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**Status:** Single, non-smoker, eligible for defence clearance

**Qualification:** University of NSW, Bachelor of Engineering - Electrical ( Honours )  
Majors: Computer Control & Instrumentation, Systems & Control, Real-time Software

**Born:** D.O.B. 27 December 1969, Australian, 42 Years

**Address:** Unit 53 / 1-9 Yardley Avenue, Waitara, NSW, 2077, Australia

**CV Update:** The latest CV can always be downloaded from: [www.earthed.net.au/cv/ianfinlay\\_cv.doc](http://www.earthed.net.au/cv/ianfinlay_cv.doc)

**Objectives:** To work in a challenging product development environment, involving system integration, software development and automation.

**Windows Skills:** C#.NET, Visual C++ \ .NET, LabVIEW, Visual Basic 6/ .NET, MS-SQL, XML, OOD, UML, TCP/IP, UDP, NTP, 232/422/485 Serial Communications, Multi-threading, Real-time, Client/Server, SQL.

**Control Skills:** Citect SCADA, Citect Cicode Specialist, Citect Driver Development Kit C++, Redundancy, OEM Machine HMI, PLC \ RTU interfacing and process knowledge, LabVIEW Instrumentation, Machine Vision, Automation.

**Embedded Skills:** .NET Micro Framework (C#.NET), Intron C/C++, Apollo C/C++, Turbo C, Keil ATMEGA ASM, Real-time, WiFi / Bluetooth, Serial / Ethernet, RFID, PCB Circuit Design, Time Control, Measurement, Data logging, GPS/GPRS, Rapid Prototyping, Proof of Concept, Touch Screen, I2C, SPI,....

**Career Snapshot: 2010-2012:** [[C#.NET](#) | [NETMF](#) | [M2M](#)] .NET Micro Framework for custom solutions, Netduino + FEZ Cobra + Telit GSM/GPS + GHI Glide GUI library, [[Excel](#) | [XML](#) | [VBa](#)] development for Movicon SCADA file manipulation, [[C#.NET](#)] + [[LabVIEW](#)] CSIRO Startup Client/Server Automation projects, Advantech & DataQ I/O interfacing; Cipherlab barcode scanner development in C, PoE Ethernet clock monitoring and configuration application VB.NET [[TCP/IP](#) | [VB.NET](#) | [C#.NET](#) | [SQL](#) | [Telnet](#) | [NTP](#) | [UDP](#)]. Embedded Bluetooth measurement device [[ASM](#) | [VB.NET](#)], Civil Engineering Calculator [[C#.NET](#)]; Bosch IP Video Camera Switcher + Electronics.

**2005-2009:** Wormald Technology (Tyco) R.A.N. distributed embedded control HMAS Collins Class, HMAS Huon Class Mine Hunters [[ASM](#) | [C++](#) | [VC++.NET](#) | [Modbus](#)], Defence (DoD) systems design, Coal mine drag-line operator efficiency [[VB.NET](#) | [Citect SCADA](#) | [process modeling](#) | [GPS](#) | [PLC](#)]. Embedded Ethernet to serial NTP protocol converters [[C](#) | [PCB](#) | [Protel](#) | [NTP](#) | [TCP/IP](#)]. Distributed Clock time controller [[Keil ASM](#) | [C++](#)].

**2004-2005:** Contracted to ADI/Thales on AP-3C R.A.A.F. tactical aircraft flight simulator responsible for modification and fixes to: [[6 x GUI App's in VB6](#) | [C](#) | [2 x VC++ App's](#) | [MFC](#) | [GIS](#) | [OpenGL](#) | [Active-X](#) | [TCP/IP](#) | [UDP](#)]. Developed a Client/Server application to communicate with Substation IED controllers [[VB.NET](#) | [SQL](#)]. Process Control and modeling software for Coal Handling automation [[VB6](#) | [VC++](#) | [MFC](#) | [Active-X](#)].

**1991-2003:** Spent several years working abroad (UK / Ireland) as a contract Software / Electrical Engineer in the industrial controls and automation sector. Working on real-time rail car weighing systems [[VC+++](#) | [RFID](#) | [Serial](#) | [MFC](#)], SCADA control systems [[Citect](#) | [C](#)], WinNT I/O card drivers [[VC++](#) | [MFC](#) | [SDK](#)]. Extensive SCADA library development for RTU Manufacturers in the electrical sub-station automation space [[CitectSCADA](#) | [cicode](#) | [C/C++](#)], Oil & Gas and Rail projects. Development of client/server control systems using [[Borland C++](#) | [VB](#) | [Paradox](#) | [dBase](#) | [HTML](#) | [Citect SCADA](#) | [RF](#) | [DigiBoard FEP C](#) | [PLC](#)] for the logistics, freight sortation, warehouse distribution, and baggage handling. R&D on OEM packaging machines [[Embedded C](#) | [Real-time](#) | [Electronics](#) | [Protel](#) | [Citect SCADA](#) | [Co-Pro C](#) | [Omron BASIC](#) | [Machine Vision](#)]

**Interests:** SCUBA diving (PADI Dive Master), underwater photography, inventions, camping and hiking, travel photography, family history research, foreign affairs and remote travel and cultures.

**Membership:** IEEE Member, IEEE Computer Society, Embedded Systems Australia (ESA)

**Insurance:** Certificate of Currency in Work Cover, Public Liability \$10M, Professional Indemnity \$2M

**Thesis:** Real Time Computer Control –“*guide a ball on a plate*” + “*Analogue Video target tracking*”; Design analogue circuits to process video to track a ball [[ASP](#) | [Electronics](#) | [Video](#)]. PC control, X-Y servo motors for gimbaled plate [[C++](#)]. Graphics [[Vectoring](#) | [CGI](#) | [C++](#)]. I/O card [[C](#)], Servo circuit [[Electronics](#)], Advanced digital computer control [[C++](#) | [Modeling](#) | [Physics](#) | [Math](#)].

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**Software Development Skills Summary:**

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**C#: 6.0Y Last used : 2011**

**[Windows]** Development of several client/server applications for CSIRO startup in large scale battery testing 4kW, involving VPN, FTP, data logging, PID controllers, safety shutdown, LabVIEW interfacing; C#.NET development of Winforms User Controls, CGI Printing, SQL, Math Library, OOD, 3<sup>rd</sup> party controls, API's, DevExpress Trial objects, Peripheral communications, RS232, Rapid Prototyping, Multi-threaded, interfacing to LabVIEW instrumentation software, Modbus TCP device control. Interfacing to Advantech Adam TCP/IP Modbus equipment, providing Modbus Slave interface to 3<sup>rd</sup> party controllers, Software libraries to control DataQ instrumentation modules.

**[Embedded]** Real-time development of .NET Micro framework for Netduino / GHI Cobra EMX embedded hardware with GMS, GPS, HTTP, SMS, communications, with Touch Screen and RS232 capability.

**[Web]** Modification to e-Commerce website based on NopCommerce ASP.NET \ C#.NET \ .NET Framework 2.0

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**C++: 16Y+ Last used 2011**

**[Windows]** Software development using following IDE's { Microsoft Visual C++ Borland, Turbo C++, }; Frameworks { MFC, .NET, Open Source}, Shared Memory interface DLL between C#.NET and LabVIEW.

Development of the following {ActiveX, DLL, SYS Drivers, Shared memory, DDE, OLE, TCP/IP, GIS, OpenGL, API's, DDK's, SDK's, Physics Engines, dBase, Peripheral communications, RS232/422/485, Open Source C++ libraries}

Tools used {winDbg | memory validator | crashfinder | Spy++ | Ethereal | Port Mon | Bugzilla }

**[Embedded]** Real-time, distributed control, Defense RAN distributed fire panel control, PID, communications

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**ANSI C: 6.5Y Last used 2011**

**[Windows]** Software development using following IDE's {Borland C, Turbo C, Intrl C, Visual Studio}; Protocol Drivers {Modbus, Modnet, IEC870T}; Frameworks { Lantronix, MFC } . Development of the following {ActiveX OpenGL, DLL, SYS Drivers, API's, DDK's, SDK's, dBase, Paradox, Peripheral communications, RS232/422/485, Open Source}

**[Embedded]** Cipherlab application development using Blaze-C, for barcode scanner system. Real-time, Lantronix Ethernet-Serial communications conversion, Allen Bradley PLC5 CoProcessor development, Motorola 68HC11 PID real-time controller, Distributed Controllers for Fire Detection Suppression, Digi Com8i Serial Front End Processor

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**Visual Basic: 5Y+ Last used 2011**

**[Windows]** Use of VB3,VB6 & VB.NET. Software development using following technologies:

{TCP/IP, NTP, DHCP, UDP, shared memory interfaces, ActiveX, DLL interfacing, .NET, DDE, GIS, API's, SDK's, DevExpress, SQL, MSDE, MS-Access, ADO.NET, Peripheral communications, RS232/422/485, Rapid Prototyping}

**[WinCE]** desire to work in this area or web based embedded systems

**[Web]** Development of Small Business web sites with SQL, XML, in VB.NET

**[VBa]** Excel XML Import and save for SCATDA database manipulation for AI-Singer automation for Movicon SCADA product (Sydney Water Project)

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**Citect SCADA: 15Y+ Last used 2011 (v7.20, v7.10, v6.0, v5.4, v5.2, v4, V3)**

**[Windows]** Architecture, Clusters, Cicode for {SQL, DDE, dBASE, RDB, File I/O, VT100 Emulation, Serial, FTP, Windows API, DLL's, weigh systems, QA systems, barcode scanners, SMS messaging, HTML reports, Crystal Reports}; Driver Developer Kit (DDK) for {Modnet, Modbus, IEC870T}; Redundant Server Systems; Interface to {PLC, DCS, RTU's, Scanners, Weighers, Mainframes, OSI Pi, MES, OPC...}; Project include libraries {Substation automation toolbox, Fiscal Metering Toolbox}; OEM Machine design, Templates, Tailored Citect SCADA training Courses, complex genie and super-genie graphics object development (former Citect programmer developing hot-fix builds in C++)

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**SQL: 4Y Last used 2010**

**[Windows]** Electrical utility MSDE Client\Server applications, Schema Design, Reports, SCADA MES Logging, pseudo real-time freight sortation , barcode label look-up, ADO.NET, Citect SCADA SQL interface. SQL Server 2008 Express development.

**[Web]** Small Business Web sites, XML, SQL, [www.earthed.net.au](http://www.earthed.net.au), [www.tpss.com.au](http://www.tpss.com.au)

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**Self Study Areas:**

Citect SCADA v7.10r2, C#.NET, GPRS, GPS protocols, ASP.NET, SQL Server, LabVIEW, RFID, Netduino Plus .NET Micro Framework, FEZ COBRA,

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**Contract Employment History:**

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**06/2011 – Present, Tech Warehouse, Custom .NET Micro Framework automation and Mobile Communications tracking solutions [ [M2M](#) | [Automation](#) ]**

- Development of embedded touch screen applications and automation electronics for national steel industry projects using ARM Cobra Target controllers, Bosch Cameras [[C#.NET](#) | [M2M/GMS/GPRS/GPS](#) | [.NETMF 4.1](#)]

**11/2011 –02/2012, Acheron Project, Control System Integration Consultant [ [Submarine Automation](#) ]**

- Sonar system interfaces for hover control, NMEA interfaces for positioning via acoustic communications, general design, procurement, manufacture of bespoke items, develop AutoHotKey Scripting, HMDI/SDI devices and cabling, product design, Exposure to OPTO22, Dragon Speech to Text, VNC, Simulation Support [[Win7](#), [Submarines](#)]

**06/2011 – 06/2011, Infotronix, Citect SCADA Architecture Consultant – Centennial Coal Mine [ [Automation](#) ]**

- Short term consultancy on Citect redundant architecture using clustering, good design practice and principles, review of templates [[Citect SCADA](#) | [Win7 + Windows Server 2003](#)]

**05/2010 – 06/2011, 2012 Ecoult, C#.NET + LabVIEW Battery loading Control & Data Logging [ [Automation](#) ]**

- CSIRO Ultra-battery life cycle testing system. Design and development. Covering all aspects of C#.NET coding, LabVIEW interfacing & development, 14 PC's integrated into Synchronised setups [[C#.NET](#) | [C++](#) | [LabVIEW](#)]
- Battery Charge/Discharge control system using Advantech Adam and DATAQ I/O hardware, and Custom Control Box with Solid State Relays, modulated control circuit and C#.NET PC Application with Modbus TCP Slave and Master interface. [[C#.NET](#) | [DATAQ](#) | [Modbus TCP/IP](#)]

**10/2010 – 10/2010, Fleet Locate, CipherLAB Hand Held Scanner Terminal firmware [ [Warehouse Automation](#) ]**

- Develop custom data collection application to collect barcode data and upload via RS232 link on 8330 terminal, develop serial capture test application in C#.NET [[C#.NET](#) | [C++](#) | [CipherLab](#)] – more work planned for 2011.

**03/2010 – 03/2010, iTech Corporation, Citect SCADA Cicode\Templates\Genie Object Developer, [ [SCADA](#) ]**

- TWTF Water treatment recipe SCADA, heavy Cicode, redundant file server development [[Cicode](#) | [Citect V7.1](#)]

**10/2008 – Present, Earthed Solutions (Director), [ [R&D](#) | [ICT](#) | [Automation](#) ]**

- Pump shut off and auto restart protection, continuous improvement project for all systems [[Electrical](#)]
- Corporate web site ([www.tpss.com.au](http://www.tpss.com.au)) [[ASP.NET](#) | [XML](#) | [VB.NET](#) ]
- Corporate web site ([www.earthed.net.au](http://www.earthed.net.au)) [[ASP.NET](#) | [XML](#) | [VB.NET](#) ]
- Modify eCommerce shopping cart ([www.earthed.net.au/ecommerce](http://www.earthed.net.au/ecommerce)) [[ASP.NET](#) | [SQL](#) | [C#.NET](#)] by NopCommerce
- Civil Engineering Calculator [[C#.NET](#) | [User Controls](#) | [CGI printing](#)]. Translate MS-Excel spreadsheets + formula into cohesive Winforms appl. (protecting intellectual property for client distribution)
- System Design: Media Editing Web client and backend Server Appl. [[ASP.NET/C#.NET Web](#) | [C#.NET](#) | [Nexidia SDK](#) | [QuickTime skins](#) | [FTP](#) | [DevExpress](#) | [JavaScript](#)] (bid)
- Investigation into WiFi ballistic data logger + 16g accelerometers 300m [[Atmel MCU](#) | [Arduino C](#) | [WiFi engine](#) | [C#.NET](#) | [Acc Engine](#)] (bid)
- CNC visual aid Appl. Investigate GUI for manual XY CNC machines [[Ruby](#) | [C++](#) | [Google SketchUp](#) | [PCB](#) ] (bid)
- Investigation into GPS/GSM tracking for assets [[Atmel MCU](#) | [Arduino C](#) | [GSM/GPRS engine](#) | [GPS Engine](#) ]

**01/2007 –06/2009, Simplex Time Solutions, Windows \ Embedded Product Developer, [ [ICT Time Control](#) ]**

- PoE Ethernet Clock monitoring and configuration Appl. [[Telnet](#) | [DHCP](#) | [NTP](#) | [VB.NET](#) | [TCP/IP](#) | [SQL](#)]
- Embedded Ethernet to serial products to provide time sync of serial [[GPS](#) | [Lantronix XPORT](#) | [SNTP](#) | [Turbo C](#) | [Protel](#) | [Electronics](#)]
- Investigations ACMA, C-Tick, Zigbee, Mesh Networks
- Bug fix, redesign and verify Master Clock Controller [[Keil ASM](#) | [Protel](#) | [ATMEL AT89C51](#)]
- Device Simulator (Protocol replicator) [[GPS](#) | [VB.NET](#) | [C++](#)]
- GPS Engine Boards, Control relay PCB [[Protel](#) | [Electronics](#)]
- Audit subcontractor product designs to ensure full design capture

**08/2005– 07/2009, Wormald Technology, Windows\Embedded\System Engineer, [ [Defence](#) | [Fire](#) | [Controls](#) ]**

- ISCMMS (C&M) Modbus communication tools, SCCS Source Safe extractor application [[VC++.NET](#)]

- Embedded control system - synchronize command execution across multiple controllers, various changes [[Motorola 68K](#) | [C](#) | [C++](#) | [Introl 6805/11 ASM](#)]. System engineering; liaise with ADI, Thales, ASC, RAN and DoD. Multiple ships fleet systems
  - Port Apollo/Unix C++ across to Microsoft [[VC++.NET](#)]
  - Pain stacking reconstruction of legacy Apollo Software build environment and convert from Apollo to Microsoft XP. Certify build system. [[Apollo Domain C/C++](#) | [Cross-code](#) | [Introl ASM](#) | [VC++.NET](#)]
  - Modify distributed controller serial handler [[Introl ASM](#) | [68HC05](#)]
  - Manage subcontract manufacturing and software services
  - Mentor junior engineers, component sourcing, obsolescence issues, costing, project schedules, bid preparation, emergency site services, Risk assessments, Device Certification, Mfg [[MS-Office](#) | [MS-Visio](#) | [MS-Project](#) | [VBa](#)]
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## 10/2008 – 12/2008, Certified Instruments, Embedded Product Design, [ [ICT](#) | [Wireless](#) | [Instrumentation](#) ]

- Bluetooth embedded product development, proof of concept [[UML](#) | [VB.NET](#) | [Electronics](#)] ensure keyboard type interface from serial device, ensure BT registration correct and develop simulation software using BlueGiga WT12, Product design, systems design. Liaise with Industrial designer. Develop requirements specification for [[Power consumption](#) | [Barcode reader](#) | [Battery](#) | [AVR](#) | [Algorithms](#) | [Optics](#)]
- Linear optical sensor testing, prototyping jig [[Electronics](#) | [SMD](#)]

Develop VB.NET Application for Keyboard emulation with Bluetooth

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## 02/2006 - 04/2006, KLM Mining Services, SCADA Development Design Audit Engineer, [ [Mining](#) | [Efficiency](#) ]

- Technical review of BMA dragline operator efficiency SCADA project
  - Cicode implementation of University of QLD process model for Drag Line bucket weight calculation [[CitectSCADA](#) | [Cicode](#) | [Modelling](#)], required design audit and verification model had been implemented correctly.
  - Identify Trimble GPS logger design flaws due to position offset and update latency, advise replace with axle encoder [[VB.NET](#) | [SQL](#) | [MS-Excel](#)]
  - Prepare project costing, functional and detailed specification
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## 03/2005 – 07/2005, Citect SCADA, Software Developer [ [ICT](#) | [Industrial Automation](#) | [SCADA](#) ]

- SCADA Product Support Programmer, responsible for fixing bugs various versions of Citect products {runtime, edit, draw} in all facets of technology [i/o servers, inter-server communications, client/server, distributed server, graphics engine, protocol drivers] [[VC++.MFC](#) | [VC++.NET](#) | [C DDK](#)]. Produce hot fix builds to support group
  - Analyze crash dumps and track offending source code
  - Use the following tools [[winDbg](#) | [memory validator](#) | [crashfinder](#) | [Spy++](#) | [Ethereal](#) | [Port Mon](#) | [Bugzilla](#)] to fix the SCADA product and Release candidates under VC++ 6, VC++ 7.0 Beta/.NET
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## 12/2004 - 12/2004, Industrial Automation, Software Developer, [ [Automation](#) | [Simulation](#) | [ICT](#) | [Mining](#) ]

- Modify simulation software (Feed Forward Control) for Coal handling conveyor [[VB6](#)]. Bug fix real-time Modnet data logging tool for PLC, TCP/IP protocol [[VC++](#) | [MFC](#) | [ActiveX](#)] (mine site inspections)
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## 06/2004 - 09/2004, NPS Data Engineering, Software Developer, [ [Utility](#) | [Control](#) | [Instrumentation](#) ]

- IED protection relay Client /Server appl. [[VB.NET](#) | [SQL](#) | [API](#) | [DLL](#)] to extract/control numerous brands of IED's within substations Remote team of developers [[NZ](#) | [SYD](#) | [MEL](#)], Melbourne project completion ([Tele-Commute](#))
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## 07/2003 - 04/2004, Thales Training & Simulation, Software Developer, [ [Defence](#) | [Simulation](#) | [Aerospace](#) ]

- Tactical flight simulator applications (x 6), RAAF Edinburgh AP3C anti Submarine squadron, [[VB6](#) | [VC++](#) | [MFC](#) | [ActiveX](#) | [OpenGL](#) | [UDP](#) | [Shared Memory Interface](#) | [Physics Engine](#) | [AI](#)]
  - Responsible for customising and debugging 6 tactical configuration applications {Entity Modeller, Route Editor, Player Editor, Runtime simulation control, Offline GIS} [[VB6](#) | [VC++](#) | [TCP/IP](#) | [UDP](#) | [Shared memory I/F](#)]
  - Correction of ActiveX objects utilizing OpenGL wire frame HUD with Joystick [[VC++](#) | [MFC](#) | [OpenGL](#)]
  - Correction of AI and Physics Engine [[VC++](#)]
  - Responsible for Site management; Problem Reports; Client facing role with RAAF as liaison; Responsible for merging code changes between remote development teams [[SYD](#) | [ADL](#) | [UK](#)]; Coordinate site test team; Prepare acceptance test documents; 80hr/wk+
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## 09/2002 - 12/2002, 02/2001 - 09/2001, Microsol EIRE SCADA Software Developer, [ [Utility](#) | [SCADA](#) ]

- Substation Automation HMI toolbox library development for RTU's. Extensive development of core SCADA libraries specific to Utilities, and ability to display Sequence of Event (SOE) data in a meaningful way. Coordinate

modification of IEC870T Protocol for SOE [[Citect SCADA](#) | [Cicode](#) | [C DDK](#)].

- Technical design lead on SCADA projects for {[Sudan](#), [Iran](#), [Ireland](#), [Italy](#)}; Training of internal engineers and clients in Citect SCADA & SCADA Toolbox; Bid preparation; liaise with RTU developers.

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## 05/2002 - 09/2002, Alderly Controls, SCADA Software Developer, [ [Oil & Gas](#), [Metering](#) | [SCADA](#) | [Comms](#) ]

- Technical design lead on SCADA projects for {[Sudan](#), [Iran](#), [Ireland](#), [Italy](#)}; Training of internal engineers and clients
- Fiscal Metering projects for Oil & Gas transactions;
- Technical SCADA Lead in reigning in several projects; Development of tailored Modbus/Modnet/Modbus Slave driver for Citect SCADA using [[C](#) | [Citect DDK](#) | [Cicode](#) | [Citect SCADA](#)]; Interface to Daniel D600 Emerson flow computers. Numerous all hour FAT and VVT.

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## 07/1998 - 08/1999, 11/1999 - 12/1999, Schneider Electric UK, SCADA Software Developer, [Utilities]

- Development of Sequence of Event (SOE) toolkit for Citect SCADA tailored for Substation automation and Talus RTU's. Responsible for maintenance of Citect SCADA core libraries in use on over 170 installation sites and far more PC's. Development of Redundant power load shed system for Gibraltar Electricity; Technical advisor of special projects; Project FAT,SAT problems solving [[C DDK](#) | [Citect SCADA](#) | [Cicode](#) | [MS-Access](#)]

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## 08/1999 - 10/1999, Rail Weight UK, Software Developer, [ [Railways](#) | [Measurement](#) | [RFID](#) ]

- Takeover WinNT development of distributed real-time rail weighing system, resolving numerous runtime crashes, development of 2 x I/O card SYS drivers, and Supporting test s/w [[C](#) | [SDK](#)] [VB](#) | [C++ DLL](#)]; RFID Reader interface, FTP report upload, track switch event correlation to work out car type; Train weight report; embedded wheel pair weight controller interface; data correlation engine [[VC++](#) | [MFC](#)]

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## 1/1998 - 2/1998, US AID \ Hepca, EGYPT, Volunteer Office Admin, Underwater Photography, [ [Environmental](#) ]

- Prepare dive brochure publication – fund raising. Underwater photography of buoy mooring pins.

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## 11/1997 - 12/1997, World Bank SYRIA, Volunteer Instrumentation Engineer, [ [Environmental](#) | [Scientific](#) ]

- Install and commission mobile environmental test laboratory equipment to PC weather station systems, air quality sensor, water samplers, noise monitors, and train Ministry of Environment staff is their use.

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## 04/1997 - 09/1997, ABB August UK, (Control Systems Engineer \ Software Developer), [ [Oil & Gas](#) ]

- Evaluate TMS 2000 TMR Controller Kit (beta) against project and add helpful engineering design spreadsheets, documents and databases to aid the end user; Develop a wiring schedule appl. [[MS-Access](#) | [VBa](#)]
- Project design for 3 x Iranian Oil rigs, Emergency Shutdown System (ESD) using Triple Modular Redundant (TMR) controller; and Fire & Gas protection systems, CCU cabinet designs; Develop engineering design and HMI specifications; Manage SCADA engineers, Cabinet Builders [[Wonderware SCADA](#) | [MS-Access](#) | [VBa](#) | [MS-Excel](#)]

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## 01/1996 - 03/1996, Citect AUS, SCADA Driver Verification Engineer, [ [ICT](#) | [Industrial Automation](#) ]

- Develop SCADA projects for Protocol tests [[Cicode](#) | [Citect SCADA](#) | [DDK](#) | [Kernel](#)]; setup all conceivable communication gateways to PLC systems [ [AB](#) | [Omron](#) | [Bur-Brown](#)]; Stress test 32 bit drivers; Develop Citect SCADA that can generate new test Projects and associated PLC tags into the dBase3 DBF on the fly [[Cicode](#)].

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## 04/1992 - 12/1995, Colby Dematic, Software\Controls Engineer, [ [Automation](#) | [SCADA](#) | [Warehousing](#) ]

- PC based pseudo real-time automation applications [[C](#) | [C++](#) | [VB](#) | [PLC](#) | [Citect](#) | [AutoCAD](#) ], involving peripheral interfacing to {File Systems, databases, network devices, serial card FEP, barcode scanners, weigh machines, conveyor sortation controllers, RF Terminals, VT100 Emulators and SCADA HMI};
- Involved in project estimation, costing, project management, R&D, Control Cabinet Design, Mechanical design and Commissioning for a wide range of unique warehouse automation, pick to light systems, carousel and conveyers, baggage handling and freight sortation and materials handling projects [[MS-Excel](#) | [VBa](#) | [MS-Project](#) | [Ms-Visio](#)].
- Machine control system R&D for Milk Powder transport and Packaging line subsystems. Involving HMI, control regimes, host system interfacing, QA verification, batch reporting, SPC, Vision inspection systems, palletizers, gas replacement chambers, indexing and rotary can fillers, clinchers, seamers, accumulators, bin tippers, conveyors, vibrators, clean room, specializing in OEM machine HMI [[Embedded](#) | [Real-time](#) | [Introl C](#) | [Citect SCADA](#) | [Omron Vision systems](#) | [OMRON PLC](#) | [VSD](#) | [Weight Systems](#) | [PCB](#) | [Capacitive & Vibration sensors Design](#)]

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## 01/1990 - 05/1991, Electronics Design & Manufacture, Electronics Engineer [ [Security](#) | [Automation](#) ]

- Base Monitored Security Alarm System fault finding using {test beds, jigs, test equipment, comparative analysis} [[Electronics](#) | [Communications](#)]
-