PowerLogic ION Enterprise

Power management software

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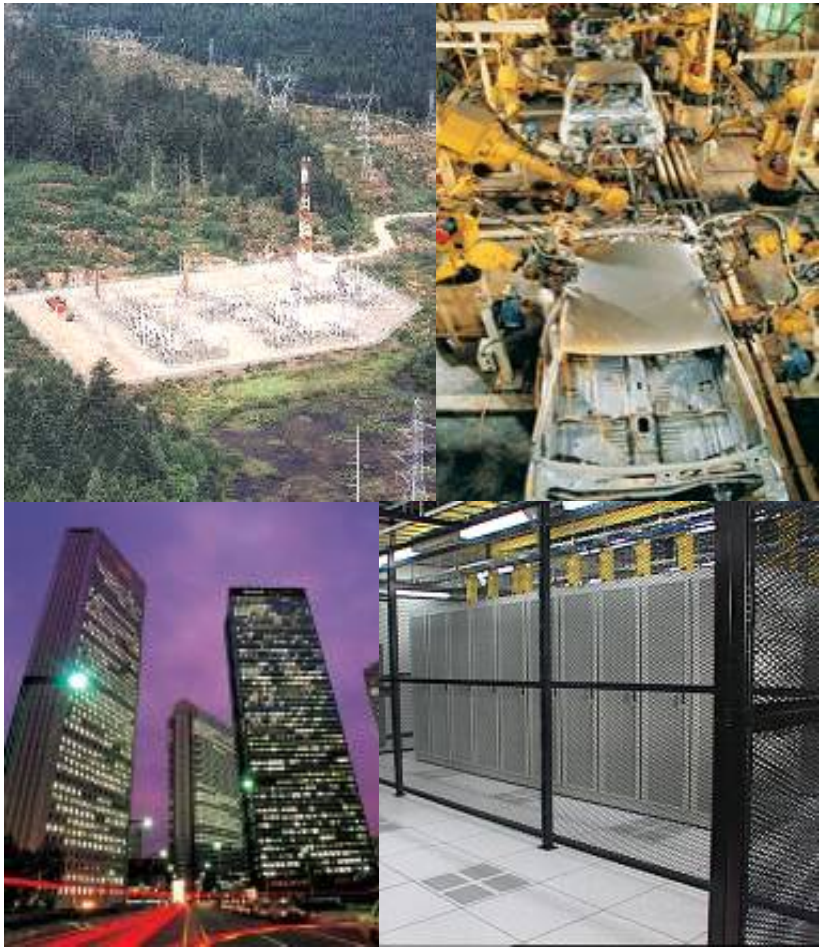
Schneider Electric

PowerLogic ION Enterprise Overview

Complete power management for:

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



PowerLogic ION Enterprise Benefits

Helps engineering and management personnel meet operational goals:

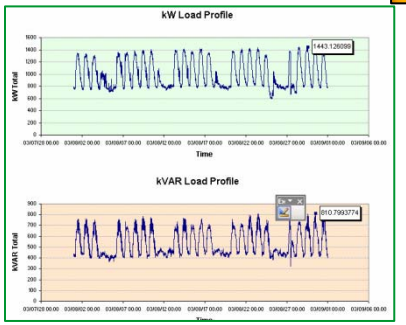
- Improve efficiency and cut energy-related costs
- Assure reliability and reduce downtime
- Optimise equipment utilisation and reduce the cost of operations

PowerLogic ION Enterprise Overview

- Acts like a layer of intelligence on top of all energy assets
- Gives you reach across one or more facilities, campuses or service areas
- Gives you the tools to monitor, analyse and control your entire power distribution network

Applications Overview

- Manage all consumed commodities
- Reveal energy inefficiencies and losses
- Allocate energy costs
- Manage demand and power factor
- Enable participation in utility rate programs
- Maximise use of infrastructure
- Support proactive maintenance, prolong asset life
- Identify and isolate problems quickly
- Verify reliable equipment operation
- Benchmark reliability against standards, validate improvements
- Validate compliance with PQ clauses in supply contracts
- Control generation assets and other equipment



Typical Applications

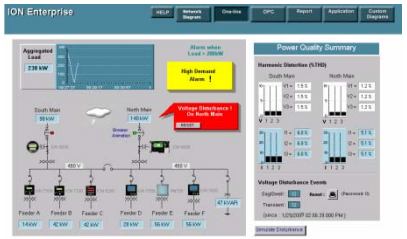
Infrastructure, Industrials & Buildings

- Measure efficiency, reveal opportunities, verify savings
- Allocate energy costs
- Reduce peak demand
- Reduce power factor penalties
- Curtailment program participation
- Avoid over-building
- Support proactive maintenance
- Validate PQ contract compliance
- Improve PQ problem response

Utilities

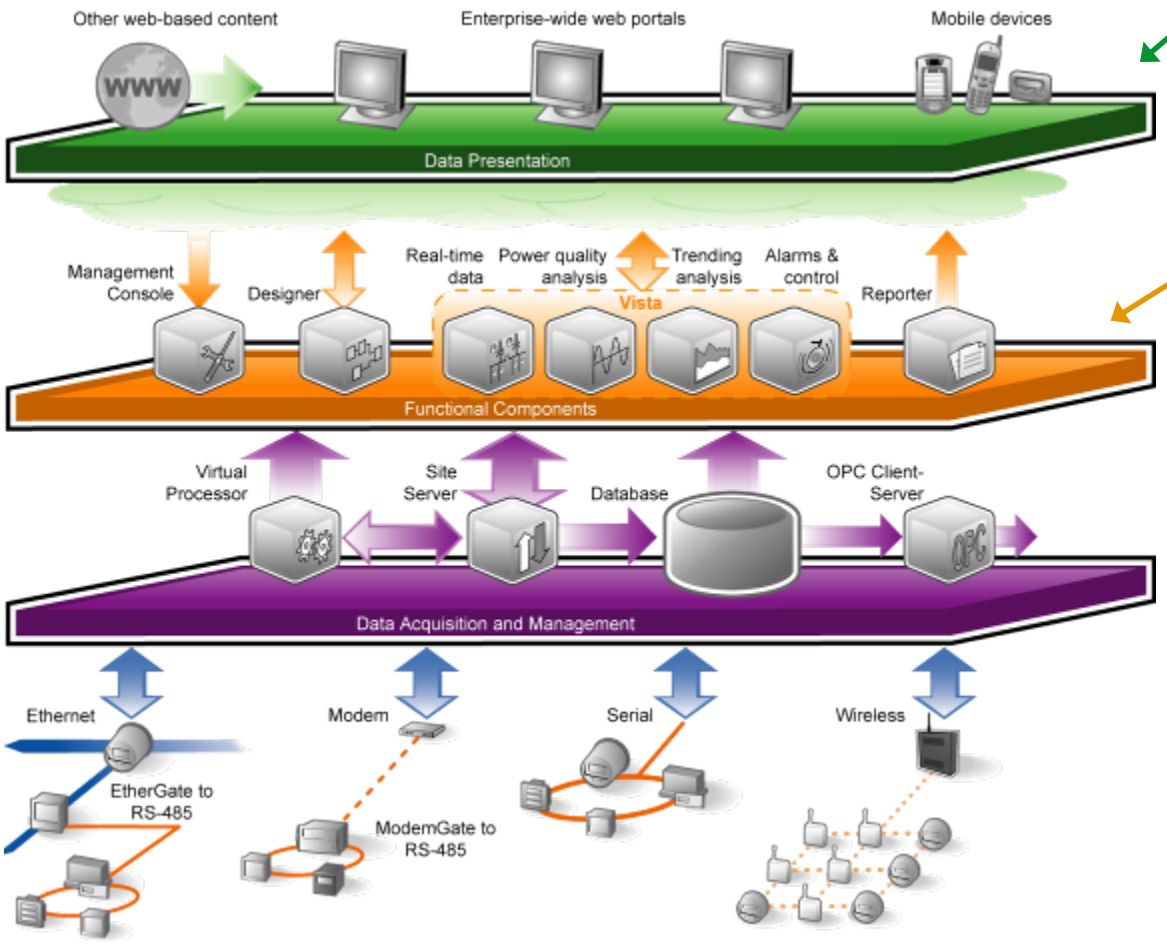
- Energy availability & reliability
- Improve T&D network reliability
- Enhance substation automation
- Optimise use of infrastructure
- Monitor PQ
- Verify compliance with PQ standards
- Isolate source of PQ problems

Features Overview



- Scalable, flexible architecture
- System-wide data acquisition and interoperability
- Real-time monitoring through a secure, multi-user web portal
- Preconfigured and custom reports
- Trending graphing and aggregation
- Power quality compliance monitoring and analysis
- Alarming and event logging
- Manual or automated control
- Patented ION technology

Software Architecture



Data presentation

- Data access through local server, thin-client web browser, or terminal services
- Tiered security
- Information and alerts via mobile phone, PDA and other devices

Functional components

- Management Console – network configuration
- Designer – modular device programming
- Vista – real-time data monitoring, analysis, control
- Web Reporter – predefined or custom reports

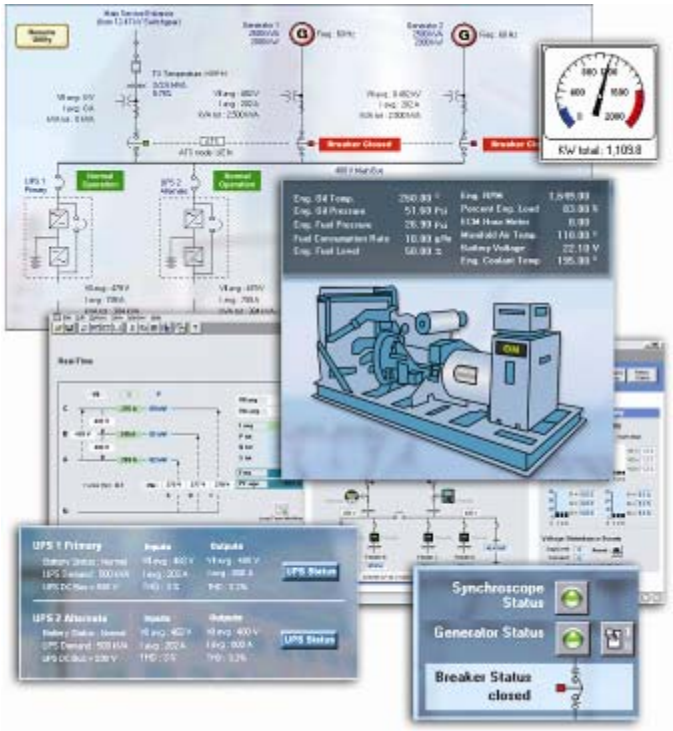
Data acquisition/management

- 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

Data Acquisition and Integration

- Combined metering: electricity, gas, steam, air, water
- Monitor your distribution system, including:
  - PowerLogic meters
  - Circuit breakers
  - Protective 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.
  - Use MeterM@il encrypted email
- Scalable platform, add devices as you need them
- Integrate with other systems:
  - Energy management, SCADA, BAC, DCS, ERP
  - Use ODBC, XML, OPC, email, FTP, CSV, PQDIF, web services

Real-time Monitoring

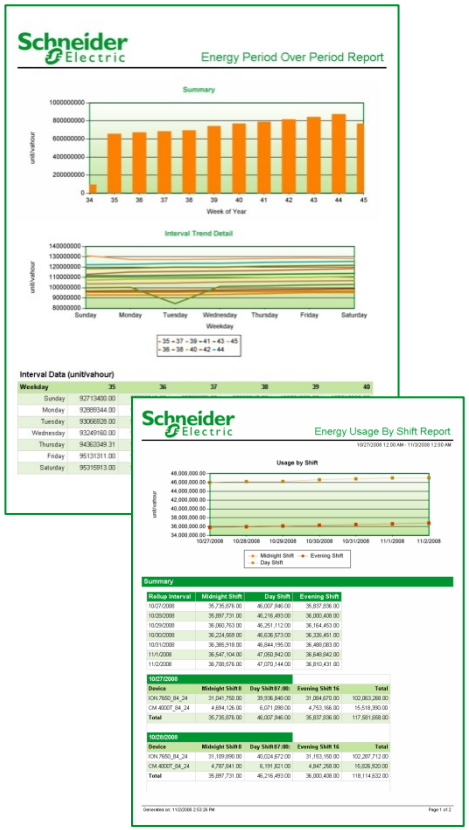


- View key distribution points
- Access from any workstation:
  - Real-time power and energy
  - Historical trends and data logs
  - Alarm conditions
  - Equipment status (on/off, temperature, etc.)
  - Control triggers
  - Analysis tools
- Select pre-configured diagrams or easily create customised views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

Standard Device Types Support

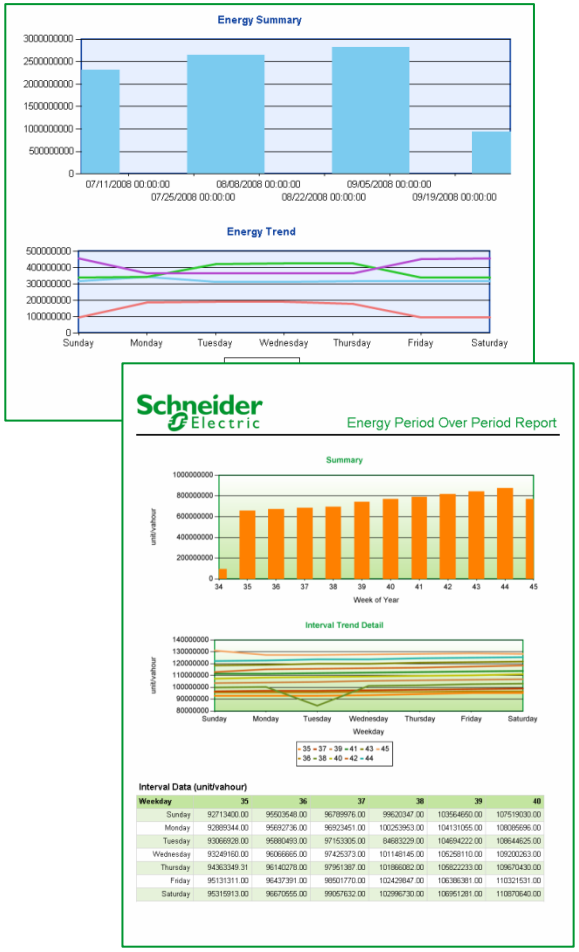
- Native “out of the box” support for:
  - PowerLogic ION series meters, including 8800, 8600, 7650, 7300, and 6200 meters
  - PowerLogic PM210, PM710, PM750, PM800 series meters
  - PowerLogic CM3000 and CM4000 circuit monitor series
  - Compact NSX type A and type E, and Micrologic Type A, P and H circuit breaker control units
  - PowerLogic BCPM branch circuit power meter
  - Sepam series 10, 20, 40, 80 protective relays

Reporting



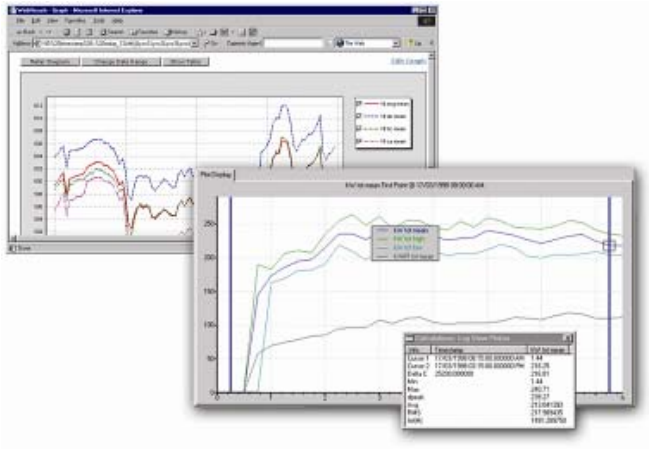
- Generate manually, scheduled or event-driven
- Distribute automatically as email, web, PDF, XML, and HTML
- Standard reports:
  - Aggregate energy and demand – multiple feeds, costs per tariff period, time-of-use
  - Aggregate load profiles – system-wide usage patterns, peak usage
  - IEC 61000-4-30 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

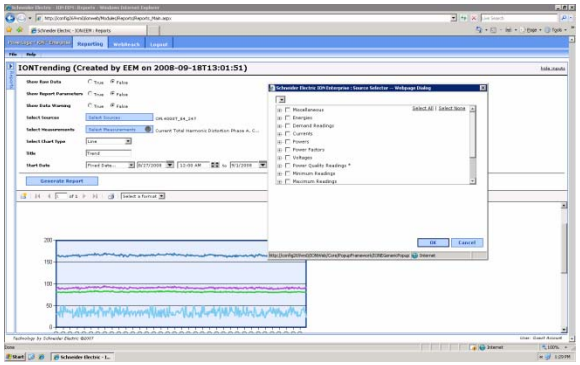
Customized Reporting



- Web reporter – 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

Trend Graphing





- 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

Enhanced Translatability and Localization

- Reports are now translatable
- Enhanced support for regional settings
- Providing a dedicated resource for supporting countries in their translation efforts
- Two offers for translating the product
  - Country Managed Offer – the country pays for the translation and manages the translation process
  - PMC Managed Offer– PMC pays for the translation and manages the translation process
    - Business case required to evaluate the request

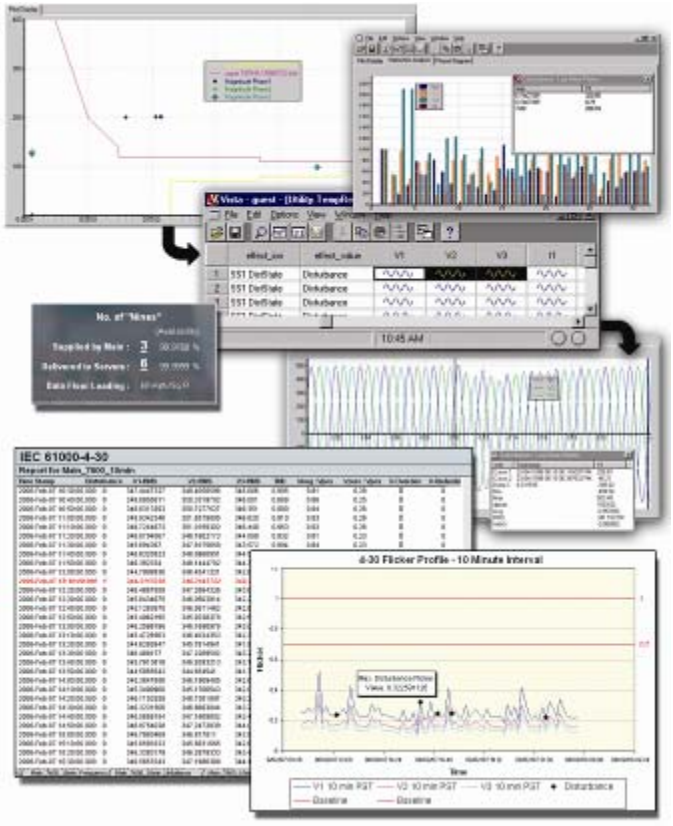
Enhanced Management Console

- Powerful tools for system administrators
  - Customise the diagnostic tools through:
    - Filtering
    - Sorting
    - Grouping device communication data

Support for New PC Environments

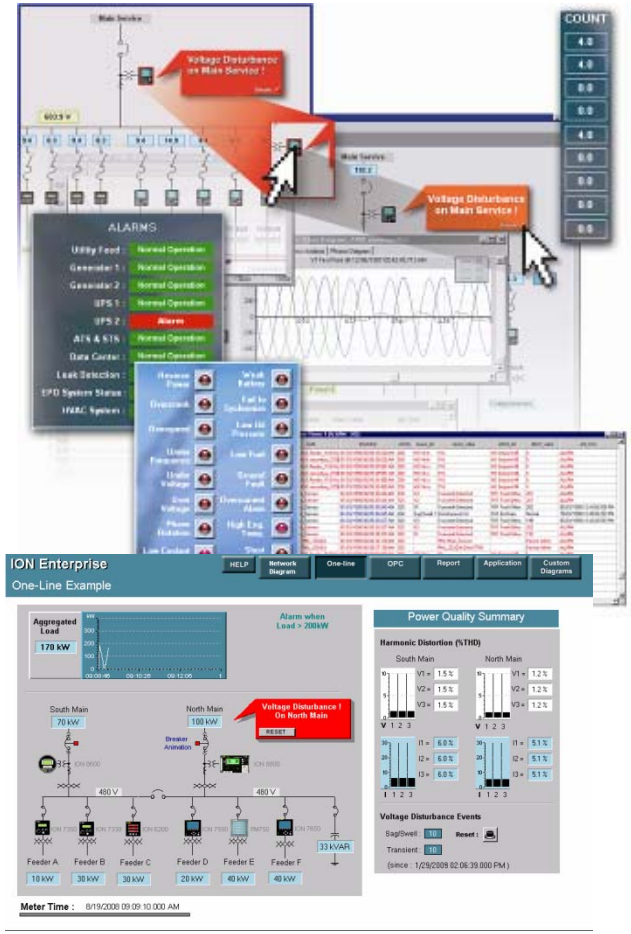
- 64 Bit OS Compatibility – Take advantage of faster hardware
- 64 Bit SQL Server 2005 Compatibility – Take advantage of a higher performance database
- Windows Server 2008 Compatibility – Added support for Microsoft's latest server OS
- VMWare Server 2.0 – Expand IT efficiencies by leveraging a virtual server environment

Power Quality Analysis



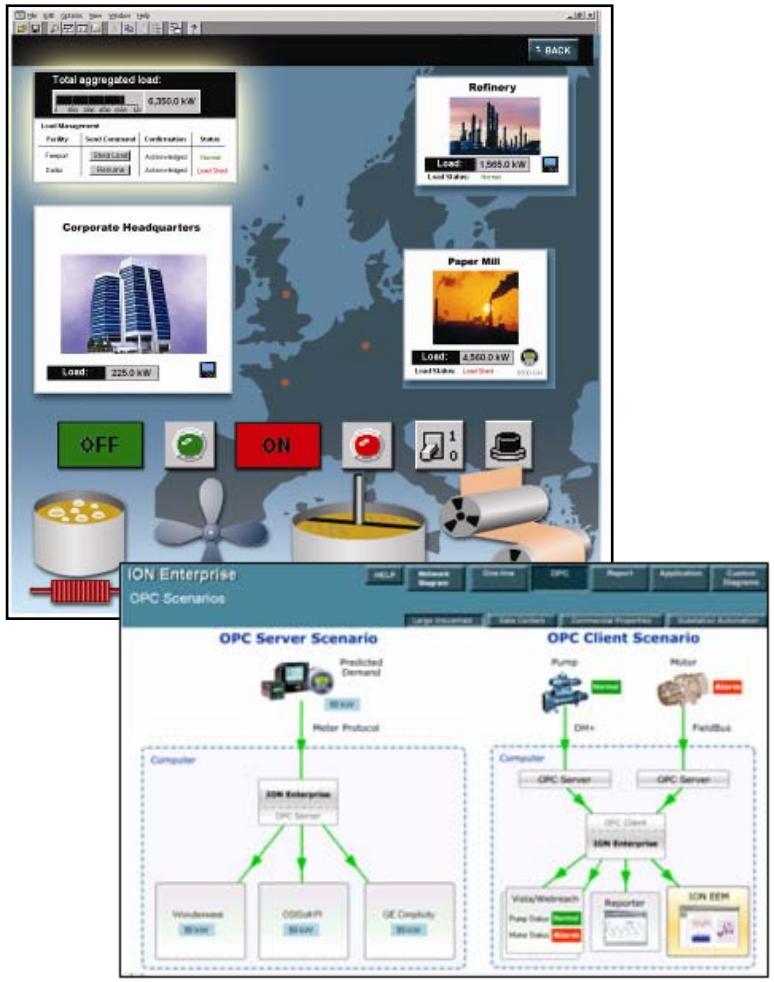
- Continuous, wide-area monitoring, data capture and reporting
- IEC 61000-4-30 and EN50160 compliance reports – view indices as numeric charts or graphic profiles
- Harmonic histograms, THD, K-factor, crest factor, phasors, symmetrical components
- Waveforms – long durations, overlays to correlate phase-to-phase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

Alarms and Events



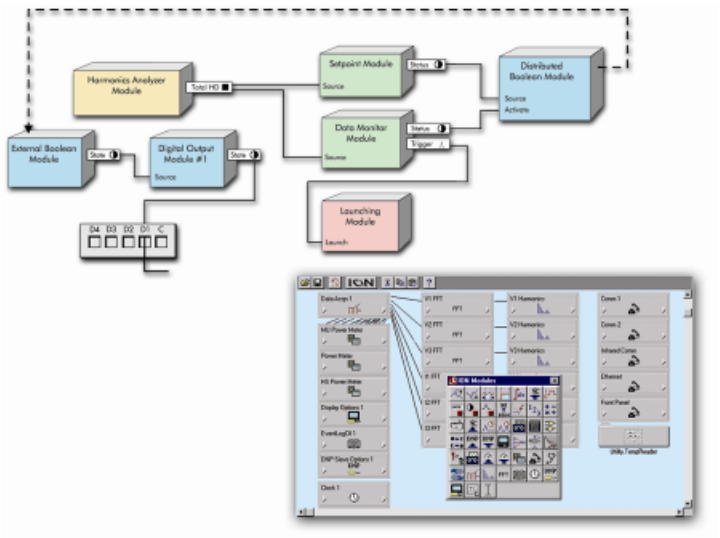
- Receive alerts to outages or impending problems
- Trigger on PQ events, thresholds or equipment conditions
- Trigger on complex/summary conditions
- Alarms from meters are immediately pushed to the system level
- Automatically:
  - Send out customised notifications to workstations, email, cell phone, PDA
  - Upload all associated event data
  - Generate a report
  - Log complete information (coincident conditions, waveforms, timestamps)

Manual and Automated Control



- Supervisory equipment control
- Perform manual control via 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

Patented ION Technology



- PowerLogic ION Enterprise and many ION series metering products feature the unique ION architecture
- Modular, flexible architecture:
  - Extensive customisation of functionality
  - Uses simple “building block” approach
- Benefits:
  - Uniquely addresses advanced monitoring and control applications
  - Adapts to changing needs, avoiding obsolescence

For more information on PowerLogic ION Enterprise

Visit:

www.powerlogic.com