User Guide

TSScan Usage Guide

terminalworks

Content

Software requirements

Please take a look at the list below for the information on supported remote desktop technologies and operating systems.

Supported Platforms

· Microsoft RDP

· Citrix ICA

· VMWare VDI

Operating Systems

TSScan Server:

· Windows 2022 Server

· Windows 2019 Server

· Windows 2016 Server

· Windows 2012 R2 Server

· Windows 2012 Server

· Windows 2008 R2 Server

· Windows 2008 Server

· Windows 2003 Server

· Windows 10

· Windows 8,8.1

· Windows 7

· Windows Vista

· Windows XP

TSScan Client:

· Windows 11

· Windows 10

· Windows 8,8.1

· Windows 7

· Windows Vista

· Windows XP

· Windows Embedded

· Mac OSX (10.7, 10.8, 10.9, 10.10, 10.11, 10.12, 10.13, 10.14, 10.15, 11, 12, 13)

Note: 32bit and 64bit operating systems are supported. TSScan requires minimum .NET 2.0 framework to function properly. In case you experience any issues please make sure that .NET is installed.

Installation

The TSScan installation comes in two parts: **TSScan_client** and **TSScan_server**.

TSScan client installation

The Client part is installed on the PC which is used to connect to your remote application or Server. In most cases it is your PC at home or in the office. To install it feel free to follow the instructions below.

1. Log off from your remote session completely
2. Download the latest TSScan client for your PC depending on the Operating System you have
3. Install the client part of TSScan

Download link: https://www.terminalworks.com/remote-desktop-scanning/downloads

TSScan Server installation

The TSScan server part is installed on your server or application host you will be printing from. The Server part requires to be installed as Administrator on the host. Which would be the only requirement in that case.

The installation should be straight forward on both parts without any additional obstacles. A few times next and finish should be enough to complete both. In case you receive any error you can always reach out to our Support Team at support@terminalworks.com

How does it work?

TSScan is the RDP scanning software for your Terminal Services/Remote Desktop/VDI or Citrix environment. It offers you to avoid installation of scanner drivers on your terminal server, increasing the stability of all of your servers. It also offers for your clients to scan directly into remote applications on your terminal server without any additional time required on your side for implementation or configuration. For more details please read the following topics.

Quick Explanation

Once you installed the server part of TSScan on the server you will receive the following scanning capabilities explained below on the host. By Default TSScan Standalone, TSScan DS and the Dynamic Redirections are enabled.

> **Note:** If any of the TSScan parts (Client, Server) is below version 3.0, the Dynamic redirection is exchanged by the Virtual TWAIN DS option.

TSScan Standalone:

A standalone scanning application. This way you can scan multiple types of images from your local scanners on to the server saving them as one of the following formats by your choice (PDF, TIFF, JPEG).

TSScan DS:

TSScan as a virtual scanner on your terminal server. When you open your application which you use to scan, you will notice TSScan as an available scanner shown in the list of scanners. When you try to initialize a scan, the TSScan GUI will appear letting you choose between all locally available devices. After you scan, TSScan just as every other scanner will transfer the images to the application which called it.
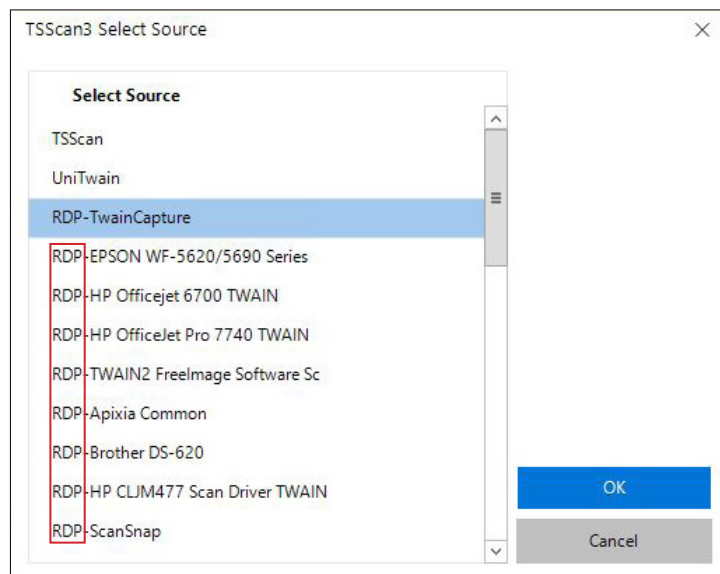
Virtual TWAIN DS:

With this method, TSScan is mapping all locally available scanners to virtual DS files on the host. If you have, for example, three local scanners attached to your workstation TSScan will assign them to virtual scanners on the terminal servers. The scanners will contain the same name as your local scanners and will behave as they do locally.

Once the client connects with the installed client part locally simply start printing to one of the mentioned printers above.

Dynamic Scanner redirection:

The communication and all scanning is done locally. With the dynamic redirection all TWAIN capabilities are fully supported. Through it any application trying to scan, is communicating locally with all devices directly and can pass one all available settings and scanning preferences.

Image Example below. All locally available scanners by Default are marked with "RDP-"in front of the scanner name. Also, the blue marked source is the above mentioned TSScan DS.
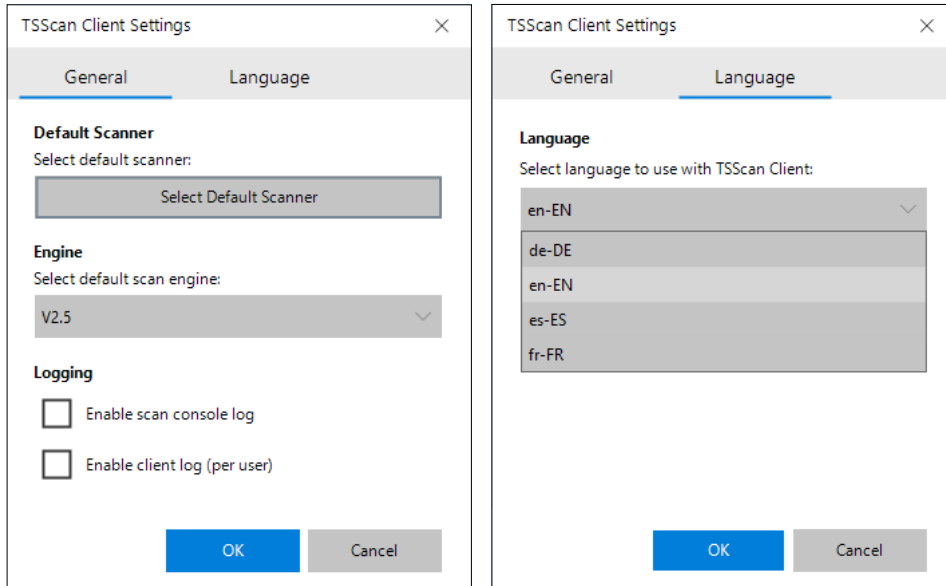
Available options and adjustments within TSScan

TSScan Client Options

Locally present on the workstation after the Client part installation. As all the scanner calls and settings come from the server, the local options cover some basic functions.

TSScan client on Windows

Offers two tabs, a General options tab, and a Language tab, both visible in the images below.
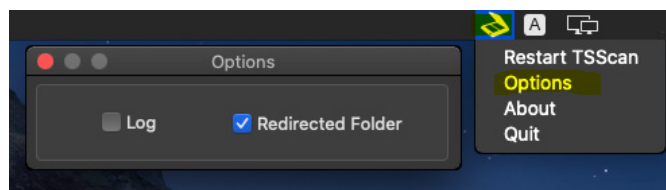

Within the General options, you can select your local Default scanner and choose between the three available scan engines we use to communicate with your drivers. The Scan engines are there because TWAIN is a standard, but not all scanner manufacturers and application developers strictly follow the protocol. The three engines cover more deviations from the standard as each engine approaches the options differently. Besides those two scanning-related options, you can also enable logging here in case something goes wrong.

The Language tab gives you an option to adjust the local client language.

> **Note:** The language option can only be changed per workstation.

TSScan client on MAC

On the MAC after the installation, a small gray scanner Icon should appear in the upper right corner of your MAC Desktop, close to your Network Icon. By right-clicking on it, you get the four options below. By selecting options, you can enable logging or change the communication of the client.
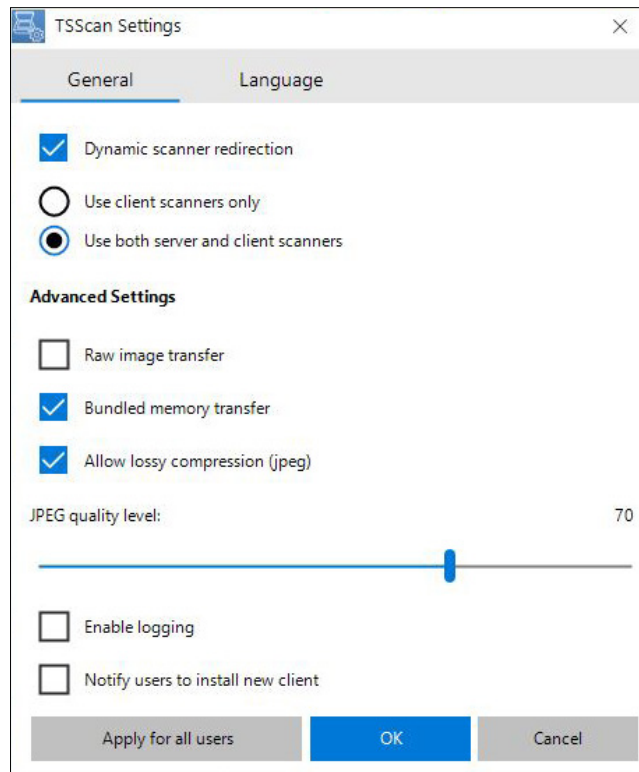

Redirected folders are required for Microsoft RDP version 10.3.4 and above.
For more details on the communication and TSScan MAC Redirected Folders use this link.

TSScan Server Options

TSScan Setting

The image below shows the options you receive with TSScan server after the installation. Let's take a brief walkthrough on those. The settings can be applied on per user basis or if opened as Administrator to all user connecting to this server.

Dynamic Scanner redirection:

Enabled by default, has two additional options to alter here. The main feature of TSScan 3 making the communication with your local scanners looking exactly as you were working locally.

> **NOTE:** If not checked or disabled all functions and options are reverted back to TSScan 2

Use Client scanners only

Allows the users to see scanning as done locally. The select source dialog and communication are all executed on the client PC. The users would not note any difference between working in the session on the host or directly on the home PC.

Use both server and client scanners

With this option the dialog looks like in the example image on page 5, with the RDP prefix on eachscanner as well as the TSScan DS option available.

Advanced settings

Raw image transfer

Enables the communication as it is between the local devices and the application to call it.

Note: If RAW is set there is no compression used from our side on the images received.

Bundled memory transfer

Allows each image to be sent to the host as a package combining the image transfer as a whole instead of separate pieces.
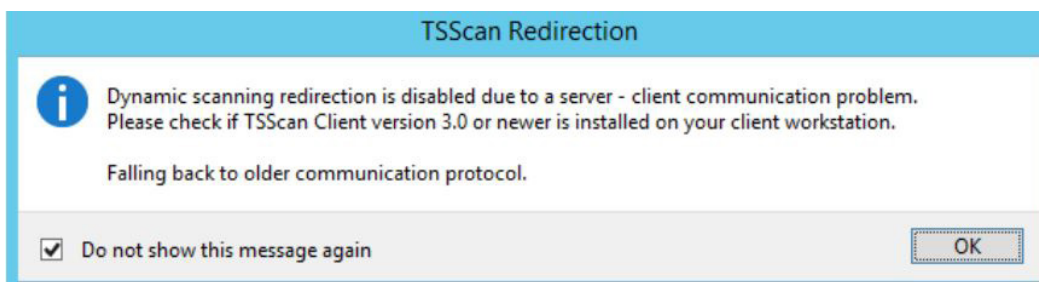
Allow lossy compression (jpeg)

An additional option to compress the images being scanned. The level of it can be adjusted below the checkbox allowing this option.

> **NOTE:** The compression level will impact the quality of the scanned images.

Notify users to install new client

If checked, each user before scanning with the old TSScan client locally installed with receive the message below, disabling the dynamic TWAIN redirection reverting back to TSScan 2 Virtual DS option.
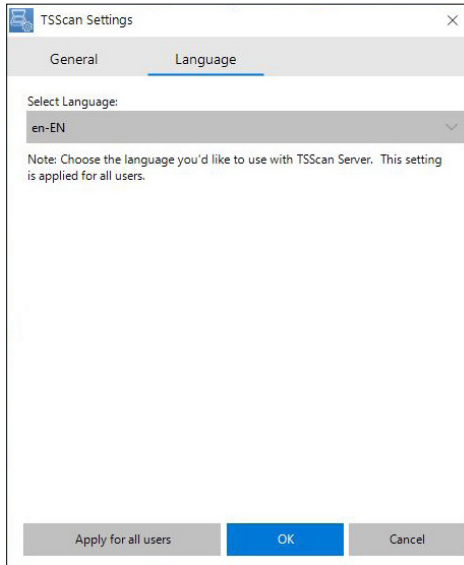

Enabled Logging

Once checked, this option will turn on the logging facility of TSScan3 and monitor all Twain calls on the server saving logs locally as well as on the host under %APPDATA%\TSScan\Logs.
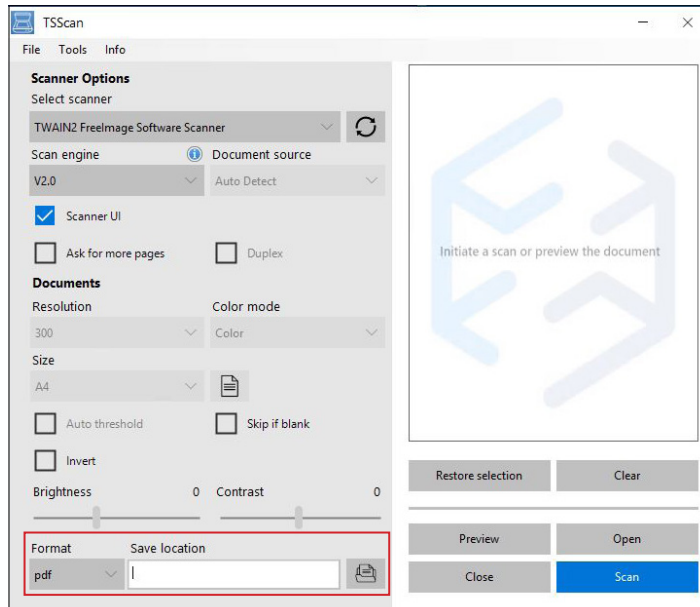
Language settings

Here you can select between the available languages TSScan Server offers.

TSScan 2 Standalone and TSScan DS UI

The image below shows the TSScan UI. The red marked square showing the format and save location is only available in the standalone application.

- SELECT SCANNER

Here you can select the desired scanner from which you wish to scan. On the right side of the drop-down box you will find the Refresh button. By using that button TSScan will retrieve a list of your attached local scanners.

- SCAN ENGINE

The Scan engines are there because as TWAIN is a standard but not all scanner manufacturers and application developers strictly follow the protocol. The three engines are made in that case to cover more deviations from the standard of which one could be causing issues like not being able to apply a scanner setting you send from the server. Each engine approaches the scanning options differently because of that.

- DOCUMENT SOURCE

The Document Source drop down box will contain three entries:

- Flatbed
In case your scanner has no feeder and you can only scan one document at a time you should use this function.

- Feeder
Most office scanners have ADF which stand for Auto Document Feeder. The ADF function is similar to your printer paper tray. You put all your paper/documents inside the ADF and it will retrieve page per page and scan them. Use this function if you are exclusively using your scanner with ADF.

- Auto detect
The Auto Detect option will check if your scanner has any papers inside the ADF. In case the ADF is empty it will scan from the flatbed of the scanner. You should use this option if you are using your scanner in both ways. Based on the scanner that you have this option could sometime not work as expected as some scanner vendors to not follow the TWAIN standard strictly and have not properly implemented the ADF checking.

- DUPLEX

Using duplex scanning you can scan both sides of your document.

- SCANNER UI

When you check this option, you will notice that all TSScan UI options get disabled because now TSScan will leave the configuration of the scanning to the scanner drivers. Enabling Scanner UI will delegate all scanning options to your scanner directly, and the scanner UI should appear as soon as you press Scan.

> **NOTE:** This option is very useful in case your scanner driver has options that you will from TSScan.

- ASK FOR MORE PAGES

If your scanner has no ADF and you can only scan from flatbed but would like to scan more than one paper or document you can enable this option. It will after each scan ask you if you would like to scan more pages. In case you select "Yes", the scan that is performed next will be appended to the scan before.

- SKIP IF BLANK

If enabled, this option should remove the blank pages from your scan. Please bear in mind that in some cases blank pages are part of the document and removing them would change the look of the scanned document.

- INVERT

This option inverts the colors of the picture. Useful in B/W scans where the scan is inverted.

- RESOLUTION

Using this option you can set the resolution of the resulting image in DPIs. Please bear in mind that as you choose a larger resolution, so the image will be larger. But always keep in mind, as the resolution is higher so the file size is higher and the transfer to your terminal server will take longer.

- COLOR MODE

The color mode can be set to three different values. Those are:

- Color
Setting this mode will scan all your documents with full color. This color mode when selected takes the longest time to be scanned and transferred to your remote desktop server. Only use color mode if you require color in your documents.

- Mono
This mode creates images which are composed exclusively of shades of gray, varying from black at the weakest intensity to white at the strongest. As opposed to pure black and white scans this mode preserves some details.

- Black / White
Black and white scans contain only two colors. Because of this, the resulting file size is very low, and the scanner can scan at its top speed in this mode. For every document where you do not require any image data but only text this is your mode of choice.

- SIZE

The size option sets the scanner page size which will be scanned. By default, there is a list of predefined page sizes. You can also retrieve the page sizes available from your scanner by clicking on the small page icon next to the Size drop-down box.

- AUTO BRIGHTNESS (ONLY AVAILABLE IN MONO AND COLOR MODE)

By checking this option, TSScan will try to find the optimal brightness setting for your scan. The image gets post-processed after it is retrieved from the scanner.

- BRIGHTNESS (ONLY AVAILABLE IN MONO AND COLOR MODE)

This is a slider which makes your scanned image brighter as you move it to the right. If you move your slider to the left, the scanned image will get darker.

- CONTRAST (ONLY AVAILABLE IN MONO AND COLOR MODE)

This slider controls the contrast of your scanned image. As you move the slider to the right side, the contrast will be increased. The opposite happens if you move the slider to the left.

- AUTO THRESHOLD (ONLY AVAILABLE IN BLACK/WHITE COLOR MODE)

This option will tell TSScan to find the best threshold value for your black and white scan. The threshold setting controls what pixel will be white and what black based on the threshold value.

- THRESHOLD (ONLY AVAILABLE IN BLACK/WHITE COLOR MODE)

It is the manual configuration of the threshold value. If the value is lowered, the more pixels will be white. If you increase the value, more pixels will be black.

- FORMAT OPTIONS (TSSCAN STANDALONE)

There are currently three formats supported by TSScan:

- jpeg
Is a commonly used method of lossy compression for digital photography (image). The degree of compression can be adjusted, allowing a selectable tradeoff between storage size and image quality. JPEG typically achieves 10:1 compression with little perceptible loss in image quality.

- tiff
Is a flexible, adaptable file format for handling images and data within a single file, by including the header tags (size, definition, image-data arrangement, applied image compression) defining the image's geometry.

- pdf
Digitized replica or scanned copy of a document as it was originally published. This file type preserves all formatting, page numeration, and original images/charts/graphs/etc.

TSScan Tool Bar

Under File

- SAVE

Using this menu entry you will open the save dialog for the last scanned image or preview where you can choose the location where you wish to save your scan and the format in which you would like to save.

- SEND VIA E-MAIL

Using this option TSScan will automatically open your default e-mail application and create a new e-mail with the last scan added as attachment to the message. This way you can quickly scan documents into a PDF document and forward them to another person without having to switch between multiple applications.
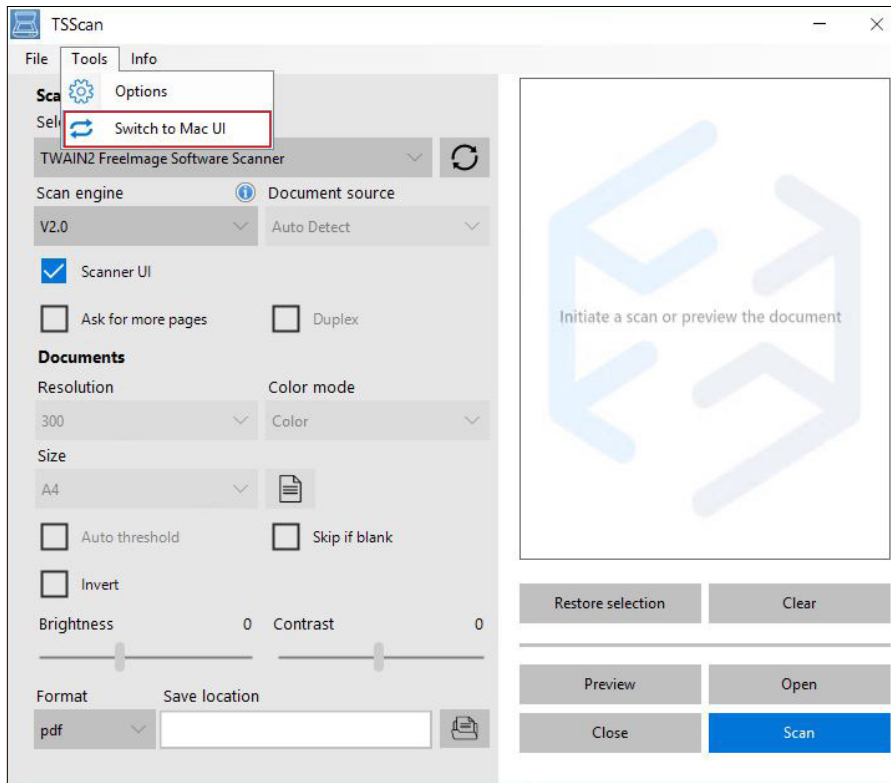
- COPY TO CLIPBOARD

Copies the last scanned or previewed image to your clipboard where you can later on paste it to any applications which accept image pastes.
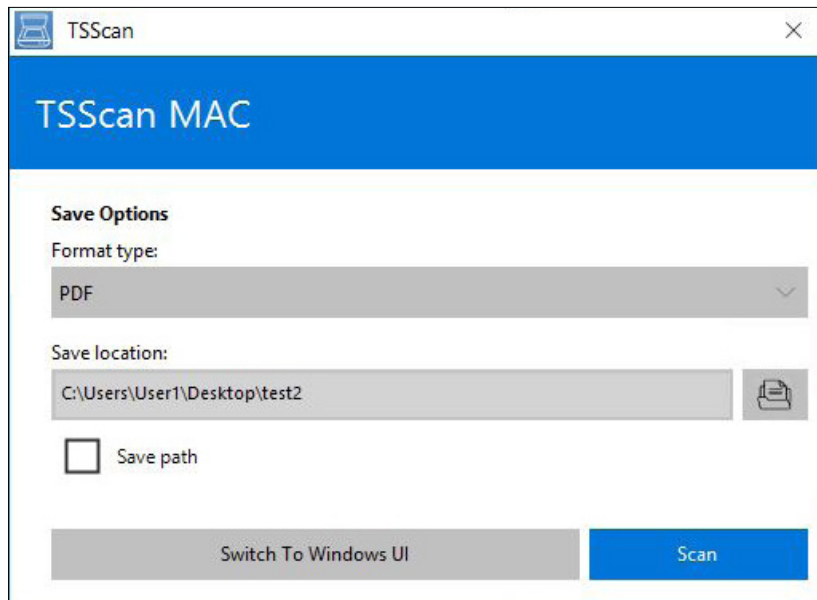
Under Tools

- SWITCH TO MAC UI

You can activate the communication by opening TSScan on the server Desktop. Once opened under tools as described in the picture bellow, you can activate the MAC communication. This will allow MAC users to scan in to the server through TSScan.

NOTE: Those options are saved on per user basis.

- MAC UI

Image example below:

The MAC UI has fewer options because for MAC users the local scanner options will appear every time and you can select the appropriate settings there.

- FORMAT TYPE: allows you to select the type of the saved image

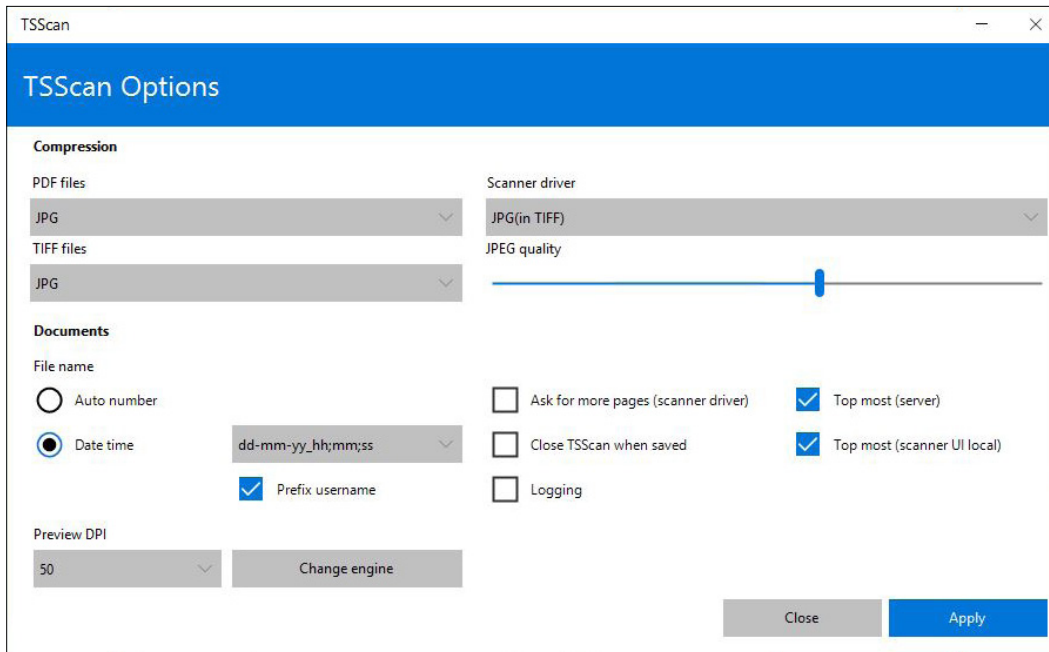**- SAVE LOCATION:** Location of the saved image (if the Save path checkmark is enabled the selected

location stays saved for future use)

- SWITCH TO WINDOWS UI: reverts it back to the windows TSScan UI

- SCAN: initiates the scanning

- TSScan Options (TSScan2)

Image example below.

> **NOTE:** Those options apply only to TSScan Standalone, TSScan DS and Virtual TWAIN DS

- COMPRESSION

PDF-Set the compression options for scans which are returned as PDFs.

TIFF-Set the compression options for scans which are returned as TIFFs.

Scanner Driver- Opposed to PDF and TIFF compression settings, these compression settings configure the way images are compressed from your local scanner and then transferred to the virtual scanner on your remote desktop server. This setting is criticalwhen you wish to achieve good transfer rates of your scanned documents to the remote desktop server.

- JPEG QUALITY

All JPG compressed images are affected by this setting. If you move the slider to the right, the quality of JPG images will increase together with the file sizes. Please adjust this setting depending on the network connection that you have. If you have a fast internet connection or if you are connecting inside a LAN to your remote desktop server, increase the quality. If you have a very slow connection please reduce the quality of the JPG images to receive faster transfer rates.

- FILE NAME

Here you can choose the way files should be saved if you set the file path for automatic saving. The two options available are. Auto Number (Each scan will be saved with a number attached to the end of the file name and increased after each scan) and Date Time (Append the date and time in the format specified by the dropdown box. Also, the additional option to add the User name as a prefix in the image name).

- PREVIEW DPI

This option controls in which resolution should the preview scan be scanned. The default value is 50 what we also recommend as for previewing the image. This resolution offers both enough details and a fast transfer rate.

- ASK FOR MORE PAGES (SCANNER DRIVER)

In case you are using the virtual scanner driver the dialog which asks for more pages will be displayed after each scan. This shows useful when you use a flatbed scanner but would like to scan multiple documents into your application without having to do the scanning procedure for each page separately.

- CLOSE TSSCAN WHEN SAVED

Automatically closes TSScan once you save your scanned document.

- LOGGING(TSSCAN2)

Once checked, this option will turn on the logging facility of TSScan2.

- TOP MOST

Both options will set each TSScan dialog together with your local scanner driver dialogs as top most. This option should always be turned on as your remote desktop window could cover up your scanner dialog.

- CHANGE ENGINE

Allows you to switch between the scan engines explained on page 9

Automatic Client Updates

Within TSScan 3 we are introducing an automatic client update feature. The requirement for it is to have a TSScan client v3 installed locally. Once a new version of TSScan v3 was released simply download and install the latest server version on your host over the existing one already in use. The next time a client will log in to the updated host it will update itself upon the first scan.

License Registration

Once the server part of TSScan was installed on a machine it generates an Id to which we bound our licenses to. The Hardware Id is like a serial key in that case. After each purchase the license is added to your account. To find your Hardware-ID, please follow instructions on the following link: https://www.terminalworks.com/hardware-id
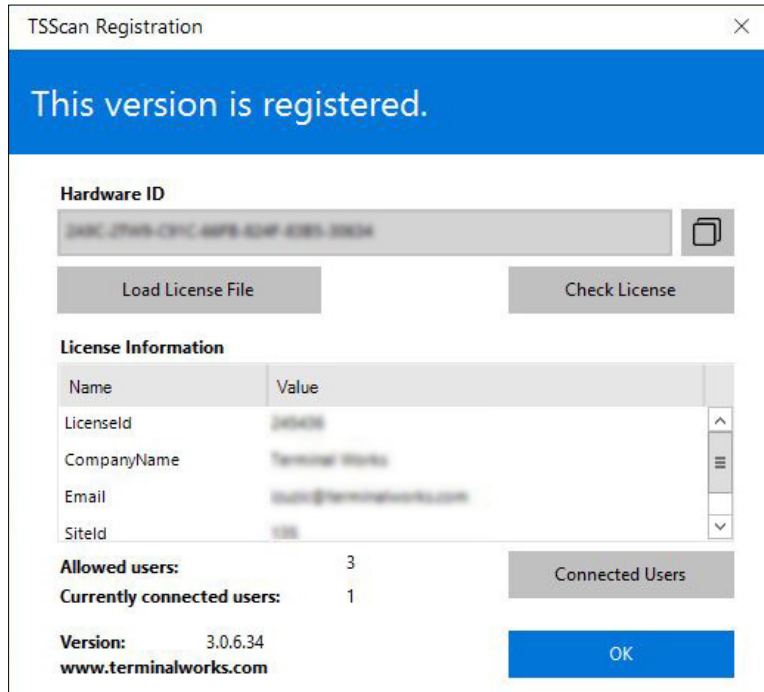
After you got the ID, please log in to your online account and enter the Hardware ID in the empty field to create the mentioned license.

Once you generate the specified license, simply save it on the host and load the said license through the license registration window from which you copied the hardware ID.

After you apply the license file, the software will be fully licensed.

Support

If you would prefer to speak to a technician for additional assistance, you may call our support number during active support hours by dialing +1 (407) 567-0096 Monday - Friday 10:00 a.m. - 10:00 p.m. CET (excluding holidays and weekends).Off hours you can always reach us at support@terminalworks.com