

Personal Information

Address Häberlstr. 12, 80337, München, Deutschland
Telephone +49 152 2195 2963
Fax +49 89 45 81 23 22
Email info@mjdss.com
Nationality British



Professional Summary

I am a specialist in Systems Analysis and Design for Realtime Embedded Systems Control, with experience in Product Research and Development, Web/Traditional Application Development and Team and Project Management. Utilising skills and experience gained from over fifteen years in the Research and Development arena, ranging from DSP and Microcontroller hardware platforms to Windows based GUI and Relational Database oriented systems, I am able to provide technical solutions in a range of Technology Markets in a controlled and timely manner.

I have spent a considerable amount of time developing and delivering custom embedded control systems for Broadcasting, Mobile Communications and other related industries as well as in Safety-Critical Avionics, all with a strong accent on reliability, robustness and understanding of commercial pressures. Having managed teams from 1-7 people I am comfortable at all levels of the development/management hierarchy.

I actively engage in new technology skills acquisition and am able to apply them quickly to application requirements. I have been Security Cleared (not currently active).

Education & Qualifications

1993 – 1994 MSc (Music Technology), University of York, England
Thesis "Digital Simulation of Concert Hall Reverberation : Towards Implementation on a DSP32C"
1989 – 1993 BSc (Hons) 2i in Business Information Systems, University of Portsmouth, England
Won "ICL Best Project" Prize for "Computer System for Harmonisation of Melodies"
1988 – 1989 Thames Polytechnic, London, England
HND Computer Science (1st Year), Distinction
1980 – 1987 Langley Park School for Boys', Beckenham, Kent
A Levels : Maths (P&A), Physics and Music
OA & O Levels : Maths (OA), Maths, English (Litt & Lang), R.E., Physics, Chemistry, History, French and Music

Technical Skills and Knowledge Base

Languages C, C++, C# & .NET, C++Builder, Win32 API, Ada, Occam, Delphi, Pascal, Fortran
Realtime OS pikeOS, eLinOS, POSIX, Nucleus, ThreadX, vxWorks, Bespoke, Symbian/EPOC32
Non-realtime OS Windows 32 API, WinCE.net, Linux
Processors PowerPC, SH3 & 4, MPC, ARM 7 & 9, DSP, Transputers, PIC
Protocols TCP/IP, GSM, GPRS, UMTS/3G, 3GL, HTTP, WSP/WAP, CANBus
Standards MISRA, DO-178b, ASAAC, ARINC 653
IP IIS v5.0, ASP v3.0, JavaScript, CGI (c/c++)
Database/RDBMS Ingress, Oracle, SQL Server, ACCESS/ADO/ODBC, BDE Relational Database Systems.
CASE/Methodologies UML (ARTISAN)
Other MS Windows (9x, NT, 2K, 7), Device Driver development (9x, 2K, WDM), VAX/VMS and Unix
Configuration Management StarTEAM, SourceSafe, PerForce, CVS, ClearCase, Synergy, Dimensions
Other Tools MS Office Products including MS Project & Visio, Adobe (Pagemaker, Photoshop & Acrobat), PaintShopPro
Sony VEGAS HD Video Editing & DVD Architect
Development Tools Lauterbach, CodeWright, SourceInsight, VisualStudio, CODEO/Eclipse
Publications Contributor to C++ Builder 5 Developer's Guide (SAMS Publishing, 2000)
Courses Software Requirements Specification Writing for DO-178B
Software Requirements Specification Reviewing for DO-178B
Programming VAX/VMS C
Programming VAX/VMS Systems Services in FORTRAN
Object Oriented Design for Realtime Embedded Systems (UML/ARTISAN)
Symbian OS/EPOC 32 Operating System Essentials
Synergy Build Management
Professional Associations and Memberships Member of Audio Engineering Society
Member of British Computer Society

Career Progression Summary

October 2007 -

MTU Aero Engines GmbH, Munich, Germany

Systems Requirements Development: DooRS, Dimensions
Programming: Embedded c, c++, c#, POSIX, ELINOS, pikeOS v3.0,
Tools: Greenhills, Eclipse/CODEO, GNU, Lauterbach
Technologies: IMA (ASAAC, ARINC-653), DO-178b & DO-248b, MilStds 1773, 1777, TCP/IP, PikeOS, POSIX, eLinOS (embedded LINUX)

October 2007 – Nov 2009

Technology Research Project into using multiple Realtime Operating Systems in Safety Critical and Avionic Systems subject to DO-178b and ASAAC/ARINC international standards.

Architected, Designed, Developed and Demonstrated system (ASAAC) to German Ministry of Defence PowerPC based, multiple Operating System "Personalities", TCP/IP communications
Built c#.NET Verification Tools to support ASAAC MLI Protocol (via IP)

Nov 2009 -

Required liaison with other external R&D Organisations in Germany (IABG, ESG, EADS)
Project II: Contributed Software Requirements Specifications for Libraries in MTR390. Using DooRS, three SRSs where generated and taken through all review phases to Approval state.

July & August 2010

Designed part II of the IMA Research project to Incorporate MilBus and ARINC-653.

August 2006 – October 2007

Raymarine, UK

Programming: Embedded C++, ThreadX RTOS, Greenhills MULTI

Technologies: ATMEL ARM 7/9 core, UML, CAN, PID, Motor Control

Tools: UML, Synergy, Greenhills MULTI, Source Insight, Lint, C/C++ Embedded

Lead a 6 strong R & D Team, redeveloping an existing high profile £35Million Revenue (worldwide) product in the Leisure Marine Industry. Required Architecture Analysis & Design to migrate from C to a completely new technology base for C++, ATMEL ARM7/9 & utilisation of RTOS. Help turn around a 3 month late project, into realised deliverable, plus developing a fresh team, coping with Microprocessor obsolescence, legacy software porting and related issues.

Oct 2005 - July 2006

Optimay GmbH/Agere, Munich, Germany

Programming: C, Nucleus RTOS

Technologies: Mobile Phone Operating System Development, ARM 7 & ARM 9 Dualcore

EDGE/WEDGE, GSM, UMTS

Tools: UML, ClearCase, Lauterbach, Source Insight

Worked on dual core UMTS platform to develop Ciphering and OS Configuration plus LCD Display interface and many other mobile phone related additions implemented.

May 2004 - Nov 2005

Trilogy Broadcast Ltd, Andover, Hampshire (remote working)

Programming: C, C++, XML, Nucleus RTOS, WindRiver, FlashFX

Technologies: UML, Audio/Video Broadcasting, IP, XML

Tools: MS Project, Diab, StarTeam

Commissioned to architect and implement a complete revision of a Reference and Test Signal Generator required for 96KHz Broadcast Infrastructure applications. The product was going straight into use at the BBC.

Jan 2004 - May 2004

Development Engineer, Symbian Ltd, London SE1

Programming: Symbian OS, C++, MetroWerks CodeWarrior

Technologies: SyncML

Tools: Metrowerks CodeWarrior, Perforce, SharpOwl, TeamTrack

Various small tasks central to SyncML Convergence with Nokia Technology. Generated and supplied Training Materials and other documentation requirements.

Mar 2003-Jan 2004

Senior R & D Systems Engineer, PIPS Technology Ltd, Winchester

Programming: WinCE, WinCE.net, VisualStudio.net, C/C++, C-Exec RTOS

Technologies: Handheld & Pocket PC, USB OTG stack development, JPEG Control & Integration

Designed interface and operation for JPEG (ISP1362 chip) to existing C-EXEC based platform (Coldfire). USB integration for the same system with Philips OTG devices (host/client operation). Handheld/PDA/Pocket PC GUI and Application Development for ALPR (Automatic Licence Plate Recognition) systems and related secure applications. Completed & delivered new product with enhanced functionality ALPR (Coldfire based) device for new emerging markets to budget and timescale. Codenamed 'Spike', the product later won the Queens Award for Innovation in April 2005.

Dec 2002-May 2003

Database Translation Manager, Astbury Marsden & Partners

Programming: C/C++/STL

Technologies: SQL, MS Access, Sybase

Provided consultancy and software development to translate legacy database to relational format for Profile 2000, including MS Office integration and analysis features. (On and Offsite)

Nov 2002- June 2004	Systems Development Engineer, Tracecraft Systems Limited Programming: Realtime C/C++/STL, Web Application & Relational Database Technologies: SQL, ASP, ADO/ODBC, MS Access, Macromedia (Dreamweaver/Fireworks), Adobe (Photoshop), TCP/IP, USB Interfacing. Personal Private Company work, continuing Development of Motorsport Data Logging, Aquisition and Analysis Equipment. Realtime Vehicle Data Acquisition in Embedded C, with full MS Windows based GUI Graphical Display and Analysis Tools. Continued development of Web Presence and eCommerce facility. (Offsite)
July 2002 - Oct 2002	Integration Test Development Engineer Symbian Limited, London W1 Programming: Symbian OS/EPOC 32, C++ (MS Dev) Technologies: GSM/GPRS, HTTP/WAP/WSP, CDMA/WCDMA Tools: VC++, MS Visual Developers Studio, PerForce, SharpOwl & TeamTrack Developed homogenous Integration Test Harness suite for HTTP & WSP/WAP Protocols for Multihoming (e.g. GSM/GPRS/CDMA) and UAPProf built on HTTP Symbian Framework. Provided simple expansion facilities for other protocol domain requirements.
Oct 2001- June 2002	R & D High Definition Television Software Engineer, SONY Broadcast & Professional (Europe), Basingstoke, Hampshire, UK Programming: Design of High Definition Digital Television Video Effects & supporting system services. Technologies: Hitachi SH4 Assembler & C/C++, ThreadX RTOS, Greenhills Compiler & IDE. Web based Project Management Development (IIS, ASP, JavaScript, SQL Server, ADO/ODBC) The project required the creation and development of High Definition Digital Video Effects and low level device drivers and support tools based around SH4 processor and dual Xilinx configuration. The project also required considerable cooperation with development personnel in Japan. The low level driver software was written in SH4 assembler and the remainder was written in C/C++. Creation of a web/intranet based Project Management System to support information interchange between the UK and Japanese teams added to the portfolio of completed assignments (supporting contract, task, sub tasks and bug tracking). This was using IIS, ASP, ADO/ODBC, SQL Server and JavaScript.
Aug 2000 - Sep 2001	Senior Systems Design Engineer, Micromill Electronics Ltd., Waterlooville, Hampshire Programming: C/C++ (Builder). Windows 2000 Technologies: Windows API, GSM, TCP/IP, Embedded Microcontrollers, DSPs (TMSC44's), VC++/MFC/COM, SAPI, SQL Server Architected, designed and implemented Web based Control Systems, using IIS, ASP, JavaScript, ADO and ODBC. Various Windows based (C++/Builder) GUIs for configuration of embedded systems for secure applications, conforming to customer specifications, from customer concept to commissioning (Embedded Controller, Browser and C++ Builder). Architected, designed and implemented new Automatic Callout Equipment involving Client/Server, IP and GSM components (Embedded C/C++ front end, SQL/ASP backend, Speech and Audio interfaces). Security Clearance obtained. Implemented Windows 2000 Device Driver (for a bespoke legacy ISA card), in MSVC/MSVC++.
June 1996 - July 2000	Senior R & D Software Engineer, Trilogy Broadcast Ltd., Andover, Hampshire Programming: Occam (4yrs), C (4yrs), C++/Builder (2 yrs) Technologies: Transputers, Motorola 68K, ColdFire, PowerPC, AD2171 DSP, Windows 32 API Many varied projects and responsibilities including team and project management. Architecture, design and implementation of *TDM Controller for 576 channel audio matrix (Occam). Secure *E1 based network facility for above TDM Controller (Occam). Redesign of multiprocessor Transputer based controller and all support software (ColdFire/PowerPC/C/C++ from Occam, C, C++/Windows). Provision of new and additional features for Video Signal and Sync Generators (C/Embedded M68K). Design and implementation of support software for Modular Video Signal and Sync Generators (C++/COM) based on CANBUS network infrastructure. Researched and Designed first multichannel matrix VoIP (H.323) system with CoDec and DSP integration. Database Server Analysis (SQL Server/Oracle) for MIS Implementation and various small database interface systems (ODBC/SQL Server). *Product in continuous use at BBC Television centre, CNN & NBC and many others.
Nov 1994 – Sept 1987	Details available if required (removed for space considerations)
Supplementary Personal Information	I am a keen musician (voice 1st Bass and play Clarinet, Alto & Tenor Saxophones and Piano). I formed and am Music Director and Principal Conductor of the Munich Ex-pat Orchestra (45 pc) and Choir (SATB/25pc) which regularly perform 2 concerts per year in Munich. (www.tt-orchestra.de) I am a sports fan, enjoying Diving, Rugby, Football, Cricket, Offshore Racing and Squash. I am a Corporate Sponsor of Fareham Heathens Rugby Football Club. I am a PADI Master Scuba Diver. I travel frequently and have visited the US, Caribbean, Egypt, Israel, Jordan, Hong Kong and most of Europe.
Languages	Native English, German (B2), some French