

# Manual for Using ProcoderDV to Implement the Exercise

## **PURPOSE**

This exercise is designed to introduce the user to the ProcoderDV software and to aid the user in implementing four coding methods (real-time timed event, stop-and-go timed event, momentary time sampling, and partial time sampling) to code the first two minutes of a provided observation session.

## **NEEDED MATERIALS FOR EXERCISE**

The user will need (a) a computer with windows operating system; (b) a demo version of ProcoderDV (the software that aids coding on the website accompanying the text; (c) a smile.mpg file (a media file that has been compressed and formatted into mpeg2 format); and (d) this manual.

## **GENERAL ORIENTATION TO PROCODER (READ TO GET AN OVERVIEW OF THE PROCESS)**

In general, using ProcoderDV to code a session involves the user doing the following:

- 1 A tape of the observation session must be recorded and converted into a media file that is either a wmv or mpg2 file format. Put the media file on your hard drive. Digital videos will run better if saved to the hard drive of the computer as opposed to being run directly from the CD drive.
- 2 Install and boot ProcoderDV (if not already on hard drive).

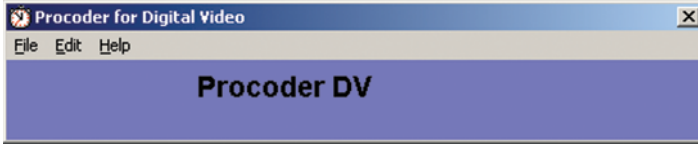
- 3 Create a code file (.cod). A code file informs ProcoderDV about what symbols you will be using to represent your codes and how your codes will be grouped into mutually exclusive sets of codes. Put the code file on the hard drive of your computer in a directory where the other files are located for coding. Doing so will increase the efficiency of ProcoderDV in locating files.
- 4 Set the options for the behavior sampling method you will use.
- 5 Link the observation file (the file with the coded data), media file (e.g., .mpeg or .wmv), and code file.
- 6 Type in the headings for the session (e.g., date, id of participant, id of coder, etc) in the “file info” page of the observation file.
- 7 Code the session. The observation file contains the times and codes for the events you marked.

## OVERVIEW OF EXERCISE

For this exercise, the user is asked to note the ranking of the four coding methods on (a) the time it took and (b) the emotional stress the user felt (or fatigue it caused) to code the session. The user is asked to record these immediately after completing all four codings so as not to forget the relative standing of coding methods regarding these dimensions.

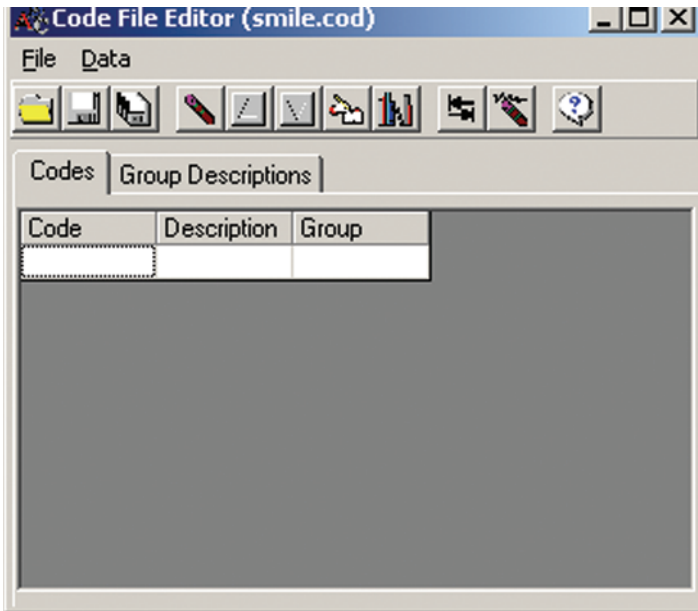
## USING PROCODER FOR THE EXERCISE

- 1 For this exercise, the user has been provided with a media file named “smile.mpg” on the web site accompanying this text. We recommend putting this file in a directory on your hard drive that is named for this exercise (e.g., exercise).
- 2 If it has not already been done, the user should install the ProcoderDV program from the file on the CD onto the hard drive.
- 3 Boot the ProcoderDV program. For many computers, this means going to the start menu by pressing the Start button in the lower left corner of Windows computers, select All Programs, select Digital Procoder, select Digital Procoder with the stop watch icon. Others have an icon that can be double-clicked to open it. If you just installed the program, it may already be open. Once loaded, a window should appear that looks like the following:



4 Create a code file.

- (a) In the Procoder window choose File-new code file.
- (b) Save the code file in the directory that contains the smile.mpg media file (e.g., /desktop/SE 3018 files); type “smile” as the filename and Save. The program will put “cod” as an extension automatically.

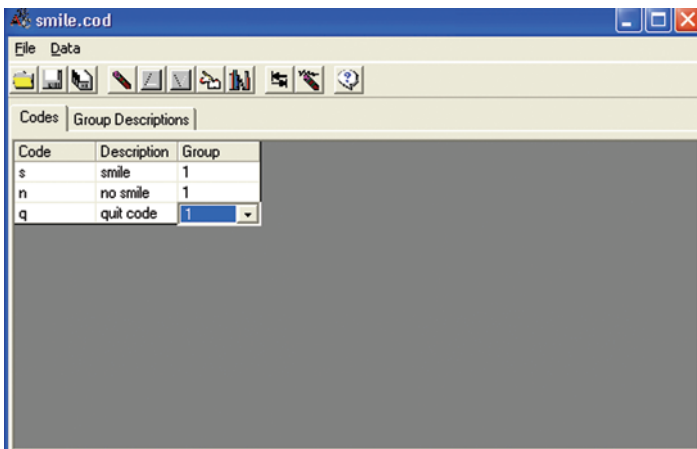


- (c) In general, the code window will look like a  $1 \times 3$  table with code, description, and group as the column headings. Under “code,” enter the first letter of the first code. Under description, write the full name of the first code. Under group, enter a number that identifies a group of mutually exclusive codes. There can be more than one group of codes in any code file. The number of groups necessary depends on the organization of your coding manual. Specifically the number of non-overlapping groups of codes defines a “group.” One can think

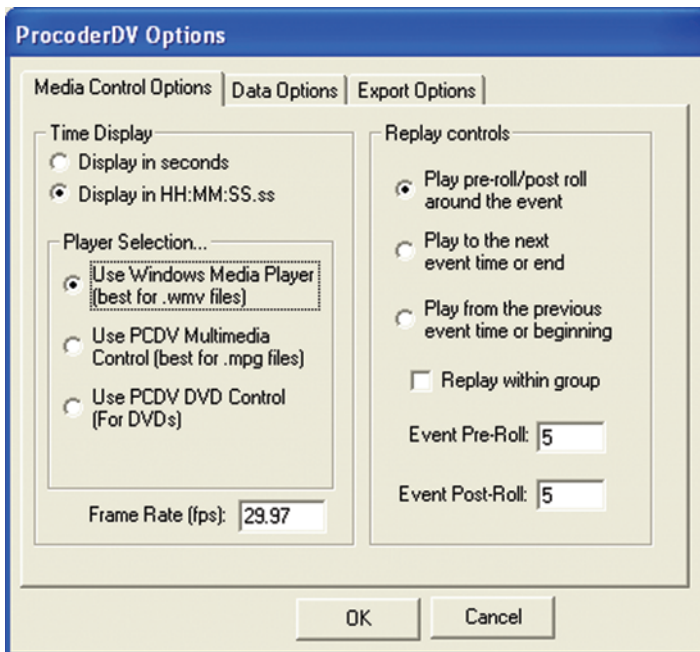
of a Group as a superordinate category heading under which there are several subordinate distinctions (e.g., you might have a group for form of communication that you call group 1, another group for the function of communication that you call group 2). Alternatively, different groups can represent different people (e.g., parent codes may be group 1 and child codes might be group 2). To enter another code, select Data and Add Row. Repeat Add Row for the number of codes you plan to use. After entering all codes make sure the proper group is indicated and save. Then close the code file. *If the code file is not closed, the code will not link to the observation or media files.* Optionally, one can enter longer group description labels by selecting the Group Descriptions tab and entering them.

For the exercise:

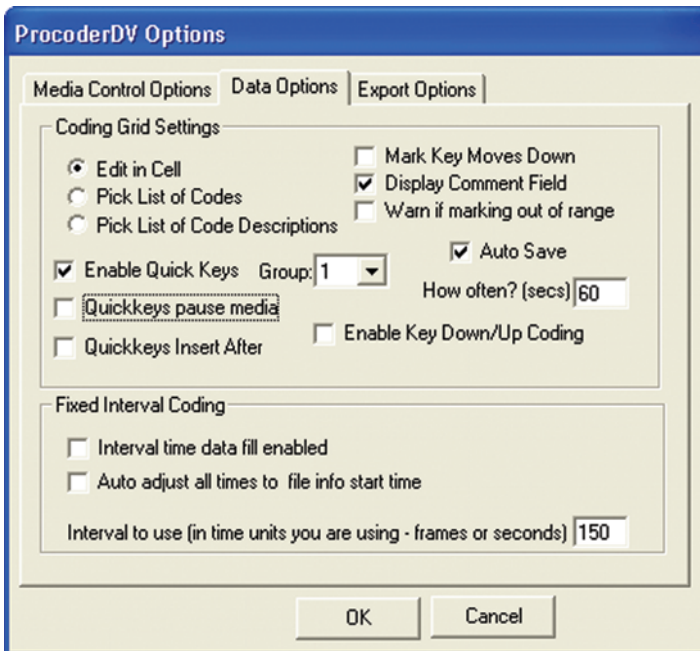
- In the first row, put “s” under code, “smile” under description, and “1” under group.
- Select Data, Add Row to add another row.
- In the second row, put “n” under code, “no smile” under description, and “1” under group.
- Select Data, Add Row to add another row.
- In the third row, put “q” under code, “quit coding” under description and “1” under group. After entering the last group number, left-click somewhere else in the code file window. Then save.



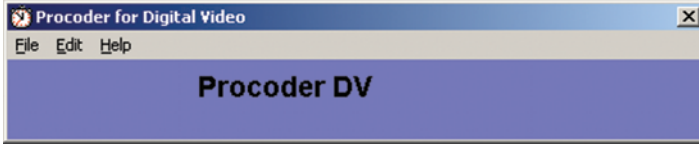
- Select File, Save. For the exercise, it is important that you set up the smile.cod file exactly as indicated above. Be sure to Exit the code file after saving by selecting File and Exit.
  - One code file is often sufficient for all subjects and time periods and all behavior sampling methods. But a new one is needed for different coding systems.
- 5 Set up the options for stop-and-go timed event sampling.
- (a) On the procoder menu bar, select Edit, Options, select Media Control Options tab. Under Player Selection, make sure the Windows Media Player is selected. This would be changed to PCDV if the media file is mpg format. Under Replay Controls, select Play Pre-roll/Postroll Around the Event, select how many seconds are to be played before (event preroll) and after (event postroll) the event when the event is replayed. Pre- and postroll time is a matter of personal preference. For the exercise use 5 seconds. If you have a version of procoder with Frame Rate it should read 29.97.



- (b) Select Data Options tab, select among the various ways one can input the code. Many people like using quick keys (i.e., the first key of a code in the indicated group) if the coding is to be exhaustive (i.e., the onset of one code acts of the offset cue to the computer for the preceding code). For this exercise, make sure Edit in Cell is selected, and Enable Quick Keys is selected. Because we only have 1 group designated in the code file, indicate “1”. Press OK.



- (c) The options box will close.
- 6 Opening and naming an observation (or data) file.
- (a) In general, a new data file is needed for each session and each new behavior sampling method. If the same sampling method is used for each pass, the same observation data file can be used for multiple passes on the same session. In the menu bar of the Procoder window, select File-New, Observation Data File. Note that another type of observation file is a transcription file, which enables transcription of utterances as well as coding of the utterances. For this exercise, we are not using the transcription file.



- (b) A window asking for the user to save the name of the observation data file will appear. For the exercise, use the file naming conventions that indicate the behavior sampling method, the behavior observed, and the coder's initials (the program will automatically put a “.pdv” extension on the filename) and put the file in the directory for this exercise (along with the existing cod and mpg files). Begin with `timed-event-real-time-smile-initials` (replace “initials” with your initials, e.g., `timed-event-real-time-smile-py`). Then save.

The data file window looks like this:

- 7 Internal labeling of the observation file and linking the code and media files to the observation file.

Note that the observational data file has a File Info tab and a Data tab. The file info tab is used to record information about the session being coded and to browse for (i.e., find the directory and filenames for) the code file and the media file. The latter “links” these files together. The data tab is used to record the times and codes for the behaviors observed from the session.

On the file info page, under the media file window, press Browse to find the video file, navigate to where your video file is stored, in the new window, select the filename “smile.mgp” and press Open.

The screenshot shows the 'timed-event-realtime-smile-py.pdv' application window. The 'File Info' tab is selected, displaying various fields for session information. The 'Media File' field is highlighted, showing the path 'C:\Documents and Settings\yoderp\My Documents\Observational methods'. Below this, there are buttons for 'Browse...' and 'Use Current'. The 'Code File' field is also visible with its own 'Browse...' and 'Use Current' buttons. At the bottom, there are 'Seek Start' and 'Seek End' buttons, and a note 'Click here to calc length'.

File Info	
Start Frame:	
Subject Identifier:	ID goes here
Session Date:	self explanatory
Session Time:	measurement period
Location:	useful if multiple sites
Session Code:	initials of procedure
Observer/Coder:	self explanatory
Notes:	optional
Media File: C:\Documents and Settings\yoderp\My Documents\Observational methods	
<input type="checkbox"/> Source is DVD Player	<input type="button" value="Browse..."/> <input type="button" value="Use Current"/>
Code File:	
<input type="button" value="Browse..."/> <input type="button" value="Use Current"/>	
<input type="button" value="Seek Start"/>	<input type="button" value="Seek End"/>
Click here to calc length	

On the file info page, under the code file window, press Browse to find the code file and navigate to where your code file is stored. In the new window, select the filename “smile.cod” and press Open.

Save the observation file by pressing Save on the file info file page toolbar or by selecting File, Save.



timed-event-realtime-smile-py.pdv

File Media Control Data

Save Export Media Replay Seek Delete Insert Mark Add Row

File Info Data

Start Frame:

Subject Identifier: ID goes here Ctrl+Click to Mark

Session Date: self explanatory Start Time: not needed

Session Time: measurement period End Time: not needed

Location: useful if multiple sites Date Started: optional

Session Code: initials of procedure Date Completed: optional

Observer/Coder: self explanatory

Notes: optional

Media File: C:\Documents and Settings\yoderpi\My Documents\Observational methods

☐ Source is DVD Player Browse... Use Current

Code File: C:\Documents and Settings\yoderpi\My Documents\Observational methods

Browse... Use Current

Seek Start Seek End

Click here to calc length

It is important to save and close the data file after linking because the media and code files are not linked until the data file is saved and closed. Once the media and code file are linked to the data file they will open automatically when the data file is opened.

Reopen the observation file. In the Procoder window select File-Open. Open a data file to open the file you just created.

Select the data tab. A window like the following opens:

timed-event-realtime-smile-py.pdv

File Media Control Data

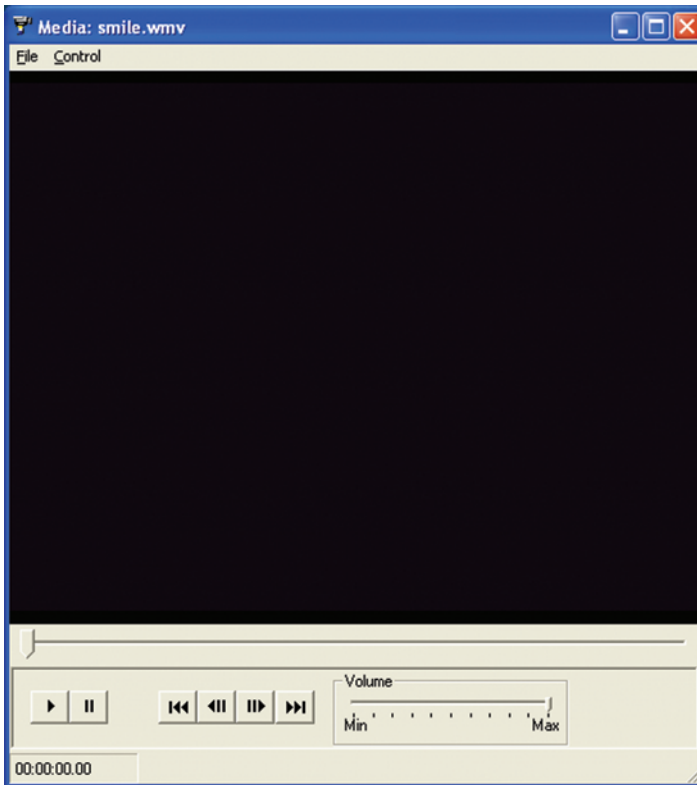
Save Export Media Replay Seek Delete Insert Mark Add Row

File Info Data

Time	Group 1	Comments

If the window does not look like this picture, go to the data menu option (not data tab) and select “adjust data grid for current codes and settings.” This will set the data recording sheet to match the code file you linked to the data file and to use the options you set for the sampling method. Now the data recording sheet can be customized to accommodate your recording method using the data button in the data file menu bar. If you want to see your code set you can select the Data menu option and select Show Code File. But with such a simple code as is used in the exercise you don’t need this.

Before coding you should see something like the following media file on your screen.

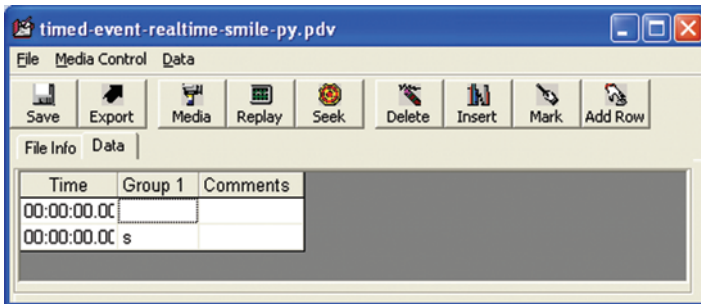


If you don’t, select the media BUTTON (not media control menu) on the data page of the observation window in ProcoderDV.

If the size of the display does not fill the media window, then, on the media window, select Control, Size, Fit to Window (not Stretch to Window).

If you are using a single monitor you'll want to resize your observation window and media window so that they take up about equal amounts of the horizontal dimensions of the window. When resizing the media file, make sure you use the corner and not the sides to resize the window. Otherwise, you will distort the image. Expand the cells for the time by putting the cursor on the margins of the cell and holding the left mouse button down while you stretch the margin of the cells (like you might in Excel).

- 8 Use real-time timed event sampling to code two minutes of the session. Read all instructions for real-time coding (a–f) before implementing.
  - (a) To mark the beginning of a session, on the data page of the observation window, put the cursor in the Time cell of the first row, and press “ctrl-e.”
  - (b) To indicate what is occurring at the onset of the media file, single left-click in the “s” “group 1” cell of the first row (a dotted lined box should occur around the cell after you click it), and press the letter for what is occurring (i.e., s). The screen will look like this:



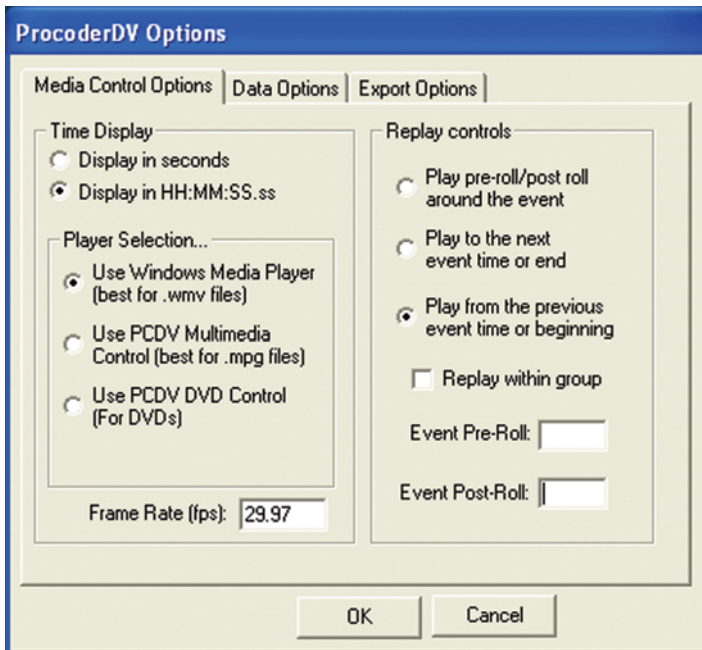
- (c) To begin viewing the media file, left-click the cell for group 1 cell of the row you just coded (second column, second row). Press ctrl-d and immediately position your index fingers over the “s” (left) and “n” (right) keys.
  - (d) When you see the participant stop smiling, press “n” for non-smile. When you next see the participant smile, press “s,” etc. Keep doing this until you have coded two minutes. It is

important to keep the cursor in the code cell so that when you press a code key, the program will add a row with the proper time and input the code in the correct cell.

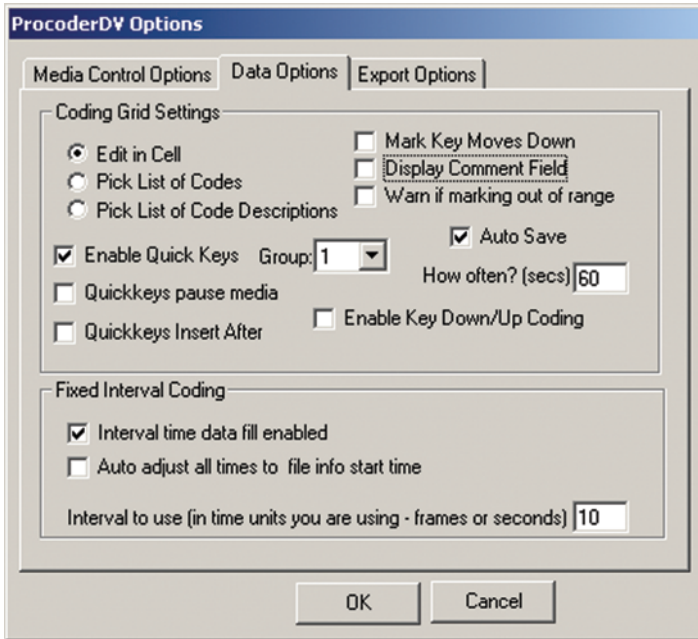
- (e) When you realize you've gotten to two minutes, press "q." If you coded past two minutes, change the time for the row in which you coded "n" closest to two minutes to exactly the following: "00:02:00.00" and change the "n" to "q." Press "ctrl-f" to stop the video. Or place the cursor on the last correctly coded event in the "group" cell, when the clock gets to two minutes, press "q" to end the session. Delete the rows you coded after 2 minutes by highlighting the rows (hold shift, and cursor arrow over cells), select Data in drop down menu on Procoder data window, select Delete Selected Rows.
  - (f) Save the file by pressing the Save button.
- 9** Code the observation session that has been recorded on the media file using a stop-and-go timed event behavior sampling method. You can use the same options or preferences for stop-and-go timed event sampling as you did for real-time timed even sampling. To ensure the time is marked for each event, make sure you use the keyboard on your computer (not media controls or media file) to play, stop, and replay the recorded session. When actually coding, one can record the code in the "codes" cell in many ways. This manual is set up to guide recording the coding by typing the first initial of the code in the "group 1" cell.
- (a) On the data file menu bar, select Data, and Adjust Data Grid for Current Code Set.
  - (b) Position the cursor over the Time cell (first row, first column) and press ctrl-x to indicate the beginning of the session and create another row for the next event.
  - (c) Use ctrl-d to begin playing and ctrl-x to stop, mark, and add a line.
  - (d) To replay around the five seconds at which you have marked a time, place the cursor and left-click the mouse on the time cell for the event and press the seek and replay buttons located at the top of the menu for the data page. Do so as often as you need to make a coding decision.
  - (e) In the code cell under "group 1," use the method you selected in the Procoder menu bar data option (e.g., select from drop down menu, edit in cell, select from list using mouse, etc.) to enter the code for what you see. In the exercise, we led you

to set up the Procoder program to accept the first initial of the code being typed into the “group 1” cell. The first smile event begins at the beginning of the session. So type “s” in the “group 1” column.

- (f) Position the cursor and left-click in the cell for “group 1” and press ctrl-d and let the media play until another event occurs and press ctrl-x. In the case of the exercise, the next event is a nonsmile. The ctrl-x will stop the media and create another line. If you do not want to code an event, just leave the cell under “group 1” blank and continue playing by pressing ctrl-d. If you want to code a nonsmile as having begun at the marked time, double click in the proper cell under “group 1” and type “n.” You can tidy up the marked events without any codes by selecting those rows and deleting them by selecting the “data” drop down menu and selecting “delete selected row.” Continue until you have coded two minutes of the session.
- 10 Set up the ProcoderDv program for time sampling.
- (a) On Procoder bar, select Edit, Options, Media Control Options tab, select Play from Previous Event Time or Beginning.



- (b) Select Data Options tab, check Edit in Cell, click in circle for Interval Frame Data Fill Enabled, enter the interval duration in time units you selected (usually seconds). For the exercise, we are using 10-second intervals. Click on OK.



- (c) Save the settings you just created by selecting OK.
- 11 Creating a data file for partial interval time sampling.
- (a) In the menu bar of the Procoder window, select File-New, observation data file (or transcript file if you are transcribing events as well as coding them).
- (b) For the exercise, use the filename timesampling-partial-smile-initials (the program will automatically put a ".pdv" extension on the filename) and put the file in the directory for this exercise (along with the existing code and mpg files). Save the file. Close the file and reopen it.
- (c) Enter the file information and link the code and media files as indicated above.
- (d) Adjust the media file window and the ProcoderDV data page as indicated above.

- 12 Coding using partial interval coding.
  - (a) In data file, (not media window), put the cursor in the time cell and press the ctrl-x keys to mark the beginning of the session. Select, "Data" from menu bar, select Add Rows, enter the number of rows you need to code for the duration of the session (e.g., if you have a 2-minute session and 10-second intervals, you have 12 intervals ( $2 \times 60 = 120$ ;  $120/10 = 12$ ). This should result in 12 rows being inserted with times for every 10 seconds. You can confirm this by stretching the "time" column.
  - (b) Place the cursor in the cell for the second interval (time is 00:10) and double-click. Use the replay button on the data page of the observation window or ctrl-A keys on the keyboard to "replay" this interval. Enter the symbol for the code you observed during this interval using the rules of the type of interval coding you are doing (i.e., momentary or partial). For this part of the exercise you are using partial interval coding. Therefore, anytime a smile occurs during the interval, regardless of its duration, enter "s" into the cell for the "group 1." Move the cursor to the third interval and repeat. Repeat this process for all rows.
  - (c) After coding the last interval, move your cursor to another cell to make sure the last one is "entered." Save the file using the Save button on the data page of the observation window.
- 13 The same setup can be used for momentary interval coding as was used for partial interval coding.
- 14 Code the 2 minutes of the smile session using momentary interval coding.
  - (a) Use the same method as indicated for partial interval coding, only this time, only code the behavior at the end of the interval. Note that this can be most easily done by double-clicking on the cell for the code on the row with the time that ends the preceding interval. Then use the Seek button to show the still shot of the participant at the boundary. Then move to the next interval and use Seek to show the still shot of the participant at the end of the next interval.
- 15 Compute the number and duration of "s" by hand and calculator or use MOOSES.

