

Senior IT consultant with nearly forty years in database programming, enterprise application development and system administration. Thoroughly versed in information systems needs analysis, system architecture, application development and system support optimization. Specializes in business systems implementation, operating system migrations, integration, upgrades, and customization. Seasoned in project database design, development, and administration. Project work performed for an hourly rate. Flexible service levels available for ongoing system and application support.

**SKILL-SET – Experienced with the following applications and technologies:**

**Database Environments:** Progress/OpenEdge RDBMS 12.2, 12.1, 11.7, 11.6, 10.2B, 9 and earlier (30+ years, GUI & character), Microsoft SQL Server (2016, 2014, 2008, 2000, v7) (8 years), Informix, PostgreSQL, MariaDB, SQLite.

**Enterprise Software:** QAD 2022EE (cloud), 2016EE, 2013SE, 2011SE, 2009SE, 2008 EA, eB2.1, eB2, eB, v7-v9 (17+ years), AzureOE replication, Infor Symix/Syteline (3-8), Varnet ERP, SX.e, Epicor ERP (9.05, 9.04), Microsoft Visual Source Safe (VSS), Eclipse Platform, JIRA, Tortoise SVN, SmartSVN, Git/GitHub, Robocom RIMS, Pilgrim Q\*MIS, Acronis True Image.

**Forms Experience:** QRF (QAD Reporting Framework), Optio DCS/FAX-FX, StreamServe (5.6.1, 4.1.2, 3.0.1 and 2.x), OpenText Exstream v16.4.0/2 and 16.0.0/1/2: Communications Server/Builder, Control Center, Design Manager/Designer, Gray Hair Mail Trak Select, Pitney-Bowes Mailstream Plus, JetForm, Crystal Reports.

**Application Functional Categories:** Forms Design, Development and Deployment, Financials: AR, AP, GL, Costing, Warehouse Management & Material Handling, Customer Service, Electronic Data Interchange (EDI), Bill Presentment & Invoicing, Inventory, Data Collection, Purchasing (SO/DP), MRP, MPS, Capacity Planning, Engineering, Quote Generation, Work Order, CRM, Loyalty Programs, Forms Processing, Engineering Change Systems, PC Imaging.

**Languages and Protocols:** Progress/OpenEdge ABL (4GL) v6 – v11.6, UNIX/Linux/Windows shell scripting (Bash, Bourne, ksh, csh, etc.), Informix 4GL/SQL, Visual Basic (.NET 2010 & VBA), Visual Studio, COBOL, C++, C#, ODBC, HTML/CSS, REST API, JavaScript/JSON, Python, Arduino IDE (C and JavaScript), XML, FTP/SFTP, Samba, MSDE, TCP/IP, PGP, PJI, PCL.

**Operating Systems:** Red Hat Enterprise Linux (RHEL) 6.5–8.3, AIX 4.3–5.2, HP-UX 9–11, SunOS, SCO UNIX, Debian, CentOS 8, VirtualBox, vSphere, vCenter, GNU, Ubuntu, Windows Server 2000-2016, Windows 10/8/7/XP, VMS.

**Hardware:** HP: 9000 & L1000 series, SUN Sparc, Dell, NCR Tower, Intel 32/64, ARMv7, ARMv8, ARM64, IBM RS-6000 (7013, 7026, 6H1), IBM SSA Arrays (7133), DEC PDP-11, VMware servers running RHEL/Windows Server, Arduino.

**WORK EXPERIENCE**

**PROGRAMMER/ANALYST & SYSTEM ADMIN** – Support for users of QAD, Infor SX.e and related software. (Aug 23-present)

- Worked as QAD Progress programmer/tester on 2022EE implementation and migration team.
- Made changes to four clients' Optio DCS forms and JetForm systems, expanded output options for five sites for documents Sales Quote, Sales Order Acknowledgement, BOL and Invoice.
- Developed automated API for loading CSV consignment data from customers into ERP system as sales orders.
- Programming and analysis support on bespoke system interfaces utilizing Progress ABL and Linux scripting.
- Provided contract Linux system administration services for global supplier of lithium-ion battery systems.
- Developed a QAD Shipper form for a manufacturer utilizing QAD Reporting Framework (QRF) complete with full color logo and CODE 39 barcodes.
- Automated load of CSV consignment orders for multiple customers using QAD's standard CIM processing. Configuration files in customer directories allow for separate configurations to be used for different file formats.

**PROGRAMMER/ANALYST & TECHNICAL WRITER** – Provided source code analysis and technical writing services for a major beef processing company. (Mar 23-Jul 23)

- Analyzed custom Scalehouse and Shrink Reporting (SSR) data collection system running on IBM RISC servers using Progress OpenEdge 10.2B06 and authored 30-page technical documentation for functionality of all processes. Utilized source code, database reads and writes, and production log files for scales, cameras, and human-machine interfaces (HMI) to produce the analysis document.
- Developed Progress ABL programs and scripts to produce output for illustration purposes within technical documentation. Included message data mapping for data received from and sent to Modbus TCP programmable logic circuits. Also included data mapping for messages sent from IBM RISC servers to IBM mainframe.

**DOCUMENT PROCESSING ARCHITECT** – Worked with multiple technologies for a major insurance provider on several large document processing projects. Utilized OpenText Exstream, Communications Server, EIS and OnBase. (Sep 21-Mar 23)

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- Developed forms in Exstream Design Manager and Designer to support state rationalizations. Developed field definitions in JSON input files. Produced policy and certificate forms for supplemental health insurance.
- Served on an Agile team of developers integrating EIS with OpenText Exstream. Analyzed form specifications from the business, defined fields and structures for JSON payload files, and developed documents in Exstream Design Manager and Designer for insurance policies, certificates and riders.
- Created proof of concept for translating data from an AS/400 DB2 database into an XML file via a VB script.

**SYSTEM MIGRATION ENGINEER** – Worked as a System Engineer and Project DBA for a retail distributor in the process of migrating from HP Unix (HP-UX 11) to Red Hat Enterprise Linux (RHEL 8.3). (Oct 20-Aug 21)

- Evaluated three potential Linux distributions based on both cost and technical requirements – RHEL, SLES and CentOS – before deciding on RHEL. Presided over RHEL installation, kept OS up to date.
- Migrated system resources and subsystems existing on current HP-UX system to Linux system. Created new databases with improved infrastructure; wrote migration scripts. Translated ksh scripts to bash. Subsystems included: emailing (sendmail), FacetTerm integration (migrated from HP TSM), interfaces to C and Perl programs, CUPS printing system.
- Wrote program to analyze 11,000+ legacy application programs, Varnet ERP, written in Progress OpenEdge ABL (4GL) for potential system interface issues. Analyzed and documented discrepancies.
- Developed code to monitor code logs and create function usage reports for users. Developed integrated email option to output selections in Varnet ERP.

**TECHNICAL WRITING CONSULTANT** – Provided user documentation for manual data integration between the QAD Enterprise Edition ERP system and American Express One AP™ Accounts Payable automation system. (Apr 21-May 21)

- The requirement specifically called for the process to be manually executed using a standard method of data extraction from QAD. Identified proper fields and tables to include in extracts.
- Provided instructions for non-technical users on how to create two user-defined browses using the QAD Browse Maintenance screen. Standard browse functionality allows for output to files.
- Wrote two instruction booklets: Payment Extract and Supplier Extract. Data may be extracted in either CSV format or XLSX format. The CSV format is compatible with AMEX One AP™.

**RANSOMWARE CLEANUP TECHNICIAN** – Worked for a global cybersecurity consultancy in the aftermath of ransomware attacks against two clients. Executed cleanup and forensic functions and delivered reports. (Sep 20-Oct 20)

- Salvaged 19 VMDK volumes from virtual machines. Harvested many useful files for an educational services client including usable recent backup copies of QuickBooks data files for 20+ business entities.
- Managed virus scans running on hundreds of office and shop floor windows machines for manufacturing client. Installed Sentinel One endpoint security software on all personal computers and workstations.
- Upgraded SSD drives and reimaged 100+ office notebook and desktop computers for manufacturing client using Acronis True Image, AOMEI Partition Assistant and custom Linux Fog Server running Partclone.

**AZURE REPLICATION SOFTWARE PROGRAMMER/ANALYST** – Provided Tier-3 support for replication software between Progress databases and the Azure cloud (AzureOE). Software utilizes mixed codebase of Progress OpenEdge ABL (4GL) and Microsoft C#.NET code. Other technologies used: JavaScript/JSON, Progress AppServer, Database Triggers. (Jul 20-Sep 20)

- Worked on small four-person team to maintain code performing triggered data extraction for Progress and replicating via a bulk insert and delete queueing table in the Azure Cloud. Used Progress AppServer and ProxyGen to integrate OpenEdge replication/verification code modules into Windows Service.
- Identified and fixed architecture issue caused by oversized datasets breaking replication/verification queues.
- Created documentation for internal reference and customer use. Developed utilities, queries, and reports in OpenEdge ABL.

**OPENTEXT ARCHITECT PROJECT** – Designed and developed updated environment for a utilities provider's bill presentment system using OpenText Exstream 16.4.0/2 tools and protocols. (Nov 18-Nov 19)

- Upgraded HP Exstream 9 environment to OpenText Exstream 16.4.0 environment utilizing Communications Builder for increased processing control. Previous system served mainframe ops, new system interfaces with S4/HANA ISU operations for utilities industry. Interpreted Exstream rule scripting for accurate input file development. Modified Communications Builder (Design Center) and Exstream Design Manager projects.
- Designed process to produce custom index file output alongside form generation. Developed specification for communication between OpenText Communications Server and Nuance REST API using XML/JSON translation.

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- Transferred and translated operational Bash scripts for calling Pitney-Bowes Mail Stream Plus and Gray Hair Mail Trak Select from AIX to Red Hat Enterprise Linux. Developed background delayed copy scripts to overcome timing issues within OpenText Exstream/Communications Server. Documented behavior of new and modified scripts.
- Implemented interface between OpenText Communications Server, Mailtrak Select and Mail Stream Plus. Performed package builds. Reviewed and analyzed XML input formats and StoryTeller output designs. Set up all configurations necessary in OpenText Control Center.

### **QAD TO SAP MIGRATION PROJECT (“SAIL” PROJECT)** – Delivered technical and functional services on the Extraction Team

of a multi-plant SAP Migration Project as Progress Data Extractor and QAD/Progress Consultant for a multi-national corporation. SAP modules included FF, SO/DP, MM, WH, HU, FI/CO and PE/CP. (Nov 17-Oct 18)

- Made modifications to QAD data structures and Progress data extraction code for plant-specific needs. Also implemented code changes for timesaving and efficiency using Linux scripting and Progress ABL (4GL) code.
- Worked on data cleansing and preparation with key users FF and SO/DP data before enrichment and extraction was required. Harvested data from QAD to produce SAP-enriched data ready for import into SAP MM module.
- Created comprehensive workflow spreadsheets to detail extraction and migration tasks, showing their correlation to input and output processes in the QAD and SAP ERP systems.
- Troubleshoot and execute extraction processes for data loading into SAP LSMW processes, especially for FI/CO, SO/DP, and FF modules. Analysis of SO/DP and FF data for migration team.

**OPENTEXT STREAMSERVE CONSULTANT** – Served as OpenText StreamServe Full Stack Lead Developer and Application DBA on a development team designing a Form Management Automation Systems (“FRAMES” project). Migrated approximately 2000 forms from 20 departments to OpenText StreamServe/Communications Server for a major automotive financial services company. Scrum Agile was the chosen development methodology. (Oct 16-Oct 17)

- Performed analysis on hundreds of forms to determine best method of data integration into process templates and fragments built using OpenText Design Center, StoryTeller, Describer and other CCM tools.
- Led effort to develop custom XML format for form event, message definition and configuration in Control Center. The XML format was used by JSP developers which also interfaced with an ALFA asset management system.
- Developed custom SQL Server 2016 database to store all dynamic information used in customer-related forms. Tables designed for brands, entities, departments, forms, revisions, addresses, states, countries, etc.
- Programmed over fifty C library functions to aid in template development which used ODBC calls to the customer SQL Server database to populate forms properly with stored data.
- Used JavaScript objects and methods within PDF-creation routine to automate forms handling and dynamic user-interface controls.
- Develop multi-tiered StreamServe application server processes. Constructed mechanism which assembled form “packages” – groups of forms – into single PDF by using OpenText StreamServe DocBroker Plus.

**QAD INTERFACE TO WEB-BASED SUPPLY CHAIN APPLICATION** – Developed a custom Progress-based messaging API to synchronize QAD with a web-based supply chain system, Ultriva. (May 16-Sep 16)

- Developed flat file read/write methods to interface with Ultriva’s standard API formats and receive data from multiple sources per user specifications. Fully automated transfers using SFTP.
- Progress/QAD’s standardized system: Screen input CIM framework with pre-validation; Subsystem used QAD’s User Defined tables for Ultriva subsidiary data and configuration parameter storage; Control parameter screen, Purchase Order approval utility and 8 other QAD maintenance and report menu items available from .Net UI or character QAD (2013 SE).

**WAREHOUSE MANAGEMENT SOFTWARE DEVELOPMENT PROJECT** – Work as a Progress OpenEdge programmer and integrator on a development team tasked with the development of a Microsoft Windows UI, .NET compatible custom warehouse management application (OpenEdge GUI .NET) designed to run on Surface tablets. Used PDSOE 11.5 and 11.6, an Eclipse-based development platform, and class-based forms to achieve full object-oriented design and state-free deployment. (Oct 15-Apr 16)

- Designed and developed system to leverage legacy report logic executed by new user-friendly Windows user interface. Legacy code was executed using a Progress AppServer.
- Worked closely with original designers on the inbound messaging logic to redesign the functionality. Developed code in which load and order data is completely independent, and message file extraction methods are in a separate file from methods which access, create and update database records.
- Updated queries in codebase of original, character-based warehouse system application to make use of schema improvements, new tables, indexes, and new fields in existing tables.

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- Developed a report calling framework utilizing ProDataSet structures to pass information back and forth with an application server to achieve state-free program deployment. Framework handles email output, Excel spreadsheet object creation, standard text, and printers. Emails are originated centrally on AppServer.

**EPICOR IMPLEMENTATION TEAM** – Worked as primary Systems Manager and Process Analyst for an implementation of Epicor ERP for a medical device manufacturer. (Mar 15-Aug 15)

- Supported and trained users in system functionality. Wrote work instructions for data entry and business process integration. Managed user security, permissions, and Report Style access.
- Imported table data from Fourth Shift ERP into Epicor. Developed custom business queries and dashboards.
- Added company-defined fields to standard tables and to Crystal Report output forms. Customized standard reports using Crystal Reports, saved as default company-defined Report Styles.

**PROGRESS TO MICROSOFT .NET MIGRATION PROJECT** – Performed programming, analysis, and support services for large staffing company with a Progress-based legacy contacts system while migrating major functions to newer system developed using Visual Basic .NET and SQL Server 2008 R2. Defined SQL views to enable Linked Server access to Progress DB in SQL Server environment. Wrote VB.NET classes to mimic legacy Progress code functionality. Performed all necessary programming, database development and database administration for Progress systems. (Jun 14-Jan 15)

**PROGRAMMING SUPPORT FOR IN-HOUSE SYSTEM** – OpenEdge ABL (4GL) Programmer for large, privately-held food service company with \$10 billion annual sales. (Jan 14-Jun 14)

- Modified in-house developed Progress-based enterprise management system to business user requirements and change requests. Followed client's DevOps style SDLC methodology to make changes needed by the business.
- Worked on a team revamping and expanding the membership-based loyalty system. Performed extensive data analysis and coding for name-field reformatting.
- Developed interface programs to integrate middleware system with in-house application using Progress AppServer and third-party applications, e.g., Product Lifecycle Management System (PLMS), ExactTarget.

**DATABASE MIGRATIONS FROM CLOSING PLANT** – Contracted by company to migrate ERP data from a closing plant into three other company sites. (Sep 13-Dec 13)

- Worked as technical lead on three cross-functional teams for each customer site. Migrated QAD eB2.1 data into another eB2.1 database and into two eB1 databases.
- Closing site was Canadian, receiving sites were American, so unit of measure conversion and currency conversion were both required for all cost and quantity fields.
- Developed comprehensive CIM load data creation programs to handle differences between all receiving sites. Loaded QAD CIM formatted data into 40+ screens.

**SYSTEM MIGRATION AND SUPPORT/TRANSFER OF OWNERSHIP, II** – Contracted by buying firm to serve as UNIX system and database administrator. Was responsible for transitioning six servers. (Dec 11-Aug 13)

- Migration of six UNIX servers (HP-UX and AIX) to new network domain in new location. Achieved a seamless transition with lower-than-expected downtime. (Dec 11-Feb 12)
- Consolidated original 8 servers down to 4 which greatly reduced maintenance costs. (Jan 13-Aug 13)
- Hardware upgrade for ERP system and warehousing system from IBM 7026-H70 to 7026-6H1. Establish RAID-10 system using SSA, planned full system migration. Advised on OS level updates and RAM upgrades. (Dec 11-Jun 12)
- Maintained all UNIX shell scripts and cron tables on HP and IBM hardware. Managed network traffic between servers using FTP and NFS protocols. Performed troubleshooting for EDI. (Dec 11-Jun 12)
- Assessed needs and procured all necessary software packages and licenses. (Jan 12-Jun 12)
- Ongoing system administration for all AIX and HP-UX systems. New user setup, communications with Windows servers, ODBC connections with new warehousing databases. (Dec 11-May 13)
- Ongoing support and administration of eight Progress databases. Performed necessary database management, security, backup, and maintenance functions. Worked with security manager and lead developer to achieve company IT goals. Consolidated AIX servers, replicating functionality on newer servers. Saved costs of service agreements, improved process performance, data security. (Dec 11-Feb 13)
- Provided legacy ERP support during cut-over from QAD to Infor XPPS system. Ensured smooth transition for data processing and ongoing access to historical data in QAD ERP and RIMS warehousing databases. (Feb 13-May 13).

**PROGRESS CONTRACT PROGRAMMER AND DBA** – Contracted by a large firm to serve as Progress 10 Senior Programmer, Linux system and database administrator and QAD 2011 SE SME. (Jun 13-Sep 13)

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- Developed simple but comprehensive email automation framework for sending reports at scheduled times. Used the standard Linux crontab with tight integration to Progress and QAD. (Jul 13)
- Performed troubleshooting of faulty programs developed by a third-party consulting firm. (Jul 13)
- Wrote and tested Linux ksh scripts to automate database backups, database restore along with alert emails when functions are performed. Performed full restore of the production database on an auxiliary server and provided documentation for disaster recovery auditors. (Aug 13-Sep 13)

**MATERIAL HANDLING SYSTEM RECONFIGURATION/TRANSFER OF OWNERSHIP, I** – Served on a diverse project team with the goal of providing a smooth transition of information systems during a change of ownership. Performed detailed analysis of a custom-developed Progress-based Material Handling System (MHS), Data Collection (DC), and Warehouse Management System (WMS) for beef production for a major Canadian producer which was in the process of purchasing a large production plant. Adapted applications to new business processes and regulatory needs and facilitated network communications with the client's IBM mainframe. (Sep 08-Jun 13)

- Developed queuing system to integrate the new case sealer system with old MH system. Ensured serial numbers and other values synchronized seamlessly. (Feb 13-May 13)
- Made modifications to functionality of MHS, added ability to extract inventory and shipping data in Excel format.
- Oversaw expansion of new manual and automatic scale configurations.
- Provide ongoing support of MHS, WMS and Data Collection system remotely, automating the adding of users, rebuilding indexes in database, monitoring performance, performing system administration and DBA functions. Led effort to bring Progress database licenses current for maintenance purposes. (Mar 09-present)
- Designed robust background program to interface data from a Matrix system to accommodate roll-off of ID Station and Grade Scale operations onto a new Matrix system station. (Jul 10-Aug 10)
- Modified messaging functionality to allow for larger weights to be sent to the mainframe system via SNA protocol. Worked with mainframe personnel to test and implement modifications smoothly.
- Documented functionality of MHS and DC in the client's knowledgebase using Wiki-based software.

**AXIOM ERP Programming Support** – Worked on a team of Progress and Visual Basic programmers supporting a large multi-site Axiom implementation for a major global steel manufacturer. (Jun 11-Nov 11)

- Performed analysis and programming modifications to satisfy user specifications and business requirements. Programmed in Progress ABL (4GL) version 9, Visual Basic and DOS scripting.
- Adhered to strict SDLC protocols, documenting all steps. Assisted in daylong Disaster Recovery exercise.
- Designed and integrated Bank Reconciliation sub-system into A/R module.
- Consona Axiom ERP Modules worked on: Shop Floor Control, EDI, A/R, Order Management, General Admin, and Chemistry. Obtained familiarity with all major modules.

**ERP IMPLEMENTATION AND SUPPORT, II** – Served on the global implementation team for a major QAD eB2 user with over 30 manufacturing sites and significant custom modifications. Accepted wide-ranging duties, analytical, functional, and technical. (May 07-Aug 08)

- Evaluated business forms software packages from four vendors and delivered report with recommendations.
- StreamServe Document Implementation: Implemented and supported for over 30 sites. Forms included Purchase Order, Delivery Note (Shipper), Invoice, Work Order, and Sales Order Confirmation (Acknowledgement).
  - Provided universal printer accessibility via print server setup and Adobe PDF emailing functionality integrated with QAD user record emails. Configured all processes using Stream Serve Control Center.
  - Modified XML output from QAD to include selectable page codes and user emails. Wrote script to reduce size of XML by 50% with no data loss.
  - Worked with Customer Service personnel to allow electronic bill presentment via PDF documents sent directly to customers.
  - Used extensive scripting to provide support for dual language documents (English/German) and double-byte support for CJK character printing.
- StreamServe Report Implementation: Conserved printing supplies and allowed print to non-network printers by developing a subsystem which added ability to send any QAD report as an Adobe PDF attachment to a specified email address.
- Developed direct material cost extract to meet global raw material scheduling requirements.
- Designed and developed functional, flexible custom QAD security reports for audits.
- Utilized session trigger-wrapper method to change functionality of customer part assignment in order entry. Added pop-up for customer part selection based on values in the customer/part cross-reference table. Used session trigger logic for integration.

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**ERP IMPLEMENTATION AND SUPPORT, I** – Served on a working committee which implemented QAD eB with customizations for an international multi-site corporation. Responsibilities encompassed both technical and functional roles. After implementation, provided support and ongoing process and technical improvements. (Oct 02-Apr 07)

- Trained client's users in both standard QAD functionality and customization for repair shop.
- Developed and implemented forms specification for Findings Report, FAA Certification (8130) and Invoice via StreamServe. Provided for specific document needs for sites in three countries.
- Designed a Routing form using StreamServe for an aircraft engine component manufacturer in Singapore.
- Performed custom data conversions and loads for Product Configuration, Customized Routing Schemes, A/R, A/P, Vendor master and Global Tax Management using CIM functionality.
- Developed custom reports and performed troubleshooting for post-implementation problems. Utilized systems change requests for full compliance with Sarbanes-Oxley requirements.
- Developed, implemented, and supported forms using StreamServe software for international standardized forms project. Oversaw development of external application interfaces using XML.
- Provided ongoing administration and support including the following: new user setup and training, business process analysis, financial analysis, printer setup and troubleshooting, legacy system support (older version of QAD), system performance tracking, ad hoc report and spreadsheet creation, customer and business partner support for external B2B interfaces, internal interfaces to a StreamServe document processing application, a custom metrics system and a Cognos business intelligence application.

**STREAMSERVE FORMS DEVELOPMENT AND SUPPORT** – Served as the StreamServe developer and ongoing support person for several firms:

- Performed migration from StreamServe version 3 to 5.6. Migrated project files and environment from Windows 2003 to 2010. (Aug 13-Sep 13)
- Provided StreamServe remote support for a major manufacturer using SAP. Setup native StreamServe PDF-writer for electronic bill presentment. Added capability to bill fuel surcharge and segregated this charge from freight per billing. (Aug 05-Sep 05).
- Ongoing StreamServe support for a large firm. Added logo and address selection functionality based on corporation code. Made cosmetic changes for readability. (Jun 07-Jul 11)
- StreamServe work for two firms mentioned in implementation and support I and II above.

**PHYSICAL INVENTORY CUSTOMIZED FORMS DEVELOPMENT** – Served as the IT support on a team with a new controller determined to improve inventory accuracy and the physical inventory-taking process. This team achieved both goals and eliminated the need for temporary hires by using improved forms and faster, more precise reporting. (Original project: May 05, updated and improved: Oct 06)

- Developed user friendly, easy to read inventory tag forms via StreamServe forms development. Forms contained one section for WIP and one for finished goods.
- Developed "WIP Inventory Tag" program to print inventory tags for repair items in WIP, sorted by milestone to make them easier to locate on the shop floor. Modified QAD-standard Finished Goods tag code to work with StreamServe tag form. Could be called by either the Finished Goods or WIP tag generation program. Set up archive of tag forms so that any lost tags could be re-printed immediately.
- Designed Inventory Valuation reports to determine "carcass costs" of repair items in the Asset Management site.

**SOFTWARE PROJECT MANAGEMENT** – In the following projects, consultant was Project Manager, Project Lead or served on a team of developers:

- **PDF Email for Linux** – Developed a subsystem for replacing printers with emailed or stored PDF files using the standard Linux cupsfilter command. (Apr 24)
- **JavaScript Image Control** – Developed JavaScript methods to toggle image objects in HTML webpages to enhance user experience. Integrated into two separate websites. (Dec 19-Jan 20)
- **QAD EE Enhancements** – Defined and delivered QAD 2016 Enterprise Edition program enhancements for accuracy and increased user productivity. Modified the QAD Progress ABL (4GL) code for Where-used code to allow filtering on item master status. This was to satisfy a requirement in the client's engineering department to segregate the output by parent part status. (Sep 18-Nov 18)
- **Virtual Printer system** – Envisioned, developed, implemented a fully automatic Adobe Acrobat-based emailing system to work in lieu of printers with all QAD reports. The system is instantaneous and based on the account ID of the user submitting the report, therefore secure. System saves paper and toner cost and is crucial for traveling employees with immediate data needs. This was developed using StreamServe. (Jul 07-Dec 07)
- **Document tracking system** – Saved client approximately \$70,000.00/year in document storage fees by designing a bar code system. Required PCL-based subsystem to implement effectively, designed also. (Feb 06-Mar 06)

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- **Customer Field Tracking Sub-system** – Designed QAD application bolt-on to capture specified repair field values per customer (e.g., Engine Serial, Warranty, Customer WO #, Sub-customer PO, etc.). Fields were captured during quote entry for customer's whose capture flag was set to YES for field values requested. (Sep 04)
- **Integrated FAA Certification Project** – Oversaw development of a repair certification system which pulls data directly from QAD work orders, requests more information from component inspectors and generates certifications via StreamServe for multiple aviation authorities (FAA, JAA, CAAC, etc.). Developed for use in three countries. Provided ongoing support for system. Used StreamServe forms generator for output. (Sep 03-Feb 04)
- **Internet Data Harvester System** – Proposed designed and developed a Progress-based system for client to automate information retrieval from internet sites. (May 03)
  - Implementing this system reduced the data download time at six-fold and eliminated all errors.
  - Client realized a direct monetary savings of over \$3,000.00/month.
  - Features of system: Custom-built to address client's needs, multiple session capability (up to 5 simultaneous sessions per client computer), recognized/prevented duplicate data, output interface to Excel format.
- **Payroll System Integration** – Built QAD CIM to load data from client's payroll system (PDS) reports. Interface included accounts and format error checking. Saved client between 6-10 hours per month of controller's and payroll department's time. (Apr 03)
- **Data Extract Project** – Built a data extract interface which delivered information to client's largest customer from QAD. Rolled out to four sites encompassing four time zones in three countries. System delivered exception report, sent data at the close of each work day, and sent XML files to a B2B site. (Jan 03-Mar 03)
- **Six Sigma Initiative: DSO reduction** – Problem: users were forgetting to send EDI Advanced Ship Notices in QAD to customers causing administrative errors and non-payment. Worked with Sales Department and Six Sigma Black Belts to determine best way to increase accuracy in ASN delivery and streamline the user process and reducing Days Sales Outstanding. Led project to automate ASN documents (856) sent at time of shipment. (Jun 02-Aug 02)
- **Database Audit Trail System** – Managed project to design and develop a comprehensive Audit Trail system for table updates using database triggers in Progress V8. System tracked record creation, modification and deletion in specified tables recording user ID, date, time, current and former value of fields, etc. (Mar 02-Jun 02)
- **QAD MFG-PRO 9.0 Upgrade** – Led project to upgrade QAD from MFG-PRO 7.4i to MFG-PRO 9.0 SP4. Ported system from HP-9000 box to HP L1000 series. Tuned kernel on L1000 for Progress. Designed automatic UNIX FTP & Progress scripts to aid in dump and reload process. Reapplied mods for 200+ programs. (Feb 02-Jul 02)
- **JIT Initiatives** – Worked with Engineering, Material Management, Purchasing, Operations and a contracted programmer to develop and implement application programs designed to increase productivity, efficiency, and accuracy. Examples include:
  - **ASME Shop Traveler** – To promote ASME standards, designed, developed, and implemented a custom Shop Traveler system into QAD's Work Order module using Optio DCS forms software. Created product bar-code identification label and stocking label to output simultaneously on Zebra printers. (Apr 99-Jun 99)
  - **Automatic Backflush** – Developed an automatic backflushing and serial number bar code labeling system in QAD. Serial number entered is verified against open work orders for 100% accuracy. (Aug 99-Sep 99)
  - **Automatic PO** – Developed an automatic Kanban Purchase Order Faxing system in QAD using Optio DCS forms software and FaxFX. (Jun 99-Aug 99)
- **Estimation System** – Led project to develop and implement a GUI-based Estimation System in Progress V8. Oversaw status meetings and testing sessions. Later managed project to upgrade to Progress V9 and roll out to 2<sup>nd</sup> division of Client Company. (Mar 99-Oct 99)
  - Built to client's specification. Formulas adapted from client's Excel spreadsheet models into modular Progress function calls. Integrated engineer's manual estimation processes into an intuitive user-interface.
  - Fully integrated with client's Symix ERP system. Estimation system uses data from Symix tables (item, cost, work center, customer, etc.) as input and creates new items and product structures with costs in Symix ERP from generated quotes. Template-driven quote letter for rapid quote delivery.
  - Set up maintainable parameter screens to control formulas for machine operations, materials, packaging options, user access, pricing categories and strategies.
  - Wrote documentation for system detailing the configuration, features, and functionality of Estimation System how it interfaced with the client ERP system, Microsoft Dynamics AX.
- Performed tasks related to analyzing processes and testing modifications and solutions for IT Six Sigma project. Performed multiple forms of testing including regression. Proposed creative solutions to long-standing problems such as reducing DSO, reducing purchasing administrative lead-time, and increasing accuracy and timeliness in EDI ASNs. (Team member) (Jun 02-Aug 02)
- Developed, and implemented a fully integrated service charge billing sub-system in QAD ERP which functioned to invoice service charges separately. (Dec 01-Feb 02)

## **Paul Fry • IT Applications Specialist & Consultant • Experience Summary**

- To correct sample size calculations within the QA system, developed an inventory receipt rollup processing module to combine separate stock receipts from a warehouse management system (Robocom RIMS) into QAD ERP. (Team member) (Jul 01-Sep 01)
- Modified and debugged a three-processor client-server Data Collection system using a controller connected to the production machine and the Windows client. (Team member) (Apr 96-Jun 96)
- Designed, developed, and implemented a GUI-based Customer Order Entry System in Progress V7, which was integrated into the client's Symix ERP system. (95-96)
- Acted as support and development programmer in charge of maintaining custom Progress-based candidate search and contact system. Worked on project to migrate app to Visual Basic .NET-based app. (Jul 14-Aug 14)

### **APPLICATION CONFIGURATION, MODIFICATION AND REPORTING**

- Configured EDI in QAD and Syteline for several clients, both manufacturing and distribution.
- Completed a backlog of QAD report modification requests including: Shipping Report, Purchase Order Print, Inventory Comparison Report, Inventory Evaluation Report, Work Center Loading Report, Sales by Group Report, Work Order Cost Report, Promotional AP Reports, and Physical Inventory Tag Quantity Comparison.
- Designed and developed multiple enhancements for companies related to the following business applications: Engineering, Order Processing, Inventory, Accounting, Purchasing, Warehouse Management, Production Control.
- Developed budgetary estimates and detailed specifications for programming projects. Advised clients on feasibility of ERP projects and most efficient directions to pursue.
- Developed data-extract programs for QAD to load Sales Metrics system.

### **DATABASE ADMINISTRATION (DBA)**

- Performed Progress database administration and system configuration services for clients: single volume to multi-volume database conversions, index rebuilds, database dump and reload processes, backup management, archive and delete proposals, resource needs assessments, log file analysis, etc.
- Developed one-time data-transformation scripts into Standard CSV, tab-delimited, QAD CIM format, etc.
- Improved a client's system performance ten-fold by utilizing Progress DB tuning techniques. (Aug 00)
- Orchestrated a data merge between two QAD systems (Versions 7.4i & 8). Developed custom replication system to transport and transform data. (Oct 99-Jan 00)
- Set up custom data replication system between QAD and OnContact Sales Quote system running on SQL server via ODBC connection. Developed sync software running between the Progress and SQL server. (Oct 99-Jan 00)
- Performed analysis to determine data translation from Syteline database to be imported into ICIM ERP. (Aug 09)
- Upgraded QAD from MFG-PRO 7.4f to MFG-PRO 7.4i. Reapplied mods to over 100 programs. (Oct 99)
- Created data conversion schema from IBM System 38 file structures to Progress database tables/fields. (Jan-95)

### **TRAINING PERFORMED**

- Online tutoring in the subjects of Linux, Raspberry Pi and X11 Graphical Access setup and Mathematics. (2020)
- Conducted several training sessions on OpenText CCE 16 (Exstream / StreamServe) forms development using EventIn, StoryTeller and DesignCenter. Approximately 12 students in each class. Provided training related to Form Management Automation System ("FRAMES" project) detailed above. (2016-2017)
- Trained clients as part of QAD eB implementation in eB functionality, work orders, customer orders, product configuration, accounting modules, etc. (2002-2004)
- Trained clients in Progress 4GL Programming and Database Admin, v8 GUI and Symix administration. (1994-1997)
- Performed approx. 200 hours of StreamServe training for large company. (2008)
- Conducted code reviews explaining logical operation and data flow. Conducted user training in the development of Progress data-mapping routines. Acted in mentoring role as resident Progress SME.

### **MISC DEVELOPMENT**

Wrote VB & SQL scripts to standardize importing contact databases into CRM package. (Apr 01) • Developed intranet Wiki pages with resources for programs developed for Warehouse Management system application. (Feb 16) • Administer business and tech-based blogs and Twitter accounts (Oct 05-Sep 16).

### **TRAINING RECEIVED AND OTHER QUALIFICATIONS**

Level Up: JavaScript (Intermediate / May 2023) • Python 3 Essential Training (online / Apr 2020) • Agile/Scrum Training Seminar (Nov 2017) • Progress ProDataSets (Nov 2004) • Syteline: CRM, Workflow (Jun 2000) • Progress Tuning Seminar (Jun 1999) • QAD MFG-PRO Product Training (July 1998) • Progress Fundamentals (July 1990) • NCR UNIX Basics (Jul 1989) • Recruited personnel for clients' projects and on-going infrastructure needs • Technical advisor to investment firms via Gerson Lehrman Group • APICS CPIM certification in 2002 • President, Ohio Progress User Group • Active US Passport