

Key New Features:

- Comprehensive SQL API
- Standards Based ODBC API
- Object Oriented C++ API
- Faster data access provided by Hash indexes

Key Benefits:

- Reliability
- Performance
- Efficiency
- Innovation
- Flexibility
- Excellent Support

Try it:

Download the RDM Embedded free software development kit at:
<http://www.raima.com/products/rdm-embedded/sdk-download>

Raima Database Manager (RDM) Embedded Core Engine is a high-performance, reliable, scalable, and small footprint embedded database solution successfully deployed in millions of business critical applications and devices for over 25 years.

Overview:

RDM Embedded helps embedded applications gain a competitive edge with its extreme transaction rate and complex data modeling capabilities. With RDM Embedded, developers can efficiently solve even the most complex applications with minimum consumption of power or system resources. The product offers a strong foundation for application development along with additional tools for performance enhancement and database customization. Along with innovative new features and functionality to the RDM Embedded core engine, Raima offers Extensions as add-on packages to the Core Engine including: RDM DataFlow; RDM HA (High Availability); and RDM Distributed (Distributed Database).

Key Features:

Comprehensive SQL API—RDM Embedded's new SQL API provides the best of both worlds in that it is lightweight and compact yet powerful enough to provide robust SQL functionality. Raima's implementation of SQL provides an inclusive subset of the ANSI/ISO standard SQL that is ideally suited for a wide variety of computers and devices running standard and embedded operating systems. By using RDM Embedded's SQL API developers can easily create embedded applications utilizing Raima's proven database engine.

Standards Based ODBC API—If standards are driving your application's development the RDM Embedded ODBC API is the right programming interface for you. Following the ODBC standards Raima developed the ODBC API to provide developers, already familiar with the ODBC standard interfaces, a familiar way to utilize the power of the RDM Embedded database engine.

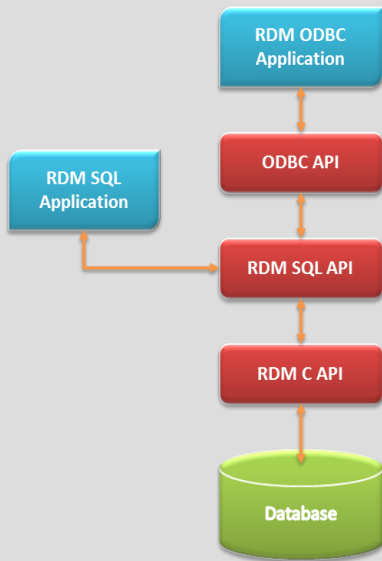
Object Oriented C++ API—With RDM Embedded's new C++ API, developers can now use the familiar object model to create data-intensive embedded applications. The C++ API was designed with ease of use as its primary requirement while still providing developers with full access and control to both RDM Embedded's network and relational functionality. The result is a very powerful interface that can easily be used to create high-performing and efficient databases and applications in the C++ programming language.

Navigational C API—For well over 25 years developers have been using RDM Embedded's low-level C API which provides application developers with ultimate control of the database and its database operations. The C API consists of over 200 intuitive easy to use functions.

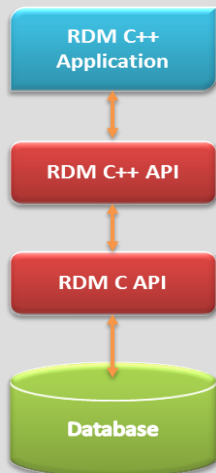
Faster data access provided by Hash indexes—This version of RDM Embedded also allows developers to create hash indexes on tables which can provide a substantial increase in performance. Using hashing on large volumes often provides faster access to data than b-tree indexing methods which have a constant requirement to rebalance the tree as more data is added to a table. This is not the case with hashing which uses buckets to store the index information.

Multi-Core Support— An ACID database is a shared resource. Any database engine needs to take great care to efficiently allocate transaction processing to truly take advantage of multi-core systems. RDM Embedded has gone through an extensive re-architecting effort carefully splitting up the engine and its transaction system to take full advantage of today's and future multi-core hardware architectures.

New APIs:



SQL API & ODBC API Architecture



C++ API Architecture

Multi-Versioning Concurrency Control (MVCC) — Never block the writer again! With the newly introduced MVCC technology both readers and writers can share the database without racing for database locks. The reader will at any time gain access to a consistent view of the database while the writer simultaneously changes its state.

2 Phase Commit—Lets a RDM Embedded transaction successfully take part in a global or distributed application transaction. Whenever multiple database systems or application data need to commit together a distributed transaction controller makes use of 2 phase commit protocol to manage the global transaction. Now RDM Embedded can play a part in such systems.

MicroHTTP Server—Adds the capability to insert, update, and delete data within the RDM Embedded database using a Web browser over the standard HTTP protocol. This enables developers to create Web based applications that can remotely access the database engine.

Modes of Operation:

- Standalone
- Client/Server
- Application Linked
- Mixed Execution Mode.

Database Specifications:

- **Maximum Databases Open Simultaneously:** No Limit
- **Maximum Files Per Database:** 4096(2¹²)
- **Maximum Records Per Database:** No Limit
- **Maximum Size of Database File:** Limited only by file system
- **Maximum Tables Per Database:** No Limit
- **Maximum Records Per Table:** No Limit
- **Maximum Record Size:** 32KB (not including BLOB or VARCHAR)
- **Maximum Fields Per Table:** No Limit
- **Maximum Keys Per Database:** No Limit
- **Maximum Size of Keys:** 242 Bytes
- **RAM requirements:** User configurable, minimum 50KB
- **Code Footprint:** Starting at ~270KB, depending on operating system and database features

Operating Systems Supported:

- AIX
- Embedded Linux
- FreeBSD
- Integrity
- HP-UX
- Linux
- MacOS
- QNX Neutrino
- Solaris
- VxWorks
- Windows
- Windows CE
- Windows Embedded
- *Others Upon Request*

For more information and free downloads of the RDM Embedded SDKs please visit us on the Web at: www.raima.com/products/rdm-embedded

Partners:



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