



**Host Access** Integration Software

# **SMARTERM<sup>®</sup>** **v10**

## **OFFICE** FOR TERMINAL SERVICES

### Installation Guide

SmarTerm version 10

©2001, Esker S.A. All rights reserved.

Issued February 2001

Information in this document is subject to change without notice. No part of this document may be reproduced or transmitted in any form or by any means without the prior written consent of Esker S.A.



Esker S.A., 10 rue des Émeraudes, 69006 Lyon, France

Tel: +33 (0)4.72.83.46.46 ♦ Fax: +33 (0)4.72.83.46.40 ♦ [info@esker.fr](mailto:info@esker.fr) ♦ [www.esker.fr](http://www.esker.fr)

Esker, Inc., 465 Science Drive, Madison, WI 53711 USA

Tel: +1.608.273.6000 ♦ Fax: +1.608.273.8227 ♦ [info@esker.com](mailto:info@esker.com) ♦ [www.esker.com](http://www.esker.com)

Esker Australia Pty Ltd. ♦ Tel: +61 2 9565 5688 ♦ [info@esker.com.au](mailto:info@esker.com.au) ♦ [www.esker.com.au](http://www.esker.com.au)

Esker GmbH ♦ Tel: +49 201 821 57-0 ♦ [info@esker.de](mailto:info@esker.de) ♦ [www.esker.de](http://www.esker.de)

Esker Italia SRL ♦ Tel: +39.02.89.20.03.03 ♦ [info@esker.it](mailto:info@esker.it) ♦ [www.esker.it](http://www.esker.it)

Esker Ibérica, S.L. ♦ Tel: +34.91.552.92.65 ♦ [info@esker.es](mailto:info@esker.es) ♦ [www.esker.es](http://www.esker.es)

Esker UK Ltd. ♦ Tel: +44 1332 799622 ♦ [info@esker.co.uk](mailto:info@esker.co.uk) ♦ [www.esker.co.uk](http://www.esker.co.uk)

Esker, Inc. (Stillwater, OK) ♦ Tel: +1.405.624.8000 ♦ [info@esker.com](mailto:info@esker.com) ♦ [www.esker.com](http://www.esker.com)

Portions ©1991-1998 Microsoft Corporation. All rights reserved.

Portions ©1992-1998 Summit Software Company. All rights reserved.

©1998-2000 The OpenSSL Project. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>).

This software is derived in part from ssh software which is ©1995 Tatu Ylonen <[ylo@cs.hut.fi](mailto:ylo@cs.hut.fi)>

Espoo, Finland. ©1999-2000 Markus Friedl. © 1999-2000 Damien Miller. ©1998 CORE SDI S.A.,

Buenos Aires, Argentina. ©1996 Internet Software Consortium. ©1983, 1990, 1993, 1994 The

Regents of the University of California. ©1993 Digital Equipment Corporation. ©1995, 1996, 1998

Theo de Raadt. ©1998 Todd C. Miller <[toddmiller@courtesan.com](mailto:toddmiller@courtesan.com)>. All rights reserved.

Esker, the Esker logo, SmarTerm, Faxgate, SmartMouse, Persona, and Tun are either registered trademarks or trademarks of Esker S.A. Citrix, WinFrame, Independant Computing Architecture (ICA), and the Citrix logo are registered trademarks and MultiWin and MetaFrame are trademarks of Citrix Systems, Inc. DEC, VT, LAT, and VAX are trademarks of Digital Equipment Corporation. IBM and PC AT are registered trademarks of International Business Machines. Microsoft and Windows are registered trademarks and Active Server is a trademark of Microsoft Corporation. Novell is a trademark of Novell, Inc. Netscape and Netscape Navigator are registered trademarks of Netscape Communications Corporation. UNIX is a registered trademark of The Open Group. All other trademarks mentioned are the property of their respective owners.

# Contents

<b>Installing SmarTerm .....</b>	<b>1</b>
Installation requirements .....	1
Installation overview .....	2
Lockdown versus open mode .....	3
Installation type .....	3
Before running Setup .....	3
Create a special NT account and log on with it .....	3
Have your license number handy .....	4
Shut down extra Windows programs .....	4
Upgrading from a previous version .....	4
Running Setup .....	6
After running Setup .....	6
Configuring SmarTerm for lockdown mode .....	6
Configuring SmarTerm for open mode .....	9
Further configuration tasks for open mode .....	12
Refreshing SmarTerm settings .....	13
Refreshing template files .....	13
 <b>Using Load Balancing.....</b>	<b>15</b>
Replicating SmarTerm across load-balanced servers .....	15
Overview .....	16
 <b>Testing and Troubleshooting .....</b>	<b>21</b>
Testing SmarTerm.....	21
General problems.....	22
Lockdown mode problems .....	23
Open mode problems.....	23



# Preface

This guide will help you install SmarTerm. This version of SmarTerm requires Windows NT Terminal Server Edition (TSE) or Windows 2000 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 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 S.A.  
465 Science Drive  
P.O. Box 44953  
Madison, WI 53744-4953

Tel: (608) 273-HELP (273-4357) 8:30 a.m. to 5:00 p.m. Central Time

Fax: (608) 273-8227 24 hours

BBS: (608) 273-6595 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)201 82157-0

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

Tel: +39-2-89200303

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

Tel: +34 91 552 9265

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

Tel: +44 (0)1332 799622

### **Before you call for technical support:**

- *Know your license numbers.* The license number for the SmarTerm software itself is on one of the registration cards that you received with the product; if you entered the number during installation, you can also display this license number by starting SmarTerm and selecting Help>About. In addition to this license number, each user has a unique license number listed on his or her individual registration card.
- We may need detailed information about the hardware and software in your installation, so a working knowledge of Windows, the Multi-User Windows environment, the setup of your server and clients, 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 keystrokes, 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 server or client that is giving you trouble and call us from there. You may need to 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.

---

**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.

---

## Installation requirements

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

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

**OR**

- Microsoft Windows NT 4.0, Terminal Server Edition, or Microsoft Windows 2000, Terminal Services with or without Citrix MetaFrame installed.

---

**Note:**

We strongly recommend setting up the server with an NTFS volume rather than FAT volume. NTFS provides significantly greater security for the server and more flexibility in managing users than FAT.

---



- 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 35MB 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.

## About the SmarTerm administration tools

With SmarTerm, you can install the Administrator Toolbox on your server without automatically giving access to it to all your users. Users who want to use the Administrator Toolbox must install it to their account on the server. They must also have 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 21 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.

---

**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.

---

For instructions on setting up SmarTerm to operate in lockdown mode after installation, see "Configuring SmarTerm for lockdown mode" on page 6. For instructions on setting up SmarTerm to operate in open mode after installation, see "Configuring SmarTerm for open mode" on page 9.

## Installation type

You can choose one of three types of installation: *Typical*, *Compact*, and *Custom*. Typical installs all the features of SmarTerm, and is recommended for a first-time installation. Compact excludes the online manuals and sample files, but contains all other components of SmarTerm. Custom allows you to choose the SmarTerm components that you want to install.

## 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 name, your company name, and your license number. The license number for the server is located on the registration card that comes with your SmarTerm package. Although not required for installation, Esker Technical Support will ask you for the license number if you call for help. Entering the license number during Setup prevents you from having to remember the number later, when you can't find your registration card. (If you enter the license number during installation, select Help>About in SmarTerm to display your license number whenever you need it.)

## 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 NT/2000
- 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\Persoft\SmarTerm\Buttons
HotSpots	Program Files\Persoft\SmarTerm\Hotspots
Keyboard maps	Program Files\Persoft\SmarTerm\Keymap
Macros	Program Files\Persoft\SmarTerm\Macros
Sample files	Program Files\Persoft\SmarTerm\Sample
Sessions	Program Files\Persoft\SmarTerm\Sessions

The actual name of the folder under Program Files\Persoft reflects the SmarTerm product installed.

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 6 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 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 "After running Setup" on page 6.

## After running Setup

You may need to install additional components from the CD browser (like Acrobat Reader, to read the online documentation). 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 9 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

---

---

### 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 environ-

ment variable is FAT, Stlock.cmd sets all the files in this folder and all sub-folders 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.

---

### 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 21 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 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.

---

**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 6 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

---

**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) on to the end of the default user logon command file specified with the LOGIN environment variable.

## Run SmarTerm and set up templates

To set up the template files, 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.

---

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

## Edit Stuser.cmd

Stuser.cmd is SmarTerm's *application compatibility script*. 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 homedrive and homedir environment variables: %homedrive%%homedir%

4. Windows NT 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 add 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.

Then 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 it 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.

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 21 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 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 the SmarTerm Automated Install Wizard 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 two-part process: (1) install and set up SmarTerm on a server, creating an InstallShield response file; and (2) run Setup on each server, using the InstallShield response file to answer all prompts automatically and duplicate the files.

Follow these general steps to complete the two-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.

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

---

**Note:**

If you intend to use SmarTerm profiles, make sure that you store them outside the normal SmarTerm program directory. This is important, because if you do not do this, the Automated Install Wizard will automatically replicate them on every server. (See the technical article entitled "Creating and Managing SmarTerm Profiles with Multi-User Windows NT" for additional information on SmarTerm profiles.)

---

4. When SmarTerm is installed and set up the way you want it, use the Automated Install Wizard to walk through the Setup program, creating an InstallShield .ISS response file.

---

**Note:**

When creating an .ISS file, you cannot use a UNC path. Also, the server that you run the Auto Install Wizard on needs to have the same drive mapping as the server that you created the .ISS file on, to be able to find the .ISS file.

---

5. If your users will be using SmarTerm profiles, copy them to the 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 shortcut to the .ISS file that you created in step 4, and double-click it.
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 5 through 8 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.

## Overview

To take full advantage of automated installation for SmarTerm:

- Use the Copy CD utility on the SmarTerm CD Browser to copy the SmarTerm fileset to a network location. You will also specify this location in the Automated Install Wizard.
- Then, use the Automated Install Wizard (installed with the Administrator Toolbox) to create a customized SmarTerm installation from the network fileset.

### Using the Copy CD utility

Use the Copy CD utility to copy the SmarTerm fileset to a network location. The Copy CD utility provides network servers a Setup source for installing SmarTerm along with the profiles you create.

1. Insert the CD into the CD-ROM drive and choose Copy SmarTerm CD from the CD Browser window.

If the CD-ROM “autorun” feature is disabled or unavailable, run Launch.exe from the root directory of the CD

2. In the Copy dialog, specify the location where you’re copying the SmarTerm CD fileset. Then click Copy.

A message informs you that the CD fileset copy is finished, and informs you where the CD Browser executable is located.

### Automated Install Wizard

SmarTerm’s Automated Install Wizard utilities provides a means to automate distribution in network environments. The Automated Install Wizard is available from the Start menu after installing the Administrator Toolbox. Use it to create an identical installation file for each server in the server farm, then distribute that installation file to each server.

Using the Automated Install Wizard is a two part process. First, specify a network location from which you will run SmarTerm setup, some file locations for Wizard reports, and a location for the icon used to access the SmarTerm installation. Second, launch a customizable version of SmarTerm Setup. Make Setup choices for the NT/2000 servers now, later needing only to click a Setup icon to automatically install SmarTerm.



---

**Note:**

Make sure you know file location choices and other Setup preferences before running the Automated Install Wizard. When making Setup choices, while running the wizard, we recommend that you not click the Back button to go back to a previous dialog.

---

### ► Part one of the Automated Install Wizard

To begin using the Automated Install Wizard:

1. Select Start>Programs>SmarTerm>Utilities> Automated Install Wizard.
2. In the Choose Setup Language dialog, select a Setup language and click OK.
3. In the Automated Install Wizard dialog, specify the SmarTerm folder under the folder where you installed the CD fileset with the Copy CD utility, then click Next.

If you ran the Copy CD utility, this should already contain the correct path. The SmarTerm folder contains SmarTerm executables. For example, if you copied the CD fileset to h:\stoffice, then h:\stoffice\smarterm should appear in this dialog.

4. In the Response File dialog, specify a name to be used for the automated install response file and the install log file. (SmarTerm automatically fills in the file extensions.)

The response file is typically called setup.iss, and contains the SmarTerm Setup information that you will configure in part two. The log file, usually called setup.log, tracks when an automated installation is run on the network location and whether that installation was successful.

SmarTerm fills the Location box with the path specified in the Automated Install Wizard dialog. You can type or browse for another location, but it's usually convenient to leave it in the default location.

Click Next when you're finished.

5. In the Shortcut dialog, create the shortcut that you will click to launch the SmarTerm automated install. Enter a name and path, then click Next.

It's usually convenient to specify a shortcut location in the same folder where the SmarTerm Setup executable resides. You may not specify a UNC path.

SmarTerm will create an icon that you can double-click to run the automated Setup.

6. In the Start Copying Files dialog, click Next to make files available at the locations you specified.

The SmarTerm Setup portion of the Automated Install Wizard launches. Here's where you fill out the Setup choices for each server. The Choose Setup Language dialog appears.

### ► **Part two of the Automated Install Wizard**

The dialogs that appear during part two of the Automated Install Wizard are identical to those that appear when you install SmarTerm.

1. Follow the setup prompts, making choices appropriate for the servers where you will be installing SmarTerm.
2. At the Enter License Information dialog, enter a name, a company name, and a valid SmarTerm for Citrix license number, then click Next.
3. Continue with the Setup prompts to the Profiles Path dialog.
4. At the Profiles Path dialog, specify the path to the profile server that this installation of SmarTerm will use, then click Next.
  - If you have already created a user profile server on a network, this path should point to that profile server.
  - If you have created multiple profile servers, run the Automated Install Wizard and specify the correct profile server for each group.
5. At the Profiles dialog, select the profile for the users who will have access to this SmarTerm Setup. Then click Next.
6. Continue through the prompts to the end of Setup.

You have now finished setting up an automated installation of SmarTerm. All you need to do now is double-click the Setup icon from each server to install SmarTerm—along with the profiles—automatically.



# 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 Per-soft\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 22) for assistance.

---

**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.

---

## Troubleshooting

This section describes common problems that may occur with installations of SmarTerm on a Multi-user Windows NT 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.

---

**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.

---

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 6.
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 21.

## 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 6.
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 21.

## 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.

- The original template files were not saved in the locations set with the Properties>Global Options>File Locations tab in SmarTerm, so Stuser.cmd

cannot find them and copy them to the users' SmarTerm directories.

**Resolution:** Make sure that STINST variable in Stuser.cmd accurately reflects the actual root for the template file folders, and that the various paths in Stuser.cmd accurately reflect the location of the template files. Then delete the Stuser.ini files in the users' home directories so that Stuser.cmd will run when next 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 9 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 9.

---

### 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 9.

---