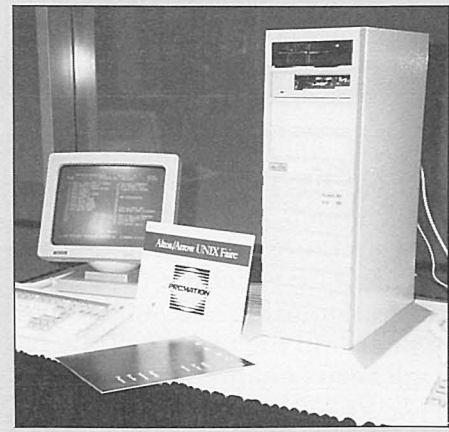


Altos News

World Leader in Networked Multi-User Solutions



Productivity Seminar

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Volume 5, Issue 9

September 1989

The System Resellers Have Been Asking For: The Altos Series 600

In response to demand from our resellers, Altos has designed a system to suit smaller business needs. The new Altos 386 Series 600 combines the quality and performance users expect from Altos into a fully functional system for up to eight users. The Series 600 is priced very competitively to address the entry-level market place. For a first-hand look at this new system, come to the Altos roadshow nearest you.

Modeled on the attractive styling of the Altos Series 1000, the Series 600 has many of the extra features that Altos resellers have come to regard as standard equipment. Among them are the

Back To Basics: Responsiveness, Resellers, Reliability

Come back to school this month as the Altos staff hits the road for the annual Altos Roadshow. "The Altos Academy" concentrates on the three Rs, responsiveness, resellers, and reliability. Part of Altos' responsiveness is bringing the roadshow to 30 cities this year, more than ever before.

The roadshow takes the latest products and program informa-

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Intel 80386 chip operating at 25MHz, 32KB cache memory, and 4MB RAM. The Series 600 runs under the Altos System V operating system, which gives users the versatility and power of UNIX with Altos added utilities for administrative ease.

The Series 6000 is a single-board computer with modular design.

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Little Brother Grows Up: New O/S for Series 1000 Greatly Increases Capabilities

Altos System V operating system version 5.3dT1 for the Altos Series 1000 is now available. Version 5.3dT1 dramatically increases the power and range of the Series 1000. With 5.3dT1 on the Altos Series 1000, you can address the needs of higher range users than was possible before. The Series 1000 with 5.3dT1 has the capacity for up to 40 users, 24MB RAM, storage capacity of 3.9GB, and inter-system networking capabilities.

In addition to the new features, significant improvements have

Continued on Next Page

Altos Series 2000 Model 20 is Moving Up

Enhancements to the Altos Series 2000 Model 20 allows Altos end-users to meet their large capacity needs. Upgrading to an enhanced file processor board gives Series 2000 Model 20 users a whole new range of capabilities including expanded RAM, and internal disk storage capacity of up to 2GB. The enhanced file processor can address a 760MB ESDI hard disk. In addition, new memory boards, MemIII, are now available with ECC, Error Checking and Correction.

These enhancements, and the fact that it is multi-user with networking capabilities, make the Series 2000 Model 20 particularly suitable as a departmental system and in any large user environ-

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Series 1000 *Continued*

been made to existing features. Specifically, uucp communications, sdb (symbolic debugger) breakpointing and single stepping, and the pconfig utility have all been enhanced.

Please be aware of the following. Only one ACPA board can be mounted in the system. Also, dump.hd and restore.hd will not work correctly with ExaByte and 9-track tape drives. Finally, tape block sizes must be a multiple of 512bytes.

Storage Expansion Unit Ready For Use

A Storage Expansion Unit for the Altos Series 1000 is now available. Increasing both tape and disk storage, the Storage Expansion Unit is ideally suited for business, education, professional, and technical users. The SEU provides fast reliable access to applications and data files.

The Storage Expansion Unit (SEU) is an external storage unit supporting a combination of SCSI (Small Computer Systems

Interface) devices. An SCSI interconnect cable connects the SEU to the Series 1000.

Besides providing more storage capacity than previously available, the SEU is compatible with new and existing applications. External device activity can be monitored by eight front panel LEDs. Each LED represents an SCSI device.

External Storage

Disk and tape modules are housed in the SEU. Full-height and half-height SCSI devices slide in and out of the cabinet. Each SCSI device forms a compact module with a 70 watt power supply and a SCSI storage device enclosed. Installation is simply a matter of plugging the module into the cabinet.

Backing up internal and external disk storage is now easier. With an ExaByte tape unit installed, it is possible to back up an entire system over night without human intervention. ExaByte's 2GB removable cartridge offers virtually unlimited storage capacity.

Reliability and ergonomic considerations dictated Altos' packaging of the front loading ExaByte unit. If an ExaByte tape is used, it must be installed in the top bay of the cabinet, leaving room for three additional full-height hard disk drives below.

Requirements

The Storage Expansion Unit requires the Altos System V operating system version 5.3d or greater and is available on Altos Series 1000 Models 25 and 33 with 4MB of RAM. The Series 1000 can support one SEU.

Continued on Page 4

Important New Features for the Series 1000 Through Altos System V Version 5.3dTI**Feature**

| | |
|-------------------------------|---|
| UPS Support | Full support of the Altos UPS (Uninterruptible Power Supply) with the shutsave and shutkill commands |
| Storage Expansion Unit | With this release the Series 1000 will support an expansion unit holding up to four full-height SCSI devices. These devices can either be disk drives or a combination of an ExaByte 2GB tape drive and up to three full-height disk drives yielding a maximum storage capacity of 3.9GB. |
| ExaByte Tape Drive | Supports a high capacity, high speed ExaByte 2GB tape drive, designed to meet the needs of high capacity disk storage configurations. |
| 9-Track Tape Drive | Supports a Qualstar or Cipher external SCSI 9-track tape drive. |
| WorkNet II Support | Compatible with WorkNet II Local Area Networking. |
| Networking Support | DOS Server, TCP/IP, RFS, and 3270 SNA |
| Unrestricted Number of Logins | There is no longer an artificial restriction on the number of users that may be using the system at the same time. The number of concurrent logins is limited only by system resources. The actual number of logins that are feasible will vary according to system resources such as the amount of memory and disk drives installed. Also, the number of effective logins will vary widely depending on the demands actually made on these resources by each user. |

Series 600 *Continued*

All components and add-ons such as memory board, disk drive, tape drive, floppy drive, etc. are stand-alone modules. Any reseller can rapidly service the Series 600 by swapping the modules or CPU board. Service can take as little as forty minutes.

The Series 600 fits the entry-level market and gives end-users the ability to upgrade. The system can be expanded to a Series 1000 as system needs expand. This makes the Series 600 a good investment now and for the future.

The Series 600 is based on the Intel 80386 microprocessor, a full 32-bit CPU that operates at 25MHz, one of the fastest microprocessors available today. An optional 25MHz 80387 floating point co-processor is also available to speed math-oriented operations.

Knowing the importance of power and speed to every end-user, Altos has included cache memory in the Series 600. Cache memory efficiently uses the microprocessor by keeping its own copy of data that the processor is most likely to use repeatedly. Since cache memory is much smaller and faster than the main

memory, the CPU can access data faster, thus operating much more efficiently.

The Series 600 is configured with 4MB RAM expandable to a maximum of 8MB. The 4MB RAM is needed to utilize the operating system to its full functionality. Depending on end-user needs an additional 4MB memory board can be added to bring RAM capacity up to 8MB.

The Series 600 can accommodate up to two half-height SCSI disk drives. Each model is configured with one disk drive. Altos currently offers two storage devices for expansion, a 90MB half-height disk drive, and a 190MB half-height disk drive. A second disk drive can be added to the Series 600 for a maximum of 380MB disk storage. Using half-height disk drives allows the system to expand as system requirements increase.

A 1.2MB floppy disk drive comes standard on the Series 600. This is a dual-speed, double-sided, double-density 5.25-inch disk drive which uses normal or high capacity disks.

A 125/150MB 1/4-inch SCSI-based streaming tape drive is standard on all models. The tape

drive provides read/write support for both the QIC-120 (15 track) and the QIC-150 (18 track) formats. These provide 125MB and 150MB backup capacity on DC600A and DC600XTD cartridge tapes, respectively. Format is automatically determined by cartridge tape recognition by the tape drive.

Features

- High-performance multi-user system supporting up to eight users
- Powerful Intel 80386 microprocessor operating at 25MHz
- Optional 80387 floating point co-processor at 25MHz
- Efficient 32KB high speed cache memory
- Up to 8MB main memory
- 1.2MB floppy disk drive
- Two half-height storage devices
- Two SCSI disk drives available: 90MB half-height and 190MB half-height
- 125/150MB streaming tape drive
- Eight RS-232 ports
- Altos System V operating system
- Extensive base of Altos supported software applications
- Industry standard languages

Roadshow *Continued*

tion on the road and gives resellers a chance to talk with their Altos representatives and with Altos' upper management team members. This year we are proud to introduce the Series 600, a new system inspired by reseller requests. (See article this issue.)

The roadshow is taking place during two weeks. You may have attended the first week, September 5 through 8. If you were not able to do so, Altos will soon be in a town near you. The second week takes place September 18 through 22. Come and see where Altos is going in the coming year.

First Week Schedule

- 9/5/89 Miami, FL
Detroit, MI
Atlanta, GA
Cleveland, OH
- 9/6/89 Dallas, TX
Chicago, IL
Houston, TX
Kansas City, MO
- 9/7/89 Phoenix, AZ
Washington, DC
Los Angeles, CA
Boston, MA
- 9/8/89 Seattle, WA
New York, NY
San Francisco, CA
Philadelphia, PA

Second Week Schedule

- 9/18/89 New Orleans, LA
Minneapolis, MN
Birmingham, AL
Orlando, FL
- 9/19/89 Denver, CO
Indianapolis, IN
Richmond, VA
- 9/20/89 Irvine, CA
Columbus, OH
Hartford, CT
- 9/21/89 Rochester, NY
Portland, OR
Pittsburgh, PA

Storage Expansion *Continued*

Configurations

SEU with 630MB (formatted) SCSI Drive Only

P/N 540-23121-003 (Domestic)
P/N 540-23121-004 (Europe)

SEU with ExaByte and 630MB (formatted) Drive

540-23212-005 (Domestic)
540-23212-006 (Europe)

Series 2000 *Continued*

ments. The enhanced system is being introduced at your local Altos road show. (See page 3 for a schedule.)

Main Memory

The Series 2000 is configured with a minimum of 8MB RAM. Without the enhancements, the maximum RAM was 16MB. Altos offers 4MB, 8MB, 12MB and 16MB ECC (MemIII) memory board options, providing a maximum of 64MB of RAM storage. This can be achieved by installing four 16MB ECC RAM boards into the Series 2000 Model 20.

The MemIII ECC memory boards have several advantages that are not available on the MemII boards. These include higher capacity memory configurations, and on-board error correction logic that eliminates single-bit memory parity errors.

Disk Storage

The Series 2000 Model 20 can accommodate up to three full-height ESDI disk drives. Each system is configured with a minimum of one disk drive. Altos offers two full-height storage devices for basic configurations in 170MB, and 380MB. The enhanced file processor upgrade allows for a 760MB ESDI hard disk drive.

Continued on Page 14

Now, VP/ix on the Series 1000

VP/ix is now available on the Altos Series 1000 as well as the Series 2000. VP/ix opens the world of DOS to Series 1000 and Series 2000 users by providing an environment in which PC AT applications can be run with the Altos System V operating system.

VP/ix creates a "virtual PC environment" operating under UNIX, which uses the virtual 8086 mode of the powerful Intel 80386 processor. VP/ix takes advantage of this virtual 8086 mode to emulate standard PC hardware including disk drives, display and keyboard, and to provide the PC BIOS software that DOS applications require.

VP/ix's flexible design makes it possible to access the same data files alternately from DOS and Altos System V. This flexibility also allows users to invoke DOS programs either by first invoking the MS-DOS environment or directly from the Altos System V command line.

VP/ix for the Series 1000 and 2000 is available in character mode only and uses serial terminals, such as the Altos VII with the PC keyboard option. VP/ix includes the following functionality:

- Runs DOS programs transparently in the Altos System V multi-tasking, multi-user environment
- Operates "off-the-shelf" DOS applications
- Accommodates popular "ill-behaved" DOS applications
- Integrates DOS and UNIX file sharing
- Runs DOS programs from the Altos System V command line
- Runs Altos System V programs from the DOS prompt

VP/ix provides a pop-up, menu-driven user interface which displays pertinent device configuration information plus a

user friendly mechanism to create and manage DOS and UNIX sessions.

VP/ix supports many "ill-behaved" DOS applications; ill-behaved refers to applications written without adherence to published BIOS and DOS interface specifications. Support for ill-behaved applications is significant because many of the most popular DOS applications, such as Lotus 1-2-3 and dBASE III + , are considered ill-behaved. Within VP/ix, DOS executes as though it were operating on a PC, thus, ill-behaved applications operate as they would in a standard DOS environment.

Graphics

VP/ix for the Series 1000 and 2000 is for character mode only. It does not support programs that must use PC graphics modes. However, many popular DOS applications can run in a character only environment although they would normally take advantage of graphics facilities when running on a PC. Because of this requirement, certain classes of applications such as desktop publishing, draw and paint programs, and other applications which are primarily graphically oriented will not work with VP/ix.

Altos carries Altos APEX, a graphical user interface, for environments that are not suited to VP/ix use. In a user environment where there are already PC ATs (286, 386 or compatibles) in use or where it is expected that DOS usage will be heavy, or where graphics are essential, Altos APEX is the DOS/UNIX integration solution. Altos APEX is a DOS application which runs under Microsoft Windows on PC ATs or compatibles connected to an Altos multi-user system running Altos System V. With APEX, multiple DOS and UNIX applications can be accessed and run simultaneously.

Solomon III Accounting Firepower Now Available Through Altos

Solomon III, industry leading accounting software well known in the DOS marketplace is now available through Altos on the Altos System V operating system. Developed by TLB, Inc. of Findlay, Ohio, Solomon III Accounting Software provides Altos customers with a sophisticated accounting system.

Solomon's reputation as leading-edge accounting software has been well earned. Software Digest awarded Solomon III the highest "Overall Evaluation" rating as well as four-star ratings in the past three of their reports on integrated accounting software.

Introduced in 1983, Solomon Accounting Software has rapidly become an industry best seller and is consistently recommended by the nation's "Big 8" accounting firms to their clients. In addition to its outstanding functionality, Solomon has been designed to interface comfortably with users through pull-down menus, a command bar, and pop-up windows.

Solomon differs from many accounting software packages by integrating the accounting functions with a database management system. The database provides a vehicle for real-time, on-line transactions, eliminating the need to transfer data from one module to another.

Modules available include:

- System Manager (standard configuration—5 users)—provides the guidance system of all accounting operations
- General Ledger—maintains financial information and

keeps a detailed audit trail of all transactions

- Accounts Payable—takes control of processing supplier invoices
- Accounts Receivable—processes customer invoices and updates accounts receivable information as the invoices are created
- Payroll—processes payroll for all classifications of hourly, salaried, and exempt employees
- Fixed Assets—handles depreciation and management of tax accounting for fixed assets
- Inventory—maintains a perpetual finished goods inventory
- Purchasing—makes purchase order management easy and effective by maintaining purchase order and receipt records
- Order Entry/Invoicing—generates sales orders, invoices, credit memos, and debit memos. Order Entry/Invoicing requires integration with both the GL and AR modules. It handles six types of orders, has the capability to run internal customer credit checks and prints invoices or memos while automatically producing back orders, updating sales totals and updating general ledger

- Sales Analysis—generates several period and year-to-date management reports created from the Order Entry/invoicing, Accounts Receivable, and Inventory modules
- Job Costing—tracks cost figures such as labor and materials
- Address and Mail List—records, maintains, updates, and prints lists or labels for an unlimited number of address lists
- Report and Graph Designer—enables you to generate answers to everyday business questions by retrieving information you specify from the Solomon database to create reports and graphs which meet your individual needs
- External Systems Interface—enables you to transfer data into the Solomon database directly from computer files created outside of Solomon.
- User Packets—allow you to add additional users to the system in increments of five (up to packet #3 which allows 15 to an unlimited number of users).

To sell the Solomon products, resellers must be authorized by TLB, Inc., the manufacturer of Solomon. Please see accompanying article for details.

Selling Solomon Software

Solomon software is marketed through "Solomon Authorized Dealers" only. Resellers must be authorized by TLB, Inc., the software manufacturer, to sell Solomon products. Resellers who have been approved by TLB, become a part of the Solomon Authorized Dealer Program by placing an opening order.

The Solomon Authorized Dealer Program provides access to many benefits such as:

- Unlimited technical support by phone

- Lead generation program
- Solomon Flyte bulletin board access by modem
- Dealer newsletter
- Executive updates (dealer seminars)
- Dedicated marketing representative via an 800 number
- Third-party developers directory
- Solomon certified consultant program

Continued on Next Page

Selling *Continued*

- Solomon seminar program (includes sales presentation materials)
- Promotional materials
- Hands-on training

The opening order is a kit that consists of sales and marketing materials and the most frequently purchased software modules. The software portion of the kit includes two System Manager

modules, two General Ledger modules, one Accounts Receivable module, one Accounts Payable module, and one Report and Graph Designer module. Sales and marketing materials include one system demo, five sets of module specification sheets, and 25 price lists.

The initial order is placed with TLB who passes it on to Altos. Altos books and ships the product. Once the first order has been

placed, all subsequent orders are made through the Altos ASAP order entry line (1-800-343-2727).

Resellers interested in selling Solomon software can call Altos at 1-800-Altos-US or can call TLB at 1-800-572-2767 to request a complete package of information on the product and the dealer program. When calling TLB, be sure to indicate that you are an Altos reseller.

Do You Know the Way to Altos?

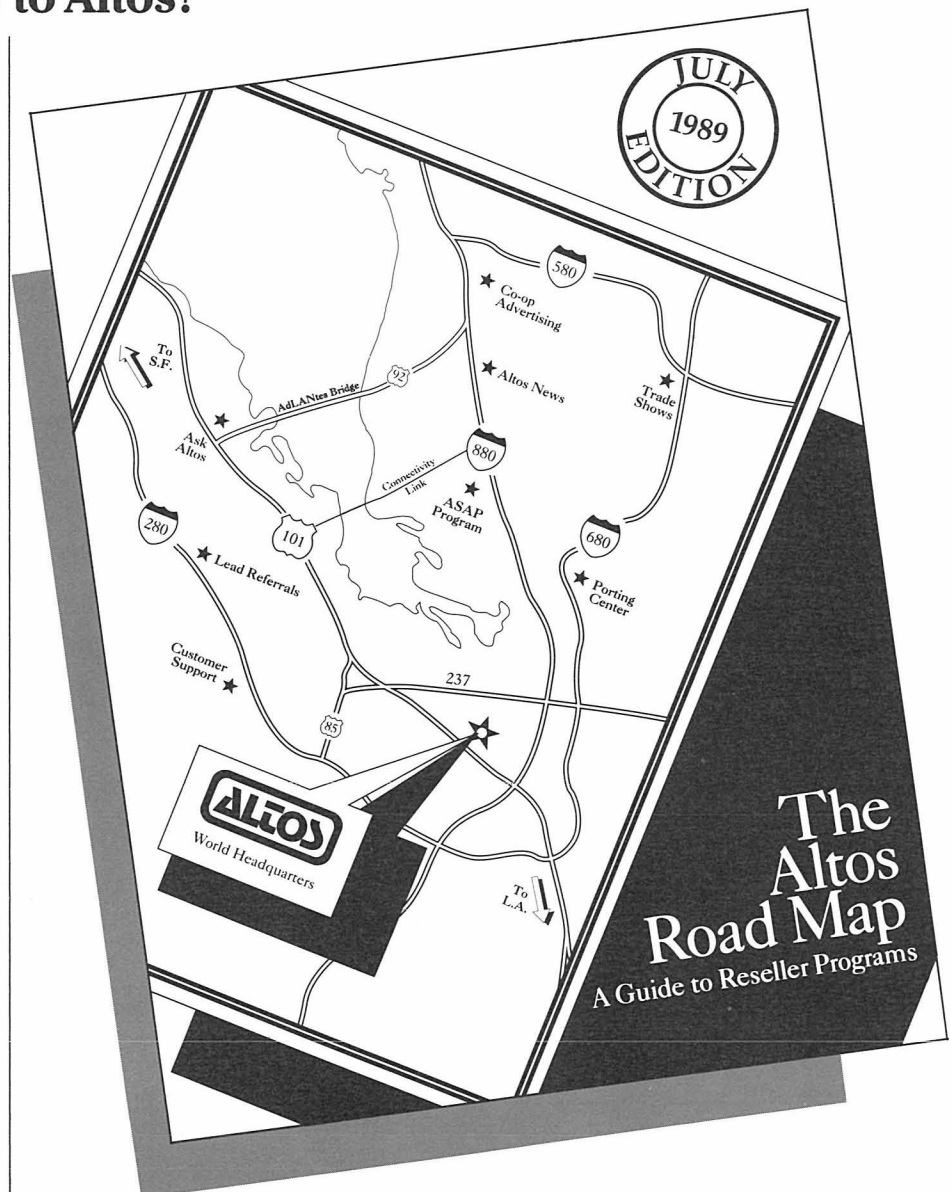
A brand new Altos Road Map is in the mail to all US Altos resellers. The Road Map is a directory of the many programs and services provided for Altos resellers.

Use the Road Map as a quick reference guide for answers to commonly asked questions, contacts within specified departments for more information, and sample forms for Altos programs and services.

Altos provides a wide variety of programs for resellers. To find the programs and services that you can use to make your business more profitable, just consult your Road Map.

The road map contains the latest information on reseller support functions throughout the company. Sections are devoted to reseller support programs, marketing communications programs, order processing, customer support (including training, third party support, servicing resellers, and Altos On-Site), and a resource directory for the Altos organization throughout the United States.

If you are an Altos reseller and do not receive an Altos Road Map by the end of the month, you can request one from the Altos literature department at (408)946-6700 x3042.



Do More With Altos APEX

Altos APEX is the DOS/UNIX interface that allows users to run MS-DOS and Altos System V (UNIX) applications on a single screen. With version 1.1, Altos has made Altos APEX even more useful.

Version 1.1 adds the ability to use an Altos Series 500 as a host system using serial connections to DOS workstations. In previous versions of the software only Series 1000s and Series 2000s could be used as host systems.

Further increasing functionality, Altos APEX 1.1 is compatible with Microsoft Windows 386 (purchased separately). Microsoft Windows 386, runs DOS applications in a "virtual PC environment". This substantially increases the amount of memory available to each DOS program.

Altos APEX's integrated icon-oriented display is based on Microsoft Windows 2.1. It runs on PC ATs (80286, or 80386-based) or fully PC AT compatible personal computers connected to an Altos 80386 multi-user host computer.

Through Altos APEX, the PC ATs communicate with the Altos host system using low cost RS-232 serial lines. Altos APEX can also take full advantage of Altos DOS/UNIX Ethernet local area networking.

Altos APEX provides for icon-based "point and pick" program selection and window management for DOS and Altos System V simultaneously. Up to seven Altos System V windows can be displayed at the same time, each containing a different UNIX program. The number of DOS windows is limited only by available memory.

Data can be cut and pasted between applications, even be-

Product of the Month

Altos Open Office Offered at Enormous Savings

The Altos Open Office (AOO) provides the flexibility and functionality of industry-leading DOS software, a UNIX windows environment, electronic mail and a calendar manager bundled into one powerful product.

List price for AOO is already substantially lower than the price of the same group of products when purchased individually, and now, for the month of September, this outstanding software package is available to US resellers for a non-discountable price more than 50 percent lower than list.

The key components in this "total solution" office automation package are DOS-compatible WordPerfect and SCO Professional, the productivity tools Altos Calendar Manager and Altos Mail, and the extraordinary UNIX windows environment, Altos MultiView.

In addition to the superior features and benefits directly available from each application, AOO provides three important features

tween DOS and UNIX applications. All it takes is a click of the mouse.

Included with Altos APEX are Microsoft's MS Write word processor, and the MS Paint graphics program. The Altos Calendar Manager and Altos Mail products are also included to fully connect personal computer users to others using the Altos host computer. Desktop tools include a personal cardfile, notepad, calculator, and clock. Utilities are included to build custom icons and to customize menus.

which complement and enhance functionality. These are: a windows environment which operates on character terminals (no graphics hardware required); an easy-to-use menu-driven user interface; and cut-and-paste integration between applications.

During the month of September, you can purchase the powerful AOO office automation solution at an extremely attractive price. This offer ends September 29, so order soon.

To order, call 1-800-343-ASAP or your reseller account manager.

Altos Announces Future Support for EISA Bus

Altos has announced support for the extended Industry Standard Architecture (EISA) bus. The high performance, 32-bit EISA bus will be incorporated into the Altos product line in the 1990s along with the Intel 80486 CPU. EISA marks Altos' commitment to an industry standard I/O bus.

Ron Conway, executive vice president of sales and marketing, said, "Our future plans include EISA as an I/O bus because it will allow our value-added resellers to increase the features of Altos systems in their particular areas of vertical market expertise. The industry standard EISA bus will bring forth the maximum I/O performance in our multi-user systems."

Altos/Arrow UNIX Faire Helps Resellers Increase Productivity

Reseller and general business productivity was the focus of the Altos/Arrow UNIX Faire held this summer in San Jose. In addition to presentations by industry experts, a number of third party vendors were present demonstrating their general business solutions.

The three presentations included the state of the multi-user UNIX market, how to use seminars to generate business, and how to effectively telemarket. Speaking on the UNIX market was Sandra Gant, vice president of InfoCorp. She stressed the importance of knowing a market before entering it, and analyzed the overall UNIX market and its future direction.



Resellers used the UNIX Faire to investigate products such as the range of solutions provided by The Flagship Group being demonstrated here.

Making seminars an effective part of a general sales plan was explained in detail by Sam Allred, vice president of Elypsis Inc. Cash Best, presentation manager at Pacific Bell, gave the concluding presentation. He spoke in depth on telemarketing; how to use it, what to expect, what you need to know, how to set goals, and avoiding common mistakes.



Informix Software Inc. has Ruth Wood demonstrating the full line of INFORMIX products.

Attendees rated the speakers and their presentations in the good to excellent range both on presentation and on usefulness of content.

Also featured were hands-on demonstrations of a wide variety of general business solutions. Printers and peripherals by Toshiba and Texas Instruments were displayed. Connectivity solutions, such as one from Touchstone Software for connecting an Altos and a Macintosh, received a lot of attention. INFORMIX, Solomon, Uniplex, Calyx, Promation, American Fundware, and MC Software

representatives demonstrated their companies' horizontal and vertical market solutions.

The faire, the first of its kind, was a joint effort between Altos and its national distributor Arrow Electronics, Inc. More than 120 people attended the show. Because of their extremely enthusiastic response, Altos intends to hold similar events around the country. The next one is planned for Dallas in October. The date has not been set yet. As other plans are finalized they will be published in the Altos News.



Sandra Gant was among the three speakers elaborating on effective marketing techniques for computer resellers.

Altos Takes Aim With Arrow

Altos has formed a strategic partnership with Arrow Electronics, Commercial Systems Division of Melville, N.Y. making Arrow Altos' largest national distributor in the United States. Altos will continue its relationship with all regional distributors.

Ted Drysdale, Altos vice president of US sales and marketing explained the move. "With the consolidation of national distributors in the US, we strongly believe that we can devote our sales and marketing efforts to a well established distribution channel that will provide our resellers with better service and increased profits."

Drysdale continued, "In the past four years, Arrow Electronics has played a major role in Altos' distribution channel. Currently, Arrow has seven regional warehouses around the country that provide resellers with efficient product delivery."

Robert McInerney, president of Arrow's commercial systems division, said, "Arrow and Altos have one of those rare distributor/manufacturer partnerships. Altos offers quality products and world class support to their reseller channel. Arrow's extensive resources and commitment to the computer marketplace include a wide range of programs to support resellers. A broad line card, extensive financial tools, reseller training, pass through co-op advertising, and custom configurations are but a few of the innovative support programs available to Arrow resellers."

Arrow carries Altos' full line of Intel 30386-based multi-user computers.

Customer Service

Altos Beefs Up Tech Support

Altos is taking steps to increase the strength and effectiveness of the technical support staff. More people have been hired and an on-going training program for the technical support engineers has been developed.

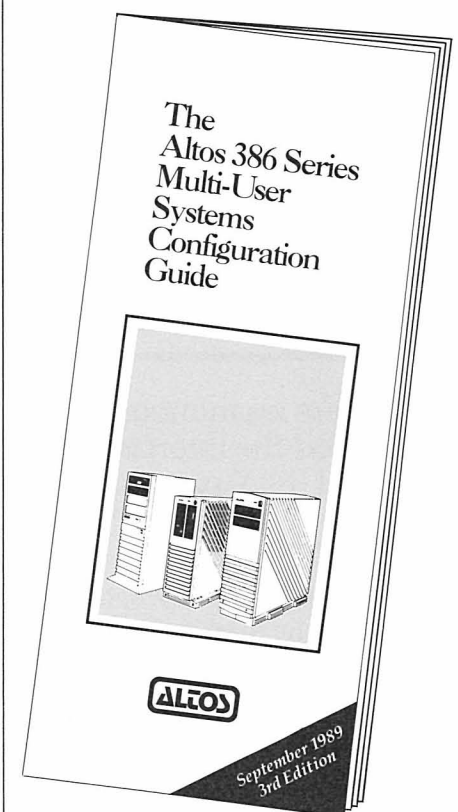
Seven new technical support engineers have been brought on board in recent months. They are responding to calls in the critical areas of hardware, applications, and systems/operating systems.

Two others have also been recently added to the department. One customer support representative and one systems programmer. Both of these will be working to get support calls answered more efficiently. Customer support representatives are the people who take the initial technical support calls, obtain basic information on the problem, and pass the calls on to the engineers. The system programmer will be keeping the technical support database in top working shape.

Adding staff to get customer problems solved is the first step in improvement. An on-going training program to broaden and strengthen the engineers' knowledge of the field is the second step. This program is now in place.

All tech support engineers will be attending a continuing series of classes. The first, is an eight week long course in "C". Susan Gerberding-Brown, manager of customer support, is finalizing a schedule of courses. The planned schedule is for engineers to attend a class, have one month off, and start the next class.

Quality technical support is vital to Altos resellers and end-users. With the recent additions of staff and a continued concern about keeping abreast of the computer industry, Altos means to provide the support our resellers need.



Pocket Guide Updated, New Configurations on Their Way

This month, the Altos pocket-size systems configurations guide is in its third printing. See the new system and updated configuration charts. The guides are being mailed this month. If you do not receive one by the end of the month please call 1-800-Altos-US to ask for one.

SUCCESS STORIES

UNIX Character-Based Interface Better Than Macintosh®?

By *Bridget Cavanaugh of FOURGEN Software, Inc.*

Everybody knows that graphical interfaces are easier to use. Everybody, that is, except those that have to use the system. Red Lion Inn learned that the key to ease-of-use is not graphical interfaces as many would like to believe. The experience of Red Lion and their reseller, SoftRight, shows that there are important user

“Users unanimously preferred the interface on the UNIX system.”

interface issues that are being missed by the marketplace.

SoftRight's initial installation at Red Lion was an attempt to give them a state-of-the-art reservation and accounting system. For this system, a Macintosh network was the chosen solution. Although the system was not lightning fast, it managed to stay out of the way of the user's, for awhile anyway.

Networking Graphical User Interfaces

Business at Red Lion thrived, the network did not. Because Mac networks use a central file server, the software proved cumbersome for transaction processing. As volume grew, the network slowed considerably. Files would lock while one user accessed them, and all other users would

have to wait for as much as two minutes for the system to free itself. Some report processes were taking five or more hours to run. It reached the point where the system was so slow that Red Lion had to hire more operators to get the work done. More users just slowed the system even further.

One of the reasons a networked solutions didn't work was the Macintosh graphical user interface. If the users had been working with spreadsheets and word processing programs, this network approach may have worked. However, with the volume of data in a transaction processing system, there are serious problems. SoftRight claims that none of their clients, including Red Lion, have gotten this type of system to work effectively.

The only logical alternative was to switch to a UNIX-based multi-user system. This type of system could certainly handle the transaction processing, but the users would only use character-based terminals. How would they adapt to this after being exposed to the advanced Macintosh user interface? The results were surprising, but first came picking the right platform.

Industry Standards

“This time around, we had a very good idea of the kind of tools we wanted to work with. We didn't want to re-invent the wheel,” said SoftRight's Craig Bellusci. “We wanted products that were easy

to use. We wanted a commercial accounting product that was already written and debugged. We wanted source code for that system so we could use it as the base for our reservation system. We also wanted industry standard products and products that could grow as Red Lion grew.”

“It looks cleaner; it's less complex; and users don't have to take their hands off the keyboard.”

SoftRight first selected INFORMIX as the development system. Next came the decision for the operating system and SoftRight immediately chose UNIX for its multi-user capability. The most critical choice, however, was the decision to work with FOURGEN Software and use its package as the base of Red Lion's new reservation system.

“Our relationship with FOURGEN was actually initiated by a recommendation from Informix Software. FOURGEN has the best user interface we have ever seen on a UNIX accounting product,” said Mr. Bellusci. “The interface is character-based, but extremely standardized and easy-to-use. Even then, we almost didn't buy their product because they hadn't yet brought out all the different accounting packages we needed. What convinced us were their FourGen CASE tools for custom development. These allowed us to create an identical user interface for our custom products automatically.”

Continued on Next Page

Success Continued

A Better User Interface

"The product was also the only source code product we saw that was really designed for modification. We could give the users a quality interface, and still easily tailor the package to the specific needs of Red Lion," said Mr. Bellusci.

When the product was installed, how did end-users accept the new system? "The users unanimously preferred the interface on the UNIX system better. They like it instantly, and they still prefer it after two months," explains Mr. Bellusci. "There are three reasons that users like the FOURGEN interface better: it looks cleaner; it's less complex; and users don't have to take their hands off the keyboard."

Another critical user interface consideration was speed of response. Red Lion reports that used to take five hours and could only be run at night now take

four minutes and run while users are on the system. Reports that took about thirty minutes now take seconds. Time per transaction has also been reduced from minutes to seconds.

End Users Versus Market: Two Views

The computer industry sometimes falls in love with a concept and seems unable to let go. That is what has happened with graphical interfaces. Industry marketers, developers, and resellers, even in the UNIX segment, assume that all users want all the baggage that comes with a graphical interface even when the task they are doing, like making reservations, has nothing to do with graphics. They miss the fact that users see these interfaces as slower and more complicated, especially if they require a network so the users can share a database.

"It's funny about the employees at the Red Lion. If you were to

ask them what kind of system they are on, they'll tell you Esprit, because that is the name on the terminal. To them, that is the computer system. Users dependent on the system have a much different view. As a reseller, we try to see the system as the user does. That's why we spend weeks at the site running a parallel system and working with the office staff."

We attribute the success of this installation to the consistency of the character-based interface we built with FOURGEN tools. It is our belief that a computer should be like an appliance. You don't have to train someone to use a toaster. I can walk up to any phone in America and use it. That's an appliance. Computers are not yet an appliance and that is not the fault of the end user—blame systems and programmers and operating systems."

Of course, this is what Apple has been saying all along.

Get Connected

What is Ethernet?

Ethernet was developed by Xerox Corporation and DEC and was introduced more than 10 years ago. The main benefits of Ethernet networking are high performance and connectivity.

Operating over coaxial cable, Ethernet has a 10 Mb/sec throughput speed, a bus topology, and CSMA/CD access. Ethernet is popular in high-demand environments such as engineering and graphics.

Ethernet comes in three options, Standard Ethernet, ThinNet, and twisted-pair Ethernet. Standard Ethernet and ThinNet are both coaxial cable based. Standard Ethernet is more expensive and more difficult to install than ThinNet, but allows networking over greater distances with more users.

Twisted Pair Ethernet uses a hierarchical star topology with wiring concentrator hubs, instead of the bus topology characterizing standard Ethernet and ThinNet.

It is not uncommon to have more than 100 users on a standard Ethernet trunk or on a series of

twisted-pair concentrators. ThinNet environment usually support less than 50 users.

Interconnectivity Options

Ethernet has many interconnectivity options. Network interface cards for host computers and bridges which connect and Ethernet LAN to another Ethernet LAN or a different LAN are available.



Altos Restructures PICK Product Line

Altos is restructuring the Motorola product family. The restructuring consists of replacing three models, and adding two others. Altos has fine-tuned the capabilities of its PICK operating system products by offering features previously not available.

System connectivity increased across the entire product line to 250 serial ports. Mid-range and high-end models have been enhanced with a larger capacity cartridge tape drive. High-end models are now equipped with an Altos UPS, enhancing system reliability and preserving the integrity of critical applications.

Entry Level Offering

To provide favorable positioning against competing 386-based PCs, Altos has reorganized its low-end offerings. Two comparable models based on the 3068EP architecture replace the original entry-level members.

Incorporating a 16.7MHz 68020 processor, the 3068EP (Entry-Level Processor) is expandable to 16MB of memory. Optionally, an Altos Uninterruptible Power Supply (UPS) and Error Correction (ECC) memory can be added to protect critical information.

Each model can connect a maximum of 250 serial ports through multidrop terminal networking. Altos is also offering future upgrades to the new 68X Series 030 high-end system.

Low-end systems configured with ECC memory are easily upgraded by removing the existing 68020 CPU board, and replacing it with a new 68030 CPU board. Altos is the first PICK hardware manufacturer to offer smooth migration to its high-end models.

Partners in PICK®

Adding Users Simplified for PICK

The Single Port PICK License for the entire Motorola product family is now available from Altos. The Single Port PICK License (SPPL) gives Altos' PICK resellers and end-users an unprecedented level of flexibility by allowing them to exactly match their needs.

Before the single port license was available, user licensing came in groups of 10. This made it difficult to match hardware serial ports with the number of licensed users. SPPL eliminates previous restrictions and allows the purchase of precisely the number user licenses needed.

SPPL is also available for existing customer requiring a license up-

grade. SPPL can simplify the user upgrade installation procedure by reducing the number of upgrade diskettes.

Entry level PICK end users can now get a system with the 3 or 4 users they need instead of the 10 that were previously required.

To Order

To order the single port PICK license, please call the Altos Software Updates Department. The part number for the SPPL is 583-23198-010. When ordering you will need to provide the number of licensed users on the system. If upgrading, you will need to provide the current number of users and the number of users to be added.

3068EP Model EP280ST

- 16.7MHz 68020
- 8KB High Speed Cache
- 2MB RAM
- 10 Port Serial I/O Board
- File Processor and Disk Controller
- 67MB (formatted) Hard Disk
- 60MB (QIC-24) 1/4" Cartridge Tape Unit
- Parallel Printer Port
- 1.2MB Floppy Disk Drive

3068EP Model EP280ES

- 16.7MHz 68020
- 8KB High Speed Cache
- 2MB RAM
- 10 Port Serial I/O Board
- File Processor and High Speed Disk Controller
- 73MB (formatted) Hard Disk

- 60MB (QIC-24) 1/4" Cartridge Tape Unit
- Parallel Printer Port
- 1.2MB Floppy Disk Drive

Mid-Range Offering

The next step up in the Altos power-curve, the 3068MP (Mid-Range Processor), uses a 20MHz 68020 with zero wait state memory. Altos has added a 125/150MB SCSI (Small Computer System Interface) cartridge tape drive to its mid-range models. Three configurations make up the mid-range offering.

Like the entry-level models, the 3068MP systems are expandable to 16MB of ECC and non-ECC memory. Optionally, an Altos UPS (Uninterruptible Power Supply) can be used to protect vital information during power loss. Installation of a 68X upgrade kit provides additional performance.

Continued on Next Page

Restructure *Continued*

As the entry-level member of this class of system, the MP280ES has the necessary performance for demanding applications. Targeted markets for the new model are, manufacturing, mail-order management, video store rental, and image storage and retrieval to name a few.

3068MP Model MP280ES

- 20MHz 68020
- 8KB High Speed Cache
- 2MB RAM
- 5 Port Multidrop Controller
- File Processor and High Speed Disk Controller
- 73MB (formatted) ESDI Disk Drive
- 125/150MB SCSI Cartridge Tape
- Parallel Printer Port
- 1.2MB Floppy Disk Drive

3068MP Model MP417MT

- 20MHz 68020
- 8KB High Speed Cache
- 4MB RAM
- 5 Port Multidrop Controller
- File Processor and High Speed Disk Controller
- 147MB (formatted) ESDI Disk Drive
- 125/150MB SCSI Cartridge Tape
- Parallel Printer Port
- 1.2MB Floppy Disk Drive

3068MP Model MP280ES

- 20MHz 68020
- 8KB High Speed Cache
- 4MB RAM
- 5 Port Multidrop Controller
- File Processor and High Speed Disk Controller
- 329MB (formatted) ESDI Disk Drive
- 125/150MB SCSI Cartridge Tape

- Parallel Printer Port
- 1.2MB Floppy Disk Drive

High-End Offering

Rounding-out the product line is the 68X Series 030 system. Based on Motorola's advanced 68030 microprocessor, the 68X has new standard features. A 125/150MB SCSI cartridge tape and an Altos UPS strengthens the high-end offering.

System connectivity
increased across the
entire product line.

Three 68X models are available to withstand the demands of business requirements for today and the future.

A second CPU provides additional system performance. Installing a second CPU board only takes a matter of minutes. Transforming the 68X into a fully symmetrical processing system.

A third-party 1/2" tape drive can also be connected to the system. Information from other systems or archive information can be loaded onto the system. Given this scenario, an Altos multibus adapter and a Cirprico 1/2" tape controller would be used to connect the external tape device.

68X Series 030 Model X438MT

- 25MHz 68030
- 32KB High Speed Cache
- 4MB ECC RAM
- 5 Port Multidrop Controller
- File Processor and High Speed Disk Controller
- 329MB (formatted) ESDI Disk Drive
- 125/150MB SCSI Cartridge Tape
- Parallel Printer Port
- 1.2MB Floppy Disk Drive

68X Series 030 Model X438MT

- 25MHz 68030
- 32KB High Speed Cache
- 8MB ECC RAM
- 5 Port Multidrop Controller
- File Processor and High Speed Disk Controller
- 329MB (formatted) ESDI Disk Drive
- 125/150MB SCSI Cartridge Tape
- Parallel Printer Port
- 1.2MB Floppy Disk Drive

Summary

The restructuring outlined shows Altos' continued commitment to supply reliable, price/performance products. Expansion, growth, and modularity are a few of the benefits of the Altos Motorola-based product line.

Quotes From the Media

International Spectrum, May/June 1989, "Standards You Can Hang Your Hat On"

Mike Hannigan, chairman of the PICK Spectrum Technical Standards Committee, and Craig Saunders, Altos PICK engineer and secretary of the committee discuss PICK standards.

International Spectrum, September

Altos PICK user story featuring the 68X Series 030.

Set Altos' R & D Priorities

Altos sent a software product report to all resellers and asked for input on the priority of the problems. The report was sent in July, and we are still waiting for replies. Take this opportunity to allocate R & D resources for problems you want fixed. Send in your priority form now!

Series 2000 *Continued*
Communications

The Series 2000 Model 20 can be equipped with the Advanced Communications Processor Attachment (ACPA/2000). The ACPA/2000 is an intelligent communications subsystem that combines the functions and capabilities of three communications subsystems in a single board design. The ACPA provides the wide area networking capabilities of the serial I/O subsystem, the enhanced terminal connectivity of the multidrop subsystem, and the industry standard local area networking features of Ethernet. Altos also offers other communications products for the Series 2000 including DOS Server, TCP/IP, and 3270 SNA.

Altos System V

Altos System V offers AT&T's UNIX System V Release 3.1 capability with Microsoft's XENIX

compatibility. Altos System V is the first merged UNIX and XENIX operating system. This allows software developers, system integrators, and end-users to execute applications written for any of the compatible operating systems with little or no modification.

Altos' most recent release, Altos System V version 5.3dt1, is the base operating system for TCP/IP, DOS Server, and VP/ix, and will also be the base for future enhancements.

Altos Commitment

Altos is committed to providing a full range of computer solutions for new and existing customers. These enhancements to the Series 2000 Model 20 allow resellers to address higher-end needs while at the same time allowing for growth for existing Altos owners.

France
**Continued Success,
 Change in Status**

Digital Design has become an extremely successful distributor for Altos France. In the last nine months, they have done spectacularly with \$2.5 million in sales. Digital Design is not new to Altos, only the distributorship is

new. They were a successful OEM before.

Digital Design has a national organization with regional agencies. Their competence in the field of databases and vertical applications allows them to bring a real added value in training and support for their resellers. Their extremely competent hardware group allows them to integrate specific peripherals and to answer particular needs.

Altos Answers Your Questions

Q. Can I upgrade my Altos 1086/2086/3086 to an 80386 processor?

A. Minimum revision levels are required to upgrade a 1086/2086/3086 system to an 80386 processor.

Units with serial numbers equal to or greater than 1224634 should already be at these minimum revision levels. (If the system has been repaired, a down rev. board may have been used.) Please confirm the information below.

Memory:
 (Requires 4MB of memory minimum)
 P/N: 615-16509-xxx Rev G or higher

File Processor:
 P/N: 615-15816-xxx Rev R or higher

SIO Firmware:
 P/N: 162-17046-006 or higher
 P/N: 162-17048-006 or higher

Multi-drop Communication Firmware:
 P/N: 162-19604-003 or higher
 P/N: 162-19606-033 or higher

Altos Customer Support will provide an upgrade kit to upgrade your 1086, 2086, or 3086 to the 80386/80387 processor board with 4MB of RAM.

Other limitations to consider:

- Upgraded systems are restricted to 16MHz
- Upgraded systems will not support the dual processor
- Upgraded systems cannot be converted from ST-506 hard disk to ESDI
- Hard disk capacity is limited to a maximum of 190MB

Continued on Next Page

Q & A *Continued*

Q. When do I call the ASAP Order Entry Desk and when do I call the Altos Updates and Spare Parts department?

A. The Updates and Spare Parts Department, (408) 946-6700 x3004, handles all orders and questions regarding spare parts. Generally this is also the department to call to obtain a more recent version of existing software. When later versions are simply "updates" of previous versions then Spare Parts can help you.

Spare Parts

The following are examples of when you would need to contact Updates and Spare Parts:

- You need 25 key strips for keyboards.
- You have an older version of INFORMIX and you want an updated version.
- You need some additional FoxBASE + Manuals

ASAP Order Entry Desk

On the other hand, the ASAP Order Desk at (800) 343-ASAP is designed to expedite all your software orders, and answer any software related questions you may have. The Order Entry Desk focuses on new software, whereas the Updates and Spare Parts department deals more with updating older versions of software and hardware.

Training Schedules

United States

Operating System

| | | | |
|-------------|-------------------------|-----------------|--------|
| 09/12-09/13 | UNIX/XENIX Fundamentals | Houston, TX | \$375 |
| 09/14-09/15 | System V System Admin. | Houston, TX | \$475* |
| 09/26-09/27 | UNIX/XENIX Fundamentals | Boston, MA | \$375 |
| 09/28-09/29 | System V System Admin. | Boston, MA | \$475* |
| 10/03-10/04 | UNIX/XENIX Fundamentals | Kansas City, MO | \$375 |
| 10/05-10/06 | System V System Admin. | Kansas City, MO | \$475* |
| 10/24-10/25 | UNIX/XENIX Fundamentals | Orlando, FL | \$375 |
| 10/26-10/27 | System V System Admin. | Orlando, FL | \$475* |

Applications

| | | | |
|-------------|-------------------------------|----------------|-------|
| 10/02-10/03 | AOM II + WP/Mail/Calendar | Columbus, OH | \$350 |
| 10/04 | AOM II + Spreadsheet/Graphics | Columbus, OH | \$175 |
| 10/05-10/06 | AOM II + Database/Rpt. Writer | Columbus, OH | \$350 |
| 10/10 | AIO Word Processor | Vienna, VA | \$225 |
| 10/11 | AIO Spreadsheet | Vienna, VA | \$225 |
| 10/12 | AIO Database Forms | Vienna, VA | \$225 |
| 10/13 | AIO Administration | Vienna, VA | \$225 |
| 10/17 | AIO Word Processor | Schaumburg, IL | \$225 |
| 10/18 | AIO Spreadsheet | Schaumburg, IL | \$225 |
| 10/19 | AIO Database Forms | Schaumburg, IL | \$225 |
| 10/20 | AIO Administration | Schaumburg, IL | \$225 |

SPECIAL PRICING: All five days of AOMII Plus can be taken for the reduced price of \$795. Four AIO modules may be taken on successive days for \$800. Three AIO modules can be taken for \$625.

Hardware

| | | | |
|-------------|-----------------------------|--------------|-------|
| 09/12-09/13 | Series 1000 Hardware Repair | La Palma, CA | \$625 |
| 09/14-09/15 | Altos System V Overview | La Palma, CA | \$425 |
| 09/12-09/13 | Series 1000 Hardware Repair | Vienna, VA | \$625 |
| 09/14-09/15 | Altos System V Overview | Vienna, VA | \$425 |
| 09/19-09/20 | Series 1000 Hardware Repair | Atlanta, GA | \$625 |
| 09/21-09/22 | Altos System V Overview | Atlanta, GA | \$425 |

SPECIAL PRICING: For September only. Where the Series 1000 Hardware Repair and the Altos System V Overview classes are scheduled successively, any student attending both classes may do so for a total price of \$950.

United Kingdom Software

| | | | |
|-------------|-------------------------|------------|------|
| 09/11-09/13 | UNIX/XENIX Fundamentals | Slough, UK | £450 |
| 09/25-09/27 | Altos Integrated Office | Slough, UK | £450 |
| 09/28-09/29 | UNIX System Admin. | Slough, UK | £300 |
| 10/04 | DOS Server Installation | Slough, UK | £150 |
| 10/05-10/06 | APEX Installation | Slough, UK | £450 |
| 10/09-10/11 | UNIX/XENIX Fundamentals | Slough, UK | £450 |

Sales and Marketing

| | | | |
|-------------|---------------|------------|------|
| 09/19-09/20 | Altos Express | Slough, UK | £200 |
| 10/24-10/25 | Altos Express | Slough, UK | £200 |

Hardware

| | | | |
|-------------|--------------------------------|------------|------|
| 09/16-09/17 | Series 1000 Processors | Slough, UK | £275 |
| 10/03 | Network Hardware Installation | Slough, UK | £150 |
| 10/18-10/20 | 1086 to Series 2000 Processors | Slough, UK | £400 |

* Class has prerequisite. Please call Altos Education Department at (408) 434-6688.
 ** Please call the Altos Education Department at (408) 434-6688.

Upcoming Events September/October

Shows

The Altos Roadshow September 5—8, September 18—22

ASAP Seminars

ASAP seminars are tentatively scheduled for:

| | | | |
|--------------|-------------|------------|--------------|
| September 6 | Chicago, IL | October 12 | Boston, MA |
| September 26 | Atlanta, GA | October 17 | New York, NY |

Advertising

We will be advertising in the September 18 issue of Business Week.

We will also be advertising in the September Altos World.

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Editor: Anne Hyland

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