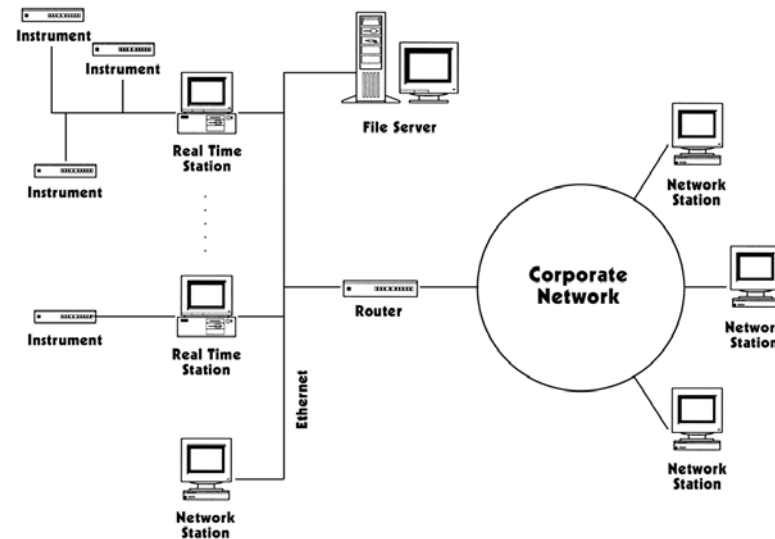


The Pharmaceutical Net network option offers a powerful, real-time networking capability. Pharmaceutical Net systems connected to instrumentation can broadcast data in real time over an Ethernet connection to other Pharmaceutical Net systems not actually connected to instrumentation. Network stations can support a terminal server, allowing multiple users to connect and run the application simultaneously.

Through real-time networking, data can be viewed and analyzed from the convenience of an office. Through use of a central file server, office network stations can be configured to display data from any combination of instruments reported from the real-time stations.



Specifications

Pharmaceutical Net

Instrumentation supported: All Particle Measuring Systems instruments. Facility Net also supports non-Particle Measuring Systems third-party instruments, such as TOC, differential pressure monitors, air velocity monitors, and many others. Please contact manufacturer for more detail on specific models supported.

Minimum computer equipment required: See operating systems minimum requirements

Recommended computer equipment: 1 GB of RAM, 80 GB hard drive, CD-ROM

Operating systems supported: Windows® XP Professional, Windows Server™ 2003

Windows®, SQL Server™, and Server™ 2003 are registered trademarks of Microsoft Corporation.



Registration applies to the Boulder, Colorado facility

FM 40574



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Pharmaceutical Net

Facility Monitoring Software

Pharmaceutical Net is a powerful software program that provides a comprehensive view of the particle, environmental, and process monitoring conditions. It enables an operator to collect, display, analyze, store, and report data from a network of monitoring instrumentation.

BENEFITS

Improved Control

- Real-time displays immediately highlight process problems
- Identifies both short and long term trends
- Real-time alarm device control and SMS/paging/email functions notify users of alarm conditions for immediate action

Easy to Use

- Extensive online help guides the operator through each function
- Setup screens for instrument configuration, alarm condition definition, and report printout schedules reduce setup and maintenance time
- Simple-to-use icons speed access to key features, improving response time

APPLICATIONS

- Facility environmental monitoring
- Filter testing
- Cleanroom compliance monitoring
- Troubleshooting
- 21CFR11-compliant reporting
- Centralized environmental data management

Without measurement, there is no control.



FEATURES

- Windows® XP and Windows Server™ 2003 compatibility
- Ethernet networking capabilities using TCP/IP
- Export to SQL Server™ 2005 (Professional or Express)
- On-the-fly instrument configuration
- Mathematical and statistical operations including log reduction and filter efficiency
- Real-time and retrieved data in multiple formats including status, current value, live and retrieved plots, audit trail tabular spreadsheets, and maps
- Integrated SMS for sending messages to mobile phones using Global System For Mobile Communications
- Multi-language support
- Flexible security system allows multiple users to have unique IDs, passwords, and customized settings

OPTIONS

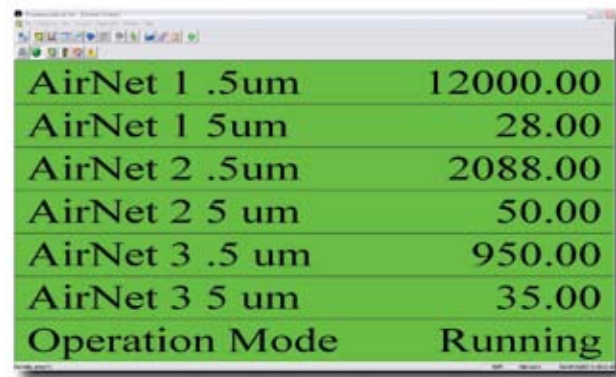
- OPC communications with BMS, SCADA, or other data management system
- Network stations allow remote analysis of cleanroom data



Sensor Status Screen

The Pharmaceutical Net program provides multiple sensor status screens that allow the user to display the current particle counts, in real time, for each sample point, group, or combination. When an alarm-level event occurs, the color status for that sample point or group will change to reflect the new condition.

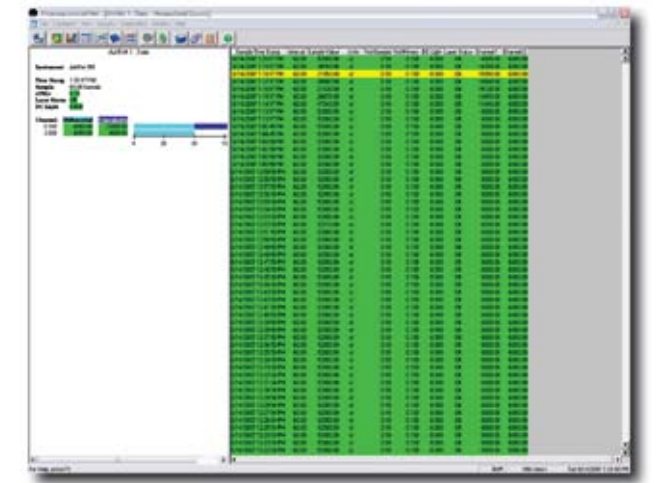
Sensor problems, such as laser power, flow, and communications, are also reflected in the color of the status screen.



AirNet 1 .5um	12000.00
AirNet 1 5um	28.00
AirNet 2 .5um	2088.00
AirNet 2 5 um	50.00
AirNet 3 .5 um	950.00
AirNet 3 5 um	35.00
Operation Mode	Running

Historical Tabular

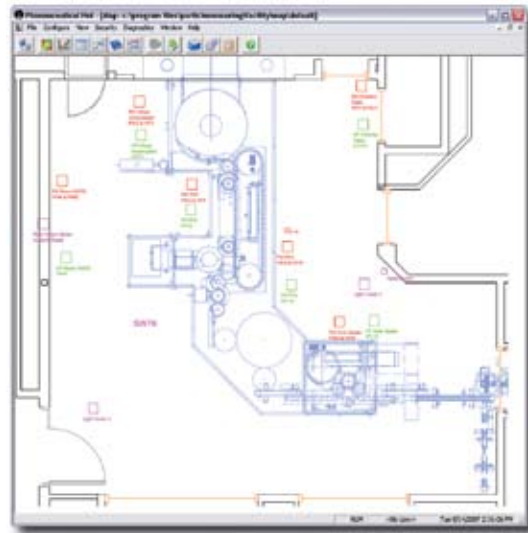
Detailed statistical information for each sample point is provided in real time on the tabular display screens. On just one screen, the operator is able to view the instrument's name, status condition, current values, number of samples, as well as minimum, maximum, average, and standard deviation for selected sample points. The historical tabular display screen enables the operator to review retrieved sample points in a similar format.



Instrument	Status	Current Value	Number of Samples	Minimum	Maximum	Average	Standard Deviation
AirNet 1 .5um	Running	12000.00	100	10000.00	14000.00	12000.00	1000.00
AirNet 1 5um	Running	28.00	100	10.00	50.00	28.00	10.00
AirNet 2 .5um	Running	2088.00	100	1000.00	3000.00	2088.00	500.00
AirNet 2 5 um	Running	50.00	100	10.00	100.00	50.00	20.00
AirNet 3 .5 um	Running	950.00	100	500.00	1500.00	950.00	300.00
AirNet 3 5 um	Running	35.00	100	10.00	70.00	35.00	15.00

Facility Map

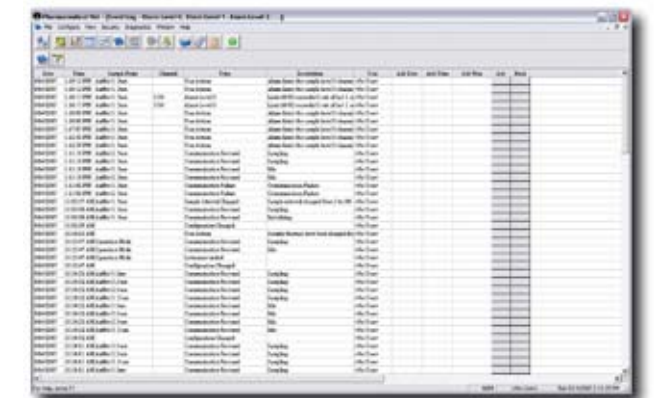
A customized map may be created to illustrate the monitoring instruments configured into the system. The status condition and current values for selected sample points are displayed on the screen and updated in real time. The operator may add or change any monitoring instrument while Pharmaceutical Net is collecting data. Multiple maps may be generated and organized to display a magnified view of specific locations within the facility.



Event Log and Automated Tasks

An audit trail registers system activities such as alarm and warning conditions, communication errors, instrument status, configuration events, and operator actions. An operator can review each event and describe the cause in a user entry field.

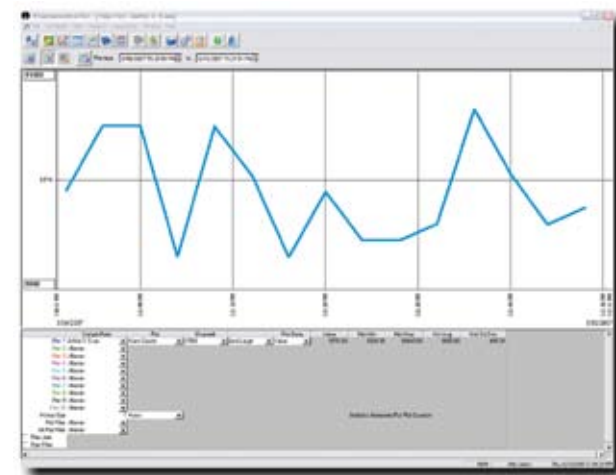
A job generator allows users to schedule automated tasks. Pharmaceutical Net can generate both printed and electronic reports, create a backup of the database, run recipes, operate external programs, and more, without a user present.



Date	Time	Event	Description	Operator
2010-10-10	10:00:00	Alarm	AirNet 1 .5um	Operator
2010-10-10	10:05:00	Warning	AirNet 2 .5um	Operator
2010-10-10	10:10:00	Event	Configuration Change	Operator
2010-10-10	10:15:00	Event	Operator Action	Operator

Time Plots: Real-Time and SPC

Real-time or retrieved data may be plotted using up to ten color-coded pens for each plot. The operator may select particle and environmental sample points, alarm and warning limits, and instrument status levels to appear as selected pens on the time plot in either a linear or log scale. Multiple time plots may be displayed on the screen simultaneously and may be stored for later data analysis.



Alarms and Paging

Pharmaceutical Net allows an operator to set alarms that generate audible or visible alerts when preset limits (parameters) are exceeded. Pharmaceutical Net offers four alarm levels, allowing progressively out-of-parameter conditions to trigger increasingly urgent alarms. Alarm status information can be relayed to the Status Display, Tabular Display, and the Event Log. Alarm priorities can be set, allowing more important alarms to override less important alarms. An optional pager feature can be activated when an alarm is triggered.

