

Cegeka

Cortex uses ASNA Visual RPG to add life and value to core iSeries applications



Cortex is a Belgium-based software company and system integrator and member of the Cegeka Group. For more than 25 years, Cortex has specialized in providing total solutions for clinical laboratories and hospitals. A long-time AS/400 and iSeries proponent, Cortex's state-of-the-art iSeries-based software provides such solutions as clinical laboratory management, blood bank management, clinical consulting organization and management, and many other clinical reporting and research related tasks.

While its iSeries software has been successful for many years, Cortex sensed that its RPG-based green-screen application's user interface needed an update. Says Marc Pouillon, Cortex's General Manager, "Our iSeries-based software remains quite effective and powerful, however, we knew the user interface was due for improvement—assuming we could do that and retain the application's existing performance, stability, and availability. With the additional need for more functionality as well as the need for a refreshed user interface, we knew the time had come to update our iSeries-based software. An improved user interface and more client functionality would improve the overall value, appeal and power of our iSeries applications." Marc and his team chose ASNA Visual RPG as the core development environment with which to update its software.

ASNA Visual RPG solves the problem

Prior to selecting ASNA Visual RPG (AVR), Cortex evaluated C++ (in a combination UNIX/Windows environment), Java and products from LANSA. Reports Marc, "None of these products did what we wanted—it was a very frustrating and costly time. However, having used the COM-based version of ASNA Visual RPG on a previous project, we gave Visual RPG for .NET a try. We were impressed with it and quickly moved forward. We had many requirements and AVR fit the most of them of any environment."

Cortex had indeed done its homework. Its research had been extensive and its requirement list was complex.

The list included needing to:

- Leverage RPG programming skills—for both code reuse as well as easy learning
- Create a graphical user interface that exceeded the minimal capabilities of screen scraping tools
- Create browser-based, as well as Windows-based, applications
- Connect quickly and securely to the iSeries with a minimum of resources
- Support at least an object-based, and more hopefully an object-oriented, environment that provides the tools necessary to effectively create well-partitioned applications
- Provide integrated support for a variety of languages

The first step

Cortex's first step was to send three programmers to ASNA's educational facility in Guildford, England for a five-day introduction to Visual RPG. These programmers ranged in skills from nearly 100% RPG skills with little Windows programming experience to C++ Windows programmers with little iSeries experience. It should be noted that prior to this ASNA class, none of Cortex's programmers had any experience creating Internet-based applications. The class went well and the team arrived back in Belgium excited about the possibilities AVR provided them.

Back at the office, the three Cortex programmers got busy using AVR with their data and putting into practice what they'd learned in class. Along the way, they also shared their growing AVR knowledge with a fourth Cortex programmer. The first major application the team embarked upon was a browser-based solution (depending on the customer, deployed either on an intranet or on the Internet) for managing patient laboratory results called ConsultIT.

AT A GLANCE

Customer Profile

For more than 25 years, Cortex has specialized in providing total solutions for clinical laboratories and hospitals.

Situation

Cegeka's iSeries-based clinical reporting/medical research software packages needed more functionality. Cegeka needed new user interfaces to improve overall value, appeal and power of current packages.

Solution

Using AVR for .NET, Cegeka was able to eliminate physical paper handling for a Windows based application that manages microbiology-related work. AVR for .NET also allowed Cegeka to update a browser-based package called ConsultIT that is used for managing patient laboratory results.

Benefits

- Revived apps are now installed in private labs and hospitals in many countries and are used by several hundred end users every day.
- Delivered several modules that substantially increased functionality and appeal of packages without giving up iSeries related assets.
- Completed changes to ConsultIT in only three months.

Products

- AVR.NET
- IBM iSeries
- OS/400
- DB2/400
- Visual Studio .NET



Although the Cortex programmers only attended the ASNA class in October 2004, ConsultIT met its aggressive delivery date of January 2005 on time. Marc says, "Our first efforts with AVR were quite encouraging. We quickly learned that AVR would indeed meet, or exceed, our requirements." Having said that, Marc was quick to point out that his programmers did indeed have their share of frustrations early in the development phase. Browser-based Internet development adds several dimensions of complexity to application creation, but the Cortex team forged ahead and got the job done well. He continues, "We didn't experience any issues we didn't really expect as we knew some of the Web development tasks we'd encounter would be challenging. ASNA's support helped us through our struggles quite nicely."

Up next was a Windows-based application with substantially more demanding user interface requirements. This application required a more complex user interface presentation—with the goal of eliminating physical paper handling for managing microbiology-related work. Cortex is a firm proponent of the iSeries and as such, much complex logic remains on the iSeries. Where needed, the AVR programs (both the Web and Windows version) make program calls to the iSeries-based modules.

Special requirements

Because the Cortex applications are used in many countries, its programmers externalized all program texts into XML files. These files provide all the text for the programs and make it easy to quickly change the language used to present the applications to a variety of cultures. Another interesting aspect of the Cortex AVR applications was the use of AVR-created Web Services to provide the database layer to the Windows programs. Explains Marc, "We use AVR nearly 100% for our browser-based development, but a couple of our programmers wanted to use C# for the presentation layer in our Windows programs. Because we architected our previous AVR work into well-designed partitions, it was very easy to integrate AVR with C# for the task."

The result: A substantially enhanced iSeries asset

The result so far for Cortex is that they've delivered several modules that substantially increase the functionality and appeal of their

mature green-screen based system—yet they've not had to rip and replace or give up any iSeries-related asset. Cortex AVR-based applications are now installed in many private labs and hospitals and used by several hundred end users every day.

Marc and his team are very happy with their decision to use AVR as the foundation for the next generation of their suite of applications. Says Marc, "I'm very proud of the Cortex programming team. They've worked very hard to learn AVR and they get much of the credit for our success. However, it's also important to credit AVR. It was easy for our team to learn, it provides robust database connectivity, it is adept at creating browser-based apps as it is Windows-based apps, and it interoperates well with other Microsoft .NET languages."

About ASNA

Established in 1982, San Antonio-based ASNA develops and markets unique software products that evolve IBM AS/400 and iSeries/i5 systems. Aligned with Microsoft's .NET initiative, ASNA is the only company to offer a thoroughly conceived, standards-based extension and migration path that solves its customers' business challenges. For more information about ASNA: <http://www.asna.com/>.

Most recently, ASNA joined Microsoft in founding the Midrange Alliance Program, a strategic initiative to help enterprises worldwide reduce the risks and high cost of maintaining, extending and migrating aging IBM midrange systems. The alliance establishes the technical foundation for these enterprises to efficiently move to .NET and includes ASNA products as cornerstone enabling technologies. For more on the Midrange Alliance Program: <http://www.microsoft.com/midrange/>.

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