

UNHA-1038



Bell Laboratories

subject: UNIX Recommended Hardware  
Configurations

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MEMORANDUM FOR FILE

The attached table lists recommended hardware configurations for running UNIX as it is supported by Dept. 8234 (Program Generic PG-1C300-01 Issues 1 and 2) and supersedes the document "UNIX Minimum Hardware Configurations" dated November 4, 1974. Items appearing in boldface type are considered essential for operating the standard UNIX system and receiving support.

All of the peripherals listed are supported by drivers in the Program Generic. Drivers for a variety of other peripherals are available from users.

A console terminal and user terminals are also required but not listed explicitly because there is such a wide variety of acceptable (full duplex, upper and lower case ASCII) terminals to choose from.

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MH-8234-GCV-nroff

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## UNIX SUPPORTED HARDWARE CONFIGURATIONS

<b>Processor</b>	<b>11/40 Processor</b>	<b>11/45 Processor</b>	<b>11/70 Processor</b>
	<b>KT11-D</b> Memory segmentation unit.	<b>KT11-C</b> Memory segmentation unit.	
	<b>KE11-E</b> Hardware multiply, divide and extended instruction set unit.	<b>KW11-L</b> Line frequency clock (programmable clock may be substituted)	
	<b>KW11-L</b> Line frequency clock (programmable clock may be substituted)		
<b>Memory</b> (recommended minimum) 128K word maximum	<b>48K words</b>	<b>48K words</b>	<b>64K words</b>
<b>Disks</b>	<b>At least ONE</b>  <i>ANY PROCESSOR</i>  <b>RJS03[04]/RS03[04]</b> Fixed head disk drive and control unit. Expandable up to 8 drives: RS03 (256K words) or RS04 (512K words). 4 or 8 $\mu$ sec/word transfer rate, 8.5 msec average access time.		
	<b>RP11/RP03</b> 20 million word disk pack drive and control unit. Expandable up to a total of 8 RP03 disk pack drives. 7.5 $\mu$ sec/word transfer rate, 42 msec average access time.		
	<b>RJP04/RP04</b> 44 million word disk pack drive and control unit. Expandable up to a total of 8 RP04 disk pack drives. 2.5 $\mu$ sec/word transfer rate. 28 msec average access time.		
	<b>RK11/RK05</b> 1.2 million word disk cartridge drive and control unit. Expandable to a total of 8 RK05 DECpack disk drives. 11 $\mu$ sec/word transfer rate, 70 msec access time.		
	<b>RF11/RS11</b> Obsolete disk.		
	<i>11/70 PROCESSOR ONLY</i>  <b>RWS03[04]/RS03[04]</b> Fixed head disk drive and control unit. Expandable up to 8 drives: RS03 (256K words) or RS04 (512K words). 2, 4, or 8 $\mu$ sec/word transfer rate, 8.5 msec average access time.		
	<b>RWP04/RP04</b> 44 million word disk pack drive and control unit. Expandable to a total of 8 RP04 disk pack drives. 2.5 $\mu$ sec/word transfer rate. 28 msec average access time.		

**Magnetic Tape**

**At least ONE**

*ANY PROCESSOR*

*TM11/TU10*

9-track magnetic tape transport and control unit. Expandable to a total of 8 TU10 transports. 45 in/sec, 800 bpi (NRZI).

*TJU16/TU16*

9-track magnetic tape transport and control unit. Expandable to a total of 8 TU16 transports. 45 in/sec, program selectable 800 bpi (NRZI) or 1600 bpi (phase encoded).

*TC11/TU56*

Dual DECtape transport and control unit. Expandable to a total of 4 TU56 dual transports, within the included cabinet. 288K character storage per reel.

*11170 PROCESSOR ONLY*

*TWU16/TU16*

9-track magnetic tape transport and control unit. Expandable to a total of 8 TU16 transports. 45 in/sec, program selectable 800 bpi (NRZI) or 1600 bpi (phase encoded).

**Line Printers**

*ANY PROCESSOR*

*LP11*

80 or 132 column line printer and control unit. 64 and 96 character sets. Speeds from 230 to 1200 lines/minute.

**Paper Tape**

*ANY PROCESSOR*

*PC11*

High speed paper tape reader/punch and control unit. 300 characters/sec reading, 50 characters/sec punching.

**Asynchronous Interfaces**

*ANY PROCESSOR*

*DC11*

Programmable asynchronous serial line interface. All control leads from the Bell 103, 202 or equivalent (except data set ready) are brought into the unit.

*DL11 or KL11*

Serial line interface. 8-bit character size, 2 stop bits.

*DH11/DM11*

Programmable asynchronous 16 line multiplexer and mounting panel. 16-line modem control multiplexer for program operation of control leads for 103, 202, or equivalent data sets.

**Synchronous Interface**

*ANY PROCESSOR*

*DP11*

Obsolete interface.

**Auto Dial Interface**

*ANY PROCESSOR*

*DN11*

Interface to Bell 801 ACU.