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Career Profile

A software professional for over 35 years • Systems and applications programmer • DATABUS, C/C++, COBOL, ASSEMBLER, ORACLE, HTML, JavaScript • Network administrator • Novell *NETWARE* specialist • *PC-DOS, MS-DOS, WINDOWS* • Systems analysis • Systems testing • Software instructor • ANSI Language Standards committee member • Experience with hospitality, reservations, point-of-sale, telephone systems, A/R, A/P, G/L, inventory, payroll/HR/HRIS, forest inventory, remote sensing, space research • Exposure to image processing, robotics, GPS/GIS, and multimedia • Hardware & software installation • Data conversion • Web site design • Digital photography • Book publishing • Mozilla Projects

Education

- **Bachelor of Science** (1975) – University of Toronto, Canada

Additional Courses:

- **Introduction to the Internet** (Sault College, 1996)
 - **Six Thinking Hats (DeBono)** (OLC, 1995)
 - **LBMS Project Management (Introduction)** (OLC, 1995)
 - **LBMS Business Analysis Techniques** (OLC, 1995)
 - **Object-Oriented Programming (C++)** (Algoma University, 1993 (Audit))
 - **UNIX: A Programming Environment** (Algoma University, 1993)
 - **COBOL Programming Language** (Algoma University, 1993)
 - **C Programming Language** (Algoma University, 1992)
 - **Advanced GPS & Desktop GIS Systems** (ELIRIS, 1992 & 1993)
 - **10-NET Communications** (DCA, 1989)
 - **Microsoft Seminars: OS/2 and Excel** (Microsoft, 1987)
 - **SuperDOS Operating System** (Bluebird Systems, 1986)
 - **Data Communications Network Design** (AMR, 1981)
 - **Database Design** (AMR, 1978)
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Career Summary

- **President & Co-Owner**

P & M Technologies, Sault Ste. Marie, Ontario, Canada
1996 – Present

Current contract work includes co-management of remote sensing study projects for the European Space Agency and design & maintenance of the project websites.

Previous major contracts include further work with the Ontario Lottery Corporation (*see below*) and several data conversion projects for the Ontario Ministry of Natural Resources. At OLC, I trained technical support staff and wrote system documentation for the in-house portions of their payroll interface. At MNR, I analysed and documented data set structures in their *Provincial Timber Scaling & Billing System (PTSBS)*, a *System 1032 (VAX)* database, developed conversion programs, wrote ORACLE scripts to create databases and load data, and created archives on CD-ROM.

Other projects include technical support for several small PC installations, maintenance programming for a payroll system, spreadsheet work, web site design & development, book publishing (traditional and eBook), and proposal work for a satellite-based asset tracking package.

- **Contract Consultant & Programmer Analyst**

Ontario Lottery Corporation,
Sault Ste. Marie, Ontario
1993 – 1996

I worked with OLC's Human Resources department as Special Project Analyst and with their IS&T division as a programmer analyst. I played an instrumental role in the implementation of a new payroll system for the Corporation, and I developed a prototype interface to their general ledger system. As a member of the HR Infrastructure Project, I helped plot the course for future development, including analysis of existing problems, cost-benefit analysis of proposed solutions, and writing significant portions of the *Final Project Report*. I wrote data conversion programs and developed spreadsheets, in addition to doing technical consultation, system documentation, and report writing. I designed and oversaw the development of a remittance package, I developed a prototype interface to their *ROSS* general ledger system, and I did a cost-benefit analysis of a major upgrade scenario.

Earlier, I was an active participant on the HR Systems Interfacing Review Committee, searching for ways to interface various software packages used by HR. The work involved analysing the import and export requirements of several software products, evaluating software, documenting procedures, programming keyboard event

macros to automate certain processes (implementing as appropriate), and training staff. At the request of the Vice-President of Human Resources, I wrote and presented a critique of the *CORPAY* payroll system which eventually led to its replacement.

On my own initiative, I involved myself in network analysis and configuration to improve system response and performance. I also made it a point to learn various aspects of the lottery business which were beyond the immediate scope of my job.

- **Consultant & Systems Analyst**

Board of Education – Bawating C&VS, Sault Ste. Marie, Ontario
1993

I set up multi-media hardware and software in the school's leading-edge "SMART" lab, using IBM *PCDOS*, Microsoft *WINDOWS*, and *OS/2*, and assisted students with programming (robotics). I provided consulting services and made recommendations for future network configuration and operation; installed, maintained and upgraded various software packages, including CD-ROM software; investigated various CAD packages; assisted students with writing robotics control programs and developing signalling mechanisms; installed and configured math co-processors; and provided technical assistance as required throughout the school.

- **Consultant & Systems Analyst**

Algoma University College, Sault Ste. Marie, Ontario
1992

I worked with the client to evaluate, recommend, and install a general ledger and accounts payable package for their accounting office. I configured NOVELL network security, designed and implemented tape backup/restore procedures, set up a contingency backup process for the network servers, and re-worked NETWARE login scripts, menuing system, and print spooling.

My mandate included training management and other staff in the operation of the new package (ACCPAC PLUS). I designed and published a new Chart of Accounts, entered account balances, conducted audit verification and confidence testing, and scheduled training sessions, all to meet the deadline of fiscal year-end. Technical requirements included interfacing ACCPAC's data import/export capabilities with LOTUS 1-2-3's report functions, developing spreadsheets and macros for LOTUS 1-2-3 and QUATTRO PRO, and setting up ACCPAC system security and Windowing System Manager menus. I designed and implemented several sophisticated tape backup/restore procedures using MS-DOS batch files.

- **Systems Analyst, Programmer, Systems Design Co-ordinator
Customer Support Representative, Technical Support Representative
Client Advisor, Network Administrator**

Capozzi Enterprises Limited, Kelowna, British Columbia
1981 – 1990

Hospitality Data Systems (Division of Capozzi Enterprises Limited) was a provider of property management packages for hotels. I worked for them as head programmer and system design coordinator in the development and support of a large integrated hotel software package, including conversion of the programs from a mini system to an MS-DOS platform running under NOVELL NETWARE. As a programmer and systems analyst, I was responsible for the creation, tracking, and on-going maintenance of program source and object libraries. I also wrote assembler routines, utilities, and device drivers.

Client support was an important aspect of my position, requiring excellent interpersonal skills, tact, good time management, and organization. As a member of the technical support team, I did installations (hardware, software, configuration, licensing, and training) at customer sites in western Canada and southern US, plus I handled my share of 24-hour on-call customer support. Meanwhile, for the Capri Hotel, I served as Network Administrator, supporting not only our own hotel software, but also several standard licensed packages (WordPerfect, LOTUS 1-2-3, etc).

In January 1990, following a decline in the Capozzi family business, I became a partner in MAXsystems COMPUTERS LTD. We took over the HDS software business, and became resellers of other licensed software products as well, until my departure in November 1990 (due to spousal relocation).

- **Systems Programmer, Software Support Specialist**

TRW Data Systems (now Datapoint Canada), Toronto, Ontario
1976 – 1981

Responsibilities included the development and presentation of programming courses for customers, in-house technical staff, and University of Waterloo co-op students. Later, I worked with TRW's banking software development group where I wrote systems guides and user manuals; designed and coded utility and application software; performed system integration and assurance testing; handled some software distribution; and worked on-site with customers.

Information Technology Projects & Experience

- Advertising sales and copy writing
- ANSI Dictionary for Information Systems
- ANSI Language Standard for PL/B (aka Databus)
- Community magazine start-up committee consultation & advisory
- Community radio start-up committee consultations & advisories
- Contributor to Mozilla projects (*Firefox* and *Thunderbird*)
- Conversion of A/P and G/L systems to ACCPAC database
- Customer support for software applications
- Data conversion and data migration from legacy systems for Ontario government ministries
- Data modelling & analysis in support of product development for wildlife research & tracking
- Design of a "remote broadcast" facility for a Toronto hockey franchise owner
- Development of device interfaces, print spoolers, communication interfaces, utilities & drivers
- Development of restaurant POS system
- Development of system utilities and plug-ins for application packages
- Development of telephone call accounting system
- Development, installation & support of hotel computer systems (hospitality property management systems)
- Domain name registration & monitoring for several clients
- GPS-based asset tracking package for a local GPS vendor
- Human Resources Infrastructure Project at Ontario Lottery Corporation
- Modelling of tree growth & yield for forest inventory research
- On-air production at a "Top 40" radio station in Toronto
- Payroll system maintenance & support for Kelowna company
- Preliminary studio design work for University of Toronto Radio
- Programming of electronic POS cash registers
- Refund tracking program for a Canadian Tire store franchise owner
- Remote sensing study project
- "SMART" Lab (Multimedia & Robotics) for Algoma District Board of Education
- Self-publishing seminars & consulting
- Shop analysis spreadsheet programming for a local automotive dealer
- Software course development & training for a mini-computer vendor
- System & quality assurance testing for on-line banking & teller systems
- Systems integration for various applications
- System manuals and user guides for various systems & applications
- Training of staff & management for a hotel software company
- Website design, programming, and setup

Clients & Collaborators

- Alaska SuperNatural Teas, USA
- Algoma District School Board (Bawating) SMART Lab, Canada
- Algoma University, Canada
- American National Standards Institute (ANSI), USA
- Arts Council of Sault Ste Marie & Area, Canada
- Canadian Tire, Canada
- Capri Hotel, Canada
- Computer Business Equipment Manufacturers Association (CBEMA), USA
- CILQ-FM (Silk FM), Canada
- Daedalian Systems Group Inc, Canada
- Datapoint Canada, Canada
- Datapoint Corporation, USA
- Eliris, Canada
- Esquire Honda, Canada
- European Space Agency (ESA)
- Farida Wong Dancewear, Canada
- First Baptist Church, Canada
- Graham Hurley Systems Limited (GHSL), Isle of Man
- Harrison Hot Springs Hotel, Canada
- Hospitality Data Systems, Canada
- Infopoint Systems, USA
- Infotel, USA
- Lincoln Hotels, USA
- MAXsystems, Canada
- Mozilla.org
- Ontario Ministry of Natural Resources, Canada
- Ontario Forest Research Institute, Canada
- Ontario Lottery Corporation, Canada
- PanAbode Log Homes, Canada
- Pasadena Investments, Canada
- Planetary Society, USA
- Primavera Photography, Canada
- RCS Incorporated, Canada
- Rotary Club of Sault Ste Marie, Canada
- Sandpiper Music, Canada
- Sault & Area Community Radio, Canada
- Scott Realty, Canada
- Simon Fraser University - Dept of Biological Sciences, Canada
- Sunbelt Computer Systems, USA
- Toronto Toros, Canada

- Townies Magazine, Canada
- University of Toronto Radio (CIUT), Canada
- Wildlife See-er Corporation, Canada

Career Highlights & Accomplishments

Systems and applications

- DATABUS, PL/B
- C/C++
- COBOL
- ASSEMBLER
- HTML & CSS
- JavaScript

Network administration

- Novell NETWARE
- Experience with *IO-Net* and *LAN Manager*

Hardware and software installation & configuration

Systems analysis

- Systems integration
- Systems testing
- Quality assurance, Confidence testing
- Audit design & control
- Software evaluation
- Data modeling
- Data interfacing
- Spreadsheets
- Technical writing & documentation
- Disassembly ("reverse engineering")

Data warehousing

- Data conversion & merging
- Archiving & backups
- Legacy systems & data access
- Database archiving

Business analysis, feasibility, and cost-benefit analysis

Software instructor, customer training, tutoring

ANSI Language Standards technical committee member

- Co-author of the ANSI language standard for *PL/B* (formerly known as *DATABUS*)
- Contributor to *The American National Standard Dictionary for Information Systems*

ORACLE script development & implementation

- *SQL*LOADER* and *SQL PLUS*
- Database archiving & data warehousing

Product development and applications expertise

- Hospitality & property management, reservations, restaurant sales
- Retail point-of-sale
- Telephone systems
- Accounting & Payroll (A/R, A/P, G/L, HR/HRIS)
- Inventory control
- On-line banking
- Forest inventory
- License & Registration
- Web site development, design & consulting
- Book publishing (traditional and eBook)

Exposure to additional technologies

- Robotics
- GPS & GIS
- Remote sensing, aerial photography interpretation
- CD-ROM and multimedia authoring
- Digital photography, photo editing, image processing
- PDF file creation and configuration

Media exposure

- Eight years in radio broadcasting & on-air production work
- Reference expert to local media

Community participation

- Rotary Club Science Fair – Deputy Chief Judge
- Sault & Area Community Radio – Board of Directors member
- Contributor to Mozilla projects (*Firefox* and *Thunderbird*)
- Poll worker in federal & provincial elections

Awards and honours

- Kiwanis Club of Toronto – Award of Merit
 - Valedictorian
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Publications

Information Technology – Programming Language – PL/B. 1994.

ANSI INCITS 238-1994 (R1999) (formerly ANSI X3.238-1994 (R1999)).

This ANSI language standard specifies the form and establishes the interpretation of programs written in the PL/B Programming Language (formerly known as DATABUS). The standard is designed to promote portability of PL/B programs among a variety of data processing systems and environments. It is intended for use by implementers. Dan was a member of X3J15 (the ANSI technical committee that developed the standard) and is co-author of the resulting publication.

Mohammed GH, Colombo R, Moreno J, van der Tol C, Rascher U; Ač A, Alonso L, Celesti M, Cogliati S, Damm A, Fawcett D, Gomez-Dans J, Henry C, Lewis P, MacBean N, Magnani F, Malaprade J, Matveeva M, Olejníčková J, Pernokis D, Pinto F, Raddi S, Rajh Vilfan N, Rivera JP, Rossini M, Sabater N, Schickling A, Tenjo C, Verhoef W, Verrelst J, Servera JV; and Drusch, M.
2016. **2014 FLEX/Sentinel-3 Tandem Mission FLEX Bridge Study.** European Space Agency. ESTEC Contract No. 000112341/14/NL/FF/gp, Final Report, January 2016. 187 p. + CD/DVD.

Mohammed G, Ač A, Daumard F, Drusch M, Gallé A, Goulas Y, Magnani F, Malenovský Z, Moreno J, Olejníčková J, Pernokis D, Rascher U, Rivera JP, van der Tol C, Verhoef W, Verrelst J, and Volta, A. 2014. **FLEX/Sentinel-3 Tandem Mission Photosynthesis Study – An investigation of steady-state chlorophyll fluorescence and photosynthesis in terrestrial vegetation.** 5th International Workshop on Remote Sensing of Vegetation Fluorescence, Paris, France, 22-24 April 2014.

Mohammed GH, Goulas Y, Magnani F, Moreno J, Olejníčková J, Rascher U, van der Tol C, Verhoef W; Ač A, Daumard F, Gallé A, Malenovský Z, Pernokis D, Rivera JP, Verrelst J; and Drusch, M. 2014. **2012 FLEX/Sentinel-3 Tandem Mission Photosynthesis Study.** European Space Agency. ESTEC Contract No. 4000106396/12/NL/AF, Final Report, July 2014. 159 p. + CD/DVD.

Dan edited several of the interim reports and components of the Final Project Reports. He was responsible for production of the Technical Data Packages (project final submissions and interactive archives on DVD). He also designed and maintained the project web sites.

Mohammed, Gina H. 2011. **The Canadian NTFP Business Companion: Ideas, Techniques and Resources for Small Businesses in Non-Timber Forest Products & Services.** Sault Ste. Marie (Ontario), Candlenut Books, ISBN: 978-0-9731097-2-6 (CD-ROM)

Dan did the technical production work for the Companion, which included page layouts; gathering & editing photographs; arranging permissions & licensing for the use of copyrighted & trademarked materials; designing packaging & labels; and the myriad of publishing details. He also took many of the photographs & video clips used in the publication. Dan now handles sales & distribution of the product.

Professional Associations

ANSI J15, the Accredited Standards Committee for the Programming Language PL/B, Washington DC; Vocabulary Officer - jointly responsible for defining and writing the language standard for PL/B, a high-level 3GL formerly known as DATABUS.
