Test Waveform Generator System
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**Hardware status:**
- Working on the implementation of a two-channels test system
  a) Xilinx X2S150 FPGA Test Card (Digital)
  b) AD9765 Test Card (Digital to Analog Conversion)
  c) AD8138 Card (Amplification/Filtering)

**Software and Firmware status:**
- Interface for the Xilinx X2S150 FPGA Test Card (Digital)
  a) Implemented a serial (RS232) interface.
  b) Implemented a user-friendly GUI based on Microsoft Excel to control and change the waveform generated by the two-channel test system.

**TWG Documentation:**
http://www-ese.fnal.gov/D0Cal_TWG/
Xilinx X2S150 FPGA Test Card

- AD9765 12-bit, 1.25 MSPS D/A Converter
- AD8138 Amplifier/Filter
- 10-bit counter
- 40MHz OSC
- 1024 X 12bit Memory
- Control
- JTAG
- RS232

Tektronix TDS 794D Digital Oscilloscope

PC

HP 16500 Logic Analyzer

Power Supply 5V (Analog)

Power Supply 3V (Digital)

Amplifier/Filter: AD8138

10-bit counter

CHAN1,CHAN2,CHAN3,CHAN4

12 bit, clock

1024 X 12bit Memory

10-bit counter