

## GOAL

Shed summertime energy load to avoid utility price thresholds without compromising the ASHRAE Ventilation Standard.

## APPLICATION - STRATUS COMPUTER COMPANY

Stratus Computer temporarily installed an AIRxpert multi-point monitoring system to study the correlation between chiller load and ventilation being supplied to occupants in their two story engineering research/office facility. Of interest was the possibility that chiller load could be reduced during periods of decreased occupancy without compromising air quality, thereby saving energy.

The AIRxpert system was equipped with a dewpoint detector and a CO<sub>2</sub> sensor, which provided a concurrent indication of chiller performance and occupancy levels in dozens of locations.

## BENEFIT

The effect of air conditioning during high outdoor humidity was clearly evident in the data, which also showed that many areas were often over-ventilated. Note that dewpoints remained relatively low in certain laboratories after the building control system went on night setback at 6:00 PM. This reflects the performance of local air conditioning equipment.

If the electric utility had requested a reduction in demand, the facility manager could have relieved the load on the chiller by cutting back the outside air percentage, guided by real-time CO<sub>2</sub> readings from locations representative of total occupancy.

