



December 19, 2006

APPLICATIONS NOTE #113

Notes on TCPIP / SNMP setup

Part 1: Setup IP Address for 54500 & 5850

Before setup, make sure your computer is on the same network as the 54500 or 5850 timing systems with same subnet address.

Method 1:

Each information management card or timing product shall have its own MAC address.

(eg: 00-aa-00-62-c6-09)

This is found on the same sticker as the serial number, directly below it.

LAN connection is connected via RJ45 at the backplane of 54500 shelf or 5850 case.

The device default setting is DHCP enabled.

1. Make the sure the IP you want to assigned is not in use.
2. ping the IP
3. open a dos window.
4. enter `arp -s IP-YOU-WANT-TO-ASSIGN-TO-THE-DEVICE Mac-address`
(eg: arp -s 157.55.85.212 00-aa-62-c6-09)
5. Within a short time, telnet to the assigned IP as follow:
(eg: telnet 192.9.200.9.168 1 (telnet to port 1)
6. you will be refused by the message "Could not open connection to the host, on port 1: connect failed."
7. Then within few minutes, telnet to the IP in port 9999
(eg: telnet 192.9.200.9.168 999)
8. You will be able to change the IP and other setting to this device.

What this does is that the "arp" session (Address Resolution Protocol) will assign the IP to the Mac address, if you don't know what the IP grasped by DHCP is, you can telnet to the device port 9999 and make the change / assignment. Also in doing so, you can find out what the dynamic IP is by this device. Using the first selection "0" to View IP. If you do not change the IP during the process, the device will use the dynamic IP afterwards. The Static IP will change only after you have made the assignment.

9. **Once Complete:** Telnet to Port 10001. Then you can sign in to the IMU with the sign on and password. You are now done.

Method 2.

Install the "Device Installer" on the computer; this computer needs to be in the same sub-network as the timing system is in. Launch the Device Installer; Click the Search button, all existing timing systems will show in the window. The timing-system's current IP address (dynamic) and Hardware Address (MAC address) will show up on the screen.



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Installation of Device Installer

First, the Microsoft .NET Framework 1.1 must be installed. To do this copy the below URL to access the site. When the site comes up, it will have a selection on the upper right labeled DOWNLOAD. Select and let it download into your laptop. This may take awhile depending on media. Assume 60 minutes, the file is about 23 MB in size.

<http://www.microsoft.com/downloads/details.aspx?FamilyId=262D25E3-F589-4842-8157-034D1E7CF3A3&displaylang=en>

When the window asks if you want to install package, respond with yes. Also agree to the license agreement. Eventually you will get a window that install is complete.

Now, we can install the Device Installer. You can go to the link below:

<http://www.lantronix.com/support/download/index.html>

Go to the Micro product, also known as the CoBox Micro. Select if you want this downloaded via FTP or HTTP. This file will take about 5 minutes to download.

Open the zip file and open the setup.exe file. This executable file will install the Device Installer program, it should take about a minute. Once installed it will load onto your C drive and also create a start/programs menu shortcut.

Connect your computer to the same subnet as the unit you want to locate.

Once installed, it is pretty easy to work this little utility program, so here we go...

Go to Start/programs/Lantronix/DeviceInstaller/DeviceInstaller

Select Search. The program will seek out and find Lantronix devices on the subnet. Once found the IP and hardware addresses will be displayed.

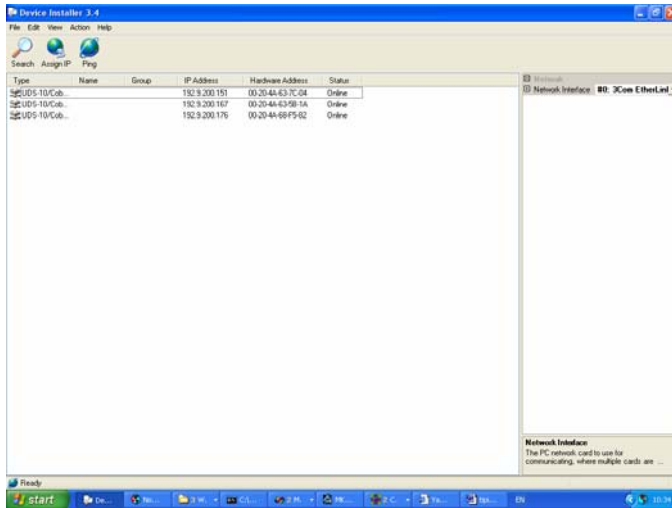
Additional steps for returning a device back to DHCP from static:

Select the unit of interest and additional options will appear on the menu, one selection will be Telnet. Select Telnet and the IP address will pop up and unless defaulted, enter port 9999. Press enter to begin the set-up mode. It should display numbers 0,1,2,4,8,9. Select 7 for factory defaults. This will return the unit you've selected back to DHCP, also known as dynamic.

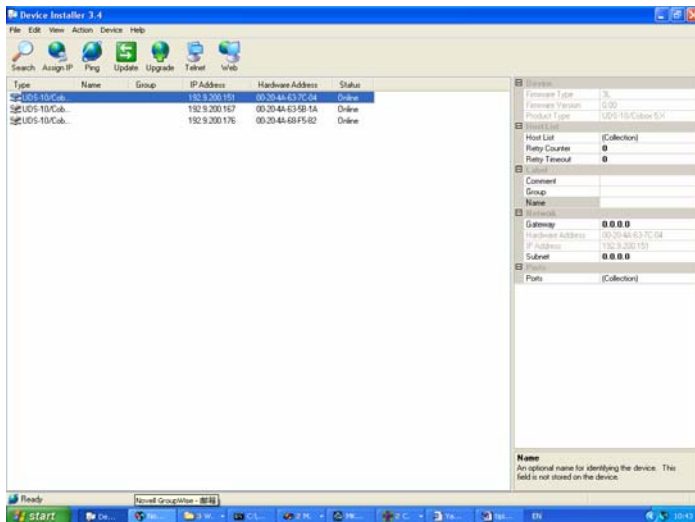


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Click the device (54500 / 5850 timing-system) that you are interested in. The right side window will display all the info regarding this device.

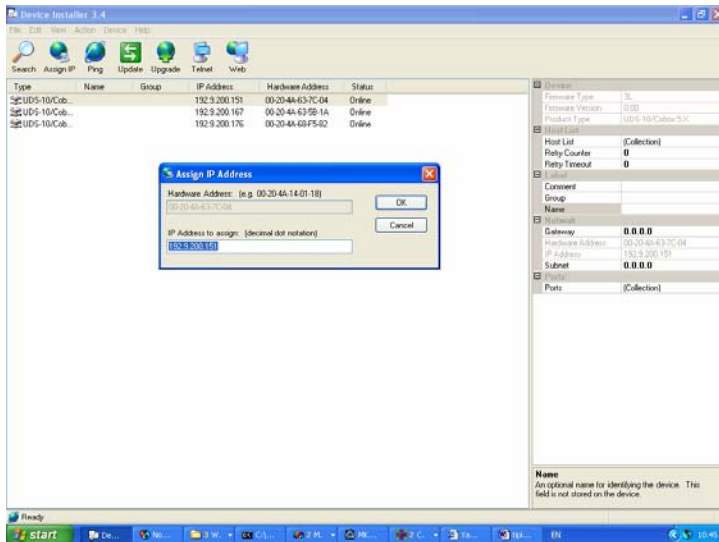




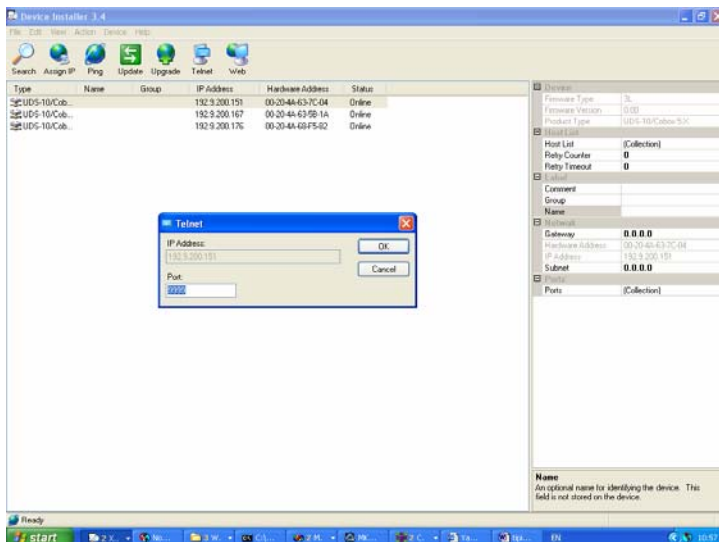
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A new IP address can be assigned by using the device installer; click the **Assign IP** icon, the IP assignment window will pop up, type in the new IP and click OK.



The device installer can also be used for telnet, upgrading software (the software is the TCP/IP server software, not the 54500 / 5850 software) and pinging the devices. The default telnet port is 9999, which is the port for device setup.





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Part II: Setup for SNMP

SNMP window is running for 54500 system. This does not apply to 5850.

The merged mib name is 54k.mib.

Put the mib in your management software (HP open-view or alike).

The current Message "window" is used for any message sent by the IMU to management. The info in this window will not be retained, new incoming messages will put up this message outside of this window.

The window actually is in 15 lines leafs. You can click each line to display its contents.

The screenshot displays the Compaq MIB Browser interface with several windows open:

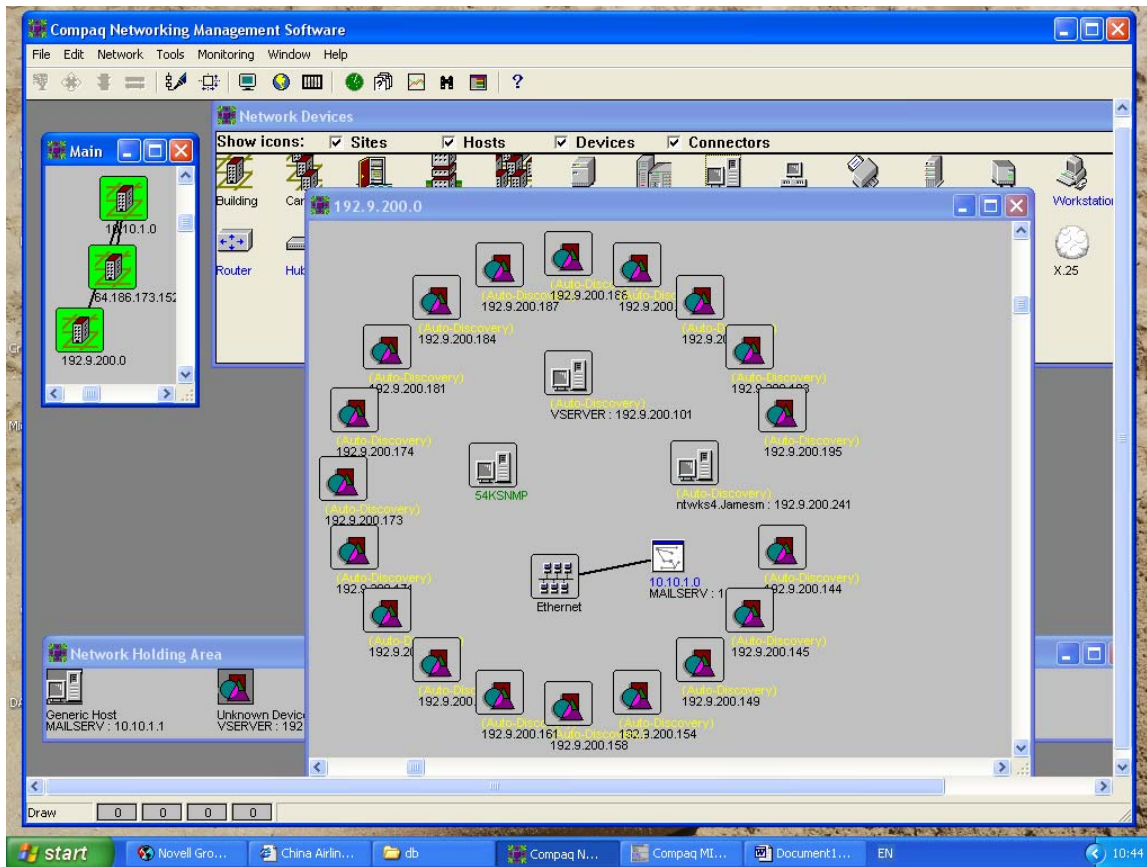
- Browsing Merged-MIB for 54kSNMPTest:** A tree view showing MIB objects like ColdStart, UpdateGPSSStatus, SendGPSCommand, EQPTQuery, LINKQuery, RtrvLINKAttr, RtrvLINKAlarmAll, RtrvLINKCond, SCHEDPMRept, RTRVPMLink, RtrvPMLinkAll, and CurrentMsg. Below the tree, there are status indicators for LogIn (DENY), RtrvPMLinkAll (COMPLD), and UpdateGPSSStatus (Set Complete old value = NO_VALUE new value = GPSS2, Set Failed value = NO_VALUE error = Timeout, NO_VALUE).
- CurrentMsg for 54kSNMPTest, 6s:** A window showing a list of 15 lines of SNMP data for the 'Ln for 54kSNMPTest'. The data includes various parameters like MONTO, PLNK, SLNK, SESSN, Input, SBITS, TIMD, EFER, SIGQ, UTCT, AZEL, and TRMO. The window is updated on Thu Feb 26 at 11:23:57 AM.
- GPSTwoStatus for 54kSNMPTest, 6s:** A window showing a table of GPS2 parameters: ESSN, BITS, TIMD, EFER, SIGQ, UTCT, AZEL, and TRMO. It is also updated on Thu Feb 26 at 11:23:57 AM.
- Untitled for 54kSNMPTest, 3s:** A window containing a line graph titled 'ipInDelivers vs. Time for 54kSNMPTest'. The graph shows a fluctuating signal over time from 11:20 to 11:24.



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SNMP Interface:





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