

## Customer Success



## *BEZProphet Adds Power to Eliminate Problems for Power Supply Manufacturer*

**A major manufacturer of commercial and military power systems uses BEZProphet™ for Oracle® to analyze problematic trends, isolate and eliminate problems, and provide consistent performance in a highly automated manufacturing environment.**

### About the Business

The company designs, manufactures and markets modular power components and complete power systems used in the communications, data processing, industrial controls, test equipment, medical and defense electronic markets.

Engineers use the combined advantages of the company's components to create compact, highly functional, economical products with streamlined development cycles that minimize time to market.

Time to market is one of the company's competitive advantages and they rely heavily on technology and automation. According to Jennifer McComas, Manager of Computing Solutions, "Almost all of the manufacturing processes are robotically controlled." Oracle databases feed the robots automatically using in-house built computer-integrated manufacturing systems that download the work orders and other information to the robots on the manufacturing floor, and ultimately build the products. The company also has all back-end business systems in Oracle, including the ERP systems, incident tracking system, HR, and other basic back-end business systems.

Jennifer and her staff are responsible for the overall administration of this highly automated Oracle environment.

### Performance Issues in ERP System

Jennifer credits a member of her staff as being the one who brought BEZProphet to her attention after seeing a demo at an Oracle user group meeting. It was timely, because there were performance issues in their critical ERP systems. Although it's a third-party application, it is heavily customized for the company's unique requirements. The ERP system has a significant number of custom interfaces and provides ad hoc query access by certain users into the database. Jennifer pointed out that, "You can see how it would be a little more variable than your average ERP system." "We found that there were some spikes sometimes and also some more consistent periods of elevated activity since the middle of last summer that we didn't fully understand."

"We had tools that allowed us to go in and pinpoint activities when the problem was brought to our attention," said Jennifer. "We may have had alerts that indicated high resource utilization, but if it wasn't something that triggered an alert and the end-user was experiencing poor performance, then we really weren't able to capture what might have been going on at the time." They had no tools that captured historical Oracle performance data.

These problems were forcing Jennifer's team to be in *'react mode'* – a situation she really wanted to change. According to Jennifer, "We did not want our first warning that something might be wrong coming from the customer on the telephone." "That's just not right."

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Manager of Computing  
Solutions*

## BEZProphet Helps Find a Quick Solution

The team decided to install BEZProphet and use this problem as part of their overall evaluation. Almost immediately, they discovered that it was extremely easy to take the profiles that BEZProphet generates on an hourly basis against the ERP system, and very quickly drill-down into a point in time to find out what was going on, pinpoint the code that was being executed, and very quickly help the developers isolate and solve the problem.

They had seen some consistent growth over time with minor performance issues and more recently they were seeing some regular disk bottlenecks. And while they had some sporadic issues, there was definitely a trend going in the wrong direction with regard to CPU wait on I/O. So they used BEZProphet to drill-down into the times that were the heaviest and quickly found a common thread -- a batch job that had been copied, modified for different areas of the manufacturing floor, and proliferated to the point where at the beginning of the summer they were running about 150 iterations of this job a day, and it had increased, by September, to over 600. To make matters worse, the job was resource-intensive.

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They hadn't anticipated that this batch job would be an issue but it had grown not only in the frequency of the run times, but also in the number of them running concurrently, causing a significant amount of contention in the database and some serious I/O bottlenecks.

Jennifer stated that, “I think the brightest light in selling BEZProphet to us was that we were able to show, through this example, that we could very quickly and easily drill-down into a problem and assist the developers in solving it.”

“We saw between 10% and 20% reduction in CPU wait on I/O just in tuning that job, so that was certainly a win for us and ultimately a win for BEZProphet.”

## Moving Forward with BEZProphet

BEZProphet has clearly demonstrated value for Jennifer and her team based on the analysis features alone, although that's only a small part of its capabilities. According to Jennifer, “I think that while BEZProphet is really meant to be a prediction and capacity planning tool, and we look forward to further exercising it for those purposes, the big bang for the buck that we've received so far is certainly in the analysis and remediation of performance issues in our production environment.”

**Additional background:** -- This company also participated in a BEZ sponsored Early Adopters Program for BEZProphet. As part of this program, BEZ specialists were asked to evaluate three prediction scenarios on a company chosen server:

1. **Do Nothing.** This scenario applied growth factors for each workload over the next 18 months without any hardware change or upgrades.
2. **CPU Speed Upgrade.** This scenario applied workload growth factors along with an upgrade of the 8X450MHz CPU processors that exist in the server today to 8X750MHz CPU processors. This simulated a hardware change scheduled for Q2 2006.
3. **Hardware Swap Out.** This scenario applied growth factors for each workload along with a server change to a Compaq DL360 model server running 4X1.3GHz CPU processors, 4 GB of Memory and Red Hat v3 operating system. This simulated possible hardware change scheduled for Q2 2006.

A full report was provided to the company for evaluating the scheduled changes based on BEZProphet's technologically advanced predictive analysis capabilities.

## About BEZ Systems

Since 1993, BEZ Systems has been offering innovative solutions that provide a line-of-business workload view of application performance, resource and data utilization for today and tomorrow. These solutions include performance tuning, database performance optimization and capacity recommendations allowing DB Managers to accurately compare 'change and growth' alternatives and forecast future requirements. Future performance predictions are an invaluable component of justifying specific actions assuring that business objectives and performance goals can be met, thereby minimizing any shortfalls in service.

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