Curriculum Vitae - Updated 04/01/2006

Name: Anthony Mark Pierce

Date of Birth: 04/08/1962

Nationality: British

Address: Hauptstr. 8c
06193 Nehlitz
Germany

Telephone: +49 34606 29861
Fax: +49 34606 29863
Mobile: +49 173 3563569
E-Mail: mark.pierce@pierce.de
Internet: http://www.pierce.de

I am a professional software developer with over 20 years of practical experience, self-employed since 1993. Currently resident in central Germany, I am able to be extremely flexible in terms of travel and on-site work, although I also have extensive experience of telecommuting. For customers in the scientific sector, and other highly technical application areas, I can offer valuable insights and rapid analysis of requirements, due to the many projects with a strong scientific bias to which I have contributed.

Education

1973-1980:   Sandbach School, Crewe Road, Sandbach, Cheshire (GCSE "O" Levels, "A" Levels: Maths, Physics, French, Computer Science)
1980-1983:   Lancaster Universtity, B.Sc. (Hons) Computer Studies

References

Company: Shimadzu ISS
Address: 16 Exchange Quay, Salford Quays, Manchester, M5 3EQ
Contact: John Warrander (Software Applications Manager)
Tel.:   +44 161 872 1521
E-Mail: john.warrander@shimadzu-iss.com
Web: http://www.shimadzu-iss.com

Company: CASS Industries Ltd.
Address: Blackbrook Trading Estate, Weybrook Road, Levenshulme, Manchester, M19 2QD
Contact: Dave Cass (Director)
Tel.:   +44 161 442 4200
E-Mail: dc@cassindustries.com
Web: http://www.cassindustries.com

Hardware
- PC - experience since 1986
- ARM (Pocket PC)
- Mass spectrometers (Thermo/Finnigan, Shimadzu)
- GC Systems (Agilent/HP, CarloErba)
- LC Systems (Agilent, Gilson)
- Liquid-handling Systems (Hamilton MICROLAB Star)
- EMC Test gear (Rohde & Schwarz SM 300, Wandel & Goltermann EMR20)

Operating Systems
- Windows (3.x, 95/98, NT/2000/XP)
- Windows CE (Pocket PC 2002, Windows Mobile 2003)
- MS-DOS

Programming Languages, etc
- Microsoft Visual C++
- Microsoft C#.NET (for PC and Pocket PC)
- Microsoft C
- Microsoft Developer Studio, Visual Studio, Visual Studio .NET
- Microsoft embedded Visual C++
- Microsoft Visual Basic 3.0 - 6.0
- Assembler (6502, 6809, 80x86)
- Microsoft Pascal
- Borland C
- Borland Delphi
- Java, JavaScript, Win API, MFC, ATL, STL, HTML

Data Communication
- FTP, HTTP protocols
- RS232 - Instrument control, data acquisition
- TCP/IP - TCP and UDP via Sockets
- .NET Remoting
- Winsock - in with proprietary protocols
- Experience with XML und RSS formats
- Proprietary Protocols - Instrument control, data acquisition
- Windows Networking, experience of workgroup LAN installation and management

Products/Standards
- .NET Framework, Compact Framework for Pocket PC
- NUnit, NDoc
- COM/ActiveX components

- XML, RSS/Atom
- ASP, ASP.NET
- MS SQL Server
- Altova XMLSpy
- XenoCode 2004

Specialist Areas

- Development of scientific software applications
- Data acquisition, numerical and graphical analysis
- Instrument control, e.g. mass spectrometers, radiation monitors, RF test equipment

Foreign Languages

German Spoken/written to a very high standard, after 10 years residence in Germany
French   Spoken/written to A-Level standard

Projects

Period:	**October 2005 - (approx) February 2006**
Company:	RTS Life Sciences Ltd, Manchester, GB
Project:	Automated Drug Discovery System
	Integration of various devices into a high-throughput screening system for combinatorial chemistry
Tasks:	Design and development of a device driver for a microplate sealer;
	Design and development of a device driver for a Hamilton MicroLab STAR pipetting robot;
	Development of instrument methods (Hamilton Standard Language);
	Unit and system testing of deveice drivers (NUnit);
	Liason with end users, support.
Skills:	MS C#.NET, Visual Studio, .NET Remoting, XML, NUnit, NDoc, HSL

Period:	**January 2005 - July 2005**
Project:	Own Product - RSS/Atom News Aggregator for PocketPC
Tasks:	Design of configuration module, allowing selection of RSS or Atom feed sources either directly as URLs or via the import of an OPML file;
	Background thread to access updated news items from defined feeds, taking account of "ETag" and modification times to reduce server traffic;
	GUI design for structured display of news items;
	Implementation of keyword filtering;
Skills:	MS C#.NET, Visual Studio, .NET Compact Framework, RSS, XML, multi-threading, HTTP, RSS, Atom

Period:	**October 2004 - December 2004**
Company:	CASS Industries Ltd, Manchester, GB
Project:	EMC Testing System
Tasks:	Further development of the existing system to provide optical recognition of error conditions (warning lamps, etc.) in units under test;
	Interfacing with frame-grabber via TWAIN;
	Enhanced logging of test runs to include storage of test images during the run;
	Modification of experiment control logic to support new features;
	GUI enhancements to allow selection of areas-of-interest within the image during experiment configuration;
Skills:	MS Visual C++, Visual Studio, MFC, TWAIN, JPG

Period:	**April 2004 - September 2004**
Company:	Shimadzu ISS, Manchester, GB
Project:	Small-molecule Protein Identification by LC/TOF-MS
Tasks:	Implementation of an algorithm for the recognition of multiply-charged isotopic ion clusters within complex mass spectra;
	Modification of the algorithm to provide optimised performance for the processing of small protein molecules, yielding a performance advantage of 5-10 times in comparison with similar products;
	Development of test interfaces and techniques for validation of the results;
Skills:	MS Visual C++, Visual Studio, COM, ATL, STL, XML

Period:	**June 2003 - March 2004**
Project:	Own Product - MobiSpec®: a PocketPC visualisation tool for mass spectroscopy data (http://www.mobispec.com)
Tasks:	GUI design to allow efficient usage within the PocketPC form factor;
	Implementation of data import for various file formats;
	Graphical display of multiple spectrum and chromatogram data sets in VGA resolution (portrait/landscape);
	Basic display manipulation (zoom/scroll of graphics);
	Integration with web-based sample management system from a major instrument manufacturer;
	Product deployment (build/obfuscate/install-procedure) and marketing;
Skills:	MS C#, Embedded C++ 3.0/4.0, .NET Compact Framework, Visual Studio, XenoCode 2004

Period:	**October 2003 - December 2003**
Company:	CASS Industries Ltd, Manchester, GB
Project:	EMC Testing System - an automated system for testing electromagnetic compatibility of electronic devices
Tasks:	Control of RF signal generator via USB (Rohde&Schwarz SM300);
	Control of and data acquisition from RF probe via RS232 (Wandel&Goltermann EMR20);
	Communication with and data acquisition from customer's in-house-developed control unit (RS232);
	Experiment configuration, run control and results logging;

Development of an emulation environment for system testing (the project was carried out entirely off-site);

Skills: MS Visual C++, Visual Studio, MFC

Period: **July 2003 - September 2003**
Company: CASS Industries Ltd, Manchester, GB
Project: Experiment control and data acquisition for a Vapour-Pressure Balance (Phase II)
Tasks: Experiment control, monitoring of error conditions, data acquisition;
                   Development of an ActiveX control for graphical display of real-time and historical data;
                   Logging of results and report generation;
                   Provision of support for the end-user;
Skills: MS Visual C++, Visual Studio, MFC

Period: **May 2003 - June 2003**
Company: Ingenieurbüro Ziegler, Gräfenhainichen, Germany
Project: Graphical reporting of soil mechanics test data
Tasks: Design and development of GUI in consulation with the customer;
                   Implementation of table-oriented data-input method;
                   Graphical display of test curves;
                   Generation of hard-copy reports;
Skills: MS C#, .NET Framework, Visual Studio

Period: **July 2002 - February 2003**
Company: Shimadzu ISS, Manchester, GB
Project: Web-based LC/MS Analysis System
Tasks: Design and development of grid and other interactive graphical UI elements as ActiveX components for use in a browser-based GUI;
                   GUI development with HTML and JavaScript, using the developed ActiveX components;
                   Implementing a sample-entry wizard with HTML and JavaScript, to automate the process of sample-submission to the system;
Skills: MS Visual C++, JavaScript, Visual Studio, COM, ASP, XML, STL, HTML

Period: **May 2002 - June 2002**
Company: CASS Industries Ltd, Manchester, GB
Project: Experiment control and data acquisition for a Vapour-Pressure Balance (Phase I)
Tasks: Development of a robust RS232 communications module for the instrument;
                   Experiment control, monitoring of error conditions, data acquisition;
                   Logging of results and report generation;
                   Development of an emulation environment for system testing (the project was carried out entirely off-site);
Skills: MS Visual C++, Visual Studio, MFC, ActiveX

Period:	**March 2002 - April 2002**
Company:	Finnigan MassLab, Manchester, GB
Project:	Datasystem support for new mass spectrometer product
Tasks:	Extension of the existing device control to support the features of the customer's latest mass spectrometer product.
Skills:	MS Visual C++, Visual Studio, MFC, ActiveX

Period:	**December 2001 - February 2002**
Company:	Shimadzu ISS, Manchester, GB
Project:	Web-based Combinatorial Chemistry System
Tasks:	Development of graphical ActiveX components for interactive display of spectrum and chromatogram data in a web-browser;
	Use of STL vector, map and iterator classes for internal data representation and manipulation;
	Use of MS XML DOM to extract data traces from XML-formatted sets;
	Design and implementation of multi-layer graphic rendering of data;
	Scaling and translation of displayed data;
	Design of a flexible event model to allow modification of default mouse behaviour in browser;
	Implementation of tool-tips, to provide useful information about the displayed data when mouse hovering;
	Development of HTML test harness pages, to test and exercise the functionality of the developed components;
Skills:	MS Visual C++, Visual Studio, COM, ATL, STL, XML, XML DOM, JavaScript

Period:	**July 2001 - November 2001**
Company:	Shimadzu ISS, Manchester, GB
Project:	Web-based Combinatorial Chemistry System
Tasks:	Development of ASP server components to allow remote access to centrally-stored experiment data via SQL database;
	Caching of recently-requested data in the experiment database;
	Design of an XML format for transfer of data to the client (browser);
	Development of ASP server components for export of experimental data in industry-standard formats (JCAMP-DX, Andi-MS);
	Development of HTML/JavaScript test harness pages to exercise the functionality of the server-side components;
Skills:	MS Visual C++, Visual Studio, ATL, STL, COM, SQL, XML, JavaScript, HTML

Period:	**June 2000 - May 2001**
Company:	Finnigan MassLab, Manchester, GB
Project:	General Consultancy
Tasks:	Test, debug and development work for various products, using the customer's in-house defect management system;
	Training und support for end-users;
Skills:	MS Visual C++, Visual Studio, MFC, ActiveX, Defect Management

Period: **October 2000 - June 2001**

Project: Own Product – a webscraper application for the automated import of contact details from internet pages into the Palm desktop database, for subsequent synchronisation with a palm PDA.

Skills: MS Visual C++, Visual Studio, MFC, Palm Desktop API

Period: **May 1999 - June 2000**

Company: Finnigan MassLab, Manchester, GB

Project: Toxicology Analysis Application

Skills: MS Visual C++, Visual Studio, MFC, ActiveX

Period: **January 1999 - March 1999**

Company: Finnigan MassLab, Manchester, GB

Project: Complex Mixtures Analysis Application

Skills: MS Visual C++, MFC, Visual Studio

Period: **September 1998 - December 1998**

Company: Finnigan MassLab, Manchester, GB

Project: Networked System for Toxicological Analysis

Tasks: Further development of the system developed in 1996/7 to support new features in the laboratory of a major customer;
Installation und test on-site (USA);
Training and support of laboratory staff;

Skills: MS Visual C++, Visual Studio, MFC

Period: **June 1998 - August 1998**

Company: Finnigan MassLab, Manchester, GB

Project: Gilson LC pump support for Xcalibur.

Skills: MS Visual C++, Visual Studio

Period: **February 1998 - May 1998**

Company: Finnigan MassLab, Manchester, GB

Project: Networked System for Toxicological Analysis

Tasks: Implementation of a new LIS interface module;
Development of a sample-submission interface for Excel spreadsheets;
Implementation of extended reporting formats;
Installation und test on-site (USA);
Training and support of laboratory staff;

Skills: MS Visual C++, Visual Basic, Visual Studio, networking

Period: **October 1997 - January 1998**

Company: Finnigan MassLab, Manchester, GB

Project: Sample-management system for the pharmaceutical industry

Skills: MS Visual C++, Visual Studio, MFC, ActiveX, Windows Sockets

Period:	**December 1996 - September 1997**
Company:	Finnigan MassLab, Manchester, GB
Project:	Networked System for Toxicological Analysis
Tasks:	Development of a sample management system for a toxicology confirmation laboratory;
	Support for networked data transfer to multiple GC/MS systems;
	Interfacing to initial customer's in-house Laboratory Information System;
	Partial automation of workload distribution to individual GC/MS systems;
	Implementation of a certification system for expert review of the test results;
	Generation of user documentation;
	Installation und test on-site (USA);
	Training and support of laboratory staff;
Skills:	MS Visual C++, Visual Studio, MFC, Windows networking, DEC Pathworks

Period: **October 1996 - November 1996**
Company: Finnigan MassLab, Manchester, GB
Project: LC-MS/NMR Visualisation Tool
Tasks: Development of a prototype application to allow combined graphical display of data from three different type of instrument;
Development of an ActiveX component for display of three-dimensional NMR data by means of false colour representation of the z-axis;
Re-usage of spectrum and chromatogram components from the previous project;
Installation und test on-site;
Training und customer support;
Skills: MS Visual C++, Visual Studio, MFC, ActiveX

Period: **October 1996 - March 1997**
Project: Own Product: "MakeDocW" - Freeware Windows application to convert ASCII text files into compressed documents for reading on a Palm PDA
Skills: MS Visual C++, Visual Studio, MFC, Palm Desktop API

Period: **June 1996 - September 1996**
Company: Finnigan MassLab, Manchester, GB
Project: ActiveX Component Suite for Mass Spectrometry
Tasks: Design of COM interfaces for generic instrument control;
Implementation of control components for specific instruments;
Design and development of spectrum and chromatogram display components;
Liaison between developer teams in Manchester, UK and Austin, Texas;
Skills: MS Visual C++, Visual Studio, MFC, ActiveX, COM

Period: **May 1995 - October 1995**
Company: Fisons Instruments, Manchester, GB
Project: Consultancy for the design of a new mass spectrometry data acquisition and analysis system
Skills: ActiveX, Microsoft C

Period: **October 1994 - April 1995**
Company: Fisons Instruments, Manchester, GB
Project: Consultancy for the design of a new mass spectrometry data acquisition and analysis system
Skills: ActiveX, Microsoft C

Period: **March 1994 - August 1994**
Company: Fisons Instruments, Manchester, GB
Project: AutoTune – Automatic configuration of mass spectrometer parameters for optimum instrument performance
Tasks: Development of an algorithm for instrument set-up in collaboration with the instrument product manager;

Skills: Microsoft C

Period: **March 1994 - July 1994**
Company: CASS Industries Ltd, Manchester, GB
Project: Experiment control and data acquisition for a Vapour-Pressure Balance
Skills: Borland C

Period: **January 1993 - February 1994**
Company: Fisons Instruments, Manchester, GB
Project: VBX Component Suite for Mass Spectrometry
Tasks: Design and implementation of VBX components for data display and
                 instrument control;
Skills: Microsoft Visual Basic 2.0/3.0, Microsoft C

Employment

Period: **February 1992 - January 1993**
Company: VSW Scientific Instruments Ltd.
Position: Software Group Manager
Tasks: Design, project planning and development of data acquisition and processing software for surface science instruments;
Introduction of PC support and backup procedures;
Maintenance of embedded software;
Recruitment of software personnel;
Skills: Microsoft C, Forth

Period: **March 1990 - February 1992**
Company: Fisons Instruments VG BioTech
Position: Senior Software Developer
Tasks: Development of Windows software for mass spectrometer data acquisition and processing;
Development of a Windows virtual device driver (VxD) for instrument control and data acquisition;
Recruitment of software personnel;
Skills: MS C, 80x86 assembler, VxD

Period: **April 1987 - March1990**
Company: VG MassLab Ltd.
Position: Software Developer
Tasks: Development of DOS software for mass spectrometer data acquisition and processing;
Introduction of software version control and defect management;
Customer support and training;
Skills: MS C, Brief, MS-DOS

Period: **November 1983 - April 1987**
Company: Nuclear Enterprises Ltd.
Position: Software Developer
Tasks: Development of embedded software for radiation monitoring and analysis devices;
Development of PC data acquisition software;
Installation of a Novell/token ring network;
Skills: MS Pascal, embedded Pascal, DOS, Novell Netware, 6809 and 6502 assembler, BBC Basic