



# Treasure Chest

## TECHNICAL REFERENCE

**TECMAR INCORPORATED**  
**Personal Computer Products Division**  
**6225 Cochran Road**  
**Solon (Cleveland), Ohio 44139**  
**Phone: (216)349-0600 • Telex: 466692**

# Limited Warranty

Tecmar, Inc. ("Tecmar") warrants to the **original purchaser** that boards and cables manufactured by Tecmar will be free from defects in materials and workmanship for one year from the date of delivery to purchaser. Tecmar warrants to the **original purchaser** that disc controllers and drives, terminals, printers, and any other non-board item not bearing a Tecmar label will be free from defects in materials and workmanship for a period of ninety days from the date of delivery to purchaser. Tecmar warrants to the **original purchaser** that the media for software will be free from defects in materials and will be readable by the computer system for a period of ninety days from the date of delivery to purchaser. The software is thoroughly tested and thought to be functional when released; at Tecmar's sole option, Tecmar may endeavor to correct any serious problems discovered in the software.

Under the above warranty, Tecmar will, at its option, either repair or replace a non-conforming or defective product, or return to purchaser the purchase price. Tecmar shall have no obligation hereunder if the product has been misused, carelessly handled, defaced (including unauthorized repairs made or attempted by others), modified or altered. The product must be returned with proof of purchase in its original (or other adequate packaging) to the point of purchase or, by prior arrangements with Tecmar, to Tecmar. Claims must be made in accordance with the provisions of this paragraph within the applicable warranty period or they will be barred.

Tecmar reserves the ultimate authority to determine what constitutes warranty repair. If it is determined that the product is not under warranty, it will be repaired using Tecmar's standard rates for parts and labor. Tecmar will use its best efforts to repair the product within three days after receipt thereof. Tecmar shall not be responsible, however, for delays caused by shipping of non-availability of replacement components or other similar or dissimilar causes, events or conditions beyond its reasonable control.

The above warranty is the only warranty authorized by Tecmar. THE ABOVE WARRANTY STATES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY BREACH OF TECMAR'S WARRANTY AND FOR ANY CLAIM, WHETHER SOUNDING IN CONTRACT, TORT OR NEGLIGENCE, FOR LOSS OR INJURY CAUSED BY THE SALE OF ANY PRODUCT. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, TECMAR SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS OF BUSINESS OR PROFITS, DOWNTIME OR DELAY, LABOR, REPAIR, OR MATERIAL COSTS, INJURY TO PERSON OR PROPERTY OR ANY SIMILAR OR DISSIMILAR CONSEQUENTIAL LOSS OR DAMAGE INCURRED BY PURCHASER, EVEN IF TECMAR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSSES OR DAMAGES.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY SHALL NOT BE APPLICABLE TO THE EXTENT THAT ANY PROVISION OF THIS WARRANTY IS PROHIBITED BY ANY FEDERAL, STATE OR MUNICIPAL LAW WHICH CANNOT BE PREEMPTED. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

---

Keep your original sales receipt for the product with this warranty statement.

PRODUCT \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_ DATE OF PURCHASE \_\_\_\_\_

WHERE PURCHASED \_\_\_\_\_

# CONTENTS

## Page No.

### Chapter 1.

Introduction .....	1
System Requirements .....	2

### Chapter 2.

#### Information Common To All

Treasure Chest Programs .....	3
Common Names .....	9
ETC Directory .....	10

### Chapter 3.

Treasure Chest Programs .....	11
BANNER .....	12
CAL .....	17
CALC .....	24
CHECK .....	29
COPRINT .....	33
CRON .....	35
DECODE .....	40
DOSTIME .....	42
ENCODE .....	44
FORM .....	46
MEMDISK .....	55
MEMO .....	60
MEMTEST .....	63

MENU .....	68
PARTEST .....	73
PRINTER .....	76
QSORT .....	85
REMIND .....	88
ROLADEX .....	91
SETTIME .....	94
STOCK .....	96
TICK .....	99
TIMTEST .....	103
TTT .....	106

# **Chapter 1.**

## **Introduction**

System Requirements.....2

# **Introduction**

The Treasure Chest Technical Reference manual gives you a complete explanation of each program. It also serves as a reference guide when you need to find information quickly.

## **System Requirements**

The following requirements must be met in order to use your Treasure Chest software.

1. You must have a Tecmar multifunction board installed in your personal computer.
2. The Treasure Chest software must be run using PC DOS versions 2.0 or 2.1.
3. You must have at least 128K bytes of memory installed in your computer.

**Chapter 2.**  
**Information Common to All**  
**Treasure Chest Programs**

Common Names.....9

ETC Directory.....10

# Information Common to All Treasure Chest Programs

The documentation for each program has several sections describing how the program works. The sections and what they describe are explained below.

## **Purpose:**

Tells you what the program does.

## **Type:**

Tells you the type of program. There are three types of programs:

**Menu:** A menu program allows you to choose what you want to do through a series of menus.

**Utility:** With this type of program, you usually select what you want to do when you run the program. The program will then perform its task with little or no interaction from you.

**Background:** This type of program is usually run immediately after your machine has been turned on or reset. Even though the program appears to run to completion, it really remains in the computer ready to use when needed.



## **Format:**

This will show you what to type to use the program. As an example, use the program called 'CAL' which allows you to print calendar information. The format line for the CAL program is as follows.

CAL [-L] [-P] [days] [months] [years]

The first word in the format line is the name of the command. It must be typed exactly as shown. The command is what lets PC DOS know what command you want. In the format line, the following rules apply.

You must type any words or letters shown in capital letters exactly as shown. They don't have to be typed in capital letters, but they must be typed exactly the same as shown letter for letter.

Any words shown in lower case must be replaced by another word. In the above example, the word 'months' must be replaced by some month such as 'july'.

Minus and plus signs must be typed exactly as shown. A word may follow the plus or minus sign.

If a number is found among capital letters or standing by itself, the number is typed exactly as shown. If the number is found in a word made up of small letters, the number is part of a word which is replaced.

Items in square brackets are optional. They allow you to alter what the program does. The square brackets themselves are not typed.

Below are some examples using the CAL format line. The line

CAL

by itself is valid because everything else on the line is enclosed in square brackets and is therefore optional. Running the program without any options will produce the default action for the program. In this case, the program 'CAL', will produce today's date. Similarly,

cal

will produce the same result because you may type the command in lower case.

We may want to replace 'months' with an actual month. Therefore

cal july

is valid and will produce a calendar for the month of July.

Some options are replaced with a word which tells the program what to do. The above example is such a case. Some options tell the program to do something differently. An example is the '-L' option.

Typing

cal -L july

will produce a large calendar information for the month of July. The '-L' option tells CAL that we want a large calendar displayed.

Options which are typed exactly as shown in the format line such as '-L' usually begin with a minus or plus sign to distinguish them from other options.

For most programs, if you don't give a valid command line, the program will display a single line giving it's format line or usage.

**Note:** You must have a space between each option. For example, there is a space between 'CAL' and '-L' and another space between '-L' and 'july'.

**Remarks:**

This section explains what the program does. It also describes the options.

**Examples:**

This section gives examples of valid command lines and what they do.

**Record File Format:**

Several of the menu programs keep a file containing information relevant to that program. The format of the file is given here. The format must be known in order for the program to be used with the FORM or QSORT programs.

**Files Used:**

The files that the program uses are given here.

**Other Programs:**

Other programs that may interact with the program being explained are given.

## Common Names

The file option is used in most programs. It is explained below.

*file* Replace *file* with the name you want to call your file. If the program requires more than one file, the files will be called *file1*, *file2*, . . .

When the *file* already exists, the data that is presently in the file is displayed and may be changed or updated. If the *file* does not exist, it is created.

If the *file* that is given is one that the program expects to write data to, the *file* will be created if it does not already exist.

If the *file* that is given is a *file* that the program expects to read data from, an error message will be printed if the *file* is not found.

The name you give to a *file* may include a drive letter and a path name such as 'A.\ my \ data'.

## ETC Directory

**Note:** This section will help you to organize your files. If you are not familiar with tree structured directories, you may wish to ignore this section.

The programs CHECK, ROLADEX, MEMO, STOCK, CAL and REMIND produce files. If you do not give a filename for this file when typing the one word command to start the program, a default filename is used. The default file is always:

*program.DAT*

where the word, program, is replaced by the name of the program you are using. As an example, the default file for the CHECK program is CHECK.DAT.

The file is automatically placed in a directory called ETC on your diskette if the directory exists. If the directory ETC does not exist, the file is put into the directory that you are currently in.

To create the ETC directory, type:

**MKDIR \ETC**

The ETC directory is useful because you can group files together. The files are kept separate from the programs by doing this.

## Treasure Chest Programs

BANNER .....	12
CAL .....	17
CALC .....	24
CHECK .....	29
COPRINT .....	33
CRON .....	35
DECODE .....	40
DOSTIME .....	42
ENCODE .....	44
FORM .....	46
MEMDISK .....	55
MEMO .....	60
MEMTEST .....	63
MENU .....	68
PARTEST .....	73
PRINTER .....	76
QSORT .....	85
REMIND .....	88
ROLADEX .....	91
SETTIME .....	94
STOCK .....	96
TICK .....	99
TIMTEST .....	103
TTT .....	106

# BANNER

---

## **Purpose:**

Creates a banner using Gothic letters. You can display or print your name or any message in large Gothic letters !

## **Format:**

BANNER [- Ccharacter]  
[- Ffile] [- S] [- W] text

## **Type:**

Utility

## **Remarks:**

If you type BANNER and press the Enter key, the computer will wait for you to type a line to be used for the banner. When you type the line and press the Enter key, a banner in Gothic letters will be displayed on your screen.

The banner can be 2½ " (64 columns) or 5½ " (133 columns) high and will print sideways on the screen or your printer.



If you use a '/' in the text, the letters will be white and the rest of the screen or paper will have printing on it. This type of printing is called reverse video. The reverse video printing can be turned on and off by using the '/' in the text.

You can also type the line you want BANNER to print on the same line as the BANNER command. Leave a space between the BANNER command and the text.

You may press the CTRL and PrtSc key before typing the BANNER command if you want the banner to appear on your printer.

The style of your banner can be changed with the following options:

– C character

The letters in the banner are drawn by using small characters. If you do not use the – C option, an 'X' is used to draw the letters. The – C option lets you specify the character that you want to use to draw the Gothic letters in the banner.

The – C option is used by typing ' – C' followed by the character you want to use to create the banner. For example, if you want the letters in your banner drawn using a '\$', type the following

BANNER – C\$

*-F file*

File that the banner will be saved in. The option is used by typing an *-F* followed by the name of the file you want to store the banner in.

- S Draws each Gothic letter in the banner with a smaller copy of that letter. For example, in a banner containing the word 'Hello', the H would be drawn using the letter 'H' and the e would be drawn using the letter 'e'.
- W Draws a banner that is 5½" high. If the *-W* option is not specified, the banner will be 2½" high. You must have a 132 column printer to use this option.





**Purpose:**

Displays a calendar for any date you specify.

**Format:**

CAL [-P] [-L] [-Fholiday-file] [days]  
[months] [years]

**Type:**

Utility

**Remarks:**

If you type CAL and press the Enter key, today's date will be printed.

The calendar for any month or any year will be displayed if you type a month or year after the CAL command.

The options in the format line are given below:

*days*

For *days*, you may type a number ranging from 1 to 31. The number represents any day of the month. A detailed description of the given day is displayed.

Examples:

**CAL 1 2 3 JAN 84**

describes the first three days of 1984.

**CAL 7**

describes the seventh day of this month.

For *days* you may also type a day of the week. You can type the entire name of the day, or any abbreviation of two characters or more (e.g., Mon, Tue, Wed, Thur).

Example:

**CAL SAT SUN**

describes the first weekend after the current date.

For *days* you may also type a holiday name. You can type the entire name of the holiday or any abbreviation (e.g., Lab for Labor Day). Holidays with embedded spaces must be enclosed in quotation marks. (e.g., "labor day").

Examples:

**CAL EASTER 80 81 82 83 84**

describes Easter for 5 years.

*months*

For *months* you may type any month in the year. You can type the entire name of the month or any of the three letter abbreviations as follows: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Sep, Oct, Nov, Dec.

Example:

**CAL July**

draws a calendar for July of this year.

*years*

For *years*, you may type any number greater than 100. CAL will add 1900 to any number less than 100 that you type.

Examples:

**CAL 1984**

draws a calendar for 1984.

**CAL - L 84**

draws a large calendar for 1984.

You can also list as many *days, months or years* as you want in the CAL command. For example, if you want a calendar for the last three election years, you would type the command as:

**CAL 1984 1980 1976**

Separate the listed items with a space. The line should have no other punctuation marks.

– *F*holiday-file

Name of the file that holidays are listed in. When a name is not given, CAL.DAT is used. For your convenience, CAL.DAT already includes a complete list of holidays.

– *L* The –*L* option displays the calendar in large format with one month filling the entire screen. When you do not use the –*L* option, the calendar will be displayed in small format with one month filling only 1/8 of the screen.

– *P* Use the –*P* option to print the calendar on a printer that cannot print graphics characters. For example

**CAL –L –P 84 >LPT1**

prints a large calendar on the printer.



## **Remarks on Holidays:**

Holidays are stored in a file called CAL.DAT. Each line in the CAL.DAT file describes a holiday or important date. In this file, CAL ignores blank lines and lines beginning with a # sign.

When you request a date or calendar, CAL looks in CAL.DAT. If a holiday for the date or calendar is found, it will be displayed. For example, if you display a calendar for February, you will see that February 14 is Valentine's Day.

You can also add other holidays, birthdays and important dates by editing the file called CAL.DAT. Use DOS's EDLIN program to edit CAL.DAT. If you do not know how to use EDLIN, review your IBM DOS manual. You can also edit CAL.DAT using a word processing program.

Regardless of the method you choose to edit the CAL.DAT file, you must use the following format.

**month/day (tab key) name (tab key)**  
**line1 (tab key) line2**

The options in the above line are explained below.

month      A number from 1 to 12  
              (1 = January)

/            Separates month from day.

day         Type the day of the month expressed as a number from 1 to 31.

or

Type the letter F followed by a number from 1 to 7 for the day of the first week (1 = Sunday, 2 = Monday, etc.). For example, F1 would be the first Sunday in the month. F1+7 means seven days after the first Sunday in the month (the second Sunday in the month). F2-7 means seven days before the first Monday in the month (the last Monday in the previous month).

or

Type the letter L followed by a number from 1 to 7 for the day of the week (L1 = Sunday, L2 = Monday, etc.). The L option works like the F option described above, but L means the last day in the month instead of the first day.

or

Type the letter E for Easter. E - 2 would be Good Friday.

or

Type the letter D for today. D + 1 would be tomorrow.

**name** Type the full holiday name.

**line1** You may have a holiday to  
**line2** type that is several characters in length. In such cases, type the holiday name broken into two lines. Each line can be up to ten characters long.

This is the name which is displayed on large calendars.

Take a look at the file CAL.DAT for examples of the format.

**Files Used:**  
CAL.EXE  
CAL.DAT

# CALC

---

**Purpose:**

Performs the same functions as a pocket calculator.

**Format:**

CALC [-C] [-R]

**Type:**

Menu

**Remarks:**

The CALC command will turn your computer into a calculator. Press the ESC key to exit CALC.

When you type CALC, a picture of the keyboard appears. The letters imprinted in the keys on the keyboard will be replaced by the functions given in the picture of the keyboard. The following calculator functions are provided by the CALC program:

**+ - × ÷**

Allows you to add, subtract, multiply or divide two numbers. The answer is not given until the = key is pressed. If you do not give a second number, the number you typed is added, subtracted, multiplied or divided by itself. For example,  $4 + =$  would be 8.

**=** Gives you the final answer. The equal key can also let you repeat a function. For example  $4 + 3 = =$  gives the answer of 10 because three is added to four twice.

**%** Divides the number typed before it by 100. For example, 25% becomes .25. If the % key is used with the + or - key, the number typed before the % key is divided by 100 and then multiplied by the number given before the + or - key. The result is added to or subtracted from the number before the + or - key. For example,  $500 + 10%$  becomes 550.

**√** Gives the square root of a number. You cannot take the square root of a negative number.

**C** Clears the calculator. When you press C while typing a number, the computer will erase the number and then let you retype it. When you press C after completing a calculation, the calculator is reset to zero.

$\pm$  Changes the sign of a number so you may enter negative numbers. This should be pressed after typing the number.

$1/x$  Gives you the reciprocal of the number typed directly before  $1/x$ . You cannot take the reciprocal of 0.

$M$  Recalls a number from memory and displays it on the screen.

$MC$  Clears the number stored in memory. The number displayed on the screen is not changed.

$M+ M-$

Adds or subtracts the number displayed on the screen from the number in memory. The result is stored in memory. The number on the screen is not changed.

**Note:** If you want to store a new number in memory, press  $MC$  and  $M+$ .

$ALT$

Allows you to change the radix of entry (base value of a number you enter). For example, your calculator could handle numbers in base 10, base 2 or base 16 (hexadecimal). To set the radix, type  $ALT$  and then the highest digit in that number system. For example, to use hexadecimal numbers you would type  $ALT/F$  and to use decimal numbers you would type  $ALT/9$ .

### *SHIFT/PRTSC*

Prints the lower part of your screen if you are using the IBM Personal Computer or XT.

### *FN/PRINT*

Prints the lower part of your screen if you are using the PCjr.

### *CTRL/PRTSC*

Everything that you type on the screen from this point on will be printed if you are using the IBM Personal Computer or the XT. Use the same command to stop the printing.

### *FN/ECHO*

Everything that you type on the screen from this point on will be printed if you are using the IBM PCjr. Use the same command to stop the printing.

### *ESC*

Exits from the CALC program.

### *Boolean functions*

When a radix is selected with a power of 2 (such as 2, 4, 8 or 16), you may perform boolean functions.  $\mathcal{E}$ ,  $|$  and  $\wedge$  are AND, OR and exclusive OR, respectively.  $M\mathcal{E}$ ,  $M|$  and  $M\wedge$  perform the same function on the number in memory. A  $\sim$  generates the one's complement of the number displayed in the screen.

The options in the format line are explained below.

- C Allows the calculator to be displayed in color if you have a color monitor.
- R Installs CALC in memory so you can use it at any time by pressing the ALT and ESC keys together. When you want to exit CALC, press the ESC key.

**File Used:**

CALC.EXE



# CHECK

---

**Purpose:**

Allows you to create, display, and maintain any number of checkbooks and store them in files for future reference.

**Format:**

CHECK [file]

**Type:**

Menu

**Remarks:**

When you type CHECK and press the Enter key, a menu will appear. A window at the bottom of each menu gives messages that tell you what to do next.

Your checkbook will be displayed on your screen. To update or create the checkbook, press the F6 key. The following functions are provided on the menu that will appear.

- **View Data.** You may examine the data in any of the existing checkbook files by pressing the Enter key. You cannot change the file when viewing it.
- **Credit Transactions.** In your checkbook, a credit transaction means that money is put in your account. CHECK allows you to enter and edit the starting balance and add deposits, interest and other miscellaneous credit to your account by pressing the function keys.
- **Debit Transactions.** In your checkbook a debit entry means money that is taken out of your account. CHECK allows you to enter and edit checks, cash withdrawals, service charges, and other miscellaneous debits by pressing the function keys.
- **Free Format Entries.** In free format, all fields may be edited. This is useful for quick editing when you make an error. The Free Format menu can be accessed by pressing the F9 key. Changes are not made in the balance window when using this option.
- **Balance Display.** A transaction balance is displayed continually. The balance is updated each time a new amount is entered, changed, or deleted.

- **Reconciliation Aids.** You may put an asterisk (\*) in the first column of the amount field of any outstanding credits and debits. The balance is always adjusted accordingly.

To exit the program, press the ESC key. When a new menu appears, press the F10 key.

The program begins in the View Mode menu which lists the checkbook you have created.

Normally, you will enter the Transaction Type menu to begin editing the checkbook. If any information needs to be changed, it may be done using the keys displayed in this menu.

When you choose a credit or debit transaction type, the Data Entry menu will appear. The transaction choice will be displayed in the upper right corner of the menu. You will only need to enter data or edit those fields necessary to the transaction type chosen; CHECK will fill in the rest.

In transactions for a deposit, starting balance, interest, withdrawal, and service charge, the description field is automatically filled when you tab forward from the previous field. To change the description you must use the free format mode.

The file option allows you to keep records on more than one checkbook account and store each under its own *file*. Replace *file* with the name you want to call your checkbook. If a name is not given, the default file CHECK.DAT is used.

### **File Record Format:**

<b>Field</b>	<b>Description</b>
1	Date
2	Number
3	Description
4	Credit
5	Debit

### **Files Used:**

CHECK.EXE

CHECK.DAT

### **Other Programs:**

FORM

QSORT

ENCODE

DECODE

**Purpose:**

Allows you to modify the options you chose in the PRINTER program. PRINTER must be run before COPRINT can be used.

**Format:**

COPRINT

**Type:**

Menu

**Remarks:**

When you type COPRINT, a menu is displayed on your screen. The options in the menu are explained in the PRINTER section of this manual.

The options you chose in the PRINTER program are displayed in the menu. Use the cursor keys to change any options.

“Add Form Feed” (AFF), “Repeat Current Page” (RCP), “Repeat Previous Page” (RPP), and “Flush” (FLS) are executed only once. If you wish to use them again, you must exit COPRINT and then re-enter. They are selected by keys F1-F7. The prompt window will display the option selected. Since Flush will clear the buffer, you are prompted with “Are you sure? (y/n)” before it is emptied.

You may select other options with the cursor keys in a manner similar to other menu programs. Look at the prompt window for help.

Select the “Characters Per Tick” (NCI p. 81) auto mode by positioning the cursor and entering either 0 or A.

Options that are only executed once take effect immediately. All others do not take effect until:

- You switch printers, or
- You press the F4 (update key), or
- You exit the program.

The F2 key returns options to the default values described in the PRINTER section.

**File Used:**

COPRINT.EXE

**Other Programs:**

PRINTER

# CRON

---

## **Purpose:**

Displays messages on the top line of your screen at specified times. You can use the REMIND program to set up the messages and the times they should be printed.

**Note:** The TICK program must be installed before CRON is run.

## **Format:**

CRON

## **Type:**

Background

## **Remarks:**

CRON's only job is to read the time and compare it to the times given in a file called CRON.DAT. If the times match, the corresponding message in the CRON.DAT file is printed on your screen. For example, you could arrange for the following message to appear on your screen at 10:25 a.m.:

**Remember: 10:30 meeting with BRYAN**

YOU MUST RUN CRON EVERY TIME YOU TURN ON YOUR COMPUTER IF YOU WANT MESSAGES FROM THE REMIND PROGRAM TO APPEAR ON YOUR SCREEN.

It is suggested that you copy CRON onto your PC DOS diskette. This will allow you to put CRON in an AUTOEXEC.BAT file on the DOS disk. AUTOEXEC.BAT will run CRON automatically when you reset or power up your computer. (See your IBM PC DOS manual for instructions on creating an AUTOEXEC.BAT file).



## CRON.DAT File:

The CRON.DAT file contains a list of the messages that will be printed on your screen and the time(s) they should be printed.

**Note:** Outdated messages are automatically deleted from the CRON.DAT file whenever you use the REMIND program.

Each line in the CRON.DAT file has the following format:

```
minute hour day month year weekday m length "message"
```

The items in the format line above have the following meanings:

minute      minute (0 - 59) when the message will be printed.

hour         hour (0 - 23) when the message will be printed.

day          day of the month (1 - 31) when the message will be printed.

month        month (1 - 12) when the message will be printed.

year         year when the message will be printed.

weekday	weekday (1-7, 1 for Sunday) when the message will be printed.
m	tells CRON that this line contains a message.
length	length of time (in seconds) the message will be displayed on the screen.
message	message to be displayed.

An asterisk (\*) appearing in a column tells CRON that the field with the asterisk, always happens. For example, an asterisk in the year column would mean the message should be printed every year.

If you set up a message using the REMIND program, the message and the time the message should be displayed will automatically be placed in the CRON.DAT file, with the correct format.

You can edit the CRON.DAT file using the PC DOS EDLIN program or another word processing program, but this is discouraged. **Novice users should only access the CRON.DAT file using the REMIND program.**

When you run CRON with an incorrectly typed line in the CRON.DAT file, the following message will appear on the top line of your screen:

**Bad syntax in CRON.DAT (line m)**

**Files Used:**

CRON.EXE

CRON.DAT

**Other Programs:**

TICK

REMIND

# DECODE

---

**Purpose:**

Unscrambles an ENCODED file and puts the unscrambled results in a specified file.

**Format:**

```
DECODE file1 file2
```

**Type:**

Utility

**Remarks:**

DECODE unscrambles the file that you scrambled in ENCODE. After you type the DECODE command, you will be asked to type the same code that you used in the ENCODE program. You will then be asked to type the code again for confirmation. Only the person who knows this code can unscramble your file.

The following files must be given:

*file1* *file1* is the name of the ENCODED file that you want unscrambled.

*file2* *file2* is the name of the file where the DECODED file is to be stored.

The files, *file1* and *file2* may be the same filename, but keep in mind that the scrambled version of the file will be overwritten with the original version. This may be dangerous in case of a system failure, therefore we advise you use different file names.

**Note:** You may delete *file1* once it has been decoded. It is now stored in readable form under the *file2* name.

**Do not delete *file1* if you used the same name for *file2*.**

**File Used:**

DECODE.EXE

**Other Programs:**

ENCODE

# DOSTIME

---

**Purpose:**

The DOSTIME command will set the DOS date and time using the Tecmar board's clock/calendar.

**Note:** Before you use this program for the first time, run the SETTIME program (explained in this manual).

**Format:**

DOSTIME

DOSTIME - 1

DOSTIME - 2

**Type:**

Utility

**Remarks:**

DOSTIME will read the date and time from the Tecmar clock/calendar and set the DOS date and time. DOSTIME will then read the date and time from DOS and display them on the screen.

This program can be and usually is run from an AUTOEXEC.BAT file.

The options in the format lines are explained below.

- 1 If you have jumpered your board as TIME1, use this option. (This is the default.)
- 2 If you have jumpered your board as TIME2, use this option.

**Files Used:**

DOSTIME.EXE

# ENCODE

---

**Purpose:**

Reads a file, scrambles its contents, and stores the scrambled data in a second file.

**Format:**

ENCODE file1 file2

**Type:**

Utility

**Remarks:**

ENCODE scrambles a file so it is unreadable. You will type the ENCODE command followed by the file you want to scramble and the file where the scrambled information will be placed.

The program asks you to type a code that it will use to scramble the file. The code will not appear on the screen and you will be asked to type it again for confirmation.



The following files must be given:

*file1* *file1* is the name of the file that you want scrambled.

*file2* *file2* is the name of the file where the scrambled version of *file1* is to be stored.

*file1* and *file2* may be the same filename but keep in mind that you will lose the original and have only the scrambled version.

**Note:** You may delete *file1* once it has been encoded. It is now stored in scrambled form under the *file2* name. **DO NOT DELETE *file1* IF *file2* WAS GIVEN THE SAME NAME.**

**Files Used:**

ENCODE.EXE

**Other Programs:**

DECODE

# FORM

---

## **Purpose:**

Enables you to make multiple copies of a document by inserting different data from a list at predefined places in the document. One common use of FORM would be to mail a personalized form letter to a number of different people.

## **Format:**

FORM [- Ffieldnumberqualifier] file1 file2

## **Type:**

Utility

## **Remarks:**

If you type FORM followed by the names of a data file and a text file, a letter will print on your screen for every record in your data file. You can use the files created in other programs such as CHECK, MEMO, ROLADEx or STOCK for your data file. Later in this explanation you will be told how to create a text file and a data file.

## Notes:

This command requires the use of two previously prepared files. The first file would contain the text of the document. The second file would contain the data that will be inserted in the document while using this program.

The information in the data file is composed of one record for every copy of the document you wish to print. Each record is composed of fields which contain the information to be inserted in the text of one copy of the document. Each field is assigned a number.

An example of a single record follows.

Field1	Field2	Field3
Colin Engle	113 Avery St.	Beachwood, OH

Understanding the operation of 'qualifier' enhances the use of this program. A qualifier is a single alphabetical character that lets you put each record into a group or category. For example, if a file contains a list of your friend's names, you may only want to send your form letter to girls. To separate the girls from boys, you would assign the girls a 'g' as a qualifier and the boys a 'b'. The qualifier is put in a separate field (called a qualifier field) in the record. When you use the FORM program, the qualifier field can be used to print form letters only to certain people.

The options in the format line are explained below.

– *Ffieldnumberqualifier*

This option includes a hyphen and an F followed by the *fieldnumber* that a *qualifier* is in. After the *fieldnumber*, you must type the *qualifier(s)* for each group you want to include. For example, the option you would type if the *qualifier* field was *fieldnumber* 1 and you wanted to only include girls would be:

– F1g

*file1*

You must enter a filename for *file1*. The file must contain the text of the document you will be processing. The text will have special names in the places where data from *file2* will be inserted on each pass of the document.

*file2*

You must enter a second filename for *file2*. The file must contain the data to be inserted into the document, organized as records. Each record contains data for one document.

## **Text File Format:**

The first step in making copies of a document is to prepare a text file which contains special names in place of actual data.

The special names for the data must be entered in the text file according to the format given below.

In the following format of special names brackets ([ ]) must be included when typing the format line. The entries in ( ) are optional.

@[fieldnumber(:length) (L,R,C)]

The @ character is required at the beginning of all special names.

All other parts of the special name must be enclosed in brackets [ ].

The fieldnumber represents the number of the field in the data file that will be used to replace the special name.

The :length option allows you to tell FORM how large the area is that the field will be inserted into. Each field may be up to 80 characters in length. If no length for the field is given, the field will be inserted as is.

You specify length:

1. When the field is shorter than the length specified, blanks are added to the end of the field.
2. When the field is longer than the length specified, all extra characters to the right are cut off.
3. The field will be inserted in left justified format unless the optional entries *R* or *C* are specified.
4. The optional entries, *L*, *R*, or *C* are part of the length option and must not be used without it. The entries specify:
  - L* - Left justified  
(trailing blanks will be added if necessary)
  - R* - Right justified  
(leading blanks will be added if necessary)
  - C* - Centered  
(data will be centered in the given field length)
5. If in the text there is a reference to a nonexisting or blank field, no insertion takes place.

The text file for the document you create may look something like this. The comments in parenthesis should not be typed. They are for explanation purposes only.

@[1] (field 1 will be inserted here)

@[2] (field 2 will be inserted here)

@[3] (field 3 will be inserted here)

Dear @[1] (field 1 inserted again)

Your appointment is at:

@[4:30C] (fieldnumber 4 inserted and centered in a space of 30 characters)

“Dear” and “your appointment is at” represent the body of the text and will be printed in all copies.

## **Data File Format:**

The data file is composed of a group of records. Each record is divided into fields.

**You probably have already created data files in other programs. Other Treasure Chest programs that automatically create data files are: CHECK, ROLADEx, STOCK and MEMO.**

In the example of a document file, four fieldnumbers were specified (@[1] . . . @[4]). Each data file record for this text file would contain four fields. The fields may have data in them or they may be blank.

On each pass of the document, data from one record of the data file will be inserted field by field into places specified by the special names in the text file. FORM will continue processing as long as there is data in the data file.



When creating your data file these rules apply:

1. Up to 20 different fields can be defined.
2. Each field can be up to 80 characters and spaces in length.
3. Use qualifiers to group records of the data file into various categories. FORM will then select and process only those records whose qualifier field contains the qualifiers specified in the *-Ffieldnumber* option in the FORM format line.
4. Each field must be separated by a TAB, or a backslash (\) followed by a newline (the ENTER key.)
5. You can create blank fields by pressing 2 TABS.
6. When you have entered data or blanks for each fieldnumber for one document, the record is complete. Pressing the Enter key (except when you press it after a backslash) will mark the end of a record.

**Example:**

Record 1

Gil Engle 5117 Holden Street\  
Fairfax VA 22032 4 p.m.

(The above record was entered by typing the name, pressing TAB, typing the street address, pressing BACKSLASH and pressing the Enter key, typing city/state/zip, pressing TAB, typing the time, and pressing the Enter key.)

You can now use this file with the text file shown above to print a message to Gil Engle.

**File Used:**

FORM.EXE

**Other Programs:**

CHECK

ROLADEX

STOCK

MEMO

# MEMDISK

---

**Purpose:**

Provides a fast-access floppy drive in RAM.

**Format:**

MEMDISK drvlet:

[ - BUFnum] [ - APLnum]  
[ + HIX] [ + MID] [ + LOW]  
[ - SIDnum] [ - SECnum] [ - INS]

**Type:**

Utility  
Background

**Remarks:**

To begin this program, type MEMDISK and the letter you want to assign the drive. MEMDISK acts just like a floppy disk, but it resides in memory. This means that MEMDISK will be much faster than your physical floppy drives (as well as much quieter). Time can be saved by putting often accessed files on the MEMDISK.

If no options are given, MEMDISK will take up all memory up to 360K bytes that is not used by application programs.

**Note:** If the files are changed, remember to copy them onto a floppy disk before you shut your computer off, or the files will be lost.

You can also use the following options in your MEMDISK command.

*drvlet*

Replace *drvlet*: with the drive letter (e.g., C:) you will assign to the disk. *drvlet* must be given; it is not an option.

+INS

Assign MEMDISK drive letter *drvlet* and reassign all other floppy drives a new drive letter, one letter higher than its old value. (For example, MEMDISK B: +INS will assign MEMDISK as Drive B:. Your floppy drive that was assigned the letter B: will be reassigned C:.)

-APLn

Replace *n* with the amount of memory (in K bytes) that you want to leave free for applications programs. If this option is used without the -BUF option, all remaining memory will be used by the MEMDISK program. If this option is not given, *n* assumes a size of 64K bytes is used for applications programs.

example: -APL128 (sets aside 128K bytes for other programs)

– *BUFn*

Replace *n* with the amount of memory (in K bytes) that MEMDISK will use. If this option is used without the – *APL* option, all memory remaining after MEMDISK memory has been allocated will be free for your use. If this option is not used, MEMDISK uses all available memory left after the memory specified in the *APL* option.

– *SIDn*

Type *SID* and then the number of sides the disk will have. Choose one or two sides. If a number is not given, the number of sides is assumed to be two.

– *SECn*

Type *SEC* and then the number of sectors on each track of the MEMDISK. Type 8 for versions of PC DOS previous to PC DOS 2.0. Type 9 for PC DOS versions 2.0 and 2.1. If a number is not given, the number of sectors is assumed to be nine.

– /+ *HIX*

Disable/enable memory from C0000 to F0000 hex for use by MEMDISK. There must be memory in this area if you want to use this option. If this option is not given, it is disabled by default. **This option cannot be used with the IBM XT or the PCjr.**

-/+ *MID*

Disable/Enable memory above the memory set by the IBM system board switch modules. There must be memory in this area if you want to use this option. If this option is not given it is disabled by default. This is useful if you have an original model PC which only allows 576K bytes but you have 640K bytes in your system. **This option cannot be used with the IBM XT or the PCjr.**

-/+ *LOW*

Disable/enable normal system memory for MEMDISK to use. If this option is disabled, you must have memory enabled by using the *HIX* or *MID* option. If this option is not given, it is enabled by default. **This option cannot be DISABLED with the IBM XT or PCjr.**

**IMPORTANT:** You must set switch module SW1 on your IBM Personal Computer or XT system board to reflect a new number of disk drives in order for your MEMDISK to work. For example, if you have two floppy diskettes and one MEMDISK, you must set the switch module to recognize three floppy drives. Refer to your IBM Guide to Operations for instructions on setting the switch module. You do not need to set any switch modules on the PCjr. Instead,

you must run the CONPCJR program with the option to select more drives.

**Be careful when you use the +MID or +HIX options.** These are the same options that can be used in the PRINTER program. If PRINTER uses these options you cannot use them with MEMDISK.

If the amount of memory assigned to MEMDISK is less than the memory required for a full floppy, the remaining space in the MEMDISK is marked as bad sectors.

### **Examples**

#### **MEMDISK C: - BUF61**

This line tells the computer to use 61K bytes of memory for the MEMDISK. The MEMDISK is given the drive letter C.

#### **MEMDISK B: - SID1 - SEC9**

This line tells the computer to create a single sided diskette drive and name it drive letter B. The APL size is not given so MEMDISK leaves 64K bytes for application programs and uses as much of the remaining memory that it needs for MEMDISK.

### **File Used:**

MEMDISK.EXE

# MEMO

---

**Purpose:**

Creates, maintains and displays individually any one of a group of memos and stores them in files for future reference.

**Format:**

MEMO [file]

**Type:**

Menu

**Remarks:**

MEMO is a program containing several menus. Each menu contains a list of keyboard keys and a brief note about their functions.

There is a small window under each menu. The window is always on the lower right-hand side of the menu. The window will assist you when using MEMO.



By pressing the function keys on the Main Menu, the following functions are provided:

- Delete one memo by pressing the F2 key. The window beneath the menu will ask you for confirmation to prevent accidental deletion of important memos.
- Display a memo by pressing the F3 key. If the memo is too big to fit on one screen, use the cursor keys to scroll up and down.
- Add a new memo by pressing the F1 key. A memo of any length can be typed in and added to a memo file.
- Edit a memo by pressing the F4 key. Editing capabilities using the cursor and function keys make editing very simple.

As you create memos, they are numbered consecutively. The list of numbered memos and subjects are displayed on the screen.

When you edit a memo, it is moved to the end of the list of memos. This keeps the memos in the same order in which they are modified. You will first need to press the F1 key in order to add your first memo.

The *file* option allows you to keep memos in more than one file. Replace *file* with the name you want to give your memo file. If a file name is not given, MEMO will use the default file, MEMO.DAT.

## **File Record Description:**

1st Record:

Field 1	Date
Field 2	Time
Field 3	Title
Field 4 . . .	Lines of memo

## **File Used:**

MEMO.EXE

## **Other Programs:**

FORM

QSORT

# MEMTEST

---

**Purpose:**

To test free system memory in your computer.

**Format:**

MEMTEST [- Wseconds] [startsegment:  
offset [endsegment:offset]]

**Type:**

Utility

**Remarks:**

You must run MEMTEST before running any other program.

To begin, type MEMTEST and then press the Enter key. The program will test all the free memory in your computer. The screen will display the range of memory being tested and if the range passed or failed the test.

It is a good idea to periodically test the memory in your system to make sure it is working correctly. If your memory is not working correctly, you will get errors when running a program or you may not be able to use the memory at all. A bad memory chip or a short in the data or address lines are two reasons, among others, why your memory would not work correctly.

Besides testing for memory errors, MEMTEST also checks to see if each segment can be addressed separately.

**Do Not Test The Memory While a Program is Running in Background.** You also should not test memory being used as a buffer by MEMDISK or PRINTER. Testing memory that is being used by a program could result in incorrect program results.

If you are a novice computer user or if you are unfamiliar with the location of your programs within segments, use the MEMTEST command with no options. Then memory testing will begin at a segment above where your programs are located.

The options in the format lines are explained below.

– *Wseconds*

For *seconds*, enter the number of seconds you want to wait before reading back data from memory.

*startsegment: offset*

The *startsegment* is the beginning segment in memory that you will test. An offset is the exact location within the segment where you will begin testing. (The terms segment and offset are explained later.)

*endsegment: offset*

The *endsegment* is the ending segment in memory you will test. An offset is the exact location within the segment where you will end testing. If an *endsegment* is not given, the MEMTEST program will run until it reaches the end of the system memory

A segment equals 64K bytes. The first segment of your computer's memory starts at address 0000:0000 and ends at address 0000:FFFF. The second segment starts at address 1000:0000, the third segment at 2000:0000 . . . The segment numbers 0000, 1000, 2000, etc. are hexadecimal numbers.

An *offset* will be the exact byte within the segment where the memory test will start. The offset is given in hexadecimal numbers ranging from 0 to FFFF.

### **Examples:**

Use the following command if you are a novice user.

#### **MEMTEST**

The memory is tested, segment by segment. When you type this, notice that the memory testing did not begin at segment 0000. This is because only the memory that does not contain data is tested. The first few segments contain the operating system and any programs you have on your system.

After each segment is tested, the message TEST PASSED or TEST FAILED will appear on the screen. If the TEST FAILED message appears on the screen, the memory at the given segment is defective. MEMTEST also tests to see if each segment can be selected individually. A TEST PASSED message will appear on your screen if the test is successful.

#### **MEMTEST 4000:3000 5000:1000**

Memory from address 4000:3000 to 5000:1000 was tested by using this command.

## **MEMTEST 9000:0 9000:FFFF**

The TEST FAILED message has appeared for each data bit in the segment. The failure message occurred because memory that does not exist was tested.

### **File Used:**

MEMTEST.EXE

# MENU

---

**Purpose:**

Once MENU has been run, you may call up the menu programs at any time from just about anywhere by a few simple keystrokes. You may in the same manner, turn on or off the stopwatch, the clock, and several other things.

**Format:**

MENU [- Ddirectory] [- Ksize]

**Type:**

Background

**Remarks:**

When you run MENU, it will not print out anything but return back to you. At anytime after it has been run, you may use the following keys to produce the following results.



If you hold the Ctrl and Alt key down, press the T key and release all three keys, a timer will appear right below where the clock is. Pressing the same keys again and releasing it will cause the timer to stop but still remain visible. The same sequence a third time will cause the timer to disappear.

If you hold the Ctrl and Alt key down, press the M key and release all three keys, a menu will appear allowing you to select one of several menu programs or control such things as the intensity of the clock. As an example, typing the C key at this point will make the clock disappear if it is currently there or make it appear if it isn't.

You may type either of the key sequences at any time to bring up the menu or start the timer. You may be in the middle of a word processing session or waiting at the DOS prompt. There may be a delay if you use this sequence from BASIC.

**MENU must be run only once after the system has been powered up or reset.** Typically a line that invokes MENU is placed in your AUTOEXEC.BAT file. **If MENU is run more than once without resetting the system, confusion will result.**

When you press the Ctrl, Alt and M keys and request to run a menu program, MENU must load the program from disk. It will try to look for the program under the '\ ' directory or the root directory of the current drive. It also needs to allocate space in memory to load the program. If the program cannot be found or enough space cannot be allocated at that time, the program will not be loaded.

When you are running most programs, DOS allocates as much memory as it can get to the program. When you aren't running a program, DOS allocates as much memory as it can get to itself. This means in most cases when you press the Ctrl, Alt and M keys and request DOS to run a menu program, you won't be able to get enough memory and the program will not be loaded.

It is possible to convince MENU to pre-allocate memory for loading programs. On the IBM PCjr, because memory is fragmented, DOS tries to allocate as much memory as it can get, but it only gets a single fragment. This will usually leave enough memory to run any of the menu programs.

The options to MENU are described below.

- D Cause programs which MENU loads to be loaded from the given directory. If used, this option must contain a trailing backslash (\).
- K Pre-allocate memory of the given size. The size is specified in kilobytes. A kilobyte is 1024 bytes.

**Examples:**

Typing

**MENU -K64 -D\bin\**

will cause MENU to pre-allocate a 64K byte buffer for loading menu programs. It will also cause MENU to look for the menu programs under the directory, '\bin'.

Typing

**MENU**

causes MENU to allocate memory as needed. Programs will be loaded from the directory '\', or the root directory.

**Files Used:**

MENU.EXE.

**Other Programs:**

TTT

TICK

MEMO

STOCK

CHECK

ROLADEX

COPRINT

# PARTEST

---

**Purpose:**

Tests your Tecmar or IBM parallel port.

**Format:**

PARTEST [-An] [-B] [-C] [-I] [-P]

**Type:**

Utility

**Remarks:**

When you type PARTEST and press the Enter key, the program writes a set of patterns out to the parallel port and then reads them back. A message saying 'Test passed' or 'Test failed' will be printed on your screen.

The options given in the format section are explained below:

- An* Replace *n* with the number of the parallel port you wish to test. If you have two parallel ports, an IBM port and a Tecmar port, IBM's parallel port is usually the first port and Tecmar's parallel port is usually the second port. The default number for the -*A* option is 1.
- B* Writes a set of patterns to the parallel port and then reads them back. The -*B* option tests the internal paths of the port. A printer should not need to be plugged in for this option to be used.
- C* Tests the outgoing data lines and incoming status lines of the port. This test requires a special plug that can be purchased from Tecmar.
- I* Tests the printer interrupt through IRQ line 7. A printer must be connected to your computer for this option to be used.
- P* Prints a message on the printer and on your screen and asks you to compare the messages. A printer must be connected to your computer for this option to be used.

If none of the options are used when typing the PARTEST command, the *-B* option is assumed. The test is automatically performed on your first parallel port if you have two ports in your system.

**Examples:**

**PARTEST -A2 -I -P**

Test IRQ7 on the second parallel port, and print a message on both the screen and the printer.

**PARTEST -B -C**

Tests the internal paths and the outgoing data lines of the parallel port. If there are two parallel ports installed in your computer, the first port is tested.

**File Used:**

PARTEST.EXE

# PRINTER

---

## **Purpose:**

Allows you to use the computer while printing. PRINTER should be run when you first turn on your computer.

## **Format:**

```
PRINTER  
[+HIX] [+MID] [-LOW] [-BUFn] [-APLn]  
[-RUN] [+FLS] [+RCP] [+RPP] [+AFF]  
[-NLPn] [-NCLn] [-NCI[n]] [-LPTn[=COMn]]  
[-BDRn] [-NDBn] [-NSBn] [-PARtyp]  
[+XON] [+DCD] [+DSR] [+CTS]
```

## **Type:**

Utility

Background

## **Remarks:**

When you type PRINTER and press the Enter key, all files that should be printed are placed in a buffer. You can continue to use your computer while the files in the buffer are printing.



There are 21 options that control the PRINTER program. They are divided into four groups:

- Memory Allocation
- Printer Selection
- Printer Control
- Serial Printer Initialization

### **Memory Allocation**

You can choose the amount of memory to be used by PRINTER.

- / + *HIX*

Disable/enable memory from C0000 to F0000 hex for use by PRINTER. There must be memory in this area if you want to use this option. If this option is not given, it is disabled by default. **This option cannot be used with the IBM XT or the PCjr.**

- / + *MID*

Disable/enable memory above the memory set by the IBM system board switch modules. There must be memory in this area if you want to use this option. If this option is not given it is disabled by default. **This option cannot be used with the IBM XT or the PCjr.**

- / + *LOW*

Disable/enable normal system memory for PRINTER to use. If this option is disabled, you must have memory enabled by using the *HIX* or *MID* option. **This option cannot be used with the IBM XT or PCjr.**

- *APLn*

Replace *n* with the amount of memory (in K bytes) that you want to leave free for applications programs. If this option is used without the -*BUF* option, all remaining memory will be used by the PRINTER program. If this option is not given, *n* assumes a size of 64K bytes is used.

example: -*APL128* (*sets aside 128K for other programs*)

- *BUFn*

Replace *n* with the amount of memory (in K bytes) that PRINTER will use. If this option is used without the -*APL* option, all memory remaining after PRINTER memory has been allocated will be free for your use. If this option is not used, PRINTER uses all available memory left after the memory specified in the -*APL* option.

## Printer Selection

*LPTn*

Replace *n* with 1 if you want to use PRINTER with LPT1, 2 with LPT2 and 3 with LPT3. If the information to be printed has been directed to a serial port, PRINTER will redirect it back to the parallel port.

*LPTn: = COMn*

Replace *n* with the LPT number and COM number for the ports you plan to use. This option sends information to be printed to the serial port, instead of the parallel port. Use this command instead of the IBM PC DOS MODE command.

example: *-LPT1: = COM1:* (sends any information to be printed on LPT1 to COM1.)

## Printer Control

*+AFF*

Adds a formfeed to the end of the information being printed. This can be used to separate documents.

*-/+RUN*

Stop/start printing.

*+FLS*

Empty the contents of the PRINTER buffer.

*-NLPn*

Sets the number of lines per page. Replace *n* with the number of lines you want to be put on each page.

*-NCLn*

Sets the number of characters per line. Replace *n* with the number of characters you want put on each line.

example:

*-NCL64* (prints up to 64 characters per line.)

*+RCP*

Repeat printing the current page. If the *-NLP* and *-NCL* options were not designated, the current page starts at the most recent form feed. This option would be used if your paper jammed while printing.

– *RPP*

Repeat printing the previous page.

– *NCI [n]*

Controls the rate at which characters are printed. A high number will let the printer print rapidly but will slow the rest of the computer. If you type *–NCI* but do not give a number, *PRINTER* is placed in an automatic mode that picks the optimum rate for your printer.

### **Serial Initialization**

These options are only necessary if you are using a serial printer. If your serial printer is a PC compact printer, you may skip this section.

Consult your printer manual for information about using these options with your printer.

– *BDRn*

Replace *n* with the baud rate of your printer. IBM PC DOS allows baud rates of 110, 150, 300, 600, 1200, 2400, 4800 and 9600. If you do not use this option, the default baud rate is 1200.

– *NDBn*

Replace *n* with either 7 or 8 (the number of data bits to be used). If you do not use this option, the default number of data bits is 8.

– *NSBn*

Replace *n* with either 1 or 2 (the number of stop bits to be used). If you do not use this option, the default number of stop bits is 2.

– *PARtype*

Replace *type* with the type of parity to be used. 'N' is no parity, 'E' is even parity and 'O' is odd parity. If you do not use this option, no parity is set.

There are four options for serial printer handshaking.

– / + *DCD*

Disable/enable handshake with Data Carrier Detect.

– / + *DSR*

Disable/enable handshake with Data Set Ready.

– / + *CTS*

Disable/enable handshake with Clear to Send.

– / + *XON*

Disable/enable handshake with Xon/Xoff.

If a handshaking option is not used, it is automatically set to off. CTS is automatically set to on.

The Serial, Printer Select and Printer Control options can be changed after PRINTER is running by re-running PRINTER or by using the COPRINT program.

When PRINTER is run, a message telling you how much memory has been set aside for PRINTER and whether LPT has been redirected to a serial printer will be displayed on your screen.

**Examples:**

**PRINTER - LPT1 - BUF61**

This line tells the computer to use 61K bytes of system memory for the PRINTER buffer. The printer designated as LPT1 will be used.

**PRINTER - RUN**

This line will stop the printer. Use it to cause a controlled pause in printing a document. If you do not want to finish printing the document, use PRINTER - RUN + FLS .

**PRINTER - LPT1: = COM1:**

Redirects any document that normally would be printed on your parallel printer to be printed on a serial printer.

**PRINTER - LPT1: = COM1: - BDR300  
- NDB8 - NSB1 - PARN**

Sets up the serial port to be used with the PRINTER program instead of a parallel port. The serial port is set for 300 baud, 8 data bits, 1 stop bit and no parity.

**File Used:**

PRINTER.EXE

**Other Programs:**

COPRINT



# QSORT

---

**Purpose:**

Sorts a file by the column you choose.

**Format:**

QSORT [-R] -Ffieldn file1 file2

**Type:**

Utility

**Remarks:**

When you type the QSORT command, a file is sorted by the column you chose. The results are put into a second file. You must give different names for file1 and file2.

QSORT expects files in the same format as the FORM data files.

For example, if you have a file called CHECK.DAT containing checks you want sorted by check number (field2), type:

**QSORT - F2 CHECK.DAT  
CHECK.SRT**

You can sort any file you want. A common use of QSORT is to sort files created in the MEMO, CHECK or ROLADEX programs.

Files are sorted in the following order.

1. numbers - lowest to highest
2. uppercase letters - A to Z
3. lowercase letters - a to z

Special characters can also be sorted. Their order is determined by their ASCII value.

The options in the format lines are explained below.

– *R* Sorts the file in descending order (Z to A, 10 to 1). If this option is not given, the file is sorted in ascending order (A to Z, 1 to 10).

– *Ffieldn*

This option includes a hyphen and an 'F' followed by the number of the column that you want to sort. For example, if you have three columns in a file: First Name, Middle Initial and Last Name, you will use the number 3 for the fieldnumber when you want to sort by last name.

*file1* Name of the file that you want to sort.

*file2* Name of the file that the sorted information will be placed in *File2* cannot be the same name as *file1*.

Information in the *file1* is not changed when sorting occurs.

The sorted information is placed in an *file2*. The order of the columns in the input and output files are not changed when sorting takes place.

Use the FORM program to print the sorted file.

**Files Used:**

QSORT.EXE

**Other Programs:**

FORM  
MEMO  
ROLADEX  
CHECK  
STOCK

# REMIND

---

**Purpose:**

Creates messages which may be printed on your screen at any time and day that you specify.

**Format:**

REMIND

**Type:**

Menu

**Remarks:**

REMIND begins by displaying a calendar in the upper left hand corner and a list of function keys (called the Main Menu) in the upper right hand corner.

A window in the center right hand side of the screen gives you suggestions on what to do next.

You can type reminders by pressing the F3 or F4 keys. Each function key lets you type the time a reminder should be displayed in a different way.

The F3 key lets you type the date and time when the reminder will be displayed. For example, you will type the exact day the reminder will be displayed. If you put an asterisk '\*' in the column, the reminder will be displayed every day.

The F4 key lets you choose the weekday a reminder will be displayed. For example, if you select Sunday, the reminder will be displayed every Sunday.

The F5 and F6 keys let you change the calendar displayed in the upper right-hand corner of your screen. You can change the month or year and then type reminders for that date by using the F3 and F4 keys.

Messages are saved in a file called CRON.DAT. The CRON program uses this file to know what messages to display and the time to display each message. For more information about the CRON.DAT file, read the section on the CRON program.

**Examples:****01/01/1980 12:00**

will put a message on the screen at noon on Jan 1, 1980.

**01/01/1980 12:\***

will print the message every minute from 12:00 to 12:59 on Jan. 1st, 1980.

**\* /\* /1984 12:00**

will print the message at 12:00 noon every day, of every month during 1984.

**Mo 08:\***

prints a message every minute from 8:00 to 8:59 every Monday.

**File Used:**

REMIND.EXE

CRON.DAT

**Other Programs:**

CRON

# ROLADEX COMMAND

---

**Purpose:**

Keeps an address book in alphabetical order on the computer. The addresses can be changed using simple commands listed on your screen.

**Format:**

ROLADEX [file]

**Type:**

Menu

**Remarks:**

When you type ROLADEX and press the Enter key, a menu appears on your screen.

If there are names in your ROLADEX file, the person's name and telephone number is displayed. Your first step will be to type all your friend's names and information into the file, by pressing the F1 key.

By pressing the function keys listed in the menu, you can do the following:

- **Add A Record**

Press F1 to add a new name and address to your directory. If you want to add special remarks about the person, press the F5 key. Qualifiers, which are explained in the FORM section, can also be added. Press ESC when you are done.

- **Edit A Record**

You can change any information that you typed earlier by pressing F4. Press the ESC key when you are done.

- **Display A Record**

Position your cursor on a name in your file and press the F3 key. All information that the file has about the person will be displayed.

- **Find A Record**

Press F5 and then type the name of a person in your file that you want to find.

- **Delete A Record**

Position the cursor on a name. Press F2 to delete the name from your list. To end the program press the F10 key.

The *file* option allows you to store your address books and then retrieve them for use at another time. The *file* option also allows you to keep address books in more than one file and store each in its own *file*. If a file is not given, the default file ROLADEX.DAT is used.



## **File Record Format:**

<b>Field</b>	<b>Description</b>
1	Last name
2	First name
3	Telephone number
4	Title
5	Company
6	Street Address
7	City
8	State
9	Zip
10	Country
11	Qualifier
12 . . .	Remarks

## **Files Used:**

ROLADEX.EXE

ROLADEX.DAT

## **Other Programs:**

QSORT

FORM

# SETTIME

---

## **Purpose:**

Sets the Tecmar board's clock/calendar using the DOS date and time. SETTIME is usually only run when the Tecmar board is first installed or after the battery has been changed.

## **Format:**

SETTIME

SETTIME - 1

SETTIME - 2

## **Type:**

Utility

**Remarks:**

SETTIME will read the date and time from the DOS date and time and set the clock/calendar on your board. SETTIME will then read the date and time from the clock/calendar and display it on your screen.

The options in the format lines are explained below.

- 1 If you have jumpered your board as TIME1, use this option. (This is the same as giving no options to SETTIME.)
- 2 If you have jumpered your board as TIME2, use this option.

**File Used:**

SETTIME.EXE

# STOCK

---

**Purpose:**

Allows you to create, maintain and display a list of inventory items in order by stock number. The quantity of an item is adjusted each time the item is added, updated or edited.

**Format:**

STOCK [file]

**Type:**

Menu

**Remarks:**

When you type STOCK and press the Enter key, a menu will appear. A window at the bottom of each menu gives messages that tell you what to do next.

By pressing the function keys listed in the menu, the STOCK program performs the following functions:

- **Add or Update.**

You may add new items to your inventory list or update the quantity of an existing item by pressing the F1 key.

- **Delete.**

You may erase an item from the inventory file with this function by pressing the F2 key.

- **Edit.**

You may edit an incorrect stock item with this function by pressing the F4 key.

- **Find.**

You may search for an item by stock number by pressing the F5 key.

You will want to press F1 first in order to build your inventory list.

Press the F10 key to exit the program.

The *file* option allows you to store your inventory items and then retrieve them for use at another time. The *file* option also allows you to keep records on more than one inventory and store each under its own *file* name.

**File Record Description:**

Field 1	Description
Field 1	Stock Number
Field 2	Item
Field 3	Quantity

**Files Used:**

STOCK.EXE  
STOCK.DAT

**Other Programs:**

QSORT  
FORM

# TICK

---

## **Purpose:**

TICK allows the time to be displayed continuously in either 12 or 24 hour format. It has several features including a stopwatch which can be turned on and off by various programs. TICK must be running for the CRON and MENU programs to work.

## **Format:**

TICK [+B] [-C] [+D] [+E] [-K] [+L] [+M] [-S]  
[-T]

## **Type:**

Background

## **Remarks:**

TICK provides several different functions. The most obvious one is displaying a clock continuously in the upper right hand corner of the screen. Most of the other functions are used by programs which may interact with TICK.

Programs may display messages on the top line of the screen by interacting with TICK. A stopwatch may be turned on and off by other programs. The program MENU allows you to set or reset the stopwatch.

TICK must be run only once after the system has been turned on or reset. Typically the TICK command is placed in your AUTOEXEC.BAT file. If TICK is run more than once without resetting the system, confusion will occur.

When TICK is run, it will print out a version number and a copyright message. The clock will appear in the upper right hand corner of the screen in 12 hour format.

TICK has several options. They are described below.

- + *B* Causes the clock and anything else that is displayed by TICK to be displayed in high intensity.
- *C* Causes the clock not to be displayed.
- + *D* Displays date/month/year opposite time in upper left hand corner of screen.
- + *E* Causes the clock to display in 24 hour format.
- *K* Disables the life line to other programs such as CRON and MENU. This option should never be used unless you know exactly what you are doing.



- +*L* If any program tries to open a file in its current directory and the file does not exist, the open will be retried in the /lib directory if this option has been selected. This is useful if you are using a program such as a word processor which requires overlay files in the current directory. By using this option and keeping the overlay files in the /lib directory, you can then be in any directory without copying the files over every time.
  
- M* Prevents other programs which interact with TICK from displaying messages on the top line. If CRON wishes to print a message to remind you about something, it won't be able to do so if you use this option.
  
- S* Prevents other programs such as MENU from printing the date or status information.
  
- T* Prevents other programs such as MENU from turning on the timer or stopwatch.

### **Examples:**

If you want the clock displayed in 24 hour format, use the following line,

**TICK +E**

If you want to run TICK to allow CRON and MENU to run, but do not want to see the clock, type:

**TICK -C**

Typing the following line,

**TICK +B +E -M**

will cause the clock to be displayed in 24 hour format and high intensity mode. Also, programs such as CRON will not be able to display messages on the top line of the screen.

### **Files Used:**

TICK.EXE

### **Other Programs:**

CRON

MENU

# TIMTEST

---

**Purpose:**

Tests the Tecmar board's clock/calendar for proper operation.

**Format:**

TIMTEST [- Aaddress] [- linterrupt]

**Type:**

Utility

**Remarks:**

The options in the format line are explained below.

The TIMTEST program performs several tests on your clock/calendar. The program will print an error message if it finds a problem. If the board passes all five tests, the message "Test passed" is printed.

The options you may use with TIMTEST are explained below.

*- Aaddress*

Replace address with 1 if your board is addressed at TIME1 or 2 if your board is addressed at TIME2. If you do not specify this option, the default is TIME1.

*- linterrupt*

TIMTEST will run a test to check system interrupts with the *-I* option. You must put the number of the interrupt line your board uses after the *-I*.

**Note:** The *jr*Captain has a jumper block that allows you to jumper the board to IRQ1 or 2. The Captain has a jumper block that allows you to choose IRQ2, 5 or 6.

**Examples:****TIMTEST - I1**

You have a *jr*Captain jumpered for TIME1 and IRQ1.

**TIMTEST**

Tests will be performed on your board's clock/calendar. The clock/calendar must be the only clock in your computer.

**TIMTEST - A2 - I6**

You have a Captain jumpered as TIME2 and IRQ6.

**File Used:**

TIMTEST.EXE

# TTT

---

**Purpose:**

To play a game of two or three-dimensional Tic Tac Toe against the computer.

**Format:**

TTT

**Type:**

Menu

**Remarks:**

Once you enter the TTT command, a menu appears listing options for certain function keys. Press the function keys to highlight the choice for the options below.

Each function key acts as a toggle switch to let you move between choices. When you press the function key once, one choice is highlighted. When you press the function key a second time, the other choice is highlighted. The highlighted option is the one recognized by the computer. The following options may be chosen.

- **Monitor color:** either monochrome or color may be specified.
- **Dimension:** either two-dimensional or three-dimensional Tic Tac Toe may be played.
- **Randomness:** the computer may play a fixed strategy, or make random decisions, as desired.
- **Hint:** The computer may suggest a good move always, never, or only when it is on the verge of winning.

Press F5 to start the game and let you go first. Press F6 to start the game and let the computer go first.

The arrow keys (← and →) move you sideways one square. The arrow keys (↑ and ↓) move you up and down one square. The TAB keys (→| and ←|) move you to the same square on the next Tic Tac Toe board in three dimensional Tic Tac Toe.

An image of the board is displayed while playing the game.

The cursor may be moved around the board using cursor movement keys. You determine the square you want to mark, move the cursor to that point, and press the Enter key.

You may resign the game, or to offer the computer a draw (which it sometimes accepts).

To test this program type the TTT command and play the game. See how far you can go before being defeated.

**File Used:**

TTT.EXE

**Other Programs:**

MENU



# NOTES

(

(

(



## Product Comment Form

### Treasure Chest Technical Reference

Your comments are a vital tool in assisting us in our efforts to continue the improvement of PC-Mate products and the accompanying manuals.

Suggestions may be used or distributed by Tecmar in any form it believes appropriate without any obligation whatever. This does not limit your use of the information that you originate and supply to Tecmar.

Comments:

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Zip Code \_\_\_\_\_

# **TECMAR INCORPORATED**

**PERSONAL COMPUTER PRODUCTS DIVISION**

**6225 COCHRAN ROAD**

**OLON (CLEVELAND), OHIO 44139-3377**

**TELEPHONE - (216) 349-0600, TELEX - 466692**