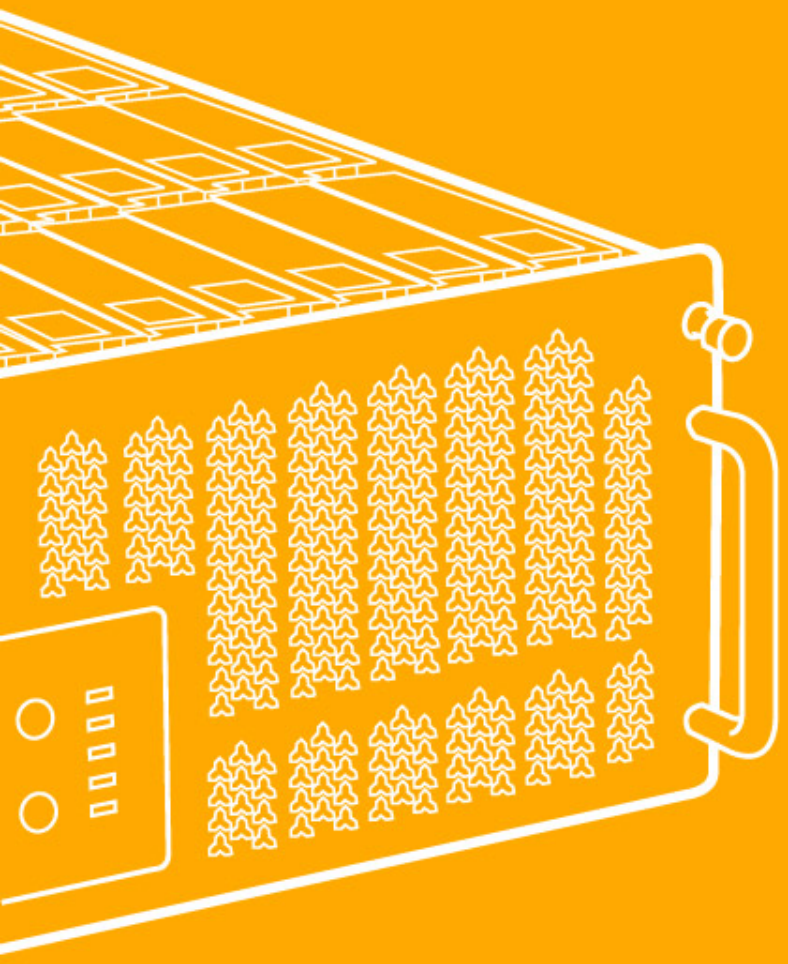
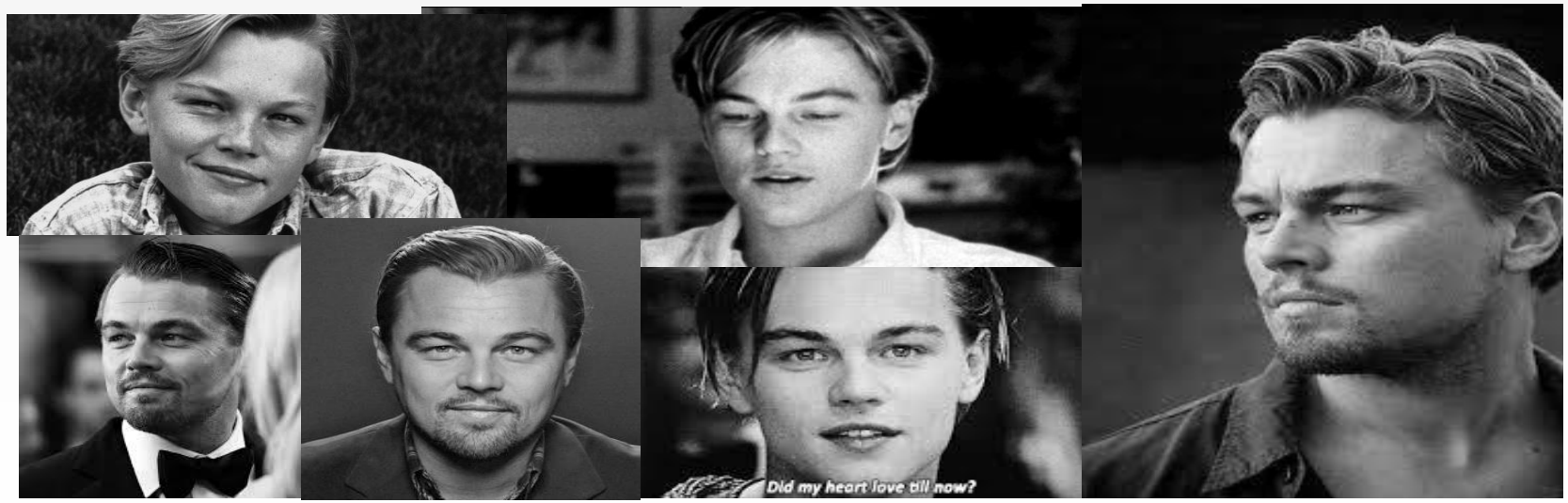


QCT Storage HDD Power On/Off & Locator LED Control Command

V1.0 2017/10/05
BU9 Ramos

www.QCT.io

Cold Data wastes much power



>85% data is **Cold**!

23 views today

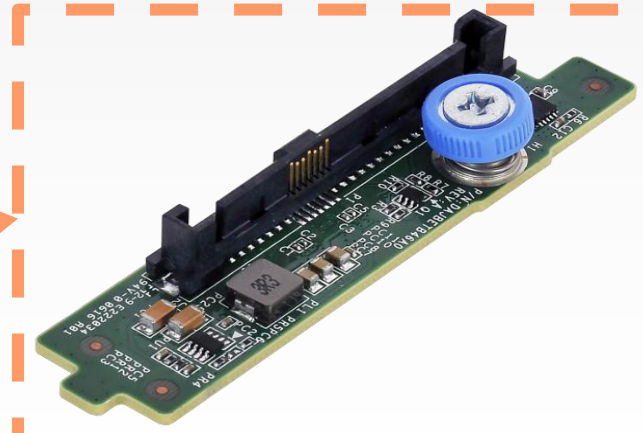
<15% data is Hot!

23232 views today

Cold Data Drives consume much Power !

Individually Disk Power On/Off

No access → Power Off !!



Power Switch Feature !!
By Software Command !

Effect 1:
Save data center power consumption by powering off disks storing cold data

Effect 2:
Allow software to rescue stuck command by doing power cycle on failed disk

Disk Locator LED Controll

Administrator
in ***California***

1000km

Technician
in ***Nevada***

?

Disk Locator LED control

LED on HDD Tray

HDD Status/ID LED

On: Amber, error
On: Blue Blinking, ID
Off: HDD Status Good

HDD Activity LED

Blue
Blink: During spin up or Accessing hard Drives
Off: HDD Not ready

Which Storage Product can do this?

- **Individual Disk Power on/off**
  JB4242, JB2720,
  T21P-4U, D51PL-4U
- **Disk Locator LED on/off**
  JB4602, JB4242, JB2720
  T21P-4U, D51PL-4U

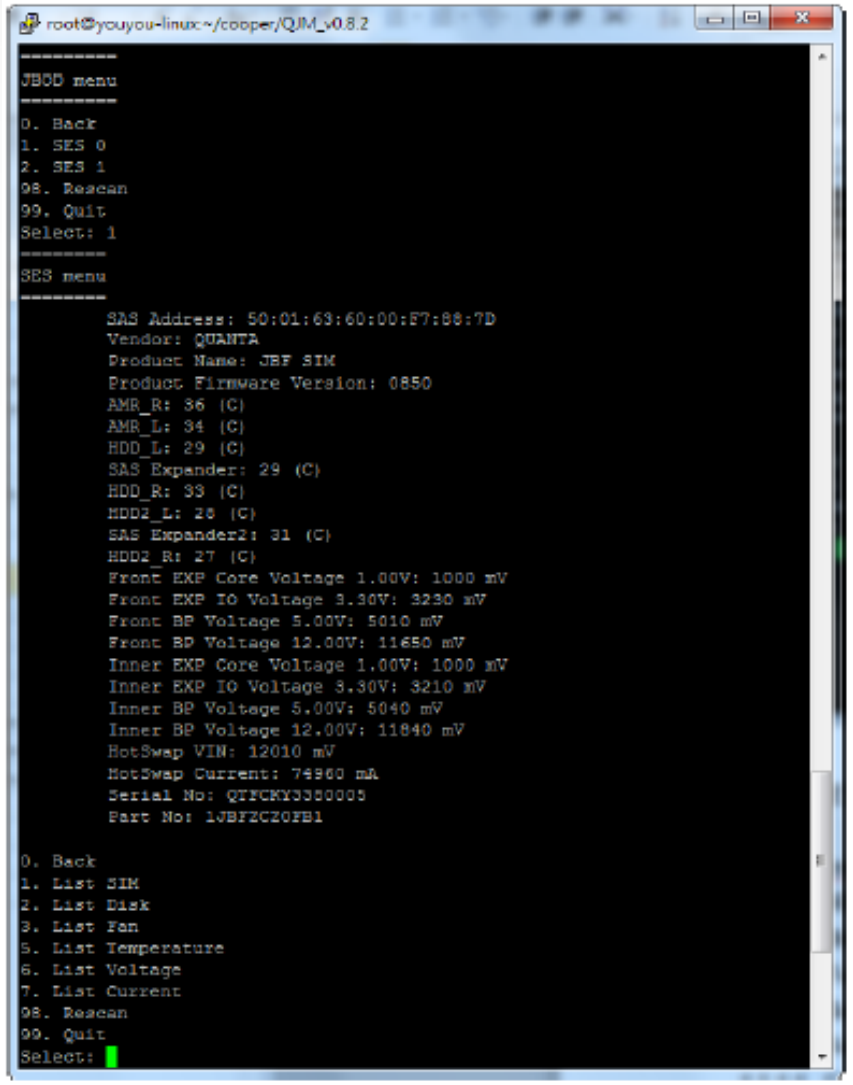
Storage Product Management Tools

- SES Command
- QJM(Linux)/QDEM (Windows) CLI Command
- QJM /QDEM GUI

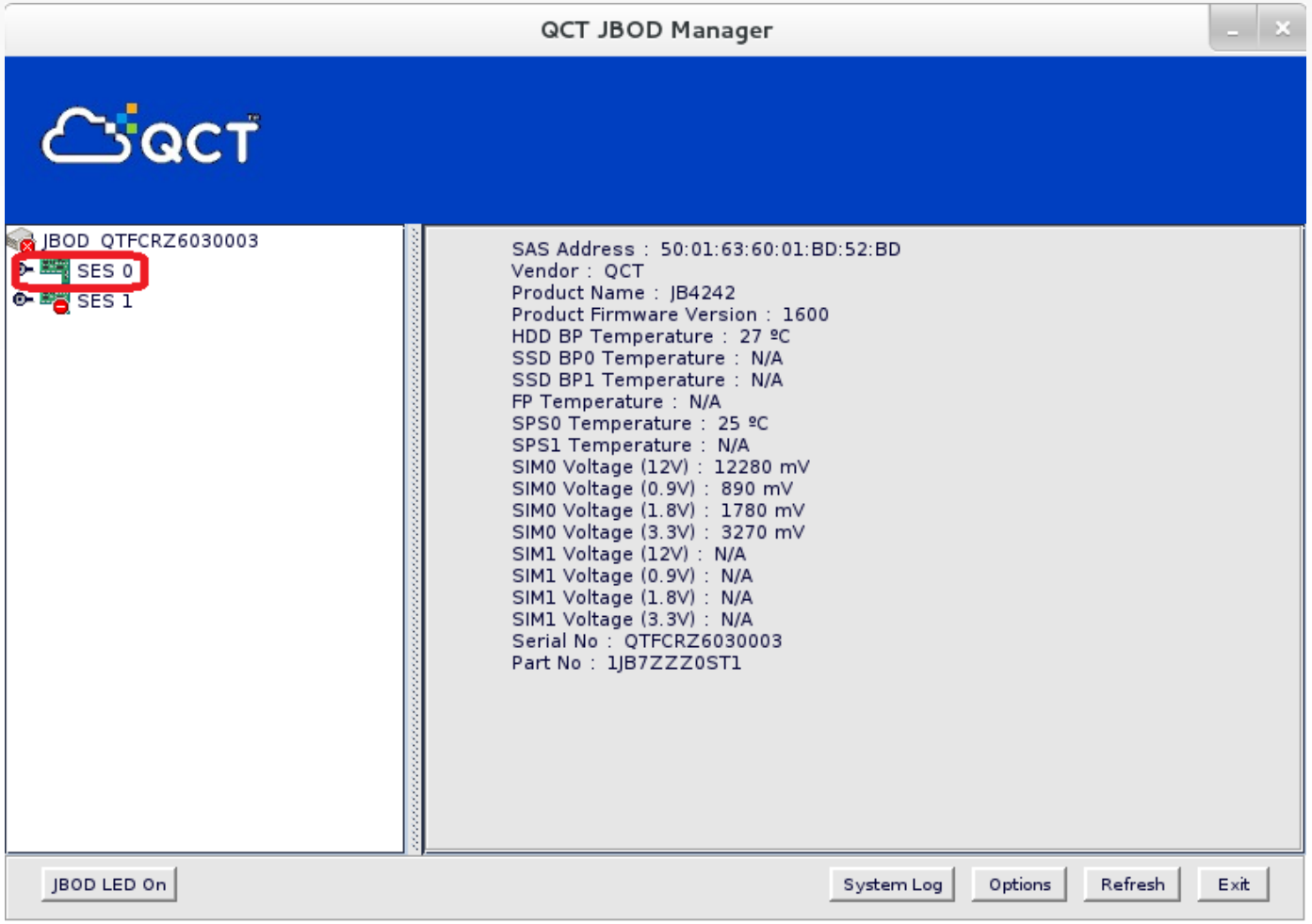
SES Command


root@q89071708:~/Desktop
File Edit View Search Terminal Help
Predicted failure=0, Disabled=0, Swap=0, status: OK
Ident=0, Do not remove=0, Hot swap=0, Fail=0, Requested on=0
Off=0, Actual speed=6260 rpm, Fan at third lowest speed
Element 11 descriptor:
Predicted failure=0, Disabled=0, Swap=0, status: OK
Ident=0, Do not remove=0, Hot swap=0, Fail=0, Requested on=0
Off=0, Actual speed=6200 rpm, Fan at third lowest speed
Element type: Temperature sensor, subenclosure id: 0 [ti=2]
Overall descriptor:
Predicted failure=0, Disabled=0, Swap=0, status: OK
Ident=0, Fail=0, OT failure=0, OT warning=0, UT failure=0
UT warning=0
Temperature: <reserved>

QJM(Linux)/QDEM (Windows) CLI Command



QJM /QDEM GUI


QCT JBOD Manager
QCT
JBOD_QTFCRZ6030003
SES 0
SES 1
SAS Address : 50:01:63:60:01:BD:52:BD
Vendor : QCT
Product Name : JB4242
Product Firmware Version : 1600
HDD BP Temperature : 27 ºC
SSD BP0 Temperature : N/A
SSD BP1 Temperature : N/A
FP Temperature : N/A
SPS0 Temperature : 25 ºC
SPS1 Temperature : N/A
SIM0 Voltage (12V) : 12280 mV
SIM0 Voltage (0.9V) : 890 mV
SIM0 Voltage (1.8V) : 1780 mV
SIM0 Voltage (3.3V) : 3270 mV
SIM1 Voltage (12V) : N/A
SIM1 Voltage (0.9V) : N/A
SIM1 Voltage (1.8V) : N/A
SIM1 Voltage (3.3V) : N/A
Serial No : QTFCRZ6030003
Part No : 1JB7ZZZ0ST1
JBOD LED On
System Log
Options
Refresh
Exit

SES Command to turn on/off Individual drive's power

- sg_ses --index=arr,[0-xx] --set=0,5 /dev/sgX [X is a variable]

→*Turn **off** Individual drive's power*

- sg_ses --index=arr,[0-xx] --clear=0,5 /dev/sgX [X is a variable]

→*Turn **on** Individual drive's power*

SES Command to turn on/off HDD locator LED

- sg_ses --index=arr,0 --set=ident /dev/sg3

→*HDD Locator LED **on***

- sg_ses --index=arr,0 --clear=ident /dev/sg3

→*HDD Locator LED **off***

QJM/QDEM CLI Command to turn on/off Individual drives' power

- Disable disk [xx] - disable
- Enable disk [xx] – enable
- xx= HDD sequence number, such as 39 or 64…etc

QJM/QDEM CLI Command to turn on/off HDD locator LED

- #./QJM -indicator_on jbod0.disk0

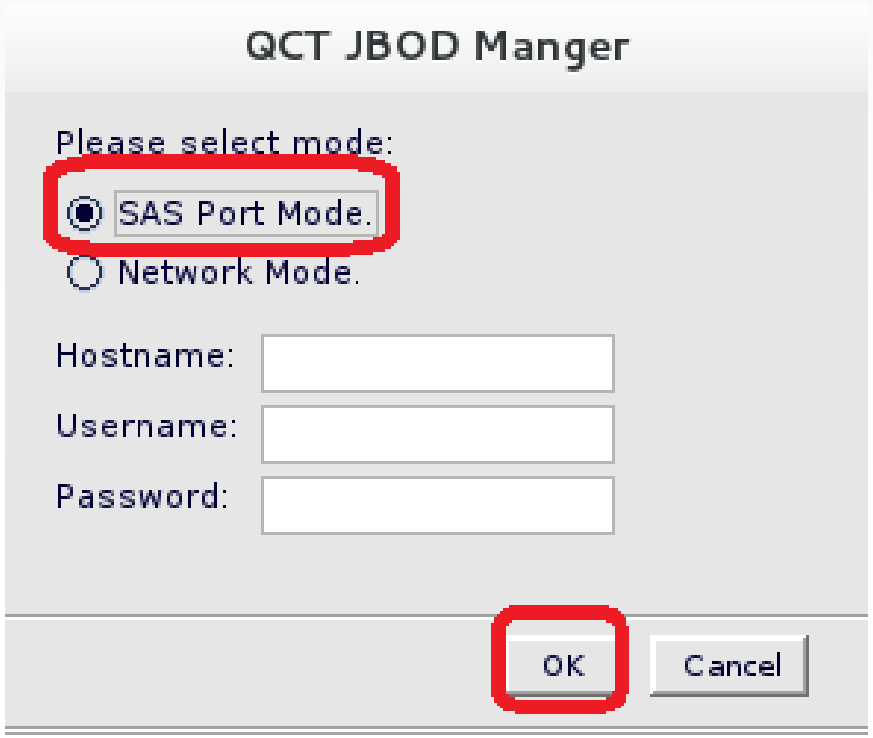
→*The Indicator for JBOD0 Disk 0 has been* ***turned on***.

- #./QJM -indicator_off jbod0.disk0

→*The Indicator for JBOD0 Disk 0 is* ***already off***.

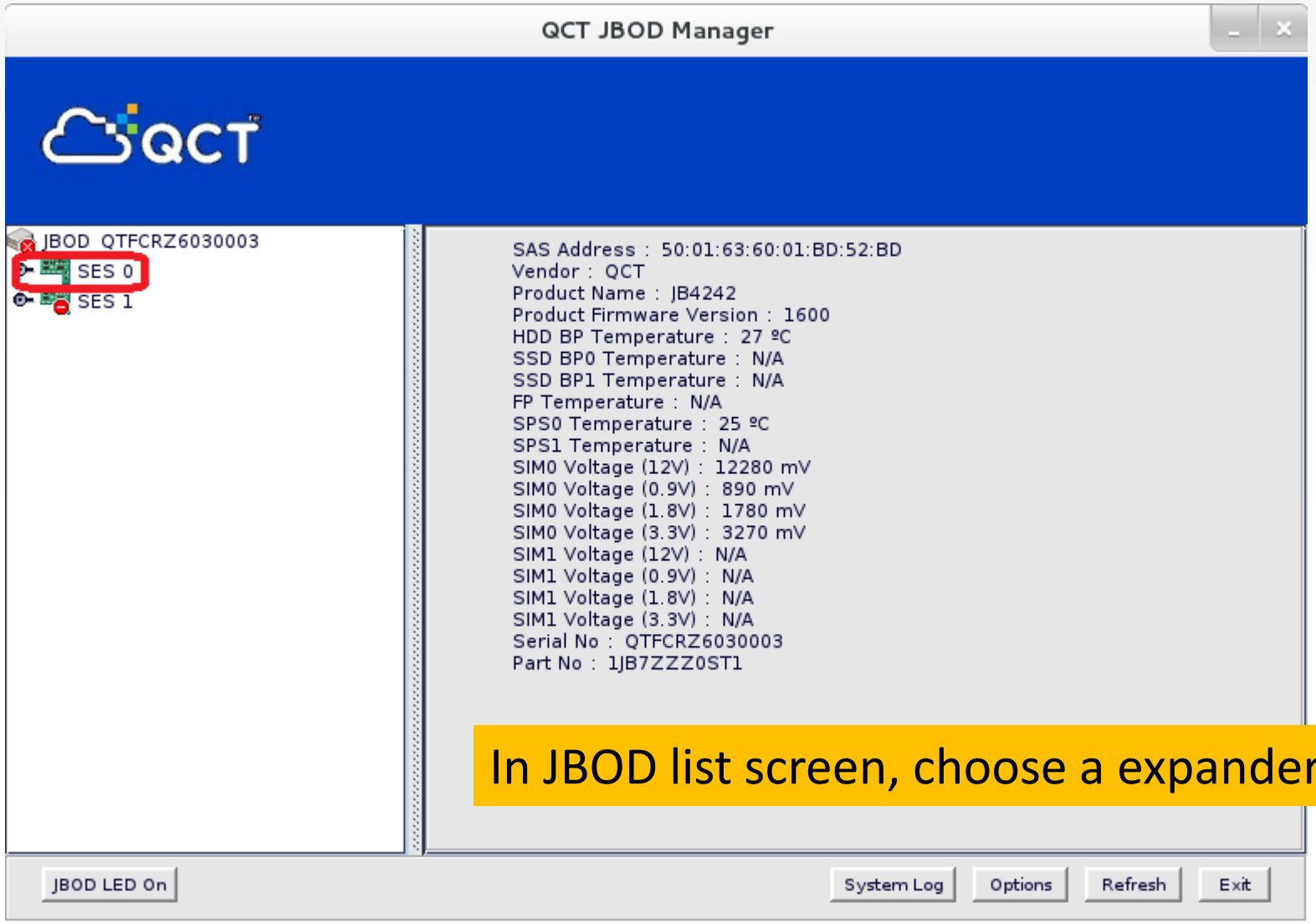
QJM & QDEM GUI(1)

Start QDEM/QJM program



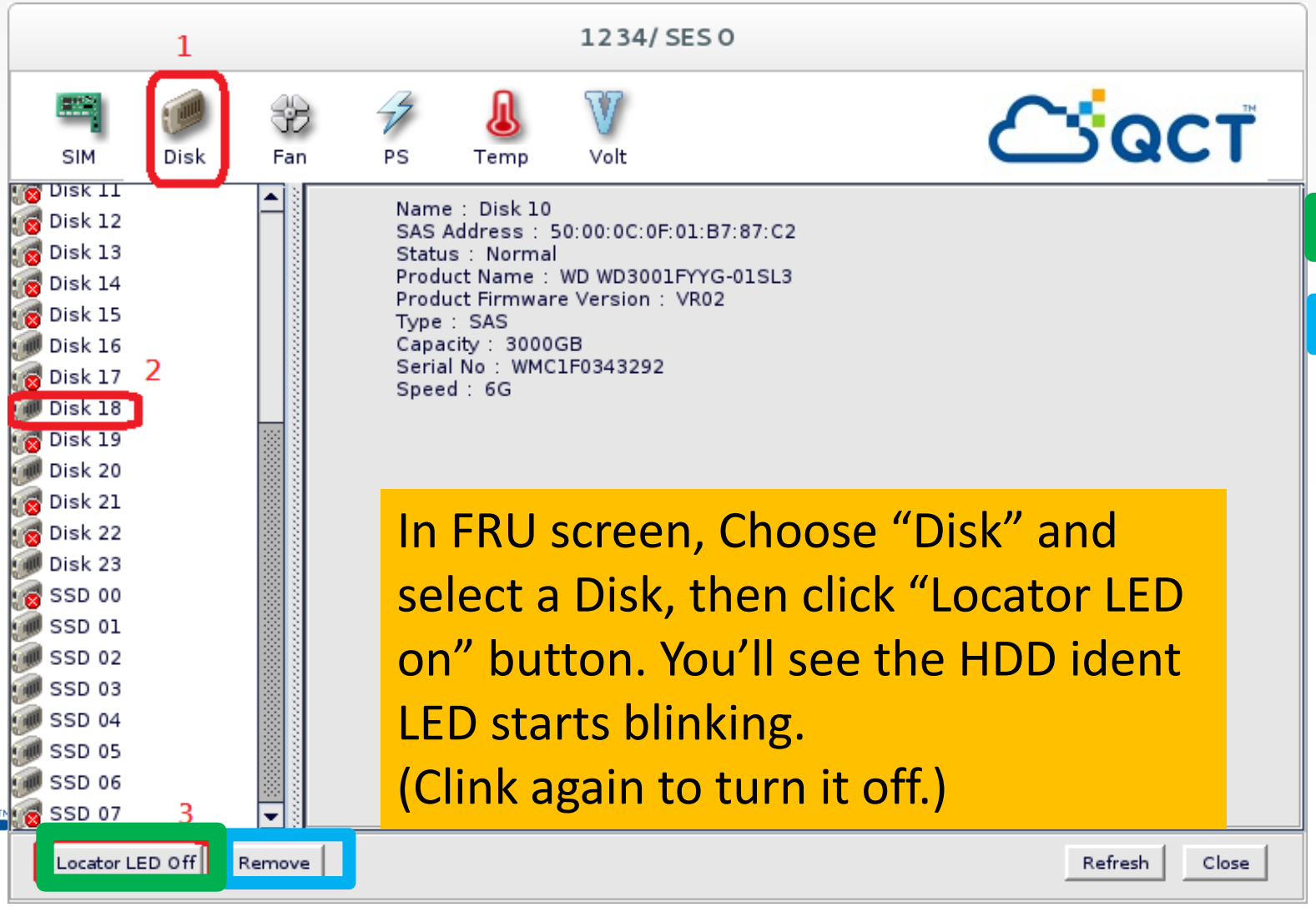
Choose SAS port mode and click OK

QJM & QDEM GUI(2)



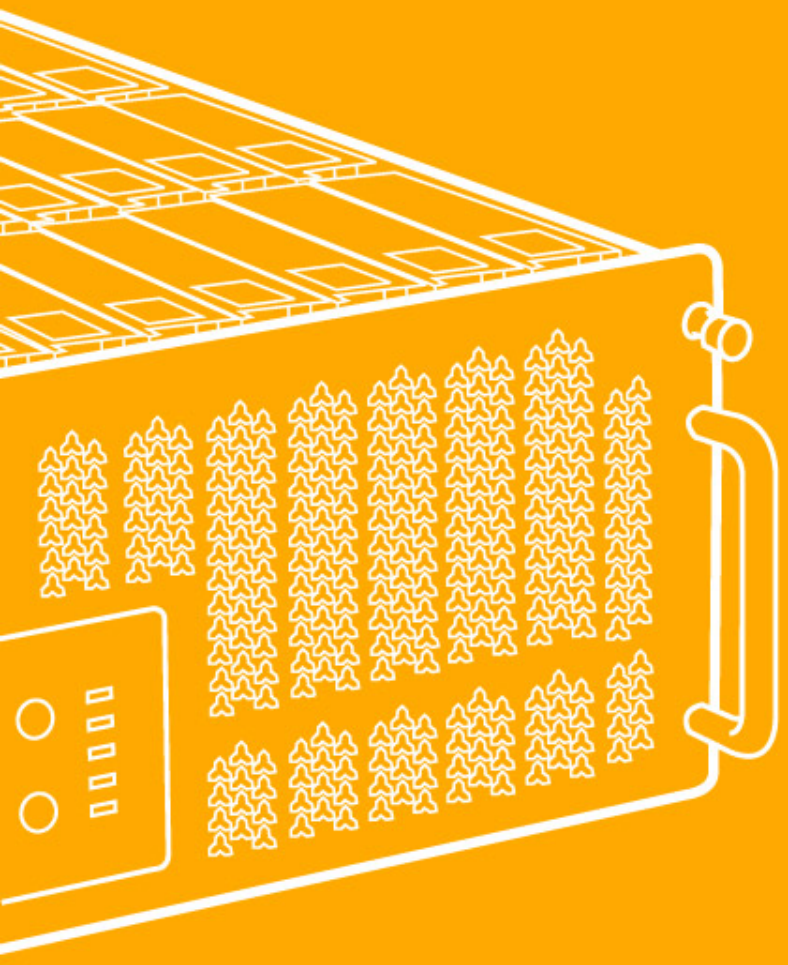
In JBOD list screen, choose a expander. e.g. “SES 0”

QJM & QDEM GUI(3)



: Disk Locator LED

: Individual Disk’s Power



Thanks !