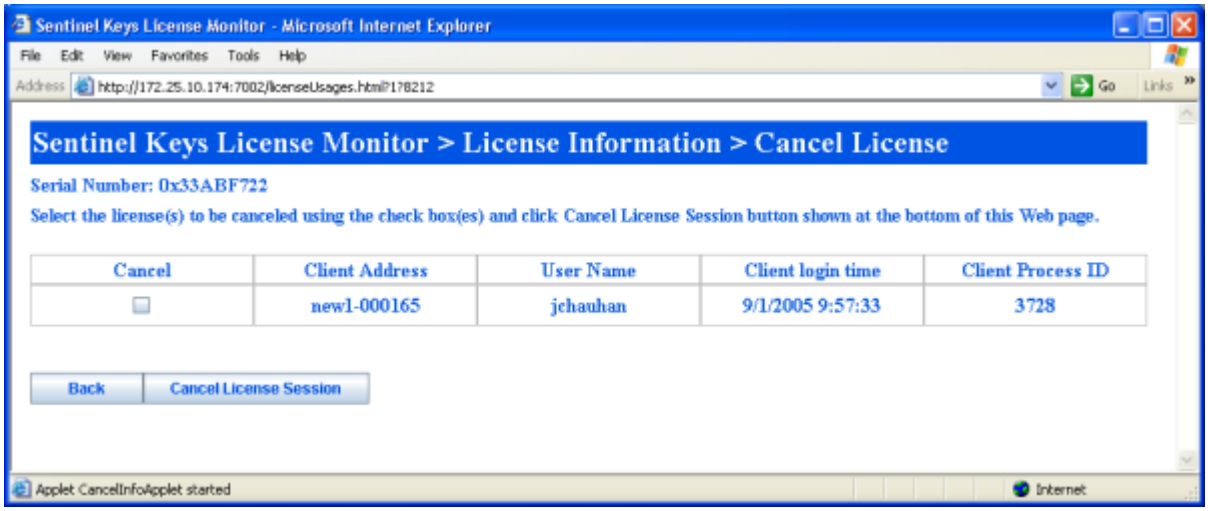
Sentinel Keys License Monitor - Key Information Page



Click on a License to open the Client Information page

Sentinel Keys License Monitor - License Information Page

Client Information Page (When the Cancel License Option is Not Available)



Client Information Page (When the Cancel License Option is Available)

Cancelling a License

If desired, a system administrator can cancel the licenses issued to the clients from a Sentinel Key. This need might arise in situations when some other privileged client needs a license or an application terminates without releasing the license acquired.

Please follow the steps given below to cancel the licenses in the Sentinel Keys License Monitor:

1. On the system where Sentinel Keys Server is installed, run the Password Generation utility[2] to generate the *sntlpass.dat* file. It is available at the following path:
   - **For Windows 32-bit:** <*OS drive*>:*Program Files\Common Files\SafeNet Sentinel\Sentinel Keys Server*
   - **For Windows 64-bit:** <*OS drive*>:*Program Files(x86)\Common Files\SafeNet Sentinel\Sentinel Keys Server*

Note: Do remember the password; it will be required for authenticating the cancel license request (see step 7).

2. Restart the Sentinel Keys Server.
3. Launch the Sentinel Keys License Monitor. The main page (keys information) will appear.
4. Select the Sentinel Key whose licenses are to be canceled. The license information page will appear.
5. Select the license#. The client information page will appear.
6. Select the **Cancel** check box(es) for the licenses to be canceled. You can cancel up to 10 licenses at a time.

2. The *PwdGenUtility.exe* for Windows and *PwdGenUtility* for Linux and Macintosh.

7. Click **Cancel License Session**. A dialog box will appear prompting you to provide the same password specified in step 1.

8. Click **OK**. Verify for the license(s) canceled.

The Sentinel Keys License Monitor will not prompt you for any errors encountered while canceling a license. However, a license will not be canceled if there is excessive traffic in the network or you specified a wrong password in step 7.

About *loadserv.exe*

Using *loadserv.exe* you can:

- Install and remove the Sentinel Protection Server service.
- Set the server's log file locations. There are two separate log files, one for errors and one for processed transactions. If no locations are set for these log files, no logging will take place.
- Set the port used by the Sentinel Protection Server to launch the Sentinel License Monitor. You may need to do this in case the default HTTP port (6002) is being used by some other application.

About *SPNSrvStop.exe*

This utility is provided to stop the Sentinel Protection Server running on a Windows system.

Note: The *loadserv.exe* and *SPNSrvStop.exe* utilities are only for Sentinel Protection Server and not for Sentinel Keys Server.

About *sntlconfigsrvr.xml*

Using *sntlconfigsrvr.xml* you can:

- Configure the Sentinel Keys Server.
- Define all the supported protocols, the server will be accepting client request from.
- Modify the server and client port for communication. You may need to do this in case the default client application communication port (7001) is being used by some other application.

Note: Modifying this port requires equivalent modification in client configuration file (*sntlconfig.xml*) too.

- Modify the Sentinel Keys License Monitor tool port. The default HTTP port is 7002.
- Generate Client Request Response and error log files.

Note: Restart the Sentinel Keys Server to apply any changes you make to the server configuration file (*sntlconfigsrvr.xml*).

Using the Driver Configuration Program

Sentinel System Driver contains a configuration program called *SetupSysDriver.exe* to allow you configure the driver, if necessary. It also contains an option that allows you to call the original installer to modify, repair, or remove the installation.

The driver configuration program—*SetupSysDriver.exe*—is located at *<OS Drive>\Program Files\Common Files\SafeNet Sentinel\Sentinel System Driver.* When you run it, a window will come up giving you a few configuration choices.

If you only have the USB driver installed, the configuration program will not detect the USB driver if no USB key is plugged in. This is because the plug-n-play USB driver is only loaded when a key is plugged in. This differs from the parallel driver, which is always loaded after it is installed, so the configuration program should always detect its presence.

Add/Repair/Remove Installation

If you select this option, the installer will run the Windows Installer and allow you to modify/repair/remove the installation. This option is the same as going to the **Add/Remove Programs** option.

Configure Driver

The **Configure Driver** option allows you to manually configure the parallel ports used by the Sentinel System Driver. In general, the driver is able to automatically detect your parallel ports and does not need to be set up manually. However, in some cases manual modifications are required. Any changes to the ports could potentially cause the driver to fail. For more information on changing the ports and various options, click the **Help** button.

Tip: **Sentinel System Driver automatically detects the user-configured, PCI parallel port cards**
A feature has been added to the Sentinel System Driver for Windows NT-based operating systems that will allow it to recognize add-in PCI parallel port adapters that have been configured by the operating system. You need not enter the port addresses assigned to those adapters.

Modify/Repair/Remove Instructions

If you have installed Sentinel Protection Installer using its *setup.exe* or the Sentinel Protection Installer's executable, then use the following instructions to repair/remove it on a Windows NT-based operating system:

1. Go to **Settings > Control Panel** from the **Start** menu.
2. Double-click the **Add/Remove Programs** to obtain a list of software programs installed on your system. Look for the Sentinel Protection Installer's entry.
3. Click **Remove** and follow the on-screen instructions. A message may appear asking you to reboot your system.