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To: Distribution

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Subject: Mark6 Host Bus Adapter Cards Setup Verification

The following steps are to confirm that after your SAS cables have been inserted into the Host bus adapter card on the back of the Mark6, that the slots the software is communicating with are correct.

Figure 1 is an image of the back of the Mark6 showing the SAS slots and their associated slots.

Figure 1 Mark6 Host Bus Adapter to Slot Assignments

Before verifying the configuration there is an import sequence that must always be followed before removing disk modules from a Mark6 system is cplane is running.

1. From da-client
    a. group = unmount : slot number
    b. After the group command returns, remove power by turning the key on the slot.
    c. If any command is executed before the key is turned, a disk partition for that module may still be mounted.

To best test the configuration:

1. Insert 4 Mark6 disk modules into slots 1 – 4 of the Mark6.
2. Connect the eSATA cables to the proper slot locations.

3. Apply power to slot 1 and wait approximately 30 secs.
   a. Observe that all eight LEDs on that disk module light up. The sequence is either the upper or lower 4 LEDs will flash, followed by the other 4.
   b. Individual LEDs will now illuminate. If all 8 of the individual LEDs do not light there is either:
      i. Faulty cable
      ii. Bad disk in the module.
4. Repeat the above steps for the disk modules in slot 2 – 4.
5. Verify that cplane is running, by starting da-client.
   a. If you see no connection error, cplane is not running, start it:
      i. as root, /etc/init.d/cplane start
   b. If it is running you will see :
      i. Host: 127.0.0.1 port: 14242
      >>
6. from the da-client execute:
   a. mstat?1
      i. If a module has been previously initialized and not grouped you will see:

>> mstat?1

<<!mstat?0:0:-:1:EHT%0025/32000/4/8:8:8:-: 32000:initialized:null:sg;

      ii. If a module had been previously grouped and the associated group members are in the other slots the status will be:

>> mstat?1

<< !mstat?0:0:1:1234:EHT%0007/16000/4/8:8:8:-:16000:unmounted:unprotected:sg;

      iii. If a module had been previously grouped and NOT all associated group members are in the other slots the status will be:

>> mstat?1

<< !mstat?0:0:1:12--:EHT%0007/16000/4/8:8:8:-:16000:incomplete:protected:sg;

   b. Choose one of the slots, e.g. slot 1, to re-initialize the module. To re-initialize execute:
      i. mod_init = 1 : 8 : EHT%0007 : sg : new;
      ii. Two important items
         1. To signify it is a Mark6 disk module a % symbol MUST be used between the three character institution (designate) and the serial number for the Module Serial Number. Any other character is illegal and should not be used. For example
            a. EHT%0007
         2. The last parameter MUST be *new* for this informs cplane that the module is being reformatted.
   c. After the command is executed examine that the LEDs on the module in slot 1 are being illuminated.
      i. If it is another disk module, e.g. slot 3, the cables are misconfigured.

d. Repeat the steps b and c for all disk modules.