T992 Test Beam Run Guide for November 2010

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OVERVIEW OF 4-HOUR SHIFT

1. Conduct start-up sequence.
2. Start Run.
3. Stop Run (20-25 minutes later).
4. Check Data Integrity.
5. Go to Step 2.

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Step 1 - Conduct Start-up Sequence:

1. Note that everything is in drive E:/ (the path is "E:/T992_Nov_2010/")
2. Check the power supplies and temperature:
    1. Find "Remote Desktop Connection" on your desktop. Open it.
    2. In the Computer field type "192.168.133.11" and click Connect.
    3. Log in with user: "captan", password: "TestBeam1!"
    4. Open Logitech QuickCam if camera view is closed. The top icon in the camera toolbar opens up the live view.
    5. Click Power Supplies on the Desktop to open supplies application.
    6. Check that the CAPTAN supply is 4.5V at ~12 Amps.
    7. Keep an eye on the HV supply. Make sure it corresponds to the HV values that we want to test for the current DUT. The current should not be much higher than 1 or 2 uA - otherwise turn off the supply using the Power Supplies application.
    8. Also keep an eye on the temperature. It should reflect the current cooling situation.
3. Find "Testbeam App Launcher" on your desktop. Open it to start all of the telescope software.
4. Locate the "CAPTAN_Gui" application, and navigate to the "Basic Commands" tab.
5. Follow the "Shift Start-up Procedure", one step at a time. Wait for each procedure to reach 100%.
    1. If Errors are reported at any step, try the following:
        1. Try the button again.
        2. If errors persist, click "Global Reset" button on the right of the "Basic Commands" tab. Wait 10 seconds. Then start the "Shift Start-up Procedure" again.
        3. If errors still persist, use the "Power Supplies" application on the remote computer to turn off the 4.5V power. Wait 10 seconds. Turn on the 4.5V power. Then start the "Shift Start-up Procedure" again.
    2. If Step 2b, "Calibrate DUT" of the "Shift Start-up Procedure", fails then try one of the delay options (i, ii, iii) one by one.
        1. For example, click "Neg. Delay" and wait up to 30 seconds for operation to finish. Then re-try "Calibrate DUT".
    3. If errors somehow still persist, call a CAL for assistance.

Step 2 - Start Run

1. Go to the User Tab.
2. Check that the run name is reasonable.
    1. It is the field "File Base Name" on the left side of the GUI.
    2. It should always be "Run#" where # is an integer that always increments by one each run. The run name will automatically increment, so you only need to be concerned with the name for the first run.
3. Add Run Notes as you see fit.
    1. Do not change the notes below "----". Important notes to type into the box are the DUT HV setting, the temperature, which DUT, etc..
4. Check that the fields in the "Advanced Controls" are unchecked, 350, 2000000, 1000000, unchecked (unless otherwise specified).
5. Click Start Run.
    1. A series of messages will scroll in the GUI status window. The last one should read "Run Successfully Started".
    2. If not successful, go back to step 5 of Part 1 of this document and proceed.

Step 3 - Stop Run

1. In the User Tab, click Stop Run.

Step 4 - Check Data Integrity

1. Locate the "Alignment_TakeTwo" application for analysis and find the "Visualizer" window.
2. Enter the run name in the Merge Filename window.
3. Parameters should be Station Index=0, Use 3D Display=checked, Use Default Run List=checked, Merge Run Threshold=0, Binary=selected, Timestamp Width=2, Trig. Num Width=0.
4. Click Load Plane Config
    1. Select the appropriate DUT telescope plane config file.
5. Click Merge.
6. Go to 3D display.
    1. Movement is done by the keys W,A,S,D and the arrows.
    2. You can toggle fast/slow camera motion by hitting SHIFT.
7. Data should look like a continuous beam spot in the center of every plane.
    1. If not, go back to step 5 of Part 1 of this document and proceed.