

**William P. Fritz**  
70 E Corniche Drive  
Monarch Beach, CA 92629  
(949) 489-0151

**EXPERIENCE PROFILE**

Three decades in Information Systems Development & Implementation

*Broad Scope of Experience*

- Project definition
- Corporate technology development
- Prepackaged horizontal software
- Vertical market software
- Value Added Retailer (VAR)
- Business development
- Technical consulting
- Human resource assessment
- Cardiovascular sciences
- Academic research and teaching

*Technical:*

- Consultant
- Programmer
- Analyst
- Designer
- Developer
- Architect
- Design
- Support
- Research & Development
- Experimental design
- Digital and analog data recording
- Statistical analysis
- Writer
- Information Services Manager

*Administrator Manager:*

- Project Leader
- Systems Manager
- Proposal Development
- Chief Executive officer
- Chief Technology officer

*Primary Professional tools:*

- Software Development using
  - ✓ Visual Studio versions since 1992
  - ✓ C, C++, C#.Net, VB 3-6.0, VB.Net
  - ✓ ASP.Net, ADO.Net, CLR, SQL DB
  - ✓ HTML, dHTML, CSS, javaScript
  - ✓ iE, Netscape/Firefox, Opera, Safari
- Source and Project Control using
  - ✓ Visual Source Safe (VSS)
  - ✓ Code Reviews
  - ✓ OOP, Agile, Iterative techniques
  - ✓ Alpha sites for user review
  - ✓ ISO 200x, MSF, SOA, EA, Rational
  - ✓ MS Project
- Word processors
- Statistics
- Reports
- Common Sense

*Professional Services:*

- Research associate
- Teaching associate
- Technical illustrator
- Medical illustrator
- Software
- Publisher
- Business planner
- Author

*Marketing, Sales, Service:*

- Identified target markets
- Created packaging and ads
- Wrote, sold and serviced
- Created product for marketing research
- Created CRM software
- Sold semicustom turnkey system
- Sold shrink-wrapped software

**Browse & Download at my HTML web site**

**[Http://www.chair-pros.com/WPF/](http://www.chair-pros.com/WPF/)**

## CAREER HISTORY

### HarborObjects, LLC

09/2006 –03/2007

HarborObjects is a Microsoft Partner software development firm. Blending progressive, state-of-the art emerging Microsoft technologies with established .Net web applications.

MS XP, IIS, Windows Network, Visual Studio 2005, Visual Studio, JavaScript, Visual Basic VB.Net, ASP.Net, C#.Net, ADO.Net, Ajax, MS Sequel Server SQL 2005, SQL Studio, stored procedures, JavaScript, vbScript, HTML, dHTML, CSS, skins, MS FSO File System Object, .Net version 2.0 libraries, IIS, iE 6 & 7, Firefox 2 & 3, Opera 9.1, Safari

#### Developer

- Worked on several web application projects, including a presentation system for a training company and an in-house tracking and accounting system for a manufacturer of window coverings.
- Wrote and optimized for .Net v2.0 CLR using VB.Net, C#.Net, ADO.Net
- Database: SQL with stored procedures
- UI: Web application development: HTML, dHTML, CSS, Ajax, IIS
- Used both MS run-time and W3C v3-4.1 HTML controls
- ADA guidelines were used when practical
- In all cases, W3C standards allowed one version for all browsers and one CSS
- Role definition & differential access rights with SQL mapping & .Net security
- Master Pages, Business Layer, GridViews, DetailViews, etc.
- I devised and implemented an interesting JavaScript method to incorporate a tab-strip in a master page that is responsive at the client to changing conditions of access to navigational opportunities.
- .Net development provides for simple use of one form per page, without simple control over the quantity of data that routinely makes a round trip. Consequently, there are many opportunities to increase efficiency by implementing many of the programming decisions that have been a priority in the use of “block mode” forms since the IBM 3278 terminal of 1975.
- Ajax is an emergent technology that attempts to transparently deal with the above client-sided issues. Recall that using .Net routinely posts all form definition criteria for each page, unlike most traditional block-mode systems.
- The original white papers of 1999 regarding .Net emphasized using the browser as the transparent container for client-sided threads of asynchronous execution, similar to the Apollo Domain of 1977. Version 3.0 of .Net appears closer to realizing this goal. We will hear more about smart clients in web apps. The Windows Presentation Foundation (WPF) is a similarly interesting library of wrappers to make browser-based applications emulate desktop applications. The GDI of Win32 now uses DirectX, so WPF can be expected to provide hardware acceleration to client-sided graphics.

## **Chair Pros**

**2002 –Present**

Chair Pros is a company that sells and services ergonomic office equipment, including chairs, workstations and accessories. The target markets are facilities that require high-quality 24/7 equipment at emergency centers and call centers.

Foundational Web Development Tools: Visual Studio, Interdev, J++, javaScript, Basic ASP, Photoshop, Excel, LinkPoint, SMTP, HTML, dHTML, CSS, MS File System Object

### **Developer**

- Complete design of site: look-and-feel, organization, UI and back end
- Very efficient use of ASP with lots of client-sided javaScript
- Product price lists are integrated with proprietor's Excel methodology
- One version for Browsers: iE 6-7, Mozilla/Netscape, Opera, Safari
- Custom shopping cart that integrates with email and a quotation system
- Custom leasing form that uses client-sided cookies for form restoration
- Credit card processing
- Animations throughout the standardized product displays

## **TQ Systems**

**1984 – Present**

TQ Systems is an ongoing project which I originated at the advent of microcomputer technology. The flexible engine incorporates a design for automation of conversations, data collection, forms, or virtually any user interaction. It has broad application for desktop, client-server and web applications.

Visual Studio v3-6 to Visual Studio.Net 2005, various basics from MS Basic 1984 to ASP vbScript, JavaScript, IIS, Borland C/C++ v3.5-6.6, Visual C/C++, Photoshop, HPPCL, HP2648 TCL, 3-Com IEEE 802.3, bar codes and readers, Win16/32 API, GDI, Mac System 7, Symantek ThinkC, HTML, CSS, XML.

### **Developer**

- Sold first systems for taste-testing of foods in 1985. I was a VAR for HP.
- Original system used HP Touchscreens for collection of data
- System includes data maintenance, statistical analysis and graphing
- Used for a commercially successful shrink-wrapped desktop application for planning (see Dynamic Pathways below)
- Current implementation directed toward web application with ASP and javaScript, eventually migrating from thin client to thick client

**Gemshow-Online**

**5/2003 –4/2005**

Gemshow-Online is a B2C web site for jewelry. I have been intermittently involved in backend integration and operations. The proprietor is another IT consultant that I met when we were both working for the same client.

Visual Studio, VB 5.0 for the legacy IBM DB2, sockets, sockets2, FTP

**Developer/Programmer**

- Provided a desktop application
- Located at the site of fulfillment, operated by shipping personnel
- Uses VB asynchronous methods for sockets using FTP protocols
- Download of customer orders from a Unix server to a Windows network

**EEE Chairs**

**03/2004–06/2004**

EEE Chairs was an experimental use of novel product identification

Foundational Web Development Tools: Visual Studio, Interdev, J++, javaScript, Basic ASP, Photoshop, Excel, LinkPoint, SMTP, HTML, dHTML, CSS, Apache

**Developer / Graphic Artist**

- Complete design of site based on customer's requirements
- Designed a 3-color brochure coordinated with the web site

**Earthboards**

**09/2003–12/2003**

EEE Chairs was an extended prototype system for online presentation of products and public interaction. Business problems at the company prevented them from carrying out any of the prototypes. Some of the material can be seen at my web site.

Visual Studio, Interdev, J++, javaScript, HTML, dHTML, Photoshop,

**Developer / Graphic Artist**

- Designs for site based on customer's taste and products
- Developed the use of rendering standard patterns onto different products

**IWay Software**

**03/2003 –07/2003**

This Manhattan software company is part of Information Builders (IBI). They enlisted my help for an adapter to organize HIPAA and HL7 medical data.

XML, xpath, Java, CCOW, meetings and documentation

**Developer**

- Reviewed requirements for XML HL7 migration from HIPAA
- Identified similarities and differences in data requirements
- Provided synopsis of political considerations for practical sales approach

**VentureABC.com**

**10/2001 - 09/2002**

This was a design and implementation that was for a portal for those who apply for patents and trademarks. Related products and information services could be sold on line through a membership program.

Microsoft Visual Studio V6.0, J++, javaScript, Basic ASP, Verisign CC, SMTP, HTML, dHTML, CSS, Microsoft SQL server with stored procedures, t-SQL

**Developer**

- Project plans and objectives
- Continual adaptation to client's objectives and requirements
- SSL and credit card processing
- Downloading of purchased products
- Membership system using ASP, vbScript, javaScript, SQL server
- General displays of patent information
- Automated feeds from the patent office to maintain local data for searches

**County of San Bernardino, Information Services**

**04/2001 - 07/2001**

Modified and created a portal website for the San Bernardino office of the Jobs and Employment Development Department (JESD). Services in their one-stop centers were represented, including the California State Employment Development Department (EDD), and new business development. There was a job board for locally posted jobs that included interfaces for people seeking and offering jobs. Informational screens were included for services, activities and programs offered by the county.

Microsoft Visual Studio V6.0, J++, JavaScript, Basic ASP, SMTP, HTML, dHTML, CSS, Microsoft SQL server with stored procedures, t-SQL

**Developer**

- Managed team of programmers and a graphic artists
- Frequent meetings with end users
- Regular use of an alpha site resulted in daily reviews of progress
- Emphasis on ADA compliance

**Gauss**

**12/2000 –03/2001**

Gauss is a turnkey provider of integrated business interfaces and document processing. They contracted for a method to collect and distribute information to truckers on the road. Kiosks were distributed at truckstops with touchscreens and keyboards.

Microsoft Visual Studio V6.0, Visual Basic, Win32 API, GDI, Borland C/C++ version 6.0, OWL (Borland Object Windows Library), Gauss/OpenText middleware libraries, RAS, Perforce Source Control

**Developer**

- I modified and wrote executables with C/C++ for code that was downloaded to kiosks for UI presentation and form collection.
- MS VB code was designed and written to allow trucking companies to create and edit presentations guiding truckers through the process, using the Kiosk programming.
- The core Gauss library methods handled the copy machines, fax interfaces and document processing in each kiosk used for sending and receiving documents on the road: Bills of Lading, Invoices, Schedules, Orders, and other forms of operational information.

**SEI Information Technology (SEI-IT)**

**05/2000 –12/2000**

This Chicago-based consulting firm had 60 staff developers in a Los Angeles office. Although they are a Microsoft Partner company, projects included a wide variety of platforms ranging from classical MS/SQL to EJB.

Microsoft Visual Studio V6.0, J++, javaScript, Basic ASP, SMTP, HTML, dHTML, CSS, Microsoft SQL server with stored procedures, t-SQL, Rational Clearcase, Rational Rose, Rational Suite, dotNet alpha, VB 6.0, VC/C++, Photoshop, Project, Excel, Word, PowerPoint

**Senior Systems Architect**

- Reviewed requirements and wrote proposals
- Met with clients and developers
- Interviewed candidates for employment
- Participated in many technical meetings among the staff
- Previewed emerging .Net technologies
- Used the Rational Suite for prototype development

**Medipro (HealthELink.com)**

**01/2000 –05/2000**

A startup funded by an HMO sought to use numerous tool to integrate data from and for hospitals, clinics, insurers, patients and pharmacies.

Microsoft Visual Studio V6.0, Visual Basic V6.0, Visual Source Safe, ANSI X.12: 350, 362, UB-92, HL7, HIPAA, Access, SQL

**Developer**

- Designed ANSI X.12 output from UB-92 and various other forms
- Assessed patterns of usage and user responses
- Implemented screen scraping as an interface to a hospital
- This start-up was applying for and received second-phase financing

**Air Quality Management District (AQMD) of Southern California 12/1999 –1/2000**

This governmental agency is based in a large facility in Diamond Bar. I was asked to revamp, write and add features in an in-house system used to track projects and public interactions.

Access using the built-in Switchboard. VBA, SQL, Crystal Reports, NT Network with differential access based on the role of the user.

**Developer/Consultant**

- Considerable time-pressures due to the end-of-year requirements
- All work was done on site as quickly as possible
- Contracted through Sierra Cybernetics of Yorba Linda, CA

**Pacific Data Technologies**

**03/1999 –12/1999**

This startup was the data center for thirty-six companies specializing in government records that were purchased and integrated. Assessor's real estate data was gathered from each county. It was parsed, normalized and placed in a SQL back end for access in web applications.

Microsoft Visual Studio V6.0, Visual Basic, VBA, Microsoft SQL server with stored procedures, t-SQL, Access, Foxpro, COBOL, DataJunction, Brio, Word, Excel, Lotus

**Developer**

- Devised parsing methodologies to extract components of the raw data
- Wrote a large manual for Data Warehousing of these extremely variant data sources. Instructions, hints and snippets provided clues from experience on how to parse for specific address and name information. This became a reference for the dozens of production programmers who processed data.
- Used DataJunction for most adaptations
- Wrote desktop applications in VB for many data sources



## **Linksys**

**03/1998 –12/1999**

During a period of explosive growth in the network hardware industry, The founder, Victor, asked me to integrate a number of in-house systems, including the automation of service and support.

Microsoft Visual Studio V6.0, Visual Basic, VBA, Access, Jet, ADO, COM, ANSI X.12: including 300, 350, 362, Sterling Gentran Director

### **Developer**

- Service center (up to 300 calls/hour) module provided distribution by operators to technicians with appropriate expertise
- Technicians could see records from that caller, and similar topics
- Real-time supervisory assessment of service performance
- ANSI X.12 automation of shipping and billing

## **KnowledgeBroker, Inc (KBI)**

**12/1997 – 06/2005**

KBI collects and archives information on every kind of professional software available on desktop computers. As an offshoot of providing this kind of information by contract for use within a company, has been the adaptation of their system for on-line product support of brick-and-mortar products. I originally worked full time on the development of a desktop product that would incorporate all forms of help available on an individual desktop computer.

Microsoft Visual Studio V5.0, Visual Basic, VBA, Access, ASP and VB desktop, IIS, HTML

### **Developer**

- Wrote a prototype desktop applications for possible distribution.
- Subsequently provided temporal information for the KBI database
- In 2003-4, I added information on security software (Macaffe) incompatibilities.

## **ForeignLadies.com**

**11/1997 – 12/2003**

This traditional catalog business made a transition to providing services on the internet. Initially, I provided programming services full time, and was later contacted periodically for advice and troubleshooting.

Microsoft Visual Studio V5.0, Visual Basic, VBA, Access, ASP and VB desktop, IIS, HTML

### **Developer**

- Wrote desktop applications in VB version 5.0 to qualify and repair data.
- Wrote and modified the web presentation portion of ASP/HTML code

**Dynamic Pathways Company**  
(see TQ Systems above, 1984 to present)

**08/1988 –07/1997**

Created and sold shrink-wrapped software products to automate planning.

See TQ Systems Above. Used C/C++ almost exclusively from 1986 through 1997.  
MS DOS v 2.1, 3-4 platform: Borland TurboC, MS Quick C, MS Professional C  
Macintosh platform: Symantek ThinkC, Apple System 7 API  
MS Windows 3.1: Borland C v3.5, wrote Apple code to Windows utility in Basic  
MS Windows 95: Borland C/C++ v4.5, Microsoft Visual C/C++ v3, Win16 API  
MS Windows 98: Microsoft Visual C/C++ v4.0/5.0, Borland C/C++ v4.5, Win32

**Developer, Founder, CEO**

- Wrote application engine in C/C++/DOS/Win16/32
- Used no 3<sup>rd</sup> party software (See TQ System above)
- Wrote all controls, single buffered screens: no version or support issues
- Wrote books and manuals associated with content
- Up to 12 operations and sales employees
- For production, used outsourcing and joint ventures
- Established shelf space for a new genre of software
- Opened office in Europe
- Participated in exporting free enterprise to communist entrepreneurs

**Hunt-Wesson Foods**

**10/1981 –10/1984**

Hunt-Wesson Foods, as part of Norton Simon, developed and produced Hunt's tomato products, Wesson oils, Swiss Miss, Orville Redenbacher and Snack Pack, among many others. I worked with the engineers and scientists in the corporate technical center in Fullerton, California.

Hewlett-Packard 1000 minicomputer, FMGR OS, HP 2648G terminals, LAS Laboratory Automation System 3356-3357, Corporate IBM 4000 series mainframe, JCL, Batch and TSO, Fortran IV, Fortran 77. Various computers in the Research and Development Department: Perkin-Elmer analog process controllers, Z80, 8080 systems, Tektronix Intel 8086/7 w/CPM, HP family Intel 8086/CPM-86 lab systems, IBM PC/XT w/MS-DOS and IBMDOS. BasicA, GWBasic, HPBasic.

**Senior Scientific Computer Systems Analyst, Project Leader**

- Member of the Statistics Department in R&D
- Statistics (Operational and Research)
- Consultant and lecturer
- Management of staff
- Migration of legacy systems to microcomputers.
- Active in the IFT (International Food Technology professional organization)
- Awarded "1984 Employee of the Year" in Research and Development

**University of California Irvine Medical Center**

**03/1978 –06/1981**

Conducted research in Cardiovascular Physiology in the Cardiopulmonary Research Laboratory of the Pediatrics Department at this teaching and clinical facility. I had nearly-complete control over the content and full responsibility for the execution of experiments and analysis. In 1998, I received a minicomputer for exclusive use.

Brush analog amplifiers and recorders (2 x 8 channels) for collection of data from arterial and venous blood pressures, pulmonary pressures, electrocardiography, CO2 sensors, O2 sensors and temperatures. Bench laboratory data for blood analysis included a Coulter counter and various titration methods to determine the value of blood parameters.

Digital Equipment Corporation DEC MINC Modular Instrument Computer PDP-11 OS RT-11 Real Time Operating System. Multiplexed A/D Conversions. VT-105 graphics and alphanumeric terminal. MINC Basic.

**Developer**

- Assessed induction of hypothermia as a pretreatment for surgery
- Computerized traditional physiological data collection
- Wrote real-time programs for the evaluation of EKGs during experimentation
- Conducted numerous bench tests for blood panel measurements
- Managed the coordination of student helpers
- Assisted in the conduct of experimental transcutaneous oxygen evaluation for Beckman Co
- Learned how to program and wrote all the programs that I used.

**COMPUTER SKILLS SUMMARY**

**BASIC** - MS VB.Net, Visual Basic v3.0-7.0 (10 years), VBA, script, BasicA, GWBasic, QuickBasic, DEC, HP, IBM, 30 years.

**C, C++, C#** - MS Visual C/C++, C#.Net, QuickC, Borland C/C++ v3.0, 3.5, 4.5,6.0, TurboC, Symantec ThinkC, 20 years.

**JAVA** - client, server scripting; virtual machine, 10 years.

**DATA** - MS SQL, stored procedures, ADO.Net, ADO, Jet, Access, HP Image/Query, 20 years.

**OTHER**- HTML, ASP, ASP.NET, XML, UML, EDI X.12, 10 years;

ASM, machine language, PCL, GL, TCL; Pascal, Ada, Fortran, 30 years,

Win32 API, .Net, MFC, ActiveX, COM, DDE, OLE, Jet, ODBC, ADO, 15 years

**APPLICATIONS** – Visual Studio, VSS, Word, Excel, PowerPoint, Project, Fusion, Photoshop, Quark, PageMaker, HP 3357 Analytical LAS, SAS, SPSS, Rational Rose, Sterling Commerce EDI, See web site.

## EDUCATION, TRAINING & CERTIFICATIONS

**MS, Master of Science (2 years and thesis) 1974 and**

**BS, Bachelor of Science (4 years) 1969**

**Biological Sciences, Michigan Technological University, Houghton, MI**

Inorganic chemistry, Organic chemistry, Physical chemistry, Physiological chemistry, Animal and plant physiology, Cell biology, Histology, Anatomy, Animal behavior, Ecology, Environmental sciences, Electrocardiology, Biosimulation

**Postgraduate Studies, MD program (1969-1971),**

**University of Michigan Medical School, Ann Arbor, MI**

Human Anatomy, Histology, Embryology, Biochemistry, Microbiology, Neurology, Physiology, Pharmacology, Psychiatry, Clinical Medicine

**Taught Animal Physiology, BL300, 1971**

**Department of Biological Sciences, Michigan Technological University, Houghton, MI**

Used Guyton's Texts for Animal Physiology and additional notes from Guyton's Medical Physiology. Developed understanding of organ systems through phylogeny and neural progression.

**DECUS (Digital Equipment Corporation Users Group)**

From 1978 to 1981, I attended monthly meetings of the Orange County Chapter of DECUS. In 1981, at the DECUS National Convention, I presented a paper and lecture on the methodology I used to automate my experimentation at UCI. Subsequently, I donated my source code to their national archive, and consequently helped the athletics department of USC implement my real-time cardiovascular analysis routines.

**Laboratory Automation Systems (LAS) System Manager Training,**

**Hewlett Packard Analytical Group, Avondale, PA**

Received training in Avondale, PA and in Sunnyvale, CA on the management of HP1000 computers used for HPLC (High Pressure Liquid Chromatography) and various engineering and Q/A applications that I wrote.

**RIPS Research Information Processing System User Training,**

**Hunt-Wesson Foods, Fullerton, CA**

I provided courses and considerable individual consultations to the engineering staff at the Technical Center. I scheduled and conducted regular presentations on curve-fitting, statistical significance and general computer use. Use of the RIPS system that I wrote for the HP1000 was widespread and popular.

**Microsoft Professional Developer,**

Since 1991, my software has been certified for DOS and Windows. The products displayed a Microsoft Certification Logo on the box. In 1998, I joined the initial Microsoft Developers Network (MSDN). I have attended countless seminars and presentations on their products. When the MSDN courses were popular, I periodically taught classes for VB 6 certification programs. I am now a member of the Orange County Visual Basic Users Group, Orange County DotNet Users Group, LA C# User's Group and attend many professional meetings.

List of publications supplied on request.