

# **FORTH INTEREST GROUP**

## **NATIONAL CONVENTION**

**NOVEMBER 28, 1981**

**Marriott Hotel  
Santa Clara, CA**

**Papers and Exhibits  
Dinner and Speakers**

### **LEARN FORTH**

**How to learn and/or teach FORTH  
and FORTH applications**



FORTH INTEREST GROUP NATIONAL CONVENTION  
Saturday, November 28, 1981

9:00 REGISTRATION

GRAND BALLROOM

PROSPECTORS  
Suite A

PROSPECTORS  
Suite B

MORNING SESSIONS

9:30 - 9:55 Welcome/Status Reports

10:00 - 10:55	Teaching Machines LaFarr Stewart Panel	Rockwell Class 1	FORTH Teachers Kim Harris Workshop
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10:55 - 11:10	_____	Coffee Break	_____
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11:10 - 12:00	Development of Applications Leo Brodie - Panel	Rockwell Class 2	FORML Survey Kim Harris
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12:00 - 1:00	_____	Lunch Break	_____
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AFTERNOON SESSIONS

1:00 - 1:15 Roadblocks to FORTH  
Gary Feierbach

1:15 - 1:30 Paradigms for Computer  
Science Education  
Larry Forsley

1:30 - 2:30	Teaching FORTH at University Level Sidney Bowhill - Panel	Rockwell Class 3	FORTH Writers Carl Street Workshop
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2:30 - 2:45	_____	Break	_____
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2:45 - 3:30	Consulting: Single Individual Henry Laxon - Panel	Rockwell Class 4	Benefits of Cross-Compiling John Cassady
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3:30 - 4:15 Consulting:  
Small Company  
Martin Tracy - Panel

4:15 - 5:00 A Company's  
Transition to FORTH  
David Beers

5:00 - 5:30 Fireside Chat  
Charles Moore, Inventor of FORTH  
Who's In Charge  
Computer or Programmer?

6:00 - 7:00 Special Interest Group Meetings

7:30 Dinner - Speaker: Leo Brodie, Author, "Starting  
FORTH"

\*\*\*\* EXHIBIT HOURS: 10:00 A.M. - 6:30 P.M. \*\*\*\*

# FORTH INTEREST GROUP NATIONAL CONVENTION 1981 EXHIBITORS

Ren Curry  
CURRY ASSOCIATES  
2133 Webster  
Palo Alto, CA 94301

Ray Duncan  
LABORATORY MICROSYSTEMS  
4147 Beethoven  
Los Angeles, CA 90066

A. Richard Miller  
MILLER MICROCOMPUTER  
61 Lake Shore Road  
Natick, MA 01760

George Lyons  
280 Henderson Street  
Jersey City, NJ 07302

Jerry Boutelle  
NAUTILUS SYSTEMS  
P.O. Box 1098  
Santa Cruz, CA 95061

W. F. Haygood, Jr.  
COMPUTER METHODS  
7822 Oakledge Road  
Salt Lake City, UT 84121

Tom J. Zimmer  
COLORFORTH  
292 Falcato Drive  
Milpitas, CA 95035

Roy Martens  
MOUNTAIN VIEW PRESS  
P. O. BOX 4656  
Mountain View, CA 94040

Bob Gonsalves  
PINK NOISE STUDIOS  
1411 Center Street  
Oakland, CA 94607

Ronald Huffman  
KV33 CORPORATION  
P. O. Box 27246  
Tucson, AZ 85726

Wayne Witt  
PORTA-PRINTER SYSTEMS  
5900 Central Ave., # E  
St. Petersburg, FL 33707

FORTH, Inc.  
2309 Pacific Coast Hwy  
Hermosa Beach, CA 90254

William Ehlert  
INTERACTIVE COMPUTER SYS  
6403 Di Marco Road  
Tampa, FL 33614

Robert Berkey  
PMS  
724 Arastradero Rd. # 109  
Palo Alto, CA 94306

Gary Feierbach  
INNER ACCESS CORP.  
517 Marine View Suite K  
Belmont, CA 94002

George W. Shaw  
SHAW LABS LTD.  
P.O. Box 303  
San Lorenzo, CA 94580

Henry Laxen  
LAXEN & HARRIS INC.  
1259 Cornell Ave.  
Berkeley, CA 94706

TEACHING MACHINES  
LaFarr Stewart - Chairman

10:00-10:55  
GRAND BALLROOM

This panel will discuss the merits of Computer Aided Instruction. Past successes and failures will be discussed along with the psychological components that can make the difference.

The panelists:

- Frank Lewanowski - Singer Link  
Frank has had over 20 years experience with training machines. In particular, Flight simulators are a good example of successful training machines.
- Bobby Goodsen - President of CUE (Computer Using Educators)  
Will discuss current CAI activities
- Alan Kay - Atari (formerly with Xerox PARC)  
Will discuss the goals of Dynabook
- Tom Malone - Xerox PARC  
Tom's expertise is in the psychology of computer games and what does, and does not, make them appealing. Much of this may be applied to CAI.

FORTH TEACHERS WORKSHOP  
Kim Harris - Chairman

10:00-10:55  
PROSPECTORS-B

This panel will survey the courses currently available on FORTH, the material covered in the courses, and the issues that have to be addressed in these classes.

The panelists:

- Kim Harris - Laxen and Harris, has taught a number of FORTH classes for FORTH, Inc and at Humbolt State University.
- Ron Zammit - Professor of Physics, Humbolt State University
- Other panelists to be announced

DEVELOPMENT OF FORTH APPLICATIONS  
Leo Brodie - Chairman

11:10-12:00  
GRAND BALLROOM

In addition to the terms "programming language" and "operating system", FORTH is often described as a "design philosophy". How does the nature of FORTH affect the process of developing an application? This panel will offer various answers to that question, seen through the eyes of five FORTH users, each with their own working styles and sets of experiences. Each panelist will recount the development cycle for one of their own applications and share what they have learned from it.

The panelists:

- Lawrence Forsley - research engineer and group leader of computer systems, University of Rochester Laboratory for Laser energetics.
- John James - independent consultant and author of The Conference Tree, a teleconferencing system.
- Henry Laxen - independent consultant, Laxen and Harris, Inc.
- Don Lunghi - microprocessor systems engineer for Eldetco, Inc.
- Charles Moore - inventor of FORTH and applications programmer for FORTH, Inc.

FORML SURVEY

Kim Harris - Laxen and Harris

11:10-12:00

PROSPECTORS-B

Kim Harris will present a synopsis of the papers presented at this years FORML (FORTH MODIFICATION LABORATORY) conference.

ROADBLOCKS TO FORTH

Gary Feierbach - Inner Access  
Corporation  
Belmont, CA

1:00-1:15

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This short talk will discuss the barriers to learning FORTH which are somewhat more serious than most other programming languages. In particular, sixteen barriers will be presented and briefly discussed. They will also be ranked by importance with some discussion devoted to whether the language is at fault.

A PARADIGM FOR COMPUTER SCIENCE EDUCATION 1:15-1:30  
Lawrence P. Forsley - Laboratory for GRAND BALLROOM  
Laser Energetics  
University of Rochester  
Rochester, NY

During the past ten years several attempts have been made at developing computer science curricula. Foremost among these have been attempts by the ACM and the IEEE. Interestingly, both programs fragment computer science, with the ACM emphasizing software and the IEEE, hardware. Both place hardware on the left, with operating systems and languages in the middle, and the theory of computation on the far right. There is very little attempt to integrate computer science, and a hardware/software dichotomy is created. As a result, today's graduates lack the necessary breadth to be effective, and industry picks up the tab. an alternative approach would be to find an underlying, unifying paradigm to teach from. LISP was potentially such a model, though it has not succeeded in its twenty year history. UNIX and C, and similarly, PASCAL and the P-machine, are other potential models. This talk will explore the use of a much simpler, and more practical paradigm, FORTH.

TEACHING FORTH AT THE UNIVERSITY LEVEL 1:30-2:30  
Sidney Bowhill - Chairman GRAND BALLROOM

The panelists:

- Sidney Bowhill - Dept. of Electrical Engineering, University of Illinois will discuss teaching FORTH and BASIC comparatively to EE undergraduates.
- Larry Liefer - Dept. of Mechanical Engineering, Stanford University will discuss a teaching laboratory for smart product design.
- Michael Starling - Union carbide, Charleston, West Virginia will discuss multitasking FORTH in the chemical instrument environment.
- Kim Harris - Laxon and Harris, Inc., Hayward, California will discuss introducing FORTH in the academic environment.

FORTH WRITER'S WORKSHOP  
Carl Street - Chairman

1:30-2:30  
PROSPECTORS-B

This panel will discuss the business of writing and getting published in the computer industry.

The panelists:

Leo Brodie - Author of STARTING FORTH, The leading introductory text in the FORTH world today. Mr. Brodie will discuss his experiences in writing and getting published. Specific areas of interest to the audience will be first hand accounts of obstacles Mr. Brodie found in winding through the maze from concept to finally getting published.

Alan Taylor - Regular contributing author of numerous articles in virtually every computer publication. Mr. Taylor's topic will discuss preparing articles for magazine publication; how to know what publications and their audiences want; and avoiding common writer's pitfalls that prevent or delay publication.

Doug Humphrey - Field representative for PRENTICE HALL PUBLISHING COMPANY will attend with a technical book manuscript purchasing representative. Mr. Humphrey and his associate will discuss what the publishing field is looking for in terms of book manuscripts; provide insight that should help potential authors understand the reasons why some manuscripts are purchased and why others are not; and provide handouts with tips and suggestions for potential authors.

Carl Street - Current editor of FORTH DIMENSIONS magazine; author of numerous technical articles; and president of a Bay Area marketing and public relations firm. Mr. Street will discuss the editorial goals of FORTH DIMENSIONS magazine and why it is an excellent starting point for new authors. In addition, Mr. Street will provide a handout of a writer's kit to help both new and old authors increase their productivity and publishability.

LIFE AS AN INDIVIDUAL CONSULTANT  
Henry Laxen - Chairman

2:45-3:30  
GRAND BALLROOM

Consulting can be an exciting, rewarding way of life; filled with new challenges and expectations. It can also be frustrating and anxiety ridden. Who should be a consultant and who shouldn't? How can you find business? Is FORTH a help or a hindrance? These and other questions will be discussed by our panel of currently active consultants.

The panelists:

Glen Tenny - A long time consultant dealing primarily in the world of large mainframe computers.

Dave Boulton - A well known figure in the FORTH community. Dave contracted with Rockwell to produce FORTH for the AIM 65.

Mike Perry - A newcomer to the consulting world. He will share his initial experiences as he embarked on this new way of life.

THE SMALL CONSULTING COMPANY  
Martin Tracy - Chairman

3:30-4:15  
GRAND BALLROOM

This panel will deal with the problems of growing as a company, getting those contracts and chasing megabucks (well maybe kilobucks).

The panelists:

Martin Tracy - Micromotion, purveyor of 79-standard FORTH for the Apple. He will discuss the "Electronic Cottage".

Gary Feierbach - Inner Access Corporation, Belmont, CA. He will discuss the pains of growth and the instability of size.

Other panelists to be announced



THE BENEFITS OF CROSS-COMPILING      2:45-3:30  
John Cassady      PROSPECTORS-B

This will be a discussion of cross-compiling for beginners as well as seasoned users of FORTH. Topics will include:

- Maintain your FORTH nucleus without using painful assemblers
- Moving your valuable application programs to new hardware.
- Fine tuning FORTH for speed or easy maintenance.
- Special uses for cross-compiling that you may not have thought of.
- Audience participation expected...

COMPANY'S TRANSITION TO FORTH      4:15-5:00  
David Beers - Aregon Systems, Inc      GRAND BALLROOM

The aquisition of skilled FORTH programmers is essential to any FORTH programming project. If skilled FORTH programmers are not available then suitable programmers must be aquired from the pool of available programmers and trained in FORTH. A successful sequence of training that enables a suitable programmer to become a FORTH programmer skilled in most aspects of FORTH programming including metacompilation will be shown. Also a successful method of screening and interviewing programmers to determine those that will easily acquire FORTH skills will be briefly reviewed.

"FIRESIDE" CHAT      5:00-5:30  
Charles Moore, Inventor of FORTH      GRAND BALLROOM

Who's in Charge - Computer or Programmer? Chuck Moore can always be counted on to present some stimulating ideas about the future of the FORTH language and the whole industry.