

If you have several  
of these systems  
in your organization:

**Workgroup Level**

IBM PC  
Apollo  
Sun  
DEC VAXstation

**Department Level**

DEC VAX  
IBM 9370  
Data General MV  
AT&T 3B  
Pyramid

**Corporate Level**

IBM Mainframes  
DEC VAX

Then you probably have  
a data sharing problem!

Britton Lee  
can solve that problem.

 **Britton  
Lee, Inc.**

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## Multi-level & Multi-vendor Systems and the Shared Database Solution

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### The Data Sharing Problem

The decade of the eighties has brought a burst of new activity to the world of business and technical computer systems: the advent of multi-level, multi-vendor computing.

Multi-level computing adds to the complexity of the information systems environment with:

- personal computers and workstations at the work group level
- mid-range general purpose multi-user systems at the departmental level
- high-end mainframe computer systems at the corporate or organizational level.

The systems at the work group, departmental, and corporate level often are multi-vendor supplied, and usually the systems have incompatible software environments. This raises the challenges of:

- how to provide for sharing of the information from the independent systems
- how to insure consistency of information among the various systems

### The Shared Database Solution

Britton Lee provides today an innovative solution to the crucial need for sharing database information among multi-vendor mainframe, departmental and personal computer systems.

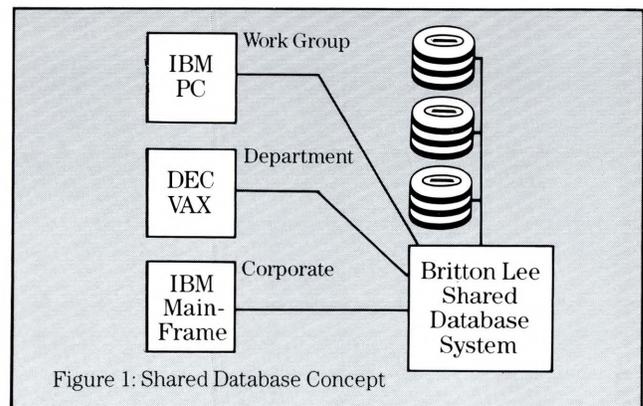
To meet this need for real-time data sharing, Britton Lee develops, manufactures, sells and supports a family of very high performance Shared Database Systems.

Britton Lee Shared Database Systems concurrently connect to and manage data from multiple "host" computer systems at the work group, departmental and mainframe levels. All application processing and interaction with end-users is performed on the host computers. All of the database management functions and database storage are off-loaded to the Britton Lee Shared Database Systems (see Figure 1).

### Shared Database Applications

Britton Lee Shared Database Systems are widely used for the following categories of applications:

- business information query and analysis
- scientific/engineering database analysis
- comprehensive on-line information systems
- flexible transaction management/processing



### System Features and Facilities

- high performance solution to data sharing in multi-vendor system environments
- provides needed performance to support large numbers of users, queries, and transactions
- SQL relational database management
- high level application development tools & 4GLs
- comprehensive RDBMS software that off-loads database overhead from customer's application computer system
- wide spectrum family of Shared Database Systems to meet differing performance and data storage needs
- a choice of relational system hardware platforms and a variety of host-system communications attachments
- a total systems solution with a spectrum of support, training and consulting services.

### Obtaining Relational Performance

Relational database systems improve productivity for programmers and end-users. On the other hand, relational database software uses large amounts of CPU and I/O resources. This results in slower response time and fewer transactions for all users. Expensive system upgrades are often performed without providing the desired increase in relational system performance.

Britton Lee Shared Database Systems, working in conjunction with a customer's host system, maintain the relational database and cost-effectively provide the relational performance that is often lacking. For less than the cost of upgrading the host system, Britton Lee can provide:

- dramatically increased performance
- database sharing with other host systems
- database consistency and concurrency

## SQL Access To Shared Database Systems

Shared Database Systems provide simultaneous multi-system sharing of relational databases using the widely used Structured Query Language (SQL). End users at terminals and personal computers can use Britton Lee's PC or host computer resident SQL to access the relational databases maintained on the Shared Database Systems. Application programmers can access and maintain the Shared Database Systems using third generation languages or fourth generation languages and tools resident on the PC or host computer systems.

## User Tools & 4GLs

A number of high-level end-user and 4GL application programming tools (such as Information Builders' Focus, Signal Technology's Omnibase, Dimension's Freeform, and Micro Decisionware's PC/SQL Link) are available for end-user access and rapid application development within the host computer systems supported by the Britton Lee Shared Database Systems. These tools and customer applications work in conjunction with Britton Lee's host resident software to manipulate data maintained on the Shared Database System.

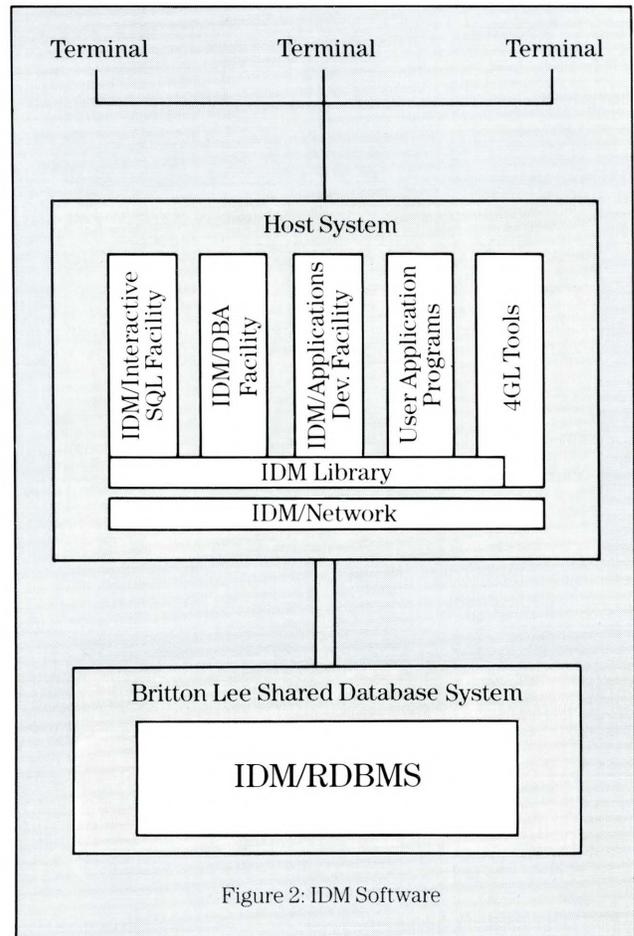
## Shared Database System Software

Shared Database Systems are composed of Britton Lee's Integrated Database Manager software for relational database management, and Britton Lee relational system hardware.

The following Integrated Database Manager (IDM) software components are resident on the host computer systems: (See Figure 2).

- IDM/Interactive SQL Facility for end-users
- IDM/Application Development Facility for application program access to SQL databases
- IDM/Database Administrator Facility for management of the shared databases for multiple computer systems
- IDM/Network Communications Facility to pass message traffic from host-resident IDM software to the IDM/Relational Database Management (IDM/RDBMS) software.

The IDM/Relational Database Management System software (IDM/RDBMS) is resident on the Britton Lee Shared Database System. It provides all of the needed functionality to support the flexibility and power of relational database management, including full facilities for database definition and modification, query processing, transaction management, data integrity, security, backup, recovery, and database optimization.



## The Britton Lee System Family

Britton Lee's family of Shared Database Systems consists of the BL300 series, BL700 series, and BL8000 series, ranging in price from \$25,000 to over \$1,000,000, including high-performance, high-capacity disk devices for database storage.

Britton Lee System	Relative Performance	Database Storage	System Price Range
BL300 Series	1.0 To 1.8	63MB To 4GB	\$25K To \$200K
BL700 Series	2.6	1GB To 11GB	\$165K To \$300K
BL8000 Series	10.0	1GB To 120GB	\$395K To Over \$1M

## Relational System Hardware

The Shared Database System relational hardware includes a choice of several performance database processors, system memory ranging from four megabytes to 256 megabytes, database disk storage ranging from 63 megabytes to over 120 gigabytes, data backup devices, and a variety of communications attachments to the customer's host computer systems.

## Communications Attachments

The customer's host computer systems are attached to the Britton Lee Shared Database Systems with one or more of the following communications links: the IBM Block Multiplexor, Ethernet, IEEE-488, or RS-232C. The Shared Database Systems support multiple concurrent communications attachments. IDM/Network Communications Facility software is provided for the host computer systems.

## Supported Host Computer Systems

Britton Lee Shared Database Systems concurrently support the following multi-vendor host computer systems:

- Workgroup systems
  - IBM PC
  - Apollo
  - Sun
  - DEC VAXstation
  - DEC Micro/VAX
- Departmental systems
  - DEC VAX/VMS
  - DEC VAX/ULTRIX
  - IBM 9370
  - Data General MV
  - AT&T 3B
  - Pyramid
- Corporate systems
  - IBM mainframes with VM/CMS
  - DEC/VAX/VMS
  - (IBM mainframes under VMS or MVS/XA— currently off-line data extract via magnetic tape.)

## A Total Systems Solution

As a full spectrum systems supplier, Britton Lee also provides pre-sale consulting, post-sale consulting, customer training, hardware service, software support, custom integration services, and custom implementation services through its Integrated Systems Division.

## A Proven Success Record

More than 650 end-user and 150 private-label Britton Lee Shared Database Systems are in operation today providing data sharing for host computer systems in need of high performance relational database access.

Britton Lee Shared Database Systems are implemented in a wide variety of Financial, Telecommunications, Government, Aerospace, Education, Manufacturing, Health Care and other industries.

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