



September 2008 Newsletter

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Watch our main www.netscantools.com page for 'random' one or two day sales.

"New" News...

Current Release - Managed Switch Port Mapping Tool 1.94, September 24, 2008

The biggest change in this release is the addition of the Input and Output Port Bandwidth Utilization columns. They replace the older 'delta bytes' columns that we had in the past. The bandwidth calculation is made over the time period you choose by right clicking to bring up the popup menu. There is a new menu item for updating the bandwidth columns. The coolest part about this is the ability to calculate bandwidth over a longer period – you could use the program to access a switch on Monday night, then on Tuesday morning come back and access the same switch. The bandwidth over that time period will show up in the results grid. Now you can find out which port is getting overused – perhaps someone is downloading one too many videos!

Release 1.94 brought these changes to the program:

- **Fixed problem** importing previously saved XML results file. Program would disappear without warning or error message on an attempt to import XML file.
- **Added XenSource, Virtual Iron, Parallels and Sun xVM identification to Virtual Machine** section in HTML report. The previous names are all trademarks of their respective owners.
- **Right justified** in/out byte count columns.

- **Changed delta bytes columns** to instead show input and output bandwidth utilization percentages. **Also added Bandwidth Utilization section** to html report.
- **Added Input and Output Bytes tables to Database Maintenance tool.** These are used for calculating bandwidth.
- **Changed right click popup menu to allow updating Bandwidth Utilization columns.**
- **Section 508 compliance: Added Actions menu and submenu items.**
- **Updated databases, libraries and the SQLite engine.**

We are working towards making this tool the leader in manufacturer independent switch mapping tools. Do you have a suggestion for improving the program? Let us know!

More information about the Managed Switch Port Mapping tool:

<http://www.netscantools.com/spmapmain.html>

You can visit this URL to immediately download the new version:

<http://www.netscantools.com/switchportmapperdownload.html>

New Online Method for Checking Maintenance Plan Expiration Date

You can now check your NetScanTools Pro 10 Maintenance Plan expiration date online. It is part of the "Check for New Version" web page. You can copy your registration number from the Program Info/About NetScanTools Pro window, and then click on Online left panel group/Check for New Version. There is a place to enter the registration number on the web page and a **Get Plan Expiration Date** button. When you press the button, your expiration date is displayed to you.

Do not be concerned about private information being accessed. The database only contains expiration dates. There is no other information in the database.

This is live NOW.

We also plan on integrating it further into the program so that you will not have to copy and paste the registration number.

Blog Coming Soon!

9/29/08 Revision. Blog is here: <http://netscantools.blogspot.com>

We are planning on starting a blog soon to talk about using NetScanTools Pro and the Managed Switch Port Mapping Tool. We will talk about things like these power user tips and whatever else comes to mind. A special announcement message will be sent to those of you on the newsletter list.

Power User Tip for NetScanTools Pro – Using ARP Ping

This topic in our newsletter highlights a part of the program you may not be aware of. All tips refer to the latest version, currently 10.70.

The most popular search term bringing people to our website is ARP Ping. What does ARP Ping do?

You can access the tool by selecting **Tools/ARP Ping**. Once there, you can see that it has three options or modes. The first two are for sending an ARP Ping and the third is for searching for duplicate IP addresses. Let's concentrate on ARP Ping first and learn what ARP Ping does and does not do.

ARP request packets are fairly simple in construction. **In most Ethernet networks, ARP is used to obtain the MAC address of the target given the target IP address.** Our packets contain the required target IP address. The broadcast MAC address is placed in the target MAC field. The WinPcap Interface IP and MAC address are used in the packet to identify to the target device the sender of the packet. When the device with the IP address identified in the ARP request packet sees the request packet, it fills in the target interface MAC address and sends an ARP reply packet back to the sender. The target IP is a requirement because the receiver will not reply unless it sees its own IP address in the packet. **In our implementation, the act of sending and receiving a reply is known as an ARP Ping and the timing of the packets gives us the Response Time.**

What about the broadcast and unicast options? The broadcast option means all ARP request packets we send are to the broadcast MAC address. The unicast option means the first packet uses the broadcast MAC address and all subsequent packets use the discovered MAC address of the target.

Can you input a target MAC address with the IP address blank in order to find the target's IP address? No, because the ARP protocol does not work that way. If you were to send such a packet, it will not be responded to by any device because the IP address in the packet does not match the IP address of any receiving device.

Can you use this tool to get the MAC address of a device NOT on the same subnet as the computer running NetScanTools Pro? No, because none of the devices on the subnet will not recognize the target IP address and they will not respond. EXCEPT if the router that accepts packets destined for locations outside the subnet is set up to do proxy ARP. If so, it will see that the target IP is not within the subnet and respond to you with the MAC address of the router interface on your side of the subnet.

For more information on how ARP works, see RFC 826 in our RFC Reference library included with NetScanTools Pro.

How to use the ARP Ping tool to search for duplicate IP addresses. A variation on ARP is to use it to detect duplicate IP addresses by the method outlined in RFC 5227. To do this you first select **Search for Duplicate IP Addresses**, then you select the source IP address to place in the ARP request packet (0.0.0.0 is preferred in the RFC, but we also provide an option for placing the WinPcap Interface IP in there instead), then you enter the target IP address and press Send ARP. The target IP address is the one you want to find duplicates for. All devices using that IP address will respond to your request along with their MAC address and they will be shown in the results grid. We send only one ARP packet regardless of the Number to Send setting.

Laura Chappell Summit

We've worked with Laura for years. She is putting on a Network Analysis and Network Forensics conference in November. I hope you will be interested. If you register before October 1, there is a discount – see her website. NetScanTools Pro will be one of the tools talked about during the conference.

As Laura says "Bring your laptop with Wireshark loaded and prepare for two days of intense hands-on labs taught by Laura Chappell, Founder of Wireshark University and the Protocol Analysis Institute. Wireshark (Windows version) will also be provided on DVD at the conference – ensure your laptop has a DVD drive."

This summit focuses on Troubleshooting and Security (and Optimization)



<http://www.chappellsummit.com/>

Old News...

Current Release - NetScanTools Pro 10.70, August 21, 2008

We released version 10.70 on August 21. This release has some pretty significant changes to the Name Server Lookup tool. DiG was completely reformatted so that the text output now conforms to what is commonly seen with DiG version 9. We also added a new powerful tool called "DiG +trace". This is named to match the output seen by the command line "dig +trace" where you get a traceback to the root servers for a hostname or IPv4 address showing all the responsible Authoritative Servers at each level. Our **Power User Tip** below shows Dig +trace in action.

Here are the changes in 10.70.

- Added URL highlighting to text based results areas where appropriate. Links open your default web browser or mail utility.
- Databases are only opened when first needed. This will result in a slightly faster startup and lower memory usage.
- Email Validate: improved error/warning message reporting.
- OS Fingerprinting: Changes to support different responses Windows XP gives to ICMP packets depending on Windows Firewall ICMP settings.
- Connection Detection: fixed problem with removing all listening ports from list.

- Name Server Lookup: Added new tool DiG +trace. This tool shows NS records and other records (A, PTR, SOA) for a host or IP address starting at the root servers and back down again to the Authoritative Servers.
- Name Server Lookup: DiG significantly updated to match 9.x output format.
- Name Server Lookup: all tools except Simple Query now show the starting timestamp.
- Name Server Lookup: Command line equivalent now shown for NSLOOKUP queries.
- Name Server Lookup: Corrected problem establishing the Authoritative Servers used as part of the List Domain (AXFER) tool. Output now also shows all the Authoritative Servers.
- Name Server Lookup: Corrected the way "retries" functions. "0" now means one try.
- Name Server Lookup: Corrected problem accepting short IP addresses as name servers. ie. x.x.x.x where each x is a single digit.
- Added improved method for accessing locally stored Maintenance Plan parameters.
- Fixed several minor memory leaks in both the main program and SNMP Dictionary Attack.
- Updated all executables that use SQLite to match the new SQLite version.
- Updated SQLite to version 3.6.1.
- Updated database files.

Upgrading: If you need help upgrading to 10.70, please see the How to Upgrade section later in this newsletter.

Reminder for USB Version Users – How to Backup Your Software

Please make a full backup of your USB Version after you have registered it and applied the NST Pro 10 Registration Code message we sent back by email. If you have a backup of the contents of the drive, we can easily assist you in restoring it to another drive in case you lose the original drive. Remember that the Lexar Lightning drive we supply the USB version on is one of the fastest drives currently available. If you do have to restore it, we highly recommend that same drive series. Other types of USB drives that cost less are often much slower.

Backup your drive by copying all files and directories to another drive either on your computer or a portable backup drive. Saving the files to CDR is even better. Please do it today!

Revised NetScanTools Pro Demo

Our NetScanTools Pro demo was getting a bit out of date since it was based on the old 10.30 version. Many features and tools were either missing or not truly reflecting the current state of the full version. It used the old databases and was not compatible with Windows Vista. Since our website stats now show that approximately 14% of the visitors are using Vista, we felt it was time to revise the demo version. The new demo is based on 10.70 so if you know someone interested in the program, point them towards this demo.

If you have the full version, there is no need to use the demo version and we do not recommend installing it on a system that has a full version installed now. If you have an older version and you want to review the new demo, please install the demo on a different computer.

<http://www.netscantools.com/nstprodemorequest.html>

Maintenance Plan - NetScanTools Pro

You need to have an active maintenance plan to obtain the latest release. A FULL Install of the "installed version 10.70" (not a patch) is available on our secure site for download. Those who have the USB version are supplied with a patch for download from the secure site. You must have an active maintenance plan in order to login to the secure site. See the section **How to Upgrade NetScanTools Pro** below for help downloading the current release.

One year of maintenance (beginning at date of purchase) is included with a new or upgrade license. The primary benefit of the plan is the ability to download updates. We have released four updates in 2008. In 2007 we released 6 updates mostly targeted towards Windows Vista compatibility and we released 5 updates in 2006.

If you let your maintenance plan expire, the cost to renew the plan increases the longer you wait. We do give a 30 day grace period after your expiration date during which the renewal cost is \$75 per license. If you are unsure when your plan expires, please feel free to contact us by email or phone or using the new method outlined earlier in this newsletter before renewing (see end of newsletter for contact information). You can always continue using the program even after the maintenance plan expires, but you will not get any changes or updated databases.

NetScanTools Pro USB Version

The USB version operates the same as the installed version except you do not install it on the computer you are using it on. You run the NetScanTools Pro executable (as administrator) and everything is saved on the USB drive.

This method of using the program is invaluable to people who move from computer to computer during the course of their work. On site support technicians will find it very useful because the tools they use all the time can be used on the computer they are troubleshooting.

We supply the software on a Lexar Lighting 1GB drive. This is one of the fastest drives on the market and this was verified by our tests. It is not a U3 drive, but you can still run software from it. If you have other USB drive portable software such as WireShark, you can easily install it on the drive. We do not fill up the drive, but just in case you experience any problems, we ask that you make a full permanent backup of the drive after you register it. That way we can help you restore it very quickly if necessary.

Learn more about the NetScanTools Pro USB version here including "sidegrade" and "upgrade" pricing for current NetScanTools Pro licensees:

<http://www.netscantools.com/nstprousb.html>

How to upgrade NetScanTools Pro

We have heard from some customers that they do not know how to upgrade to the latest version or they paid for their maintenance plan and never received any upgrades. The ability to upgrade your software has *always* been right there within the software.

How to upgrade:

1. Prerequisites:
 - You must have the NetScanTools Pro v10.x installed.

- You must have a **valid active maintenance plan**.
 - The software must be registered AND you must have applied the "NST Pro 10 Registration Code" email message we sent back to you – if it is not registered, our secure site will not have any login credentials ready for you.
2. Start NetScanTools Pro and click on the Online group in the left panel. Then click on the Check for New Version icon. Once the web page appears in the right pane, you will see the Login link text. (**NEW Alternative:** Version 10.54 added a Check for New Version link to the Help menu)
 3. After clicking on the Login text, you will see a popup asking for a username and password. Those are found in the Login Access Credentials area as shown in the image on the next page. **The username and password ARE CASE SENSITIVE.** We recommend using copy and paste.

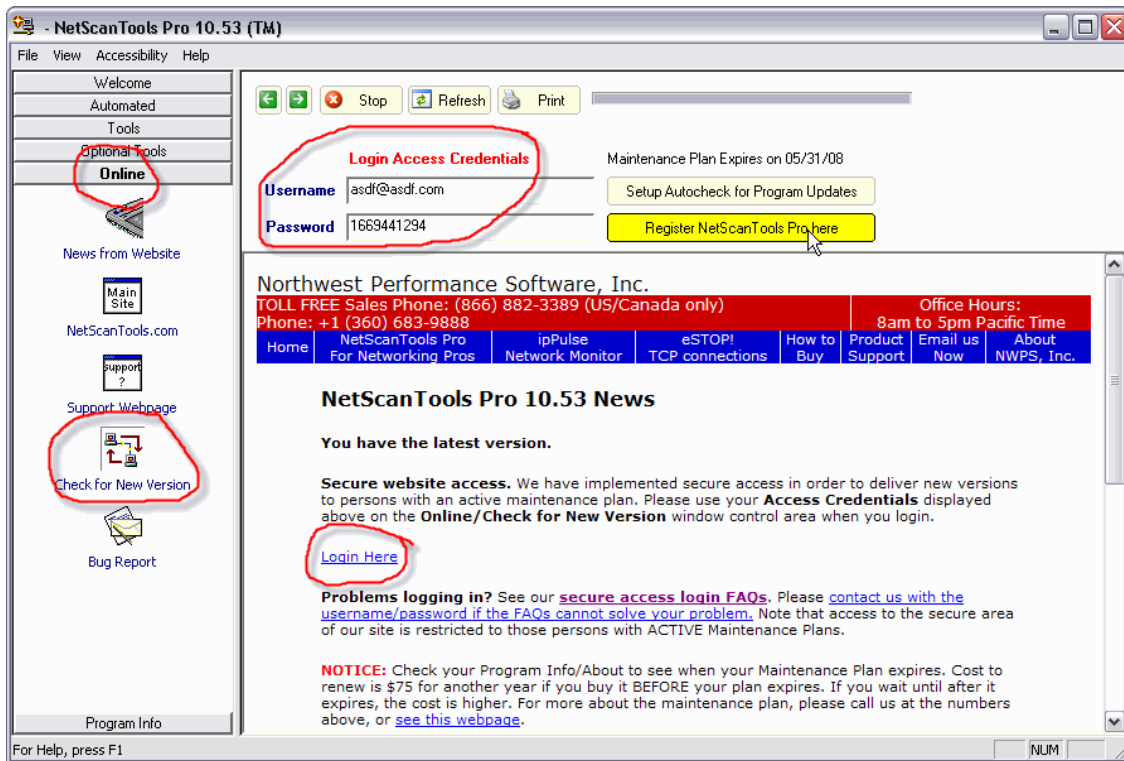
If your access credentials do not work please check for typos in your username or password (we recommend copy and paste). Your username is your email address that you gave when you registered and the password is the registration number.

It is also possible that your maintenance plan expired. Use the new online method to check your maintenance plan expiration date. Please contact us with the username and password you are using and we can check your access credentials. **You must have a valid maintenance plan to download an upgrade.**

Once you have logged in to the secure server, the **full download** is ready for installation by those of you with installed versions. You will need your CDKEY/serial number to run the installer – see the About NetScanTools Pro window to get it. Please install over the top of your current installation.

USB Version users can download an upgrade patch from the secure server. The latest version of the Managed Switch Port Mapping Tool is also available for download from this window and it is publically available elsewhere on our main site.

The image below shows where in the program you need to go to login to our secure site.



Contact Information

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

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