

## GOAL

Investigate ventilation system performance in large public buildings where many areas experience wide fluctuations in occupancy.

## APPLICATION - MUSEUM OF SCIENCE, BOSTON

Under a two month ventilation diagnostic project at the Museum of Science, an AIRxpert monitoring system was installed to investigate ventilation system performance in many occupied areas. One area of special interest was the Omni Theater, which can experience large swings in occupancy over the course of each day.

## BENEFIT

The data clearly shows not only that the Theater was well ventilated for each of the six performances on May 15, but so was the Omni Lobby. For comparative purposes, the Museum's main lobby was also included in the monitoring program.

The data also revealed that the Omni Theater was consistently well ventilated over time. Note the similarity of peak CO<sub>2</sub> values in the graph for May 14-20, when ventilation rates were routinely in excess of 20 cfm of outside air per occupant. The Theater's hours of operation are readily apparent in the data. Note the absence of shows Sunday morning and Monday evening, and the extra shows on weekend afternoons. This degree of feedback helped verify that ventilation goals were being met.

