Power user account usage of dual controller

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QSAN Technology, Inc.
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White Paper# **QWP201004-P300H**

Introduction

In this document, it describes how to use power user account to operate some powerful functions. Describe on the following:

1. **OEM SETTINGS:** Modify OEM settings in the controller.
2. **JBOD CUSTOMIZATION and UPGRADE:** Customize and upgrade **QSAN J300H** firmware.
3. **VOLUME RESTORATION:** It will display whole volume configurations which were created before. Select one for executing volume restoration.
4. **FAN DUTY:** Test whether FAN duty can meet the specification.
5. **CONTROLLER MODE:** This function can switch controller mode to single upgradeable or dual.

In addition, the power user functions are used for the direct customers of **QSAN** only, not for end user.

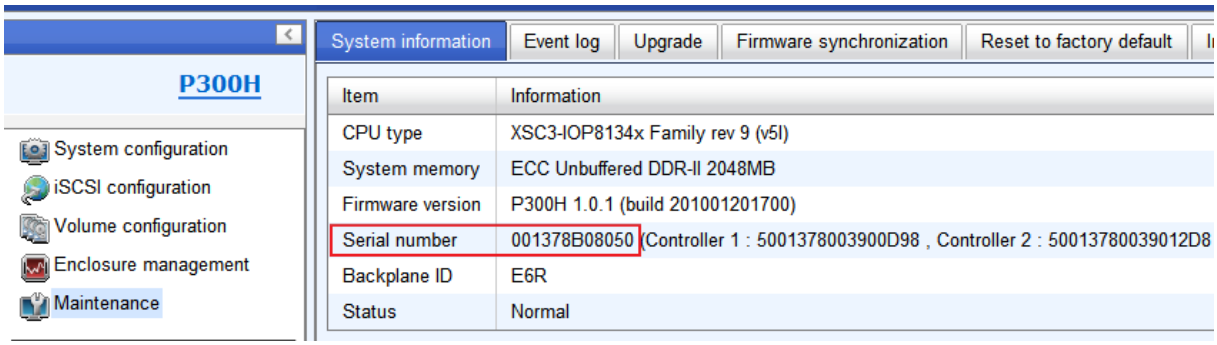
Environment

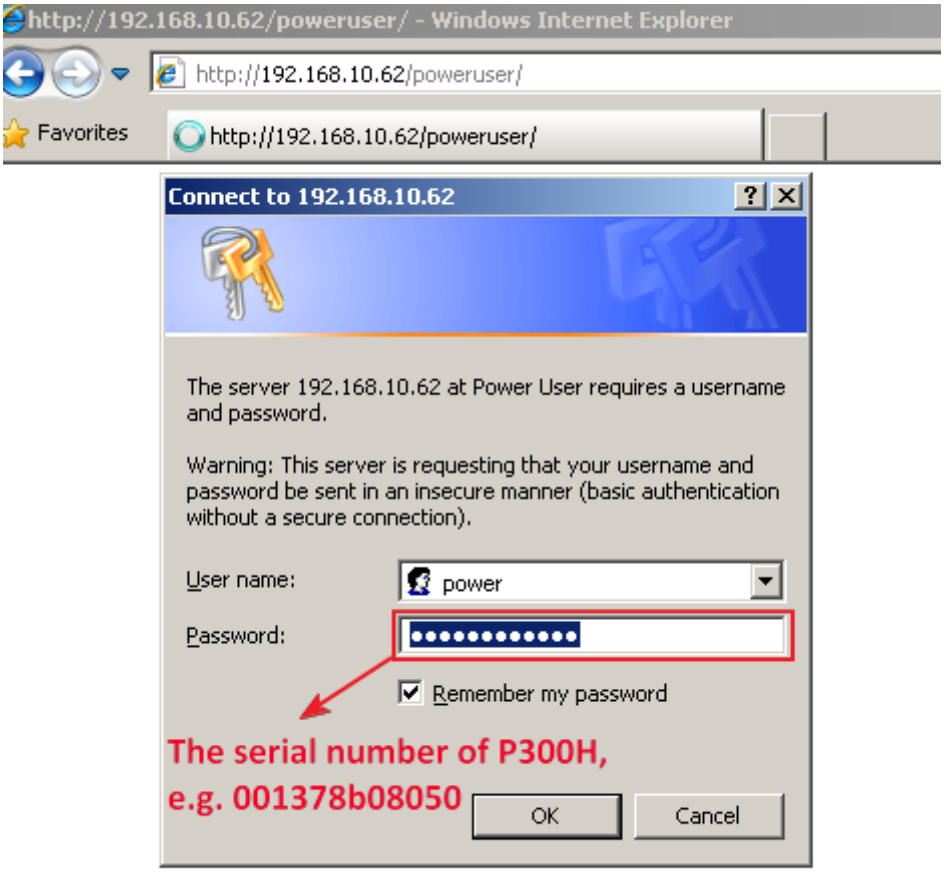
Host OS:	Windows Server 2008 R2
Necessary package:	Web browser (IE or Mozilla)
Targets:	QSAN P300H + J300H
P300H RAM:	2GB DDR 2-533
Firmware:	P300H: 1.0.1 (20100120_1700) J300H: 1.0.0 (20100131_2100)
P300H mgmt. port:	192.168.10.62/24

Configuration

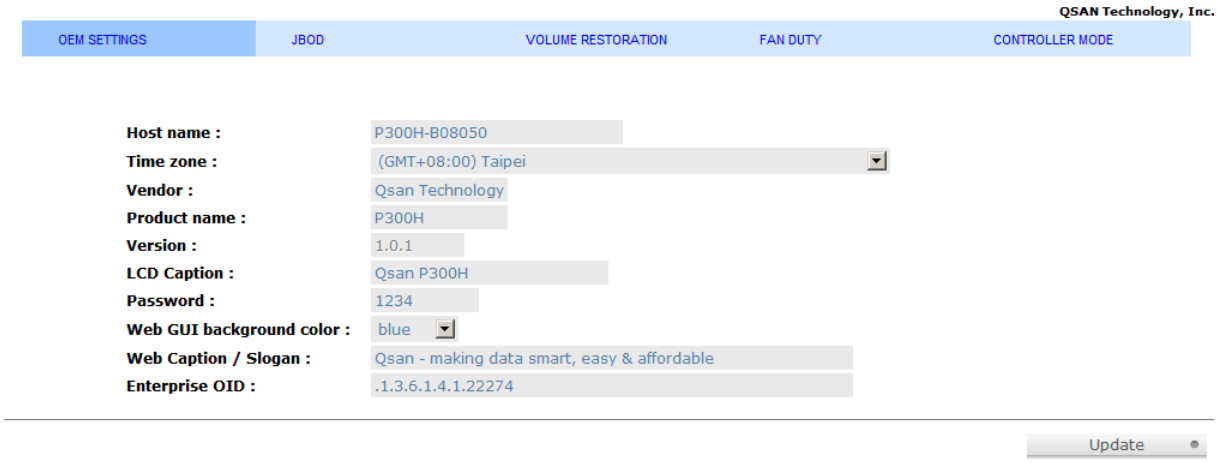
1. Login **P300H** as power user account with the following URL. For example: http://192.168.10.62/poweruser

2. Enter username **power** and password: “the serial number of P300H”. Notice that the input alphabets are in lower case. The setting of password is case sensitive.





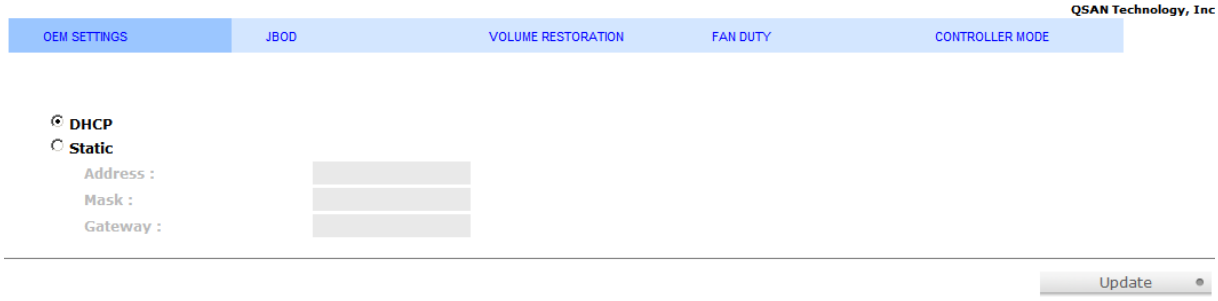
3. After login, there are some functions listed on each tab. The following will describe the operation of each function.



Part 1: OEM SETTINGS

1. **Basic Setting:** All items except firmware version (marked as blue) can be modified.

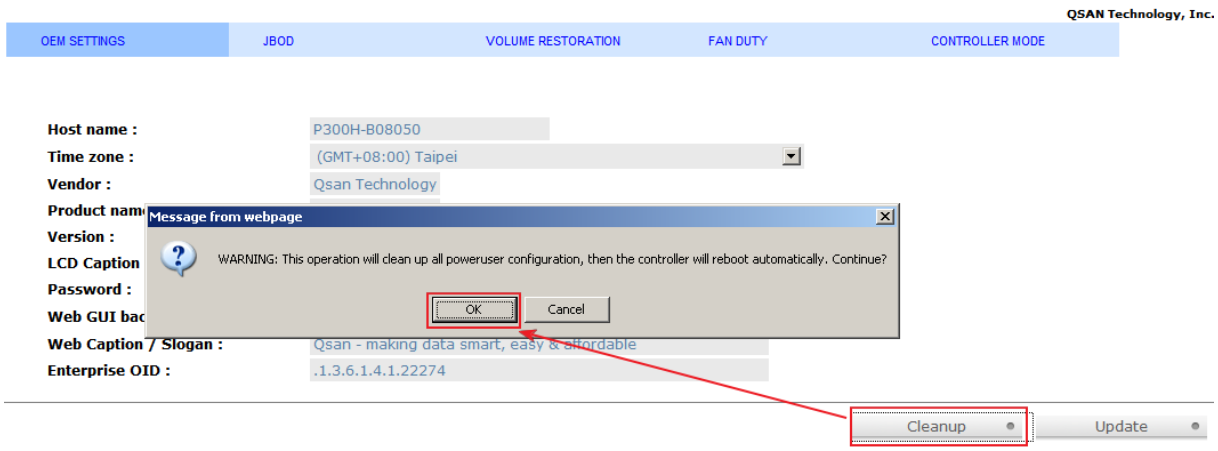
2. **Network Setting:** The default setting of management port IP can be setup as DHCP or static.



3. **Image Setting:** Modify company logo and product photo.

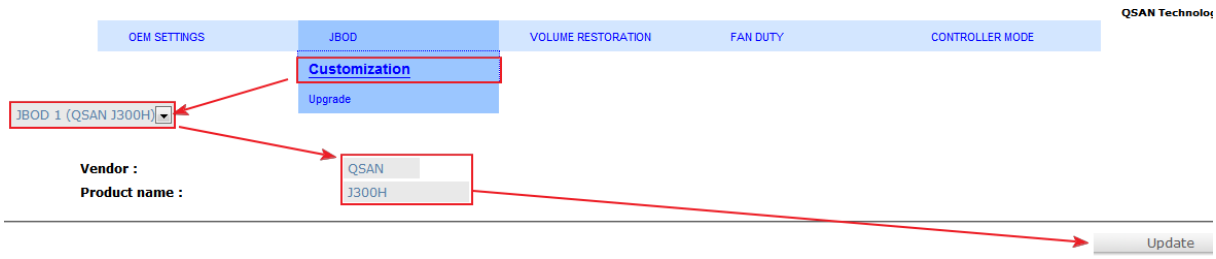
4. After modified **OEM SETTINGS**, remember to execute **"/ Maintenance / Reset to factory default"** to let the new OEM settings take effect.

5. **“Cleanup”** button will appear after **OEM SETTINGS** has been updated. It will let all the modified **OEM SETTINGS** be undone.



Part 2: JBOD CUSTOMIZATION and UPGRADE

- **JBOD firmware customization**



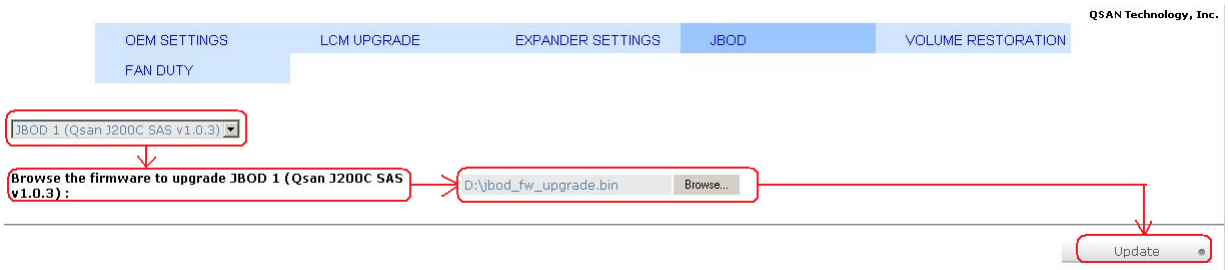
1. Click the **Customization** tab.
2. Select which JBOD, for example, JBOD 1, will be customized.
3. Input the vender name within 8 ASCII characters.
4. Enter the product name within 16 ASCII characters.
5. Confirm by clicking **“Update”** button.
6. The customized items will take effect right after updating successfully.

- **JBOD firmware upgrade**

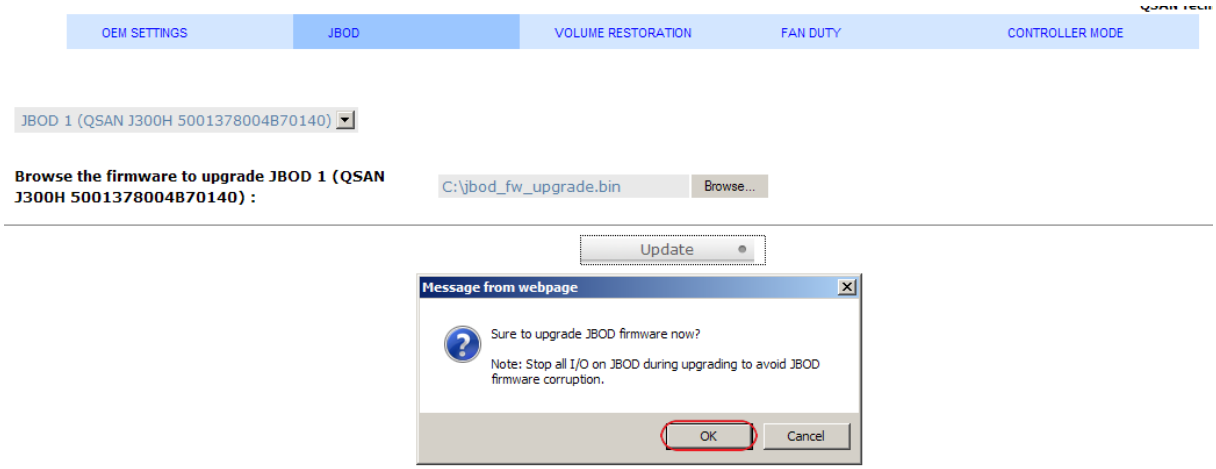
1. Click **Upgrade** tab, **QSAN J300H** firmware can be updated via this way.

2. Select which **J300H**’s firmware, for example, JBOD 1, will be upgraded.
3. Browse new **J300H** firmware file.

4. Press **Update** button.



5. Confirm by clicking **OK**.



6. Please wait for a while for processing.
7. Done. **J300H** will reboot automatically.

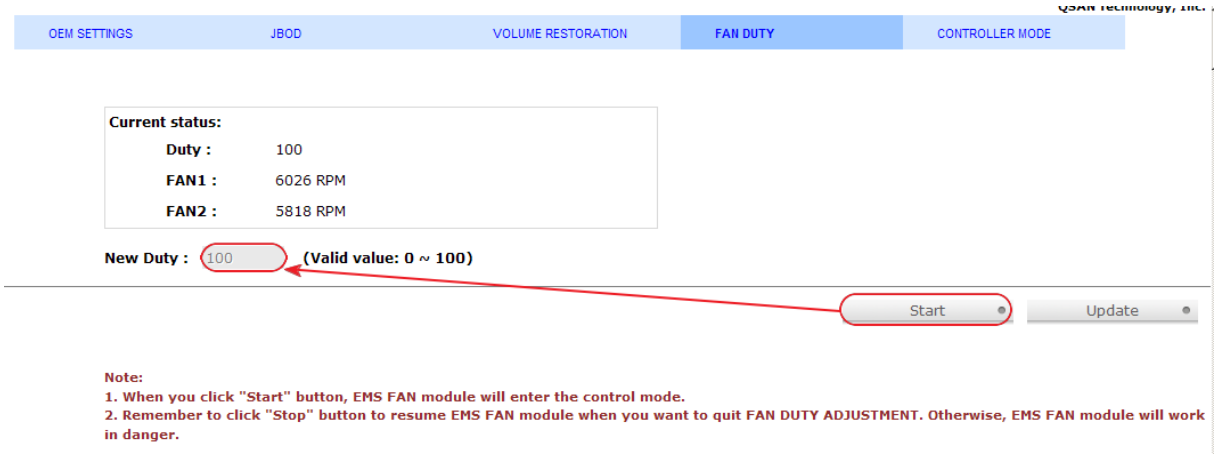
Part 3: VOLUME RESTORATION

The volume restoration function can restore the volume configuration from the volume creation history. The function is used for RG corrupt and tries to recreate the volume. If the volume is restored as RAID 3, 5, or 6, it will not be initialized during the volume restoration. In addition, it is necessary that all the original order of the original disks in the chassis remains unchanged. For more detail about this usage, please refer another white paper **"Data recovery with volume restoration"** in References.

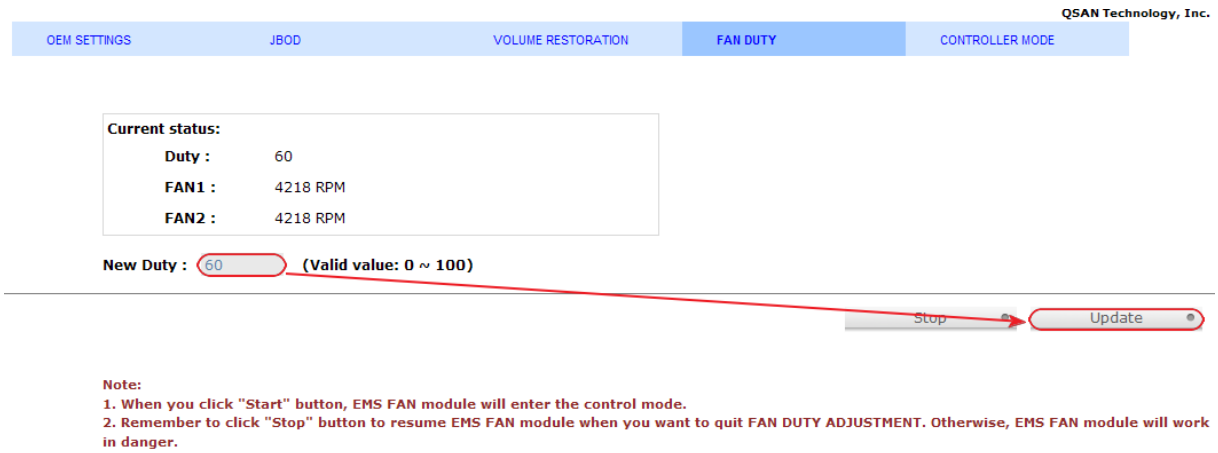
Part 4: FAN DUTY

The FAN DUTY function is used for verifying whether the FAN module can meet the vendor's specification. In addition, FAN DUTY function is supported by some backplanes, not all.

1. Click **Start** button, then adjust the duty value from 0 to 100. Duty value 100 means full spin.

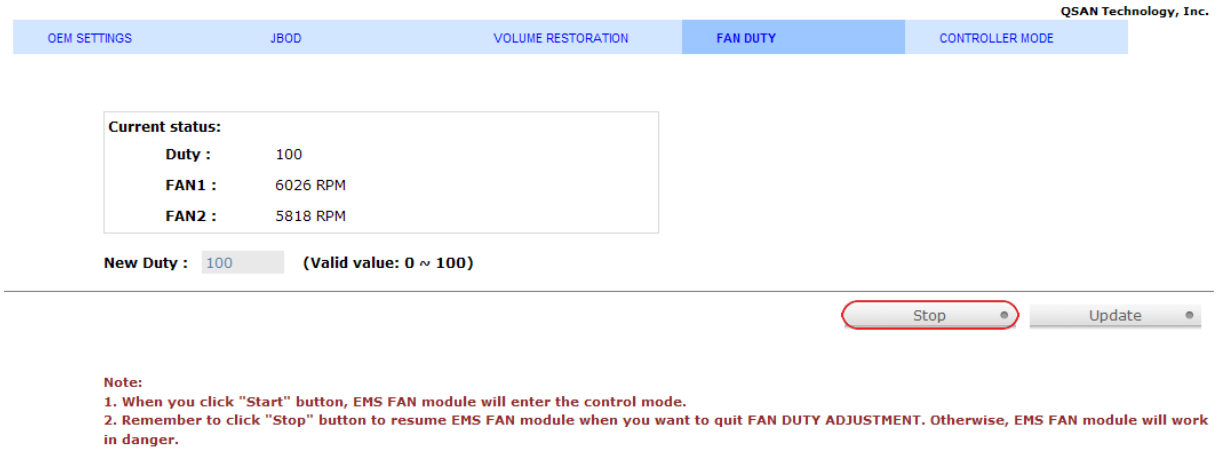


2. Adjust the duty value to 60, and then click **Update**. The FAN will spin slower.



3. If the duty value sets to low, sometimes the PRM of FAN can not be gotten, it's normal.

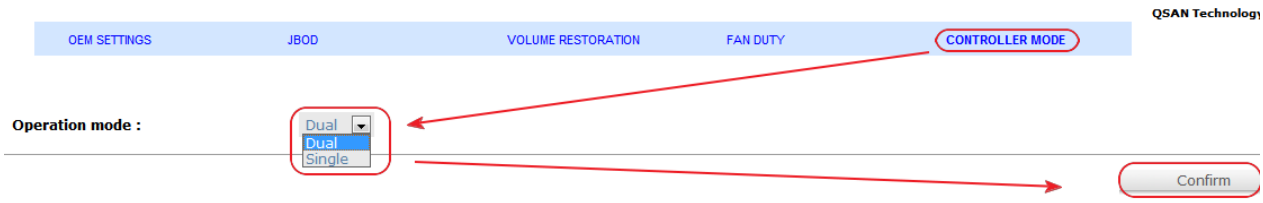
4. Remember to click **Stop** when finishing the FAN DUTY testing. Otherwise, the controller will always stay at control mode.



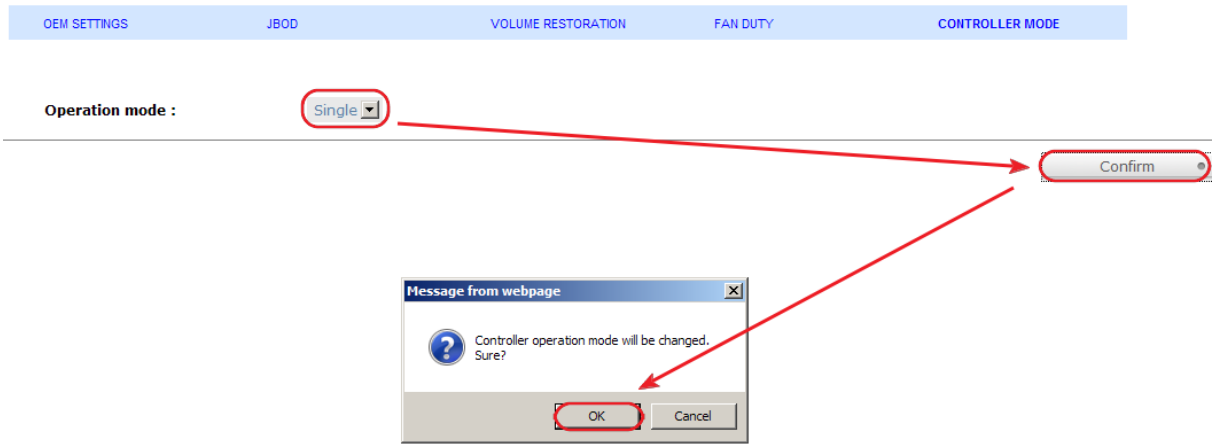
Part 5: CONTROLLER MODE

This function can switch controller mode to single upgradeable or dual.

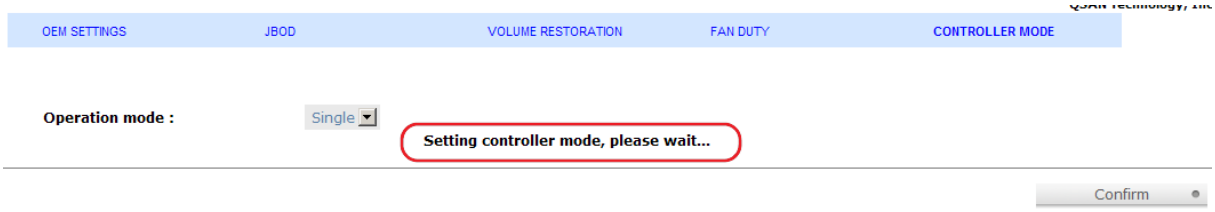
1. Choose an operation mode.



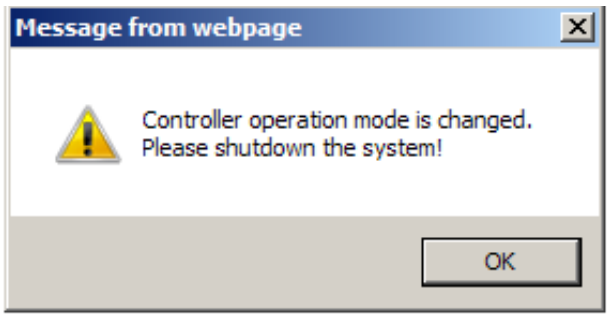
2. Select single mode, and then click **Confirm**. It will pop up a dialog to confirm this operation again.



3. Wait for the completion of switching procedure.

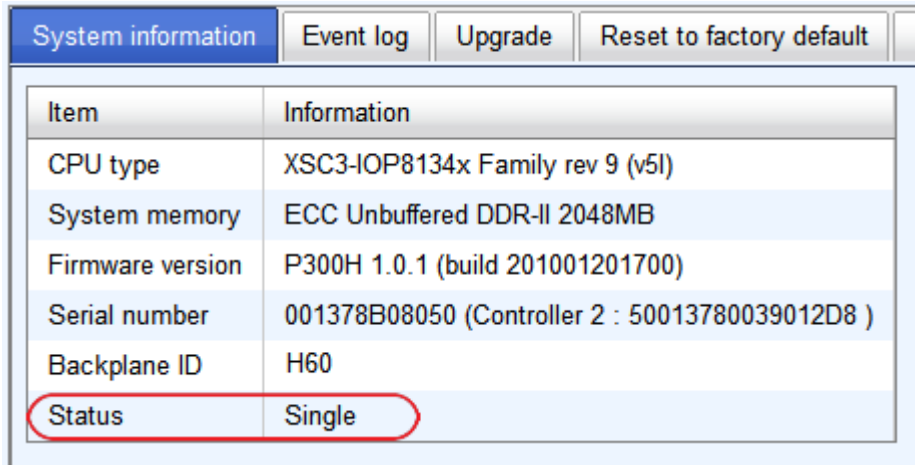


4. It is necessary to shutdown the subsystem to make new setting take effect when switching the operation mode.



There are some points to note when switching the operation mode to single:

1. It is necessary to plug-out controller 2 after switching to single upgradeable mode. The subsystem status will become **"Single"**.



2. Only controller 1 can become single mode.
3. When the status is under **"Single"** controller mode, the SATA hard drivers don't need to install QMUX board. Otherwise, when the status is under **"Dual"**, QMUX board is needed.

Summary

Follow the procedures; it's easy to execute some powerful functions via power user account, but must be careful. Moreover, these power user functions are used for the direct customers of **QSAN** only, not for end user.

Applies to

- **P300H** FW 1.0.1 (20100120_1700)
- **F300H** FW 1.0.1 (20100120_1700)
- **P500H** FW 1.0.1 (20100120_1700)
- **J300H** FW 1.0.0 (20100131_2100)

References

- Data recovery with volume restoration
  ftp://ftp.qsan.com.tw/Qsan_Documents/White_Paper/QWP200915-P210C-Data_recovery_with_volume_restoration.pdf