

ARCHIBUS Success Story

WSDOT: Building Bridges (and Tunnels, and Highways) of Data Across Washington State

The Washington State Department of Transportation (WSDOT) is responsible for maintaining 7,000 miles of highways and 3,300 bridges and tunnels, including the longest and widest of the world's first floating bridges. With the state divided into six distinct regions, the agency needed to coordinate these areas to ensure that support facilities and services (which, by definition, bridge these various regions) operate as a unified system.

Doing the Homework



"Our agency is involved in the initiative to improve quality in state government," says Tom Kuchman, WSDOT System Administrator. True to this mission, he evaluated and tested over 20 different CAFM systems, filling them with sample data and measuring how well they could meet the department's business needs. ARCHIBUS emerged as the system best suited to the task of uniting data from disparate sources and centralizing the management of major functions across the state.

The system's integration with AutoCAD® also helped put ARCHIBUS ahead of the pack, since WSDOT designers use AutoCAD when creating new facilities. Standardizing on this system forced the designers to develop a process to consolidate all their drawings, and create them where they didn't exist. The end result is a complete drawing inventory of all the facilities the agency manages, available in a uniform format.

One State; One Database System

Consolidating inventories from the department's many systems was a priority for Kuchman, and an effort that would eventually enhance the management of the state's operations. For 20 years, information on sites and buildings was held in a mainframe system. Other types of data were kept in a variety of systems such as Microsoft Access®, Excel®, and FileMaker Pro®. Kuchman recalls the frustration that this decentralized data caused. "Since data is dynamic, having multiple reports of similar data became a real problem to manage. At one point, a maintenance management system we'd had since the early 1990s morphed into eight separate databases," he says. "We couldn't get to the right data to analyze and answer questions on areas of our corrective and preventive maintenance. When data is consolidated, you know it is in real time and accurate."

A Statewide Initiative

With the data centralized, Kuchman envisions sending this integrated system to the state's six regions for use in daily facilities management processes. "If we can do some of the data loading work upfront, when we release it to the regions it will already be populated with current information," he says. For example, there are approximately 8,000 pieces of equipment inventoried in the system. Kuchman wisely believes that the regions shouldn't have to repopulate their own databases when the

information already exists in WSDOT's system.

The goal is to have various facility functions, such as work orders, on one unified system throughout the state. To start, 100% of on-demand and preventive maintenance performed in the state of Washington's Department of Transportation will be done through ARCHIBUS. A number of workgroup administrators have been identified to take responsibility for these functions statewide. When operations are standardized across the regions, it becomes easier for WSDOT's Facility Office, as the central administration organization, to evaluate how work is being tracked and performed.

With this bird's eye view of regional inventory and activity, WSDOT can more strategically determine space needs. For example, accurate statewide inventories of road maintenance equipment help the facilities department design housing that can accommodate it. Plus, the agency will be able to better compare management processes at each of the six regions, address any issues, and allocate funds accordingly.

Access to Better Decision-Making Tools

Even though WSDOT hasn't yet deployed the system to the regions, it is already tapping into some of the features of individual modules. They have already used the Strategic Master Planning module to project costs based on square footage standards for a project in Vancouver, Washington. "Using the Strategic Master Planning module, we came up with three space budget setups to compare the costs of three different occupancy scenarios at a new facility," he says. "After evaluating the scenarios, we determined that the ideal solution would be for our department to occupy the new facility along with county personnel, allowing us to share common spaces and reduce costs."

To date, the biggest benefit Kuchman and his group have realized is more of that precious resource called time. "We've seen tremendous time-savings when it comes to collecting and reporting information," says Kuchman. "In the past, we had to manually pull this data together from multiple sources, analyze it, and then format it into the appropriate report. Now that key data resides in ARCHIBUS, it's a more efficient process, and we can concentrate on what we do best-analyzing the data to see how it affects overall operations."

Changing the Way Business is Done

Future goals include the integration of the Building Operations Management system with Personal Digital Assistant (PDA) capabilities. "The PDA is a real carrot to our crews, who look forward to being able to use handhelds instead of computers for work order and field maintenance," says Kuchman. "We'll also be able to better justify paying craftspersons' wages as they spend more time working in the field instead of at a computer."

Kuchman's efforts embody the open attitude WSDOT has towards innovation. Through the statewide standardization project and the results already achieved through a consolidated database, the department has discovered a better, more cost-effective way of doing business. Kuchman advises others looking at CAFM systems to "take your time, get familiar with the system, and test it." Despite the initial investment, the time and aggravation saved by having accurate, accessible data will make the effort worthwhile.

