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Visual FoxPro Development and Contract Programming

EDUCATION

University of Minnesota	**BA., Physics, Minor, Mathematics 1985, plus Additional Course work in Engineering, Computer Science**

RECENT CONTRACTS AND EMPLOYMENT

2008-Present	**HealthCare Environment, Inc., New Brighton, MN** **Contract Programmer**
2002-Present	**SRC, Inc., Forest Lake** **Consultant / Contract Programmer**
1999-Present	**University of Minnesota, Institute of Technology Center for Educational Programs/UMTYMP, Minneapolis** **Consultant / Contract Programmer**
2010	**Custom Iron, Inc., Zumbrota, MN** **Consultant**
2002-2006	**Soderberg, Inc., St. Paul / Walman Optical, Minneapolis** **Consultant / Contract Programmer**
1999-2004	**University of Minnesota, Continuing Dental Education, Minneapolis** **Contract Programmer**
1998-2000	**EMR Innovations, Process Pro, Minneapolis** **Contract Programmer**
2000	**Arthritis Foundation, St. Paul** **Contract Programmer**
2000	**Norwest Mortgage, Minneapolis** **Contract Programmer**
1999	**Instant Web Companies, Chanhassen** **Contract Programmer**
1998	**University of Minnesota, Department of Operative Dentistry, Minneapolis** **Contract Applications Programmer**
1997	**Nutrition and Food Associates, Plymouth** **Contract Programmer**
1993-1997	**American Federation of State, County and Municipal Employees Union, Council 6, University of Minnesota, Minneapolis** **Contract Applications Programmer**
1996	**Means Telecommunications, Plymouth** **Contract Programmer**
1988-1996	**University of Minnesota, School of Mathematics, Minneapolis** **Sr. Applications Programmer/Applications Programmer**

SYSTEMS EXPERIENCE

OS/Network:	**Windows all versions, DOS, OS/2, LINUX, NetWare, SUN/Solaris, X-Windows, Citrix**
Languages/Apps/ Database/Tools	**xBase (Visual FoxPro, dBase++, other xBase), JavaScript, MS Word/Excel, Open Office Web Connect, Advantage Database Server, other SQL Server Products, and many specialty libraries as needed**

EXPERIENCE - SOME EXAMPLES (roughly chronological, more recent first)

Designed a web based survey design and processing system for a company that provides "quality of care analysis" to medical care providers. The software tools designed range from a complex survey design tool to a processing system for survey results, which handle all aspects of survey page response and data storage. A system is included to send pass-codes to survey users as well as various systems for data review and reporting plus an administrative web page where administrators may access basic reports of the collected data.

Converted a very large DOS based accounting system (written in FoxPro 2.5 DOS) to Visual FoxPro for an optical instruments distributor. The conversion was not a complete re-write, but rather a conversion designed to optimize code re - use in order to minimize the customer cost. Critical requirements were that the new application reports be able to output to laser printer and that the conversion take place with no interruption of service. These goals were achieved. Design philosophy for this application was to use "state-of-the-art" methods only for new features or when existing sub-routines needed major modification. New features included backing up monthly statements to PDF files to eliminate paper storage. Several other applications were also designed for this customer including a complex sales application using Advantage Data Server on the back end so that users could connect via the Internet, and new inventory application with complex invoicing processes and a "automatic post data to web" feature that made some specific data available to remote sales staff.

Developed highly specialized accounting applications for a trash collection and recycling firm in Forest Lake Minnesota. The applications handle all aspects of customer data collection, and financial transaction entry, processing and billing. Various subsystems were constructed to handle complex automated bill posting including messy tax and fee calculations. The systems include a wide variety of specialized reports – mostly financial - and utility screens, many for setting various way that different types of customers are billed . Three main applications were developed – one for commercial accounts another for residential customers, and a separate application for truck routing which interactively assists the user with arranging the customer pick-up order.

Converted a Student Enrollment/Payment data processing system from dBase for DOS to Visual FoxPro for a dental continuing education program at a major university. The system was essentially a complete re-write although some dBase code was reused (FoxPro and dBase are similar). The application handles all aspects of course registration and related data entry as well as all financial processing and invoicing. A wide variety of reports are generated by the system - from class lists and labels to transcripts. Many of the system reports are generated using OLE Automation methods to generate Word documents, rather than FoxPro reports. Converting the old system was complicated because the application needed to coexist (and share data) with a dBase subsystem that was not to be immediately retired. As a result, table indexes were maintained in both dBase and FoxPro formats (this proved difficult), and the system was designed to avoid any possibility of dBase and Visual FoxPro components simultaneously using the same tables.

Designed a complete Data Entry/Processing/Reporting System for a talented youth mathematics education program at a major university. These systems include data entry screens for student enrollment, grade collection and reporting and many data processing subsystems. The system includes components for handling student pre-enrollment testing, score analysis, transfer of accepted students to current class list, tuition tracking, grading, grade reporting, transcripts, and a variety of reports, and related routine procedures, such as maintaining teacher lists, and moving former students records to history files. Another system collects and processes data from an annual alumni survey and includes a HTML/Javascript version of the survey that is emailed to alumni and processed via a email server (for reasons beyond my control the program had no web server at the time). Other systems allow administrators to set menu access and otherwise restrict data access. The annual process cycle for this program is complex and the data applications are designed to manage this complexity and automatically carry out many of these complex tasks, without a need for a large expert staff.

EXPERIENCE - SOME EXAMPLES (continued)

For a software design company (EMR, Inc.) that develops a value added component for SBT Accounting Software, I designed new, and modified existing, modules written in FoxPro 2.6 and Visual FoxPro 5.0. This included form design and modification, design of reports, documentation, and analysis of customer requirements. SBT software handles all aspects of industrial data processing related to accounting, receiving, ordering and processing of inventory. Modules also exist to handle a wide variety of related industrial needs. EMR also customizes SBT/Process Pro for customers requiring more specialized systems. The product is designed to be run on all versions of Windows and may be accessed via a Citrix Server. Design and development routinely requires running Visual FoxPro on a remote site via Citrix. I wrote new code, and made modifications to, a variety of modules, such as a specialty component for adding sub-assemblies to sales orders, and a component for applying a specialty pricing scheme, as well as routinely adding and modifying reports and fixing customer reported bugs. I was also extensively involved in upgrading EMR's Process Pro product to be compatible with the (then) newest version of SBT. Also upgraded some non SBT software for EMR.

Made modifications to an existing Financial Analysis System written in Visual FoxPro 6.0 for a large mortgage banking firm. Contract was short-term fill in for another developer who was on leave. Designed components to export financial reports to formatted Excel Spreadsheets using OLE Automation methods. Also converted a small database application from FoxPro 2.6 to Visual FoxPro 6.0. Analyzed and debugged several other applications over the course of about two months.

Made major improvements to the user interface (and effectively re-designed) of an application written in Visual FoxPro 3.0 for the the Operative Dentistry department of a major university. Also removed unused code and made various technical improvements. The application reads ASCII data from a network drive and does extensive reprocessing before generating a wide variety of reports. Generally speaking, the design was technically competent but difficult to comprehend from the user point of view, so the project was essentially a matter of creating a friendly interface to insulate the users from the underlying complexity of the applications internal processes. Also made extensive modifications to repair year 2000 problems, and designed a system for printing very large reports to an off-site printer on a UNIX based system. The design outputs each report to a postscript file which is ftp'd to the UNIX system. A UNIX cron script then sends each file on to the printer. The subsystem is basically a specialty print server and included print drivers on the user PC's and a printer dialog screen.

Based on work done for large labor union, designed a data entry and reporting system in Visual FoxPro 5.0. The system is designed to be a commercially distributed product, aimed at union locals and union organizing campaigns. The system records a wide variety of membership data and also incorporates perks such as extra fields that can be reassigned by the user, and the ability to add external attachments (external documents, scanned images...) to each record. A wide variety of included standardized reports and labels are designed to the typical needs of union locals. It also includes a comprehensive help system and an installation program.

As an Applications Programmer for the University of Minnesota, Mathematics created a data collection and analysis system for tracking computer service requests. Project involved analyzing a disorganized department to determine where problems existed, and providing organizational and business operations advice. The application was written in dBase IV for UNIX and ran on a SUN Solaris system. The application took advantage of X-Windows components to add functionality and improve visual appearance. Functionality included tracking service requests by age, printing reports, etc. PC based sub application, written in FoxPro for Windows generated a progress report for administration, accessing the data via PCNFS. Later designed a Web version of this system. Set up a PC running Windows95 as a Web server and created a database server application with Visual dBase. The application provided all the features of the earlier app while allowing any user with a Web Browser to use the application, regardless of OS.