

## ALAN C FUSCO, PhD

### Technical Skills:

**Business:** Management, mentoring and teaching, budgeting, task assignment, project management (MS Project), formulating business plans, business needs analysis, business work-flow analysis and efficiency analysis, mobile work flow, social media, mind mapping, statistical analysis, & SOA.

**Database:** database administration, database design (relational, warehouse, datamarts, dimensional) & modeling (logical & physical, ERM), ETL, web design and development (mostly back-end database), some exploration of NoSQL or Non-relational databases & "cloud" computing, metadata library development

**Languages:** Delphi (Pascal, 5 to XE3), Delphi Prism (Oxygene), Visual Basic, SQL (many flavors), C#, ASP.Net, MS Framework 2 & 4, Visual Studio, (some C & PHP), PL/SQL (including tuning & optimization), T-SQL

**Databases:** Oracle (8 to 11g), SQL Server (7, 2005, 2008), Cincom, DB2, Assess, Firebird

**Database Tools:** Er/win, Embarcadero Suite (DBArtisan, DB Change Manager, DBOptimizer, Data Architect, Business Architect, Rapid SQL), RMAN, Business Objects Crystal Reports

**Industry Experience:** Health Care, Education, telecommunications, scientific, pharmaceutical, financial, manufacturing and retail

### **Summary**

I have over 25 years of IT, scientific, teaching and management experience in diverse areas such as software development, manufacturing, OSHA regulations, GLPS, health care, education, telecommunications and insurance. This experience involved full life-cycle development, project management, budgeting, business analysis, data architecture, requirements gathering, user interaction, case use diagrams, work flow diagrams, database requirements analysis, project management, database design, usability studies, program design, programming, metadata development, business efficiency studies, ETL & SOA.

### **Highlights**

- **Health Care- HCI:** Data migration (AS400) to Oracle plan and implementation, Requirements gathering, metadata, strategic planning, Business flow mapping, data schema design, integration of all departments into a single easily accessed Oracle database & reporting warehouse for all scheduling & OSHA/NIOSH needs
- **Health Care - HCI:** For HIPAA and privacy concerns, development of a Client employee (several hundred thousand employees across over 400 clients with history going back 30+ years) tracking system (to keep all records intact) without the need for a SSN and well as encrypted transport of data to mobile units
- **Telecommunications- AT&T/Ameritech:** Data architecture design, metadata development, ETL, data mapping and requirements for integration of all telecommunications databases (cable, Internet, cell phone, local, long-distance, TV) into a single database and datamart/warehouse design for reporting needs
- **Health Care- Blue Cross/Blue Shield:** Development of a insurance payment/billing reporting engine from encrypted flat-file output from Mainframe systems into a database driven (Paradox) system. Metadata library. Development of EEO Compliance reporting system.
- **Health Care - University of Illinois College of Medicine:** Development, design, requirements gathering and implementation of a Medical Student Intern tracking system for ICD-9 care tracking and billing and student experience reporting.
- **Temp Employment Agency - The Workplace:** Business requirements gathering, data modeling, metadata library and design, business flow mapping for all agency needs from payroll, AR/AP, scheduling, etc.
- **University of Illinois College of Medicine:** Research Associate to Assistant Research Professor, medical research, teaching, laboratory management, & obtaining funding - 10 year duration

### **Education**

Northern Illinois University, Dekalb, IL, 1990  
Ph.D in Biology/Biochemistry

University of Southern Mississippi, Hattiesburg, MS, 1978  
M.S. in Biology

University of Connecticut, Storrs, CT, 1976  
B.S. in Biology

## ***Professional Experience***

### **NCR/Retailx, Omaha, NE (working out of Rockford, IL)**

Oct 2013 - Present

Sr. Software Developer / Software Engineer III

Delphi, Firebird, PowerSell Development and Enhancements.

### **Fusco Consulting, Rockford, IL**

Sept 2012 - Oct 2013

President and Consultant

Fusco Consulting specializes in: full life cycle development, business needs analysis, business work flow documentation, business efficiency analysis, database design, modeling and development, data warehouse development, and specialized programming for database intensive operations.

Current Client: Retailx/NCR, Omaha, NE.- Retail,Supply

Conversion D5/7 code to XE3, unicode conversion, dBase removal to Firebird, diagraming & mapping data flow and program flow, & revise/improve/streamline code of Flagship PowerSell retail grocery store logics/supply program.

### **Health Conservation, Inc., Rockford, IL**

May 2001 - Aug 2012

Vice President of Information Technology

HCI is a medical/health screening company that conducts nationwide audiometric, pulmonary function (PFT), respiratory FIT and vision tests for OSHA & NIOSH compliance. The IT department is responsible for sending data to mobile units, retrieving data, entering data, import/export of data, ETL, database maintenance (Oracle 8 to 11g, SQL Server 2005& 2008), report generation that meets OSHA standards & data warehousing.

This position involved:

- Managing HCI's IT department (database, systems administration, network), directing their day to day activities (8 individuals).
- Managing HCI's Fleet (14 mobile van units, 28 individuals) from a data perspective
- Modifying/Updating Mobile van SQL Server Express (2005 & 2008) databases
- ETL transfer to/from SQL Server Express (mobile units) and main Oracle databases
- PL/SQL programming & tuning
- T-SQL programming
- Oracle Database design & management (logical and physical modeling with Erwin & ER/Studio)
- Data Warehouse design and implementation
- Evaluation of database products and tools
- Web site reporting design/updates (ASP.Net with Delphi Prism/Oxygene, some C#, VB & Javascript)
- Core Program maintenance/modifications & design/development of new programs (Delphi 5 through XE2)
- Business Objects - Reporting (Crystal, FastReports, PL/SQL)
- SOA
- MetaData Library Development

Major accomplishments:

- The department efficiency was increased by reducing staff, streamlining data processing and reporting, and by completely redesigning the work-flow process.
- The audiometric testing database was migrated from an AS400 model to a PC-Client/Server relational Oracle model. This included data modeling (logical & physical, ERWin), architecture, data conversion and new program design and development.
- A new ID system was implemented that maintains data integrity while eliminating the need for SSNs.
- A data transfer system from Oracle to Solomon (SQL Server 2005/2008) was designed using the Solomon API, T-SQL, and Oracle PL/SQL and was in testing
- The corporate web site was redesigned and completed recoded so that complete reports could be obtained by clients, employee demographic information could be edited and tests could be entered and reported on immediately.

- Increased web presence driving business to a web based service oriented reporting model. (Reformulated Business model to take this into account.)
- Redesign (content & look) of core client reports to make reports easier to understand and provide more information than required by OSHA and NIOSH.
- Streamlined and sped-up data QC processes.
- Streamline ETL from several major audiometric databases

**ETrak Corporation, Newport Beach, CA**  
Director, Database Administration

October 2000 - April 2001

A team of DBA's were managed for this dot com startup that specialized in development towing management software for city municipalities and police departments. These job responsibilities included:

- Reverse engineering of Sybase, SQL Server and old Dbase databases into SQL Server platform
- Data modeling & redesign of interim database of Etrak's flagship product using ERWin
- Data modeling & redesign of permanent database schema using ERWin
- Assigning, designing and helping to coding stored procedures (T-SQL) and triggers for new flagship product (Rapid SQL).
- Mentoring and teaching new DBA's relational concepts and specialized SQL coding procedures (T-SQL)
- Overseeing the documentation of all conversions and database designs in ERWin
- Database Security Planning and Implementation
- Data Warehouse design and implementation
- Evaluation of database products and tools

**Computer Consultants Enterprises, Inc., Rockford, IL**  
President and Founder

January 1985 - October 2000

Computer Consultants specialized in full life cycle development, business needs analysis, business work flow documentation, data architecture, and business efficiency analysis. Clients included:

HCI - see above & highlights

Eclipse - Data architecture/design, reverse engineering, performance analysis, metadata library

Rocknel Fastener - Data integration with CAD system, metadata, software design (SDLC)

Rockford Fastener - Data architecture/design, reverse engineering, performance, business analysis, software design (SDLC)

The WorkPlace - see highlights

Beloit Corporation - Data architecture/design, reverse engineering, performance analysis, metadata, SDLC

Ameritech (now AT&T) - see highlights

Blue Cross/Blue Shield - Payment reporting system / EEO reporting (see highlights)

ELCO-Extron - Database design, performance, metadata, data mapping, and coding for Cincom system (SDLC)

University of Illinois - see highlights

Business Records Corporation - requirements gathering, data design & software architecture for voting system

Arthur Anderson - "hotel" management system (data came from several systems that needed integration), data flow, metadata library

Rush Presbyterian-St. Luke Medical Center - nursing scheduling system, design, data flow mapping, requirements, metadata

Database platforms included simple relational databases such as MS Access to full featured Oracle, SQL Server, Cincom and DB2. (Logical and Physical data models where all completed in ERWin)

Consulting expertise ranged from education, telecommunications, health care, scientific, finance and manufacturing.

Viro Research Laboratories, Rockford, IL  
Vice President and Co-Founder

1993 - 1995

This was a biotech startup company. Experiences and accomplishments include: obtaining venture capital & funding, GLP, FDA product approval, monoclonal antibody production for Herpesviruses.

University of Illinois College of Medicine at Rockford, Rockford, IL  
various positions from Research Associate to Adjunct Assistant Professor

1983 - 2000

Skin penetration mechanisms of the parasites *Schistosoma mansoni* and *Necator Americanus*. Managed a laboratory staff of 5.

This also entailed obtaining funding from the Department of Defense, NIH and other funding agencies.