

Start Guide – ScrewDrivers

Purpose

This document is intended to give the reader a quick start to installing ScrewDrivers for Citrix and Terminal Servers. Topics covered include installation, configuration, and some Frequently Asked Questions. The quick start guide is not intended to replace the full product documentation. The full product documentation can be found at the following URL: http://www.tricerat.com/support/docs/sdv4help/ScrewDrivers_v4_Help.pdf

Pre-requisites

Terminal Server

- The Terminal Server needs to be Windows 2000, 2003, or 2008 Server (physical or virtual)
- The Terminal Server can be installed with Citrix
- If the server is 64bit then use the 64-bit version of ScrewDrivers Server v4

Client(s)

- ScrewDrivers Client needs to be installed on each Windows client.
- These are found in the ScrewDrivers Client directory and on the triCerat website: <http://www.tricerat.com/clidown.php>

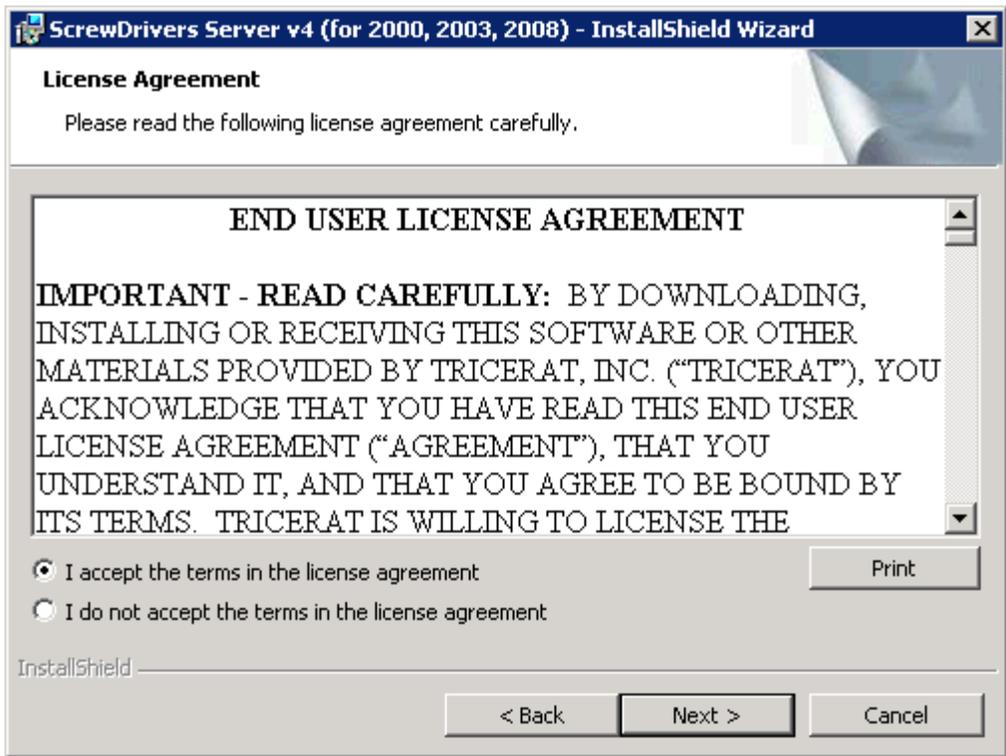
Download Components

The ScrewDriversv4.zip contains the following files:

ScrewDrivers Server v4 (for 2000, 2003, 2008).msi	The ScrewDrivers Server is installed on each Terminal Server, it will install all required server components.
ScrewDrivers Client v4.msi	ScrewDrivers client for RDP and/or ICA. This is installed on the Windows clients for local printer mapping.
ScrewDrivers Client v4 x64 (rdp only).msi	ScrewDrivers client for RDP x64 (not ICA). This is installed on the Windows clients for local printer mapping.
Quick Start Guide – ScrewDrivers.pdf	This document, the same you are reading, covers the installation and configuration of ScrewDrivers for Terminal Servers and Citrix.

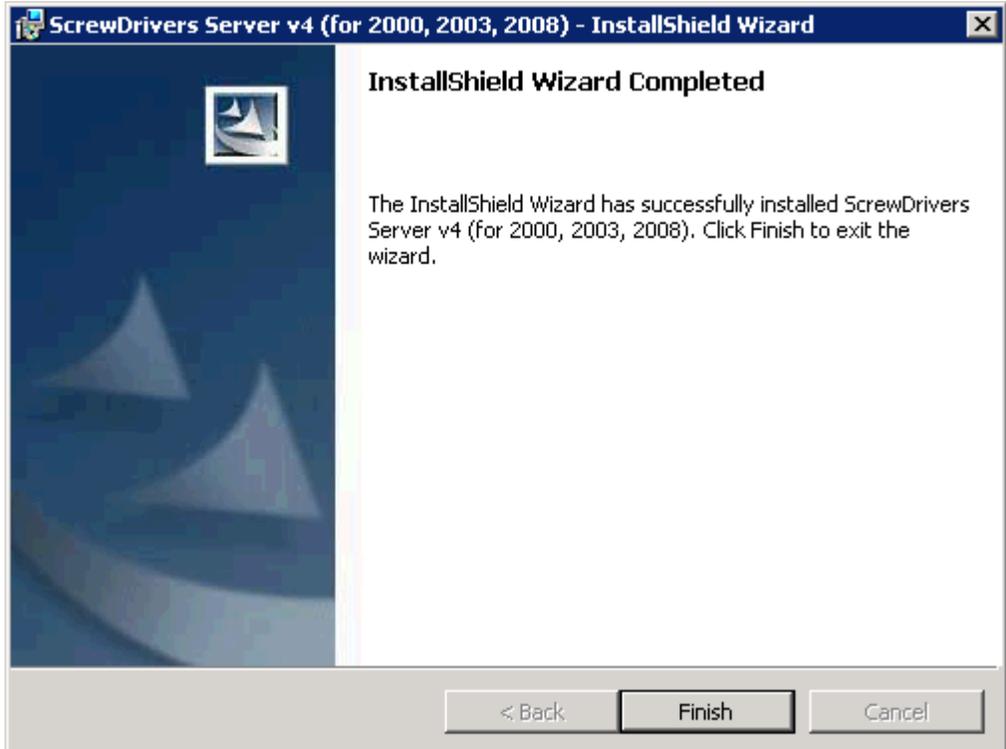
Installation on Terminal and Citrix Servers

Login to the Terminal Server, and run ScrewDrivers Server v4.msi; click **Next** until you reach the screen below:



Accept the license agreement and press **Next**.

Press **Next** until presented with the InstallShield Wizard Completed step, and press **Finish** to finalize the installation.

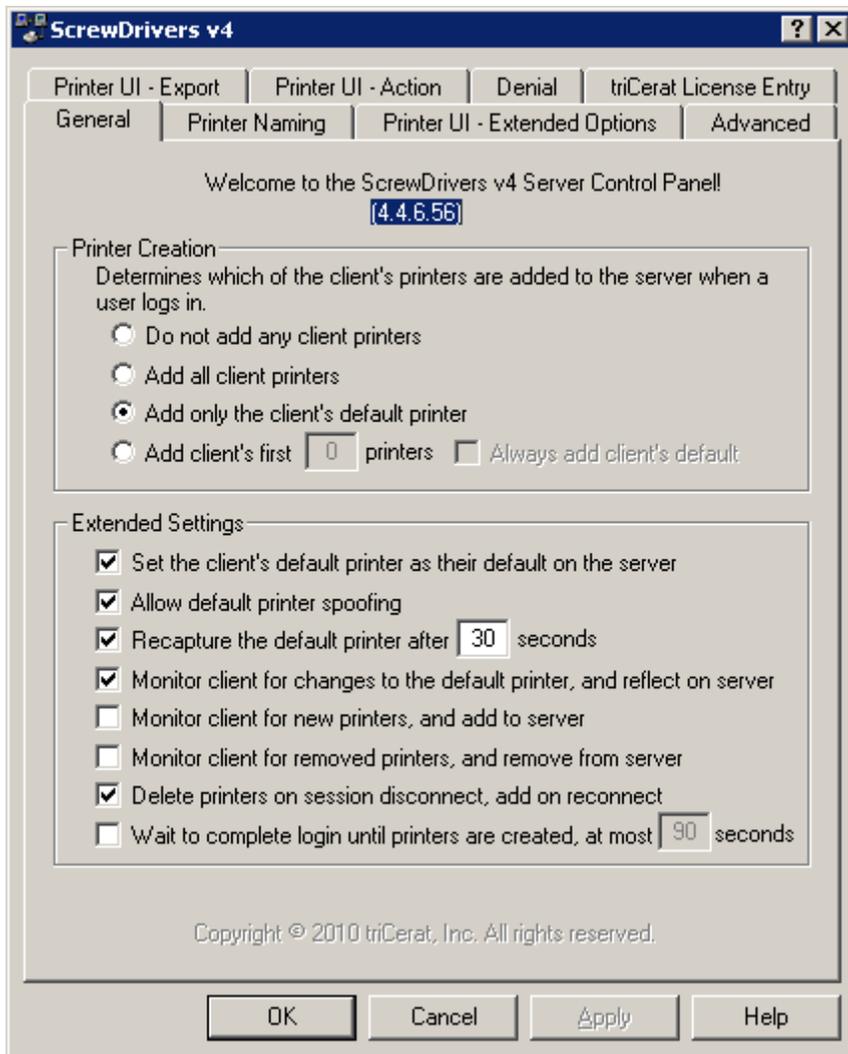


Configuration of ScrewDrivers Server

ScrewDrivers Server is managed with the ScrewDrivers applet found in the Windows Control Panel. ScrewDrivers will install in a fully functional mode, but some settings are worth reviewing.

In the **General** tab, specify the number of client printers to be virtualized in the **Printer Creation** section. The **Wait to complete login until printers are created**, similar to Citrix's **Start this application without waiting for printer to be created**, is required for some applications published through Citrix. It is recommended to specify a **Naming Scheme** that best suites the environment in the **Printer Naming** tab.

Changes made to the server customizations are applied in new sessions, not including reconnecting to a disconnected session.



Installation on Clients

The ScrewDrivers Client is required for ScrewDrivers to replicate printers in the remote connection.

Remote Desktop clients

Install a ScrewDrivers Client that includes the appropriate RDP plug-in. If using the 64-bit Remote Desktop client, then install ScrewDrivers v4 x64 (rdp only).msi.

Citrix clients

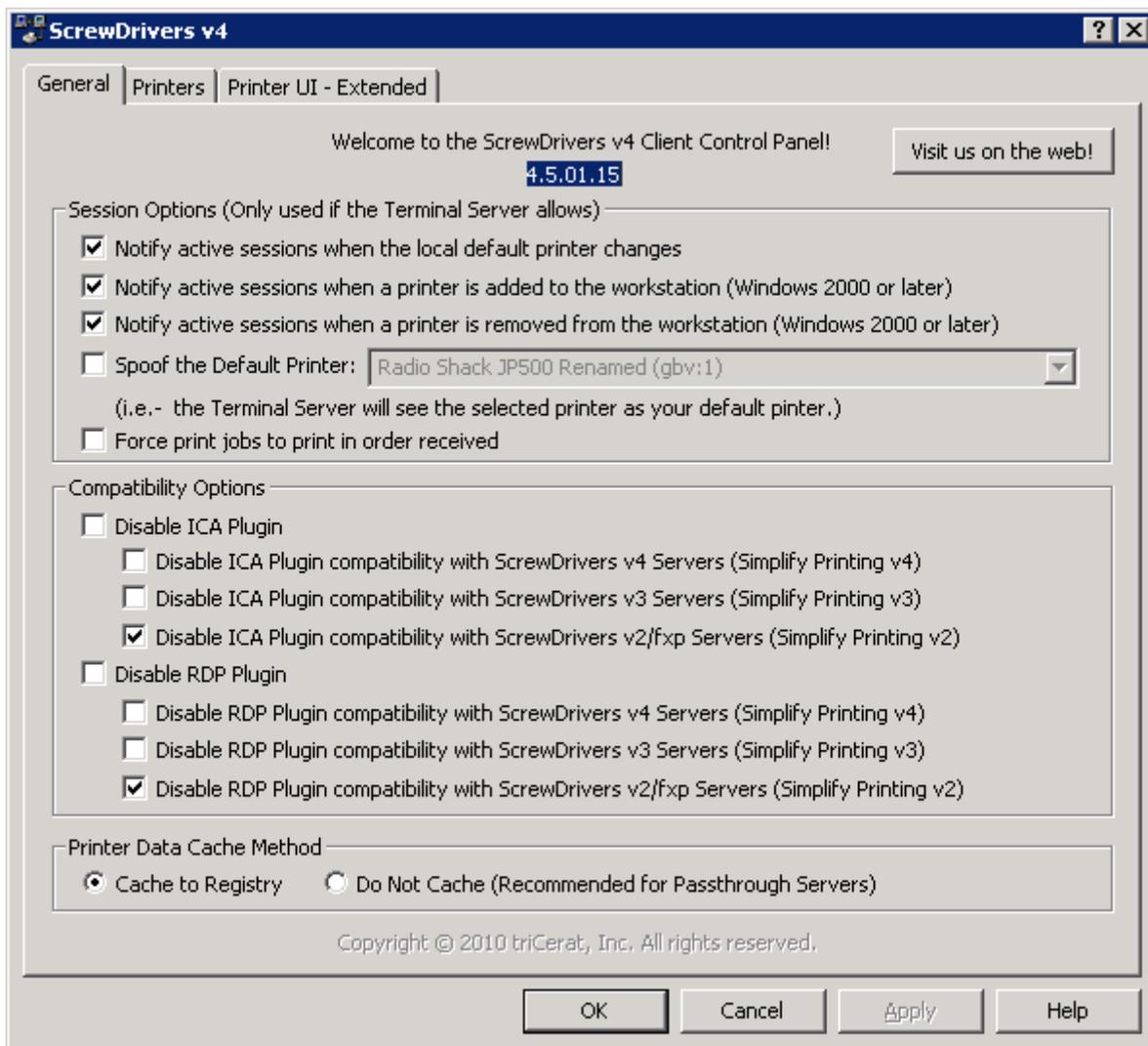
Install a ScrewDrivers Client that includes the ICA plug-in. All Citrix clients must use a 32-bit version of ScrewDrivers. The following installs are designed for Citrix clients: ScrewDrivers Client v4.msi and ScrewDrivers Client v4 (ica only).msi.

Configuration of ScrewDrivers Client

Like ScrewDrivers Server, the ScrewDrivers Client is managed through an applet in the Windows Control Panel. There are no required customizations, as the default settings are fine.

The **Printers** tab is used to set a priority list, but only takes affect if the server is set to **Add client's first # printers**. The **Printers** tab can also be used to deny printers from propagating to the server. The **Printer UI - Extended** tab is used to set extended options for specific printers.

The **Query Printers** button is used to synchronize the driver settings to be virtualized by ScrewDrivers. This is useful when a local print driver is updated and may support new features, or if the print driver language changes.



Frequently Asked Questions

Does ScrewDrivers require any ports to be opened?

No ScrewDrivers is a virtual channel technology. All communication occurs within the connection protocol (RDP/ICA).

Why does ScrewDrivers only auto-create the default printer?

In the ScrewDrivers Server control panel applet, you can set ScrewDrivers to **Add all client printers**.

Why doesn't ScrewDrivers work with the Remote Desktop web interface (TSWeb)?

You must modify the web interface to allow ScrewDrivers to work with Remote Desktop via the web interface. Without these modifications ScrewDrivers is unable to create a virtual channel within the Remote Desktop Protocol. Please follow these directions:

Windows 2003

1. Edit the web portal's HTML file, typically default.htm in C:\inetpub\wwwroot\tsweb\default.htm. Check Internet Information Service (IIS) if you do not know where the TSWeb HTML file resides.
2. In the HTML file find **Device redirection options**. It should read as:

```
'Device redirection options
MsRdpClient.AdvancedSettings2.RedirectDrives = FALSE
MsRdpClient.AdvancedSettings2.RedirectPrinters = TRUE
MsRdpClient.AdvancedSettings2.RedirectPorts = FALSE
MsRdpClient.AdvancedSettings2.RedirectSmartCards = FALSE
* the TRUE or FALSE values may differ in your environment
```

3. Add the following line of code at the end of the **Device redirection options** section:

```
MsRdpClient.AdvancedSettings2.PluginDlls = "sdrdp5.dll"
```

Windows 2008

1. Open up the web.config file in the TS web directory, typically C:\Windows\web\ts\web.config on your server.
2. Look for these entries:

```
<add key = "xPrinterRedirection" value = "true" />
<add key = "xClipboard" value = "true" />
<add key = "xDriveRedirection" value = "false" />
<add key = "xPnPRedirection" value = "false" />
<add key = "xPortRedirection" value = "false" />
```

3. Add the following:

```
<add key = "xPluginDlls" value = "sdrdp5.dll" />
```

4. Restart IIS

Does the solution use the Print Spooler?

Yes, ScrewDrivers uses the Print Spool service on the client and server. In Citrix environments ScrewDrivers does not use the Citrix Print Manager service (cpsvc.exe).

Does ScrewDrivers require any drivers on the Terminal or Citrix Server?

No drivers need to be installed on the Terminal Server. ScrewDrivers uses a proprietary universal print driver.

Why are some printer settings missing?

ScrewDrivers virtualizes all Windows DEVMODE driver settings, but some drivers use private settings which will not virtualize. Enabling the **Second Print Dialog** will force the Printing Preferences dialog to appear on the client side using the client's driver. The user has access to all features with the **Second Print Dialog**.

Users See Everyone's Printers

It is important to note that ScrewDrivers has no control over this behavior as this problem would occur with or without ScrewDrivers. However it is also important to know where this problem is exhibited...

If a user can see another user's printers in Printers and Faxes, then the user has elevated permissions. Users that are a member of either local or domain Administrators, Power Users, and Printer Operators have Full Control to all printers.

If a user can see another user's printers in specific applications, then the application is presenting other users' printers. Depending on the application the solution may vary, so contact the application vendor.

Don't panic in situations where you cannot fix this behavior, as in all circumstances ScrewDrivers does not allow a printer to be used from a separate session. ScrewDrivers printers are session-specific, and not even administrators can print to another user's ScrewDrivers printer.

The client printers are creating, but why isn't the default printer set? Adobe product(s) display "Before you can printer-related task such as page setup or printing a document, you need to install a printer"

There are a number of problems that can exhibit this behavior. The default printer is not set until all printers are created – verify that all client printers are in the remote connection. ScrewDrivers, by default, sets the client's default as the default on the server, unless **Spoof the Default Printer** is enabled in the ScrewDrivers Client applet – check these settings on the client. The user's profile on the server maybe corrupted, refer to this article: <http://support.microsoft.com/kb/929270/en-us>. If this does not fix the problem, then create the "Device" registry string (REG_SZ) in HKEY_CURRENT_USER\Software\Microsoft\Windows NT\CurrentVersion\Windows with an empty value and make grant the user access to Full Control.

In Citrix (or RemoteApp) the ScrewDrivers print disappeared (or stopped working) after opening a second published application. Why does this happen?

This is generally a case of perception, in that the printers do not actually disappear. What is most likely occurring is that the user is opening more than one Citrix session, causing the default printer to change to a printer in the newest session. ScrewDrivers permissions printers by session ID, therefore if a user logs on to the Citrix Server a second time, the default printer is then changed to a printer that the user cannot access from the first Citrix session.

This can be fixed by limiting the user to one session. With Citrix and other published application solutions (RemoteApp, ProPalms, Ericom) each application must be published with the same settings (Screen Size, Color depth, Sound, Drive Mapping, Access Control Filters, Printer Mapping) for session sharing to work properly.

The ScrewDrivers Client works for some Remote Desktop users, but not everyone. Why?

The ScrewDrivers Client used to work on this PC, but not anymore. How do I fix this?

ScrewDrivers works by loading a DLL (sdrdp5.dll) into the Remote Desktop Client. Sometimes the plugin DLL does not load because the user's profile on the client loses this configuration. ScrewDrivers can be re-registered

to the Remote Desktop Client as a plugin by executing Program Files\triCerat\Simplify Printing\ScrewDrivers Client v4\install_rdp.exe.

The Citrix client was recently modified, why did ScrewDrivers stop working?

This problem does not occur when the Citrix client is upgraded. However, if the Citrix client is uninstalled then reinstalled, then the virtual channel plugin edits are lost. This can be fixed by executing the following:

All Users: install_ica.exe -im "path of sdica6.dll"

Current User: install_ica.exe -iu "path of sdica6.dll"

This will re-add ScrewDrivers as a plugin technology for the Citrix client. Note that the All Users argument (-im) requires administrator rights, whereas the Current User (-iu) can be executed by any account.

ScrewDrivers is configured but how do I disable RDP or ICA client printer mapping?

As you discovered, ScrewDrivers does not control how the Citrix or Remote Desktop clients load printers natively. This means that it must be manually disabled. There are many ways to disable auto-creation through Citrix and Remote Desktop, but triCerat normally recommends to configure this per server through Terminal Services Configuration.

ScrewDrivers stopped working after upgrading the install on the server, why?

Often times the ScrewDrivers print driver files (sd4ui.dll and sd4drv.dll) cannot patch during the install because they can be file-locked by the Print Spooler or applications. You can manually patch the driver:

1. In Windows\System32\spool\drivers\w32x86\3 (32-bit) or Windows\System32\spool\drivers\x64\3 (64-bit) delete sd4drv.dll and sd4ui.dll. Rename these files if they cannot be deleted.
2. Verify sd4drv.dll and sd4ui.dll exist in the subdirectory ('w32x86' directory for 32-bit or 'x64' directory for 64bit). If they do not exist run a Repair on the ScrewDrivers Server v4 install.
3. Execute Program Files\triCerat\Simplify Printing\ScrewDrivers Server v4\install_driver.exe

These steps will reinstall the correct driver for ScrewDrivers. If the problem persists then follow these steps:

1. Uninstall ScrewDrivers Server v4
2. Restart the server
3. Install ScrewDrivers Server v4

Does ScrewDrivers support Thin Clients?

ScrewDrivers requires the Windows Print Spooler on the client. With that said, this product will work with any Windows OS including Windows Embedded platforms. However, for the traditional Thin Client environment refer to triCerat's Simplify Printing product: <http://www.tricerat.com/printing>