

## EDGE-X Surface Data Management

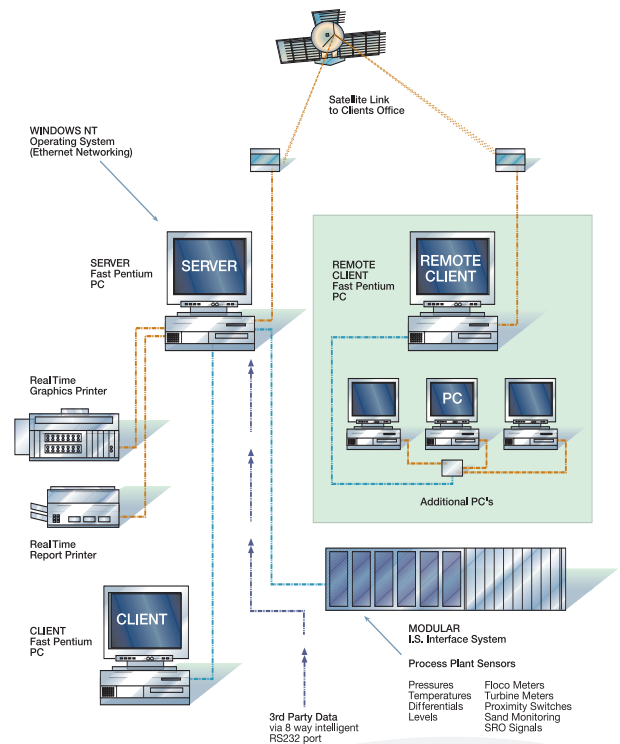
Edge-X is Expro's new generation PC based service data management system for use with WindowsNT. The system takes full advantage of the extensive multi-tasking capabilities of this 32-bit IT platform and user-friendly Windows GUI Interface.

Migration to Windows has also enabled a simple "plug and play" design philosophy to be adopted for interfacing the system with multiple dedicated sensors and third party equipment.

The hallmark processing power of EDGE-X is derived from the division of process control between the host computer and sensor interface modules. The host computer is responsible for data management, manipulation, archiving and transmission only. The sensor interface modules are responsible for gathering raw measurements and performing appropriate conversion to engineering units before sending data to the host computer.

This division of responsibilities, in conjunction with the phenomenal processing power of modern fast-pentium computers, enables the system to monitor virtually any number of sensors, while simultaneously performing multiple operations on the data, both real-time and historic. The data acquired from a well test, extended production test or platform process plant can be output to screen, disk, printer, modem or other PC's connected to a local or wide area network.

By targeting WindowsNT, EDGE-X can also make use of built-in networking capabilities, now regarded as the solid platform for future connections between PC's.



Features & Benefits:	
Safety on site	EDGE-X features a complete visual/audible alarm system which can be configured, with upper and lower limits, to alert the operator when any abnormalities occur
On site prevention of problems	With the capability of trending any parameter in realtime, problematic development can be easily identified prior to it becoming serious. Examples of this can be hydrate formation, steam failure or temperature induced pressure rises.
Well performance indicator	EDGE-X monitors all parameters simultaneously. This, for example, allows stable separator conditions to be identified prior to sampling
Data presentation	With numerous parameters being collected through the facility, EDGE-X allows the complete process to be monitored from one central point
Cost savings through reduced downtime	Should problems occur during operations the EDGE-X can be used to analyse where and why these problems occurred. This can be particularly useful for identifying leaks, control line problems and corrosion problems. Early warning often allows remedial action to be taken before the problem affects the viability of the test
System versatility	Virtually any sensor can be monitored by the EDGE-X including wind speed, heave monitoring, sand production, downhole surface read-out gauge or BOP temperature sensor. Standards systems are configured to monitor three stage separator systems which are typical to EWT hookups, qualified personnel can customise EDGE-X to specific client requirements while on site

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### Technical Specifications:

#### Wellhead/Choke Manifold Area

Wellhead	1x Pressure Probe	0 -5000 psi (10k psi optional) 0-345 bar (689 bar optional)
Upstream Choke	1x Pressure Probe	0-5000 psi (10k psi optional) 0-345 bar (689 bar optional)
Downstream Choke	1x Pressure Probe	0-2000 psi (0-140 bar)
Upstream Choke	1x Temperature Probe	0-300°F (0-150°C)
Downstream Choke	1x Temperature Prob	0-300°F (0-150°C)

#### Separator Area

Separator Area	1x Pressure Probe	0-2000 psi (0-140 bar)
Separator/Gas Line	1x Temperature Probe	0-300°F (0-150°C)
Separator/Gas Line	1x Temperature Probe	0-300°F (0-150°C)
Separator/Oil Line	1x Differential Pressure	0-200 in WG (0-400 in optional)
Gas Differential	4x Pulse Meters	0-8000 bbbls/day (0-1272 m <sup>3</sup> /day)
Oil/Water Counters	4x Turbine Meters	0-13,000 bbbls/day (0-2067m <sup>3</sup> /day)

#### Additional Sensors and Services

Sand Production Burner Heat Monitors  
 Downhole ESP Pump Surface Read-Out Gauge and Flowmeters  
 Wind Speed and Direction Modem from the well site to client office in real time  
 Interface to typical rig systems (eg wits)

NOTE: For any additional information please consult your local Expro representative.