You'll have noticed a reference to LinksWare "sets" or just "set" in the preceding paragraphs. The use of that word "set" is a convention: it appears on your disk as a single file, although it is, in fact, a set of several related files. This file LinksWare uses to keep track of links, words, files, and other information. When you first installed LinksWare, it was unable to find a default set to use,   and so presented you with a dialog box asking you to locate and/or create a new one.

 The set requires 256 K of disk space without any links and will add 1K for each different file linked. An average size set therefore would be just under 500,000 bytes. LinksWare needs this set available at all times for reference. That is the reason we so strongly recommend a hard-drive   for use with LinksWare. With version 3 there is no limit, other than memory & disk space, to the number of files or links.

Word processor documents over 250,000 bytes long, with lots of special formatting, may not be readable. (Any document this long should probably be broken into smaller parts, or saved in a less complex format, such as MacWrite.)

Create New Link Set

This menu item does just as its name implies: it creates a new empty LinksWare set of the name you specify and in the location you choose. This requires nothing special from you: just be sure that you are in the folder you want to be and then choose a meaningful name (ie "Family Ancestry" or "Flemish Painters") and press return. The newly created set now becomes active and becomes the default set. (It is loaded and used the next time you start LinksWare.)

Open Existing Link Set

This is the menu item that lets you switch among different LinksWare sets. As noted above, the last set you use before quitting LinksWare will be the set automatically opened when you launch the program again.

Current Set Stats

This provides a dialog box showing you how much memory remains open in the machine's RAM and the number of words, files, and the name of the current link set.

Restore

If you've ever restored data from a backup set to a hard drive, you may have noticed that some programs are no longer able to find the files they need, and you may have been prompted to find the files again. Briefly, that is because the Macintosh system tracks files by a volume and directory number, not by name. These numbers remain consistent as long as the main directory structure is not damaged. If that happens, a new set of numbers is generated, even though the actual pathnames have not changed. Thus the number for (say) "HD:MyFolder:mySub" may be 2:1174 before the corruption of the main directory structure, and after restoring your hard-drive, the path is the same ("HD:MyFolder:mySub") but the number may well be 2:1037.

Tracking files via these numbers is exactly what Apple suggests, as the likelihood of a crash is small, and most programs only track one or two files: the user does the selection of most files through the Open command. LinksWare on the other hand may actually   have to track hundreds of files. You may have several thousand words linked (although normal use is only several hundred.) In any case, you'd surely be upset if you found it necessary to restore your hard drive, and then lost all those links in the process.

So here is our solution – select "Restore" from the Utilities menu to generate new accurate numbers in the set. We sincerely hope that you'll never need this feature, but it is there for you just in case.

Note: As explained above, access to files is kept by a numbering system. This numbering system also becomes invalid if you boot from a different disk than the one in use when you linked your files. That is, if you normally boot from your hard drive, and then create links, the links will appear to have "vanished" if you now boot from your internal floppy and try to retrieve them. Now, should you find that all your links seem to be missing, simply close your open windows, and select "Restore" from the utilities menu. This will update all the numbers in the list by checking the full paths to the linked files.

Sharing sets of files:
Install Transfered Set

As you can tell from the preceding, transfering a set and its files to another disk,   to share with another user, is not technically simple: all the paths to the files are instantly wrong when you move the files to a new location. Therefore we have provided a method for you to accomplish this transfer.

Your task is simple: copy the needed files into a single folder. Then copy the LinksWare set for those files into the same folder. We have also included a "Read Me FIRST" file for you to copy into the folder as well. It will tell the recipient what s/he needs to do with the folder s/he has received.

The recipient moves the whole folder to the hard-drive (or may leave it on the floppy.)   Then after running the LinksWare program, s/he'll select the set from that folder and then   select this menu item: "Install Link Set." LinksWare will take care of establishing the new volume and directory numbers.

Naturally, if you are producing a set specifically to be run from a 1.4 meg floppy, you can take care of the recipient's steps yourself.

Preferences

This is a dialog box of features you can activate by placing marks in the boxes.

On the left are two columns of text styling options. Use these to select how the Show Links command will highlight words. You can have a different highlighting for words vs. phrases.

You may set the automatic word list on or off. The default is on, since it takes only a moment to create this useful menu item.

The next two options control what is shown when you select Cmd L, Show Links. The default is to show links only from the text actually visible on the screen. If you are viewing a 40,000 word document, this significantly cuts down on the search time when looking for linked words. Optionally, you may have LinksWare search through all the text.

Additionally, you can instruct LinksWare to highlight only the first occurrence of the word. This is the default. If you check the box, LinksWare will highlight every occurrence of the linked word.

The obvious consideration here is the amount of time spent searching through the document. Remember, each document is "new and unknown" to LinksWare. LinksWare is linking to actual words, not buttons covering areas of the screen. So we have to search the text just as a word processor must.

In actual time trials using an SE/30, MacWrite II took 8.75 seconds to find a single unique word at the end of a 160,000 character document. If you have full-text search and full highlighting on, you are asking LinksWare to perform perhaps hundreds of such searches.

If you are saving out a file and want all the links to show throughout the document, elect to have every occurance shown throughout the entire document.

LinksWare uses multiple sophisticated algorithms to optimize for different circumstances. Regardless, it will still take some time if you choose the full search methods. (See "Tips and Hints" for suggested proper use of these capabilities.)

For speed, remember that the default mode includes a word list in the menu (very quick), a full word list under the Links menu (very quick), and a quick first-occurrence / screen-only mode.

The final entry in the preferences dialog is a chance for you to enter the minimum acceptable word size for a link. The default is four characters, so the word "Nora" would be accepted but the word "Bob" would not. You can mix minimum values in a set, but the show links process will only display words which meet the minimum size criteria. This feature not only speeds up searches, but prevents accidental links to "a" and "to" and "the".

Automatic lost–file find

LinksWare is tracking file paths and names; what happens if the file is moved or renamed, or even both? Obviously LinksWare will not be able to retrieve the file, since it isn't where it was. We have developed a routine which will try to find the files for you. It will usually operate transparently, finding the file and re-establishing the link automatically.

Occasionally the file may be duplicated on your disk, or the Apple Alias manager will determine that two or more files match the search criteria. LinksWare will then present you with a special window which contains what it determines is the file you most likely want. In the menu bar will be a two-step menu allowing you to either re-link the file or skip on to display the next file. Additionally, a floating window will display the full path to the file. (This window is movable, in case it is covering up something vital you want to see.) If you skip it and there are more possiblities for the lost target file, LinksWare will present them one at a time until none are left or you relink one of the files. LinksWare finds files by using the Alias

manager, which makes extensive use of the file type and creation date. If you alter these (or some program alters them) the find will fail.

Because of the way certain file compression products "hook" into the system, and the level at which they do so, Apple's alias manager may bypass these hooks. This can result in a case wherein a moved or renamed file is not automatically found. This is inherent in the nature of the operating system vs the compression utilities, and is not a defect in LinksWare, which strictly follows Apple's programming conventions and rules.