

## DB -- DATA-BASE PROGRAM

### OVERVIEW

DB is a very fast, file storage and retrieval program that is MENU driven, easy-to-use and absolutely free of charge. Having the capacity to store 1500 records, it makes a fine "address book." In fact, a sample is included herein, one from which records can easily be deleted, and to which records can just as easily be added.

### TYPICAL USE

Do you wish to create a file? n (yes) ENTER

file name? (test) ENTER

number of records? (20) ENTER

Comment: the number is low to speed the operation.

Input number of fields per record? (5) ENTER

Comment: 20 fields are maximum.

But five fields were requested, so the system asks in turn for five field names and the number of characters to be reserved for each field:

field 1? (last name,15) ENTER

field 2? (first name,15) ENTER

field 3? (st. address,25) ENTER

field 4 (city/st/zip,25) ENTER

field 5 (tel. number, 12) ENTER

The user should note that this is the format for the sample file. Looking ahead, and anticipating a print out of records, the recommendations given above are -- substantially -- the maximum characters allowable for straight ASCII, "elite Type," (96 characters per line). The "allowable" for "pica Type," 80 characters per line, is 78. If these limitations are met, DB will automatically print one record per line. Otherwise, the program will print each record in its entirety, one field per line.

At this point, the program together with the built-in disk-operating system, sets aside reserved space on the disk for the requested file. When the task is complete, the program goes

directly to the "MENU."

The following information applies to all sessions, whether starting a new file -- as above -- or accessing and/or modifying an old file.

## MENU

### File Access

Type 'q' for quit

Type 'd' for directory

Type 's' for sort

Type 'a' for adding a record

Type 'c' for configuration, printer

Type 'p' for printing records

Type 'l' for looking at records

Type 'dos' for MS-DOS (Type 'EXIT' to return.)

code? \*

Note! Except for calling a file directly by name, only lower case letters are used above.

'c' is for configuring a printer. Output is set for HP PCL-4/5 and related printers. But a number of other printers are accomodated too. Listings are provided. One may choose a particular printer or one that is known to be compatible. If none of the listed printers will serve, the programs provides for user-configuration. That is; armed with the applicable printer manual, the user inputs eleven printer-codes to the program, "USERP.PRN." Toward this end, DB is amply prompted or is otherwise self-explanatory.

'q' is for quitting the program. This is the only proper way to exit, since it closes all files and releases all peripherals for later use.

'd' is for the directory. It will list on the screen or on paper all the key fields of the file. (The user can stop a "screen" presentation by pressing the space bar. Pressing it again will recommence the scroll.)

's' is for sort which can be alphabetizing or sorting

by number. Alphabetizing is a downward sort. "High score" sorting is upward; (as -- for example -- sorting by year, for tax purposes). The user chooses the direction. This program employs a very efficient sort algorithm. Even with 750 records and second level sorting, (which is automatic, incidentally), the job is finished in seconds. The user is informed when the sort is complete.

'a' is for adding a record. The fields will be listed with assigned names one after the other. The user merely fills in the appropriate information. As an aid to the user, a lighted horizontal bar will appear above the entry point to indicate how much space is available for the particular entry. If by chance, one enters more than the allowable amount, the program will automatically reject the entry and revert to the beginning of the field. Another attempt can then be made. All fields are supplied with "default" entries; the symbols "@"." "Null" entries create problems. Go ahead and just hit the return key if no entry is required. The program will automatically enter its own "null" string for that field. Note! Commas and semi-colons cannot be used within field-entries. Commas and semi-colons are "delimiters," recognised by the computer as markers to separating entries.

'p' is the option for printing records and is screen-prompted in great detail. Courier typeface is assumed in all print operations, since it is universally available and provides for "one character," per space (making "spacing" entirely predictable. For example, 80 characters per line for Pica and 96 characters per line for Elite; a rather typical "ASCII" setup. The user may print out the whole file or a specifically designated portion thereof. Formatting and paging are automatic. If the chosen fields for the records can fit on single lines, the records are listed one per line. If single fields are chosen, (for example, names only), the program will automatically set them down one next to the other, two or three abreast, with appropriate spacing. One can specify a heading if one wishes. Make it simple and remember, it will be "left justified" If more than one page is required for a particular printing session, the program will automatically number succeeding pages and provide a repeat of the heading. One line is skipped after every five lines of single-line printing to facilitate reading.

If the records exceed 78 characters total (for "pica" Type) or 94 characters total (for "elite" Type), each record will be printed as a unit, one field directly beneath another. A more typical file is the sample included herein, "RECS," which lists and locates (by library file number) the author's phonograph records. When the file is printed out, "elite" type is chosen so that two complete, computer records can fit on each line..

'l' is for look, and except for the fact that records appear one at a time on the screen, this option corresponds almost exactly with 'p.' Here too, commands are heavily

prompted for ease of use. When employing 'l,' and after the computer presents a particular record, the user is given the opportunity to modify it or add to it as required. If the user wishes to "delete" the record, he must answer "d" at this point -- followed by ENTER, of course. The record will be deleted from the file in its entirety. Note! If the user chooses to delete a "field" (rather than a complete record), he can do so with the INS/DEL key, but he must restore the prompt "@" Failure to do so may result in file problems and possible loss of data. All other aspects of "modifications" are explained fully in the screen prompts.

After completing this phase, the user is asked if he wishes to see the next record. If he indicates yes, he will find that the "next" record follows the sequence established by its original entry; or -- if "sort" had been commanded -- according to the now sorted file. This is convenient and makes 'l' a very useful option.

'\*' is the default character for our MENU. Hitting ENTER simply cycles the computer back to the MENU. However, there is an option available too. One may ask for a particular record here by putting in all or part of its "key" in answer to the prompt. For example, if one wished to see Doe John's record, one might simply enter "Doe John." Note the capitals. If capitals were used when entering this record, capitals must be used in calling the record. Alternately, one might enter "Doe" only, and providing there are no other names in the file beginning with "Doe," the proper record would appear on the screen.

## LATER SESSIONS

All that remains now is to review the method by which examination and re-entry are made to the file at some later session. Command DB and note the following "RUN."

do you wish to create a file? n (no) ENTER

file name? (test) ENTER

which field is key? 1 (1) ENTER

One (1) is usual for the KEY field, since it normally represents "last name," but this program supports any choice. The program now takes over and after a short interval returns to the MENU. The user may then proceed as indicated above.

## SECURITY

When a sizable amount of information has been posted to a file, one might justifiably feel badly if -- by some unfortunate

chance -- the file were to be damaged or destroyed. It might be useful, therefore, to copy your files to another disk at an appropriate time. It takes but a few moments, and it's good insurance. Note. There are two MS-DOS files associated with each record file: one with ".REL" extension and one with ".DSC." Both must be transferred.

MS Smartdrv.exe can present problems with storage and read back programs. Two batch files are recommended. Assuming this software is stored in the directory "c:\DBASE," the following is suggested:

To activate DB --

```
@echo off
cd\
c:
smartdrv c- a- b- (or with STACKER "on," smartdrv d- a- b-)
cd dbase
db

                cls

cd\
smartdrv c+ a+ b+ (or with STACKER "on," smartdrv d+ a+ b+)
```

Save as batch\db.bat To activate, merely command "DB" at the MS-DOS prompt.

## GLOSSARY

**CHARACTER:** One letter or one digit. One "character" is normally stored in one "byte" of computer memory.

**CURSOR:** A screen prompting signal. This is a small vertical, lighted rectangle which indicates the point at which an entry will be made. Often the "cursor" will be blinking. A "prompted" response (i.e., a response used frequently) is sometimes placed under the cursor as an aid to the user.

**DEFAULT:** The name given to an option which is automatic, that is; if no option is chosen by the user, the program provides its own, called the "default" option.

**EDIT MODE:** The edit mode of a word processor is the mode in which the user types in his text.

**ELITE:** With Computers, this is taken to mean 12 characters per inch or 96 characters per line.

**FIELD:** One line entry of a "record," limited in size (in DB) to 78 bytes. Normally, the first two field are last and first name, followed perhaps by an address, telephone number, etc..

**FILE:** Normally, any program or software appearing on a disk drive. A file could be text, binary code, etc.. When using "DB," a file is considered a complete store of "records."

**KEY FIELD:** A field in a record (in a data-base system), is described as a "key," if it is employed to identify a particular record in a file. Usually, the first field of a record is the key. However, one might also "key" on a date (year) for tax purposes, etc.. DB has the capacity for employing any field as a key in any given session.

**PICA:** With computers, this is taken to mean 10 characters (letters) per inch, or 80 characters per line.

**PROMPT:** An entry suggested by the program and put under the cursor. If the "prompted" entry is acceptable, all one needs to do is hit the ENTER (RETURN) key. Old style, commercial DOS programs were often prompted to permit the user to see a reasonable output by just hitting the ENTER key. I still consider it the best way to impliment an unfamiliar program.

**RECORD:** One complete entry in a "file" normally containing one or more "fields." Records have the same meaning in computer files as they did in the old style, office files.

**USER:** The name given to the person (or persons) who currently operate the program.

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