
Installation Instructions – Follow these precisely

The FaxScan™ software installation follows the order below –

- Software Installation
- Hardware Dongle License Installation
- Verification

Pre-Requisites

- PC Requirements – Windows® 7 / 8 (32 bit or 64 bit).
- Minimum CPU Requirements – Core i3 or Higher with 4 GB RAM, USB 2.0 Ports.

Perform Software installation first and then Dongle Licenses installation.

- Install **FaxScan_x86.exe** (or **FaxScan_x64.exe** for 64-bit version) software from the installation CD received from GL Communications Inc based on system configuration.
- Follow onscreen instructions to complete the **FaxScan** installation.
- After installing the software, **FaxScan** files are placed under default the installation path (**C:\Program Files\GL Communications Inc\FaxScan**). Note down the installation path for further reference.
- It is recommended to reboot the system after the software installation.
- Execute **GLDongleLicenseInstaller_x86.exe** (or **GLDongleLicenseInstaller_x64.exe** for 64-bit version) to install Dongle Licenses from the installation USB stick. FaxScan™ software requires either VBA038 or PKV104 licenses.
- Plug the dongle to the USB 2.0 port of your PC. Windows® should install all required drivers automatically. A red light should appear on the dongle indicating that it is functioning correctly from a physical point of view.



Note: For any troubleshooting during hardware dongle license installation, refer to **Installation Instructions for Dongle Programs** document

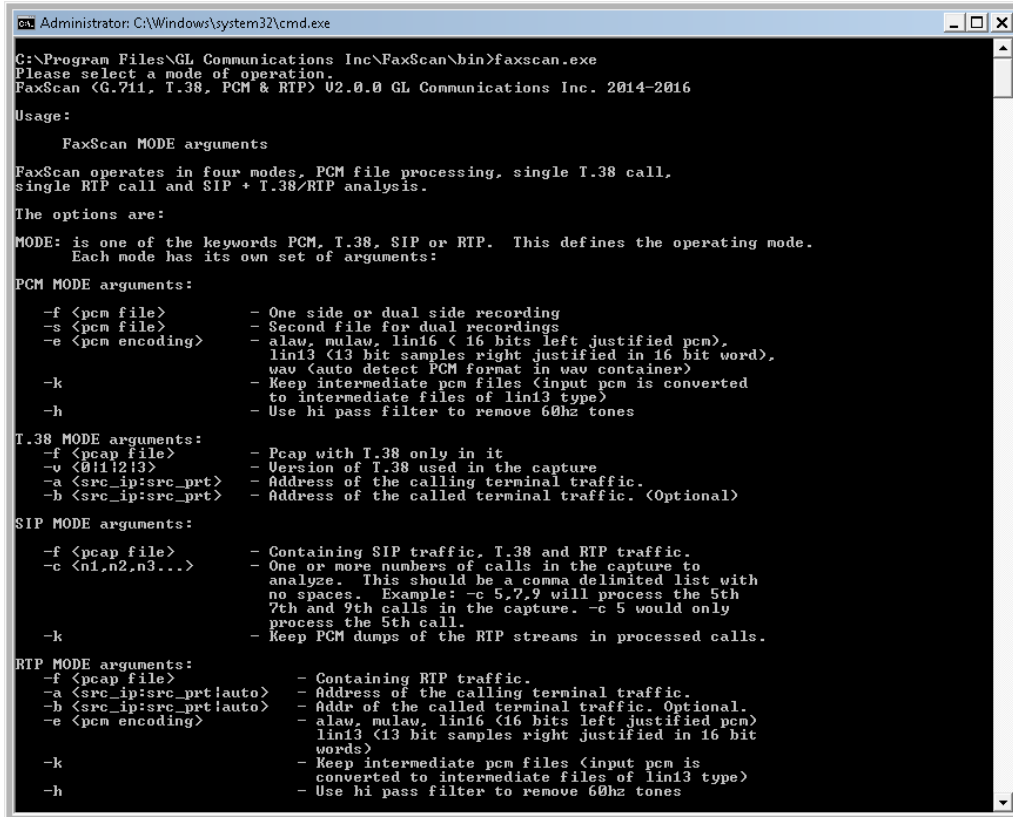
Quick Checkout

FaxScan™ is an executable that runs in a Windows® command-line and can be called directly, using Batch files, or from a users own software test environment.

- Open command prompt (Windows® **Start→All Programs→Accessories→Command Prompt**) and change the present working directory to the installation path. (Type **CD C:\Program Files\GL Communications\FaxScan**)
- If you have purchased VBA038 –
 - Run **test_pcm.bat**
 - This will run **FaxScan** on all the sample files that have been provided with the installation under “**vectors\pcm_vectors**”.
 - Creates “**unittest\pcm**” output folder in the installation directory. Under the “**unittest\pcm**”, there should be 20 ladder files and 17 image files.
- If you have purchased PKV104 (Includes SIP and T.38) –
 - Run **test_sip.bat**
 - This will run **FaxScan** on all the sample files that have been provided with the installation under “**vectors\SIP_vectors**” folder.
 - Creates “**unittest\sip**” output folder in the installation directory. Under the “**unittest\sip**” folder, there should be 13 fax ladder files, 13 SIP ladder files, 12 image files.
- This output folder will have the “***.ladder**” and “***.tiff**” files for the analyzed sample files.
- “***.ladder**” is a text file that shows the complete fax call analysis result and can be opened with any text editor like Notepad®.
- “***.tiff**” is the image that has been transmitted/received over the FAX call.

Command Line usage of FaxScan™

- Open Windows® command prompt (Windows® ® **Start**→**All Programs**→**Accessories**→**Command Prompt**) and change the present working directory to installation path. (Type **CD C:\Program Files\GL Communications\FaxScan\bin** in the command line)
- Run **FaxScan.exe** to see the help text/syntax for FaxScan command as shown in the figure below:



```
Administrator: C:\Windows\system32\cmd.exe
G:\Program Files\GL Communications Inc\FaxScan\bin>Faxscan.exe
Please select a mode of operation.
FaxScan <G.711, T.38, PCM & RTP> U2.0.0 GL Communications Inc. 2014-2016
Usage:
    FaxScan MODE arguments
FaxScan operates in four modes, PCM file processing, single T.38 call,
single RTP call and SIP + T.38/RTP analysis.
The options are:
MODE: is one of the keywords PCM, T.38, SIP or RTP. This defines the operating mode.
Each mode has its own set of arguments:
PCM MODE arguments:
    -f <pcm file>           - One side or dual side recording
    -s <pcm file>           - Second file for dual recordings
    -e <pcm encoding>      - alaw, mulaw, lin16 < 16 bits left justified pcm>,
                          - lin13 <13 bit samples right justified in 16 bit word>,
                          - wav <auto detect PCM format in wav container>
    -k                       - Keep intermediate pcm files <input pcm is converted
                          - to intermediate files of lin13 type>
    -h                       - Use hi pass filter to remove 60hz tones
T.38 MODE arguments:
    -f <pcap file>         - Pcap with T.38 only in it
    -v <0|1|2|3>           - Version of T.38 used in the capture
    -a <src_ip:src_port>   - Address of the calling terminal traffic.
    -b <src_ip:src_port>   - Address of the called terminal traffic. <Optional>
SIP MODE arguments:
    -f <pcap file>         - Containing SIP traffic, T.38 and RTP traffic.
    -c <n1,n2,n3...>      - One or more numbers of calls in the capture to
                          - analyze. This should be a comma delimited list with
                          - no spaces. Example: -c 5,7,9 will process the 5th
                          - 7th and 9th calls in the capture. -c 5 would only
                          - process the 5th call.
    -k                       - Keep PCM dumps of the RTP streams in processed calls.
RTP MODE arguments:
    -f <pcap file>         - Containing RTP traffic.
    -a <src_ip:src_port!auto> - Address of the calling terminal traffic.
    -b <src_ip:src_port!auto> - Addr of the called terminal traffic. Optional.
    -e <pcm encoding>      - alaw, mulaw, lin16 <16 bits left justified pcm>
                          - lin13 <13 bit samples right justified in 16 bit
                          - words>
    -k                       - Keep intermediate pcm files <input pcm is
                          - converted to intermediate files of lin13 type>
    -h                       - Use hi pass filter to remove 60hz tones
```

- Command to run FaxScan over PCM files is shown below:

bin\FaxScan.exe PCM -f vectors\pcm_vectors\v34_31200_RX.pcm -s vectors\pcm_vectors\v34_31200_TX.pcm -e lin13

Where:

PCM = Mode of execution

-f = first file input -- v34_31200_RX.pcm

-s = second file input -- v34_31200_TX.pcm

-e = encoding in lin16-linear 16 (other encoding options supported are mulaw, alaw, lin13)

- Command to run FaxScan over SIP files is shown below:

bin\FaxScan.exe SIP -p -f vectors\SIP_vectors\rtp.pcap

Where:

SIP = Mode of execution

-p = Indicates to create ladder for SIP and fax traffic

-f = Input file for fax analysis -- rtp.pcap

- If you are still having issues or have other questions call GL Communications Inc. @ 301 670 4784.