



Helping hands support worldwide relief efforts

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**-Kelvin Burton,
Computer Department
Manager, Mercy Ships**

Few relief efforts are as ambitious as the one undertaken by Mercy Ships as it deploys a fleet of four ships around the world to provide medical assistance, relief, and educational and community support in developing nations.

“We are a very distributed organization, with 15 offices worldwide and more than 550 long-term and thousands of short-term volunteers from at least 40 nations,” says Mercy Ships computer department manager Kelvin Burton. “Each ship is like a floating city. It has all of the needs of a city, including individuals wanting their own e-mail service. We require a massive tracking system to keep tabs on all of the people, supplies, and donors that we work with on a regular basis.”

To assure its control of these far-flung resources while reducing costs and enhancing communications, Mercy Ships upgraded its existing Informix® 4GL software-based donor/volunteer database to a Java platform, making it easier to use across the Internet. The organization, a nonprofit group based in Garden Valley, Texas, selected Artinsoft’s Freedom service, which highly automated

the migration. To assure continuing maximum capability as part of this migration, Mercy Ships also upgraded from Informix Dynamic Server™ 7.3 to the new Informix Internet Foundation.2000™ solution.

Managing resources worldwide

The relief group does most of its work with a volunteer brigade of doctors, nurses, and staffers who come to Mercy Ships with a list of skills and needs as diverse as their nationalities.

“Our single biggest challenge is managing human resources,” says Burton. “We receive more than 300 applications a month from people who want to work with us. Their applications must be reviewed at headquarters and at the locales where the volunteers ultimately would be working. And we have to present their qualifications to officials in host countries.

“We may have a volunteer in Seoul, but that information has to be reviewed in Texas, and also, perhaps, in Africa, where the volunteer may be serving. So we must be able to

CHALLENGES

- Migrate massive donor, volunteer and supply 4GL systems to a Java platform quickly and efficiently
- Extend the investment in an Informix database without major disruption or cost to operations
- Reduce the cost of client-side maintenance and hardware
- Increase the scope of the Informix database to accommodate multiple languages

SOLUTION

- Upgrade to Informix Foundation.2000 to improve Internet data management and multilanguage capability
- Transfer investment from existing Informix 4GL programming application to Java
- Employ Artinsoft Freedom software for fast, cost-effective source-code-to-source-code migration

BENEFITS

- Eases communication across the Internet, using new Java capability
- Saves two years in development time while reducing hardware and maintenance costs
- Provides multilingual support and data synchronization among 15 worldwide offices
- Allows control of and easy access to large volumes of volunteer and donor data
- Assures scalability for growth while leveraging investment in Informix database solution

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Computer Department
Manager, Mercy Ships**

transmit the data and include it in a database that supports all languages, including Asian languages.”

Neither leading-edge technology nor Informix solutions are new to Mercy Ships. It has had an Informix 4GL software-based solution in place for more than six years. In fact, Mercy Ships was the recipient of the prestigious Smithsonian Award for the best societal use of information technology, thanks to its earlier Informix database solution.

Mercy Ships has been providing remote access to its database for three years, using a browser-based application the organization developed using Informix 4GL programming language and CGI. Because transaction processing on the Internet has been unpredictable, Mercy Ships wants to steer toward replication of data and local database images and away from maintaining two versions of the system. Java promises a single solution for local and remote access.

Key decision

Rod MacKenzie-Shannon, Artinsoft's director of services, notes a key decision-point for Mercy Ships: “Every organization reaches the place where they have to take their database system up to the next level. Before now they would have had to completely rewrite the system. Now they have the choice to take what they have and move forward. Mercy Ships chose the latter.”

Burton adds, “We have a tremendous investment in our Informix 4GL system and we didn't want to sacrifice that investment when we upgraded to Java.”

Through the gratis assistance of Informix and its London-based partner Artinsoft, Mercy Ships is now building a powerful, Web-enabled database management system that allows Mercy Ship to meet its goals more efficiently. Mercy Ships' solution was to upgrade to Foundation.2000 for enhanced Java and Unicode support, and Borland JBuilder 3, running under a SuSE Linux 6.3 operating system on Compaq Proliant hardware.

Freedom eases upgrade

Artinsoft's Freedom technology offers cost-efficient, rapid, source-code-to-source-code and database migrations, allowing mission-critical enterprises to extend the life of their existing systems, reduce operating costs and take full advantage of the Java programming environment.

Foundation.2000 also played a key role in Burton's decision. Because of J/Foundation™, a main feature within Foundation.2000, companies like Mercy Ships now have the flexibility to run data-intensive business logic directly inside the database. J/Foundation provides a completely standard Java environment that enables users to deploy Java applications across all tiers, facilitating Internet application development and deployment.

"Java is important to us because we are very thin on support staff," explains Burton. "We don't have computer people around the world, and we can't afford to update and maintain client applications on site. We need to retain as much data on the server as possible to keep maintenance costs down.

"With only one programmer on contract, if we had to tackle the Java migration on our own, we would have been rewriting from scratch and it would have taken us two years. This migration has taken only a few months and it's gone very smoothly."

Burton also banks on Informix's technical assistance. "I am very pleased with the assistance we've received from Informix. Ours is a very complex operation with a global scope. We needed answers, and if the people at Informix couldn't provide an answer, they worked hard to get us an answer quickly," he says.

Smooth sailing in nine languages

The Artinsoft and Informix solutions make it possible to track donors more precisely and to track gift-in-kind contributions more efficiently and at lower costs than before. And with Foundation.2000, along with the Unicode DataBlade® module, Mercy Ships personnel can make data available in the nine primary languages that Mercy Ships' personnel deal with every day.

As a result of the 4GL-to-Java migration, Mercy Ships workers can now quickly and easily track more than half a million donors worldwide. This has improved the organization's fundraising activities, allowing workers to consolidate donor data for better targeting and analysis. It has also helped Mercy Ships cut costs, which is always critical for a non-profit organization, says Burton.

Gaining the Java edge

Burton says the organization can now take advantage of the inherent benefits of the Java platform: "In addition to cutting costs, Java gives us the ability to re-architect our applications much more readily, including more efficient distribution of middleware and driving Java into the engine to optimize transaction performance.

"Not only are we completing the project with impressive speed, but the quality of the Java Artinsoft product allows us to deploy the new system very easily. And best of all, we have the ability to stage the migration in phases without changing anything in the existing database. That is really important to us because it makes the migration virtually a nonevent."

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INFORMIX PRODUCTS

Informix Internet
Foundation.2000

SOFTWARE

Borland JBuilder 3
SuSE Linux 6.3 OS

PARTNER PRODUCTS

Artinsoft Freedom

HARDWARE

Compaq Proliant Hardware

Mercy Ships is now moving ahead with plans to upgrade its global volunteer database, all in a single database known internally as PartnerShip. But best of all, Burton says, they can integrate all of the applications into one Informix database, without worrying about scalability. "Plus," adds Burton, "the ability to utilize [Foundation.2000] is enabling us to a rise to a level that we didn't think possible."

With the Java database system in place, Mercy Ships can now pursue its strategic objective to triple its global operations in the coming years and significantly increase the number of countries from which volunteers and donations are sought.

Ultimately, Mercy Ships hopes to extend the system to communicate with ships while they are at sea. Burton also looks forward to using the Informix-based Java solution to enhance its video database, helping to track and log all the footage taken on Mercy ships and in local hospitals. The video is used for training and promotional purposes.

And that means that Mercy Ships can take its mission to more people in more countries than ever before.

About Informix

Informix Software is the technology leader in software infrastructure and solutions for the Internet. Informix brings a focused set of products and services that integrate e-business and business intelligence on an Internet infrastructure. The Company's highly scalable database engines, in addition to its business intelligence, content management and e-commerce solutions, enable customers to succeed in the new economy. For more information, contact the nearest sales office or visit the Web site at www.informix.com.



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