

HEWLETT-PACKARD

System Sales Overview

HP 3000

Sales Guide



Internal Use Only

Systems Sales Overview

Summary	1
-------------------	---

MPE V/E SYSTEMS

Faster Disc I/O	4
Faster Backup	5
Improved Security	6

900 SERIES

Program Update	8
New Pricing	10
Series 950	11
TurboIMAGE/XL	12
SPL Update	13
Phasing Strategy	14

SALES STRATEGY

High-End Sales Strategy	17
Series 930 Backlog	19
Q&A	20

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

The HP 3000 - Stronger than Ever

MPE V/E systems now have even richer capabilities

In FY87, the HP 3000 has achieved significant order growth over the same period last year! This excellent performance is in sharp contrast to the problems faced by most of our competitors - including IBM, DG, and Wang.

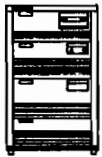
Several more products are now available for MPE V/E systems. This will help provide the MIS

manager with immediate solutions in the areas of higher performance, faster backup and improved system security.

These enhancements, along with programs like POWER UP, show our continuing commitment to MPE-V systems. You can sell these excellent solutions with complete confidence.



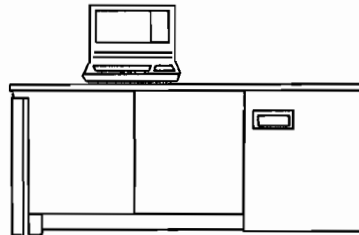
MICRO
MICRO XE



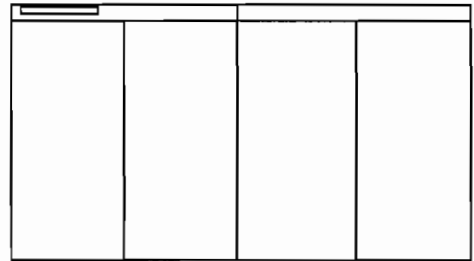
SERIES
52



SERIES 58



SERIES 70



- **FASTER DISC I/O**
HP 7936XP/7937XP DISC DRIVES
- **FASTER BACKUP**
HP 7979/7980 TAPE DRIVE
TURBOSTORE SOFTWARE
- **IMPROVED SECURITY**
HP SECURITY MONITOR

...and the 900 Series is on the way

With the addition of the 900 Series, our already strong competitive position will be further strengthened.

With aggressive new pricing

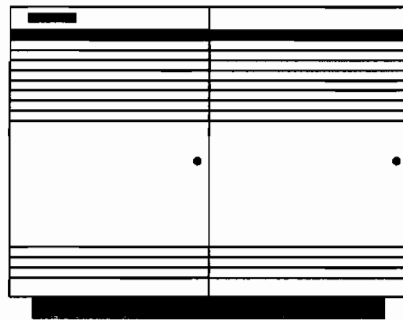
The preconfigured Series 930 now costs only \$180,000 for a 32 Mb system. Moreover, the high performance Series 950 lists for \$260,000 and comes standard with 32 Mb. Maximum memory on these systems has been expanded to 96 Mb and 128 Mb respectively through the incorporation of 1 Mb RAM technology.

The Series 70 price is unchanged. This is because the Series 70 has been frequently exceeding performance specifications and remains competitively priced.

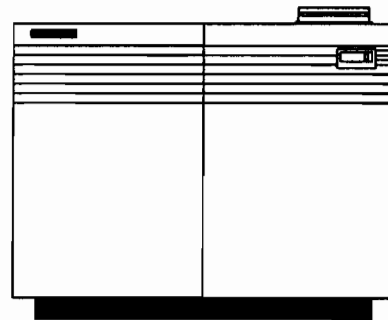
Series 950 now orderable

The Series 950 will be orderable as of June 1, 1987. This powerful new NMOS III machine will serve as the primary upgrade for the Series 70. Shipments of the Series 950 will begin on schedule in 4Q CY87.

SERIES 930



SERIES 950



PRICE	\$180K	\$260K
PERFORMANCE	4.5 MIPS	7 MIPS
		+50 TO 60% →
MEMORY		
STD.	32 MB	32 MB
MAX.	96 MB	128 MB

MPE V/E Systems

Faster Disc I/O

Faster Backup

Improved Security

Faster Disc I/O

The new 7937XP/7936XP drives increase transaction throughput

The HP 7937XP/7936XP disc drives can provide even higher throughput for MPE V systems. Early performance results indicate that these drives may provide up to 20% more throughput in some application environments when using multiple drives.

Hardware Disc Caching

The HP 7937XP/7936XP disc drives include a 2 Mb read cache and a write cache. This hardware cache eliminates the need for MPE disc caching and frees up CPU cycles for additional processing.

Performance testing underway

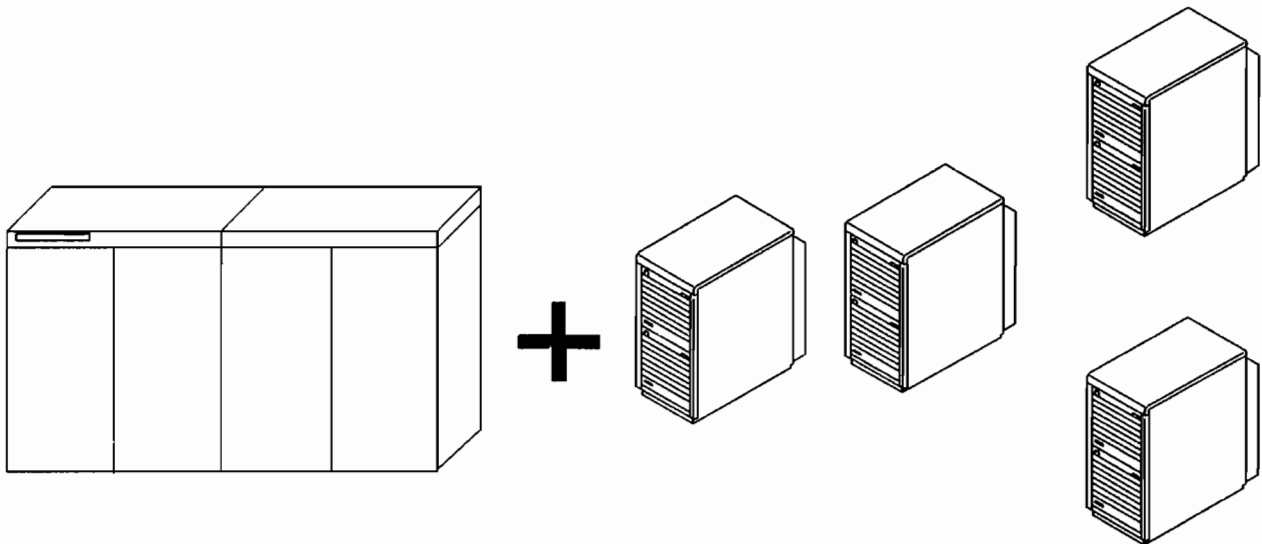
Early performance test results indicate that up to 20% of the Series 70 CPU is freed up when MPE disc caching is moved to hardware on the

7937XP/7936XP. Thus, depending on the nature of the customer's application, they may see up to 20% additional throughput.

Further characterization of performance gains in different environments (and on different CPUs) is underway. This information will be published in a PN2 article this summer.

7937XP vs. 7933XP

The 7937XP/7936XP will deliver better performance gains than the 7933XP for two reasons. Firstly, the hardware cache design has been improved to cache both reads AND writes as opposed to reads only on the 7933XP. Secondly, the improved disc access rates provided by the 7936XP/7937XP remove the physical bottleneck associated with the 7933XP disc I/O.



***CACHED DRIVES =
PERFORMANCE IMPROVEMENTS
IN LARGE INTERACTIVE ENVIRONMENTS***

Faster Backup

New HP 7980/7979 tape drives and TurboSTORE provide significant improvement in backup performance

Several new hardware and software options are now available for improved backup. These products significantly reduce system downtime and free computer resources for additional processing.

HP 7980, HP 7979 tape drives

The HP 7980A combines 125 ips performance with a unique, autoloading, compact design to provide the perfect 1/2-inch tape backup solution for systems with 400 Mb or more of disc space. The HP7980A operates under both the 1600 cpi and 6250 cpi standard and offers an excellent solution for high-end system backup and interchange requirements.

The HP7979A leverages the same design as the HP7980 but offers the 1600 cpi format only. This

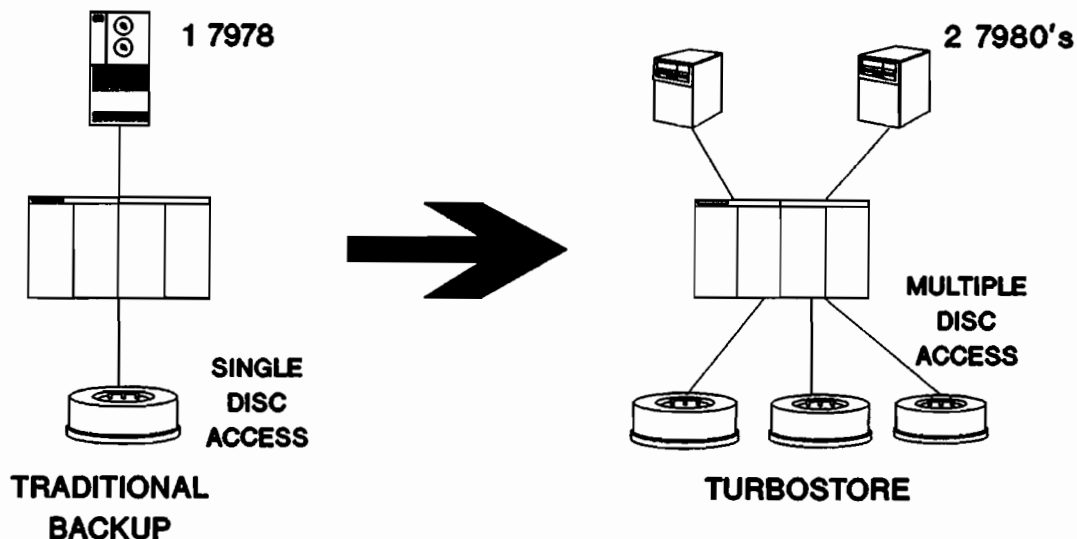
lower cost drive is positioned as a backup device for systems with 100 to 500 Mb of disc.

TurboSTORE backup software

TurboSTORE is a high-speed backup product that manages the use of multiple tape drives. With a second tape drive, TurboSTORE will provide a performance improvement of 100% for most systems, effectively cutting backup time in half. This is in addition to any performance gains provided by the new tape drives. The A-copy price for TurboSTORE varies from \$2,100 to \$7,000 depending on the CPU. TurboSTORE will be supported on V-MIT.

See the HP 7979/7980 & TurboSTORE Sales Guide for more information.

A HIGH SPEED BACKUP SOLUTION



**GREATER THAN 100% IMPROVEMENT IN
BACKUP PERFORMANCE**

Improved System Security

HP Security Monitor provides increased security for security conscious customers

Better system security is a much requested set of enhancements that is steadily growing in importance. Recently, it has been a lockout spec in several sales situations.

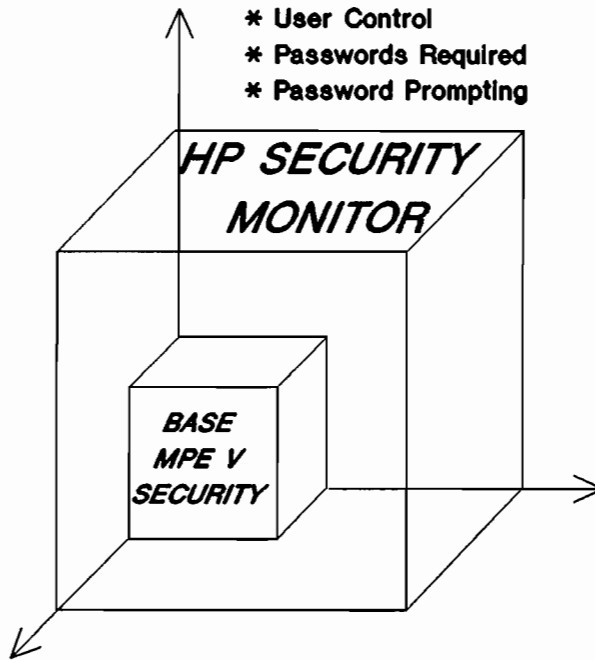
With V-MIT, MPE V/E security has been significantly enhanced to provide improved password protection, stronger audit trails and tighter terminal security.

HP Security Monitor features can be phased in on an as needed basis. This eases the transition to the newer system security practices and gives customers the latitude to tailor their own environments.

The A-copy price of HP Security Monitor is \$3,500. See the HP Security Monitor Sales Guide for more information.

Improved Password Protection

- * Password Encryption
- * Password Aging
- * Minimum Length
- * User Control
- * Passwords Required
- * Password Prompting



Tighter Terminal Security

- * Limit Log on Attempts
- * Terminate Idle Sessions
- * Terminal Passwords
- * Eliminate Log-on Assistance

Stronger Audit Trails

- * Log file opens or closes
- * Log job and session initiations and terminations
- * Log process terminations
- * Log network line opens and closes
- * Log selected MPE commands
- * Disable selected MPE commands

900 Series

Program Update

New Pricing

Series 950

TurboIMAGE/XL

SPL Update

Phasing Strategy

Program Update

Still progressing towards beginning shipments this summer

The 900 Series remains on track to provide a quality product, smooth migration, and a performance upgrade to the Series 70.

System software continues to make good progress

The first phase of beta is proceeding as scheduled. Shipments and system installation went smoothly and customers are currently in the process of migrating and testing applications. The feedback from initial beta customers has been very good and reaffirms our target of beginning customer shipments this summer. Based upon our experience we are in the process of adding more sites.

We are continuing to proceed with tuning while we are in beta. The next release, scheduled in June, has several additional performance enhancements. We will begin shipments, scheduled for the summer, once this release has been tested.

Tuning will continue to be made in parallel with initial customer shipments. Our focus on additional tuning is increasing performance for large interactive and batch database applications, such as the addition of native mode TurboIMAGE.

PROGRAM UPDATE

SYSTEM SOFTWARE MAKING GOOD PROGRESS

- BETA IS ON TRACK; MORE SITES WILL BE ADDED SHORTLY
- SHIPMENTS SCHEDULED TO BEGIN SUMMER
- TUNING WILL CONTINUE IN PARALLEL WITH FIRST SHIPMENTS

EASE OF MIGRATION IS PROVEN

- FEEDBACK CONTINUES TO BE POSITIVE ACROSS A WIDE RANGE OF APPLICATIONS
- TURBOIMAGE/XL MAKES MIGRATION EVEN EASIER

THE SERIES 950 IS ON SCHEDULE

- ALPHA TESTING ON TRACK TO BEGIN JUNE
- NEXT MILESTONE IS BETA PRIOR TO Q4 SHIPMENTS

Performance information not yet available

Although we've made good progress on increasing performance, we are unable to specify performance until further tuning enhancements have been made and we have more experience in many different application environments. There are two reasons for this uncertainty.

Firstly, the incremental performance of the Series 70 over the Series 68 varies depending upon the application type and many customers are seeing more performance than the 20-35% range originally specified. This is a result of our conservative specification of the Series 70 at introduction, and the incremental performance enhancements that followed. Secondly, initial testing indicates there is an even wider range of variation of 900 Series performance than expected across applications relative to MPE-V systems.

Shipments will be gradually ramped up

Shipments will be gradually ramped up to ensure systems meet customer requirements for performance and reliability and can be successfully supported. Initial shipments will be targeted at migration and development environments, with volume shipments for

production environments planned by the end of the year.

Ease of migration is proven

We have extensive experience in migrating customer applications. Several million lines of code have been moved to both compatibility mode and native mode. Feedback continues to be extremely positive on the ease of migration with only a few minor changes being required in the vast majority of situations.

Ease of migration has been further improved by the availability of TurboIMAGE/XL. Customers will now only have to recompile applications to get full native mode performance.

The Series 950 remains on schedule

Testing to ensure the Series 950 hardware is production quality has been completed. All MPE XL changes to support the Series 950 have also been made and are incorporated into the most recent version of MPE XL. Alpha testing is scheduled to begin in June and beta testing will begin around the end of the summer. Since the Series 950 uses the same software as the Series 930, beta testing will be considerably shorter. Based upon the current schedule, shipments are planned to begin in the fourth calendar quarter.

Pricing Update

Lower prices ensure HP's industry leading position

HP has made several changes to the 900 Series SPUs in response to industrywide price and RAM technology changes.

HP Precision Architecture provides high performance systems which are relatively low cost to manufacture. This gives HP the flexibility to react to competitive moves - like the introduction of the IBM 9370 - while maintaining attractive margins.

Series 930

The U.S. list price of the Series 930 has been changed to \$180,000. Moreover this price now includes 32 Mb of memory in addition to FOS. This main memory increase is based on a 32 Mb two board set which utilizes the 1 Mb RAM chip

technology. The maximum memory supported on the Series 930 has also been increased to 96 Mb.

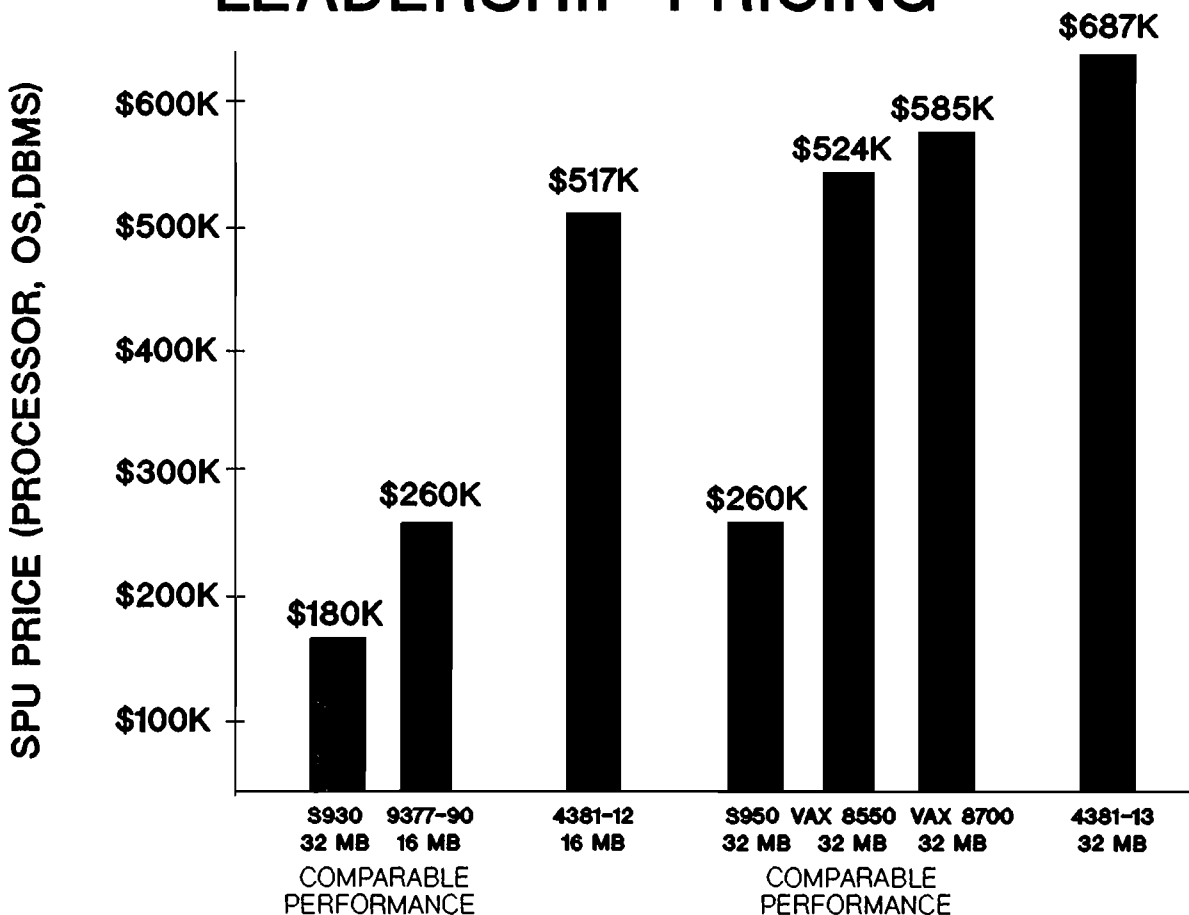
The Series 930 will offer performance comparable to the IBM 9370-90, and meets or exceeds the DEC VAX 8530 at significantly lower cost.

Series 950

The Series 950 is now orderable at a U.S. list of \$260,000. This price includes the Fundamental Operating Software and 32 Mb of main memory. Memory is expandable to a large 128 Mb.

The Series 950 offers performance comparable to the VAX 8550 and VAX 8700, but is priced at less than half of either!

LEADERSHIP PRICING



Series 950

Offering high performance and high technology

High performance

The Series 950 is the highest performing HP 3000 system ever. Built on a fast processor delivering 7 MIPS of raw CPU horsepower, the Series 950 matches the performance of the largest VAX systems.

Leadership technology

The Series 950 utilizes state-of-the-art NMOS III VLSI technology. This, coupled with HP PA, permits the building of a 7 MIPS CPU on a single chip and the entire processor on a single-board.

Large I/O bandwidth

The Series 950 supports a three-tiered bus structure with the second tier consisting of two high speed busses dedicated to I/O. Thus the Series 950 delivers high performance for the initially supported I/O configurations. It also has the power and flexibility to support even larger configurations in the future.

High reliability

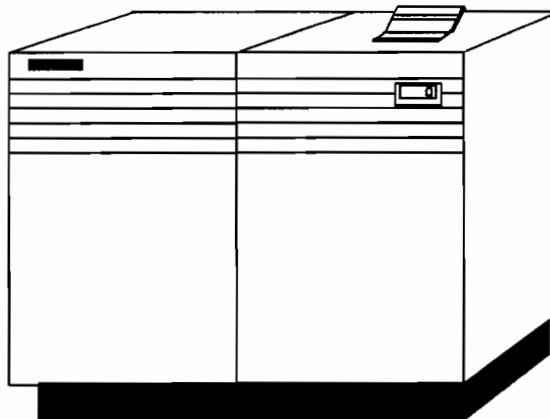
The small number of parts required for the CPU results in exceptional reliability. For example, the single-board Series 950 processor offers the functionality of eleven boards in the Series 70. In all, the Series 950 has less than half as many parts as the Series 70. This results in very low hardware support costs for your customer.

HIGH PERFORMANCE

- * 7 MIPS PROCESSOR
- * EXCELLENT SERIES 70 UPGRADE
- * COMPARABLE PERFORMANCE AS BIGGEST VAXES!

EXPANDABILITY

- * UP TO 128 Mb MEMORY
- * UP TO 4 HIGH SPEED CHANNEL I/O BUSSES



LEADERSHIP PRICE/ PERFORMANCE

- * HALF THE COST OF DEC VAX 8550
- * LESS THAN HALF THE COST OF IBM 4381-13 AND DEC VAX 8700

HARDWARE RELIABILITY

- * VLSI=FEWER PARTS TO FAIL
- * LOW SUPPORT COST FOR SPU
- * DECREASED SUPPORT COSTS FOR PERIPHERALS

ADVANCED TECHNOLOGY

- * SINGLE CHIP VLSI CPU
- * SINGLE BOARD PROCESSOR
- * PRECISION ARCHITECTURE: STATE OF THE ART!

\$260K FOR PRECONFIGURED SYSTEM
AVAILABLE 4Q 1987

TurboIMAGE/XL

Native Mode TurboIMAGE speeds migration

TurboIMAGE implemented in Native Mode

As discussed in the March update, TurboIMAGE will be available in Native Mode on the 900 Series at first release. It will be a standard part of FOS, replacing compatibility mode TurboIMAGE.

TurboIMAGE/XL further simplifies migration by reducing the number of steps required to get full Native Mode performance.

Migration now consists of 2 simple steps.

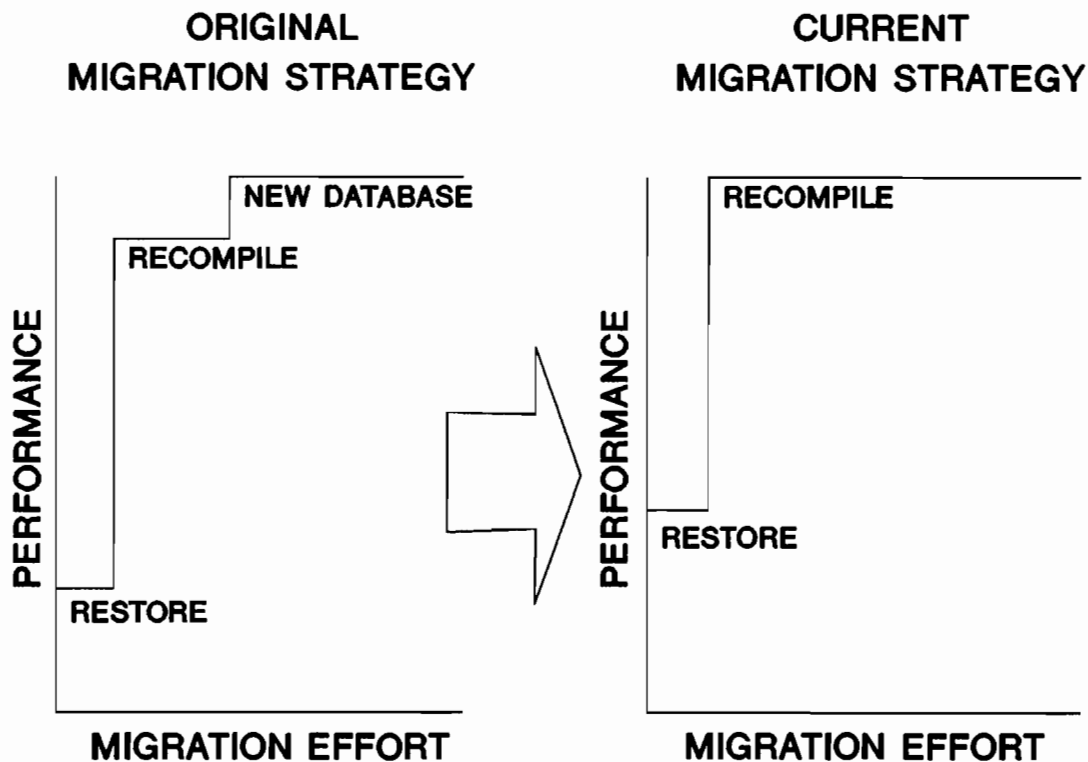
- (1) Move programs and databases to the 900 Series through a simple STORE/RESTORE process. The application will now run in Compatibility Mode and access native mode TurboIMAGE intrinsics. As a result, Compatibility Mode performance is now closer to approaching full Native Mode performance.

- (2) Recompile the application program using the Native Mode optimizing compilers and the application is now fully migrated into Native Mode.

HPIMAGE available at a future release

In order to implement TurboIMAGE/XL, resources were shifted from the HPIMAGE portion of ALLBASE. As a result, HPIMAGE and TurboWindow will not be available at first release, but will follow shortly after (at no extra charge). *The HPSQL portion of ALLBASE, however, will still be available at first release.*

For more information refer to the TurboIMAGE/XL data sheet and Information Management Update.



EVEN EASIER MIGRATION

SPL Update

SPLash! provides additional option for SPL/V applications

The four options available for an SPL application are shown in the diagram below. They now include the SPLash! compiler. Note that, Hewlett Packard does not have any plans to provide a native mode compiler for SPL.

A third party solution will be available

SPLash! is marketed by Software Research Northwest and developed by a business consortium of three VABs. Hewlett-Packard does not endorse this product in any way, but is providing support to this effort through the Fast Start program.

One of the VAB's design goal is to support all statements contained in the SPL/V compiler. SPLash! performance is application dependent, but the VAB expects to match the performance of Pascal/XL. The product is targeted for general release in the summer of 1987.

Additional information

Additional information and demo software is available from Software Research Northwest. A "progress report" identifies what SPLash! will do, what it won't do and possible grey areas.

In addition, SPL/V customers wishing to get a head start on their migration can order a demo tape. The demo software runs on MPE V and will produce a listing (not object code). If any errors are detected they will be flagged, with appropriate messages where possible. These messages will provide suggestions to aid in recoding any statement not directly supported.

Contact addresses

Software Research Northwest Inc, P.O. Box 16348, Seattle, WA 98116. tel (206) 935-3100.

SYDES, Brusselpoortstr, 8, B2800 Mechelen, Belgium. tel (015) 42.22.72

SPL OPTIONS	VENDOR
COMPATIBILITY MODE	HEWLETT-PACKARD
OBJECT CODE TRANSLATOR	HEWLETT-PACKARD
SPLASH!	SOFTWARE RESEARCH NORTHWEST
REWRITE USING NATIVE MODE COMPILERS	HEWLETT-PACKARD



Phasing strategy

Delivery of initial systems ASAP and ramp-up to full functionality quickly

Minimal changes to first release

The functionality of the initial release of the 900 Series will not vary significantly from that announced in February 1986. This ensures the earliest possible availability of the new systems. Adding functionality, be it software features or peripherals or applications, requires at a minimum more integration testing and frequently entails operating system development work. Either of these would delay the initial 900 Series shipments. However, we expect to be able to ramp-up functionality more quickly in 1988. This is possible because the development of the incremental functionality has continued in parallel with the initial release program.

2nd Base release

The second major release, known as 2.0, is primarily designed to add the underlying Wide Area Networking (WAN) capability to the 900 Series. WAN networking services can then be layered on top of this basic low level capability. NS point-to-point (auto dial-up and leased line) and IBM SNA IMF/NRJE will be the initial WAN services available in 2.0. Future deltas built upon this second Base release will be able to provide the other planned WAN services including IBM Bisynch RJE, LU6.2 and X.25.

Delta releases

Prior to the 2.0 Base release, we are currently planning to produce two Delta MITs. These releases will be the delivery vehicles for functionality that is waiting for the 900 Series to release so that development and testing can be completed.

Key Delta product candidates are the XP disc drives, the new 7980 tape drive, the 2567 printer and HP Deskmanager.

Release plan matrix

The following matrix shows the current release plans for MPE XL. Please note that this plan is subject to change. As with MPE V/E MITs today, there will be some movement of individual items between releases due to schedule advances or delays. Additionally, we will consider for key items, such as HP DeskManager, special interim MIT releases similar to the special releases we have done for MPE V.

Functionality changes in first release

The most important change to the definition of first release has been the inclusion of a Native Mode version of TurboIMAGE instead of the HPIMAGE portion of ALLBASE/XL. HPSQL will ship with the initial systems. HPIMAGE will be available on a future release.

Key additions to first release have been the new 7937H disc drives and increasing the maximum main memory on the Series 930 to 96 Mb.

Additionally we have delayed and shifted resources from a number of other elements of functionality that we consider to be non-critical. Some of these may be sensitive issues if not explained correctly. The delayed functionality must be presented to all backlog 900 Series customers. The **900 Series Functionality Update** will give you guidance in presenting these items. *A customer letter is included in the Update* for delivery to the customer in order to ensure that their expectations are properly set.

Sales Strategy

High-End Sales Strategy

Series 930 Backlog

High-end Sales Strategy

Sell Series 70s for production applications in 1987

Selling the Series 70

The Series 70 offers interactive database performance approaching a VAX 8530 at half the price! This is a great deal for any customer. In addition, this investment is well protected. A 80% upgrade credit is provided when trading in a Series 70 for a Series 950.

Moreover, the Series 70 supports a breadth of peripherals and software that will be phased over time on the 900 Series. Also, the Series 70 is a proven solution for conservative customers with lots of reference sites.

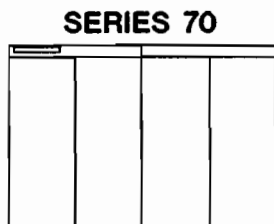
This highly successful product - with excellent commercial price/performance, reliability and

functionality - is unmatched in the industry. *Sell the Series 70 in FY87, especially for existing applications.*

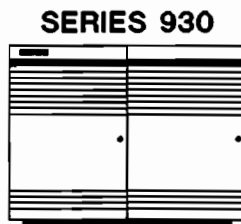
900 Series

For long lead time sales that will go online in FY88 or later, the 900 Series will provide an excellent solution. In that timeframe, you will have several reference sites and better availability (if a Series 930 order hasn't already been placed).

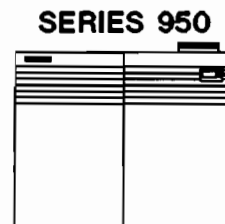
In the meantime, *sell the 900 Series as a migration/test machine for large accounts, and a development machine for new applications.* Use the 900 Series to open doors previously closed due to (real or perceived) lack of capability.



"HIGH-END PRODUCTION MACHINE"



"MIGRATION & DEVELOPMENT MACHINE"



"SERIES 70 UPGRADE"

- GREAT INTERACTIVE PRICE PERFORMANCE
- MORE FUNCTIONALITY IN 1987
- STEPPING STONE TO 900 SERIES:
 - 80% UPGRADE CREDIT TO SERIES 950

← NEW APPLICATIONS GOING INTO PRODUCTION IN 1988 →

← APPLICATIONS REQUIRING LARGE ADDRESS SPACE/ HIGH PERFORMANCE COMPUTATION →

← UPGRADE FOR MIDRANGE HP3000 SYSTEMS →

UPGRADE FOR SERIES 70

Sell the Series 950 as the primary upgrade for the Series 70

Upgrading a Series 70

Direct all customers looking for a performance upgrade to their Series 70 towards a Series 950. In Native Mode, the Series 950 provides an excellent upgrade across all environments. This occurs even after the higher than expected performance achieved by the Series 70.

Also, the Compatibility Mode performance of the Series 950 is roughly equivalent to a Series 70. Therefore, a Series 70 customer can move to the Series 950 through a simple STORE/RESTORE and see about the same performance. The

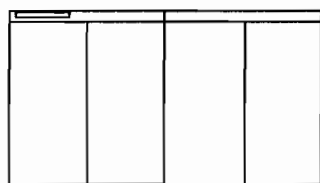
customer can then move to Native Mode (and higher performance) at their own pace.

Upgrading midrange systems

Upgrade all other MPE V/E systems to the Series 70. This will provide the best functionality and availability option for your customer.

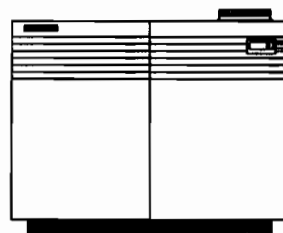
For those customers who don't need additional performance until 1988 and are planning development of a new application - consider a Series 930.

SERIES 70 UPGRADES



SERIES 70

HIGHER
PERFORMANCE →



SERIES 950

- EXCELLENT PERFORMANCE UPGRADE ACROSS ALL APPLICATIONS
- HP 3000 COMPATIBILITY ENSURES EASY MIGRATION
- SMALLER FOOTPRINT + COMPARABLE ENVIRONMENTAL REQUIREMENTS

Series 930 Backlog

Special offer provides Series 950 for \$225,000

HP has an industrywide reputation for taking care of our customers. For the customers that have placed an order as of May 18, 1987, HP is providing them with an opportunity to switch their orders to the Series 950 priced at \$225,000.

This special offer is being provided to allow customers who only budgeted for the Series 930 to now be able to get the Series 950 at the same price. It also protects customers who are upgrading from the Series 70 since the recommended upgrade path is now the Series 950.

Although only generally available to the backlog, this offer will be extended to a few special customer situations (see Q&A). Please contact the factory by July 31, 1987 if other customer situations warrant special consideration.

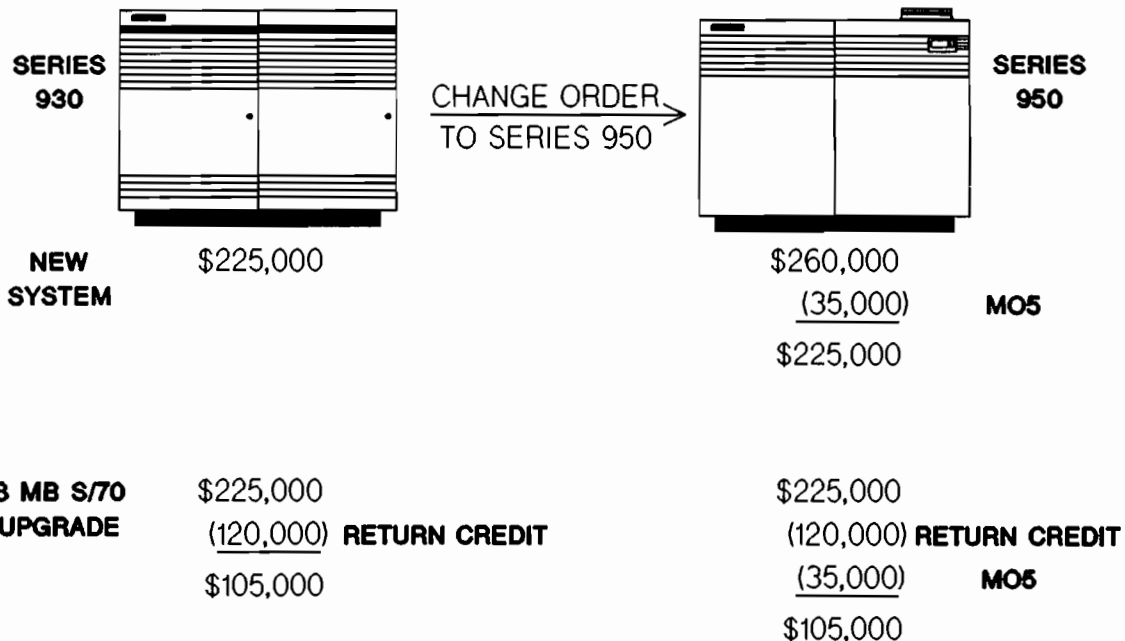
Requires change order

In order to keep shipment priority, do NOT cancel an existing order. Instead, do a delete/add to delete the Series 930 and replace it with a Series 950. Refer to the Series 950 Sales Guide for details on ordering information.

Lower cost Series 930 option available

Backlog customers not upgrading, or upgrading from systems through the Series 58, may choose not to take the offer described above. They can instead take delivery of the Series 930 at \$180,000. This requires no change order.

SERIES 930 BACKLOG SPECIAL PROGRAM



SERIES 950 FOR PRICE OF SERIES 930!

Q & A

When will shipments be acknowledged?

Orders will be acknowledged in phases as shipments are ramped up. We are in the process of identifying which Series 930 orders will be the first systems shipped this summer and plan to acknowledge these orders by the end of June.

Shipments will be ramped up based on our experiences in initial customer sites. Customer selection and notification for the next phase of shipments will be completed by the end of this summer.

Why are no Series 68 upgrade credits offered to the Series 930?

An upgrade credit to the Series 930 is not offered since it is recommended most customers needing more performance upgrade to a Series 70 instead. The Series 70 field upgrade is a less disruptive, much lower cost alternative to get incremental performance than a Series 930 box swap upgrade. Contact the your Sales Representative for situations or circumstances that warrant special consideration.

When will more performance information be available?

Although we expect to provide more performance information this fall, we don't expect to be able to completely specify performance until the end of this year when we have a broad range of experience across many customer application environments with final tuned software.

When will 900 Series systems be ready to benchmark?

We will be completing performance tuning in parallel with first shipments. Database applications will be the focus of these tuning efforts. For example, native mode TurboIMAGE will be rolled in after the first systems are shipped.

Therefore, benchmarks for database-intensive applications are not appropriate until the fourth quarter of this year since final tuned software will be required to accurately benchmark a 900 Series system. Selected benchmarks for computationally-intensive applications can be run

in the Capacity Planning Center since tuning efforts in this area have been completed.

What customers who have not already ordered the Series 930 will be considered to get the Series 950 at \$225,000?

In general, most customers who wanted the Series 950 are expected to have already ordered the Series 930, and therefore, are already in the backlog. However, some customers may have been unable to place any order until the Series 950 was on the CPL. Therefore, special consideration will be given to customers who were previously unable to place an order and who are willing to take immediate delivery (no later than first quarter, 1988).

Will a MPE XL version of the recently introduced HP 9000 Model 825 be available?

The HP 9000 Model 825 provides an exciting opportunity to leverage the same technology and market a HP 3000 system with MPE XL support - the Series 925.

Activities to support the Series 925 as a product - such as system test activities - are being worked on in parallel with the Series 930 and 950. However, priority is being given to the Series 930 and 950 in all cases. As a result, the Series 925 will be available sometime in 1988.

The Series 925 will not be formally introduced until HP is closer to beginning shipments of this product. Since it is still under active development, more information cannot be given about the Series 925 until later this year. Note that the Series 925 configuration and pricing will most likely differ from the Model 825.

The Model 825/Series 925 uses NMOS III technology to deliver 3 MIPS of processing performance. The high CPU performance rating requires careful interpretation in database environments relative to other members of the HP 3000 family. Since MIPS do not scale between the 900 Series and other HP 3000 products, be aware the Series 925 will deliver less performance than the Series 70 in multi-user database environments.