TCP/IP Surveyor Help Index

Version 1.2F (32-bit Edition)

Introduction
Requirements
Nuts & Bolts
Registration
Copyright Note

Introduction to TCP/IP Surveyor

What is TCP/IP Surveyor?
TCP/IP Surveyor was designed in order to allow users to have a graphical report about the status of their TCP/IP network using a drawn map of [a part of] the network or hosts from different networks.

Why should I use it?
Using TCP/IP Surveyor on a Windows TCP/IP machine gives you the opportunity to always know which host of your TCP/IP network is up and which users are logged in (using built-in Finger). You may also log yourself on any mapped host with external Telnet Windows program (not included). If your map of the network is close to the reality, that can be useful to diagnose network problems.
For instance, if a branch of hosts become suddenly unreachable, you may conclude that it may be a router failure or a DNS failure. If the router is on your map, you will see it failing in real time. If you are surveying a host upon its IP address rather by its name, the fact that the other hosts resolved by the same DNS are not reachable and this one is reachable tells you that the DNS works even if it's not on your map.

Brief Description
TCP/IP Surveyor may survey a number of as much as **50 hosts**. You may draw on the map more hosts (and you can even print the map!) but you must check for surveying a maximum of 50 hosts. This is because host checking is **completely asynchronous**. That means you have **a single timeout** for all hosts and you will NOT have to wait if a host is not responding (such as if you use John Junod's WS_WATCH).
Watch the following **scenario**: If you are surveying 30 hosts and 10 of them are down, using a timeout of 20 seconds means one complete check is 20 seconds in asynchronous unblocking mode and over 200 seconds in blocking mode. Remember: this program is asynchronous, but Junod's is a blocking one.
The caveat is that if we are sending asynchronous messages we use a socket for each host, and we have to limit the number of occupied sockets. More of that, we free the sockets after each check.
Usually, a check program will use ICMP ECHO (Ping) to determine if a host is reachable via TCP/IP. This program uses a different approach. It tries to connect to specified hosts via TCP in order to do a TCP ECHO. UNIX hosts usually accept this connection, while Windows TCP/IP hosts don't. However, if a host knows TCP/IP and is up, it will refuse the connection **gracefully** and we will know that:
1. the host is up and knows TCP/IP,
2. the host may be a non-Unix machine, suck as a Windows one.
Hosts reported as Unix-like by this software are: LINUX, HP-UX, UNIX SVR4, OSF/1, VMS, etc. (OS having something like the **inetd** service daemon).
Hosts reported as probably non-Unix are: DOS/Windows/Windows 95, ULTRIX, QNX.
Built-in Finger will work on Unix machines that have not disabled this service.

Limitation: IP Routers knowing only IP and not TCP will not respond to this program.

Requirements

This program works the best with **Microsoft Windows Sockets 1.1 built-in component of Windows 95 and Windows NT 3.51.** It should also work with future Windows NT 4.0.

However, this program is also reported to run under:
1. Trumpet(*) Winsock 2.0B / 2.1F over Windows 3.11 + Win32s 1.20
2. NetManage Chameleon 4.01 over Windows 3.11 + Win32s 1.20

All you have to do is to copy **wssrv32f.exe**, **wssrv32f.hlp** and **sample.net** files in a directory and make a link to it (*new shortcut* in Windows 95). Enjoy it!
NOTE: For the first time try using the sample net map provided with this package as **sample.net**.

(*)Caution: As stated in *Trumpet Winsock* **install.doc** file, '*some applications may crash when the traces are active.*' You must not try to start TCP/IP Surveyor with '*socket calls*' activated in Trumpet's '*trace*' menu, or it will crash during WSAStartup. After starting it, you may activate any traces you want, but that will slow execution. Traces were designed by Trumpet Software for debugging purposes, but *their* program stack seems to be too small.

Registration

Why register?

1. When you register you become a legal user. Supporting shareware is in your interest since that's the way to find quality software at low prices.

2. You will **NOT** be disturbed anymore with that nasty nag message box reading: *Unregistered Shareware!* every time you start the program and every 15 minutes.

3. A given Registration Code works and will work with **all versions and future versions** of this product, so you will always have **free upgrades.**

4. Registered users are guaranteed to receive replies to e-mail sent to me (if I receive it). Regular mail will also receive response, but only by e-mail. This is the only way I can supply technical support.

How to register?
First, you must agree that **a license is valid only for one person.**
You will receive a **registration code valid only with your name.**

Step 1.
Send me your **personal name** (no more than 63 characters, case sensitive), your **company's name** (or personal address) and your **e-mail address** (if available) via **e-mail** or **air mail.**
Contact addresses are:

e-mail:
> **radu@router_mini.felix.ro**
> **radu@helix.elia.pub.ro**
> **rfotescu@ice.felix.ro**

post:
> **Radu-Cristian FOTESCU**
> **Bd. Basarabia 92, bl. C1, sc. B, apt. 9**
> **sector 2, O.P. 49**
> **73406 Bucharest - Romania (Europe)**

(address written in the style used in Romania!)

Step 2.
If you sent me your data via **e-mail**, then wait no more than 5 days for my confirmation. **Warning:** My Internet provider has some technical problems and I may be unreachable sometimes. **It's better to sent to the first two addresses at one time.** In the case you receive a bounced mail stating I could not be found, you should know that the mailer will try again usually for 5 days, so it will eventually reach me. **If you receive no response from me within 5 days, you may wrote me via air mail.**
If you sent me your data via **air mail**, proceed with **step 3.**

Step 3.
You must send me **the Registration Fee**, which is exactly **25 U.S. dollars ($25.-)** per site.
Due of the fact that I live in Romania, you can NOT pay the fee by bank check or bank transfer, nor by credit card. You should use an **International Postal Money Order** payable to:
> **Radu-Cristian FOTESCU**
> **Bd. Basarabia 92, bl. C1, sc. B, apt. 9**
> **sector 2, O.P. 49**

73406 Bucharest - Romania (Europe)

You **may** also choose a fancy but safe way, such as sending cash into an envelope carried by *Federal Express* or *DHL* (by regular mail is risky). It's up to you.

Step 4.

When I will receive the money, I will send you via **e-mail** (if available) or **air mail** (if you don't have e-mail) your **registration code.**

You will have to enter **your name** and this **code** in the dialog shown by **Help | Register Now!** from the menu.

Warning! You must enter the name exactly as shown on the Registration message/form received, including spaces between names and case-sensitive. Registration code includes dots between numbers that must be entered!

Happy surveying ;-)

Nuts & Bolts

The Toolbar
You may use either the toolbar or the menu for doing most of the actions. Since the toolbar has **tooltips**, it's self-explanatory.

The Status Bar
Normally, the status bar shows you the timer status. E.g.:
Idle: 120 seconds to next polling or:
Polling: 18 seconds to timeout or:
FINGER in progress... Please wait.
You cannot close the program while polling.

The Host Settings Dialog
When you click on a host picture with the **right button** of the mouse **or**, if you selected **Host settings** from the toolbar or from the **Action** menu, with the left button, you'll see a dialog like this:

You may see and/or change the host data. First you'll have to enter host's name **or** IP address (only one) and check the checkbox if you want to survey it.
The possible host status messages are:
Not checked [yet].
OK. Reachable via TCP. [UNIX host].
OK. Reachable via TCP. [May be non-UNIX host].
Unreachable via TCP: global timeout.
Unreachable via TCP: unresolved address.
Unreachable via TCP: network problems.
Unreachable via TCP: check timeout.
The last two messages are not likely to be seen frequently and are resulting from IP layer-based messages. As far as program's global timeout is lower than your TCP/IP stack's one, you'll never see the last one.

Using the built-in FINGER
You can Finger a host using the **Finger** button in the Host Settings dialog. When finished, you'll see information about **logged users** on the specified host (if it knows finger protocol and it's not disabled) in a special dialog box (not shown here). Finger will reset the timer and polling will start soon after fingering.

Using external TELNET

You can log on to a host via the **Telnet** button in the Host Settings dialog. In order to succeed, you must have an external Windows Telnet program named **telnet.exe** into the path. **Windows 95/NT** has it **by default** within its TCP/IP package.

Color codes for hosts

Reachable hosts are **GREEN**, unreachable hosts are **RED** and unchecked hosts are **YELLOW.**
See the sample picture:
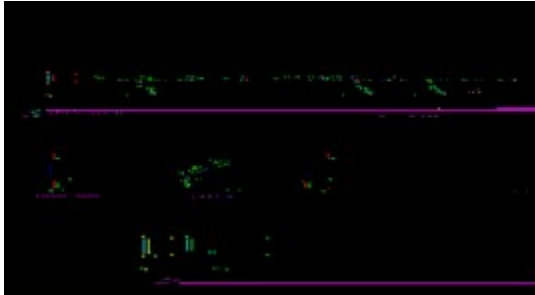
Changing survey options

From the **Actions** menu, choose **Survey Options.** You will see then a dialog where you can set the **period** (defaults to 300 seconds) of time between checks and the global timeout for a checking issue. The **timeout** (defaults to 30 seconds) applies for the entirety of the hosts, so if you have many hosts to survey, choose a larger timeout. The check is asynchronous, so a non-responding host will not delay the response of a reachable host.
Note: At starting time, the first check will start after 60 seconds whatever the options are.

Printing the map

This program can print the network map in black&white mode (use **Print Preview** first). Note that displayed names will not be printed, just the graphics will appear. For a large map we suggest you to set the paper orientation as **Landscape**, not Portrait.

"3D" warning

This program is intended to use with **Windows 95**. Therefore, 3D support is not included in this software and dialogs will not appear in 3d under Windows NT 3.51 (nor Win32s).

Copyright Note