

MAIL LIST

release 3.0

Artworx

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rel 3.0

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INTRODUCTION:

MAIL LIST provides the user with the capability of creating, accessing and modifying data files consisting of names, addresses and key codes. Each entry consists of a line containing a user-defined key code (or codes) followed by three to five additional lines of address or other information.

MAIL LIST is an extremely versatile data manager. Names are easily edited, added to or deleted from your files. Entries can be retrieved by name, keyword(s) or by zip codes. They can be written to a printer or to another file for complete file management. The program will produce address labels (either 1, 2 or 3-up) and will sort alphabetically or by zip code (five or nine digit). MAIL LIST is also capable of finding and deleting duplicate entries automatically.

The file structure used in MAIL LIST was selected to maximize the number of entries which can be stored on one disk. You will find that upwards of 1200 addresses can be stored on one side of a single density disk, and that over 2400 entries can typically be stored on a double density disk.

GETTING STARTED:

Your MAIL LIST disk contains two programs, MLIST and SORT. MLIST is the file name for the full MAIL LIST program. SORT is an abridged version of MAIL LIST and consists only of alphabetic and zip code sorting routines. It is meant to be used with a computer system having a minimum amount of free memory. As supplied on your disk, MLIST is dimensioned to sort up to 500 entries. Note that this restriction applies only to sorting, the total number of entries which can be accessed is not memory limited. SORT is dimensioned to handle up to 1500 entries. You can easily change the sorting capacity of these programs by re-dimensioning the variables M and S in line 18 of either program (variables A, B and C for the Atari version). If you have a full complement of memory, you should be able to change the dimensions of these two variables from 500 to 1500 (or higher) in the MLIST program. The more memory you have available, the more items you can sort.

To load the program from disk, first boot up your system using your computer's master disk. Enter BASIC and then load the program using your computer's normal LOAD command; i.e., for North Star or Apple, type LOAD MLIST; for Atari, use LOAD"D:MLIST"; for CP/M systems, use LOAD"A:MLIST" etc. (North Star users should remember to use the MEMSET command to free enough memory for proper program operation). When loaded, type RUN. The program will sign-on and prompt you to

enter a file name. Enter any legal name. If the file already exists, you will be able to access its entries or add to the file. If the file does not yet exist, it will be created as soon as you input your first entry. In the case of North Star, all data files must be created beforehand. Use the CREATE command from BASIC to build a type 3 file large enough to handle the anticipated number of entries. Assume approximately 3.3 entries per block.

After entering the data file name, you will be prompted to select an option. To view the option menu, enter '0'; you will then be shown the following list:

- | | |
|----------------------------|--------------------|
| START = START NEW FILE | N = NAME SEARCH |
| A = ADD TO LIST | K = KEYWORD SEARCH |
| DF = DELETE WITH FLAG | R = REVIEW LIST |
| DP = PURGE FLAGGED ENTRIES | W = WRITE LIST |
| DUP = DELETE DUPLICATES | M = MERGE FILES |
| ABC = ALPHABETIZE | Z = ZIP CODE SORT |
| STEP = STEP THROUGH LIST | F = OPEN NEW FILE |
| OUT = SELECT OUTPUT DEVICE | EDIT = EDIT ENTRY |
| (W) = WRITE SUFFIX | MOVE = MOVE ENTRY |
| (L) = LIST SUFFIX | (F) = FILE SUFFIX |

EXPLANATIONS OF OPTION CODES:

- File Building Options: START
ADD

The START option and ADD option are the two codes used to create and/or add addresses to your data files. You must use START to create the initial entries to a data file. If you wish to add additional entries to an already existing file, then you must use the ADD option.

The START option always writes the entries at the beginning of the designated file. If the file already has entries in it, use of the START option will cause those entries to be overwritten and therefore lost. The ADD option reads through a file until it finds the last entry and then begins writing the new entries at that location, thereby preserving all previous data.

- USE START TO WRITE TO AN EMPTY FILE OR TO OVERWRITE AN EXISTING FILE.
- USE ADD TO ADD MORE ENTRIES TO AN EXISTING FILE.

When writing to a file, you will be asked to enter a three-character key (or keys). This key is required for all entries. If you do not wish to utilize a key, simply type in a dummy value. Note however, that each key must be three characters in length otherwise a length error message will be printed. You will continue to get that message until you enter a three character key (or keys).

You may string together up to 21 key words on the first line of your entry. Do not use delimiters between the keys and remember that the total length must be a multiple of three.

These are valid keys:

AAA
AAABBB
X13B72X12AA5
#\$%N&*+/?

These are not:

AAAA
AAA, BBB
X13B72X12, AA5
AAA BBB CCC

Systems running under Microsoft BASIC (Apple, CP/M, TRS-80 etc.) should not use a comma as a character in the keyword.

The next line to be entered should contain the name under which the entry will be filed. You may use a personal name or corporate. Personal names should be entered last name first followed by a comma and then the first part of the name. Do not use more than one comma on this line and do not use a space after the comma.

The remaining lines are used for the address information. You may add as few as two additional or up to four more lines depending upon the address.

Lets take an example. Customer John Doe Jr. purchases three items from you. Your codes for these items are AX1, BY2 and CZ3. The entry to the list will have the following form:

```
CODE?AX1BY2CZ3
      ?DOE JR.,MR. JOHN D.
      ?123 ELM STREET
      ?FAIRPORT, NEW YORK 14450
      ?
CODE?
```

Note that any desired information can be entered on the first line (e.g., phone numbers or birth dates), but the total number of characters must be a multiple of three.

The second line contains the name. Entries are stored last name first in order to facilitate the name search which is carried out on the last name. However, when printed out, the order is first name first and last name last. Thus the name used in the above example would print out as:

MR. JOHN D. DOE JR.

IMPORTANT: An entry consisting of a person's name **MUST** contain a comma! The comma is used as a delimitator and is required for program

operations. The program searches the name line for the comma, stores the name found before the comma and then prints that name after first printing out the name found to the right of the comma. In the above example, the first name found (to the left of the comma) is: DOE JR. The program stores it as a temporary string variable and prints out MR. JOHN D. (the name to the right of the comma). It then prints Mr. DOE's last name and the Jr. For those situations where you have only a one-name entry, the comma would not be needed. In general, with multi-worded inputs, place the most important word before the comma. If there is no one essential word, then no comma is needed. Note that if you entered a corporate name such as "ARTWORX,INC.", that entry would be printed out as "INC. ARTWORX"! Do not use the comma in such cases. Optional address information (such as "c/o" etc.) can be added on the lines below the name entry. These entries are straightforward. Enter the information as you would like it to appear on the printout. Note however, that in order to facilitate searches for zip codes, THE ZIP CODE MUST BE THE VERY LAST ITEM ENTERED ON THE LAST LINE OF THE ENTRY.

If you make a mistake when typing in your entries, use your computer's delete function to correct any errors on the current line. If you have already entered that line, you may redo the entry by typing two dollar signs ("\$\$") at the beginning of any line other than the name line. MAIL LIST will then disregard what you have already typed and give you the "CODE?" prompt over again.

```
CODE?FAM
  ?MORGAN,ERIC
  ?16GORDAN PLCE
  ?$$
CODE?FAM
  ?MORGAN,ERIC
  ?16 GORDAN PLACE
  ?FAIR LAWN, NJ 07410
  ?
CODE?
```

When you have completed inputting all your names into the list, you exit the entry mode by simply pressing the RETURN (or ENTER) key when asked "CODE?". When you desire to add more entries to your file, you must use the ADD option. Your new entries will then be added to the end of the file. The mode of entry is exactly the same as with the START option.

Note to Apple users: to optimize disk I/O response times, you will find that MAIL LIST converts all commas in the name line to semi colons. Any comma entered in the remaining address lines will be replaced by a space when printed out.

- Delete Options: DF
DP
MOVE
DUP

These options allow entries to be removed from the data file. When an entry is to be deleted, use the DF (Delete with Flag) option. You will then be asked what name the entry is to be found under. Enter the appropriate name (last name) and the file will be searched until that name is found. You will then be asked whether to delete that entry or not. If NO, then the search will be continued until the proper entry is found or the end of the file is encountered. If the answer is YES, the deletion is accomplished by overwriting the first three characters of the key line with three periods ("..."). This action renders the entry invisible to any subsequent action; it will not be printed out or sorted, though it still occupies physical space on the disk.

The MOVE option accomplishes the same function as the DF option except that while the entry is being deleted from one file, it is being written to another file. You therefore must specify a destination file when "MOVING" entries. Both the DP and MOVE options require you to input a name. After that entry has been deleted or moved, you will again be asked for a name. You can exit this mode by simply pressing the RETURN key, or you may wish to delete or move another entry. Enter the next name and the search through the file will continue. IMPORTANT! The search will continue from the point in the file where the last entry was found. When deleting or moving more than one entry, select those entries, whenever possible, in the order in which they occur in the data file, otherwise an ENTRY NOT FOUND message will be printed. In such cases, exit the DF or MOVE mode and start over again. This will reset the file pointer to the beginning of the file.

To maximize file space, deleted (flagged) entries may be physically purged from a data file by using the DP (Delete with Purge) option. This causes each entry in the source file to be written to another file. However, when an entry having "..." as its first key is encountered, that entry is not written to the new file. The new file therefore will contain only the up-to-date entries, not the entries which had been flagged for deletion.

Note that when using DP with a single drive system, there must be enough space on the disk for two data files: the source file and the destination file. With a multi-drive system the source and destination files can be on different disks thereby allowing maximum file size. Also note that DP provides an excellent means of backing up data files.

The DUP option is used to remove duplicate entries from a data file. It operates by comparing each entry to the preceding entry in the file. If the names and zip codes for both entries are EXACTLY the same, then the second entry is presumed to be a duplicate and is not written to a destination file. In order for the DUP option to work properly, the source file must be in either alphabetic or zip code order (see sections on the ABC and Z options). You will be requested to enter a destination file name. The program will read the entries from your source file and then write the non-duplicates

from your source file and then write the non-duplicates to the destination file. When finished, you will be informed as to the number of duplicates that were deleted. For maximum efficiency, this option should be run twice. Use DUP on an alphabetized list first. Zip code sort the resulting file and then run DUP on that file. This procedure will maximize the probability that all duplicates will be found and removed.

- Sort Options: ABC
Z

The usefulness of a mail list is enhanced when that list can be sorted alphabetically by name or geographically by zip code. Alphabetical listings are obtained using the option ABC. This option will produce a listing alphabetized over the first four to six characters found on the second (name) line of each entry. Note that since the sort is carried out on the ASCII values of the characters, upper case letters will be sorted differently from lower case. If alphabetized lists are important to you, it is suggested that you use either all upper case letters or all lower case letters (with the exception of the first character of each word which should be capitalized). Try not to mix the two styles of entry. The ABC option also allows you to select a range of last initials to write to another file. By entering in 'C,F' when prompted, all names beginning with C, D, E, and F will be written to a destination file.

The use of the Z option will provide you with two selections, a zip code search or zip code sort. The search will print out all entries having the zip code or zip code range which you specify. The sort will provide a printout of entries listed in ascending zip code order. Those entries not having zip codes (foreign countries) or having invalid codes will be printed at the beginning of the list.

MAIL LIST will automatically sort either five or nine digit zip codes. In either case, the zip code must appear as the last characters on the last line of an entry. For a five digit zip code, simply type in the five numbers. If using the nine digit code, follow the first five numbers with a hyphen and then the last four digits: "xxxxx-xxxx". If MAIL LIST does not find a hyphen as the fifth character from the end of the line, it assumes that the zip code has only five digits. When sorting, the program will only sort on the first five characters of any zip code.

- Search Options: K
N
Z

Each entry to your list is given one or more identifiers called keys. By specifying the K option, all entries having a particular key or set of keys, will be printed out. For instance, you may use the key "OCT" for all entries needing some action taken during the month of October,

and the key "JUN" for the month of June. When specifying the K option, you will be prompted for a keyword. If you enter JUN, then all entries having the key JUN anywhere in the first line, will be printed out. You could also enter JUNOCT as the key and all entries having both JUN and OCT in the key line will then be printed out.

To obtain the listing for a particular name, use the N option. You will be prompted for the name and then all entries having that name will be printed out. Note that the search is conducted on the last name. If you wish to print out all entries whose names begin with a given letter, simply enter that letter in response to the NAME prompt.

ENTER OPTION: N

ENTER NAME: STEIN

FAM

KEVIN STEIN

31 HILLRISE DRIVE

PENFIELD, NY 14628

1 ENTRIES PRINTED.

The Z option can be used for accessing all entries having a given zip code or zip code range. After entering Z as your option, you will be asked whether you want a zip code sort or search (see previous section on sorting). Enter SE (search) and then when prompted, enter the desired zip code range, low to high. All entries falling between the specified zip codes will then be displayed. If you desire to print out entries having a specific zip code, enter that zip code as both the "lowest" and "highest" zip codes.

ENTER OPTION: Z

ZIP CODE SORT (SO) OR SEARCH (SE)? SE

ENTER ZIP CODE RANGE, LOW TO HIGH.

LOWEST ZIP CODE? 14600

HIGHEST ZIP CODE? 14700

DEFEAT KEYWORD PRINTOUT? Y

MS. JOYCE E. ALTMAN

ARTWORX SOFTWARE CO.

150 N. MAIN STREET

FAIRPORT, NY 14450

KEVIN STEIN

31 HILLRISE DRIVE

PENFIELD, NY 14628

2 ENTRIES PRINTED.

- Printout Options: R
W
(W)
(L)

The R and W options:

The printout options allow the entire contents of a data file to be printed in several formats. Both the R and W options will print all entries in the order in which they appear in the file. The R option prints each entry one after another with one line between listings. The R option also gives you the option of printing out the key words or not. The W option lists the entire file also but extra lines are automatically inserted between entries in order to provide the proper format for printing to standard address labels.

When selecting the W option, you are also given the choice of choosing 1, 2 or 3-up label formats. In choosing the 2 or 3-up options, you may have to modify the code slightly in order to properly space the addresses. See line 15, variables T4 and T5. The values for those variables are the columns at which the second and third addresses will be printed. (The Apple version of MAIL LIST only uses T4. This is the number of characters printed per label. To increase spacing between 2 or 3-up labels, increase the value of T4. Similarly, decreasing the value of T4 will decrease label spacing. The left margin setting may be shifted to the right by changing the value of variable T3 in line 15. The normal value for T3 is zero. To shift the left margin by four spaces to the right, set the value of T3 to 4.

When using the W option, make sure that your printhead is positioned at the top line of a label. You may have to experiment with positioning in order to get the printout to fit properly on the label stock.

The (W) and (L) suffices:

The (W) and (L) suffices can be appended to most options to give additional printout flexibility. The (L) suffix will produce printout in which each entry is printed on one line. This is used as a space or paper conservation convenience. When the (W) suffix is appended to an option, the resulting printout will be spaced properly for writing 1-up address labels.

For instance, you desire an informational printout of all entries having the key FAM and you want each entry printed in a space saving format. Use the option KL (we simply add L to the K option code):

```
ENTER OPTION: KL
ENTER KEYWORD(S): FAM
DEFEAT KEYWORD PRINTOUT? Y
```

```
STEIN,KEVIN / 31 HILLRISE DRIVE / PENFIELD, NY 14628
MORGAN,ERIC / 16 GORDON PLACE / FAIR LAWN, NJ 07410
```

2 ENTRIES PRINTED.

When editing the name or zip code lines, some care must be taken if the edited line contains less characters than the original line. For instance, if you change this name line:

MORGAN,ROBERT

To: MORGAN,R.

The result when printed will be:

R. MORGAN

The spaces are "padding" which which added to the end of the edited line in order to fill-in the disk space occupied by the old line. The original line in this example contained 13 characters. The edited line had only nine. Consequently, the name to the right of the comma was not "R.", but "R. ". The proper way to enter that name would be: "MORGAN ,R.". A similar situation arises when modifying the line containing the zip code. Be sure that the zip code is "right-justified" with respect to the old line length.

The M option (Merge) allows you to write one file over another or to merge one file onto the end of another. When compiling a long list in which entries are added during separate sessions, it is recommended that a temporary file be used for the new entries. When each session is completed, the contents of the temporary file may then be merged to the primary file. This procedure serves two purposes; the more important being that valuable files should not be written upon any more than necessary. A secondary reason is that a mistake can be deleted more quickly from a short file than from a long one.

When merging files, you must specify the destination file and inform the computer whether you wish to overwrite the contents of that file or add to the end of the file. You will be informed as to the number entries that were in the destination file before and after merging and the number of entries that were in the source file.

ENTER OPTION: M

DESTINATION FILE NAME? SCRATCH
ADD TO THE END OF SCRATCH? Y
FILE TEMP HAD 4 ENTRIES.
FILE SCRATCH NOW HAS 21 ENTRIES.

The OUT option is used to direct the output to a printer or back to the monitor. After entering OUT, you will be asked:

PRINTER (P) OR MONITOR (M)?

Note that with the Apple computer, an additional question is asked pertaining to the slot number containing the printer interface card. (Usually slot number 1. See subroutines at lines 8000 and 8100 for setting the number of columns printed). Other systems will handle the port assignments automatically.

When the printer is selected, all data output will be sent to that device. However, all status statements and input prompts will continue being displayed on the monitor. To return to the monitor, select the OUT option again and enter M. Please note that OUT does not initiate any action other than to "turn-on" or "turn-off" the printer. You must select another option after OUT in order to obtain a listing of the data file.

The STEP option provides the user with the ability to step through a file one entry at a time. As each entry is displayed, any of the following operations can be performed:

- o When 'W' is depressed, the current entry will be printed in label format (Make sure that you have activated the printer by using the OUT option.)
- o 'D' will cause the entry to be deleted via the DF option.
- o 'F' will write the specified entry to another file.
- o 'RETURN' or any other key displays the next entry in the file.
- o 'Q' interrupts the STEP execution and returns you to the "OPTION:" prompt.

In most computer systems, these options are entered via the "live keyboard", i.e., you will not have to press the RETURN key to enter your selection.

One of the most useful options in MAIL LIST is the (F) suffix. When appended to the appropriate option, this suffix will cause the resulting printout to be written to another file rather than to a display. For instance, you could use NF as an option to write all entries whose names start with a given letter to a separate file. You could do the same with zip codes (use 'ZF') or keywords ('KF').

ENTER OPTION: KF
ENTER KEYWORD(S): FAM

DESTINATION FILE NAME? SCRATCH
ADD TO THE END OF SCRATCH? N

*** WARNING!!! ***

Any data contained in file SCRATCH will
be overwritten. If this is acceptable,
then press 'Y' otherwise, press 'RETURN'.
?Y

2 ENTRIES PRINTED.

Additional Comments:

Program size:

MAIL LIST is a relatively large program. If you find that you are getting "OUT OF MEMORY" errors, you can reduce the size of the program by changing the DIM statement in line 18. That line contains two variables, M and S, which are dimensioned as 500 element arrays. These variables are used only for sorts and therefore can be reduced in size or eliminated altogether if you are not going to use the sort options (ABC and Z). If you are memory limited and still require the sorting ability, run the much shorter SORT program on your disk. If you have sufficient memory, you could, of course, increase the sorting capacity of MAIL LIST by making the M and S arrays larger in size.

Other Uses:

MAIL LIST can be used as a mini data based management system or as a computerized telephone directory. You could enter a phone number on the key line or on any line after the name line. In the same manner, you have up to five lines of information which you can store about a person or subject. MAIL LIST does not have to be used exclusively for mail lists!

CODE?(716)-425-2833#
?WALSH,ARTHUR M.
?BIRTHDAY: JULY 30
?HOBBIES: MUSIC, PHOTOGRAPHY, COMPUTERS
?OCCUPATION: MANAGER OF SOFTWARE PRODUCTS
?MISC: MARRIED, 2 CHILDREN

In Case of Trouble...

It will happen! There will be an occasion when your data file has problems, either a hard disk error or something else which will render file usage difficult or impossible. The solution is clear: KEEP BACKUP COPIES OF ANY VALUABLE FILES! Also, do not write directly to a valuable file. Use a temporary file and then merge the two files.

If you have a file which produces an error during listing, all entries prior to the error can be saved onto another file by using the M option (This method however, will not work for the Apple. The Apple disk contains an additional program called 'HELP' for such purposes.) Important! Once a file has been damaged, it will remain corrupted and will always generate an error message when accessed. Do not bother with such files; it will cause considerable frustration and possible ill will towards the author.

Multi-Drive Systems:

Additional disk drives are easily accessed by MAIL LIST. Simply use the normal syntax supported by your computer system. For instance, if a file called DATA is to be read from drive number two, use one of the following file identifiers appropriate for your computer:

DATA,2	(North Star)
DATA,D2	(Apple)
D2:DATA	(Atari)
B:DATA	(CP/M)
etc.	

Note that it is unnecessary to specify drive #1 after a file name as that is the default drive.

