



# TASK ADMINISTRATION

## Setting Up the Room

It is important that the subject be able to see the screen clearly during the task. Make sure that the back of the computer monitor is slightly elevated to reduce glare from any overhead lights. If necessary, lights should be dimmed or a glare screen should be placed over the computer screen.

## Starting the CALCAP Program

*From Windows 95/98:* Select Start  Programs  CalCAP and then click on the CalCAP icon.

*From DOS:* Switch to the \CALCAP subdirectory on your hard disk, then type 'CALCAP'. For example, if CALCAP is installed on Drive C you would type:

```
C :  
CD \CALCAP  
CALCAP
```

*For Win 95/98 or DOS:* From this point on the procedures are the same regardless of whether you started from Win 95/98 or from DOS. You will see a listing of all versions of the CALCAP program that are installed on your computer.

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### DOS Commands

<u>Language</u>	<u>Standard</u>	<u>Abbrev</u>	<u>Mini</u>
English	RT	ART	MINI
Danish	DRT	DART	DMINI
Flemish	FLRT		
French	FRRT		
Norwegian	NORT	NOART	NMINI
Spanish	SRT	SART	SMINI

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Type the appropriate 'DOS Command' for the program you want to use, then press [Enter]. The program checks to make sure it has exclusive use of

the computer, then performs several brief initialization routines lasting approximately 30 seconds.

These procedures compute the speed of your computer's microprocessor so that timing can be accurately controlled for the reaction time stimulus materials. A warning will be displayed if the program detects a multi-tasking environment such as Microsoft® Windows®.

## Entering Identification Numbers and Demographic Information

The first data entry screen prompts you for an identification number for the subject (see Figure on next page). To ensure accurate data entry, you will be asked to enter the subject number twice. Subject numbers can be composed of the letters A-Z and numbers 0-9, but cannot be longer than 5 characters.

One of the best methods for creating unique subject numbers is to use the patient's initials plus the day of the month. For example, the code for Eric N. Miller tested on November 21st would be 'ENM21'. This method will usually create unique numbers. If data have been entered during the past month using this same ID number the CALCAP program will warn you that the ID number already exists. If this happens, you should select a different ID number (perhaps by using a different day of the month).

After entering the subject number you will be prompted to enter a variety of demographic and medical information. All of this information is optional, although age and years of education are used to select appropriate normative data for evaluating the subject's responses. These data are recorded on diskette and are included in the final report of the subject's results.

Once you have entered the subject number and all necessary demographic information, press the [Esc] key to display a brief set of instructions for the subject.

**Figure 1.** Demographic Information Data Entry Screen

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CALIFORNIA COMPUTERIZED ASSESSMENT PACKAGE (CalCAP)

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ID #_____ Visit #____ Age:
Sex (M/F):
Race:      ° 1=Asian
           2=Black
           3=Hispanic
           4=American Indian
           5=White (not Hispanic)
           6=Other

Years of Education (06-20):
Normal or Corrected vision (N/C)?
Hand usually used for writing (R/L):
Any Allergies (Y/N)?
Occupation:

Med Rec #/Name:
Diagnoses:
Misc Notes:
```

### Instructions to the Subject

Seat the subject at the computer and instruct him to position himself so that he can comfortably see the screen and press the space bar on the keyboard. *The subject should be instructed to use the space bar for all responses.* Unpredictable results may be obtained if the subject presses any function key, any key on the numeric keypad, the Escape key or any of the following keys: Tab, Alt, Shift, Ctrl, Num Lock, Scroll Lock, Caps Lock.

The CALCAP program displays a brief set of instructions at the beginning of the reaction time task and at the beginning of each individual reaction time measure.

For the most part, the CALCAP program is self-paced and self-explanatory. The best way to familiarize yourself with the program is to complete the tasks yourself. The tasks are designed to be progressively more difficult.

### Instructions for Subjects Who are Unable to Complete the Practice Trials

Occasionally, a task will be too difficult for the subject to complete the practice trials. For simple reaction time measures, the program will detect this problem and display a message to the subject saying that he should contact the examiner. At this point, the only way to continue with the computerized tasks is to press the [Esc] key. The program will then re-start the practice trial.

For choice reaction time measures, the program allows the subject up to 3 practice trials and then proceeds to the actual task, even when the subject fails all 3 practice trials. For all tasks, the computer suggests that the subject contact the examiner if he has any questions about the instructions.

If the subject has any questions during the testing, use the following procedures:

1. If the subject finds the instructions unclear, tell him to try the practice trial and see if he understands after completing the practice. You should monitor the subject's responses on the first task to make sure that he is pressing the space bar as soon as he sees

something on the screen. Also, for the standard version of the reaction time task you should make sure that the subject is using the correct hand for the first 3 tasks. The sequence for the standard version of the reaction time task is: dominant hand (first task — practice and full task), nondominant hand (second task), dominant hand (all remaining tasks).

2. If the subject still finds the instructions unclear following the practice trial, explain the nature of the task as clearly as you can.

3. If the subject is still unable to understand the task following three practice trials, the CALCAP program will automatically move on to the full task. If necessary you can skip the task by pressing the [Esc] key followed by the [Tab] key when the computer says "Press the space bar twice to continue".

### **Feedback During the CALCAP Task**

If feedback has been selected (as in the standard version of the CALCAP program), the computer will give the subject feedback on his performance relative to other subjects of the same age and education. It is not possible to change the feedback setting while the CALCAP program is in progress.

Feedback can be permanently enabled or disabled if necessary. See 'Special Configurations for the CALCAP Program' elsewhere in this document.

### **Controlling the Music**

In the standard version of the CALCAP program the computer plays a brief tune at the end of each of the Choice Reaction Time measures.

You can turn off the music in the middle of the CALCAP program by pressing '0' (zero) twice when the program asks for the subject to 'Press the space bar twice to continue'. Use the '0' key at the top of the keyboard rather than on the numeric keypad. Music can be turned on by pressing '1' (one) instead of '0' (zero).

The default setting for music can be permanently enabled or disabled. See 'Special Configurations for the CALCAP Program' elsewhere in this document.

### **Skipping Specific Tasks**

If you need to skip one specific task, you can do so by pressing the [Esc] key, then pressing the [Tab] key.

Note: If the computer is waiting for you to 'Press the space bar twice to continue' this procedure will work quickly. If you attempt to skip a task that has already started, however, you will need to wait for a beep after pressing the [Esc] key. Within simple reaction time tasks it may take several seconds for the system to respond after you press [Esc]. Within choice reaction time tasks you may need to press the [Esc] key more than once before the computer will respond.

### **Aborting the CALCAP Program**

If you need to abort the CALCAP program for any reason, you can do so by pressing the [Esc] key and then pressing the [Backspace] key.

Note: If the computer is waiting for you to 'Press the space bar twice to continue' this procedure will work quickly. If you attempt to abort the CALCAP program from within a reaction time task, however, you will need to wait for a beep after pressing the [Esc] key. Within simple reaction time tasks it may take several seconds for the system to respond after you press [Esc]. Within choice reaction time tasks you may need to press the [Esc] key more than once before the computer will respond.

In a real emergency, you can exit from the program by pressing Ctrl-Alt-Del, or by turning the computer off. These methods have the potential for causing damage to the procedures for recording data and should be used only when the system refuses to respond to any keyboard input.

## **End of the CALCAP Program**

At the end of the CALCAP program the keyboard appears to "freeze" so that the subject will not accidentally view the summary of exam results.

## **Viewing Exam Results**

Following completion of the computerized tasks, a summary of the test results is immediately available. After the subject leaves the room, press the [Esc] key to move to the next screen. On slower computers it may take from 20 to 40 seconds after pressing [Esc] before the exam summary appears on the screen.

The CalCAP program provides several pages of test results: (1) a Summary of all abnormal test results; (2) a Graphical representation of Mean Reaction Times and True Positive responses; (3) Mean and Median Reaction Times; (4) Difference Scores for deviation from baseline simple and choice reaction time tests; (5) True Positive and False Positive scores; and (6) the A' population estimate of the Signal Detection parameter d'.

You can move from one screen to the next by pressing the space bar. Most of these results include z-scores and percentile ranks based on age and education level. In addition to the information presented on the screen, additional recommendations for interpretation of exam results are printed if you request a hard copy of the results.

## **Printing the Results**

If you want a hard copy of the results displayed on the screen, turn on your printer, then press the letter 'P' to send a copy of the results to the printer.

If you do not have a printer attached to your computer, you can create an image of the printed output that can be read by a word processor by pressing the letter 'D'. This command creates two disk files called REVIEW.TXT (suitable for any generic word processor) and REVIEW.PRN (suitable for word processors that can read the PC-8 ASCII character set, such as WordPerfect). (Note that a disk image of

the printed output also is created whenever you send information to the printer by pressing 'P'.)

If you connect your computer to a printer at some later time, you can print the most recent test results. Make sure that you are at the DOS command prompt in the CALCAP subdirectory, then type the word 'PRINTIT' and press the [Enter] key. The most recent version of REVIEW.PRN will be sent to your printer.

## **Re-Starting the CALCAP Program**

You can avoid the 30-second initialization process at the beginning of the CALCAP program by re-starting the program from the Results screen. Simply press the letter 'R' to restart the program.

## **Exiting the Program**

If you want to exit from the Results screen, simply press the [Esc] key.



If you want to exit at the prompt for ID number, press Alt-X (hold down the Alt key and press X).

If you want to exit in the middle of the CALCAP program, follow the procedures for 'Aborting the CALCAP Program' described above.

All of the procedures described above will return you to the DOS command prompt. If you started the program from Windows and would like to return to Windows, type 'EXIT' then press the Enter key.

## **Reviewing Results at a Later Time**

The CalCAP program stores a copy of all data collected during the task in a file called 'subj-xx.DAT' where 'subj' is the subject number entered at the beginning of the program and 'xx' is the number of times the person has been tested.

*From Win 95/98:* Double-click on the Review Results icon in the CalCAP folder, or, from the Start Menu, select Start  Programs  CalCAP and then click on the Review Results icon. You will then need to select

the appropriate subject ID from a list of all available subject data.

If you want to review the last set of test results, you can just double-click on the icon for Most Recent Test Results.

*From the DOS prompt:* You can review exam results by typing 'Review' or 'Review subjn' at the system prompt. (Note: You must already be in the \CALCAP subdirectory before using this command.)

### **Printing Results Using the Classic (1986-1998) CalCAP Print Format**

If for some reason you decide that you want to see the 3-page printout format that was used up through mid-1998, you can toggle between the new and old formats by pressing "C" (for Classic style) while the test results are displayed on the screen.

If you decide that you prefer the old printout format, you can make the "Classic" style the default by switching to the CalCAP subdirectory and then typing 'PRINTOLD' at the DOS prompt. If you later decide that you prefer to keep the New printout style as the default, you can go back by switching to the CalCAP subdirectory and then typing 'PRINTNEW' at the DOS prompt.

### **Troubleshooting Your Printer**

The CalCAP is configured to print graphs using the standard PC character set. Some printers, such as Hewlett-Packard LaserJet models, are configured at the factory to use non-standard character sets and must be specifically configured to use the PC character set. Also, users of Windows 95 may find that the operating system resets the default character set used by their printer.

Because of these potential problems with printing the graphs, there is now a procedure for displaying the graphs using a less visually attractive ASCII character set that should be standard across all printers. If you are having difficulty printing the graphical section of the CalCAP reports, try the following procedures:

- (1) Make sure that your printer is set to use the PC-8 character set and that the default font is 10-pt Courier.
- (2) Reset your printer

If you are still having problems, you can switch between the two CalCAP printing procedures by using the FIXPRINT command included with the CalCAP program.

To use FIXPRINT, switch to the DOS prompt in your CalCAP subdirectory (usually C:\CALCAP>), type FIXPRINT, and try printing the results again using the using the REVIEW program. (The commands that you type are shown in bold face. Be sure to press [Enter] at the end of each line.):

```
C:\>          cd \calcap
C:\CALCAP>   fixprint
C:\CALCAP>   review
```

FIXPRINT toggles the default printing procedure back and forth between the PC-8 character set and the 127-character ASCII character set. If you continue to have problems, contact Eric Miller at 310/202-1832.