

# INSTRUMENT DESIGN & TECHNOLOGY

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## TEMPERATURE MONITORING PROJECT

Eno River Labs, a company specializing in analytical chemistry and mass spectrometry, was faced with the task of keeping their Drug Discovery customer's samples in a monitored cold environment. Reed Hokanson, Facilities Engineer with Eno River Labs, discussed their issue with multiple "turn key" engineering companies. Quotes to install a system to meet their unique needs were averaging \$30,000 to \$40,000 dollars. Since Eno River Labs is a very small company, a less expensive option had to be explored.

"Our ADAM-4000 remote I/O products make for a very cost effective and easy to install temperature monitoring solution. ADAMView software makes the data collection and reporting a simple task" says Mike Berryman, product manager at Advantech.

Each "T" type thermocouple is continuously tracked using Advantech's ADAMView software and displayed as a series of chart records. The system averages 100 sampling polls of each thermocouple and sends the results to a software set-point. If the temperature of the freezer is out of the set point's range, an alarm will be sent. The alarm shows up in the software as an "alarm event log item" and printed out at the same time. Also, there's a

lit display button and a constant alarm buzzer and strobe in the facility. The system sends an output message to a phone dialer which has a phone tree of four numbers that will be called upon one at a time until one of the recipients responds with an acknowledgement code. During normal operation, every hour the system records all the temperatures in a text log file. The system gives accessibility to different user levels through a login security control. This whole application is connected to the PC on an Ethernet network using Advantech's ADAM-4571 Ethernet gateway.

Currently, Eno River Labs has installed two monitoring panels populated with various Advantech ADAM modules. They are ADAMview software, ADAM-4571, ADAM-4068 and ADAM 4018+. The system is robust and very dependable. Validation on the system is in process and should be completed by January 2006. The system will work unattended and will be administrated by the Engineering Manager with oversight by the Sample Management Group.

