"FileList+" Version 1.0b20 6 December 1991
Macintosh File System Database Management Utility

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FileList+ Features

- Powerful and flexible disk management application
- Fast and easy-to-use offline search, sort and database functions built in
- Fast scanning of up to 16 user selected volumes at a time, 40 online volumes, or automatic scan of each volume/disk as it is mounted
- Scanned data includes all Finder information and Version information
- Contents of Stuffit™ and Compactor archives read and treated like folders
- All data is memory resident, making manipulation of data extremely quick
- Display of data fields is user configurable, including sequence
- Sort by any field with a single click, in ascending or descending order
- Dual-field sorts for most file data fields
- Statistics, including sizes of selected items, length of list
- Delete files function, useful for removing duplicate or obsolete files
- Rename volumes function useful for ensuring unique volume names for all volumes
- Flexible duplicate file search function, automatic or full manual selection of match criteria, indication of version relationships (older/newer or same)
- File Filter for scan, compare, delete, selection, and print functions, including filter by file Type, Creator, size, and dates
- Data export options include Text File output, Clipboard, and flexible printing options
- **Text Export options** to export text-as-displayed or fixed format, with and without tabs, with or without Select field
- Reads and writes (optionally) files compatible with original FileList
- Powerful user interface with many shortcuts, automatic functions, and progress indicators
- Database Management functions include functions to perform boolean selection functions, delete, sort, and relate records
- File lists may be merged together, **Automatic merge** when multiple files opened together
- Extensive, explicit error messages
- Many user configurable options

Distribution and Response Information

First, the legalese stuff!

I reserve all rights to the portions of the program that were written by myself.

FileList+ is FREEWARE. You may NOT sell FileList+, or include FileList+ with anything else you sell without my permission. You may GIVE FileList+ away, but only in the same condition I distribute it, **with all documentation files including the User's Manual**. Don't change, modify or edit anything, except for your personal use only. There is NO expiration date or other limitation built into this beta version. Bulletin Board Systems, including commercial BBS' such as CompuServe, and Non-Profit user's groups, such as BCS and BMUG, may distribute FileList+. Shareware distributing companies, such as EduCorp, may NOT distribute FileList+ without my written permission.

FileList+ does not come with any warranty at all. No liability is assumed for any use that is made of this program. Nevertheless, even if liability is found to exist, it shall not exceed the sum paid to the author.

The only payment I request is your feedback. Even if you haven't got any problems! If you have any comments, ideas, questions, or bug reports on **FileList+**, I would love to hear from you. Let me know HOW you are using the program, and, if your reporting bugs, <u>please</u> tell me your basic configuration, software (**FileList+** version, System version, INITs with versions, etc.) and hardware (Mac model, disk types etc.). Here are the suggested means to reach me:

• leave a message for me on one of the following Bulletin Board Systems:
  - BillPatt on America Online (preferred)
  - Bill Patterson on MacShack BBS (214-644-4781) of Dallas
  - Bill Patterson on MacCircles BBS (415-484-3281)

• or, send U.S. Mail to:

Bill Patterson
805 Division St.
Greenville, TX 75401

Please include a self-addressed, stamped envelope you wish me to reply by mail, and an 800K formatted floppy if you need some files.

Erny Tontlinger, the author of the <u>original</u> FileList that **FileList+** was derived from, may be reached by the addresses shown below. Please note that **FileList+** was created with no collaboration from Erny, so don't ask him about **FileList+** specifics.

CompuServe : 73720,2200
Internet   : 73720.2200@compuserve.com
Packet Radio: LX1YZ @ LX0PAC

Erny Tontlinger
33 route d'Arlon
L-8410 Steinfort
Luxembourg

ABOUT FileList+

In short, **FileList+** is a <u>blazing</u> fast file and disk organizer, with powerful offline file search and sort capabilities.

It reads entire volumes and saves volume and file information. There is an option that enables "StuffIt" (Classic and Deluxe) and/or "Compactor" archives to be opened and to be treated like a folder: all files in the archive (including encrypted entries) will be listed.

The collected information can be displayed, sorted by multiple criteria, searched for, saved as text files (to be printed later on, or to be imported into databases). Entire volumes can be deleted or renamed. There is an automatic disk insert/eject mode, meaning any inserted disk (be it a floppy or a CD-ROM disk) gets scanned then ejected, or any mounted volume can be added by selecting from a list of on-line volumes.

FileList+ is useful for managing large collections of floppy disks, or can be used to quickly locate files on a big disk, e.g. CD-ROM. Here is what "MacUser" December 1989 said about "FileList 1.2": "FileList is a basic but very effective file lister. Insert a disk, and its contents are quickly listed with volume and folder paths, size, dates, creator and type. The resultant file can be printed, edited, or exported as text. The data transfers well to databases. FileList is currently the best of this type of program available."

FileList+ is an extremely enhanced version of FileList (version 1.4). The original *FileList* is from Erny Tontlinger, to whom much credit is due for much of what **FileList+** is. The standard features of the original *FileList* are completely intact.

If you are a previous user of *FileList,* you will be happy to know that **FileList+** reads and can write files compatible with the original *FileList*.

FileList+ is especially useful for managing LARGE numbers of files and volumes. "Manage" in this case means to insure backups of critical files as well as elimination of unnecessary file duplication. **FileList+** has the capability of MATCHing files against each other according to user specified criteria, or in other words, a flexible duplicate file search and mark.

The detailed changes made in this version of **FileList+** may be found in the section named "Version History" below. A more complete list may be found in the separate "FileList+ Revision History" file.

FileList+ was developed with Think™ C Version 5.0 and every attempt has been made to adhere strictly to Inside Macintosh guidelines. It has been tested under Systems 6.0.5, 6.0.7, and 7.0, but should work under any version after 6.0.0, on any Macintosh model. HFS (Hierarchical File System) is required, but MFS (Macintosh File System) disks are supported.

As an example of how to use **FileList+**, let's suppose you wish to determine if your hard disk and/or floppies contain duplicates of certain files, then delete the duplicates. To do this, first scan the disks by bringing up **FileList+**, selecting the Scan Volume(s)… menu item under Volumes menu and selecting the volume(s) you wish to scan by clicking on the disk icons associated with them, then click on the Scan button to perform the scan. If the disks to be scanned are not mounted, insert/mount them (with **FileList+** active) and they will be scanned automatically.   Once all desired volumes have been scanned, select the Compare File Versions menu item under the Files menu (command-m) and click OK after selecting your preferences for the comparison. **FileList+** will process the files in the list, comparing them and marking them as to which files are duplicates of other files (with combinations of "m" and "•" flags) and which are older or newer versions of other files (with "o" and "n" flags). **FileList+** will then sort the files list by Match Index to group the files together that are related.   The list may now be saved or printed. To delete the duplicates, carefully select the ones you wish to delete by clicking on the records, holding down the shift key to select more than one at a time. When you have selected all the files you wish to delete, hit the "delete" key. Answer "Disk Files" to the next dialog, then say "Yes" when it asks to confirm the deletion. The files you have selected are now deleted. This is just a small example of what you can do with **FileList+**. Many options for the Scan, Match, Select and Delete operations are available. Read on for more information.

ABOUT THIS MANUAL

Basic operations, then major **FileList+** functions are described separately in detail below, followed by a section for each menu item.

When printing this User's Manual in Word™ with a Postscript printer, to get this printed correctly make sure FONT SUBSTITUTION is enabled, and FRACTIONAL WIDTHS is not.

All options shown in example figures are the default options, unless otherwise indicated.

BASIC OPERATION

FileList+ always maintains two windows: a Volume list window and a File list window. The title of each window shows how many entries are in the each list. The windows can be moved around, resized and zoomed. Clicking in the active window's close box sends the window to the activating the other window. The window positions and sizes can be saved with the options (see options below).

Each volume or file entry is displayed on one line. A line can be selected by clicking on it. Clicking on a selected line deselects the line again. The "Copy" menu item (or function key F3) copies the selected lines to the clipboard as text.

Each displayed field is shown in a separate column, headed by the field name. Fields may be rearranged by dragging the field names.

The scroll bars can be used to move around in the list as expected. The following keyboard keys can be used to navigate:

home	Scroll to beginning of list
end	Scroll to end of list
page up	Scroll one page up
page down	Scroll one page down
cursor keys	Scroll one line up/down or column left/right
	(use the option key to scroll one page left/right)
return	Move to last selection made
enter	Move to next selection

This is just the beginning of what you can do with **FileList+**. Read on for more details.

FUNCTION DESCRIPTIONS

Database Functions

One of the objectives in **FileList+** is to perform common database management functions within the program, much faster and more conveniently then could be performed through exporting the data to a database application. The following functions comprise the primary "Database Management" operations of **FileList+**:

- Matching (Compare) Functions
- Sort Functions
- Filter Functions (for scan, delete, print, select, match, etc.)
- Delete File Records Function
- Record Selection Functions with Boolean operators

File Compare and Mark Functions

FileList+ has two "Match" match functions that compare files in the list against each other. These two types of matching are File Version matching and Custom File Matching. File Version matching performs an "intelligent" matching, discriminating executable files from document files. Custom File Match performs the same user selected comparisons on each file.

Some possible uses of these functions are:

- identifying duplication of files to save disk space
- identifying files without backups
- identifying files with multiple versions (indicating older/newer of pairs)
- performing an audit of files of certain types, such as applications, INITs, etc.
- resolving multiple copies of a disk that were modified simultaneously
- comparing a disk with backups to detect changed files

Several operations and features apply to both match functions and are described here. The items that apply only to one of the Match functions are described separately below.

Each file record has a field with four "flags" or markers that may be found in the Match field ("MTCH") as shown below. These markers are used to indicate files that have matches and those that are older or newer than other versions of the same file. The table below the figure indicates the meanings of these flags.

```
◆ FILE NAME                    MTCH VERSION      TYPE CREA   BYTES CREATED
│ FileList+                         n            APPL FILI    122K 10/08/91 00:31:23
│ FileList                         o            APPL FILI     34K 09/14/90 12:00:00
│ FileList+ 1.0a1               ● on            APPL FILI     49K 01/03/91 01:30:11
```

Flags	Meaning
•	the first match of a matching file set
m	the second match of a matching file set
•m	the third or later match of a matching file set
o	this file is older than another file found to be a different version of the same original file
n	this file is newer than another file found to be a different version of the same original file
on	this file is newer than one file found to be a different version of the same original file, and older than another
• on mon •mon	this file is either older, newer, *and* the match of other files, **or**, the size is different but all other fields are the same as at least one other file

Each Matching function clears all match flags initially.

Normally, each file record to be compared must pass the File Filter first. However, each of the match functions may be constrained to operate only on file records that are currently selected by holding down the shift key when selecting the menu item (the menu item title will change). If this is done, the File Filter is ignored and instead it is required that at least one record of each comparison pair is selected.

The match criteria are selectable via the Match Preferences… menu item in the Files Menu. The "Match Files when Volumes are:" options select the required relationship between files considered to be matched or compared. "Different" will ensure that a comparison will not be made unless the files are on two different volumes, to distinguish files that have backups. "Same" is the reverse, comparison may only occur only when the two files are on the same volume. Selecting "Don't Care" allows comparisons for either case. See the menu item description for more information on Match Preferences…

If the Only One Match option is selected, then multiple matches ("•m") will never be indicated, and once a file has been matched once, it will not be compared for further matches.

After the match function has been completed, if the Files list was not previously sorted, it will be sorted by the Match Index and File Type field. This will group the files together that were found to be related or duplicates of one another. The header will highlight the "MTCH" field.

Compare File Versions Function

The Compare File Versions function performs a "smart" comparison of all files in the list, indicating files that are "exact" matches, as well as those that are older or newer versions of the same document or executable file. **Executable** files are discriminated from **documents** and the comparisons are tailored to reflect this.

If the Match Preferences "Create Log" item has been selected, a Log file will be created detailing which files need to be moved from where to where to update all volumes to contain the latest versions of each file. If the user cancels the Log file Save dialog, the match will be still be performed, but no Log file will be created. On the other hand, if a Log file is specified, the list will be sorted first by the Path field to organize the files by directory. The Log file will list each file that needs to be moved, with the directory information for the newer and older of the two files. The Log will also list files that have no known matches, and those with more than two versions. It will flag "questionable" files with an asterisk ("*" - See note below).

User selectable criteria for the comparison include the File Filter settings and the Volume settings. The File Filter limits the comparisons to the file types specified (see File Filter Options...). The Volume settings determine whether the comparison should check a file for matches only on the same volume, only on different volumes, or both.   This is selectable via the Match Preferences... dialog (see menu item description below). The Match Preferences... dialog will be presented when this menu item is selected if Match Preferences... has not been selected since program start-up or the last list file loaded.

In performing the compare, first the program determines if a file is an **executable**-type file or a document-type file. Executable files are those with certain file Types including applications, INITs, control panel devices, system files and the like. All other files are considered to be **document** type files. The definition of executable files here is the same as that used in the File Filter.

Normally, each file to be compared must pass the File Filter. However, each of the match functions may be constrained to operate only on files that are currently selected by holding down the shift key when selecting the menu item. If this is done, files are no longer checked for the File Filter, only requiring that one of the two files being compared be selected. This can be used for only comparing certain files of interest in your list, for example, your System Folder files.

If a file is a **document** type file, the program compares it with the other files in the list, looking for exact matches on the file Names, Types, Creators (making sure the files belong to the same application), and create date. If a match is found for each of these fields, the modify dates and times of the two documents are compared. If they are identical, a match is indicated for the first file with a "•" and for the second file with an "m". If a match is detected and the file has been previously matched or this is the third or later matching file in this series, a multiple match will be indicated with both ("•m").   If the files don't match exactly, the older of the two files is marked with an "o" and the newer is marked with an "n". If Names, Types, Creators <u>and</u> dates match, but file Sizes don't, the "•", "n" and "o" flags will all be set for both files to highlight this incongruity. To summarize:

FIELD	COMPARISON
Name	exact
Type	exact
Creator	exact
Size	exact (flag if only difference)
Create Date	exact
Modify Date	used to set older/new or match if exact

If a file is found to be an **executable** type file, the program compares it with the other files in the list, looking for exact matches on the file Type and Creator, and an optional partial match on the files name. If the Match Preferences option Ignore Names of Executables is enabled, the names of **executable** type files are disregarded for this function. Otherwise, the name matching performed is the same as that done for the Custom Match option "up to numeric". Each name is truncated beginning at the first non-space character preceding the first numeric character (if found) before comparing. For example, "MacDraw II 1.1" and "MacDraw II 1.0v2" would be compared as "MacDraw II" and would match. If a match is found in all three fields, each file is then checked for a version number. If <u>both</u> files have a version number, this is used to compare the files. If one or both of the files has no version number information, the <u>create</u> dates and times of the two files are compared. If the version numbers (or create dates if version data not found) are identical, a match is indicated for the first file with a "•" and for the second file with an "m". If not, the older (earlier date or smaller number) of the two files is marked with an "o" and the newer is marked with an "n". If a match is detected and the file has been previously matched or this is the third or later matching file in this series, a multiple match will be indicated with both ("•m"). To summarize:

FIELD	COMPARISON
Name	compare truncated or ignore
Type	exact
Creator	exact
Size	within 1 Kbyte of each other
Version	used to set older/new or match if exact
Create Date	used if version info absent
Modify Date	ignored

NOTE: Because version number information is more reliable then the date information for determining the version of a file, it is strongly recommended that the user selects the "Get Version Information" option in the "Scan Options…" menu item for use in comparing file versions. This item is by default deselected to enhance speed of disk scans. The version information is normally obtained from the resource "VERS" in the executable file. In older, and some newer applications, this resource is not present or is not of the Apple specified format. See Disclaimer below for more information.

All files listed in the Log whose comparison was based on dates (as opposed to version numbers) will be marked with an asterisk ("*") to warn the user about the information in the disclaimer below.

DISCLAIMER:

Note that all file date/time information is only as accurate as the clock on the system. If the clock is improperly set, the date/time stamp for files will be also, and comparisons of files from two different systems must take this into account. Also, just because a file has a newer date/time does not mean the data contained therein is necessarily newer. For example, if one opens up a copy of a file to look at it and saves it just to be cautious, even though the copy originally had been older, it would now indicate itself to be newer. The solution to this is to not save files unnecessarily.

Another problem case is executable files that retain their create date and time through several versions. Examples of this are the SuperClock! and Boomerang INITs. Since executable files are often self-modifying also, there is no way to infallibly discern the truly older/newer of two files of this type, except possibly through the version number. If one or more of the two files has no version number information, for whatever reason, the comparison is may be faulty. Therefore, **please bear these items in mind before following the recommendations of the Log file!**

Custom File Match Function

The Custom Match function compares files with user selected criteria and marks the first of each match file set with a bullet ("•") and the second matching file with an "m" in the "MTCH" field. File matches after the first match pair are marked with both ("•m").   The definition of a "match" is user selectable.   The older and newer flags are cleared but not set by the Custom Match function.

Match criteria are selectable via Match Preferences… for Custom File Matching. These criteria include each file field such as Name, Size, etc and are described later under that menu item.

The File Filter may be selected via the "File Filter Options…" menu item, also described below.

For instance, let's say the "Custom File Matching" menu item is selected. **FileList+** resets all match flags, then it takes the first file in the list that passes as matchable, compares it with each subsequent file that passes as matchable, comparing those fields selected in the Match Preferences dialog. If a matching file is found, **FileList+** marks the first file with a bullet, second with an "m", and continues its search.   If subsequent matches are found, those files are marked with a bullet <u>and</u> an "m". After comparing all files with the first, the second file in the list is selected and compared with all following files starting with the third, etc.

File Filter Function

This function allows the user to optionally select files with certain characteristics for the purpose of selectively scanning, printing, deleting, selecting, and matching files. The filter offers the user a number of commonly used file types, two custom file types, a minimum size, and create and modify date ranges. When performing the print, delete, and select "special" operations the user has the option of selecting all files that pass the filter, or those that don't, together with various combinations of matched files via the standard file group dialog.

"Special" Functions

The Print, Delete, and Select *file* operations are also available as "Special" menu items. The "Special" operation allows the user to operate on a subset of the files in the list by selecting "groups" of files from a standard "Select Groups" dialog used for each of these menu items, an example of which is shown below where "(Operation)" is Print, Delete or Select.

Each "group" excludes more files when it is selected. Within the **Match/Compare Results** group, there are two columns. The first column (Any Of) may be used to select files that have any of the selected match flags to be included. The second column (These Exact) includes only those files that have exactly the flags selected and no others. The **None** item includes those records that have no match flags set.

If the match function has not been performed or is not up-to-date, a message will indicate this below the match flag items (as shown in example above).

Selecting **Only User Selected Files** will exclude those files that have not been selected. (Not available for the Select Special menu item.)

Selecting **Only Files on Selected Volumes** will exclude those files that have not been selected.

Clicking on the **Set Filter...** button will bring up the File Filter Options dialog. The File Filter may be used to include or exclude files based on their passing the filter. If the **Files that PASS the Filter** option is selected, then files that **don't** pass the filter will be excluded. If the **Files that DON'T PASS the Filter** option is selected, then files that **do** pass the filter will be excluded. If both or neither of these items is selected, then the Filter is ignored.

For example, if Any of Matched Files, Multiple Match Files and Files that PASS Filter are selected, only files that are either matched OR multiple matched and pass the File Filter will be printed.

User Interface Functions

The list windows and dialogs of **FileList+** have numerous control features not directly evident. Many of these make use of modifier keys held down while the mouse is clicked on an item to perform special operations. The functions of modifier key combinations are user selectable via the General Options… menu item, the default keys are indicated in the descriptions below.

Field Display and Sort

The windows each have a functional header bar (where the field names are). To sort on a list by a particular field, click in the header bar for that field. To sort in reverse order, hold down the shift key (Reverse Sort modifier) when clicking (or when selecting the menu item correspondingly).

```
FILE NAME                    MTCH VERSION      TYPE
FileList+                         n           APPL
FileList                          o           APPL
FileList+ 1.0a1              ● on             APPL
```

The header of each window will indicate the field(s), if any, that the list shown is sorted by inverse video display of the text, so that the text has a white background, as shown for the "MTCH" field above. If it is sorted by two fields, one as primary and the other as secondary, the primary field will be marked with a small "tab" in the bottom left corner of that field.

To rearrange the sequence that fields are displayed, click and drag the header of the field where you want to move it. The sequences of fields in each window will be saved for the next session of **FileList+** if you do a Save from any options dialog.

The files window is user configurable as to *which* fields are displayed. Display options are available via a menu item. In addition, the user may hide a field by clicking on the header for that field with the command key (Hide Field modifier) down.

The sequence and display of fields may be restored to their "factory" default states by clicking in the header bar of the window and clicking with any combination of modifier keys that includes both command and options keys (the Restore Fields modifiers).

To summarize the actions that may be performed with the cursor in the field header of a window:

Modifier Keys	Default Keys/Action	Result
none	**click**	sort by that field (ascending order)
none	**click-drag**	move field
Hide Field	**command-click**	hide this field
Reverse Sort	**shift-click**	reverse order sort by that field
Restore Fields	**command-option-click**	restore defaults to field display

Record Selection

Records may be selected by clicking on them, and deselected by clicking again. Selections are indicated with a diamond symbol in the left-most column. All previous selections are cleared first unless the shift key (Extend Selection modifier) is held down while clicking, in which case the selection will be extended to include those items clicked. Hold down the shift key (Extend Selection modifier) while dragging over several records will result in each of those records being set to the opposite selection state of the first record clicked. Dragging past the top or bottom of the window will cause an automatic scroll to be performed.

The next selected record may be viewed by hitting the Enter key. A couple of example uses are jumping back to a certain record after performing a sort, or for viewing each search match in the list after performing a Find All or Select Special operation.

The Return key will move the scroll position to the last record clicked or selected.

Clicking on a <u>Volume</u> record with the Command, a.k.a. Apple key (Select Files in Parent modifier) down will select/deselect all the file records for that volume, without changing other previously selected files.

Clicking on a <u>File</u> record with the Command key (Select Files in Parent modifier) down will select all the file records that are in the same folder as the record being clicked, including sub-folders. For example, holding down the command key and clicking on the System file's record in the Files window will select all files that are in the System folder and it's subfolders.

Clicking on a <u>File</u> record with the Command key (Select Files in Parent modifier) <u>and</u> Option key (Select Files in 2nd Parent modifier) down will select all the file records that are in the same folder as <u>the folder</u> containing the record being clicked, including sub-folders. For example, holding down the command key and clicking on the System file's record in the Files window will select all files that are in the folder/volume that contains the System folder and it's subfolders.

Clicking in certain fields of a record with the Option key (Copy field to Search modifier) down will copy the contents of that field to the appropriate search parameter. This works for the Name field in both windows, and also the Type and Creator fields in the Files window.

To summarize the actions that may be performed when clicking in the list section of a window:

Modifier Keys	Default Keys/Action	Result
none	**click**	select or deselect a record, clearing previous selections (selection indicated with diamond symbol)
Extend Selection	**shift-click**	select or deselect a record without effecting selection of other records
Extend Selection	**shift-click-drag**	select multiple contiguous records
none	**option-click**	copy field data to search parameter
Select Files in Parent Folder	**command-click**	select all files in the same folder as the file record clicked OR select all files in the volume record clicked
Select Files in 2nd Parent Folder	**command-option-click**	select all files in the same folder as the parent folder of the record clicked
none	**enter**	move scroll position to next selected record
none	**return**	move scroll position to most recently selected record
Copy field to Search	**option-click**	copy field data to search parameter

Constrain Function

For menu items, the shift key is used to constrain many file operations to operate on selected file records only (This item is not configurable). The menu item title will change, indicating that the constraint is activated.

Dialog Control

Most **FileList+** dialogs can use keyboard characters to select items, as well as command-a to toggle or select a group of items. Usually the first character of the item is the character to use to select that item. In cases of duplication, an alternate character is shown in brackets in the items description. Command keys can be used the same as un-modified keys in most dialogs without editable fields. Dialogs with editable fields will only respond to command-key commands. When editing text fields the user may make use of edit commands such as Copy and Paste.

Selection Groups

Each file and volume list record has a set of bit-fields that indicate if this record belongs to a particular Selection Group. These fields may be set, cleared, combined, rotated, and otherwise manipulated with commands in the Select Menu. The "present" Selection Group is always the one whose members are indicated under the diamond header item with a diamond symbol indicating a record is selected. The "last" Selection Group was once the present Selection Group that has been "pushed" up the "stack" of Selection Groups. Selection Groups may be formed to perform the following operations on the selected records: Print, Save Text, Delete (Files or Volumes), Rename, and Copy (to clipboard), as well as Custom File Match and Compare File Versions. The Copy, Delete, and Rename operations are always performed on the present Selection Group. Certain other operations are constrained to operate on the present Selection Group by holding down the shift key when selecting those menu items.

There are up to five sets of Selection Groups for each list. These groups may be manipulated using the commands in the Select menu.

The statistics for the present Selection Group, as well as the orientation of any other selection groups, may be found in the second line of the Statistics at the top of each window (if enabled, see Display Options), as well as the second line of the header of a print out. Information that is displayed includes:
- a count of records in the present Selection Group
- a byte count of the combined sizes of the selected record items
- in the Volumes window, a byte count of the combined free sizes of the selected volumes
- the number of the present Selection Group
- the positions of the other Selection Groups in the Selection Stack

Several Boolean operations may be performed between the present Selection Group and the last Selection Group. These include logical AND and OR operations. Another Boolean operation toggles the selection status for each record.

There are several methods that may be used to select records. The first is manually, via clicking on the record. Holding down the shift key (Extend Selection modifier) while simultaneously holding the mouse button down and clicking or dragging the cursor over the list will add to the previous selection(s). The Find All function will push the present Selection Group onto the stack (where it becomes the "last" Selection Group) shifting the other Selection Groups, clear all selections, then set the select flag for all records that match the search parameters. These first two steps are also performed with the Push Present Group & Clear menu item. The Select All function will set the select flag for all records in the active window. The Select Special function will select file records from user specified groups such as those that pass the File Filter, have match flags set, etc.

In addition to the five selection groups in the selection stack, there are two groups, Group A and Group B, that are used for semi-permanent storage. The user can swap the contents of each with the present selection group. No other operation except Save As Old Format changes these groups.

FileList+ User's Manual

Below is a diagram illustrating the concept of selection groups, the selection stack, and the results of several Selection Group operations. Note the movement of Selection Groups after they are "Pushed", "Popped", and combined with Boolean operations.
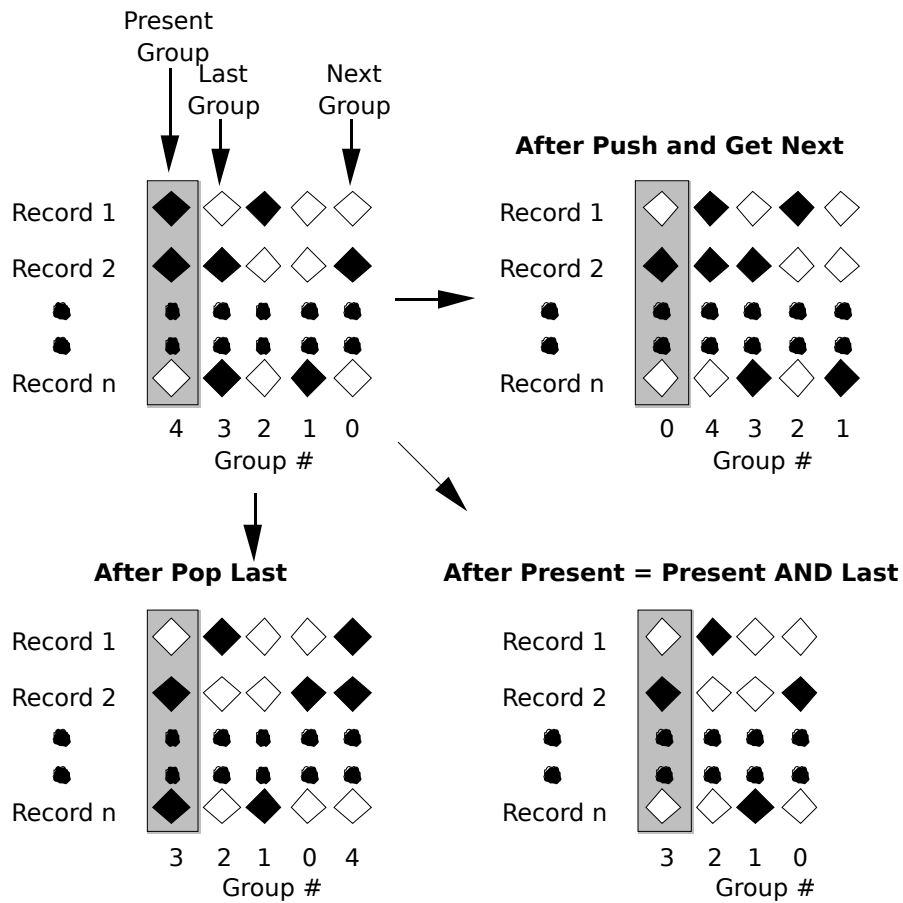
Find Function

FileList+ has an extremely quick search function for finding file or volume records of interest. The user directs this search with text entered in search criteria of the Find Controls area in the top of each list window. The user may set the display of this section of the window with the menu item Hide/Show Find Controls, the command key equivalent, or with the Display Options menu item. Also, clicking in the Find controls area with the command key (Hide Field modifier) down will cause the controls do be hidden. When enabled, the Find Controls appear as show below, after the statistics lines and beside the "FIND".

In the Files window Find Controls (example shown above), there are three editable search criteria. The first is a triple purpose criteria that can be **Name**, **Parent** (folder), or **Volume**, selectable via the pop-up menu item shown with the arrow. This criteria may be used to search any of these fields by part of the name. The other two search criteria are file **Type** and file **Creator**. When certain operations are performed, **FileList+** attempts to make an intelligent choice of one of these three criteria. This is called the "auto-criteria" selection.

If the **Type** or the **Creator** is not filled out it is not used, otherwise it must exactly match (4 characters). One can also use an empty name string and only find files based on the type and creator, or type alone, or creator alone, or any possible combination thereof. For example, to find all application file records, enter "APPL" in the **Type** criteria, nothing in the **Name** and **Creator** criteria, and press Find All. All matching records will be selected.

If no value is entered in ANY of the search criteria for the Files list and the pop-up menu is selected to be **Parent** or **Volume**, performing a **Find Next**/**Find Previous** will skip to the first record of the next/previous folder or volume respectively.

For both lists you can search by giving part of the name. The radio buttons apply only to the **Name/Parent/Volume** criteria. They specify the possible locations a partial match may be found in the record field. **Begins** means the name/parent/volume must start with the search string. **Ends** does likewise for the end and **Includes** will match the search criteria anywhere. **Equals** indicates the strings must match exactly, no partial strings allowed.

There are several methods available for entering a search criteria. Just entering text will automatically begin entering text in the auto-criteria. If the auto-criteria is the Name/Parent/Volume criteria and no characters have been entered for the Delay until Repeat time (set in the "Keyboard" control panel), a Find Next will be performed automatically, searching down from the top of the list. Subsequent keystrokes must occur within the time setting for Delay until Repeat, or they will be interpreted as a new string.

For example, if the list is sorted by the Name field, and the "Begins" option is selected, just entering "fir" would cause the first file whose name begins with "fir" to be selected and displayed.

Another means for entering a search criteria is by clicking on the criteria you wish to edit and typing. Also, entering Tab will select the auto-criteria if no field is selected, and rotate through the criteria on subsequent Tabs. Using this method, **FileList+** will wait for you to enter a command before doing anything with the entered text.

Search is case sensitive for Type and Creator only, which also are restricted to 4-character strings, no more, no less, unless no value is entered. Find First will find the first occurrence of the search strings in the list. Find Next finds the next occurrence, beeping if the end of the list is found before the next occurrence. Find Prev finds the previous occurrence, beeping if the beginning of the list is found before the next occurrence. Both Find Next and Find Prev will wrap around if the ends of the list are found the previous time they are executed. Find All marks all records that match the search parameters. Use the Enter key to step down through the results of a Find All.

Each time a record matching the search parameters is found, that records Selected field will be enabled, indicated with a solid diamond shaped symbol. When a Find All command is executed, the present Selection Group is pushed onto the Selections Stack and the present selections cleared, before the searches are performed.

The Find Controls and search function for the Volumes list is nearly identical to the Files list except only one criteria is available - volume **Name**.

Options Saving

There are two locations that user selected options may be saved. The first is the "FileList+ Options" file (referred to as the Options file), and the second is the List file. Most options are saved only in the Options file, but some are also saved in the List file so that its information can be correlated with the conditions that created it. For example, the Match options and the File Filter options are saved in the List file, so that any file match information may be understood as to how it was created, and so that it may be repeated. In general, all user settings are saved when an Options save is performed. The only exceptions are the selections of file groups made in "special" menu items, and Search Parameters.

Options are only saved in the Options file when a Save button is selected from one of the Options dialogs (General Options, Modifier Key Options, Scan Options, Match Preferences, File Filter, or Display Options). Otherwise, the last saved options are reloaded the next time the program is launched. When a List file is opened, its Match and File Filter options override the Options file options. Options in merged files are ignored.

The Options file is searched for at program launch. The search is performed in the sequence shown below until the file is found:
1. Look in the folder that **FileList+** is in. If not found then,
2. Look in "Preferences" folder in active system folder. If folder or file not found then,
3. Look in active system folder. If still not found, reset options to defaults.

Looking first in the application's folder is useful for setting up a portable copy of the program using a fixed configuration. To do this, set up all options as desired, save the options, then copy the "FileList+ Options" from the "Preferences" folder or active system folder to the application folder. This Options file will then be used whenever this **FileList+** is launched. Note that the Options file must be re-copied if any changes are required.

When the Options file is saved, it will default to the "Preferences" folder in the active system folder if that folder exists, alternatively reverting to the active system folder itself. If an Options file previously existed in the active system folder, it will be deleted first.

> **NOTE FOR POWER USERS:**
> You can use ResEdit to modify the following resources in "FileList+":
>   'STR ' 136   File name for storing options.

MENU ITEM DESCRIPTIONS

In the descriptions below, menu items shown in brackets ("[]") indicate the optional "constrained" form of this menu item, selected by holding down the shift key when selecting the menu item.

FILE MENU

New   (cmd-N)

Clear the present list. If the current list has been changed since it was last saved, the user will be asked if they wish to discard the changes or save them first.

Open...   (cmd-O)

Open existing list from a FileList or **FileList+** file, replacing the current list. If the current list has been changed since it was last saved, the user will be asked if they wish to discard the changes or save them first. When a list is opened, if it is not of the latest list format, it will be converted after it has been read in. If the list must be converted, it does not contain all scan information found in later versions of **FileList+**, and rescanning of the volumes is recommended. A progress indicator with cancel button will be displayed during the conversion. NOTE: If the conversion is canceled, or aborted due to an error, the old list data will be lost.

Merge File...

Merge a list from a FileList or **FileList+** file with the current list. If the current list contains volumes with the same name(s) as the list to be merged, the user will be prompted to rename (the merging volume) or replace (the old volume). If the list to be merged is an older format, it will converted to the newer format automatically, just as in the Open command above. List may be merged when launching FileList+ by selecting all lists and opening one of them.

Save   (cmd-S)

Saves all data to a **FileList+** file. If the list is untitled, user will be prompted for a file name. If the list contains only one volume, the default name will be the volume name with " List" appended. **FileList+** files saved this way are not compatible with original FileList applications.

Save As...   **(cmd-option-S)**

Saves all data to a **FileList+** file, prompting user for a new file name.

Save As Old Format

Standard Save As... but save in old format, stripping off match and version information. Information is removed from database in performing this operation, so save first in new format if this is not desired.

Save [Selected] Text   (cmd-[shift]-E)

Export contents of active list window to a user specified text file. Format is selected by the Text Export options in Options menu item.   Holding down the shift key when selecting this item will save only selected records. (Note that files saved this way cannot be re-read by FileList+)

Page Setup...

Standard page setup for selecting print options.

Print All[/Selected]... (cmd-[shift]-P)

This command will print the contents of the active list window. If the shift key is help down when this item is selected, only selected records will be printed (the menu item changes to Print Selected...)

Printouts are marked at the top of each page with the list name and page number, as well as the second line of the Statistics from the window listed.

Print Special...   (cmd-opt-P)

Print certain groups of file records in the list. See the **"Special" Functions** section earlier in this document for a description of the "Special" selection dialog.

Quit   (cmd-Q)

Quit the application.

EDIT MENU

Undo/Undelete Files   (cmd-Z)

When file records have been deleted from the list but the list has not yet been saved or merged, this command will un-delete the files that have been deleted. When editing a text field, this will undo the last operation performed.

Cut   (cmd-X or F2)

Used for editing text in the Find text fields.

Copy   (cmd-C or F3)

Copy all selected records to the clipboard. Format will be determined by Text Export settings in General Options menu item.

Paste   (cmd-V or F4)

Used for editing text in the Find text fields.

Clear   (cmd-V)

Used for editing text in the Find text fields. When option key held down when selecting this item, the list will be unsorted, back to the order it was originally scanned.

Show/Hide Find Controls   (cmd-F)

Enable/disable the display of the Find section in the active window. See User Interface section above for more information about Find function.

Find Again   (cmd-G)

Perform the Find function using the current find parameters, starting with the next record in the list, or the first record in the list if no record is currently selected, and continuing sequentially down the list. If no matching item is found, a beep will sound. Subsequent executions will wrap around to the beginning of the list. See User Interface section above for more information about Find function.

Find Previous (cmd-B)

Perform the Find function using the current find parameters, starting with the previous record in the list, or the last record in the list if no record is currently selected, and continuing sequentially up the list. If no matching item is found, a beep will sound. Subsequent executions will wrap around to the end of the list. See User Interface section above for more information about Find function.

Find First

Perform the Find function using the current find parameters, starting with the first record in the list, and continuing sequentially down the list until a match is found. If no matching item is found, a beep will sound. See User Interface section above for more information about Find function.

Find All (cmd-L)

Shift the present Selection Group onto the stack, clear all selections, then set the select flag for each record that matches the search parameters. See User Interface section above for more information about Find function.

VOLUMES MENU

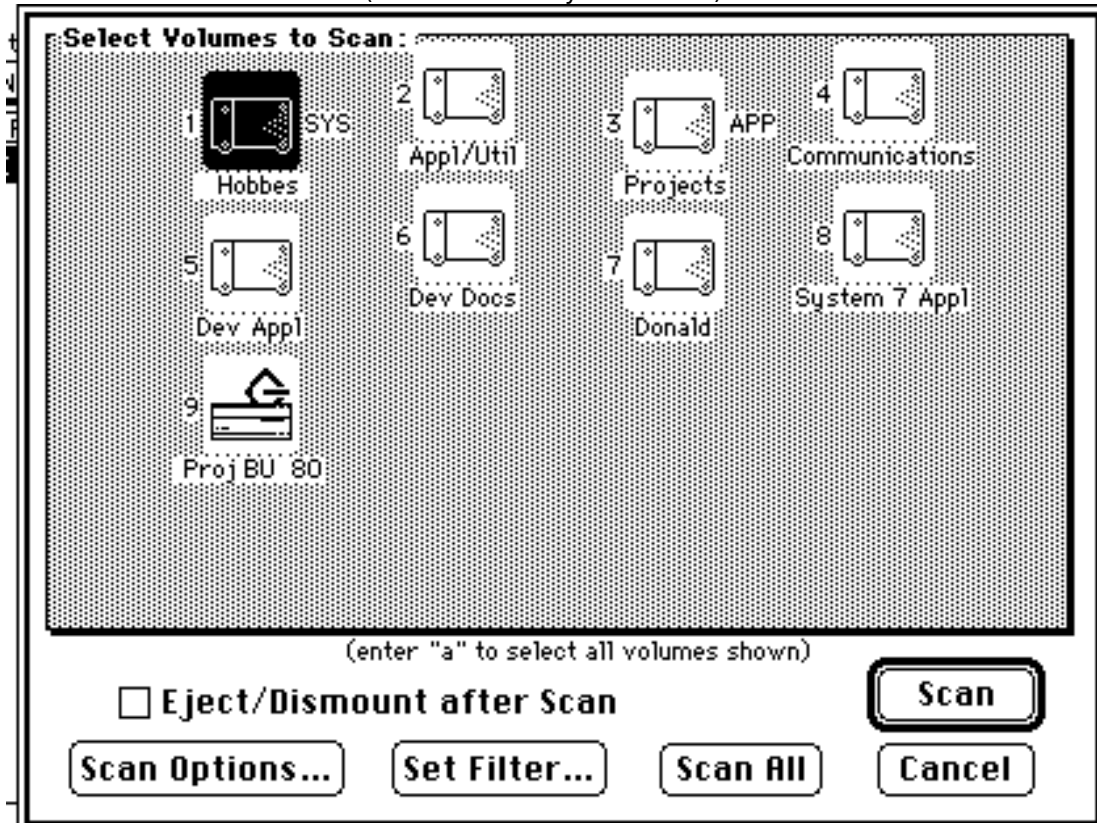| Volumes	
Scan Volume(s)...	[` key]
Scan All Volumes	
Scan Folder...	
✓ Automatic Scan/Eject	
Don't Eject after Auto-Scan	
✓ Replace Volumes w/same Name	
Filter Files on Scan	
Scan Options...	
Delete Volume(s)	[del key]
Rename Volume(s)...	⌘R

Scan Volume(s)...   (`)

Select volumes for scanning from list of currently online volumes. As can be seen in the example below, the Scan Volume(s)... dialog is icon based. Each icon has a character to it's left indicating the key that may be used to select that volume (1,2,3 etc.), as well as the volumes name and an indication if the volume is the current system (SYS) and/or application (APP) volume. Typing "a" or "cmd-a" will toggle the selection of all volumes. Of course, a volume may also be selected or deselected by clicking on the icon. Volumes selected to be scanned will be highlighted, as shown for the first icon below. The "`" key may be used to select this menu item (it's the same key as the "~").

The **Eject/Dismount after Scan** checkbox will cause the volumes scanned to be ejected or dismounted after scan is complete. This overrides the Don't Eject after Scan option which only applies to Automatic scans.

Clicking the **Scan Options** button will present the Scan Options dialog discussed below.

If **Filter Files on Scan** scan option is selected, the **Set Filter...** button will appear. Clicking the **Set Filter...** button will present the Filter Options dialog discussed under the Files menu section below.

Clicking the **Scan All** button will scan ALL mounted volumes (up to 40!), not just those selected here. This is useful when more volumes are mounted then can be displayed (16).
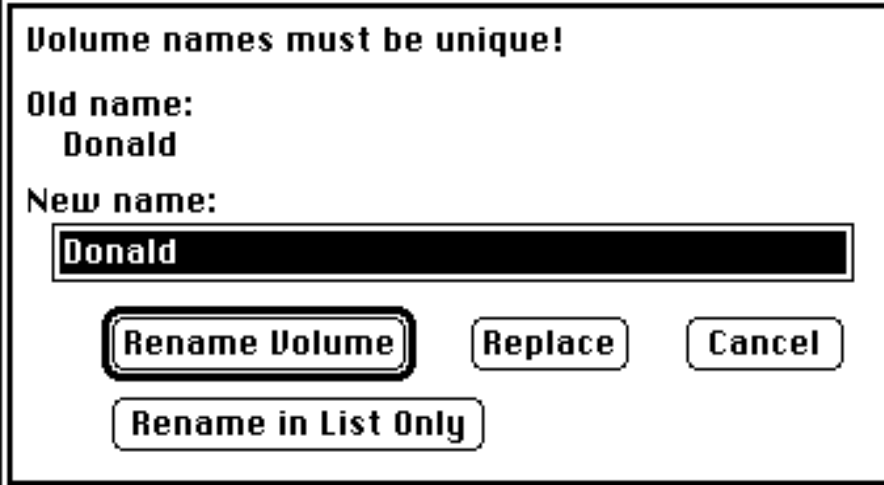
Clicking the **Scan** button will scan the selected volumes with the options selected.

During any scan, the current scan options are displayed and a **Cancel** button is shown. Options may not be changed during the scan however. If a scan is cancelled, all data for the volume currently being scanned is removed, and the volume is not ejected/dismounted.

Clicking the **Cancel** button will exit the dialog without performing any scan.

If a volume being scanned has a name that is already found in the volumes list and the Replace Volumes w/same Name option is not enabled, the user will be required to rename that volume using the dialog shown below. If the user chooses, they may rename the actual volume and the list volume name with the **Rename Volume** button, providing the volume is not write-protected by selecting the Rename Volume button. The user may also choose to **Replace** the present list records for the volume with the same name with the contents of the currently scanning volume, or to rename this volume in the list only by clicking **Rename in List Only**. The user may also choose to **Cancel** this scan.

```
┌──────────────────────────────────────────┐
│ Volume names must be unique!             │
│                                          │
│ Old name:                                │
│   Donald                                 │
│                                          │
│ New name:                                │
│  ┌────────────────────────────────────┐  │
│  │ Donald                             │  │
│  └────────────────────────────────────┘  │
│                                          │
│  ╔═══════════════════╗  ┌──────────┐ ┌────────┐ │
│  ║ Rename Volume    ║  │ Replace  │ │ Cancel │ │
│  ╚═══════════════════╝  └──────────┘ └────────┘ │
│  ┌──────────────────────┐                │
│  │ Rename in List Only  │                │
│  └──────────────────────┘                │
└──────────────────────────────────────────┘
```

Scan All Volumes

Scan all mounted volumes (up to 40) using current scan options.

Scan Folder...

User will be asked to select a folder for scanning. The folder will then be scanned using current scan options. Volume information will reflect the volume the folder resided on.

Automatic Scan/Eject

When this item has been selected and a volume is mounted (disk inserted, etc.) while **FileList+** is active, the volume will be scanned, added to the list, and then dismounted/ejected. This is useful for scanning numerous removable disks. This works with any movable medium: floppy disks, CD-ROM disk, etc. This item controls the same option found in the Scan Options dialog.

Don't Eject after Auto-Scan

Disable the automatic ejection or dismounting of any volume that is mounted or disk that is inserted while **FileList+** is running. This is useful if you wish the volume to remain around for later use. This item controls the same option found in the Scan Options dialog.

Replace Volumes w/same Name

Enable the automatic replacement of an existing volume with a newly scanned volume of the same name. This avoids the dialog asking if you want to rename or replace the volume. This item controls the same option found in the Scan Options dialog.

A word of warning here: if two or more volumes with the same name are selected to be scanned at one time, all volumes scanned after the first (with the same name) will request renaming. User's should try to maintain unique names for each volume.

Filter Files on Scan...

Enable filtering of files using the current File Filter options as they are scanned. This item controls the same option found in the Scan Options dialog.

Scan Options...   (cmd-opt-M)

All volume scan options are selectable via this menu with the dialog shown below. The **Automatic Scan**, **Replace Volume(s)** and **Don't Eject** items select the same options as the menu items of the same names under "Volumes". The **Get Version Information** checkbox determines if applications, system files, and other executable type files will be scanned for version number information during a volume scan. The **Filter Files on Scan** option will check a file against the current filter options before adding it to the list during a scan. The **Disregard Desktop files** option will skip over the invisible Desktop files instead of adding them to the list during a scan.

The **Stuffit Archive** and **Compactor Archive** options determine if **FileList+** will search inside these types of archive files. The **Archives ONLY** item will make **FileList+** only get files from archives, providing one or more archive type has been selected. If either archive option is selected, any a file of that archive type is found it is treated like a folder, i.e. all its files, folders, sub-folders, ... are listed

Clicking **OK** in this or any options dialog will cause the selected options to take effect but will not save them. Clicking **Cancel** will ignore the options settings made in this dialog. Clicking **Save** will save all options. See the **Options Saving** section above.

> **Note:** scanning for version information will slow down scanning substantially. Version information for files that are open, including active applications, INITs and System files cannot be obtained and will be indicated with the string "n/aERR#" where ERR# is the error resulting when the search was performed, "-193" for open files.

> **Notes for Power Users:** the version information is searched for in one of two locations. First the "vers" resource is searched for and if it is found, the short version number string is used. If this resource is not found and the files Bundle bit is set, the signature resource is opened and used as the version information. If the version information is too long (longer than 12 bytes), then the string is searched for the first occurrence of a number character and the next 12 bytes are used for the version number. As far as I can tell, this process mimics the process the Finder's Get Info uses.

**Volume Scan Options:**
- ☒ Automatic disk insert/scan/eject [a]
    - ☐ Don't Eject Volume after Auto Scan [n]
- ☒ Replace Volume(s) w/Duplicate names [r]
- ☐ Get Version Information [v]
- ☐ Filter Files on Scan [f]
- ☒ Disregard Desktop files [d]

Archives
- ☒ Recognize Stuffit archives [s]
- ☒ Recognize Compactor archives [c]
- ☐ Recognize Archives ONLY [o]

[OK]   [Save]   [Cancel]

Delete Volume(s)   (delete key)

Remove all records associated with each selected volume from the list. A caution will be presented giving the user the option of verifying each selected volume or just deleting them all without further cautions. This does not effect actual disk files.
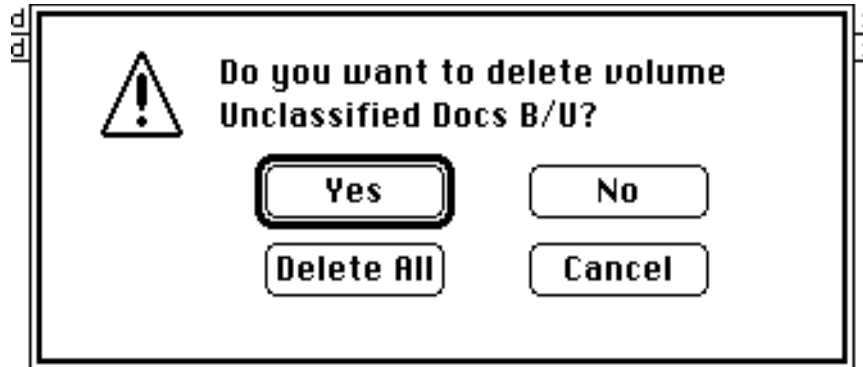
Rename Volume(s)   (cmd-R)

Present the user with a dialog to rename each selected volume from the list. This does not effect the actual volume name which must be changed manually by the user to stay in sync with the list when this item is used. Renaming volume when they are scanned does allow the user to rename the actual volume, however.

FILES MENU

Compare [Selected] File Versions   (cmd-[shift]-M)

Perform a "smart" comparison of all files in the list, indicating files that are exact matches, as well as those that are older or newer versions of the same document or executable file.   **Executable** files are discriminated from **documents** and the comparisons are tailored to reflect this. See further information in File Compare and Mark Functions section above.

Note: Match Preferences... will be selected first if it has not been selected since the program was run or the List file loaded.
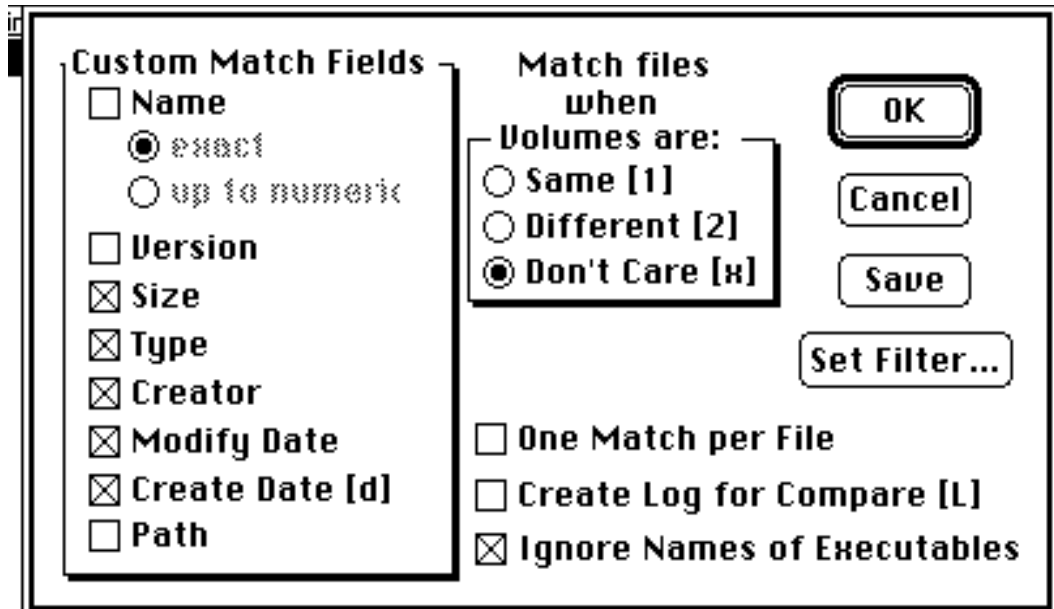
Custom [Selected] File Matching

Perform a custom comparison of all files in the list (as described above in the New Functions section).

Note: Match Preferences... will be selected first if it has not been selected since the program was run or the List file loaded.

Match Preferences…   (cmd-opt-M)

The match criteria are selectable via this menu with the following dialog:

These criteria include each file item such as **Name**, **Size**, etc. These items are used for Custom File Match only. The **Name** field has two options, "**exact**" and "**up to numeric**". The "**exact**" requires file names to match to the last character. The "**up to numeric**" first strips each file name of all characters after the first numeric character occurring in the name, plus any trailing spaces that are left after that. It then compares these truncated name. The purpose of this is to allow a file name to contain version information, but still be matchable via this option.

An additional group selects the required volume relationship between two files being compared. These items are "**Same Volume**" and "**Different Volume**". Selecting "**Different Volume**" will ensure that no match will occur unless the files are on different volumes, to distinguish files that have backups, for instance. Selecting "**Same Volume**" will ensure that no match will occur unless the files are on the same volume, to distinguish files that are duplicates.   "**Don't care**" will disable both.   If "**Don't care**" is selected, the volume will not be considered during matching.

If the **Only One Match** option is selected, then multiple matches will never be indicated, and once a file has been matched once, it will not be compared for further matches.

If the **Create Log** option is selected, then the user will be given the option to specify a Log file whenever the Compare File Versions operation is performed.

If the **Ignore Names of Executables** ignore option is selected, during Compare File Versions the names of executable type files is ignored.

All match and filter options are saved in the FileList+ List file when it is saved. Default options for new List files are saved in the Options file when the user elects to save them with the Save button.

Careful consideration should be made selecting these items, as this will greatly effect the results. For example, deselecting the **Name** is useful in finding multiple copies of a file that have been renamed. Deselecting the **Modify Date** and **Size** is useful in finding various versions of the same file and so on.

File Filter Options…

Select the File Filter Options dialog.

(Also selectable via the Match Preferences, Delete Files…, and Print Special… dialogs via the Set Filter button)

The File Filter may be used as follows:
   • to filter files during a volume scan to allow only files of interest to be added to the list.
   • to restrict the match searches to certain files that pass the File Filter requirements.
   • to cull the file list via the Delete Files… menu item (described below).
   • to print selected file types via Print Special… menu item
   • to select file records via Select Files Special… menu item

All match and filter options are saved in the file list file when it is saved. Default options for new list files are saved in the Options file when the user elects to save them with the Save button.

The File Filter options allow you to select certain common file types via a pop-up menu, and/or select up to 2 sets of custom file TYPEs or CREATORs, and/or set a minimum size for files of interest, and/or select files based on their create or modify dates.

Below is the File Filter dialog:

If the **Non-System Files Only** option is enabled, then the filter will pass only files that have the System (a.k.a. Locked Name) flag in the Finder flags word set to a "0". This flag is set for all file that have locked names, such as the System and the Finder. Finder flags information is available only in scans performed with the later versions of FileList+, and therefore this option is not usable on lists scanned with the original FileList or versions of **FileList+** previous to 1.0b13.

If the **Minimum File Size** option is enabled and a value (in Kbytes) is entered, then the filter will pass only files this size or larger, in addition to the type checking, if any.

If the **Created or Modified dates** option is enabled and a date range is entered, then the filter will pass only files whose Created or Modified dates fall within the specified range, respectively.

Several popular file types are available, as well the catch-all button "**All Types**".   When "All Types" is selected (checked), the Executable Files item, types menu, and Custom items are ignored, and the Executable Files item and Custom selections are disabled.

Executables will pass all files of the types "APPL", "INIT", "xNIT", "cdev", "xdev", "RDEV", "PRES", "PRER" and "mdvr", as well as all files with version information (such as system files, etc).

Deselecting "**All Types**" and clicking on the pop-up menu icon next to the "**More Types:**" label results in a selection menu as shown below:

```
File Filter Options:
  ☐ Non-System Files Only
  ☒ All Types    OR, any of following:
      ☐ Executables (APPL, INIT etc.)
                                          ┌─── Custom ───
      More Types:  [▼]              Type        Creator
       ○ Items Se│ MacPaint      MPNT|              ?
                 │ MacDraw I & II DRWG|
      ☐ Minimum File│✓ MicroSoft Excel    |XCEL       ?
          100    │ MicroSoft Word      |MSWD
                 │ TEXT Files    TEXT|
      ☐ Created  │ SYS  Files          |ZMAC      ave
                 │ INIT Files    INIT|
      ☐ Modified │ Control Panel File cdev|       ancel
                 │ Font & DA Files     |DMOV
                 │ Applications  APPL|
                 │·····································
                 │ Select All of Above
                 │ Deselect All of Above
                 │ Set Custom 1 to Selected File...
                 │ Set Custom 2 to Selected File...
```

The file TYPE and/or CREATOR for each type of file is shown to the right of the description. Selected files types will have a check-mark. In the example, only files for the application Excel™ have been selected.

Custom 1 and Custom 2 are editable file type and creator fields with enable checkboxes. If one is enabled and the other isn't for a given Custom set, the disabled field will match on anything. For example, selecting Custom 1 Type field with a value of "INIT" and disabling Custom 1 Creator will allow any INIT type file to pass the filter.

> **NOTES FOR POWER USERS:**
> The pop-up menu is ID 141 in the MENU resource. STR# resource ID 150 corresponds to item 1 in the pop-up menu, STR # ID 151 to item 2, etc. The first string in each STR# resource is the TYPE field and the second is the CREATOR.   Leaving an entry blank indicates don't care/wildcard. Of course, use ResEdit at your own risk and work on a copy...blah blah blah.

Clicking **OK** in this or any options dialog will cause the selected options to take effect but will not save them. Clicking **Cancel** will ignore the options settings made in this dialog. Clicking **Save** will save all options. See the **Options Saving** section above.

Reset Match Flags

Name says it all. Clears all match related flags for each file record. If file records were sorted by this field, the sort indicators will be reset.

Delete Selected Files… (delete key)

Delete the selected file records from the list and optionally, the actual disk files they represent. The user will be asked if they wish to delete **Records**, **Disk Files,** or Cancel the delete. If the user chooses to delete disk files, they will be prompted for concurrence before each volumes files are deleted, starting with online volumes, then they will be asked to mount any offline volumes with files to be deleted.

The volumes list is left unchanged, even though it no longer correlates with the files list. After a deletion is performed, the user needs to keep track that this is not a complete list anymore.

> **WARNING:** Files that are deleted are handled differently depending on the System version you are running. Under **System 7**, files are moved to the Trash, and may be returned to their original locations by performing a Put Away from the Finder File menu. The exception to this is when two files with the same Name are deleted from the same volume. All but the first of these files is immediately deleted and may not be retrieved from the Trash.   Under **System 6**, files deleted from **FileList+** are only retrievable via disk utilities, just as if you put a file in the trash and then emptied it. *Use the delete files function at your own risk!!*

> **NOTE:** File records deleted by the Delete Files menu items are not actually removed from the database until a Compact is performed. A Compact is performed whenever the list is Saved (except Save Text), or whenever the Merge operation is performed. The Undo/Undelete command in the Edit menu can be used (before Compacting) to un-delete file records. File records that have been deleted but not Compacted are hidden from view and are ignored in all operations. Undeleted File records that represent disk files that have been deleted by FileList+ are shown with inverse video (black background) selection bars.

Delete Files Special…

Delete certain groups of file records from the list or optionally, the actual disk files they represent. See the **"Special" Functions** section earlier in this document for a description of "Special" selection dialog.

See Warnings and Note in Delete Selected Files… description above.

SORT MENU

Sort

Files by selected (& last)
Files by name   ⌘1
Files by match flags (& last)   ⌘3
Files by version & name
♦ Files by type (& last)   ⌘4
Files by creator (& last)
Files by size   ⌘2
Files by created
Files by modified   ⌘5
Files by volume (& last)
Files by path (& last)
✓Files by match index, flags & last
....
Volumes by selected
Volumes by name
Volumes by free
Volumes by total
Volumes by files
Volumes by created
Volumes by modified

NOTE: Clicking the field header in the window will sort by that field. Holding down the shift key (Reverse Sort modifier) while selecting sort item will perform a reverse sort. For the Files list, several sort field perform a two stage sort. These are indicated by the "(& last)" in the menu item. The primary sort item for each list is indicated in the Sort menu with a check mark, the secondary is indicated with a diamond mark. The primary sort item for each list is indicated in the header as an inverse video field header with a corner tab, the secondary is indicated with just inverse video.

Files by selected (& last)

Sort the files list according to whether a record has been selected or not, then by the previous sort item.

Files by name   (cmd-1)

Sort the files list by name in alphabetical order, ignoring case of characters.

Files by match flags (& last)

Sort the files list placing all matched files at the top of the list, followed by files with no matches. If Version match information is present, the files with newer, older, and both older and newer flags will be sorted in that order. See Compare File Versions item for more information.

Files by version and name

Perform a sort by two fields, first the file names, then the file versions.

Files by type (& last)   (cmd-4)

Sort the files list by the Types field, with case-sensitivity.

Files by creator (& last)

Sort the files list by the Creator field, with case-sensitivity.

Files by size   (cmd-2)

Sort the files list by the Size field.

Files by created

Sort the files list by the files create date and time.

Files by modified

Sort the files list by the files modify date and time.

Files by volume (& last)

Sort the files list by the volume name field.

Files by path (& last)

Sort the files list by the path field.

Files by match index, flags (& last)   (cmd-3)

Files will be sorted first by whether any match flags are set ("m", "•", "n" or "o"), then by the index that indicates the files are related, then by the flags, then by the last sort item. For example, all files that are older or newer versions of the same file as determined by the Compare Versions function will be grouped together, despite the fact that no other fields would sort the files in this sequence. The header will highlight the "MTCH" field, but without the primary sort field tag.

Sorting this way is useful for inspecting the results of a file match operation.

Volumes by selected

Sort the volumes list according to whether a record has been selected or not.

Volumes by name/free/files/created/modified

Sort the volumes list according to the selected field.

SELECT MENU

```
Select
  Move to Pointer                        [ret key]
  ......................................................
  Select All Records                        ⌘A
  Select Files Special...
  Swap Present Group & Group A              ⌘;
  Swap Present Group & Group B              ⌘'
  ......................................................
  Pop Last Selection Group                  ⌘,
  Push & Get Next Selection Group           ⌘.
  Push Present Group & Clear                 ⌘/
  Toggle Present Selections                 ⌘]
  Present = Pres OR Last, Shift             ⌘=
  Present = Pres AND Last, Shift            ⌘-
  ......................................................
  Reset Stack Selection Groups
```

Move to Pointer   (return key)

Position the vertical scroll so that the record last selected will be visible.

Select All Records   (cmd-A)

Set the select flags for all records in the active windows list. Before performing this, it will push the current selections onto the stack if any selections have been made.

Select Files Special...

Set the select flags of certain groups of file records. See the **"Special" Functions** section earlier in this document for a description of "Special" selection dialog.

Swap Present Group & Group A/B   (cmd-;)/(cmd-shift-')

Exchange the current selection group and the contents of Selection Group A or Selection Group B respectively.

Pop Last Selection Group   (cmd-,)

Rotate the selection group stack for the active window, placing the last selection group to be "pushed" onto the stack into the present selection group. See the example in the Selection function description.

Push & Get Next Selection Group   (cmd-.)

Rotate the selection group stack for the active window, placing the selection group at the top of the stack into the present selection group. See the example in the Selection function description.

Push Present Group & Clear   (cmd-/)

Push the present selection group onto the stack for the active window, and clear the present selection group. If the stack was full before this command was executed, the selection group at the top of the stack will be discarded. This command is executed automatically for several operations, if the present selection group has any selection. Those operations include Select All, Select Special, and Find All.

Toggle Present Selection   (cmd-])

De-select all selected records in the active window, and select all records not previously selected.

Present = Pres OR Last, Shift   (cmd-=)

The present selection group in the active window will be replaced with the results of a logical OR operation of the present selection group, and the last selection group pushed onto the stack. The stack will then be shifted down, resulting in one less group on the stack. For example, if the first selection group consisted of records 1, 3 and 10, and the last selection group consisted of record 2, the result of this operation is that the present selection group would be 1, 2, 3 and 10, and the stack would be shifted over the last selection group, leaving one less selection group.

Present = Pres AND Last, Shift   (cmd-=)

The present selection group in the active window will be replaced with the results of a logical AND operation of the present selection group, and the last selection group pushed onto the stack. The stack will then be shifted down, resulting in one less group on the stack. For example, if the first selection group consisted of records 1, 3 and 10, and the last selection group consisted of records 2, 3, 4 and 10, the result of this operation is that the present selection group would be records 3 and 10, and the stack would be shifted over the last selection group, leaving one less selection group.
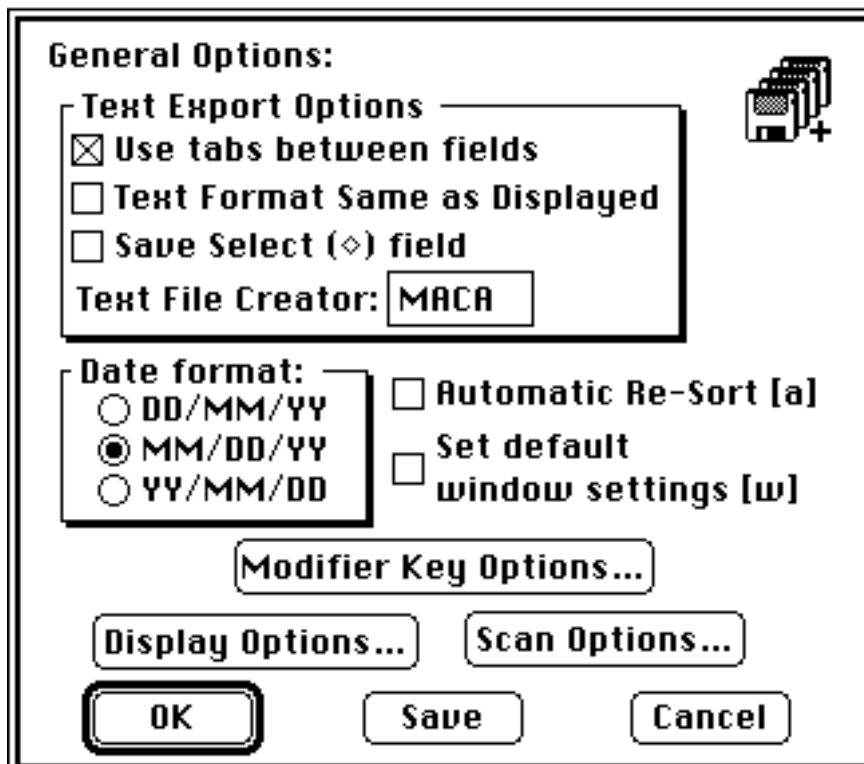
Reset Stack Selection Groups

Clear all selection groups in the stack, but leave Group A and Group B alone.

OPTIONS MENU

```
Options
   General Options...        ⌘U
   Display Options...        ⌘D
..................................................
   Display Font Size          ▶
   Status Font Size           ▶
   Print Font                 ▶
   Print Font Size            ▶
..................................................
   Default Windows
   Stack Windows
   Tile Windows
..................................................
   Reset Options to Defaults
```

General Options...   (cmd-U)

Select options from dialog shown below.

```
General Options:
  ┌Text Export Options ──────────
  │ ☒ Use tabs between fields
  │ ☐ Text Format Same as Displayed
  │ ☐ Save Select (◇) field
  │ Text File Creator: │MACA│
  └──────────────────────────────
  ┌Date format: ──┐   ☐ Automatic Re-Sort [a]
  │ ○ DD/MM/YY    │
  │ ◉ MM/DD/YY    │   ☐ Set default
  │ ○ YY/MM/DD    │      window settings [w]
  └───────────────┘
        ┌ Modifier Key Options... ┐

   ┌ Display Options... ┐   ┌ Scan Options... ┐
   ┌──OK──┐    ┌ Save ┐    ┌ Cancel ┐
```

The first three options effect how text is exported from **FileList+**, either via a Save Text operation or a Copy (to clipboard) operation. "**Use Tabs**" selects tabs or spaces as delimiters between fields. If tabs is not selected, fields are space delimited and have fixed column widths. Tabs are used to import the data into databases and spreadsheets. The "**Text Format Same as Displayed**" option specifies if text should be exported as it is shown in the current display, including which fields are displayed and the order they appear. If this option is not selected, the text format will be fixed, in the default sequence (shown in the View-By menu), and all fields will be present. "**Save Select field**", when enabled, will place a bullet character in the first field for each selected record. The **Text File Creator** item allows the user to specify the file creator to be used when saving text files. This allows the file to be opened by double clicking instead of importing. Common creators are shown in the File Filter Options More Types pop-up menu to the right of the "|" character.

The **Date Format** options select the format to be used throughout **FileList+** for representing dates.

The **Set Default Window** checkbox can be used with the **Save** button to set the default window positions and sizes to be used when **FileList+** is launched. These settings can be returned to at any time by selecting the Default Windows menu item.

The **Scan Options...** and **Display Options...** buttons allow the user to access the dialogs associated with the menu items of the same names.

Clicking **OK** in this or any options dialog will cause the selected options to take effect but will not save them. Clicking **Cancel** will ignore the options settings made in this dialog. Clicking **Save** will save all options in a file called "FileList+ Options". See the **Options Saving** section above.

Selecting the **Modifier Key Options...** button will present you with the dialog shown below to select the keys that must be held down to perform the selected operations, which are described in the User Interface Functions section earlier in this documentation.

Clicking **OK** in this or any options dialog will cause the selected options to take effect but will not save them. Clicking **Cancel** will ignore the options settings made in this dialog. Clicking **Save** will save all options. See the **Options Saving** section above.

Memory Options…   (cmd-option-U)

If you press the Option key while choosing the **General Options** menu item the following memory options can be set, but become active only on the next program start:

* Heap size
     The heap size that should remain after **FileList+** has allocated all it's tables. You should leave at least 96,000 Bytes for the heap. User's with large printer drivers such as used for the HP DeskWriter should set this value to about 200,000.
* Volumes percentage
     The percentage of how many volume records (any volume, folder and file is considered a record) are expected. Clicking on the associated text automatically calculates and displays the current volume percentage.
* Files percentage
     The percentage of how many file records (any volume, folder and file is considered a record) are expected. Clicking on the associated text automatically calculates and displays the current file percentage.
* Average name size
     Average name size (of volumes, folders and files) expected. Clicking on the text automatically calculates and displays the current average name size.

These values are used by **FileList+** to allocate its tables. Everything must fit into available memory. You can use the "About FileList+…" menu item in the Apple menu to see how memory is allocated. To get more memory under MultiFinder for longer lists use the Finder's "Get Info" command. (e.g. to be able to list all files on an "EduCorp CD-ROM 4.0" disk containing 14550 files, set the partition size to about 1200 K.)

Display Options…   (cmd-D)

Select which fields to display in the Files window, as well as select your choices for what items to display above the header and how to show sizes. Disabling the display of fields not of interest might allow you to see the path at the same time as the file name. This is particularly important for those with smaller screens on their Macs. These options are selected via the following dialog box:
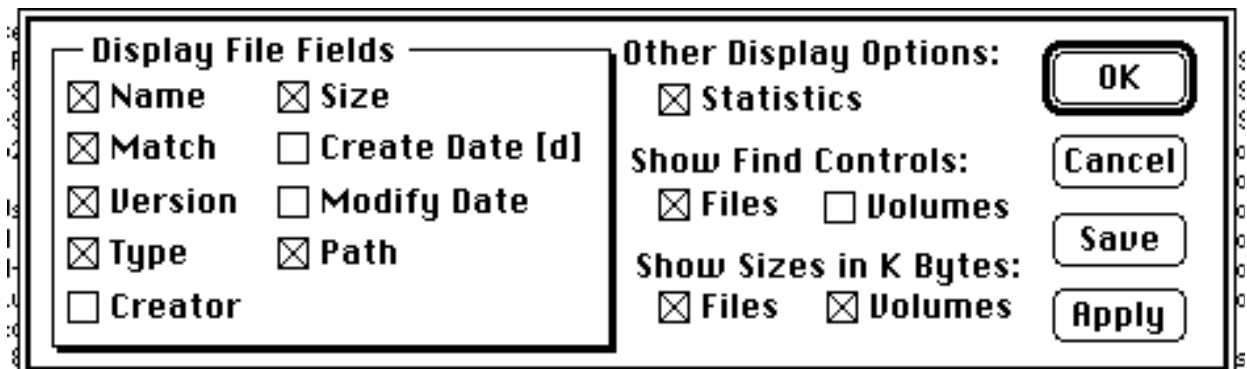
The default display options are as shown above, all fields selected. Entering the first character of an field item (or the character shown in brackets, ex. "[d]", when indicated) will toggle that item. Entering "a" will select all File fields.

Clicking **OK** in this or any options dialog will cause the selected options to take effect but will not save them. Clicking **Cancel** will ignore the options settings made in this dialog. Clicking **Save** will save all options. See the **Options Saving** section above.
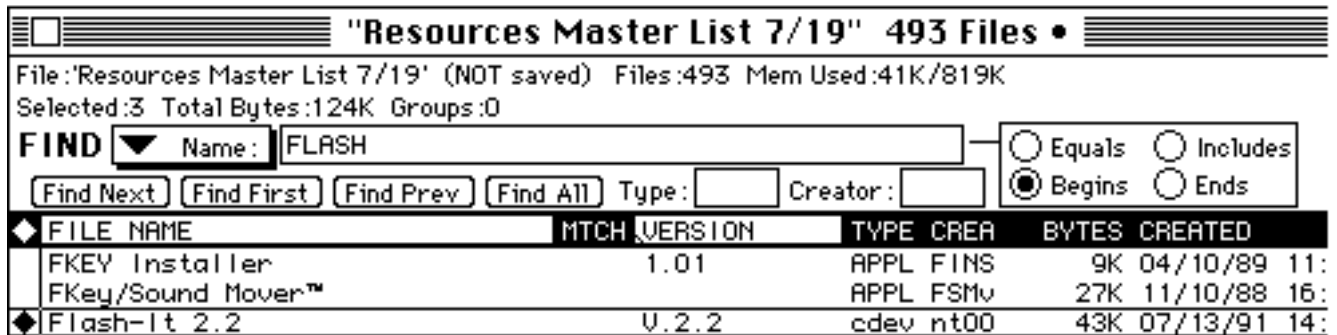
The **Apply** button will update the displays to reflect the selections made to allow you to see your changes. A **Cancel** performed after an **Apply** will not revert to the previous settings.

The format of text placed in the Clipboard for a Copy or placed in a text file for a Save Text will be the same as the format in the display if the "Text Format Same as Displayed" item is selected in the General Options menu item.

Several other options for window display are offered here.

Another display option is whether to display the Statistics bar in each window, above the header bar. For example:

This indicates several useful items including:

First Line:
- The current files name;
- If the current list has been changed since last saved (indicates "(NOT saved)" and "•" in title);
- The count of files/volumes in the current window;
- The amount of application memory used/available in Kbytes.
- If the version field (in the Files window) is hidden because there is no file version information in the current list, this will be indicated with "(no version data)".

Second Line:
- The number of records currently selected.
- The total size (and Free Size in Volumes window) of all selected records.
- Which group number is the present group, and what other groups are in the selection stack.
- In the Files window, if the match info is current, this will be indicated, including also;
    - a count of matching files, and;
    - a total byte count of matching files (not counting originals)

If the match info is not current, the second line of Statistics for the Files window will not include the "Match Info".

Also note that the field(s) each list is sorted by (if any) will be highlighted in the header bar. The primary sort field will also have a little tab in the bottom left corner, as the Version field does in the first example above.

When not otherwise indicated, the defaults for the Statistics are: File saved, match not current.

For each window, the option to display sizes in **Kbytes** or just bytes is offered. If Kbytes is selected, sizes will be in Kbytes and will have a K appended to them.   The Kbytes option does not apply to text copied to the clipboard or a Save Text file.

Another Display Option is the **Find Controls**. These are the controls for the Find function that are displayed above the header bar when enabled. The Find function is described in detail in the User Interface Functions section of this document. The command Show Find Controls/Hide Find Controls in the Edit menu can be used to enable or disable the Find Control display for the active window without going to this dialog.

Display Font Size

Select the font size to be used for list text on the screen. This option may be saved in any options dialog.

Status Font Size

Select the font size to be used for the statistics at the top on the screen. This option may be saved in any options dialog.

Printer Font

Select the font to be used for printing. This option may be saved in any options dialog.

Printer Font Size

Select the font size to be used for printing. This option may be saved in any options dialog.

Default Windows

Reset the size and position of each window to the last saved defaults.

Stack Windows

Resize each window and position them to overlap.

Tile Windows

Resize each window and position the volumes window immediately below the files window, using about 5/8 of the height of the screen for the files window and the rest for the volumes window. It will then set this as the new window defaults.

Reset Options to Defaults

Reset all of the user options to the "factory" defaults, including general, display, match, scan, and filter options, with the sole exception of the window positions. Window positions will be reset to the last saved positions.

TIPS FOR USING FILELIST+

Here are a couple of suggestions for using **FileList+**. Several of them are referred to above.

- Use unique and descriptive names for each disk, and mark them clearly.
- Use consistent file and volume naming conventions, so you can identify the items easily.
- If you are interested in checking your executable files (applications, INITs etc.) for proper versions, enable the version scan in the Scan Options... dialog.
- Set up and save your standard preferences and save them in the FileList+ Options file, then do a Reset Options to Defaults or otherwise reconfigure your options (without saving) for special cases.
- If you are a "keyboard" type person more than a "mouse" type person, check out all the keyboard shortcuts in the documentation. Most commonly used operations may be performed with keys.

COMPATIBILITY

Just a couple of known incompatibilities exist:

In CE Softwares QuicKeys™ Version 1.2 you will bomb out of **FileList+** if you attempt to define a program specific QuicKey. This problem existed in FileList 1.4 also. Version 2.1 of QuicKeys does not seem to have this problem.

Another bug was discovered in AlarmsClock version 2.0 from Now Utilities. It seems this INIT expects the System heap to never be compacted. During list conversion, some System heap is used temporarily. In the process of obtaining this memory allocation, resources may have to be purged. AlarmsClock apparently never checks to see if the resources are still there, as Inside Mac says it should. AlarmsClock Version 3.0 fixes this problem.

Suitcase II versions prior to 1.2.11 will cause FileList+ to bomb due to memory problems with drawing the font menus, I suspect.

When using a printer driver that uses a lot of memory, such as the HP DeskWriter, you may need to allocate more memory to the application heap. To do this, select the Options menu with the Option key down and select the General Options... menu item. Set the Heap Size variable to at least 200K, then save and quit **FileList+**. The next time you launch **FileList+** it will have this configuration. Note that this parameter is saved in the FileList+ Options file, not the application.

Change History

Following is a detailed history of the most recent **FileList+** updates. For history of previous versions, see the separate FileList+ Revision History document.

New to version 1.0b20 of FileList+
- fixed bug with non-operational menu item for Scan Options
- added menu item for scanning selected folder (and it's subfolders)
- fixed bug with cancel no working for Custom Match function
- added Scan Folder menu item to scan selected folder only
- made match flag sort unsigned to place no flags first
- made Volume-field display (in Files List) independant of Path field display
- fixed bug with print header using wrong font
- added new option to sort by match index, will group matched files together in sort
  only works for files matched by this version (or later) of FileList+
- changed Scan Options dialog to clarify function of Don't Eject option
- swapped items in Volumes menu for same reason
- added option to General Options dialog for performing Automatic resort after Scan, Rename and delete of volumes
  changed up match functions to use common routine
- added automatic sort by match index if no sort previously done, otherwise automatic resort if sorted by match flags or index
- changed Custom Match function to handle situation where Ignor Names of Executables and the file types are not checked - was resulting in match for all files compared with an executable, even documents
- added more error messages
- fixed bug with Reset Options to defaults clearing the Header bar sort indicators
- fixed bug with moving match progress dialog - wasn't discriminating it from list windows
- changed Copy function to use disk for storage, allows for copying of virtually unlimited umber of records