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As you are about to discover, this, the fourth issue of Interactive, and the first to be distributed in New Zealand, has a distinctly colourful theme.

Studies have shown that using colour effectively can increase the speed and accuracy with which people understand your documents, and improve a reader's ability to remember your point longer.

In this issue, we look at the innovative technology behind HP's new Color LaserJet printer, and offer an entertaining video on the history of colour printing (see page 15 for details).

In other articles, we focus on several real-life solutions to business issues faced by some large Australasian companies.

By way of welcome to our readers from across the Tasman, two of these articles feature well-known corporate names in New Zealand.

We also examine various elements of a successful network printing strategy.

Finally, we look at the changing face of information technology and HP's continued rise in the computer industry.

So, hello again to our regular readers, welcome to the new ones, and "kia ora" to those from New Zealand.

I look forward to your feedback and comments on Interactive 4.

Adrian Weiss, Editor

WIN A HP 200 LX PALMTOP PC

All letters to the editor have the chance to win a valuable prize. This issue's prize for the best letter or comment on any of the articles in Interactive is an HP 200LX Palmtop PC, valued at over \$1000.

LETTERS TO THE EDITOR

Your letters and comments on the third issue of Interactive were as varied as they were numerous. The following letter has won an HP DeskJet Portable printer for Alex Millar. Congratulations, Alex, and thank you for your comments. We've answered some of your questions here. Others will be addressed in future issues of Interactive.

Dear Editor,

Your articles on networking in Interactive Issue 3, while interesting, leave some questions unanswered.

For instance, what applications will most benefit from high speed networking? Who is using 100VG-AnyLAN today and for what applications? What about existing software running at 10 Mbit/s; Can that be migrated to 100Mbit/s without additional cost and rewriting?

Few would deny that most networks would be improved by a "tenfold increase in speed". I would like to be convinced that such a performance gain could be achieved economically, and with a minimum of fuss, and could take full advantage of my company's existing applications and network infrastructure.

Alex Millar

General Manager, Technology - Tattersalls

EDITOR RESPONDS

Upgrading to 100VG requires absolutely no change to, or re-writing of, existing applications running on 10Mbit/s Ethernet as both technologies support the Ethernet frames.

Applications which stand to benefit most from high speed networking, such as multimedia, imaging, network colour printing and CAD, are only in their infancy and have been hampered in their development by the constraints of existing network speeds. Many more will be created to take advantage of faster networking capabilities.

Existing Australian customers of 100VG include a major insurance company, who chose 100VG to handle alarmingly rising network congestion levels. With the upgrade to 100VG, their utilisation level fell from around 40% to 2%, allowing for substantial future growth. Other 100VG users include several Commonwealth Government departments and a large engineering company.

While all applications will benefit from high speed networking technology, remember that application speed is determined by more than just how quickly a packet of information can travel along a cable. Factors such as the computer's processor speed, architecture and interface configuration also play a role in how fast data can be sent and received.

HELP

PHONE 13 13 47

Call the Hewlett-Packard Customer Information Centre on 13 13 47 for product or service information, contact numbers of your nearest dealer or recommended retail prices of HP products.

Call between 8.30 am and 5.30 pm from anywhere in Australia for the price of a local call. In New Zealand please call 0800 651 651. This line is open 24 hours a day 7 days a week.

FREE INFORMATION BY FAX

HP FIRST (HP's Fax Information Retrieval Support Technology) is the easiest and fastest way to get hard copies of product data sheets, or software and hardware compatibility information straight from our fax to yours, 24 hours a day, 7 days a week.

HOW TO ACCESS HP FIRST

You can access HP FIRST from most dial tone phones and fax machines in Australia and New Zealand.

- 1 Dial (03) 272 2627 on your tone dial phone from within Australia. In New Zealand please dial 09 356 6642.
- 2 The voice menu will prompt you to enter information from your phone/fax keypad. This will include the Document ID number(s) you require and your fax number.*
- 3 When the voice prompts you, hang up.
- 4 The literature you requested will be sent immediately to the fax machine you have specified.

* To receive HP FIRST information in New Zealand, callers, when prompted to key in their fax number, must first add the international phone access code, followed by the country code and city code, eg. 0011 64 9 (fax no.).

HP PROVIDES *Fast* FIGURES IN NZ *Fast* FOOD

New Zealand's market leader in the fast food business now has a faster system for figures and reporting.

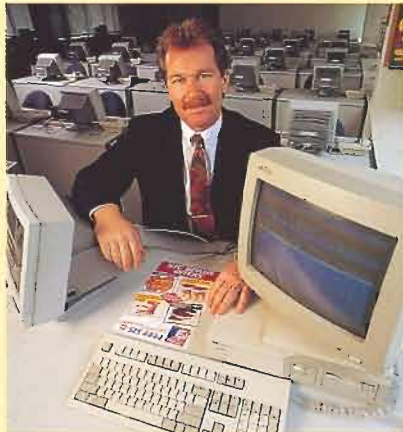
At KFC's 82 restaurants across New Zealand and the company's Head Office in Auckland, HP computers and communications products are playing a greater role in helping the company manage its rapidly expanding group.

As the market leader in fast food in New Zealand, KFC outflanks McDonalds, Georgie Pie and several others. With plans to open 30 new restaurants over the next five years, KFC (NZ) Ltd is part of the giant PepsiCo company, one of the largest consumer goods and restaurant marketers in the world.

Fulfilling the customer's demands for fresh, hot food in huge numbers of meals requires accurate, up-to-the-minute information available to managers at all times. PepsiCo and Hewlett-Packard work together worldwide and in New Zealand that relationship is paying dividends, according to KFC's IRM Supervisor, Ian Higgle.

Five years ago, POS register tapes were couriered from KFC restaurants to Head Office for data entry, with results being available two weeks later. When computers were introduced in 1989, sales data was collected from registers and routed to Head Office electronically for processing. Results could be sent back the next day.

In 1991, in a bid to reduce the time managers spent shuffling paper and increase the time they could spend with staff and customers, KFC introduced a software package called ARMS (Automated Restaurant Management System) specially tailored to



Ian Higgle, KFC's IRM Supervisor

KFC's requirements.

ARMS handles daily sales information, financials and stock control; projects orders and calculates wastage. It also takes care of staff rostering and scheduling, time punching, staff training and reporting.

OLDER PCs COULDN'T COPE

The system does so much, in fact, that the old PCs just couldn't cope. Today, most of the KFC restaurants in New Zealand use HP Vectra 486/25 PCs; robust reliable machines which have the power and performance required.

At Head Office too, HP systems play an increasingly important role. In Sydney, the regional headquarters of KFC Corporation, HP 9000 servers handle much of the company's data processing needs.

Transfer of sales information from the restaurants is now done via three modems attached to a single HP Vectra 486/33U, running custom software from the USA. Previously, says Mr Higgle, this task took three computers and a lot more time and effort to coordinate, manage and maintain.

KFC's home delivery service, which offers a thirty minute delivery of hot fresh meals, depends upon an HP NetServer LM Network Server. Every street is preloaded into the system and each restaurant is allocated to a zone for the speediest possible delivery. A key feature of the HP system, according to Mr Higgle, is that it's scalable, with built-in RAID 5 disk storage, so that the home delivery business can grow, and that it's reliable. "Customers don't want to hear that the system is down. They want their dinner."

BETTER, EASIER MANAGEMENT, WITH CONSIDERABLE SAVINGS

With the introduction of HP systems in their restaurants and offices, KFC has gained not only greater processing power, functionality and reliability, but also a more consistent computing environment across the many businesses making up the organisation, says Mr. Higgle. This makes for better, easier management - plus considerable savings.

"Paperwork is vastly reduced, saving staff time in restaurants and in the offices; managers get vital sales and stock information much more quickly; there is less rework and fewer data entry errors; support time and costs are reduced.

"We can respond to increases or decreases in sales or orders overnight; we can monitor the effects of promotions and advertising campaigns, of season changes and holidays and so on. The HP systems mean we can serve our customers much better."

WHICH BANK RESHAPES ITS DEALING ROOM ENVIRONMENT



When Australia's leading bank implements a completely new dealing room environment, it is not just the financial markets that sit up and take notice.

The Commonwealth Bank of Australia's (CBA) Institutional Banking division is installing HP Vectra PCs in all its state branch offices to extend its seamless financial markets dealing room environment Australia-wide.

The move follows the installation of Hewlett-Packard UNIX business servers and workstations for 189 dealer positions in Sydney. The



Sydney phase was completed in the record time of just four and a half months, without any interruptions to normal dealer activity.

The CBA is now bringing all Australian dealers, including those in Melbourne, Adelaide, Brisbane and Perth, onto the system. All four state branch offices will receive an HP 9000 business server and a network of HP Vectra 486/66 PCs.

The Australia-wide dealing environment is being implemented under a five year progressive partnership agreement between the CBA, Hewlett-Packard and Dow



The CBA extends dealing environments with PCs

Jones Telerate, with Dow Jones Telerate taking on project management responsibilities. The system is based on the Telerate Trading Room System (TTRS) suite of applications.

When the seamless dealing environment is completed at the end of 1994, a total of 286 dealers will be using the new system. The Bank will then look to expand the system worldwide.

Mr Gary Mackrell, CBA's Head of Financial Markets, Distribution, said, "We are putting PCs into our interstate offices because they are mainly distribution operations offering retail and corporate services. They do not require the powerful, multi-tasking capabilities of UNIX workstations which the Sydney office has for price setting and data analysis."

"The PCs are replacing a range of disparate systems in the state branch offices. Instead of dumb terminals for mainframe access and market data, and stand alone PCs for mid-range access and spreadsheet activities, dealers now have a single screen and keyboard covering all activities on their desks.

"We are integrating all the dealer activities onto a single screen environment, with the PCs being fully interoperable with the UNIX system in Sydney. The PC and UNIX environments have the same look and feel.

"This gives us the flexibility of being able to move the dealers and hardware around the country, either as part of training or as markets fluctuate, without having compatibility problems or dealer re-training issues," Mr Mackrell said.

The installation of the seamless dealing environment is an integral part of a move to reshape the CBA's financial market activities to take on a more aggressive stance.

"In order to meet our current business strategy of significantly increasing our business and market presence, we have to diversify into new product areas and gain greater customer coverage. To do this we need the technological capacity to manage our risk carefully and introduce new products to market very quickly," Mr Mackrell said.

The seamless national dealing room is the first, open, Windows-based system installed by the CBA for mission critical applications. It uses Hewlett-Packard HP 9000 Series 800 business servers, HP 9000 Series 712/80 workstations and HP Vectra PCs, and runs the TTRS suite of applications.

Mr Bruce Lee, CBA's Head of Infrastructure and Communications Support, said, "HP's PCs were chosen mainly because we wanted to standardise on one vendor's products

throughout the entire dealing room environment, including servers, workstations and PCs."

David Booth, HP's Market Development Manager, PC Products, said, "The project clearly reflects HP's position as not only a major provider of open systems products and services, but of complete solutions for the financial services industry that include PC technology."

Under the progressive partnership agreement, the CBA chose not to capitalise the system, but to establish a leasing, or "technology-recycling" arrangement with the suppliers, whereby the CBA owns the solution but not the actual products that make up that solution.

"The rate at which the value of technology investments can be depreciated is much slower than the rate at which technology is changing. Capitalisation could have, therefore, significantly delayed the adoption of crucial technologies in the future.

"The progressive partnership will enable us to upgrade our systems as we require or as new developments become available. If we require Pentium™-based products, then there will not be a problem," Mr Lee said.

Pentium is a trademark of Intel Corporation.

**PRICE, PRINT QUALITY AND NETWORKING BARRIERS
BROKEN WITH HP COLOR LASERJET PRINTER.**



COLOUR

LASER PRINTING BREAKTHROUGH

The demand for high quality colour laser printing in everyday business documents continues to grow. That demand is certain to be more than satisfied with the eagerly awaited release of the HP Color LaserJet printer.

Designed to enhance the HP LaserJet printer family's tradition of value and quality, the HP Color LaserJet will set a new standard in office colour laser printing. It will take its place in the market as the colour laser printer for those who want fast, high volume, durable colour printing with full work group share ability.

AFFORDABLE QUALITY COLOUR LASER PRINTING

Breaking the colour laser printer cost barrier has been achieved through a combination of hardware design that simplifies the colour process and software advances that make vivid, accurate colour, easy to obtain.

With a lower equipment cost and ongoing savings through lower cost of operation the HP Color LaserJet will bring high quality colour printing to many who thought they could not afford it.

UNIQUE "DIRECT-TO-DRUM" IMAGING PROCESS

The key technology inside the HP Color LaserJet is its unique "direct-to-drum" imaging process, which places colour toner directly onto the drum for transfer to the paper.

By eliminating the complicated "belt to drum to paper" process used in many other colour laser printers, Hewlett-Packard have dramatically simplified the colour printing process.

"Direct-to-drum" imaging produces simpler, more reliable operation, sharper text, truer colours and better registration without unplanned white spaces or overlaps between colours.

COLORSMART BRIDGES THE "EASE OF USE" GAP

Another major advance is HP's ColorSmart technology. Just as auto focus cameras have made high quality colour photography fast and easy for everyone, ColorSmart, which is built into the HP Color LaserJet printer, bridges the colour gap between advanced and everyday users.

By eliminating the need for users to make complex choices before printing their colour documents, ColorSmart technology makes consistent colour easy to obtain without frustration or loss of productivity.

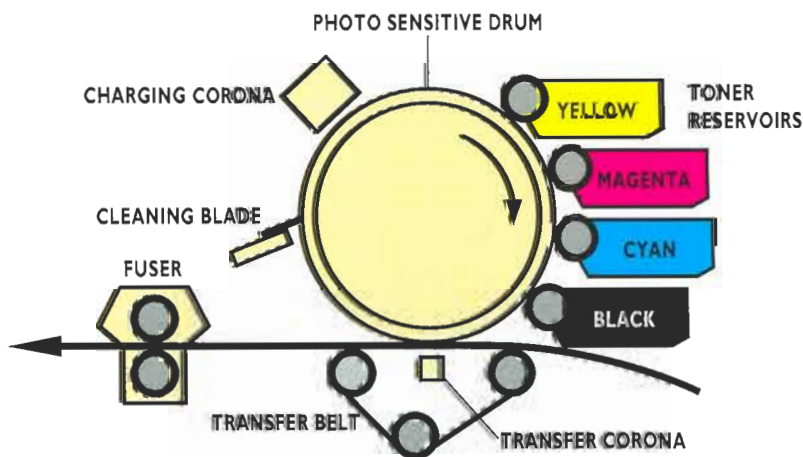
It automatically analyses files as they move from the computer to the printer and applies the right colour controls and patterns for text, graphics and images on the page.

LEADING THE "COLOUR IN THE OFFICE" REVOLUTION

Leading research firm BIS Strategic Decisions predicts that colour laser printers will have an industry wide, compounded annual growth rate of 50 per cent through 1997.

Hewlett-Packard predicts the HP Color LaserJet will be one of the leaders in this growth as users seek to harness the power of colour to turn ordinary business documents into attention-getting, professional, high-impact communications - quickly and economically.

To receive faxed information on the HP Color LaserJet printer simply call HP FIRST (see details on page 2), and request Document ID Number 1381.



Direct-to-drum imaging simplifies colour laser technology, while delivering better registration. The laser draws the image directly onto the drum, and no photoconducting belt is required.

WHY HP'S FORTUNES CONTINUE TO GROW

A recent Fortune magazine article on Hewlett-Packard opened with the following words: "Hasn't anyone told HP? Giant computer companies aren't supposed to grow this fast anymore."

It's an obvious question to ask of a company that is defying the current trend among the "big" computer names.

So what is the secret of HP's growth? Why has HP grown from No. 7 among US computer makers to a clear No. 2, eclipsing DEC? And why, according to the San Francisco Chronicle, is HP now in the top 10 personal computer shippers worldwide?

THE SECRET TO HP'S GROWTH

The secret to HP's quadrupling in size in the past decade seems to lie in several factors.

For a start, the company seems to move with small company agility into new markets. Products that have been introduced or revamped within the past two years now account for 70% of HP's orders, up 30% from a decade ago.

But that doesn't stop Lew Platt, Chairman and CEO of HP, from worrying. "Most companies our size that have been very successful got themselves into deep difficulty. The only mistake they made is, they did whatever it was that made them leaders a little too long. I worry every morning that I, too, will be party to hanging on too long.

"We have to be willing to cannibalise what we're doing today in order to ensure our leadership in the future. It's counter to human nature, but you have to kill your business while it is still working."

PRINTERS, WORKSTATIONS AND PCs LEAD THE WAY

Much of HP's growth is attributed to its \$7 billion a year PC printer division.

While HP laser printers continue to dominate markets, HP has feasted on itself by competing against its laser printers with lower price inkjet machines.

In workstations, the company has followed a clear winning strategy, selling some \$2.5 billion worth of midrange systems in 1993.

By committing itself to "open systems" which let customers mix and match products from a range of hardware and software vendors, HP has profited from the fact that this has become the industry's clear direction.

Whilst other companies have suffered embarrassing setbacks with handheld computers that try to recognise handwriting, HP has struck another winner with its "palmtop PCs". Complete with full function miniature keyboards, the HP95LX and HP100LX (and now the HP200LX) have sold in their hundreds of thousands worldwide.

FUTURE PRODUCTS AND PEOPLE

Some of the new fields in which HP may continue its winning strategy include interactive TV, through a new deal with Pacific Bell and cable giant Telecommunications which will see consumers able to order movies with the click of a remote control, and the HP VidJet Pro, a device that grabs video frames from a TV screen and reproduces them on any HP printer equipped with a parallel interface.

All of HP's growth of course comes from its people. According to Lew Platt, the idea is to lead by persuasion.

"As CEO my job is to encourage people to work together, but I can't order them to do it." Perhaps that's the real secret to HP's fortunes.



THE NEW PROMISE OF INFORMATION TECHNOLOGY

"I shake my head when I read the morning newspaper - unpredictable changes, unimaginable three years or three months or three weeks ago," remarked Don Tapscott.

Tapscott states that we're entering a second era of information technology where everything is different. "Those who don't understand that, are basically toast," he says.

"Looking at the Fortune 500 companies that were listed 15 years ago, 40 per cent don't exist or aren't on the list today," Tapscott points out. He notes further that "fifteen years ago the top 10 banks in the world were American; today none of them are."

WHAT'S DRIVING THE CHANGE?

When describing the profound and far-reaching changes happening in the world, Tapscott believes that we have "a geopolitical environment that seems rich with opportunity and fraught with danger, for our country and our organisation and ourselves."

What does all this have to do with information technology and change? Given that today's new enterprise is enabled by information technology, Tapscott views geopolitical factors as directly relevant. "The new technology, based on interchangeable parts, is modular and dynamic," he explains. "It distributes intelligence and decision-making to the users. Working like people do, technology can integrate data, text, voice and image information and provide the means for a flat, non hierarchical, team-oriented business structure."



Don Tapscott is the author of "The Paradigm Shift" - the best selling book on IT in business. He is a consultant for the US and Canadian governments on the paradigm shift and information superhighway issues.

AT THE HEART OF REINVENTION

Since the old paradigm in technology is failing to deliver the goods, Tapscott reasons that it's only through making the shift that we can succeed.

Information technology is at the heart of that reinvention. "Every CEO," Tapscott observes, "is struggling with the question, 'How do I reinvent my organisation to compete, be productive and be effective in this fundamentally new business environment?'"

Invoking the Nike Law - 'Just do it' - Tapscott urges the CEO to get going without delay. Instituting change will not necessarily cost any more money; constant conditions of change ensure continual adaptation. "Why not wait until all this settles down?" the CEO may wonder. Bad strategy, Tapscott advises. "As the rate of innovation and change is accelerating, not declining, it will never settle down."

POWER SHIFT TO CUSTOMERS

Identifying a stunning power shift from vendors to customers, Tapscott describes striking changes in the relationship between the two. Noting that more customers are looking for open systems, he sees such an offering as a strategic imperative for success and survival.

Experiencing a freedom of choice in an ever-expanding field, the customer is part of the loop in developing technology solutions. For the first time, Tapscott foresees an opportunity for win-win partnerships between vendor and customer and expects more of these kinds of relationships everywhere.

"Vendors who seek partnerships that build confidence in their technology and people, increase their chance of success."

As the business climate becomes more volatile, a familiar adage still applies. The problem with many organisations is that they tend to be over-managed and under-led.

"It needs to be said" according to Tapscott, "that only business leadership can define customer relationships and the strategic direction of the industry."

He believes that leadership involves "retooling" technology. It also, by extension, involves "re-engineering the business", a major challenge for senior executives over the next period.

(Reprinted from Perspectives - A quarterly newsletter from Hewlett-Packard in Asia Pacific.)

MAKING THE WORLD'S BEST BEER, EVERYDAY.

New Zealand's DB Breweries makes some of the world's best beer. With titles like "Best Lager in the World" (1992 and 1994) and "Best Ale in the World" (1994) and the "Best Beer in Australasia" award four times running, this is no idle boast.

Now Hewlett-Packard is helping the Waitemata Brewery in Otahuhu, Auckland, one of DB's four breweries in New Zealand, produce these award winning brews, every day.

Waitemata is currently undergoing a multi-million dollar upgrade which will make it the most state-of-the-art automated brewery in the world.

Since the mid-50s, the brewery has used continuous fermentation, a technologically advanced method of brewing developed by DB's Morton Coutts and still considered very progressive today. Although the patent rights to the method have been sold all over the world, no other brewery is using it - because continuous fermentation demands constant tracking and adjusting of the production process. The better the available information and the ability to use it, the better the beer.

MORE TECHNICAL EXPERTISE THAN MOST BREWERIES

"We have more technical expertise here than is usual in a brewery," says Peter Gillingham, Process Systems Manager at the brewery - a factor which is also apparent in the IT strategy under implementation at the brewery.

The computer control centre is based on HP 9000 minicomputers and interfaces with the company's new financial systems, which run on an

HP 3000. The supervisory monitoring and control system, tracking the manufacturing process from the brewhouse to draught beer, runs on a UNIX system with three X-terminals in the control room and one in the brewing plant.

"We needed a platform that could be developed to whatever we need in the future," says Gillingham.

"What we can do, is to get the IT architecture - the infrastructure - right, and then set and adhere to standards and protocols in accordance with that architecture. Then we will be in a position to make whatever changes the future demands."

THE UNIX CHOICE

After a "soulsearching" period the choice narrowed down to OS/2 or UNIX. They chose UNIX and



DB's control room

Hewlett-Packard hardware on which to develop the supervisory, monitoring and control system using the software Monitrol and Cue, and local process specialist Macro Automation.

Not only was the new system quickly installed, it has since shown itself to be very stable. Its functionality exceeded that of competing products "and our expectations", says Gillingham. Better still, he maintains, it is capable of further development, as required.

Waitemata Brewery has also implemented a centralised financial system to help the brewery get the broader business picture. With the HP 3000, procedures are now standardised across regions, providing better management information.

Waitemata is now well positioned to take advantage of wide area networks to link and manage business effectively over the whole country.

DAILY MEASUREMENT OF QUALITY AND EFFICIENCY

The new computer systems give a higher level of control over the brewing process, automatically recording a mass of data - volumes, flow rates, times of events, durations - enabling brewers to see exactly what is going on and make quick decisions. "Previously we measured our quality and efficiency monthly and all our systems were geared to that," says Gillingham. "We can now fine-tune both our beer quality and our production efficiency, making adjustments daily."

FREEDOM OF THE (NETWORKED PRINTING) PRESS

In 1920, A.J. Liebling wrote that "Freedom of the press belongs to those who own one." Today, he might have added: "But not necessarily to those who have to use one over a network."

This may be true for many kinds of networked printing, but Hewlett-Packard has developed a strategy to make network printing as easy and productive as local printing.

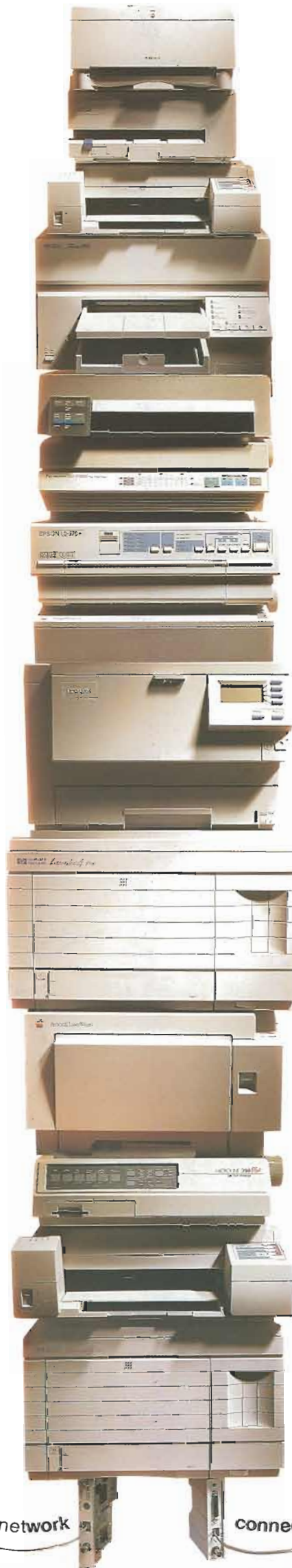
A SUCCESSFUL NETWORK PRINTING STRATEGY

A successful network printing strategy is based on reliability and location flexibility. If network printers are not reliable and cannot be placed near the people who use them most, then all the other benefits are superfluous.

HP's network printing reputation is founded on its HP LaserJet and DeskJet printers that deliver solid, excellent performance over and over again. The company has made it possible to place printers, either connected through systems, or directly to the network using the HP JetDirect family of print servers.

MANAGEABLE PERFORMANCE

HP provides high performance by allowing printers to print at network speeds. HP printers, which are typically shared, have a modular I/O (MIO) expansion slot that accommodates HP JetDirect internal print servers for different operating systems. For printers without an MIO expansion slot, HP offers a range of external print servers, called HP JetDirect EX. Having shared the MIO specification with its strategic partners, HP now has solutions for more than 95 percent of the network environments in use today.



Interoperability - the ability to print from anywhere to anywhere without regard for printer brands, cable types, language, or NOS - is a necessity in today's heterogeneous installations. As well as being network-ready and having multiple interface cards, HP printers have a number of automated features for interoperability allowing printers to switch among I/O ports, page description languages, and protocols/NOSs without user intervention.

HP JetAdmin and HP JetPrint printer management utilities mean users can get everything from remote configuration and front-panel viewing, to real-time status reports and point-and-click printing to the most convenient printer.

Network printing, which was initially developed to save money and effort, can end up costing organisations if it is not easy to manage.

Hewlett-Packard's network printing strategy is designed to develop a set of powerful management tools based on the Simple Network Management Protocol (SNMP) and the Desktop Management Interface (DMI), to automate the management process as much as possible and reduce the incidence of these problems.

PRINTING PRODUCTIVITY

HP's fostering of seamless compatibility across networks, support of industry-standard management systems, and ability to provide bi-directional communications capability with network printers make management much easier and more effective.

Without HP's network printing capabilities, LAN managers tend to spend a lot of time on crisis management. With these capabilities, they tend to spend more time on making networks and network printing much more productive, regardless of printer brand.

HP JetDirect print servers - easy network

connectivity for a wide range of peripherals

HP & CISCO IN NEW INTERNETWORKING STRATEGIC ALLIANCE.



Joseph Puthussery

Once seen by some as rivals, Hewlett-Packard and Cisco Systems Inc have formed a new strategic alliance that will be of great benefit to both company's customers.

Announced in September, the alliance was described as "a broad and significant strategic marketing and technical relationship".

The aim is to co-develop products for 100VG-AnyLAN and ATM and to significantly improve router interoperability via a common, open-architected internetworking software platform.

The relationship, which expands on an existing support agreement between HP, the leading stackable hub vendor, and Cisco, the leading internetworking systems vendor, also includes HP OpenView network-management elements, standards development and the availability of these solutions to a broader range of customers and channels.

Cisco is accelerating its development of 100VG-AnyLAN fast Ethernet/Token Ring router interfaces. Products will be developed for the Cisco 7000 and 4500 router families. Cisco will also work with HP to build plug-in router modules using Cisco's Internetwork Operating System (IOS) for HP's industry leading line of AdvanceStack stackable hubs. The Cisco router modules will be designed to plug directly into the HP AdvanceStack expansion slot and will provide customers with a fully interoperable, integrated



routing hub solution, that is ideal for branch office applications.

"Cisco is very pleased to be HP's first AdvanceStack expansion slot partner and looks forward to offering the combined HP/Cisco technology," said Richard Freemantle, Managing Director, Cisco Systems, Australia and New Zealand.

"It is clear to Cisco that 100VG-AnyLAN, now being standardised in IEEE 802.12, offers customers many advantages, including Ethernet and Token Ring compatibility, superior performance, advanced functionality for multimedia applications and ATM compatibility.

"Cisco's strong support and endorsement of 100VG-AnyLAN continues the momentum that is establishing VG as the successor to 10Base-T in the LAN market," said Joseph Puthussery, HP Australia's Market Development Manager for Networking.

Additionally, HP and Cisco will work on a common open-architected internetworking software platform to ensure the highest level of interoperability and portability of functionality between the two firms' internetworking products.

"While the details are still being worked out, it is clear that customers stand to gain much greater flexibility in building networks of interconnected work



Richard Freemantle

groups and enterprise backbone networks, using both HP and Cisco products," said Joseph Puthussery. "This new relationship will ensure that end-users are provided with the absolute 'best of breed' in hub and router technology with a minimum of fuss."

In a similar vein, network managers who will look to a common network management platform and application suite for their networking products are also expected to benefit from the relationship between HP and Cisco. The industry's leading management platform, HP OpenView, can provide support for such a convergence. The companies say their current applications will be enhanced and future applications will be developed to support both HP and Cisco networking products.

In the area of standards development, HP and Cisco will also work on the adoption of common internetworking and LAN standards. "Customers need to know their major vendors will help bring them the right internetworking and LAN technologies," said Puthussery.

"Knowing that HP and Cisco are working together to get the right standards accepted and delivering products based on those standards, will give customers the confidence they need to move forward."

Standards areas that the two firms expect to focus on include router protocols, enhancements for bandwidth on demand, and multimedia traffic support.

STANDARDISATION COMES TO MULTIPROCESSING

Technical obstacles have received a lot of the blame for slowing the quest for an affordable multiprocessing server. Cache coherency, bus contention, scalability, and a host of other thorny problems have all challenged system designers. But another challenge, one with both technical and political elements, must also be met before multiprocessing enters the mainstream: standardisation.

Until now, the multiprocessing market has been a market without standards, where every vendor implementation was different from every other. There is no common method for the operating system to communicate with the multiprocessing hardware.

The net result is terrible inefficiencies for hardware and software vendors, high costs for users, and a situation where the dream of a multivendor multiprocessing environment was impossible to realise.

THE MULTIPROCESSING SPECIFICATION

Today a group of vendors, including Hewlett-Packard and Intel, are spearheading an effort to create a de facto standard for multiprocessing called the multiprocessing specification (MP Spec) Version 1.1. Hewlett-Packard is one of the first vendors in the industry to offer systems (the HP NetServer LM2 Network Server and the HP Vectra XU PC) supporting this new standard for multiprocessing systems designs based on Intel processors.

The benefits of the MP Spec standard are analogous to the benefit of the uniprocessor standard for both applications

and operating systems. Just as the PC specification does in the PC market, the MP Spec will let software developers write multiprocessing applications to a uniform standard. And, again as in the uniprocessor market, the MP Spec will let users buy shrink-wrapped multiprocessing operating systems and run them out of the box. As a result, users will be able to reap the benefits of powerful



HP's NetServer LM2: A multiprocessing application server.

multiprocessing engines without having to worry about the myriad pitfalls of system configuration, performance, optimisation, and interoperation.

Vendors are expected to embrace MP Spec because Intel is providing MP-ready components, which will make the development of cost-effective systems much quicker. A good example is APIC, Intel's Advanced Programmable Interrupt Controller. A major component of the MP Spec that handles I/O interrupts for multi-processing, APIC is built into Intel Pentium™ 90 MHz and 100 MHz processors.

MULTIPROCESSING GETS REAL

For multiprocessing to become a viable mainstream strategy, three preconditions are required.

There must be multi-processing hardware which already exists: HP's NetServer LM2, a multiprocessing application server, and the HP Vectra XU PC, a high-performance technical and business personal computer, are good examples.

There must be multiprocessing applications written from the ground up to incorporate "multithreading", the ability to break up a given problem into many fragments, called "threads", and process them in parallel.

And there must be multiprocessing operating systems. Here the picture is less clear cut. The crucial characteristic is whether and how well operating systems support multithreading, which sometimes defies unambiguous pronouncements.

Windows NTAS SMP, SCOMPX, IBM OS/2 SMP, and the proposed Novell NetWare MP, are all "fairly strong" in multithreading, but in many ways are quite different from each other.

BENEFITS OF STANDARDISATION

This is one of the areas in which the MP Spec will have a tremendous positive impact. Standardisation will make the evaluation of the multiprocessing and multithreading capabilities of different applications and operating systems much simpler. It will allow every group with an interest in multiprocessing systems to benefit from lower costs and increased interoperability. And it will free vendor resources to concentrate on much higher levels of functionality and performance.

HP'S FIRST COLOUR NOTEBOOK PCs



David Booth with the HP OmniBook 600 PC

The new range of HP OmniBook colour notebook PCs are heavy on features but light on weight.

In fact the new HP OmniBook 600 PC is the industry's lightest, full-performance notebook, weighing in at just 1.72 kg.

The new HP OmniBook 4000 PC, on the other hand, is an advanced desktop-to-go notebook, with convenient expandability, stereo sound and a large colour display.

These two notebooks join HP's expanding PC line-up which now offers the industry's most comprehensive PC family, ranging from handheld appliances to powerful network servers.

THE LIGHTEST WEIGHT COLOUR NOTEBOOK.

"The new HP OmniBook 600 PC series breaks new ground in the notebook market by packing the performance and colour display that customers are demanding into the industry's lightest package", said David Booth, Hewlett-Packard Australia's Market Development Manager for PCs.

Weighing just 1.72 kg and equipped with an exceptionally light battery that provides four hours of battery life, the HP OmniBook 600 PC delivers uncompromised performance.

With local bus video and advanced graphics performance that surpass many of the mainstream notebooks on the market today, the HP OmniBook 600 PC features comfortable viewing via a back-lit 216mm DSTN display.

As the only notebook with Instant-On it allows users to immediately return to where they were, when they turned the machine off.

The HP OmniBook 600 also includes HP's Personal Information Manager (PIM), financial calculator, "hot" function keys, full sized keyboard, familiar pop-up mouse and optional multiple battery recharger.

Connectivity and expansion are well catered for with two free Type II PCMCIA slots, infrared port, serial, parallel, floppy and SGVA-out ports.

Processor options are Intel 486DX2/50 or 486DX4/75, while the 4 or 8 MB of RAM can be expanded to 12 or 16MB. A 170 or 260MB hard drive is available.

ADVANCED PERFORMANCE, ON THE GO.

The new HP OmniBook 4000 PC provides advanced performance for on the go professionals, who need power, performance, extended battery life, connectivity and upgradability.

Power users will find the HP OmniBook 4000 PC features a range of processors up to 100Mhz DX 4. RAM expandability up to 32MB and hard drives up to 520MB combined with built-in Sound Blaster Pro-compatible stereo sound ensure this notebook provides real performance for dynamic presentations and on the move performance.

A choice of brilliant 261 mm DSTN screen or 264 mm TFT, supporting up to 64,000 colours are available.

Mobile professionals with dynamic needs will appreciate the high level

of flexibility in the HP OmniBook 4000 PC range provided by modular hard-disk drives, accessory slot for a floppy or second battery, RAM expansion and PCMCIA slots.

An optional second battery which can be substituted for the floppy, results in a battery life of five to seven hours, ideal for those away from power sources for a long time. A wrist rest and centred trackball make for comfortable, easy use.

The HP OmniBook 4000 PC is equipped with HP's flagship infrared capability, built-in serial, parallel, SGVA-out, and audio and keyboard/mouse ports.

PRELOADED SOFTWARE AND READY FOR WINDOWS 95

All of HP's new notebooks come preloaded with MS DOS 6.2, Windows for Workgroups 3.11 and LapLink Remote Access.

Flash BIOS allows both HP OmniBook 600 and 4000 PC customers to upgrade easily to Microsoft Windows 95 for true plug-and-play connections when Microsoft's new operating system is available.



David Booth with the HP OmniBook 4000 PC

To receive faxed information simply call HP FIRST (see details on page 2) and request Document ID Number 90219 for the HP OmniBook 600C and 90220 for the HP OmniBook 4000C.

THE MYSTERY OF **Schwartzundweiss**

REVEALED

What was professor Schwartzundweiss, noted expert on business documentation, working on, before he disappeared? Who is the mysterious Hugh and what does he have to do with the revolution in colour office printing?

Which colour printing technology is best for your business?

All these questions and more are answered in a new video release from Hewlett-Packard, entitled "Schwartzundweiss - Colour Printing Technology"

Created in the style of an old mystery movie, this entertaining new video takes a humorous look at how colour printing can turn dull, lifeless business documents into vibrant, effective and powerful communications.

While colour certainly does have the power to attract attention, evoke emotions and increase memorability, there is such a bewildering choice of



printing technologies, brands and prices that making the right choice can be difficult.

The "Schwartzundweiss" video helps take the confusion out of choosing a colour printer by explaining the history of colour printing and examining the most popular printing technologies in an amusing and highly informative manner.

It's a must for anyone wanting to

know more about colour printing in the office.

Hewlett-Packard is making a special offer exclusively to all Interactive readers on this new video. Simply complete and return the enclosed reply form and we'll send you a copy of the "Schwartzundweiss" video, absolutely free!

Supplies of the video are limited, so please respond early for your copy.

BEWARE THE BUZZWORDS

There seems to be no stopping the trend for buzzwords and euphemisms in the corporate world.

So to help you keep up with the latest and ensure your career doesn't suffer from the embarrassment of not actually knowing what they mean, we present the 10 most deadly euphemisms currently doing the rounds of US offices.

(Note: publishing them does not in anyway suggest we endorse their use nor do we give any assurances of career advancement if you use them!)

Thinking out of the box: Creating new processes, not just tinkering with old formulas.

In alignment: As companies trim to the bare essentials, they're keen on employees whose values and attitudes are compatible with theirs (which could cause cerebral contortions for out-of-the-box thinkers.)

Empowerment: Pushing decision-making as far down in the company as possible i.e. close to the customer.

Hard for employers weaned on control to yield the reins. Viewed by some young cynics as an attempt at manipulation.

Constant Whitewater: Adapted from river rafting, it refers to management in an age of mergers, cutbacks and re-engineering. You're constantly managing amid turbulence, which can be fun but takes a lot out of you! Schedule enough rest and relaxation to keep your sanity and learn transition management skills.

Face Time: A concept that equates time spent in the office with career success. Psychological experts say these hard-driving people often aren't as successful long term as colleagues who balance hard work with other interests.

Disconnect: It means a breakdown in communication, just as your computer can be "disconnected" from a database. It's a disagreement that can lead to the following if you're not careful.

Derailment: Getting knocked off the fast track. Can result from a deficiency in skills or style but more often it occurs when a brilliant salesman or engineer, upon being promoted to management, still operates like a brilliant salesman or engineer.

Delaying: The smart-bomb version of cutback. Instead of blowing up employees everywhere, companies carve out a layer (usually middle management) and flatten their corporate structures.

Core Competencies: As companies shrink, they're looking for generalists (managers with planning, communication and leadership skills) who can see the big picture. Teamwork, collaboration, quality orientation and service are on everybody's list these days.

In Transition: A many-headed euphemism, but in this case, read: unemployed. Usually reserved for executives. Transitioners consider options and assess core competencies in the hope of being outplaced.

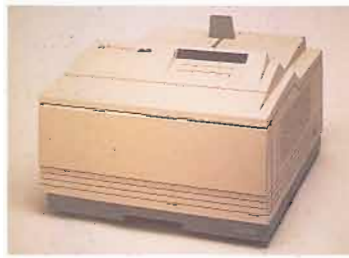


HP FIRST
Document ID 1381

HP COLOR LASERJET PRINTER

Welcome fast colour printing to your business:

- Full colour A4 documents at up to 2 pages per minute.
- Up to 10 pages per minute for black & white documents.
- Uses plain paper, for increased economy.
- Standard with HP's ColorSmart technology.

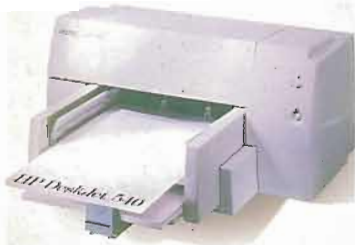


HP FIRST
Document ID 90194

HP LASERJET 4V & 4MV PRINTERS

16 ppm A4 laser printing with A3 printing occasionally:

- Superior print quality with true 600 dpi resolution.
- Versatile paper handling, including A3 size.
- Up to 16 pages per minute.
- Optional 42MB HPDisk Accessory for advanced network performance.
- Desktop-sized footprint.



HP FIRST
Document ID 2390

HP DESKJET 540 AND HP DESKWRITER 540 PRINTERS

Affordable black & white printers with a colourful feature:

- 600 x 300 dpi black output on plain paper.
- HP's Resolution Enhancement technology for crisp, clear printing.
- Optional, easy-to-install colour upgrade for high-quality colour output.
- Industry leading 3 year warranty.



HP FIRST
Document ID 2389

HP DESKJET 320 AND HP DESKWRITER 320 PRINTERS

The perfect companion for complete mobile printing:

- 600 x 300 dpi black output on plain paper.
- HP's Resolution Enhancement technology for crisp, clear printing.
- Optional, easy-to-install colour upgrade for high quality colour output.
- Compact, portable design.



HP FIRST
Document ID 5340

HP DESIGNJET 220 PLOTTER

Fast plotting within every designer's reach:

- Fast monochrome HP inkjet plotting for the price of a low cost pen plotter.
- Produces final quality A1 size plots in under 3 minutes.
- 600 x 600 addressable dpi resolution (enhanced mode).
- 2MB RAM standard buffer, expandable to 10MB.



HP FIRST
Document ID 3304

HP SCANJET 3p SCANNER

Makes scanning the easiest thing you'll do all day:

- 1200 dpi enhanced resolution for excellent greyscale image and text quality.
- 8 bit greyscale for 256 levels for grey.
- Integrated image editing tools for superior ease of use.
- Built-in TWAIN support.



HP FIRST
Document ID 90220

HP OMNIBOOK 4000 PC

The advanced, full function, desktop-to-go PC:

- Intel 486DX2/50 or 486DX4/100 processors.
- RAM expandable up to 32MB.
- 260, 340 or 520MB hard drive options.
- Backlit 261 mm DSTN or 264mm TFT display.
- Pre-loaded software (MS DOS 6.2, Windows for Workgroups 3.11) and easily upgradable to Microsoft Windows 95 for true plug-and-play connection.



HP FIRST
Document ID 90219

HP OMNIBOOK 600 PC

The industry's lightest, desktop-to-go PC:

- Intel 486DX2/50 or 486DX4/75 processors.
- 4/8MB RAM expandable to 12/16MB.
- 170 or 260MB hard drive.
- Backlit 216 mm DSTN display.
- Pre-loaded software (MS DOS 6.2, Windows for Workgroups 3.11) and easily upgradable to Microsoft Windows 95 for true plug-and-play connection.

To receive faxed information on all these product releases simply call HP FIRST (see details on page 2) and quote the relevant ID number.