

Speakers' Schedule

SVFIG Forth Day

November 15, 2014

Forth Day is the THIRD Saturday of November!

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[Google+ Hangout](#)

SVFIG will participate in a [Google+ Hangout](#). The YouTube video stream should let everybody join in, while questions and comments can either be posted on Google or emailed to the [SVFIG email list](#). The URL for the video stream will be posted on the Hangout page and emailed to members of the SVFIG list when it is started. Material with potential intellectual property conflicts will not be streamed. (A subscription to Google+ is not required to view the video.)

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SVFIG meets on the fourth Saturday of each month in 2014 with the following exceptions:

November (Forth Day) & December - Meetings will be held on the third Saturday

SVFIG meets on the fourth Saturday of each month in 2015 with the following exceptions:

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If you are planning to attend the meeting, please RSVP on [Meetup.com](#). If you are not planning to attend, there is no need to RSVP.

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Notes for first-time attendees:

- 1) Print a map so you can find the venue easily. If you get lost, call Kevin Appert at 650/678-0532
- 2) Browse the [additional online information](#).
- 3) The suggested parking lot is near the intersection of [Santa Teresa Street and Lomita Drive](#). You may park in any "A" or "C" designated areas. There is no need to feed the meter on the weekends. Do NOT park in any place marked with 24/7 restrictions! Most other places are okay on Saturdays. **When in doubt, read the signs!**

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Meeting details beyond this agenda will be included in an SVFIG email announcement and archived [here](#).

Links, PowerPoint slides, PDFs, meeting videos, source files, meeting notes, and links from previous months' meetings, including those from Forth Day 2013, will be posted on [here](#).

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08:30 --- Coffee and a Chat

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09:00 --- Chairman's Welcome --- George Perry

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Morning Presentations

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9:05 --- Gimp Plug-ins in Forth --- Brad Nelson

Forth Haiku demonstrates that tiny Forth programs can concisely express complex image generation. The [Gimp image editor](#) proves to be a powerful toolset for manual image editing. This toolset can be expanded by means of plug-ins, typically implemented in C.

Brad will present a technique to implement Gimp plug-ins using [Gforth](#). Using this approach, a plug-in that implements a variation of the Haiku Forth vocabulary will be demonstrated. He will explore how the generation technique used for Forth Haiku can be expanded to express image filtering and transformation, enhancing Gimp with Forth's unique power of expression.

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9:25 --- Forth Haiku - Words in Motion --- Brad Nelson

Brad will present a short video, a collection of the best of Forth Haiku.

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9:35 --- Converting Stack Code to Efficient Register Code --- Samuel A. Falvo II

Sam will briefly illustrate how to convert stack code inside a single "basic block" into static-single-assignment form, which when used together with conventional register allocation algorithms, results in near optimal register-based code.

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9:50 --- A Multicore Breakout Board Project --- Sandy Bumgarner

Sandy will present a versatile breakout board project that uses a slightly obscure multi-core processor which has 8 'cogs', and runs a version of Forth. The whole project fits inside an attractive plastic enclosure. The PCB design will be supplied as well as the bill of materials and related necessary parts. It performs GPS calculations and produces video so it can be programmed to make useful and interesting gadgets.

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10:10 --- Implementing Forth on the RCA 1802 --- Harold Rabbie

Harold will discuss porting Forth to this 40-year old resource-starved processor architecture.

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10:30 --- Break

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10:40 --- Bare Metal ... Batteries Included --- James Bowman

swapForth is an efficient self-hosted 32-bit ANS Forth running on a one-chip microcontroller. It has an extensive set of peripheral drivers making it suitable for embedded applications.

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11:10 --- C Macros for the Arduino eForth Dictionary --- John E. Harbold

John will present ANSI C macros that can be used to create a Forth dictionary structure for eFORTH running on the Arduino using a development system based on GCC.

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11:20 --- Job Ads Year in Review --- Dennis Ruffer

Dennis will look back at last year's Forth job postings. While there are no jobs that require Forth exclusively, there are a few that still mention Forth as a programming skill they deem desirable in their candidates. Dennis uses an Indeed.com filter to find postings that mention Forth, while excluding any non-computer-language specific usages of "Forth".

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11:35 --- Forth RF Data Link Controller --- Bob Nash

Bob will describe his new product: a point-to-point or multi-drop RF link controller using a Forth-programmed processor and an inexpensive (\$3) RF link board using an RS-232 command set.

Raspberry Pi for Desert --- Bob Nash

Bob will deliver his perspectives on developing projects with a Raspberry Pi in conjunction with a PC.

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12:00 --- Pizza from the [Treehouse](#).

We'll be ordering pizza from the Treehouse. Please inform us in advance if you have particular dietary requirements, so other options can be made available.

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Afternoon Presentations

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13:00 --- Green Arrays --- Charley Shattuck

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16:00 --- Fireside Chat --- Chuck Moore

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17:00 --- Clean Up and Adjourn

We'll be dining afterwards at a local eatery, most probably [Su Hong's at 4256 El Camino Real](#) in Palo Alto.

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We try to adhere to the schedule, but sometimes a presentation runs a little long. If you're desperate to see a particular presentation at a particular time, please bring it to our attention and we'll do our best to accommodate your needs.

The schedule above may be reformatted or line-justified, but please transmit it verbatim or not at all. A link to this page is preferred.

No Newsgroup posts or other media distribution please!

This schedule document is produced by Kevin Appert, the SVFIG Program Chair. It is distinct from the SVFIG and FIG websites which are produced by the SVFIG Webmaster, Dave Jaffe. Your comments, corrections, and suggestions are always welcome.

