

Site Services

Since 1977, CQS Innovation has provided superior technical services to manufacturers throughout the Midwest. Our engineers are trained in safety procedures and will meet your site regulatory requirements.



CQS Innovation Inc. offers a complete suite of Automation, Controls, Electrical, Process Control and Validation Engineering services to support those site activities which do not dictate a Full Time Equivalent hire. We have application knowledge across many technologies in the Life Sciences, Specialty Chemicals, Medical Device, Consumer Products, Primary Metals and Discrete Manufacturing industries



We deliver value by meeting your Cost, Quality and Schedule requirements

CQS Innovation, Inc.

2390 Pipestone Road
Benton Harbor, MI 49022

Phone: 800-860-1968
sales@CQSIInnovation.com
www.CQSIInnovation.com

- **PLC programming, modification and upgrade**
- **SCADA programming, modification and upgrade**
- **Batch Management System programming, modification and upgrade**
- **DCS programming, modifications and upgrades**
- **Project Management and Technical Leadership**
- **Specifications – Functional, Design, Testing/Commissioning**
- **Application Consulting**
- **Site Automation and Validation Master Planning**
- **Panel Design and Fabrication**
- **Installation services and supervision**
- **Reverse Engineering**
- **Loop tuning**
- **P&ID Drawing modification**
- **Field Engineering and Commissioning services**
- **GAMP Document Authoring**
- **Protocol Execution**
- **Gap Analysis**
- **21 CFR Part 11 consulting**
- **IQ/OQ and PQ Documentation Authoring**

SKILLS/COMPETENCIES

PLC's

AB PLC2, PLC3, PLC5, SLC ControlLogix
Adatek State Logic
Modicon 984
Siemens PLC program changeover from S5 to S7
Omron CH-200 PLC
GE-Fanuc 90-70, 90-30 PLC
Texas Instruments TI-505

DCS

DeltaV
Yokogawa
Provox Reliance

Data Bases

Oracle
Biles Aim and Aimstation
PI Data Historian
OSI
Access
SQL
RSBizware
PL

Networks and Setups

Setup and configuration of Unix
Windows XP, 2000, NT
Novell Server
Novel NetWare 3.1x Advanced Administration
Novell NetWare 3.1x Administration
Microsoft Certified Professional
Communication networking technologies
Control Net
Device Net
Remote I/O
Ethernet
DHT

Vision

Cognex
DVT

Validation

CGMP Training
21CFR Part 11
Installation Qualification
Operational Qualification, Product Qualification

Others

Fix Dmacs
FactoryLink OS/2
Wonderware's InBatch Software
Wonderware Intouch Software
Intellution's iBatch Software
Visual Basic & C++
Crystal Reports
AutoCAD Drafting Software
Visual Basic 6
VAX, VAX Alpha,
VMS
Instrumentation systems, pressure, temperature, flow,
level, voltage, current, analytical.
RSView 32, SE, and ME SCADA platforms
RSSQL
GUI Programming
Java Developers
FactoryLink
Motor Applications, DC, and Variable Frequency Drives
for AC

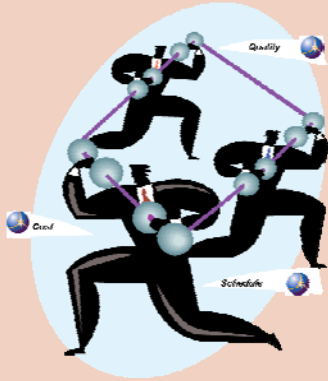


Site Services Engineering Talent

PROJECT EXPERIENCE

- Experience in pharmaceutical, steel, chemical, material handling, paper and power generation processes.
- Batch Control System Functional Specification Documents.
- DeltaV Batch Control System Project for Pharmaceutical facility.
- Thermoforming Machine Control System Upgrade Project.
- Water for Injection Control System Project.
- Pharmaceutical Wonderware InBatch Control System Project.
- Programming and commissioning of various control systems
- Programming and commissioning of graphics-based operator interface units
- Production of functional specifications, design specifications, operator's manuals, training manuals and other control system documents.
- Sterile Filling line PLC control system Projects.
- Validation of a vial capper installation for a pharmaceutical manufacturer's drug filling line.
- Network experience including ControlNet, DeviceNet, remote I/O, Ethernet, and DH+
- Various Instrumentation systems including pressure, temperature, flow, level, voltage, current, analytical, etc.
- Cold Mill SCADA/HMI System
- Reheat Furnace Controls Upgrade
- Controls upgrade for Electric Arc Furnace Project.
- Testing Lab System for a Major Appliance Company
- Pychrometric Test Facilities for 10 ton, 20 ton and 30 ton airconditioning facilities.
- Design of instrument and logic systems, including complex instrument loops, relay logic, control panels, motor controls and pneumatics and hydraulics.
- Analyzing, troubleshooting and resolving control system problems.
- Freeze Dryer controls upgrades.
- Pharmaceutical blood products controls upgrades.
- Retrofit of the Freeze Dryer HMI from ControlView to Intellution iFix.
- Medical product packaging line integration and maintenance support.
- Pharmaceutical SCADA Control System for a Fermentation Area.
- Pharmaceutical HVAC Control System Validation.
- Blast Furnace Powdered Coal Injection Upgrade.
- Sterile Packaging PDP Replacement project.
- Hull Freeze Dryer PLC/HMI upgrade.
- PI Historian server and clients to gather, archive and report flexible batch manufacturing operations.
- Batch Systems: Designing, implementing and testing of iFIX, HMI and SCADA screens.
- Validation of Stopper Washers and Part Washing Systems for Sterile Manufacturing.
- Crane control system to support three cranes on the same rail.
- Validation Test Case execution, failure analysis and alternate test methodologies to two Blister Packaging machines for a Medical Device application.
- Experience with general web based technologies: HTML 3.2, ASP (Active Server Pages), VBA (Visual Basic for Applications), server side controls, implementation of server side controls using Visual Basic 6, server side scripting with VBA, database applications using Access and SWL. Web browsers: IE3, IE4, IE5.5, Netscape 4, Netscape 4.5 and Netscape 4.7. Limited experience with HTML 4.0 CSS (cascading style sheets), DHTML,

Experience and Knowledge



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- Chemical, Mechanical and Electrical Engineers complemented by Computer Science and Information Technology professionals
- Knowledge of leading information and control technologies
- Experience in applying a wide range of technologies on discrete, process or hybrid manufacturing in multiple industries
- Validation of manufacturing automation, information systems, and equipment for Life Sciences applications

CQS Innovation has grown to be one of the premier site service providers in the manufacturing segment by focusing on providing the multi-disciplinary control and information systems engineering needed to augment your staff. While our diverse staff has significant process knowledge in our primary markets, our strength lies in our application knowledge and experience. Our strategy is to work closely with your Process or Manufacturing Engineering staff to address your unique requirements. Since 1977, we have provided site services supporting systems which have become the information infrastructure needed to provide manufacturing management the rigorous control and up-to-the minute information to produce product in demanding market conditions



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