



University of Illinois at Urbana-Champaign

by Sara Carlstead



Most of us in the computing world know the [University of Illinois at Urbana-Champaign](#) as the home of the [National Center for Supercomputing Applications](#), creators of [Mosaic](#) and other supercomputing tools. It comes as no surprise that at a campus with such a strong influence over the computing world, computing exerts an influence over most of the campus. In this issue we see how students with an interest in computing at UIUC work together to form a large active [ACM student chapter](#).

The UIUC ACM has over 200 members. The principal organizational structure behind this large group is the SIG (Special Interest Group). Like their counterparts in the larger ACM world, [the SIGs](#), sixteen in all, allow ACM members to gather to discuss and learn about their special interests, and to work together on projects. Besides the sixteen SIGs, the group has an [executive board](#) that plans whole [group activities](#) and coordinates the SIGs.

The chapter has its own two-room office, and a plethora of hardware and software donated or lent from [a variety of sources](#): a DEC Alpha borrowed from the [CS department](#), an [IBM RS/6000 PowerStation 360H \(Sleepless\)](#) purchased with a grant from IBM, a Mac Quadra 610 on loan from their computing services division, a LaserJet 4M Plus from Hewlett Packard, and other Macs and PCs. In addition, they have a library donated by [Motorola](#) and [O'Reilly and Associates](#), and a Netsite Commerce Server from [Netscape Communications Corporation](#).

The chapter newsletter, the [Banks of the Boneyard](#), edited by Doug Beeferman, has a circulation of 2000 and an incredible presentation thanks to layout and design specialist Dan Simms.

Special Interest Groups

The SIGs work as independent organizations under the umbrella of the ACM. They have their own

chairs, meet weekly, and develop projects. In addition to their own projects, the SIGs sponsor presentations and workshops in their areas of expertise. They also work with other SIGs and groups on campus on larger projects and cross discipline presentations.

[SIGArch](#)

The group for computer architecture, chaired by Jonathan Stark, is involved in numerous projects. The most active seems to be CamBot (named after the [MST3K](#) character), "a project to rebuild a commercial video camera to output digitized, compressed video through a standard Ethernet port." Other projects include a cylindrical RGB display, bit-mapped chase lights, an FPGA white noise machine, digital nametages, a Z80 based controller, ACE research and design, and an LCD driver/display controller.

One of the more entertaining past projects of SIGArch is their scrolling sign. A digital 64x8 pixel array of LEDs that scrolls messages in a number of ways is mounted outside the ACM office. The sign is on the 'Net, and anyone can display a message on the sign by sending a message via a [Web page](#) or [email](#)

[SIGBio](#)

The special interest group for the applications of computers and biology is currently working on a point and click anatomy book. It also undertakes smaller biological modeling projects.

[SIGGraph](#)

SIGGraph is developing many projects related to computer graphics. The largest one is a networked game called [DataRace](#) which is a puzzle based, 3D game for DOS based clients. The group is also working on an SGI Game, an Animation and Art compendium, long animation, and a protected mode TCP/IP library. They also put on workshops in the use of OpenGL.

[SIGCAS](#)

SIGCAS (Special Interest Group for Computers and Society) is a ``forum ... to gather and report information, exchange ideas, and arouse concern about impact of computers and society. The main concern is ethical and philosophical implications." Topics of interest to SIGCAS range from repetitive strain injury to law and the Internet. Last year they sponsored a talk on Sex, Censorship, and the Internet by Carl M. Kadie, a UIUC alumnus and moderator of the Computers and Academic Freedom newsgroup.

[SIGMicro](#)

The special interest group for microcomputers' focus is on education. They sponsor workshops on Emacs and C, and have a Web published imagemap tutorial. They also work with SIGArch and the Astronomy Club on a telescope.

[SigMusic](#)

SIGMusic's current project is a regular semester concert featuring music composed and ``performed" by members of the group. In the past they've developed music for SIGArch's promotional video. They also have plans to develop some analog effects.

[SigNet](#)

SigNet focuses on computer networking issues, especially security. One of their projects is a [DNS Redirector](#), which changes the way UIUCs terminal servers do DNS lookups to a more distributed system. They've also developed MUMBLE, a program similar to IRC that doesn't need a server, uses less bandwidth, and allows multiple people to communicate over multicast channels. A beta version of [MUMBLE](#) is now available. Other projects include a [Multicast reflector](#), a [hierarchical subject index](#), and a real-time weather project called [SkyView](#).

[SigSoft](#)

The special interest group for software development specializes in C and C++ programming on a variety of platforms. They have lots of projects under way, including: Arena, a networked car battle game for Macs written using the Think C development environment; Morpheus, a program to morph two animations together on the ACMs RS/6000; Oscope, a program to replace oscilloscopes for a basic physics class; MacBiff, a Macintosh mail alerter program; Realms of Darkness, a networked, medieval adventure game; a Laser Printer Archive Program that encodes data on a 9x11 sheet of paper as black and white spots--simply scan the paper to restore the data; Batmann, a comic book style semi-animated spoof of the Batman TV show; and Xtalk enhanced to provide a better interface and services for a talk session.

[SigUNIX](#)

The group for Unix related topics is working on a number of projects including a Web interface for the campus' Illinet Online library search system. The [IWI](#) uses Perl, HTML, and Expect scripts to provide the interface. They've also sponsored a HTML Forms Workshop, and are working on a news browser that will allow the user to down load new news articles from selected groups as a tar file, read them, and upload a reply file.

[SigVR](#)

The Virtual Reality group is working on a head mounted display. They are also working with SigGRAPH to create a virtual UIUC campus.

Linux Users' Group

The Linux group provides support and information for the users of Linux, a popular operating system, at UIUC. They provide a Linux Tips Page, a Linux Setup Page, and a PPP Setup Page. They are also working on a UIUC distribution of Linux for the power user.

Webmonkeys

The Webmonkeys, who could also be called SIGWEB, is the newly formed web interest group. Their projects include a number of HotJava animations and two stories that Internet users can add to. They are also experimenting with Netscape's Netsite Commerce Server.

In addition, UIUC supports special interest groups in business (SIGBiz), Artificial Intelligence (SIGArt), information retrieval (SIGIR), and Operating Systems (SIGOps). Although this chapter's activities might be daunting to the average computer science school, it's important to realize that UIUC is one of the largest ACM student chapters. If it seems like your chapter would never be able to do some of these things, use UIUC as a model, and cut their activities down to your size. Remember some of the things that make UIUC successful -- strong departmental and corporate support, groups of enthusiastic people who do what most interests them, and a strong umbrella organization to pull it all together.

Visit the UIUC ACM chapter online at <http://www.acm.uiuc.edu>.

I'm always looking for chapters doing interesting things. If your chapter or one you know of is doing anything of note, drop me a line at saracarl@rice.edu.