Final Comments

First let me thank everyone again for all the great input I got on HyperCuber version 1.0. There are a terrific number of new features in HyperCuber 2.0, and only some of them are my idea. If you have suggestions, I'd love to hear them, though I don't promise anything.

It's hard to say where I'll go from there. I've spent the past few weeks staring at walls thinking about arbitrary-dimensional hidden solid removal algorithms, and I almost have enough worked out to do something if I decide to. That would require a massive revamp of the program though, so I may just release a completely new program if I decide to make such a major change.

There are a lot of tweaks I could do. I could add QuickTime movie creation. I could implement "unmanned random rotation." I could add a feature to graph n-dimensional functions. I could even make it a screensaver. These are all fairly minor additions, but even minor additions take weeks. If I find a few spare weeks, I may add one of them. Then again, I may do something else if I get a few spare weeks.

There are more significant changes I could make as well. Since HyperCuber can display user-defined objects, it would be nice to have at least a rudimentary modeller so users could do it graphically. This would probably be quite complex, though, and I don't really expect to do this any time soon. Solid objects is another thing, though. I've been talking about them since I started this program and I still haven't done anything. The main problem is that I would feel bad doing hidden surface removal in the 3D to 2D projection and then not doing it in all the nD to (n-1)D projections. But I haven't seen any literature on n-dimensional hidden solid removal, so I suppose I would have to write my own. I may do that, but it won't be easy.

In other words, don't hold your breath for version 3.0; I suspect that it won't be out for years, if ever. But don't be surprised if HyperCuber 2.1 appears sometime soon. In fact, I almost guarantee that there'll be a 2.0.1 soon with bug fixes (it always works that way).

HyperCuber was written using Symantec C++ 6.0 (compiled with the 7.0 compiler), which, by the way, is a fabulous development environment. If anyone wants the source code, let me know and I'll give it to you.

Comments, suggestions, or bug reports are welcome. My email address is gregt@math.mps.ohio-state.edu. If you don't have email, you can send me a postcard or a note via snail-mail at

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Thanks for playing!