POWER SYSTEM MONITORING

insulect
VERSATILITY VIA COLLABORATION

QUALITROL
PSPM

IEC 61850 READY

MULTIFUNCTION MONITORING (DFR, DDR, TWS FL, PQ, PMU)

DIGITAL FAULT RECORDING (DFR)

DYNAMIC DISTURBANCE RECORDING (DDR)

POWER QUALITY MONITORING (PQ)

TRAVELLING WAVE FAULT LOCATION (TWS FL)

PHASOR MEASUREMENT (PMU)

HIGH SPEED MONITORING (HSM)

FREQUENCY CONTROL ANCILLARY SERVICES (FCAS)

Comprehensive power system performance monitoring for the entire energy value chain

Collaborating with energy network operators for a quarter century, Insulect continues to foster better grid asset protection in Australia and New Zealand through power system monitoring innovation.

From baseload and renewable generation, to transmission, large energy users and distribution connection points, we deliver the capability to rapidly diagnose and action network problems. Our industry leading monitoring systems are backed by our local team of monitoring experts and whole-of-life system support services.

CONDITION BASED DECISION MAKING

Trend, diagnose and maintain

Qualitrol PSPM products are valuable tools for condition based monitoring of power systems. Advanced diagnostics, intuitive interfaces and automation make it easy to identify faults and developing problems, diagnose root causes and take corrective action.

A COMPLETE PSPM SOLUTION

Advanced hardware + software + expert team + support services

Substation-hardened Qualitrol hardware combined with iQ+ software make the monitoring task more intuitive. Our team of PSPM experts provide end-to-end support, from design, build and install, to maintenance and expert analysis.

LOCAL INNOVATION

Developing systems and processes for local applications

Insulect engineers collaborate with local users to develop more advanced solutions to local challenges. Including high speed monitoring (HSM) software for AEMO and frequency control ancillary services (FCAS) tools for participating generation companies.

POWER SYSTEM MONITORING
Applications

DFR
Digital Fault Recording

High speed recording with up to 512 samples per cycle, for monitoring the transient response of the power system and equipment during and just after a system fault or transient disturbance.

TWS FL
Travelling Wave Fault Location

Extremely precise fault location for overhead transmission lines and underground cable. Enables rapid response to events to correct defects at minimum cost and maximum efficiency.

PMU
Phasor Measurement

A scalable PMU system for wide area measurement, protection and automation applications based on streaming synchronised phasor measurements and digital status.

FCAS
Frequency Control Ancillary Services

Conformance monitoring system for FCAS providers to meet their reporting obligation to AEMO. Fully automated data download, decimation and conversion.

DDR
Dynamic Disturbance Recording

A slow scan recording function with up to 2 samples per cycle provides recorded calculated quantities such as sequence components for up to 30 days for long term power stability monitoring.

PQ
Power Quality Monitoring, Class A

A powerful PQ measurement system that eliminates 90% of analytical time. It provides all the answers needed - not just data - at the click of a button.

HSM
High Speed Monitoring

Developed for the Australian market to retrieve Continuous and Triggered Slow Scan data on the TNSP network, publishing this to AEMO in xml and Comtrade form.

Transmission & Distribution

Base Load Generation

Renewable Generation

Large Energy Users

CHOOSE SINGLE- OR MULTI-FUNCTION CAPABILITY

SINGLE APPLICATION DEVICES

The monitoring capability you need, without unwanted functionality. Modular design to match the monitoring task.

INFORMA PMD-A Power Quality Monitor

TWS-FL Travelling Wave Fault Locator

PMU Phasor Measurement Unit

IDM+ Fault and Disturbance Recorder

ALL-IN-ONE PSPM DEVICE

This scalable platform is the product of choice when multiple monitoring functions are required. Digital Fault Recording and Dynamic Disturbance Monitoring as standard. Other functions can be added as required.
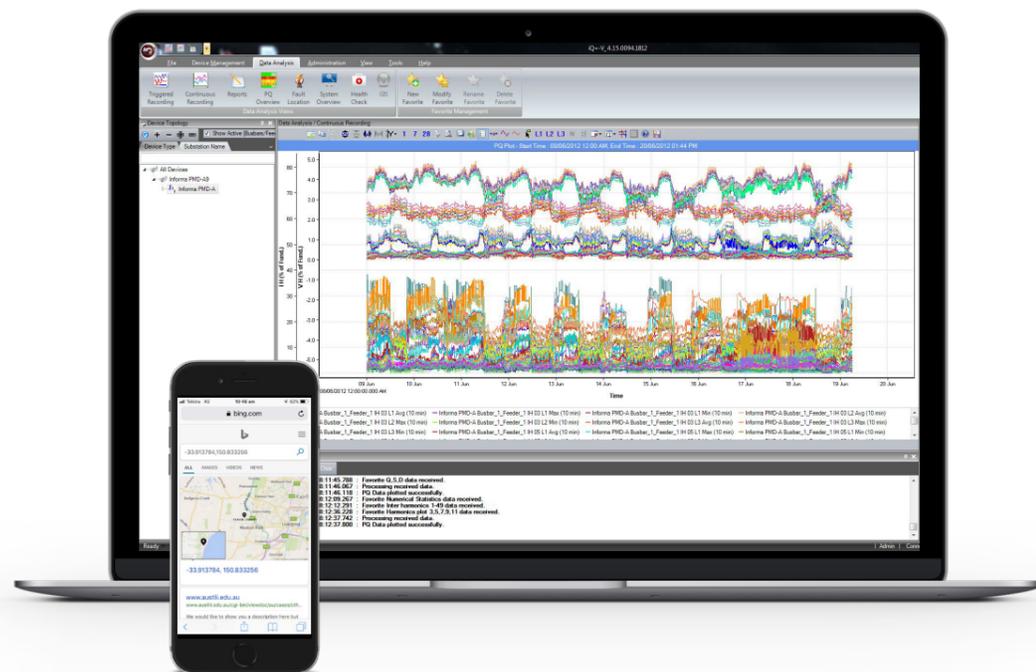
IDM+ Multifunction Power System Monitor

iQ+ Master Station

The power to protect power system assets.

Qualitrol's iQ+ software is a complete fleet management package for Qualitrol monitoring hardware. This one platform incorporates the configuration, collection and analysis of data from all latest generation and legacy Qualitrol devices.

NETWORK PERFORMANCE VISIBILITY

Single screen system overview and health check enable at-a-glance visual management of all connected hardware, including device status and communications infrastructure information.

DEEP DIVE INTO DATA

The overview screen highlights problems to users and enables direct navigation to record analysis, powerful data visualisation tools and advanced diagnostics.

SCALABLE PLATFORM

iQ+ is configurable as a single user system, right up to a full enterprise solution with multiple simultaneous users for complete fleet management.

FREE UPGRADES FOR LIFE

Qualitrol continually updates and extends the functionality of iQ+ greater monitoring performance. These upgrades are free for all owners of Qualitrol network monitoring devices.

POWER SYSTEM MONITORING
Services

Our Expert Team support the whole-of-life utilisation of Qualitrol and Insulect PSPM systems. From system design, build and installation, to professional training, system maintenance and expert analysis.

SYSTEM DESIGN & DEVELOPMENT

Preliminary engineering design and requirements scoping. Device configuration and FAT. Panel build and integration. System commissioning, SAT and software configuration. Post-commissioning support.

TRAINING PROGRAMS

Application-based training programs delivered by Qualitrol Certified trainers. Customisable to meet enterprise-level training needs.

EXPERT ANALYSIS

Collaboration with engineering teams to investigate incidents. From minor disturbances to major event post-mortem. We identify system improvements to increase uptime.

SYSTEM SUPPORT PLANS

Complete hardware and software support plans. Covering health check reporting, fault ID and remote diagnosis, maintenance and repair, firmware and software upgrades, helpdesk and more.

HARDWARE REPAIR & UPGRADE

Qualitrol certified service centre for fast response with minimum downtime. Full technical service, repairs, testing and device upgrades, with locally stocked spare parts.

POWER SYSTEM
PERFORMANCE MONITORING
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