

uch has happened in the past month. A beta version of MacDEU has surfaced, MacHexen appears to be approaching beta test, and a new party has begun an effort to build a new MacDoom WAD editor from the ground up.

Rumors

The big rumor is that MacHexen will hit the beta test stage any minute now. I can't say too much about this because I'm privvy to some information that cannot be revealed. You'll know more when the time is right -- there's no use drooling over something you can't have yet anyway.

Here's what we know so far:

1) Presage Software is previewing MacHexen to a select few developers at Macworld in San Francisco as I complete this issue of MDR. (My kingdom for a plane ticket...)

2) WAD loading and single/multi-player options will be available from the File menu during gameplay, not just on startup like with MacDoom! This means you will be able to load and unload WAD files and start multiplayer games without rebooting!! Mac-to-Mac networking was almost complete as MDR went to press. You'll be able to join a game already in progress, and there's a chance that eight-player support will be included!

3) Sound and music is completed. Saving and loading games works. Things remaining to be done include addition of high-resolution graphics as well as support for joysticks and PC-Mac networking. Oh yeah, and the About box isn't finished.

4) A demo version will be forthcoming. The shareware version will likely be identical to the PC shareware edition of Hexen, small enough to download off the Internet.

MacHexen programmer Gary Arnold, of Presage, reported on the state of the game as of Jan. 13:

"Last night a couple coworkers and I spent about five hours playing a three-player net game of Hexen. I have to admit, it wasn't fun...

"It was a religious experience.

"I liked Doom when it first came out (on the PC). I thought a Marathon deathmatch was great fun (and still do). But NOTHING can compare to Hexen's deathmatch. We squashed, bashed, sliced, fried, crunched, froze, porkelated, and generally butchered each other nonstop, and it was a blast! If you haven't played it on a PC yet, do so! Of course, you can wait for the Mac version, but I'd find it hard to wait.. ;)

"Hexen is absolutely 100 percent compatible with homebrew WAD files, confirmed yesterday. (With the caveat that MIDI information will be ignored, since we have a special Mac-only MIDI file.) I've used both the main Hexen WAD file and a third-party WAD file that id sent us with NO modification whatsoever. Unzipped it, ran Hexen, and away I went. I was surprised to discover tonight that PC Hexen doesn't seem to support multiple WAD files. Maybe I'm not doing it right, but whenever I run it and try to load more WADs, nothing special happens...same ol' game. This is also true for respawning and "fast" monsters... those are no longer options, except in Nightmare mode."

More to come... Maybe there will be some really good news in February!

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There are no WAD editor rumors this month. Just news. Things are definitely picking up...

MacDEU Beta Surfaces

A beta version of a straight DEU v5.3b9 port by James Knight <jknight@ai.mit.edu> has been released. It can read and write map files, but the map files that it writes -- if they require node building -- are not currently compatible with MacDoom for some reason. It may be a bug in the PC code, which is itself a beta version, or a problem introduced by the port. Give it time...

Besides, there's a another way to build nodes on a Mac. Read on!

For now, you can start to learn the very DOS-like interface and figure out some of the ins and outs of map file editing. (Read this month's The Icon Speaks column for some tips on getting started.)

Be warned that this version of MacDEU is a Mac beta of a PC beta version of

DEU. It's prone to bugs. Expect crashes, or, as James Knight says in the READ ME, "save often."

Knight, who is a high school junior, told MDR a little about the port:

"I just did it by myself. I really didn't need to do much. I just ported it DIRECTLY from the PC version. That's why the interface is like it is.

"If you want tips, look around some IBM Doom sites. They have DEU tutorials, and map-making specs, etc. The DEU stuff won't be quite right, since this is a beta, and the interface changed (from the previous PC release)."

Hopefully, Knight will continue to enhance MacDEU, adding a Preferences interface for the INI file, a friendly Mac tool palette for graphics mode (or just plain elimination of the command line), draggable maps, and a fix so that WAD files are compatible with the Mac versions of Doom and Doom II.

Or perhaps he'll join forces with other Doom WAD editor designers to help fashion the next generation of MacDEU.

Either way, the starting gun just went off. We've got a WAD editor!

For your convenience, a copy of the MacDEU beta is included with this month's MacDoom Review.

For updates and information, the MacDEU home page is at:

<http://www.ai.mit.edu/people/jknight/macdeu.html>

MacBSP builds nodes

Just as we were despairing over the inability to build proper nodes with MacDEU, along came word from Thomas Hart <tomh@netzone.com>. It seems that Hart got tired of using a 386-based PC to build nodes, a process that often took several minutes. So he ported BSP, a PC node builder, to the Power Mac -- and now the build time takes only a few seconds!

The good news is that this will work in tandem with MacDEU to make levels that involve new or modified maps playable with MacDoom. The process is described briefly in The Icon Speaks column, but I'll warn you now: the interface isn't very pretty. Expect improvements down the pike. Hart plans to make the program work as a drag-and-drop grinder, eventually.

Look for the latest at:

<http://www.netzone.com/~tomh/macbsp.html>

No word on whether he'll make it compatible with 68K-based Macs. If not, and all you have is a Quadra, you'd better make friends with a PPC owner. Build your map to perfection, and then see if you can find someone to run the node builder for you.

Either that, or wait for new and improved tools to arrive. They're certainly beginning to roll in.

The Other MacDEU Project

Walter Duque de Estrada appears to have fallen off the face of the Earth. (Maybe he's on Mars, taking back the base in Ultimate Doom?) Attempts to send e-mail resulted in bounces, so it's not clear on where his effort to port DEU to the Mac has landed. If anyone hears anything, please pass it along to MDR.

A New WAD Editor

This message from Kenneth Johnson <kennethj25@aol.com> speaks for itself.

"Hello, my name is Kenneth Johnson and I've been playing Doom since it first came out for the PC. I've downloaded both issues of your magazine MacDoom Review and would like to say, excellent work. I am absolutely a Macintosh person, so I was very happy when Doom came out for the Mac. I was dismayed to find that no WAD editors existed on the Mac. I could not find any so I decided to write one myself.

"I've been keeping quiet about the effort because I did not want to say I was doing it and then find out that I wasn't able to pull it off. Recently, though, I've made a few breakthroughs and it looks like it can be done. I'm writing it completely from scratch (no ports) and am using the DMSpec16 document as a guide. It seems to contain all the info necessary. I am writing it in pure C++, using Symantec's compiler (I used to work as developer support person for Symantec C++, so I'm partial to it).

"Right now the application is an extreme alpha version and does not do much. What it does do is read in all of the WAD data into a Class based structure for manipulation. This part works real well. In addition (to test things out) it will also display a level map (vertices and linedefs) of the WAD file. That's it. Basically, now that I can read in a WAD, all I have to do is create a user interface to allow the user to edit it (and also to create new

levels from scratch) and then write code that writes the data structures back out to a WAD file. Really it has not turned out to be that difficult.

"One thing that really tripped me up when I was writing the code to read the WAD format, I would like to pass along. A PWAD file is basically binary data written to the files data fork. It was a simple matter to read this data into the structures I set up based on the spec. When I examined these values, however, they all were wrong (unreasonably large numbers as offsets for example). This was real confusing until a buddy of mine who is a PC programmer reminded me that the Intel x86 family of chips is what is called BIG ENDIAN, whereas a 68K Mac (I am using an 840av) is LITTLE ENDIAN. What this means is that on the PC the least significant byte of any given 4 or 2 byte value is at the lowest point in memory for that structure. Whereas on the Mac the least significant byte is stored at the highest location in memory for that structure. Essentially if you read in 4 bytes of data from the WAD into a long (32-bit) integer, it comes in backwards. So what you have to do is flip the value around (i.e. Byte 1 becomes Byte 4 and Byte 2 becomes Byte 3, etc.).

"I am passing this along to you because this information is critical if one is going to be able to write code to read the WAD file and have it make sense. I wrote a function to flip the values and everything fell into place. Of course, the values have to be again reversed when the data is written back out to the WAD. You may wish to pass this info along to any of your readers who might also be writing level editors for Doom. What with PC people not being familiar with Macs, and vice versa, it may not be common knowledge.

"Feel free to reprint any part of this letter in your magazine. Also, I might be convinced to write an article on the issues involved in writing a WAD editor for the Mac. As a caveat though, I would like to say that I have very little free time to dedicate to writing this editor. I am in the middle of some (boring) commercial development work that keeps me way too busy -- so I have to steal time for this stuff. But I am very very interested in completing this editor."

That's it. Johnson wrote that the program is an "extreme alpha version" and that "it was a real kick when I first saw a Doom level layout drawn inside my editor's window."

I haven't received a status report from Johnson since December. Hopefully we'll hear something very soon. (Probably the day after this issue is released.)

-Dave Kramer
Editor, MacDoom Review

f you have any tips or news of any new Macintosh WAD tools not covered here, please send them along for a future issue of MacDoom Review. Drop an e-mail to reeltime@voicenet.com.