

Ian David Rothwell

OVERVIEW

A highly capable, innovative and experienced engineer with a proven track record on a wide range of projects, in the aerospace, mobile comms and medical sectors.

Electronics hardware background combined with extensive software experience in a wide range of programming languages, including C, C++, C#, VB.NET, Java, Pascal, and FORTH.

Embedded systems, boundary scan (JTAG) and extensive experience of both hardware and software test. Machine vision systems using NI Vision and Matrox API. Design of ATE system hardware and test languages including LabWindows/CVI, LabView, ATLAS and SABRE. Perl and TCL scripting and use of Auto-It for software test automation.

Use of TestDirector (Quality Center), DOORS, QuickTestPro and TestStand environments.

Configuration control using ClearCase, SourceSafe, AllChange, CVS, SVN/Tortoise and Continuous (Synergy). Experience as team-leader.

TARGET JOB

Desired Job Type:	Contract
Work Load:	Full-time
Rate:	Negotiable
Site Location:	No Preference
Date of Availability:	1 week notice period

EXPERIENCE

4/2013 – Present Cobham Mission Systems Wimborne, Dorset

Test Development Engineer (Contract)

Developed software requirements test procedures for for safety-critical in-flight refuelling systems software written to DO-178B using TestStand and LabView.

10/2012 – 4/2013 Tunstall Health Care (UK) Ltd Whitley, North Yorkshire

Test Development Engineer (Contract)

Developed functional and board tests for an Android based tablet PC product using LabView and TestStand. Main areas of test involving NI-IMAQ machine vision, ADB, PSTN MODEM, GSM and BlueTooth testing. Designed and integrated test system hardware. Developed Java Android application to test large LCD displays.

9/2012 Testech Ltd Yeovil, Somerset

Fixed-price Contract for Flying Test Systems Ltd

Developed bespoke test executive and functional tests for a non-contact flow meter PCB using C#. Developed an embedded pulse counter instrument.

7/2009 – 8/2012 EADS Astrium Ltd Portsmouth

Software Engineer (Contract)

Developed C++ drivers and TCL scripts for testing RF components of Alphasat satellite. Created C++ and VB support tools, many incorporating SQL to store and retrieve data from MySQL and MS Access databases. Designed and developed MFC C++ software for Payload Control System (PCS) and Payload Calibration Manager (PCM) involving processing of TC/TM messages to/from spacecraft in multi-threaded environment. Extensive use of XML. Requirements tracking and documentation using DOORS. Config control using Clear Case and SVN.

5/2002 – 7/2009 Nokia Mobile Phones Ltd Farnborough

Software Engineer (Contract)

Developed software for imaging-based robotic system based on TestStand and LabWindows/CVI and Matrox machine vision system for automated applications software testing of latest Symbian (EPOC) based imaging mobile phones. Devised applications test cases for Bluetooth Audio, DRM, COD and Wireless

Village. Used TRY, TestQuest, QuickTest Pro software automation tools and Test Director. Developed various internal software tools for test automation in C#, VB .NET and Perl.

5/2001 – 3/2002 Astrium Space Ltd Portsmouth

Software Team Leader (Contract)

Team leader for group of four engineers developing generic test software.
Produced and maintained LabWindows/CVI code in support of test systems for the Inmarsat4 satellite programme (mostly development of Windows DLLs for use with TestStand).
Acted as consultant for LabWindows/CVI, LabView and TestStand.

5/2000 – 5/2001 Racal Instruments Ltd Slough

Design Engineer / Team Leader (Contract)

Team leader for group of three engineers.
Designed a PXI based test system, both hardware and software
Recommended company replacement Boundary Scan (IEEE1149.1) system.
Provided consultancy and programming services for LabWindows/CVI based software. Supported and advised hardware design team on testability issues with input to product design.

11/1990 – 5/2000 Testech Ltd / Serco Systems Poole / Portsmouth

Programmer / Senior Engineer (Permanent)

Involved in all aspects of both civil and military projects from initial quotation through to commissioning and acceptance phase.

Major projects were:

- (i) AS90 (MoD) – Developed SABRE test programs and test jigs for AS90 self-propelled howitzer, in particular the TCC LRU (approx. 2 1/2 year project). Developed on VAX and hosted on Racal DIANA ATE.
- (ii) Nortel (Harlow) – Developed HP-Vee for 2Mbit multiplexer and optical variant.
- (iii) Siemens (Congleton) – Developed LabWindows/CVI solution for their AC Motor controller test bed.
- (iv) Lucas (Birmingham) – LabWindows/CVI for Trent Engine PCU test and test executive.
- (v) MATS test system – Developed embedded C and designed hardware for bespoke sub-system using 80186 processor.
- (v) AeroStanrew (Barnstaple) – Developed LabView test executive for Apache Pilot Night Vision System.
- (vi) Computing Devices (Hastings) – Eurofighter Video Voice Recorder (VVR) test solution based on ASTEC test system and utilising NI Vision for video analysis.
Proposed, devised and developed the ASTEC modular PC-based test system.
Company expert in LabVIEW and LabWindows/CVI languages.
Provided support and consultation both internally and to various customers using National Instruments hardware and software.
Appointed as Lead Engineer for VVR and TRW Pegasus Engine projects.

12/1987 - 11/1990 GEC (Marconi) Avionics Ltd Rochester, Kent

Applications Software Engineer (Permanent)

Key engineer in development of test software and test fixtures for Standard Central Air Data Computer (SCADC) which was hosted on MATE Unix test system using ATLAS-716.
Produced initial design documentation to MIL standards, designed test fixtures and produced TRDs using PAWS system hosted on VAX. Customer was DoD (US Air Force and Navy).

10/1983 – 12/1987 PM Technical Services Ltd Retford, Notts

Technician/ATE Engineer (Permanent)

Demonstrated competence in maintenance and repair of discrete TTL and microprocessor based equipments.
Developed fully automated test facilities using Beaver Major ATE for a medium-sized central repair workshop serving the whole of the UK.
Wrote innovative software in GW-BASIC on PC and PASCAL on VAX to increase efficiency of the production of customer-specific firmware for turn-key applications.
Provided technical assistance and support for field staff.

EDUCATION

9/1987 Sheffield Hallam University
HND in Electronic Engineering
9/1985 Chesterfield College of Technology
BTEC Supplementary Certificate in Microprocessor Based Systems
9/1984 Chesterfield College of Technology
HNC in Electrical and Electronic Engineering
9/1982 Chesterfield College of Technology
City & Guilds Course 224 (Electronics Servicing)

TRAINING COURSES

8/2002	Continuous CM	Nokia
9/1999	Presentation Skills	Smallpeice Enterprises Ltd
5/1997	LabView Advanced	National Instruments
5/1997	LabView Basics	National Instruments
6/1994	LabWindows/CVI Basics	National Instruments
4/1988	Introduction to Avionics	Cranfield Institute of Technology

REFERENCES

Please contact via email for further information.

PERSONAL INFORMATION

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