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We hope you find the *AMSD Journal* to be a valuable reference tool, and that you will want to refer to its articles frequently in the future. To make it easy and quick to find information, current articles are designed to be filed with articles from past issues. The entire set of *Journal* back issues forms three volumes: "General Information," "Software Information," and "Hardware Information." (The set of back issues is available for purchase. See "Subscription Information," above.)

The title of each feature article in this issue includes a reference number. Use the reference number to file the article in the back issue volume indicated at the top of each page of the article. For example, if the top of the first page of the article "6.5.5 One Hundred New Uses for MULTI," contains the words "Software Information," you know that article is to be filed in Section 6 of the "Software Information" back issue volume after article number 6.5.4.

The last pages of the *Journal* are new Tables of Contents for the back issue volumes, updated with entries for articles included in this month's issue.

Journal Notes

By Sandi Tomlin
Assistant Editor
Technical Publications Department
Advanced Products Division

In the December issue (Vol. 8, No. 11) we published a Reader Questionnaire. Although quite a few have arrived, the responses are still dribbling in and we're still tallying up the responses. A big thanks to all of you who offered your thoughts, ideas and preferences. Look for a summary of responses in an upcoming issue.

You'll probably notice this Journal is a little thicker than the ones you've seen in the past few months. In this issue you are receiving the complete set of Table of Contents (TOC) pages for your three Journal Volumes. Usually, your Journal contains only the TOC pages changed by articles appearing in the current month's issue. However, for a good start in the New Year, we decided to reprint all the pages using the new format and typeface--even though only some TOC pages have additions for the February issue. We tentatively plan to reprint all TOC pages near the beginning of each year, so you can be sure this reference material in your volumes is the most current available.

Finally, a special note about terminology we are using to refer to our operating system and how it affects your Journal Software Volume. Currently we offer two "flavors" of our AMOS operating system: AMOS/L and AMOS/32. And, each of these operating systems are dubbed with different version numbers. Although very different, these operating systems are close "cousins," stemming from a common ancestry. Therefore, when information applies to both AMOS/L and AMOS/32, we use the generic term AMOS to refer to both operating systems.

Therefore, when you see the reference AMOS 2.0, it could be referring to the

operating system functional on systems with the 68000 or 68010 microprocessor (AMOS/L) OR the operating system functional on our newest systems with the 68020 microprocessor (AMOS/32).

For convenience sake, if an article discussing AMOS applies to both kinds of systems, it will appear on the TOC for and be filed in the AMOS/L Operating System section in the Software Volume, with only a cross reference entry on the AMOS/32 TOC. If the article discusses one system rather than the other, it will be filed in that operating system's section, listed on its TOC, with no cross reference on another TOC.

You can get in touch with us to offer suggestions for technical articles or questions you'd like answered in the Question/Answer column, by writing or calling:

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3.2.15

New Software Patches Available from AMSD

The following list gives a description of the new software patches now available from AMSD. The products affected by these patches are: RJE, AMOS/L, AMOS/32, AlphaWRITE, SMC Basic,

Patches in the following list include SPNs 232 and 236 through 245, released as of 16 January 1987; patch 232 is listed in the January Journal article as "In test" (see Journal Vol. 9, #1 - Software Article 3.2.14).

The SPN description in the purpose column ends with the software version(s) this patch is intended for.

SPN #	Module	Purpose
232	RJE	Corrects a problem initializing the environment on AM-1200 systems. This patch applies to RJE version 2.0A (114).
233 to 235	---	Already published. Please refer to January 1987 Journal Software Volume article 3.2.14.
236	STAT	Corrects a problem where pressing the ESCAPE key could cause an address error. This patch applies to AMOS/L 1.3B and AMOS/32 1.0 operating systems.
237	VIDVME.NDV	Corrects a problem which would cause the network to hang if an AM-2000 product existed on the network. This patch applies to AMOS/L and AMOS/32 operating systems on all VME base systems.
238	WRITE	Corrects a problem in the outline feature introduced by SPN-235. This patch applies to AlphaWRITE version 1.2(196)-3.
239	LOG	Corrects a problem that would cause Disk and Cache errors when a user logs onto a non-DSK device from a logged off state. This patch applies to AMOS/L Version 1.3B operating system.
240	LOG	Corrects a problem that would cause Disk and Cache errors when a user logs onto a non-DSK device from a logged off state. This patch applies to AMOS/32 Version 1.0 operating system.
241	SMC Basic	This is a modular update that corrects a problem with the normalization of some floating point numbers. It also removes a restriction on the number of printers that can be assigned. This will update SMC Basic 1.0A(139) to 1.0A(144).
242	---	Used Internally
243	---	Used Internally
244	515DVR.DVR	Corrects a problem working with the micro code under heavy disk use conditions when a large number of jobs were accessing the disk. This applies to the VME Streamer Support version of the AM-515 drivers used on both AMOS/L 1.3B and AMOS/32 1.0 operating systems.
245	AM515.MIC	This corrects a problem where the micro code would run out of its own queue blocks under heavy disk use conditions when a large number of jobs were accessing the disk. This applies to the VME Streamer Support version of the AM-515 drivers used on both AMOS/L 1.3B and AMOS/32 1.0 operating systems.

16.1.2 Introduction to the AM-1200 System Family

This article provides an introduction to the new AM-1200 series of systems and compares the AM-1200 to its forerunner, the AM-1000 series. We also discuss a little of the philosophy behind why the AM-1200 product was designed.

Introduction

The AM-1200 series of systems was introduced in December 1986 as a replacement for the popular AM-1000 line. The AM-1200 systems introduced include three different models:

- o AM-1200B
- o AM-1200E
- o AM-1200XP

The AM-1200B is a five-port, 20Mb system bundled with an AM-62A terminal. The AM-1200E is a thirteen-port, 35Mb system. The AM-1200XP is a thirteen-port, 70Mb system.

Each of these systems require the new AMOS/L 1.3C operating system release. This operating system differs from earlier releases primarily in that it is configured for a particular number of ports, depending on the customer's license. The AM-1200B comes with an operating system configured for eight ports, and the AM-1200E and XP comes with an operating system configured for 16 ports.

The AM-1200 series of systems are packaged in the same AM-1000-style enclosure that has become so popular at the small system end of the Alpha Micro product line.

Why the AM-1200?

The AM-1000 was introduced in July 1982 as a 3-port, 10Mb system with 128Kb of

main memory. Over the past 4 1/2 years, the AM-1000 system design was able to absorb significant system enhancements and expansions with very little redesign effort. In addition, significant input from dealers and end-users was received by Alpha Micro over the years concerning additional features that were highly desirable in the Alpha Micro small system line of products.

These factors, plus the desire to improve the manufacturability of the AM-1000 main logic board while making use of as many AM-1000 related parts (for service spare parts reasons) has resulted in the AM-1200 system family.

AM-1200 Hardware Configuration Details

The configuration details for the three members of the AM-1200 family are shown in Table 1.

TABLE 1
AM-1200 Family Configuration Details

	AM-1200B	AM-1200E	AM-1200XP
Serial Ports	5	13	13
Disk Capacity (Formatted)	20Mb	35Mb	70Mb
Memory Standard	1Mb	1Mb	1Mb
Memory Optional	1-3Mb	1-3Mb	1-3Mb
Parallel Port	Standard	Standard	Standard
Floppy Disk	Optional	Optional	Optional
AM-62A Terminal	Standard	Standard	Standard
AMOS/L End User License	Required	Required	Required
AMOS License Type	8 Port	16 Port	16 Port

This new family of systems include all the standard features of the AM-1000 family plus the additional capabilities listed below.

16.1.2 (Continued)

Introduction to the AM-1200 System Family

- o 1Mb of on-board memory is standard (the AM-1000 included only 512KB of on-board memory.) Expansion up to 4Mb of memory is possible using standard AM-1004 memory expansion boards, just like with the AM-1000 line.
- o Two additional I/O ports are included in the base configuration (AM-1200B) compared to the AM-1000A, while a total of 13 I/O ports are included in the AM-1200E and XP. All I/O ports, with the exception of communication ports 3 and 4, support both RS-232 and RS-422 interface levels. Figure 1 illustrates external I/O connectors on the back panel.
- o An IBM Proprintertm-compatible parallel printer port is included on all AM-1200 systems. (For information on this port, see "16.1.1 - Technical Information: AM-1200 Parallel Printer Port," published in the January 1987 issue of the AMSD Journal.)
- o A VCR Remote Control port is included on all systems, thereby providing full VCR control when using the VIDEOTRAX^(r) Video Backup Subsystem as your system backup device. In addition, the VIDEOTRAX VCR LSI circuit has been designed onto the main logic board to reduce component count and enhance system reliability. NTSC and PAL/SECAM video formats are now easily selectable via jumpers.
- o Communication hardware (RJE) is included in all systems. If the optional AlphaRJE software product is used, two of the serial ports must be dedicated to the RJE function.
- o Boot jumper options have been relocated from the main circuit board to the back panel (much like on the VME

series systems), making it much easier to reconfigure the system and diagnose problems. See Figure 1 for details.

- o Enhanced self test features (similar to the self test on the VME series systems) have been included in the AM-1200 system series. These include self test terminal display, plus the ability to perform diagnostic looping on a specific device based on the setting of the boot jumpers on the rear panel.
- o Enhanced main logic board mechanical design to make board service and replacement easier.

Refer to the end of this article for Figure 1.

AM-1200 Software Compatibility

All AM-1200 systems require AMOS/L 1.3C. This new release includes new AM-1200 hardware support, as well as the new licensing structure for AMOS based on numbers of I/O ports. Application software is compatible with the entire Alpha Micro product line.

AM-1200 vs. AM-1000 Hardware Compatibility

The AM-1200 systems' development philosophy dictated minimum redesign activity to maximize compatibility of existing system expansion options as well as to minimize additional spare parts required to support the new systems. To that end, the following compatibility has been achieved with the AM-1000:

1. AM-1004 Expansion memory boards can be used.

16.1.2 (Continued) Introduction to the AM-1200 System Family

2. AM-1001 70Mb Disk subsystems (SASI compatible) can be used.
3. AM-1003 I/O Expansion boards are not compatible, but the functions of this board are built into the AM-1200 main logic board.
4. AM-1006 I/O Expansion boards are not compatible, but the eight expansion I/O ports are included on the AM-1200E and XP main logic board.
5. The following major system components are compatible between the AM-1200 and AM-1000 series of systems, thereby minimizing additional spares commitments:
 - o Winchester disk drives (Note: Drive for AM-1200E is reformatted to provide increased disk capacity.)
 - o Floppy Disk Drives.
 - o System Power Supply.
 - o System Enclosure (except for front panel display.)

AM-1200 Hardware Specifications

The following section gives technical information on the AM-1200. For complete specifications, see the AM-1200 Owner's Manual.

o General Specifications:

External power requirements: United States: 115VC (93.5 to 132 VAC), 47 to 63Hz. International: 230 VAC (187 to 253 VAC), 47 to 63 Hz. (Specifications subject to change without notice.)

Maximum power consumption: 115 volts at 3 amps or 230 volts at 1.5 amps (345 W).

Electromagnetic interference: Complies with U.S. FCC Rules and Regulations, Class A.

System Dimensions:

Height: 6.5" (16.5 cm)
Width: 20.25" (51.4cm)
Depth: 15.0" (38 cm)
Weight: 23 to 29 lbs (10.4 kg-13 kg), depending on model.

Microprocessor: MC68000 operating at 8Mhz.

Memory: Minimum of 1Mb of RAM with byte parity error detect, expandable to 4Mb; 16K of ROM.

Additional Features: Clock/calendar with battery backup; front panel with status and diagnostic display; programmable interval timer; AC power-fail detect; remote reset.

o Input/Output:

ALL MODELS:

Ports 0-2:

Three asynchronous serial RS-232 or communications ports configurable for RS-422.

Control: 6850 SIO.

Interface: DB-9 connector (J17-J19).

Supported baud rates: 50, 75, 110, 150, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600, 19200.

16.1.2 (Continued)

Introduction to the AM-1200 System Family

Ports 3-4:

Two serial communication ports RS-232, configurable in two ways:

- 2 asynchronous ports, or
- 1 synchronous port and 1 asynchronous monitor port.

Control: Z80 SIO.

Interface: DB-9 connector (Port 4-J302). DB-25 connector (Port 3-J301).

Supported baud rates: 50, 75, 110, 150, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600, 19200.

Asynchronous parallel printer port: IBM compatible, TTL level interface.

SOME MODELS:

Ports 5-12: Eight asynchronous serial communications ports configurable for RS-232 or RS-422.

Control: 68681 SIO.

Interface: DB-9 connector.

Supported baud rates: 50, 75, 110, 150, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600, 19200.

VCR remote port:

Eight-bit status and command port: TTL compatible remote control port.

Control: Host 68000

Interface: 20 pin-AMP connector (J101).

Video cassette recorder: NTSC standard. PAL/SECAM option also provided.

SASI (Shugart Associates Standard Interface):

Physical interface: 50-pin connector at rear panel.

Maximum external bus length: 10'

Maximum number of ports: 4, including internal Winchester drive controller.

Implementation: Single host only. Multiple host architecture not supported.

o Storage and Backup

Floppy disk drive: Detailed specifications depend on the AM-1200 model purchased. Consult the individual data sheet appropriate for a particular AM-1200 system.

Maximum number: One drive in AM-1200 enclosure.

Physical size: 5 1/4".

Winchester disk drive: Detailed specifications depend on the AM-1200 model purchased. Consult the individual data sheet appropriate for a particular AM-1200 system.

Maximum number: One drive in AM-1200 enclosure.

Physical size: 5 1/4".

Video cassette recorder:

Data capacity: 60 Mb on a two hour tape.

Video I/O voltage levels: 1 Volt peak to peak typical into 75 Ohm termination.

Video recorder compatibility: Compatible with standard, commercially available video cassette recorders; either VHS or Beta formats.

Video recording format: NTSC video format (U.S. standard); PAL and SECAM video format compatibility is also provided.

AlphaNET: Fully compatible with AlphaNET software.

Summary

The AM-1200 is a thoroughly tested Alpha Micro product. In addition to our internal

16.1.2 (Continued) Introduction to the AM-1200 System Family

testing, we have had units in the hands of beta sites since July 1986. Most major software applications and utilities have been tested and found to behave identically on AM-1000s and AM-1200s. By running an extended beta test period, we

have given developers time to ensure that any changes which do need to be made are indeed in place in time for shipment. We are confident that the AM-1200 will be a compatible and reliable replacement for the AM-1000.

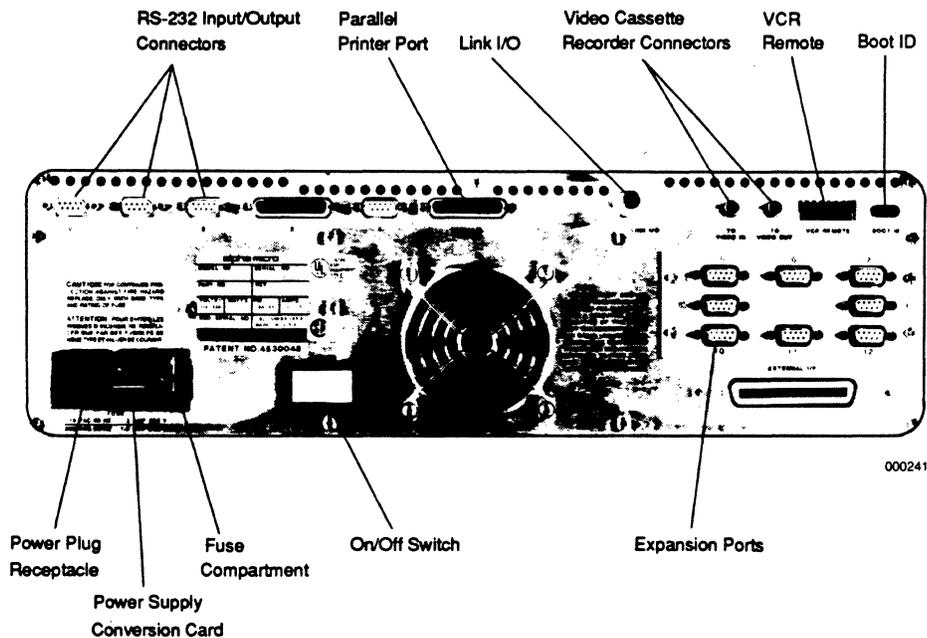


Figure 1
AM-1200 Series Back Panel

3.1.11

Overview of the New AMOS/L 1.3C Release

This article discusses the latest AMOS/L release, Version 1.3C. For detailed information, see the AMOS/L 1.3C Release Notes, DSS-10254-00.

AMOS/L 1.3C is a consolidation release designed to incorporate the various enhancements and corrections that have already been distributed as individual software patches and releases. New software patches are also included in the AMOS/L 1.3C release.

In addition to the software previously released as individual "mini-releases," AMOS/L 1.3C also contains new software not previously available.

What's in AMOS/L 1.3C?

AMOS/L 1.3C pulls together the following previously available software packages, integrating them into a single AMOS/L release:

- o AM-640 1/2" Magnetic Tape Subsystem support, including new backup programs and new monitor calls.
- o AM-350 Phase I Upgrade.
- o AM-515 Phase II Upgrade.
- o 1/4" Streaming Tape Drive support for VME series systems.

(The software packages listed above were discussed in the November and December issues of the AMSD Journal.)

New features of AMOS/L 1.3C include:

- o Support for the AM-1200 series systems, including new interface drivers and microcode files.

- o 415DVR.DVR AM-415 disk driver upgraded to improve efficiency.
- o Previous compatibility problem resolved by re-issuing AM-1003 AM1013.IDV interface driver and microcode, bringing those files into synchronization.
- o AMOS now checks to see if the number of ports being used is greater than the number of ports the user is licensed for. This means AMOS/L is now configured by the dealer in different "flavors," depending on the number of ports the customer is licensed to use. (Dealers: See Marketing Bulletin AMB86-59 for details on the new AMOS licensing structure.)

Additional Changes

Other changes included in AMOS/L 1.3C are:

- o To support a functional requirement of the AM-515 Intelligent SASI Disk Controller, the bitmap size has been changed for 5 1/4" Fujitsu 70 megabyte Winchester disk drives.

The AM-515 can calculate the bitmap size for disk devices it controls, but if you have a 70 Mb disk not controlled by an AM-515 and you install AMOS/L 1.3C on a pre-1.3B computer system, such as an AM-1000XP, AM-1545, or AM-1555, you must use the FIX420 program to generate a new disk driver.

Disk drivers generated under pre-1.3B versions of the operating system will not work with AMOS/L 1.3C.

3.1.11 (Continued)

Overview of the New AMOS/L 1.3C Release

After running FIX420, write down the bitmap size it gives you and modify your system initialization command file to change the BITMAP statement for each logical unit of the 70 Mb drive to the size FIX420 told you.

- o If your system contains an AM-515, AMOS/L 1.3C requires that disk driver programs for non-DSK disks controlled by the AM-515 be loaded into system memory.
- o AMOS/L 1.3B documentation recommended you not use the Disk Cache Buffer Manager on a computer containing the AM-515; this limitation has been removed with AMOS/L 1.3C.

3.1.12

Problem Fix: AMOS/L Warm Boot

A problem with warm booting has recently manifested itself on AM-1200 systems. If your AM-1200 has a problem performing a warm boot, please follow the procedures in this article to work around the problem.

The problem will be corrected in the very near future with a software patch.

If you have a problem warm booting your AM-1200, run the self test before performing the warm boot.

The self test initializes the serial I/O port interrupt circuitry. Warm booting without running the self test may cause the serial port circuitry to interrupt the CPU before the software is initialized to handle the interrupt.

To perform the self test prior to warm booting, turn off the power switch on the back panel of your AM-1200 computer and set the Boot ID switch to warm boot from the VCR or floppy disk as shown in Chapter 2 of your AM-1200 Series Owner's Manual. Then while holding down the RESET button, turn the power back on. The codes that appear on the status display panel of your AM-1200 and the messages that appear on your terminal are explained in Chapter 8 of your AM-1200 Series Owner's Manual.

After the self test has gone through a complete cycle, press the RESET button again to begin the warm boot process.

3.1.13

Software Preview: Here Comes AMOS 2.0!

by Robert Currier
 Director, Future Systems
 Advanced Products Division

AMOS version 2.0 is the next major revision of the AMOS operating system, incorporating some three years of design, implementation, and testing. Originally started as simply an upgrade to the existing file system structure, it has grown to include a host of new features and capabilities. As the availability of AMOS 2.0 gets closer, we will be publishing several articles describing its features and capabilities in detail, but we thought a quick overview might be the way to start.

Keep in mind that when we refer to "AMOS," we are talking about both AMOS/L, the 16-bit 68000/68010 based operating system, and AMOS/32, the 32-bit 68020 based system. Both are fully compatible, with each being tailored to its specific hardware base for optimum performance.

When we started the 2.0 project we had five overall goals in mind:

1. Enhance the existing file system to allow larger files and devices and to increase performance and functionality.
2. Enhance the "user friendliness" of the system in a variety of ways.
3. Increase the functionality and performance of the terminal service system.
4. Support the IEEE standard floating point format, in both hardware and software.
5. Implement the goals listed above in such a way as to minimize the

impact on existing software, preserving the considerable investment made in that software.

While they may sound innocent, these five goals mushroomed into a wide variety of features and enhancements. So where did we end up? To be quite brief about it, here is a list of the various additions and enhancements in AMOS 2.0:

- o A **new file structure** using 32-bit block pointers, allowing access to files up to 2,097,152 megabytes in size, providing you have a disk that big.
- o A **new file protection** scheme whereby individual files have a settable protection level, optionally restricting read and write access.
- o **New directory information** stored on each file, including the date and time of creation, date and time of last update, and the date and time of the last backup, providing such functions as incremental backup, allowing you to back up only those files that have changed since the previous backup.
- o Integrated **logical record IO** and locking, built into AMOS.
- o **Enhanced ISAM** file support to provide better file locking, better performance, and more functionality, including:
 - a) Support for files larger than 32 megabytes.
 - b) More efficient record locking.
 - c) Support for "read sequential reverse" function.

3.1.13 (Continued)

Software Preview: Here Comes AMOS 2.0!

- d) Easier to use high-level language interface, including AlphaBASIC.
- o **Paged bitmaps** to reduce memory requirements and improve performance on large disk drives.
- o The ability to have **mixed file systems** whereby different logical units can use either the current file system or the new 2.0 file system.
- o A new **byte stream access method** similar to UNIX byte streams.
- o **New backup and restore utilities** which allow backups to span multiple media, supports the new file system, allows incremental backup, and fully supports VCR remote control.
- o A **new help utility** providing the capability of better on-line documentation.
- o An **enhanced version of AlphaVUE** incorporating many new features and improvements.
- o **New serial port monitor calls** allowing you to interrogate and change status lines on serial IO ports, affect transmission parameters, modify the terminal status word, and perform high-speed serial communications.
- o A **remote TCRT call** allowing you to perform TCRT calls on other terminals, regardless of terminal type.
- o Support, both hardware and software, for **IEEE floating point format**.
- o **Compatibility** with the vast majority of existing software, without modification.

In addition, the following features will be included that were previously previewed only in the AMOS/32 1.0 release:

- o A **command line editor** supported by AMOS.
- o A **system event logging utility** to record a history of errors, crashes, and reboots.
- o A **program completion code** so you can determine within a command file if an operation was completed successfully.
- o An **IF processor** to allow conditional branching and execution in command files.
- o **New command file commands** to give you access to more information within a command file.
- o The concept of the **user name and account** has been added to allow the system to identify users by symbolic name.

We hope the list shown above has whetted your appetite for this major revision of AMOS. Over the next few months, we will be publishing additional information, detailing some of these new features so that you can plan ahead for upgrading to AMOS 2.0.

4.3.1

Special Offer: AMSD Video Training TapesPRICING INFORMATION:

Single Order Tapes	\$80.00 ea.
Two Tapes	\$70.00 ea.
Three or More Tapes	\$60.00 ea.

The special offer tapes listed here are available in **VHS format only**. Beta or PAL format tapes are available at regular prices.

Prices subject to change without notice.

To order tapes please use the order form included at the end of this article or call our Customer Education Department:

(714) 641-6330

The following list includes tape title on the first line, followed by approximate run time, part number to use when ordering and a brief description of the tape's topic.

SYSTEM INITIALIZATION COMMAND FILE

Run Time: 23 Min.
VDI-00104-00

Designed for the T based systems. Includes steps necessary for constructing an AMOS System Initialization Command File (SYSTEM.INI). A system is configured from the ground up and each command line in the initialization file is discussed. Additional subjects include memory management and adding devices to the system.

AMOS/L INI 1.3

Run Time: 1 Hr. 30 Min.
VDI-00004-00

Complete in-depth visual tutorial on the System Initialization Command File for the

1.3 AMOS operating system. This training program comes complete with a 30 page workbook to help guide you through all the steps necessary for constructing a system Initialization command file.

THE TASK MANAGER VIDEO SEMINAR

Run Time: 56 Min.
VDI-00007-00

Describes the automatic restart option after reboot, and these "how-tos:" saving memory using the new print spooler option, specifying a specific page to print, and prioritizing a file to be printed.

AM-60 TERMINAL

Run Time: 47 Min.
VDI-00060-00

Discusses theory of operation, maintenance, installation and troubleshooting procedures for Alpha Micro's AM-60 terminal.

AM-610 VCR SUBSYSTEM - HARDWARE AND SOFTWARE CONFIGURATION

Run Time: 21 Min.
VDI-00610-00

Describes hardware installation of the AM-610 VCR Subsystem. Software configuration for this subsystem includes such topics as certifying and verifying tapes, restoring and saving data from disk to tape and tape to disk.

4.3.1 (Continued) Special Offer: AMSD Video Training Tapes

AM-610 VCR SUBSYSTEM - SOFTWARE CONFIGURATION

Run Time: 14 Min.
VDI-00610-01

Explains how to use all the commands necessary for performing proper system backup on VCR tape. Also, how to restore files from VCR tape back onto the system.

AM-1000 USER INSTALLATION

Run Time: 33 Min.
VDI-01000-00

Covers the configuration of the AM-1000 Desktop computer. It demonstrates the procedures for connecting a terminal, a printer, and a video cassette recorder unit. Also, adding a second terminal to the system, necessary software changes, and backup procedures for both floppy and VCR units.

AM-100/L INSTALLATION

Run Time: 33 Min.
VDI-00160-00

Describes capabilities of the AM-100/L and features hardware installation, jumper settings and compatibility with other Alpha Micro products. Also, converting AMOS programs to run on the AMOS/L system, changing the system initialization command file and other software, and troubleshooting information.

PHOENIX FILTER CHANGE

Run Time: 11 Min.
VDI-00410-00

Demonstrates procedures and steps involved in changing the absolute and pre-filter for the Phoenix hard disk drive.

AM-330

Run Time: 34 Min.
VDI-00330-00

Hardware maintenance tape describing the theory of operation, installation procedures and troubleshooting for the AM-330 data communications board.

AlphaRJE

Run Time: 36 Min.
VDI-00330-01

Explains installation of the programs and modules comprising AlphaRJE. You see a sample installation procedure and learn how to obtain necessary information from the host installation.

AlphaWRITE

Run Time: 56 Min.
VDI-00501-00

This tape is for **Version 1.0 ONLY** and does not cover the enhancements found in later versions.

AlphaCALC

Run Time: 30 Min.
VDI-00901-00

This tape is for **Version 1.0 ONLY** and does not cover the enhancements found in later versions.

THE AMOS SERIES

Run Time: 35 Min.
VDI-00006-00

This tape combines The Introduction to AMOS series tapes Parts 1, 2 and 3 on one cassette.

4.3.1 (Continued)

Special Offer: AMSD Video Training Tapes

Part 1 describes Alpha Micro System Architecture beginning at the CPU through steps required to implement a complete system. Topics include: discussion of RAM memory versus disk storage devices, explanation of logical units, PPN's, files and importance of their configuration.

Part 2 describes the AMOS search procedures, and gives the step by step process the operating system follows when a user enters a command.

Part 3 teaches users different techniques for getting the most out of their terminal, with emphasis on AMOS commands. DIR, SYSTAT, STAT, LOG, COPY, RENAME, ERASE, TIME, DATE, JOBS, JOBALC are among the commands covered. Step by step instructions show users how to log from one account to another and how to copy files from other devices.

INTRODUCTION TO AMOS #4: COMMAND AND DO FILES

Run Time: 50 Min.
VDI-00005-00

This training course is designed to provide Alpha Micro users with a solid basis for creating Command and Do files. This tape comes complete with a workbook containing definitions, exercises, projects, test and sample files.

THE WORKSTATION TRAINING TAPE

Run Time: 9 Min.
VDI-00510-00

This tape and manual describes the Alpha Micro Workstation's installation and basic configuration. A step by step tutorial shows how to open the chassis, remove and install peripheral boards, and changing switch settings. Video close ups show you the key components to explain the "in-

sides" of the Workstation. Peripheral boards described are: ELS AM-170 board, monochrome display board, color display board and IBM compatible serial adapter board.

ALPHABASE

Run Time: 25 Min.
VDI-01001-00

This tape is designed for beginning AlphaBASE users. Topics include: basic set-up of the system, log on procedures, and an overview of AlphaBASE's menu system. Demonstration of procedures include: creating company, user, system and application files.

ALIGNMENT PROCEDURES FOR THE HAWK DRIVE

Run Time: 30 Min.
VDI-00008-00

This innovative, hardware training program shows field service technicians the techniques and procedures for proper head alignment. The tape begins with equipment needed and continues through step by step instructions for alignment.

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