

90/30 System



The photo above shows a basic SPERRY UNIVAC™ 90/30 System configuration with central processor, an operator's CRT display console, an Integrated Card Reader (500 CPM), an optional Integrated Card Punch (75-160 CPM), an Integrated Printer (500 LPM) and two Integrated Disc Drives with a capacity of 57.8 MB.

The 90/30 is designed to encompass a broad range of computer requirements. It offers new peripherals which are integrally attached to the processor.

The SPERRY UNIVAC 90/30 employs micro-programmed logic and byte-addressable, halfword-oriented semi-conductor

memory. Memory sizes range from a minimum of 32,768 bytes to a maximum of 262,144 bytes.

In addition to the integrated I/O devices, the 90/30 is capable of supporting higher speed paper peripherals on the multiplexer channel, as well as additional high speed (tape and/or disc) devices on up to two selector channels. The multiplexer channel can connect up to 8 subsystems and operates at a maximum speed of 83KB/second. The selector channels can connect up to 8 subsystems each and operates at a speed of 825 KB/second.

Integrated communications capability is provided by the Communication Adapter (CA)

which can handle up to twelve full-duplex or twenty-four half-duplex communications lines.

It is attached to the Integrated Peripheral Channel which has a transfer rate of up to 50 KB/second.

The SPERRY UNIVAC 90/30 Processor, along with the wide range of newly-engineered, high-performance peripheral subsystems and the new OS/3 operating system, continue to meet the most demanding challenges of today's computer requirements. The user achieves high throughput, efficient hardware and software and growth potential at a reasonable cost.

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SPERRY UNIVAC 90/30 System

COLORS

Standard Colors

Frames slate gray
 Front panels olive
 End panels charcoal brown
 Work surfaces pearl gray
 Top panels dark gray

FUNCTIONAL CHARACTERISTICS:

Processor

Contains microprogramming logic, Integrated Peripheral Channel and associated controls, a CRT operators console, 32,768 bytes of semi-conductor main memory and the integrated disc adapter. An additional 16,384 or 32,768 bytes of memory can be housed in the CPU cabinet. A Communication Adapter may be attached to the Integrated Peripheral Channel to provide up to 12 full-duplex or 24 half-duplex communication line terminations.

Main Storage Characteristics

- cycle time of 600 nanoseconds/2 bytes.
- odd parity basis.
- metal oxide semi-conductor technology.

Main Storage Sizes

32,768; 49,152; 65,536; 98,304;
 131,072; 163,840; 196,608;
 229,376; 262,144 bytes.

Console

- alphanumeric typewriter keyboard with CRT display unit.

- screen capacity—16 lines/64 characters.
- optional 64 character/line hard copy console printer—30 c.p.s. rate.

Instruction Repertoire

- basic instructions
 71 non-privileged
 13 privileged
- micrologic expansion expands instruction repertoire to 148 instructions including 44 Floating Point instructions.

Registers

- 2 sets of 16 fullword 32 bit registers.

Addressing Scheme

- Base/Displacement type with automatic address relocation through a hardware relocation register.

Storage Protection

- Write or read/write protection for programs and I/O in increments of 512 bytes for memory sizes not exceeding 131,072 bytes and in increments of 1,024 bytes for larger memory sizes.

Integrated Peripheral Channel

Integrally attached to the Processor, the IPC controls the operators console, integrated card reader, integrated card punch, and the integrated printer.

0717 Integrated Card Reader

Reads up to 500 CPM (80 col.). A 66 col. or 51 col. read feature

is optional. Reading method is via multistrobe photo-sensing of each hole plus light and dark checks. The 0717 has a validity check as standard feature.

0605 Integrated Card Punch

75-160 CPM punch capability, 1 input stacker, 1 error stacker, 1 output stacker. The 160 CPM punch capability is achieved using the first 28 columns. Validity check is standard. Optional card reading at 160 CPM is available.

0773 Integrated Printer

The integrated printer contains a flexible, horizontal-moving type band in an interchangeable cartridge assembly for operator convenience. Print rate = 500 LPM with 48 character print band, 120 print positions standard. Optional 132 or 144 print position expansion is available. A 63 character print band is available as an option, with a rated speed of 400 LPM.

Forms control is provided by a vertical format buffer loaded under program control which eliminates paper tape loops.

Integrated Disc Adapter

Housed within the CPU, this disc device interface has a transfer rate of 625KB/second and can control up to 8 integrated disc drives with a total storage capacity of over 230 million bytes. Two disc drives are included in the basic system.

8416 Integrated Disc Drive

A high speed disc unit with removable disc pack.

Features include:

- 2,800 RPM rotation speed
- 625,000 bytes/second transfer rate
- 28.9 million bytes per pack
- 21.5 micro-second rotation time
- 404 tracks/surface
- 7 data surfaces
- 40 records per track (256 bytes/record)
- 10,240 bytes/track; 71,680 bytes/cylinder

Communications Adapter

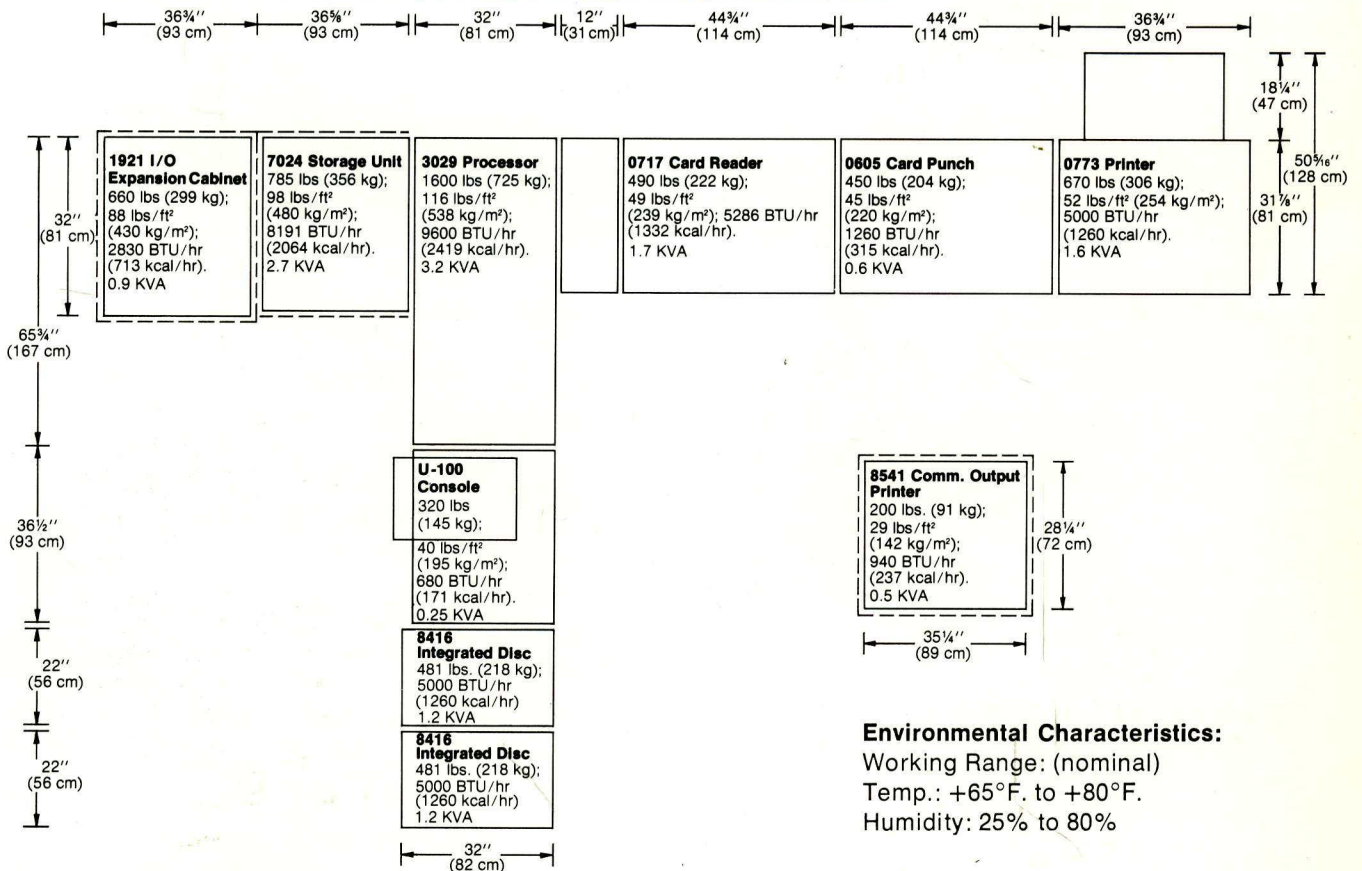
The integrated communications option is provided by the Communication Adapter (CA) which in its basic configuration handles 6 full-duplex or 12 half-duplex lines. An expansion feature allows the ability to handle up to 12 full-duplex or 24 half-duplex lines. The Integrated Peripheral Channel to which the Communication Adapter is attached has a transfer rate of 50,000 bytes per second. It provides the 90/30 with the

ability to communicate with other UNIVAC systems, and synchronous, binary synchronous and asynchronous terminals.

Emulators

9200/9300 and 360/20 } emulators are available to run under control of the 90/30 Operating System (OS/3).

PHYSICAL CHARACTERISTICS AND POWER REQUIREMENTS



Environmental Characteristics:

Working Range: (nominal)
Temp.: +65°F. to +80°F.
Humidity: 25% to 80%

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