



Customer Profile

Bentley exceeds energy reduction goals with Infor EAM



Facts at a glance

Product: Infor EAM

Industry: Education

Country: USA

"In the past 11 months of using Infor EAM, we've reduced our electrical consumption by almost 10%—equal to turning off campus electricity for about 30 days.

**—Jessa Marshall,
Energy Systems Engineer,
Bentley University**

About the company

Located near Boston, Massachusetts, Bentley University is dedicated to preparing a new kind of business leader—one with the deep technical skills, broad global perspective, and high ethical standards required in an ever-changing world. Bentley offers a unique blend of business and liberal arts education with a strong foundation in technology. The wide range of programs that it offers to its 5,000 students addresses functional areas that include accountancy, finance, marketing, and management. To learn more about Bentley University, visit www.bentley.edu.

Setting the strategy

Several years ago, Bentley University's facilities management department sought a solution to automate its business processes to better control operating costs yet maintain a first-class campus. The school wanted to deploy an asset management system to help automate all facilities management processes, including work order management and the cumbersome annual dorm inspections. Dorm room inspections involved a time-consuming process of logging invalid inspections, keying that data into a system, and issuing paper work orders.

Bentley turned to Infor™ EAM for a web-based asset management system, drastically reducing the manual overhead and time required to process work orders.

A few years later, Bentley embarked on a journey to become climate neutral. Toward that end, the university created a sustainability task force to evaluate all campus assets and determine comprehensive ways to reduce its carbon footprint. When the task force concluded that electricity usage on campus was its biggest contributor to greenhouse gases—as much as 49%—the university began the quest for an automated solution to reduce electrical consumption. "Bentley is committed to reducing its carbon footprint 50% by 2015 as compared to the 2008 baseline," says Amanda King, manager of sustainability at Bentley. "To achieve this goal, we needed to make as many energy efficiency improvements as possible throughout the campus."

Getting business specific

Bentley decided to seek a proven solution to meet its current and future needs. Patty Patria, chief information security administrator, explains, "We organized a team from several areas and evaluated best-of-breed facilities tools. Infor EAM proved to be the best technology—the most robust and easiest to set up and customize."

Implementation began by identifying business processes involving the greatest change for Bentley. Patria says, “We knew that the Infor application was the Ferrari of EAM software, and we wanted to customize the interface to make it easiest for our users. With help from Infor and using built-in EAM capabilities to automate routine tasks, we created a simple product for facilities staff. And from an IT standpoint, the special configuration and customization would also transfer with each upgrade, making our lives much easier.

“The Infor EAM solution was up and running smoothly in about four months because we faced a critical dorm inspection process. We automated both the complex dorm room inspection process and the 42,000 work orders that we process yearly using Infor EAM. The program has helped us save enormous costs, and we’ve had a great experience working with Infor.

Seeing results

After Bentley found success with Infor software as a way to automate maintenance workflow across its 49 facilities, it again turned to Infor to find ways to apply automation to reduce energy consumption and carbon emissions. One of the targeted areas was the university’s preventative maintenance (PM) system. “We run a calendar-based PM system, and we started to question its efficiency,” says Tom Kane, director of facilities. “We discovered a tool to help us not only meet our energy and emissions reduction goals, but also save money. We were looking for ways to save electricity by integrating our energy management system with an asset sustainability version of Infor EAM to get a better sense of what was operating properly and what metrics were questionable. But Infor EAM does much more. It’s helping us run our preventative maintenance on a predictive level, instead of a calendar-based PM system. By predicting maintenance, we see big reductions in our electrical consumption and carbon footprint—and we’re saving costs.”

According to Jessa Marshall, energy systems engineer at Bentley, the overall mission is to manage each building system (asset) so that it runs at its optimal levels. By managing the technologies according to specific guidelines and considering daily variables such as weather changes and building occupancy, the university can optimize asset performance and reduce energy consumption. “We understand how a piece of equipment should be running versus how it is running,” Marshall says.

Real-time performance monitoring and alerting is a part of Infor EAM that ties the Bentley energy management system into its asset management strategy. These capabilities anticipate failures before they happen. Notes Kane, “Our energy management system tells us when key pieces of equipment start using more energy than designed. With the EAM alert capabilities, the system automatically generates a work order for a technician to respond.”

Bentley also chose Infor EAM because of its mobile tool. This tool allows facility staff to use handheld devices with barcode scanning. For fire safety inspections and ad hoc work order inspections, facility people walk around the 49 campus buildings, each with individual barcodes on every room.

Says Marshall, “If they find a problem in a room or with a fire extinguisher, they click the barcode button using the handheld device to read the room or the fire extinguisher. Using a book containing barcode entries, they can easily scan the status of rooms, work orders, or equipment. It’s a great tool to automate the capture of ad hoc data. We’re seeing a 25% time savings in responding to work orders.

“Once barcoding is complete, we synchronize the mobile tool with the database and transfer the inspection and/or ad hoc work order generation data into our Infor EAM tool. We also plan to improve our already automated dorm inspection process with Infor’s ad hoc inspection technology.”

King adds, “Bentley takes its commitment to sustainability seriously, incorporating it into all aspects of the university—from transportation to academic courses.”

Advice for other organizations? “It’s important to establish a baseline as a means to track progress toward sustainability goals,” King says. “For us, that meant calculating our carbon footprint—finding emission sources and ways to reduce emissions.”

Marshall adds, “In the past 11 months we’ve reduced our electrical consumption campus-wide by almost 10%—more than 2 million kilowatt-hours, equal to turning off all electricity on campus for about 30 days.”

Infor EAM has helped Bentley University to:

- Reduce electrical consumption by nearly 10%—more than 2 million kWh, equal to turning off campus electricity for 30 days.
- Automate dorm room inspections and processing of 42,000 work orders per year.
- Improve direct labor productivity by 25% while reducing overtime costs.
- Reduce equipment failures via predictive maintenance.
- Capture ad hoc asset data quickly using a barcoding mobile tool.
- Upgrade work management processes, reducing training and IT costs.

Doing business better

Bentley foresees several other applications using Infor EAM to reduce costs. Kane explains: “One project is to automate our inventory process and barcode our stockroom using barcode scanners—saving much time in inventory control.”

King adds, “Ideally, we’d like to be able to provide our students with access to a building energy dashboard so that they can view electricity use in various campus buildings in real time. We feel that providing this information to our students in an accessible, easy-to-understand format will help get them engaged in reducing energy consumption on campus.”



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About Infor

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