

Veolia Recycles, Reuses Valuable RPG Apps Using WebSmart Modernization Tool



by Robert Gast

The least disruptive way to update business computing applications is through an incremental approach to application modernization, says evolveIT's (www.evolveit.com) vice president of client technical resources, Dan Hogan. Headquartered in Tustin, California, evolveIT focuses on IBM i platform modernization and RF warehousing technology.

"We have a large group of experienced RPG programmers at evolveIT. WebSmart offers us great value, which we took advantage of immediately. My developers, some of whom have no HTML experience, can effectively create programs for the web and drastically cut the programming time needed to see the results we want. Moreover, developing with WebSmart made web application development extremely easy to understand. It offered us a very quick payback and we produced a very fluid and modern looking application with this approach."

Dan Hogan, Vice President of Client Technical Resources, evolveIT, Inc.

Ten months ago, evolveIT began enhancing core business applications at the Solutions and Technologies division of Veolia Environmental Services, a subsidiary of the world's largest environmental services company.

Existing applications received new web-based user interfaces, and entirely new applications were created to accommodate current business requirements.

So far, 54 new WebSmart programs and 22 ILE modules have been developed for Veolia using WebSmart from Business Computer Design (www.bcdsoftware.com).

"You shouldn't change an entire business system all at once," says Hogan. "Change only the pieces that need to be changed and leave the other stuff alone. In Veolia's case the part that we left alone was the entire database and all the things that touch the database. In fact, their green screen programs were still operational and working while we advanced the modernization effort so the cutover for users was gradual."



Hogan is a champion of IBM i technology and openly advocates a pragmatic approach to augmenting IT assets. Not long ago, he published a 22 page White Paper entitled 'Incremental Application Modernization: Leveraging Your Legacy.' So far, his paper has been downloaded over 4,500 times.

There are several reasons that incremental modernization represents the path of least resistance, says Hogan. "It preserves the existing investment in your information systems and in the people who are involved— both technicians and the users. And while there are reasons to leave some green screen applications alone, in many cases we can actually improve workflow by implementing a browser environment."

Help for Custom ERP

For the past eight months evolveIT has been bringing Veolia's application environment into the present day. Veolia is running what is in essence, a very specialized ERP application. Their legacy code, which had been modified over the course of 17 years, grew increasingly expensive to maintain. In many instances programs were developed or changed by consultants who had moved on to other engagements. For a while, Synon was used to accelerate the development process but it was abandoned and native RPG development again became the standard.

Veolia was at a juncture where lots of new functionality was needed based on requests from several departments and regulatory changes. Since new functionality was called for, the use of webfacing technologies on existing RPG applications was not a realistic consideration because of the limitations posed by screen-scraping systems.

Modernized RPG application for approvals. Tabs replaced function keys and many calendar and drop down prompts were added for better end user experience. Save validates and saves data across all tabs.

"We decided to create the browser-based user interface first and leverage as much of the existing RPG code as possible. Then, for new functionality that wasn't supported with existing programs, we wrote backend applications in RPG/ILE," he says. "The WebSmart programs essentially issue a request for data and we call a series of service programs to retrieve the data and in some cases format it and send it back. Since we had access to AJAX, the user interface has easy to navigate tabs and drop down boxes. In the end, we produced a very fluid and modern looking application with

this approach." Nearly 80% of the new development work for Veolia was done in WebSmart.

An IBM System i model 550 is housed in Veolia's North American data center. This system serves thousands of internal and external users. Veolia's employees at more than 45 sales, services, treatment and disposal facilities in the US can access applications from any desktop that is connected to the Internet. And, Veolia's municipal and commercial customers can keep tabs on the progress that Veolia makes as waste streams are processed.

"Accountability is very important to Veolia's customers. Here, customers can track their waste stream down to the packing slip detail level. Other environmental service companies only track this information to the manifest line number," says Hogan.

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Aside from the advantages gained through new functionality and a web accessible user interface, the new application environment is going to allow Veolia to retire an older iSeries machine. Like other companies, they maintained two different systems because they couldn't port many of their legacy applications to a new server with a current version of i5/OS.

The first evolveIT-developed system to have been placed into production is the Approval Module. The Approval Module is a complex set of programs that manage information on which types of waste Veolia is certified by the EPA to handle. Because of the complexity associated with processing industrial waste, the need to protect the environment, and the need to reclaim reusable resources, many of Veolia's facilities have capabilities that are dedicated to specific types of hazardous and non-hazardous solids or liquids. The Approval Module also identifies the specific capabilities of each Veolia facility. Users key in a three-character facility code and a drop down box displays the function of that

facility. According to Hogan, "The new web-based approval module saves users a great deal of time, and based on user statistics we can see that it's being heavily used."

The Near Future

Another web-based system called Waste Information Profile (WIP) has just been approved for production and will be introduced to users over the course of the next several months. Veolia's IT department is bringing users onto new systems one facility at a time. The next set of applications slated for redevelopment are Veolia's financial systems. Says Hogan, "Veolia's IT department really has a great success story to tell because, so far, these new systems have gone in with nary a hitch."

Hogan began considering the use of WebSmart in evolveIT's consulting practice after spending a year trying to work Lansa's RAMP modernization product into the company's client application modernization processes. "I couldn't make the value proposition work. The price point for the toolset was probably two and a half to three times what WebSmart costs. And the learning curve is probably one and a half times as much."

Aside from its easily justified price point, WebSmart skills are easily assimilated by technicians with an aptitude for RPG. Says Hogan, "We have a large group of experienced RPG programmers at evolveIT. WebSmart offers us great value, which we took advantage of immediately. My developers, some of whom have no HTML experience, can effectively create programs for the web and drastically cut the programming time needed to see the results we want. Moreover, developing with WebSmart made web application development extremely easy to understand. It offered us a very quick payback and we produced a very fluid and modern looking application with this approach."

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