**Kenneth D. Schiebel** m. (206)861-3605 h. (425) 867-2327

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**Summary**

With over 15 years in automation and control system engineering, process control, systems integration, management and implementation, I’m known for my exceptional problem solving abilities and a knack for designing new and re-working existing systems for optimal performance.

**Business Impact Examples**

* Made improvements that continue to save multi-millions annually by lowering unplanned plant downtime by 80% - ending plant crashes and other long existing problems, improving reliability, quality and plant efficiency. Identified and implemented control improvements that resulted in large decreases in product scrap.
* Designed and implemented control, tracking and data collection process that delivered a 30:1 return on investment in the first 12 months by improving product consistency and power usage.
* Designed and programmed new expert storage and conveying system with performance that was over 50% better than the best result predicted by the OEM conveyor supplier based on similar systems. The result was the ability to run more pack lines concurrently on less initial equipment, providing beneficial additional capacity for the first project phase.
* Performance of critical biopharmaceutical BDS automation engineering for FDA licensure.

**Industry Experience**

* *FDA, USDA regulated controls experience:* Pharmaceutical , Biopharmaceutical, Food
* GMP, cGMP, GAMP, GxP, HACCP, ISO, CAPA, Title 21 CFR Part 210, Part 11 Compliant
* Manufacturing, Recipe, Process, Batch, Continuous Operation
* Municipal, Gas, Military, Government, Airport, Utilities, Food and Beverage, Dairy
* Chemical, Biotech, Glass, Steel, Galvanizing, Metals, Plastics, Water, Wastewater
* Aerospace, Electronics and other industries served

**Professional Expertise**

* Expert automation and control system engineer, system integrator and analyst
* Skilled project and process control engineer
* Capable problem solver w/ excellent troubleshooting and fault finding skills
* Design, implementation and project management
* Quality System and Validation knowledge, experience and cGMP training
* Training plant engineers, customer personnel and supervision of contractors
* Control panel design NFPA, NEC, UL, CSA, ETL
* Track record of excellent bottom line results and customer service

**Professional Experience Summary**

**CurrentTek LLC** - Redmond, WA October 2006 - Present

**Principal Automation Engineer, Systems Integrator, President / Owner**

* Electrical Engineer: Project, process, manufacturing, software and control system engineer
* System Integration: Automation architect, consultant and analyst
* Nine years of pharmaceutical automation engineering experience and cGMP training
* Other recent project work includes muni fresh water, food, gas, airport and other projects

**Professional Experience Summary** - Continued

**Sanofi, Genzyme** - [genzyme.com](http://www.genzyme.com/) [sanofi.com](http://www.sanofi.com/) Lynnwood, WA June 2012 - March 2017

* Consulting **Sr. Automation Engineer** at Genzyme, a Sanofi company with CurrentTek LLC
* Customer driven flexible and comprehensive automation projects and support as needed.

**Bayer, Berlex** - [berlex.com](http://www.bayer.com/) [bayer.com](http://www.bayer.com/) Lynnwood, WA March 2007 - June 2012

* Consulting as a **Senior Biopharmaceutical Process Control & Automation Engineer** in an FDA regulated cGMP biopharmaceutical plant with Current Tek LLC.
* Executing GAMP automation, process, software, instrumentation, controls and other miscellaneous engineering tasks. Performed validation, documentation and testing services.

**Process Control Engineering** - Seattle, Washington November 2006 - March 2007

**Boeing:** Contracting **Senior Automation and Process Control Electrical Engineer**

**Darigold** - [darigold.com](http://www.darigold.com/) Seattle, Washington March 2004 - November 2006

**Senior Manufacturing Applications Analyst** - Corporate IT (Engineering Interface)

* Coordinated company-wide efforts between IT, Engineering, Automation and Operations
* Executed plant audits to identify at-risk systems for upgrade improve efficiency
* Performed engineering work directly resulting in high reductions of plant down time
* Provided automation and controls engineering and support for 10 manufacturing plants
* Mentoring, training and teaching from basic to advanced controls engineering
* Contractor, project and system integrator supervision and management
* Directly responsible for additional profit and cost savings annually in the multi-millions that continues to deliver

**Systems Interface Inc.** - Bothell, Washington (Seattle) December 1999 - March 2004

**Senior Project Engineer**

* Performed electrical design, engineering, programming, training and start-up work for new manufacturing lines as lead project engineer
* Upgraded and improved retrofit lines, improving customers' manufacturing production output capability and efficiency
* Extensive experience in planning, design, problem solving and system implementation

**Matrix Technologies Inc.** - Maumee (Toledo), Ohio February 1997 - December 1999

**Engineer**

* Responsible for designing, developing, programming and managing state-of-the-art systems involving factory automation and control
* Generated repeat business as client's first choice engineer

**Philips** - Ottawa, Ohio August 1995 - February 1997

**Engineer, Energy Center Operator**

* Responsibilities included installation, operation and troubleshooting of all hardware and software for plant data collection
* Maintained and operated plant utilities, systems and equipment
* Engineering, maintenance and technician experience

*Please see* **In-depth Experience** *section on Pages 4 - 7 for additional information*

**Education**

**Bachelor of Science in Electrical Engineering, BSEE**

University of Memphis (Memphis State University) Memphis, Tennessee

**Training and Continuing Education: Includes the following classes and industry training**

* Management Skills Workshop - Scortino and Associates
* Wonderware InTouch HMI 9.0 Level 2 - Invensys Systems Inc. (ISS Wonderware)
* Visual Basic - Puget Sound Center
* Your Main Point (effective communication) - Bill Walsh and Associates
* Rockwell and Distributor Classes for RSView and other software and hardware
* Database Design - Beginner 2 SQL - Bellevue Community College
* SQL - Structured Query Language - Bellevue Community College
* Stationary Steam Engineering
* High Pressure Boiler
* Statistical Process Control: Purpose and Roles
* Square D Power Logic
* Fluid Power: Pneumatic and Hydraulic Troubleshooting
* Intellution FIX 104
* Allen-Bradley SLC-500 w/APS Advanced Programming, Rockwell Automation
* Foxboro I/A Series Systems
* Modicon - Quantum, 984 and Compact 984 Series using Modsoft
* Nine years of Continuous cGMP training & GAMP experience. EHS, HSE safety training.
* Many years of automation fair and industry technical sessions, CEU

**Computer Skills**

PC, VMware Workstation, VMware vSphere vCenter ESXi, VirtualBox, Virtual Machines, ThinManager, Thin Client, HMI scripting, VB, C, Excel, Access, SQL, iOS & Android use, Windows (3, 3.11, 95, NT, 98, 2000, XP, Server 2003, 2008, 7, 8, 10), DOS

**Professional Organizations and Membership**

**ISA, ISPE** (past and/or present)

**Certificates/Licenses**

* Stationary Engineer, third class, State of Ohio, 1997-2003
* High Pressure Boiler Operator License, State of Ohio, 1996-2003

***Experienced control system and automation engineer for process / operations including:***

Process Batching Recipe Filling Manufacturing IEC 61131

CIP SIP Steaming Sterilizing Fermentation Water & Wastewater

Powder Sanitizing Conveying Tracking Purification Food & Beverage

Tank Line Bottling Cooking Conveying Blow Molding Biopharmaceutical

Canning Chemical Plating Separating Homogenizing GMP GxP GAMP

Mixing Ingredient Drying Palletizing Pasteurizing Data Collection

Cleaning Packaging HVAC Powder Compounding Clean Utilities

Storing Utilities RO Bioreactor Clean Steam Pharmaceuticals

Chemical Milling ISA S88 S95 SCADA MES, Reports Historian

Gas Plant Utilities

**In-depth Experience**

**Current Tek LLC** - [currenttek.com](http://www.currenttek.com/) Redmond, Washington October 2006 - Present

**Principal Automation Engineer, Systems Integrator, President / Owner**

Project, process, manufacturing, automation, software and controls engineer.

Electrical Engineer. Systems Integrator, Consultant and Analyst with 15 years of high intensity experience and a track record of robust solutions for the customer. Over 9 years of recent full time cGMP pharmaceutical automation engineering experience.

Example work includes control system engineering, programming and commissioning of the following: A municipal fresh water plant with ControlLogix and Iconics Genesis, A Short Goods Silo System S88 expansion, Original control system design, panel layout and programming of a natural gas decanting system, and work at an ice skating rink chiller control system migration. Ongoing support of customers with new systems, expansions, changes and upgrades.

**Genzyme, Sanofi** - [genzyme.com](http://www.genzyme.com/) [sanofi.com](http://www.sanofi.com/) June 2012 - Present

**Sr. Consulting Automation Engineer – CurrentTek LLC**

Contribute to all aspects of the Automation Engineering effort as driven by the customer. Process Control. SCADA iFix HMI and PLC programming. Proficy SCADA and Historian upgrade and migration onto new VMWare VSphere virtual machines. Varied work scope examples: Site wide multi-purpose electrical and control panel audit, data gathering and documentation used for general documentation, CAD drawing updates and UPS project. Diesel fuel tank leak detection TMS upgrade and integration.

**Port of Portland, PDX Airport** - [portofportland.com](http://www.portofportland.com/) November 2011 - February 2014

**Consulting Industrial Automation Engineer** (HiTek Automation)

Industrial Automation Engineering for PDX DEICING Operations: Provided expert flexible support as needed. PLC programming and troubleshooting of ControlLogix and PLC 5 control processors and programs. Hardware and network troubleshooting. Down plant assistance in restoration of lost I/O network. Assistance of process troubleshooting for plant personnel. FactoryTalk View (RSView SE) programming, configuration and upgrade. Co-authored 2012-2013 migration plan and created new architecture design of the DEICING Control System upgrade to VMware vSphere and all up to date automation software versions. Implementation, programming and commissioning of new Rockwell FactoryTalk Historian (which directly uses OSIsoft PI System historian), creating over 5000 tags for data collection. Performed set up and programming of new FactoryTalk VantagePoint software, creating the DEICING plant model organizational structure, communication, data linking and initial trends. Working with DEICING personnel, creation and upgrade of the PDX DEICE regulatory reports; DEQ Report and BES Report. Creation and upgrade of additional Flow Reports as requested. Added new Historian tags needed for 2013-2014 DEICING plant control upgrade. Continued support and upgrade of all aspects of systems including Ladder and FBD Function Block Diagram programming. .

**Bayer HealthCare** - [bayerhealthcare.com](http://www.bayerhealthcare.com) - Lynnwood, WA March 2007 - June 2012

**Sr. Biopharmaceutical Automation and Process Control Engineer** [berlex.com](http://www.berlex.com/)

***Berlex Schering***

**Current Tek LLC**  Consulting Engineer, Contractor

SME for automation process control. Automation and Control System Engineering. Process Control Engineering in an FDA regulated cGMP biotech pharmaceutical manufacturing plant. Over five years of continuous cGMP training and extensive GAMP programming. Contractor supervision.

Controls system GAMP 4 & 5 programming including ControlLogix and CompactLogix with ST Structured Text, SFC Sequential Function Chart and Ladder Logic LD (Ladder Diagram). Programming of automation software including Rockwell Software Allen-Bradley ControlLogix, SLC, RSLogix, RSNetworx, GE Digital iFix, GE Proficy iHistorian, RTIP and Invensys SCADAlarm. Installation, configuration and support of instrumentation and I/O. Server administration. UI Design. CAPA duties. PLC, HMI and SCADA. Loop Tuning. Control panel wiring. Automation process control network and SCADA analysis resulting in many functional improvements.

**In-depth Experience** - Continued

Track record of many robust process control improvements. System troubleshooting, analysis and improvement. Deviation CAPA investigation - finding the root cause and implementing an approved change control to improve and correct the issues. Systems worked on include the following: Fermentors, Media Compounding, Filtration, MF/UF, Autoclaves, Glasswashers, Utilities and Clean Utilities, Clean Steam Generator, PW & WFI Generators & Distribution, RO, CIP, SIP, MS Monitoring System, BAS Building Automation System, Fermentation, Purification, LC, HPLC, Solvent Buffer Prep & Hold, Pretreatment, HVAC, Diesel Tank and Generator, Boilers and DA tank.

Test Plan and Protocol generation and execution. Authoring of Software Change Requests SCR, Change Control documents, Protocols, Specifications, SOP and IOP. Writing and changes to design documentation including: Functional Specifications FS, Software Design Specifications SDS and Detailed Design Specifications DDS. Onsite supervision of vendors. CSV and Automation Validation. Work experience spanning initial plant startup through PAI (FDA Pre-Approval Inspection) including: Installation, Operational and Performance Qualification / Validation, IQ, OQ, PQ, Engineering, commissioning and change control.

**Process Control Engineering** - Seattle, WA November 2006 - March 2007

**Boeing:** **Senior Automation and Process Control Electrical Engineer**

Consulting automation, design, project, programming and controls engineering work at Boeing Auburn plant for the Chemical Mill Tank Line, Scrubbers and other systems. Performed system troubleshooting and made many improvements. Initial AB PLC5/250 Pyramid Integrator to ControlLogix program conversion work for plant wide Composite Manufacturing Center Monorail system in Boeing Frederickson plant.

**Darigold, WestFarm Foods** - Seattle, WA March 2004 - November 2006

**Senior Manufacturing Applications Analyst**

Manufacturing technology software, hardware, programs, applications, and systems analysis. Controls engineering support for ten manufacturing plants. Project Manager. Plant systems analysis - identifying at-risk systems and those needing upgrade. Assisting plant and engineering managers with projects and project management. Controls programming, including Allen-Bradly and Modicon. SQL experience.

Management and negotiation of support contracts and discounts. Management, supervision, review and oversight of contractors, consultants and their work. Good leadership qualities. Electrical Troubleshooting.

Systems Architect, planning and mapping out Darigold systems, automation and controls. Mentoring, teaching and training of multiple plant engineers for controls systems, automation, engineering, electrical, troubleshooting, programming, problem solving and project skills development. Very effective working either under direction or self-directed.

Performed conception to completion of high-value, cost-effective work. On own initiative, solved long-standing, intractable plant crashing problems, saving millions annually. Performed engineering work that directly resulted in significant reduction of plant down time, scrap and energy usage. Software and hardware upgrade in multiple manufacturing plants. Conception to completion of high-value, cost-effective work.

Brought back online multiple plant systems using problem solving and troubleshooting skills. Provided on-the-fly custom controls programming training to plant engineers. RFQ. Proposal review. Performed work resulting in improved plant efficiency and increased company profitability. Developed detailed initial rough draft for WestFarm Foods company-wide Controls Standards and Specifications document. Interface between IT, Corporate Engineering and Manufacturing. Very good team player, working collaboratively with multiple plants, departments and project groups.

Administration, management, programming and support for the LIMS Laboratory Instrument Management System implemented with LabVantage Sapphire Jaguar. Added iodine test. Administration, configuration and support for Datastream 7i CMMS Maintenance Management System asset management software.

**In-depth Experience** - Continued

**Systems Interface Inc** - Bothell (Seattle), WA December 1999 - March 2004

**Senior Project Engineer**

Responsible for all aspects of control system design, management, engineering and project tasks on multiple projects. Perform electrical engineering, controls systems programming and systems integration. Lead engineer for complex projects.

Develop control panel design, power distribution and hardware layout to meet NEC, UL, ETL and NFPA requirements for in house panel shop. Program software for factory automation, process control and data collection SCADA and MES systems. Multi-vendor PLC and control system software programming.

Skilled at system troubleshooting. Extensive experience working directly with clients throughout the planning, design, implementation and training process. Experience in the commissioning of new and retrofit systems. Skilled electrical engineer, working self-directed.

Performed all electrical design, engineering, programming and start-up work for all new manufacturing lines as lead project engineer. Upgraded and improved retrofit lines, improving customers' manufacturing production output capability and efficiency.

First choice engineer of customers. Generated repeat business.

**Matrix Technologies Inc.** - Maumee (Toledo), Ohio February 1997 - December 1999

**Engineer**

Responsible for designing, developing and managing state-of-the-art systems involving factory automation and control. Experience designing electrical control systems and software engineering. Designed, wrote and tested extensive PLC programs. Experienced with Rockwell Automation Allen-Bradley PLC-5, SLC-500 and early adopter ControlLogix. Created new and modified existing HMI + MMI applications using Intellution Fix, Wonderware InTouch, and Rockwell Software RSView. Experienced with discrete and analog process control. Requested engineer from customers.

Responsibilities included engineering, design and programming on detailed projects. Skilled in the use and configuration of PLCs, I/O modules, Variable Frequency Drives, VFD,AFD, ASD, relays, sensors and other control system hardware and equipment.

Experienced with Ethernet, Serial, ControlNet, DeviceNet, DH+, and Remote I/O networks and communication. Proficient at programming and tuning PID loops. Familiar with ISA S88 Batch systems and phase logic control programming. Provided onsite training for plant operators and engineers. Performed start-up commissioning for new and modified systems.

**In-depth Experience** - Continued

**Philips** - Ottawa, OH August 1995 - February 1997

**Plant Engineer:** Engineering and installation of CAM, EMS and SCADA systems and equipment for plant expansion. Responsibilities included operation and troubleshooting of all hardware and software for data collection. PDC manufactured television picture screens (CRT), and related components.

**Energy Center:** Maintained and operated plant utilities, systems and equipment. IBEW Engineer, Operator, Maintenance and Technician hybrid position. Responsibilities included steam (boilers, water and fire tube), high-pressure air, vacuum, HVAC, 69kv substations, de-ionized water (RO Reverse Osmosis and mixed beds), industrial gas, chilled water and various other systems, their associated equipment, hardware, instrumentation, sensors, controls, PLC processors, servers, computers and software.

Conducted testing, analyzing water chemistry for chemical and biological control.

List of experience search keywords below for Ken Schiebel:

Electrical Engineering Factory Automation Controls System Integration

Member ISPE ISA Pharmaceuticals Biotechnology Biopharmaceuticals Manager Supervisor Supervision Expert System Consultant

GAMP 4 GMP cGMP GAMP 5 GxP xGxP SOP S88 S95 21 CFR Part 11 Title 21 of the Code of Federal Regulations 21 CFR Part 210 CAPA

Kenneth Schiebel BSEE Bachelor of Science Degree in Electrical Engineering

IEC 61131-3 Structured Text ST Sequential Function Chart SFC and Ladder Logic Ladder Diagram LD Instruction List IL Function Block Diagram FBD Controls Project Automation Software Process Engineer Consultant Contractor Systems Integration Integrator Industrial Automation Industrial Control Systems Specialist Subject Matter Expert Automation and Process Control SME

PID loop tuning Process Control Mechatronics Electromechanical relay control

ISA NEC NFPA UL UR RU CSA ETL ISO USDA FDA EMEA ISPE ISO 9000 ISO 9001

Kenneth D. Schiebel Programmable Logic Controllers Rockwell Automation Software AB ControlLogix CompactLogix PLC PAC Enhanced PLC PLC5 PLC-5 PLC 5 PLC-3 PLC-2 PLC-5/40 5/40E 5/80E Slick 500 SLC 500 SLC-500 SLC-5/05 5/04 5/03 5/02 5/01 PLC-5/250 Pyramid Integrator S5 S7 DCS Programmable Logic Controller Programmable Automation Controller I/O

Industrial Network Ethernet/IP ControlNet DeviceNet Ethernet ODVA CIP Common Industrial Protocol IIOT Profibus IOT Profinet Modbus LonTalk Serial RS-232 RS-485 Parallel DH-485 DH+ Fieldbus Anybus AS-I Current Loop 4-20mA 0-20mA 0-10VDC Signal Communication sensor calibration device instrumentation RTU

Logix RSLogix RSLogix5K RSLogix5000 RSLogix5 RSLogix500 RSLogix5 Programmable Automation Controllers Process

Programmable Logix Controllers Programmable Automation Controllers 6200 A.I. Icom APS IPDS

Modicon 984 Modsoft Proworx Concept

More of an Electrical and Industrial Automation Engineer, but some software engineering with VB Script, VBA, SQL, C, Java, Visual Basic

Emerson DeltaV – not yet, somewhat similar to iFix, but would like to use (customer and JIT job usage).

Robot CNC – not yet, been customer and project driven.

Siemens Step 7 Simatic WinCC TI 505 TI 545 TI 555

Allen-Bradley Siemens Cutler-Hammer Square D GE Fanuc DirectLogic HMI MMI OIT UI SCADA MES ERP CMMS

Siemens TIA Portal WinCC DirectLogic 405 305 205 DirectSoft Koyo

Rockwell Automation Rockwell Software Allen Bradley Allen-Bradley AB PanelView RSView RSView32 RSView SE Enterprise PanelView Plus PanelBuilder RSLinx VB VBA FactoryTalk View Studio

Invensys Wonderware InTouch ArchestrA InBatch FactoryTalk Historian OSIsoft PI System PI Historian FactoryTalk VantagePoint Trend Report UDT User Defined Type AOI Add On Instruction

Intellution DMACS Fix32 GE Digital GE-IP iFix Proficy Historian iHistorian RTIP Invensys GE Cimplicity OPC ICONICS GENESIS TCP QuickPanel Jr.

VFD AFD ASD Inverter Drive Motor Controller

Experienced with Quality Systems, Qualification and Validation

Experience includes ISO 9000 ISO 9001 cGMP GAMP Qualification IQ OQ PQ and systems Testing and Validation. ISPE ISA Pharmaceutical Automation. FDA Regulatory Compliance EMA Biopharmaceutical Life Sciences Biotech Industrial Automation. Pharmaceutical Automation Engineer, Engineering. Current and/or past member ISPE and ISA. Pharmaceutical GAMP and cGMP experience and training. ICH - International Council on Harmonisation Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use

Experienced writing design documentation including Automation and Controls Standards and Specifications, Functional Specifications, FS, Detailed Design Specifications, DDS, Software Design Specifications, SDS, Test Specifications and Protocols, Software Change Requests, SCR, RFQ, RFI Change Control documentation and various others. LIMS Laboratory Instrument Management System LabVantage Sapphire Jaguar Datastream 7i CMMS Maintenance Management System Maximo

Electrical Engineer Controls Project Industrial Automation Software Process Engineer Consultant Contractor Systems Integration System Integrator Current Tek LLC CurrentTek LLC Kenneth D. Schiebel

Food Pharmaceutical Biotech Municipal Military Government Glass Galvanizing Metals Plastics Water Electronics Dairy Pasta Biopharmaceutical Aerospace Plating Milling Chem Mill Process Control Pin Chart

Reactor Bioreactor Fermentor Fermenter Fermentation Purification RO PW WFI Clean Steam CIP SIP Chillers Air Compressors Vacuum Pumps Refrigerative and Dessicant Air Dryers DA Tank Fuel Diesel Pneumercator TMS Communicator Tank Management System Boilers P&IDs

Customers Include:

Genzyme Sanofi Bayer HealthCare Schering Berlex Laboratories Immunex Allgas-SDI Darigold Westfarm Foods AIPC American Italian Pasta Company Boeing ConAgra Port of Portland PDX Hunt Foods Campbell’s Soup Continental Mills Pace Picante LaChoy U.S. Navy King County Washington State Department of Transportation Seattle Ferry Terminal Darigold Snohomish County Seattle Chocolate Dakota Growers FAVA Storci Italpasta New World Pasta Nissin Foods Borinquen Pasta Philips Electronics Pro-Tec Steel Galvanizing U.S. Steel Philips Display Components Techneglas Saint-Gobain Plastics Azusa Light and Water Furon WestFarm Foods Ocean Beauty Seafood Amway personal care manufacturing Master Chemical and many others.

Manufacturing Automation and Control System Engineer.

*Berlex was a biopharmaceutical Schering facility producing Leukine that was divesture when Immunex was acquired by Amgen due to a competing market product. Schering merged with Bayer and the facility became Bayer HealthCare. The Lynnwood Leukine Sargramostim plant was then acquired by Genzyme which was then acquired by Sanofi.*

Proponent of Continuous Improvement Kaizen. Risk Based Analysis.

Experienced writing design documentation including Automation and Controls Standards and Specifications Functional Specifications FS Detailed Design Specifications DDS Software Design Specifications SDS User Requirements URS Test Specifications and Protocols Software Change Requests SCR RFQ RFI Change Control documentation and various other Design and Quality documents. Pharmaceutical GAMP and cGMP experience and training. Validation QA QC QCBFT QCMRT

Experienced control system and automation engineer for many operations and processes including the following: Process Batching Recipe Filling Manufacturing IEC 61131 CIP SIP Steaming Sterilizing Fermentation Water & Wastewater Powder Sanitizing Conveying Tracking Purification Food & Beverage Tank Line Bottling Cooking Conveying Blow Molding Biopharmaceutical Canning Chemical Plating Separating Homogenizing GMP GxP GAMP Mixing Ingredient Drying Palletizing Pasteurizing Data Collection Cleaning Packaging Freezing Powder Compounding Clean Utilities Storing Utilities RO Bioreactor Clean Steam Pharmaceuticals Biotech Biopharmaceuticals Chemical Milling Autoclave CTU Incubator Freezer Refrigerator ISA S88 S95 SCADA MES Reports Historian Pasta Soup Chocolate Salsa Fish Dairy Milk Cheese Whey HVAC

[*References, Recommendations and Letters of Recommendation online and/or on request*](http://www.linkedin.com/in/kenschiebel)