

# CURRICULUM VITAE

## PERSONAL DETAILS

**Name :** RUDDOCK, Andrew Paul  
**Address :** 102 Grittleton Road  
Bristol  
BS7 0XB  
United Kingdom  
**E-Mail :** [andy.ruddock@rainydayz.org](mailto:andy.ruddock@rainydayz.org)  
**Marital Status :** Married

**Tel :** +44 (0)117 3736375  
**Mobile :** +44 (0)7786 848282

**Children :** 2

## EXECUTIVE SUMMARY

I am an experienced software engineer who, over a career currently spanning more than two decades, has a record of consistently delivering highly technical solutions on a number of platforms using a wide range of tools. I have demonstrated an ability to learn new skills and develop and adapt existing skills in order to maintain a position at the forefront of the field as it has grown. Cross-platform development has taught me pragmatism and the importance of taking the wider view.

I have shown an ability to effectively communicate both on a technical level with other engineers and on a higher level with customers and product end-users. I continue to demonstrate enthusiasm for the opportunities offered by this exciting field.

## SKILLS SUMMARY

- Operating Systems  
Linux, Windows, DOS.
- Frameworks  
QT, MFC, .NET.
- Programming Languages  
C, C++. C#, Fortran, Bash scripting.
- Networking  
TCP/IP, ethernet, routing, firewalling.
- Server Administration  
Active directory, SQL Server, MySQL, Apache, Exim.

## EMPLOYMENT HISTORY

**February 2010 –**

**Ultra-AudioSoft Ltd, Cirencester**

**Senior Development Engineer.**

AudioSoft provide data recording and analysis solutions to allow organisations to preserve and rapidly locate important information. Their systems are used in a wide variety of markets including Air Traffic Control, Defence, Law Enforcement, Emergency Services, Court Rooms and National Security. Their mission-critical solutions meet evidentially admissible standards and allow capture, playback and analysis of various data types including audio, TV and high resolution video, fax, VoIP, IP, e-mail, radar and sonar data. User interfaces and visual representations of the data are tailored to each particular market following detailed consultation with industry users and experts. The recording technology is optimised to allow their audio analytics solutions to automatically identify important data, resulting in improved operational capabilities and intelligence.

I am employed within the research division creating solutions to the increased need for analysis of network traffic of all types, but with an emphasis on VoIP communications. Much of the work involves the continuous development of a service based solution written in C#, utilising the .NET framework, WCF and SQL-Server running on Windows Server.

I am also responsible for the architecture, design & development of a system for the capture, analysis & presentation of data in a law enforcement and national security environment which is written in C/C++ running on Linux.

**September 2009 – December 2009**

**Application Solutions (Safety & Security) Ltd, Lewes**

**Senior Development Engineer.**

Application Solutions have been involved in Voice Alarm systems within the Rail and Airport Industries since 1989. The comprehensive equipment range that has been developed from this experience enables the smallest standalone to the largest networked Voice Alarm system to be implemented cost effectively, and with full and unambiguous compliance to all the relevant safety standards.

Infrastructure systems are increasingly being integrated to have single control front ends to Voice Alarm Systems and other customer information systems such as Visual Information Displays, Help Points, and access control. Thus Centralised Control suites are being developed that supervise entire site information and security systems, including customer information systems (CIS), automatic digital voice announcers (DVA), Long Line Public Address (LLPA), and Supervisory Control And Data Acquisition Maintenance functions (SCADA). Application Solutions iVENCs Site Control System uses leading edge display and system design technology to provide the very best of this new class of control systems.

Typically the control networking of these highly integrated systems is being implemented using Internet Protocol (IP) interfacing, with the audio networking being implemented using Voice Over IP (VoIP) technology. Application Solutions control systems can be seamlessly integrated over large networks using IP technology, and provide powerful Long Line control and broadcast functions.

I was responsible for the design and development of a new core module within the iVENCs system to perform rule-based cause-and-effect. The modules are all written in C++ utilising the QT framework for cross-platform portability and use open standards to communicate and provide presence information.

**March 2008 – August 2009**

**Norwegian Meteorological Institute, Bergen**

**Senior Development Engineer, responsible to IT Manager.**

Research and development at the Norwegian Meteorological Institute is undertaken within meteorology and oceanography with emphasis on atmospheric and marine forecasting, climate and environmental studies. The activity involves approximately 70 scientists and meteorologists, and is an important basis for the institute in order to fulfil its role in producing high quality services to society. This task includes the development of methods for the operational forecasting service and the contribution of new ideas and methods for the improvement of the different services. An important field of research is climate analysis and climate modelling in order to understand regional climate changes related to global changes.

I was based at the Forecasting Division of Western Norway in Bergen. My role was split approximately 80:20 with 80% of my time dedicated to development and 20% dedicated to support and operations.

There are three main systems at the Meteorological Institute, these being desktop applications, back-end modelling software and the web-based systems. The web-based systems are written in Perl, utilising JavaScript, running on Apache and using MySQL databases – these systems are generally used to place orders or request results of a particular operation or model. The back-end modelling software is written in C/C++ and Fortran. Desktop applications are used to visualise and manipulate the results from the models and are written in C/C++ & Fortran using Qt as the windowing framework. There are also desktop applications which are used to standardise the production of forecasts and warnings before dissemination to the media and other meteorological bodies across the world.

I also maintained the computing infrastructure upon which this software depends, including server, software & network installation, operation & maintenance and which also included technical support to end-users both in Linux and in the Citrix servers which is used to provide a Microsoft Windows platform to those users who require it.

**June 2006 – February 2008**

**Westec AS, Kokstad**

**Senior Software Engineer, responsible to Development Manager.**

Westec designs, builds and delivers systems related to security, mobilization and HSE. The portfolio includes systems within the areas of: access control, camera surveillance, area and object security, intruder alarm, personnel and object tracking, mobilization and crisis management system. Westec was the sole supplier for the total integrated security system at OSL (Oslo Lufthavn Gardermoen), and has made extensive deliveries to the Norwegian Defence. Westec has also delivered the ISPS Security system in the Bergen Port including The Coastal Steamer Terminal. Westec is a part of RealGroup. RealGroup is a Norwegian technology company with subsidiaries companies Amitec AS, Westec AS and InControl AS. The companies within the group deliver products and solutions to customers within; Oil & Gas, Power/ Utility, Land based process industry, Defence, Governmental & Airports.

I was employed as a development engineer concentrated on the development and implementation of an integrated security solution incorporating access control, CCTV, emergency mustering, ID badging, perimeter intrusion detection and security management. The PC Integrated

Security Management System is a Windows application written in Microsoft C# using the .NET framework utilising Remoting for client access and SQL Server database integration. The system uses TCP/IP for communications both among the hardware components and between the server and client. Both development and networking skills were key requirements in this position.

**March 2006 – June 2006**

**Diptel AS, Stord**

**Senior Software Developer, responsible to Development Manager.**

I was employed as a Senior Software Developer for a new company recently formed to offer voice-over-IP (VOIP) services to small and medium sized businesses. I was employed to work on the development of a Linux based telephone system using Asterisk open-source software.

I developed a custom Linux distribution based on Ubuntu. I also built a local package repository from which customers could update their systems automatically.

**October 1997 – December 2005**

**Norman ASA, Lysaker**

**Senior Software Developer, responsible to Development Manager.**

I worked on the Linux version of the Norman Virus Control product which consists of a number of integrated programs designed to work together to provide the user and network administrator with all the tools required to maintain a secure and virus-free environment. The software consists of on-demand and on-access scanners together with administrative tools to keep the software updated as new definition files are released.

Most notably I wrote a library to enable the cross-process sharing of synchronization primitives such as mutexes and semaphores. I was also heavily involved in the porting of the Norman Messaging System to the Linux platform. It is this system which collects, routes and transmits messages from client systems via the network to the administrator, via one of a number of methods including e-mail, SNMP and SMS. I have also spent some time investigating the problems involved in internationalization and localisation, specifically the encoding of text such that it remains consistent across platforms and file-systems.

Prior to this I worked on the PC security suite of programs which included encryption and access control software. I developed a bootable CD which enabled a disk formatted under any of the current major operating systems (DOS, Windows, Linux) to be scanned for viruses.

Most code is written in C, with some C++, to maintain portability. The anti-virus engine contains some x86 assembly code.

**Duties include**

- Pre-production work including market-requirement-specifications, project analysis and evaluation, feasibility studies and software design-specifications.
- Coding.
- Stringent quality control.
- Support, including production of documentation.

**February 1994 - August 1997**

**Dr Solomon's Software Ltd, Aylesbury**

**Software Engineer, responsible to Development Manager.**

Dr Solomon's is one of the world's leading anti-virus and PC-security companies, where I was responsible for the development of **'The Magic Bullet'** (known as 'SOS' in the USA). This is a bootable diskette which runs the FindVirus on-demand anti-virus scanning program. I had to write enough of a MS-DOS compatible operating system to support running FindVirus,

Prior to that I was responsible for the PC-Security toolkit, the main element of which was a low-level diskette authorisation system and security product (**RingFence**). This involved writing code to monitor the behaviour of applications running on PCs under the DOS and Windows environments preventing unauthorised access to elements of the system.

**July 1989 - July 1993**

**Joseph Dawson Ltd, Bradford**

**Analyst/Programmer, responsible to Business Systems Director.**

I was one of a small team responsible for the support of all computer systems in operation throughout the mill. This included maintaining existing software (finished-goods stock control system, interface between electronic weigh scales and PC); writing new software to supersede existing systems; analysis and programming of new software; user support for all applications software (Lotus Symphony, SuperCalc,

WordPerfect); maintenance of all PC based hardware, responsibility for the installation & support of peripheral equipment such as cabling and the evaluation of new hardware/software systems.

**May 1989 - July 1989**

**North Park Computer Services Ltd, Halifax**

**Programmer, responsible to section manager.**

I worked as one of a team of programmers producing motor vehicle insurance quotation software.

**January 1988 - May 1989**

**Rubicon, Halifax (Self-Employed)**

**Self-employed consultant, serving schools and businesses in the Halifax area.**

I ran my own business supplying schools and small businesses in the Halifax area with PC systems, software and consumables, including network installation and support where required. I also offered a bespoke programming service.

## **EDUCATION / QUALIFICATIONS / TRAINING**

**November 1987 - December 1987**

PYBT Business Training

**Prince's Youth Business Trust**

**October 1984 - May 1987**

Electronic Computer Systems (B.Sc.(Hons))

**Salford University**

**September 1976 - July 1984**

GCE 'O' Level

Computer Studies (A), Physics (A), Mathematics (A), English (B), Chemistry (C), Geography (C), Religious Education (CSE 1)

GCE 'AO' Level

Mathematics (Pure & Mechanics) (B), General Studies (B)

GCE 'A' Level

Computer Studies (B), Physics (B), General Studies (B)

**Halifax Catholic High School**

## **OTHER INFORMATION**

**Security Clearance** : I have Norwegian security clearance to SECRET.

**Availability** : Immediate.

**Driving Licence** : Full (clean).

**Health** : I am in good health. Non-smoker.

## **TECHNICAL EXPERTISE**

I have experience in using and/or writing software to run under DOS, Windows and Linux. I also have experience with interfacing non-standard hardware to the PC.

I have strong networking skills, including knowledge of TCP/IP and ethernet and have experience of troubleshooting communications and routing problems.

I program primarily in C/C++ and 80x86 Assembly Language. I am reasonably strong in Pascal and BASIC and have used Fortran 77 and COBOL.

I have experience installing and maintaining the Windows and Linux Operating-Systems and attendant software. I have installed (and still maintain), mail, web, ftp and print servers. I currently run all services other than DNS for my own domain (rainydayz.org) on computers which I have at home.

I am active on the launchpad.net site where the Ubuntu community offers user support .

## **ABOUT ME**

I am forty-five years old and have been married to my wife, Fiona, for 20 years. I have two children, Nathan (17) and Hannah (11). I am interested in most things related to computers and in my spare time I like to spend time with my family, cycle and play football.