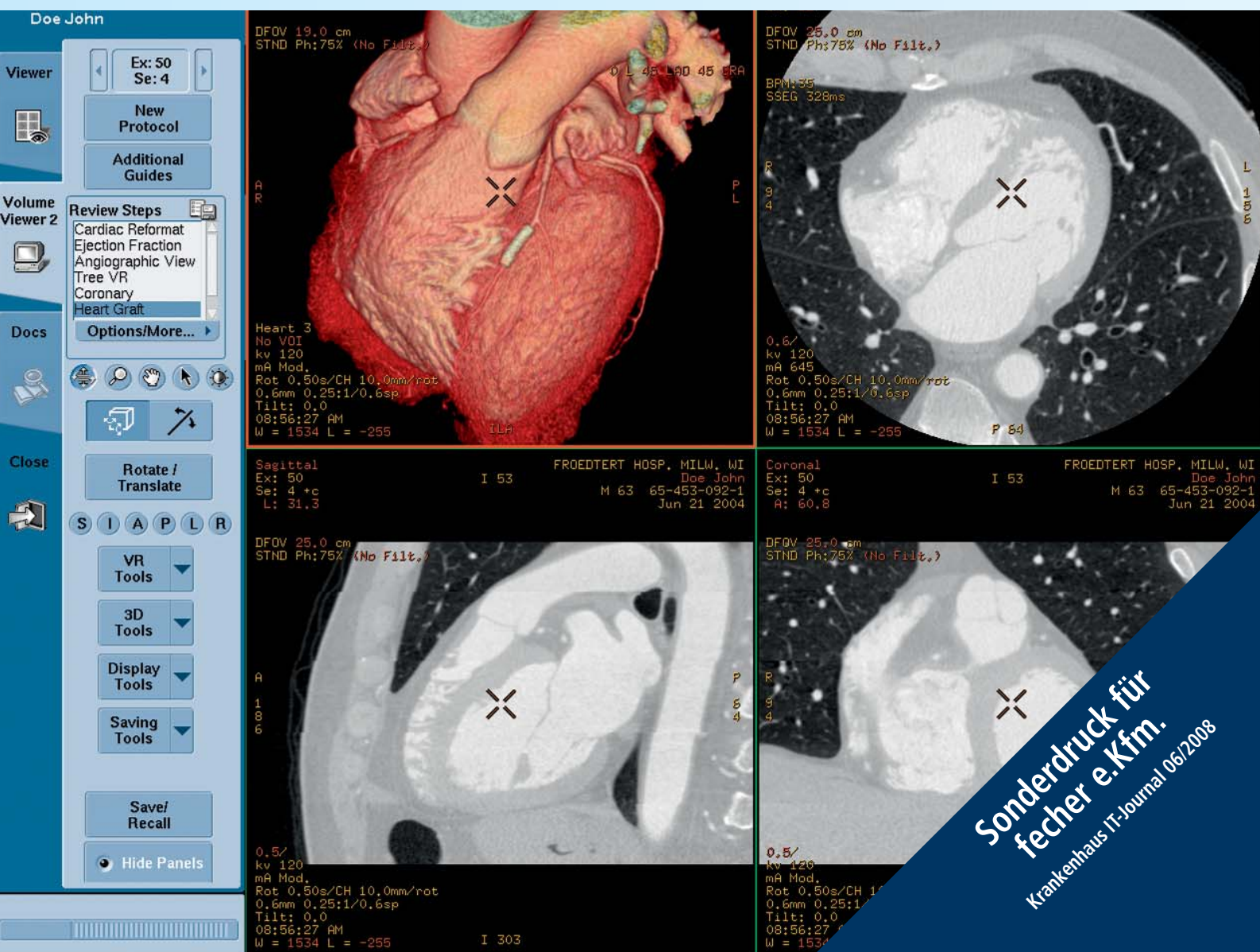# RIS PACS journal

Konzepte, Strategien, Lösungen

Das Medium für die Praxis

# GE Healthcare application migrated to .NET parallel to continuous further development

## Open heart operation: from Gupta to .NET

260 clinics with cardiology departments in Europe and Asia put their faith in the Centricity Carddas Xi[2] database system by GE Healthcare. Data management and PACS functions are provided for a total of approximately 5,000 users in a shared infrastructure for cardiology and radiology. In 2005 an internal decision was made to align the global IT strategy with .NET.

"The origins of our cardiology database system go back to 1992," says Program Manager GE Healthcare IT, Herbert Schelb. "The Gupta development technology used back then simply no longer had the capacity to meet the complex requirements of an increasingly consolidated health care system." Firstly he considered re-writing the application piece-by-piece with his team using .NET. "It would have taken too long until everything was up and running exactly as stable as it had been before", says Schelb. So at the end of 2005 he had a look on the market for the respective porting options. Finally he settled on the tool-supported service, 'The Porting Project', from the consulting and software house, fecher.

### The application goes under the knife

"First of all we decided to bring the front end to .NET, because we wanted to keep the project costs low, and also run as low a risk as possible," says Schelb. The various examination instruments had already been developed for the most part in C++ over the course of the years. In November 2006 GE Healthcare gave the go-ahead for the porting, after that the code preparation was begun internally. The complex front end application was broken down into individual modules with partitioning. This allowed quick porting and swapping of modules. Of the eight developers, who should care about the further development for the next release parallel to the porting project, the Program Manager had selected one especially for the porting project.

In May 2007 the code for the automated porting with the Ice Porter tool was handed over to the service provider.

### Operation is a complete success

In only four weeks fecher converted 600 windows, 35,000 controls, 800 classes and more than 200 Report Builder reports into C# code and Crystal reports. New features that had been developed back in Gupta were ported straightaway. After the code freeze, the GE Healthcare developers programmed some more features in .NET. In addition to an in-house tester, they also continuously tested the quality of the code. "Compared with the actual porting, the test phase was relatively long, partly because we also had to readjust", explains Schelb. "This was already clear to some degree in the preliminary stage. We had completely exhausted Gupta's options, and used some functionalities other developers hardly ever use."

In April 2008, GE Healthcare proceeded to the final approval of the ported code. "The entire project was an absolute success," sums up Program Manager Schelb. "In the new Centricity Carddas version we were able to very easily integrate a solution for presenting statistics in graphic form. The interfaces generated with skinning are also much more consistent than they were with Gupta." The .NET Remoting technology in particular provides extensive support for further development: "Since the code was approved, we have been able to implement significant architecture improvements," says Schelb, who is now part of a large community because of the porting, and can use its synergy effects accordingly.



Herbert Schelb, Program Manager GE Healthcare IT: "We have implemented significant architecture improvements since the code approval."