



## Mercy Healthcare North Sacramento, California

### Seagull Software Helps Mercy Healthcare North Breathe New Life into Their Hospital Information System

In hospitals, lives are on the line. So fast access to accurate patient and hospital occupancy information is essential. This critical data typically resides in hospital information systems, which serve as the nerve center of most core hospital operations.

Mercy Healthcare North's clinical information system, Patient Clinical Windows (PCW), which runs on an iSeries, presented users with a labyrinth of complex green screens that were difficult to learn and navigate. Mercy wanted to enhance their clinical information system to improve efficiency, increase accuracy and better serve their patients. And they wanted the option of providing doctors with the capability to access and update patient records remotely. "Doctors wanted an easier way to access lab results and patient data quickly. Because of the environment we work in, we needed a solution that was seamless and fast. And it needed to be as intuitive as possible," said Rick Putnam, applications development specialist for Perot Systems.

Mercy selected Seagull Software's J Walk® technology, a component of LegaSuite®, to reface their green screens with a graphical user interface (GUI) interface and provide medical professionals with remote access to the iSeries system. J Walk provides industry-leading developer tools and infrastructure for Web-to-host and Windows-to-host access to iSeries back-office applications. J Walk offers a dynamic development and deployment environment that empowers users to deploy iSeries applications to Windows, Java and HTML environments in a single work effort.

#### Intuitive View of Patient Information

With J Walk, Mercy gave their PCW system a new, simplified GUI, complete with easy-to-navigate, organized screens that use customized tabs and buttons as opposed to numerous, difficult-to-remember function keys. J Walk allowed Mercy to unify the view of the system for all users. "Previously, when entering or receiving patient data, doctors, nurses and other hospital employees had different views of patient information, which caused inconsistencies. Now we have a common look and feel. We used the GUI to standardize access for all users, and we did it without losing any of the functionality," said Robert Duvoisin, emergency

*Mercy Healthcare North is a division of Catholic Healthcare West. Mercy includes three hospitals: Mercy Medical Center Redding, St. Elizabeth Community Hospital in Red Bluff and Mercy Medical Center Mt. Shasta. All three hospitals are sponsored by the Sisters of Mercy of Auburn, and work together closely to assure that Northern California residents have access to advanced technology and specialty physician services.*

physician and medical director of information management for Mercy Healthcare North. Now, when viewing patient records, doctors are presented with an on-screen medical chart that mirrors the look of the traditional paper charts that they're accustomed to. "The key is that we were able to arrange the patient data so that it looks like a medical chart. Doctors can click on tabs to access detailed information such as lab results, medications and notes. Because it looks like a chart, it's very intuitive for our doctors, so it was easy to learn," said Duvoisin.

### New Touch-Screen Interface

With a large 24-bed Emergency Room (ER) that serves all of Northern California, Mercy's emergency room personnel need immediate access to patient information. Using J Walk, Mercy constructed a new touch-screen interface in the ER—a critical tool that helps Mercy's medical professionals effectively and efficiently monitor the status of patients. "The ER is very hectic and busy. The touch-screens allow our medical workers to look up and input data quickly," Duvoisin said. The organized GUI screens contain color-coded text that indicates patient status and the results of labs and X-rays, allowing medical personnel to gather a significant amount of information just by glancing at one screen.

When patients enter the ER at Mercy, they are tracked in the new system all the way from admission to discharge. With J Walk, the application now presents doctors and nurses with a simplified view of each patient and the status of the bed availability in the ER. "With the old green screens, we had trouble tracking how many patients were in the ER and how many were waiting to get in. Sometimes we'd have five or six people waiting for a bed. We need to know exactly what the occupancy is at all times, so we can divert people to other hospitals if we're full," said Duvoisin. "The GUI interface that we built with J Walk helps us effectively manage the ER and monitor status. It's an important tool that has been very helpful for us."

### Remote Access Delivers New Efficiencies

Mercy has also launched a remote access initiative for physicians who work in off-site offices. Through J Walk, doctors connect to the iSeries system to gain access to patient clinical data and lab results. They tap into the same GUI application that is used in-house, and view it in a Web browser. They are in early deployment of remote access and so far, one of the doctor's offices has experienced a significant improvement in efficiency. "One of the off-site locations has saved about 25 percent in clerical time for labs, transcription and physician orders," said Duvoisin.

Using J Walk's scripting capabilities, Mercy custom-built an electronic signature feature for their Radiology Department. This allows doctors to electronically sign their transcribed reports, which are time-critical, since treatment cannot progress any further until the reports are signed by the doctors. "It eliminates the backlog of hardcopy reports for the physicians and the medical records department. It's a dramatic time-savings. We're planning on making the feature available to other departments," Putnam said.

Mercy chose J Walk because it is easily customizable, fast and backed by a solid support team. "We looked at Visual RPG and were unsatisfied with the speed and the effort required to develop applications. When J Walk was shown to me, I was excited by day one. And the Seagull Software consultants have been excellent. They've given us new concepts and new ideas as to how we can further develop things, like our remote access capability," said Duvoisin.

#### Business Drivers:

- Provide medical professionals remote access to iSeries system
- Replace green screens with a more intuitive, easier-to-use GUI
- Provide a unified view of the application to all users

#### Results:

- ER staff can access and input patient data quickly via a comprehensive touch-screen GUI
- Remote Web access to technical data has accelerated productivity - 25 percent efficiency improvement reported in one off-site office
- Custom-built electronic signature feature which eliminates paper backlog

Mercy has experienced significant benefits since deploying J Walk. The reaction from hospital employees has been positive, as they are able to complete their jobs faster with the new GUI interface. "The new users really like the GUI interface. It's so much simpler for them to use," Putnam commented. And Mercy has been able to keep their IT budget to a minimum, avoiding the need to waste resources on teams of programmers. "We've been able to take a programmer that knows the green screens and a doctor who knows the clinical part, and between the two of us, we can pretty much do anything the hospital needs us to do. We haven't found anything that we can't do," said Duvoisin. "The bang for the buck is tremendous. The ER is living proof—it's been running well after four years and has never had any downtime. It's been a stable product that's simple to maintain," Duvoisin continued.

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*Robert Duvoisin  
Medical Director of Information Management  
Mercy Healthcare North*



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Every day, millions of end users depend on LegaSuite for online banking, relocation services, e-government, insurance claims processing, cable/utility/telecom call centers, kiosk bill payment, online order processing and many other important business processes.

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