

Please keep it carefully

**Express5800/320Fa-L(R), 320Fa-M(R)
Express5800/320Fb-L(R), 320Fb-M(R)
GeminiEngine Control Software
Update Procedure (1)**

Thank you for choosing Express5800/ft series.

This document mentions the installation procedure when users want to install the latest drivers module to FT product noted in "Applicable models". Please read the content mentioned in this document first and update the system step by step by as following procedure.

Applicable models

N8800-082AF, N8800-083AF, N8800-088AF, N8800-089AF

N8800-082BF, N8800-083BF, N8800-088BF, N8800-089BF

N8800-096F, N8800-097F, N8800-098F, N8800-099F

N8800-110F, N8800-111F, N8800-112F, N8800-113F

Contents of package

Please confirm the following contents exist in this driver module package.

No.	Product Name	Appointment	Amount	Remarks
1	Express5800/320Fa-L(R), 320Fa-M(R), 320Fb-L(R), 320Fb-M(R) ft SW collection		1	File download
2	the latest driver module for FT Installation Procedure	856-127146-111	1	this document

Transfer to the third person

In case of transferring (or selling) of purchased Express5800/ft server to the third person, please transfer this latest FT drivers module installation procedure together.

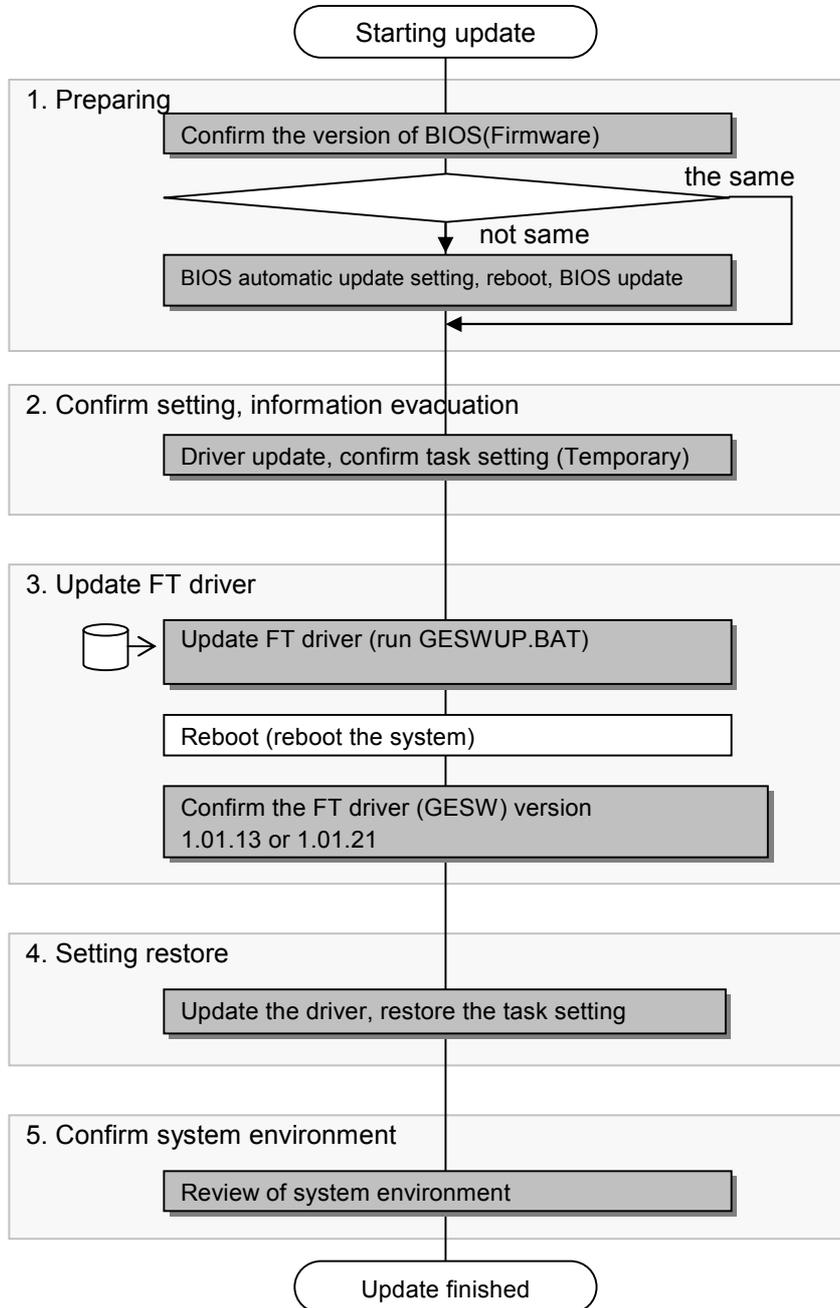
Attention in using -To operate the device properly-

To use this device properly, please update ft drivers (GeminiEngine Control Software) following this document. In addition, please update the ft drivers if OS is reinstalled to this system with an EXPRESSBUILDER CD-ROM.

Procedure of installing the latest FT drivers

It shows the procedure to install the latest ft drivers (GeminiEngine Control Software) to this system.

This document is for the system which version of ft driver is 1.00.70 - 1.01.12.

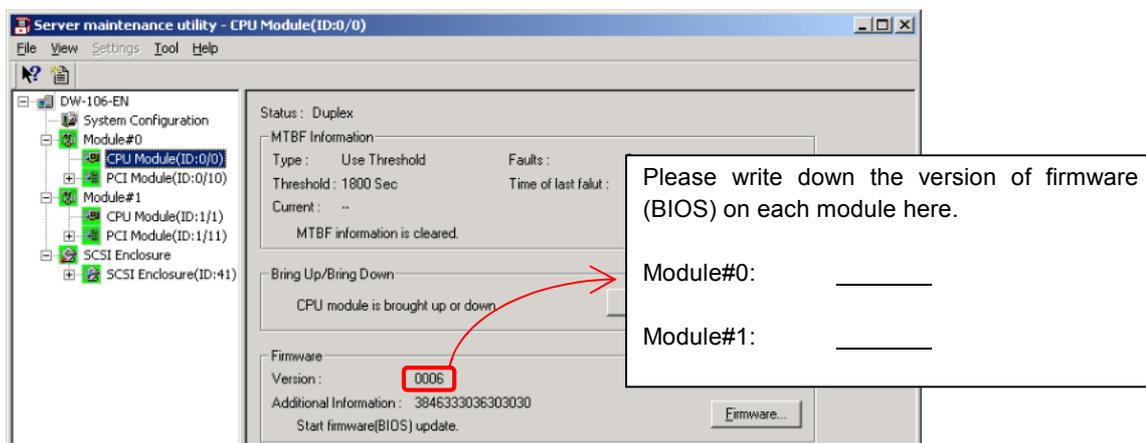


Usually, this operation is required for only the system in which the CPU/IO module has been replaced.

Step 1 Preparing (Confirm and update BIOS version)

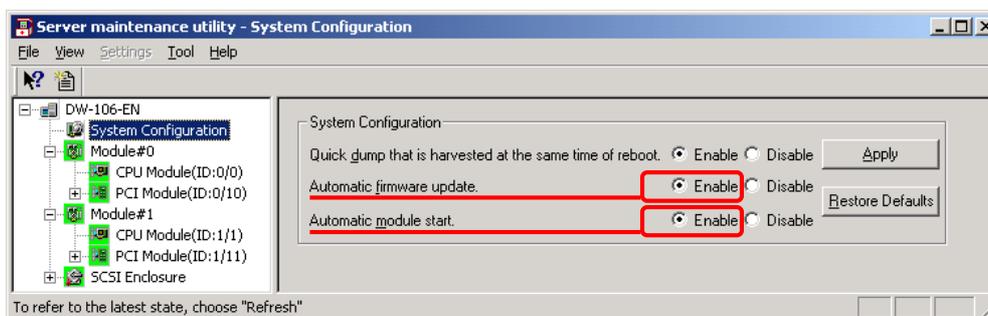
Confirm the BIOS version of two modules by Server Maintenance Utility. If the BIOS version of two modules are not the same, please make them same by updating BIOS in following procedure.

- (1) Logon to Windows 2003 by Administrator account of Built-in account.
- (2) If the FT status LED does not light green (not duplex), Wait for lighting in green.
- (3) From **Start** menu, choose **All Programs->NEC ESMPRO Agent->Server Maintenance Utility**.
- (4) In **Server Maintenance Utility** window, select **CPU Module** of Module#0 and Module#1, confirm each version of **Firmware**.



If the version of Module#0 and Module#1 are same, the following step is not required.

- (5) If the version of Module#0 and Module#1 are not same, please use the automatic BIOS update to make older BIOS version same as the new one. Please set **Automatic firmware update** and **Automatic module start** as **Enable** in **System Configuration** menu of **Server Maintenance Utility**.



- (6) Please push the module POWER switch in the module front left side (on lower position if it is a tower type) of the module of which the firmware (BIOS) version is older (the value is lower). The module is separated and the remaining module runs as a simplex system.
- (7) Reboot the system. When system and Windows OS reboot, in the timing of system duplex, BIOS is updated automatically. BIOS update takes about 10 minutes. Confirm the BIOS update status by **Status** of CPU and PCI module in Server Maintenance Utility. In addition, the status can not refresh automatically. Please execute **Refresh** appropriately to confirm.
- (8) Following Step 2) and step 3), please confirm that the versions of the firmware (BIOS) on both modules are same.

Step 2 Setting confirmation, Save information

2.1 Driver update, task setting confirmation

(1) Confirm the setting of **Task Scheduler**

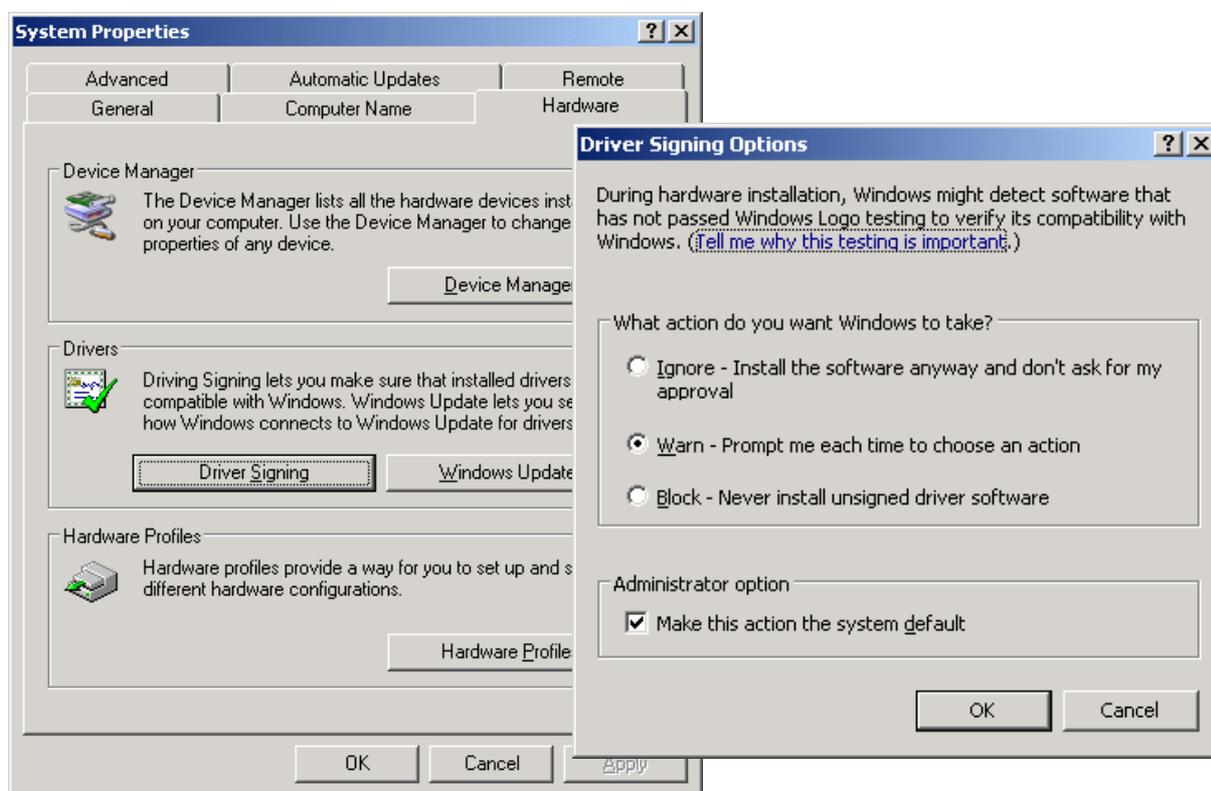
Select **Administrative Tools -> Services**, confirm the status of **Task Scheduler**. If the service is not as following status, the updating of GeminiEngine Control Software can not be finished.

Name	Status	Startup Type
Task Scheduler	Start	Automatic

If it is not in state mentioned above, write down the status of the service of Task Scheduler, and please change setting of Task Scheduler as above.

Name	Status	Startup Type
Task Scheduler	_____	_____

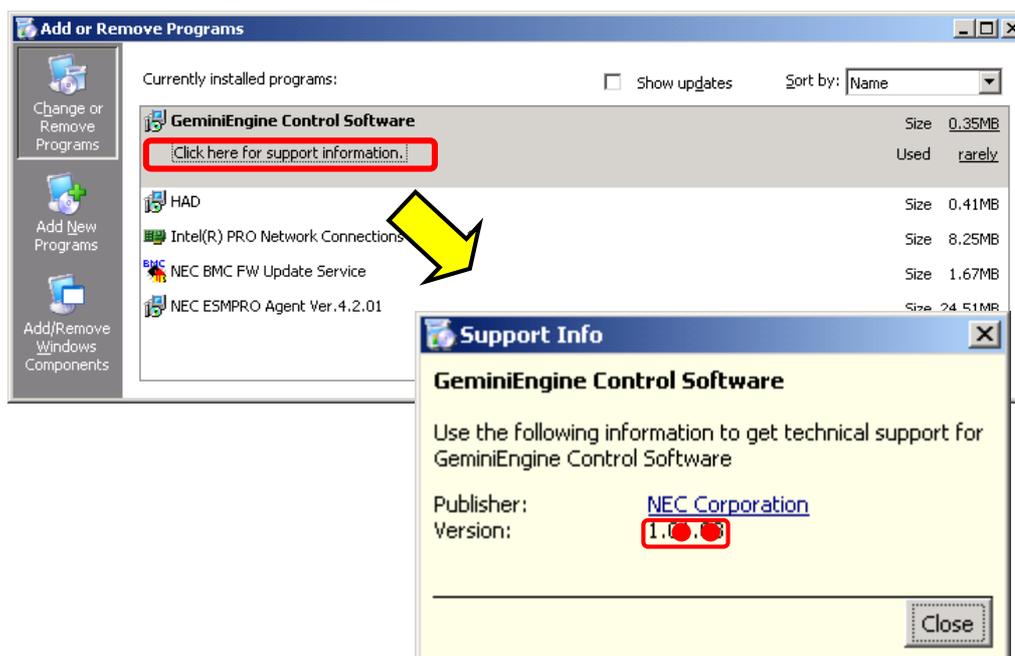
(2) Select **System Properties -> Hardware** tab -> **Driver Signing**, check if the **Driver Signing Options** is set other than **Block**. If it is set as **Block**, please change it to **Warn** before applying this update.



2.2 Confirm the FT driver (GeminiEngine Control Software) version

- (1) Log on to Windows Server 2003 as Administrative user.
- (2) Open **Start -> Control Panels -> Add or Remove Programs**.
- (3) Click **Click here for support information** under **GeminiEngine Control Software**, the version will be shown.
- (4) Please write down the displayed version number.

Version: 1.____.____



Cautions

When **HAD** is not displayed on the list of installed programs, the account which logs on is not appropriate.

Please be sure to log on by **Administrator of built-in account**, and to carry out subsequent updates, where **HAD** is displayed on the list of programs.

When you cannot log on by built-in Administrator account, please update HAD individually after applying update of Step 3.

The procedure which updates HAD individually is indicated to STEP 3.

- (5) The difference of the procedure by version
 - If the version number is earlier than 1.00.70 (1.00.66 or etc.)
To update LAN driver, remove the LAN duplex setting after confirming.
 - If the version number is 1.00.70 and later (1.00.71 or 1.01.07 etc.)
It is not necessary to change the setting of LAN, please go to step 3.

Step 3 Update of FT server

- Be sure to follow the procedure shown in this guide.
- Logon to the system using the local account (**Administrator of built-in**) which is used during OS installation. When you cannot log on by built-in Administrator account, please update HAD individually after applying update. The procedure which updates HAD individually is indicated to HAD.TXT.
- Perform the update after confirming that the system is working in duplex mode and FT status LED is green.
- Confirm that unsupported devices are not connected to the USB port. Only the supported keyboard (mouse) are allowed to connect.

● Procedure of Update

- (1) Download latest FT driver to the adequate folder on the HDD.
- (2) Extract GE10113E.ZIP. Right-click on the GE10113E.ZIP, and select **Extract all**. **Extraction Wizard** will be displayed and extract the compressed file following the instruction of the wizard.
[CD1] folder will be extracted. Copy [CD1] folder to C drive. (Other drives also can be used if C drive is not available. Be sure to place the [CD1] folder on the top directory of the drive)
- (3) Select **Run...** from **Start** menu.
- (4) Enter C:\CD1\GESWUP.BAT to the dialog box of **Open**, and click **OK**.
(C: means that the drive letter to which the [CD1] folder is copied.)

Command Prompt is started it starts to update. During the update, confirmation dialog appears several times. Follow the messages on the dialog in this case.
In case of updating LAN driver, the following message will be displayed. Before executing the update, be sure to confirm that the network setting parameter are wrote down and the teaming setting of LAN is removed properly.



- Do not perform any operation using keyboard and mouse until update is completed. It takes approximately 15minutes.
- (5) When installation is completed, the system requires to shutdown.
When complete FT driver install (update), following message will be displayed.
Before clicking OK button, you must confirm that below driver files exist in the system.

C:\Windows\system32\drivers

Driver	File name	check
SCSI	adpu320.sys	
SCSI duplex control	haddsm.sys	
HA System Controller	HasCtrl.sys	
HA IPMI	HASIPMI.SYS	
MPIO	mpdev.sys	
	mpio.sys	
	mpspfltr.sys	

When all of above files exist, click OK button on following dialog. The system reboots automatically.

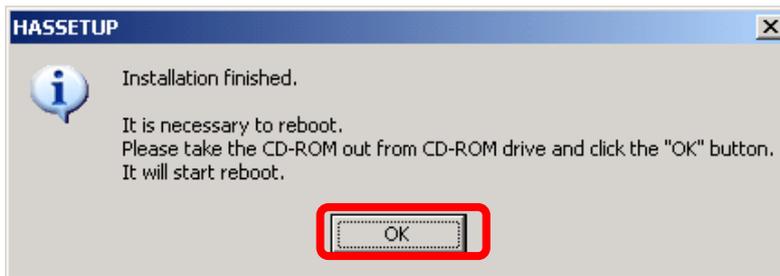
If the file of a SCSI driver does not exist, please execute the following programs from the file extracted by the above-mentioned 2.

\CD1\HASSETUP\SCSI\UPDATE.VBS

Then, please check existence of the above-mentioned file again.

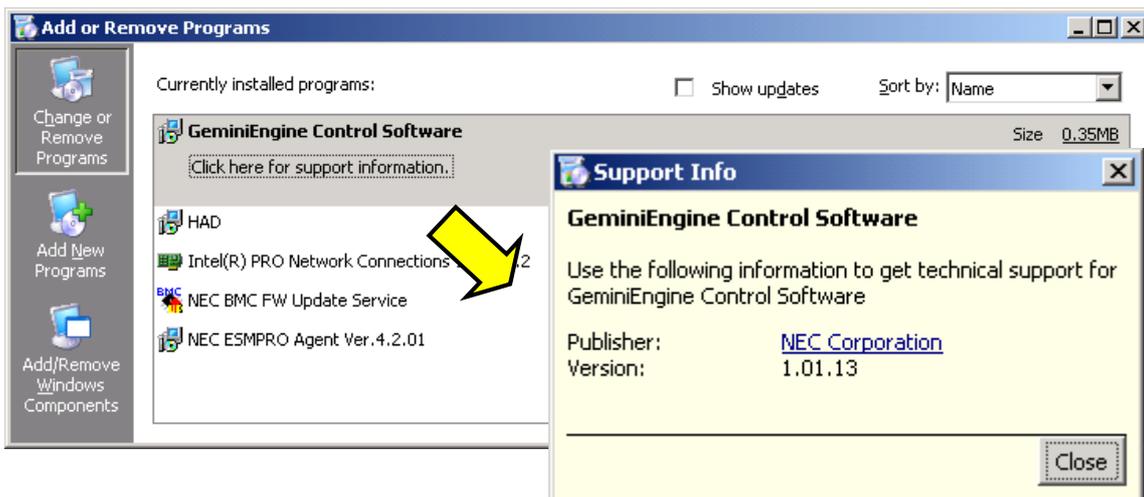
When other driver files do not exist, please perform update again in the above-mentioned 3. Please choose overwrite, although the check dialog of whether to overwrite is displayed in that case. Then, please check existence of the above-mentioned file anew.

Even if it carries out the operation so far, when there is a file not existing, please inform a maintenance member, without pushing the "O.K." button.



Confirm GeminiEngine SW version in following procedure.

- (1) Log on Windows 2003 by Administrative user
- (2) Open **Add or Remove programs** in **Control panels** from **Start** menu.
- (3) Version will be displayed by clicking **Click here for support information** in the **GeminiEngine Control Software**.
- (4) After this update, the version has been updated to **1.01.13** or **1.01.21**.



Version before update	Version after update
Less than 1.01.13	1.01.13
1.01.20	1.01.21

Procedure of Update HAD individually

If the GeminiEngine Control Software is updated when the "HAD" program is not displayed on "Add or Remove Programs", after reboot the warning dialog of "ILLEGAL FILE" may be displayed when logged on by the user who updated.

In this case, please update the HAD driver in the following procedures.

If the warning dialog of "ILLEGAL FILE" is displayed, please click the "Close" button to close the dialog. Then, update the HAD driver in the following procedures.

1. Expand the update file "GE10113E.ZIP". And copy "CD1" folder directly under C drive.
2. Copy the following file to the folder for work according to the version before update of the GeminiEngine Control Software.

- Create folder "CD1HAD" under C drive for work.

- Copy the following file to the "CD1HAD" folder.

Version before update	File to copy
1.00.xx (xx: 52 - 73)	C:\CD1\HASSETUP\HAD\HASHADUS.CAB
1.01.yy (yy: 03 - 12)	C:\CD1\HASSETUP\HAD\HASHADUS.CAB
1.01.20	C:\CD1\HASSETUP\HAD117\HASHADUS.CAB

3. Open command prompt. And move to the C:\CD1HAD folder.

4. Expand "HASHADUS.CAB" by the following command.

```
> expand HASHADUS.CAB -F:* .
```

5. Create "bin", "mof", and "esm" folder by the following commands.

```
> mkdir bin
> mkdir mof
> mkdir esm
```

6. Expand "BIN.CAB", "MOF.CAB", and "ESM.CAB" to "bin", "mof", and "esm" folder by the following commands.

```
> expand BIN.CAB -F:* bin
> expand MOF.CAB -F:* mof
> expand ESM.CAB -F:* esm
```

7. Move to "esm" folder by the following command.

```
> cd esm
```

8. Create "en" and "jp" folder by the following commands.

```
> mkdir en
> mkdir jp
```

9. Expand "EN.CAB" and "JP.CAB" to "en" and "jp" folder by the following commands.

```
> expand EN.CAB -F:* en
> expand JP.CAB -F:* jp
```

10. Move to the folder on one by the following command.

```
> cd ..
```

11. Run "HadSetup.bat". Update of the HAD driver starts.
12. Click the "YES" button, if the "Security Alert" dialog is displayed during update.
13. Log on by the user who updated and check that the "ILLEGAL FILE" dialog is not displayed, after rebooting. And remove the folder used for work after the check.

Update is completion.

STEP 4 Restoring the setting

- (1) If the version of original FT driver is less than 1.00.70, reconfigure the network setting.
- (2) If **Task Scheduler** setting is changed in 1) of step2, restore the original setting.
- (3) If **Driver Signing** is changed from **System Properties** in 2) of step2, restore the original setting.
- (4) Installation is completed. Go to STEP 5 to review the system environment.

STEP 5 Confirm system environment and Notices

Memory Dump

In the case that the following log is outputted to Event Log (System), enable to collecting memory dump by setting the paging file size more than recommended size.

Event source: ESMCommonService, Types: warning, Event ID: 2001

Description:

Memory dump may not be able to extract normally.

The initial size of the paging file of the starting drive is set below the recommendation value.

It is recommended to set the value of 1.5 times loading memory size or above.

Please select **Complete memory dump** if the installed memory size is 2GB or less.

SNMP service

Confirm [service status] is [Auto Start] and [Status] is [Automatic] in SNMP Service in Service

If this service is stopped, the ESMPRO Agent Alert messages which could not be sent to Manager accumulate to the system and it causes high-load status of the system.

When SNMP service cannot be started, please give the SNMP report of ESMPRO/ ServerAgent as disable. Please perform a configuration of a report-function by report setup of ESMPRO/ServerAgent on a control panel.

GeminiEngine Monitor Tool

Application of this update will register a GeminiEngine Monitor tool into a start menu.

Refer to the user's guide of Express5800/320Fb for the usage of this tool.

Connection Monitoring Function (IPCHK)

With this server, [Connection Monitoring Function] operates when the system is started up. This [Connection Monitoring Function] is used to avoid the following issue.

"The network connection might not start session when an effective LAN cables are not connected to the IO module started first during the system starts with Intel adapter teaming existed in the system".

This function monitors the connection initiation. It automatically restarts the network adapter if the connection is stopped and keeps the connection. The [Connection Monitoring Function] is provided with "IPCHK.VBS."

"IPCHK.VBS" uses wscript.exe which is one of the processes relating to Microsoft Windows operating system. Therefore, "IPCHK.VBS" cannot be operated in the system where the programs associated to vbs are disabled by wscript.exe or wscript.exe itself is disabled.

The command prompt screen of "IPCHK" will be left displayed when the system starts in the above environment, it is necessary to invalidate the service of ipchk by the following procedure.

----Disable the "IPCHK" service----

1. Open [Control Panel] -> [Administrative Tools] -> [Computer Management].
2. Click [Services and Applications] -> [Services].
3. In [Services] tree, right click [EXECSV] and click [stop].
4. Again right click [EXECSV] and click [properties].
5. Change [Startup Type] to [Disabled].
6. Click [OK].

In the environment where ipchk is assumed to be disabled or ipchk is not applied, the connection might not be able to start session when an effective LAN cables are not connected to the IO module started first during the system starts with Intel adapter teaming existed in the system.

In this case, it must be manually disabled the virtual adapter at once and reeffective it again by the following procedure.

-----Disable/Enable manually the virtual adapter-----

1. Right Click [Control Panel]->[Network Connections] and choose [Open].
2. Right Click the Virtual adapter[Local Area Connection xx] and click [Disable].
3. Right Click the Virtual adapter[Local Area Connection xx] and click [Enable].