



## Toad® for Oracle Xpert Reduces SQL Query Time for Ithaca College From 10 Minutes to 0.09 Seconds

Founded in 1892, Ithaca College is a private, coeducational college with more than 6,000 undergraduate and graduate students. The college offers over 100 programs of study, in business, communications, health sciences and human performance, humanities and sciences, music, and interdisciplinary studies.

When Ithaca College needed help tuning its high-performance applications running on Oracle 10g, it upgraded a trusted tool, Toad® for Oracle Professional, to Toad for Oracle Xpert.

### The Challenge

Ithaca College's IT department provides programming and technical support for a large variety of packaged and custom software. IT staffers are long-time users of Toad for Oracle Professional, and had come to rely on it extensively. "We have used Toad for five years and it is the cornerstone of our development environment," explained Wendy Penfold, a senior member of the programming staff at Ithaca College. "Prior to Toad, we used a combination of different products (including SQL Plus, SQL Navigator, Microsoft Visual Studio, Microsoft Access and others) to work with data and objects in the Oracle databases—it was very confusing. Toad streamlined the whole process. Now I can do almost all my database work in Toad."

However, the number of high-performance applications that the IT department needed to support was increasing. For instance, students register for courses and select housing over the Web. Because the competition for spaces in classes and dorm rooms is intense, those applications must support a very high volume of activity for brief periods. Therefore, the IT staff needed a tool to help them tune those applications for maximum performance.

### The Quest Solution

At first, the IT staff struggled to tune the applications with using a more manual process, but this approach created challenges. "This turned out to be a very time-consuming process, with a lot of research, guesswork and trial and error involved," Penfold explained. "The manual process involved some experimentation and since it was so time-consuming it was only performed on high-performance applications or SQL statements that were painfully slow." Penfold added, "With the manual tuning method, the best I could hope to improve performance by was 20-30 percent."

Then Ithaca College learned about Quest SQL Optimizer for Oracle, which is included in the Xpert edition of Toad for Oracle, and arranged a trial. Impressed with the results, the college upgraded from the Professional edition of Toad to the Xpert edition.

Toad for Oracle is a robust tool for database development and administration that enables Ithaca College to perform daily tasks efficiently and accurately. It has grown over the past 10 years into the most advanced and widely used tool of its kind. Toad helps IT staff create, debug, tune and test PL/SQL code and applications, and it simplifies database maintenance and troubleshooting.

Toad for Oracle Xpert includes Quest SQL Optimizer for Oracle, which analyzes SQL, identifies potential performance issues, and provides the college with the top-performing SQL alternative. IT staff can analyze and compare execution plans for multiple SQL statements in different database environments to proactively identify SQL performance variations and potential performance degradation.

### Overview

*"We recently upgraded from Toad for Oracle Professional to Toad for Oracle Xpert, which includes the SQL Optimizer. It was amazing. It reduced the time for tuning SQL statements from hours or days, to minutes. We had complex queries executed across database links that were taking an unacceptable 10 minutes, and with SQL Optimizer we were able to reduce it to .09 seconds."*

— Wendy Penfold,  
Programmer Analyst  
Ithaca College



### Headquarters

Ithaca, NY

### Services

Post-secondary education

### Critical Needs

To tune high-demand SQL applications for maximum performance.

### Solution

Toad for Oracle Xpert

### Results

- Improved SQL query performance from hours or days to minutes or seconds
- Improved IT efficiency by streamlining database-related tasks into a single tool
- Reduced time to locate and correct errors and debug code

## The Bottom Line

IT staffers at Ithaca College are delighted with Quest SQL Optimizer for Oracle. "It was amazing," reported Penfold. "It reduced the time for tuning SQL statements from hours or days, to minutes. And it's unlikely that we could have found the fastest alternative using a manual tuning process. We had complex queries executed across database links that were taking an unacceptable 10 minutes, and with SQL Optimizer we were able to reduce it to .09 seconds. In fact, we can tune more frequently and do other work while the optimizer is running. I also learn how to write better SQL by looking at the changes made by SQL Optimizer."

Penfold reported that this particular SQL runs every day and that this performance improvement can be verified on a consistent basis. The advantages of using Quest SQL Optimizer for Oracle supplement the benefits Ithaca College reaps from core Toad for Oracle tool. "Toad has an abundance of features that help us be more productive," said Penfold.

For example, the college has a number of production Oracle databases, and several test instances for each production database. Toad makes managing those databases much easier. "With Toad I can connect to multiple databases and move data and objects easily between them," explained Penfold, "Creating new objects is a snap."

Toad also makes managing multiple software versions easy by finding differences between objects in different databases.

Lastly, Toad helps Ithaca College immensely with troubleshooting. "When I need to track down data problems, Toad's table grids and filter capabilities help me quickly find and fix errors," said Penfold. "Toad's PL/SQL debugger is also awesome—it allows me to step through code, change variable values, and quickly identify and correct problems."

## About Ithaca College

Founded as the Ithaca Conservatory of Music in 1892, Ithaca College has grown into a private, coeducational college serving more than 6,000 undergraduate and graduate students. Ithaca College provides a rigorous education that blends liberal arts and professional programs of study, including business, communications, health sciences and human performance, humanities and sciences, music, and interdisciplinary studies. For more information, visit [www.ithaca.edu](http://www.ithaca.edu).

## About Quest Software, Inc.

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