BANKS

Volume 15, Issue 4
December 1996

INSIDE THIS ISSUE

General Meeting
Thursday, December 5
5 PM 1320 DCL

See-Mong Tan from Vosaic talks about real-time video over the Internet.

Frosty-cool beverages will be served.

A World Wide Reconsideration

by Paul Watts

To listen to journalists, you'd think the Web signified the dawning of a new era
where man lives together in cyberspace,
cats and dogs talk with each other over the Internet,
and the Web is a gift from the heavens
designed to make our lives easier, safer and a whole lot better.

But then again, to listen to the journalists, you'd also think the O.J. Simpson trial was the Trial of the Century.

It's interesting to think that the actual World Wide Web is just over 6 years old. The growth and acceptance of the Web, even by computer industry standards of time, is a little breathtaking. From a research project at CERN in 1990 to the release of NCSA Mosaic in 1993, up to 1996 where you can't watch commercials for two minutes without seeing a URL—the Web has quickly gone from a project on the tables of academia to the forefront of the computer industry.

> "...features don't kill the Web; bad content developers kill the Web."

The most interesting thing about the entire history of the Web was that we were there for much of it. Being at the birthplace of Mosaic, we got to see the newest things in the Web as they appeared, starting with this program designed for easy information dispersal and retrieval over a wide range of applications and platforms developed at CERN. In this respect, the Web hasn't changed much. With the Internet as their medium, they created the tools which gave birth to the Web. But the Web designed at CERN was for researchers and academia, and as most of us at this university know, research and academia do not always work well together.

The Web took its first steps to maturity with the release of NCSA Mosaic for X. This was the first browser to become the standard for "surfing" the Web, and brought the Web out of the realm of research and turned it into a fledgling Internet technology. With the introduction of Netscape, the technology flourished; the reins of ownership were passed. No longer was the Web property of academia. The Web had become an industry, and with this change the sterile clean-room feel of academia was shed. Advertisements appeared, graphics and sound raced by and Java applets gave an interactive element to the static HTML pages of lore.

> "the Web has become the country's newest information *medium*..."

So what is the Web now? Part of the apprehension about the Web is that we no longer control it. Because the Web is an industry, it controls itself. The original purpose of the Web as an information dispersal system still remains, but rather than being a research project, the Web has become the country's newest information *medium*, taking its place among television and radio as primary sources of information.

How does it compare to TV and radio? The primary benefit of the Web is that the information is available on demand. Secondly, the Web is much more equipped to filter out extraneous information: if you

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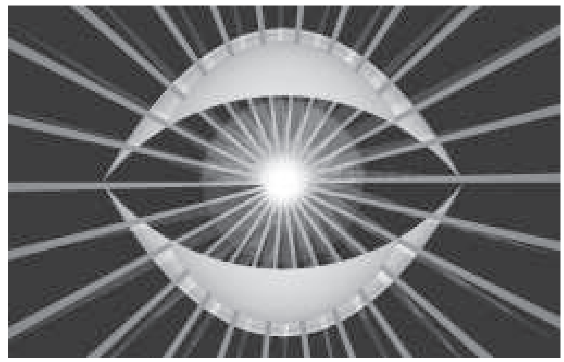
From The Chair

by David Morgan

You never quite know how your coding abilities are affected by sleep deprivation, stress, caffeine, and adrenaline until you're faced with a looming, immovable deadline: Opening Night. I'm humbly submitting this article to the Fiery Editor of Doom a full week after the deadline, thanks to yet another exciting Sounds and Visions coding extravaganza.

One of the things about ACM that amazes and excites me most is how members seem to come out of the woodwork to support, augment and encourage ACM events like the Conference, Sounds and Visions and EOH. By the time this newsletter goes to press, EOH will be a mere 100 days away! This year, thanks to Cyberfest, the HAL 9000 birthday celebration, EOH attendance is expected to soar beyond 50,000 people. In response to this, ACM@UIUC is going to make our EOH displays the best ever! If you're interested in helping out with individual projects, definitely get in touch with a SigChair to find out what's going on. Or, if you're interested in helping out with general ACM displays, working on the ACM video, or helping to transform DCL into "ACM World," get in touch with Christy Schumacher, the ACM EOH Coordinator (`cschumac@uiuc.edu`).



A screen shot from ACM Chair Dave Morgan's Sounds and Visions piece.

Also, if you're interested in helping to lead ACM, or just want to see what's going on, I encourage you to drop by an ACM Exec board meeting. Exec meetings are every Monday at 5 PM in 2240 DCL. The Exec Board is currently looking for someone to fill the Lectureship position, which involves making contacts with speakers and other activities related to making General Meetings go smoothly. If you have any questions or comments about the Exec board or anything else related to ACM@UIUC, feel free to send mail to `acm@uiuc.edu` or drop by the ACM office (1225 DCL).

SigNet Returns!

by Chris Sims

Hello! I'm Chris Sims, the new chair of the ACM@UIUC Special Interest Group for Networking. We welcome people of all experience levels who have an interest in computer networking.

Have a cool idea for a network related project? Want to take a tour of some really huge network installations? Need someone to explain what an IP address is and why you want one? Add yourself to the SigNet mailing list! Mail `signet-request@acm.uiuc.edu` with "`subscribe`" as the subject. Alternately, send me email at `signet@uiuc.edu`.

SigNet meets Mondays at 7:30 PM in 1102 DCL. Also stop by our homepage: `www.acm.uiuc.edu/signet`. I hope to see you soon!

The Banks of the Boneyard is a student publication of the UIUC Chapter of the ACM, the First Society in Computing, and does not necessarily represent, in whole or in part, the views of the University of Illinois, the Department of Computer Science, or the International ACM. Partially paid for by SORF and the Department of Computer Science.

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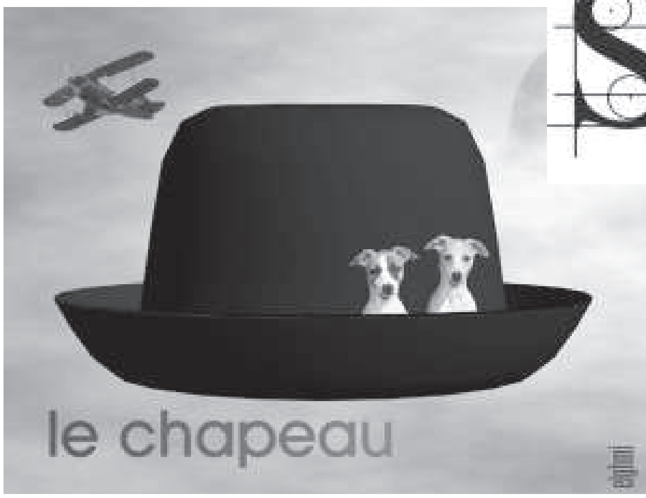
The newsletter staff encourages ACM members to submit letters to the editor, articles, photographs and artwork for future issues of *The Banks of the Boneyard.* If you would like to contribute or participate in its creation, please email `boneyard@acm.uiuc.edu`.



Artist: Amy Ryan

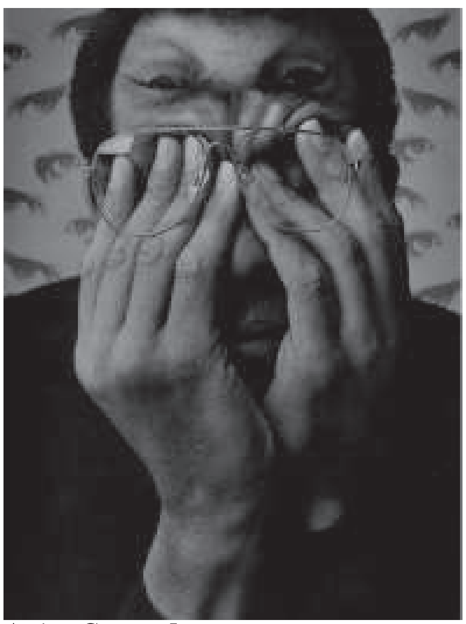
SigGraph

by Max Levchin

Sounds & Visions was just a couple short weeks ago - Friday, November 22 and Saturday, November 23. With that fateful Friday came the end of the SigGraph members' all-nighters and wild coding sprees, and the beginning of a medley of computer music and graphics. The concerts were a wild success - we PACKED 1320 DCL! Thanks to everyone who showed up, and most especially thanks to the members of SigGraph and SigMusic for their hard work in putting the show together.

In other news, SigGraph's first Traveling Art Exhibit is almost ready to open in the Illini Union. (See article below). A lot of work has been put into the exhibit, but I would especially like to mention Steven Mycynek, who has made it his personal quest to make this project succeed. Great job, Steven!

SigGraph's programming undertakings were postponed until Sounds & Visions is over, but no fear, with some time (isn't it funny how we always say that?) to spare before EOH, we should have something quite surprising to show. We're still looking for ideas, though, so join us if you have one. Drop by and hang out with the hippest group in ACM, 7 PM Thursdays in 2240 DCL.



Artist: George Jaros

Illini Union Art Gallery Set to Feature SigGraph

by Steve Mycynek

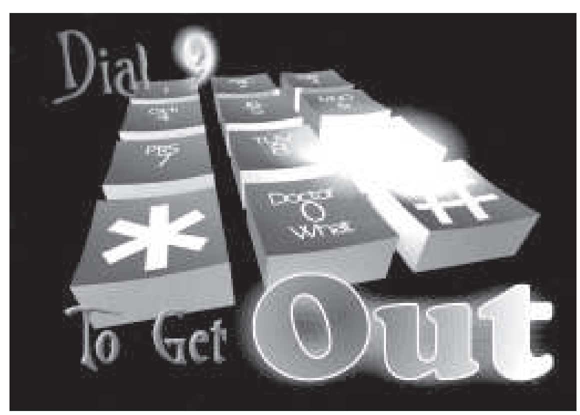
SigGraph will be bringing its work to the public eye in a new way this December with the unveiling of its traveling art gallery.

Sixteen of SigGraph's best works will be shown at the Illini Union during the months of December and January. After that, the display will hopefully move to the International Cafe on Wright Street, the Digital Computer Lab, the Undergraduate Library, and various residence halls.

The graphics range from 3D modeling and rendering to mixtures of freehand and digital photo manipulation and painting. All works will appear as mounted photographs prepared with equipment from the Beckman Institute's visualization laboratory. Some pieces will be up for sale.

Contributing artists include Ivan Avramovic, Peter Baer, Trae Gunning, Christian Holtje, George Jaros, Vikram Kulkarni, Steve Mycynek, and Amy Ryan.

SigGraph Chairman Max Levchin is very excited about the event. "This is an excellent opportunity to publicize SigGraph, ACM@UIUC and the whole electronic art genre to the students of U of I. I hope that this exhibit will start a tradition lasting for years to come. **This is just the beginning!**"



Artist: Christian Holtje

SigSoft: Journeying Onward

by Miguel Custer

I have never been able to reach a SigSoft meeting without some sort of disaster occurring. As I neared DCL I was blown off my feet by a huge explosion that rocked the earth. When I looked up I saw a gigantic smoking hole marring the side of DCL.

I ran to the entrance and into the ziggurat (the guards were all knocked out, despite how much we pay them) to see inquisitors in full battle armor dragging off most of the Order of SigArch. One of the inquisitors was carrying the Chair who was babbling about explosives and heretics. I sighed inwardly and continued on my way. Some SIGs seem to get too caught up in their work. I hope they enjoy coding in Fortran for the next few days.

As I entered the meeting room I noticed that things had changed quite a bit since the last time. There was no more bickering, no more fighting: all were replaced by grim determination and resolve.

"Greetings. Please forgive my tardiness. I have missed the past few meetings, but it seems things have changed for the better. A report if you please, Templar Kammeyer?" I took a seat at the head of the table.

Kammeyer rose up wearily, his body language echoing how I felt, for both of us were not taking the wrath of CS 231 and 223 well. "Deacon," he began. "Projects are beginning to come together. We had our CVS workshop where Adept Swetland imparted as much knowledge as he could on that subject in the allotted time. What we've done so far can be seen on the ChurchWeb at `www.acm.uiuc.edu/sigsoft/workshops/cvs/`. Our VIDEX project, which was what the CVS workshop was for, is still in the research stage. We will be laying out project manager responsibilities and interface ideas very soon. I'd like to now turn over the floor to our latest project leader, newly raised Templar Kiran Sreekantham."

A mid-sized person with fanatical eyes rose quickly and spoke even quicker. "Deacon, I hope that I will serve the Great Lord well by being made Project Leader of Network Pong™. It will do well spoke ufor a introductory program to assist our less experienced members and help them gain valuable experience. We have already decided on an interface and gameplay and we will be setting up class/object responsibilities and definitions very soon. Despite our speed, however, we still need assistance with graphics. I am also helping with the design of our new ChurchWeb page. It is faring well but it won't be done for some time."

"What about Campus Chaos?" I said, noting that Templar LaPenta was not present.

Kammeyer stood up. "There hasn't been much done on it lately. LaPenta keeps his meetings secret and doesn't talk about them much."

As he sat down I spoke up. "By the way, where are Adepts Kaiser and Swetland?".

"Ever since they gave Kaiser work, he hasn't been seen except at the vending machines and the ACM office. I think he's got a game model for next year's Mechmania and you know what happens when he gets his teeth into something. Of Swetland we have heard nothing," said Kammeyer.

"Oh well, at least Adept Kaiser attends **most** meetings. I have news for you as well from our Great Lord. He is considering a graphics concepts workshop to assist us due to our obvious deficiency in that area. Perhaps we should contact some members of SigGraph for help with that. He has also been very pleased with our performance and wants us to go out and relax on his behalf sometime soon. You know, the usual: Murphy's first, then back here to torture some heretics, then maybe get transported to some country and start a jihad. Who's in favor?"

The astounding cheer and chaos that resulted rang in my ears as loud prayers were made to the Great Lord. My followers dragged me out of the meeting room as a great thundercloud formed over us and the voice of our Great Lord emanated from the center of the cloud: *To Murphy's my loyal followers!*

And so our meeting finished with a cheer that brought inquisitors running as our legions departed the ziggurat to go bring enlightenment to the heretics at Murphy's.

In Summary:

We need graphics help! If you know anything about graphics design or implementation and are interested in any of the projects mentioned above, please come to a SigSoft meeting (Wednesdays at 6 PM) to assist us in our gspoke reat endeavors.

There is a possibility of a graphics workshop in the future - keep on the lookout for details.

There is also a possible nest of heretics hidden in the ziggurat somewhere. One of our Templars told a CS joke and someone didn't laugh, but unfortunately he got away. The subject was last seen exiting the west entrance followed by our ever-zealous inquisitors.

SigOPS Operating System Chart of Installation Difficulty

(for comparative use only)

L3 (with German speaker)	●●
L3 (only English speakers)	●●●●●
VSTa	●●●
GNU Hurd	●●
QNX	*
Amoeba	◇
Plan 9	*

* SigOPS has postponed installation of these operating systems until such time as we get them.

◇ Lack of proper hardware has prevented SigOPS from adequately installing this operating system.

SigOPS

by John Criswell and Paul Swanson

This past week has been a very successful one for the Special Interest Group for Operating Systems. At our last meeting, we continued with our attempts to install experimental operating systems on the x86 machines in the office. L3 is bootable now, but there is one slight detail: all the documentation is in German. Fortunately, an ACM member with some experience with German helped us read the configuration menus.

We also worked on installing the GNU Hurd operating system. The GNU Hurd first requires that a NetBSD filesystem be installed. We are still having problems with getting this first installation step to work—we can use any help we can get.

The long awaited Sparc SLC is finally up and running NetBSD 1.2. Except for some administrative work (installing users and source code), it's ready for use, complete with compiler, linker, and debugger.

In the coming weeks, SigOPS will be deciding on how to proceed with the FTP Filesystem Project. The GNU Hurd developers are looking for someone to develop an FTP filesystem for their new operating system. The next issue is whether we'll continue with our original plan to write the FTP Filesystem on the Sparc, or whether we'll move it to GNU Hurd. Either way, things are picking up and soon we'll be on our way to development.

If you're interested in operating systems, if you'd like to help us out on our FTP Filesystem project or if you think translating German for some operating systems people is really cool, come on by to one of our meetings. We meet in the ACM office, 1225 DCL, every Thursday at 8 PM.

SigMusic

by Christopher Richmond

This past month, SigMusic (with the help of SigGraph) put on the third Sounds and Visions concert. Entitled "Decade," the concert represented many weeks of intensive work done by both groups.

Originally spawning from the ideas of last year's SigMusic chair Dan Wellman, Sounds and Visions is a concert in which music written by SigMusic members is fused together with graphics created by SigGraph members. Thanks to the large amount of help from many ACM members, SigMusic and SigGraph were able to use ACM's powerful sound system and the CS Department's high-tech projector system in 1320 DCL to put on a great show that attracted people from all over campus.

With the successful concert now over, SigMusic will be concentrating its efforts on some more informational workshops, as well as working on plans for our EOH project and Sounds and Visions IV next semester.

SigMusic meets Wednesdays at 7 PM in DCL (just stop by the ACM office). We welcome old and new members alike. So if you have a background in computers and music, or just want to learn more about them and what SigMusic does, stop by... we hope to see you there!

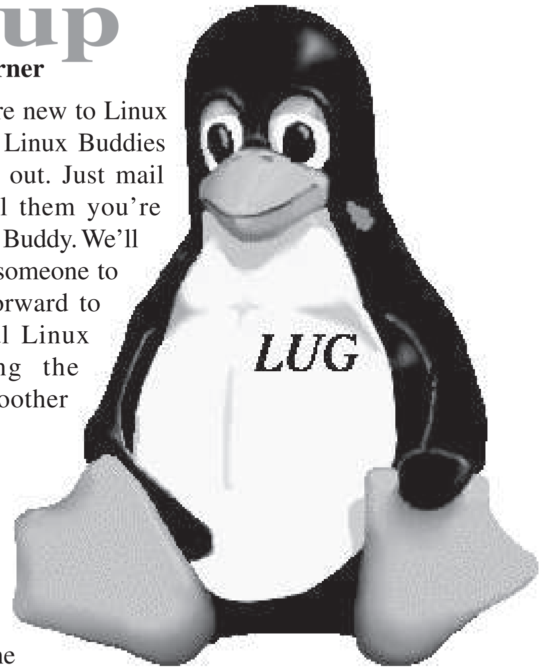
Meet the BeBox!

by David L. Morgan

Thanks to the benevolence of Jean-Louis Gassée and Alex Osdazinksi of Be, Inc., ACM@UIUC has a brand-spankin-new 133MHz BeBox! The new machine, named Bleu, lives in the corner of the ACM front office. Now that the machine is here, we're eager to start development of cool new BeOS projects. Jeremy Shaw has already started working on a BeOS-native IRC client and Jason Luther is putting together a Be developers group. Any and all ACM@UIUC members are welcome, nay, *encouraged* to drop by the office to play with Bleu and think up cool new applications.

Linux Users' Group

by Keith T. Garner



The Linux Users' Group is a forum for Linux users and admins. We meet to discuss recent happenings in the Linux world, work on projects, share ideas and help each other with various problems. Linux is a UNIX-like OS that runs on a variety of platforms, from PowerMacs to x86 machines to DEC Alphas.

The last month has been an exciting one around the LUG. We ordered a Pentium 133 with 32megs of memory and a 2 gig hard drive for our development machine. As soon as it arrives, work will begin in earnest on the UIUC Distribution and other LUG projects. Also, last month there was an excellent workshop given by Geoff Raye and Keith Garner. The workshop covered how to install the newest version of RedHat's distribution. There was a door prize of Applixware, an office suite from RedHat that they generously donated to us.

This month we'd like to announce our *Linux Buddies* program. This will be a service to the local Linux community. If you're new to Linux and having problems, the Linux Buddies will be there to help you out. Just mail `lug@uiuc.edu` and tell them you're interested in getting a Linux Buddy. We'll do our best to assign you someone to help you out. We look forward to aiding the growing local Linux community and making the transition to Linux a smoother one.

We'll be kicking into high performance mode soon once the machine gets here. If you have any new project ideas or any Linux questions, now is the time to check us out! All experience levels are welcome. Any questions, comments, etc, mail `lug@uiuc.edu`.

ACM@UIUC is proud to welcome new additions to the Executive board:

Christy Schumacher—Engineering Open House Coordinator, Secretary
KC Smith—*Banks of the Boneyard* Editor
Jason Luther—*Banks of the Boneyard* Layout
Jobe Cuaresma—Librarian
Lillian Wang—Corporate Liaison
Dan Sachs—PC Lab Admin
Rachel Flood—Social Co-Chair
Jeremy Shaw—Social Co-Chair
Robert Hyslop—SigBio Co-Chair
Romesh Kumbhani—SigBio Co-Chair
Chris Sims—SigNet Chair
John T. Criswell—SigUnix Chair
Wyatt Haase—SigVR Chair
Eric Huss—WebMonkeys Chair

SigArt

by Michael Kreger

Yes, the ACM Artificial Intelligence bunch is still working on Risk. What we need now are people to flesh out our dreams! Here's our skeleton so far:

We're planning an object-oriented approach, with player objects battling around boards. Each player is a little different, with a different "genetic code." The player's genes decide strategic elements such as aggressiveness, conservatism and even strategic flexibility. Our plan is to have all of these players floating about and knocking each other off in thousands of Risk games. The loser dies, and the winner gets to keep playing. Winning players may even breed to try and form even smarter players!

Now, how many Risk tournaments can boast benefits like these? In any case, the net result should be a set of fairly hardy Risk opponents. If you have any experience in C++ or Scheme and want to get in on creating the Master Risk Race, show up to our Monday meetings at 7:30 PM in 1225 DCL. Or if you're too shy, send mail to `sigart@uiuc.edu`.

SigArch

by David Morgan

There are only 104 days until EOH!!!!!! SigArch is already jammin' towards a way-cool Engineering Open House display. Our panoply of projects has shifted its center yet again towards a celebration of Digital Signal Processing. We're coordinating with a major DSP manufacturer to build a ton of applications (mostly audio-oriented) using their parts. Some of our ideas include: a generic spectrum analyzer, barked-command speech recognition, a hardware vocoder, and, of course, the Wacky Tracker. If you have any ideas for fun stuff to do with a Digital Signal Processor, drop by SigArch!

If you want to know what a DSP is, read on! Digital Signal Processors are basically microprocessors that are especially good at two things: addition and multiplication. They generally can perform at least one 32-bit IEEE fixed-point multiply in a single clock cycle. Fixed-point notation is an integer-ish way of representing real numbers, as opposed to floating-point notation, which closely resembles scientific notation with a mantissa and an exponent. Addition and multiplication are the most frequently performed operations in a wide variety of applications involving matrix transformations and other signal processing goodies. Modern DSPs often perform multiple operations in parallel to speed things up even more.

"SigArch is already jammin' towards a way-cool Engineering Open House display."

In addition to this extravaganza of Signal Processing nirvana, Brian Burner has taken charge of an educational exhibit to unravel the mystery of computer arithmetic before the general public. If you have any cool ideas for new projects or just want to dig into any of our current projects, drop by a SigArch meeting or send email to `sigarch@uiuc.edu`. SigArch meets every Thursday at 6 PM in L510 DCL.

Join ACM for Movie Night on Thursday, Dec. 12 at 7 PM in

1320 DCL

for

A Muppet Christmas Carol & The Christmas Story

SIG-BIO

...it is well beyond our abilities to mimic life perfectly using only a computer. But...

by Robert Hyslop

As this semester winds down, SigBio is once again looking ahead to next year's Engineering Open House. This year will be SigBio's largest, with two innovative exhibits: our Virtual Anatomy Textbook and a computer simulation of a Eukaryotic cell's function. The latter is an attempt to use the power of programming languages to demonstrate the complex biochemical interactions that must occur perfectly for life to exist. Naturally, it is well beyond our abilities (or anyone else's for that matter) to mimic life perfectly using only a computer. But in the course of developing this program we hope to learn more about a cell's function and gain a feel for the amazing complexity of life.

Our Virtual Anatomy textbook (designed to be a WWW based learning tool for college students interested in medicine, biology and related fields) is proving to be a good incentive for us to learn about new Web technologies. Good or bad, large scale multimedia is coming to the WWW soon and we don't want to be left behind. It is now possible to easily add sound, video, and dynamic visuals to a web page to enhance its look and content. For our purposes, we hope to use sound clips of the proper pronunciation of terms and animated pictures to show various biochemical processes. Needless to say, our page is not likely to be modem-friendly, but with the explosive rise in bandwidth available to college students around the world, we foresee few problems.

As always, SigBio is looking for interested people from any discipline to help out with our projects or join in on a lively discussion on Kudzu. We meet at 6 PM on Tuesday nights in 1225 DCL.

by Jesse Olson

SigUNIX is ACM's Special Interest Group for the UNIX environment. We have programming projects, user workshops and other spanky activities.

Currently we are working on our xln project. SigUNIX is porting the symbolic link command (ln) to a very user friendly X interface. SigUNIX calls this project xln. Currently we have an exit button and several dialog boxes to look at files with.

So if you want to do cool things and code with people on more caffeine than legally allowed, come to SigUNIX!

Also, in recent news: Puff (aka Jesse Olson) has resigned as SigUNIX chair. His replacement is none other than... John Criswell! So when you see John, give him a big congrats.

The Linux Users' Group would like to thank RedHat (`www.redhat.com`) for their generous donation of two copies of ApplixWare, an office suite for Linux. One copy was raffled off at the recent Linux Install Workshop (see the LUG update on page 6), and the other copy will be available for use by ACM members on the new LUG machine.

World Wide Reconsideration
Continued from page 1

don't want to see something, you don't have to. Everything is there for you, and everything is there for you to ignore.

Most importantly, it is protocol-independent. I mean this in the sense that one doesn't need to know the intricacies of cable communication to watch HBO or the specifics of NTSC color to watch Saturday Morning Cartoons. One only needs to know how to get there. The name "Web", or "Internet", or the terrible superhighway analogy all apply regardless whether we type "http://" or not, or whether we use port 80 or not. The Web is just a bit-pipe to which people can connect and receive information. In time, everyone will be connected.

Feature Bloat On the Web

Software engineering has a term called "feature bloat," which is used to describe a program which has more features than it should. Many believe the Web is experiencing feature bloat in the sense that when backgrounds, Java, and animated GIFs were released, many developers jumped at the chance to use these new features without considering how they should use them. Ever visit a site where the background makes the text unreadable? This is a good example of feature bloat.

My opinion on this is analogous to the "guns don't kill people; people kill people" saying. The analogous saying is "features don't kill the Web; bad content developers kill the Web." Content developers should be more like graphics design artists and the motto of the Web should always be **KISS: keep it simple, stupid**. This doesn't mean that static HTML and background-less pages should be the norm; but ease of use and rapid access to information should be the keys to Web page design.

A Myriad of Metaphors

The term "surfing" has long been used to describe browsing the Web, in the same sense "channel surfing" could be seen as "browsing the television." But from the perspective of the Web developer, the term surfing has a much different analogy. The Web developer surfs the Web in much the same way a literal surfer would surf a wave. The Web can be thought of as a wave in the sense that it is large and out of your control. It has a definite direction, but that could change at any moment. The only thing you can do is hang on.

The key point of this analogy is that you can only ride in the direction of the wave. You can't ride it backwards. You can only let it control your direction, not the other way around. If you try to control it, it will bring you down.

The reason why the Web is analogous to a real wave is that it isn't controlled by one entity. In the days of CERN, the Web went the way they wanted it; in the days of Mosaic, they held the reins; and in the early days of Netscape, they were clearly in control. But the Web isn't as clear as that anymore. The fate of the Web is decided not by CERN, NCSA, or Netscape, but by the customers: Web professionals and developers, and most of all Web *users*. As a member of this industry, you can only hang on and watch out.

A Lesson From Recent History

A little over a year ago, Microsoft didn't want to admit the Web existed — at least, they were unwilling to accept it as a new industry. According to them, they were waiting for a better technology. Nevertheless, the Web sprang up despite them; and when Netscape had their news-making IPO, Microsoft could no longer sit on their high horse. Their corporate about-face saved their position in the Web industry, and perhaps in the computer industry as well.

Microsoft made a mistake in that they didn't obey the market trends. They either failed to see early on that the Web was going to win over MSN, or that the computer industry wasn't going to wait for a better technology. Microsoft tried to control the wave (and possibly contain it) and failed miserably.

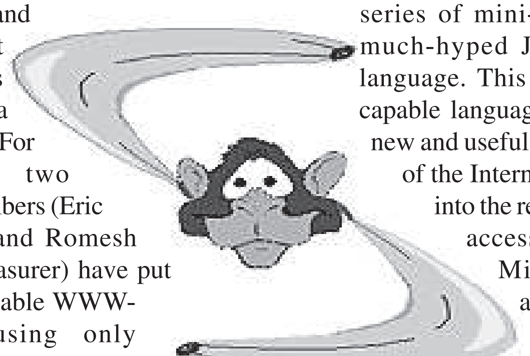
Conclusion

There are still questions to be answered. Many fears remain that our national backbone isn't suited for this type of traffic, and that the Web is headed for an apocalyptic collapse. Those fears have certainly existed for a long time, and still have credence. But you can't stop a new technology once it has begun, and the Web has definitely achieved its minute in the spotlight. While many sites are worthless, the Web and what it embodies surely isn't. The Web is information — the information medium **we** created.

Web Monkeys

by Robert Hyslop

The Webmonkeys have been hard at work taking an in-depth look at new web technologies. One of the easiest and most powerful tools that hit the Internet in the last year is the Java scripting language from Netscape Communications. This scripting language (not related to the Java programming language) can be placed in any HTML document and adds almost limitless functionality to a standard web page. For example, two WebMonkeys members (Eric Huss, the chair, and Romesh Kumbhani, the treasurer) have put together two enjoyable WWW-based games using only Javascript. Eric Huss has developed a WWW-based single player Battleship game (based on the popular board and electronic versions) that pits web players against an artificial computer player powered by innovative Javascript algorithms. This game can be found at `www.acm.uiuc.edu/webmonkeys/javascript/battle`.



Romesh Kumbhani has been hard at work on another Javascript game, a version of Checkers, which can be found at `http://www.acm.uiuc.edu/webmonkeys/romesh/checkers/clickit.html`. As with Eric's Battleship, Romesh has employed an artificial intelligence player to create some real competition. If you would like to play this beta version, head over to ACM. Both games will feature animations, sound and improved graphics in the comic months, but they are still under development.

The Webmonkeys have also begun a series of mini-workshops on the much-hyped Java programming language. This powerful network-capable language promises to bring new and useful applications to users of the Internet and has expanded into the realm of hardware and accessory software. Sun Microsystems has already put together a networked computer that incorporates hardware specifically designed to efficiently run Java over the Internet. Whether this will be a success or just another beta-VCR is yet to be seen, but Sun's creation is certainly worth consideration for anyone interested in the Internet for business or entertainment purposes.

If you have an interest in anything mentioned above or any other aspect of the Web, please stop by a Webmonkeys meeting on Wednesdays at 6:30 PM in 1225 DCL. If you have any questions, contact Eric Huss (`monkeys@uiuc.edu`).

Rock Climbing

by Rachel Flood

On November 15th several daring ACM members went rock climbing at Vertical Plains in Champaign. Those of us who had never been there got lessons from the staff and were soon ready to scale the walls. We teamed up in pairs and took turns climbing up (and falling down). Some ACM members even ended up hanging upside down by their harnesses—these were the more adventurous members of the group. Most people just ended up with twisted pants.

The climbing surfaces proved to be quite challenging. There was even one parallel to the ground you could climb along upside down. On the surface of the walls were shapes to use as holds; they're removable, and can be changed around to make the experience more challenging.

The super swell thing about Vertical Plains was that when you tired of climbing, there were really great couches to collapse on. We weren't able to sneak them from there into the ACM office, though—oh well!

Most of the group spent the next few days being quite sore. Typing was also difficult because of sore hands—but hey, we're always looking for reasons to avoid our MPs anyway.

SigMicro

by Paul Watts

Note: SigMicro has paid great amounts of money for a top-notch advertising/marketing firm to do its update this month.

Are you a dynamic, outgoing, hard-working, fun-loving, hoola-hooping, dynamic, aggressive, progressive, dynamic individual looking for a organization in which you can expand your interests and knowledge in a neat, tidy, dry-cleaned and dynamic fashion?

Well look no more! SigMicro is the organization you're looking for. We have scores of dynamic, hard-working, get-going people, each of whom wants *you* to help make SigMicro a better place to work.

SigMicro is separated into two dynamic subgroups: the WinDevils, the group for Windows programming, who will sing and dance the ways to your Win32 heart. Their project this year, Project Titan, is well on its way to its second dynamic milestone.

One the other side of SigMicro are the MacWarriors, a progressive, neck-or-nothing bunch of individuals who eat, sleep, drink, cook, baste, knead, and lightly-bake-for-3-hours-at-275-degress-farenheit-until-a-golden-brown the MacOS operating system. Although the AppleScript workshop is over, you can bet they are starting new and progressive projects, each more dynamic than the one before.

So come join SigMicro—we're the individual-oriented, fun-loving, enthusiastic organization dedicated to making *you* a more fulfilled, enriched, satisfied, well-rounded, and all-around dynamic individual.

SigMicro is an equal opportunity organization.

Do you know what's going on?

`www.acm.uiuc.edu`

Good luck with finals!

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