DATE: February 6, 1969

SUBJECT: PDP-11 Packaging Concept

NO: KH:69:05

TO:

FROM: Ken Hedberg

The PDP-11 is unique in the field of small computers. It is the first small general purpose computer to employ a truly modular building block concept, allowing easy customizing of a configuration to the needs of any particular customer.

The macro module which is the building block of the system, is the wire-wrap panel and frame assembly, along with the appropriate modules, that form a functional and mechanical entity. This central processor is a macro module, the memory is another macro module. Peripheral controllers are examples of other macro modules. The CP and memory macro modules are put together in a drawer to form the most basic PDP-11.

The physical package is a drawer which measures five and one-quarter inches high by twenty-three inches deep by nineteen inches wide without console. The console adds one and one half inches to the front of the drawer. Each drawer has its own power supply built in to supply any macro modules contained therein. It also contains the I/O Bus interface and connectors.

The basic PDP-11 would contain a central processor and 4K of memory, in a drawer with the power supply and an I/O connector. Additional drawers can be added when more memory or peripheral control macro modules are needed for a larger, more flexible system, to a maximum of 61K bytes of memory and any reasonable number of I/O macro modules. Each drawer can house and power up to four single macro modules or two double macro modules. This allows the user to expand his system at any time by adding another drawer and whatever additional macro modules are needed, such as expanded I/O capabilities and more memory.

The first drawer of the system, containing CP and memory, may have a console that is attached directly to the front. There are two types of consoles available to the user: the standard one for the PDP-11 family which has all the normalcontrol and display functions of the traditional small computer console; the second available for use on dedicated systems. This second console is blank except for a key-lock power switch, run light, and start stop switch.

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The PDP-11 is designed to operate on 105-130 VAC or 210-260 VAC at 47-63 HZ which will alow international operation without special current-adapting devices. It is also designed to operate reliably from $32^{\circ}F$ to $130^{\circ}F$.

The system can be sold in a table top configuration, as a rack mount, or mounted in a DEC cabinet. Rack mounted units will include chassis slides for ease of servicing.