ACS
ALLIED CONTROL SERVICES, INC.

WATER & WASTEWATER UTILITIES

ENGINEERING & TECHNICAL SERVICES

24/7 SERVICE   800-441-4844

Providing complete turnkey control systems integration, engineering, installation and technical services to End Users, OEM's, Engineering Firms and Contractors since 1982

SALES & SERVICE OFFICES

- **West Point, PA**

- **Berkeley Heights, NJ**

- **Lancaster, PA**

- **Allentown, PA**

- **Wilmington, DE**

- **Roanoke, VA**

- **Columbia, MD**

Allied Control Services, Inc. (ACS) has provided control systems integration, engineering and technical services to End Users, OEM's, Engineering Firms and Contractors since 1982 with an emphasis on cost-effective, single-source, turnkey solutions for water and wastewater utilities and industrial water and wastewater treatment control applications.

We have a very deep and experienced staff of engineers and technicians with industry experience spanning fifty-plus years of control systems technology.

Our 15,000 SF engineering, service center and UL-508A/698A control panel manufacturing facility is located in West Point, PA with service offices located in the Allentown-Bethlehem PA region, Newark, NJ region, Wilmington, DE region and Lancaster, PA region.

SCADA PLC/RTU SYSTEM SOLUTIONS

ACS's extensive inventory of PLC/RTU hardware and programming software combined with many years of experience in system integration service and support, allows us to provide our clients with 24/7/365 support for current as well as older legacy systems hardware and software platforms. ACS can provide systems integration, upgrades, I/O expansions, modifications and maintenance support for the following PLC/RTU hardware platforms:

- Allen Bradley
- Automation Direct
- Bristol Babcock
- Control Microsystems
- Cutler Hammer
- Emerson
- GE
- GE Fanuc
- Modicon
- Rockwell
- Schneider Electric
- Siemens
- Symax
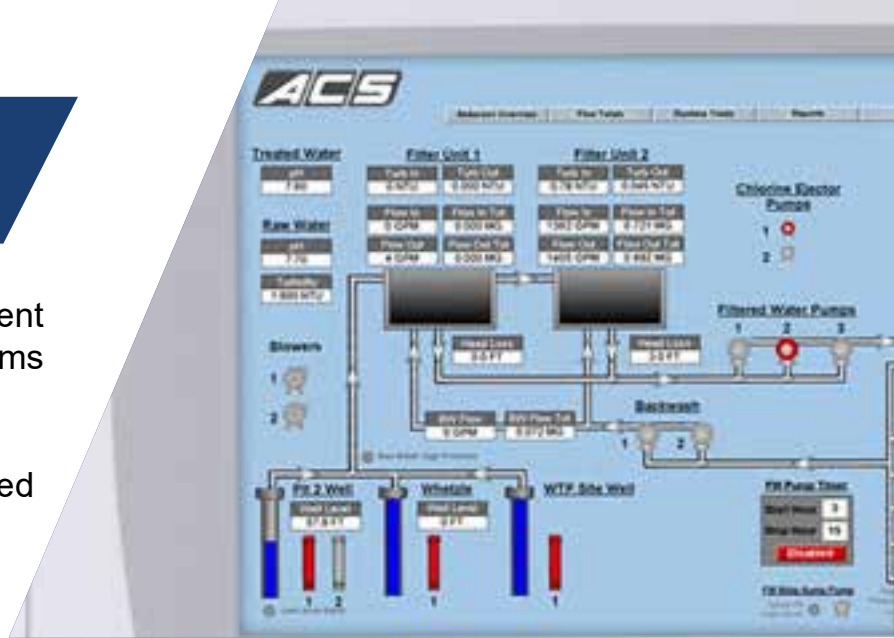- Texas Instruments

*call for other brands

If you have an existing control system that is in need of upgrade, ACS can provide PLC/RTU program conversion services to upgrade and replace legacy software for any of the listed manufacturers using your choice of new hardware such as Rockwell Automation/Allen Bradley, Schneider Electric and many others using the latest IEC-61131 software platforms. We provide turnkey design with new control panel drawing packages with turnkey installation, startup, testing and training. We also offer protocol conversion for communication between numerous vendors' equipment allowing us to integrate a new PLC/RTU of your choice with your existing legacy PLC/RTU platform network.

SCADA HMI SOFTWARE SOLUTIONS

ACS provides HMI applications development and integration for most major HMI platforms to conform with your existing HMI design or based on the latest High Performance HMI standards. Experienced, factory trained engineers are available for the following HMI platforms:

- Allen Bradley – Rockwell RSView
- Allen Bradley- Rockwell FactoryTalk
- Citect
- EcoStruxure Geo SCADA (formerly ClearSCADA)
- GE Proficy iFix/Cimplicity
- Iconics Genesis 32/64
- Inductive Automation Ignition
- Intellution Fix32/iFIX
- Rockwell Plant PAX
- Siemens WinCC
- Wonderware Archestra IAS (System Platform)
- Wonderware InTouch

OPERATOR INTERFACE TERMINAL PRODUCTS

ACS offers design, configuration and installation of Graphic Operator Interface Terminal (OIT) systems and can also provide conversion from older, obsolete OIT systems to the latest OIT of your choice for a wide variety of top vendors such as:

- Allen Bradley
- Bristol Babcock
- C-More
- Control Microsystems
- Emerson
- EZWare
- KEP
- Maple Systems
- Nematron
- Red Lion
- Rockwell
- Schneider Magelis
- Siemens
- Xycom

SCADA SYSTEM REPORTING SOFTWARE

ACS is a factory trained Systems Integrator for the following report generation and data presentation packages:

- Crystal Reports
- Dream Reports
- Iconics ReportWorx
- Microsoft Reporting Services
- OSI PI
- Rockwell RSBizWare
- Rockwell VantagePoint EMI
- SyTech XL Reporter

SCADA ALARM NOTIFICATION & MANAGEMENT SOFTWARE SOLUTIONS

ACS can provide integration and support for the following Alarm Management & Notification products, such as:

- Barnett Engineering
- Exele TopView
- Iconics AlarmWorx 32 MMX
- Sensaphone
- Specter Instruments WIN-911
- RACO
- Wonderware SCADAlarm

SECURITY, ACCESS CONTROL & VIDEO MONITORING SOLUTIONS

ACS is a factory trained Systems Integrator for the following security and monitoring systems:

- Continental Access Control – Access Control, Security, Fire and Video Monitoring Solutions
- NAPCO Security – Security and Fire Monitoring Systems
- Longwatch Inc. - Video Monitoring and Access Control Solutions

LEGACY SCADA SYSTEMS HARDWARE UPGRADE & SUPPORT SERVICES

ACS has many years of experience in turnkey design, integration and installation of water and wastewater SCADA systems. Our years of experience and knowledge of legacy SCADA Systems such as Bristol Babcock, Modicon, Symax, Autocon and other manufacturers, enables us to upgrade your existing system to the latest, best-in-class hardware from the leading hardware suppliers such as Rockwell and Schneider Electric. Our legacy program conversion methods will convert your existing system programs to the latest programming standards while also adding the power and many additional features of Add-On-Instructions, High Performance HMI and other enhancements.

If desired, our design can incorporate re-use of existing control enclosures, field instruments and control wiring to significantly reduce the cost of your system upgrade. ACS has implemented entire SCADA System upgrades and change-outs for as many as 35 RTU sites in a 48-hour period using our own in-house engineering and construction crews with minimal service disruption to the client. ACS can provide complete systems design and upgrade services using manufacturers such as Allen Bradley, Control Micro Systems, Siemens, Schneider and others. Upon completion, your new system is supported by our 24/7 engineering and field service support staff.

Upgrade services are available for the following platforms:

- ABB
- Aquatrol
- Autocon
- Automation Direct
- Bailey Net90/Infi90
- Bristol Babcock
- Consolidated Electric
- Cutler Hammer
- Fisher ROC
- Foxboro I/A
- GE Fanuc
- General Electric
- Healy Ruff
- Koyo
- Modicon
- Omron
- Siemens
- Square-D
- Symax
- Texas Instruments
- Transdyne

NETWORK INFRASTRUCTURE, TELEMETRY & WIRELESS COMMUNICATION SOLUTIONS

ACS provides complete turnkey design and integration services for SCADA and telemetry systems incorporating radio, leased line, dial-up and cellular communications systems as well as hardwired and Fiber Optic systems. We also provide complete IT Infrastructure networking design and implementation for LAN and WAN applications.

We have saved customers thousands of dollars per year by converting expensive, copper leased line telemetry circuits to simple, inexpensive wireless telemetry circuits cutting monthly phone company charges by as much 50% to 80% and improving reliability substantially.

ACS provides comprehensive on-site communications surveys and studies for licensed and unlicensed SCADA radio telemetry applications, cellular communications, broadband wireless systems and wireless LAN and WAN applications.

We have extensive experience in both legacy and new leased line tone/time pulse telemetry, licensed and unlicensed radio telemetry, cellular data telemetry and IoT products. We offer sales and applications support as well as 24/7 service for the following brands of equipment:

- AGM
- CalAmp Radio
- Cambium Networks
- Cisco
- Dataradio
- DAQ Tone Telemetry
- Freewave Radio
- GE MDS
- Iniven Tone Telemetry
- Motorola Wireless
- MultiTech
- QEI Tone Telemetry
- Red Lion Cellular
- Schneider Electric Trio
- RFL Tone Telemetry
- Sierra Wireless

For products not listed, please call us. We can service many obscure or obsolete manufacturers telemetry products and if we cannot service the brand you are using, we can find a new product to replace it.

CLOUD-BASED SCADA SOLUTIONS

ACS offers a variety of inexpensive web based IoT SCADA monitoring solutions to allow web-based monitoring through any web browser using a desktop, laptop, tablet or smart phone. No investment in expensive computers or HMI software is required. Our Web HMI service can interface to your existing PLC's, or we can furnish our SCADA Remote I/O monitor to interface to your existing equipment and process instrumentation. High performance graphics are developed for your treatment plant and remote facilities. Alarms are automatically sent to designated personnel via text or email message, eliminating the need for traditional phone line-based alarm dialers. Custom reports for process data, flow totalizer data, water quality analyzer data, equipment run times and all system alarms can be developed and automatically emailed to you on a scheduled or on-demand basis.

Communications to your site is through an inexpensive cellular communications plan available in virtually any location no matter how remote. Our service allows you to check on your facilities any time 24/7 to view all monitored system equipment. In the event of an alarm, you will be notified immediately and you can go to your web based HMI to view the site. If optioned for control, you can take control of pumps, chemical feed systems and other devices to act upon the alarm without driving to the facility.

Web HMI Monitoring is available for the following sites:

- Well Sites
- Tank Sites
- Sewage Pumping Stations
- Flow Metering Sites
- Interconnect Sites
- CSO Monitoring Sites
- Water Treatment Plants
- Wastewater Treatment Plants
- Mobile Equipment such as Pilot Plants, Generators, etc.
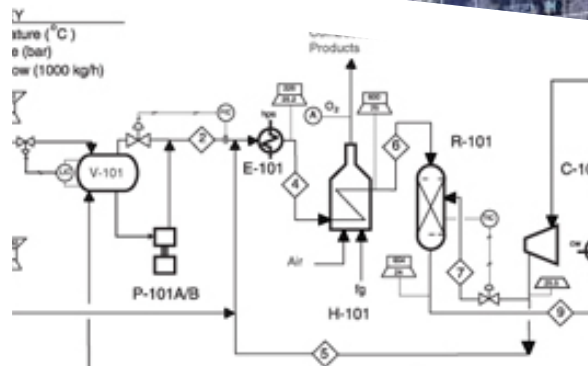- Any Facility You Want!

CYBER SECURITY EVALUATION AND ASSESSMENT PROGRAMS

ACS has conducted Cyber Security and vulnerability assessments for small SCADA System Operations to very large 72 MGD water treatment systems.

We can provide the following services:

- Cyber Security Assessment and Evaluation
- Development of Cyber Security SOP's
- Annual Monitoring and Update of Cyber Security Threats

DESIGN ENGINEERING SERVICES

ACS personnel can assist with a wide variety of applications and engineering design services for any size or type of project. Our licensed Professional Engineers can assist with the following services:

- PLC/HMI Hardware/Software Evaluation and Selection
- IT and Communications Hardware/ Software Evaluation and Selection
- Instrumentation Evaluation and Selection
- P & I Diagrams
- Radio/Wireless Systems Path Analysis and On-site Surveys
- Fiber Optic and Copper Communications System Design
- Functional Programming/Software Specifications
- Electrical Single Lines
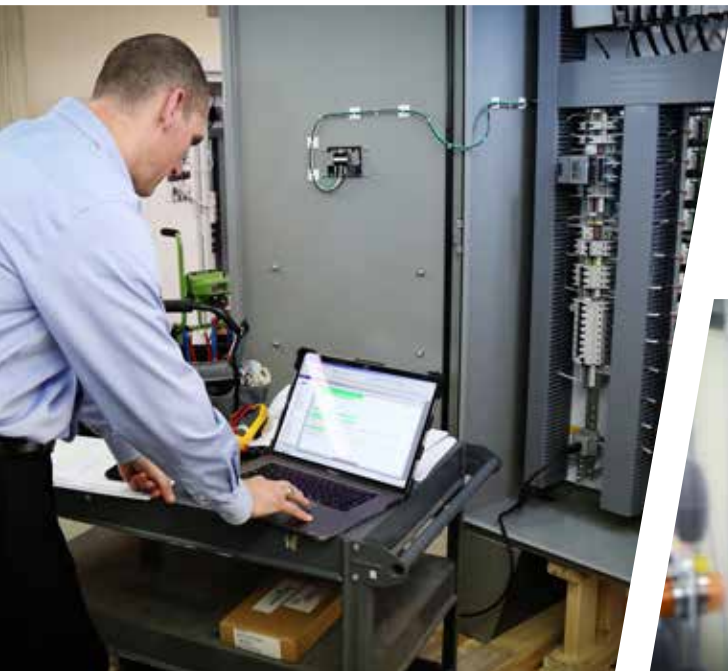- Conduit/Cable Schedules

UL 508A/698A CONTROL PANEL DESIGN & FABRICATION

ACS has a fully equipped, in-house UL-508A certified control panel design and fabrication facility located at our 15,000 SF West Point, PA facility. We can design a replacement panel for any equipment you have regardless of the original manufacturer. We also provide UL-698A certified control panel design for panel applications in hazardous classified areas such as sewage wet wells and digester areas. We provide design and fabrication of equipment enclosures and control panels for a wide variety of industries and applications in all area classifications including Class 1, Division 1 and 2, with intrinsically safe design, NEMA 7 classification or air purged design. We design sensible features into our control panels for ease of maintenance and ease of expansion for additional I/O points, power supplies, relays and other components.

CUSTOM MOTOR CONTROL CENTER DESIGN & FABRICATION

ACS can provide custom MCC Enclosures for major brands including Square-D, Allen Bradley, Siemens, GE and Eaton Cutler Hammer. Custom layout and assembly to exact Owner preferences can be provided to include addition of PLC's, Operator Interface Terminals, Remote I/O, VFD's, Power Monitoring, Vibration Monitoring, Temperature Monitoring and other equipment. Upgrade and modification of existing MCC's at your site can also be provided to add new equipment and functionality to existing MCC's. Our MCC design and fabrication comply with UL-508A and UL- 698A standards for applications in hazardous classified areas such as sewage wet wells and digester areas.

VALVE/VALVE ACTUATOR SALES, SERVICE & INSTALLATION

ACS provides 24/7 sales, service and installation for a wide variety of valve and valve actuator products for the water and wastewater industries with technicians factory trained in many widely used brands.

ACS can provide support for the following brands:

- AUMA

- Beck

- Bray

- Clayval

- EMI

- Fisher

- Limitorque

- Pratt

- RCS

- Rotork

OEM PACKAGED TREATMENT SYSTEM SERVICES

ACS's broad range of PLC and control systems support services allows us to provide maintenance, repair and control services upgrade services for a wide variety of treatment plant systems equipment by various manufacturers of centrifuges, UV systems, filtration systems, sludge treatment systems, chemical feed systems and many other OEM systems.

ACS can provide on-site support and upgrade services for the following vendor's equipment:

- Alfa Laval
- Aqua-Aerobics
- Aquionics
- Ashbrook
- Autocon
- Byrd
- Consolidated Electric
- Degremont Technologies
- Envirex
- Evoqua
- Fluid Dynamics
- Fluid Systems International
- Flygt
- General Filter
- Hungerford & Terry
- Infilco Degremont
- Jet Tech
- Krueger
- Lakeside
- Layne Christenson

- Leopold
- Memcor
- Microfloc
- Neptune
- Netzsch Pumps
- Pall
- Rezkem
- Roberts Filter
- Roediger
- Severn Trent
- Siemens Water Technologies
- Tonka Equipment Company
- Trident Filter Systems
- Trojan Technologies
- US Filter
- US Filter Control Systems
- Westfalia
- Zenon

PUMP CONTROL SYSTEMS UPGRADE & SUPPORT SERVICE

ACS has many years of experience in the installation, service and upgrade of water and wastewater pump station control systems. Our knowledge and experience with older obsolete control systems such as Healy Ruff, Autocon, Consolidated Electric, Flygt, Primex, Smith & Loveless, EFI, Flomatcher, E.G. Controls and other manufacturers platforms combined with our extensive experience with the latest pump station recording, alarm dialing, telemetry and SCADA hardware equipment allows us to convert older pump station control and monitoring systems with new hardware and software to give you the latest features and functions for your new system.

We can incorporate soft start or VFD controls for new applications with fault tolerant float backup control for maximum protection against pump station failure and overflow. If desired, our design can incorporate re-use of existing control enclosures, field instruments and control wiring to significantly reduce the cost of your system upgrade. ACS has implemented entire Pump Control System upgrades and change-outs in as little as four hours using our own in-house engineering and construction crews with no service disruption to the pump station. ACS can provide complete systems design and upgrade services using manufacturers such as Allen Bradley, Control Micro Systems, Modicon, Siemens, Schneider and others. Upon completion, your new system is supported by our 24/7 engineering and field service support staff.

Upgrade services are available for the following platforms:

- Aquatrol
- Autocon
- Bristol Babcock
- Consolidated Electric
- EG Controls
- EFI
- Flomatcher
- Floserv
- Flygt
- General Electric
- Healy Ruff
- Primex
- Siemens
- Sigma
- Stacon
- US Filter

VFD/SOFT-START SYSTEMS SALES & SERVICE

CENTRIFUGE SYSTEMS SERVICE & UPGRADES

ACS provides sales of new and replacement VFD's and Soft Starts for any application including pumps, blowers, centrifuges, conveying systems and other applications. From fractional horsepower to 1000 HP Low Voltage and Medium Voltage drives, our design/build team can provide upgrade to existing single speed motor applications to VFD with PID control for any application. We specialize in upgrade and replacement of any existing drive regardless of age including brands such as Allen Bradley, Robicon, Siemens, Yaskawa, ABB, Saftronics, GE, Toshiba, Danfoss and others.

ACS is factory trained and certified for on-site service and startup of VFD systems manufactured by Allen Bradley/Rockwell, Schneider Electric, Square-D and Eaton Cutler Hammer allowing us to extend the standard factory warranty on new drive installations for our clients. We can assist you with the following services:

- VFD/Soft Start Evaluation and Selection for Upgrades
- Turnkey Application Design, Specification, Installation and Startup
- Retrofit of Motor Control Center VFD Installations
- On-site 24/7/365 Emergency Service
- Preventive Maintenance Service Agreements

ACS provides service to a wide variety of control systems and VFD systems for centrifuges manufactured by Westfalia, Alfa Laval, Bird and others. We offer repair of existing PLC control and VFD drive systems and upgrade/replacement of obsolete PLC controls including Allen Bradley, ABB, Siemens, Modicon, Emerson and others. We also offer I/O additions and modifications and interface to existing SCADA Systems.

PROCESS INSTRUMENTATION SALES & SERVICE

ACS personnel include highly trained and experienced instrumentation and process control technicians and engineers with many years of experience in the instrumentation and process control field. Our personnel have extensive factory training and industry experience with manufacturers including Fischer & Porter, ABB, Hach, Badger, Bristol Babcock, Siemens, Foxboro, Endress & Hauser, Rosemount and many others. Our calibration and configuration test equipment inventory include factory calibration equipment for over 120 manufacturers, for equipment manufactured as far back as the 1960's.

Our sales engineering staff can provide competitive quotes for any brand of instrumentation with turn-key installation included. For new or replacement equipment, we select and furnish the right equipment for your job based on best performance and we back our systems with a one-year on-site system warranty. We offer 24/7/365 service for any type of instrumentation and process control calibration or repair service.

We can provide you with the following services:

- Calibration (NIST Certified)
- Scheduled Calibration and PM Programs
- Programming/Configuration
- In-Line Flow Proving for any metering system
- Instrumentation Upgrades
- 24/7 Emergency Repair
- New Equipment Sales and Installation
- Chemical Feed Equipment Sales and Service (liquid and gas)

PROCESS ANALYZER SERVICES

ACS provides 24/7/365 process analyzer calibration, PM programs and emergency service for a wide variety of manufacturers equipment used in water and wastewater applications. We also offer applications review and sales support for all brands of equipment for upgrade of existing analyzers or new analyzer installations. We can provide full turn-key installation, startup and training for any analyzer application including mechanical and electrical services.

Our staff includes factory trained service engineers for Hach, GLI, Endress & Hauser, Rosemount and many other brands of equipment. This ensures that you have fully trained and qualified personnel for all of your analyzer needs. ACS can provide services including asset-management, calibration, validation, PM services and emergency service.

We support the following brands of process analyzers:

- ABB
- Hanna Instruments
- ATI Analytical Technology
- Honeywell
- Chemtrac
- Prominent
- Emerson
- Rosemount
- Endress & Hauser

- Entech Design
- Siemens
- Swan Analytical
- Evoqua
- Thermo Scientific
- GLI
- Hach
- Wallace & Tiernan
- YSI

FLOW METERING SYSTEMS CALIBRATION SERVICES

ACS has provided flow metering calibration, service and repair for hundreds of clients in water, wastewater utilities, power, chemical, food and manufacturing industries, in thousands of applications since 1982. Our field engineers and technicians have experience in all types of flow metering equipment and applications from Coriolis Mass Flow and Magnetic Flow metering, to Open Channel Area/Velocity Flow applications. Our technicians have a wide variety of factory training and extensive experience with numerous manufacturers equipment. ACS maintains an extensive inventory of NIST Traceable Flow Calibration equipment as well as OEM Factory Flow Calibration equipment for many manufacturers including the following:

- ABB
- Accusonics
- Bailey
- Badger
- Brooks
- Danfoss
- Emerson
- Endress & Hauser
- FCI
- Fischer & Porter
- Foxboro
- Honeywell
- Hach
- Krohne
- Moore Products
- Rosemount
- Siemens
- Sparling

In addition to flow meter calibration, our recommended services also include full five-point loop calibration to validate proper flow signal telemetry and receiving equipment values for PLC/RTU Analog Input Values, Operator Interface and HMI Display Values, and traditional chart recorder and LED display values. Additional testing can be furnished upon request to validate flow totalization and SCADA flow report readings and totals, to guarantee that all readings and report data used for billing and/or compliance reporting are accurate.

ACS

ALLIED CONTROL SERVICES, INC.

If you have a need for support services or questions, please contact our engineering, sales and service staff at

1-800-441-4844

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