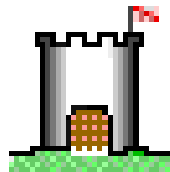


V E R S I O N 1 . 0

Keeper Users Guide



ADInstruments

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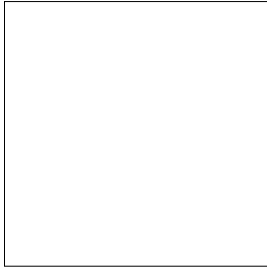
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Contents

Introduction 1

Requirements 2

Installation 2

1 Working With Archives 3

The Navigation Window 4

Revisions 4

Compression 5

Encryption 6

Compaction 7

Damaged archives and good archiving
practice 7

Archive Preferences 9

Views 9

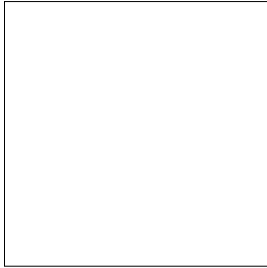
Archiving 10

Exceptions 12

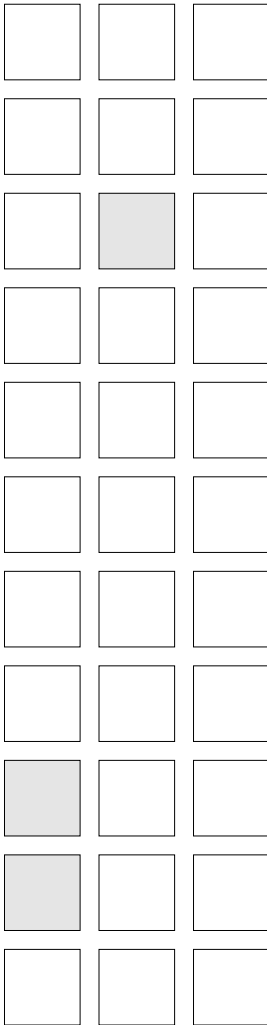
Passwords 12

2 Backups 13

Scripts 15



Introduction



Keeper is a personal archiving program that is exceptionally easy to use. It uses the familiar System 7 Finder interface so that working with files and folders in the archive is just like working with files and folders on your disk. Keeper can automatically compress and encrypt your files so they are secure and use only half the space that they would on your disk, but still provide rapid access to them. Keeper also manages multiple revisions and can back up folders at regular intervals, saving only the files that have changed. Keeper is distributed as a “fat” application, and will run natively on both 68K and PowerPC-based Macintoshes.

Requirements

You should be familiar with the Macintosh Finder environment. If you do not know how to use the mouse and keyboard, choose commands from the menu, and so on, please consult the guide that came with your computer.

Keeper requires a Macintosh with a 68020 or later CPU, or a Power Macintosh, running System 7.1.1 or later. It will work under System 7.0, but the drag-and-drop functionality that makes it so easy to use is not available from versions of the Finder before 7.1.3. Keeper is initially set to use 5 Mbytes of RAM, which is recommended for working with archives of up to 15,000 files. If you are using smaller archives, you can use the Get Info command in the Finder to reduce its memory allocation. If you are using larger archives, you should increase the memory allocation. Keeper archives can hold up to 2000 Mbytes of compressed files, but we recommend keeping less than 30,000 items in each archive and less than 1,000 items per folder.

Installation

Keeper requires no special installation; simply place the Keeper application in any convenient folder. Keeper will manufacture a Keeper Scripts folder in the same folder as the application if you use its automatic backup facilities. You should keep this folder and the application together if you move Keeper somewhere else on the same computer, as it contains the automatic backup settings.

1

Working With Archives

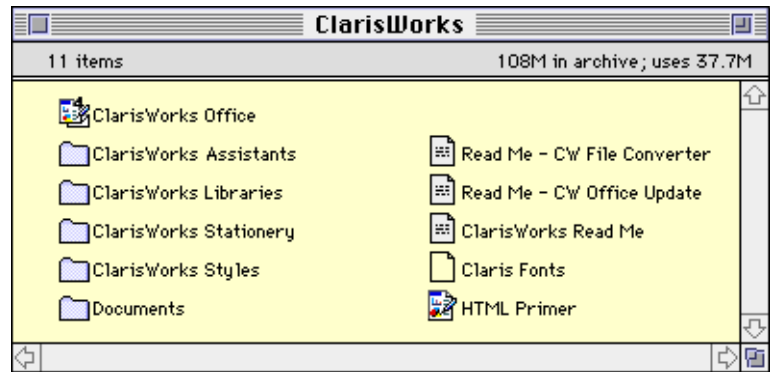


Mail archive

In general Keeper archives look and work almost exactly like Finder folders.

You can drag and drop files onto archives or into open archive windows and they will behave just as folders do in the Finder. Notice, however, that they always behave like folders on another volume — if you drag something into or out of an archive, it is copied, not moved. The original file or folder remains where it was.

Figure 1
A typical Keeper archive window



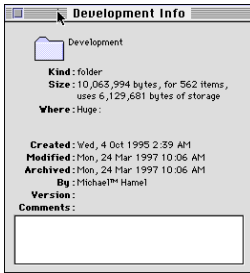
Otherwise you will find that almost all of Finder facilities that you already know and use are available in Keeper. You can select, shift-select and drag-select archived items and then drag to position them in the icon views. You can edit their names by clicking on them and pausing, just as in the Finder. The View and Label menus are identical to the Finder, and the New Folder, Open, Close, Find, Get Info, Duplicate, Select All, and Clean Up commands operate in the same way and have the same effects. To delete items from the archive you

can drag them to the Trash. (Note that a bug in the Finder prevents you from dragging archived items to aliases of the Trash).

If you Open (or double-click) a file in a Keeper archive, Keeper will ask you where on your disk you would like the file put before opening it; it isn't possible to open files directly from the archive.

The Get Info window has a few extra elements that are not present in the Finder equivalent.

The Size entry specifies the compressed size of the item and whether or not it is sharing storage space with one or more other items. It also shows when the item was archived and who by (the name is from the Owner Name in the Sharing Setup control panel).

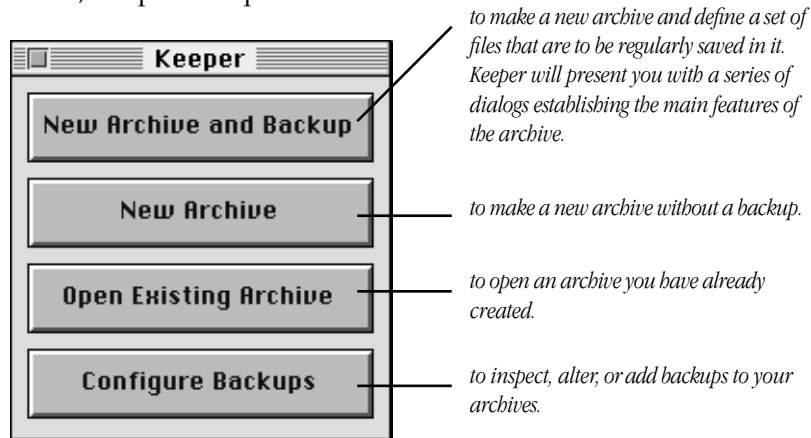


The Navigation Window

A quick navigation window with four buttons for commonly used functions appears when Keeper is running.

This window also serves as a reminder that Keeper is running. If you close it, Keeper will quit. Click on:

Figure 2
The Navigation Window

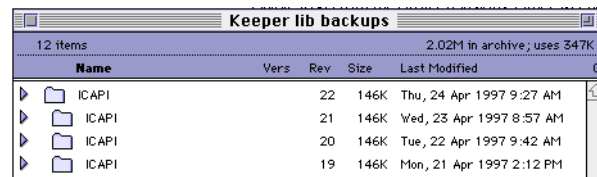


Revisions

The first difference you may notice between a Keeper folder and a Finder folder is that Keeper folders are allowed to have multiple

copies of items with the same name in them. The Finder won't let you do this, but Keeper does, so you can repeatedly save the same file into a Keeper archive without overwriting earlier revisions. You don't have to keep all the earlier revisions, either. Keeper can automatically delete old revisions as new ones are added. Use the "Limited revisions" controls in the Exceptions panel of the Preferences dialog to specify how many revisions you would like to keep.

Figure 3
Multiple revisions in a list view



| Name | Vers | Rev | Size | Last Modified | Co |
|-------|------|-----|------|--------------------------|----|
| ICAPI | | 22 | 146K | Thu, 24 Apr 1997 9:27 AM | |
| ICAPI | | 21 | 146K | Wed, 23 Apr 1997 8:57 AM | |
| ICAPI | | 20 | 146K | Tue, 22 Apr 1997 9:42 AM | |
| ICAPI | | 19 | 146K | Mon, 21 Apr 1997 2:12 PM | |

Keeper assigns revision numbers to identically-named files to help you keep track of which is which and how many copies of them have been archived. If you select a list view for a Keeper folder, such as View by Name, you will see that Keeper has an extra column called "Rev" that shows the revision number of each item, if there is more than one of them. Revision numbers are automatically assigned each time you add a new file to a folder that already has a file of that name. Once set, they cannot be changed. New files will have the number of the highest existing revision, plus one. For example, if you have revisions 1 through 5, delete revision 2 and revision 5, then add a new file, it will be given revision number 5.

Keeper also knows that the Finder can't cope with multiple revisions, so if you drag a folder containing them out of a Keeper archive onto your disk, Keeper will copy only the latest revision of each item.

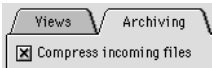
Compression

Keeper archives use less space for three reasons:

- Keeper can share storage between identical files. Whenever you add a file to an archive, Keeper checks to see if it is the same as any of the files already present. If so, Keeper will mark the storage already allocated as shared between two files and use very little extra space. The storage is only discarded when all the files that use it are deleted, so the sharing has no other effect apart from saving space. Shared

storage is particularly effective when you store multiple revisions of a folder in which only a few files change from revision to revision.

- Keeper eliminates the “block overhead” involved in storing files on a Macintosh volume. Because file sizes have to be rounded up to a multiple of the volume block size, many small files actually occupy much more space than they need. This effect becomes more noticeable on larger disks; for example, on a 2 Gbyte volume no file can be smaller than 32K. So if you have a lot of 3K files, they will occupy ten times more space than they need. Keeper archives have no minimum block size and this effect does not occur.



- Keeper can use a fast compression technique that it applies to files as they are moved in or out of the archive. On Power Macintoshes the compression and decompression is so fast that it has almost no effect on the speed at which the files are copied. On 68K Macintoshes compression may slow down copy-in times by a factor of two to four and copy-out times by a smaller amount. You can turn this compression off or on with the “Compress incoming files” control in the Archiving panel of the Preferences dialog. I recommend experimenting with the compression to determine which speed/space trade-off you prefer. Most files will compress to between 30% and 60% of their original sizes, but they may hardly compress at all if they have already been compressed by some other technique.

Encryption

Keeper archives can be encrypted, so that only someone with Keeper who knows the right passwords can open them. You can add or remove encryption from an archive at any time, or change the passwords or the hint string with the Passwords panel of the Preferences dialog. Please note that removing or adding encryption to an archive may take some time if the archive is large, particularly on slower 68K Macintoshes.

Keeper automatically encrypts and decrypts items as they are dragged in and out of the archive. It encrypts the entire archive, including all the filenames and associated information, so even a low-level file editing tool can gain no useful information about the contents of the archive. Keeper’s encryption is very fast on Power Macintoshes; it will slow down moving files in and out of the archive

by 30% or less. On 68K Macintoshes encryption may slow down copying by a factor of two or more. Note that the effects of encryption and compression on speed of access do not add; on some Macintoshes it is faster to have both encryption and compression turned on than encryption alone.

Do not forget the passwords of an encrypted archive. If you do, ADInstruments knows of no means of cracking the encryption and recovering the contents. An exhaustive search of the two billion billion possible keys is not practical. This, however, does not mean that professional cryptographers could not find more intelligent techniques. If you require high-level security, please use another application such as MacPGP to encrypt your files.

Compaction

When files are removed from an archive, the space they used becomes available. Unless the space is right at the end of the archive, the archive won't become any smaller, as the space forms an internal "bubble". Keeper will try to use this internal space for new files, but if you remove a lot of files and don't add any, it is better to close up the space and make the archive smaller by moving all the files above the space down. This process is called compaction. Keeper will automatically start a compaction when the free space exceeds a quarter of the total size. Compaction may take some time, as it could require moving most of the archive. You can ask Keeper to stop, but it may not be able to immediately if it is in the middle of moving a lot of files. If you would like to force a compaction (perhaps because the archive about to be saved to read-only media), hold down the Option key when closing it.

Damaged archives and good archiving practice

Keeper has extensive facilities for dealing with damaged archives. If an archive has not been closed properly (perhaps because the Macintosh has crashed while it was open), Keeper will automatically check the archive for errors when it is opened. If it discovers serious errors, it will do its best to repair them. But Keeper cannot guarantee

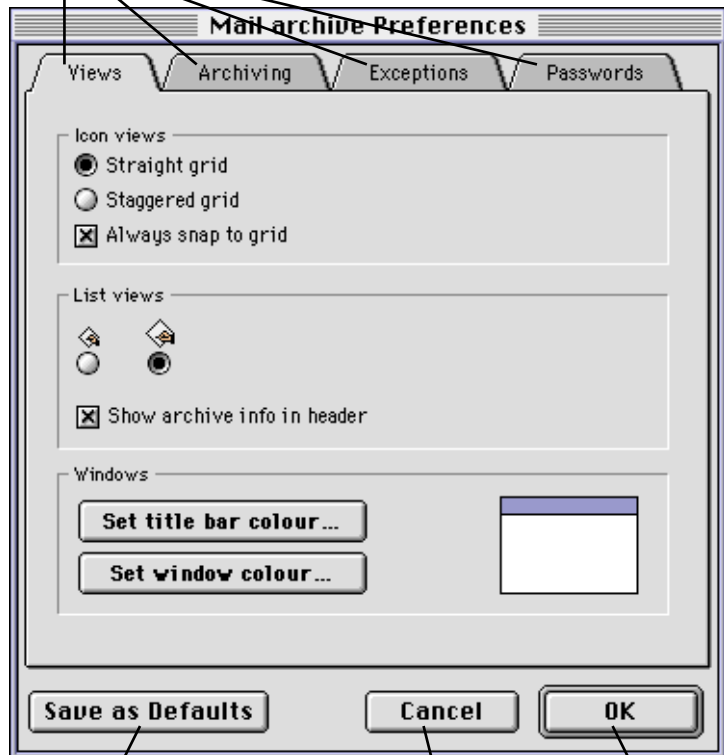
to repair every possible sort of damage — for example, physical damage to a disk could make it impossible to open an archive. You should always keep multiple copies of archives that hold really important information, preferably on different disks that are kept in different locations.

Archive Preferences

Select the Preferences... item at the bottom of the Edit Menu, or type Command-E to display the Preferences dialog for the front most open archive.

Figure 4
The Preferences window

Click on the tabs to display different sets of controls



Click here to save all the settings as the future standard for new archives

Click here to abandon changes to the settings

Click here to apply the settings to the archive

Views

The icon view and list view controls provided here have the same meanings as the controls provided in the Views control panel under the Apple menu. The window colour controls allow you to give

Keeper folder windows a distinctive colour scheme, which can be useful in distinguishing them from Finder windows.

Archiving

The archiving controls affect what happens when you drag files and folders into the archive.

Compress incoming files

Enables automatic compression of all files that are subsequently added to the archive. Files that are already in the archive will not be affected by this control, and will automatically be decompressed if necessary as they are extracted from the archive. See the description under “Compression” in “Working with Archives” above.

Resolve incoming aliases

When this box is checked Keeper will start attempting to fully resolve alias files that are added to the archive. This means that the file or folder that the alias refers to will be archived, rather than the alias itself.

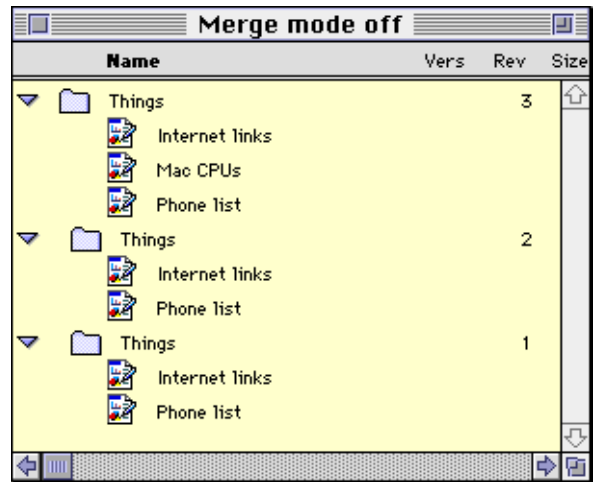
Merge incoming items

Keeper archives can treat new items that have the same name as existing items in two different ways.

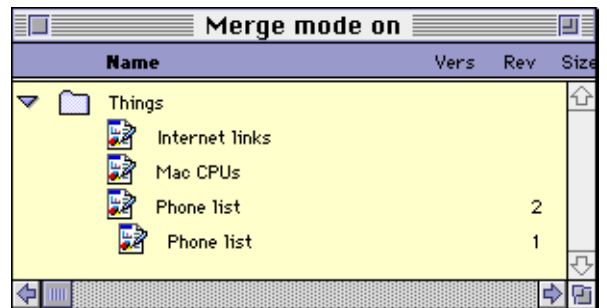
If merging is off, Keeper will create a new item every time one is archived. If the new and old items are folders, they will both contain a complete set of files and folders reflecting everything that was in those folders at the time they were dragged in. If you drag in a folder containing 20 items five times, you will get five folders with revision numbers 1 through 5, containing the same 20 items in each. Keeper is smart enough to notice which files are identical and will actually store the 20 items only once. This arrangement is Finder-like and easy to understand — each time you drag a folder into an archive, Keeper takes a snapshot of it that you can drag out again later. But it does create a lot of files and may not be a convenient way to look at your archive.

Figure 5
The same folder with and without merge mode

With merge mode off, archiving a folder three times creates three snapshots. There are three copies of “Internet links”, but they are all the same.



With merge mode on, the same operations create one folder that holds the accumulated changes. Only one copy of “Internet links” is generated.



With merging on, Keeper will only create new items that are actually different from the items already in the archive. So archiving a folder containing the same 20 items five times will create a single folder containing just those 20 items. Only if one of them had changed would it appear in two revisions. The result is an accumulated view of everything that has ever been in the folder.

Notice that merge mode is not just a way of looking at things; you cannot switch it off and see everything as separate items. It controls what actions are taken when items are archived. It would be unusual to change this setting for an existing archive; it is really a decision you should make about an archive when it is created, based on how you are going to retrieve files from it.

Automatically place incoming items

This is a facility for speeding up the placement of items in archives. It looks at where in the folder hierarchy on your disk the item comes

from and tries to match it to a place in the destination folder and its sub-folders. If it finds a match, it puts it there. This means that if you have archived a large folder containing many other folders and you then wish to save an item from one of the sub-folders, you need only drop it on the archive and it will find its own way to the correct sub-folder in the archive.

Copy items to the Trash when deleting

It is safest to have this checkbox turned on, so that deleted items can be recovered if you change your mind. The cost of doing so is that deleted files have to be moved out of the archive into the Trash, which may take a moment if they are large. If the checkbox is turned off, dragging archived items to the Trash will always instantaneously and irreversibly delete them — so please be careful. Hold down the Option key when dragging to the Trash to temporarily override this setting.

Exceptions

This panel contains controls for keeping the contents of the archive relevant. Here you will find the revisions limit control (see “Revisions” above) and the exceptions controls. Keeper has extensive facilities for excluding particular types of files or folders from the archive, so that it will save only the sorts of items you need to keep. You can exclude files or folders by name prefix or suffixes, by type, or by label. You can also make archives that store only files that match one or more of these specifications by selecting “Store only items” on the master popup.

Notice that you can use the exceptions controls to filter the contents of an existing archive by changing the exceptions specifications. If any items already in the archive fall within the new exceptions Keeper will ask whether or not you would like them removed.

Passwords

The passwords controls allow you to add or remove encryption from an archive and to change the passwords and the hint string if the archive is encrypted. See the discussion of encryption under “Working with Archives” above for further information.

2

Backups

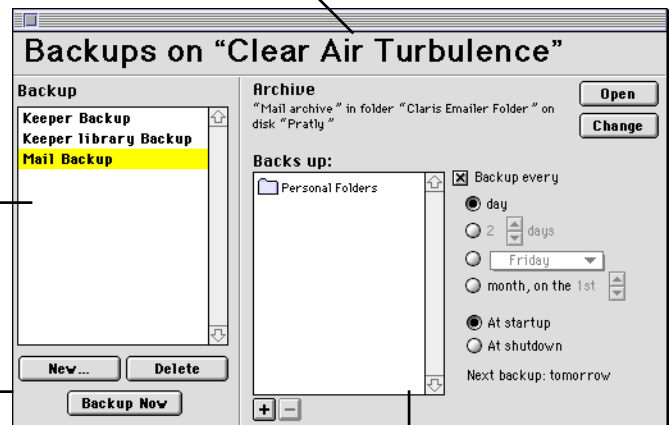
A backup links a collection of files on your disk with a particular Keeper archive, making it easy to save the same files into the same archive repeatedly. Multiple backups can refer to the same archive, and one file can be saved by as many backups as you like. Click on the Configure Backups button in the Navigation Window, or select Configure Backups... from the Keeper menu to display the Backups window.

Figure 6
The Backups window

The name of this Macintosh, from the Sharing Setup control panel.

This list shows all the backups that exist on this Macintosh

Use these controls to add, remove, or execute backups



This section of the window shows the state of the selected backup

When you make a new backup, new menu items will be added to the hierarchical Open menu to open the destination archive and to the hierarchical Execute Backup menu to perform the backup. These make it easy to find your archives and perform backups manually.

Keeper can also execute backups automatically at regular intervals. If you click on the "Backup every" check box, the backup will be done automatically at startup or shutdown on specified days. You can specify how many days are to elapse between each backup, or the day of the week or day of the month on which it is to occur. Automatic backups will be done at the first startup or shutdown on the day specified. If the Macintosh is not used on that day the backups will be done at the next startup or shutdown. If the Macintosh is turned on all the time and Keeper is left running the backups will be done at 3 a.m. If Keeper is started up and an automatic backup is overdue, it will be done as soon as Keeper has been idle for a minute or so.

Backups are given a name derived from the archive that they copy files into. You can change the names of the backups by double-clicking on them.

To find out exactly where a file or folder that is being backed up is, select its name and icon in the "Backs up" list and select Get Info from the File menu to display the path to it.

Figure 7
A backup Get Info window



Scripts

Keeper supports Apple Events and AppleScript. If Keeper's built-in backup facilities are not sufficient for your needs, you can use a scripting editor application like Apple's Script Editor or UserLand's Frontier to write scripts that automate repetitive tasks and perform arbitrarily complex backup operations.



Scripts placed in a folder called "Keeper Scripts" in the same folder as the Keeper application will appear in a Scripts menu for easy access. If you have made any backups you will find that Keeper has already made this folder and that it contains a Startup Script and/or a Shutdown Script. These are generated by Keeper and should be left undisturbed, as they contain the backup information and are used to perform backups at startup and shutdown, via aliases placed in the Startup Items and Shutdown Items folders. You could use the same technique to activate your own scripts at startup or shutdown.

Keeper supports many of the AppleScript commands and classes supported by the Finder. We recommend that you consult the *AppleScript Finder Guide* published by Addison-Wesley as a reference; if you are writing scripts to perform backups you will certainly need it for those parts of your script that address the Finder. Your primary reference, however, should be the Keeper dictionary, which you can view by opening Keeper with the Open Dictionary... command in your script editor.

A Scripting Example: backing up from the Apple menu



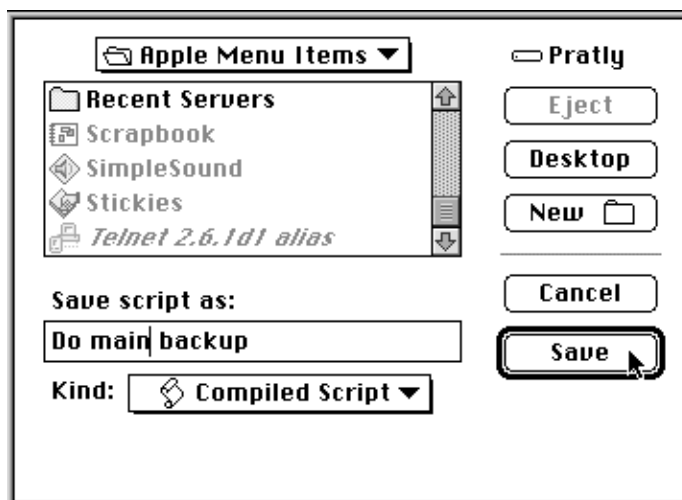
Script Editor

Suppose that you would like to perform a Keeper backup, called "Main backup" at intervals, but would like to control exactly when it happens by making it a command in the Apple menu. You can achieve this by using the Script Editor provided with your Apple system software to make an AppleScript, and place it in the Apple Menu Items folder, in the System Folder. Start the Script Editor, and enter:

```
tell application "Keeper"  
  execute backup "Main backup"  
quit  
end tell
```

This script will start Keeper if necessary, perform the named backup, and quit Keeper. You can vary this in all sorts of ways; you can have several backup commands before telling Keeper to quit, or not tell Keeper to quit if you prefer to have it running all the time, and so on.

Compile the script and save it in the Apple Menu Items folder in the System Folder with some suitable name, e.g



The new command should appear in the Apple menu immediately.