

## **PLEASE READ**

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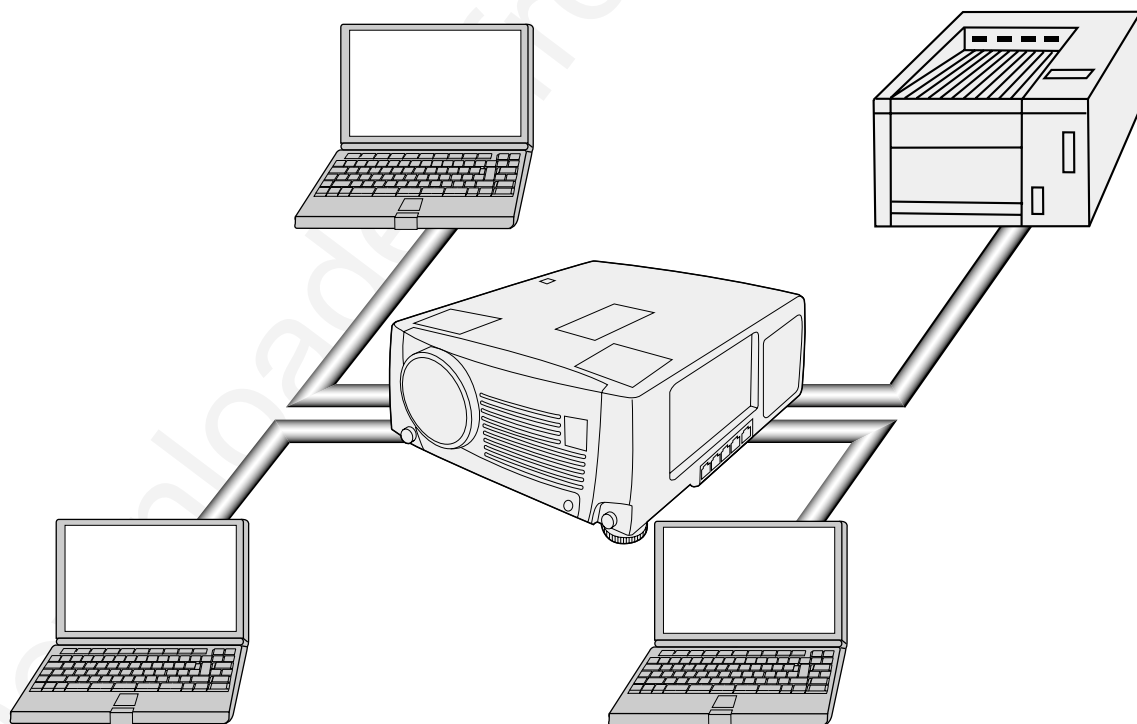
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# Smart Hub Networking System User Manual



# Connection

## What you can do with HUB

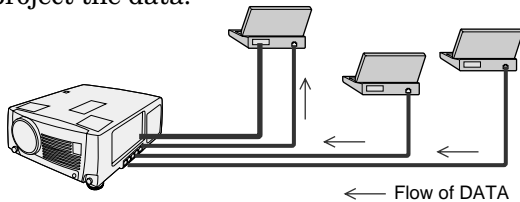
This projector is equipped with a relaying HUB.

You can do:

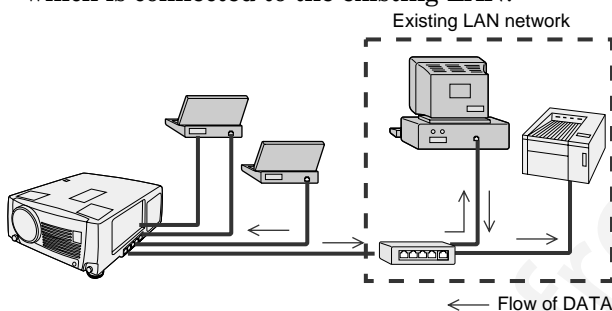
- Easy Data (File) Exchange
- Projection of the data in the computers connected via the HUB
- Connection with an existing LAN
- Print out through a Network printer

## Example of Network System

- 1) Connect laptop computers directly to the internal HUB. Copy data to the computer which is connected to this projector with RGB connection, and project the data.



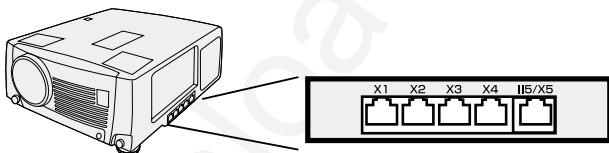
- You can also send presentation data to other computers easily.
- 2) Connect an existing LAN network to the internal HUB. Print out data through a Network printer which is connected to the existing LAN.



- Read out data using the computer which has the IP address of the existing LAN network and then print them out.
- A printer driver, etc. may be necessary for printing. Please refer to the owner's guide of the printer.

## Required Hardware

1. HUB TERMINAL (built-in)



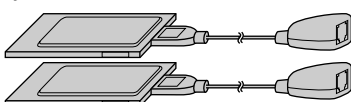
2. LAN CABLE (at least 2 cables, included in the box.)



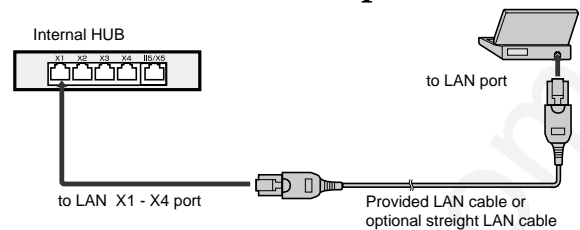
3. LAN CARD (Network Card)

Some computers have a built-in LAN port. If your computer doesn't have one, you need at least two LAN cards.

- They are not included in the box.



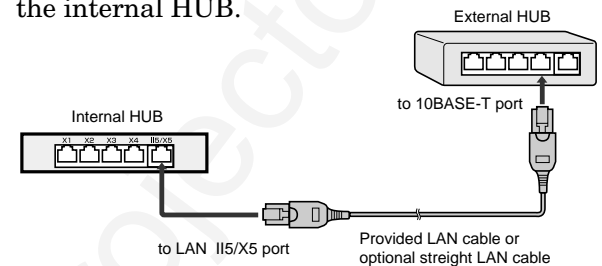
## Connection with a computer



- When connecting computers, use the LAN X1 - X4 port of the internal HUB.

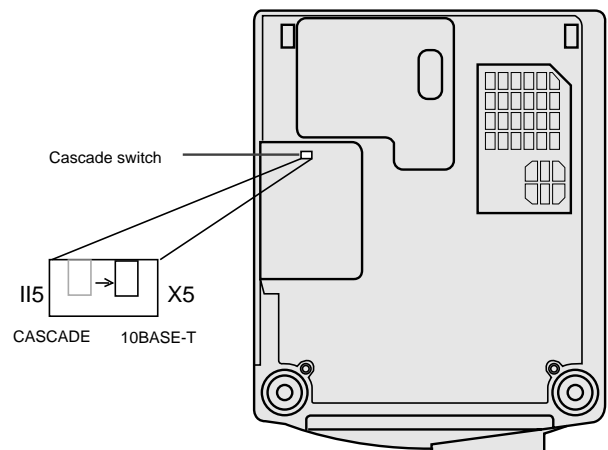
## Connection with an External HUB

For connecting with an existing LAN, you should connect the computers to the external HUB via the internal HUB.



- When connecting with an external HUB, use the LAN 115/X5 port of the internal HUB.
- The external HUB is not included in the box.

When connecting five computers, use an external HUB or set the LAN 115/X5 port to X5 (10BASE-T) by switching the cascade switch on the bottom face using a rod such as a precision screwdriver.



115 .... Port for connection with an external HUB.  
X5 .... Port for connection with a computer.

## Setting Computers

When building a network only with this projector and computers, make preparations for all the computers to be connected.

**When using the HUB system, turn on the main switch of the projector. The HUB system doesn't work when the main switch of the projector is off.**

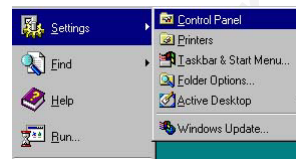
# Settings

## For Windows Me/98/95

When building a network only with this projector and computers, make the preparations for all the computers to be connected.

### A. Check of “Client for Microsoft Networks” and “NetBEUI”

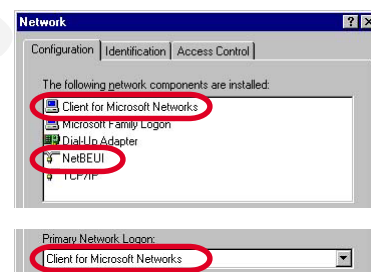
1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.



2. Double-click **Network** to open the Network dialog box.



3. Make sure that **Client for Microsoft Networks** and **NetBEUI** are displayed in the installed network list.
  - If the **Client for Microsoft Networks** is not displayed, go to “E. Adding Client for Microsoft Network”.
  - If the **Net BEUI** is not displayed, go to “F. Adding NetBEUI”.

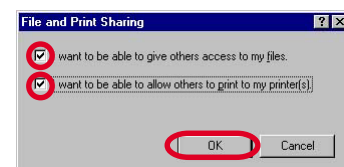
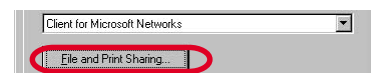


For Windows 98 or Windows Me

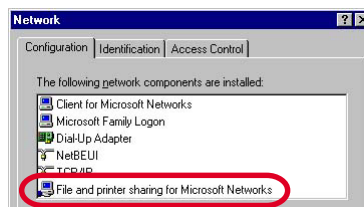
4. Set **Primary Network Logon** to **Client for Microsoft Networks**.

### B. Adding File and printer sharing for Microsoft Networks

1. Click the **File and Print Sharing** button.
2. Check the check boxes of **I want to be able to give others access to my files** and **I want to be able to allow others to print to my printer(s)**, and then click **OK**.



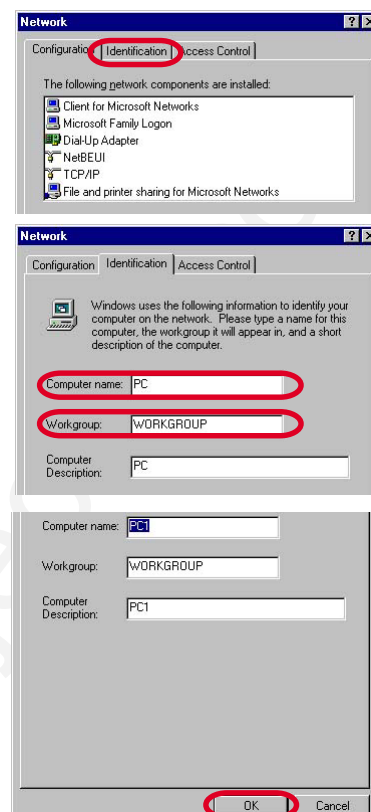
- The **File and printer sharing for Microsoft Networks** appears in the installed network list.



## Settings (Continued)

### C. Check of Computer name and Workgroup

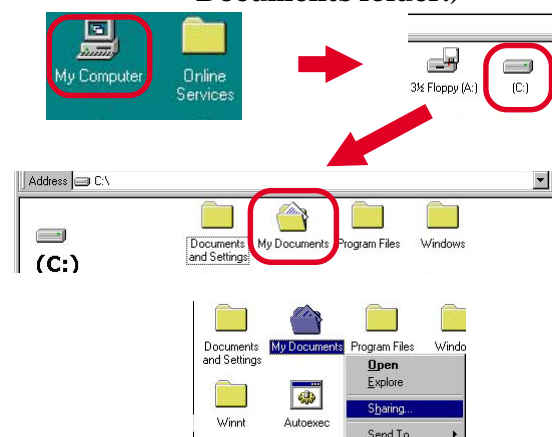
1. Click **Identification** tab.
2. Make sure that Computer name and Workgroup are correct.
3. Click **OK**.
  - You must restart your computer before the new settings will take effect.



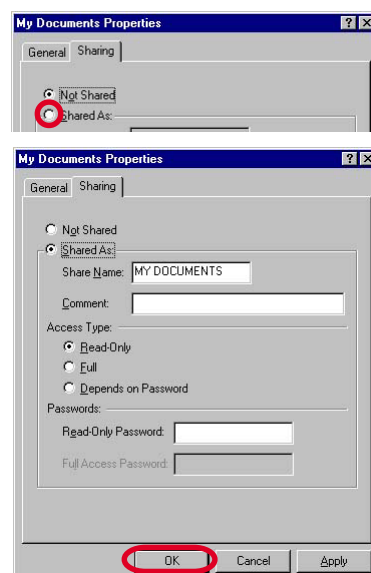
### D. Sharing computer

1. In **My Computer**, right-click the icon of the folder you want to share with others, and then click **Sharing**.

(Example: When sharing My Documents folder.)



2. In the **Properties** dialog box, click **Shared As**.
3. In **Share Name**, type a name for the folder.  
In **Comment**, you can type a brief comment or description of the folder.
4. Click **OK**.
  - The folder icon changes to an icon with a hand, indicating that the folder is now shared.

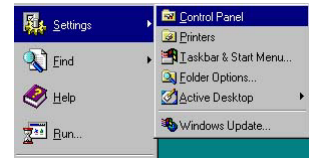


5. Go to "G. Using files and printers controlled by other computers"

## Settings (Continued)

### E. Adding Client for Microsoft Networks

1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.



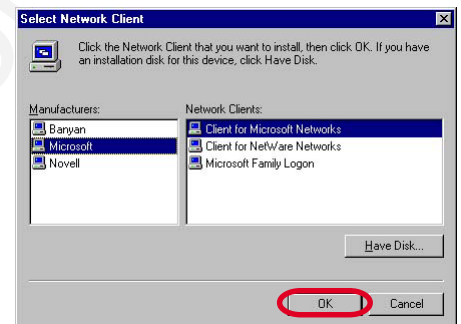
2. Double-click **Network** to open the Network dialog box.



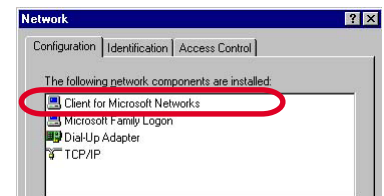
3. Click **Client**, and then click **Add**.
  - A list of client software appears.



4. In the **Manufacturers** list, click **Microsoft**.
5. In the **Network Clients** list, select **Client for Microsoft Networks**, and then click **OK**.

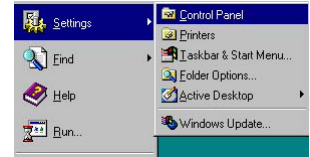


- The **Client for Microsoft Networks** is added to your computer.
6. Go to “A. Check of “Client for Microsoft Networks” and “NetBEUI””

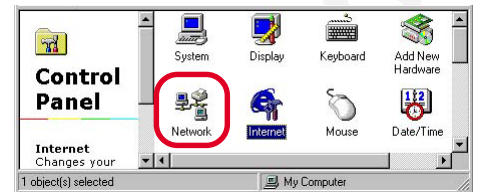


## F. Adding NetBEUI

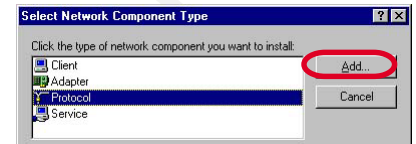
1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.



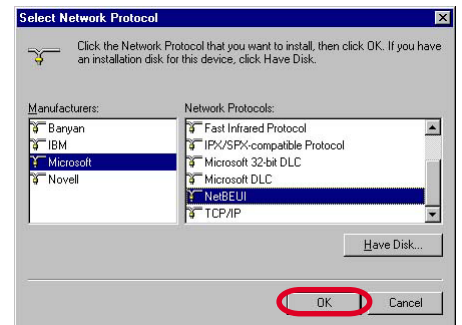
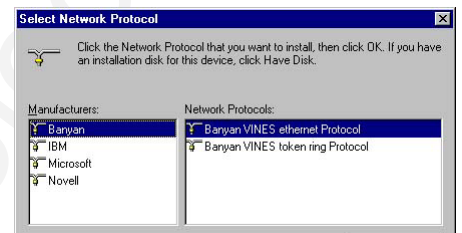
2. Double-click **Network** to open the Network dialog box.



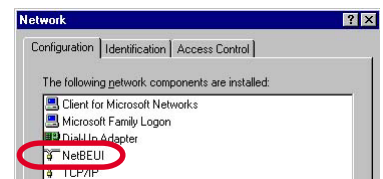
3. Click **Protocol**, and then click **Add**.
  - A list of client software appears.



4. In the **Manufacturers** list, click **Microsoft**.
5. In the **Network Protocols** list, select **NetBEUI**, and then click **OK**.



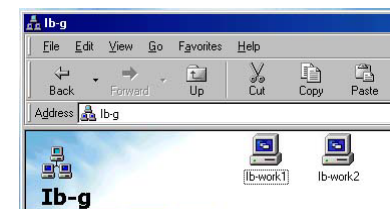
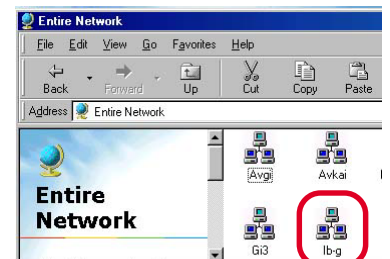
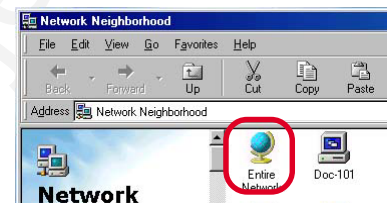
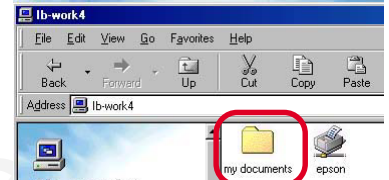
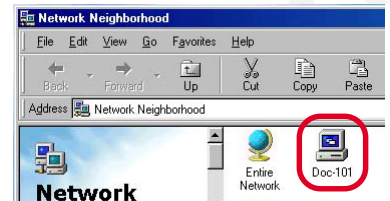
- The **NetBEUI** is added to your computer.
6. Go to “A. Check of “Client for Microsoft Networks” and “NetBEUI””



## Settings (Continued)

### G. Using files and printers controlled by other computers

1. Double-click **Network Neighborhood** icon.
2. Double-click the icon for the computer that controls the folder you want to use.
3. To use a shared folder, double-click its icon.
  - If the computer you are looking for is not in your workgroup in step 2:
    1. Double-click **Entire Network** icon.
    2. Double-click the appropriate workgroup.
    3. Double-click the icon for the computer that controls the folder you want to use.





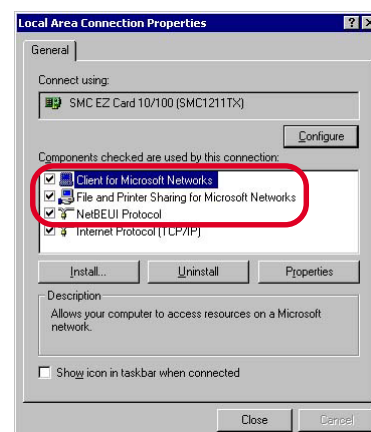
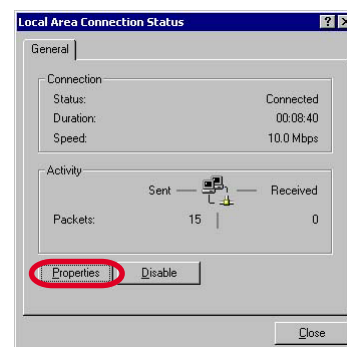
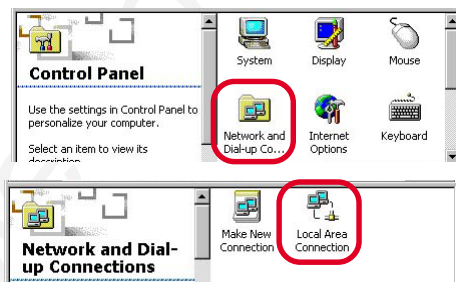
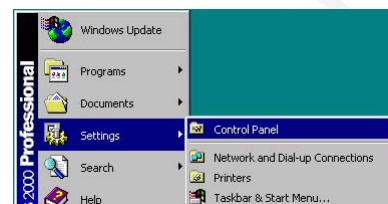
## Settings (Continued)

### For Windows 2000

When building a network only with this projector and computers, make the preparations for all the computers to be connected.

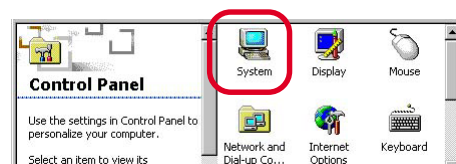
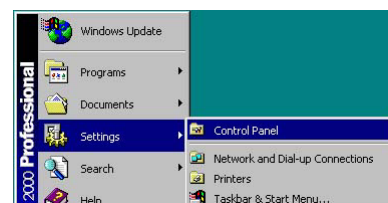
#### A. Check of “File and Printer Sharing for Microsoft Networks”, “Client for Microsoft Networks” and “NetBEUI protocol”

1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2. Double-click **Network and Dial-up Connections** to open the Network dialog box.
3. Right-click **Local Area Connection** and then click **Properties** to open the **Local Area Connection properties** dialog box.
4. Make sure that **File and Printer Sharing for Microsoft Networks**, **Client for Microsoft Networks** and **NetBEUI Protocol** are displayed in the installed network list.
  - If the **File and Printer Sharing for Microsoft Networks** is not displayed, go to “D. Adding File and printer sharing for Microsoft Networks”.
  - If the **Client for Microsoft Networks** is not displayed, go to “E. Adding Client for Microsoft Network”.
  - If the **NetBEUI Protocol** is not displayed, go to “F. Adding NetBEUI”.
5. Make sure that the check boxes of **File and Printer Sharing for Microsoft Networks**, **Client for Microsoft Networks** and **NetBEUI Protocol** are checked.
6. Click **Close**.



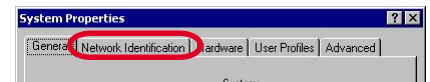
#### B. Check of Computer name and Workgroup

1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2. Double-click **System** to open the Network dialog box.

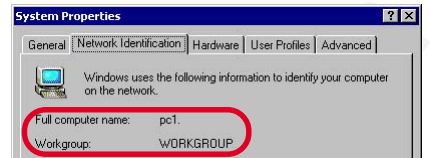


## Settings (Continued)

3. Click **Network Identification** tab.

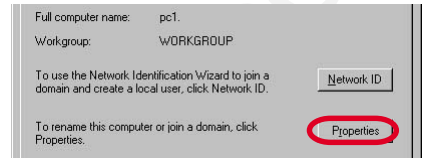


4. Make sure that Full computer name and Workgroup are correct.



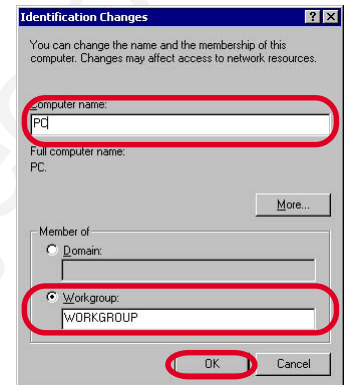
5. Click **OK**.

- If they are not correct, change the computer name and Workgroup as follows:
  1. Click **Properties**.



2. Input a new computer name or Workgroup.

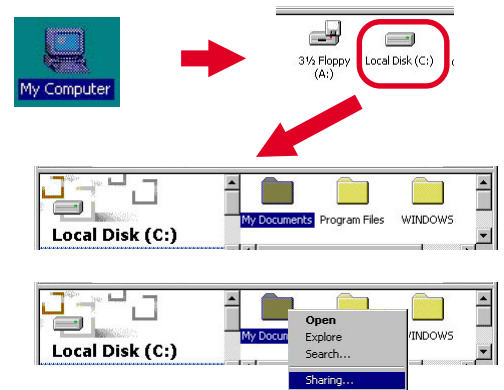
3. Click **OK**.



### C. Sharing computer

1. In **My Computer**, right-click the icon of the folder you want to share with others, and then click **Sharing**.

(Example: When sharing My Documents folder.)



2. In the **Properties** dialog box, click **Sharing** tab, and then click **Shared this folder**.

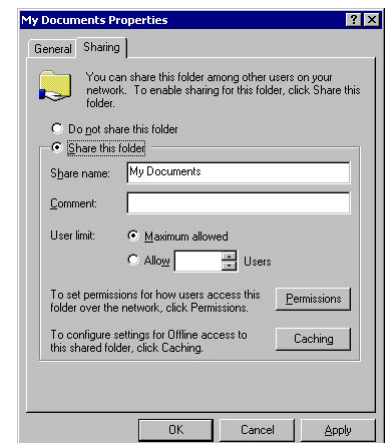
3. In **Share Name**, type a name for the folder.  
In **Comment**, you can type a brief comment or description of the folder.

4. Click **OK**.

- The folder icon changes to an icon with a hand, indicating that the folder is now shared.



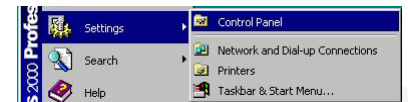
5. Go to “G. Using files and printers controlled by other computers”



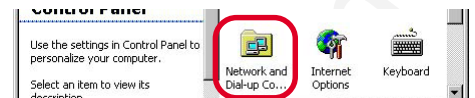
## Settings (Continued)

### D. Adding File and Printer Sharing for Microsoft Networks

1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.



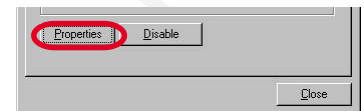
2. Double-click **Network and Dial-up Connections**.



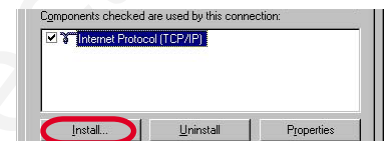
3. Right-click **Local Area Connection**



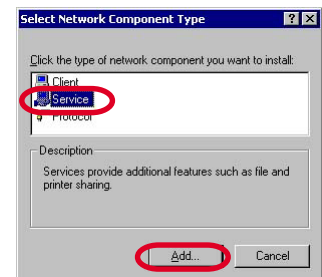
4. Click **Properties** to open the **Local Area Connection properties** dialog box.



5. Click **Install**.

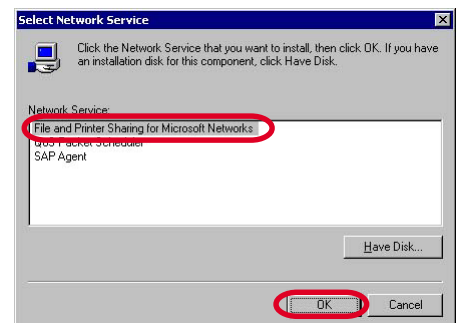


6. Click **Service**, and then click **Add**.



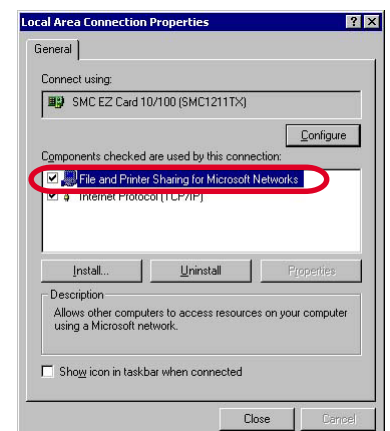
- A list of Network Service appears.

7. In the **Network Service** list, select **File and Printer Sharing for Microsoft Networks**, and then click **OK**.



- The **File and Printer Sharing for Microsoft Networks** appears in the installed network list.

8. Go to **A. Check of “File and Printer Sharing for Microsoft Networks”, “Client for Microsoft Networks” and “NetBEUI protocol”.**



## Settings (Continued)

### E. Adding Client for Microsoft Networks

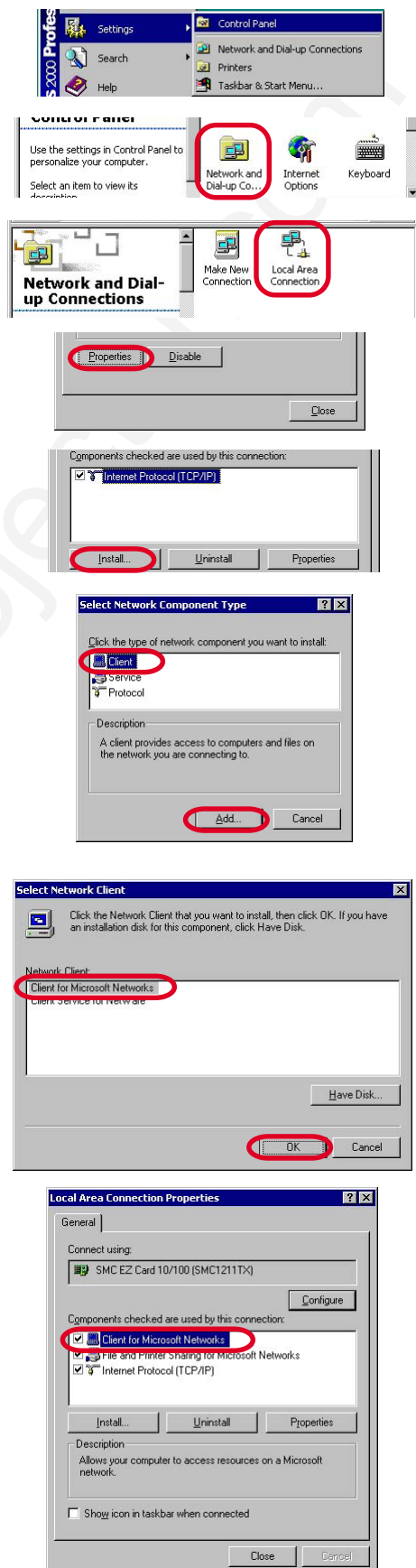
1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2. Double-click **Network and Dial-up Connections**.
3. Right-click **Local Area Connection**
4. Click **Properties** to open the **Local Area Connection properties** dialog box.
5. Click **Install**.
6. Click **Client**, and then click **Add**.

- A list of client software appears.

7. In the **Network Clients** list, select **Client for Microsoft Networks**, and then click **OK**.

- The **Client for Microsoft Networks** appears in the installed network list.

6. Go to A. Check of “File and Printer Sharing for Microsoft Networks”, “Client for Microsoft Networks” and “NetBEUI protocol”.



## Settings (Continued)

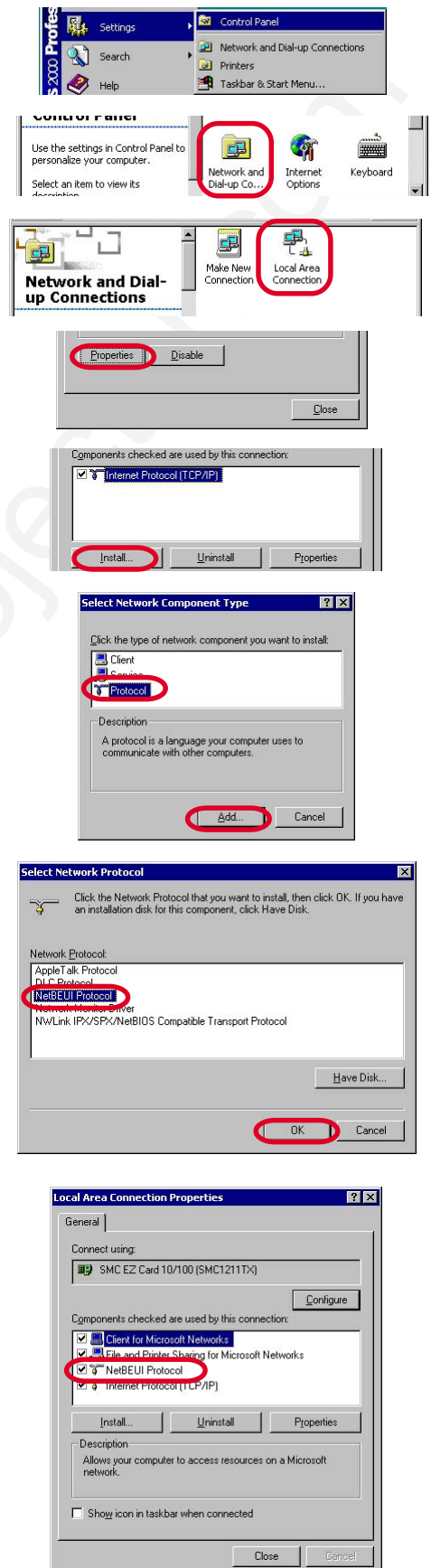
### F. Adding NetBEUI

1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2. Double-click **Network and Dial-up Connections**.
3. Right-click **Local Area Connection**
4. Click **Properties** to open the **Local Area Connection properties** dialog box.
5. Click **Install**.
6. Click **Protocol**, and then click **Add**.

- A Network protocols list appears.

5. In the **Network Protocols** list, select **NetBEUI Protocols**, and then click **OK**.

- The **NetBEUI Protocol** appears in the installed network list.
6. Go to **A. Check of “File and Printer Sharing for Microsoft Networks”, “Client for Microsoft Networks” and “NetBEUI protocol”**.



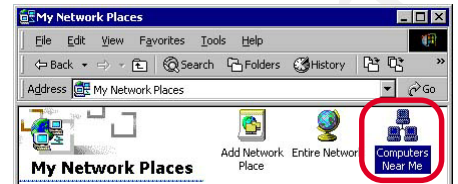
## Settings (Continued)

### G. Using files and printers controlled by other computers

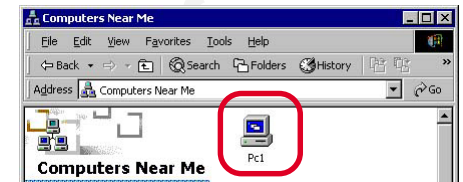
1. Double-click **My Network Places** icon.



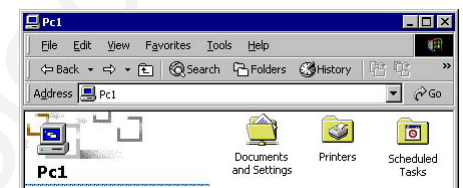
2. Double-click **Computers Near Me** icon.



3. Double-click the icon for the computer that controls the folder you want to use.

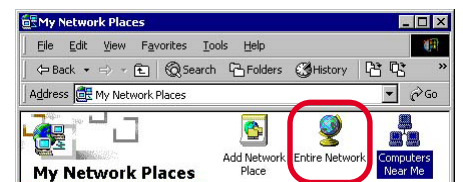


4. To use a shared folder, double-click its icon.

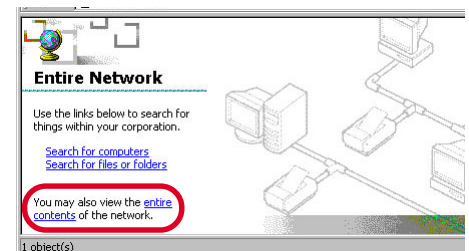


- If the computer you are looking for is not in your workgroup:

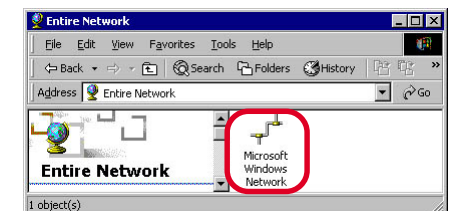
1. Double-click **Entire Network** icon.



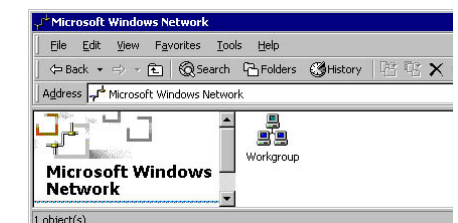
2. Click entire contents.



3. Double-click **Microsoft Windows Network** icon.



4. Double-click the appropriate workgroup.



5. Double-click the icon for the computer that controls the folder you want to use.



# Troubleshooting

PROBLEMS	CAUSE	POSSIBLE SOLUTIONS
Can't access other computers on the network.	<ul style="list-style-type: none"> <li>The main power switch of the projector isn't turned on.</li> <li>The LAN cable isn't connected properly.</li> <li>The LAN cable is broken.</li> <li>The connected computers (LAN cards) don't support a 10BASE-T.</li> <li>The external HUB connected isn't set to support a 10 BASE-T and half-duplex.</li> <li>The password wasn't entered when the Windows started.</li> <li>The network is being searched now, or the computer is now waiting other computers on the network to be presented.</li> <li>The settings of the working group is wrong.</li> <li>The network isn't set correctly.</li> <li>The computer is connected to the II5/X5 port.</li> <li>The external HUB is connected to any of the X1 to X4 ports.</li> <li>The cascade switch on the bottom is set to X5.</li> <li>The other computer is Macintosh.</li> </ul>	<ul style="list-style-type: none"> <li>Turn on the main power switch of the projector.</li> <li>Connect the LAN cable properly.</li> <li>Check the LAN cable isn't broken by replacing it with another LAN cable.</li> <li>Use a LAN card supporting a 10BASE-T.</li> <li>Set the external HUB to support a 10BASE-T and half-duplex. See the operation guide of the HUB for setting.</li> <li>Enter the password when Windows starts and click on the OK button.</li> <li>Select [Start] - [Search] - [Other computers] to search for other computers.</li> <li>Check the setting of the working group.</li> <li>Check the setting of the sharing status of the protocol and working group.</li> <li>Connect the computer to any of the X1 to X4 ports, or set the cascade switch on the bottom to X5.</li> <li>Connect the external HUB to X5 port. In this time, Make sure that the cascade switch on the bottom is set to II5.</li> <li>Set the cascade switch on the bottom to II5.</li> <li>Generally, the Microsoft Windows network can't access AppleTalk network directly.</li> </ul>
Can't share the folder.	<ul style="list-style-type: none"> <li>The password wasn't entered when Windows started.</li> <li>The file or printer sharing isn't valid.</li> </ul>	<ul style="list-style-type: none"> <li>Enter the password when Windows starts and click on the OK button.</li> </ul> <p>For Windows Me/95/98</p> <ul style="list-style-type: none"> <li>Click on the check box in the <b>[File and Print Sharing]</b> dialog box to share the folder.</li> </ul> <p>For Windows 2000</p> <ul style="list-style-type: none"> <li>Click the check box for <b>sharing the file or printer on the Microsoft network</b> shown by the components structure in the <b>[Local area connection property]</b> dialog box.</li> </ul>
Can't transmit the data correctly.	<ul style="list-style-type: none"> <li>Power noise may occur during data transmission.</li> </ul>	<ul style="list-style-type: none"> <li>Power noise may occur when the POWER button is pressed to illuminate the light source lamp during data transmission. Do not press the POWER button during data transmission.</li> </ul>

# Glossary

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## **AppleTalk**

A trade mark of Apple Computer Inc., for a local area network standard that is built into Macintosh computers.

## **HUB**

A central device for connecting the network cables from each computer. Data are communicated in either way of full-duplex transmission or half-duplex transmission. The internal HUB of this projector supports only half-duplex transmission. Also the internal HUB of this projector supports only 10BASE-T.

## **IP address**

A 32-bit code which is used on the Internet or a LAN network. This is separated by periods every 8 bits as 255.255.255.0.

## **LAN (Local Area Network)**

A network over a relatively short distance, used within a building. Data are generally communicated with 10BASE-T or 100BASE-TX on this network. The internal HUB of this projector supports only 10BASE-T.

## **LAN card (Network card)**

An extension card to be attached to a computer for communication on a LAN network. Use a LAN card which complies to 10BASE-T for connection with the built-in HUB of this projector.

## **LAN cable (Network cable)**

A cable to connect computers on a LAN network. Use the cable attached to this projector or a straight cable belonging to the category 3 or above.

## **NetBEUI**

One of the protocols which are used for communication between Windows-running computers on a LAN network. This protocol has the following features.

- Suitable for a small-scale LAN network
- Easy setting
- High speed processing

## **Protocol (Communication control procedure)**

A set of rules or standard designed so that computers can exchange information on a network. Protocol includes TCP/IP, which is used to control communication on the Internet and NetBEUI, which is used between Windows-running computers on a LAN network.

## **Service**

Software to be installed on a computer which provides shared resources. Windows include [Client for Microsoft Networks].

## **TCP/IP (Transmission Control Protocol / Internet Protocol)**

One of the protocols which are used for communication on a LAN network. This protocol is necessary to directly access the Internet.

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