Burroughs B 5900 Series

New Product Announcement

The Burroughs B 5930, introduced on September 16, is a versatile midrange computer system that is positioned, according to the vendor, "at the entry level to large-scale computing." The new system features full hardware and software compatibility with the larger B 6900 Series and with the forthcoming, top-of-the-line B 7900 Series. Thus, B 5930 users will be able to increase their workload capacities by up to 50 times, without reprogramming, as they move up to larger Burroughs computers.

According to Burroughs executives, the processing power of the B 5930 falls between that of the IBM 4331 Model Group 2 and the 4341 Model Group 1. As compared to the larger Burroughs B 6900 system, the B 5930 delivers about 50 percent of the B 6900's performance, costs approximately one-half as much, occupies one-fourth of the floorspace, and requires one-third of the power and cooling capacity. The system appears to be well suited for both central host data processing and distributed processing applications.

The B 5930 is the first member of the B 5900 Series, the seventh series in the growing Burroughs "900" family of computers. Additional models are planned in the B 5900 Series, and Burroughs also expects to introduce two more series: the B 4900 and the previously mentioned B 7900.

The principal architectural innovation of the B 5930 is Burroughs' multi-level Function Processor concept, in which major hardware functions are assigned to separate programmable microprocessors, each with its own memory. The central processing unit has an open-ended design that currently includes the following Function Processors: Micro Master Control Processor (MMCP), Data Processor, Memory Controller, Program Controller (for instruction decoding), Message-Level Interface Port (for I/O and data communications), and Maintenance Processor. The MMCP coordinates the activities of the other Function Processors and contains a microcoded implementation of the full instruction set of the large-scale Burroughs computers, thereby making the B 5930 program-compatible with the larger systems. The Maintenance Processor monitors the system's operation and facilitates diagnostic testing by field engineers. The various CPU Function Processors communicate by means of a 52-bit-wide main data bus and several control buses.

Information is transferred to or from peripheral devices through additional Function Processors known as Data Link Processors (DLPs), which relieve the central system of input/output "housekeeping" tasks. Each DLP includes one or more microprocessors, an interface, and a buffer memory. A B 5930 system can include up to 32 DLPs, each controlling one peripheral device or a group of similar devices. The maximum aggregate I/O data rate is 2.3 million bytes per second. An I/O base module, which houses up to 8 DLPs, can be connected to as many as four B 5930 central processors; any DLP can then be switched from one processor to another under MCP control.

Data communications control functions are handled by other microprocessor-based Function Processors called Line Support Processors and Network Support Processors. A B 5930 system can include up to two Line Support Processors, with a maximum of 16 lines each, and up to two Network Support Processors, with a maximum of 64 lines each. These can be switched among multiple central processors in the same manner as DLPs.

Burroughs' new Function Processor architecture enables the B 5930 to achieve a competitive price/performance level without reliance on exotic circuitry. The system uses LSI logic circuits and 16K error-correcting MOS RAM memory circuits, packaged on circuit boards which field engineers can simply unplug and replace when trouble occurs.

The basic B 5930 central system, priced at exactly $200,000, consists of a central processor, 1.5 million bytes of main memory, a dual-display operator console, a peripheral subsystem with 5 Data Link Processors, and a 4-line data communications subsystem. This basic system can be leased for $6,875 per month on a one-year lease, $6,250 on a three-year lease, or $5,940 on a five-year lease, including full maintenance coverage.

Multiple B 5930 systems can be interconnected and operated in any of three modes. In the Multiprocessor (tightly coupled) Mode, up to four B 5930 systems, linked through up to 20.4 megabytes of Burroughs Global memory and operating under a single MCP, can share all system

Burroughs B 5900 Series

New Product Announcement

resources on a dynamic basis. In the Shared Resources (loosely coupled) Mode, up to four B 5930 systems, linked through up to 22.4 megabytes of Global Memory, can operate under their own individual Master Control Programs while sharing I/O and data communications resources, transferring data, making inquiries, and inaugurating jobs. In the Independent Mode, each system operates with its own MCP and job mix, while intersystem links via Global memory offer advantages in terms of load balancing, application development, security, and redundancy. B 5930 systems can also be intermixed with Burroughs B 6800 and/or B 6900 systems in either the Shared Resources or Independent Mode.

B 5930 users will be able to utilize all of the mature, highly regarded software that is available for the larger Burroughs computers. In addition to the Master Control Program (MCP), which directs the system's overall operations, Burroughs offers systems software facilities such as the Data Management System (DMS II), the Network Definition Language (NDL II), the Generalized Message Control System (GEMCOS), and the Command and Edit Language (CANDE). Programming language compilers include APL, ALGOL, BASIC, COBOL 68 and 74, FORTRAN 68 and 77, PL/1, and RPG. The Basic System Software Facility, consisting of the MCP, NDL II, GEMCOS, and one compiler, is available for either a monthly license fee of $1,210 or a one-time payment of $36,300 plus an annual fee of $5,808. All of the other B 5930 software components are individually priced.□

EQUIPMENT PRICES

		Purchase Price	Monthly Maint.*	1-Year Lease**	3-Year Lease**	5-Year Lease**
PROCESSOR AND MAIN MEMORY						
B 5930	Basic System; includes one Central Processor, one Power Subsystem, one Maintenance Processor, two I/O Base Modules, two 786KB Memory Modules (1.5 megabytes total), one Operator Console with dual displays and dual Mini-Disks, one Operator Console DLP, one Line Printer DLP, one Magnetic Tape DLP, two Disk Pack DLPs, one Sub-Broadband Line Support Processor, one Quad Line Adapter, and four Electrical Interfaces	$200,000	$600	$6,875	$6,250	$5,940
B 5007	786KB IC Memory Module	20,000	50	625	570	540
B 5007-1	Memory Expansion Adapter	10,000	25	315	285	270
B 5009-14	Global Memory Control with 786KB	125,000	150	3,925	3,570	3,390
B 5009-15	786KB IC Global Memory Module	30,000	50	945	860	820
B 5905-90	I/O Subsystem Base Module	6,250	25	200	180	170
B 5095-90	I/O Subsystem Expansion Cabinet	27,000	50	847	770	730
B 5005-90	Base Module Expansion Kit	3,000	10	95	85	80
B 9348-51	Additional Operator Console Display	7,600	30	240	220	210
B 5930-2	I/O Base Module Exchange; 2 processors; includes one path selection module and one distribution module	3,500	5	110	100	95
B 5930-3	I/O Base Module Exchange; 3 processors; includes one path selection module and two distribution modules	4,500	10	145	130	125
B 5930-4	I/O Base Module Exchange; 4 processors; includes one path selection module and three distribution modules	5,500	15	175	160	150
B 5095-92	Distribution Module	1,500	5	50	45	40
DATA LINK PROCESSORS						
B 5341-90	Operator Console DLP (supports two ODTs)	5,285	40	180	165	155
B 5110-90	Card Reader DLP (B 9115/16/17)	3,560	15	112	102	97
B 5112-90	Card Punch DLP (B 9212/13)	3,500	15	110	100	95
B 5395-91	PE Magnetic Tape DLP (B 9495-2/-3/-5/-6/-82/-83)	7,000	30	220	200	190
B 5395-90	NRZ Magnetic Tape DLP (NRZ/PE switchable)	7,000	30	220	200	190
B 5395-92	GCR/PE Magnetic Tape DLP (B 9495-22/-23/-32/-33)	7,000	30	220	200	190
B 5373-90	5N Disk DLP	10,770	45	340	310	290
B 5305-90	IC Mini-Disk DLP	6,880	30	217	197	187
B 5304-90	Disk Pack DLP	7,200	25	227	206	196
B 5247-92	Line Printer DLP (B 9247-13)	4,400	20	139	126	
B 5247-93	Line Printer DLP (B 9247-14)	4,400	20	139	126	
B 5247-94	Line Printer DLP (B 9247-15)	4,400	20	139	126	120
B 5247-92	Line Printer DLP (B 9246-20)	4,400	20	139	126	120
B 5247-91	Line Printer DLP (B 9246-6)	4,400	20	139	126	120
B 5390	Reader Sorter Processor Subsystem; includes DLP	26,000	100	820	745	700

Burroughs B 5900 Series

New Product Announcement

EQUIPMENT PRICES

		Purchase Price	Monthly Maint.*	1-Year Lease**	3-Year Lease**	5-Year Lease**
DATA COMMUNICATIONS						
B 5369	Network Support Processor with 160KB	34,000	100	1,070	970	920
B 5369-1	32KB Memory Module	4,150	25	125	115	110
B 5369-2	Sub-Broadband Line Support Processor	7,500	25	235	215	205
B 5369-3	Quad Line Adapter (Character)	5,095	25	161	146	139
B 5369-4	Quad Line Adapter (Bit)	5,095	25	161	146	139
B 5369-5	Broadband Bit Line Support Processor	15,000	50	475	430	410
B 5359-10	RS-232 Electrical Interface (Bit)	NC				
B 5359-20	RS-232 Electrical Interface (Character)	NC				
B 5359-11	CCITT V.24 Electrical Interface (Bit)	NC				
B 5359-21	CCITT V.24 Electrical Interface (Character)	NC				
B 5359-12	TDI/20 Electrical Interface (Bit)	NC				
B 5359-22	TDI/20 Electrical Interface (Character)	NC				
B 5359-40	Autocall Feature (Bit)	NC				
B 5359-41	Autocall Feature (Character)	NC				
B 5359-30	Bell 303 Electrical Interface (Bit)	NC				
B 5359-31	Bell 303 Electrical Interface (Character)	NC				
B 5095-93	Logic Expansion Module	26,000	100	820	745	700

*For 5-day/8-hour service.
**Includes 7-day/24-hour maintenance coverage.
NC: No charge.

SOFTWARE PRICES

		Unlimited-Time Plan		Limited-Term
		One-Time License Fee	Annual Maint. Fee	Monthly License Fee
SSF	Basic System Software Facility; includes B 5000 Master Control Program (MCP) and utilities, Network Definition Language (NDL II), Generalized Message Control System (GEMCOS), and one compiler	$36,300	$5,808	$1,210
COB	COBOL 68 Compiler	3,300	530	110
C74	COBOL 74 Compiler	3,300	530	110
BSC	Basic Language Compiler	3,300	530	110
PL1	PL/1 Compiler	3,300	530	110
FOR	FORTRAN Compiler	3,300	530	110
APL	APL/700 Compiler	3,300	530	110
DM2	DMS II	25,575	4,090	855
DI2	DMS II Inquiry	4,950	790	165
DIC	DMS II Data Dictionary	5,940	950	200
RJE	Remote Job Entry	1,980	315	65
CDE	Command and Edit Language	3,300	530	110
BAR	BARS (Burroughs Activity Reporting System)	2,475	395	85
LOG	System/Logger	1,650	265	55
DIA	Diagnostics MCS	1,650	265	55
MCT	GEMCOS (Total)	11,445	1,830	380
MCA	GEMCOS (Advanced)	7,625	1,220	255
DBA	DMS II DBANALYZER	4,400	705	145
DBM	DMS II DBMONITOR	4,400	705	145
RPG	RPG Compiler	3,300	530	110