RES ROCKET SURFER

EOH '96

March 1996

Volume 15, EOH Issue

hose Books

by Paul Watts

It's such a good idea it's a wonder it didn't come sooner. How many times have you bought textbooks from the bookstore for outrageous amounts, only to sell them back for pennies? The bookstores make off like bandits because there's simply nowhere else for us to go. Sure, you could post to newsgroups or post flyers in kiosks, but who's going to see them? How can you be sure the person who is looking for your book is going to see your article?

This is the dilemma faced by many students in all majors on this campus. It's a bad system for the students - why has it lasted this long? Fortunately, this semester will be different, and the Electronic Textbook Exchange is here to facilitate the change.

The Electronic Textbook Exchange is a forum for the reselling of textbooks. Say you have a book to sell. You can access our easy-to-use Web interface, type in your network alias, and the Exchange will automatically bring up your personal information from the ph database. After that, you can submit as many books as you want; the Exchange will insert them into its internal database. Then, when a person looking for this book comes by, he need only search through the database (based on the class for which the book is uired) and find how to contact you. Finding and selling books becomes simple and with Netscape-enhanced security, it becomes secure too. The CGI scripts driving the Exchange were written entirely in C, and a relational database with complete C API was developed from the ground up. This database is so flexible that it could be used in a variety of "exchanges." Already, plans have been made for an Apartment Sublet Exchange and possibly a CD Exchange.

The database is also almost completely self-administering: routine database compactions and software-configurable expiration dates on entries are already written.

"Sure, you could post to newsgroups or post flyers in kiosks, but who's going to see them?"

While the Exchange is still in the beta-testing stages, many of our pages are already up and running. You can check them out at `http://www.acm.uiuc.edu/sigmicro/ete/`.

If you're interested in helping with the Exchange, or if you have any questions about it, please mail sigmicro@uiuc.edu.

Power Lunch: Eat with a Prof... Free!

CS Alumni Association sponsored program fills your stomach and increases faculty/student interaction.

By Arwin Levinson

What is better than a free lunch? A free lunch at the Union Ballroom with one of your computer science professors. Whether you need advice about jobs, graduate school, undergraduate research, or just a chance to talk to a professor in a casual setting, this program is for you!

The program, Power Lunch, is funded by the Computer Science Alumni Association. It is designed to increase undergraduate and faculty interaction and is open to all computer science and computer engineering undergraduates.

Several faculty members have already shown a lot of enthusiasm. Participants include Professors Chien, Belford, Ray, Lawrie, Ponce, Johnson, and Saylor. There will be others as well. Now it is up to us to make this program work.

If you are interested in sharing a free lunch with two to three other undergraduates and a professor, please sign up for Power Lunch. Lunches will begin after spring break, so reserve your spot soon! For more information, visit the ACM office or e-mail `alevinso@uiuc.edu`. You do not need to be an ACM member to participate.

A special thank-you is extended to David Pearah of ECESAC for helping ACM get this program started.

From the Chair

by Jonathan Stark

The special time of year has come once again! Around late February every year, a strange phenomenon happens around ACM. The ACM office tends to stay open a little longer, people seem to work a little harder, and the true magic of Engineering Open House becomes apparent.

As you read this issue of Banks, you will see summaries of some of the projects that ACM members have been working on since last year. ACM has been very successful at EOH in the past, and we hope to repeat our success this year.

Most of ACM's SIGs (Special Interest Groups) will present a project or two at EOH this year.

SigMusic and SigGraph's recent Sounds & Vision concert has blossomed into ACM's EOH Central Exhibit, representing not only ACM, but also the Department of Computer Science. SigGraph has created a mosaic of real-time generated graphical effects to accompany music written by SigMusic members. The Sounds & Visions concert will be in 1320 DCL, featuring our new sound system which was purchased with help from the Computer Science Department, Lante, Inc., and the College of Engineering. Don't miss this interactive collage of sights and sounds!

SigMusic has also been working on the Vocoder Project they plan on finishing by EOH. This device will combine a human voice with a musical instrument, giving the effect of a talking instrument.

SigArch will be displaying the LED Nametag, a Rotating Color Cylindrical Display Unit called "Phoenix" because of its amazing meltdown last year, and portions of a Networked Video Camera project. The ACM Pop machine and the Scrolling Sign will be shown as well.

SigVR will show off new additions to their ongoing project, last year's Central Exhibit. Their project PeLViS, recently renamed to RAVEn, will be used to present a new concept in Virtual Reality, the Virtual Sandbox.

SigMicro will present the Electronic Textbook Exchange, a Web interface for buying and selling textbooks.

We invite you to visit all of our exhibits, get acquainted with the members and executive officers of ACM. If you see something that grabs your attention, something you'd like to be a part of - don't hesitate to become involved! Newcomers are always welcome in ACM and the SIGs' purpose is to help the members in learning new things, so don't be intimidated if some of things we do look too complex to you. As long as you have the desire to learn and a bit of free time to give to ACM, you will "fit in" just fine.

Look through this issue of Banks of The Boneyard, see what you like and come talk to us at EOH. Hope to see you there!

The Banks of the Boneyard

The Banks of the Boneyard is a student publication of the UIUC Chapter of the Association for Computing Machinery 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 Association for Computing Machinery.

Copyright 1996, ACM@UIUC

Edited by:
Norbert Burger
Max Levchin
Jonathan Stark
Jason Lindquist
Design & Layout:
Amy Ryan
Ari Gordon-Schlosberg
Jonathan Stark
Wendy Van Wazer
Faculty Advisor:
Sylvian Ray

The Association for Computing
Machinery at UIUC
1225 Digital Computer Lab, MC-258
1304 W. Springfield Avenue
Urbana, IL 61801
(217) 333-5828

For more information, try:
`ph acm return all`
or visit our home page at
`http://www.acm.uiuc.edu/`

Partially paid for by S.O.R.F. and the
Department of Computer Science.

SigNET

By Jeff Thompson

SigNet is the Special Interest Group For Computer Networking and Security. We meet just about every Wednesday at 1320 DCL at 7:00 PM, and head off to a room or a fast-food restaurant to discuss different aspects of computer security. Topics include the latest security problems, basic concepts in security, tips on securing a machine, and how to look for vulnerabilities in hosts. We also discuss the various networking protocols and how they affect the security of a site. If you are interested in learning more about computer security, sharing your security knowledge with others, or listening in on our discussions, please feel free to stop by. For more information, please mail `signet@uiuc.edu`.

EOH is just around the corner and SigNet is gearing up to have its display ready. In an attempt to raise security awareness, we are constructing a display on computer security. We will also be handing out pamphlets which highlight security concerns that faculty and students should be made aware of. Please look for us in the Digital Computer Lab building (DCL). Also, SigNet's home page is going to be getting some additions. Currently, it is down, but please look for it shortly at `http://www.acm.uiuc.edu/signet/` It will soon feature zany pictures of the SigNET crew, as well as large volumes of security pointers on the net.

SigArch

By Jonathan Stark

The Special Interest Group for Computer Architecture has been working on a slew of projects to exhibit at EOH this year.

Work on the IR Doohickey was completed in one all-nighter by Brian Swetland (who took it upon himself to not only rewrite the majority of the code for the IR Doohickey, but also to create a complete HC11 development environment for the PC!). The IR Doohickey is a “smart” remote control that can learn infrared commands from any remote control device. Any computer with a serial port can then be used to transmit these commands to devices later, allowing your computer to act as an infrared remote control system such as your TV or VCR.

Several SigArch members have been working hard on a new version of the LED Nametag. The original version of this device was shown last year, but the weight of the nametag was stretching shirts a little more than we liked. This year’s version uses a lighter-weight Field Programmable Gate Array (FPGA) which replaces several of the bulkier components on last year’s nametag. The nametag will display messages and even images on a 25x35 array of LEDs.

The Cylindrical Display had a spectacular showing last year until it melted down. A small group of devoted SigArchers are resurrecting the project, and working on improving the display’s output. When completed, the Cylindrical Display (now dubbed “The Can”) will display color images around the circumference of a spinning industrial fan. Future software revisions may even allow animation of full color images on the display.

SigArch has also been working on a Networked Camera project. NetCam, as it has been named, will one day allow a user to broadcast live video over the Internet by simply jacking a camera into the ethernet connection. Portions of the network unit will be on display at EOH this year.

The ever-popular SigArch Scrolling Sign will also be shown, outside of the ACM office, 1225 DCL. This sign accepts e-mail messages from people all over the world and displays them for UIUC students to see.

Finally, we hope to have the ACM Pop Machine, a networked Dr. Pepper Machine, available for students and passersby to take advantage of. The latest revisions to the ACM Pop Machine allow users not only to query the inventory, but also to use their student IDs as debit cards simply by swiping it through a card reader connected to the machine.

All of these projects and many more will be on display during Engineering Open House, March 1-2, in the main hall of the Digital Computer Laboratory, 1304 West Springfield. Hope to see you all there!

SigMusic

by Dan Wellman

The Special Interest Group for Computer Music is dedicated to increase the discussion, production, and performance of electronic and computer music on campus. This school year has been busy for us, and we hope to keep it that way! In fall we met with professors such as Professor Lippold Haken, who discussed sound synthesis research, and Professors James Beauchamp and Sever Tipei of the School of Music’s Computer Music Project, who showed us how computer music is created in a university research setting. We unearthed a SigMusic project of old, the PowerGlove interface to the Maestro PC composition software which lets a user compose music by wearing a Nintendo PowerGlove and waving their hands to and fro. We’ve also hosted two presentations on introductions to computer music.

Our big event last semester was the first ever Sounds & Visions concert. In collaboration with SigGraph, we produced a concert experience mixing electronic music and computer-generated graphics. The music was created on everything from Macs to PCs to synthesizers, with sequencing programs, custom software, and even fractal algorithms. SigGraph studied the music, then used Silicon Graphics computers to create interpretive images to fit the songs, including flocking birds, atom simulations, fractal images, morphing solids, and a 3D scan of a human head. You can see this material in the EOH Computer Science Central Exhibit, so drop by and learn how the music was made while experiencing an out-of-this-world performance! Look for another Sounds & Visions concert with all new music and art on April 19th, at 8:00 PM in room 1320, Digital Computer Lab. All are welcome to this free concert!

SigMusic has also been working on some programming projects, one of which you can see here at EOH. A vocoder is an effect which sounds something like a talking robot, heard often in pop songs and sci-fi movies. This algorithm takes two input signals, usually a synthesizer tone and a human voice, and then lets one modulate the other’s frequency and amplitude content. We’re using a PC to perform this transformation, a stereo sound card to digitize the incoming signals, and the computer to apply the effects and output the signal back to speakers. Students of all backgrounds and experience levels worked on this project, from learning about the theory and designing an informative web page, to actually implementing the code.

We’re also studying the fundamentals of MIDI, the communications protocol used in all modern electronic instruments. Topics include the bare-bones facts on MIDI, from hardware design to analyzing the instruction code language byte-by-byte. With this knowledge, we hope to create a program which performs some simple tricks such as reversing the scale on a keyboard.

SigMusic meets every week on Wednesdays at 7:00 PM in room 1102 at DCL. Stop by our web pages at http://www.acm.uiuc.edu/sigmusic/ to learn more about our concerts, activities, and projects, or send e-mail to sigmusic@uiuc.edu. New members are always welcome, regardless of major or previous experience, so drop by and introduce yourself!

SigBio

By Joey Lasky

Would you like to see eye-catching pictures of the human body transported to your very terminal via the World Wide Web? Even if you're not interested in biology, you'll be sure to enjoy the project SigBio is working on for EOH.

The use of computers and web technology in the chemical and biological sciences has increased dramatically in the last decade. From protein structure modeling to DNA sequence comparison, the computer applications used in medicine and research range from simple algorithms to complex mathematical models. In addition, most of the high-tech equipment used in labs is now driven by personal computers.

Along with other fields, biology is now beginning to rely heavily on computers for education. At the University of Illinois, the core biology courses have a large and varied set of software to help students learn by seeing as well as by reading. One of the mediums through which this visual teaching can take place is the World Wide Web, using graphical browsers such as Netscape or Mosaic.

Already present on the web are various "virtual dissection kits" where one can graphically dissect a frog or look at the respiratory system of a mouse. SigBio is currently working on a similar project which will take the user on a multimedia journey through the human lymphatic system. The lymphatic system is most important in generating resistance against diseases and is the one damaged by the Human Immunodeficiency Virus. Hopefully this will give people a better understanding of how their body fights diseases and of the mechanism behind one of the most deadly human viruses.

Anyone interested in helping us out with this project can come to our meetings on Tuesday nights at 7:00 PM in 1102 DCL! Questions should be directed to Joseph Lasky (`jlasky@uiuc.edu`).

SigMicro

By Paul Watts

SigMicro is showing its main project, the Electronic Textbook Exchange, at EOH this year. If you haven't heard, the Electronic Textbook Exchange is a Web interface for buying and selling textbooks. No longer do you have to get the short end of the stick at the bookstore - with the Exchange, you have a centralized place for buying and selling textbooks. To take a look at our prototype, point your browser of choice to:

`http://www.acm.uiuc.edu/sigmicro/ete/`

In other news, SigMicro's WinDevils, our group devoted to Windows programming, is continuing to give it's highly popular Programming Windows 95 workshops. For schedule and workshop information, head to:

`http://www.acm.uiuc.edu/sigmicro/windevils/workshop/`

If you have any questions or would like more information, write to me at `sigmicro@uiuc.edu`.

For more on the Electronic Textbook Exchange, see Page 1

SIGUNIX

By Jess Olson

For this year's EOH, SigUnix will implement an X-window based interface system to various UNIX utilities. Our goal is to create an easy-to-use X interface for common UNIX utilities. Some of the utilities we will be improving are chmod, the quota manager, and possibly procmail.

The people in SigUnix work for a better understanding of UNIX operating system. The best way to learn about our newest projects is in our newsgroup, `uiuc.org.acm.sigunix`, or at our web page at `http://www.acm.uiuc.edu/sigunix/`, which will be updated soon after announcements on the newsgroup.

ACM's Cool UNIX Tricks Workshop was attended by many members of SigUnix, and was greatly enjoyed and appreciated. Many thanks from SigUnix and all of the UNIX enthusiasts around campus go out to Joe Gross, Jason Lindquist, and Mark Roth.

SigUnix is always willing to work on interesting UNIX-related projects. If you have an idea for a project, come to our meetings at 9:00 PM on Tuesday nights in 1102 DCL.

SIG Meeting Times

SigArch - Computer Architecture
Thursdays, 6:00 PM in 1225 DCL

SigArt - Artificial Intelligence
Tuesdays, 7:30 PM in 1225 DCL

SigBio - Biological Computing
Thursdays, 7:00 PM in 1102 DCL

SigBiz - Computers and Business
Mondays, 7:00 PM in 1225 DCL

SigCAS - Computers and Society
Wednesdays, 5:00 PM in 1225 DCL

SigGraph - Computer Graphics
Thursdays, 9:00 PM in 1102 DCL

SigIR - Information Retrieval
Tuesdays, 5:00 PM in 1225 DCL

SigMicro - Microcomputing
Thursdays, 8:00 PM in 1225 DCL

SigMusic - Electronic Music
Wednesdays, 7:00 PM 1102 DCL

SigNet - Computer Networks
Wednesdays, 7:00 PM in 1102 DCL

SigSoft - Software Programming
Wednesdays, 6:00 PM in 1102 DCL

SigUnix - The UNIX OS
Wednesdays, 8:00 PM in 1102 DCL

SigVR - Virtual Reality
Thursdays, 8:30 PM in 1102 DCL

Linux Users Group
Tuesdays, 7:00 PM in 1102 DCL

WebMonkeys
Wednesdays, 6:00 PM in 1225 DCL

SigArt

By Mike Kreger

SigArt, the ACM Special Interest Group for Artificial Intelligence, has often felt misunderstood. Maybe not as angst-ridden as the latest Ethan Hawke character, but SigArt does sense some... communication differences.

Ever since AI's inception, people have been afraid of being replaced entirely by self-aware computers. Look back to the introduction of Pascal's old Analytical Engine and observe the public's fear of computers.

Take a few minutes and try to think of how many movies you've seen about maniacal intelligent computers trying to take over the world. Start with clunky robots like Tobor, go forward through *Electric Dreams* and War Games, both *Terminator* movies, and some Illini you are if you forget *2001*.

Maybe you remember that stretch of TV history lasting about seven or eight years during the home computing boom. Every sitcom had an episode about "evil" computers eating some wacky character's data. Boy, SigArt sure found them funny - at least for the first year or so.

The purpose of SigArt is to reveal the truths about artificial intelligence: how "smart" computers are today, how intelligent they may become, and what computers may never be able to comprehend. Everybody had a pretty good hunch that talking cars like KITT didn't really exist in the 1980's. Yet researchers at Carnegie Mellon University have now built a minivan able to drive *itself* coast-to-coast at speeds upwards of 60 miles per hour. (Turbo Boost is still in development.)

Movies, television, and science fiction can make you believe anything; it's up to you to distinguish between fiction and fact. As you look at the EOH exhibits around campus, you'll see what people are doing today with machine intelligence. Check out the Beckman Institute to see the latest frontiers in AI research; they may surprise you!

SigArt is trying to help educate students about the realities and dreams of artificial intelligence through a series of presentations. One night will be devoted to the here and now of AI in the media; looking at television specials and short films to see how they interpret today's developments. On a different night, we'll show 2001, the classic film about a little University of Illinois project named HAL gone awry, and dream about where we might be in twenty years based upon where we are today.

SigArt has weekly meetings in room 1330 of the Digital Computer Lab, located on the corner of Springfield and Mathews streets. We meet every Monday at 7:30 PM. For more information, send mail to `sigart@uiuc.edu`.

SigVR

By Jason Hartman

SigVR is the Special Interest Group for Virtual Reality. For those of you unfamiliar with VR, it can be defined as a fully immersive environment in which the user actually believes he or she is in the computer-generated world.

The main project of SigVR over the past years has been and will be to develop RAVEn, the Relatively Affordable Virtual Environment. Currently, RAVEn is composed of a head-mounted display (two portable Casio TVs and VGA to NTSC signal converters), two PCs (486s or higher with ethernet cards or serial ports), and software written by SigVR members.

RAVEn is at EOH this year, displaying SigVR's Virtual Sandbox. In the Virtual Sandbox, you will interact with the world as if you are the size of an action figure. Inside the Sandbox you will find a sand castle, moat, a matchbox car, treasure, and other surprises.

In the future, SigVR hopes to add full body tracking, starting with head-tracking, support for the VRML standard (Virtual Reality Modeling Language), and other cool features. The Virtual Sandbox is entered in the Just for the Fun of It category, so it is bound to be FUN. Drop by the atrium of DCL and play in the sand.

SigVR usually meets Thursdays at 7:30 PM in 1330 DCL. For more information, or to confirm our next meeting date, send e-mail to `sigvr@acm.uiuc.edu`. Check out our web page at: `http://www.acm.uiuc.edu/sigvr`.

Upcoming ACM@UIUC Events

Mar. 1st-2nd:
Engineering Open House
DCL Atrium

Mar. 7th, 5:00 PM:
General Meeting
SUN Microsystems
Tom Lockman
and
Joe Godsil from
SUN Microsystems will
speak about JAVA
1320 DCL

Mar. 23rd:
SigSoft/WinDevils
Windows Development,
Part 3
(time and place TBA)

Mar. 25th:
(tentative)
Symantec Programming
Contest begins

Mar. 28th, 5:00 PM:
General Meeting
Mark Tebbe
1320 DCL

Apr. 19th:
Sounds & Visions II
Electronic Music &
Computer Graphics
Concert

Coming in April:
Microsoft at the Movies

SigGraph: Central Exhibit 1996

Sounds & Visions

by Max Levchin

If our enthusiasm is any indication, this year's EOH will be a very successful event for SigGraph. This has been the spirit of the SigGraph meetings for the past few weeks, and it's no wonder - this year, we are representing ACM and the Department of Computer Science in the Engineering Open House. The Central Exhibit is named Sounds & Visions, after the collaborative project between SigGraph and SigMusic.

SigGraph is presenting a retrospective view of the concert as well as several new routines, features, and music compositions from SigMusic. Here are some of the highlights of the last concert (all of the graphics were generated real time, and were modified dynamically by various parameters of the music) - fractal algorithm visualization by Brian Lilly, appropriately accompanying the Fractal Music by Fabio Kon; various particle animations by Brian Klamik, Dave Pankros, Matt Reeves and Max Levchin; and two large musical pieces by Thomas Lawrence with many new graphics algorithms implemented by David Blumenthal, Matt Reeves, and others. Overall, the first concert was a great success. SigGraph and SigMusic will improve the show with new additions to the program. Come to 1320 DCL to see the giant screen fill with vibrant colors and images, and experience the Sounds & Visions phenomenon! You will also be able to see your own voice on the screen, with SigGraph's new voice-driven graphics algorithms. We are also going to have many of high-powered PCs (donated by Intel) running our PC exercises in graphics, in the traditions of the infamous "demo scene."

The other large SigGraph project, DataRace, will be shown in its beta-networked version this year! After three long years of development and discussion, this 3D PC-based networked (TCP/IP, not IPX) game will be shown to the public in at least a portion of its future glory. The game idea was originally inspired by the book "Neuromancer" by William Gibson. However, we are no longer necessarily tied to that plot and are experimenting with new ideas and concepts. Look for Datarace in DCL's East Atrium.

SigGraph is always in need of new members. Regardless of what your level of experience is, come join us at one of our meetings at 9PM in 1102 DCL on Thursdays or come help us hack out the last bugs from DataRace or the Central Exhibit!

Sig Soft

by Michael Lee

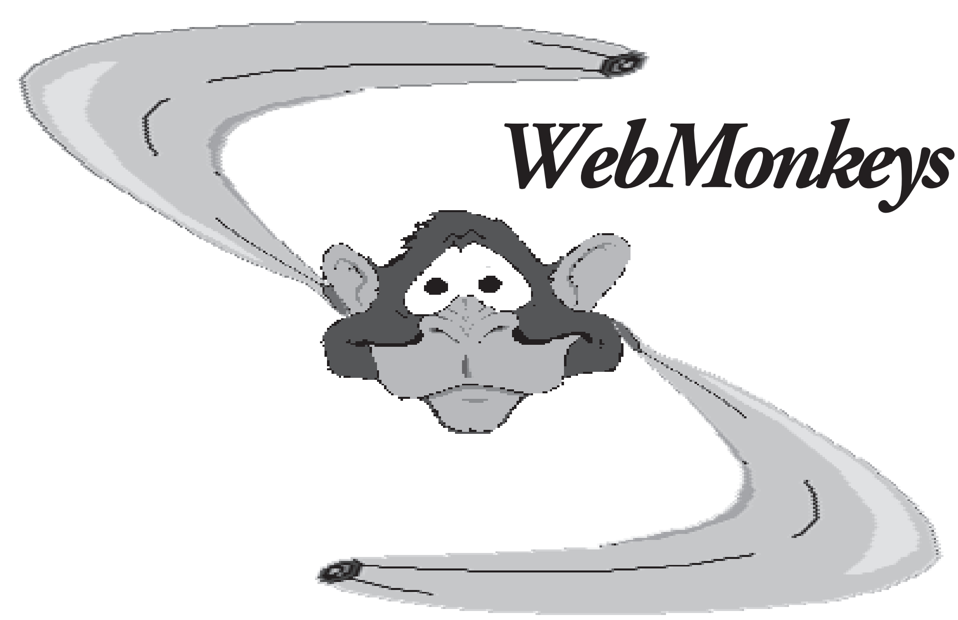
SigSoft's purpose is to discuss and learn about topics related to computer software. We could also be called a programming SIG (which has often was the focus of our group in years past), but we are not limited to just that. We have also studied issues in software development, learned how networked programs communicate, examined currently pending programming models and environments or just come up with our own.

Last semester, my predecessor, the infamous Alan Braverman, led a crusade in the exploration of alternative programming environments. In that spirit, I hope to soon obtain a copy of a new operating system, Plan 9, so that SigSoft can experiment with it. Not only does it provide a new programming environment and debugger (curiously named Acid), it defines a new paradigm. Introducing a language called Alef, Plan 9 contains mechanism for distributed, concurrent programming. We're going to have to check this out.

Is that it? No programming projects? Well, there currently is one SigSoft development project, code-named TableTalk. It is a fully distributed framework for playing card games with your friends in a "virtual" setting. This is dissimilar from other programs which restrict you to playing specific games. We only enforce basic interactions between you and the cards. This means you can play any game which is composed of picking up cards, laying them down, giving them to each other, flipping them over, etc. This also means you can cheat (as long as no one notices) - just like in real life. Thus, this is not like playing a computer game, but like playing cards - only at a computer instead of a table. This will be coded in C++ (we haven't learned any better languages yet, sorry) and will have a nice X-Windows GUI written in Motif.

So far, these seem to be the only sure things in SigSoft's future. In the future, I'd like to discuss various distributed and concurrent object issues; which will, of course, involves interprocess communication. Some workshops on this and Plan 9 could well be forthcoming. In addition, a workshop on the Inventor (for easy 3D graphics programming in IRIX or OpenGL) is in the works. We're really looking for other future directions, so if you want to learn about anything at all that's software-related (whether it has to do with networking, IPC, OSs, graphics, or UNIX) you are welcome to join us and give us more to do. We're always looking for more members, so if you have any questions, mail `sigsoft@uiuc.edu`. You can also see descriptions of past projects in our web page at `http://www.acm.uiuc.edu/sigsoft`.

WebMonkeys



by Scott Banister

The WebMonkeys are working to make sure that you eat well while online. While we cannot yet deliver pizza to your dorm room via TCP/IP (you wish!), we will do the next best thing by letting you order food over the web for delivery. While we are currently focusing on pizza delivery, the service can easily be expanded to other delivery items like sandwiches (did you hear that Jimmy John's?).

The project, cu-food.com, is a joint project of the WebMonkeys and SigBiz. We first put together a mock restaurant, Pizza Online (with a fabulous AOLesque logo) to test the software. Now, the visionary Flying Tomato Brothers of Garcia's Pizza have agreed to take the plunge as the first vendors on cu-food.com!

The WebMonkeys encourage anyone with an interest in developing for the World Wide Web to join us as we work to expand cu-food.com, start new projects, and hold workshops on web technologies both new and not-so-new. We love to hear new ideas for projects! So please join us! We currently meet on Wednesdays at 6:30 PM in 1225 DCL, but be sure to mail `monkeys@uiuc.edu` and ask to be put on the mailing list so you can get the latest info. Also see `http://www.acm.uiuc.edu/webmonkeys` or `news:uiuc.org.acm.webmonkeys`

Sig*BIZ*

by Ramu Yalamanchi

SigBiz has seen great progress since its recent formation as a new ACM special interest group. The focus of SigBiz is "To encourage cross-college interaction and investigation while nurturing an understanding of business issues in technical enterprises." SigBiz has an underlying theme of encouraging budding entrepreneurs. In the recent past, the computer science department at the University of Illinois, Urbana-Champaign has seen a number of highly successful entrepreneurs. Success breeds success. In order to keep the momentum of Netscape, Spyglass, and SPRY (to name a few), SigBiz provides a platform to collect and foster successful entrepreneurs through providing some tools for success.

SigBiz meets each Monday at 7:00 in front of 1225 DCL and then goes to a room for discussing the week's business. Typically, the 2nd and 4th Mondays have special general events. On the second Monday of each Month, SigBiz holds a grill session. On the fourth Monday of each Month, SigBiz holds a general meeting with speakers from industry who talk on some aspect of entrepreneurship.

SigBiz encourages interested individuals from all disciplines to attend our meetings.

NetMusic: Groovin' on the Internet

by Dan Wellman

The Internet's fast transfer speeds and distanceless destinations have made long-distance research, personal communication, and image acquisition a reality today, but what does the Internet SOUND like? Music enthusiasts around the world have been experimenting with this technology to find that cool groove, that hip sound, that movin' jam session, and it seems like they're starting to find the beat. If Paul Simon can go to Africa and add a new dimension to his music with a different sound, why can't we? With today's fast networks we'll be able to do just that, without the hassle of plane tickets, passports, and thug-like roadies. Canton Becker and Matt Moller are working on the Distributed Real-Time Groove Network (DRGN), which will make possible the creation of music in real-time with users from across the globe. Imagine playing bass while your friend in England lays down a cool keyboard riff and another user from Brazil jams out a funky percussion with a funky backbeat - that's the goal of the DRGN project. The Musical Instrument Digital Interface (MIDI) makes the computer-to-instrument communication possible, and the Internet handles the user-to-user interaction.

After the introduction of this technology, it was only a matter of time until the first Internet band popped up, Res Rocket Surfer (RRS). At last count, the band totalled around one thousand folks worldwide from thirty countries. There are no nail-biting auditions and you don't even need to know how to play an instrument! All that's required is a little bit of creativity, your own unique contribution to the group. Because of the broad accessibility of the band, your poem about Bantha cubs just might get picked up by a raver in Germany and end up a hit someday. The vast human resources of the Internet just might give you that fresh new idea, or the inspiration you've been looking for.

If you want to learn more about these projects, join RRS, or quench your thirst for magentic melodies, information is only a click away. Fire up your web browser and look for DRGN info at `http://ctdnet.acns.nwu.edu/hugo/drgn.html`, and Res Rocket Surfer info at `http://www.resrocket.com/`. As Jim Morrison of the Doors once said, "I am the Lizard King, I can do anything."

acm

student chapter
university of
illinois urbana-
champaign

membership form

Return or mail this form to:
1225 Digital Computer Lab, MC-258
1304 W. Springfield Ave.
Urbana, IL 61801

name:

campus address:

campus phone:

home address:

home phone:

electronic mail:

curriculum:

UNIVERSITY STATUS

- ☐ freshman
- ☐ sophomore
- ☐ junior
- ☐ senior
- ☐ m.a. / m.s.
- ☐ ph.D.
- ☐ faculty / staff
- ☐ postdoc
- ☐ alumni
- ☐ other

special interest groups

lug	linux users group
sigarch	architecture
sigart	artificial intelligence
sigbio	biocomputing
sigbiz	enterpreneurship
sigcas	computers and society
siggraph	graphics
sigir	information retrieval
sigmicro	microcomputers
sigmusic	music
signet	networking and security
sigsoft	software development
sigunix	unix programming
sigvr	virtual reality
webmonkeys	www development

MEMBERSHIP TYPES

return form with check or money order payable to the ACM at UIUC

- ☐ $40 for eight semesters
- ☐ $22 for four semesters
- ☐ $12 for two semesters

ACM NATIONAL MEMBER

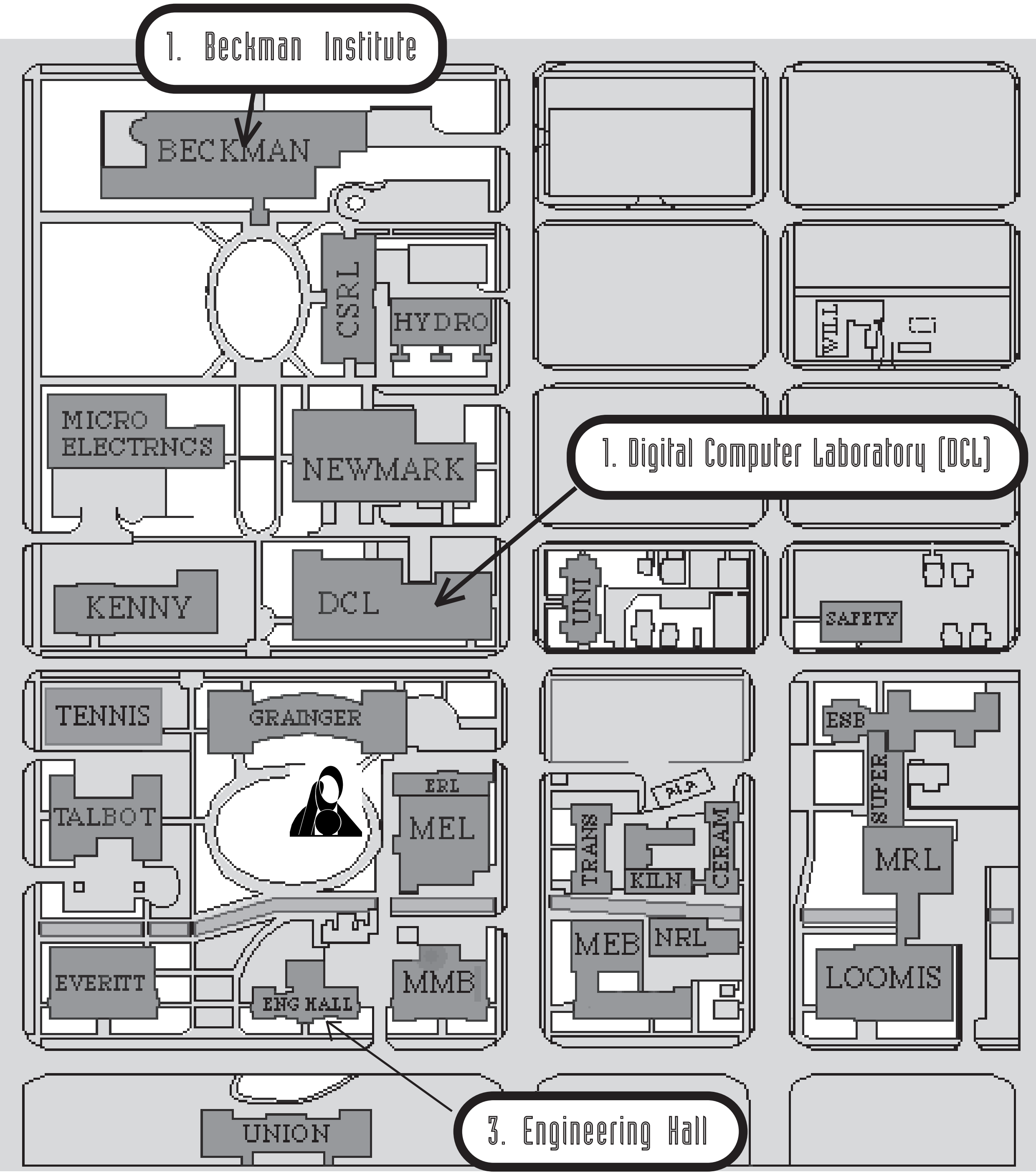
- ☐ yes — #
- ☐ no
- ☐ currently applying

for internal use

Received Date: _____ by:_____
Chk #_______ $_______

Enter Date:_______ by: ______

A Nerd's Eye View of ACM Exhibits at EOH



Welcome to Engineering Open House. March 1-2, 1996

(See the list and explanations of ACM exhibits on the next page)

Quick Guide to ACM Engineering Open House Exhibits

1996 ACM / CS Central Exhibit: ***Sounds and Visions***

Computer music by SigMusic members, accompanied by real-time generated graphics from SigGraph'ers on a bunch of hi-powered SGIs and PCs.

SigArch: ***wIReless PC*****:** Control any Infra-Red appliance over a standard serial port.

Digital Nametag**:** A nametag composed of a LED array weighing only 3.5 ounces.

***HINT/CamBot* :** Plug a standard video camera directly into a network and deliver real-time video across the'net.

Phoenix/The Can: A full color, 3-D imaging system, The Cylindrical Display.

SigBio: ***Interactive Online Anatomy Book***

An online (via WWW) collection of pictures and text describing various aspects of human anatomy.

SigNet: ***How Secure is Secure?***

SigNet's display will highlight computer security concerns. They will be handing out pamphlets in attempt to raise security awareness.

SigMusic: ***Talking Synthesizers: the Vocoder***

This software audio effect can let your synthesizers sing! The vocoder is an audio effect which makes a synthesizer sound like it's speaking.

SigSoft: ***TableTalk***

A "virtual" card-table. People can connect to a table over the network where they can converse and pass around cards.

SigUnix: ***UNIX utilities simplified under X***

SigUnix will make common UNIX utilities simple to use under X

SigMicro: ***Electronic Textbook Exchange***

A WWW forum for buying and selling used textbooks.

SigGraph: ***DataRace***

PC-based, networked game inspired by William Gibson's "Neuromancer"

Animation Festival

SigGraph will also be displaying a compilation of member's animations.

SigVR: ***Virtual Sandbox***

Explore a sandbox from the perspective of an action figure.

WebMonkeys: ***CU-Food.com***

Order your junk food on the Web!

Welcome to Engineering Open House. March 1-2, 1996

(See the map of ACM exhibits on the previous page)