

Speakers' Schedule

SVFIG Meeting April 23, 2016 Fourth Saturday

Coming in May – DIY eP8080 FPGA Processor Workshop

Attendees who would like to participant in this workshop should purchase a Brevia2 FPGA Kit from Lattice Semiconductors (about \$50) and contact CH Ting to obtain an eP8080 software package that synthesizes an Intel 8080 CPU. The May meeting will include emulation experiments and discussions of old and new CPU architectures.

Google+ Hangout

SVFIG will participate in a <u>Google+ Hangout</u>. Its YouTube video stream should let everybody watch this meeting in real-time, while questions and comments can either be posted on Google or emailed to the <u>SVFIG email list</u>. (Contact <u>Kevin Appert</u> if you would like to be subscribed to the SVFIG email list.)

Future Meeting Dates

SVFIG will meet on the fourth Saturday of each month in 2016 with the following exceptions: November (Forth Day) & December – Third Saturday. Any deviations from the <u>posted meeting schedule</u> will be announced.

Meetup RSVP

If you are planning to attend this month's meeting, please RSVP on <u>Meetup.com</u>. 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 <u>Peterson Building</u>, so you can find it easily. If you get lost, call Kevin Appert at 650/678-0532
- 2) Browse the additional meeting information.
- 3) Park in one of these suggested locations: along Santa Teresa Street, in the lot near the intersection of <u>Santa Teresa Street and Lomita Drive</u>, or in any "A" or "C" designated areas. There is no need to feed the parking meters on the weekends. Do NOT park in places marked with 24/7 restrictions! Most other spots are okay on Saturdays. When in doubt, read the signs!

Links to Other SVFIG Information

- <u>Meeting Notes Archive</u> includes PowerPoint slides, PDFs, meeting videos, source files, and links
- Past Meeting Announcements Archive
- Next Meeting Details and link to Speakers' Schedule

Meeting Schedule

10:00 --- Coffee and a Chat

10:20 --- Warm-Up for the FPGA Workshop in May --- CH Ting

This presentation will include:

- A tutorial on the Diamond IDE for the Brevia2 FPGA Kit, using eP8080 as an example. (If you are experiencing difficulty with the Diamond IDE, bring your laptop for one-on-one assistance!)
- 2. A short discussion on user variables, variables, and constants in the 8086eForth Model 2.03, which is greatly simplified from the original 8086eForth 1.01.
- 3. A short report on Ting's learning progress with Visual Basic on Visual Studio Community 2015.

11:30 --- Lunch

We will enjoy lunch at the Treehouse

13:00 --- Introduction, Rumors, Gossip, and New Things

13:30 --- eForth in Kestrel-3 ROM at Long Last? --- Samuel A. Falvo II

"I will provide a progress update and briefly demo however much I've ported of eForth to the 64-bit RISC-V instruction set. If time permits, I'll talk about the few, but important, differences from eForth 1.0."

14:20 --- Break

14:35 --- Ruminations on Forth Text Processing --- Brad Nelson

"It is better to have 100 functions operate on one data structure than 10 functions on 10 data structures." - Alan Perlis

"The 'secret sauce' of the Perl programming language (with several antecedents) was built-in support for a small collection of types: strings, numbers, lists, and associative arrays that form a potent mini-domain for reasoning about text processing. This idea spread from there to form a core part of the value proposition of languages include Python, Lua, Ruby, Javascript, Bash, PHP, Tcl, and many other scripting languages. The JSON data format, and its prevalence, highlights how pervasive this idiom is in contemporary computing."

"While this 'JSON' type domain is imminently implementable in Forth (for example the <u>Forth</u> <u>Foundation Library</u>) it is not a common Forth idiom. Why? Are there Forth-y alternatives? What should text processing look like in Forth? I'll explorer, ponder alternatives, and engage the collective wisdom of my audience in search of answers."

15:15 --- WebAssembly in a Nutshell – A Forther's Point of View --- Aliaksei Chapyzhenka

This presentation will be a brief introduction to the WebAssembly project including its goals and organization, basics of WebAssembly design, textual and binary formats, active projects, current status, translating between WebAssembly and Forth (approaches, ideas, and issues), and useful links.

15:15 --- In Memory of Sandy

We'll take a few minutes to remember the late John Bumgarner.

16:00 --- Clean Up and Adjourn

While we try to adhere to this schedule, sometimes a presentation unexpectantly runs long or the presentation start times need to be reassigned. If you're desperate to see a particular presentation at a specific time, please alert us and we'll do our best to accommodate your needs.

This schedule may be reformatted or line-justified, but please transmit it verbatim or preferably provide a link to it.

No Newsgroup posts or other media distribution please!

This schedule document is produced by <u>Kevin Appert</u>, the SVFIG Program Chair and is distinct from the information posted on the SVFIG and FIG websites which are authored by the SVFIG Webmaster, Dave Jaffe. Your comments, corrections, and suggestions are always welcome.

