Informix Red Brick Decision Server 6.0
Business Intelligence Solutions Designed and Optimized for the i.Economy

Today’s economy is a dynamic environment of mergers, consolidations, global competition, and Internet-based commerce. This environment has caused every major industry to start looking at new ways to discover business opportunities by:

- Better understanding customer needs;
- Analyzing profitable market segments;
- Providing the products that customers are demanding; and
- Measuring how effectively their organizations are executing their business objectives.

Informix® Red Brick® Decision Server™ is optimized for Internet-enabled analytic applications that enable you to compete more effectively in today’s Internet-driven i.Economy. Designed for easy implementation, low maintenance, and high performance, Red Brick Decision Server is the foundation that enables more users to analyze more data and make more informed decisions—faster. And making informed decisions by uncovering and leveraging competitive advantages is what “Business Intelligence” is all about.

Optimized for Business Solutions
Red Brick Decision Server places your business problems first, addressing the ease of implementation, management, and user requirements that are critical to maintaining a business focus. You will gain time-to-market advantages, see more effective analysis results, and report a higher return on investment (ROI).

Business intelligence solutions must not only deliver answers to questions quickly and accurately; they must also deliver the flexibility to address different size user communities. For example, an accounting department may be interested in the ROI of the latest direct-mail promotion, while the marketing department is more interested in analyzing the market penetration that the promotion achieved. Same data—different view.

The majority of data marts and data warehouses are focused on addressing very specific business needs, such as getting the answer to a question when needed and not employing extra DBAs to get the work done. The Red Brick Decision Server focuses on meeting those needs, including fast load performance, high-capacity/high-performance query processing, and efficient management of very large databases. Unlike traditional OLTP databases, Red Brick Decision Server is specialized database technology that has been designed and optimized to meet the requirements of data marts and single-subject data warehouses—without the complexity and overhead that OLTP technology imposes.

Red Brick Decision Server—
Meeting the Needs of Your Industry
Red Brick Decision Server helps tell the story of your business through your data. The Red Brick Decision Server database is used worldwide to solve a wide variety of business intelligence challenges, such as:

- Retail—Product mix analysis, product trends analysis, product profitability analysis, market share analysis, and promotional effectiveness.
- Telecommunications—Churn analysis, usage analysis, product trends analysis, product profitability analysis, promotional effectiveness, and customer analysis.
- Healthcare/Managed Care—Provider analysis, member analysis, and fraud detection.
- Financial Services—Risk management, account usage analysis, customer/household analysis, and promotion analysis.

Are You Ready for the i.Economy?
Along with traditional business intelligence requirements, Red Brick Decision Server helps businesses execute new strategies and attack new markets to compete in the i.Economy. Through market basket analysis, for example, a hardware retailer not only knows how many printers are sold, they also get a snapshot of the transactions, including the time of day, how each transaction was paid for, and what other products were purchased in conjunction with the printer. Combine the millions of transactions that occur over a day, a month, or even longer, and the result is a complete profile of customer behavior that can be used to better target promotions and boost sales.

Comprehensive JDBC support provides direct browser access for your entire organization, regardless of the hardware platform they use. In addition, businesses selling information services now have a better way of getting information updates to external customers.

Lightning-Fast Performance for Faster, Intelligent Decisions
Red Brick Decision Server’s extraordinary performance is based on its capability to fully leverage the potential of the star or snow flake schema data structure, delivering a foundation that is fast, easy to implement, and ideal for a full range of analytical applications. The result is a product that enables faster time to solution, lower cost of ownership, and higher ROI than other database technologies.

Performance Through Optimized Loading
The implementation of a data warehousing solution can be a complex process. A data warehouse can be populated with data from many different sources including mainframes, OLTP databases, purchased data, the Web, and other external data sources.

Red Brick Decision Server’s loader, the Table Management Utility (TMU), performs the necessary tasks to guarantee that data is ready to query, faster. It enables the insertion of row data, checking of referential integrity, updating of all relevant indexes, and building of aggregates—all in one server-integrated load process. TMU’s load performance lowers your hardware and administration costs and guarantees that you have the data you need, when you need it.

The Parallel Table Management Utility (PTMU) performs all of the functions of the TMU and takes advantage of SMP parallelism to dramatically speed up load times, ensuring that all the data is ready when needed. It uses sophisticated algorithms optimized for data warehousing to allow initial and incremental loads to proceed with full referential integrity checking and index building at exceptionally high speed.

Smaller Load Window Needed
Query Priority Concurrency is a unique versioning mechanism designed specifically for decision support environments so query execution remains unaffected during data modification and loading operations. Frozen Query Revision leverages Query Priority Concurrency to reduce the loading window, yet maintain a consistency of data for all users throughout the day.

Performance Through Advanced Indexing
The flexibility to accommodate different types of indexing schemes while minimizing index space is a key feature of the Red Brick Decision Server. Red Brick Decision Server
utilizes STARjoin™ technology to provide industry-leading query performance and scalability. Using multiple STAR indexes, multitable join processing is greatly accelerated at the time of query execution and occupies less disk space than the multiple indexes required by other database solutions.

Red Brick Decision Server also implements TARGETindex™, used to improve performance when queries consist of multiple weakly selective constraints, such as quarter, gender, or country. Performance improvements are twofold—the queries run faster and their processing requires less memory. TARGET indexes are completely integrated in the core Red Brick Decision Server database. TARGETjoin™ processing uses TARGET or B-TREE indexes on the foreign keys of a referencing (fact) table to perform multitable joins. TARGETjoin processing is complementary to STARjoin processing; a combination of the two technologies offers excellent performance over a wide range of queries.

Performance Through Managing Data Aggregation

Red Brick Decision Server also supports aggregate computation and management through Vista™. Quarterly sales, for example, can be retrieved by directly querying the aggregate rather than by summarizing the detail data of daily sales. The improvement in performance can be substantial—measuring thousands of times better performance in large data marts.

Vista improves performance and reduces costs by analyzing where aggregates can improve warehouse performance based on actual usage. So you can create the aggregates that provide the best results without having to create more tables than is necessary. Vista provides the performance of a multidimensional database with the ease of use and openness of a relational database.

Ease of Use Can Impact Your Bottom Line

In addition to providing quick decision support for business users, Red Brick Decision Server can impact your bottom line by minimizing your administration costs. In fact, compared to traditional OLTP databases, customers report they need fewer database administrators to manage data marts based on Red Brick Decision Server. Red Brick Decision Server reduces the need for system monitoring and performance tuning with several automatic technology features, such as:

- **RISQL® extensions to SQL** enable business users to easily formulate common business questions. RISQL includes functions for rank, moving sum, moving average, cumulative total, n-tile analysis, and market share. These functions are specifically designed to take advantage of Red Brick Decision Server technology to provide answers to complex decision support queries.
- **Parallel on Demand** protects against excessive parallelization; thus minimizing or eliminating the time required to tune individual queries.
- **Dynamic Incremental Optimization** enables Red Brick Decision Server to re-evaluate and adjust the execution plan of a query, reducing query processing time so that answers can be delivered faster.
- **SuperScan** lets multiple users leverage a single I/O stream, resulting in dramatically reduced I/O, letting your hardware serve more users.
- **Time-Cyclic Data Management** allows you to efficiently handle time-sensitive data. If a data mart is designed to contain a rolling set of time periods, time-cyclic data management allows the removal of an old segment space to recycle for new segments—optimizing performance and lowering administrative costs.
- **Informix Red Brick Decision Server Administrator** is a graphical Windows-based (Windows 95, 98, and NT 4.0) tool that minimizes administration costs.
Red Brick Decision Server's robust features are the foundation of the decision-making process and are particularly important when large volumes of data are involved or when only small windows of time are available for updating the databases.

A Scaleable Solution
As the i.Economy continues to grow, so does the volume of data in business intelligence databases. Integration and scalability are becoming critical considerations for the end-to-end solution.

Red Brick Decision Server allows access to terabyte-scale data marts by thousands of business users, at a fraction of the cost of traditional RDBMSs. Red Brick Decision Server delivers both simplicity and scalability over traditional RDBMSs. And unlike traditional OLTP systems, implementation, tuning, and maintenance are easy and uncomplicated.

What's New in Red Brick Decision Server 6.0?
The 6.0 release of Red Brick Decision Server introduces key features designed for easy implementation, low maintenance, and high performance. New features include:

- **Frozen Query Revision:** This feature allows users to maintain data consistency when performing queries while new data is being loaded. It allows one to "freeze" the data to be queried, guaranteeing that users see the same data for each query, even as new data loads.
- **JDBC Type 4 Driver:** With comprehensive JDBC support, you can now provide direct browser access for your entire organization, regardless of the hardware platform they use. In addition, businesses selling information services now have a better way of getting information updates to external customers.
- **High-Speed Export to File or Pipe:** Red Brick Decision Server facilitates the fast export of any query result to a file, which can be reviewed later, or loaded to another table or database.
- **Variable-Length-Data-Type Support:** Red Brick Decision Server now supports variable-length strings. This new feature significantly reduces storage space and provides the required foundation for Web-link support and URL storage to facilitate clickstream analysis.
- **ODBC Enhancements:** ODBC enhancements allow Red Brick Decision Server to work with Microsoft Plato and Microsoft DTS.

About Informix
Based in Menlo Park, California, Informix Corporation specializes in advanced information management technologies that help enterprises in the i.Economy get to market quickly, generate new revenue, build a unique strategic advantage, and solve their most complex business problems. Informix offers customers a complete software infrastructure for the Web that delivers highly scalable transaction processing, personalized content management, integrated business intelligence, full multimedia capabilities and complete e-commerce solutions. For more information, contact the sales office nearest you or visit our Web site at www.informix.com.