Replicate information across your enterprise

IBM DB2 DataPropagator

Highlights

Captures data changes against a source database automatically and propagates the changes to any target database

Replicates across MVS, OS/390®, VM, VSE, AS/400®, OS/2®, AIX®, HP-UX, Sun's Solaris Operating Environment™, UnixWare 7 and Microsoft® Windows® platforms

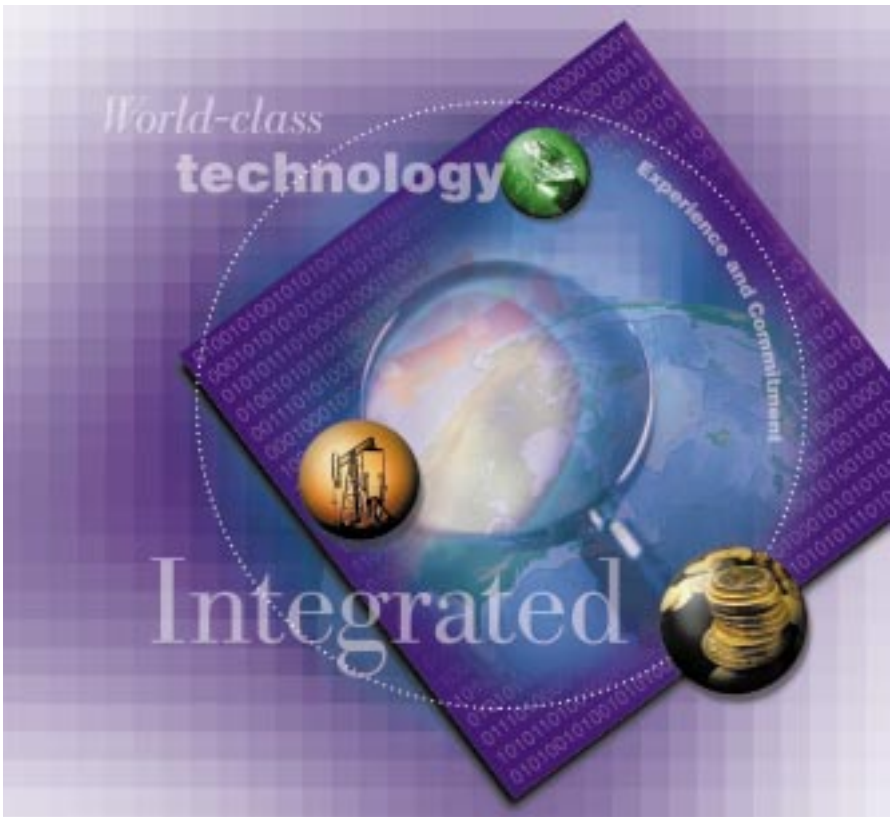
Unites your distributed, heterogeneous databases into an integrated database environment

What IBM DB2 DataPropagator can help you do

Improve data availability and operational database performance. IBM DB2® DataPropagator™ replicates data between your central database and regional transactional databases, making business data available to the regional databases for prompt transaction processing. The powerful data subsetting capability of DB2 DataPropagator supports join predicates or subselects, allowing you to distribute data efficiently from normalized databases. For example, you can join a customer table with a sales table and replicate the sales data to a branch office based on the address field of the customer table.

Leverage your data assets for decision making. DB2 DataPropagator enables sophisticated data transformation, maximizing the value of your data warehouse and business intelligence systems. You can perform all the following tasks:

- Derive data using arithmetic, Boolean or any valid SQL expression
- Aggregate data to produce sums or averages using SQL column functions
- Convert data by translating encoded fields to descriptive fields
- Consolidate data through joins or unions



- Conduct trend analysis by generating histories
- Perform complex data transformations with stored procedures
- Process user-specified SQL statements or stored procedures, before or after updating the targets.

In addition, you can utilize various types of target tables to meet your application needs:

- User copy—to access data in the source table
- Point-in-time—to access data in the source table, plus the timestamp for the transaction that added the data
- Base aggregate—to retrieve subscription-cycle data calculated with a user-defined SQL column function against the source table
- Change aggregate—to retrieve subscription-cycle data calculated with a user-defined SQL column function against only recently changed data
- Replica—to replicate changes in the target table back to the source table.

Build powerful, distributed applications. To be competitive in this information age, your geographically dispersed enterprise must be well connected with its business partners, customers and mobile employees. As a new breed of distributed applications emerges to enable global connectivity, DB2 DataPropagator can help you mesh these applications into a unified system. DB2 DataPropagator helps you maintain the integrity of your primary database and its many distributed replicas with the new update-anywhere replication capability. This capability enables rigorous conflict detection and automatic compensation for offending transactions.

Go mobile. DB2 DataPropagator supports the unique needs of mobile users and occasionally connected systems. To accommodate the infrequent, unpredictable and expensive connections from these systems, DB2 DataPropagator enables on-demand replication. On-demand replication automates connection and disconnection, which minimizes connection time. It also allows mobile units to initiate all data transfer, whether they are downloading data from a central server or uploading it for consolidated processing.

Manage the data flow in your enterprise. The user-friendly Control Center in IBM DB2 Universal Database™ provides an easy interface to define replication scenarios (including data sources; targets; frequency and timing of replication events; pre- and post-change processing). This enables centralized and consistent database management. The replication monitor reports on systems participating in the replication, monitoring the activities of both the Capture and the Apply components as well as the status of the replication subscriptions.

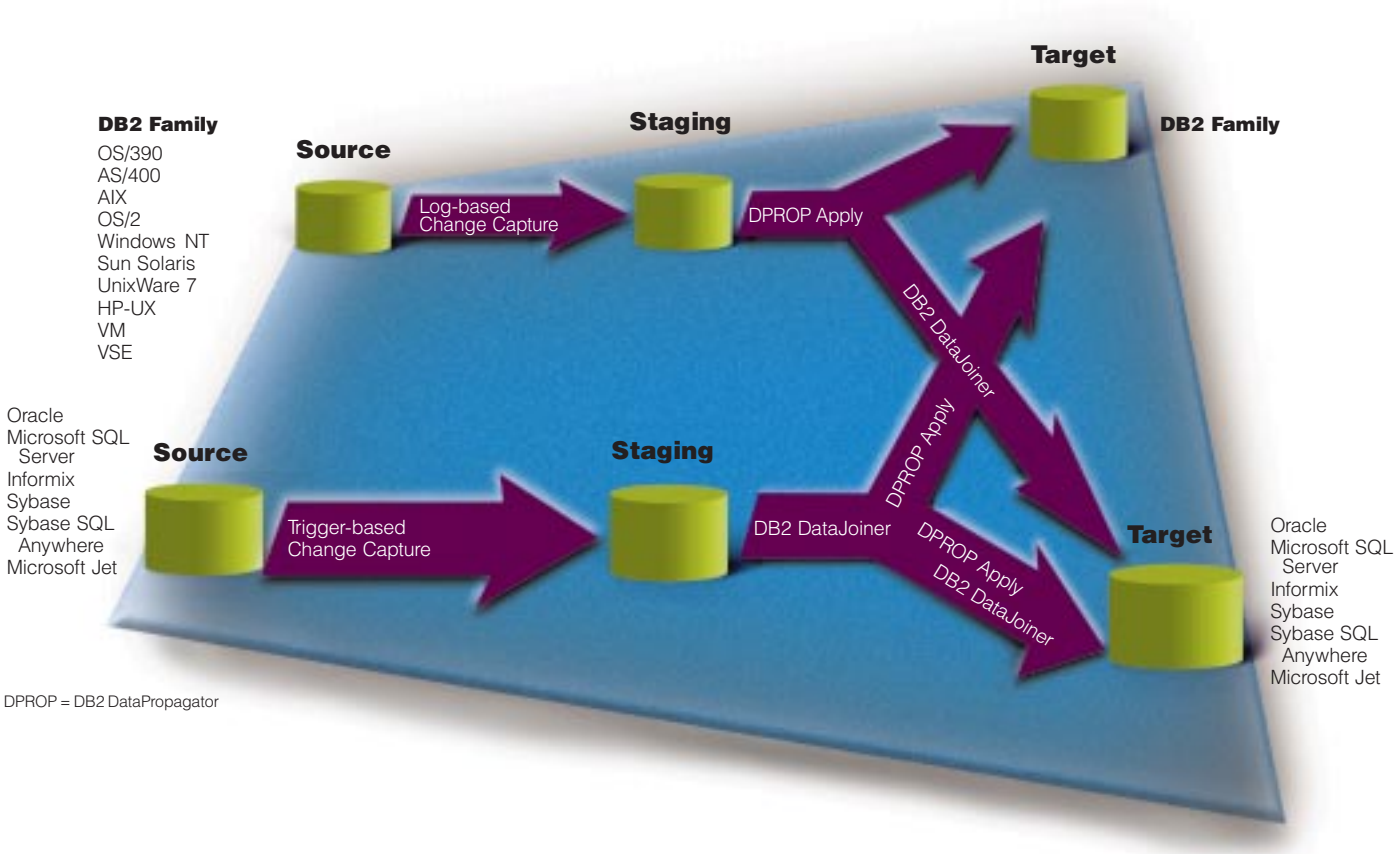
To minimize the impact on transaction performance, DB2 DataPropagator utilizes intelligent techniques such as log-based change capture.

To minimize the impact on production systems and network usage, DB2 DataPropagator:

- Deploys cascading copy, which allows replication from immediate targets to secondary targets without recapturing data
- Performs data reduction at the source to avoid replicating hot-spot activity across the network
- Enables configurable replication timing to minimize network usage during peak hours.

DB2 DataPropagator and the IBM replication solution

DB2 DataPropagator establishes the base architecture for the IBM replication solution. The IBM replication architecture is based on individual components that interoperate, letting you customize your data replication environment. The Capture component captures changes as they occur at the source and stores them in the staging area. The Apply component reads the staging area and applies these changes to targets, or copies data directly from the source (full-refresh mode).



The IBM replication solution enables full-refresh and change propagation across a heterogeneous database environment.

The Administrative component provides the interface for defining replication requests. The databases involved may be on the same machine or interconnected via networks. IBM DB2 DataJoiner®, a product that can access databases from multiple vendors, provides a bridge for replication between databases from the DB2 family, Oracle, Microsoft SQL Server, Informix, Sybase, Sybase SQL Anywhere and Microsoft Jet.

DB2 DataPropagator is built into DB2 Universal Database Version 5 and higher for Windows 95, Windows 98, Windows NT® and popular varieties of UNIX (AIX®, HP-UX, Sun's Solaris Operating Environment and UnixWare 7). It is also delivered as a product or feature on MVS, VM/VSE and AS/400 platforms. IBM DataRefresher and IBM DataPropagator NonRelational complete the IBM replication solution portfolio with the ability to replicate non-relational mainframe data. These two products populate the DB2 DataPropagator data staging area with IMS™ or VSAM data.

DB2 DataPropagator features

DB2 DataPropagator offers numerous features for a comprehensive replication solution:

- A highly efficient architecture that automatically captures and asynchronously propagates data changes to the DB2 family of databases.
- A high-performance log-based change-capture component, which captures all DB2 updates without application changes.
- Powerful data transformation using standard SQL, including multitable joins and stored procedures.

- DB2 views-based replication (including join views).
- Flexible replication tasking using subscription sets that specify a group of source tables, target tables and the control information that governs the replication of changed data.
- Event- and interval-based timing that may be used for the same subscription. The interval can range from one minute to 365 days. Continuous replication can be specified for low-latency replication.
- Multiple levels of conflict detection and user-controllable conflict compensation that satisfy most replication requirements.
- Propagation of all data (full refresh) or only changed data (update change), including updating denormalized copies.
- Update-anywhere replication, in which multiple copies of the same source table are synchronized and each replica can be a source of updates to the source table and the other replicas.
- On-demand replication for occasionally connected and mobile systems.
- DB2 Catalog replication to enhance performance of ODBC applications.
- Heterogeneous replication using system-generated triggers to capture changes.
- Support for any user-defined type (distinct data types in DB2 Universal Database) as a converted base data type.
- Replication of full binary large objects (BLOBs), character large objects (CLOBs) and double-byte character large objects (DBCLOBs) on DB2 Universal Database Version 5 and higher.
- Seamless interoperation with DataPropagator NonRelational, DataRefresher, DB2 DataJoiner and Lotus® NotesPump® to deliver robust, versatile replication among IMS, DB2, Lotus Notes®, Oracle, Microsoft SQL Server, Informix, Sybase, Sybase SQL Anywhere and Microsoft Jet.
- Easy, intuitive administration from DB2 Universal Database Control Center running on OS/2, Windows 95, Windows 98 and Windows NT.
- Support for DB2 for MVS/ESA™ Version 4 and DB2 for OS/390 Version 5 and higher, with data sharing in a Parallel Sysplex® environment. DB2 DataPropagator also supports DB2 Universal Database Version 5 and higher for Windows and UNIX platforms.

For more information

Contact your IBM marketing representative or IBM authorized software reseller or visit our Web site at *www.software.ibm.com/data/dpropr*

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Printed in the United States of America on recycled paper containing 10% recovered post-consumer fiber.

GC26-8463-02