# IBM Relational Database Facility

Highlights

- ***IBM's Relational Database Facility (RDBF) is a data transfer and parsing application that enables retailers to use information from their point-of-sale (POS) system for timely and flexible analyses. The RDBF supports both IBM's General Sales Application and Supermarket Application. It is now available on the Windows NT platform.***

- ***The RDBF transfers massive amounts of POS data and puts it into usable forms for personalized marketing and operational analysis.***

- ***Retailers using the RDBF can quickly and easily examine hundreds or even thousands of variable relationships, such as the effect of shelf replacement on sales volume, the correlation between the sale of one product with another product, the sales effect of an hour-long sale, or which products yield the greatest profit per day or per hour.***

- ***The RDBF empowers retailers to make better and more timely marketing and operational decisions, gain a competitive edge and increase profits.***

Overview
The RDBF builds on the strengths of both relational database architecture and the 4680/4690 store systems. There is no impact on the performance or reliability of the sales processing on the POS system when running the RDBF on a separate in-store processor (ISP).

The RDBF transfers POS transaction data from the 4680/4690 store controller to appropriate tables in a relational database on the ISP. The RDBF supports IBM DATABASE 2 for Windows NT, AIX and OS/400, and the Informix database manager products for AIX and Windows NT and Microsoft's SQL Server for Windows NT, but can be modified via services, to use any relational database manager desired.
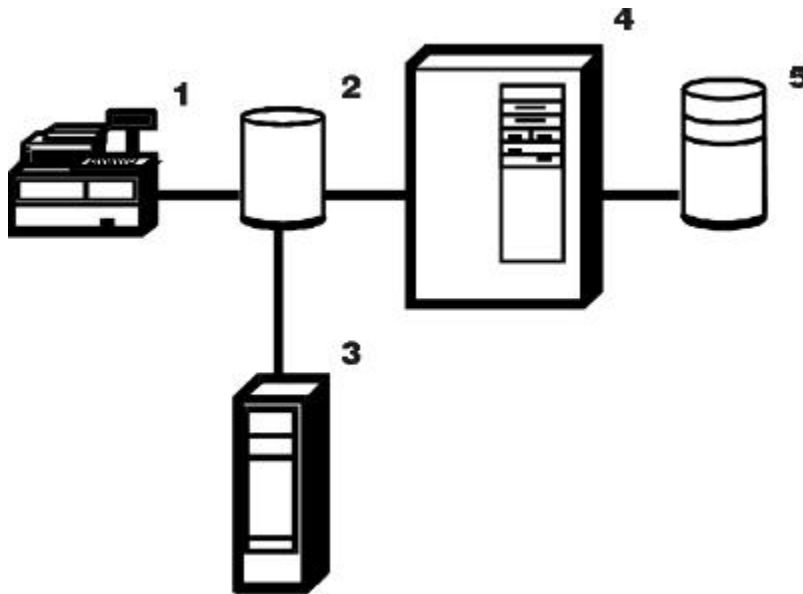
1. *Point-of-Sale Terminal*
2. *TLOG*
3. *Store Controller*
4. *ISP*
5. *RDB*

RDBF can also be run on a Windows NT combined ISP and POS server when used in conjunction with IBM's Distributed Data Services and its Controller Services Feature.

During transfer, the RDBF automatically performs several important functions.

- Checks for duplicate logged transactions.

- Validates transaction log entries.

- Continues to operate through the change of reporting periods.

- Continues to operate during 4680/4690 File Server interruptions.

- Automatically recovers following a communications disruption between the POS system and the ISP.

Efficiency
The RDBF provides retailers with far greater efficiency and flexibility in designing and creating new reports. These reports can be created using state-of-the-art tools that use ODBC, JDBC or SQL to access relational databases.

Timeliness
With RDBF, data is constantly being pulled from the POS store controller to the ISP. Up-to-the-minute reports can be graphically presented using products such as Lotus Notes, MS Access, Crystal Reports and Informix WINGZ.

Since data is residing in a true relational database, there are no limitations to the types of queries that can be issued, unlike some competitive offerings. And since the data resides in a fully functional RDB, there is no additional processing that needs to occur before a query can be processed. Some competitive products can add many minutes of processing time to even relatively simple queries.

The result is a highly reliable and accurate account of the store's operation that could include everything from hourly department totals to the details of the product mix of each customer.

Retailers can use this information to confidently make on-the-spot marketing and operational decisions.

Analyses
The RDBF comes equipped with a set of predefined reports easily executed with a few simple commands. These reports provide commonly needed marketing and operational information as well as examples by which retailers can custom-design their unique reports. These sample reports include:

- The top 10 items sold by dollar amount

- The top 10 items sold by volume

- The top items sold during the last hour

- Hourly department totals

- An hourly count of total items sold

- An hourly count of total transactions

Flexibility
The default database design contains the tables necessary to store all data captured during the sales transactions of the GSA and supermarket applications. This design can be extended or modified to include requirements for other POS applications. Providing user flexibility, the source code for this component of the RDBF is included as part of the product. This allows modification of the database definition and the associated insert rules.

The flexibility to modify the database definition accommodates a number of requirements. First, there may be extensive modifications to the POS application, and the data in the POS transaction log (TLOG) might not match the default design of the RDBF. Second, the way the RDBF stores data in the database might not match your requirements, or perhaps some of the data might not be desired at all. Third, you already may have a database design that is inconsistent with the design provided with the RDBF. Fourth, the implementation of C programs with embedded SQL might vary between database managers. Thanks to the flexibility of the RDBF, none of this is a problem.

Once installed the RDBF default version will run without requiring any changes. If desired, however, the program allows for many types of modifications. For instance:

- The RDBF allows retailers to tailor the way data is analyzed without having to develop

specialized code for the 4680/4690 POS applications.

- Retailers can add or remove data for new or modified reports based on the older database design.

- The program can be modified to allow for changes to the POS TLOG standard string formats and user strings.

Automatic operation
The RDBF runs efficiently and automatically as a background application on the ISP. User interfaces are kept to a minimum, allowing store personnel to concentrate on the reports. An RDBF status program can be invoked on the ISP if desired.

Database maintenance
To control the amount of data maintained on the ISP, the RDBF comes equipped with a program that can be invoked to delete old data automatically on a timed basis or at the retailer's discretion.

System operation
RDBF is currently available for Windows NT, AIX and OS/400.

Year 2000
This product is Year 2000 ready. When used in accordance with its associated documentation, it is capable of correctly processing, providing and/or receiving date data within and between the twentieth and twenty-first centuries, provided that all other products (for example, software, hardware and firmware) used with the product properly exchange accurate date data with it.

IBM Relational Database Facility at a glance

Description	A data transfer and parsing application that runs in real time making POS TLOG data available and usable for marketing and operational analysis and report development.
Software and Hardware Requirements	*Communications* • Token Ring or ASYNC modem[1] *Connectivity* • Retail Connectivity Option *4680/4690 Store Controller Requirements* • 4690 OS Version 1 or 4680 OS Version 4 or Version 2[2] • SA release or higher of GSA Release or higher • Communication adapters[3]

	- 125 KB to 300 KB of available memory[4] *Windows NT Requirements* - Version 4 - SQL Server, DB2/NT or Informix - 3 MB of available disk space - Minimum of 48 MB memory - Communication Adapters[5] *RS/6000 Requirements* - AIX Version 4 or higher[6] - IBM DATABASE 2 AIX/6000, or Informix Database Manager Version 7 or higher running with Informix-SE or Informix Online - 3 MB of available disk space - 2 MB of additional memory - Communication Adapters[7] *AS/400 Requirements* - Version 3.1 or 3.2 or 3.6 or 3.7 - 30 MB of available disk space - Minimum of 16 MB memory - Communication Adapters[8]
Education	Services and education available. Contact your IBM representative for further information.
Notes	[1] Token-Ring protocols include SNA LU 6.2, NetBIOS and TCP/IP. [2] NetBIOS and ASYNC modem run on 4690 OS or 4680 OS Version 2 or

	4; SNA LU 6.2 and TCP/IP run on 4690 OS and 4680 OS Version 4.
3	
	Token-Ring adapters are for SNA LU 6.2 NetBIOS, and TCP/IP; serial port of RTIC adapter port, cable and ASYNC modem eliminator are required for ASYNC modem; Ethernet is also supported.
4	
	SNA LU 6.2/RCO requires 145 KB available memory; NetBIOS requires 140 KB available memory; TCP/IP requires 175 KB available memory; ASYNC modem requires 125 KB available memory.
5	
	Token Ring or Ethernet for NetBIOS or TCP/IP.
6	
	SNA LU 6.2 also requires AIX SNA Services/6000 Version 1 or higher for the RS/6000.
7	
	Token-Ring adapters for SNA LU 6.2, NetBIOS and TCP/IP; RS-232 TTY port on any adapter for ASYNC modem.
8	
	Token Ring or Ethernet for SNA LU 6.2 or TCP/IP.

For more information
To find out more about RDBF, contact your IBM representative. Or you can call IBM Direct at 1 800 IBM-CALL (1 800 426-2255) in the U.S or Canada. Outside the U.S. and Canada dial (770) 863-1234. For the most current hardware and software requirements, visit the following Web site: http://www.disu.ibm.com.

Copies of this and other related product specification sheets can be obtained from the IBM FAX Information Service by dialing 1 800 IBM-4FAX (1 800 426-4329) in the U.S. or Canada. Outside the U.S. and Canada dial (415) 855-4329

Reference any of the following document numbers:

9107 for Relational Database Facility (RDBF)
9105 for Retail Connectivity Option (RCO)

IBM