Univac 90/40

New Product Announcement

The Univac 90/40, introduced in April 1978, is a system that extends the upper end of the company's small-to-medium-scale line of business computer systems. The 90/40 is an enhanced version of the Univac 90/30 (Report 70C-877-04), and is the third member of the OS/3-based computer family, each of which provides an internal performance increase of approximately 33 percent over the next smaller model.

The 90/40 fulfills two roles in the Univac product family. First, it extends the 90/30 family into the wide performance gap that existed between the previous top of the medium-scale line and the Univac 90/60 system that forms the lower end of the company's large-scale computer product line. Previously, there was a substantial product void between the 90/30 and the nearly twice-as-powerful 90/60 system. The introduction of the 90/40 breaks this large performance jump into two smaller ones, one of about 33 percent and the other about 50 percent. Second, the new model extends the OS/3-based line of business systems to meet competitive pressures from Univac's traditional rivals such as IBM, Honeywell, NCR, and Burroughs. IBM systems targeted by the 90/40 include the System/3 Model 15D and the System/370 Models 115 and 125, while at Honeywell the Level 64 system is the anticipated competition. NCR's competing products include the NCR 8370 (a repackaged Century 151) and the newer 8450 systems. Burroughs' revamped B 1800 systems will also compete with the 90/40.

The 90/40 owes its increased performance level to two important differences from the 90/30: the addition of an instruction lookahead buffer and faster main memory. Additional throughput gains should also be realized from the 90/40's increased main memory capacity of 1048K bytes, compared to the 524K-byte maximum capacity of the 90/30. Main memory is based on 16K-bit chips and has a cycle time of 500 nanoseconds per 2-byte access. Another important improvement in the 90/40 is a data transfer rate increase of 20 percent in the selector and multiplexer channels.

Univac has packaged the 90/40 differently from the 90/30. The 90/40 is offered in a more complete package with fewer optional features. The basic 90/40 system includes several features that are optional with the 90/30. Specifically, the minimum 90/40 system includes storage protection, micro-logic expansion, channel cabinet, one selector channel, 5039 disk storage control, and a communications adapter that can control up to 12 half-duplex or 6 full-duplex lines—all of which are offered as options with the 90/30. In addition, the 90/40 main memory capacity begins at 524K bytes, which is the maximum memory available on the 90/30.

The table on the next page outlines and compares the significant features of the Univac 90/30 and 90/40 systems.

The basic 90/40 system includes the CPU with 524K bytes of main memory, an external multiplexer channel, one selector channel, an integrated peripheral channel, and a CRT operator terminal, and is priced at $7,745 per month (one-year lease) or $304,272 purchase. The purchase price of a 90/30 system with identical optional features is exactly the same, indicating that the more powerful 90/40 CPU is priced identically with the 90/30 CPU providing a 33-percent price/performance increase.

Prices of the Univac 90/40 central processor and main memory are listed on the following page. For peripheral equipment and software prices, please refer to the preceding report on the Univac 90/25 and 90/30 (70C-877-04).□

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CHARACTERISTICS OF THE UNIVAC 90/30 AND 90/40 SYSTEMS

	90/30	90/40
PROCESSOR		
Relative performance	1.00	1.33
Instruction lookahead	No	Yes
MEMORY		
Type and size	4K MOS	16K MOS
Cycle time, nanoseconds	600	500
Bytes fetched per cycle	2	2
Minimum capacity, bytes	65,536	524,288
Maximum capacity, bytes	524,288	1,048,576
Increment size, bytes	32,768/65,536	131,072
FEATURES		
Console Printer	Optional	Optional
Storage Protect	Optional	Standard
Micrologic Expansion	Optional	Standard
Channel Cabinet	Optional	Standard
Selector channel	Optional, 2 max.	1 Standard, 1 opt.
External Multiplexer Channel	Optional	Standard
Internal Multiplexer Channel	Optional	None
Integrated Peripheral Channel	Standard	Standard
Integrated Disk Adapter	Optional	Optional
DATA RATES (bytes per second)		
Selector channel	825,000	1,000,000
Multiplexer channel	83,000	99,000
Integrated Peripheral Channel	50,000	50,000
Integrated Disk Adapter	625,000	625,000

EQUIPMENT PRICES

		Purchase Price	Monthly Maint.	Rental (1-year lease)*	Rental (5-year lease)*
PROCESSOR AND MEMORY					
3029-59	90/40 Processor with 524,288 bytes of main storage, one multiplexer channel, one selector channel, 32 general registers, 148-instruction set, two timers, integrated peripheral channel, relocation registers, storage protect, 5039-97 disk control, Univac 9200/9300 compatibility mode, IBM 360/20 compatibility mode, communications adapter, and CRT/keyboard operator station; expandable to 1,048,576 bytes; requires disk storage subsystem, printer, and card reader or diskette subsystem	$304,272	$1,339	$7,745	$5,750
3029-61	90/40 Processor; same as 3029-59 except has 5024-99 disk control instead of 5039-97	303,744	1,436	7,549	5,860
F2948-99	Storage Expansion; 131,072 bytes; maximum of four per processor	34,560	110	970	680
PROCESSOR FEATURES					
8541-84	Console Printer; 30 cps	2,570	27	72	61
F1618-01	Additional Selector Channel for up to eight subsystems; maximum of one per system	7,344	37	170	145

*Rental prices do not include maintenance.

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