

**BRAD STEPHEN CARLBERG, P.E.**

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**PROFESSIONAL SUMMARY**

Registered Professional Control Systems Engineer with over thirty-five years' experience in Process Control Engineering specifically with Distributed Control Systems, Programmable Logic Controllers, and Human Machine Interfaces combining extensive experience with both Hardware and Software Design, Programming, Implementation and Startup, including Advanced Continuous and Batch Control Programming.

**EQUIPMENT EXPERIENCE:**

- Emerson (Westinghouse) Ovation
- WonderWare FactorySuite (InTouch 7/8/9, InSQL)  
Wonderware System Integrator Program 2000-2002
- Rockwell Software FactoryTalk, RSView, RSLogix, and RSBatch
- Ci Technologies SCADA MMI/HMI  
CiTect System Integrator Program 2002-2003
- Monitor Pro (Factorylink) HMI
- Modicon Quantum PLC
- Modicon 584 PLC
- Siemens S5 & S7-1215 PLCs
- Allen-Bradley ControlLogix, PLC/5 & SLC/500
- Siemens/TI Simatic Net, APT, TISoft, WinCC - TIA Portal V13
- Triconex 1131 Tristation
- Bently-Nevada 3500 System Vibration Monitoring
- Honeywell Experion Distributed Control System (DCS)
- Honeywell TDC3000 Distributed Control System (DCS)
- ABB Bailey Net- & Infi-90 (DCS)
- Siemens APACS (DCS)
- Ethernet I/O:  
Moore Industries Net Concentrator System  
Opto22 Ultimate I/O  
Phoenix Contact InLine I/O, SMS Relay

**PROVIDED ENGINEERING CONSULTING SERVICES:**

- Created Software Integration Plan, Software Requirements Specifications, Software Design Description, and Software Requirements Traceability, and Software Configuration Management Plans per IEEE & NRC guidelines.
- Software Quality Assurance, specifically NQA-1 2008/2009 requirements
- Specifying and Requisitioning of Hardware
- Developing and Implementing Configuration
- Human Machine Interface (HMI) Graphics
- Factory (FAT) & Site (SAT) Checkout
- Commissioning, Loop Check and Tuning
- P&ID's, Instrument Loop Sheets, & Data Sheets
- I/O List, Instrument Index, Alarm/Interlock Lists
- IJB Termination Layout Wiring Drawings
- Process Functional Specifications
- Training of Operators, Maintenance, And Instrument Personnel

**PROCESS INDUSTRY EXPERIENCE:**

- Anoxic/Oxic and Secondary Clarifier
- Manufacturing Bulk Chemical Handling Facility
- 250 GPM Hazardous Industrial Waste Treatment Facility
- Gas Desulfurization Plant
- High Fructose Corn Syrup Batch Plant
- Cogeneration Plant Fuel Handling System

**PULP & PAPER TECHNICAL EXPERTISE**

- Bleached and Unbleached Kraft Mills
- Sulphate & Sulphite Pulp Mills
- Power and Recovery Boilers
- Paper Machines Extruder & Rewinder "Flying Splice"
- Stock Preparation including Starch Cooker
- Recycle Advanced Control Packages
- 450 TPD Secondary Fiber Mill (with Automatic Control Of Pulpers)

**CLIENTS:**

- US Dept of Energy - Office of River Protection
- Andritz Automation
- Worley Parsons
- Pasadena (CA) Water & Power Glenarm Repowering Project
- Hanford MSA at the Volpentest Hammer Federal Training Center
- MPC Consulting Ltd; Sidney, BC for Education City in Doha, Qatar
- Potlatch Mutual Water Company Pumphouse Automation
- LUKOIL Kandym project near Karakul, Uzbekistan
- Refinería Batalla de Santa Inés project in Venezuela
- Gulf Intercoastal Waterway West Closure US Army Corps of Engineers.
- International Paper; Franklin, VA & Bogalusa, LA.
- Pacific Gas & Electric; Diablo Canyon Project
- Abu Dhabi Gas Industries Limited (GASCO);
- Syncrude Canada Ltd.; UE-1 Project; Fort McMurray, AB
- Air Liquide America; Houston, TX
- Ultramar Diamond Shamrock; Three Rivers, TX
- Northeast Philadelphia Water Treatment Plant
- Escambia County Utilities Authority; Pensacola, FL
- Wellman Chemical Plant; Bay St. Louis, MS
- British Petroleum; Prudhoe Bay, AK
- GAF Building Products; Mobile, AL
- American Electric Power/Houston Pipeline/Louisiana Interstate Gas; Houston, TX
- Kerr McGee; Theodore, AL
- Mobile Energy Services Corporation; Mobile, AL
- Weyerhaeuser Company; Plymouth, NC; Oglethorpe, GA & Port Wentworth, GA
- Boise-Cascade Corp., St.Helens, OR & Jackson, AL
- Celulosa del Pacifica, Mininco, Chile
- Wisconsin Tissue; Menasha, WI
- Riverwood International; West Monroe, LA
- Inland Container; Rome, GA
- Mead Coated Board Inc., Cottonton, AL
- Potlatch Corp., Cypress Bend, AR
- Georgia-Pacific, LLC; Brewton, AL
- Port Townsend Paper Corporation; Port Townsend, WA
- Boeing Commercial Airplane Division

- Taconite Pelletizing Plant  
including Furnace Grate Speed Control, Concentrator, Precipitators, Limestone Addition; and Resin Batch Reactors
- Diesel Hydrotreater
- Fortrel polyester Bale Line Control System  
Designed Variable-Speed AC Drive for Hog Fuel Boiler Feed Conveyors

#### PROFESSIONAL RECORD

**Katmai Health Services**; Richland, WA; Consultant- Startup & Commissioning Oversight. May, 2020 - October, 2020  
**Andritz APO Site Process Control Engineer** for pulp mill. May, 2019 – September, 2019  
**Boeing Commercial Airplane Division**; Everett, WA; September, 2018 – March, 2019  
**Port Townsend Paper Corporation**; Port Townsend, WA; January, 2017 – April, 2018  
**BSC Engineering**; Hoodspout, WA October, 2013— January, 2017  
**Hyundai Engineering & Construction – Process Plant Division**; Seoul, South Korea November, 2012–July, 2013  
**Maverick Technologies**; Charlotte, NC; May, 2012 – July, 2012  
**Invensys-Triconex**; Lake Forest, CA; February, 2011 – March, 2012  
**Schweitzer Engineering Laboratories, Inc.**; Pullman, WA; September, 2009 – April, 2010  
**Bechtel International Inc.**; Asab, U.A.E.; May, 2007 – August, 2009  
**Bechtel National Inc.**; Richland, WA; February, 2007 – April, 2009  
**Honeywell Canada Ltd**; Fort McMurray, AB July, 2005 – May, 2006  
**Air Liquide Process & Construction**; Houston, TX January, 2004 – April, 2005  
**GE Industrial Systems**; Pensacola, FL November, 1999 – April, 2000  
**Raytheon Engineers & Constructors**; Birmingham, AL; April, 1998 – March, 1999  
**Bailey Controls**; Hong Kong; November, 1997 – December, 1997  
**Honeywell IAC**; Phoenix, AZ; May-October, 1995 & February-December, 1996  
**Instrument Control Services**; Pensacola, FL December, 1991 – August, 1993  
**H.A. Simons Ltd.**; Vancouver, BC CANADA July, 1989 – November, 1991  
**CS Technologies**; Poughkeepsie, NY February, 1987 – July, 1989  
**Wright Schuchart Harbor**; Tacoma, WA February, 1986 – July, 1986  
**Atlantic Gulf**; Woodinville, WA August, 1985 – December, 1985  
**American Technical Services**; Eugene, OR February, 1985 – May, 1985  
**Weyerhaeuser Company**; Springfield, OR (Summers 1977 – 1981) & Cosmopolis, WA (May–October, 1984)

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#### EDUCATION

**Ci Technologies CiCode & Advanced CiTect Course**; Charlotte, North Carolina *June, 2002*  
**WonderWare Basic InTouch Course**; Mobile, Alabama *July, 2000*  
**Registered Control Systems Engineer**; *License No. 43988, State of Washington October, 2007 - Current*  
**Registered Professional Engineer**; *License No. 23362, State of Alabama January, 2000 - Current*  
**Rockwell Software Basic RSView Course**; Birmingham, Alabama *September, 1998*  
**The Dale Carnegie Course**; Mobile, Alabama *September, 1993*  
**Bailey Basic Graphics (SODG) Course**; Vancouver, BC Canada; *December, 1990*  
**Bailey Basic Configuration (CADEWS) Course**; Vancouver, BC Canada; *April, 1990*  
**Bachelor of Science / Mechanical Engineering**; February, 1984; **Washington State University; Pullman, WA**

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#### PUBLICATIONS

"**Implementing a Cellular Router& Controller with Embedded Webserver in a Rural Water Company Pumphouse**"; November, 2017; ISA Process Control & Safety Symposium; Houston, TX  
"**Optimizing Your Process Through Lignin Management**"; November, 2015; ISA Process Control & Safety Symposium; Houston, TX  
"**Manage your KPIs over the Web and Smartphones**" *November, 2013*; **ISA Automation Week 2013** Nashville, Tennessee  
"**Ethernet I/O**" *October, 2010*; **ISA Automation Week 2010** Houston, Texas  
"**Optimization in the Pulp & Paper Mill**" *October, 2008*; **ISA 2008** Houston, Texas  
"**Configure Your Ethernet I/O: A "Hands-On" Tutorial**" *October, 2003*; **ISA 2003** Houston, Texas  
"**Ethernet PLC's Reduce Oxygen Consumption (Tutorial)**" *September, 2001*; **ISA 2001** Houston, Texas  
"**Automated Recovery Boiler Sootblowing Control System**" *March, 2001* **TAPPI/ISA Symposium**; San Antonio, TX  
"**Recycled Advanced Control Package**" *March, 1996* **TAPPI Recycling Symposium**; New Orleans, Louisiana

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#### PROFESSIONAL MEMBERSHIPS

**INTERNATIONAL SOCIETY OF AUTOMATION (ISA)**; [Industries & Sciences Department Vice President \(2020 - 2021\)](#); [Geographic Assembly Chairman \(2016 - 2017\)](#); [Society Executive Board Member & District 9 Vice President \(DVP\) for WA, OR, ID, MT, WY, UT, & AK \(2014 - 2015\)](#); [Pulp & Paper Industry Division \(2001 - Present\)](#); [Technical Conference Committees \(1997 - 2018\)](#); [CSE PE Review Course Instructor \(2015\)](#), FE/EIT Review Course Instructor (2020 - 2021). Member of [ISA18, Instrument Signals and Alarms](#), [ISA99, Industrial Automation and Control Systems Security](#), and [ISA101, Human-Machine Interface](#) Standards Committees