



EXP Computer, Inc.

ThinConnect4

Additional functions.

NOTE: In order to make the settings mentioned in this file, It is necessary to have the following version.

ThinConnect4 Firmware :	V2.21
ThinConnect4 Setup Utility:	V2.62

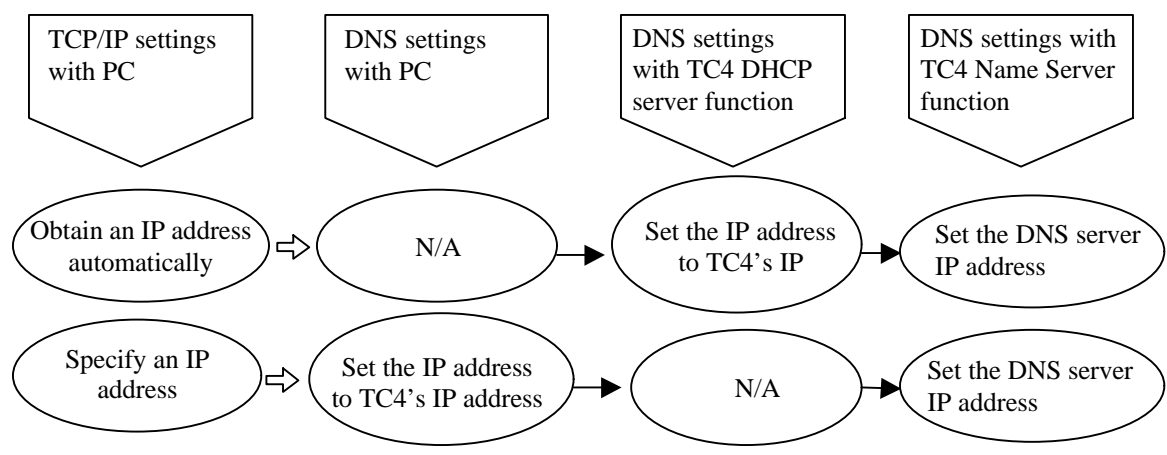
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May, 1999
Revision: 1.00 A10
EXP Computer, Inc.

1. DNS Server Settings

This Section explains DNS (Domain Name Service) server settings for ThinConnect4 when you connect with RAS Server, Networking Dial-up, or Leased Line IP Connection.

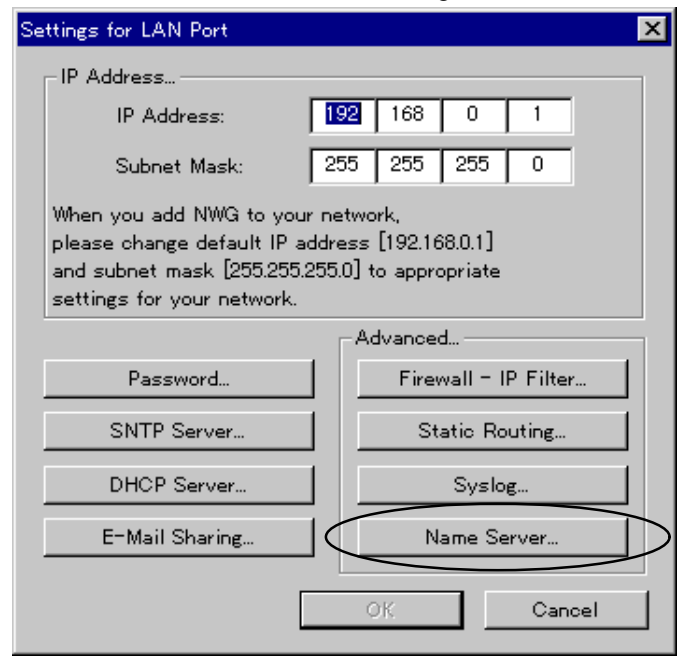
Setting order for Name Server



Note: TC4 = ThinConnect4
 N/A = not applicable (leave the entry blank)

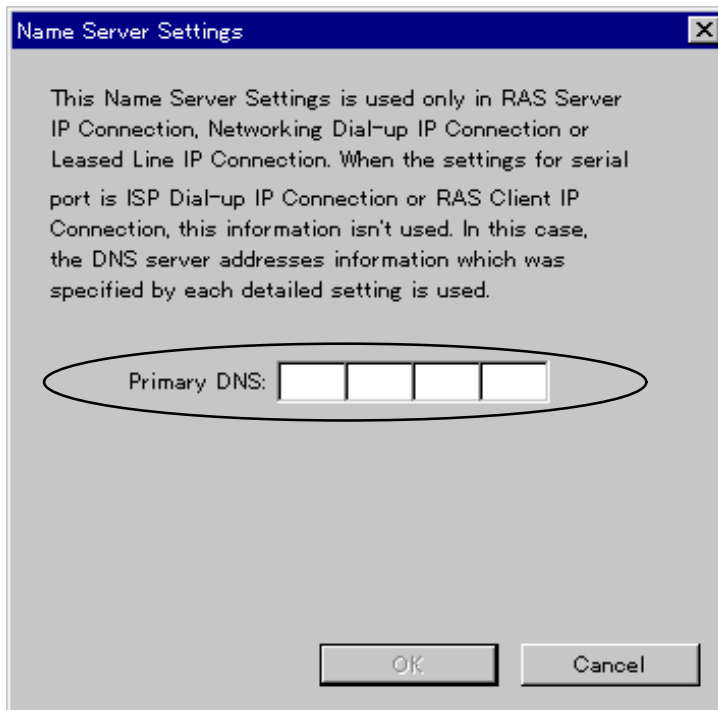
Name Server settings

1. Click "Name Server" button at "Settings for LAN Port" window.



Go to next page

2. Enter IP address of DNS server at “Primary DNS” field.
If you do not want to use name server leave this field empty.



3. Click “OK” button.

End of 1. DNS Server Settings

2. Multi-Account / Proxy DNS function Settings

This section explains Multi-Account function and Proxy DNS (Domain Name Service) function and its settings.

Multi-Account function

This function allow ThinConnect4 connect up to four different dial-up accounts connection without changing settings on PC. Possible number of registration and translation connection will be as follows:

ISP Dial-Up IP Connection: 3 entry
RAS Client Dial-Up IP Connection: 1 entry

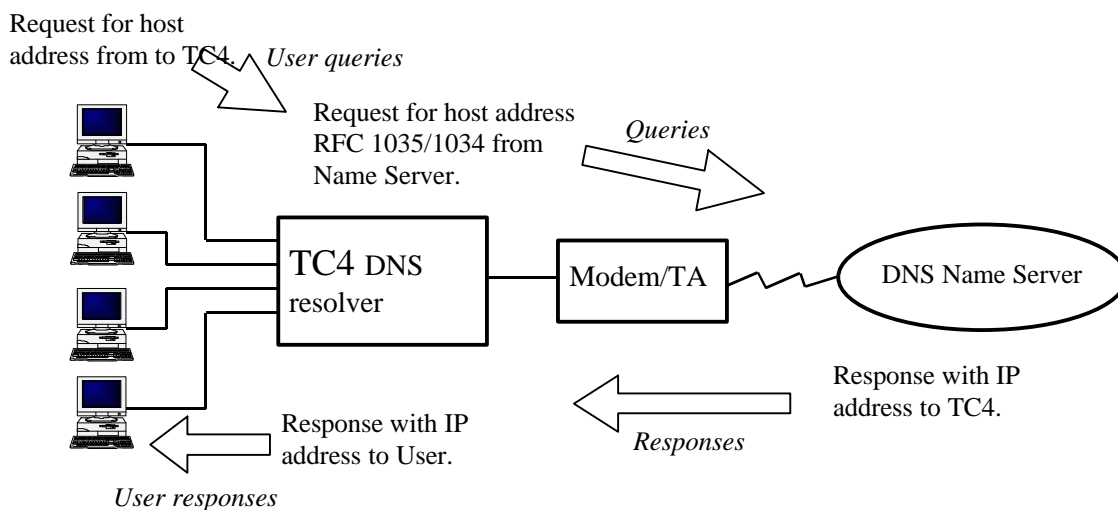
Note: The function of the Dial-up relation can be set only to one of the serial ports 1 or 2. For example, if you set the serial port 1 to "ISP Dial-UP IP Connection", you can not set up neither "ISP Dial-UP IP Connection" nor "RAS Client Dial-UP IP Connection" on serial port 2.

Proxy DNS function

The Proxy DNS is a necessary part of "Multi-Account function". It will change DNS server IP address according to your selected Dial-up account.

By specifying IP Address of ThinConnect4 as DNS server address on your PC, user does not need to change the DNS setting for the PC even if connecting ISP account has changed.

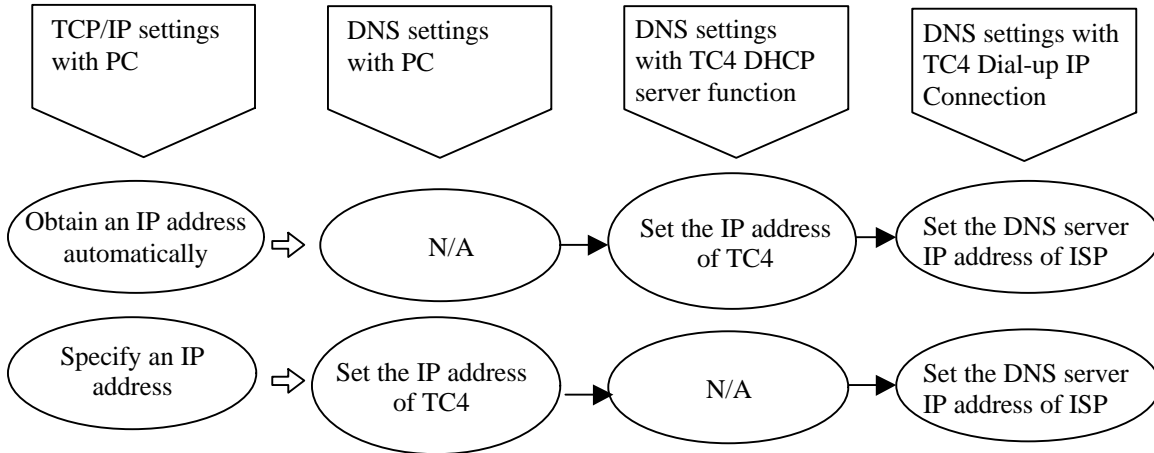
If you want to use Proxy DNS function with "ISP Dial-up IP Connection" or "RAS Client Dial-up IP Connection" please set "IP Translation" to "IP Masquerade".



Note: TC4 =ThinConnect4

Go to next page

Setting order for Proxy DNS function

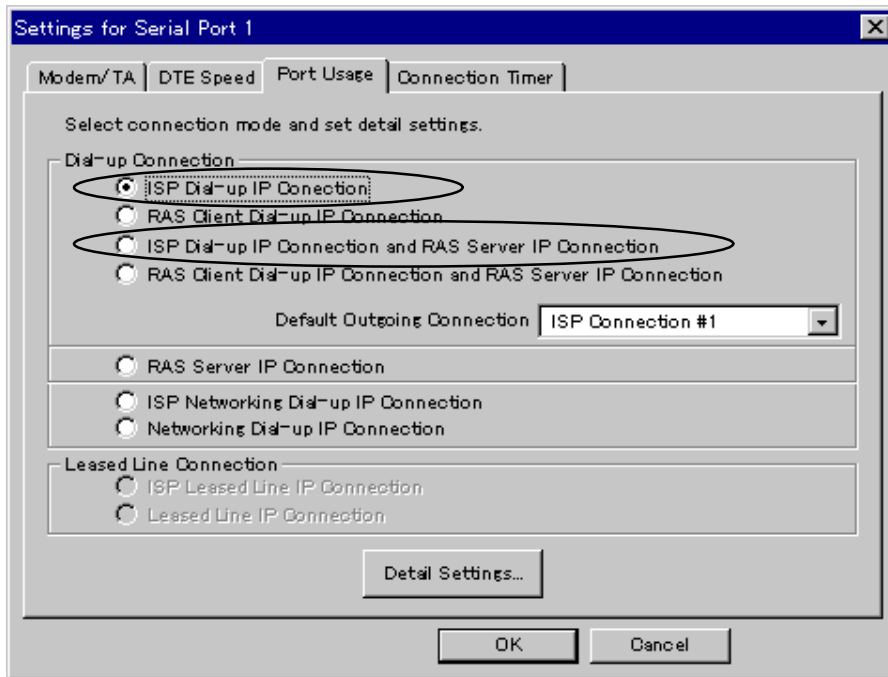


Note: TC4 = ThinConnect4

N/A = not applicable (leave the entry blank)

2.1 ISP Dial-Up IP connection Settings

1. Click “Port Usage” tab on “Settings for Serial Port 1 (or 2)” window. Choose “ISP Dial-Up IP Connection” and click “Detail Settings”. If you want to connect to a RAS Server using the same port, choose “ISP Dial-Up IP Connection and RAS Server IP Connection” and click “Detail Settings”.



Go to next page

2. Click “ISP#1” tab.
Enter the ISP name in “Dial-up ISP Name” field
The name will be shown at “Mode/Site” pull-down selection.

The screenshot shows a dialog box titled "ISP Dial-up IP Connection". At the top, there are three tabs: "ISP #1", "ISP #2", and "ISP #3". The "ISP #1" tab is selected. Below the tabs, there are several input fields and options:

- Dial-up ISP Name:** A text box containing "ISP 1-1", which is circled in red.
- User Name:** An empty text box.
- Password:** An empty text box.
- Confirm Password:** An empty text box.
- Access Number #1:** An empty text box.
- Access Number #2:** An empty text box.
- Access Number #3:** An empty text box.
- Address Translation:** Two radio buttons: "IP Masquerade" (selected) and "NAT". A "Details..." button is next to them.
- DNS Server IP Addresses:** A section with a "Primary DNS:" label and three empty text boxes.
- Translation Table:** A section with an "Aging Time:" label and a dropdown menu set to "180 secs".
- Use Dial-up Scripts:** A checkbox that is unchecked, with a "Scripts..." button next to it.
- Text:** "Only Access Number #1 should be set. When Access Number #1 is busy, next Access Number (#2,#3) is used."

At the bottom of the dialog box, there are "OK" and "Cancel" buttons.

3. Enter dial-up user ID in “User Name” field.
Enter the password in “Password” field.

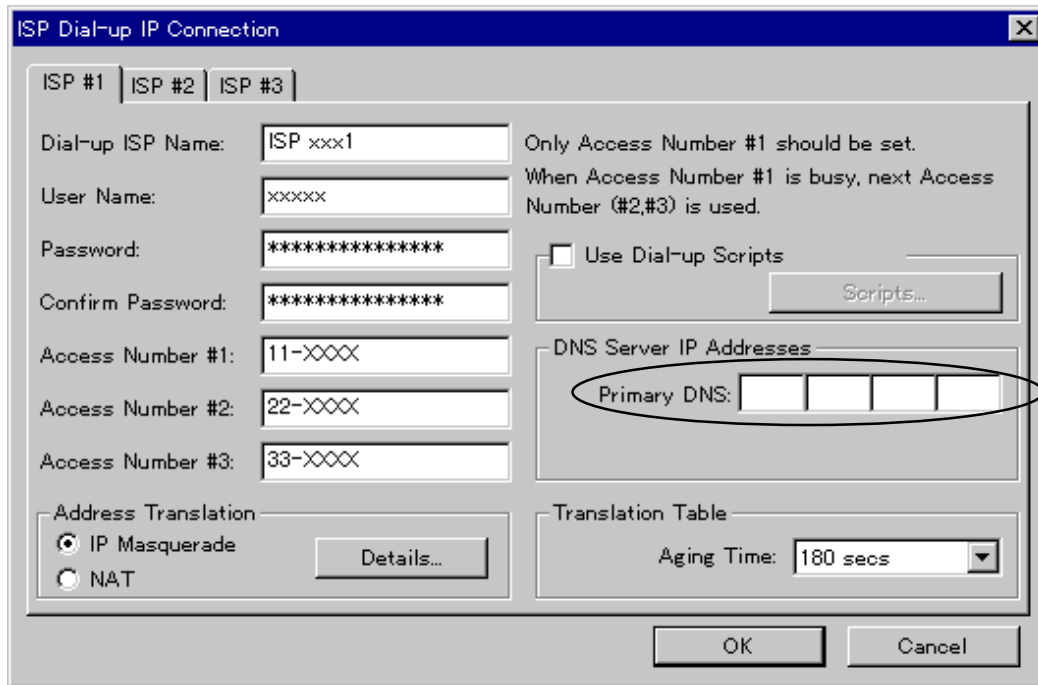
*Note: For security reason, the password will show as “*****” whatever you type in.
To verify any typing, please enter the password again in the “Confirm Password” field*

4. Enter the ISP access telephone number in “Access Number #1 to #3”.
You can enter up to three access numbers according to priority.

Note: You need to enter at least one access telephone number. The other two are back-up numbers, in case the first number is busy. If there is any error the dialing will be stopped, except BUSY.

Go to next page

5. For “Address translation” detail description refer to section “4.1.2. Address Translation.”
If you want to use Proxy DNS function, please choose “IP Masquerade”.
For details of IP Masquerade function refer to the User Manual section “4.1.3. Detail Settings of IP Masquerade.” (Page 54)
6. Enter DNS Server IP address obtained from ISP in “Primary DNS” field.
If you do not use Proxy DNS function, leave this field empty then enter the DNS server IP address on the DNS settings on your PC or DNS settings related with DHCP Server.

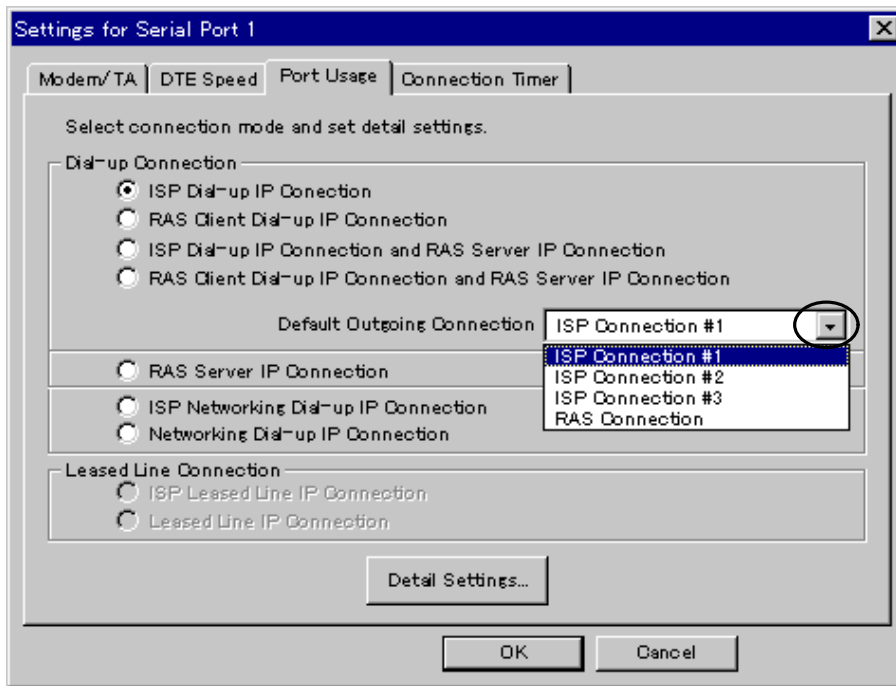


*Note: The value in the above window is for reference only.
Enter the appropriate setting to meet with your requirement.*

7. Select ‘Use Dial-up Scripts’ if your ISP require dial-up scripts, refer “Dial-up scripts function” on page 16
8. The “Translation Table” description, refer to User Manual section “4.1.2. Address Translation”. (Page 52)
9. If needed, repeat the same procedures above for the second and third ISP by clicking “ISP#2” and “ISP#3” tab.
10. Click “OK” button.

Go to next page

11. Click right side button of “Default Outgoing Connection”.
Choose main dial-up connection account from the list by click on it.

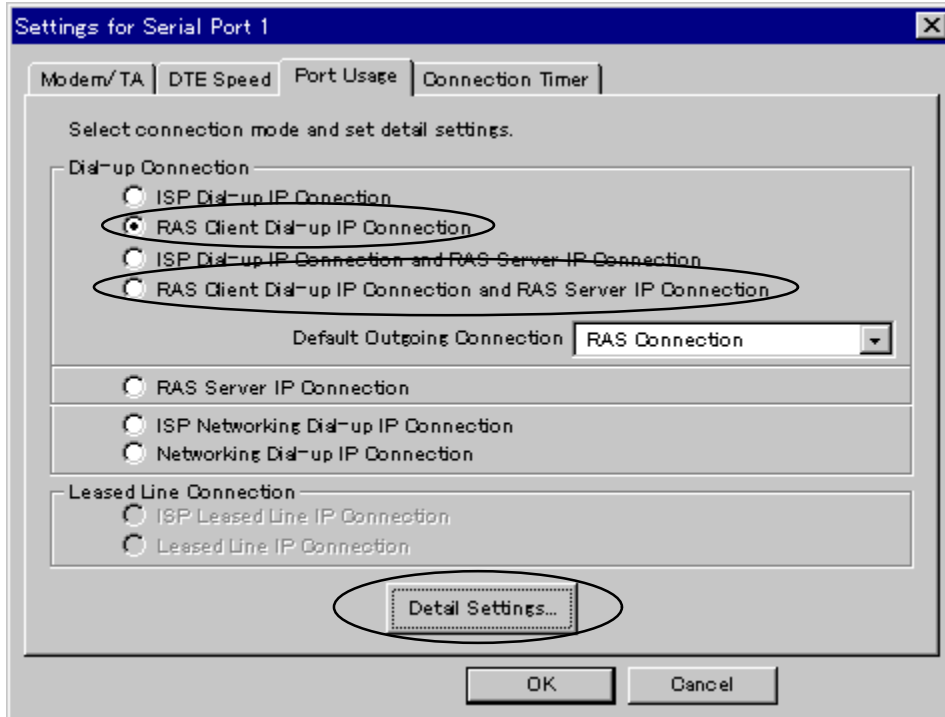


12. Click “OK” button.

2.2 RAS Client Dial-Up IP Connection Settings

1. Click “Port Usage” tab on “Settings for Serial Port 1 (or 2)” window.
Choose “RAS Client Dial-Up IP Connection” then click “Detail Settings” button.

If you want to connect to a RAS Server from the same serial port, please choose “RAS client Dial-Up IP Connection and RAS server IP Connection” then click “Detail Settings” button.



Go to next page

2. Enter the server name you wish to connect in “RAS Server Name” field.
The server name will be shown at connection site switching window.

The screenshot shows the 'RAS Client Dial-up IP Connection' dialog box. The 'RAS Server Name' field is highlighted with a red oval and contains the text 'RAS 1-1'. Other fields include 'User Name', 'Password', 'Confirm Password', and 'Access Number'. There are also sections for 'RAS Client IP Address', 'DNS Server IP Addresses', 'Address Translation', and 'Translation Table'.

3. Enter the user name and password. Retype the password again in Confirm Password field.
*Remark: For security reason, the password will show as **** whatever you type in.
To verify any typing, please enter the password again in the “Confirm Password” field.*
4. Enter the RAS Server's phone number in “Access Number” field.
5. To set up “Use Call Back” feature, refer to the User Manual section “5.1.2. Call Back Function”.
(Page 74)
6. “RAS Client IP Address” set up, refer to the User Manual section “5.1.3. IP Address Acquiring/Assigning”. (Page 77)

Go to next page

7. For the “Address Translation ” description, refer to the User Manual section “4.1.2. Address Translation”. (Page 52)

If you wish to use Proxy DNS function, choose “IP Masquerade”.

For details of IP Masquerade function go to the User Manual section “4.1.3. Detail Settings of IP Masquerade.” (Page 54)

8. Enter IP address of DNS server at “Primary DNS” field.

If you do not use Proxy DNS function, leave this field empty.

Go to your PC DNS setting you need to enter designate DNS Server IP address or DNS setting with DHCP Server.

The screenshot shows the "RAS Client Dial-up IP Connection" dialog box. It has a title bar with a close button. The main area is divided into several sections:

- Basic Information:** RAS Server Name (RAS Server xxx), User Name (user1), Password (masked with asterisks), Confirm Password (masked with asterisks), Access Number (00-XXXX).
- Call Back:** A checked checkbox "Use Call Back" with two radio button options: "Preset in RAS Server" and "Set by RAS Client to". A "Phone Number" field contains "99-XXXX".
- IP Addressing:** "RAS Client IP Address" section with radio buttons for "Get by RAS Server" (selected) and "Preset by RAS Client". Below it is an "IP Address" field with four empty boxes. The "DNS Server IP Addresses" section has a "Primary DNS" field with four empty boxes, which is circled in black.
- Address Translation:** Radio buttons for "IP Masquerade" (selected) and "NAT". A "Details..." button is next to "IP Masquerade".
- Translation Table:** An "Aging Time" dropdown menu set to "180 secs".

At the bottom are "OK" and "Cancel" buttons.

Note: The value in the above window is for reference only.

Enter the appropriate setting to meet with your requirement.

9. For the “Translation Table” description, refer to the User Manual section “4.1.2. Address Translation”. (Page 52)

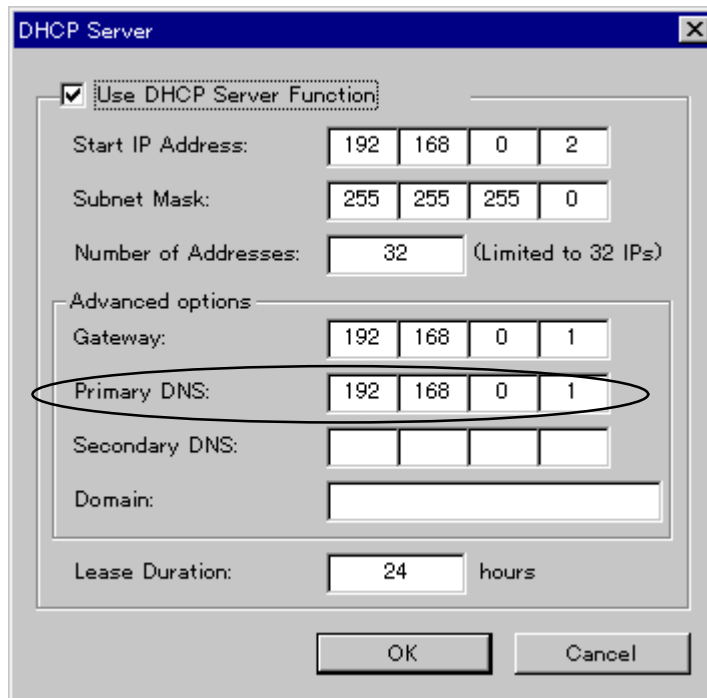
10. Click “OK” button.

2.3 DHCP Server Settings and DNS Settings for PC.

This section explains DHCP (Dynamic Host Configuration Protocol) server settings for ThinConnect4 and DNS (Domain Name Service) settings for PC in order to use “Multi Account function” and “Proxy DNS function”.

DHCP server setting for ThinConnect4

Enter IP Address of ThinConnect4 in “Primary DNS” field at “DHCP Server” window.
Factory default setting is “192.168.0.1”.



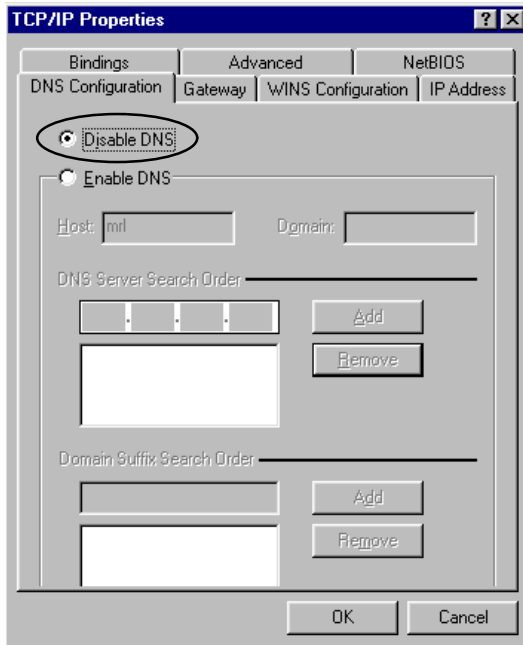
The screenshot shows the "DHCP Server" configuration window. The "Use DHCP Server Function" checkbox is checked. The "Start IP Address" is set to 192.168.0.2, the "Subnet Mask" is 255.255.255.0, and the "Number of Addresses" is 32 (limited to 32 IPs). In the "Advanced options" section, the "Primary DNS" field is circled and contains the IP address 192.168.0.1. The "Gateway" is also set to 192.168.0.1. The "Secondary DNS" and "Domain" fields are empty. The "Lease Duration" is set to 24 hours. The "OK" and "Cancel" buttons are located at the bottom of the window.

Go to next page

DNS setting for PC

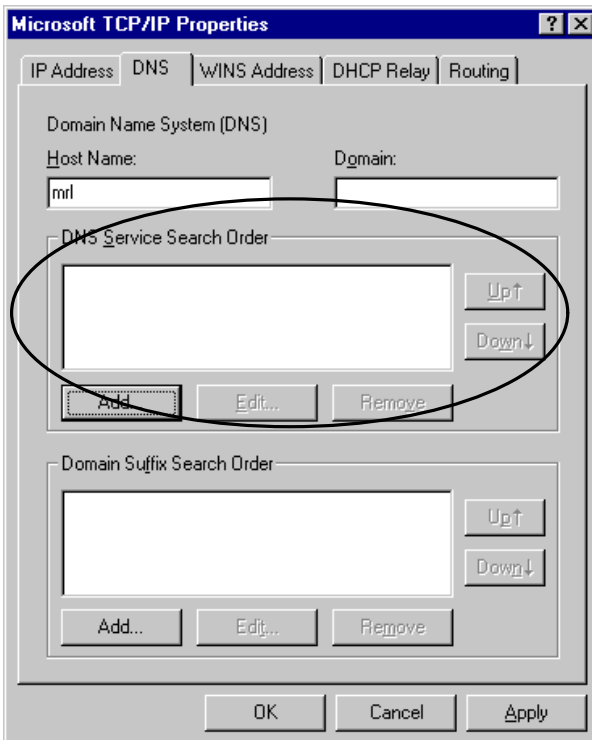
DNS setting for Windows 95/98

Set “Disable DNS” at “DNS Configuration” tab on “TCP/IP Properties” window.



DNS setting of Windows NT 4.0

Do not enter any DNS IP address in the “DNS Service Search Order” field on “TCP/IP Properties” window.

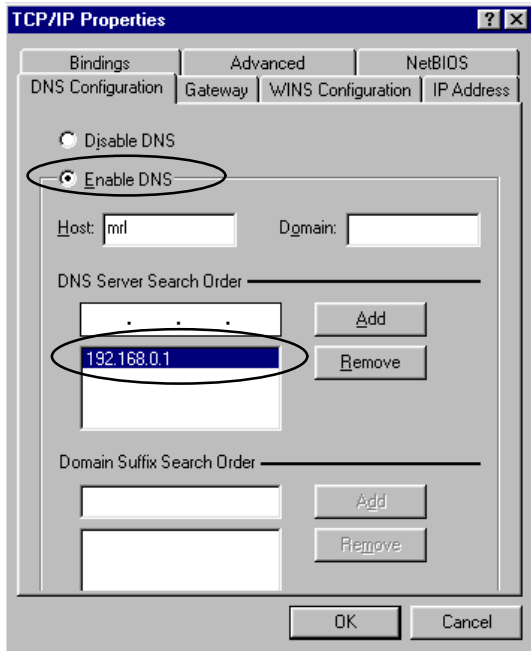


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Setting up DNS without the DHCP Server.

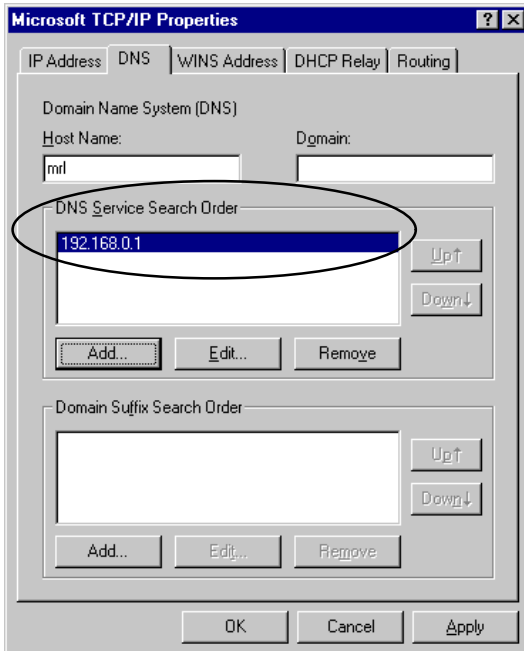
DNS setting for Windows 95/98

Set "Enable DNS" at "DNS Configuration" tab on "TCP/IP Properties" window.
Please set IP address of ThinConnect4 in "DNS Service Search Order" field.



DNS setting of Windows NT4.0

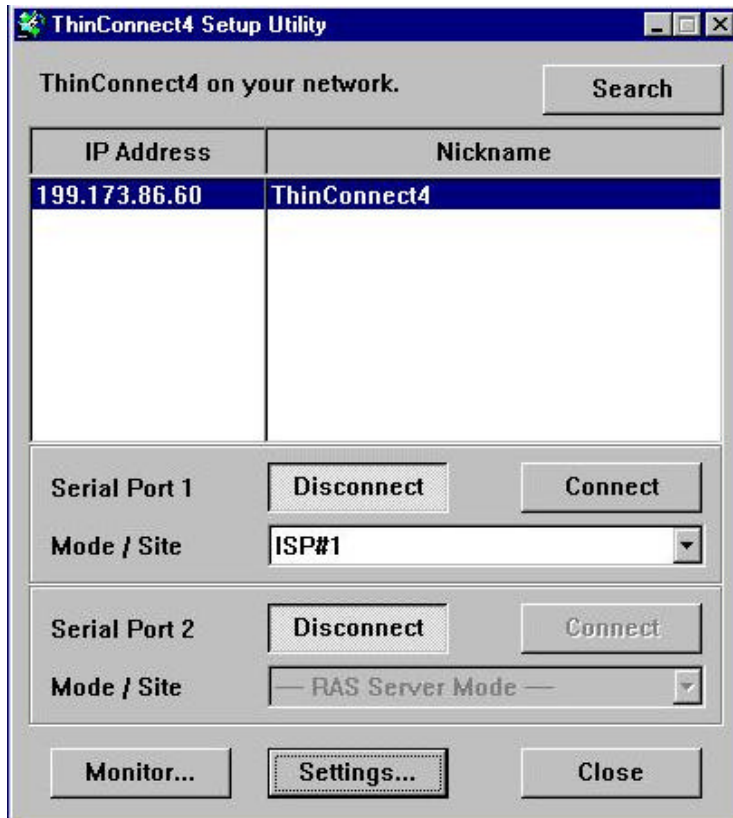
Set IP address of ThinConnect4 in "DNS Service Search Order" field on "DNS" tab of "TCP/IP Properties" window.



2.4 Switching connection accounts

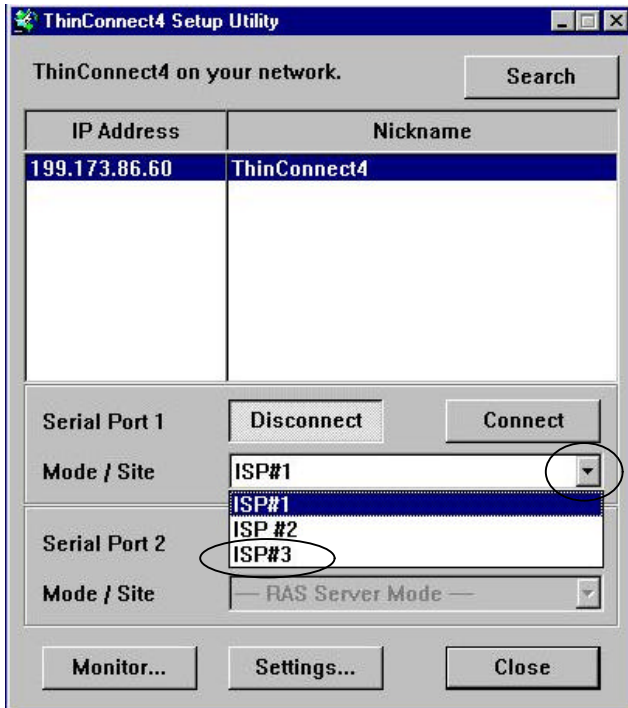
This section will explain how to switch between registered multiple accounts connections.

1. Start up “TC4 Setup Utility”.
2. If there are multiple ThinConnect4 connecting on the same LAN, click ThinConnect4 that you want to work on.

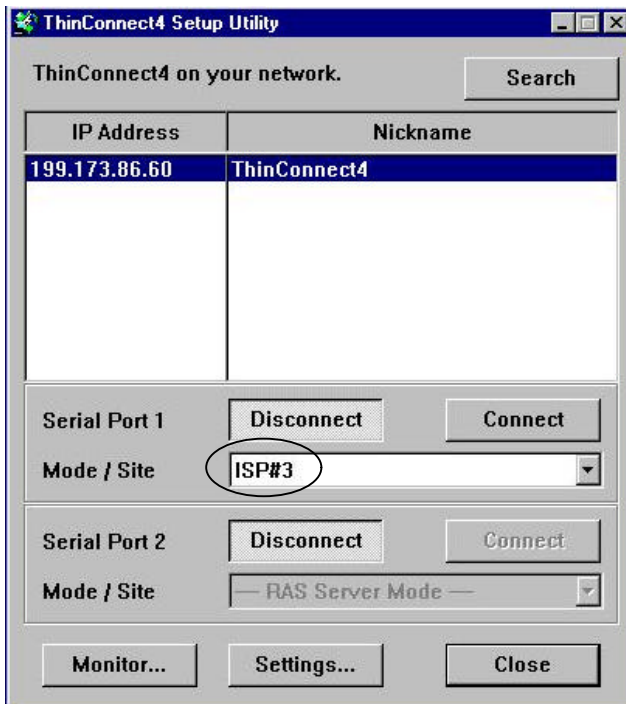


Go to next page

3. Click on “Mode/Site” pull down button.
Click on the account you wish to use from the list.



4. The Mode/Site should show the account selected in step 3.



End of 2. Multi-Account / Proxy DNS function Settings

3. Dial-up Scripts function

Some ISP (Internet Service Provider) or RAS (Remote Access Service) server may require additional information beside username and password. The dial-up script will help automate the connection by monitor the server respond and provide appropriate keyboard input This section describes how to setup a Dial-up Scripts.

1. Place a check mark at “Use Dial-up Scripts” on the “ISP Dial-up IP Connection” window. Click “Scripts” button.

The screenshot shows the 'ISP Dial-up IP Connection' dialog box with the 'ISP #1' tab selected. The 'Use Dial-up Scripts' checkbox is checked and circled in red. The 'Scripts...' button is also circled in red. The dialog box contains various fields for configuration, including ISP name, user name, password, access numbers, and address translation options.

There are two ways to set up a script file:

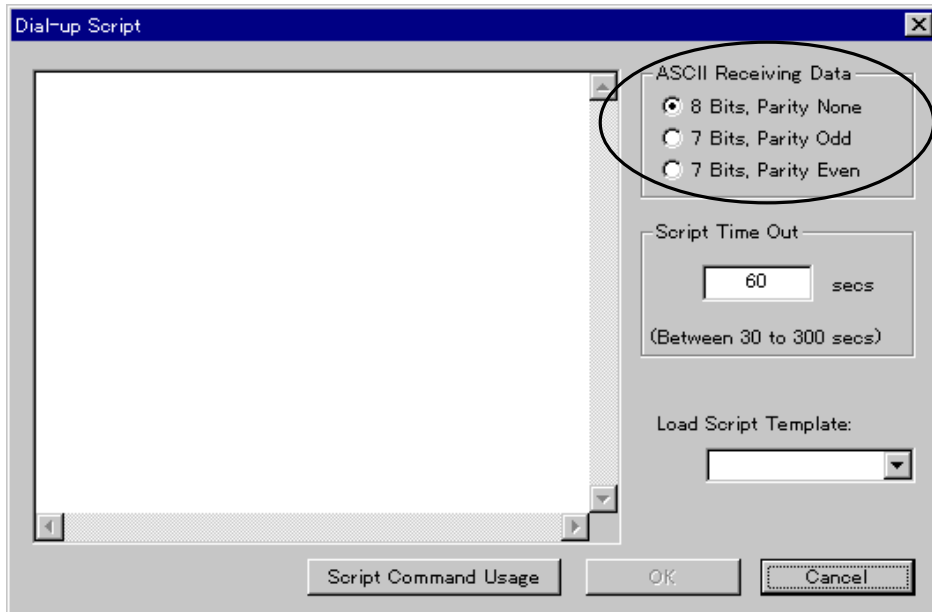
1. Entering your own scripts from scratch, go to next page.
2. Set up a script using “Script Template”, go to page 19.

Go to next page

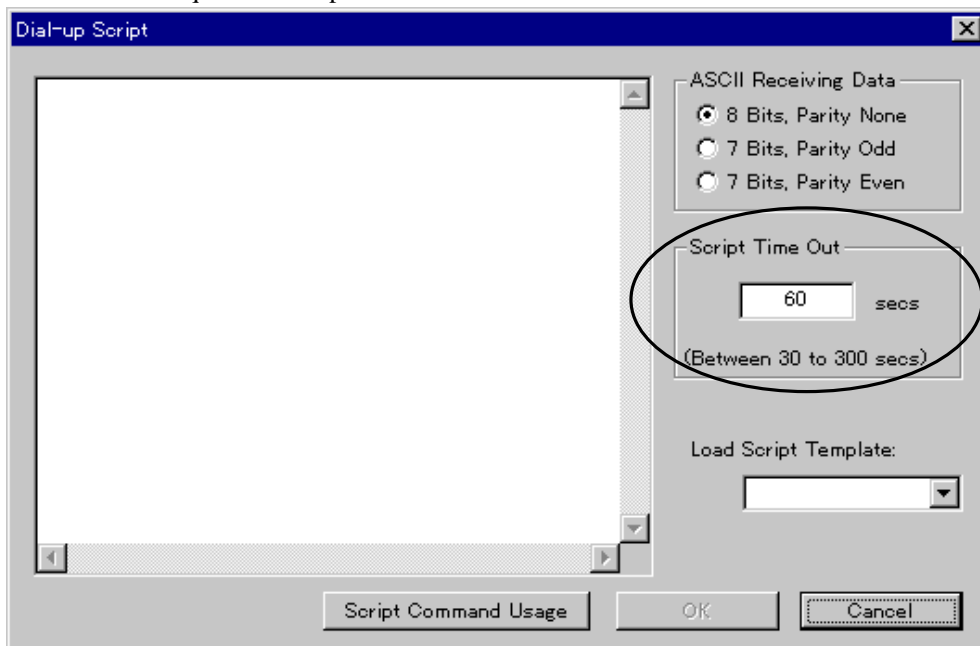
Entering your own script

1. Set up the serial communication parameters
Select from “ASCII Receiving Data” an appropriate parameter requires by the ISP.

8 Bits, Parity None: Data bits = 8 bits, Parity = None
7 Bits, Parity Odd: Data bits = 7 bits, Parity = Odd
7 Bits, Parity Even: Data bits = 7 bits, Parity = Even

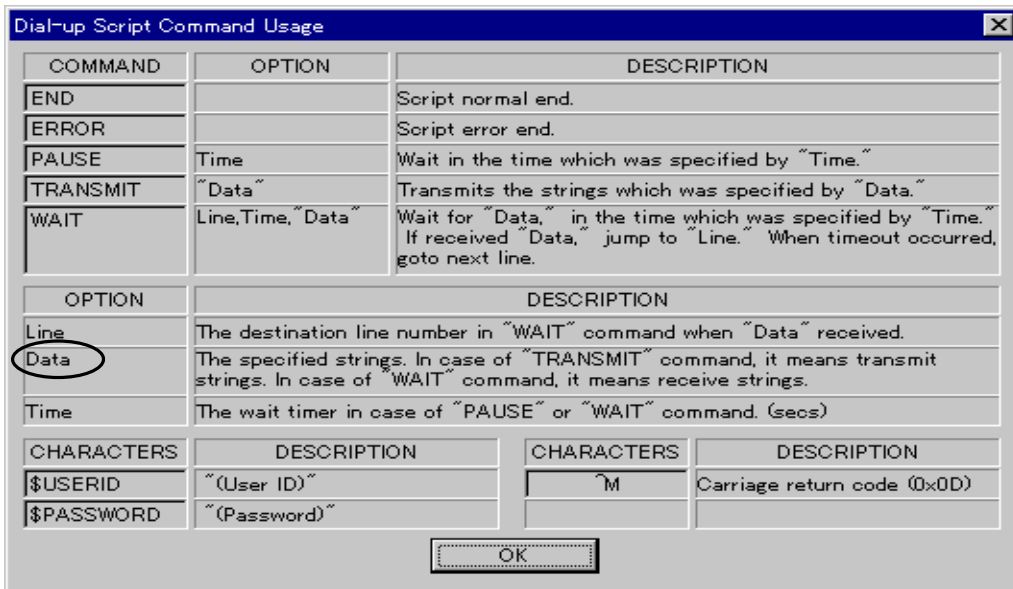
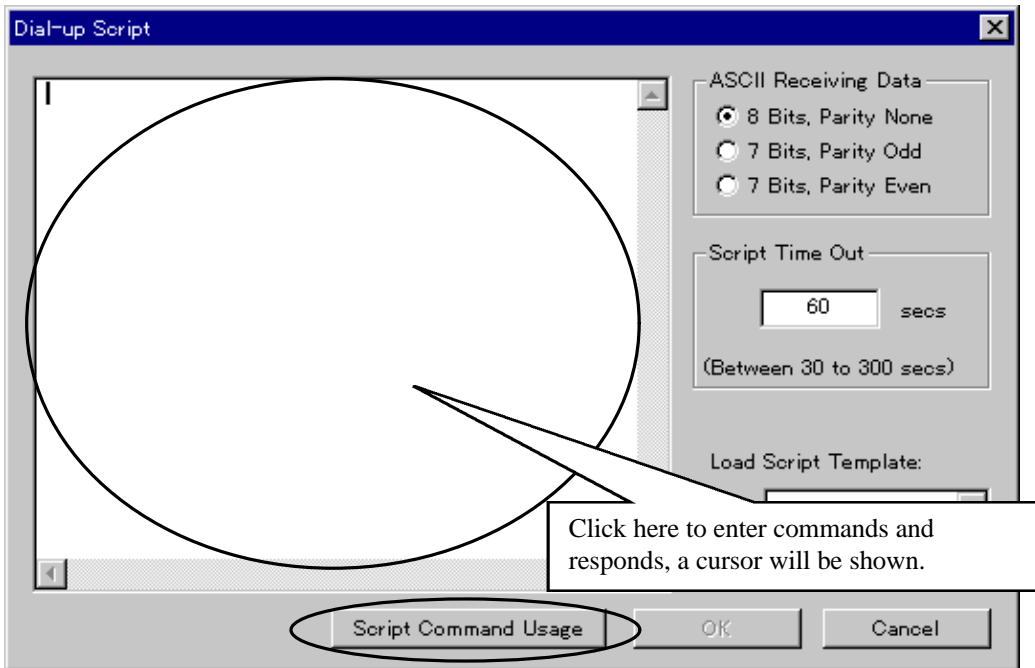


2. Set up the operating time limit for Dial-up script.
Enter the time require in “Script Time Out” field.



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- Click the edit box and enter the command and variables to send for establishing the connection. You can choose script commands available from ThinConnect4 by click on “Script Command Usage” button and refer to “Dial-up Script Command Usage”.



Characters that you want to specify in “Data” fields please make sure to mark with double quotation marks.

Please be careful that characters, which you specify in “Data” fields, will be case sensitive.

- Click “OK” button.

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Using ThinConnect4 Script Template

1. Click the right button of “Load Script Template” field and choose the Script template.
Following are Script template available from ThinConnect4.

Script1: This script is identical to the “cis.scp” from Windows 95/98.

This script establishes a PPP connection with Compuserve.

Script2: This script is identical to the “pppmenu.scp” from Windows 95/98.

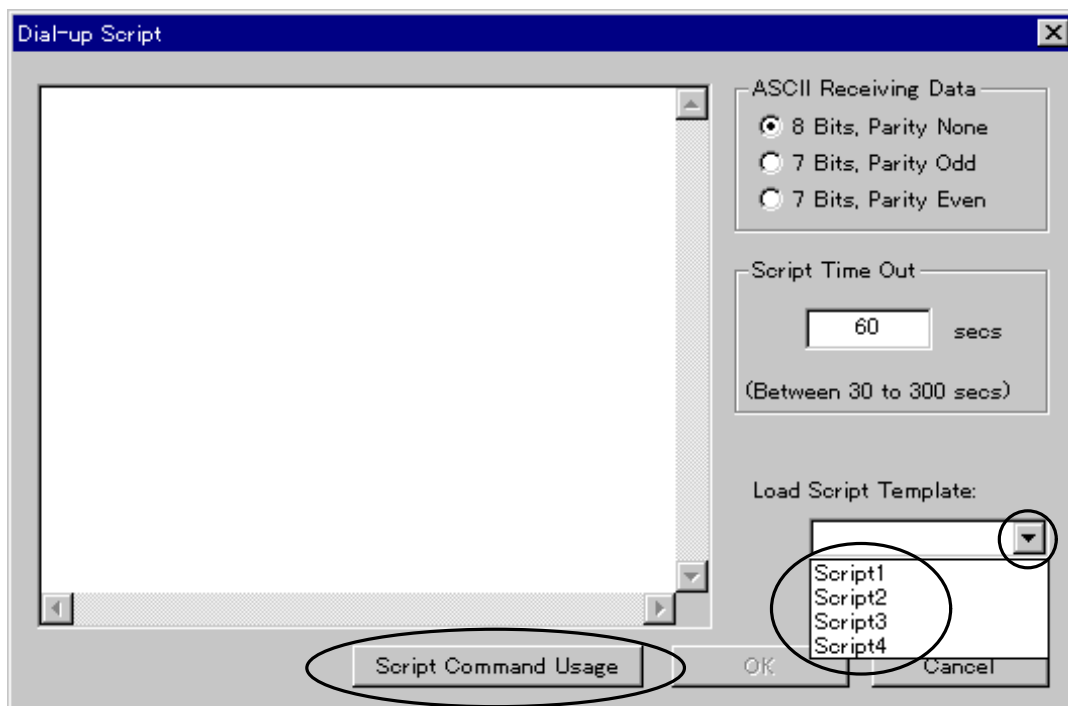
This script establishes a PPP connection with a host that uses a menu system.

Script3: This script is a modification of the script2.

This script establishes a PPP connection with Chinese public ISP.

Script4: This script is a modification of the script2.

This script establishes a PPP connection with Indian ISP VSNL.

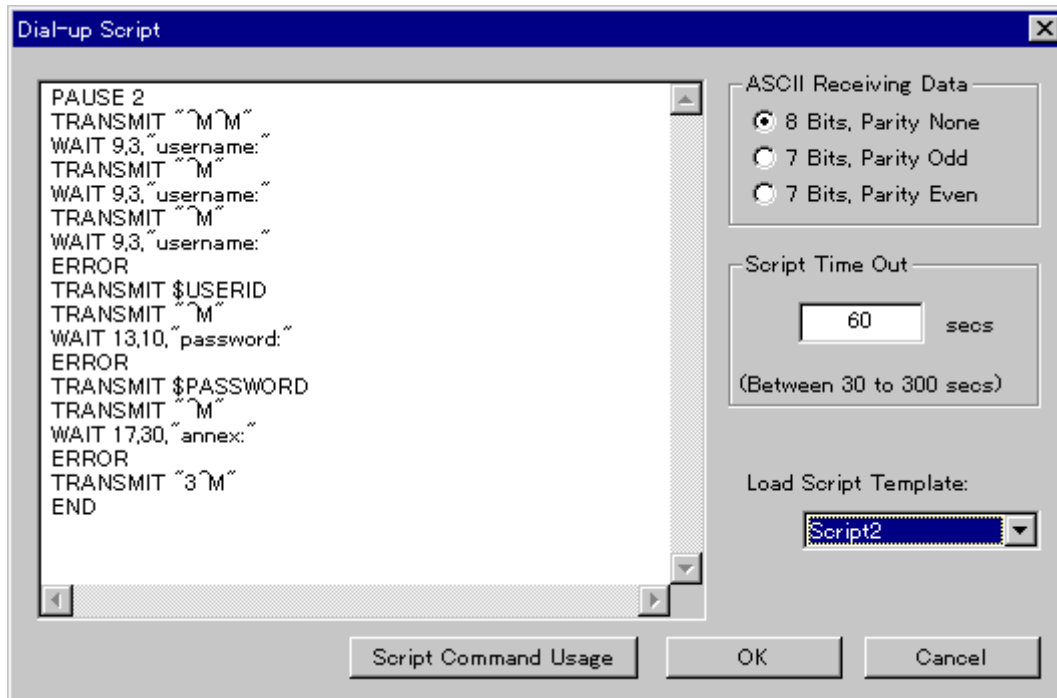


2. Change these variables and command to customize for your specific ISP.
For the Script command of ThinConnect4, click “Script Command Usage” button and see “Dial-up Script Command Usage” for more detail.
3. Click the “OK” button.

Script command and its variables will be explained on the next page by using Script 2 as example.

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Following are the Script command description and its variables.



Line1 PAUSE 2

Line2 TRANSMIT "^M^M"

Delay for 2 seconds first to make sure the host does not get confused when we send the two carriage-returns.

Line3 WAIT 9,3,"username:"

Wait 3 seconds for "username:" (login prompt).

If received data, jump to "Line 9". If timeout occurred, go to next line.

Line4 TRANSMIT "^M"

Line5 WAIT 9,3, "username:"

After sending carriage-returns repeat the Line3 operation again.

Line6 TRANSMIT "^M"

Line7 WAIT 9,3, "username:"

After sending carriage-returns repeat the Line3 operation again.

Line8 ERROR

Script end with error.

Line9 TRANSMIT \$USERID

Line10 TRANSMIT "^M"

Transmit "User Name" from the "ISP Dial-up IP Connection" window. (Page 16)
Follow by carriage-returns.

Go to next page

Line11 WAIT 13,10,"password:"

Wait 10 seconds for "password:" (password prompt)
If received data, jump to "Line 13". If timeout occurred, go to next line.

Line12 ERROR

Script end with error.

Line13 TRANSMIT \$PASSWORD

Line14 TRANSMIT "^M"

Transmit "Password" which set up at "ISP Dial-up IP Connection" window.

Line15 WAIT 17,30,"annex:"

Wait 30 second for an "annex:" (prompt).
If received data, jump to "Line 17". If timeout occurred, go to next line.

Line16 ERROR

Script end with error.

Line17 TRANSMIT "3^M"

This sample assumes that ISP displays a menu list like this.
Feel free to add more commands if your ISP requires it.

- 1 : Our special GUI**
- 2 : Establish slip connection**
- 3 : Establish PPP connection**
- 4 : Establish shell access**
- 5 : Download our software**
- 6 : Exit**

annex:

Transmit "3".

Line18 END

Script end normally.

This script assumes you only need to issue one command to continue.
Feel free to add more commands if your ISP requires it.

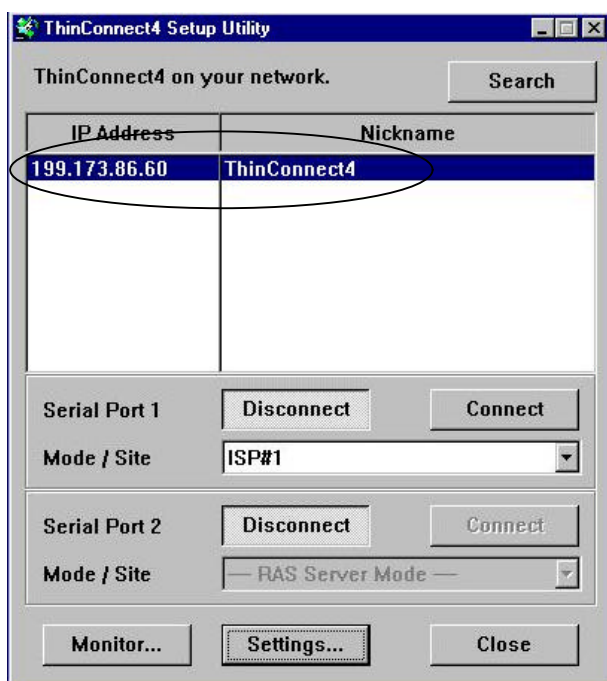
4. Manual Connection/Disconnection button

This section explains display and operation of connect/disconnect button.

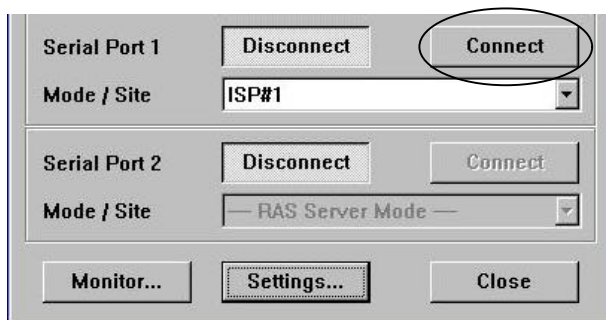
Using the “Manual Connection/Disconnection” button

The “Connect/Disconnect” button display will change according to line condition.

1. Start up “TC4 Setup Utility”.
2. If multiple ThinConnect4 is connected on the same LAN, click ThinConnect4, which you want to Connect/Disconnect.

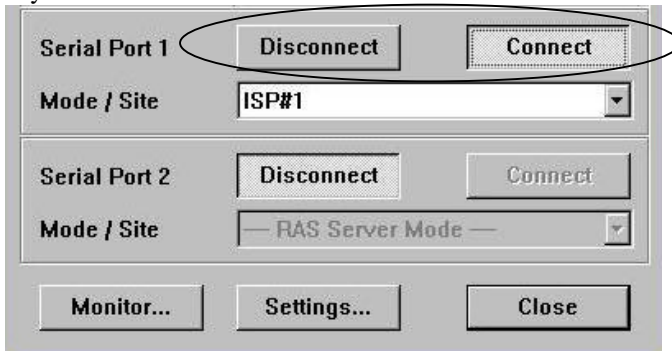


3. The window below shows the status which “line not connect”. If you want to connect, click “connect” button.



Go to next page

- If the connection with serial port is established, the display will change. The window below shows the status of “line connecting”. If you want to disconnect click “Disconnect” button.



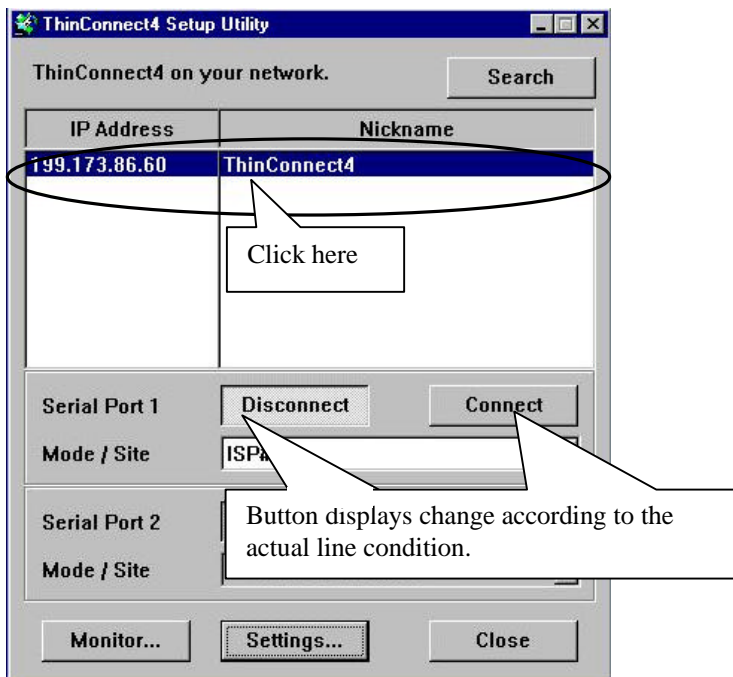
Using “Auto-Connection/Disconnection”

If user choose the Auto-Connection/Disconnection function, (available from a Serial port “Connection Timer tab) the “Connect” and “Disconnect” buttons display may NOT reflect the actual line condition of a serial port.

To refresh the display of a serial port condition:

Click a ThinConnect4 from the list.

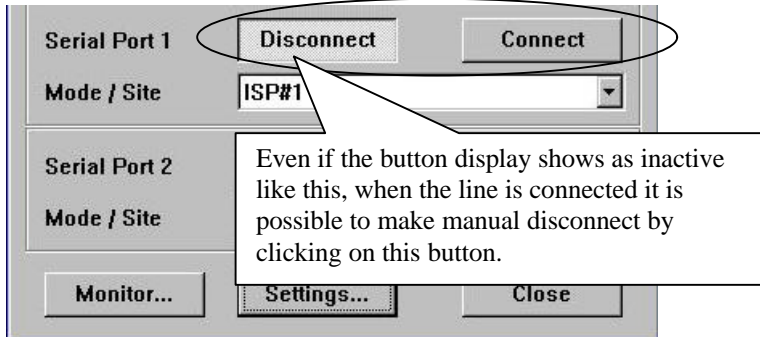
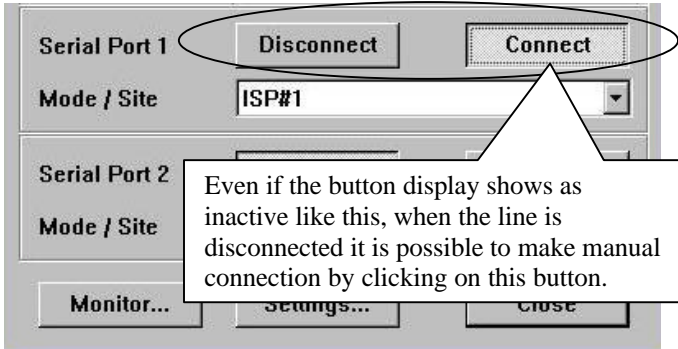
The button indicators will change according to line condition.



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Manually Connect/Disconnect a serial port.

User can overwrite the serial port operation, even if button display of “Connect” and “Disconnect” is appear to be inactive as show below, force the operation by click on the button.



Or click “connect” or “Disconnect” button after you made button display in accordance with the line condition. See the previous page “ To refresh the display a serial port condition”

End of 4. Manual Connection/Disconnection button

5. SNTP Client/Server Settings

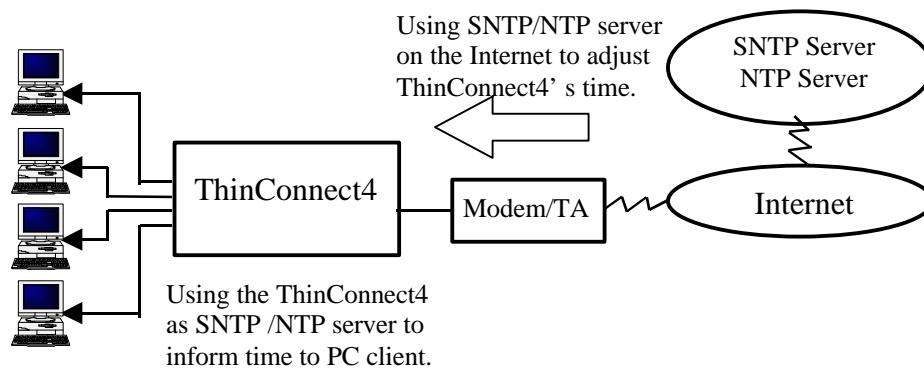
This section explains settings for SNTP/NTP (Simple Network Time Protocol/Network Time Protocol) client and SNTP server function in the ThinConnect4. The ThinConnect4 implement the SNTP client/Server as the following:

SNTP/NTP Client function

Using SNTP/NTP server on Internet (or LAN) to make time adjustment for ThinConnect4.

SNTP Server function

ThinConnect4 will inform time status to SNTP client (PC). Required a SNTP/NTP client program (See Note)



Note: There are SNTP/NTP clients programs for PC available from various sources on the Internet. (Go to any search engine's WEB page and search for SNTP or NTP)

PC's time setting when the SNTP/NTP is disabled.

At the following event, time status of a PC will be set to ThinConnect4 time.

- At the time "ThinConnect4 setup utility" startup.
- Click "Search" button on startup window of "ThinConnect4 Setup Utility".
- Click "update" or "cancel" button on the "General settings" window.

PC's time setting when the SNTP/NTP is enabled.

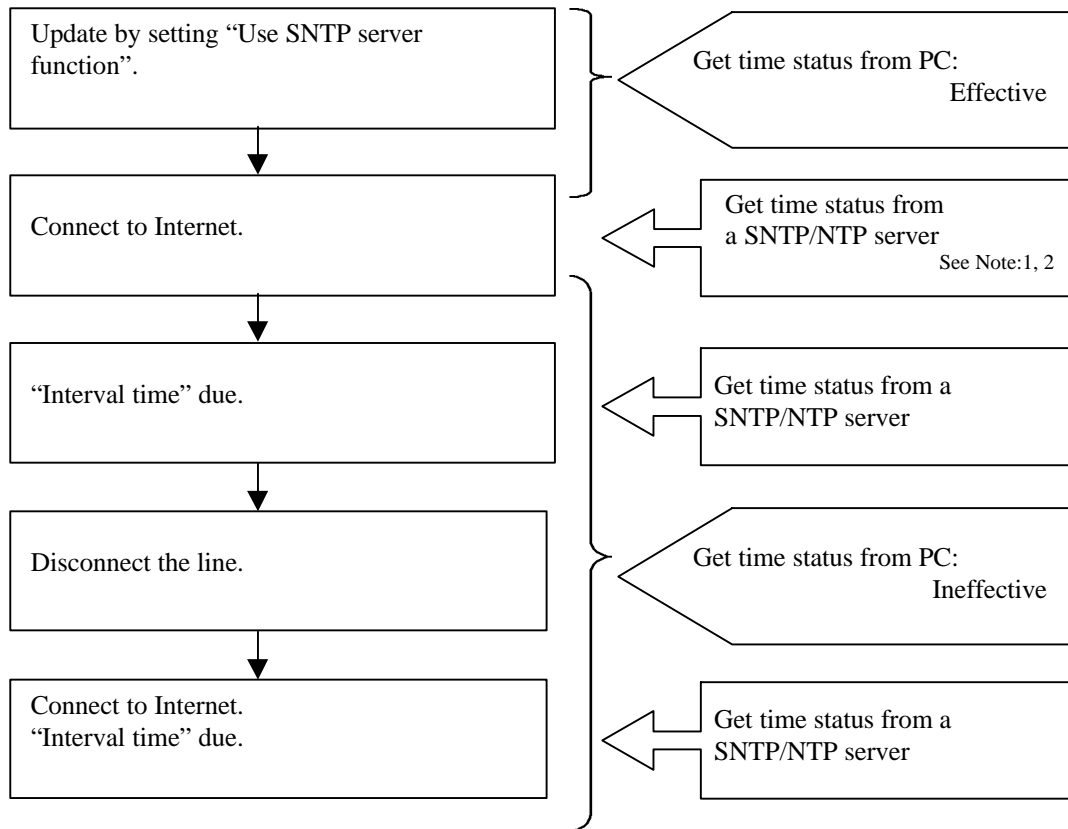
ThinConnect4 will get time status from SNTP/NTP server and update the ThinConnect4 internal time. The ThinConnect4 will update time status at the following cases.

- When the line is connected.
- When "Interval time" which previously set on this function become in effect while line connected.

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- In order to SNTP server function become effective, it is necessary to get time status more than once from other SNTP/NTP server.
- SNTP/NTP client function will not initiate the get time status from server if the line is not connected. (Automatic connection by client function is not possible).
The getting time status from SNTP/NTP server will become effective only when the line is already connected.
- To get time status from SNTP/NTP server is not consider as a communication.
- PC time will take effect, until ThinConnect4 get time status from SNTP/NTP server..

<Example: Dial-up IP Connection>



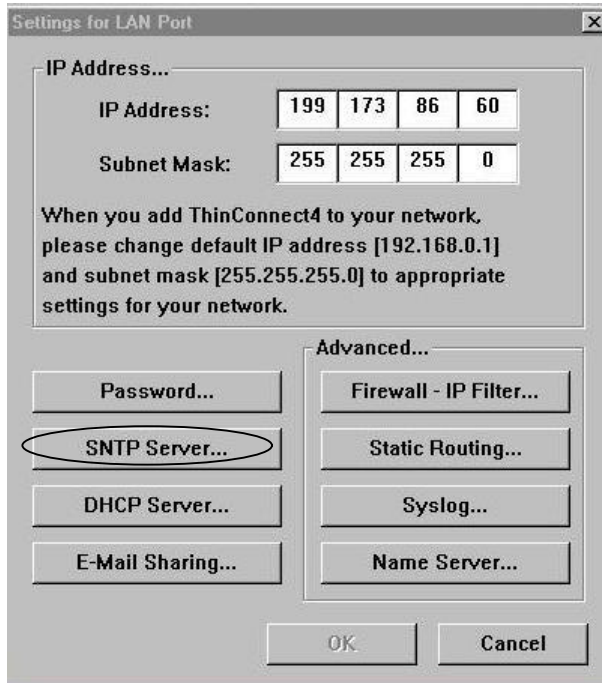
Note:

1. If ThinConnect4 fail to get time status from other SNTP/NTP server, then time status from PC will be used.
2. The ThinConnect4 SNTP server function will becomes effective as soon as the ThinConnect4 successfully get time status from a SNTP/NTP server.

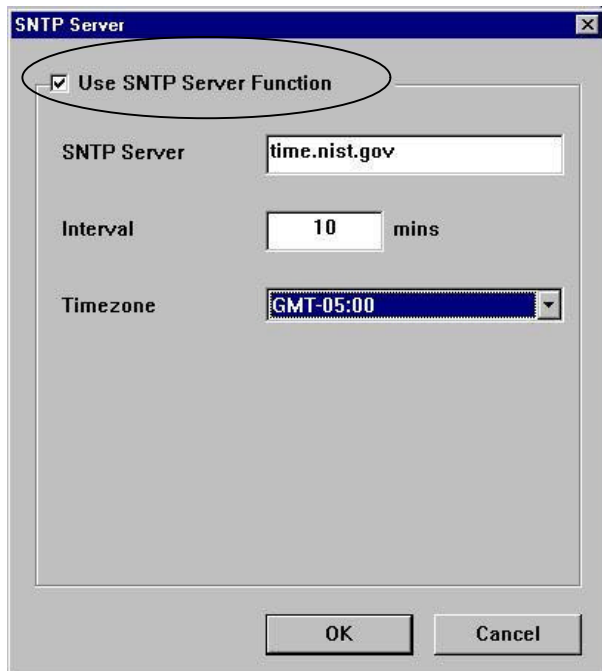
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Setting up the SNTP Server

1. From “Settings for LAN port” window, click “SNTP Server” button.

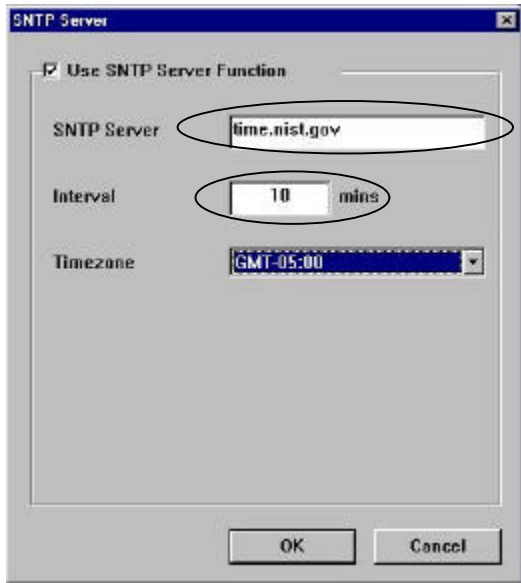


2. Place a check mark at the box “Use SNTP server function”. If you do not wish to use this function leave the box empty.

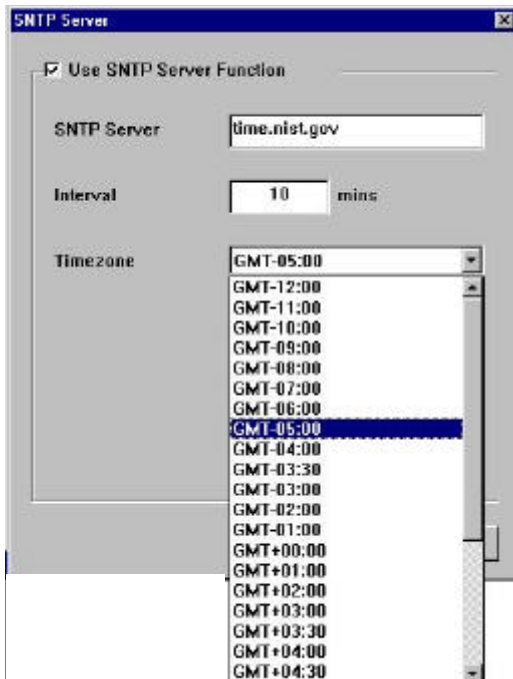


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3. Enter SNTP Server name or IP Address at “SNTP Server” field.
(See next page for North America server list)
Enter “Interval time” (in minute) which ThinConnect4 will get time status update from SNTP Server at “Interval” field.



4. Click right pull-down “Time Zone” button.
Select Time zone from the list where you are located.
Time zone of Japan (GMT+09:00) has been set as factory default.
If you do not know which time zone you are located,
Go to “My Computer” choose “Control Panel, click “Date/Time” then “Time zone” tab.



5. Click “OK” button.

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Setting for PC client program

Enter ThinConnect4 IP address or nicknames on Server setting Items with SNTP Client software for PC.

If you want to make settings by nicknames add a “.” (Period) after the ThinConnect4’s nicknames in the SNTP client software server settings.

< Example> ThinConnect4 nickname: “SAM”
Server settings of SNTP Client software: “SAM.” <-Add period at the end.

North America SNTP server list.

bitsy.mit.edu
clock.isc.org
ncar.ucar.edu
ntp.css.gov
ntp2.usno.navy.mil
tick.usask.ca
timelord.cs.uregina.ca
tick.usno.navy.mil

End of 5. SNTP Client/Server Settings

6. NAT and IP Masquerade Function Setting

The NAT (Network Address Translation) and IP Masquerade functions are available from the following connection mode.

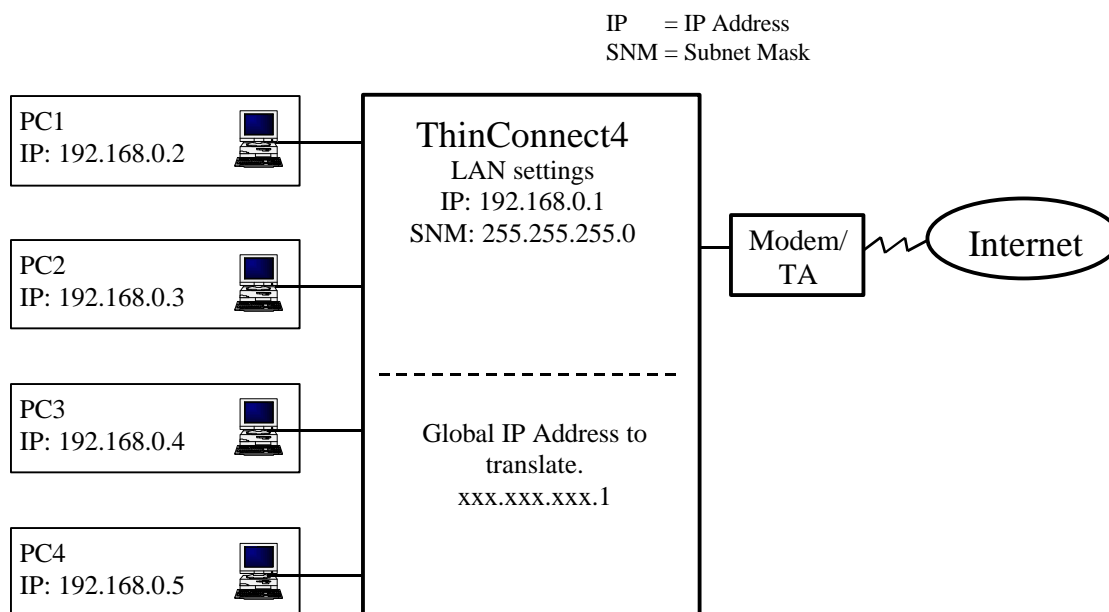
- ISP Networking Dial-Up IP Connection
- Networking Dial-Up IP Connection
- ISP Leased Line IP Connection
- Leased Line IP Connection

By utilizing the NAT and IP Masquerade function, ThinConnect4 will be able to translate global IP address into private network IP address.

IP Translation Method

Translate from one global IP Address

A good example of this type of translation is when ThinConnect4 connecting to an ISP. Once connected, ISP will assign only. The IP Masquerade will translate one global IP address (xxx.xxx.xxx.1) to multiple private networks (192.168.0.1 to 192.168.0.254)



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Translate from Multiple global IP Address

In this example the ISP allocate a block of global IP address to ThinConnect4.
 NAT will translate global IP address to private IP address base on one to one basis.
 The IP Masquerade will translate final set global IP address to multiple private IP address.
 Example:

- Global IP address from ISP: 111.111.111.128
- Subnet mask from ISP: 255.255.255.248

Number of global IP address of the above network address is 8.
 (From “111.111.111.128” to “111.111.111.135”)

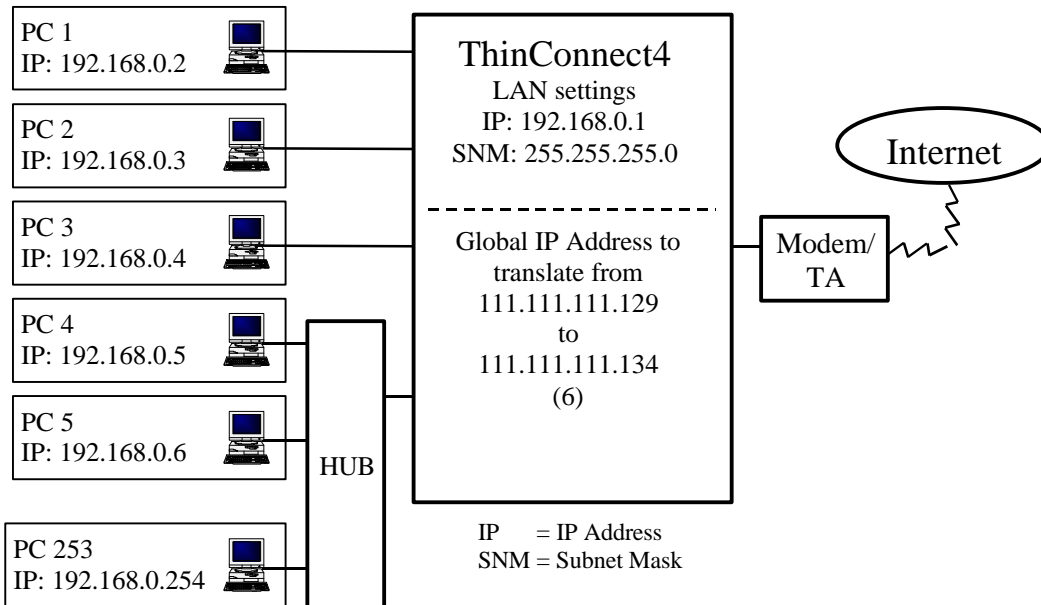
In this case “111.111.111.128” will be used as Network Address and “111.111.111.135” will be used as broadcast address. These two IP addresses are reserved and can not allocate to PC and Router.

There for the usable global IP Address is 6 from “111.111.111.129” to “111.111.111.134”.

Enter the “Use IP Address Translation” as: (See ThinConnect4 setting next page)

“Start IP Address“: 111.111.111.129 “Number of Address“: 6

The screenshot shows the 'Use IP Address Translation' configuration window. The 'Use IP Address Translation' checkbox is checked. The 'Start IP Address' field is set to 111.111.111.129. The 'Number of Addresses' field is set to 6, with a range of (1 to 16) shown in parentheses. The 'IP Masquerade' field is set to 111.111.111.134. There is a button labeled 'IP Masquerade Table...' and 'OK' and 'Cancel' buttons at the bottom.

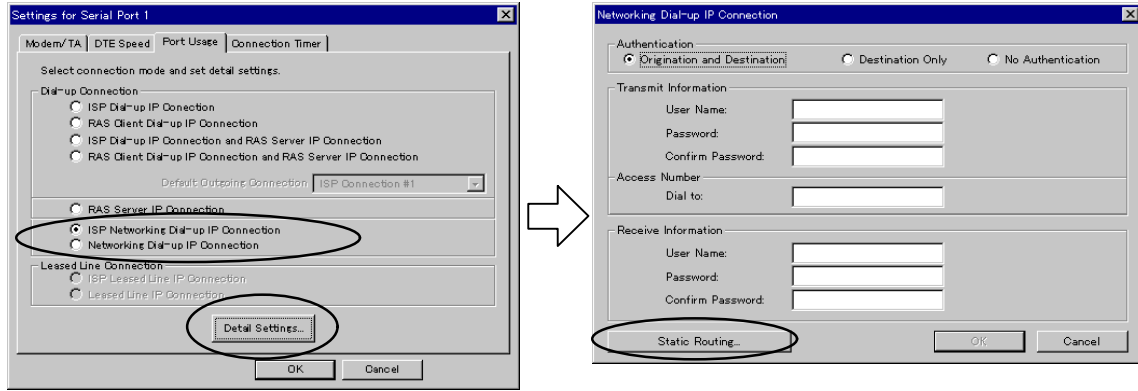


Global IP Address		Private IP Address	Address Translation
111.111.111.129	↔	192.168.0.1	NAT
111.111.111.130	↔	192.168.0.2	NAT
111.111.111.131	↔	192.168.0.3	NAT
111.111.111.132	↔	192.168.0.4	NAT
111.111.111.133	↔	192.168.0.5	NAT
111.111.111.134	↔	192.168.0.6 to 192.168.0.254	IP Masquerade

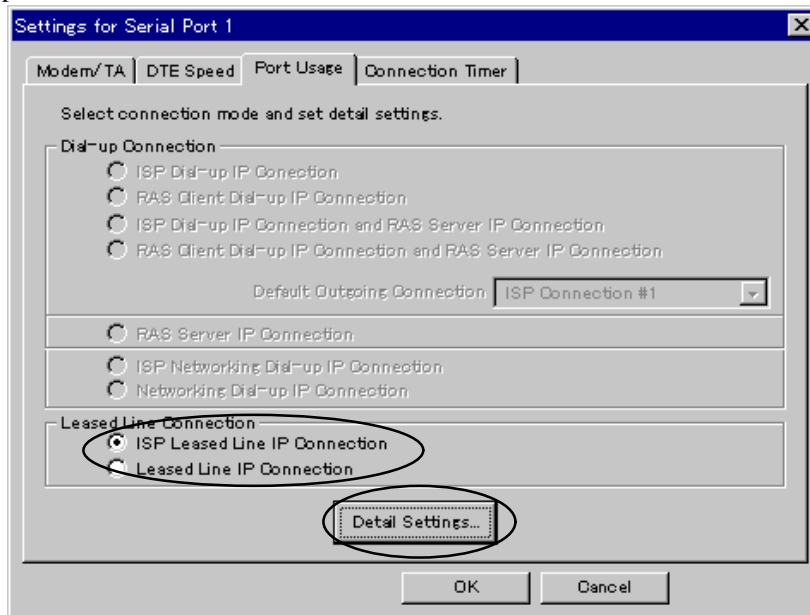
ThinConnect4 Setting

To setup the NAT and IP Masquerade follow the instructions below.

1. For the “ISP Networking Dial-Up connection” or “Networking Dial-Up IP Connection”.
Click “Static Routing” button on the “Networking Dial-Up IP Connection” window.



2. For the “ISP Leased Line IP Connection” and “Leased Line IP Connection”.
Open “Leased Line IP Connection” window.



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3. The Routing for Serial Port window will be shown.

The screenshot shows the 'Routing for Serial Port' dialog box. At the top, it says 'In case of this connection, The settings for routing table are unnecessary.' Below this is a checked checkbox 'Set This Serial Port to Default Gateway'. The 'Static Routing Table (Serial Port)' section contains two input fields for 'IP Address' and 'Subnet Mask', each with four empty boxes. Below these is a table with two columns: 'IP Address' and 'Subnet Mask'. To the right of the table are three buttons: 'Add', 'Edit', and 'Remove'. Below the table is an unchecked checkbox 'Use IP Address Translation'. Underneath it are 'Start IP Address' (four boxes with '0') and 'Number of Addresses' (a box with '0' and '(1 to 16)'). There is also an 'IP Masquerade' field with four boxes and an 'IP Masquerade Table...' button. At the bottom are 'OK' and 'Cancel' buttons.

4. Place a check mark on “Use IP Address Translation”.
If you do not use this function leave the entry blank. (There is no Address Translation taking place).

This screenshot is identical to the previous one, but the 'Use IP Address Translation' checkbox is now checked and circled with a red oval. The rest of the dialog box remains the same.

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5. Setting the global IP Address and it's number to be translated.
Enter starting IP address into "Start IP Address" field.
Enter number of IP addresses which you want translated in sequence of "Start IP Address" at "Number of Address" field.

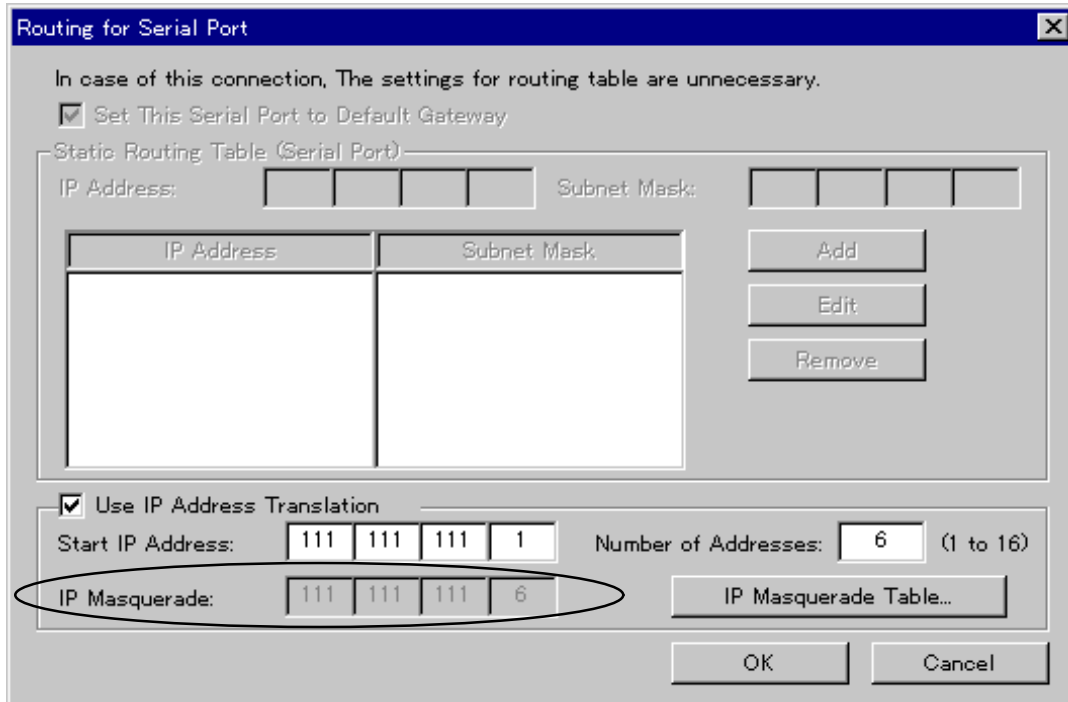
The screenshot shows the 'Routing for Serial Port' dialog box. At the top, it states: 'In case of this connection, The settings for routing table are unnecessary.' Below this, there is a checked checkbox 'Set This Serial Port to Default Gateway'. The 'Static Routing Table (Serial Port)' section contains two input fields for 'IP Address' and 'Subnet Mask', and a table with two columns: 'IP Address' and 'Subnet Mask'. To the right of the table are three buttons: 'Add', 'Edit', and 'Remove'. Below the routing table, there is a checked checkbox 'Use IP Address Translation'. This section contains a 'Start IP Address' field with the value '111 111 111 1' and a 'Number of Addresses' field with the value '6' (with '(1 to 16)' in parentheses). Below this is an 'IP Masquerade' field with the value '111 111 111 6' and an 'IP Masquerade Table...' button. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

The above window examples shows the global IP Address from "111.111.111.1" to "111.111.111.6" to be translated into Private IP Address.

The value in the above window is only for a reference.
Please enter the appropriate setting to meet with your environment.

Go to next page

6. After complete all settings on this setting window (OK button is active), the “IP Masquerade” field will show the starting global IP address translated by the IP Masquerade function.



From the above example window, IP Masquerade function translate address “111.111.111.6” and NAT function translate address from “111.111.111.1” to “111.111.111.5”.

The value in the above window is only for a reference.
Please enter the appropriate setting to meet with your environment.

7. Click “IP Masquerade Table” button, “Static IP Masquerade Table” window will be shown. If you want to make setting, please refer “Detail Settings of IP Masquerade” on the User’s Manual. This setup is optional that you can proceed it if necessary.
8. Click “OK” button after completes all setting.

End of 6. Leased Line NAT Function Setting

7. Change or Add Firewall items

This section explains the procedure to change or add Firewall items available in this version.

Factory default

The following Firewall function is set up at the factory.

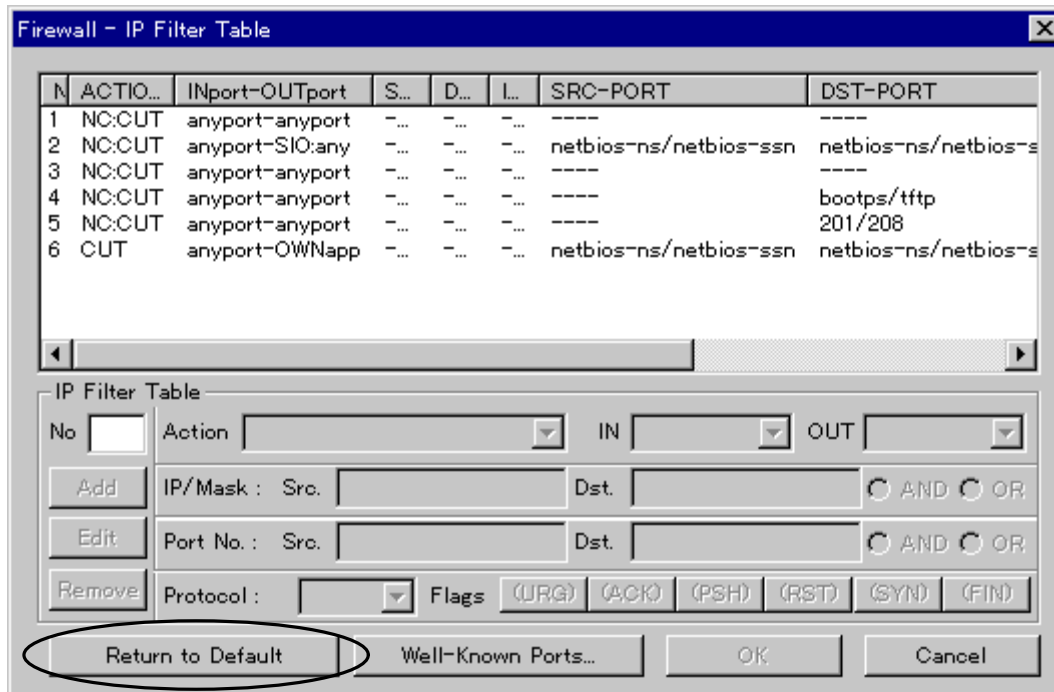
- Interdict automatic line connection by ICMP.
- Interdict automatic line connection by NetBIOS on TCP/IP Services.
(Interdict automatic line connection by Windows startup and finish)
- Interdict automatic line connection beside TCP connection (SYN) flag.
(Interdict automatic line connection by the end of application)
- Interdict automatic line connection by BOOTP, TFTP.
- Interdict automatic line connection by Apple Talk.
- Shut out to supply NetBIOS on TCP/IP Services to ThinConnect4 application (Proxy DNS function, SNTP server function, etc).
(Interdict automatic line connection if ThinConnect4 application start)

The above 6 items is applicable to use on the same LAN.

Be careful, when you change or delete the above control default value. It may cause ThinConnect4 to behave erratically such as unwilling dial-up, or not able to make connection during dial-up.

If the problem occur, EXP recommend setting IP filter to the default value.

Click "Return to Default" button will set "Firewall - IP Filter Table" to default.



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Change the Factory default items

Entry No. 2 (partial change)

< Interdict automatic connection of line by NetBIOS on TCP/IP >

ACTION	NC:CUT	(no change)
INport	anyport	(no change)
OUTport	SIO:any	(before change “anyport”)
IP/Mask : Src.	<i>No setting</i>	(no change)
IP/Mask : Dst.	<i>No setting</i>	(no change)
IP/Mask : AND/OR	<i>No setting</i>	(no change)
Port No : Src.	netbios-ns/netbios-ssn	(no change)
Port No : Dst.	netbios-ns/netbios-ssn	(no change)
Port No : AND/OR	OR	(no change)
Protocol :	any	(no change)

Entry No. 6 (Newly added)

< Shut out to supply NetBIOS on TCP/IP Services to a ThinConnect4 application >

ACTION	CUT
IN (INport)	anyport
OUT (OUTport)	OWNapp
IP/Mask : Src.	<i>No setting</i>
IP/Mask : Dst.	<i>No setting</i>
IP/Mask : AND/OR	<i>No setting</i>
Port No : Src.	netbios-ns/netbios-ssn
Port No : Dst.	netbios-ns/netbios-ssn
Port No : AND/OR	OR
Protocol :	UDP

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Newly added setting Items

“OWNapp” will be added for port selection in “IN (INport)” and “OUT (OUTport)”.

OWNapp: These are ThinConnect4 application. (Proxy DNS function, SNTP Client/server function, E-mail share function, etc)

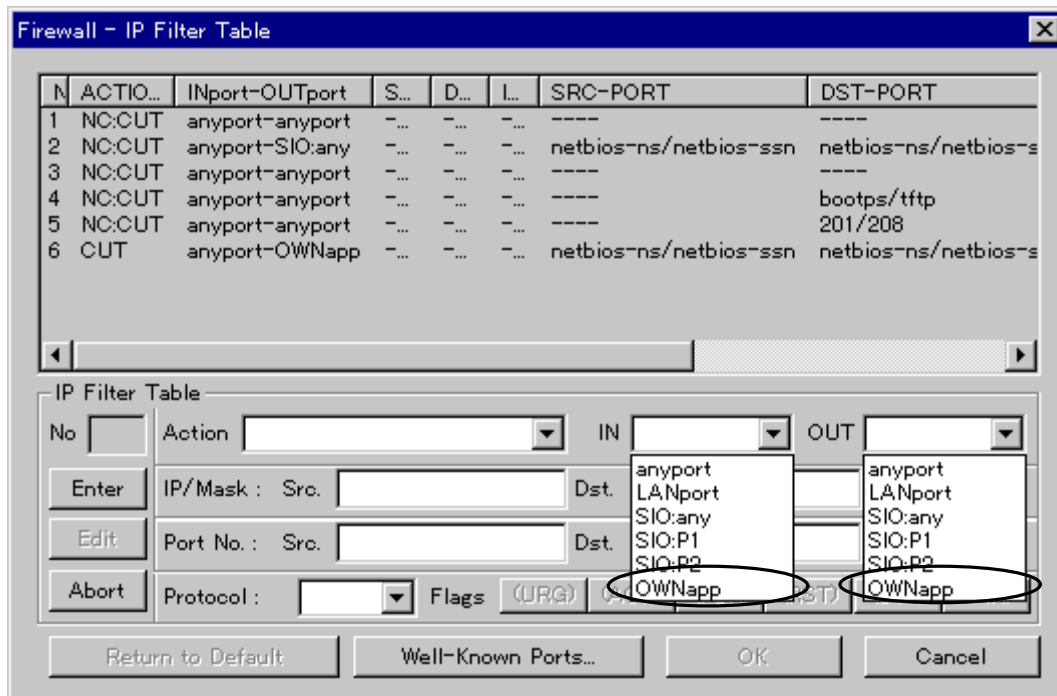
Reference samples:

“IN” = “LANport” “OUT” = “OWNapp” :

-> **Objected** IP frame from LAN port to ThinConnect4 application. ??????????

“IN” = “OWNapp” “OUT” = “SIO:P1” :

-> **Objected** IP frame from ThinConnect4 application to serial port 1. ??????????



For details “Firewall – IP Filter Table” please refer to the Manual book attached to the product on the article “7.1 Firewall – IP Filter Table Settings”.

End of 7. Changed/Added items of Firewall Function

8. Syslog Monitor function

This section explains detail of Syslog Monitor function.

The Syslog Monitor function displays and log system activity information of the ThinConnect4.

The detail information such as of connection/disconnection will be available.

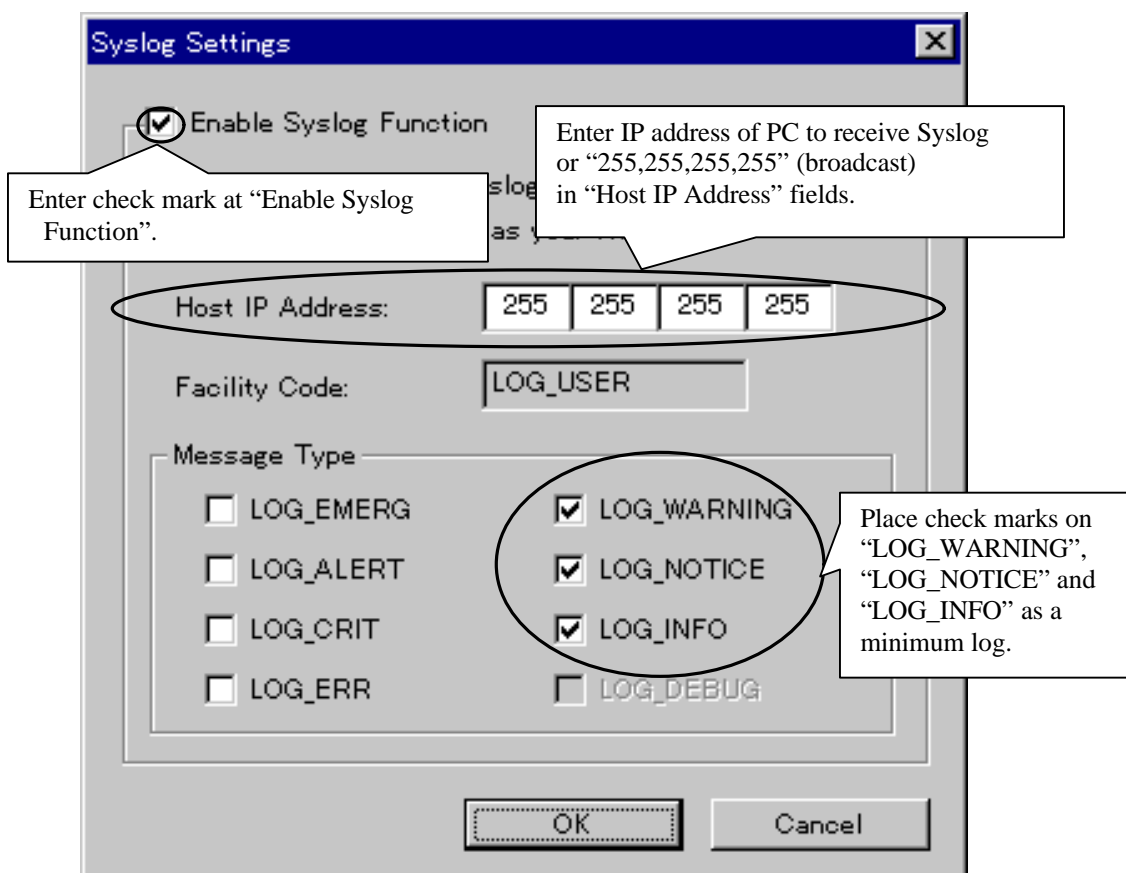
In order to use Syslog Monitor function, it is necessary to set up the Syslog function first.

For details of “Syslog settings” please refer to the User Manual on section “7.3 Syslog settings”.

A simple Syslog function setting will be explained as follows.

Syslog function settings

1. Start “ThinConnect4 Setup utility”.
2. Select ThinConnect4 to setup and click “Settings” button.
3. Click “Settings” button in “LAN Port”.
4. Click “Syslog” button in “Advanced”.
5. Setup the items mentioned below and click “OK” button.

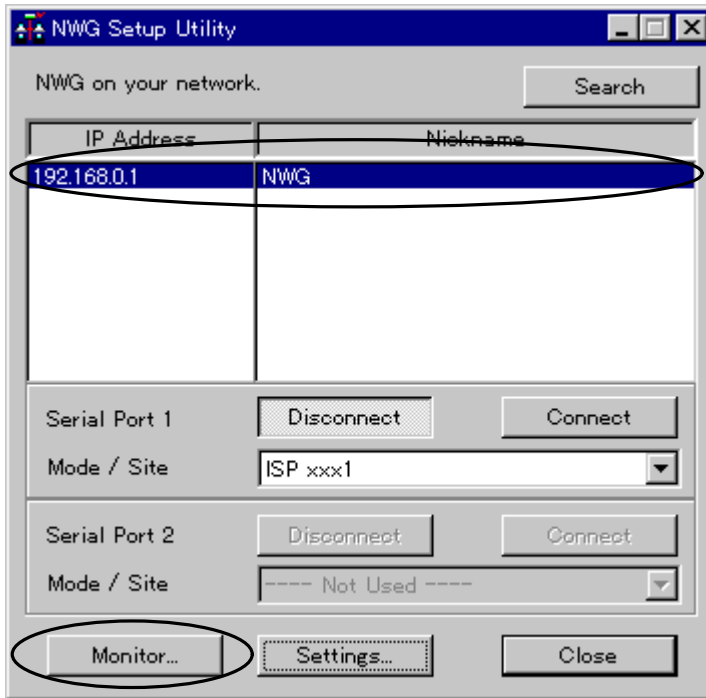


Go to next page

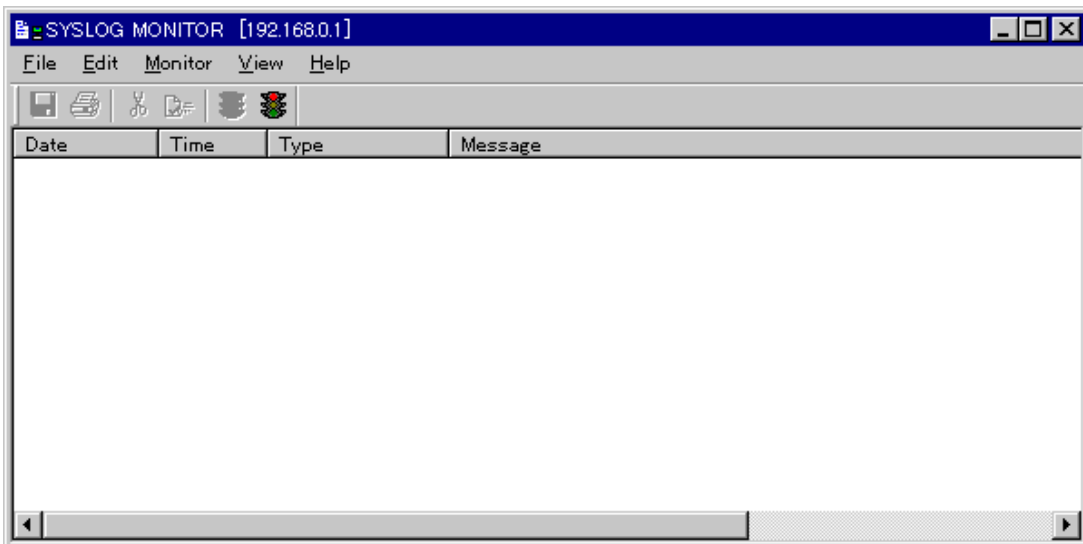
Syslog Monitor

To display the information logged by the Syslog, follow the step below.

1. Start “ThinConnect4 Setup utility”.
Select a ThinConnect4 from the list and click the “Monitor” button.



2. “Syslog Monitor” will start up and window will be open.



When other syslog program is on, it will be possible that syslog Information might not shown.
Do not work with other syslog program at the same time.

End of 8. Syslog Monitor function