

# Speakers' Schedule

## Forth Day 2011

### The Third Saturday, November 19, 2011

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SVFIG's meetings are on the fourth Saturday of each month with the exception of November and December.

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Please go to Meetup.com and register for the meeting when it becomes available.

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#### NOTES FOR FIRST-TIME ATTENDEES:

- 1) This is the big annual get-together of the Forth world
- 1a) Chuck Moore, the inventor of Forth, will give his annual Fireside Chat.
- 2) Print yourself a map so you can find the building easily. If you get lost, call Kevin Appert at 650.678.0532
- 3) Look at the additional online information: <http://www.forth.org/svfig/next.html>

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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, PDFs, video, and source files from last month's meeting and last year's Forth Day are on the SVFIG web site too!

Here's the batting order:

**8:15 --- Coffee**

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**8:30 --- Chairman's Welcome --- [George Perry](#)**

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### **8:35 --- The Year in Review --- [Kevin Appert](#)**

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### **8:45 --- From Harvard to Princeton at Stanford: eForth as an Arduino Sketch --- [C.H. Ting](#)**

"AVR microcontrollers are based on the Harvard architecture, with separate program and data memory spaces. C is also based on the Harvard architecture. Forth is based on the Princeton architecture, i.e., a von Neumann machine, with a unified memory space for both program and data. In this eForth as an Arduino Sketch, I am imposing a Princeton virtual machine on a Harvard processor with a Harvard programming language. Of course, in a virtual machine you can do anything. You just make it to work."

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### **9:05 --- Producing Forth with C Macros --- [John E. Harbold](#)**

The C compiler can be dragooned into producing a Forth executable and John is just the guy to do it.

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### **9:25 --- My First True Home-built Computer: the Kestrel-2 --- [Samuel A. Falvo II](#)**

"My first attempt at FPGA development, the Kestrel-2 finally realizes a life-long dream I've had -- to build my own home computer from scratch.

I followed in the footsteps of the Jupiter ACE, but with a significant difference: it's Forth all the way down to its J1 core processor."

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### **9:55 --- Break**

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### **10:10 --- Forth on the Cortex-M1 FPGA Development Kit --- [Leon Wagner](#)**

This paper describes the instantiation of an ARM Cortex-M1 CPU core on an Altera Cyclone III FPGA and the development of a simple Forth application to run on it. The CPU core used here is the ARM Cortex-M1 FPGA Development Kit. The Altera Quartus II environment is used to build the ARM Cortex-M1 system, including memory, embedded peripherals, and a debug interface for the Forth environment. SwiftX-ARM is used to develop and interactively test a simple program on the newly instantiated CPU core in the FPGA.

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**10:40 --- Doit - A Micro-controller Forth --- [Dave Wyland](#)**

Dave will describe Doit, a subroutine-threaded Forth with simple interrupt system for microcontrollers such as the Arduino (i.e. Atmel AtMega328P, etc.). New things include integrated scoping of local and global variables, and a hybrid block micro-file system using the internal flash.

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**11:00 --- NativeClient Forth in Chrome --- [Brad Nelson](#)**

NativeClient allows constrained x86 machine code to run inside the Chrome web browser. A Forth implementation designed to run inside NaCl will be presented including discussion of its internal implementation and of NativeClient in general.

<http://naclforth.appspot.com/>

**11:20 --- Forth Haiku --- [Brad Nelson](#)**

What Forth can say in 17 words? Quite a lot actually.

A web application for sharing small Forth programs that generate colorful images, animation, and now sound will be presented.

Brief description of the Haiku vocabulary, its implementation on top of Javascript, WebGL, and Web Audio will be followed by a survey of interesting, aesthetic, and colorful Haiku submissions from SVFIG members and beyond.

<http://forthsalon.appspot.com/>

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**11:30 --- Gameduino's Forth Coprocessor --- [James Bowman](#)**

At Forth Day 2010, James described his J1 Forth Core. This year, we'll hear about Gameduino, the FPGA-based videogame "shield" for the Arduino (or anything else with an SPI interface) which uses the J1 Core to work its magic.

<http://gameduino.com>

[http://www.pcworld.com/article/221147/meet\\_gameduino\\_the\\_arduino\\_for\\_game\\_creation.html](http://www.pcworld.com/article/221147/meet_gameduino_the_arduino_for_game_creation.html)

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**11:45 --- Forth, the Really Useful Engine --- [Gary Feierbach](#)**

Gary will talk about several areas in which Forth has proved very useful.

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**12:15 --- Replicating the Canon Cat and IAI Swyft and SwyftCard --- [John 'Sandy' Bumgarner](#)**

Thousands of hours of engineering would have to be done in order to land a man on the moon again. Hopefully the task of replicating the Canon Cat and IAI Swyft and SwyftCard technology won't be nearly as daunting. Sandy will give us an update.

[http://en.wikipedia.org/wiki/Canon\\_Cat](http://en.wikipedia.org/wiki/Canon_Cat)

<http://www.engadget.com/photos/swyftcard-ad/>

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#### **12:30 --- Lunch**

Our annual tasty tradition, Chef C. H. Ting is catering.

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#### **1:30 --- [Hands On GreenArrays!](#)**

After a short briefing on the progress of GreenArrays in the last year and a glimpse of its plans for the next, the room will become a group of separate stations at which hands-on experience with GreenArrays hardware and software will be available to all attendees. Various projects will be set up and the responsible parties will be available to demonstrate and assist attendees in familiarizing themselves with this technology and in gaining personal experience with it. The time will not be structured; rather the stations in the room will present attendees with the opportunity to select the topics of greatest interest to them from a "buffet" of opportunities. Anyone who has been working with GreenArrays technology is welcome to set up a station for the afternoon, please contact GreenArrays at (775) 298-4748 or via [hotline@greenarraychips.com](mailto:hotline@greenarraychips.com) to coordinate.

<http://greenarraychips.com>

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#### **4:00 --- Fireside Chat --- [Chuck Moore](#)**

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#### **5:00 --- Adjourn**

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#### **5:45 --- Dinner at a Local Restaurant**

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On Forth Day we try to stick to the schedule. Usually we do pretty well but sometimes stuff happens. Your free admission will be cheerfully and completely refunded should any talk start late or need to be cancelled.

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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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