The Sage Advisor

SCADA, SECURITY & AUTOMATION NEWSLETTER

Sage Designs Now Offers Dream Reports

If you're interested in reports and dashboards to show you the operation of your industrial business, and especially if you are a ClearSCADA user, then you'll want to learn about Dream Report!

Today's automation professional is challenged with continuous improvement and doing more with less. Budgets are tight. Labor is expensive and over-burdened. It's becoming harder and harder to sift through the broad range of tools available in today's marketplace. Business Intelligence (Reports and Dashboards), is the catch phrase in the front office but your needs are centered around Industrial applications. While Business Intelligence tools are great at dealing with counts and currencies, you need a solution that does that and so much more… In the Industrial world, you need an Industrial Business Intelligence solution.

The three reasons for an Industrial Business Intelligence Solution

1. There's information you need in order to run your business. If you don't have this, then you aren't able to be in business. This is Required Information - often compliance information, mandated by government.

2. Required information is rarely in the form you really need to drive continuous improvement. For continuous improvement, you'll want to maximize the context of your data, providing month to month, year to year or batch to batch comparisons. This data, and the context to drive decisions is what we call your performance information. It's the information you want in order to run your business better. This is the Key Performance Indicator (KPI) information for quality, quantity, cost, agility, improvements etc. and the context to know how it is changing.

3. Finally, you also need Tools to better understand your data. Perform ad-hoc analysis. React to day to day changes and empower your workforce to access and analyze their own information, when and where they need it. You don't know what you need until there is something to investigate. And like Murphey's Law, "Anything that can go wrong, will go wrong", it is the information that you don't currently have access to that you'll need the most. We call this ad-hoc analysis.

In selecting the best solution as the basis for your Industrial Business Intelligence, you'll want to make sure they can deliver on 5 key values.

• The ability to turn raw data from ANY data source (even data combined from various data sources) into the KPIs to match user requirements.

• The ability to deliver your KPIs with enough context to make them immediately actionable. How does this KPI compare to last batch, last week, last year, etc. or other variables that help guide a decision.

• Automatic generation of KPIs and Context saves time and money. Your team is focused on evaluating results, not generating them.

• Generating KPIs are one thing. Making sure they are reviewed and acted upon is another. That's where automated delivery comes in, via Email, and local or FTP file transfers. Portals are great, but having portals and email and file delivery is better.

• Finally, when a KPI looks off, you'll need the ability to drill into your data, call up associated data and have ad-hoc access all the necessary information to troubleshoot and analyze the problem. That also includes being able to export the data for further analysis in other products, or sharing with other individuals.

Announcing The SCADADroid R2+ with MQTT, ReST and Reporting (Datalogging)
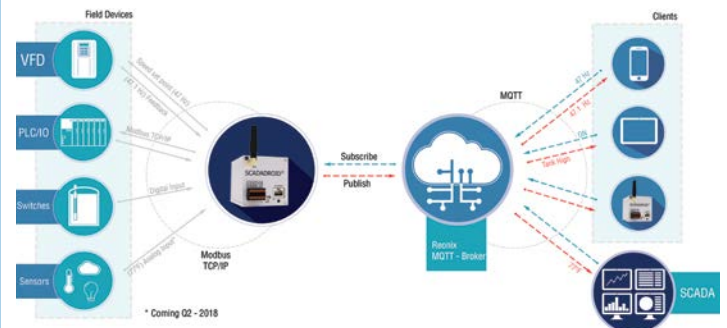
What's New

SCADADroid® R2+ exploits new IoT opportunities while maintaining present strengths. Improved MQTT capability and ReST Architecture allow for ease of access, sensitivity in monitoring, and specificity in configuration. Improved Modbus Tags allows the unit to publish real values instead of percentages, and reports can be sent to MQTT.

The new LTE modem is significantly faster than the old 4G modem. Your interface will allow for better response time, and the increase to 30V DC power supply range allows the upgraded products to serve optimally. Beginning quarter 2, 2018, there will be two analog inputs and a serial port. Beginning quarter 3, we will be rolling out App Interface programs (APIs) that will make programming the SCADADroid® R2+ easier and more mobile than ever.

For convenience's sake, firmware can now be updated via the cell network.

The new Voice feature enhances your hands-free approach, available as an add-on to supplement the standard text and email notifications.

The SCADADroid® R2's System

MQTT: MQTT is a publish-subscribe messaging system that works with a message broker. The two-way communication of MQTT enables the publisher to send data to the broker, which can then be pushed to the subscriber worry-free, rather than having the client having to constantly poll the publisher. This protocol dramatically reduces data usage on a cell plan. The client can subscribe to values from multiple SCADADroid®s, as well as publish to the SCADADroid® with any adjusted setpoints.

With MQTT you:

• Will use dramatically less data than with a Modbus polling device

• Need no direct access – VPN is not required. The rest of your system is not exposed when using only MQTT

• Have useful free apps available for your phone, keeping data right at your fingertips

• Can retain last known values; which can be sent to a new subscriber or resent if a connection is lost

• Can use your SCADADroid® as both the subscriber and publisher – Multiple SCADADroid®s can communicate with each other, and soon there will be a server option available.

Inside this issue:

Fallbrook Configurable Alarm Dialer Configuration In ClearSCADA

SCADA Integrations is a full-service firm of 10 delivering SCADA solutions throughout Southern California, beginning with SCADA system design, to PLC panel construction, to Enterprise level SCADA Operating System implementation, development, and maintenance, and to all aspects of SCADA hardware installation, programming, and system maintenance.

Fallbrook Public Utility District (FPUD) operates as a public agency under the Public Utility District Act of the State of California. FPUD was incorporated as a political subdivision of the State of California in 1922. The District was originally formed to provide water to the community of Fallbrook. Since then, the

to what is provided in WIN-911 or SCADADroid applications). There was to be a runtime configurable 'call list' for each day of the week that would check against the users' availability and notify of alarms down the list for the current day of the week. FPUD uses the email alarm redirect capability to send emails that are converted to SMS messages to the operator's duty mobile phones. The following is similar to what was provided as an explanatory example by FPUD (each field was to be runtime configurable without entering design mode by a logged in operator/admin):

With SCADA Integrations' expertise in WIN-911 configurations and other

	User	Start Time	End Time	Delay
Monday:	User 1	0600	2000	30
	User 2	0800	1800	60
	On-Call	0000	2400	10
	User 3	0700	1930	30
Tuesday:	On-Call	0000	2400	10
	User 1	0600	2000	30
	User 2	0800	1800	60
	User 3	0700	1930	30

District has expanded its services and treats sewage and provides recycled water. FPUD imports water from the Colorado River and the State Water Project. The imported water is delivered by the San Diego County Water Authority, which is the largest single customer of the Metropolitan Water District of Southern California. All of the potable water distributed by FPUD is treated at the Lake Skinner Filtration plant, just east of Temecula. The treated water quality surpasses all federal, state, and local water quality standards and regulations. FPUD delivers water to some 35,000 people over a 28,000 square acre service area.

SCADA Integrations has been providing support to the FPUD since 2016. In June of 2017 the district requested that we provide programming for a configurable alarm dialer system within the existing ClearSCADA database for their Potable Water system. The district's in-house technician had a clear concept on what they were looking for. The requirements were to have a user based weekly schedule for alarm notification (similar

user-based alarm notification methods there was a great deal of confidence approaching this project. However, after a preliminary review of the alarm redirection properties in 'out-of-the-box' ClearSCADA it was revealed that the alarm redirect was focused on individual object properties (or those of their templates) and not necessarily on a system-wide user or schedule based approach. Due to the size of the Potable Water system database, directly referencing and editing each object's alarm redirect properties was not feasible.

At this point SCADA Integrations began to design an approach that would work with the extensive

ClearSCADA features and capabilities. The initial concept was to, of course, address the FPUD requests and to do it in such a way that it would be repeatable between systems. Some of the elements used in the design were less commonly used in other applications so we began to get in touch with various tech support groups and got feedback initially that what we were endeavoring to do was going to be a bit… of an adventure.

Thankfully we were able to get in contact with Sage Designs and review the conceptual design and demonstrate the elements that were put together at that point. They put us in touch with resources within Schneider Electric Telemetry & Remote SCADA Solutions (TRSS) which provided key support that connected the backend components into a presentable interface.

Shortly after this support was provided, the project swiftly came to completion. FPUD was quite pleased with the results and SCADA Integrations was impressed with the 'under-the-hood' capabilities that this project demonstrated. A side benefit to the integration of this alarm dialer system is the importance of the core database structure was demonstrated. As stated the design approach was to create a modular application that was repeatable to other systems. This was put to the test as the final testing was taking place on the Potable Water system they asked what it would take to add this functionality to their Collections system. It was nearly a drag-and-drop.

In total, this project was a huge success. It went from a hypothetical concept that 'should work' to finding out that ClearSCADA elements that did not originally appear to work together in fact could, and finally to a finished product that matched SCADA Integrations' vision and exceeded customer expectations. This success came from a number of key factors:

- Educated End User: The FPUD instrumentation and controls specialist has received ClearSCADA training

and has actively developed within it for their system. The benefit to this cannot be overstated. When customer and integrator have commonality in scope and terminology it creates a positive development environment.

- Engaged Representative: When the scope of what we were attempting to produce exceeded the scope of basic technical support, Sage Designs was contacted. They reviewed the conceptual design that we were going for and the portions that we had completed to that point. It was clear that what we were doing was possible, but involved. It was not long until we were in touch with the resources that led to the cleanliness of the resulting product. During the process and afterwards, Sage Designs checked in and followed up to ensure that we were receiving the support that we needed.

- Capability of ClearSCADA: As the approach we were taking with the alarm redirections in a user based scheduled alarm notification did not have readily available resources, the granularity of ClearSCADA was a perceived hurdle.

However, because of this it was obvious that ClearSCADA was capable of doing anything we wanted to. We realized through developing this package that ClearSCADA is incredibly capable and has the resources to bring any project from concept to a functional reality.

Beau Travis
Chief Technical Officer

SCADAWise™ Training Classes

ClearSCADA

SCADAPack

ClearSCADA Level 1 Training Course

October 15-19, 2018 — Mill Valley, CA

Day 1 (8AM - 4PM)	Installing ClearSCADA, Introduction to ClearSCADA, Components, Using ViewX, Using WebX, ClearSCADA Help
Day 2 (8AM - 4PM)	Configuring using ViewX, Database Organization, Basic Telemetry Configuration, Creating Mimics, Creating Trends
Day 3 (8AM - 4PM)	Configuring using ViewX, Templates & Instances, Logic Languages, Security, Communications Diagnostics
Day 4 (8AM - 4PM)	Reports, System Configuration, System Architecture, Questions

Cost: ClearSCADA Training Course $2,200

Sage Designs' ClearSCADA Level 1 Course has been certified by (a) the California Department of Public Health as courses qualifying for contact hour credit for Water Operator Certification for Drinking Water Treatment or Distribution in the State of California and (b) the State of Nevada Department of Environmental Protection, Bureau of Drinking Water for contact hours towards the Nevada Drinking Water Operator Certification Program.

(28 Contact Hours)

ClearSCADA Level 2 Training Course

2018 Dates TBD

Day 1 (8AM - 4PM)	Installation, Understanding the Architecture of ClearSCADA, Application Design Considerations, Server Automation Interface, ClearSCADA Logic Engine, Using ODBC and SQL.
Day 2 (8AM - 4PM)	Advanced Mimic Design and Techniques, Data Grids and Data Tables.
Day 3 (8AM - 1PM)	Accessing Historical Data, Ad Hoc trends, Archiving

Prerequisite: ClearSCADA Level 1 Training Course

Cost: ClearSCADA Level 2 Training Course $1,650

Telepace Studio Training Course

October 2-3, 2018 — Mill Valley, CA

Day 1 (8AM - 5PM)	SCADAPack controller operation, Series 5000 I/O, Telepace Studio introduction
Day 2 (8AM - 5PM)	Telepace Studio advanced programming techniques and advanced functions
	Controller communications, Modbus Master/Slave protocol, Diagnostics, Modems

Cost: SCADAPack Telepace Studio Course $1,650*

* You must have a licensed copy of Telepace Studio installed on your computer for this course. If you do not have a licensed copy, you may purchase one with the class at a special course price. Course price for Telepace Studio: $510 + applicable CA sales taxes

Sage Designs' Telepace Studio Course has been certified by (a) the California Department of Public Health as courses qualifying for contact hour credit for Water Operator Certification for Drinking Water Treatment or Distribution in the State of California and (b) the State of Nevada Department of Environmental Protection, Bureau of Drinking Water for contact hours towards the Nevada Drinking Water Operator Certification Program.

(14 Contact Hours)

Instructors: ClearSCADA Level 1 & Telepace classes will be taught by Tony Sannellla, Sage Designs, a Factory-Certified Instructor. SCADA Level 2 classes will be taught by a SEUSA-certified training instructor. The ClearSCADA Test Drives will be conducted by Sage Designs or a factory representative.

Location: See individual course registration form. Those requiring overnight accommodations should call the hotel directly for reservations.

What should I bring? Laptop computer with minimum requirements as shown on the specific course registration forms, plus necessary permissions to install software on your computer.

*You must have a licensed copy of Telepace Studio to take the Telepace course. We offer a course price for a license or you may purchase through your local Schneider Electric TRSS representative.

What is provided? Course manual, daily continental breakfast, lunch & beverages.

Schedule Your Own
ClearSCADA Test Drive

Free Hands-On Test Drive
Call to Schedule a Test Drive
Call 1-888-ASK-SAGE
email: info@scadawise.com

SAGE DESIGNS, INC.
SCADA & Security Products

Download the Registration form at: http://www.SCADAWise.com

*** * * Registration Deadline: 4 weeks before 1st day of course * * ***

All registrations are subject to cancellation fees. A confirmation notice will be sent to all registrants on or before the deadline date.

Fighting The IT Crowd

I have a customer who was recently forced to make an hours-long drive to a remote location just to make minor changes to their SCADAPack's program even though that station has an existing Ethernet link. Why? Because IT wouldn't allow the technicians to connect to the OiT because of cyber security concerns.

This may sound a bit onerous but as our world becomes more connected it also becomes more vulnerable to acts of cyber terrorism, and there are plenty of groups and individuals working diligently to find the flaws in your security system. In the years to come, measures to keep our infrastructure safe will be tougher and could present even more time spent not doing our essential everyday work. But are there other choices? There are.

First off, there will be an end to simple and open protocols in our SCADA systems. We can already begin to see the end of Modbus in SCADA and its replacement with DNP3, which will also
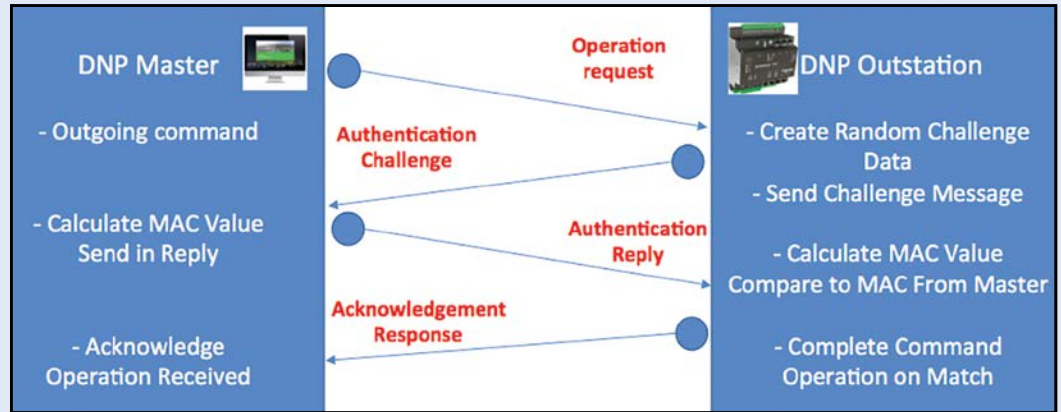
DNP3 Secure Authentication Testing

soon be replaced by DNP3 SA (Secure Authentication) which requires all commands or changes to the RTU code or settings to be challenged against a SA (Secure Authentication) key provided by the command originator. Just encrypting protocol messages in the transmission device such as the radio won't satisfy tough requirements as the encryption must be done before the messages

get to the communications ports on the outstation. DNP3 SA will provide that security.

I did have a suggestion for my customer that allowed them to get around the IT crowd; use another SCADAPack on the network to store-and-forward programming changes to the remote site. This way they were able hook up locally

through the second unit's serial port and forward commands through the Ethernet port on the local outstation to the remote. This feature is different on the next SCADAPack to be released this quarter, as it uses a DTM to allow one SCADAPack to "channel" another. It's better than driving half the length of California!

SCADADroid, *continued from page 1*

Case Study: Bitcoin Mining
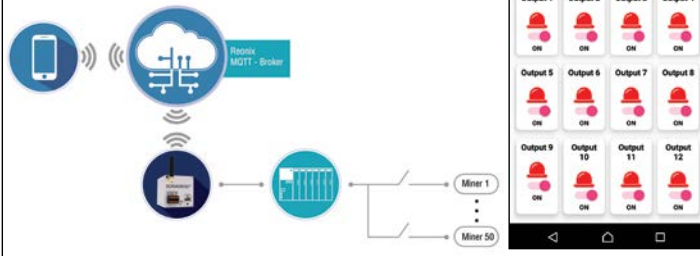
We recently had a customer who wanted to automate his bitcoin farm. We were able to program a SCADADroid® which communicated via a PLC to the bitcoin farm, allowing it to turn on and off any of 50 individual mining machines. The SCADADroid communicated via MQTT to an app for android that we developed in-house. Through this app the client was able to turn the miners on or off.

Reporting: SCADADroid® R2+ now has a reporting function. It can log data points either at preset intervals (every minute, every hour, etc.) or anytime a value changes, depending on your requirements. The SCADADroid® then emails you a report of these interruption-proof data points at desired intervals in CSV, JSON, or PDF format. Surpassing the limitations of discrete interval detection by way of analog detection is possible now, thanks to Modbus driver improvements.

Case Study: Louisiana Regulations

In order to easily comply with State Regulations, our cost-effective equipment served a Louisiana company by streamlining data flow from two SOLO logic controllers by way of an Ethernet converter; standards were easily complied with by making the requisite reports pertinent, accurate, and timely – and any required action was easily facilitated from a distance.

ReST: With ReST Architecture, SCADADroid® is more accessible than ever before. Any system that supports ReST Architecture can now access data from your SCADADroid®. Everything that is available through the web interface is available through ReST. Anyone with the proper permissions can edit the SCADADroid®, even while it is in use; interrupting the system will not be a problem.

Reliable Features

8 digital inputs	Cell Modem Inputs	Relay Output
Ethernet Port	Alarm Escalation & Acknowledgment	Notification via SMS text, and email
PLC Status Notification	Web Browser-based Configuration	Unlimited Address Book
Shift Schedule Integration		

New Capabilities

The analog inputs also open the possibility for lift station monitoring for circular or rectangular wet wells. It will allow you to pinpoint a pseudo flow-rate based on analog level monitoring and fixed value input if the pump is running. Pump Runtime and Starts could be reported by way of time accumulators and counters on the digital inputs. This application is just one possibility in balancing multiple inputs for more versatile remote monitoring and operation.
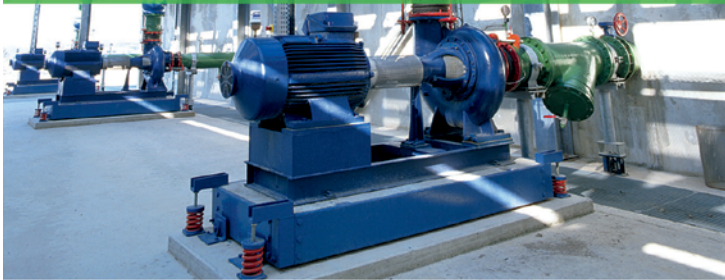
As you can see, we've made many upgrades to the SCADADroid® R2, and yet it's worth noting that the simpler SCADADroid® models are even cost-effective enough to serve simply as VPN cell modems. We are excited for the new applications these advances will allow. The SCADADroid® R2+ makes for a more versatile and agile alarm dialer than ever!

Top 7 Reasons for Choosing Telemetry Solutions for Water & Wastewater Applications

Schneider Electric
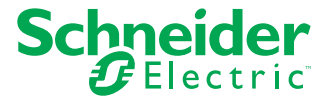
Easily manage your network from control room to remote stations with SCADAPack E Smart RTUs and SCADA Expert ClearSCADA Software

The Challenges — where does Telemetry fit?

Telemetry - at a glance

Remote SCADA systems allow you to monitor and control field operations across a widely dispersed infrastructure.

Water resources, water & wastewater network systems are constantly challenged by emerging regulations, rapid technology change and industrial shifts in accepted best practices.

Leveraging a proven track record in a wide range of industries and expertise in the areas of instrumentation, control and data acquisition, wireless communication and IT, we can help make the most of your remote operations and assets.

Offer Overview

Telemetry offers solutions to 3 key sub-segments:

1. Water Resources

2. Water Networks

3. Wastewater Networks

A complete, integrated sensor-to-enterprise solution that will go beyond addressing the most challenging remote monitoring and control application and help you to efficiently manage and operate a secure and reliable water infrastructure.

1. Get the data you need, when you need it
Tired of needing high frequency polling rates to catch the changes in your system? Using DNP3 on your SCADAPack™ E Smart RTU, you can choose from several methods to generate events (no logic required) and you are done! When the RTU detects that one of the criteria is met it will timestamp the value and store it - ready to be picked up by ClearSCADA™ host software. You can even have the RTU report critical data to the ClearSCADA system itself- now that's smart!

2. Optimize the management of your telemetry system
A telemetry system should let you manage your equipment, your way. By using SCADA-Pack E Smart RTUs and ClearSCADA software you can manage your field assets, including configurations, applications and firmware, from one interface!

3. Don't lose your data because your link goes down
Communication to your remote site goes down and you grab your jacket and head for the truck to go to site - just because your communication link is down doesn't mean you don't need the data. Using SCADAPack E controller and ClearSCADA host, you can rest assured that your data is safe, being time-stamped and stored locally on the RTU. Once the communication link is restored, ClearSCADA software will automatically load everything that happened during the outage into the historian using data backfilling. You have a complete data set without leaving your seat!

4. Reduce the number of site visits
Things change - we get that - make your program and configuration changes from your ClearSCADA Host! No need to go to site to update the program or the firmware. Load your logic file into ClearSCADA software and send it to your smart RTU over your DNP3 network with the click of a button.

5. Industry Standards
Make your system last longer and be more open using standards that are well understood and widely accepted. Using SCADAPack E RTU and ClearSCADA system, you leverage industry standards like DNP3 (level 4), WITS, and IEC60870-5-101/-104.

6. Secure your Telemetry System
You operate critical infrastructure - you need a system that can offer a suite of security options and network tools to protect your telemetry system. SCADAPack E Smart RTU and DNP3 protocol offer you a defense-in-depth security model with features such as DNP3 Secure Authentication and SCADAPack E RTU encryption.

7. Grows with you
Need a system that is going to grow with your needs? We understand that you may not deploy your entire telemetry system at once; we also understand that you may have a very large and complex system once you are done implementing. By choosing ClearSCADA software you can have confidence knowing a single ClearSCADA Host can support from 250 to 1,000,000 points - that's right- one million points!

PRODUCT OVERVIEW

SCADAPack E Smart RTU Overview

A range of compact Smart RTUs that combines the capabilities of a Remote Terminal Unit with the power of a Programmable Logic Controller: designed to run in challenging, remote environments.

With advanced SCADA Expert ClearSCADA software integration, allowing complete remote management of your telemetry system, the SCADAPack E RTU also offers advanced logic (IEC 61131-3) as well as telemetry protocols including ONP3 level 4 with secure authentication and IEC 60870-5-101/- 104.

Highlights of SCADAPack E Smart RTU

Versatile and flexible Smart RTUs

- Wide range of connectivity
- Ethernet IP/Serial, integration with long range radios, public networks and satellite systems

Secure and Reliable operations

- End-to-end security and local event logging of critical data with automatic historian back-filling if communication is interrupted

Cost efficient maintenance

- Remote configuration and management of your entire telemetry system
- Flexible 1/0 configuration
- Enhanced security suite
- Help to secure your entire system with Secure
- Authentication and Encryption

SCADA Expert ClearSCADA Host

World Class software optimized for remote applications

Object-oriented templates for easy configuration management and rapid deployment of configurations that "just work" allowing easy conversion of field data to actionable business information at the enterprise level. ClearSCADA software offers out-of-the-box telemetry features including:

- Telemetry connectivity for open protocols
- Non-permanent & redundant communication link management
- "No loss of data" backfilling to historian Tight integration with Schneider Electric products & solutions, including SCADAPack E Smart RTU
- Integration with industry leading Water Loss Management and Online Network Optimization Systems
- Online Modification for zero downtime in dynamically changing systems

Highlights of SCADA Expert ClearSCADA Host

- Controlling total ownership cost or managing and operating remote assets
- Helping to ensure secure and reliable operations across wide area network
- Maximizing asset productivity and operational efficiency

THE APPLICATIONS

Water Resources

Improve operations and decision making through a combination of telemetry, industry-leading weather services and other intelligence-enabling technologies.

Monitor & Control your:

- Rain water storage basin
- Storm water basin
- Ground water well system
- Irrigation systems
- Environmental systems Water discharge stations
- Pressure Distribution systems Water quality systems

Water Networks

Develop strategies and implement Smart Water networks to maximize ROI and improve the efficiency, longevity and reliability of network infrastructure.

Monitor & Control your:

- Pumping Stations
- Booster Stations
- Water intake stations
- Pressure valve control stations
- Water storage tanks
- Ground water wells

Wastewater Networks

Our remote telemetry, intelligent power and energy management solutions help our customers achieve improved efficiency within wastewater lift/pump stations and sewer collection systems.

Monitor & Control your:

- Wastewater Lift Stations
- Septage Drop-Off Stations
- Storm water collection system

Introducing George Vazquez, your Southern California Salesperson!

George has assumed the Southern California territory previously represented by Ken VandeVeer and is working hard to bring a fresh new energy to the region.

George is a Los Angeles native who graduated from University of California Irvine with a Bachelor's in Business Administration. He currently lives in Fullerton with his wife Alicia whom he married last August. George has previously worked in the oil + gas industry as regional salesperson for a pipeline leak detection company. When George isn't hard at work for Sage Designs he enjoys camping, hiking, astronomy, photography, cooking, gardening and playing the guitar.

Contact George today for all your SCADA and Telemetry needs!

Dream Reports, *continued from page 1*

These 5 requirements should be the goal of your Industrial BI solution. Other solutions are designed for one or more of these aspects. One handles them all.

While its name is Dream Report, it actually delivers Reports, Dashboards and ad-hoc analysis tools. It's been developed by SCADA industry experts for process engineers. Its purpose built for industrial data, industrial calculations and the unique needs of every segment of the automation marketplace.

That includes:

- Water and Waste Water
- Food, Pharmaceutical and Biotech
- Power Generation and Distribution
- Building Automation
- Automotive, Aerospace
- Oil and Gas, Upstream and Downstream
- And many others…

With over 80 drivers for proprietary interfaces, industrial standards and business standards, Dream Report can acquire data from ALL of you data sources and generate the results you are looking for.

Dream Report understands industrial data sources, industrial data complexities and industrial calculations. It knows how to integrate time series data. It knows that energy meters or PLC Registers have rollover points such as 99999 or 65535 or 16383… Dream Report has most industry specific calculations built right in. Select a flow and integrate it to a daily, weekly, shift , month or yearly totals. Select a discrete and calculate on time, off time, runtime, percent utilization. Have even more specific requirements? Not to worry – there are many more calculations in Dream Report and you have the ability to specify your own. And Dream Report also understands your business data sources, delivering SQL capability over ODBC and OLE-DB interfaces. It's the one solution you need as a complete Report, Dashboard and Ad-hoc analysis solution.

Dream Report is the most widely resold and recommended "Industrial" solution and enjoys over 20 reseller or recommending partners, some of the most recognized names in the world.

So what's the functionality you get with Dream Report?

- As previously mentioned, Access to ALL your data and combining that into the KPIs you need.
- Dream Report can create several forms of output including PDF documents, Excel files, CSV files and Web pages (the latter being based on the latest web technology, HTML5.)
- Automated generation can be based on time and event triggers. You can have Yearly, Monthly, Batch, and Alarm based statistics.
- Dream Report integrates with your automation systems through ActiveX objects and automation interfaces – command line and webservice interfaces.
- Automated document delivery ensures the attention of recipients. Make users reactive by delivering information automatically.
- But it's not just about reporting – it can also be data collection, archiving and then reporting. Let Dream Report be a data entry solution for Operator log books, quality, downtime and sample management.
- In today's world, you want access from anywhere and Dream Report , with its powerful browser based portal, lets you access your data anywhere and anytime, through the devices you wish to use.
- With over 10 years, 20 releases and delivery around the world, Dream Report is the reliable, proven, industry leading solution to integrate with YOUR automation system.

Next Steps? Download Dream Report from www.DreamReport.net. Watch some of the videos. Install Dream Report and connect with your data sources. Then try creating a report of your own. Dream Report will run in a demo mode for 30 minutes at a time and will report on up to 100 tags of data. Contact us for a pilot application or some quick one on one training. We would be happy to assist you.

Over 10 years ago, Dream Report pioneered the user friendly industrial report generation market. Today, Dream Report is the leading solution for Industrial compliance and performance, Reports and Dashboards. And Dream Report delivers a browser based interface for Ad-hoc Analysis and troubleshooting.

And for ClearSCADA customers… Dream Report is now the official reporting solution for ClearSCADA by SchneiderElectric. Today, customers can interface Dream Report with ClearSCADA through the OPC Standards, OPC DA for Real-time connectivity and OPC HDA for History Data connectivity. The next release of Dream Report will introduce native connectivity to ClearSCADA, starting with Real-time connectivity and then adding History Data connectivity. In the future, the native connectivity will not require the purchase of any ClearSCADA OPC options. With Schneider Electric as an OEM of Dream Report, branding it as a Schneider Electric product and including their licensing and Customer First support, you can be sure that Dream Report is the right solution to use with all Schneider Electric products.

SAGE DESIGNS, INC.

SCADA & Security Products

150 Shoreline Hwy., Suite #8A
Mill Valley, CA 94941-3634

Return Service Requested

🌲 **SAVE A TREE**

The Sage Advisor

SCADA, SECURITY & AUTOMATION NEWSLETTER

Calendar of Events

April 18-19, 2018	**CWEA Annual Conference**, Sacramento, CA
April 25, 2018	**CRWA Education & Exhibitor Expo,** Lake Tahoe, NV
May 1-2, 2018	**TelePACE Class,** Buena Park, CA
May 14-17, 2018	**ClearSCADA Class**, Buena Park, CA
August 2018	**Wine Country Waterworks**, Rohnert Park, CA
August 22, 2018	**CA-NV AWWA Water Education Seminar**, Orange, CA
September 2018	**Monterey Bay Water Works Annual BBQ & Vendor Fair**, Monterey, CA
September 25-27, 2018	**Tri State Seminar on the River**, Las Vegas, CA
October 2-3, 2018	**Telepace Class**, Mill Valley, CA
October 15-18, 2018	**ClearSCADA Class**, Mill Valley, CA
October 22-25, 2018	**CA-NV AWWA Fall Conference**, Palm Springs, CA
December 12-14, 2018	**CRWUA Annual Conference**, Las Vegas, NV

*Download the registration form from our website or call for more information.