

HP 9000 Series 330, 360 and 370 Configurable Systems



Configurable workstations offering immediate and lasting price/performance value.

An HP Series 300 purchase from one of these highly configurable workstations combines the performance you need today with the potential for future growth through:

- Stable architecture,
- Configurability,
- Expansion options, and
- Compatibility.

In development of the Series 300, HP has strictly adhered to the stable, proven technology of Motorola MC68000 architecture. Hewlett-Packard's insistence on full object code compatibility enables you to take advantage of an extensive base of hardware, operating systems and application software. Today. And tomorrow. System expansion and performance upgrades are available to you through convenient hardware enhancements that are less complex and less costly than extensive software revisions or expensive personnel retraining.



HP 9000 Series 300 configurable workstations offer performance choices to suit a variety of applications. The Model 370 joins the top end of the Series 300 family with its MC68030 processor operating at 33 MHz and 8 MIPS performance. Model 360 offers 5 MIPS from its MC68030, 25 MHz processor. Model 330 provides 2 MIPS performance based on the MC68020, 16.7 MHz processor.

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More performance per dollar

HP offers levels of performance per dollar of investment in the Models 330, 360, and 370 that are unique to the industry. And as you consider expanding or upgrading, your investments in Hewlett-Packard workstations yield greater dividends from low-cost upgrades that improve performance and capabilities for your users and which maintain earlier investments in users' training as well as software and company databases. For example, customer-installable SPU upgrades enable Model 330 users to move up to the performance of a Model 360. Similar upgrades are available to allow Model 350 and 360 users to gain Model 370 performance.

Features and options create user-ideal systems

All of these Series 300 workstations are available in pre-packaged configurations with broad choices of RAM, floating point hardware and other I/O options. A variety of graphic displays, subsystems and accelerators are available as well as a large selection of HP disc drives, printers, plotters and other peripherals to allow you to create the right system for your application.

The Series 300 workstations run HP-UX, Hewlett-Packard's implementation of the industry standard operating system, with both Berkeley and HP enhancements. HP BASIC, a premier instrument control and general scientific language, is also available.

Series 300 configurable workstations have built-in RS-232, HP-IB (IEEE 488), and LAN (Local Area Network) interfaces for high connectivity. DMA (Direct Memory Access) is also built in. Available as options are:

- SCSI (Small Computer Systems Interface)
- High-speed HP-IB
- MS-DOS co-processor card
- Floating point accelerator
- VME and DIO II expanders

The Series 300 workstations can be used as servers by virtue of capabilities including:

- 2 - 8 MIPS processing power enabling workstation users to off-load compute-intensive tasks.
- I/O expandability to create a communications gateway for integrating a multi-vendor environment.
- Support of discless nodes and shared peripherals to reduce the cost of a workcluster.
- File server capability to allow centralized access to programs and data with revision control.

Model 370

Performance without rival.

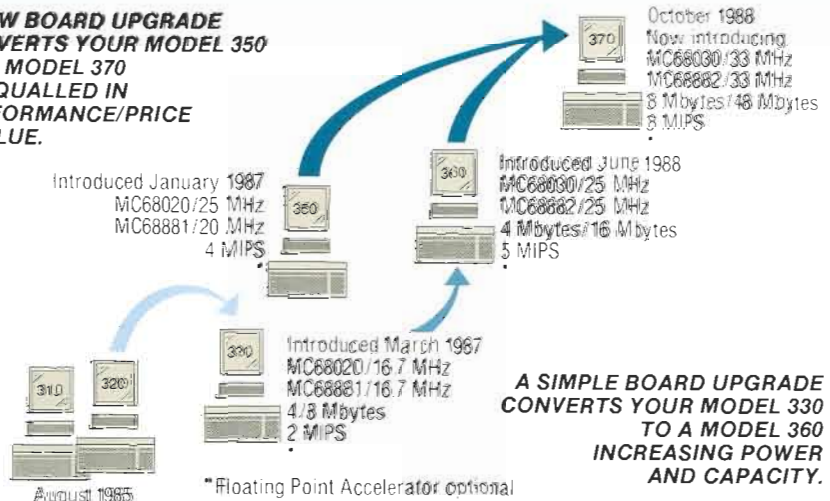
Hewlett-Packard's Model 370 is based on the recently introduced 33 MHz MC68030 combined with the 33 MHz MC68882 floating point co-processor's clock rate to yield floating point throughput that is double that of its predecessor, the Model 350. Among its other improvements, the Model 370 has a 64 Kbyte cache, twice that of the Model 350.

Combined, these features add up to a fast 8 MIPS and 730 Kflops double-precision floating point operations per second with the optional floating point accelerator. The Model 350 compares at 4 MIPS.

Model 370 is recommended for interactive applications where engineers can't afford to wait:

- Electrical engineering design and simulation
- Finite element analysis and solids modeling
- Scientific or laboratory analysis
- Applications that require 3D and solid rendering high speed

**A NEW BOARD UPGRADE
CONVERTS YOUR MODEL 350
TO A MODEL 370
UNEQUALLED IN
PERFORMANCE/PRICE
& VALUE.**



AN ONGOING COMMITMENT TO MC68000 ARCHITECTURE

graphics coupled with a high speed CPU.

Model 360

Mid-line performance. The performance of the Model 360 is provided by the 25 MHz MC68030 with integrated memory management and the built-in, 25 MHz MC68882 floating point co-processor. Model 360 has 4 Mbytes of RAM memory. Additional 4, 8 or 12 Mbytes of RAM can be installed.

The Model 360 delivers 5 MIPS and 400 Kflops with an optional floating point accelerator.

Model 360 is the recommended choice for applications like:

- Circuit and printed circuit board design for electrical engineering
- 2D drafting in mechanical engineering applications
- Automated laboratory, test and manufacturing processes.

Model 330

Performance value. Offering 2 MIPS, 97 Kflops, 16.7 MC68020 MHz and 4 Mbytes of RAM expandable to 8, the Model 330 provides a high level of power per dollar for entry-level workstations. It is a popular first step into the configurable Series 300 family, giving users all the features that provide high connectivity and access to a greater number of functions. And, of course, with its upgrade potential the Model 330 can deliver more performance and capacity as needs grow and budgets allow.

The Model 330 delivers performance and value for a wide variety of applications where performance and entry-level price are needed.

MC68000

The reigning standard in workstations. There is another important asset that Models 330, 360 and 370 offer. It is stability; due to the popularity of MC68000 architecture, well over 600 software applications are available to Series 300 users. Plus, you can use the Series 300 DOS co-processor to access thousands of ready to use applications.

More benefits.

Reliability and low cost of ownership. Exceptional performance for the price is immediately attractive, but it's the long-term, low cost of ownership that will continue to impress you.

HP workstations are widely acknowledged to offer the lowest costs of ownership. It is due, in part, to an overriding commitment to product quality. The result is exceptionally low service and support costs that have earned HP top ratings during the past six years for both overall customer satisfaction and for support satisfaction.

Four display screen sizes offer choices of monochrome or color, high or medium resolution formats, with a variety of accelerator options and graphic display planes as shown below.



Specifications

Model	330	360	370
Memory	4-8 Mb	4-16 Mb	8-48 Mb
Standard Interfaces	HP-IB RS-232C ThinLAN HP-HIL High-speed HP-IB disc interface	HP-IB RS-232C ThinLAN HP-HIL High-speed HP-IB or SCSI disc interface (opt)	HP-IB RS-232C ThinLAN HP-HIL
Graphics Subsystem	color/monochrome 1280x1024, 1024x768 16"/19"	color/monochrome 1280x1024, 1024x768 19"/16"	color/monochrome 1280x1280, 1024x768 19"/16"
2D Frame Buffer Planes			
standard	6	6	6
optional	10	10	10
2D Display Colors			
standard	64	64	64
optional	256	256	256
3D Frame Buffer Planes			
standard	8	8	8
optional	24	24	24
3D Display Colors			
standard	256	256	256
optional	16.7 million	16.7 million	16.7 million
CPU Electrical Specifications			
Line Voltage	85 to 129 VAC @ 48 to 66 Hz 187 to 250 VAC @ 48 to 66 Hz	85 to 129 VAC @ 48 to 66 Hz 187 to 250 VAC @ 48 to 66 Hz	85 to 129 VAC @ 48 to 66 Hz 187 to 250 VAC @ 48 to 66 Hz
Maximum Power	110 watts	110 watts	110 watts
CPU Physical Specifications			
Weight	6.8 kg	6.8 kg	6.8 kg
Height	104mm	104mm	104mm
Width	325mm	325mm	325mm
Depth	444mm	444mm	444mm
Industry Standards			
Operating System	UNIX System V Interface Definition, Issue 2, Volume 1		
Database	HP SQL/300; compatible with IBM's Structured Query Language (SQL)		
Networking	ARPA Berkeley, TCP/IP, Ethernet IEEE 802.3, NFS		
Graphics	Starbase Graphics Library (OSI/ISO CG-VDI), HP GKS		
Windowing	X Window System		
Languages	FORTRAN 77, C, Pascal, LISP, Ada		
CPU	MC68020 16.7 MHz	MC68030 25 MHz	MC68030 33 MHz
Floating Point	MC68881	MC68882	MC68882
Coprocessor	16.7 MHz	25 MHz	33 MHz
Operating Environment			
Operating temperature	0°-55°C		
Operating humidity	5-95% relative humidity (Non-condensing)		
Operating altitude	15,000 ft.		

Technical data subject to change.

¹HP-UX complies with the industry-standard UNIX System V Interface definition, Issue 2, Volume 1. UNIX is a trademark of AT&T in the U.S.A. and other countries.

Configurable systems designed for high performance.

For more information, call your local HP sales office listed in your telephone directory. Or contact one of the regional offices listed below to find the location of your nearest sales office.

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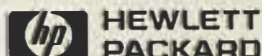
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