

Fidus – an excellent choice

At Fidus Systems, we understand the unique challenges faced by technology companies – too many projects and too few engineering resources. With top engineering talent, multiple design centers and on-site staffing options, Fidus provides highly responsive engineering teams that are an extension of your development team to successfully bring products to market faster.

Recognized as a trusted design partner, Fidus is dedicated to meeting customer expectations, and developing long-term relationships with clients built on integrity, quality and open communications.

Fidus is pleased to provide customers with full end-to-end development solutions or more selective targeted engagements.

Fidus has delivered more than 1500 projects for 300+ clients, from Tier-1 multinationals to SMEs to start-ups. Fidus is headquartered in Ottawa, Canada with local design centers in Kitchener-Waterloo and San Jose.

how we Help

Do you want to: Increase your **revenue**? Reduce your **costs**?
Increase your **speed** and **flexibility**? Focus on your **core competency**?

Consider Fidus for electronic product development and consulting services.

Fidus' Embedded Software designers have the experience, tools, and business savvy to select the most appropriate microcontroller or microprocessor and operating system, and then deliver concise, well-structured, well-documented code to you. We pride ourselves in delivering code that is easily followed, and easily supported by your team moving forward.

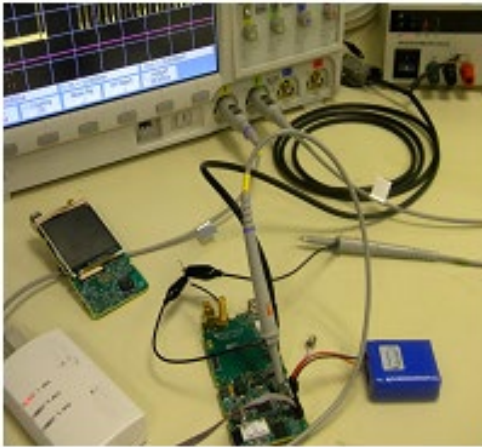
Our Software design team's skills are readily complemented by Fidus' Hardware, Wireless, PCB Layout, Signal Integrity, FPGA/DSP, and Mechanical design expertise.

design Expertise

- ARM® Accredited Engineers
- 8/16-bit μ Controllers: 8051, PIC, TI MSP430, Freescale CPU12/CPU12X, Atmel AVR8
- 32-bit μ Processors: Xilinx® Zynq®, Freescale ColdFire/ColdFire+, Xilinx® MicroBlaze™, Marvell, Atmel AVR32, Freescale ARM, NXP, ST ARM®, PowerPC, x86, IA-32/64, MIPS
- Boot-loaders and board support packages (BSPs)
- Device drivers for common hardware peripherals
- Integration of networking protocol stacks
- Software porting, Web Server, Ethernet, USB, PCIe, etc.
- Design and implementation of functional test GUIs
- Embedded operating systems including Linux (SMP and AMP), eCos, VxWorks, OSE, FreeRTOS, RTX, MQX, ThreadX, μ C/OS, μ C/OS-II
- Scripting: Tcl/Tk, Perl
- Graphics: embedded graphics libraries, LCD driver ICs
- Security protocols and audits

tools for High-end development

- **System Development:** GNU C/C++, Keil μ Vision, IAR Embedded Workbench, AVR Studio, Freescale/Metrowerks Code Warrior, MPLAB, Microsoft Visual Studio, Xilinx® EDK/SDK, Static code analysis
- **Test Environments:** LabVIEW, MATLAB/Simulink, Custom application specific lab environments



ALLIANCE PROGRAM
PREMIER MEMBER

bringing you Xilinx premier

As Xilinx Premier, Fidus receives exclusive training, certification, and early-access to tools, IP, and new silicon. By invitation, Fidus was *the* inaugural Xilinx Premier Design Services member in North America. This means that when you hire Fidus, you know that Fidus is on the forefront of Xilinx's roadmap, experienced in the most advanced tool flows, and is top of mind within the Xilinx support network.

Locations

Ottawa

375 Terry Fox Dr.
Ottawa, ON K2H 1E6 Canada
Tel: +1(613) 595-0507
Fax: +1(613) 595-1811

Kitchener-Waterloo

180 King Street South, Suite 505
Waterloo, ON N2J 1P8 Canada
Tel: +1(519) 576-0060

San Jose

927 Corporate Way
Fremont, CA 94539-6118 USA
Tel: +1(408) 217-1928

Contact Us

Central/Eastern North America
Cameron Redmond
Cell: +1 (519) 635-6835
cameron.redmond@fidus.com

Silicon Valley
Tony Andrews
Cell: +1 (408) 314-9991
tony.andrews@fidus.com

Southern California/Pacific North West
Cameron Redmond
Cell: +1 (519) 635-6835
cameron.redmond@fidus.com

Outside of North America
Cameron Redmond
Cell: +1 (519) 635-6835
cameron.redmond@fidus.com

www.fidus.com

Examples of our work

- Video capture and distribution system. Custom designed circuit cards, FPGA code, and Windows driver and application. Hosted and supervised by both an ARM® embedded system and a PC. Technologies: Xilinx® Virtex®-7, Xilinx® Vivado®, PCIe Gen3, MIPI, FMC, Image Sensor Pipeline (ISP), FMC, scaling, overlay, PIP, transceivers, GTX/GTH, gbps, Microsoft® Windows Embedded Compact 7 (CE), ARM®, drivers
- Bluetooth® accessory for a “Made for iPod. Works with iPhone and iPad” that included a Bluetooth wireless interface and an 8051 microcontroller. The firmware implemented all iPhone/iPod authentication requirements as well as the higher-level accessory software that interacted with iPhone/iPod apps. Technologies: Bluetooth®, Apple authentication, Apple MFi program, 8051
- Migration from x86 to ARM®. Fidus ported an existing embedded software application from a legacy 8086-based platform to an ARM® microcontroller. The team brought up the new hardware platform, created all required board support, and ported the application software. The process included translating x86 assembler files into ANSI standard C. Technologies: x86, ARM®, assembler, C
- Spectrum analyzer Linux board support package. Fidus redesigned a spectrum analyzer including the Linux BSP to reflect numerous hardware changes. The updated Linux kernel image allowed all legacy user-space application software to remain independent of the underlying hardware platform. Technologies: Linux, BSP
- Xilinx® Zynq® AMP. Fidus designed a demonstration system, based on Zynq. This project involved designing a GUI that allows the user to execute AES, SHA2 and SHA3 algorithms. The algorithms were run on both bare metal as well as the FPGA fabric. This project demonstrated Fidus' software expertise with Asymmetric Multi Processing (CPU0: Linux, CPU1: Bare Metal), High-Level Synthesis, Isolation Design Flow, and Partial Reconfiguration. Technologies: Xilinx® Zynq®, Avnet® Zedboard, AMP, HLS, IDF, PR