

NetScanTools® Pro



Monthly Newsletter

www.netscantools.com

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In this newsletter:

News

- **Switch Port Mapper 2.85.2 released Jan 27, 2021**
- **How NetScanTools Pro Sends Packets**
- **How To Get NetScanTools Pro Updates**
- **NetScanTools Pro Maintenance Plan Pricing Changes**

News...

From the Editor...

Back at work for the new year. I hope your 2021 is going well.

-Kirk

Managed Switch Port Mapping Tool 2.85.2 Released Jan 27, 2021

This release of the switch port mapper has fixes for a Ping Sweep issue.

The Ping Sweep problem was due to a 10.x.x.x network returning the same gateway MAC address for every address pinged even though the addresses were local. So the effect of that was to overload the monitoring algorithm. The monitoring algorithm has been modified to disregard that problem.

Another change was to the text file import of Ping Sweep ranges. After you have completed the import, it now refreshes the list of IP ranges.

Support Mode debugging was improved. One of the commonly used functions was not recording enough data to show where it was being called from and that was corrected. Pressing the Stop button is now added to the support mode event log file.

ARP Caching on your computer: If you use Ping Sweep and you have Query Local ARP Table enabled, you really should be aware of how many entries your local ARP cache can contain. The default is 256. You can find out the size of your ARP cache on your Windows computer by using this command at a command prompt:

```
netsh interface ipv4 show global
```

Look in the results that the Neighbor Cache Limit entry. It will probably show 256. You can change it to 4096 by using the Administrator mode command:

```
netsh interface ipv4 set global neighborcachelimit = 4096
```

For more information, please visit [Address Resolution Protocol caching behavior - Windows Server | Microsoft Docs](#)

To upgrade an 'installed' version, download the trial and install over the top. The trial can be found at <https://www.switchportmapper.com/download.htm>

The USB version patch will be ready early in the week of Feb 1.

Changes in 2.85.2:

- Fixed problems with Ping Sweep algorithm getting overloaded by ARP responses when doing large range Pings.
- Emphasized the importance of running this command if you use Ping Sweep and Local Computer ARP table: netsh interface ipv4 set global neighborcachelimit = 4096
- Added refresh of Ping Sweep Editor grid after importing from a text file.
- Improved Support Mode Event Debug logging for one function.
- Added logging to Stop button press to Support Mode Event Debugging Log.
- Updated MAC address/Manufacturer database.
- Updated SQLite to version 3.34.1
- Updated dates to 2021.

How NetScanTools Pro Sends Packets

This discussion is about the two methods used to send packets from within tools in NetScanTools Pro.

The first way NetScanTools Pro sends packets is using the sockets layer in the network subsystem of Windows. This would include tools like Packet Flooder which sends out UDP packets rapidly like 'sendto'. A related subset of OS functions are the

specialized ICMP tools like Ping and Traceroute which rely on the ICMP packet send/receive functions. The operating system handles requests through special win32 functions.

A more granular method of sending packets is through the WinPcap interface. This interface is supplied by the WinPcap driver and it allows us to craft a packet from beginning to end including the ethernet addresses if necessary. It is limited to interfaces supported by WinPcap but it allows us to send any kind of packet – not just TCP/IP packets.

Some tools use one or the other and several tools use both. The key is the 'Network Interface' dropdown box. Tools that have that box use WinPcap (or npcap) for at least some of their packet sending or receipt.

How To Get NetScanTools Pro Updates

NetScanTools Pro: click on the help menu, then on Check for New Version. In the main right side area (or your web browser will launch) you will see an embedded web page with either a discussion of the current version and download links or a web page saying your maintenance plan has expired. If you have not registered, you will see a web page explaining that you need to register. You must register and have an active maintenance plan to download NetScanTools Pro updates.

NetScanTools Pro Maintenance Plan Pricing Changes

The plan is now lower - \$35 per year. Only one year plans are available. We no longer offer multiyear plans.

Contact Information

If you have any questions or suggestions, please feel free to email.

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