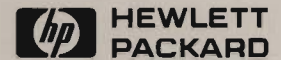


# HP 9000 Series 300 Model 340 Entry-level Graphics Workstations



Pre-configured to meet your performance needs, today and tomorrow

The HP 9000 family of engineering workstations offers compatibility across a wide range of performance levels. It's a cohesive family that allows you to select workstations best fitted to your performance needs and price considerations and, with minimal effort, lets you distribute your applications among the different HP 9000 systems.

Within the HP 9000 family, the Model 340 workstations offer a low-cost introduction to the Series 300 - object code compatible HP-UX workstations based on the MC 68030 processor and MC 68882 floating point coprocessor. Engineers and designers can create powerful systems with 4 MIPS performance for exceptionally low cost. Users have greater choices in interface devices. An optional I/O slot affords access to a wide choice of disc storage devices for customized systems. And, six graphics "bundles" provide graphics tailored to the needs of the application.

Model 340 workstations combine the power and graphics choices you need with the capability for customizing to your application today. Tomorrow, you'll find that HP's insistence on standards such as the proven MC 68000 architecture ensures both access to an extensive base of application software and minimizes the cost and effort associated with migration to higher performance workstations.



**The Model 340, with a choice of six graphics bundles, provide affordability and power tailored to the requirements of applications ranging from 3D solids modeling and surface rendering to graphical analysis to software development.**

# Model 340 Entry-level Graphics Workstations

## Advanced performance and configurability becomes affordable

The Model 340 workstations offer advanced 4 MIPS performance and configurability at entry-level prices. They're based on Motorola's MC 68030 processor and MC 68882 floating point coprocessor both running at 16.7 MHz. Built into the workstations are RS-232C, HP-IB (IEEE-488) with DMA, and HP-HIL interfaces. Additionally, you choose either an AUI LAN interface or a ThinLAN interface with built-in ThinMAU and BNC "T" connector. The workstations are equipped with 4 Mbytes of RAM that is expandable to 16 Mbytes.

One optional accessory slot is available so that you may add either high-speed HP-IB or SCSI disc interfaces for connections to disc drives and other peripheral devices. Over 500 different combinations of options are possible; you control the configuration as you would with higher priced workstations.

Like all Series 300 workstations, the Model 340 runs HP-UX (6.2), Hewlett-Packard's implementation of the UNIX<sup>1</sup> operating system, System V Interface Definition Issue 2 Volume 1. This assures portability of applications developed on other CAE-compliant systems. HP-UX also incorporates features from U.C. Berkeley's Berkeley Software Distribution 4.2 (BSD). In addition, HP-UX includes many custom enhancements which extend the capabilities of the operating system. HP BASIC, a premier instrument control and scientific language, is also available.

The Model 340 supports the industry standard X Window System<sup>2</sup>, Version 11. Now users have a high quality, convenient interface access to other users in a network. Applications can be run across different systems from various computer manufacturers.

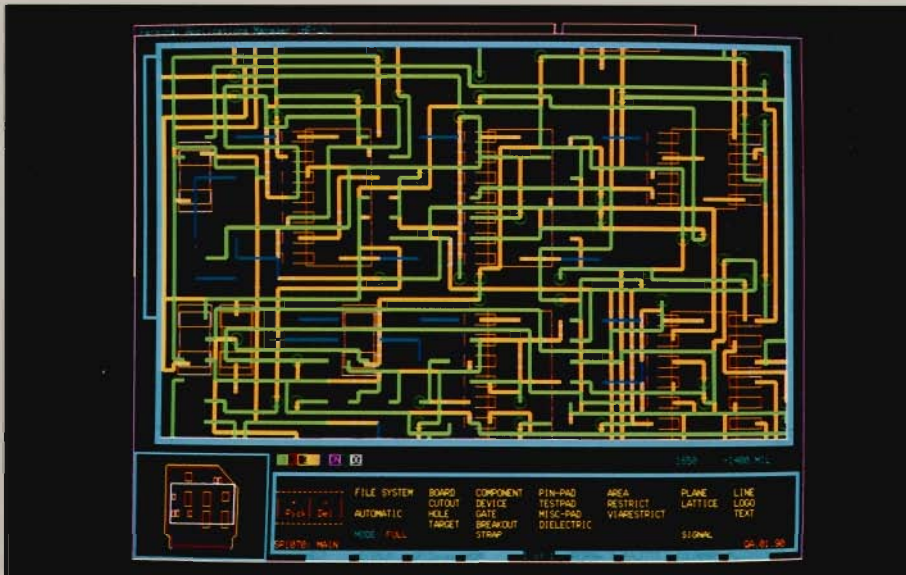


As a standalone workstation or as a node on a network, solutions based on the Model 340 speed you through conceptual design, detailed product engineering and graphical analysis, 2D or 3D wireframe and solid rendering applications and many other supported applications. Model 340 solutions are as adept at design and drafting for ME and EE as they are for software development applications.

## Model 340C +

**Value and power for color graphics applications.** An excellent choice for EE logical and physical design, general scientific computing, software development, and 2D ME design applications. The 340C + incorporates HP's enhanced 2D graphics with hardware support for vectors and polygon drawing, pixel replication, and area pattern fill. Bit-per-pixel addressing, and six color planes are available.

**Model 340SRX**  
*color workstation excels in applications that require realism in 3D solid modeling with image displays like this. The result - designers and engineers quickly and accurately model prototypes for a clear understanding.*



**Model 340C+**  
*color workstation  
combines low cost  
with high  
performance for a  
variety of 2D EE and  
ME design  
applications.*

### Model 340CH/CHX 2D

**Enhanced color graphics and performance.** Similar to the Model 340C+, the 340CH incorporates a high resolution display, either 16-inch or 19-inch, and may include an optional integer-based graphics accelerator. The accelerator provides an optimized 32-bit world coordinate interface directly to the graphics pipeline to speed display processing, approximately doubling the performance.

### Model 340SRX

**3D solid rendering.** Applications such as mechanical computer aided engineering, mapping, or architectural engineering will find the 340SRX an essential tool. It incorporates advanced graphics features that give users the power to model objects realistically for a critical, accurate understanding.

### Model 340M

**HP's lowest priced monochrome workstation.** The Model 340M offers the lowest price ever available for an HP 9000 Series 300 32-bit workstation. It's well suited for engineering and design groups that run mechanical design and drafting applications or software development applications.

### Model 340MH

**High resolution for a clear look at your work.** Similar to the Model 340M, the Model 340MH provides a large 19-inch display for CAD and other applications that require high display resolution without the expense of color displays.

### MC 68000

**The reigning standard in workstations.** The Model 340 offers stability – an important asset in selecting a workstation. Due to the popularity of the MC 68000 architecture, well over 600 software applications are available to Series 300 users. Plus, you can use the Series 300 DOS Coprocessor to access thousands of ready-to-use applications.

### More benefits

**Reliability and low cost of ownership.** HP workstations, including the Model 340, offer both exceptional performance for the price and low cost of ownership. This is due 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.

**HP Computer Museum**  
**[www.hpmuseum.net](http://www.hpmuseum.net)**

**For research and education purposes only.**

## Specifications

<b>Model</b>	340
<b>Memory</b>	4 to 16 Mbytes
<b>Interfaces</b>	
Standard	HP-IB (IEEE-488) with DMA RS-232C ThinLAN or AUI LAN HP-HIL
Optional	High-speed HP-IB, SCSI disc interface, or other Series 300 DIO cards
<b>Graphics Subsystem</b>	color or monochrome 1024x768, 1280x1024 16", 17", or 19"
<b>2D Frame Buffer Planes</b>	
Standard	6
Optional	10
<b>2D Display Colors</b>	
Standard	64
Optional	256
<b>3D Frame Buffer Planes</b>	
Standard	8
Optional	24
<b>3D Display Colors</b>	
Standard	256
Optional	16.7 million
<b>CPU Electrical Specifications</b>	
Line Voltage	85 to 129 VAC @ 48 to 66 Hz 187 to 250 VAC @ 48 to 66 Hz 110 Watts
<b>CPU Physical Specifications</b>	
Weight	18 Lbs. approximate, w/high speed disc
Height	100 mm
Width	325 mm
Depth	445 mm
<b>Industry Standards</b>	
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 Languages	X Window System, Version 11 FORTRAN 77, C, Pascal, LISP, Ada <sup>3</sup>
<b>CPU</b>	MC 68030 16.7MHz
<b>Floating Point Coprocessor</b>	MC 68882 16.7 MHz
<b>Operating Environment</b>	
operating temperature	0° to -55°C
operating humidity	5 to 95% relative humidity non-condensing
operating altitude	15,000 ft

Technical data subject to change.

UNIX is a registered trademark of AT & T in the US and other countries

<sup>2</sup>The X Window System is a trademark of the Massachusetts Institute of Technology

<sup>3</sup>Ada is a registered trademark of the US Government (AJPO)

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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Rockville, MD 20850  
(301) 670-4300

Hewlett-Packard Company  
5201 Tollview Drive  
Rolling Meadows, IL 60008  
(312) 255-9800

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5161 Lankershim Blvd.  
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(818) 506-5600

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(5) 8487777

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