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Psychological Assessment using the TSD115

The ability to collect and display psychological responses via a self reporting mechanism can be implemented using the TSD115 Variable Assessment Transducer with the MP100 System. The MP100 System with *AcqKnowledge* provides considerable flexibility when performing these kinds of measurements.

The following procedure illustrates how to perform a four channel Psychological Assessment Test using the MP100 System.

Equipment:

- One MP100 System
- One HLT100A module
- Four TSD115 Variable Assessment Transducers

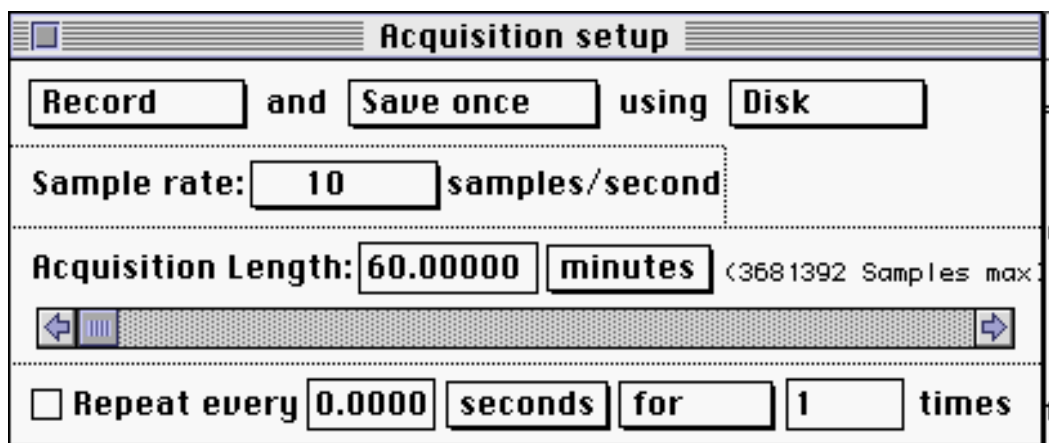
Hardware Setup:

1. Snap the HLT100A module onto the left side of the UIM100A module.
2. Connect the Analog and Digital cables from the MP100 to the HLT100A.
 - Normally these cables connect directly to the UIM100A, but since the HLT100A snaps onto the left of the UIM100A, the cables need to be connected to the HLT100A.
3. Plug the four TSD115 Variable Assessment transducers to channels 1 through 4 on the HLT100A.
 - Any four channels could be used, but this application note assumes channels 1 through 4 are the ones chosen.
4. Make sure the MP100 hardware is powered ON and connected properly to the computer.

Software Setup

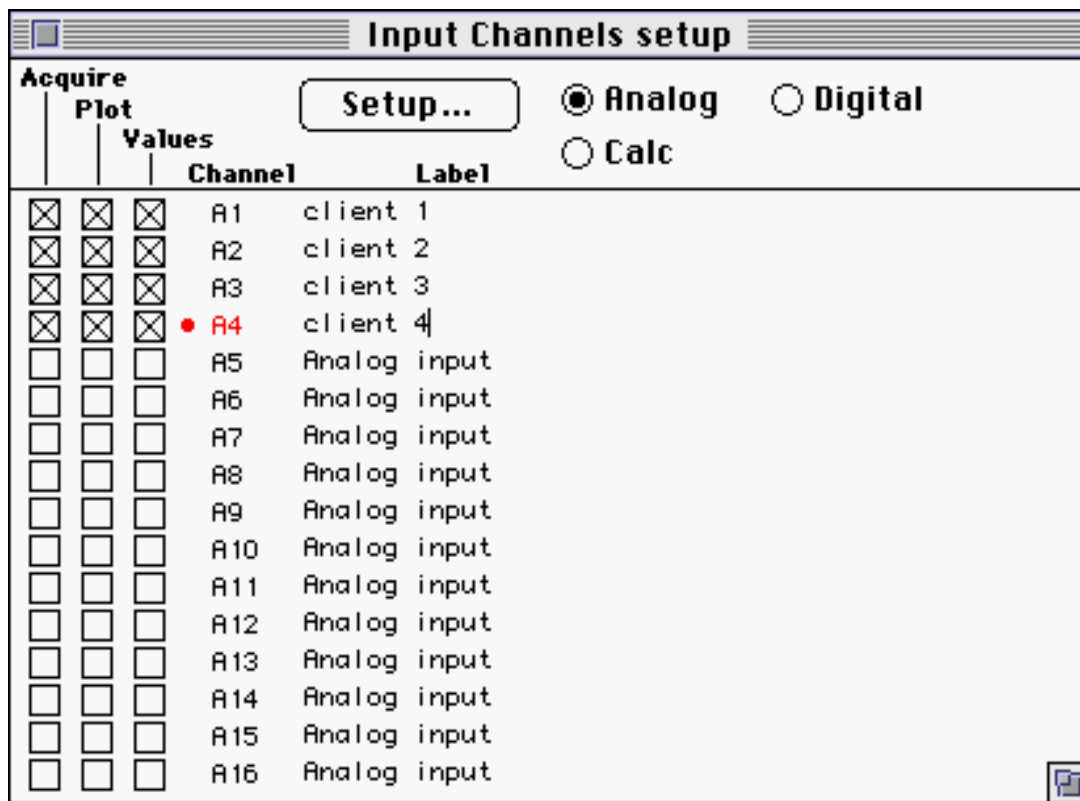
1. Launch the *AcqKnowledge* software.
 - Macintosh users: Under the File menu, select New Graph, and see that a screen pops up with the green status light ON, in the lower right hand corner.
2. Select Acquisition Setup from the MP100 menu.
3. Choose the sampling rate and select the desired recording period.
 - Generally, a sampling rate of 10Hz is more than adequate to record from the TSD115.

The following dialog illustrates a possible setup.



Acquisition Setup Dialog

4. Select Input Channel Setup from the MP100 menu.
5. Click the row of boxes on all the selected channels. In this case, each client has been assigned a separate channel.

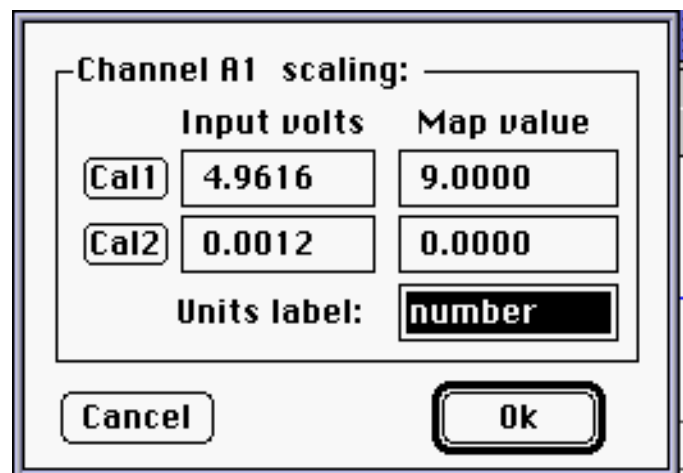


Input Channels Setup Dialog

Calibration

To calibrate each TSD115 Assessment Transducer on the scale of 0 to 9:

1. Click on the right side of the row of boxes to direct the red calibration select dot to the appropriate channel; start with channel one.
2. Click on the Setup... button in the Input Channels setup dialog to generate the Scaling setup dialog ("Map value" is "Scale value" on PC/Windows).

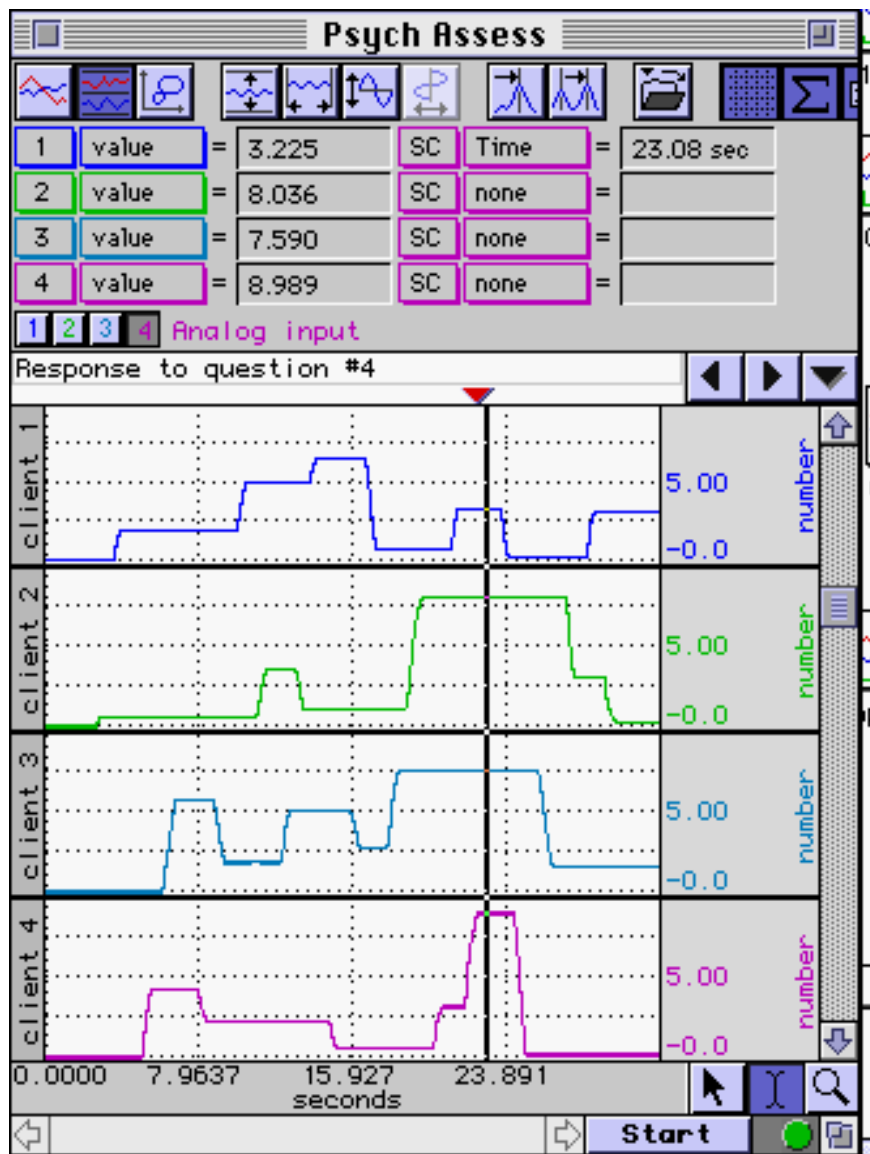


Scaling Dialog Window Setup

3. To calibrate the TSD115, slide the horizontal indicator all the way to the right side of the TSD115. This action causes the TSD115 to report its highest output, a value close to +5.0 volts.
4. To assign this value to "9," click on the Cal1 button. Pressing the Cal1 button will direct the system to collect the exact value output by the TSD115 when it's set to any specific indicator position.
5. Now slide the horizontal indicator all the way to the left on the TSD115. This action causes the TSD115 to report its lowest output, a value close to 0.0 volts.
6. To assign this value to "0," click on the Cal2 button.
7. Calibrate the remaining channels (2 through 4) by directing the red calibration dot to the appropriate channel and repeating the above procedure.

Recording

Begin recording data by pressing the **Start** button in the Graph window. You should see the collected data scrolling across the screen as shown below. Use the *AcqKnowledge* **markers** feature to identify the points in time that certain events take place during recording (questions asked, slides shown, responses given, etc.). Click the **Stop** button when done.



Collected Data

Analysis

The graph above shows a measurement which identifies the responses (on a scale from 0 to 9) of the four clients to a particular question. To identify the response for each client:

1. Set a measurement box for "Time." (Since all channels share the horizontal time scale, you can use "SC" for selected channel rather than choosing a particular channel.)
2. Set a measurement box for each channel to "Value."

In this case, at 23.08 seconds into the recording, the responses to question four were:

Client 1 3.225

Client 2 8.036

Client 3 7.590

Client 4 8.989

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