

(NC120/220)User's Guide Fast Ethernet Version

One PC+(NC120/220) solution=30happy users

Safety Instructions

The following instructions pertain to the risk of fire, electric shock or bodily injury. Please read all of these instructions carefully.

1. Save these instructions for later use.
2. Follow all of the instructions and warnings marked on this product or included in this manual.
3. Do not use this system on an unstable cart, stand or table. The product may fall, causing serious damage to the product.
4. Slots and openings in the cabinet and the back have been provided for ventilation. To ensure reliable operation of your computer, and to protect it from overheating, do not block or cover these openings. Don't use this product on a bed, sofa, rug or other similar surface. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
5. Never push objects of any kind into the system through the cabinet openings. Objects may touch dangerous voltage points or short out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
6. This computer should only be connected to the adapter included with your system. If you want to use other adapter, consult your dealer.
7. Do not allow anything to rest on the power cord. Do not place this product where people can walk or trip on the cord.
8. Unplug your system from the main electrical power outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
9. Do not use this system near water.
10. To avoid generating an electric shock, be sure to plug the power cord into the system before plugging it into the wall socket.
11. For protection of your system and other devices during a lightning storm, or when it is left unattended and unused for long periods of time, unplug the computer and other devices from the wall outlet and disconnect the cable from system. This will prevent damage to the system and other devices due to lightning and power line surges.

Maintenance

If the product does not operate normally, adjust only those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage and may require extensive repair.

Unplug this product from the main power outlet and call for service under any of the following conditions :

- If the power cord or plug is damage or frayed .
- If the product has been exposed to rain, or water, or other liquids.
- If the product has been dropped or the case has been damaged.
- If the product exhibits a distinct change in performance indicating a need for service.

Notice

How to register your S/W Serial Number(s) and S/W Activation Key(s)

You will be required to register the S/W Serial Number(s) and S/W Activation Key(s) for your NC120/220 unit(s) either via the Internet or through out offline methods mentioned during setup.

If you eventually need to change the Host PC (or the hard drive within the original Host PC) after you have completed the registration process, the registered S/W

Serial Number(s) and S/W Activation Key(s) should be unregistered prior to the change.

You will only be able to register the S/W Serial Number(s) and S/W Activation Key(s) 3 times if the S/W Serial Number(s) and S/W Activation Key(s) were not unregistered from the original Host PC.

(For more details, please refer to 2–30 "NCS–2000–XP Internet Registration" in The manual)

- For the NC120/220 to operate properly, please make sure to check for software updates frequently.
For more details about the software updates, please refer to the manual.
(There is a possibility that a patch from Microsoft can interfere with our product. If a patch causes problems with our software, we should have an update within a few days of the patch release)
- (We are not responsible for any incorrect information regarding the Internet



▶ Registration process may vary depending on your model.

How to Use (NC120/220)

For more information about installation and settings, see contents of the user's guide.

- 1 Install NC120/220. (Connect the peripheral devices to the NC120/220 terminal)
- 2 Install the software on the Host PC.
- 3 Setup the network configuration of the Host PC. (If you are using the Internet)
- 4 Press the NC120/220 power button and set the configuration of the NC120/220.
- 5 You are now ready to start using your NC120/220 terminal.



▶ To connect the NC120/220 terminal directly to a Host PC, use a crossover LAN cable or Direct LAN cable using the crossover adapter.

If you don't use a switch hub or router to connect the NC120/220, terminal, an additional LAN adapter is required and you must use a crossover LAN cable or a Direct LAN cable attached to the crossover adapter.

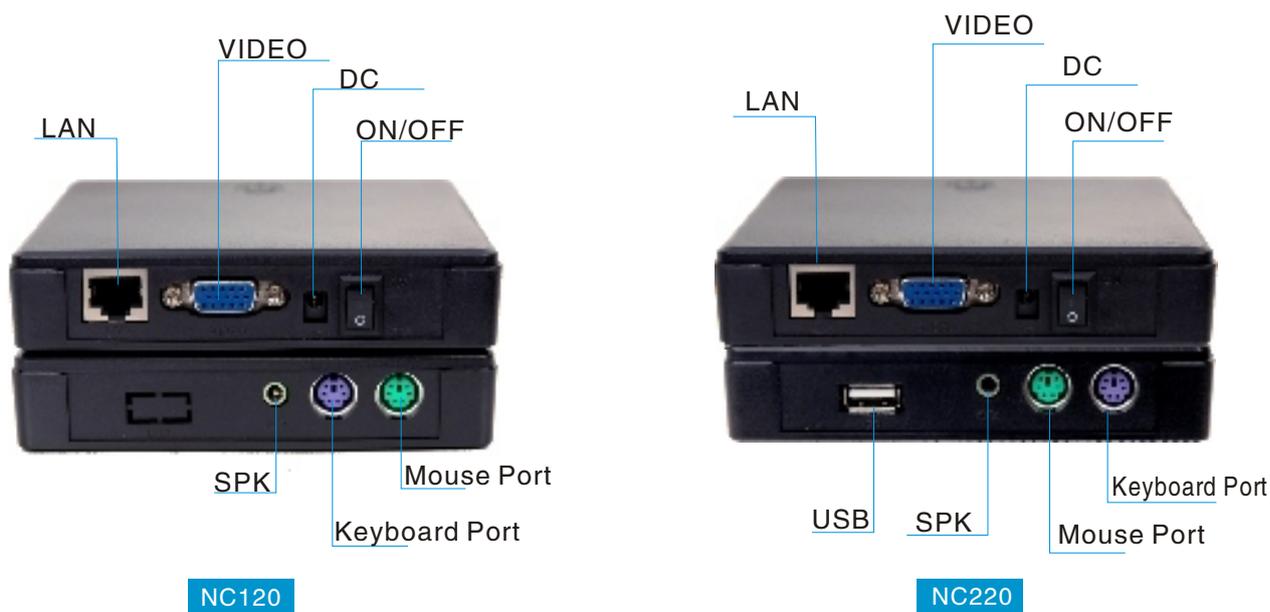
In order to access the internet through the NC120/220 terminal, you will need to go to the "Network Setup Wizard". Click "Start" ,

click "Control Panel" , double click the "Network Connections" icon, and then click "Set up a home or small office network".

Unpacking the Box

- Remove all the items from the box and make sure that the box includes the following items.

(NC120/220) System



- ▶ Depending on the model, your NC120/220' s components may look slightly different as those pictured.

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Chapter1

System Introductions

- **Introductions**
- **Overview**
- **Connecting (NC120/220) with Host PC**



Introductions

What is (NC120/220)

NC120/220 is an unique networking device using WoIP(Windows over IP) based on networking standards. You can share the resources of the Host PC system by connecting NC120/220 terminal(s) to it, thus giving you the benefit of having several networked PCs. You can connect one or more NC120/220 terminals to one Host PC directly using a LAN adapter and cable or via network using a hub/router.

Features

- Convenient Installation.
- Using the NC120/220 terminal replaces a traditional desktop PC at 1/5 the cost.
- You can connect the NC120/220 terminal to a Host PC in a local or remote area via network (TCP/IP) in order to access all resources of that Host PC.
- You can connect one or more NC120/220 terminals to a single Host PC.
- No maintenance required for NC120/220, only Host PC.



► Depending on the performance of the Host PC, an application's compatibility and operating speed can vary. Refer to our web site for more information.

(NC120/220) Conceptual Diagram



Host PC

Operates as a Host PC or terminal server.
 Windows 2000 Professional or
 Windows XP Home Edition/Professional or
 Windows 2000 Server or
 Windows Server 2003 (Standard Edition/Enterprise Edition)

System Requirements

- To connect one NC120/220 terminal to a single Host PC, the following system requirement is needed of the Host PC :

Intel® Pentium® 4 1.3 GHz processor with at least 256 MB RAM or higher.

- To connect two to three NC120/220 terminal(s) to a single Host PC, the following system requirement is needed of the Host PC :

Intel® Pentium® 4 2.4 GHz processor with Hyper – Threading technology with at least 512 MB RAM or higher.

- To connect four to seven NC120/220 terminal(s) to a single Host PC, the following system requirement is needed of the Host PC :

Intel® Pentium® 4 3.0 GHz processor with Hyper – Threading technology with at least 1024 MB RAM or higher.

- To connect eight to ten NC120/220 terminal(s) to a single Host PC, the following system requirement is needed of the Host PC :

Intel® Pentium® 4 3.2 Ghz processor with Hyper – Threading technology



▶ Do not use a notebook PC as a Host PC. Using notebook PC causes power management or memory problem, as it is using the battery and different technology with desktop PC.

▶ We recommend the 60GB and 7200rpm or higher hard disk drive.

OS (Operating System) and To connect to maximum NC120/220 terminal(s)

- Windows® XP Home Edition : 10 units
- Windows® XP Professional : 10 units
- Windows® 2000 Professional : 10 units
- Windows® 2000 Server : 30 units
- Windows® Server 2003 (Standard Edition / Enterprise Edition) : 30 units

Overview

Front



NC120

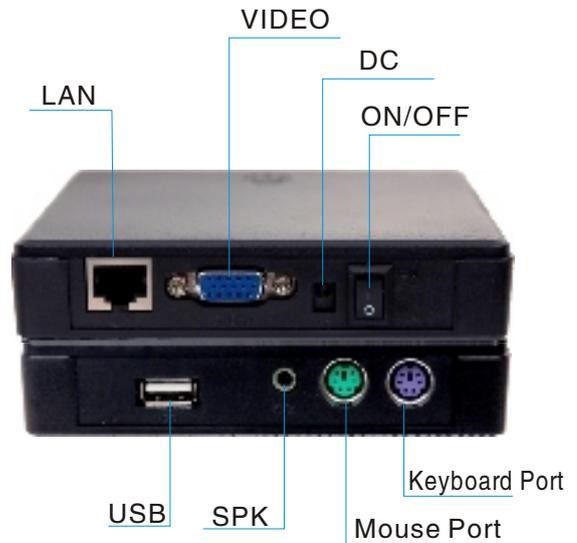


NC220

Rear



NC120



NC220

Connecting (NC120/220) with Host PC

■ Net Computer Lay-outs

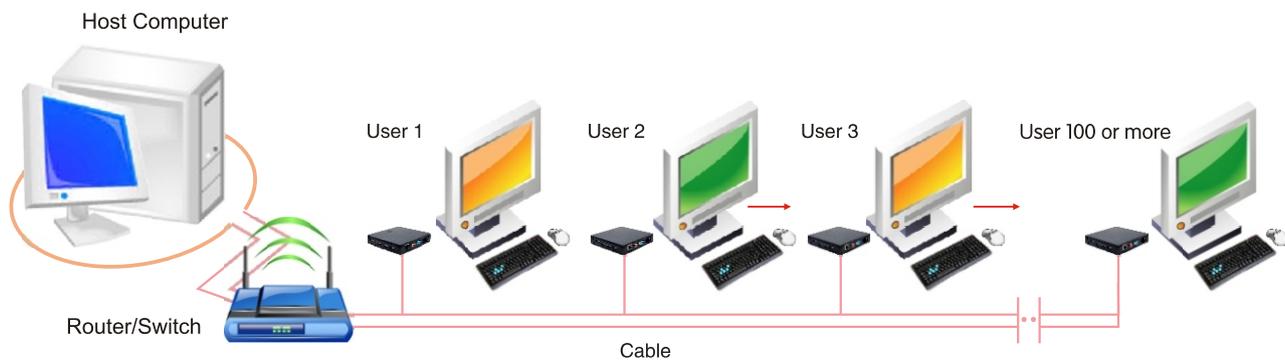


■ Direct Connecting



■ Connecting via Network Hub or Router

Schematic diagram



Chapter 2

Software Installation and Operation

- **Installing the Software**
- **Setting up Network Configurations**
- **System Settings**
- **(NC120/220) Console Management**

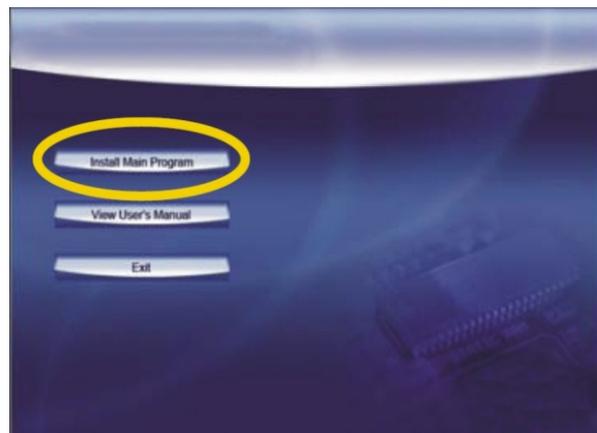


Installing the Software

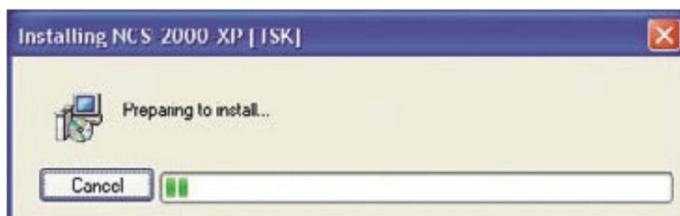
Before you install the software, please check the connection of the NC120/220 terminal with the Host PC. Refer to the following steps :

Installing NCS-2000-XP

- 1 Turn on the Host PC and insert the Software Installation CD into the CD drive after your computer boots up.
- 2 The installation program will start automatically. When the installation screen appears, click “Install Main Program” .



- 3 When starting the installation of our software, the “Preparing to install...” message appears as shown on the left. This means that the program is checking the server has the latest version. Message similar to the one shown in the middle will appear if your internet is not connected. If you have internet connectivity and Windows XP Service pack 2 is installed, a message similar to the one shown on the right will appear. Click the “Ask Me Later” .

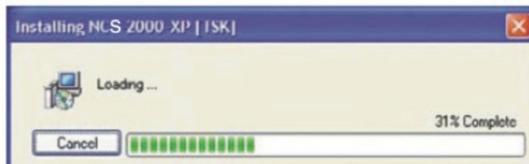
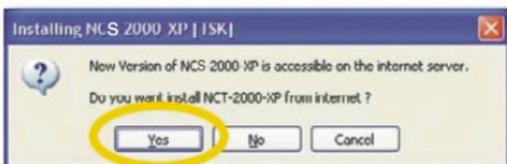


If the server has the latest version, You will be asked if you want to install the latest version as shown on the left.

4

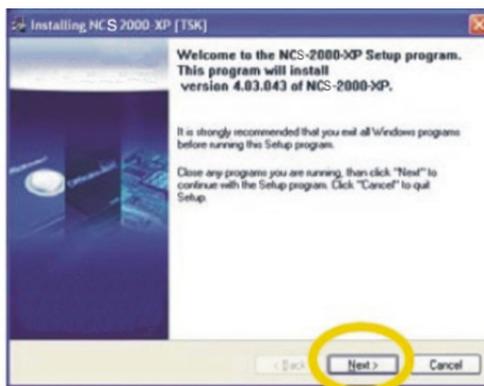
Click “Yes” if you want to install, or click “No” if you want to install the version on the CD.

The new version will be downloaded as shown on the right when installing. (It is recommended to select “Yes” to install the latest version. Download may take some time depending on the internet speed)



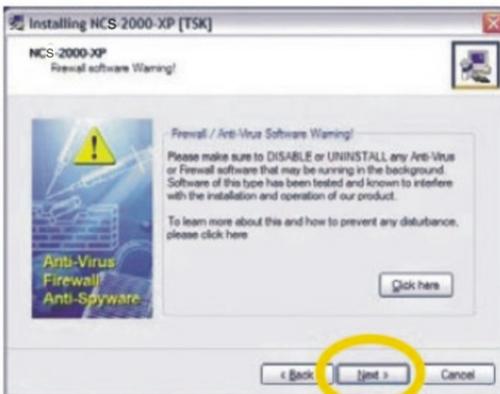
5

The installation program will start automatically. When the installation wizard screen appears, click “Next” .



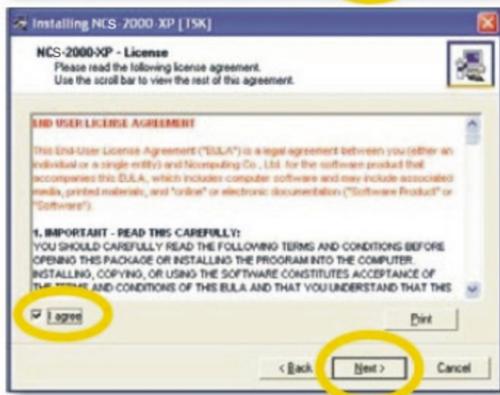
6

Please make sure to **DISABLE** or **UNINSTALL** any Anti-Virus or Firewall software that may be running in the background. Securit software of this type has been tested and known to interfere with the installation and operation of our product. Click “Next” .



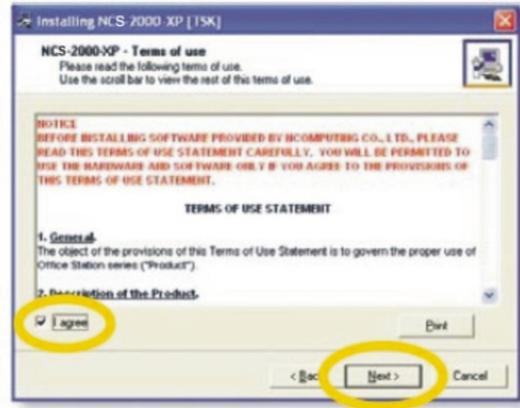
7

Once the license agreement window appears, check "I agree" and click "Next". If you do not agree with the license agreement, click "Cancel" to finish the process. If you want to print in out, please click the “Print” .



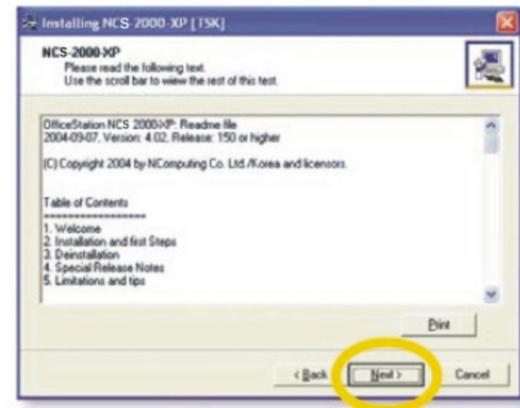
8

When the NCS-2000-XP-Terms of use window appears, check "I agree" and click "Next". If you do not want to agree to the license, click "Cancel" to finish the process. If you want to print in out, please click the "Print".



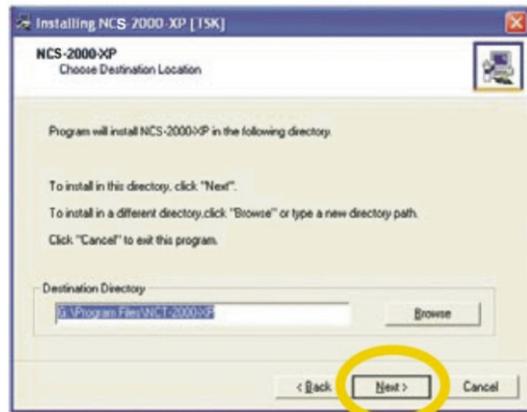
9

Read the contents of the readme file and click "Next". If you want to print in out, please click the "Print".



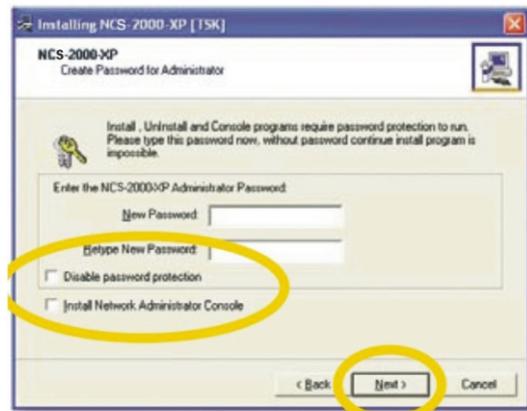
10

Select the installation default folder and click "Next". The "Program Files" is the default installation folder.



11

If the screen same as the one shown on the right appears, select the item that you want to install after confirming the following reference and click t "Next".



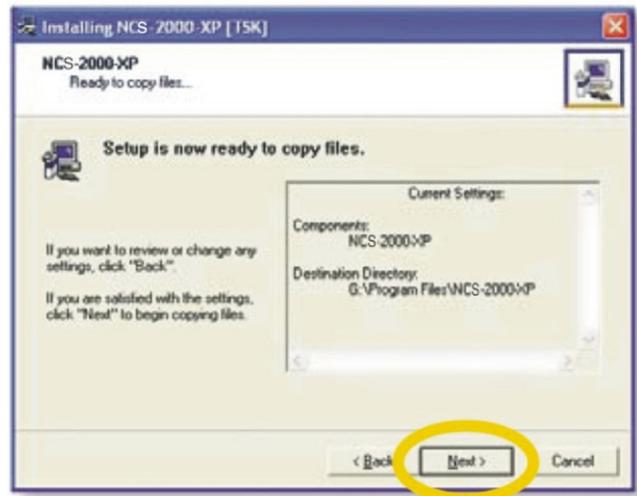


Administrator Password : If you logon by using this password, you can control the Network Administrator Console.

You should remember the "Administrator Password". If not, you can't execute the program add/delete and management setting.

Network Control Console : A manager's program to manage local user groups, which can manage computers and NC120/220 connected when many computers are used. When this item is selected and installed, it can be confirmed that "Software Settings (LAN)" item is installed in NCS-2000-XP console after installation of NCS-2000-XP.

12 Click "Next".

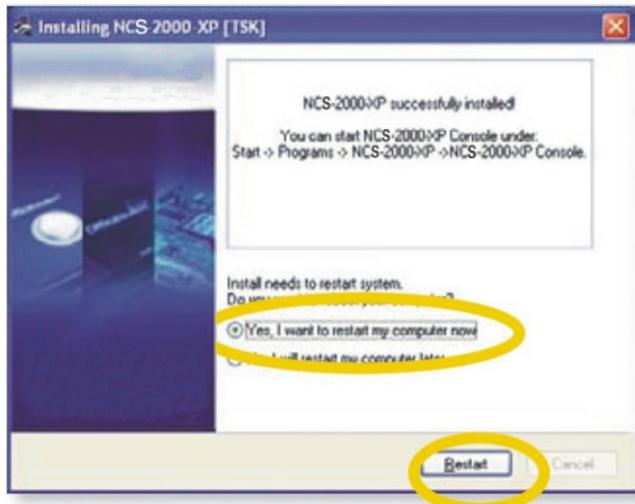


13 After collecting of Help Information, program files will be copied to the hard disk drive.



14

When the program installation is completed, the message screen for user adding will be appeared.(Refer to the screen) Formore details, please refer to "Create a new account" of operating system. When the user adding is completed you will beasked to restart the system(Refer to the below screen). After checking "Yes, I want to restart my computer now" and click "Restart" to reboot your computer.



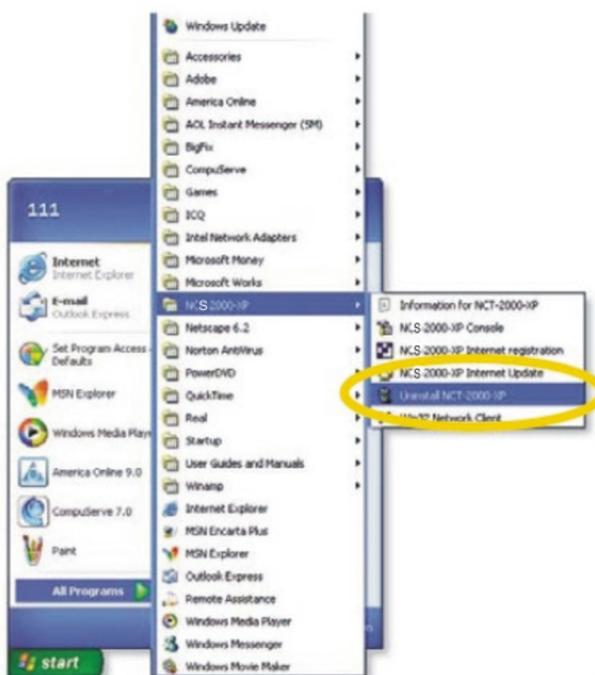
Uninstalling Software

To uninstall the software, follow these steps :

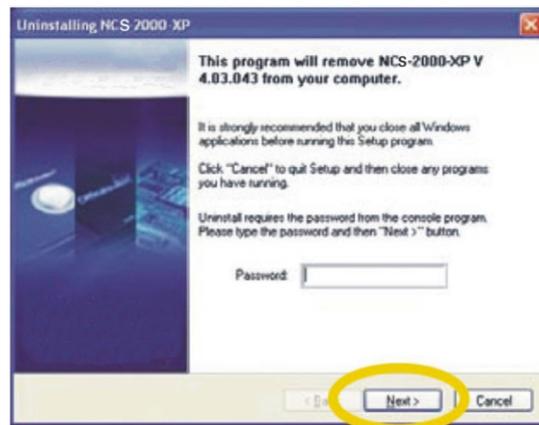
1

Click "Start", click "All Programs", click "NCS-2000-XP", and then click "Uninstall NCS-2000-XP" .

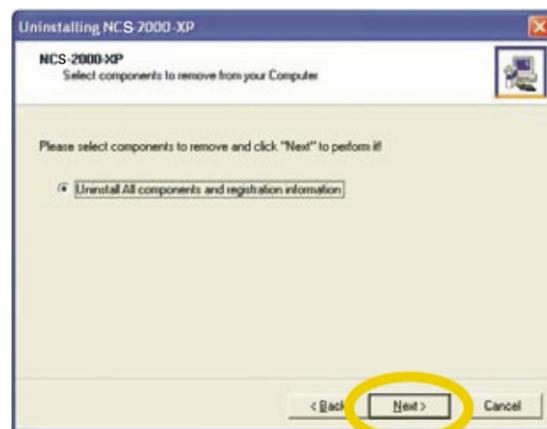
(For cancellation of S/W serial key registration please refer to "NCS-2000-XP internet registration" on section 2-32 in user's guide)



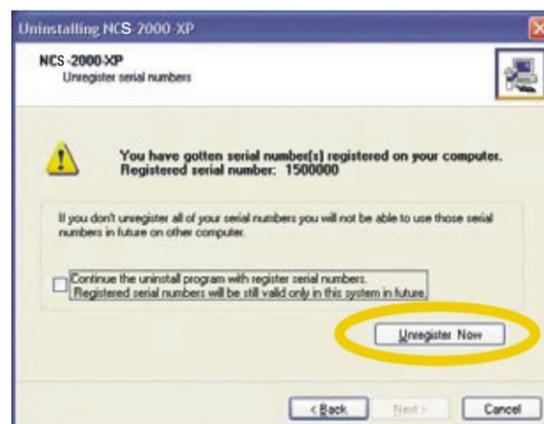
2 When NCS-2000-XP remove wizard window appears, click "Next". (If you set the Administrator Password, type the password and click "Next")



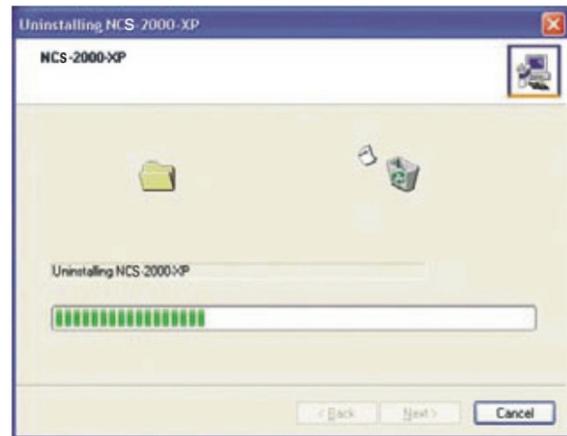
3 Click "Next" .



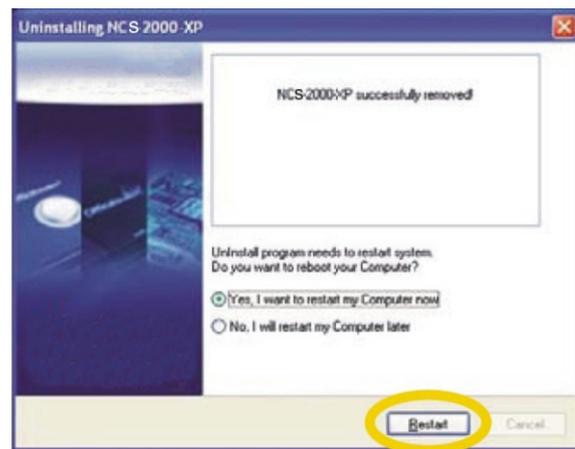
4 Instruction message similar to the one shown in the figure appears if a serial number is registered. If a serial number is to be unregistered, click "unregister now" .Refer to "NCS-2000-XP Internet Registration" when unregistering. If you want to delete instead of unregister serial number, click item that says "Continue the uninstall program with register serial numbers. Registered serial numbers will be still valid only in this system in future" . When this item is selected and the serial number is deleted,you can install NCS-2000-XP next time without inputting serial number. However, you should be careful since this information disappears when hard disk is formatted.



5 | NCS-2000-XP is being deleted.



6 | After the programs have been removed from your computer, check “Yes,I want to restart my Computer now” and click "Restart" to reboot your computer.



Setting up Network Configurations

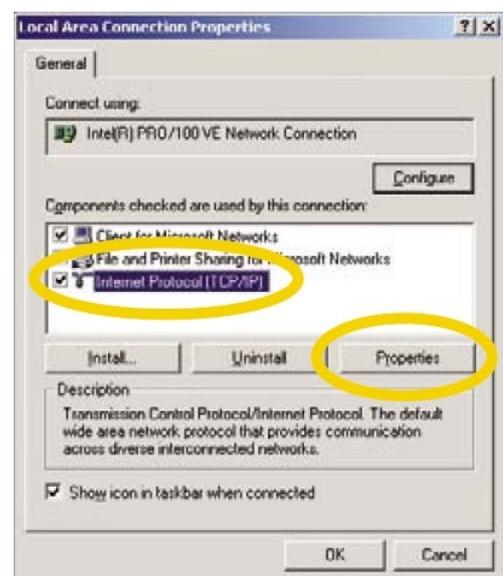
- If your computer is using Windows® 2000 or XP or 2000 Server or Server 2003 and has a network adapter, you have to configure the network to connect with any NC120/220 terminal(s). To configure your computer's network configurations, please refer to the following :

Connecting to the Network by Using a Cable/DSL Router (Support 100 Mbit Switching and DHCP Function)

- If you use a Cable/DSL router, you can use dynamic IP addresses. (To use dynamic IP addresses, the router must support DHCP or a dynamic IP address allocation function) If you want to use static IP addresses when using a Cable/DSL router, refer to "Connecting by Using a switch" .
- 1 Click "Start" and click "Control Panel". (In Windows® 2000, click "Start", click "Settings" , and then click "Control Panel")
 - 2 Click " Network and Internet Connections" , and then click " Network Connections" . (In Windows® 2000, double click " Network and Dial-up Connections")
 - 3 Right click on the LAN adapter icon and select "Properties" . (In Windows® 2000, right click on the LAN adapter icon and select "Properties")
 - 4 Click " Internet Protocol (TCP/IP)" and click the " Properties" . (In Windows® 2000, click "Internet Protocol (TCP/IP)" and click the "Properties")

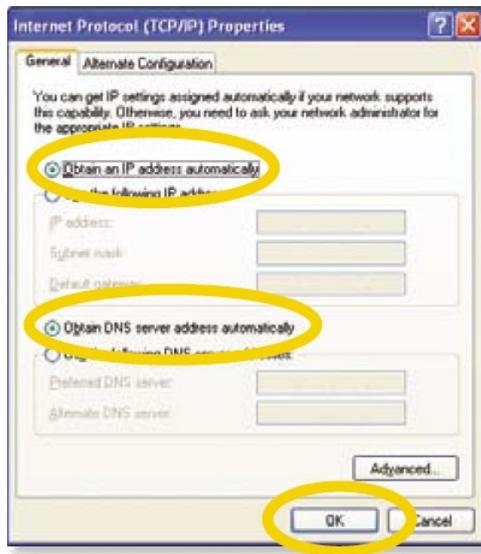


<Windows® XP>

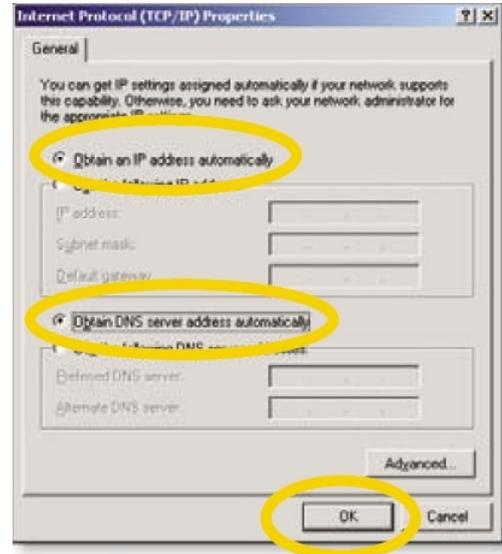


<Windows® 2000>

- 5 Check "Obtain an IP address automatically" and "Obtain DNS server address automatically," and then click "OK" .

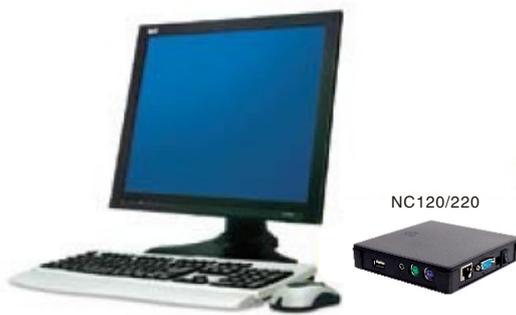


<Windows® XP>



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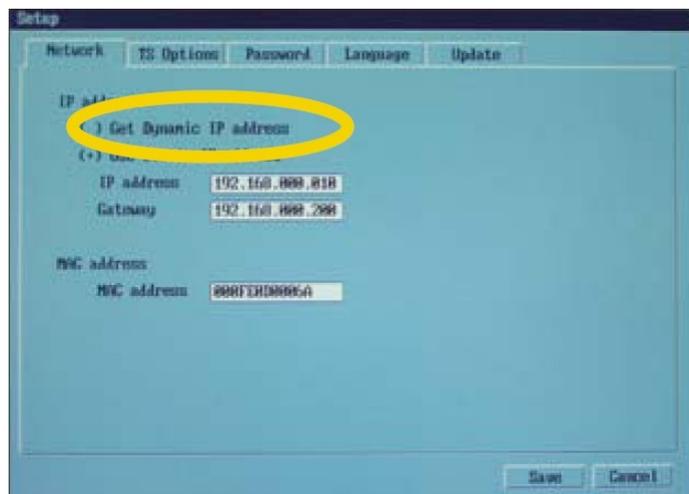
- 6 Turn on the NC120/220 terminal for configuration settings. Click the "Setup" .



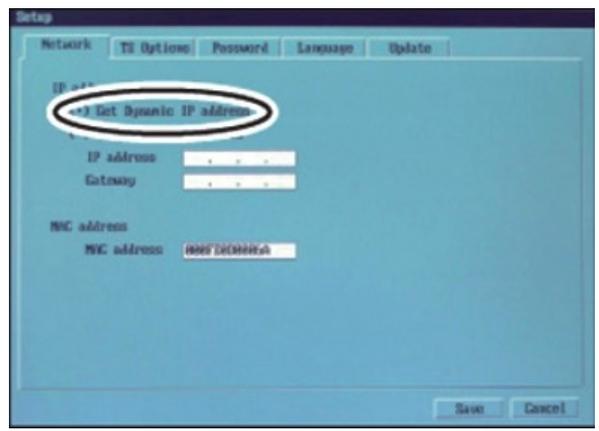
<Press the power button of NC120/220>



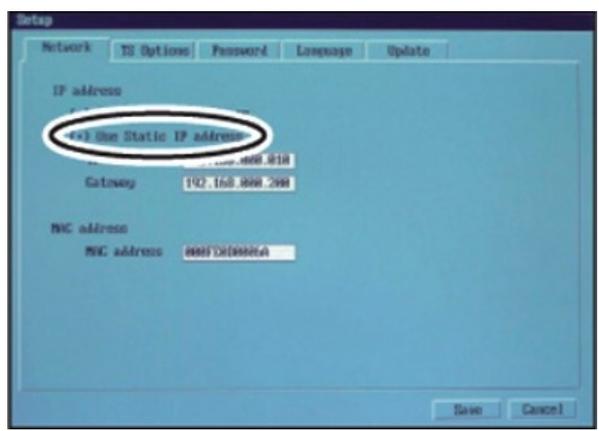
- 7 Viewing the monitor connected to the NC120/220 terminal, the Setup window will appear. In the "Network" tab, check "GetDynamic IP address" .



8 In the "TS Options" tab, "Autodetect" would be activated as the default setting for automatic connection to the Host PC. If it is not connected properly, or if you want to run the "Fail-over" function, click the "Enable / Disable" after selecting. TS 2(or TS 3)and inputting the IP address.



Or



You have to know the allocated IP address that the Host PC received automatically. You can see the IP address of the Host PC as follows :

1 Click "Start" on the Host PC. Click "Run" .

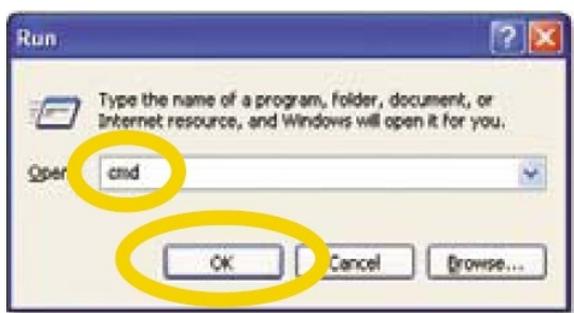


<Windows® XP>

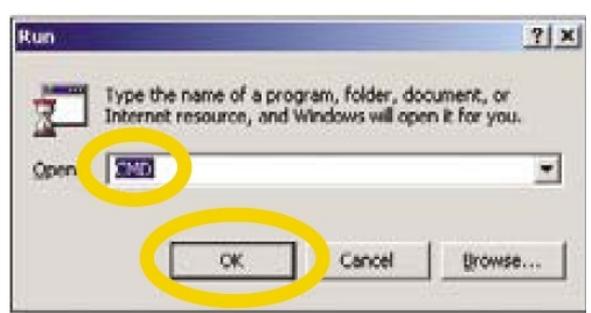


<Windows® 2000>

2 Type "cmd" in the input box. The DOS prompt window will Appear .



<Windows® XP>



<Windows® 2000>

- 3 Type "ipconfig" in the DOS command line and press Enter. IP address, Subnet mask, and Gateway that was allocated to the Host PC will be displayed on the screen.



- 4 Input the displayed IP address into Terminal Server network address.

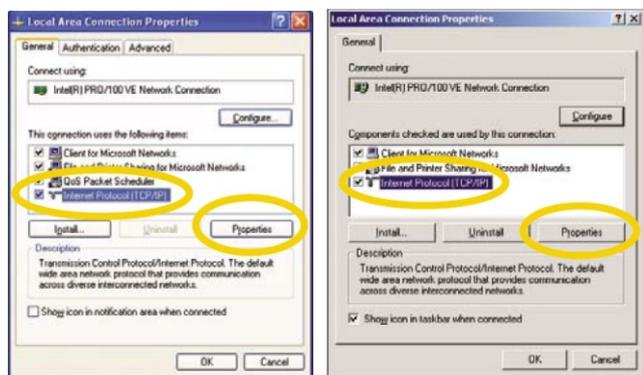
9 If you finished the setting, click "Save". Click "Connect". (or Try Again)

10 Your NC120/220 terminal should be connected to the Host PC. You are now ready to use your NC120/220 terminal.

Connecting by Using a Switch (Supports 100 Mbit/sec Switching)

- To connect by using a switch, you have to set a static IP address on both the OfficeStation terminal and the Host PC. To configure an IP address as static, follow these steps :

- 1 Click "Start" and click "Control Panel". (In Windows 2000, click "Start", click "Settings", and then click "Control Panel")
- 2 Click "Network and Internet Connections", and then click "Network Connections". (In Windows 2000, double click "Network and Dial-up Connections")
- 3 Right click on the LAN adapter icon and select "Properties". (In Windows 2000, right click on the LAN adapter icon and select "Properties")
- 4 Click "Internet Protocol (TCP/IP)" and click the "Properties". (In Windows 2000, click "Internet Protocol (TCP/IP)" and click the "Properties")



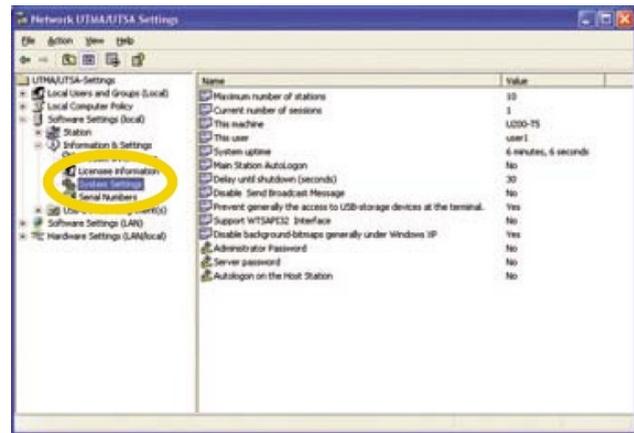
(Windows® XP)

(Windows® 2000)

System Settings

■ Shows the general system information.

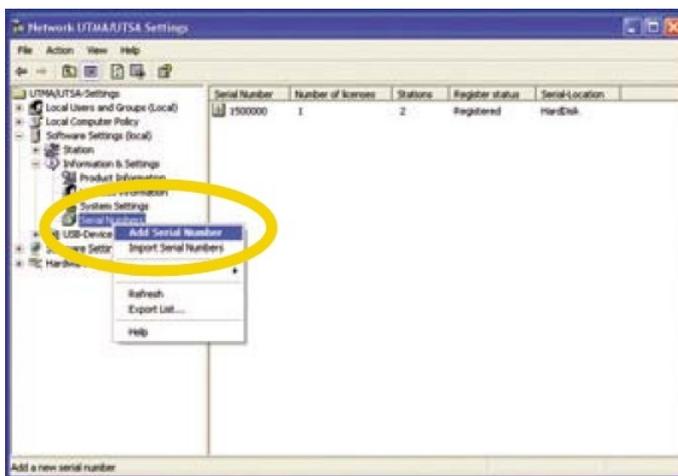
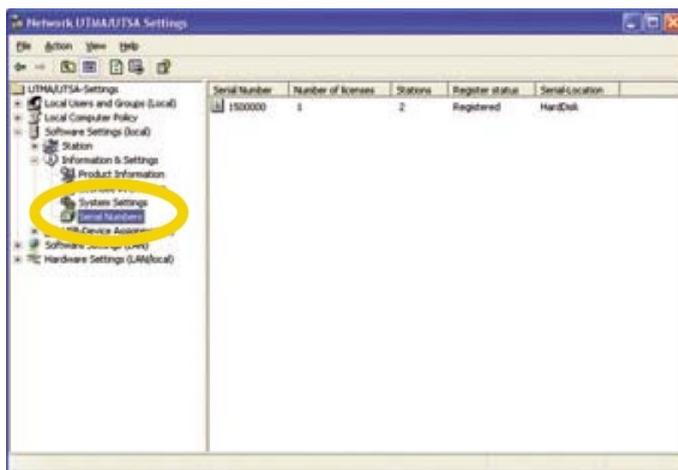
- 1 **Maximum number of stations :** Shows the maximum number of stations that can be connected to a Host PC .
- 2 **Current number of stations :** The number of stations which are currently logged on to the Host PC .
- 3 **This machine :** Name of the Host PC .
System Settings
- 4 **This user :** Name of the user .
- 5 **System uptime :** Runtime of the OfficeStation terminal since the computer was started.
- 6 **Main station Auto Logon :** You can switch on or off the auto logon when the main station has no password .
- 7 **Delay until shutdown (seconds).**
- 8 **Disable Send Broadcast Message :** Yes/No .
- 9 **Support WTSAPI32 Interface :** Select setting status “Yes” to execute program using Windows RDP function .
- 10 **Disable background-bitmaps generally under Windows XP :** Yes / No
- 11 **Administrator password :** Can change password for NCT-2000-XP Console . Please be careful about password management . We will not be responsible for lost password .
- 12 **Server password :** Can set server password .
- 13 **Auto Logon on the Host Station :** Automatic logon can be set so that user does not have to input account and password every time system is booted . Account and password are input when setting Auto Logon and Logon screen will not appear when system is booted after Auto logon is set .



Serial Numbers

- Depending on the product, either user has to input the serial number or the serial number is automatically input (for the product with serial number included) when installing the software. In order to input manually, click right mouse in the right side of the screen.

- ➊ **Add Serial Number** : You can add the serial number when a window appears.
- ➋ **Import Serial Numbers** : You can save the text type serial number to a group. The Administrator does not need to input every serial number.



(NC120/220) Console Management

- Thank you for buying the Ncomputing NC120/220 terminal(s). This User' s guide tells you how to use and configure the NC120/220 terminal(s).
- This program user's guide follows the basic process that you will use to setup and use the administrator console and improve the security of your shared Host PC environment.



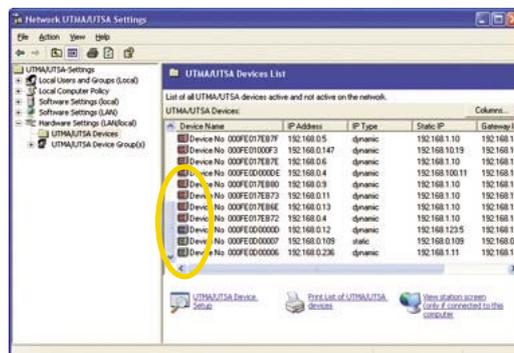
▶ This user' s guide provides instructions of NC120/220. connection function and management. Its is recommended to read this user' s guide carefully before using this new program.

Hardware setting(LAN/Local) start menu

- Settings for NC120/220 connected to the network can be changed from the administration console.(“ UTMA/UTSA Device” shows information of the NC120/220 connected to the Network) Select the NC120/220 whose settings are to be changed and click “UTMA/UTSA Device Setup” to change the setting. (“UTMA/UTSA Device Group(s)” can assign several NC120/220 into a group to manage)

1 Click “Hardware settings(LAN/Local)” in the NCS–2000–XP Console menu.

- Connected with Host PC in Local Network. (Green Color Icon)
- Disconnected with Host PC in Local Network. (Blue Color Icon)
- Turn Off state but as of old connected with Host PC more than one times. (Red Color Icon)



- 2 Choose the one “UTMA/UTSA Devices” , and double click NC120/220 Device setup icon.
- 3 “UTMA/UTSA Device Overview” for remote NC120/220 connection.



- 1 Connections Settings : NC120/220 setup → Same item as “TS option” setup and can change the settings for the Host PC to be connected. (Remote NC120/220 connection include auto connection)



- 2 Network Settings : NC120/220 setup → Same item as “Network” and can change.



- 3 Setup Password and Language : NC120/220 setup → Same item as “Password” and “Language” and can change the setting values of password and language for NC120/220.



- 4 Member of Groups : Shows groups currently set up. Groups to which NC120/220 are assigned can be added or deleted.
- 5 Print : Can print the content of setup window shown on the screen.



NC120/220 information (Connections Settings, Network Settings, Setup Password and Language) changed in the “UTMA/UTSA Device Setup” menu will be applicable NC120/220 after is rebooted.

Auto Connection Function

- With the “Auto Connection” function, you can easily connect to a Host PC without using the NC120/220 main setup screen.

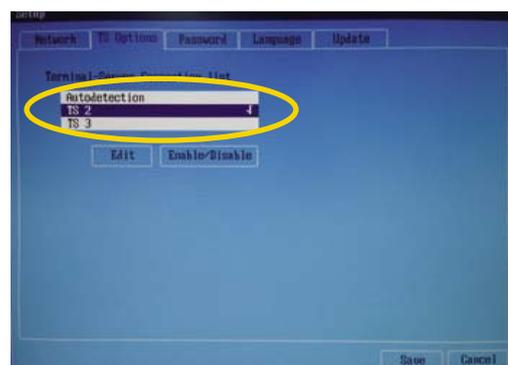


- 1 Turn On your NC120/220 device.
- 2 Next, you will automatically go into the Windows Logon dialog box screen without having to press the “Connect” .
- 3 Fill in the “User name” and “Password” .

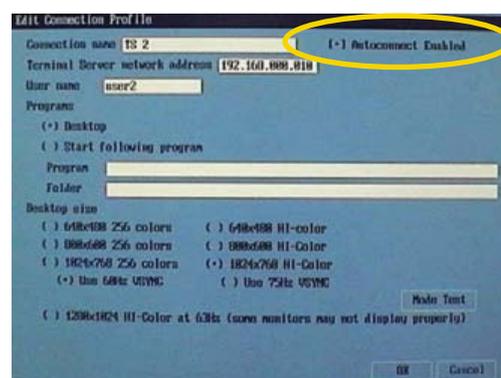
Introducing the Auto connection setup

- Setting up your Auto Connection menu from NC120/220 main setup

- 1 Click “Setup” to setup your connection menu.
- 2 Click “TS Options” .
- 3 Select “TS 2” then click “Enable/Disable” .
(You must Disable the Autodetection selection)

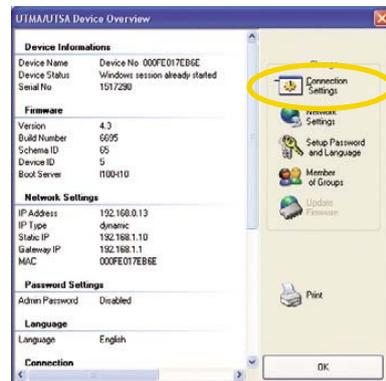


- 4 Click “Edit” to select the option menu.
- 5 Click “Autoconnect Enabled” .
- 6 Click “OK” to save all settings.

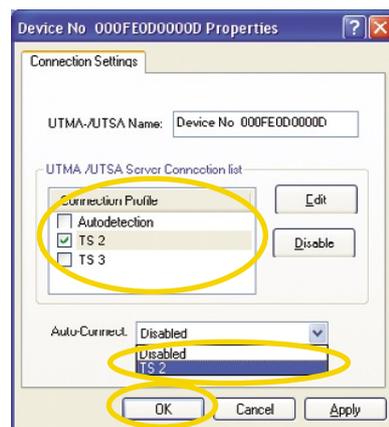


Setting up your Auto Connection menu from NCS-2000-XP Console

- 1 Click “Hardware Settings (LAN/Local)” menu from NCS-2000-XP Console.
- 2 Click “UTMA/UTSA Devices” setup menu.
- 3 Select the target NC120/220 devices then double click.
- 4 Click “Connection Settings” to connection settings.



- 5 Click “TS 2” connection profile.
(You must Disable the Autodetection selection)
- 6 Click “OK” to save all settings.



Auto Logon Function

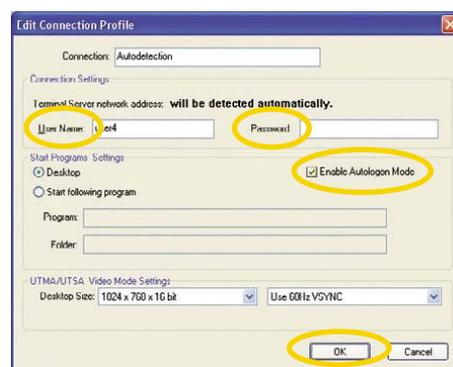
- With the “Auto Logon” function, you can easily connect to a Host PC(s) without fill in the Windows Logon dialog box.



- 1 Turn on your NC120/220 device.
- 2 Click “Connect” of main setup screen.
- 1 Automatically go in to the Windows main screen due to setting the “User Name” and “Password” already.

Introducing the Auto Logon setup

- Setting up your Auto Logon menu from NCS–2000–XP Console.
- 1 Click “Hardware Settings(LAN/Local)” menu from NCS–2000–XP Console.
- 2 Click “UTMA/UTSA Devices” setup menu.
- 3 Select target NC120/220 devices then double click.
- 4 Click “Connection Settings” to connection settings.
- 5 Select connection profile(Autodetection, TS 2, TS 3).
- 6 Click “Edit” from connection profile.
- 7 Click “Enable Autologon Mode” .
- 8 Fill in the “User Name” and “Password” .
- 9 Click “OK” to save all settings.
- 10 Click “OK” from “Connection Settings” .



If you use “Auto Logon” and “Auto Connection” function together, you can connect to the Host PC easily.

USB Device Assignment(s)

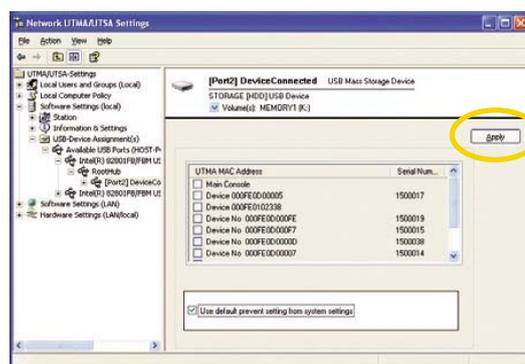
- The USB port in the Host PC can be set to use USB storage devices connected to the Host PC in each NC120/220. When a USB storage device is connected, the USB storage devices connected to each port is shown on the screen. Change the settings by clicking the applicable port for each USB storage device connected that is to be used in the NC120/220 or applicable Host PC.
- The setting window appears when the applicable port is clicked as shown in the figure to the right.
- The default setting is “Use the default prevention setting from the system settings” . This setting is allowed to be used for the Host PC and NC120/220. To use USB storage device in the Host PC and NC120/220, deselect default setting and click NC120/220 or main console(refers to Host PC).



USB–Device Assignments only supports USB type storage device. It does not support USB keyboard or other devices.

Introducing the USB Port Assignment(s) setup

- Setting up the USB Port Assignment(s) from the NCS–2000–XP Console.
- 1 Click “Software Settings(local)” menu from the NCS–2000–XP Console.
 - 2 Click “USB device Assignment(s)” setup menu.
 - 3 Click “ROOT hub” then select the appropriate port.
 - 4 Click “Use default prevent setting from system settings”
 - 5 then select “UTMA MAC Address” to share the USB Port Assignment(s). Click “Apply” .



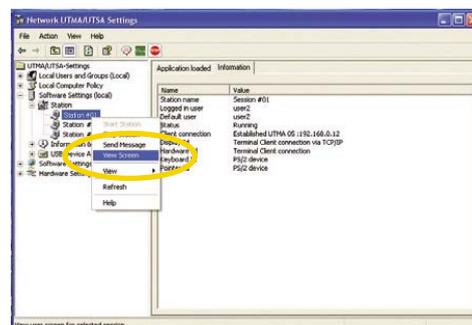
View Screen and Management Function

- Through the console you can view the screen of the NC120/220 selected. Users must have Admin authority to activate this function.

Introducing the View Screen setup

- Setting up your View Screen menu from the NCS–2000–XP Console.

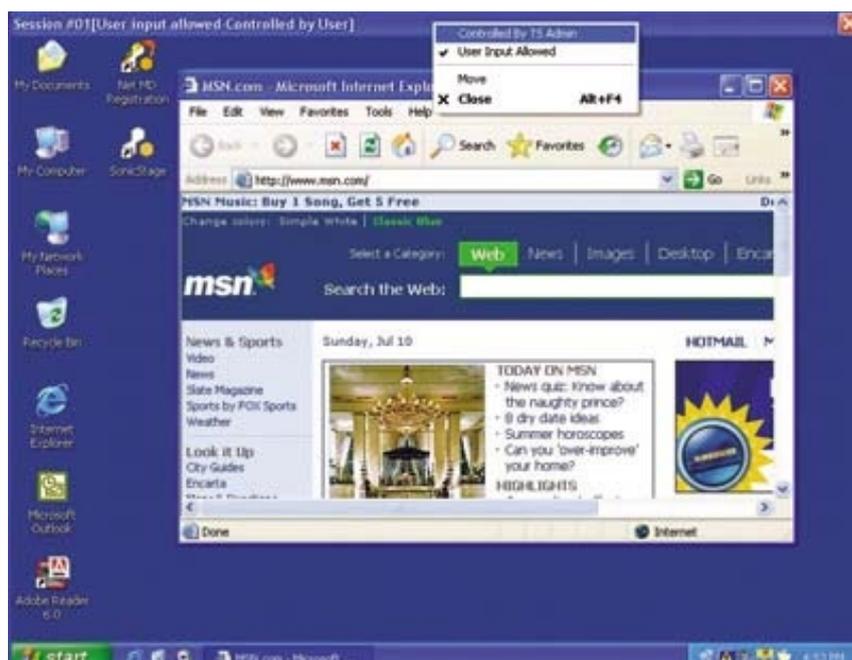
- 1 Click “Software Settings(local)” menu from NCS–2000–XP Console.
- 2 Click “Stations” then select the target station.
- 3 Click “View Screen” for monitoring NC120/220.
(Or click “View icon (View)” from console menu bar)



Management

- Introducing Management setup

- 1 Click the right mouse button on the menu bar of selected user form view screen.
- 2 Click “Controlled By TS Admin” to control NC120/220 screen.(“User Input Allowed” menu is used to allow the NC120/220 user to control the main screen)



▶ Depending on the model, your NC120/220's functions may look slightly different than those from this NCS-2000-XP user's guide.

APPEMDIX

FAQ

- [FAQ](#)
- [Glossary](#)
- [FCC Information to Use](#)

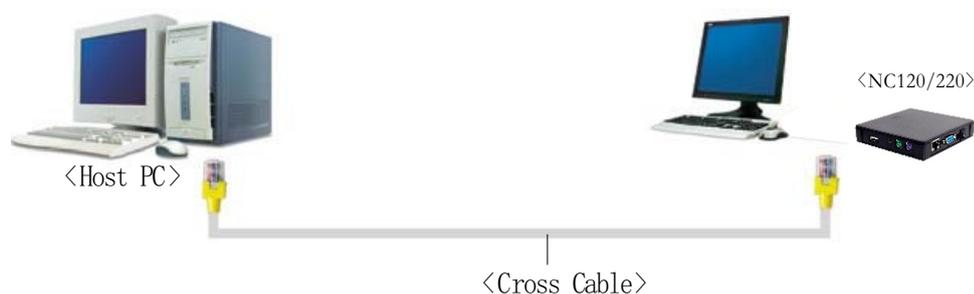


FAQ

Network Configuration Setting

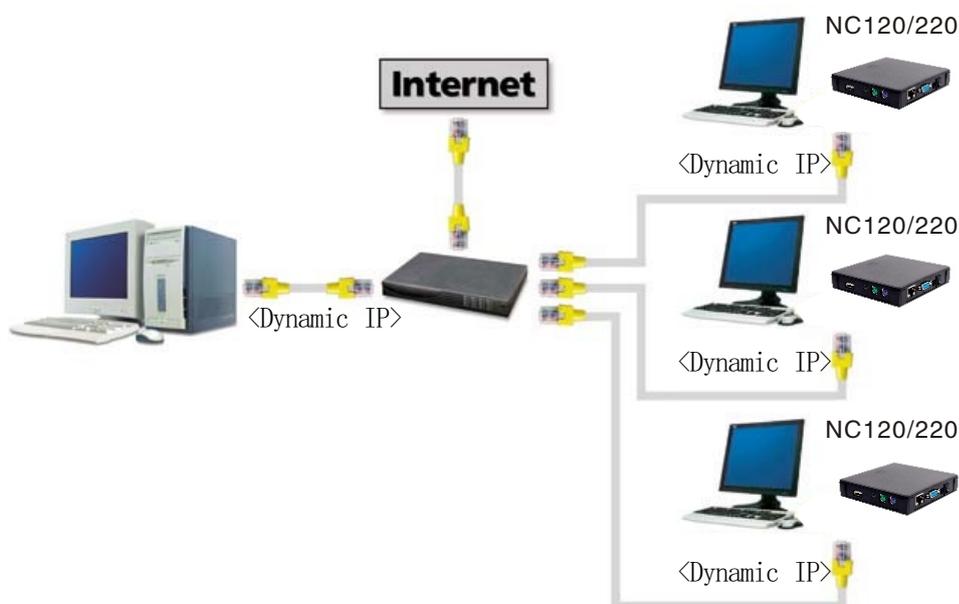
■ How do I connect the NC120/220 directly to the Host PC?

Use a crossover adapter to connect the NC120/220 terminal to the Host PC. If you use a crossover cable to connect to the Host PC, you do not need a crossover adapter. You can only directly connect one NC120/220 to a Host PC by using a LAN adapter. To connect several NC120/220 you need to install as many LAN adapters equal to the number of NC120/220 terminal(s) that will be connected to the Host PC.



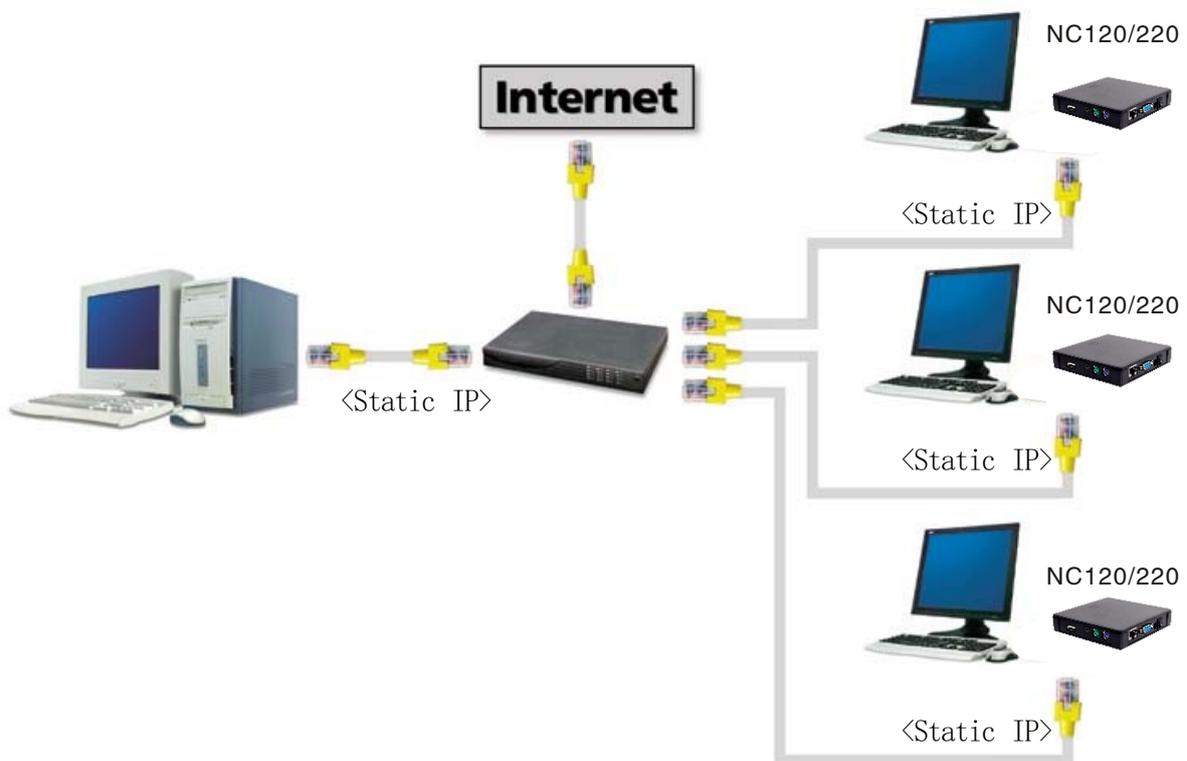
■ How do I use a dynamic IP address when the Host PC is connected to a router?

A router allocates the IP address dynamically to the Host PCs and NC120/220 terminal(s). Users do not need to set the IP address. Set the network configuration to dynamic IP address in the set up window.



■ **If a router/hub is connected to the Host PC, how do I connect an NC120/220 terminal to the Host PC with a static IP address?**

You have to allocate the static IP address of the Host PC and the NC120/220 to NC120/220 terminal(s) through a router/hub. (Contact your network manager to get the static IP address of the Host PC)



■ **I am not connected and a screen displays the "DHCP server was not found" message.**

- ❶ NC120/220 is set to get the IP address dynamically. If you enter the setup screen of the NC120/220 by pressing "Setup", you can check in the "Network" tab and make sure that the "Get Dynamic IP Address" option is selected. To use this option the router has to have DHCP server functionality activated. If you do not have a router, you have to install a Host PC that can allocate the DHCP addresses on your network. When you connect the NC120/220 directly to a Host PC, you can not use this option. In this case, select "Use Static IP address" and input IP address. Using IP router, check whether
- ❷ the DHCP function is activated, power is on, and LAN cable is connected.
- ❸ Turn off the NC120/220 terminal and wait several seconds, and then turn it back on.

■ When I am connected to the Host PC by pressing the Connect button, the "Host unreachable..." message appears and I can't connect.

If there are no PCs on a network, this message appears. Check whether the Host PC is turned on. If it is turned on, check whether the IP address of Host PC and the Terminal server IP address of NC120/220 are the same. You can check the IP address of the Host PC by running the ipconfig.exe command in the command line of the DOS prompt. (For more information, refer to page 2–13) Also, check the LAN cable connection. If you are using a hub or a router, check whether the hub or router is turned on and check the LAN cable connection. If the NC120/220 is directly connected to a Host PC and there is no problem with the network connection, refer to the following steps :

1. Click "Start" and click "Control Panel" .
 2. Double click the "Network Connections" icon.
 3. Right click the "Local Area Connection" icon and click "Properties".
 4. Select the "Advanced" tab.
 5. If the "Internet Connection Firewall" option is checked, click the "Settings" .
 6. Remove the check for the "Remote Desktop" option in the "Advanced" tab of the "Advanced Settings" window.
- If you use a certain firewall program that blocks the outer connection, you can't use your officeStation terminal.
 - Turn off the NC120/220 terminal and wait several seconds, and then turn it on.
 - Check to make sure that any third party Antivirus, Firewall, or security related programs do not interfere with our software. Please disable these programs before the initial setup.

■ My mouse works but all of the other devices do not function properly. The NCS-2000-XP Console shows the station is operating well.

This phenomenon occurs when the LAN cable is unplugged by accident or the router or switch is shut down. In this status, the controller of NC120/220 operates the mouse, so you feel as if the station is running. By the unstable power supplied to device is not stable or other reasons, this phenomenon occurs also.

Please check :

- Connection of the LAN cable.
- Operating status of the network device such as a router or switch.
- Stability of the power. (You can prevent by using UPS)

■ Can I use NC120/220 on an old dummy hub or Network Device?

Our product is designed for 100 Mbps switches or routers. It does not support 10Mbps network devices. This product is strongly recommended for 100 Base-TX fast ethernet network devices only.

■ What games can I play?

You can run only 2D games and Internet casual games such as a java and flash type. Refer to the list below for what is not supported through NC120/220 :

- 3D games that require GPU or hardware accelerator.
- Single user game that requires the program CD.
- Runs at only one registered PC and checks the IP address of the system.

■ I can't play the video in full screen mode with the NC120/220.

- Our product shares the resources of the Host PC, so the memory and Host PC resources is limited and the performance speed is dependant on the Host PC's specification. Playing the video in full screen mode takes a lot of system resources. We recommend playing the video in an appropriate screen size that does not reduce the system speed.
- NC120/220 is designed to run applications at the office such as a surfing the Internet, word processing, or working with spreadsheets.

■ Will this work in Windows 98?

NC120/220 supports Windows 2000 Professional, Windows XP Home Edition, Windows XP Professional, Windows 2000 Server and Windows Server 2003(Standard Edition / Enterprise Edition). For supporting other OS, needs special technical support and cost.

■ I can't connect the NC120/220 to the Host PC anymore.

After you install patch files from Windows update, this can occur. Please uninstall the patch files or download and install the updated NC120/220 software from our FTP site. It might take some time for us to upload the updated software.

■ I want to upgrade the speed of the NC120/220.

Refer to the below items for an increase in the speed:

- Use a CPU which utilizes Hyper-Threading technologies and large L2 Cache memory size.
- Install more RAM.
- Purchase a new hard disk drive with faster access speeds.(fast rpm)
- Add more LAN adapters when multiple NC120/220 are connected through the switch.
- Reduce the number of NC120/220 connection to Host PC by adding more Host PC to connect.

■ In NC120/220, message of “No Terminal Server found or not all services initialized yet, please click on the connection list and try it again.” appears.

This message appears when there exists no Host PC with NCS-2000-XP installed in the network currently connected. Check if NCS-2000-XP is installed in Host PC or Host PC with NCS-2000-XP installed is connected to the network.

■ When “Connect” is clicked in NC120/220, “TS ERROR – INVALID OR NO SERIAL NUMBER” message appears and no connection is made.

This message appears when there is no serial number in the Host PC that NC120/220 is trying to connect to. To be connected to NC120/220, serial number should be registered in the NCS-2000-XP console of the Host PC. Serial number can be found under the bottom of NC120/220 purchased.

■ Connection stops while using NC120/220 and message of “Connection was closed but your data is not lost and applications still run at server side. Please connect Terminal Server later” appears.

This message appears when connection stops due to problems or abnormality occurred in Host PC or network equipment. Check Host PC or network equipment when this message appears and restart after turning off the power of Host NC120/220. Unless Host PC is rebooted, existing data in the Host PC may be used as is.

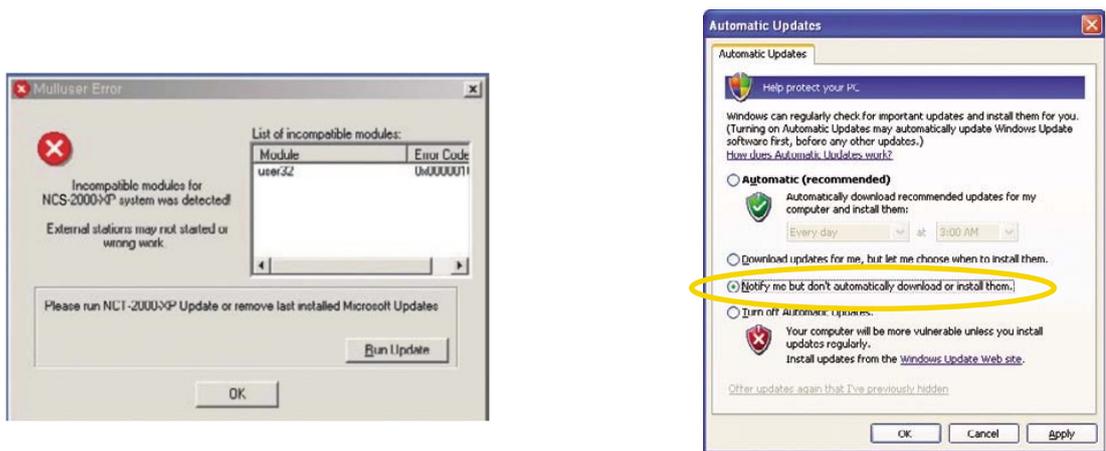
■ NC120/220 can not be connected even after program installation.

This can happen in one of the following cases.

- LAN cable is not connected to the Host PC with program installed. → Connect LAN cable to Host PC.
- LAN cable is not connected to NC120/220 → Connect LAN cable to NC120/220.
- LAN cables are connected to both Host PC and NC120/220 → Verify IP settings for both Host PC and NC120/220. (Refer to Network setting of the user’s guide)

■ **Connection stops after the message shown in the following figure appears.**

MS Windows regularly checks for important updates and install them for you. If automatic update in the “Security Center” of “Control Panel” is selected, update will be automatically downloaded at selected day and time without asking user. This could happen since security update files are related with NCS-2000-XP, and therefore, automatic update should not be selected by clicking "Notify me but don't automatically download or install them" instead. Ncomputing updates for new version within 3 to 7 days so that users do not have any problem in using NC120/220.

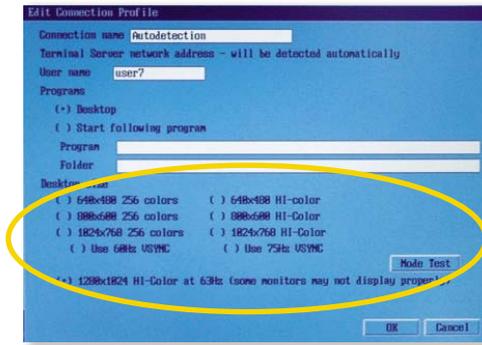


■ **Status of serial number appears as “Expired” and NC120/220 can not be connected.**

This happens when user changed Host PC's system date to the date earlier than the date NCS-2000-XP is installed. Change Host PC's system date to the current date.

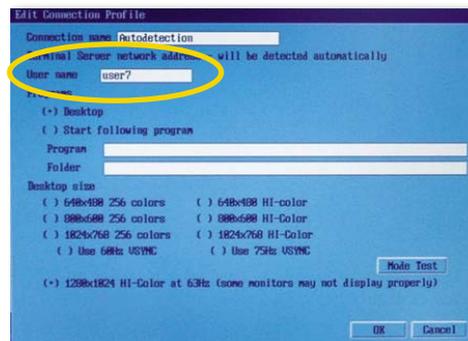
■ **I have changed screen resolution setting in Windows, however, resolution changes after log off and on again.**

NC120/220 itself has ability to set screen resolution. In the initial screen of NC120/220, select “Setup” → “TS Options” → “Edit” and screen same as the figure shown above appears.(resolution in the figure may vary depending on the product) Resolution selected in this way becomes the basis when logging on Windows and even if user sets different resolution in Windows, resolution set in NC120/220 will override when Windows is logoff and on again. Therefore, resolution user wants should be set in NC120/220. Click “Save” after selecting desired resolution.



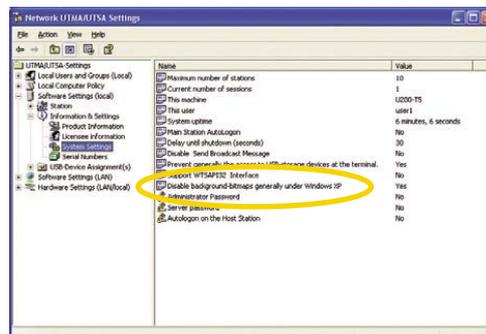
Can I have the user's name appear when logging on NC120/220?

Yes, you can. In the initial screen of NC120/220, select “Setup” → “TS Options” → “Edit” and screen same as the figure appears. Name same as the one entered in the “User name” will appear on Windows log on screen. Only English is supported and password can not be set on the Windows logon screen.



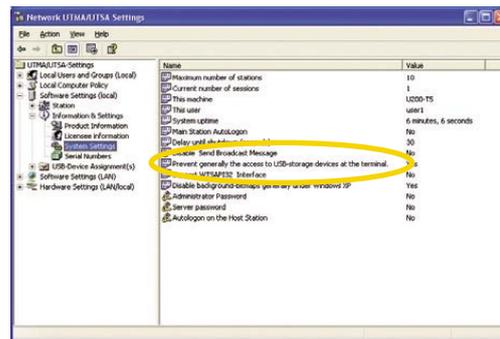
Desktop background selected in Windows disappears whenever NC120/220 is logged on NC120/220?

User has option to show or not to show the background selected in Windows. After executing NCS-2000-XT, select “Software Setting(local)” → “Information & Settings” → “System Settings” and screensame as figure appears. Among many setting items on the right of the screen, note the item saying “Do not display Desktop Background” .Default setting is “Yes” which means Desktop Background selected in Windows will not be displayed when NC120/220 is logged on. Double clicking this item will change the setting to “No” which means desktop background selected in Windows will be displayed.



■ USB storage device connected to Host PC can not be used in NC120/220.

You must change the setting to use USB storage device in NC120/220. After executing NCS-2000-XT, select “Software Setting(local)” → “Information & Settings” → “System Settings” and screensame as figure appears. Among many setting items on the right of the screen, note the item saying “Prevent access to USB-storage devices at the terminal” . Default setting is “Yes” . Therefore, change the setting to “No” by double clicking this item if USB storage device is to be used in search after logged on to NC120/220.



Glossary

Multi user WoIP(Windows over IP)

New network protocol that enables a PC to operate multi windows simultaneously in virtual memory and the registered multi user can access through TCP/IP by using NC120/220. This technology does not require a high priced server and supports the multi user access through terminal.

UTMA(Ultra Thin Multi Access) Multi User Terminal using SoC (System on Chip)

UTMA(Ultra Thin Multi Access)Multi User Terminal is a network computing terminal using Ncomputing patent technology. It doesn't use CPU, VGA, and main chipset, only use a programmable SoC to connect to Host PC. A terminal using UTMA technology can be connected to Host PC by using the LAN cable. Also, it can be connected to remote PC through Internet using TCP/IP.

▶ The information within this user's guide is subject to change without notice.

FCC Information to Use



This equipment has been tested and found to comply with the limit for a Class B digital device, pursuant 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions. May cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. IF this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or the following measures :

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

Change or modification not expressly approved by the party responsible for Compliance could void the user's authority to operate the equipment