



Robert Charles Brown

Currency

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Personal Details

<i>Sex</i>	Male
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	No children
<i>Nationality</i>	United Kingdom/Australia

Professional Employment

Post Director
Institution Transentia Pty. Ltd.

Description

Transentia is a vehicle I have established to give me greater freedom to control both the quantity and quality of the work I undertake.

Activities

Recent *development-oriented* activities have included:

- Mentoring/training/assisting with development for a 7-person team of developers new to Java and J2EE technologies for Queensland Treasury Corporation. Also involved establishing a development environment based around Oracle JDeveloper 10g, Oracle 9iAS and Oracle Portal with CVS, Ant, JUnit, etc..
- Assisting with a portion of the design and development of a BEA WebLogic Workshop-based architecture for a Gold-Coast based international Web-based gaming/casino site
- Tuning and reporting on the performance of the CmeDocs CMS system developed for and installed at Queensland Government Department of Industrial Relations
- Principal architect for a WebLogic Server 6.1-based J2EE (EJB2.0, Servlet 2.3 and JSP 1.2/taglibs; also JUnit/Ant/JavaDoc) Content Management System/Application suite project ('CmeDocs') for the Queensland Government Department of Industrial Relations
- Assisting with designing/architecting a J2EE-based system for disseminating 'live' sports-results to mobile devices
- Assisting a Brisbane-based SME with the design of an ASP-based system to facilitate the exchange of parts data between architects/suppliers involved in building industry projects
- Team leader/mentor for a 6-person development team for a WebLogic 6.0-based system (EJB1.1 and EJB2.0 [including message-driven beans], Servlet 2.2 and JSP 1.1, on a BEA WebLogic Server cluster) undertaken with DHL in Kuala Lumpur
- Helping IBM's Tivoli group on the Gold Coast understand the J2EE security model and how

their “SecureWay Policy Director” product can be “plugged in” to the J2EE world

- (Ongoing) Development and maintenance of a number of web sites on behalf of Queensland University of Technology’s Faculty of Education TESOL Unit

Recent *communication-oriented* activities:

- Leading training and mentoring courses in Java and J2EE (J2SE, JDeveloper 9i, Servlets and Struts) for staff from Queensland Treasury
- Assisting developing a (Debian) Linux-based SOE for a Brisbane-based organisation
- Reporting on the fitness-for-purpose of an existing bespoke Content Management System and suggesting remedies for problems and outlining an upgrade path for a nationwide real-estate company
- Presenting various Transentia-developed and Oracle developed courses (WebServices/Java/etc.) on behalf of Oracle Australia
- Assisting with presenting the CmeDocs system during a recent “WebLogic Wednesday” in Brisbane
- Presenting the session ‘Toplink’ at the Perth Australian Oracle User’s Group (AUSOUG) “Oracle with 20:20 Foresight” 2002 conference
- Presenting the session “J2EE-Based Systems Development and Oracle9i JDeveloper” at the Brisbane, Sydney and Perth AUSOUG 2002 conferences
- Presenting the session “Next-Generation Portal Technologies” for the Acer ‘Hitech’ conference
- Presenting the sessions “Next-Generation Portal Technologies” and “Configuring the Squid Proxy Server” for the BES “I.T. in Education 2002” conference
- Providing J2EE mentoring to the Tasmanian Police IT Department preparing for the commencement of a new project utilising Borland JBuilder6/AppServer 4.5, Windows 2000 and Microsoft SQL-server 6
- Presentation of various WebLogic Server 6.1 training courses on behalf of BEA in Australia and throughout the Asia-Pacific region
- Presentation of various Java and XML-related courses for Software Engineering Australia
- Presenting the session “What Linux Can Do For You” for BES Information Technology Systems

Curriculum Vitae

During 2001, I presented papers and lead workshops at a number of conferences and meetings, including The AUSOUG “Zen and the Art of Internet” conference and Software Engineering Australia’s “IncITe the Future” conference.

My articles “Service Oriented Architectures” and “Under the J2EE Umbrella” have been published in Software Engineering Australia’s *Software* magazine.

In June 2000, I undertook an “XML Roadshow” introducing XML to members of Software Engineering Australia at Toowoomba, Mackay, Townsville and Cairns.

In April 2000, I was asked to return to IBM’s Austin, Texas, research centre to undertake my second residency entitled *NP-2080: Connecting e-business to the enterprise*. This residency concentrated on using IBM’s Pattern Development Kit to integrate IBM’s WebSphere Application Server, VisualAge for Java, CICS, IMS and MQSeries into an Internet-based e-business enterprise.

I undertake a large amount of work in conjunction with two Brisbane-based organisations: ASERT Consulting and E2 Pty. Ltd., both are populated by independent consultants (many of whom initially came together at the Distributed Systems Technology Centre) and operate along ‘cooperative’ lines.

1994-1999

Post Principal Consultant
Institution Distributed Systems Technology Centre
Level 12, S Block
The Queensland University of Technology
Brisbane
Queensland
Australia

Description

The Co-operative Research Centre for Distributed Systems Technology (DSTC) is a body jointly funded by industry and the Australian government to pursue innovative research and undertake technology transfer in the area of Distributed Computing.

Curriculum Vitae

Duties

As part of DSTC's Professional Services Unit, I was responsible for liaising with industry bodies and the research staff of the centre. I undertook various consulting and programming tasks and I was also responsible for organising and originating seminars and workshops and training modules covering areas related to Distributed Systems, such as Asynchronous Transfer Mode networking and Java programming.

Activities

In 1998, I was the recipient of an IBM 'residency' wherein IBM sponsored me to work at IBM's Austin, Texas, research centre on *Residency 98-NC-0150-R: Java design, programming and optimisation for the Network Computer*. This work has been published as a Prentice-Hall book entitled *JAVA Thin-Client Programming for a Network Computing Environment*.

Other activities

Consultancies

Clients have included Optus, the Queensland Department of Natural Resources, the Queensland Department of Environment and Heritage, CITEC, Queensland Railways, the Northern Territory's Department of Education and Dairy Farm International.

Papers

"An Overview of Telstra's Experimental Broadband Network", presented at AUUGWet '97, Darwin.

Conferences, Exhibitions

Opening speaker at AUUG Wet '97; Exhibitor at ATUG '97; PART '96; EBN User Forum '96; EBN User Forum '97 (organising committee member); JavAus '98 (organising committee member); JavAus '99 (organising committee member and opening speaker).

Miscellany

I acted as system administrator for DSTC's NT-based systems at its QUT offices.

1990–1994

<i>Post</i>	Lecturer
<i>Institution</i>	Hong Kong Polytechnic Department of Computing Hung Hom Kowloon Hong Kong

Courses given

Master Degree Level

- System Software Technology

Honours Degree Level

- Real Time Systems and Distributed Computing
- Data Communications and Computer Networks

Higher Diploma Level

- Data Communications

Others

- Introduction to the UNIX Operating System

Teaching Materials Developed

Lecture Notes for Learning C Programming

Tutorial Sheets for Learning the UNIX Operating System

Papers

Non-linear type extension in Oberon, ACM SIGPLAN Notices

1988–1990

Post Institution Lecturer
University of East Asia
Polytechnic Institute
P.O. Box 3001
Macau

Courses given

Higher Diploma Level

- Data Communications
- Operating Systems
- Computer Architecture

Diploma Level

- Introduction to the C Programming Language

1986–1988

Post Institution Senior Research Officer
Intelligent File Store Project
University of Essex
Department of Computer Science
Wivenhoe Park
Colchester
CO4 3SQ
England

Description

The Intelligent File Store (IFS) project was a part of the UK ‘Alvey’ initiative and focussed on

Curriculum Vitae

undertaking research into new parallel hardware suitable for supporting large scale intelligent knowledge-based memory systems.

Duties

Integration of the IFS hardware into a UNIX-based workstation (by writing a UNIX device driver and integrating the hardware into a VME-bus based Sun 3/75 workstation), maintenance of the installed systems.

I was also responsible for installing and operating a UNIX-based 'Ethernet' Local Area Network for the departmental research and teaching laboratories.

Tertiary Education

1985–1986

M.Sc. Computing Studies
Institution University of Essex
Department of Computer Science
Wivenhoe Park
Colchester
CO4 3SQ
England

1981–1985

B.Sc. Applied Chemistry
Classification 2-(i)
Institution The Hatfield Polytechnic
Department of Chemistry
Hatfield
Hertfordshire
England

Leisure Interests

Tennis, astronomy, badminton, golf, travel, reading, music.

Supplementary Information

At the DSTC, I felt increasingly constrained by the direction of the company and the way in which it was operated. The formation of my own company—Transentia Pty. Ltd.—is designed to enable me to take better advantage of the various training, development and consulting opportunities that come my way. Having Transentia involved with other organisations such as ASERT Consulting Pty. Ltd. And E2 Pty. Ltd. also provides the opportunity to work with some of the best consultants and developers in Australia on leading-edge technologies and projects, while still giving me the flexibility to “follow my nose” should I want or need to.

In this section I present a number of recent experiences in more depth than before and I also introduce additional material that may be of relevance.

Technical Leadership

I would count this as one of my strengths.

I am good at, and enjoy, the training/mentoring role.

I have good interpersonal skills and as a trainer, I am used to leading teams of people investigating complex systems.

I am an authorised trainer for BEA (Weblogic Server, Weblogic Enterprise and Weblogic Portal), Oracle (JDeveloper and web applications) and Borland (JBuilder and Borland Application Server).

Oral and Written Communication Skills

I believe I have a track record that is second-to-none in this area.

I am a “recovering academic” and have more than 10 years experience in tertiary-level lecturing in Europe, Asia and Australia.

Presentations

In addition to those sessions described earlier I have presented at various other events, including the following:

In December 1999, I was asked to present a hands-on tutorial with the subject of *Enterprise System Management using Linux* at the Open Source Bazaar in New York’s Jacob K. Javits Center.

I have presented a session at “Hong Kong MacWorld.” MacWorld is one of Asia’s biggest Computer-oriented exhibitions.

I have also given seminars to the Macau government on the topics of the UNIX operating system and Local Area Networking.

Courseware

I have developed full-featured, advanced, practically-oriented industrial training courses in various aspects of:

- Java Development
- XML Development and Technology
- Systems Administration for Linux
- JavaScript

Each of these courses has had many dozens of participants and has been presented in many countries by various presenters. The Java Development course has been licensed for delivery in the U.S. by an American training organisation.

IBM Redbooks (co-author)

- *Java Design, Programming and Optimisation for the Network Computer*. This work has been published as a Prentice-Hall book entitled *JAVA Thin-Client Programming for a Network Computing Environment*.
- *Connecting e-business to the enterprise*. This residency concentrated on using IBM's Pattern Development Kit to integrate IBM's WebSphere Application Server, VisualAge for Java, CICS, IMS and MQSeries into an Internet-based e-business enterprise.

Publications

I have recently published the article *Service Oriented Architectures* in Software Engineering Australia's Software Journal summer 01/02 edition 5. Another article: *Under the J2EE Umbrella* was published in the following issue of the same magazine.

I have presented DSTC to various trade shows and events, including:

- The 1997 Australian Telecommunications Users Group conference
- JavAus 1998, the Australian Java users conference
- JavAus 1999
- The EBN user group meeting

I was a member of the organising committee for the last three of these events.

While living in Hong Kong, I was a regular contributing editor to the now-defunct "MacChooser" magazine

Relationship Management

As a member of the Business Development Unit of the Co-operative Research Centre for Distributed Systems I was responsible for maintaining links between researchers at several Universities throughout Australia, including: Bond, Griffith, Queensland University, University of Technology in Sydney and Queensland University of Technology. I was also responsible for dealing with research-oriented sections within DEC, Telstra Research Laboratories, CiTR (a 'sister' organisation to DSTC) and CITEC (the IT branch of the Queensland government).

I was the manager responsible for attempting to coordinate DSTC's relationship with IBM, which was one of the organisation's primary sources of support. I also coordinated DSTC's involvement with the fledgling "Software Engineering Australia" national network—a

federal government initiative aimed at promoting the effectiveness of Australian technology-based Small to Medium Enterprises (SMEs).

I was DSTC's "Advanced Prototype Access Program" manager. In this role, I was responsible for dealing with organisations that wish to license the software and Intellectual Property developed at DSTC.

System Development Skills

Skills and Experience

Much of my work has involved dealing with small teams of fewer than a dozen members. I feel that most projects suffer as the project team size becomes too large.

In my experience, a key success factor for most systems is the construction of effective prototypes. Prototypes should be constructed early and often.

Prototyping has a number of benefits:

- Prototypes are often the best way to gain knowledge of complex systems (humans are not good at abstract thought but can understand concrete examples well. "I don't know what I want, but I'll know it when I see it...")
- Social/political aspects are well served by prototyping: it is easier to get "buy in" from reluctant parties if benefits can be shown, rather than described...
- The prototyping activity improves a whole team's skill-set
- Prototypes can serve as the seed for systems to grow (although it is usually best to treat a prototype as sacrificial. This is not always possible, either due to political/financial pressures!)
- Analysing the effort associated with one prototype makes it possible to more accurately plan future activities

Most projects that I have worked on use the Iterative/Spiral methodologies (to use the Rational Unified Process terminology). The tenets of eXtreme Programming are also somewhat related to the way my past projects have operated (in particular, writing a multiplicity of test harnesses and regular integration sessions).

I typically work in close conjunction with clients and feel it important that they do not perceive the design/development process as a closed to them.

I have used a number of methods on projects, including:

- Model-View-Controller (fundamental to much of the J2EE—and Java/OOP in general)
- UML (primarily as a documentation tool). In particular class and sequence diagrams. I have used a number of UML tools, including:
 - TogetherSoft Together ControlCenter
 - Poseidon UML
 - JDeveloper
- Class-Responsibility-Collaborator (CRC) cards

- Patterns

I believe in the maxim “Keep It Simple, Stupid” and do not religiously follow a method or tool...it is best to pick a tool that suits the task at hand as well as the people doing the task.

Projects

I have worked on a number of varied projects throughout my career, some recent ones are detailed in this section.

Queensland Department of Industrial Relations

Architect/developer for this recent 6 month project. This project involved the development of a J2EE (BEA Weblogic Server 6.1)-based Content-Management System/Application suite supporting the operation of the department’s call centre staff as well as the provision of a number of internet applications to allow public access to data such as official IR award legislature and the various associated amendments, reports, etc.

In this 6-month project (undertaken as a joint venture between two Brisbane-based SMEs [ASERT Pty. Ltd., <http://www.asert.com.au> and Digicon Pty. Ltd., <http://www.digicon.com.au>]) I was one of two lead architect/developers overseeing in the design and construction of a new, J2EE based Content-Management System (now called ‘CmeDocs’ and presented to the Brisbane enterprise developer community during a BEA-sponsored “WebLogic Wednesday” session in Brisbane) to act as the underlying infrastructure supporting various applications layered over it. It is intended that this portion of the product will be split off to form a stand-alone product.

This project made full use of all major J2EE/WebLogic features: CMP/BMP Entity EJBs; Session EJBs; Servlets; Applets; JSPs; heavy taglib use, etc. Netbeans/Forte CE was chosen as the supporting IDE and Poseidon CE UML tool was used to model and document parts of the system.

DHL

Consultant/Architect/Developer for an on-line package identification and tracking system using J2EE (EJB1.1 and EJB2.0, Servlet 2.2 and JSP 1.1) on a BEA WebLogic Server cluster. This system was devised to provide a ‘plug-in’ replacement to service the company’s existing IBM MQSeries client applications and also to permit internet access to identification and routing data that was previously “locked inside” the organisation.

The project’s total duration (from the generation of the initial use cases to the project going ‘live’) was approximately 10 months. I was brought into the project for the last 2.5 months to lead the final architecting and constructing phases.

Another major requirement placed on me was to act as a mentor for the internal staff, ensuring that they were capable of undertaking further design and development work themselves.

The project made some use of the Together ControlCentre UML-based IDE.

During the project, I also found myself troubleshooting new releases of BEA software and mentoring some of BEA's Singapore staff with respect to clustering and the latest features of WebLogic.

Simple2Link

Architect/Developer for a Java RMI/XML-based Peer-to-Peer infrastructure for the distribution of data across trading partners in a way suitable for various vertical industries.

This system was created over a period of about 5 months for a local SME and is now being used successfully in the coal industry linking a number of transport/laboratory/mine sites together.

A patent has been applied for related to certain aspects of the system.

Queensland Government Department of Natural Resources

Consultant/Developer working on the Property Interests Prototype project developing an Internet-oriented spatial information access infrastructure using C++, Java and XML.

This 4-month project involved integrating 'live' data from numerous Queensland shire councils, as well as from DNR's central Tuxedo-based systems.

Bush Telegraph

I was one of the web designers who worked on the internet "Bush Telegraph" newsletter (<http://www.dpi.qld.gov.au/bushtele>) for Queensland rural communities.

Med-E-Serv

Developer working on an HTML/PERL CGI-based prototype internet presence for an online medical community.

Project Evaluations Undertaken

I have undertaken a number of strategic evaluations, in conjunction with/on behalf of various organisations.

Optus

Consultant/Architect reviewing strategic directions, middleware architecture and technology options. Given the brief "To review the technologies, processes and strategies which are used within the [company] environment to build, manage and evolve a cohesive suite of applications which deliver the required business functionality for [company] to operate competitively."

Undertook a number of middleware technology evaluations and comparisons, notably Forte versus Digital's System Integration Infrastructure.

The review ultimately resulted in a change of upper-level management and also changed the relationship between [company] and one of its major suppliers.

Telstra

‘Snapshot’ review of a project’s technical foundations and an evaluation of its progress. The project was being undertaken by a large international consulting organisation on behalf of [company].

Examined: development approaches; operation, leadership and morale of project team; architecture, design and implementation; tool choices and level of use; project management, etc.

The review resulted in a restructuring of the project, the addition of more senior software engineers to lead the developers and a change of management team.

Private Innovator

I was asked to evaluate a hardware/software product to assist with a Patent submission.

Exposure to a Variety of Distributed Systems Technologies

I have hands-on familiarity with a wide variety of current and legacy Distributed Systems technologies, including:

- Sun ONC-RPC
- OSF DCE
- BEA Tuxedo
- A variety of CORBA ORBs including BEA M3 and VisiBroker for Java
- Java RMI
- J2EE
- SOAP
- ‘Normal’ web technologies (HTML/XML/various CGI scripting technologies, tools such as Dreamweaver/Fireworks, etc.)

I have attended a number of formal training courses on such varied subjects such as:

- BEA’s Weblogic Portal 4.0 platform
- Object Oriented Software Development
- IBM’s VisualAge SmallTalk
- BEA’s M3 Object Request Broker
- OSF’s Distributed Computing Environment
- Project planning and management
- Telstra’s Experimental Broadband Network
- Real-Time and Parallel Computing

I am familiar with various Operating Systems and development environments, including Windows, Macintosh and the multiple flavours of Unix/Linux.

I count myself as an experienced software practitioner and so I am able to appreciate and have experienced the strengths and weaknesses of these technologies firsthand. I do not suffer religious attachments to any tool, technique or vendor.

Knowledge and Experience Selecting and Integrating Products and Technologies

In this section I describe a number of the various reports and technical evaluations with which I have been involved.

Queensland Rail

Information Technology Plan. This involved the production of a number of reports evaluating the potential application of various new technologies to a number of areas of QR's operations. Technologies examined included: XML, Smart Cards, workflow technologies and Electronic Document Management Technologies & Strategies.

Dairy Farm International

Evaluation and comparison of Message Oriented Middleware. This report examined the features of IBM's MQSeries and Microsoft's MSMQ Message Oriented Middleware infrastructures. The evaluation also looked at how Dairy Farm International would be able to use these technologies to replace their existing FTP/batch oriented reporting systems.

DSTC

VideoWall Project. The Distributed Technology Centre was a participant of Telstra's Experimental Broadband Network (EBN, a nationwide ATM-based fibre-optic testbed network). The DSTC's major contribution to the EBN experiment was to investigate the construction, operation and usage of a 'videowall' which was set up between its offices on the UQ and QUT campuses. The videowall was allocated about 10Mbit/sec of bandwidth to provide a large-scale, high-quality, always-on and informal videoconferencing facility. At times, we also used 34Mbit/sec links between sites in Melbourne and Sydney. As manager for this project, I was responsible for evaluating and purchasing ATM switches, high quality video codecs, audio/video equipment (such as microphones and conference projectors), laying local fibre cables, etc. I was also responsible for the day-to-day operation of the system as well as liaising with Telstra's ATM research and operational groups and the other EBN other participants around the nation.

projectCentre

Survey of Videoconferencing Tools and Technologies. This report examined the application of these elements to the building industry, which is characterised by its need for collaboration across large distances and in remote areas that are not well served by traditional 'wired' technologies.

NT Education Department

Comparing Virtual Private Networks and Other Options for Providing Secure Data Access for the Northern Territories Education

Supplementary Information

Department. This report gave a brief overview of various security technologies such as SecureID tokens for one-time passwords and Virtual Private Networks.