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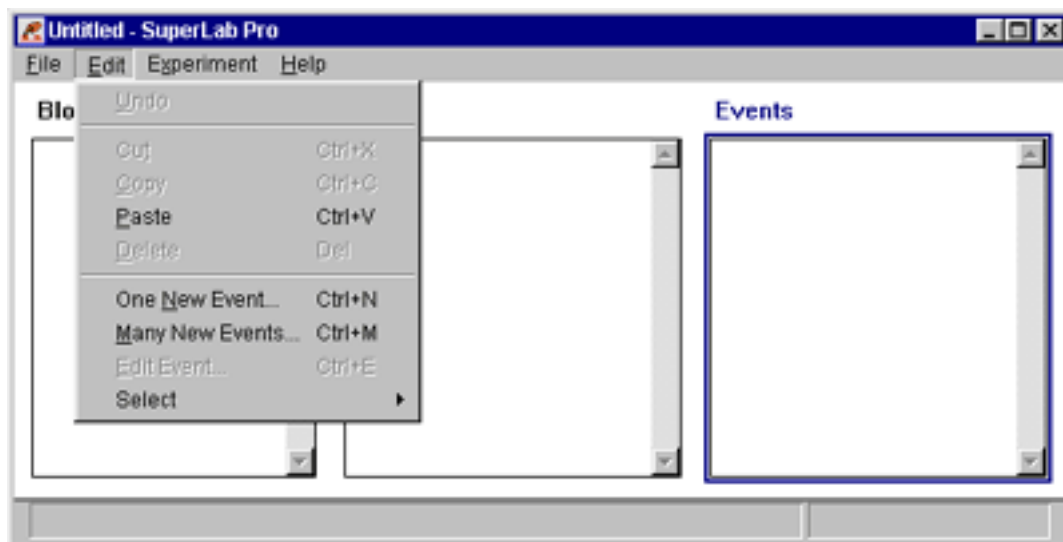
#AS201 - Using "SuperLab" with AcqKnowledge

This application note describes how to configure SuperLab to use it with *AcqKnowledge*. The SuperLab interface card will be used to generate digital I/O and *AcqKnowledge* will be used to record physiological responses from the subject and record the timing of stimulus presentation. The interface card is provided with the STP100W; an interface card is also available for Macintosh computers.

In this application note setup, each trial will present a sound, a digital pulse and an image. These three events will be presented simultaneously (with a tone being played while the image is displayed).

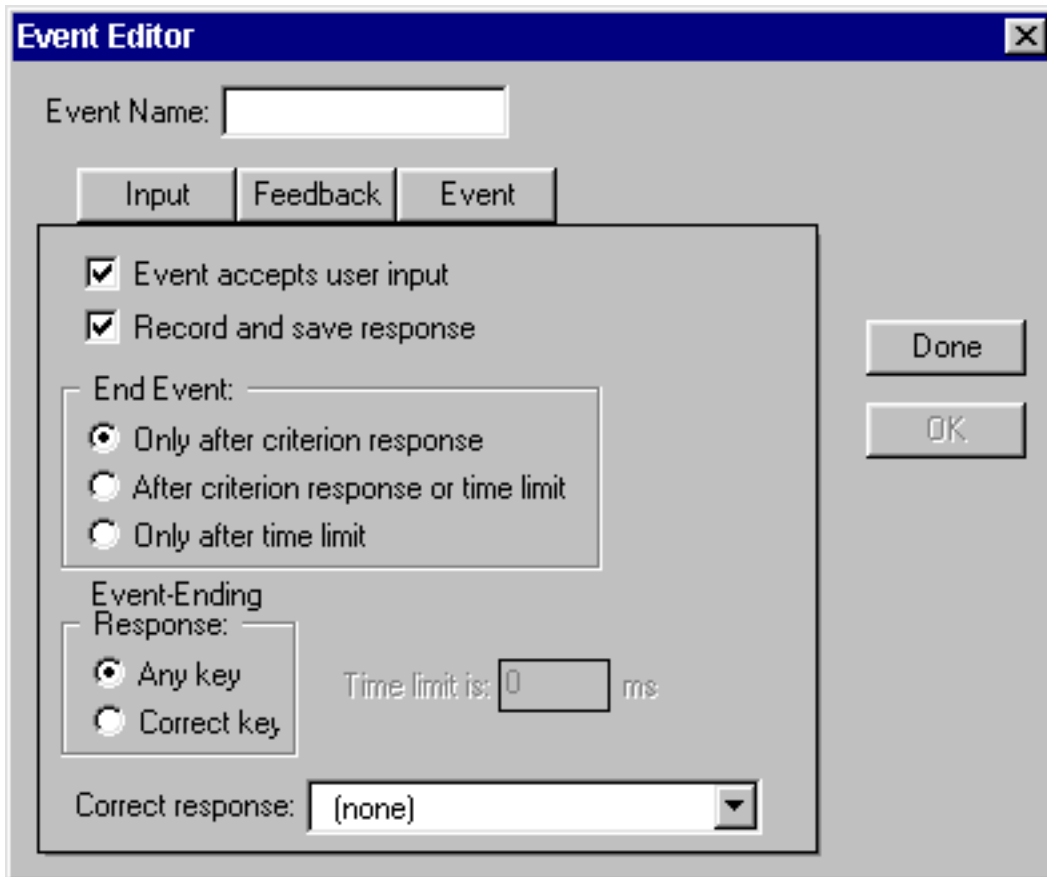
- Sound files will be in .WAV format and can be generated with programs such as [Cool Edit 2000](#) or [Sound Forge](#).
- Images need to be in BMP (Bitmap) format.
- The "example.xpt" file uses [c:\windows\media\ding.wav](#) and [c:\program files\SuperLab Pro\Experiments\Letter Rotation\Rr60.bmp](#), which should be present on all computers running windows 95 or higher with SuperLab Pro installed.

1. Set Up SuperLab for an Experiment



- Launch SuperLab.
- Position the cursor in (click in) the Events window.
- Go to the Edit menu and select "Many New Events" (CTRL+M)

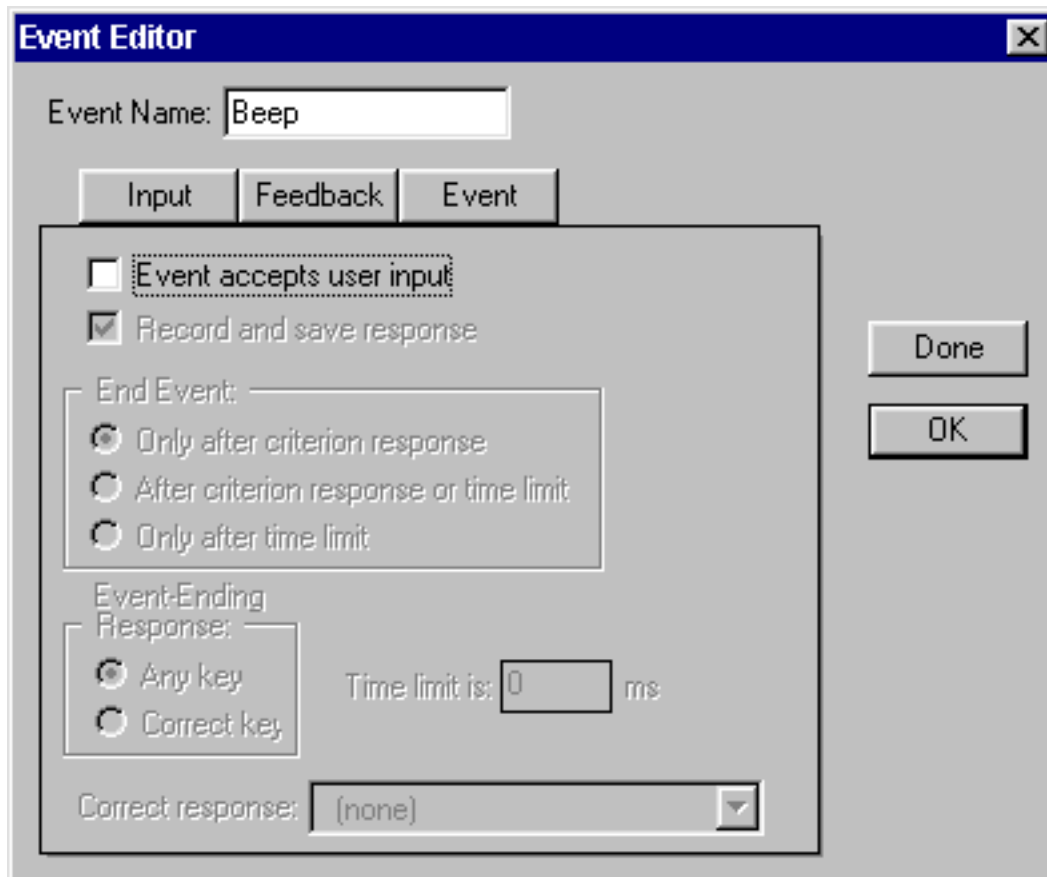
- The default settings can be seen in the picture below.



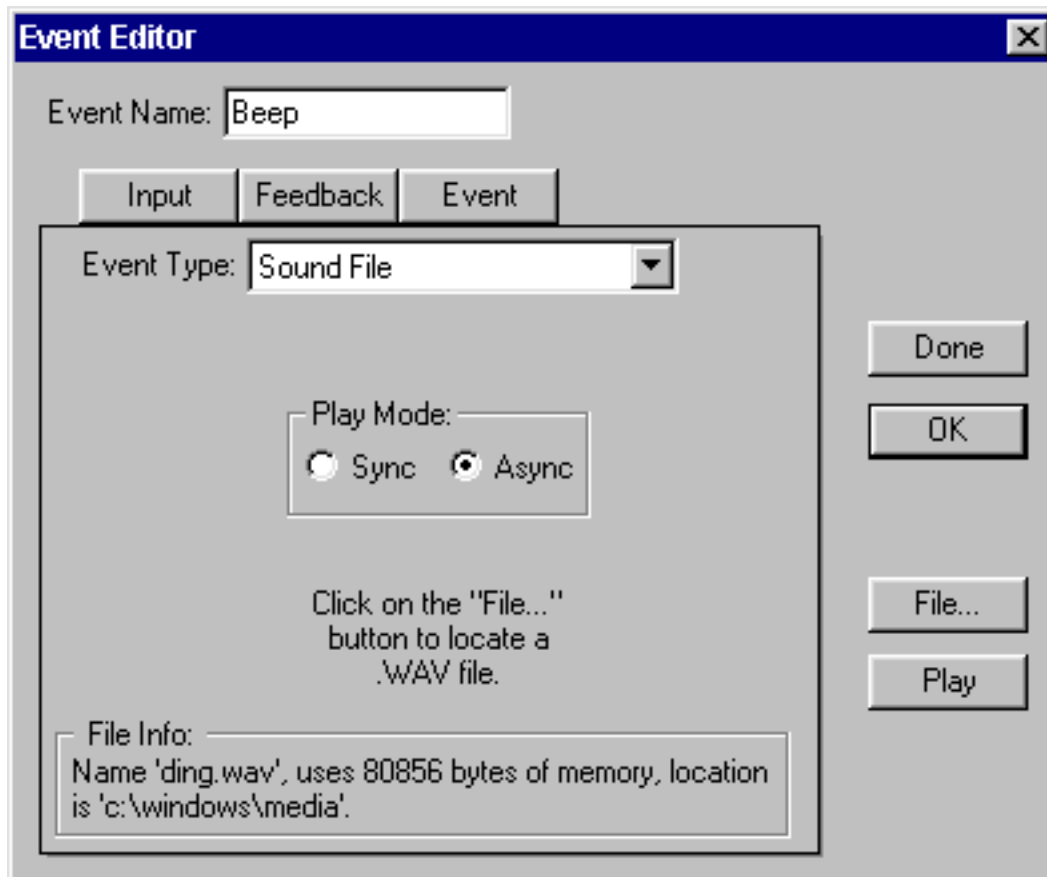
2. Define a Sound Event

Start by adding a sound file that will play while the image is being displayed.

- a. Enter a descriptive name for the sound event in the "Event Name" box.
- b. Deselect "Event accepts user input" to turn off the options of the Input tab as shown in the picture below.



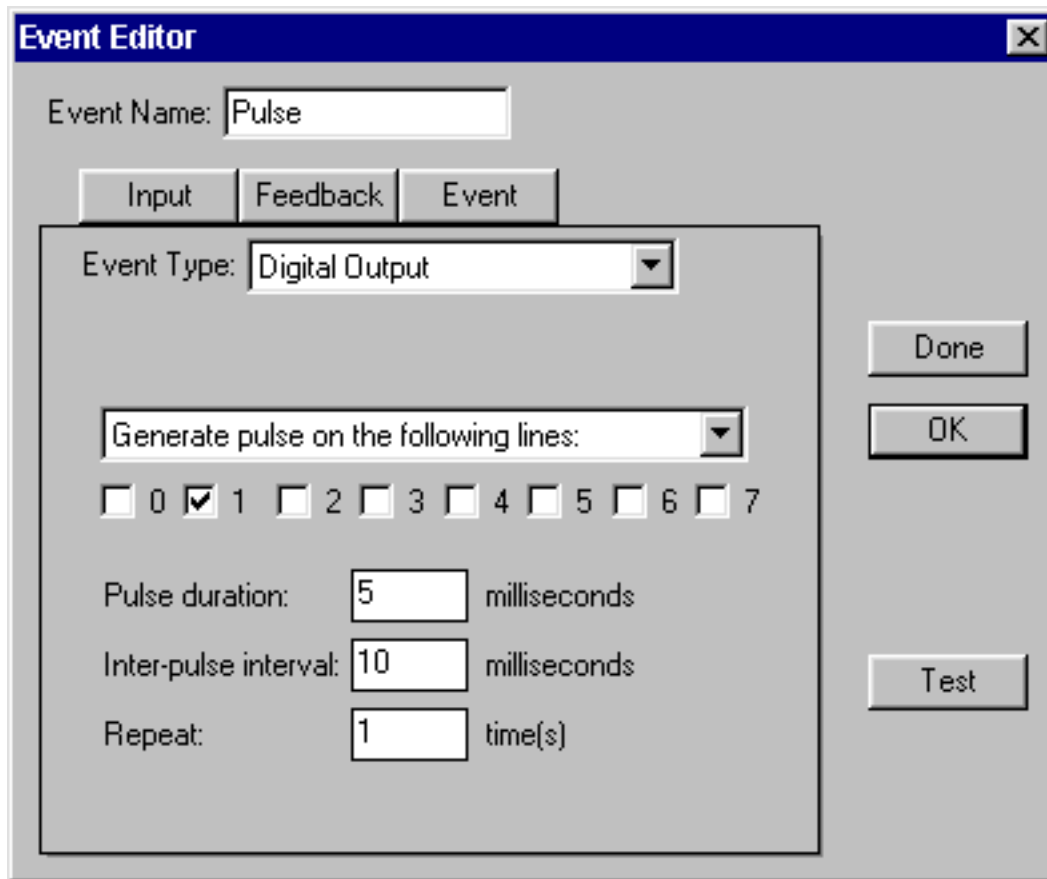
- c. Click on the Event tab.
- d. Click on the "**File...**" button.
- e. Select the desired sound file.
- f. Set the window as in the picture below.
 - Events will include sounds, images, digital I/O pulses and inter-stimulus intervals.
- g. Click on OK.



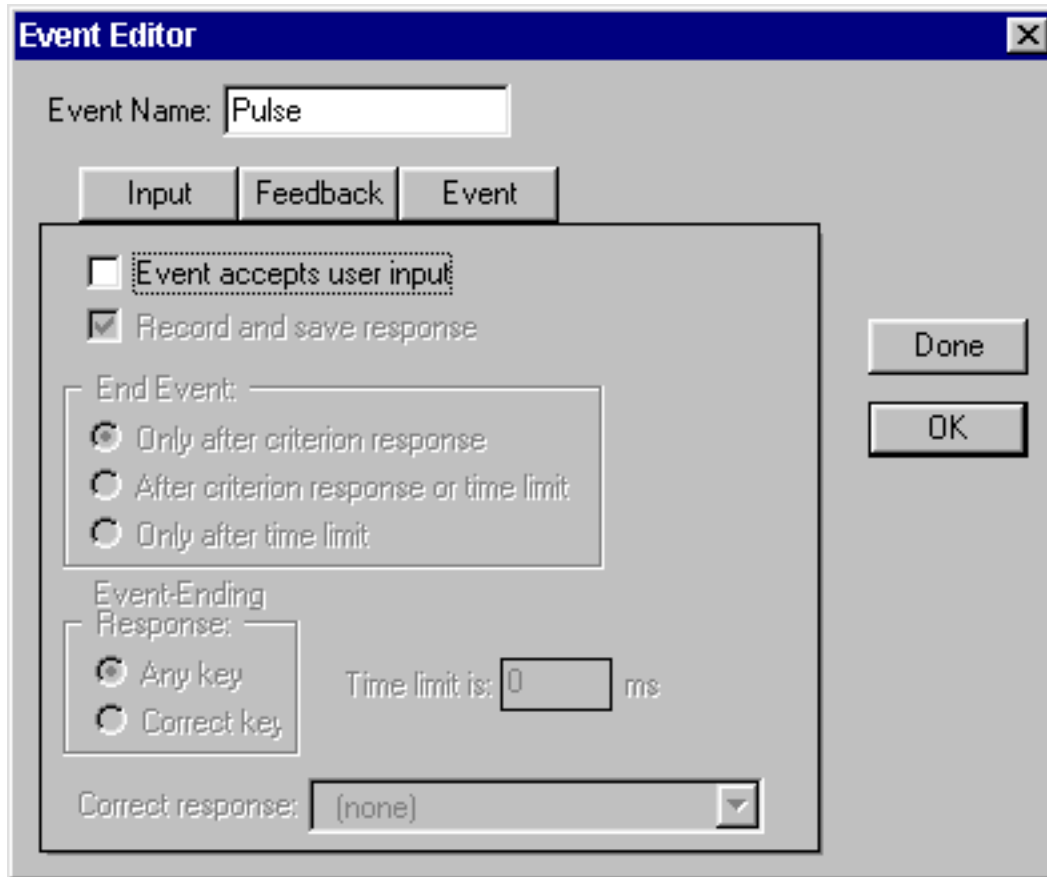
- When you click on OK the "Event Name" field will be reset (blank) so you can define the next event and the event name you just defined should be listed under "Events" in the SuperLab window.

3. Define a Pulse Event

- a. Enter a new event name (e.g. "Pulse").
- b. Select "Digital Output" as the Event Type.
- c. Select "Generate pulse on the following lines:" from the pull down menu.



- d. Click in the boxes to select lines and define the pulse.
- e. Click on Input and set the window as in the picture below.
(This pulse will indicate the timing of the image presentation.)

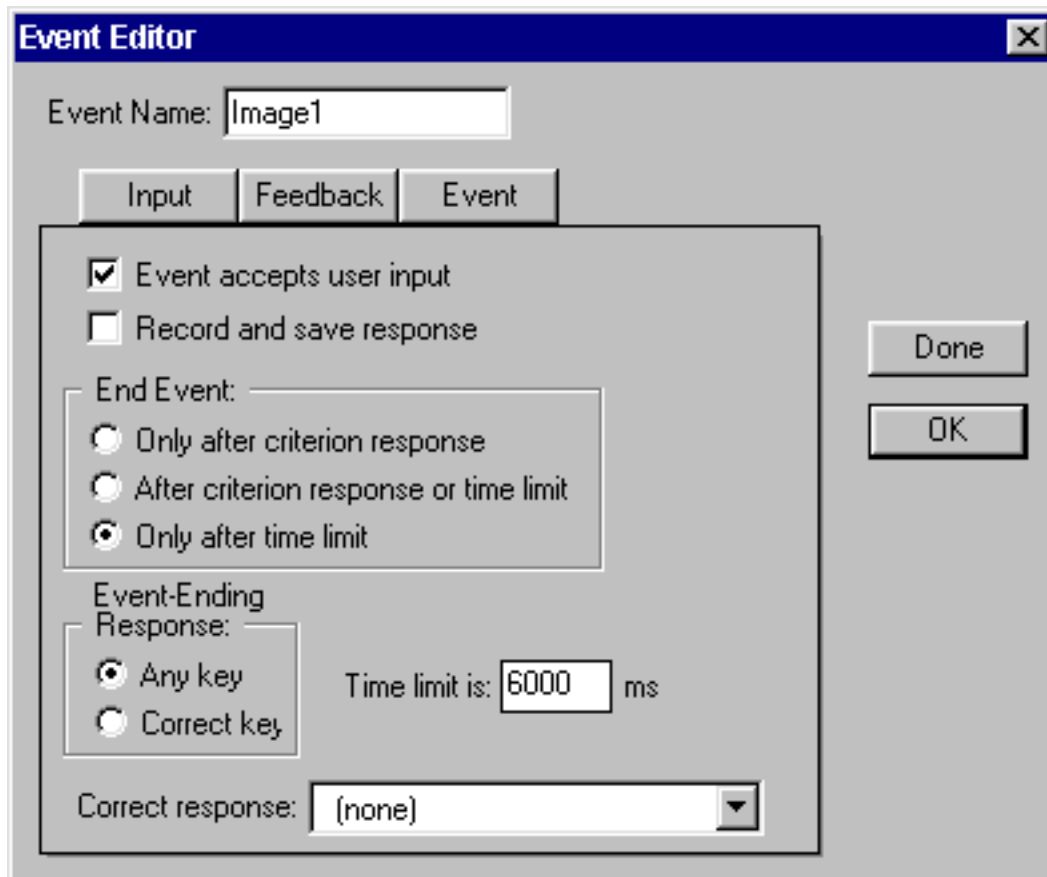


- e. Click on OK.
- f.

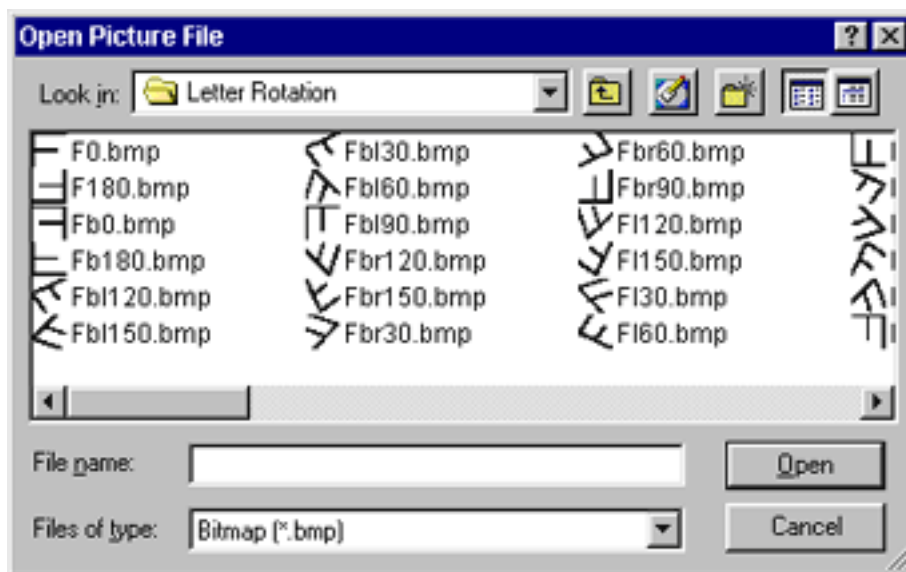
4. Define an Image Event

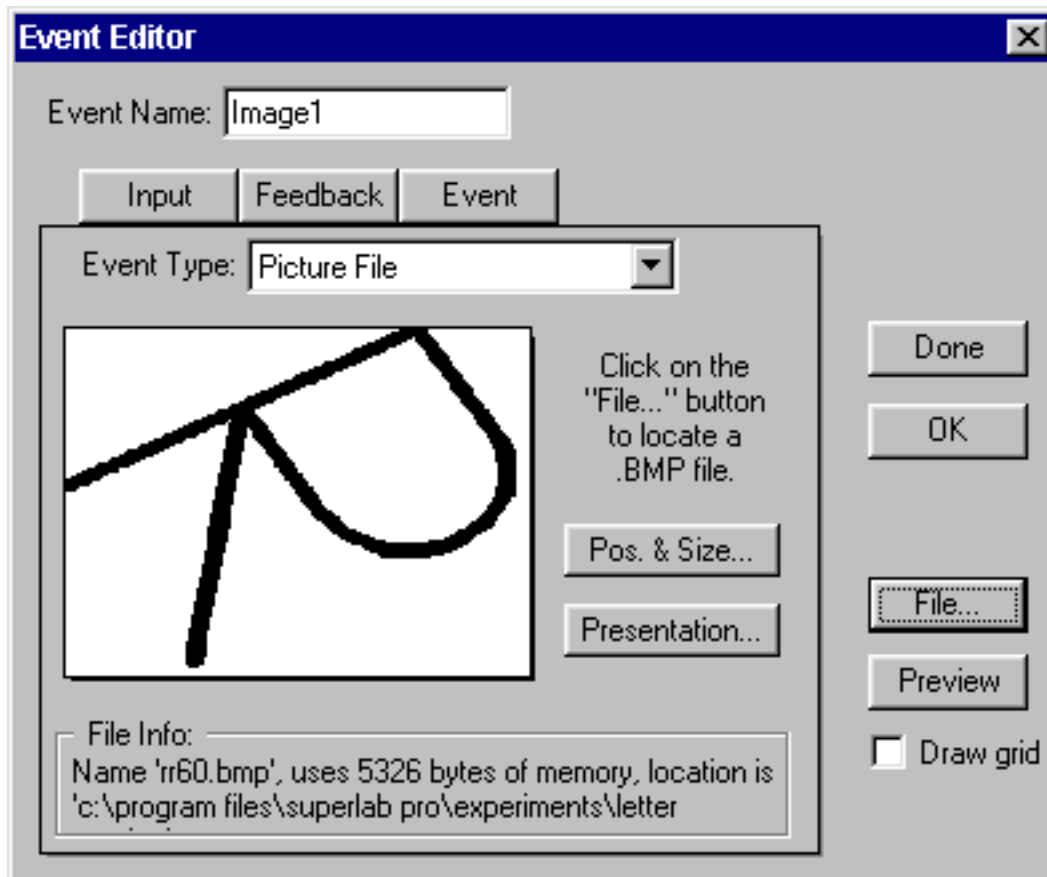
The next event will be the presentation of an image that we will name Image1. This image will be displayed for 6000 milliseconds (6 seconds).

- a. Enter a new name for the next event.
- b. Click on Input and set the window as in the picture below.



- c. Click on Event.
- d. Select the image you want to display by setting the event type as "Picture file" and then clicking on "File..." and selecting the file.



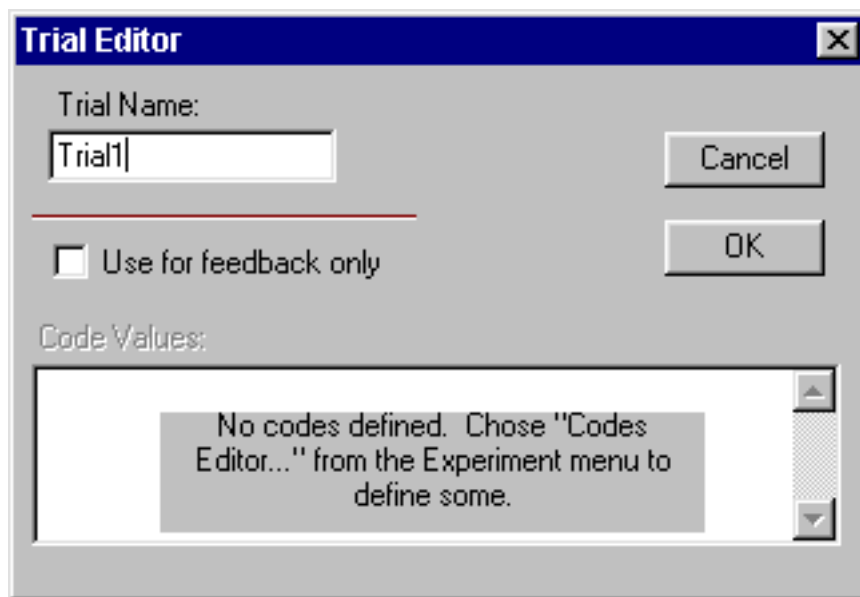


- e. Click on "OK."
- f. Click on "Done" to finish defining events.

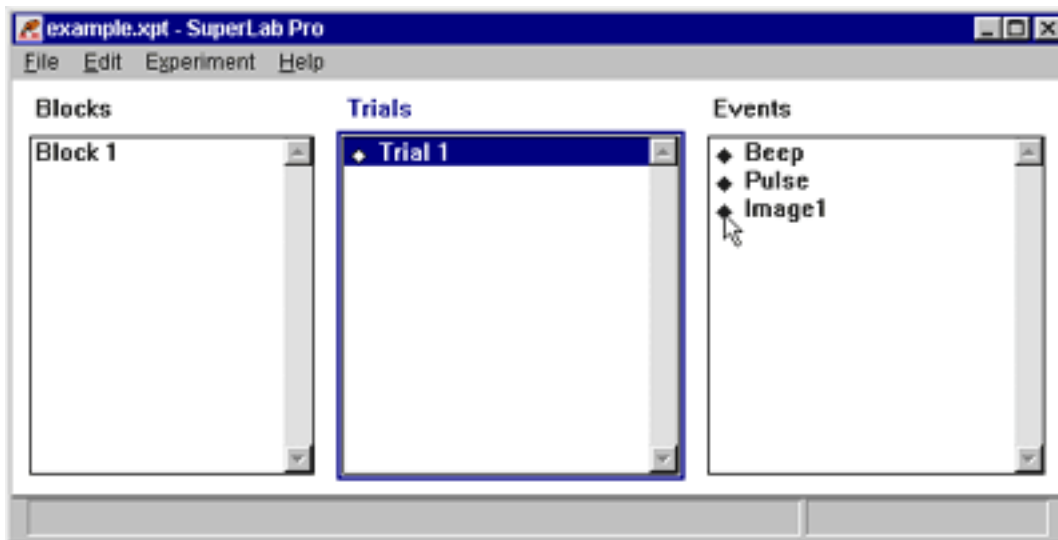
5. Create a trial

Once you have defined your event(s), you need to create at least one trial.

- a. Select the Trials window (click in it).
- b. Go to Edit and select "One New Trial."
The following window should appear.



- c. Name the trial (e.g. "Trial1").
- d. To include the Events in the trial, click on the trial you just created in the Trials window and click in the diamond on the left of the events you want to include in the trial.



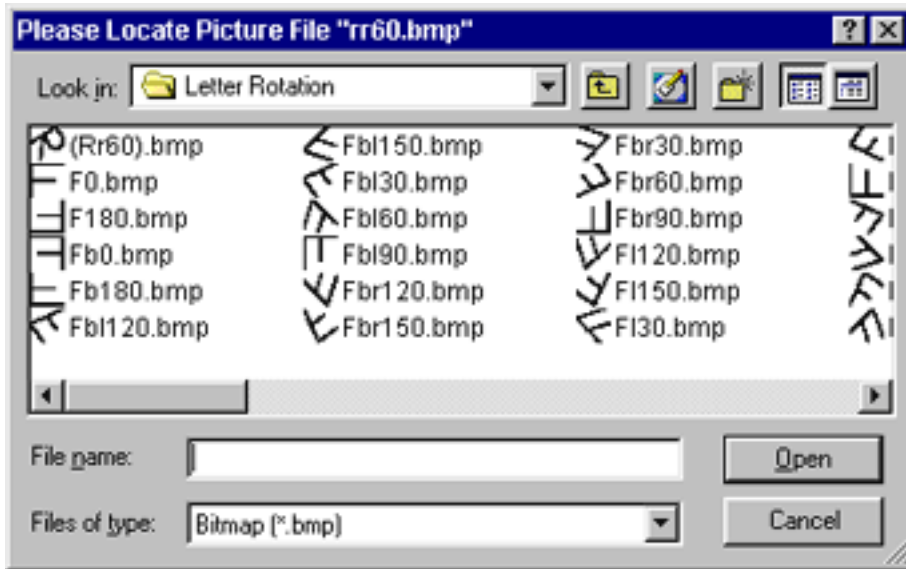
- e. Create one new block (click in the "Blocks" window, then go to "Edit" --> "One New Block").
- f. Include Trial1 in your block (Select Block 1 and then click on the diamond to the left of Trial 1).

6. Test your presentation.

- a. Go to the Experiment menu, and select "Run."

Important Note:

- If you change the location of files specified in your experiment, it **will not** run until you update their locations within SuperLab.



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