



C120-E477-02ENZ2 (A)

Enhanced Support Facility User's Guide

**for Machine Administration
Automatic power control function
(Supplement edition)**



FUJITSU



Preface

Purpose

Intended Readers

This manual is intended for the following readers:

- System administrators and technicians who manage the power of the main unit.

Organization

This manual consists of 4 chapters.

Chapter 1 Overview

Chapter 2 Operation

Chapter 3 Command Reference

Chapter 4 General Notes

Notation

The following names, abbreviated expressions, and symbols are used in this manual:

Manual names

- This manual itself is referred to as "this manual."
- Any manual for this product is sometimes referred to by omitting "Enhanced Support Facility" at beginning of the formal name and supported server models at the end of the formal name. "User's Guide for Machine Administration," or "User's Guide for REMCS" is one of such examples.

Example: Enhanced Support Facility User's Guide for Machine Administration
 --> User's Guide for Machine Administration





Abbreviation

In this document, the formal names of the products below are abbreviated as follows:

Formal name	Abbreviation
Microsoft (R) Windows (R) XP Professional, Microsoft (R) Windows (R) XP Home Edition, Microsoft(R) Windows (R) 2000 Server, Microsoft (R) Windows (R) 2000 Advanced Server, Microsoft (R) Windows (R) 2000 Professional, Windows Server (TM) 2003 Standard Edition, or Windows Server (TM) 2003 Enterprise Edition	Windows(R)

Marks

In this manual, the marks below are used for cautionary messages and reference information.

Mark	Description
 Note	Contains a warning or cautionary message. Make sure you read it carefully.
 Point	Contains reference information that you will find useful.
 See	Provides reference information. Refer to the information when necessary.
 CUI	Provides information on how to perform a CUI menu operation.

Notation for dates and times

Notation	Description
yyyymmdd	yyyy represents the year, mm represents the month, and dd represents the day.
HHMMSS	HH represents the hour, MM represents the minutes, and SS represents the seconds.

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Revision History

Version	Release date	Location	Description
01	August 8, 2007		First Edition
02	February 9, 2008		Added "Chapter4 General Notes" .

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Chapter 1 Overview

The automatic power control function provided by SPARC Enterprise M4000/M5000/M8000/M9000 model is similar to that supported by PRIMEPOWER800/900/1000/1500/2000/2500/HPC2500 and GP7000 F model 1000/2000 which enables the power on/off set up of the main unit according to the schedule.

This function also provides settings for restoring the power in case of power failure.

When the automatic power control function is used with SPARC Enterprise M4000/M5000/M8000/M9000, it is necessary to set one of the domains on the main unit as an APCS administrative domain.

The domain for managing the schedule, starting, and stopping operation of the power control is called the APCS administrative domain.

Domains other than the APCS administrative domain (herein is referred as the non-administrative APCS domain) only supports the apcsflush, apcscancel, and the apcschmod command execution.



See

For the APCS administrative domain setting see the section 2.1 “Setting APCS administrative domain”.

Flow of Operation

Creating a new schedule and starting the schedule operation

No	Operation	Target	Details
1	Set the APCS administrative domain	XSCF console	2.2 Setting APCS administrative domain
2	Create a new schedule	APCS administrative domain	2.5 Add Schedule Entry 2.6 Add Holiday
3	Confirm the schedule	APCS administrative domain	2.9 List Schedule Entries 2.10 Show Status of Schedule Entry
4	Start the schedule operation	APCS administrative domain	2.3 Start Schedule
5	Update the operation status to the non-administrative APCS domain	Non-administrative APCS domain	2.3 Start Schedule 3.3 apcsflush(1M)

Stopping the schedule operation

No	Operation	Target	Details
1	Stop the schedule operation	APCS administrative domain	2.4 Stop Schedule

2	Update the operation status to the non-administrative APCS domain	Non-administrative APCS domain	2.4 Stop Schedule 3.3 apcsflush(1M)
---	---	--------------------------------	--

Modifying the schedule

No	Operation	Target	Details
1	Stop the schedule operation	APCS administrative domain	2.4 Stop Schedule
2	Update the operation status to the non-administrative APCS domain	Non-administrative APCS domain	2.4 Stop Schedule 3.3 apcsflush(1M)
3	Edit the schedule	APCS administrative domain	2.5 Add Schedule Entry 2.6 Add Holiday 2.7 Select and Delete Schedule Entries 2.8 Delete all
4	Restart the schedule operation	APCS administrative domain	2.3 Start Schedule
5	Update the operation status to the non-administrative APCS domain	Non-administrative APCS domain	2.3 Start Schedule 3.3 apcsflush(1M)



Note

- Please perform starting, stopping the operation or setting the power recovery mode on the APCS administrative domain. Otherwise, the operation will fail with error "Access SCF error (ioctl:48)."
- If the administrator is different for each domain, notify other administrators before performing the operations.
- Stop the operation and delete all the current schedules before performing any action which results in changing of the APCS administrative domain. Otherwise, the following messages will be output to the console screen during the system operation.
 " FJSVapcs: Access SCF error (ioctl:48). "
 " scfd: WARNING: *path-name*,Detected the not support command by XSCF. SCF command = *0xXXXX* "
- Please refer to "Chapter 3 commands reference" for the execution of command (apcsset, apcsflush, apcscancel, apcschmod).
- Shutdown processing of automatic power control functions regardless of the state of the mode switch that exists in the operation panel. Please stop automatic power control beforehand when you do maintenance of the main unit.

Chapter 2 Operation

This section describes how to operate the Auto Power Control System (APCS) Administration menus.

2.1 Setting APCS Administrative Domain

APCS administrative domain can be set from the XSCF console using following operation.

1. Stop all domains.
2. Execute the following command from the XSCF console.
XSCF> setapcs -d [domain id]
3. Confirm the setting
XSCF> showapcs

Setting a domain as the APCS administrative domain does not affect the system operation except for the automatic power control operation. Therefore , any domain can be chosen as an APCS administrative domain.

APCS administrative domain can be unset with the following operations.

1. Execute the following command from the XSCF console.
XSCF> setapcs r
2. Confirm the setting
XSCF> showapcs



Note

- If the administrator is different for each domain, notify other administrators before performing the operations.
- Stop the operation and delete all the current schedules before performing any action which results in changing of the APCS administrative domain. Otherwise, the following messages will be output to the console screen during the system operation.
“ FJSVapcs: Access SCF error (ioctl:48). ”
“ scfd: WARNING: *path-name*,Detected the not support command by XSCF. SCF command = *0xXXXX*”
- Please refer to "Chapter 3 commands reference" for the execution of command (apcsset, apcsflush, apcscancel, apcschmod).

2.2 Displaying APCS Setup Menu

CUI Operation

1. Make sure that the command prompt is displayed on the UNIX screen.
2. Enter the following start command:

```
# /usr/sbin/FJSVmadm/madmin
```

The top menu of the CUI menu opens.



See

See the section 4.12, "madmin (1M)." in the "Enhanced Support Facility User's Guide for Machine Administration"

3. Start the CUI menu from the APCS management domain. From the CUI menu, select [Auto Power Control System (APCS) Administration].

The APCS Setup menu opens.

```
APCS Setup Menu

1. Start Schedule
2. Stop Schedule
3. Add Schedule Entry
4. Add Holiday
5. Select and Delete Schedule Entries
6. Delete all
7. List Schedule Entries
8. Show Status of Schedule Entries

q:Quit b:Back to previous menu t:Go to top menu h:Help
-----
Select. (1-8,q,b,t,h):
```

Y: This setting is made at installation of the main unit.

*1: This setting is made as required.

-: No setting to be made.

Menu item/ function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Start Schedule	Starts schedule operation. When schedule operation is started, the operating status enters the "Started" state.	-
Stop Schedule	Stops schedule operation. When schedule operation is stopped, the operating status enters the "Inactive" state.	-
Add Schedule Entry	Sets a daily schedule, weekly schedule, and monthly schedule.	*1 (System administrator)
Add Holiday	Sets a holiday schedule.	*1 (System administrator)

Menu item/ function name	Outline	Whether or not a setting is made (Name(s) of person(s) in charge are enclosed in parentheses.).
Select and Delete Schedule Entries	Deletes an optional schedule.	-
Delete all	Delete all schedules.	-
List Schedule Entries	Lists all schedules (holiday schedule, specific day schedule, daily schedule, weekly schedule, and monthly schedule).	-
Show Status of Schedule Entries	Displays the planned execution of automatic power control after the current time.	-



Information

Use the `apcsset` command to set up forcible power-off mode and power recovery mode.

For information on the `apcsset` command, see Section 3.4, "apcsset (1M)."

2.3 Start Schedule

This section describes how to perform the Start Schedule operation.

CUI Operation

1. From the APCS Setup Menu, select [Start Schedule].
Schedule operation starts.
2. Please delete any /var/opt/FJSVapcs/pmodefile from the non-administrative domain
rm /var/opt/FJSVapcs/pmodefile
3. Please execute the following command after any APCS administrative domain operation or restart the domain.
/opt/FJSVapcs/sbin/apcsflush



Information

- You can confirm whether the power supply is stopped as scheduled with one of the following methods
 - (1) If /opt/FJSVapcs/sbin/apcschmod command displays "cron" when it is executed, then execute the following command and you can confirm by checking the at-job information corresponding to the specific stop schedule.

```
# at -l
user = root      1188601200.a    Sat Sep  1 08:00:00 2007
```

- (2) If /opt/FJSVapcs/sbin/apcschmod displays "daemon" when it is executed, then you can confirm by checking whether the apcsat daemon is running using the following command.

```
# ps -ef | grep apcsat
root 6351  1 0 09:03:30 ?    0:00 /opt/FJSVapcs/sbin/apcsat 8:00 Sep 1,2007
root 6782 5325  0 09:04:42 pts/1 0:00 grep apcsat
```



Note

- The automatic power control enables power on/off set up of the entire unit automatically.
If some of the domains are in active while the power supply is turned on, it is considered that the main unit power is already on, therefore other domains will not be activated.
- For other precautions see chapter 4 "Command References" or section 3.4 apcsset

2.4 Stop Schedule

This section describes how to perform the Stop Schedule operation.

CUI Operation

1. From the APCS Setup Menu, select [Stop Schedule].
Schedule operation stops.
2. Please delete any `/var/opt/FJSVapcs/pmodefile` inform the non-administrative management domain.
`# rm /var/opt/FJSVapcs/pmodefile`
3. Please execute the following command after any APCS administrative domain operation or you can restart the domain.
`# /opt/FJSVapcs/sbin/apcsflush`



Information

- You can confirm whether the power supply is stopped as scheduled with one of the following methods
 - (1) If `/opt/FJSVapcs/sbin/apcschmod` command displays "cron" when it is executed, then execute the following command and you can confirm by checking the at-job information correspond to the specific stop schedule.

```
# at -l
#
```

- (2) If `/opt/FJSVapcs/sbin/apcschmod` displays "daemon" when it is executed, then you can confirm by checking whether the apcsat daemon is running using the following command.

```
# ps -ef | grep apcsat
root 6782 5325 0 09:04:42 pts/1 0:00 grep apcsat
```

2.5 Add Schedule Entry

This section describes how to perform the Add Schedule Entry operation.

Operation

1. From the APCS Setup Menu, select [Stop Schedule].
Schedule operation stops.
2. From the APCS Setup Menu, select [Add Schedule Entry].
Specify the following information in the menu:
 - Power On Time
 - Power Off Time
 - Specific Day
 - Specific days in this month
 - From a specific day through another specific day
 - Specific day of the week
4. From APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



Information

After adding schedule entries, verify that the results were correctly reflected. Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the `apcsset` command (-L option).

```
#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

5. From the APCS Setup Menu, select [Start Schedule].
Schedule operation starts.

2.6 Add Holiday

This section describes how to execute the Add Holiday operation.

CUI Operation

1. From the APCS Setup Menu, select [Stop Schedule].
Schedule operation starts.
2. From the APCS Setup Menu, select [Add Holiday].
3. Specify the following information according to the menu:
 - Holiday schedule (days when operation is not performed)
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



Information

After adding holiday schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the `apcsset` command (-L option).

```
#/opt/FJSpvpcs/sbin/apcsset -L 30 -f <return>
```



See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

5. From the APCS Setup Menu, select [Start Schedule].
Schedule operation starts.

2.7 Select and Delete Schedule Entries

This section describes how to perform the Select and Delete Schedule Entries operation.

Operation

1. From the APCS Setup Menu, select [Stop Schedule].
Schedule operation stops.
2. From the APCS Setup Menu, select [Select and Delete Schedule Entries].
The schedule list appears.
3. Perform operations according to the menu.
The selected schedule or holiday schedule is deleted.
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



Information

After deleting schedule or holiday schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the `apcsset` command (-L option).

```
#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

5. To continue operation according to the new schedule after completing selection and deletion, select [Start Schedule] from the APCS Setup Menu.
Schedule operation starts.

2.8 Delete all

This section describes how to perform the Delete All operation.

Operation

1. From the APCS Setup Menu, select [Stop Schedule].
Schedule operation stops.
2. From the APCS Setup Menu, select [Delete all].
A message appears.
3. Perform operations according to the menu.
All schedules and holiday schedules are deleted.
4. From the APCS Setup Menu, select [List Schedule Entries] and [Show Status of Schedule Entries] in that order.



Information

After deleting all schedule and holiday schedule entries, verify that the results were correctly reflected.

Show Status of Schedule Entries displays schedules for seven days after the current date and time. To check all schedules, use the `apcsset` command (-L option).

```
#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



See

For information on the `apcsset` command, see Section 4.5, "apcsset (1M)."

2.9 List Schedule Entries

This section describes how to perform the List Schedule Entries operation.

CUI Operation

1. From the APCS Setup Menu, select [List Schedule Entries].
The current schedule settings are displayed.
These settings include:
 - STATUS
Operation status of Auto Power Control System (APCS) Administration
 - daily
Schedule that is repeated day by day
 - weekly
Schedule that is repeated week by week
 - monthly
Schedule that is repeated month by month
 - holiday
Holiday schedule
 - special
Specific-day's schedule
 - forcedown
Indicates the immediate start of shutdown processing when the shutdown time has arrived.
 - normdown
Displays a warning message on the display indicating that shutdown processing will start after three minutes.
Power-off processing can be stopped by executing the apcscancel command during this three-minute period.
 - exception
Schedule not related to node stop

2.10 Show Status of Schedule Entries

This section describes how to perform the Show Status of Schedule Entries operation.

Operation

1. From the APSC Setup Menu, select [Show Status of Schedule Entries].

The schedule status is displayed.

The schedule status information includes:

- STATUS
Operation status of Auto Power Control System (APCS) Administration
- PRESENT
Current date and time
- POWER-OFF
First power-off time
- POWER-ON
First power-on time
- OVER
Last schedule time
- SCHEDULE OF 7 days NEXT
Schedule for one week



Information

Show Status of Schedule Entries displays schedules for seven days after the current day and time.

To check all schedules, use the apcsset command (-L option).

```
#/opt/FJSVapcs/sbin/apcsset -L 30 -f <return>
```



See

For information on the apcsset command, see Section 4.5, "apcsset (1M)."

Chapter 3 Commands Reference

3.1 apscancel (1M)

Name

apscancel - Interrupts power-off by automatic power control.

Format

/opt/FJSVapcs/sbin/apscancel

Function

The apscancel command interrupts normal-mode power-off processing in progress.

Power-off processing in normal mode means to start shutdown processing three minutes after the display of a warning message about power-off.

Operation

This command can be executed on each domain.

End status

The end status can be:

0: Normal end

Other than 0: Abnormal end

3.2 apcschmod (1M)

Name

apcschmod - Sets and displays whether to use cron for implementation of automatic power control.

Format

/opt/FJSVapcs/sbin/apcschmod [{cron | daemon}]

Function

The apcschmod command sets whether to use cron for implementation of automatic power control.

The default is "Use cron."

If you select daemon, the system uses the special daemon for automatic power control.

If you omit the option, the current settings are displayed.



Note

You are required to stop the automatic power control before executing this command.

If the mode is changed without stopping the automatic power control, first stop the automatic power control and delete unnecessary processes with the following commands

1) Delete at-job process if exist

```
# at l
user = root      1594162800.a   Sat Sep  1 08:00:00 2007
# at r 1594162800.a
```

2) Stop apcsat daemon if exist.

```
# ps -ef | grep apcsat
root  6351    1 0 09:03:30 ?        0:00 /opt/FJSVapcs/sbin/apcsat 8:00 Jul 8,2020
root  6782 5325 0 09:04:42 pts/1 0:00 grep apcsat
# kill -9 6351
```

Operation

This command can be executed on each domain.

Option

If you specify cron, the system uses cron to implement the automatic power control function.

The default is "Use cron."

If you specify daemon, the system uses the daemon provided in the package of automatic power control, instead of cron, for implementation of the automatic power control function.

If you omit the option, the current settings are displayed.

End status

The end status can be:

0: Normal end

Other than 0: Abnormal end

3.3 apcsflush (1M)

Name

apcsflush - Reflects the system schedule of each domain on the main unit.

Format

/opt/FJSVapcs/sbin/apcsflush

Function

When the start and stop of the schedule operation is performed on the APCS administrative domain, the apcsflush must be executed on other domains. This command reflects the operation status to each domain.

Operation

This command can be executed on each non-administrative APCS domain.



Note

Please delete any /var/opt/FJSVapcs/pmodefile from the non-administrative APCS domain.

```
# rm /var/opt/FJSVapcs/pmodefile
```

If this file exists, the following messages will be displayed when the command is executed or when the system is rebooted.

```
" FJSVapcs: Access SCF error (ioctl:48). "
```

```
" scfd: WARNING: path-name,Detected the not support command by XSCF. SCF  
command = 0xXXXX"
```

End status

The end status can be:

0: Normal end

Other than 0: Abnormal end

3.4 apcsset (1M)

Name

apcsset - Starts or ends automatic power control, or sets schedule and operation information about power recovery.

Format

```
/opt/FJSVapcs/sbin/apcsset -S|-T
/opt/FJSVapcs/sbin/apcsset -I [-f] [-n]
/opt/FJSVapcs/sbin/apcsset -L [days] [-f]
/opt/FJSVapcs/sbin/apcsset -a {[-s time][-e time]} schedule_date
/opt/FJSVapcs/sbin/apcsset -a -h yymmdd
/opt/FJSVapcs/sbin/apcsset -d {[-s time][-e time]} schedule_date
/opt/FJSVapcs/sbin/apcsset -d -h yymmdd
/opt/FJSVapcs/sbin/apcsset -d -n num[,num*] [-y]
/opt/FJSVapcs/sbin/apcsset -D
/opt/FJSVapcs/sbin/apcsset -P [mode]
/opt/FJSVapcs/sbin/apcsset -F [mode [time] ]
```

Function

Starts or ends power control according to the set schedule.

Also displays or sets operation information about power recovery.

The automatic power control supplies power to the machine at the specified time (-s time).

This function shuts off the power supply following the specified power-off procedure (-t type) at the specified time (-e time).

Information about power recovery includes the power recovery mode. The power recovery mode is for determining the operation on power recovery after power supply to the main unit in operation has been shut off by a cause such as a power failure.



See

See the following manual for information about automatic power control of the GP7000F M1000/M2000 and PRIMEPOWER 800/1000/2000.
System Console Software User's Guide

Operation

This command can be executed on APCS administrative domain.



Note

If this command is executed on the non-administrative APCS domain, the following message will be displayed when the command is executed or when the system is rebooted.

“ FJSVapcs: Access SCF error (ioctl:48). ”

“ scfd: WARNING: *path-name*,Detected the not support command by XSCF. SCF command = *0xXXXX*”

Option

The options are:

-S

Starts automatic power control.

- T
Stops automatic power control.
- l [-f] [-n]
Displays the status (start/stop) of automatic power control and the set schedule information.
Specifying the -f option displays the year in four digits.
By default, only the last two digits are displayed (ex: 00 for 2000).
Specifying the -n option displays the schedule information together with the item numbers. These item numbers are used for deletion of schedule information.
The details are described in the explanation of the -d option.
- L days [-f]
Displays the planned execution of automatic power control after the current time.
In *days*, specify the number of days for which you want to display information.
If you omit *days*, the system displays the information for seven days.
Specifying the -f option displays the year in four digits.
By default, only the last two digits are displayed (ex: 00 for 2000).
- a
Adds an automatic power control schedule. Adding a schedule after the number of schedules reaches 1024 results in an error.
- d
Deletes an automatic power control schedule.
There are two ways to specify a schedule to be deleted.
One is to specify the same option (*schedule_date*) you specified when you added the schedule. The other is to use the -n [*num*] option to specify the item number of the schedule that was given when you displayed the schedule information by specifying the -n option. When you specify the -n [*num*] option, a confirmation message appears asking whether you really want to delete this schedule. If you do not want this confirmation message displayed, specify the -y option.
- D
Deletes all automatic power control schedules that are currently set.
- s time
Specify the power supply time. The format of time is HHMM.
Specify the value of HH within the range of 00 - 23, and MM within the range of 00 - 59.
- e time
Specify the power-off time. The format of time is HHMM.
Specify the value of HH within the range of 00 - 23, and MM within the range of 00 - 59.
- schedule_date
Sets an automatic power control schedule.
 - c *yymmdd|mm1dd1-mm2dd2|dd1-dd2*
Specify the dates of power-on and power-off for a specified day or days, or on a monthly basis.
If you specify this, you cannot specify "-w".
 - yymmdd***
Specify the date of power-on or power-off for a specified day.
If -r is specified when the date is specified in this format, an error occurs.
 - mm1dd1-mm2dd2***
Specify the date of power-on or power-off on a daily basis (mm1dd1 - mm2dd2).
If -r is specified when the date is specified in this format, an error

occurs.

dd1-dd2

Specify the date of power-on or power-off on a monthly basis (dd1 - dd2).

Omitting "-r" makes the system assume a schedule from dd1 to dd2 of the month when you execute the command.

-w SUN,MON,....

Specify the day of the week when the schedule is executed every week.

Specify the day of the week in the following format.

For this specification, you must specify "-r".

You cannot specify "-c".

- Sunday: SUN or sun
- Monday: MON or mon
- Tuesday: TUE or tue
- Wednesday: WED or wed
- Thursday: THU or thu
- Friday: FRI or fri
- Saturday: SAT or sat

-r mm1-mm2

Specify the month (period) when the schedule is executed.

The system executes the schedule from mm1 to mm2.

-h yymmdd

Specify the date of a holiday (when power-on/off is not performed).

-F [mode [time]]

Forcibly shuts off the power supply.

Shutdown processing starts according to the shutdown schedule for automatic power control. Even if some problem like a hang-up of the operating system interrupts this processing in progress, the operating system will be shut down.

[mode]

enable

Enables forced power-off.

disable

Disables forced power-off.

The default is "disable".

[time]

Specify the timeout time in minutes within the range of 10 - 255 (minutes).

The default is 10 minutes.

If you omit the option of [*mode [time]*], the current settings of forced power-off are displayed.

-P [mode]

Displays or sets the power recovery mode.

If you do not specify the mode, the system displays the current power recovery mode.

You can specify one mode out of the following three:

on

After a power failure occurs and the power supply to the main unit is shut off during its operation, power is automatically supplied when the power recovers.

off

After a power failure occurs and the power supply to the main unit is shut off during its operation, power is not automatically supplied when the

power recovers. You have to supply power manually or by using the automatic power control function.

auto

Power is automatically supplied when the power recovers within the operating time period.

The operating time is the period of time between the power-on time and power-off time specified in the automatic power control schedule.

End status

The end status can be:

- 0: Normal end
- 1: Error in option specification
- 2: No root qualification
- 3: Main unit or hardware error
- 4: An existing schedule is added again or nonexistent schedule is deleted.
- 5: Multiple commands are executed at the same time.
- 6: Operation not applicable to the current status (start/stop).
- 7: Specified time or date is inconsistent (nonexistent or equivocal).
- 8: A schedule is added exceeding 1024.



Note

- If the administrator is different for each domain, notify other administrators before performing the operations.
- Stop the operation and delete all the current schedules before performing any action which results in changing of the APCS administrative domain.

Otherwise, the following messages will be output to the console screen during the system operation.

```
" FJSVapcs: Access SCF error (ioctl:48). "
```

```
" scfd: WARNING: path-name, Detected the not support command by XSCF. SCF  
command = 0xXXXX "
```

- You cannot use this command unless you have root permission. You cannot execute multiple commands at the same time, either.
- To add or delete a schedule, you have to stop automatic power control.
- If you specify a value not included in the ranges of 00 - 37 and 70 - 99 as *yy* for *yymmdd* in the specification of a schedule, an error results.
If you specify a value from 00 to 37 in *yy*, the year is in the 2000s.
If you specify a value from 70 to 99 in *yy*, the year is in the 1900s.
Example: 92 means 1992. 21 means 2021.
- If the date is specified in the *yymmdd* format, specifying a nonexistent date (February 30, for example) results in an error.
- If the date is specified in a format other than *yymmdd*, no error results if the specified month is 01 - 12 and specified date is 01 - 31.
- Schedule setting is implemented only for the existing dates within the specified range.
- On a holiday set by the *-h* option, all the other schedule settings are ignored and power-on/off is not performed.
- On a date with specific day settings specified by "*-c yymmdd*", all schedule settings other than the setting for holiday and the settings for the specified date are ignored.
Except for holidays, you have to specify either the power-on time or power-off time.
- In countries where daylight saving time is used, there are nonexistent times or equivocal times at changeover from the standard time to daylight saving time or vice versa. Note this fact, and

carefully specify the power-on time and power-off time to avoid inconsistencies.

- You cannot set a schedule before 00:00 on January 1st, 1970 under the standard time. Automatic power control manages schedules according to the time zone. Therefore, there is a time difference with the standard time.

Example: If the time zone is "Japan", 09:00 of January 1st, 1970 is 00:00 of January 1st, 1970 under the standard time.

- Be careful with the interval between the power-off time and power-on time.

If the interval is one minute or longer, no error results.

If the interval is less than one minute, an error results and the schedule is ignored.

Set schedules with intervals that are greater than the following value:

Minimum schedule interval = Main unit startup time + Main unit shutdown time

The main unit startup time means the time from the specified power-on time to completion of starting up the main unit.

The main unit shutdown time means the time from the specified power-off time to actual power-off.

When you finish schedule setting, use the -L days option to display the planned execution of automatic power control and verify that the actual operation is in accordance with the settings.

- If the main unit has only a single user, power-off by automatic power control is disabled.
- Shutdown processing of automatic power control functions regardless of the state of the mode switch that exists in the operation panel. Please stop automatic power control beforehand when you do maintenance of the main unit.
- If, for any of the reasons below, the system cannot be operated in accordance with the Automatic Power Control schedule setting for long periods of time, it may not run in accordance with the schedule even when the Automatic Power Control is in operation.
 - the main power was left off for a long period of time
 - only the power-off schedule is set, and the main power is normally turned on manually (no power-on schedule has been set.)
 - the system was operated for a long period of time in single user mode
- In any of the above cases, restore normal power operation by momentarily stopping the Automatic Power Control and then starting the system again.
- Power recovery mode

This unit has three power recovery modes, and the operation at power recovery varies with the power recovery mode set.

1. When the power recovery mode is on

When the power recovers, the power supply reverts to the state before the power failure. (The following two types are available.)

(a) When a power failure occurs while the system is operating: The power is supplied when the power recovers.

*1 The fail safe function may inhibit the power to be supplied.

(b) When a power failure occurs while the system is stopped: The power is not supplied when the power recovers.

2. When the power recovery mode is off

The power is not supplied when the power recovers. (Use this mode when the power needs to be supplied manually.)

3. When the power recovery mode is auto

It depends on the other setting (the time for using the unit [operating time]).

(The following two types are available.)

(a) When the power recovers within the time for using the unit (operating time)

- Regardless of the power state at a power failure, the power is supplied when the power recovers. (*2)

(b) When the power recovers outside of the time for using the unit (operating time)

- The power is not supplied.

*1 Fail safe function

This function inhibits the power to be automatically supplied when a power failure occurs and another power failure is detected within a certain time period (power recovery standby time: 10 seconds). This is for the purpose of server protection, and it inhibits the automatic power supply at any subsequent power recovery.

*2 With this setting, the power is automatically supplied even if a power failure and recovery occurs while the system is stopped.

3.5 setapcs (8)

This command is provided on XSCF.

Name

setapcs - set the domain to control APCS (Automatic Power Control System)

Synopsis

```
setapcs -d domain_id
setapcs -r
setapcs -h
```

Description

setapcs(8) command sets the domain which controls APCS (Automatic Power Control System). It is limited to the domain which has been set by using the setapcs(8) command, from which APCS can be controlled. Only one domain can be set.

Privileges

You must have one of the following privileges to run this command:

platadm	Can run this command for all domains.
domainadm	Can run this command only for your managed domains.

Refer to setprivileges(8) for more information.

Options

The following options are supported:

-d domain_id
Specifies the domain ID to be set. An integer ranging from 0 to 23 can be specified for domain_id, depending on the system configuration.

-h
Displays usage statement. When used with other options or operands, an error occurs.

-r
Disables the domain which can control APCS.

Extended Description

- o When the system is running, you cannot execute the setapcs(8) command.
- o By using the showapcs(8) command, the current status of APCS can be checked.

Examples

Example 1: Sets APCS can be controlled from the domain specified as domain ID 1.

```
XSCF> setapcs -d 1
APCS Control Domain: 01
```

Example 2: Disables the domain which can control APCS.

```
XSCF> setapcs -r
APCS Control Domain: disabled
```

Exit Status

The following exit values are returned:

- 0 Successful completion.
- >0 An error occurred.

Operation

This command can be executed on XSCF.

3.6 showapcs (8)

This command is provided on XSCF.

Name

showapcs - show the domain to control APCS (Automatic Power Control System)

Synopsis

showapcs
showapcs -h

Description

showapcs(8) command shows the domain which controls APCS (Automatic Power Control System).

In case the domain is not set, it is displayed as disabled.

Privileges

You must have one of the following privileges to run this command:

platadm	Can run this command for all domains.
domainadm, domainmgr, domainop domains.	Can run this command only for your accessible domains.

Refer to setprivileges(8) for more information.

Options

The following option is supported:

-h
Displays usage statement.

Examples

Example 1: Shows the domain which controls APCS (in case the domain ID is 2).

```
XSCF> showapcs  
APCS Control Domain: 02
```

Example 2: Shows the domain which controls APCS (in case the domain is not set).

```
XSCF> showapcs  
APCS Control Domain: disabled
```

Exit Status

The following exit values are returned:

0	Successful completion.
>0	An error occurred.

Operation

This command can be executed on XSCF.

Chapter 4 General Notes

4.1 Action when APCS is not used

If you do not use Automatic Power Control System (APCS) in any of SPARC Enterprise M4000/M5000/M8000/M9000, WARNING messages of SCF driver appear on the console. Please follow the instructions below to take necessary actions.

Symptom

If APCS Management Domain is not configured on XSCF firmware, booting or rebooting a domain causes the Automatic Power Control System (APCS) function of the Enhanced Support Facility to run. This is the cause of the appearance of the WARNING messages of the SCF driver on console.

```
scfd: WARNING: /pci@XX,XXXX/ibus@X/scfc@XX,XXXXXX(FJSV,scfcX), Detected
the not support command
by XSCF. SCF command = 0xXXXX
```

Occurrence Conditions

If you do not use the Automatic Power Control System (automatic power schedule setting, and recovery of power mode setting), you do not have to configure the APCS Management Domain on the XSCF.

However, in the case of the configuration below, if you start or restart a domain without setting the APCS Management Domain on the XSCF, the above symptom occurs.

[Configuration]

- Device: SPARC Enterprise M4000/M5000/M8000/M9000
- Firmware Version: XCP1050
- Enhanced Support Facility Edition Number: 3.0

Procedure for the Evasion

Even if you do not start or stop the system using the Automatic Power Control System, the rc script provided by the Automatic Power Control System is executed.

If you do not use the Automatic Power Control System, please follow the steps below to avoid executing the rc script.

- 1) Execute the su command.

```
# su <Return>
```

- 2) Enter a password for the root (super user).

```
Password:password <Return>
#
```

- 3) Change each file name.

```
# cd /etc/rc2.d <Return>
# mv S99apcs _S99apcs <Return>
# cd /etc/rc0.d <Return>
# mv K10apcs _K10apcs <Return>
# cd /etc/rc1.d <Return>
# mv K10apcs _K10apcs <Return>
```

```
<Return>
```

Recovery Procedure

Please follow the steps below to return the rc script to its original state if you use the Automatic Power Control System.

- 1) Execute the su command.

```
# su <Return>
```

- 2) Enter a password for the root (super user).

```
Password:password <Return>  
#
```

- 3) Change each file name.

```
# cd /etc/rc2.d <Return>  
# mv _S99apcs S99apcs <Return>  
# cd /etc/rc0.d <Return>  
# mv _K10apcs K10apcs <Return>  
# cd /etc/rc1.d <Return>  
# mv _K10apcs K10apcs <Return>
```