

Slash Dot Dash

Rolling on Rails

Mon, 14 Aug 2006

Create ISO CD/DVD image (.iso) with Mac OS X Tiger (10.4)

Posted by [Bogdan](#) on 08/14/2006

1. Insert CD/DVD source
2. Fire up a Terminal, you can then determine the device that is you CD/DVD drive using the following command:

```
$ drutil status
Vendor   Product      Rev
MATSHITA DVD-R    UJ-835E     GAND

      Type: DVD-ROM           Name: /dev/disk1
Cur Write: 8x DVD         Sessions: 1
Max Write:  8x DVD         Tracks: 1
Overwritable: 00:00:00     blocks:      0 / 0.00MB / 0.00MiB
Space Free:  00:00:00     blocks:      0 / 0.00MB / 0.00MiB
Space Used:  364:08:27    blocks: 1638627 / 3.36GB / 3.13GiB
Writability:
Book Type: DVD-ROM
```

3. Umount the disk with the following command:

```
$ diskutil unmountDisk /dev/disk1
Disk /dev/disk1 unmounted
```

4. Create the ISO file with the dd utility (may take some time):

```
$ dd if=/dev/disk1 of=file.iso bs=2048
```

5. Test the ISO image by mounting the new file (or open with Finder):

```
$ hdiid file.iso
```

6. The ISO image can then be burnt to a blank CD/DVD.

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Pete <primeone@aci.on.ca> 5 months later:

I tried your script in Terminal but when I got to creating the iso file I was deied permission on my own computer. Do you know why that may have happened?

Nathan 6 months later:

Pete, you need to create the ISO file in a directory in which you have write access. Under OS X this is by default your home directory and everything inside it. This is basic Unix stuff, and I'd recommend you spend a few minutes with a Unix command line primer before you use a command like **dd** which has the potential to write garbage all over your hard drive. That said, here's what you need to know for this application.

Either switch to a writable directory before invoking **dd**, using the **cd** command, or specify a writable directory within the arguments to **dd**.

You may use the **cd** command alone to switch to your Home directory, or you may specify a directory such as your Desktop folder:

```
cd ~/Desktop
```

If you would rather specify the path to a writable directory when you invoke **dd**, it's just a matter of placing the path before the output filename, like in this example:

```
$ dd if=/dev/disk1 of=~/Desktop/file.iso bs=2048
```

which would place the ISO file on the desktop. Hope this helps.

painless 6 months later:

such a simple way to solve a trivial problem. works great.

Frank 6 months later:

Can the iso then be opened with, say, Daemon Tools of Win32? Or, more importantly, in Ubuntu?

Ben 6 months later:

Can the iso then be opened with, say, Daemon Tools of Win32? Or, more importantly, in Ubuntu?

It should create a standard ISO file that can be mounted via either of those, I think the commnd below should do the trick under Linux:

```
mount file.iso -t iso9660 -o ro,loop /mnt/<mount point>
```

Chill 6 months later:

Hi followed your instructions and have successfully created the iso file but im unable to mount it, have tried it on two different audio cds now with no luck. below is the verbose output from hddid

```
power-mac-g5:~ Chill$ hddid ~/Desktop/bunasocail.iso -verbose
DIBackingStoreInstantiatorProbe: interface 0, score 100,
CBSDBackingStore DIBackingStoreInstantiatorProbe: interface 1, score -1000,
CRAMBackingStore
DIBackingStoreInstantiatorProbe: interface 2, score 100,
CCarbonBackingStore DIBackingStoreInstantiatorProbe:
interface 3, score -1000,
CDevBackingStore DIBackingStoreInstantiatorProbe: interface 4, score -1000,
CCURLBackingStore DIBackingStoreInstantiatorProbe: interface 5, score -1000,
CVectoredBackingStore
DIBackingStoreInstantiatorProbe: selecting CBSDBackingStore
DIFileEncodingInstantiatorProbe: interface 0, score -1000,
CMacBinaryEncoding DIFileEncodingInstantiatorProbe: interface 1, score -1000,
CAppleSingleEncoding
DIFileEncodingInstantiatorProbe: interface 2, score -1000,
CEncryptedEncoding DIFileEncodingInstantiatorProbe:
nothing to select.
DIFileEncodingInstantiatorProbe: interface 0, score -1000,
CUDIFEncoding
DIFileEncodingInstantiatorProbe: nothing to select.
DIFileEncodingInstantiatorProbe: interface 0, score -1000,
CSegmentedNDIFEncoding DIFileEncodingInstantiatorProbe: interface 1, score -1000,
CSegmentedUDIFEncoding
DIFileEncodingInstantiatorProbe: interface 2, score -1000,
CSegmentedUDIFRawEncoding
DIFileEncodingInstantiatorProbe: nothing to select.
DIDiskImageInstantiatorProbe: interface 0, score 0,
CDARTDiskImage DIDiskImageInstantiatorProbe: interface 1, score 0,
CDiskCopy42DiskImage
DIDiskImageInstantiatorProbe: interface 2, score 0,
CNDIFDiskImage DIDiskImageInstantiatorProbe: interface 3, score
-1000,
CUDIFDiskImage CRawDiskImage: data fork length 0x00000000E40DF80 (239132544) not a multiple of 512.
DIDiskImageInstantiatorProbe: interface 5, score -100,
CRawDiskImage DIDiskImageInstantiatorProbe: interface 6, score
-100,
CShadowedDiskImage DIDiskImageInstantiatorProbe: interface 7, score 0,
CSparseDiskImage
DIDiskImageInstantiatorProbe: interface 8, score -1000,
CCFPlugInDiskImage DIDiskImageInstantiatorProbe: interface
9, score -100,
CWrappedDiskImage DIDiskImageInstantiatorProbe: nothing to select.
DIDiskImageNewWithBackingStore:
probe fails to find appropriate CDiskImage class.
DIHLDiskImageAttach() returned 106 {type = immutable, count = 0,
capacity = 0, pairs = ()}
hddid: attach failed - not recognized
```

Ben 6 months later:

@Chill

This is because mount only works on filesystems and Audio CDs do not have filesystems; they just have data.

Sean 6 months later:

I've got 22 "iso images" generated using this technique, not from audio discs, all were mounted as filesystems, none of which appear mountable.

My shell history shows:

```

35 12:10 drutil status
36 12:10 diskutil unmountDisk /dev/disk2
37 12:11 dd if=/dev/disk2 of=disc07of19.iso bs=2048
38 12:20 diskutil eject /dev/disk2

```

but hdid says:

```

hdid disco7of19.iso -verbose
DIBackingStoreInstantiatorProbe: interface 0, score 100, CBSDBackingStore
DIBackingStoreInstantiatorProbe: interface 1, score -1000, CRAMBackingStore
DIBackingStoreInstantiatorProbe: interface 2, score 100, CCarbonBackingStore
DIBackingStoreInstantiatorProbe: interface 3, score -1000, CDevBackingStore
DIBackingStoreInstantiatorProbe: interface 4, score -1000, CCURLBackingStore
DIBackingStoreInstantiatorProbe: interface 5, score -1000, CVectoredBackingStore
DIBackingStoreInstantiatorProbe: selecting CBSDBackingStore
DIFileEncodingInstantiatorProbe: interface 0, score -1000, CMacBinaryEncoding
DIFileEncodingInstantiatorProbe: interface 1, score -1000, CAppleSingleEncoding
DIFileEncodingInstantiatorProbe: interface 2, score -1000, CEncryptedEncoding
DIFileEncodingInstantiatorProbe: nothing to select.
DIFileEncodingInstantiatorProbe: interface 0, score -1000, CUDIFEncoding
DIFileEncodingInstantiatorProbe: nothing to select.
DIFileEncodingInstantiatorProbe: interface 0, score -1000, CSegmentedNDIFEncoding
DIFileEncodingInstantiatorProbe: interface 1, score -1000, CSegmentedUDIFEncoding
DIFileEncodingInstantiatorProbe: interface 2, score -1000, CSegmentedUDIFRawEncoding
DIFileEncodingInstantiatorProbe: nothing to select.
DIDiskImageInstantiatorProbe: interface 0, score 0, CDARTDiskImage
DIDiskImageInstantiatorProbe: interface 1, score 0, CDiskCopy42DiskImage
DIDiskImageInstantiatorProbe: interface 2, score 0, CNDIFDiskImage
DIDiskImageInstantiatorProbe: interface 3, score -1000, CUDIFDiskImage
DIDiskImageInstantiatorProbe: interface 5, score 100, CRawDiskImage
DIDiskImageInstantiatorProbe: interface 6, score -100, CShadowedDiskImage
DIDiskImageInstantiatorProbe: interface 7, score 0, CSparseDiskImage
DIDiskImageInstantiatorProbe: interface 8, score -1000, CCFPlugInDiskImage
DIDiskImageInstantiatorProbe: interface 9, score -100, CWrappedDiskImage
DIDiskImageInstantiatorProbe: selecting CRawDiskImage
DIDiskImageNewWithBackingStore: CRawDiskImage
DIDiskImageNewWithBackingStore: instantiator returned 0
DI_kextWaitQuiet: about to call IOServiceWaitQuiet...
DI_kextWaitQuiet: IOServiceWaitQuiet took 0.000006 seconds
DIHLDiskImageAttach() returned 108
{type = immutable, count = 0, capacity = 0, pairs = (
)}
hdid: attach failed - no mountable file systems

```

A bit of a shame. Anyone got any ideas how I might recover data from those images?

Sean 6 months later:

OK, more on the problem. When these CDs are inserted the device mounted is /dev/disk2so so using dd to capture the

disk2so image rather than the disk2 image leaves me with a mountable .iso image.

Now I need to find out the difference between the disk2 and disk2so so I can retrieve the data from images previously captured.

Anyone have any advice for me?

Chibo 7 months later:

try to use /dev/disk2so or /dev/disk2/s1 instead in dd ls /dev/disk2* and you will see the sessions, for example dd if=/dev/disk2so of=filename.iso bs=2048

Alja 7 months later:

Thanks, no problems helped me a lot.

Joe 8 months later:

I tried this but the iso was unreadable. It was an iso of WinXP to use in Parallels.

Carlos Po 8 months later:

Very well

pellucidity 8 months later:

I concur, for CDs you want to take the slice (/dev/disk3so for me) rather than the whole raw image. For DVDs I found that the whole disc did the trick.

kfox@gfsnet.org 9 months later:

Hi i got it to work but how do i controll whats in the .iso image?

ee9 9 months later:

Why use the terminal when you have this tool:

<http://www.utilforge.com/fastiso/>

Mr20 07 9 months later:

Because they want \$24.99 for that tool, and the terminal includes dd and many other apps of free.

?????(Shantanoo) 9 months later:

My favorite:

- install [darwinports](#)
- install cdrtools from ports with **sudo port install cdrtools**
- use mkisofs to create iso image. e.g. **mkisofs -o isofile -J -r -R directory**

Creates *isofile* containing the data inside *directory*

For more information checkout man pages of respective commands.

Kenny 10 months later:

Hi, i tried your thing and i can seem to locate the iso file. is this not a permanent iso creation like stored in the cache or is there a specific place im not looking. also in when i check the file after i am done creating it says ~\$ hdid file.iso hdid: attach failed – not recognized

whats up with that? little help please thanks

Jack 10 months later:

I am also having trouble with this method.

I'm just trying to make an image of my Brood War cd so I dont need the disk with me.

After I run the commands and try to mount the image it just gives me an error and will not mount. Any idea what im doing wrong, and is there some free software to do this?

webbov9579@gmail.com www.mvspace.com/mrouslev

Dave 10 months later:

I couldn't get the tip to work on my system, maybe it was the CD?

The following worked for me:

- Put CD in drive, Open Application/Disk Utility
- Select the cd from the list on the left
- click on file -> disk image from disk2co (nameofcd)

This creates a .dmg, now we have to convert it to an .iso:

- run "hdiutil convert disk2so.dmg -format UDTO -o file"
- rename .cdr file to .iso
- mount to test image

all done.

[Rees Clissold](#) 10 months later:

- Dave:

In Disk Utility, you can create .cdr files anyway, without the need to convert from dmg. You just need to select "CD/DVD Master" as the type.

- Everyone else:

This is a great tip on using DD – it's certainly one of the more useful Unix utilities. Potential users should be warned, however, that it's very easy to mess up your hard disk with this utility and it's not to be played with if you don't do your homework first!

An 11 months later:

Guys

I have did the script from Terminal of Ben, it worked for DVD but not CD. Dave's solution works with CD.

Thank you all. Cheers

Darkman 11 months later:

You saved me EEX with fastISO. This solution for some reason did not work with my parallels and I needed to load XP pro but my disk was producing an error. Used the program and worked like a charm. Now I can install my accounting software upgrade which does not work with VISTA.

win-idiot... 12 months later:

win idiot as me knows dd to do the raw copy.. hiahia

Julia 12 months later:

```
$ dd if=/dev/disk1 of=file.iso bs=2048
```

has to be replaced by

```
$ dd if=/dev/disk1so of=file.iso bs=2048
```

when using certain disks.

Find out when by using the command

```
df -h
```

benjk about 1 year later:

It doesn't work.

wasted some 2+ hours and 30+ CDs trying out every method I could find on various websites, including the ones described on this page.

It is appalling that Apple doesn't support ISO writing and if I was an average IT manager in a company considering the purchase of Macs, I would quite probably block any decision in favour of Macs on this ground alone.

ISO is a widely adopted international standard, Apple should absolutely have no second thoughts whatsoever to support the creation of ISO images under MacOS X.

This is one of those things that gives us Mac users a bad name, especially when we try to explain how easy things are on a Mac and then how few people would need to do a thing that it can't do easily or can't do at all.

Somebody smack the product manager at Apple who is responsible for making Disk Utility a piece of crippleware, thanks.

ergophobe about 1 year later:

benjk,

If you were an average IT manager, you would have used 1 CD-RW instead of wasting 30+ CD-R's experimenting.

Of course, you also would have been able to get it working because dd is a widely adopted international standard *nix tool for creating images of disks.

I will agree that Apple should be spanked for not providing proper CD burning/imaging tools.