

March 1997 Monthly Events and Table of Contents

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March 5, 1997	Not Listed	Boston Siggraph	GTE Waltham	v-site.net/siggraph-ne
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March 27, 1997	Page 3	SPIN	Holiday Inn Newton	cs.uml.edu/Boston-SPIN
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ARE YOU EXPIRED ?

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 a 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.



The Greater Boston Chapter of the



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The Real Times

Vol. 35 No. 7

www.acm.org/chapters/gbc

March 1997

Distributed Computing in Java

With Ken Arnold

Thursday, March 20, 1997

This meeting is cosponsored by GBC/ACM and WEBTECH
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

Overview

Ken Arnold will discuss distributed computing in Java, specifically covering the Java Remote Message Invocation system (RMI) and object serialization, both part of Java 1.1. He will also discuss JavaSpaces, a distributed protocol development tool, which is currently under development.

Speaker:

Ken Arnold is co-author, with James Gosling, of The Java(tm) Programming Language, part of the official Sun series of books on the Java language, packages, and environment, published by Addison Wesley. He is a leading expert in object-oriented design and implementation, and has written extensively on C and C++ topics for UNIX Review, and is also co-author, with John Peyton, of A C User's Guide to ANSI C.

Ken is a Staff Engineer with Sun Microsystems, previously in Sun Labs, and now in JavaSoft. His is currently part of the team developing the JavaSoft Remote Messaging Interface for communication between Java code running on different machines.

Before coming to Sun, Ken's experience includes being part of the original Hewlett-Packard team designing CORBA, several user interface and UNIX projects at Apollo Computers, and molecular graphics at U.C. San Francisco. In olden days, he was part of the 4BSD team at U.C. Berkeley, where he created the curses library package for terminal-independent screen-oriented programs, and was co-author, with Mike Toy, of the computer game rogue. He received his A.B. in Computer Science from U.C. Berkeley in 1985.



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.

DETAILS ABOUT INET'97 NOW ON THE WEB Be sure to check the ISOC Web page (<http://www.isoc.org/inet97>) for the latest information about INET'97, the premier international event for Internet and internetworking technology. Information recently added to the Web site include details about sponsorship opportunities, the latest schedule updates, and an online registration form. The conference is scheduled for 24-27 June in Kuala Lumpur, Malaysia. Register early and save!

NETWORK NEWS * INTERNET USERS ESTIMATED AT 57 MILLION
The Internet has roughly 57 million users as of January 1997, according to a recent estimate by Matrix Information and Directory Services (MIDS). In their latest research on Internet usage and demographics, the company offers two estimates of the size of the Internet (interactive TCP/IP services such as FTP or Web) and a third estimate of the size of the Matrix (everyone who can send electronic mail to another person in the Matrix). Core Internet Usage for January 1997 is estimated at 36 million users of computers that can *distribute* information by interactive TCP/IP services. Consumer Internet estimates are at 57 million users of computers that can *access* information by interactive TCP/IP services, such as the Web or FTP, as of January 1997. In terms of the Matrix, the company estimates 71 million users of electronic mail as of January 1997. Those estimates, reports MIDS, are concentric, like nesting dolls: the Matrix includes the Consumer Internet, which includes the Core Internet (for an HTML version of this information see <http://www.mids.org/press/pr9701.html>).

In terms of future projections, the company offers the following table.

Source: MIDS, Austin, Texas,
mids@mids.org, <http://www.mids.org>

Internet IP addresses	
Jan 1990	3,400,000
Jan 1997	71,000,000
Jan 2000	827,000,000
Matrix (electronic mail) users	
Jan 1990	1,120,000
Jan 1997	57,000,000
Jan 2000	707,000,000
Consumer Internet users	
Jan 1990	725,000
Jan 1997	36,000,000
Jan 2000	436,000,000
Core Internet users	
Jan 1990	188,000
Jan 1997	18,000,000
Jan 2000	254,000,000

According to John S. Quarterman, president of MIDS: "Yes, that's more than 700 million Consumer Internet users by the year 2000. There is no reason to believe that the current rate of Internet growth cannot be sustained for three more years. If anything, Internet growth conditions will be better for those years than they were during the past eight or nine years, in which the same growth rate was sustained." The numbers offers by MIDS represent the worldwide Internet. They can be distributed as long as the source is cited (MIDS, Austin, Texas, <http://www.mids.org>)

(Continued on Page 3 and 6)

IEEE/CS MEETING
 Thursday, 27 March 1997
World Wide Web Change Management

With Sankar Virdhagriswaran, Crystaliz, Inc.
 Coffee at 6:15 PM, Meeting at 6:30 PM
 At Marcam Corporation, 95 Wells Avenue, Newton, MA.

For more information, please contact Marcia Nizzari at (617) 563-3569
 (Marcia.Nizzari@FMR.com)

Overview

Change management of software development activities has typically involved version control, workspace (or configuration) management, delivery management, and process management. Version control has been used to manage concurrent and long running transactions while workspace management has been used to isolate individual contributors from the overall development activity. Delivery and process management have been applied to support reconstructable target system deliveries and to manage the change process inherent in any software development activity. While large web sites go through the same change management process as large

software development efforts, the web itself presents unique problems that require special solutions. While existing systems work with hierarchical file systems, the web relates objects using a hyper-web. The nodes of the web can be on multiple hosts and can be on heterogeneous platforms. Furthermore, HTTP 1.1 supports load balancing by supporting virtual hosting of heterogeneous systems hooked up in a cluster. Finally, the objects can range from file systems to sophisticated object-relational databases. All of these factors introduce a need for a different solution to version control.

The authoring process for developing the new applications is also different, requiring a new way of doing workspace management. First, the authoring process involves individuals with cross-functional expertise (graphic artists, database interface writers, applet writers, etc.) from the beginning of the cycle. Traditional software development, by contrast, tends to cluster documentation-oriented activities closer to the end of the cycle, prior to product ship. Second, the application development process web-oriented infrastructures (e.g., WWW browsers and servers) and conventional systems (e.g., TP monitors) cross heterogeneous platforms (MS-Windows, MacOS, Unix, etc.).

Finally, the target platforms are typically heterogeneous, since departments of large companies tend to choose a range of systems from high end Unix workstations to PCs running Windows 95. Therefore, the delivery management process becomes more complex, requiring a fresh approach. This talk will cover the problems of change management of web sites. We will survey different solutions provided to address these problems. We will examine the approaches of different vendors including Microsoft, Netscape, and others.

Speaker:

Sankar Virdhagriswaran received his MBA from the Carlson School of Management. He was also a special graduate student at MIT for several years. Since then he has been involved in four different ventures - two within a large corporation (Honeywell Bull) and two outside. He is one of the founders and President of Crystaliz, Inc.

(see directions on page 6)

Seminar & Book Titles	Advance Registration	Walk-in	Enter Amount
Building Custom Web Applications: An Overview	\$75	\$85	
Programming with COM & ActiveX	\$75	\$85	
<i>Inside COM</i>	\$20	\$20	
<i>ActiveX Controls Inside Out</i>	\$25	\$25	
Needs Assessment & Goal-Directed Design	\$75	\$80	
<i>About Face: The Essentials of User Interface Design</i>	\$20	\$20	
International ACM# _____		Subtotal	
GBC ID# _____ or \$10 (required)		\$10	
Pay to GBC/ACM with Check or money order Only		Total	
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E-mail:			
Restrict use of my name to:	ACM use only	Professional societies only	

Professional Development Seminars - 1997 Spring Series

Building Custom Web Applications: An Overview

With Kee Hinckley, Founder & CTO of Utopia
April 12, 1997 (Saturday)
MIT

OVERVIEW:

Application development on the World Wide Web is an area of explosive growth for our industry. This is an opportunity to get a hands-on expert's insights on the available technologies and resources, and to gain an understanding of their strengths, shortfalls, appropriate uses, and general architecture.

WHO SHOULD ATTEND:

Any technical person wanting to understand the state of this rapidly evolving art of web-based application development. Engineers needing to select development tools for their next project.

SEMINAR TOPICS:

- **Server-Side Applications**
 - The CGI protocol
 - Using CGI from Perl
 - Using CGI from other languages
 - OpenMarket's FastCGI mechanism
 - Using FastCGI from Perl
 - Using FastCGI with other languages
 - Server Plug-in's with Netscape's NSAPI
 - Server Plug-in's with Apache's API
 - Server Plug-in's with Microsoft's ISAPI
 - Server-Side Database Access
 - Some examples of mechanisms
 - Server-Side Java
- **Client-Side Applications**
 - JavaScript
 - Java
 - Client Plug-ins
 - Microsoft's Active-X
 - Netscape's LiveWire

LECTURER:

Kee Hinckley, founder of Utopia, has been an information technology innovator for more than 15 years and has been involved with the Internet since 1981. Prior to founding Utopia, Hinckley worked at Wildfire Communications, was founder of Alfalfa Software and held positions at Apollo Computer, the Open Software Foundation, and Bell Laboratories. Hinckley is the founder and one-time administrator of the Motif and NT online forums. He has published several papers on graphical user interfaces, taught courses on using the Motif toolkit, and given talks on the future of cyberspace.

SESSION CHAIR:

Jay Conne, conne@acm.org

Programming with COM & ActiveX

With Shankar Vaidyanathan of Microsoft
April 26, 1997 (Saturday)
MIT

OVERVIEW:

COM (Component Object Model) is the foundation on which ActiveX and OLE are built. Contrasting approaches to building components, Microsoft Foundation Classes (MFC) and ActiveX Template Library (ATL), will be compared. ATL will be presented in great detail.

WHO SHOULD ATTEND:

Practicing software engineers and consultants should attend. Some of the earlier topics will benefit software engineering managers.

SEMINAR TOPICS:

- Fundamentals of COM
- OLE and ActiveX
- ActiveX Template Library (ATL)
- Building of controls
- ActiveX Controls for the internet
- VC++ environment, wizards, and component gallery

LECTURER:

Shankar Vaidyanathan is a Software Design Engineer in the Visual C++ group at Microsoft Corporation. He currently focuses on the IDE (Integrated Development Environment). Shankar designed and developed new wizards for and the data view for VC4.2. Prior to the IDE work, he was involved with the VC5.0 linker and incremental linker technologies.

SESSION CHAIR:

Jim Byrd, Byrd@acm.org

SEMINAR BOOK OFFERS

Inside COM

by Dale Rogerson, Microsoft Press
List: \$34.95 PDS Price: \$20.00

Active-X Controls Inside Out

by Adam Denning, Microsoft Press
List: \$39.95 PDS Price: \$25.00

(Offers only good when included with registration fee.)

Professional Development Seminars - 1997 Spring Series

Needs Assessment & Goal-Directed Design

With Jared Spool, User Interface Engineering & Alan Cooper, "The Father of VisualBasic"

May 3, 1997 (Saturday)
Northeastern

OVERVIEW:

Discover the right design questions, answer them, and then design software to meet your users' needs. Jared will present techniques to collect accurate data about who your users are and what they will actually do with your product. Alan will show you how easy it is to identify your users' real goals and how to

WHO SHOULD ATTEND:

Application designers, developers, and their managers who want to understand the role and methods of effective application design.

SEMINAR TOPICS:

- **Techniques for Needs Assessment - Jared Spool**
 - User myth reconciliation — discovering what you know
 - Contextual Inquiry (Users in the mist) - detail insights
 - Focus groups - quickly talk with your users
 - Usability testing with paper mockups
- **Goal Directed Software Design - Alan Cooper**
 - Goals vs Tasks
 - The Goal Stack: False; Corporate; Practical; Personal
 - How to avoid Excise and Navigation waste
 - Exercises to practice making these design distinctions
- **Panel Q&A**

LECTURERS:

Jared M. Spool is a Founding Principal at User Interface Engineering (UIE) and is on the faculty of Tufts University's Gordon Institute. UIE is a consulting firm specializing in the design and implementation of computer product user interfaces. Jared specializes in Usability Engineering and Rapid Prototyping technology. His clients include the Harvard Business School, Lotus, Bank Of Montreal, Powersoft, Progress Software, IBM, and Viewlogic.

Alan Cooper, author of About Face: The Essentials Of User Interface Design, is known as the "Father of Visual Basic." He is the President of Cooper Software, a leading software design consulting firm in Silicon Valley whose clients include Logitech, Adobe and Zoran. Their proprietary Goal-Directed software design process allows them to achieve a simplicity and effectiveness of design unique in the industry."

SESSION CHAIR:

Jim Ganino, JSganino@tasc.com

SEMINAR BOOK OFFERS

About Face: The Essentials of User Interface Design
by Alan Cooper
List: \$ 29.99, PDS Price \$20.

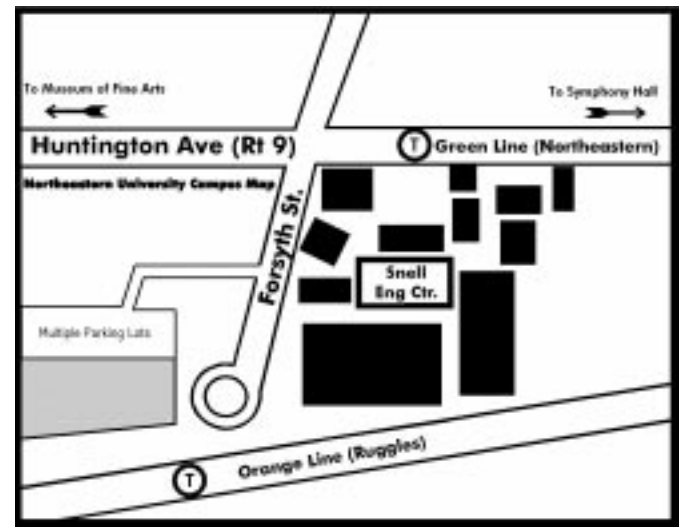
(Offers only good when included with registration fee.)

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/E Train) 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

MARCH GB/SIGCHI MEETING ANNOUNCEMENT

Life on the Screen

Sherry Turkle, Professor of Sociology of Science, MIT

Thursday, March 13, 1997

Refreshments at 6:30, meeting at 7:00

Lotus, One Rogers St., Cambridge, MA

Free and open to the public.
(directions & parking info below)

For more information please contact the program chair: Ron Perkins, rperkins@shore.net=20
508-465-6083 (email preferred)

Abstract

Advances in computer technology are redefining the boundaries between self and machine. For the first time, systems exist that allow individuals to shed their identity and take on a new one(s), inhabit multiple worlds simultaneously and explore different aspects of the self, all without moving from a computer screen. This is creating a new perspective in which life is made up of many "windows"—and real life is just one of them. This talk explores how a deepening connection between people and machines is blurring the line between self and game, self and role, self and simulation.

About the Speaker

Sherry Turkle is an MIT professor and the author of the books *Life on the Screen* and *The Second self: Computers and the Human Spirit*. She is the recipient of grants from the MacArthur Foundation, the Guggenheim Foundation, and the Rockefeller Foundation.

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 the editor.

Parking

Parking is available in the Lotus garage provided you arrive before 7:00 p.m. Drive up to the garage entrance on First St. and tell the guard over the speaker that you are there for the SIGCHI meeting and they will let you park in the Lotus garage. 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.

(Continued from page 3 and 2)

SEPTEMBER 1997

Computer Ethics Institute 6th National Computer Ethics Conference. 25- 26 September 1997. Brookings Institution, Washington, DC. Contact: psullivan@brook.edu. *Third ACM/IEEE International Conference on Mobile Computing and Networking 1997 (MobiCom'97). 26-30 September 1997. Budapest, Hungary. Contact: David Johnson, dbj@cs.cmu.edu or Christopher Rose, crose@ece.rutgers.edu.

OCTOBER 1997

COMDEX Internet'97 and Object World Frankfurt '97. 7-10 October 1997. Sheraton Conference Center Frankfurt (airport), Frankfurt/Main, Germany. Contact: <http://www.ltt.de>

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IEEE/CS - Marcam Corp. - March 27, 1997)

Directions: Take Route 128 to the Highland Avenue, Needham exit (the Muzi Ford exit). Turn left at the first light onto Hunting Road. Turn left at the first light onto Kendrick Street. Cross over 128, turn right at the first light onto Wells Avenue. Go about 0.2 miles to Marcam Corporation at 95 Wells Avenue. Turn right into the second entrance driveway, and right at the end of the driveway.

NOVEMBER 1997

SPIE International Symposium. Voice, Video, and Data Communications Conference on Performance and Control of Network Systems. 3-7 November 1997. Dallas, Texas, USA. Contact: <http://www.monash.edu.au/~atiq> *ICCC'97. 17-21 November 1997. Cannes, France. Contact: Louis Pouzin, pouzin@sophia.inria.fr.

1998

MARCH 1998

*INFOCOM'98 — Gateway to the 21st Century. 29 March - 2 April 1998. Hotel Nikko, San Francisco, California.

Boston SPIN March Meeting Announcement

“What If Your Life Depended on Software?”

Watts S. Humphrey, Software Engineering Institute

Tuesday, March 25, 1997

6:30 PM (refreshments), 7:00-8:30 PM (meeting)

Boston Area - Software Process Improvement Network (SPIN)

(Admission Free)

GTE, Building #5, 77 A Street, Needham, MA

(Wheelchair accessible)

MEETING OVERVIEW

In this talk, Mr. Humphrey discusses the critical nature of software and the challenges software developers face. He shows that the methods traditionally used to develop quality software are ineffective and that better processes are essential.

Mr. Humphrey will present two approaches to these problems that have shown substantial benefits — the Capability Maturity Model (CMM) and the Personal Software Process (PSP). Experience with the CMM shows sharp improvements in product quality and development productivity. The PSP introduces software engineers to disciplined personal methods which result in engineers producing more accurate plans and developing higher quality products. While the benefits vary by individuals, quality improvements of five to ten times are normal and productivity improvements average about 25%. Mr. Humphrey will conclude with a summary of steps required to introduce these methods into software organizations.

SPEAKER

Mr. Humphrey is currently an SEI Fellow at the Software Engineering Institute (SEI) of Carnegie Mellon University. He joined the SEI after his retirement from IBM in 1986. While at the SEI, he established the Process Program, led the initial development of the

(Continued from page 2)

SWISSTEAM CRACKS 48-BIT ENCRYPTION CODE RSA Data Security (<http://www.rsa.com>), which is sponsoring a continuing code-breaking contest, said a Switzerland-based team using a network of some 3,500 computers spread across Europe cracked a 48-bit code in 13 days. The contest, which is designed to protest U.S. government regulations that restrict users in America to unsecure levels of encryption, encourages code crackers from around the world to attempt to crack various levels of RSA's security algorithms, offering cash prizes varying from \$5,000 to \$10,000. At present, the U.S. will allow vendors to export 56-bit encryption, but only if law enforcement officials are given a back-door key to break the code. (Cowles/SIMBA Media Daily 13 Feb 1997)

NEW COPYRIGHT TREATIES

The World Intellectual Property Organization (WIPO) has agreed to the text of two new treaties, the WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty at a diplomatic conference in Switzerland. The treaties are expected to come into force next year. Under the Copyright Treaty, authors are now able to authorize any communication of their works to the public by wire or wireless means, such as the Internet. The same Internet-related rights are extended to performers under the Performances and Phonograms Treaty. The Copyright Treaty also includes an obligation on Treaty signatories to provide effective remedies against copyright infringement and makes the disabling of a copy-protection device illegal. (Internet IT Informer 17 Feb 1997)

DIGITAL CERTIFICATES EXPECTED TO REPLACE COMMONPLACE ID

According to a report by Forrester Research, the digital certifi-

cate will become widely used in corporate intranets over the next two years, eventually replacing IDs and passwords. The report argues that MIS will opt for these new credentials to beef up security in two areas: employee remote access and inter-company electronic commerce. (Internet IT Information Jan 31 1997).

PUBLICATIONS OF NOTE * Proceedings of the 1997 NDSS. Available from the Internet Society. Member Prices: Hard Copy, US\$25.00; CD-ROM, US\$25.00; Set, US\$40.00. Nonmember Prices: Hard Copy, US\$35.00; CD-ROM, US\$35.00; Set US\$60.00. * JAVA Language Reference, by Mark Grand, 1st Edition January 1997. O'Reilly & Associates, <http://www.ora.com>. * JAVA Threads, by Scott Oaks and Henry Wong, 1st Edition January 1997. O'Reilly & Associates, <http://www.ora.com>. (Internet Research Task Force).

***JUNE 1997

IEEE Enterprise Networking Miniconference (ENM). 11-12 June 1997 Montreal, Quebec, Canada (in conjunction with ICC-97). Contact: <http://www.ieee.org/comsoc/ENM-97.html>. Global Networking'97: An ICCS Conference. 15-19 June 1997. Calgary, Alberta, Canada. Contact: dorothy.phillips@crc.doc.ca or <http://www.WNET.CA/GN97/> ED-TELECOM 97: World Conference on Educational Telecommunications (in conjunction with ED-MEDIA 97). 17-22 June. Calgary, Alberta, Canada. Contact: AACE@virginia.edu or <http://www.aace.org/conf/edmedia> *INET'97, the annual meeting of the Internet Society. 24-27 June 1997. Kuala Lumpur, Malaysia. Contact: inet97@isoc.org or see <http://www.isoc.org>.