

November Monthly Events At a Glance
For details see inside

<u>Event Sponsor</u>	<u>Date of the Event</u>	<u>Location of Event</u>	<u>Web Site: http://</u>
BostonSiggraph	Nov. 6, 1996	GTE, Waltham	www.v-site.net/siggraph-ne
GBC Monthly Meeting	NOV. 21, 1996	BBN, Cambridge	www.acm.org/chapters/gbc
IEEE/CS	None Announced	Mitre, Bedford	ece.neu.edu/ieeebost
Boston SPIN	Nov. 19, 1996	GTE, Needham	www.cs.uml.edu/Boston-SPIN
Boston SIGCHI	Nov. 19, 1996	Lotus, Cambridge	NA

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If the top line of your mailing label below reads ****EXPIRED****, please renew your membership at the very affordable rate of \$10/yr. Please consider renewing for more than one year at time. It saves all of us some labor. For that \$10 you get your very own copy of this newsletter/local event calendar. And, not to worry, we know our database can handle the century boundary because at least one member has paid through the year 2000! Thank you.



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The Real Times

Vol.35 No.3

www.acm.org/chapters/gbc

November 1996

Distance Learning and Collaboration Using Multiple Technologies

With Dr. Lisa Neal, EDS Center for Advanced Research

Monday, November 21, 1996

Time Light refreshments and informal discussion from 6:30 to 7:00 PM.

The formal part of the meeting starts at 7:00 PM.

The Newman Auditorium at Bolt Beranek and Newman (BBN), 70 Fawcett Street, Cambridge, MA

Abstract

Organizations are searching for cost-effective ways to reduce the time and expense of travel. This is especially apparent with education, since it is traditionally offered in a face-to-face classroom. We experimented with the use of multiple interaction technologies to provide an effective alternative to face-to-face instruction. This talk describes how various communications technologies, including videoconferencing, audioconferencing, Internet Relay Chat (IRC), email, and a corporate intranet, were employed to teach courses to geographically-dispersed participants. The same technologies were also used for collaborative projects. The talk will cover the selection of distance learning and the delivery technologies, deployment strategies and issues, and participant feedback. We found that the use of multiple technologies provided richer communication than any one technology alone. Not only was the course content covered, but the subtler aspects of classroom interaction were supported, such as forming relationships with other participants. However, the effective use of each technology was far more complex than we had imagined at

the outset. We also found that we were able to reach more people than we would have been able to without distance learning. This had ramifications for other classes and other instructors who were interested in increasing the number of students they reached, without decreasing the impact of the material.

Biographical Information

Lisa Neal is a senior research engineer at the EDS Center for Advanced Research, where she leads a project to develop strategic planning software for management teams. Her research centers on the organizational impact and productivity gains resulting from the use of computer supported meeting rooms. Prior to joining EDS, she completed a Ph.D. in Computer Science at Harvard University, where she also was a postdoctoral fellow. She is co-chair for Organization Overviews for CHI'94. She presented a tutorial at CHI'91 on User Modeling, and has presented tutorials on Computer Supported Meeting Rooms, and Computer Supported Meeting Environment at INTERCHI'93.

Directions to Bolt Beranek and Newman (BBN)/Recorded directions: (617) 873-4567

From Route 128, Lexington: Take Route 2 inbound. The four-lane highway narrows to two lanes near Route 16. At the traffic light bear right onto Alewife Brook Parkway. Proceed past shopping centers to the Fresh Pond Rotary. Take the first right onto Concord Avenue. Fawcett Street is one block down Concord Avenue, on the right.

From the Mass. Pike: Take the Pike inbound to the Cambridge/Allston exit. Exit onto the Cambridge off-ramp and take Cambridge Street. Turn left onto either Storrow or Memorial Drive. (Storrow Drive is on the Boston side of the Charles River and Memorial Drive.)

From Storrow and Memorial Drives: Take Storrow or Memorial Drive west: follow signs to Route 2,3,16. Remain on 2. The road will become narrow and winding. This is the Fresh Pond Parkway. Several car dealerships and Fresh Pond Seafood will be on the right. At the 1st rotary, take the third right onto Concord Ave. Continue straight at the second rotary. Fawcett is one block further on right. Once on Fawcett St. the Newman Auditorium is about 1/2 block, on the right. Park in the lot on the right side of the street; the lot is adjacent to the auditorium building.

Public Transportation: Take the T to Harvard Square. From Harvard Square take the Concord Ave./Belmont Center bus. Get off at Fawcett St.

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Timely notices of events, meetings, and other activities of interest to the Chapter's Membership should be submitted by the 10th of the month Before the intended issue and sent, with attention to the Managing Editor to:

GBC/ACM, P.O. Box 465, Lexington, MA 02173.

The Chapter's mailing list is available to related professional organizations or for commercial use. Please contact the Membership Chair at the address above when requesting mailing lists.

Subscriptions: Annual subscription cost is included in the Chapter Membership dues of \$10.00. See top line on mailing label for membership expiration date. Library subscriptions are free. Please send orders for copies to the Chapter mailing address above.

Postmaster: Address changes should be sent to the mailing address above. Allow eight to ten weeks for changes to address or membership renewal to become effective. Send old label with address modifications.

SIGGRAPH/Boston November Meeting**3D for Free — 3D Graphics Acceleration for PCs
Wednesday, November 6, 1996 6:30PM**

GTE Labs 40 Sylvan Road Waltham, MA

Free admission Wheelchair accessible Contacts WWW:

<http://www.v-site.net/siggraph-ne>

Julie Satterfield julies@world.std.com

(617) 325-5351

Abstract

The number of transistors that can be economically put on a single piece of silicon has increased to the point that 3D graphics can now be included as an integral part of graphics accelerators, even those intended for the mainstream PC space. This phenomenon has been termed "3D for Free". This talk will give an overview of the 3D pipeline, and describe the functions that are typically put into graphics accelerator hardware. It will concentrate on one such accelerator, the 3D RAGE from ATI and discuss the features included and the tradeoffs involved in its design.

About the Speaker

Andrew Gruber is a hardware engineer with 15 years industry experience. He is currently employed as a senior 3D architect at ATI. Andrew Gruber ATI Research, Inc 4 Mount Royal Avenue Marlborough, MA 01752
Voice: (508) 303-3903 Fax: (508) 303-3920 E-mail: andrewg@atitech.com

Special Note:

BYTE has a cover article this month, "3-D for Everyone" which is on essentially the same topic as the meeting. It's interesting reading, and attendees might be interested in looking at it prior to the meeting.

Directions to GTE Labs.

From Route 128, get off at exit 27B, Winter Street, in Waltham.

- From 128 South the exit leads you right onto Winter Street.
- From 128 North, turn left at the light at the end of the exit onto Winter Street and cross over 128.

Go West on Winter Street through 3 closely spaced traffic lights. The Cambridge Reservoir appears on your right and the entrance to GTE Laboratories (40 Sylvan Road) is on the left. About halfway past the buildings, turn right under a pedestrian bridge joining two buildings. The entrance is in the building on your right from the central courtyard. Park in the central lot and sign in at the entrance from the courtyard from this northeast-most building.

SIGGRAPH/Boston maintains a mailing list for e-mail announcements of meetings. Send e-mail to siggraphdistrib-request@cs.umb.edu if you want to be added or dropped from this list.

CSCW 96 Conference in Cambridge November 16 - 20
CSCW 96
Computer Supported Cooperative Work
Hyatt Regency Hotel, Cambridge
November 16-20, 1996

We live in an era where technology and work life are inextricably meshed. Whether you work side by side with your colleagues, or communicate and collaborate with them at a time and place removed from own, computer systems will likely mediate your work.

The technical, sociological, anthropological and policy issues of the design of these systems is the subject matter of the conference on Computer Supported Cooperative Work (CSCW). This conference only takes place in North America every 2 years and attracts the foremost

researchers and practitioners in the field. If you are interested in learning and understanding more about CSCW, this is the best place to come.

The general technical sessions begin on Monday 18th November with an opening address by world-renowned researcher Herb Clark who will set the stage for discussion about Cooperating Communities, the theme of this year's conference. The conference closes on Wednesday 20th with a futuristic glimpse into Cooperating Communities that form and are maintained in 3-D virtual worlds. In

between there will be long papers and short papers, panels and demonstrations covering exciting new developments in the World Wide Web, Lotus Notes, synchronous and asynchronous technologies.

Prior to the technical sessions, on Saturday 16th November and Sunday 17th November there will be a full program of workshops and tutorials. For people new to the field who want a general overview of CSCW, there will be a special introductory tutorial on Saturday evening.

For further information about this conference, including registration materials, see the web page at <http://www.acm.org/sigchi/cscw96/> or call the conference office at +1 410 269-6801.

We look forward to meeting you in Cambridge. Register now!

Note: All GBC/ACM members are eligible for discounted member rates to this conference.

Seminar & Book Titles	Advance Registration	Walk-in	Enter Amount
Designing with HTML for the WWW	\$75	\$85	\$
The HTML3 Manual of Style	\$20	\$20	\$
The Java Programming Language	\$75	\$85	\$
The Java Programming Language	\$25	\$25	\$
Improving Personal Productivity	\$75	\$85	\$
A Discipline for Software Engineering	\$35	\$35	\$
International ACM # _____	Subtotal		\$
GBC/ACM ID # _____ or \$10 (GBC membership is required)	\$10	\$	
(Pay to GBC/ACM PDS with check or money order ONLY)	Total	\$	
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The GBC/ACM monthly meeting agenda through Feb stands as follows:

Dec 12 (2nd Thursday)
 Henry Leiberman
 Interface Agents

Jan 16 1997
 Dr. Peter Wegner
 What Comes After Object Oriented Programming

Feb 20 1997
 Ken Arnold
 Distributed Java Programming

A Review of the first PDS Seminar

Designing with HTML for the WWW with Larry Aronson

By Howard Green

What you Missed at the PDS

If you are interested in Web Authoring, you should have attended the ACM Boston Chapter Professional Development Seminar on October 5. ACM National member, Larry Aronson, spoke on “**Designing with HTML for the WWW**”. Most of the material is available either in the speaker’s book “**HTML 3 — Manual of Style**” and/or in the published PDS notes (which are available at <http://www.interport.net/~laronson/webscope/intro.html>). Some important points were not spelled out in the notes. You may want to review these comments for additional thoughts and points made during the seminar.

A web space designer really knows very little about the specific capabilities of the client’s system, its fonts, depth of color rendering, or even the size of the page or screen. Therefore it is necessary to design in a logical, abstract way, so that the many decisions made at the browser end by the viewer, or as defaults in a particular implementation, can be accommodated.

There are a variety of commercially available authoring tools to produce HTML documents. Those which take responsibility to produce tagged pages are not recommended because they mask the syntax and operation of the language from the author; may not work, are hard to maintain, and substitute one metaphor for another.

HTML’s design point was focused on a paperless exchange of professional and technical documents. Until quite recently, the notion of printing appearance and format was missing from HTML. The current evolution of Style Sheets provides uniform structure to guide browser in laying out the material for effective visual presentation. Microsoft Internet Explorer 3.0 and Netscape Navigator 4-Beta begin to use cascading styles to provide author influence over document appearance.

HTML provides no logic (if statements), variables, math capabilities, or macro definitions to facilitate conditional or repeated execution within the browser. Markup tags are not author or user extendable (unless you own a browser company).

Markup tags generally have an opening and closing portion, and are considered as “Containers”. These typically mark the beginning and ending of blocks where the same structure and style is reflected in between. There can be (and usually is) nesting of container tags. There is another class of markup tags which are single tags which mark where some particular action or insertion is to occur; these are called “Empty” tags.

In addition to Ordered and Bullet (Unordered) lists, a simple list (menu) can be coded as a `<ul type=none>`. Definition lists can provide a nice layout tool to provide an indented left margin style.

Providing a user Link to other documents or elements requires the definition of a target location or URL. Using a “container” opening tag “ID attribute” is preferable to the use of an “empty” anchor tag when you have links within the same document.

Server script processing has generally been used to provide for logic checking of user inputs, etc. CGI scripts require a communication between the client and the processing programs. Alternatives such as Java and Shockwave Lingo provide for some kinds of client side logical operations.

Graphics or images often appear inline, as if they were a large oversized character in the text stream. These offer the viewer scant option on displaying individual images, and therefore should be conservative in size. Tabular and panel formats are recent additions. The images may be retrieved from ftp and gopher sites, as well as hypertext servers.

Don’t surprise the user with unexpectedly large image on home pages; allow for the user to choose if they want the material. Use as few colors as possible by defining a small color depth palette to minimize image sizes. GIF images can be structured so that they interlace loading to provide some initial image form as the remaining sections continue to be downloaded. Height and width in pixels should be defined so the appropriate space can be reserved for the images. Image descriptions (alt=) should be provided for users running Image=Off. Images should be bottom aligned.

Authors should view their documents with several current and back levels of browsers; many users will not have the latest versions and it is important to aim for both the latest fully-featured dialects, as well as those which may be more commonly in use.

There are several plug-ins that should be considered as part of the well equipped browser: Real Audio, Acrobat, and Quick Time movies.

GBC/ACM Professional Development Seminars for Fall 1996

Improving Personal Productivity

With Watts Humphrey

Saturday, November 2

Overview

Improvements of 25% or more in productivity and five to ten times in quality are common with Watts Humphrey's method, known as Personal Software Process (PSP). PSP uses a structured sequence of defined processes, software development exercises, and data analysis exercises. PSP is an application of software engineering principles and the Capability Maturity Model (CMM) to an individual programmer's work.

Who Should Attend

Practicing software engineers, project leaders, software engineering managers, and software process specialists will benefit from this seminar.

Seminar Topics

- Objectives
- Planning
- Quality methods
- Planning examples
- Quality examples
- Early experience
- PSP and the CMM

Lecturer

Watts Humphrey is a member of the Software Engineering Institute (SEI) of Carnegie Mellon University. He established the SEI's Process Program, led the initial development of the Software Capability Maturity Model, and introduced the concepts of Software Process Assessment and Software Capability Evaluation. In 1995 he published **A Discipline for Software Engineering** to describe PSP.

Watts spent 27 years with IBM in various technical executive positions. His responsibilities included management of the first 19 releases of OS/360. Most recently, he was IBM's Director of Programming Quality and Process.

Session Chair

Jim Byrd, byrd@acm.org

SEMINAR BOOK OFFERS

A Discipline for Software Engineering

by Watts Humphrey

Suggested List Price: \$ 47.29

PDS Price **\$35.00**

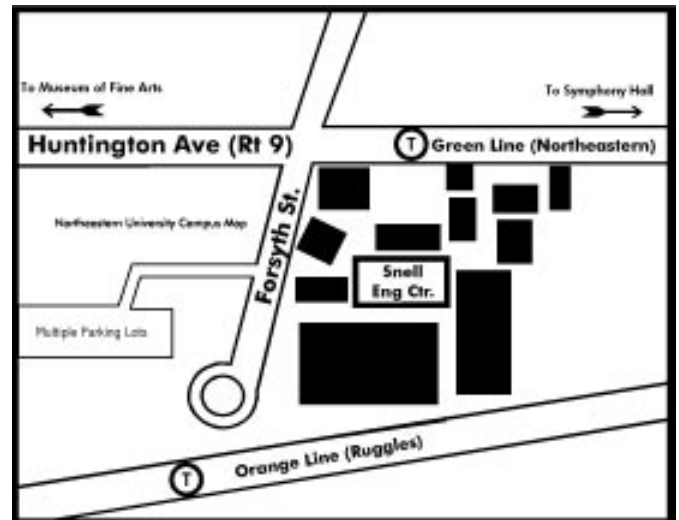
(Offers only good when included with registration fee.)

GBC/ACM Professional Development Seminars

General Information

Location

All seminars are held at Northeastern University's Snell Engineering Center, Boston, within walking distance of the MBTA Green Line (Arborway/ETrain) Northeastern station and the



Orange Line Ruggles station. Free parking is available.

Schedule

8:30am - 9:00am	Registration (continental breakfast)
9:00am - 12:15pm	Morning session (break at 10:30am)
12:15pm - 1:30pm	Lunch (provided on-site)
1:30pm - 4:30pm	Afternoon session (break at 2:30pm)

REGISTRATION FEES

Included in the \$75 fee are seminar materials, lunch, and refreshments. Registrants not current members of the GBC/ACM are charged an additional \$10, and become members of the chapter for a year. This is distinct from ACM membership. Surcharge for on-site registration is \$10. Purchase orders, credit cards, faxes and e-mail cannot be accepted. Enrollment is limited and on a first come, first served basis. Early registration must be made by a check or money order at least three weeks in advance of the seminar to receive confirmation from GBC/ACM.

CANCELLATION & REFUND POLICY

Cancellations must be received in writing. The full fee will be refunded if the PDS Registrar receives written notification on or before the day of the seminar, addressed to GBC/ACM, PO Box 465, Lexington MA 02173. Refund requests received after the seminar date will be subject to a \$15 administrative fee. The \$10 membership fee will not be refunded.

Any Questions?

See: <http://www.acm.org/chapters/gbc>

Call (617)862-1181

Journey into Avatar Cyberspace

Bruce Damer, Director, Contact Consortium

Tuesday, November 19, 1996

Refreshments at 6:30, meeting 7:00 - 9:00
Lotus, Auditorium A, One Rogers St., Cambridge, MA
(directions & parking info below)
Free and open to the public. Wheelchair accessible.

For more information please contact the program chair:
Ron Perkins, rperkins@shore.net, (508) 465-6083

Abstract

The emergence of standards such as Virtual Reality Modeling Language (VRML) has made shared, three dimensional virtual spaces available to the greater Internet community. When these spaces are inhabited by representations of people, often referred to as digital actors or *avatars*, a whole spectrum of social behavior emerges. Over 300,000 users of fifteen online virtual environments are engaged in the largest participatory design experiment in the history of CHI. Virtual worlds are a new frontier for interaction design and a new medium for cooperating communities. This presentation will provide a tour of several virtual worlds in both two and three dimensions. This presentation will be a variant of the demonstrations made at CHI96, CSCW96, and the design column in the September issue of ACM interactions magazine. See the Consortium Web Site at <http://www.ccon.org> for a preview of what this presentation will cover.

About the Speaker

Bruce Damer has spent the last 12 years since graduating from the University of Victoria (BSc-CS) and the University of Southern California (MSEE) in various projects ranging from research into algorithms for optical computing systems at IBM and USC to establishing commercial and research software laboratories in Prague in the Czech Republic. Working with Xerox Corporation, he developed a successful line of products based on the Xerox PARC object desktop technology. In 1995, he co-founded the Contact Consortium with anthropologist Jim Funaro to serve as a forum for the emergence of contact, culture, and commu-

nity in the new medium of inhabited virtual worlds. Mr. Damer also serves as President and CEO of DigitalSpace Corporation, a company working with companies and educational institutions in the creation of collaborative virtual environments.

Directions

The Lotus building is on the corner of First St. and Rogers St. in Cambridge, a few blocks from the Science Museum. (Note that there is another Lotus building on Cambridge Parkway next to the Sonesta hotel. Don't go to that one.) The meeting will be held in Auditorium A, on the first floor. If you need detailed directions, contact Ron Perkins (above) or the newsletter editor.

PARKING

Contact Kate Ehrlich in advance of the meeting to arrange to park in the Lotus garage. Kate will give the guard a list of our names. You can reach Kate at (617) 693-1899 or Kate_Ehrlich@crd.lotus.com. Arrive before 7:00 p.m. if you plan to use the garage, as the doors are shut after that. Some street parking is available but you might have to walk a few blocks. MBTA Directions: Ride the Green Line to the Lechmere stop. Exit Lechmere station, walk to the right about 100 feet and turn right to walk through the tunnel. When you exit the tunnel, continue walking straight across through the traffic light and down First street. Go past the Galleria Shopping Mall on your left and past the traffic lights. The entrance to the Lotus building is on First St. You go under an archway between two sides of the building and enter the lobby to the left.

Boston SPIN November Meeting Announcement**Controlling Software Development
With Michael C. Mah, Director & Principal of QSM
Associates****Tuesday, November 19, 1996 at 6:30 PM (refreshments),
7:00-8:30 PM (meeting)****Boston Area - Software Process Improvement Network (SPIN)
(Admission Free)****LOCATION: GTE, Building #5, 77 A Street, Needham, MA
(Wheelchair accessible)****MEETING OVERVIEW:**

In a recent 1995 issue of IEEE Software, a survey of software development projects showed that 31 percent were canceled, 53 percent were more than 189 percent over budget, and only 61 percent of the features that users request made it into the final product. Clearly, software development still continues to confound traditional project management methods, many rooted in hardware project management techniques. However, new approaches exist that address the unique, non-linear ways that software projects behave. Software project control functions are moving into realms that can more effectively measure, estimate, and capture software project behavior, mid-stream. Traditional methods of tracking activities, time and effort, do not capture the entire behavior of software development. By using the Carnegie Mellon SEI minimum data set, which adds 1) size metrics and 2) defect metrics, new methods exist to identify the path, or "trajectory" of a software project. These give managers ability to identify "health at a glance", using visual aids such as "Red, Amber, Green" traffic lights. Mid stream productivity can be captured, much like a "Radar Sweep" can lock onto a object's location and direction. With this, it can be reliably predicted as to where a project is headed. This presentation will highlight these key points and illustrate 2 Case Studies, 1 from a major U.S. semiconductor and microprocessor company, and another from a major European telecom company, describing managerial and cultural issues around software risk management.

ABOUT THE SPEAKER:

Michael C. Mah is Director and Principal of QSM Associates. Since 1978, QSM has been an industry research leader on software productivity management, metrics, and lifecycle modeling. Prior to QSM Mr. Mah served as group manager of Systems Test and Evaluation with the Systems Management Division at the Sperry Corporation. He was a principal catalyst for initiating corporate-wide adoption of software metrics techniques as early as the mid-1980s. Mr. Mah also held positions with General Electric, as group leader for Software Quality Assurance.

UPCOMING MEETINGS: December 17: 5 Minute Madness

MEETING CANCELLATIONS due to inclement weather will be announced on radio WRKO 680AM and sent e-mail by 3 PM on day of meeting.

DIRECTIONS

To get to GTE, Building #5:

From Route 128 in Needham, take exit 19A onto Highland Avenue East. At first traffic light turn RIGHT onto Second Street. Go 1/4 mile (passing hillside Sheraton entrance on right) and turn RIGHT onto A Street. Go 1/5 mile and immediately after GTE HQ building on left (multi-story glass facade - this is Building 5), turn LEFT into Visitor Parking lot. Go around to back of building and you will see the entrance. The security guard will direct you to the cafeteria.