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- Self-employed IT consultant and developer of 25 years standing; 10 years prior experience in commercial and educational computing.
- Advise on computing strategy for long-term clients; design and implement complete solutions for SMEs; project work for larger organisations.
- From 1999 to 2004, worked on the design, development and support of the CONSULT software suite currently used by BUPA Wellness to support its Health Screening operation nationwide.
- From 2004, have worked on diverse web projects, including the development of a Content Management System, and a Flash-based system for interactive data analysis.
- Part-time lecturer in Brunel (1990-2001) and Surrey Universities (2000), delivering courses on a variety of IT-related topics to HND and degree level.

Professional Qualifications

- BA Class 2 (Honours) Physics, Oxford University 1964 (Converted to MA 1970).
- MSc, Low Temperature Physics, University of Ghana, Legon, 1968
- Member of the British Computer Society: 1980
- Chartered Engineer (Engineering Council): 1991

Technical skills

Familiar with a wide range of hardware and software systems and techniques. Recent experience on networked windows-based PCs, Oracle and SQL Server, MySQL, Win32 Delphi, HTML, JavaScript, PHP and Flash ActionScript.

Internet and WWW

- Good grounding in basic Internet technology and Web techniques, both through work and lecturing.
- Server-side scripting with **Delphi** and **PHP**. Experienced in a range of technologies – **SOAP**, **CGI** and **ISAPI**. Have worked with **XML**, **MySQL** and **SQL Server** databases.
- Client-side scripting: **HTML**, **DHTML**, **JavaScript**, **CSS**, **Flash**, **ActionScript**.
- Good understanding of, and ability to manipulate, the Document Object Model, including AJAX-style “no refresh” mechanisms.

Computer languages

- Highly competent in **Delphi/Pascal**, **JavaScript**, **ActionScript**, **PHP**; have used **C**, with some **C++**.
- Other languages include **Basic** in various guises, **Fortran**, **Assembler** and various **4GLs**. Also **Unix shell script** experience.

Delphi skills

- Extensive O-O design and programming experience with all Delphi versions upto **D6** and, recently, **D2006**.
- Deep knowledge of **VCL**, and many 3rd-party libraries, including most of the **Turbopower** libraries.
- Extensive knowledge of **Win32 API** via Delphi.
- Designed and programmed client-server system (see Projects below).
- Other technical, scientific and business applications.

Databases

- BUPA project used multi-gigabyte **Borland Paradox** database. Recently converted to **SQL Server 2000**, using **ADO**, and **Oracle 9i** using **OCI** and **Oracle NET**.
- **XML** and **MySQL** on web-based projects.

Networking

- Good practical and theoretical background – lectured on the topic from 1995 to 2001.
- Programmed down to levels 3/4 of the ISO networking model (**NetBIOS**, **TCP/IP** and **WinNT Named Pipes**).

Operating systems

- **MS-DOS**, **Windows 98**, **NT4/2000/XP**, **Xenix**, **Unix (SCO, HP, Sequent)**.
- **Windows NT/2000/XP internals**.

Design and development

- Well developed **GUI** design skills, both in conventional and Web-based work. An engaging, robust and intuitive user interface is always a high priority.
- I have always adhered to the tenets of the **Agile Programming** or **Rapid Prototyping** approach to system development. My first concern is always to establish the user requirements, and accept that the users may not be fully aware of these until they have seen the possibilities. The result is an iterative process in which the user is fully engaged.

Professional Skills

- Excellent written and verbal communication skills.
- Co-ordinating the work of other staff, external suppliers and consultants.
- Working with end-users, both in the collaborative design of applications and user interfaces, and in the rapid acquisition of domain-specific knowledge. See also **Design and development** above.
- Flexible and adaptable in a wide range of business and professional environments, including medical, specifically health-screening, applications.
- Deal with highly sensitive data professionally and confidentially.
- Can work independently and autonomously, as well as within a team.
- Accustomed to the demands of a pressurised working environment.

Training and Teaching

- Have given various technical courses, including database training for the US army.
- Recent teaching assignments (at undergraduate year 2/3 degree level) have included a Networking course at Brunel University School of Business and Management (over a five year period) and a course on Programming Languages in 2000 at Surrey University.

Key Project work

- Current and recently completed work on web-based projects includes the development of a campaign-management website, supported by a custom-built Content Management System (CMS) using PHP, JavaScript and MySQL. This has given me a deep knowledge of the Document Object Model (DOM), and its manipulation in terms both of delivered content using PHP, and subsequent manipulation in the browser with Javascript. I have also developed a sophisticated interactive data analysis system based on Flash ActionScript programming. Have used AJAX-style technology to avoid the delay and “clunkiness” of repeated screen refreshes when new data is retrieved from the server.
See <http://www.hamm.org.uk/WebDev.htm> for more details.
- A recent long-running project has involved design and development of client-server system, running in 33 screening centres nationwide. Supports all data acquisition (manual and automated), client talk-through, lifestyle planning, client reporting, archiving, etc. See BUPA Wellness below.
Written in Delphi 6. Recently converted database from Paradox to SQL Server and Oracle 9i.
- Designed and programmed of an exercise bike system, acquiring data from gas analysers and other physiological sensors. Produced on-screen and printed gas-flow, spirometry displays, O₂ uptake, CO₂ output and other values.
Written in Delphi 6, Turbo Pascal, C++.
- Automated nightly transfer of data files across company sites via modem connection.
Used AsyncPro.
- PC-based program suite used for the thermal analysis of over 5,000 dwellings in Southwark.
Written in Pascal
- Analysis of thermal performance and optimising set of energy-saving measures for 120 public buildings in Lewisham.
Written in Pascal
- Xenix-based system running the Empress database to manage Business Centre. Interfaced with Tetra accounting system and PC systems.
4GL, scripting, SQL, C.

BUPA Wellness, (formerly Barbican Health plc/City Health Care Ltd) 1984 –

- This has, for some years until end-2003, been my principal client. See below.
- Initially I designed and developed a sophisticated medical analysis system to perform dynamic testing of lung, heart, circulation and muscle capacity, using an exercise bike. I subsequently extended this to cover database management, data-entry, client-talk through and reporting.
- Following the takeover of the company by BUPA Wellness, I expanded it into a suite of software, client-server based, which now runs in 33 BUPA Wellness screening centres nationwide, supporting 10s of thousands of transactions per day to a multi-gigabyte distributed database. The system is extremely robust, and virtually maintenance-free

Brunel University (formerly West London Institute of Higher Education) 1988 – 2001

- Taught HND computing (1990-95), developed and delivered a networking module at degree level (1995-2001).

Personal Details

- Date of Birth: 19-02-1943
- UK Citizen – full UK Driving Licence.
- Married with four children
- My main recreational activities are music and cycling. I am a member of various local amateur music organisations, was Chairman of Kingston Philharmonia for some years, and in 1999 initiated a summer musical workshop in Tuscany, which I continue to organise on an annual basis.
- I do voluntary work (IT support and language skills) for the Kingston-on-Thames Kaleidoscope project.

Project history

I have been self-employed since 1981. I provide a range of services: analysis, design, development, support and strategic advice. I have worked concurrently with long-term clients – hence many of the dates below overlap. The order is roughly descending chronological, with projects for a given client grouped together.

Client	Project summary	Key skills
Professional development and consultancy Ongoing	Converted BUPA database to MS SQL Server and Oracle 9i, in anticipation of future requirements. Developed end-client program linked to BUPA systems using Web Service. Developed interactive web site using IntraWeb. Developed Interactive web site to store portable web-based links management system for multiple users. Other web-based project work has included both client and server-based technologies,	Delphi v6-7 SQL Server Oracle Web services, SOAP IntraWeb (AToZed software) HTML, DHTML, XML, JavaScript, CSS, CGI PHP, MySQL, ActionScript, Document Object Model
Wellness Technology 2004-	Responsible for innovative data analysis and presentation techniques for a company that provides web-based health screening and corporate stress management. Work on data-driven interactive Flash displays allowing users to carry out advanced data analysis	Delphi v6-7 SQL Server Flash 7, ActionScript Statistical and other analysis techniques
BUPA Wellness (formerly Barbican Health) 1999-2004	Continuation and extension of previous Barbican Health systems. New work comprised vast increase in database size (now multi-GB) and data flow rate; linkage to further equipment; support 30+ sites; true client-server conversion, with multithreaded server supporting 50 simultaneous connections; advanced optimisation and user interface techniques stress testing to 3 months continuous operation; PDF document output. Supervised extra resources as required.	Variety of advanced programming techniques; use of most of the TurboPower and a number of other third-party libraries. Extensive knowledge of NT and 2000 internals. Windows “named pipes” and sockets. Optimisation and testing. Delphi v5-6. Paradox
Barbican Health plc (formerly City Healthcare) 1994-1999	Continuation and extension of previous City Healthcare systems. New work comprised automated linking of multiple sites, conversion to Delphi, design and implementation of stand-alone exercise bike system measuring a variety of physiological measures including ECG, spirometry, gas concentration and flow rate.	Delphi v1-4. Paradox. C, C++. Asynchronous communications. Data management. Real-time programming; further interfacing techniques.
City Healthcare Ltd 1985-1994	Responsible for all aspects of startup Health Screening company: client booking and management, data acquisition and collation, report writing, “client talkthrough”, real-time interface with data acquisition equipment, graphics displays, backup, data security, general IT consultancy.	Pascal, Paradox, real-time data acquisition, report writing.
Brunel University, Surrey University 1990-2001	Delivered a variety of HND and Degree-level computing courses, latterly on Networking and Communications, and Comparative Programming Languages	Deepened understanding of networking and communication mechanisms Programming techniques
British Olympic Medical Centre 1990-1994	Design, implementation of database and other facilities for managing the Centre's activities. Gather and collate physiological data from Olympic-level athletes to support training schedules.	Delphi. Paradox. Real-time data acquisition, involving links to diverse equipment (treadmills, rowing machine etc).
South London Consortium 1982-1993	Software suites to measure thermal efficiency of buildings, optimize energy saving measures, etc.	Pascal. Mathematical optimization techniques.