

# Speakers' Schedule

## Forth Day 2012

Brought to you by SVFIG

November 17<sup>th</sup> – Third Saturday

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### Google+ Hangout

We will have a Google+ Hangout. The stream on YouTube should let everybody join in, while questions and comments can be posted on Google or emailed to the SVFIG email list.

If you are not subscribed, send email to: [forther-at-comcast-dot-net](mailto:forther-at-comcast-dot-net)

Here is a link to the SVFIG Hangout page:

<https://plus.google.com/u/0/115269917987589859757/posts>

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

November's and December's meetings are on third Saturday of the month.

We will man the SVFIG table at Maker Faire in lieu of the May meeting.

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If you are planning to attend, please go to Meetup.com and register for the meeting.

<http://www.meetup.com/SV-FIG/>

There is no need to register if you are not attending.

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### **NOTES FOR FIRST-TIME ATTENDEES:**

0) Some of this month's meeting content may be off-topic and does not pertain directly to Forth. You may want to skip the parts that don't interest you!

1) Print a map so you can find the building easily. If you get lost, call Kevin Appert at 650.678.0532

2) Look at the additional online information: <http://www.forth.org/svfig/next.html>

3) Suggested parking is in the small lot near the intersection of [Santa Teresa St and](#)

[Lomita Dr.](#) 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. Read the signs!

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This page is for the schedule and coming attractions only, other details will be in the email announcement and online here: <http://www.forth.org/svfig/next.html>  
Links, PowerPoint slides, PDFs, and source files from previous months' meetings are posted on the SVFIG website. All this and video from Forth Day 2011 and other instances of Forth Day are on the SVFIG website too!

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**08:00 --- Coffee and a Chat**

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**08:30 --- Chairman's Welcome --- [George Perry](#)**

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**08:35 --- The Year in Review --- [Kevin Appert](#)**

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**08:45 --- 3 Part Bach Fugues on Arduino: Fixed! --- [C.H. Ting](#)**

"The ATmega328 chip on the Arduino has 3 counter-timers which can be configured to play three independent voices on three speakers. Last time (October) when I demonstrated at SVFIG, the voices missed many notes. The problem is that the counters must be stopped and cleared before configuring to play different notes. I will show the code that corrects this, play some three part fugues."

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**09:05 --- Literate Programming Today: What I Did This Year --- [Dennis Ruffer](#)**

Dennis will recap his work on Literate Programming this year. You can review his presentations from January, February, and August:

<http://www.forth.org/svfig/kk/01-2012.html>

<http://www.forth.org/svfig/kk/02-2012.html>

<http://www.forth.org/svfig/kk/08-2012.html>

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**09:15 --- Kestrel-2 - Lessons Learned --- [Samuel A. Falvo II](#)**

What is a Kestrel-2 Forth-based computer? What can we expect when the machine is released? What is on the Kestrel's future roadmap? What did Sam learn or discover while working on it?

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**09:40 --- Break**

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**10:00 --- SwiftX on the TI LaunchPad --- [Kevin Appert](#)**

Kevin will give a short review of some MSP-430 code.

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**10:10 --- SwiftX-ARM on Embedded Linux Boards --- [Leon Wagner](#)**

"FORTH, Inc. recently did a port of SwiftX-ARM for an embedded Linux board for one of our industrial clients. It turns out that this same kernel runs on more embedded Linux boards, including the BeagleBoard (and probably the Raspberry Pi). I'll do a quick demonstration of the software environment on the BeagleBoard and on one of the industrial controller boards."

"There may be a first release candidate of the new Forth-2012 Standard document available by Forth Day. If there is time, I'll take a few minutes to introduce it."

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**10:40 --- Porting Gforth to Native Client --- Brad Nelson**

NativeClient allows constrained x86/arm machine code to run inside the Chrome web browser. Brad will present a port of Gforth running inside the Chrome web browser using NativeClient.

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**10:55 --- Creole Forth in Depth --- [Joe O'Connor](#)**

Creole Forth is a simple Forth-like programming language developed as a component in Borland Delphi. Joe has ported Creole to Lazarus, a free cross-platform IDE which

provides a Delphi-like development experience. Joe will present a discussion of Creole's architecture and how he has used it in his various projects.

**NOTE:** Joe will be bringing a limited number of bootable LinuxLiveDVDs with Lazarus pre-installed and Creole on them. If you really, really want one, please bring a thumb drive with 1.5 GB of free space on it for the ISO image, just in case we run out.

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**11:25 --- PICKy: A Processor with Deep Stack Access --- [Aliaksei Chapyzhenka](#)**

Why are PICK and ROLL widely disregarded by the Forth community? Can deep stack access be part of instruction set architecture? How can stack allocation use PICK to speed up the code? The presentation will include perspectives, experiments, and findings. You can view the PICKy material here: <http://goo.gl/DsvhL>

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**11:45 --- Automatic Synthesis of Forth Programs --- Prof [Ras Bodik](#), [Mangpo Phitchaya Phothilimthana](#), Tikhon Jelvis, and Rohin Shah, all at The University of California, Berkeley**

"We will demonstrate how modern Boolean Satisfiability solvers can be used for synthesis of optimal Forth programs and how such synthesizers may help schedule communication on the GreenArrays processors. This is ongoing work at UC Berkeley."

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**12:05 --- Lunch**

Lunch is catered by CH Ting, a Forth Day tradition!

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**13:30 --- [GreenArrays](#)**

The afternoon session will be devoted entirely to GreenArrays and their parallel processing Forth chips. The afternoon will start with a short briefing on the progress of GreenArrays in the last year and a glimpse of its plans for the company's future. GreenArrays engineers and partners will discuss the chips and their applications, presenting high-level insights and strategies for choreographing the work of teams of computers in a variety of applications. Management and data flow will be emphasized, rather than a detailed examination of coding.

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**16:00 --- Fireside Chat --- [Chuck Moore](#)**

Almost every year since the early days of FIG, Chuck has held a fireside chat, commenting on our favorite programming language.

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**17:00 --- Clean Up and Adjourn**

**17:45 --- Dinner --- [Su Hong Menlo Park](#)**

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**Join us in December:**

**Quantum Computing --- [Jack Woehr](#)**

Jack has volunteered to do a remote "Hangout" presentation!

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Do we try to stick to the schedule? Yes, most of the time. On Forth Day, we're pretty serious about it, but stuff still happens. Sometimes somebody runs a little long. Once in a while we shuffle things around. If you're desperate to see a particular thing at a particular time please mention it and we'll try to accommodate you.

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

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No Newsgroup posts or other media distribution please!

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This page 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. Comments and corrections are welcome.

