The PULSE of Long Island

(USPS 450-540)

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

PROFESSIONAL ACTIVITIES REPORT - February 1, 1996
by Irwin Weitman, P.E.

I have been a user of e-mail for about 4 years now. At first I looked at it in a similar light to the typical BBS. Within 3 months I was convinced that it was more than an interesting toy with a lot of possibilities. In the beginning, I used it to communicate with the Washington, D.C. office of IEEE. For more than 2 years, I have used it for my consulting business. I send documents and drawings to my clients and colleagues. Changes and improvements are made and returned by e-mail. I could go on, but if you haven't tried it, you are missing a good thing. IEEE has a number useful features that are available on Internet and the World Wide Web. If you have access to the Internet you can request an alias to replace the multi-digit name you received from your present Internet server.

You can get an e-mail alias address by sending an e-mail message to aliases@ieee.org with the following information:
Your e-mail address
> Last name
> First name
> Daytime phone number
> Fax number
> IEEE membership number
> Current volunteer activity (if any)

The advantage of doing this is that if you change service providers in the future, you are still accessible from the same address by just notifying IEEE. My Internet address is:
> i.weitman@ieee.org

If I ever change my server, it will still be the same.

IEEE also has a Home page which can lead you to all of the services offered by IEEE. Everything from obtaining technical literature, finding a job, to having their travel service make reservations for you at that Caribbean resort. Their address is: http://www.ieee.org

If you have a computer and a modem, you can probably get a FREE connection to the Internet through your local library. Just ask. You won't find it as "jazzy" as AOL or Compuserve but it does work well. The Executive Committee of the Long Island Section of IEEE is now using the Internet to communicate with each other. This *Pulse* article has been transmitted to the *Pulse* editor by means of e-mail. It saves time and repeated phone calls.

If you are looking for a job (you won't find too many on Long Island there) start from the IEEE Home page and follow the "Hypertext" trail. Just remember there is more junk

on the WWW than good stuff, but there are some gems. For instance the US Patent Office has a Home page:
> http://www.uspto.gov

It is expanding daily and you can now search through recent abstracts. If you come across any good locations please send me an e-mail message and I can share it with the other *Pulse* readers.

EMPLOYMENT ASSISTANCE COMMITTEE
by Walt Whipple
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Meetings in 1996 will follow the theme set in the fall of 1995. They will focus on phases of the job search from networking through final negotiations. January's meeting was a resume workshop at Polytechnic University, Farmingdale, postponed from the December meeting. Interspersed in the regular meetings will be speakers from local firms who can speak of the process from the perspective of the employer.

The February 21 and April 17 meetings will be at Polytechnic University, Farmingdale. These meetings will focus on the telephone interview and the actual interview. Essentially, the meetings are an extended job search seminar. All meetings are at 7:00 PM and do not require advance registration unless otherwise noted.

On February 24, the section will offer a six-week seminar on C, C++, and Visual C++ of particular interest to those seeking to obtain or change jobs. It is aimed at those with some knowledge of a programming language such as Basic or Fortran who need to come up to speed on C/C++ and modern windowed environments. A special discount is provided for unemployed members registered in the EAC Job Skills database in 1995. Be sure to register by check before the early registration deadline, January 31, or the regular registration deadline, February 14.

More information appears elsewhere in this issue of *The Pulse*.

The job search/managing career transition workshop planned for May is postponed to allow adequate time for planning.

Planning for EAC activities takes place at a monthly committee meeting in Farmingville. Contact Walt Whipple if you are interested in participating. Each month, a postcard is mailed to those registered in the EAC Job Skills Database with late-breaking information on that month's meeting. If you would like a registration form to receive these notices, contact

EDITORIAL
by Ken Mas

Greetings all! The April issue of *The Pulse* will be combined with the other four regional newsletters. The purpose of this trial issue is to determine whether a single combined newsletter could adequately serve the members of the five regional sections (Long Island, New York, North Jersey, Jersey Coast and Princeton), while lowering costs for each of these sections. The logistics of publishing the trial issue are a nightmare. Due to postal requirements and obligations, five different issues must be printed, and mailing will occur at five different locations. All of the sections have different formats, schedules and deadlines. However, because of the benefits that a combined newsletter is expected to realize, (lower costs, greater exposure for all of the sections and their activities, we will go forward with the trial issue. **SINCE THE DEADLINE REQUIREMENTS WILL BE STRINGENT, ALL ARTICLES FOR THE APRIL ISSUE MUST BE SUBMITTED TO ME BY FEBRUARY 22, 1996.** I realize that speaking about the deadline for this issue is kind of getting ahead of ourselves (especially since submissions for the March 1996 issue have not been made yet), but I must allow for adequate time for our coordinator to assemble the combined issue so that it can be printed and, finally, distributed to the different mailing centers. I appreciate your cooperation. If you have any questions you can reach me at kmas195@aol.com

UNDERWRITERS LABORATORIES TOUR

The EMC Society will conduct a tour of the Underwriters Laboratories new EMC Test Facility and discuss current EC events on February 8 at 6:15 PM. The facility is located at 1285 Walt Whitman Rd., Melville. Exit 49 off the LIE.

Mr. Corey Hyatt of UL will conduct the tour of the UL EMC test facility and speak about EC current events and test requirements. Mr. James Graham, Jr. of RANTEC will speak about the electromagnetic anechoic shielded test facility.

Mr. Corey Hyatt, P.E. is an Engineering Group Leader of the Electromagnetic Compatibility Group of Underwriters Laboratories Inc. He is responsible for the daily operation of the EMC group at the UL Melville, NY location. He is considered one of UL's resident experts on Global EMC compliance regulations and testing. Mr Hyatt has written and delivered seminars on Global EMC compliance worldwide. He has 10 years experience in the EMC field, is a registered Professional Engineer in the State of New York, NARTE certified and a member of the IEEE EMC Society.

Mr. James Graham, Jr. is the manager of the International Business Development Group for RANTEC, a division of EMC Test Systems, Inc. He is responsible for all Far East overseas sales for the company and is considered a world known expert of anechoic testing facilities.

For further information, please call Corey Hyatt at (516) 271-6200 x2511 or Robert Berkovits at (516) 346-7782.

LONG ISLAND CALENDAR

(No membership requirements, no registration, no fees at meeting unless otherwise noted. IEEE Office is in the AIL Main Building on Commack Road, Deer Park, LIE Exit 52)

February 7 — Consultants Network - 7:00 PM - Richard Strickland of Loral-Narda will give a talk entitled *"Electromagnetic Radiation , Myth versus Reality"* - LILCO Training Center, 131 Hoffman Lane, Hauppauge. Exit 57 of LIE - For further information, call Peter Buitenkant at (516) 491-3414.

February 8 — *Tour of Underwriters Laboratories* - EMC Society - 6:15 PM at UL Test Facility on Walt Whitman Road. Further information in article above.

February 15 — *Introduction to Programming in C* - NY/LI/NJ EMBS - meets at Rockefeller University, 1200 York Ave, NYC - 7:15 PM - see page 3.

February 21 — EAC Meeting at 7:00 PM at Polytechnic University. See Page 1.

February 24 - March 30 — C/C++/GUI Seminar - see page 4.

February 26 — Excom meeting - 6:00 PM - at AIL, Commack Rd., Commack.

March 6 — Consultants Network - *Visual Basic (release 4.0) and add-ons*, by Dwight Pelzer - 7:00 PM - See above for place and further info.

Report All Address Changes
To
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HICKSVILLE, NY 11801-6147

PULSE Deadline
for April
is
February 22

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Please note we are offering a 40% discount on employment advertisement listings for which our members qualify.

30 YEARS AGO
by Rod Lowman, Historian

The Section Meeting featured *'Three Dimensional Photography by Wavefront Reconstruction"* by Emmet Leith from the Willow Ran Laboratories at the University of Michigan where Dennis Gabor, the Hungarian scientist, invented the process in 1947. The speaker described how a hologram is made and how it is used and even had demonstrations to show the effects. Unintelligible under ordinary light, when viewed under coherent light the hologram produces a three-dimensional picture in which the parallax between near and far objects and the change of perspective as a function of the viewing positions are both retained.

It is interesting to note the gestation period for different technologies. Although Gabor received the Nobel Prize for his invention of the technique in 1971 it has taken a long time before it has been widely used. Now after 30 years it is becoming used on every product from Power Ranger's bubble gum cards to the Visa cards in your wallet. And according to a recent E.E. Times article is believed to be on the threshold of becoming a $5-billion-per-year industry within the next 10 years. In their reporting on the recent Southeast Michigan Research and Technology Exposition they quoted our speaker, Emmet Leith, *considered the father of modern holography,* who told their editors at the conference that "holography is the ultimate reality, a photographic recreation of reality." So keep coming to IEEE Section meetings. You'll learn about both short-term winners and long-term winners from the pioneers in every field.

Also of note was the software of choice 30 years ago. The winter lecture series in cooperation with the L.I. Chapter of the ISA featured a five-week session on Fortran II followed by a 10-week session on Fortran IV with Applications. Members could subscribe to both sessions for $20. My, how times have changed! Do the shorter sessions we have run on C++ mean that our members have become smarter or that the software has become simpler to use?

EMBS TO PRESENT INTRODUCTION TO COMPUTER PROGRAMMING IN C

In this free tutorial session, Professor Joel Levitt will provide an introduction to the programming language C, as a special service to members (and others) wishing to stay up to date and/ or re-train for a new position.

This session is intended for those who have had some programming experience with at least one language - BASIC, FORTRAN, PASCAL, etc. This session will NOT cover C++, graphical interfaces, or any esoteric advanced applications. It is an INTRODUCTION for those who want to START. Syntax of basic statements and calls to standard system routines such as scanf, printf, puts, gets, if, while, kbhit, getch, switch & case, strnicmp, etc. will be discussed. Some of the things to be emphasized will be:

1) How to manipulate and test strings of characters.
2) How to write your own callable functions.
3) How to pass many numerical values to a function.
4) How a function can pass many numerical values back to the calling function.

Professor Levitt holds four degrees from Columbia University and has been a member of the faculty of Pratt Institute for over 25 years and is serving his fourth year as Chairman of this EMBS chapter. He has taught computer programming at Pratt Institute to Electrical Engineering undergraduates (FORTRAN) and to computer graphics graduate students (C language). He is the author of *"Small Signal Analysis - By Computer, By Inspection"* Haywood Press 1983.

This tutorial will occur at Rockefeller University, 1200 York Avenue, NYC (Weiss Room 305) on February 15, 1996 at 7:15 PM (registration required, tutorial will immediately follow).

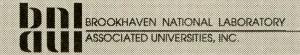For more information please call Joel Levitt at (212) 479-7805 or Susan Baxt at (516) 678-6563.

C/C++/GUI Seminar
February 24-March 30, 1996

Overview

In this seminar, you will gain a familiarity with the leading programming methodology in commercial (and many military) applications. The seminar progresses from description of syntax and semantics to demonstrations of the use of three interrelated topics: the C programming language, the C++ programming language, and graphical user interfaces. The intent is to provide enough background to enable attendees to conceive applications and make use of development tool documentation to develop those applications. Attendees will need to learn and practice the required skills on an actual project that is beyond the scope of this seminar.

Who Should Attend

The seminar benefits engineers and programmers who have some programming background, perhaps with Basic or Fortran, who need to use C/C++/GUI technology. Those with little exposure to C, C++, or GUIs should attend. Managers who must make decisions about software development should attend. Computer Scientists and working programmers with GUI experience should probably not attend.

Key Benefits

- Learn the vocabulary and elementary techniques of C, C++, and a GUI generator
- Sample some advanced techniques needed for actual programming
- Understand enough of the technology to learn the rest on a subsequent project or detailed programming course
- Understand what the tool will do for you and what you will have to do for yourself
- Learn about programming for a modern windowing environment

Content

C Language: Data and Control; Preprocessor Commands; Programs

C++ Language: Encapsulation and Classes; Inheritance and Polymorphism; Overloading and Templates.

Graphical User Interfaces: Application Program Interfaces; Program Generators; Designing Dialogs; Adding Class References; Fleshing out the Skeleton.

Further Information

Contact Walt Whipple via E_Mail at w.whipple@ieee.org or (516)563-2400x3114 (voice mail activates a pager). A reminder containing travel directions will be sent to all registrants about February 17. Refunds of fees paid will not be available unless the seminar is cancelled.

Instructors

Chris Early, M.S.C.S., P.E., Proprietor of Early Electronics

Mr. Early is an active, full-time consultant in hardware and software on Long Island. Mr. Early plans to teach the C Language portion of the seminar.

James La Tourrette, Professor Emeritus, EE/CS, Polytechnic University, Farmingdale NY.

Professor La Tourrette is an expert on C and C++ programming and is an active consultant on custom software development in a variety of languages and systems. Prof. La Tourrette plans to teach the C++ Language portion of the seminar.

Walter L. Whipple, Ph.D., P.E., Chairman, Employment Assistance Committee, IEEE Long Island Section and EQA Engineer, Symbol Technologies.

Dr. Whipple is a specialist in embedded systems and programming languages. He has developed graphical user interfaces both as a consultant and as an employee that combine the ease of use of message-based programs with the demands of real-time response. Dr. Whipple plans to teach the GUI portion of the seminar as well as coordinating the program.

Location and Times

The seminar will be given at New York Institute of Technology, Central Islip. It will meet Saturday mornings 9-12 noon unless weather prevents holding a session; in that case a session will be held Monday, April 1, 6-9 p.m. A light refreshment will be provided immediately prior to each session.

Registration

Make checks payable to IEEE Long Island Section and mail to Walt Whipple, 4 Deera Lane, Farmingville NY 11738-2296. Include mailing address, phone number, FAX number, and internet address. The seminar fee is:

Payment Date	Public[1]	IEEE members[2]		
		member	student/life[3]	unemployed[4]
Jan 31	$300	$200	$125	$100
Feb 14	$350	$250	$175	$150
Feb 24[5]	$500	$400	$325	$300

Notes:

[1] Includes one year IEEE Associate Member dues for those who submit an application at the seminar.
[2] Not applicable to Affiliate members.
[3] Includes undergraduate students of NYIT with current ID.
[4] Must be registered in EAC Job Skills database by December 31, 1995.
[5] Includes registration/payment at the first session.