

Personal Computing Expo will come to New York!

PCE PERSONAL COMPUTING EXPO NEW YORK COLISEUM, OCTOBER 28, 29, 30, 1977

It's a brand new show (in the world's biggest economic center) specifically for manufacturers, buyers and those providing services to the personal computing enthusiast. For the first time, this booming field will have a New York Coliseum showcase. It is planned as the largest public show of its type and will attract attendance from the huge population areas of Boston, Washington, Philadelphia and Baltimore.

New York's is the world's communications focal point, the one place that will put personal computing in a significant spotlight. New York is surrounded in depth

by people who work in the computer field, by computer learning centers, universities, personal computing clubs and thousands of others whose lives are affected by computers.

More than 100,000 paid subscribers of BYTE magazine will be urged to view the exciting exhibits and to attend the BYTE-sponsored lectures. Circle the dates: October 28, 29, 30 — and make your plans now to be there when Personal Computing Expo comes to New York!

"Personal Computing: An idea whose time has come!"*

Tutorials by the IEEE Computer Society, Mid-Eastern Area

Personal Computing Expo is also joined by the Institute of Electrical and Electronics Engineers Computer Society, Mid-Eastern Area Committee, whose experienced staff is presenting six day-long tutorials at a modest charge. If inconvenient for you to attend a tutorial during the show, simply sign up for follow-up tutorials on weekends after the show.

Whereas the lectures will provide you with information, the tutorials will teach important skills enabling you to use your own computer at home or at work.

TUITION:

The tuition fee for the tutorial program includes a one-day admission to the Personal Computing Expo.

	One Tutorial	Two Tutorials	Three Tutorials
Students (with ID)	\$30	\$50	\$75
IEEE Members	\$40	\$70	\$100
Non-Members	\$50	\$90	\$125

Tuition includes hand-out material, including text and/or hand-out materials. Participants will also receive a certificate of participation.

REGISTRATION:

In order to provide an interactive, learning environment between the participants and the lecturers, the number of registrants is limited. Registration is accepted on a first-come, first served basis. Early registration is therefore suggested. Cancellations received before September 15, 1977 will receive a full refund.

To register, make your check payable to the IEEE COMPUTER SOCIETY, and mail to:

Daniel R. McGlynn, Ph.D.
Tutorial Program Chairman
IEEE Computer Society
329 - 84th Street
Brooklyn, N.Y. 11209

FOR FURTHER INFORMATION:

on the technical content of the tutorials, technical background suggested to derive maximum benefit from the program, or information on the IEEE Computer Society, call

Cary Ringel
Chapter Chairman
IEEE Computer Society (212) 460-4600

TIME AND LOCATION:

The tutorials will be held from 9 AM to 4 PM each day in the New York Coliseum, at a location to be announced and posted. Participation in the tutorials also includes a one-day admission to the exhibition area and other lecture programs.

EXPO TICKETS:

Will be sent to tutorial registrants about three or four weeks prior to the show.

BYTE
The Small Systems Journal

**DAILY TUTORIALS AND
SPONSORED LECTURES**



**Exciting lectures
sponsored by**

BYTE
The Small Systems Journal

Personal Computing Expo is endorsed by BYTE magazine, whose staff has contacted prominent speakers for an exciting series of lectures.

Visitors will be able to attend these meetings **free of charge**. The lectures will not conflict with each other eliminating the worrisome choice among several equally important topics. In addition, they will be repeated on the next day to give you a second chance if you missed a topic.

Lectures are typically 30 minutes, often with demonstrations and an additional 15 minutes for questions.

Portia Isaacson Ph.D. . . . Saturday 11 AM and Sunday 12 Noon

Co-owner of the Micro Store, a personal computer store, in Richardson Texas actively engaged for 12 years in the computing field in industry and at universities.

Member of the ACM and IEEE, and chairman of the 1977 National Computer Conference.

Author of many articles in professional journals and magazines.

Received a Ph.D. in Computer Science from the Southern Methodist University.

Personal Computing: An Idea Whose Time Has Come

A review of what has happened so far in the personal computing field, and an outlook into future developments, including those in the computer assisted home. Slide demonstration.

Sol Libes . . . Friday 6 PM and Saturday 10 AM

President of the Amateur Computer Group of New Jersey

Teacher of electronics and computer programming at a community college

Author of 10 books (working on the 11th) and several hundred magazine articles in electronics and computing

Received an award for "The Outstanding Amateur Computer Hobbyist of 1976" in Atlantic City by Personal Computing 1976 show, and BYTE.

How to Get Started

A discussion of typical home computer systems and their essential hardware and software components.

John H. Dilks III . . . Saturday 1 PM and Sunday 2 PM

President of Personal Computing Inc. and trade fair director of the Personal Computing shows in Atlantic City in 1976 and 1977.

Experience with various computer systems since 1962.

Employed by Western Electric Co. Inc., division of the Bell System.

Member of the Amateur Computer Group of New Jersey and of the Philadelphia Area Computer Society.

Teaches microcomputer courses in an adult evening program at a vocational school.

Innovative and Unusual Computer Applications for the Home.

Discussion of "far-out" applications of microcomputers and electronic technology for home use, such as a child locator and warning device, a home security system, etc. Slide demonstration.

Robert S. Jones . . . Friday 7 PM and Saturday 2 PM

Publisher of Interface Age Magazine

Prior experience in sales and marketing for the semiconductor industry, including Intel, National Semiconductor and Analog Devices Inc.

Personal Computing for the Business Man

Evaluating business applications for micro computers, including slides showing selected applications.

Louis E. Frenzel . . . Saturday 3 PM and Sunday 3 PM

Director of Computer Products at Heath Company, involved in the planning of new computer products.

Prior to Heath, with McGraw Hill in product planning and design of educational electronic kits.

Prior experience including computer engineering for eight years

Author of several books, home study courses and numerous magazine articles in electronics and computers.

Received a BS in electronics from the University of Houston and a MEd from the University of Maryland

How to Build Personal Computer Kits

Tips for successful kit construction. Benefits of kit products for the personal computer user. Including slides showing selected computer kits.

Carl Helmers . . . Saturday 4 PM and Sunday 4 PM

Editor-in-Chief and co-founder of BYTE magazine.

Obtained computing experience as a personal way to accomplish artistic and technological goals in music.

Graduated in 1970 with a BS in Physics from the University of Rochester, NY.

Worked for several years at Intermetrics, Inc. in Cambridge, Massachusetts on the NASA Space Shuttle Project.

Prior to working with BYTE, publication of a small computer newsletter on a part-time basis.

Computers and Music

How to create music with computers. Problems of performing electronic music, music under computer program control and computer music in conjunction with traditional instruments. Illustrations and examples from personal experience.

Jack L. Davies . . . Friday 8 PM and Saturday 5 PM

President of Pan Atlantic Computer Systems GmbH, a distributor of various micro computer systems in Europe.

Extensive experience in using minicomputers and microcomputers in the US

Military Schools in Europe. Designed and developed numerous games and educational programs for students in these schools.

Microcomputers in Education

Discussion of the many possibilities of using microcomputer systems in schools. Effect of personal computers on students.

David Fylstra . . . Saturday 6 PM and Sunday 5 PM

Member of the research staff of the Telecommunications Sciences Center at Stanford Research Institute for more than two years. Specialized in microcomputer software and computer simulation of speech processing systems.

Graduated in 1974 with a BA in English and Psychology, Stanford University, Phi Beta Kappa.

Active in the research on communication systems and devices for the deaf.

Speech Analysis and Synthesis for the Amateur

Using the personal computer as a device to analyze the acoustical foundations of speech and to formulate rules for the control of the speech synthesizer.

Max Mathews Ph.D. . . . Friday 9 PM and Saturday 7 PM

Director of Acoustical and Behavioral Research, Bell Labs

Author of **The Technology of Computer Music**, and numerous articles.

Scientific Advisor to the Institute for Research and Coordination of Acoustics and Music (IRCAM)

Dr. Mathews is often regarded as the "Father of Computer Music"

Pure Digital and Real Time Music Synthesis

The use of the digital computer as a musical instrument with which composers and performers create and play music. Slide and tape demonstration.

Carl L. Holder . . . Saturday 8 AM and Sunday 6 PM

Director of Product Management, Planning and Communications at Information Terminals Corp. for five years.

Prior experience, including Memorex Corp., in the area of magnetic media development and testing.

Present and Future Storage Devices

Survey and discussion of current devices and media, including latest technological developments like the charge coupled devices and magnetic bubble memories. Costs, advantages and disadvantages of these devices for the personal computer user. Accompanied by slides.

DAILY TUTORIALS

There will be two tutorials offered each day, one aimed at those participants who have little or no experience with microprocessors, and the other for those already experienced with microprocessor systems.

BASIC COURSES

1. Development of Microcomputer Systems for Business Use

Sy Ratner, Citibank, N.A.

- system design concepts
- economic efficacy of microcomputers versus large centralized computer systems
- distributed processing definitions
- advantages and problem areas
- network design and architecture
- data communications aspects
- case study: design of a stand-alone workstation for data entry and retrieval

2. Development of Microcomputer Systems for Home Use

Cary Ringel, Con Edison

- survey of simple microcomputer control systems for home use
- selection of hardware: IC's, boards, kits, development systems
- programming and software aids
- interfacing: A/D and D/A conversion
- examples: design of a home control system; microcomputers for a music synthesizer; computer TV games.
- case study: use of the Motorola 6800 in design of a microcomputer system

3. Survey and Comparison of Microprocessors

Donald Lewis, Standard Microsystems Inc. and other speakers

- definitions and distinctions between ALU-chips, controllers, microprocessors, microcomputers
- current applications
- microprocessor architectures (bit-slice, 4-bit, 8-bit, 16-bit, minicomputer-type)
- vendor survey
- performance evaluation and criteria for selection

INTERMEDIATE/ADVANCED COURSES

4. Microprocessor Interfacing

Donald Lewis, Standard Microsystems Inc.

- interface components (peripheral interface chips, UARTS, etc.)
- interface standards (IEEE 488, RE 232C, S-100, etc.)
- interfacing to keyboards
- interfacing to cassette and floppy disk drives
- interfacing to display devices
- case study: how to design a CRT terminal

5. Microprocessor Programming and Software

Donald Lewis, Standard Microsystems Inc.

- software design: flow-charting, setting breakpoints, documentation, etc.
- assembly language for the Intel 8080, 8085, Z-80, Motorola 6800
- instruction types and addressing techniques
- use of the stack
- interrupt handling and direct memory access (DMA)
- software development aids
- high level languages for microcomputers

6. Technology Analysis and Forecast of Future Microprocessor Structures

Daniel R. McGlynn, U.S. Philips Corp.

and Will Mathys, MOS Technology Inc.

- emergence of specialized computational elements (SCE)
- architectural evolution (stack processors, reconfigurable architectures, multi-level logic)
- resource management techniques
- software evolution (nano-programming, extensible instruction sets, structured programming modules, very-high-level languages)
- evolution of semiconductor technology of microprocessors
- microprocessor architecture at the chip level
- case studies: design of MOS Technology's new 8-bit and 16-bit processors

Personal Computing Expo to be produced by **H.A. Bruno & Associates**

H.A. Bruno & Associates, Inc., has been prominent in the exposition and promotion fields since 1923. Highly skilled in the production and promotion of consumer and trade shows, the company currently promotes the American Energy Expo, the National Boat Show, Auto Expo/New York. Promotion assistance also is currently rendered to the National Computer Conference and the Triennial IFIPS Congress in Toronto.

The show producer has promoted successful shows in the New York Coliseum every year since the building opened in 1957. Staff personnel are thoroughly familiar with the building, its services, management and labor.

Interesting, educational exhibits of Personal Micro Computers

The lectures and tutorials are not just theory! You will be able to see a multitude of micro computers. Try out various demonstrations: fascinating games, even in color; small business applications; computer produced speech; music; color graphics; and many more. Micro computers are not only small and portable, also you will need only a "micro budget" to be able to take them home.

Show Hours and Admission

Personal Computing Expo hours are as follows:

Friday, Oct. 28 — Noon to 10 p.m.

Sat. Oct. 29 — 10 a.m. to 10 p.m.

Sunday, Oct. 30 — Noon to 7 p.m.

General Admission: \$5.00 (includes free BYTE lectures) per day.

Two-day Tickets: \$9.00 (advance sale only)

Three-day tickets: \$13.00 (advance sale only)

General Information

You may find it advantageous to purchase two or three-day admission tickets in advance. These are available by mail only, no later than October 10, 1977. Use coupon below.

Group rates (10 or more persons) qualify for \$1.00 off regular prices. Arrangements must be made by mail prior to October 10, 1977.

Special arrangements have been made if you desire to stay overnight. Our headquarters hotel, the Barbizon-Plaza, is located on Central Park South, two blocks from Columbus Circle. Single rooms available at \$34.00 per night; \$40.00 double, plus tax. There's a weekend plan: \$22.95 daily, plus tax per person, double occupancy . . . includes breakfast (brunch on Sunday) and meal gratuities. Children under 14 in same room with parents, free.

For hotel reservations and information, call toll free (800) 223-5493. From New York State call (800) 223-5963.

For those traveling to New York by air, American Airlines offers a convenient service through arrangement with Personal Computing Expo. For information, call toll free (800) 433-1790. In Texas the number is (800) 792-1150. From the West Coast, round trip fare via American is only \$227.00.

20,000 persons are expected to attend and view the more than 200 exhibits by personal computer manufacturers and retailers.

Personal Computing Expo will occupy the 4th floor of the New York Coliseum. It is located on 59th Street and Columbus Circle — the geographical center of New York City. Garage parking in the building is available.

For answers to any questions pertaining to your attendance at Personal Computing Expo, contact the Show Manager, Ralph Ianuzzi, at Area Code 212/753-4920.

**Advance sale of tickets available . . . Three days '13
Two days '9 . . . General Admission '5
MAIL THIS CONVENIENT ORDER FORM NOW!**

Personal Computing Expo admission is \$5.00 per day. Advance reservation eliminates waiting in line. Order advance tickets with this coupon. Admission ticket includes access to exhibits, lectures and tutorials.

Please send me _____ advance registration tickets for three days, October 28-29-30. Total cost \$13.00 per person.

Please send me _____ advance tickets for two days, October _____ and October _____. Cost is \$9.00 per person.

Please send me _____ advance tickets for one day, October _____. Cost is \$5.00 per person.

**Make all checks payable to PERSONAL COMPUTING EXPO, and mail to:
Personal Computing Expo, 78 East 56th Street, New York, N.Y. 10022.**

Name _____ Amount enclosed \$ _____

Address _____

City _____ State _____ Zip _____