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Overview

NPCOMM(an abbreviation of "Network Pseudo Communication port") is a software which adds a pseudo communication port to a Windows system and (1) redirects control and data to a PortSharing server (which will be described later); or (2) converts data to telnet protocol.

The pseudo port added by NPCOMM acts like a physical COM port.

If you select telnet converting function, NPCOMM acts as a modem (but a very simple one) connected to the pseudo port, and waits for a pre-defined dial command and connects to destination host on the detection of the pre-defined dial command.

Relation: Architecture of NPCOMM

Please pronounce "ennu-pee-comu"

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Organization of this software

This software is organized by two software part, NPCOMM and PortServ.
NPCOMM is main portion of this software.
PortServ is a server programs for PortSharing.
You should start up PortServ at somewhere on your LAN if you wish to use PortSharing function of NPCOMM.

Archive file contains following files.

- Followings are for NPCOMM client part

NPCOMM.exe	Main program of NPCOMM
pcomm32_.vxd	Pseudo COM port driver for Windows95
instnp.exe	Pseudo COM port driver installer for WindowsNT
pserial.sys	Pseudo COM port driver for WindowsNT
Winnttcp.dll	NPCOMM Dll for WindowsNT
Win95tcp.dll	NPCOMM Dll for Windows95

- Followings are documents

Readme-e.txt	README file.
License.txt	License agreement.
NPCOMM-e.hlp	This help file.
NPCOMM-e.cnt	Contents file for help file.
Readme-j.txt	README file(Japanese version).
NPCOMM-j.hlp	Help file written in Japanese.
NPCOMM-j.cnt	Contents file for Japanese help file.

- Followings are for PortServ part

PortServ.exe	PortSharing server program for Windows95 and NT
PSS.exe	PortSharing server SERVICE for WindowsNT
instps.exe	PortSharing SERVICE installer for Windows95 and NT
resetps.exe	reset tool for PortServ.

- Followings are for registration.

Register.txt	Instructions for registration work.
Register.exe	A program for generate your payment data.
Register.hlp	Help document for Register.exe

- Depend on environment you are using, some files are not needed.
But you don't need to delete it.
- PortServ.exe and PSS.exe are functionally same, only situation for use is different.

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Environmnet

Each programs included in this software are works on the following environment.

- NPCOMM ver 1.50 Works on Windows95, WindowsNT4.0, WindowsNT3.51
- PortServ.exe works on Windows95, WindowsNT4.0, WindowsNT3.51
- PSS.exe works on WindowsNT3.51, WindowsNT4.0

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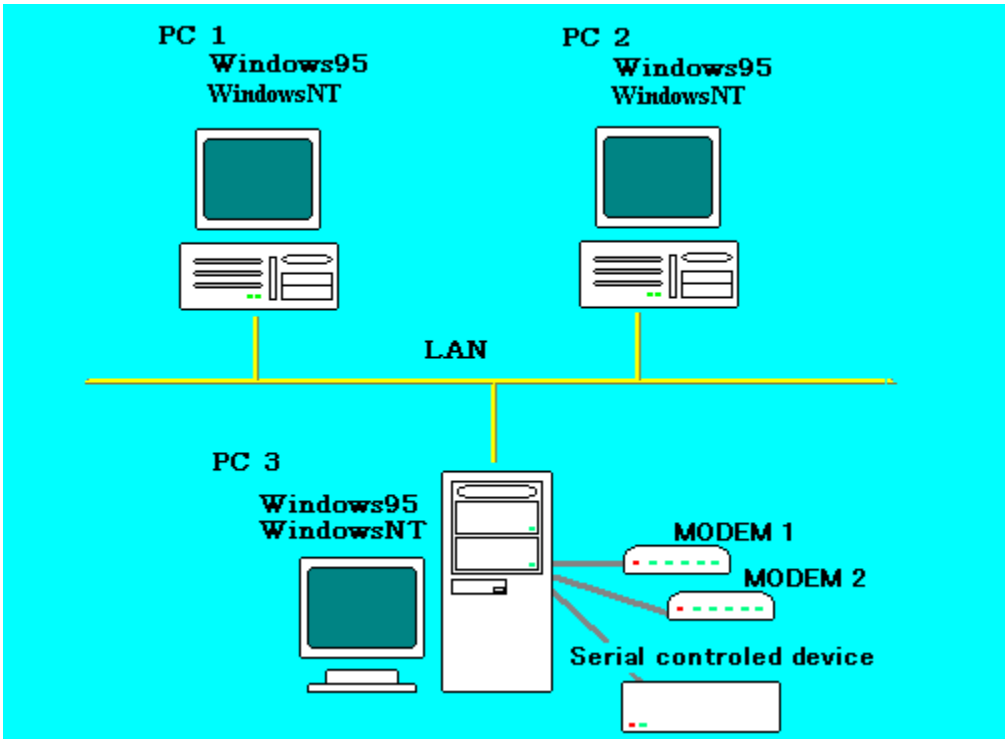
About PortSharing

The figure following is the example which utilizes NPCOMM's PortSharing function. Executing PortServ on "PC 3" and executing NPCOMM.exe on "PC 1" or "PC 2" (or on both) make it possible for "PC 1" or "PC 2" to use Modems connected to "PC 3" as locally connected Modems.

NPCOMM doesn't "share" connection, only exclusively use another machine's COM port. PortServ doesn't grab local COM port until client(NPCOMM) comes to connect.



This machine act as PortSharing client upon you start up NPCOMM.
Then you can use modems and another serial controllable equipment on PC3 through NPCOMM.

This machine act as PortSharing server upon starting up PortServ.
Then programs on PC1 or PC2 can use COM ports on this machine.

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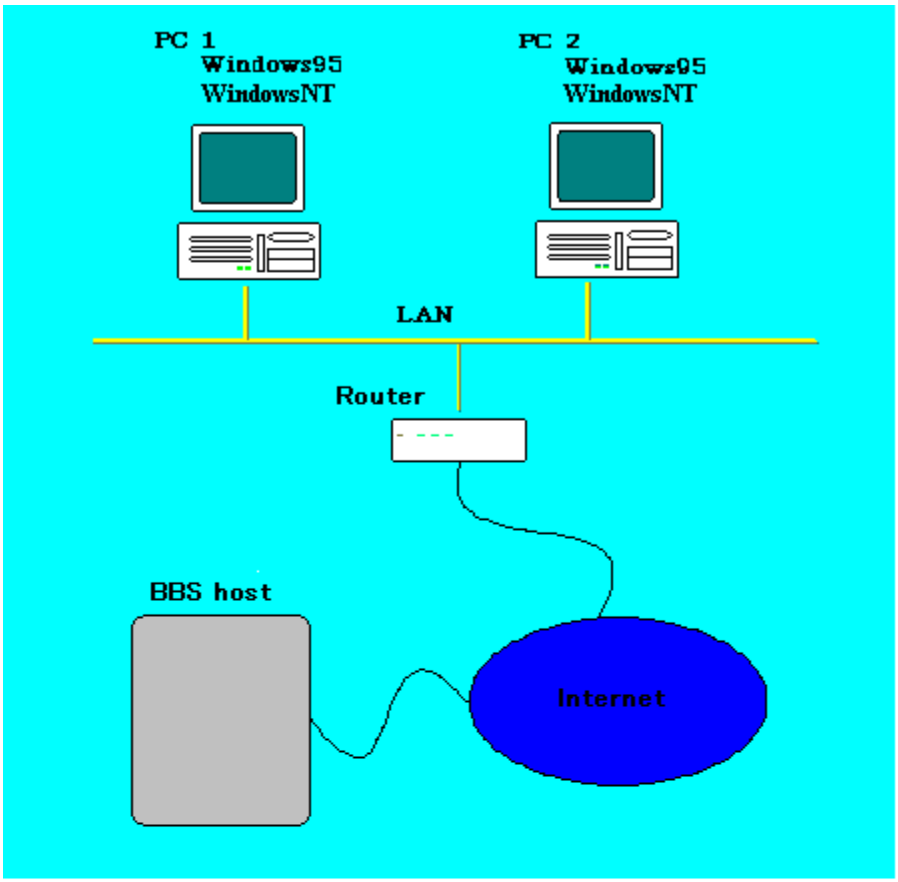
About TELNET conversion function

The figure following shows an example which uses TELNET function of NPCOMM.
NPCOMM.exe is running on "PC 1" or "PC 2" (or on both).
With using NPCOMM, communication software which has no ability of TELNET can access to BBS via Internet.
(In this case, the BBS have to support TELNET login method)



It is not required that you are using environment exactly same to this figure.

On this machine, you can connect BBS on the internet using communication software which have no TELNET ability.

The equipment which connect LAN and Internet.

No need to explain.

This is a BBS host.
Requires to support TELNET login method

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Installing and Uninstalling

This software have no installer.
Though process of installation is depend on OS you using, you don't have to manually move individual files or fix registories.

At first, please extract all files from archive to appropriate folder.
The process after this is bit different by OS you using.

Installation on Windows95

Installation on WindowsNT

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Installing on to Windows95

Installing

After you have extracted files from archive, just start up **NPCOMM.exe**.
If starting up **NPCOMM.exe** is failed, please check the directory **NPCOMM.exe** started up contains **pcomm32_.vxd** file.
Or if you created "short cut" of **NPCOMM.exe**, please check the working directory of that short cut is correctly set to the directory **pcomm32_.vxd** exist.

Uninstalling

Start up **NPCOMM.exe** once then exit **NPCOMM.exe**, then delete all files you extracted from archive.

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Installing on to WindowsNT

Installing
1. After you have extracted all files from archive, please start up `Instnp.exe`.
2. Register "Pseudo COM port driver" (`pserial.sys`) to your WindowsNT system by using Instnp.exe.
3. Start up NPCOMM.exe

Uninstalling
1. Exit NPCOMM.exe.
2. Unregister "Pseudo COM port driver" from your system by using `Instnp.exe`.
3. Delete all files you extracted from archive.

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Starting up and exitting NPCOMM

Simply start up NPCOMM.exe  , or you can make a "short cut" of NPCOMM on to "Startup" folder.

If starting up NPCOMM has succeeded, you will see an NPCOMM's icon on "system tray".
* Only one NPCOMM can run on a system.

An icon of NPCOMM on system tray

If some application program using this "Pseudo COM port" , color of this icon will be changed.

On starting up, NPCOMM searches vacant COM port name, and it create a COM port of that name.
For example, if physical hardware have two COM port(COM1, COM2), NPCOMM adds COM3 to your system.
refer to :Behavior Difference on OS

Applications can use this "Pseudo COM port" like as normal physical COM port.

Various setting of NPCOMM can be manpulated by using Popup menu which you can see by clicking the icon of NPCOMM on the system tray.

If you wish to exit NPCOMM, please use Popup menu item "Exit".
(If an application using "Pseudo COM port", you can't exit NPCOMM)

You can see Popup menu by clicking this icon.

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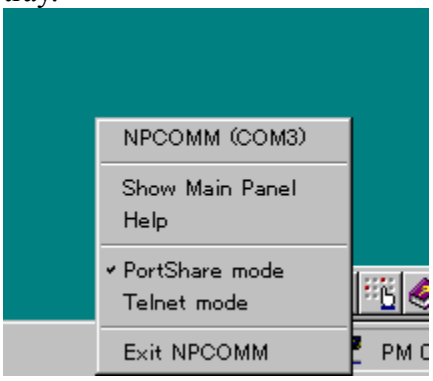
Popup menu of NPCOMM

You will see a Popup menu like following upon clicking an icon of NPCOMM on the system tray.



- **Clicking on the figure shows some description.**

You will see a help topic by pressing F1 key on dialog box displayed.

This menu item have no action set.
Just displaying that this popup menu belongs to NPCOMM the name of pseudo COM port.

As this menu item selected, Main control panel of NPCOMM will be displayed.

If you select this item, NPCOMM become the mode which offers PortSharing function.
Upon PortSharing function selected, a check mark is displayed left side of this menu item.

If you select this menu item, NPCOMM get into a mode which offers TELNET conversion function.
Upon TELNET conversion function selected, a check mark is displayed on the left side of this menu item.

To quit NPCOMM, select this menu item.
If another application using pseudo COM port, this menu item can not be selected.

You canl see help document by selecting this menu item.
And on each dialog boxes displayed, you can press F1 key to see help topic of its dialog box.

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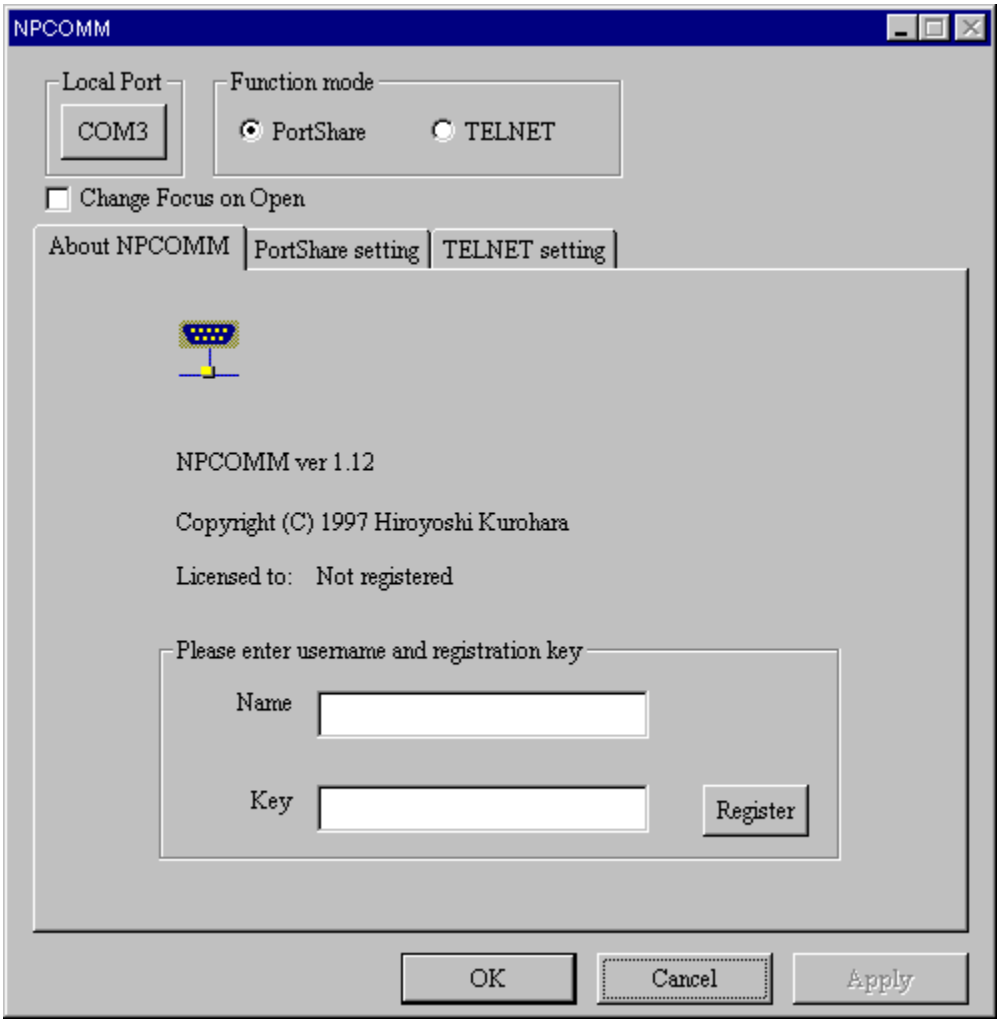
Main control panel of NPCOMM

You will see the following dialog box by selecting Show Main Panel on popup menu
This is the main windows of NPCOMM



• **Clicking on the figure shows some description.**

In this frame, the COM port name NPCOMM added to system is displayed.
If you using NPCOMM on Windows95, the part displaying port name act as button.
On you press this button, Local Port setting dialog will be displayed.

If this radio button is on, NPCOMM is in the mode which offers PortSharing function.

If this radio button is on, NPCOMM is in the mode which offers TELNET conversion function.

Message from NPCOMM will be displayed.

Clicking this button displays PortShare setting dialog.

Pressing this button displays Telnet setting button.

This part displays the version number of NPCOMM.

This part displays the status of license.

If you have not registered, you will see this button.

You enter your user name here.
If you have not registered, you will see this button.

You enter your license key.
If you have not registered, you will see this button.

If this check box is checked, NPCOMM moves Window focus to other window from application window when port opened.
Some application software doesn't work with NPCOMM correctly if the application grabbing window focus.

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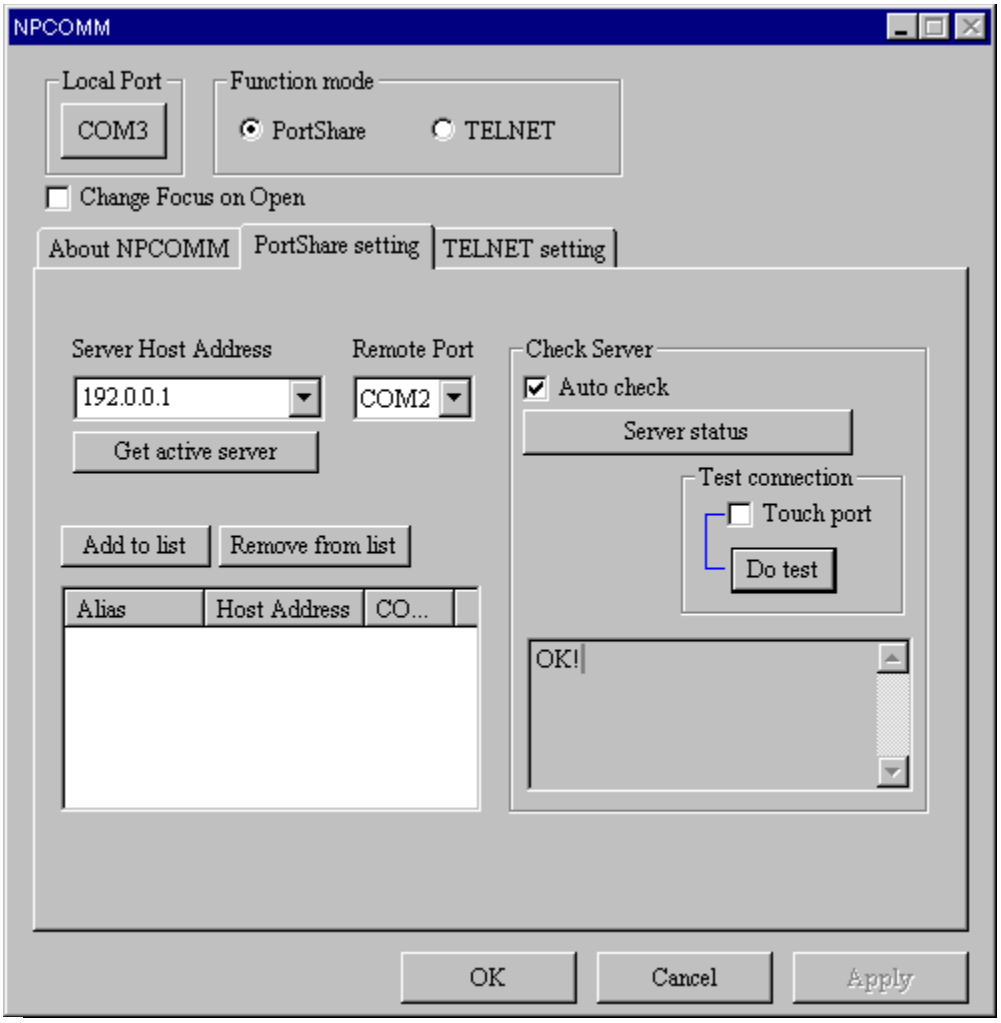
PortShare setting dialog
Clicking "PortShare setting" tab on Main panel shows following dialog box.
You can set up PortShare function hare.



• **Clicking on the figure shows some description.**

*At "Server host address" text box, you can set host name or IP address.
If you wish to set symbolic host name, host name resolving mechanism has to be working on your Windows system.
If that mechanism is not working, you shold set IP address there.
If you set IP address here, you should input dot('.') separated 4 digits format like

```
192.0.0.1
133.210.12.43
```

.

The result of ***Do test*** is displayed text box located below of the button.
Following result message will be displayed.

OK!
Already connected!
No responce!
Port occupied!

Getting result may take up to 5 second.

"**OK!**" means you could connect to PortSharing server.
If you have checked ***Touch port***, "**OK**" means the selected COM port on PortSharing server machine could be grabbed.
And 4 digits will follows after "OK", these digits are status of modem line CTS, DSR, RI, CD.

"**Already connected!**" means you have already connected through pseudo COM port.

"**No responce!**" means PortSharing server you specified was not available.

"**Port occupied!**" means you could connect to PortSharing server but you could not grab the COM port you specified.
This message could be displayed only if you checked ***Touch port***.

***Do test* can not check whether the modem(or another equipment) is connected to the COM port or not.**
Only checks availability of PortSharing server and COM port.

Text box to specify PortSharing server machine.
If your Windows system has ability to resolv IP address from host name, you can set host name here.
If not, you should set IP address here.

Select COM port name on the PortSharing server machine you wish to use.

If you set check on this check box, doing Pinger makes further check about availability of specified COM port on the PortSharing server machine.

You can check connectibity to PortSharing server you specified at ***Server Host Address*** text box by pressing this button.
If you have check on the ***Touch port***, further check about grabbability of COM port you specified at ***Remote port*** is applied.

The result of check will be displayed here.

If you checked on this check box, NPCOMM does check connectivity to PortServ periodically(about 1.5 sec).
And you may see the icon like  at system tray , this means check returned false result.

This checking work does not check the remote port is **really** vacant, only checks (1) PortServ is ruuning (2) No other NPCOMM is using specified server's port.

You can set "Server Host Address" by clicking this button.
(PortServ have to be running on the server machine)

By clicking this button, you can get all PortServ status on your LAN.

By clicking this button, current "Server Host Address" and "Remote port" pair is set to "setting list" below.

By clicking this button, selected item in the "setting list" below will be removed.

This is the setting list of connection setting.
Items listed in this list will be added to popup menu.

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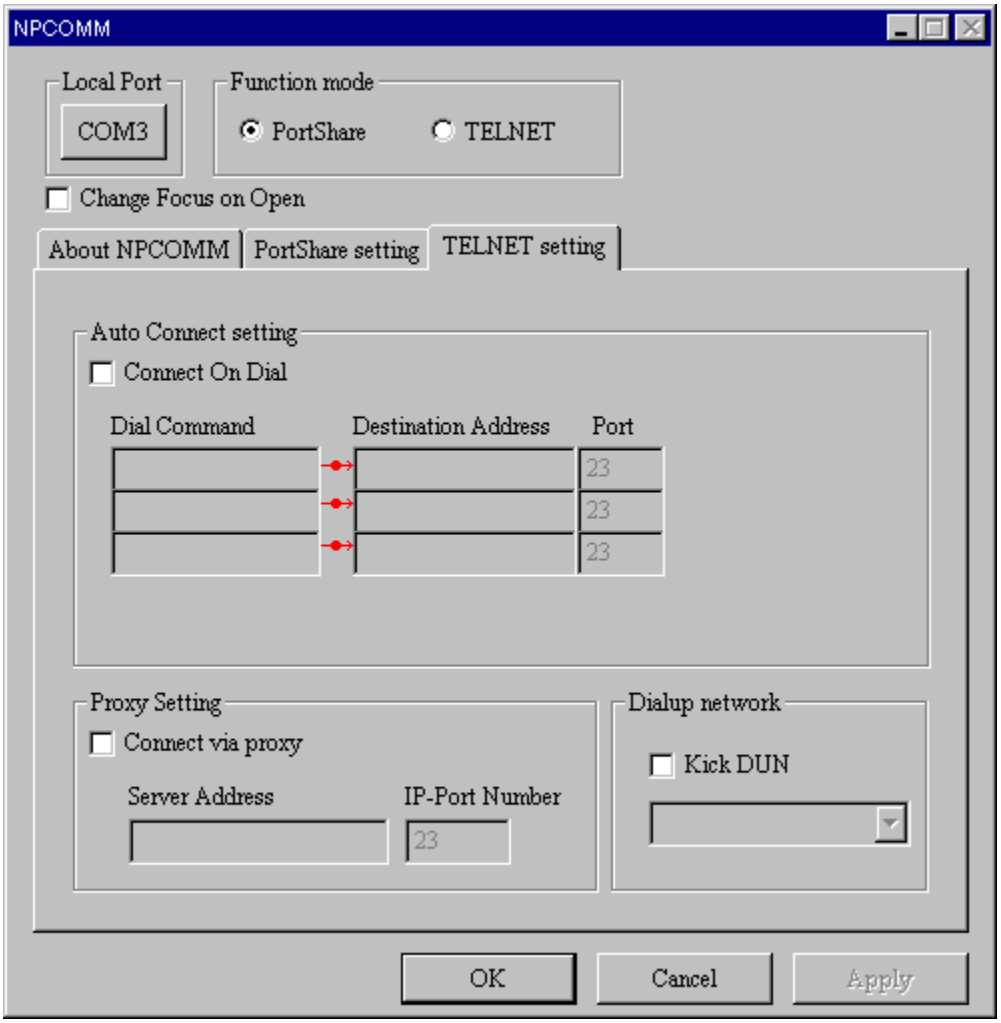
TELNET setting dialog

By clicking "TELNET setting" tab on main panel shows dialog like following.
This dialog is for set up TELNET conversion function of NPCOMM.



• **Clicking on the figure shows some description.**

DialCommand -> Destination address conversion function does simple text matching.
Beware about your communication software sometimes does not send "-" in dial number.

If you check on this check box, "Dial command -> Destination address" conversion function is enabled.

On "Dial command -> Destination address" conversion function enabled, NPCOMM compares the string in this text box and string sent from communication software.
If the string in this text box matches to the string sent to pseudo COM port, NPCOMM connect to corresponding ***Destination Address***
Three pairs of Dial Command and Destination Address are settable.

You set destination address (of BBS host) at this text box.

This text box is for address of Proxy server.
If you wish to connect through Proxy server, you should set address of proxy server here.

If you wish to connect through Proxy server, you should set IP-Portnumber of proxy which is assigned to TELNET.

If you are connecting through Proxy server, you shold check this check box. Then you have to set ***Server Address*** and ***IP-PortNumber.***

If you are using dialup network to connect to Internet and you want to connect to Internet when you connect BBS trough NPCOMM, check on this check box then select ***Connection Name*** .

Connection name of dialup network.

IP-Service port number of destination.
NPCOMM does TELNET sequence process only If this number is TELNET port(23).

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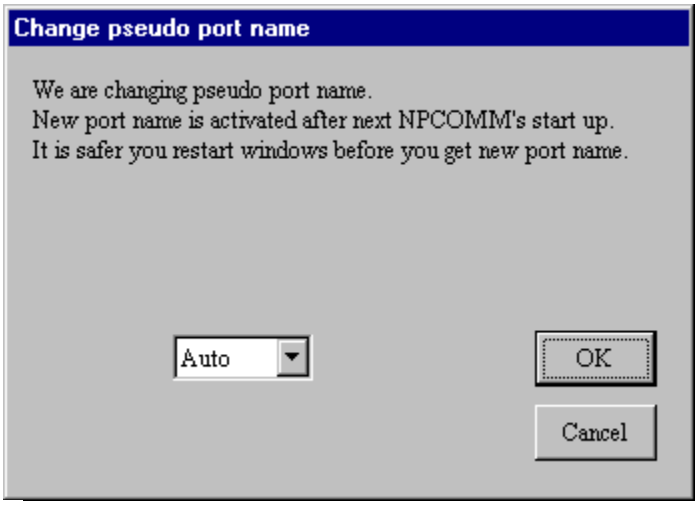
Local port setting dialog

If you are using NPCOMM on Windows95 system, you can see this dialog box by pressing button in the ***Local port*** frame on the Main control panel.



• **Clicking on the figure shows some description.**

You can change the name of pseudo COM port name here.
Auto means NPCOMM automatically select COM port name at NPCOMM.exe's start up.
This is predefined default.

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Function mode of NPCOMM

Because NPCOMM has two mode - PortSharing mode and TELNET conversion mode, you have to select the function you want to use.
To select function mode, use popup menu or Main control panel.
On the popup menu, you can select function mode by selecting menu item "PortSharing mode" or "TELNET mode".
On the Main control panel, you can select function mode by pressing radio button of "PortSharing mode" or "TELNET mode".

Please beware to select the function mode you really want to use.

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Difference on OS

The behavior of NPCOMM is little different depend on OS you using - Windows95 or WindowsNT.

1. Registering Pseudo COM port driver

   On the Windows95, NPCOMM load `pcomm32_.vxd` at its start up time.
   This makes pseudo COM port is automatically added to the system.

   On the WindowsNT, you should register pseudo COM port driver to the system by using Instnp.exe.
   Deleting pseudo COM port driver is also appliable by Instnp.exe.

2. Name of Pseudo COM port

   On the Windows95, NPCOMM searches vacant COM port name at its startup time and use first found unused name for pseudo COM port.
   (Optionnally, you can manually select pseudo COM port name by using Localport setting dialog)

   On the WindowsNT, the name of pseudo COM port can be set(or changed) by using Instnp.exe.

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How to install PortServ

You have to install PortServ to some machine on your LAN if you wish to use PortSharing function of NPCOMM.

In this release, this package contains PortServ.exe and PSS.exe as PortServ program.
Both programs are functionally same.
You can select on of these depend on you environment you are using.

(TCP/IP have to be installed on your system to use PortServ)

After extracted NPCOMM's archive, copy all files to the machine you planning to use as PortSharing server.
(I recommend copy files to local disk of PortSharing server machine)
Some files are not needed, but selecting needed files may be troublesome, simply copy all files.

After files copied, start up PortServ.

Installing PortServ by using instps.exe

or

Starting up PortServ.exe manually

Followings are additional explanations.

Needed files for PortSharing server are followings.

`PortServ.exe`
PortSharing server program for Windows95, WindowsNT.
You can simply start up this program.
And only on Windows95, this program can run as SERVICE.

`PSS.exe`
PortSharing server SERVICE program for WindowsNT
This program can not be started by manually.

`Instps.exe`
SERIVICE installer for PortServ.exe and PSS.exe
You use this program on DOS prompt window.

If you wish to use Windows95 machine as PortSharing server,
You can use only PortServ.exe.
You can manually start up this program or register as SERVICE by using Instps.exe.

If you wish to use WindowsNT machine as PortSharing server,
You can use both PortServ.exe and PSS.exe
You can register PSS.exe as SERVICE program by using Instps.exe.

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Registering PortServ as SERVICE

By using Instps.exe, you can register PortServ program as SERVICE to your system.

On the Windows95 system

- Open DOS prompt window.
- On the DOS prompt window, change directory to where PortServ.exe and Instps.exe located.

Then type

instps

You will see the message,

Service installed.
To take effect this installation, please restart Windows.

upon successful installation.

- To stop PortServ SERVICE,

Type following command on the DOS prompt window,

instps remove

On the WindowsNT system

- Open DOS prompt window.
- Change directory to where PSS.exe and Instps.exe located

then type,

instps

You will see the message,

Installing PortServ as NT service...Done.

upon successful installation.

- To remove PSS.exe from WindowsNT SERVICE,

type following command on the DOS prompt window

instps remove

If you have changed the location of PSS.exe, PortServ.exe, you have to do

```
instps remove
```

once, then type following command at new location

```
instps
```

Uninstalling SERVICE

At first, type following command

```
instps remove
```

then remove all files you copied from NPCOMM's archive.

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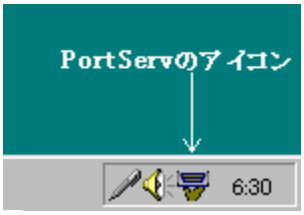
Simply start up PortServ.exe manually

By simply start up PortServ.exe  manually, that machine become PortSharing server.
You don't need to do another set up.
To Uninstall, quit PortServ.exe then remove all files copied.

You will see the icon of PortServ if you started up PortServ on Windows95 or WindowsNT4.0.
Clicking this icon shows Popup menu of PortServ.
You can quit PortServ.exe from this popup menu.



- **Clicking on the figure shows some description.**

Clicking this icon on the system tray shows Popup menu of PortServ.

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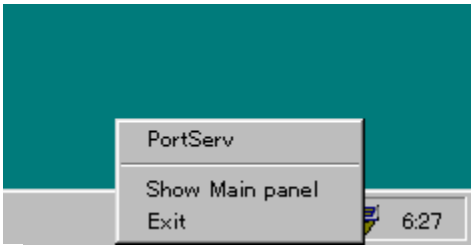
Popup menu of PortServ.exe

By clicking the icon of PortServ on the system tray, you will see the following popup menu.



- **Clicking on the figure shows some description.**

This menu item have no action.
Only showing this popup menu is belongs to PortServ.

By selecting this menu item, you will see the Main control panel of PortServ.

Selecting this menu item makes quit PortServ.exe

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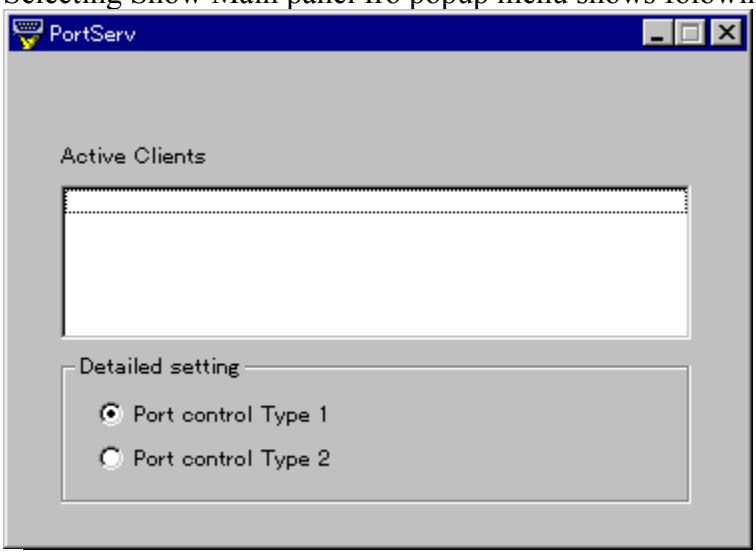
Main panel of PortServ.exe

Selecting Show Main panel fro popup menu shows folowing dialog.



• **Clicking on the figure shows some description.**

,±,ÌƒEƒBƒ“ƒhƒE,É□ACE»□Ý□Ú‘±,µ,Ä,¢,éƒNƒ‰ƒCƒAƒ“ƒg(NPCOMM),Ì□ó‘Ô,ª•\
Ž¦,³,ê,Ü,·□B

“Á,É‹C,É,·,é•K—v,Í, ,è,Ü,¹,ñ,ª□AŽæ,èŠ¸,¦,¸***Type1***,É,µ,Ä,¨,¢,Ä,,¾,³,¢□B

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IP-Portnumber of PortSharing

The IP-Portnumber of PortSharing is changeable by editing PortServ.ini and NPCOMM.ini.
If your environment has another IP-service which is using same IP-Portnumber, please change IP-Portnumber of PortSharing.

The key holding IP-Portnumber is
`IPPortNumber`

PortServ.ini and NPCOMM.ini are located each directory which PortServ and NPCOMM start up.
(PSS.exe loads or create its .ini file under %Windows%system32)

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Instps.exe

Using this program on the WindowsNT systems, you have to have Administrator privilage.

This program only runs on DOS prompt window.

You can use this program to register PortServ(PortServ.exe or PSS.ex) as SERVICE to your system.
As PortServ SERVICE installed, that PortSharing server machine doesn't require somebodys log on.

Please use this program on DOS prompt window.

[Windows95]

At the directory PortServ.exe located,

```
instps
```

To remove PortServ from SERVICE

```
instps remove
```

[WindowsNT]

At the directory PSS.exe located,

```
instps
```

To remove PortServ from SERVICE

```
instps remove
```

Executing this program doesn't make any file copy.

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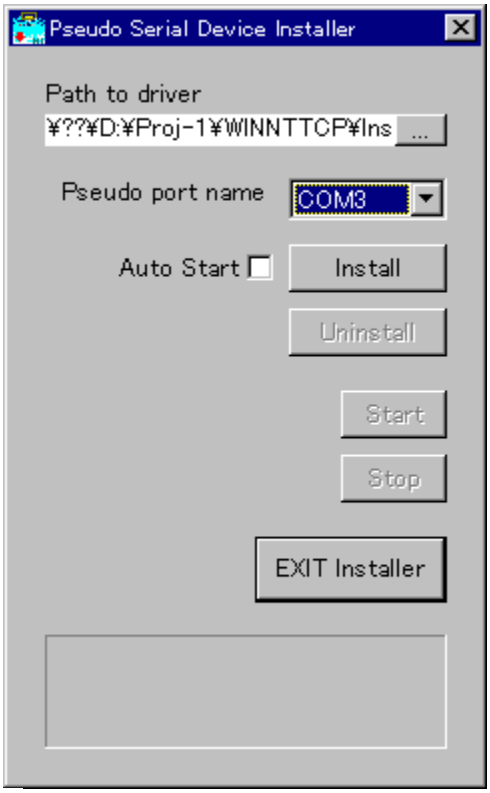
Instnp.exe

This program requires Administrator privilege.

This program is for registering pseudo COM port driver(pserial.sys) to WindowsNT system.
On its start up, the dialog box like following is displayed.



• **Clicking on the figure shows some description.**

You don't need to change ***Path to driver*** part if you have started up this program from the location at where pserial.sys is located.

Basic registering steps are,
1. Start up instnp.exe
2. Set ***Pseudo port name*** to the name you wish to use as pseudo COM port.
3. Click ***Install***Button.
4. Click ***Start*** Button.
5. Quit instnp.exe

And steps for un-registering are,
1. Quit NPCOMM.exe if it is running.
2. Start up Instnp.exe.
3. Click Stop Button.

4. Click Uninstall Button.
5. Quit Instnp.exe.

Before ***Install***, you can check on the ***Auto Start*** check box.
If this check box has checked, pseudo COM port driver will automatically start ups during WindowsNT system start up.

- **Before Installing with *Auto Start*, you should test that the pseudo COM port driver can start up without problems.**

This program does not make any file copy.

Full path to the pseudo COM port driver (pserial.sys)
You can open File dialog box by clicking the button located right of this text box.

The name of pseudo COM port.

Checking on this check box and doing Install makes pseudo COM port driver automatically start up during WindowsNT system start up.

Clicking this button registers pseudo COM port driver(pserial.sys) to your WindowsNT system

Clicking this button un-register pseudo COM port driver from your WindowsNT system.

Clicking this button start up pseudo COM port driver(pserial.sys).

Clicking this button stops pseudo COM port driver.

Quit this program.

This is a message box which Instnpl.exe displays error messages.

Clicking this button shows File Dialog box for select the path to the driver.

Resetps.exe

This program is for reset PortServ(PortServ.exe and PSS.exe).
You will see dialog like following upon start up of this program.

Clicking The button "Reset PortServ service" will reset PortServ running on the machine.
This will kill all connection already established with NPCOMMs.

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Setting up TCP/IP

NPCOMM uses TCP/IP as its transport protocol.
So you have to set up TCP/IP on your systems.

If you have no experience to setting up TCP/IP, following instructions may helps you.
If your LAN have another network administrator, You should ask him to set up TCP/IP on your computer.

*** several words used in following instructions may be different on your system.**

1. Open "Network" control panel applet then check the network adapter you using is included in the adapter part.
   If not, please add your network adapter.
   I use "NE2000 compatible" for example, please replace the name "NE2000 compatible" to the name of your network adapter.

2. Add TCP/IP protocol
   In the "Network" control panel applet, if the protocol "TCP/IP" is not in the list, please add it.

   [Windows95]
   You have to select "Manufacturer" or "Maker" to choose protocols.
   Please select "Microsoft" there, you may see TCP/IP protocol then.

3. Set up binding.
   Add TCP/IP to bind list of LAN adapter.
   Open the property of "NE2000 compatible", then check on bind of "TCP/IP -> NE2000 compatible".

4. Configure TCP/IP
   Open the property of "TCP/IP -> NE2000 compatible"(or simply "TCP/IP"), then configure each part of tab control.

- About "**Bind**", check "Microsoft network client" or leave it default.
- About "**Detail**", you don't need to touch here.
- About "**DNS setting**", please select "Don't use DNS". (*)
- About "**Gateways**", you don't have to modify here.(*)

- About "**WINS**", set "No WINS" or don't touch here.
- About "**IP Address**", please set IP address and subnet mask manually.(*)

Followings are the brief sammary of IP addresses.
for detail of IP address, please read some book explaining TCP/IP.

If your LAN is organized by two computer, IP addresses are specified like followings.

```
HOST-1
    IP address          : 192.0.0.1
    Subnet mask         : 255.255.255.0

   HOST-2
       IP address       : 192.0.0.2
       Subnet mask : 255.255.255.0
```

IP address is a unique machine ID value in your LAN.
Subnet mask is mask value used to calculate network address or inner subnet broadcast address.
You can check your IP address by logically multiplying IP address and Subnet mask.
About HOST-1 of example above, multiplying IP address and Subnet mask makes value `192.0.0.0`
About Host-2, result value is `192.0.0.0`, these two are same.
It means these two IP address settings will work.

5. Close "Network" control panel applet.
   If you noticed to restart windows, please do so.

Now TCP/IP setup have finished, you should check your setting by using some WinSock programs.
You can use ***Do test*** of NPCOMM to check your TCP/IP configuration.

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Modem setting(TAPI)

If your communication software requires to specify modem name instead of COM port name, thats software using TAPI.
For example, Windows95 dialup network using TAPI.

For use NPCOMM by TAPI application, you have to set up modem on "Modem" control panel applet.

- Start up NPCOMM

Doing this adds a COM port to system, this makes setup process easy.

- From "Modem" control panel applet, add a modem.

**** Do not automatically detect the modem ****
Select the modem name manually.
You shold select the modem name which the name of modem connected to PortSharing server.

- Configure the name of COM port used by the modem to the name of pseudo COM port which NPCOMM added.

* When you select the modem name, you should choose the name of modem connected PortSharing server.
But in rare case, I encountered a problem which was fixed by selecting "Standard modem".

*** "Diagnostics" -> "More info..." on "Modem control panel" will not work for peudo com port.**

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Using PortSharing function

If you wish to use a modem or serial controllable equipment connected to another machine on your LAN, you can use PortSharing function of NPCOMM.

1. Set up TCP/IP on each machine you want to make it PortSharing server and client.
   If already set up, you don't need to do this step.
2. Start up PortServ on the machine the modem(or another equipment) connected, then start up NPCOMM on the machie you usually using.
3. Open PortShare setting dialog of NPCOMM, then set Server Host Address(IP address) and COM port name.
   (You can set Server Host Address by clicking "Get Active Server" button)
4. On the Popup menu of NPCOMM , select PortShare mode .
5. On the PortShare setting dialog of NPCOMM, do ***Do test*** to check connectivity to PortServ.
   You should get result string "**OK**" here.
   If not, it means something wrong.
   Please check network configuration, PortServ is running, and so on.

Now you can use PortSharing function of NPCOMM.

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Using TELNET conversion function

If your favorite communication software have no ability of TELNET connection, you can use TELNET conversion function of NPCOMM.

1. Set up TCP/IP on your machine.
   If already set up, you don't need to do it.
2. Start up NPCOMM.
3. Open Telnet setting dialog of NPCOMM, set up each part needed.

   In the Auto Connect setting group, you can set up the method to select destination address.
   When ***Connect On Dial*** is checked, NPCOMM monitors strings sent from an application program and if a specified Dial Command string is detected, NPCOMM starts connecting to a specified ***Destination Address***.
   For other strings, NPCOMM simply echoes back them and if the strings are started by the string "AT", NPCOMM echoes back "OK".
   After the Dial Command is detected , if connection to the Destination Address is successfully established, NPCOMM echoes back "CONNECT", and otherwise echoes back "BUSY".
   You can specify three pairs of Dial Command and Destination Address.
   You have to carefully specify the Dial Command, because NPCOMM simply compares strings sent from the application program with the specified Dial Command. In some cases, Dial Command contains hyphen("-") and in other cases, it doesn't.
   If ***Connect On Dial*** is not checked, you can establish connection by sending address string to pseudo com port like,
   Remote_Host_Address[:port]<CR>

   In Proxy Setting group, You can specify a Proxy server you are using.
   If you want to connect via the Proxy server, check Connect via proxy and set Server Address and Port Number.

   If Kick RAS check box in the Dial-up network group is checked, NPCOMM executes specified DUN connection when an application opens the COM port served by NPCOMM.
4. Select ***Telnet mode*** on the popup menu of NPCOMM.

Now your access to pseudo COM port converted to TELNET connection.

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Considerations

About to use NPCOMM, please beware about following things.

- NPCOMM uses TCP/IP as its transport protocol, please set up TCP/IP on your systems

- Setting symbolic host name to "Server Host Address" text box of "PortShare setting" dialog of NPCOMM requires host name resolving mechanism.
If you have not set up Hosts database or WINS server on your LAN, you should set IP address to "Server Host Address".

- If the operating system of your PortSharing server machine is WindowsNT, please set FIFO of serial port driver on.

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Common limitations

Limitations in this release are like following.

- It is impossible to start up NPCOMM.exe and PortServ.exe, PSS.exe at same time.

- DOS applications can not use NPCOMM.

- If your communication software using 16-bit DLL, NPCOMM may not work for that software.

- Applications which use TAPI sometimes takes long time to close NPCOMM's port.
If NPCOMM's port stay opened over 2minits after connection closed, please kill NPCOMM by using task manager(press Ctrl-Alt-Del).

- TAPI is very severe to the status and result code of Modems.
So please beware about following things when you use TAPI application with NPCOMM.
    1. TELNET conversion function of NPCOMM emulating very simple modem, so it is difficult to use TAPI application with TELNET conversion function of NPCOMM.
    2. On the PortSharing client side, Please set up modem with same name to The modem which connected to PortSharing server.

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Limitations on Windows95

- During NPCOMM running, if you are going to add a modem on "Modem" control panel applet, don't use "Auto detect".
Please select modem name manually.

- Doing "Diagnostics" -> "More info..." on "Modems control panel" will fail.

- Using HyperTerm with "Direct to COM?" will not work.

- If you wish to use MicrosoftFax to send FAX, you must not window focus left on "Microsoft Fax status" window.
Please move window focus to other place from "Microsoft Fax status" window.
Checking "Change focus on open" of main panel of NPCOMM moves window focus automatically.

Limitations on WindowsNT

- Upon started up Instnp.exe, it has to display usable(vacant) COM port name at Pseudo port name list box.

But it somtimes fail.
Please check the name displayed at ***Pseudo port name*** is correct before do ***Install***.

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Troubleshooting

If NPCOMM doesn't work correctly, please check following things.

About PortSharing

- **Communication software can't connect to remote COM port.**

1. Please check function mode of NPCOMM is set to ***PortSharing mode*** correctly.

2. Please check no other applications are using pseudo COM port.
   If you have set up MicrosoftFax as transport of MicrosoftExchange, it sometimes grab the COM port.
   When pseudo COM port is grabbed, the icon of NPCOMM changes its color.

3. Please check connectibity to PortServ.
   Open PortShare setting dialog and do "***Do test***", it checks connectibity to PortServ.
   If result string of "**OK**" is returned, check another probability.
   If you got another result string, please check
   - TCP/IP configuration of Windows is correct

- **Server host address** of PortShare setting dialog(I recommend to set IP address here) is correct

- PortServ is running on specified host

4. Please check the modem connected on PortSharing server is not used by another application.
   Doing ***Do test*** with "***Touch port***" can check this.
   If no other application using that port, please try to restart PortServ.

5. Please check the modem is really connected to the port you specified.
   Go to the place where PortSharing server machine is located, and check which COM port is connected to the Modem.

- **Communication software could connect to remote modem, but it failed to dial.**

1. Please re-initialize modem(send modem initialization command or turn off and on the power of modem).

2. Please check the setting of Communication software.
   Basically, you should select the modem name just same as the name of modem connected to PortSharing server.
   But sometimes(rare case) , "**Standard modem**" works better.

3. Please check communication software is not using 16bit DLL for its communication portion of program.
   It is difficult to check this, but if you can get newer version of your communication

software, please try it.

- **Communication software could dial, but it failed to communicate.**
  Please check just same things above.

- **Application software which uses COM port(ex, scanning soft for scanner, digitalcamera) doesn't work**.
  Please check just same things above.
  16bit TWAIN driver doesn't work.

If you could not get good result after checking above, please try to restart NPCOMM and PortServ.

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License agreement

**You should carefully read the following agreement before using this software.
If you do not agree to the terms of this agreement, do not use the software
and destroy all copies of it.
Your use of this software indicates your acceptance of this license agreement
and warranty.**

About Registration

NPCOMM is a shareware. If you would like to continue to use this software except for evaluation, you must purchase license(s).
Evaluation period is 30 days.
To purchase license(s), please read Register.txt and use Register.exe for your registration.

The number of licenses you should purchase is determined based on following rules.

1. If you are going to use only PortSharing function of NPCOMM, the number of licenses you should purchase is :
   Number of (physical)modems or COM ports you want to share on your LAN.
   Not the number of installed NPCOMM.

2. If you are going to use PortSharing function and TELNET function of NPCOMM, the number of licenses you should purchase is :
   greater one of (a) and (b):
   (a) Number of persons who want to use TELNET function;
   (b) Number of (physical)modems or COM port you want to share on your LAN.
   Not the number of installed NPCOMM.

If only one person uses NPCOMM, the required number of licenses is one (1).
It does not depend on the number of modems.

Shareware fee for NPCOMM is :
$48 for 1 license.

Disclaimer of warranty

This software and the accompanying files are provided "AS IS" and without warranty of any kind, including without limitation the warranties of merchantability and fitness for a particular purpose.
The author (Hiroyoshi Kurohara) will not be liable for any kind of damages or losses which may result from the use of this software, even if the author has

been advised of the possibility of such damages or losses.
You use this software at your own risk.

About unregistered copy of NPCOMM

Unregistered copy of NPCOMM works just the same as registered copy, except unregistered copy shows message box at startup time and port usage time.
You can redistribute unregistered copy of NPCOMM without modifing any portion of this package.

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How to send shareware fee

If you wish to continue to use this software, please send me shareware fee.
You can use shareware registration service "KAGI".

About instruction of how to send shareware fee using KAGI service, pleae refer to Register.txt .

No version up fee required about this software.

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About support

Questions, bug report, request to help, suggestions
are accepting by email at:

kurohara@yk.rim.or.jp

Though I can not promise to solve all of your request, I will do my best.

If you have troubled, or want to use latest version, you can access to the NPCOMM's home page at URL below

http://www.yk.rim.or.jp/~kurohara/npcomm.html

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Revision history

ver1.50

- Changed user interfaces.
- DDE controlleability has added.
- PortServ(especially PSS.exe) has been crashing very often on English version of WindowsNT.

I fixed this problem.

- TELNET function now can connect to other TCP/IP service.
- Supported AOL3.0i(Window95 version only).
- Using HyperTerm on WindowsNT with NPCOMM makes HyperTerm to "Hi priority polling" state.

This problem has been fixed.

- Better support for Dialup network on WindowsNT4.0.
- And other fixes are applied.

ver1.12-e

- After IE4 problem fixed, I informed that ver1.10 gone to worse about connectivity than ver1.05.

I checked and fixed that.

ver1.10

- I informed that NPCOMM can't work for connection to ISP if Internet Explorer 4 is installed.

I fixed this by changing first part of protocol to PortServ.

ver 1.05(Not release officially)

- MicrosoftFax support(Windows95)
- WindowsNT version of NPCOMM is added.
- "Autodial problem" is fixed
- Pinger! function is added.
- Wrong host name no longer makes long time hang up.
- And miscellaneous bug fixes.

ver1.04-e (Aug/8/1997)

- Win16 support.
- WindowsNT SERVICE version of PortServ(PSS.exe) is added.
- The function automatically connect to ISP is added to TELNET conversion function.
- The bug of "baud rate sometimes misset" has fixed.

ver1.03-e (July/12/1997)

- First release of English version.

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Limitation of evaluation copy

NPCOMM is a shareware.
If you have not sent shareware fee, your copy act as eveluation copy.
There is no functional limitaion in evaluation copy exept that evaluation copy displays dialog box at its start up time and at when port opend.
After you did registration, this dialog box won't be displayed.

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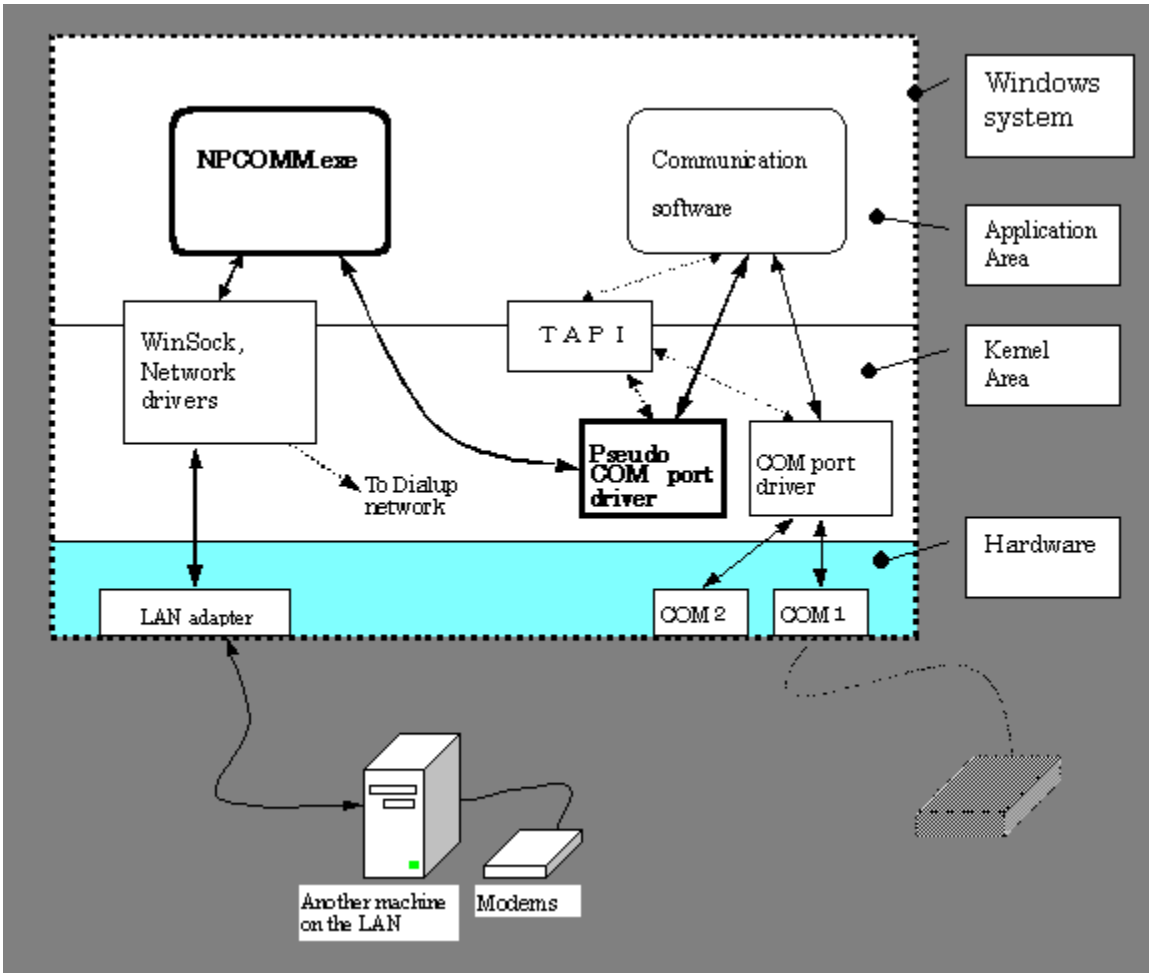
Appendix: Architecture of NPCOMM

NPCOMM uses **Pseudo COM port driver** to offer its function to another applications.



On the Windows95, this is pcomm32_.vxd, on the WindowsNT this is pserial.sys.

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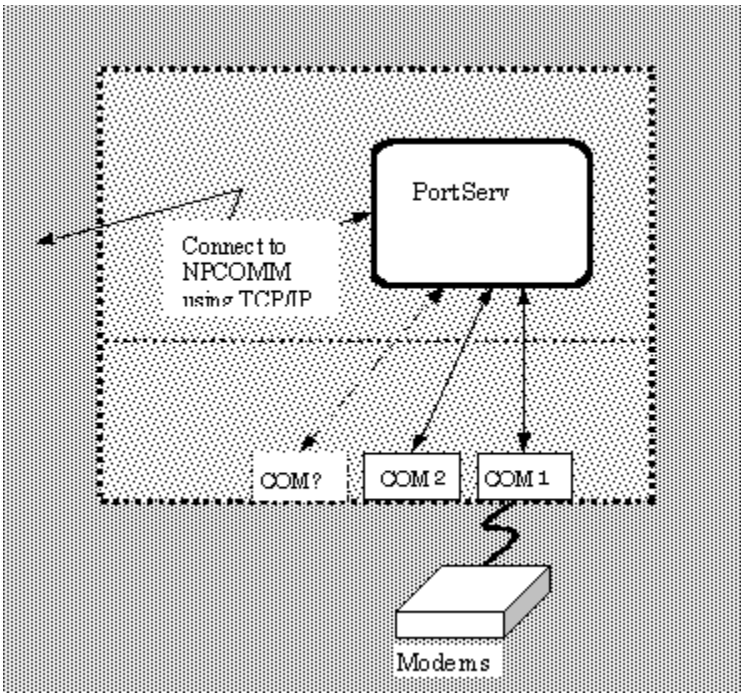
Appendix: Architechture of PortServ

PortServ is a simple WinSock application.



PortServ.exe or PSS.exe

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Appendix: About DDE
DDE transactions NPCOMM.exe support are following.

Service name :**NPCOMM**
Topic name : **SYSTEM**

EXEC transaction
Following command strings are supported.
The result of execution is stored into REQUEST transaction item "RESULT_STRING".

Commands :

SetPeerConfig
Command tag string for set Server address and remote port name.
Example command string :
"SetPeerConfig:192.0.0.1,COM2"
Sets server address to "192.0.0.1" and remote port name to COM2.
"SetPeerConfig"
Just get current setting.
(You can get current setting with reading RESULT_STRING item by REQUEST transaction)

SelectFromList
Command tag for select setting from preset setting list.
Example command string :
"SelectFromList:0"
Select first setting in setting list.
"SelectFromList"
Get number of settings in setting list.

SetFunctionMode
Command tag for select function mode.
Acceptable arguments are 0 or 1, 0 is for PortShare mode, 1 is for TELNET mode.
Example command string :
"SetFunctionMode:1"
Set function mode to PortShare mode.
"SetFunctionMode"
Just get current function mode.

REQUEST transaction
Item name :

RESULT_STRING
You should read this item after EXEC transaction.

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About .INI file.
Followings are the description of NPCOMM.ini and PortServ.ini .
Items which you can not change from GUI are displayed in red color.

NPCOMM.INI

[General]

LocalPortName=
**This item is only valid on Windows95.
By default, this item is not included in this ini file.**

ChangeFocusOnOpen=0
The boolean value of "Change focus on open".

IOBase=12032
**This value is returned when an application queries the IO base address of pseudo port.
Several application queries this value.
This value has no effect to behavior of NPCOMM.**

IRQ=5
Same as above, this is the value of IRQ number.

[PortShare]

IPPortNumber=2345
**IP-Service port number of NPCOMM.
If another TCP/IP software running on your LAN using same IP-port number, please change this value.**

TCPCallBack=1
**This is the boolean value of method to connect to PortServ.
You must not set this value to 0 if you have installed InternetExplorer4.x on your system.**

RemoteHost=
The value of "Server Host Address".

RemoteHost1=
One of the values in the combo box of "Server Host Address".

RemoteHost2=
Same as above.

RemoteHost3=
Same as above.

RemoteHost4=
Same as above.

RemoteHost5=
Same as above.

RemotePortIndex=1
The index value of "Remote port name" list box.

AutoCheck=1
The boolean value of "Auto check".

UseTelnet=1
The value of function mode, value 1 means TELNET mode.

SETTINGLIST=
The value of setting list.

[Telnet]

UseProxy=0
The boolean value of "Connect via proxy".

ProxyServer=
The value of "Server Address" in "Proxy Setting".

ProxyPort=23
The value of "IP-Port Number" in "Proxy Setting".

ConnectOnDial=0
The boolean value of "Connect On Dial" in "Auto Connect setting.

DialCommand1=

One of the values of "Dial Command" in "Auto Connect setting".

DialCommand2=

Same as above.

DialCommand3=

Same as above.

Destination1=

One of the values of "Destination Address" in "Auto Connect setting".

Destination2=

Same as above.

Destination3=

Same as above.

ServerPort1=23

One of the values of "Port" in "Auto Connect setting".

ServerPort2=23

Same as above.

ServerPort3=23

Same as above.

ProxyResultStr=connected

The string returned by proxy server when proxy server connected to remote host.

ProxyWaitTime=30000

The timeout value to wait for proxy server's result(ms).

KickRas=0

The boolean value of "Kick DUN".

RASEntry=

Ently name of Dialup network.

PortServ.INI

[TCPIP]

IPPortNumber=2345

IP-Service port number of NPCOMM.
If another TCP/IP software running on your LAN using same IP-port number, please change this value.

[GENERAL]

IgnoreRTSToggle=1

The boolean value for use "RTSToggle function" of serial driver.
You should not change this value.

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Close dialog with saving current setting.

Close dialog with discarding current setting

This button saves current setting.

Close dialog

The program which runs from system start up.
SERVICE can work even if no one logged in the system.

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