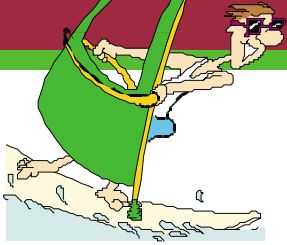


MID-CITIES PC USERS' GROUP

August 2002 Newsletter



Quips N' Tips

by Rick Howell

Last month I had the opportunity to travel to San Antonio to attend Siggraph 2002, the yearly conference of the computer graphics SIG of the ACM (Association for Computing Machinery). Siggraph is the place to go to see the latest in computer graphics, where industry giants like Industrial Light and Magic, Pixar, Sony and others showcase their latest productions. Hardware manufacturers like AMD, Intel, Hewlett-Packard, Silicon Graphics and Sun all try to entice computer graphics professionals with their latest offerings. If you want to see the future of computer graphics, this is the show to attend. I had not attended a Siggraph conference since 1989 when it was held in Dallas. I was so impressed with that show, I swore that if it ever came to town again I would attend. Unfortunately, it never did. When I heard it was going to be in San Antonio this year, I made plans months in advance to make time to go.

So, on Tuesday, July 23rd I hopped on the Southwest Airlines 7:00 AM flight to San Antonio, arrived in S.A. at 8:00 AM and by 8:30 was sitting on the riverwalk at the Hilton enjoying a delicious breakfast buffet watching the tourists' kids feeding the ducks and birds. Sure beat the heck out of the Bell Helicopter cafeteria. By 9:30 I had finished up the breakfast and walked across the street to the Henry B. Gonzalez Convention Center, a beautiful facility of which San Antonio can be very proud. After passing the Starbucks concession which had a line all day long, I roamed around the halls a little looking at artwork displayed by students using computer graphics as a media to produce images of their wildest fantasies. Some were breathtaking. I am very envious of those people who have such a wonderful talent and it is great to see them using computer graphics to enhance and develop their talents. It is a beautiful blending of art and technology.

Upstairs in the convention center the folks at Siggraph had set up an internet command center where you could go to check email or access the internet if you needed information. They also had set up a wireless network so people in the exhibit hall or anywhere

in the convention center could be connected via laptops or handheld PDAs. Also upstairs were two rooms which had been made into theaters showing computer generated animated short features all day. I ducked into one of these prior to the exhibit hall opening at 10:00 AM to check out the animations. They were super! Some were tragic, some were hilarious, some were action-packed thrillers. Most were three to five minute shorts of everything computer animation specialists could come up with. I quickly realized you could spend hours in this place. But the opening of the exhibit hall lured me away from the animation theaters for a while.

The first thing that caught my eye upon entering the exhibit hall was a hemispherical shaped screen which had a racing car game being projected upon its surface. This screen was about six feet in diameter and if you sat at one of the two seats in the middle of the screen, it looked like you were in the middle of the scene being projected onto the screen. It was kind of like a mini-Omni theater. The resolution on the six foot diameter screen was good enough to give you a sense of immersion into a virtual environment. Being prone to motion sickness, I didn't stay in the chair very long. The name of the company displaying the vision dome was Elumens. You can find them on the web at <http://www.elumens.com>. They also had a larger dome on display, but I was not impressed with the resolution of the image they were displaying at the time I saw it. That is not to

say it was not a high-resolution system, just that I did not see a high-resolution picture on the big dome.

Walking down the aisle, I came to the Silicon Graphics booth. These guys had a theater set up with a screen which must have measured about 30 feet by 12 feet. The screen wrapped around the audience in about 60 degrees of a semicircle. The resolution was amazing. They were displaying medical imaging and demonstrating how surgery on various muscles in the face would affect a person's facial expressions. They had several overhead projectors going simultaneously and the images were breathtakingly real.

MEETING NOTICE

by: George Miner

When: Tuesday, Aug. 13th, at 7:15 PM

Where: Haltom City Library, located in the 3200 block of Friendly Lane. See our web site for more specific directions. [Http://www.mcpcug.org](http://www.mcpcug.org)

Program: PC Troubleshooting. Presented by Steve Turner and George Miner. When your computer is sick, what should you do first? Come and find out.

Silicon Graphics has always been at the forefront of graphic technology. Check them out at <http://www.sgi.com>.

ATI used Siggraph to announce their newest graphics adapter the FireGLX1. This graphics card has an onboard FGL 9700 Visual Processing Unit and 256 MB of DDR RAM. Projected street price is in the \$400 range. <http://www.ati.com>

Of course AMD and Intel were there. AMD was demonstrating the “Hammer” and Intel, with nothing new had a bunch of supermodel-looking girls walking around handing out goodies to anyone who would stand around and watch a six-minute presentation. Not many of the computer geeks were watching the taped presentation. AMD did have a system hooked up to a new Nvidia graphics processor that controlled three LCD monitors simultaneously. That was impressive. <http://www.amd.com> and <http://www.intel.com>.

Nvidia was showing off their Quadro4 graphics workstations. Really impressive. <http://www.nvidia.com>

Industrial Light and Magic and Pixar were both there trying to recruit animators and computer graphics talent. They apparently have a huge backlog of work. ILM was also handing out a package to conference attendees. It was an obscure cellophane-wrapped little gray package which I just threw into my junk bag. When I got back to work on Wednesday, one of my friends who attended the show, asked me if I had opened the package ILM had given me. I said no, that I hadn’t gotten around to it. Then he showed me the contents of the package. It was a set of about eight 5 X 7 cards of pictures from Star Wars Episode 2 with comments on the back by the computer graphics supervisor on the film. It floored me. I could have gotten a dozen of those packages, but no, I just grabbed one and left. Oh, the stories of missed opportunities.

One of Jim Henson’s Puppet Masters was doing a show with a computer graphic puppet. He was holding a controller in each hand which controlled the mouth and facial expressions of a computer-graphic puppet displayed on a huge screen. I stood there at the side of the stage fascinated watching this guy change his voice as he manipulated several different CG characters displayed on the screen at different times, all the while maintaining a banter with the master of ceremonies during their presentation. It was awesome to see this talented guy entertaining the crowd from behind the scenes. He reminded me of the great and powerful Wizard of Oz. Pay no attention to the man behind the curtain.

I walked to another area of the exhibit hall and found myself attracted to the loud playing of salsa music coming from one of the displays. When I arrived at the source of the music there was a girl in a black body suit dancing in a cube about eight feet square and about three feet above floor level. Her body suit was adorned with thirty position sensors located at strategic points all over her body. The cube had receivers which transmitted the XYZ location coordinates of

each of the sensors back to the computer. The computer displays, conveniently located around the cube showed an animated mech-warrior robot dancing to the salsa music in moves which mimicked every move the girl was making in the cube. Real-time animation. It was really amazing that the computer could process so much data so fast.

Another technology that interested me was face and full-body scanning. There was a company there that had been hired by Sony to do a full-body and face scan of all the professional baseball players. These guys told me they scanned in about 900 baseball players in 5 days. The scans generate a computer image of the individual which can be manipulated with an animation program for games or interactive simulations. It will be interesting to see what Sony has in mind for all these scanned images. Probably a new Playstation baseball game with very realistic players.

One other technology I saw displayed but didn’t get a chance to play with was a tactile feedback system. You put on a glove and move your hand. This moves a hand on the computer screen which simulates your hand. Use your hand to make the hand on the screen pick up a can, move a steering wheel, etc, and actually feel the objects you see on the screen with the glove. It is the type of system doctors are using to simulate surgeries. While I was there the only ones I saw getting to use the system were the people running the display for Immersion and they were having problems with the system. It did look interesting though. [Http://www.immersion.com](http://www.immersion.com)

My flight back to Love Field was scheduled for 8:30 PM. The Exhibition ended at 5:00 PM. I had time to go back to the riverwalk for a little dinner and catch the shuttle back to the airport. I was home by 10:00 PM and feeling good about the prospects for the future of computer graphics. Hmmm, next year’s Siggraph show is going to be held in San Diego and they tell me West Coast shows are twice as big..... Wonder how much a Southwest ticket to San Diego is?

See y’all at the meeting.





Buying Time - Want a Laptop?

By Brent Ozar of The Tri-Cities, TN Computer Club



You've seen these slick ads touting cheap laptops, and you're starting to think about picking one up for yourself with your own funds. Or maybe Junior is enrolling in college this fall, and you're trying to decide whether to buy him a laptop, buy him a desktop, or just make him clean up that room and put on a pair of pants that actually fit correctly. Before you spend the money, let's take a look at some of the reasons why laptops are not for the faint of wallet.

Laptops are breakable. When (not if) you drop your first laptop and crack the flat panel screen, you're in for an expensive surprise. Each laptop uses its own proprietary screen and connectors, so you'll need to take it to a repair shop or take a gamble with a used one from an online auction site. If the folks at the china shop get nervous when you walk in, you need to think hard about carrying around a couple thousand dollars worth of delicate glass and computer equipment in your briefcase or backpack.

Laptops aren't very expandable. If you're one of those people who likes to upgrade to the latest video card, faster CD burner, or faster processor, you don't want a laptop. Laptops have few possibilities for expansion (PC Cards, USB peripherals, FireWire) but generally expanding your laptop this way isn't as cost-effective or as easy as desktop expansions. When the salesperson shows you all the cool ways your laptop can be expanded, ask to see the exact expansions they have in stock right now for it. Watch them stammer and stutter, and brace yourself for the price tag.

Upgrading laptops means replacing the whole thing. Consider for a moment that when you buy a laptop, you're also buying an LCD flat panel monitor. It's attached to this one specific laptop. When you're ready to buy a new laptop, you give up a perfectly good LCD flat panel. Sure would be nice to simply disconnect this laptop's flat panel and use it as a second display for your desktop, or for a backup part in case your new laptop breaks, but it doesn't work that way. Each laptop's flat panel is mostly proprietary, and without a whole lot of work and knowledge, you can't reuse that flat panel in anything other than the exact same model laptop. When you buy a new desktop, you tend to use some parts from your old one - like your monitor, for example. That instantly saves you hundreds of dollars in the replacement process.

Laptop batteries still aren't great yet. Manufacturers make claims like "cross-country battery life," but the reality is that you won't get more than two hours out of your laptop during real life use. The harder you push your laptop, the less battery life you get; if you're playing DVDs or Mp3s (which require a lot of CPU time and hard drive access) you can cut the battery life claims in half. Go to review sites like <http://www.zdnet.com> or <http://www.cnet.com> and check their battery reports -- there's often a big disparity between the manufacturer claim and the real-world results. Even if the battery life sounds long enough, keep in mind that if you try

to watch a DVD on an airplane, you're going to be lucky to see the credits roll.

Laptop component are more expensive. When a manufacturer builds a laptop, they have to get the smallest parts available. Often they have to build special pieces from scratch for each laptop model in order to get the exact form factor they want. Desktops are built using off-the-shelf components that are often standardized across multiple manufacturers. Take a simple heat sink, for example - the metal device that draws heat away from the processor to cool it off. Desktops can use any old \$2 part - but each laptop model has to have its own custom heat sink to fit the case motherboard, and other peripherals. (This also translates into much higher repair costs down the road.) Dollar for dollar, you'll get a much more powerful desktop than laptop.

Laptop components aren't as fast. In order to save battery life and to keep heat down, laptops use slower parts. Laptops hard drives, for example, only spin at 4200 rpm, whereas desktop hard drives spin at 5400, 7200, or even higher, meaning your data is opened and saved that much faster. Seemingly minor performance differences like this add up; if you get a laptop and a desktop side-by-side with apparently similar specifications, and watch the operating system load, you'll notice the desktop responding faster. (I don't want to give the impression that today's laptops are dogs, by any means - a new \$2,000 laptop will doubtlessly blow the doors off your two or three year old PC for normal applications, outside of 3D games.)

Laptop drivers aren't well-developed or maintained. As a result of all these manufacturers building custom components for their laptops (as opposed to using industry-standard gear off the shelf), they use weird one-off parts that don't always work with every operating system. I recently got tasked with installing Windows XP on a two year old Sony Vaio PCG-Z505 laptop. It had a lot of proprietary parts - a touchpad, a FireWire port, built-in network card, a jog dial, and a Memory Stick port. Everything went well during the install, but the jog dial never worked, and the touchpad wouldn't cooperate with an external mouse. It's completely fair to say that Sony didn't design this machine with XP in mind - but if you try a similar install on any given desktop computer, you'll usually find that everything in the machine works fine. Linux is a similar story: installing Linux on today's laptop with all their proprietary component is tough enough that there's an entire web site at <http://www.linuxlaptop.net> dedicated to the task.

Laptop pointing devices aren't as good as mice. Most laptop users carry around a mouse, and whenever they've got the time and space, they plug the mouse in to get their real work done. Nothing beats a mouse, and you may not like the mouse substitutes built into laptop keyboards.

THE MID-CITIES PC USERS' GROUP

The Mid-Cities PC Users' Group is a not for-profit organization whose objectives are:

- * to provide a forum for the exchange of ideas and experience,
- * education in the form of seminars and programs, and
- * community as pertains to the computer industry.

Annual membership is \$24.00 per family with one vote per membership. Members are encouraged to notify the Membership Chairperson of any change of address as soon as possible to continue receiving their monthly newsletter. Please address any notifications to: Mid-Cities PC Users' Group: Attn. Membership Chair, P.O. Box 54141, Hurst, TX 76054

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THE MID-CITIES PC USERS' GROUP NEWSLETTER

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File Formats: MS Word or Word Perfect is preferred. If formatting is crucial and you do not have access to the above programs, send a hard copy to show the layout.

Submitting Articles: You may use one of two methods. Uploading the article to Nancy Hester at newsletter@mcpcug.org or e-mailing her directly at nancyhesterusa@netscape.net



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