

WEB CONSOLE SECTION

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WEB00-20

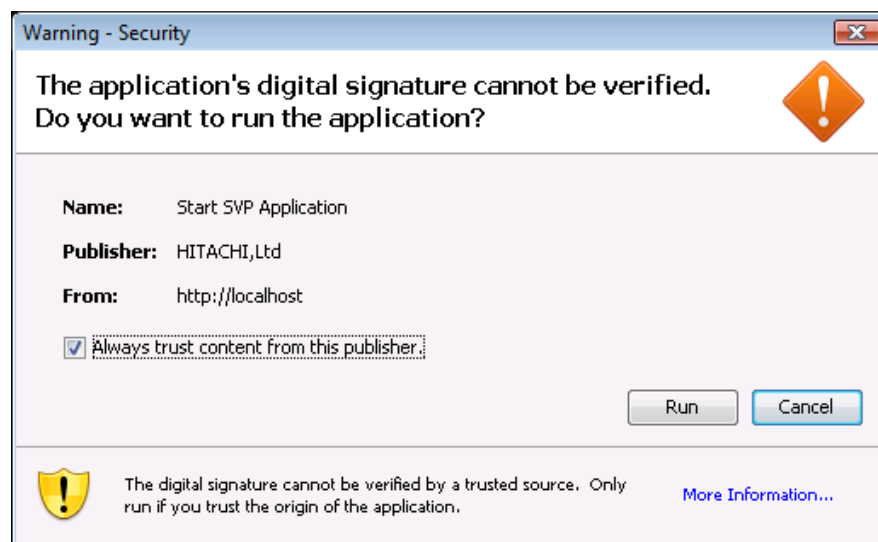
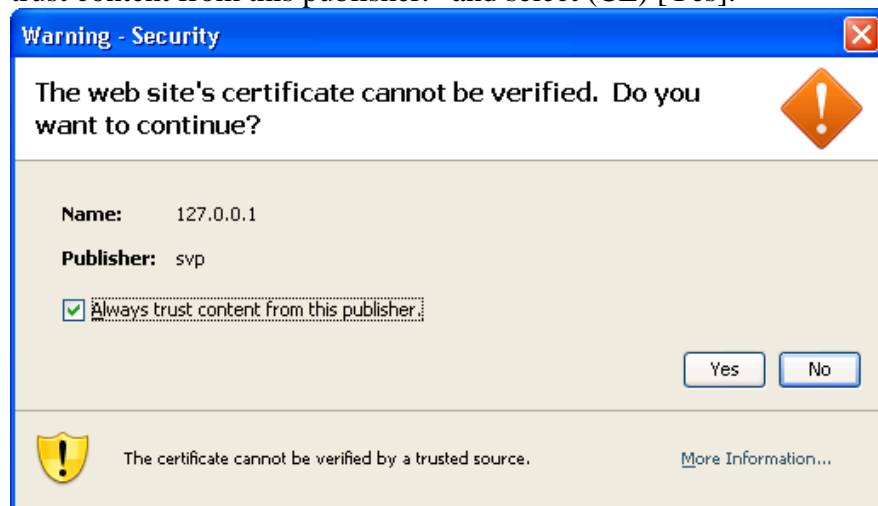
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1. Before using Web Console

Settings of JAVA and an IP address are required to use Web Console on SVP.

Refer to “Hitachi Storage Navigator User Guide” for the specification of the commonness part of Web Console for the operation and conventions.

This screen will not be displayed from the next startup when you check the check box of “Always trust content from this publisher.” and select (CL) [Yes].



NOTICE: They are notes for a remote desktop connection to SVP.
There are cases that users copy a file from SVP to the client PC via Remote Desktop in Web Console. If the client PC works on Windows XP (SP3), a file is destroyed when you copy it via Remote Desktop.
This is a known problem in Windows.
Please deal according to the content described in following URL.
<http://support.microsoft.com/kb/972828>

1.1 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 [LOC04-20](#)).

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.

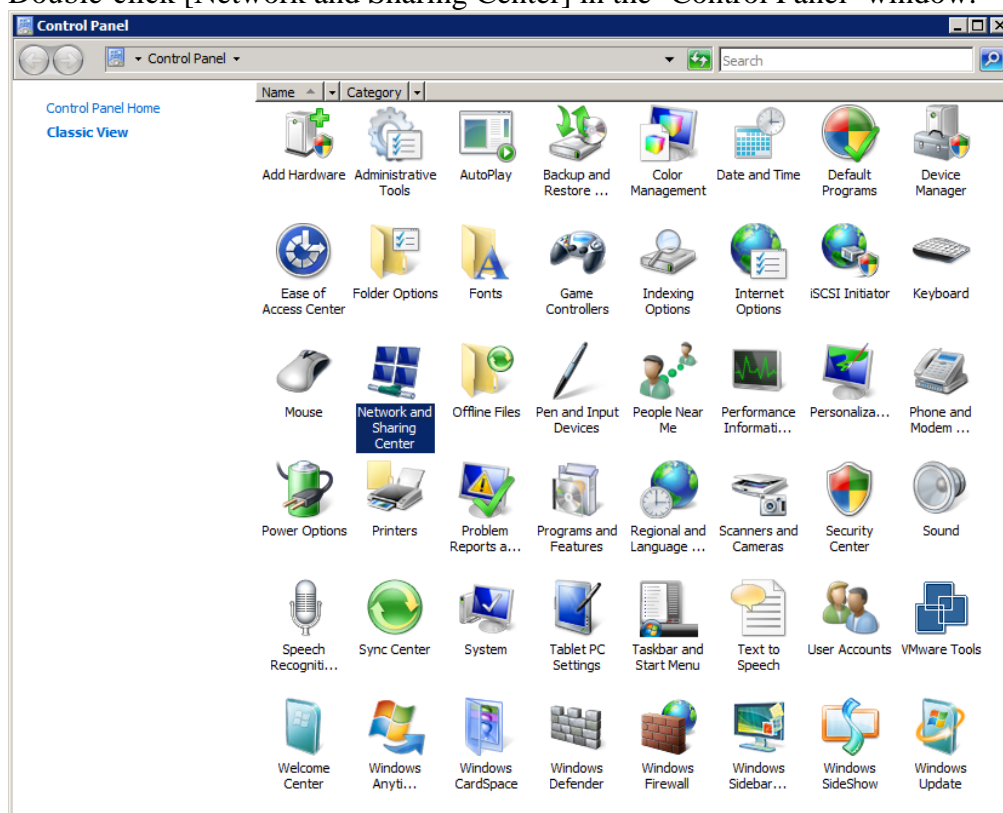
(1) Setting IP address

(a) Opening the Control Panel window

Select (CL) [Control Panel] from the [Start]-[Settings] menu.

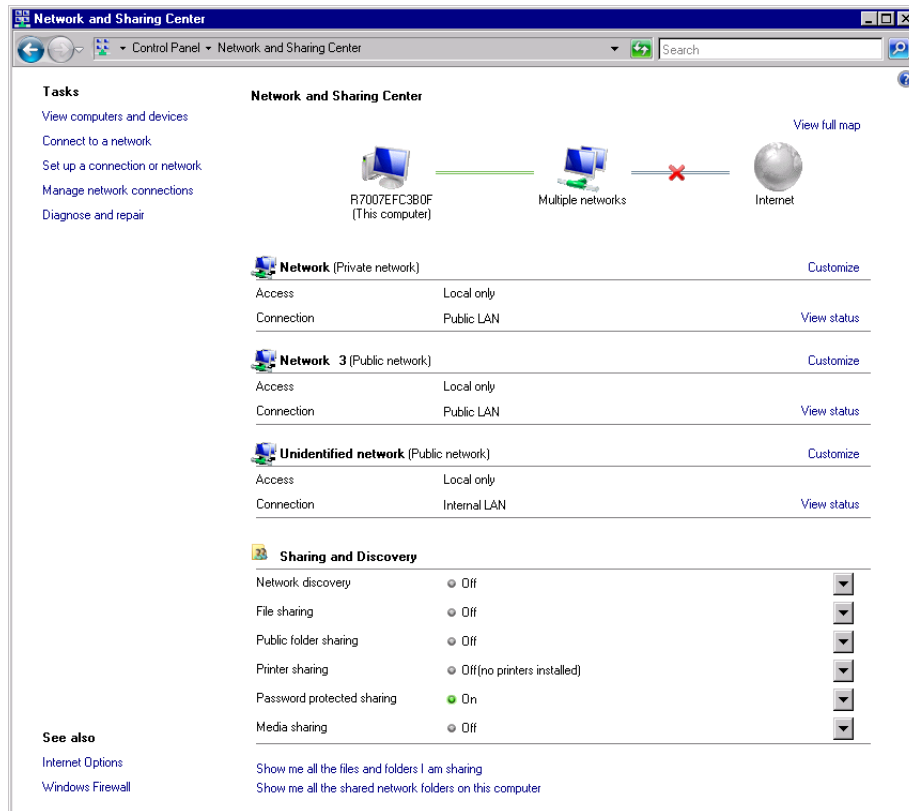
(b) Opening the Network and Sharing Center window

Double-click [Network and Sharing Center] in the 'Control Panel' window.



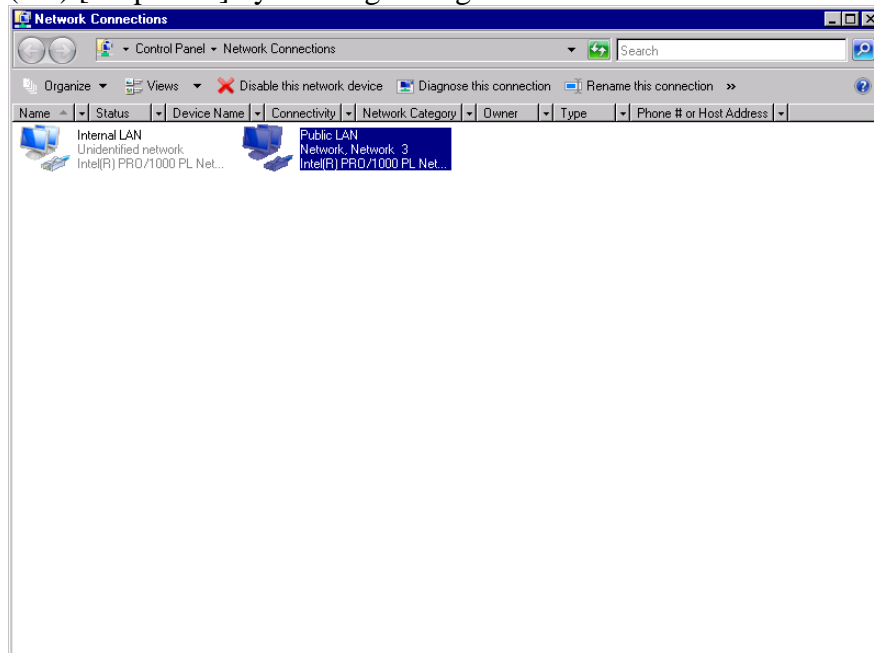
(c) Opening the Manage network connections window

Select (CL) [Manage network connections] in the left side of 'Network and Sharing Center' window.

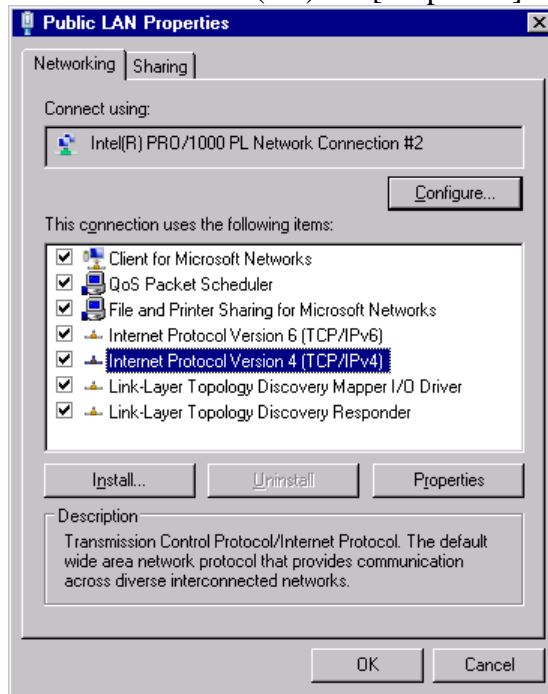


(d) Opening the Public LAN Properties window

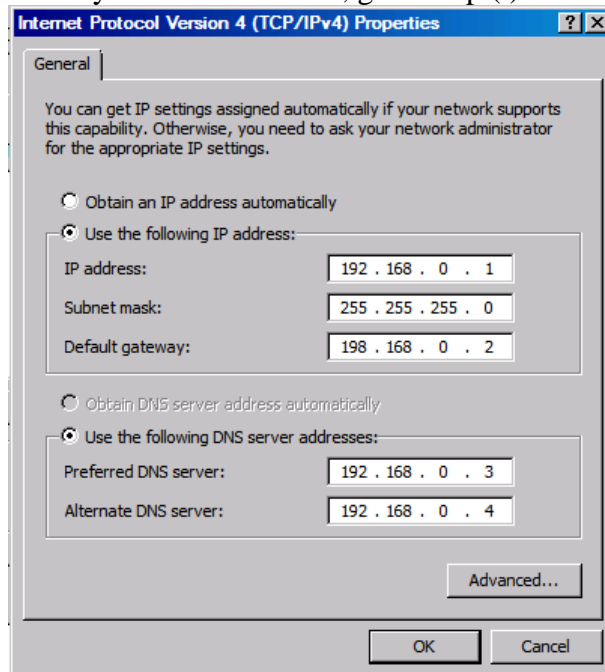
Select (CL) [Public LAN Properties] in the 'Network Connections' window and select (CL) [Properties] by clicking the right mouse button.



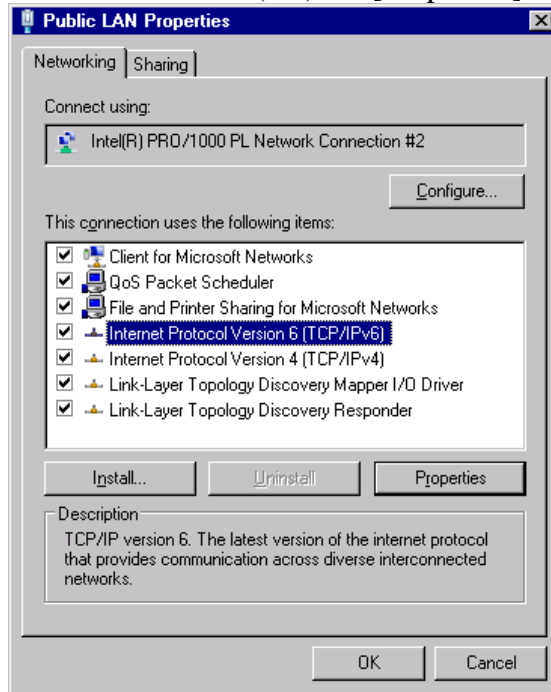
- (e) Opening the Internet Protocol Version 4 (TCP/IPv4) Properties window
Select (CL) [Internet Protocol Version 4 (TCP/IPv4)] in the ‘Public LAN Properties’ window and select (CL) the [Properties] button.



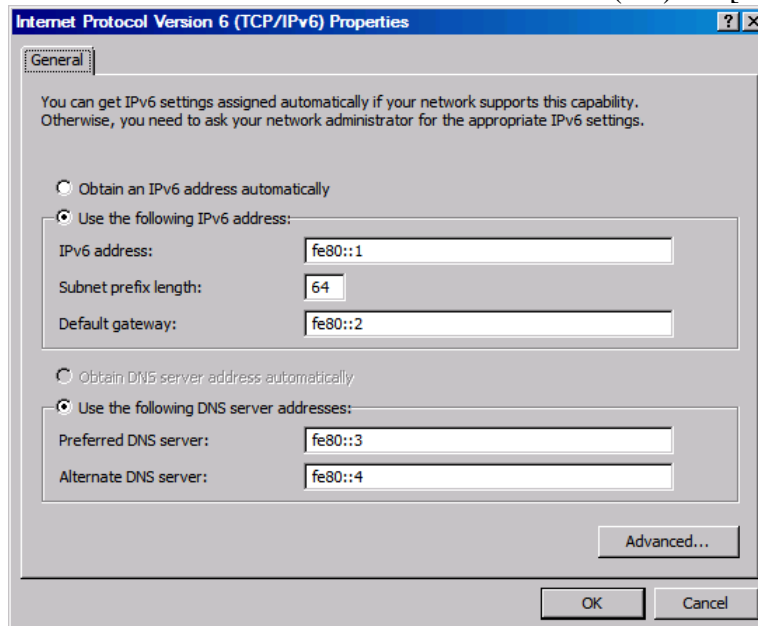
- (f) Setting the external IP address
Set the “IP address”, “Subnet mask”, “Default gateway”, “Preferred DNS server” and “Alternate DNS server” and select (CL) the [OK] button.
When you do not set IPv6, go to step (i).



- (g) Opening the Internet Protocol Version 6 (TCP/IPv6) Properties window
Select (CL) [Internet Protocol Version 6 (TCP/IPv6)] in the ‘Public LAN Properties’ window and select (CL) the [Properties] button.



- (h) Setting the external IP address
Set the “IPv6 address”, “Subnet prefix length”, “Default gateway”, “Preferred DNS server” and “Alternate DNS server” and select (CL) the [OK] button.



- (i) Closing the window
After the setting is completed, select (CL) the [OK] button in the “Public LAN Properties” window.

(2) Setting Network Connection Properties

Checking whether the setting of the network (setting of Config) must be changed or not. 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.

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.

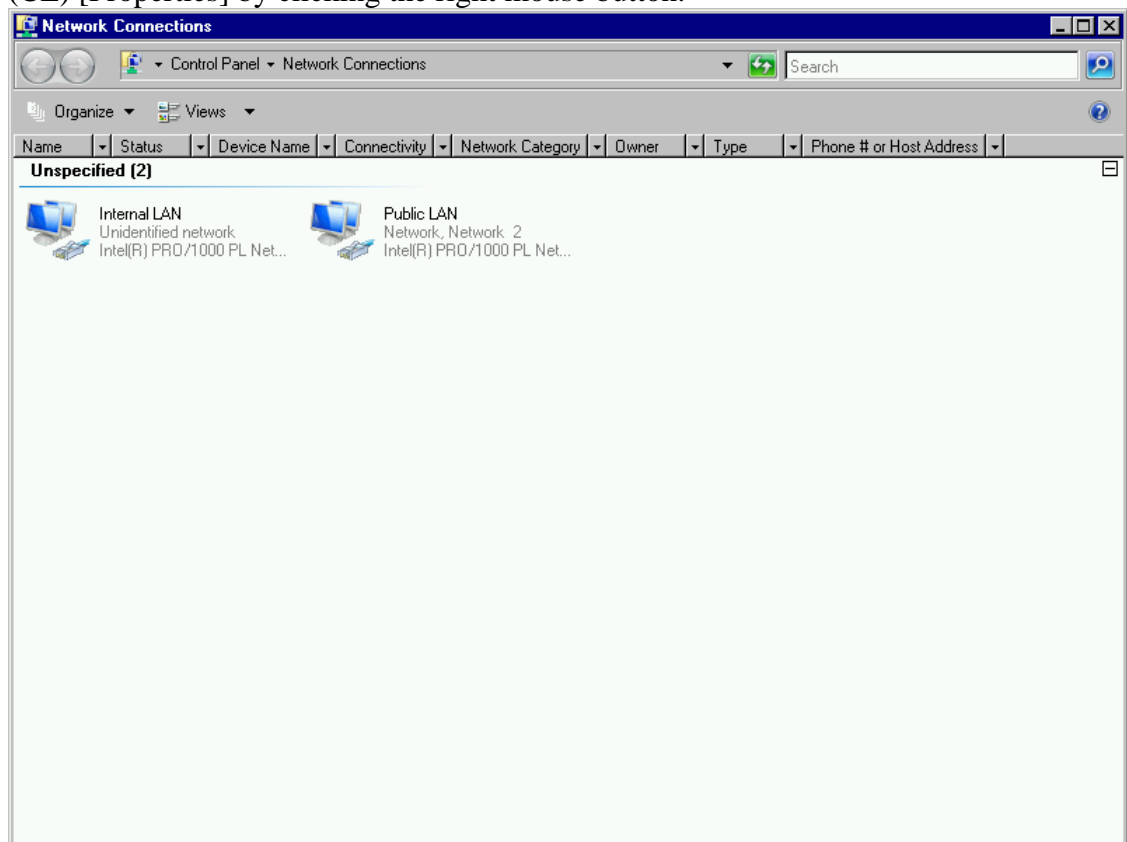
(Normally, no setting change is required.)

- 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".

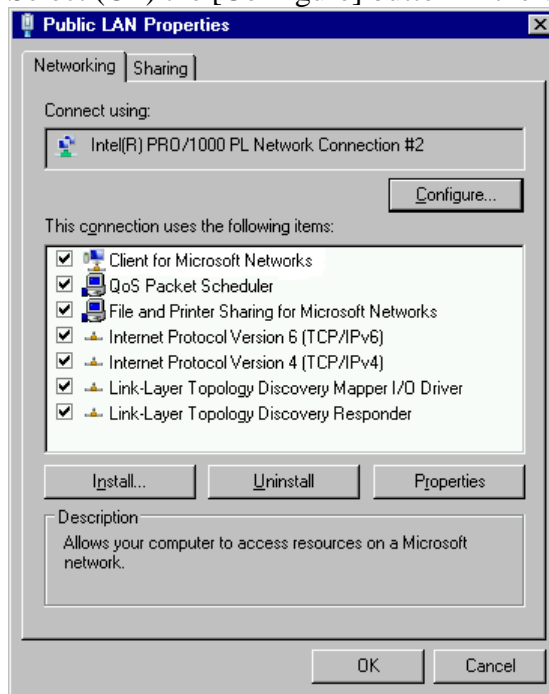
(a) Opening the Public LAN Properties window

Select (CL) [Public LAN Properties] in the 'Network Connections' window and select (CL) [Properties] by clicking the right mouse button.



(b) Opening the configuration windows

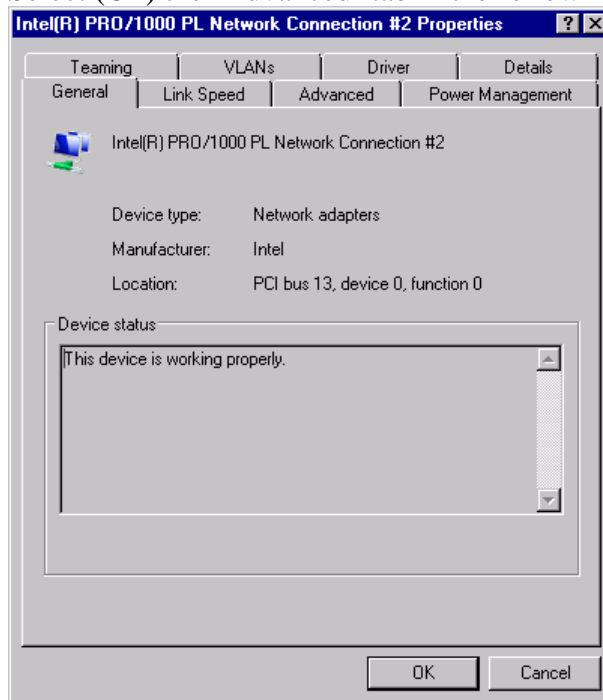
Select (CL) the [Configure] button in the window.



(c) Switching the tab

After the [Configure] button is pressed, the following window is displayed.

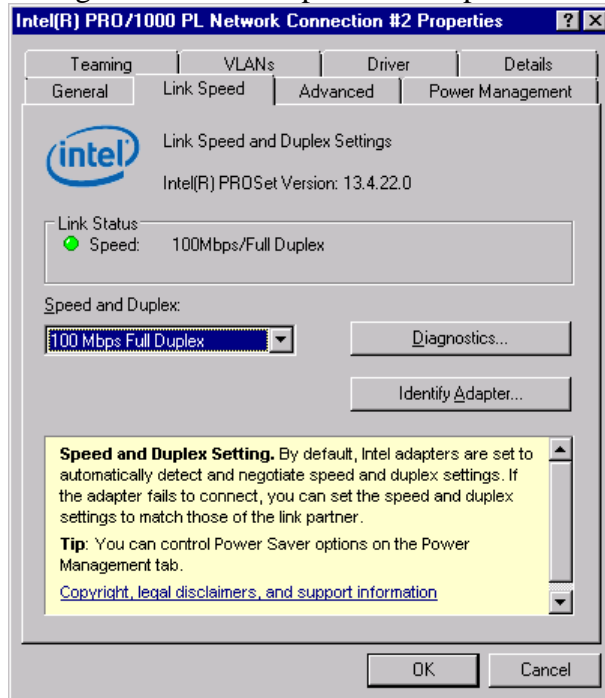
Select (CL) the 'Advanced' tab in the following window.



(d) Setting the Connection Properties

After the 'Advanced' tab is selected, the following window is displayed.

Change the value of 'Speed and Duplex' from 'Auto Detect' to '100Mbps Full Duplex'.



(e) Applying the settings and closing the window

Return the window to 'Public LAN Properties' by pressing (CL) the [OK] button and close the window by pressing the [OK] button.

NOTE: When you use Web Console only with the IPv6 connection, set it referring to [WEB06-10](#).

1.2 Check of Configuring Web Console over a Firewall

When you connect Web Console and the SVP over a firewall, make sure to connect them through the following TCP/IP port numbers to configure the firewall:

- FTP (File Transfer Protocol): 21 (TCP)
- HTTP (Hypertext Transfer Protocol): 80 (TCP)
- SNMP (Simple Network Management Protocol): 161 (UDP)
- SLP (Service Location Protocol): 427 (TCP)
- HTTPs (Hypertext Transfer Protocol over Secure Socket Layer): 443 (TCP)
- RMI (Remote Method Invocation): 1099 (TCP)
- SMI-S: 5989 (TCP)
- RMI: 51099 (TCP)
- RMI: 51100 (TCP)

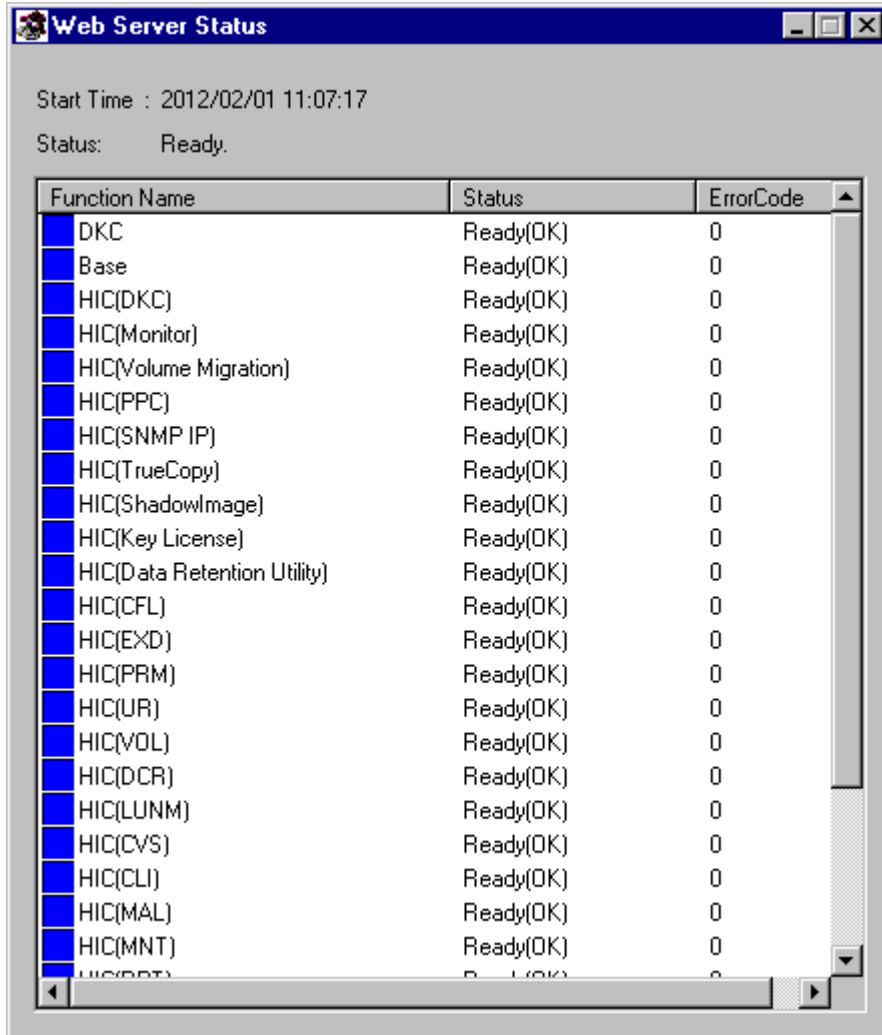
NOTE: If the operating system of your Web Console computer is Windows Vista, you must configure a firewall so that Web Console and the SVP can communicate through these ports because Windows Vista uses a firewall by default.

2. Web Console

2.1 Specifications of Web Server Status

Activate RISMAN, which 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.

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.

WEB02-20

• Function Name

	Name	Description	Part code
1	DKC	Displays whether the DKC is ready or not.	0002
2	Base	Displays the status of the management of configuration information.	0002/0003
3	HIC(DKC)	Displays the state of initialization of the common function.	8005
4	HIC(Monitor)	Displays the state of initialization of the Performance Monitor function.	5105
5	HIC (Volume Migration)	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(SNMP IP)	Displays the state of initialization of the SNMP Information function.	0305
8	HIC(TrueCopy)	Displays the state of initialization of the Remote Copy function.	6005/6105
9	HIC(ShadowImage)	Displays the state of initialization of the ShadowImage function.	7005/7105
10	HIC(Key License)	Displays the state of initialization of the Key License function.	0405
11	HIC(Data Retention Utility)	Displays the state of initialization of the Data Retention Utility function.	9205/9605
12	HIC(CFL)	Displays the state of initialization of Configuration File Loader function	8105
13	HIC(EXD)	Displays the state of initialization of Universal Volume Manager function.	0605
14	HIC(PRM)	Displays the state of initialization of Virtual Partition Manager function.	8505
15	HIC(UR)	Displays the state of initialization of the Universal Replicator function.	6505/6605
16	HIC(VOL)	Displays the state of initialization of the Quick Shadow / Dynamic Provisioning function.	3005
17	HIC(DCR)	Displays the state of initialization of the Cache Residency Manager function.	4005
18	HIC(LUNM)	Displays the state of initialization of the LUN Manager function.	1005
19	HIC(CVS)	Displays the state of initialization of the Volume Manager function.	3305
20	HIC(CLI)	Displays the state of initialization of the Storage Navigator CLI function.	1305
21	HIC(MAL)	Displays the state of initialization of the E-Mail information function.	8605
22	HIC(MNT)	Displays the state of initialization of the Maintenance function.	8705
23	HIC(RPT)	Displays the state of initialization of the Report function.	8805
24	HIC(RSG)	Displays the state of initialization of the Resource Group function.	20705
25	HIC(SIM)	Displays the state of initialization of the SIM Syslog information function.	8905
26	HIC(reserved1)	Displays the state of initialization of the Reserved function.	9005
27	HIC(reserved2)	Displays the state of initialization of the Reserved function.	9105
28	HIC(reserved3)	Displays the state of initialization of the Reserved function.	6805

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• 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) (*3)
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)

NOTE:

- 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.
 - There is a possibility the configuration is being changed from a user application (RAID Manager etc.) other than Storage Navigator if the display of Initialize(Start) / Refresh(Start) remains as is for a while. It will turn into the state of Ready(OK) a while after the configuration change is completed performed from the user application.
- *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.
When DKC has been powered off, it is likely to turn into the state of xxxx(Error).
After DKC has been powered on for a while, it turns into the state of Ready(OK).
- *2 Initialization/Refresh is restarted by changing the SVP to the View mode.

- *3 When a storage system is ended without shutting down SVP, “Initialize(Error)” may be displayed at the time of initialization of RISMAN, a retry recovers.

- Error Code

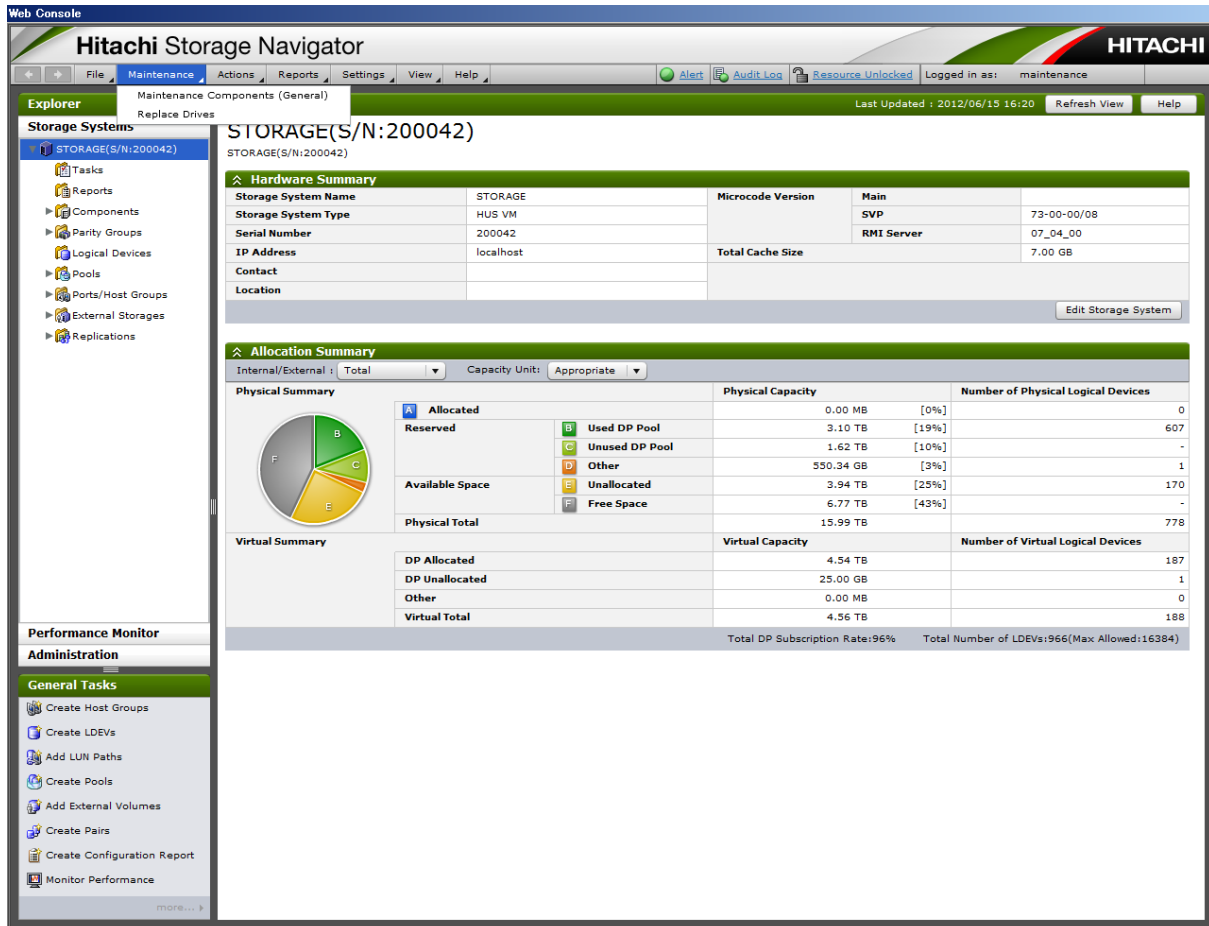
When an error occurs, its error code is displayed.

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

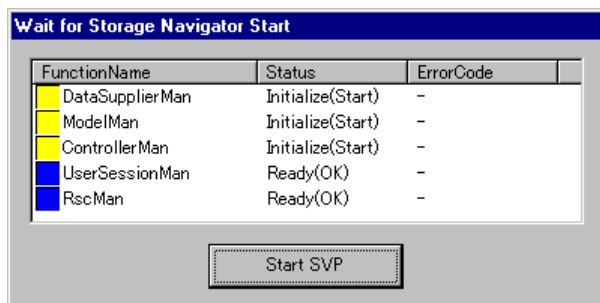
(Part codes are listed in the item of Function Name.)

2.2 Procedure for Activation Using SVP

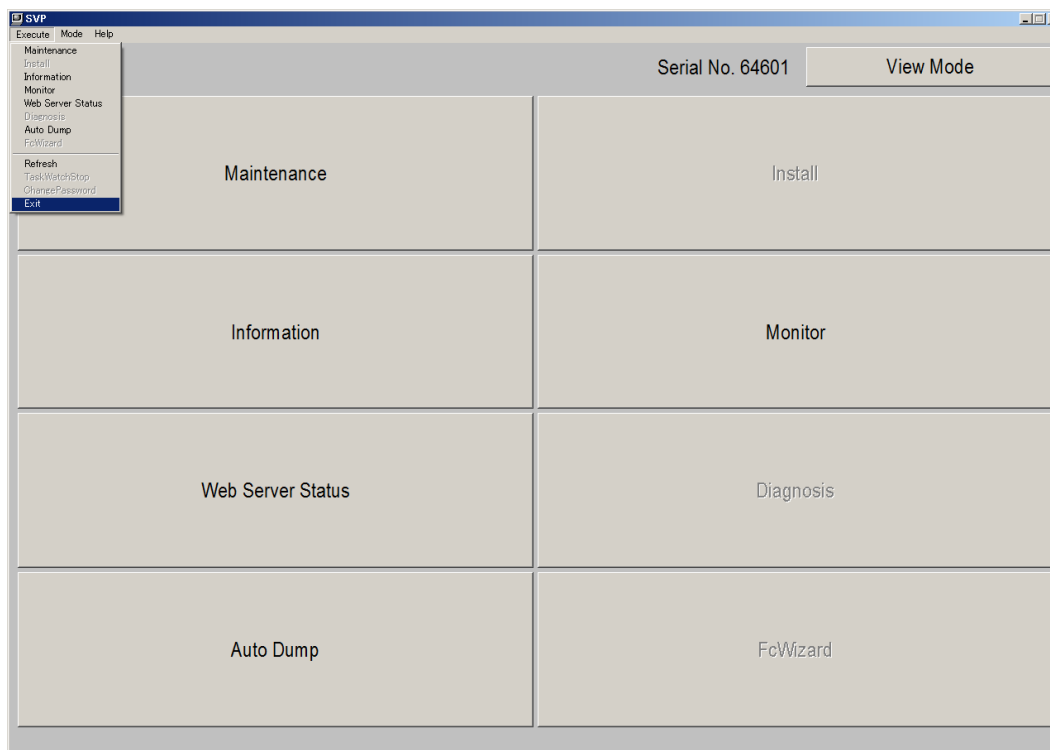
When SVP is logged in Remote Desktop, Web Console automatically starts up. Select [Maintenance]-[Maintenance Components (General)] from the Action menu to start the maintenance screen.



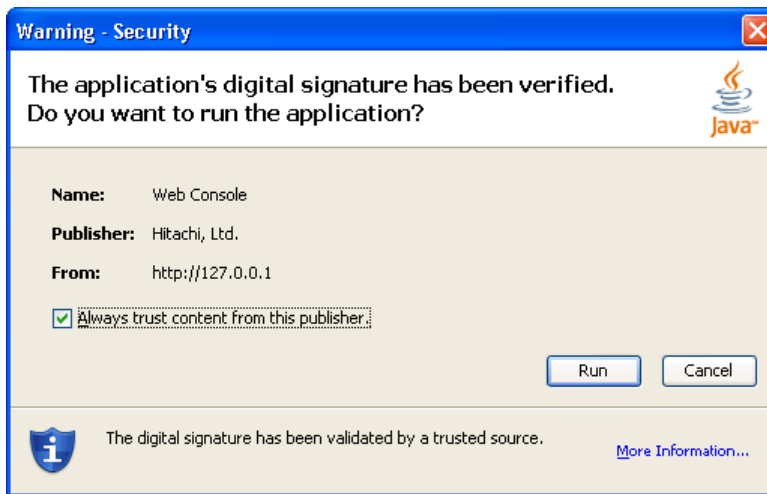
NOTE: When Web Console is not ready, the screen below is displayed. Selecting (CL) [Start SVP] will start the maintenance screen.



NOTE: Just after the microcode updates, the maintenance screen starts without the main window of Web Console. If the maintenance screen is closed, the main window of Web Console starts automatically (If Web Console is not ready, the above screen appears until it is ready). If you select (CL) the [Start SVP] button, the maintenance screen starts. When you close the maintenance screen, the main window of Web Console starts automatically. If you want to close the maintenance screen, change [View Mode] to [Modify Mode] and then select (CL) [Execute]-[Exit].



If the security warning as shown in the following figure is displayed, select (CL) [Run].



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.

If the screen below is displayed, select (CL) [Allow].



2.3 Specifications Common to Functions of Web Console

Refer to “Hitachi Storage Navigator User Guide” for the specification of the commonness part of Web Console.

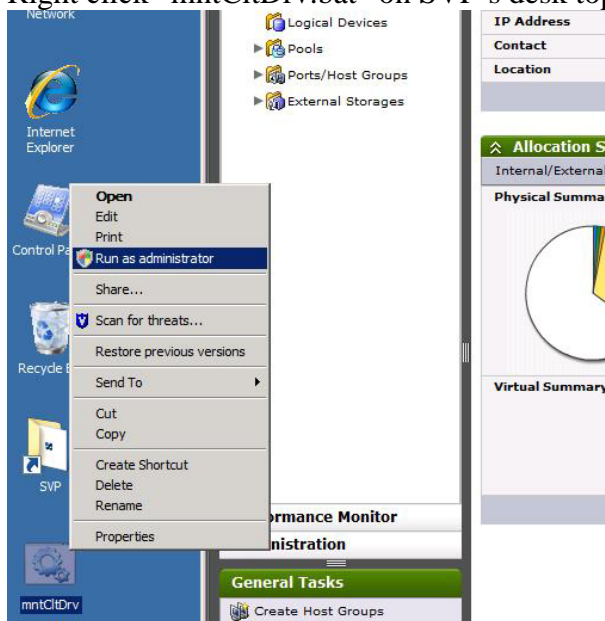
2.4 Before Using Web Console (You are requested to read this without fail.)

The operation of Web Console is similar to the operation of Storage Navigator. Refer to Storage Navigator Conventions of “Hitachi Storage Navigator User Guide”.

2.4.1 How to use client PC's directory

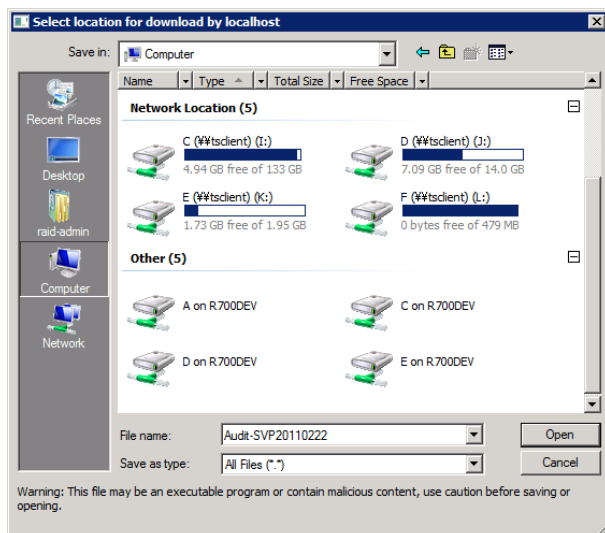
If you use client PC's directory, following this procedure. When client PC's directory configuration is changed, you should execute again

- Installing License Key
 - Downloading Audit Log
 - Downloading Reports
 - Exporting displayed information etc.
1. If you use storage media like a USB memory, insert it to client PC in advance.
 2. Right click “mntClcDrv.bat” on SVP's desk top, select [Run as Administrator].



Mounted Client PC's directory is displayed like "C (\\TSCLIENT) (i:)" on the file chooser of Web Console.

NOTE: It's impossible to use "C on {Client PC's name}".



2.5 Actions to Be Taken According to Result of Troubleshooting

Refer to Troubleshooting of “Hitachi Storage Navigator User Guide”.

	Failure	Recovery action	Remarks
1	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.	<p>A LAN cable may fall out. Please confirm the LAN cable. If the LAN cable falls out, connect it and reboot SVP.</p> <p>The versions of Apache and SVP may mismatch. Uninstall Apache and install it again. Refer to the installation procedure of Apache in the WEB CONSOLE SECTION for the installation procedure.</p> <p>Since the Web Console program different from the microprogram version may be started, you need to clear the cache of Java. Select [Start]–[Control Panel], open the control panel, start the control panel of Java, and clear the cache file.</p>	(NOTE 1)
2	The Storage Navigator PC experiences an error (10,6027), when accessing the SVP from the Storage Navigator PC.	<p>SVP (a Web server) cannot recognize an IP address of Storage Navigator PC or HUB, and please confirm a following item, and figure 1 is reference.</p> <p>(1) Took off an external LAN cable of SVP by installation work or maintenance work, and does not restart do SVP?.</p> <p>(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?</p> <p>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.</p>	
3	The wrong information is displayed on Storage Navigator regarding a product name, a vender name and a function name, etc.	Select [Start]–[Control Panel] on Web Console, and then restart SVP.	
4	Web Console doesn't start even if SVP is logged in remote desktop.	<p>Web Console doesn't occasionally start while changing the storage system configuration until the change ends.</p> <p>Please wait until the change ends.</p> <p>Please confirm whether the storage system is operated from RAID Manager etc. when Web Console do not start for a long time.</p>	

(To be continued)

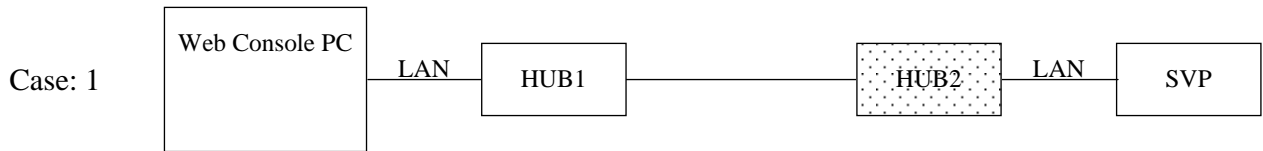
NOTE 1: If the trouble is not solved in spite of it, collect a dump and restart the SVP.

WEB02-120

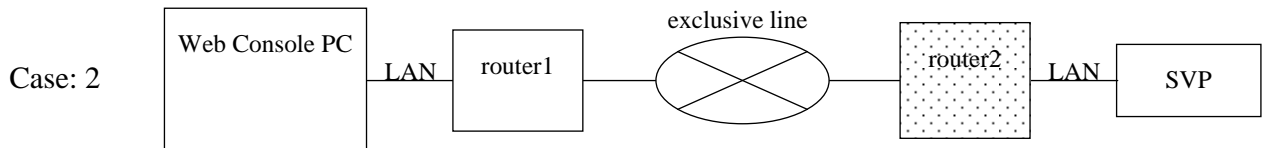
(Continued from the preceding page)

	Failure	Recovery action	Remarks
5	The (20121 107024) error occurred on the main window of Storage Navigator on SVP.	Please respond to the message, and exit the Storage Navigator main window.	
6	After the (20121 107024) error occurs on the main window of Storage Navigator on SVP, the (20121 107025) error is repeatedly displayed.	Please exit the Storage Navigator main window by pressing [Alt] and [F4] key.	
7	It's impossible to use client PC's directory if SVP is logged in remote desktop. <ul style="list-style-type: none"> • Installing License Key • Downloading Audit Log • Downloading Reports • Exporting displayed information etc. 	Please use SVP's directory to import or export files. If you install license key, please move license key's file to SVP's directory and use the file for installing. if you download a file, please download to SVP's directory and move the file for need.	
8	The (20121 107096) error occurs repeatedly on the main window of Storage Navigator on SVP.	Please exit the Storage Navigator main window by pressing [Alt] and [F4] keys.	
9	About a remote desktop connection to SVP, if Client PC OS is Windows XP (SP3), the file will be destroyed when copying a file from SVP onto client.	This is a known problem in Windows. Please deal according to the content described in following URL. http://support.microsoft.com/kb/972828	
10	After a remote desktop connection to SVP is established, an error code is displayed in the 'Wait for Storage Navigator Start' window.	See the "Storage Navigator Messages" manual and take the necessary action.	

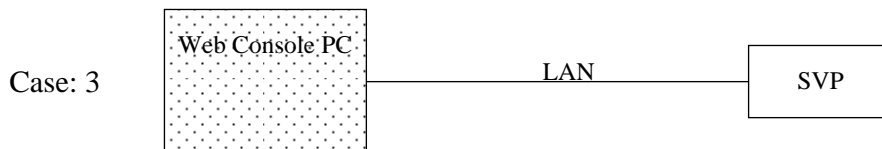
When restart SVP by the state that LAN between SVP and Web Console is not connected to justly, there is the case that gets impossible to start Web Console ((10,6027) error occurred).



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



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



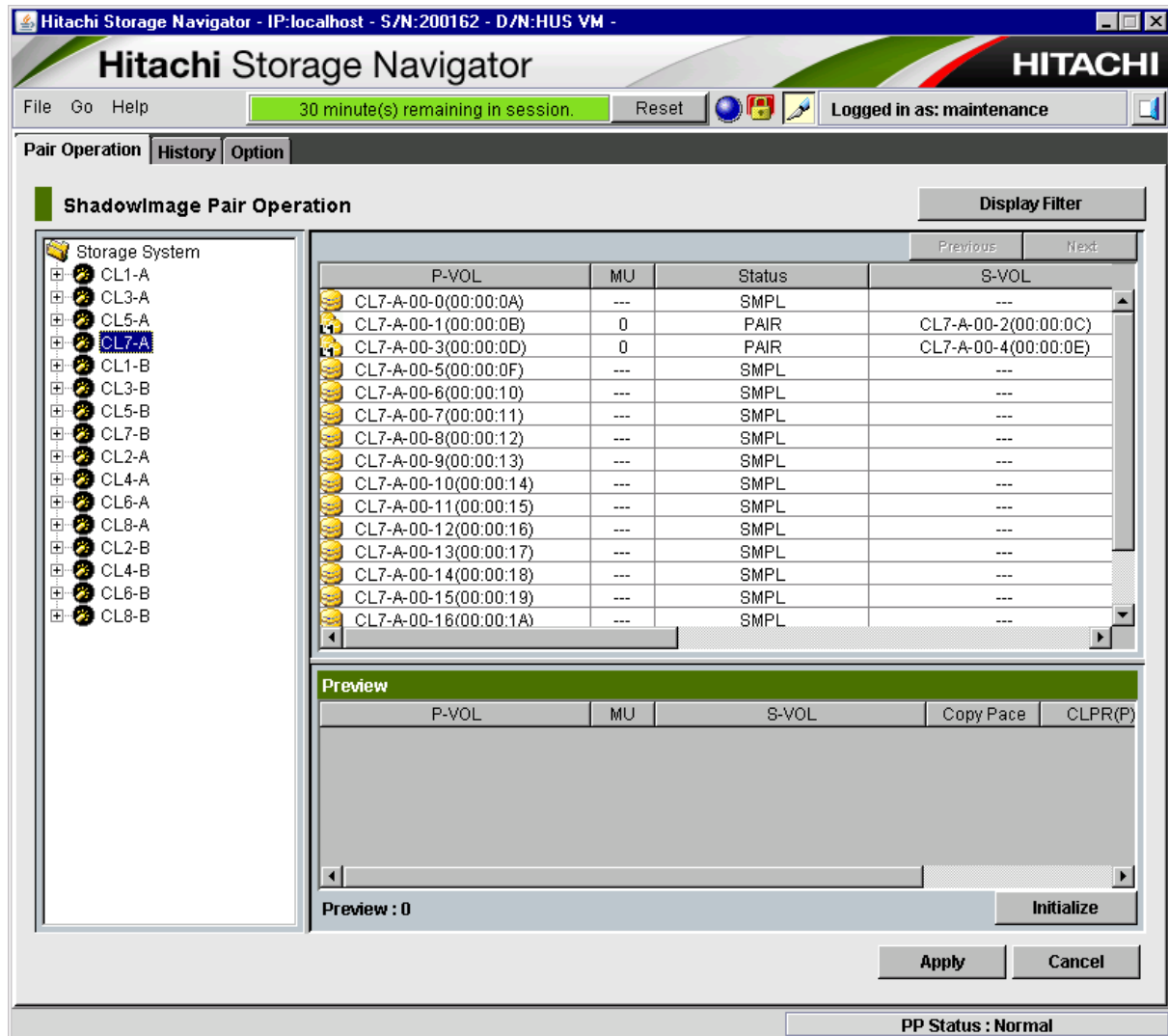
Recovery Action: In this case, please restart of SVP by a state of On with a power supply of Web Console PC by all means.

3. Difference from the P.P Manual

3.1 ShadowImage

Select (CL) [Actions] at the top of the main window.

Select (CL) [Local Replications]-[SI]-[Pair Operation] to open the 'ShadowImage' window.



(1) Preview box

The [Initialize] button is displayed in the Preview box.

- Initialize

It deletes all the pairs that have been formed by ShadowImage / Volume Migration / Thin Image and sets the pair status of the volume to SMPL.

Refer to the TROUBLE SHOOTING SECTION "7.2 ShadowImage Initialize procedure" for the Initialize procedure and notes.

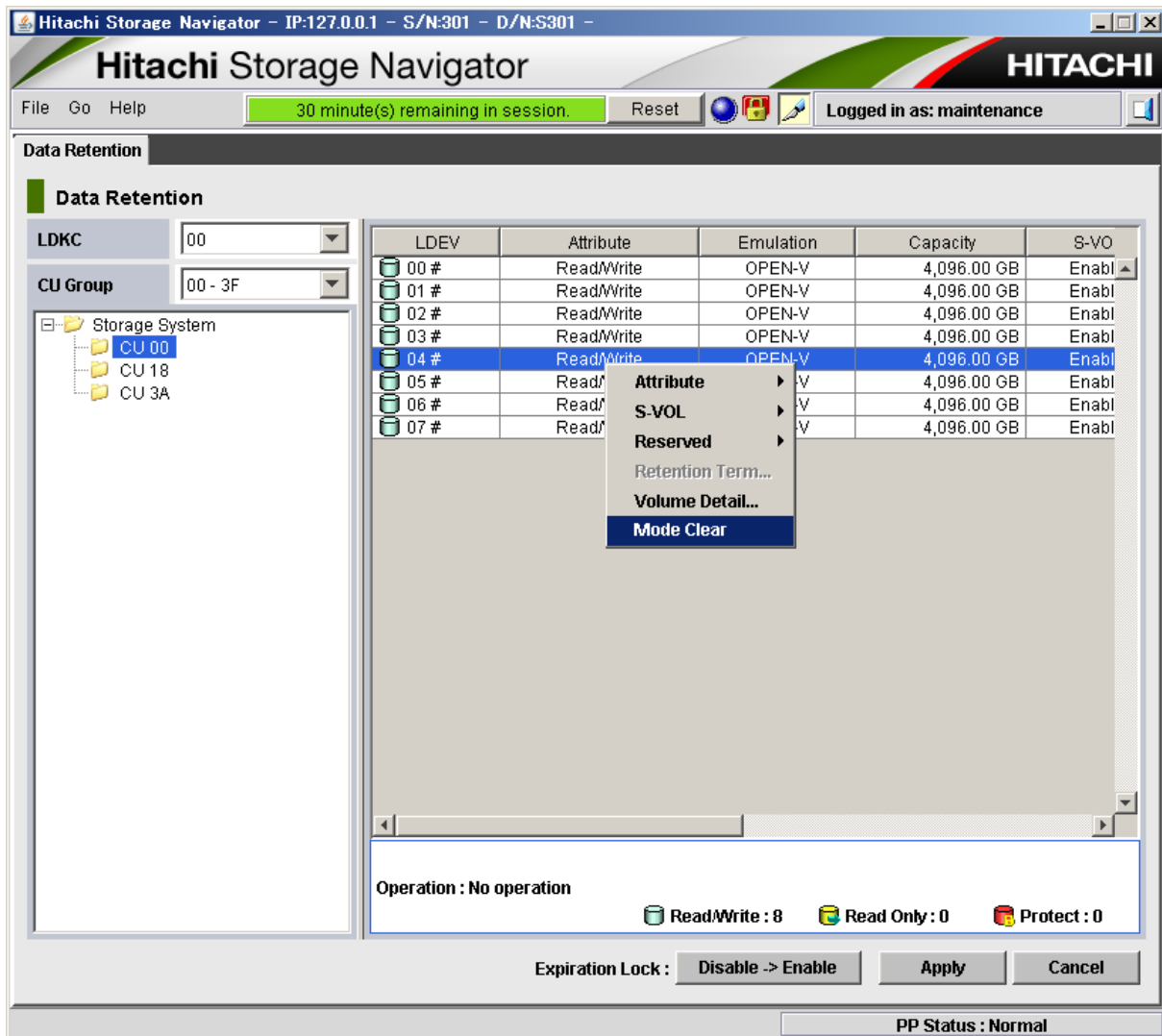
To operate the [Initialize] button, an entry of a password is required. For the password, refer to the Technical Support Division.

NOTE 1: When the [Initialize] button is pressed, not only pairs formed by ShadowImage, but also pairs formed by Volume Migration / Thin Image are deleted.

NOTE 2: Perform the operation only when it is directed by the Technical Support Division.

3.2 Data Retention Utility

Select (CL) [Actions]-[Other Function]-[Data Retention].



(1) Canceling the mode attribute

When the 'Data Retention' window from [Actions]-[Other Function]-[Data Retention] menu 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.

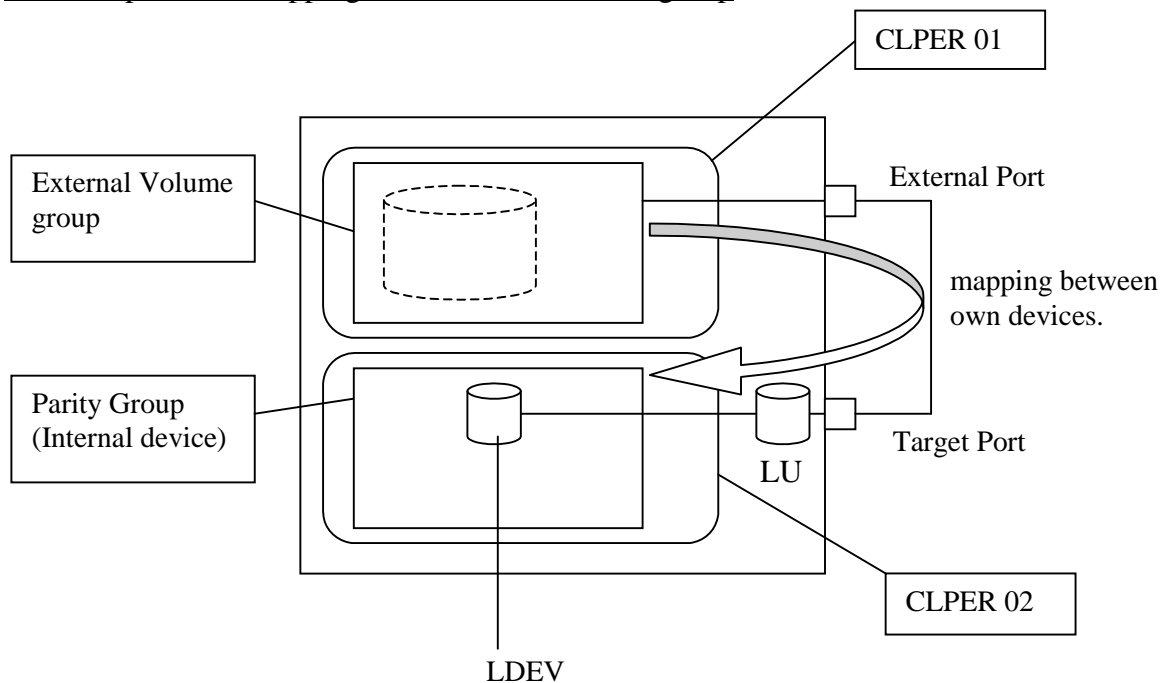
NOTE: For the attributes, Zer and Inv, refer to "Provisioning Guide".

3.3 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.

For example when mapping between own external group



3.4 Storage Navigator CLI

When using Storage Navigator CLI, open the command prompt window to operate as follows.
[Start]-[All Programs]-[Accessories]-[Command Prompt]

Move the current directory to c:\dkc200\CFLCLITool as follows.

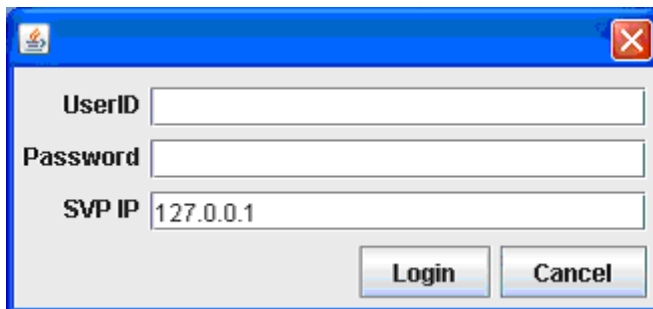
```
cd c:\dkc200\CFLCLITool
```

Syntax for each command is as following.

- In case of CFLSET
cfl CFLSET input-file-name output-file-name
- In case of CFLCHK
cfl CFLCHK input-file-name output-file-name
- In case of CFLGET
cfl CFLGET input-file-name output-file-directory

After typing the cfl command, the following dialog window appears.

And then enter UserID and Password. SVP IP should not be changed. Keep the default value (127.0.0.1).

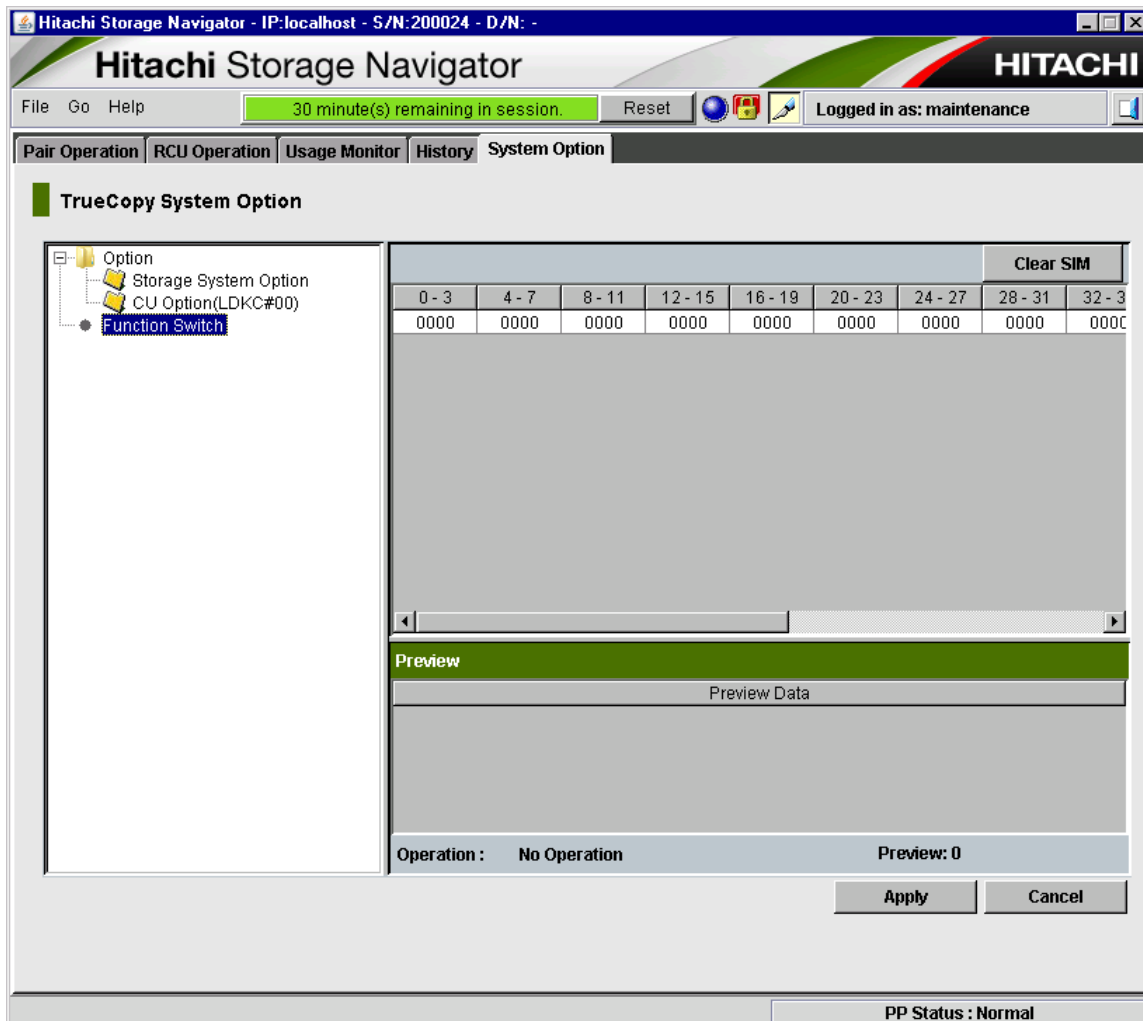


Refer to “Hitachi Storage Navigator User Guide” regarding the way to use the CFLSET/ CFLCHK/ CFLGET commands in detail.

3.5 TrueCopy

Select (CL) [Actions] menu at the top of the Storage Navigator main window.

Select (CL) [Remote Copy]-[TrueCopy]-[System Option] to open the TrueCopy window.



(1) System Option

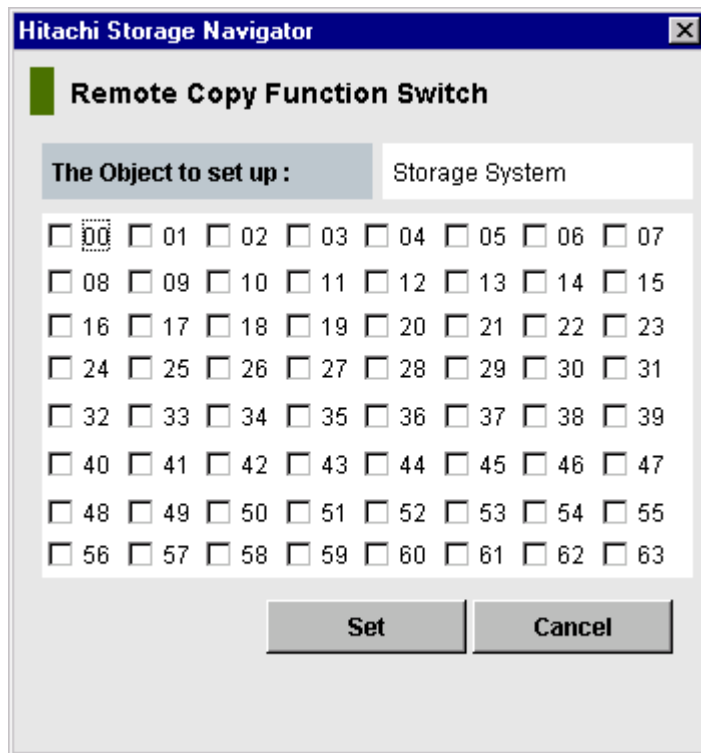
The [Function Switch] node appears in the tree of the System Option tab.

- 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.



The dialog box titled "Hitachi Storage Navigator" contains a section "Remote Copy Function Switch". Below this, there are two tabs: "The Object to set up :" and "Storage System". The "The Object to set up :" tab is active, showing a grid of 64 checkboxes numbered 00 to 63. The checkbox for 00 is checked. At the bottom of the dialog, there are two buttons: "Set" and "Cancel".

The Object to set up :							
<input checked="" type="checkbox"/> 00	<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03	<input type="checkbox"/> 04	<input type="checkbox"/> 05	<input type="checkbox"/> 06	<input type="checkbox"/> 07
<input type="checkbox"/> 08	<input type="checkbox"/> 09	<input type="checkbox"/> 10	<input type="checkbox"/> 11	<input type="checkbox"/> 12	<input type="checkbox"/> 13	<input type="checkbox"/> 14	<input type="checkbox"/> 15
<input type="checkbox"/> 16	<input type="checkbox"/> 17	<input type="checkbox"/> 18	<input type="checkbox"/> 19	<input type="checkbox"/> 20	<input type="checkbox"/> 21	<input type="checkbox"/> 22	<input type="checkbox"/> 23
<input type="checkbox"/> 24	<input type="checkbox"/> 25	<input type="checkbox"/> 26	<input type="checkbox"/> 27	<input type="checkbox"/> 28	<input type="checkbox"/> 29	<input type="checkbox"/> 30	<input type="checkbox"/> 31
<input type="checkbox"/> 32	<input type="checkbox"/> 33	<input type="checkbox"/> 34	<input type="checkbox"/> 35	<input type="checkbox"/> 36	<input type="checkbox"/> 37	<input type="checkbox"/> 38	<input type="checkbox"/> 39
<input type="checkbox"/> 40	<input type="checkbox"/> 41	<input type="checkbox"/> 42	<input type="checkbox"/> 43	<input type="checkbox"/> 44	<input type="checkbox"/> 45	<input type="checkbox"/> 46	<input type="checkbox"/> 47
<input type="checkbox"/> 48	<input type="checkbox"/> 49	<input type="checkbox"/> 50	<input type="checkbox"/> 51	<input type="checkbox"/> 52	<input type="checkbox"/> 53	<input type="checkbox"/> 54	<input type="checkbox"/> 55
<input type="checkbox"/> 56	<input type="checkbox"/> 57	<input type="checkbox"/> 58	<input type="checkbox"/> 59	<input type="checkbox"/> 60	<input type="checkbox"/> 61	<input type="checkbox"/> 62	<input type="checkbox"/> 63

Set Cancel

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

Confirm the content of the Preview box, and select (CL) the [Apply] button.

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

NOTE: Please refer to “3.6 Remote Copy Function Switch” for the function allocated in each switch.

3.6 Remote Copy Function Switch

The function allocated in each switch is as follows.

Switch#	Contents
11	A copy pace is made a maximum 4 Tracks, when “15 Tracks” is selected in the Remote Copy option parameter and “Track” is selected in the Difference Management.
15	The path failure threshold values of function switch #17 are changed. By the combination of function switch #15 and #20 the path failure threshold values are changed.
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.
20	The path failure threshold values of function switch #17 are changed. By the combination of function switch #15 and #20 the path failure threshold values are changed.
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.
41	The path is blocked when the number of RIO response time that exceeds the decided time reaches the threshold within a certain period. The decided time is changed by combination of function switch #41 and #42.
42	The path is blocked when the number of RIO response time that exceeds the decided time reaches the threshold within a certain period. The decided time is changed by combination of function switch #41 and #42.
43	In the function of switch #17 or switch #41 and #42, the path is blocked even if the number of path is less than that is set by minimum path.

3.7 Dynamic Provisioning

[illegible]

(1) Preview box

When the Pools window is opened by Web Console on the SVP, the [More Actions] button is displayed in the Preview box is clicked, and [Initialize Pools] is selected.

- Initialize Pools

The Virtual Volumes of Dynamic Provisioning (DP-VOL) is blockaded. And the pool of all Dynamic Provisioning and Thin Image is blockaded.

Refer to the TROUBLE SHOOTING SECTION “18.10 Initialize Pools procedure” (TRBL18-110) for the Initialize procedure and notes.

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

- NOTE 1: The pool of all Dynamic Provisioning and Thin Image is blockaded.
- NOTE 2: In the case [TrueCopy / Universal Replicator / ShadowImage / Volume Migration] use virtual volumes of Dynamic Provisioning, delete all [TrueCopy / Universal Replicator / ShadowImage / Volume Migration] pairs that use the virtual volumes before performing Initialize.
After Initialize completes, create [TrueCopy / Universal Replicator / ShadowImage / Volume Migration] pairs again.
During Initialize, don't create [TrueCopy / Universal Replicator / ShadowImage / Volume Migration] pairs with virtual volumes of Dynamic Provisioning. In the case create those pairs, Initialize and paircreate operation may fail.
- NOTE 3: Delete all Thin Image pairs before performing Initialize.
After Initialize completes, create Thin Image pairs again.
During Initialize, don't create Thin Image pairs. In the case create Thin Image pairs, Initialize and paircreate operation may fail.
- NOTE 4: Do not execute the operation of Dynamic Provisioning until the pool restores normally after executing Initialize.
- NOTE 5: Procedure to recover DP-VOL:
Please recover the pool of Dynamic Provisioning referring to "Provisioning Guide".
DP-VOL recovers by recovering the pool of Dynamic Provisioning.
- NOTE 6: Perform the operation only when it is directed by the Technical Support Division.

4. Procedure of server software uninstallation / installation

Please accord to the following procedures if you reinstall Apache, Tomcat, or Flash player.

4.1 Apache

4.1.1 Uninstallation of Apache

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

NOTE: After uninstallation of Apache is finished, you **MUST** next complete the procedure in “4.1.2 Installation of Apache” before modifying any other software product on the SVP.

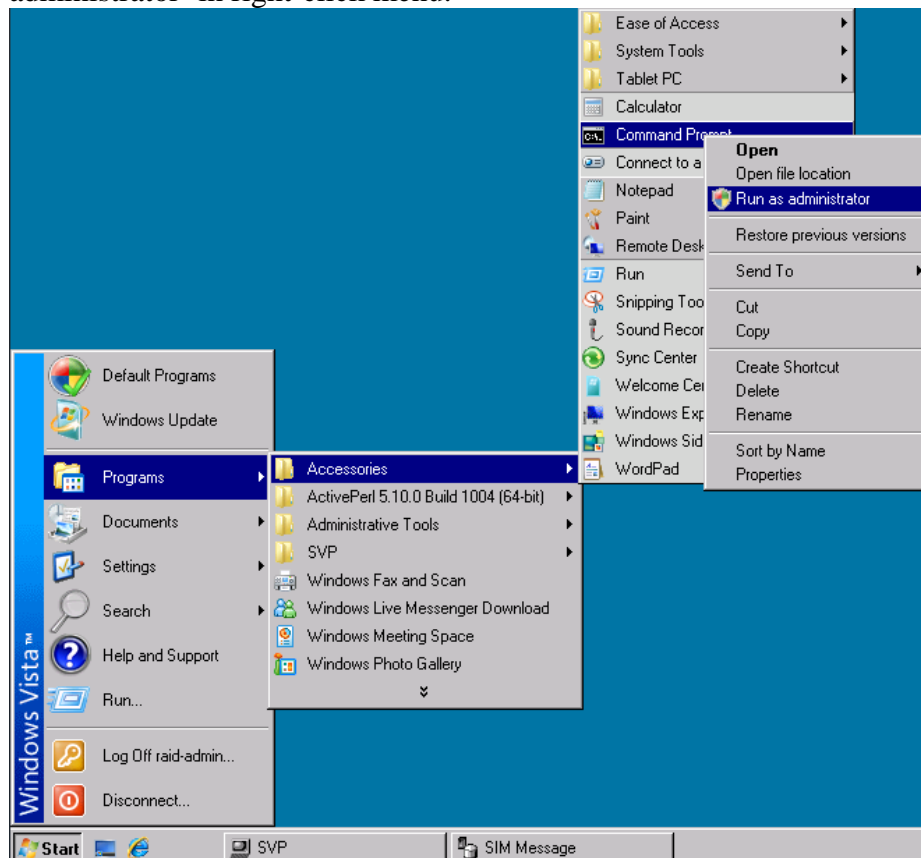
If you shutdown or logout the SVP before being instructed to in “4.1.2 Installation of Apache”, you may corrupt the SVP causing it to no longer function properly. If a shutdown request message is displayed by the software product during uninstall / install, please disregard.

- (1) Mount the OSS media

Insert the OSS media (the second media) to the CD-ROM drive in the Console PC.

- (2) Launch the Command Prompt as administrator

Select (CL) [Start]-[Programs]-[Accessories], and launch the Command Prompt with ‘Run as administrator’ in right-click menu.



(3) Launch the uninstallation batch

Enter “\\tsclient\<drive letter>\JavaAp\Apache\ApacheUnInst.bat” into the Command Prompt, and press the Enter key.

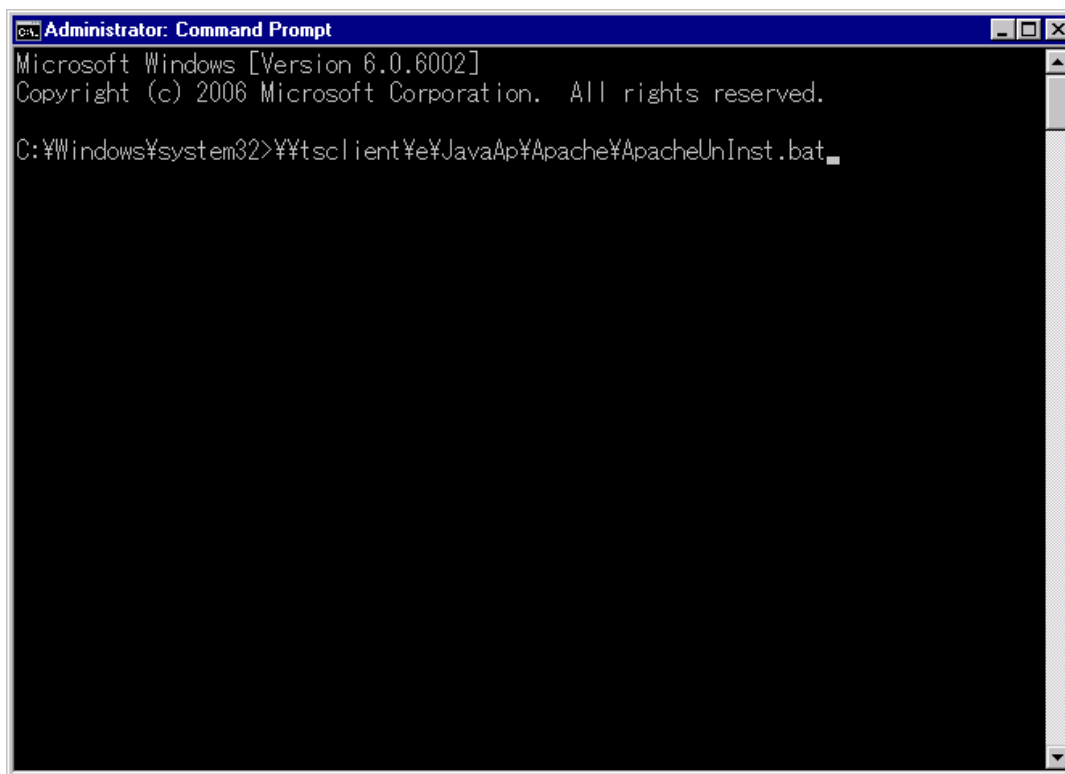
At the end of this process, the Command Prompt will close automatically.

NOTE: The input value is the form of

“\\tsclient\<drive letter>\JavaAp\Apache\ApacheUnInst.bat”.

A drive letter is made the drive which inserted the OSS media.

The above is a case where the CD-ROM drive is assigned a drive letter E.



NOTE: After uninstallation of Apache is finished, you MUST next complete the procedure in “4.1.2 Installation of Apache” before modifying any other software product on the SVP.

If you shutdown or logout the SVP before being instructed to in “4.1.2 Installation of Apache”, you may corrupt the SVP causing it to no longer function properly. If a shutdown request message is displayed by the software product during uninstall / install, please disregard.

4.1.2 Installation of Apache

When installing Apache, follow the procedure shown below. Be sure to check that the uninstallation processing is completed before installing it.

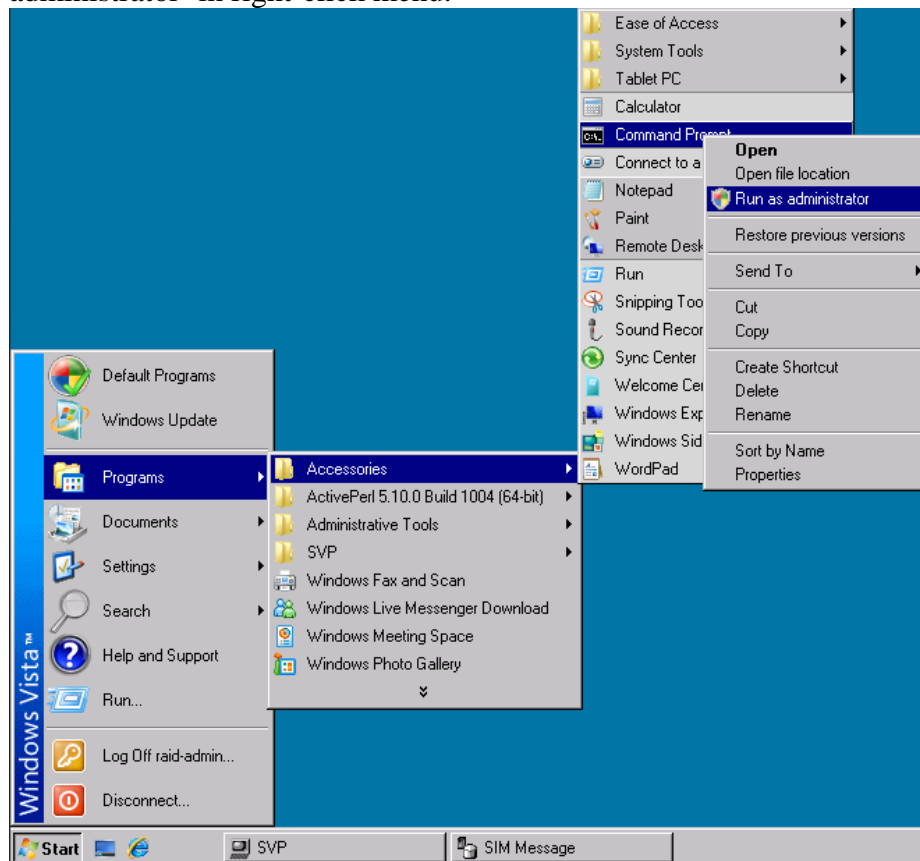
4.1.2.1 Installation of Apache2.2.10

- (1) Mount the OSS media

Insert the OSS media (the second media) to the CD-ROM drive in the Console PC.

- (2) Launch the Command Prompt as administrator

Select (CL) [Start]-[Programs]-[Accessories], and launch the Command Prompt with 'Run as administrator' in right-click menu.



(3) Launch the installation batch

Enter “\\tsclient\e\JavaAp\Apache\ApacheInst_StandAlone.bat” into the Command Prompt, and press the Enter key.

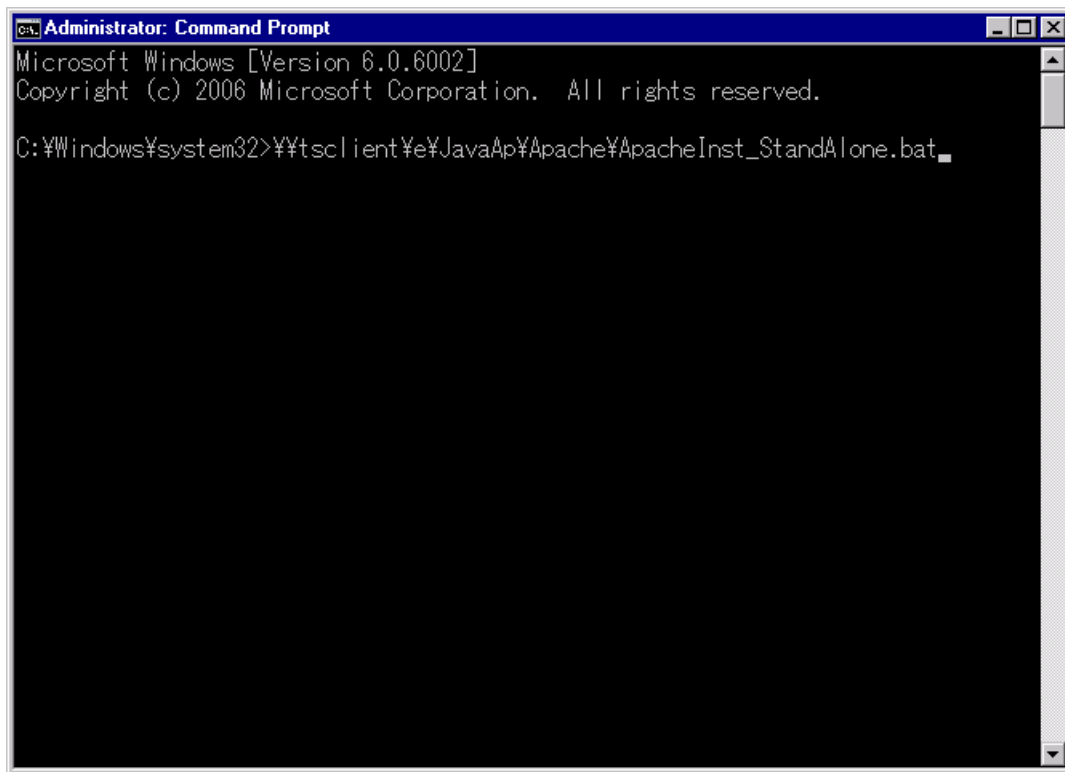
At the end of this process, the Command Prompt will close automatically.

NOTE: The input value is the form of

“\\tsclient\<drive letter>\JavaAp\Apache\ApacheInst_StandAlone.bat”.

A drive letter is made the drive which inserted the OSS media.

The above is a case where the CD-ROM drive is assigned a drive letter E.



The things of default are set in the key creation for SSL communication and the certificate file. When you install an SSL communication key and a certificate file responding to the customer's request, see "Hitachi Storage Navigator User Guide".

(4) Reboot the SVP

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

Enter “shutdown /r /t 0” and press the Enter key.

The SVP will be rebooted.

4.1.2.2 Installation of Apache2.2.24

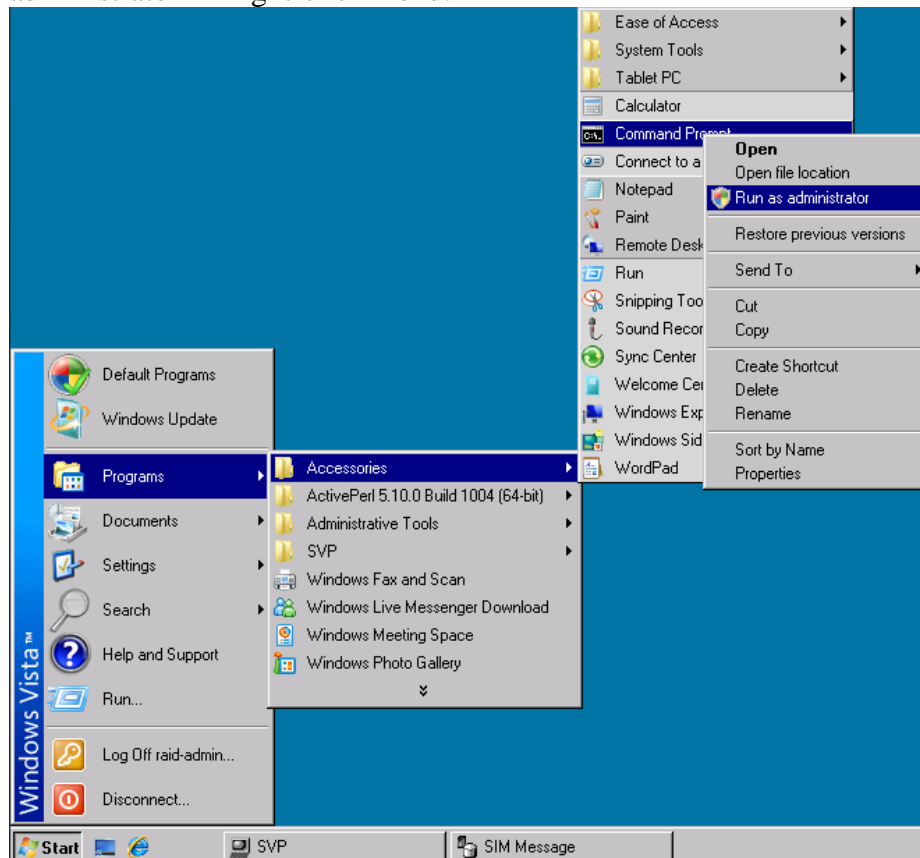
In SVP Version in or later than 73-03-00/00, Apache 2.2.24 is available.

(1) Mount the OSS media

Insert the OSS media (the second media) to the CD-ROM drive in the Console PC.

(2) Launch the Command Prompt as administrator

Select (CL) [Start]-[Programs]-[Accessories], and launch the Command Prompt with 'Run as administrator' in right-click menu.



(3) Launch the installation batch

Enter “\\tsclient\e\JavaAp\Apache\ApacheInst_StandAlone_2_2_24.bat” into the Command Prompt, and press the Enter key.

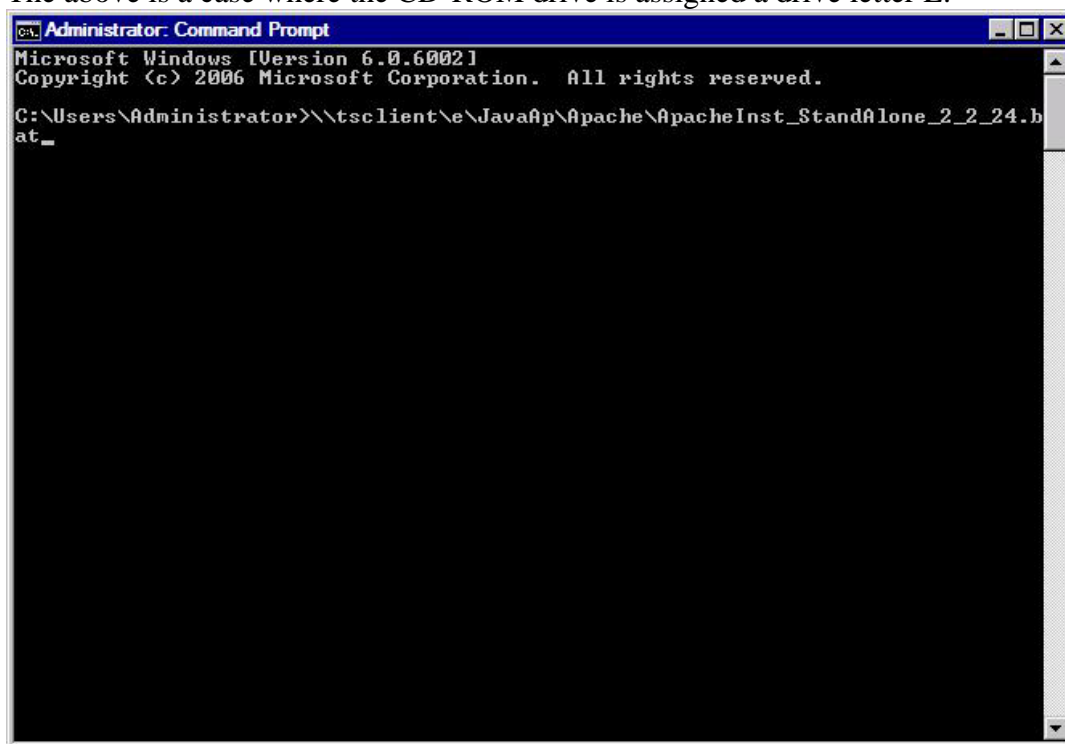
At the end of this process, the Command Prompt will close automatically.

NOTE: The input value is the form of

“\\tsclient\<drive letter>\JavaAp\Apache\ApacheInst_StandAlone_2_2_24.bat”.

A drive letter is made the drive which inserted the OSS media.

The above is a case where the CD-ROM drive is assigned a drive letter E.



The things of default are set in the key creation for SSL communication and the certificate file. When you install an SSL communication key and a certificate file responding to the customer's request, see "Hitachi Storage Navigator User Guide".

(4) Reboot the SVP

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

Enter “shutdown /r /t 0” and press the Enter key.

The SVP will be rebooted.

4.2 Tomcat

4.2.1 Uninstallation of Tomcat

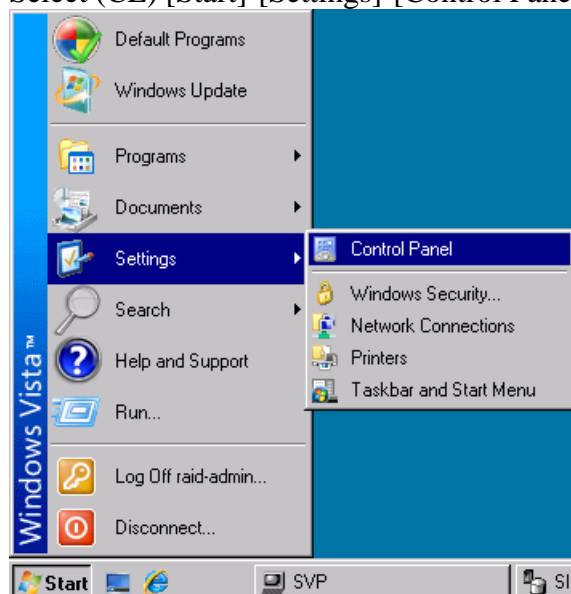
Before reinstalling Tomcat, you need to uninstall the Tomcat already installed in the SVP. Uninstall the Tomcat in the following procedure.

NOTE: After uninstallation of Tomcat is finished, you **MUST** next complete the procedure in “4.2.2 Installation of Tomcat” before modifying any other software product on the SVP.

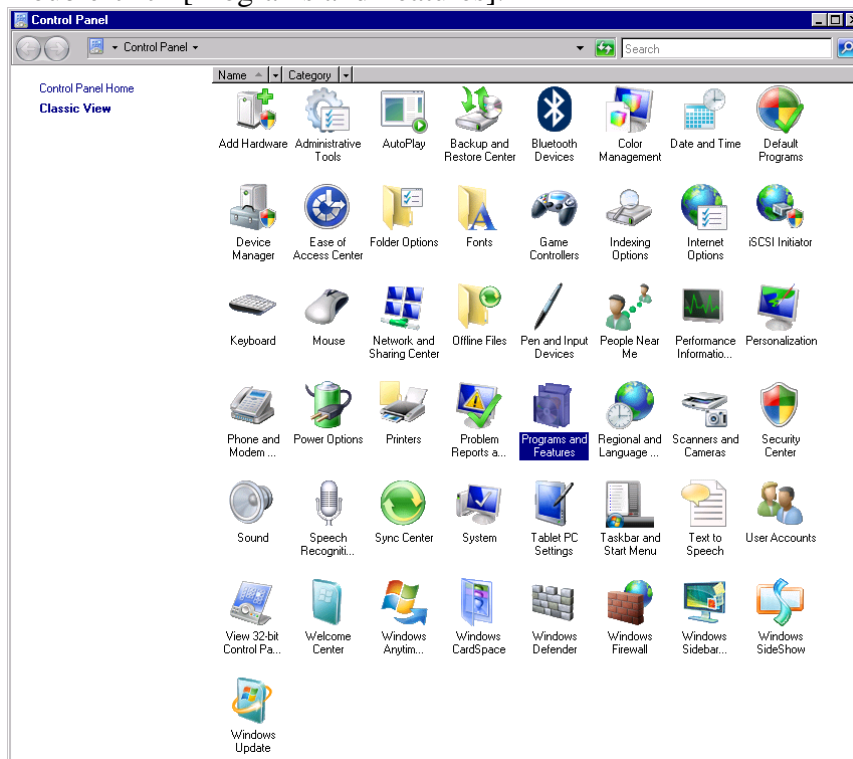
If you shutdown or logout the SVP before being instructed to in “4.2.2 Installation of Tomcat”, you may corrupt the SVP causing it to no longer function properly. If a shutdown request message is displayed by the software product during uninstall / install, please disregard.

(1) Launch the Control Panel

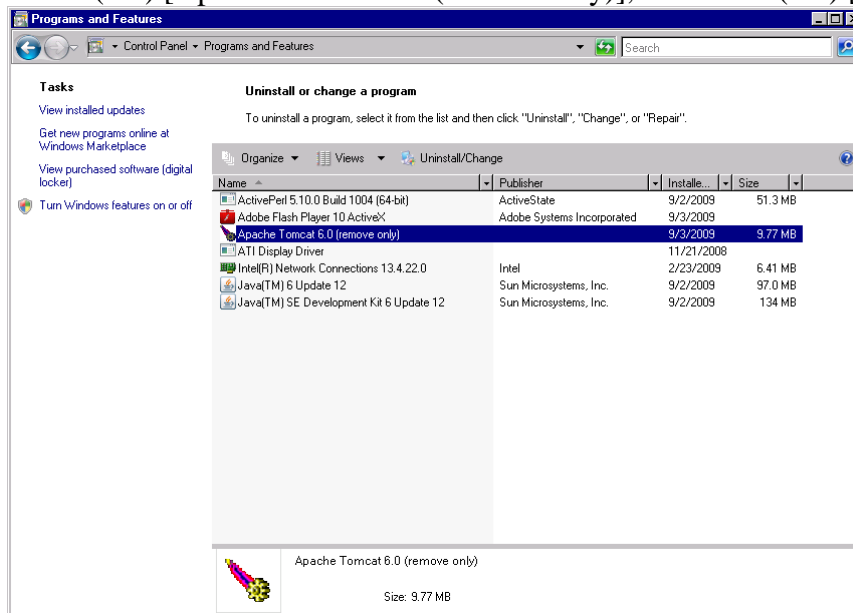
Select (CL) [Start]-[Settings]-[Control Panel].



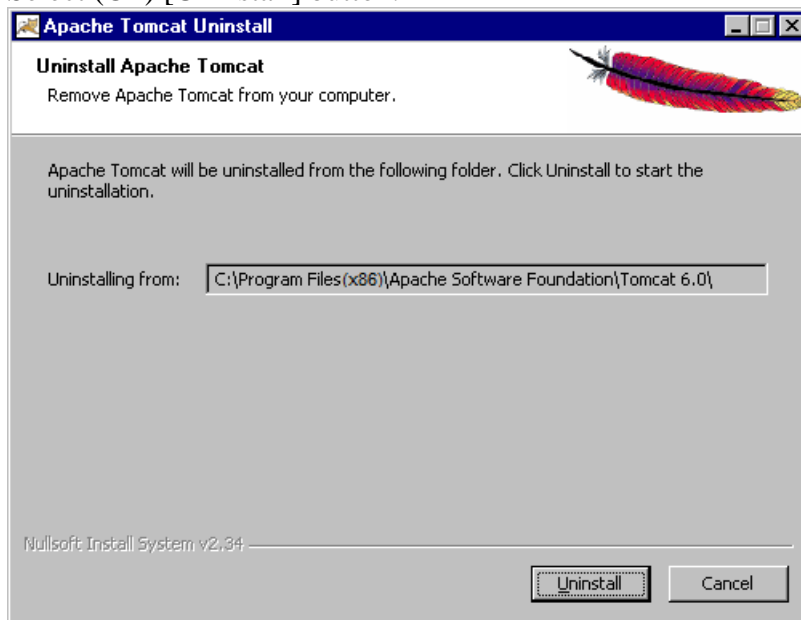
- (2) Launch the Program and Features
Double-click [Programs and Features].



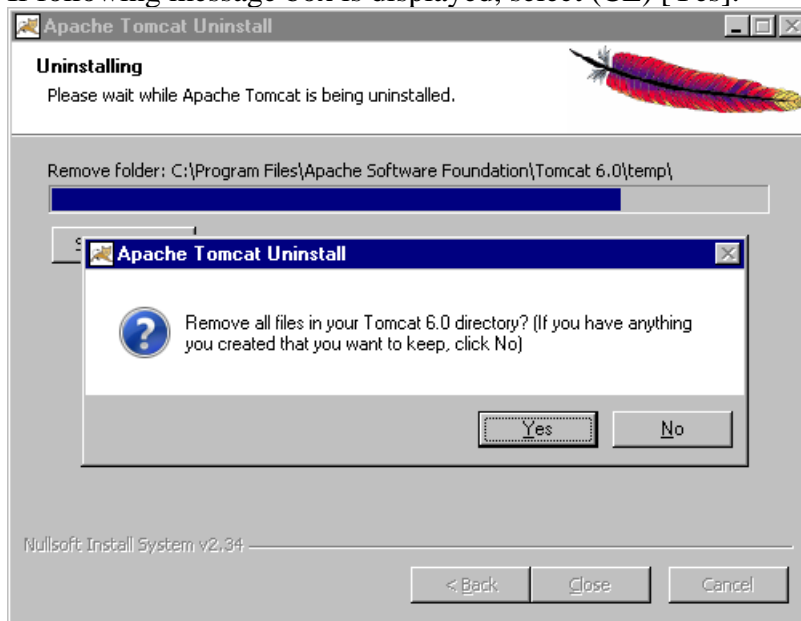
- (3) Run uninstallation
Select (CL) [Apache Tomcat 6.0 (remove only)], and select (CL) [Uninstall/Change] button.



- (4) Proceed to the next
Select (CL) [Uninstall] button.

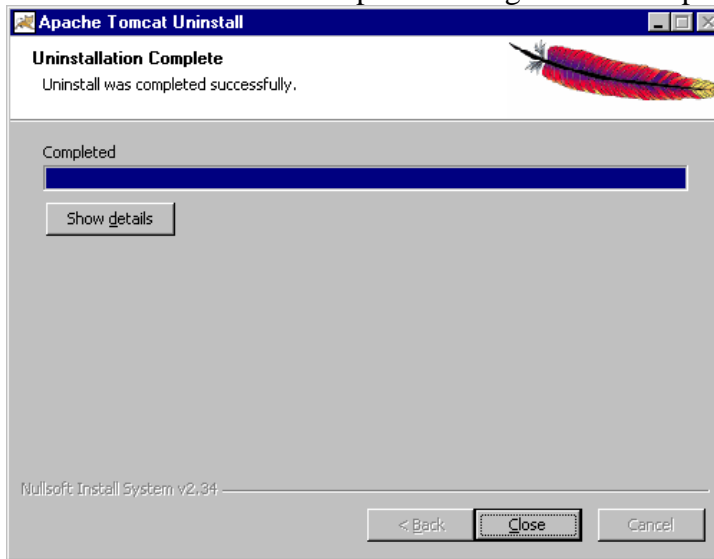


- (5) Make sure the message
If following message box is displayed, select (CL) [Yes].



(6) Complete uninstallation

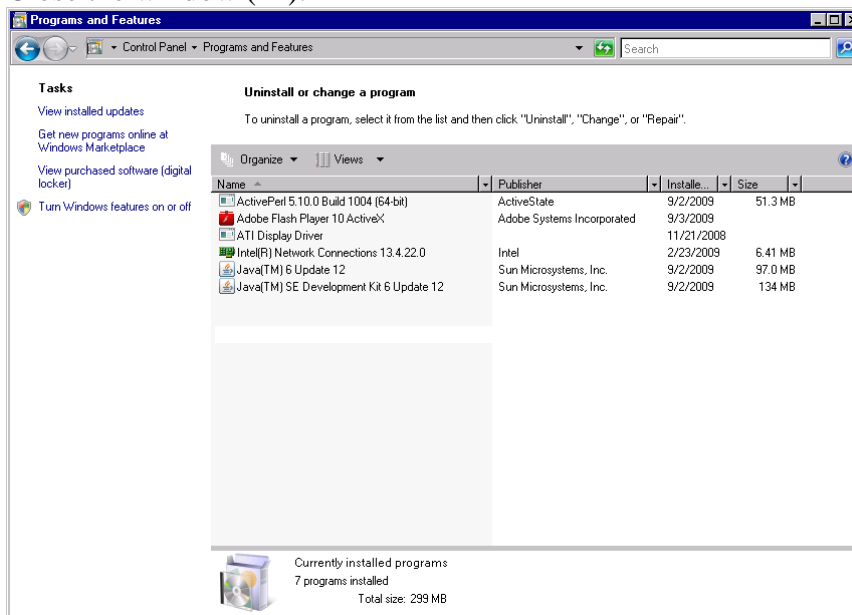
When “Uninstallation Complete” dialogue box is displayed, select (CL) [Close] button.



(7) Check the result and close the window

[Apache Tomcat 6.0 (remove only)] in ‘Programs and Features’ window was deleted.

Close the window (*1).



NOTE: After uninstallation of Tomcat is finished, you **MUST** next complete the procedure in “4.2.2 Installation of Tomcat” before modifying any other software product on the SVP.

If you shutdown or logout the SVP before being instructed to in “4.2.2 Installation of Tomcat”, you may corrupt the SVP causing it to no longer function properly. If a shutdown request message is displayed by the software product during uninstall / install, please disregard.

*1: When ‘Programs and Features’ window is not reloaded, press [F5] key of keyboard to reload window.

4.2.2 Installation of Tomcat

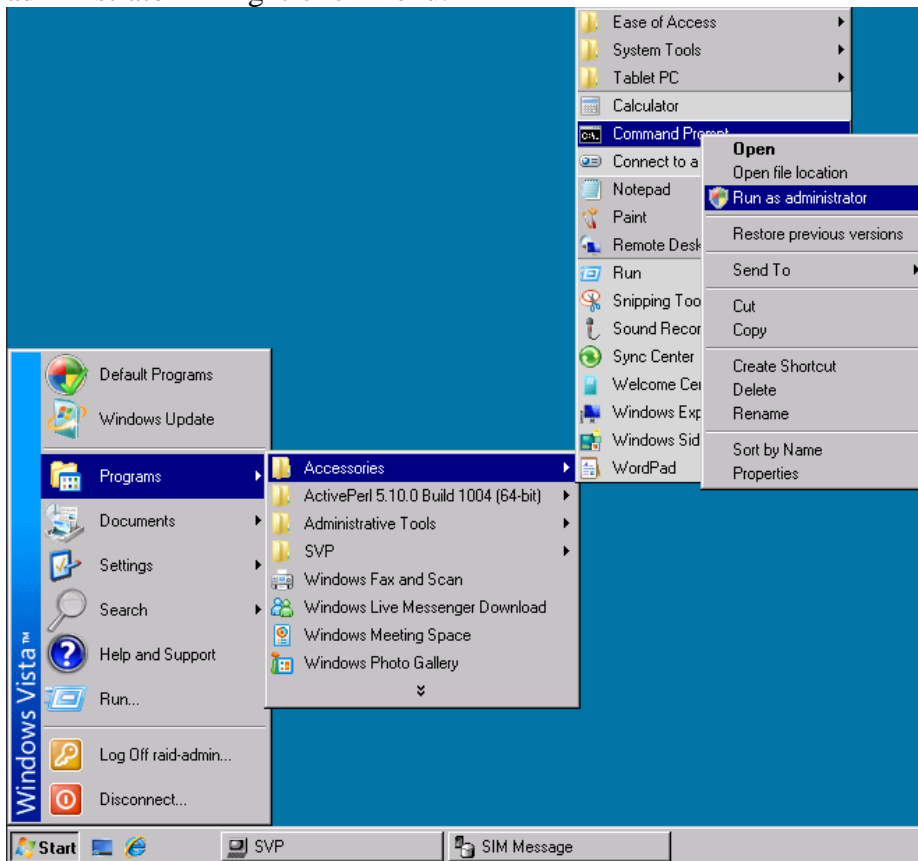
When installing Tomcat, follow the procedure shown below. Be sure to check that the uninstallation processing is completed before installing it.

(1) Mount the OSS media

Insert the OSS media (the second media) to the CD-ROM drive in the Console PC.

(2) Launch the Command Prompt as administrator

Select (CL) [Start]-[Programs]-[Accessories], and launch the Command Prompt with 'Run as administrator' in right-click menu.



(3) Launch the installation batch

Enter “\\tsclient\e\JavaAp\install_Vista64_Tomcat.bat” into the Command Prompt, and press the Enter key.

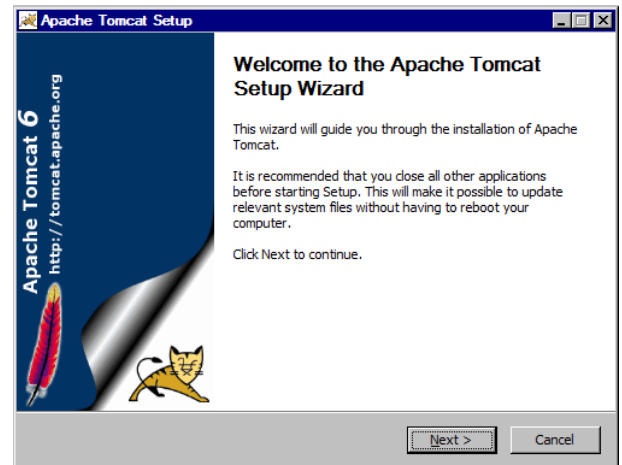
NOTE: The input value is the form of

“\\tsclient<drive letter>\JavaAp\install_Vista64_Tomcat.bat”.

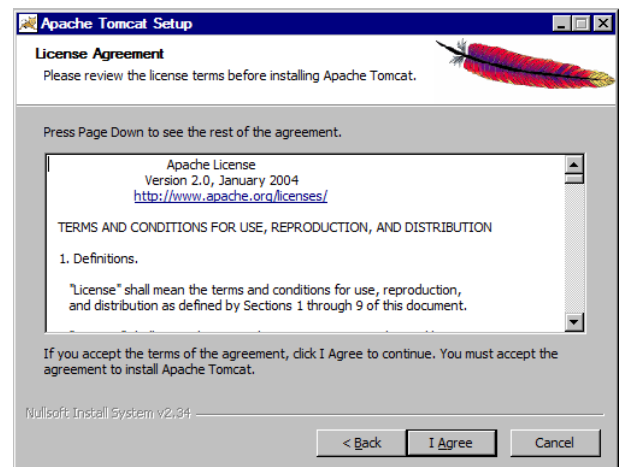
A drive letter is made the drive which inserted the OSS media.

The above is a case where the CD-ROM drive is assigned a drive letter E.

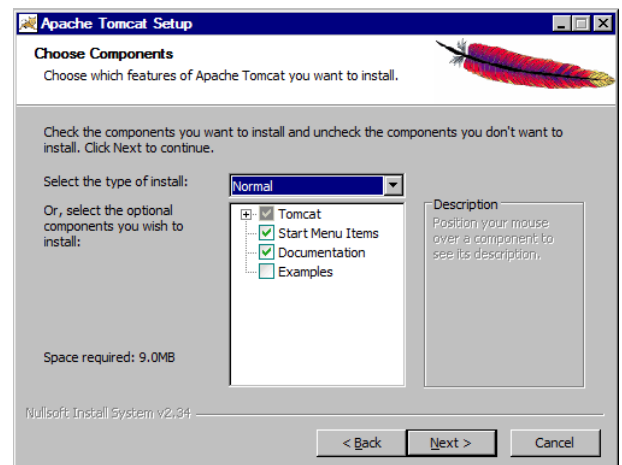
- (4) Proceed to the next
Select (CL) [Next>].



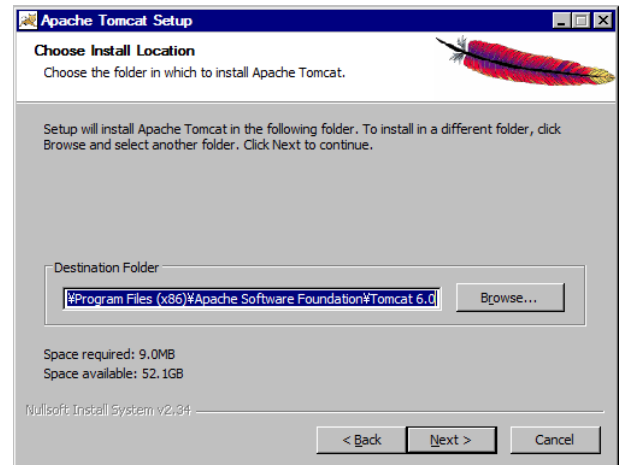
- (5) Proceed to the next
Select (CL) [I Agree].



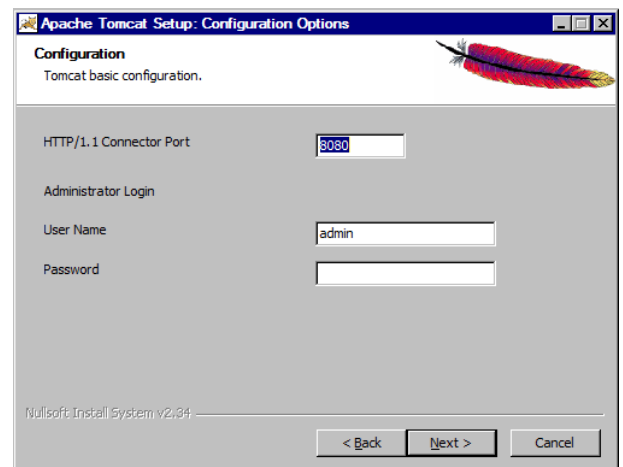
- (6) Proceed to the Next
Select (CL) [Next>].



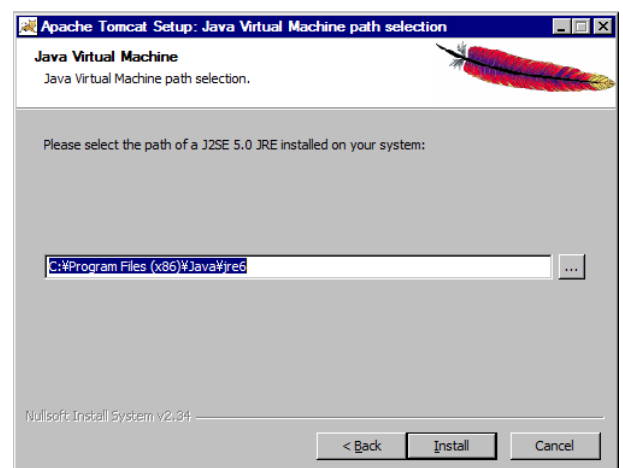
- (7) Proceed to the next
Select (CL) [Next>].



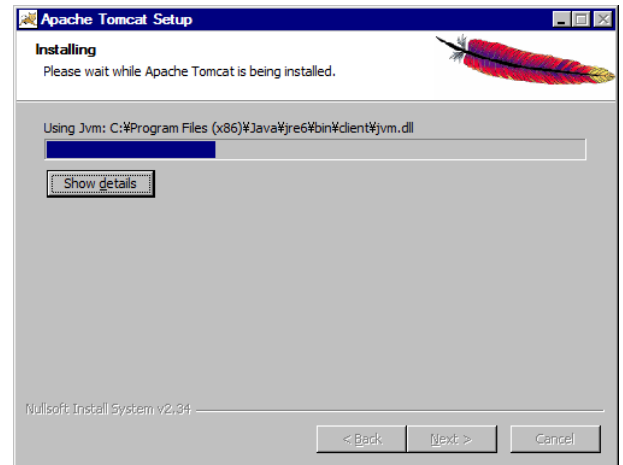
- (8) Proceed to the next
Select (CL) [Next>].



- (9) Proceed to the Next
Select (CL) [Install].

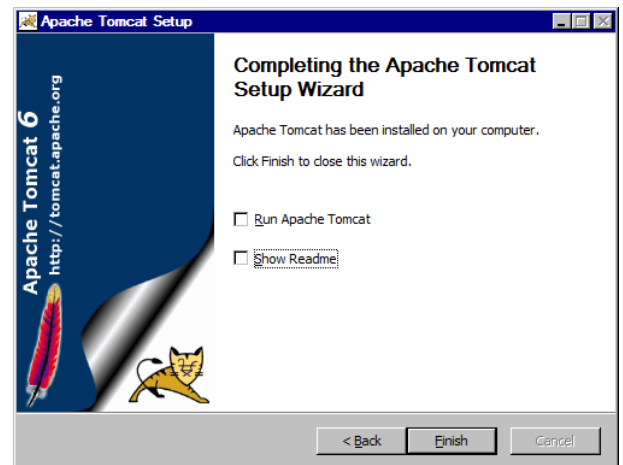


(10) Wait while installing



(11) Finishing installation

Uncheck all the checkboxes, and select (CL) [Finish].



(12) Reboot the SVP

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

Enter "shutdown /r /t 0" and press the Enter key.

The SVP will be rebooted.

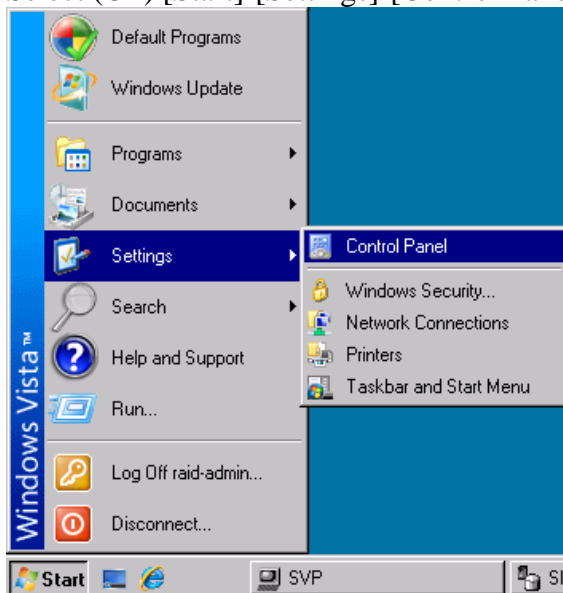
4.3 Flash Player

4.3.1 Uninstallation of Flash Player

Before reinstalling Flash Player, you need to uninstall the Flash Player already installed in the SVP. Uninstall the Flash Player in the following procedure.

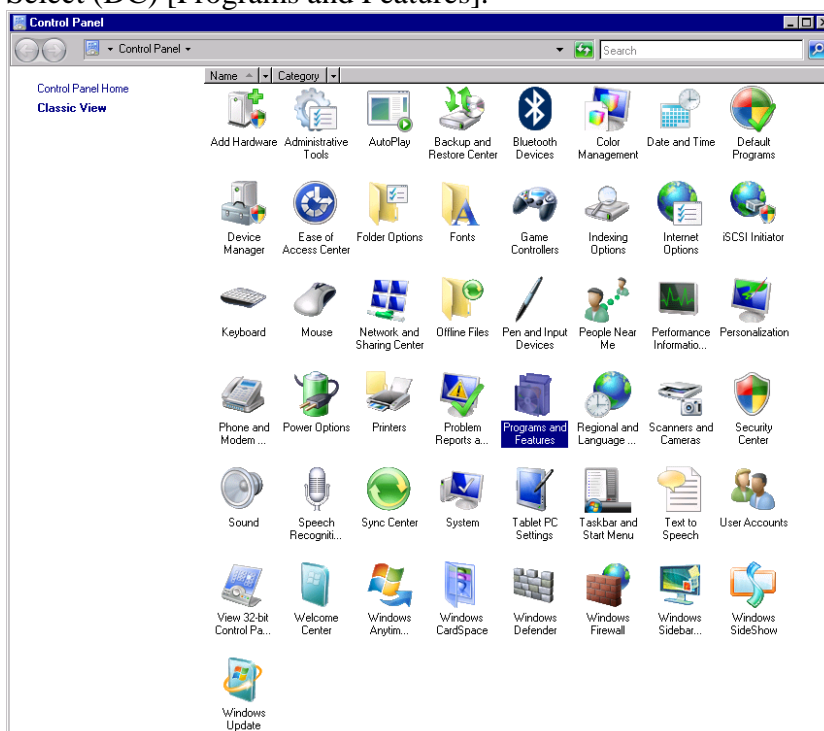
(1) Launch the Control Panel

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



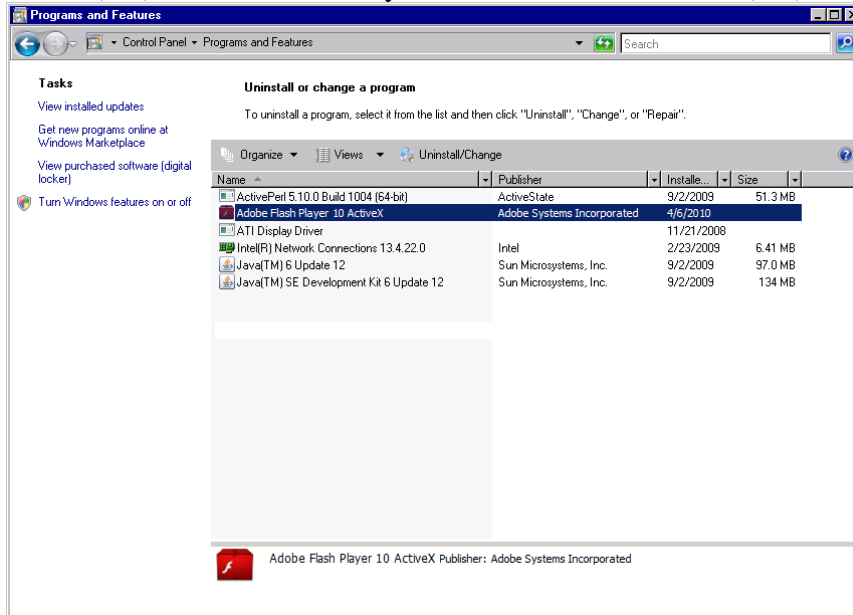
(2) Launch the Program and Features

Select (DC) [Programs and Features].



(3) Run uninstallation

Select (CL) [Adobe Flash Player 10 ActiveX], and select (CL) [Uninstall/Change].



(4) Starting uninstallation

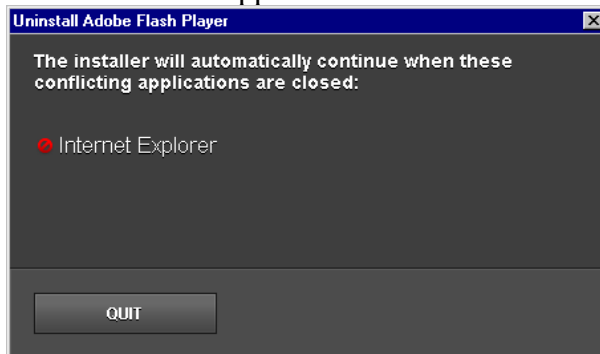
Select (CL) [UNINSTALL].



(5) Finishing application

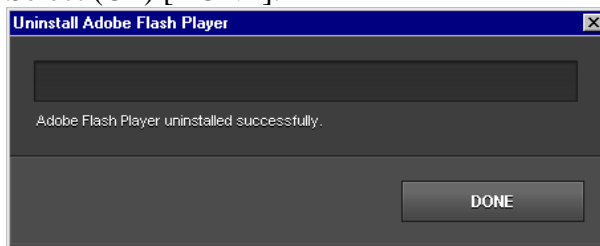
If some applications were using Flash Player, the application name is displayed.

Please finish the applications.



(6) Finishing uninstallation

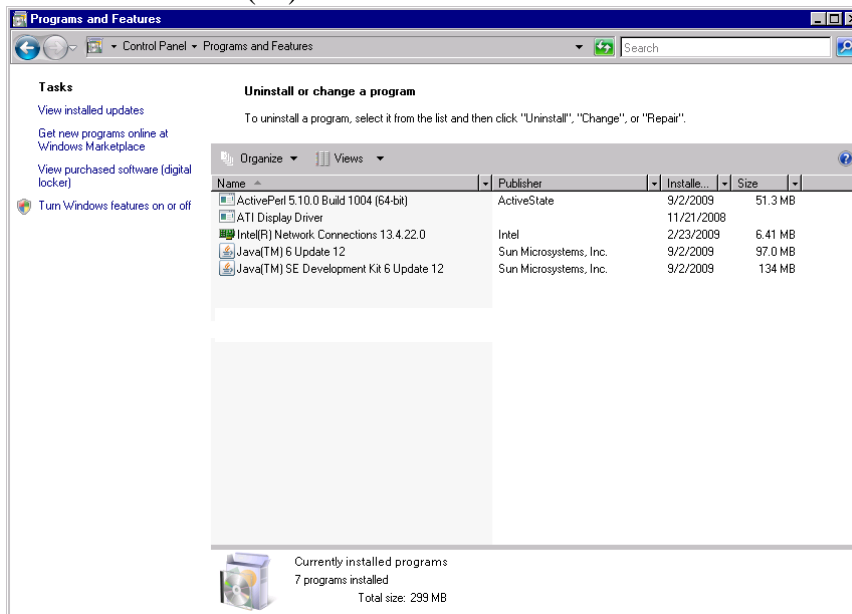
Select (CL) [DONE].



(7) Check the result and close the window

[Adobe Flash Player 10 ActiveX] in 'Programs and Features' window was deleted.

Close the window (*1).



*1: When 'Programs and Features' window is not reloaded, press [F5] key of keyboard to reload window.

4.3.2 Installation of Flash Player

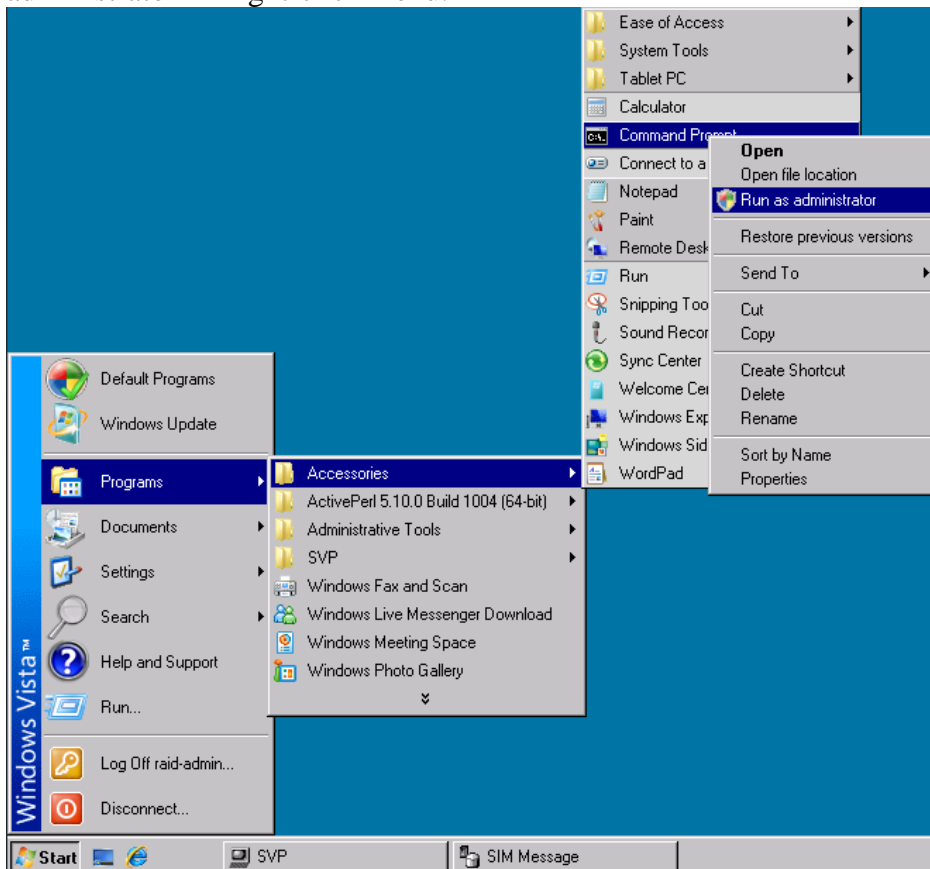
When installing Flash Player, follow the procedure shown below. Be sure to check that the uninstallation processing is completed before installing it.

(1) Mount the OSS media

Insert the OSS media (the second media) to the CD-ROM drive in the Console PC.

(2) Launch the Command Prompt as administrator

Select (CL) [Start]-[Programs]-[Accessories], and launch the Command Prompt with 'Run as administrator' in right-click menu.



(3) Launch the installation batch

Enter “\\tsclient\e\JavaAp\install_Vista64_Flash.bat” into the Command Prompt, and press the Enter key.

NOTE: The input value is the form of

“\\tsclient<drive letter>\JavaAp\install_Vista64_Flash.bat”.

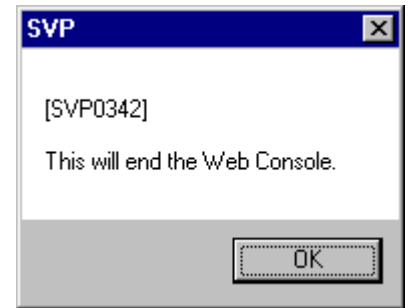
A drive letter is made the drive which inserted the OSS media.

The above is a case where the CD-ROM drive is assigned a drive letter E.

(4) Finishing Web Console

If running Web Console, “This will end the Web Console.” message is appeared.

Select (CL) [OK].



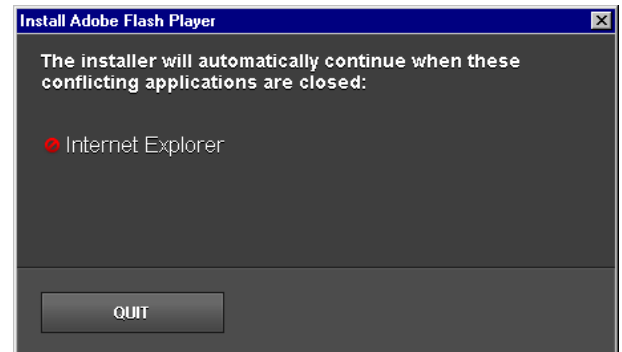
(5) Starting installation

Select (CL) [I have read and agree to the terms of the license agreement.], and select (CL) [INSTALL].



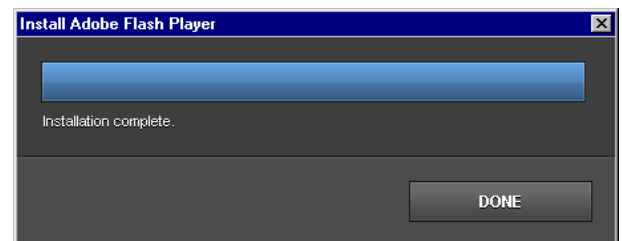
(6) Finishing application

If some applications were using Flash Player, the application name is displayed. Please finish the applications.



(7) Finishing installation

Select (CL) [DONE].



5. Before using the Syslog/FTP transfer function of Audit Log

The setting of the Syslog/FTP server is required to use the Syslog/FTP transfer function of Audit Log. Ask the customer to set the address of the Syslog/FTP server.

Refer to “Hitachi Audit Log User Guide” (“Syslog window, Audit Log Transfer window”) for the details of the setting.

6. IPv6 Setting

Internet Protocol Version used for the connection of Storage Navigator switches depending on the network setting of the PC which operates the SVP and Storage Navigator. A list of the setting of the PC which operates the SVP and Storage Navigator and Internet Protocol Version used for the connection is shown below.

Table 6-1 List of Internet Protocol Version used for the Connection

Client \ SVP			Network Setting					
			IPv4	IPv6	IPv4	IPv6	IPv4	IPv6
			Enabled	Enabled	Enabled	Disabled	Disabled	Enabled
Network Setting	IPv4	Enabled	Connected by IPv4		Connected by IPv4		Connected by IPv6	
	IPv6	Enabled						
	IPv4	Enabled	Connected by IPv4		Connected by IPv4		Connection disabled	
	IPv6	Disabled						
	IPv4	Disabled	Connection disabled (*1)		Connection disabled		Connected by IPv6	
	IPv6	Enabled						

IPv4: Internet Protocol Version 4 (TCP/IPv4)

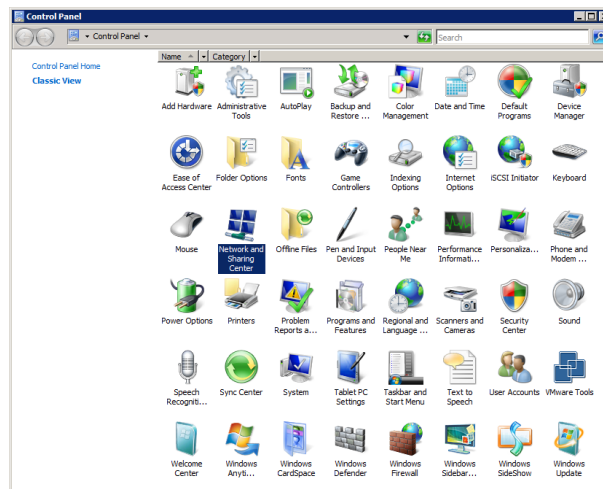
IPv6: Internet Protocol Version 6 (TCP/IPv6)

Client: PC which operates Storage Navigator

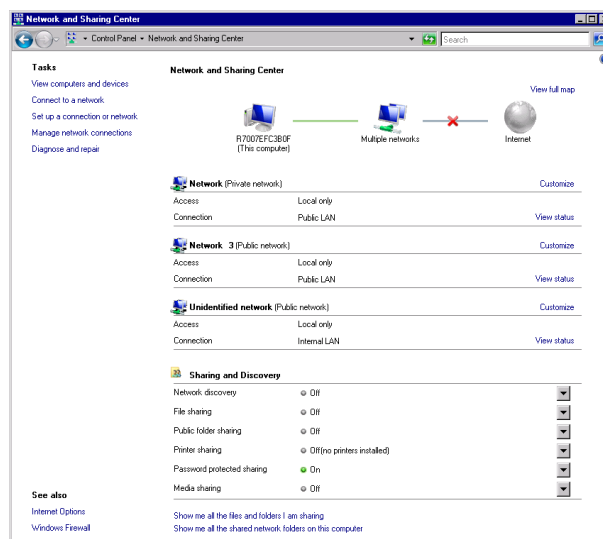
- *1: If you make only IPv6 enabled for the setting of the PC which operates Storage Navigator while keeping both IPv6 and IPv4 enabled for the setting of the SVP, you cannot use Storage Navigator. When communicating only with IPv6, set both PCs which operate the SVP and Storage Navigator as IPv6.

Perform the following when using Web Console only with IPv6.

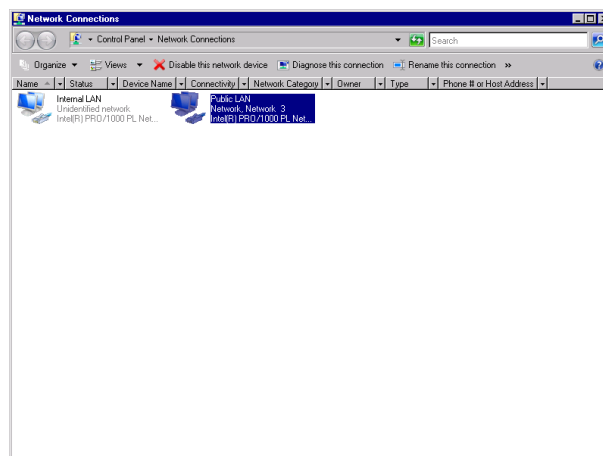
- (1) Launch the Network and Sharing Center
Select (CL) [Start]-[Settings]-[Control Panel]
and launch (double-click) the “Network and Sharing Center”.



- (2) Launch the Network Connections
Select (CL) “Manage network connections”.

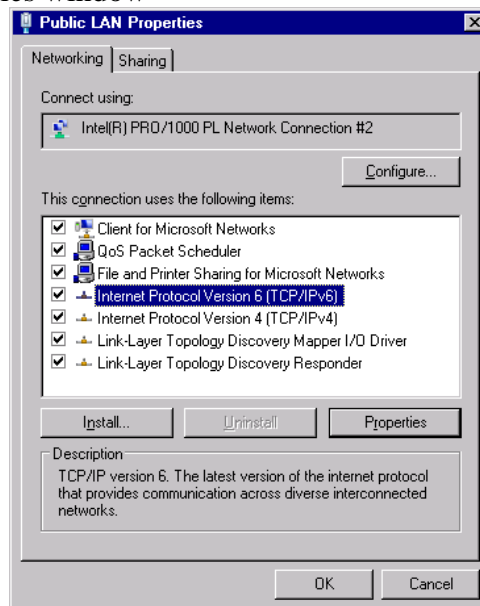


- (3) Open the Connection Properties window
Right-click on the icon of “Public LAN” and select “Properties” from the displayed popup menu. Select (CL) “Continue” when the confirmation window is displayed.



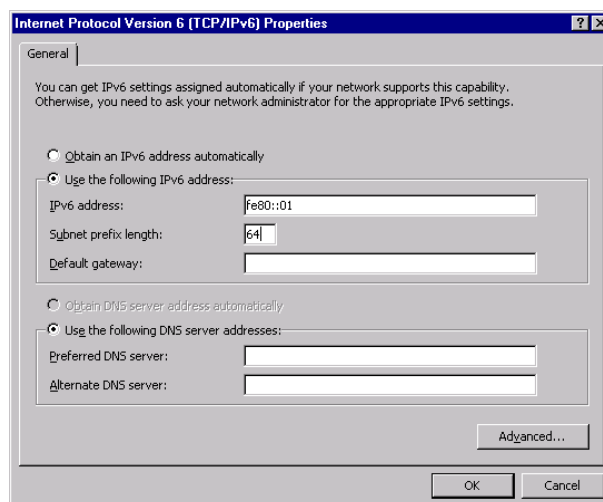
- (4) Open the Internet Protocol Version 6 (TCP/IPv6) Properties window

Select (CL) [Internet Protocol Version 6 (TCP/IPv6)] in the 'Public LAN Properties' window and select (CL) the [Properties] button.



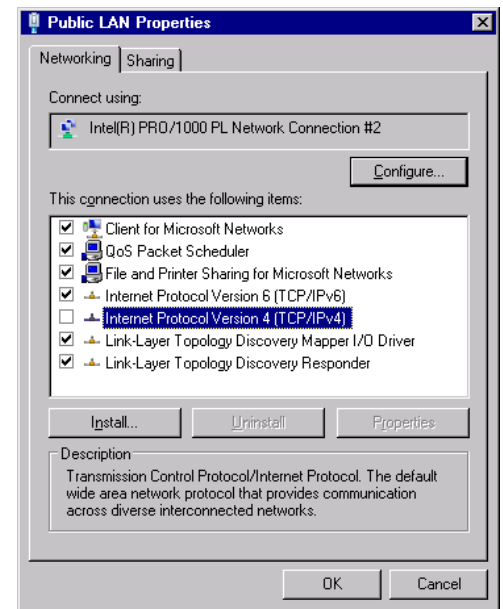
- (5) Confirm the setting of external IP address
Confirm the "IPv6 address" and "Subnet prefix length" are configured and select (CL) the [OK] button.

NOTE: The external IP address must be configured manually. If not, SVP function will not work normally.



(6) Set properties

Uncheck the checkbox of [Internet Protocol Version 4 (TCP/IPv4)] in the list of 'Public LAN Properties' window. Select (CL) [OK] and close the window.



(7) Reboot the SVP

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

Enter “shutdown /r /t 0” and press the Enter key.

The SVP will be rebooted.