

IBM Red Brick Warehouse, Version 6.3

Highlights

- **Enables rapid and flexible analysis of critical information to improve business responsiveness**
- **Provides a robust, scalable and cost-effective platform for innovative data warehousing applications**
- **Simplifies administration to save on overhead costs and increase developer productivity**



Business analysts are equipped to make insightful decisions quickly with the support of Red Brick Warehouse.

A simple solution for complex business needs

They say the simplest things in life are the best, and this adage couldn't be more relevant than in your business intelligence (BI) environment. After all, you want your business analysts to be able to turn data into valuable insights at a moment's notice, so they can respond quickly to customer needs. And you want your solution to be easy to manage so your IT staff can focus on more value-added BI activities.

For high-performance processing power without the complexity, turn to IBM Red Brick™ Warehouse, Version 6.3. In a single structured query language (SQL)-based database system, Red Brick Warehouse can manage huge amounts of complex data, integrate with existing technologies to preserve your IT investments and scale to meet your business's expanding needs.

Red Brick Warehouse provides the warehousing functionality you need most in a solution that's easy to install, administer and maintain. In organizations with limited IT support, a "hands-off" database engine such as Red Brick Warehouse is ideal.

A perfect fit for data warehousing

Unlike traditional databases, Red Brick Warehouse is designed solely for data warehousing, eliminating the administration overhead associated with standard relational databases.

With a single script, you can load data, check referential integrity and build indexes and aggregates. Red Brick Warehouse minimizes system complexity, letting you focus on your business, not the technology. Users can submit complex queries quickly and easily, while in the background Red Brick Warehouse ensures high performance with fast load and query processing, as well as highly optimized indexing, aggregation and parallelism technologies.

“Consolidating information on IBM Informix RedBrick Warehouse has enhanced the effectiveness of Terra Lycos’ business intelligence applications, fostering more informed decisions that will better serve our strategic goals.”

—Frank Flynn, Manager of Database Operations, Terra Lycos

Improving information consistency and productivity



Providing high-speed, high-volume query performance, Red Brick Warehouse delivers the rich insights that let users get down to business.

Red Brick Warehouse includes specialized indexes and SQL optimizations designed especially for star schemas, a dimensional database model for business intelligence systems that enables users to conceptualize information. Its STARindex and STARjoin technologies accelerate the processing of complex queries. In fact, as more tables are involved in joins, Red Brick Warehouse query times actually decrease. This is in stark contrast to the diminishing performance of relational databases when query complexity increases. Red Brick Warehouse can handle thousands of concurrent queries, hundreds of concurrent users and terabytes of data, meeting your scalability and high-demand analysis needs.

Rich with features and standards-based, Red Brick Warehouse now runs on the following UNIX® platforms:

- *HP-UX Itanium 11i, Version 2 (64-bit)*
- *HP-UX PA-RISC 11.0 and 11i (64-bit)*
- *IBM AIX®, Versions 5.1 and 5.2 (64-bit)*
- *Solaris 8 and 9 Operating System (64-bit)*
- *Tru64 UNIX 5.1b*
- *Red Hat Enterprise Linux 3 (32-bit)*
- *Microsoft® Windows® Server 2003*
- *Microsoft Windows 2000*

New query execution and optimization features

As part of its ongoing investment in Red Brick Warehouse, IBM has made the following enhancements to Version 6.3 to improve query execution:

- *SQL OLAP functions — Support for additional functions for analytic queries, including PERCENT_RANK, CUME_DIST, PERCENTILE_CONT and PERCENTILE_DISC. The PERCENTILE functions are useful for calculating median values.*
- *Caching of dimension tables and corresponding primary keys during STARjoin execution.*
- *Dynamic segment elimination — Complementing compile-time “SmartScan” optimizations, the server also supports run-time or “dynamic” segment elimination, which further optimizes data access for table scans and TARGETjoins that use local indexes. Segment elimination is also factored into selectivity estimates that determine which query plan is chosen.*
- *TARGETjoin performance enhancement — The performance of TARGETjoin queries is optimized, and single-column B-TREE indexes can participate in TARGETjoin plans.*
- *Optimizer directives — Server SET commands override default STARindex selections and STARjoin thresholds.*

- *Federated data access with IBM DB2® Information Integrator — To support distributed queries, you can configure a Red Brick Warehouse database as a federated data source.*

New TMU and PTMU features

- *Memory tuning — Loads and REORG operations benefit from smarter memory use and distribution. To fine-tune loads, you can set the maximum size of the buffer cache and specify the distribution of buffers among conversion, output and index tasks.*
- *Expression support — You can define arithmetic expressions and conditional CASE expressions for input columns inside the TMU control file. Also, the ACCEPT/REJECT clause accepts multiple conditions.*
- *Multi-character delimiters — Separated-format loads support delimiters that consist of more than one character. The EXPORT command provides complementary string-delimiter support.*
- *XML namespaces and nested XML data — Loads in XML format now support XML namespaces and namespace prefixes, as well as XML data that has a nested structure.*

New general administration features

- *Table columns can be added to or dropped from a predefined working segment. This option provides greater reliability and recoverability than other ALTER TABLE modes.*
- *System catalog compaction — To improve performance, you can use the rb_syscompact utility to reduce the size of the database system catalog.*
- *3GB address space on Windows Server 2003 — To improve scalability and performance, Red Brick executables can use up to 3GB of virtual address space on Windows Server 2003 computers.*
- *Incremental maintenance for precomputed views with nullable grouping columns — Views that once required rebuild maintenance plans because they contain nullable grouping columns are now updated with incremental plans, improving maintenance performance.*

The latest version also comes with support for .NET applications through Microsoft's ODBC.NET data provider. Using the ODBC.NET provider and the .NET Framework 1.1 with the Red Brick ODBC Driver, applications can easily access data from Red Brick databases.

New client features

The Red Brick ODBC Driver supports array fetches and parameter arrays. Array fetches allow an Open Database Connectivity (ODBC) application to fetch more than one result set row at a time from the database, reducing the number of calls to the SQLFetch or SQLFetchScroll application programming interface. Parameter arrays can be used to emulate block inserts by executing the same INSERT statement iteratively with successive sets of parameter values.

A solution to help you compete with confidence

Whether you need to drill deep into your data assets or get the big-picture view of your company, Red Brick Warehouse can provide the business intelligence foundation you need to build your competitive advantage.

For more information

Please contact your IBM marketing representative or an IBM Business Partner, or call 1-800 331 1763 within the U.S. Also, visit our Web site at ibm.com/software/data/informix/redbrick.



© Copyright IBM Corporation 2004

IBM Corporation
Silicon Valley Laboratory
555 Bailey Avenue
San Jose, CA 95141
U.S.A.

Printed in the United States of America
04-04
All Rights Reserved

AIX, DB2, IBM, the IBM logo and Red Brick are trademarks of International Business Machines Corporation in the United States, other countries or both.

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

All other products or product names are trademarks or registered trademarks of their respective owners.

References in this publication to IBM products or services do not imply that IBM intends to make them available in all countries in which IBM operates.

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

