


Date of event	Page	Sponsor	Location
April 7	4	SIGGRAPH	GTE, Waltham
April 10	5	GBC/ACM	MIT
April 15	1	GBC/ACM	BBN/GTE, Cambridge
April 15	4	BACOM	Microsoft, Waltham
April 22	3	IEEE/CS	Marcam, Newton
May 1	5	GBC/ACM	MIT
May 20	3	GBC/ACM	BBN/GTE, Cambridge

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. Thank you.



The Greater Boston Chapter of the 
P.O. Box 465
Lexington, MA 02420

First Class
 Presorted
 U.S. Postage
PAID
 Boston, MA
 Permit Number
 56536

*GBC/ACM is a non-profit educational and scientific society.
 (781) 862-1181 - www.acm.org/chapters/gbc*

**First Class:
 Dated Materials**





The Real Times

Vol.38 No.3

www.acm.org/chapters/gbc

April 1999

GBC/ACM Monthly Meeting

**Charles Lamb talking about Jini(tm)
Thursday, April 15, 7 pm
Refreshments at 6:30 pm**

BBN/GTE Newman Auditorium, 10 Fawcett St, Cambridge, MA.

This month's meeting will feature a presentation by Charles Lamb on Jini(tm) technology. Charles is one of the key developers at Sun's Burlington research Labs. The Jini(tm) technology is designed to make it easy to deploy and use services in a network. When you plug a service into a network it just works -- no drivers to install. This talk will cover the Jini architecture, what it does, and how it does it. More information about Jini is available at <http://www.sun.com/jini/> on the 'net.

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.

Real Times Acting Editors

Jim Byrd (617) 628-6859(home), byrd@acm.org
 Peter Mager (781) 890-2084, p.mager@computer.org

GBC/ACM Officers(1998 - 1999)**President**

James S. Ganino, jsganino@acm.org

Vice President

Jim Byrd (617) 628-6859(home), byrd@acm.org

Secretary

Ed Bristol, ebristol@foxboro.com

Treasurer

Stephanie Collins, jsmcollins@neu.edu

Past President

Anne Warren, (617) 495-8420, warren@hrm.harvard.edu

Local Special Interest Group Chairs**GB/SIGCHI**

Dan Workman, dan.workman@eastmansoftware.com

SIGGRAPH/Boston

Olin Lathrop, (978) 392-0881, olin@cognivis.com

GB/WEB TECH

Dennis McCarthy, (781)894-1964, maccarthy@acm.org

Standing Committee Chairs**PDS Committee**

Peter Barzdines, (617) 924-4072 (home), peterbar@world.std.com

Monthly Meeting Committee

Open

Publicity Committee

Joe Galligan, joegail@ibm.net

Membership Committee

Kenneth Baclawski, kenb@ccs.neu.edu

Network Services Committee

Michael Ciaraldi, ciaraldi@ciaraldi.com, <http://www.acm.org/chapters/gbc>

The Real Times is published ten times per year (September through June) and is the official newsletter of the Greater Boston Chapter of the Association for Computing Machinery, First or third-class postage paid at Boston, MA 02101, Lexington, MA 02420, and other post offices.

All rights reserved: © 1999 by the Greater Boston Chapter of the ACM. Copying without fee is permitted, provided that copies are not made or distributed for direct commercial advantage and credit to the source is given, except articles that are noted otherwise. Abstracting with credit is permitted. For copying of articles that are specially noted, contact the Editor at the address below.

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 02420.
(781) 862-1181

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.

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.

Spring 1999 Colloquium Series

CENTER FOR ADAPTIVE SYSTEMS
 AND
 DEPARTMENT OF COGNITIVE AND NEURAL SYSTEM
 BOSTON UNIVERSITY

March 19

JAW MOVEMENT ACTIVITY IN RATS AS A MODEL OF PARKINSONIAN TREMOR:
 ANATOMY, NEUROCHEMISTRY, AND PHARMACOLOGY
 Professor John Salamone, Department of Psychology,
 University of Connecticut

March 26

THE REPRESENTATION OF SHAPE IN MATH AND IN THE BRAIN
 Professor David Mumford, Department of Applied Mathematics,
 Brown University

April 2

THE PERCEPTUAL REPRESENTATION OF SURFACE SHAPE
 Professor James Todd, Department of Psychology, Ohio State University

April 9

SPEECH MOTOR CONTROL: ACOUSTIC GOALS, SATURATION EFFECTS,
 AUDITORY FEEDBACK, AND INTERNAL MODELS
 Professor Joseph Perkell, Speech Communications Group, MIT

April 23

ATTENTIVE MECHANISMS DURING ACTIVE VISUAL SEARCH
 Professor Brad Motter, VA Medical Center, Syracuse University

April 30

CORTICAL CONNECTIVITY IN RELATION TO THE ARCHITECTURE OF
 CEREBRAL CORTEX
 Professor Deepak Pandya, Boston University School of Medicine

All talks are on Fridays at 2:00 PM in Room B02
 Refreshments after the lecture in Room B01
 677 Beacon Street, Boston
<http://cns-web.bu.edu/Colloquia>

Spring 1999 PDS Program

Schedule:

8:30am - 9:00am Registration

9:00am - 4:30pm Technical Program

Seminar materials, lunch, and refreshments are included in the \$75 fee.

Location: Edgerton Lecture Hall, MIT Building 34, Room 101 Vassar Street (about half way between Main St and Mass Ave), Cambridge, MA

Parking: There is free parking on Vassar Street all Saturday and there is a parking structure surrounded by a parking lot at the corner of Vassar and Main.

Public Transportation: Red line to Kendall Square. Walk west on Main Street to Vassar Street; Turn left on Vassar and walk half way to next light to building 34.

Questions: See: <http://www.acm.org/chapters/gbc> or call: (781)862-1181

Return this form to GBC/ACM PDS, PO Box 465, Lexington, MA 02420-0005

Seminar & Book Titles	Advance Registration	Walk-in	Enter Amount
Practical UML	\$75	\$85	
<i>UML Toolkit</i>	\$30	\$30	
Fundamentals of WWW Security	\$75	\$85	
<i>The Web Security Reference Guide</i>	\$20	\$20	
Getting Started with Swing Components	\$75	\$85	
<i>The Java Swing Book</i>	\$35	\$35	
International ACM # _____		Sub total	
GBC ID# _____ or \$10 (required)		\$10	
Pay to GBC/ACM with Check or money order Only		Total	

Batch:	Chk #	Trans. #	Date
Name:			
Employer:			
Preferred Mailing Address: Home Work			
City:		State:	Zip:
Home Phone:			
E-mail:			
Restrict use of my name to: ACM use only Prof. soc. use GBC/ACM use			

SIGGRAPH/Boston Meeting

OpenViz, A STANDARD COMPONENT-BASED VISUALIZATION SYSTEM

Wednesday, April 7, 1999, 7 pm
at GTE Labs, 40 Sylvan Rd, Waltham, MA
conference room 3-122

Speaker: John Poduska, Jr.,
chief architect for the OpenViz product at
Advanced Visual Systems, Inc.

The following areas of the OpenViz architecture will be covered:

- JavaBeans and ActiveX (COM)
- Data model
- Visualization engine
- Event model
- Visualization component model
- Axis system

Details at www.siggraph.org/chapters/boston.

Boston Area COM User's Group April 15th Meeting Notice

Microsoft Offices, Waltham, Massachusetts

Agenda:

- 6:00 Pizza complements of Microsoft
- 6:15 Business
- 6:30 Transaction Integration with CICS and IMS: COM TI
presented by Mike Cramer, Microsoft
- 7:30 Break
- 7:40 Load Balancing presented by Tim Ewald, DevelopMentor

Abstract: Transaction Integration with CICS and IMS: COM TI
The focus of this session is to gain a full understanding of Microsoft's COM TI Technology and how it is used for the development of Line of Business applications in the Enterprise. We will introduce Microsoft's COM TI with a detail look at the technology being used to integrate Microsoft DNA applications to legacy applications in MVS. We will also look at what is on the horizon for this technology and related Microsoft offerings for interoperability in the enterprise.

Bio: Mike Cramer, Principal Consultant, Microsoft.
As a member of the New England MCS organization and focusing on integrating heterogeneous applications, Mike Cramer works with existing and prospective Microsoft customers in New England. Mike joined The Microsoft Corporation during the 1995 acquisition of Netwise Inc. (Boulder CO). Prior to the acquisition, Mike worked for Netwise approximately three years as a Consultant and later Consulting Manager, implementing large-scale mission critical distributed applications. Before Netwise, Mike was involved in the development and introduction of the most successful code generator (TELON) in the MVS market. Mike received a BA in Mathematics from North Adams State College in 1983. Mike grew up and maintains his current residence on Boston's south shore.

Abstract: Load Balancing

Load balancing is a requirement for scalable systems and COM+ provides a load-balancing service, but MTS does not. This talk will cover the COM+ load balancing architecture and how a plug-compatible version can be built today.

Bio: Tim Ewald, DevelopMentor

If you haven't enjoyed an insightful and entertaining presentation by Tim Ewald ever or recently, now's the time!
Timothy Ewald is a Principal Scientist at DevelopMentor. He specializes in the effective application of bleeding-edge object technologies to the production of flexible, extensible, and maintainable component-based distributed software systems. His primary focus is on object-oriented analysis, design, and implementation using COM (DCOM/OLE/ActiveX), C++, Java, and Visual Basic.

See website www.BACOM.org for more information.

Spring 1999 PDS Program

Saturday April 10, 1999
Fundamentals of WWW Security
 Lincoln Stein

Overview:

What's to Worry About? Unfortunately, there's a lot to worry about. If you are an end user, you might think that Web surfing is safe and entirely anonymous. It's not. If you are a Webmaster, an attack on your site can threaten your job security. Whether motivated by thrills or financial gain, Internet vandals break into Web sites with unnerving regularity. If you are the network administrator, a Web server represents yet another way that your local network's security can be compromised. A poorly configured Web server can punch a hole in the most carefully designed firewall system. Conversely, a poorly configured firewall can make a Web site impossible to use.

Who Should Attend:

This seminar is intended for a general audience. The first part of the seminar, on client-side security and document confidentiality, will be of interest to everyone. The second part focuses on server side security issues and provides more details, which will be of interest to Webmasters and system administrators.

Objectives:

This tutorial will disentangle the jargon-laden and overhyped field of security on the World Wide Web. The three sections of this tutorial will take you through the three main divisions of Web security: client-side security, server-side security and document confidentiality. In each section, the specific risks will be explained in realistic terms and you will be shown practical measures you can take to minimize them.

Lecturer:

Lincoln Stein is an M.D. and Ph.D. who was Director of Informatics at the MIT Genome Center between 1992 and 1996 and is now a research scientist at Cold Spring Harbor Laboratories. He is author and maintainer of the World Wide Web Security FAQ (part of the W3C security pages <http://www.w3c.org/Security>) and speaks on Web Security issues for Computer Security Institute and Web Design and Development.

Session Chair: Peter Mager (p.mager@computer.org)

Book: *The Web Security Reference Guide* by Lincoln Stein, Addison-Wesley (PDS price \$20, List: \$29.95)

Saturday May 1, 1999
Getting Started with Swing Components
 John Zukowski

Overview:

In the beginning, there was Java's Abstract Window Toolkit (AWT): a collection of graphical user-interface (GUI) components that furnished native look-and-feel, along with some basic graphic rendering capabilities. Programmers realized that Java's AWT lacked several capabilities commonly found in modern programs. Netscape's Internet Foundation Classes (IFC) and Microsoft's Application Foundation Classes (AFC) gained popularity. Both of these provided a richer component set for use within Java programs. Their major problem was that they weren't part of the Java Core API. If you wanted to use them within an applet, each user had to download the IFC or AFC package. If you wanted to use them within an applet or application, you had to download or deliver the entire IFC or AFC package with your program. Sun added the Java Foundation Classes (JFC) to the Java core to provide a better set of GUI components and enhanced drawing capabilities usable in both JDK 1.1 and Java 2. It is the new GUI component set, called Swing, that this seminar will explore.

Who Should Attend:

This seminar is for someone that already has a basic understanding of programming Java user interfaces and wants to learn to use the Swing component set effectively.

Objectives:

This seminar will provide a detailed look at the Swing component set for existing Java programmers and describe the Model-View-Controller (MVC) and Pluggable Look-and-Feel (PLAF) architectures used by Swing. It will also give transitioning tips useful to previous AWT 1.1 developers.

Lecturer:

John Zukowski is a Software Mage with MageLang Institute. He received a B.S. in computer science and mathematics from Northeastern University and M.S. in computer science from Johns Hopkins University. He is the author of "Java AWT Reference" from O'Reilly & Associates as well as "Borland's JBuilder: No Experience Required" and "Mastering Java 1.2" from Sybex. In addition, John has authored numerous Java technologies articles and serves on the Senior Advisory Board of JavaWorld. John also is the founder of the Mid-Atlantic Java User Group, the vice-chairman of ACM's WebTech user group, and the "Focus on Java" online guide for The Mining Co.

Session Chairs: Yaz Shaghghi (yaz@draper.com) & Peter Mager (p.mager@computer.org)

Book: *The Java Swing Book* by Eckstein, Loy, and Wood, published by O'Reilly (PDS price: \$35, List \$44.95)

Books for Sale

GBC/ACM has the following books leftover from previous seminars available for sale. They are available on a first come first serve basis. Checks will be returned if the book is no longer available.

Title	Author	List Price	ACM Price	Quantity	Total
The JAVA Programming Language	Ken Arnold	\$34.38	\$25.00		
The HTML3 Manual of Style	Larry Aronson	\$24.95	\$20.00		
Inside OLE 2 (copyright 1994, w/diskettes)	Kraig Brockschmidt	\$49.95	\$10.00		
About Face: The Essentials of User Interface Design	Alan Cooper	\$29.25	\$20.00		
Working with Active Server Pages	Michael Corning	\$39.99	\$25.00		
JAVA: How to Program (with CD)	Paul Deitel	\$99.95	\$55.00		
JAVA: How to Program (book only)	Paul Deitel	\$51.00	\$40.00		
The SGML FAQ Book: Understanding the Foundation of HTML and XML	Steve DeRose	\$68.00	\$55.00		
A Discipline for Software Engineering	Watts Humphrey	\$47.29	\$35.00		
Real-Time Systems Design and Analysis	Phil LaPlante	\$69.95	\$55.00		
Concurrent Programming In Java	Doug Lea	\$39.76	\$30.00		
The C++ Programming Language, 3rd Ed	Bjarne Stroustup	\$42.99	\$30.00		
Shipping and Handling - \$4.00 per book			\$4.00		
Check Total - payable to GBC/ACM					

Name: _____

Address: _____

City/State/Zip: _____

Phone Number: _____

Check here to receive a receipt

Mail order form and check to:

Bernie Ganino, 12 Fellsmere Ave. Wakefield, MA 01880

IEEE Computer Society - 6:30 pm, Thursday, April 22, 1999

**Building a Distributed Computing Framework: Design Trade-offs and Their
Implication for Runtime Behavior in OpenFrame**

Jerry Thomas, Riverton Software Corporation

Developing a business application is a lot like building a house: you need to spend time on the design of the foundation and structure if you want it to stand up to heavy use. It has been estimated that design of an application architecture can consume up to 40% of a project's resources - and you don't know whether it will actually work until you're well down the implementation road. To manage this development risk, it makes sense to use a proven, flexible architecture and to reuse components whenever possible. This talk will explore how OpenFrame, Riverton's distributed computing framework, supports more efficient development while reducing development risk. Particular emphasis is given to various design trade-offs and their related effect on runtime efficiency.

At Marcam Corporation, 95 Wells Avenue, Newton, MA. For more information, please contact Marcia Nizzari at 617 856-1804 (marcia.nizzari@tfn.com).

GBC/ACM May Meeting
Thursday, May 20, 7pm
BBN/GTE, Fawcett St, Cambridge, Ma

The Mao Zedong Approach to Public Key Infrastructures

Dr. Stephen T. Kent

Chief Scientist- Information Security, BBN Technologies
Director, Security Practice Center, GTE Internetworking
Chief Technical Officer, CyberTrust

Some popular models of public key infrastructure (PKI) embody a notion that only a few certificates will be issued to each user to represent that user in interactions with many different applications (services). Generic, public CAs like those operated by VeriSign adopt this notion. However, operating a public CA service of this sort requires balancing liability concerns, acceptable cost models, levels of authentication assurance, and name space issues. It is not clear that this model scales well or that it does a good job of addressing the needs of both subscribers and relying parties.

Another approach to PKIs is motivated by the observation that individuals have many existing relationships with various organizations. This approach leverages the existing databases maintained by organizations to track employees, customers, members, etc. Certificates issued by organizations not for general use, but focused on a specific application context, avoid many of the problems facing generic, public CAs. For example, liability can be well understood because the certificate is bounded in its use. The level of assurance for authentication is determined solely by the issuer, in the context of the application, and the issuer's database provides data associated with the subject that may be used to support on-line registration with fairly high levels of assurance. Naming problems disappear because each subject is already assigned a unique name in the issuer's database.

In his role as Chief Scientist, Dr. Kent provides oversees information security activities within BBN Technology, and works with government and commercial clients, consulting on system security architecture issues. In this capacity he has acted as system architect in the design and development of several network security systems for the Department of Defense and served as principal investigator on a number of network security R&D projects for almost 20 years. As Director of the SPC, Dr. Kent monitors all security related aspects of the service offerings of GTE Internetworking Services. He reports to the President of GTE Internetworking and coordinates with engineering, operations, and marketing to ensure the security quality of offerings. As CTO for CyberTrust Solutions, Dr. Kent provides strategic direction for this certification authority business, reporting to the General Manager of CyberTrust.

Over the last 20 years, Dr. Kent's R&D activities have included the design and development of user authentication and access control systems, network layer encryption and access control systems, secure transport layer protocols secure e-mail technology, multi-level secure (X.500) directory systems, public-key certification authority systems, and key recovery (key escrow) systems. His most recent work focuses on public-key certification infrastructures for government and commercial applications, security for Internet routing, and security for mobile computing.

The author of two book chapters and numerous technical papers on network security, Dr. Kent has served as a referee, panelist and session chair for a number of conferences. Since 1977 he has lectured on the topic of network security on behalf of government agencies, universities, and private companies throughout the United States, Europe, Australia, and the Far East.

Dr. Kent received the B.S. degree in mathematics from Loyola University of New Orleans, and the S.M., E.E., and Ph.D. degrees in computer science from the Massachusetts Institute of Technology. He is a Fellow of the ACM, a member of the Internet Society and of Sigma Xi.