Tim Frost

I have been working as a freelance design consultant for more than 10 years and have covered a diverse range of projects, with many different clients. I have worked as part of a larger project team or in some cases I have worked on my own.

Although my background is in hardware design, with a degree in maths and electronics, software and documentation now occupies a major part of my time.

In July 2003 the business changed from a partnership to FrostNet Ltd.

Status	FrostNet Ltd
Established	1989 (FrostNet 2003)
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Working as a consultant designer has provided a wide range of projects.

Some recent projects have been:

Using SGS uPSD3200 series processor for embedded system.

Writing real time software to drive a specialised sewing machine using **National Instruments FlexMotion library** with **Borland C++ Builder** to drive eight stepper motors as well as providing a full **Windows Graphical User interface**. At the completion of the project I assisted in providing full documentation and work instructions.

Deriving mathematical routines for converting between 2D and 3D shapes.

Debugging a multi-processor motor control rack, this involves writing software test routines and drivers in **C** and firmware for **Lattice CPLDs**.

Main Activities

Project management

Hardware development

Windows software

Embedded software

Real time software

System design

EMC testing

Writing documents, manuals and test procedures to comply with ISO9001

Summary of Skills

Software

I have experience in a variety of languages and systems – these include.

Various projects using **embedded programming in C** (8051), including writing data to **SmartMedia** cards.

Analog Devices DSP assembler for motor control application including **Digital Filters**

A variety of windows applications in **Borland C++ Builder** and **Borland Delphi**, including DLLs, threads, DDE, real time machine control and video capture.

Client-server databases with **Borland Delphi** and **Interbase Server**

Experience of programming **National Instruments motor control** systems in **Borland C++ Builder**

Microsoft Word and Excel including writing VB macros.

Hardware

I have extensive hardware experience ranging from low noise audio to high power drive systems. My experience includes:

Active & passive filters

Amplifiers - low noise, high speed

High Input impedance systems

FET switching circuits

Analogue audio

Power amplifiers

Switching amplifiers

Frequency Mixers

PCB Layout for high performance circuits

Embedded systems

DSP systems

GAL/CPLD programming

Experience Prior to 1989

Cambridge Instruments Ltd, Electron Microscope Design

Lintech Instrument Ltd, Electron Beam Semiconductor Testers - Hardware Design
Manager

Focusrite Ltd, Analogue Audio Mixing Consoles - R&D Manager