

# DBControl™ Online

When there's no time for downtime, DBControl Online maintains your Oracle database while assuring 24 x 7 availability

**DBControl Online** increases system performance, reduces downtime and ensures complete data availability during database maintenance. While performing database reorganizations, structural changes or partition management, users can maintain full read/write capabilities; completely unaware data processes are taking place.

Additionally, diagnose and analyze space efficiency by enabling DBAs to highlight current space utilization problems to reclaim wasted space, and making accurate estimates for future space requirements.

## Key Benefits

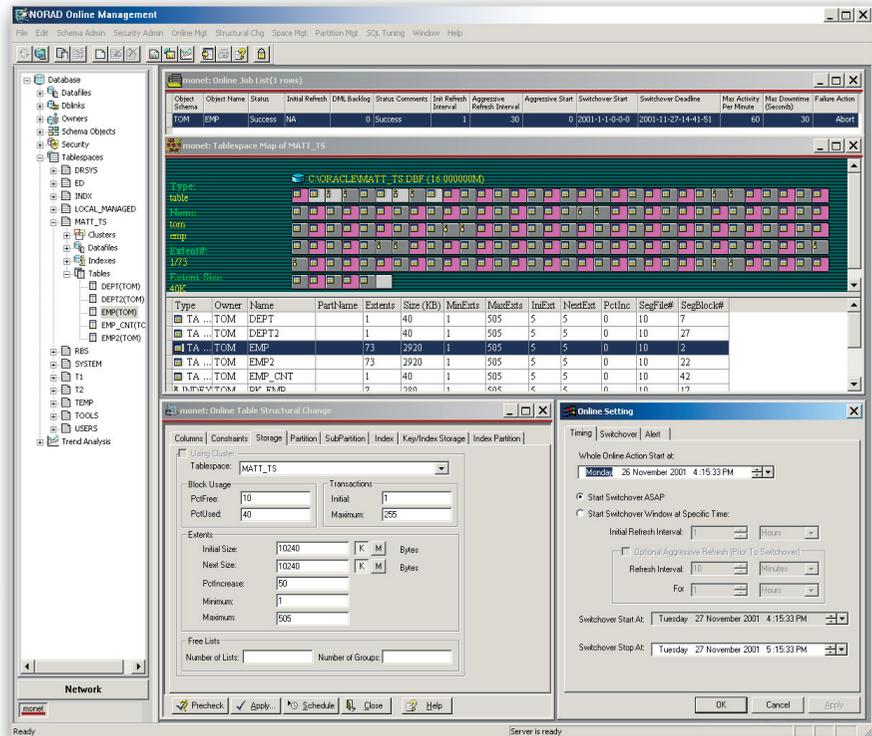
*With DBControl Online, DBAs are able to perform critical maintenance during regular hours, saving holidays, evenings and weekends for personal time.*

*Reorganize and restructure data to eliminate the underlying causes of poor performance.*

*DBControl Online provides uninterrupted data availability while performing reorgs, structural changes and partition management in your Oracle environment.*

*Free up the maintenance window for other hardware and software maintenance tasks such as backups, installations and upgrades.*

*For successful organizations, 24 x 7 availability is becoming a business necessity. DBControl Online eliminates the time outs required to keep your Oracle systems running.*



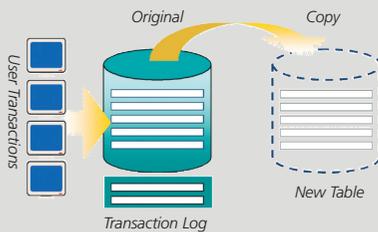
DBControl Online quickly reclaims fragmented space and increases the speed of data access — Online.

## How Does DBControl Online Work?

DBControl Online uses Oracle's built-in replication technology. And because we use Oracle's own mechanisms, DBControl is as reliable as Oracle.

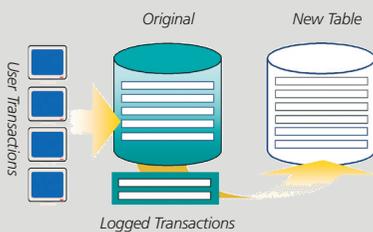
### Replication Phase

DBControl copies the table data from the original table to a newly created reorganized table and indexes. The original table remains available to users for read and write access.



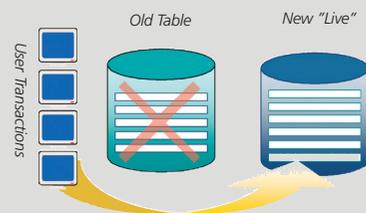
### Synchronization Phase

DBControl keeps track of all data changes that occur during the reorganization to ensure that those changes are reflected in the reorganized table. In this phase, the reorganized table is updated with the changes posted to the original table.



### Switchover Phase

During the Switchover, DBControl switches the two tables almost instantly.



### 24 x 7 Data Availability

The new global market makes demands on information technology systems around the clock. With traditional reorg methods, international companies with geographically dispersed offices cannot avoid locking out some of their users. At any time of day, it's the prime business hour somewhere in the world. **DBControl Online** meets the demands for round-the-clock access to information, so organizations can achieve a competitive edge.

### Online Reorganization

Reorganizations are performed on Oracle databases to reclaim fragmented space and increase the speed of data access. Data reorganization improves availability by optimizing database layout. A data reorg also improves performance by eliminating row migration that causes additional I/Os during queries and optimizing indexes. When objects are moved to other tablespaces and partitioned along with their indexes, performance improves. With **DBControl Online**, it is now possible to reorganize an Oracle database with virtually no downtime. DBControl will reorg large, heavily used tables and their associated indexes while end-users are working online.

With DBControl's **Multi-Object Online Reorg**, you can select multiple tables and reorganize them. Depending on the desired performance, you can reorg all of the tables in a tablespace or set any number of tables to reorg at one time. During the reorg, the table data remains fully available to users. Should there be a database outage during a reorg, DBControl's **Online Reorg Recovery** ensures database integrity.

### Online Structural Change

Structural Change is one of the most powerful features provided by **DBControl Online**. It extends the capabilities of Oracle's Data Definition Language (DDL) for modifying table structure by automating functionality that is not available with standard DDL. Some of the structural change features supported by **DBControl Online** include:

- *Insert columns before/after existing columns in a table*
- *Rename, reorder or drop columns in a table*
- *Add, modify and drop constraints (with the exception of primary key constraints)*
- *Specify constraint index storage parameters*
- *Schedule structural changes*
- *Add, modify and drop indexes*
- *Change a non-IOT table to an IOT table or vice versa*

### Online Partition Management

Partitioning allows you to separate very large tables and indexes into smaller and more manageable pieces. Once partitions are defined, SQL statements can access and manipulate the partitions rather than entire tables or indexes. With **DBControl Online**, your data is available during partitioning, allowing you to take full advantage of the performance benefits of partitioned tables. Online Partition Management features include:

- *Add, modify, move, or drop partitions for tables and related indexes*
- *Add or move subpartitions*
- *Rename table partitions*
- *Modify the storage attributes of a partition or the default attributes of a partitioned table*
- *Change a non-partitioned table to a partitioned table or vice versa*

### Online Job History

The Online Job History window gives you the ability to view previous runs of online jobs. This feature is useful for planning future reorganizations, or estimating the time of a reorg and other online jobs.

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## Take complete control of your Oracle database

DBCControl *Online* offers **Online Reorganization of Tables**, **Online Structural Change** and **Online Partition Management**. In addition, it provides a rich set of database management features that will ease or eliminate error-prone or time-consuming tasks.

The **Tablespace Map** can help the DBA identify objects with incorrect storage parameters, while Reorganization features are used to correct and prevent space allocation problems. Once the objects in need of reorganization have been identified, DBCControl can reorganize or restructure either by traditional or online methods. For a traditional **Object Reorganization**, DBCControl uses an unload/reload facility that employs the Oracle Import and Export Utilities, which ensures that all referential integrity, privileges, indexes, and dependent objects are intact upon completion of the reorganization. The DBCControl's **Tablespace Reorganization** feature provides fast, traditional reorganizations when the majority of the objects in a tablespace need reorganizing. By utilizing this unload/ reload facility, all objects in the tablespace are unloaded, dropped, recreated, and reloaded as a group rather than one at a time. The DBA may specify new storage parameters for any tablespace, table, index or cluster. DBCControl rebuilds the tablespace and associated objects, either immediately or by creating a script file, or, it can be scheduled to perform the reorganization in the future.

### Diagnostics

Is space being used efficiently? DBCControl's **Diagnostics** can spot problems such as inefficient indexes, row chaining in tables that can cause significant performance degradation, and tables and indexes that have never had the "Analyze Statistics" command run on them, leading to poor query plans with the cost-based optimizer. Diagnostics can be run for a table, index, or entire tablespace.

### Trend Analysis

The **Trend Analysis** feature can be used to increase space efficiency and performance by enabling DBAs to highlight current space utilization problems, make accurate estimates for future space requirements, and identify index inefficiencies. To accomplish this, DBCControl stores the statistics from Oracle's ANALYZE statement in a table-based repository that provides a powerful graphical interface to graph these statistics over time. The DBA can then use these statistics as a basis for new storage parameters; including when to reorganize an object with the Object Reorganization feature, determine when rebuilding or coalescing an index is needed, determine if an index is the right type, or if the database block size needs to be increased.

### Schema Object Administration

DBCControl is a tool designed specifically to meet the needs of DBAs. This includes the power to administer all schema objects within the Oracle environment using a GUI that eases the efforts required to manage these objects. Use the **Schema Object Administration** option to reduce the requirement for the DBA to have a complete mastery of the Oracle Data Dictionary Language by providing the DBA a graphical user interface to create, alter, and drop schema objects.

### Schema Comparison

**Schema Comparison** quickly pinpoints differences between test and production environments, avoiding availability problems when differences prevent users from entering data. A comparison of the schema object's structure is performed, which includes identifying missing columns with different data types, missing constraints and/or different storage parameters. The **Initialization File Comparison** feature is used to detect differences between parameter settings, which could contribute to availability and/or performance problems.

### SQL Tuning

Tuning an Oracle database should be a holistic approach that includes tuning the application and database design, the SQL, memory allocation, I/O, and resource contention. With DBCControl's **SQL Tuning** feature, statements can be tuned during the application development phase, or problem statements can be isolated during the testing or production phases.

### Security Administration

Administering Oracle security is one of the most tedious tasks faced by DBAs. DBCControl provides an easy-to-use method for administering Oracle security, which includes creating, altering, and dropping users, roles, and profiles, in addition to granting and revoking system or object privileges.

### Scheduler

Some DBA tasks can be time-consuming so it is preferable to schedule these tasks and run them automatically during off-peak hours, resulting in tremendous gains in DBA and database productivity. The flexible scheduling system allows administrators to submit jobs immediately or on a regular or repeated schedule, such as a day of the month or on a specific date.

## Product Summary

### Increase system performance while reducing downtime...

DBControl *Online* improves performance, increases data availability, reduces online transaction processing time, maximizes human resource productivity, and provides efficient service to your customers and prospects.

### Maintain full read/write capabilities during maintenance...

Ensure complete data availability during database maintenance. While you perform database reorganizations, structural changes or partition management, users can continue making updates, completely unaware that the DBA is maintaining the database.

### Reorg when you want to...

You don't have to take your database offline to perform a reorganization. Now, you can reorg any time, day or night – without disrupting your users or staying at the office all weekend.

## Related Products

### *Enterprise Monitoring and Event Management*

### **Surveillance DB for Oracle, Sybase ASE, DB2 UDB and MS SQL Server**

Proactive database monitoring solution that quickly identifies problems and alerts DBAs before impacting availability. Surveillance DB provides a real-time view of database activity and detailed performance metrics for various database environments.

### **Surveillance IQ for Sybase IQ**

Provides real-time statistics on memory allocation, buffer and storage utilization, and disk and network I/O.

### **Surveillance RS for Sybase Replication Server**

Allows you to monitor the overall health, performance and configuration of the Sybase Replication Server environment.

### **Surveillance OS For UNIX®, Linux® and Windows® OS environments**

Complementing the database modules, Surveillance OS monitors multiple variants of UNIX, Linux and Windows operating systems. Important statistics such as CPU, disk I/O, memory, swap space, file system and process resource utilization are measured.

## System Requirements

### **Console Requirements:**

- Windows 95/98 or NT/2000/XP/2003
- Pentium Processor
- 32 MB of RAM
- TCP/IP
- 16 MB free hard disk space

### **Agent Requirements:**

- Platforms: Windows NT/2000/XP/2003, HP-UX, AIX, Solaris, Tru64, Linux
- TCP/IP
- 25 MB free hard disk space, more for repositories (Windows)
- 300 MB free hard disk space (UNIX)

### **RDBMS Requirements:**

- Oracle version 7.3.4, 8.0, 8.1, 9.0-9.2, 10.1-10.2, 11g  
*(Online features require 8.0 and later)*

## About Bradmark

Privately-held for more than 20 years, Bradmark Technologies, Inc. develops, markets, sells and supports data management solutions that provide anytime — anywhere access to managing database, application and operating system components.

In addition to a direct sales force, Bradmark has an established worldwide network of channel partners.

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