

powerful **SERVER**
performance

Birdstep RDM Server 4.0

formerly (Velocis)



Birdstep RDM Server 4.0 is an embeddable database management system employing a client/server architecture that is used when business critical information must be available immediately and reliably such as in the financial services industry, telecommunications industry, and e-Business applications.

Like all Birdstep RDM Databases, RDM Server is deployed with the developer's application, thus giving you control and predictability over your applications data management. The result of this is that our databases are completely transparent to the end user, thus freeing you from needing additional

third party software like SQL Server, Access or Oracle. And since our database management tools are embedded within your application, a database administrator is not needed!

RDM Server provides you with maximum flexibility in deployment – whether you want to use industry standard interfaces or low level interfaces, Birdstep's RDM Server puts you in control. Using Birdstep RDM Server 4.0, businesses can be sure that your database applications will handle heavy peak user loads and transaction rates; and with Birdstep RDM Server's automatic recovery system, data integrity is impeccable. Some of the key benefits offered by Birdstep RDM Server 4.0 are:

- Exceptionally fast local data retrieval alongside conventional client/server, SQL and ODBC access.
- Amazing architectural flexibility. Link your application directly to the engine libraries for unbeatable performance. Link to client libraries for remote access. Do both concurrently for seamless hybrid operation.
- Enables thin-client and browser-based architectures through dynamic business/application specific extensions to the database server.
- Support for advanced hardware and operating systems such as SMP servers and multi-threaded operating systems (Linux® and Windows NT™).
- Meets the database ACID test for business critical applications: Atomicity, Consistency, Isolation, and Durability.
- Provides 128 bit encryption security for applications where confidentiality is a must.





Birdstep RDM Server is designed with features one would expect from an embeddable database giving you a strong foundation for application development with unique tools for performance enhancement and database customization. Addressing a critical requirement for many users and developers of modern database applications, Birdstep RDM Server is compliant with industry database standards such as SQL and ODBC. In addition, Birdstep RDM Server is designed to minimize total cost of ownership by reducing administration requirements.

- **Relational and network database types** - Two proven database paradigms that can be used together or independently.
- **Standard Interfaces** – RDM Server 4.0 supports ODBC 3.51 (100% core level compliant, includes Level 1 and Level 2 support), SQL92, and JDBC 2.0
- **Dynamic Database Definition Language (DDL)**– Add or drop tables and indexes without going off-line.
- Supports C, C++, and Java
- **Standard C definitions for schema** – Leverage existing skill sets when developing your applications since RDM Server uses standard C definitions for the database schema.
- **CREATE JOIN** - Allows you to use familiar SQL database definition language and application programming interface — both strong features of relational databases — while simultaneously utilizing the significant performance advantages of the network database model.
- **Data integrity** - Birdstep RDM Server fully implements the referential integrity enhancements as defined by the 1992 ANSI SQL standard, and SQL extensions, including stored procedures and triggers.
- **User access Synchronization** - Prevent the loss of data by synchronizing access to shared files and records, thus allowing updates by one user at a time and ensure data integrity even in the most heavily loaded environments.
- **Transaction logging** – Automatic recovery in the event of system failure or loss of power. Committed transactions are rolled into the database incomplete transactions are rolled out.

Database Specifications

- Maximum Database Size: 70 Quadrillion Bytes
- Maximum Key Length: 240 Bytes
- Maximum Number of Keys: 2.1 Billion per Column
- Maximum Number of Rows: 2.1 Billion per Table
- Maximum Open Files: No hard limit
- Maximum Row Size: 32.76 KB (BLOBs are supported with unlimited size)
- Maximum Rows per Table: 2 Billion Maximum Table Size: 32K x 2 Billion = 7.0 TB

Data Types Supported

- Arrays, up to Three Dimensions
- Auto-Increment
- BLOBs
- Character
- Date
- DBADDR
- Decimal
- Double Byte Character
- Float
- Integer
- Numeric
- Time
- Timestamp

- User-Defined Data Types, Scalar & Aggregate Functions

Standards Supported

- ANSI SQL-89 Level 2
- ANSI SQL-92 Partial
- Unicode
- Compliant ODBC interface - Level 1 and most of Level 2

Operating Systems Supported

- AIX
- HP-UX
- Linux
- QNX
- Solaris 7, 8 (Intel)
- Solaris 2.5, 2.6, 2.7, 2.8 (SPARC)
- UnixWare
- Windows NT (Intel)
- Windows 2000 (Intel)

Native Languages Supported

- C
- C++
- ODBC
- JAVA/JDBC