

# database

TRENDS AND APPLICATIONS

## Performance Optimization— Helping DBAs Extend the IT Infrastructure

As databases and applications become increasingly sophisticated, performance optimization has become increasingly vital. Current business conditions and IT budgets make it more difficult to “throw more hardware” at performance problems, so optimizing database and application performance has emerged as a way of extending investments and meeting business goals with existing IT infrastructure. Usually, both the application layer and the database layer of the software stack must be optimized for a process to run as efficiently as possible. Moreover, optimization techniques can be productively applied at different points throughout database administration practices. *DBTA* talked with **Greg Nerpouni**, Embarcadero Technologies’ senior product manager, to better understand how DBAs can best meet the new challenges for database performance optimization. Embarcadero offers a broad array of database and application development and administration tools, including performance optimization solutions.

### **Q: What has changed for performance optimization?**

**Nerpouni:** The size and complexity of databases throughout the enterprise are growing and changing so fast that DBAs are struggling to keep up with SLAs and other performance requirements. Mission-critical systems simply can’t go down. Shrinking IT resources and more M&A activity mean more DBAs often must manage DBMS platforms on which they are not fully trained. So IT organizations need to stretch or replicate the expertise of their DBAs and increase efficiency through automation. For instance, 24x7 monitoring tools such as Embarcadero Performance Center let DBAs set thresholds and alarms to monitor, and take corrective actions, in large complex environments even with different DBMS platforms. It is like having a 24x7 watchdog to warn them before a system is dragged to its knees or an outage occurs.

### **Q: Where else is performance optimization needed?**

**Nerpouni:** Developers can profile their database while stress-testing their SQL code and then tune poor-performing SQL. Doing this early and often reduces the chance of inefficient code entering your production environment. Arming the quality assurance team with database profiling capabilities allows them to collect useful information during load testing that can be used for quick resolution if they find SQL that causes performance problems.

### **Q: So performance optimization really spans the IT organization.**

**Nerpouni:** Performance optimization has a collaborative aspect and a productivity aspect. Development and QA teams can work together to reduce development lifecycles, and DBAs can work harmoniously with developers by sharing database snapshots that pinpoint bottlenecks to solve performance issues quickly. From a productivity standpoint, nobody wants to waste cycles chasing phantom issues. SQL profiling helps identify the top SQL statements that, if corrected, will return the greatest performance improvements. The idea is to be specific where you focus your attention—efficiency is a key to productivity and maximizing your IT resources and systems.

### **Q: What optimization tools does Embarcadero offer?**

**Nerpouni:** Embarcadero offers tools for database optimization, monitoring, and administration. We offer DB Optimizer for SQL profiling and tuning, and Performance Center for 24x7 database monitoring. Of course, we also offer DBArtisan, arguably the industry’s most respected cross-platform database administration tool. All of these products are complementary. And while optimization tools may not be needed on a daily basis, when you need them, you need them

## Performance Optimization—Helping DBAs Extend the IT Infrastructure

immediately or you risk wasting time manually hunting down problems or researching tools while the performance issues persist. The costs for these delays add up. Moreover, optimization tools should complement your development and database administration tools to streamline work cycles so DBAs can focus their efforts on business needs not putting out fires. Significantly, Embarcadero's database tools support all major DBMS platforms, so DBAs can manage, monitor, and optimize heterogeneous database environments from a single interface.

**Q: With tight budgets, how can people afford all these tools?**

**Nerpouni:** A better question may be, "how can you afford not to have optimization tools?" The tools are very cost-effectively priced. And

Embarcadero's All-Access bundles all of Embarcadero's tools into a single, cost-effective "tool chest." For larger organizations, All-Access offers cost-saving advantages with centralized licensing administration and other benefits.

**Q: How many tools are included?**

**Nerpouni:** Basically, the entire Embarcadero product portfolio. And with Embarcadero® Instant-On™ Technology, you click-and-run most of these tools on-demand, locally or over the network. Consequently, staff spends less time on software installation and license management and more time doing their work. All-Access reduces the TCO for the tools organizations need to maximize staff productivity and keep critical systems running with optimum performance and reliability. ■

### CONTACT INFORMATION



**EMBARCADERO  
TECHNOLOGIES.**

**Embarcadero  
Technologies, Inc.**

**100 California Street,  
12th Floor**

**San Francisco, CA 94111**

**Phone: 415-834-3131**

**Fax: 415-434-1721**

**Email:  
info@embarcadero.com**

**www.embarcadero.com**