Hello — and thanks for taking a look at my work!

My name is Rich Kurz and I am an experienced graphics design professional. My philosophy has grown simpler through the years. Good design is not about me, but about us. I want to do good work that serves the needs of my client and that I am proud to put in my portfolio. This pdf shows some of my capabilities.

Note that all concepts and initial drawings are owned by Hewlett-Packard Co. The images in this document are my own and are under copyright to Rich Kurz.

This product brochure was the last major piece I produced while in HP Marcom. The pdf shows the entire brochure plus a special marketing mailing envelope and a holder for a demonstration floppy, both its outside and inside.

This was produced for a product introduction, and as such was a major product event for the division in which they unveiled their first PC-base emulator. Prior to this, their product line was all high-end, dedicated workstation emulators used for software and firmware development and debugging.

I conceptualized the look of the brochure, art directed the photography – even creating the textured background, adpated the style to the marketing materials, and as was normal, produced the printer-ready files and artwork. At this time, desktop publishing was limited in its abilities, so the deliverables were a hybrid of digital and traditional media. There was the usual coordination with the prepress department and the inevitable midnight presschecks.

Deliverables: 12 page, 8½"×11" trimmed, saddle stitched, CMYK plus one spot color, semi-matte varnish on all spreads
Separation-ready art plus digital DTP files
Printer prepress coordination, press-proofing

I am available to discuss your design, illustration, marketing, and advertising needs. Let's talk!

Rich Kurz

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High-performance, low-cost emulation and analysis

HP 64000-PC Personal Integration Environment

DesignCenter

DesignCenter

HP DesignCenter contributes to higher quality designs with a new strategy for improving the design process — automated engineering systems that take you from concept to finished product.

HP DesignCenter is an integrated environment with systems, software, and support for complete product development. Computer-aided systems for microprocessor development, electronic design, printed-circuit board design, and mechanical design, as well as instrumentation and board test, can be linked together to improve communication between different functional areas in your company. The result is fewer engineering errors and better quality designs in less time.

At Hewlett-Packard, the commitment to automating the design process is not a new idea; it is a continuing commitment to a growing challenge — helping you design and build better, more reliable products so you gain the competitive edge.

HP DesignCenter offers an integrated environment of competitive tools for complete design automation. The HP 64000-PC Personal Integration Environment is one part of the product spectrum, utilizing low-cost tools to meet the needs of smaller design teams for microprocessor software development, integration, and test.

What do you expect from a low-cost development system?

As an engineer you are used to making tradeoffs — balancing performance against cost. Today's competitive marketplace demands that you provide complex products in minimal time under tight budgets. To stay competitive, the use of low-cost tools is often a must. But you probably expect to give up certain features — external analysis, ease of use, future expansion, flexibility, reliability, support. Most low-cost tools give you just enough toget by— basic functionality with no The powerful features that allow large teams to tackle the most complex problems simply have not been available with entry-level, low-cost tools.

A system with a low price tag often comes with hidden costs that must be paid later. For example, cumbersome, difficult-to-use tools add time and frustration to development efforts. Unreliable tools add unexpected delays when you have to spend time isolating failures or waiting for instruments to be repaired. What is the cost of increased engineering time or a less reliable product? The penalty you pay could be lost revenue from a slower time to market or additional resources needed to support the product once it's introduced — resources that could have been applied to developing new products.

HP 64000-PC offers high performance at a low price!

Here's what we mean by high performance . . .

The HP 64000-PC Personal Integration Environment sets a new standard for performance in low-cost systems. More than low-cost emulation, it is a reliable, easy-to-use environment with powerful emulation and analysis tools for small single-processor designs through complex, multi-processor systems.

Emulation at full speed with no wait states

Emulators run at full processor speeds with no wait states, ensuring maximum target system transparency. The 68000 emulator, for example, is available for the 16.7 MHz version; the Z80 supports 10 MHz. In addition, the emulator architecture assures maximum transparency in almost any situation. With dual-bus architecture and dual-port memory, traces can be executed and displayed without halting the processor, and emulation memory can be modified and displayed in real time. Hybrid background/foreground emulation monitors ease emulator setup while offering full target-system support, such as servicing of interrupts while in the monitor.

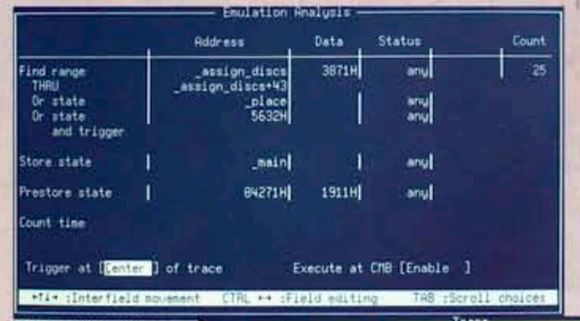
Standard with every emulator, a high-performance emulation analyzer gives you a nonintrusive method for monitoring critical processes. Eight levels of sequencing combined with ranging, time counts, prestore, storage qualifiers, and windowing allow precise isolation of program areas to be analyzed.

Coverage analysis determines the effectiveness of regression tests by measuring how much of the code has been accessed and by listing the locations that have not. This removes guesswork and increases confidence in the quality of the code.

Easy plug-in with advanced probe technology

Target systems often present plug-in difficulties with hard-to-reach sockets, obstructions from other ICs, or circuit boards. HP has developed emulation probes that help solve these problems. Up to a meter long, the flexible, slim probe cables can reach into hard-to-access places without sacrificing signal fidelity, providing unparalleled electrical transparency.

Positioning the emulator near the target system can also be difficult. Detachable handles supplied with every emulator, make it a simple task to suspend the emulator near the target processor. The handles are also convenient for carrying the emulator or standing it on its side to conserve desk space.



Setup of complex measurements with the emulation analyzer, using prestore, time tagging, ranging, store qualifications, is simplified with a one-screen configuration menu.

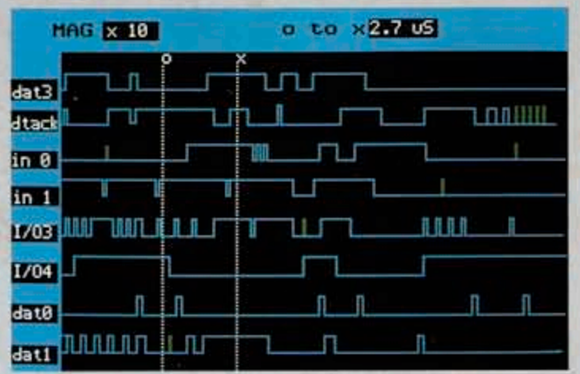
The prestore function of the emulation analyzer shows the program areas that access a variable in a common data area that may be getting corrupted.

And now . . . integrated, real-time state and timing analysis

HP has played a key role in the logic analysis market for 15 years. HP's experience in logic analysis has recently culminated in a powerful, custom "Logic-Analyzer-on-a-Chip" IC that is the heart of the HP 1650A/1651A Logic Analyzers and HP 16500A Logic Analysis System. This chip is used to provide an optional 16-channel, external state and timing analyzer with each HP 64000-PC emulator. Synchronous state sampling to 25 MHz and asynchronous timing sampling to 100 MHz give excellent 10 ns resolution.

Two possible configurations for the analyzer are as a stand-alone, independent state/timing analyzer or as a slave analyzer integrated with the emulation analyzer.

Complex problems become solvable with powerful, interactive analysis. For example, the emulation analyzer may trigger the timing analyzer on an error condition. The timing analyzer then graphically displays the timing relationships of signals that may be the cause of the error condition. Marginal signal levels and distorted signal edges are clearly shown. In glitch detection mode, the timing analyzer increases the resolution of transient signals, helping you isolate these troublesome, hard- to-find problems. This type of analysis power is unheard of in any other entry-level emulation/analysis system. Now you can add the features you need with all the power of an independent, full-function logic analyzer at a fraction of the cost.

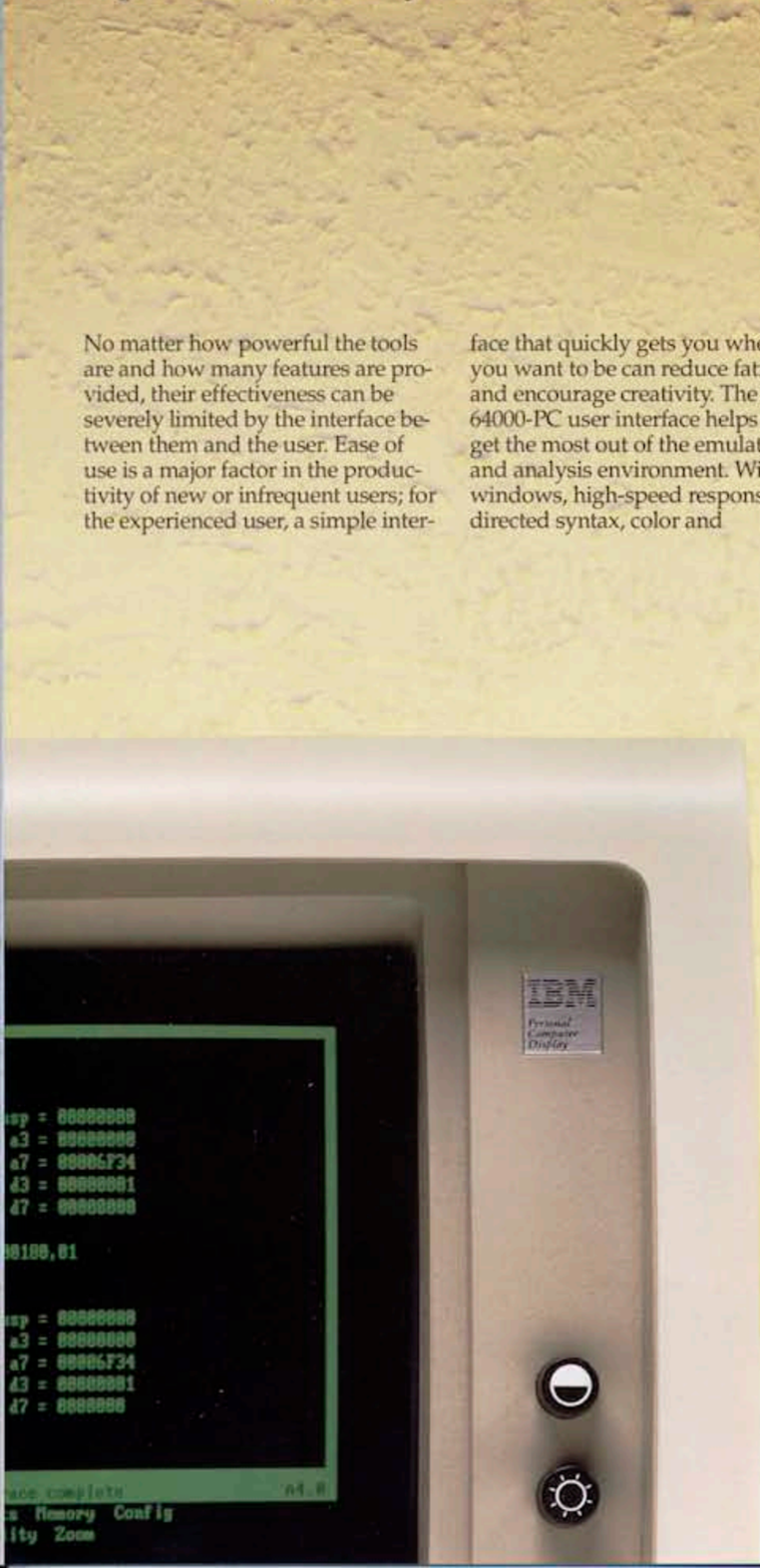


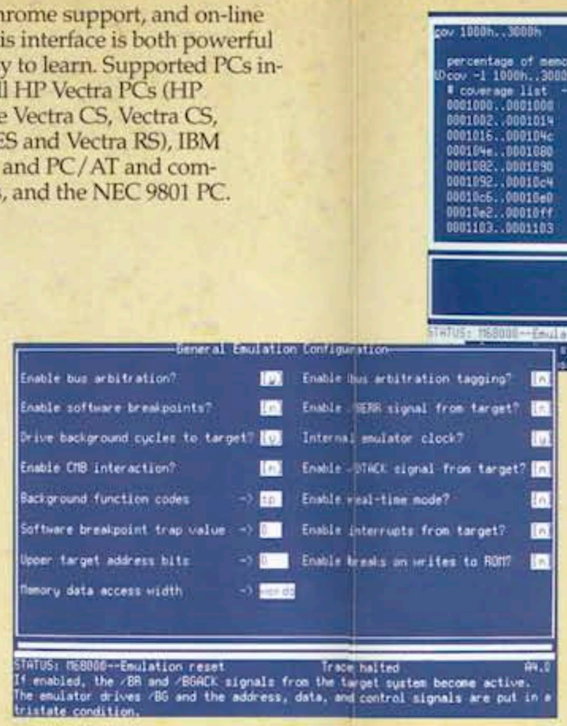
Timing analysis helps isolate signal glitches and analyze critical timing relationships.

The external state analyzer operating in slave mode displays trace results integrated with emulation analysis results.

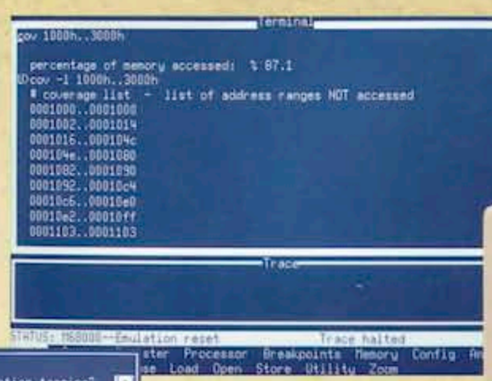
A powerful, friendly user interface on a wide range of PCs

No matter how powerful the tools are and how many features are provided, their effectiveness can be severely limited by the interface between them and the user. Ease of use is a major factor in the productivity of new or infrequent users; for the experienced user, a simple interface that quickly gets you where you want to be can reduce fatigue and encourage creativity. The HP 64000-PC user interface helps you get the most out of the emulation and analysis environment. With windows, high-speed response, directed syntax, color and monochrome support, and on-line help, this interface is both powerful and easy to learn. Supported PCs include all HP Vectra PCs (HP Portable Vectra CS, Vectra CS, Vectra ES and Vectra RS), IBM PC/XT and PC/AT and compatibles, and the NEC 9801 PC.





The emulator configuration menu shows all choices on one screen with a clear explanation of each selection.



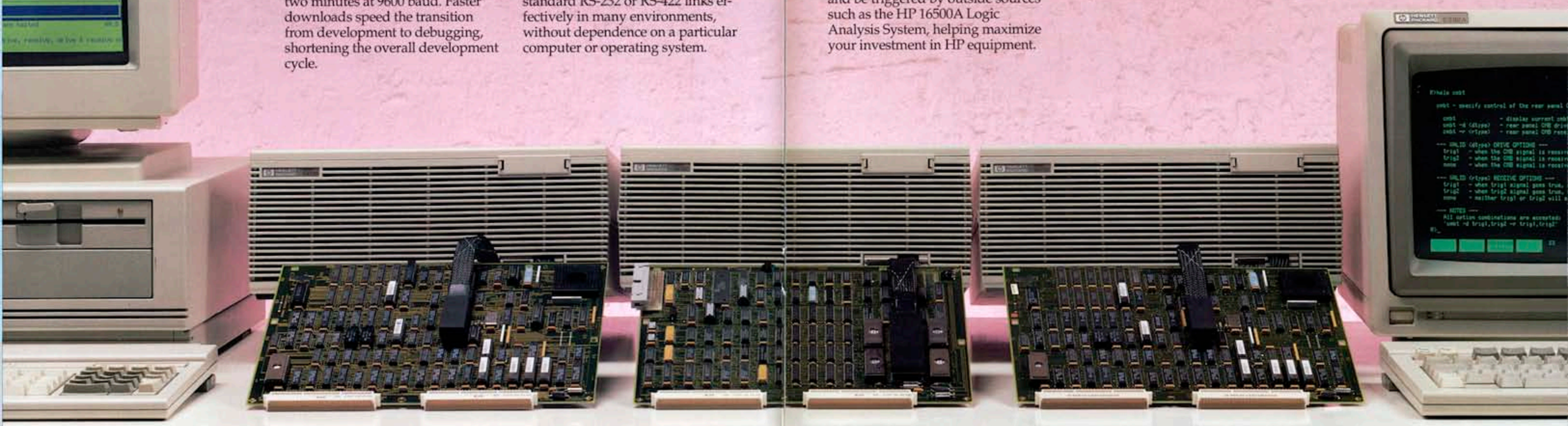
PC interface windows include a terminal window which provides access to the terminal interface. The coverage analysis measurement lists memory locations not accessed during a program test.

Comprehensive communications provide smooth links to your PC, host, and other emulators

Fast, universal communication links
The HP 64000-PC emulators have two RS-232-C ports, one with embedded, high-speed RS-422 capability. These standard interfaces provide connections to a wide variety of hosts in a cost-effective, simple fashion with sustained download speeds exceeding 100 kbaud. Throughput of 100 kbaud means that a typical file of 128 kbytes can be transferred in 13 seconds, compared to more than two minutes at 9600 baud. Faster downloads speed the transition from development to debugging, shortening the overall development cycle.

Host independence with embedded terminal interface
The HP 64000-PC emulators are totally self-contained emulation and analysis vehicles that can offer full functionality to a user with a simple terminal. A terminal interface embedded in the emulator firmware offers all the emulation and analysis features through ASCII commands that any terminal or host with RS-232 capability can access. Host independence ensures that the emulators can operate through standard RS-232 or RS-422 links effectively in many environments, without dependence on a particular computer or operating system.

Multiple processor emulation
The HP 64000-PC emulators are much more than stand-alone emulation vehicles. A coordinated measurement bus (CMB) allows up to 32 emulators to communicate for emulation of multiprocessor systems. Synchronous emulation starts and halts, plus cross triggering from one emulation analyzer or external analyzer to any other, add considerable power to your measurement capability. The CMB even allows emulators to trigger and be triggered by outside sources such as the HP 16500A Logic Analysis System, helping maximize your investment in HP equipment.



Today's projects are more complex

32-bit design projects and other complex designs with megabytes of code require more software engineers and more engineering time to design and integrate with hardware. At some point you may need to support larger design teams by migrating from HP 64000-PC to an environment tailored to multiple users, software integration, and networking. The HP 64000-UX Advanced Integration Environment is a proven large-team microprocessor development environment.

With an investment in HP 64000-PC, you are ready to step up into the HP 64000-UX environment. Use the HP 64000-PC emulators on the HP 9000 Series 300 workstations as you would any other HP 64000-UX emulator. The softkey-driven, windowing, emulation and analysis user interface is a popular, industry-proven interface with the HP 64000-UX Advanced Integration Environment.

Integrated measurements
The coordinated measurement bus with HP 64000-PC can be linked to the emulators and analyzers in HP 64000-UX for complete integration. Cross triggering between HP 32-bit emulation subsystems and HP 64000-PC emulators is possible, giving complete flexibility and power for 8 through 32-bit, multiprocessor system designs.

Preserve your software investment
HP assemblers support HP 64000-PC emulators on both the Series 300 and PCs for complete compatibility and ease of migration between the two hosts. In addition, networking between HP 64000-PC and HP 64000-UX provides a means of transferring absolute files to HP 64000-UX, thus preserving the investment in the PCs and associated PC-based software tools.

Here's the kind of support you probably didn't expect with an entry-level development system

Careful planning for your software development needs means taking a closer look at a vendor's service and support before purchasing your system. HP field offices worldwide have trained personnel to help you design a support plan to best suit your needs.

You can depend on HP advice, service, and support. We not only answer your questions, we help you ask them. We discuss requirements for implementing and installing your solution.

Your staff's involvement is essential to the successful implementation of your solution. That's why Hewlett-Packard offers support services that include not just software and hardware support but training, thorough documentation, and an ongoing relationship as our products and your needs continue to grow.

Customer Education

Courses are available for most aspects of the microprocessor development process, such as emulation, state and timing analysis, as well as HP Vectra DOS and HP 9000 HP-UX applications.

Response Center Support

Response Centers in North America, Japan, Europe, the Far East, Australia, and Latin America supplement the support of your local HP field office. Specially trained teams are on call to answer questions about HP systems and applications within a two-hour response time.

Software Support

With a Software Materials Subscription, you automatically receive all software and manual updates for your supported products as they become available.

Hardware Maintenance

You can choose from a variety of hardware maintenance services, depending on your project requirements or budget. Four-hour response to service requests is ideal for your critical applications with high uptime requirements. Or, at a lower cost, you can receive next-day response.

The HP 64000-PC and HP 64000-UX environments provide solutions and tools for small and large teams that result in shortened design cycles and higher-quality products. These environments strengthen your competitive position while protecting your investment — an investment that will be paid back in accelerated product development for years to come.

To learn more about HP 64000-PC Personal Integration Environment and how it can contribute to your development process, call your local HP Sales Office.

HP Sales and Support Offices

For more information, call your local HP sales office listed in your telephone directory or an HP regional office listed below for the location of your nearest sales office.

United States:
Hewlett-Packard Company
4 Choke Cherry Road
Rockville, MD 20850
(301) 670-4300

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5201 Tollview Dr.
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(312) 255-9800

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5161 Lankershim Blvd.
No. Hollywood, CA 91601
(818) 505-5600

Hewlett-Packard Company
2000 South Park Place
Atlanta, GA 30339
(404) 955-1500

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Suginami-ku, Tokyo 168
(03) 331-6111

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Sp.A de C.V.
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Lomas de Chapultepec
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(5) 833-0833

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Hewlett-Packard-Strasse
6380 Bad Homburg
West Germany
(49) 6172/400-0

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Hewlett-Packard France
Parc d'activité du Bois Briard
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91040 Evry Cedex, France
(33) 1/60778383

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Bracknell
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20063 Cernusco S/N (MI)
Milan, Italy
(39) 2/923691

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P.O. Box 999,
1180 AZ Amstelveen,
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1217 Meyrin 1, Geneva
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(41) 22/989651

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Intercontinental Headquarters
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Palo Alto, CA 94304
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HEWLETT PACKARD

Complete new design projects in record time with HP's new low-cost, high-performance PC-based emulators.

FREE Demo Disk and 30 Day Free Trial!

HP Sales and Support Offices

For more information, call your local HP sales office listed in your telephone directory.

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High performance, low-cost emulation and analysis

HP 64000 PC Demonstration Diskette

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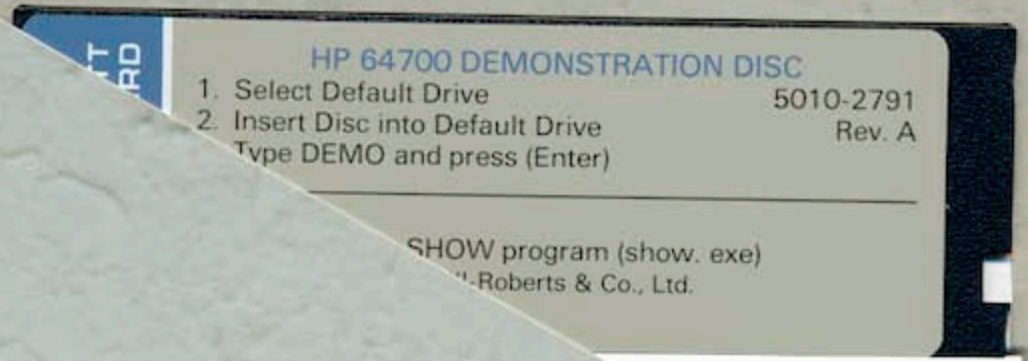

DesignCenter

HP 64700 . . . more features than you expect in a low cost emulator!

- Integral state/timing analysis option
- New technology, probe and cable
- New PC interface with windows
- High speed interface to your PC or computer
- Real-time, full speed transparent operation
- Coordinated measurement bus for multiprocessor emulation and analysis
- Powerful new real-time code coverage analysis
- Compatability with HP 64000-UX workstation based development environment.

Take a look for yourself . . . Insert the enclosed demonstration disc into your HP Vectra PC, IBM PC or compatible. You'll see how these features work to give you the tools to accelerate your next embedded processor project.