y Bart G. Farkas

Technology: The Future of Gaming?

For years, the Mac gaming market was fairly spartan having only a few big titles that took the lion's share of game profits. Even in recent years, some game developers have entered the Mac market specifically to take advantage of the relatively meager smattering of competition. As one developer put it, "There's just a much better chance of making money on the Mac because there's less competition." It could be argued that this basic reality of the Mac market has kept the Mac from really pushing the gaming envelope. After all, when you don't have to do something, you often don't. However, now game companies are hopping on the Mac Power PC band wagon like there's no tomorrow, and consequently the field is becoming more crowded. Competition like this is literally the mother of invention. When a multitude of companies are trying to fill each niche, it's often the company with the new, exciting technology that will win over the user. So with the Mac gaming field crowding up, let's take at look at the new technologies that we're likely to see emerging.

3DO: MPEG
The 3DO company announced at MacWorld that they're entering the PC hardware marketplace with their 3DO MPEGXpress Digital Video Encoding System. This is a real-time MPEG encoding system that will allow game developers to encode full-screen MPEG video and stereo sound on and for the Mac. This system can be used for content in the ever increasing number of video-based computer games as well as the music CD ROM market. It's too early to tell what the impact on the Mac will be, but with this cost effective method of MPEG encoding now available, it won't be long before we're seeing the fruits of this new product.

CyberFlix: Dream Factory 4
CyberFlix has long been a cutting edge company pushing the envelope from release to release. Their Dream Factory environment that made Dust so special is currently being upgraded to version 4 which will be implemented in their new title 'Red Jack's Revenge' (working title). Quoting CyberFlix directly, "Dream Factory is a set of multimedia authoring tools which allows the construction of 3D environments with rich textures and colors." According to CyberFlix's founder, Bill Appleton, Dream Factory 4 will change the way Cyber Puppets are handled. In version 4, when a character addresses you, he/she will be 3D

rendered with fluid movement and the ability to lean forward and back.

had a look at this particular effect at MacWorld Expo and I can tell you it was a VERY impressive effect. Bill says that DF4 will no longer limit movement to a grid with 90 degree turns. Instead, you'll be able to move on curves, and the perspective of the characters will be more dynamic. To quote Bill directly, "The way the camera handles perspective is different in that as you move through the environment and come upon an arched bridge over a babbling brook, it will seem like you are walking over the bridge (perspective goes up) and then back down as you reach the other side of the bridge." The other main addition CyberFlix was willing to tell us about is the incorporation of network capabilities. We can only guess what that'll be used for.

Horizon Technology, Inc.:   True Motion Video-S
Although the 3DO MPEGXpress system is impressive, it is a hardware based system that requires Nubus slots as well as the purchase of several cards. Horizon Technology, Inc. is taking a purely software approach to video compression with their True Motion Video package. This method uses frame by frame compression and non-sequential accessing of video segments. Basically this means that any frame or portion of a video stream can be accessed at any time. This could have interesting possibilities in video-based games where the players actions dictated the course of the storyline. Version 2.0.1 of True Motion Video-S for the Mac includes impressive support for the emerging Quicktime VR format. Although there are some titles currently available that have Quicktime VR support, this very cool technology has not been fully exploited in a computer game per se. Perhaps Horizon's True Motion Video-S software will be changing that in the future. Several computer and video-console-based games have been using this software to create video content in their games.

Shiny Objects: Catalyst

Shiny Objects' Catalyst is set to be a virtual reality gaming experience loosely fashioned along the lines of Marathon or Doom. However, Danny Wang at Shiny Objects is quick to point out that there will be newer technology incorporated into this new title (rumored to be released sometime in 96). Catalyst promises to incorporate as yet unseen effects such as smoke, curved corridors, bridges, and the ability to hide on the roof or walls of a room. Sounds interesting. Add to this the incorporation of fast network/modem play with no preset limit to the number of players and we just might see a ground-breaking game.

Good Ol' Fashioned Hardware: Apple, Power Computing

The other main area of technologic breakthroughs occurs right on your very own desks. We witnessed nearly Earth-shattering changes in the Mac gaming industry with the release of the ultra-fast Power PC based computers, and with hardware prices continuing to fall as fast as performance is increasing, we'll no doubt see another huge leap forward in power gaming in the next 2 years. Let's face it, most anyone can enjoy a pseudo technologic leap with the purchase of a Power Mac 604 with a 2 Gig hard drive and 32 Megabytes of RAM. If the software and hardware companies are lagging, whipping out your credit card can make you feel a whole lot better.