

# PROUD

Portable Recovery of Unique Data

## HOW-TO GUIDE

## Table of Contents

Table of Contents.....	2
Unpacking <b>PROUD</b> .....	3
The <b>PROUD</b> Inventory .....	5
Connecting <b>PROUD</b> up .....	6
5.25-inch floppies.....	6
3.5-inch floppies.....	6
5.25-inch floppy diskettes .....	7
Starting the software .....	7
Discovering the correct Disk Type .....	7
Imaging the diskette .....	8
Extracting files from the image .....	8
3.5-inch floppy diskettes .....	10
Extracting files from the disk .....	10
Zip disk .....	11
Extracting files from the disk .....	11
Memory cards.....	12
Extracting files from the card .....	12
Hard drives .....	13
Extracting files from the disk .....	<b>Error! Bookmark not defined.</b>
Unpacking <b>PROUD</b> .....	15

# Unpacking PROUD

When you open **PROUD**, you will see:



**Note:** Once you remove the equipment you need, leave the unglued foam pieces inside the box so they don't get lost.

Most of the packing foam is glued in (exceptions noted below). Do **not** try to remove glued-in foam! You will damage the box!

In the left compartment, you may remove the top piece of foam to reveal the 5.25 floppy disk drive, the attached controller, and power cord.



Below the disk drive is another piece of removable foam, underneath which is an HP laptop.



In the right compartment, is a black cloth bag containing several more cords and drives, which will be inventoried on the next page.





## The PROUD Inventory



1. ComboDock power cord
2. Laptop power cord
3. Combodock IDE
4. CRU Forensic ComboDock
5. 5.25" floppy USB cord
6. Acuvlar memory card reader
7. ComboDock USB cord
8. ComboDock eSATA cable
9. 5.25" floppy power cord

10. ComboDock SATA cable
11. ComboDock adapter
12. Firewire cable
13. Zip disk drive USB cord
14. Iomega Zip disk drive
15. 3.5" inch floppy disk drive



## Connecting PROUD up

All **PROUD** cords and cables have tape labels to help you match them with the machines they belong with.

### 5.25-inch floppies

You will need:

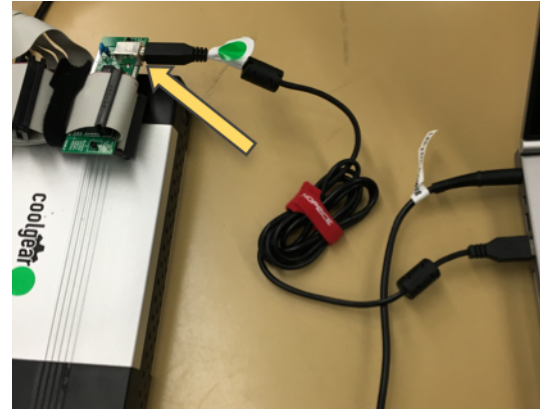
- HP **laptop** and its power cables
- 5.25-inch floppy drive
- **USB cable**

Power connections:

- Connect the HP laptop's **power cable** to its socket on the left side near the hinge. Plug it in.
- Plug in the drive's power cord.

Laptop connections:

- Connect the drive's USB cable to the laptop.



### 3.5-inch floppies

You will need:

- HP **laptop** and its power cables
- 3.5-inch floppy drive

Power connections:

- Connect the HP laptop's power cable to its socket on the left side near the hinge. Plug it in.

Laptop connections:

- Connect the drive's USB cable to the laptop.



Firewire port

USB ports

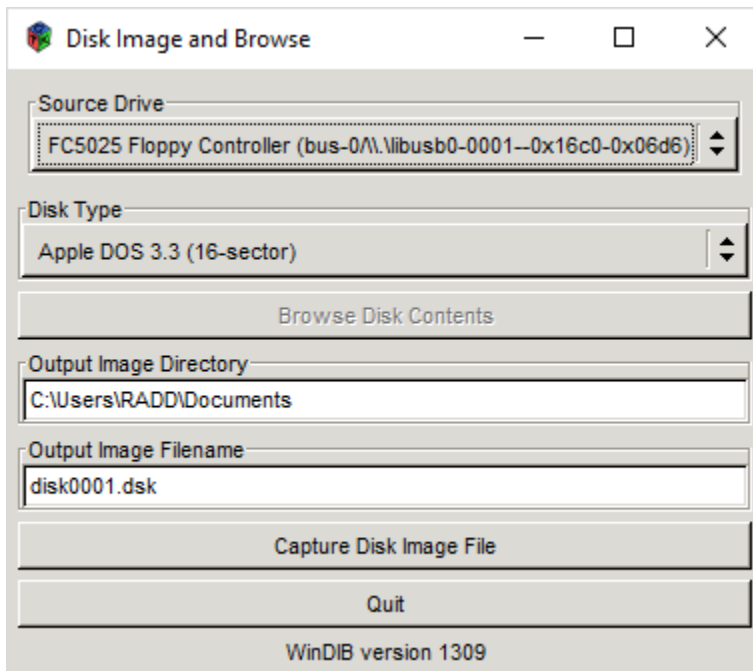
## 5.25-inch floppy diskettes

Write-protect the diskette by putting a small piece of electrical tape over the square notch(es) on the side(s) of the sleeve. (Most diskettes have only one notch; double-sided diskettes have two.)

Once you have connected the FC5025 to the laptop via the USB cable and plugged it into a power source, insert the floppy diskette into the drive label-side up.

### Starting the software

- From the Windows Start menu, choose the “USB Floppy Disk” folder, then “Disk Image and Browse.” The resulting screen looks like:



- Make sure the “Output Image Directory” is set to the Desktop.

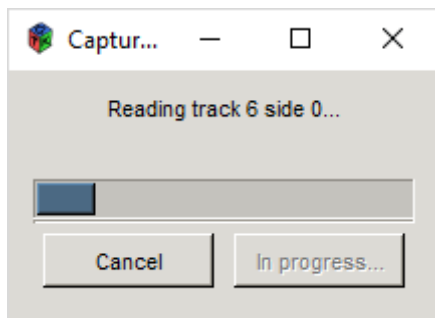
### Discovering the correct Disk Type

Try to find out what kind of computer the diskette was originally used on. That will help you narrow the possibilities.

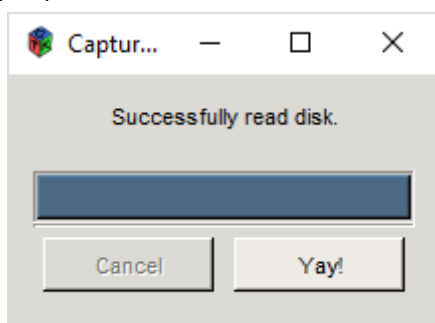
- Click on the box underneath "Disk Type." Choose your best guess about the diskette. By far the commonest types are "MS-DOS 360K" and "MS-DOS 1200K."
- Click "Browse Disk Contents." If the result is a file listing, you have found the correct Disk Type! If not, try other Disk Types until one works. If none works, the diskette is probably unreadable.

## Imaging the diskette

- If you wish, choose a name for the output image in "Output Image Filename." **Keep the same three-letter file extension** (it may be ".dsk" or ".img" depending on Disk Type).
- Click "Capture Disk Image File." A window will pop up:



- When the capture is complete, another window will pop up:



## Extracting files from the image

You can do this with Disk Image and Browse, but it is tedious if there are many files on the diskette. The faster way:

- From the Windows Start menu, launch WinImage.
- Choose File → Open, and browse to the disk image you created.

- From the resulting file listing, choose the files you wish to extract (shift-click to choose several in a row; ctrl-click to pick and choose).
- Right-click on the selected file(s) and choose "Extract."
- Choose a location to save the file(s) to.



## 3.5-inch floppy diskettes

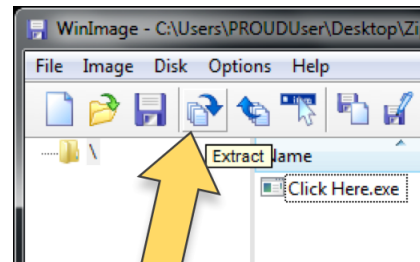
Plug the 3.5-inch floppy disk drive into the laptop via its USB connection, and insert the floppy diskette into the drive label-side up.

Now write-protect the floppy disk by switching the notch on the back to the open position.



### Extracting files from the disk

- From the Windows Start menu, launch WinImage.
- Choose File → Open, and browse to the Floppy Disk Drive.
- Choose Disk → Read disk
- Under File → Save, save as an "Image file .ima"
- Choose a location to save the disk image to.
- Now click the Extract icon (pictured right).
- Browse to find the disk image you just saved.
- Click OK to extract the file(s).



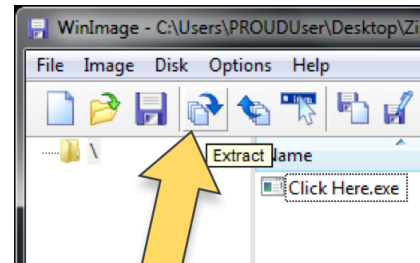
## Zip disk

Plug the Iomega Zip disk drive into the laptop via its USB connection, and insert the Zip disk into the drive label-side up.



## Extracting files from the disk

- From the Windows Start menu, launch WinImage.  
Note: make sure all other windows are closed.
- Choose Disk → Use removable disk F:
- Choose Disk → Read disk.
- Under File → Save, save as an "Image file .ima"
- Choose a location to save the disk image to.
- Now click the Extract icon (pictured right).
- Browse to find the disk image you just saved.
- Click OK to extract the file(s).



## Memory cards

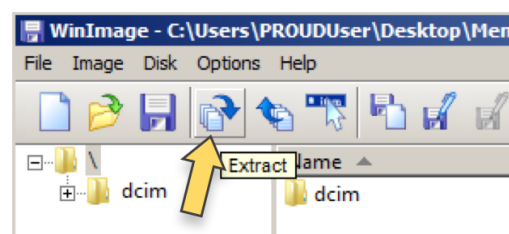
If possible, write-protect the card by sliding the notch on the side of the card to lock.

Plug the Acuvor card reader into the laptop via its USB connection, and insert the memory card into the slot in which it fits. **Note:** be very careful with the slots containing pins inside, they are delicate and can break easily.



## Extracting files from the card

- From the Windows Start menu, launch WinImage.
- Choose Disk → Use removable disk
- Choose Disk → Read disk
- Under File → Save, save as an "Image file .ima"
- Choose a location to save the disk image to.
- Now click the Extract icon (pictured right).
- Browse to find the disk image you just saved.
- Click OK to extract the file(s).



# Hard drives

## Setting up the ComboDock

Plug the CRU Forensic ComboDock into the laptop via its USB cable. Attach its power cable and plug it in.

Examine the back of the hard drive to pick out the appropriate cable(s) to attach the drive to the ComboDock. (Whichever cable fits is the correct cable.) **Note:** The SATA cable handles both power and data. Other data cables may need to be supplemented with the four-strand power cable.

Turn the ComboDock on. Press "Enter" to select write-blocked mode. The ComboDock should now be able to read from the drive.

**Tip:** If possible, stand the drive on a narrow end rather than flat on a surface while it is in use; this will keep it cooler.

## Making a disk image

The disk image is your archival fonds (master).

- From the Windows Start menu, launch FTK Imager Lite.
- Choose File → Create Disk Image...
- In the next window, choose Physical Drive.
- From the dropdown, choose the option representing the drive attached to the ComboDock. It will usually be last in the list.
- In the Create Image window, click the Add button.
- Choose .E01 as the disk image format.
- Add any metadata you wish in the next window (optional).
- In the next window, click the "Browse" button to choose a destination for the image. Type a filename for the image in the "Image Filename" box.
- **IMPORTANT:** Set both "Image Fragment Size" and "Compression" to 0 (zero)!
- Click "Finish."

## Extracting files from the disk image

- Open FTK Imager Lite.



- Choose File → Add Evidence Item.
  - (Ignore File → Image Mounting. This sounds like what you should do, but isn't.)
- In the Select Source window, choose "Image file."
- In the Evidence Source Selection window, click Browse... and navigate to the image file.
- Click Finish.
- In the "Evidence Tree" portion of the resulting window, there is a directory tree you can navigate to.
- Right-click on any file or directory you wish to export.
- Choose "Export Files..."
- Choose a destination folder to export the files to. (You may click "Make New Folder" if you like.)
- Click "OK."



