

TEXAS AUTOMATION SYSTEMS



TELEMETRY | CUSTOM AUTOMATION | CUSTOM PANELS | WELLSITE SERVICES | TRAINING

Texas Automation Systems (TAS) provides best-in-class automation system design, integration, programming, and commissioning services. TAS has become a trusted partner within the Oil and Gas Industry. At its heart, TAS is a team of highly experienced and dedicated automation and telemetry professionals who are committed to making advanced technology, automation, and engineering services work for our clients. Our goal is to apply our capabilities to our client's needs enabling them to thrive in today's competitive landscape.

HIGHLIGHTS

- Proven track record in automation design, integration, programming and commissioning
- More than 85 years of combined Automation Experience
- 40 years of upstream commissioning
- 40 years working with SCADA
- 40 years working with PLCs
- 30 years working with Totalflow Flow Computers
- 25 years working with Telemetry and Wireless Networks
- 25 years working with ROC RTUs
- 15 years working with SCADAPack
- Committed to, and known for, High Quality, Customer Satisfaction and Technical Ability



H. Jackson Brown said, "Earn your success based on service to others, not at the expense of others." That thought is a core operating principle at TAS. While we believe our solutions and products are top shelf, that means nothing if we are not truly servicing our clients and helping them get from a "need" to a "complete solution". That's why "service" to us goes way beyond building panels and custom solutions or providing you with great products and field services. When you've done business with TAS we want, and strive for, you to say "wow those guys are great and bent over backwards to help me."

PANEL BUILDING

TAS will build any panel to your specifications or we can design one for you.

- User Interfaces—Smart HMIs, Panel Meters, Gauges, Annunciators
- Communications—Gateway, Concentrator, Media Conversion, Web Server, FTP, Cloud
- Environments—Class 1 Division 1, Class 1 Division 2, NEMAxx
- Wired or Wireless I/O-Analog, Digital, Discrete
- Power—AC, DC, Solar (primary or backup)

CUSTOM AUTOMATION

TAS designs, builds and commissions Custom Process, Industrial and Test Automation Systems

- Programming—PLCs, RTUs, HMIs, Data Concentrators
- Data Acquisition/SCADA-1 to + 10,000 I/O points, Archiving, Enterprise Wide
- Controls—PID, Test Sequencing, Access, Safety Lockout, Alarm Notification
- Communications—Gateway, Concentrator, Media Conversion, Web Server, FTP, Cloud
- User Interfaces—Smart HMIs, Panel Meters, Gauges, Annunciators
- Report Writing—Production Report, Batch Validation, Test Validation

TELEMETRY AND WIRELESS NETWORKS

TAS provides path studies, system design and commissioning of wireless systems

- Any measurement
- Any location or environment
- Any wireless platform
- Any data communications protocol

FIELD SERVICES

TAS has an experienced staff of field automation specialist that provide troubleshooting, programming, and commissioning services.

- Troubleshooting—Data reconciliation between end device and system, communication interfaces, overall system configuration
- Programming—PLCs, RTUs, HMIs, Data Concentrators
- Commissioning—Loop checks, panel terminations, system performance, site acceptance test









Telemetry and Wireless Networks

In today's highly competitive Oil & Gas market, the winners are typically those who have the best overall efficiency, or cost to get their product out of the ground and to market. Efficiency is determined by many factors, but a wireless network can be the means by which you achieve best-in-class performance in several key areas.

EFFICIENCY

- Move from managing by route to managing by exception to lower manpower and operational cost
- See and address production issues when they happen versus when they are discovered
- Reduce commissioning cost by use of wireless versus the cost of conduit, wire and I&E labor

REDUCE THE COST OF YOUR EXISTING NETWORK

- Consider the ROI of building your own network versus paying Cellular or Satellite fees month after month
- Employ new technologies to get away from expensive older technologies (obsoleted, licensed, etc.)

SAFETY AND ENVIRONMENTAL COMPLIANCE

- Remote monitoring and reporting to ensure regulatory compliance
- Alert personnel to site issues such as H2S, LEL or Spills prior to arriving at site

SECURITY

- Use motion sensitive cameras to monitor assets
- Remotely and/or automatically authorize truck loading and unloading operations



Typical Example



Telemetry and Wireless Network Execution

TAS has implemented numerous telemetry and wireless networks as small as point-to-point wire replacement applications to networks that encompass more than 1,000 radios and end devices. What we have learned through the execution of these projects makes TAS the perfect partner, because we can guide you through the labyrinth of issues that are faced before, during and after the execution of a wireless network. Let us be your Wireless Consultant!

CONSULTING SERVICES

- Budget creation with ROI Analysis
- Determining scope and required system performance specifications
- Proof Of Concept (POC)

FRONT END ENGINEERING DESIGN (FEED)

- Developing Network Architecture
- Tower locations and RF Sheds
- RF and Path Studies
- Pilot Project Execution

TURNKEY PROJECT EXECUTION

- Prime Contractor
- Tower Construction
- Panel Building
- Solar Power system
- Radio, Antenna and Cabling Installation and Commissioning
- End Device Configuration
- Preventative Maintenance and Field Service



Ideal Wireless Project Cycle

TRAINING

As we are out in the field meeting with and servicing our clients one particular need continually comes up, "my guys need more training." In 2007, it was projected that between 2014 and 2017 more than half of the skilled Oil & Gas work force would retire. Well to one degree or another that is happening not only in Oil & Gas, but across the Automation landscape. This historical manpower change has created a major need for hiring and training. At TAS we have developed and continue to develop training courses aimed directly at what our clients are asking for. Today we are offering Modbus, Basic Instrumentation, and Intro to PLCs courses and are working on adding more based on direct client request.

MODBUS

Have you ever had a problem understanding or utilizing Modbus? If so, you are not alone! While the Modbus protocol has been around since 1979 with millions of active devices in use, Modbus is among the most misunderstood and problematic protocols in the field today. This course will allow the end user to learn and benefit from years of real-life industry experience.



Using hands-on demonstrations in this PLC training, we frame the challenging world of automation and Programmable Logic Controllers (PLCs) into practical, simple lessons that are easy to understand. Students will learn to understand PLC language, read, and interpret PLC ladder logic, troubleshoot PLC programs, and fix the most common PLC problems on their own. Curriculum will also cover communications between PLCs, SCADA, DCS, and devices in the field.



This is an introductory training course covering the different types of measurement and analytical instrumentation used in a wide range of industries and applications. As technology advances, new and innovative instrumentation is being introduced every year. This course will equip you with the basic knowledge of instrumentation and what it will take to achieve the results your particular measurement requirements call for.









PRODUCTS

You've heard the expression a chain is only as strong as its weakest link, at TAS we believe that applies to every aspect of our work and solutions. While we will build any panel or custom solution you want with whatever products you specify, we have chosen to distribute products in which we believe are market leaders in terms of quality, total cost of ownership, and functionality which represent our "go to" products when designing our own solutions.



more sensors, more solutions











Sixnet



- Wireless Sensors & Networking
- Lighting & Indicators
- PPM Optical Oxygen Measurement
- PPM Dissolved Oxygen Measurement
- Unmanaged/Managed/Monitored Ethernet Switches
- Serial Converters
- Din Rail Mounted Power Supplies
- 1-Phase, 3-Phase & DC/DC Converters
- Solar Panels, Batteries and Chargers
- Wind Turbines
- Antennas
- Towers
- **DIN Rail Mounted Controllers**
- Protocol Converters
- Cellular Modems
- Cellular RTUs













Process Connectivity

Intrinsic Safety Barriers



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