

# Success Story



Embarcadero®  
DB Change Manager™

## ORGANIZATION

DBA Consulting

## APPLICATION

Retail HQPM Pricing  
Application and Database

## TOOLS

DB Change Manager

## CHALLENGES

- Leapfrog application upgrade path from v3 to v6
- Application was heavily customized
- Upgrade the underlying Oracle 8i to 10g

## RESULTS

- Retain valuable packaged application customizations
- Simplified and accelerated database migrations
- Reduced project timeline and costs

**“DB Change Manager reduced our HQPM application and database upgrade project by eight weeks and saved hundreds of thousands of dollars in man hours.”**

– Cristian Speranta, Principle, DBA Consulting Inc.

DBA Consulting is a Los Angeles-based consultancy that specializes primarily in Oracle, systems architecture and design, VMware virtualization solutions, design and implementation, installations and upgrades of ERP-based software solutions for Peoplesoft HR, Financials, and CRM systems.

## CHALLENGE

A large West Coast warehouse grocery store chain with an annual revenue of \$2B needed to upgrade their HQPM pricing application after acquiring another large grocery chain. The acquired company used a pricing system which had been heavily customized and ran on the Oracle database platform. Their production version was 3.x and they had not upgraded their system for many years, but were still actively using it on a daily basis. They would have to leapfrog two versions just to get up to date with the latest version: 6.x.

A successful upgrade required retaining the customizations critical to current business processes and preserve extensive IP and business logic. Plus there was a sense of urgency due to the fact that the HQMP vendor had declared that support was no longer available for the 3.x version. Adding to the complexity, they also had to migrate the underlying database from an earlier version of Oracle to the latest release: Oracle 10.2g.

## SOLUTION

In order to maintain performance and availability of the legacy system during the upgrade and migration process, DBA Consulting created an environment that replicated the customized legacy system and a vanilla version of the new system, allowing them to strip out and preserve

the customizations and integrate them back into the target system for testing. But the problem grew in complexity as parallel branches of development sprouted out of necessity, and the consultants were faced with supporting several versions of the system at different stages of development.

The upgrade team used DB Change Manager to compare the various database environments to pull out all the salient information for the steps required, i.e., new objects, dropped objects, differences of all relevant database objects and then generate the necessary DDL. Generally this type of project would take months to identify the database changes alone. However, with DB Change Manager, the upgrade team completed the database portion of this project within a matter of weeks, not months. DB Change Manager generated approximately 38,000 lines of SQL code required to perform this process saving the team hundreds of man hours.

## BENEFITS

### Enhanced Visibility into Customers' Existing Data Assets

Organizations are constantly weighing the benefits of “buy” versus “build” for their CRM, ERP, business intelligence, or accounting systems. There are many factors that cause companies to choose one path over the other. The powerful deciding factors in favor of “buy” is faster time to implementation, and known upfront costs. And, of course, organizations know they have the option to customize the packaged application to suit their individual business needs as the company evolves, but these customizations can create problems down the road. When the packaged application relies on an underlying database infrastructure, there

are two important eventualities to consider. First, how to manage upgrades to the application layer in the packaged application without disrupting customizations. Second, how to preserve data and schema architecture customizations when upgrading the underlying DBMS.

DB Change Manager's database comparison, alter, and synchronization capabilities enabled DBA Consulting to generate reports and reconcile differences between the different versions of the databases, tables, schemas, and other database objects. With DB Change Manager they could easily capture schema archives and compare any two databases to monitor changes throughout the migration process. Sophisticated object mapping features allowed them to filter out unnecessary objects to further streamline the synchronization process and accelerate the project timeline.

#### Simplified and Accelerated Database Migrations

DBA Consulting had to create literally thousands of DDL alter scripts. Normally this would be a time consuming process, but a database change management tool simplifies and automates the process. DB Change Manager offers the ability to generate an alter script to implement the change, saving a great deal of manual effort. DB Change Manager generates reliable,

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syntactically-accurate and properly ordered SQL to bring the desired components in line with the comparison target. It preserves any existing data and structures, regardless of whether a table must be dropped and recreated; preserves dependent objects, referential integrity, grants, etc.; and recompiles any dependent objects.

#### Reduced Project Timeline and Costs

The total savings realized by the warehouse grocery chain was significant. "The application vendors had quoted my client somewhere in the neighborhood of \$1,000,000 to upgrade their application from version 3.x to 6.x," said Cristian Speranta, Principle at DBA Consulting Inc. "It is not an exaggeration to say that together – my firm's expertise and DB Change Manager – we were able to save my client hundreds of thousands of dollars and reduce the project timeline by weeks.

#### CONCLUSION

This was a complicated upgrade project, and without a database change management tool like Embarcadero DB Change Manager, it would have been nearly impossible to complete this job within the allotted time-frame and budget due to the overwhelming number of database-related changes of the upgrade. To date, the newly upgraded HQPM application has been working in production for over a year with zero database changes or fixes required after the go-live date.