```
K:\Area51\area51>chdman -extract area51t.chd area51t.img
chdman - MAME Compressed Hunks of Data (CHD) manager 0.89 (Nov 24 2004)
Input file:   area51t.chd
Output file:  area51t.img
Extraction complete!
```

CF to IDE adapter in place on Area51 PCB (click above for larger image)

I won't go into all the details of using Dolly to get an image copied on to a new drive (a good tutorial with all you need to know is here), but suffice it to say that within ~15 minutes of getting the Area51 image downloaded I had it copied over onto a "Kingston 2GB Elite Pro" Compact Flash card. (Simply treating the CF+IDE adapter as any other harddrive with Dolly.)

I used a CF to IDE adapter that plugs directly in to the 40 pin IDE connector to eliminate the need for any cables. With my Area51 board and new CF->IDE drive in place I applied power to my test rig and... Success!

Area51/CF Running (click above for larger image)

Compact Flash in this application eliminates most all of the drawbacks to hard disk use (moving parts, cooling, performance degradation over time, etc.) and incurs none of the penalties associated with solid state CF cards. (Since the HD's in arcade games are generally read only, Compact Flash's relatively slow write speed and potential sector 'wear' issues are basically moot.)

Compact Flash may well have advantages in some applications since there is virtually no 'seek' time which improves random access performance. The overall burst datarate may not be as good as an IDE harddrive, but game may not rely on that.

I tried the same experiment with a Judge Dredd boardset (Aklaim-- using a Sony ZX hardware platform) and did not have success with it. It's possible that the CF card was coming ready too fast or too slow for the firmware, or some other difference. YMMV.

Once 4GB CF cards drop some more I'll give them a try in the San Francisco Rush and Guantlet Dark Legacy machines we have in at Ground Kontrol.

Compact Flash cards come in a variety of speed variations-- some will read as slow as 4Mbytes/sec, others as fast as 12Mbytes/sec. The 2GB card I have probably falls in the 6-8Mbyes/sec range, so it's possible that a faster (or even slower) card may work well in some applications.