



User Manual



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Copy Commander User Manual

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Preface



Preface

In addition to instructions for using Copy Commander, in this manual we have included additional information about partitions, partitioning, installing new hard drives and changing the boot sequence in the BIOS in order to boot CDs.

The chapters are organized as follows: Chapter 1 introduces Copy Commander and briefly explains the features, as well as how to make the boot diskette, and how to run Copy Commander from the CD.

Chapter 2 is a detailed explanation of the Copy Commander Wizard.

Chapter 3 covers Manual Partitioning.

Chapter 4 explains Hard Drives, and covers Partitioning basics.

Four appendices provide more information: Appendix A: has instructions for contacting Technical Support. Appendix B: contains step by step instructions for installing a new hard drive. Appendix C: has instructions for Automating the Copy process. Appendix D: explains how to change the BIOS settings so that you can boot from a CD.

Conventions used throughout this manual

Keystroke commands are noted in **bold** letters. Command key combinations are separated by the "-". This indicates that the noted keys are to be pressed simultaneously. For example, **Alt-S** signifies that you should hold down the **Alt** key while pressing the **S** key.

OS filenames, for example, AUTOEXEC.BAT, are noted in ALL CAPS.

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OS commands and command lines are indicated by **bold lower case letters**. As in, “**copy *.***”.

Specific notes and technical information appear as shown below:

Note: Read this information carefully.

Technical Information: An in-depth explanation of a process.

Warning: Information to prevent possible problem.

How to Contact Us

Please refer to the back of the title page for our address. For Customer Service and Technical Support phone numbers, please refer to the top of the Registration Card and to Appendix A.

Chapter 1

Introduction

Copy Commander makes it easy to move all the contents of an older drive to a new larger drive. Most new drives are much faster than older ones, so you will often get a significant performance boost by replacing your old drive with a new one.

Copy Commander makes this easy by automatically preparing your new drive with all the partitioning necessary, and then transferring your operating system, applications and work files to the new drive. In addition, partitions are expanded to take advantage of the additional space for.

Feature Summary

- Copies all drive data from one drive to another
- Can expand all FAT types (FAT16, FAT32, VFAT, FAT16X, FAT32X), all NTFS types (Windows NT/2000/XP), and Linux.
- Does not require or depend upon any OS (works with all OSes)
- Skips unused sectors to speed the copy process (all FAT types, NTFS)
- Runs from a single diskette or CD-ROM

Getting Started

Run Copy Commander from the bootable CD, from the bootable Copy Commander diskette, or from the download file.

Running Copy Commander from the CD

To run Copy Commander from the bootable CD, you have to have the CD-ROM drive set as the first boot device in the BIOS. Then boot on the CD to Copy Commander. If you are uncertain about how to check the Boot Sequence on your computer, please refer to Appendix D for more information.

Making a Copy Commander diskette

Copy Commander can be run from the Copy Commander diskette, without using the CD. To make the Copy Commander diskette from the desktop of your Windows operating system, insert the Copy Commander CD and go to Explorer to browse the Copy Commander CD. At the drive letter for the CD-ROM drive locate the **ccfloppy.exe** file under the install directory and double click. The diskette will be formatted as part of the process.

Running Copy Commander from the Diskette

To run Copy Commander from the diskette, you can either boot directly from the Copy Commander diskette (preferred), or you can run Copy Commander after booting from a Windows 95/98/Me boot diskette. If using a Windows boot diskette, at the prompt, first remove the Windows boot diskette and then insert the Copy Commander diskette. Type, **cc.exe** and press Enter. The CD is not required when running Copy Commander from the diskette.

Note: Copy Commander cannot be run in a DOS box of Windows.

Installing a New Hard Drive

There are several ways to install your new drive, but we recommend installing it as an additional drive until the copy is complete. See Appendix B for general instructions.

If you are not comfortable with opening your PC and installing a hard drive, you may wish to have a technician perform the work for you.

Chapter 2

Copy Commander Wizard

Start by booting directly from the Copy Commander CD or from the Copy Commander diskette.

Note: If your system fails to boot properly, it is likely the jumper settings are wrong, and you either have two masters on a single cable or two slave drives set on the cable. You may need remove the power cord from the PC, and re-examine the drive jumpers and connectors. Most reported startup problems are incorrect jumper settings. This is one item our technical support department will be unable to help you with, since we do not have specific information about your hard drive jumpers.

Copy Commander gives you several optional methods of copying one drive to another. They range from a fully automatic copy of the entire drive, to a manual copy of a drive or partition. Also available are options to create and delete partitions.

At the opening screen of Copy Commander, you will have four options:

- Automatic copy to empty disk
- Select hard drive to copy
- Select partition to copy
- Manual Partitioning



Automatic Copy to empty disk

Click on Automatic copy, and Copy Commander chooses the first drive with data, and copies it to the largest empty drive that is large enough to hold the copied drive. The copy process begins automatically - you do not have to make any other selections. During this process Copy Commander will automatically expand the partition to the full size of the drive.

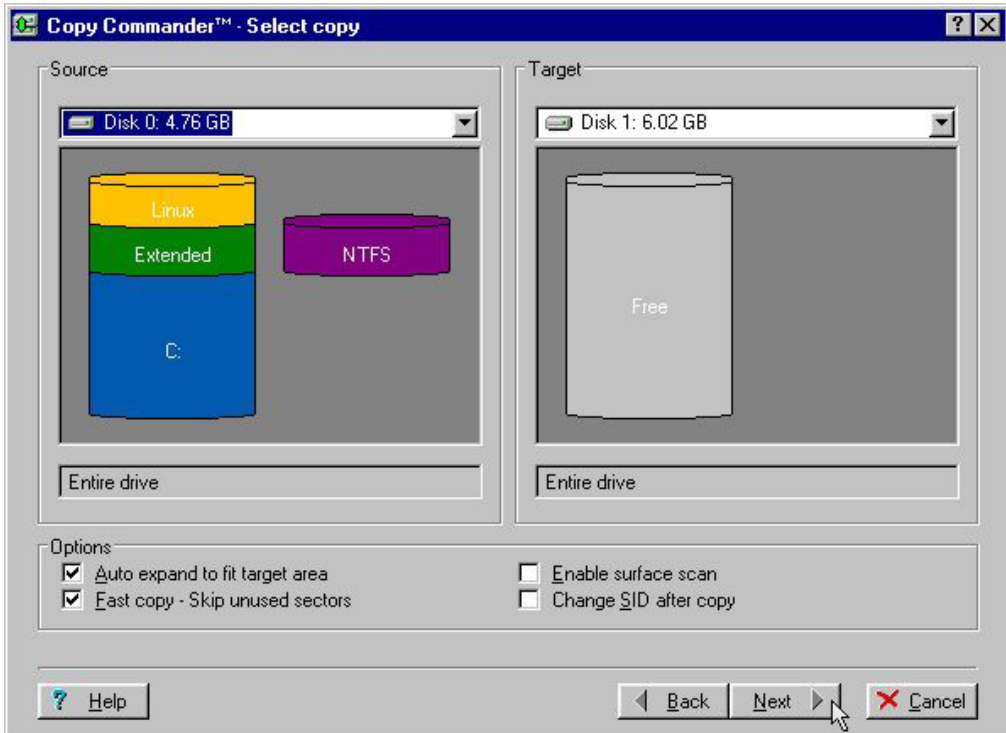
If there is no suitable space found, you will see one of three error messages:

1. No empty drives found on this system. Please manually select the source and target drives.
2. Empty drive is available but is not large enough to hold the data from the source drive. Please manually select the source and target drives.
3. This is a single drive system. Please select Copy Partition to copy

an existing partition to another location on the drive.

Select Hard Disk to Copy

When you choose, Select Hard Disk to Copy, the following window appears showing the Source drive, and the Target drive.



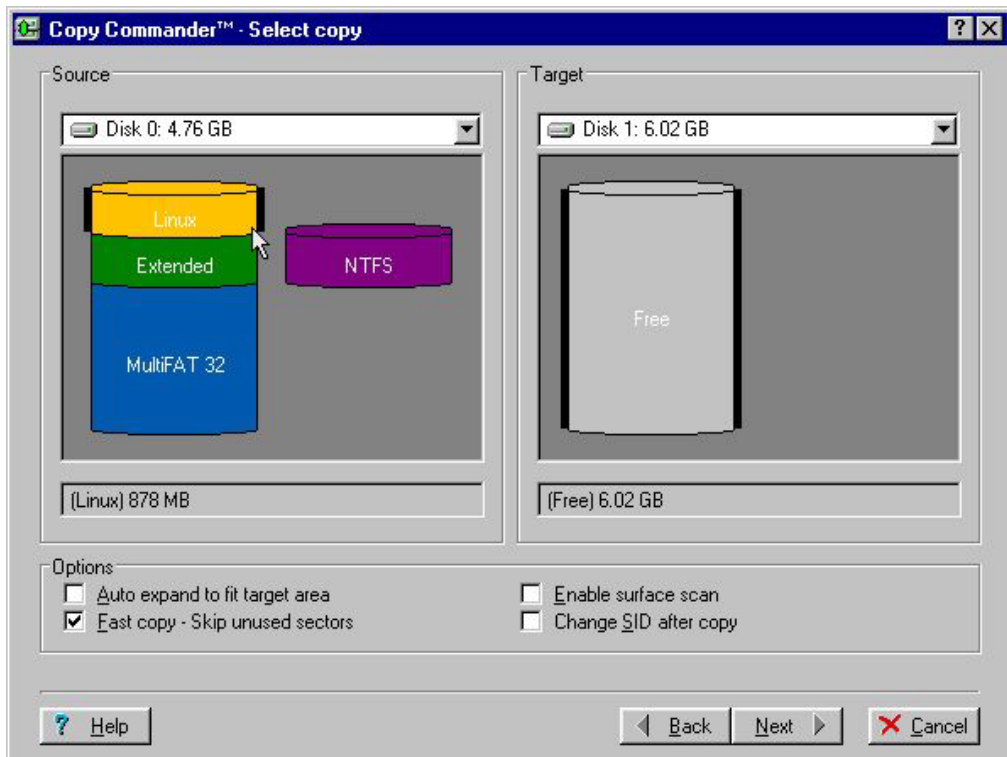
First, click the arrow to Select the Source drive. Then click the arrow to Select the Target drive. Check or uncheck the following boxes to select the desired options:

- Auto expand to fit target area
- Fast copy - Skip unused sectors
- Enable surface scan
- Change SID after copy

Click **Next** and the copy process will proceed to copy the source drive to the target drive.

Select Partition to Copy

When you choose, Select Partition to Copy, the following window appears, showing the Source drive, and the Target drive.



First, click the arrow to Select the Source partition. Then click the arrow to Select the Target drive. Check or uncheck the following boxes to select the desired options:

- Auto expand to fit target area
- Fast copy - Skip unused sectors
- Enable surface scan

- Change SID after copy

Click **Next** and the copy process will proceed to copy the source partition to the target drive.

Note: Before rebooting the system, depending upon what your goal is, make the new drive the Primary master and remove the old drive; or, remove the new drive. Otherwise you will have additional drive letters (the partitions you have copied to the new drive will be visible, and may have drive letters assigned) which could make finding files difficult.

Manual Partitioning

Manual Partitioning is covered in detail in Chapter 3.

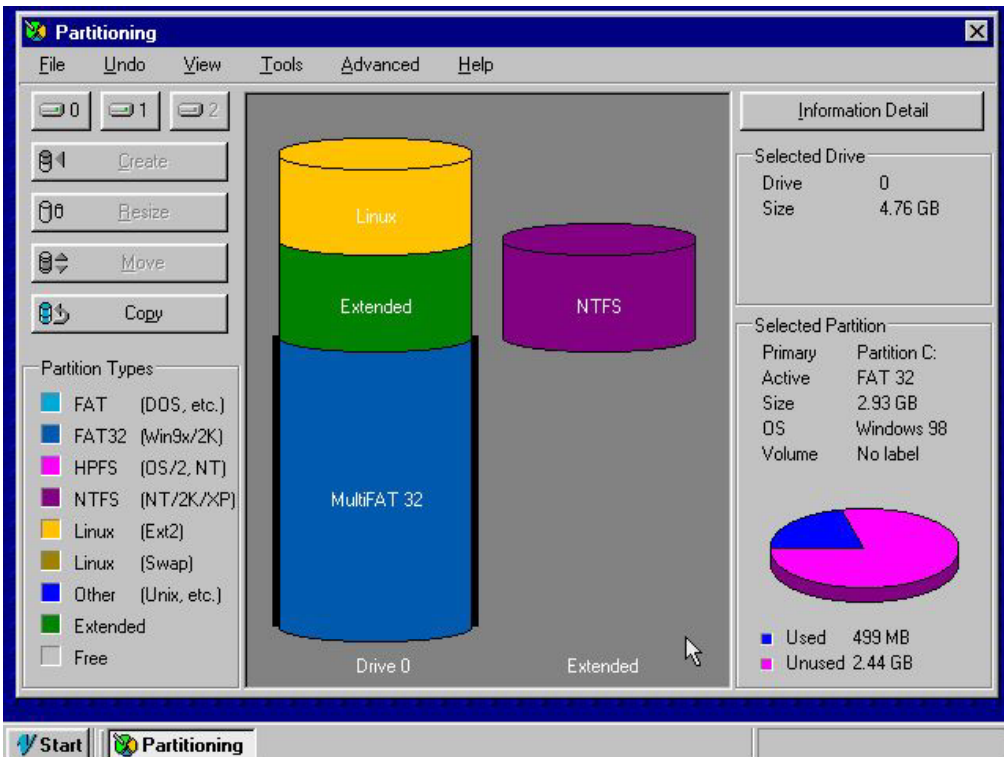
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Chapter 3

Manual Partitioning

There may be times when you will want to create a partition, or delete a partition that is no longer useful to you.

To begin this process, at the first Partition Wizard screen, select Manual Partitioning. This brings up the Manual Partitioning dialog box shown below.



This dialog box always opens showing the first physical drive, labeled as Drive 0, in the graphical display in the center of the screen. In the lower left is the legend for the colors used to indicate the type of file system installed in the partition. Both FAT12 and FAT16 partitions are displayed simply as FAT. On the right, an information panel has two sections. The top section shows the selected drive information and the lower panel shows the selected partition information. In the graphic area, you will see the entire drive divided into partitions, with primary partitions all on the left, and logical partitions, if any, shown on the right. The logical partitions are contained inside of the Extended partition.

To select a partition, click it once in the graphical display. A black bar appears on both sides of the partition that you have selected.

To change drives, click on File, then Select Drive. A list of available hard drives is shown. Select the drive that you wish to work with and the display automatically updates to show the information for that drive. For systems with 3 or fewer drives there are instant drive select buttons labeled, “0,” “1,” and “2.”

Menu Bar Items

Across the top of the dialog box, there are six menu items: File, Undo, View, Tools, Advanced, and Help. Some options are grayed out because they are not available in this product.

File	Contains the submenus, Select drive, and Close. Select drive allows you to choose the drive to view. Close clears the window.
Open	Allows you to open and edit text files.
View	Allows you to view files such as AUTOEXEC.BAT or use the Partition Explorer to view directories and files on a selected partition.
Tools	Provides various submenu commands for altering a partition as listed below. Create builds a new partition and is described below. Delete allows you to delete the selected partition. This function is described below.

Warning: Once a partition is deleted, other later operations may make the data unrecoverable. Be sure to backup important data in a safe location.

Format prepares the partition for data.

Copy allows you to copy a partition to free space on the same drive or a different drive.

Validate checks boot sectors, directory structure, file allocation table, and checks file validity (FAT/FAT32).

Advanced

Contains menus for viewing log files. These are described later in this chapter.

Help

Shows help information.

Buttons

On the left of the dialog box are useful buttons that perform the same functions as the menu choices described in the previous section. Some buttons may be grayed out when the function is not appropriate for the selected partition, or because that option is not available in this product.

0, 1, 2

Allows you to select the physical drive. If you have more than 3 drives, select the drive using File, then Select Drive.

Create

Builds a new partition as described below.

Copy

Allows you to copy a partition into free space on either the same drive or a different drive.

Create Partition

To create a partition on the drive, you must first have free space available. Free space, in this instance, is space on the hard drive that has not been put into a partition. This is not the same thing as unused space within an existing partition!

Free space is identified by the word Free in the drive diagram. Click on this area, and black bars appear on each side when it is selected. Click on the Create button and a dialog box opens indicating the maximum size allowed. Specify the size of the partition you wish to create. The application

automatically double checks to make sure that you have not entered an invalid value.

Note: The partition cannot be made any larger than the maximum size indicated!

You may also enable a surface scan which will check for errors in the partition area. You can create a label for the partition. In addition, the Custom Partition Type checkbox allows you to select a specific file system for the partition.

Note: Normally, FAT is automatically selected for DOS or Windows partitions, and FAT32 is chosen for partitions over 2 GB.

Once you have entered the information necessary, press Next and the partition will be created and formatted.

Delete Partition

There is no button provided for the delete partition command. To use this, select the partition that you wish to delete, and then go to the menu bar and select Tools and then Delete.

At this point, a dialog box appears with bold warnings and other information about the partition, such as its size and volume label.

Warning: Once a partition is deleted, all data in the partition is no longer accessible. Make sure important data is backed up in another location!

To actually perform the delete, you must enter the volume label exactly as it is displayed and then press Next.

If the label names do not match, you will receive an error message and no change will be made to the partition.

Chapter 4

Hard Drive and Partitioning Basics

This section provides technical background information about hard drives and partitioning fundamentals that will help you fully understand the features offered by Copy Commander.

What is a partition?

A partition is a basic container for data on your hard drive. Although most hard drives have only one partition, Copy Commander allows you to divide up a hard drive into several distinct partitions. Each partition occupies a physically separate area of the hard drive and functions almost as if it were an independent hard drive. Because of this, a partition can be given its own name, or *label*, can contain its own operating system and file system, or can simply operate as an additional area for better organization of your files. In Windows and DOS, partitions are usually assigned drive letters such as C:, D:, E:, etc.

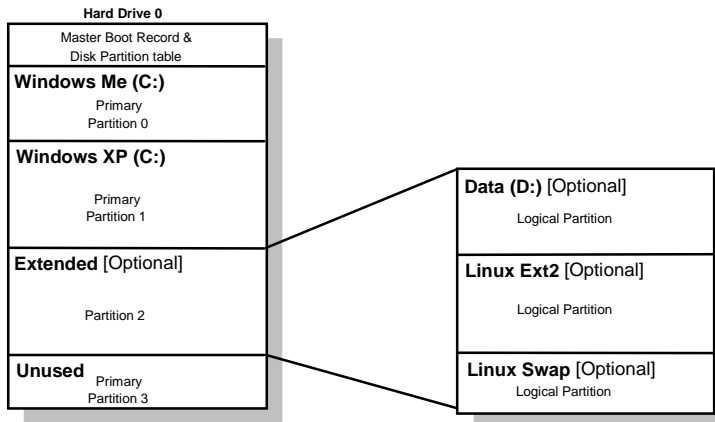
Types of Partitions - Partition Terminology

Primary partitions - A hard drive can be divided up into a maximum of four *primary partitions*. The first partition on a hard drive is numbered Partition 0; subsequent primary partitions are Partitions 1, 2, and 3.

Extended and Logical Partitions - In order to provide more than four partitions, a primary partition can be designated as an extended partition. An extended partition can be subdivided into several more sections known as logical partitions.

Figure 3-1 shows a partitioning configuration using logical partitions to contain different operating systems.

Figure 3-1. Windows XP in a separate Partition.



Bootable Partitions

Some partitions can be made bootable, which means that an operating system can be started up from within that partition. A bootable partition is also known as an *active* partition. A non-bootable partition cannot initialize an operating system. The ability for a partition to be bootable is controlled by the operating system. For example, Windows 95/98/Me allow only primary partitions to be bootable and will not allow a logical partition to be bootable. In contrast, other operating systems including OS/2 and Linux, can be installed to allow a logical partition to be bootable. A comprehensive set of tools for installing multiple operating systems on your hard drive are found in System Commander by V Communications, Inc.

In order to start up, every PC must contain at least one bootable partition. Using DOS or Windows 95/98, this partition is normally the first active primary partition (Partition 0) of the first hard drive in the computer (Drive 0), and is by default assigned the drive letter C:. To run more than one operating system on your PC you will typically want to configure a separate bootable partition for each OS.

Disk Formatting and Partitions

To understand partitioning and the benefits offered by Copy Commander, it's important to comprehend the structure of a typical hard drive and the formatting process.

Hard Drive Mechanics

A hard drive consists of stacked metallic disks, or platters, that rotate together on a spindle. Read/write heads (one for each side of a platter) are mounted on arms that allow them to move in and out quickly and accurately to reach any part of the surface of each disk. These heads record and read the magnetic charges that represent your data.

For a new hard drive mechanism to become usable it must go through three processes:

1. Physical formatting
2. Partitioning
3. Logical formatting

Warning! Formatting destroys all data on the drive!

Physical Formatting

The first stage of formatting is physical, or *low-level formatting*. It is typically done by the hard drive manufacturer. This process creates a magnetic structure on the hard drive platters that allows data to be accurately written and retrieved. Figure 3-2 shows the elements resulting from the physical formatting procedure: tracks, sectors, and cylinders.

Tracks - Tracks are concentric rings onto which data can be written. Every disk surface has the same number of tracks, starting with track 0.

Sectors - Tracks are sectioned into arc-shaped sectors, each of which has its own number, or address. Each sector can hold a defined amount of data, typically 512 bytes (1/2 KB).

Cylinders - A cylinder consists of all the same-numbered tracks on all platters in the hard drive. For example, in a hard drive that has four platters, there will be eight tracks numbered track 0 (one track 0 on the top surface,

and one on the bottom surface of each platter). All of these track 0s form cylinder 0.

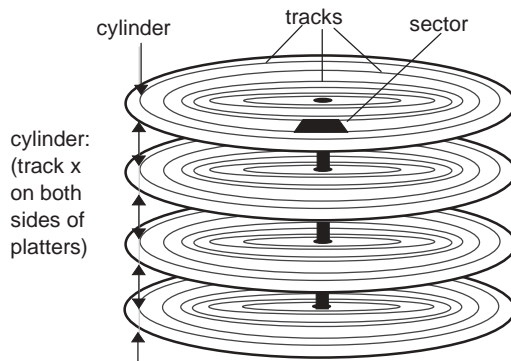


Figure 3-2: Physical Formatting

Partitioning

Following physical formatting, the hard drive can be divided into one or more partitions. Each partition is assigned a set of contiguous cylinders, so that each partition corresponds to a separate physical area of the hard drive. Figure 3-3 is a simplified drawing of a drive with four partitions.

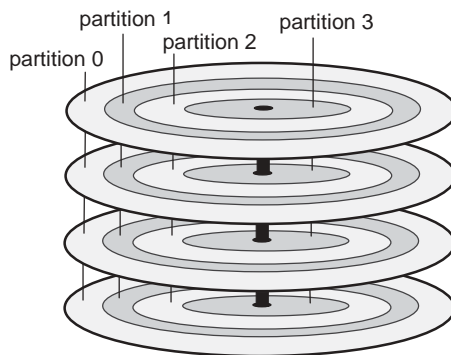


Figure 3-3: Drive With Four Partitions

The partition process is typically done the first time by the operating system's partitioning utility, such as the FDISK utility in Windows 98. Of course Copy Commander provides a more advanced, safer, and easier set of

partitioning functions for adding, deleting, and adjusting partitions on your hard drive.

Logical Formatting

Following partitioning, the disk is given a file structure that allows the disk and the operating system to exchange data. This process is part of logical formatting, and is performed by the operating system software's Format program. Copy Commander automatically formats Windows partitions when you create a new partition. After this, the operating system can be loaded by means of the operating system's installation utility.

Once a partition has been formatted by operating system software, it is known as a *volume*. When using Windows operating systems, each partition can correspond to a drive letter, starting with drive C:. Each volume (partition) can also be given a name, or *label* that will help you remember what is in that partition.

System Compatibility

Each operating system is designed to function with a particular file system, which is known as its *native file system*. Although some operating systems are compatible with multiple file systems, some are compatible with only one type of file system. Common file systems and OS system compatibility are summarized below and in Table 3-1.

File Allocation Table (FAT) - FAT is the native file system for DOS and Windows. For very small partitions under 32 MB, a version known as FAT12 is used, while larger sizes require FAT16. Although FAT12 uses 12 bits to record drive address, and FAT16 uses a 16-bit drive address. They are very similar file systems and both are generically referred to as FAT.

Virtual FAT (VFAT) -VFAT is a type of FAT file system developed for Windows to support long filenames. From a partitioning point of view, VFAT and FAT are identical, and Copy Commander displays them all as FAT partitions.

FAT32 - FAT32 supports 32-bit file records to allow a partition size beyond 2 GB. It can also help reduce wasted space on hard drives.

Note: The FAT32 file system can only be seen by Windows 95 OSR2, Windows 98, Windows Me, and Windows 2000/XP. Other OSes such as DOS, Windows NT v4 and the first version of Windows 95 will not see FAT32 partitions. You should also avoid a FAT conversion if your drive is using disk compression, since the compression software may not understand FAT32.

High Performance File System (HPFS) - OS/2 uses HPFS as its native file system. OS/2 also is compatible with FAT. Older versions of NT are also compatible with HPFS.

NT File System (NTFS) - NTFS is the native file system for Windows NT/2000/XP. Windows NT/2000/XP are also compatible with FAT. Windows 2000/XP also adds support for FAT32. Windows NT does not support FAT32.

Appendix A

Contacting Technical Support

We hope that you will never encounter problems with Copy Commander. However, the reality is things may come up that are not covered in this manual and you may need technical assistance.

We strongly encourage you check the table of contents or index of this manual to see if you can save yourself a phone call. You can also press F1 in most places to get context sensitive help.

Should you find yourself at a loss and need to contact us directly, we will do our best to assist you with using Copy Commander in every way we can.

Contacting Technical Support

Support for Copy Commander is provided by email only. To email us, please go to www.v-com.com/support and select the Email Support Form on the right panel.

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Appendix B

Installing a New Hard Drive

There are several ways to install your new drive, but we recommend installing it as an additional drive until the copy is complete.

If you are not comfortable with opening your PC and installing a hard drive, you may wish to have a technician perform the work for you.

If you plan to install the drive yourself, we have included steps you can use as a guide if you did not get instructions with your drive. Additional information about drives and jumper settings can be found at the following website:

<http://webhome.idirect.com/~cati/jumper.html>

IDE Drives

Follow your hard drive vendor's guide on installation. The following steps are provided as an overview of the steps required.

1. Turn off the computer power and remove the power cord from your PC and open the case.
2. Follow your hard drive's instructions on discharging any static electricity. Your computer has sensitive components that can be damaged by static electricity.
3. Generally there are two or four positions where drives are connected into your system. Drives (including your IDE CD-ROM) connect to the motherboard through a wide flat cable, often light gray in color, and about 2.5" wide. Up to two drives can be connected to each cable. On a single cable, one is considered the MASTER, and the second drive attached to the same cable is a SLAVE.

The jumper settings on your drives determine which is a MASTER and which is a SLAVE. With two drives on one cable, it does not matter which drive plugs into which connector on the cable, as long as the jumpers are set with one as a MASTER and one as SLAVE.

In some cases, the cable goes to a single drive and does not have an extra connector, or the cable may not be long enough. If this is the case, you may need to purchase a longer cable that supports two drives.

If you will be attaching your new drive to a IDE cable that has no other drives connected to it, your new drive should be jumpered as a MASTER. Most drives are set this way from the factory. If you will be sharing the cable with another hard drive and/or CD-ROM, you will need to verify the existing drive settings. If the existing drive is set as a MASTER, then the new drive must be jumpered as a SLAVE (this is one of the most common configurations). Otherwise, if the existing drive is a SLAVE, the new drive is a MASTER (a bit unusual, but not unheard of).

In the event you do not have any free connectors for a drive, you will have to temporarily remove one drive so you can connect the new drive. The CD-ROM is a good choice. Be sure to set the new drive's jumpers to the same setting as the drive you are removing (MASTER or SLAVE).

Before disconnecting the CD-ROM, you will need to create a Copy Commander boot floppy. See Chapter 1.

4. With the new drive's jumper set properly, install the new drive and secure it.
5. Connect the new drive to the wide IDE cable.

Technical Information: On some cables, the connector is not keyed so it is possible to insert the cable backwards! Be sure that pin 1 of the cable (usually marked with a red line) is positioned with pin 1 on the drive. In about 99% of the cases, pin 1 of the IDE cable is next to the power connector. Review your drive's installation notes to be sure.

6. Next connect the 4 pin power connector to the drive. This connector can only fit one way. If your system does not have enough power connectors, either remove one unneeded device, or purchase a drive power "Y" connector to split a single power connector to two different devices.
7. Connect the power back to the PC (you can leave the cover off for now).

8. Start your computer and verify it boots up properly and the new drive is detected (it will not yet appear in your OS, but during power up, you should see some text notices and a list of drives found. This goes by rather quickly.

You can also boot from the Copy Commander CD-ROM or boot diskette.

From the Copy Wizard, select Manual Partitioning. From the Menu Bar, select File, then Select drive. This will show a list of all the drives available.

If you have problems at this point, please look at the later section “Solving problems with your new drive addition”.

SCSI Drives

If you are using SCSI drives (most systems use IDE) the SCSI adapter and drive should have instructions for connecting a drive and setting it up. In addition, your SCSI controller must support access through interrupt 13. Most adapter cards support this standard, although some require you to enable the option, and a few are not interrupt 13 compatible. Copy Commander will not see a drive that is on a controller that does not support interrupt 13.

Solving problems with your new drive addition

Your drive installation guide should have troubleshooting tips on how to solve problems with your new drive installation. For your convenience, we've outlined some of the common problems users encounter.

The system does not start up properly

Issue: Either nothing happens for 30 seconds or longer, or you get a text message from your computer “No drives detected”

Solution: This can indicate two drives on the same cable are both set to the same type (MASTER or SLAVE). The two drives on the same cable cannot be set to the same type. One must be MASTER and the other must be SLAVE.

Also confirm the connector is correctly positioned. If the drive connector is backwards, the system will often not start up. Check that the side of the

cable marked with a line is in pin 1 of the drive.

Confirm the non-drive end of the cable is still firmly in place. Check that the side of the cable marked with a line is in pin 1 of the connector (which resides either on the motherboard or a card).

Check the cable for possible damage and replace the cable if necessary.

Confirm that the power connector is attached to the hard drives.

Your new drive is not detected

Issue: Upon reboot the system does not see your new drive. Also when you boot into Copy Commander, Copy Commander does not see the new drive.

Solution: Check the prior issues with cables and MASTER/SLAVE settings.

On older computers, the BIOS may not automatically detect the new drive. You may need to follow your computer manual for instructions on changing your BIOS settings to add a new drive. Unfortunately, there has been no standardization of access to your BIOS nor changing settings, so we cannot assist you with this part. If you do not have the manual, you may need to contact your computer manufacturer for these instructions.

With the instructions in hand, access the BIOS (often some special key combination is pressed during the first time you start up the computer).

Look for the settings in your BIOS relating to hard drives. Often they will specify a set of settings for up to 4 drives. If a setting of "AUTO" is available, use that for each drive. This means the BIOS will automatically detect if a drive is present and what settings are necessary.

On very old computers (pre-1995), the computer may not recognize drives greater than 528 MB or 8 GB. You will need to purchase a new IDE hard drive card that supports your new larger drive.

Lastly, although quite rare, the new drive might be defective.

The size of the drive is wrong

Issue: Looking at the boot up information or from Copy Commander, the drive size is more than 10% different than expected. (**Note** - it is normal to

see a drive size up to 10% smaller than the manufacturer's stated size)

Solution: See the notes under the issue about new drives not detected on BIOS settings. You may need to change these settings to match your new drive.

On a few drives, a wrong jumper setting can make the drive appear much smaller than its true size. Confirm that the instruction sheet included with the drive is for your exact drive (and not another model/size drive). Make sure you are not looking at the drive jumpers upside-down, in which case they would be in the wrong place.

If you are using an IDE drive 137 GB or larger, most systems that are older than 2002 (and some newer ones) do not have the newer controller hardware needed to access past 137 GB. You can often use this drive as a 137 GB drive or you may need to get a new IDE controller card that supports drives past 137 GB. Additional instructions are provided with your new large drive or from the drive manufacturer's web site.

Your OS may also have internal limits reducing the available disk size. Windows 95 supports a maximum of 128 GB. Windows 98 using the auto-update feature will install the necessary driver (otherwise it is limited to 128 GB). Windows Me may operate slowly with huge drives. Windows NT/2000/XP with the latest service pack supports huge drives.

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Appendix

C

Advanced Features

Automated Operation for System Administrators

This section explains how to automatically copy one disk to another using an Autorun diskette.

1. **To copy from disk 0 to disk 1:** Make a new Copy Commander diskette just for this purpose. See Chapter 1 for instructions. On this diskette, copy the file SCOSW_C.D01 to SCOSW_C.SYS. Then boot this diskette on any computer on which you want to perform this automatic copy.

Warning: These automatic disks will overwrite the target drive without a warning or confirmation.

2. **To copy from disk 1 to disk 0:** Make a new Copy Commander diskette just for this purpose. On this diskette, copy the file SCOSW_C.D10 to SCOSW_C.SYS. Then boot this diskette on any computer on which you want to perform this automatic copy.
3. **To revert back to auto launching Copy Commander GUI:** Copy SCOSW_C.D00 to SCOSW_C.SYS and then reboot.

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Appendix

D

Changing the Boot Sequence in BIOS Settings

To boot on a bootable CD such as the Copy Commander CD, it is necessary to have the CD-ROM drive set as the first boot device. Most computers are set to boot first to the floppy drive A: or the hard drive C:. This means that you will have to go to the BIOS setup on your computer and change the 'Boot sequence' or the 'First boot device' to be the CD-ROM drive.

Each BIOS manufacturer has their own style of BIOS setup, and depending upon the version of the BIOS you have, accessing the BIOS Setup may be different than those we have listed in the following section. Please refer to your BIOS manufacturers documentation if more specific instructions are required.

How to access BIOS Setup for the following Computers.

- For **Acer Aspire**, and **AST computers** - Press the Ctrl-Alt-Esc keys as the system boots up.
- For **Compaq Presario** - Press F1 or F10 as the system boots up.
- For **Dell Dimension 4400, Gateway 2000, HP Pavilion, IBM Aptiva, Packard Bell, Toshiba Infinia** - Press F1 as the system boots up.
- For **HP Vectra, NEC Ready** - Press F2 as the system boots up.
- For **Sony Vaio** - Press F2 or F3 as the system boots up.
- For **IBM ThinkPad** - At the desktop, double click the 'IBM ThinkPad' icon and click on ThinkPad Features to get to BIOS setup.

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Once in the BIOS setup you will look for 'Boot' or 'Boot Sequence' or 'Boot Order' - to go to the screen that shows your boot setup. Please refer to the legend which explains which keys to use to change the boot order or sequence. We cannot provide support for changing the BIOS settings. You can find more information on this from the documentation included with your computer, or from the BIOS manufacturer's website.

Once the BIOS is set to boot the CD-ROM drive first, you can boot from the Copy Commander CD.

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