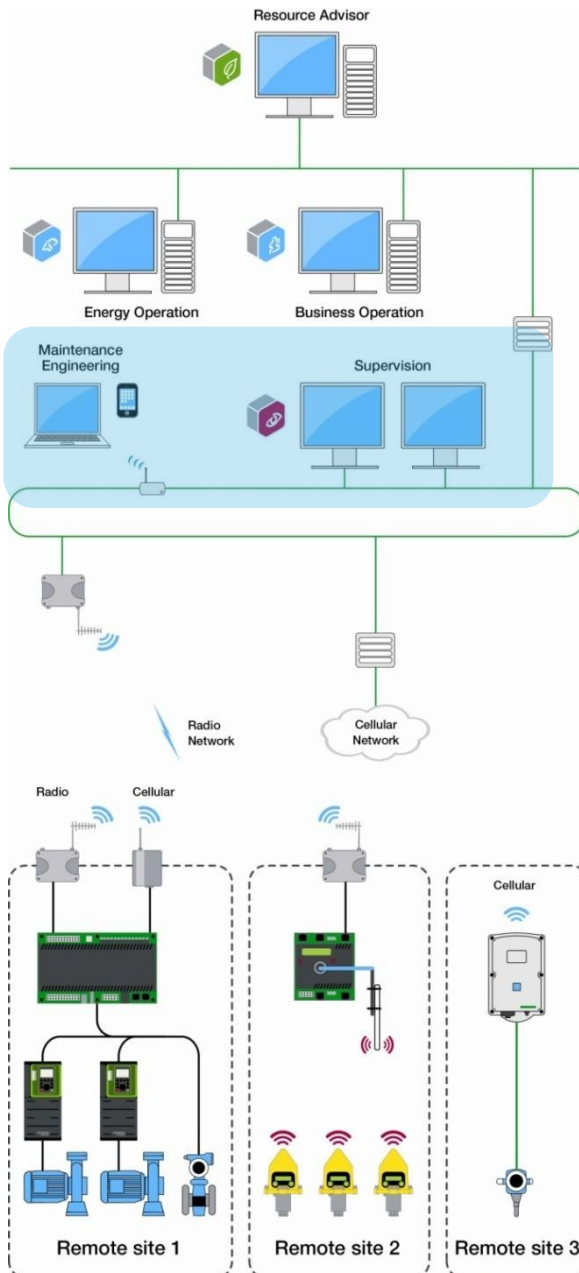


Schneider Electric



SCADA Expert ClearSCADA
2014 R1





Business System



SCADA Expert ClearSCADA

Efficient management of remote assets

- Optimized to manage large number of remote assets in critical Infrastructures (Water Waste Water, Oil & Gas, Electrical Utilities, Renewable)
- Integrated scalable SCADA with ready to use telemetry features
- Open for easy connection to business and IT systems

Trio Data Radios

Bringing versatility and reliability to your wireless network

- Licensed/license-free radios for serial and Ethernet communication
- Support for Modbus, DNP3, IEC60870-5-101/104 protocols

SCADAPack RTU

Compact, versatile controller for telemetry and remote SCADA solutions

- SCADAPack (Modbus-centric) with Flow Measurement capabilities for Oil & Gas applications
- SCADAPack E (DNP3/IEC60870-centric) for Water Waste Water applications
- SCADAPack data loggers

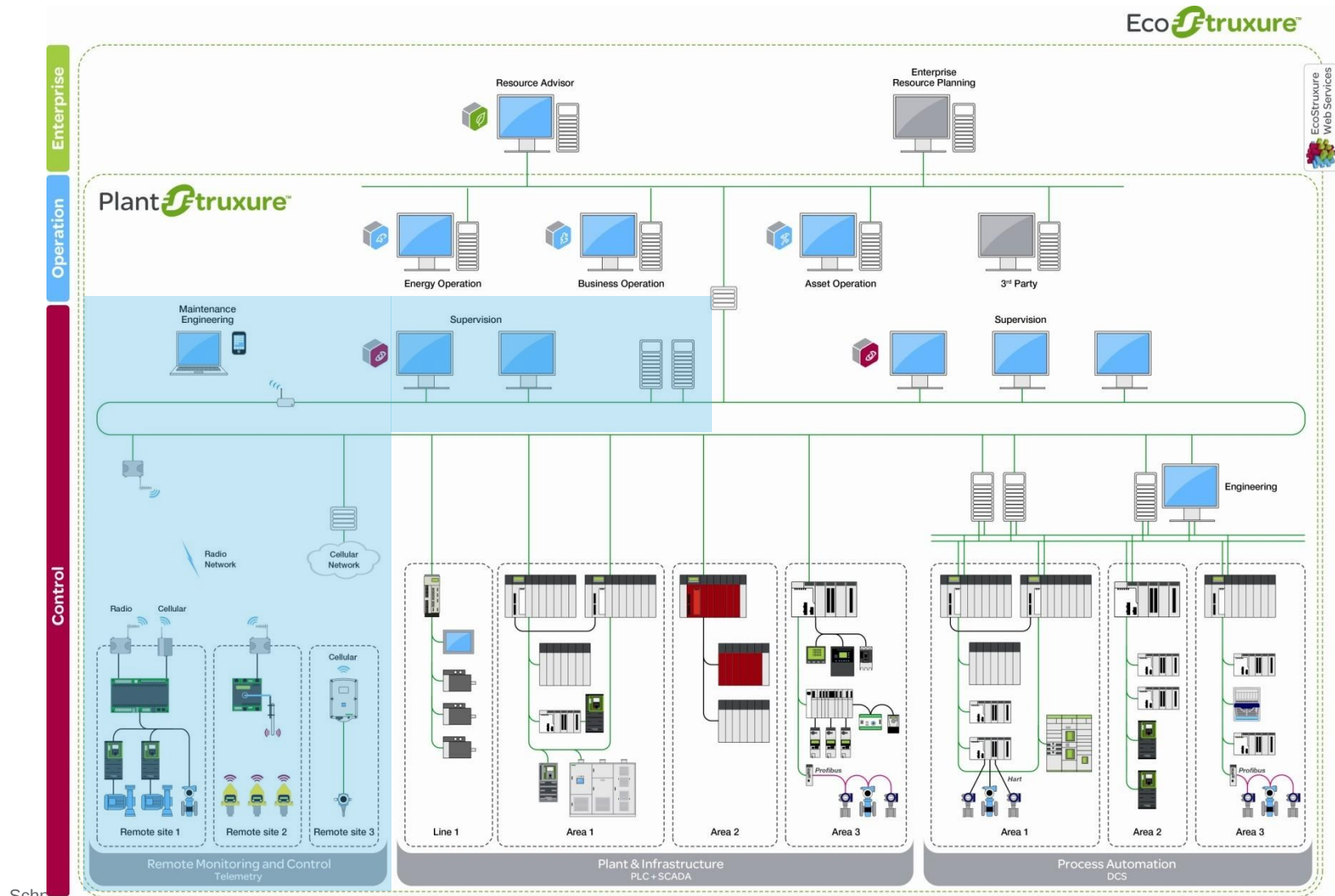
Accutech Wireless Instrumentation

Rapid deploy Self-Powered Wireless Instrumentation

- Widest range of battery-powered instruments
- Available globally in license-free frequency bands 2.4Ghz and 900 MHz

Telemetry – one of the pillars of PlantStruxure™

PlantStruxure™ is Schneider Electric's collaborative and integrated automation architecture for industrial and infrastructure customers. It brings together our Telemetry, PLC/SCADA and DCS offerings with complete lifecycle services to help make your operations more efficient. From initial design to modernization, PlantStruxure transparently connects control, operation and enterprise levels of your business.



Release Summary



Simplicity & Enhanced User Experience for faster deployment and improved time-to-market



Reduced Maintenance Efforts for protection of investment



Enhanced Security capability for better protection of the system



Enhanced Operational Intelligence to help optimize operations and maintenance activities

Integrated with the complete Schneider Electric Telemetry portfolio

Simplicity & Enhanced User Experience
for faster deployment and improved time-
to-market



SCADA Expert ClearSCADA 2014 R1

New & Improved User Interface

- Improved functionality and increased efficiency
 - Toolbar replaced with Ribbon
 - Tabbed multi-document interface
 - Color-coded tabs for Inset Windows
 - Adjustable drag-and-drop 'snapped' window layout
 - User-customizable Quick-Access Toolbar for frequent functions
 - Recent document history
 - Redesigned multi-monitor interface
 - Support for 16 monitors!
 - Refreshed icons, compatible with color-blindness
 - Asynchronous communications for improved performance
- Foundation for continued & enhanced graphics development

New & Improved User Interface

The screenshot displays the Schneider Electric SCADA Expert ClearSCADA software interface. The main window is titled "Overview - ViewX" and shows a presentation slide titled "Product Life Cycle Presentation". The slide content includes:

- Design** (selected): System can start small (i.e. single PC) but is easily expanded without re-engineering for large system requirements.
- Build**: All SCADA data is managed by the Server - no database at client. The ClearSCADA Server includes an historian that stores all configuration, real-time and historic data.
- Operate**: Standby Server is synchronized to Primary across the WAN. Data updates can occur bi-directionally. Local client can now use Standby Server.
- Maintain**: (Not selected)

The diagram shows a WAN cloud connecting two server racks. The left rack is labeled "Dedicated Server" and the right rack is labeled "Redundant Server". Below the servers is a "RTU System" icon. The interface also features a "Database" pane on the left with a tree view showing "MAIN (W7CA0028L)", "Disclaimer - Please Read", "Example Projects", "Opening Page", "Presentation", "Symbol Library", and "Users".

On the right, a "Wastewater Demonstration.001 - Oak St - Simulation" window shows a schematic of a wastewater treatment plant. It includes a "Maple St. Circle" inlet, two pumps (Pump 1 and Pump 2), and a "Treatment Plant" outlet. The flow is indicated by arrows and flow rates (e.g., 2.37 L/s, 36.71 L/s). A photograph of the actual treatment plant is shown below the schematic.

At the bottom, a log table displays system events:

Severity	Time	Source	Message	Category	Area Of Interest	Suppressed Alarm Count
High	01/30/2014 13:50:50	... WTP.River.Runtime Alarm	State changed from Normal...	Point State	World	0
Medium	01/30/2014 13:21:09	... Excessive Starts Per Hour	State changed from Normal...	Point State	World	0
Medium	01/30/2014 10:29:43	... Equipment.RTU Outstation	Outstation Comms - Failed	Outstation Comms	World	0
Medium	01/30/2014 10:29:43	... Equipment.RTU Outstation	Communications state - Failed	Outstation Comms	World	0
High	01/30/2014 13:47:42	... Ion 2.Dry Well Flood Switch	State changed from Normal...	Point State	World	0
High	01/30/2014 13:33:32	... Ion 1.Dry Well Flood Switch	State changed from Normal...	Point State	World	0
Medium	01/30/2014 13:18:51	... actory.Total Energy Usage	State changed from Normal...	Point State	World	0
Medium	01/30/2014 10:29:21	... WTP.Clarifier.Mixer.Status	State changed to Unavailabl...	Point State	World	0
Medium	01/30/2014 10:29:21	... WTP.Clarifier.Rake.Status	State changed to Unavailabl...	Point State	World	0

Other, Delete object transaction queued at 01/30/2014 13:55:54 completed

Simplified Development

- Simplified Internal Point Calculations

- Removes the complexity of logic for simple calculations or internal data transfer
- Familiar syntax and interface for existing ClearSCADA users
 - E.g. (“Well Site A.Level” + “Well Site B.Level”) / 2

- Bulk Edit Tool

- External tool that interfaces with ClearSCADA to provide bulk modification
 - Uses MS Excel for implementation of bulk changes
 - Filtering can be applied prior to export to limit dataset
 - Bulk quick-edits can be performed directly without exporting/importing
 - Also allows for quick and simplified editing of template Property Overrides

Reduced Maintenance Efforts for protection of investment



SCADA Expert ClearSCADA 2014 R1

Automated Data Visualization

- Data Set / Data Set Row

- Data collection that includes support for templates, providing automated expansion as new instances are created
 - Individual rows included in templates, added to data set automatically
- Reduced maintenance effort for data visualization and reporting
- Applications include simplified management of site summary information:
 - Row included in site template; references pressure, flow, tank level, pump status etc. Each new site gets automatically added to site summary information table.
 - Summary data also available for simplified reporting and/or data export

Enhanced Security capability for better protection of the system



SCADA Expert ClearSCADA 2014 R1

Protect Sensitive System Information

- Improved support for Firewalls and Network Address Translation (NAT)

- Enabled configuration of drivers (browsing for remote tags or devices) through firewall
- Extended WebX compatibility with NAT
 - WebX server address can be 'hidden' from users behind network address translation



- Restrict sensitive IP address information to only privileged users

- Visibility of all system IP address and user logon failures available to privileged users only
- Increased overall system security

Deployed In-Depth Security Testing

- Vulnerability Scanning & Management Solutions

- Nessus
- OpenVAS
- NeXpose
- W3af

- Network Discovery & Security Auditing

- Nmap
- Zenmap

- Penetration Testing

- HPWebInspect



Enhanced Operational Intelligence to
help **optimize operations** and maintenance
activities

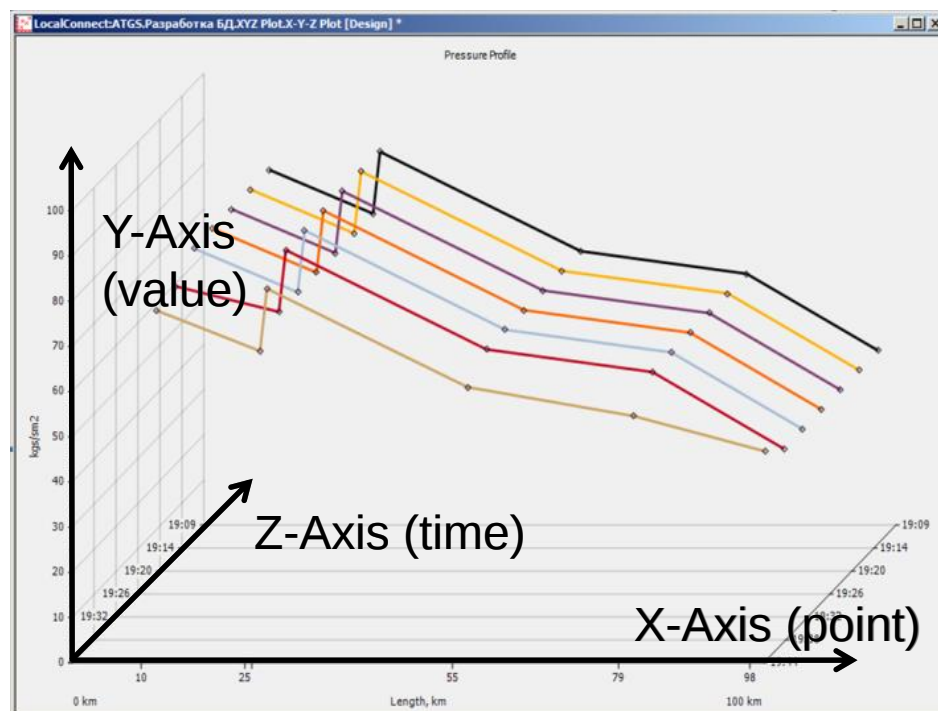


SCADA Expert ClearSCADA 2014 R1

3D Отображение

● XYZ Структура

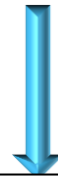
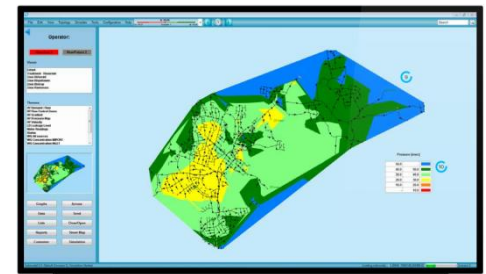
- Новая структура данных в 3D отображает изменение параметров во времени в различных точках
- Предоставляет расширенную визуализацию профилей давления/расхода для трубопроводов или систем водораспределения
- Комплексная 'структура' представления переменных и возможность сравнения данных позволяет оперативно выявлять внештатные ситуации



Интеграция с гидравлическим моделированием



- Интеграция с Aquis; системой гидравлического моделирования Schneider Electric, позволяющей симулировать давление и расход в сети водоснабжения
 - Aquis использует данные реального времени для анализа и мониторинга текущей ситуации и прогноза возможных вариантов событий, помогая операторам принимать оперативные и адекватные решения для оптимизации процессов водоснабжения
- Оператор может обращаться к гидравлической модели из ClearScada
 - Интерфейс пользователя Aquis доступен из ClearSCADA
 - Бесшовная интеграция данных SCADA и симуляция Aquis
 - Сбор и анализ информации в Aquis



Closer PLC Integration



- Updated Schneider Electric OPC Factory Server (OFS) to V3.50
 - Simpler to use than previous versions
 - Increased performance
 - Access to PLC diagnostic information
- Advanced OPC Driver
 - Support for OPC DA 3.0
 - Automatic detection of OPC DA version
 - Time-stamping of data from OPC Servers
 - N-level redundancy, automatic failover

Connectivity Enhancements

- Continued close integration with Telemetry Field Devices

- SCADAPack530/535E Smart RTU
- SCADAPack50 Data Logger
- Trio Radios via SNMP
- T-Box RTU
 - Supports full range of T-Box RTUs via TComm protocol



- WITS V1.3 (Water Industry Telemetry Standard – UK)

- Continued focus on W/WW in UK (+ Australia) by enhancing support to V1.3
- Enhancements to time profiles, configuration upload/download, and error codes

Интегрированное предложение: SCADAPack E

ClearSCADA полностью интегрирована с устройствами телеметрии

- SCADAPack E Smart RTUs

- Управление контроллерами из ClearSCADA
- Удаленная загрузка конфигураций & логики
- Удаленное обновление прошивок
- Получение диагностической информации
 - Коммуникационные данные
 - RTU тревожные сообщения (переполнение буфера, необходимость обновления ПО, ошибка синхронизации времени, итд)
 - Серийный номер & Версия прошивки
 - Версия программы логики & статус данных
- Синхронизация времени
- DNP3 Secure Authentication

- Интеграция с беспроводными устройствами
Accutech



Integrated Telemetry Offer : Trio Data Radio

ClearSCADA is fully integrated with the entire Telemetry Offer:

● Trio Data Radios

- Retrieve diagnostic information remotely
 - Supply Voltage
 - Temperature
 - Transmit Power
 - RSSI
 - VSWR
- Receive immediate notification of alarms (via SNMP)
 - Power Supply
 - Temperature
 - RSSI
 - Synchronisation Status



Интеграция с устройством: SCADAPack 50

ClearSCADA полностью интегрирована со всеми устройствами телеметрии:

- SCADAPack 50 Беспроводной загрузчик данных

- Управление конфигурацией
- Загрузка изменения конфигурации
- Выгрузка коммуникационной статистики
- Получение тревожных сообщений
 - Низкий уровень заряда батареи
 - Уровень сигнала связи
 - Требуется конфигурация
- Диагностические данные устройства
 - Уровень сигнала передачи данных
 - Уровень заряда батареи
 - Версия программного обеспечения
 - Статус SMS (отправлено/получено)



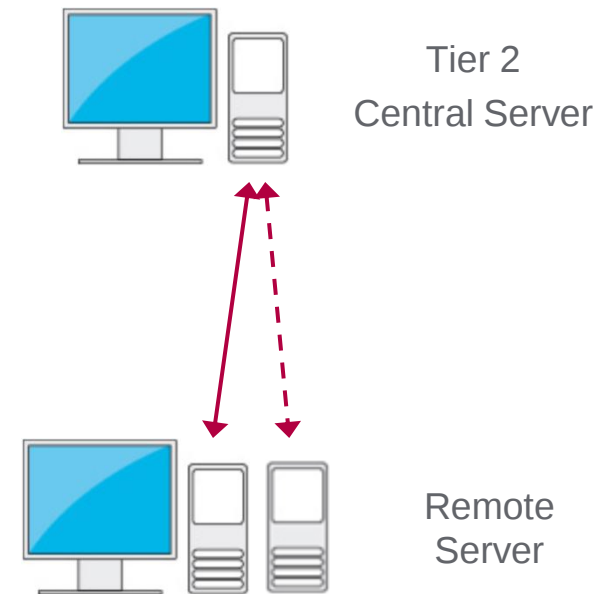
Bridging IT and OT

● SNMP V3

- Extension of existing SNMP v1 implementation:
 - Asynchronous notification functionality (traps and informs)
 - New security model providing privacy of data via encryption
 - Simplified development
 - More efficient communications
- Enhanced diagnostic collection from Trio Radios
 - Standard diagnostic monitoring (RSSI, DC Voltage, Temperature, etc), plus receipt of notifications (traps / informs) from Radios
 - Supports new Q-series and existing J-Series and Ethernet E-Series models running updated firmware

Tiered Architecture Communications

- EcoStruxure Web Services (EWS) provides simplified interoperability between tiered installations of ClearSCADA, providing transfer of:
 - Analog Points (Current and Historic Data)
 - Digital Points (Current and Historic Data)
 - Time Points (Current and Historic Data)
 - String Points (Current Data only)
- Simplified configuration compared with existing DNP3, IEC60870 or Modbus Slave implementation
- Support for ClearSCADA Server Redundancy



Release Summary

SCADA Expert ClearSCADA 2014 R1

Release Summary



Simplicity & Enhanced User Experience for faster deployment and improved time-to-market



Reduced Maintenance Efforts for protection of investment



Enhanced Security capability for better protection of the system



Enhanced Operational Intelligence to help optimize operations and maintenance activities

Integrated with the complete Schneider Electric Telemetry portfolio

Thank you

