Chapter 1   Introduction

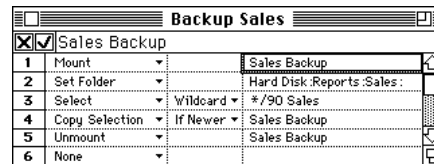**What Does FileMover Do?**

FileMover automates complicated file transfers. A single FileMover script can back up your checkbook to a floppy disk, copy your current sales reports to your company server, and download the latest customer lists, all in one command. If you have other work to do, FileMover will run in the background. And if you want to go home, FileMover will shut down your computer when it is finished.

Figure 1–1. A Sample FileMover Script

How Does FileMover Work?

FileMover builds and runs script files that perform all of the file copying that would normally be done by hand. Figure 1 shows a sample script file. It works like a standard spreadsheet, except that the first two columns give pop-up menus listing all possible commands or command modifiers.

Each line is made up of three parts: a command, a modifier, and an argument. Commands perform specific actions, such as mounting a disk, selecting files, or copying files. Modifiers change the way commands work. For example, depending on the modifier, the copy command will always copy files, copy only files that have changed, or copy only files that do not exist on the destination. The third column is the command argument. It tells the command which drive to mount, or which files to copy.
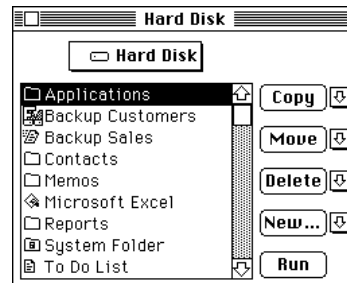

Figure 1–2. A Sample Source Window

You can even run FileMover without ever learning its thirteen command script language. It will generate scripts for you automatically. A window like the one in Figure 2 will display a list of all available folders and files. Open a window and select the files you want copied. Next, click on the Copy button.

FileMover will ask you for a destination, and then generate the commands necessary to copy all of the files. The pop–up menus to the right of the buttons give you access to other features of FileMover's command set, including wildcard file selection. Each script can hold many of these file copying commands, making complicated file transfers easy.

FileMover can save executable files that make the whole process even simpler. Once you have a working script, save it with the executable option checked. You can run the file without even opening FileMover. Just double click on its icon and it will start running. Don't worry about making a mistake in the executable file; you can always go back and edit the commands just like you would for a normal script file.>

Chapter 2   # Tutorial

Backing Up to a Floppy Disk

To build a backup script, choose Generate Script from the Script menu. FileMover will open a window with a list of available volumes, like the one shown in Figure 2–2.
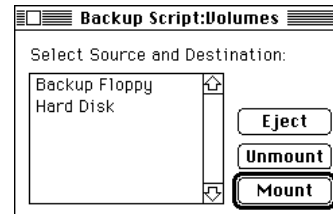
Figure 2–2. Building a Backup Script

Next, select the source for your backup. You can choose more than one volume by holding down the shift key as you select each. Click on the Mount button to display a list of the files and folders on each disk. For each volume you had selected, FileMover will display a window like the one shown in Figure 2–3.
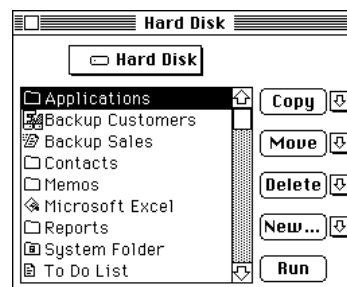
Figure 2–3. A Volume File List

Selecting the Files to Back Up

Click on the window named after your hard drive to bring it to the front. Find the folder and files you would like to back up. In the file list window, you can recognize a folder by the small picture of a folder next to it. You can move into a folder by double–clicking on it. If you want to leave the folder, you can click on the pop up menu above the list. This will display the disk name along with all folders you have entered to get to the files being displayed. You can choose the disk name to go back to the root of the disk, or any of the folder names to go to the chosen folder.

Select all of the files and folders you want to back up. You can choose more than one by holding the shift key as you click.

There are two ways to tell FileMover to back up all of the files in a folder, so that even if you add new files

you don't have to change your backup script. You can either chose the folder itself, or move into the folder and use the Select All option for the Copy command. If you click on the folder itself, FileMover will make a copy of the folder on the destination and copy all of its files. If you use the Select All option, FileMover will still copy all of the the files, but it will not create a copy of the folder. To choose Select All, click on the small arrow next to the Copy button. You will see the list of options displayed in Figure 2-4.
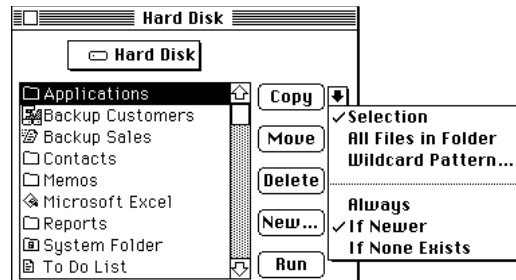
Figure 2–4. File Copying Options

Choose All Files In Folder from the menu. FileMover will select all of the files for you, and now all of the copy commands you generate will use the Select All option.

Figure 2-4 shows some of the other options you can use when copying files. The top three option tell FileMover what to copy, and the bottom three tell it when to copy them. The Selection option is used by default. It tells FileMover to copy only the

files you have chosen. The All Files in Folder option will select every file, as described above. The Wildcard Pattern… option lets you select all files that match a specific wildcard pattern.

Wildcard Pattern Matching   When you choose this option, FileMover will ask you what pattern to match file names to. A pattern can be like any other file name, but it uses two special symbols. The "*" symbol will match any number of any other characters, and the "?" symbol will match any single characters. For example, if all of your postscript files have names that end in ".EPSF", then the pattern "*.EPSF" will select all of your PostScript files, but not any others. If you have several sales reports named like "Sales05" with the last two digits telling what month the sales report is for, then the pattern "Sales??" will match only your sales reports. To choose a wildcard pattern, select the Wildcard Pattern… option and type in the pattern you want. Click OK to accept the pattern, or click Cancel if you change your mind. FileMover will select all of the files whose names match your pattern so you can tell if you entered the right pattern, and the pattern will be used for all of the copy commands you generate.

Choosing When to Back Up   The lower three menu items tell FileMover when to copy files. Figure 2–4 shows that the If Newer option is chosen by default. This tells FileMover to only back up the files if they have changed. If you choose the Always option, FileMover will always copy the files even if they haven't changed, and if you choose the If None Exists option, FileMover will only copy a file if it doesn't exist in your destination folder.

Issuing the Copy Command   When you have selected everything that you want to back up, click on the Copy button. FileMover will generate the commands necessary to copy all of the files you selected to the destination you picked.

If you have no other list windows open, FileMover will ask you to choose a destination. If you have another file list window open, FileMover will assume that it is open to the proper destination. If you have more than two file list windows open, FileMover will ask you which of the other windows is the destination. Click on the appropriate destination and then click on the OK button. If you change your mind, you can cancel the copy command by clicking on the Cancel button.

Unmounting the Backup Disk   You can tell FileMover to eject your backup disk when it is done. Click on the volume window to bring it to the front, select just your backup disk, and click on the Unmount button. This will unmount the disk, close its file list window, and add an Unmount command to your script.

Finishing the Backup Script

Now your script is finished. Close the file list windows and the volume window and choose Save As… from the File menu to save your script. You can

run it at any time by opening it in FileMover and choosing the Run Script command from the Script

menu, or you can save it as an executable script so that it will run automatically when you double-click on it from the Finder.

Saving Executable Files

Executable files behave like applications, as long as you have a copy of FileMover available. When you double click on them, they automatically run your script. To make a file executable, choose Save As… from the File menu. You will be given the dialog box shown in Figure 2–5.
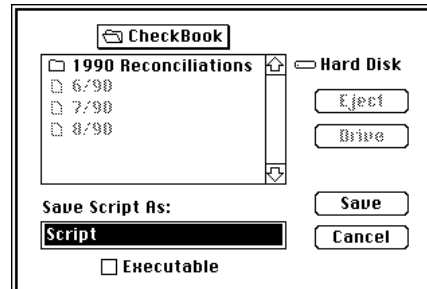

Figure 2–5. Saving an Executable File

Enter your script's name, and make sure that the Executable option is checked. Then click on the Save Button. Now You have an executable file. You can tell the difference between executable scripts and regular scripts in the Finder by their icons.

Backup Customers   Backup Sales
Figure 2–6. Script Icons

The left script in Figure 2–6 is executable, but the right one is not.

Building a Script Manually

FileMover provides a direct script building window if you prefer not to use automatic generation. When you first start FileMover, it will open with an empty script, like the one in Figure 2–7.
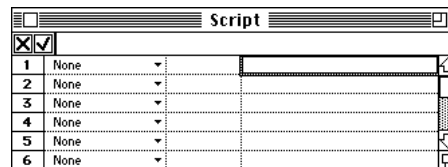

Figure 2–7. An Empty Script

The first column lists all of the commands in the script. Certain commands like Copy Selection can be modified. If a row has a command that accepts modifiers, then its second

column will display the modifier. The final column is for command arguments. This column tells FileMover which files to copy and folder to copy them to.

You can enter commands and modifiers with a pop–up menu. If cell has a pop–up menu available, it cell will contain a small down arrow. If you click on a cell in the first column, you will see a pop–up menu listing all available commands, like the one in Figure 2–8.
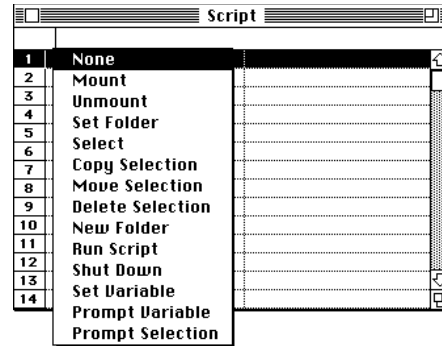

Figure 2–8. The Command Menu

Choose the command like you would from a normal menu, and it will be entered into the cell.

The modifier column works similarly, but it displays a different menu, based on the command in the row. Figure 2-9 shows the modifier menu for a Copy Selection command.
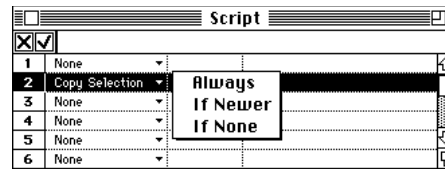

Figure 2–9. The Copy Selection Menu

The argument cell behaves like a standard spreadsheet cell. Selecting it puts its text up into the edit area. You can make any changes you want, and then click the check box or select another cell to accept the changes. Clicking in the box with an X will cancel all changes since you last accepted the cell.

The FileMover Script Language

While running any script, FileMover keeps track of two pieces of information: the default folder and the the selection. FileMover will look in the default folder for any files you plan to copy. You can change the default folder with the Set Folder command. The selection is a group of files used by several commands, such as Copy Selection and Delete Selection. You can set the selection with the Select command.

FileMover has a small set of commands you can use to automate file copying. Figure 2–10 shows a script that backs up to a floppy disk.

1	Mount	▼			Backup Floppy:
2	Set Folder	▼			Hard Disk:
3	Select	▼	Files	▼	CheckBook
4	Copy Selection	▼	If Newer	▼	Backup Floppy:
5	Unmount	▼			Backup Floppy

Figure 2–10. A Floppy Backup Script

The first command in the script is the Mount command. FileMover will attempt to mount a floppy disk. If the disk is already mounted, FileMover will do nothing, otherwise, it will put up the dialog box shown in Figure 2-11.

Figure 2–11. The Disk Mounting Dialog

The next command, Set Folder, will set FileMover's default folder. Since we want to copy a folder at the root of the drive Hard Disk, we used the disk name as the argument. You can also set the default folder to the root of your boot drive by using the variable <Root> for the argument.

The Select command tells FileMover which files to copy. Since it has the Files modifier, the argument contains a list of files. If the Wildcard modifier were used, the argument would be one or more wildcard patterns, and if the All modifier were used, the argument would be unnecessary.

The Copy Selection command actually copies the files. Since it has the If Newer modifier, only the files that are newer than those on the destination will be copied.

Chapter 3

Scripting

Commands

FileMover commands are broken into three parts: the command itself, the modifier, and the argument. The command tells what action the script will perform. The modifiers affect the way the command behaves. For example, Copy Selection takes a modifier that tells it whether to copy files all of the time, or only copy newer files. The argument gives more detailed information to the command. It tells which disk to mount or which files to select. Some commands do not use a modifier or an argument.

1	Mount ▾		Backup Floppy :
2	Set Folder ▾		Hard Disk :
3	Select ▾	Files ▾	CheckBook
4	Copy Selection ▾	If Newer ▾	Backup Floppy :
5	Unmount ▾		Backup Floppy :
6	Shut Down ▾		

Figure 3–1. A FileMover Script

Figure 3–1 shows a sample script. The first column holds commands. The second column holds modifiers, and the third column holds arguments. You can set commands and modifiers by clicking in a cell until a pop-up menu appears. You can edit arguments by selecting the cell and changing the text in the edit text area at the top of the script window

Script Information

Every script keeps track of two pieces of information used by commands: the default folder and the selection. The default folder is used whenever you select or copy files. If you don't give path information for the file or destination folder, FileMover will assume it is in the default folder. You can change the default folder with the Set Folder command.

The selection is a list of files and folders. It tells Copy Selection, Move Selection, and Delete Selection which files to act on. You can change the selection with the Select or Prompt Selection commands.
Both the default folder and the selection are valid only in the script where they are defined. If you run another script with the Run Script command, changes made to the default folder and the selection in the second script will not affect the first.

Paths

Paths can specify a file's exact location on a disk. If no path is specified, FileMover assumes that any file or folder used in a script is in the default folder. The basic format for a path is:

Hard Disk:Folder 1:Folder 2:…:File.
A colon separates the parts of the path name. The first part is the name of the disk.

If an expression enclosed by < and > appears in the path, it will be treated as a variable and expanded, using the value previously set by Set Variable or Prompt Variable.

Variables

Variables hold commonly used paths, so that a complicated folder location can be used with a single word. The two main advantages of variables are that they can make a script easier

to understand, and they make a script more general. If a script uses your hard disk and folder names, you can run it only on your computer. If you use variables, the script can be run on several different machines with different settings for the variables.

Variable names remain constant across Run Script commands. You can set variable names within a single script and access them from any other by running the variable script.

There are two built in variables: Root and System. Root gives a path to the root directory of the boot drive, and System gives a path to the active system folder.

In a pathname, a variable name must be enclosed by < and >. FileMover will assume that any text enclosed in those braces is a variable, and will attempt to expand the variable.

Selections

Selections are lists of files used by certain commands. They can be set manually with the Select command, or prompted with the Prompt Selection Command.

Wildcard Patterns

Wildcard patterns allow a way of choosing a group of files based on similarities in their names. A wildcard pattern will look like any other name, but has two special characters. * will match any number of characters. ? will match any single character. Any number of these symbols can appear in a pattern. The Select Wildcard command will also let you specify several patterns. If a file matches any single pattern, it will be accepted.

Chapter 4   Commands

Copy Selection

Modifiers: Always, If Newer, If None
Argument: Destination Folder

This command will copy all of the selected files and folders to the destination specified in the argument.

The destination folder can have path information.

Always copies all files regardless of what is on the destination. If Newer will only copy files that are newer than the corresponding file in the destination, or that do not exist on the destination. If None will only copy files that do not exist on the destination.

The modifiers step into folders. For example, If you have a folder selected and choose the If Newer modifier only newer files inside the folder will be copied.

Delete Selection

Modifiers: None
Argument: None

This command will delete the selected files and folders. It will not prompt the person running the script, so you should be very careful when using this command.

Mount

Modifiers: None
Argument: Disk Name

The Mount command will check to see if a disk is available. If it can't find the disk it will put up a dialog box asking the user to

insert it.

Move Selection

Modifiers: Always, If Newer, If None
Argument: Destination Folder

This command will move all of the selected files and folders to the destination specified in the argument. Once they have been copied successfully, the originals will be deleted.

The destination folder can have path information.

Always moves all files regardless of what is on the destination. If Newer will only move files that are newer than the corresponding file in the destination, or that do not exist on the destination. If None will only move files that do not exist on the destination.

The modifiers step into folders. For example, If you have a folder selected and choose the If Newer modifier only newer files inside the folder will be moved.

New Folder

Modifiers: Always, If None
Argument: Folder Name

New Folder will create a folder. The folder name can have path information.

The modifiers control what will happen if a folder exists with the given name. Always will delete the folder and all of its contents, while If None will leave the existing folder unchanged.

Prompt Variable

Modifiers: None
Argument: Variable Name, *Prompt*

The Prompt Variable command will prompt the user for a folder, and assign the result to a variable will the given name. The variable can then be used later in the script by enclosing its name with < and >.

This command will display a standard file dialog box. If you specify the optional prompt, it will appear in the dialog.

Prompt Selection

Modifiers: None
Argument: *Prompt*

This Prompt Selection command will display a list of files similar to one FileMover uses to generate scripts automatically, and ask the user to select one or more files. This command will set the selection, as the Select command does, so the collection of files can be used by other commands like Copy Selection.

The optional argument will set the prompt displayed in the file input dialog.

Run Script

Modifiers: None
Argument: Script Name

This command will run another FileMover script. The script name can have path information.

The executed script can be either standard or executable, and it will not affect the selection or the default folder in the calling script. Any variable it declares, however, will be available to the calling script.

Select

Modifiers:	Files
Argument:	File Name, *File Name, ...*

Modifiers:	Wildcard
Argument:	Pattern, *Pattern, ...*

Modifiers:	All
Argument:	None

The Select command has three formats which let you choose files in three different ways.

Select Files lets you specify one or more files by name. This is useful if you back up the same folder or files frequently. The file names can have path information.

Select Wildcard lets you select files that match one or more wildcard patterns. A pattern will be expanded so that * matches any number of characters in the file name, and ? matches any single character. See Chapter 3 for more information on wildcard patterns.

If more than one pattern is specified, a file that matches any single pattern will be included in the selection.

Select All will select every file in the default folder. It takes no arguments.

Set Folder

Modifiers:	None
Argument:	Default Folder Name

This command will set FileMover's default folder. The default folder is used as a starting point by any command that takes a file or folder name in its argument.

The folder name can include path information.

Set Variable

Modifiers:	None
Argument:	Variable Name, Path Name

The Set Variable command will set a variable to be any commonly used path. The variable can then be used later in the script by enclosing its name with < and >. Whenever FileMover encounters a variable, it will expand it to the text specified by the Path Name part of the argument.

Shut Down

Modifiers:	None
Argument:	None

This command will shut down your computer. You should make sure that you have saved all of your work before running a script with a Shut Down command.

Unmount

Modifiers:	None
Argument:	Disk Name

This command will unmount any drive you are using. It will

remove the drive's icon from your desk top, and eject it if it is a floppy disk. You would usually not want to use this command on a hard drive.

FileMover will not let you unmount any hard drive with an active system folder.