**Single Unit Recording (5431 and 5434)**

1. Before beginning, check that devices are turned on and connected.
   1. 5431 includes the RX8, RZ5, PA5(2), HB7, and PZ5 (check battery)
      1. First channel (Sound) runs to channel 17; second channel (Sound OR Electrical) runs to channel 20. Temperature monitor connects to channel 1.
   2. 5434 includes the RZ2, RZ6, RP2.1, PA5 (2), HB7, and PZ2 (check battery)
   3. You are advised to unplug the preamp (PZ5 and PZ2) while recording data.
   4. If you plan to monitor temperature, make sure the temperature controller is plugged into the appropriate device and turned on
2. Run the application from the file

**5434: C:\TDT\SHORELAB\David Test Application1\bin\Debug\Stimulus Protocol System New.exe**

**5431: Z:\7Electrophysiology Software\David Test Application1\bin\Debug\Stimulus Protocol System New.exe**

* 1. This will open both the Stimulus Protocol Developer and the Stimulus Protocol Workbench without requiring the user to access the visual studio code.
  2. Be sure to check the current directory before selecting test cases.
  3. Any files used by the application should be saved in C:\TDT\SHORELAB.

1. In the Stimulus Protocol Workbench, select Test Cases and set the System Mode to “Record” or “Preview” as applicable.
   1. Test Cases may be customized from the Stimulus Protocol Developer.
2. Close any open TDT software (RPvdsEx, BioSig, SigGen, etc.).
3. From OpenProject, under the WorkBench tab, load the project as follows:
   1. 5431
      1. C:\Recording\Recording.wsp
         1. Looking for other project files? C:\Recording\old code
      2. Devices are named “RZ5” and “RX8” within the project.
         1. If there are additional boxes (grey or beige) with the device names, these must be removed to run the application
      3. RCO circuit files are named

C:\Recording\RCOCircuits\32 Channel Acquisition**\_ RZ5**.rcx and

* + - 1. Two Channels of Sound: C:\Recording\RCOCircuits\NewStimCircuit\_Stores\_MOD\_FAST\_RX8.rcx
      2. One Channel Sound, One Electrical: C:\Recording\RCOCircuits\NewStimCircuit\_Stores\_MOD\_FAST\_RX8E.rcx
      3. Looking for old RCOs? Z:\7Electrophysiology Software\Recording\OLD RCOs
    1. **Be sure the Default Attenuation for the PA5 is set to 99.9 dB**
  1. 5434
     1. C:\Users\shorelab\Desktop\TDTTest\TDTTest.wsp
        1. Looking for other project files? C:\Users\shorelab\Desktop\OLD CODE
     2. Define a tank name.
     3. Devices are named “Recording”, “Astim”, and ~~RP2\_1~~ within the project.
     4. RCO circuit files are named

**C:\Users\shorelab\Desktop\TDTTest\RCOCircuit s\Acq.rcx**

**Two Channels of Sound: C:\Users\shorelab\Desktop\TDTTest\RCOCircuits\NewStimCircuit\_Stores\_MOD\_Fast\_RZ6.rcx**

**One Channel Sound, One Channel Electrical:** **C:\Users\shorelab\Desktop\TDTTest\RCOCircuits\NewStimCircuit\_Stores\_MOD\_Fast\_RZ6\_Estim.rcx**

* + 1. Be sure the Default Attenuation for the PA5s is set to 99.9 dB
  1. PSTHs and Rasters should open automatically (although they like to hide in the corners of the screen).

1. Open the SortSaver.
   1. 5431, the Device Name is “**RZ5**” and the File Location is **C:\TDT\SHORELAB\sorts.dat**
   2. 5434, the Device Name is “Recording” and the File Location is **C:\TDT\SHORELAB\sorts.dat**
2. From the Stimulus Protocol Workbench, select “Compile Data For Hardware and Run” when ready.
3. Connect to the server from the Sort Saver. Track the Rasters and PSTHs from the WorkBench tab of OpenProject. Under the Controller tab of OpenProject, hit the ! (exclamation point) button (Toggle Mode).
4. Load and save the state when prompted, then close the prompt dialog box.

**ABR (5434)**

1. Before beginning, check that devices are turned on and connected.
   1. RZ6, RZ2, HB7, and Medusa Preamp
2. Open BioSig
   1. Open the Config file or create a new one.
   2. Under Setup > Acquision, set the Device Select Type to be RZ2, and choose an RCO file as appropriate.
      1. Take it one step further and open RPvdsEx to double check that the .rdx file corresponding to the RCO file is properly configured to run on the RZ2
   3. Under Setup > Stimulus, set the SigGen file as appropriate (see step 3).
3. If necessary, create or modify the SigGen file as follows:
   1. Open SigGen
   2. Create or modify the signal.
   3. Under Modify > RP Devices > Device-A, set the Device Type to be the RZ6, and choose an RCO file as appropriate.
   4. Save the file.
   5. In BioSig, update the SigGen File under Setup > Stimulus.
4. In Biosig, press Start
   1. Be sure the stimulus appears as expected in the first row center plot (you may need to toggle to the Stimulus graph by pressing S on your keyboard).
5. Press Begin
   1. Toggle different graphs by holding the right mouse button (or using keyboard shortcuts).
   2. End the trial using Stop.

**ABR (5431)**

**Booth 1 (Left)**

1. Before beginning, check that devices are turned on and connected.
   1. RZ5, RX8, HB7, PZ5 (check battery)
   2. You are advised to unplug the preamp (PZ5) while recording data.
2. Set up the PZ5
   1. Set Amp type to SU, 16 CH, 25kHz
3. Open BioSig
   1. Open the Config file C:\TDT\PZ5Test or create a new one.
   2. Under Setup > Acquision, set the Device Select Type to be the RZ5, and choose the RCO file C:\TDT\SigGenRP\BioSigRP\bsRCO\Record50kx1\_RZ5PwPZ5.rco.
      1. Take it one step further and open RPvdsEx to double check that the .rdx file corresponding to the RCO file is properly configured to run on the RZ5
   3. Under Setup > Stimulus, set the SigGen file as appropriate (see step 4).
4. If necessary, create or modify the SigGen file as follows:
   1. Open SigGen
   2. Create or modify the signal.
   3. Under Modify > RP Devices > Device-A, set the Device Type to be RX8, and choose the RCO file C:\TDT\SigGenRP\sgRCO\SwpPlay100Kx1\_RX8.rco.
   4. Save the file.
   5. In BioSig, update the SigGen File under Setup > Stimulus.
5. In Biosig, press Start
   1. Be sure the stimulus appears as expected in the first row center plot (you may need to toggle to the Stimulus graph by pressing S on your keyboard).
6. Press Begin
   1. Toggle different graphs by holding the right mouse button (or using keyboard shortcuts).
   2. End the trial using Stop.

**Booth 2 (Right)**

1. Before beginning, check that devices are turned on and connected.
   1. RA16, RP2.1, Medusa Preamp
2. Open BioSig
   1. Open the Config file or create a new one.
   2. Under Setup > Acquision, set the Device Select Type to be the RA16, and choose an RCO file as appropriate.
   3. Under Setup > Stimulus, set the SigGen file as appropriate (see step 3).
3. If necessary, create or modify the SigGen file as follows:
   1. Open SigGen.
   2. Create or modify the signal.
   3. Under Modify > RP Devices > Device-A, set the Device Type to be RP2, and choose an RCO file as appropriate.
   4. Save the file.
   5. In BioSig, update the SigGen File under Setup > Stimulus.
4. In Biosig, press Start
   1. Be sure the stimulus appears as expected in the first row center plot (you may need to toggle to the Stimulus graph by pressing S on your keyboard).
5. Press Begin
   1. Toggle different graphs by holding the right mouse button (or using keyboard shortcuts).
   2. End the trial using Stop.

**Temperature Control Monitor**

**5431 R Booth**

**C:\Users\shore\_lab\Desktop\TDTs ANIMALS**