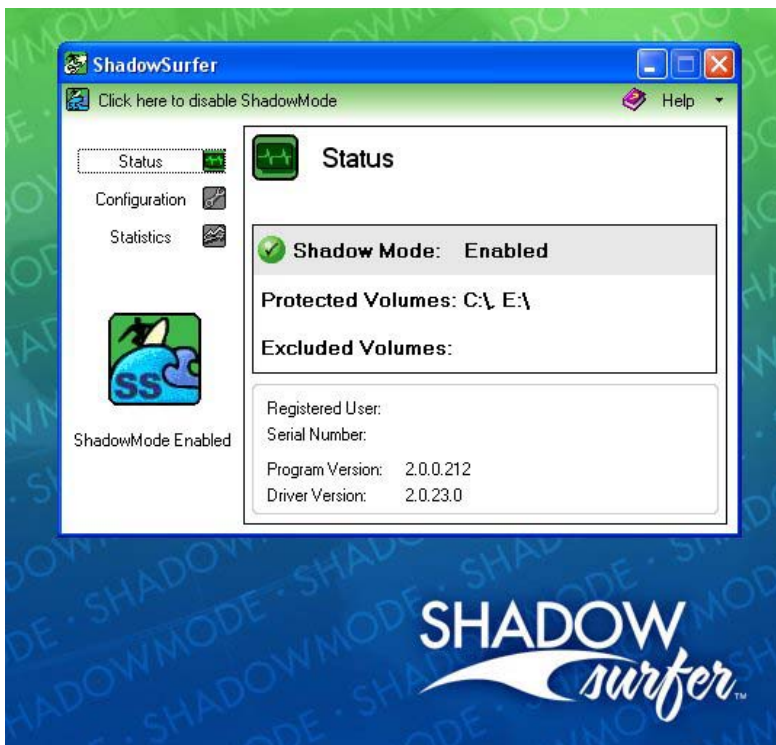


ShadowStor ShadowSurfer 2.0 User Guide



User Guide for ShadowSurfer™ Version 2.0

User Guide Version 1 – May 2004
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ABOUT THIS USER GUIDE

Welcome

Welcome to the ShadowSurfer User Guide. This User Guide describes the ShadowMode technology, how to install and operate and derive the maximum benefits from ShadowSurfer. All references in this User Guide are to ShadowSurfer Version 2.0.

The ShadowSurfer User Guide uses the *Graphical* interface for describing features, how to use functions and for graphically displaying screen shots of the interface.

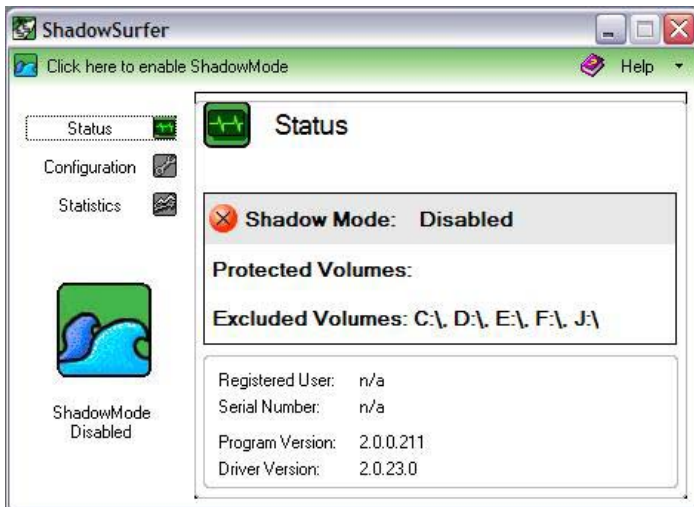


Figure 1 ShadowSurfer *Graphical* Interface

Additional Information

For emerging issues and other resources, see the following:

- The readme.txt file included in the ShadowSurfer installation
- The ShadowStor technical support website at www.shadowstor.com/support.html

This User Guide is available from the ShadowSurfer interface under the **Help** section.

A number of simplified diagrams are provided to give the user an overview and understanding of how ShadowSurfer works.

A glossary of ShadowSurfer and general software/hardware terms is provided.

Conventions

 This symbol designates information that is critical to the configuration and use of ShadowSurfer.

 This symbol designates mandatory steps required to prevent inadvertent data loss.

Bold face references indicates options and selections available in ShadowSurfer interface.

How This Guide is Organized

This guide is divided into the following sections:

- INTRODUCTION
- USING SHADOWSURFER
- COMMON TASKS
- BEST PRACTICES
- COMMAND LINE PARAMETERS

- TROUBLESHOOTING
- SHADOWSTOR TECHNICAL SUPPORT

Familiarize yourself with the features and configuration options of ShadowSurfer by reviewing this User Guide before employing ShadowMode.

A best practices section will provide guidance on the use of ShadowSurfer to help ensure a beneficial experience with ShadowSurfer.

INTRODUCTION

What is ShadowSurfer?

ShadowStor solutions provide a new way to solve current security, data protection and disaster recovery problems. Our unique approach provides disaster prevention, eliminating security, data protection and disaster recovery problems before they occur. Why recover from a PC disaster when you can prevent it?

ShadowSurfer uses a unique method called ShadowMode to ensure PCs are protected. By placing PCs in ShadowMode with ShadowSurfer, you can be confident the system is going to be protected no matter what happens. ShadowMode tracks each system change and redirects them to an unused location on the disk. These system changes can be permanently saved to disk, or completely discarded. With ShadowMode, there is no need to specify regions on disk for backup or use BIOS functions to reserve space for OS images. ShadowMode is the most efficient and intelligent way to protect PCs.

ShadowSurfer provides non-restrictive, easy to use desktop security and protection for Windows operating systems. ShadowSurfer is the best way to prevent unwanted or malicious changes from being made to a PC. ShadowSurfer can restore the pre-ShadowMode™ system state no matter what has happened to the PC.

How Does ShadowSurfer Work?

ShadowStor solutions have zero impact to the current configuration of your PC. There are no modifications to the Master Boot Record (MBR), partitions or disk structure. ShadowStor technology captures a snapshot of your system and runs an exact duplicate of your PC in a virtual state. This virtual state, called ShadowMode, allows the user to use the PC without actually writing to disk. If systems changes and folder or files changes occur during a ShadowMode session, these changes can be discarded. This gives full control back to the IT professional and PC user.

ShadowMode doesn't allow viruses or worms to be written to the PC. If you run in ShadowMode, the virus may get written to the virtual volume, but it can be discarded before changes are committed to disk. This approach is the first line of defense to security, data protection and disaster recovery and prevents problems from ever existing. This method provides a disaster prevention layer to your system rather than trying to recover a system by applying virus or worm updates after the disaster has occurred.

The ShadowStor approach eliminates the ability for unwanted changes and intrusive and malicious files from ever being written to the PC. You can then install your operating system and applications and configure it once for maximum performance.

By running your system in ShadowMode sessions, you can eliminate the need to track and manage what changes occurred at different points in time. By entering a ShadowMode session, saving files to a specific location on the disk or network, you can end a ShadowMode session and have your system in the exact state it was prior to the session with your personal data intact. This solution makes the management of shared systems and system change tracking very simple.

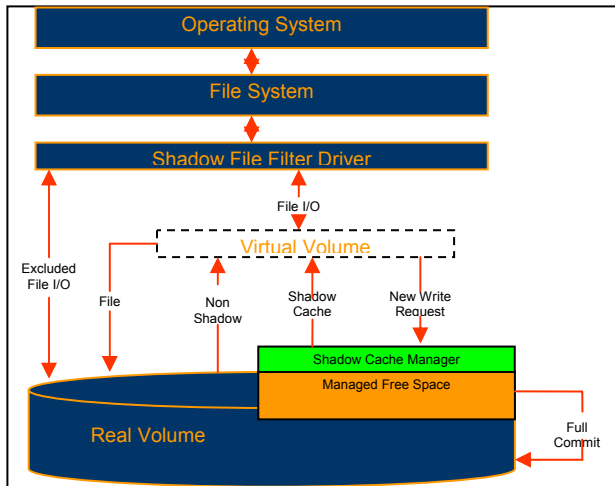


Figure 2 Schematic Diagram Showing How ShadowMode Works

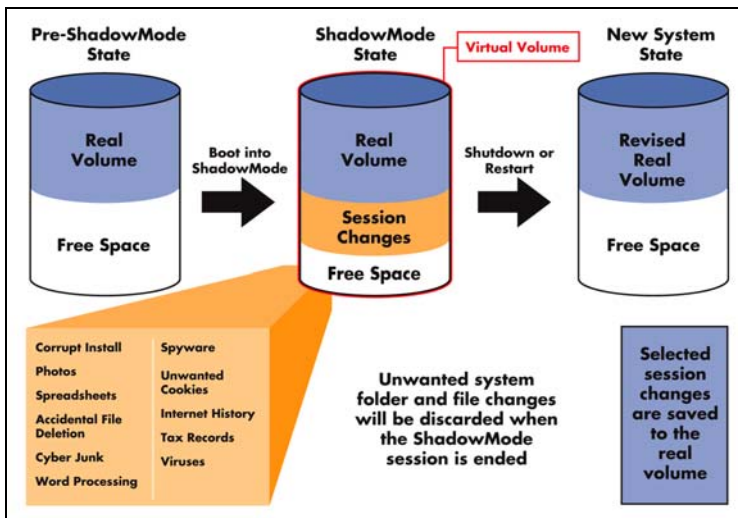


Figure 3 ShadowMode Virtualizing Your Volumes and Providing Non-intrusive Disaster Prevention

What Are the Benefits of Using ShadowSurfer?

ShadowSurfer provides the following benefits:

System Security - Surf the internet without a trace of unwanted cookies, internet history, temporary files, spam applications or spyware.

Optimal State - Configure your system exactly the way you want it ONCE and run in that optimal state at all times. No need to spend the time removing unwanted files or trouble shooting and eliminating unwanted PC changes.

System Recovery- Reduce the Total Cost of Ownership (TCO) for managing and maintaining your PCs by simply rolling the systems back to an optimal state.

Virus Protection - Prevent downtime and system damage due to virus and worm outbreaks. Prevent the virus from ever being written to the hard disk.

Change Management - Maximize system uptime by instantly undoing accidental or malicious system changes.

Patch Management - Safely test updates, patches and applications before permanently saving changes to your system.

Software Test Optimization - Quickly run various configurations on one system for software test scenarios. No need to reinstall or re-image a system to restore it to its original state.

Who Needs ShadowSurfer?

All users and administrators of PCs would benefit greatly from the use of ShadowSurfer. With no intent to be comprehensive, the following user categories are prime candidates for ShadowSurfer:

- Libraries
- Software test labs
- Training centers
- Call centers
- Public kiosks
- Home users
- Enterprises

Glossary

Backup - Backup is the activity of copying files or databases so that they will be preserved in case of equipment failure or other catastrophe. For personal computer users, backup is also necessary but often neglected. The retrieval of files you backed up is called *restoring*.

BIOS - BIOS (basic input/output system) is the program a personal computer's microprocessor uses to get the computer system started after you turn it on. It also manages data flow between the computer's operating system and attached devices such as the hard drive, video adapter, keyboard, mouse, and printer.

Bitmap - A bit map (often spelled "bitmap") defines a display space and the color for each pixel or "bit" in the display space.

Change Management – Change management is the act of monitoring changes made to a computer by other users. Often times, changes are made to a PC or server that can cause problems. Change management provides the ability to get back to a state where the computer problems did not exist.

Commit – The terms commit and save are used interchangeably in this User Guide.

Cookies - A cookie is information that a web site puts on your hard drive so that it can remember something about you at a later time. Typically, a cookie records your preferences when using a particular site.

Defragmentation - Defragmentation is the process of locating the noncontiguous fragments of data into which a computer file may be divided as it is stored on a hard drive, and rearranging the fragments and restoring them into fewer fragments or into the whole file. Defragmentation reduces data access time and allows storage to be used more efficiently.

Driver - A driver is a program that interacts with a particular device or special (frequently optional) kind of software. The driver contains the special knowledge of the device or special software interface that programs using the driver do not. In personal computers, a driver is often packaged as a dynamic link library (DLL) file.

Hard Drive - A hard disk is part of a unit, often called a "disk drive," "hard drive," or "hard disk drive" that stores and provides relatively quick access to large amounts of data on an electromagnetically charged surface or set of surfaces.

Image – Images are files that contain all the contents of a hard drive for the purposes of backing up a computer system. Images are used to restore computer systems as well. Images can take large amounts of time to create due to the amount of data needed to backup.

Internet History – While surfing the internet, your internet browser tracks information about what web sites have been visited. Some browsers cache data so the next time a user visits a site, it will load faster.

Kiosk - A kiosk is a small physical structure (often including a computer and a display screen) that displays information for people walking by. Kiosks are commonly used at trade shows and professional conferences.

Operating System (OS) - An operating system (sometimes abbreviated as "OS") is the program that, after being initially loaded into the computer by a boot program, manages all the other programs in a computer. The other programs are called *applications* or application programs.

Operating System Patches - A patch (sometimes called a "fix") is a quick-repair job for a piece of programming. During a software product's beta test distribution or try-out period and later after the product is formally released, problems (called bugs) will almost invariably be found. A patch is the immediate solution that is provided to users; it can sometimes be downloaded from the software maker's Web site. Windows Update is the best example of an operating system patch.

Optimal State – Optimal state is the state in which a user has configured the operating system, applications, and behavior of the system, color schemes, or look and feel of their system to the point that it is the most desired state.

Partition - In personal computers, a partition is a logical division of a hard drive created so that you can have different operating systems on the same hard disk or to create the appearance of having separate hard drives for file management, multiple users, or other purposes.

Patch Management – The process of monitoring what patches have been installed on a computer and how those patches have affected the system performance.

PC - In its more general usage, a PC (personal computer) is a computer designed for use by one person at a time. Multiple users

can have accounts on the PC but generally the computer is used by one person at a time.

Point-In-Time Backup – Point-in-Time backup is the ability to get a backup of a file, folder, or entire system at that exact point-in-time. These types of backups are often used to roll a computer back to a point where there were no computer problems.

Protected Volumes – Volumes that users have selected in the user interface to be protected by ShadowSurfer.

Real-Time - Real time is a level of computer responsiveness that a user senses as sufficiently immediate or that enables the computer to keep up with some external process such as backing up.

ShadowMode - ShadowMode tracks each system change and redirects them to an unused location on the disk. These system changes can be permanently saved to disk, or completely discarded. With ShadowMode, there is no need to specify regions on disk for backup or use BIOS functions to reserve space for OS images.

Spamware/Spyware - Spyware is any technology that aids in gathering information about a person or organization without their knowledge. On the Internet (where it is sometimes called a *spybot* or *tracking software*), spyware is programming that is put in someone's computer to secretly gather information about the user and relay it to advertisers or other interested parties. Spyware can get in a computer as a software virus or as the result of installing a new program.

Standard Mode – Standard mode is the mode your computer is in when it is not in ShadowMode.

System downtime – This refers to the amount of time a server or PC is offline and unable to serve up applications or have users use the resources on that system. This is commonly known as having the system out of production.

System Info – System information is a file Windows generates that provides hardware, software, memory, disk drive, and other information about a PC.

System Volume – This is the volume where the boot files are located to boot an operating system. Usually, this is the C:\ volume.

Total Cost of Ownership (TCO) - TCO is a type of calculation designed to help consumers assess both direct and indirect costs and benefits related to the purchase of any computer related component. The intention is to arrive at a final figure that will reflect the effective cost of purchase.

Tray Icon – A tray icon is a graphical representation of a computer program or application. For example, ShadowSurfer uses a tray icon for the user to gain information about the program. Tray icons are loaded and reside in the system tray.

User Interface – The user interface (UI) is everything designed into an information device with which a human being may interact, including display screen, keyboard, mouse, light pen, the appearance of a desktop, illuminated characters, help messages, and how an application program or a web site invites interaction and responds to it.

Virtual Volume– A volume that can be referenced but that does not physically exist on the system. ShadowSurfer uses virtual volumes for the benefit of protecting your computer system.

Virus/Worm – An unauthorized piece of computer code attached to a computer program or portions of a computer system that secretly copies itself from one computer to another by shared discs and over telephone and cable lines. It can destroy information stored on the computer, and in extreme cases, can destroy operability. Computers can be protected from viruses if the operator utilizes good virus prevention software and keeps the virus definitions up to date. Most viruses are not programmed to spread themselves. They have to be sent to another computer by e-mail, sharing, or applications. The

worm is an exception, because it is programmed to replicate itself by sending copies to other computers listed in the e-mail address book in the computer. There are many kinds of viruses, for example:

Boot viruses – Places some of their code in the start-up disk sector to automatically execute when booting. Therefore, when an infected machine boots, the virus is loaded and runs.

File viruses – Attaches to program files (files with the extension “.exe”). When you run the infected program, the virus code executes.

Trojan Horse – Is a malicious, security-breaking program that is disguised as something benign such as a screen saver or game.

Worm – Launches an application that destroys information on your hard drive. It also sends a copy of the virus to everyone in the computer's e-mail address book.

Volume – In computers, a volume is an identifiable unit of data storage that is sometimes (but not always) physically removable from the computer or storage system.

USING SHADOWSURFER

Getting Started

System Requirements

Operating System	Windows NT Workstation, Windows 2000 professional, Windows XP Home and Windows XP Professional
Processor RAM	Pentium 133 MHz or faster 128 MB
Hard drive free Space	10 MB for program files Storage space for running in ShadowMode depends on the amount and type of data on the drives that will be placed in ShadowMode

Installing ShadowSurfer

Use the installation instructions corresponding to the interface and whether the product was downloaded from the web or available on a CD ROM.

ShadowSurfer (web download version)

1. Click the **Setup.exe** file.
2. At the main screen click the **NEXT** button.
3. Click the **Next** button to begin installing the product.
4. Select **I Agree** to accept the license agreement and click **NEXT**.
5. Type the **name** and **organization** and click **NEXT**.

6. Select the location you would like to install to. You can click the **BROWSE** button and select a location and click the **DISK COST** button to see how much disk space the program will require. Select if ShadowSurfer will be installed for **everyone** who uses that computer or **just yourself**. Click **NEXT**.
7. Click **NEXT** to confirm the installation.
8. Once the installation is complete, click the **CLOSE** button.

ShadowSurfer (from CD ROM)

1. Insert the CD ROM into the drive.
2. Click the **Setup.exe** file.
3. At the main screen click the **NEXT** button.
4. Click the **NEXT** button to begin installing the product.
5. Read and select **I Agree** to accept the license agreement and click **NEXT**.
6. Type the name and organization and click **NEXT**.
7. Select the location you would like to install to. You can click the **BROWSE** button and select a location and click the **DISK COST** button to see how much disk space the program will require. Select if ShadowSurfer will be installed for **everyone** who uses that computer or **just yourself**. Click **NEXT**.
8. Click **NEXT** to confirm installation.
9. Once the installation is complete, click the **CLOSE** button.

Activating ShadowSurfer

You must activate ShadowSurfer with a valid serial number obtained from ShadowStor, Inc. Otherwise, the software will expire in 15 days.



Figure 4 Enter Activation Code Screen

1. From the ShadowSurfer interface, click **Help > Register Product**.
2. If you do not have a serial number for ShadowSurfer (because you have not purchased the software), click **ShadowStor.com** to visit www.shadowstor.com and go to the online store to pay for the software and receive a serial number. If you have obtained a serial number from ShadowStor, Inc., then proceed to step 3.
3. Select **Activate Product**
4. Enter the User Name used when you purchased the software.
5. Enter the Serial Number of your software.
6. Enter the 20 character Activation Code.
7. Click **OK**.

The licenser distinguishes your computer from others without storing information about you or your computer's hardware and software. Activating your software may trigger an optional registration. Registration data is generally used for demographic purposes and is not resold. You can opt out of marketing-oriented uses of your data as part of registration.

Starting ShadowSurfer

Click **Start > Programs > ShadowStor, Inc. > ShadowSurfer** or right click on the ShadowSurfer tray icon and select **Open ShadowSurfer** to open the ShadowSurfer interface.

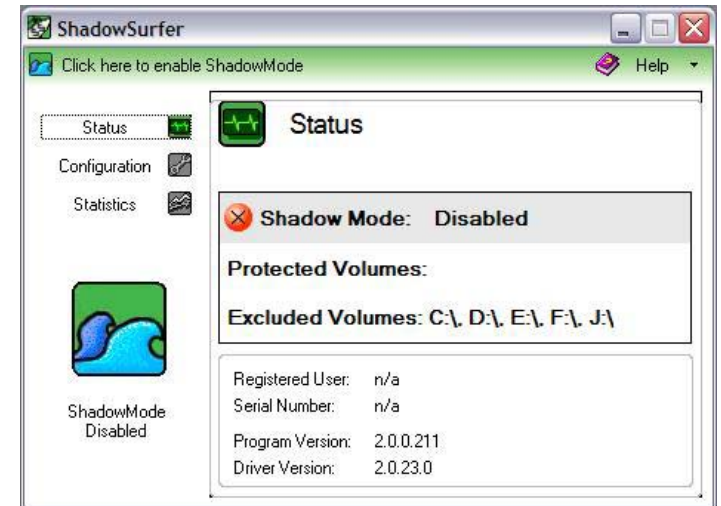


Figure 5 ShadowSurfer Startup Screen

Post Installation Configuration

After installing the program, the ShadowSurfer settings need to be set to ensure the system is configured properly for your situation to ensure ShadowSurfer will operate in a manner that is both desired and

expected. Below are the ShadowSurfer configuration options that should be considered with each installation.



It is very important to note that changes to the ShadowSurfer configuration can only be made while in standard mode. Any changes made to the ShadowSurfer configuration in ShadowMode will not be saved or take affect.




The system will reboot or restart in the mode that it was last in unless specifically commanded to reboot or restart in an alternate mode through the ShadowSurfer interface.

Drives to be Protected in ShadowMode

Selecting which drives to protect in ShadowMode depends on who uses the system and how they use the system. For example, on a public access computer, it is important to protect all volumes and not allow any permanent changes to any volume.

However, a home user running ShadowSurfer might wish to protect only his system volume, thereby protecting his system and settings but also allowing complete freedom to use the other volumes.

To select which drives will be protected under ShadowMode see  **Configuration > Drives** on page 41.

While In ShadowMode, the default wallpaper warning will be used to notify the user they are in ShadowMode.

How you configure ShadowSurfer will depend upon how your system is used and what level of protection you require. Described below are two configurations that are helpful as guides to understanding ShadowSurfer configuration.

Public Use Computer with Strong ShadowSurfer Protection

Description: Computer is available to public users such as at a library, kiosk or testing lab. Support staff is lean or does not exist and computer needs to be available in a consistent state each day.

Needs: Complete protection. The computer should be configured exactly the same each morning and anything from prior users should be discarded from the computer. The system is open to the public and users must be prevented from altering the computer system configuration.

Configuration Description: This computer needs the highest level of ShadowMode protection, which is full system protection. Changes from users while the system is in ShadowMode will not be saved to any volume.

Configuration Steps:

1. Open the ShadowSurfer interface and select **Configuration**.
2. On the **Drives** tab, place a check mark next to **All Drives**.

To perform maintenance on the system, the administrator should reboot into ShadowMode and make desired system changes. The administrator can then test these changes before saving them to the system.

When maintenance tasks are completed the computer can be placed back into ShadowMode and returned to public use.

Home User with System Volume Placed into ShadowMode

Description: Computer is used in a home setting. The Owner wants to make sure the system retains its optimal configuration. Owner wants to ensure his system volume is protected from internet threats such as spyware, viruses and general internet clutter.

User has multiple drives and wants to place only his system volume into ShadowMode and leave all other drives available to make changes in standard mode.

User also wants to control modifications to the system and to test applications and changes to the system before permanently making changes.

Needs: Complete system volume protection while having all other volumes run in standard mode thereby providing a place to save in real time the user's work files.

Configuration Steps:

1. Open the ShadowSurfer interface and select **Configuration**.
2. On the **Drives** tab, place a check mark next to **Local Disk (C:)**. *Note: This assumes that the system volume is the C drive.*

To perform maintenance on the system, the user should reboot into ShadowMode and make desired system changes. The user can then test these changes before booting out of ShadowMode and permanently saving changes to disk.

ShadowSurfer Interface

The ShadowSurfer interface provides many of the user controls and options necessary to operate ShadowSurfer and to get the most out of the product. The User interface also allows you to see very quickly if your system is operating in ShadowMode.

Along the top of the interface are two options, Mode and Help. The Mode feature allows you to put your system into or take your system out of ShadowMode. The Help option contains online help as well as electronic versions of this User Guide, registration information and website links to ShadowStor's technical support page, product features suggestion page and ShadowStor's homepage.

The main part of the ShadowSurfer interface is divided into two sections. The navigation area on the left contains links to Status, Configuration, Scheduling, Reports and Statistics features. The main window on the right contains the active window where the user selects his configuration. Below the navigation area is a large icon which indicates whether ShadowMode is enabled or disabled. This icon can also be clicked to enable or disable ShadowMode.



From the Mode menu the system can be placed into or taken out of ShadowMode by selecting the mode icon to toggle modes or by selecting the mode drop down list of options which allows for toggling the system mode or to restart the system in the same mode.

By clicking on the Mode icon, a dialog box will appear informing the user whether ShadowMode is currently active or inactive. The user has the option to **activate** or **deactivate** depending on the current mode or **Cancel** the operation.

If a selection to **activate** or **deactivate** ShadowMode is made a subsequent dialog box will appear informing the user that the operation requires the system to reboot and the user will be given three options. The first option is to **Reboot** which will immediately reboot the system and place it in the selected mode. The second option is **Later** which will prepare the system for the selected mode and the user may manually reboot when they choose. The third option is to **Cancel** the operation and return to the previous dialog box.

From the Mode drop down menu, the user can select to toggle the system mode by selecting the first option **Activate ShadowMode** if ShadowMode is currently inactive or **Deactivate ShadowMode** if ShadowMode is currently active. The user will be prompted that the operation requires the system to reboot and is presented with the same dialog box with the options of **Reboot**, **Later** and **Cancel**.



The Help button launches the online User Guide in a searchable format. To the right of the Help icon is a drop down menu with the following options:

Help – Launches the online User Guide in a searchable format.

About ShadowSurfer – Opens the about ShadowSurfer information screen which includes the specific ShadowSurfer version number and copyright statement. In addition, there is a button **System Info** that provides details about the computer hardware, software and configurations that is useful when contacting ShadowStor technical support and a ShadowStor technical support agent might ask for specific information contained in the **System Info** report.

Product Feedback – Hyperlink to the ShadowSurfer product feedback form. Here customers can provide feedback about what they like and don't like about ShadowSurfer as well as features they would like to see added to ShadowSurfer in a subsequent release.

Technical Support – Hyperlink to the ShadowStor technical support page.

ShadowStor.com – Hyperlink to the ShadowStor homepage.

Activate Product – Opens the ShadowSurfer Enter Activation Code dialogue box. ShadowSurfer requires that a valid User Name, Serial Number and Product Activation Key be entered to fully activate the product. (see Activating ShadowSurfer on page 17.)



System Status

The System Status provides a quick view of the current state of the system, including:

ShadowMode - Indicates when ShadowMode is enabled or disabled on the system. This information is also presented with the large icon in the lower left corner of the ShadowSurfer interface.

Protected Volumes – Indicates what volumes are protected under ShadowMode.

Excluded Volumes – Indicates what volumes are not protected under ShadowMode.

Registered User – Displays the registered user's name. If the version is an evaluation version, this will be indicated with "Evaluation."

Registration Number – Displays the serial number for the registered software obtained from ShadowStor, Inc.

Program Version – Displays the program version.

Driver Version – Displays the Shadow driver version.



Figure 6 ShadowSurfer Status View

Configuration

The **Configuration** view is where the user selects which drives or if the entire system will be protected by ShadowMode.

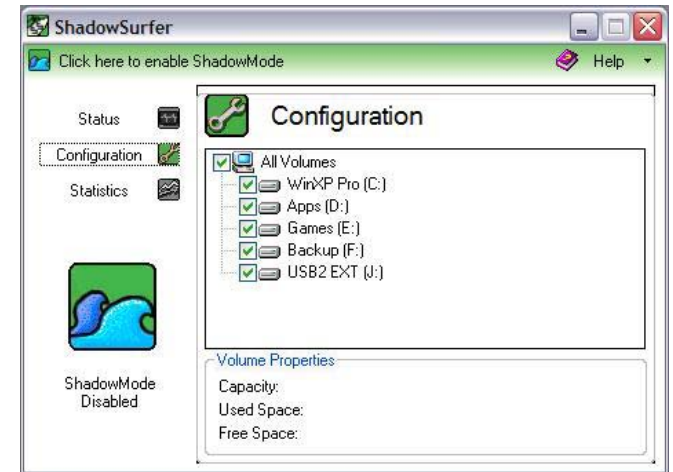


Figure 7 ShadowSurfer Configuration View

Drives – Select the drive(s) to protect while running in ShadowMode or protect the entire system by checking **All Drives**. To view the drive properties such as capacity, used space and free space highlight the drive.

Statistics

Selecting **Statistics** from the interface shows critical statistics for the selected volume that the user should be aware of while operating in ShadowMode, including:

ShadowMode Time – When the system was placed into ShadowMode.

Duration – Duration the system has been operating in ShadowMode.

Drive Capacity – Total capacity of the selected volume.

Initial Free Space – Amount of initial free space available to support ShadowMode.

% of Total Size – Percent of total drive capacity that is available as initial free space.

Current Free Space – Amount of remaining free space available to support ShadowMode.

% of Free Space (available) – Percent of initial free space that is currently available.

Used by Shadow Volume – Amount of space used by ShadowMode.

% of Free Space (used) – Percent of initial free space that has been used by ShadowMode.

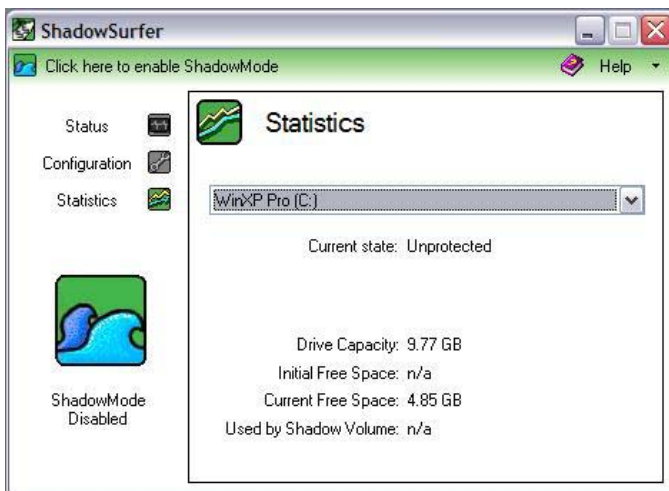


Figure 8 ShadowSurfer Statistics View

Other Features in ShadowSurfer

The following additional features of ShadowSurfer not available through or from the interface are available as context menu options or tray icon options.



Active Tray Icon

! The Active Tray Icon is provided as an indicator that the system is in ShadowMode.

The Active Tray Icon indicates that the system is in ShadowMode. By double clicking the icon the user can launch the ShadowSurfer interface.

By right clicking the icon, the user can select:

- Disable ShadowMode** – Disables ShadowMode.
- Open ShadowSurfer** – Opens the ShadowSurfer interface.
- About** – Opens the About page on ShadowSurfer.
- Exit** – Unloads the tray icon.



Inactive Tray Icon

The Inactive Tray Icon indicates that the machine is in standard mode. By double clicking the icon the user can launch the ShadowSurfer interface.

By right clicking the icon, the user can select:

- Enable ShadowMode** – Enables ShadowMode.
- Open ShadowSurfer** – Opens the ShadowSurfer interface.
- About** – Opens the About page on ShadowSurfer.
- Exit** – unloads the tray icon.

Best Practices

ShadowStor Inc. recommends the following best practices to ensure the best experience with ShadowSurfer:

1. Test ShadowSurfer Configuration Before Using

2. Partition Hard Drive

We recommend you partition your hard drives using third party partitioning software such as PartitionCommander™ and PartitionMagic™. Creating partitions and separating your system partition from your data partitions gives you greater control over how you protect your system using ShadowSurfer.

3. Disable De-fragmentation Programs

We strongly recommend you disable any de-fragmentation programs such as Perfect Disk™ or Diskeeper™ while in ShadowMode. If you run a de-fragmentation program while in ShadowMode, ShadowSurfer will intercept these commands and disregard all de-fragmentation tasks. Perform de-fragmentation in standard mode.

4. Perform Regular Reboots

ShadowSurfer redirects each write on the disk to a location containing free space. After extended periods of time this free space may be exhausted. We recommend you reboot your PC periodically depending on the amount of free space available to support ShadowMode. Reboots can be performed using a hands off approach by creating a reboot task with the ShadowSurfer Schedule feature.

ShadowStor Technical Support

You must furnish your product license (serial) number when you contact ShadowStor for technical support.

Technical support for ShadowStor products is available beginning with the release of the product and ending six months after the release of the next major version of the product or after ShadowStor discontinues the product line.

Complimentary Technical Support

ShadowStor's complimentary technical support consists of self-help support tools that are available at www.shadowstor.com/support.html (in English only).

An easy-to-use, powerful knowledge base that helps you find answers to the most frequently asked product questions, as well as "how-to" procedures and technical information about all ShadowStor products.

E-Mail Support

Requests for e-mail support in North America are processed 8:00 am to 5:00 pm MST, Monday through Friday. To obtain e-mail technical support for specific technical questions or issues, fill out the form at www.shadowstor.com/supportform.html.

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