

\$\$\$
\$ TRACK \$
\$\$\$

SHAMMAS SOFTWARE SERVICES
1533F HONEY GROVE DRIVE
RICHMOND, VIRGINIA 23229

DISCLAIMER OF ALL WARRANTY AND LIABILITY

The author of the program makes no warranties, either expressed or implied, with respect to this manual or with respect to the software described in this manual, its quality, performance, merchantability or fitness for any particular purpose. TRACK is sold "As Is". While every effort is made to make TRACK versatile, in no event will Shammass Software Services and/or the author be liable for direct, indirect, incidental or consequential damages resulting from any defect in the software.

This manual is a copyright of :

SHAMMAS SOFTWARE SERVICES
1533F Honey Grove Drive
Richmond, Virginia 23229

FORWARD

TRACK is an account tracking program that runs on the Hewlett-Packard HP41C or HP41CV hand-held computers.

SYSTEM REQUIREMENTS :

- (1) HP41C or HP41CV.
- (2) Extended function module (#82180A).
- (3) Magnetic Card Reader (#82104A).

SYSTEM ENHANCEMENTS :

- (1) The HP-IL interface loop module (#82160A) and the digital cassette drive (#82161A).
- (2) Extended memory module (#82181A).
- (3) The HP41 printer (#82143A) or the thermal printer/plotter (#82162A).
- (4) Time module (#82182A).

TRACK

TRACK is a program that deals with monetary accounts, keeping their balance updated. Its unique feature is that it does not use any data registers to store and update the information, instead it uses an ASCII file, "ACCNT", in the Extended Memory (X-MEM). This will leave the ordinary memory registers dedicated to other programs residing in the calculator.

The program will perform the following :

- (1) Create new accounts.
- (2) Update accounts.
- (3) View/print the accounts' balances.
- (4) Saving/loading the data files with an HP-IL mass storage device.

USER'S INSTRUCTIONS

Note : A "R/S*" will indicate to omit the "R/S" when a printer is used.

(1) The user should create the ASCII file "ACCNT" within which data are stored. The size of the file depends mainly on the number of accounts and each account's name (i.e. number of letters). Thus short accounts names are very recommended. A file of 50 registers may be a good place to start.

INPUT : [ALPHA] ACCNT [ALPHA]

INPUT : size of files (# of registers).

FUNCTION : XEQ CRFLDAS

(2) Load program if not in memory.

(2.1) To load from magnetic cards, insert the magnetic cards in the card reader.

(2.2) To load from cassette tape.

INPUT : [ALPHA] TRCK [ALPHA]

FUNCTION : XEQ READP

(3) To link up with the ACCNT file. This should be carried out every time you start a "session" with TRACK.

FUNCTION : XEQ TRCK

DISPLAY : ACCNT

(4) To introduce a new account.

FUNCTION : XEQ A

DISPLAY : NEW ACCOUNT?

INPUT : name of new account

FUNCTION : R/S

(5) To perform a transaction and update an account.

FUNCTION : XEQ B

DISPLAY : ACCOUNT?

INPUT : account name.

FUNCTION : R/S

DISPLAY : TRNSCT?*

INPUT : transaction.

FUNCTION : R/S

DISPLAY : BAL=\$ (balance)

NOTE 1 : If the account name does not match any account a "NOT FOUND" message will appear.

Note 2 : Should the ASCII file fill up before an entire operation (in steps 4 or 5) is terminated a "FILE FULL" message will appear and the program will delete any incomplete entry.

(6) To view/print the accounts.

(6.1) FUNCTION : XEQ C

DISPLAY : date and time if the timer module and a printer are used.

(6.2) A loop will start to show the requested information.

DISPLAY : account name

FUNCTION : R/S*

DISPLAY : \$=(balance)

FUNCTION : R/S*

(6.3) A beep will signal the end of the routine.

(7) To save the ACCNT file on a mass store medium.

FUNCTION : XEQ D

DISPLAY : FILENAME?

INPUT : filename for mass storage.

FUNCTION : R/S

(8) To load a stored file from mass storage.

FUNCTION : XEQ E

DISPLAY : FILENAME?

INPUT : filename under which ACCNT was stored.

FUNCTION : R/S

NOTE : The user can store ACCNT under different names should that

reflect different "sets" of accounts. To update an existing file on mass medium, the user has to delete (purge) that file. The following instructions are deliberately manual for protection.

INPUT : [ALPHA] filename [ALPHA]

FUNCTION : XEQ PURGE

ASCII FILE "ACCNT" CONFIGURATION

Record #	Content
00	account # 1
01	balance # 1
02	account # 2
03	balance # 2
..

Location of account name (I) = $2*(I-1)$

Location of account balance (I) = $2*I-1$

The location is the record number in file ACCNT.

EXAMPLE

Use the TRACK program to carry out the following :

- (1) Create the ACCNT file with a size of 50 registers.
- (2) Load the program from the magnetic cards and link up with the TRCK program. It is worthwhile pointing out that the example printout will not show any loading activities when the 3 sides of magnetic cards are read. Loading from a cassette tape will show on the printout.
- (3) Create three new accounts named VISA, MC1, MC2 (Use LBL A).
- (4) Using LBL B carry out the transactions shown below ,

Account	Transaction
-----	-----
MC1	\$ 100.00
VISA	\$ 350.25
MC2	\$ 200.00
VISA	\$-100.00

- (5) Print the accounts. The listing shown was carried out with the Time module present. This serves to indicate which listing is the latest if many are produced (Use LBL C).

EXAMPLE PRINTOUT

ACCNT				ACCOUNT?	XEQ B
	50.00			MC2	RUN
		CRFLAS		TRNSCT?*	
				200.00	RUN
		XEQ "TRCK"		BAL=\$ 200.00	
ACCNT					
		XEQ A			XEQ B
NEW ACCOUNT?				ACCOUNT?	
VISA		RUN		VISA	RUN
		XEQ A		TRNSCT?*	
NEW ACCOUNT?				-100.00	RUN
MC1		RUN		BAL=\$ 250.25	
		XEQ A			
NEW ACCOUNT?					XEQ C
MC2		RUN			
		XEQ B		06/08/1982 8:28:28.93 PM	
ACCOUNT?				VISA	
MC1		RUN		\$= 250.25	
TRNSCT?*					
	100.00	RUN		MC1	
BAL=\$ 100.00				\$= 100.00	
		XEQ B		MC2	
ACCOUNT?				\$= 200.00	
VISA		RUN			
TRNSCT?*					
	350.25	RUN			
BAL=\$ 350.25					

SUMMARY OF COMMANDS

LBL TRCK : Link up at start of a new session.

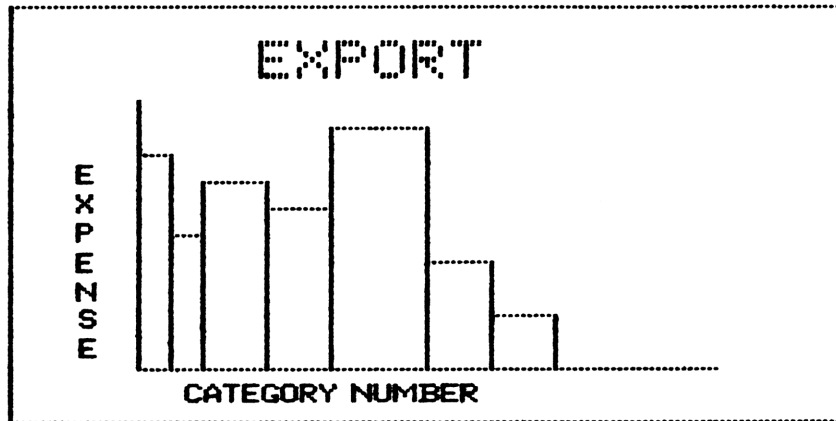
LBL A : new account

LBL B : perform a transaction.

LBL C : view/print accounts.

LBL D : save ACCNT on mass storage medium.

LBL E : load a saved file from mass storage.



SHAMMAS SOFTWARE SERVICES
1533F HONEY GROVE DRIVE
RICHMOND, VIRGINIA 23229

DISCLAIMER OF ALL WARRANTY AND LIABILITY

The author of the program makes no warranties, either expressed or implied, with respect to this manual or with respect to the software described in this manual, its quality, performance, merchantability or fitness for any particular purpose. EXPORT is sold "As Is". While every effort is made to make EXPORT versatile, in no event will Shammass Software Services and/or the author be liable for direct, indirect, incidental or consequential damages resulting from any defect in the software.

This manual is a copyright of :

SHAMMAS SOFTWARE SERVICES
1533F Honey Grove Drive
Richmond, Virginia 23229

FORWARD

EXPORT is an expense report program that runs on the Hewlett-Packard HP41C or HP41CV hand-held computers.

SYSTEM REQUIREMENTS :

- (1) HP41C or HP41CV.
- (2) Extended function module (#82180A).
- (3) Magnetic Card Reader (#82104A).

SYSTEM ENHANCEMENTS :

- (1) The HP-IL interface loop module (#82160A) and the digital cassette drive (#82161A).
- (2) Extended memory module (#82181A).
- (3) The HP41 printer (#82143A) or the thermal printer/plotter (#82162A).

EXPORT

The program saves and prints expense reports that look like:

GENERAL	EXAMPLE
-----	-----
Date 1	June 1
Item 1	Meals
Category n1	Category 1
Amount 1	30.00
Item 2	Gasoline
Category 2	Category 2
Amount 2	25.00
.....
Date 2	June 2
.....

As one can see, the program allows the user to make an expense report that contains :

- (1) Dates for transactions.
- (2) Item descriptions.
- (3) Amounts spent.

(4) Categories for item classifications.

The program has the following features :

(1) It uses an ASCII file, "EXPN", in the extended memory to save data.

(2) During the expense report "build-up" no registers in the main memory are used, leaving them dedicated to other programs. This feature makes it possible for the user to switch between EXPORT and the other program without generating a conflict between the two programs.

(3) The user has to categorize his expenses to obtain subtotals and a grand total with the expense report. The category numbers should start with the number one and increment by one. During the report printout the program WILL USE REGISTERS to calculate the subtotals.

(4) The user can view his expense report without using a printer.

(5) The user can save the "EXPN" file on an HP-IL mass storage device, under a user-chosen name. This will allow the user to :

(a) Save the contents of the EXPN file, clear the file, then add new data.

(b) When the time comes to print a report, the saved files can be recalled from mass storage and chained to make a larger report !

(6) The program will delete incomplete data entries if the EXPN file is filled up during the operation, so the expense report will contain no strange items.

Remember that even if you will use a printer and possibly a mass storage device, they do not have to be attached to the HP41C all the time. This will make it possible to carry the machine around as a light tool.

USER'S INSTRUCTIONS

Note : A "R/S*" means to skip the "R/S" if a printer is used

(1) The user should create the ASCII file EXPN in a size suitable for his use. This will depend on what the user intends to keep in the extended memory besides the EXPN file. A size of 50 may be a good place to start. If the user is using mass storage to save the EXPN, the size of the file becomes less crucial.

INPUT : [ALPHA] EXPN [ALPHA]

INPUT : file size

FUNCTION : XEQ CRFLAS

(2) Load the EXPRP program if not in memory yet.

(2.1) To load from magnetic cards, insert them in the card reader.

(2.2) To load the program from cassette.

INPUT : [ALPHA] EXPRP [ALPHA]

FUNCTION : XEQ READP

(3) To link up with the program (this is important especially if the user was just using other programs that deal with extended memory files. This will ensure that your dealings will be with the EXPN file).

FUNCTION : XEQ EXPRP

DISPLAY : EXPN file size.

(4) To input a date for the expenses.

FUNCTION : XEQ A

DISPLAY : DATE?

INPUT : enter the date in any format you wish.

FUNCTION : R/S

If this date entry fills the file an "EOF" (End Of File) message will appear.

(5) To input an itemized expense.

FUNCTION : XEQ B

DISPLAY : ITEM?

INPUT : item description (max. 24 characters).

FUNCTION : R/S

DISPLAY : CATEGORY?

INPUT : category number (must be greater than zero)

FUNCTION : R/S

DISPLAY : AMOUNT?

INPUT : amount.

FUNCTION : R/S

Should the file fill up during data entry, an "EOF" message will appear, possibly interrupting further entry.

(6) To view the expense report (without a printer).

FUNCTION : XEQ C

a loop will start showing the dates, items, categories and amounts.

DISPLAY : Date

FUNCTION : R/S

DISPLAY : item description.

FUNCTION : R/S

DISPLAY : CATG : (category number)

FUNCTION : R/S

DISPLAY : \$=(amount)

FUNCTION : R/S

At the end of the loop an "END DATA" message will appear.

(7) To print the expense report.

FUNCTION : XEQ D

DISPLAY : TOTAL CATGS?

INPUT : total number of categories.

FUNCTION : R/S

DISPLAY : report printout (see example).

(8) (Optional) To save the EXPN file on mass storage media.

FUNCTION : XEQ E

DISPLAY : FILENAME?

INPUT : filename for mass storage.

FUNCTION : R/S

(9) (Optional) To recall data saved on mass storage media.

FUNCTION : XEQ e

DISPLAY : FILENAME?

INPUT : filename under which EXPN was saved.

FUNCTION : R/S

(10) To chain files loaded from mass storage and continue printing a larger expense report.

FUNCTION : XEQ d

DISPLAY : continuation of the expense report printout.

(11) To clear the contents of the EXPN file.

FUNCTION : XEQ a

MEMORY CONFIGURATION
DURING REPORT PRINTOUT

Register #	Contents
00	data pointer.
01	categ. 1 total.
02	categ. 2 total.
..
nn	categ. nn total.

Flag 00 is used to track date entry, for possible deletion should the data following it fail to fit in the file.

EXPN FILE CONFIGURATION

Record #	Contents
00	Date 1
01	0
02	Item 1
03	Category 1
04	Amount 1
05	*****

***** either repeat the pattern of records 02-04 or 00-01, and so on.

EXAMPLE

Salesman Jerry Fair went on a two day trip. Jerry was using the EXPORT program to keep track of his expenses. He has four categories :

Category 1 : Meals.

Category 2 : Air trip.

Category 3 : Gifts.

Category 4 : Hotels.

Follow what Jerry does during the forthcoming steps.

- (1) Create the EXPN file with a size of 50 registers.
- (2) Load the program from cassette tape.
- (3) Link up with the EXPRP program.
- (4) Input the following data:

Date	Item	Category	Amount \$
-----	-----	-----	-----
June 1	meal	1	25.26
	air trip	2	455.00
	hotel	4	45.00
June 2	meal	1	30.00
	air trip	2	500.00

gifts	3	125.00
hotel	4	45.00

Use (LBL A) to input the new dates, (LBL B) to input the itemized expenses.

(5) Print the expense report.

EXAMPLE PRINTOUT

	SIZE 020		XEQ A	JUNE 1
	FIX 2	DATE?	RUN	
		JUNE 2	XEQ B	MEAL
EXPB		ITEM?	RUN	CATG : 1
	50.00	MEAL	RUN	\$= 25.26
	CRFLAS	CATEGORY?		
		AMOUNT?	1.00 RUN	AIR TRIP
EXPRP			30.00 RUN	CATG : 2
	READP		XEQ B	\$= 455.00
	XEQ "EXPRP"	ITEM?		HOTEL
EXPB		AIR TRIP	RUN	CATG : 4
		CATEGORY?		\$= 45.00
		AMOUNT?	2.00 RUN	
	XEQ A		500.00 RUN	JUNE 2
DATE?	RUN		XEQ B	
JUNE 1	XEQ B	ITEM?		MEAL
		GIFTS	RUN	CATG : 1
ITEM?	RUN	CATEGORY?		\$= 30.00
MEAL		AMOUNT?	3.00 RUN	
CATEGORY?	1.00 RUN		125.00 RUN	AIR TRIP
AMOUNT?	25.26 RUN		XEQ B	CATG : 2
	XEQ B	ITEM?		\$= 500.00
		HOTEL	RUN	
ITEM?	RUN	CATEGORY?		GIFTS
AIR TRIP		AMOUNT?	4.00 RUN	CATG : 3
CATEGORY?	2.00 RUN		45.00 RUN	\$= 125.00
AMOUNT?	455.00 RUN		XEQ D	HOTEL
	XEQ B	TOTAL CATGS?		CATG : 4
ITEM?	RUN		4.00 RUN	\$= 45.00
HOTEL				
CATEGORY?	4.00 RUN			CATG 1=\$ 55.26
AMOUNT?	45.00 RUN			CATG 2=\$ 955.00
				CATG 3=\$ 125.00
				CATG 4=\$ 90.00
				TOTAL=\$ 1,225.26

SUMMARY OF COMMANDS

- LBL EXPRP : Link-up with program.
- LBL A : Input new date.
- LBL B : Input new itemized expenses.
- LBL C : View expenses.
- LBL D : Print expense report.
- LBL E : Store file on mass storage.
- LBL a : Clear ASCII file EXPN.
- LBL d : Chain reports.
- LBL e : Load file from mass storage.