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# SmarTerm Terminal Services Installation Guide



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*Extending the Reach of Information*

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# Preface

This guide will help you install SmarTerm. This version of SmarTerm requires Windows 2000 with Terminal Services or Windows 2003 with Terminal Services. It is compatible with Citrix MetaFrame. In combination with the detailed online help system, printed documentation, and online manuals, this guide provides you with what you need to install SmarTerm.

## How to use this guide

Read this Preface for assistance in obtaining more information and technical support. Then turn to Chapter 1, “Installing SmarTerm” for instructions on running Setup and configuring your server. Chapter 2, “Using Load Balancing” explains how to use the Automated Install Wizard to setup load balancing across a server farm. Chapter 3, “Testing and Troubleshooting” explains how to test your newly installed SmarTerm and provides answers for common problems when using the software.

## Information and technical support

If you encounter problems with SmarTerm, check through the troubleshooting hints in the online help and SmarTerm documentation. Many situations are common and can be corrected easily with the suggestions given there. If your problems persist, call Esker’s Technical Support department for assistance at one of the following locations:

### For U.S. and Canada

Esker, Inc.  
1212 Deming Way, Suite 350  
Madison, WI 53717

Tel: (608) 828-6000 8:30 a.m. to 5:00 p.m. Central Time

Fax: (608) 828-6001 24 hours

E-Mail: [SmarTerm-support@esker.com](mailto:SmarTerm-support@esker.com) 24 hours

World Wide Web: <http://www.esker.com> 24 hours

## For all other customers, Monday through Friday

**Australia:** 8:30 a.m. to 5:30 p.m.

Tel: +61 2 95655688, Fax: +61 2 9565 5877

**France:** 9:00 a.m. to 12:00 p.m. and 2:00 p.m. to 5:30 p.m.

Tel +33 (0)4.72.83.46.46, Fax +33 (0)4.72.83.46.40

**Germany:** 9:00 a.m. to 5:00 p.m.

Tel:+49 (0) 89 700 887 90

**Italy:** 9:00 a.m. to 6 p.m.

Tel: +39.02.89.20.03.03

**Spain:** 9:00 a.m. to 7:00 p.m.

Tel: +34.91.552.92.65

**UK:** 9:00 a.m. to 5:30 p.m.

Tel: +44 1332 799622

Before you call for technical support:

- *Know your license number.* It's on the Registration card that comes with your product. (If you entered the number during installation, you can display this license number by selecting Help>About.)
- Be aware that we may need detailed information about the hardware and software on your computer, so a working knowledge of Windows, the setup of your PC, and the way you are using SmarTerm may be necessary.
- Isolate the problem as much as possible. Does the problem occur every time you enter a certain sequence of key-strokes, or do you have to do something else first? Writing down a short description of the steps it takes to repeat the problem will help both of us to isolate the problem.
- Seat yourself at the PC that is giving you trouble and call us from there. We may need to have you run one or more diagnostic tests, and these must be done on the computer with the problem.

# Installing SmarTerm

SmarTerm is an integrated set of Windows applications that put you online with the most popular connectivity methods in use today. SmarTerm is a multilingual product, allowing you to operate in your choice of English, French, German, or Spanish, changing languages without disconnecting from the host or exiting SmarTerm.

This chapter steps through the installation of SmarTerm.

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**Note:**

The online version of this manual may be more up to date than the printed version. Always check the online Release Note for late-breaking information before installing SmarTerm.

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## Installation requirements

SmarTerm runs on any Multi-User 2000/2003 server that has the following hardware and software:

- The minimum computer hardware and memory that is required by your version of Multi-User Windows 2000/2003.

**OR**

- Microsoft Windows 2000 or Microsoft Windows 2003, Terminal Services with or without Citrix MetaFrame installed.

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**Note:**

We strongly recommend setting up the server with an NTFS volume rather than FAT volume. You cannot adequately protect your installation from user changes under FAT. The Multi-User NT script files supplied with SmarTerm set the files in the SmarTerm program directory to be read-only if the server uses FAT, but this is easily circumvented by users.

- 
- Appropriate communication hardware and software, such as a serial port or modem, if you intend to use a direct serial connection or a modem connection.
  - The Windows TCP/IP stack, if you intend to use the Telnet connection method or FTP.
  - Microsoft SNA client, if you intend to use this connection method.
  - SmarTerm requires up to 52MB of free disk space to install all components and languages on the server. If you are setting up SmarTerm so that each user maintains individual settings, you also need at least 1MB in each user's home directory.

SmarTerm makes no special requirements for client computers beyond those of the system itself.

## Install & uninstall SmarTerm from server

You must both install and uninstall SmarTerm only from the server console. This ensures that the SmarTerm keys will be cleared from the registry when you uninstall SmarTerm. Do not install or uninstall SmarTerm from a client connection. This caveat does not apply to Administrator Toolbox installation, which can be done through a client connection.

## About the SmarTerm administration tools

The SmarTerm administration tools allow administrators to modify a session's user interface, create profiles, and otherwise customize SmarTerm sessions. With SmarTerm Office for Terminal Services, you can install the Administrator Toolbox on your multi-user 2000/2003 server without automatically giving access to its features to all of your users. In order to access the Administrator Toolbox, users must run the Administrator Toolbox installation program and install it to their account on the server. They must also have NT administrator rights.

## Installation overview

Installing SmarTerm on a server is a three-step process:

1. Prepare the server for installation by archiving any existing SmarTerm files that you want to retain. (Only necessary when upgrading.)
2. Run Setup. Setup detects whether or not you are installing to a multi-user server, and presents you with choices appropriate to that environment.
3. Finish the installation by setting up SmarTerm to operate in lockdown or open mode (see "Lockdown versus open mode" below).

When you have finished installing and setting up SmarTerm, proceed to Testing and Troubleshooting on page 18 for assistance in testing your installation.

## Lockdown versus open mode

Multi-user applications typically run in either *lockdown* or *open* mode. In lockdown mode, all users are presented with the same settings and files, and they are prevented from saving changes. The administrator determines entirely how the program works, and all users see the same settings.

In open mode, users get their own settings, usually stored in their home directory on a server. A given user may save changes he or she makes, but no other user will be affected by those changes. Applications running in open mode may also provide a facility to refresh a user's settings from administrator-created defaults.

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**Note:**

There is another way to implement open mode: all users can share one set of settings, and any changes any user makes affect all other users. This is generally not a preferred mode of operation, and is not discussed here.

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For instructions on setting up SmarTerm to operate in lockdown mode after installation, see Configuring SmarTerm for lockdown mode on page 9. For instructions on setting up SmarTerm to operate in open mode after installation, see Configuring SmarTerm for open mode on page 10.

## Installation type

You can choose either Typical or Custom install. Typical installs all the features of SmarTerm, except for the Administrator Toolbox. Custom allows you to choose the SmarTerm components that you want to install, including the Administrator Toolbox.

## Before running Setup

Read through the next sections to see if there are any steps you need to take before running Setup to install SmarTerm.

## Create a special NT account and log on with it

If you do not already have a special account that you use for administering user profiles, create one now. It should have full administration rights and privileges, and should be separate from your own personal account, even if that account also has full administration rights and privileges. Make sure that you always use this account whenever you



modify the settings in SmarTerm, and that you never use this account for daily use of SmarTerm, or you may inadvertently affect your users' settings in undesirable ways.

## Have your license number handy

Setup prompts you for your license number and activation key, which are required for installation. If you wish to evaluate SmarTerm, continue without entering a license number and key. An evaluation number and key will automatically be entered for you, and will expire in 28 days. The evaluation copy provides a full working version of SmarTerm and is only limited in the number of concurrences and time. For version 12.0 and greater, the license number can be found by clicking on Start > Programs > SmarTerm > Utilities > Esker Licensing Administration. For versions earlier than 12.0, select Help > About SmarTerm to view the license number. You must register SmarTerm to obtain a license number.

## Shut down extra Windows programs

To make the installation process go as smoothly as possible, shut down any programs that may be running in the background such as:

- Applications
- Screen savers other than those shipped with Windows 2000/2003.
- Virus protection programs

## Upgrading from a previous version

If you are upgrading from a previous version of SmarTerm, you should first remove the old version from the computer, reboot, and then install the new version. You can reuse most of the custom files you've created with a previous version of SmarTerm. However, we recommend that you remove the program files and registry entries of a previous version of SmarTerm before installing the new version.

Follow these steps:

1. Make a backup copy of any custom files that you want to reuse. This is particularly important if you are using modified versions of custom files installed with SmarTerm, such as the user macro files (uservt.stm, for example), that you have left in the default locations. Files with the same name as those installed with SmarTerm and stored in the default locations will be removed when you remove the program. However, custom files of your own creation will be left in place unmodified.

The following table lists the types of custom files you may want to back up, and their default location under the SmarTerm program folder.

Type of custom file	Default location
Buttons	Program Files\Esker\SmarTerm\Buttons
HotSpots	Program Files\Esker\SmarTerm\Hotspots
Keyboard maps	Program Files\Esker\SmarTerm\Keymap
Macros	Program Files\Esker\SmarTerm\Macros
Sample files	Program Files\Esker\SmarTerm\Sample
Sessions	Program Files\Esker\SmarTerm\Sessions

2. Once you have backed up any custom files, you can safely remove the previous version of SmarTerm. In Windows, select Start>Settings>Control Panel.
3. Double-click Add/Remove Programs.
4. Select SmarTerm from the list of installed applications and click Add/Remove. After a confirmation prompt, Windows runs the SmarTerm Setup program with an uninstall script.

5. Follow the prompts to remove the SmarTerm program files and registry entries from your server. Any custom files you have made beyond those installed with the software are left in place unmodified for your convenience, but any modified versions of installed custom files stored in the default locations are removed.

When you have completed the steps listed above, reboot your machine. You can continue with the next section to install your new version of SmarTerm. Then check the section After running Setup on page 9 for instructions on further steps, such as making use of the custom files you just archived.

## Running Setup

Follow these steps to run Setup:

1. Make sure you are logged on to the server at the console using an account with administrator privileges, and that the server is in install mode.
2. Insert the CD-ROM into the CD-ROM drive.
3. If you're installing on a server that has the "autorun" feature enabled, the CD browser may start as soon as you've inserted the CD-ROM. If this happens, skip to step 6.

Otherwise, select Start>Run.

4. Type `drive:\launch` in the textbox, replacing `drive` with the letter of the CD-ROM drive, and click OK.
5. Click Install SmarTerm from the CD browser.
6. Select the language options. You can run Setup in English, French, German, or Spanish; the language you choose for Setup becomes the default language for menus, dialogs, and online help the first time you run SmarTerm. Setup always installs the English components; you can choose to install the other languages as well.
7. Follow the remaining prompts. *We strongly recommend that you install this version using the default directories that Setup offers.*
8. When Setup is finished, continue with the next section.

## After running Setup

You may need to install additional components from the CD browser (e.g. Microsoft SNA client if you need to make an SNA connection and do not have an SNA client installed). Install any additional components, then finish the installation by configuring SmarTerm to run in either lockdown or open mode.

## Configuring SmarTerm for lockdown mode

To operate SmarTerm in lockdown mode, presenting all users with the same settings and preventing them from making any changes, after finishing installation, you need to do the following two steps:

1. Edit and run the Esker-supplied command file `Stlock.cmd` to write-protect SmarTerm's program files and configure the registry.
2. Run SmarTerm to set up program options and files.

If you decide later to switch your installation of SmarTerm from lockdown mode to open mode, you can follow a similar procedure to change the file permissions to allow users to change SmarTerm settings. See Configuring SmarTerm for open mode on page 10 for instructions.

### Edit and Run `Stlock.cmd`

`Stlock.cmd` is stored in the Application Compatibility Scripts\Install folder, which is one level below the server's system root folder. Follow these steps to edit and run `Stlock.cmd`.

1. Make sure you are logged on to the server using an account with administrator privileges, and that the server is in install mode.

2. Use the Windows Explorer to browse to the Application Compatibility Scripts\Install folder.
3. Use an ASCII text editor to edit Stlock.cmd. This file self-documents, telling you to make sure that the following environment variables are set correctly for your server:

Environment variable	Setting
STINST	Full path to the SmarTerm program folder
FILESYS	File system, either NTFS or FAT
STFOLDER	Name of the SmarTerm installation folder

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**Note:**

After you have verified and/or changed the SET statements in Stlock.cmd, remark out or delete the **exit** command that follows the block of instructions at the top of the file. If you do not do this, Stlock.cmd will do nothing.

---

4. Save and close the file. Then double-click the Stlock.cmd icon. The command file changes to the folder specified with the STINST environment variable. If the FILESYS environment variable is NTFS, Stlock.cmd sets the file permissions for that folder and all subfolders to Read-only for Everyone, Full Control for Administrators and the System. If the FILESYS environment variable is FAT, Stlock.cmd sets all the files in this folder and all subfolders to read-only.

## Run SmarTerm

Once you have locked down SmarTerm to prevent users from changing the settings, you can set up the program files. Follow these steps:

1. Make sure that you are logged onto the server using the account that you use for administering user profiles.
2. Open a command window and type **change user /install** to put Windows into installation mode.

---

**Note:**

If you do not put Windows into installation mode before proceeding, the changes you make may not be available to your users.

---

3. Start up SmarTerm and use its tools to create sessions and custom tools (button palettes, macros, keyboard maps, and so on) that your users will need. See the online help that came with SmarTerm for assistance in this process.

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**Note:**

Be aware when you set up SmarTerm that it saves *all* of your settings, not just those you have changed this time around. This is why it is important that you have separate accounts for administering and using SmarTerm. Also, Make sure that you store all new or modified files in their default locations, which are all folders one level below the SmarTerm program folder. Or, if you store them in other folders, make sure that you change the settings in SmarTerm with Properties>Global Options>File Locations to match the new locations. If you do not do this, the files will not be accessible to your users.

---

When you have finished setting up SmarTerm, exit the program. Open a command window and type **change user /execute** to put Windows back into normal running mode. Then log off Windows and follow the instructions in Testing SmarTerm on page 18 to test your installation and setup.

## Configuring SmarTerm for open mode

To operate SmarTerm in open mode, presenting each user with their own settings and allowing them to make changes to those settings, follow the Setup program with three final steps:

1. Edit and run the Esker-supplied command file Stopen.cmd to write-protect SmarTerm's program files and modify the registry, and then append a call to the Esker-supplied command file Stuser.cmd to the default login script.

2. Run SmarTerm to set up program options and files.
3. Edit the Esker-supplied application compatibility script Stuser.cmd, which can be found in the SmarTerm installation directory.

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**Note:**

If you decide later to switch your installation of SmarTerm from open mode to lockdown mode, you can follow a similar procedure to change the file permissions to prevent users from changing SmarTerm settings. See Configuring SmarTerm for lockdown mode on page 9 for instructions.

---

### Edit and run Stopen.cmd

Stopen.cmd is stored in the Application Compatibility Scripts\Install folder. This folder is one level below the server's System Root folder. Follow these steps to edit and run Stopen.cmd:

1. Make sure you are logged on to the server using an account with administrator privileges, and that the server is in install mode.
2. Use the Windows Explorer to browse to the Application Compatibility Scripts\Install folder.
3. Use an ASCII text editor to edit Stopen.cmd. This file self-documents, telling you to make sure that the following environment variables are set correctly for your server:

Environment variable	Setting
STINST	Full path to the SmarTerm program folder
FILESYS	File system, either NTFS or FAT
LOGIN	Full path and filename of the local login script
STFOLDER	Name of the SmarTerm installation folder

---

**Note:**

After you have verified and/or changed the SET statements in Stopen.cmd, remark out or delete the **exit** command that follows the block of instructions at the top of the file. If you do not do this, Stopen.cmd will do nothing.

---

4. Save and close the file. Then double-click the Stopen.cmd icon. The command file changes to the folder specified with the STINST environment variable. If the FILESYS environment variable is NTFS, Stlock.cmd sets the file permissions for that folder and all subfolders to Read-only for Everyone, Full Control for Administrators and the System. If the FILESYS environment variable is FAT, Stlock.cmd sets all the files in this folder and all subfolders to read-only.

Stopen.cmd also adds a call to the Esker-supplied command file Stuser.cmd (stored in the SmarTerm program folder) to the end of the default user logon command file specified with the LOGIN environment variable.

### Run SmarTerm and set up profiles

A profile is a collection of SmarTerm feature and session characteristics that control how a user sees and works with SmarTerm. It is, in essence, a template that includes administrator-defined settings for sessions, automation tools (such as SmarTerm Buttons, keyboard maps, HotSpots, and SmartMouse), and the user interface. SmarTerm comes with a factory default profile that makes all tools and features available. Use the Administrator Toolbox to define your own profile and profiles for users.

To set up the profiles, start up SmarTerm and use the tools in that program to create sessions and custom tools (button palettes, macros, keyboard maps, and so on) that your users will need. See the documentation and online help that came with SmarTerm for assistance in this process.

**Note:**

Make sure that you store all new or modified files in the appropriate locations, which by default are all folders one level below the SmarTerm program folder.

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When you have finished setting up SmarTerm, exit the program.

## Edit Stuser.cmd

Stuser.cmd is SmarTerm's *application compatibility script*, used to facilitate open mode. This command file runs every time a user logs on to the server. The file performs the following functions:

- It checks for the existence of a file called Stuser.ini in the user's SmarTerm folder, which resides in the user's home directory. If Stuser.cmd finds the Stuser.ini file, it assumes that the user has already run SmarTerm once, and ends, allowing the remainder of the Windows startup sequence to continue.
- If Stuser.cmd does not find the Stuser.ini file, it assumes that the user has yet to run SmarTerm and sets them up to do so. First it copies the template files from the SmarTerm program folder to an identical tree rooted in the user's home directory. Then it sets a number of keys in the registry to ensure that SmarTerm knows where to find the files.
- Stuser.cmd finishes by creating the Stuser.ini file in the user's SmarTerm folder in the user's home directory. It then ends, allowing the remainder of the Windows startup sequence to continue.

Follow these steps to edit Stuser.cmd:

1. Make sure you are logged on to the server using the account with administrator privileges that you use to install and set up software.
2. Use Windows Explorer to browse to the SmarTerm program folder.
3. Use an ASCII text editor to edit Stuser.cmd. This file is self-documenting, telling you to make sure that the following environment variables are set correctly for your server:

Environment variable	Setting
STINST	Full path to the SmarTerm program folder.
HOMEROOT	The full path to the users' home directories. By default, HOMEROOT is set to use the user profile environment variable %userprofile%

4. Some Windows script files cannot take advantage of UNC paths (such as \\server\share). Therefore, a user's home directory must be stored on a drive on the PC from which they run Windows, or that drive must be mapped. If you do not normally map your user's home drives, you can map the drive within the Stuser.cmd file by adding the following line before the SET statements at the top of the file:

```
NET USE \\<servername>\<sharename> <driveletter>
```

where \\<servername>\<sharename> is the UNC path to the home drive, and <driveletter> is the letter to be mapped.

If you set your HOMEROOT statement to the %homedrive%%homepath% variables, replace the specification of %homedrive% in the set HOMEROOT statement with the drive letter of the mapped drive.

5. If you do not want the mapping in step 4 to persist beyond the life of Stuser.cmd, add a line to the very end of the file, after the Done label, that remaps the home drive to nothing:

```
NET USE \\<servername>\<sharename> /d
```

where \\<servername>\<sharename> is the UNC path to the home drive.

---

**Note:**

After you have changed Stuser.cmd, remark out or delete the **exit** command that follows the block of instructions at the top of the file. If you do not do this, Stuser.cmd will do nothing.

---

6. Save and close the file. You do not need to run Stuser.cmd now; it will run automatically when your users log on to Windows. If you do want to test Stuser.cmd on your current account, first open a command window and type **change user /execute** to be sure that Windows is set to normal running mode, and then double-click Stuser.cmd.

When you are ready to test your setup, make sure that you have put Windows back into execute mode. Then log off Windows and follow the instructions in Testing SmarTerm on page 18 to test your installation and setup.

## Further configuration tasks for open mode

This section covers a few extra configuration tasks that you may want to perform from time to time.

- Refreshing SmarTerm settings
- Refreshing template files

### Refreshing SmarTerm settings

You may find it necessary to update some of SmarTerm's global settings, or the settings for one or more session files, after users have begun using the program. You can take advantage of SmarTerm's application compatibility script to automate this process. Follow these steps:

1. Make sure you are logged on to the server using an account with administrator privileges that you use to install and set up software.
2. Open a command window and type **change user /install** to put Windows into installation mode.

---

**Note:**

If you do not put Windows into installation mode before proceeding, the changes you make may not be available to your users.

---

3. Run SmarTerm to set up the global options. Be aware when you do this that SmarTerm saves *all* of your settings, not just those you have changed this time around. This is why it is important that you have separate accounts for administering and using SmarTerm.
4. Open a command window and type **change user /execute** to return Windows to normal running mode.

From this point, Stuser.cmd takes over the update process. Users who log on to Windows and do not have the Stuser.ini file in their user SmarTerm folder will get the new global settings and session files.

### Refreshing template files

You may find it necessary to update some of the template files (custom button palettes, macros, hotspots, etc.) after users have begun using SmarTerm. You can take advantage of SmarTerm's application compatibility script to automate this process. Follow these steps:

1. Make sure you are logged on to the server using an account with administrator privileges that you use to install and set up software.
2. If you are planning to change SmarTerm's templates for a given session, open a command window and type **change user /execute** to put Windows into execute mode.

---

**Note:**

If you do not put Windows into execute mode before proceeding, the entire state of SmarTerm may be propagated to your users, including any global or session settings you may have inadvertently changed.

---

3. Run SmarTerm to make changes to the template files (button palettes, macros, HotSpots, and so forth). Make sure that you store all new or modified files in their appropriate folders, which are all folders one level below the SmarTerm program folder. If you do not do this, the files will not be accessible to your users.
4. When you have finished making your changes, exit SmarTerm. Then delete the stuser.ini files for those users who need the changes. An easy way to do this is to use Start>Find>Files or Folders to search for all instances of Stuser.ini on the drive containing the users' home directories. You can then highlight some or all of the instances of Stuser.ini and delete them.

From this point, Stuser.cmd takes over the update process. Users who log on to Windows and do not have the Stuser.ini file in their user SmarTerm folder will get the new or updated files.

---

**Note:**

Stuser.cmd replaces any files in the user SmarTerm folder with the same name as the template files only if the template files are newer. If the user has changed file locations with Properties>Global Options>File Locations, files in those locations will not be modified.

---

You will probably want to log off Windows and log back on as another user (without the Stuser.ini file in the user SmarTerm folder) to confirm that the changed files are being propagated correctly.





## Using Load Balancing

SmarTerm fully supports *load balancing*—automatically apportioning users between multiple servers. Administrators can install SmarTerm on a farm of load-balanced multi-user servers. When planning an installation of SmarTerm on a load-balanced multi-user system, consider the following points:

- All servers sharing the load must have the identical installation of SmarTerm. You can use a Windows Installer command line to streamline the replication process. See the next section, “Replicating SmarTerm across load-balanced servers”, for complete instructions.
- Set up your users with Roaming Profiles, so that they can log onto any of the load-balanced servers. These can be Mandatory Profiles when using SmarTerm in lockdown mode.
- We recommend that you store any SmarTerm profiles on a central computer accessible to users regardless of the server they connect to. This ensures that they get the same sessions and tools every time they log on.

## Replicating SmarTerm across load-balanced servers

Replicating SmarTerm across the servers on a server farm is a three-part process: (1) Install and set up SmarTerm on a server; (2) create a WinInstaller script which reflects the options chosen on the first install; and (3) Run the WinInstaller script on all other servers.

Follow these general steps to complete the three-part process:

1. Log on to one of the servers and put it into install mode (`change user /install`).
2. Install SmarTerm and the Administrator Toolbox on that server. This server should be accessible by all other servers in the farm. Make note of the settings you have chosen during install.

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### Note:

To facilitate installation on multiple machines, you may wish to copy the SmarTerm CD to a central location that is accessible to all servers.

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3. Configure SmarTerm as you like, creating any session files, SmarTerm profiles, automation tools, and so forth. See the *System Administrator Guide* for more information on creating a profile server and profiles.

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### Note:

SmarTerm profiles will not be automatically created by the Windows Installer. If you use SmarTerm profiles, ensure that the path to your profiles is the same for all servers so the Windows Installer command will reference them correctly in all cases.

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4. Using a text editor, create the Windows Installer Command Line to be processed on the other servers. Guidelines for creating this command line may be found in “Windows Installer Notes” in the *System Administrator Guide*. Save the file with a .bat extension, and copy it to a location which is accessible to all servers.
5. If your users will be using SmarTerm profiles, ensure they are accessible in a centralized profile server.
6. Log on to one of the servers and put it into install mode (`change user /install`)
7. Use the Windows Explorer to find the .bat file that you created in step 4, and double click it to run it.

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**Note:**

Adding a "pause" statement after the command line will allow you to see the immediate results of running the command. This is suggested as not all command windows will stay open after they have completed running.

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8. Edit and run the SmarTerm application compatibility scripts.
9. Put the server back into execute mode (change user /execute) and test the installation.
10. Repeat steps 6 - 9 on each server. Note that you may be able to save time by copying the edited application compatibility scripts that you created on the first server in step 8 to your other servers and then running them.

# Testing and Troubleshooting

This chapter describes how to test your installation and setup of SmarTerm, and explains how to resolve a few common problems.

## Testing SmarTerm

To test your installation and setup of SmarTerm:

1. If you have not already done so, make sure you are logged on to the server using an account with Administrator privileges. Then open a command window and type **change user/execute** to put Windows into execution mode.
2. Log off Windows, then log back on as a normal user.
3. If you set up SmarTerm in open mode, go to your home directory and verify that Stuser.cmd has copied the SmarTerm template files into the Esker\SmarTerm folder one level below the home directory. If you set up SmarTerm in lockdown mode, all users access the same files, so you do not need to perform this check.
4. Start up SmarTerm and verify that the program functions as you expect. If you are operating in open mode, can you modify and save the session settings, buttons, SmartMouse definitions, and so forth? If you are operating in lockdown mode, are you prevented from saving changes to the SmarTerm settings?
5. If you detect problems with your installation of SmarTerm, check the next section (“Troubleshooting” on page 18) for assistance.

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**Note:**

If your installation takes advantage of Windows profile groups to present different SmarTerm settings to different users, make sure that you test the installation using accounts in each group before allowing the users access.

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## Troubleshooting

This section describes common problems that may occur with installations of SmarTerm on a Multi-user Windows 2000/2003 server. The problems are organized by operational mode: first general problems, then lockdown mode problems, then open mode problems.

### General problems

#### Program visible only to administrators

If the SmarTerm program folder and all its contents are only visible to users with Administrator privileges, then it is most likely that you did not put Windows into install mode before running Setup. Follow these steps to correct the problem.

1. Log on to Windows using the account that you used to install SmarTerm.
2. Use Start>Settings>Control Panel>Add/Remove Programs to remove SmarTerm.

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**Note:**

Doing this will remove all program files and registry entries, as well as any custom files stored in the default locations with the same name as those shipped with SmarTerm.

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3. Open a command window and type **change user/install** to put Windows into installation mode.
4. Reinstall SmarTerm beginning with the instructions in “Running Setup” on page 9.
5. Open a command window and type **change user/execute** to return Windows to normal operation mode.
6. Test your reinstallation following the instructions in Testing SmarTerm on page 18.

## Lockdown mode problems

### Users able to make changes

If it appears that users are able to change the default files either just for themselves or for all other users as well, the problem is simple: SmarTerm is not operating in lockdown mode. Follow these steps to correct the problem.

1. Log on to Windows using the account that you used to install SmarTerm.
2. Open a command window and type **change user/install** to put Windows into installation mode.
3. Set up SmarTerm for lockdown mode beginning with the instructions in Configuring SmarTerm for lockdown mode on page 9.
4. Open a command window and type **change user/execute** to return Windows to normal operation mode.
5. Test your reinstallation following the instructions in “Testing SmarTerm” on page 18.

### Unable to restore profiles in lockdown mode

The commands Tools > Restore from profile and Tools > Undo Restore are grayed out in Lockdown mode. Disabling these commands is a function of Lockdown mode and is normal when in lockdown mode. These command attempt to configure files located in the SmarTerm folder, which cannot be modified in Lockdown mode.

## Open mode problems

### Users not getting template files

If users can see the SmarTerm program in their profile, but cannot access the template files, there are a variety of possible problems:

- The environment variables in Stuser.cmd and/or Stopen.cmd are not being set correctly, so the files and registry entries cannot be found or copied.

**Resolution:** Correct the environment variables in Stuser.cmd and/or Stopen.cmd. If the error was in Stopen.cmd, then double-click the file to set up SmarTerm for open mode. If the error was in Stuser.cmd, also delete the Stuser.ini files in the user’s home directories so that Stuser.cmd will run the next time that they log in.

- You did not remark out or delete the **exit** command in Stopen.cmd and/or Stuser.cmd, so the scripts are not doing anything.

**Resolution:** Remark out or delete the **exit** command in the command files. If the error was in Stopen.cmd, then double-click the file to set up SmarTerm for open mode. If the error was in Stuser.cmd, also delete the Stuser.ini files in the user’s home directories so that Stuser.cmd will run when next they log in.

- The users’ home directories reside on a drive other than the one containing the SmarTerm program files, and this drive is not mapped such that Stuser.cmd can find it.

**Resolution:** Follow the instructions in Configuring SmarTerm for open mode on page 10 to map the users' home drive.

- Your users have mandatory profiles or some other Windows mechanism that prevents them from making changes to the registry.

**Resolution:** Make temporary or permanent changes to the Windows configuration to allow your users to make changes to the registry.

## Users unable to save files

If it appears that users are unable to change the template files, the problem is simple: SmarTerm is not operating in open mode. Follow the instructions in "Configuring SmarTerm for open mode" on page 10.

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### Note:

If you already set up the template files and edited Stuser.cmd, it may be enough to edit and run Stopen.cmd as described in Edit and run Stopen.cmd on page 11.

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## Uninstalling SmarTerm in Open mode affects user login scripts

SmarTerm uses an Application Compatibility script file called STOPEN.CMD. When SmarTerm is placed in Open mode, STOPEN.CMD adds a call to STUSER.CMD into the user server logon script.

When you uninstall SmarTerm, STUSER.CMD is also uninstalled. However, the user login script remains the same, and if SmarTerm is in Open mode when you uninstall, this still includes the call to STUSER.CMD (which is removed by the uninstall program). As a result, when users logon to the server, their logon script will be unable to access STUSER.CMD. This will not cause the logon script to fail. However, if you'd like to eliminate the call to a file that doesn't exist, you can run USTOFF.CMD, which will remove the call to STUSER.CMD from your user logon script.

To run USTOFF.CMD before you uninstall SmarTerm, locate it in the uninstall folder of your Application Compatibility scripts folder. To run USTOFF.CMD after you've already uninstalled SmarTerm, find it in Smarterm\Scripts on the CD.

