

**ezCopy™**  
for HDDGuarder™ recovery card

**Manual**  
**Trial Version**

HDDGuarder Technology Co., Ltd.

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<http://www.HDDGuarder.com>

## Chapter 1 Introduction

### 1-1 Key Words

- NIC: Network Interface Card
- Net-clone: clone the data in hard discs and CMOS from one computer to other computers via LAN.
- Sender: the computer that reads the data in hard discs and CMOS and sends them onto network.
- Receiver: the computer that receives data from network and writes the data into hard discs and CMOS.
- Broadcasting Clone: a sender synchronously clones data in hard discs and CMOS to multiple receiving machines.
- Clone Group: a group of computers constituted by the sender and the receivers connected therewith.
- Group Clone: several clone groups synchronously do net-cloning in a LAN.
- Dynamic IP Address: the interim IP address allocated to a receiver by a sender.
- 

### 1-2 Functions of ezCopy™

- Supports full disc clone and selects part clone
- Calibrates the date and time of all receivers during cloning
- Broadcasting clone. Allows to synchronously cloning up to 299 units of receivers.
- Group clone. There may be several broadcasting clone groups in a LAN, each of which may synchronously cloning up to 299 units of receivers.
- Smart allocation of IP addresses for receivers. —This function is available only in combination with ezIpset.exe provided that the IP address of a computer is not configured as "auto acquire".
- Upon completion of clone, automatically set up IP addresses of computers and name of computers. —This function is available only in combination with ezipset.exe provided that the IP address of a computer is not configured as "auto acquire".
- Protects IP addresses of computers from being changed optionally. —This function is available only in combination with ezipset.exe provided that the IP address of a computer is not configured as "auto acquire".
- Clone CMOS. — This function is withheld for the moment.
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### 1-3 Features of ezCopy™

- Making the document of hard disc/disc part mirror is not needed.
- Automatically identifies PCI and ISA network interface card, automatically loads driver.
- Supports 12 types of network interface cards by August 2004. Supports all the popular NICs such as 8019、8029、8139、D-Link、TP-Link、Intel、3Com.
- Both the sender and receiver use the same program, no need to make system disc for the sender.
- No need to specify either sender or receiver. The computer first to start ezCopy™ is the sender, any computer subsequent thereof is the receiver.
- Smart allocation of IP addresses for receivers. —This function is available only in combination with SYSIPCFG.EXE provided that the IP address of a computer is not configured as "auto acquire". — The IP address sent to a receiver by a sender can be changed on the sender, then the sender will allocated such IP address plus 1 as the new default values to a later started receiver.
- Memorize IP addresses. —This function is available only in combination with ezipset.exe provided that the IP address of a computer is not configured as "auto acquire". — This function is withheld for the moment.
- GapHold algorithm guarantees the workability of applications such as Boot Magic, System Commander, Computer Auto Management and Rate Calculating System after clone.
- ezCopy™ can be started through network by being combined with PXE or Ghost.
- By being combined with the software of ezGhost, unattended and time wakeup and automatic net-clone can be achieved.

#### **FlashSpeed™ Technology Guarantees Clone Speed and the Number of Computers Cloned.**

The network communication protocol latest researched by FlashSpeed™, guarantees the critical speed of net-clone.

- In the case of 10Mb network, 837 KB/sec. =49 MB/min.=2.9 GB/hr can be achieved.
- In the case of 100Mb network, 6 MB/sec.=360 MB/min.=21 GB/hr can be achieved. Field tests show that, provided with a computer of Intel 865 P4-2.8G, a computer of Intel 845 C1.7G, NIC of 8139 10/100Mb, exchanger of EDIMAX 100Mb, the speed of one-to-one clone reaches 7353KB/sec. = 431MB/min. = 25GB/hr.
- FlashSpeed™ technology also guarantees the minimum impact of the number of computers against the clone speed.

**NerverLineOff™ Technology Guarantees the Number of Computers, Never Delay of Senders and Never Lineoff of Receivers.**

## Chapter 2 Quick Installation Guide

### 2-1 Make ezCopy™ System Disc

#### 2-1-1 System Files of ezCopy™

The files of system disc of ezCopy™ 3.11 released on August 25, 2004 are as shown in Picture 2-1 File List on the right.

IO	SYS	224,150	05-05-99	22:22
MSDOS	SYS	0	05-05-99	22:22
COMMAND	COM	94,292	05-05-99	22:22
HIMEM	SYS	33,191	05-05-99	22:22
CONFIG	SYS	19	08-28-04	19:14
AUTOEXEC	BAT	163	08-28-04	18:22
PEZ	EXE	73,472	08-16-85	12:00
PEZ	PRO	7,342	09-30-93	10:51
SYSIPCFG	EXE	86,016	07-22-02	9:09
EZCOPY	TXT	7,690	07-22-04	19:43
EZCOPY	INI	3,466	08-28-04	18:39
EZCOPY	EXE	50,977	08-28-04	18:36
EZCOPYE	EXE	50,914	08-25-04	22:44
INSTAL~1	EXE	43,008	07-07-04	21:44
INSTAL~2	EXE	43,008	07-07-04	21:32
PKTDRU	<DIR>		08-25-04	11:52
		15 file(s)	717,708 bytes	

#### 2-1-2 Make ezCopy™ System Disc ——

-----Floppy Disk/ USB/ CD-ROM

- The floppy disc/.. must be formatted in Windows 98 or its DOS operation system. Please do not "pass system".
- Download the system files' ZIP document of ezCopy™ from the website of Hddguarder or get it from your distributor.
- Decompress the ZIP document into the floppy disc/...

### 2-2 Uninstall Hard Disc Protection Card/Hard Disc Protection Software

ezCopy™ 3.11 is not connected with any hard disc protection card/hard disc protection software. you must uninstall Hddguarder recovery card or any other recovery card before the beginning of net-clone.

### 2-3 Start the Sender

Start ezCopy™ sender from floppy disc, bootable USB disc or bootable CD-ROM.

Run ezcopy , you will see the following picture. If with auto identifying NIC, the information that follows is the information displayed when loading NIC's DOS package driver. The interface will stay for about 5 seconds during which ezCopy™ will check if there is any sender in the LAN.

```
ezCopy Version 3.11 Beta
Copyright (C) ezCopy 1997-2004.8

Usage: ezCopy [/S!C] [/In.n.n.n] [/Mn.n.n.n] [/Gxx] [/D] [/Wmm]
/s -- start as SERVER      /c -- start as CLIENT
/i -- initializing IP     /m -- subnet mask
/g -- new workGROUP. xx is 2 case-sensitive ASCII's
/d -- demonstration. valid for SERVER only
/p -- check ISA PnP      /w -- unit is us, 0-244

auto
```

图 2-2 ezCopy™ Start Interface

The details of command mentioned in the above screen, please refer to chapter 4

### 2-4 The Sender Waits For the Online and Log in of the Receiver

In case no sender with the same name is found by ezCopy™, then the current computer running ezCopy™ will serve as the sender. The interface of sender is shown as follows. Please stay on this interface, do not operate the sender for the

moment. The operations of sender will be introduced in details in 2-7 of this chapter.

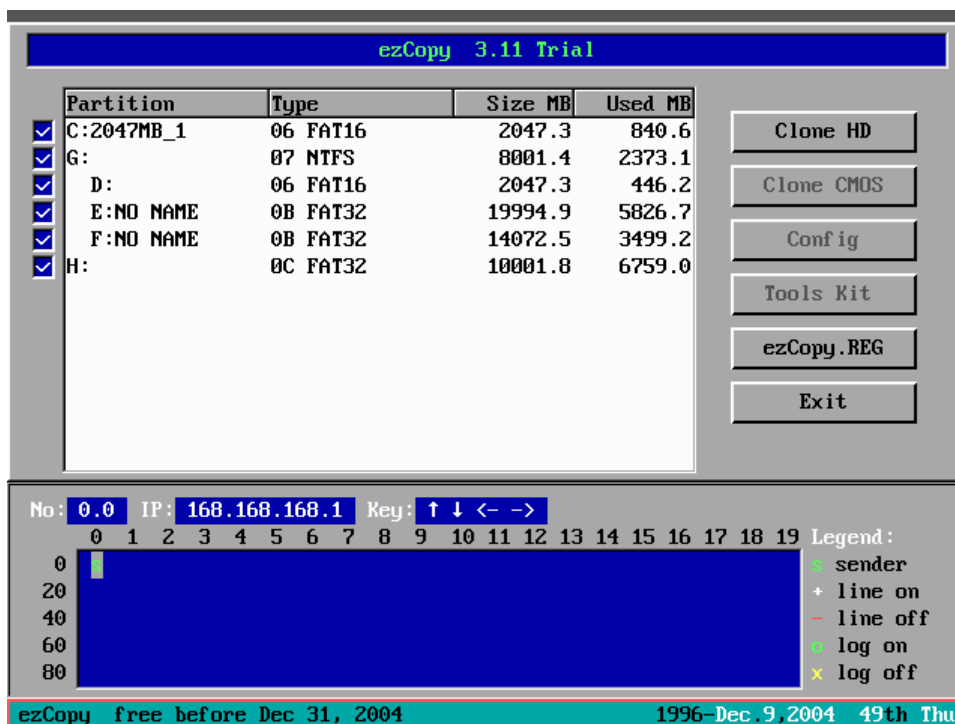


图 2-3 ezCopy™ Sender Console

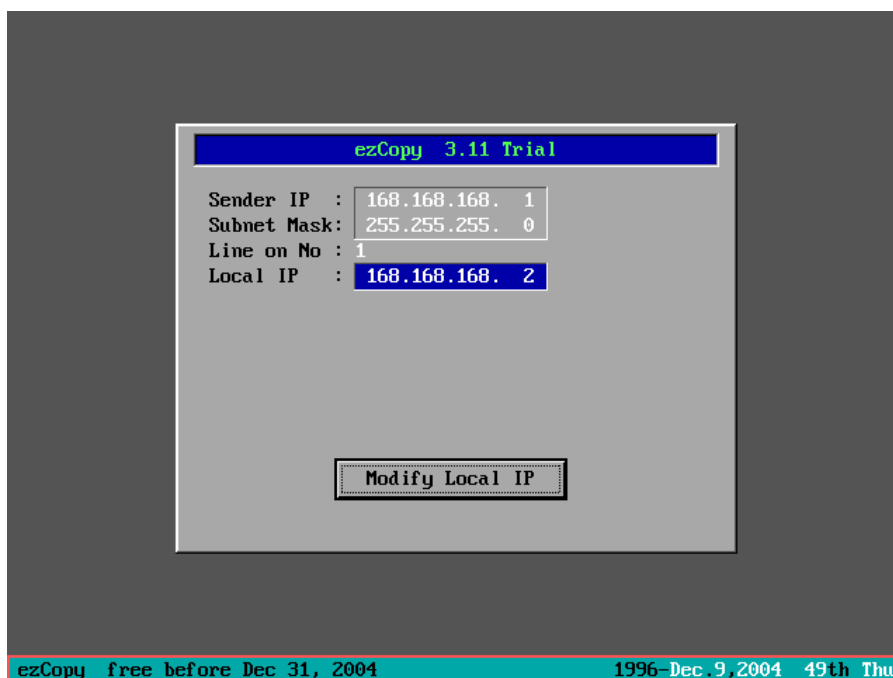
## 2-5 Start the Receiver

Start ezCopy™ sender from floppy disc, bootable USB disc or bootable CD-ROM. The interface will appear as shown in Picture 2-2. If with auto identifying NIC, the information that follows is the information displayed when loading NIC's DOS package driver. The interface will stay for about 1 second during which ezCopy™ will automatically get online and log in any sender that has logged in the LAN.

In case no sender is found in the LAN by ezCopy™, then the current computer running ezCopy™ will serve as the sender, then go to step 2-4.

## 2-6 The Receiver Waits For Net-clone from the Sender

The interface of the receiver is shown as follows. Please do not operate the sender for the moment. The operations of sender will be introduced in details in *Advanced Applications Guide*.



## 2-7 Operate the Receiver

When all the receivers have got online and logged into the sender, now we can operate the receivers. The operations of a receiver include:

- Select the hard disc partition for net-clone
- Start net-clone by sending the hard disc partition to be cloned to the receiver.
- Exit net-clone

### 2-7-1 Operation Keys

- The sender's interface consists of three zones: selecting zone of hard disc partition for net-clone, functional buttons zone and monitor zone of online computers.
- Applicable keys: Tab key, combination key of Shift-Tab, Upward arrow, Downward arrow, Leftward arrow, Rightward arrow, Space key, Enter key and Esc key.
- Upward arrow and Downward arrow: ① to move the cursor in the functional buttons zone; ② to move the cursor from the functional buttons zone to the selecting zone or monitor zone; ③ to move the cursor between the selecting zone and monitor zone; ④ to move the cursor in the hard disc partition; ⑤ to move the cursor upward and downward in the monitor zone.
- Leftward arrow and Rightward arrow: ① to move the cursor between the selecting zone and "clone hard disc" button; ② to move the cursor leftward and rightward in the monitor zone, to check the connection serial numbers of connected computers, dynamically allocated IP addresses (NIC's MAC address — available only in ezCopy™ registered version).

### 2-7-2 Select the hard disc partition for net-clone

- Use Tab key to move the cursor into the selecting zone of hard disc partition.
- Use Upward arrow and Downward arrow to move the cursor in the hard disc partition.
- Stroke Space key or Enter key to cancel the selection or reselect the hard disc partition for net-clone. As shown in the following picture, disc D will not be cloned to receivers.

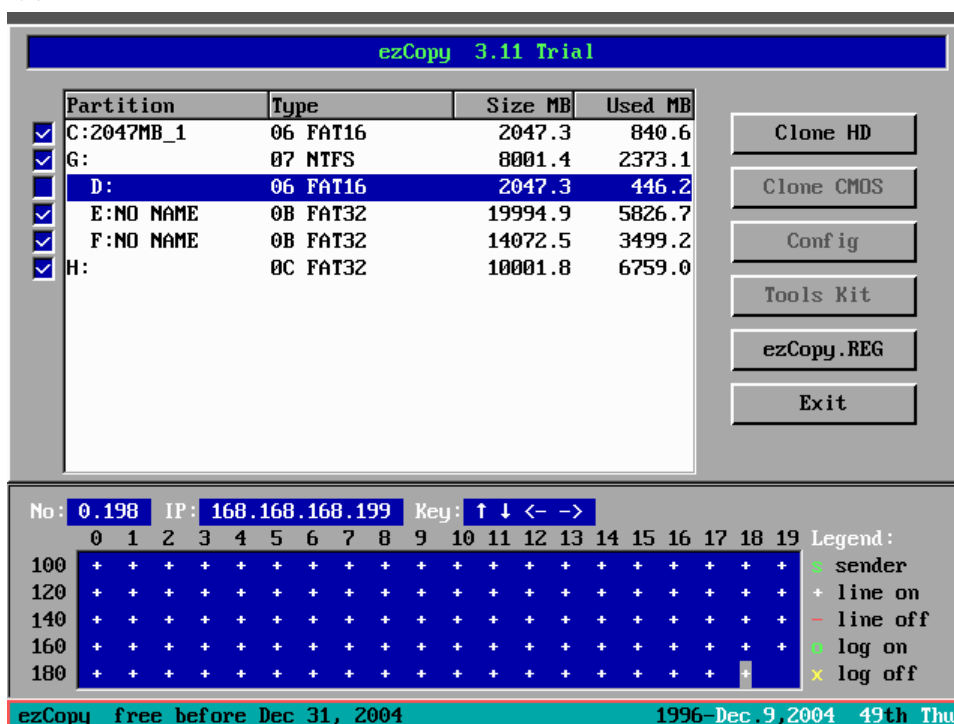


图 2-5 ezCopy™ Net-clone Partitions

### 2-7-3 Start Net-clone

When all the receivers have got online and logged into the sender and the hard disc partition to be cloned is set, now we can start net-clone. Just use Tab key to move the cursor to the button of "clone hard disc" and press Enter, net-clone

will be started.

During net-clone, the keyboard of the sender will be locked. Please do not stroke any key on the keyboard of the sender. To check if the keyboard is unlocked, you may press Upward and Downward keys to see if the cursor is movable.

Once net-clone is started, the receivers will be in the control of the sender before they exit ezCopy™. During this period, any stroke of the receiver's keyboard will not be responded.

During the period of net-clone, the sender's interface remains the same, however, the receiver's interface will be as follows:

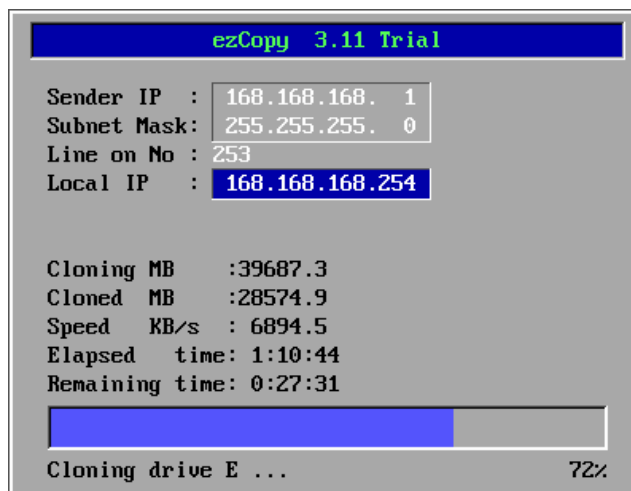
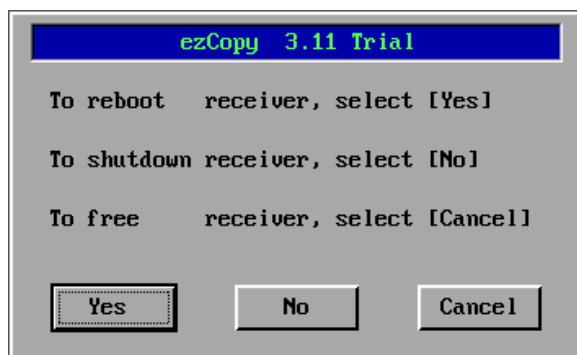


图 2-6 ezCopy™ Net-clone Interface

#### 2-7-4 Exit ezCopy™

When 100% of net-clone is completed as shown on the receiver, the sender's keyboard will be unlocked, so that we can resume the operation of the sender. We can repeat the two steps of "Select the hard disc partition for net-clone" and "Start net-clone". To exit ezCopy™, press Esc key or use Tab key to move the cursor onto "Exit" button and then press Enter key, the following interface will appear on the sender.



- To restart the receiver, please select "Yes[Y]".
- To shut down the receiver, please select "No [N]".
- To have the receiver return to DOS, please select "Cancel" or press Esc.

#### 2-8 Configure the Receiver's IP Address and Computer Name

ezCopy™ can automatically configure the receiver's IP address and computer name, refer to Advanced Application Guide for the methods. The following explanations are for manual configuration of the receiver's IP address and computer name. If you are using ezCopy™ on trial referring to this chapter, you are required to finish the following steps.

1. Start the receiver and enter Windows.
2. Change the computer name. Windows will remind you to "Restart computer", please select "No [N]".
3. If the computer's IP address is "Auto Acquire", please skip this step. Otherwise, please change the computer's IP address.
4. Restart computer.
5. If several Windows operation systems are installed and all of them have been cloned to the receiver, please repeat step 1 to 4, in which you are required to configure IP address and computer name for each Windows operation system.

## Chapter 3 The Network card work with ezcopy

### 3-1 ezCopy support Network cards

In ezcopy ini file, there are total 12 kinds of Network cards packet driver included, if you found that you could not Auto log in the driver of the Network card, please refer to the following:

### 3-2 How to Auto Log in network card

#### 3-2-1 update Autoexec.BAT

If you could be sure what is the DOS packet driver of the Network card, you could use this method by updating Autoexec.bat from ezcopy zip files.

For example, the Network card is RTL8139, its DOS command is RTSPKT39.COM, please refer to the following picture, you should update the Autoexec.BAT as the picture, then run ezcopy, the network card driver will be auto logged in.

```
@echo off
path=a:\;a:\pktdrv

RTSPKT39 0x60
ezCopy
```

#### 3-2-2 update ezCopy.ini

If you are not sure the DOS command of Network card, or the pointed Network card is wrong, while ezcopy still could not identify the Network card, kindly update ezcopy.ini from ezcopy.zip file, Please do the following steps to update ezcopy.ini:

1. when you run ezcopy, the following message will appear: xxxx:yyyy PKT DRVR not found  
record the 8 numbers: xxxx:yyyy
2. Find the DOS driver of network card, run it then record its product name, version No, publish date, upload command and uninstall command
3. copy the Dos packet driver of Network card into ezcopy disk : PKTDRV folder
4. edit ezcopy.ini by adding the following three lines:

```
xxxxyyyy_description = <product name> <version No> <publish date>
xxxxyyyy_install      = pktdrv\<upload command>
xxxxyyyy_uninstall    = pktdrv\<uninstall command>
```

### 3-3 ezCopy™ 3.11 的 ezCopy.INI

[NIC]

```
6000D041_description = RTL8019AS 10M ISA-PnP NE2000 PLUG & PLAY ETHERNET CARD
6000D041_install      = pktdrv\ISA_8019.com 0x60
6000D041_uninstall    = pktdrv\ISA_8019.com -u
;802910EC_description = Realtek RTL8029(AS) PCI Ethernet NIC 1998
;802910EC_install      = pktdrv\10ec8029.com 0x60
;802910EC_uninstall    = pktdrv\10ec8029.com -u
802910EC_description = Realtek RTL8029(AS) PCI Ethernet NIC 2000
802910EC_install      = pktdrv\PCIPKT.com 0x60
802910EC_uninstall    = pktdrv\PCIPKT.com -u
;813910EC_description = Realtek RTL8139 Family PCI Fast Ethernet NIC v3.21
;813910EC_install      = pktdrv\10ec8139.com 0x60
;813910EC_uninstall    = pktdrv\10ec8139.com -u
813910EC_description = Realtek RTL8139 Family PCI Fast Ethernet NIC v3.40
813910EC_install      = pktdrv\RTSPKT39.com 0x60
```

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```
813910EC_uninstall = pktdrv\RTSPKT39.com -u

;09001039_description = SiS 900/7016 PCI Fast Ethernet Adapter V1.09 (2000.1106)
;09001039_install = pktdrv\10390900.exe -n 0x60
;09001039_uninstall = pktdrv\10390900.exe -t
09001039_description = SiS 900/7016 PCI Fast Ethernet Adapter V1.15 (2002.0816)
09001039_install = pktdrv\SiS900.exe -n 0x60
09001039_uninstall = pktdrv\SiS900.exe -t

12171113_description = Adico AE310-TX PCI 10/100 Fast Ethernet Adapter
12171113_install = pktdrv\11131217.com 0x60
12171113_uninstall = pktdrv\11131217.com -u

; 3Com EtherLink PCI Bus Master Packet Driver v5.0.3
;905510B7_description = 3Com Fast EtherLink XL 10/100Mb TX Ethernet NIC (3C905B-TX)
;905510B7_install = pktdrv\10b79055.com /I=0x60
;905510B7_uninstall = pktdrv\10b79055.com /u /I=0x60
; 3Com EtherLink PCI Bus Master Packet Driver v5.2.6
905510B7_description = 3Com Fast EtherLink XL 10/100Mb TX Ethernet NIC (3C90X)
905510B7_install = pktdrv\3C90XPD.com /I=0x60
905510B7_uninstall = pktdrv\3C90XPD.com /u /I=0x60

;30651106_description = D-Link DFE-530TX PCI NIC (Rev B) V2.53 (2000.0525)
;30651106_install = pktdrv\DFE530TX.com 0x60
;30651106_uninstall = pktdrv\DFE530TX.com -u
;
30651106_description = VIA PCI 10/100Mb Fast Ethernet Adapter V3.27 (2001.01)
30651106_install = pktdrv\11063065.com 0x60
30651106_uninstall = pktdrv\11063065.com -u
;
xxxxyyyyy_description = DCN-530TX PCI Ethernet Adapter V1.00 (2002.0411)
xxxxyyyyy_install = pktdrv\DCNPKT.com 0x60
xxxxyyyyy_uninstall = pktdrv\DCNPKT.com -u
;
;31061106_description = D-Link DFE-530TX PCI NIC V4.10 (2002.0703)
;31061106_install = pktdrv\DLKFET.com 0x60
;31061106_uninstall = pktdrv\DLKFET.com -u
; VIA Rhine Family Fast Ether Adapter
31061106_description = VIA Rhine Family Fast Ether Adapter V4.16 (2003.0214)
31061106_install = pktdrv\FETPKT.com 0x60
31061106_uninstall = pktdrv\FETPKT.com -u

xxxxyyyyy_description = DAVICOM DM9 PCI Ethernet Adapter V1.2.3 (2000.0309)
xxxxyyyyy_install = pktdrv\DM9PCIPD.com 0x60
xxxxyyyyy_uninstall = pktdrv\DM9PCIPD.com -u

xxxxyyyyy_description = IC Plus IP100 based Fast Ether Adapter V3.03 (2003.0411)
xxxxyyyyy_install = pktdrv\IP100PD.com 0x60
xxxxyyyyy_uninstall = pktdrv\IP100PD.com -u

10508086_description = Intel EtherExpress(tm) PRO/10/100B PCI v11.10 (2001.0821)
10508086_install = pktdrv\E100BPKT.com 0x60
10508086_uninstall = pktdrv\E100BPKT.com -u
```



---

## Chapter 4 ezCopy™ super command

After run ezcopy, the following screen will appear:

```
ezCopy Version 3.11 Beta
Copyright (C) ezCopy 1997-2004.8

Usage: ezCopy [/S|/C] [/In.n.n.n] [/Mn.n.n.n] [/Gxx] [/D] [/Wnnn]
/s -- start as SERVER      /c -- start as CLIENT
/i -- initializing IP     /m -- subnet mask
/g -- new workGROUP. xx is 2 case-sensitive ASCIIIs
/d -- demonstration. valid for SERVER only
/p -- check ISA PnP       /w -- unit is us, 0-244

auto
```

图 2-2 ezCopy™ Start Interface

### 4-1 /S: Appointed as Sender

Force to be set as Sender , if there are same name of sender, the message will appear: "More SERVERs found".

### 4-2 /C: Appointed as Receiver

Force to be set as receiver, if there are no sender in LAN, the message will appear: "No SERVER found".

### 4-3-3 /In.n.n.n: Set the IP address of Receiver

Only used for receiver. If the pc IP is set as "Auto catch", this command will not work.

### 4-3-4 /Mn.n.n.n: Set Subnet Mask

Only used for receiver. If the pc IP is set as "Auto catch", this command will not work.

### 4-3-5 /Gxx: Set the name of Sender

Pointed the Sender name , that is also the Group name, if ezcopy did not find the sender namd as same "xx", the pcwillbe regarded as Sender; If ezcopy found the same name as "xx" in Lan, the pc will be regarded as Receiver, then try to connect with Sender.

Noted:1."XX" is two ASCII character, such as "/G11", "/Gaa".

2.If without this command, only ezcopy, the default name is "ez".

### 4-3-7 /P: Show ezcopy to check ISA Pnp Network card

To check ISA Pnp Network card, display its hardware info, so to update ezcopy.ini and make ezcopy recognized the network.

If there are no ISA Pnp Network, this command is without necessary.

## 4-4 How to keep the best Clone speed?

### 4-4-1 The reasos effected Clone speed 影响网络克隆速度的因素

- network
- network card
- Hub、Switch capability and connecting style.
- Capability of Sender/receiver: CPU speed、South Bridge capability、HD Speed etc.

- The quantity of receiver.

#### **4-4-2 The method how to keep the best Clone speed**

- 1) Clear Network surrounding, Please noted that do NOT run 10MB network card in 100MB network surrounding, otherwise, the speed will lower 70%.
- 2) Select the good capability and hardware steady network card.
- 3) Hub、 Switch should try to set as parallel connection.
- 4) Try to collect all pcs in one Hub、 Switch.
- 5) Select good capability Pc as Sender.

#### **4-5 Make multi-Group Clone in same LAN**

In same Lan, if you want to make difference sender to Clone data, use Gxx, then you could set difference Sender/receiver to clone.

#### **4-6 Skill of operation**

##### **4-6-1 Do not run ezcopy from Windows Dos or run Dis from Windows98 then run ezcopy.**

Please make Bootable disk floppy/USB/CD then copy ezcopy into it.

##### **4-6-2 SMARTDRV could not make the speed high while lower it.**

Network clone require to write the received data in the mean time, so SMARTDRV could not be run, otherwise it will bring more lost package file so to low the speed.

##### **4-6-3 Use DMA IDE interface and HDD cable**

In a PIII-733, DMA66 IDE interface and HDD cable will bring more quick speed than DMA33, it reach [200KB/Sec=11.7MB/Minute](#).

##### **4-6-4 Same network with difference version of packet driver, the speed will be in difference.**

Please try to use latest version of the driver of Network card.

##### **4-6-5 Same PC with diffence network card will bring difference speed.**

## Chapter 5 FAQ

### 5-1 Why cannot I operate the keyboards of the sender and receiver during cloning?

This instruction manual is designed for ezCopy™ software edition which needs NIC's DOS package driver to drive the NIC. The DOS package driver uses the hardware interruption of Intel 80x86 CPU and DMA to send and receive data. Operation of keyboard during cloning may result in "failure to work normally" and death of NIC's DOS package driver. Therefore, during cloning, ezCopy™ locks the keyboards of the sender and receiver.

### 5-2 What shall I do if ezCopy™ says "xxxx:yyyy PKT DRVR not found"?

Please refer to 3-2 and 3-3.

### 5-3 What shall I do if the sender says "Cache error." and dies during cloning?

There may be such information as "x1 Req=x2, Cache=x3, x4 / x5 = x6" following "Cache error."

- x1: amount of packages sent
- x2: number of the package to be resent as requested by receivers
- x3: number of the package in the cache. At this time, it is sure that **x2≠x3**.
- X4: size of the cache. Unit: byte.
- X5: size of the package. Unit: byte.
- X6: amount of packages in the cache.

This shows the conflict between Dos package driver and HIMEM.SYS. Please modify the config.sys in the system disc of ezCopy™ as shown on the right.

```
rem device=himem.sys
```

### 5-4 What shall I do if the sender dies during cloning?

The sender dies—hard disc read-write indicator is off, but less than 99% cloning has been completed. This shows the conflict between Dos package driver and BIOS int 15h / AH=87h. Please modify the config.sys in the system disc of ezCopy™ as shown on the right.

```
device=himem.sys
```

### 5-5 Can I clone data from a small volume hard disc to a large volume hard disc?

Yes.

### 5-6 Can I clone data from a large volume hard disc to a small volume hard disc?

Yes, but please pay special attentions to the following:

- Refer to picture 2-5. Add the volumes of each partition from the first to the last; make sure the sum is smaller than the volume of the receiver's hard disc.
- Exit ezCopy™ and use a partitioning software to delete the partition in the sender's hard disc which exceeds the volume of receiver's hard disc.
- Special tips: ① Please transfer the data in the partition before deletion. ② Make sure you've deleted the partition.
- Boot ezCopy™, then you can clone data from a large volume hard disc to a small volume hard disc.

### 5-7 Why clone can be done even without selecting any partition? And what kind of data has been cloned?

If a partition is not selected, the data in such partition will not be cloned, however, the partition info of that partition (something like MBR) will be cloned to receivers.

### **5-8 Why sometimes Windows will find new devices after cloning?**

Please check the following:

- Whether the computers' configurations are the same: motherboard, display card, NIC, sound card, hard disc, mouse, etc.
- Whether the devices such as display card, NIC, sound card, hard disc and mouse are plugged into the same locations as the sender.

### **5-9 What does it mean if "Ok! PCs=x1 Task=x2 Done=x3 Lost=x4 Seq=x5" appears on the receiver?**

This is the test information in Beta version. It will not affect the normal use at all. It means that the receiver works normally and clone is completed.

- X1: amount of the online computers.
- X2: amount of sectors to be cloned.
- X3: amount of cloned sectors.
- X4: amount of sectors requested to resend (retrieve).
- X5: effective amount of cloned packages.

### **5-10 What does it mean if "Ok! PCs=x1 Lost=x2 DelayUs=x3 Seq=x4" appears on the sender?**

This is the test information in Beta version. It will not affect the normal use at all. It means that the sender works normally and clone is completed.

- X1: amount of the online computers.
- X2: amount of sectors requested to resend (retrieve).
- X3: delay of sending packages.
- X4: effective amount of cloned packages.

### **5-11 What does it mean if "Lost=x1 hsecond=x2 DelayUs=x3" appears on the sender?**

This is the test information in Beta version. It will not affect the normal use at all. The sender is testing the network speed. — [This is the unique auto speed adjusting function of ezCopy™.](#)

- x1: amount lost during the test.
- x2: time of package sending during the test.
- x3: delay of package sending smartly set by ezCopy™.

### **5-12 What does it mean if "Lost=x1 DelayUs=x2 No=x3" appears on the sender?**

This is the test information in Beta version. It will not affect the normal use at all. The sender is **slowing down** the network speed. — [This is the unique auto speed adjusting function of ezCopy™.](#)

- x1: Real-time amount lost.
- x2: delay of package sending reset by ezCopy™.
- x3: "online number" of the package-losing receiver. — the receiver is the computer with slower clone speed. To increase the clone speed, please turn off the receiver which is always on display.

### **5-13 What does it mean if "DelayUs=x1" appears on the sender?**

This is the test information in Beta version. It will not affect the normal use at all. The sender is **increasing** the network speed. — [This is the unique auto speed adjusting function of ezCopy™.](#)

- X1: delay of package sending reset by ezCopy™. This figure is always less than the previously displayed one by 7. To reduce the delay of package sending is to increase the net-clone speed.

### **5-14 Why the speed is not increased distinctly even with the shut down of the**

### **slowest computer?**

Because the clone speed displayed is "average speed". However, if you divide the increment of cloned sectors by the increment of time, you will find the "real time speed" has been increased considerably, which must be faster than "average speed".

### **5-15 Why the clone speed will decrease significantly and then increase slowly if I plug the network cable back to a receiver within several seconds after disconnection?**

Because the clone speed displayed is "average speed". If you plug the network cable back to a receiver within several seconds after disconnection, the sender will resend the data which is not received to that receiver, the time to be used for the resending will be more than the disconnection time, and therefore, the "average speed" will decrease significantly. As the "real time speed" will be higher than the "average speed", the "average speed" displayed will consequently increase slowly. Theoretically, provided with sufficient data to be cloned and sufficient cloning time, the "average speed" will finally be equal to the "real time speed".

### **5-16 What does it mean if "serial number: n.m"" appears on the sender?**

"m" is the serial number of the online computer. Move the cursor in the monitor zone of the online computer, "serial number" and "IP" will change accordingly. In addition, "n" is the times of net-clone already done.

### **5-17 What are the differences between "online, offline" and "log in, register" as displayed on the sender?**

They don't have differences in ezCopy™ 3.11 version in which the software only uses two marks of "online, offline". "long in, register" is not used for the moment, however, they are kept for future function extensions.

### **5-18 Why is ezCopy™ always being booted as a sender?**

- Check how many pieces of NICs are in the computer. Please refer to 3-5 and 3-6 for specifying a certain NIC.
- If there is only one NIC in the computer, please check network cable and its connection.