such as the operating system folders or installed program folders. You can then back up those folders on a less-regular basis. The drives and folders that you select for a backup operation are collectively called the *backup selection.*

When using file-based backups, you can perform four distinct types of backups: Full, Copy, Incremental, and Differential. The differences among these four types of backups involve a little technical detail known as the *archive bit,* which indicates whether a file has been modified since it was backed up. The archive bit is a little flag stored along with the filename, creation date, and other directory information. Any time a program modifies a file, the archive bit is set to the On position. That way, backup programs know that the file has been modified and needs to be backed up.

Each of the four types of backups uses the archive bit in a different way:

Backup Type	Selects Files Based on Archive Bit?	Resets Archive Bits after Backing Up?
Normal	No	Yes
Copy	No	No
Incremental	Yes	Yes
Differential	Yes	No

The archive bit would have made a good Abbott and Costello routine. ("All right, I wanna know who modified the archive bit." "What." "Who?" "No, What." "Wait a minute . . . just tell me what's the name of the guy who modified the archive bit!" "Right.")

Full backups

A *full backup* is the basic type of backup. In a full backup, all files in the backup selection are backed up regardless of whether the archive bit has been set. In other words, the files are backed up even if they haven't been modified since the last time they were backed up. When each file is backed up, its archive bit is reset, so subsequent backups that select files based on the archive bit setting won't back up the files.

When a full backup finishes, none of the files in the backup selection has its archive bit set. As a result, if you immediately follow a full backup with an incremental backup or a differential backup, files won't be selected for backup by the incremental or differential backup because no file will have its archive bit set.

One simple and common backup scheme is to schedule a full backup every night. That way, all your data is backed up on a daily basis.