

**UNIVAC 90/60, 90/70, and 90/80****New Product Announcement**

90/80-2 AND 90/80-3: UNIVAC has announced two new models in the Series 90 family, the 90/80-2 and 90/80-3 computers, intended to compete with the IBM 370/148 and extend into the performance range of the new IBM 3031 processor. In addition, a new disk storage subsystem has been announced.

Both of the new computer systems are based on similar processors, one with a machine cycle time of 130 nanoseconds (90/80-2), and the other with a machine cycle time of 98 nanoseconds. The most significant enhancement over the earlier 90/80 system is the use of 16K-chips in main memory, which permits the consolidation of the central processor and peripheral processor into a single cabinet. The number of channels included with each basic system has also been increased from two (one block multiplexer and one byte multiplexer) to five (four block multiplexer and one byte multiplexer).

The entry-level 90/80-2 system includes a 130-nanosecond CPU with 1024K bytes of main memory, a peripheral processor with one 183-KBS byte multiplexer and four 1500-KBS block multiplexer channels, system console, power distribution panel, and motor/alternator. Main memory is expandable to 2048K bytes, and the I/O subsystem is expandable to 16 channels through the addition of an F2011-00 interface extender. The peripheral processor provides 240 block multiplexer subchannels in the basic system and up to 496 subchannels in the expanded configuration. The 90/80-2 can be upgraded to 90/80-3 status using the F2756-01 upgrade kit. Prices for the 90/80-2 start at \$798,250 on purchase or \$20,665 per month on a 1-year lease.

The 90/80-3 is nearly identical to the 90/80-2, differing only in processor cycle time and memory capacity. This higher-performance version features a machine cycle time of 98 nanoseconds, providing about 30 percent more internal performance than the 90/80-2. Its memory capacity is 4 megabytes, twice that of the 90/80-2. The basic 90/80-3 configuration includes the CPU with 2048K bytes of main memory, expandable to 4096K bytes, a peripheral processor with one 183-KBS byte multiplexer and four 1500-KBS block multiplexer channels, system console, power distribution panel, and motor/alternator. Like its smaller counterpart, the I/O subsystem for the 90/80-3 is expandable to 16 channels through the F2011-00 interface extension.

The performance of the new 90/80-3 is estimated to be about 85 percent that of IBM's recently announced Model 3031 processor, while the basic system price is about 86 percent that of the 3031. Pricing for the 90/80-3 starts at \$1,019,700 on purchase and at \$26,400 per month on a 1-year lease.

**MODEL 8450 DISK SUBSYSTEM:** This new high-performance disk subsystem is available for use with the 90/80 computers and with all members of the UNIVAC 1100 Series except the 1108. The 8450 Dual Disk Drive is a dual-drive, fixed-media unit, each drive having a capacity of 153 megabytes. In addition, 1 million bytes of fixed-head storage can be added to each spindle. Average head positioning time is 23 milliseconds, and average rotational delay is 8.3 milliseconds (3600 rpm). The data transfer rate for the ISS-manufactured unit is 1.26 million bytes per second. The 8450 subsystem requires a 5040-95 controller that controls up to sixteen 8430, 8433, or 8450 disk drives (eight dual-drive units).□

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EQUIPMENT PRICES

		<u>Purchase Price</u>	<u>Monthly Maint.</u>	<u>Rental (1-year lease)</u>	<u>Rental (5-year lease)</u>
<b>PROCESSORS AND FEATURES</b>					
3044-99	90/80-2 Processor; includes 130-nanosecond CPU virtual addressing capability, 1024K bytes of integral main storage with key-in protection, peripheral processor with one byte multiplexer channel and four block multiplexer channels, system console, power distribution panel, and motor/alternator	\$798,250	\$2,100	\$20,665	\$15,500
3044-97	90/80-3 Processor; includes 98-nanosecond CPU with virtual addressing capability, 2048K bytes of integral main storage with key-in protection, peripheral processor with one byte multiplexer channel and four block multiplexer channels, system console, power distribution panel, and motor/alternator	1,019,700	2,700	26,400	19,800
F2756-01	Upgrade Kit; converts 90/80-2 to 90/80-3; requires 2 megabyte system	87,550	100	2,265	1,700
F2011-00	Interface Extension; permits 8 additional byte multiplexers to be added to subsystem; max. of one	2,160	5	45	38
<b>MEMORY</b>					
F2672-99	1024K bytes of memory for 90/80-2	180,250	500	4,670	3,500
F2672-98/97	1024K bytes of memory for 90/80-3	159,650	400	4,135	3,100
<b>8450 DISK SUBSYSTEM</b>					
8450-99	8450 Dual Disk Drive; 153 megabytes per spindle, 306 bytes total per unit	\$66,000	\$226	\$2,140	\$1,390
8450-97	8450 Dual Disk Drive; 153 megabytes per spindle plus 1 megabyte of fixed-head storage; 307 megabytes total per unit	74,600	250	2,390	1,590
F2717-99	Fixed-Head Conversion for 8450-99 dual disk drive; provides 1.0 megabyte; \$100 field installation charge	13,600	24	250	200
5040-95	Control for up to eight 8450 dual disk drives; expandable to eight additional 8450 or 8430/8433 drives	102,000	400	2,700	1,800
5040-93	Dual 5040 controls for dual-access systems	176,448	700	5,015	3,260
F2719-01	8450 Expansion for 5040-95 control; 16 drives max. per control	7,680	40	160	120
F2336-00	8430/8433 Expansion for 5040-95 control; 16 drives max. per control	2,400	10	60	42
F2718-99	8450 Dual Access; provides dual access and simultaneous operations on any two 8450 drives; requires two 5040-95 controls	2,888	14	56	42