RÉSUMÉ

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I am seeking contract positions performing process control design and configuration (programming) services utilizing Emerson Process Management's DeltaV Systems or upgrading PRoVOX Systems or other systems to DeltaV Systems.

I require that I ONLY work from home: working on customer development and process systems. Communication for meetings, technical reviews and development should occur via WebEx or ZOOM. I have been working from home since June 2007.

QUICK REVIEW

(Chemical Industry, Pharmaceutical Industry, Pulp and Paper Industry, Power Generation Industry, Nuclear Reprocessing Industry, and Oil & Gas Industry)

1. 27 Years DeltaV Continuous and Batch Design/Configuration
    a. 1996-2002 DeltaV Training (11 Certified Classes – Austin, TX)
    b. Control Module Design (points – individual, PBL and PCSD Classes)
    c. Communication Module Design (PLCs, etc.)
    d. Special Module Design (ProVOX migration, etc.)
    e. Composite Design
    f. Class Design
    g. Sequence (FSC) Module Design
    h. Equipment Module (Ems) Design
    i. Phase Design
    j. Batch Executive Design (Operations, Unit Procedures, Formula, Procedures)
    k. HMI Design (including DVOP)
    l. Hardware IO Layout Design
    m. Hardware Specification
    n. P&ID reviews for designing Control System
    o. Creating FDS (Functional Design Specifications)
    p. Creating DDS (Detail Design Specification)
    q. Creating Validation Documents for Batch Pharmaceuticals Control
    r. Develop Simulation system for testing, CAT or FAT (Mimic and others)
    s. Performing CAT (Customer Acceptance Testing)
    t. Performing FAT (Factory Acceptance Testing)
    u. Performing Customer/Plant Startups
    v. Performing Customer/Plant personnel training
2. 35 Years ProVOX Continuous and Batch Design/Configuration

a. P&ID reviews for designing Control System
b. Includes IAC, CFG, IFC and UOC Design/Configuration
c. Control Module Design (Points)
d. FSTs Design/Configuration
e. Batch Design (Operations, Procedures, Procedure Lists)
f. HMI Design
g. Created the CFD format for Monsanto Module Standards
h. Created the Monsanto Procedures Standard for PRoVOX

3. PRoVOX Migration to DeltaV (Details follows below)
    a. 2002 Developed a standard procedure for Migration PRoVOX
    b. 2014 Automated this Migration Procedure (Description follows)
        i. CDV files to Excel Spreadsheets
        ii. Build Bulkedit files
        iii. Create a DDS with PRoVOX versus DeltaV Parameters

EXPERIENCE (Summary)

I have PRoVOX and DeltaV experience in performing design, configuration, and implementation of process control continuous and batch applications, performing start-up operations, and implementing Advanced Process Control (APC) applications. During these periods, I was involved in project management, project engineering, process design, control system design, configuration and system implementation.

Over the early years, I worked on many DCS systems and PLCs but came to the conclusion that an individual could only be great at a few or even one DCS system as their enhancements and control applications expanded. I thus chose in 1986 PRoVOX and later DeltaV to be my primary/sole DCS system for software and hardware design and implementation. I am pleased with this decision.

As a contractor since 1986 specializing in configuration and implementation, I have been designing control applications (Continuous and Batch Control) for implementation on Emerson's (Fisher-Rosemount Systems') PRoVOX, and now Emerson's Process DeltaV systems (since 1996). I also worked on the design and implementation of Monsanto's Direct Digital Control (DDC) system in 1975. I designed installation of Monsanto's first PRoVUE (IAC,CFG) system in 1979.

During my career implementing PRoVOX/DeltaV projects, I have completed 78 individual projects and 22 team member projects for a total of 100 projects. I'm looking for that next great project. (Note: Projects are defined for those that I receive an individual purchase order for or individual project work for an Impact Partner thus defining the 100 projects.)

This work includes implementing control in PRoVOX Configurable Controllers; Computing Controllers; 2-wide, 3-wide, and 4-wide IACs; Multiplexer Control Units; Integrated Functional

Controllers (IFCs); Unit Operational Controllers (UOCs); SR90 Controllers; SRx Controllers; and implementing Human Machine Interface (Display Design and Alarm Management) on HP Consoles; PRoVUE Consoles; OWP Consoles; POC consoles; DeltaV Operator Interface; and DeltaV Operate.

DeltaV Work has included Configuration utilizing standard DeltaV configuration and specialized DeltaV PBL and PCSD Class modules, Phases, Equipment Modules, SFCs, Control Modules, and graphic dynamos for continuous and batch control. Work also included developing software and utilizing existing control simulations packages; including Aspentech/Hyprotech HYSYS Simulation Software and MYNAH Technologies Mimic Simulation Software developed for DeltaV.

In other endeavors, I have worked for IBM as a contract engineer on their RISC Chip Design and Testing (RS6000/Power PC Chips). I have also worked on designing and installation of Computer Integrated Manufacturing Systems. I have written software for the Lockheed Missile & Space Company for the US Government's Tomahawk Missile program. I designed digital hardware for Texas Instruments PC Computer Systems.

As an electrical engineer with a triple major in Computer Systems, Control Systems, and Communications Systems, I have been able to utilize my talents implementing continuous and batch control systems (hardware, software, and instrumentation) in the Chemical Industry, Pharmaceutical Industry, Pulp and Paper Industry, Power Generation Industry, Nuclear Reprocessing Industry, and Oil & Gas Industry. My MBA in Management and Finance has enabled me to manage engineering projects and people.

MIGRATION TOOL DEVELOPMENT

2014 to Present

I have designed a PRoVOX/EnVOX Documentation and Migration tool for migration to DeltaV. This implementation is a combination of the tools and individual work that I have performed manually over the past 24 years. As I worked for Emerson Process Management, their represented LBPs and many users of PRoVOX systems, I developed many techniques and procedures that I standardized to create a Detail Design Specification (DDS) that represented the PRoVOX/EnVOX systems being migrated.

It is from these DDS documents that customers can implement the PRoVOX system into DeltaV systems. Or if not migrating to DeltaV, the DDS can be used for other DCS system implementation such as Honeywell, ABB, etc.

As part of this, I developed a work analysis tool to identify and estimate the man-hours to document the PRoVOX system, if performed manually. These estimates have proven to be accurate and have been used to provide cost estimates to customers.

The tool creates the spreadsheet of control module data for bulkedit into DeltaV. The bulkedit files are based on DeltaV Classes, either specific classes developed by the customer or the existing Emerson Process Management PBL and PCSD classes.

It is this accumulation of my previous extensive PRoVOX experience and this migration experience that I am developing this tool. The migration tool covers both Continuous Process and Batch Process documentation and implementation.

For more information visit my website to see how you can utilize this migration tool: www.DBStuart.com

WORK EXPERIENCE (Details)

Note The following project work experiences are not designed to cover or contain a comprehensive listing of activities, duties or responsibilities for each project.

Project #101 As of 6/16/2023: Currently looking for new remote DeltaV contract work.

7/25/2022 to 6/16/2023 Project #100 Process Control Consultant for DeltaV Batch Control Testing, Documentation, Analysis and Configuration for Gilead-Kite Pharmaceutical located in Oceanside, CA.

Work for Mission Control System (MCS), Oceanside, CA an independent Consulting Company. (Work from home utilizing Gilead-Kite's dedicated PC connected to Kite DeltaV System and Documentations.) Work included working with Gilead-Kite personnel, MCS personnel and other Kite Consultants.

Responsibilities include the following:

- PCS Optimization Project covering 775 Production control modules, Equipment Modules and Phases. These changes included:
  - Upgrade to Gilead Classes for 405 modules. Including EM Modules blocks for many class changes.
  - Upgrades/Changes to modules for standardization of Alarm Management
  - Updating Documents including SPC and SOP
  - In several instances, errors in configuration were detected and corrected.
  - Work with Change Control and Validation.
- Created a Component Class to replace the Emerson Acquire/Release ACQ_REL module (which is to be removed in later DeltaV versions).

Production CM and EM modules had ACQ-REL removed and the new Acquire/Release Class utilized.

- Created a Service Module Class to implement Out-of-Service and In-Service modules in specific areas. Created Instances for all Production Areas.
- Created a Master/Slave configuration for a new Flow Control to Motor Speed Control. One design was PID/PID control and a second requested design was special AI to PID Speed Control. During this design, I reviewed existing similar configurations running on the Production System and found many inconsistences. To review with customer, I created SAMA diagrams of all existing controls and the new designed control. My contract ended before the information could be reviewed before implementing but transferred all the data to Mission Control Systems to complete with customer.

2/1/2021 to 9/3/2021 Project #99

Process Control Consultant for DeltaV Batch Control Testing, Documentation, Analysis and Configuration for Merck Pharmaceutical located in Durham, Durham, NC.

Work for RE Mason, VA, a Local Impact Business Partner for Emerson Process Management. (Work from home utilizing RE Mason's Merck development system.) This project included working with Emerson personnel (US and largely India) plus RE Mason personnel. (Work was original for Column Packing, but was working on Ultrafiltration until Column Packing work was to begin.)

Responsibilities include the following:

- This work assignment was to assist Emerson and RE Mason DeltaV integrators to develop, review, document and validate the Merck new DS4 Purification 4 and Purification 5 NPV product. The configuration was developed from DS3 configuration so as to have conformity.
- Documents for this project included FDS→RS→DS4 Phases/Ems→Recipes→VST→AOQ.
- Review, Analyze, and Develop solutions to existing DeltaV Batch system, including Batch, Recipes, Unit Procedures, Operations, Phases, Equipment Modules, and Control Modules located in the Merck Durham North Carolina site utilizing the RE Mason Development system.
- Review RS (Merck Functional Specifications), create, review and update VST (Valve Sequence Table) Tables and review and update the AOQ validation testing documents
- Define and document required changes to correct configuration problems, make changes and test in DS4 and create PCC documents to upgrade DS3 system for conformity.
- Initial work concentrated on the Ultrafiltration (UF1 &UF2) systems.

- Major work concentrated exclusively on the Column Packing system.
- I created new procedure for creating and testing Equipment Modules using the VST Tables in Excel which allowed single testing of SPM EMs and faster testing of individual specific Equipment Modules under specific conditions.
- Reviewed CIP (Clean in Place): RS, Unit Procedures, Recipes (Formulas), Operations, Phases and Equipment Modules.
- Reviewed Process: RS, Unit Procedures, Recipes (Formulas), Operations, Phases and Equipment Modules.
- Process included running Batches to verify both CIP and Process conformed to design documents.
- At the end found problems in Ems failure and recover from Phase Holds that was a problem for Ems that had embedded sequence code.

Note: This contract was for 11 months (February 2021 – December 2021) to perform only remote work. Contract was ended early by RE Mason when work requirement conditions changed and I was required to work on site for 5 months. I declined site work as per my original contract conditions.

8/2020 to 1/2021 Project #98

Process Control Consultant for DeltaV Batch Control Analysis and Configuration for Biogen Pharmaceutical located in Research Triangle Park, Durham, NC.

Work for RE Mason, VA, a Local Impact Business Partner for Emerson Process Management. (Work from home utilizing Biogen's Amazon WorkSpace for access to Biogen's DeltaV Systems and company systems.)

Responsibilities include the following:

- This work assignment was to Review, Analyze, and Develop solutions to existing DeltaV Batch system, including Phases, Equipment Modules, and Control Modules located in the Biogen North Carolina plant.
- This work included the Large Scale Manufacturing (LSM) and the Small Scale Manufacturing (SSM) facilities.
- Initial training included many required on-line training courses, Document reviews, Pharma documentation System reviews in order to be able to document, setup testing, and perform validation. To date, I have completed a total of 79 various on-line training requirements.
- One of my assigned tasks is Media Prep analysis of the transfer out "XOUT" phases for transferring product from one tank to another. This started with On-Call reports indicating there is a problem with one particular Phase. This work was expanded to review all transfer out phases. Three documents have been created which define what the problems were and their resolutions for 21 Phases. Work is to begin in the near future to change the configuration and implement in the production systems.

- Another assigned task is to review the Batch Phase communication synchronization between phases for transferring product from one tank to another. This analysis is in the works.
- A side task is to help resolve an existing problem with the Batch achieve transfer system. This revolves working with RE Mason and Emerson which has an on-going review of problem. Reproducing the problem may be the current holdup.

Note: RE Mason failed bidding to renew their contract with Biogen for the new year thus ending my contract work with Biogen and RE Mason.

6/2020 to 8/2020

This is a NON-PROCESS CONTROL work schedule. Just listed here to denote working time not associated with this primary resume readers. (Note: I have creating Web-Sites since 1994.)

This work involved creating a Web-Site for a major Grand Ole Opry Nashville Comedian.
Duties Included:

- The customer was not happy with the existing Web-Site and the group creating and managing the Web-Site.
- Recommend a new platform designed specifically for his requirements.
- System included CDs, CD tracks, books, pictures and written and verbal stories.
- Continue working with customer to manage YouTube and Facebook applications

6/2019 to 1/2020
Project #97
Project #96
Project #95

Utilized my Migration Tool for three different DeltaV migration companies to generate the data evolved in the output from my Migration Tool. These companies were Migrating PRoVOX to DeltaV. Depending on the size of the PRoVOX database, these efforts took approximately three (3) weeks each to complete.

Data Generated:

- Provided an estimate of man-hours to complete project along with cost estimate.
- Converted PRoVOX database to Excel Spreadsheets.
- Created Bulkedit files of all PRoVOX points via Class Control Modules.
- Created Spreadsheets of all FSTs, ISTs, Operations, Procedures, LCPs and displays for ease of use and documentation.
- Generated DeltaV IO using IST spreadsheets.

11/2018 to 6/2019
Project #94

Process Control Consultant for PRoVOX to DeltaV Migration & Configuration, Northeast Controls, Inc. NY - Local Impact Business Partner

for Emerson Process Management. (work from home with trips to NCI New York Office and customer's plant site)

This work assignment was Developer of Equipment Modules (EMs) both Phase and Non-Phase EMs for the SI GROUP Plant in Rotterdam, New York.

This work involved migrating PRoVOX UOC Operations to DeltaV Phase Logic, migrating FST logic to DeltaV EM control logic and building HMI graphics. Design and implementation was performed on a NCI simulation system, transferred to plant live system with plant startup completed.

Documentation trail was provided by utilizing PRoVOX Operations and FSTs in spreadsheets and identifying where the code from the Operations and FSTs was implemented. This provided a valuable tool to confirm that all code was migrated to DeltaV EMs and control modules.

I was able to utilize my migration tool to develop the spreadsheets detailing all of the PRoVOX FST and Operations such that using PRoVOX Control Studio was not necessary during the design of the DeltaV system. This allows ease of use for providing details and resolving PRoVOX to DeltaV translation problems.

04/2018 to 05/2018 Project #93

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Impact Business Partner for Emerson Process Management. (work from home)

This work assignment was to update the DeltaV Software Function Specification (SFS) and Software Design Specification (SDS) for PharmaChem Technologies project in Freeport, Bahamas.

This involved updating the SFS and SDS documents to reflect DeltaV version 13.3.1

This project is a new plant installation.

10/2017 to 04/2018 Project #92

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Business Partner for Emerson Process Management. (work from home with trips to CSI Atlanta Office and customer site)

This work assignment was Developer of Equipment Modules (EMs) for the Rayonier Applied Materials Plant in Fernandina, Florida. This project is an upgrade from APACS Control System to DeltaV. Rayonier is a Chemical Company specializing in special chemical products.

This included creation, testing and verifying for FAT at Control Southern facilities as well as operator training, checkout and startup at Rayonier site.

The project was on-going when I arrived. My assignment was to develop the sequencing logic for Evaporator washes. Later on another sequence task for the Brinks Demister system was added.

The Evaporator sequences consist of two evaporator lines, each with 6 evaporators requiring individual washes. The Brinks sequences consist of four demister tanks requiring individual washes.

Development Responsibilities include the following:

- Review and document the APACS sequence logic existing at the time.
- Later it was determined that the current evaporator sequence logic was not used because it did not perform the tasks required. This thus required that I work with the customer to develop a new design that Operations would accept.
- Designed EMs with the class formats. To accomplish this, a new EM class was developed requiring new composites and detail faceplates.
- Participated with customer acceptance testing where new development requests came from operations. These requests were incorporated into the design.
- Participated in Rayonier operator, supervisor and engineer training.
- Participated in DeltaV system checkout on-site.
- Participated in plant startup operations and sequence testing.

7/2017 to 1/2018 Project #91

Process Control Consultant for ProVOX Migration to DeltaV Configuration, Emerald Coast Process Control (ECPC) located in Gulf Breeze, FL (work from home)

This work utilized my PRoVOX Migration tool to analyze existing IAC and Computing Controllers for Ascend Performance Materials, Decatur, AL.

This project involved development of DeltaV Base Build bulkedit control modules data for import into DeltaV. This also involved generating Detail Design Specification (DDS) document detailing the current control implementation and the DeltaV migration data.

These documents were passed to ECPC which implemented the controls within DeltaV and performed FAT for customer.

12/2015 to 6/2016 Project #90

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Business Partner for Emerson Process Management. (work from home with trips to CSI Atlanta Office)

This work assignment was Batch Lead for the Solvay Winder Plant upgrade from ABB control to DeltaV Continuous and Batch Implementation. Solvay Winder is a Specialty Chemical Company located in Winder Georgia.

This project was already 12 or more months in development when I came on board. This project is an upgrade from ABB to Deltav Continuous and Batch Implementation. In the beginning this project involved only Control Southern employees.

Schedule changes required the request to bring on some Global Engineering Group (GEC - India) from Emerson Process Management to assist in implementing Phases designed by CSI. Future development included bring Emerson St. Louis MEC group on board to develop Recipes. Eventually, Solvay upper Management decided to move the whole project to MEC, St. Louis. Thus Control Southern (CSI) and my participating in the project design, implementation, testing, training and startup evaporated. A new Emerson Project Manager was appointed, moving all project responsibility to MEC.

Update: It has come to my attention that Emersion MEC did not follow the customers' (SOLVAY) and Control Southerns' project design but instead decided to implement their standard Batch/Phase design. This was in direct conflict with Customers' design and Control Southern's project definition. MEC fail during FAT and had to redesign all Phases and Equipment Modules per Customer's requirements. Project overrun cost was reported to be over $500,000.

Batch Lead Responsibilities include the following:

- Worked with development team on the final development, Implementation, and Demonstration of the first Recipe: 35-UL for three reactors. Customer liked and approved.
- Working with Customer for overall project design direction for the Batch implementation.
- Managing the Batch High Level Design Guideline Documents to meet customer's needs.
- Managing the Batch Component Identification Documents that reflect the hierarchy of the Operation, Phases, Equipment Modules and Control Modules and their relationships.
- Managing the Batch High Level Design Documents.
- Overseeing the Base Build Development (Control Modules). Most of these were completed before I came on the project.
- Overseeing the Simulation Build System (Mimic) to reflect the process for testing. Most of this was implemented before I came on the project.
- Managing the development of the Automated Testing System to be able to run simulated tests of Equipment Modules, Phases and Recipes.
- Overseeing the development of Equipment Modules. Most were completed when I came on the project but followup recovery implementation was necessary.

- Managing the design and development of the Phases. This included the detail design of Step/Action instructions for implementation in the Emerson automated Phase Code Generation Tool. Based on pseudo code, this tool would generate the Phase Run Step and Actions for implementation.
- Managing the design and development of the Batch Operations.
- Managing Technical Review Meeting with customer.
- Assist Project Manager in project scheduling estimates.
- Train and work with customer for testing Equipment Modules, Phases and Recipes.

10/2015 to 12/2015 Project #89

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Business Partner for Emerson Process Management. (work from home with trips to site)

This work consisted of DeltaV simulation utilizing MYNAH Technologies Mimic Simulation Software for Cotting Industries, Inc.

This work included design and implementation of simulation for Cotting's Hydrogen Production Plant Hydro-Mini 15000 skid. The DeltaV SCF was designed and implemented by CSI. The simulation was designed for testing, FAT and training of the Hydrogen skid.

Initial design of simulation was from the Control System Configuration Specification and P&IDs. Finally testing and verification was tuned for the SFC application.

12/2014 to 10/2015 Project #88

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Business Partner for Emerson Process Management. (work from home with trips to site)

This work consisted of DeltaV configuration for International Paper, Augusta, Georgia.

This included creation, testing and verifying for FAT at Control Southern facilities as well as operator training, checkout and startup at IP. The Configuration utilized Emerson's PCSD classes as the foundation for the projects.

The following projects were worked on during this period for Control Southern:

- 12/14 to 4/15 - #3 Evaporators,
- 5/15 to 9/15 – Paper Machine #3,
- 6/15 to Present – Pulp Mill #2

The following DeltaV tasks were performed for these projects:

- Created new and modified existing Process Loop Descriptions from PRoVOX configuration,
- Verified Class Modules created specifically for this customer,
- Verified Class Composites created specifically for this customer,
- Verified Phase Sequence logic created specifically for this customer,
- Created Phase, EMs, SFCc, and CMs for above 3 projects,
- Created DVOP Graphics,
- Created HCD Graphics,
- Created Mimic Simulation

10/2014 to 5/2015
Project #87

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Business Partner for Emerson Process Management.

This work involved verification of DeltaV phase logic for Baxter. This project work was commissioned for CSI from Emerson Process Management, Austin, Texas.

3/2014 to 9/2014
Project #86

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Business Partner for Emerson Process Management.

This work involved the creating of a special Functional Design Specifications (FDS) for migration of PRoVOX/EnVOX to DeltaV for the International Paper Plant, Augusta, GA.

This special FDS contained the current PRoVOX/EnVOX configuration analysis and the DeltaV design specification. Normally the FDS contains the process functionality and the Detail Design Specification (DDS) contained the DeltaV detail implementation specifications. This one document can be used for DeltaV design, implementation and CAT testing.

This work involved the translation of 600 PRoVOX / EnVOX FSTs into this Functional Design Specification (FDS). In addition, a Bulk Edit Spreadsheet was created and updated to reflect the DeltaV implementation.This work included five (5) areas of the plant.

11/2013 to 1/2014
Project #85

Process Control Consultant for ProVOX Configuration, LANXESS Corporation, Houston, Texas. (work from home)

This work involved the translation of PRoVOX configuration for Reactors 1 & 2 into DeltaV Code. This included creating a Cause and Effect spreadsheet for interlocks and implementing interlocks.

9/2013
Project #84

Process Control Consultant, Control Southern, Inc. GA and Cornerstone, Inc. IN - Both Local Business Partners for Emerson Process Management.

This work involved the assessment of the Eli Lilly ELANCO Augusta, GA plant review of their Provox System Architecture Upgrade. This included plant PRoVOX and DeltaV hardware facility as well as existing configuration and upgrades of hardware and controls. This resulted in a report on best path forward for upgrading the plant and control systems.

01/2012 to 08/2013
Project #83

Process Control Consultant for DeltaV Configuration, Control Southern, Inc. GA - Local Business Partner for Emerson Process Management. (work from home)

This work consisted of DeltaV configuration for Rayonier Performance Fibers, Jesup, Georgia. This included creation, testing and verifying for FAT at Control Southern facilities as well as operator training, checkout and startup at Rayonier site. The Configuration utilized Emerson's PCSD classes as the foundation for the Rayonier projects.

The following projects were worked on during this period for Control Southern:

- 1/12 to 3/12 - Water Treatment Plant,
- 1/13 to 5/13 - Waste Caustic Evaporators,
- 2/13 to 6/13 - A-Mill Conversion,
- 2/13 to 6/13 - Z-Annex Conversion,
- 3/13 to 8/13 - G-Evaporators

The following DeltaV tasks were performed for these projects:

- Created new and modified existing Process Loop Descriptions,
- Created Class Modules,
- Created Class Composites,
- Created Phase Sequence logic,
- Created SFC Sequence logic,
- Created Control Modules,
- Created IO Design - CHARMS,
- Created Graphics,
- Created Simulation,
- Created Power Point Presentation for Training of area operations including sequencing

11/2012 to 05/2013
Project #82

Process Control Consultant for ProVOX Configuration, LANXESS Corporation, Houston, Texas (work from home)

This work involved the translation of PRoVOX configuration for Reactors 1 & 2 into a Functional Specification document. This included creating a Cause

and Effect spreadsheet. Both of these documents detail the exisitng PRoVOX interlocks to be upgraded to DeltaV by Koch Modular Process Systems, LLC. (KMPS)**.**

02/2012 to 04/2012 Project #81

Process Control Consultant for ProVOX Configuration, Sappi Fine Paper North America, Cloquet, MN (work from home)

This work involved reviewing existing plant PRoVOX configuration, detailing documentation of FSTs and interlocks. The documents were transferred to Honeywell for implementation of an Honeywell DCS upgrade to plant

08/2011 to 11/2011 Project #80

Process Control Consultant for PRoVOX/DeltaV Migration Configuration, Control Dynamics – Local Business Partner for Emerson Process Management (work from home)

The work involved reviewing existing Ashland Hopewell Site Natrosol PRoVOX configuration and converting to a process narrative (detail design specification) with interlock tables. This data was used to migrate to DeltaV.

08/2011 to 10/2011 Project #79

Process Control Consultant for ProVOX Configuration, Equipment Controls, Inc – Local Business Partner for Emerson Process Management (work from home)

This work involved reviewing PRoVOX Configuration and resolving Interlocks for Valspar Package Coating Group, Garland, TX Plant. This involved creating an equipment module for the ROWater system.

07/2011to 11/2011 Project #78

Process Control Consultant for DeltaV Graphics Design, Control Southern, Inc, GA – Local Business Partner for Emerson Process Management (work from home)

This work included conversion of PRoVOX graphics to DeltaV graphics development for the Emery University Steam Generation Plant Control Upgrade.

05/2011 to 06/2011 Project #77

Process Control Consultant for DeltaV Configuration, Control Associates, – Local Business Partner for Emerson Process Management (work from home)

This work involved Bystol-Myers Squibb's 48B Glass Plant developing Reactor graphics and operator graphic testing system to verify graphic functionality. A testing document was created for verification.

03/2011 to 04/2011 Project #76

Process Control Consultant for PRoVOX Configuration, Control Southern, Inc, GA – Local Business Partner for Emerson Process Management (work from home)

This work involved International Paper migration of PRoVOX graphics to DeltaV graphics.

01/2011 to 05/2011 Project #75

Process Control Consultant for DeltaV to Visual Basic Application, Control Southern, Inc, GA – Local Business Partner for Emerson Process Management (work from home)

This work created applications in Visual Basic code for Toray Carbon Fibers in Decatur, Alabama. Their designed DeltaV Batch Scheduling configuration was transferred into Excel Applications utilization Visual Basic Application Code.

6/2010 to 01/2011 Project #74

Process Control Consultant for DeltaV Configuration, Control Associates, Inc. NJ – Local Business Partner for Emerson Process Management (work from home)

This work created DeltaV Phases and Equipment Modules for DSM Nutritional Products. Covered is configuration for converting PRoVOX Operations and LCP/FST configuration code to DeltaV Phases and Equipment Modules.

6/2010 to 11/2010 Project #73

Process Control Consultant for DeltaV Configuration, Control Associates, Inc. NJ – Local Business Partner for Emerson Process Management (work from home)

This work created DeltaV control modules and graphics for Koch Modular Process Systems project. Covered is configuration for Reactors, Feeders, Columns, Cyclones and tank controls. Work included:

- Ethernet Communications
- Created Control Module Classes
- Created Control Modules creation using Bulk Edit techniques

11/2009 to 10/2010 Project #72

Process Control Consultant for DeltaV Configuration, Control Associates, Inc. NJ – Local Business Partner for Emerson Process Management (work from home)

This work created DeltaV to/from PLC communications configuration for Firmenich New Caps project. Covered is configuration for PLC Centrifuges, Spray Dryers, Flood Bed Dryers and CIT Skids. Work included:

- Creating Serial card configuration to match PLC memory allocations,
- Creating PLC decode modules,
- Creating Control Modules for PLC points and alarms

8/2008 to 11/2009 Project #71

Process Control Consultant for DeltaV Configuration, Control Associates, Inc, NJ – Local Business Partner for Emerson Process Management (work from home)

This work created Graphical Users Requirements Specification and CFAT documents for projects for Bristol-Myers Squibb. Documents were created for covering configuration specification and testing of Reactors and TCMs as well as all associated graphics. Graphic Phase messaging was checked and included in the CFAT.

9/2009 to 10/2009 Project #70

Process Control Consultant for DeltaV Configuration, Control Southern, Inc, GA – Local Business Partner for Emerson Process Management (work from home)

This work assisted in the creation of phases for the VALSPAR Resin plant in Birmingham, AL. The included creating, testing and verifying for FAT. Also, phases created by others were tested and verified for FAT.

5/2009 to 8/2009 Project #69

Process Control Consultant for DeltaV Configuration, Virent Energy Systems, WI (work from home)

This work created Acid Condensation Regeneration Sequence Package for implementation in a large-scale cellulosic biomass pilot plant. This process is for controlling reactors in the processing/converting corn-crop residue, wood waste and grasses to jet fuel, other biofuels and chemicals. Tasks included the following:

- Designed the Process for reactor control and switching,
- Created Phase Sequence logic,
- Created Control Modules,
- Created Graphics for messaging and scheduling,
- Created Spreadsheet detailing the functions, alarms, failures of the Phase Sequence logic,
- Created Word document describing overview for training,
- Created Power Point Presentation detailing the valve sequencing

10/2008 to 1/2009 & 3/2009 to 5/2009 Project #68

Process Control Consultant for DeltaV Assessment Testing, National Engineering Resources, Inc.

(work from home)

This work created a WEB database testing system to evaluate DeltaV customers' (employers) needs and candidates' (employees) capabilities.

- Developed DeltaV questions to verify extent of candidate's knowledge of DeltaV Configuration.
- Developed DeltaV questions to evaluate employer's needs as to the type and quality of potential DeltaV employees.
- Created Web based configuration to implement testing program.

9/2008 to 11/2008 Project #67

Process Control Consultant for DeltaV Configuration, Bay-Tec Technologies, Brea, California

Reviewed Functions Design Specification, reviewed and updated DDS and created configuration for Amgen Centrifuge Phase 2 project in Thousand Oaks.

- Reviewed FDS and DDS
- Created Centrifuge modules, control modules and class modules.
- Created Phases and Recipes
- Created Graphics

3/2008 to 7/2008 Project #66

Process Control Consultant for DeltaV Configuration, Control Southern Inc., Suwannee, Georgia - Local Business Partner for Emerson Process Management (work from home)

DeltaV design and configuration for Hercules Dalton facilities. Work performed from Home Office.

- This included DeviceNet plus Conventional IO.
- Created Configuration utilizing Class-Based Modules.
- Graphics created from EFDs and other documents.

01/2008 to 3/2008 Project #65

Process Control Consultant for DeltaV Startup, Control Southern Inc., Suwannee, Georgia - Local Business Partner for Emerson Process Management (work from home)

Participated in Startup of DeltaV for Pre-Carbonization and Carbonization functions for Toray Carbon Fibers Facilities in Decatur, Alabama.

10/2007 to 1/2008 Project #64

Process Control Consultant for DeltaV Detail Design Specification Development, Control Southern, Suwannee, Georgia - Local Business Partner for Emerson Process Management (work from home)

Designed and created DDS for migrating PRoVOX to DeltaV in Solutia's Therminol Facilities in Anniston, Alabama. Work performed from Home Office.

- Created DDS from existing PRoVOX code, process descriptions and Engineering Flow Diagrams (EFDs).

This included functions layout of code implementation.

10/2007 to 2/2008 Project #63

Process Control Consultant for DeltaV FDS and DDS Design, Emerson Process Management, Austin, Texas (work from home)

Created Functional Design Specifications (FDS) and Detail Designed Specifications (DDS) for the Kennecott Copper Mine Migration project from ProVOX to DeltaV. Worked performed remotely from Home Office.

- This included reviewing existing code, converting to DeltaV standards and writing FDS.
- Lastly the DDS was completed from the FDS.

Because of time constraints, the FDS development was halted and we worked directly on creation of the DDSs.

6/2007 to 9/2007 Project #62

Process Control Consultant for DeltaV Code Developer & FAT checkout, Control Southern Inc., Suwannee, Georgia - Local Business Partner for Emerson Process Management (work from home)

Modifying and updating DeltaV control modules and SFCs, for Toray Carbon Fibers facilities in Decatur, Alabama. Work performed from Home Office.

- This included duplicating current carbonization control system, updating to current standards, verifying existing control matches design criteria, adding documentation to modules, created new control modules and SFCs to meet design changes as requested by Toray.
- This included implementing the IO in Mimic for FAT.

1/2007 to 3/2007 Project #61

Process Control Consultant for DeltaV Code Developer & Validation, Bay-Tec Engineering, Brea, California

Modifying and updating DeltaV pharmaceutical modules, phases and recipes for Genentech Pharmaceutical located in Oceanside, CA.

- This included adding changes requested by Genentech in phases and recipes.

- This included On-Site phase and recipe checkout.

Note: Gaps in work periods during 2004 and 2005 summer was due to Hurricanes Ivan and Dennis. During 2006 I spent months taking care of my 91 year old mother before her death.

8/2005 to 4/2006
Project #60

Process Control Consultant for DeltaV Code Developer & Validation, Bay-Tec Engineering, Brea, California

Modifying and updating DeltaV pharmaceutical control modules, phases and recipes for Genentech Pharmaceutical located in Oceanside, CA.

- This work covered CIP, Fermentation and Media Preparation.
- This work included reviewing and updating the Detail Design Specifications.
- This included adding changes requested by Genentech Company in phases and recipes to convert to new process.
- Work included correcting errors in the existing phases and control modules configuration as created by Emerson Process Management IDEC project
- Performed On-Site validation of recipes.

8/2004 to 4/2005
Project #59

Process Control Consultant for DeltaV Code Developer, GE Plastics, Mt. Vernon, Indiana

Upgrading Plant CRISP System Code transferred to DeltaV Configuration

- Implemented CRISP Code into DeltaV modules and created Mimic Simulation for testing code and to be used in training system.

6/2003 to 4/2004
Project #58

Senior Process Control Engineer, Emerson Process Management, Austin, Texas

Technical Lead Engineer for the Saudi Aramco Qatif OTS Project

- Managed Technical Design and Implementation of Qatif's Operator Training System (OTS) utilizing Aspentech/Hyprotech HYSYS and DeltaV V7.2.
- Work included managing a 15 member team consisting of Aspentech personnel, India EEEC personnel and several contractors for implementing configuration.

- As Project Technical Lead, tasks included working with customer companies and nationals from America, Italy and Saudi Arabia.
- Work included resolving problems with SimulatePRO for DeltaV V7.2 working with Emerson's design group.

6/2002 to 6/2003
Project #57

Senior Process Control Engineer, Emerson Process Management, Austin, Texas

Technical Lead Engineer for the Saudi Aramco Abqaiq Project and Abqaiq OTS Project

- Managed Technical Design and Implementation of Process Control System (PCS) utilizing DeltaV/PRoVOX Integrator System (PDI) System
- Managed Technical Design and Implementation of Abqaiq Operator Training System (OTS) utilizing Aspentech/Hyprotech HYSYS and DeltaV V7.1.
- Work included new DeltaV System Installation and upgrade to existing plant PROVOX system
- As Project Technical Lead, tasks included working with companies and nationals from France, England, India, and Saudi Arabia.
- Work included managing a 7 member team consisting of Aspentech personnel, India EEEC personnel and several contractors for implementing configuration.
- Work included resolving problems for on-site startup teams for both Process Control Systems and Operator Training System. This work continued into 2004.
- Work included resolving problems with SimulatePRO for DeltaV V7.1 working with Emerson's design group.

7/2001 to 6/2002
Project #56

Process Control Engineer, Pfizer Pharmaceuticals, Groton, Connecticut

I managed and provided design, configuration, validation, and testing for the following projects:

- PRoVOX Validation and Testing of Cleaning Systems: This included writing test procedures for validating and testing the existing cleaning system's procedures and operations.
- PRoVOX Software Reduction: This included reducing the existing automated batch procedure code from over 60,000 lines of code to fewer than 15,000 lines of code.
- PRoVOX Validation Automation: This included writing VAX DCL to automate existing manual operations for generating procedures,

operations, and importing into EnVOX. This resulted in eliminating 20% of an individual's manual work.

- DeltaV Cyanide Destruct Project: This included the design and configuration of the DeltaV system continuous phase logic for operating the cyanide destruct skid in the waste water system. This project resulted in a cost saving of over $500,000 per month.

1996-2002 During these six years I attended the following DeltaV classes:

- 7009 Class – DeltaV Implementation I
- 7010 Class - DeltaV Implementation II
- 7011 Class - DeltaV System Integration
- 7016 Class - DeltaV Batch Configuration
- 7031 Class - DeltaV Fieldbus Implementation
- 7040 Class - DeltaV OPC (Ole for Process Control)
- 7017 Class - DeltaV Advanced Configuration
- 7018 Class - DeltaV Maintenance & Troubleshooting
- 7019 Class - Part I DeltaV Version 4 to 5 Transition
- 7033 Class - Part II DeltaV Version 4 to 5 Transition
- 5814 Class - System Networks for DeltaV and POC

2/1993 to 4/2001
Project #08 through Project #55 Process Modeling/Control Engineer, Solutia, Inc., St. Louis/Pensacola, Florida

I provided engineering consulting and training to the Solutia plant PRoVOX engineers, consulting on Pre-Project design, Front-End-Engineering, and providing plant project hardware and configuration cost estimates. In addition to migrating all the plant PRoFLEX systems to EnVOX systems, I maintained the plant Five (5) EnVOX database systems. In addition to providing daily PRoVOX maintenance of two control rooms, I routinely provided configuration assistance to the nineteen (19) plant area PRoVOX engineers, helping them to solve problems and implement system changes. Based on the EnVOX audit trails, I performed over 60% of all plant configurations since 1994. In all the projects, I managed the design and configuration process, checkout, operator training, and startup. In several projects, I managed multiple Solutia employees to complete the project. In addition, I have had as many as eight ongoing projects active at one time and usually have several projects active at all times.

I managed and performed the control design and configuration for the following Solutia Projects which included Configurable Controllers; Computing Controllers; 2-wide, 3-wide, and 4-wide IACs; Multiplexer

Control Units; Integrated Functional Controllers (IFCs); Unit Operational Controllers (UOCs); SR90 Controllers; SRx Controllers; HP Consoles; PRoVUE Consoles; and OWP Consoles.

Some of these projects lasted several weeks, most lasted many months, and a few took over 18 months to complete. In addition, I had daily maintenance responsibility for several control areas of the plant which lasted for several years.

- Area IV LPD Catalyst Regeneration Project
- Area II Refine Consoles Alarm Management Project
- Vydyne EnVOX/PRoVOX Training System Maintenance
- Area I Ammonia Interlocking Project
- Area I NOX Consent NH3 Interface Project
- Area I Sewer Solids Phase I Project
- Area I Cyane Collection Project
- Area I Outfall Consent Order Phase I Project
- Area I Dehydrator Controls
- Area I Preheater Steam Flow Control
- Area I Absorber Feed Tank Controls
- Area I Recovery Column Controls
- Area II 63B Still Upgrade Controls
- Area IV Firing/CO Controls
- Area II 850 MAR Adipic Upgrade Project, Phase II
- Powerhouse Waste Water DeepWell Project, Phase III
- Area IV Surge Waste Water Project, Phase III
- Maleic Waste Water Tank Control Project
- Vydyne Front-End-Engineering, AOD, Debottlenecking Project
- Vydyne Dryer Surge Tank Controls Project
- Vydyne Additive Feed Upgrade Project
- Plant Y2K PRoVOX Testing and Upgrading Project
- Powerhouse Waste Water DeepWell Project, Phase II
- Vydyne Finisher Screw Control Project
- Area II Pinch Water Project
- Powerhouse Off-Gas Energy Recovery Project
- Area II Adipic ANS Project
- Batch Polymer Additive Station Project
- Vydyne Truck Bulk Loading Project
- Area II 850 MAR Adipic Upgrade Project, Phase I
- Vydyne CP Expansion Project
- Vydyne Pack-Out Area Project
- Powerhouse 326 Tank Farm Project
- Area II 710 MAR Adipic Upgrade Project
- Area II KA Consoles Alarm Management Project
- Area II Highway Upgrade Project
- Area IV DME PSA Upgrade Project

- Intermediate Migration PRoFLEX to EnVOX Project
- Vydyne Migration PRoFLEX to EnVOX Project
- Maleic Migration PRoFLEX to EnVOX Project
- CP Migration PRoFLEX to EnVOX Project
- CP Jumbo II Project
- Maleic Console Upgrade HP to PRoVUE Project
- Area IV AGS/DME Project
- Vydyne Dryer Upgrade Project
- Vydyne-R Upgrade Project
- Powerhouse Cooling Tower Project

In addition, in 1995, I wrote the Monsanto Pensacola Plant "PRoVOX Design Standard" with individual area detail specifications for Coding standards, Graphic standards, Alarm Management standards, Documentation standards, SAMA standards, Control Sequence Table standards, and I/O standards. This standard reflected the plant PRoVOX implementation standards that I had utilized beginning in 1993 covering the above listed projects. These standards were adopted by Monsanto corporate wide.

Along with the Design Standards, I designed Configurable Function Documents (CFD) to identify the function of each control point. This was accepted as part of the Design Standards and upgraded over time. The CFD was not intended to be used for configuration design but did provide enough information to be created from a Functional Design Specification (FDS) or a Detail Design Specification (DDS) to identify each control point and their basis configuration (ProVOX has 90 different control point types).

1/1993 to 2/1993
Project #07

Process Control Engineer, Fisher-Rosemount Systems, Austin, Texas

As an independent consultant, I transferred the UCLA Cogeneration design and configuration to Fisher-Rosemount Systems in California.

6/1992 to 1/1993
Project #06

Process Control Engineer, Fisher-Rosemount Systems, Inc., Austin, Texas.

I designed the control logic for the UCLA Chiller Plant and Cogeneration facility being built by Parson's Engineering. This included the control logic for the Heat Recovery Steam Generation, interface to Combustion Gas Turbine Generators, Steam Turbine Generators, Centrifugal Refrigeration Units, and the Absorption Refrigeration Units.

12/1990 to 6/1991
Project #05

Process Control Engineer, General Electric Nuclear, Wilmington, North Carolina

I designed the installation of MicroVax computers in the uranium processing facility, installed the PRoVOX application software and CHIP software, and

installed the LOGMATE data collection software. I created and implemented process control standards, including documentation and control strategies for the Uranium Recovery Unit (URU) and the ADU Conversion Area. I generated conversions of the HP LCON control system to PRoVOX control system. I designed and performed configuration of the U-Monitor system for control of uranium sampling.

5/1989 to 11/1990 Process Control Engineer, Fisher-Rosemount Systems, Austin, Texas

Project #04

Project #03 I designed the control logic and configuration for both the Recovery Boiler and the Power Boiler in Georgia Pacific's Ashdown pulp and paper mill. I traveled to the plant and performed checkout, operator training, and startup of both boilers.

11/1987 to 1/1989 Electrical Engineer, IBM Corporation, Austin, Texas

I performed simulation of PC-RT RISC System chips (IBM's RS/6000 & Power PC) by writing RT coded programs to verify all logic combinations designed in the RISC Fixed Point chip logic for Arithmetic, Virtual Addressing, and System Control. I performed the same logic combination programming and testing of the RISC Floating Point chip logic for Data Flow Control, Exponent Interface, and Control logic. I performed Floating Point logic timing analysis, chip simulation and testing. I also performed analysis of Memory chip control logic.

During the final software/hardware benchmark testing for speed analysis, the system failed to reach the speed goals as projected by the project design. This caused a major uproar to resolve the problem in that IBM has spent 2 billion dollars on this project over a 6 year period. For more than two weeks, all divisions around the world researched to find the problem and solution. The manager, I was working to test the Instructions and Memory and resolve the floating point calculations, asked for me to review a sample of the test code that was generated for the benchmark testing. I saw the problem immediately and notified the manager with the solution. They reran the benchmark tests with my solution and results exceeded the project goals.

7/1986 to 1/1989 Programming with Insurance Industry in Texas

I performed programming to implement Insurance Business Systems and Licensing and Test Scheduling Systems.

12/1984 to 7/1986 Project Engineer, Automated Industrial Systems, Inc. Austin, Texas

I performed many functions including engineering design and software programming to implement computer integrated manufacturing systems. This work included hardware electrical and mechanical design of Computer systems, Robotic systems, and Vision systems. I designed hardware and software of Data Acquisition, Monitoring, and Control systems for the Machine Tool Industry. Computer system installation included design and implementation of Local Area Networks utilizing fiber optic cables and interfaces. As an assistant to the marketing and sales teams, I wrote technical proposals for installation of computers and communication systems. I provided training and assistance to the sale personnel and training to customers' operators.

12/1983 to 12/1984 Business Application Programming Specialists, Austin, Texas

I designed and completed programming for the Financial Planning Systems including investments, insurance, and debt reduction systems. To prepare myself for this project, I obtained an insurance license and became a licensed registered NASD securities agent which allowed me to understand the insurance and securities industries.

In addition, I designed and completed programming of a Hospital Administration System for maintaining patient information in database systems.

12/1982 to 12/1983 Scientific Programming Specialists, Lockheed Missile and Space Company, Inc. Austin, Texas

I managed the Software Review Program for the government acceptance of the Tomahawk Missile Program. Our team designed and programmed the Computer Display Control and Guidance System for the Tomahawk Missile Program. I was responsible for writing the program description of documents to describe the military Tomahawk missile program and operations.

8/1980 to 4/1982 Software Engineer/Programming Analyst, Texas Instrument, Inc., Austin, Texas

I designed the digital circuits (microprocessor) of the tape interface communications board to the Winchester Disk System. I designed and programmed the firmware for the control system and data transfer to/from tape backup system. I managed the Mass Storage Evaluation project to review and make recommendation on data storage systems.

2/1980 to 8/1980 Senior Engineering Analyst, Coastal Management Corporation, Houston, Texas
Project #02
TDC System

I designed the instrumentation for computer control of crude oil refineries and the control application configuration (Honeywell TDC 2000) for the optimization of chemical energy utilization and balance in oil refineries in Corpus Christa, Texas. I implemented the design and programming of the pipeline transportation control system and implementation of database network using microwave communication system.

9/1974 to 2/1980 Process Computer Systems/Applications Engineer,
Project #01 Process Control Engineer,
Process Modeling/Control Engineer, and
Senior Engineer, Electrical and Instrumentation,
for Monsanto Company, Pensacola, Florida

I performed the following as part of my routine duties:

- Design and programming data collection, transfer, and database management reporting system;
- Design and programming software terminal graphic database systems with hardcopy capability;
- Implementation of Warehouse Inventory Distribution System;
- Controlled production of nylon fiber production: carpet and tire;
- Research and Development of process analysis for modeling of nylon carpet chemical process;
- Design and implementation of a Statistical Analysis of Dyeing characteristics of Nylon Fibers using SAS to determine additive, process temperature, and nitrogen parameter control;
- Design of Chemical Process Control Systems for controlling dyeing of carpet stable;
- Installation and implementation of Process Computer Control System for carpet staple production utilizing Fisher DC2 and PRoVOX HP Systems;
- Installed and developed mechanical piddle system for processing nylon chemical fibers into carpet staple product;
- Electrical and Instrumentation design for process systems; and
- Design and programming of PLC's for process control.

6/1967 to 9/1970 Cooperative Education Student, Apolo Testing Program, General Electric Company/NASA Division, Bay St. Louis, Mississippi

As a cooperative education student, I participated in several different program which included engineering and programming. These program are:

- Quality Control Engineer on ground testing program;
- Programming a computer failure rate program for equipment items in the Apollo ground program;
- Implementation of Failure Rate program (UniVAC 1108);
- Data Collector of Barbadus Oceanographic Meteorological Experiment under NASA and ESSA; and
- Design and programming of data reduction program for the Saturn V 1st and 2nd stage testing.
- In 1968, I created the first software program to turn Analog wind speed/direction data into Digital form for NASA. This included setting up the data sampling rate of the sine wave generated by the speed of the propeller, calculating the zero crossover points of sine wave and using the position of the directional analog spike signal to calculate the compass direction. This standard process is in all digital wind speed/direction devices today.

PROGRAMMING EXPERIENCE

- Programming Languages includes assembler and high level languages;
- Languages includes "C", "C++", Fortran, Basic, Visual basic, and others,
- Assembler includes code for IBM RT, Intel 80x86 series, Z80, 6800, 68000 series, and TI990,
- Application languages include Fisher Controls' PRoVOX, EnVOX and DeltaV and Honeywell's' TDC 2000;
- Operating Systems include IBM VM, DEC VMS, Unix, OS/2, AIX, Windows, DOS, and others;
- Hardware Applications includes programming firmware for ROMs and PALs for Printed Circuit Boards and Microprocessor Systems;
- Software applications includes programming for PC Tape Backup and Communications Systems, Device Drivers and Hardware Interfaces, GUI (Graphical Users' Interface), Real-Time Process Control Systems, Graphics Systems, Robotics Systems, Vision Control Systems, Communications Systems, Local Area Network Systems, Military Display Control Systems, Pipeline Transformation System, Database Reporting Systems, and Statistical & Analysis Modeling Systems;
- Business applications include Design, Programming, and Implementation of Business Accounting software, Investment Modeling Analysis, Financial Planning Programs;
- Databases includes Access, dBase, Paradox, Sybase, Foxbase, Rbase, Oracle, Knowledgeman, and Ingress,
- Spreadsheets includes Excel, Lotus 123, Symphony, Quantro Pro, and others.
- Cad Systems includes AutoCad, Generic Cad, Integraph, AT&T, DataCad, and others.
- Web design includes HTML and Frontpage.

SCIENTIFIC / ENGINEERING EXPERIENCE

- Logic analysis and computer simulation of IBM's RT-RISC chip logic (IBM's RS/6000), logic ETE (Early Timing Estimate) Analysis, and logic debug;
- Software development concentrated in Real-Time Computer Process Control Applications;
- Design, configuration, and implementation of Process Control applications implemented on Monsanto’s DC2 system, Fisher Controls' PRoVOX , EnVOX systems, and DeltaV Systems and on Honeywell's TDC 2000 System.
- Development concentrated in Computer Integrated Manufacturing, hardware and software;
- Computer simulation of Process Modeling and Statistical Analysis;
- Software development concentrated in SCADA Systems (Supervisory Control and Data Acquisition)
- Digital & Microprocessor circuit design, board layout, and firmware programming; and
- Implementation of Local Area Networks, LAN, using Fiber Optics, from basic RS232 to Node and Token Ring Systems.

WEBSITE / HTML PROGRAMMING EXPERIENCE

- 1994 Developed First Website using text editor. (Website: DBStuart.com).
- 1997 Upgraded Website using Microsoft's Web editor: Frontpage.
- 2001 Switched to Microsoft's Web editor: Expression (beta then version 1).
- Since have upgraded to latest versions of Expression.
- Have programmed in HTML, current working with HTML 5.
- Since 2002, I have created multiple websites for myself and many more for clients including e-commerce and personal websites.

BUSINESS / FINANCIAL PROGRAMMING EXPERIENCE

- Developed PC Computer based Financial Planning Software for First American Securities.
- Developed and Presented Financial Planning Seminars for First American Securities.
- Trained over 5000 agents in the insurance and securities business utilizing software programs.
- Obtained Insurance and Securities License to learn business for developing software programs.

EDUCATION

B.S. Electrical Engineering, Mississippi State University (1971): Triple Majors in Computer Systems, Controls Systems, and Communications Systems

MBA - Masters in Business Administration, Mississippi State University (1978): Double Majors in Management and Finance

SECURITY CLEARANCE

Government Security Classification: ***SECRET***
(Initial:1967 renewed: 1982 - Currently Inactive)

PROFESSIONAL

Institute of Electrical and Electronic Engineers (IEEE)
The Instrumentation, Systems, and Automation Society (ISA)
Association of Computing Machinery (ACM)
Computers in Mechanical Engineering (CME) – Not Active
Society of Manufacturing Engineers (SME) – Not Active