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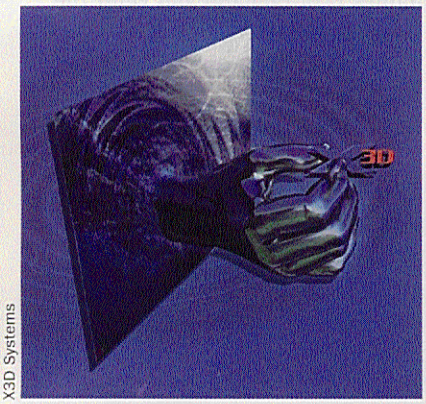
3D Video Cruising

IN 1953, my older brother took me to see a new type of movie. When we entered the theater, we were handed a special pair of eyeglasses containing a clear cellophane red lens and clear cellophane blue-green lens. The glasses made the movie, *The House of Wax*, jump right off the screen into the third dimension (depth).

I'm sure that I wasn't the only kid who tried to use the glasses at home. Sadly, the glasses didn't change two-dimensional TV images to 3D. With the help of my elementary school teacher, I learned how our two eyes give us stereoscopic vision.

For 3D movies, Hollywood developed a system that created two joined movie images that the color glasses separated into different movies for each eye. In 1953 it seemed that 3D television was just around the corner.

On October 1, X3D Technologies introduced to the press their 3D system that can, "on the fly," convert video games, DVD videos, and live television broadcasts into 3D viewing. At this press reception I had the opportunity to play 2D Spiderman Video Game that the system was converting to 3D on the fly.



X3D Systems

The technology made the super hero float ever so slightly in front of the CRT monitor. At the press reception, the most impressive 3D image for me was a giant rock floating in front of a very large plasma screen.

The concept behind this new technology is an updated version of what they did back in 1953. Back then, the red and blue-green color lens filtered the movie images so that each eye saw a slightly different view of the movie.

Today, to trick a person's eyes to see separate views of the same screen, the X3D hardware and software cause the CRT monitor to switch images many times per second between a left eye image and a right eye image. The X3D glasses contain lenses that change from clear to opaque in rhythm with the images on the screen.

When the left eye image is on the screen, the right eye lens is opaque and when the right eye image is on the screen, the left lens is opaque. The wired 3D glasses receive their signal and power through a cable.

The wireless glasses are battery powered and receive their signal from a small transmitter that works like a TV remote control. To understand how the eyeglass lens change opacity, read my January 2001 column, "Smart Windows."

To watch 3D television, you must purchase a TV Tuner Card for your desktop computer. To play video games and view DVD movies, you will also need a NVIDIA graphic accelerator card.

You also can't use a notebook computer unless you jack in a CRT monitor and add in the necessary cards. You can learn more about this new award winning technology (Best New Technology Award—Retail Vision Fall 2002, and Best of Show—Internet World Fall 2002), at **www.3dworld.com**.

Recalling the Facts

1. How did Hollywood create stereoscopic vision in the movie *The House of Wax?*
2. How does X3D Technologies create stereoscopic vision on your CRT computer monitor?

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