TB077 (Rev1) - Backing Up Your Files with an Iomega Zip Drive

Overview

This document describes the process of backing up data from any Centroid control (requirements: floppy drive, parallel port, DOS 5.0 or higher) to an Iomega Parallel Port Zip drive.

Procedure

Obtaining Your Zip Drive

First of all, you will need an external parallel port Zip drive. Zip drives are relatively easy to obtain, being sold in almost any large chain store, such as Wal-Mart, Sears, Best Buy, or Office Depot. They range in price from $100-$150 for a 100-megabyte-capacity drive (or $150 to $200 for the newer 250 MB version, which can also read and write the 100 megabyte disks). Make sure you get the external parallel port drive, though, since no other drive can be connected to Centroid controls, which do not have USB connectors, and will often not have space for an internal drive. (Another advantage to having an external drive is that it can be taken from place to place for easy file transfer).

Zip drives usually come with a single Zip disk, though more can be purchased for $10-$15 per 100-megabyte disk, or $25-$30 for the 250MB variety. You will probably only need one disk to back up all your files, though you can check whether you will need more by running the DOS program 'chkdsk' (after exiting from the control software with Control-Alt-X). Check how much space is used on the hard disk. If it's less than 100,000,000 bytes (for a 100 meg disk, 250,000,000 bytes for a 250MB disk), you only need one. To get back into the software, type 'cnc7m4'.

Setting Up Your Zip Drive

When you buy your Zip drive, the package will contain the Iomega software that enables you to use the drive with your control. However, there is a problem. Zip drives are sold with Iomega software included on CD-ROM, but Centroid controls do not have CD drives. Therefore, you will need a separate computer with a CD drive and DOS or Windows installed (Windows 3.1, 95, 98, or NT). (Alternatively, Centroid can send you a floppy disk with the guest software already installed and ready to use, or email it to you).

Boot your computer system up, and then put in the Iomegaware CD.

FOR DOS:

Put a floppy disk in your floppy drive and type **format a: /u /s** to format the disk. This will delete all information on the disk, make sure the disk is fully operational and undamaged, and will copy the system files needed to start your control from the floppy in case of hard drive failure.

Next, you will need to copy the correct files to the floppy to start the guest program. The files you want are in the directory **d:\drvrflp\w31** (assuming your CD-ROM drive is known as letter D). To copy all these files to the floppy, type the following (hitting enter at the end of each line)

d:

cd\drvrflp\w31

copy guest.* a:

copy aspippm*.sys a:

copy *.ilm a:

Now, since you don't need to try to load drivers for every possible drive (since the Iomega Guest software will by default try to load not only drivers for the zip parallel port, but also for Jaz drives, SCSI zip drives, and ATAPI zip drives), you must edit out the lines in the guest.ini file that pertain to those drivers. To do this, type **edit a:\guest.ini**, which will put you in the MS-DOS text editor. Delete the following lines:

ASPI=ASPIIDE.SYS /INFO /SCAN

ASPI=ASPI8DOS.SYS /D

ASPI=ADVASPI.SYS

ASPI=ASPIPC16.SYS /SCAN /INFO

ASPI=ASPI1616.SYS /SCAN /INFO

ASPI=ASPIATAP.SYS /INFO /SCAN

Which will leave the file looking like this:

[----scan for existing aspi managers---]

SCAN=ON

[----Load aspi managers----]

ASPI=ASPIPPM1.SYS /INFO FILE=NIBBLE.ILM SPEED= 1

ASPI=ASPIPPM2.SYS /INFO FILE=NIBBLE2.ILM SPEED= 1

(These are the lines that load the parallel port drivers for your Zip drive)

Save the file by pressing the **Alt** and **F** keys at the same time to make the File menu appear, then pressing **S**.

Then, you must make a **config.sys** file to make it possible for the Zip drive to be accessed under DOS. If you are still in the editor, use **Alt+F**, **N** to create another file. Type **LASTDRIVE=Z**, then save the file as before, and enter the name **config.sys** when it asks you what to name the file.

Now, you're ready to start working on your control. Go to the **Setting up your control** section.

FOR WINDOWS 3.1:

Format the drive as for DOS, by going to the DOS command prompt (From the Program Manager main menu, run **command.com**, then type **format a: /u /s**), then copy the files from the CD to the floppy (go to the file manager, either from the Control Panel or by running the command **winfile**, then navigate to the directory **d:\drvrflp\w31** and copy the files **guest.exe**, **guest.ini**, **aspippm1.sys**, **aspippm2.sys**, **nibble.ilm**, and **nibble2.ilm** to the A drive, assuming your CD drive is D and your floppy is A). Then, use the Windows notepad (run **notepad**) to make a text file containing the command **LASTDRIVE=Z**, then save it as **a:\config.sys** (this is the configuration information the computer reads at startup). Then, open the file **a:\guest.ini** with Notepad, and delete the following lines:

ASPI=ASPIIDE.SYS /INFO /SCAN

ASPI=ASPI8DOS.SYS /D

ASPI=ADVASPI.SYS

ASPI=ASPIPC16.SYS /SCAN /INFO

ASPI=ASPI1616.SYS /SCAN /INFO

ASPI=ASPIATAP.SYS /INFO /SCAN

This should leave the file looking like this:

[----scan for existing aspi managers---]

SCAN=ON

[----Load aspi managers----]

ASPI=ASPIPPM1.SYS /INFO FILE=NIBBLE.ILM SPEED= 1

ASPI=ASPIPPM2.SYS /INFO FILE=NIBBLE2.ILM SPEED= 1

Save the file. Now, go to the section titled **Setting Up Your Centroid Control**.

FOR WINDOWS 95/98/NT 4.0: If you're using Windows, and the Iomega software setup appears, click 'no' and exit the setup. Use the Windows explorer (go to the start menu, select 'run' and type in **explorer**, then click 'OK') to navigate to the directory **D:\drvrflp\w31** (if D is your CD drive. If not, just put the letter of your CD drive instead, like F:\drvrflp\w31 or G:\drvrflp\w31). Copy the files 'guest.exe', 'guest.ini', 'aspippm2.sys', and 'nibble2.ilm' to a floppy disk (stick a floppy in the drive, highlight the files you want to copy by clicking each of them while holding down the 'Ctrl' key, then go to the 'edit' menu and select 'copy'. Then click on the floppy disk icon in the explorer, which will be on the left side and will say something like '3½ Floppy (A:)', and select 'paste' from the edit menu). Next, double-click the file **A:\guest.ini** (the copy of **guest.ini** on the floppy disk), which should open the file in notepad. If it does not, run notepad manually (start menu, run, 'notepad', click 'OK'.) and open **A:\guest.ini**. Then, delete the lines:

ASPI=ASPIIDE.SYS /INFO /SCAN

ASPI=ASPI8DOS.SYS /D

ASPI=ADVASPI.SYS

ASPI=ASPIPC16.SYS /SCAN /INFO

ASPI=ASPI1616.SYS /SCAN /INFO

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This should leave the file looking like this:

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Save the file. Now, go to the section titled **Setting Up Your Centroid Control**.

Setting up your Centroid control

To enable you to use the Zip drive with the control, you must edit your control's config.sys file to include the line **LASTDRIVE=Z**. Power up your control, and when the system says 'starting MS-DOS', press the F5 key. This should make the control skip loading any software and leave you at the DOS prompt. If it does not, simply exit the CNC7 software by pressing **Ctrl**, **Alt**, and **X**. Type **edit config.sys** at the DOS command prompt. Go to the end of the file, make a new line, and type in **LASTDRIVE=Z**, then save the file (press Alt, F, S). Reboot your control, and you will be ready to use the Zip drive with the Iomega Guest floppy you created earlier.

To actually get the zip drive working, just hook it up to the control (the thick parallel cable connects to the zip drive and to the parallel port of the control, that is, the plug which has 25 holes in it, not 25 pins. The 25-pin port is the serial port) and plug it into the power supply. Insert a zip disk. You will hear the drive spin up. If it does not, and the light on the front eject button does not come on, your Zip drive may be bad.

Then, start up the control (you must reset it after editing the config.sys, since the commands in config.sys are only read by the system during startup). Exit the CNC software using Ctrl-Alt-X. Insert the Guest disk you created earlier. Type **a:\guest**. In five to ten seconds you should see the message **Zip drive is letter H**: (or any other letter). Then, you can copy files to the zip disk as if it were a floppy disk in drive H. Thus, you can either use the CNC program's 'export' command to copy files to it, or you can exit to DOS mode by pressing Ctrl-Alt-X, and use the **copy** or **xcopy** commands. If you need help on either of these commands, you can enter DOS help by typing **help** at the command prompt.

Document History