StruxureWare Power Monitoring Expert

A complete supervisory software interface for energy efficiency, power availability and asset management applications

Schneider Electric

Power Monitoring Expert unites your power network

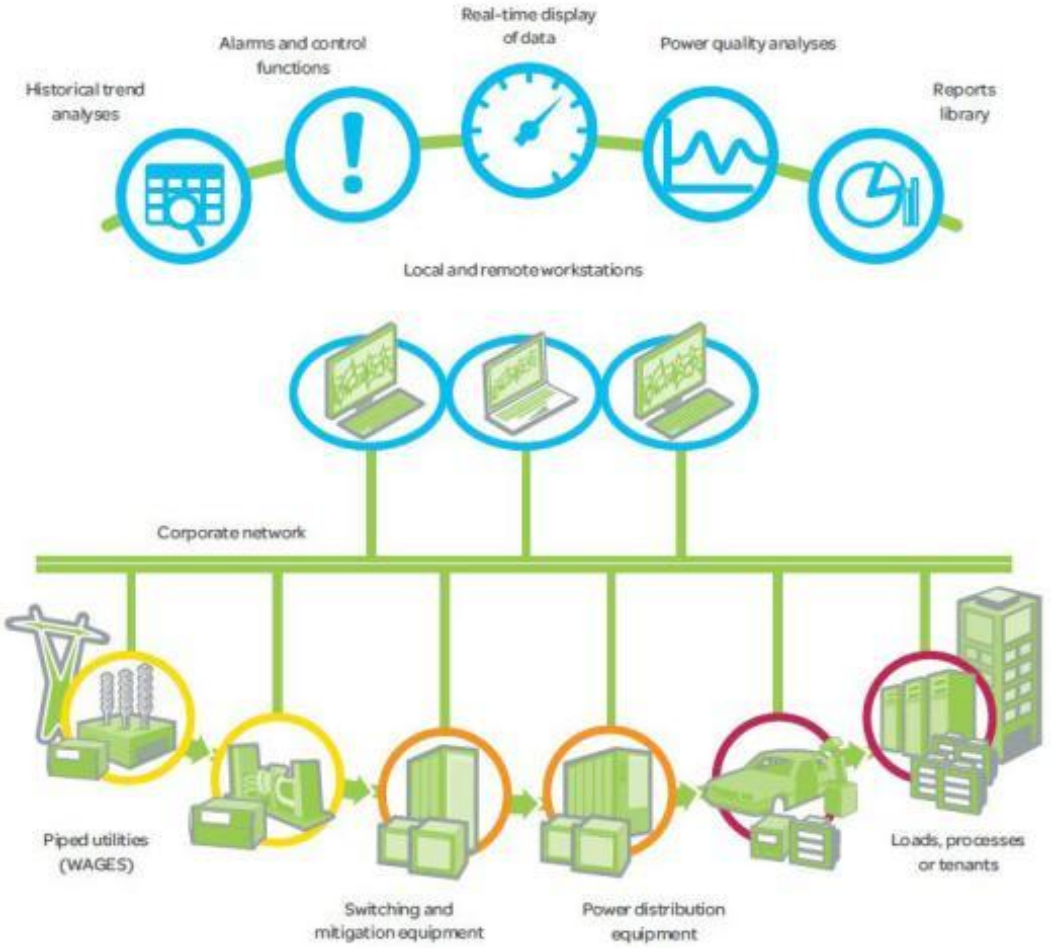
Comprehensive power and energy monitoring software for

- Industrial facilities (food & beverage, oil & gas, automotive, pharmaceutical, pulp & paper, mining, chemical, etc.)
- Water/wastewater facilities
- Office and retail buildings
- Government and university buildings
- Airports
- Critical power environments (telecommunications & data centers, hospitals, laboratories, trading floors, power-sensitive processes, etc.)
- Electric utilities and independent power producers

Optimize your power network with data-driven decisions

Power Monitoring Expert software:

- Acts like a layer of intelligence on top of all energy assets
- Integrate your entire facility, campus or service area
- Gives you the tools to monitor, analyze and control your entire power distribution network



Reveal the full potential of your power network

Power Monitoring Expert helps engineering and management personnel meet operational goals:

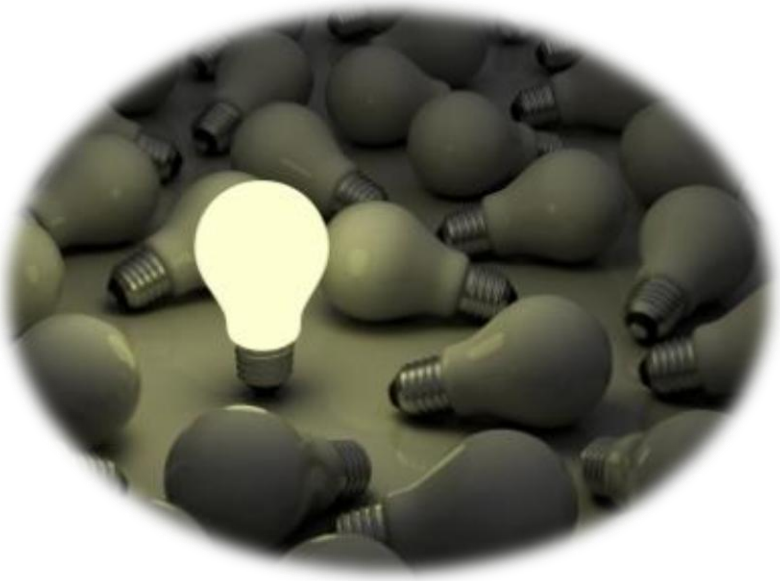
- Improve efficiency and reduce energy-related costs
- Assure reliability and reduce downtime
- Optimize equipment utilization and reduce the cost of operations

Use Power Monitoring Expert software for **energy efficiency** applications

- Identify billing discrepancies and measure energy supply contract compliance
- Measure efficiency, reveal opportunities and verify savings
- Allocate all energy (WAGES) costs to departments, processes, shifts, lines, or equipment
- Reduce peak demand and power factor penalties
- Enable participation in load curtailment programs (e.g. demand response)

Image: digitalart / FreeDigitalPhotos.net

Use Power Monitoring Expert software for **power quality & reliability** applications



- Verify the reliable operation of power equipment and proactively optimize the electrical distribution network
- Improve response to power-related problems and provide information to help proactively assess potential issues
- Validate that power quality complies with the energy contract

Image: Master isolated images / FreeDigitalPhotos.net

Use Power Monitoring Expert software for **optimizing equipment utilization**

- Leverage existing infrastructure capacity and avoid over-building
- Support proactive maintenance to prolong asset life

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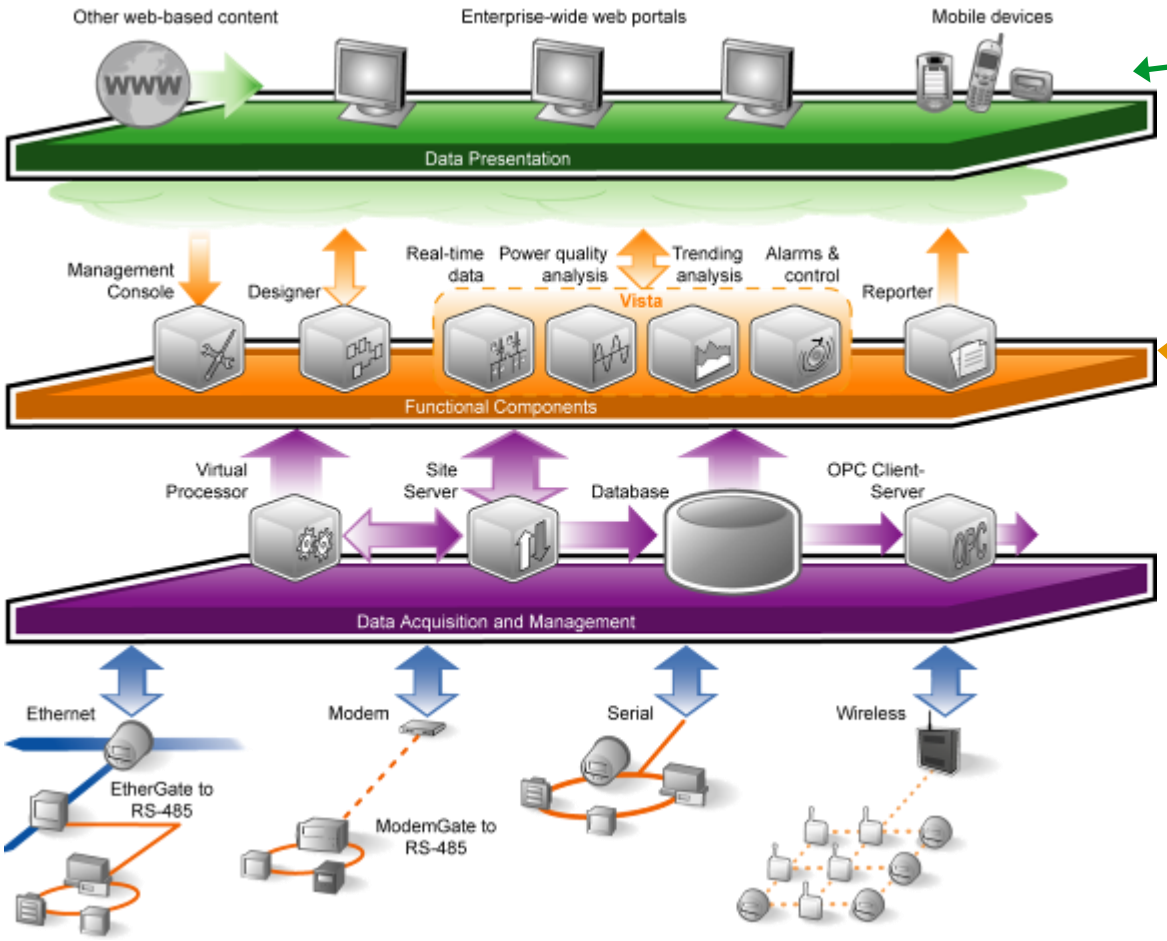
Scalable, flexible software architecture
Data acquisition & system integration
Interoperability & device types support
Real-time monitoring through a multi-user web portal
Power quality analysis & compliance monitoring
Trend graphing and aggregation
Manual or automated control
Alarming and event logging
Preconfigured and custom reports
Fully compatible with ION technology
Software support services

FEATURES OVERVIEW

Scalable, flexible software architecture



Data presentation

- Tiered-security data access through local server, web browser, or terminal services
- Intuitive web-client applications: Dashboards, Diagrams, Tables, Alarms, and Reports
- Predefined or custom reports

Core functional components

- Management Console – network configuration
- Designer – modular device programming
- Vista – real-time data monitoring, analysis, control

Data acquisition/management components

- Virtual Processor - aggregation, complex calculations and control
- Site Server – data acquisition (Internet, Ethernet, telephone, serial, wireless, satellite)
- SQL ODBC databases – device and system data, accurate timestamps
- OPC DA Client and Server
- PQDIF Exporter
- EGX300 log file importer

Data acquisition & system integration

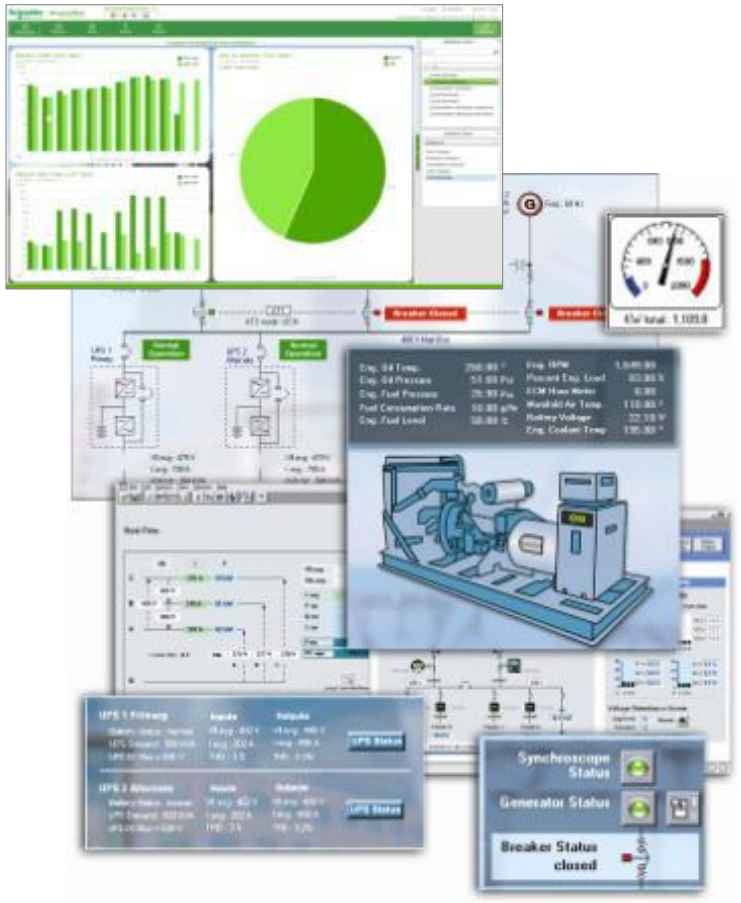
Scalable platform:
Add devices when you need them

- Combined metering of all utilities (WAGES)
  - Water, compressed Air, Gas, Electricity, Steam
- Monitor your entire distribution system, including:
  - PowerLogic meters, circuit breakers, protection relays
- Interface with third-party meters, transducers, PLCs, RTUs, power distribution or mitigation equipment
  - Quickly add/configure Modbus RTU/TCP communications using templates
  - Connect transducers or other devices to the digital/analog inputs of PowerLogic meters
- Integrate with other systems
  - Energy management, SCADA, BAC, DCS, ERP
  - Use ODBC, XML, OPC, FTP, CSV, PQDIF, web services

Interoperability & device types support

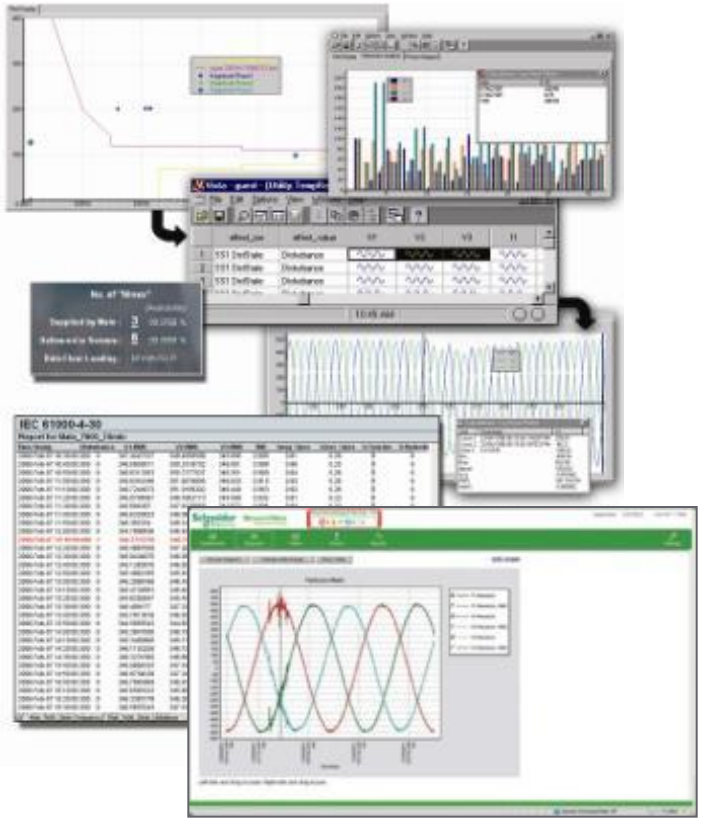
- Native “out of the box” support for:
  - PowerLogic ION series meters (ION8800, ION8650, ION8600, ION7550/ION7650, ION7300, ION6200)
  - PowerLogic power meter series (PM9C, PM210, PM600, PM710, PM750, PM5350, all PM800)
  - PowerLogic circuit monitor series (CM2000, CM3000, CM4000)
  - PowerLogic BCPM branch circuit power meter
  - Compact NSX circuit breakers (A, E)
  - Micrologic circuit breaker control units (A, E, P, H)
  - Sepam series protective relays (10, 20, 40, 60, 80)
  - Momentum PLC WAGES A8/D10
  - TWIDO PLC with WAGES

Real-time monitoring through a multi-user web portal



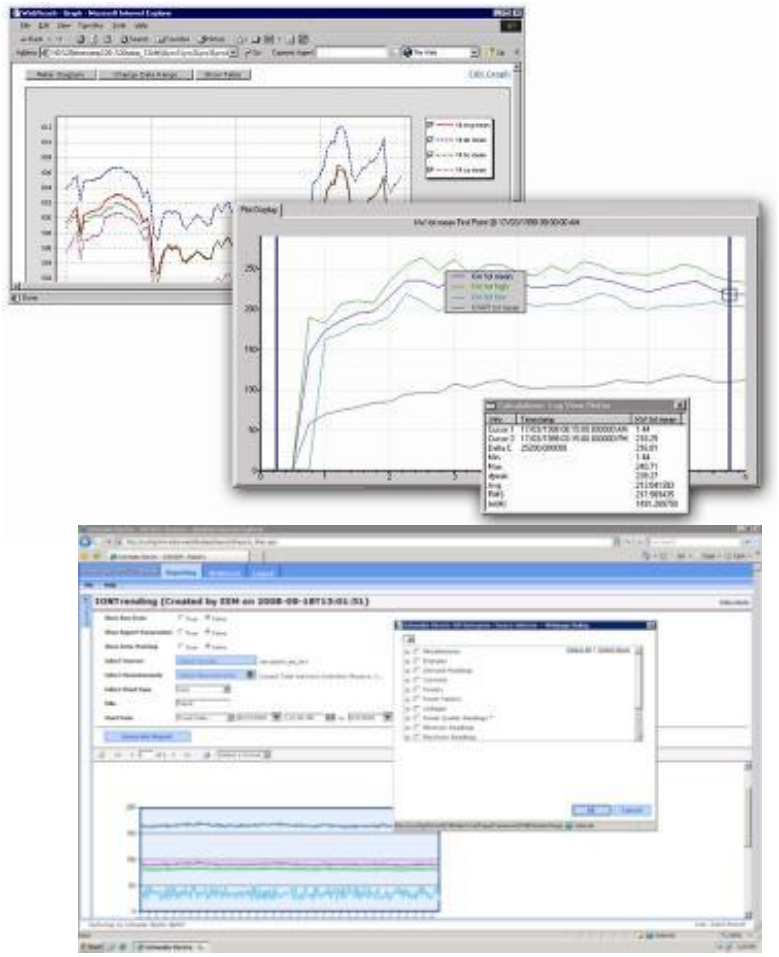
- Dashboard, graphical and tabular displays
- Access from any workstation:
  - Real-time power and energy
  - Historical trends and data logs
  - Alarm conditions
  - Equipment status (on/off, temperature, etc.)
  - Control triggers
- Analysis tools
  - Select pre-configured diagrams or easily create customized views
  - Point-and-click navigation to reveal deeper layers of detail
  - Group different views, save in library
  - Quickly select ranges of information to analyze

Power quality analysis & compliance monitoring



- Continuous, network monitoring, data capture and reporting
  - Harmonic histograms, THD, K-factor, crest factor, phasors, symmetrical components
  - Waveforms – long durations, overlays to correlate phase-to-phase
  - IEC 61000-4-30 and EN50160 compliance reports – view indices as numeric charts or graphic profiles
  - Plot sags, swells, transients on industry-standard tolerance curves (ITIC, SEMI)
  - Click on a time-stamped events to see more detail

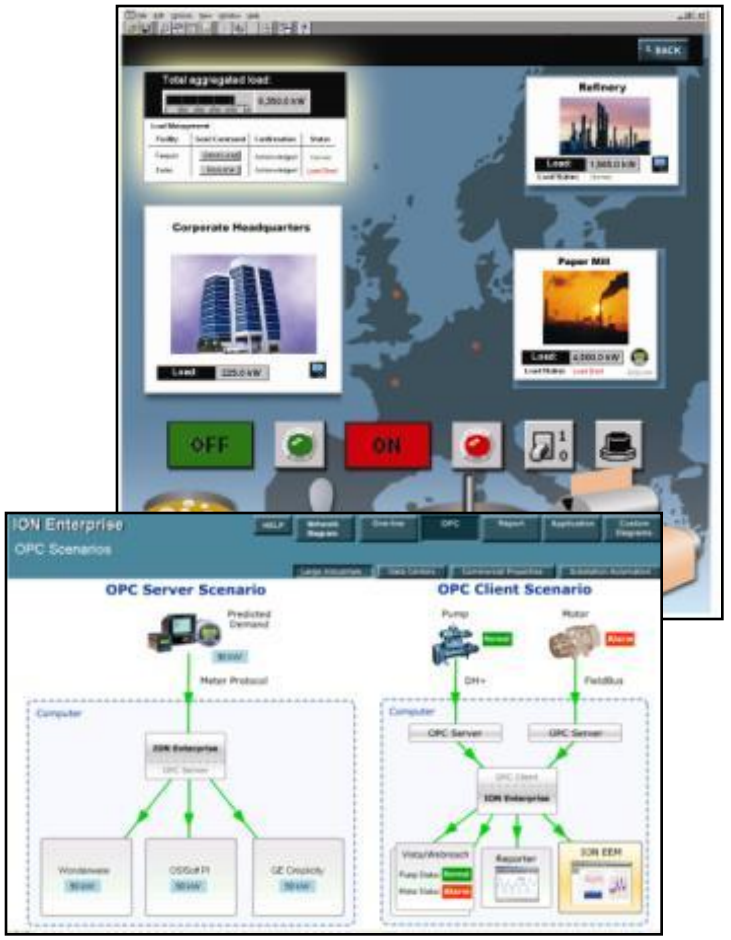
Trend graphing & aggregation



- Single graph or multiple overlays for comparison
- Trend any measured parameter:
  - Voltage, current, power, power factor
  - Demand, predicted demand, energy
  - Harmonics
  - Temperature, etc.
- Graph aggregate load profiles
- Create usage profiles
- Track system-wide energy-related costs

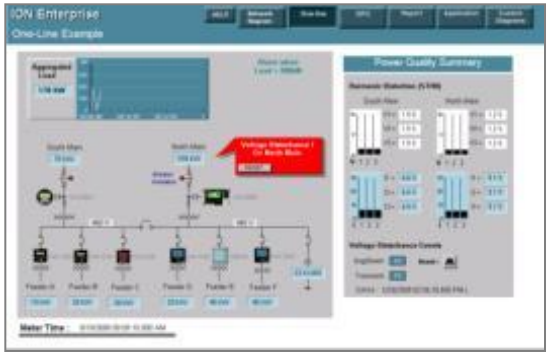
Manual and automated control

- Supervisory equipment control
  - Perform manual control via password-protected, on-screen trigger buttons
- Automated control
  - Gathers data from multiple devices
  - Incorporates process variables
  - If predefined thresholds are exceeded, initiates coordinated control actions over multiple loads or other equipment



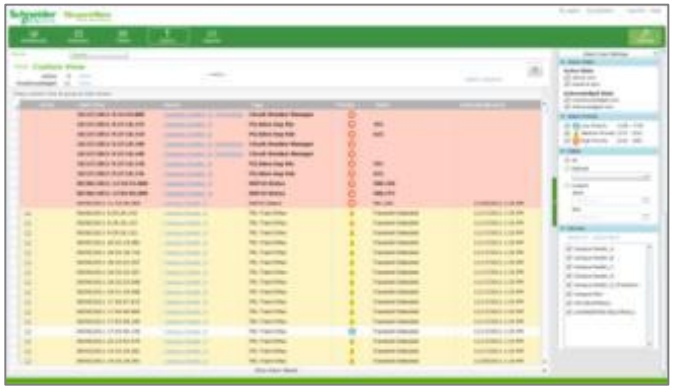
Alarms and events

- Quickly view active and unacknowledged alarms
- Alarm banner provides system status from anywhere in the web application
- Receive alerts to outages or impending problems
- Trigger on PQ events, thresholds, equipment conditions, or complex/summary conditions
- Meter alarms immediately pushed to system level

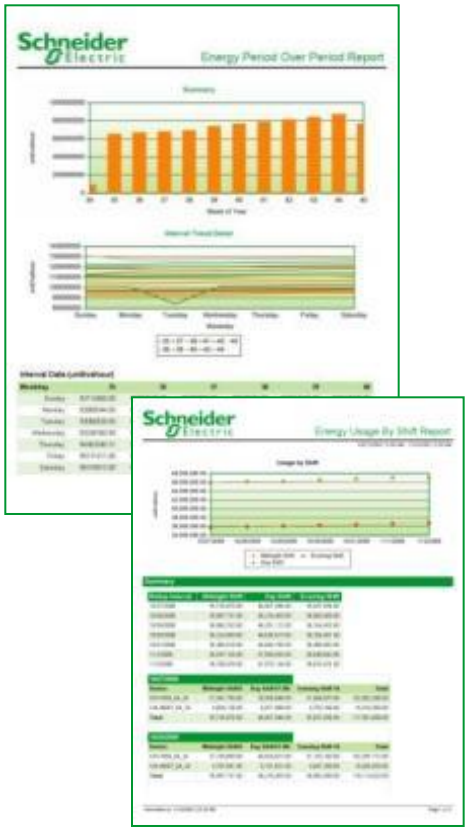


Automatically

- Send customized notifications to workstations, email, cell phone, or PDA
- Upload all associated event data
- Generate a report
- Log complete information (coincident conditions, waveforms, timestamps)

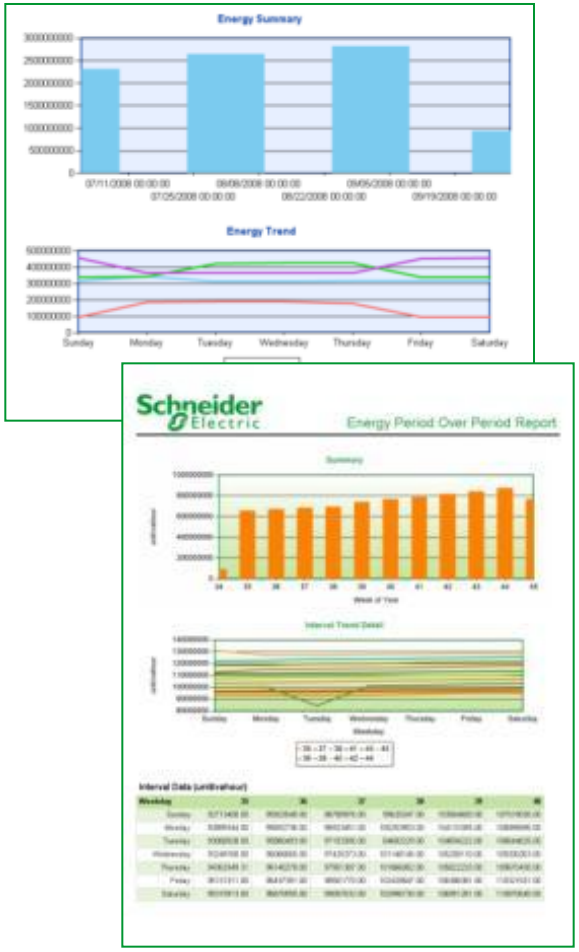


Reporting



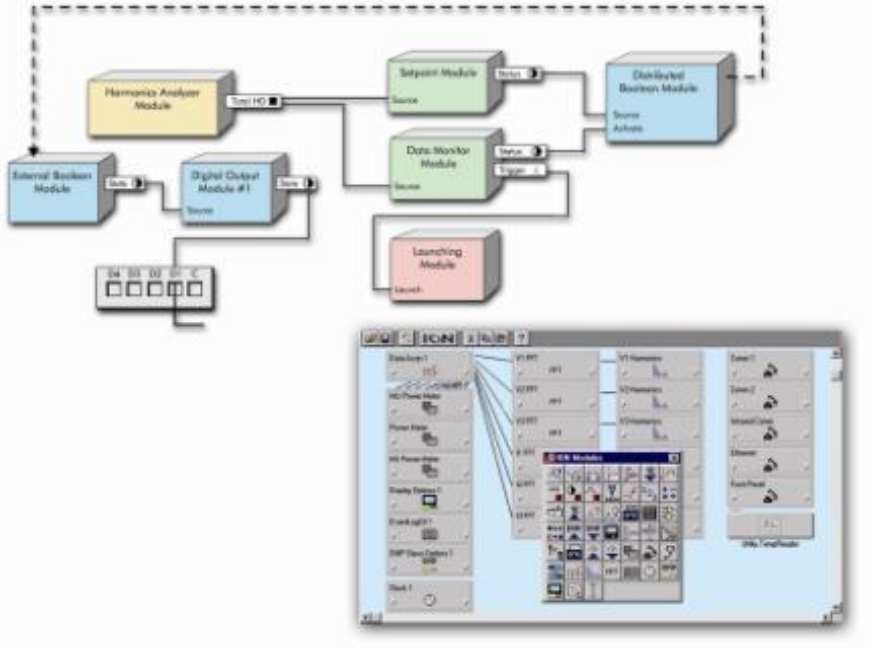
- Manually, scheduled or event-driven
- Automatically distributed (email, web, PDF, XML, HTML)
- Standard reports:
  - Aggregate energy and demand – multiple feeds, costs per tariff period, time-of-use
  - Aggregate load profiles – system-wide usage patterns, peak usage
  - IEC 61000-4-30 and EN50160 power quality compliance – pass/fail indicators
  - Power Quality analysis – waveforms, tolerance curves, harmonics
  - Multi-device energy usage
  - Aggregated views of Energy usage by shift
  - Tabular and Trend Views for any measurement
  - Alarm history
  - 100 ms report to support this function in circuit monitors
  - System Configuration Report – provides a quick system inventory
  - Summary report templates for WAGES reporting

Customised reporting



- Reports – design and build reports you need:
  - Built on Microsoft Business Intelligence Studio tool
  - Visual Basic or other SQL reporting tools
  - Our services team can help with custom report development

Fully compatible with ION technology



- Power Monitoring Expert software fully supports the unique ION architecture found in many PowerLogic meters
  - Uniquely addresses advanced monitoring and control applications
  - Adapts to changing needs, avoiding obsolescence
- ION architecture is modular & flexible
  - Offers extensive customization of functionality
  - Uses simple “building block” approach

Protect your investment with Proactive Support

- Different packages to suit your needs
  - Software Assurance to keep your software up to date
  - Maintenance Support to protect and optimize your server
  - Application Support to safeguard your entire Power Monitoring Expert system

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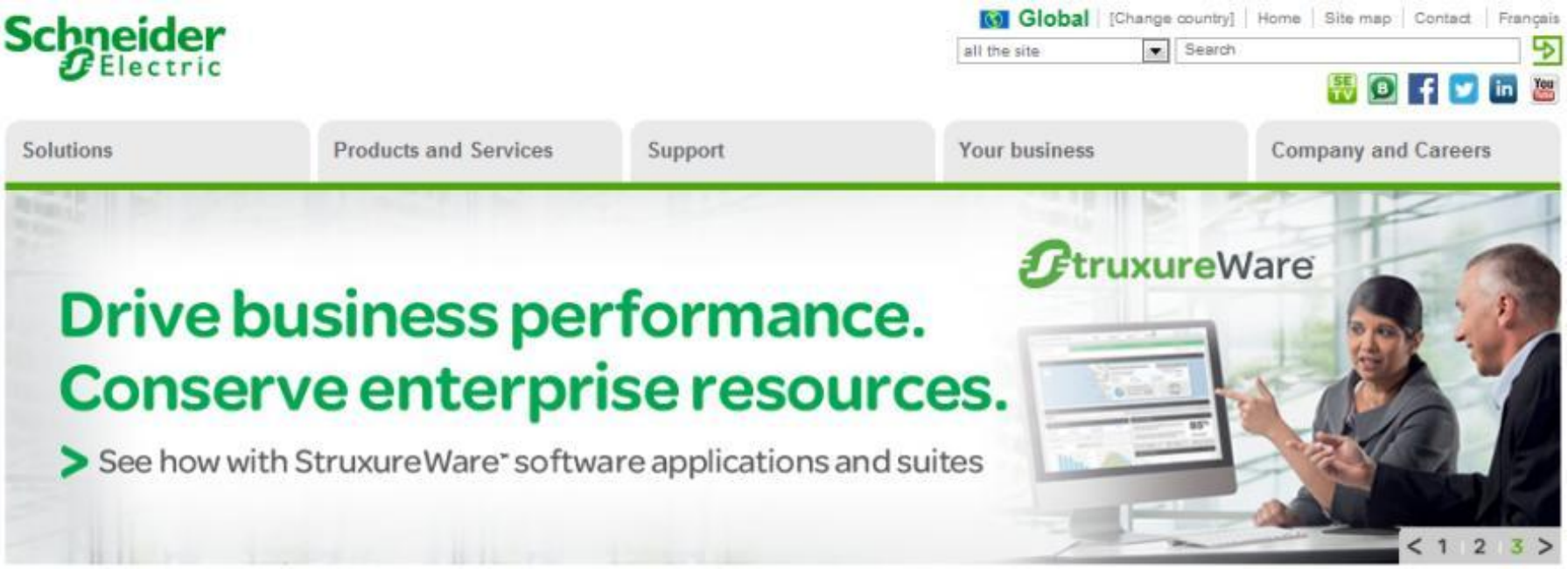
For more information on
Power Monitoring Expert software

Visit:



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