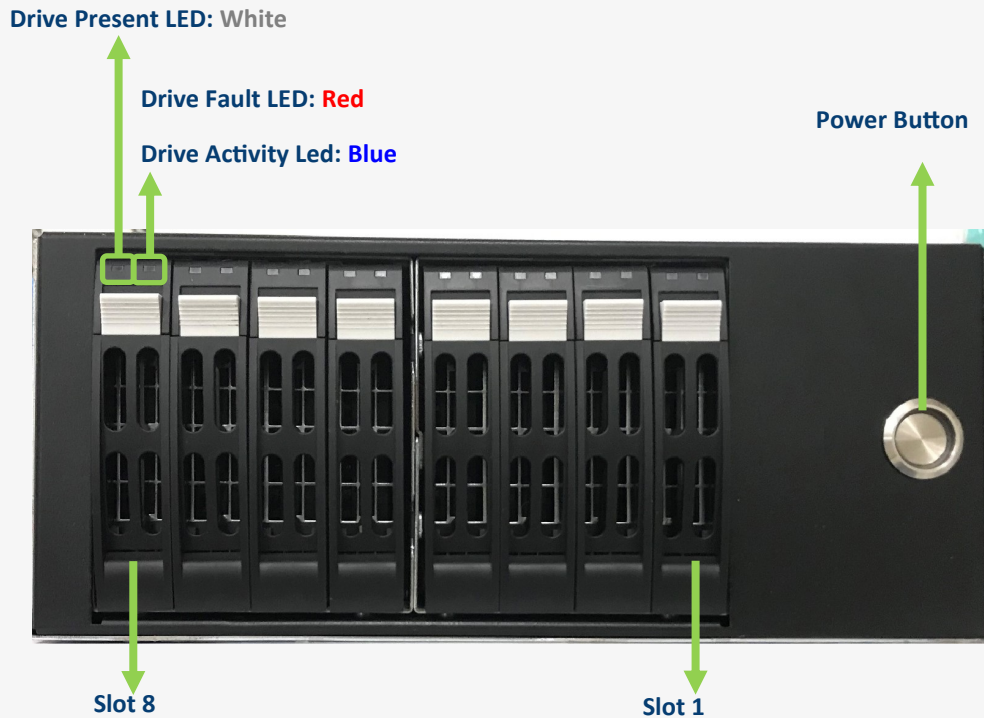




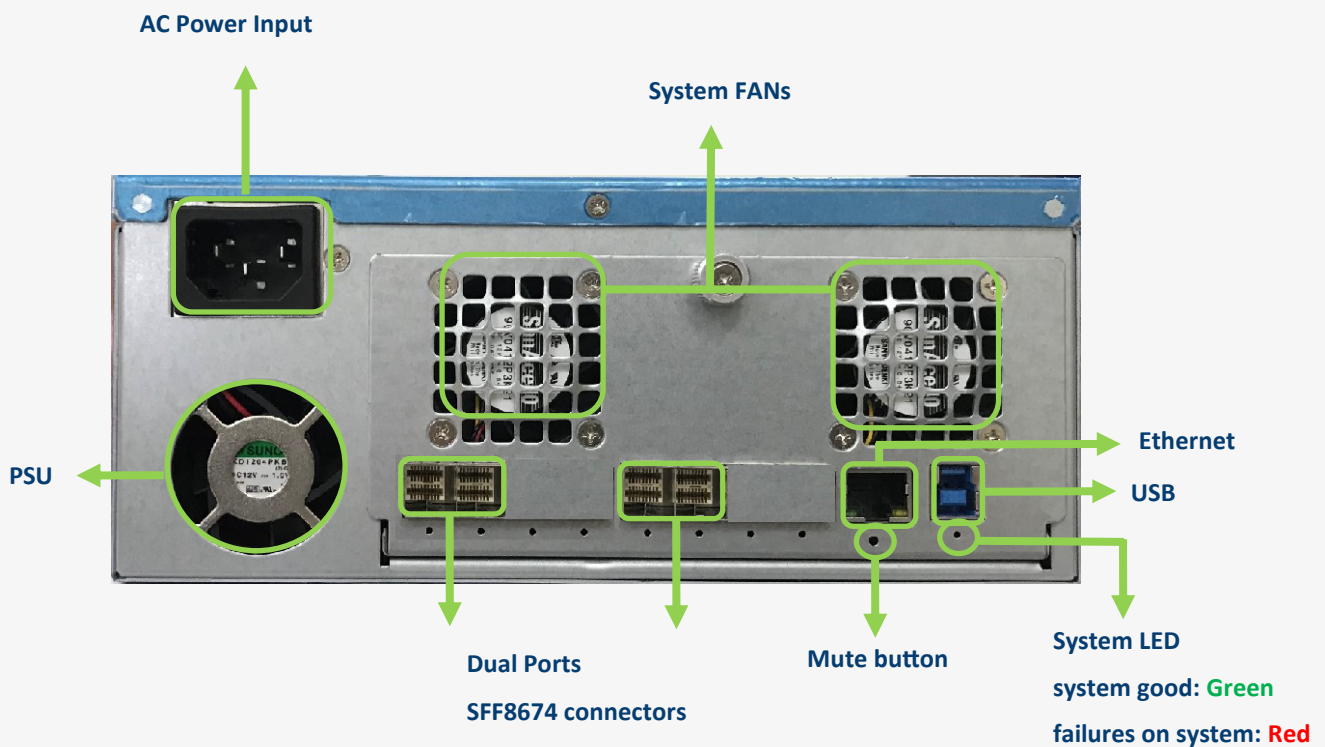
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Front Panel

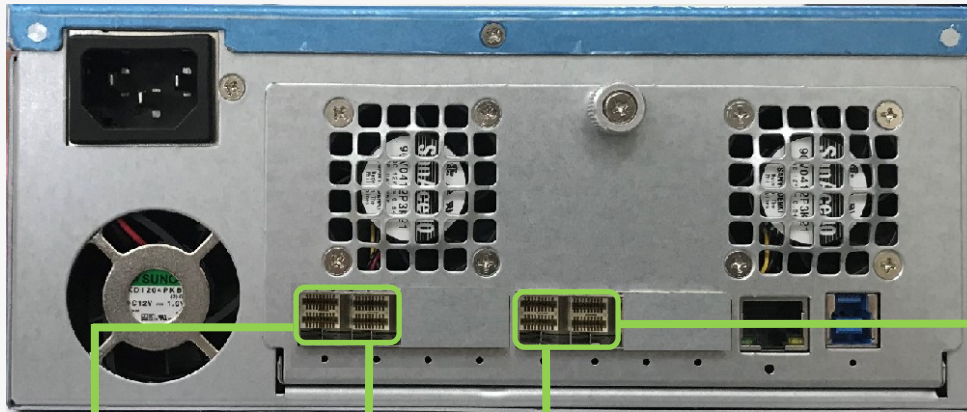


Rear I/O





SFF8674 Pin Definition and Mapping



SLOT [1:4]
SAS 1st PHY

SLOT [1:4]
SAS 2nd PHY

SLOT [5:8]
SAS 1st PHY

SLOT [5:8]
SAS 2nd PHY

Dual Port SFF8674 connector

Pin	Pin Names	Pin	Pin Names
A4	SLTO1_1 st _RXP	A4	SLTO1_2 ND _RXP
A5	SLTO1_1 st _RXN	A5	SLTO1_2 ND _RXN
A7	SLTO4_1 st _RXP	A7	SLTO4_2 ND _RXP
A8	SLTO4_1 st _RXN	A8	SLTO4_2 ND _RXN
B4	SLTO2_1 st _RXP	B4	SLTO2_2 ND _RXP
B5	SLTO2_1 st _RXN	B5	SLTO2_2 ND _RXN
B7	SLTO3_1 st _RXP	B7	SLTO3_2 ND _RXP
B8	SLTO3_1 st _RXN	B8	SLTO3_2 ND _RXN
C4	SLTO1_1 st _TXP	C4	SLTO1_2 ND _TXP
C5	SLTO1_1 st _TXN	C5	SLTO1_2 ND _TXN
C7	SLTO4_1 st _TXP	C7	SLTO4_2 ND _TXP
C8	SLTO4_1 st _TXN	C8	SLTO4_2 ND _TXN
D4	SLTO2_1 st _TXP	D4	SLTO2_2 ND _TXP
D5	SLTO2_1 st _TXN	D5	SLTO2_2 ND _TXN
D7	SLTO3_1 st _TXP	D7	SLTO3_2 ND _TXP
D8	SLTO3_1 st _TXN	D8	SLTO3_2 ND _TXN

Dual Port SFF8674 connector

Pin	Pin Names	Pin	Pin Names
A4	SLTO5_1 st _RXP	A4	SLTO5_2 ND _RXP
A5	SLTO5_1 st _RXN	A5	SLTO5_2 ND _RXN
A7	SLTO8_1 st _RXP	A7	SLTO8_2 ND _RXP
A8	SLTO8_1 st _RXN	A8	SLTO8_2 ND _RXN
B4	SLTO6_1 st _RXP	B4	SLTO6_2 ND _RXP
B5	SLTO6_1 st _RXN	B5	SLTO6_2 ND _RXN
B7	SLTO7_1 st _RXP	B7	SLTO7_2 ND _RXP
B8	SLTO7_1 st _RXN	B8	SLTO7_2 ND _RXN
C4	SLTO5_1 st _TXP	C4	SLTO5_2 ND _TXP
C5	SLTO5_1 st _TXN	C5	SLTO5_2 ND _TXN
C7	SLTO8_1 st _TXP	C7	SLTO8_2 ND _TXP
C8	SLTO8_1 st _TXN	C8	SLTO8_2 ND _TXN
D4	SLTO6_1 st _TXP	D4	SLTO6_2 ND _TXP
D5	SLTO6_1 st _TXN	D5	SLTO6_2 ND _TXN
D7	SLTO7_1 st _TXP	D7	SLTO7_2 ND _TXP
D8	SLTO7_1 st _TXN	D8	SLTO7_2 ND _TXN

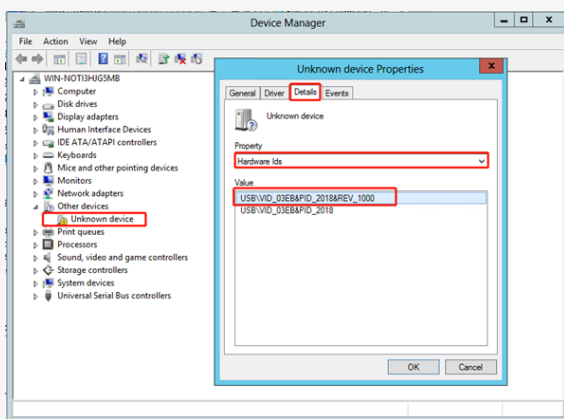


Install USB Driver

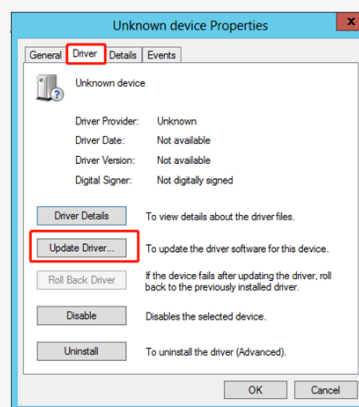
Step1: Download and install the CDC driver for unidentified device (VID_03EB&PID_2018)
Available at:

https://www.serialcables.com/wp-content/uploads/2018/11/SynergyUSBCDC_20180518.rar

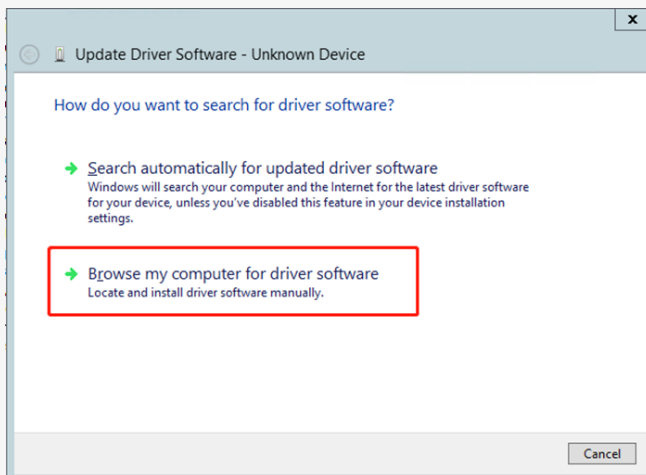
Note: No USB driver is required for Windows 10 and Linux



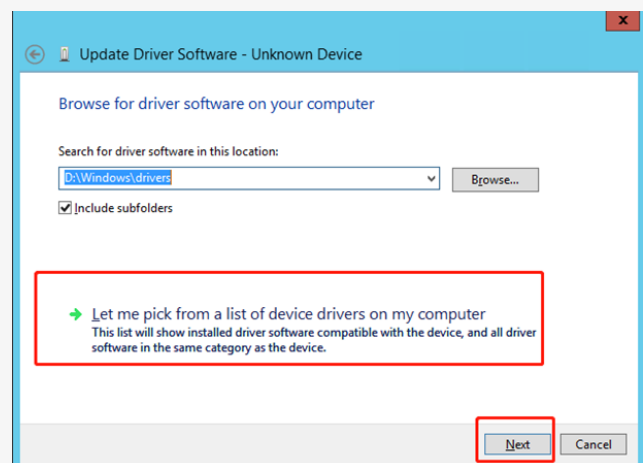
[Figure 1]



[Figure 2]



[Figure 3]

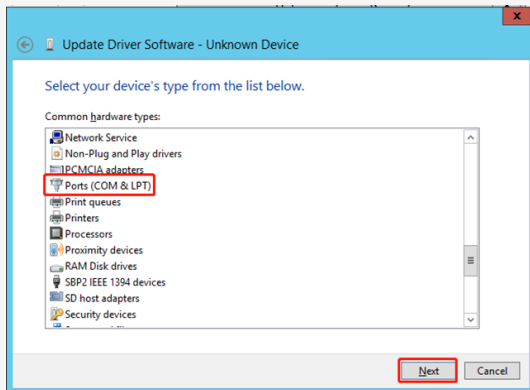


[Figure 4]

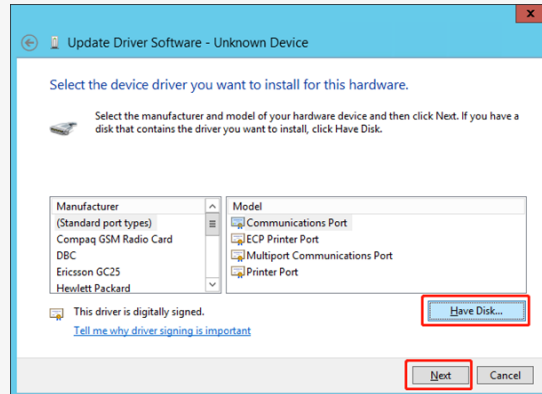


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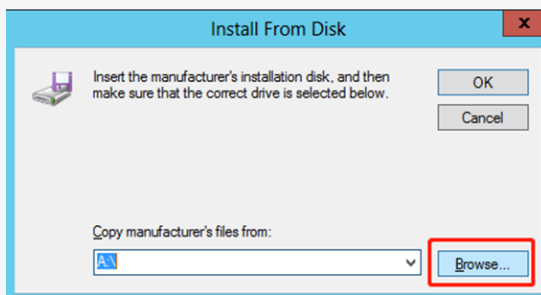
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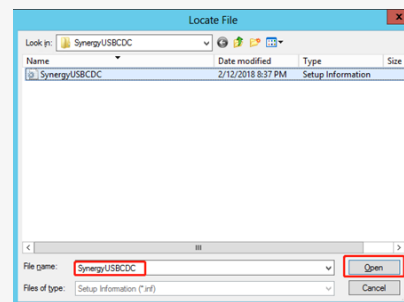
[Figure 5]



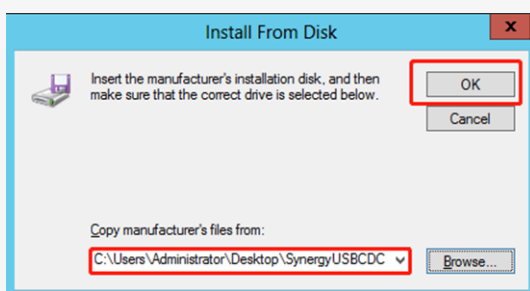
[Figure 6]



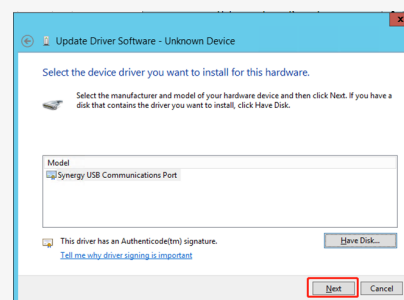
[Figure 7]



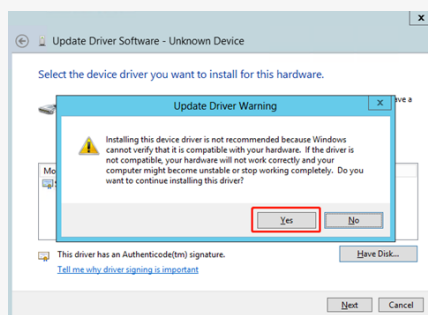
[Figure 8]



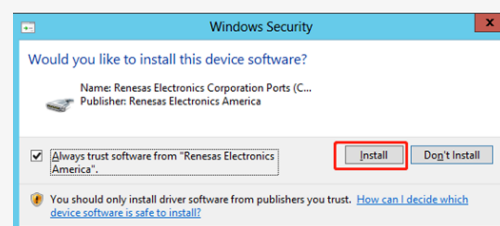
[Figure 9]



[Figure 10]



[Figure 11]

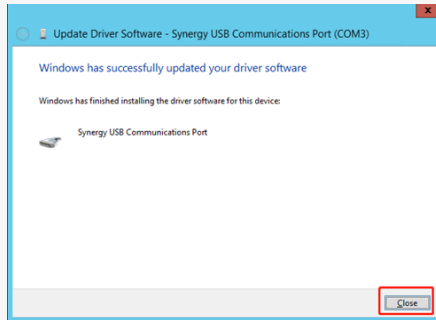


[Figure 12]

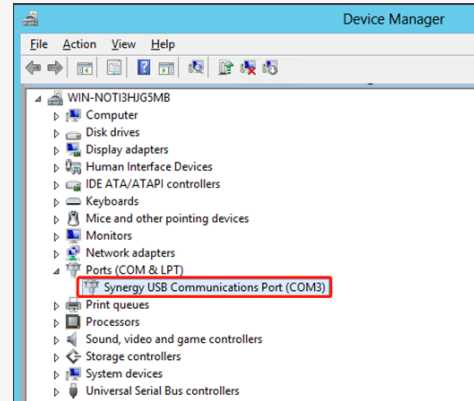


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[Figure 13]



[Figure 14]

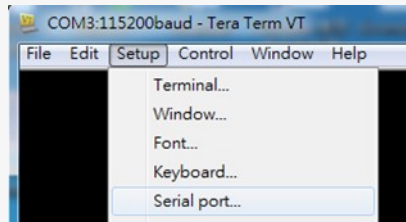


CLI Setup

Step 1. Install and launch Tera Term application
(or Hyper Terminal requires version 3.0 or higher).



Step 2: To ensure proper communications between SAS4 8bays passive JBOD controller and the VT100 Terminal emulation, please configure the VT100 Terminal emulation settings to the values shown below:



Step 3:

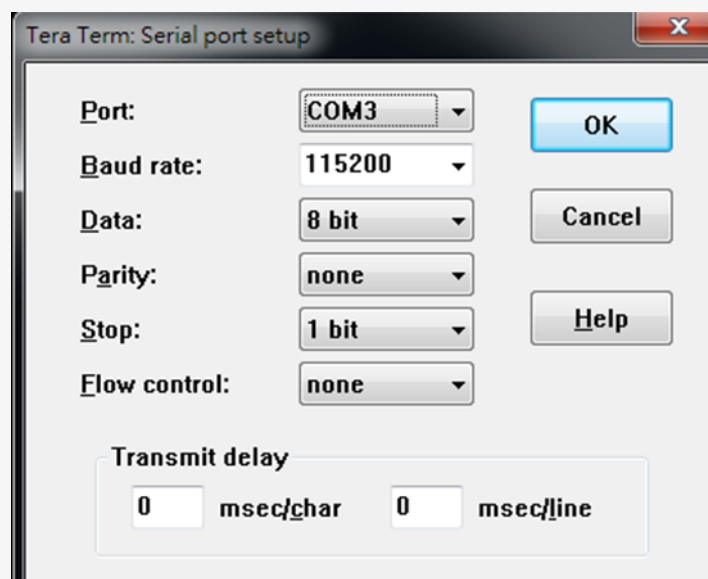
For "Port", select COM3 in this example. (Depend on which COM port used on Host)

For "Baud rate", select 115200.

For "Data", select 8 bit. For "Parity", select none.

For "Stop", select 1 bit. For "Flow control", select: none.

Click OK when you have finished your selections.





FW Upgrading

Step 1. Connect the USB port of JBOD to PC or laptop.

Step 2. Press the mute button in the rear of JBOD, then power on the JBOD.



Step 3.

- a.) it will show an added USB device in PC or laptop.
- b.) Put upgrading FW(i.e [SAS4_MPB_JBOD_v0.0.2.srec](#)) into the folder of FW.
- c.) Put update.txt in the root folder.

名稱	日期	類型	大小	時間
Config	2017/1/1 上午 12:00	檔案資料夾		
FW	2017/1/1 上午 12:00	檔案資料夾		
Web	2017/1/1 上午 12:00	檔案資料夾		
device_info.txt	2017/1/1 上午 12:00	文字文件	1 KB	
update.txt	2018/2/9 下午 06:02	文字文件	1 KB	

Step 4. Power cycle JBOD to apply the new FW.



CLI Commands

help Command

This command provides an online table of contents, providing brief description of the supported command groups and built-in commands.

Usage: help

```
File Edit Setup Control Window KanjiCode Help
Cmd>help
Cmd Help Menu
eth :
  Set Ethernet IP Configuration.
  - Usage: eth <ipaddr(*)> <subnet(*)> <gateway(*)>

setmac :
  Set Ethernet MAC address.
  - Usage: setmac <xx:xx:xx:xx:xx:xx>

lsd :
  Show environmental conditions information.
  - Usage: lsd

pwmctrl :
  Fan pwm ctrl.
  - Usage: pwmctrl <fan_id(D)> <duty(D)|auto>
  - fan_id(D) : fan_id should be 1 ~ 2
  - duty(D) : duty should be 0 ~ 100
  - auto : run smart fan

ssdpwr :
  slot power control.
  - Usage: ssdpwr [<slot(D)> <on|off>]
  - slot(D) : slot number should be 1 ~ 8

showtype :
  Show backplane type.
  - Usage: showtype

buz :
  buzzer control.
  - Usage: buz [on|off|en|dis]

scan :
  Scan devices of I2C bus.
  - Usage: scan

ver :
  Show microcontroller firmware version.
  - Usage: ver

eventmask :
  Set System Event Mask.
  - Usage: eventmask [<number(D)> <on|off>]
  - number(D): number should be 1 ~ 3

quit :
  Close telnet.
  - Usage: quit

reset :
  System reset.
  - Usage: reset
```




eth Command

Set Ethernet IP configuration.

Usage: `eth <ipaddr(*)> <subnet(*)> <gateway(*)>`

```
File Edit Setup Control Window Help
Cmd>eth 192.168.100.211 255.255.255.0 0.0.0.0

Set Ethernet - save configuration ok
Cmd>
```

```
File Edit Setup Control Window Help
Cmd>eth

=====
Physical Address . . . . . : 2E-09-0A-00-76-C7
Ethernet Link Status . . . . . : Up
IP Address . . . . . : 192.168.100.211
Subnet Mask . . . . . : 255.255.255.0
Gateway . . . . . : 0.0.0.0
MTU . . . . . : 1500
=====
```

setmac Command

Set Ethernet MAC (Media Access Control) address.

Usage: `setmac <xx:xx:xx:xx:xx:xx>`

```
File Edit Setup Control Window Help
Cmd>setmac 38:26:2B:00:00:00

MacAddress[0] 38
MacAddress[1] 26
MacAddress[2] 2B
MacAddress[3] 0
MacAddress[4] 0
MacAddress[5] 0

Set MAC - save configuration ok
Cmd>
```



Isd Command

Shows environmental information (etc. temperature, fan) in SAS4 JBOD.

Usage: `Isd`

```
File Edit Setup Control Window KanjiCode Help
Cmd>Isd
Thermal:
  System Temperature : 26 degree
Fan Speed:
  System Fan1 : 8269 rpm
  System Fan2 : 8250 rpm
```

pwmctrl Command

Set the PWM duty for all FANs in SAS4 JBOD.

Usage: `pwmctrl <fan_id(D)> <duty(D)|auto>`

`fan_id=1, System Fan1`

`fan_id=2, System Fan2`

```
File Edit Setup Control Window KanjiCode Help
Cmd>Isd
Thermal:
  System Temperature : 26 degree
Fan Speed:
  System Fan1 : 8260 rpm
  System Fan2 : 8284 rpm
Cmd>pwmctrl 1 100
Cmd>pwmctrl 2 100
Cmd>Isd
Thermal:
  System Temperature : 26 degree
Fan Speed:
  System Fan1 : 16243 rpm
  System Fan2 : 16622 rpm
```

```
File Edit Setup Control Window KanjiCode Help
Cmd>
Cmd>pwmctrl 1 auto
Fan1: smart fan enable
```

Caution: The 8Bays JBOD implemented smart fan control, it isn't suggested to set FAN PWM manual unless for stress testing purpose.



ssdpwr Command

Slot power status checking and ON/OFF control.

Usage: **ssdpwr** [<slot(D)> <on|off>]

```
File Edit Setup Control Window Help
Cmd>ssdpwr
Backplane slot 01 power status turn off.
Backplane slot 02 power status turn off.
Backplane slot 03 power status turn off.
Backplane slot 04 power status turn off.
Backplane slot 05 power status turn off.
Backplane slot 06 power status turn off.
Backplane slot 07 power status turn off.
Backplane slot 08 power status turn on.
```

```
File Edit Setup Control Window Help
Cmd>ssdpwr 8 off
Slot 08 turn off success.
Cmd>ssdpwr
Backplane slot 01 power status turn off.
Backplane slot 02 power status turn off.
Backplane slot 03 power status turn off.
Backplane slot 04 power status turn off.
Backplane slot 05 power status turn off.
Backplane slot 06 power status turn off.
Backplane slot 07 power status turn off.
Backplane slot 08 power status turn off.
```

The slot power will be turned off automatically, when drive is plugging out from slot.

The use case of power control command is when drive is plugging into slot.

showtype Command

Shows the Back plane board type in passive 8bays JBOD

Usage: **showtype**

```
File Edit Setup Control Window KanjiCode Help
Cmd>showtype
Backplane type: U3
```

Note: Passive 8bays JBOD only support in U3 back plane board



buz Command

The command is for controlling the buzzer on SAS4 JBOD.

Usage: `buz <on|off|en|dis>`

[en]: enable the buzzer function

[dis]: disable the buzzer function

[on]: set buzzer to beep in one time

[off]: mute buzzer beeping

```
File Edit Setup Control Window Help
Cmd>buz
Buzzer status:disable
Cmd>
```

```
File Edit Setup Control Window Help
Cmd>buz on
OK, turn on buzzer
Cmd>
```

```
File Edit Setup Control Window Help
Cmd>buz off
OK, turn off buzzer
Cmd>
```

```
File Edit Setup Control Window Help
Cmd>buz en
OK, enable buzzer
Cmd>
```

```
File Edit Setup Control Window Help
Cmd>buz dis
OK, turn off buzzer
OK, disable buzzer
Cmd>
```



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scan Command

Scan all of I2C devices in SAS4 JBOD.

Usage: scan

```
File Edit Setup Control Window KanjiCode Help
Cmd>scan

Scan I2C channel 0 devices ....
Device address:0xa2 found
Device address:0x44 found
Device address:0x46 found
Device address:0x48 found
Device address:0xe0 found
Device address:0x52 found
```

ver Command

Show S/N, company and model names and the FW version for uP.

Usage: ver

```
File Edit Setup Control Window KanjiCode Help
S/N      : S40012009010001
Company  : Serial Cables
Model    : SAS4 8BAY JBOD
Version  : 0.0.1    Date : Sep  3 2020 12:30:06
```



eventmask Command

Use for following events mask

Usage: eventmask <event ID> <on|off>

Event ID from 1 to 3

1. System Fan Event
2. System Fan1 Event
3. System Fan2 Event

```
File Edit Setup Control Window KanjiCode Help
Cmd>eventmask

1.      System Fan1 Event : enable
2.      System Fan2 Event : enable
3.      System Temp Event : enable
```

```
File Edit Setup Control Window KanjiCode Help
Cmd>eventmask 2 off

Set Event Mask success.
Cmd>eventmask

1.      System Fan1 Event : enable
2.      System Fan2 Event : disable
3.      System Temp Event : enable
```

reset Command

uP FW reset

Usage: reset

```
File Edit Setup Control Window Help
Cmd>reset
System Reset...
Cmd>
```