

Steve Garratt – Consultant

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Raspberry Pi, Arduino, Android, iPhone, Adobe AIR, ActionScript, MySQL, Linux, PHP, C/C++, VC++, ATL, COM, COM+, ActiveX, XML, MFC, OO, Genesys, CTI, VB, VBA, Java, Javascript, JSP, ASP, HTML, JDBC, ODBC, Oracle, Oracle WAS, SQL Server, Assembler, Windows95/98/ME, NT, Windows 2000, Unix, TCP/IP, HTTP, SMTP, FTP, DUN, Embedded systems, Microcontroller Firmware, Real Time, Forth, Comms, Windows CE. Windows Sockets, Serial Comms, RS232, RS485.

I'm a software engineer with a wide experience base accumulated over many years. I have been involved in the design and development process at all levels including the highest technical post within a multi-national company.

I undertake a wide variety of projects utilizing many platforms and languages.

University

University of Essex, Colchester, Essex, UK

Degree: BSc. (Hons) 2.2 Electronic Engineering. 1977

June 2008 – Present

Employer: Garratt Consultants Ltd.

Creation and maintenance of server side visitor tracking systems to support my Internet marketing activities.

Creation and maintenance of a hobby electronics web site including authoring and self-publishing a book.

Port of smart phone app to **HTML5** using the **JQuery Mobile** framework.

Smartphone App. A multi-platform development using **Adobe AIR**. Primarily targeted at the **Android and iOS** platforms. The app provides the user with lists of events for all their favourite artists and locations. Appropriate information, images, videos, seating plans, venue maps and access to tickets are provided in a simple to use package. The system includes the design of a server, which communicates with both app and external ticket services etc. The server buffers upcoming events in a mysql database and provides services to the client apps in addition to logging all app activity.

Internet Marketing. Constructing dynamic data based web sites and driving traffic by various means including Search Engine Optimisation. **SEO, PHP, MYSQL, Linux.**

February 2007 – May 2008

Client: E2v Technologies, Chelmsford, Essex. UK

Test gear for medical radiotherapy controller equipment.
PC based test software controlling an **8052** based test interface to the controller.
Visual Basic **VB6**, **8052** Assembler.

Development of next generation controller software.
As part of a team I was responsible for the high speed tcp/ip interface and driver to the **DSP** based controller. This was a demanding real time application. '**C**', **tcp/ip** and stack, **VB6** (To test the interface).

December 2005 – January 2007

Employer: Garratt Consultants Ltd.

Internet Marketing. Constructing dynamic data based web sites and driving traffic by various means including Search Engine Optimisation. **SEO, PHP, MYSQL, Linux.**

October 2001 – November 2005

Employer: Sortex Ltd. London. UK

Position: Senior Software Engineer.

Design and development of an embedded Web Server for **Windows CE** for remote monitoring and control of optical food sorting machines. **EVC, VC++**. Windows **Sockets, TCP/IP. HTTP, FTP.**

Development of a Linux server based remote machine monitoring system and integration with machines in the field. The server gathered and organized data from sorting machines world wide via the Internet.

July 2001 – October 2001

Training: Consolidating and furthering knowledge of **ATL, COM, COM+, XML & UML.**

April 2001 – June 2001

Client: Servowatch Systems

Ship board communications controller. NT based controller of radio and intercom equipment via **RS232** and **RS485 SparcBus** serial interfaces. User control is performed on NT workstations communications with the controller via ArcNet. I developed both the controller application in **Visual C++** using **MFC** and the user interface in **Visual Basic.**

November 1996 – April 2001

Client: BT

Varied software development projects including direct liaison with end clients.

Packaging a Genesys **CTI** interface into an **ATL ActiveX** control for use by a third party.

Internet based image upload and email kiosk. Unattended kiosk for emailing images from digital cameras etc. **VB 6, SMTP, FTP, HTML.**

Install **Java Web Server** on **Win2000** and produce **JSP** pages for an Internet collaboration application. Proved **JDBC/ODBC** to **Oracle RDBMS** connectivity.

Genesys StatServer to **ODBC** interface. Runs as an **NT Service**. **MSVC++**. **MFC.**

FTP web site publisher. Suitable for updating multi-Gigabyte web sites unattended in a reliable manner. **MSVC++**, **MFC**

Automatic **SMTP** mail sender. **MSVC++**, **MFC.**

Development of System for Fault reporting using **Oracle Web Application Server**, **Oracle RDBMS** and **PLSQL.**

Extraction of data from **Genesys** Stat Server for driving Call Centre Wall boards. **MSVC++**, **MFC.**

Development of a mobile fax service. **MSVC++**. **MFC.**

Development of an automatic **CTI** test harness for testing **CTI** software and equipment. Primarily intended to test the Brock/Genesys interface and has been extended to test **Genesys T-Servers**. It is general purpose enough to be applied to many test situations where tests were previously performed manually. Application consists of a GUI with an embedded script processor. Written in **MSVC++** for Win32, **MFC.**

Development of a Dynamic Link Library to enable the **Brock** suite of Call Center applications to interface seamlessly with **Genesys T-Servers** to provide **CTI** features to the desktop applications. The DLL is written in **MSVC++** for Win32. Successful integration with **Nortel Meridian** and **Mitel** switches has been achieved.

Approximately 3 months spent providing application engineering support for **Geotel** Intelligent Call Routing systems. Work involved NT administration and Call routing.

Development of a **Video PBX**. Using a Nortel Norstar telephone switch together with a Perex **video switch**. The video faithfully followed the voice connections. Application written in **MS VC++/MFC** for Win32.

October 1995 – November 1996

Employer: EDI Electronic Engineering Ltd.
Position: Senior Software Engineer.

Various projects relating to the testing of electricity meters including a PC based real time test bench control package with 8051 based peripheral cards. MS VC/C++.
Included direct liaison with end clients.

June 1990 - October 1995

Employer: Garratt Consultants Ltd.

PC based package for creating and editing data structures within a database for use on food packaging machines. Mainly MS VC.

Embedded PC based real time project using **Borland C++** to control a box filling machine.

A **PC based** data logger and analyser using the analogy of multiple pen and paper chart recorders. The package is **graphics** based running under DOS. **Borland C++** used.

A **Windows based** emulation of a graphical touch sensitive terminal.

PC based package for logging and analysing the production of oxygen from riverbed samples.

A **64180** based Combustion Efficiency Monitor. A small microcontroller card plus external hardware is utilised. Code generated using a **Forth** and **Assembler**.

PC based package for collecting, charting and analysing oxygen production rate data from water samples.

Embedded 68000 - Software for a console directing reels of paper to one of three printing presses. The unit handled the user interface and communicated with the Press Management Systems. **Microtec MCC68K 'C'** cross compiler was used.

Printing Press Management System. The product is essentially two **68000 STE based** units communicating via a serial data link. The product in turn communicates serially with a host Unix system. Code produced using the **Microtec MCC68K 'C'** compiler. Some **68000 Assembler** code was required for this project.

Carried out a series of **EMC** tests on a **68000, STE** based product. Recommended design modifications resulting in a substantial improvement in performance in the presence of interference.

December 1985 – June 1990

Employer: Crompton Instruments Ltd

Position: **Technical Executive**

Situation: Two Design Managers under my immediate direction. Total of 16 other staff

comprising Design Engineers, Draughtspeople, Technical Writers, Model shop and support staff.

Development of two microprocessor based products: An intelligent transducer unit for 3 phase electrical power measurements and an intelligent terminal for use with the transducer. **Forth and 64180 assembler cross development tools.**

November 1979 - November 1985

Employer: The Essex Electronics Centre. University of Essex.

Position: **Microprocessor Projects Manager.**

- **A compiler** for a "Tiny BASIC" language for the **INS8073**.
- Farm trailer weight measurement system.
- A utility software package for use with a **Forth** system developed within the Center.
- Computer controlled potato sizer and sorter. **6502 assembler.**
- Radio link monitor and dataloger. **6502 assembler.**
- Boiler efficiency monitor. **PL/65.**
- Optically isolated digital i/o card. **Hardware.**
- Analogue i/o card. **Hardware.**
- Simple health interrogator. **PL/65**

January 1978 - November 1979

Employer: Regulateurs Europa Ltd.

Position: **Design Engineer.**

Design projects in the field of "prime mover" control.

October 1977 - January 1978

Employer: Marconi Communications Ltd. Chelmsford, Essex.

Position: **Graduate Trainee.**

October 1973 - October 1974

Employer: Decca R & TV (Bridgnorth) Ltd.

Position: **Assistant Engineer**

Duties: To develop and maintain **test equipment** for use in the production of TV's.