

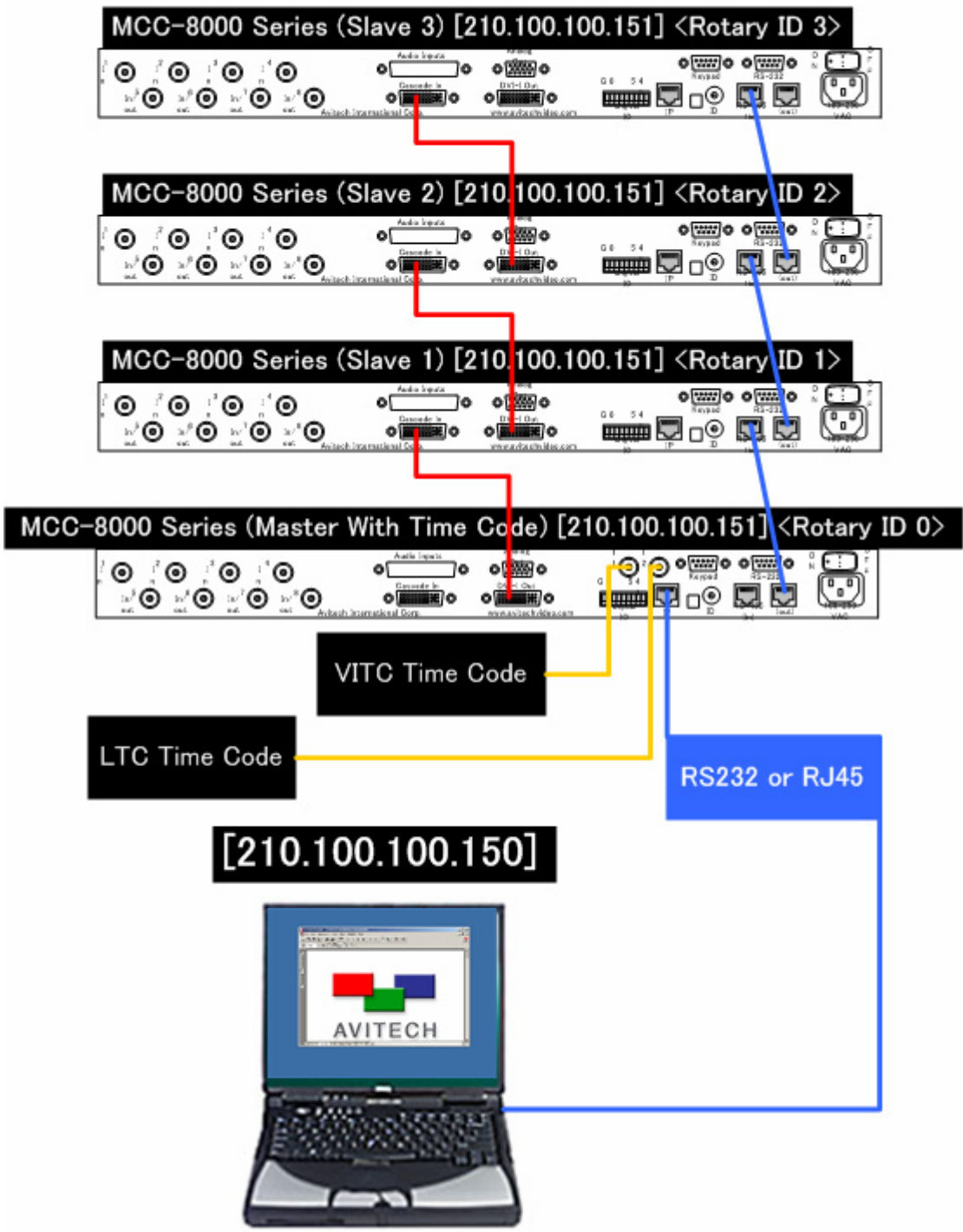
## **MCC-8000 Time Code**

Modules delivered after February of 2006 can have the LTC or VITC time code built in as an option. The Time Code modules will have a BNC connector on ports 11 and 12. Each group only needs one time code module and the rest of the modules in that group can sync to the time code module to receive time code time. If you have multiple display groups that require time code, then each group will require a time code module. Each module is capable of outputting one clock so the more modules you have in a single group, the more clocks you can display.

### **Cascading Modules with Time Code Option:**

1. The module with time code should be set to rotary ID 0 and be the master module
2. Insert the time code from the source to inputs 11 or 12 on the master
  - a. Input 11 is for VITC Time Code (Analog Video)
  - b. Input 12 is for LTC Time Code
3. To communicate with the module:
  - a. Connect the Ethernet cable from the control PC and connect it the IP port on the master
  - b. Connect a straight through serial cable from the control PC and connect it the RS232 port on the master
4. Take an Ethernet looping cable and connect one end to the RS485 out from the master and connect it to the RS485 in on the next module up (rotary ID 1)
5. Repeat until you reach the last module in the group
6. Take a DVI looping cable and connect one end to the DVI Out from the master and connect the other end to the Cascade in on the next module up (rotary ID 1)
7. Repeat until you reach the last module in the group
8. From the last module in the group (rotary ID 3) select a method to output to the display
  - a. Connect a DB15 VGA cable from the VGA out of the last module to the display
  - b. Connect a DVI cable from the DVI out of the last module to the display

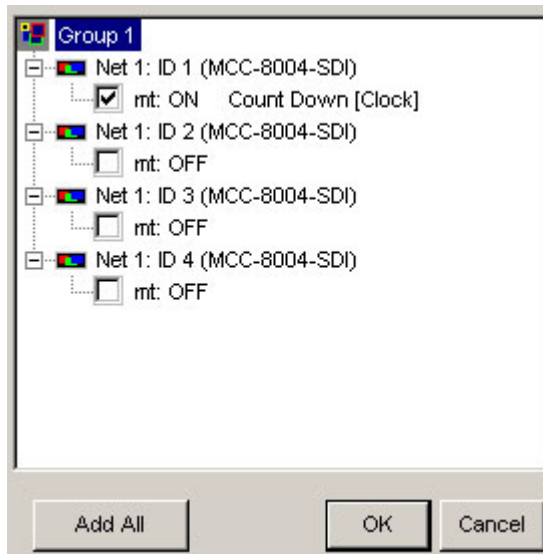
This completes the cascading of the modules.



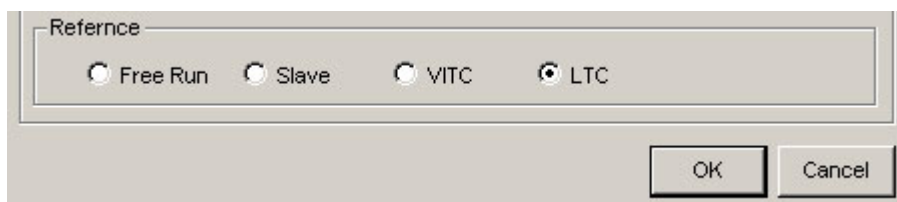
## Enabling Module Time Code

The time code must be enabled from the MCC-8000 clock from the master module (rotary ID0). This is listed as ID 1 in the software so the easiest way to do this is to enable the clock for ID 1 and then enable either LTC or VITC time code. If you want the clocks from the slave modules to display time code time, you can do so by setting the time to DVI. This will sync the clock on the slave module with the time code source on the master. By default, all the clocks are turned off by Cosmos on startup so the easiest way to set this up would be to enable the MCC-8000 clock from the master.

1. Select **Add/Remove Module Time Clock** from Group menu
2. Select **Net 1: ID 1** clock and then OK to finalize



3. Right click on the clock that appears on the top left hand corner of the control screen and select **Setup**
4. Under Reference, select either VITC or LTC depending on the option you have and select OK to finalize



5. Select **Take** to update the group display so the clock appears

The MCC-8000 clock from the master module is now enabled to show the time code time. If you want to add additional clocks from the slave modules and sync the time to the time code, you can add them using the steps above and under Reference, you will need to select Slave so they can sync to the master.