Computer Advances

November/December 1984

HP Personal Productivity Center
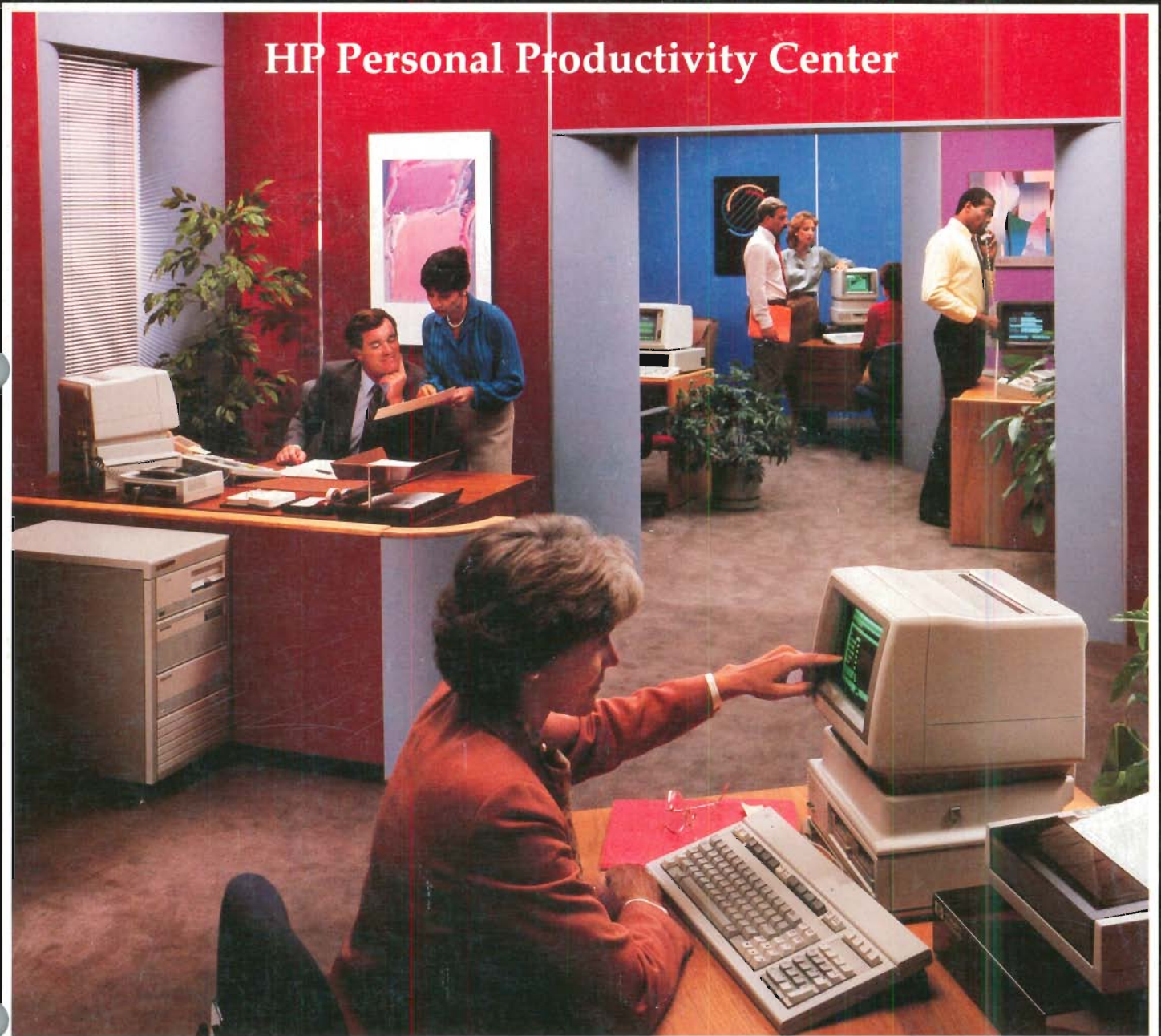
HEWLETT PACKARD

Inside

Enhanced Touchscreen PCs

HP 9000 CAD/CAM solutions

Just-In-Time manufacturing software

Personal Productivity Center adds integrated office

HP has just expanded the Personal Productivity Center—the office solution that integrates personal computing, data processing, business graphics, word processing, and communications.

HP AdvanceLink, HP Message, and access to HP Word from the HP Touchscreen personal computer are now available. With these products you can use your personal 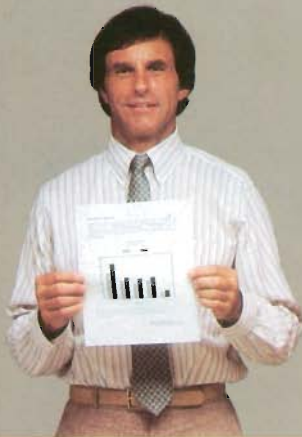computer to access information or applications from a variety of sources, and transfer files within a network. You also can send and receive documents and electronic mail messages from an HP or IBM personal computer.

Using your Touchscreen personal computer you can now send electronic mail to other Touchscreen and HP 3000 users with HP Message, a simple, yet sophisticated personal computer interface to HP DeskManager. A second version of HP Message for the IBM PC lets its users send documents and files from the IBM PC to an HP 3000 Business Computer through HP DeskManager, then mail them electronically to other HP DeskManager users in a worldwide HP 3000 network.

With AdvanceLink, you can use your Touchscreen to access HP 3000 departmental computer applications and public data bases like The Source and Dow Jones directly—just as you would local information and applications from disc.

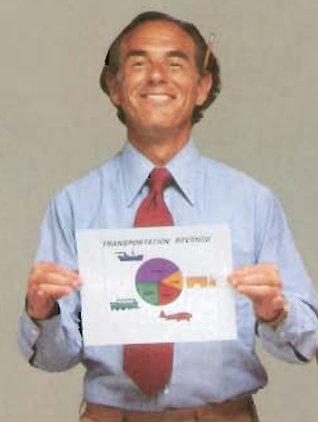
Integrated text and graphics.   Word processing.   Electronic mail.   Presentation graphics.   Mainframe data access.

Money-saving, entry-level Personal Productivity

Building on the new price-performance level offered by the recently announced HP 3000 Series 37 Office Computer, HP has combined office products into low-cost, "entry-level" bundled systems which include training and implementation assistance to make it easier for you to automate your office. Workgroups containing as few as four members can take advantage of all the communications and productivity-enhancing capabilities of the Personal Productivity Center. In addition to these entry-level systems, five new software packs are available to tailor systems with any new HP 3000 departmental computer.

The Personal Productivity Center *Professional* System

This new entry-level system includes four HP Touchscreen personal computers with software for personal filing, word processing, graphics, decision support and electronic mail. With the Professional System office professionals can exchange text, data and graphics, even personal computer files using HP DeskManager electronic mail. The Professional System sells for $43,510 and includes an HP 3000 Series 37 with 1Mb of memory and 55Mb of disc storage.

The Personal Productivity Center *Workgroup* System

The Workgroup System offers you all the advantages of the Professional System, plus full-function word processing. The four-user system contains a secretarial word processing terminal and three HP Touchscreen personal computers. Memos can be created by a manager with an easy-to-use personal computer word processor and sent via electronic mail to a secretary for editing and enhancing with HP Word, a full-function word processor. The Workgroup System sells for $57,615 and includes an HP 3000 Series 37 with 1Mb of memory and 110Mb of disc storage.

Software packages

In addition to the complete entry-level systems, three system-level software packs and two personal computer packs are available for tailoring systems with any new HP 3000 departmental computer. With these packs and the compatible family of HP 3000 computers, you can configure Personal Productivity Centers for

capabilities

Using HP MemoMaker you can create documents on your personal computer, then view and edit them by accessing the full-function word processing capabilities of HP Word on an HP 3000 computer.

To ensure that you are successful, we include HP Office-Assist with each system. HP Office-Assist provides product training and on-site implementation assistance.

Even The Portable, to go.

Centers

workgroups from four to more than 100 users.

System-level packs include the Base Pack, $14,200, containing HP Desk-Manager and HP DeskManager-Assist; the Sectretarial Word Processing Pack, $12,800, consisting of HP Word, HP ListKeeper, HP Spell and HP Word-Assist; and the full-function Advanced Pack, $32,500, with advanced word processing and decision support tools. The personal computer packs are the Touchscreen Pack, $840, including graphics, electronic mail, spreadsheet d basic word processing; and the IBM-PC Pack, $300, with electronic mail.

For information on how you can increase your office productivity through the Personal Productivity Center please contact your HP Sales Rep.

Friendly and professional: new Touchscreen personal computers

Expanding the capabilities of the HP 150, two new Touchscreen personal computers feature several enhancements to make you quickly productive. Now the Touchscreen personal computer comes with a new dual 3½" 710Kb double-sided flexible disc drive, while the Touchscreen MAX comes with a 14.8Mb (formatted capacity) Winchester disc drive and a single 3½" double-sided flexible disc drive. Both new models offer networking capabilities via EtherSeries/100 Local Area Network from 3Com Corporation and Instant Productivity Packs featuring new, easy-to-follow documentation.

3Com local area network

With new local area network capabilities you can link as many as 100 HP Touchscreen personal computers and IBM PCs together. Using the Touchscreen in a network with 3Com's Ether-Series/100 you can share fixed discs and printers with IBM PCs and compatibles, or send electronic mail.

Instant productivity pack

Standard with each of the new Touchscreen computers is an Instant Productivity Pack, containing all new documentation, enhancements to the Personal Applications Manager (PAM), and MemoMaker and Personal Card File application software.

Documentation for the Touchscreen personal computer has an all new look and organization. Three levels of manuals let you quickly find the answers you need. The new manuals include an introductory guide, a task-oriented users guide and a compact quick reference guide.

New features in PAM include enhanced utilities which make it easier to organize your files within PAM's File Manager and a new application called Easy Config which lets you select icons to instantly configure the Touchscreen personal computers for printers, plotters, disc drives and host computers.

3½" double-sided disc drive

The Touchscreen personal computers use new higher-capacity double-sided disc drives. The HP 9122D dual drive used with the Touchscreen personal computer provides 710Kb of storage per disc. The HP 9133D 15Mb Winchester drive used with the Touchscreen MAX includes a backup double-sided flexible drive with 710Kb of storage and a two-fold increase in transfer rate to and from the Winchester.

IBM-compatible disc drive

With the new HP 9125S 5¼" disc drive you can read, write and initialize discs in IBM format, so they can exchange data between an HP Touchscreen personal computer or Touchscreen MAX and an IBM PC. HP also provides The Portable-to-Desktop Link which enables the Touchscreen and IBM PC to share data with The Portable.

Computer Museum

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

EtherSeries/150 Local Area Network links personal computers

With the EtherSeries/150, an EtherNet-based local area network from 3Com Corporation, your Touchscreen personal computer can share information and peripherals with other EtherSeries-compatible personal computers such as the IBM PC, PC compatibles and the TI Professional. The EtherSeries/150 family includes EtherShare/150, EtherMail/150 and EtherLink/150.

Network software

EtherShare/150 lets Touchscreen personal computers or other EtherSeries-compatible PCs share the fixed disc of a Touchscreen MAX. Data and programs can be made public, shared by a special group or made available only to a single user.

You can also share printers on a network. Select the printers you want—up to two per network server—with simple commands on your Touchscreen computer. By sharing printers, your organization can save money, reduce office noise and make specialty printers available to all users.

EtherMail/150 is an electronic mail system for networked personal computers. Create messages with a screen-oriented message editor which uses HP Touch features to position the cursor and choose operations. You can transmit mail between Touchscreen PCs and 3Com EtherSeries-supported personal computers.

Network hardware

Every personal computer on the EtherSeries network requires EtherLink/150, a hardware accessory card that lets you send and receive information through the network at the rate of 10M bits per second. Also included is the user software which allows a Touchscreen PC to access network discs and printers.

EtherShare/150, EtherPrint/150 and EtherMail/150 network software reside on the network server, a specially configured Touchscreen MAX, which provides centralized disc, printer and application software resources. The Touchscreen MAX must be dedicated to serving the network and requires 384Kb of system memory and an EtherLink/150 card. The server can support two to eight simultaneously active personal computers. Each network can support up to 3,000 ft. of cabling.
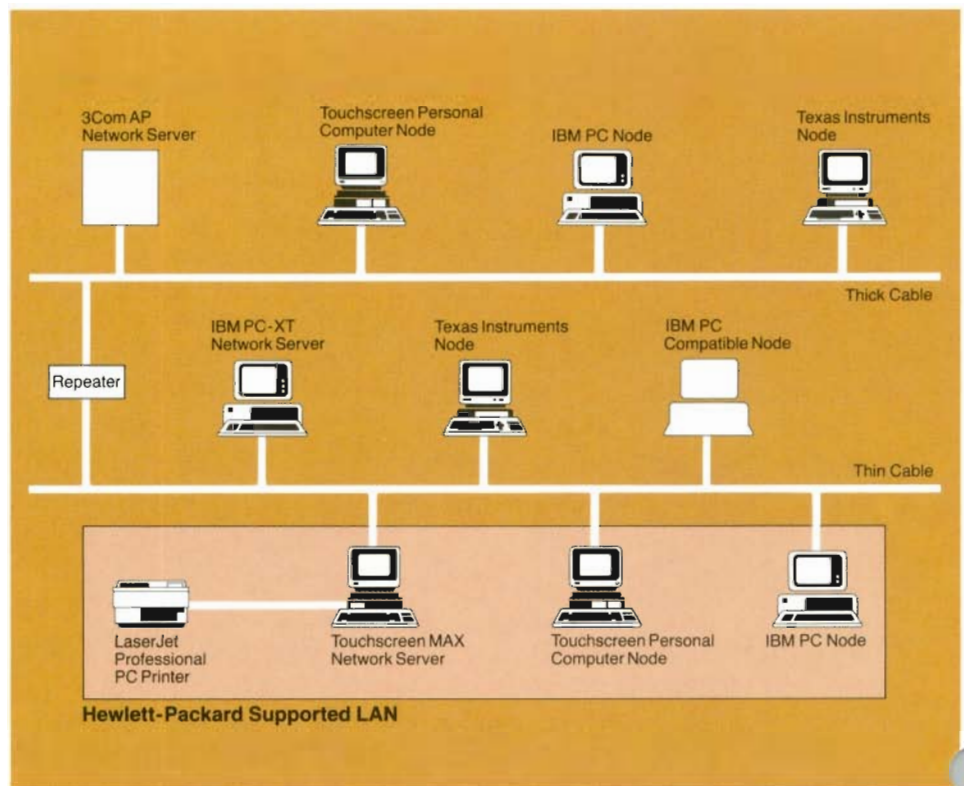
HP supported configurations

Any 3Com EtherSeries-supported personal computer can function as a user system or network server in the EtherSeries/150 network. For more information please consult your EtherSeries/150 Data Book or the Touchscreen PC Sales Guide.

HP network support

The Network Support Contract, HP's first network support product, provides phone-in software assistance for networks that have one or more Touchscreen MAX servers linking HP or IBM PC user systems. For $40 per month per network, the network administrator or designated alternate may phone HP Coach for software assistance.

You may order EtherSeries/150 hardware and software through authorized HP retailers or directly from HP Computer Supplies Operation (CSO). Cables and accessories are also available through CSO.

The broad offering of EtherSeries/150 networking products provides a wide variety of LAN configurations. Support alternatives are available from Hewlett-Packard and 3Com.
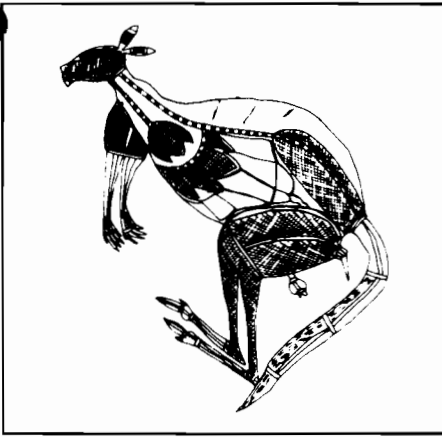
AUSTRALIAN
AREA NEWS

Computer
Museum

HP Financial Accounting brings flexibility to company accounts

Reckitt & Colman Pharmaceuticals, manufacturers of such well-known products as Disprin, Steradent and Dettol, introduced the Hewlett-Packard Financial Accounting package to its Sydney head office in May, 1983.

Like many other expanding companies with a varied range of nationally marketed products, they needed greater flexibility in their general accounting and financial controls to maximise business opportunities.

A Division of R & C Products Pty. Ltd., the pharmaceutical manufacturer previously operated on a centralised batch oriented system using an outside computer bureau for processing.

Confronted by the inflexibility and the relatively slow turnaround times of this "stop, gap" system, the Division's Finance and Planning Manager, Roy Bentley, sought an on-line system which would run on their own computer and which would require minimum involvement of the Group's central EDP department.

"There is no doubt that we now have improved control and

greater flexibility, particularly with budgetting and forward planning, that we lacked previously," he says.

He gave the following reasons for choosing HP Financial Accounting:

- Competitive price.
- The "real time" on-line update of the data base.

- Flexibility and ease of use of the report writer.
- HP's reputation as a supplier of quality hardware and software.

"After evaluating a number of systems, we found the potential of HP Financial Accounting most attractive and the investment worthwhile," he said.

HP Financial Accounting

Not just one software program, but a group of seven integrated modules for the HP 3000 offering solutions to your financial accounting needs

HP General Ledger
HP Accounts Payable
HP Accounts Receivable
Together these programs form the core of the system with added flexibility made possible by our advanced customisation technology.

HP Allocator
HP Dual Ledger
Expand the functions of HP General Ledger to meet the more complex needs of larger organisations.

HP Report Facility
A powerful report writer. Use it to modify standard reports or develop completely new ones. The choice is yours.

HP Interface Facility
Streamlines integration with other software systems. Your analysts can inter-actively define interfaces between HP Financial Accounting and your other in-house systems.

HP Financial Accounting combines Hewlett-Packard's advanced hardware and software technology with 40 years of international business experience giving you the control you need today and the flexibility you need for tomorrow.

Solutions shaped to meet division's needs

COMPANY:
Reckitt & Colman
Pharmaceuticals, (Division of R
& C Products Pty.Ltd.)
12 Wharf Road, West Ryde,
SYDNEY, NSW. 2114

BUSINESS:
Manufacture of pharmaceutical
products, (e.g. Disprin, Dettol,
Steradent etc.)

SIZE:
Annual turnover: $30 m +
Employees: 200 +

The Financial Accounting
package installed by Reckitt &
Colman Pharmaceuticals
Division is "user driven" and
runs on a Hewlett-Packard 3000
mainframe computer with 6 HP
terminals (including 125s and
150s) dedicated to the
application. The stand-alone
system is in keeping with the
Group's policy of each Division
handling its own EDP
requirements.

Using the HP Interface Facility
enables the Division to pick up
information from other data
bases within the Group for use in
financial management. "This part
of the Financial Accounting
package is proving most useful
and has great potential for
further development" says Roy
Bentley.

He said there were several other
major benefits from using HP's
interactive financial management
system:

IMPROVED CONTROL
provided by the on-line review
facility, giving, for example, the
ability to compare with prior
year, display on screen of higher
level totals via the cost centre
structure, and the reporting of
variance to budget.

FLEXIBLE BUDGETTING made
possible by the ability to perform
on-line review and update of
both the original and revised
budget values.

OVERNIGHT production of
end-of-month reports compared
with three days under the
previous batch system, made
possible by user control over the
system.

GREATER CONSISTENCY
between computer reports and
management reports provided
by the immediate posting option.

THE ABILITY to perform
preliminary close at year end and
commence posting to new year
without having to close the old
year.

RELATIVE EASE with which
new reports can be produced
using HP Report Facility.
Preparation of this type of report
within acceptable time limits was
almost impossible under the
previous system.

FLEXIBILITY in the drawing of
cheques which allows cheques to
be drawn as they are required
instead of large batches being
drawn on a common day.

EASE of bank reconciliation with
the ability to use a bank-
produced tape of cheques.

Roy Bentley said that because the
Division's Financial Accounting
system was relatively new, some
functions were being modified in
consultation with experts from
Hewlett-Packard. "We regard it
as an evolving thing with the
overall objective of continually
improving the quality of
information available and, in
addition, facilitating interaction
with other software packages."
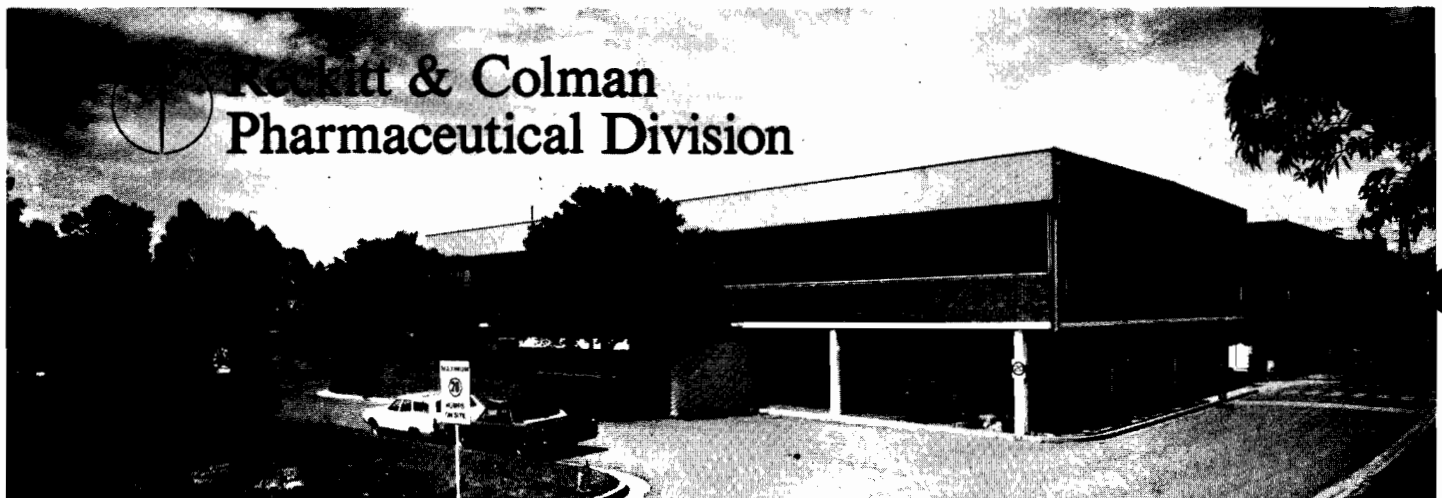
Hewlett-Packard ranks the tennis pro's

Hewlett-Packard Company and The Association of Tennis Professionals (ATP) have announced that HP will now produce the official worldwide computer rankings for men's professional tennis. Under a multi-year agreement with ATP, HP will provide personal-computer equipment for ATP computer centres in Dallas, Texas and Paris.

In an exchange of gifts to mark the new partnership, HP President John Young presented their latest brief case sized portable computer to Ron Bookman, executive director of the ATP. In return, Young received the racket with which tennis professional John McEnroe, ATP vice president, recently won the U.S. Open. "Much as I would like to keep this," Young said, looking at special lead-tape weights which McEnroe had added on one side of the racket, "we'll probably contribute it to an auction to help young tennis players."

The rankings, which are refigured and issued each Tuesday, serve as the official "system of merit" by which professional players are accepted in tournaments. Said ATP President Ray Moore, "They're the bible that pro tennis goes by. The two important questions among pro players are, "How much prize money did you win this week?" and "What's your ranking now?"

The computer rankings take into consideration 275 tournaments worldwide, including the U.S. Open, Wimbledon and other Grand Prix meets.

Hewlett-Packard entered into a similar agreement earlier this year with the Women's Tennis Association (WTA) to produce singles and doubles rankings according to a new formula which went into effect September 10. The WTA rankings use a "diminishing return" scale to give greater weight to a player's more recent performance.

COMPUTER ADVANCES

Name: _____

Title: _____

Dept: _____

Company: _____
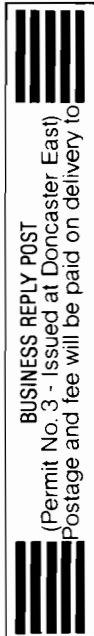
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BLACKBURN, VIC., 3130.

Attention: Gwen Welsh

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Attention: Gwen Welsh

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31-41 Joseph Street,
Blackburn, Victoria, 3130
Phone: 895 2895   Telex: 31024

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17-23 Talavera Road,
North Ryde, N.S.W. 2113
Phone: 888 4444   Telex: 21561

Hewlett-Packard Australia Ltd.,
153 Greenhill Road,
Parkside, S.A. 5063
Phone: 272 5911   Telex: 82536

Hewlett-Packard Australia Ltd.,
261 Stirling Highway,
Claremont, W.A. 6010
Phone: 383 2188   Telex: 93859

Hewlett-Packard Australia Ltd.,
10 Payne Road,
The Gap, Queensland, 4061
Phone: 30 4133   Telex: 42133

Hewlett-Packard Australia Ltd.,
121 Wollongong Street,
Fyshwick, A.C.T., 2069
Phone: 80 4244   Telex: 62650

also

Hewlett-Packard (N.Z.) Ltd.,
4 - 12 Cruickshank Street,
Kilbirnie, Wellington 3.
Phone: 877 199

Hewlett-Packard (N.Z.) Ltd.,
5 Owens Road,
Epsom, Auckland
Phone: 687 159

Add CAD/CAM solutions to your HP 9000 engineering workstation

Improve your engineering productivity with several new world-class mechanical engineering solutions on the HP 9000 family of computers. These new HP PLUS referenced software solutions, together with HP EGS and HP Draft, can link your design, drafting, analysis and manufacturing groups together to streamline project development.

- ANVIL-4000 is a 2-D and 3-D integrated design and manufacturing system that easily defines the 3-D elements of a mechanical part. With ANVIL-4000 you can create a part and generate a finite element mesh suitable for direct input and analysis by PATRAN or ANSYS. You can use the same data base to create engineering drawings, bar charts and graphs, and automatically generate machine tool paths for manufacturing of parts.

- GRAFTEK, another integrated 2-D and 3-D design and manufacturing application, features solid modeling and Optimold™, a complete design and analysis package for the plastic injection molding industry. GRAF-
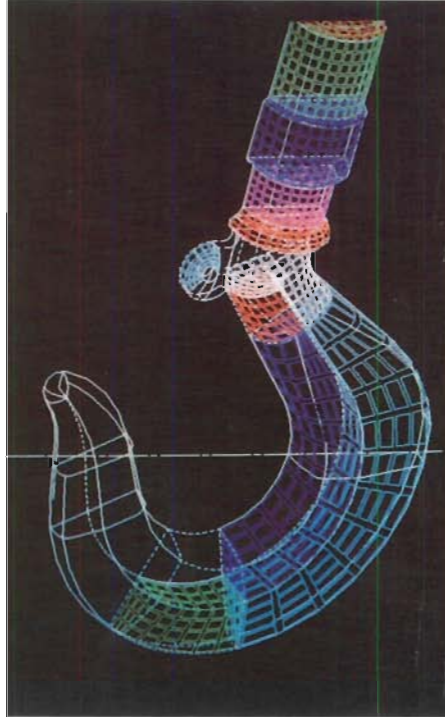
TEK's solid modeling has been integrated with the GRAFTEK system of hierarchical menus and common data base—data can move easily to either the numerical control or finite element modeling applications.

- PATRAN is a solid modeler which makes it possible to describe objects using surfaces and volumes rather than simple lines and arcs. With PATRAN you can analyze the mass properties such as volume, weight and moment of inertia. PATRAN also features a finite element pre- and post-processor, and fast, efficient use of color graphics.

- ANSYS, a general-purpose finite element program, is known for its linear and nonlinear capabilities in the structural, electro-magnetic and heat transfer areas. The program includes choices of analysis types, material behaviors, nonlinear options, loading conditions and solution procedures, and a large library of elements.

For further information, contact your local HP sales office.

ANVIL-4000® is a registered trademark of Manufacturing and Consulting Services, Inc. GRAFTEK™ is a trademark of GRAFTEK, Inc. ANSYS® is a registered trademark of Swanson Analysis Systems, Inc. PATRAN® is a registered trademark of PDA Engineering.

New matrix printers offer versatility at high speeds

Two new heavy-duty line printers from HP feature high-quality, flexible dot-matrix printing at speeds up to 900 lines per minute. The HP 2566A printer at 900 lines per minute (lpm) and the HP 2565A printer at 600 lpm are rugged devices designed for high-speed print applications in data processing, manufacturing and engineering environments.

Matrix-printer features at band-printer speeds

Both printers use a standard 8-bit Roman 8 character set. This supports USASCII in addition to 11 European languages at standard 10 cpi (charac-

ters per inch), compressed 16.7 cpi, and double high/double wide characters. Up to 14 different optional character sets can be installed in the printer at one time. You can choose any of these character sets either from the printer's front panel or under program control, and even mix character sets on the same line of print.

Both printers offer optional low-resolution bar code character printing; optional OCR-A and OCR-B character sets also are available. In OCR letters and numbers look like regular characters, but are printed to a specification which can be read by an optical reader.

A unique paper handling mechanism on the printers offers easy access to the paper path. In addition, four motor-driven paper tractors let you make fine adjustments to both horizontal and vertical paper positioning.

System support

The printers can link to HP 3000 and HP 1000 computer systems through HP-IB. Other optional interfaces include RS-232-C, RS-422A, Centronics Parallel and HP 2608A Plug-Compatible Parallel Differential I/O.

A software package for Just-In-Time manufacturing

As the concept of stockless production begins to sweep the nation, HP introduces HP JIT, one of the industry's first software solutions designed for manufacturers practicing Just-In-Time production techniques. Leveraging on HP's extensive experience with Just-In-Time systems, the new HP JIT package offers enormous productivity and quality improvements to your manufacturing process.

A Just-In-Time production line is dramatically different than the traditional work-order based assembly process. HP JIT is a "work-orderless" system which relies on frequent deliveries of components directly to assembly line work stations. Hewlett-Packard's own success with the Just-In-Time production strategy has shown that the use of "demand-pull" production to build products in small lot sizes drastically reduces both inventory and floor space. HP JIT was developed in close cooperation with the 14 HP divisions which have implemented Just-In-Time production. (See related story on page 8.)

Specify, plan and control

HP JIT's functions are contained in three software modules:

■ *Manufacturing Specifications*—used to define the manufacturing process and "deduct lists," which identify the parts consumed at any point in the production process.

■ *Materials Planning*—includes rate-based master scheduling to determine the planned output rate per day.

■ *Manufacturing Control*—used for production reporting, inventory management and material cost reporting.

Interactive manufacturing process

HP JIT runs on HP 3000 computer systems, and is the first HP software application to incorporate the use of the HP Touchscreen MAX personal computer as an integrated workstation. The package is interactive, which means that time-critical information is immediately available to you on screen displays, in a form designed for manufacturing people. It makes extensive use of pre-labeled special function keys, simple "menus" and fill-in-the blanks terminal screens to make HP JIT easy to install, and easy to use by people who are not computer professionals.

Software customization is a standard feature, so you can heavily modify HP JIT to make it precisely fit the way your company handles manufacturing—and this is done without programming, and without changing the source code.

HP JIT can be used as a stand-alone application or fully integrated with HP Materials Management/3000 for environments which require both Just-In-Time and work order control.

New low-cost software solutions for HP personal computers

HP continues to expand its line of software available for the Touchscreen personal computer and The Portable with five new low-cost software packages published by Hayden Software Company.

The Writer is an easy-to-use word processing package with an interactive on-screen tutorial and HELP displays. Other key features include insert/delete/find/replace text, word wrap, cut and paste, block moves, centering, boldface, underline, right justification, table insertion, and a mail merge capability for generating customized form letters.

The Speller can be loaded on The Writer disc to check text files for spelling errors. It includes a dictionary of more than 20,000 most-frequently-used words. You can also create an unlimited number of user-defined dictionaries. The Speller can also be configured to check WordStar®, Memo-Maker, and Volkswriter™ text files.

The List Manager lets you collate lists of names, addresses, phone and account numbers, or other related data. Other features include a query free-form data retrieval utility, a report generation utility and a number of fixed-format reports.

The Planner is an electronic spreadsheet product you can use to insert spreadsheets into The Writer text files. First-time users will find The Planner easy to use with extended HELP screens available for each function. The Planner offers a full-feature set including named cells and blocks, block move/copy, joined spreadsheets, synchronized and unsynchronized windows, and a large number of trigonometric, algebraic and Boolean functions.

The Calendar is an electronic appointment calendar with easy commands for daily appointment additions, changes, and deletions and places for comments or notes. You can print daily, monthly and annual calendar screens for added convenience.

Contact your local HP Sales Office or authorized dealer for more details.

WordStar is a U.S. trademark of MicroPro International Corporation.

In Brief

- Learn how to manage your HP 3000 system more effectively with HP's new Advanced System Management training course. This three-day class will help experienced System Managers make better decisions in three important areas: system utilization, data integrity and system security.

- Here's a moderate-resolution, high-speed, low-cost color video monitor interface for your HP 1000 A-Series computer family. The new HP 12065A color video interface can help improve productivity in applications such as process control, computer-aided test and computer-aided manufacturing. By combining color video with one or more types of operator input devices, you can create a flexible system that costs less than traditional custom consoles.

- Now you can buy the utilities disc for The Portable in two new replacement sets that accommodate HP 3½″ single-sided formatted disc drives and the 5¼″ IBM-compatible disc drive. The 3½″ single-sided formatted replacement set (Part No. 00090-12011) includes four discs. The 5¼″ IBM formatted replacement set (Part No. 00090-12012) includes two discs. You can order your replacement set from HP Computer Supplies Operation.

- **Correction:** The single-user HP 9000 bundled system offered in the last *Computer Advances* includes a Series 200 Model 217, not a Model 220 as stated.

Real-life examples of Just-In-Time manufacturing at HP

HP's pioneering efforts with Just-In-Time have involved more than 21% of our manufacturing plants worldwide. Just-In-Time is a build-on-demand production technique particularly suited to repetitive, continuous product assembly. These facilities report higher-quality products, reduced cycle times, greater productivity and closer control of inventory.

Bill Toney started implementing the Just-In-Time concept on the manufacture of the HP Touchscreen personal computer line in the summer of 1983, and has significantly improved asset utilization. Toney says he has saved hundreds of thousands of dollars in work-in-process inventory, reduced the space needed for this inventory by more than half, and reduced his cycle time from two weeks to three days. Toney sets minimum and maximum inventory levels between work stations, and these are monitored by production managers. When inventory reaches the maximum level for that station, production of that part is halted until needed again.

Another JIT practitioner, Dave Taylor, manufacturing manager of HP's Greeley Division, has been using the Just-In-Time system in the production of mass storage devices—floppy and hard disc drives—for personal computers. "Using JIT we have reduced the cycle time for one product dramatically—from six weeks to 55 minutes," said Taylor. "The system has also changed our division's attitude toward purchasing.

We have switched from purchasing large quantities from multiple vendors to buying small amounts in a single source approach." Under the Just-In-Time system, the Greeley Division reduced the amount of work-in-process inventory on the floor from 22 days to one day. Stockroom space decreased by 50%, and Taylor says he has saved $500,000 on purchased parts alone during the first year with the system.