

# ***WEB CONSOLE SECTION***

REV.1	Oct.2001	Feb.2002				
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## 1. Before using Web Console

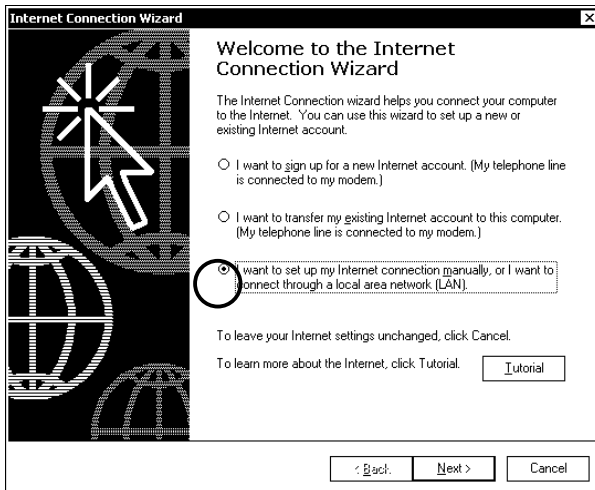
To use Web Console on an SVP, it is required to set Internet Explorer and the IP address.

### 1.1 Setting Internet Explorer

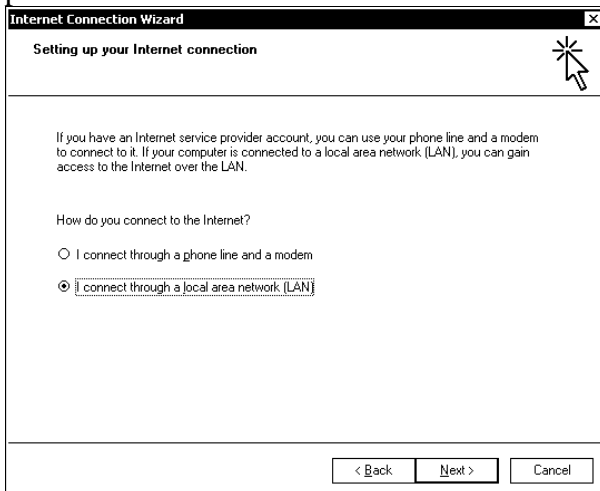
- (1) Double click the Internet Explorer icon on the desktop of the SVP.  
When Internet Explorer is started, go to 1.1 (7).



- (2) Since the following dialog window are displayed, select “I want to set up my Internet connection manually, or I want to connect through a local area network [LAN].” and press the Next button.



- (3) Select “I cannot through a local area network [LAN]” from the following dialog window and press the Next button.



- (4) In the following panel, select “Automatic discovery of proxy server [recommended]”, and press the Next button.

**Internet Connection Wizard**

Local area network Internet configuration

Select the method you would like to use to configure your proxy settings. If you are not sure which option to select, select automatic discovery or contact your network administrator. Automatic configuration may override manual settings. To ensure the use of manual settings, disable automatic configuration.

Automatic Configuration

Automatic discovery of proxy server [recommended]

Use automatic configuration script

Address:

Manual Proxy Server

< Back   **Next >**   Cancel

- (5) In the following window, select No and press the Next button.

**Internet Connection Wizard**

Set Up Your Internet Mail Account

An Internet mail program is installed on your computer. Internet mail allows you to receive and send e-mail messages.

To successfully set up your Internet mail account, you must have already signed up for an e-mail account with an Internet service provider and obtained important connection information. If you are missing any information the wizard asks you to provide, contact your Internet service provider.

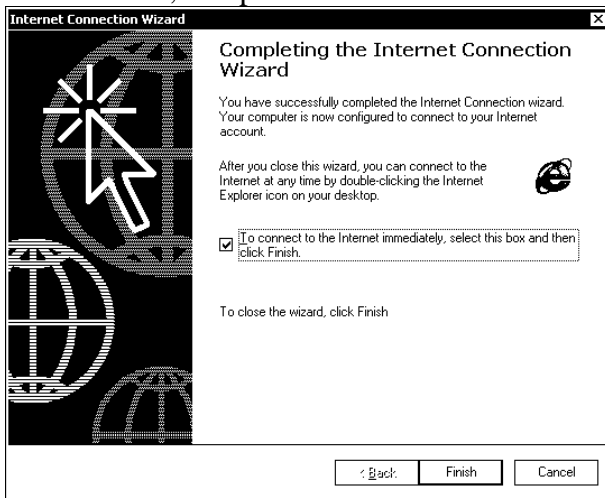
Do you want to set up an Internet mail account now?

Yes

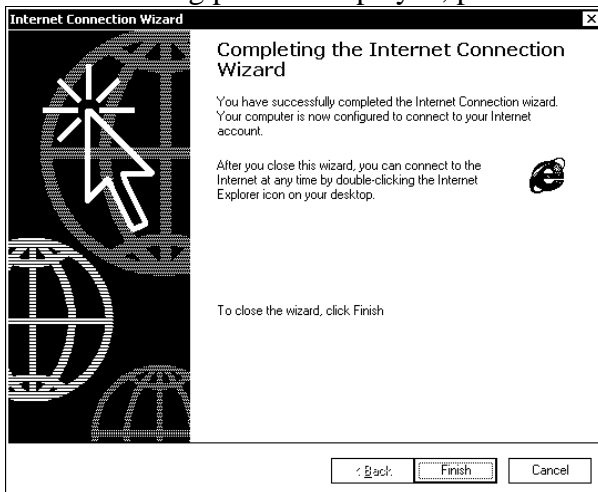
**No**

< Back   **Next >**   Cancel

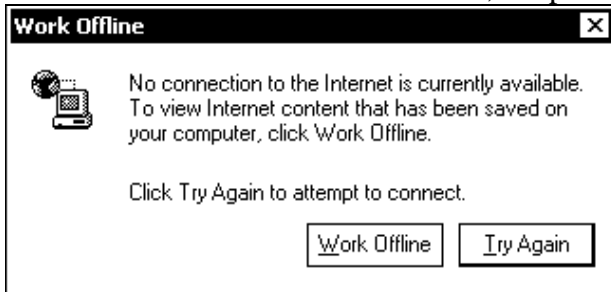
- (6) In the following panel, select “To connect to the Internet immediately, select this box and then click Finish”, and press the Finish button.



If the following panel is displayed, press the Finish button.

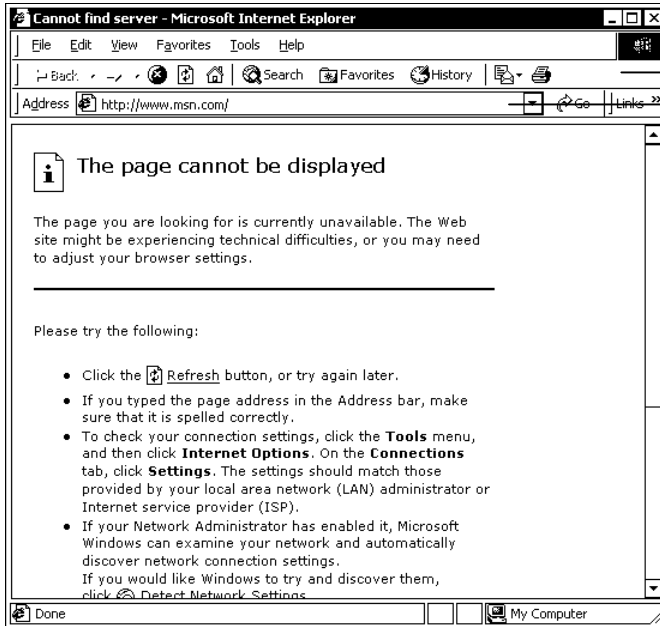


- (7) When SVP is not connected to LAN, the panel below will be displayed. Press the [Try Again] button. When it is connected to LAN, the panel will not be displayed.



- (8) Internet Explorer is displayed.

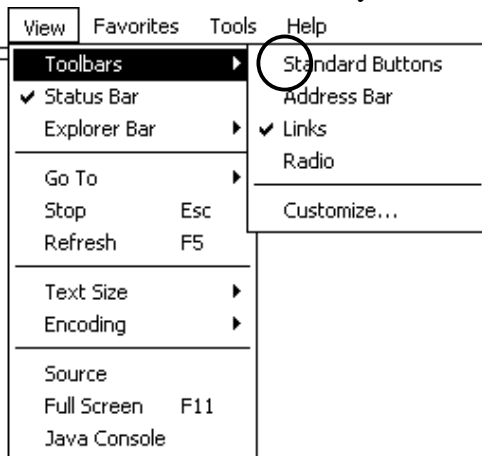
If the standard buttons and the address bar are not displayed, go to 1.1 (10).



Standard buttons

Address bar

- (9) Select View, Toolbars, and Standard Buttons in this order and select View, Toolbars, and Address Bar in the same way, and then remove the check marks of them.

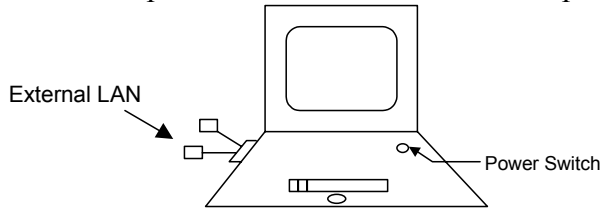


- (10) Select Close from the File menu.

## 1.2 Setting IP Address and Network

When using Web Console from a remote personal computer or using the SNMP Agent function, a connection to an external LAN and a setting of a network is required (See [INST03-EC-10](#)). Please setup according to the worksheet which the user's administrator indicated at the time of a new Installation.

Please setup the contents which took the duplicate from a set up on SVP before REPLACE.

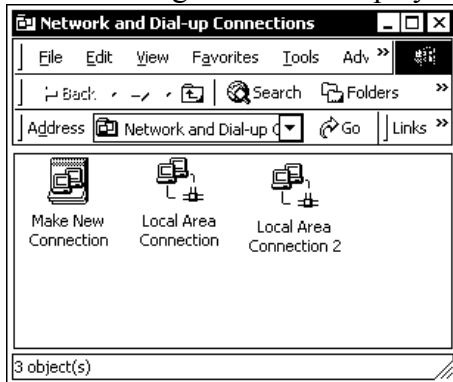


Note: Don't change connection name. If you do so, Web Console will not work.

- (1) Open the Properties window by clicking the My Network Places icon on the desktop with the right mouse button.



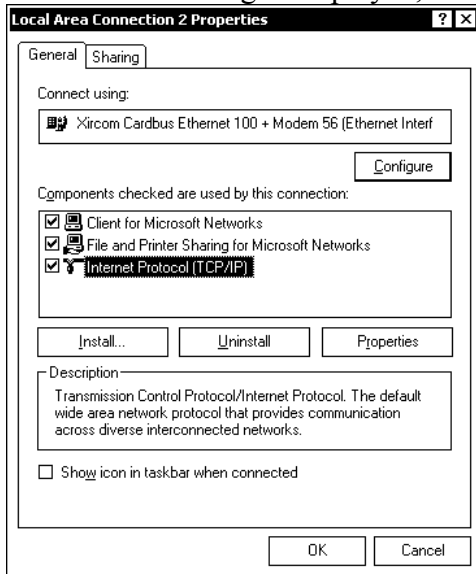
- (2) The following window is displayed.



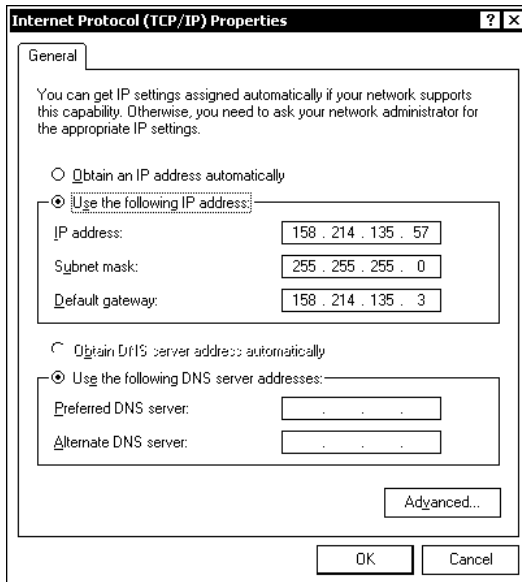
Select Properties by clicking Local Area Connection 2 with the right mouse button.

Note: Local Area Connection 2 may be displayed Local Area Connection 3.

- (3) Since the following is displayed, select TCP/ IP and press the Properties button.



- (4) Select necessary information in the following window.  
Because the information is peculiar to each user, make the setting getting technical assistance of an administrator on the user side.

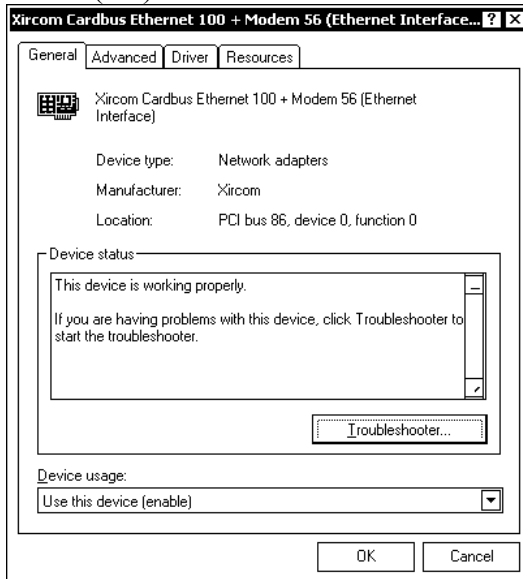


After completing the setting, return the window to that for Step (3) by selecting (CL) the [OK] button.

- (5) Checking whether the setting of the network (setting of Config) must be changed or not.  
There is a case where the setting must be changed depending on the customer's environment.  
The case where the change is required is as follows.  
(Normally, no setting change is required.)
- When the switch (HUB), setting of which is fixed as '100M Full Duplex', is connected to the PC of the SVP  
Note: The setting of the SVP made is "Auto Negotiation".  
Ask the customer about the setting of the switch (HUB) connected to the SVP.  
When the case is not the above, terminate the operation by selecting (CL) the [OK] button.
- (6) Select (CL) the [Configure] button in the window for Step (3).  
When the 'Card Bus' is 'Xircom', go to Step (7).  
When the 'Card Bus' is '3com', go to Step (9).

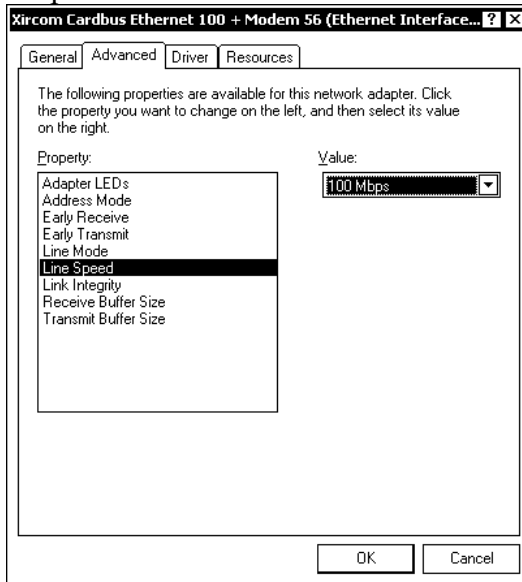
[In the case of the Xircom card bus]

- (7) When the [Configure] button is pressed, the following window is displayed.  
Select (CL) the 'Advanced' tab in the following window.

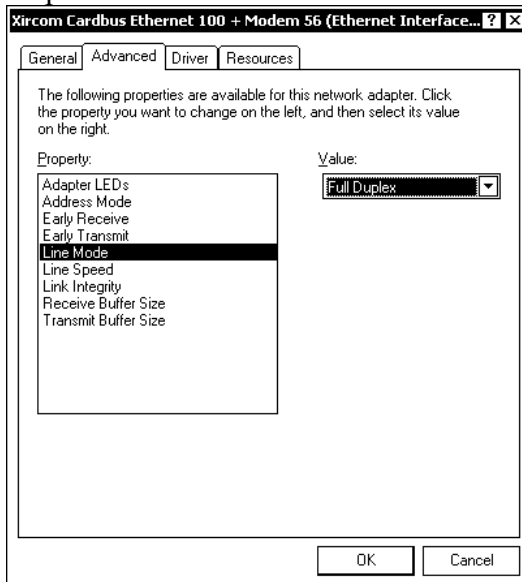


The next step must be selected from two kinds of steps depending on the driver. Make a setting instructed in Step (8) or (9).

- (8) When the 'Advanced' tab is selected, the following window is displayed. Select (CL) the [Line Speed] and change the setting of the 'Value' from 'Auto Detect' to '100 Mbps'.



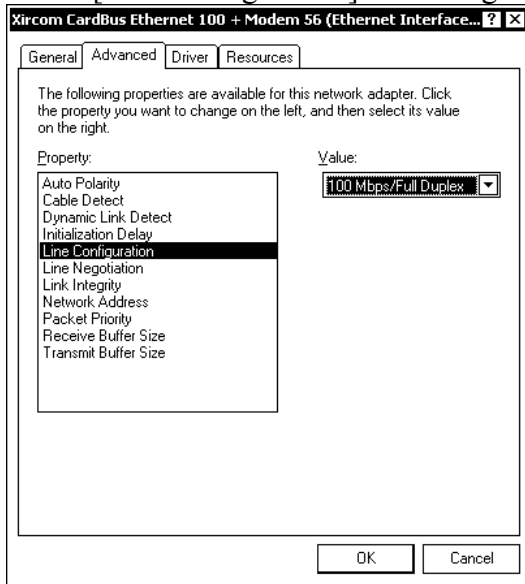
- Select (CL) the 'Line Mode' and change the setting of the 'Value' from 'Auto Detect' to 'Full Duplex'.



- Return the window to 'Local Area Connection 2 (or 3 in some cases) Properties' by pressing (CL) the [OK] button and close the window by pressing the [OK] button.

## (9)-1 &lt;Setting the Line Configuration&gt;

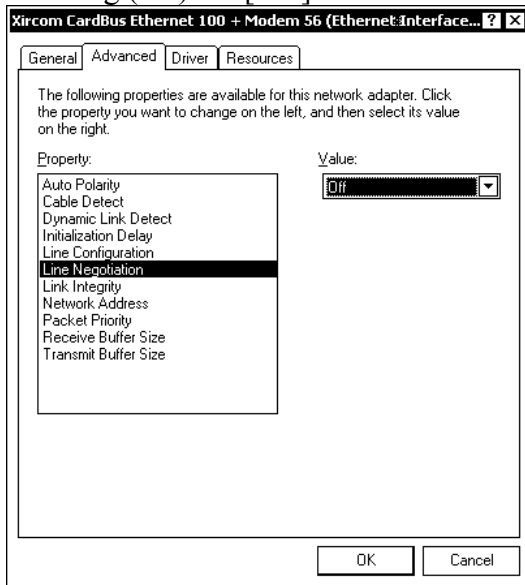
Select [Line Configuration] and change the setting of the 'Value' to '100Mbps/Full Duplex'.



## (9)-2 &lt;Setting the Line Negotiation&gt;

Select [Line Negotiation] and change the setting of the 'Value' to 'Off'.

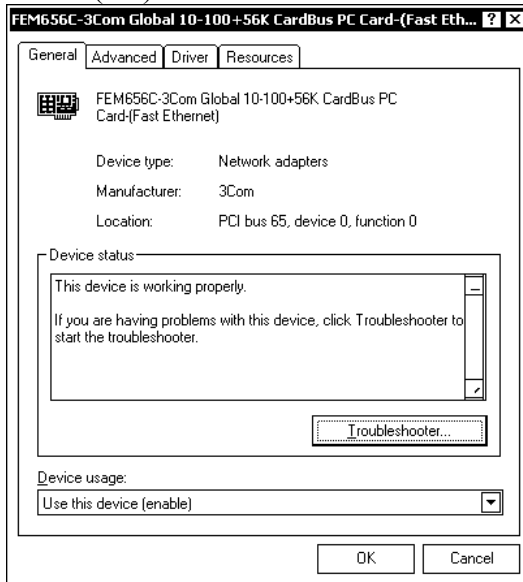
Return the window to the 'Local Area Connection 2 (or 3 in some cases) Properties' by selecting (CL) the [OK] button. Then close the window by selecting the [OK] button.



[In the case of the 3com card bus]

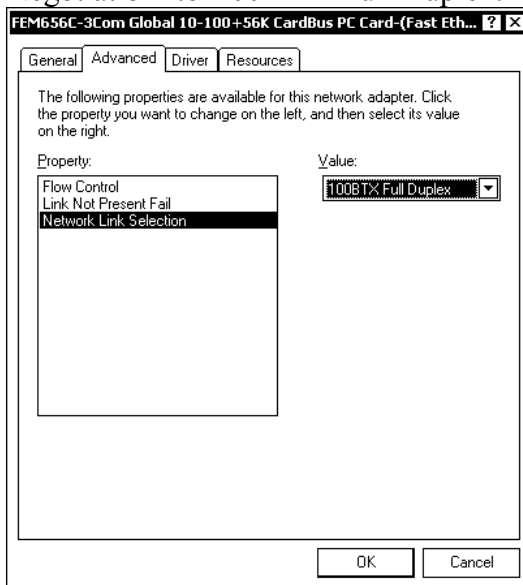
(10) When the [Configure] button is pressed, the following window is displayed.

Select (CL) the 'Advanced' tab in the following window.



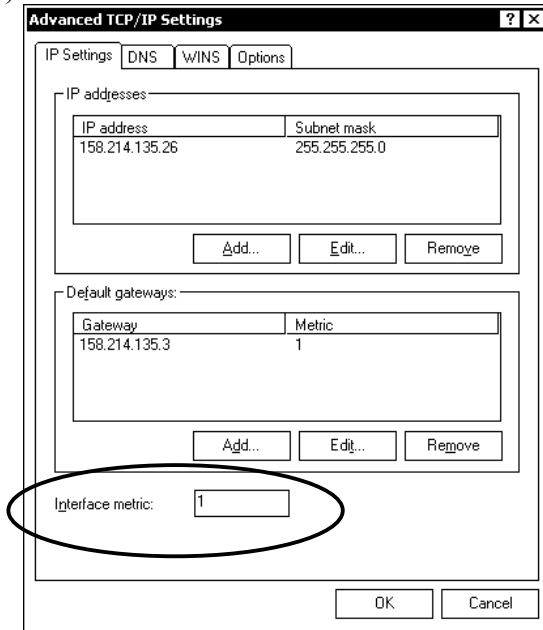
(11) When the 'Advanced' tab is selected, the following window is displayed.

Select the 'Network Link Selection' and change the setting of the 'Value' from 'Auto Negotiation' to '100 BTX Full Duplex.'

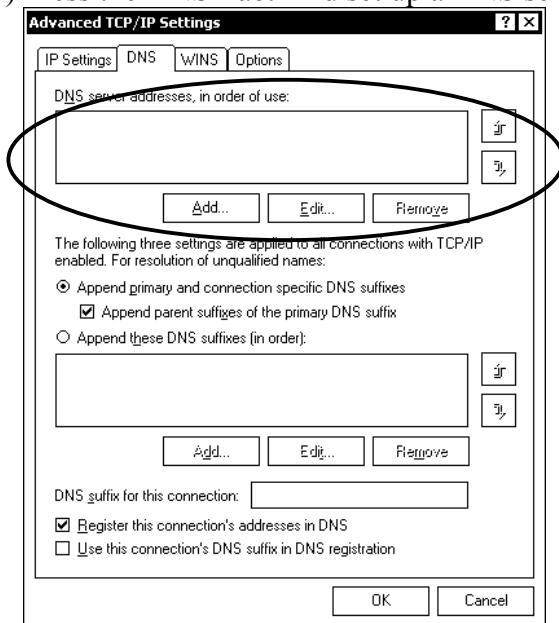


Return the window to 'Local Area Connection 2 (or 3 in some cases) Properties' by pressing (CL) the [OK] button and close the window by pressing the [OK] button.

(12) Press the Advanced Button. And set to “Interface metric” from the work sheet, if it is required.

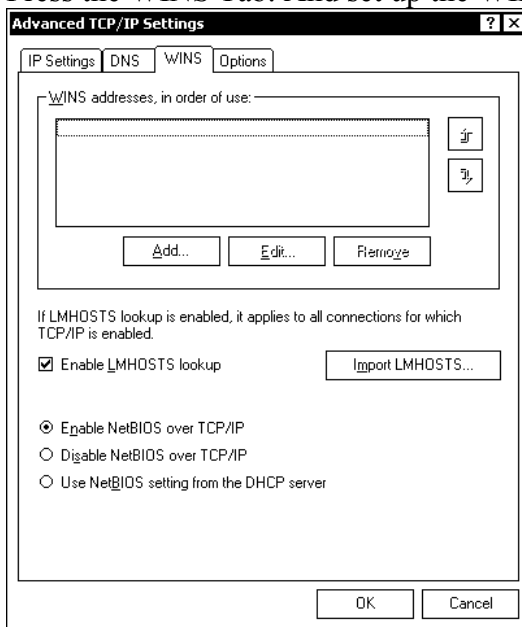


(13) Press the DNS Tab. And set up a DNS server addresses according to the following procedure.



- i) Please choose the IP address which does not have a publication in a worksheet, and press the Remove button.
- ii) Although it is in a worksheet, if there is an IP address which is not displayed on the dialog, the Add button will be pressed and the TCP/IP DNS Server dialog will be displayed.
- iii) Set IP Address, and the Add button.

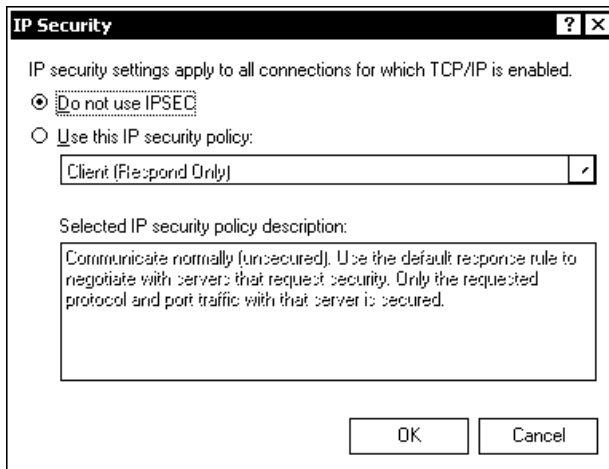
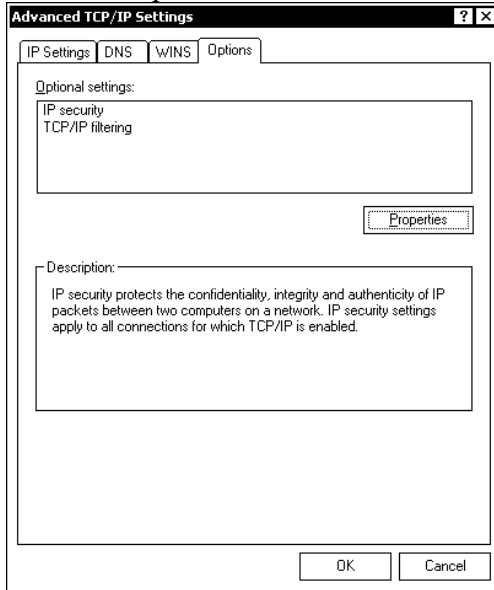
- (14) Please check a radio button and check boxes like the worksheet.
- (15) If there is checkmark in “Append these DNS suffixes [in order]:” radio Button, set up a DNS suffixes addresses according to the following procedure.
- Please choose the IP address which does not have a publication in the worksheet, and press the Remove button.
  - Although it is in the worksheet, if there is an IP address which is not displayed on a dialog, the Add button will be pressed and a TCP/IP Domain suffixes dialog will be displayed.
  - Set IP Address, and the Add button.
- (16) Set “DNS Suffix for this connection’s from the worksheet.
- (17) Press the WINS Tab. And set up the WINS addresses according to the following procedure.



- Please choose the IP address which does not have a publication in a worksheet, and push the Remove button.
- Although it is in the worksheet, if there is an IP address which is not displayed on the dialog, the Add button will be pressed and a TCP/IP WINS Server dialog will be displayed.
- Set IP Address, and the Add button.

(18) Please check a radio button and a check box like the worksheet.

(19) Press the Option Tab. And select IP Security and press the Property Button.

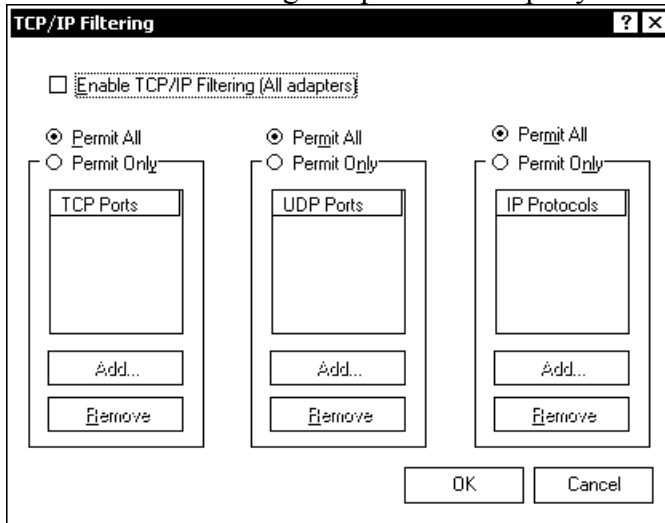


(20) Please check a radio button like the worksheet.

(21) If “Use this IP security policy” is selected, select the kind of IP security policy.

(22) Press the OK button.

(23) Select TCP/IP filtering and press the Property Button.



(24) Please check radio buttons and a check box like the worksheet.

(25) Add or Remove TCP ports like the worksheet.

(26) Add or Remove UDP ports like the worksheet.

(27) Add or Remove IP Protocols like the worksheet.

## 2. Web Console

Some of the existing functions were replaced with Web Console in the RAID450 and the subsequent subsystems.

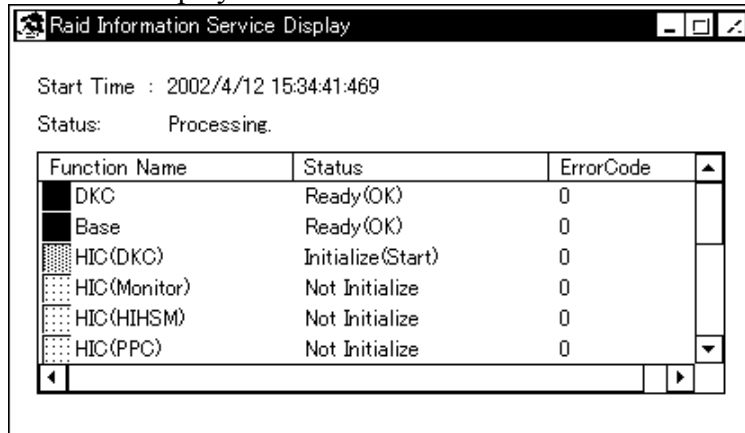
- ① Remote Console was replaced with Web Console.
- ② Each function of the SVP launcher is realized through a pressing of the Web Console button and a selection of one of the following functions.

Name of button on former launcher	Selection to be done after pressing the Web Console button
IP Security	Information / Status — Information or License key / SNMP / Just in Time — SNMP Information
HIHSM/ PPC	Performance Monitor / Cruise control / PPC
HORC	True Copy
HOMRCF	HOMRCF Shadow Image
HRC	HRC True Copy — Main frame
HMRCF	HMRCF Shadow Image — Main frame
HPAV	HPAV Hitachi Parallel Access Volume
On-Demand	License key / SNMP / Just in Time — Just in Time

### 2.1 Specifications of Raid Information Service Display

Activate RISMAN, that is a program for accepting requests of a client and for performing high-speed processing through having structures of the RMI server and RAID in the memory, in order to make Web Console operate.

RISMAN displays statuses of the functions as shown below.



The screenshot shows a window titled "Raid Information Service Display" with the following content:

Start Time : 2002/4/12 15:34:41:469  
 Status: Processing.

Function Name	Status	ErrorCode
DKC	Ready(OK)	0
Base	Ready(OK)	0
HIC(DKC)	Initialize(Start)	0
HIC(Monitor)	Not Initialize	0
HIC(HIHSM)	Not Initialize	0
HIC(PPC)	Not Initialize	0

Web Console cannot operate until all the statuses above become Ready(OK). (\*1)

- Start Time: Time when RISMAN was activated.
- Status: Processing is displayed when RISMAN has the right of maintenance or Ready when it has not. (The mode can be changed to Modify even in the Processing status, however, a maintenance work cannot be done.)

- Function Name

	Name	Description	Part code
1	DKC	Displays whether the DKC is ready or not.	0002
2	Base	Displays the status of the memory management of configuration information of the LUNM/ LUSE/ CVS/ DCR function.	0003
3	HIC(DKC)		8005
4	HIC(Monitor)	Displays the state of initialization of the Base Monitor function.	5105
5	HIC(HIISM)	Displays the state of initialization of the HIISM function.	5205
6	HIC(PPC)	Displays the state of initialization of the PPC function.	5305
7	HIC(OnDemand)	Displays the state of initialization of the On-Demand function.	0505
8	HIC(SNMP IP)	Displays the state of initialization of the SNMP Information function.	0305
9	HIC(HORC)	Displays the state of initialization of the HORC function.	6005/6105
10	HIC(HOMRCF)	Displays the state of initialization of the HOMRCF function.	7005/7105
11	HIC(Key Licence)	Displays the state of initialization of the Key License function.	0405
12	HIC(HPAV)	Displays the state of initialization of the PAV function.	9005
13	HIC(E-Copy)	Displays the state of initialization of the E-Copy function.	9505
14	HIC (LDEV Security)	Displays the state of initialization of the LDEV Security function.	9105
15	HIC(LDEV Guard)	Displays the state of initialization of the LDEV Guard function.	9205/9605
16	HIC(NAS)	Displays the state of initialization of NAS function.	4105
17	HIC(CFL)	Displays the state of initialization of Configuration File Loader function	8105
18	HIC(EXD)	Displays the state of initialization of the Hi-Copy function.	0605
19	HIC(ISC)	Displays the state of initialization of the iSCSI function.	1205
20	HIC(VOL)	Displays the state of initialization of the Volume Manager function.	3005

- Status

	Display	Color	Meaning
1	Not Initialize	Gray	Initialization is not started yet.
2	Initialize(Stat)	Yellow	Initialization is in progress.
3	Initialize (Retry)	Yellow	Initialization failed and it is being retried.
4	Ready(OK)	Blue	Ready for operation
5	Refresh(Start)	Green	Refreshment is in progress. The internal buffer is being initialized after a writing from the SVP/ SNMP/ Web Console has been completed.
6	Refresh(Retry)	Green	Refreshment failed and is being retried.
7	Initial(Error)	Red	Initialization failed. (It is retried every other minute)
8	Refresh(Error)	Red	Refreshment failed. (*1)

## Notes:

- Any of the statuses is Initialize(Stat)/ Refresh(Start)/ Initialize(Retry)/ Refresh (Retry), no maintenance work can be done from an SVP.
  - When an initialization or refreshment operation fails, a retrial operation is performed. When you want to do a maintenance work, do it when the Status is Ready. (Otherwise, an SVP rebooting, which is done after executing Define Information Files or All Configuration Files for alteration of the Config, may fail.)
  - While an SVP maintenance work is being done, an initialization or refreshment operation fails and the status becomes Retry. When the maintenance work is completed, close the SVP window immediately.
  - Operation of Web Console for a part whose status is not Ready(OK) cannot be done.
- (\*1): Even if Refresh (Error) status is displayed, there is a case that the factor of the error has been solved. In this case, the error status can be recovered by pressing Web Console button.

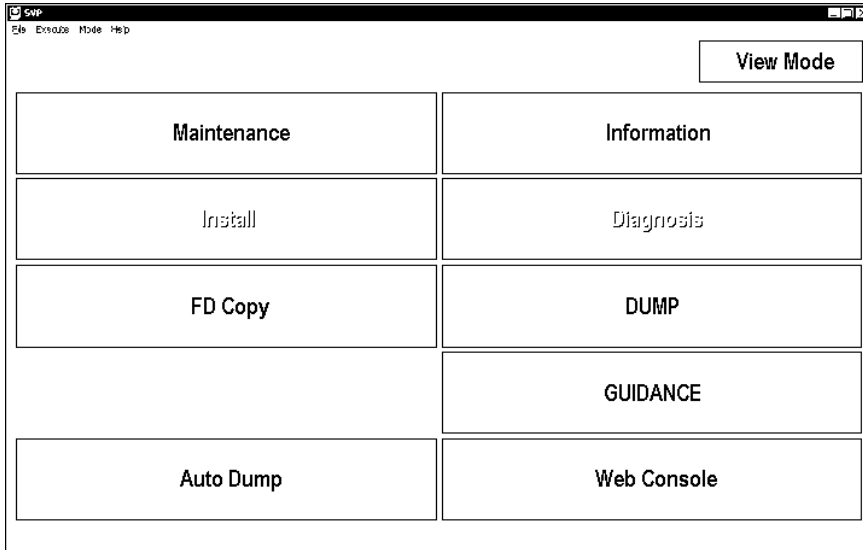
- Error Code

When an error occurs, its error cord is displayed.

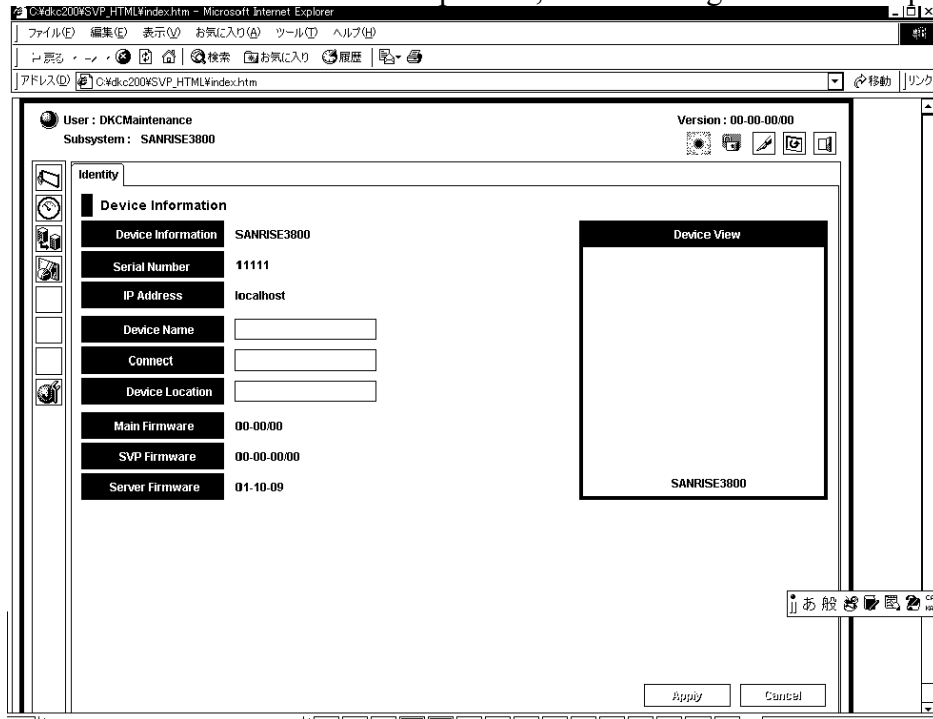
Refer to errors which occur in each part shown in the list of Web Console messages.

(Part codes are listed in the item of Function Name.)

## 2.2 Procedure for Activation Using SVP



- (1) The Web Console button is effective only when the SVP is in the View mode. (The Web Console button is grayed in the Modify mode.)
- (2) When the Web Console button is pressed, the following window is displayed.



Note: Do not activate Web Console from the SVP by specifying the URL on Internet Explorer.

Only the following functions of Web Console are valid on the SVP.

When program product is nothing on the SVP, refer to “2.1 Specifications of Raid Information Service Display”.

























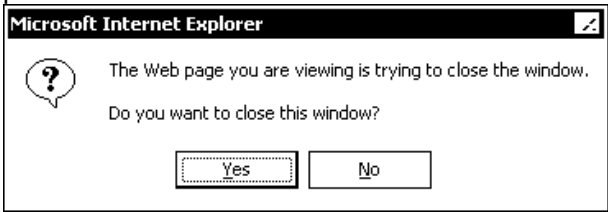
	Function	Reference	Button
1	LUN Management (Only the setting of an iSCSI port is possible.)	LUN Management User's Guide	
2	Virtual LVI / LUN (VLL)	Virtual LVI / LUN (VLL) User's Guide	
3	Partial Cache Residence	Flash Access User's Guide	
4	Performance Monitor / CruiseControl / PPC	Performance Management User's Guide	
5	TrueCopy	TrueCopy User's Guide	
6	ShadowImage	ShadowImage User's Guide	
7	TrueCopy-Mainframe	TrueCopy-Mainframe User's Guide	
8	ShadowImage-Mainframe	ShadowImage-Mainframe User's Guide	
9	HITACHI Parallel Access Volume	Hitachi Parallel Access Volume User's Guide	
10	HITACHI SANtinel-S/390(R)	Hitachi SANtinel-S/390(R) User's Guide	
11	LDEV Guard	LDEV Guard User's Guide	
12	Extended Copy Manager	Extended Copy Manager User's Guide	
13	Open LDEV Guard	Open LDEV Guard User's Guide	
14	Just in Time	Web Console Web Console User's Guide	To use this function, press the License key / SNMP / Just in Time (  ) button and select the On-Demand tab.
15	SNMP Information	Web Console Web Console User's Guide	To use this function, select the Identity tab after pressing the status (  ) button and "4. Installing SNMP Agent", select the SNMP Information tab after pressing the Install (  ) button.
16	Export Function	Web Console Web Console User's Guide	
17	FTP Client Function	Web Console Web Console User's Guide	

Table 2.1 Operation of nothing P.P

Base Monitor	Reference	○
CruiseControl	Reference	○
	Setup	×
	Cancellation	○
PPC	Reference	○
	Setup	×
	Cancellation	○
TrueCopy/ TrueCopy-Mainframe	Reference	○
	Setup	×
	Cancellation	○
ShadowImage/ ShadowImage-Mainframe	Reference	○
	Setup	×
	Cancellation	○
Hitachi Parallel Access Volume	Reference	○
	Setup	×
	Cancellation	×
Extended Copy Manager	Reference	○
	Setup	×
	Cancellation	○
Hitachi SAnTinel-S/390(R)	Reference	○
	Setup	×
	Cancellation	○
LDEV Guard/Open LDEV Guard	Reference	○
	Setup	×
	Cancellation	○
Partial Cache Residence	Reference	○
	Setup	×
	Cancellation	○
LUN Management (Only iSCSI port.)	Reference	○
	Setup	×
	Cancellation	×

## 2.3 Specifications Common to Functions of Web Console

	Name	Icon	
1	Status lamp	 icon in the upper left part of the window	Indicates a status of the DKC with a color: Blue: Normal, Yellow: Warning, or Red: Abnormal. When it becomes red or yellow, see the Maintenance on the SVP.
2	Subsystem		Shows a nickname of the DKC.
3	Version		Shows a version of Web Console.
4	Waiting		The icon rotates during the operation started by a pressing of the Refresh button following a pressing of the Apply button. The icon stops its rotation when the refreshment operation is completed.
5	Exclusive Lock icon		Shows statuses of operation mode (View or Modify mode) of users who have logged in the SVP. Blue: All users make access in the View mode. Red: Some of users including you set the Modify mode. <b>Note:</b> <b>While performing a maintenance work using an SVP or using the SNMP in the Modify mode, contents displayed on Web Console may be old or incorrect.</b>
6	Operation mode switching icon		Switches the operation mode between the View and Modify modes. When you move the mouse close to this icon, the current operation mode is displayed. To change the operation mode, press this button. The sunk button shows that the mode is set to Modify.
7	Refresh button		Updates Web Console to the latest state. However, it is not updated when any one of other users uses it in the Modify mode.
8	Quit button		Quits Web Console. Since the following message is displayed after the confirmation message is issued, press the Yes button. 

### CAUTION


Do not quit Web Console by pressing the x button of the browser or double clicking the small icon at the upper left position. In case you have quitted Web Console in this way, activate it again after the RMI time-out (six minutes in default).

## 2.4 Before Using Web Console (You are requested to read this without fail.)


### 2.4.1 Notes on Using the Web Console PC

You must use the mouse to perform general Web Console operations. You can select an object (item on a panel) by clicking the object using the mouse. You can also display the command(s) by right clicking while selecting object(s) using the mouse.

Keep the following notes and restrictions in mind when you perform Web Console operations on the Web Console PC:

- You cannot use the mouse wheel for performing Web Console operations.
- You cannot use the **Home**, **End**, and **Delete** keys for Web Console operations.
- Please do not close Web Console panels by:
  - Clicking the  button on the panel,
  - Using the commands such as **File** and **Exit** on the Web browser, or
  - Pressing the **Alt** and **F4** keys.

Note: If you accidentally close the panels by the method above, wait for an RMI time-out (default is 1 min.), and then restart the Web Console.

- Please do not use the shortcut keys such as **F5**, **Ctrl+F**, **Esc**, and **Ctrl+A** for Web Console operations. The **F5** key will exit and restart the Web Console.
- For Java applet security, you cannot copy and paste objects (text) from other applications during Web Console operations.
- The layout of a Web Console panel is reset when you click the **Apply** button or **Refresh** button () , or when you switch tabs.
- On the Web Console panels, you may hold multiple settings or operations before actually applying those settings or operations to the RAID450 subsystem by clicking the **Apply** button. However, if you apply too many settings at once, the server might become overloaded and an error might occur. To avoid an error, do not apply more than 1,000 settings at a time.
- After dragging and dropping objects to another location or area, you might not be able to use the scroll bar on that location or area. In this case, close all panels including the Storage Device List panel, and then log on to the Web Console again.
- You cannot drop an object to an area or location where no object exists.

Note: Even if you try to drop an object to an invalid area or location, no warning icon is displayed.

- To select, drag and drop objects that are adjacent to each other, you must continue to hold down the **Shift** key to select a group of objects that are adjacent to each other, and then hold down the **Ctrl** key when you select the last object in the group. Continue to hold down the **Ctrl** key when you drag and drop the selected objects.
- To select, drag and drop objects that are not adjacent to each other, you must continue to hold down the **Ctrl** key to select a group of objects that are not adjacent to each other.

The following examples illustrate the procedures above, using the objects shown in Figure 2.4.

To drag and drop adjacent objects (No. 2 to No. 5) in Figure 2.4 (left):

- (1) While continuing to hold down the **Shift** key, click No. 2 **Object B** and No.4 **Object D**.  
The objects No. 2 to No. 4 are selected.
- (2) Hold down the **Ctrl** key, click No. 5 **Object E**.  
The No. 5 object is also selected. The objects No. 2 to No. 4 remain selected.
- (3) Place the mouse pointer on the No. 5 object and hold down the **Ctrl** key and the left mouse button. Next, drag the selected objects (No. 2 to No. 5) to the desired location.

To drag and drop non-adjacent objects (No. 2 and No. 5) in Figure 2.4 (right):

- (1) Hold down the **Ctrl** key, click No. 2 **Object B** and No. 5 **Object E**.  
The objects No. 2 and No. 5 are selected.
- (2) Place the mouse pointer on the No. 5 object and hold down the **Ctrl** key and the left mouse button. Next, drag the selected objects (No. 2 and No. 5) to the desired location.

No.	Object	No.	Object
1	Object A	1	Object A
2	Object B	2	Object B
3	Object C	3	Object C
4	Object D	4	Object D
5	Object E	5	Object E
6	Object F	6	Object F
7		7	
8		8	

Figure 2.4 Selecting Multiple Objects (Left: Adjacent, Right: Non-Adjacent)

See Chapter 5 of Web Console User's Guide for troubleshooting (errors and actions during operations on the Web Console PC).

- If a Web Console user in modify mode is applying the settings by the Apply button, you must wait to log on to the Web Console until the settings are applied. If you wait for five minutes, but still cannot log on to the Web Console, an abnormal end occurs.
- When you try to drag and drop multiple objects, the drag status might continue to remain even after you release the mouse button. In this case, hold down the same keys such as Shift and Ctrl keys that are used to select the multiple objects, and drop those objects.

## 2.5 Actions to Be Taken According to Result of Troubleshooting

	Failure	Recovery action	Remarks
1	Web Console cannot be connected.	Quit Internet Explorer and restart Web Console after the RMI time-out (default is 1 minute). If the trouble is not solved in spite of it, collect a dump. Log on the Storage Navigator after clearing the Web browser and the JRE Cache (the Internet temporary file).	
2	In case of start from the Web Console button on the SVP launcher, the Web Console cannot be started and network error (10,6027) occurred.	A LAN cable may fall out. Please confirm the LAN cable. If the LAN cable falls out, connect it and reboot SVP.	(Note)
3	The Storage Navigator PC experiences an error (10,6027), when accessing the SVP from the Storage Navigator PC.	SVP (a Web server) cannot recognize an IP address of Storage Navigator PC or HUB, and please confirm an following item, and figure 1 is reference. (1) Took off an external LAN cable of SVP by installation work or maintenance work, and does not restart do SVP?. (2) Do not do restart of SVP by an Off state with a power supply of LAN machinery (HUB/router) connected to external LAN of SVP with installation work or maintenance work? In case of above, connect external LAN cable of SVP, and please turn a power supply of LAN machinery (HUB/router) into an On state as well, and restart SVP, and please access from Storage Navigator movement PC SVP (a Web server) from it once again.	
4	Web Console was quit by an operation of the Exit button of Internet Explorer.	Quit Internet Explorer and restart Web Console after the RMI time-out (default is 1 minute). If the trouble is not solved in spite of it, collect a dump.	
5	After an error message was displayed, all the buttons other than the Exit button became ineffective.	Terminate the process once by pressing the Exit button. Make a recovery from the failure referring to the error code list and restart the client PC.	(Note)
6	After an error message was displayed, all the buttons excluding the Exit and Refresh buttons became ineffective.	Press the Refresh button after a while and wait until the window becomes normal again.	(Note)
7	An application error occurred.	Collect a dump and restart Web Console.	
8	Keys in the Edit box were disabled. (Key entry became unable to be done.)	Quit Web Console by clicking the Exit button with a mouse, restart it, and then execute it.	
9	The browser was quit forcibly or an internet error occurred.	Restart Web Console. If the trouble is not solved in spite of it, reboot the SVP.	

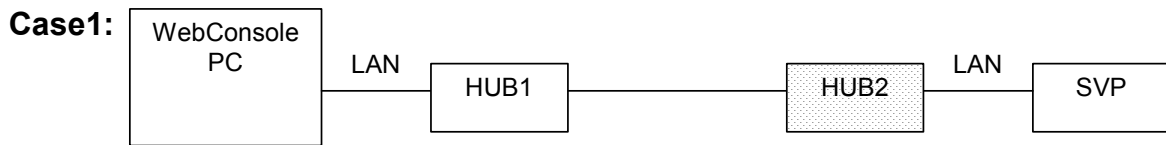
(To be continued)

(Continued from the preceding page)

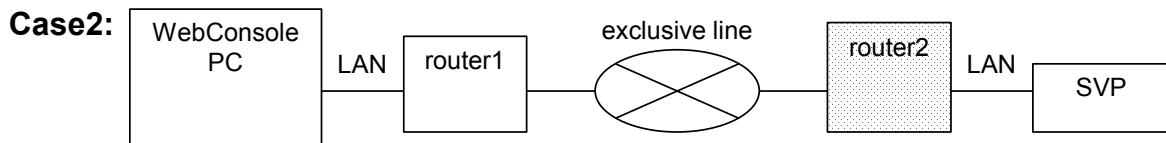
10	The microprogram must be newly installed by means of SVP replacement, etc.	Back up the user list, storage list, and environment file beforehand (this can be done through a backup of the Config file) and install the microprogram using the Config file. Then, copy the following files which are subordinate to the c:\dkc200\config to files under the c:\programfiles\apachegroup\apache\cgibin\Utility\CSV. <ul style="list-style-type: none"> <li>• Env.csv</li> <li>• Strlist.csv</li> <li>• Userlist.csv</li> </ul>	
11	In case of network obstacle Java GUI cannot sometimes load the item such as icon and the screen are not in good order.	If the phenomena occurred, Log off from the Web Console, and close all panels including the Storage Device List panel, and then log on to the Web Console again. If the same error occurs, restart the Web Console PC.	
12	The screen hangs up when Web Console is operated.	Restart Web Console. If the trouble is not solved in spite of it, reboot the SVP.	

Note: If the trouble is not solved in spite of it, collect a dump and restart the Web Console PC.

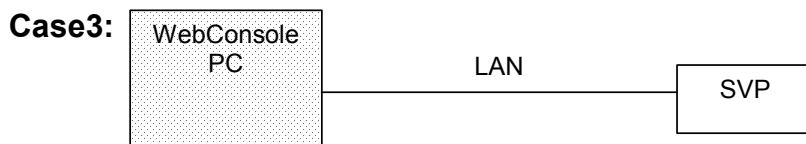
When restart SVP by the state that LAN between SVP and WebConsole is not connected to justly, there is the case that gets impossible to start WebConsole ((10, 6027) error occurred).



Recovery Action: In this case, please restart of SVP by a state of On with a power supply of HUB2 by all means.



Recovery Action: In this case, please restart of SVP by a state of On with a power supply of router2 by all means.

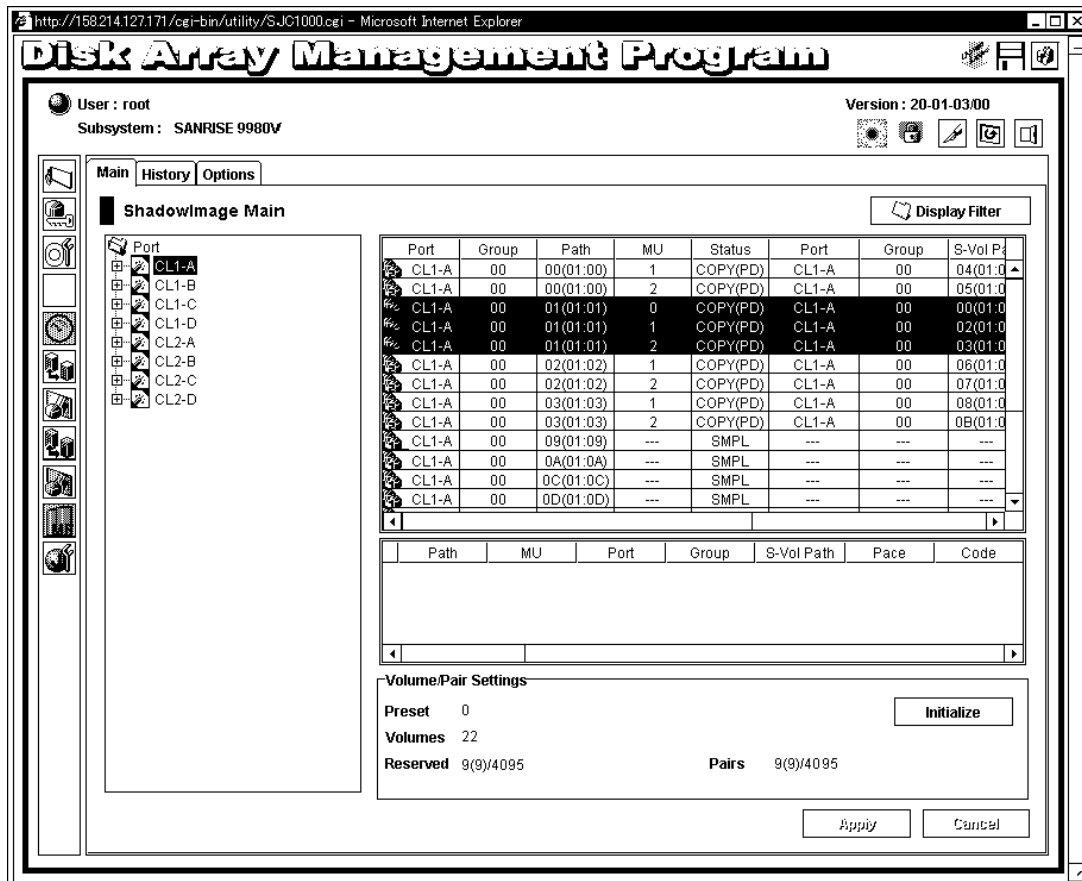


Recovery Action: In this case, please restart of SVP by a state of On with a power supply of WebConsole PC by all means.

Figure 1

### 3. Difference from the P.P Manual

#### 3.1 ShadowImage



(1) Volume/Pair Settings box

When the ShadowImage window is opened by WebConsole on the SVP, the [Initialize] button is displayed in the Volume/Pair Settings box.

- Initialize

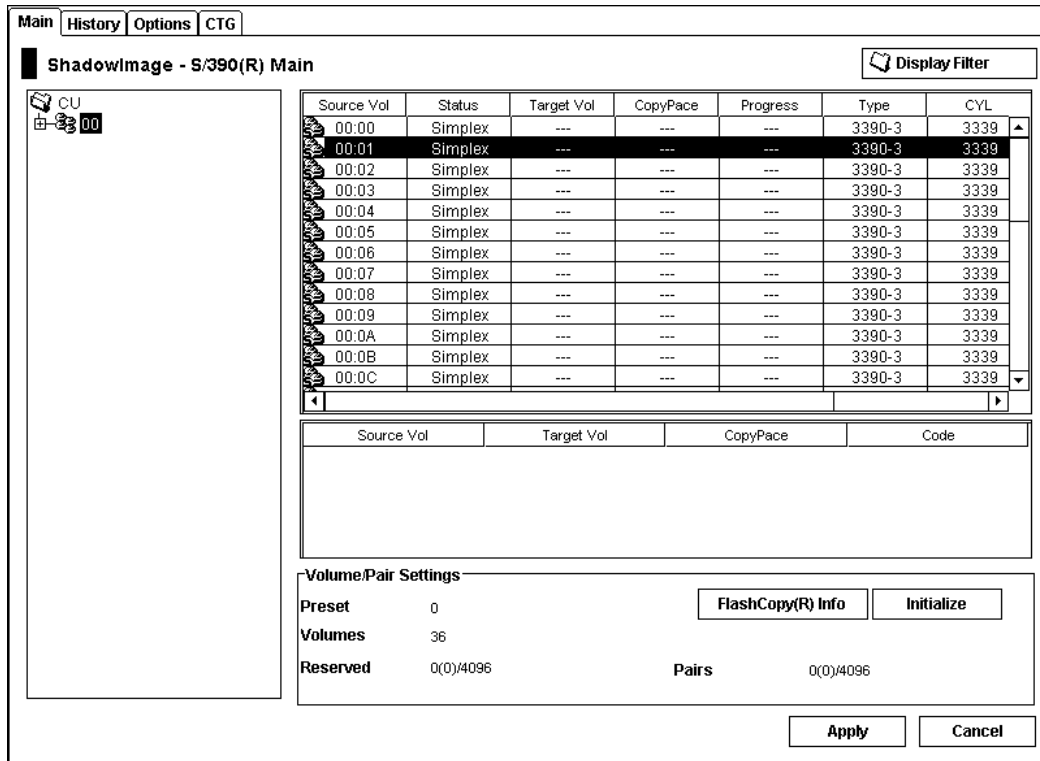
It deletes all the pairs that have been formed by ShadowImage / ShadowImage-Mainframe / CruiseControl / Hi-Copy and sets the pair status of the volume to SMPL (to Simplex, in the case of ShadowImage - Mainframe).

To operate the [Initialize] button, an entry of a password is required. For the password, refer to the Technical Service Center.

Note 1: When the [Initialize] button is pressed, pairs formed by ShadowImage - Mainframe, CruiseControl, Hi-Copy are also deleted.

Note 2: Perform the operation only when it is directed by the Technical Service Center.

### 3.2 ShadowImage - Mainframe



(1) Volume/Pair Settings box

When the ShadowImage- Mainframe window is opened by WebConsole on the SVP, the [Initialize] button is displayed in the Volume/Pair Settings box.

- Initialize

It deletes all the pairs that have been formed by ShadowImage / ShadowImage-Mainframe / CruiseControl / Hi-Copy and sets the pair status of the volume to Simplex (to SMPL, in the case of ShadowImage).

To operate the [Initialize] button, an entry of a password is required. For the password, refer to the Technical Service Center.

Note 1: When the [Initialize] button is pressed, pairs formed by ShadowImage, CruiseControl, Hi-Copy are also deleted.

Note 2: Perform the operation only when it is directed by the Technical Service Center.

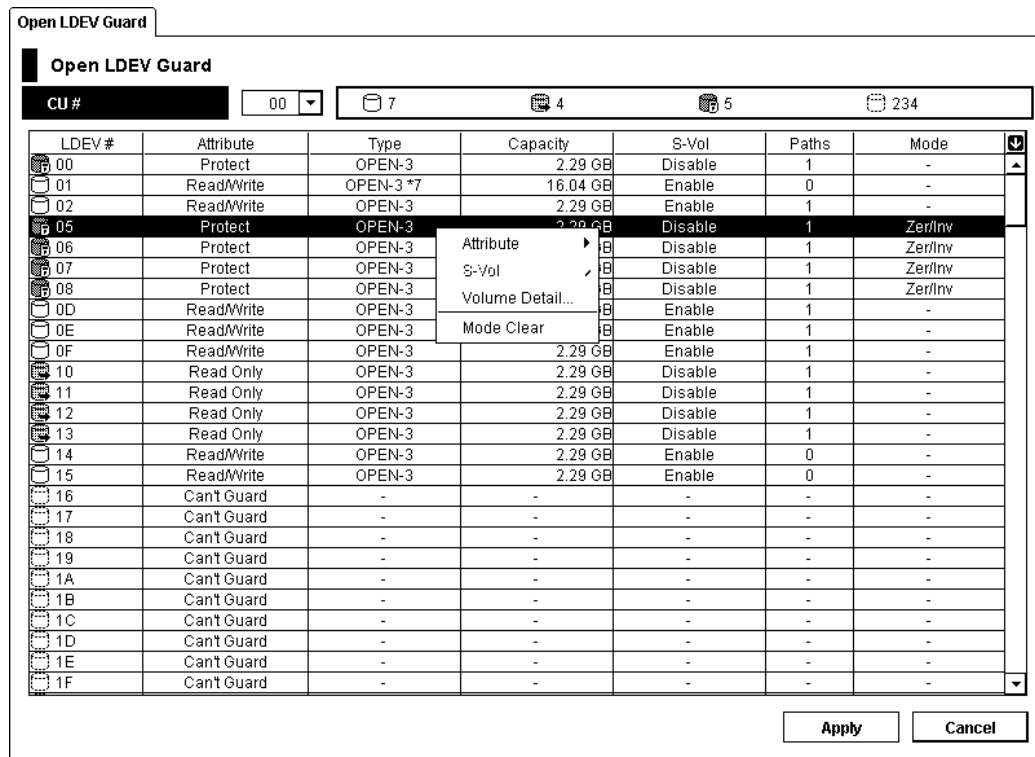
Blank Sheet

REV.2	Mar.2003	Jul.2003	May.2004			
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Blank Sheet

REV.1	Jul.2003	May.2004				
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### 3.4 Open LDEV Guard



#### (1) Canceling the mode attribute

When the Open LDEV Guard window of Web Console is opened and the operation for changing the access attribute is performed, [Mode Clear] is displayed in a pop-up menu. Use the menu when you want to cancel the attribute, Zer and Inv, when the access attribute is Protect.

Note: For the attributes, Zer and Inv, refer to Open LDEV Guard User's Manual.

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## 4. Installing SNMP Agent

### 4.1 Installation Procedure

1. Install the SNMP API program product. (Refer to [SVP04-10](#))
2. Install options of the SNMP Agent. (Refer to Web Console Web Console User's Guide)
3. Check the setup of the SNMP Agent.

## 4.2 Operations on SNMP Screen

### ■ Checking setup

#### (1) Checking the initiation of the SNMP Agent

Check that a node of the subsystem has been added to the SNMP manager side. If a node of the subsystem is not yet added, check that the Microsoft's SNMP Agent has been installed correctly.

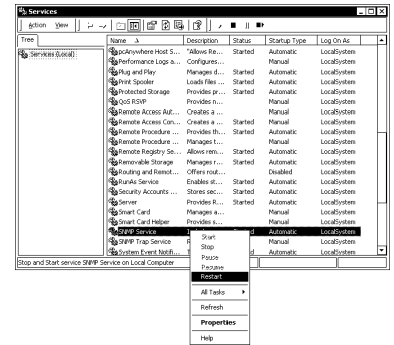
#### (2) Checking the support for MIB extensions

Perform GET/GETNEXT operations of subsystem MIB extensions from the SNMP manager side to a node of the subsystem. If operations cannot do well, set up once again.

#### (3) Checking MIB extension report destinations

The SVP PC has two LAN cards (boards) mounted. Therefore, check if a correct agent address is reported when issuing a trap, in the following way:

- (a) Select menus [Administrative Tools]-[Services].
- (b) Select "SNMP Service," and then select the Action menu or the Restart menu by clicking with the right mouse button



- (c) Check a trap log of SVP ColdStart(0) on the SNMP manager side to see if the agent address has been set to the IP address of the customer's LAN.

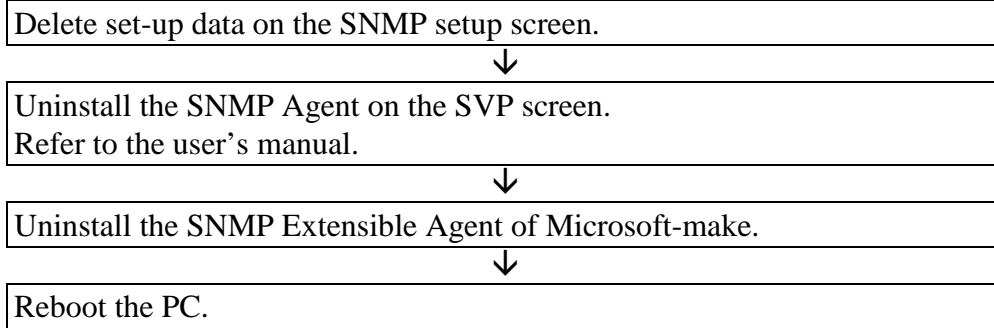
### ⚠ CAUTION

If the IP address has been set to the IP address of the LAN only for a DKC, exchange the IP address setting of the LAN board (Card) between the customer's and the DKC's.

(IP address of the customer's LAN → IP address of the LAN only for a DKC,  
IP address of the LAN only for a DKC → IP address of the customer's LAN)

## ■ Uninstalling the SNMP Agent

The following describes a procedure for uninstalling the SNMP Agent.



## 5. Procedure of Apache 1.3.27 installation

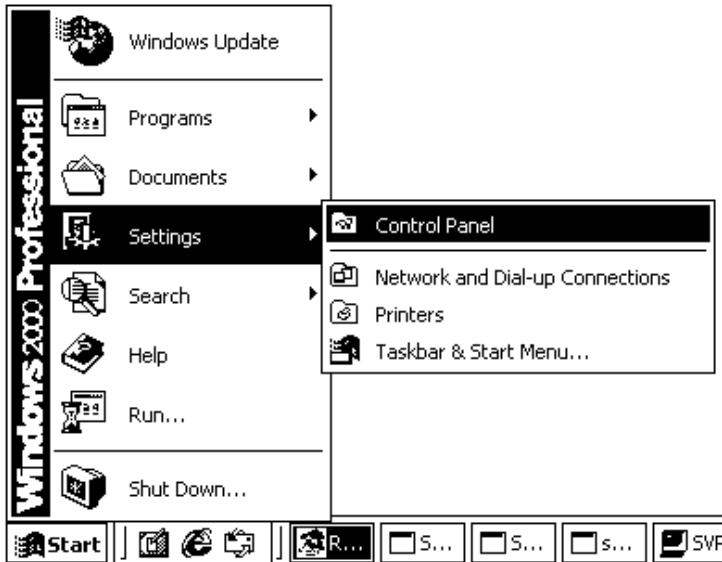
In a system whose SVP version is earlier than 21-06-20/00, the Apache version 1.3.14 is used. With SVP version: 21-06-20/00 or later, the version 1.3.27, in which the known security hole of Apache is fixed, is also supported. In a newly shipped DKC where SVP version: 21-06-20/00 or later is applied, the Apache version 1.3.27 is installed. Even if you upgrade the version of SVP in DKC, which was shipped before SVP version: 21-06-20/00 is applied, to 21-06-20/00 or later by exchanging microprogram, the version of Apache will not be upgraded. When you exchange microprogram with SVP version: 21-06-20/00 or later, install Apache 1.3.27 by performing the following procedure first.

Note: If you downgrade the SVP version from 21-06-20/00 (or later) to 21-05-xx/xx (or earlier), you must downgrade the Apache version from 1.3.27 to 1.3.14. ([WEB5-120](#))

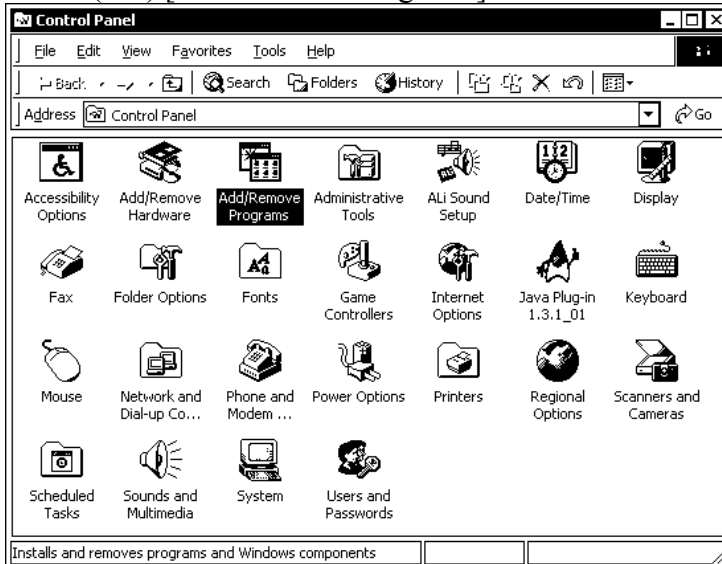
## 5.1 Checking Apache version

Use the following procedure and check the version of Apache currently installed in the SVP.

- (1) Select (DR) [Start]-[Settings]-[Control Panel].

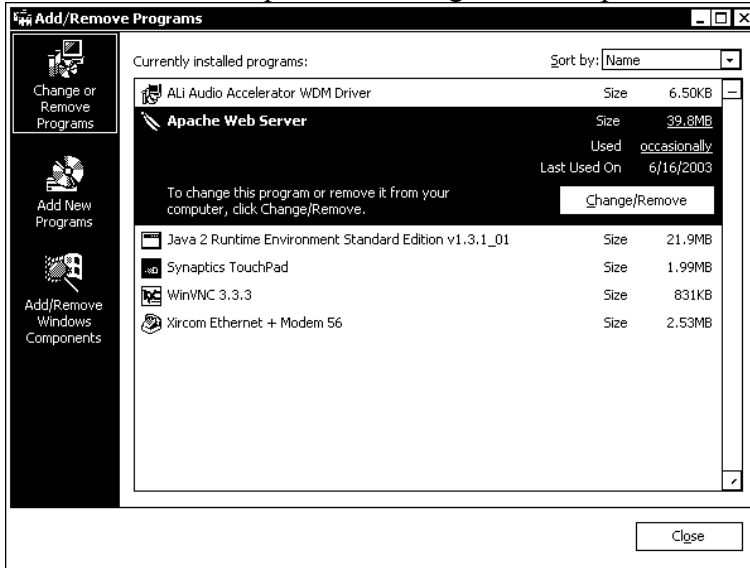


- (2) Select (DC) [Add/Remove Programs].



- (3) Check the content of [Currently installed programs] in the [Add/Remove Programs] panel. If [Apache Web Server] exists, Apache 1.3.14 is installed. Go to “5.2 Uninstallation of Apache 1.3.14.”

If Apache 1.3.27 is already installed, [Apache HTTP Server 1.3.27] exists. In this case, you do not have to install Apache 1.3.27 again. The operation is completed.



When the Apache version check is completed, select (CL) the [×] button.

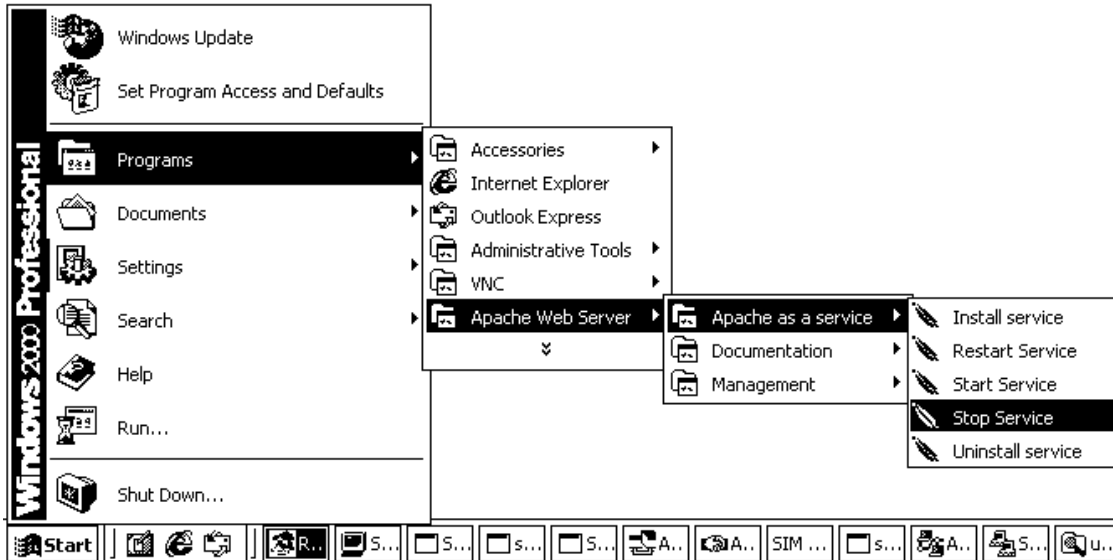
Note: When Apache 1.3.14 is installed, there is no version information on the Add/Remove programs screen.

When Apache 1.3.27 is installed, there is the version next to the Apache Web Server program name.

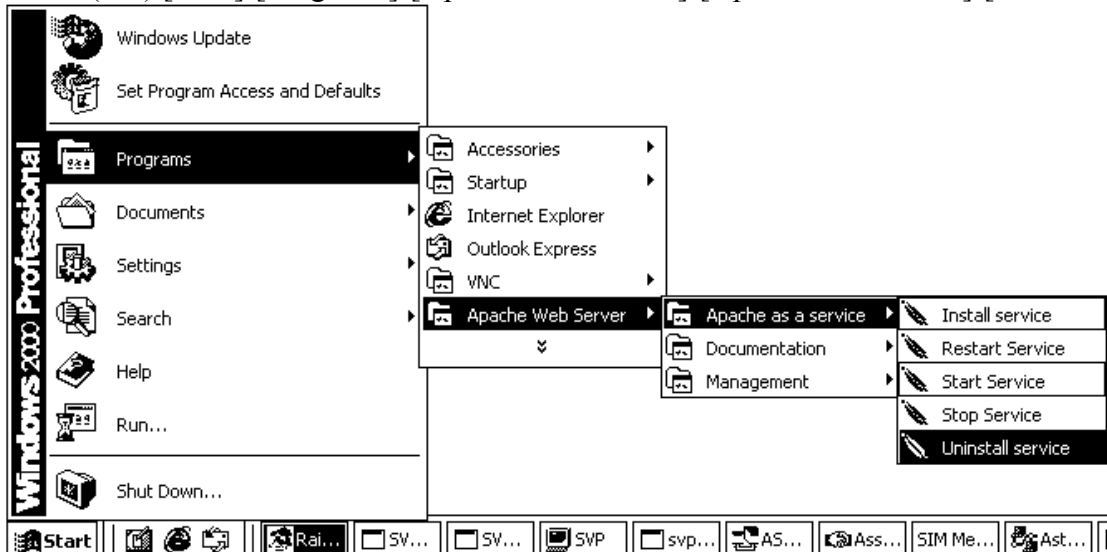
## 5.2 Uninstallation of Apache 1.3.14

Before installing Apache 1.3.27, you need to uninstall Apache 1.3.14. The procedure of uninstallation is shown below. If you try to install Apache 1.3.27 without uninstalling Apache 1.3.14, an error message, “An old version of Apache has been detected. Please uninstall this version and then perform Setup.exe again.” will be displayed.

- (1) Select (DR) [Start]-[Programs]-[Apache Web Server]-[Apache as a service]-[Stop Service]. Service of Apache will stop.



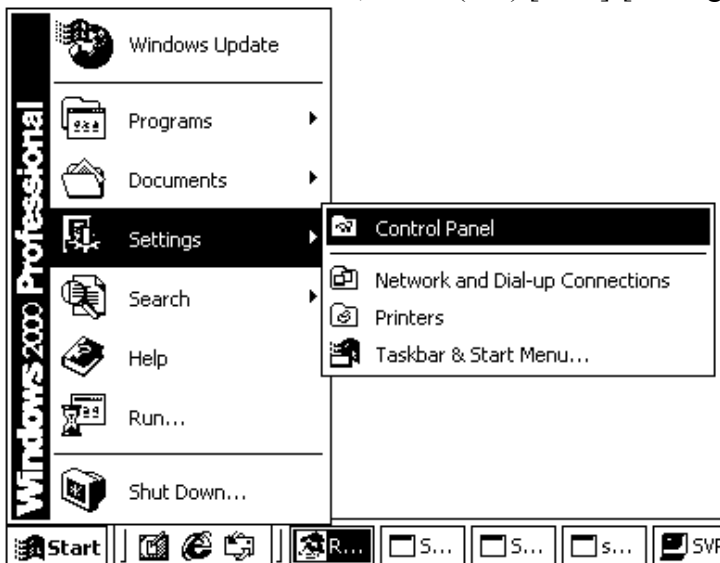
- (2) Select (DR) [Start]-[Programs]-[Apache Web Server]-[Apache as a service]-[Uninstall service].



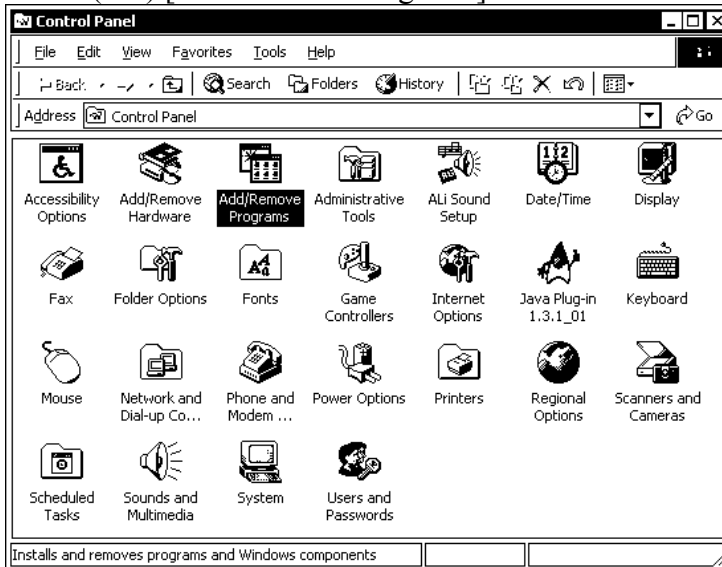
- (3) Select (DR) [Start]-[Shut Down...], and reboot the SVP. Select (CL) [Restart] in the Shut Down Windows panel, and then select (CL) the [OK] button.



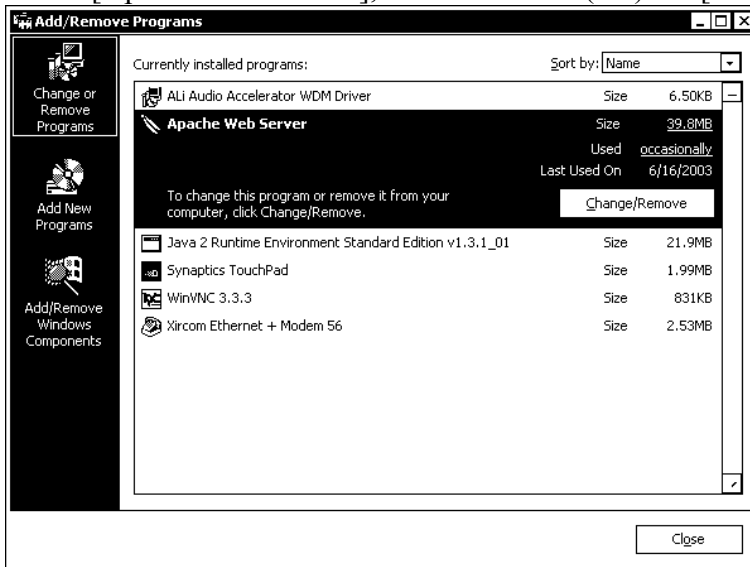
- (4) When Windows is rebooted, select (DR) [Start]-[Settings]-[Control Panel].



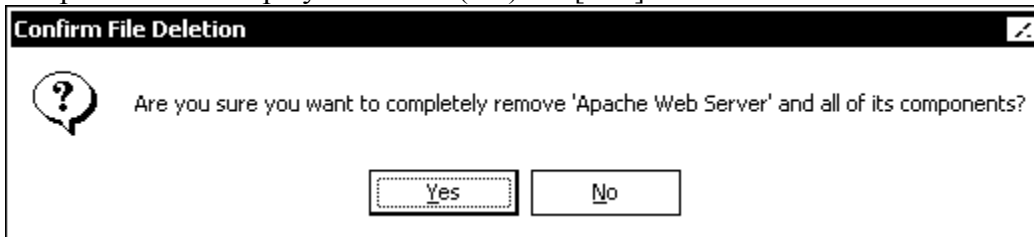
## (5) Select (DC) [Add/Remove Programs].



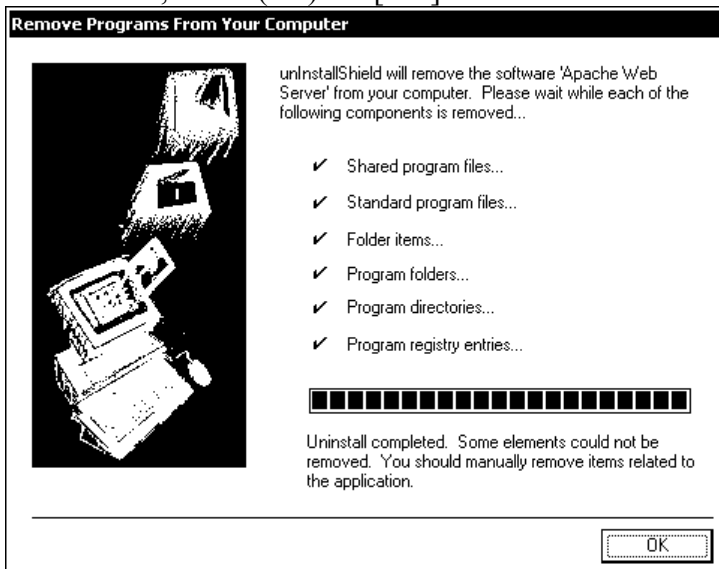
## (6) Select [Apache Web Server], and then select (CL) the [Change/Remove] button.



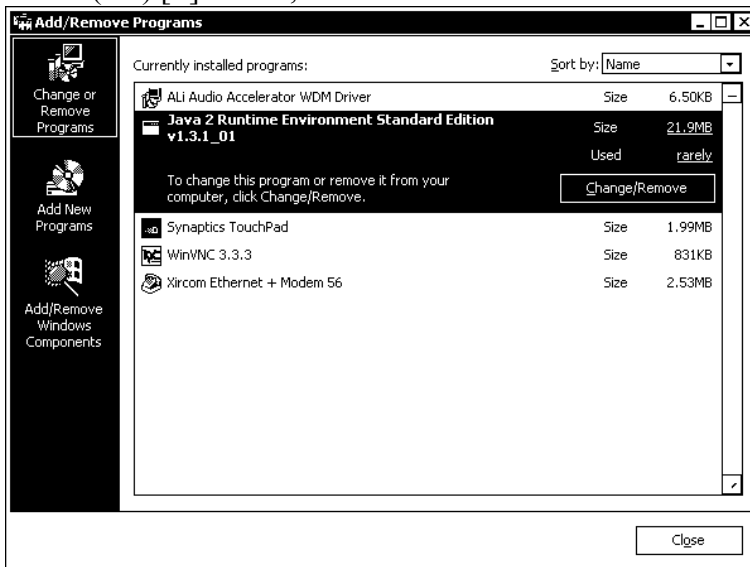
## (7) The message, “Are you sure you want to completely remove ‘Apache Web Server’ and all of its components?” is displayed. Select (CL) the [Yes] button.



- (8) Uninstallation of Apache starts. When all of the deleted items are checked and the [OK] button is selectable, select (CL) the [OK] button.



- (9) [Apache Web Server] is removed from the [Add/Remove Programs] panel. Select (CL) [x] button, and close this window.



Go to 5.3.

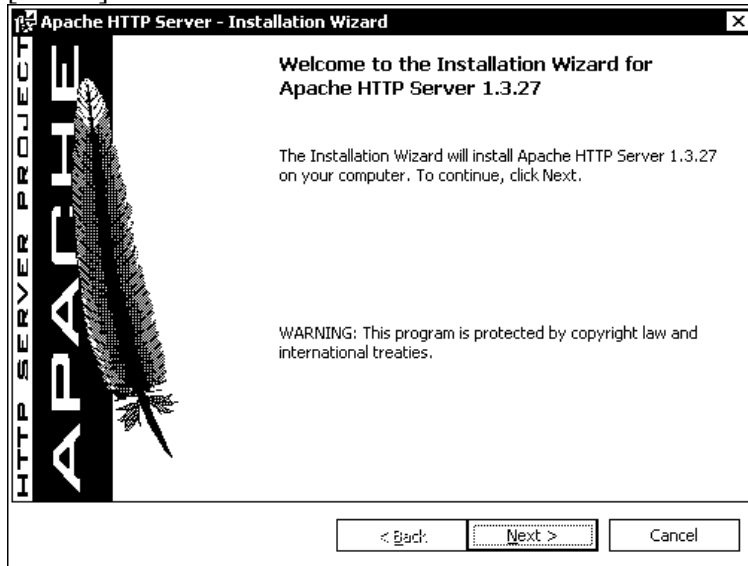
### 5.3 Installation of Apache 1.3.27

- (1) Insert the CD-ROM disk to the CD-ROM drive.

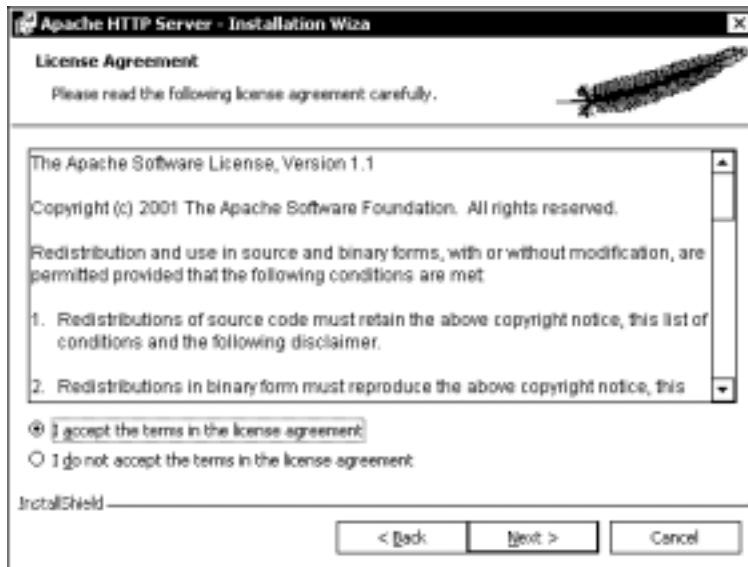
Select (DR) [Start]-[Run...].

Enter “e:\JavaAp\Apache\apache\_1.3.27-win32-x86-no\_src.msi” and press the [OK] button.

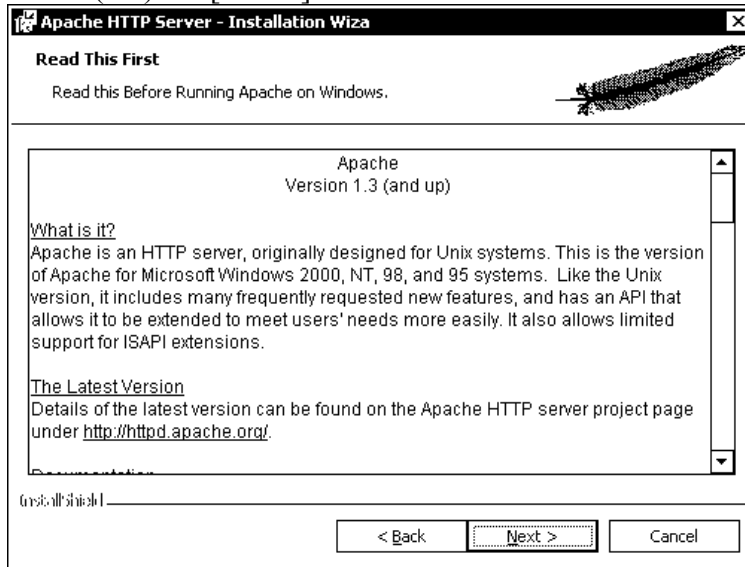
When the Apache HTTP Server – Installation Wizard panel is displayed, select (CL) the [Next>] button.



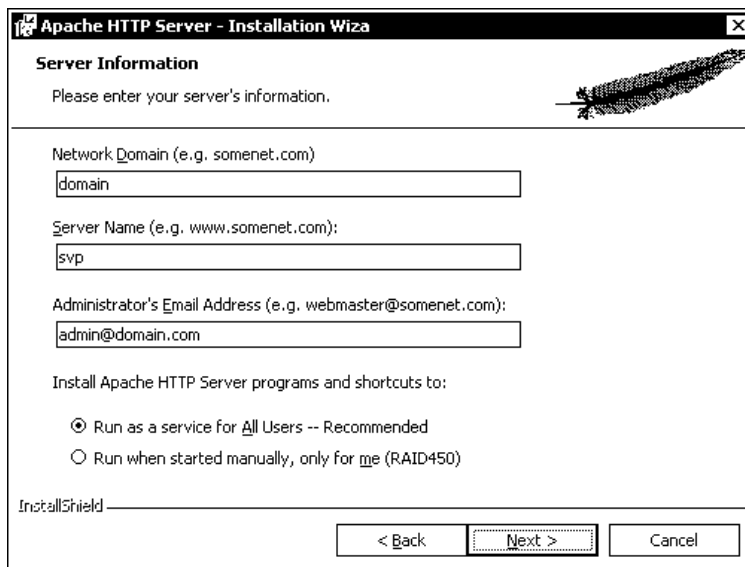
- (2) After selecting (CL) “I accept the terms in the license agreement”, select (CL) the [Next>] button.



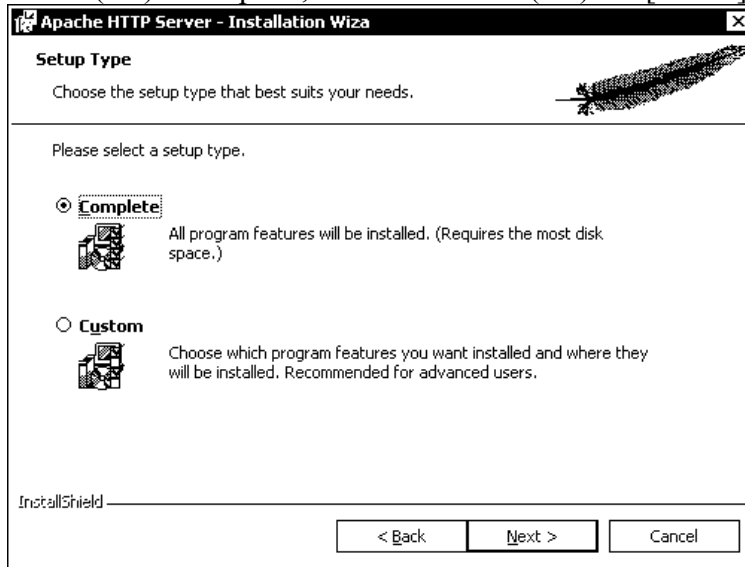
- (3) Select (CL) the [Next>] button.



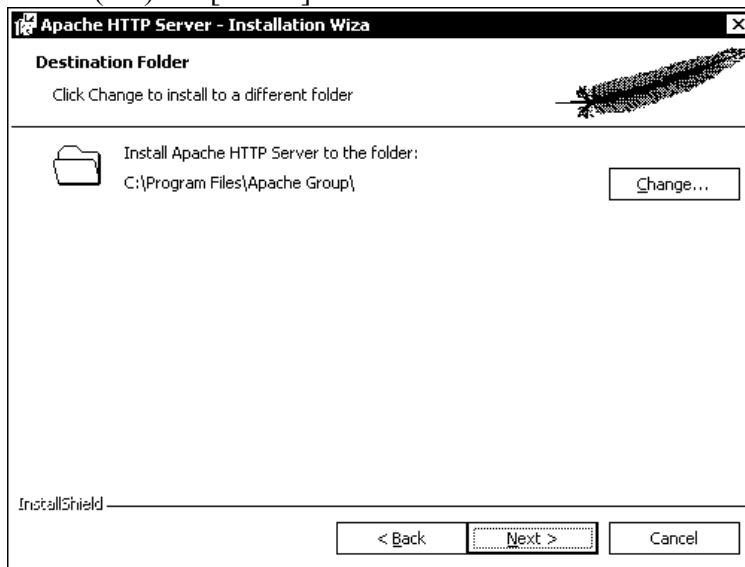
- (4) Enter “domain” to the Network Domain field, “svp” to the Server Name field, and “admin@domain.com” to the Administrator’s Email Address field. After selecting (CL) “Run as a service for All Users – Recommended”, select (CL) the [Next>] button.



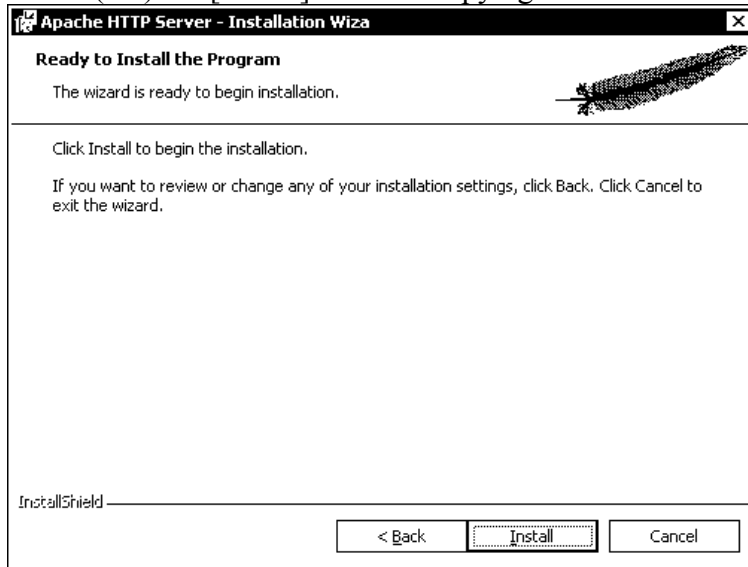
- (5) Select (CL) “Complete,” and then select (CL) the [Next>] button.



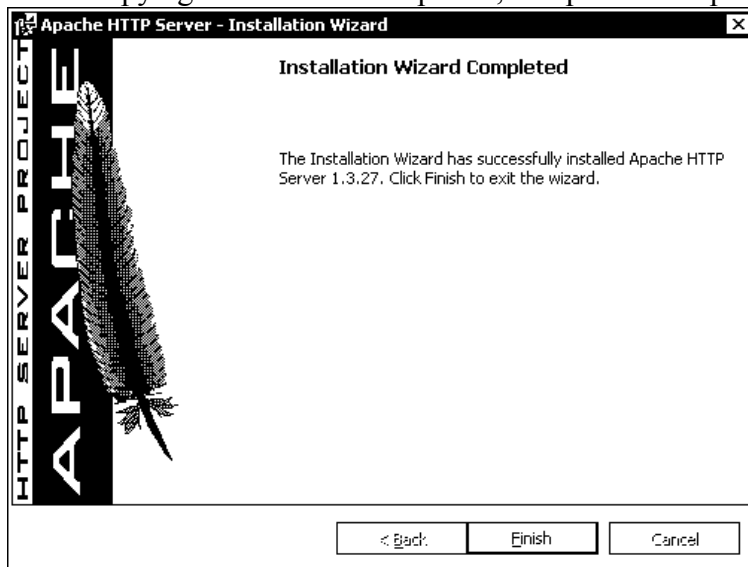
- (6) Select (CL) the [Next>] button.



- (7) Select (CL) the [Install] button. Copying of the file will start.



- (8) When copying of the file is completed, this panel is displayed. Select (CL) the [Finish] button.



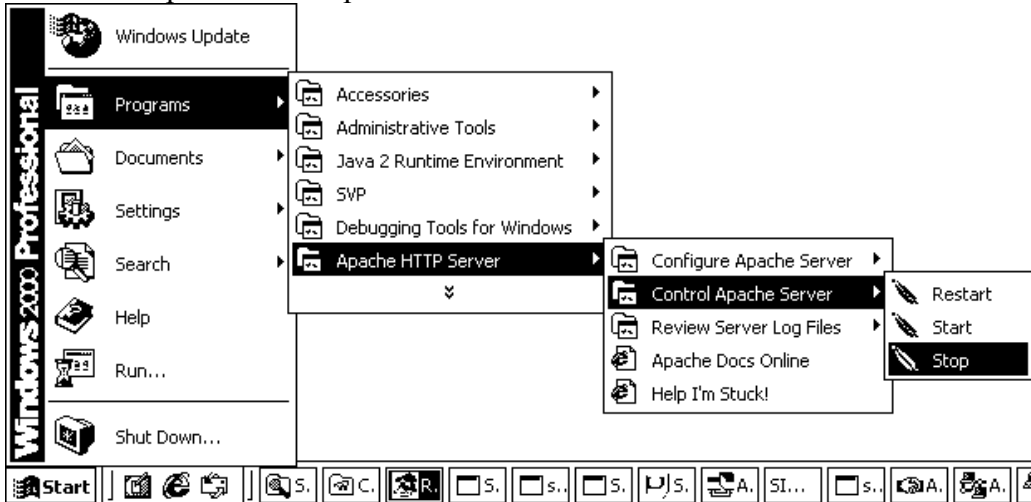
## 5.4 Microprogram Exchange

Whenever Apache 1.3.27 is installed, the co-requisite SVP program 21-06-20/00 (or later) must also be installed by following the procedure titled “Micro-program Exchange Procedure (On-line)” (See [MICRO-FC04-10](#)).

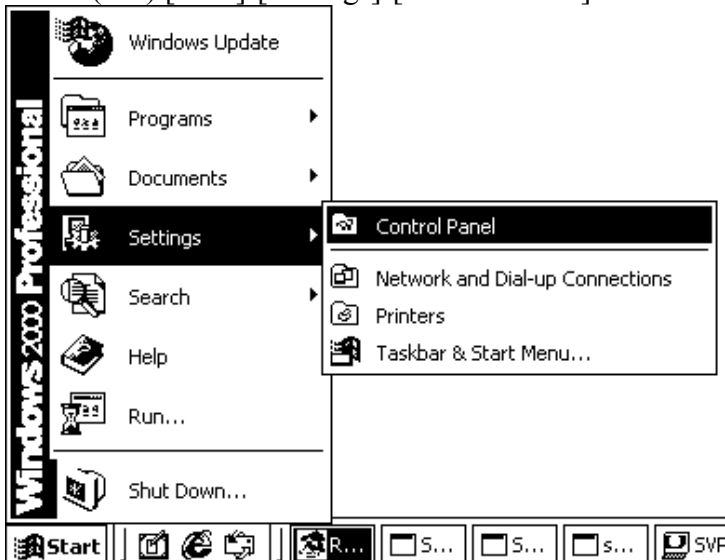
## 5.5 Procedure of Apache downgrade

### 5.5.1 Uninstallation of Apache 1.3.27

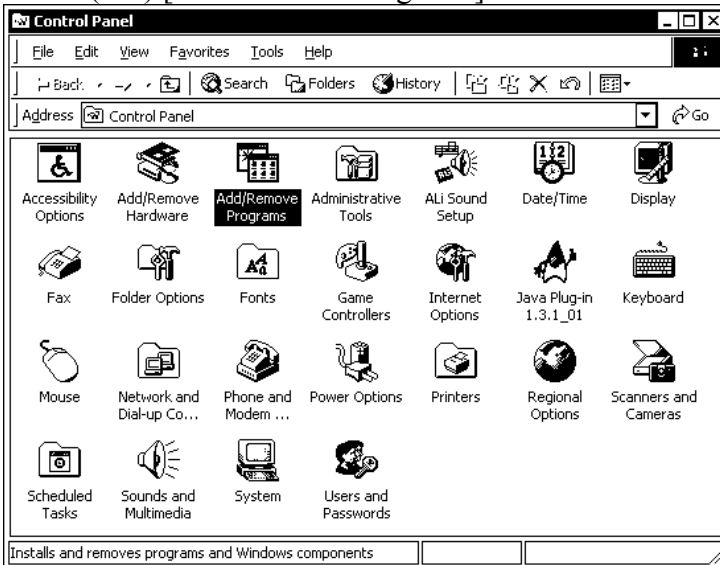
- (1) Select (DR) [Start]-[Programs]-[Apache HTTP Server]-[Control Apache Server]-[Stop].  
Service of Apache will stop.



- (2) Select (DR) [Start]-[Settings]-[Control Panel].



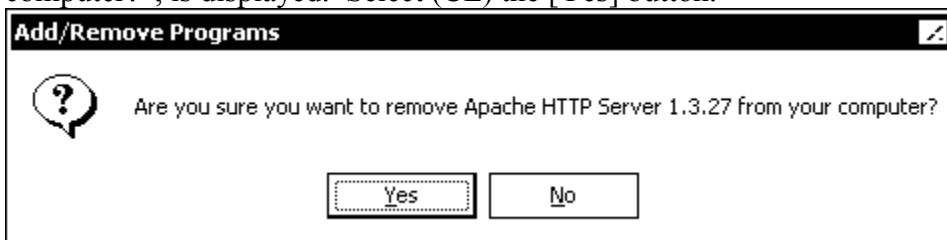
- (3) Select (DC) [Add/Remove Programs].



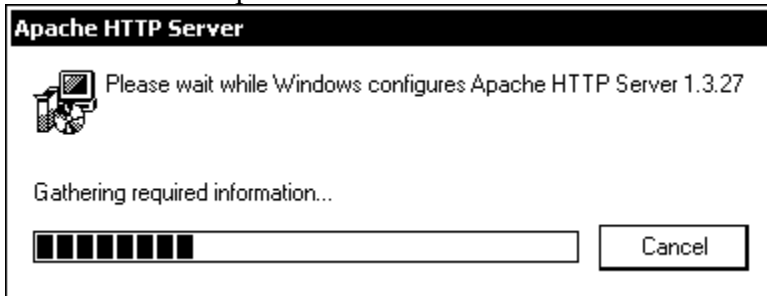
- (4) Select [Apache HTTP Server 1.3.27], and then select (CL) the [Remove] button.



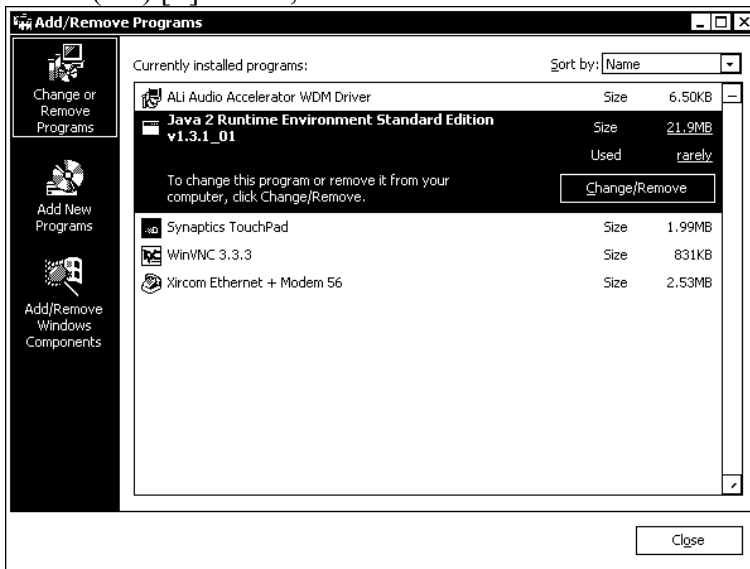
- (5) The message, “Are you sure you want to remove Apache HTTP Server 1.3.27 from your computer?”, is displayed. Select (CL) the [Yes] button.



- (6) Uninstallation of Apache 1.3.27 starts.



- (7) [Apache HTTP Server 1.3.27] is removed from the [Add/Remove Programs] panel. Select (CL) [X] button, and close this window.



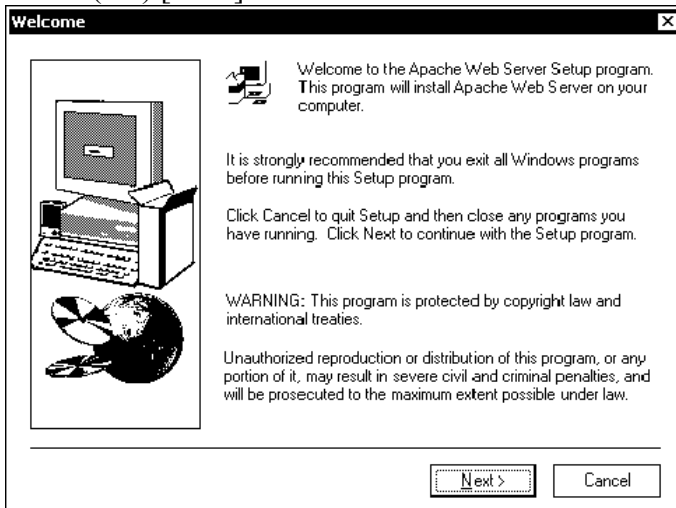
- (8) Select (DR) [Start]-[Shut Down...], and reboot the SVP. Select (CL) [Restart] in the Shut Down Windows panel, and then select (CL) the [OK] button.



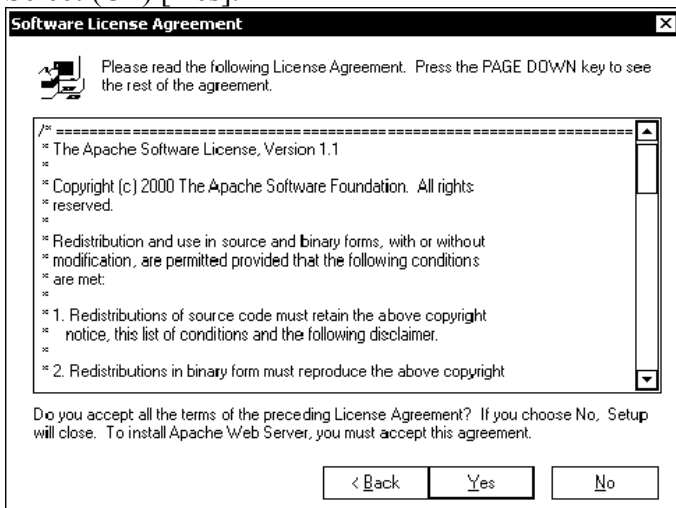
When Windows is rebooted, go to 5.5.2.

## 5.5.2 Installation of Apache 1.3.14

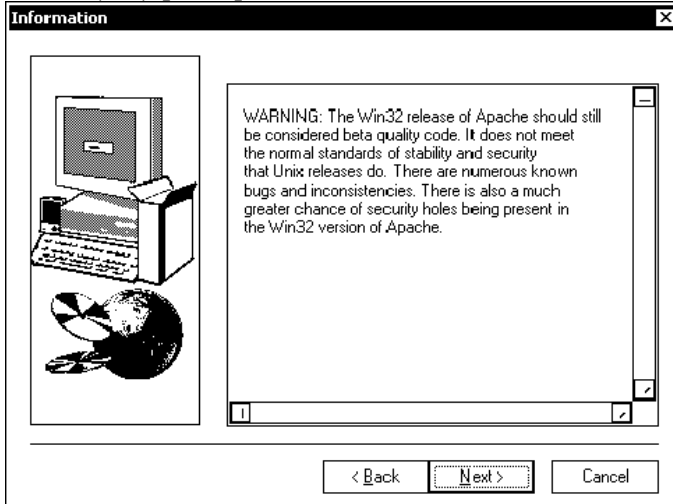
- (1) Insert the CD-ROM disk to the CD-ROM drive.  
Select (DR) [Start]-[Run...].  
Enter "e:\JavaAp\Apache\Setup.exe" and press the [OK] button.
- (2) Select (CL) [Next].



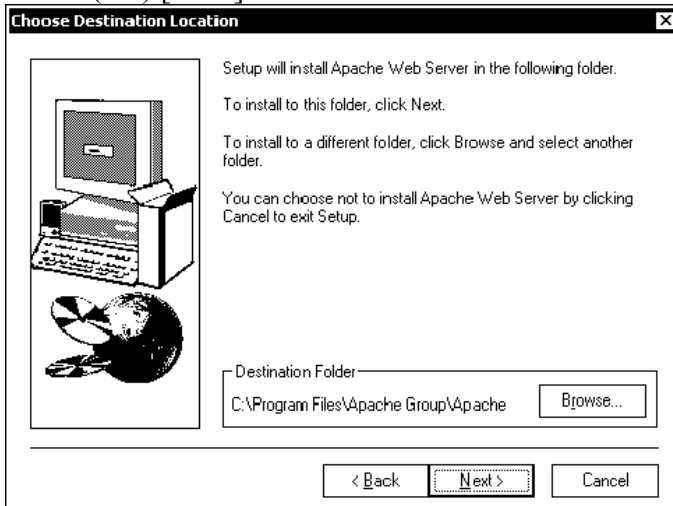
- (3) Select (CL) [Yes].



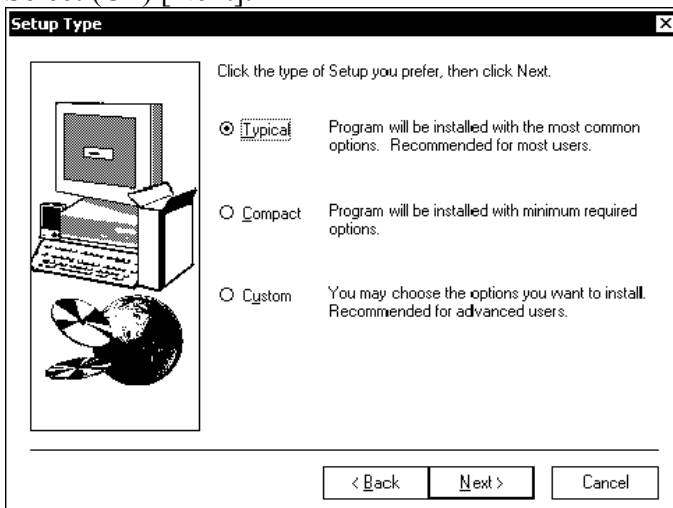
## (4) Select (CL) [Next].



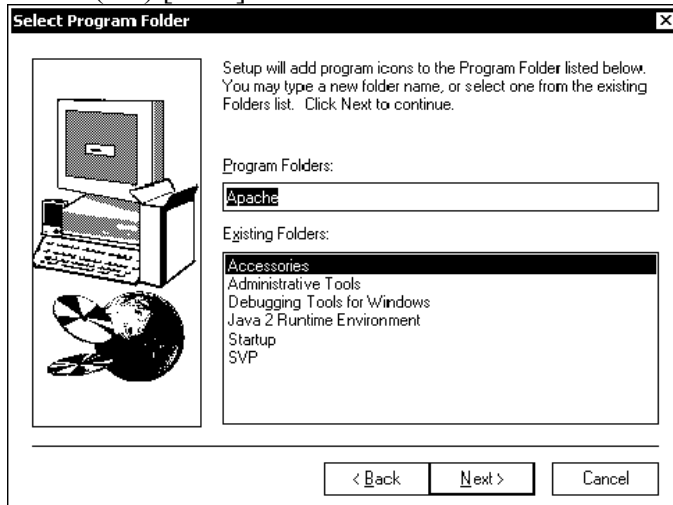
## (5) Select (CL) [Next].



## (6) Select (CL) [Next].



(7) Select (CL) [Next].



(8) Select (CL) [OK].



(9) Select (CL) [OK].



(10) Select (CL) [OK].



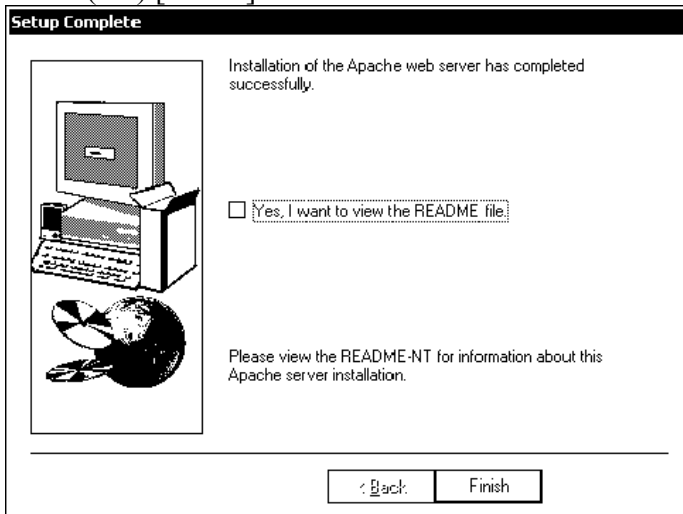
(11) Select (CL) [OK].



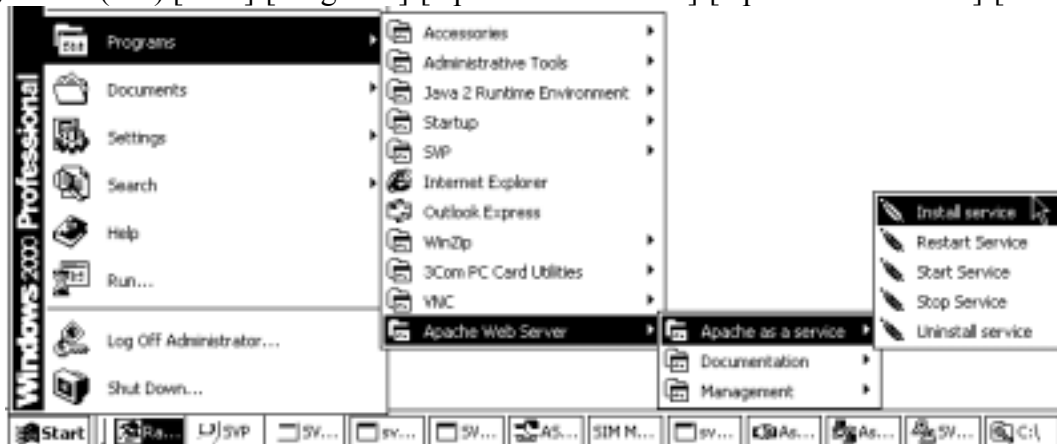
(12) Select (CL) [OK].



(13) Remove the check mark from check box of “Yes, I want to view the README file.”, and select (CL) [Finish].



(14) Select (DR) [Start]-[Programs]-[Apache Web Server]-[Apache as a service]-[Install service].



- (15) Select (DR) [Start]-[Shut Down...], and reboot the SVP. Select (CL) [Restart] in the Shut Down Windows panel, and then select (CL) the [OK] button.



## 6. Procedure of OpenSA (Apache supporting SSL) installation

With SVP version: 21-07-00/00 or later, communication between Storage Navigator and SVP can be encrypted using SSL (Secure Socket Layer). You need to install OpenSA (Apache supporting SSL) to encrypt the communication. Normal Apache is installed before shipment of DKC. Setup for encrypted communication will be performed only for customers who request encrypted communication.

To install OpenSA, perform the following procedure.

When SVP High Reliability Kit is installed, refer to the procedure 6.3.

Note: In order to install OpenSA, a CD-ROM of the OpenSA is required. Please ask your customer to get the CD-ROM in advance.

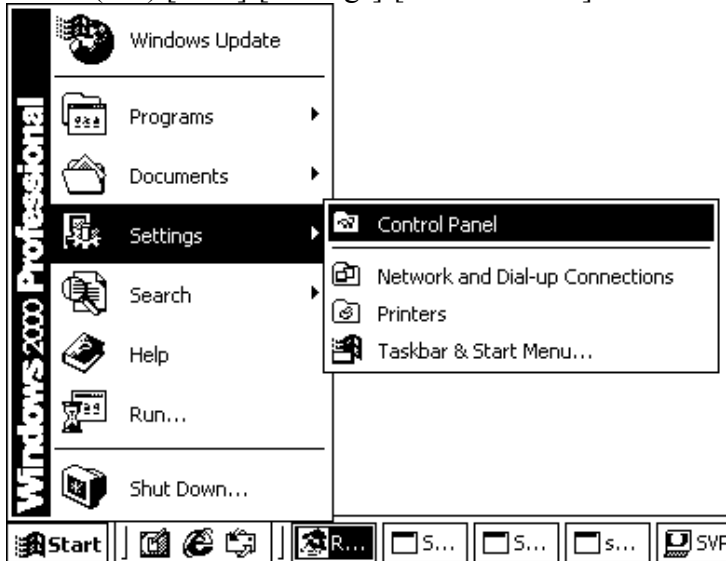
### 6.1 Uninstallation of Apache

Before installing OpenSA, you need to uninstall the Apache already installed in the SVP. Uninstall the Apache in the following procedure.

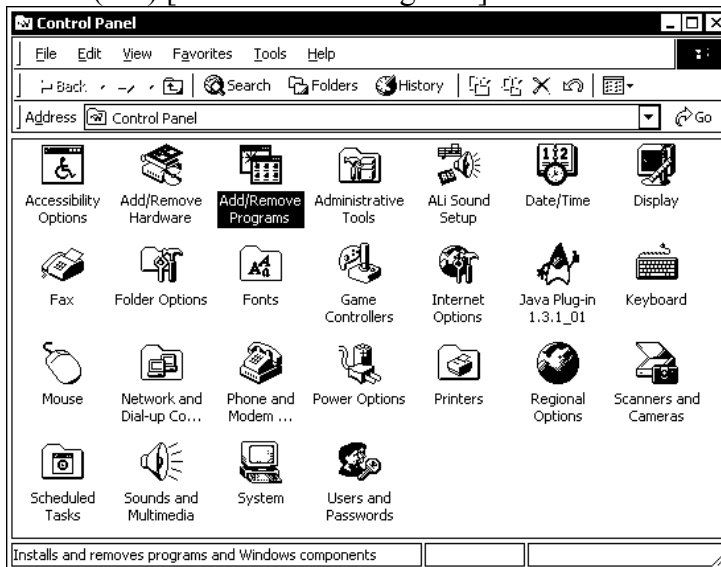
## 6.1.1 Checking Apache version

Use the following procedure and check the version of the Apache currently installed in the SVP.

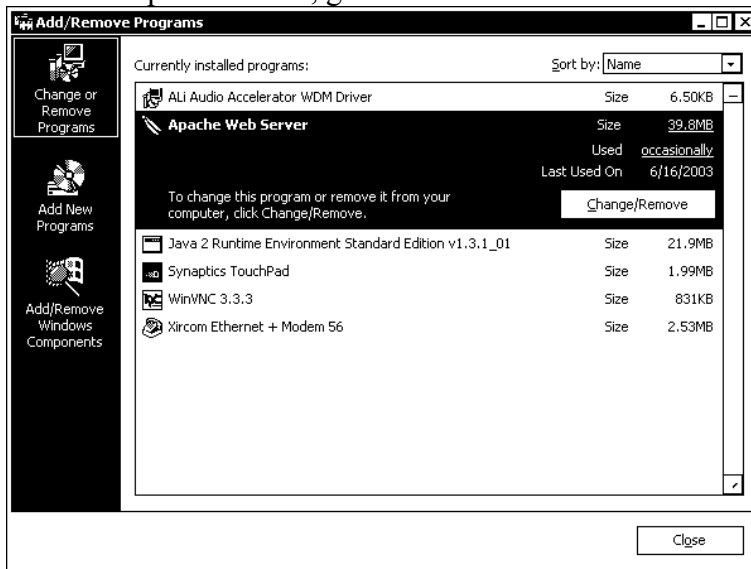
- (1) Select (DR) [Start]-[Settings]-[Control Panel].



- (2) Select (DC) [Add/Remove Programs].



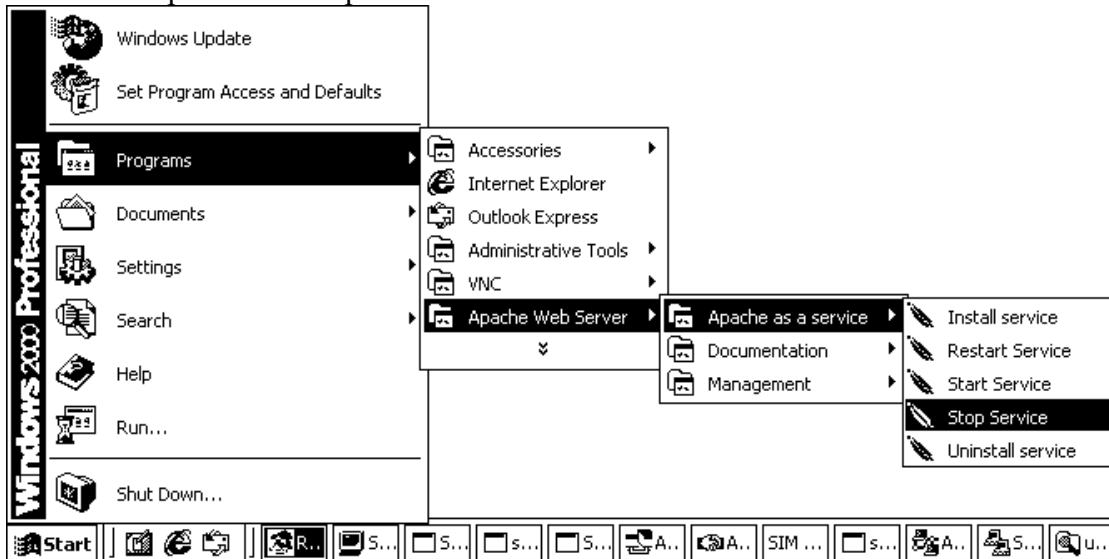
- (3) Check the content of [Currently installed programs] in the [Add/Remove Programs] panel. If [Apache Web Server] exists, Apache 1.3.14 is installed. If [Apache HTTP Server 1.3.27] exists, Apache 1.3.27 is installed. In order to uninstall Apache 1.3.14, go to 6.1.2. In order to uninstall Apache 1.3.27, go to 6.1.3.



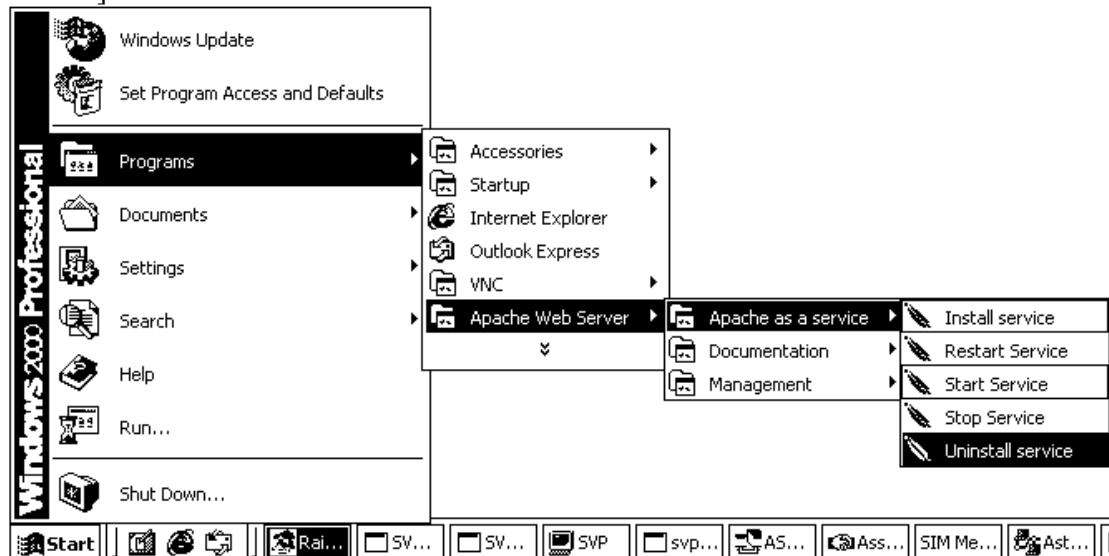
When the Apache version check is completed, select (CL) [×] button and close the window.

## 6.1.2 Uninstallation of Apache 1.3.14

- (1) Select (DR) [Start]-[Programs]-[Apache Web Server]-[Apache as a service]-[Stop Service].  
Service of Apache will stop.



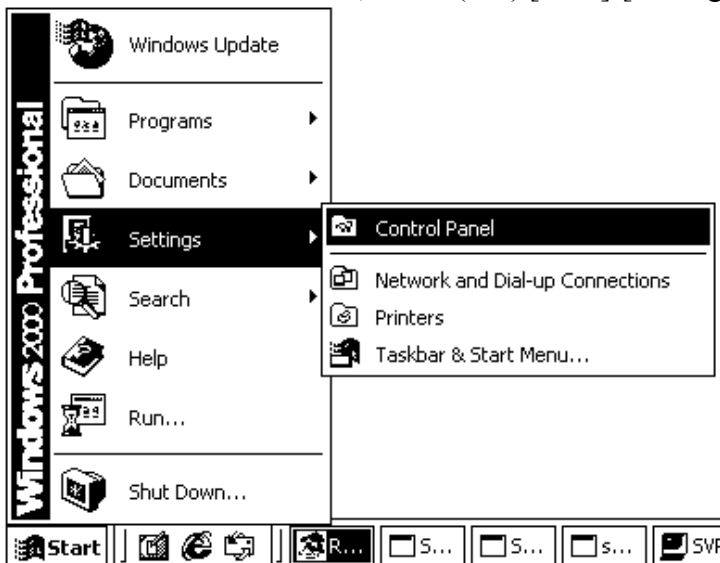
- (2) Select (DR) [Start]-[Programs]-[Apache Web Server]-[Apache as a service]-[Uninstall service].



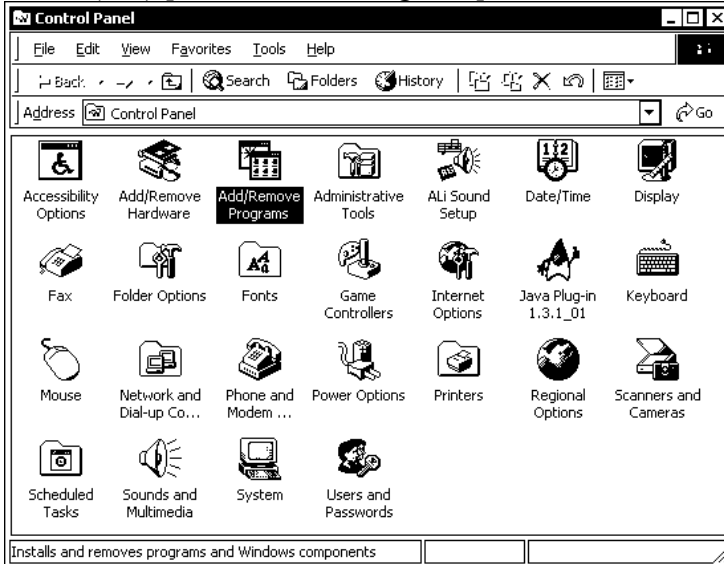
- (3) Select (DR) [Start]-[Shut Down...], and reboot the SVP. Select (CL) [Restart] in the Shut Down Windows panel, and then select (CL) the [OK] button.



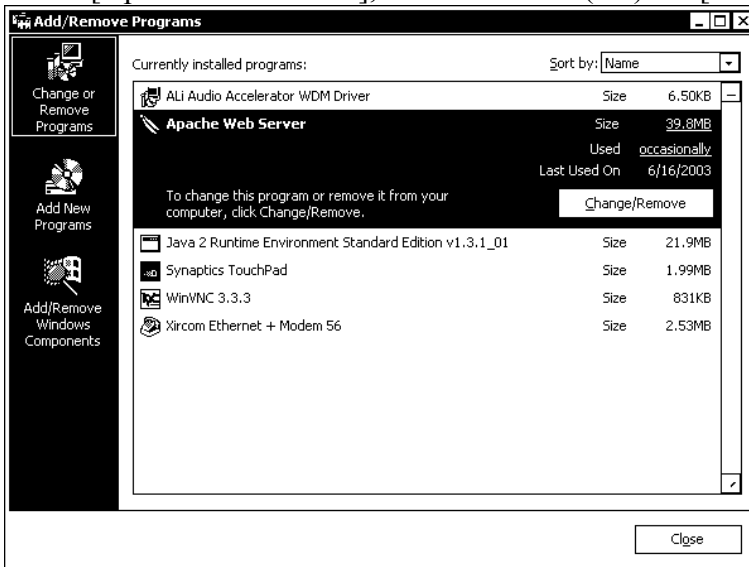
- (4) When Windows is rebooted, select (DR) [Start]-[Settings]-[Control Panel].



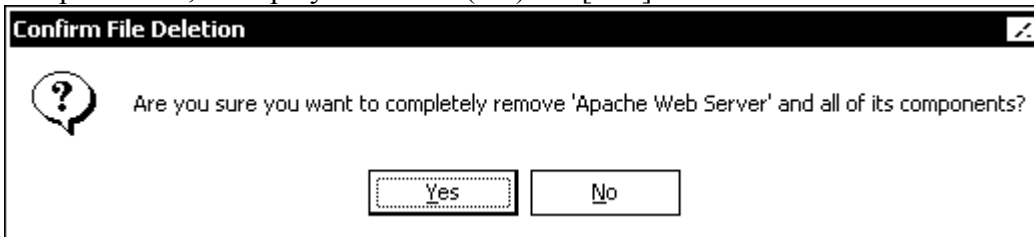
- (5) Select (DC) [Add/Remove Programs].



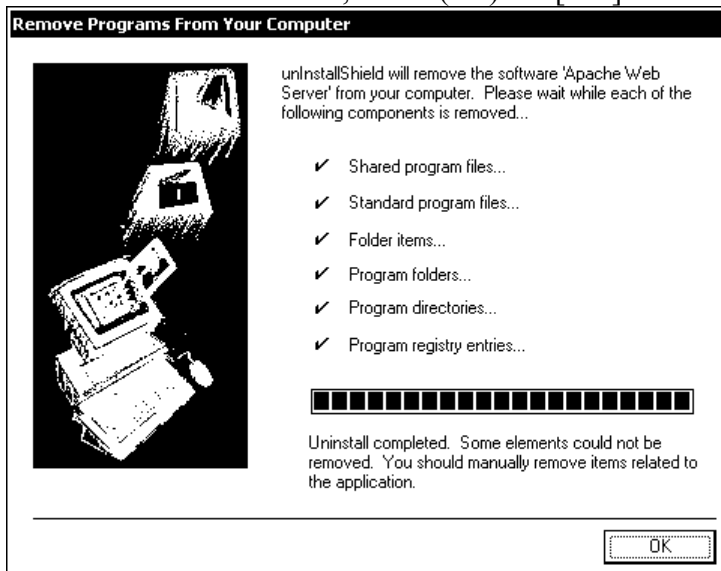
- (6) Select [Apache Web Server], and then select (CL) the [Change/Remove] button.



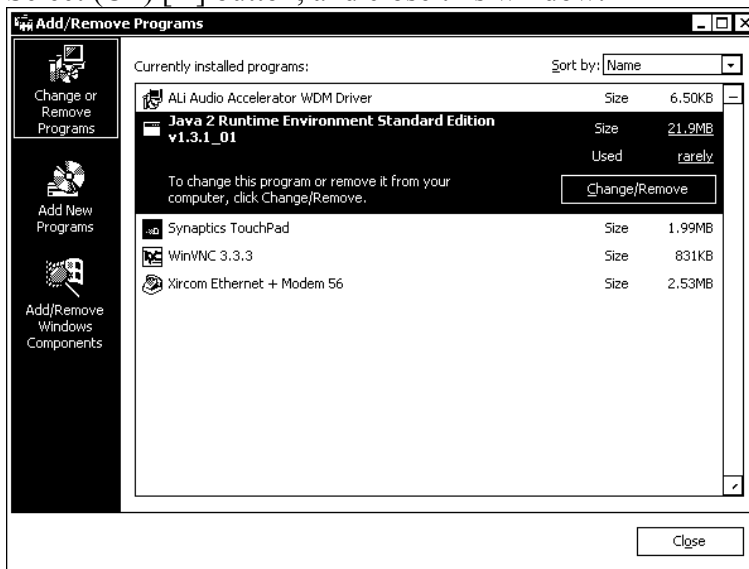
- (7) The message, “Are you sure you want to completely remove ‘Apache Web Server’ and all of its components?”, is displayed. Select (CL) the [Yes] button.



- (8) Uninstallation of Apache starts. When all of the deleted items are checked and the [OK] button becomes selectable, select (CL) the [OK] button.



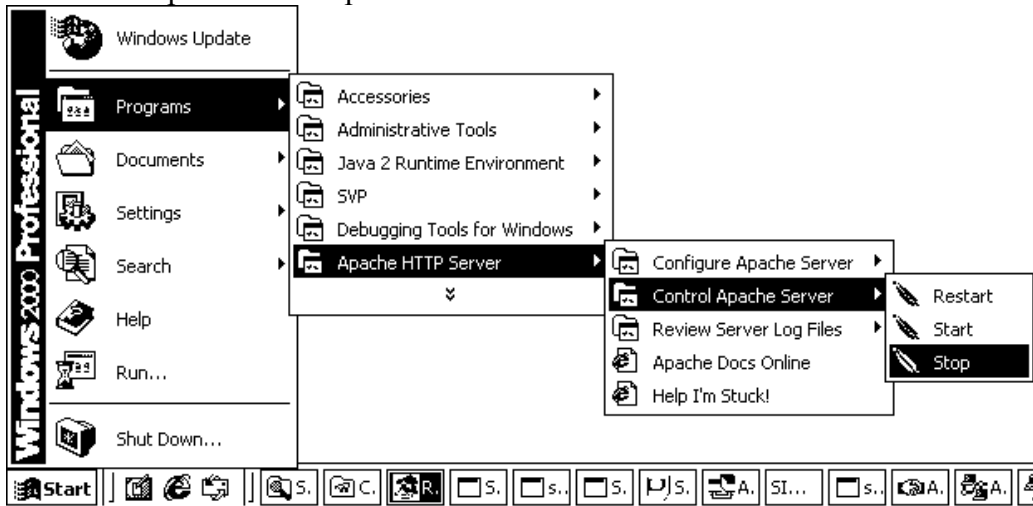
- (9) [Apache Web Server] is removed from the [Add/Remove Programs] panel. Select (CL) [X] button, and close this window.



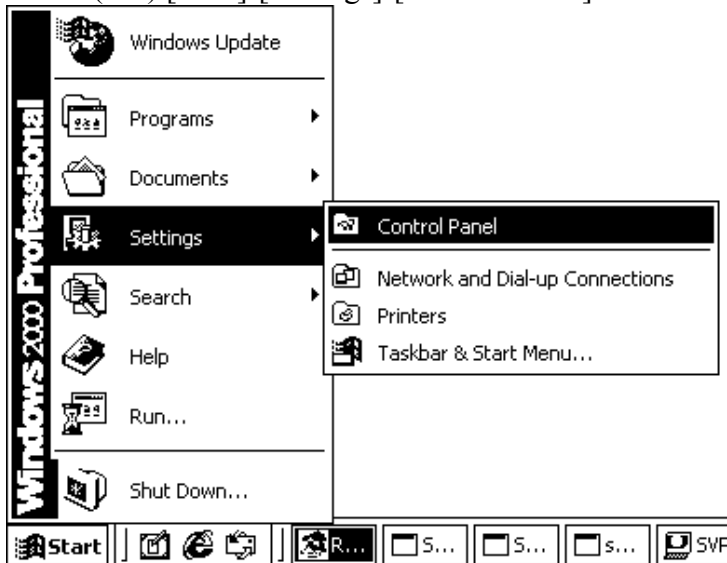
Go to 6.2.

### 6.1.3 Uninstallation of Apache 1.3.27

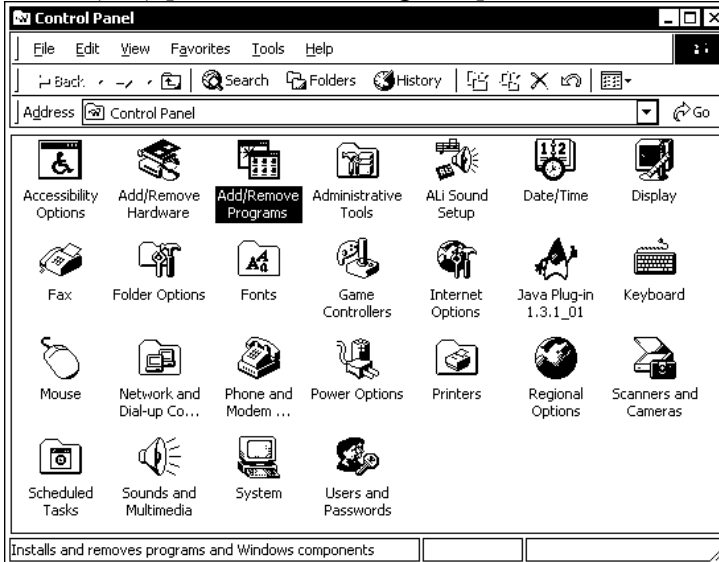
- (1) Select (DR) [Start]-[Programs]-[Apache HTTP Server]-[Control Apache Server]-[Stop].  
Service of Apache will stop.



- (2) Select (DR) [Start]-[Settings]-[Control Panel].



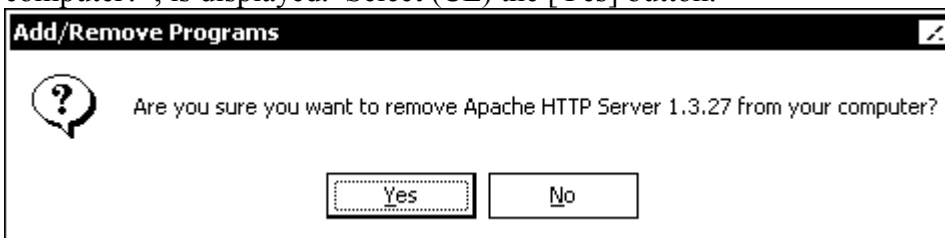
- (3) Select (DC) [Add/Remove Programs].



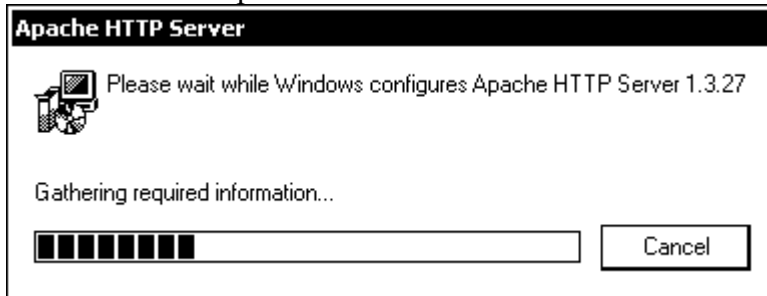
- (4) Select [Apache HTTP Server 1.3.27], and then select (CL) the [Remove] button.



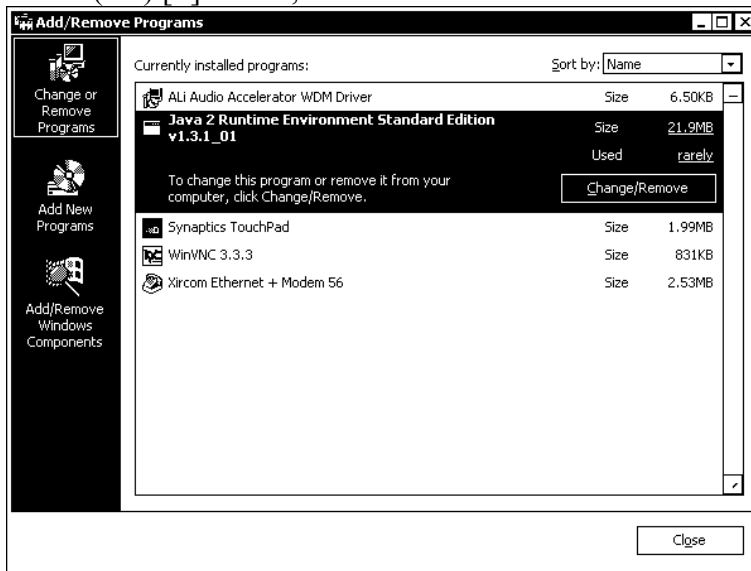
- (5) The message, “Are you sure you want to remove Apache HTTP Server 1.3.27 from your computer?”, is displayed. Select (CL) the [Yes] button.



- (6) Uninstallation of Apache 1.3.27 starts.



- (7) [Apache HTTP Server 1.3.27] is removed from the [Add/Remove Programs] panel. Select (CL) [X] button, and close this window.



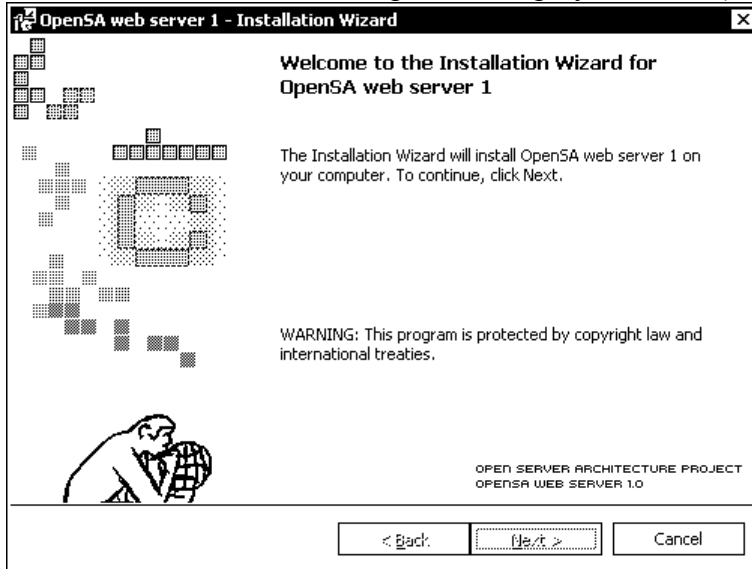
- (8) Select (DR) [Start]-[Shut Down...], and reboot the SVP. Select (CL) [Restart] in the Shut Down Windows panel, and then select (CL) the [OK] button.



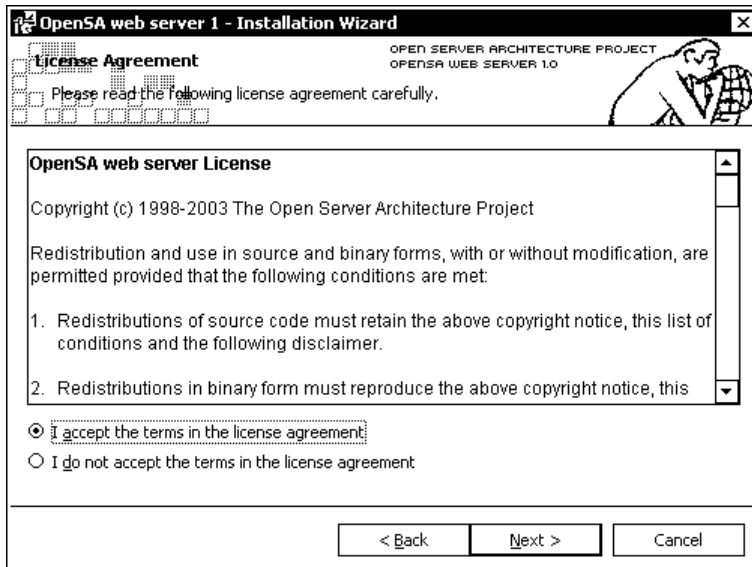
When Windows is rebooted, go to 6.2.

## 6.2 Installation of OpenSA

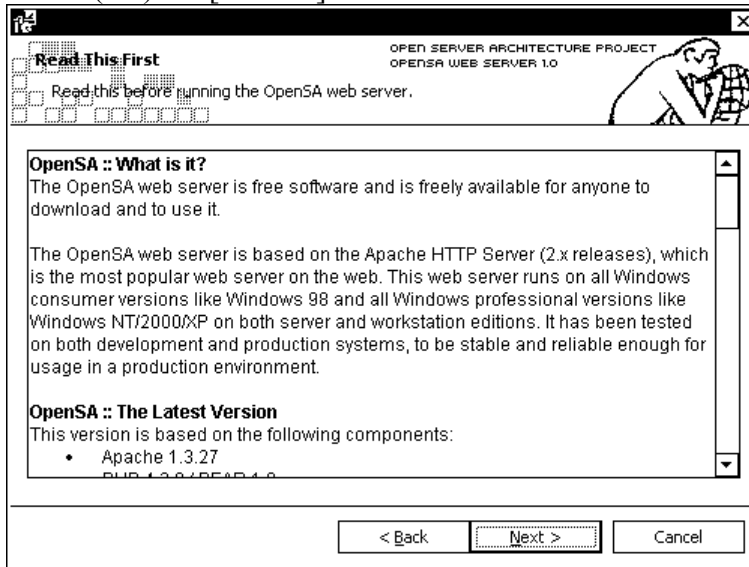
- (1) Insert the CD-ROM of the OpenSA to the CD-ROM drive.  
 Select (DR) [Start]-[Run...].  
 Enter "e:\opensa1.0.5\opensa\_1.0.5.msi" and press the [OK] button.  
 When the Installation Wizard panel is displayed, select (CL) the [Next >] button.



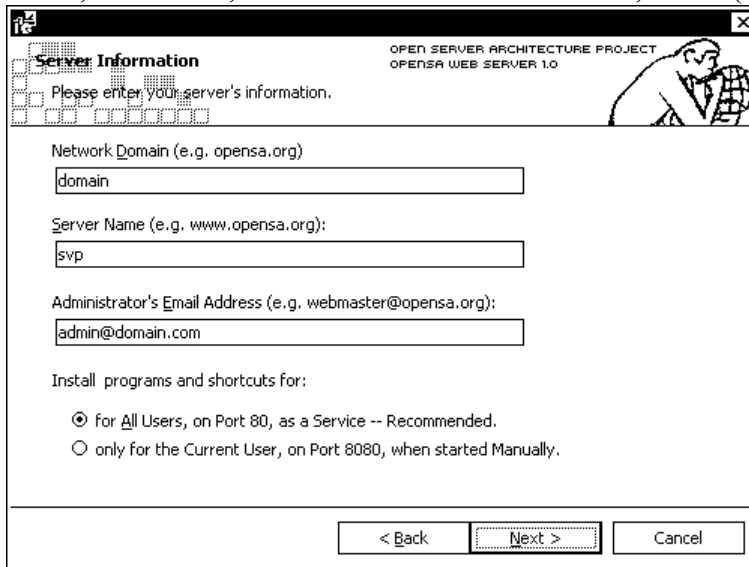
- (2) After selecting (CL) "I accept the terms in the license agreement", select (CL) the [Next >] button.



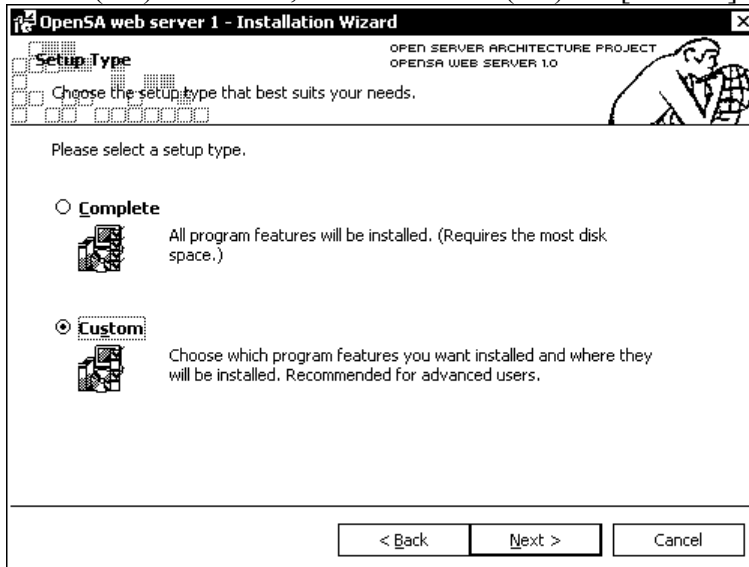
- (3) Select (CL) the [Next > ] button.



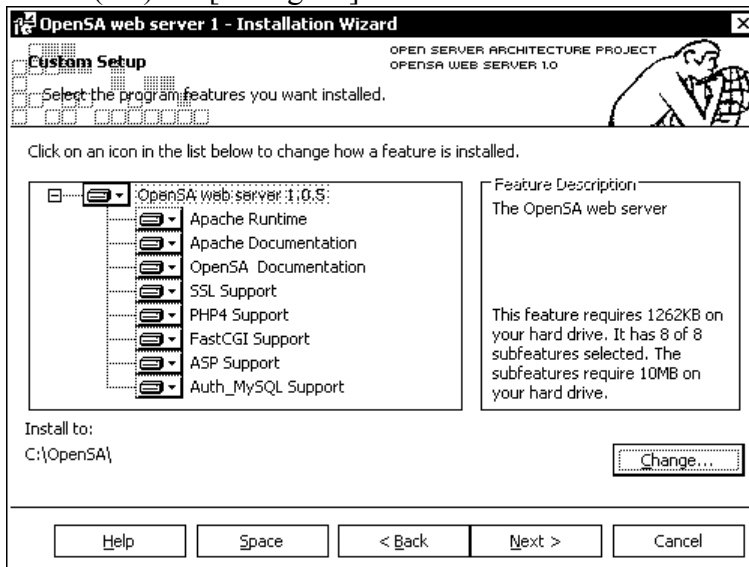
- (4) Enter “domain” to the Network Domain field, “svp” to the Server Name field, and “admin@domain.com” to the Administrator’s Email Address field. After selecting ”for All Users, on Port 80, as a Service – Recommended”, select (CL) the [Next > ] button.



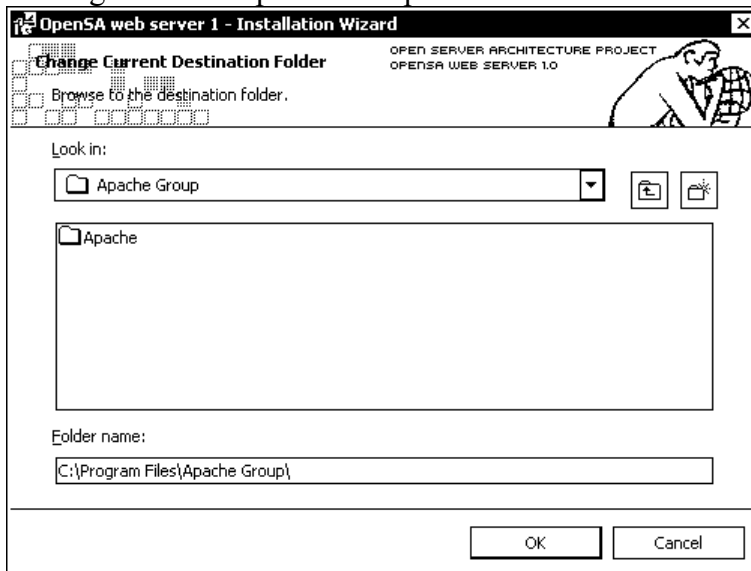
- (5) Select (CL) “Custom”, and then select (CL) the [Next > ] button.



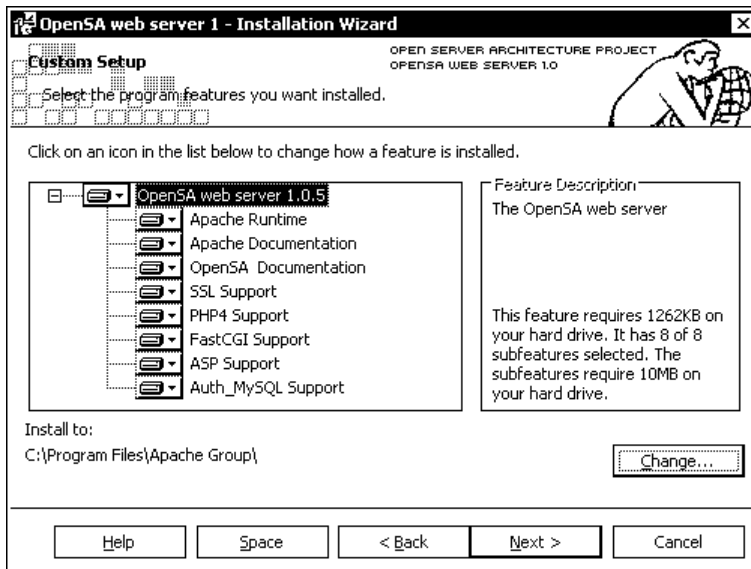
- (6) Select (CL) the [Change...] button and set the installation directory for Apache.



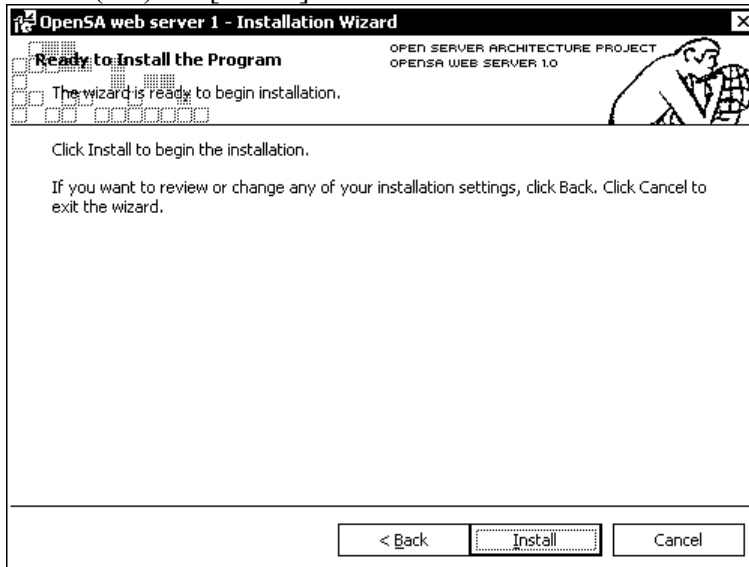
- (7) Specify the installation directory as follows, and select (CL) the [OK] button.  
C:\Program Files\Apache Group\



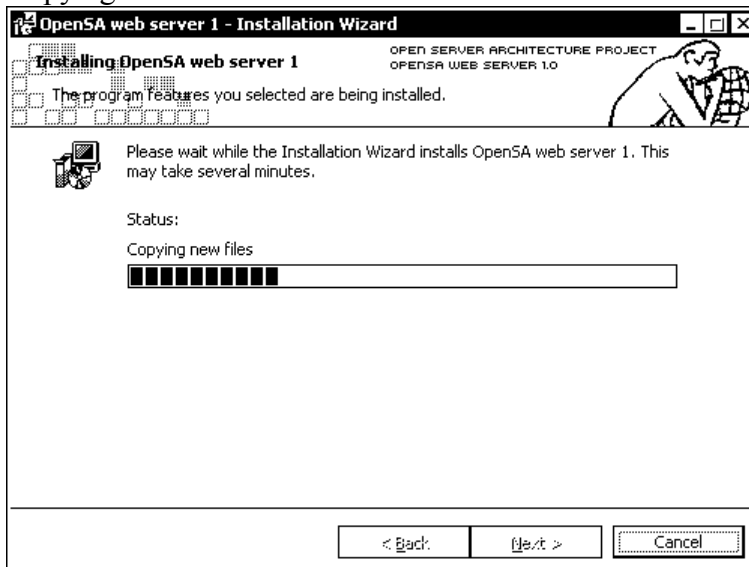
- (8) Check that “Install to:” is “C:\Program Files\Apache Group\”, and select (CL) the [Next >] button.



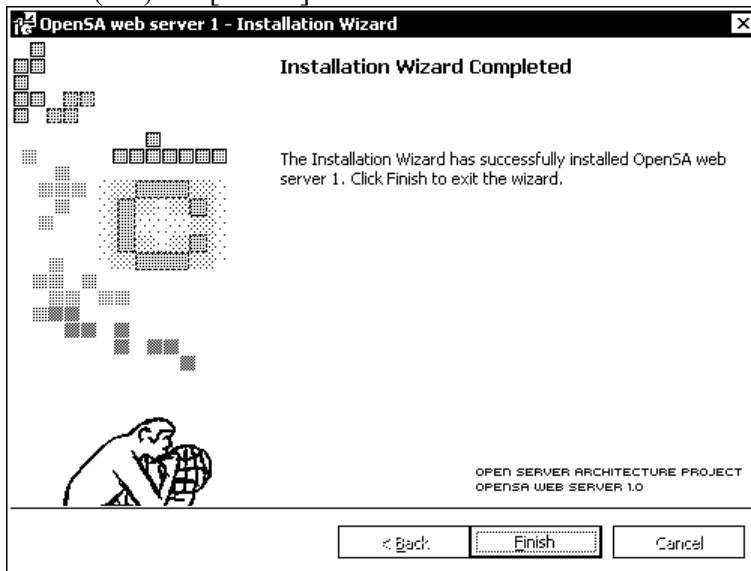
- (9) Select (CL) the [Install] button.



- (10) Copying of the file starts.



- (11) When copying of the file is completed, the “Installation Wizard Completed” panel is displayed. Select (CL) the [Finish] button.



- (12) Select (DR) [Start]-[Run...].  
Enter "e:\opensa1.0.5\sslinstall.bat" and press the [OK] button.  
When the following window is displayed, press the [Enter] key.

```

C:\WINNT\System32\cmd.exe
E:\opensa1.0.5>xcopy /E /Y conf "c:\Program Files\Apache Group\Apache\conf"
conf\httpd.conf
conf\ssl.crt\server.crt
conf\ssl.key\server.key
3 File(s) copied

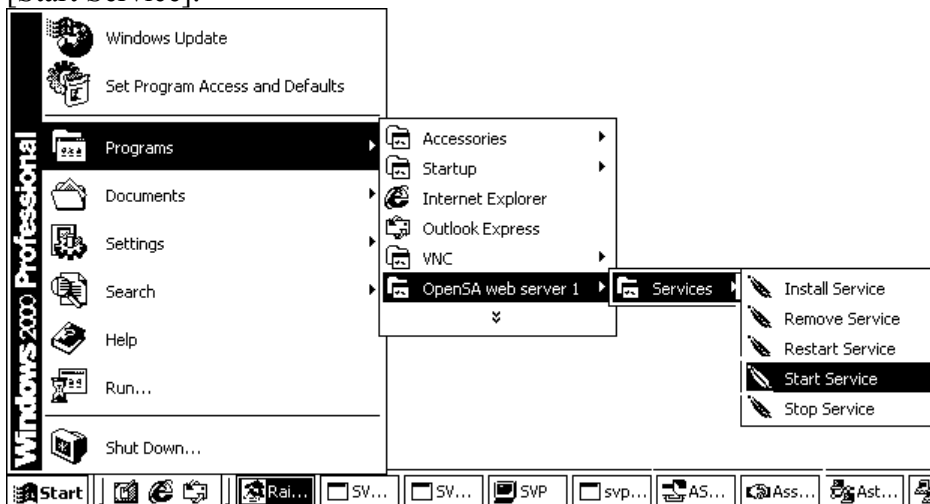
E:\opensa1.0.5>pause
Press any key to continue . . . _

```

- (13) After removing the CD-ROM of the OpenSA from the CD-ROM drive, select (DR) [Start]-[Shut Down...], and reboot the SVP.  
Select (CL) [Restart] in the Shut Down Windows panel, and then select (CL) the [OK] button.



- (14) When Windows starts, select (DR) [Start]-[Programs]-[OpenSA web server 1]-[Services]-[Start Service].



Maintenance personnel have to perform the operations above. A user needs to create keys and install the certificate file for SSL communication.

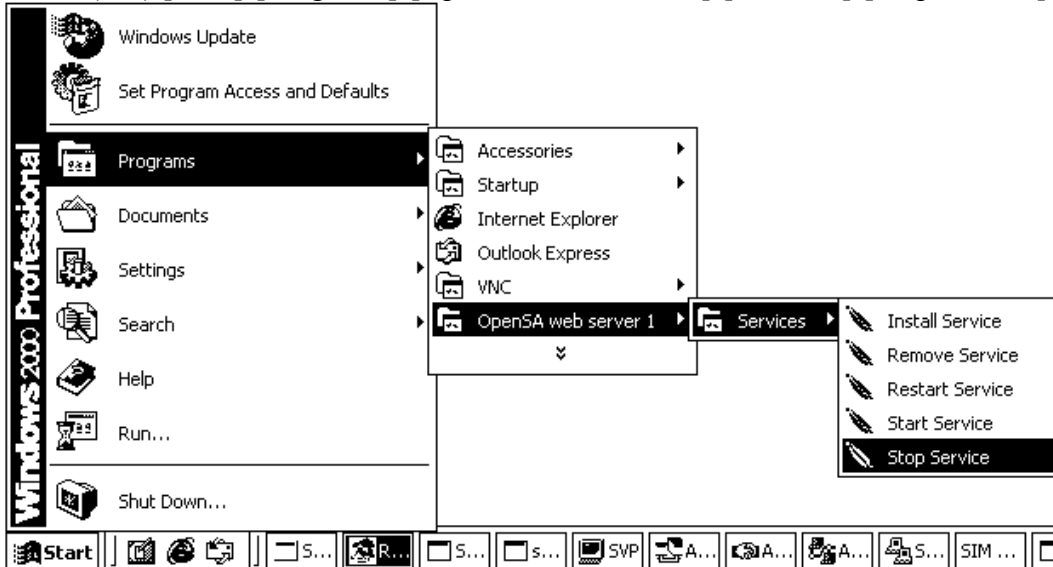
### 6.3 Procedure of OpenSA installation in case of SVP High Reliability Kit installed

When SVP High Reliability Kit is installed, you must install OpenSA in the additional SVP by following procedure.

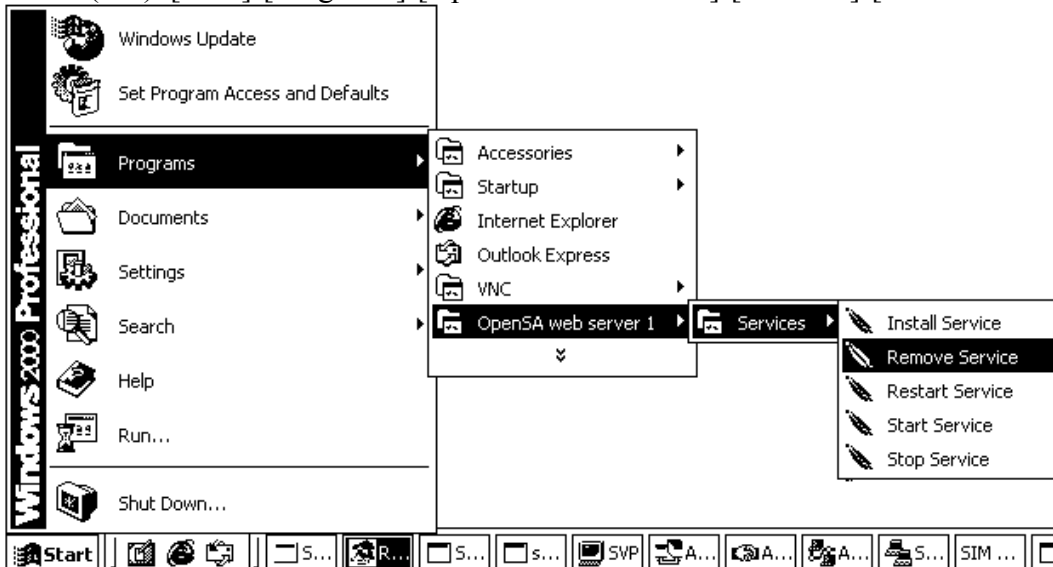
- (1) Upgrade the microprogram of the basic SVP to 21-07-xx/xx (or later).  
(Refer to [MICRO-FC04-10](#))
- (2) Install OpenSA in the basic SVP. (Refer to [WEB06-10](#))
- (3) Switch a Master SVP to a Standby SVP.  
(Refer to [INST03-SVP-300 7.2 \(1\)](#) to [INST03-SVP-320 7.3 \(2\)](#))
- (4) Install OpenSA in the additional SVP. (Refer to [WEB06-10](#))
- (5) Switch a Master SVP to a Standby SVP.  
(Refer to [INST03-SVP-300 7.2 \(1\)](#) to [INST03-SVP-320 7.3 \(2\)](#))

## 6.4 Uninstallation of OpenSA

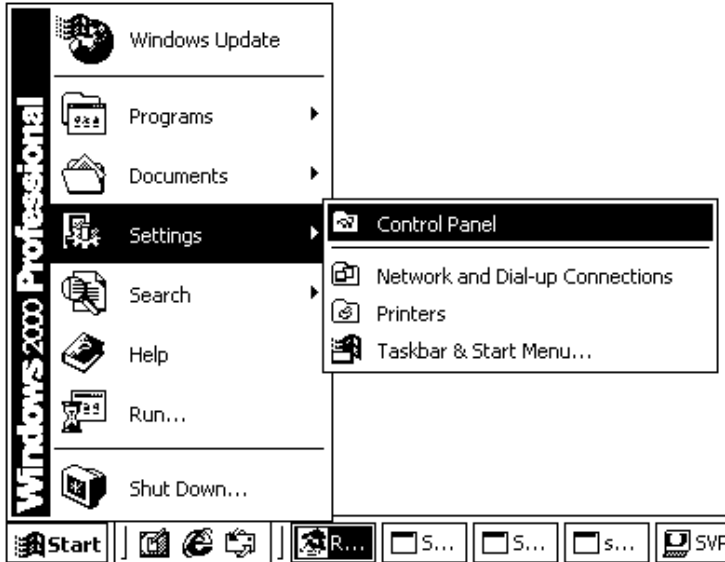
- (1) Select (DR) [Start]-[Programs]-[OpenSA web server 1]-[Services]-[Stop Service].



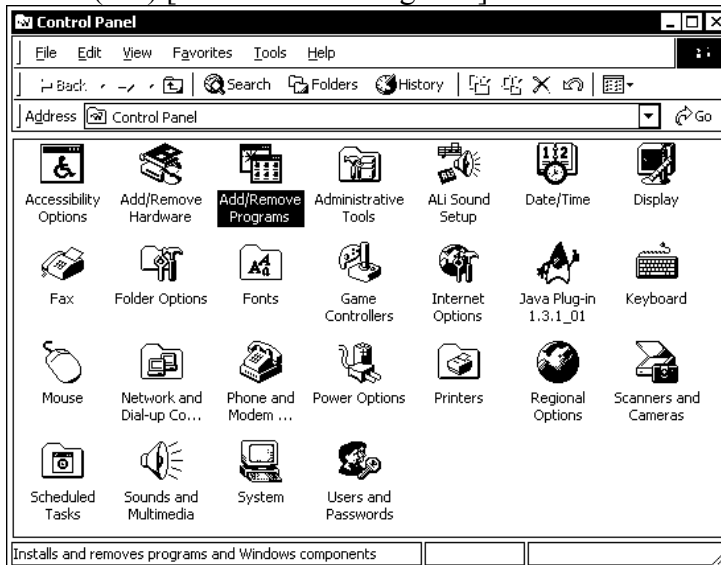
- (2) Select (DR) [Start]-[Programs]-[OpenSA web server 1]-[Services]-[Remove Service].



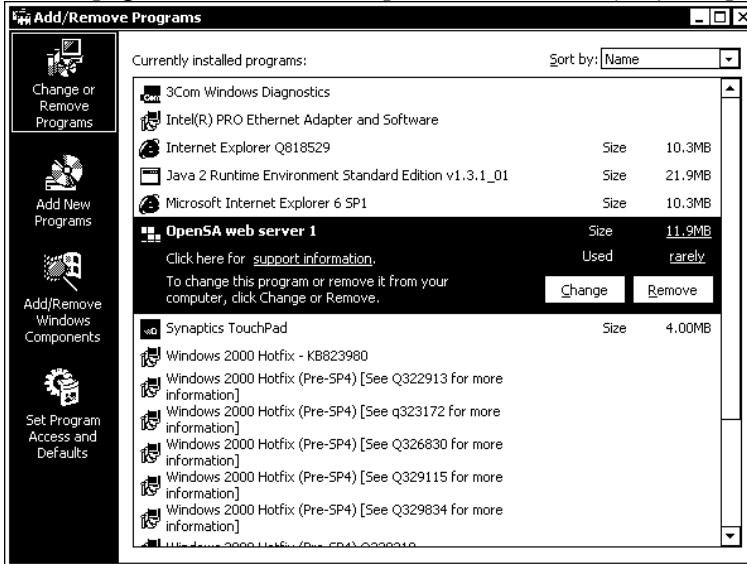
- (3) Select (DR) [Start]-[Settings]-[Control Panel].



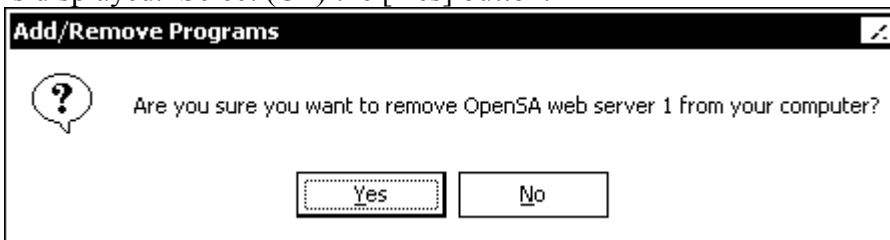
- (4) Select (DC) [Add/Remove Programs].



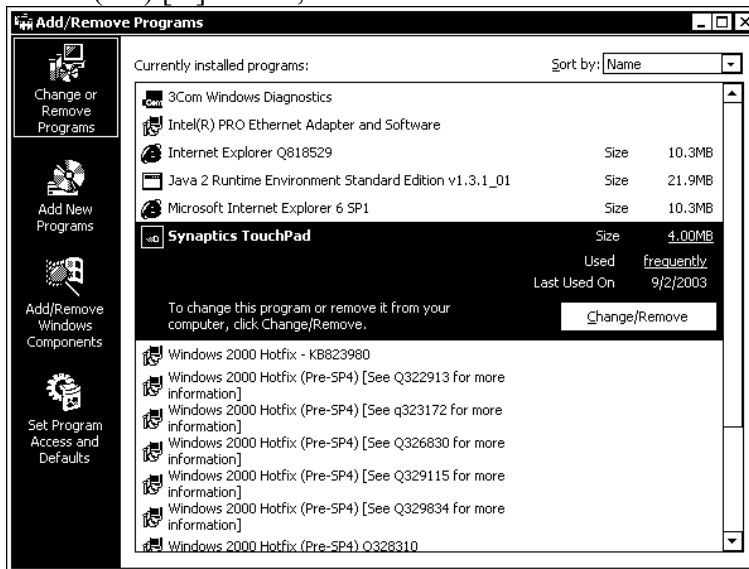
- (5) Select [OpenSA web server 1], and then select (CL) the [Remove] button.



- (6) The message, “Are you sure you want to remove OpenSA web server 1 from your computer?”, is displayed. Select (CL) the [Yes] button.



- (7) [OpenSA web server 1] is removed from the [Add/Remove Programs] panel.  
Select (CL) [X] button, and close this window.



- (8) Select (DR) [Start]-[Run...].  
Enter “delApacheConf.bat” and press the [OK] button.
- (9) Select (DR) [Start]-[Shut Down...], and reboot the SVP. Select (CL) [Restart] in the Shut Down Windows panel, and then select (CL) the [OK] button.

