

Britton Lee

# BL8000

## Shared Database System

### High-performance Relational Solutions

The BL8000 Shared Database System is Britton Lee's new performance standard in the world of relational database management. Britton Lee now offers total relational system solutions in the workstation, departmental and mainframe classes. For the solution that best fits your current and future needs, contact your Britton Lee sales representative, or call (800) 372-7111. In California, call (800) 624-6426.

Models Offered	Model Number			Design Objectives:	
	400	420	460	Future Parallel Processor	Future Fault Tolerant Processor
Standard Data RAM	16Mb	16Mb	32Mb	32Mb	32Mb
Maximum Data RAM	256Mb	256Mb	256Mb	1000Mb	2000Mb
CDC 430 Mbyte Drives	4	X	X	—	—
IBM 850 Mbyte Drives	X	4	14	—	—
Standard User Storage Non-mirror	1.1Gb	2.8Gb	11.3Gb	—	—
Standard User Storage Mirrored	.6Gb	1.5Gb	5.7Gb	—	—
Max User Storage Non-mirror	60Gb	120Gb	120Gb	—	—
Max User Storage Mirrored	30Gb	60Gb	60Gb	—	—
Peripheral Bays	1	2	4	—	—
MIPS	20	20	20	100	200
TP1 Transactions/Sec	45	45	45	200	200

**Britton Lee, Inc.**

14600 Winchester Blvd.  
Los Gatos, CA 95030  
(800) 372-7111  
In Calif. (800) 624-6426  
Telex: 172585  
Fax: (408) 866-0774

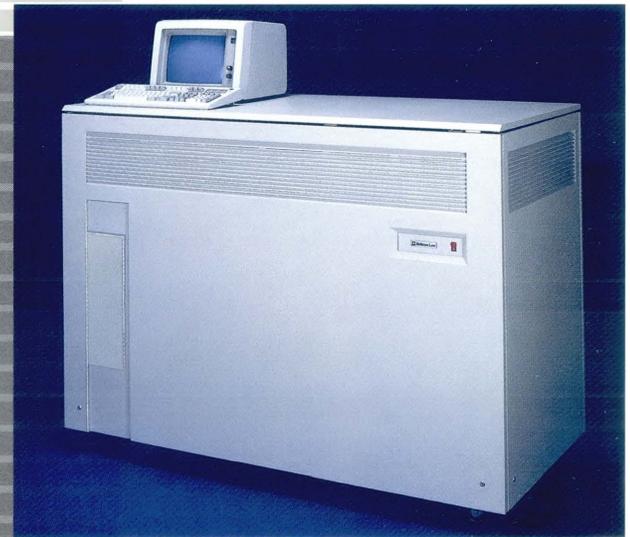
© 1987 Britton Lee, Inc. Britton Lee, Inc. recognizes the trademarks of the products mentioned herein.

5510X  
IDM300

Britton Lee

# BL8000

## Shared Database System



**Britton Lee, Inc.**

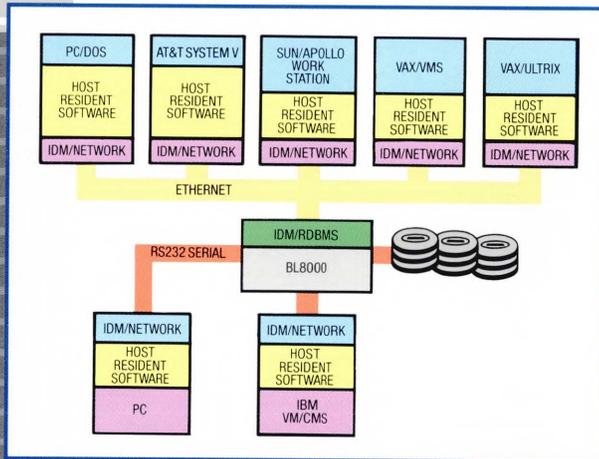
FOR INFORMATION CALL  
NORM ZARESKI  
BRITTON LEE, INC.  
111 N. SEPULVEDA BLVD.  
SUITE 250  
MANHATTAN BEACH, CA 902  
(213) 318-7009

Britton Lee

# BL8000

## Network Solution

- The BL8000 can be connected concurrently to multiple mainframes, minicomputers and workstations.
- It provides centralized data access from different operating systems.
- Enhances data security and integrity.
- Software running on your current computer systems is used to share the BL8000 Shared Database System.
- Most existing Britton Lee relational database applications will run without modification on this powerful system.



*The BL8000 Shared Database System is networked through multiple connections to coexist with the existing computer environment, offload the processing of the database, and allow all users to concurrently share the same information.*

## Full-function Relational Software

The truly relational IDM/RDBMS code — the Integrated Database Manager — controls and services all database facilities. IDM host software provides the user interface tools and communication from the host computer system attached to a BL8000.

### Features

- ANSI SQL compatible
- Portable host software in over 20 operating environments
- Application development facility
- Interactive SQL facility
- Database administrator facility for security, configuration and system management

## Why a Shared Database System?

Searching relational databases can overload any general-purpose computer running database applications as a significant workload. The BL8000 has special-purpose processors which have been designed to operate in a database environment. The application runs on the host — the database runs on the BL8000. This combination offers Britton Lee's BL8000 a clear performance advantage over conventional software packages running on even the largest of mainframes.

## Familiar Software Tools

Popular software tools make the IDM software easy to integrate. Tools like Focus on VM/CMS, Omnibase (Smartstar equivalent) on VAX/VMS and Freeform on UNIX, VAX/VMS and PC/DOS provide powerful 4GL and developer access to the BL8000 Shared Database System. PC/SQL Link gives PC users the ability to connect the most popular PC applications (Lotus 1-2-3, dBase, MultiPlan) directly to the BL8000 using SQL.

MONITOR &  
KEYBOARD  
(MAINTENANCE  
PROCESSOR)

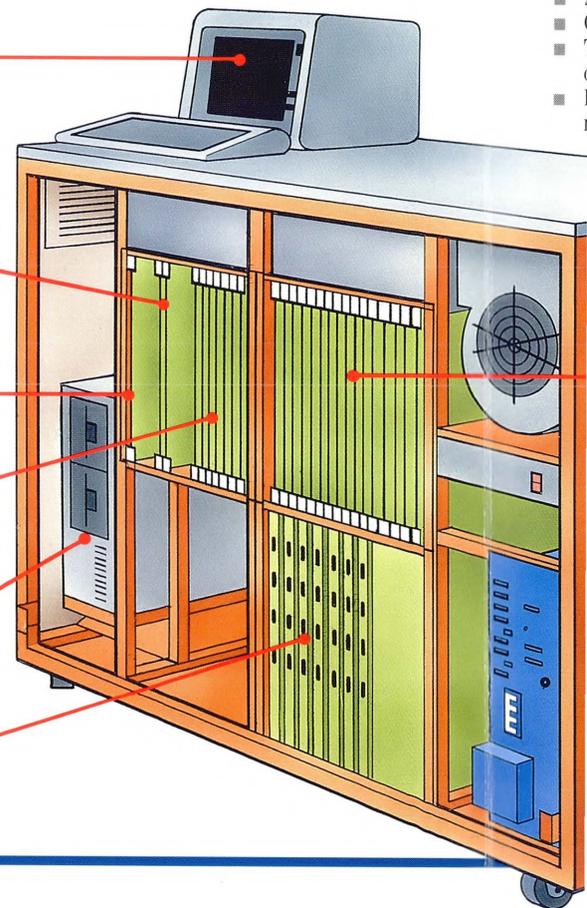
20 MIPS  
DATABASE  
PROCESSOR  
SET

PROCEDURE  
MEMORY  
(UP TO 4Mb)

I/O PROCESSOR  
(UP TO 4)

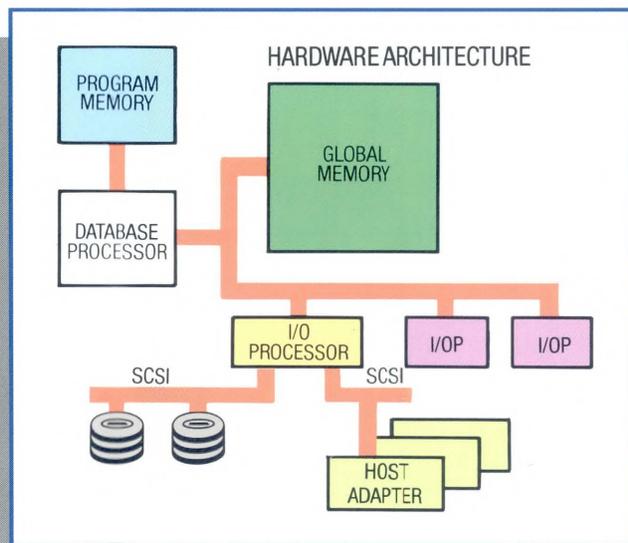
IBM PC-AT  
(UNIX BASED)  
MAINTENANCE  
PROCESSOR

HOST ADAPTER  
BOARDS  
(SUPPORTS  
2,000 USERS)



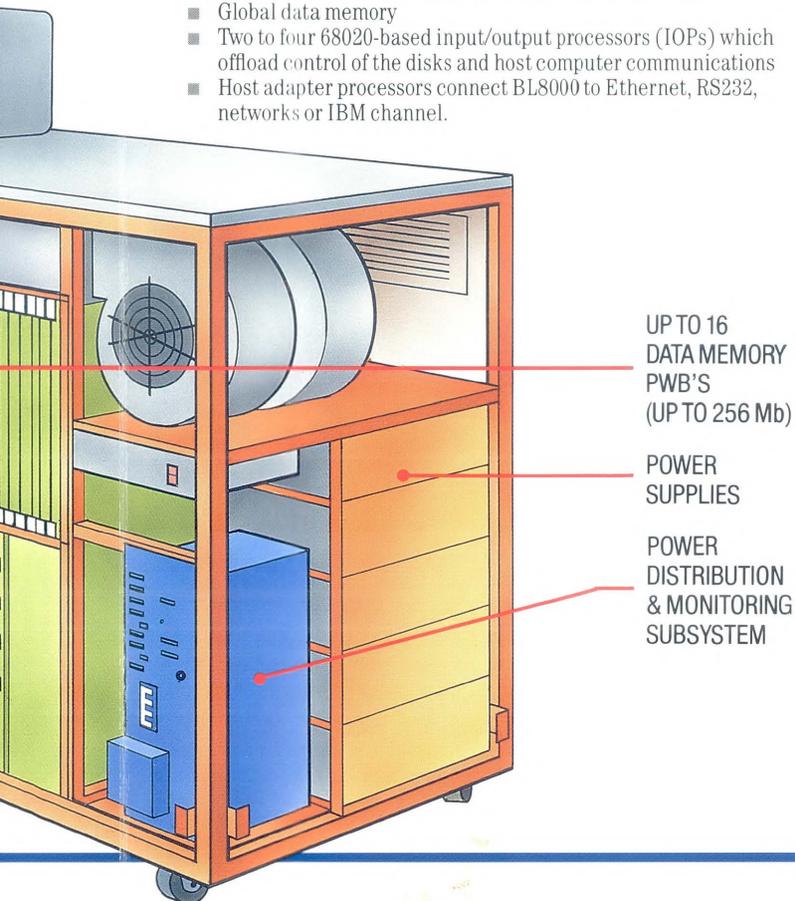
. The  
to  
st —  
Lee's  
e

ools  
VMS  
GL  
SQL  
lica-  
SQL.



The BL8000 is based on a combination of parallel processing and very fast reduced instruction set computer (RISC) concepts to offer unequaled price/performance, flexibility, and expandability. The system consists of four main parts:

- 20 million instructions per second (MIPS) database processor
- Global data memory
- Two to four 68020-based input/output processors (IOPs) which offload control of the disks and host computer communications
- Host adapter processors connect BL8000 to Ethernet, RS232, networks or IBM channel.



## BL8000 Specifications:

### Performance

- Supports 2,000 concurrent users
- 45 TP/1 financial transactions/sec

### Database Characteristics

- ASCII or EBCDIC database (conversion done transparently)
- 65,000 databases per BL8000
- Up to 32,768 tables per database
- Up to 65,000 columns per table

### Language

- True SQL relational database

### Database Processor:

20 million instructions per second (MIPS) instruction rate  
32-bit database processor

### Input/Output Processors:

Two to four 68020 based processors, each with one Mbyte RAM and two SCSI buses to offload all I/O from the database processor.

### Memory:

Data Memory: 16 Mbytes to 256 Mbytes in 16 Mbyte increments  
Database Processor Program Memory: Two Mbytes of high speed cache memory

### Mass Storage:

Disk: IBM Model 685, 850 Mbytes formatted (up to 140)  
CDC Model 9715-500, 430 Mbytes formatted (up to 140)  
Tape: CDC Model 92185 half-inch 6250 BPI drives, 140 Mbytes/reel (up to 6)

### Host Adapters

To connect the BL8000 to host computers, each BL8000 requires one or more of the following boards depending on what protocol each host supports:

#### RS232 Serial Interface Card

- Software configurable (300-19,200 baud)
- 8 ports and backpanel connectors
- Up to 8 cards (64 connections) per BL8000

#### IEEE802.3 Ethernet Interface Card

- Each card supports up to 100 host computer connections
- Up to 4 Ethernets per BL8000

#### FIPS60 Block Multiplexor Channel Card

- Supports IBM and Unisys block multiplexor channel
- Data rates to 200 KBytes/sec
- Up to 4 channel cards per BL8000

### Mirrored Disks for Security and Performance

- All models have the ability to mirror identical disk drives
- Effective disk availability greater than four years
- Software optimizer gives 300% improvement in reads/second over single drives
- On-line mirroring of failed drives allows dynamic replacement of failed disks

### Physical Specifications

Power requirement: 30 amp, 208V, 3 phase

Size: CPU 45" high by 61" long by 30" deep

Weight: approximately 1200 lbs

Heat Dissipation: CPU 16,000 BTU/hr (fully loaded system)

Britton Lee

# BL8000

## *Shared Database System*

With the growth of microcomputers, mini-computers, and mainframes within corporations, coordinating the sharing of accurate, timely, and meaningful information has become a monumental task.

Software relational database systems have offered a solution by allowing the end user more direct control over the presentation and analysis of the data. In the process, however, this solution has only magnified the problem of sharing the **same** information by encouraging multiple copies of the data in frequently incompatible formats to be run on different computers and operating systems.

Additionally, the software relational database places a very heavy load on the computing facilities, thus requiring more computing capacity than can often be justified.

## **Shared Data**

Britton Lee provides Shared Database Systems which address the issues of shared data and relational system performance by allowing multiple hosts to share a common database. This offloads the heavy computing required to perform relational database operations and greatly enhances system security and integrity.

## **Optimized System**

The BL8000 Shared Database System runs the relational database management system in a specialized processor designed for database management. Your standard application program runs in your current computers, allowing your developers to utilize familiar tools that eliminate retraining costs. Britton Lee supplies the software to connect your application programs with the BL8000 Shared Database System.

## **Mainframe Performance**

The BL8000 offers transaction rates equal to those of the largest mainframes dedicated to running relational database applications at a fraction of the cost. The BL8000 is also aimed directly at solving the problem of sharing information between mainframes, minicomputers, and PCs.

## **BL8000 Shared Database System components**

The truly relational IDM/RDBMS — the Integrated Database Manager — controls and services all database facilities. IDM host software provides the user interface tools and communications from the host computer system attached to the BL8000.

- Direct network and channel connects to:
  - IBM mainframes
  - IBM PCs
  - UNIX workstations and systems
  - DEC and AT&T minicomputers

The Integrated Database Manager consists of the following modules:

- IDM/Relational Database Management System
- IDM/Interactive SQL Facility
- IDM/Applications Development Facility
- IDM/Database Administrator Facility
- IDM/Network Communication Facility

## **BL8000 System Highlights**

- **Performance**  
The BL8000 is designed to achieve 45 TP/1 (credit/debit transaction benchmark) transactions per second.
- **Memory expansion**  
The standard BL8000 comes with 16 Megabytes of RAM which is expandable to 256 Megabytes to tackle the most memory-intensive applications.
- **Storage expansion**  
The BL8000 starts with 1 Gigabyte of disk storage which is expandable to more than 120 Gigabytes.
- **Reliability**  
The BL8000 supports duplicate (mirrored) disk drives for uninterrupted operations even in the case of a media failure.
- **System availability**  
All utility options, including backup, are done while the machine is on-line to maximize system availability.
- **Maintenance**  
Each BL8000 is equipped with a built-in IBM PC AT which continually monitors the performance of the BL8000. It contains a modem so real-time remote diagnostics can be run by Britton Lee or trained customers to identify malfunctions.
- **Backup**  
On-line backup to standard half-inch 6250 BPI drives with a total capacity of 140 Megabytes/reel (up to 6 tape drives supported).