



SVFIG Speakers' Schedule Forth Day Saturday, November 16, 2019

Forth Book of the Month

Andreas Wagner will be offering copies of "Starting Forth" and the [Book of the Month](#) for \$10 each.

SVFIG T-Shirts

[Brad Nelson](#) is selling high quality black t-shirts sporting the SVFIG logo for \$15 each, \$3 additional for shipping. The current inventory includes: M=10, L=2, XL=2, XXL=3.



Meeting Videos

- [This meeting's live video stream and past videos](#) (please subscribe to this YouTube channel)
- [Dennis Ruffer's video channel](#)
- [Search for SVFIG videos on YouTube](#)

Future Meeting Dates

SVFIG is scheduled to meet on the fourth Saturday of each month in 2019 with the following exceptions:

- December 21st - Third Saturday

Any deviations from the [posted meeting schedule](#) will be announced.

Meetup RSVP

If you are planning to attend this month's meeting in person or via YouTube, please RSVP on [Meetup.com](https://www.meetup.com). If not, there is no need to offer your regrets.

Notes for First-time Attendees

- 1) Print a Stanford map showing the meeting location, the [Peterson Building](#), so you can find it easily. If you get lost, call Kevin Appert at 650/678-0532
- 2) Browse the [General Meeting Information](#).
- 3) Park in one of these suggested locations: along Santa Teresa Street, in the lot near the intersection of [Santa Teresa Street and Lomita Drive](#), or in any "A" or "C" designated areas. Do NOT park in places marked with 24/7 restrictions! Most other spots are okay on Saturdays. There is no need to feed the parking meters on the weekends. **When in doubt, read the signs!**

Links to Other SVFIG Information

- [Meeting Notes Archive](#) includes PowerPoint slides, PDFs, meeting videos, source files, and links
 - [Past Meeting Announcements Archive](#)
 - [Next Meeting Details and a link to the Speakers' Schedule](#)
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Meeting Schedule

08:00 --- Coffee and a Chat

08:20 --- Chairman's Welcome - George Perry

08:30 --- Living Cells are Forth Computers - CH Ting

"Cells are computers: code is stored in DNA like disk drives, code is transcribed into RNA like RAM, edited, and then released to perform functions. Some RNA release microRNA, which initiate transcription of RNA. MicroRNA are the instruction set of the cell computer. Many RNA contain lists of microRNA, which are like Forth high level code in cell computers."

08:50 --- Forth on the Gigatron TTL Computer - Ken Boak

Ken will describe the Gigatron TTL Computer, an 8-bit machine built entirely from TTL chips that is an unusual candidate for the Forth language.

09:20 --- A Tale of Two Forths - Joseph M. O'Connor

Joe will discuss both the JavaScript and Python implementations of Creole Forth. He built the first version of Creole Forth in 1999 and presented it to the Maryland Forth Interest Group. In 2003 he cleaned it up and presented it at SVFIG for the first time. There are now four versions (1) Delphi / Lazarus component, (2) Excel, (3) JavaScript, and (4) Python. Joe will concentrate on the JavaScript and Python versions although he may mention the other two versions.

09:50 --- Forth-based Radio Direction Finder - Andrew Korsak

Andy will describe his work-in-progress: a remote Radio Direction Finder reporting network using Gforth on a Raspberry Pi.

10:20 --- Break to order lunch

10:45 --- Making "Standard Tapes" Using F-PC Forth - Jay McKnight

"Using analog magnetic tapes for audio program interchange requires standardizing the tape flux. This can be done by standard physics lab methods, but most audio engineers have neither the equipment nor the knowledge to do it. So the Magnetic Reference Lab records and sells 'Standard Tapes' to carry this information. Producing these tapes involves using an oscillator, a tape recorder, and a control system run by F-PC to turn the tape recorder on and off; to announce the tones; and to control the frequency, level and duration of the tones to be recorded. As is usual in Forth, the final word runs the program. I will describe a few of the Forth words that we need to do this."

11:20 --- Squeezing Forth into 64 Bits - Brad Nelson

"Over the last decade, 64-bit processors have largely displaced 32-bit, outside of embedded applications. Recently, operating systems have begun dropping support for running 32-bit processes on 64-bit systems."

"A larger natural cell size, wide enough to fit whole Forth word strings into a single machine word, is an opportunity to simplify the design of Forth. I'll explore what this looks like in a small Forth, and touch on how OS hosted Forths fit into a world of ever growing complexity."

11:40 --- Forth, AI, Robotics, and the Future - Don Golding

Don will update us on the status of his robot control boards. Bring money if you would like to purchase a board.

12:10 --- Lunch

We will enjoy lunch catered by [The Treehouse](#)

13:10 --- The Gerund Programming Language, A Joy-like Language for Dictation ---

Henry Strickland

Visit the [Gerund Programming Language website](#) for more information.

13:23 --- GreenArrays

GreenArrays Status Update - Greg Bailey

Low Speed USB Host Implemented in GA144 - Daniel Kalny

With the aim to plug a USB keyboard into GreenArrays' evaluation board, we have implemented a simple USB host in GA144 chip. We'll show the overall hardware and software design, key parts of code, and demonstrate functionality of the keyboard controller with Chuck Moore's etherForth display and a new etherForth editor.

Recent Work at GreenArrays - Greg Bailey

15:10 --- Fireside Chat - Chuck Moore

16:10 --- Clean Up, Group Photo, Adjourn, and Dinner at Fey Restaurant

Possible Coming Attractions:

- Dwight Elvey - demonstration of working hardware
 - Chuck Moore - EuroForth 2018 [video](#)
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Dave Jaffe, the FIG and SVFIG webmaster, adapted this document from the [Speakers' Schedule posted on GitHub](#) created by [Kevin Appert](#), the SVFIG Program Chair. Your comments, corrections, and suggestions are always welcome.

SVFIG tries to adhere to this meeting schedule timing, but sometimes a presentation unexpectedly runs long or the presentation starting times need to be reassigned. If you're desperate to see a particular presentation at a specific time, please alert Kevin and he'll do his best to accommodate your desires.

No Newsgroup posts or other media distribution please! Contact Kevin if you wish to advertise SVFIG meetings.

