



The Real Times

Vol. 46 No. 1

www.gbcacm.org

January 2007

GBC/ACM and IEEE CS Meeting Thursday, January 18th, 2007 *What compiler writers/chip architects might want to know about graphics processors*

Speaker: Norm Rubin, Compiler Architect AMD/ATI

Time: 7:00 - 9:00 pm

Location: IBM Innovation Center

404 Wyman Street, North Entrance

Waltham, MA 02454-1280

Telephone: (781) 895-1234

Directions:

<http://www-304.ibm.com/jct09002c/isv/spc/waltham.pdf>

Details:

<http://www.gbcacm.org/website/semInfo.php?id=1121>

This talk will be a broad overview of the application space and common programming model for graphics processing unit (GPU) architectures. Generally gpu design has always proceeded in stealth mode: Instruction sets are proprietary, chip architecture changes radically, and complex innovations are hidden under the covers. The market accepts this because gpu processors have consistently improved performance faster than Moore's law (doubling in less than one year). This talk will offer some suggestions about why innovation in cpu design does not proceed at the same pace. As examples of gpu chips, we will describe some of the details of two widely used graphics processors, the Xbox 360 console, and the X1900 desktop. The talk will include a quick introduction to CTM (Close-to-the-metal), which is a novel software system for general data level parallel computing on gpu architectures. CTM is the first tool that allows a developer to see the actual graphics Instruction Set Architecture (ISA). It is possible for a researcher using CTM to program numeric problems without extensive graphics knowledge.

Finally the talk will show some performance data. The talk does not assume any prior knowledge of computer graphics.

GBC/ACM and IEEE CS Meeting Thursday, February 15th, 2007 *The Dawning of the Age of Experience*

Speaker: Jared M. Spool, User Interface Engineering

Time: 7:00 - 9:00 pm

Location: IBM Innovation Center

404 Wyman Street, North Entrance

Waltham, MA 02454-1280

Telephone: (781) 895-1234

Directions:

<http://www-304.ibm.com/jct09002c/isv/spc/waltham.pdf>

Details:

<http://www.gbcacm.org/website/semInfo.php?id=1123>

Experience design is no longer a nice-to-have luxury of a few organizations with tons of money and exceptional visionary management. It's become commonplace for organizations that build products and web sites. Experience Design is a centerpiece of boardroom discussions and quickly becoming a key performance indicator for many businesses. However, you can't just hire a couple of "experience designers" and tell them, "Go do that voodoo that you do so well." Today's business environment forces us to build multi-disciplinary teams, compiling a diverse group of skills and experiences to handle the many facets of the technical, business, and user requirements. In his usual entertaining and insightful manner, Jared will talk about what it takes to build a design team that meets today's needs. He'll demonstrate how successful Experience Design: Must integrate the needs of the users with the requirements of the business + Is learned, but not available through introspection + Must be invisible to succeed + Is cultural + Is multi-disciplinary + Thrives best in an "educate and administrate" environment. You'll see examples of designs from Apple's iPod, Netflix, the Mayo Clinic, and Southwest Airlines, to name a few.

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*Please check for any last-minute changes to meeting arrangements by visiting the
GBC/ACM website <http://www.gbcacm.org> before the meeting.*

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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 emailed to:

editor@gbcacm.org

Please check the privacy policy at:

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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: **GBC/ACM Membership, P.O. Box 465, Lexington, MA 02420**

January/February Meetings

Software Quality Group of New England (SQGNE)

Topic: Proactive Testing™ Puts Agile Test-Driven (and Other) Development on Steroids

Speaker: Robin Goldsmith, Go Pro Management

Date/Time: Wednesday, January 10th, 2007, 6:00 - 8:00 pm

6:00 - 6:30 Networking

6:30 - 8:00 Business and Presentation

Location: Sun Microsystems, Burlington, MA

Topic: Retrospectives A Different Look

Speaker: Howie Dow

Date/Time: Wednesday, February 14th, 2007, 6:00 - 8:00 pm

6:00 - 6:30 Networking

6:30 - 8:00 Business and Presentation

Location: Sun Microsystems, Burlington, MA

SIGGRAPH - Boston Chapter

Topic: The Boston Skyline Rendered with Teapots?

Speaker: Gene Greger, Invincible Muffin Productions

Date/Time: Wednesday, January 10th, 2007 6:30 pm

Location: Northeastern University, Boston, MA

West Village Building H

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

Boston SPIN

Topic: Avoid Creep-Discover the REAL Requirements

Speaker: Robin Goldsmith

Date/Time: Tuesday, February 20th, 2007, 6:00 - 8:30 pm

6:00 - 6:45 Networking and Roundtables

7:00 - 7:10 Announcements

7:10 - 8:10 Presentation

8:10 - 8:30 Questions and Answers

Location: The MITRE Corporation, Building S

202 Burlington Rd. (Rt. 62), Bedford, MA 01730

Details: <http://www.boston-spin.org>

IMPORTANT NOTICE - PLEASE READ

*Starting with the next issue - we have switched from a hard to soft copy of the Real Times. In order to send you notification of the Newsletter posting, we need your email address. We are asking members to send their email address to **membership@gbcacm.org**.*

Please include your first and last name, if you would like to receive email copy/notification of the Real Times once it goes to soft copy.

The GBC/ACM will not disclose your email address outside the chapter without your permission. Please check our privacy policy at:

<http://www.gbcacm.org/website/privacy.php>

A message from the President

Dear GBC/ACM Members:

First, I would like to wish all of you a happy New Year. We have a lot of exciting changes planned for 2007 and I hope to see many of you at our events this year. The GBC/ACM volunteers have been very busy in the past several months and I would like to give a brief report on our progress.

Peter Mager has continued to run our excellent monthly meetings. These meetings have been critical to the chapter's publicity while the publication of the RealTimes was suspended. The upcoming meetings in January and February will be interesting and informative. I encourage all of you to attend.

In October we ran a very successful professional development seminar: Deep AJAX. We had over 50 attendees and their feedback was overwhelmingly positive. This seminar was the first to use our new planning process and a new venue courtesy of the Harvard School of Engineering and Applied Sciences (formerly the Division of Engineering and Applied Sciences). I found the new venue spectacular and can not thank our cosponsors at Harvard University enough for their generosity. We are in the early planning stages for a seminar to be held this Spring. I encourage all of you to get involved in the planning process and build on our previous successful seminar.

We have also begun to implement a new web presence for the chapter. The current site at <http://www.gbcacm.org>

org will receive a face lift and will be powered by Drupal in mid-January. The use of an "off the shelf" content management system will allow volunteers to easily maintain the technological underpinnings of the site as well as the actual content. You can learn more about Drupal at its web site: <http://drupal.org/about/>. We have also implemented a web site that provides a focal point for coordinating chapter business. It is also powered by Drupal and activity on that site is growing and I expect it to become more important to the chapter's business in the months to come. We will be announcing more initiatives on the new web site over the next several months so check there for updates.

Finally, I would like to remind our membership that the GBC/ACM is a volunteer organization. Without the dedication of our volunteers, activities like organizing monthly meetings, planning seminars and publishing the RealTimes would not be possible. I would like to extend my thanks and appreciation to all of the volunteers for their contributions during the past year. Through your hard work the GBC/ACM has had a tremendously successful year and I am confident that we will have a great 2007 as well.

I look forward to any comments and suggestions. Please send me an email at the following address: president@gbcacm.org

Thank you and Happy New Year!

Stephen Evanchik
GBC/ACM President

GBC/ACM Meeting

The Dawning of the Age of Experience

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Speaker Biography: If you've ever seen Jared speak about usability, you know that he's one of the most effective, knowledgeable communicators on the subject today. What you probably don't know is that he has guided the research agenda and built User Interface Engineering into the largest research organization of its kind in the world. He's been working in the field of usability and design since 1978, before the term "usability" was ever associated with comput-

ers. Jared spends his time working with the research teams at the company, helps clients understand how to solve their design problems, explains to reporters and industry analysts what the current state of design is all about, and is a top-rated speaker at more than 20 conferences every year. He is also the conference chair and keynote speaker at the annual User Interface Conference, is on the faculty of the Tufts University Gordon Institute, and manages to squeeze in a fair amount of writing time.

SIGCHI - Boston Chapter

Topic: Design and Usability Issues in Voice UI

Speaker: Paul Sawyer, Nuance

Date/Time: Tuesday, January 9th, 2007, 6:30 pm

Location: Sun Microsystems, Burlington, MA

Details: <http://www.bostonchi.org/>

Abstract:

I'll begin with a brief overview of how speech recognition works, then talk about how the advancing state of the art and raw computational power have made possible various design techniques that enable us to build systems that are not only usable but even pleasant to use. I'll focus mostly on call-center use, which is my area of expertise, but mention briefly some work in imbedded speech recognition. I'll talk about some usability issues in design, and look at how voice UI (VUI) and graphical UI (GUI) share some common human factors and usability issues. I'll have a couple of humorous examples to share.

Paul Sawyer began at ScanSoft (which is now Nuance Communications) in early 2004 after working as a lead designer on the speech-activated personal assistant at Wildfire for two years. Before that, Paul served for over a decade as a consultant on usability and interaction design at Digital Equipment Corp., Sun Microsystems, Media 100, and User Interface Engineering. He received a Bachelors in Electrical Engineering and a Masters in Computer Science from the University of Texas at Austin, and spent many years in software product development before moving into usability, human factors, and interaction design. He was lead author of a paper presented at CHI '96, Making a Difference - The Impact of Inspections. He is a co-inventor of U.S. Patent

6,507,909: Method for executing trusted-path commands; and Patent 6,871,283: Processing trusted commands in trusted and untrusted environments.

At Nuance, Paul was the principal designer on projects for Independence Air (flight information, schedules, fares, reservations), Cox Communications (automated customer service), and the U.S. Social Security Administration (automated address change and direct deposit, and SpeakFreely(r) main call router). Paul has consulted on projects for US Airways, United Airlines, Pepco (electric utility), MassMutual and Schwab (investment and retirement services).

Whether as a designer or a reviewer / consultant, Paul is a strong advocate for the ultimate user, believing that high caller satisfaction reduces cost and improves a company's reputation with its customers.

Directions:

Sun Microsystems, Inc.
1 Network Drive
Burlington, MA 01803

RSVP to Sun at least one day in advance so that they can premake badges and know how much FREE FOOD to provide. Sun has been extremely generous in not only providing a comfortable and convenient meeting place but also providing us with delicious, free food each month. If we tell them how many of us are coming, there is more likely to be enough food for everyone, plus people get into the building faster.

Boston SPIN (Software Process Improvement Network)

Topic: Behind Closed Doors

Speaker: Johanna Rothman

Date/Time: Tuesday, January 16th 2007, 6:00 - 8:30 pm

6:00-6:45	Networking and Roundtables
7:00-7:10	Announcements
7:10-8:10	Presentation
8:10-8:30	Questions and Answers

Location: The MITRE Corporation, Building S
202 Burlington Rd. (Rt. 62), Bedford, MA 01730

Details: Boston SPIN meetings are free. No RSVP is necessary. More details and directions can be found at the Boston SPIN webpage at <http://www.boston-spin.org>.

NOTE: Because of security concerns, you'll need a Picture ID and any large items you bring will be opened and inspected when you arrive. The earliest arrival time is 5:15 PM. No one will be admitted prior to that time. The building is secured at 8:30 PM. All attendees must have left the building by that time.

Abstract:

If you've been lucky, you've experienced great management. But if you haven't, it's impossible to know what to do. That's because most management activities occur in private, behind closed doors. It's hard to learn management by example when you can't see it.

In this presentation, Johanna will share some secrets of great management. We'll discuss the simple-but not easy practices, including the most underutilized and necessary tool of management, how to build trust, and how to create a great working environment.

Johanna Rothman consults, speaks, and writes on managing high-technology product development. She assists managers, teams, and organizations to become more effective by applying her pragmatic approaches to the issues of project management, risk management, and people management. She's helped Engineering organizations, IT organizations, and startups hire technical people, manage projects, and release products faster.

Letter from Jay Conne, Former President

Dear GBC/ACM members and supporters,

I'm delighted to tell you that we are making significant progress on the goal we announced last Spring. That goal is to make this chapter a showcase for attracting a broader and younger membership than we have in recent times. If we are successful, we can be a model for many other professional organizations that are struggling with the same issues. To accomplish this we have a great team of new and old volunteers. If after reading this, you would like to help, please contact me:

mailto:volunteer@gbcacm.org

Let me take this opportunity to introduce our new leadership... This fiscal year kicked off in July with Stephen Evanchik as our new President and Edward Freedman as our new VP. They follow Peter Carmichael and myself (Jay Conne) in those roles for the prior two years. I was also VP and President in fiscal years '93 through '96.

Stephen brings us a lot of energy and insight into how the younger professional generations are using the Web for social networking and rapidly sharing information. I expect that this will allow us to attract those younger professionals. Steve has a long-standing commitment to ACM as a leader in his college chapter throughout his undergraduate and graduate years. We are very grateful that he is willing to take on this responsibility.

Edward Freedman I have known for a long time as a technical leader in both software and hardware at DEC, and as a very active long-term PDS volunteer. He led our very successful "Deep AJAX" Seminar planning and execution this last Fall and is continuing to lead our Strategic Planning Committee. Professionally, in the last few years, Ed refocused his career on bioinformatics.

Ed Geraghty, who works with Stephen in IBM's Internet Technology group in Cambridge, MA, has taken the lead for our Information Systems team which is developing our new web-based services. By January, we should have our new Drupal-based public website replacing the existing one that was built for us by students at WPI. If you're interested, Google both 'Drupal' and 'CiviCRM' to learn more about the technologies we are leveraging. We are looking for volunteers to help with

the customization of the public site and another one supporting GBC volunteer collaboration.

Russell Doty led the marketing of our Deep AJAX seminar. He is filling what I consider to be our biggest limitation on past PDSs - adequate promotion. He is as responsible as anyone for our recent success. And, over the last year he has contributed many event reviews to the Real Times.

As you read this, we starting to plan a Spring 2007 Seminar that you'll be hearing about shortly. Please let us know what topics you would like to have us address in future seminars. And finally - about this Real Times newsletter. We have not published one in the last few months as we were rethinking our approach. The paper-based version was more costly to print and deliver than we could cover with our membership at \$10/year. It became clear to the Board that we needed to move to an electronic version with some paper-based reminders. We are still lacking email addresses on some older members - so please help us capture your email address if you get this version second-hand.

Vyas Sanzgiri has volunteered to take on the newsletter leadership. Our always resourceful and tremendously diligent former Editor, Rochelle Goren, had to resign due to the tragic death of her husband, Neil, in the Summer. We all are thinking of her with gratitude and best wishes.

I look forward to our continued valuable work for the technical community as we have since our chartering by the ACM in 1962.

Happy New Year,
Jay Conne
Volunteer Coordinator

BostonCHI Winter 2007 Professional Development Seminar

Topics: Various

Date/Time: Friday, January 26, 2007, 9:00 am - 4:30 pm

Speaker(s): Various

Location: Sun Microsystems, Burlington, MA

Details: We will offer six national caliber seminars, presented by highly regarded experts, designed to help further the skills of professionals in the field of computer human interaction (CHI). The seminars will be hosted by Sun Microsystems in Burlington, MA. Each of the six seminars is a full day class designed to bring you an exceptional learning experience.

- **“The Usability Engineering Lifecycle”** taught by Dr. Deborah Mayhew
- **“Back To The Future: Understanding XHTML And CSS”** taught by Chris Hass
- **“User Experience Vision And Strategy”** taught by Sarah Bloomer And Lori Landesman
- **“Write Like A Champion”** taught by John Maguire
- **“The Enlightened Approach To Creating Usable Systems”** taught by Matt Belge
- **“Online Health Communities - New!”** taught by Lisa Neal

Registration fee includes a full set of class notes and one year free membership to BostonCHI. We will also provide a mid-morning snack, lunch, and an afternoon snack at no extra cost. Fees are not refundable, unless class is cancelled.

Registration Fees:

BostonCHI members:	\$225
Non members:	\$240
Full time students:	\$140
Walk-in Registrations	\$300

Online registrations ends January 22nd. Although we will try, we can not assure availability for walk-ins. You may only register for one seminar, since they all run concurrently. Space is quite limited, so we recommend registering right away.

For more details, including full descriptions of the seminars offered, please goto the BostonCHI website at the following URL:

<http://www.bostonchi.org/seminars2007jan/jan07seminars.html>

If you require additional information, please contact Matt Belge at chair@bostonchi.org.

NEJUG - The New England Java Users Group

Topics: Learning to Love JavaScript

Date/Time: Thursday, January 11th, 2007, 6:00 - 8:00 pm

Speaker(s): Glenn Vanderburg

Location: Sun Microsystems, Burlington, MA

Details: Like many Java developers, I looked down my nose at JavaScript for a long time. It seemed like a toy compared to Java it was slow, buggy, and weird. I recommended that my customers stay away from it as much as possible, keeping the logic on the server, in Java. When I had to do JavaScript, I would learn just enough to get the job done, and then get out as fast as I could.

But I was wrong. The problem wasn't JavaScript, it was how I learned JavaScript, and how I looked at it. Once I stopped thinking of it as a toy version of Java, and realized it was actually a serious programming language in its own right (that happened to borrow a lot of its syntax from Java) I started to enjoy JavaScript programming.

And I'm not ashamed to admit it! In this talk, I'll examine why so many of us reached the wrong conclusion about

JavaScript. I hope to help you unlearn some of the things you think you know about JavaScript, and learn to love this fun, powerful language. You'll write better JavaScript code, and enjoy it more.

Speaker Biography: Glenn Vanderburg was one of the first users of Java outside Sun, way back in January 1995. He was also one of the first Java programmers to scorn JavaScript. These days he spends most of his time writing Ruby and JavaScript, but still knows his way around Java pretty well. Conference appearances this year include The Ajax Experience, RailsConf, JA00, RubyConf, and numerous appearances on the No Fluff, Just Stuff symposium tour.

Directions: For directions to Sun's Campus please visit the following URL:

http://nejug.org/directions_sun.jsp

IEEE Robotics and Automation Society

Topic: Moving Intelligently From Here To There

Speaker: Rory MacKean, Systems Engineer, MobileRobots, Inc.

Date/Times: Tuesday, January 9th, 2007, 6:00 - 8:00 pm

6:00 - 6:15 pm Informal discussion

6:15 - 6:30 pm Presentation

6:30 - 7:00 pm Robot demonstration

7:00 - 8:00 pm Tour of the MobileRobots facility

Location: MobileRobots, Inc.

19 Columbia Drive

Amherst, NH 03031

Details: For more information visit the chapter's website at <http://www.robotics-boston.org/> or contact Peter Meyer at (781) 334-0052 or chair@robotics-boston.org

There will be a brief presentation on the robots designed and built at MobileRobots and some of the applications for which they can be used. This will be followed by a demonstration of the robots and a tour of the facility.

The technology for the indoor navigation is provided by MobileRobots' ARCSinside system. Using a scanning laser device and gyroscopically corrected feedback from wheel encoders, we provide obstacle avoidance, path planning, and navigation abilities to security and delivery robots. The PatrolBot is a versatile base which builds on this ARCSinside system, and can be outfitted with a broad range of sensors to provide remote presence, surveillance, and sensing options. The robot navigates autonomously, exchanging high-level commands and sensor data with a host

computer, and charging as needed at a charging station. Options for sensing include sonar, stereo vision, pan-tilt-zoom cameras, omnidirectional cameras, 2-way audio, smoke detection, heat detection, puddle detection, motion detection, temperature sensing, and gas sensors.

Rory MacKean is a Systems Engineer at MobileRobotics, Inc. Since starting in 2002, he has worked on various aspects of their robots, including hardware design, low level firmware, test software, sensor integration, and Linux development. Prior to working at MobileRobots, Rory studied Mechanical Engineering at MIT (SB 2000) and at the Center for Automation Technologies at Rensselaer Polytechnic Institute (MS 2002).

MobileRobots, Inc. (formerly ActivMedia Robotics) is a leader in the design and manufacture of intelligent mobile robots. Besides providing platforms for research in robotics, MobileRobots also offers commercial-quality service robots that know where they are, and know where they are going.

Afterwards, at approx. 8:00 PM, the group will have a no-host dinner at Bertucci's in Nashua, 406 Amherst St. (Rt. 101A), Nashua, NH 03063, where more conversations with the Speaker can take place.

The meetings are open to the general public, and all are welcome at the dinner afterwards. For more information on IEEE Robotics and Automation Society, please contact Chapter Chair Peter Meyer at (781) 334-0052 or chair@robotics-boston.org or visit <http://www.robotics-boston.org/>

Are you a member? Is your membership expired? *

Name: _____

Address: _____

City/State/Zip: _____

Phone Number: _____

Email Address: _____

Join! The \$10 annual membership fee offers many opportunities for development through regular and engaging interaction with local contemporaries, in addition to access to our popular PDS seminars. Paying for multiple years can save effort for you and us. Please mail in your membership form today!

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*** *January/February 2007 Events Calendar* ***

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If your membership has expired, please consider renewing it for one or more years. Currently the membership fee is only \$10/year. Your support helps make possible the wide array of GBC/ACM activities.

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