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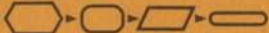
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# LITTLE BROTHER

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Maintenance Utility

**LOGICAL  
SYSTEMS  
INC.**  


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### LIMITED WARRANTY

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## LBMAINT - The Little Brother File Maintenance Utility

LBMAINT is a program which will allow you to perform various maintenance functions on existing Little Brother data files. All functions performed by LBMAINT will deal with the creation of a new data base using an existing one. The new data base file can be created using either all records from the old file, or only records that are contained in an existing index file.

Fields from an existing data base can be used to form a new data base. Any or all of the existing fields can be used. New fields may also be added in creating the new data base. The existing field lengths can be changed to either increase or decrease the amount of characters allocated to each field. Also, certain types of field changes can be performed (e.g. changing a <N>umeric field into a <D>ollar field).

The LBMAINT program will also allow you to recover an unusable data base file. This may be useful if you have encountered a mismatch between a data and definition file, if you have a data file that contains bad (unreadable) records, or if you have an unreadable definition file or have inadvertently deleted your definition file.

If you have a file that contains a mismatch, LBMAINT can be used to create a new data and definition file using the existing information. If you have bad records in a data file, LBMAINT can be used to move all good records from your existing file to the new file.

If you have an unreadable definition file (or have inadvertently deleted your definition file), you may use LBMAINT to restore your existing data file. In order to do so, you must first use Little Brother's Define File Formats (main menu option number 10) to create a NEW definition file that contains the EXACT same field definitions as the bad or deleted definition file. You will only need to create the definition file, and do not need to allocate records for the data file. After you have re-established a new definition file (assigning to it a new name), you will need to COPY the existing data file to a new file, using the same name as was assigned to the newly created definition file.

As an example, suppose you had an existing data file named MYDATA, where the definition file was inadvertently deleted. Using Little Brother, you created a new definition file named NEWDATA which contains the exact same field definitions as the MYDATA file. In order to restore the existing data from the MYDATA file, you would need to copy MYDATA.LB (for TRSDOS users, the file would be MYDATA/LB) to a file named NEWDATA.LB (NEWDATA/LB for TRSDOS users). Once this is done, you would now use LBMAINT on the NEWDATA file to create another new file which would contain all of the existing data from the MYDATA file (essentially, LBMAINT would

view the NEWDATA file as having a mismatch between the data and definition files).

### Initially Starting Up LBMAINT

Starting up the LBMAINT program will differ depending upon the type of hardware you are using. The starting procedures will outline the proper means by which the LBMAINT program is to be started up.

### Note for ALL IBM Users

The LBMAINT program requires that the ANSI.SYS file be a part of your CONFIG.SYS file. When using the LBMAINT program, it would be best to boot up the system using the procedure that you normally would to run Little Brother. This will ensure that the ANSI.SYS file is loaded properly.

### Hard Disk Start Up

If you are using a hard disk, the start up procedure for using LBMAINT is quite simple. First, copy the LBMAINT program to your hard drive from the floppy disk that it is supplied on (IBM users will copy the file LBMAINT.EXE, while TRSDOS users will copy the file LBMAINT/CMD). To run the program, merely enter the following command at the Dos level:

LBMAINT

A sign on message will appear, and you will now be able to begin your Little Brother file transfer.

### Floppy Disk Start Up

Floppy disk users should first make a backup of the LBMAINT diskette and should use the backup diskette when running LBMAINT. Refer to your Dos BACKUP (TRSDOS) or DISKCOPY (IBM) commands for more information. After the backup has been made, boot your computer in the same manner as you would when running Little Brother (IBM users will boot up using a system disk that contains ANSI.SYS as a part of the CONFIG.SYS file; TRSDOS users will boot up using the Little Brother start up disk - at the prompt for the Runtime or Creation disk, press the <BREAK> key to return to the TRSDOS Ready prompt).

Before using LBMAINT, you should have at least one newly formatted diskette at hand. This diskette will be used to hold the new data file that is to be created from an existing one.

At this time, place the backup diskette containing the LBMAINT program in your first floppy drive (this will be drive A: for IBM users, and the BOTTOM floppy drive for TRSDOS users - drive 1 when the Little Brother start up disk is used). At the Dos level, enter the command:

#### LBMAINT

The LBMAINT program will be loaded and executed at this time. A sign on message will appear on the screen. Before answer the first prompt, replace the LBMAINT diskette with the diskette containing your existing data file, and place the newly formatted diskette in your second floppy drive. You will now be ready to use the LBMAINT program.

#### Using LBMAINT

After the sign on message has been displayed, you will be required to answer several prompts before continuing with the file transfer. The first prompt will be for you to:

Enter old data base file name .....

Answer this prompt by entering the name of the existing data base file to use in creating the new file. If the file name which is entered does not exist, an informative message will appear, and you will be returned to the Dos level.

Note for IBM users: If the data base file is NOT contained on the default drive/path, you will need to make sure that the path file for the existing data base file is contained on the default drive. The path file is used to dictate where the data and definition files are to be found (and optionally an index file that may be used for the file transfer). If you are encountering the message "Cannot locate data and/or def file" and somewhere in your system you do have a file set by that name, chances are that the path file does not exist, or it does not describe correctly where to find the data and definition files. If this is the case, you should use Little Brother's main menu option 14 to create or change the path file for the given file set.

If the existing data base file has a master password, you will be prompted to enter the password before continuing. You will not be allowed to use LBMAINT if master data base password is not known.

After the old data base file name has been specified, you will be prompted to:

Enter New Data Base Name .....

Answer this prompt by entering the name that you wish to assign to the new data base file that is to be created.

Note for IBM users: After the new name has been entered, you will be prompted to enter the data path for the new file. If the new data set is to be created on the default drive, simply press <RET> in response to this prompt, otherwise enter the drive/path to use in creating the new data base file set. The entry of the drive/path information will conform to that used when creating a new data base file with Little Brother.

After the new data base file name has been entered, a check will be done to make sure that the file is indeed a new one. If the file name entered already exists, an informative message will appear, and you will be returned to the Dos level.

Once the new data base file name has been given, one of two prompts will appear on the bottom of the screen. If the existing file set does NOT contain a mismatch between the data and definition files, you will be prompted to:

Use <A>ll records or <I>ndexed records? .

Pressing <ESC> at this time will exit the LBMAINT program, and you will be returned to the Dos level. If you wish the new data base file to contain the data from ALL active records in the existing file, answer this prompt by entering <A>. Otherwise answer this prompt by entering <I>, and you will be allowed to use a previously created index file to determine the records that will comprise the new data file. You will be further prompted to enter the index file number (1-5) to use. If the index file does not exist, an informative message will appear, and you will be allowed to enter a different index file number. Pressing <ESC> in response to the index file number prompt will return you to the "<A>ll or <I>ndexed records" prompt.

If the existing file set DOES contain a mismatch between the data and definition file, you will be informed of this on the bottom portion of the screen, and will be shown the number of allocated records as dictated by the:

- 1) Definition File
- 2) Data File

If the number of allocated records shown in the definition file is either equal to zero or greater than the number of records actually contained in the data file, you will be prompted to enter <Y> to continue, and all allocated records in the data file will be examined for the file transfer (with deleted records not being moved).

If the number of allocated records shown in the definition file is less than or equal to the actual number of data records, you will be prompted to enter either a <1> or a <2>. Entering a <1> will examine all records up to the amount of allocated records shown in the definition file. Entering a <2> will examine all records in the data file. Pressing <ESC> will abort the program, and you will be returned to the Dos level.

Note for TRS-80 users: After the above prompts have been answered, you will be prompted to enter the drive numbers on which the new definition and data files are to be stored. These prompts should be answered in the same manner as when a data set is created with Little Brother. You should be sure that the drives will have enough free space to hold the new data and definition files.

One last prompt will appear before the LBMAINT scan menu is displayed. You will be asked to:

<P>rompt for retry on errors or <I>gnore and continue? .

Entering <P> will cause you to be prompted every time a bad record is encountered in the existing data file. In this case, the record number of the bad record will be displayed, and you will be prompted to retry the read, continue the file transfer (skipping the bad record) or abort the file transfer operation.

Entering <I> in response to the above prompt will automatically skip all bad records and continue the file transfer without any prompting.

### The LBMAINT Scan Menu

Once all of the file prompts have been answered, the LBMAINT scan menu will appear on the bottom of the screen. The new data fields will be displayed on the top portion of the screen. Initially, these will be the same as the fields from the existing data file. In this display, the left most column will initially show 2 numbers separated by commas. The left number will represent the new data base field number. The right number will only be present if the new field is to be generated from existing data in the old data base. The number following the comma will correspond to the field number in the existing data base.

There are seven options available at the scan menu. To select an option, simply press key corresponding to the first letter of the desired command. An alternative method for selecting an option is to move the reverse video highlight over the desired command (with either the space bar or the left/right arrow keys) and



then press <RET>. Also, pressing <ESC> twice at the scan menu with act the same as the <Q>uit command.

#### <V>iew Option - Display definitions of the existing data file

The view option can be used to refresh your memory as to the field definitions of the existing data file. The current definitions will be replaced by those representing the old data file. If there are more than 20 fields in the old data file, you will be prompted to press <RET> between pages of the old definitions. When completed, the definitions for the new data file will be re-displayed, and you will be returned to the scan menu.

#### <Q>uit - Exit LBMAINT and return to Dos

The quit option can be used to abort the file transfer and return back to Dos. After choosing the quit option, you will be prompted to verify your decision to quit. If you wish to create a new data base file set, you should NOT use the quit option, and you MUST use the <S>ave option.

#### <P>rint - Send the new data base field definitions to the printer

The print command will allow you to print the new data base field definitions. This command will function the same as the print option in the Define File Formats mode of Little Brother. Once the new data base fields have been printed, you will be returned to the scan menu.

#### <D>efine - Define a new data base field

The define command will allow you to define a new data base field. It will function in the exact same manner as the Define command in the Little Brother Define File Formats mode. One at a time, you will be prompted for the Name, Type, Length and Protect status of the data base field to be defined. Pressing <ESC> in response to any of the prompts will cancel the new field definition, and you will be returned to the scan menu.

The define mode can be used to add new fields to the end of the field definitions for the existing file. Defining a new field will cause extra space to be included in each record of the new data base file for the defined field. Its primary use will be to expand an existing data base file to add one or more fields at the end of the current definitions.

To define a new data base field, answer all of the field definition prompts. After making your entry for the last prompt (i.e. Protect information for all non-calculated fields, or Type "C" for a calculated field), the field will be defined, and will appear as the last defined field on the screen display. You will remain in the define fields mode until <ESC> is pressed.

## <E>dit - Edit data base field information

The edit command can be used to edit the field definitions for the new data base file that will be created. Upon choosing the edit option, you will be prompted to:

Enter field number to edit ..

Pressing <ESC> in response to this prompt will return you to the scan menu. Otherwise, enter the number of the field (as displayed for the new data base file) that you wish to edit.

In some cases you will NOT be allowed to edit a field, depending upon the existing field type. This will be true when the field existed in the old data base as either a dollar, float or calculated field. No edits will be allowed on these types of fields.

If the data base field is a new field (i.e. it did NOT exist in the old data base file) you will be allowed to edit any/all of the information pertaining to that field.

If the data base field existed in the old data base file (and is not a dollar, float or calculated field), you will be allowed to perform various edits on the field. You will always be allowed to edit the field name and protect status. Regarding the editing of other fields, the following cases will list all allowable editing functions.

If the field existed in the old data base as either <A>, <B>, <L>, <N> or <U>, you will be allowed to change the type to any one of <A>, <B>, <L>, <N> or <U>. You also will be allowed to change the length. If the length is changed to a LARGER value, additional space will be added at the end of the field in each record to incorporate the added space. If the length is changed to a smaller value, the left most characters of the field will be used, and any characters that exist in the old field beyond the new smaller length will be discarded.

If the field existed in the old data base as an <R> type field, you will be allowed to change it to any one of <A>, <B>, <L>, <N> or <U>. In this case, all left most spaces in the field will be stripped off, and the data will appear in the new field starting with the first non-space character from the existing data. In making this type of change, you will also be allowed to change the length of the new field. If the length of the new field provides enough characters to contain all of the old data (beginning at the first non-space character), additional space will be added to the end of the new field in each record. If there is not enough space in the new field to contain all of the old data, only the left most characters (starting with the first non-space character) will appear in the new data base field.

If the field existed in the old data base as either an <R> or <N> field, you will be allowed to change it to a dollar <D> or float <F> field. In these types of conversions, the existing value will be stored in the new data base file as decimal point aligned. The conversion of <R> fields will begin at the first non-space character. The conversion will stop for any given field when an invalid dollar/float character is found, or if the value is "too big" to be stored in a dollar/float field. The following table will illustrate some conversions from <N> fields into dollar and float fields.

Starting <N>umeric	Converted <D>ollar	Converted <F>loat
12345-1111	12345	12345
9.123456789	9.12	9.12345678
1234567890.1	12345678	12345678
04.22.85	04.22	04.22
-176.7775	-176.77	-176.7775

If the field existed in the old data base as an <R> field and only the length of the field is changed, the following rules will apply. If the length is changed to a larger value, additional pad spaces will be added to the left of the new field data. If the length is changed to a smaller value, only the right most number of characters from the existing field (up to the new length) will appear in the new field. Any "significant" left most characters will be lost.

As a final note regarding the editing of existing fields, you will NOT be allowed to change any non-<R> field into an <R> field.

#### <I>ns/Del - Insert or Delete an existing or new field

The Ins/Del command will allow you to insert or delete either a new or an existing field into your new data base field formats. Upon choosing this option, you will be prompted to:

Insert or Delete (I,D)? .

Pressing <ESC> at this point will return you to the scan menu. Otherwise, enter <I> if you wish to insert a field, or <D> if you wish to delete a field.

The delete command functions in the same manner as in the Little Brother Define File Formats mode. You will be prompted for the number of the field that you wish to delete. At this prompt, pressing <ESC> will return you to the scan menu, while entering a field number will delete that field from the definition for the new data base file. It is allowable to delete a field from the new file that existed in the old data base file. If this is

done, the data from the file for that field will not appear in the new data base file.

The insert command will allow you to insert a new field into your data base file, as well as insert an existing field into the file. If inserting a field, you will be prompted to:

Insert <N>ew Field or <E>xisting Field? .

Pressing <ESC> in response to this prompt will return you to the scan menu. If you wish to insert a new data base field (i.e. one that did not exist in the old data base file), answer this prompt by entering <N>. Doing so will allow you to insert a field in the same manner as in the Define File Formats mode of Little Brother. You will be prompted for the position at which the new field is to be inserted. The number entered will be the field number assigned to the new field. All existing field definitions will be moved down one position after the field has been inserted.

Answering the above prompt with <E> will allow you to insert an existing field (from your old data base) into your new data base field definitions. You will additional be prompted to:

Give existing field number to insert ..

Answer this prompt by entering the number of the old data base field that you wish to place into your new field definitions. After doing so, you will then be prompted for the position at which the field is to be inserted. Once the position has been given, the existing field will be inserted at that position in your new field definitions. All data that existed in the old field will now placed in the new data file when the new file is saved.

For the most part, the insert and delete functions can be used to re-order the field positions of your existing data. A typical case would be to switch two fields around (i.e. the old field number 1 will become the new field number 2, and vice versa). The method to use in switching fields is to first delete the fields from your new field definitions, then use the insert command to insert the existing fields into their proper position.

Aside from normal Little Brother data base file restrictions (i.e. 64 fields, 16 calculated fields, 1024 bytes per record), there is no restriction as to the number of times that an existing data base field can appear within a new data base file. It is allowable to duplicate an existing field from an old data base file so that the data appears more than once in the new data base file.

## <S>ave - Save/Create the new data base file

The save command will save the new definitions and create the new data file using the existing data file. While the save is being done, an informative message will appear on the bottom of the screen, indicating the number of records that have been examined from the existing data file.

Prior to the save being performed, a check will be done to determine whether or not enough free disk space is available to hold the new file. If there is not enough disk space, an informative message will appear, the save operation will be terminated, and you will be returned to the Dos level.

Note: In cases where a mismatch was found on the existing file, no checking will be done to determine the free space available for the new file. If during the save operation the diskette containing the new file becomes "full", an informative message will appear, and the new file will contain as many records as indicated in the message.

While creating the new data file, if there is an error reading the old data file, one of two things will happen. If you chose to <I>gnore error and continue, the bad record will be skipped, and the data transfer will continue with the next record. If you chose to be prompted on read errors, the following prompt will appear (where xxxxx corresponds to the bad record number):

Read Error, Record xxxxx - <R>etry, <C>ontinue or <A>bort .

Entering <A> at this prompt will abort the entire file transfer operation. You will be returned to the Dos level, and NONE of the data moved to the new file prior to the error will be accessible.

Entering <C> will continue the file transfer, causing the bad record to be skipped.

Entering <R> will allow you to retry the unsuccessful read operation. If the retry is successful, the file transfer operation will continue. If it is not successful, you will be informed of this and may retry as many times as you wish, until the operation is successful, or you decide to continue or abort.

Upon completing the file transfer, an informative message will appear on the bottom of the screen, telling you the number of records that were actually written to the new file, and the number of bad records that were encountered. Pressing <RET> at this prompt will return you to the Dos level.

The new file will contain only the actual amount of records that

were written. If you wish to add new records to this data file, you will need to expand the data file (using Little Brother main menu option number 7) prior to adding records.

#### Other uses for LBMAINT

LBMAINT can be used for various operations which might not be obvious from the discussions above.

If you have a file that contains a large number of deleted records or records that are "allocated but not used", LBMAINT can be used to decrease the amount of disk space consumed by the file. Since it will only write as many records as are active, you may reclaim wasted disk space by using LBMAINT to transfer the wasteful file to a new "compacted" file.

LBMAINT can also be used as a means to archive data base records, extracting them from the main data base file and writing them to a new data base file. In order to do this, you will need to create an index file that contains the numbers of the records to be archived. Once this is done, you may use LBMAINT to create a new file using the index file. In this manner, all records in the index file will be written to a separate file, saved for future reference should they ever be needed.

Along this line, LBMAINT can be used to split one data base into multiple data bases. Again, by means of using an index file, you can determine the exact records that will be written to the new data file.

## FIXDEL - Re-chain deleted record utility.

The FIXDEL utility program is designed to read a Little Brother data file and construct a chain of deleted records. It can be used to correct a deleted record chain damaged by such things as power failures during deletes, removal of diskettes from the drives at the wrong time, etc. It can also be used in conjunction with other programs that manipulate the Little Brother data files directly to remove records. One example of this would be a user written program to remove duplicate records.

### Initial Installation

For hard disk users, copy the file FIXDEL.EXE (for TRS-80 users, the file is called FIXDEL/CMD) from the distribution floppy diskette onto your hard drive. The program can then be directly executed.

For floppy disk systems, the program FIXDEL.EXE (FIXDEL/CMD for TRS-80 users) should be copied off of the utility diskette onto a formatted diskette.

The original utility disk master should be stored in a safe place. Never use the original master - use a backup copy only.

### Starting the FIXDEL program

On a hard disk system, typing the command:

```
FIXDEL
```

will start the program and bring up the first prompt.

### MS-DOS floppy start up

Boot the computer with the normal start up disk in the system drive. Be sure that the diskettes normally used to run Little Brother are in the proper drives. Remove the diskette from drive A:, insert the diskette containing the FIXDEL program, and type the command FIXDEL. When the initial sign on message and prompt appear, remove the FIXDEL disk and re-insert the normal Little Brother disk in drive A:

### TRS-80 floppy start up

Boot the computer using the normal Little Brother start up disk. At the prompt for the Runtime or Creation disk, press the <BREAK> key to return to the TRSDOS Ready prompt. Place the FIXDEL disk in the first floppy and type the command FIXDEL. When the initial sign on message and prompt appear, remove the FIXDEL disk and place the normal Little Brother disks in the drives.

## File set prompt

Once started, the screen should show the following prompt:

Enter name of set to fix, ESCAPE key to quit

Answer this prompt by typing in the name of the file set that needs re-chaining. The definition and data files for that set will now be opened and examined. Additionally, the path file must be present on the default drive on MS-DOS systems. If a file cannot be found, the FIXDEL program will display the appropriate error message and return to the DOS level. If this happens, examine the diskettes to determine which file is missing.

If the files are successfully opened, the processing will start and the following message will appear:

File set name [filename]  
Press ESCAPE key to pause or interrupt processing

Searching nnn, Found nnn

The display will show the record number being searched, and the number of deleted records found. As the message implies, pressing the ESCAPE key will pause the processing and bring up the following prompt:

Interrupted. Press 'Q' to quit, 'C' to continue

If you wish to abort the processing, press <Q><RETURN> and you will return to the DOS level. If you merely wished to pause, press <C><RETURN> to continue the processing. All other keys will be ignored.

When the processing is complete, the total deletes found will be displayed, and an exit will be made to DOS.

## Possible problems

If a disk read error is encountered at any time, the processing will stop and an appropriate error message will be displayed. It may be necessary to use the LBMAINT program on the utility disk to reconstruct the damaged file.



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