

# **ESKER** *Tun<sup>®</sup> Plus*

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## Getting Started

Pour Démarrer  
Erste Schritte  
Introduzione  
Introducción



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# Introduction

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**Note:** The online version of this manual may be more up to date than the printed version.

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Tun Plus provides a complete communications package, providing PC access to IBM or Unix hosts. Tun Plus offers flexible licensing options and powerful administration tools to simplify host access management, minimize costs, and meet changing needs. Bringing together PC-to-Host and Multi-User Windows clients in a single product, Tun Plus offers a rich set of advanced capabilities ranging from simple terminal emulation to network services across all its client types.

Administrators can create and configure host sessions quickly, and an intuitive user interface delivers easy access to critical IBM or Unix host data via any Tun Plus client. To extend secure access beyond the firewall, Tun Plus provides integrated security encryption for mobile and remote users.

Tun Plus offers the following connection methods for users:

- PC-to-Host is a client-server solution that permits networked personal computers (PCs) to access IBM or Unix hosts and many other network utilities using client applications.
- Multi-User Windows is a thin-client solution that permits PCs using a server-based operating system (like Windows Server with Remote Desktop Services) and server-based applications to communicate with IBM or Unix hosts and network utilities.

## Tun Plus features

Tun Plus provides access to over 30 IBM and Unix hosts as well as a large suite of network services for PCs and other desktop clients in virtually any network environment. Robust tools allow extensive application customization.

### Application resource access

Tun Plus offers a powerful terminal emulation suite, including support for over 30 different asynchronous (to Unix, HP, and Digital hosts) and synchronous (IBM 3270/5250) terminal types. Using Tun Plus customization tools, administrators can create seamless host integration and simplify user access — by adding backgrounds, GUI function key-panels, tool-bars, customized mouse support, and hotspots for clickable interactions.

### Network resource access

File Transfer Protocol (FTP): Tun Plus offers a Windows Explorer-like interface for FTP sessions to make file transfers between local PCs and remote hosts more intuitive than ever. Tun Plus offers full-featured FTP settings, including a complete range of conversion methods to

permit your local PC to exchange files with a large selection of hosts. Tun now allows you to create a secure connection to an FTP host via SSH. To create a secure connection, check the Secure FTP check box on the FTP Logon dialog for your FTP session.

## **Tun Plus PC-to-Host connectivity**

Tun Plus offers a complete legacy IT solution by integrating host system and network resources into multi-client environments. Administrators install a client-side application (the Esker Viewer) on selected networked PCs. The Esker Viewer then provides those clients with access to a set of resources, configured by the Tun Plus administrator.

Tun Plus administrators can provide their users with additional functionality in any Tun Plus application, like customized mouse usage, buttons, and toolbars, using a standard Windows interface.

### **The Esker Viewer**

The Esker Viewer provides and manages an end user's workspace. You can add, remove, and update sessions for the workspace within the Esker Viewer. The Esker Viewer permits users to have multiple sessions open at the same time.

The Esker Viewer is also fully compatible with VBScript and JScript, allowing administrators to customize emulations. Additionally, developers can create new interfaces and tools using development tools that support Microsoft COM architecture, and then integrate those tools with Tun Plus configurations.

## **Tun Plus multi-user Windows connectivity**

Tun Plus includes connectivity solutions for most multi-user Windows operating systems, including Windows Server with Remote Desktop Services. Multi-user Windows platforms allow organizations to deploy applications across an extended enterprise, regardless of user location, client hardware, operating system, or bandwidth limitations. Tun Plus now allows administrators of such systems to provide full featured host and network connectivity. Administrators using Tun Plus for this type of connectivity install the server-side Tun Plus application, which is then available for the end users.

## Tun Plus manuals

Tun Plus ships with one printed manual, *Getting Started*. This book and other additional books are also available on the Tun Plus CD-ROM in electronic (PDF) format. These books can be accessed through the CD browser.

Use the *PC-to-Host and Multi-User Administrator Guide* to familiarize yourself with the PC-to-Host or multi-user Windows module. Additionally, the following reference guides can aid in customizing Tun Plus applications for the end users.

<b>Title</b>	<b>This book provides information on...</b>
Application Access ActiveX	Using Tun Plus emulators in ActiveX version.
Application Access 32-bit Executable	Using Tun Plus emulators in 32-bit executable version.
Network Resource Access	Providing users access to network resources in a TCP/IP network (file transfers, etc.).

## PC-to-Host installation

### System requirements for Windows

To use Tun in a Windows environment, you need:

- Windows 7 32-bit or 64-bit/Windows 8 or 8.1 32-bit or 64-bit/Windows 10 32-bit or 64-bit/Windows Server 2008 R2/Windows Server 2012 or 2012 R2, with the latest Service Packs installed.
- The minimum computer hardware that is required by the operating system.
- Screen resolution set to at least 800 x 600 with 256 colors.
- 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 Host Integration client if you intend to use this connection method.
- [Adobe® Reader to read the manuals. You can download this software from the Adobe web site.](#)
- 60 MB of available disk space to install all components and languages.

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**Notes:** Tun Plus must be installed on a local drive.

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### System requirements for multi-user environment

To use Tun in a multi-user Windows environment, you need:

- Microsoft Windows Server 2012 R2 with Remote Desktop Services, Microsoft Windows Server 2012 with Remote Desktop Services or Microsoft Windows Server 2008 R2 with Remote Desktop Services.
- The minimum computer hardware and memory that is required by your version of Windows Server with Remote Desktop Services.

# Installing Tun Plus PC-to-Host

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**General Installation Notes:** If you are installing Tun on a Windows Server with Remote Desktop Services, you will first need to set the server to Install mode by typing “Change User /Install” in a command prompt window. Esker recommends that you install the MUNTE version of Tun Plus on the console, not remotely.

You must have administrator rights to install Tun Plus.

The Tun toolbar graphics have an updated look and feel in Tun. For systems using 256 colors or less, however, the previous version of the toolbar graphics are installed and used. These older graphics display better on these systems.

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1. Insert the CD-ROM in the server's CD-ROM drive (typically, drive D:). The CD browser appears automatically (Autorun). If this does not work, do one of the following:
    - If Autorun is deactivated, from the Windows Explorer, select the CD-ROM drive\autorun.exe.
  2. Click Install to begin. The Tun Plus setup wizard starts and a Welcome screen appears.
  3. Click Next. The License agreement screen appears.
  4. Click Yes to continue.
  5. Enter both the license number and the activation key of the software, and its license string, if necessary (this information is given with the software in the sealed envelope). Click Next to proceed.
- 

**Note:** If you have already installed this version of Tun Plus, the first dialog box that appears after the welcome prompts you to choose between adding or removing components, or performing a complete installation again. If you select adding or removing components, the serialization box won't be displayed.

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To install the demonstration version of Tun Plus, just click Next. A serial number and activation key are provided for the demo installation. The demonstration version installs the software with full functionality. It is only valid for 28 days.

6. On the Installation Type dialog, select the type of installation you want: The Active X version (recommended) or the executable version. Then, click Next.
7. On the Setup Type dialog, choose the type of installation and the destination folder. Click Browse to choose other installation directories if the default doesn't suit your configuration. Click Next to continue.
8. If you chose the custom installation, the Custom Component and sub-component installation dialog opens. Choose the components you want to install, and click More Details to install sub-components. Click Next to continue.
9. On the Start Copying Files dialog, click Next if you're satisfied with the installation options. This will install the program files to your PC.

## Installing RTUNPLUS (EXE version only)

To use RTUNPLUS in a traditional installation:

1. During setup, use the Custom setup option.
2. Choose to install the Samples.

Setup installs the RTUNPLUS binary executable and the source code in the directory C:\Program Files (x86)\Tun\Emul\Samples\Sources by default.

## Adding or removing components

When adding or removing components by re-running setup, the check marks show items that are currently installed. Removing check marks will instruct setup to uninstall these components. Adding check marks will add components. The Add/Remove feature is designed to be both a maintenance and a setup feature. Since setup reinstalls all checked components in case of file corruption, you should back up any files that may have been modified before using the Add/Remove feature.

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### **Note:**

The SSL server and PDF manual install status may not be properly reported in the Add/Remove dialog.

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## Upgrading Tun Plus PC-to-Host

If you previously installed a version of Tun Plus version 10.0 or higher, it's possible to upgrade the existing setup with a special upgrade license number. Setup will recognize the license number as an upgrade and will present the user with some additional options.

If you are currently running the traditional (exe) version of Tun Plus, setup will recommend that you choose the ActiveX version for the upgrade. The ActiveX version provides users with more functionality and more recent updates to features. Choosing this option will update the software to use ActiveX-based code.

The second option presented is whether you wish to back up the configuration files. If you choose this option, setup will create a backup copy of all the configuration files contained in the \TUN\EMUL directory and save them in a subdirectory named \TUN\EMUL\SAVE000.

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**Note:** Although Tun Plus backs up your configuration files, it is still recommended that you back up any files that you have created or customized before upgrading.

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## Uninstalling Tun Plus

To uninstall Tun Plus, use the "Uninstall Tun Plus" from the Esker Tun application group.

Alternately, from the control panel, click the Add/Remove Programs icon then select Tun Plus and click the Add/Remove button.

## PC-to-host automated setup

If you need to install Tun Plus on several PCs, you can automate the various steps by recording them in a configuration file. You can also add your own files and programs to the procedure.

This installation mode is known as “silent mode.”

### Creating the installation configuration file

The installation configuration file in silent mode is an .ini file that contains the information usually entered during a setup. You can create this file by:

- Using the setup wizard (ADMIN);

Or

- Using a text editor to edit Esker’s template.

### Creating the installation configuration file using the setup wizard

Running setup with the ADMIN parameter will not actually install Tun Plus on your computer. Instead, setup records your choices and writes them to the setup configuration file you specify with the SILENT parameter.

1. Open the Command Prompt.
2. Enter the following:

```
<drive1>:\PC2Host\Setup.exe ADMIN SILENT=<drive2>:\mysilent.ini
```

Where <drive1> is the location of the Tun Plus setup program (usually the CD-ROM drive) and <drive2> is where the configuration file is created. This file should be in a location accessible to all users.

Run through the setup program as you want it to run during silent install.

The installation configuration file is created from this information and stored in the directory specified in the command line. Click Finish to exit the setup wizard.

3. The Welcome screen will confirm that you are recording a setup configuration file. Click Next to continue
4. After the Welcome screen, setup will prompt you on which dialogs you wish to display during the silent mode setup. Click Next to continue.

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**Note:** If you choose not to display the Installation Path and Components dialog, be sure the location on the Choose Destination Location dialog is a local PC drive and will be valid for all users installing Tun Plus.

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5. The license number entered in the License Information Dialog will be used for all installations. Leaving this blank will prompt setup to use a demonstration license which is valid for five users and 28 days. Click Next to continue.
6. After the license number dialog, setup will display the same options as a Custom Setup. These options will be recorded in the configuration.ini file.
7. The final dialog in the setup will tell you the name and location of the setup configuration file which contains your choices. Click Finish to quit.

## Creating the installation configuration file using a text editor

The installation configuration file is an .ini file type made of sections containing entries. A template, silent.mod, is provided on the CD-ROM in the D:\PCTOHOST\ directory. You can copy this file and open it with a text editor. You will need to save this file as an .ini file when you are done editing it.

The ShowDlg... entry at the start of each section defines the display of the specified dialog box.

- If the entry value is 1, the dialog box will be displayed (the information used will correspond to the data the user entered in the dialog box).
- If the entry value is 0, the dialog box won't be displayed (the information used will correspond to the entries of the corresponding section).
- Emulation items, such as the 3270, 5250, or asynchronous emulators, will be installed by default unless they are set to 0. Any other value (including removing the item from the file) will install the files by default.

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**Note:** By default, error messages always appear during a silent setup. In order to prevent their display, use the "NOERRORMSG" option in the installation command line (See "No error message start" on page 16. for more information on this option.).

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The various sections that appear are:

[**Welcome**] Installation welcome screen.

[**OnlineLicense**] Controls whether the license agreement dialog appears.

[**SerNum**] Serial number and activation key.

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**Note:** In this section, the ShowDlgSerNum flag controls whether the dialog gathering the serial number and activation key will display during a silent installation. While creating the silent.ini file, if the administrator chooses not to display this dialog and enters valid serial number and activation key directly into the .ini file, the automated setup proceeds without prompting for the activation key.

However, if the administrator chooses to display the dialog, the dialog appears with the serial

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number displayed and the user is forced to provide the activation key in order to continue, despite the activation key being present in the silent.ini file.

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**[InstallParam]** Installation directory and various components to install (1: Components to install; 0: Components not to install). Please refer to the table below for a list of components which may be installed.

**[InstallTerm]** Predefined terminal configurations to install (1: Configuration to install; 0: Configuration not to install).

**[ConfirmCopy]** Confirmation of selected setup options before copying installation files.

**[RebootEnd]** Confirmation to finish installation and automatically reboot the machine, if necessary.

**[CustomizedFiles]** Custom files the administrator can add to the silent mode setup.

- See “Adding customized files in setup” on page 13. for more information.

The **[InstallParam]** section entries are:

<b>Entry</b>	<b>Component</b>
Nis	NIS utility
Tar	PC backup
Vt320	VT320 emulator
FtpC	FTP client
FtpS	FTP server
RshC	RSH client (remote commands)
RshS	RSH server (remote command)
Ping	Ping utility
Wall	Wall client and server
Sntp	SNTP/TIME client
Tftp	TFTP client and server
Tiftp	Secure FTP client
Mail	Mail and Sendmail
3270	3270 synchronous emulator
3287	3287 printer emulator
3812	3812 printer emulator
5250	5250 synchronous emulator
Emul	Asynchronous emulator
Panel	Panel Editor
EmulDemo	Customized emulation samples

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Entry	Component
SCP	Secure copy
SSLSer	SSL server
OnlineBooks	Online Manuals

## Adding customized files in setup

You can add customized files to be copied and commands to be run in the installation of Esker products. This can be useful for integrating files or applications with Esker components. Start by placing the files you wish to copy in a central location that can be accessed by the users. Next, add one or more sections like [CustomizedFiles] to the installation configuration file. Set the “Enable Copy” entry to “yes,” and set the parameters as described below.

A section [CustomizedFiles] is made of the following entries:

Entry	Significance
EnableCopy=yes/no	“yes” to copy the files as specified in the settings below.
SrcDIR=STRING1	Path of source directory in which customized files to be copied are located. This will copy all files in the specified directory.
TargetDIR=STRING1	Path of target directory in which customized files will be copied. This will create directories and sub-directories if needed.
CopyFlags=STRING2	Definition of the files copy options. Default value: %INCLUDE_SUBDIR%   %LOCKEDFILE%
EnableRun=yes/no	“yes” to allow a command execution during the installation.
Command=STRING1	Command to run after copying the files.
Params= STRING1	Command parameters.
WaitEndRun=yes/no	“yes” to wait for the end of the command execution before resuming installation.

All pre-defined directory variables listed are automatically converted to the short file name version by the installer.

Due to the way the installer handles command parameters, the “params” entry requires two sets of quotes if it uses a long file name. For example:

```
params=" "%TARGETDIR%\LONG DIR NAME\readme.txt"
```

However, if the “params” entry also contains additional text, such as a command switch, then it only requires a single set of quotes. For example:

```
params="%TARGETDIR%\LONG DIR NAME\readme.txt"/s
```

Short file names do not require quotes. For example:

```
params=C:\README.TXT
```

## Paths initialized by the installation procedure

STRING1 may contain one or more predefined variables that correspond to paths initialized by the installation procedure:

%SRCDIR%: Execution directory path of the setup.exe file.

%TARGETDIR%: Product installation directory path on the PC (“InstDir” entry in “InstallParam” section).

%TEMPDIR%: Temporary directory path on the PC.

%WINDIR%: Operating system directory path on the PC.

%WINSYSDIR%: Windows\System directory path on the PC.

%PROGRAMFILES\_DIR%: Program Files directory path on the PC.

%SUPPORTDIR%: Temporary installation directory path on the PC, suppressed upon installation completion.

For example, `SrcDir=%PROGRAMFILES_DIR%\Config` indicates that `C:\Program Files\Config` is the directory containing the files to install on the PC.

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**Note:** to see the locations of these Windows directories, type `set` at the command prompt.

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## Installation file copy options

STRING2 may contain one or more variables defining the installation files copy options (these variables must be concatenated with pipes “|”):

%COMP\_UPDATE\_DATE%: Compares the date of the file to be copied to the date of the existing file, and replaces existing file only if the file to copy is more recent.

%COMP\_UPDATE\_VERSION%: Compares the version of the file to be copied to the version of the existing file, and replaces existing file only if the version of the file to copy is more recent.

%COMP\_UPDATE\_SAME%: To be used with %COMP\_UPDATE\_DATE% or %COMP\_UPDATE\_VERSION%. If a date or version comparison between a file to be copied and an existing file yields an identical date or version, the file to be copied will replace the existing one.

%LOCKEDFILE%: Indicates that the files in use during copy (.exe, .dll) will be updated on reboot. If this variable is not used and some files are in use during copy, an error message is generated.

%EXCLUDE\_SUBDIR%: Copies only files under the “SrcDir” directory and ignores sub-directories.

%INCLUDE\_SUBDIR%: Copies all files under the “SrcDir” directory and sub-directories.

## Example

An administrator creates custom sessions for the end users and wishes to include them in the TunPlus installation. He also creates a “readme.txt” file for the users to read. He then copies the sessions and the readme.txt file to an empty network directory, “H:\Config.” One of the CustomizedFiles sections would look like this:

```
[CustomizedFiles1]
EnableCopy=yes
SrcDIR=H:\Config
TargetDIR= %TARGETDIR%\Config
;CopyFlags=
EnableRun=yes
Command= %WINDIR%\notepad.exe
Params= %TARGETDIR%\ CONFIG\readme.txt
WaitEndRun=yes
```

*EnableCopy=yes - Tells setup to copy files.*

*SrcDir - Copies all files from the H:\Config directory.*

*TargetDir - Creates “Config” directory on the user’s machine in the Tun program directory and then copies the session files and readme.txt to this directory.*

*;CopyFlags - Administrator chose to comment out this line*

*EnableRun=yes - Setup will run the program specified after copying the files.*

*Command - Setup runs the Notepad program as specified here.*

*Params - Setup attaches these parameters to the command line above. For example:*

*C:\Windows\Notepad C:\Program Files (x86)\Tun\config\readme.txt*

*WaitEndRun=yes - Setup is suspended until the Notepad program is closed.*

## Running the automated setup

Two specific modes are available for running the automated setup:

- Silent mode, which does not display the installation procedure’s dialog boxes.
- No-error mode, which does not display error messages that occurred during setup.

Both modes can be combined so that neither dialog boxes nor error messages are displayed.

## Silent start

To start a silent install, follow the following steps:

1. Open the Command Prompt.
2. Type the setup command for the PC-to-Host setup program.  
For example:

- `<drive1>:\PC2Host\Setup.exe SILENT=<drive2>:\mysilent.ini`

Or

- `<drive3>:\shared\tunsetup\setup.exe SILENT-T=<drive3>:\shared\tunsetup\auto\mysilent.ini`

Where `<drive1>` is the location of the Tun Plus setup program (usually the CD-ROM drive), and `<drive2>` is where the silent install configuration file is located. `<drive3>` is a network drive.

The installation procedure will use the information specified in the installation configuration file (“mysilent.ini” in the examples above).

---

**Note:** If a user re-installs TunPlus using a silent ini file, the “OCX=” line will be ignored and setup will re-install TunPlus with the same file type (OCX or EXE) as the original install.

If an installation configuration file named silent.ini is found in the directory that contains the setup.exe executable, the installation procedure is automatically launched in silent mode, so that there will be no need to use the “SILENTFILE” option.

---

## No error message start

To run setup with No Error option, follow these steps:

1. Open the Command Prompt.
2. Type the setup command for the PC-to-Host setup program.  
For example:

- `<drive1>:\PC2Host\Setup.exe NOERRORMSG`

Or

- `<drive2>:\shared\tunsetup\setup.exe NOERRORMSG SILENT-T=<drive2>:\shared\tunsetup\auto\mysilent.ini`

Where `<drive1>` is the location of the Tun Plus setup program (usually the CD-ROM drive), and `<drive2>` is a network drive.

This will suppress error messages and PC reboot notifications. The corresponding information will be stored in the eskinst.ini file located in the Windows Temporary directory. Type `set` at the Command prompt to see its location.

The eskinst.ini file will contain the following information:

[InstallStatus]

Error= Indicates whether an error was generated (0=no error).

ErrorMsg= Error label, if any.

NeedToReboot= 1 indicates the PC needs to reboot to complete installation.