

Bob Bishop
External Consultant

Tel: +44 (0) 20 7242 8444
E-mail: cwa@cwa.uk.com
Website: <http://www.cwa.uk.com/>

Qualifications European Engineer, FEANI Group 1 register
MIEE
B.Eng (Honours) Electronic and Electrical Engineering,
University of Sheffield

Date of Birth 1949

Nationality British

Current Position at CWA

External Consultant. Retained by CWA since 1988 for in-house computerised system developments; collaborates regularly with CWA on software development and systems design projects. Extensive knowledge of the architecture and operational platform of CWA risk assessment computerised tools which have been developed for clients within the energy insurance sector.

Summary of Previous Employment

1989-present

Working as an independent consultant. Recent projects include:

- Carrying out a security audit for a UK e-commerce company
- Development of call centre systems for a UK utility
- Design, construction and deployment of a document image processing system in support of an arbitration concerning the supply of natural gas to a power station
- Construction of database and data analysis software for applications, including insurance underwriting and expert witness support

- Technical QA support for the European Commission in the deployment of Europe-wide network systems for public health and other application areas
- Development of a variety of application software, including a package used by insurers for fire and explosion damage assessment in the petrochemical industry
- Development of several applications in C++ and Java, including porting from C++ to Java and use of server-side Java
- Support for a defence research group investigating application of multi-threading on multi-processors to a vehicle routing problem
- Design and implementation of secure Internet gateways for several clients, involving:
 - security analysis
 - equipment selection
 - router and gateway configuration: TCP/IP, PPP, SLIP, X25
 - dual DNS configuration, to restrict visibility of internal networks from outside
 - email set-up: SMTP to the Internet, UUCP to dependent sites
 - FTP service with separate secured areas for anonymous access and for authenticated access by trusted users
 - secure operation of other services such as WWW, and the handling of applets
 - access to external services from inside via relays on the gateway
 - firewall arrangements providing strict control over all access to internal service from outside
- Work on secure operating systems including:
 - modifications to Sun's Trusted Solaris 1.2 CMW secure operating system to facilitate the use of hardware guards on WAN connexions, and to allow restricted use of file locking for NFS-mounted files
 - modifications to the C2 secure version of Solaris 1.1.1 to allow the use of a UK government certified encryption algorithm for passwords etc
- Conducted a study for the European Commission Informatics Directorate on back-up security for Unix servers.
- Design of software for fire and explosion damage assessment in the petrochemical industry, for a specialist consultancy to the industry and insurers. The latest version of this software is a 32-bit Windows application for Windows NT and Windows 95.
- Design and implementation of data analysis software (under Unix) used to assess the financial performance of investments in commercial property; and (under Windows NT) to support underwriters insuring large risks in the oil and petrochemical industries.

- Development for a major bank of software tools and supporting technology to migrate existing Front-office transaction processing software forward to run on open systems platforms and use standard non-proprietary communication protocols.

1984-1988

Imperial Software Technology Ltd

1986-1988

As Principal Designer, responsible for the development and portability of the user interface, graphics and database technology on which the Istar IPSE is built. Head of the technology group comprising 7 software engineers, in which Mr Bishop also took an active technical role. Technical experience included work on the Istar Ada workbench, database locking and recovery on work-station networks, TCP/IP networking, electronic mail and heterogeneous networks using NFS. Other technical activities during this period included development of miscellaneous software tools, work on Unix device drivers, graphics software for laser printers and window systems.

1984-1986

As Senior Consultant, played a major part in the design and development of the Istar project support environment. Involved with the design and implementation of the original prototype Istar system, then with further development including architectural design of the Istar kernel and definition and prototyping of the data management facilities. From November 1984 until April 1988, responsible for Quality Assurance within IST.

1986-1987

Head of the collaborative team working on the Software Strategy study in the definition phase of the European Commission funded RACE programme.

1970-1983

British Telecom

1981-1983

As Head of Software Standards (CHILL and Ada) group, responsible for technical aspects of BT's participation in the MCHAPSE programme to develop a support environment for programming in Ada and CCITT-CHILL. Participated in development of BT's medium to long-term plans for activities in software engineering. Acted as reviewer for related study work funded by the European Commission. Represented BT on the CCITT study group designing the 1984 extensions to CHILL, and on working groups of Ada-Europe and British Standards Institute.

1979-1981 As head of group, responsible for development of BT Universal Microprocessor Development System involving both hardware and software development. Responsible for language definition, compiler architecture and development of code generator, run-time system and libraries. Developed techniques for interfacing the language to debugging tools.

1977-1979 Design and development of software for a high-reliability multi-microprocessor system for very accurate call charging in telephone exchanges.

1972-1977 Participated in the Experimental Packet Switching System project from initial specification through to public service. Responsible for low-level protocol implementation, design and implementation of protocol tester used to test customers' interfaces.

1970-1971 Worked on secure power supplies for switching control computers and on hardware and software error recovery techniques.

Other Activities

1990-1994 Taught a short course on management of software projects to final-year undergraduate and Masters students in the Department of Computing at Imperial College.