dBASE II
Version 2.3 to 2.4
Change Summary
13 January 1983
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CHANGES WITH IMPACT ON SOME EXISTING SYSTEMS

1.0 MEM (memory) files built under previous versions of dBASE II are not compatible with version 2.4. These variables will have to be entered (once) and reSAVEd.

1.1 Operating systems earlier than CP/M version 2.0 are not supported by dBASE II version 2.4.

1.2 All overlays and the system message file are now in a single file DBASEOVR.COM.

ENHANCEMENTS AND NEW FEATURES IN VERSION 2.4

2.0 A TEXT-ENDTEXT command has been added to assist in generating form letters and other block data applications. This new command can save multiple ?, ??, or @ SAY commands.

EXAMPLE:
```
? "Dear    "+Name
TEXT
        This is an example of the very handy new TEXT command in
        dBASE.
ENDTEXT
? "                              Yours truly,"
```

2.1 It is now possible to use relative screen addressing with @ SAY GET commands.

EXAMPLE:
```
@  10,20    SAY Address
@  $+2,20   SAY 'Good Morning, '
@  $,$+1    SAY Name
```

2.2 RELEASE command can now release subsets of all memory variables.

RELEASE ALL LIKE < skeleton> releases all memory variables that the skeleton masks.

RELEASE ALL EXCEPT < skeleton> does the opposite.

The < skeleton> uses question marks to mask any single character, and an asterisk masks all remaining characters in a memory variable (up to ten of course).

2.3 SAVE command can save memory variable subsets.

SAVE ALL LIKE <skeleton> to <memory file name> saves all variables whose names are selected by the LIKE <skeleton>.

EXAMPLES:
RELEASE ALL LIKE M* (releases all beginning with M).
SAVE ALL LIKE ?DATE TO DATES (saves MDATE, BDATE, ZDATE, etc.).

2.4 A HELP command has been implemented. By typing HELP <command> user can get basic information about syntax and usage. This command calls the new file DBASEMSG.TXT which may be edited using a text processor or with MODIFY COMMAND.

2.5 RANK ( ) function implemented. RANK(<string>) will return the ASCII value of the first character of <string>.

3.0 INDEX (no operands) indexes current record. Useful after a record is added by APPEND BLANK.

3.1 REPORT strips high-order bits in form files.

3.2 CREATE now checks for and prevents duplicate field names.

3.3 MODIFY STRUCTURE checks for syntactically correct field names.

3.4 DISPLAY can print semicolons after SET RAW ON.

3.5 ? and ?? don't put a space between fields after SET RAW ON.

3.6 REINDEX command rebuilds multiple indexes from scratch using the original key expressions. Index files must have been specified by a USE command or a SET INDEX TO command.

3.7 File name masking improved to allow X*.* to resemble X???????.*

EXAMPLE:
DISPLAY FILES LIKE INV*.*

4.0 EDIT, APPEND, CREATE, and INSERT can use format files to format screen with the SET FORMAT TO <file> command. This saves storing input to variables and then REPLACing them to the database file.

EXAMPLE:
USE INVOICES
SET FORMAT TO INVFORM
APPEND
(user can just fill in the blanks to add data)

5.0 TYPE function returns a "U" (Undefined) if expression is not parsable, even if a variable's parenthetic comments are syntactically correct.

6.0 RESET command accepts a drive name and provides protection against open files on that drive as well as empty drives.

EXAMPLE:
```
RESET B
```

6.1 Errors inside command files will show a traceback of the command files' nesting, called level by level.

EXAMPLE:
```
***SYNTAX ERROR***
DISPLAY MEMRY?
CALLED FROM INPUT.CMD
CALLED FROM ACCOUNTS.CMD
CALLED FROM MAINMENU.CMD
CORRECT AND RETRY (Y/N)?
```

6.2 After a PACK, dBASE will update all INDEX files currently used with a database. This results in a much speedier PACK and index update process.

6.3 SET DELETE ON (default is off) makes dBASE ignore all records marked for deletion. All commands, including FIND and LIST, treat deleted records as invisible, except when a command addresses a deleted record by record number.

7.0 DISPLAY STATUS shows USE database file names, system date, indexes, and their key expressions, as well as the status of all SET parameters.

EXAMPLE:
```
DISPLAY STATUS
    DATABASE SELECTED — B:TEST1.DBF
    PRIMARY USE DATABASE

    TODAY'S DATE          — 10/25/82
    DEFAULT DISK DRIVE    — B:
    ALTERNATE — OFF    BELL    — ON
            (etc. for all parameters)
```

8.0 UPDATE command can update in random order if USE database is indexed. Also, the REPLACE phrase can replace X with Y so that databases and update databases need not have identically named field names.

8.1 RESTORE command can load saved memory variables without releasing the current memory variables using the ADDITIVE phrase.

EXAMPLE:
```
RESTORE FROM <file.mem> ADDITIVE
```

8.2   A new option to the READ command NOUPDATE disables dBASE II from doing a check for changes in index file keys after each READ. Use this command to save time if you know that you will not be altering any index key fields.

8.3   Trying to open a command or database file that is already open will now give the error FILE IS CURRENTLY OPEN. This will avoid the file stack overflow error and datafile confusion.

CORRECTIONS TO VERSION 2.3

9.0   In APPEND mode with over 23 fields, carriage return on 1st field of second screen won't terminate record entry.

9.1   Fixed data corruption when no datum was entered after INSERT command.

9.2   APPEND and COPY null line problem fixed.

9.3   APPEND to an empty database dumps no garbage after SET CARRY ON.

10.0   BROWSE of field with length a multiple of 80 problem fixed.

10.1   Disabled erroneous Ctl-T and Ctl-N in BROWSE.

10.2   TEST function relations problem fixed.

10.3   If intermediate string (e.g. created by macros) exceeds 255 characters, string concatenation gives error message.

10.4   GOTO RECORD <n> now positions index file correctly.

10.5   Internal handling of .AND. stacking fixed.

10.6   Problem with LOOP occasionally jumping to wrong ENDDO fixed.

11.0   Null format files no longer create a problem.

11.1   CANCEL and error handler will now close all open command files.

11.2   SET ALTERNATE TO (null) doesn't create an empty .TXT file.

11.3   RENAME now makes dBASE discard all knowledge of the old filename.

12.0   Fixed EOF function report after PACK of empty indexed file.

12.1   PACK now recovers records after system crash by looking for the actual end-of-file.

13.0 Fixed full screen entry of numeric data when CONFIRM is SET ON.

13.1 Improved numeric handling in Full Screen Edit mode.

13.2 Non-full screen EDIT handles coordinates like pre-full screen EDIT.

14.0 SET LINKAGE ON works with a mixture of indexed and non-indexed data-bases.

14.1 SET ESCAPE ON now works with ACCEPT and INPUT commands.

15.0 DISPLAY STRUCTURE with empty structure causes no problem.

15.1 DISPLAY FILES LIKE *.* doesn't interfere with ALTERNATE file.

15.2 DISPLAY MEMORY properly accounts for logical variable size.

16.0 TOTAL FOR < condition>, where condition was never true, now fixed.

16.1 SUM TO < memvar> now allows < memvar> to be 10 characters long.

16.2 Problem with numeric pictures in SAY command now fixed.

16.3 TOTAL command with FIELDS phrase documentation corrected. FIELDS phrase does not determine field in the TO file.

17.0 Null form name aborts REPORT, doesn't create an empty .FRM file.

17.1 Syntax error during subtotal expression in REPORT now handled.

17.2 REPORT handles 24 fields with totalling and subtotalling.

18.0 CANCEL and ERROR abort resets DO CASE depth gauge.

18.1 CASE statements in the DO CASE command will now nest correctly.

19.0 MODIFY COMMAND file handling improved.

19.1 'MODIFY COMMAD' doesn't create a file AD.CMD.

20.0 Obsure data corruption when using SORT on a file with a very rare geometry fixed.