

test, and the last three sections contain numerical results for the entire session, including the first half of the trials in the session and the second half of the trials.

TABLE 8

COMMANDER BATTERY PERFORMANCE INDEX			
TEST	VARIABLE	CALCULATIONS	PASSING CRITERION (PASS-1, FAIL = 0)
Sleep Scale	Rating	none	Absolute score of 4 or less
	*Response Time	Mb = average of the baseline response times (3 scores) Rc = response time of current session	Rc greater than 1 sec and less than 2 times Mb
Simple RT	*Median RT	Mb = average median RT of baseline sessions Sb = average SO of mean RT of baseline sessions Mc = median RT from current session	Mc less than or equal to (Mb + Sb)
	*SO RT	Sb = average SD of mean RT of baseline sessions Sc = SD of mean RT of current session	Sc less than or equal to 1.5 times Sb
Running Memory	Bad + ITI	none	1 or less
	*Accuracy	Ab = average accuracy of baseline sessions Ac = accuracy on current session	Ac greater than or equal to 0.9 times Ab
	*Median Correct RT	Same as for Simple RT except only correct response trials are used	Mc less than or equal to (Mb + Sb)
	*SD Correct RT	Same as for Simple RT except only correct response trials are used	Sc less than or equal to 1.5 times Sb
	Lapses	none	3 or less
	Bad + ITI	none	1 or less

TABLE 9

ARES OPERATING SYSTEM DATABASES	
DATABASE	CONTENTS
ARDataDB	All test results
ARSubDB	Subject records
ARLinkDB	Battery control data
ARBatDB	Configured batteries of ARES tests
ARKeyDB	ARES access mode, start date, and stop date

[0087] Referring to Table 10, “Impulsive R’s” of the “Battery Version” row are responses within 100 ms of the stimulus onset. These responses are too quick to be processed by the human brain and thus, are not valid. These responses are not included in counts of errors and/or correct responses. “Inter trial R’s” located in the “Subject 10” row of Table 10 are key presses between stimuli when the screen is blank. The Repetition Number tracts repetition within the same battery. Random number seed is the session number for the preferred embodiment, but an optional increment may be added for other embodiments. Start time and end time are seconds since Jan. 1, 1904. Spare data variables may be used by some tests that do not fit the normal test template, e.g., sleep scale. “Thruput” in the “Spare5” row is the number of correct responses per minute of available response time, i.e., excluding inter-trial intervals.

TABLE 10

DATA RECORD FIELDS			
HOUSEKEEPING INFORMATION	ENTIRE SESSION	FIRST HALF OF TRIALS	SECOND HALF OF TRIALS
TEST NAME	RESPONSES	RESPONSES	RESPONSES
TEST VERSION	CORRECTS	CORRECTS	CORRECTS
BATTERY NAME	ERRORS	ERRORS	ERRORS
BATTERY VERSION	IMPULSIVE R’S	IMPULSIVE R’S	IMPULSIVE R’S
ARES VERSION	LAPSES	LAPSES	LAPSES
SUBJECT ID	INTER-TRIAL R’S	INTER-TRIAL R’S	INTER-TRIAL R’S
SESSION NO.	AVG COR RT	AVG COR RT	AVG COR RT
REPETITION NO.	AVG ERR RT	AVG ERR RT	AVG ERR RT
RANDOM NO. SEED	AVG ALL RT	AVG ALL RT	AVG ALL RT
START TIME	SD COR RT	SD COR RT	SD COR RT
END TIME	SD ERR RT	SD ERR RT	SD ERR RT
SPARE1	SD ALL RT	SD ALL RT	SD ALL RT
SPARE2	MEDIAN COR RT	MEDIAN COR RT	MEDIAN COR RT
SPARE3	MEDIAN ERR RT	MEDIAN ERR RT	MEDIAN ERR RT
SPARE4	MEDIAN ALL RT	MEDIAN ALL RT	MEDIAN ALL RT
SPARE5	THRUPUT	THRUPUT	THRUPUT

[0088] As shown in FIG. 4, the options menu 34 is viewed by tapping the menu icon 20 at the lower left corner of the PDA OS screen 12. The “View Data” option allows the user to display data. When the display data screen 80 is activated, as shown in FIG. 8, the last record 82 to be recorded, that is, the data from the most recent test run, is displayed first. Buttons 84 are provided to navigate between records. The display data screen 80 of a preferred embodiment does not display the partial-session data. This information is available when the data are downloaded to a host computer 116. The display data screen 80 also enables administrators to delete individual records from the database if ARES is “unlocked” by entering a password.

[0089] Continuing with the options menu 34 of FIG. 4, the “Connect to Desktop” option is selected for transferring data to the host computer 116. The “Admin Functions” option provides a password-controlled access to selected functions. Tapping the padlock icon 32 also accesses this function. The “About ARES” screen shows the ARES version number and credits for the ARES software.

[0090] The ARES Data Manager program 150 illustrated in FIG. 16 is loaded onto the host computer 116, and has several functions. The program 150 retrieves test and subject data from the PDA using the button in the action field 154. The retrieved data is stored in the ARES.MDB database, which is a Microsoft Access Database file on the host computer 116. The data manager 150 also provides access to the ARES.MDB database file to view and select data 156 for further analysis. Subject information in the ARES.MDB database may be viewed and edited. Custom test batteries may be installed on and removed from the PDA 10. The plot data in the file menu 153, provides access to a window for generating graphical plots of selected variables from the ARES.MDB archive file.

[0091] All of the data in the ARDataDB and ARSubjDB databases on the PDA 10 may be transferred to the host computer/desktop 116. The data is displayed in a window 156 at the bottom of the screen, as shown in FIG. 16. Each line in