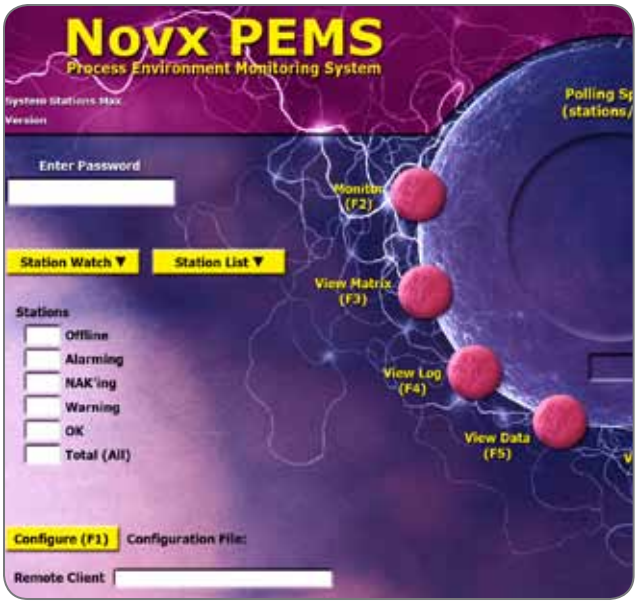

ION SYSTEMS
An ITW Company

ESD Sensing & Process Monitoring

WWW.ION.COM

Real-time Monitoring & Proactive Control

NOVX PROCESS ENVIRONMENT MONITORING SYSTEM (PEMS)

The Novx Process Environment Monitoring System (PEMS) Software is a fast multi-line serial polling system. Utilizing PEMS and Novx Data Acquisition Remote Terminal (DART2) along with associated sensors provides process and tool characterization and a more accurate way of evaluating operator and tool performance. This system provides a cost-effective solution to monitor and manage the manufacturing environment, processes, tools and cleanrooms. Novx provides software and hardware solutions for real-time monitoring and proactive communication to meet many process control requirements.

Features and Benefits

- Proactive Control
- Remote Monitoring
- Real-time Data Capture
- Machine Tool Interface
- Easy Installation and Maintenance
- User-friendly Interface
- Configure/Expand Easily
- Product Mix and Match Versatility
- Facility Layout and Matrix Display
- User-selectable Setup and Operation
- User-defined Area/Station Name
- Programmable Warning/Alarm Limits
- Audible, Lights, Paging Warning
- User-selectable Configuration Files
- Network Files
- RS-485, USB, Ethernet, Wireless
- Windows Compatible

- Improve manufacturing yields, finished product quality, and manufacturing equipment reliability
- Achieve higher productivity levels by reducing scrap and improving product quality
- Communicates with most sensor brands
- Dramatically reduces cost of purchase, installation and ownership over time.
- User-friendly and easy to learn
- Powers all connected sensors from it's own power supply

Specifications

Data Archiever	Sensors
Creates H/D/M/Yearly Reports	ESC/ESD
Data Stream from Data Collector	EMI
Standard Database Storage	Operator
Main Module	Ground
List of Stations/Sensor Types	Ionization
Graphical or Data Monitoring	Airborne Particles
User-selectable View Screens	Liquid Particles
Interfaces	Temperature
RS-485, USB, Ethernet, Wireless	Relative Humidity
Incoming TCP/IP Connections	Differential Air Pressure
Password Verification	Vibration
Data Viewer	Most 4-20 mA Sensors
Live Data to Historical Data	**Software Requirements**
Alarm Status Colored Symbols	Windows XP or Newer
Color or Black/White Prints	MS Office
Multiple Graphs	**Output File Formats**
Sensor Selectors	Spreadsheet
Area Selector	Graphical Data
•User-selectable Facility Layout Display	Raw Data
Data Collection	
1-4 RS-485 8-port Serial PCI Cards	Produces Fault Log Data Stream
Compares Actual Measured Values to Control Limit Values in Real-time	
Hardware Recommended	
PC Compatible Computer	2.0 GHz Memory (min)
19" Color Display or Larger	Keyboard and Mouse
UPS Battery Backup System	CD/DVD-ROM
80G+ IDE Hard Drive	Ethernet Connection
4 Serial Interface PCI Card Locations, USB, or Ethernet	

Special Features

Main Screen: Provides an overall view of the system performance. Polling speed indicator as well as the buffer status of instructions to be processed. Password access to system configuration. Easy access to monitoring functions and a pull down menu for a snap shot of station conditions.

Facility/Sensor Layout: Depicts a representative layout of the area being monitored and the placement of sensors. It will also show a bird's-eye view of the sensor status.

Station Performance Matrix: Provides an overall view of the entire facility and the status of each sensor that is installed.

Configuration Main Screen: Allows initial installation configuration or on-the-fly as instruments are added or removed. Easily configurable/expandable. Facility layout picture plus configurable list of channel configurations. Channels located in that area with programmable alarm limits. Automatically recalls latest used configuation file on program launch.

Data and Report Summary: A user-friendly report generator. The user has a selection of tools available to generate performance reports by facility, station, sensor type or any other selected parameters. Data export to spreadsheet format.

Options

Continuous Monitoring: The Process Environment Monitoring System (PEMS) will interface to any mix of up to 1,024 Novx instruments directly and provides remote monitoring and control capabilities. The combination of hardware and software allows the user to monitor, analyze, and control processes at all hours, all the time.

Data Acquisition Remote Terminal: The Novx DART2, DART2E (Ethernet) and DART2W (wireless) introduces our first dual-processing system to connect directly to all environmental sensors including but not limited to temperature, humidity, air pressure differential, particles, vibration and molecular.

Sensors: Designed to communicate with PEMS with LED and audible alarm outputs. We can best support PEMS with sensors that improve performance, reliability and at the same time reduce up-front and operational costs. PEMS integration becomes much simpler with the sensor data output protocol configured to maximize accuracy and speed of operation.

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