# **\$4 MILLION INVESTMENT**

# Supercomputer to get big boost

Speed, memory to triple unit's capacity

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## BY KEVIN MAYHOOD

### THE COLUMBUS DISPATCH

Money is tight, but the state is still investing \$4 million to nearly triple the speed and memory of the computer at the Ohio Supercomputer Center.

"There is pent-up demand in Ohio for more jobs and bigger jobs on the supercomputer," said Stan Ahalt, executive director of the center off Kinnear Road.

"At a time when everyone is challenged to make investments, the state of Ohio is taking a step forward in a cutting edge of science."

The Ohio Board of Regents and the state Controlling Board approved the investment during the past two months.

The center's IBM Cluster 1350 was ranked among the top 100 most powerful computers in the world last year. But three months after it was installed, the \$12.5 million supercomputer was operating at full capacity.

Ahalt said the time is right to improve Ohio's research capacity and to take advantage of the fact that the cost of the technology has dropped and the market for supercomputers is slow.

The current supercomputer can perform 22 trillion calculations per second; the upgrade would push the limit to 75 trillion per second. Memory would grow from 8.4 trillion bytes to 24 trillion.

"It means a lot to us," said Dan Janies, a professor at Ohio State University Medical Center. Janies uses the supercomputer to predict the spread of viruses such as avian flu.

"We map the changes in the genes that allow the virus to jump from birds to mammals to us, the virus' ability to evade drugs, and map the spread geographically," he said.

With more power, he hopes to map the changes the way weather maps show storms strengthening and moving into town.

The Supercomputer Center estimates that for every state dollar spent, the center helped draw in more than \$10 in federal funding last year. Ahalt said that academic researchers across Ohio win federal grants of tens to hundreds of thousands of dollars partly because they have access to the supercomputer.

"And that figure doesn't account for the advancements in science and technology and jobs that are spun out," he said.

The supercomputer will remain far behind the world's most powerful computers owned by the Department of Energy. Those computers, which cost more than \$100 million each, can perform more than a quadrillion calculations per second.

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