



CASE STUDY



JRMC Extends the Life of Its EMR System with RasterMaster

With a patient base of approximately 280,000 spanning 11 counties, Jefferson Regional Medical Center (JRMC) is the fourth largest medical center in Arkansas. The center's staff of 150 physicians represent all major specialties, and JRMC offers teaching programs for medical students, residents, and students in allied health fields. As a community-owned, not-for-profit health care provider, JRMC is dedicated to providing excellence in health care services in a cost-effective way to fulfill the needs of its patients, physicians, employers, employees and the community.

OVERVIEW

JRMC's Information Systems (IS) department maintains all the equipment and software within its facility. The center uses multiple applications including Eclipsys' Sunrise Clinical Manager™, a computerized physician order entry (CPOE) solution for clinical documentation within all the areas of the hospital, and Cerner's Dynamic Vision, an electronic medical record system (EMR). Internally dubbed DOC VIEW, the EMR also serves as the main documentation entry point.

"We'd been running without support on the EMR product for approximately three years so there were limited options for enhancing the product to meet our ever-changing needs," Patrick Neece, JRMC's Chief Information Officer, recalls. "This component plays a critical role in providing our clinical staff with electronic access to patient charts and other important data."

The EMR makes it easy for hospital staff to access details on any previous visits, including scanned and imported images, but without support, the existing system had limitations. With no new releases, updates, or functionality coming that would provide enhancements for clinical and administrative users, Neece and his team couldn't do anything more with it.

CHALLENGES

"I began researching image viewers for the ability to open MO:DCA-formatted documents, specifically our MO:DCA images," he says. "Although everyone who still runs the iSeries box that uses this old format definitely needs MO:DCA viewing capability, this is not a file format you find supported by many image viewers."

Neece evaluated several image viewers before finding the perfect fit for their needs. "When I found RasterMaster, I knew I had come to the right place because it gave me all of the image tools I needed to pull up, view, split, and modify images in a multitude of formats, including MO:DCA."

Initially, Neece had planned to rewrite the front end of Dynamic Vision to create a custom front-end viewer from the ground up. But the RasterMaster SDK provided robust image-viewing functions, making that step unnecessary. The TWAIN interface proved to be an additional benefit because it allowed the IS team to redistribute scanning workloads from medical records to other areas of the hospital.

"RasterMaster kept me from having to write all the bits and pieces to that viewer," he says. "It provides the ability to zoom in and out on an image, annotate, and create various formats, if users want to scan in images."

Operating with a small staff and tight budget, Neece didn't have a lot of resources or time to spend on developing new DOC VIEW features. The RasterMaster team streamlined the development process by providing components that could be incorporated into the application code to extend the life of the EMR system.

"Viewing was a key piece of this process," Neece says. "The RasterMaster SDK gave me image viewing capabilities so I could rewrite the code. All the tools were really easy to work with. I didn't have to spend a lot of time up front learning their codes. They provided working examples that got me up to speed quickly, without needing classes or training."



The RasterMaster SDK was one of the components that allowed us to extend the life of a sunset product, instead of purchasing a new EMR, which would cost us over a million dollars plus the expense and challenge of implementation and training."

PATRICK NEECE,
CHIEF INFORMATION OFFICER, JRMC



RESULTS



Before adding RasterMaster's viewing component to view an in-house patient chart, a clinician using JRMC's Eclipsys CPOE system would have to go through 4-5 steps to access the external EMR to view patient history account. This updated system allows clinicians to reach a patient account and even print documents with a single click over the hospital's wireless network.

"It's a seamless process for the end user now," Neece says. "They really don't know they're leaving one system and going to another. Our physicians love the simplicity."

The customizable viewer enables clinicians to view, create, and store any MO:DCA-formatted document, whether it's a picture from a camera, a scanned image, or electronic file. Thanks to RasterMaster's robust file support, no code needs to be modified or changed to view MO:DCA documents.

"RasterMaster makes up a small component of our entire IT system," Neece says, "but it helped simplify how users access, view, and utilize documents throughout the hospital. And when you consider the volume of images viewed daily, which can number in the hundred thousand range, that's a noteworthy contribution."

Incorporating RasterMaster's powerful imaging capabilities into DOC VIEW enabled the hospital to extend the life of its EMR system. "There was very limited implementation and DOC VIEW required very little user training, which we boiled down to a simple, one page document," Neece notes. "The RasterMaster SDK was one of the components that allowed us to extend the life of a sunset product, instead of purchasing a new EMR, which would cost us over a million dollars plus the expense and challenge of implementation and training."

ABOUT JEFFERSON REGIONAL MEDICAL CENTER (JRMC)

Jefferson Hospital Association, Inc. is a 501(c)(3), not-for-profit organization incorporated in the State of Arkansas. Jefferson Hospital Association's primary purpose is to provide healthcare to the citizens of Southeast Arkansas. Jefferson Regional Medical Center, the only general acute care hospital in Jefferson County, is licensed for 300 beds. Jefferson Regional serves residents of an 11 county area that includes Jefferson, Cleveland and Lincoln counties (primary service area) and Arkansas, Ashley, Bradley, Chicot, Dallas, Desha, Drew and Grant counties (secondary service area). It is estimated that approximately 65 percent of Jefferson Regional's patients originate from its primary service area with 35 percent originating from the secondary service area.

For more information, please visit www.jrhc.org.

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