International Rectifier Manages Worldwide Communications with Robot/ALERT

"During the course of a single workday, my BlackBerry typically pages me 200 to 300 times. Most of these messages are informational. They tell me things like files have arrived and are ready to be processed. Sometimes they tell me there is trouble on a partition of a [IBM[®]] System i[®]," says Roger Crawford, Global Operations Manager of International Rectifier. This constant flow of information is key to how he manages a worldwide operation with a staff of four from company headquarters in El Segundo, California.

International Rectifier delivers power semi-conductor technologies to a host of industries, including automotive, consumer, computer/peripheral, industrial, lighting, telecom, and government/space. Their products are incorporated in the space shuttle, the Mars rovers, cars, refrigerators, washing machines—you name it. If the product uses electricity, there's a good chance there is an IR part in it somewhere. Founded in 1947, IR annual revenues top \$1 billion. They have operations in 20 countries with 4,500 employees.

In the early 1990s, International Rectifier shifted from a mainframe environment to the AS/400. As Roger explains, "When we went to the AS/400, we got Robot/SCHEDULE[®] [the job scheduling software from Help/Systems], and then we got Robot/ALERT[®] [the event notification software]."

Today: Consolidated, multi-partitioned, mirrored systems

Roger describes their current setup like this, "We recently consolidated all of our AS/400s worldwide to two systems at

corporate headquarters. Each country where we have a manufacturing facility has its own partition. In addition, we have one partition for the Internet and production. So now everything runs on two 570s, each with six partitions. We mirror every object from one 570 to the other for high availability using Mimix [from

Vision Solutions]. The second 570, located in Mesa, Arizona, is our tested and true DR [disaster recovery] box."

Suhas Narayan, Systems Operations Manager continues, "We use the Robot products to monitor the Mimix environment. Every half hour, a Robot/SCHEDULE job runs and tells us if there are problems like a file that is out of sync,

or an error, so we are being really proactive. We tested it earlier, and it has become even more valuable with six partitions.

"Our core business application is the ERP program MAC-PAC [from Arthur Andersen]. It interfaces with our manufacturing systems so that we can give them vital information about inventory movement, manufacturing components, and "During the course of a single workday, my BlackBerry typically pages me 200 to 300 times."

all that. In a manufacturing environment like ours, there are a lot of batch processes and a lot of interactive processes that need to be run 24/7.

"Our EDI processes have to be available all the time, too, because we operate globally. We use Robot/ALERT and Robot/CONSOLE[®] [the message management and resource monitoring software] to monitor our systems for anything that has failed, for various events, and to make sure things happen within their time limits."

Timeliness is critical

Roger and Suhas use Robot/ALERT a number of different ways. For example, according to Roger, "We have Robot/ALERT set up on all the partitions. If a Robot/SCHEDULE job terminates, Suhas and I are paged. If a critical job is supposed to run at 10:00 a.m. and it has not started by 10:05 a.m., we get paged.

"We also use the paging to be proactive. Being proactive is more than fixing something after it terminates. For instance, we get billings, bookings, and backlogs at the end of the business day from each location, and we consolidate this information into a global file in the U.S. If any one of those files doesn't get here, we get paged that the file is not here and we find out why. Knowing that files are where they need to be, when they need to be there, helps us the most."

Suhas continues, "The last 15 days of our revenue period are critical. Our supply people need to know when certain jobs complete for their planning. We have it set up that when the Robot/SCHEDULE job completes, Robot/ALERT e-mails them to let them know. When they get that message, they can decide what needs to be sold and what can be paid before the end of the period. Suhas continues, "We also use Robot/ALERT with Robot/REPORTS[®] [the report management software]. Robot/REPORTS creates PDF files of our daily closing reports, our month-end reports, and so on. Robot/ALERT e-mails them to different areas, such as finance, as attachments."

The role of Robot/CONSOLE

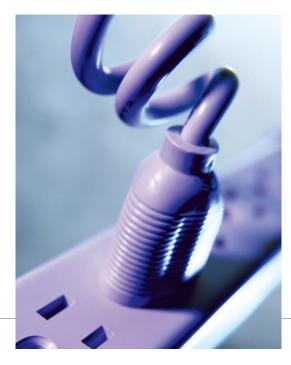
Although Robot/ALERT delivers the messages, the source of many messages is Robot/CONSOLE. Roger explains, "We have Robot/CONSOLE set up to monitor CPU usage so we can spot looping jobs before they bring the system down. We also have it page us when there are more than ten jobs in a job queue. That usually means that a job is running longer than it should and everything else is backing up behind it. When we get notified, we can figure out what is going on."

Suhas comments, "We also use it to monitor QSYSOPR, other message queues, and FTP. By monitoring FTP exits, we can tell when a file transmission fails. Robot/ALERT sends the user a message that the file did not go, or that information may not have been updated, and asks them to verify. So, they call and check. This helps us troubleshoot applications ahead of time before the data goes bad and it is too late.

"Robot/CONSOLE pretty much manages the system. We use it to track system error messages, such as anything related to disk failure. Normally, we get a message even before the system dials in to IBM. That means we can start working on it before IBM calls us. We can figure out if it is a real problem or not. It gives us time to make good decisions."

"Something else we did to be proactive was create a monitor job that looks for all the jobs that are on hold and sends us a list. This helps us remove holds in a timely manner."

Roger adds, "Yeah, we've done that since the beginning with Robot/ALERT. In one case, we put a job on hold at month end and then forgot it. We figured out a way for Robot/ALERT to tell us, so it won't happen again."



Thinking back over his years from the mainframe world to his present setup, Roger comments, "We had an automated tool on the mainframe, but nothing like what Help/Systems produces. We have, I am guessing, ten third-party software applications that we run. The Robot products are the absolute best of all of them. Operations are ten times easier with everything automated."

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