



Contractor Architectural Designer \ Technical Project Manager
Senior Developer \ Embedded Software Engineer

Major Skill Areas

Embedded Software development - many platforms - widely experienced . C & C++ . OOD . Assembly language . User Interfaces. Data Communications . Internet and proprietary protocols . Development of GUI front ends & user interfaces , protocol stack components , device drivers and packet drivers , multimedia - play engines etc. , editors , assemblers and interpreters , co-operative operating systems . Middleware . Computer and communications security . Code for RF side . Smart Cards . Multiprocessing - distributed and parallel . Componentisation . Hardware knowledgeable with some hardware development experience .

System Architecture Design – design and development of project frameworks , specification and supervision of component development . Technical Project Management - complete cycle . All aspects . Drill down design . Full formal methods . Explicit coding . Designing code for source and binary level verification – including Quality , Integrity and Security – transparent and blind , and Binary Level Validation & Certification – via Automated Test Harnesses .

Very much an engineer in my approach – looking at the best way to put projects together . Getting into the software architecture and design . Looking for the best way to design a project . Very conscious of the business aspects .

Highly professional - product and customer orientated , values based , approach . Professional , Communitarian with Individualism , Collaborative , Ownership based working culture . Principles and concepts based . Very practical and down to earth . Highly innovative and creative . Able to produce high quality and high value code , quickly and cost effectively . Very versatile - have worked in many different environments in many different places on many different projects . Am a quick learner . Am very good with the broad picture . Very much an outside of the box person . Very much new economy . Very much an enabler and facilitator .

Other Details

Date of Birth	15 - Jan - 1960
Place of Birth	Poole , Dorset , England
Nationality	U.K. \ E.U. and Australian
Marital Status	Never married
No. of Children	None
Work location	U.K. or the Continent . Will move to the work location - am very flexible .
Computer and Internet Facilities	Yes - fully equipped for remote working .
Prepared to travel	Yes
University Attended	Western Australian Institute of Technology (Curtin University - curtin.edu.au) Accredited to I.E.Aust.
Degree Obtained	B.Eng. Communications (and Computing) 4 year engineering degree with maths and science - physics , chemistry , materials science etc. . No. 19256 issued 16 th. Feb. 1983 . Top 5% . Yr's 1 to 3 SWA ~77% , Yr 4 ~66% .
Other Qualifications	Amateur (Radio) Operators Certificate of Proficiency (Australia) 1980 . Driving Licence - standard car (U.K. \ E.U.) .
Patents Granted	Token Bus Protocol Number 1 (GB 2 273 023) . Token Bus Protocol Number 2 (GB 2 280 572) . Token Bus Protocol Number 3A (GB 2 319 706) .
Wikipedia Link	http://en.wikipedia.org/wiki/Token_bus_network - last link on page .
Foreign Languages Spoken	A little French - am learning , even less Italian and almost no German .
State of Health	Excellent
Travel Experience	Extensive in Western Europe . Some in the Middle East , South and South East Asia . Extensive in Australia . Some in New Zealand .
Main Residence	England 13 ¾ years , France 3 ¾ years , Australia 25 years , Germany 2 ¾ years , Belgium 2 ¾ years , Kuwait 3 years plus 1 year travelling .
Company Web Site	wrlldcomp.com .

Extensive embedded , and some applications and systems , software design and development experience , including architecture design , and some limited hardware design experience .

Software Engineering

- High level languages :- C (10+ years) , C++ (6 + years) , Basic and Quick Basic (6 months - 19+ years ago) , Pascal and Fortran (6 months - 28+ years ago) .
- Assembly languages :- 8x86 family (to Pentium) - highly experienced , Z80 , Z8 and 6811 , some 8048 , some ARM . Total of 12+ years .
- Internet web languages :- HTML (company & private web site development) & XML (contract and private work) .
- Development of :- GUI Front End Module . Multi Media Play Engines . Device and Packet Drivers . Protocol Stacks . Secure Communications . Modules using Internet Protocols - all levels . Local Area Network protocols . Computer System Security package . Automatic Taxi Despatcher . Editors . Concurrent Assembler . A number of single and multiprocessor based microcomputer applications . An extensive range of C & C++ components . Extensive work in componentisation . Extensive work on Proprietary Co-operative and RTOS Operating Systems .
- Data Base experience :- Access .
- Network experience :- Extensive topology and protocol Research and Development . HTTP , SSL - HTTPS . Development of Internet (FTP inc.) and Novell (ODI) packet drivers and protocol stack components . Internet protocols - IP & ICMP , UDP & TCP , PPP & PPPoE , SLIP , ARP & RARP , DHCP , BOOTP , DNS , FTP , RTP , RTCP & RTSP etc. - varying levels of experience . Integration and debugging of protocol stacks . Telecoms - DSL , E1 etc. .
- Operating Systems :- VxWorks , Nucleus Plus (inc. IP) , MEOS , ThreadX , pSoS and NECROS RTOS's. Co-operative Operating Systems . Windows (a small amount as a developer) . MSDOS versions 3 to 6+ . CPM 80 .
Linux : good Linux familiarity - development and usage experience (including set up and operating etc.) - but am not an expert .
- Processors & Micros :- ARM family – ARM7 & ARM9 - inc. ARM7T , ARM9EJ-S , STR911FAW42 & ARM Cortex , 8086 family , 68000 family , PIC , M16C28 , META , ARC , OAK DSP , C161 , 6811 , Z80 family , Z8 .
- IDE's & ICE's :- Broad range of experience including MSVS VC++ V6 , 8 & 10 , CodeGear C++ Builder 2007 R2 (Borland) , Qt4 , IAR Embedded Workbench , AVR Studio 4 , Kiel uVision3 , Codescape , HEW , Lauterbach , SeeCode , Multi-ICE .
- GUI's :- Qt4 on Windows and Linux . CodeGear C++ Builder 2007 R2 (Borland) on Windows . Various in house systems . GUI Front End Module .

Hardware Engineering

- IBM PC :- P.C. card design plus extensive system experience .
- 8086 family :- Intelligent P.C. card design - network card .
- Z80 :- Stand alone microcomputer application design - FPLA Programmer .
- Z8 :- Stand alone microcomputer application design (including multiprocessing) - Video Editing Controller .
- I.R. and analogue :- A couple of projects designed - IR Remote Control Light Dimmer & Mixer .

Intellectual Property Based Designs

Retrospective Token Bus Local Area Network protocols - patents granted , Parallel Processor and single processor based microprocessor , Computer and Network systems - concept based designs . Concurrent Assemblers - developed . Componentisation systems - extensive concept design work + development of the GUI Front End Module .

Extensive basic and applied research into architectures , componentisation , parallel processing software and hardware structures , componentisation , advanced local area networks and computer security techniques . Extensive embedded software development . Some applications development .

Contract Work Experience

29 th. Aug 11 to 2 nd. Dec 11 Telesoft Technologies , Blandford , Dorset , U.K. Senior Developer

Updates to existing code . Construction of a stream test program . Extensive work in IP , TCP , UDP , RTP & RTCP – construction of servers and clients . Hashed indexing . Usage of pthread_create , pthread_cancel , socket , bind , setsockopt & getsockopt , select , recvfrom etc. . Work on Linux platforms using Code::Blocks IDE , GNU Intel icc compiler . Extensive work via Linux terminals – PuTTY – using – sftp , ssh , gdb , netstat , tail , top , ps , vi etc. . Linux PC platforms – CentOS , SuperMicro . Gigabit Ethernet . WireShark , SCM version control , Neo Hex Editor , Beyond Compare 3 , RTP Toolbox , Audacity , Xming , Jira . Work in OO C , XML .

7 th. Mar 11 to 20 th. May 11 GB Electronics , Worthing , West Sussex , U.K. Senior Developer

Analysis of existing work - hardware & software . Proposal of critical improvements . Supply of suggestions for improvements in methods . Large amount of expansions of PC based test application UI . Development of code to run automated test scripts - XML based . Updates to platform code . Codification of tests . Running and documentation of tests . Project - bioreactor - X & Y stepper motors + thermal heating , multi processor - plate control & heater boards , RS485 & RS232 communication . Work on CodeGear C++ Builder 2007 R2 (Borland) , IAR Embedded Workbench IDE - M30281FC - Renesas M16C28 , AVR Studio 4 - ATmega88P - Atmel . Work in C & C++ . Extended once .

20 th. Sep 10 to 19 th. Nov 10 Spectrum Medical , Churchdown , Gloucestershire , U.K. Senior Developer

Sorting out existing low level code – debugging software + associated hardware , developing additional code – processor initialisation , JTAG interface , serial communications , timer , sensor interface . PIC18F6520 , MPLAB IDE v8.56 with MPLAB ICD 3 . ARM966E-S MCU in STR911FAW42 , Kiel uVision3 V3.90 with Ulink2 . Altera EP1C6F256 FPGA . C & C++ , MSVS VC++ , Source Safe . Agilent DS07034B scope . Extended once .

26 th. Apr 10 to 12 th. Aug 10 Spirent Communications , Paignton , Devon , U.K. Senior Developer

Development of the complete application for WiFi based navigation test equipment – instrumentation – development of the UI plus all associated functionality . Specification of XML based data communications protocol - communication with the embedded engine . Development of the Virtual Keyboard . Data handling , storage and display . Development of the background operations and data communications handling – TCP & UDP message assembly and extraction , XML assembly and parsing . Work on Ubuntu Linux PC , Windows XP on virtual machine and TI platform with embedded Linux (Arago Project am3517-evm) on ARM Cortex A8 with touch screen . C++ , Qt4 GUI & IDE – Creator , Designer , Assistant . Rapid SVN , Bugzilla . Extended twice .

23 rd. Jun 08 to 9 th. Apr 10 *World Computers Ltd. , London , U.K.
working in the Paris office* *Architectural Designer *
Senior Developer

Design and development , updates and expansions of The GUI Front End Module . The GUI Front End Module provides a binary based scripting method of specifying user interfaces - PC & embedded including Software on Silicon . It provides full high level control of the basic GDI functions . Full information on the company web site - wrlldcomp.com . The module is available as a dynamically linked library - Windows DLL - and on Linux and other embedded systems . Usage licenses can be purchased . This does not effect contracting work in any respect . Table driven , OO , 2D linked lists , interactive display objects , script compile , remote download of scripts - UI design , micro kernel , event messaging , basic data objects , strings , XML , DLL . MSVS C++ , Beyond Compare . Linux , Code::Blocks IDE , GNU GCC compiler . X Windows .

13 th. Feb 08 to 20 th. Jun 08 Frontier Silicon , Sawston , Cambridgeshire , U.K. Senior Developer

Development of server access code – middleware – for a subscription based Internet Radio streaming service . Additions to and modifications of the upper layers of the protocol stack . Handling of authentication . Open SSL - HTTPS session establishment , HTTP parsing , HTTP Digest Log On , MD5 , Radio Channel Log On , Channel List download , obtaining Streaming URL , Free Trial and Account Information handling , XML parsing , event driven state machine based . Work in C & C++ . MSVS C++ , GNU , BSD , Linux compile , Codescape , Tortoise SVN , Beyond Compare , Bugzilla .

7 th. May 07 to 8 th. Feb 08 *World Computers Ltd. , London , U.K.
working in the Paris office* *Architectural Designer *
Senior Developer

Design and development , updates and expansions of The GUI Front End Module . The GUI Front End Module provides a binary based scripting method of specifying user interfaces - PC & embedded including Software on Silicon . It provides full high level control of the basic GDI functions . Full information on the company web site - wrlldcomp.com .

22 nd. Jan 07 to 27 th. Apr 07 Renesas , Bourne End , Buckinghamshire , U.K.

Architectural Designer \
Senior Developer

Project design - design of a multi media framework – play engine – and associated components – reworking \ making over of existing design – proposing ‘ ideal ‘ design and path of movement of existing design to new design . Purpose – to optimise complexity of code , remove unnecessary code , consolidate and rationalise code , greatly speed up time to market and reduce downstream costs . Analysis of customer GDI requirements versus what client could supply . Specification and report writing . Integration and porting of existing WMV codec . Bug hunts . Testing . Documentation . Work in C . HIOS , HEW , Tortoise SVN , Beyond Compare .

31 st. Jul 06 to 8 th. Dec 06 VMetro , High Wycombe , Buckinghamshire , U.K.

Senior Developer

Low level , device driver & system work for advanced high speed computers operating on the VME bus . Extensive Flash driver updates . The Flash being used for programming a Xilinx FPGA and for general data storage . Development of HW simulation , middle and upper layers , test harnesses . Work in C & C++ , POSIX . VxWorks . MSVS . CygWin , Win CVS , Araxis Merge . Extended once .

9 th. May 06 to 14 th. Jul 06 Mansella – Sun Corp. – Aldershot , Surrey , U.K.

Senior Developer

Work in telecomms . Construction of an I2C device driver and associated components in the protocol stack . Additional work in various areas – construction of code to write to the SIM , search for and delete ADN & EXT1 records . Work carried out in C . ThreadX RTOS . PCA9564 , CM109 , ARC processor . AllChange VCS , CodeWright and Rhapsody , Bugzilla , SeeCode . Resourced for a specific project . Extended once .

12 th. Dec 05 to 14 th. Apr 06 Sony NSCE , Zaventum , Brussels , Belgium

Senior Developer

Work in multimedia - development of components to manage buffer queue depth - IP TV . Embedded C++ . AAC , MPEG4 , RTP & RTSP . VxWorks , Tornado , Bugzilla , Clear Case , Windows and Linux compile .

13 th. Jun 05 to 9 th. Dec 05 TTPCom , Melbourn , Cambridgeshire , U.K.

Senior Developer

Developing the low level communications component for the linkage of code operating on 2 separate processors – linking up via TTPCom Mapal and via an Altera FPGA . Debugging of the hardware and software . Connection of existing code via Mapal interface . Work carried out in C . ARC and ARM9 processors , Borland C++ Builder , Araxis Merge , Perforce , Lauterbach , SeeCode . Extended once .

31 st. Jan 05 to 2 nd. Jun 05 Optimay – Agere , Munich , Germany

Architectural Designer

Design and development of a Multi Media framework – play engine – project consisting of : Analysis of existing code . Formulation of proposed plan of action - technical and managerial framework . Interviewing of contract staff . Specification of the architecture . Development of the framework – handling the dynamic binding of components , communication with components , transferring of data between components and management of the operation of components . Supervision and co-ordination of the porting and updating of the existing components and the development of the new components . Supervision of the integration of the components - management level and lower level - into the framework . Supervision of the test harness construction and the component and system testing . Writing of the system level documentation . Supervision of the component documentation . Work carried out in C . MP3 , variable bit rate , AAC , MPEG2 , MPEG4 . ARM926 & 946 & ARM7T , MSVS V7 & Source Insight , Clear Case , Beyond Compare .

5 th. Jul 04 to 29 th. Oct 04 Pace – Saltaire , Shipley , West Yorkshire , U.K.

Senior Developer

Modifications and expansions of the User Interface for a Spanish cable Digital T.V. Set Top Box . Specification and supervision of UI Glade screen layouts and content . Construction of test spec. . Debugging of a Video over Ethernet protocol stack + rewriting of part of the code . Construction of an RTP client - IP TV . Work carried out in C . MPEG2 . ARM , VxWorks , CodeWright , WinCVS , CygWin , GNU compiler on Linux , Bugzilla . Extended once .

18 th. Mar 04 to 2 nd. Jul 04 Pure-Digital - Imagination Technologies Senior Developer
Kings Langley , Hertfordshire , U.K.

Working in Digital Audio Broadcasting – on consumer DAB receivers – Legato project . Additions to the User Interface – vertical pixel line based scrolling with layout management and multiple message display , horizontal pixel column based scrolling , Truncation of display . Infra Red decoding and event generation . Random number generation – random playing of CD & MP3 tracks . Construction of MP3 UI - MP3 CD access – display , selection and play control of directories , development of the play engine , handling of play lists and MP3 files . Associated ID3 and MP3 parsing and play management operations . Work carried out in C . MSVS + Textpad editor , Codescape debugger , MKS VCS , Linux compile . Chorus processor . Extended twice (1 week each) to provide extra features and to help with general project integration issues – timing , interrupt and task management , bug hunts etc. .

7 th. Jul 03 to 15 th. Mar 04 World Computers Ltd. , London , U.K. Architectural Designer \
Senior Developer

Design and development , updates and expansions of The GUI Front End Module . The GUI Front End Module provides a binary based scripting method of specifying user interfaces . MSVS , C .

24 th. Mar 03 to 4 th. Jul 03 Sci-Worx (Infineon) , Hannover , Germany Senior Developer

Development of a USART Packet Driver for the sciCOS Multimedia chip (single chip solution) bootstrap . Testing in the Armulator environment and testing of the associated Armulator model . Development of a gateway module - management & support components + the UART & PIF Packet Drivers - for linking up the Proxy program to the sciCOS chip . Development of a 4 layer propriety protocol stack to link up the sciCOS chip functions to the Application on the Host processor - included a services layer . Development of Operating System components – Interrupt & Polling Handler and Heap Manager . Development of test harnesses for the module and hardware testing . Work carried out in C . Module and integration testing using the Multi-ICE . ARM926EJ-S , ARM7T (Evaluator7T) , Code Warrior & AXD , MSVS & Source Safe .

1 st. Feb 02 to 21 st. Mar 03 World Computers Ltd. , London , U.K. Architectural Designer \
Senior Developer

Design and development , updates and expansions of The GUI Front End Module . The GUI Front End Module provides a binary based scripting method of specifying user interfaces . MSVS , C .

11 th. Dec 00 to 2 nd. Nov 01 TelSpec Europe , Rochester , Kent , U.K. Senior Developer

Telecommunications + Internet Protocol - within the Access group . Debugging of hardware . Development of software for a DSL repeater . Internet software consultancy for a DSL modem and associated exchange units . Extensive work on the Field Interface Unit - UI - updates + restructuring (small amount) and maintenance . Integration issues of Network Management System - Management Control System - FIU - EU & RU . ANSI C . Infineon Mubic DSL + C161P1 . 68070 . E1 . I2C . Some layer 1 , 2 & 3 work . EPROM and Flash level . MKS & CVS (RCS) VCS . Extended four times .

21 st. Mar 00 to 22 nd. Sep 00 Agfa Gevaert , Mortsel (near Antwerp) , Belgium Senior Developer

Working within the Technology Evaluation and Initial Development Group . Internet enabling the Agfa digital cameras . Integration and debugging of Nucleus Plus OS IP Protocol Stack with IP services layer . General IP network fault finding and debugging of associated code . Linkage to iModem . Construction of PC (MFC) based test program . Construction of a front end . Construction of OS API layer and writing of component specifications . Construction of DPOF and configuration file access components . Construction of logging component . Work undertaken in ANSI C and C++ on PC , ARM7 (JTAG Emulator) and OAK DSP . Windows NT , Nucleus Plus RTOS and iModem . RS232 UART .

16 th. Aug to 12 th. Nov 99 ERG Transit Systems , Zaventem , Belgium Consultant

Client had low ROI and low profits due to high development costs due to massive redevelopment of software for each contract . Client chose to adopt , on a company system wide basis , the componentisation system developed and used by it's OS department in order to greatly minimise the amount of redevelopment . System required an IP Protocol Stack .

Carrying out of feasibility and implementation study + drawing up of project specifications for the addition of IP Protocol Stack + services to client's existing range of products in the transport (bus , train and ferry) ticketing industry . Initial co-ordination , facilitation (technical knowledge wise) and implementation and testing of the project . Development of embedded and PC based testing programs . Client required the establishment and retention of Internet skills within the permanent staff . Client also required the use of BSD sockets . Project used bought in components which required porting onto the client's componentisation and operating system . Passing on of IP expertise to OS Group staff . Smart Cards . Work in ANSI C . Resourced for a specific project . Extended once .

27 th. Apr to 25 th. Jun 99 ANT Ltd. , Cambridge . U.K. Senior Developer

Re-development of front end , location and fixing of bugs in the existing code , porting onto new device level interface and tidying up of code of an email program for a Digital T.V. Set Top Box . Work in ANSI C , GNU , BSD . Resourced for a specific contract .

2 nd. Dec 98 to 31 st. Mar 99 De La Rue Cash Systems , Havant , U.K. Senior Developer

Development of connectivity software (new ATM's) in VC++ . Introduction of new features . Bullet proofing of existing code . Bug locating in existing code . Using MSVC++ & Borland VC++ . SourceSafe VCS . MS Project . Working on SDK API and DLL . Extended once with an offer of a further extension .

16 th. Feb 98 to 2 nd. Oct 98 W. Vinten (aerospace) , Bury St. Edmunds , U.K. Senior Developer

Development of new UI components + integration . Scripted Display and Input . Scripted configuration file settings . 14 Classes constructed . Testing and documentation . Porting onto new hardware . Code analysis . Componentisation of existing software . Development of timer , memory manager , NVM virtualiser and drivers . Event handler . 8 Classes constructed . Work undertaken in embedded C++ . All with test harnesses (existing and new) , integration testing and documentation . Modification of existing code for new hardware and architecture . Assistance in project management . MSVC++ . SourceSafe VCS . Work in countermeasures . Extended twice .

8 th. Jan 98 to 2 nd. Feb 98 Thompson - Marconi , Weymouth , U.K. Developer

Development of module specifications . Work being done in C .

2 nd. June 97 to 5 th. Dec 97 NEC , Reading , Berkshire , U.K. Developer

Analysis , re-organisation and rationalisation of GSM phone UI (MMI) . Forming into re-useable component modules . Application of modularisation and complexity management techniques . Integration of device drivers . Work undertaken in C . ARM (Hardware Emulator) . NECROS and Nucleus RTOS's . Resourced for a specific project .

10 th. Feb 97 to 25 th. Apr 97 SSA Softwright , Langley , Berkshire , U.K. Developer

Development of Timer and Flash Drivers and Toolbox for Digital T.V. Set Top Box project in ANSI C . All with test harnesses and documentation . Canal+ - PACE contract . PACE - SGS Thompson platform . CodeWright . MKS VCS . Resourced for a specific contract .

3 rd. Jan 96 to 7 th. Feb 97 Serco CiT , Quedgeley , Gloucestershire , U.K. Developer

Specification and ground up development of combined FTP inc. (IP) and ODI packet driver in 80486 assembly language for DOS , Windows 3.11 and Windows 95 . In house expansions of the packet driver for providing IP based security management facilities for secure government communications using the Internet . Development of a packet exchange program for the FTP inc. IP protocol stack . Development of testing , protocol stack monitoring and IP packet monitoring programs . Development undertaken in assembly language , C and C++ . Ethernet . Testing . Systems integration support . Extensive Internet and Novell work . Documentation . MS and Borland Assembler . Borland C++ . MKS VCS . Extended twice with an offer of a further extension .

Permanent Work Experience + Other Experience

February 1993	Aja Ltd. , Twickenham , London , U.K.	Manager - Engineering
Installations . Repairs . Training and support of field technicians and customers . Area of work - automated weighing equipment for the food industry .		
March 1992	Sigtec Systems, Melbourne , Victoria , Australia	Software Engineer
Development of an Automatic Taxi Dispatcher and an associated Radio Network Controller in Quick Basic (version 7) .		
June 1991	AES (ERG Transit Systems) , Perth , W.A.	Software Engineer
Bus ticketing (magnetic and smart cards) and data analysis systems . Development of software for an intelligent portable ticket reader (magnetic cards) . Development of a serial communications packet handler . Modifications of existing software on smart card equipment . Software in 6811 assembly language .		
1984 to 1992	Integrated Computer Systems (own business - internal and contracting work)	Software and Hardware Engineer , Proprietor
Development of a comprehensive computer security program . Passwords , restricted disk drive and directory access , file encryption , virus detection and prevention , directory and file utilities plus much more . Software in 8086 family on the IBM PC .		
Development of Token Bus LAN protocols (high reliability with low data link overhead) using retrospective token passing (small silicon real estate (PGA programmable) , low cost design and manufacture) , with arbitrary unit number assignment (plug and play - no set up required) , with dynamic bandwidth management and with gateways . Much of the software has also been developed .		
Extensive research and development into parallel processing based software techniques on Von Neumann architecture computers . Massive increases in processing speed accomplished . Integrated concurrent editor and assembler developed .		
Development of a Field Programmable Logic Array (FPGA) development system . Software in 8086 and Z80 assembly language . EPROM , RS232 UART .		
1984 to 1989	Ace Amusements \ Audio Visual Developments Perth , Western Australia	Software and Hardware Engineer
Development of a local cable TV control system (Z80) . Video Editing controller (Z8 multiprocessor) . Remote controlled light dimmer .		
1987 to 1991	Curtin University , Perth , Western Australia	Part time lecturer , tutor and laboratory supervisor
Teaching undergraduate engineering students (1 st. to 4 th. year - part time) in data communications , software and digital hardware engineering .		
April to September 1985	C & P.A. Perth , Western Australia	Software and Hardware Engineer
Development of protocol converters (Z80) . Repair and service work .		

Productivity

2.5 to 3.5KB of object (machine) code – using explicit coding standards , fully commented – drill down approach , documented and tested - per week . 32 to 1 ratio of source code and documentation to machine code bytes . Undocumented but well structured code 24 to 32KB per week .

Referees

Please contact for details .

Equipment

Fully equipped for remote and on site working .

Pentium D and Celeron PCs . Separate Windows PC specifically for client use - Windows XP Professional and Ubuntu Linux 10.04 installed - separate HDD's . Full remote working facilities . Laptop – Intel Core 2 Duo 1.66Ghz with camera and videophone . Backup disk drives and USB memory sticks . HP Printer , Scanner , Copier & Fax. . Fujifilm F47fd camera . Toshiba camera . Logitech Web Cam with Video Phone connection . MS VS Visual C++ 6.0 . Beyond Compare . DreamWeaver 3 . PhotoImpact 8 , Photoshop 6.0 . MS Office - Word , Access , Excell , Power Point & Outlook . OpenOffice . ICOM R20 . An extensive range of software , books and tools . 8 Mbs ADSL . Nokia N73 Mobile Phone . Car .

Am prepared to buy an ARM development kit and an oscilloscope and logic analyser .

Data Books

An extensive range including programming languages , data communications and Internet Protocols .

Travel Experience etc.

British born . Moved out to Australia at the age of 7 . Spent a total of 25 years there . Have travelled extensively - 36 countries - Europe, Middle East , South East and South Asia , Oceania - Australia and New Zealand , USA & Canada (briefly) . Have been back in Britain \ Europe for 19 years . Have worked in Britain , France (via a UK company) , Germany , Belgium and Australia .

Interests

Current affairs , genuine hermetic philosophy (within a Christian context - Gnosticism) , the important aspects of history (passing interest) , wide music tastes - Jazz , Blues , some R & B , Soul , some C & W , 70's R & R , Pop (mainly 60's and 70's) and some Classical , reading , theatre , cycling , swimming , surfmatting , walking , snow skiing and other winter sports , photography , painting , travel and languages (when I get the time) .

as of the 25 th. of January 2012