GBC/ACM and IEEE CS Meeting
Thursday, May 10th, 2007

One Size Fits All in DataBase Management:
An Idea Whose Time Has Come and Gone

Speaker: Michael Stonebraker, EECS Dept. MIT
Time: 7:00 - 9:00 pm
Location: MIT Room E51-315
77 Massachusetts Avenue
Cambridge, MA 02142
Directions: http://whereis.mit.edu/bin/map?locate=bldg_e51
Details: http://www.gbcacm.org/website/semInfo.php?id=1134

Overview: The database engines from the major RDBMS vendors were architected in the 1970s, primarily to serve the needs of business data processing. Since that time, as businesses evolved from just processing data to using it more strategically, RDBMSs have been applied in such diverse areas as data warehousing, business intelligence, unstructured content management, and managing scientific and real-time data. Over time, vendors have grafted features onto their engines to support these new applications – for example, materialized views, bitmap indexes and data cubes for the data warehouse market. While there are obvious advantages to this “one-size-fits-all” strategy for database vendors, there is a large cost to customers. Specifically, they are stuck with very poor performance in some of these newer application areas. In this talk, database technology pioneer Dr. Michael Stonebraker will discuss why it is twilight for one-size-fits-all, especially in data warehousing. In addition, he will discuss recent developments in DBMS technology research and why there’s been a recent explosion in the number of new, specialized databases. Technology developments that are transforming DBMS include: * Grid-based parallelism using commodity hardware * New concurrency architectures * Column-oriented database technology * SQL for real-time data stream and event analysis * Aggressive database compression technologies Dr. Stonebraker will briefly discuss these advancements as well as when and how they’ll begin affecting data warehouse and BI implementations and the businesses that use them.

Lecturers Biography: Dr. Stonebraker has been a pioneer of database research and technology for more than a quarter of a century. He was the main architect of the INGRES relational DBMS, and the object-relational DBMS, POSTGRES. These prototypes were developed at the University of California at Berkeley where Stonebraker was a Professor of Computer Science for twenty five years. More recently at M.I.T., he was a co-architect of the Aurora/Borealis stream processing engine as well as the C-Store column-oriented DBMS. He is the founder of four venture-capital backed startups, which commercialized these prototypes. Presently he serves as Chief Technology Officer of StreamBase Systems, Inc., which is commercializing Aurora/Borealis and Vertica, which is commercializing C-Store. Professor Stonebraker is the author of scores of research papers on data base technology, operating systems and the architecture of system software services. He was awarded the ACM System Software Award in 1992, for his work on INGRES. Additionally, he was awarded the first annual Innovation award by the ACM SIGMOD special interest group in 1994, and was elected to the National Academy of Engineering in 1997. He was awarded the IEEE John Von Neumann award in 2005, and is presently an Adjunct Professor of Computer Science at M.I.T., where he is working on a variety of future-generation data-oriented projects.

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GBC/ACM and IEEE CS Meeting
Thursday, May 17th, 2007

Evolution of MATLAB

Speaker: Cleve Moler
Time: 7:00 - 9:00 pm
Location: MIT Room E51-315
77 Massachusetts Avenue
Cambridge, MA 02142
Directions: http://whereis.mit.edu/bin/map?locate=bldg_e51
Details: http://www.gbcacm.org/website/semInfo.php?id=1124

Overview: We show how MATLAB has evolved over the last 25 years from a simple matrix calculator to a powerful technical computing environment. We demonstrate several examples of MATLAB applications. We conclude with a few comments about future developments, including Parallel MATLAB.

Lecturer’s Biography: Cleve Moler is the original author of MATLAB and one of the founders of the MathWorks. He is currently chairman and chief scientist of the company, as well as a member of the National Academy of Engineering and president of the Society for Industrial and Applied Mathematics(SIAM).

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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.
May/June Meetings

Software Quality Group of New England (SQGNE)

Speaker: TBA
Date/Time: Wednesday, May 9th, 2007, 6:00 - 8:00 pm
6:00 - 6:30 Networking
6:30 - 8:00 Business and Presentation
Location: Sun Microsystems, Burlington, MA
Directions: http://www.swqual.com/SQGNE/directions.html

Topic: Project Scheduling for Techies (or why your significant other doesn’t believe you when you say 1 more minute on the computer)
Speaker: Linda McInnis
Date/Time: Wednesday, June 13th, 2007, 6:00 - 8:00 pm
6:00 - 6:30 Networking
6:30 - 8:00 Business and Presentation
Location: Sun Microsystems, Burlington, MA
Directions: http://www.swqual.com/SQGNE/directions.html

Boston SPIN

Speaker: SQGNE panel
Date/Time: Tuesday, May 9th, 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 and Directions: Sun Microsystems, Burlington, MA
http://www.swqual.com/SQGNE/directions.html

Topic: Managing Virtual Teams for Real Results
Speaker: Rick Brenner
Date/Time: Tuesday, June 19th, 2007, 6:00 - 8:30 pm
Location: The MITRE Corporation, 202 Burlington Road, Bedford, MA 01730-1420 www.mitre.org
Details and Directions: http://www.boston-spin.org/directions.htm

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IMPORTANT NOTICE - PLEASE READ

Starting with January 2007 - 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 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
Who is the GBC/ACM?

The Greater Boston Chapter of the ACM is a professional chapter of the ACM, chartered in 1962. The chapter is run by a group of dedicated volunteers serving over hundreds of active members and thousands more in the computer community. We sponsor ten monthly newsletters and free evening technical talks as well as our Professional Development Seminars like “Deep Agile.”

Do you know about our upcoming events? Would you like to know more?

The GBC/ACM sponsors many exciting and informative meetings and seminars. If you would like to stay informed about upcoming events, you have several options. Your options include the GBC/ACM website www.gbcacm.org, the RealTimes™ newsletter and our announcement mailing list.

The GBC/ACM website is the best place for the latest information about all of our events. The site can be located at http://www.gbcacm.org.

The GBC/ACM official newsletter, the RealTimes™ is published monthly for ten times per year. The newsletter contains a local event calendar, articles, meeting reviews and puzzles. Recently the newsletter converted from a paper to electronic edition to reduce publication costs. The current and back issues of the RealTimes™ are available for download on our website. If you have events or an article you would like to see published in the next newsletter, please contact the editor at editor@gbcacm.org.

The GBC/ACM also offers a self-service mailing list for receiving chapter announcements. The list is low-traffic averaging two posts per month. The list management interface allows you to manage your subscription and view the list archives. It can be accessed at the following URL.
http://mailman.mit.edu/mailman/listinfo/gbc-acm

Would you like to help?

The GBC/ACM is always looking for motivated volunteers to help the chapter to better serve its members and community. Volunteering for the GBC/ACM has many benefits including networking with peers and industry leaders as well as a forgiving environment to practice new professional skills. If you or someone you know is interested in volunteering, please contact our volunteer coordinator, Jay Conne, at 617-470-5038 or volunteer@gbcacm.org.

Currently, we are looking for volunteer roles of co-editor for the RealTimes™, Chapter Secretary and Membership Chair. We are also looking for volunteers to help develop and build content for our new external web presence. The new website will be built using the Drupal content management system and we need volunteers with PHP/MYSQL, CSS and/or Drupal experience.

There are many opportunities to help in the GBC/ACM. If you are interested in volunteering your time, please review the current volunteer opportunities listed above. If anything appeals to you or if you have a skill you would like to share, please contact us.

We value your opinion and welcome your feedback. We believe that we can only get better when we know where we need to improve. Let us know if you have any questions, comments or suggestions about what you have seen and experienced here. We appreciate you taking the time to send us this information.

editor@gbcacm.org
The Rules and Practices of Extreme Programming

Planning
- User stories are written.
- Release planning creates the schedule.
- Make frequent small releases.
- The Project Velocity is measured.
- The project is divided into iterations.
- Iteration planning starts each iteration.
- Move people around.
- A stand-up meeting starts each day.
- Fix XP when it breaks.

Designing
- Simplicity.
- Choose a system metaphor.
- Use CRC cards for design sessions.
- Create spike solutions to reduce risk.
- No functionality is added early.
- Refactor whenever and wherever possible.

Coding
- The customer is always available.
- Code must be written to agreed standards.
- Code the unit test first.
- All production code is pair programmed.
- Only one pair integrates code at a time.
- Integrate often.
- Use collective code ownership.
- Leave optimization till last.
- No overtime.

Testing
- All code must have unit tests.
- All code must pass all unit tests before it can be released.
- When a bug is found tests are created.
- Acceptance tests are run often and the score is published.

More on Extreme Programming

- Release Planning
  The Team owns the schedule.

- Simplicity
  Simplicity is easier to maintain.
  You aren’t going to need it.

- System Metaphor
  A metaphor can simplify the design.

- Pair Programming
  The whole is greater than the parts.
  Some rules of thumb.
  Rein in the Cowboy Coders.
  Pairing reduces indecision.
  Make no mistake, pairing is hard work.
  Experimental evidence for pairing.
  Code reviews considered hurtful.

- Integrate Often
  XP and Databases.
  Integration can be reduced to seconds.

- Optimize Last
  It may not be as slow as you think.

- Unit Tests
  Well worth the investment.
  Could have saved us some time.
  Testing first makes the code testable.

- Acceptance Tests
  They give a feeling of stability.
  Create a tool to maintain them.
The Real Times
Volume 46  Number 5                                                     May 2007

There are many opportunities to help in the GBC-ACM. If you are interested in volunteering your time, please review the current volunteer opportunities listed below. If anything appeals to you or if you have a skill you would like to share, please contact Volunteer Coordinator, Jay Conne, M:(617) 470-5038, volunteer@gbcacm.org

Co-Editor - Real Times
Secretary
Membership Chair

“Never doubt that a small group of thoughtful committed citizens can change the world; indeed, it is the only thing that ever has.” - Margaret Mead
The Horde Application Framework is a mature, evolving application framework (featured in BostonPHP’s Framework back-off) that has been used to build complex applications for years. It forms the core of the widely used IMP webmail application and the Horde Groupware suite. In addition, it provides a large number of tested, feature-rich components that can be used to build additional Horde applications, to integrate Horde functionality into other applications, or to build completely standalone sites.

Bio: Chuck Hagenbuch founded the Horde Project in 1998 and has been working with PHP and the world of web development ever since. He is currently a consultant doing work focused around Horde and PHP web development. He has provided professional PHP services to many prominent PHP-using organizations, including Google, PayPal, and Portugal Telecom.

Horde Framework: The Horde Application Framework is a free software package that allows an individual or a community of users to easily publish, manage and organize a wide variety of content on a website. Tens of thousands of people and organizations have used Drupal to power scores of different web sites, including:

- Community web portals
- Discussion sites
- Corporate web sites
- Intranet applications
- Personal web sites or blogs

Some frameworks aim to manage and regulate the labor of software development, but Andromeda seeks to eliminate labor. Anything that can be done automatically is done automatically. In this way Andromeda fundamentally changes the cost dynamics away from tedious repetitive technical matters and allows you to focus entirely on customer service.

More information: http://docs.secdat.com/

Overview: Chuck Hagenbuch will introduce the concepts of ORM and then put them to work. Horde’s RDO system is a lightweight, PHP 5, PDO-based version of ORM that also draws heavy influence from the Data Mapper pattern (http://www.martinfowler.com/eaaCatalog/dataMapper.html). Entity and Mapper objects are simple and very flexible, while providing plenty of ways to extend and add functionality and domain logic. Associated patterns such as Horde_RDO_Lens allow for powerful decoration of result sets with efficient memory and object use.

Moshe Weitzman
Moshe has been a consistent contributor to Drupal core and Contrib since November 2001. As such, he has pretty much touched the whole core code. He maintains the user.module, the bootstrap code, and the groups.drupal.org web site. He is also a member of the Security team and a Permanent Member of the Drupal Association.

Moshe will show key pages from public Drupal powered web sites such as http://goodcharlotte.com and http://musicbox.sonybmg.com/ and http://groups.drupal.org. He will detail the techniques used to accomplish each site, thus introducing the audience to the key modules and techniques used in Drupal development.

Overview: How many of us have searched Source Forge for a project that appears to fit our needs only to find there’s no community or documentation behind it; or the code is really poorly written; or the project is about to fork... Sometimes selecting an open source project is like renting B-grade movies at the video store; it’s not so much the cost that concerns you, but rather the time wasted if you select a dog.

Please join BostonPHP as we continue our panel discussion on how to select a robust PHP framework culminating in a “PHP framework bake-off”.

This month’s showcased frameworks:

- Andromeda - Kenneth Downs (founder)
- Drupal - Moshe Weitzman (core developer)

Andromeda is a complete application development system, it includes a powerful database generator, a complete web server framework, and a documentation generator. Andromeda provides source control, and an Andromeda “node” can simultaneously support any number of distinct instances of an application. Andromeda can use Joomla templates, providing and instant choice of hundreds of possibilities for the public appearance of an application.

The heart of every Andromeda application is a data dictionary, a database specification that includes all business rules for an application, including security, constraints, and automations. This dictionary is used to automate the building and upgrading of databases, and is used by the web server framework to provide zero-coding standard editing forms for the entire database.

Some frameworks aim to manage and regulate the labor of software development, but Andromeda seeks to eliminate labor. Anything that can be done automatically is done automatically. In this way Andromeda fundamentally changes the cost dynamics away from tedious repetitive technical matters and allows you to focus entirely on customer service.

More information: http://docs.secdat.com/

Overview: Andromeda fundamentally changes the cost dynamics away from tedious repetitive technical matters and allows you to focus entirely on customer service.
**NEJUG - The New England Java Users Group**

**Topics:** GlassFish Application Server

**Date/Time:** Thursday, May 10th, 2007, 6:00 - 8:00 pm

**Speaker(s):** Sekhar Vajjhala

**Location:** Bentley College Campus, Waltham, MA

**Directions:** [http://nejug.org/directions_bentley.jsp](http://nejug.org/directions_bentley.jsp)

**Overview:**
Java EE is changing. A lot. Gone are old names (“J2EE”), old assumptions (that Java EE development is slow and tedious), and old ways of managing the platform itself (such as with a Reference Implementation that was neither fully open sourced nor available for production use).

Much of this change is being driven by the GlassFish Community. It is developing an open source application server (which is both the official Java EE 5 Reference Implementation and fully intended and capable of production use).

This session examines the GlassFish Application Server. We will look at how it eases development (by introducing the Java Persistence API and using annotations to simplify EJBs and web services), deployment (with very fast startup and module deployment), and administration (with a very solid admin interface). We will also look at how GlassFish is evolving with a roadmap emphasizing modularization, enterprise functionality (such as clustering), and increased support for alternative technologies such as server-side scripting languages and interoperability with Microsoft’s Windows Communication Foundation. Finally, we will examine how the GlassFish Project is structured, how others can get involved, and how its scope extends beyond the traditional application server with a number of sibling projects.

If you would like investigate GlassFish prior to this session, please see: [https://glassfish.dev.java.net/].

**About the speaker:**
Sekhar Vajjhala is a Senior Staff engineer at Sun Microsystems working on the Java Platform, Enterprise Edition. His current primary focus is on Web Technologies and Standards. He has been active in the JCP as a co-spec lead for JAXB 2.0, JAXB 1.0. He has contributed, implemented and co-authored parts of the Java EE platform. He is an active participant in the GlassFish Community and has presented at JavaOne conference.

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**The Institute of Electrical and Electronic Engineers, Inc. Spring 2007 Continuing Education Program**

**Developing for Embedded Linux 2.6**

**Dates and Time:** Thursdays, April 12 - May 3 6:00PM - 9:00PM

**Location:** Holiday Inn Select, Woburn, MA

**Introduction to Airborne and Pulse-Doppler Radars and Phased Arrays**

**Dates and Time:** Mondays, March 12 - May 14 6:00PM-9:00PM

**Location:** MITRE Corp., Bedford, MA

**Credibly Estimating & Controlling Resource-Constrained Projects**

**Dates and Time:**
- Tuesday - Wednesday, May 29 - 30 8:30AM-5:00 PM
- Location: Holiday Inn Select, Woburn, MA

**Defining and Writing User Requirements**

**Dates and Time:**
- Tuesday - Wednesday, May 29 - 30 8:30AM-5:00 PM
- Location: Holiday Inn Select, Woburn, MA

**FPGA-based Systems Engineering: Chip-scale to the Global-scale**

**Dates and Time:** Wednesday, April 11 - May 16 6:00PM-9:30PM

**Location:** Holiday Inn Select, Woburn, MA

**Verilog 101 (On-Line Self-paced Class)**

**Date and Time:** Online 30-day duration

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**From Martin Fowler at the RailsConf Keynote:**

“Don’t spend a lot of time aiming. Just fire...In this age of Web 2.0 (TM)... there is this culture of just give the product to the customer. Then see how they use it. Ship the product, then gather the requirements. The opposite of the traditional process. Fire, aim, fire, aim. As long as the bullets are cheap.”
Boston .NET

Date: Tuesday May 8, 2007

Location: MSFT Office, Waltham, MA

.NET Technology Series
5:30-6:15 p.m.
Join this session designed to introduce an interesting aspect of .NET or a useful tool each month. The monthly .NET Technology Series will present useful .NET related tools, programming techniques, interesting applications, and more! This session is for both new and experienced .NET developers. Discussions are informal with everyone’s input welcome. Come join us!

Web Services in a Post Web 2.0 World
Mike Culver, Amazon.com
6:30-8:30 p.m.

What’s possible in a post Web 2.0 world? Innovation continues at a mind-bending pace, and this presentation will showcase some thought-provoking new directions that Web Services are headed in. The presentation will provide an overview of Amazon Web Services, and feature a code demonstration showing how .NET developers are able to easily build managed clients for these services. Amazon spent ten years and over $2 billion developing a world-class technology and content platform that powers Amazon web sites for millions of customers. Most people think “Amazon.com” when they hear the word; however developers are excited to learn that there is a separate technology arm of the company, known as Amazon Web Services or AWS. Using AWS, developers can build software applications leveraging the same robust, scalable, and reliable technology that powers Amazon’s retail business. AWS has now launched eleven services with open API’s for developers to build applications, with the result that over 200,000 developers have registered on Amazon’s developer site to create applications based on these services. Of course, the session will also feature code, in the form of writing a C# WinForms client that consumes Amazon Simple Storage Service. You’ll see that as easy as writing a WinForms app is, consuming the Web service is even easier. More importantly, it’s an opportunity for an interactive discussion about what the future, shaped by Web services and Web Scale Computing, looks like.

Mike Culver joined Amazon Web Services after almost eight years in evangelism at Microsoft, where he saw .NET move from a provocative idea to the preeminent development platform for serious development. During that time, Mike managed a team of evangelists in Microsoft’s Developer Division (and later in Developer and Platform Evangelism) that were responsible for a number of high-profile implementations of .NET, ranging from innovative Compact Framework applications for devices to complex mission-critical applications such as the City of London’s Traffic Congestion Project. As an Amazon Evangelist, Mike works in the Developer Relations Group of Amazon Web Services. In that capacity he once again helps developers take advantage of cutting-edge technologies that are going to change the way we think about computer applications. www.RichardHaleShawGroup.com.
BNUG
The Greater Boston Network Users Group

**Topic:** NECN TV 6 - Road Trip To Needham

**Date/Time:** May 8th, 2007, 6:30 - 9:00 pm

**Details:** Refreshments served at 6:30 pm

**Location:** Microsoft
201 Jones Road
Waltham, MA 02451

**Directions:** Click Here

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New England SQL Server User Group

**Venue:** Microsoft offices in Waltham, MA

**Directions:** http://www.microsoft.com/about/companyinformation/usaoffices/northeast/waltham.mspx

**Date:** May 10th, 2007

**Time:** 6:30 pm

**Title:** MS Access for the SQL Server DBA

**Speaker:** Dean Serrentino - Paradigm Information Systems

MS Access is a powerful yet often overlooked tool when it comes to working with SQL Server. Dean will show the group various ways to simplify common DBA tasks by using the Access environment as a front-end.

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Are you a member? Is your membership expired? *

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!

(*Check your address label for expiration date.)

Please make checks payable to **GBC/ACM** and mail to:

GBC/ACM

P.O. Box 465

Lexington, MA 02420
### *** May/June 2007 Events Calendar ***

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
<th>Sponsor/Location</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2nd</td>
<td>BostonPHP: PHP Frameworks Part III - 6:30pm</td>
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<td>6</td>
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<td>9</td>
</tr>
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<td>1</td>
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<td>ICCA - How to get Clients to Find your website - Daren Courdriet, of Sagebridge Solutions - 6pm</td>
<td>Rebecca Cafe, Burlington, MA</td>
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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.