# GP7000F M800, M1000, M2000

System Management Console (SMC)

Edition April 2000

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# FOR SAFE OPERATION

## Handling of This Manual

This manual contains important information regarding the use and handling of this product. Read this manual thoroughly. Pay special attention to the section, "Important Alert Messages." Use the product according to the instructions and information available in this manual. Keep this manual in hand for further understanding. Fujitsu makes every effort to prevent users and bystanders from being injured or from suffering damage to their property. Use the product according to this manual.

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# Revision History



| Edition | Date | Revised section<br>(Added/ Deleted/ Altered) | Details |
|---|---|---|---|
| 01 | 2000-02-10 | — | — |
| 02 | 2000-04-12 | Complete (Altered) | Usability improved |
| | | 1.2 (Altered) | Hardware requirements altered |
| | | 1.4 (Altered) | The SMC's figures altered |
| | | 2.1 (Altered) | Procedure altered |
| | | 2.2 (Added) | Procedure added |
| | | 2.6 (Added) | Procedure added |
| | | Chapter 5 | Remarks added |
| | 2000-04-14 | Complete (by FSC) | Changes from and for Fujitsu Siemens Computers; order number and comment form substituted |
| | 2000-06-16 | 1.1 (Altered by FSC) | PCI slot allocation |
| | | 2.3 (Altered by FSC) | Changes due to SCS V1.3 |
| | | | |

Note: In this table, revised section is indicated as its section number in the current edition.
An asterisk (*) indicates a section in the old edition.

# Preface

This manual describes the System Management Console (SMC) which supports operation and maintenance of GP7000F Model 800/1000/2000. This manual is intended for the system administrators who operate and maintain the systems.

Unless otherwise specified, GP7000F Model 800/1000/2000 is referred to as "GP7000F system" and GP7000F SMC is referred to as "SMC" in this manual.

This section explains the following items:

- Structure and contents of this manual
- Other reference manuals
- Notations
- Conventions for alert messages
- Environmental requirements for using this product
- For the readers

## Structure and Contents of This Manual

This manual consists of six chapters, glossary, one acronyms and abbreviations part, and index described below:

CHAPTER 1 Product Overview
Describes the distinctive features, the hardware requirements, the software requirements, and LAN connection of SMC.

CHAPTER 2 Installation of SMC
Describes the procedures of installing Solaris 7 and System Console Software. Chapter 2 also describes the procedures of installing Acrobat Reader and Netscape Communicator supplied with Solaris 7.

CHAPTER 3 Creating Backups
Describes the procedures of backing up and restoring the system.

CHAPTER 4 User Administration
Describes the user registration.

CHAPTER 5 Remarks for Using This Product
Describes remarks for using SMC.

CHAPTER 6 Troubleshooting
Describes suggested solutions on system down of SMC.

### Glossary, Acronyms and Abbreviations, Index

#### Glossary
Explains the terms used in this manual.

#### Acronyms and Abbreviations
Presents spellings of complete words or phrases of the abbreviations used in this manual.

#### Index
Describes the keywords and corresponding reference page numbers so that the readers may easily find out the necessary items.

## Other Reference Manuals

The following manuals are provided for the reference:

a) Printed manuals

"GP7000F Model 800/1000 Installation Guide " (C120-E055)
"GP7000F Model 2000 Installation Guide " (C120-E050)

b) PDF manuals in the CD-ROM disk

"GP7000F Model 800 User's Manual" (C120-E069)
"GP7000F Model 1000 User's Manual" (C120-E054)
"GP7000F Model 2000 User's Manual" (C120-E048)
"GP7000F Model 1000 Installation Planning Manual" (C120-H003)
"GP7000F Model 2000 Installation Planning Manual" (C120-H001)

c) Inside the GP7000F SMC installed disk

"System Console Software User's Guide" (C120-E067)

For how to access the manuals described in b) and c) above, see Section 2.8, "How to Refer to Manuals," in this manual.

## Notations

This manual uses the following fonts and symbols to express specific types of information:

| Fonts/symbols | Meaning | Example |
|---|---|---|
| **AaBbCc123** | Commands that the users enter | # **ls -l** <Return> |
| " " | Names of manual title, chapter, section, item, button, or menu to refer to. | See Chapter 3, " Configuration of the System Console," in the "System Console Software User's Guide." |

## Conventions for Alert Messages

This manual uses the following conventions to show the alert messages. An alert message consists of an alert signal and alert statements. The alert signal consists of an alert symbol and a signal word or just a signal word.

| | |
|---|---|
| **⚠CAUTION** | This indicates a hazardous situation *could* result *in minor or moderate personal injury* if the user does not perform the procedure correctly. This signal also indicates that damage to the product or other property *may* occur if the user does not perform the procedure correctly. |
| **IMPORTANT** | This indicates information that could help the users to use the product more effectively. |

### Signals in the text

In the text, the signal is centered. The message is indented to distinguish from the procedural text. A wider line space proceeds and follows the message to show where the message begins and ends. The following is an example:

(Example)

**⚠CAUTION**

Malfunction

Connecting components incorrectly may cause the GP7000F system to display incorrect information about the system configuration or disable the change configuration feature. Therefore, be sure to connect correctly.

The important alert messages are listed in the "Important Alert Messages" in the "FOR SAFE OPERATION" section of "Preface."

## Environmental Requirements for Using This Product

This product is a console unit that its usage is intended in a computer room. For details on the operational environment, see the related section in this manual.

For the Reader

- If you find any inconvenience with the description or incorrect explanation in this manual, please fill in the "Comment Form" sheet at the back of this manual and forward it to the address described on the sheet.
- This manual is subject to be revised without prior notice.

# FOR SAFE OPERATION

## Important Alert Messages

This manual uses the following conventions to show the alert messages. An alert message consists of an alert signal and alert statements. The alert signal consists of an alert symbol and a signal word or just a signal word:

**⚠CAUTION** This indicates a hazardous situation could result in minor or moderate personal injury if the user does not perform the procedure correctly. This signal also indicates that damage to the product or other property may occur if the user does not perform the procedure correctly.

| Task | Warning | Page |
|---|---|---|
| Misuse/ Inappropriate operation | Malfunction<br>Connecting components incorrectly may cause the GP7000F system to display incorrect information about the system configuration or disable the change configuration feature. Therefore, be sure to connect correctly. | 1-8 |
| | Malfunction<br>The SMC is a dedicated unit that its use is intended only for GP7000F Model 800/1000/2000. Installing Solaris by the procedure other than described in this manual may injure or damage the users or their properties. | 2-1 |
| | Data destruction<br>Be sure to check the followings before powering off the SMC. Otherwise data may be destroyed.<br>• All applications have finished processing.<br>• No user is using the system.<br>If necessary, backup the files, then power off the SMC. | 6-3 |

# Product Handling

## Maintenance

### ⚠WARNING

The following tasks on this product and the optional products provided from Fujitsu should be performed by the Fujitsu trained service personnel. The users should not perform these tasks. Incorrect operation of these tasks may cause electric shock, injury, or burning up.

- Installation and reinstallation of every components
- Removal of front, rear, or side covers
- Mounting/de-mounting of optional internal devices
- Connection and disconnection of external interface cables
- Maintenance and inspections (repairing, and regular diagnosis and maintenance)

### ⚠CAUTION

The following task regarding this product and the optional products provided from Fujitsu should be performed by the Fujitsu trained service personnel. The users should not perform these tasks. Incorrect operation of these tasks may cause malfunction.

- Unpacking of optional adapters and such packages delivered to the user .
- Plugging in/out external interface cables

## Compatible Components

### ⚠CAUTION

The followings lie out with Fujitsu's responsibility: Operational checks nor guarantee of the installation of those products other than specified and/or recommended as basic components and/or optional components and/or products of GP7000F SMC in this manual. Installing such equipment may cause unexpected damage to the user, or the product or other property of the user or bystanders.

## Remodeling/Rebuilding

Do not make mechanical or electrical modifications to the equipment. Using this product after modifying or reproducing by overhaul may cause unexpected injury or damage the property of the users or bystanders.

# Contents

## Glossary, Acronyms and Abbreviations/Index

# Figures and Tables

## Figures



## Tables

# CHAPTER 1 Product Overview

System Management Console (SMC) is a unit that its use is intended to support operation and maintenance of GP7000F Model 800/1000/2000.

This chapter describes the following items regarding SMC:

- Key features of SMC
- Guidance for purchase of this product, hardware requirements
- Software requirements
- LAN connection of SMC

## 1.1 Key Features of System Management Console (SMC)

Key features of System Management Console are described below:

- The GP7000F SMC can check the hardware configuration and operational state of GP7000F Model 800/1000/2000.
- The GP7000F SMC sets resource-partitioning to share the processors and memory of the GP7000F Model 800/1000/2000. By setting partitioning, multiple systems can be deployed in one GP7000F Model 800/1000/2000.
- The GP7000F SMC can show console display for each partition in itself.
- The GP7000F SMC can set the Power Supply Schedules, powering on/off the GP7000F Model 800/1000/2000.
- The CD-ROM drive of GP7000F SMC is sharable among partitions. This enables installation of Operation Systems and applications on each partition of the GP7000F Model 800/1000/2000.
- The clock of each partition of the GP7000F Model 800/1000/2000 is synchronized to the clock of the GP7000F SMC by Network Time Protocol (NTP).
- The GP7000F SMC monitors the hardware of the GP7000F Model 800/1000/2000. If a fault is detected, its information is displayed in the GP7000F SMC. Notification to the system administrator is made by sending e-mail immediately.

- The basic configuration of GP7000F SMC provides three LAN ports. These ports are used to establish all features described above by using one of the three ports for connecting each partition (default LAN port of the System Board), and also connecting an Internet or an Intranet. Two ports left are used for connecting the System Control LAN for the GP7000F Model 800/1000/2000 (Figure 1.1).

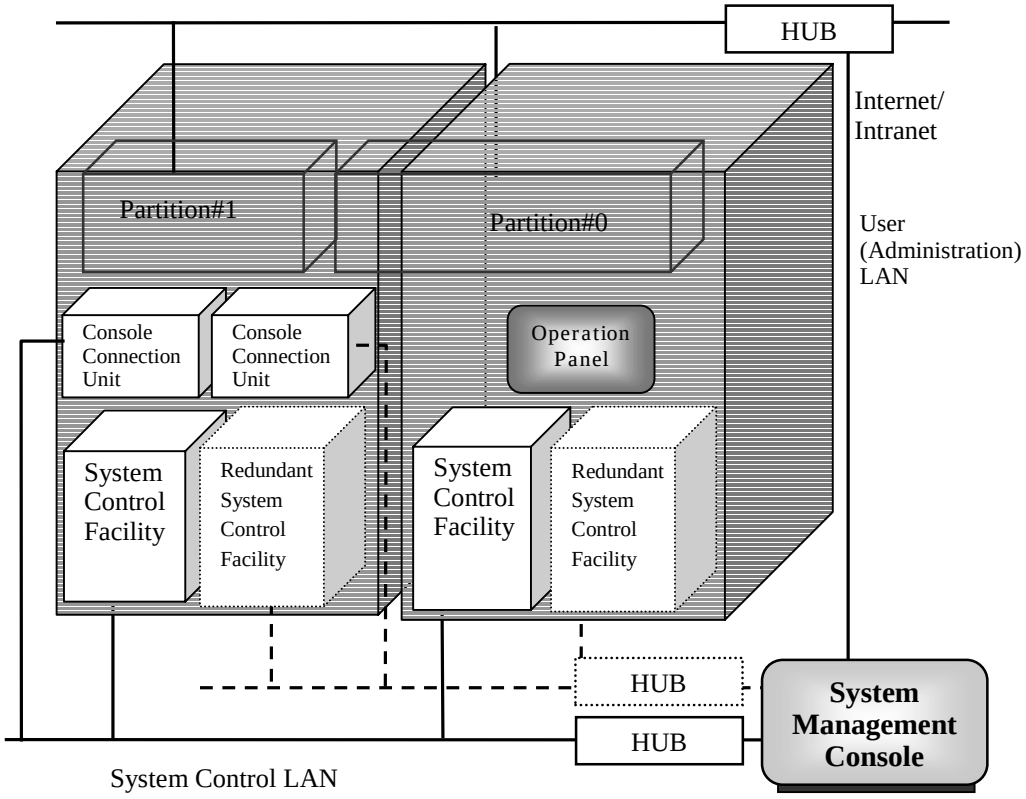


Figure 1.1 LAN connection scheme

# 1.2 Guidance for Purchase of This Product, Hardware Requirements

## 1.2.1 Hardware requirements

To use SMC for GP7000F System, the following hardware must be installed:

MAINFRAME

- GP7000F Model 200
  - CPU: SPARC64 GP 225 MHz or faster
  - Memory: 256 M Bytes or more
  - Hard Disk: 9.1 GB or more
  - Available PCI slots: 3 slots or more
  - CD-ROM drive
  - OS: Only Solaris 7

DISPLAY

- Resolution: 1152 x 900 or 1280 x 1024
- Connector Interface: D-sub 15 pin or 13W3

PCI cards

- 2 FastEthernet cards
- PGX32 Color Frame Buffer

Storage units

- DAT unit (DDS-3 standard-compliant)
  Should be available for mounting internally in GP7000F Model 200. Applicable tape: 4 mm width and 125 m length tape.

Key Board

- Should be compatible with Solaris.

## 1.2.2 Installing PCI cards

Table 1.1 shows the specification of slot allocation for PCI cards. When installing PCI cards, follow the specification below.

Table1.1 Specification of slot allocation

| Slot # | Type of PCI card |
|---|---|
| PCI1 | PGX32 Color Frame Buffer |
| PCI2 | FastEthernet card |
| PCI3 | Fast Ethernet card (if the redundant System Control Facility is installed) |

## 1.3 Software Requirements

This section describes the software required in SMC.

### 1.3.1 Operating system

SMC uses Solaris 7 as its operating system to manage GP7000F system control. For details on installation, see Section 2.1, "Installing Solaris 7 to SMC."

The followings are requirements for installing Solaris 7. To install the Operating System securely, be sure to follow the steps below:

- Check "Entire Distribution plus OEM support" option for the type of software being installed.
- Be sure to select the installation for 64 bit mode.
- To configure partitions, make sure to take the following rules for configuring partitions.

Table 1.2 Partitions in hard disk

| Slice | Mount point | Size (M bytes) |
|---|---|---|
| 0 | /(root) | overlap - (swap +20) |
| 1 | swap | 512 |
| 2 | overlap | All |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |

Note:

- Areas for programs and data should not be provided independently so that all programs and data can be stored in Partition 0.
- To provide the step stone for the future disk mirroring, it is recommended to leave 20 M byte or so as an independent area from any partitions.

**IMPORTANT**

SMC uses Common Desktop Environment (CDE) for its window environment. Be sure to operate SMC under CDE to obtain advanced performance of SMC.

## 1.3.2 System Console Software

The following software programs are required in the SMC for controlling the GP7000F system:

### 1.3.2.1 Machine administration program

SMC performs the following features regarding to tasks of GP7000F system.

- Monitors and displays the hardware and the hardware configuration of GP7000F system. Controls the power supply of GP7000F system. For details, see Section 6.1, "Checking the Hardware Configuration of the Server," and Section 6.2, "System power operation" in the "System Console Software User's Guide."
- Notifies faults occurring on the hardware of the GP7000F system while monitoring by sending e-mail messages to the system administrators. For details, see Section 8.1 “Monitoring,” and Section 8.2.1, "Error Notification via Message Boxes or by Mail to the System Administrator or Engineer-in-charge," in the "System Console Software User's Guide."
- Sets partitions in GP7000F system. Setting partitions enables deployment of multiple OSes and systems in one unit. For details, see Chapter 7, "Operation of Server Partitions," in the "System Console Software User's Guide."

### 1.3.2.2 OS console program (RC2000)

Displays the OS console screen for each partition deployed in GP7000F system.

For details, see Section 7.2, "Manipulating RC2000," in the "System Console Software User's Guide."

### 1.3.2.3 Automatic Power Supply Control

Performs automatic on/off of power supply to the GP7000F system according to predefined system schedule. For details, see Section 6.5, "Automatic Power Supply Control," in the "System Console Software User's Guide."

### 1.3.2.4 Partition installer

Assists installation information setting of OS program on the basis of partitions in GP7000F system. For details, see Section 7.3, "Installation in Partitions," in the "System Console Software User's Guide. "

### 1.3.2.5 Saving the Dump

Collects dump data that is required to analyze faults occurred in the GP7000F system.. For details, see Section 7.5.2, "Saving the Dump," in the "System Console Software User's Guide."

#### 1.3.2.6 Utility programs

A group of control programs used for controlling GP7000F SMC. For example, the features of NTP settings and control of spare console are provided by the programs in this group.

GP7000F SMC supports the feature for sharing information between software applications in the main console and in the spare console so that the GP7000F SMC is capable of continual operation when faults occur in the other console under the two-console configuration. For details, see Section 4.6, "Installation of a Spare System console," in the "System Console Software User's Guide."

# 1.4 LAN Connection of SMC

## 1.4.1 Configuring LAN connections

SMC has three LAN ports. This section describes how to connect these ports.

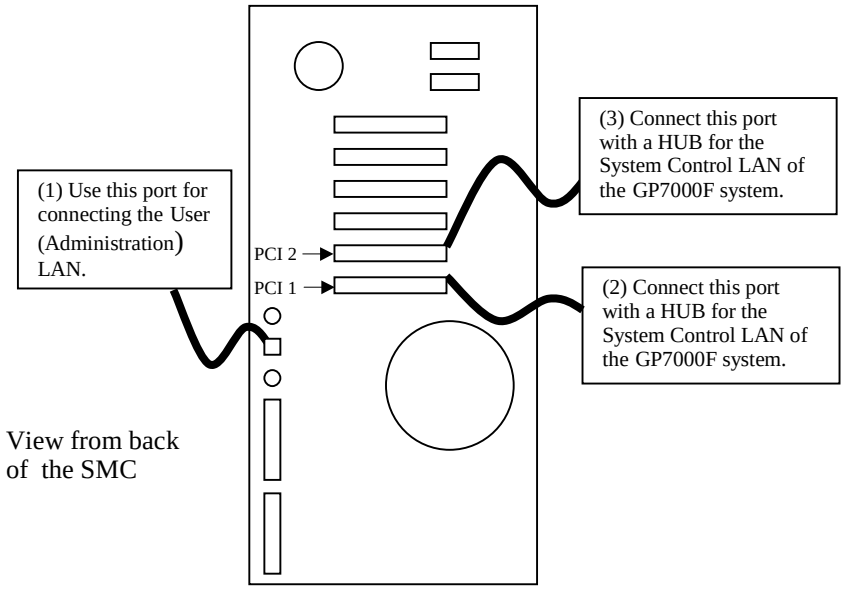


Figure 1.2 LAN port connections of the GP7000F SMC

(1) Use of the LAN port on the left side of the SMC's rear panel is intended for the User (Administration) LAN. This port can be connected with the network components (such as a HUB) used in the daily operation by using LAN cables. In the operating system, this LAN is configured by the /etc/hostname.hme0 definition file. In the User (Administration) LAN, IP address of each partition in the GP7000F system must exist in the same subnet as the IP address of the hme0 interface of the GP7000F SMC. If the users need to change the IP addresses or the host names along with the modification of LAN environment, those modifications to the LAN can be made easily by changing the contents of related files.

(2) The LAN port marked as PCI1 in the figure above is a multifunctional port for SCSI and FastEthernet cards. Use of this port is intended for connecting with the System Control LAN. This port is connected with the HUB installed in the GP7000F system by using a LAN cable. In the operating system, this LAN is defined as hme1. If required, this LAN can be changed through the menu of the System Console Software. When making changes to the LAN, however, conflicts with the IP addresses of the User (Administration) LAN must be taken in consideration.

(3) The LAN port marked as PCI2 in the figure above is a port for FastEthernet cards. Use of this port is intended for connecting with the System Control LAN of the GP7000F system. This port is connected with the HUB installed in the GP7000F system by using a LAN cable. The LAN connected here must be allocated to the different segment from the LAN connected in step 2 above. To separate these LANs from each other, connecting with separate HUBs is necessary. In the operating system, this LAN is defined as hme2. If required, this LAN can be changed through the menu of the System Console Software. When making changes to the LAN, however, conflicts with the IP address of the User (Administration) LAN must be taken into consideration.

Remarks: If any redundant System Control Facility option is not installed in the GP7000F Model 800/1000/2000, step 3 above is not necessary.

Connecting a User (Administration) LAN between the GP7000F SMC and the GP7000F system is necessary. Some functions such as time synchronization by the NTP, installation, and dump saving are provided by using this LAN.

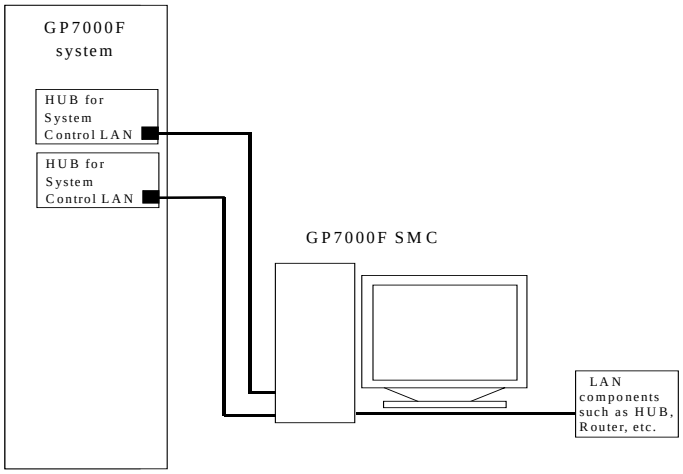


Figure 1.3 LAN connection scheme

## 1.4.2 LAN connection for the redundant SMC system

When installing a spare system console, two LAN ports on the System Board are used for connecting separate System Control LAN systems respectively. Each port of the main and redundant system consoles used for one System Control LAN system must be connected to the same HUB.

**⚠CAUTION**

Malfunction

Connecting components incorrectly may cause the GP7000F system to display incorrect information about the system configuration or disable the change configuration feature. Therefore, be sure to connect correctly.

Figure 1.4 shows the LAN connection scheme when a spare system console is installed.

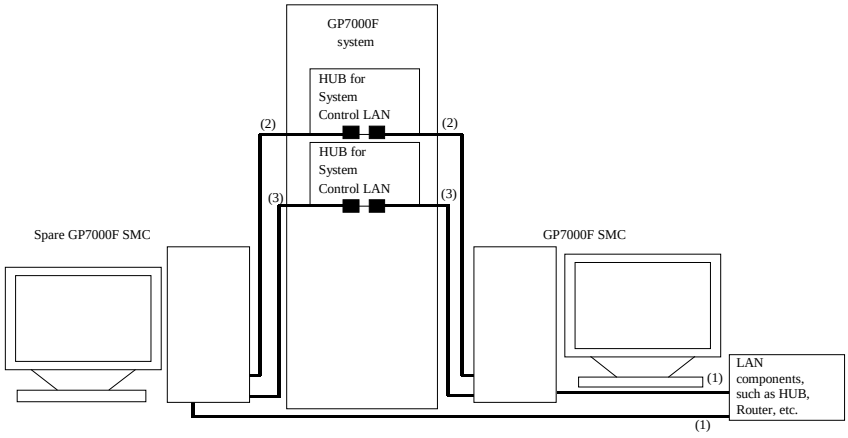


Figure 1.4 LAN connection scheme with a redundant system console

## 1.4.3 Concept of IP address setting

IP address of the System Control LAN can be changed through the menu of the System Console Software. New IP addresses for the System Control LAN can be specified along the lines of the three following types of IP address:

a)192.168.xxx.xxx (default)

b)10.1.xxx.xxx

c)10.254.xxx.xxx

When deciding an IP address for a System Control LAN, consistency with the IP address of the User (Administration) LAN must be considered. Allocating the upper two segments of the System Control LAN the same value as the User (Administration) LAN may cause redundant broadcast into the User (Administration) LAN. This increases load on the User (Administration) LAN, and daily operation by the users may stop.

In order to prevent this, an IP address of the System Control LAN must be selected from a) to c) above, taking into consideration of the IP address used for the User (Administration) LAN.

To avoid the events described above, make sure that appropriate IP addresses are based on the format a) to c) described above to ensure the IP address does not clash with the IP address of the User (Administration) LAN.

As for the lower two fields of the IP address of the System Control LAN (i.e., xxx.xxx area), the exclusive IP addresses are automatically allocated by inter-cooperation between the GP7000F SMC and the GP7000F system so that conflicting IP addresses will not be used.

If you want to change IP address of the System Control LAN, consult with the Fujitsu trained service personnel.

# CHAPTER 2 Installation of SMC

This chapter describes the following items regarding the installation of SMC:

- Installing Solaris 7 to SMC
- Installing the PGX32 driver
- Installing System Console Software to SMC
- Installing Acrobat Reader
- Installing Netscape Communicator Supplied with Solaris 7
- Applying Solaris patches
- How to upgrade software
- How to refer to manuals

## 2.1 Installing Solaris 7 to SMC

This section describes the procedure of installing Solaris 7.

**⚠CAUTION**

Malfunction

The SMC is a dedicated unit that its use is intended only for GP7000F Model 800/1000/2000. Installing Solaris by the procedure other than described in this manual may injure or damage the users or their properties.

Although a message "SUNW,hmeX:Link Down - cable problem?" (X=0, 1, 2) appears during the OS installation, there is no impact on the installation.

1) If the connection to the User (Administration) LAN is established, physically disconnect the LAN cables.
2) Turn on the SMC.
3) Press the <STOP> + <A> keys to switch to the OBP mode.
   The ok prompt appears.
4) Set the CD-ROM disk of Solaris 7 Server from the package box (colored blue) to the disk in the CD-ROM drive of GP7000F SMC.
5) Enter as below to the ok prompt to execute the install command.

   ok **boot cdrom – install** <Return>

   In the booting of the Solaris, a message "NOTICE : Can't find driver for console framebuffer" appears. But there is no impact on the installation.
6) The CUI installer starts up. Make entries by following the instructions below:
   (1) The "Select a Language" menu appears. Select your language and press return key.
   (2) The "Select a Locale" menu appears. Select your locale and press return key.
   (3) The "The Solaris Installation Program" menu appears. Press F2 key.
   (4) The "Identify This System" menu appears. Press F2 key.

(5) The "Host Name" window appears. Enter the host name for the SMC, then press the F2 key.

(6) The "Network Connectivity" menu appears. Select "Yes", then press the F2 key. Select "No", then press F2 key here to display the "Confirm Information" menu. If the information is correct, press the F2 key and go to step (12). If the information is not correct, press the F4 key and enter correct information.

(7) The "Primary Network Interface" menu appears. Select "hme0", then press the F2 key.

(8) The "IP Address" menu appears. Enter the IP address for the User (Administration) LAN of SMC, then press the F2 key.

(9) The "Confirm Information" menu appears. If displayed information is correct, press the F2 key.

If displayed information is not correct, press the F4 key and enter correct information.

(10) The "Name Service" menu appears. Select "None" and press the F2 key.

(11) The "Confirm Information" menu appears. If displayed information is correct, press the F2 key.

If displayed information is not correct, press the F4 key, and enter correct information.

(12) The "Subnets" menu appears. Select "Yes" and press the F2 key.

If definition of subnet is not required, select "No", then press the F2 key and go to step (12).

(13) The "Netmask" menu appears. Enter the subnet mask, then press the F2 key.

(14) The "Time Zone" menu appears. Select Your Time Zone Region and then press F2 key.

(15) The other "Time Zone" menu appears. Select Your Time Zone and then press F2 key.

(16) The "Date and Time" menu appears. Enter the current date and time, then press the F2 key.

(17) The "Confirm Information" menu appears. If displayed information is correct, press the F2 key.

If displayed information is not correct, press the F4 key and enter correct information.

(18) When "Press the return key for an interactive Solaris install program..." message appears, press the <Return> key.

Here, a message "WARNING: Could not find matching rule on rules.ok" is displayed, but you can ignore this message. There is no impact on the installation.

(19) The "Solaris Interactive Installation" menu appears. Press the F4 key. Installing the Solaris for blank hard disk (such as after format the hard disk), this menu will be canceled.

(20) The other "Solaris Interactive Installation" menu appears. Press the F2 key.

(21) The "Allocate Client Services?" menu appears. Press the F2 key.

(22) The "Select Languages" menu appears. If you want to install other languages, select and press the F2 key.

(23) The "Select 64 Bit" menu appears. Select 64bit mode support, and then press the F2 key.

(24) The "Select Software" menu appears. Select "Entire Distribution plus OEM support 64-bit" and then press the F2 key.

(25) The "Select Disks" menu appears. Select "boot disk", then press the F2 key.

(26) The "Preserve Data?" menu appears. Press the F2 key.

(27) The "Automatically Layout File Systems?" menu appears. Press the F4 key.

(28) The "File System and Disk Layout" menu appears. Press the F4 key.

(29) The "Customize Disks" menu appears. Set disk partitioning by following the rules described below.

(a) Enter "swap" to the left column of Item 1 in the window. Then, enter "512" to the right column as disk capacity.

| Slice | Mount Point | Size(MB) |
|---|---|---|
| 0 | | |
| 1 | **swap** | **512** |
| 2 | overlap | xxxx |

(b) Move the cursor to the left column of Item 0, then enter "/". At this time, free disk space in unit of M byte is shown in the "Free:" field at the lower part of the window. Subtract 20 from this value, and enter the resulted value to the right column of Item 0 (The following table shows an example value that represents yyyy M bytes).

| Slice | Mount Point | Size(MB) |
|---|---|---|
| 0 | / | **yyyy** |
| 1 | **swap** | **512** |
| 2 | overlap | xxxx |

A message "Rounding Error 1MB" can be displayed in the lower part of the window. The users can ignore this message since there is no impact on the installation.

(30) Press the F2 key.

(31) The "File System and Disk Layout" menu appears. Check that the partition set in step (27) is selected, then press the F2 key.

(32) The "Mount Remote File System?" menu appears. Press the F2 key.

(33) The "Profile" menu appears. Press the F2 key
Although the "Warning" menu appears, there is no impact on installation. Press the F2 key.

(34) The "Reboot After Installation?" menu appears. Press the F2 key.
This operation starts up installation.
It takes about 1 hour to complete installation.

7) Set a root password. The screen requests to enter password twice. Enter the same password for both.

Installation is completed when the Login screen appears.

Remove the CD-ROM disk.

Reconnect the LAN cables.

The SMC is not enabled to control the GP7000F system yet because System Console Software is not installed. To install System Console Software, follow the procedures described in Section 2.2, "Installing System Console Software to SMC." Note that CDE is adopted for the window environment of SMC. Be sure to select CDE at login.

## 2.2 Installing the PGX32 Driver

After installing Solaris, the PGX32 driver must be installed. Read the manuals with the PGX32 card thoroughly and pay special attention to the precautions. Install the PGX32 driver according to the instructions and information available in the manuals.

## 2.3 Installing System Console Software to SMC

This section describes installation overview on System Console Software.

1. Apply the patch ID:910457-01 in directory scs_1_3/patch/sun4us of System Console Software 1.3 CD-ROM after System Console Software 1.3 installation.
   1) The SMC goes to OBP mode, after System Console Software 1.3 has been installed.
   2) Boot up the Solaris as single user mode.
   ```
   ok boot -s <Return>
   ```
   3) Enter the root password and when the prompt (#) is appear, execute command as below:
   ```
   # /usr/sbin/mountall –F ufs <Return>
   # /etc/init.d/volmgt start <Return>
   ```
   4) Insert the System Console Software CD-ROM to the SMC.
   5) Change the directory.
   ```
   # cd /cdrom/cdrom0/patch/sun4us <Return>
   ```
   6) Execute patchadd command as below:
   ```
   # patchadd 910457-01 <Return>
   ```
   7) Reboot the system.
   ```
   # /usr/sbin/shutdown -g0 -y -i6 <Return>
   ```

2. Only the modifications (Program Local Fix, patches, etc.) for GP7000F provided by FUJITSU LIMITED can be applied to an existing GP7000F system with Solaris operating system. Do not use the patches provided by Sun Microsystems, Inc. on the World Wide Web and those provided by other vendors. Be careful as you cannot apply the modifications (Program Local Fix, patches, etc.) for other systems (GP7000D, etc.) provided by FUJITSU LIMITED. For information on the modifications of Solaris, contact a FUJITSU systems engineer.

3. System Console Software 1.3 cannot install with overwrite. Please follow the following procedures when reinstalling.
   1) Login as root and open the “Terminal Console”.
   2) Enter the DAT data cassette to DAT unit of the SMC.
   3) SMC settings save with scslbackup command.
   ```
   # /opt/FJSVscsl/bin/scslbackup -t /dev/rmt/0 <Return>
   ```
   4) Next, other SMC settings save to the hard disk in SMC itself. The “filenameA” is a temporary backup file name for wvENVsave command. And the “directoryB” is a temporary directory name for savelogs command. (If the first installation of System Console Software 1.3 or upgrade the former version System Console Software from 1.3, the procedure of this paragraph is not needed.)
   ```
   # /etc/opt/FJSVwvbs/etc/bin/wvEnvsave filenameA <Return>
   # /usr/sbin/FJSVmadm/savelogs –mo directoryB <Return>
   ```
   5) After the back up the settings is ended, the SMC goes to OBP mode.
   ```
   # /usr/sbin/shutdown –g0 –y –i0 <Return>
   ```
   6) Boot up the Solaris as single user mode.
   ```
   ok boot -s <Return>
   ```
   7) Enter the root password and when the prompt (#) is appear, excute command as below:
   ```
   # /usr/sbin/mountall –F ufs <Return>
   # /etc/init.d/volmgt start <Return>
   ```
   8) Insert the System Console Software CD-ROM to the SMC.

9) Change the directory and excute scsldel command.

```
# cd /cdrom/cdrom0/tool <Return>
# ./scsldel <Return>


Uninstallation completed.
#
```

10) After scsldel ends, excute scslinstall command.

```
# ./scslinstall <Return>


Installation completed.
#
```

11) Some necessary patch is applied to System Console Software.

12) Restore the settings data with scslrestore command.

```
# /opt/FJSVscsl/bin/scslrestore -t /dev/rmt/0 <Return>
```

13) Restore the other SMC settings.

```
# /etc/opt/FJSVwvbs/etc/bin/wvEnvload filenameA <Return>
# /usr/sbin/FJSVmadm/savelogs –r directoryB <Return>
```

14) Specify to reconfigure the system components, then reboot the system.

```
# touch /reconfigure <Return>
# /usr/sbin/shutdown -g0 -y -i6 <Return>
```

4. GP7000F SMC needs DAT tape unit. If the patch ID: 106925-02 or later not to be applied, edit the st.conf file with the following procedures described bellow.

```
/kernel/drv/st.conf file
```

Comment out the value same as SCSI ID for a CD-ROM drive unit in the "target" definition.
Note that a CD-ROM driver unit build in a system uses ID 4 as SCSI ID, you comment out "target=4"in the following file.

```
# name="st" class="scsi" <=Type '#' at the beginning.
# target=4 lun=0; <=Type '#' at the beginning.
```

The above operation must be required. If omitted, the following messages about the glm driver will be displayed at the system boot. In case, the system response may be slowly by increasing the system load.

```
WARNING:/pci@1f,4000/scsi@3(glm0):
Connected command timeout for target 4.0
```

```
WARNING:/pci@1f,4000/scsi@3(glm0):
Disconnected tagged cmd(s) (M) timeout for Target N.0
```

5. To make the compression function of DAT device effective, the file of /kernel/drv/st.conf need to chage. Please refer to the manual of the SMC platform and modify the st.conf file.

6. Additionally, please refer to the notifications of Chapter 5 “Notes after the Installation" in “GP7000F model 200/200R/400R/400A/600/600R Hardware Platform Guide Solaris 7".

7. Please refer to the manual of Enhanced Support Facility in the GP7000F model 1000/2000 about how to operate the SCF driver and the machine administration for the GP7000F SMC.

8. The locale supported in System Console Software is “C” and “ja”. If log in except locale setting with “C” or “ja”, recover System Console Software setting with following described bellow.
   1) Stop all application on the GP7000F SMC.
   2) Log out once.
   3) Log in with locale “C” or “ja”.
   4) After log in, select the System Console Software icon of the Front Panel in the CDE and start up the System Console Software.

9. If there are some “LANG=” line (include comment with #) in /etc/default/init file, the partition_setup command goes to infinite loop. Therefore, Can’t specifiles two or more “LANG=” line in /etv/default/init file.

10. Apply the patch ID:910496-03 in directory scs_1_3/patch/scs of System Console Software 1.3 CD-ROM after System Console Software 1.3 installation.
    1) The SMC goes to OBP mode, after System Console Software 1.3 has been installed.
    2) Boot up the Solaris as single user mode.

```
ok boot -s <Return>
```

    3) Enter the root password and when the prompt (#) is appear, excute command as below:

```
# /usr/sbin/mountall –F ufs <Return>
# /etc/init.d/volmgt start <Return>
```

    4) Insert the System Console Software CD-ROM to the SMC.
    5) Change the directory.

```
# cd /cdrom/cdrom0/patch/scs <Return>
```

    6) Excute patchadd command as below:

```
# patchadd 910496-03 <Return>
```

    7) Reboot the system.

```
# /usr/sbin/shutdown -g0 -y -i6 <Return>
```

11. When reinstallation or restoring the setting data of System Console Software, it is necessary to excute command of "Network activation/inactivation". The excution of this comman as below:

> The system network is inactivated and activated by using the system console Machine Administration menu. The Network activation/inactivation menu can be called using the following procedure:
>
> 1) From the Machine Administration menu, select "System network operation".
> 2) From this menu, select "System network configuration construction/server registration".
> 3) From this menu, select "Network activation/inactivation".

## 2.4 Installing Acrobat Reader

This section describes the procedure of installing Adobe Acrobat Reader.

1) Login as the root account.
   (If a screen for window environment selection appears, select "Common Desktop Environment.")
2) Press the Eject button of the CD-ROM unit to draw the CD-ROM tray.

3) Set the CD-ROM disk for manuals supplied with the GP7000F system, and wait for a while.
Open the console or the terminal emulator. Enter the following command to move to the directory of the main program of Acrobat Reader on the CD-ROM.

```
# cd /cdrom/cdrom0/AcrobatReader/SSOLRS.install <Return>
```

4) Enter the install command as below:

```
# ./INSTALL <Return>
```

5) The following screen appears by more command. Read the contents. To scroll the pages, use the space key.

```
ADOBE SYSTEMS INCORPORATED
ELECTRONIC END USER LICENSE AGREEMENT
FOR ADOBE ACROBAT READER

-----
```

6) The following screen appears. To agree to the contents displayed in step 6, enter as "accept."

```
To accept the terms and conditions of this agreement enter "accept."
To decline the terms and conditions of this agreement enter "decline."

Please type "accept" to accept the terms and conditions license agreement;
Type "decline" to exit accept <Return>
```

7) A screen appears and inquires the installation directory. Set the default directory for the installation destination (just press down the <Return> key).

```
This installation requires 19 MB of free disk space.

Enter installation directory for Acrobat 4.0 [/opt/Acrobat4]<Return>
```

8) If there is not /opt/Acrobat4 directory, a screen appears and inquires to create a directory. Enter as "y."

```
Directory "/opt/Acrobat4" does not exist.
Do you want to create it now? [y]y <Return>
```

9) The following message appears, and soon the installation is finished.

```
Installing platform independent files ... Done

Installing platform dependent files ... Done

#
```

10) Remove the CD-ROM disk.

```
# cd / <Return>
# eject cdrom <Return>
```

## 2.5 Installing Netscape Communicator Supplied with Solaris 7

1) Login as the root account.
   If a screen for window environment selection appears, select "Common Desktop Environment."
2) Remove the CD-ROM disk containing Netscape Communicator from the Solaris 7 Server package box. Set the CD-ROM disk to the CD-ROM drive and wait for a few seconds.
3) Double click "installer" from the "File manager." Or enter the following command from the terminal emulator.

```
# cd /cdrom/cdrom0 <Return>
# ./installer <Return>
```

4) The installation screen appears. Follow the instructions on the screen to proceed the installation.
   In the screen for installation type selection, select "Default installation."
5) After the installation is finished, remove the CD-ROM disk by entering as below.

```
# cd / <Return>
# eject cdrom <Return>
```

## 2.6 Applying Solaris Patches

If Solaris patches are supplied, the corrections must be applied.

## 2.7 How to Upgrade Software

This section describes how upgrade installation takes place in GP7000F SMC. Upgrade installation of System Console Software can be proceeded by the same procedure as the installation of existing System Console Software. Ease of the installation depends on updated modules with the latest version of System Console Software that overwrite the existing modules. In upgrade installation, existing settings are stored in its original values during the installation. At the installation, the users are not required to perform special operation such as temporal hibernation-save operation beforehand.

# 2.8 How to Refer to Manuals

- Referring to manuals contained in the CD-ROM disk

  1) Start up the Terminal Emulator.
  2) Start up the Acrobat Reader.
  3) Right-click on "File" on the toolbar, and specify the directory in the CD-ROM. Reference manuals are contained in the following directories:

  - "GP7000F Model 2000 User's Manual"
    /cdrom/cdrom0/Manual/English/c120e048.pdf
  - "GP7000F Model 2000 Installation Planning Manual"
    /cdrom/cdrom0/Manual/English/c120h001.pdf
  - "GP7000F Model 800/1000 User's Manual"
    /cdrom/cdrom0/Manual/English/c120e054.pdf
  - "GP7000F Model 800/1000 Installation Planning Manual"
    /cdrom/cdrom0/Manual/English/c120h003.pdf

- Referring to "System Console Software User's Guide"

The "System Console Software User's Guide" has been installed in the hard disk of the GP 7000F SMC. To see the contents, follow one of the procedures described below:

1) Double-click the User's Guide icon in the menu icon of the "Application Manager - System Console" window.
   The "System Console Software User's Guide" appears.

To refer to the "System Console Software User's Guide" by the root account, it is required to remove the selection on the security check in the X-window server. This setting can be made by following the steps below:

1) Login as the root account.
2) Add the following command (description) to the last part of the /.dtprofile file.

```
/usr/openwin/bin/xhost +'uname -n' > /dev/null
```

   To enable the settings above, you must re-login to the system.

# CHAPTER 3 Creating Backups

Creating backup periodically enables easy recovery of data on system faults. This chapter describes the procedure of creating backups, and types of backup data to be stored in the backup process. The GP7000F SMC uses the DAT unit for storing created backup data.

**IMPORTANT**

Be sure to create backup periodically. There are two types of backup method supported by the GP7000F SMC. The backup cycle depends on the method as described below:

- Creating backup of system volumes.

  → After scheduled maintenance or after relocation of the GP7000F SMC.
- Creating backup of setup data of System Console Software.

  → After making user registration or/and changing setup information.

Restoring processes on disk fault or such events that require recovery of the system should only be performed by Fujitsu trained service personnel.

## 3.1 Creating Backup of the SMC's System Volumes

Backup of system volumes can be created by writing overall data in the hard disks installed in the GP7000F SMC into DAT data cassettes.

This method is capable of storing all data in the hard disks, therefore it is useful especially when replacing the faulty disk because all data stored in the data cassettes can be restored to the replaced disk. This reconfigures the system as of the backup is made.

Although, this method writes all data of overall disks into data cassettes, it takes about 3 hours to complete whole processes. Note that all console features are disabled while this backup method is processing. Be sure to prepare data cassettes media sufficient to store all data by checking capacity of the disks beforehand (data size of backup data becomes so large that only DDS-3 (125 m) data cassette can support).

The following items are required to create backup of system volumes:

- DAT data cassettes, DDS-3 (125 m)
- Solaris 7 Server CD-ROM disk

Backup of system volumes can be created by taking the following procedure:

1) Login as the root account.
2) Enter the following command to display the ok prompt.

```
# /usr/sbin/shutdown -g0 -y -i0<Return>
```

3) Set the CD-ROM disk of Solaris 7 Server in the CD-ROM drive.
4) Insert a data cassette into the DAT unit. Make sure that the write-protection tab on the data cassette is set to "Write-enabled" beforehand.
5) Boot up Solaris 7 in Single User mode from the CD-ROM disk.

```
ok boot cdrom -s <Return>
```

6) When a prompt appears, enter the commands as shown below to start a backup process.

```
# dd if=/dev/rdsk/c0t0d0s2 of=/dev/rmt/0 bs=10240 <Return>
```

   Backup is completed when a prompt appears again. It takes about 2 hours to complete the backup process.
7) Press the Eject switch on the DAT unit to remove the data cassette. Be sure to set the write-protection tab on the data cassette to "Write-protected."
8) Press the <STOP>+<A> keys in order to display the ok prompt.
9) Enter as below to reboot the System Console Software.

```
ok boot <Return>
```

   Daily operation can be restarted when the Login screen of System Console Software appears. Remove the CD-ROM disk of Solaris 7.

## 3.2 Restoring the SMC's System Volumes

This section describes the procedure of restoring data to the replaced disks from the data cassettes created in previous section 3.1, "Creating Backup of System Volumes."

The restoring procedures described below should only be performed by the Fujitsu trained service personnel.

The following items are required to restore system volumes:

- The DDS-3 (125 m) DAT data cassettes containing backup data of the system volumes
- Solaris 7 Server CD-ROM disk

System volumes can be restored by taking the following procedure:

1) Login as the root account. If Solaris is not active, set to the OBP mode by pressing the <STOP> + <A> keys or other procedures, then go to step 3 below.
2) Enter the following command to display the ok prompt.

```
# /usr/sbin/shutdown -g0 -y -i0<Return>
```

3) Set the CD-ROM disk of Solaris 7 Server in the CD-ROM drive.
4) Insert the data cassette containing the backup of the system volume into the DAT unit. Make sure that the write-protection tab on the data cassette is set to "Write-protected" beforehand.
5) Boot up Solaris 7 Server in Single User mode from the CD-ROM disk.

```
ok boot cdrom -s <Return>
```

6) Enter the commands as shown below at the prompt that appear to start a restore process.

```
# dd if=/dev/rmt/0 of=/dev/rdsk/c0t0d0s2 bs=10240 <Return>
```

   The restoring process is completed when a prompt appears again. It takes about 2 hours to complete the restoring process.

7) Press the Eject switch on the DAT unit to remove the data cassette.
8) Press the <STOP> + <A> keys to display the ok prompt.
9) Enter as shown below to reboot.

```
ok boot <Return>
```

Daily work can be restarted when the Login screen of System Console Software appears. Remove the CD-ROM disk of Solaris 7.

10) If necessary, restore the setup data of System Console Software. For the restoring procedure, see Section 3.4, "Restoring Setup Data of System Console Software."

## 3.3 Creating Backup of Setup Data of System Console Software

Creating backup of setup data of System Console Software is useful when replacing the wrong setting with old setting. The backup process can be started using the commands that the System Console Software provides. Creating backup is recommended especially when setup of System Console Software is changed. Data size of the backup data being written in a data cassette is about 1 to 2 M bytes, thus any data cassette can be used as storage medium.

The following item is required to create backup of setup data of System Console Software.

- A DAT data cassette

Backup of setup data of System Console Software can be made by taking the following procedure:

1) Login as the root account.
2) Insert a data cassette to the DAT unit. Make sure that the write-protection tab on the data cassette is set to "Write-enabled" beforehand.
3) Enter as below to start up a backup process.

```
# /opt/FJSVscsl/bin/scslbackup -t /dev/rmt/0<Return>
```

The backup process is completed when a prompt appears.

4) Press the Eject switch on the DAT unit to remove the data cassette. Be sure to set the write-protection tab on the data cassette removed to "Write-protected" immediately.

## 3.4 Restoring Setup Data of System Console Software

This section describes the procedure to restore setup data created in previous Section 3.3, "Creating Backup of Setup Data of System Console Software."

The following item is required to restore the created backup of setup data:

- The DAT data cassette containing backup of setup data.

The setup data of created backup can be restored by taking the following procedure:

1) Login as the root account.
2) Enter the following command to display the ok prompt.

```
# /usr/sbin/shutdown -g0 -y -i0<Return>
```

3) Enter commands as below to startup in Single User mode.

```
Ok boot –s <Return>
```

4) Enter the root password to shift to Single User mode.
5) Insert the data cassette containing the setup data into the DAT unit. Make sure that the write-protection tab on the data cassette is set to "Write-protected" beforehand.

6) Enter as below to execute the restore command.

```
# /opt/FJSVscsl/bin/scslrestore -t /dev/rmt/0 <Return>
```

7) Specify to reconfigure the system components, then reboot the system.

```
# touch /reconfigure <Return>
# /usr/sbin/shutdown -g0 -y -i6 <Return>
```

8) Restore monitor log (information automatically stored in the partition periodically) created by the Machine administration program by using the "Machine Administration Menu" of System Console Software.

9) If appropriate, check the Auto Power Control schedule and activate the Auto Power Control.

10) Press the Eject switch on the DAT unit to remove the data cassette.

# CHAPTER 4 User Administration

This chapter describes overview of the user administration.

## 4.1 User Registration

SMC was developed to perform management tasks of the GP7000F Models. The user registration is necessary to acquire appropriate authority according to the predefined rules.

The following section gives an overview of the user registration. By following this management system, the users can establish effective management of a GP7000F Model that has split partitions.

For details on the user registration, see Chapter 2, "Connection Configuration and Operation Environment of the System Console," in the "System Console Software User's Guide."

### (1) Root account

Root account is granted to the system administrators who have the root privilege of the GP7000F SMC. Users logged in by the root account can change settings of the GP7000F SMC. The following tasks can be proceeded with this account:

- Setting up the GP7000F SMC
- Setting up the GP7000F SMC as an installation server
- Setting user accounts in the GP7000F SMC
- Setting/changing host names for partitions in the GP7000F system

### (2) Administrator account of GP7000F system

This account can be created for the administrators of the GP7000F system as well as the root account. The administrator accounts must be added to the following group from the GP7000F SMC:

- cladmin group

Accounts belong to this group can perform any tasks regarding all partitions . However, those tasks regarding inspection and maintenance are not included.

### (3) Partition administrator account

This account is capable of performing management of given partition of split partitions in the GP7000F system. The partition administrator accounts must be added to the following two groups:

- clmon group

Accounts belong to this group are granted the referring and monitoring authorities for all partitions.

- Partition administration group

Each partition in the GP7000F system must have a partition administration group account that belongs to the partition. Adding accounts to this group enable the accounts to read and write on the RC2000 screen, and grant the privileges required to manage the corresponding partitions.

Accounts and groups above can be registered with any name. However, the root account, root group, cladmin group, and clmon group must not be changed. For how to register accounts and to the partition administration groups, see Section 2.3, "User Group and User Account," in the "System Console Software User's Guide."

## 4.2 The cemainte user

This is an account to be used by those who perform hardware maintenance on the GP7000F system. This account should be created beforehand in case of maintenance service out of hours on urgent matter that may cause failure of logging in resulted from the absence of the system administrator(s) of the GP7000F SMC.

A cemainte group is preset in the GP7000F SMC by default. To grant the authorities required for maintenance service to the accounts for the Fujitsu trained service personnel, add the accounts to this group. For details, see Section 4.1, "Installation on the system console," in the "System Console Software User's Guide."

The cemainte user accounts are intended for the maintenance of hardware. Therefore, cemainte users accounts are prohibited to change settings of the following items that regards the system operation of the users:

- Registering and modifying the user accounts
- Changing setup information of the User (Administration) LAN
- Changing the partitions information
- Changing setup information of the Automatic Power Supply Control
- Changing the installation information using the partition installer

The account names and passwords of the maintenance accounts registered by the user have to be informed to the Fujitsu trained service personnel immediately after the registration.

Accounts belong to the cemainte group of the GP7000F SMC can be reflected to the operating system automatically if the operating system is installed to the GP7000F system by using the partition_setup command of System Console Software.

For details on the partition_setup command, see Section A.7, "partition_setup (1M)," in the "System Console Software User's Guide."

# CHAPTER 5 Remarks for Using This Product

System Management Console (SMC) is a unit that its use is intended to support operation and maintenance of the GP7000F system. Therefore, performance of SMC is assured to the extent of monitoring and controlling of the GP7000F system only.

This chapter describes the remarks for using SMC.

- Upgrading operating system

  Performance of the SMC is assured only with the Solaris 7. Note that if the Solaris operating system of commercial version is installed, Fujitsu will not be responsible for the performance.

  If you want to update Solaris Operating System, please consult with the Fujitsu trained service personnel.

- Applying patches

  To prevent inconsistency among patches for GP7000F Model 800/1000/2000 and those for SMC, request the Fujitsu trained service personnel to apply patches for the GP7000F SMC.

- Changing configuration of disk partitioning

  The GP7000F Model 800/1000/2000 stores dump data including detected software errors to the GP7000F SMC's hard disk. If configuration of disk partitioning is changed, it may cause some faulty events such as resources shortage in storing dump data on GP7000F SMC for analyzing faults.

  If installing the operating system by yourself is required, refer to Chapter 2, "Installation of SMC," in this manual and follow the instructions.

- Using other application programs

  SMC is intended to monitor and control the GP7000F Model 800/1000/2000, and its action is assured under the particular environment. Therefore, performance check on SMC with other business application software is not expected.

  Do not install and run any business application software other than Fujitsu declares the acceptance of use in this manual to the SMC.

  Provided, however, performance of the system with the recommended and optional control software installed is the subject in which Fujitsu warrants, you can install the software if necessary.

- Name service

  Name service of the GP7000F SMC can be managed by using the "/etc" file.

  This information can also be stored in NIS/NIS+ servers. However, the maintenance service on the GP7000F SMC cannot be proceeded while the NIS/NIS+ servers are not available. Therefore, the contents of the /etc file of the GP7000F SMC must identically be set with that in the /etc files against the NIS/NIS+ servers.

  For details, see Chapter 2, "Connection Configuration and Operation Environment of the System Console," in the "System Console Software User's Guide."

- NFS mount

  Do not make the setting of NFS mounting for the disk of partitions of the GP7000F Model 800/1000/2000 from the SMC. If faults occur at the partition which the SMC makes NFS-mount on it, all processes of the SMC are likely to be terminated in order to prioritize retry processing for NFS mount. If this occurs, the SMC is disabled to control the GP7000F Model 800/1000/2000.

- RCI Connection

  When a system is used as a SMC system, GP7000F model 200 cannot be included in the RCI network. Do not try to make a connection using the RCI connector of the GP7000F Model 200.

- UPS

  Bring in a UPS dedicated for the SMC system (Make sure to prepare one UPS that is separate from the one for the GP7000F System.) When selecting UPS, be sure to take in the capacity of the UPS so that the UPS can feed the SMC system adequate enough.

- Enhanced Support Facility

  When a system is used as a SMC system, functions of the Enhanced Support Facility are disabled. If the Enhanced Support Facility is installed, System Console Software may not function correctly.

# CHAPTER 6 Troubleshooting

This chapter describes the following item:

- System operation in system down of the GP7000F Model 800/1000/2000 if the GP7000F SMC fails.

## 6.1 System Operation in System Down of the GP7000F Model 800/1000/2000

GP7000F systems are capable of continual operation alone even if GP7000F SMC fails.

### 6.1.1 What can be performed from the operator panel

- Power-on/off the GP7000F system
- Requesting partition reset
- Requesting acquisition of OS dump data for partitions
- Requesting partition start-up

### 6.1.1.1 Panel appearance

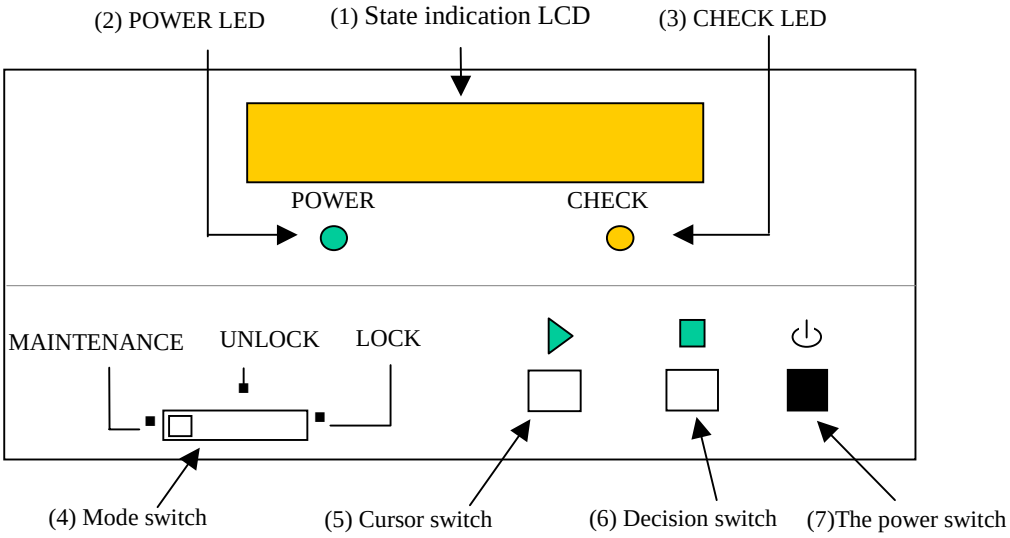


Figure 6.1 Panel appearance

(1) State indication LCD

Displays registered messages and symbols used in the operation.

(2) POWER LED (Green)

Lights in green when the power of the GP7000F system is on.

(3) CHECK LED (Yellow)

Lights or blinks in yellow when malfunctions occur in the GP7000F system.

(4) Mode switch

Shifts the operation mode among LOCK, UNLOCK, and MAINTENANCE. This operation enables/disables each key operation.

(5) Cursor switch

Switches contents of display.

(6) Decision switch

Defines selected contents.

(7) The power switch

Shifts the power of the GP7000F system on or off. When powering off, by pressing the power switch twice at an interval of less than five seconds, the shutdown process is initiated.

### 6.1.1.2 Power-on/off the GP7000F Model 800/1000/2000

This section describes how to power on and off the GP7000F system.

- Power-on

  Follow the procedure below to power on the GP7000F system.

  1) Press the power switch on the operator panel of the GP7000F system. The POWER LED on the operator panel lights steadily in green.

- Power-off

  Follow the procedure below to power off the GP7000F system.

**⚠CAUTION**

Data destruction
Be sure to check the followings before powering off the SMC.
Otherwise data may be destroyed.

- All applications have finished processing.
- No user is using the system.

If necessary, backup files, then power off the SMC.

1) Push the power switch on the operator panel of the GP7000F system twice at an interval of less than five seconds.
   This activates the partition shutdown process. The power is shut down when the shutdown process is completed.
2) After powering off the GP7000F system, turn off the power switches of peripheral units.

If the Mode switch is set to LOCK, the power-off operation form the power switch is disabled.

### 6.1.1.3 How to operate the operator panel

This section describes the operational procedure of operating the operator panel.

The Cursor switch and the Decision switch are used to operate the operator panel.

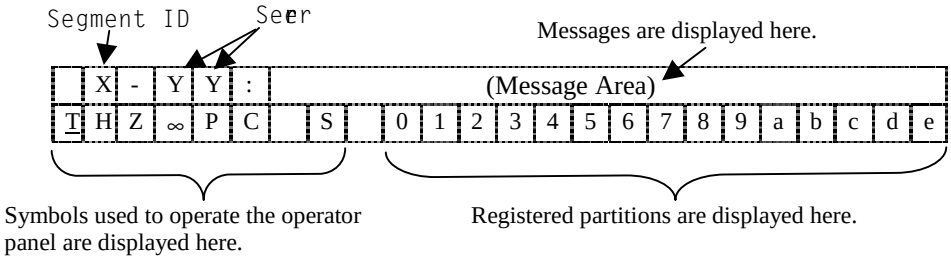


Figure 6.2 Example of display on the operator panel

Values of the Segment ID and the Server ID are particular values inherent to each GP7000F system. Setting of these values should only be performed by the Fujitsu trained service personnel.

Table 6.1 shows the symbols used for operation of the operator panel.

Table 6.1 Symbol list

| Symbol | Symbol | Description |
|---|---|---|
| Temperature | T | Indicates temperature and humidity at the air inlet, and the room temperature at operation time in the message line. The indicated value is of that time. If it reached to predefined alarm level, light blinks. |
| Humidity | H | |
| AC input | Z | Indicates status of the AC inlet. |
| Fan | ∞ | Indicates status of the fans. |
| Power supply | P | Indicates status of the power supplies. |
| System Control Facility | C | Displays the message the System Control Facility issued. |
| Setup | S | Selects among setup functions of the unit. |
| Partition | Alpha-numeric (0 to e) | The command commitment to all the partitions is enabled. Only the symbols correspond to the registered partition are displayed. |

Table 6.2 shows the commands used in operation of the operator panel.

Table 6.2 Command list

| Symbol | Command | Feature overview |
|---|---|---|
| Partition | Reset (Reset) | Issuing a Reset operation for partition operation resets the specified partition. |
| | Request (Req.) | Issuing a Req. operation for partition operation acquires OS dump of the selected partition. |
| | Up (Up) | Issuing an Up operation for partition operation starts up the selected partition. |

Upon partition selection, these events above are enabled or disabled depending on status of the Mode switch. Table 6.3 shows the combination of status of the Mode switch and the events.

Table 6.3 Sending partition events using the Mode switch

| Event | Mode switch | | |
|---|---|---|---|
| | LOCK | UNLOCK | MAINTENANCE |
| Reset | Disabled | Disabled | Enabled |
| Req. | Disabled | Enabled | Enabled |
| Up | Enabled | Enabled | Enabled |

Selection of partitions can be made by taking the following procedure:

- Initial state

| | X | - | Y | Y | : | (Message Area) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | H | Z | ∞ | P | C | | S | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e |

Cursor position

1) Push the Cursor switch. Move the cursor to the partition number you want to select.

| | X | - | Y | Y | : | (Message Area) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | H | Z | ∞ | P | C | | S | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e |

Cursor position

While the Cursor switch is pressed down, the cursor goes to right edge, then back to left edge.

2) Push down the Decision switch.

The display changes to the command screen.

| | X | - | Y | Y | : | *Reset | | | Req. | | | | | | | | | | | | Up | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | H | Z | ∞ | P | C | | S | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e |

Cursor position

3) Press the Cursor switch and select a command.

An asterisk (*) traverses

| | X | - | Y | Y | : | Reset | | | Req. | | | | | | | | | | | | *Up | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | H | Z | ∞ | P | C | | S | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e |

When the Cursor switch is pressed down, an asterisk (*) moves as [Reset → Req. → Up]. If the Cursor switch is pressed down again here, the selection is cancelled and the display returns to the screen appeared in step 1).

4) Make sure that the asterisk positions in front of the command being set, then press the Decision switch.

Confirmation message is displayed as shown below.

| | X | - | Y | Y | : | PartitionUp | | | | | | | | | | | | | | | | OK? | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | H | Z | ∞ | P | C | | S | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e |

5) Press the Decision switch. The changes specified are set.

Pressing the Cursor switch here cancels the operation. The display changes to the screen shown in step 1.

When the setting ends normally, the display returns to the initial screen.

If the setting fails, the following screen appears.

| | X | - | Y | Y | : | | PartitionUp | | | | | | | | | | | | | Failed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | H | Z | ∞ | P | C | | S | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | a | b | c | d | e |

If this occurs, let the screen return to the initial screen by pressing the Decision switch or the Cursor switch.

## 6.1.2 What can be specified by remote operation from other hosts

- Requesting to shutdown partitions

Issue this request as the root account after logging in to the partition through rlogin or telnet.

# Glossary

### 100Base-TX
One of IEEE standards. Applicable cable types are Unshielded Twisted-Pair (UTP) and Shielded Twisted-Pair (STP). Applicable connector type is RJ45. Allows bandwidth of 100 Mbps, and the maximum segment length is 100 m.

### 10Base-T
One of the IEEE standard. Applicable cable type is Unshielded Twisted-Pair (UTP), and the connector type is RJ45. Allows bandwidth of 10 Mbps, and the maximum segment length is 100 m.

### Auto-termination
By the Auto Termination function on board, performs automatic terminator setting on the adapter that had been performed by user side. It is helpful to ensure high reliability on SCSI buses.

### Cache
A buffering memory unit whose capacity is lower and the speed is higher than the main memory unit. This unit retains copies of the commands and data that will possibly be used later. The part being copied is distinguished from the commands and data the processing unit obtains from the main storage unit.

### CAV
An abbreviation of Constant Angular Velocity. A method that plays disks at constant rotation speed. With devices of the type that record data on a rotating disk, read and write processes are performed by rotating the recording disk at constant speed.

### DAT
Digital Audio Tape. A kind of magnetic tape originally designed for audio format, now also used in computer to back up data. The physical specification of DAT for audio is also applied to the DAT for computer. However, their quality and performance are differentiated.

### DDS format
DDS is an abbreviation of Digital Data Storage. A kind of recording format originally designed for audio DAT by HP and Sony Corporation in 1988, now also used in computer to backup data. There are three format types, i.e., DDS-1, DDS-2, and DDS-3.

### DDS-1
DDS-1 was established in 1989. 2 G bytes of non-compressed data can be recorded on a 90 m tape.

### DDS-2
DDS-2 was established in 1992. 4 G bytes of non-compressed data can be recorded on a 120 m tape.

### DDS-3
DDS-3 was established in 1994. 12 G bytes of non-compressed data can be recorded in a 125 m tape.

### DIMM
Dual Inline Memory Module. Its attribute is memory module package. Depending on the pin numbers, DIMM is classified into three types, such as 72, 144, and 168. Back and front can generate independent signals. Single Inline Memory Module (SIMM) is an antithesis.

### ECC
Error Checking and Correction. Examines and corrects errors based on the error correcting code. Generally, diagnosis can be performed in wider range than corrections.

### Ethernet
A local area network (LAN) protocol developed by Xerox corporation. By the initial specifications, the data transfer rate was 3 Mbps. On the Ethernet2.0 specification basis, that was established by Xerox, Intel, and DEC, transfer rate was upgraded to 10 Mbps. Later, in order to comply with the ISO protocol hierarchy, the Ethernet specification served as the basis for the IEEE802.3 standard, which is in use today.

### EUC
Extended UNIX Code. Character code scheme that is used in UNIX.

### Fast Ethernet
An Ethernet that achieves 100 Mbps data transfer rate.

### FAST SCSI
One of SCSI interfaces. Doubles the clock rate to support data rates of 10 Mbps versus 5 Mbps. This interface is also called as SCSI-2.

### NTP
Network Time Protocol. A time information protocol that is commonly applied in the Internet Accurate time information is offered taking in line transfer rate and load variation on the route, is offered.

### PCI
Peripheral Component Interface. One of IEEE standard interfaces.

### RS-232C
A standard interface that is used to connect between computers, or computers and peripheral devices for data exchange. This interface is approved by Electronic Industries Association (EIA), and is adopted in most of PCs as general input/output serial interface. Use for connection among PC and printer, plotter, and mouse.

### RS-423
A standard that defines electrical characteristics of LSI in data communication field. This standard is approved by Electronic Industries Association (EIA). In the specification, electrical characteristics are defined regarding to the signal generator of unbalanced inter-connective circuit type containing active receiver, receivers, and inter-connective terminals. V.24 or X.24 can be factor to defined the inter-connective circuit and its functional condition. The specified connector type is ISO4902 (37 pins). This standard is applied to interfaces between DTE-DTE or DTE-DCE that support up to 100 kbps of data transfer rate.

### SCSI
Small Computer System Interface. A parallel I/O bus standardized in 1986 by ANSI as ANSI X3.131-1986. This deploys eight bits width transfer and supports daisy chain among up to eight devices. Data transfer rate is 5 Mbps.

### Single-Ended
A method of signal transmission deployed in SCSI, SCSI-2, Ultra SCSI, UltraWide SCSI, etc. The single-Ended method uses a pair of ground and signal lines. One signal is transmitted using the one line. Signal is recognized from potential between ground line and signal line. The word Differential corresponds to antithesis.

### ULTRA SCSI
One of SCSI interfaces. By doubling the data transfer cycle of FAST SCSI, data transfer rate is improved from 10 Mbps to 20 Mbps. This is also called FAST-20 SCSI. As a payoff of higher data transfer rate, the length of applicable cable is limited up to 1.5 m.

### UPS
Uninterruptible Power Supply. A device intended to backup a running computer in case of commercial AC power instantaneous voltage drop (instantaneous power interruption) by supplying power from its internal battery. While it is also called "Uninterruptible Power Supply." However, note that depending on the capacity of internal batteries, solo backup by UPS may not be sufficient in the case of long term power interruption. Depending on the type of UPS, however, in general, power supply by UPS battery is 5 to 20 min.

### WIDE SCSI
One of SCSI interfaces. Data width is enhanced from 8 bits to 16 bits.

# Acronym & Abbreviations

## C

| | |
|---|---|
| CAV | Constant Angular Velocity |
| CDE | Common Desktop Environment |
| CPU | Central Processing Unit |

## D

| | |
|---|---|
| DAT | Digital Audio Tape |
| DDS | Digital Data Storage |
| DIMM | Dual Inline Memory Module |

## E

| | |
|---|---|
| ECC | Error Checking and Correction |
| EUC | Extended UNIX Code |

## F

| | |
|---|---|
| FPD | Floppy Disk Drive |

## G

| | |
|---|---|
| GB | Giga Bytes |

## H

| | |
|---|---|
| HDD | Hard Disk Drive |

## I

| | |
|---|---|
| ID | Identifier |
| IP | Internet Protocol |
| I/O | Input/Output |

## K

| | |
|---|---|
| KB | Kilo Bytes |

## L

| | |
|---|---|
| LAN | Local Area Network |
| LCD | Liquid Crystal Display |
| LED | Light Emitting Diode |

## M

| | |
|---|---|
| MB | Mega Bytes |

## N

| | |
|---|---|
| NTP | Network Time Protocol |

## O

| | |
|---|---|
| OS | Operating System |

## P

| | |
|---|---|
| PCI | Peripheral Component Interconnect |

## R

| | |
|---|---|
| ROM | Read Only Memory |
| RPM | Rotation Per Minute |

## S

| | |
|---|---|
| SCS | System Console Software |
| SCSI | Small Computer System Interface |
| SMC | System Management Console |

## T

| | |
|---|---|
| TPE | TridenT Polymorphic Engine |

## U

| | |
|---|---|
| UPS | Uninterruptible Power Supply |

## V

| | |
|---|---|
| VCCI | Voluntary Control Council for Information technology equipment |

# Index

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# Comments
# Suggestions
# Corrections

Submitted by

Comments on GP7000F M800, M1000, M2000
System Management Console (SMC)

FUJITSU

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