

I-VIEW® RIG MONITORING & REPORTING, F.I.R.M.S.® MODULAR COMPONENT



Fully Integrated Rig Monitoring Systems - FIRMS®

- Easily Configurable Gauges, Alarms, Charts and Variables
- Built in Electronic Drilling Recorder
- Historical Data Logger
- Multiple Servers
- Remote Access and Reporting
- Internet Data Transfer
- Built-in Help Screens
- Remote Online Support
- User Selectable Languages
- I-View Systems are Available with ATEX Certification

The I-View system is a configurable, real time, multi station, multi screen rig data logging and display system. Receiving drilling information from the I-DAQ, MODBUS or other sources, I-View gauges, charts, alarms and other parameters can be configured by the operator to display and store timely information about rig operations. This allows the operator to identify many possible drilling problems including, flow deviations, pressure changes, drilling breaks, etc.

Each I-View screen contains analog and digital gauges, graphs and mimics that display critical information that can be easily understood. The log screens can display current trending conditions, or historical information. The I-View system is TCP/IP based and can share drilling information with local and/or remote off site locations. It also supports password protected "Thin Clients" which allows any browser equipped computer to display drilling screens anywhere in the world where there is an Internet connection. The I-View system can have multiple independent Servers, each of which can be configured independently. Multiple Server systems can be configured to maintain a self healing data base between Servers. The I-View is WITS capable for up to two users simultaneously.

There are 4 programmable "sum" and "difference" channels. A "difference" channel could, for example, be programmed to

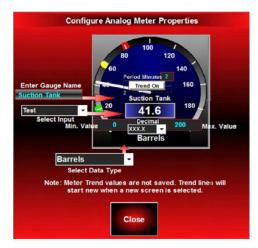
show the difference between temperature in and temperature out. The 16 pen electronic report can be configured to display and print the history of any stored parameters, from any historical time or date.

All I-DAQ functions are accomplished using the I-DAQ screens. No laptop or other device is required to set channel zero, span, smoothing, gear ratios or other rig parameters. The I-DAQ "Home" screen (shown above) continuously displays all monitored variables even if all TCP/IP connections are lost.

Innovative Electronics A					Analog Channels				Stafford, Texas, USA		
1	52.50	2	52.99		5	2.63	4	53.24	5	52.63	
	Tank 1		Tank 2		Tai	nk 3		Tank 4		Tank 5	
6	52.87	7	52.99		- 5	3.36	9	10.67	10	52.87	
	Tank 6		Tank 7		Tai	nk 8		Flow		Trip Tank 1	
11	1593.41	12	52.75	1	3 5	2.26	14	52.87	15	52.50	
Pressure 1			Tank 9		Tank 10		Tank 11			Tank 12	
16	53.36	17	2637.	.36	8 1	567.77	19	52.87	20	7.81	
1	rip Tank 2		Torque		Pressure 2		RPM- Analog		Н	Hook Wt * 100	
21	58.02	22	6.72	2	3 (0.00	24	0.00	25	0.00	
	Flow		Temp Out								
26	0.00	27		2	8 (0.00	29	0.00	30	0.00	
31 0.00		32	32 0.00		33 0.00 Tou			uch an Analog Channel to Configure			
_				Dig	ital Ch	nannels			4	Rotary RPM	
67		68		61		0		0		***	
Pump1 SPM		Pum	Pump2 SPM Pun		np3 SPM Pump4 S		SPM	SPM Pump5 SPM		Pump6 SPM	
	Setup		Configur	ation				Abou	t		



I-VIEW® RIG MONITORING & REPORTING, F.I.R.M.S.® MODULAR COMPONENT (CONTINUED)



Easy-to-Use

Rig personnel are constantly changing and there is often little time to train new personnel. Because I-View contains many help screens and configuration applets, rig personnel can learn the system quickly, on their own, minimizing training time.

I-View configuration screens have detailed notes explaining methods and details to quickly accomplish tasks. For example, the screen on the left provides guidance on how to access various gauge functions. The applet shown on the right is used to configure analog gauge properties.

I-View can accept MODBUS inputs from other systems, for

example from a hydraulic drilling rig package or a gas detector system. I-View is WITS enabled. I-View systems are designed to be installed and commissioned by rig personnel. Our customers all over the world have reduced installation costs by successfully installing these systems. For simpler systems see our 9000 Series Instrumentation.



Analog Meter Applet

