

Indiana Saves Millions on Do-It-Yourself Application Rebuild



November 15, 2011 By [Brian Heaton](#)

Move over, Bob Vila. The technology professionals at the Indiana Department of Transportation (INDOT) are the new experts on do-it-yourself projects.

Faced with rebuilding its Scheduling Project Management System (SPMS), INDOT elected to handle the task in-house, completing the effort in 13 months and saving upward of \$6 million in the process.

The project began in 2009, as INDOT originally planned on having an outside vendor upgrade the SPMS. But after getting a quote of three years and \$7.5 million from Info Tech — the original system's vendor — the department's IT officials believed that by adding more contract developers they could pull off the project more quickly and for a fraction of the cost.

Indiana officials decided to roll the dice.

The gamble, as it turns out, paid off. The rebuilt SPMS launched in 2010 cost approximately \$740,000, which included both staff and contractor developer time.

So how did they do it? Jay Lytle, the transportation department's IT director, said that despite another offer from Info Tech to do the job for less than its initial proposal — \$5.5 million in three to four years if INDOT agreed to use a jointly developed system — it just made more sense to leverage the internal experience that was available. The INDOT technology team had success previously in developing systems.

“You can spend \$135 per hour for a vendor to do it, while we’re paying anywhere from \$40 to \$60 per hour for our internal resources to do the work,” Lytle explained. “And we can hire contract staffing to help for \$65 to \$70 an hour. Just from the sheer math it is cheaper to do internally if you have the capability to do it. And that’s where we were fortunate.”

Project History

The SPMS system is the hub of INDOT’s work. It holds the information for all projects the agency is doing and is planning, including a scheduling component for what it will take to deliver on those projects, such as right-of-way procurements, designs and the required permits.

The old SPMS, however, was built in the late 1990s. This client-server based system was unable to integrate with other INDOT systems. According to Lytle, that led to a significant amount of duplicative data entry work. At the same time, the department received an influx of funds stemming from Indiana leasing its toll road. So with a batch of new road projects coming down the pipeline, the decision was made to modernize SPMS.

A total of five staff members worked on the SPMS project and were augmented by six contract developers. Four of the five staff members were on the job full time, while the contractor time varied, equaling four full-time equivalent positions.

Building in the flexibility to interface with INDOT’s various other systems was the main priority in the rebuild. Functionality was added so that SPMS could sync up with INDOT’s PeopleSoft system so all the financial data associated with road projects is readily available on one platform.

In addition, the new SPMS is connected to INDOT’s GIS and Computer Aided Design system, so designers and engineers can spend more time on their work, and less time rekeying information into the SPMS.

Lytle conceded that while an off-the-shelf enterprise resource planning (ERP) system might have been even cheaper, the customization found in SPMS would not be found on any prepackaged system.

He said the scheduling component of the new SPMS is similar to Microsoft Project and Oracle’s Primavera, but is scaled down and specific to Indiana’s transportation department. In the new SPMS, users don’t have to navigate a software program that is much more powerful than what’s needed.

Future Upgrades

While SPMS has been a financial success, the project wasn't without complexity. One of the bigger developmental hurdles, Lytle said, was deciding what to incorporate in the first release of the system that was manageable and deliverable in an appropriate time frame. One of the things left out of the initial design was improvements to the capital program management portion of the software.

Currently, while SPMS allows users to look at projects and see which ones are lined up for next year and the spending associated with them, functionality is being built in that will give planners a glance at the impact additional projects might have on the bottom line. This improvement is being rolled out in December.

"The enhancement does allow our planners to do 'what if' analysis," Lytle explained. For example, if another high-need project is added into the schedule, users will be able to see all the ripple effects in the department's portfolio of projects.

"This allows them to ... come up with a plan to best meet our general public's needs," he added.

From Government Technology Magazine:

<http://www.govtech.com/policy-management/Indiana-Saves-Millions-on-Do-It-Yourself-Application-Rebuild.html>