

WEB CONSOLE SECTION

Contents

WEB01-10	1. Before using Web Console
WEB01-10	1.1 Setting Internet Explorer
WEB01-30	1.2 Setting IP Address and Network
WEB01-120	1.3 Setting Java
WEB02-10	2. Web Console
WEB02-20	2.1 Specifications of Web Server Status
WEB02-50	2.2 Procedure for Activation Using SVP
WEB02-90	2.3 Specifications Common to Functions of Web Console
WEB02-110	2.4 Before Using Web Console (You are requested to read this without fail.)
WEB02-110	2.4.1 Notes on Using the Web Console PC
WEB02-130	2.5 Actions to Be Taken According to Result of Troubleshooting
WEB03-10	3. Difference from the P.P Manual
WEB03-10	3.1 ShadowImage
WEB03-20	3.2 ShadowImage z/OS®
WEB03-30	3.3 Data Retention
WEB03-40	3.4 Universal Volume Manager
WEB03-50	3.5 TrueCopy z/OS®
WEB03-70	3.6 TrueCopy
WEB03-90	3.7 Remote Copy Function Switch
WEB04-10	4. Installing SNMP Agent
WEB04-10	4.1 Installation Procedure
WEB04-20	4.2 Operations on SNMP Screen
WEB05-10	5. Procedure of OpenSA (Apache supporting SSL) installation
WEB05-20	5.1 Uninstallation of Apache
WEB05-20	5.1.1 Checking Apache version
WEB05-40	5.1.2 Uninstallation of Apache 1.3.27
WEB05-70	5.1.3 Uninstallation of Apache 1.3.33
WEB05-111	5.1.4 Uninstallation of Apache 2.0.54
WEB05-120	5.2 Installation of OpenSA
WEB05-190	5.3 Uninstallation of OpenSA
WEB06-10	6. Procedure of Apache 1.3.33 installation
WEB06-20	6.1 Checking Apache version
WEB06-40	6.2 Uninstallation of Apache 1.3.27
WEB06-70	6.3 Uninstallation of Apache 1.3.33
WEB06-110	6.4 Microprogram Exchange
WEB06-120	6.5 Procedure of Apache downgrade
WEB06-120	6.5.1 Uninstallation of Apache 1.3.33
WEB06-170	6.5.2 Uninstallation of Apache 1.3.27

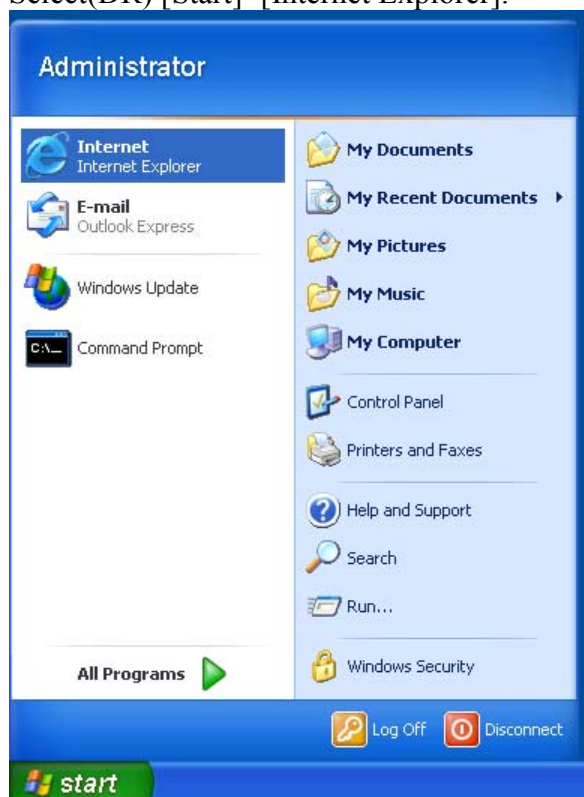
WEB07-10	7. Procedure of Apache 2.0.54 installation
WEB07-20	7.1 Checking Apache version
WEB07-40	7.2 Uninstallation of Apache 1.3.27
WEB07-70	7.3 Uninstallation of Apache 1.3.33
WEB07-120	7.4 Installation of Apache 2.0.54
WEB07-170	7.5 Procedure of Apache downgrade
WEB07-180	7.5.1 Uninstallation of Apache 2.0.54
WEB07-210	7.5.2 Installation of Apache 1.3.27
WEB07-260	7.5.3 Installation of Apache 1.3.33
WEB08-10	8. Before using the Syslog function of AuditLog

1. Before using Web Console

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

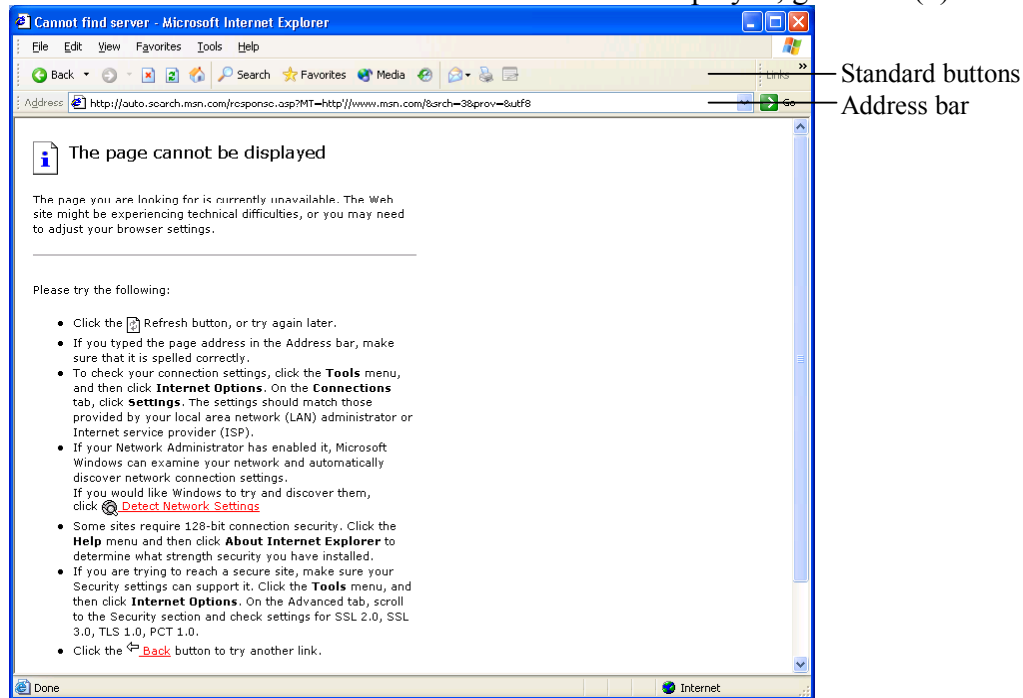
1.1 Setting Internet Explorer

- (1) Select(DR) [Start]–[Internet Explorer].

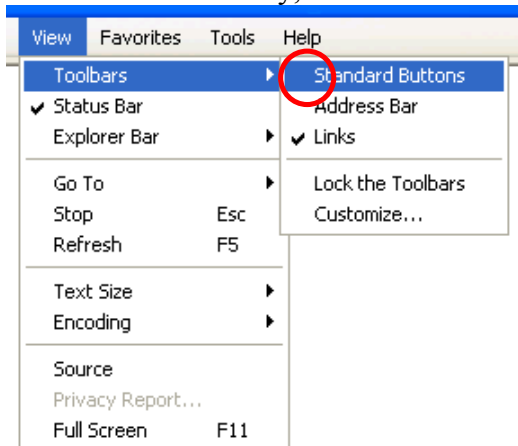


(2) Internet Explorer is displayed.

If the standard buttons and the address bar are not displayed, go to 1.1 (4).



(3) 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.



(4) Select Close from the File menu.

1.2 Setting IP Address and Network

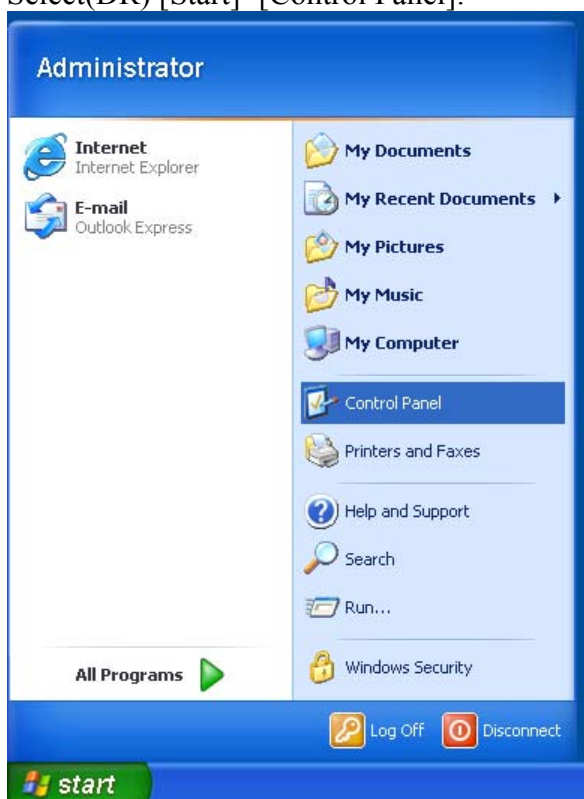
When using Web Console from a remote personal computer or using the SNMP Agent function, a connection to an external LAN and a setting of a network is required (See [LOC04-40](#)).

Please setup according to the worksheet which the user's administrator indicated at the time of a new Installation.

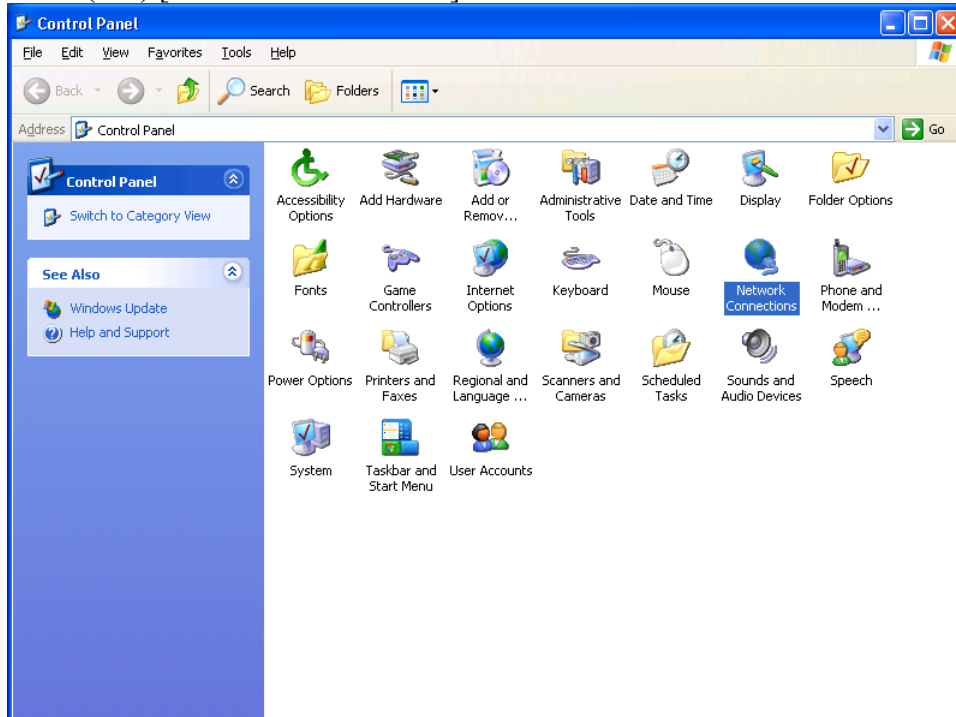
Please setup the contents which took the duplicate from a set up on SVP before REPLACE.

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

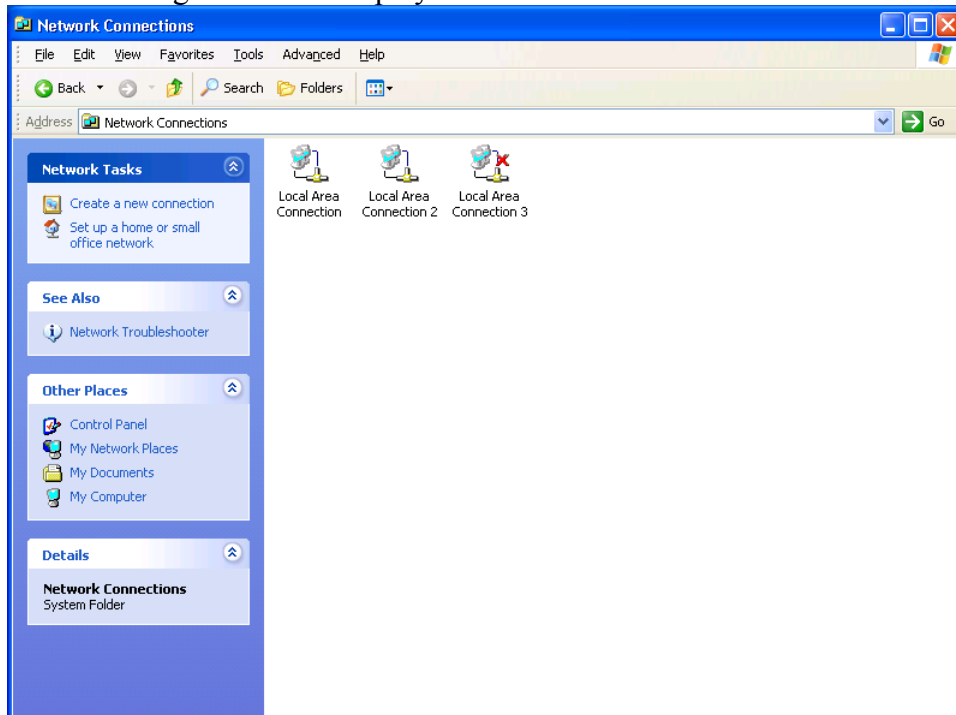
- (1) Select(DR) [Start]–[Control Panel].



(2) Select(DC) [Network Connections].

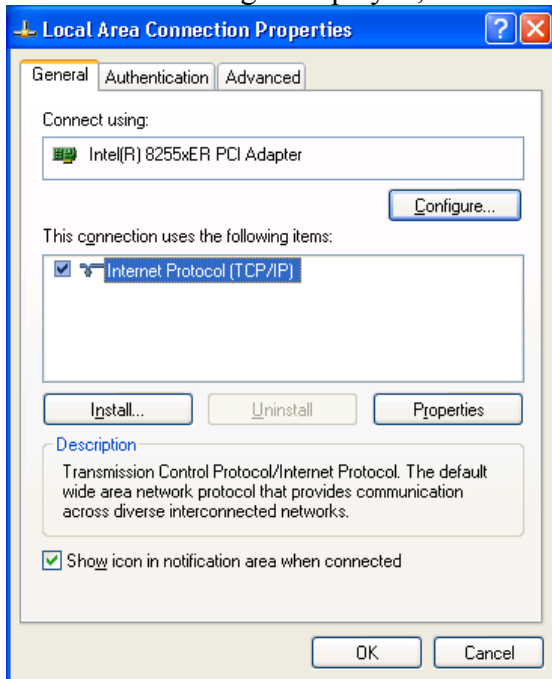


(3) The following window is displayed.



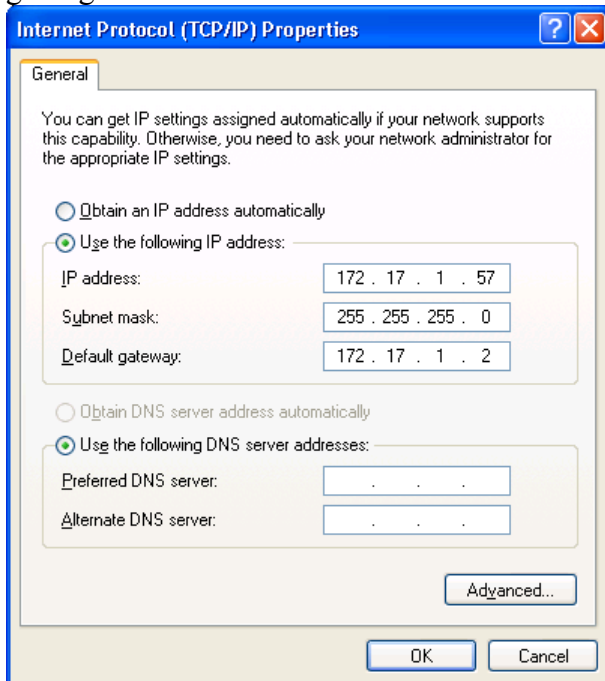
Select "Properties" by clicking [Local Area Connection] with the right mouse button.

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



- (5) Set the external IP address in the following window.
Select (CL) “Use the following IP address” and input “IP address”, “Subnet mask”, and “Default gateway”.
Do not change other values.

In order to depend for the setting value on the customer’s environment, make the setting getting technical assistance of the customer’s network administrator.



After completing the setting, return the window to that for Step (4) by selecting (CL) the [OK] button.

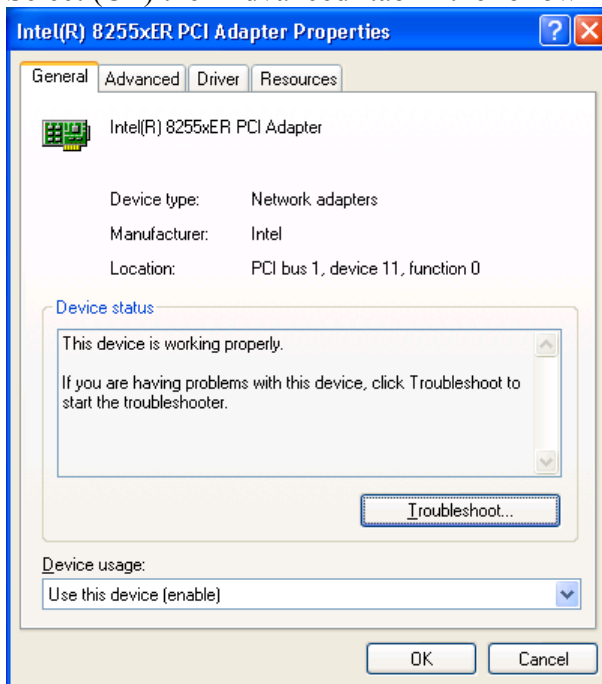
- (6) Checking whether the setting of the network (setting of Config) must be changed or not.
There is a case where the setting must be changed depending on the customer's environment.
The case where the change is required is as follows.
(Normally, no setting change is required.)
- When the switch (HUB), 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.

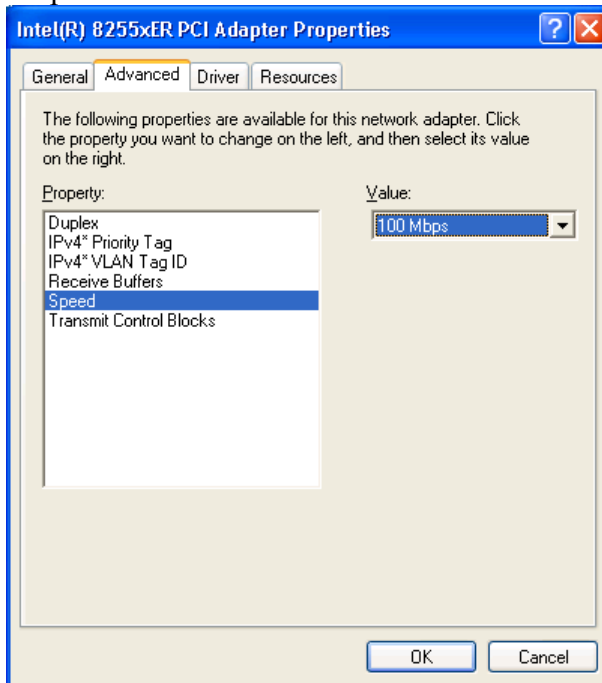
When the case is not the above, terminate the operation by selecting (CL) the [OK] button.

- (7) Select (CL) the [Configure] button in the window for Step (4).
- (8) When the [Configure] button is pressed, the following window is displayed.
Select (CL) the 'Advanced' tab in the following window.

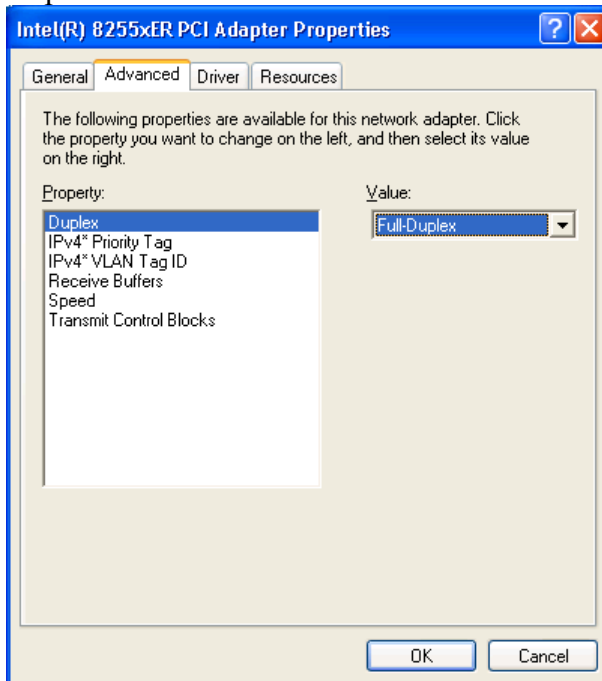


Note: When the [Advanced] tab is not displayed, refer to [WEB01-111](#).

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

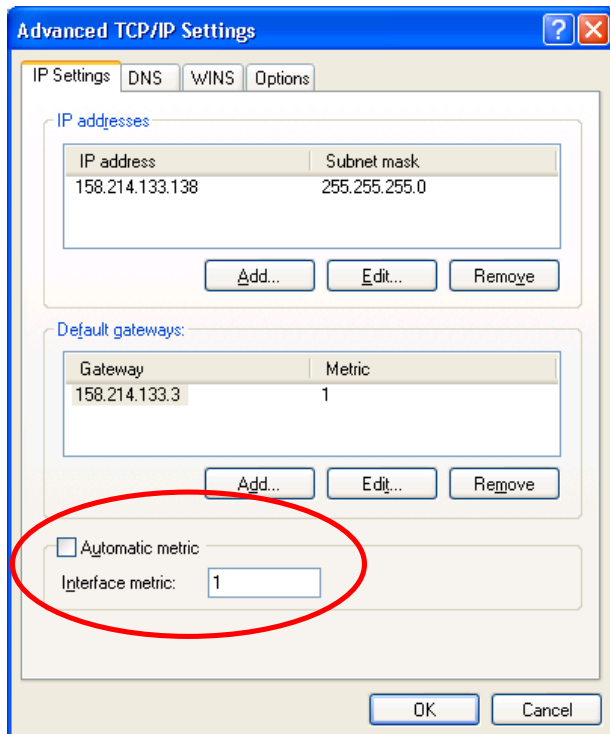


- Select (CL) the 'Duplex' and change the setting of the 'Value' from 'Auto Detect' to 'Full Duplex'.

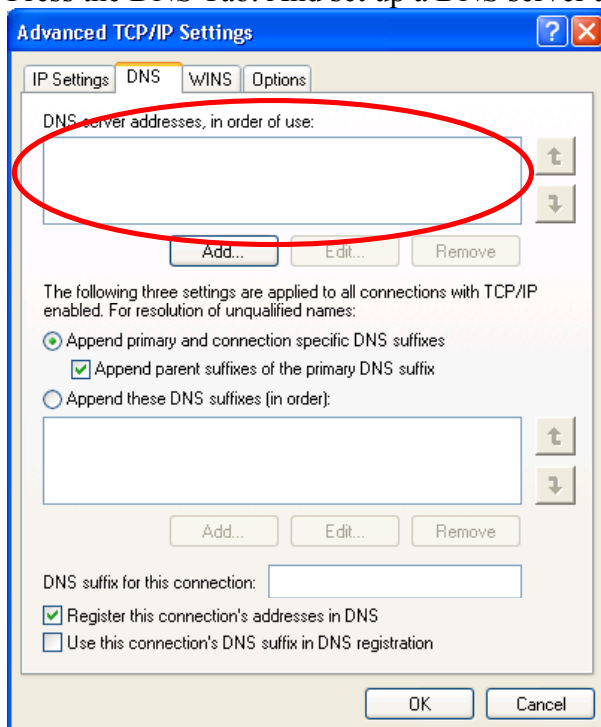


- Return the window to 'Local Area Connection Properties' by pressing (CL) the [OK] button and close the window by pressing the [OK] button.

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

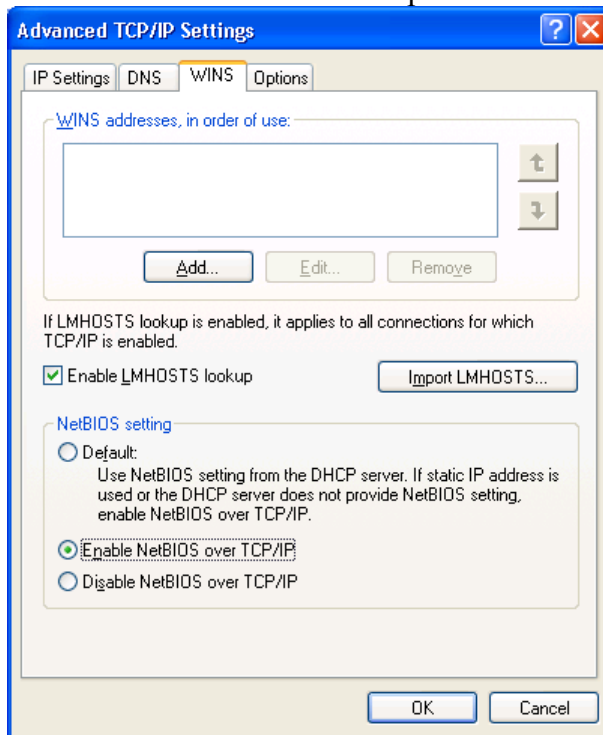


(11) Press the DNS Tab. And set up a DNS server addresses according to the following procedure.



- 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.

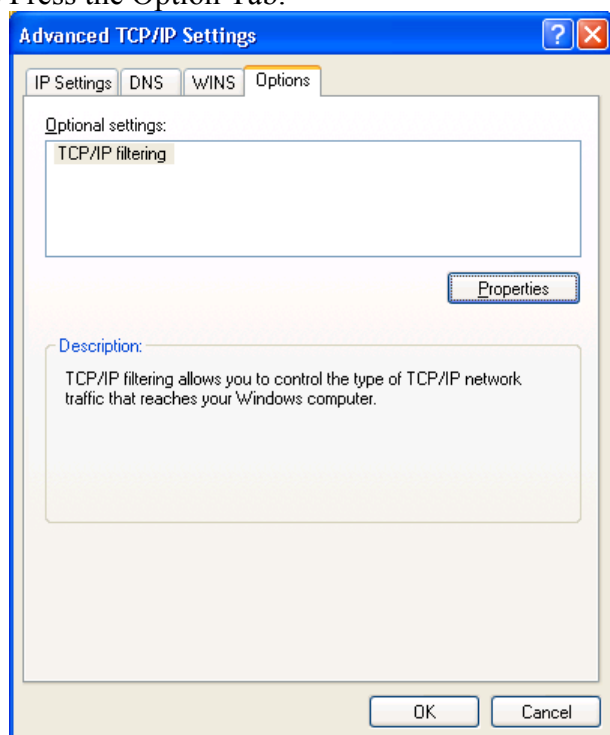
- (12) Please check a radio button and check boxes like the worksheet.
- (13) If there is checkmark in “Append these DNS suffixes [in order]:” radio Button, set up a DNS suffixes addresses according to the following procedure.
- Please choose the IP address which does not have a publication in the worksheet, 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.
- (14) Set “DNS Suffix for this connection’s from the worksheet.
- (15) Press the WINS Tab. And set up the WINS addresses according to the following procedure.



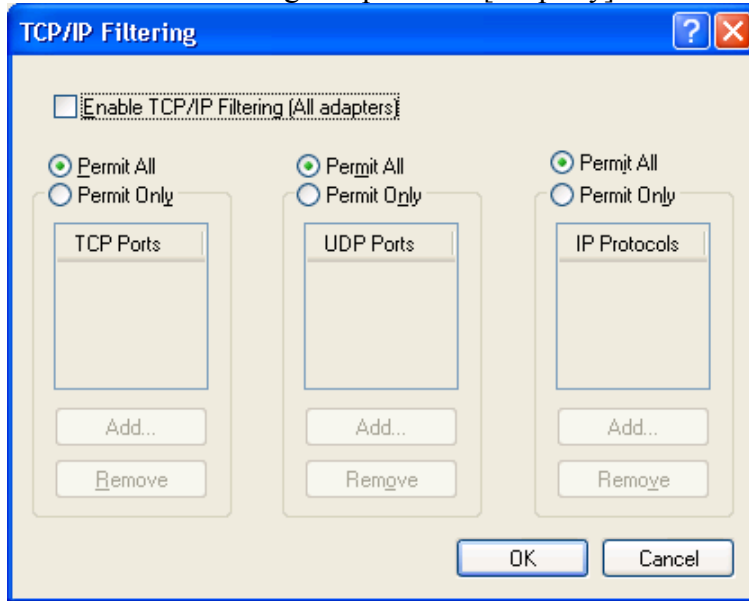
- Please choose the IP address which does not have a publication in a worksheet, and push the [Remove] button.
- Although it is in the worksheet, if there is an IP address which is not displayed on the dialog, the [Add...] button will be pressed and a TCP/IP WINS Server dialog will be displayed.
- Set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

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

(17) Press the Option Tab.



(18) Select TCP/IP filtering and press the [Property] Button.



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

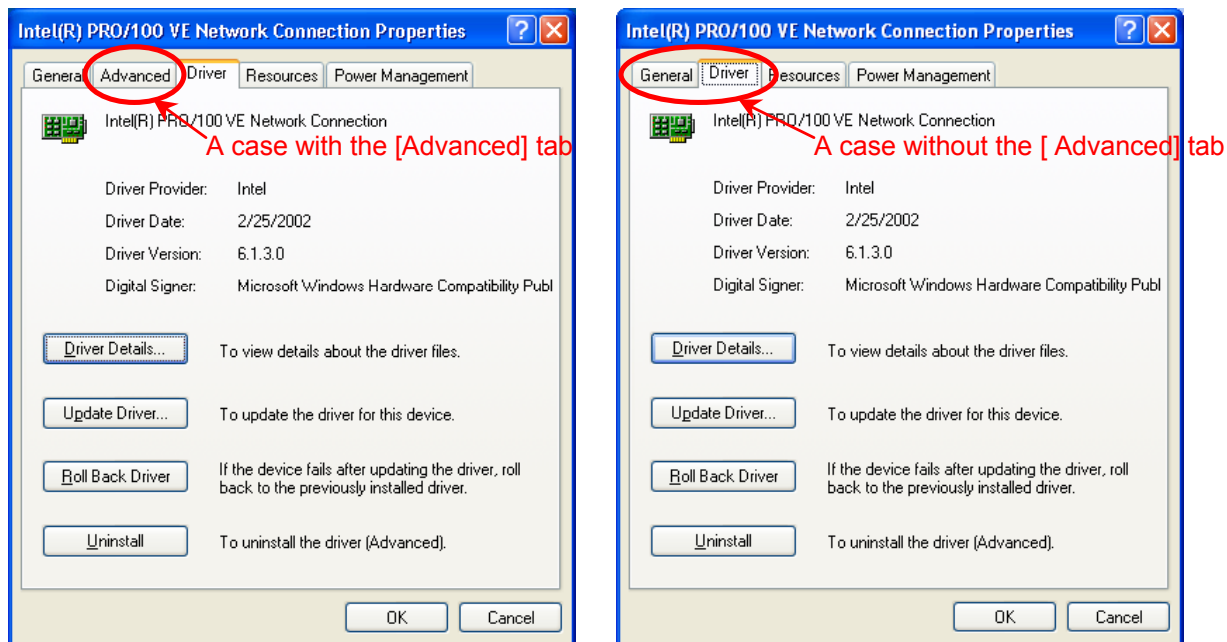
(20) Add or Remove TCP ports like the worksheet.

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

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

Installation of LAN Driver

There is no [Advanced] tab to change the linkup speed, etc. for the setting of the LAN Driver with some models of SVP.



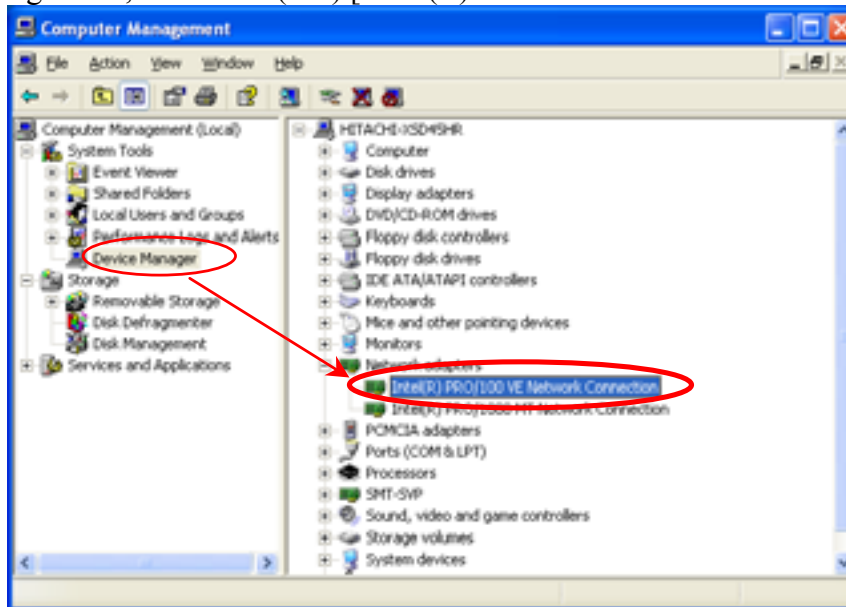
Property Window of External Connection Side LAN Driver

In this case, you can add the [Advanced] tab by reinstalling the LAN Driver. This procedure is shown below (this operation does not change the revision of the LAN Driver).

- (1) Select (DR) [Start]–[Administrative Tools]–[Computer Management].



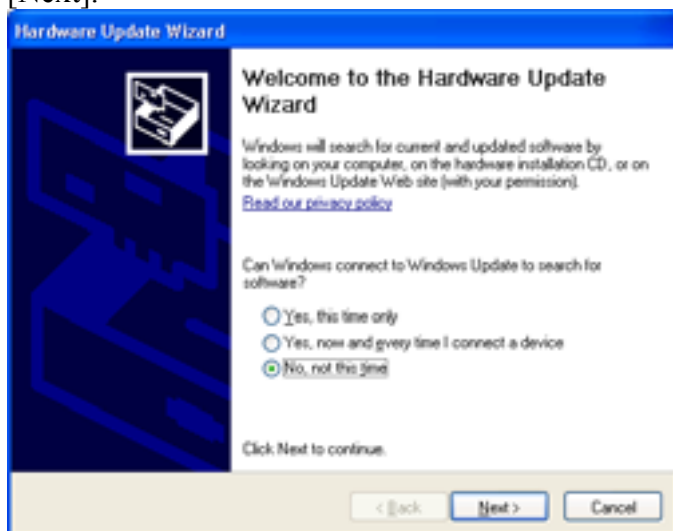
- (2) Select (CL) [Device Manager] in [Computer Management], develop [Network Adapters] in the right row, and select (DC) [Intel(R) PRO/100 VE Network Connection].



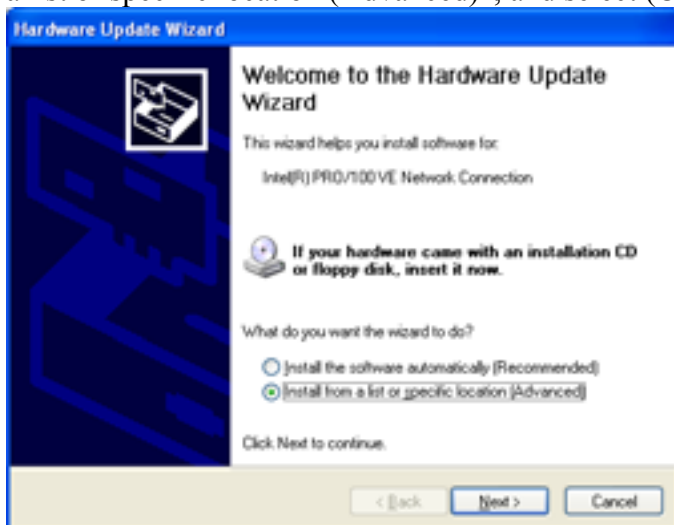
- (3) When the property of the LAN Driver opens, select the [Driver] tab, and select (CL) [Update Driver] in it.



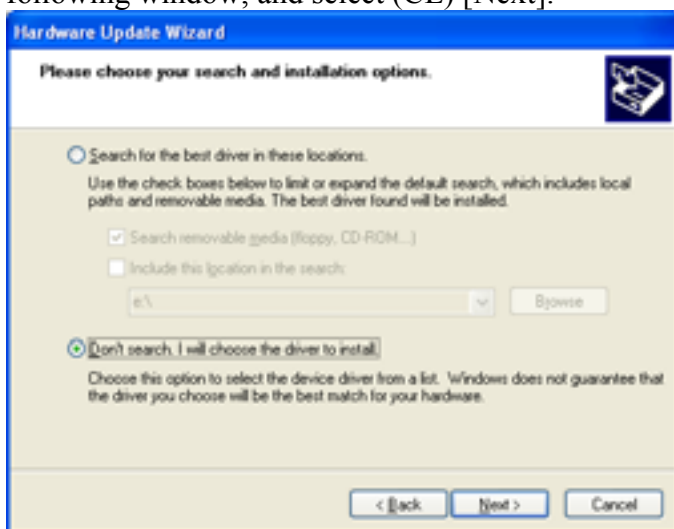
By the conditions of Network, “Hardware Update Wizard” window might be opened. When the window opened, select the radio button of “No, not this time”, and select (CL) [Next].



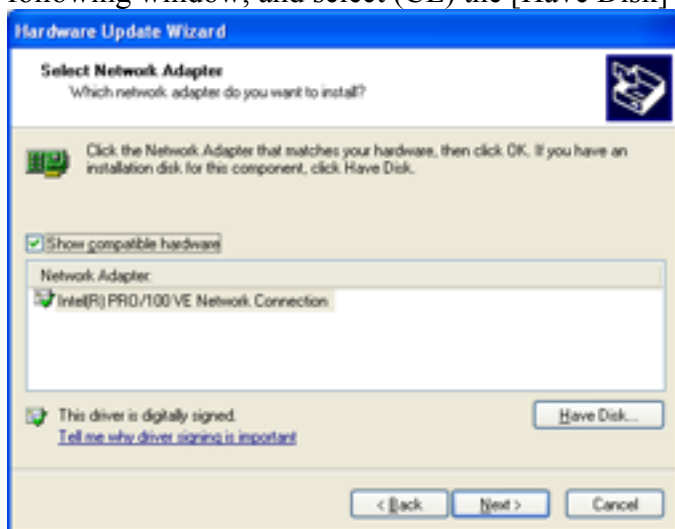
- (4) When the update wizard of the Driver starts, check the radio button on the side of “Install from a list of specific location (Advanced)”, and select (CL) [Next].



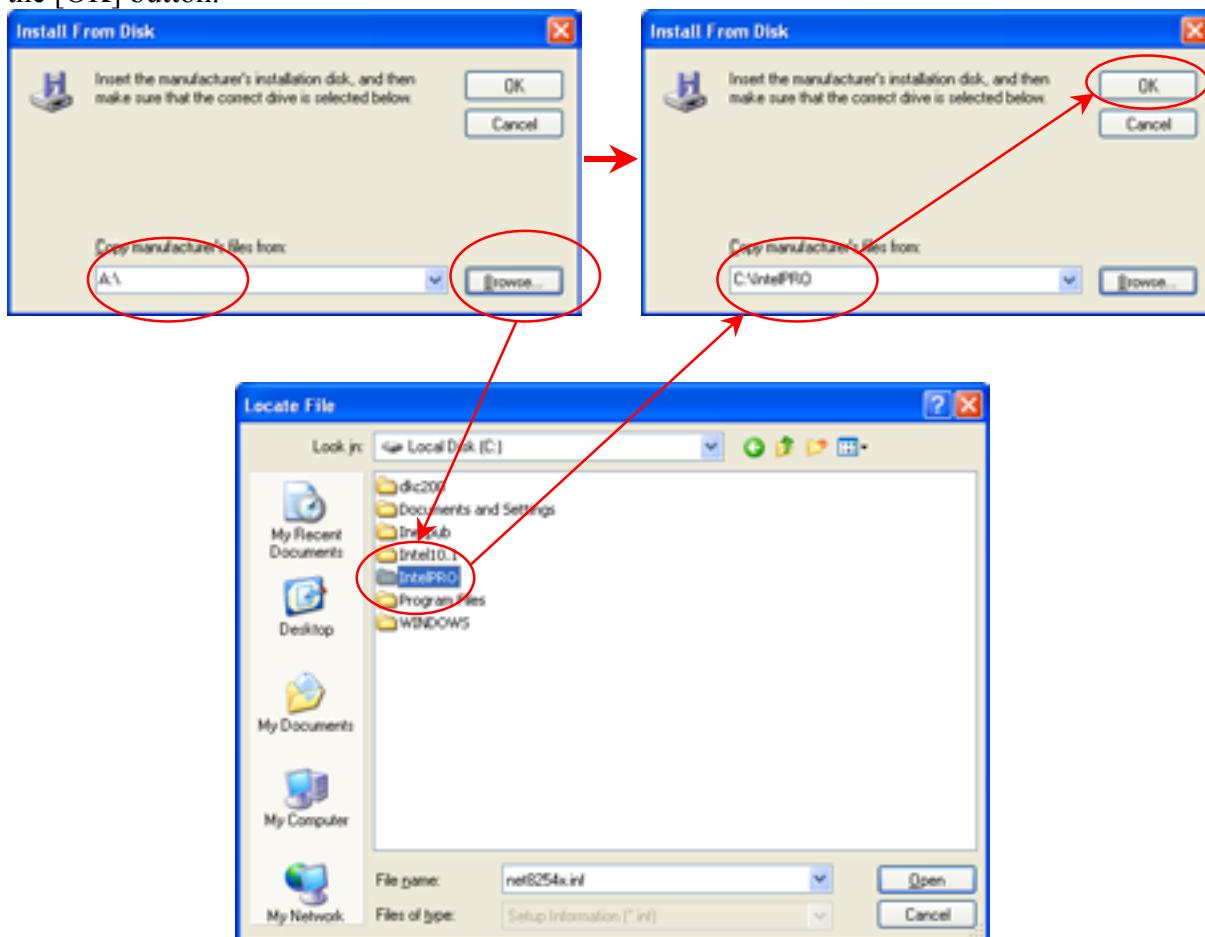
- (5) Check the radio button on the side of “Don’t search. I will choose the Driver to install” in the following window, and select (CL) [Next].



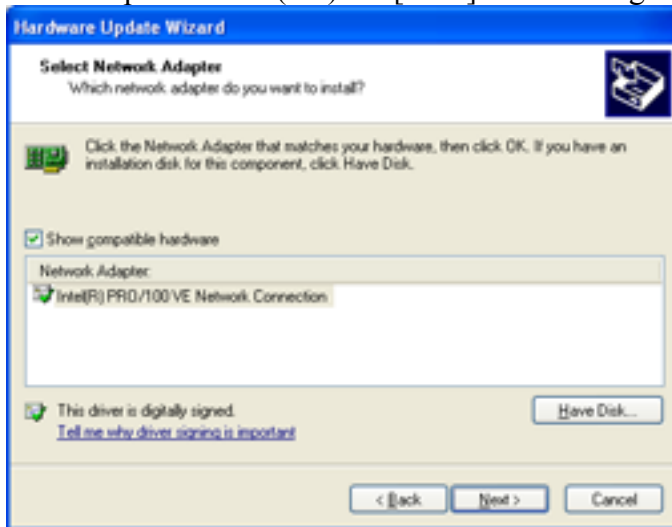
- (6) Check that the target LAN adapter is “Intel (R) PRO/100 VE Network Connection” in the following window, and select (CL) the [Have Disk] button.



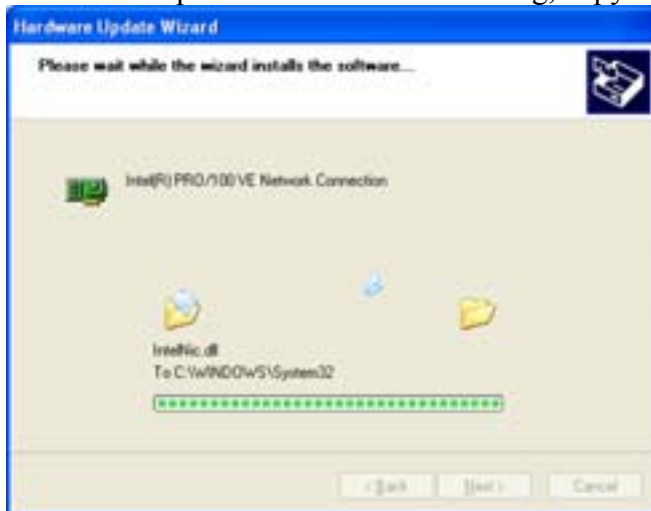
- (7) Since the LAN Driver body is in the “C:\IntelPro” directory, enter this position in the column directly or search and enter the directory by using the [Browse] button, and finally select (CL) the [OK] button.



- (8) When the copy source setting of the Driver is completed, it returns to the setting window of the LAN adapter. Select (CL) the [Next] button and go to next step.



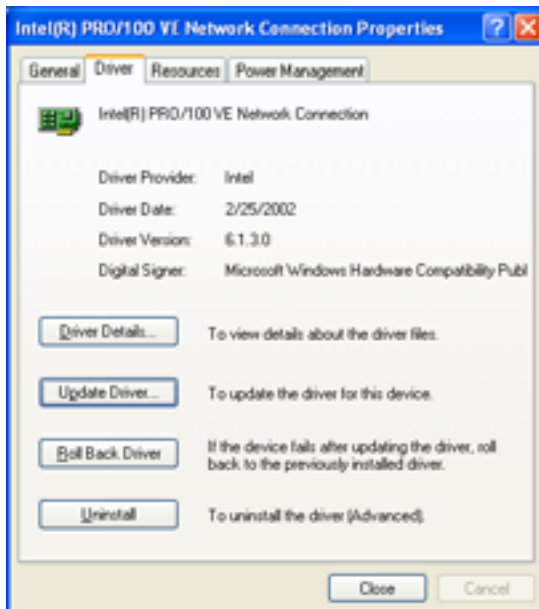
- (9) If there is no problem on the above setting, copying of the LAN Driver is started.



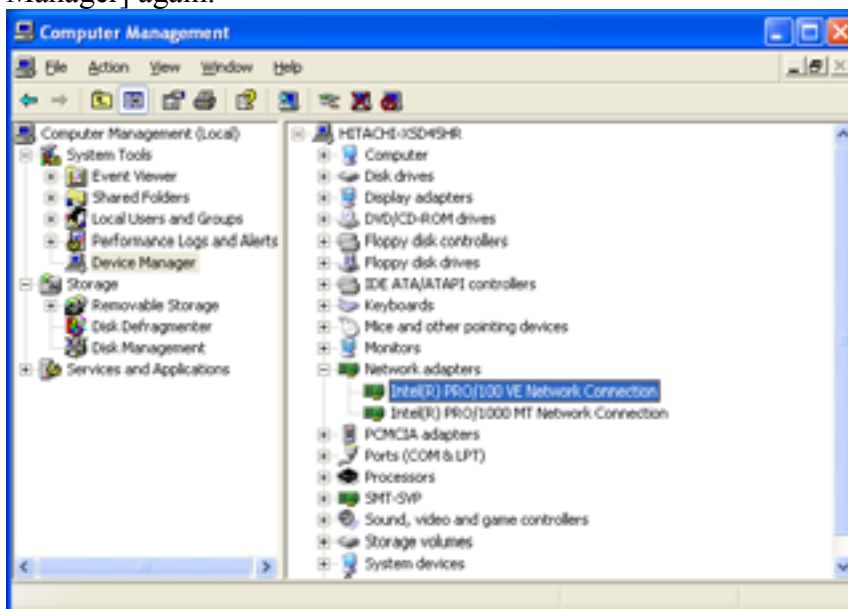
- (10) When the reinstallation of the Driver succeeds, the following window is displayed. Select (CL) the [Finish] button and close the window.



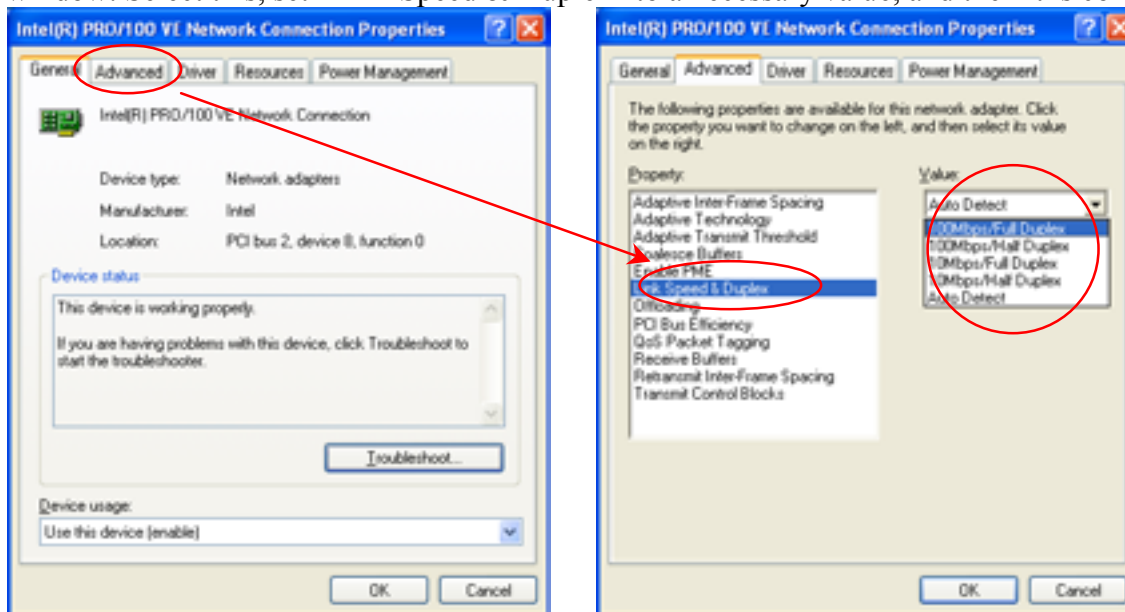
- (11) When it returns to the property window of the LAN Driver, select (CL) the [Close] button and once close the window.



- (12) Open [Intel (R) PRO/100 VE Network Connection] in [Computer Management]–[Device Manager] again.



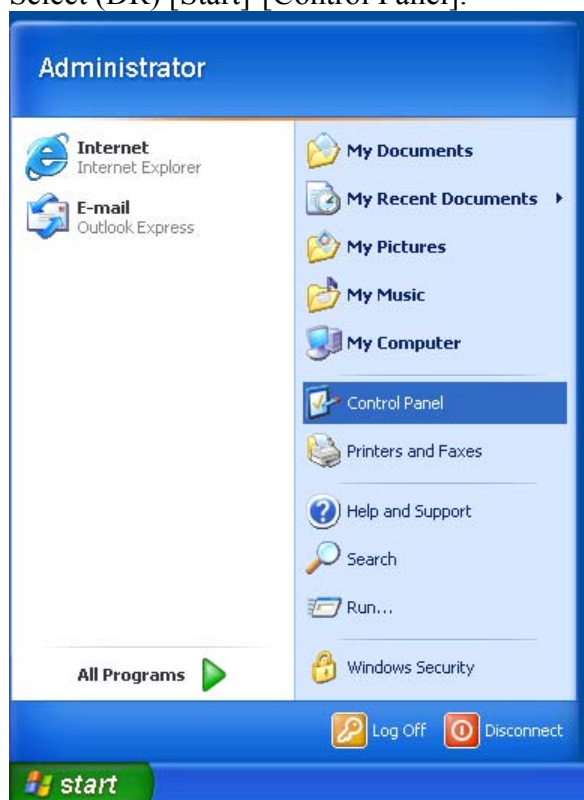
- (13) If the update of the Driver has succeeded, the [Advanced] tab is created in the property window. Select this, set “Link Speed & Duplex” to a necessary value, and then it is completed.



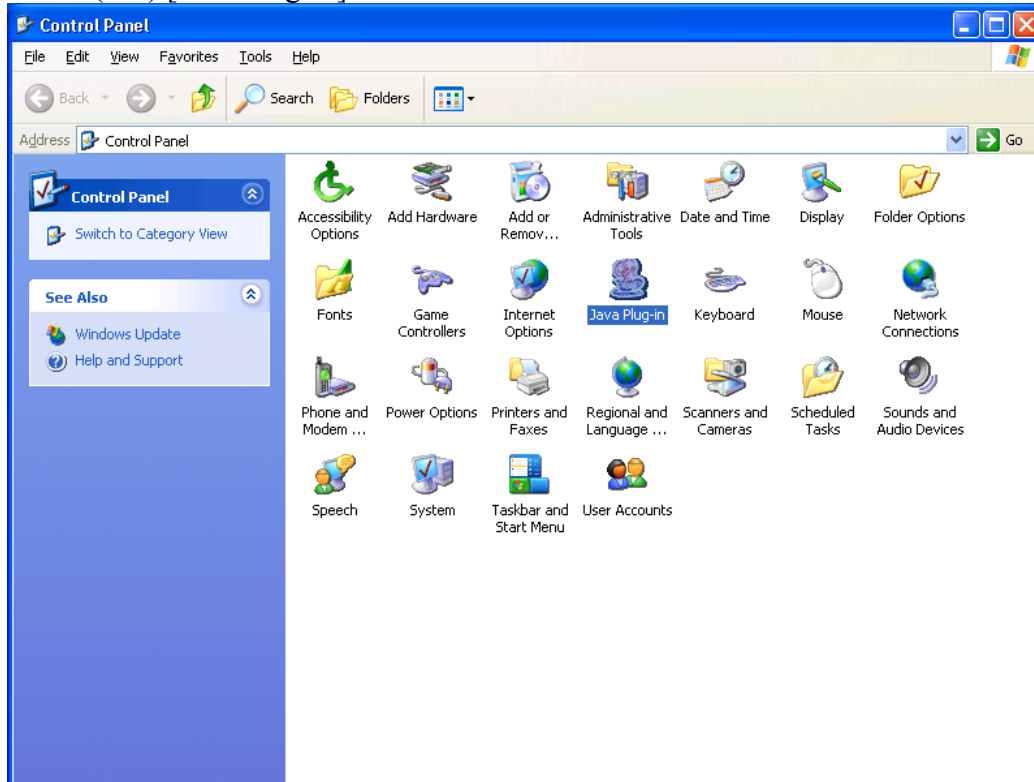
1.3 Setting Java

The amount of the memory used at the time of JAVA execution is extended.

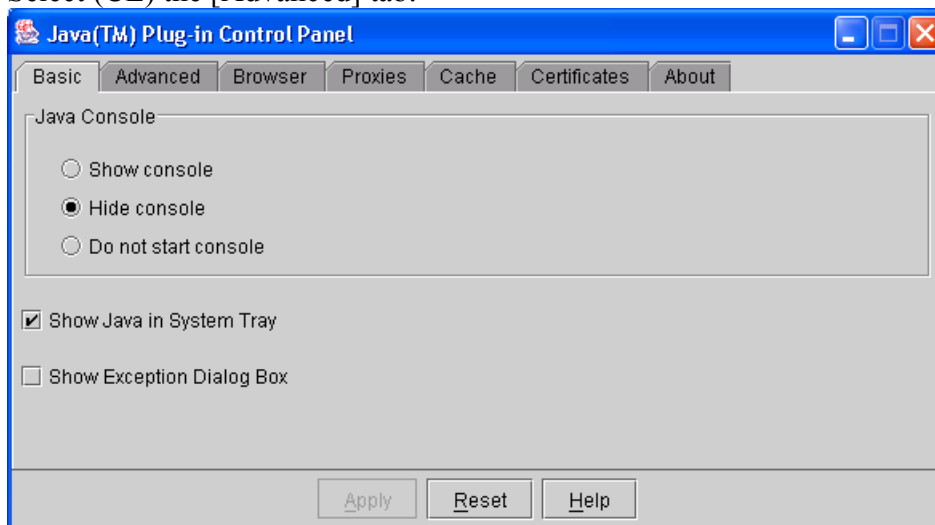
- (1) Select (DR) [Start]-[Control Panel].



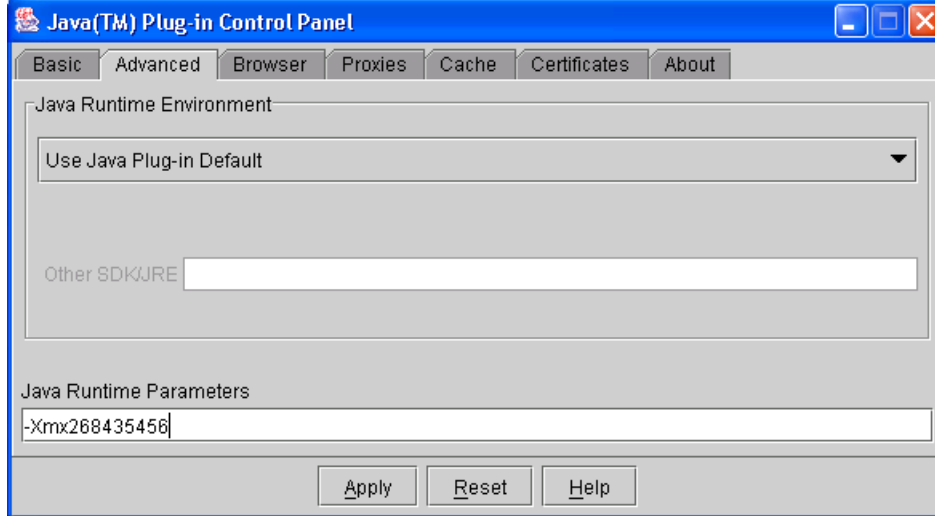
- (2) Select (DC) [Java Plug-in].



- (3) The Window, 'JAVA(TM) Plug-in Control Panel' is displayed.
Select (CL) the [Advanced] tab.



- (4) Enter “-Xmx268435456” in the Java Runtime Parameters box. After that, press [Apply] button.



- (5) Close 'JAVA(TM) Plug-in Control Panel' by pressing the [OK] button.
- (6) Close Control Panel by pressing the [OK] button.

2. Web Console

Some of the existing functions were replaced with Web Console in the RAID500 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.

RAID450 & RAID500

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 / Volume Migration / Server Priority Manager
HORC	TrueCopy
HOMRCF	ShadowImage
HRC	TrueCopy z/OS®
HMRCF	ShadowImage z/OS®
HPAV	Compatible PAV
On-Demand	License key / SNMP / Just in Time — Just in Time

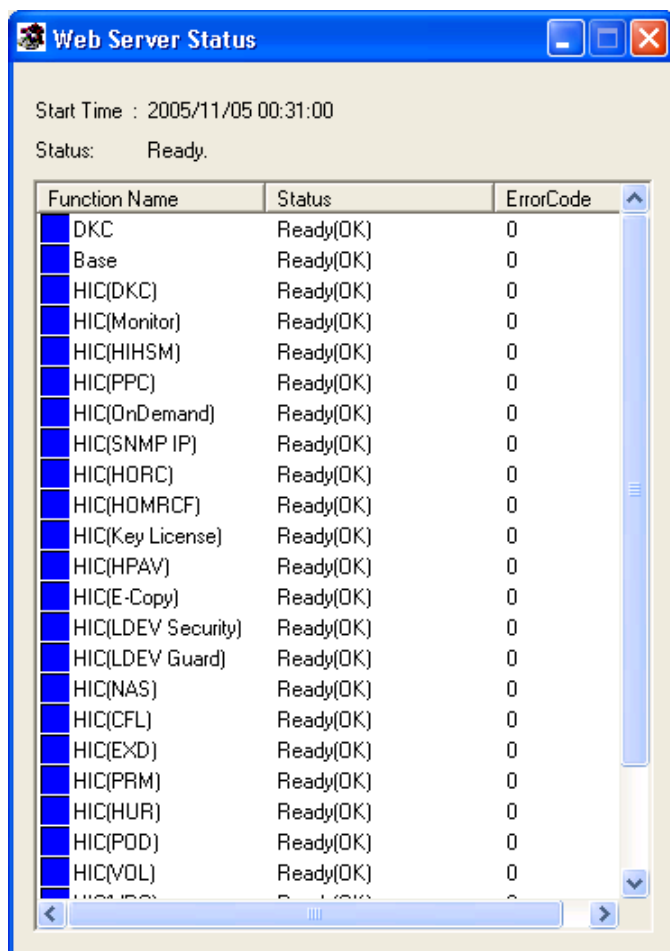
RAID500

Name of button on former launcher	Selection to be done after pressing the Web Console button
Install — System Option — Option	License key / SNMP / Just in Time — License key

2.1 Specifications of Web Server Status

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.

The window was always displayed as RAID450. It does not usually displays as RAID500. When the Web Server Status button of SVP launcher is pressed, the window as shown below displays.



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

- 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.)
- This window is started by pressing the “Web Server Status” button on the ‘SVP’ window.

• 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 LUN Manager / LUN Expansion / Virtual LVI / Cache Residency function.	0003
3	HIC(DKC)		8005
4	HIC(Monitor)	Displays the state of initialization of the Performance Monitor function.	5105
5	HIC(HIISM)	Displays the state of initialization of the Volume Migration function.	5205
6	HIC(PPC)	Displays the state of initialization of the Server Priority Manager 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 TrueCopy function.	6005/6105
10	HIC(HOMRCF)	Displays the state of initialization of the ShadowImage 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 Compatible PAV function.	9005
13	HIC(E-Copy)	Displays the state of initialization of the Serverless Backup function.	9505
14	HIC(LDEV Security)	Displays the state of initialization of the LUN Security / Volume Security function.	9105
15	HIC(LDEV Guard)	Displays the state of initialization of the Volume Retention z/OS® / Data Retention 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 Universal Volume Mgr function.	0605
19	HIC(PRM)	Displays the state of initialization of Virtual Partition Mgr function.	8505
20	HIC(HUR)	Displays the state of initialization of the Universal Replicator function.	6505/6605
21	HIC(POD)	Displays the state of initialization of Port OnDemand function.	8305
22	HIC(VOL)	Displays the state of initialization of the Volume Manager function.	3005
23	HIC(XRC)	Displays the state of initialization of the XRC function.	6805
24	HIC(DCR)	Displays the state of initialization of the DCR function.	4005
25	HIC(LUNM)	Displays the state of initialization of the LUN Manager function.	1005
26	HIC(ISC)	Displays the state of initialization of the iSCSI function.	1205

- 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) (*1)
8	Refresh(Error)	Red	Refreshment failed. (It is retried every other minute) (*1)
9	Initialize(Pause)	Yellow	Initialization temporarily stops. (*2)
10	Refresh(Pause)	Yellow	Refreshment temporarily stops. (*2)

Notes:

- Any of the statuses is Initialize (Stat)/ Refresh (Start)/ Initialize(Retry)/ Refresh (Retry), no maintenance work can be done from an SVP. The message “INS2268E” is displayed on the SVP.
However, it changes to the state of Initialize (Pause)/ Refresh (Pause) in about 10 seconds and the maintenance work on the SVP may be possible.
 - 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: When xxxx (Error) status is displayed for more than 2 minutes without, there may be a problem just on display.
If you can reboot by pressing Web Console button and can press the each function button normally, there is no problem.
- *2 Initialization/Refresh is restarted by changing the SVP to the View mode.

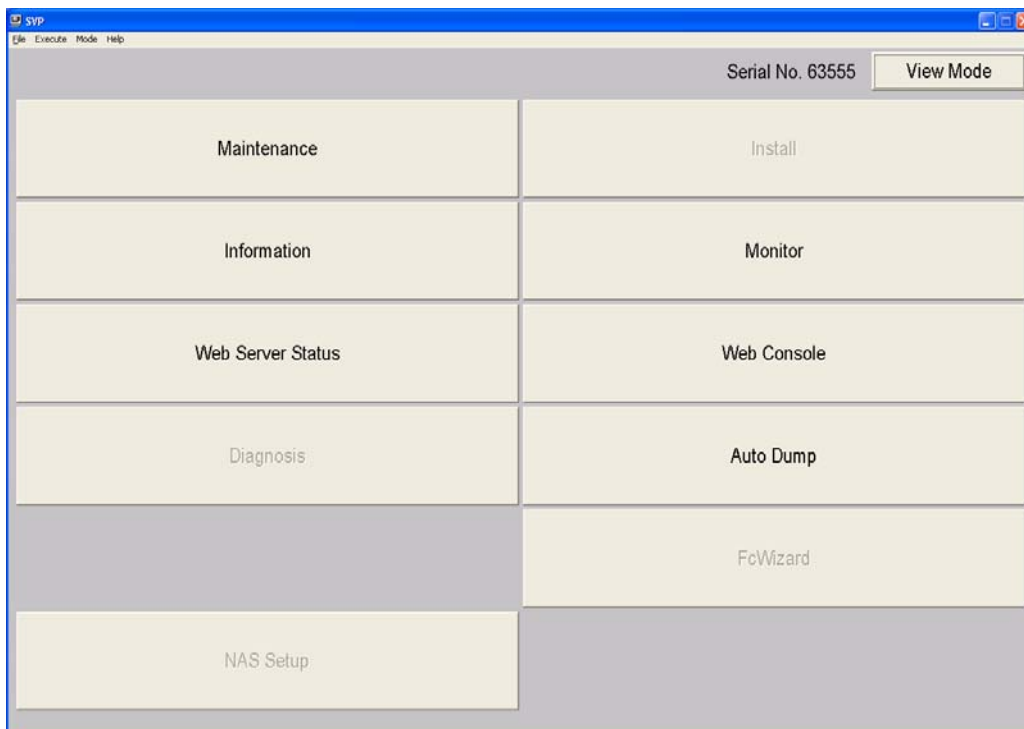
- Error Code

When an error occurs, its error cord is displayed.

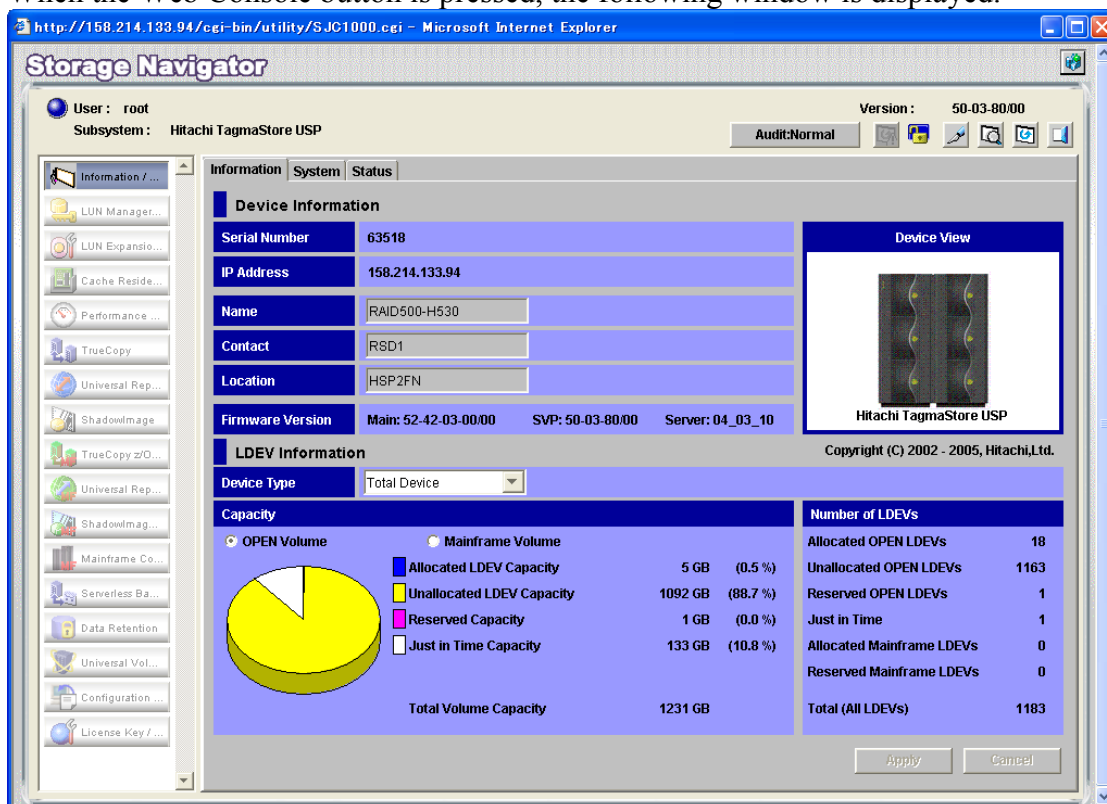
Refer to errors which occur in each part shown in the list of Web Console messages.

(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.



When security warning as shown in the following figure is displayed, push the [Always] button.



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	Volume Manager	LUN Expansion (LUSE) / Virtual LVI / LUN (VLL) User's Guide	
2	Partial Cache Residence	Cache Residency User's Guide	 (*1)
3	Performance Monitor / Volume Migration / Server Priority Manager	Performance Management User's Guide	
4	TrueCopy	TrueCopy User's Guide	
5	ShadowImage	ShadowImage User's Guide	
6	TrueCopy z/OS®	TrueCopy z/OS® User's Guide	
7	ShadowImage z/OS®	ShadowImage z/OS® User's Guide	
8	Compatible PAV	Compatible PAV User's Guide	
9	Volume Security	Volume Security User's Guide	
10	Volume Retention z/OS®	Volume Retention z/OS® User's Guide	
11	Serverless Backup	Serverless Backup User's Guide	
12	Data Retention	Data Retention User's Guide	
13	Universal Volume Mgr	Universal Volume Mgr User's Guide	
14	License key	Web Console Web Console User's Guide	To use this function, press the License key / SNMP / Just in Time () button and select the License key 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	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.
17	PORT On-Demand	Web Console Web Console User's Guide	To use this function, press the License key / SNMP / Just in Time () button and select the PORT On-Demand tab.





(*1) When this button is pushed, If it starts from a client, selection of both an Cache Residency tab and a PCR tab will be attained. Selection only of a PCR tab is attained from the WebConsole button of SVP.

Table 2.2-1 Operation of nothing P.P

Volume Manager	Reference	○
	Setup	×
Performance Monitor	Reference	○
Volume Migration	Reference	○
	Setup	×
	Cancellation	○
Server Priority Manager	Reference	○
	Setup	×
	Cancellation	○
TrueCopy / TrueCopy z/OS®	Reference	○
	Setup	×
	Cancellation	○
ShadowImage / ShadowImage z/OS®	Reference	○
	Setup	×
	Cancellation	○
Compatible PAV	Reference	○
	Setup	×
	Cancellation	○
Serverless Backup	Reference	×
	Setup	×
	Cancellation	○
Volume Security	Reference	○
	Setup	×
	Cancellation	○
Volume Retention z/OS® / Data Retention	Reference	○
	Setup	×
	Cancellation	○
Partial Cache Residence	Reference	○
	Setup	×
	Cancellation	○
Cross-system Copy	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	All Refresh button		Updates Web Console to the latest state. Note: To acquire all information displayed with Web Console from the disk subsystem again. It takes the time of a lot of minutes. Moreover, other users are treated while updating the system meanwhile, and cannot operate the screen. Therefore, we will recommend the button of All Refresh not to be usually used excluding the recovery of the error.
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. Note: 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.

	Name	Icon	
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 × 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 (one minute 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 Fig. 2.4-1-1.

To drag and drop adjacent objects (No. 2 to No. 5) in Fig. 2.4-1-1 (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 Fig. 2.4-1-1 (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	

Fig. 2.4.1-1 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.	
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] and [All Refresh] buttons became ineffective.	Press the [Refresh] button and wait until the window becomes normal again. Still, if it is useless 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 other than the [Exit], [Refresh] and [All Refresh] buttons became ineffective.	Press the [Refresh] button after a while and wait until the window becomes normal again. Still, if it is useless press the [All Refresh] button.	(Note)
7	An application error occurred.	Collect a dump and restart Web Console.	

(To be continued)

(Continued from the preceding page)

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.	
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:\DKC200\SAN\cgi-bin\Utility\CSV. <ul style="list-style-type: none"> • Env.csv • Strlist.csv • Userlist.csv 	
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 window is hung up at the time of the Web Console operation.	Reboot Web Console. If still not recovered, reboot 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).

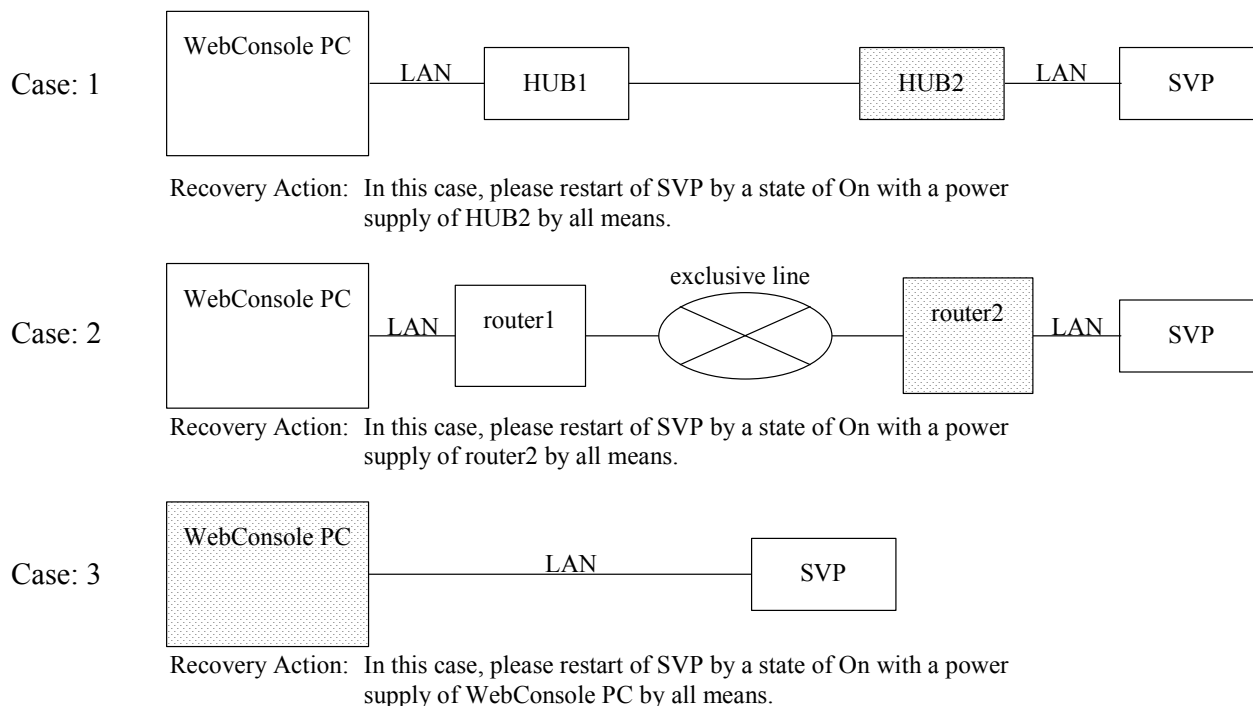
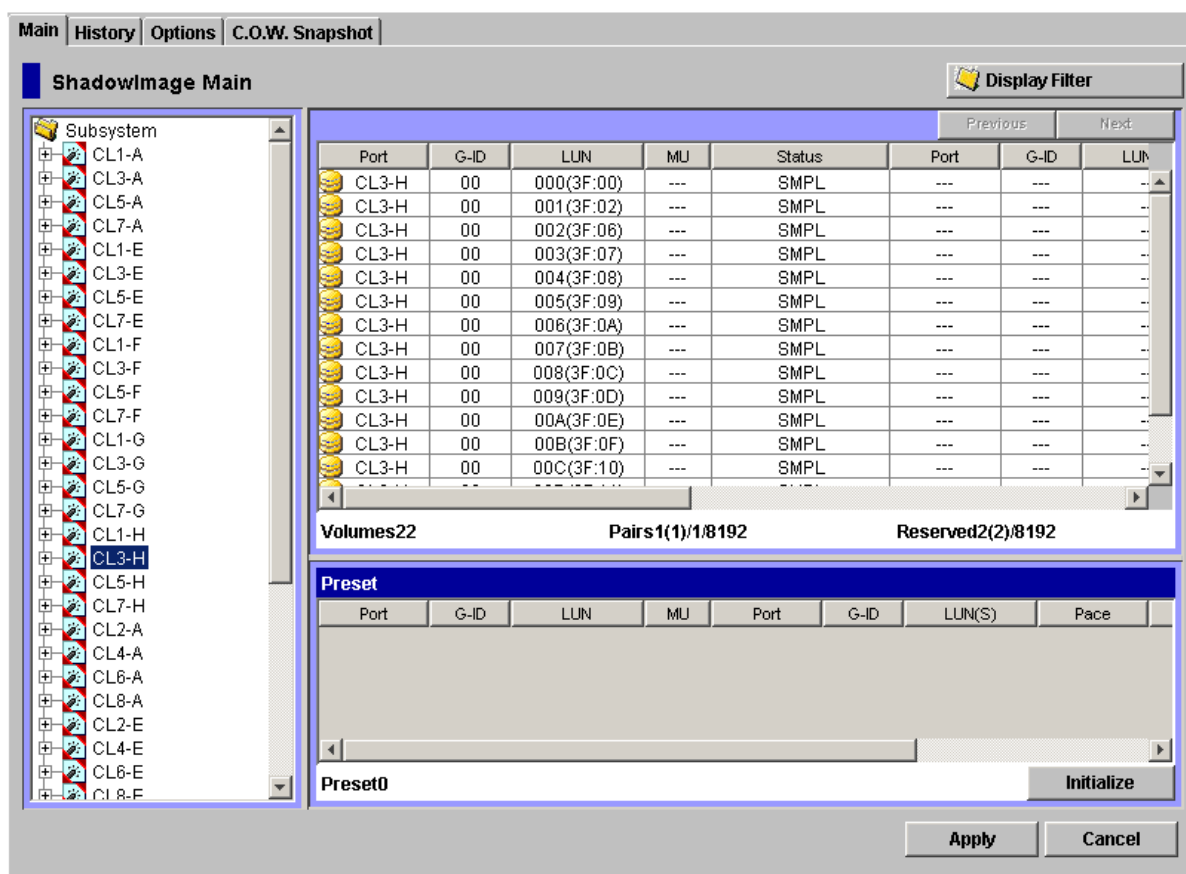


Fig. 2.5-1

3. Difference from the P.P Manual

3.1 ShadowImage



(1) Preset box

When the ShadowImage window is opened by WebConsole on the SVP, the [Initialize] button is displayed in the Preset box.

- Initialize

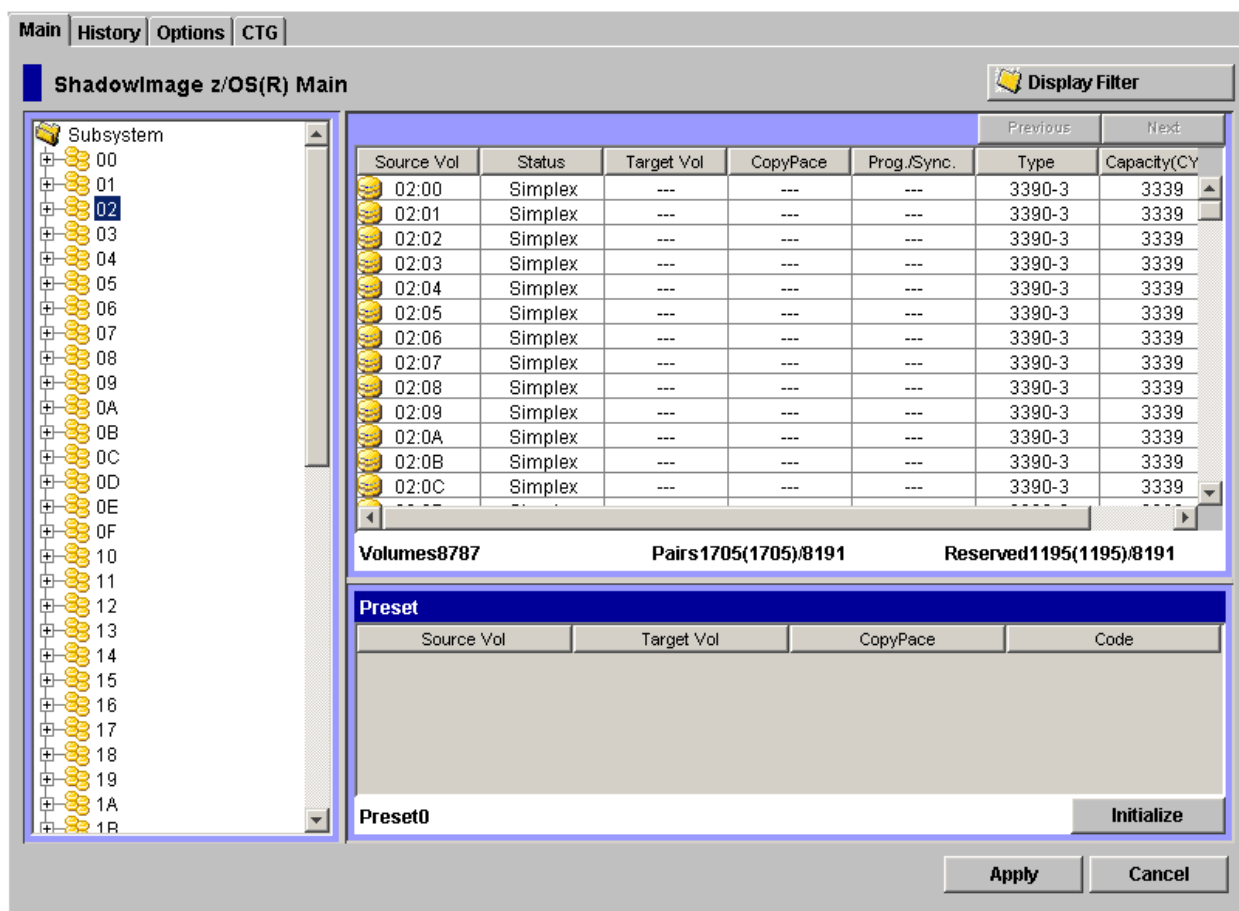
It deletes all the pairs that have been formed by ShadowImage / ShadowImage z/OS® / Volume Migration / Cross-system Copy / Flash Copy® Mirror version 1 / Flash Copy® Mirror version 2 / Copy-on-Write Snapshot and sets the pair status of the volume to SMPL (to Simplex, in the case of ShadowImage z/OS®). And the pool of Copy-on-Write Snapshot is blockaded.

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

Note 1: When the [Initialize] button is pressed, pairs formed by ShadowImage z/OS® / Volume Migration / Cross-system Copy / Flash Copy® Mirror version 1 / Flash Copy® Mirror version 2 / Copy-on-Write Snapshot are also deleted. And the pool of Copy-on-Write Snapshot is blockaded.

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

3.2 ShadowImage z/OS®



(1) Preset box

When the ShadowImage z/OS® window is opened by WebConsole on the SVP, the [Initialize] button is displayed in the Preset box.

- Initialize

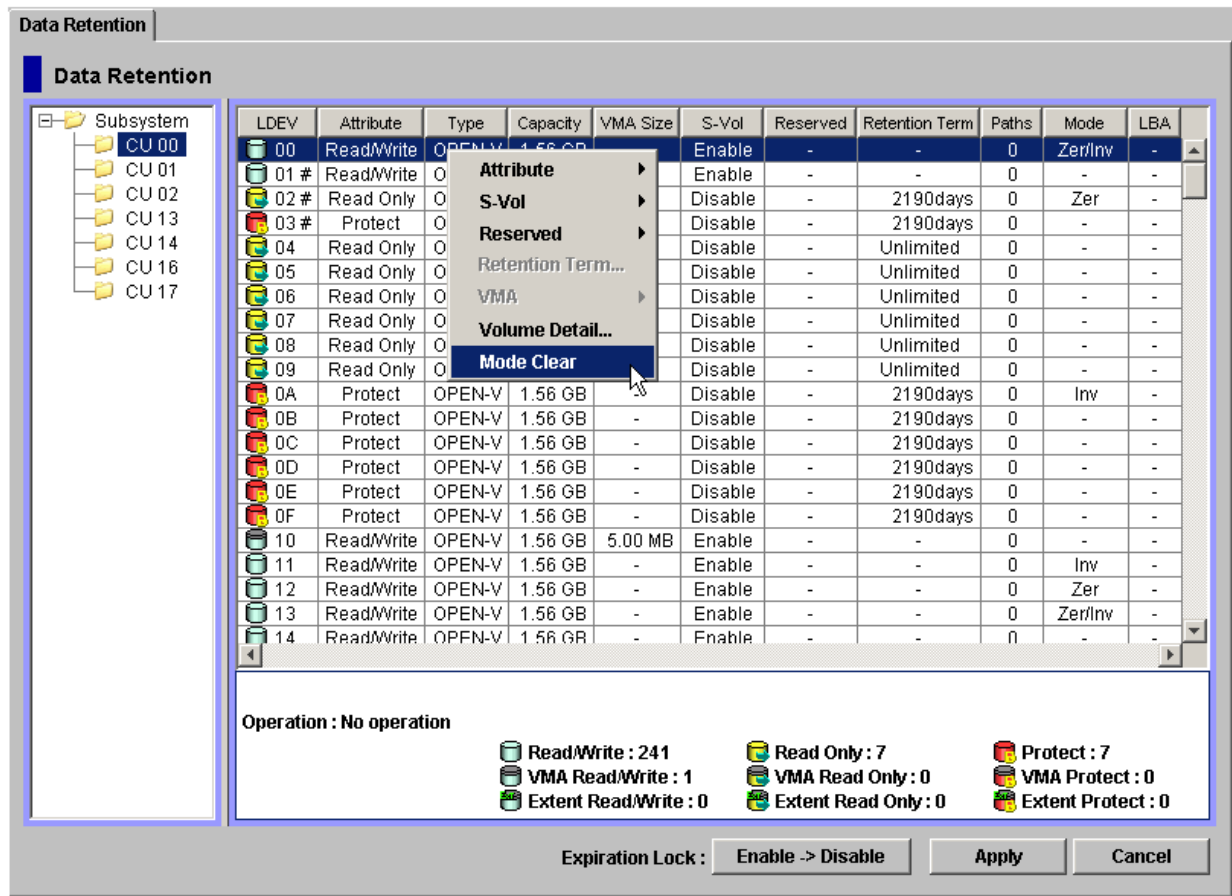
It deletes all the pairs that have been formed by ShadowImage / ShadowImage z/OS® / Volume Migration / Cross-system Copy / Flash Copy® Mirror version 1 / Flash Copy® Mirror version 2 / Copy-on-Write Snapshot and sets the pair status of the volume to Simplex (to SMPL, in the case of ShadowImage). And the pool of Copy-on-Write Snapshot is blockaded.

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

Note 1: When the [Initialize] button is pressed, pairs formed by ShadowImage / Volume Migration / Cross-system Copy / Flash Copy® Mirror version 1 / Flash Copy® Mirror version 2 / Copy-on-Write Snapshot are also deleted. And the pool of Copy-on-Write Snapshot is blockaded.

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

3.3 Data Retention



(1) Canceling the mode attribute

When the Data Retention 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 Data Retention User's Manual.

3.4 Universal Volume Manager

Provided that the External Volume is its own volume, it allows to be mapped as an external storage device. But every LDEV of the external group must be allocated to another CLPR that is different from one which is allocated to some internal LDEVs.

It is shown for example when mapping between own LU and own external group as following.

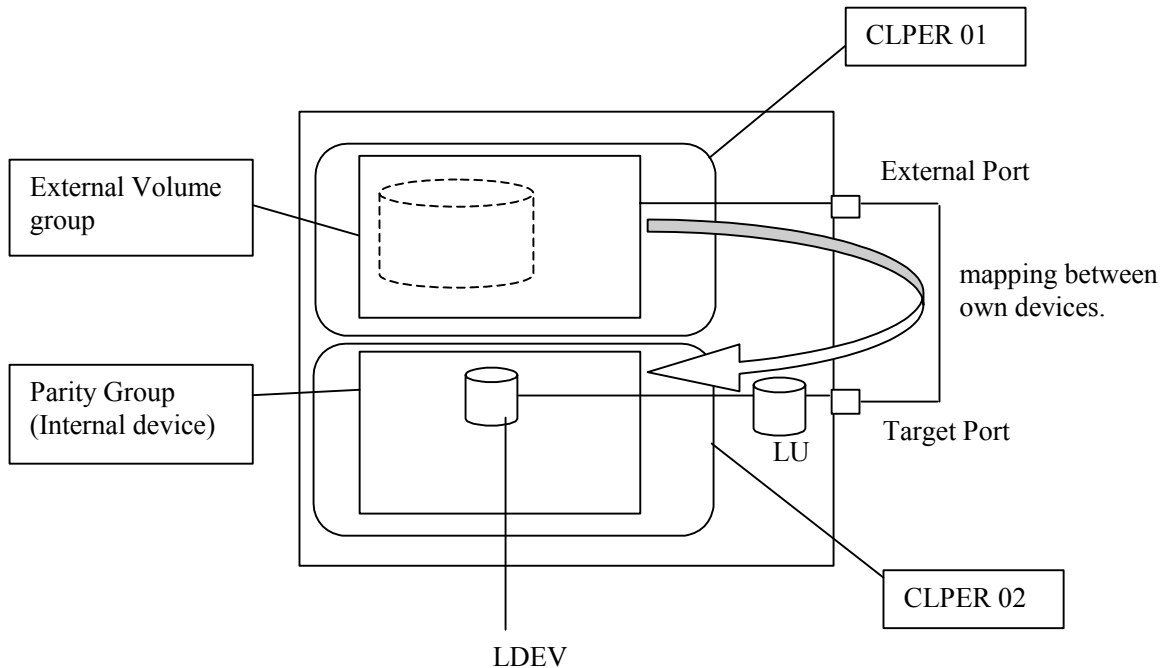
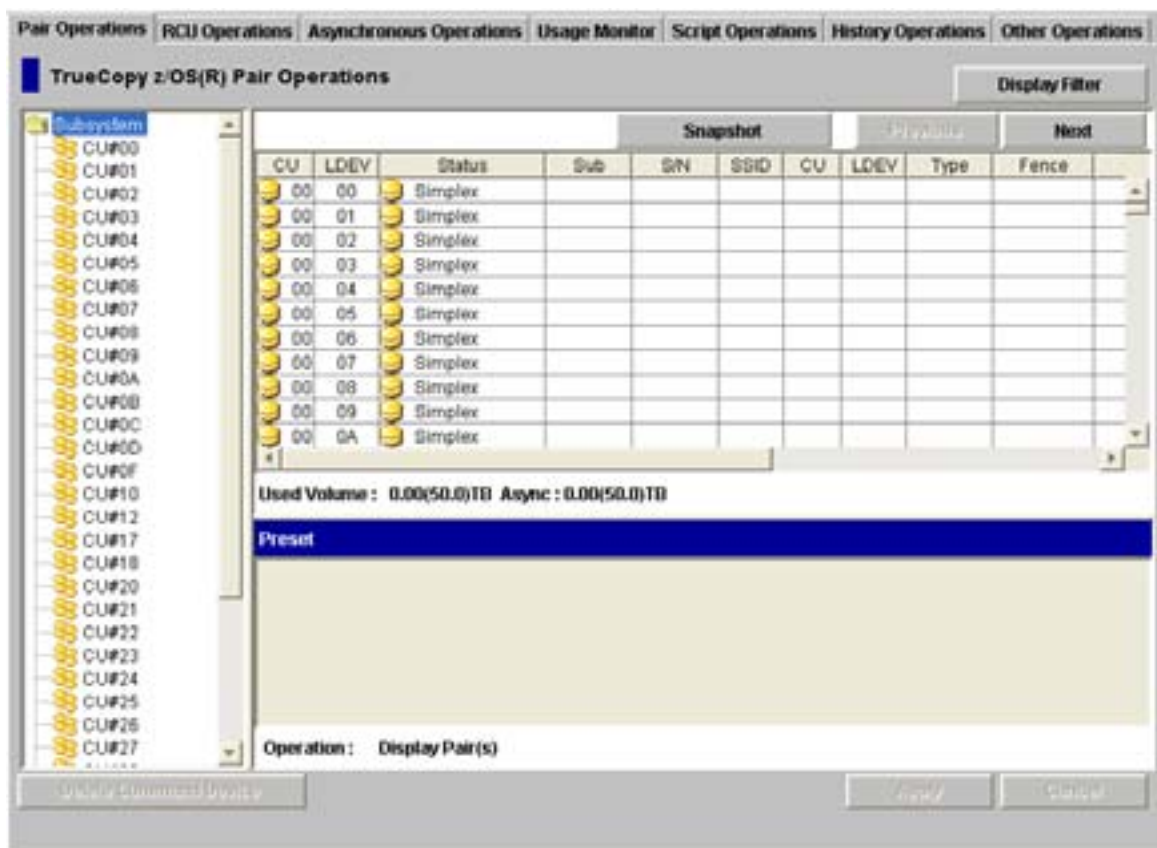


Fig. 3.4-1 For example when mapping between own LU and own external group

3.5 TrueCopy z/OS®



(1) Pair Operations

When the 'TrueCopy z/OS®' window is opened by WebConsole on the SVP, the [Delete Command Device] button is appeared in this window.

- Delete Command Device

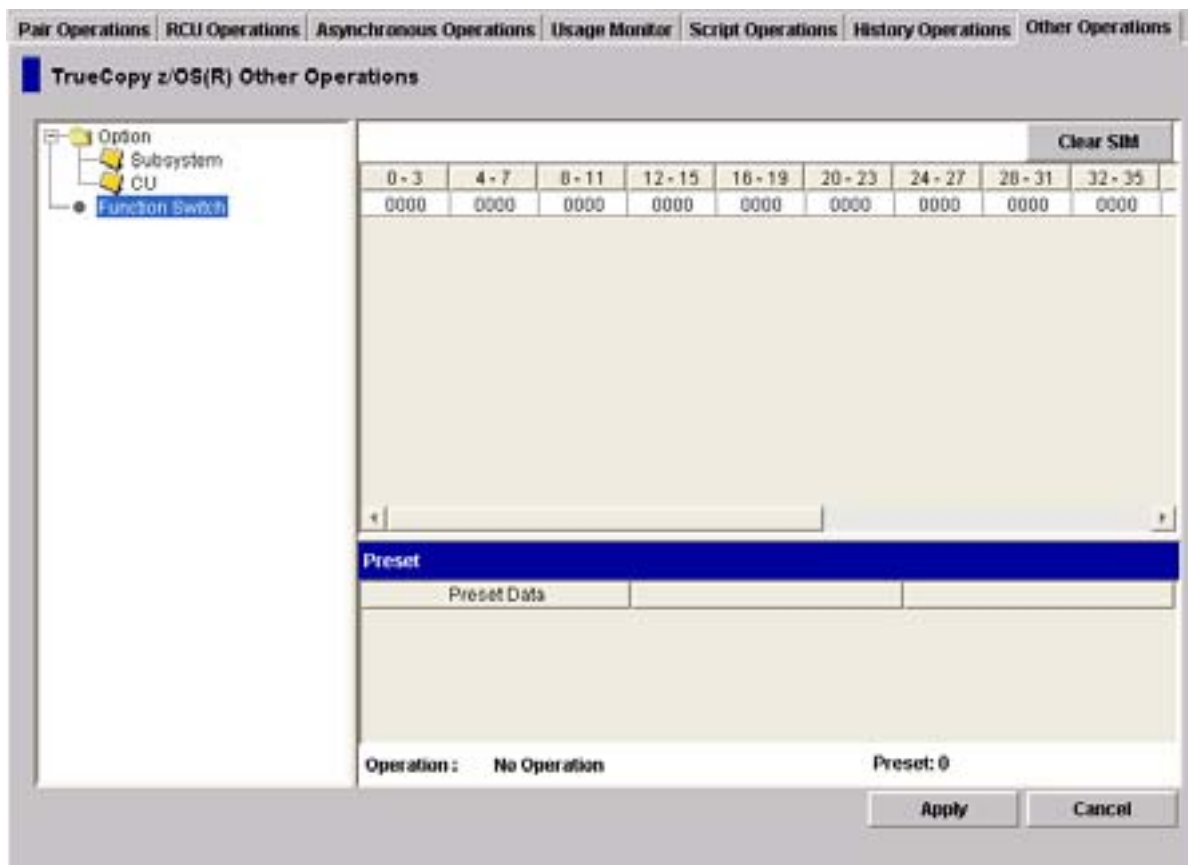
The command device for Business Continuity Manager is deleted in the lump.

Use the button when you want to delete command device for Business Continuity Manager after removed the Business Continuity Manager.

Note 1: All command devices for Business Continuity Manager are deleted by this operation.

Note 2: No information is displayed in the Preset box when click the [Delete Command Device] button. Click the [Apply] button if "Delete Command Device" is displayed in the "Operation:".

Note 3: To find the command device for Business Continuity Manager, use the Basic Information Display. The 'TrueCopy z/OS®' window cannot find the command device for Business Continuity Manager. For more information about the Basic Information Display, see the "Hitachi TagmaStore USP and NSC Storage Navigator User's Guide".



(2) Other Operations

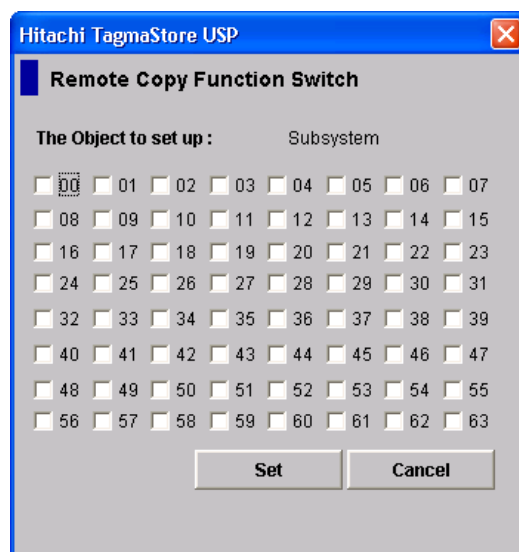
When the 'TrueCopy z/OS®' window is opened by WebConsole on the SVP, the [Function Switch] node appears in the tree of the [Other Operations] window.

- Function Switch

The display of the list changes as shown in the above figure when the function switch node is selected.

Select the list and click the right mouse button, then [Function Switch] menu is displayed.

Select the [Function Switch] menu, then [Remote Copy Function Switch] dialog appears.



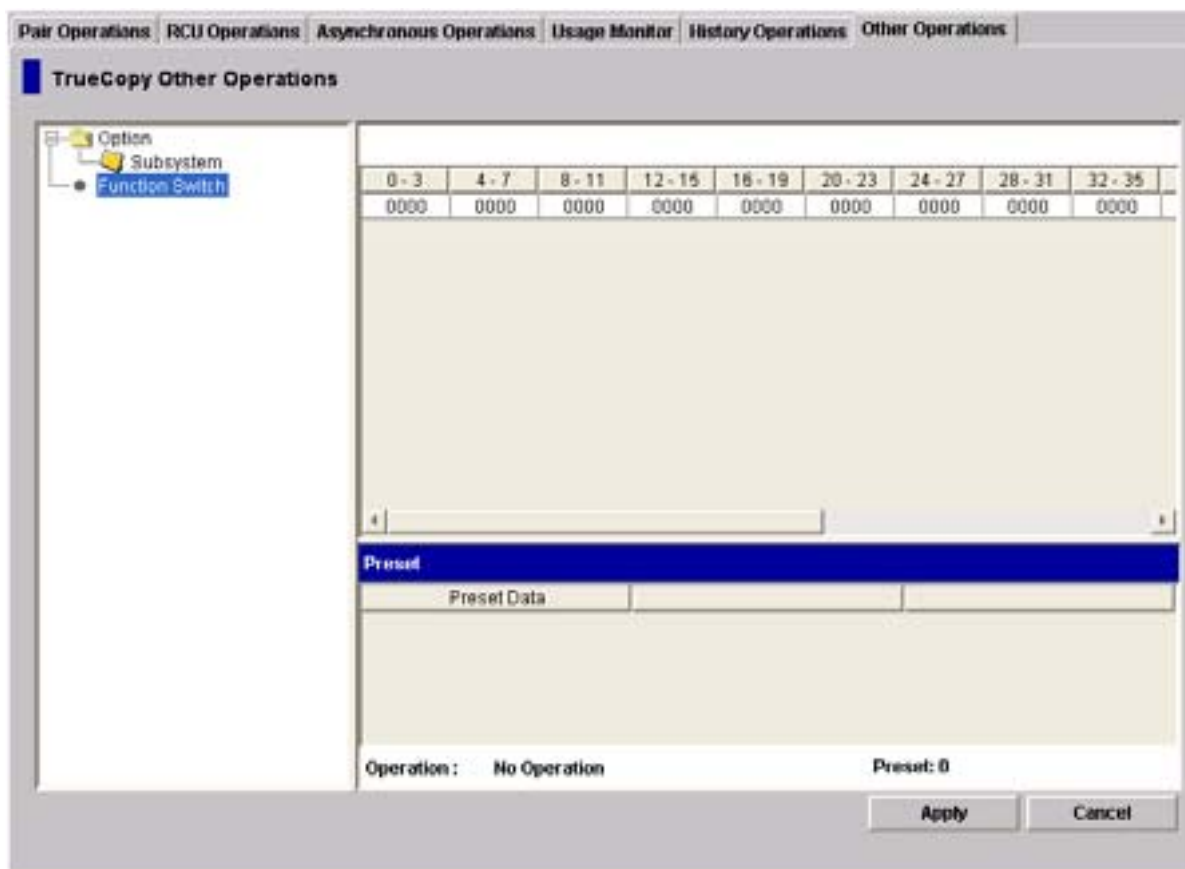
Make the check box turn on or turn off, and select the [Set] button.

Confirm the content of the Preset box, and select the [Apply] button.

Note: Perform the operation only when it is directed by the Technical Support Division.

Note: Please refer to “3.7 Remote Copy Function Switch” for the function allocated in each switch.

3.6 TrueCopy



(1) Other Operations

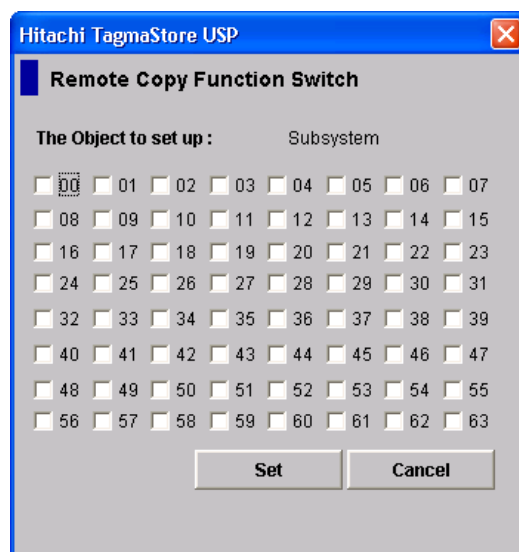
When the 'TrueCopy' window is opened by WebConsole on the SVP, the [Function Switch] node appears in the tree of the [Other Operations] window.

- Function Switch

The display of the list changes as shown in the above figure when the function switch node is selected.

Select the list and click the right mouse button, then [Function Switch] menu is displayed.

Select the [Function Switch] menu, then [Remote Copy Function Switch] dialog appears.



Make the check box turn on or turn off, and select the [Set] button.

Confirm the content of the Preset box, and select the [Apply] button.

Note: Perform the operation only when it is directed by the Technical Support Division.

Note: Please refer to “3.7 Remote Copy Function Switch” for the function allocated in each switch.

3.7 Remote Copy Function Switch

The function allocated in each switch is as follows.




Switch#	Contents
07	SSB of F/M = FB is not reported to HOST.
11	A copy pace is made a maximum 32 Tracks, when “15 Tracks” is selected in the Remote Copy option parameter.
12	When Add Pair or Resume Pair is operated with the Host command, Only M-VOL is set up in the CFW Data option.
15	The path failure threshold values are changed, when the both function switch17 and 15 are ON.
17	The path is blocked when the number of path failures reaches the threshold within a certain period.
18	The path is blocked when the number of link failures reaches the threshold within a certain period
21	When Add Pair or Resume Pair is operated with the PPRC command for DKC Emulation = 2105/2107, 3 Tracks is set up in the Initial Copy Pace option.
23	When System Option Mode 499 is set to ON, I/O multiplicity per CU changes from 4 (default) to 8.
30	The following functions are supported. <ul style="list-style-type: none"> • When the pair from Storage Navigator is formed, the pair is formed with SyncCTG#7F. • When all the connections from MCU-RCU PATH cut, S-VOL that belongs to SyncCTG#7F is suspended.
33	In the cases that a PDCM function of McData ES3232 is being used on MCU-RCU path, when response of LOGIN response is late, path status of MCU is changed to non-normal.

4. Installing SNMP Agent

4.1 Installation Procedure

Make sure that the P.P. of the SNMP API has been installed beforehand.

For the details of the setting, refer to the RAID500 Web Console User's Guide (Basic Version). In this section, a procedure for setting the SNMP is explained simply.

1. Activate WebConsole by pressing the WebConsole button on the SVP.
2. Select the SNMP tab by pressing the  icon in the WebConsole window.
3. Lock the mode selection by pressing the  icon in the WebConsole window.
4. Check off the Extension SNMP.
5. Select the addition of the community by clicking the Community folder with the right mouse button.
6. Since a window for adding a community name is displayed, add a community name.
7. Select Add IP Address by clicking the community name, which is to be entrapped, with the right mouse button.
8. Since the Add IP Address window is displayed, add an IP address.
9. Repeat the above operations as occasion demands.
10. Make entries in the Name, Contact, and Location boxes of System Group.
11. When the entries are completed, register the setting by pressing the Apply button.
12. Unlock the mode selection by pressing the  icon in the WebConsole window.

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

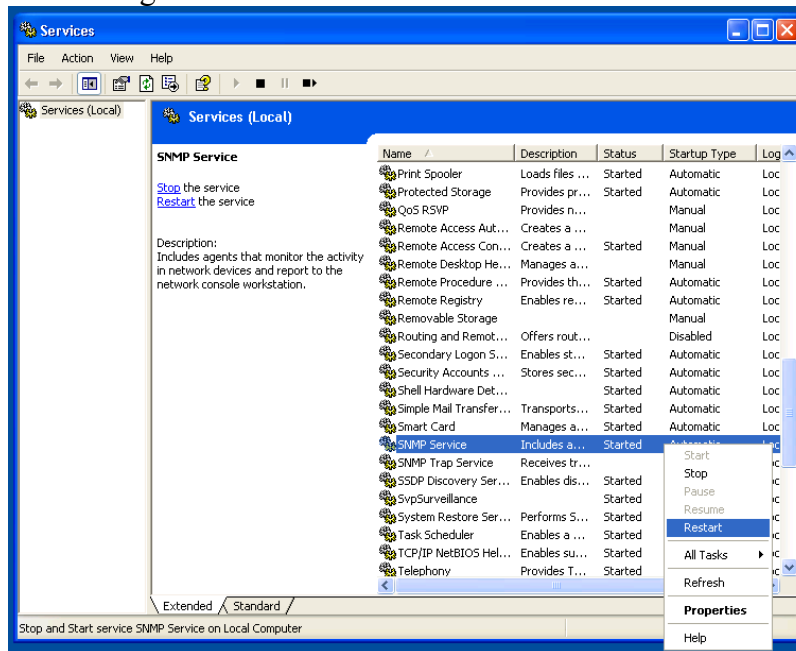
Perform GET/GETNEXT operations of subsystem MIB extensions from the SNMP manager side to a node of the subsystem. If operations cannot do well, set up once again.

(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



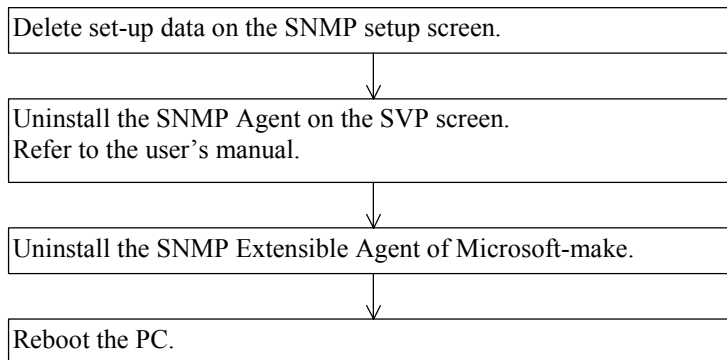
(c) Check a trap log of SVP ColdStart(0) on the SNMP manager side to see if the agent address has been set to the IP address of the customer's LAN.

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 OpenSA (Apache supporting SSL) installation

With this system, 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.

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

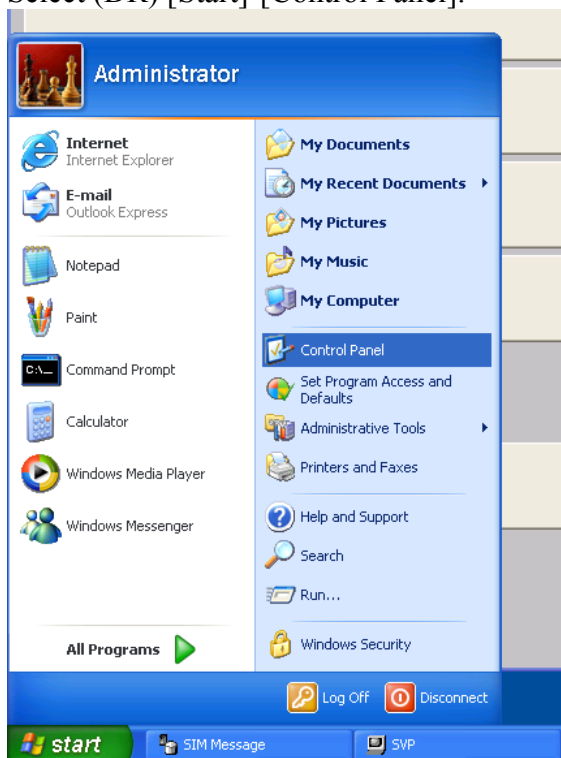
5.1 Uninstallation of Apache

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

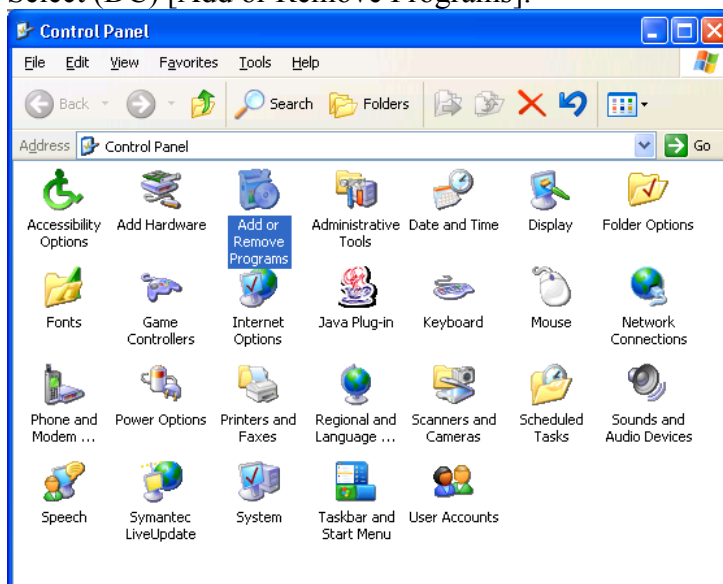
5.1.1 Checking Apache version

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

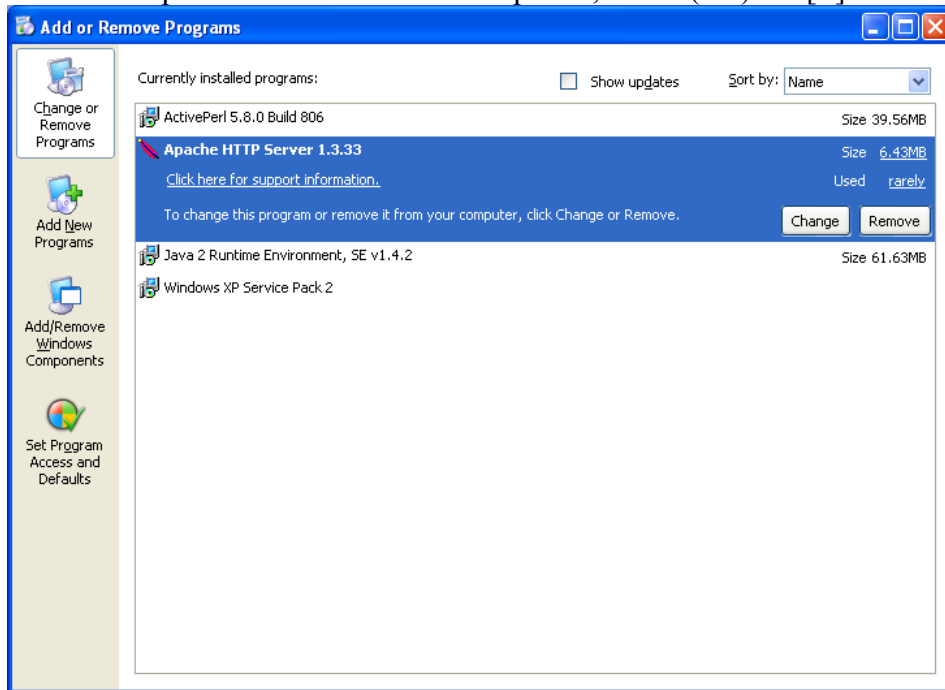
- (1) Select (DR) [Start]-[Control Panel].



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

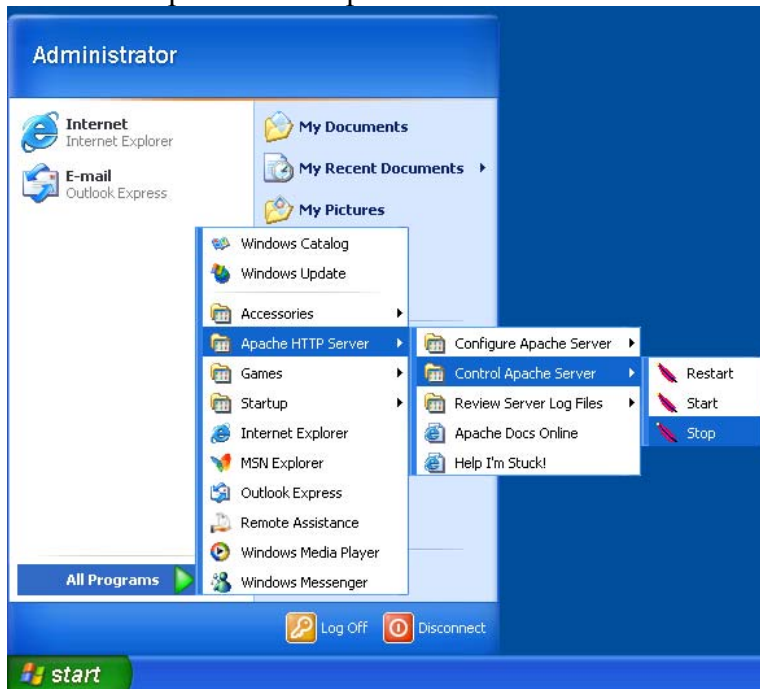


- (3) Check the content of [Currently installed programs] in the [Add or Remove Programs] panel.
- If [Apache HTTP Server 1.3.27] exists, Apache 1.3.27 is installed.
- If [Apache HTTP Server 1.3.33] exists, Apache 1.3.33 is installed.
- If [Apache HTTP Server 2.0.54] exists, Apache 2.0.54 is installed.
- In order to uninstall Apache 1.3.27, go to 5.1.2.
- In order to uninstall Apache 1.3.33, go to 5.1.3.
- In order to uninstall Apache 2.0.54, go to 5.1.4.
- When the Apache version check is completed, select (CL) the [×] button.

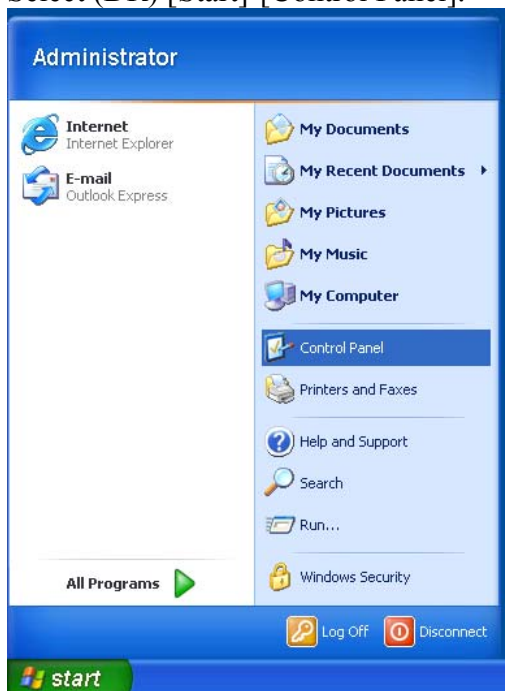


5.1.2 Uninstallation of Apache 1.3.27

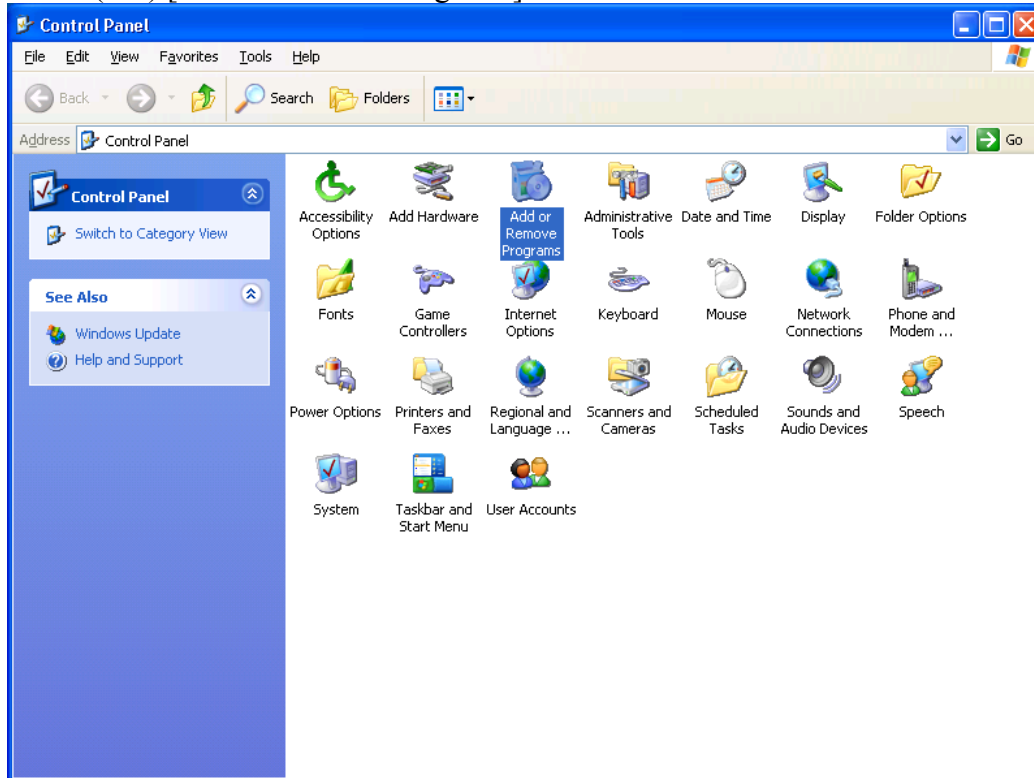
- (1) Select (DR) [Start]-[All Programs]-[Apache HTTP Server]-[Control Apache Server]-[Stop].
Service of Apache will stop.



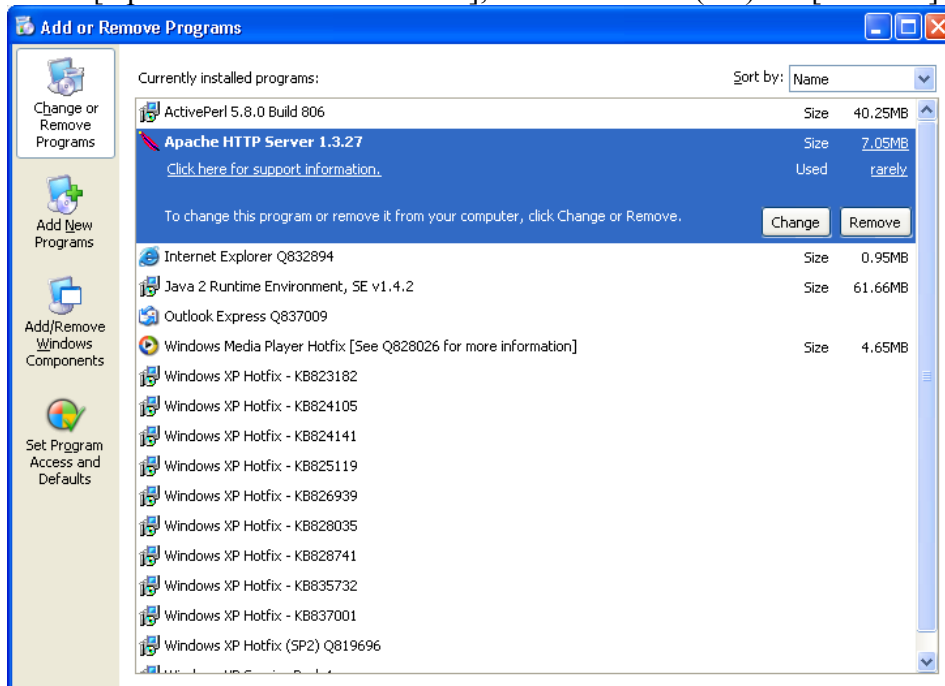
- (2) Select (DR) [Start]-[Control Panel].



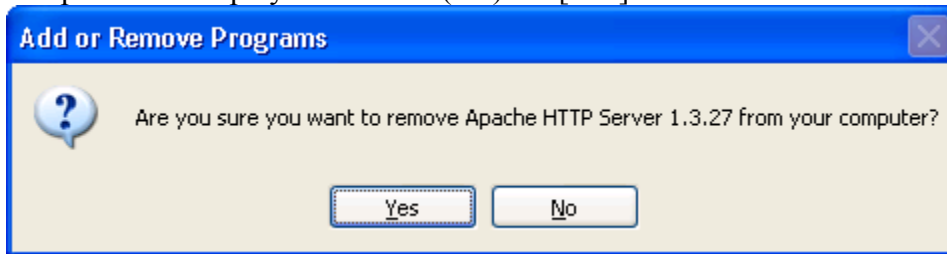
(3) Select (DC) [Add or Remove Programs].



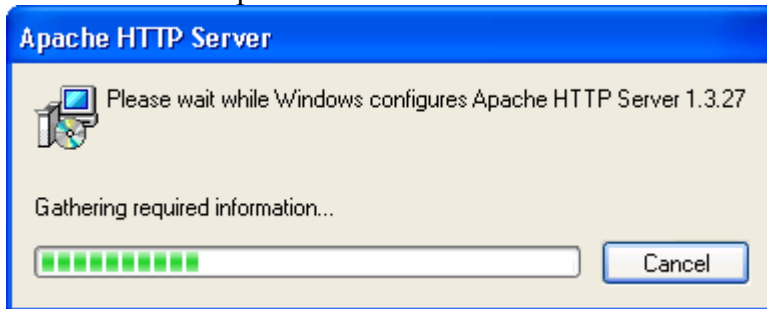
(4) Select [Apache HTTP Server 1.3.27], and then select (CL) the [Remove] button.



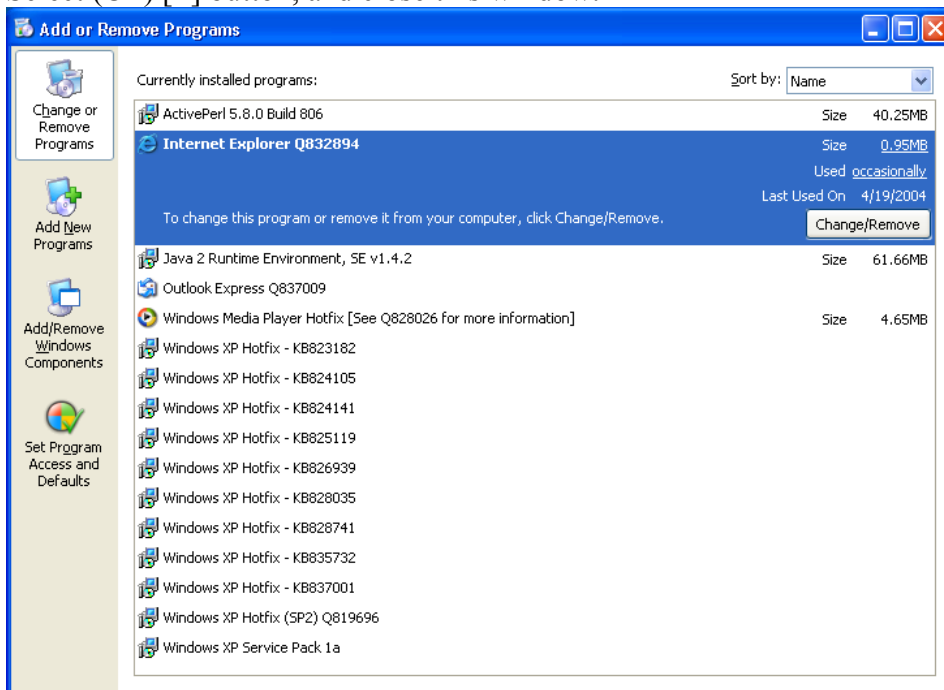
- (5) The message, “Are you sure you want to remove Apache HTTP Server 1.3.27 from your computer?” is displayed. Select (CL) the [Yes] button.



- (6) Uninstallation of Apache 1.3.27 starts.



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

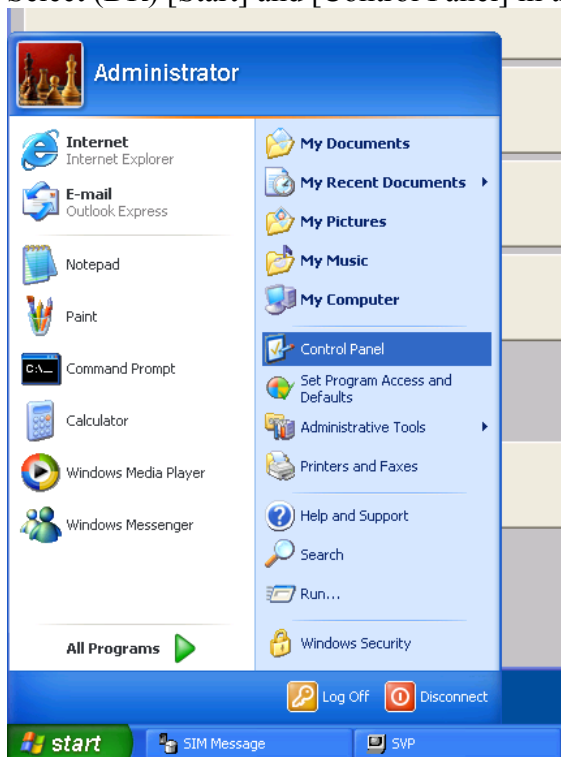


- (8) Go to 5.2.

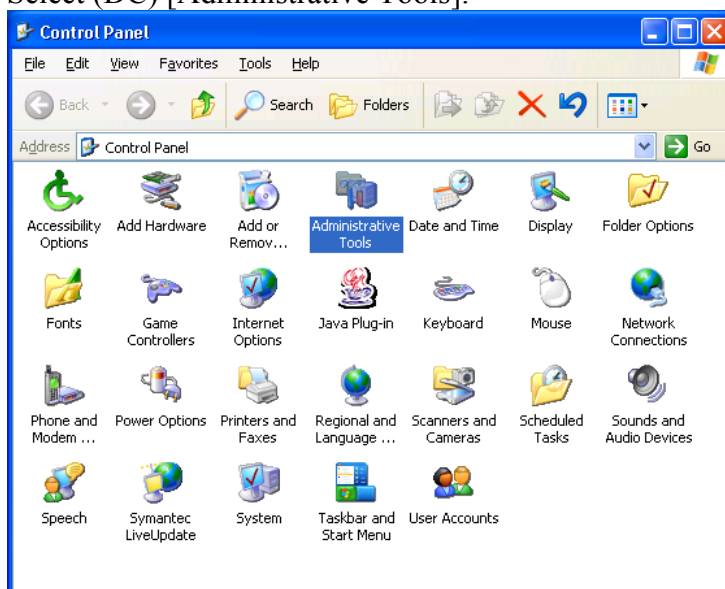
5.1.3 Uninstallation of Apache 1.3.33

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

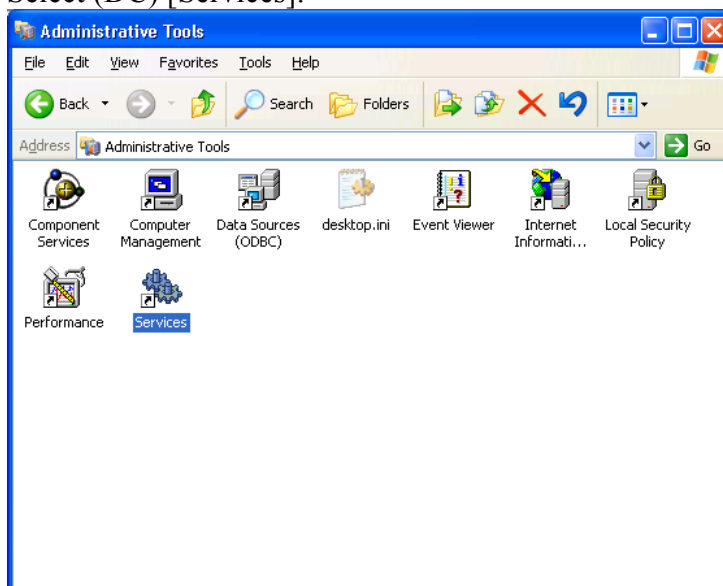
- (1) Select (DR) [Start] and [Control Panel] in this order.



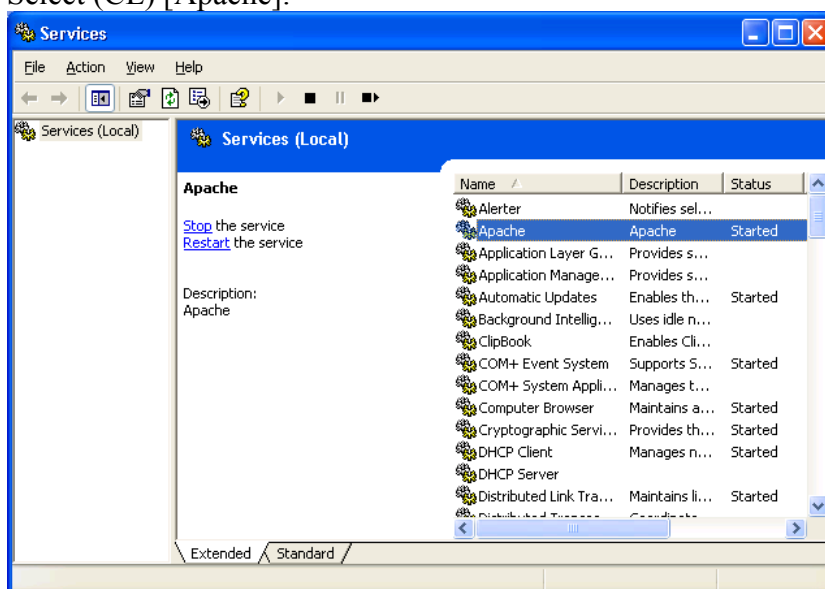
- (2) Select (DC) [Administrative Tools].



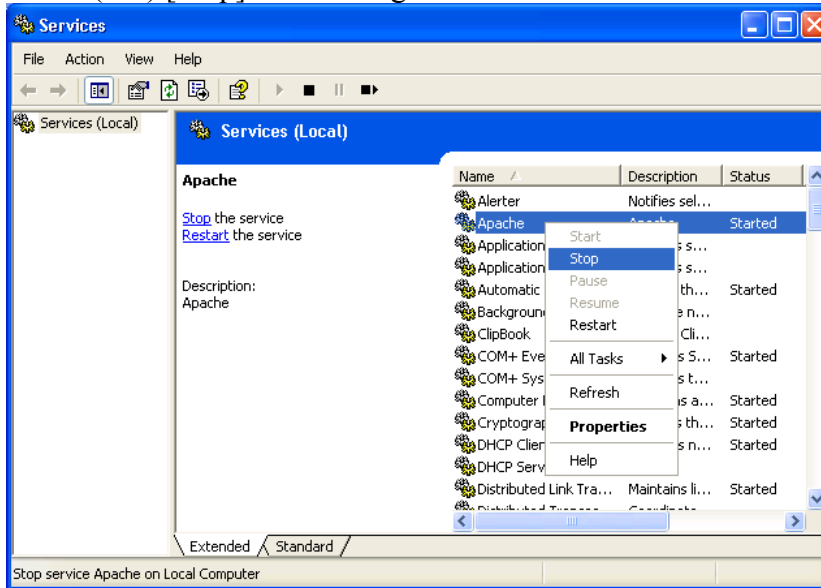
(3) Select (DC) [Services].



(4) Select (CL) [Apache].

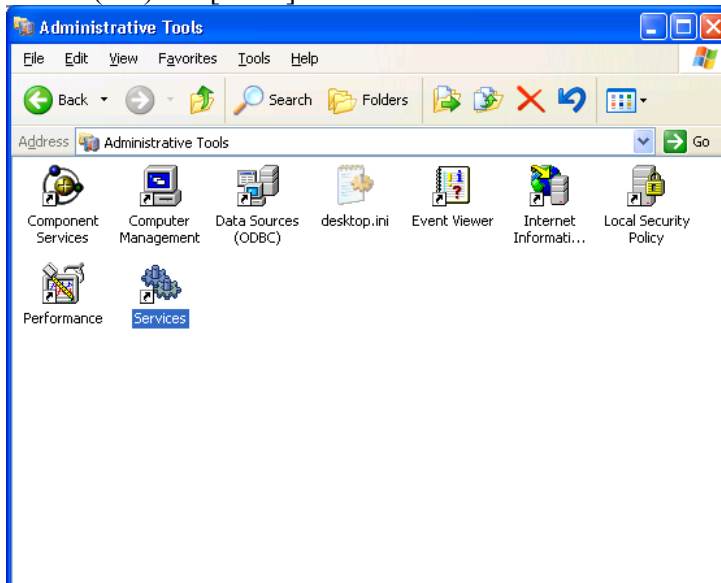


- (5) Select (DR) [Stop] from the right button menu.

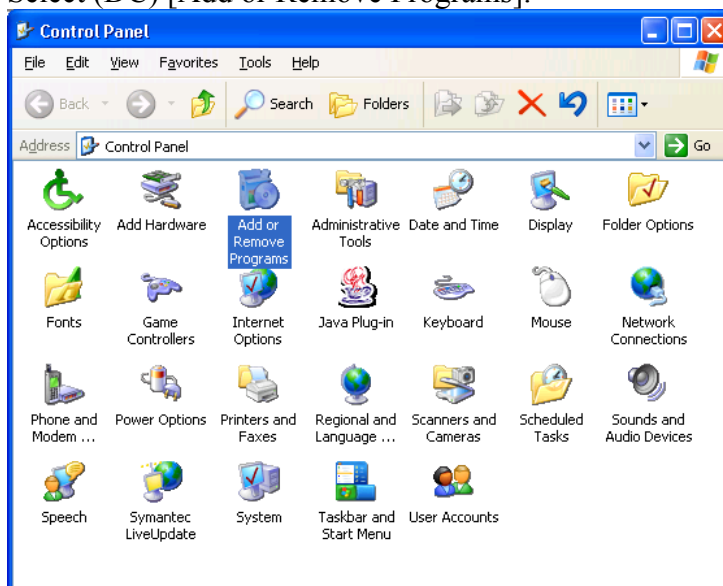


- (6) Close the 'Services' window by selecting (CL) the [×] button.

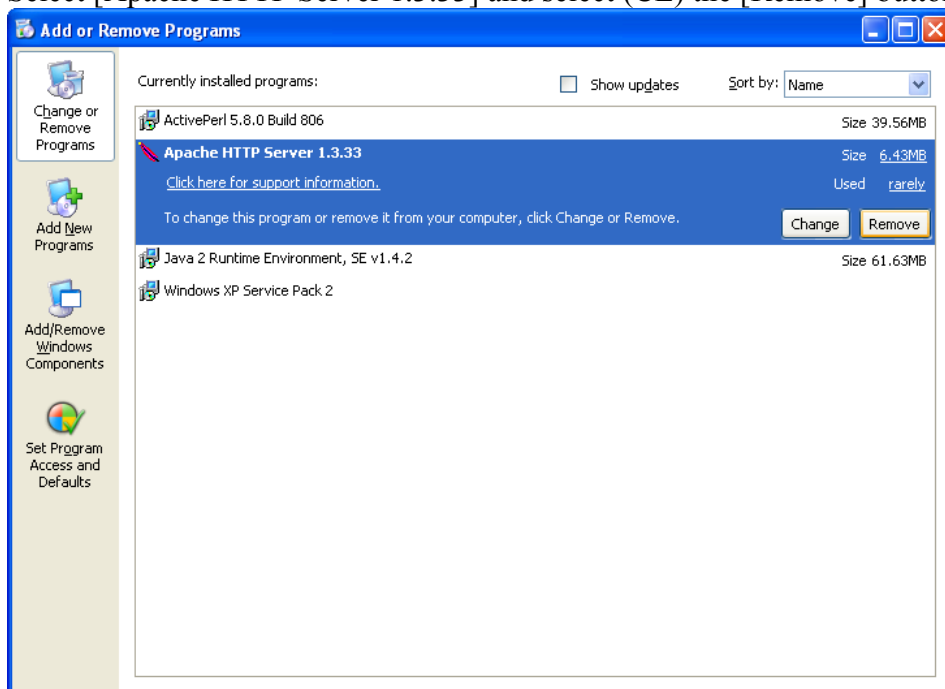
- (7) Select (CL) the [Back] button.



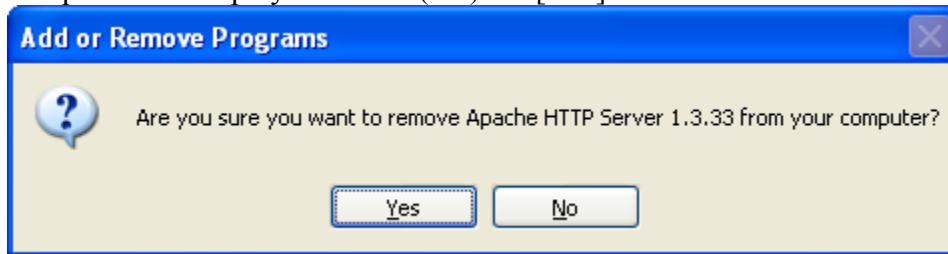
(8) Select (DC) [Add or Remove Programs].



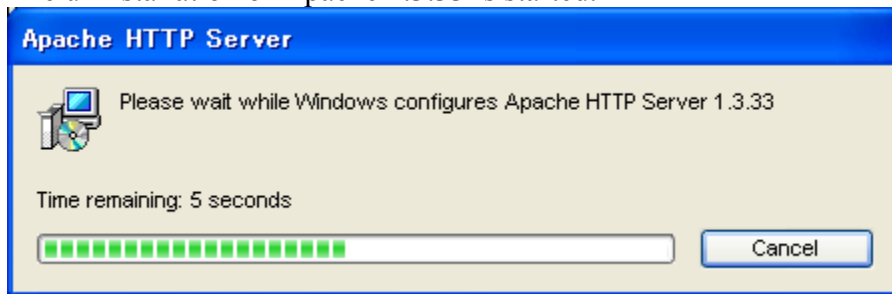
(9) Select [Apache HTTP Server 1.3.33] and select (CL) the [Remove] button.



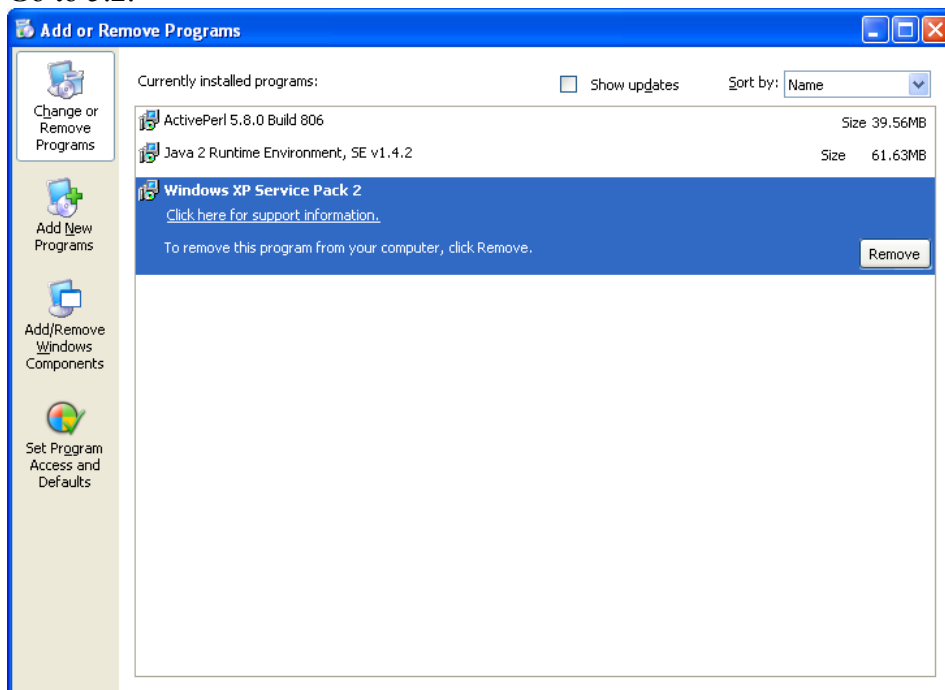
- (10) A message, “Are you sure you want to remove Apache HTTP Server 1.3.33 from your computer?” is displayed. Select (CL) the [Yes] button.



- (11) The uninstallation of Apache 1.3.33 is started.

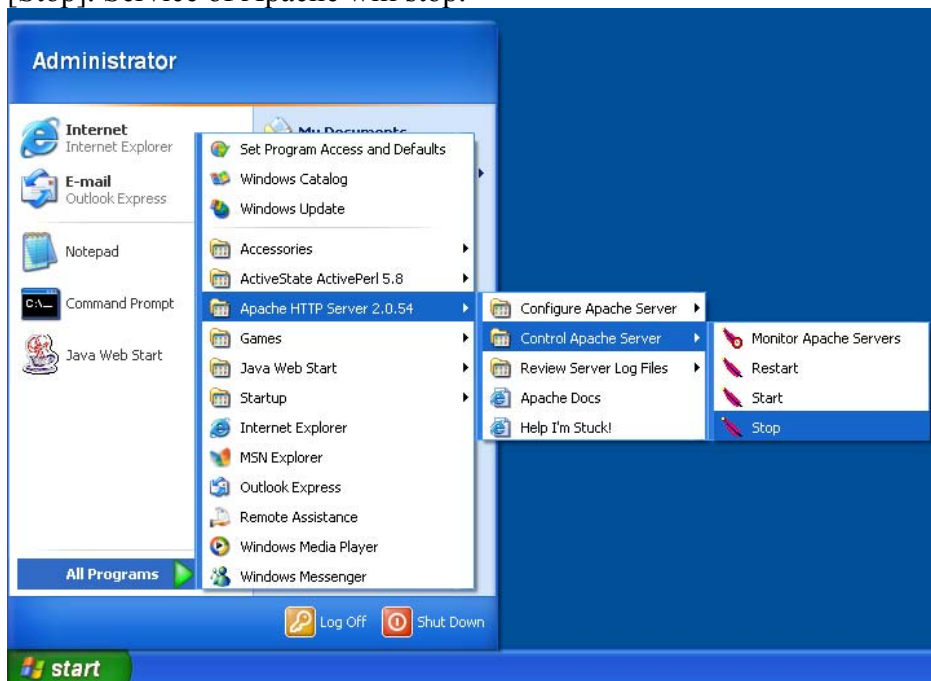


- (12) The [Apache HTTP Server 1.3.33] is removed from the ‘Add or Remove Programs’ panel. Close the panel by selecting (CL) the [×] button.
Go to 5.2.

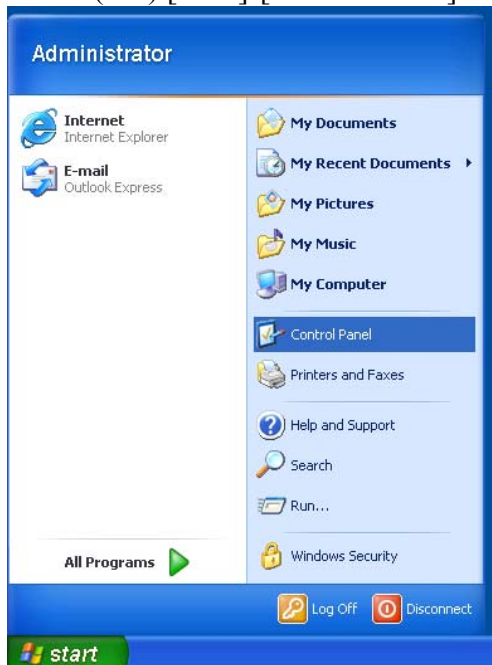


5.1.4 Uninstallation of Apache 2.0.54

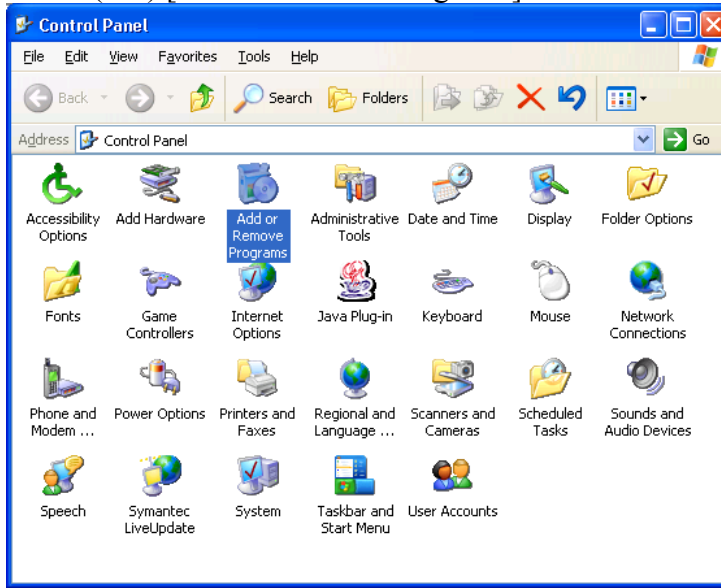
- (1) Select (DR) [Start]-[All Programs]-[Apache HTTP Server 2.0.54]-[Control Apache Server]-[Stop]. Service of Apache will stop.



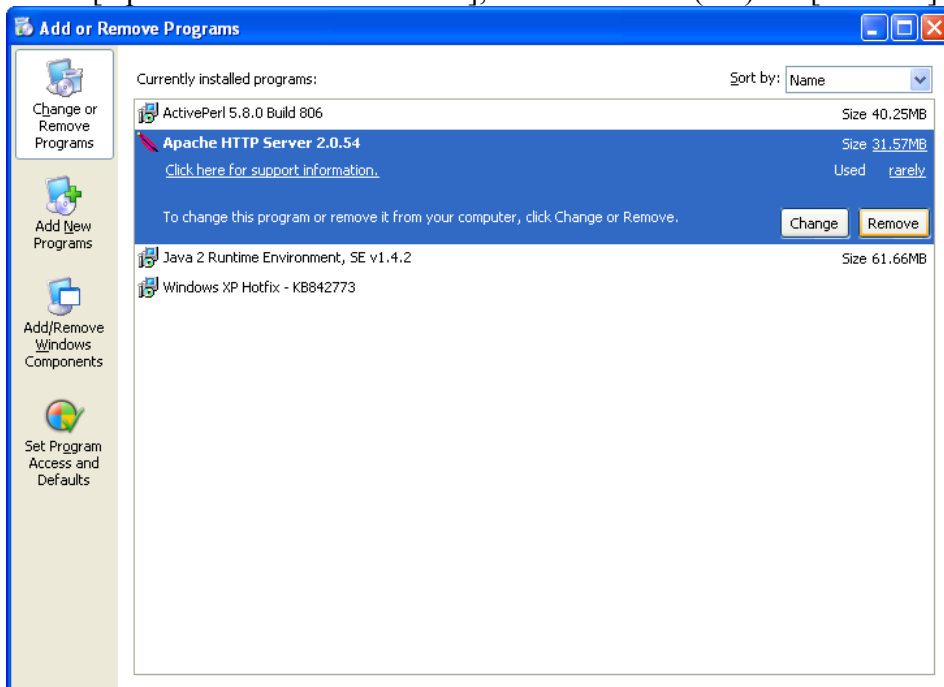
- (2) Select (DR) [Start]-[Control Panel].



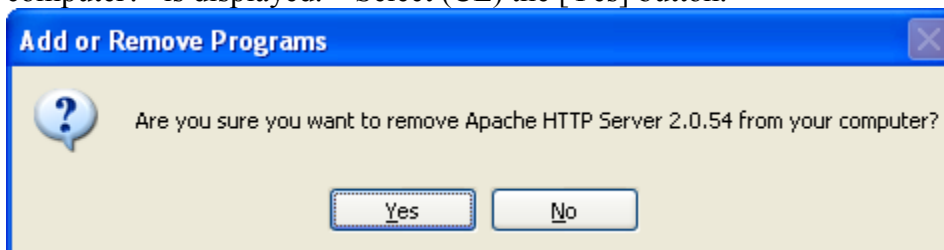
- (3) Select (DC) [Add or Remove Programs].



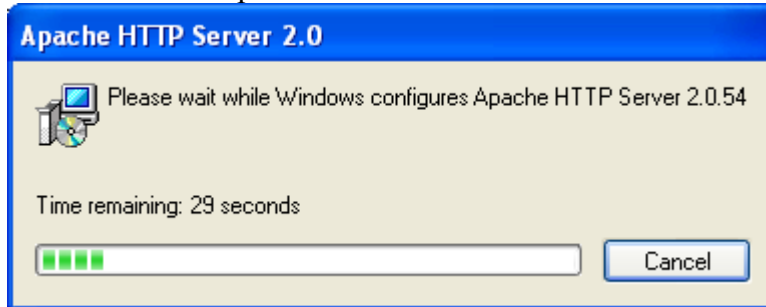
- (4) Select [Apache HTTP Server 2.0.54], and then select (CL) the [Remove] button.



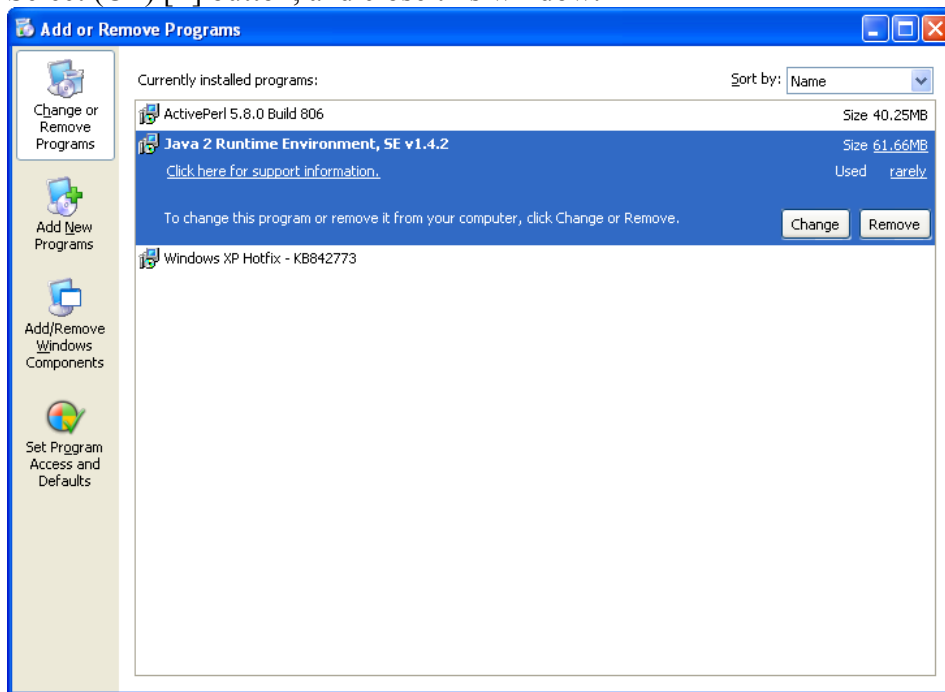
- (5) The message, “Are you sure you want to remove Apache HTTP Server 2.0.54 from your computer?” is displayed. Select (CL) the [Yes] button.



- (6) Uninstallation of Apache 2.0.54 starts.



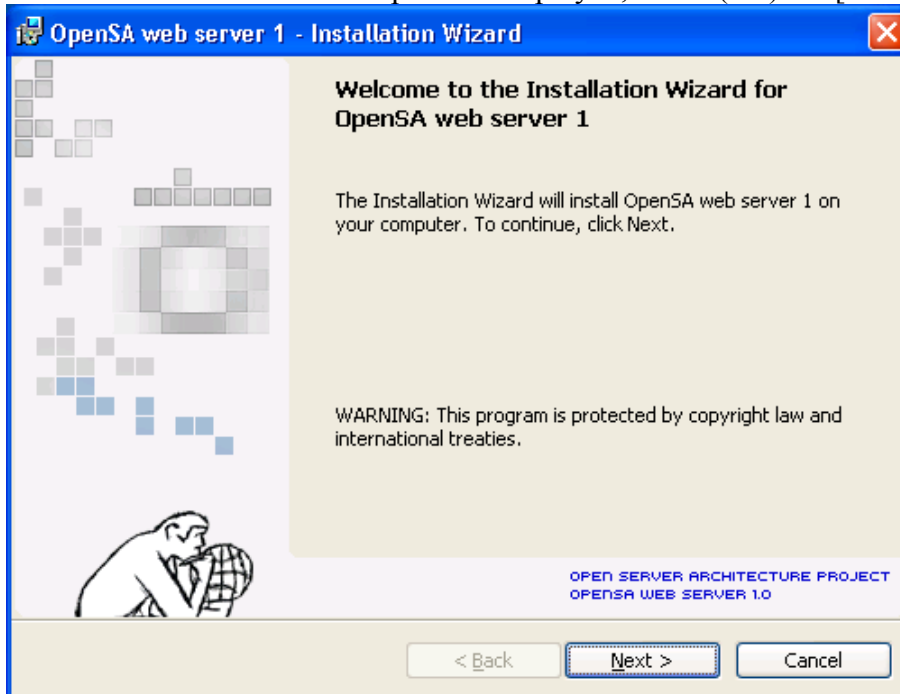
- (7) [Apache HTTP Server 2.0.54] is removed from the [Add or Remove Programs] panel. Select (CL) [X] button, and close this window.



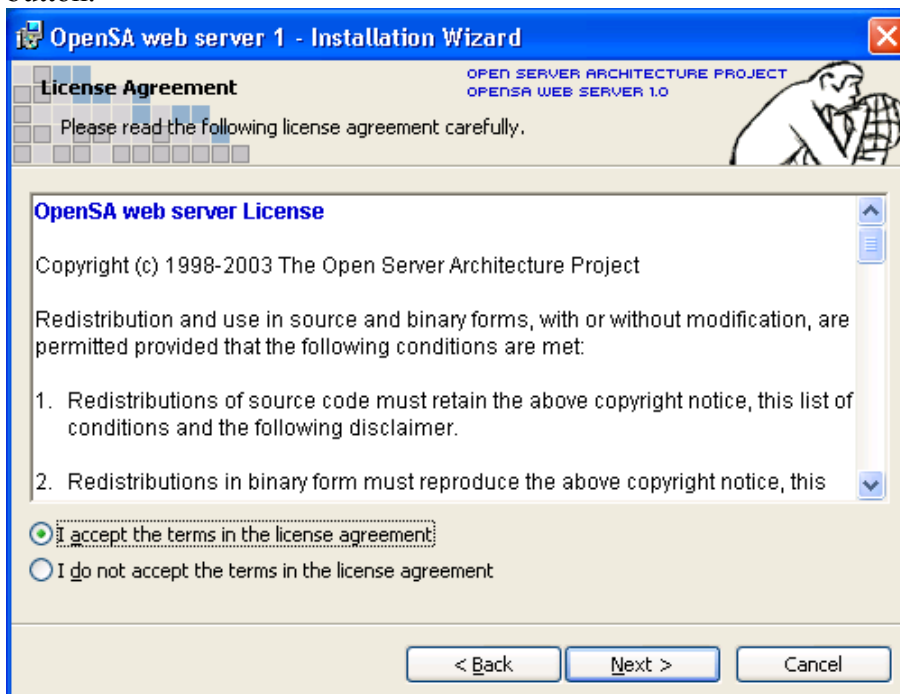
- (8) Select (DR) [Start]-[Run...].
Enter "delApacheConf.bat" and press the [OK] button.
Go to 5.2.

5.2 Installation of OpenSA

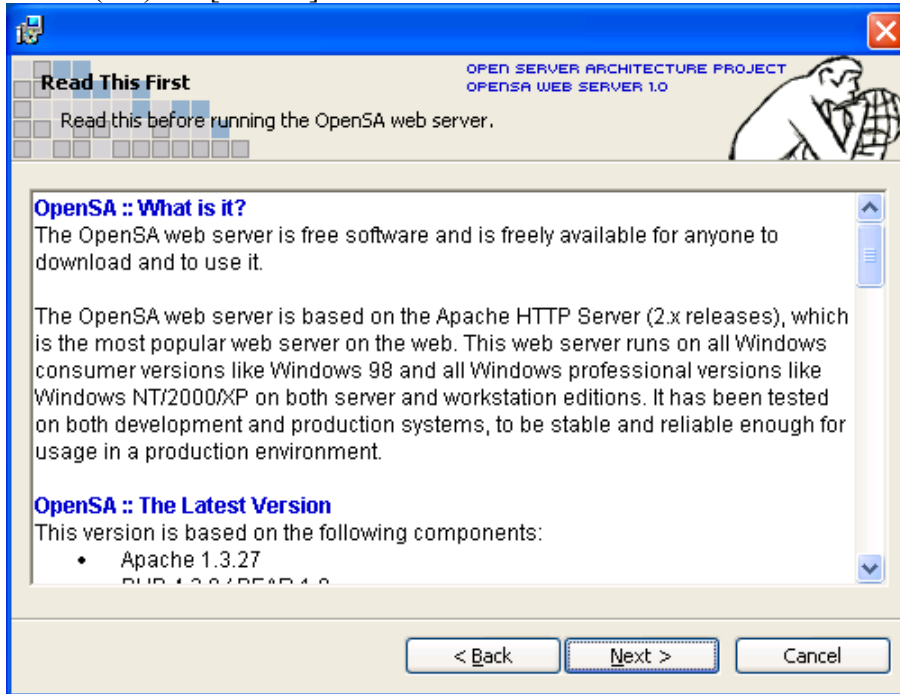
- (1) Insert the CD-ROM of the Host P.P. to the CD-ROM drive.
Select (DR) [Start]-[Run...].
Enter “e:\program\opensa\opensa1.0.5\opensa_1.0.5.msi” and press the [OK] button.
When the Installation Wizard panel is displayed, select (CL) the [Next >] button.



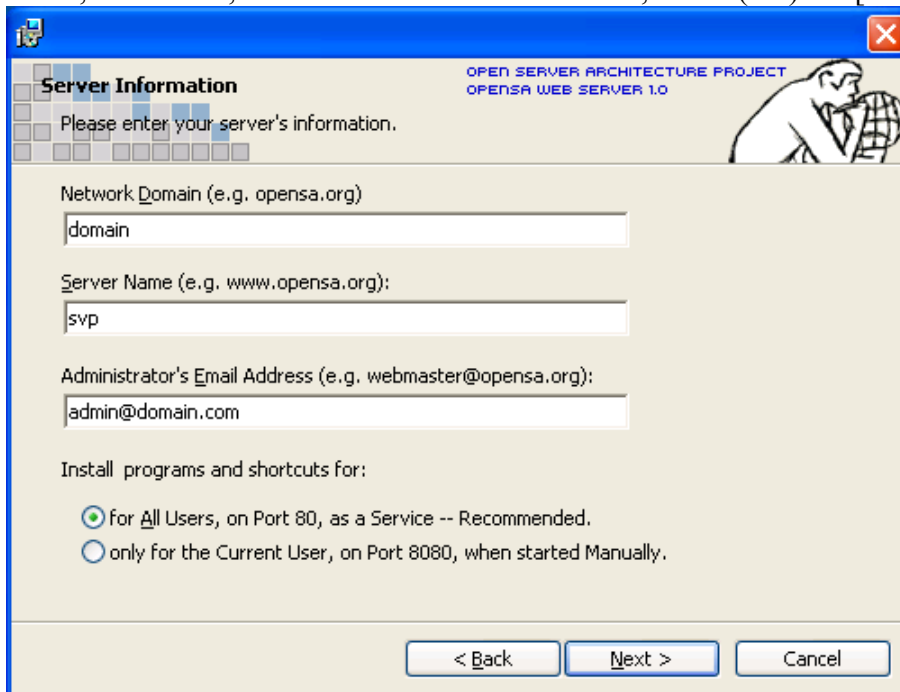
- (2) After selecting (CL) “I accept the terms in the license agreement”, select (CL) the [Next >] button.



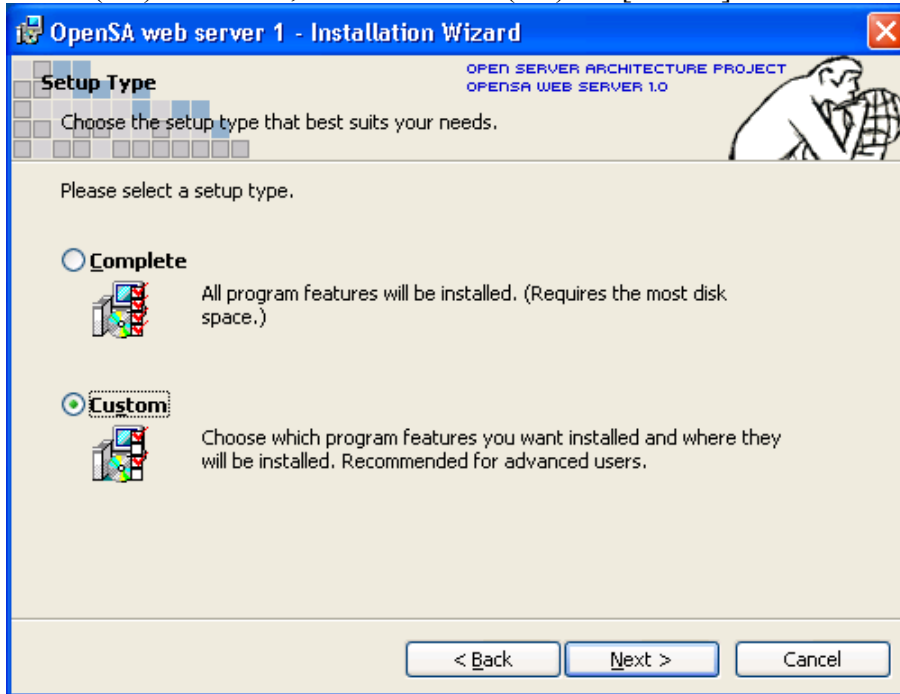
- (3) Select (CL) the [Next >] button.



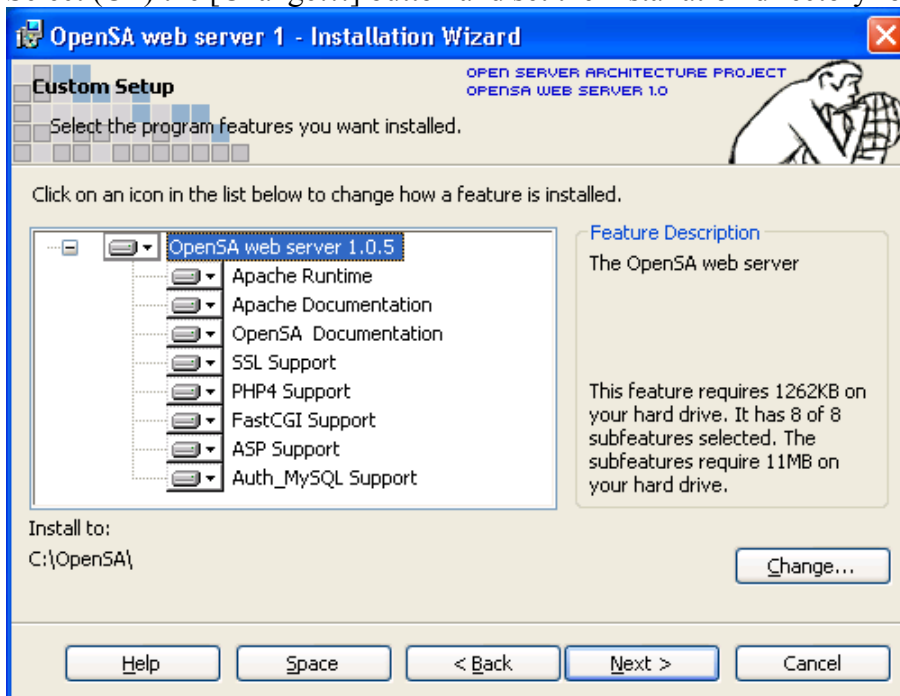
- (4) Enter “domain” to the Network Domain field, “svp” to the Server Name field, and “admin@domain.com” to the Administrator’s Email Address field. After selecting “for All Users, on Port 80, as a Service -- Recommended”, select (CL) the [Next >] button.



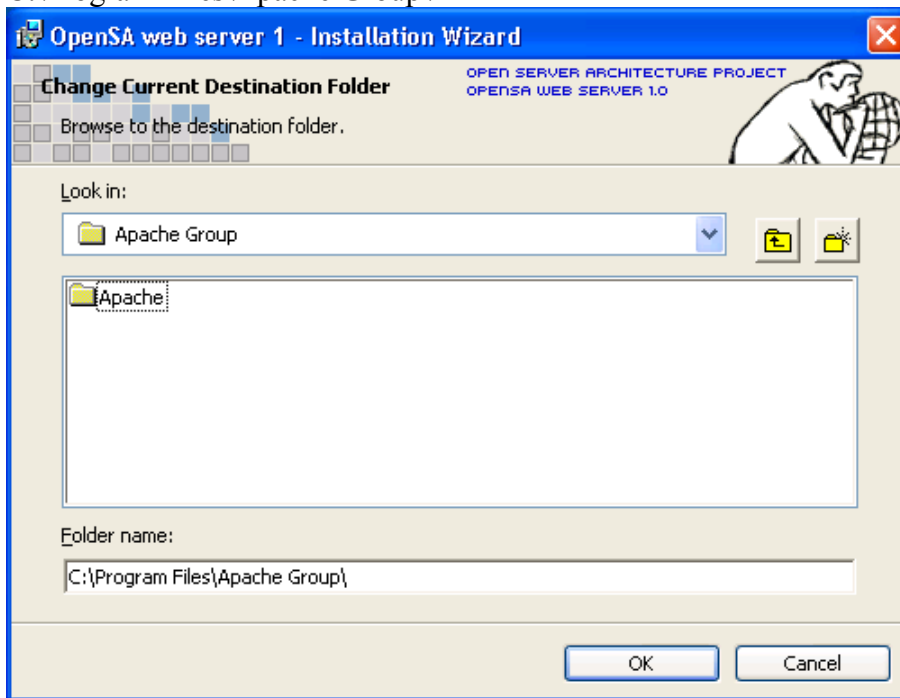
- (5) Select (CL) “Custom”, and then select (CL) the [Next >] button.



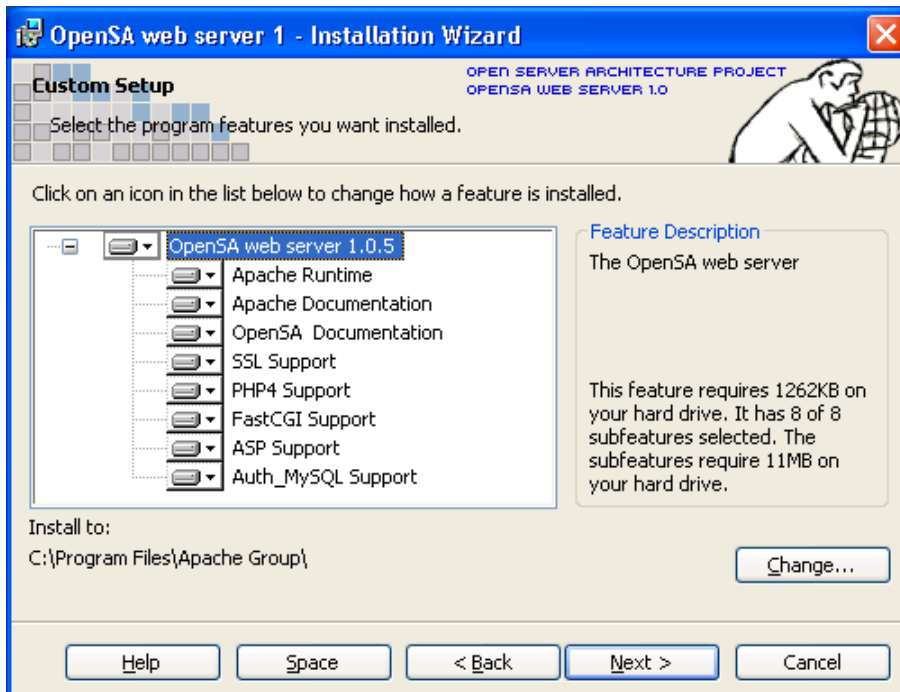
- (6) Select (CL) the [Change...] button and set the installation directory for Apache.



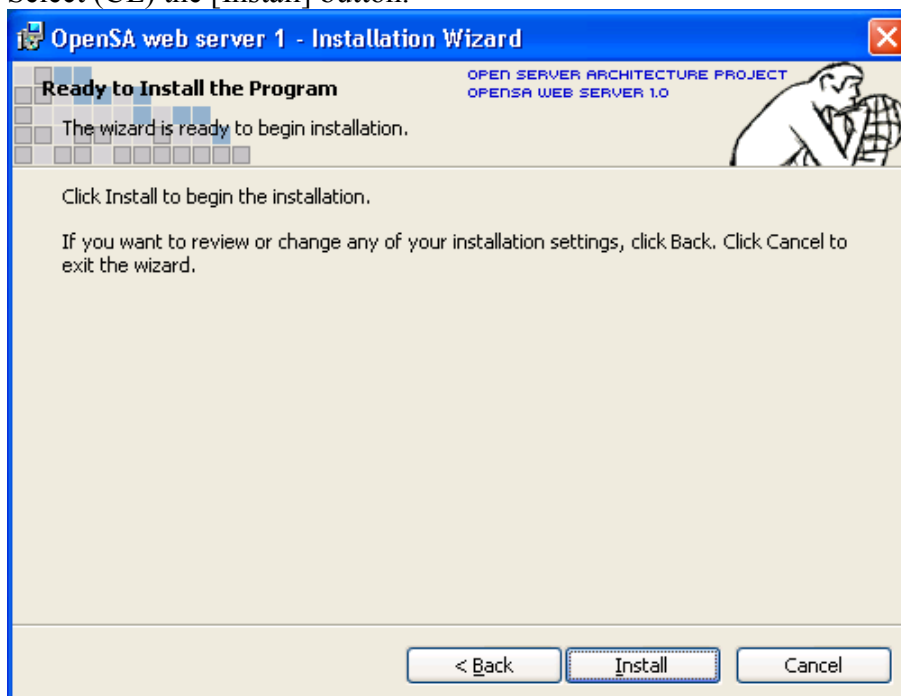
- (7) Specify the installation directory as follows, and select (CL) the [OK] button.
C:\Program Files\Apache Group\



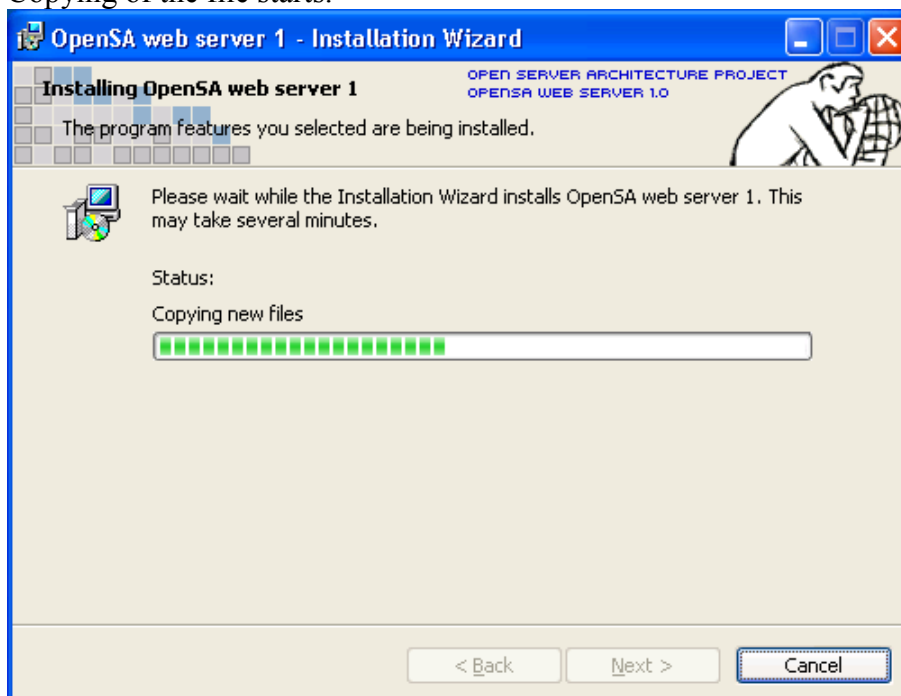
- (8) Check that “Install to:” is “C:\Program Files\Apache Group\”, and select (CL) the [Next >] button.



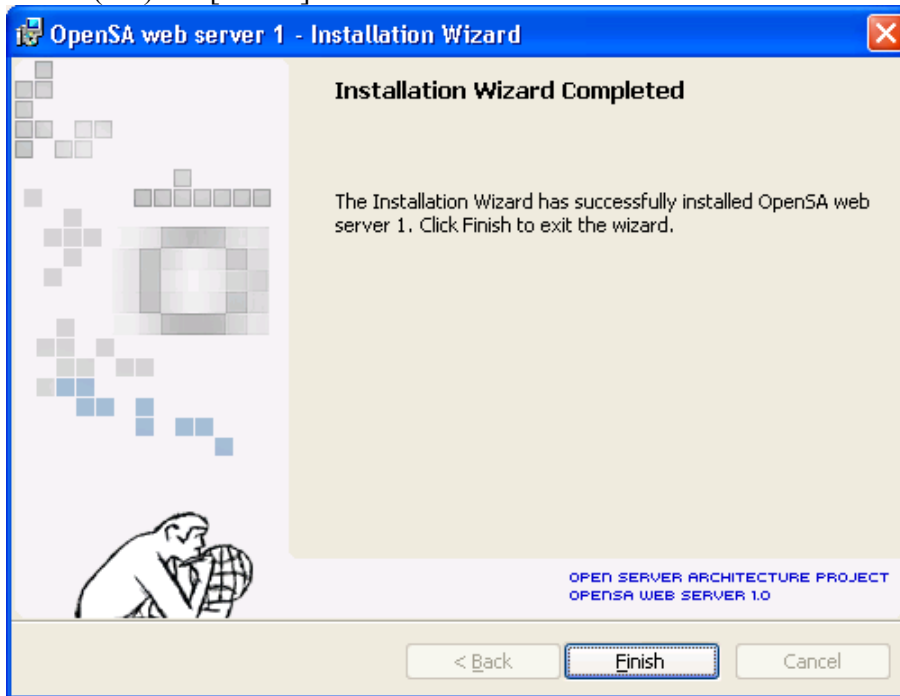
- (9) Select (CL) the [Install] button.



- (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:\program\opensa\opensa1.0.5\sslinstall.bat ” and press the [OK] button. When the following window is displayed, press the [Enter] key.

```
C:\WINDOWS\system32\cmd.exe

E:\program\opensa\opensa1.0.5>perl install.pl

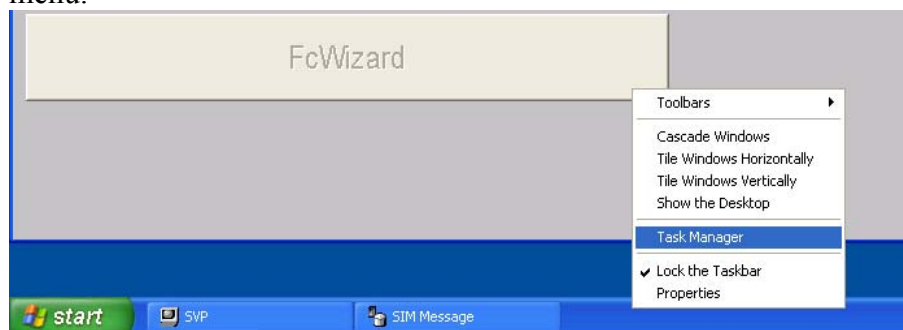
E:\program\opensa\opensa1.0.5>xcopy /E /Y conf500 "c:\Program Files\Apache Group
\Apache\conf"
conf500\httpd.conf
conf500\ssl.crt\server.crt
conf500\ssl.key\server.key
3 File(s) copied

E:\program\opensa\opensa1.0.5>copy ..\openssl\*. * "c:\Program Files\Apache Group
\Apache\openssl\"
..\openssl\libeay32.dll
..\openssl\openssl.cnf
..\openssl\openssl.exe
..\openssl\ssleay32.dll
4 file(s) copied.
```

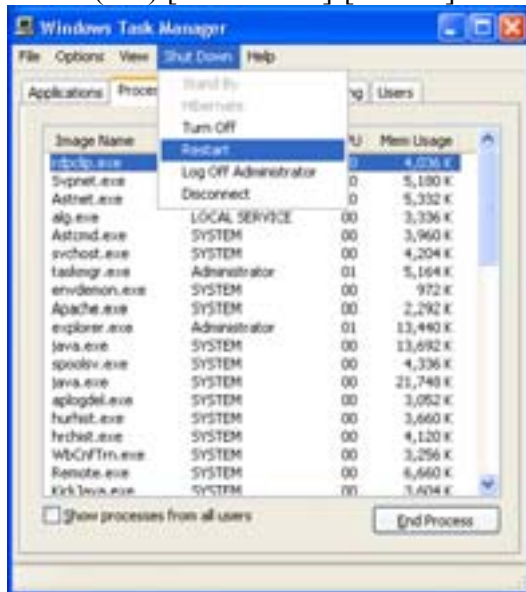

- (13) When Windows starts, select (DR) [Start]-[All Programs]-[OpenSA web server 1]-[Services]-[Start Service].



- (14) Click the right mouse button on Task bar, and select (CL) [Task Manager] of the displayed menu.



(15) Select (DR) [Shut Down]-[Restart].



(16) The SVP will be rebooted. After waiting for several minutes, reconnect the console PC to the SVP.

(17) Reboot SVP again in the procedure of (14) ~ (15).

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

5.3 Uninstallation of OpenSA

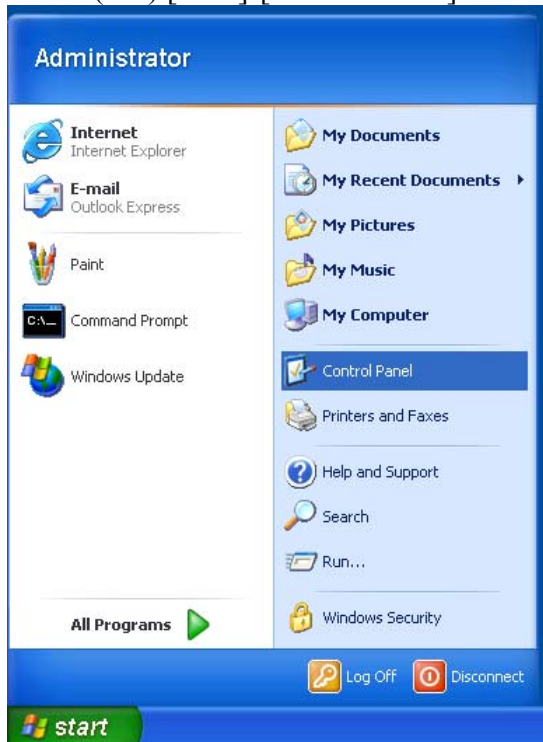
- (1) Select (DR) [Start]-[All Programs]-[OpenSA web server 1]-[Services]-[Stop Service].



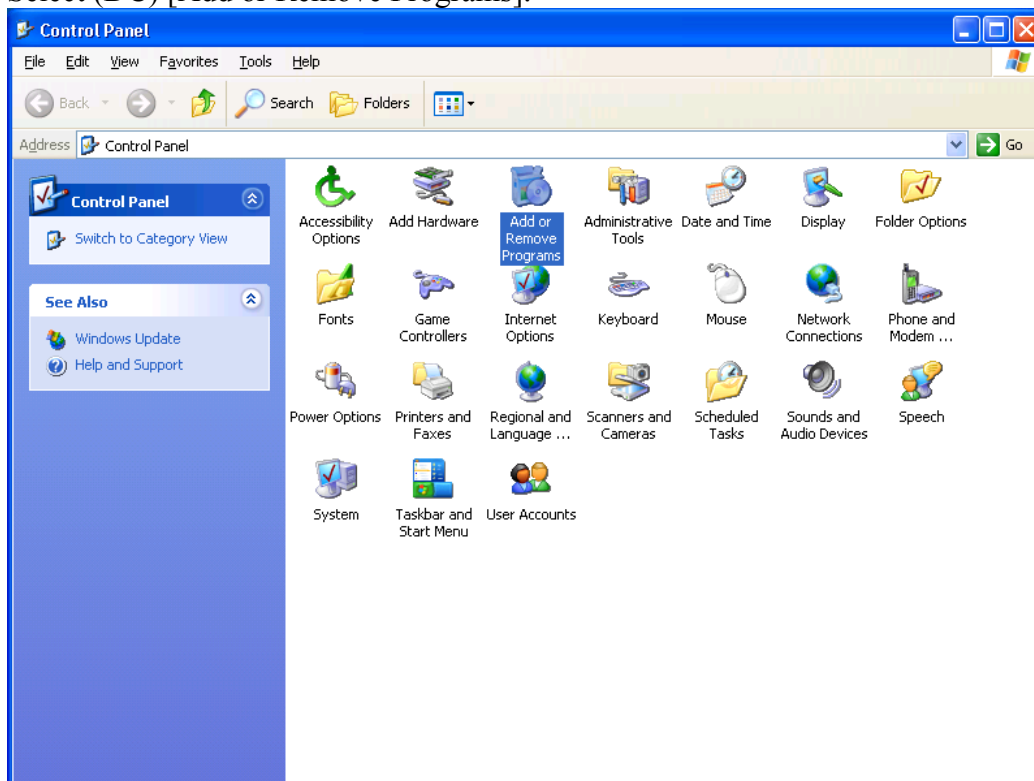
- (2) Select (DR) [Start]-[All Programs]-[OpenSA web server 1]-[Services]-[Remove Service].



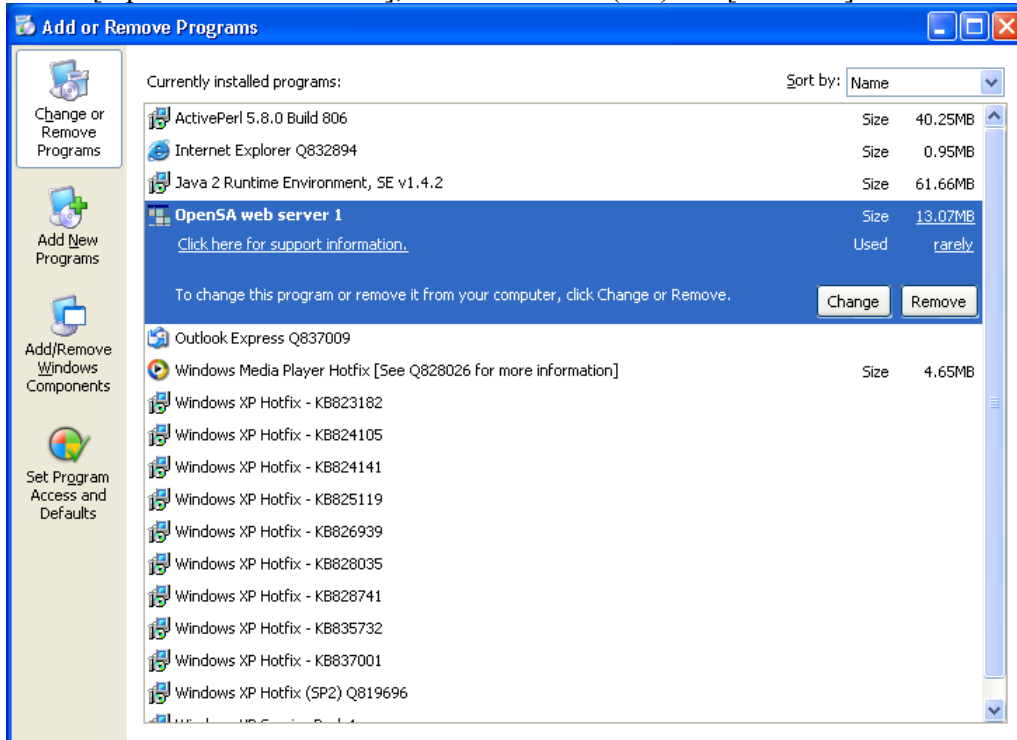
(3) Select (DR) [Start]-[Control Panel].



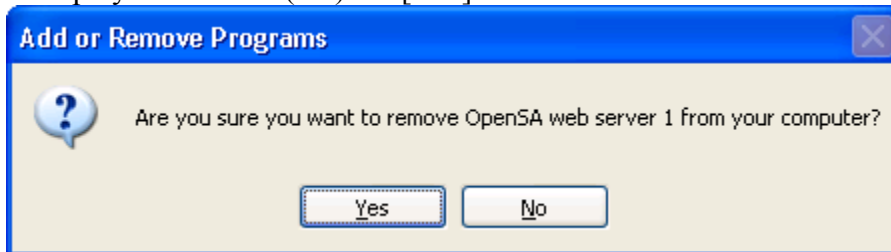
(4) Select (DC) [Add or Remove Programs].



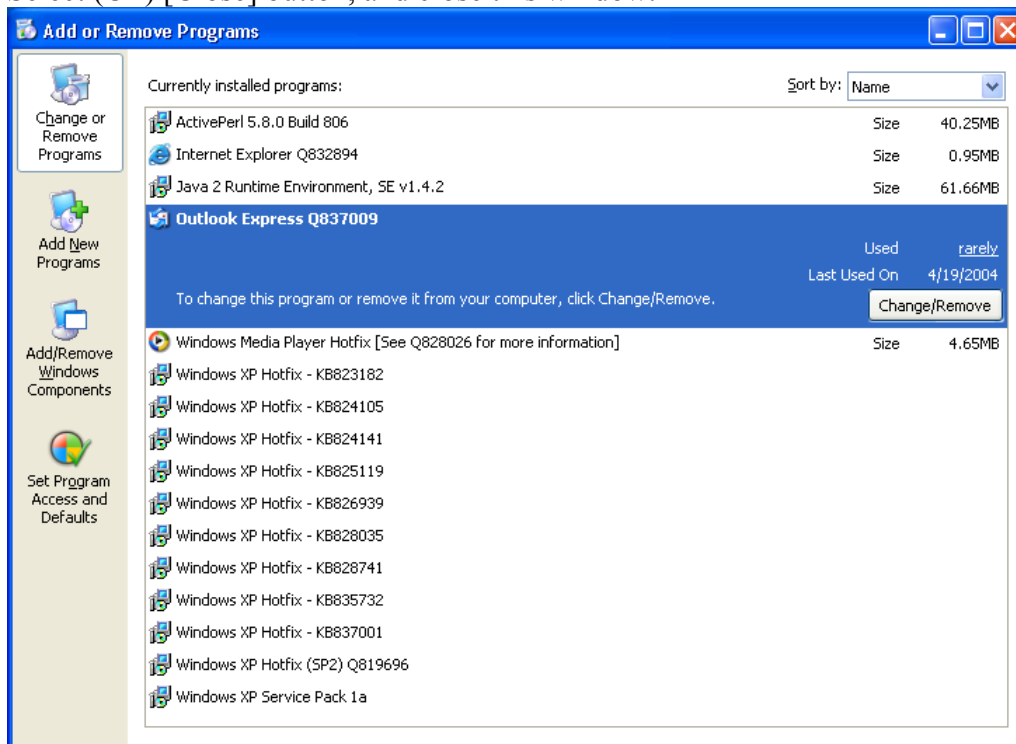
- (5) Select [OpenSA web server 1], and then select (CL) the [Remove] button.



- (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 or Remove Programs] panel.
Select (CL) [Close] button, and close this window.



- (8) Select (DR) [Start]-[Run...].
Enter “delApacheConf.bat” and press the [OK] button.

6. Procedure of Apache 1.3.33 installation

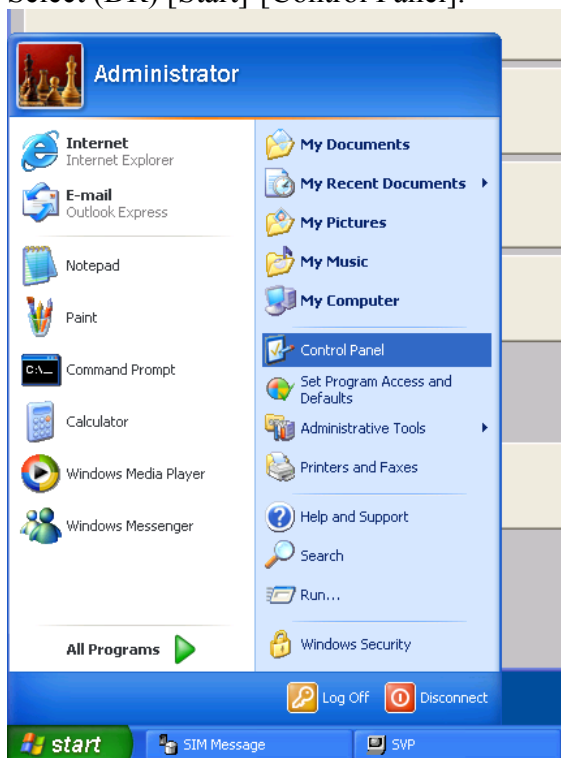
In a system whose SVP version is earlier than 50-03-80/00, the Apache version 1.3.27 is used. With SVP version: 50-03-80/00 or later, the version 1.3.33, in which the known security hole of Apache is fixed, is also supported. In a newly shipped DKC where SVP version: 50-03-80/00 or later is applied, the Apache version 1.3.33 is installed. Even if you upgrade the version of SVP in DKC, which was shipped before SVP version: 50-03-80/00 is applied, to 50-03-80/00 or later by exchanging microprogram, the version of Apache will not be upgraded. When you exchange microprogram with SVP version: 50-03-80/00 or later, install Apache 1.3.33 by performing the following procedure first.

Note: If you downgrade the SVP version from 50-03-80/00 (or later) to 50-03-7x/xx (or earlier), you must downgrade the Apache version from 1.3.33 to 1.3.27. ([WEB06-120](#))

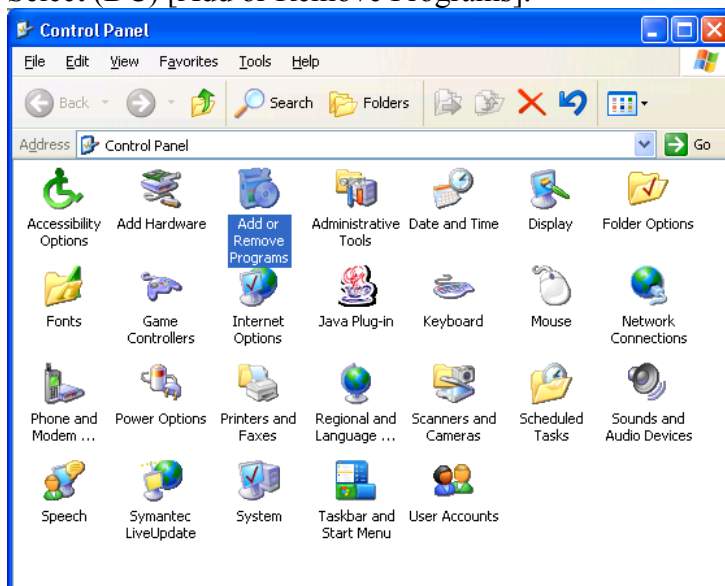
6.1 Checking Apache version

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

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



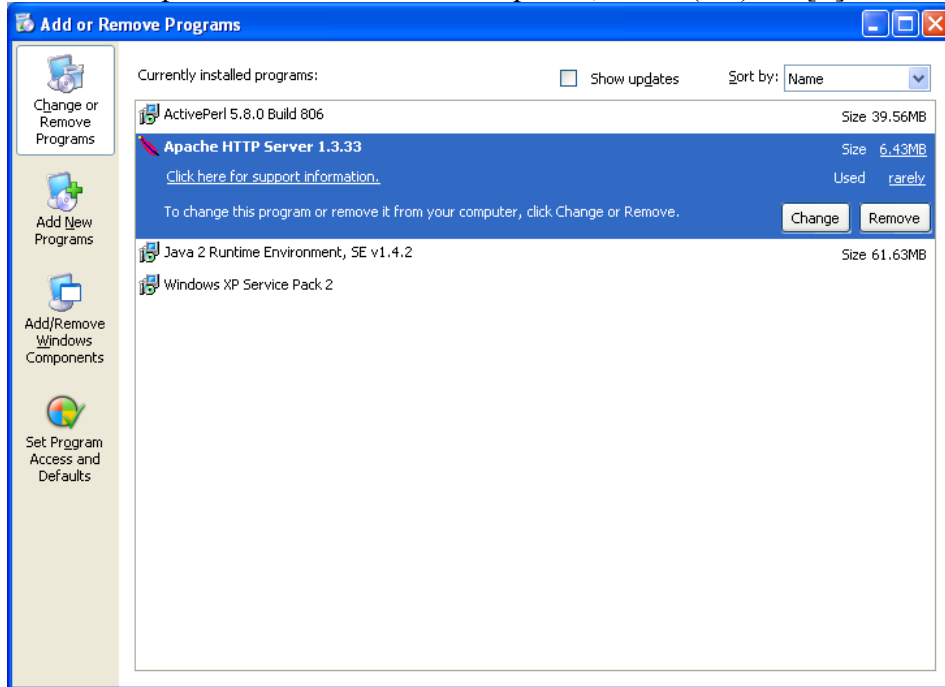
- (2) Select (DC) [Add or Remove Programs].



- (3) Check the content of [Currently installed programs] in the [Add or Remove Programs] panel.
If [Apache Web Server 1.3.27] exists, Apache 1.3.27 is installed. Go to “6.2 Uninstallation of Apache 1.3.27”.

If Apache 1.3.33 is already installed, [Apache HTTP Server 1.3.33] exists. In this case, you do not have to install Apache 1.3.33 again. The operation is completed.

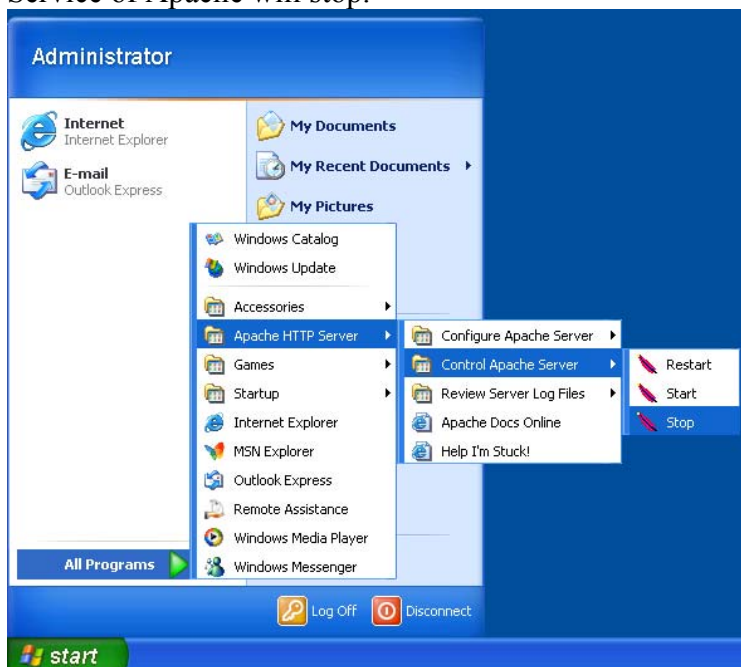
When the Apache version check is completed, select (CL) the [×] button.



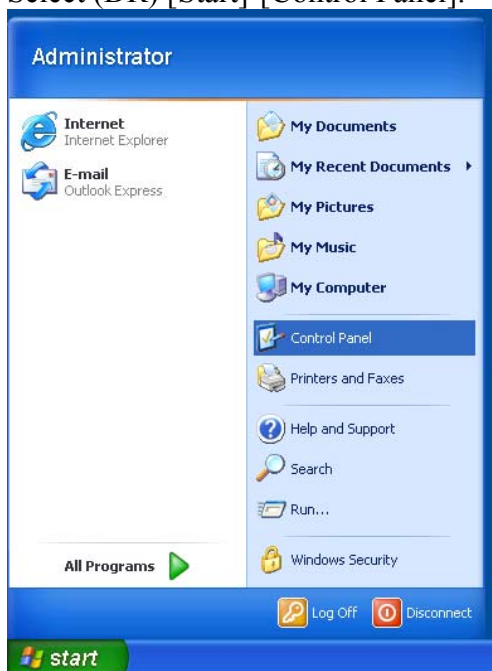
6.2 Uninstallation of Apache 1.3.27

You must uninstall Apache 1.3.27 before installing Apache 1.3.33. The procedure for uninstalling Apache 1.3.27 is as shown below. Incidentally, if you attempt to install Apache 1.3.33 without uninstalling Apache 1.3.27, an error message, “Another version of this product is already installed. Installation of this version cannot continue. To configure or remove the existing version of this product, use Add/Remove Programs on the Control Panel.” will be displayed.

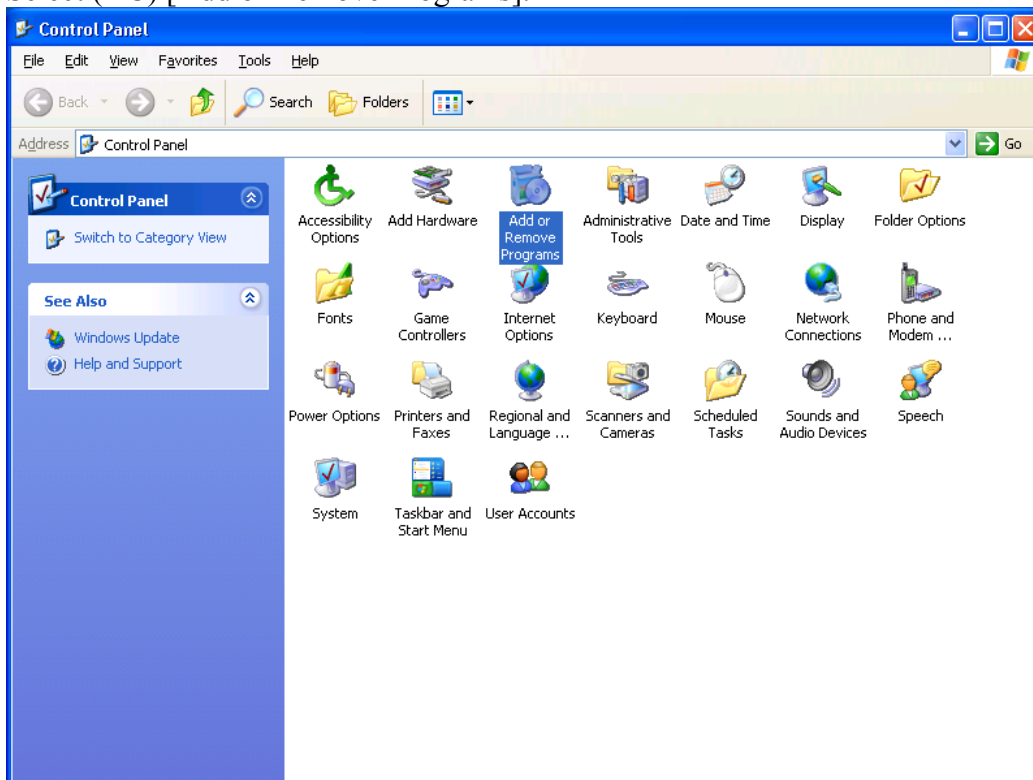
- (1) Select (DR) [Start]-[All Programs]-[Apache HTTP Server]-[Control Apache Server]-[Stop].
Service of Apache will stop.



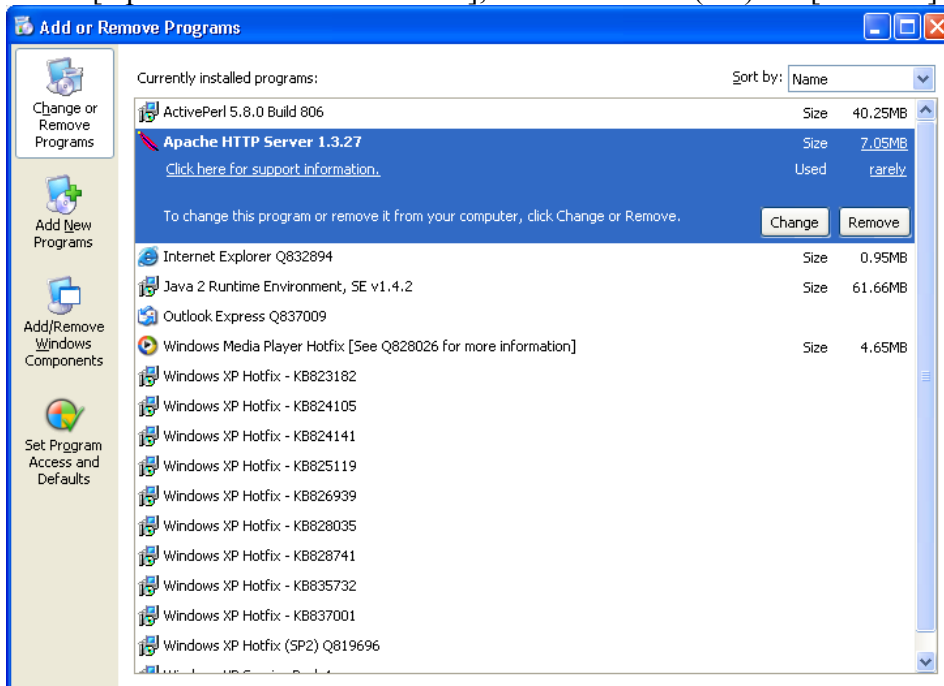
- (2) Select (DR) [Start]-[Control Panel].



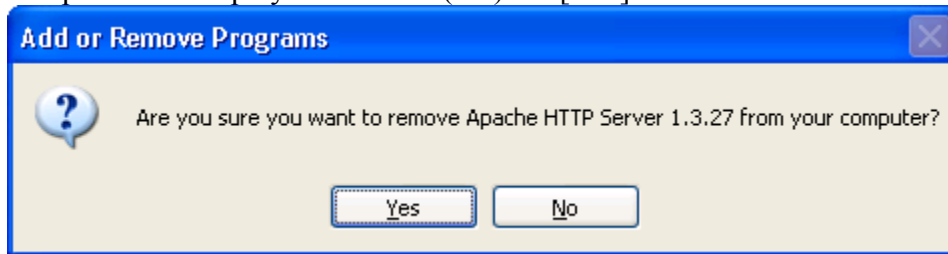
(3) Select (DC) [Add or Remove Programs].



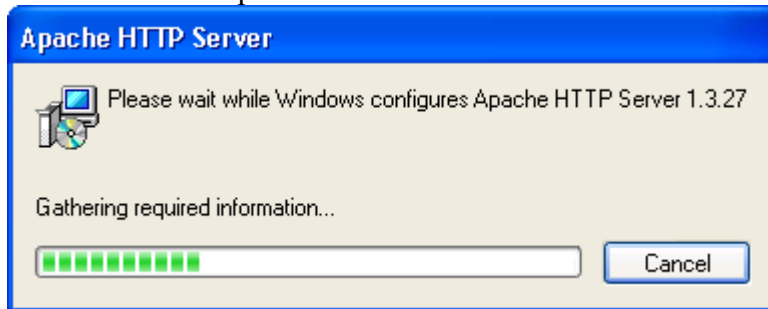
(4) Select [Apache HTTP Server 1.3.27], and then select (CL) the [Remove] button.



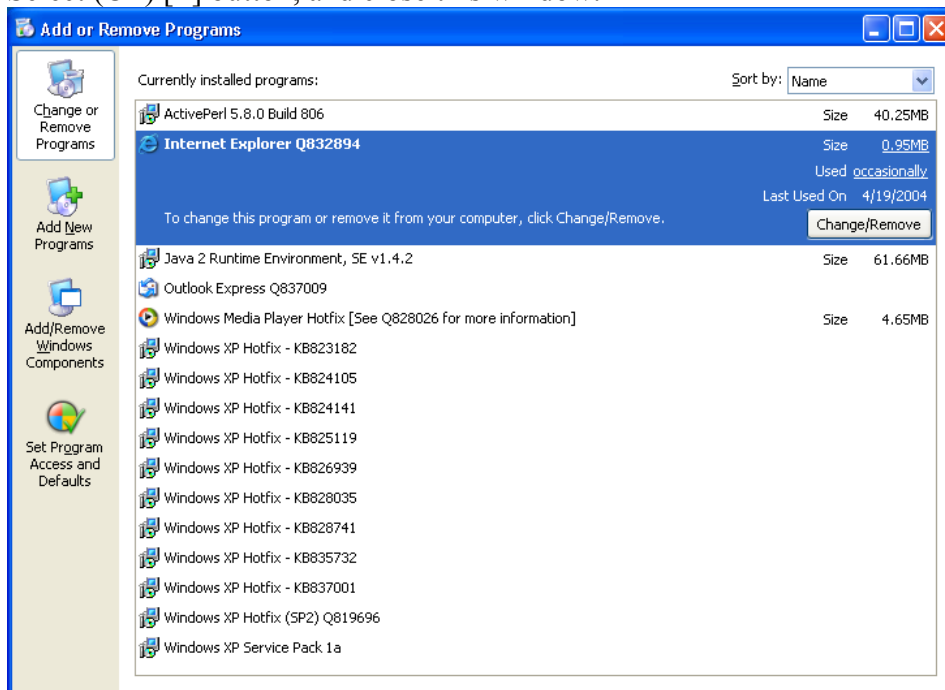
- (5) The message, “Are you sure you want to remove Apache HTTP Server 1.3.27 from your computer?” is displayed. Select (CL) the [Yes] button.



- (6) Uninstallation of Apache 1.3.27 starts.



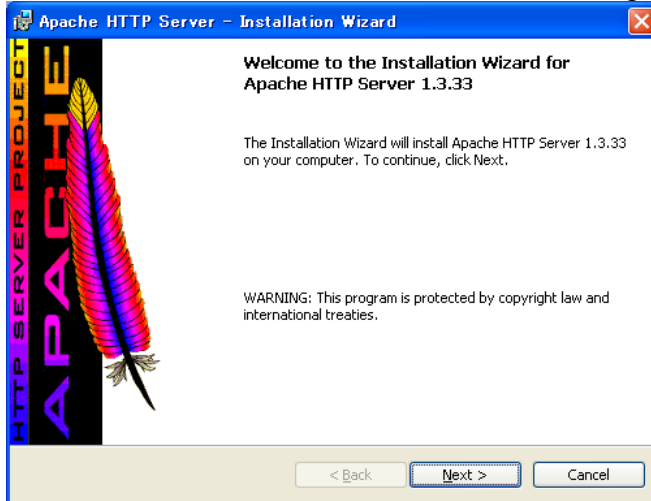
- (7) [Apache HTTP Server 1.3.27] is removed from the [Add or Remove Programs] panel. Select (CL) [×] button, and close this window.



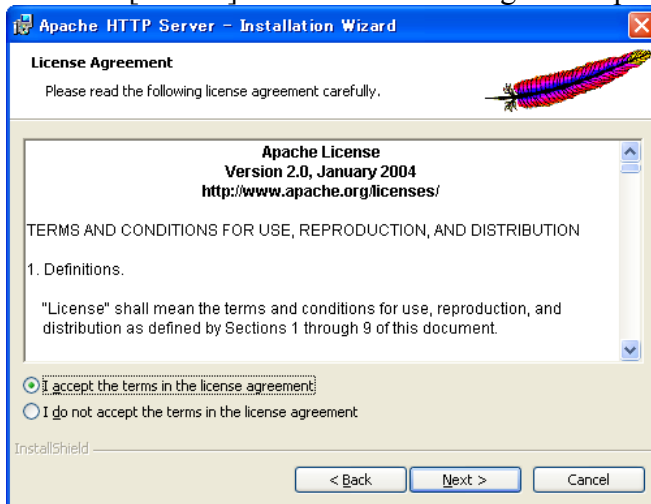
- (8) Go to 6.3.

6.3 Installation of Apache 1.3.33

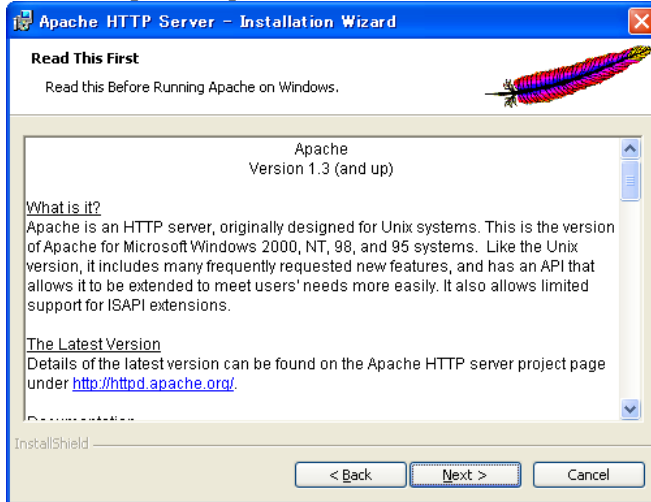
- (1) Insert a CD-ROM disk into the CD-ROM drive. Select (DR) [Start] and [Run...] in this order. Enter “e:\JavaAp\Apache\apache1-3-33inst.bat” and press the [OK] button. When the ‘Apache HTTP Server Installation Wizard’ window is displayed, select (CL) the [Next >] button.



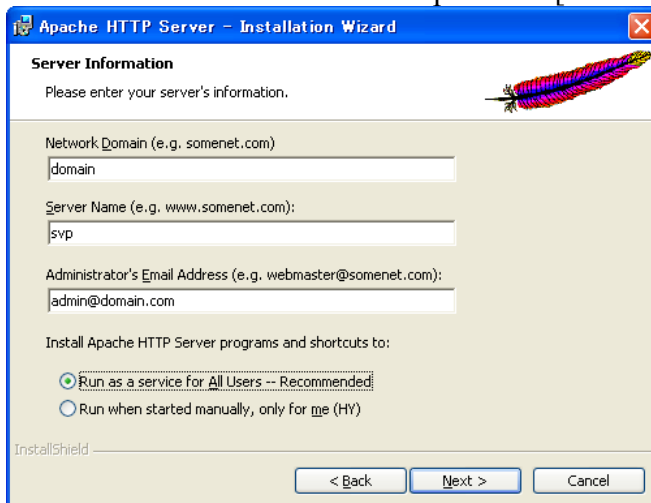
- (2) Press the [Next >] button after selecting “I accept the terms in the license agreement.”



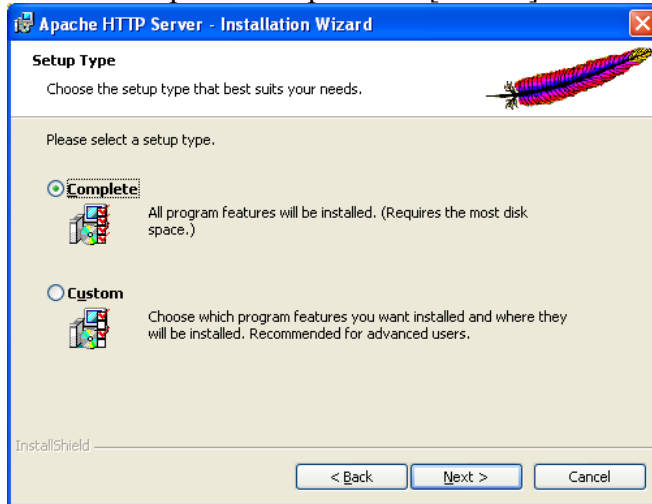
- (3) Press the [Next >] button.



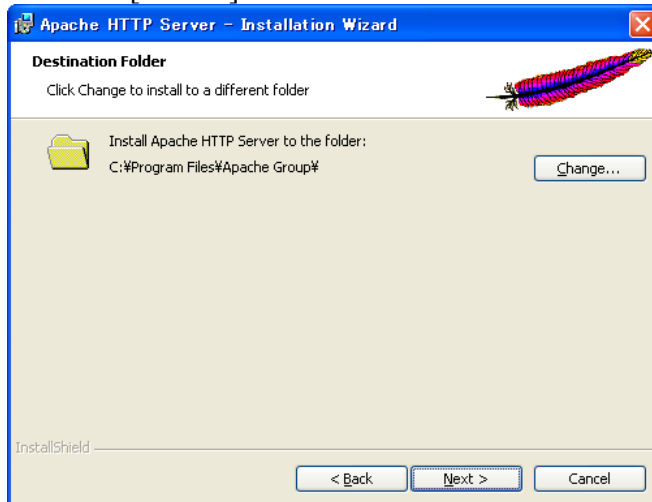
- (4) Enter “domain,” “SVP,” and “admin@domain.com” in the Network Domain, Server Name, and Administrator’s Email Address fields respectively, and then select “Run as a service for All Users -- Recommended” and press the [Next >] button.



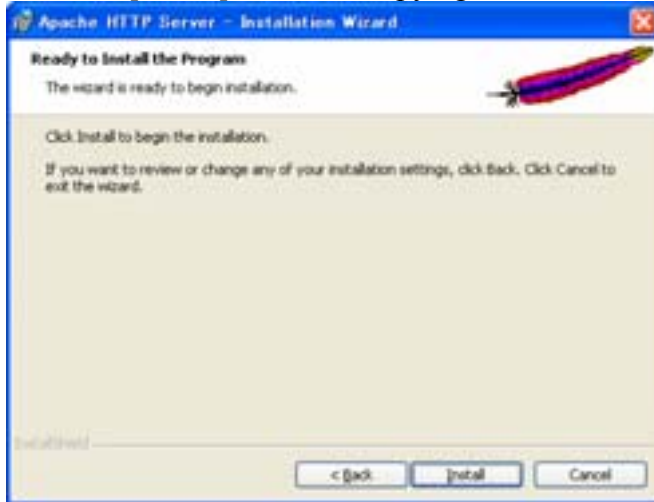
- (5) Select “Complete” and press the [Next >] button.



- (6) Press the [Next >] button.



- (7) Press the [Install] button. A copying of the file is started.



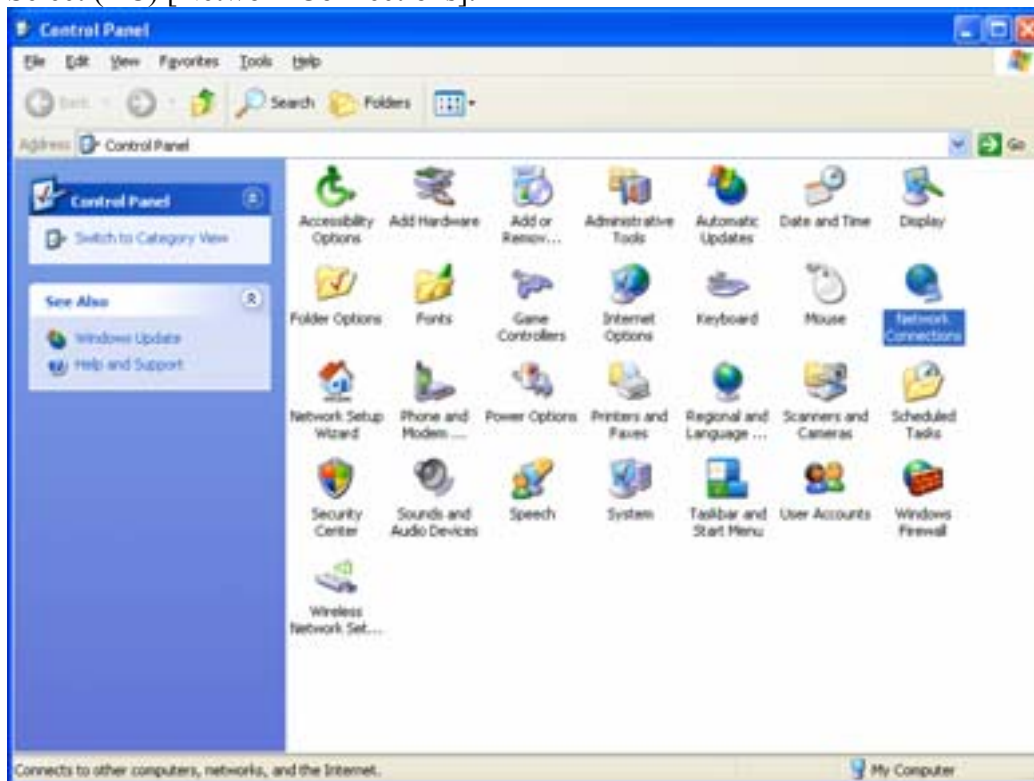
- (8) Since this panel is displayed when the copying of the file is completed, press the [Finish] button.



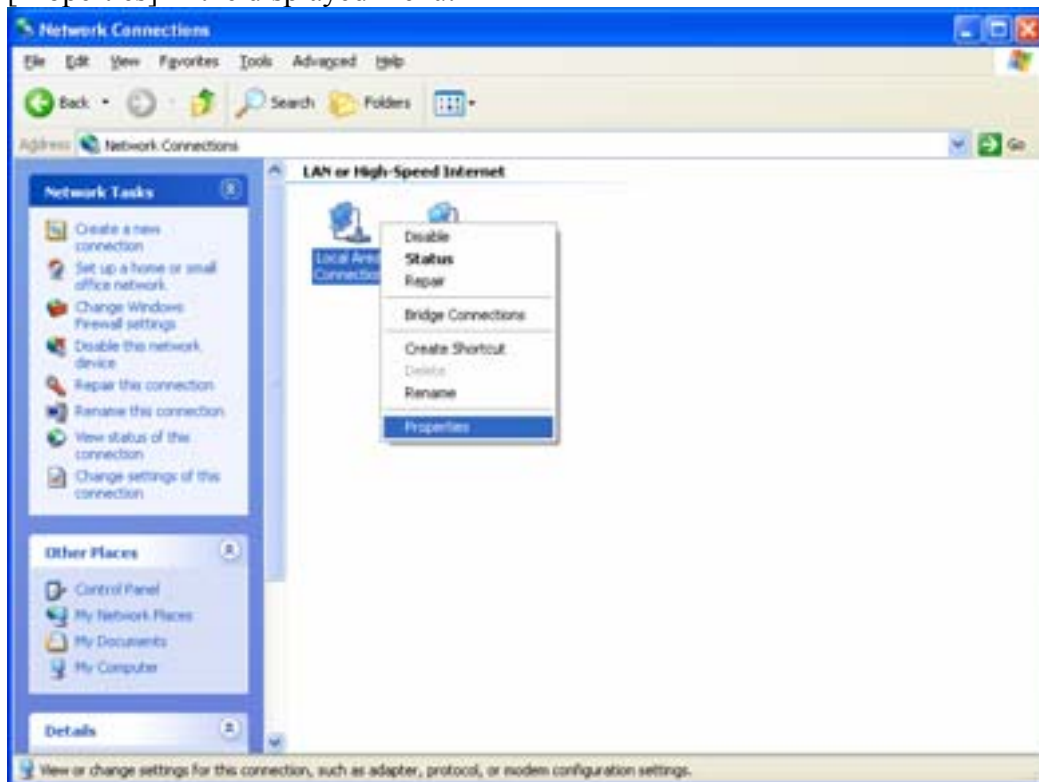
- (9) Select (CL) [Start]-[Control Panel].



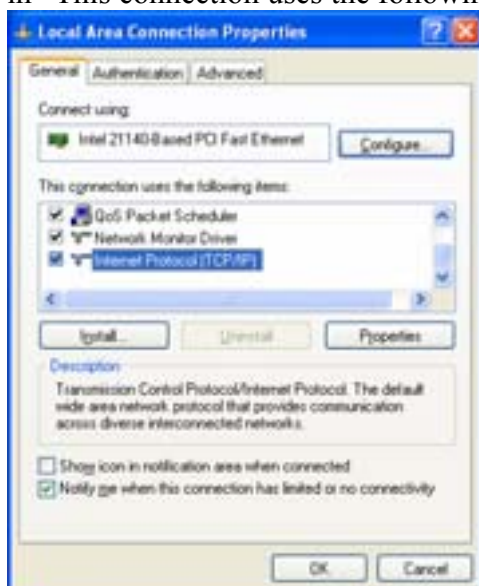
- (10) Select (DC) [Network Connections].



- (11) In the 'Network Connections' window, right-click [Local Area Connection] and select (CL) [Properties] in the displayed menu.



- (12) In the 'Local Area Connection Properties' dialog box, select (CL) "Internet Protocol (TCP/IP)" in "This connection uses the following items:" and click [Properties].



- (13) In the ‘Internet Protocol (TCP/IP) Properties’ dialog box, confirm that the fields of “Preferred DNS server:” and “Alternate DNS server:” in “Use the following DNS server addresses:” are blank.

When these fields are blank, proceed to (14).

When values are specified in the fields, see the “Procedure in the case values are specified” to confirm or delete them.

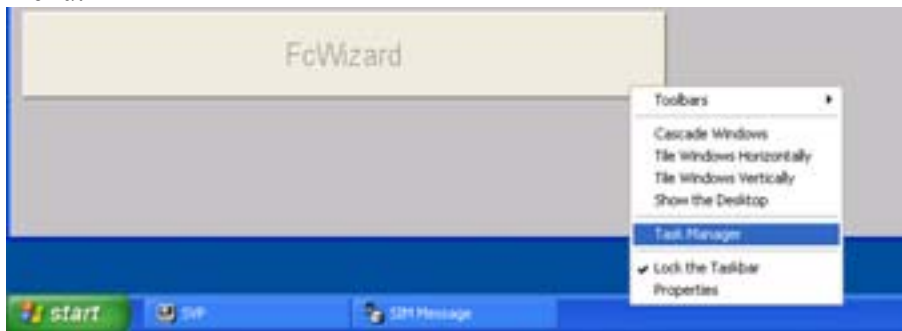


- Procedure in the case values are specified
 - (a) When “192.0.2.1” is specified in one of the fields, delete “192.0.2.1” and confirm that “192.0.2.1” is not specified in both of the fields.
 - (b) When values other than “192.0.2.1” are specified in both of the fields, perform (b-1) and (b-2). (“192.0.2.1” may be specified even if it is not displayed in the ‘Internet Protocol (TCP/IP) Properties’ dialog box.)
 - (b-1) In the ‘Internet Protocol (TCP/IP) Properties’ dialog box, select (CL) [Advanced...] and select (CL) the [DNS] tab in the opened dialog box.
When “192.0.2.1” is listed in “DNS server addresses, in order of use:”, select (CL) “192.0.2.1” and click [Remove].

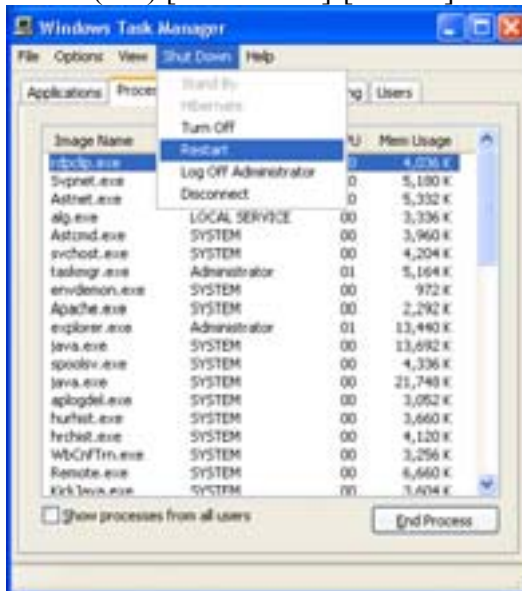


- (b-2) Confirm that “192.0.2.1” is not specified in “DNS server addresses, in order of use:” and click [OK].
 - (c) In the case of other than (a) and (b), proceed to the next process.
- (14) In the ‘Internet Protocol (TCP/IP) Properties’ dialog box, select (CL) [OK].
 - (15) In the ‘Local Area Connection Properties’ dialog box, select (CL) [OK].
 - (16) For [Local Area Connection2], perform the steps (11) through (15).
 - (17) In the [Network Connections] window, click the [x] button to close the window.

- (18) Click the right mouse button on Task bar, and select (CL) [Task Manager] of the displayed menu.



- (19) Select (DR) [Shut Down]-[Restart].



- (20) The SVP will be rebooted.

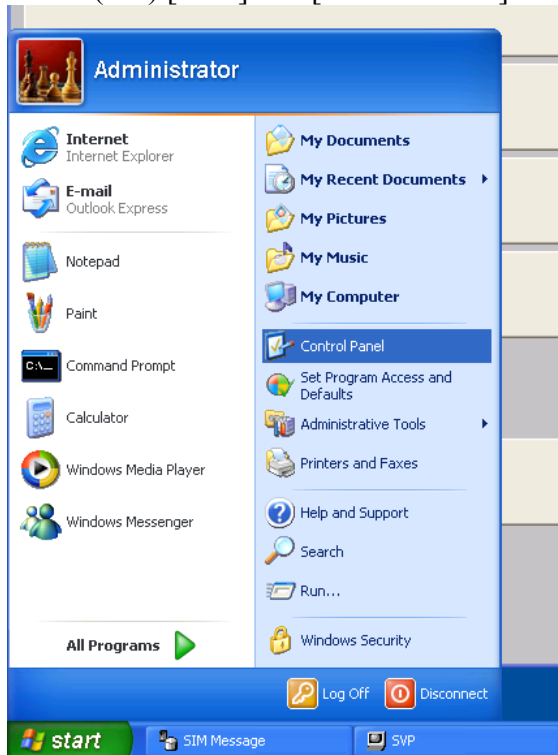
6.4 Microprogram Exchange

Whenever Apache 1.3.33 is installed, the co-requisite SVP program 50-03-80/00 (or later) must also be installed by following the procedure titled “Micro-program Exchange Procedure (On-line)” (See [M-FC04-10](#)).

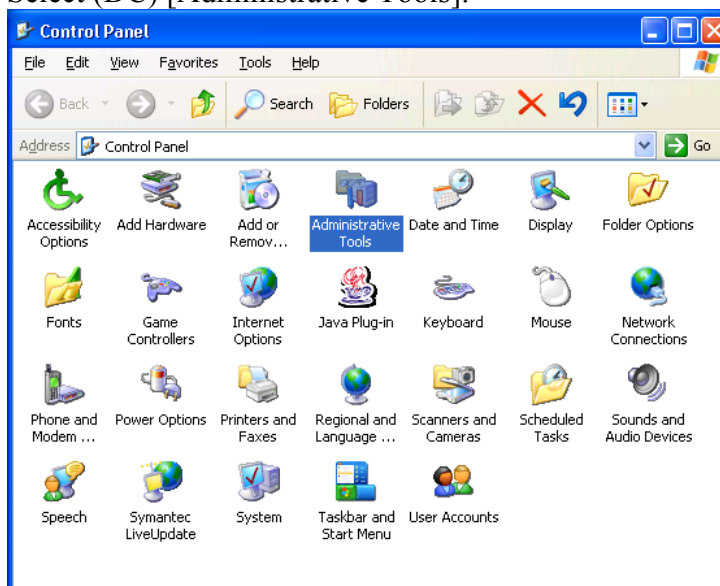
6.5 Procedure of Apache downgrade

6.5.1 Uninstallation of Apache 1.3.33

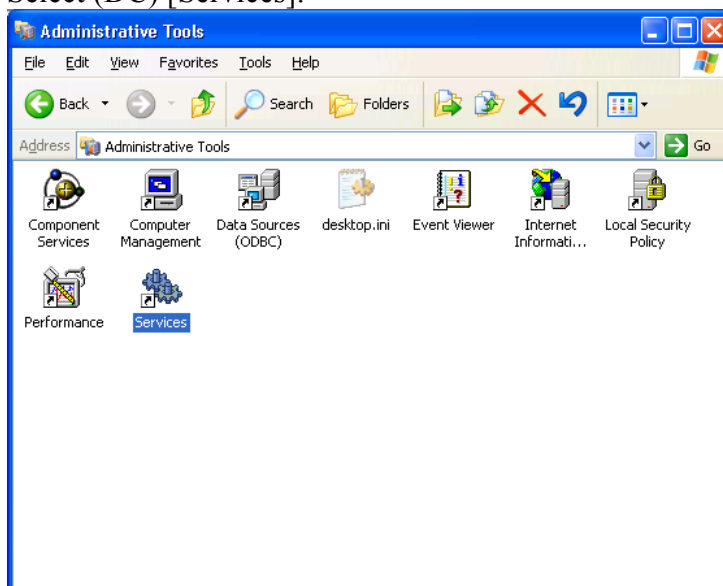
- (1) Select (DR) [Start] and [Control Panel] in this order.



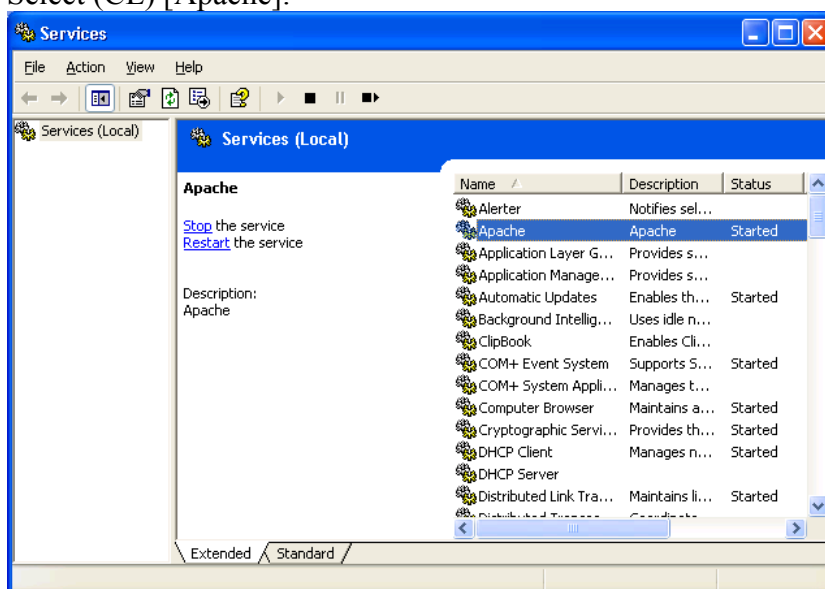
- (2) Select (DC) [Administrative Tools].



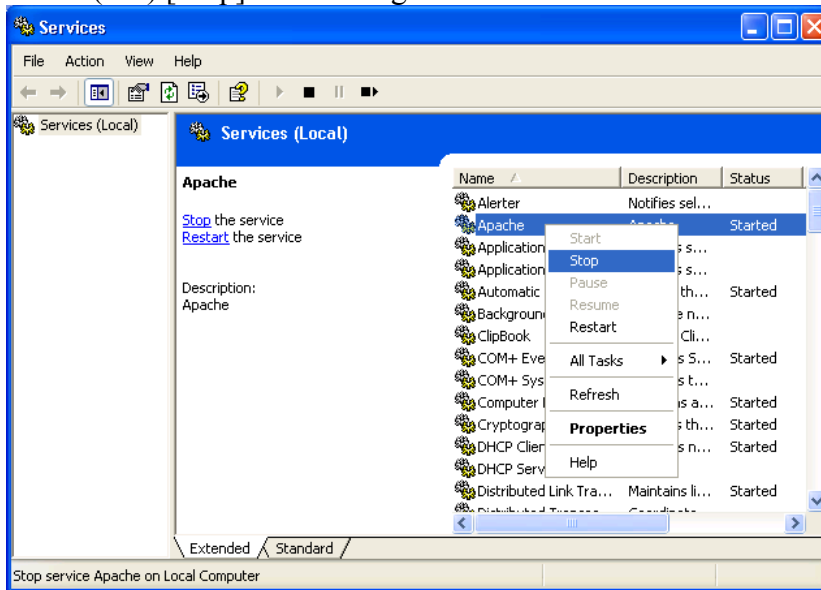
(3) Select (DC) [Services].



(4) Select (CL) [Apache].

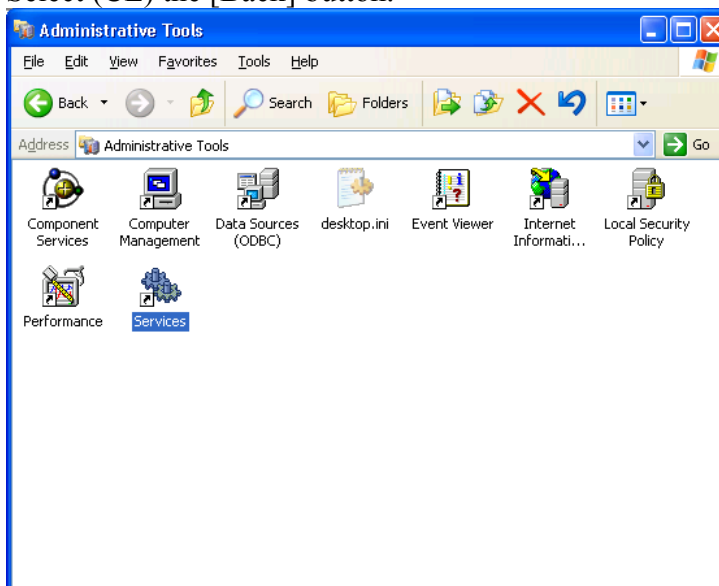


- (5) Select (DR) [Stop] from the right button menu.

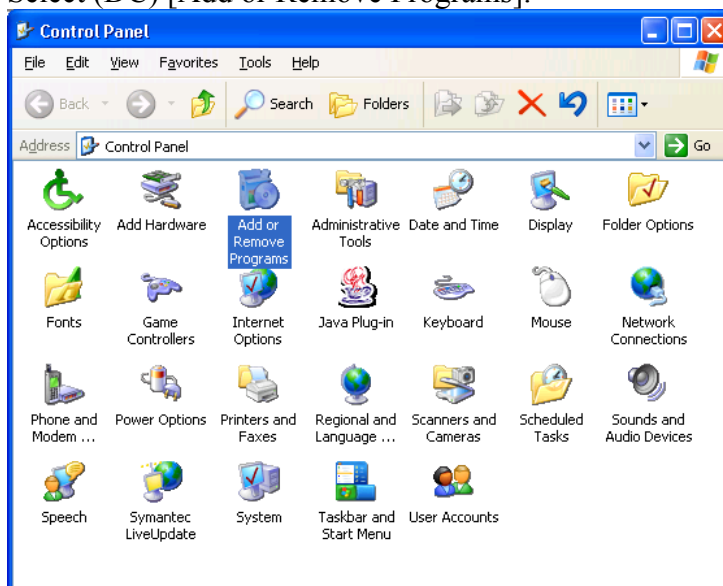


- (6) Close the 'Services' window by selecting (CL) the [×] button.

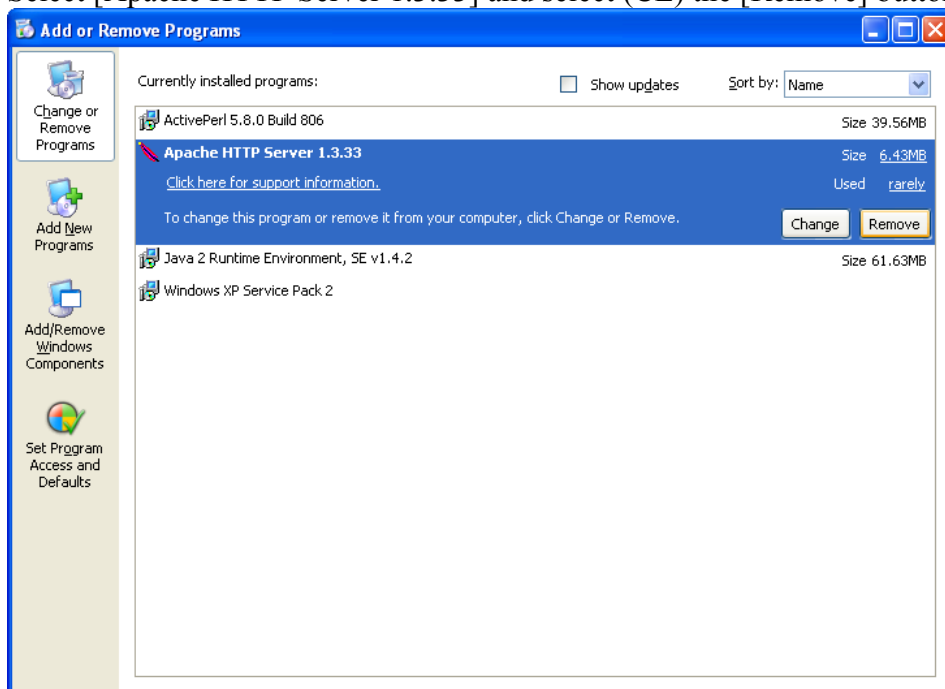
- (7) Select (CL) the [Back] button.



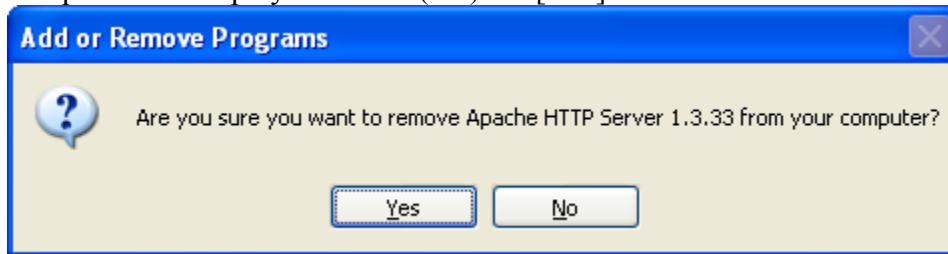
(8) Select (DC) [Add or Remove Programs].



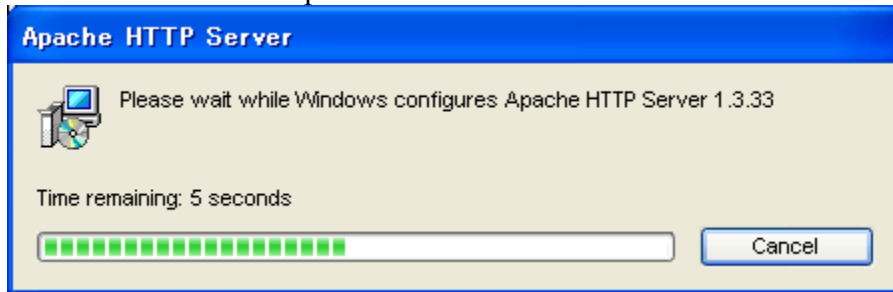
(9) Select [Apache HTTP Server 1.3.33] and select (CL) the [Remove] button.



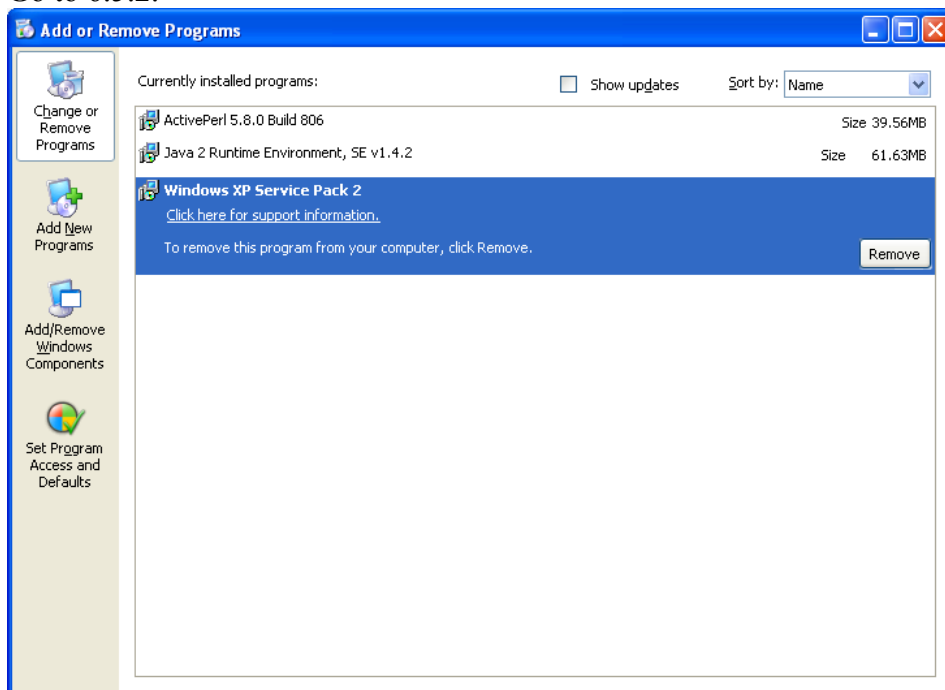
- (10) A message, “Are you sure you want to remove Apache HTTP Server 1.3.33 from your computer?” is displayed. Select (CL) the [Yes] button.



- (11) The uninstallation of Apache 1.3.33 is started.

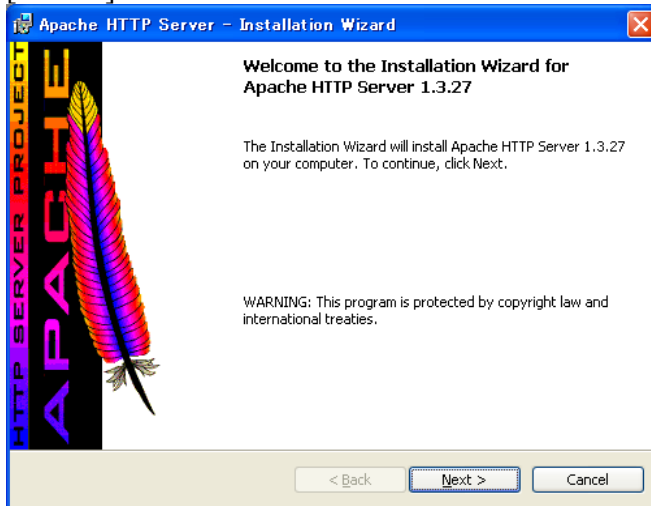


- (12) The [Apache HTTP Server 1.3.33] is removed from the ‘Add or Remove Programs’ panel. Close the panel by selecting (CL) the [×] button.
Go to 6.5.2.

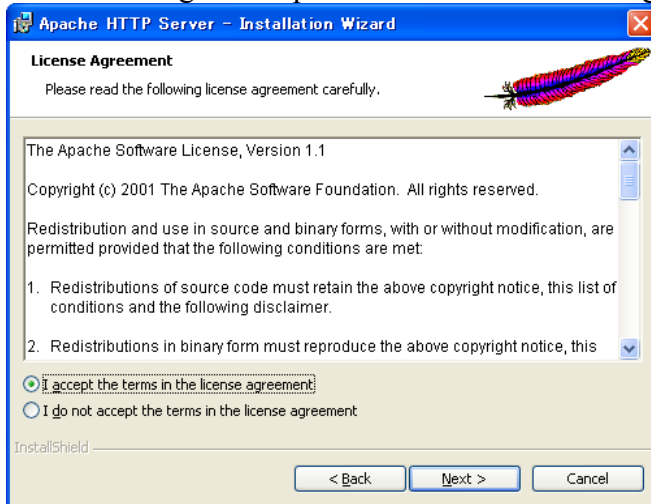


6.5.2 Installation of Apache 1.3.27

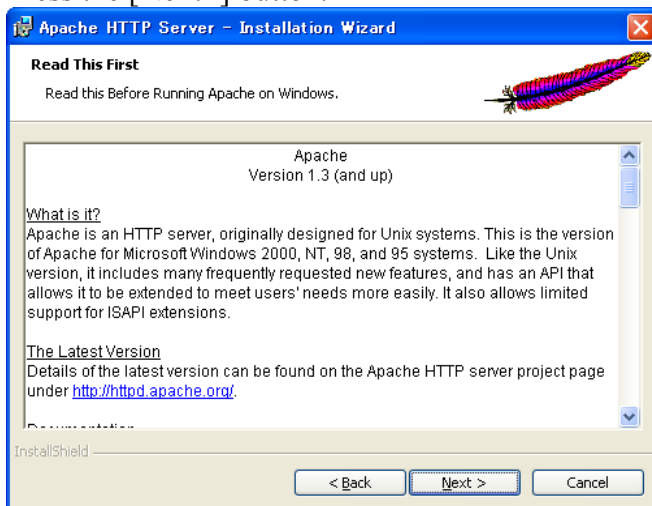
- (1) Insert a CD-ROM disk into the CD-ROM drive. Select (DR) [Start] and [Run...] in this order. Enter “e:\JavaAp\Apache\apache_1.3.27-win32-x86-no_src.msi” and press the [OK] button. When the ‘Apache HTTP Server Installation Wizard’ window is displayed, select (CL) the [Next >] button.



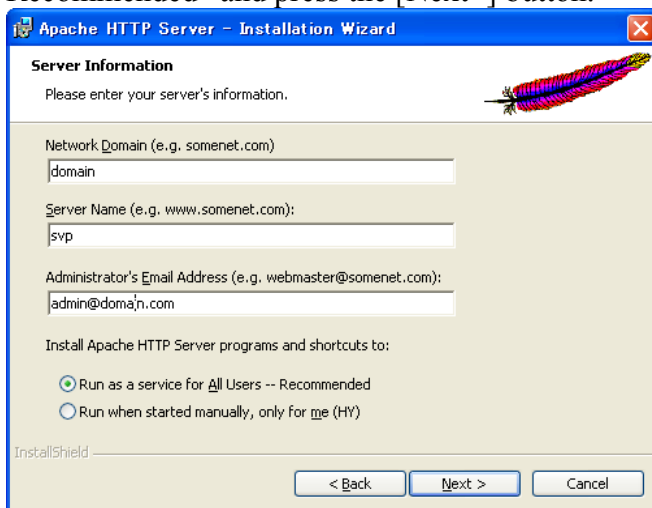
- (2) After selecting “I accept the terms in the license agreement” press the [Next >] button.



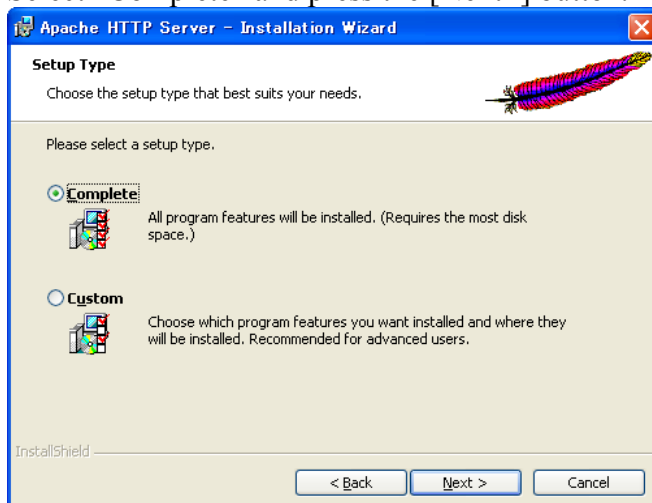
- (3) Press the [Next>] button.



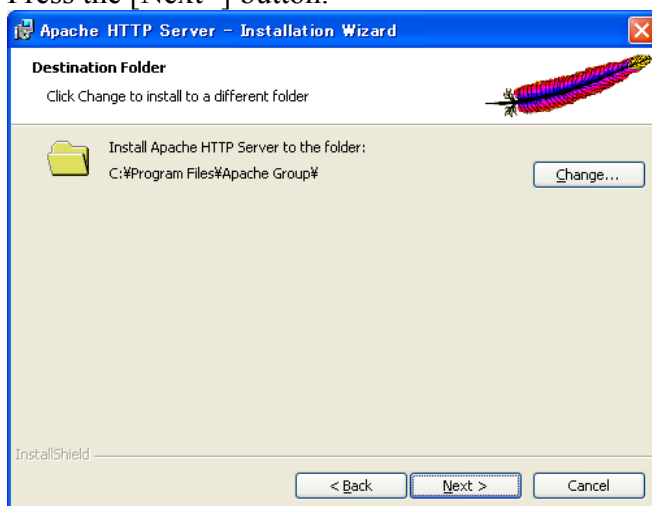
- (4) Enter “domain”, “svp”, and “admin@domain.com” in the Network Domain, Server Name, and Email Address boxes respectively. After that, select “Run as a service for All Users -- Recommended” and press the [Next>] button.



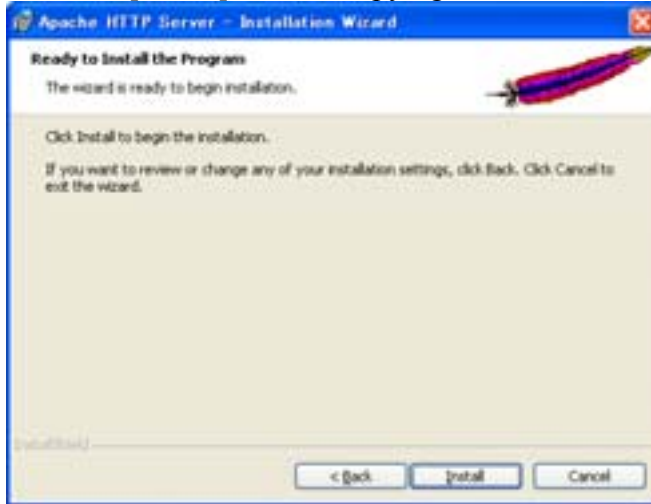
- (5) Select “Complete” and press the [Next>] button.



- (6) Press the [Next>] button.



- (7) Press the [Install] button. Copying of the file is started.



- (8) Since this window is displayed when the copying of the file is completed, press the [Finish] button.



7. Procedure of Apache 2.0.54 installation

If the SVP version: 50-04-20/00 or later is installed, Apache 2.0.54 can be installed by the option.
If Apache 2.0.54 is used, install Apache 2.0.54 in the following procedure.

Note: If the SVP version is earlier than 50-04-19/xx, Apache 2.0.54 is not supported. Do not install Apache 2.0.54. Also, if you downgrade the SVP version from 50-04-20/00 or later to 50-04-19/xx or before, it is necessary to downgrade Apache from 2.0.54 to 1.3.xx. ([WEB07-170](#))

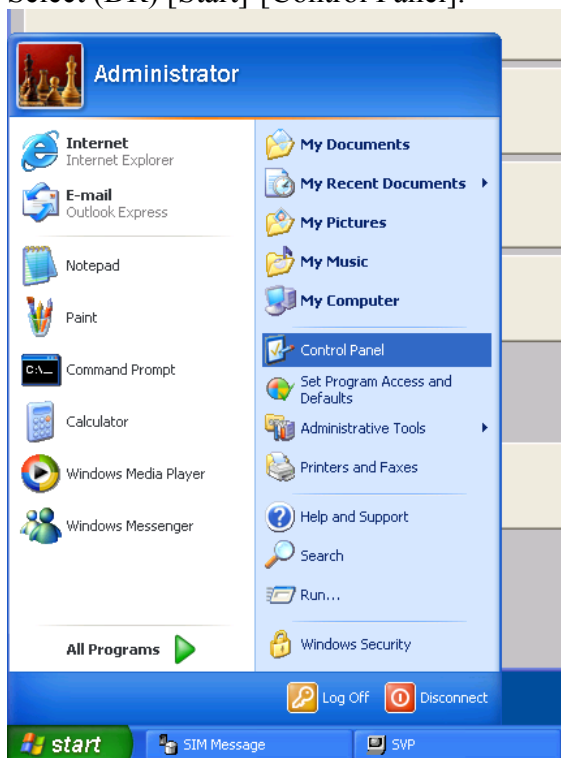
Table 7-1 SVP Apache version support

SVP version	Version of the supporting Apache	Supporting for Apache 2.0
~ 50-03-7x/xx	Apache 1.3.27	Unsupported
50-03-80/00 ~ 50-04-19/xx	Apache 1.3.33	Unsupported
50-04-20/00 ~	Apache 1.3.33	Supported

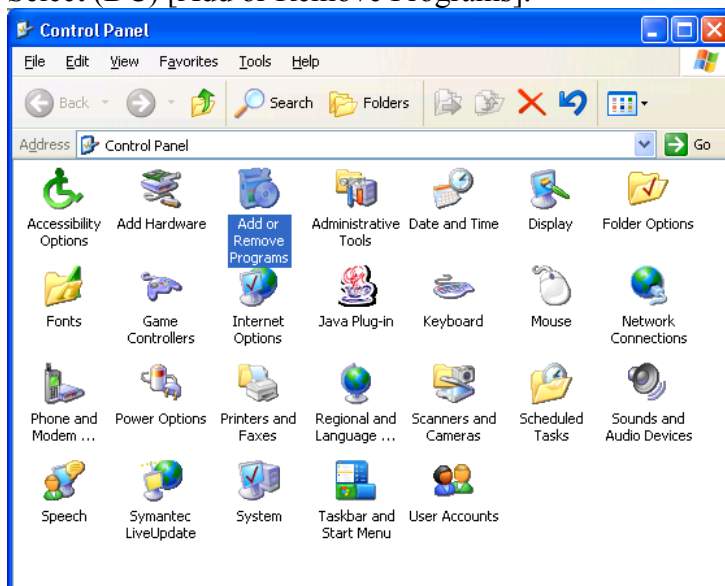
7.1 Checking Apache version

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

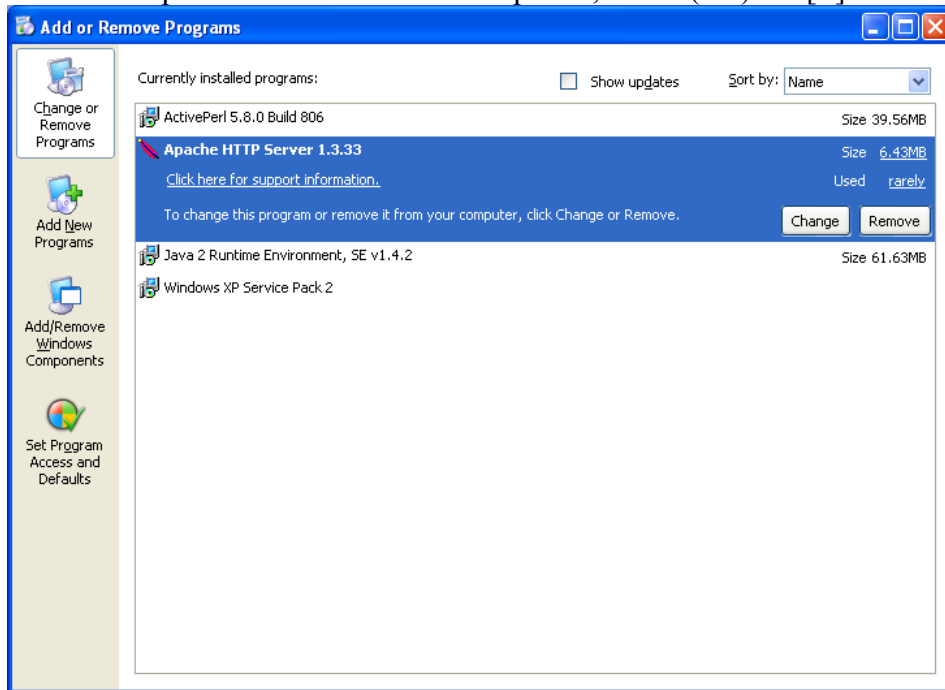
- (1) Select (DR) [Start]-[Control Panel].



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



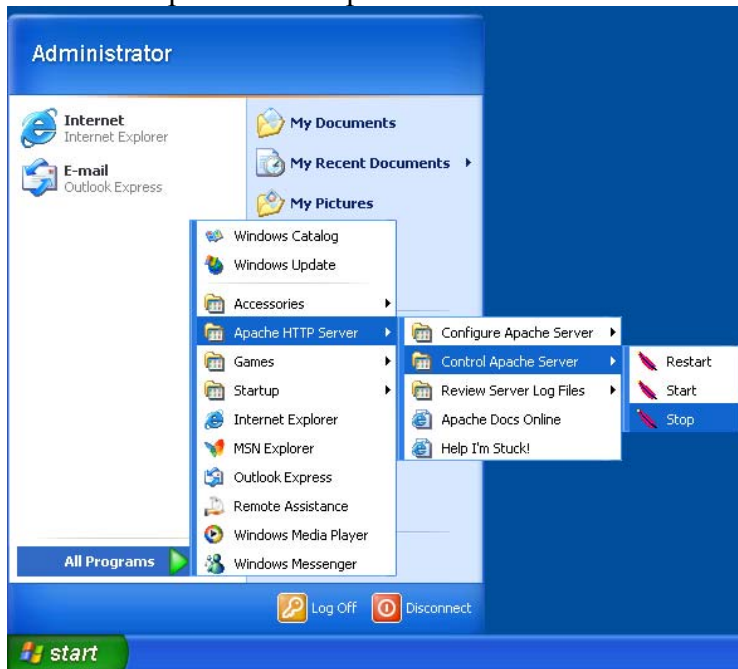
- (3) Check the content of [Currently installed programs] in the [Add or Remove Programs] panel.
If [Apache Web Server 1.3.27] exists, Apache 1.3.27 is installed. Go to “7.2 Uninstallation of Apache 1.3.27”.
If [Apache Web Server 1.3.33] exists, Apache 1.3.33 is installed. Go to “7.3 Uninstallation of Apache 1.3.33”.
If Apache 2.0.54 is already installed, [Apache HTTP Server 2.0.54] exists. In this case, you do not have to install Apache 2.0.54 again. The operation is completed.
When the Apache version check is completed, select (CL) the [×] button.



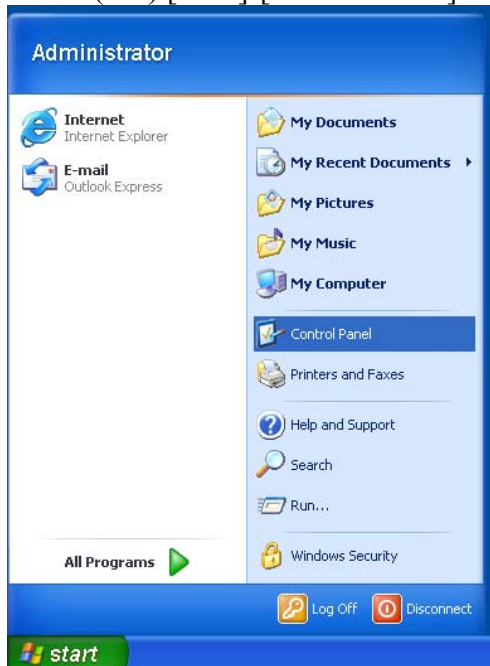
7.2 Uninstallation of Apache 1.3.27

You must uninstall Apache 1.3.27 before installing Apache 2.0.54. The procedure for uninstalling Apache 1.3.27 is as shown below.

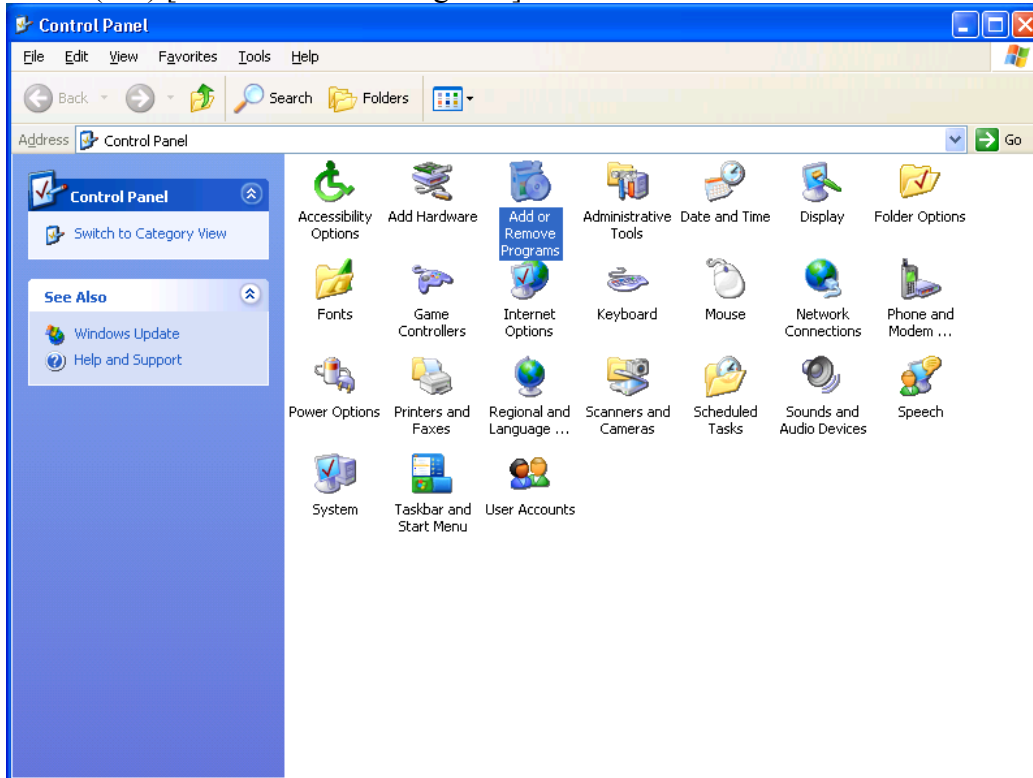
- (1) Select (DR) [Start]-[All Programs]-[Apache HTTP Server]-[Control Apache Server]-[Stop]. Service of Apache will stop.



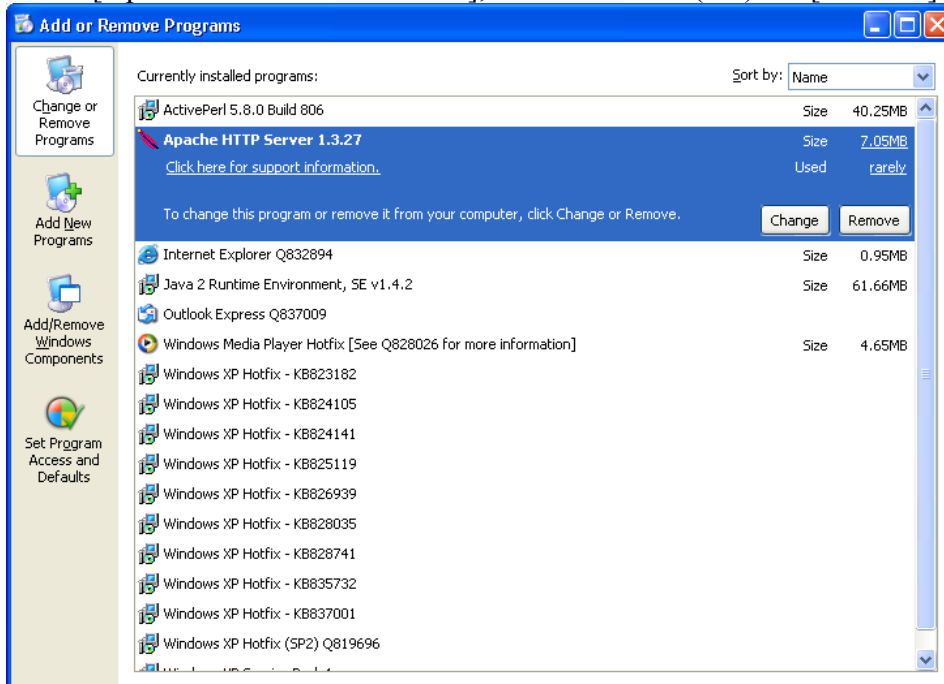
- (2) Select (DR) [Start]-[Control Panel].



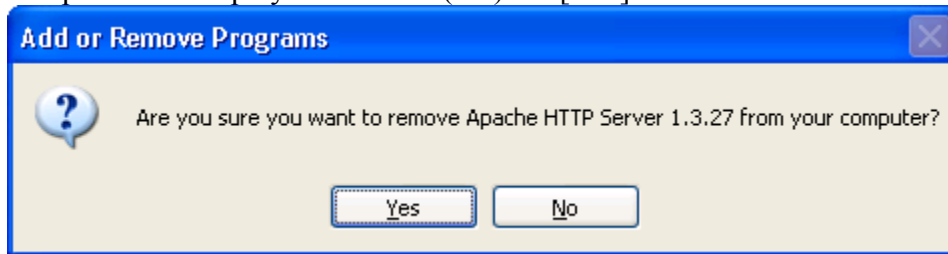
(3) Select (DC) [Add or Remove Programs].



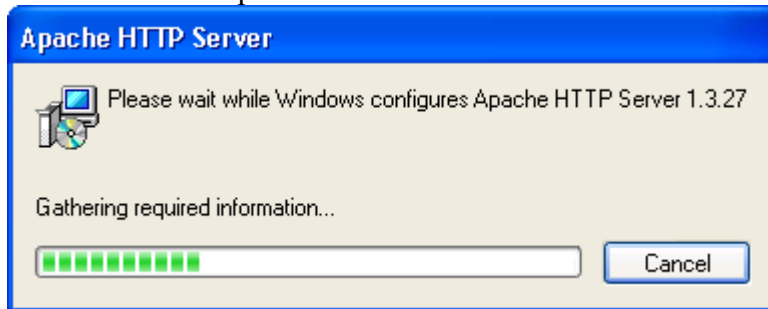
(4) Select [Apache HTTP Server 1.3.27], and then select (CL) the [Remove] button.



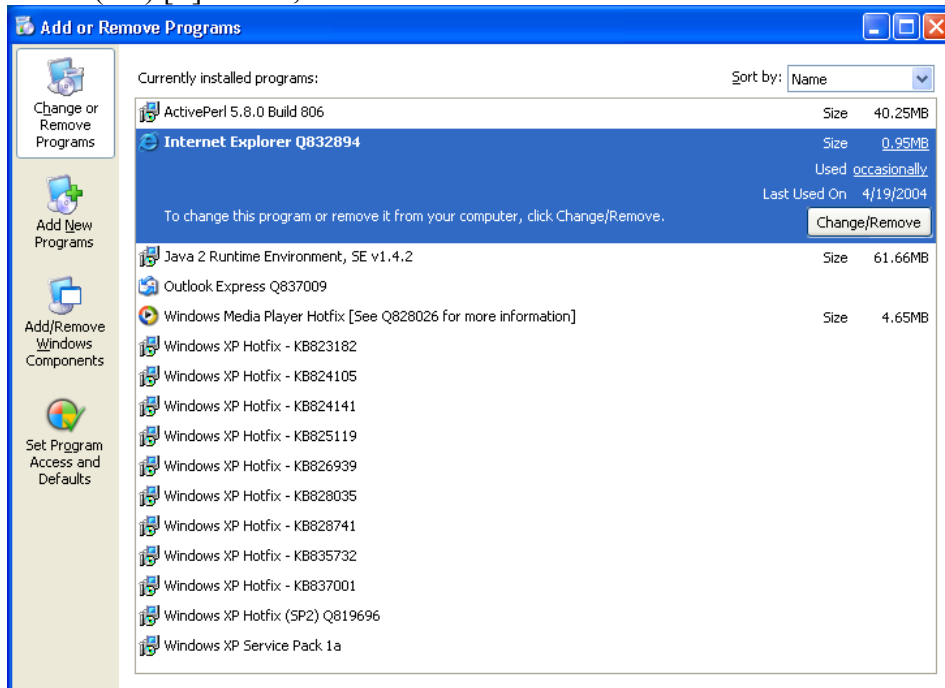
- (5) The message, “Are you sure you want to remove Apache HTTP Server 1.3.27 from your computer?” is displayed. Select (CL) the [Yes] button.



- (6) Uninstallation of Apache 1.3.27 starts.



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

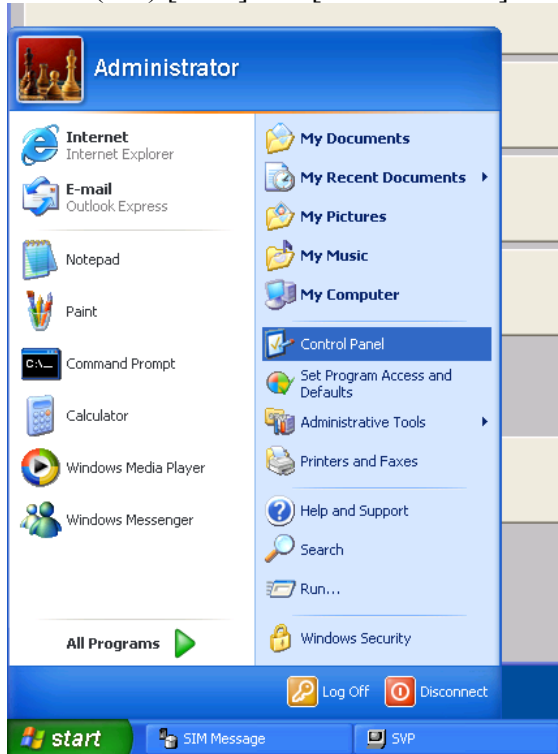


- (8) Go to 7.4.

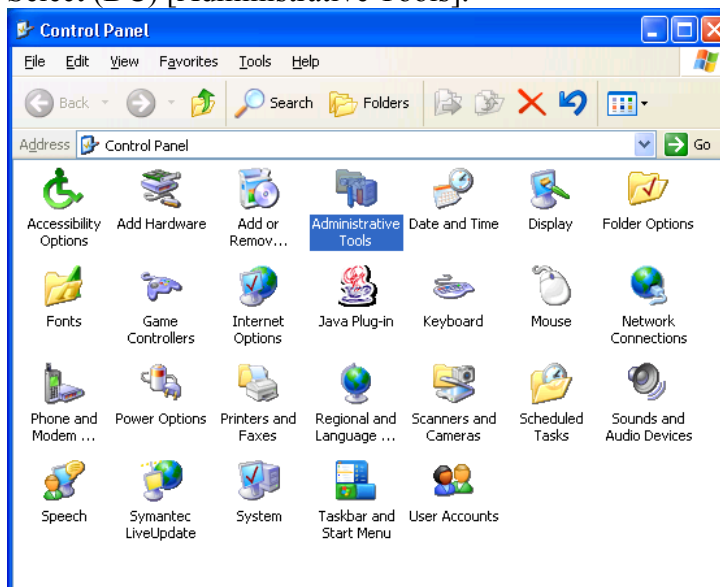
7.3 Uninstallation of Apache 1.3.33

You must uninstall Apache 1.3.33 before installing Apache 2.0.54. The procedure for uninstalling Apache 1.3.33 is as shown below.

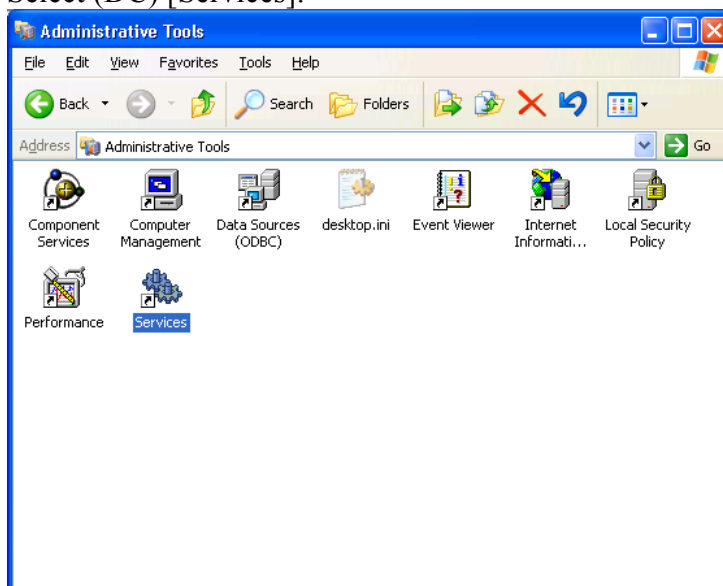
- (1) Select (DR) [Start] and [Control Panel] in this order.



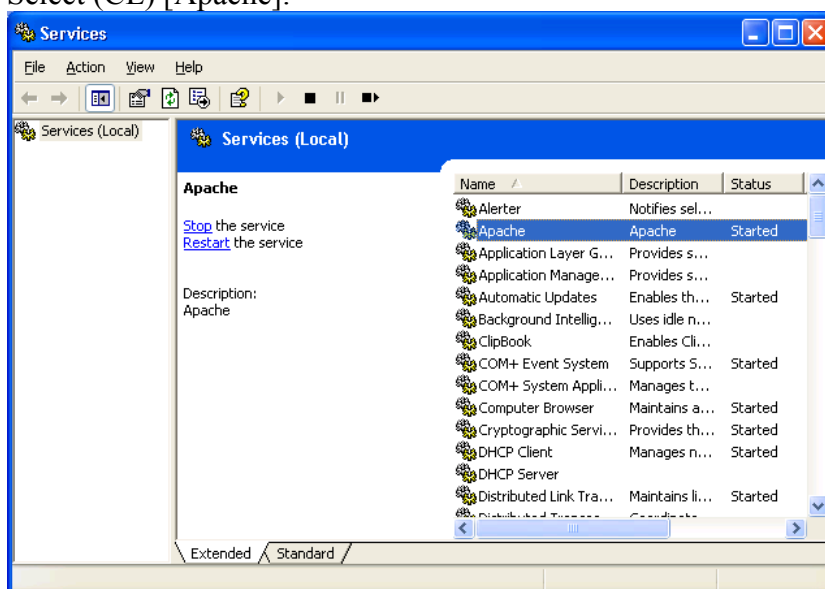
- (2) Select (DC) [Administrative Tools].



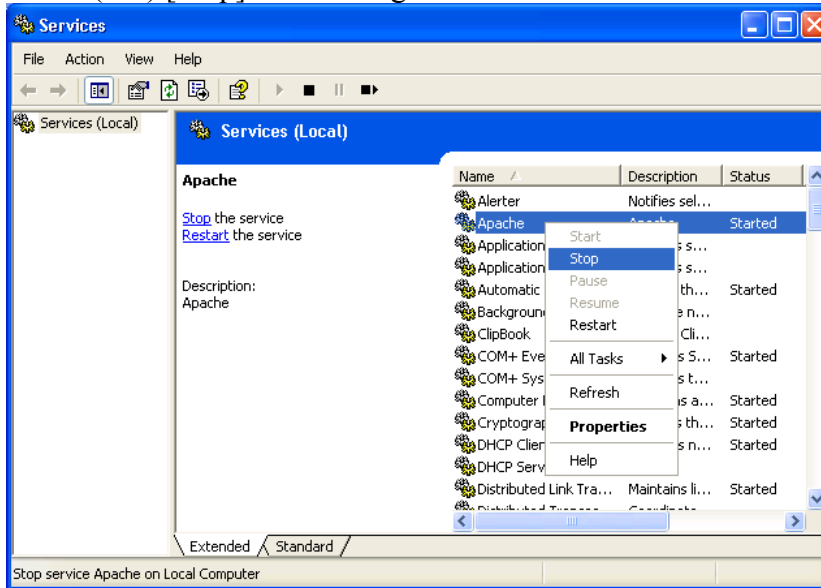
(3) Select (DC) [Services].



(4) Select (CL) [Apache].

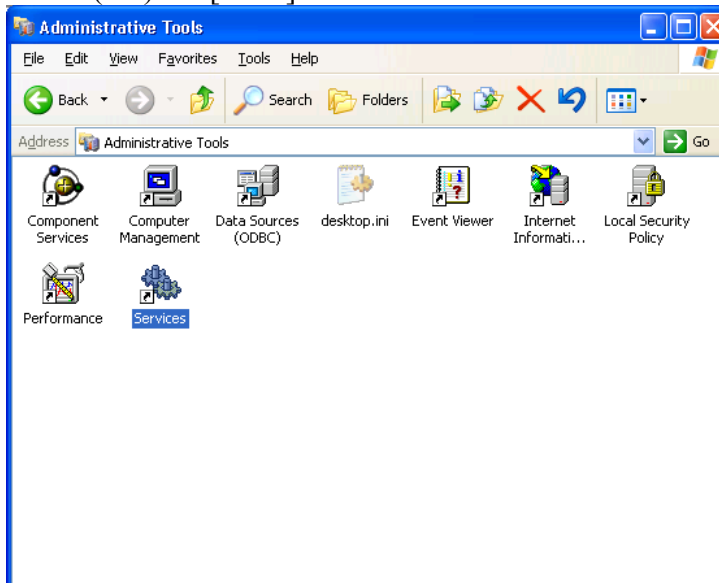


- (5) Select (DR) [Stop] from the right button menu.

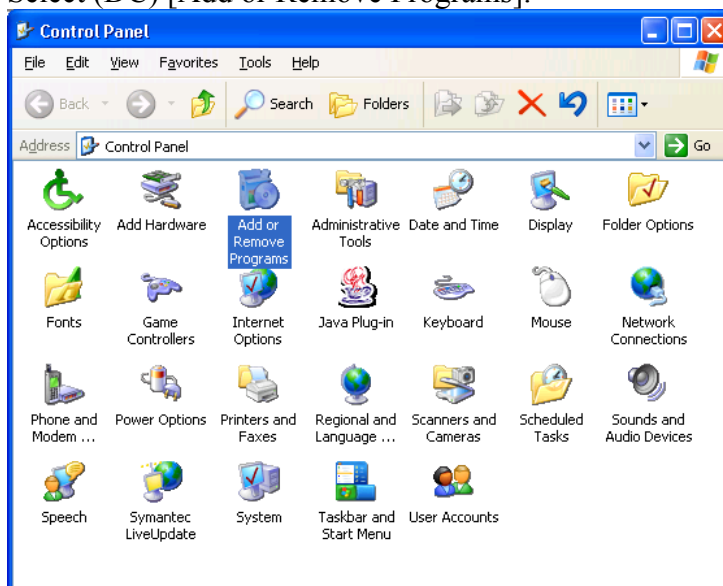


- (6) Close the 'Services' window by selecting (CL) the [×] button.

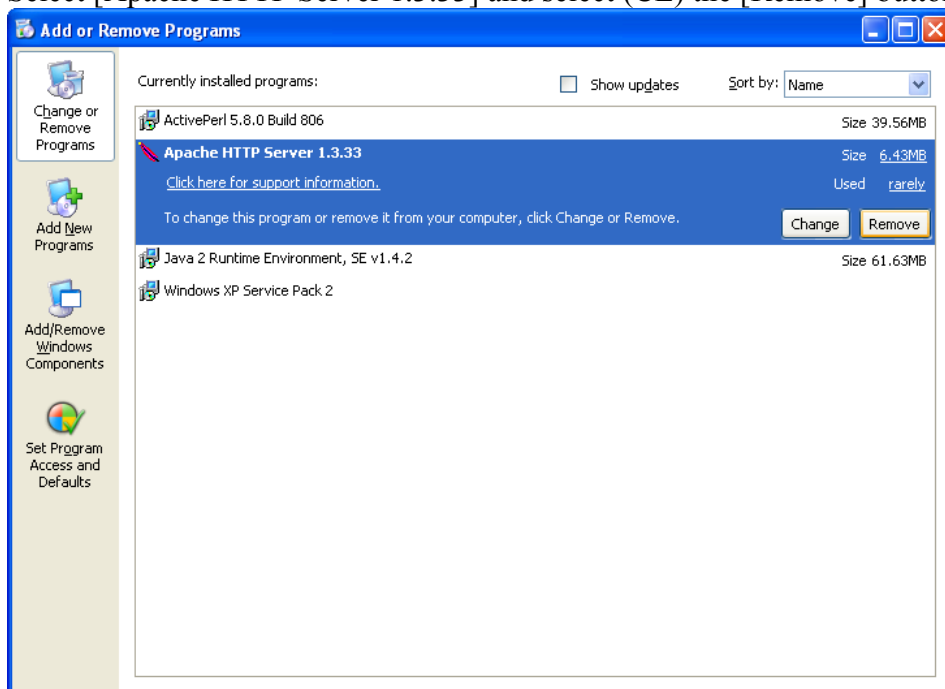
- (7) Select (CL) the [Back] button.



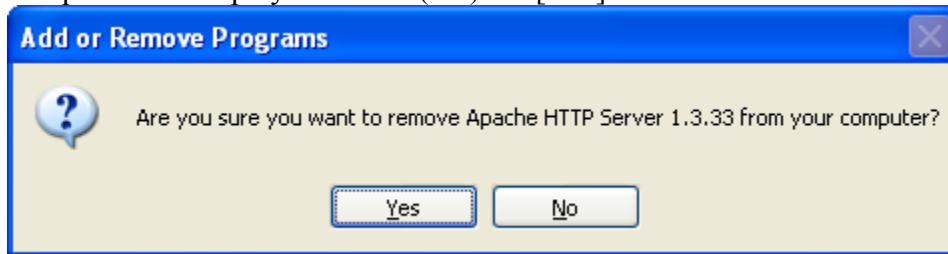
(8) Select (DC) [Add or Remove Programs].



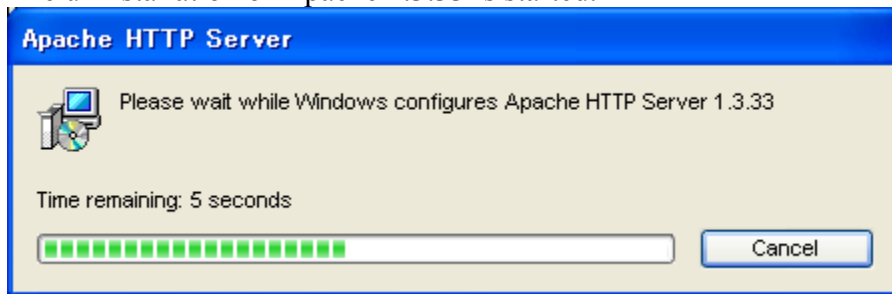
(9) Select [Apache HTTP Server 1.3.33] and select (CL) the [Remove] button.



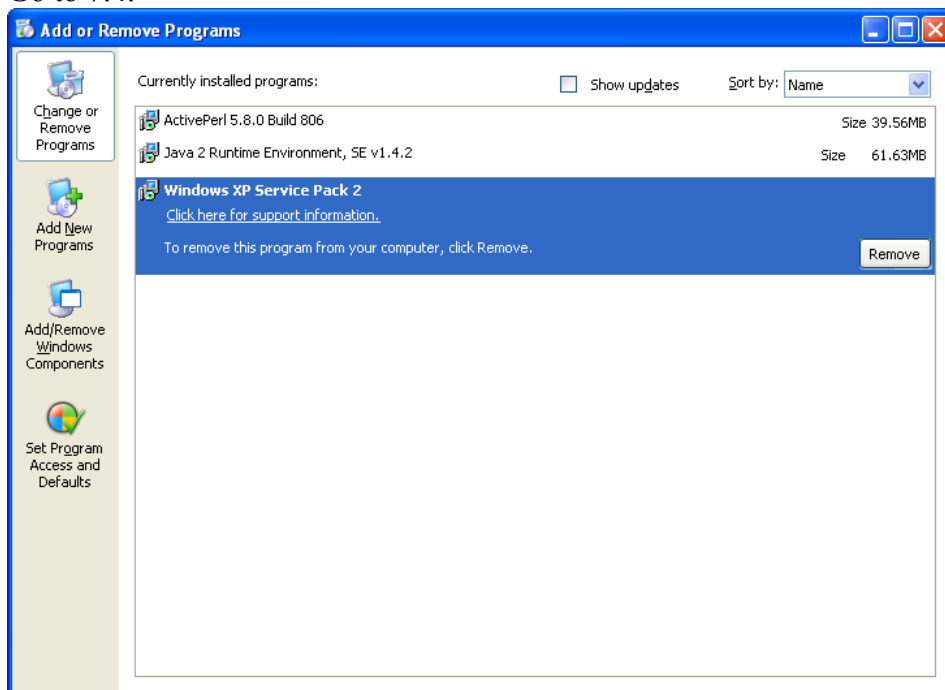
- (10) A message, “Are you sure you want to remove Apache HTTP Server 1.3.33 from your computer?” is displayed. Select (CL) the [Yes] button.



- (11) The uninstallation of Apache 1.3.33 is started.

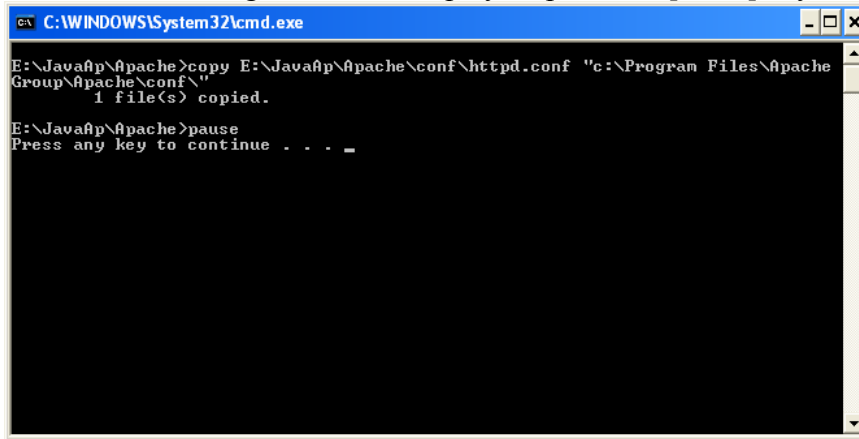


- (12) The [Apache HTTP Server 1.3.33] is removed from the ‘Add or Remove Programs’ panel. Close the panel by selecting (CL) the [×] button.
Go to 7.4.

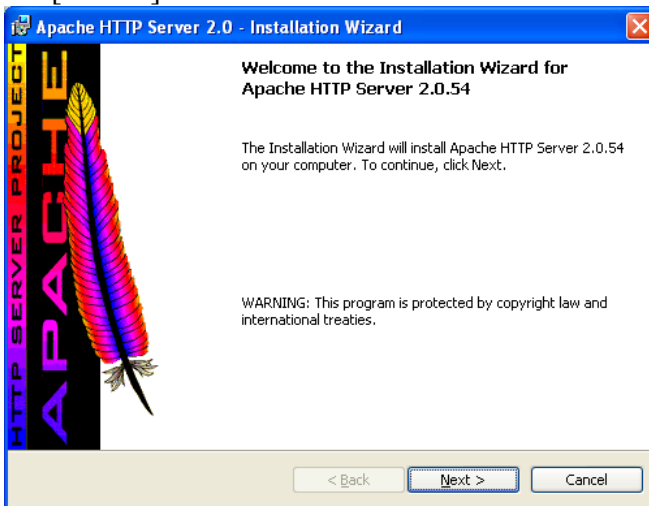


7.4 Installation of Apache 2.0.54

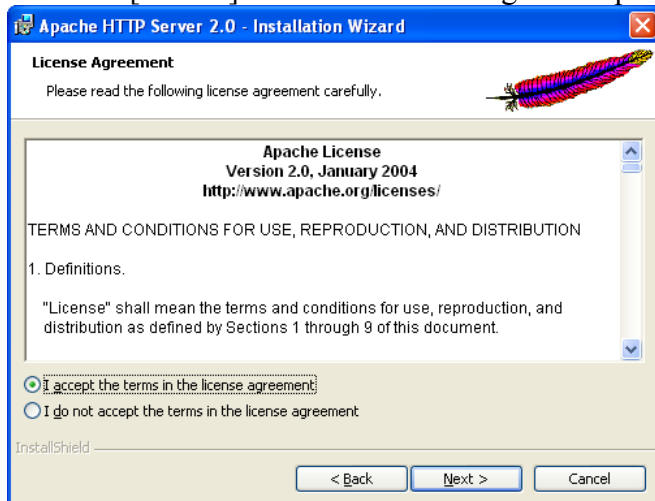
- (1) Insert a CD-ROM disk into the CD-ROM drive.
Select (DR) [Start]-[Run...].
Enter “e:\JavaAp\Apache\chgap2conf.bat” and press the [OK] button.
When the following window is displayed, press the [Enter] key.



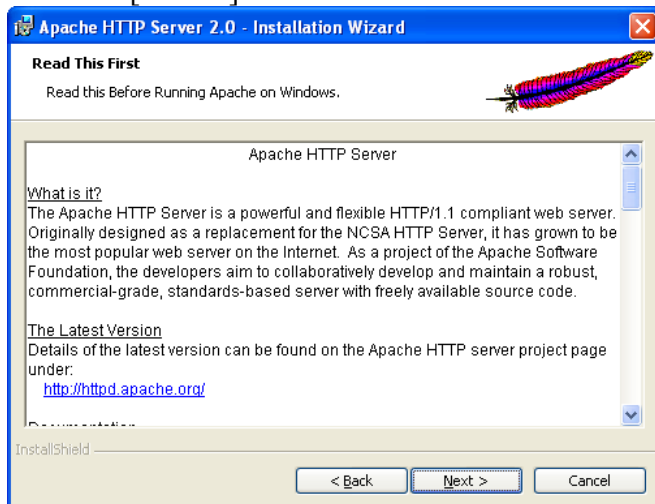
- (2) Select (DR) [Start] and [Run...] in this order.
Enter “e:\JavaAp\Apache\apache2-0-54inst.bat” and press the [OK] button.
When the ‘Apache HTTP Server 2.0 - Installation Wizard’ window is displayed, select (CL) the [Next >] button.



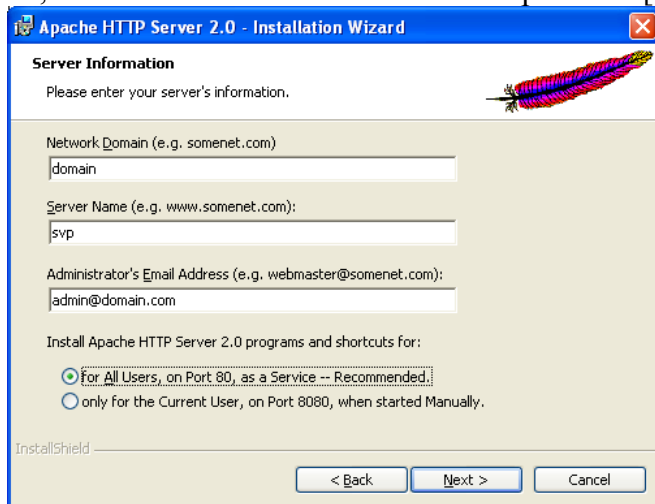
- (3) Press the [Next >] button after selecting “I accept the terms in the license agreement.”



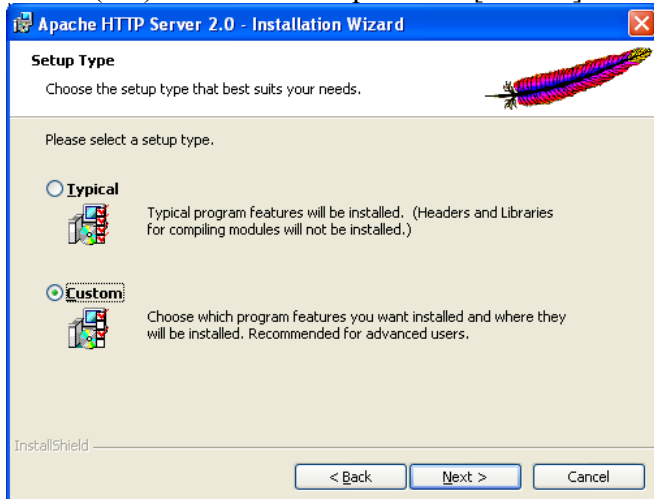
- (4) Press the [Next >] button.



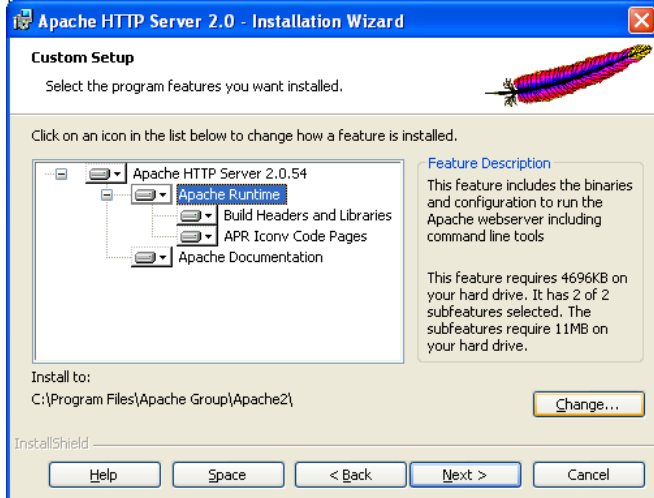
- (5) Enter “domain,” “svp,” and “admin@domain.com” in the Network Domain, Server Name, and Administrator’s Email Address fields respectively, and then select (CL) “for All Users, on Port 80, as a Service -- Recommended.” and press the [Next >] button.



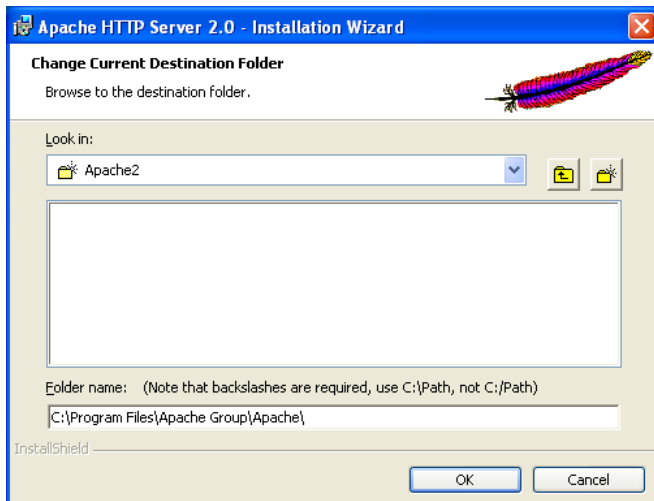
- (6) Select (CL) “Custom” and press the [Next >] button.



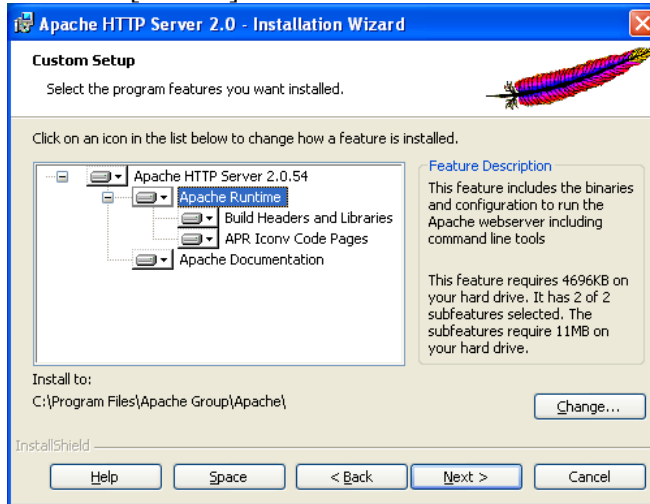
- (7) Select (CL) “Apache Runtime” and press the [Change...] button.



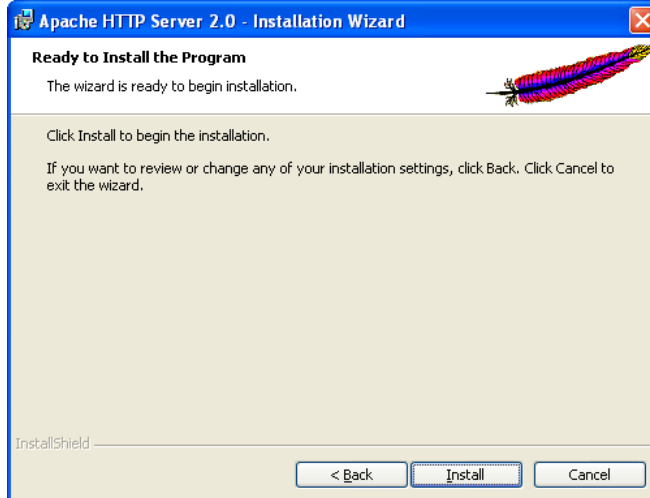
- (8) Enter “C:\Program Files\Apache Group\Apache\” in the Folder name:, and press the [OK] button.



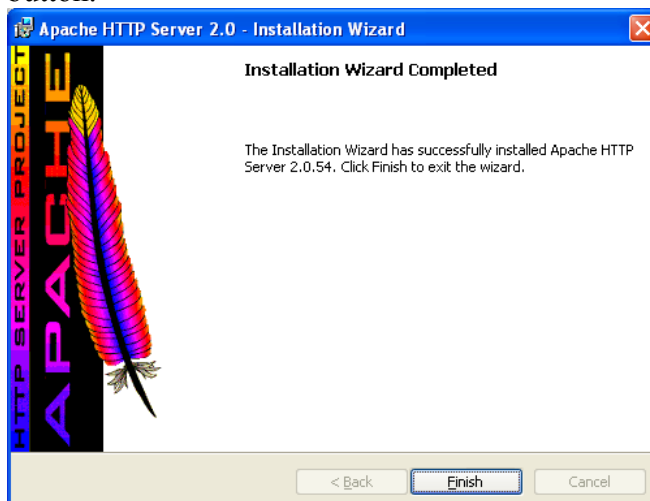
- (9) Press the [Next >] button.



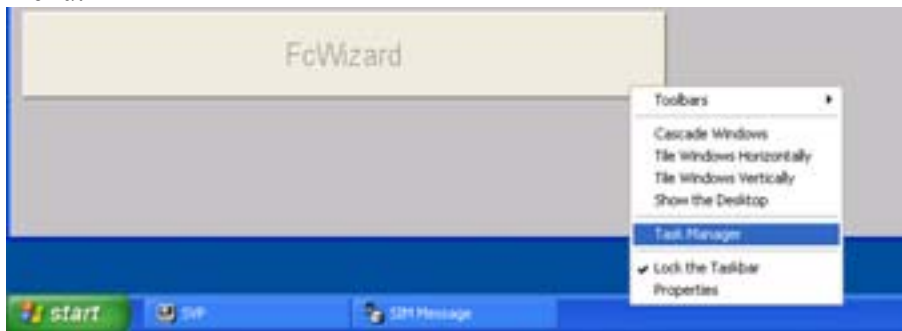
- (10) Press the [Install] button. A copying of the file is started.



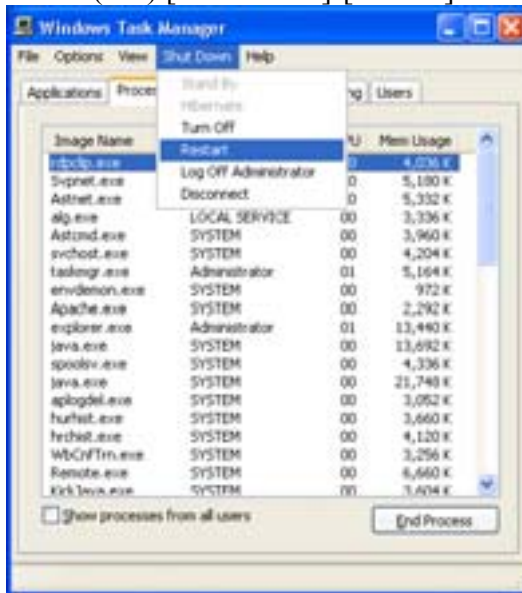
- (11) Since this panel is displayed when the copying of the file is completed, press the [Finish] button.



- (12) Click the right mouse button on Task bar, and select (CL) [Task Manager] of the displayed menu.



- (13) Select (DR) [Shut Down]-[Restart].



- (14) The SVP will be rebooted.

7.5 Procedure of Apache downgrade

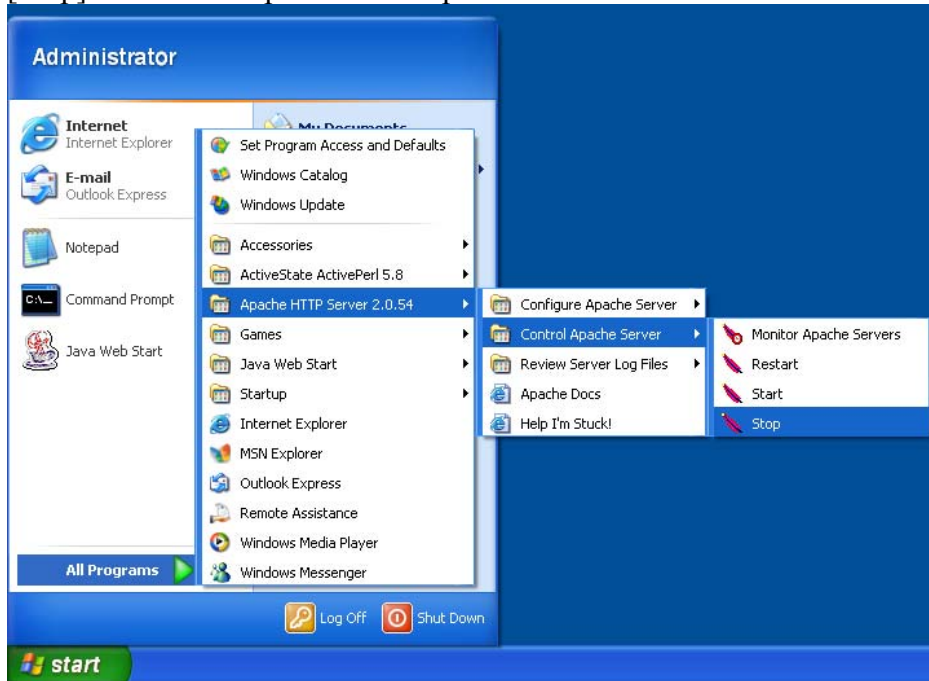
If you downgrade the SVP version from 50-04-20/00 (or later) to 50-04-19/xx (or earlier), you must downgrade the Apache version from 2.0.54 to 1.3.xx.

If the SVP version is 50-04-20/00 or later, you can downgrade the Apache version from 2.0.54 to 1.3.xx.

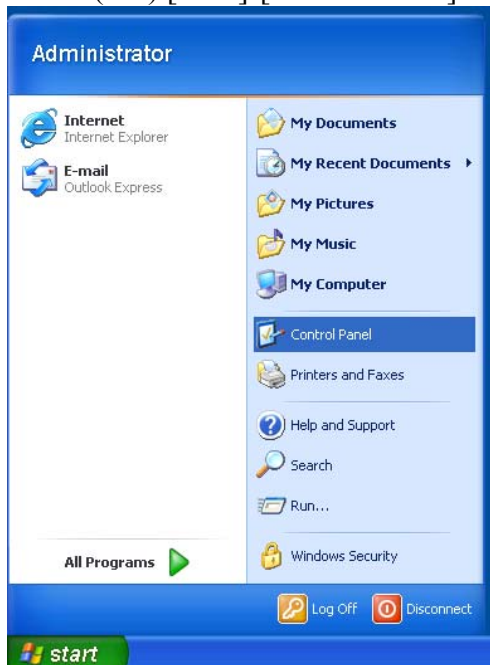
To downgrade Apache to 1.3.xx, replace Apache using the following procedure.

7.5.1 Uninstallation of Apache 2.0.54

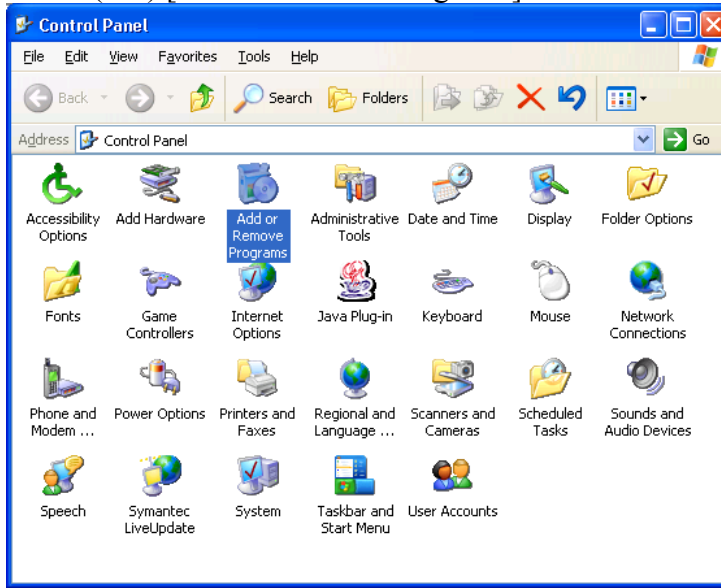
- (1) Select (DR) [Start]-[All Programs]-[Apache HTTP Server 2.0.54]-[Control Apache Server]-[Stop]. Service of Apache will stop.



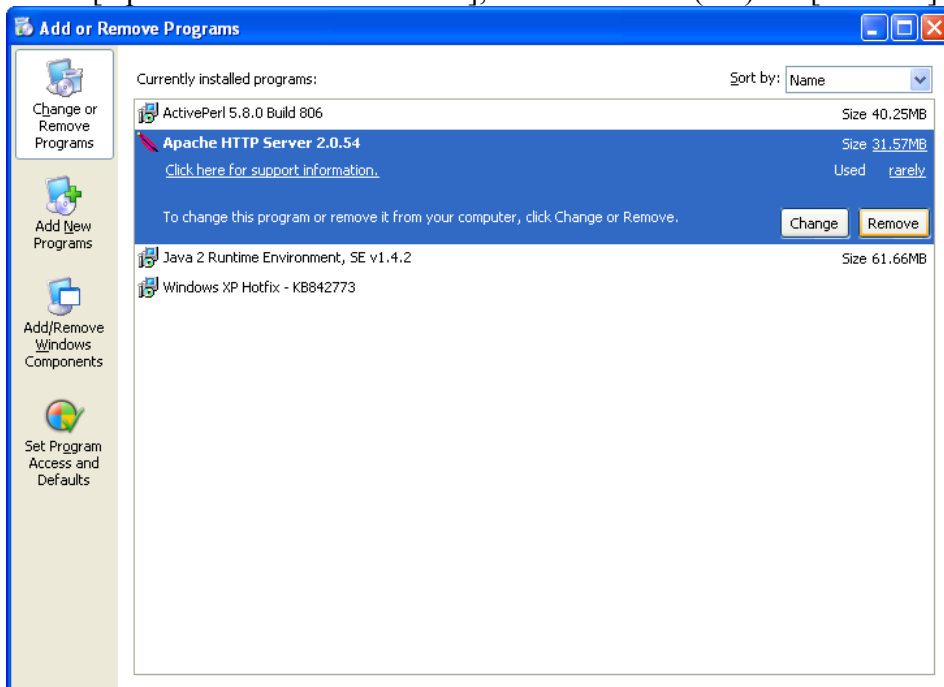
- (2) Select (DR) [Start]-[Control Panel].



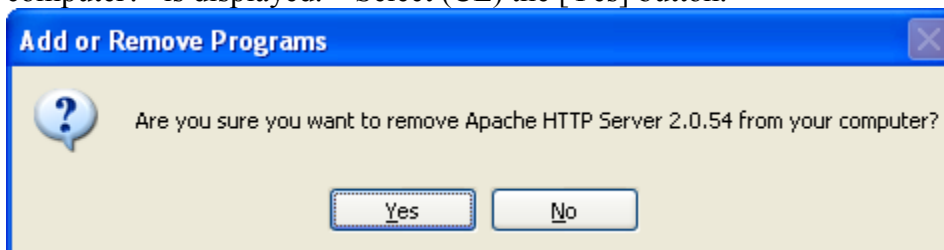
- (3) Select (DC) [Add or Remove Programs].



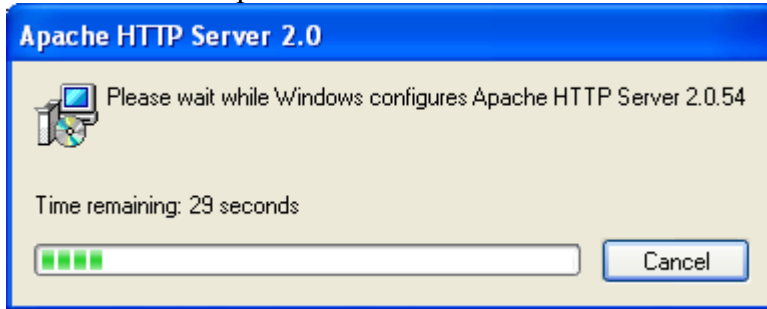
- (4) Select [Apache HTTP Server 2.0.54], and then select (CL) the [Remove] button.



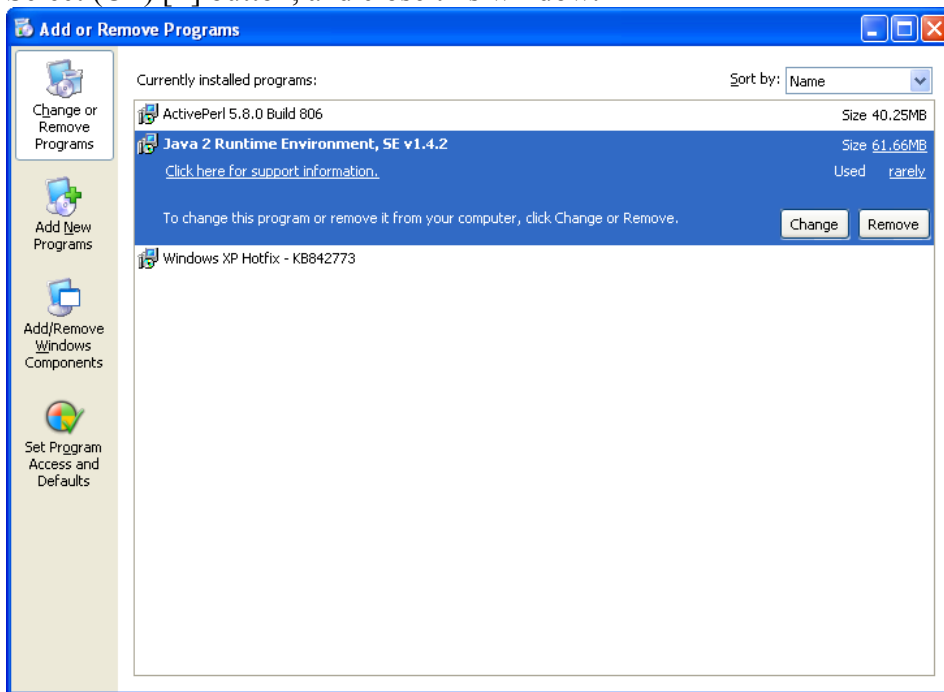
- (5) The message, “Are you sure you want to remove Apache HTTP Server 2.0.54 from your computer?” is displayed. Select (CL) the [Yes] button.



- (6) Uninstallation of Apache 2.0.54 starts.



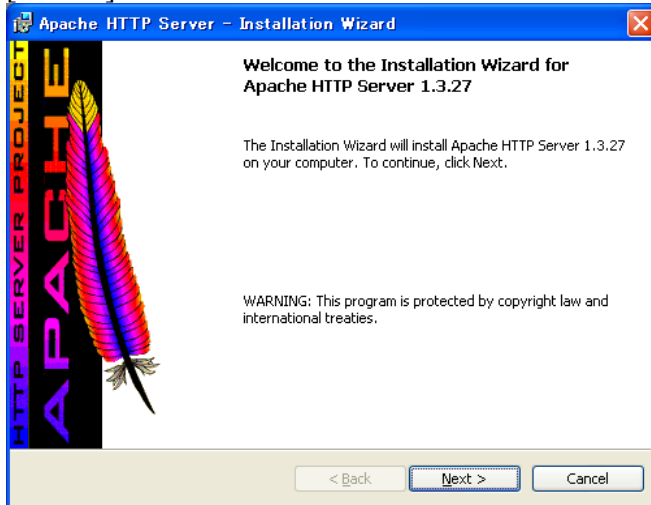
- (7) [Apache HTTP Server 2.0.54] is removed from the [Add or Remove Programs] panel. Select (CL) [×] button, and close this window.



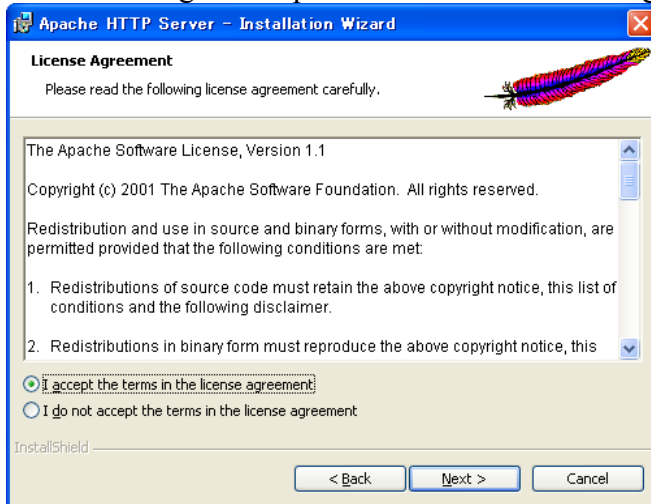
- (8) Select (DR) [Start]-[Run...].
Enter "delApacheConf.bat" and press the [OK] button.
If you downgrade the SVP version 50-03-7x/xx or earlier, go to 7.5.2.
If you downgrade the SVP version 50-04-19/xx or earlier, go to 7.5.3.
If you return the SVP version to the standard Apache in 50-04-20/00 or later, go to 7.5.3.

7.5.2 Installation of Apache 1.3.27

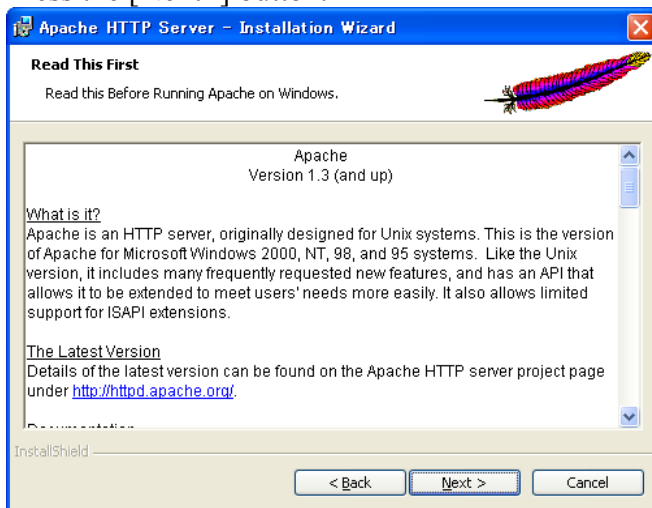
- (1) Insert a CD-ROM disk into the CD-ROM drive. Select (DR) [Start] and [Run...] in this order. Enter “e:\JavaAp\Apache\apache_1.3.27-win32-x86-no_src.msi” and press the [OK] button. When the ‘Apache HTTP Server Installation Wizard’ window is displayed, select (CL) the [Next >] button.



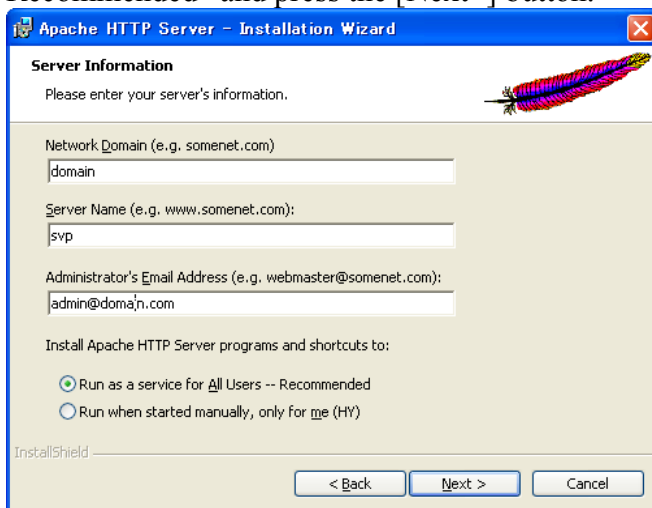
- (2) After selecting “I accept the terms in the license agreement” press the [Next >] button.



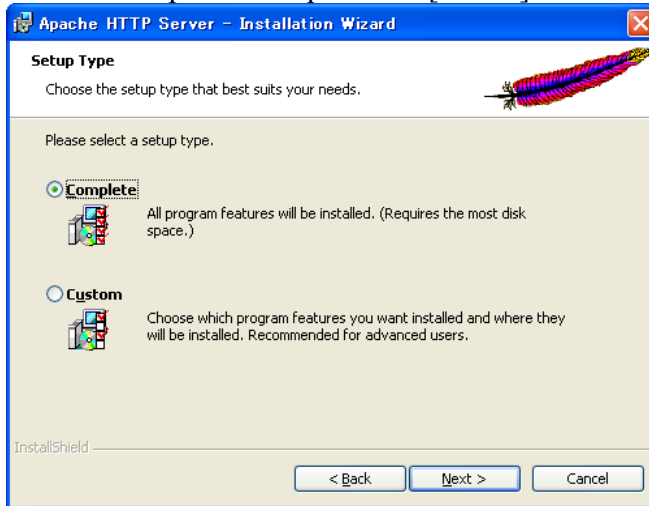
- (3) Press the [Next>] button.



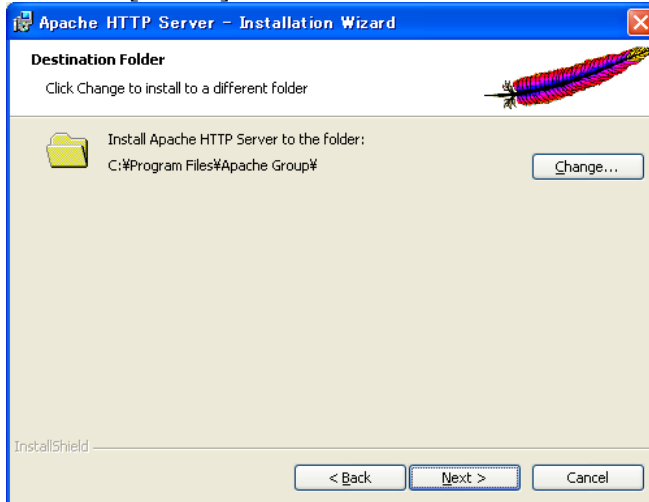
- (4) Enter “domain”, “svp”, and “admin@domain.com” in the Network Domain, Server Name, and Email Address boxes respectively. After that, select “Run as a service for All Users -- Recommended” and press the [Next>] button.



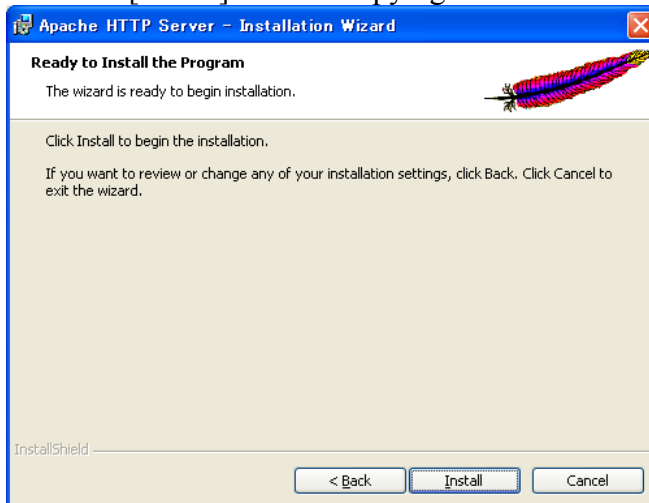
- (5) Select “Complete” and press the [Next>] button.



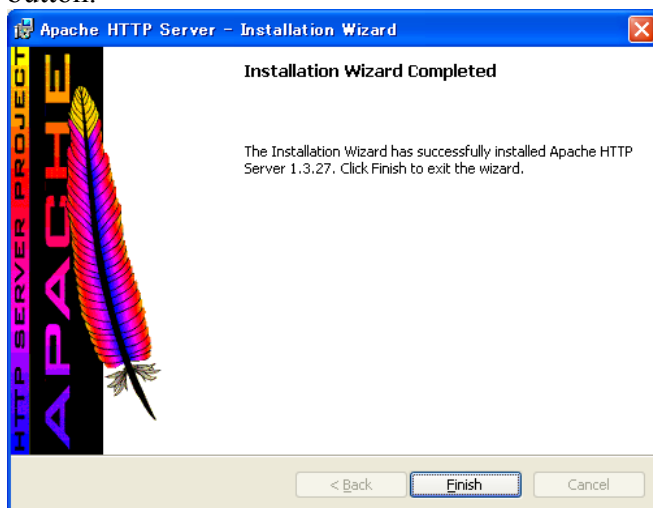
- (6) Press the [Next>] button.



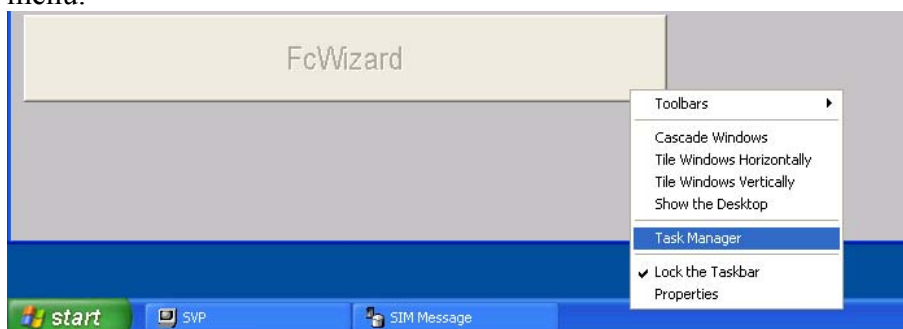
- (7) Press the [Install] button. Copying of the file is started.



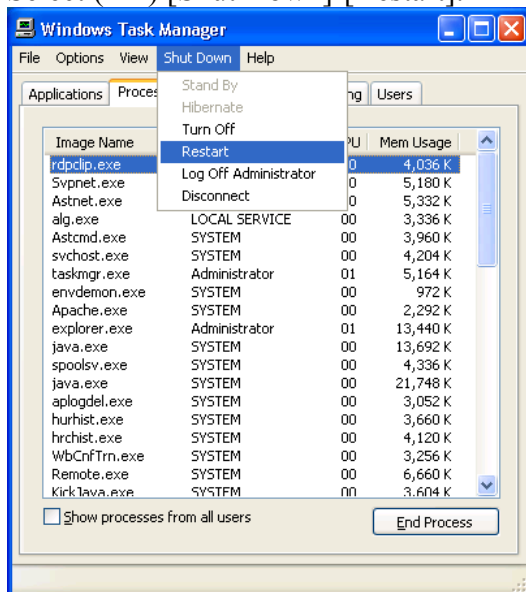
- (8) Since this window is displayed when the copying of the file is completed, press the [Finish] button.



- (9) Click the right mouse button on Task bar, and select (CL) [Task Manager] of the displayed menu.



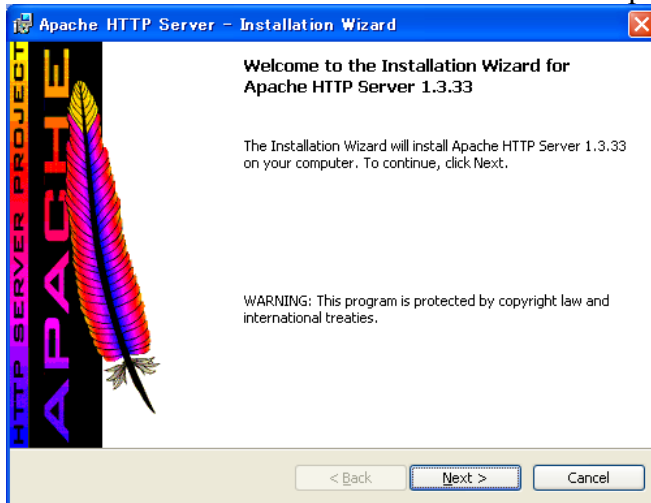
- (10) Select (DR) [Shut Down]-[Restart].



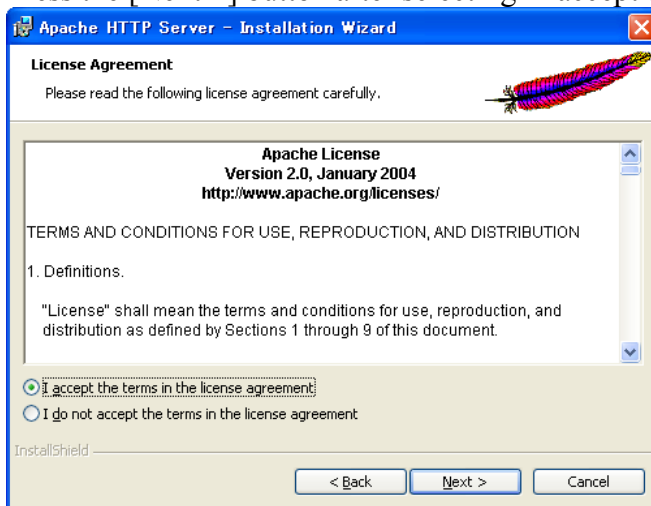
- (11) The SVP will be rebooted. After waiting for several minutes, reconnect the console PC to the SVP.
- (12) Reboot SVP again in the procedure of (9) ~ (10).

7.5.3 Installation of Apache 1.3.33

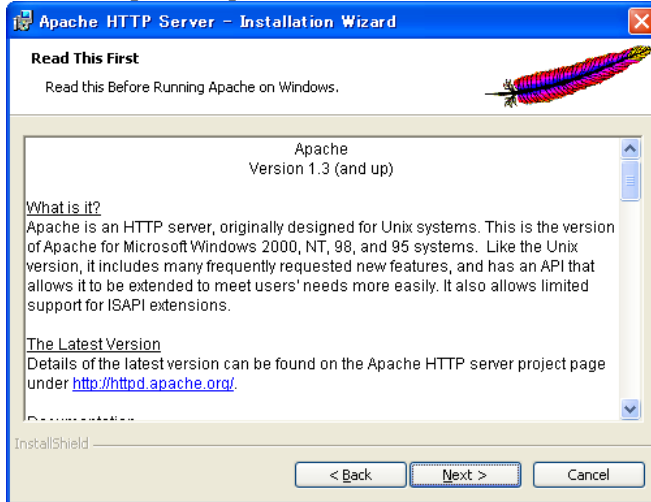
- (1) Insert a CD-ROM disk into the CD-ROM drive. Select (DR) [Start] and [Run...] in this order. Enter “e:\JavaAp\Apache\apache1-3-33inst.bat” and press the [OK] button. When the ‘Apache HTTP Server Installation Wizard’ window is displayed, select (CL) the [Next >] button.



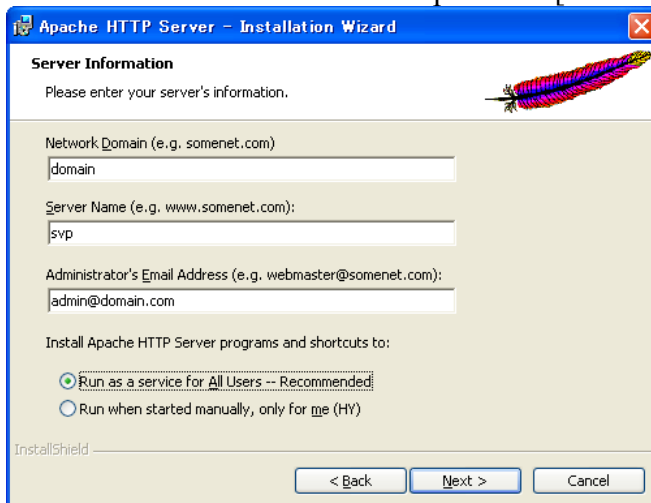
- (2) Press the [Next >] button after selecting “I accept the terms in the license agreement.”



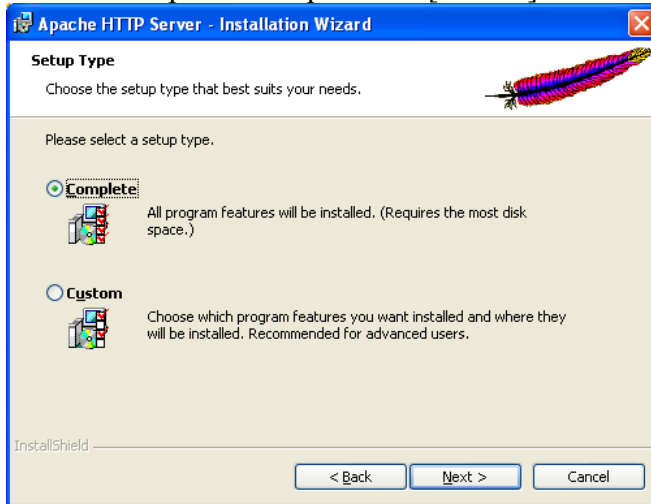
- (3) Press the [Next >] button.



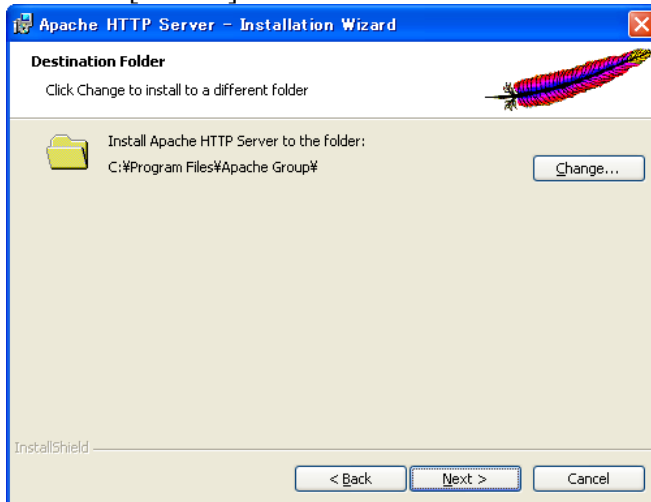
- (4) Enter “domain,” “SVP,” and “admin@domain.com” in the Network Domain, Server Name, and Administrator’s Email Address fields respectively, and then select “Run as a service for All Users -- Recommended” and press the [Next >] button.



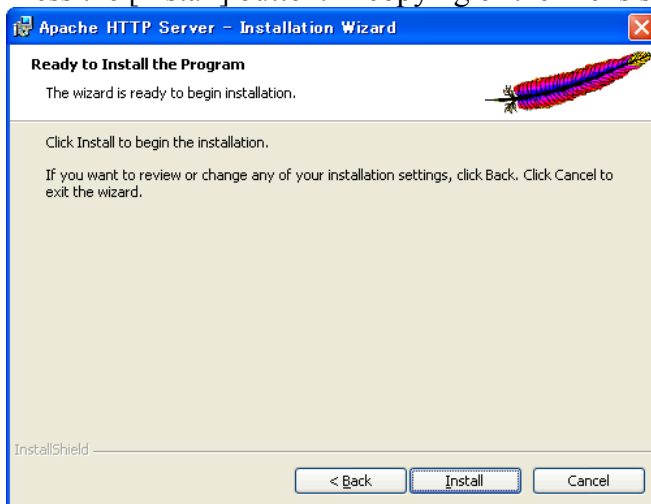
- (5) Select “Complete” and press the [Next >] button.



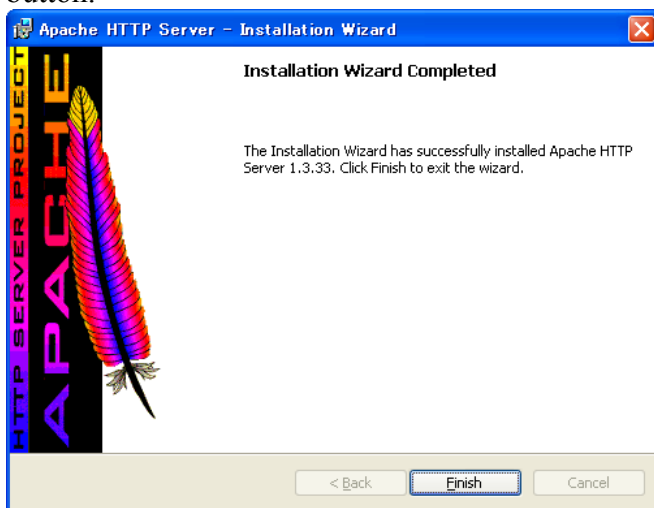
- (6) Press the [Next >] button.



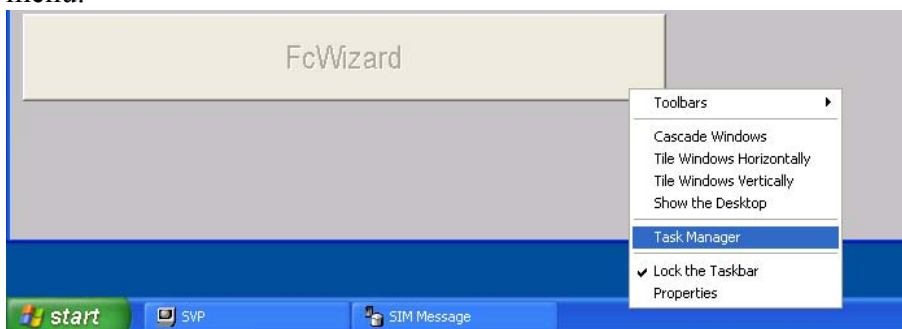
- (7) Press the [Install] button. A copying of the file is started.



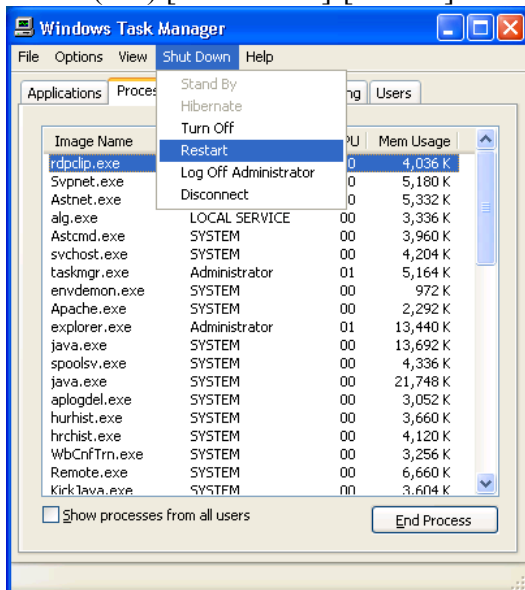
- (8) Since this panel is displayed when the copying of the file is completed, press the [Finish] button.



- (9) Click the right mouse button on Task bar, and select (CL) [Task Manager] of the displayed menu.



- (10) Select (DR) [Shut Down]-[Restart].



- (11) The SVP will be rebooted. After waiting for several minutes, reconnect the console PC to the SVP.
- (12) Reboot SVP again in the procedure of (9) ~ (10).

8. Before using the Syslog function of AuditLog

The setting of the Syslog server is required to use the Syslog function of AuditLog.

Ask the customer to set the address of the Syslog server.

Refer to the RAID500 Web Console User's Guide (Base Volume) for the details of the setting.

Note: When the SVP is replaced, the resetting of the Syslog server is required.

Ask the customer to reset it.