

AMOS 1.4E Release Notes

AMOS 1.4E is our year-2000 compliant version of the AMOS 1.x operating system. It is available in two versions:

- A complete operating system, which is distributed and installed in the same manner as previous AMOS 1.4x releases.
- An overlay download version (ODL), which is distributed as a single file and can be installed easily either on-site or over a modem connection.



Unlike earlier AMOS 1.x releases, AMOS 1.4E, in either version, is SSD-encoded. You need a Product Installation Code (PIC) to install AMOS 1.4E. The PIC is unique for each computer and authorizes a certain number of AMOS users for that computer only.

The ODL version of 1.4E is designed for ease of installation: it's provided as one compressed, self-expanding file. You can perform the entire upgrade procedure via a modem, without ever visiting the site to be updated. It contains only those AMOS 1.4E files necessary for year 2000 compliance.

These *Release Notes* contain the following information:

1. A description of the changes in AMOS 1.4E.
2. Compatibility information
3. Installation instructions for the full version of AMOS 1.4E.
4. Installation instructions for the ODL version of AMOS 1.4E.

PRODUCT DESCRIPTION

The major difference between AMOS 1.4C and AMOS 1.4E is year 2000 compatibility. Approximately 35 programs and other files have been updated to allow all AMOS features to correctly handle dates past the year 1999. The ODL version of AMOS 1.4E includes only these files. The full version includes the entire AMOS operating system and all utilities; over 80 other files have changed since the 12/97 patch release of AMOS 1.4C. This includes problem fixes as well as changes caused by updates to the system libraries and consolidation of AMOS 1.4 and AMOS 2.3A source code. For a complete list of changed files, see the directory file included with the version of 1.4E you're installing: AMOS.DIR for the full version or YR2000.DIR for the ODL.

COMPATIBILITY INFORMATION

You can install the full version of AMOS 1.4E on any computer which supported a previous AMOS 1.4x version.

You can install the ODL version of AMOS 1.4E only on computers which currently use AMOS 1.4 or later. Since the ODL does not include the entire operating system, it is not compatible with earlier versions of AMOS.

Streaming Tape Compatibility

Before AMOS 1.4, streaming tape users used the STRxxx commands to copy files to and from tapes. In AMOS 1.4 and later, the MTUxxx commands will work with streaming tape drives, and are the recommended method for all tape backups and restores. In fact, on AMOS computers with SCSI-2 interfaces (the AM-4000, AM-6000, and all Roadrunners and Eagles), you must use MTUxxx for streaming tape backup.

We anticipate some number of users will upgrade to AMOS 1.4E from versions of AMOS earlier than AMOS 1.4, and that some of these users have been using STRxxx for their backups. AMOS 1.4E includes new versions of the 625DVR.DVR, 645DVR.DVR, and 647DVR.DVR tape drivers. These drivers support both STRxxx on computers using the SASI interface for tape backup and MTUxxx on computers using SCSI-2.

If you have been using the STRxxx commands on a version of AMOS earlier than 1.4, and are upgrading to AMOS 1.4E, you will be able to restore from your existing backup tapes after the upgrade, as long as you properly install and rename the new tape drivers. If, for some reason, you need to make a STRSAV format tape to copy to a system using an older version of AMOS, you can also do that. But, keep these restrictions in mind:

- Under AMOS 1.4E, the STRxxx commands are supported only on the SASI interface, not on the SCSI-2 interface.
- STRxxx does not allow multi-reel backups. The entire backup must fit on a single tape.



The STRxxx commands are supported only for compatibility with older versions of AMOS during the transition to AMOS 1.4E. ***Do not continue to use them for backup or file transfers after upgrading.*** As has been the case for some time, we strongly recommend MTUSAV and MTURES for all streaming tape backup.



Some very old Tandberg AM-625 (150MB) and AM-626 (525MB) streaming tape drives have old firmware which will need to be upgraded prior to upgrading your operating system software. The March 1994 Alpha Microsystems Technical Journal documented this upgrade. Specifically, the Tandberg firmware versions required are:

AM-625 (TDC 3660) must be firmware version 06:00 or later.
Order part number PDB-00625-91.

AM-626 (TDC 3820) must be firmware version 04:08 or later.
Order part number PDB-00626-91 for SASI or SCSI-1 based systems.
Order part number PDB-00626-90 for SCSI-2 based systems.

AMOS 1.4E FULL VERSION INSTALLATION PROCEDURE

Here is an overview of the steps necessary to install the full version of AMOS 1.4E on a computer currently running an earlier version of AMOS 1.x:

1. Back up your data and make sure you have a current warm boot tape.
2. Download the AMOS 1.4E software.
3. Enter the AMOS PIC.
4. Create a test monitor.
5. Update drivers for tape devices.
6. Update drivers for subsystem disks.
7. MONTST to test the new monitor.
8. Enter the system date.
9. Rename the test monitor.

The following sections describe each step in detail.

1 - Preparing for the Installation

Before you install the new operating system, be sure to do the following:

- **Protect Your Data!** While it is very unlikely data stored on your hard disk drive will be corrupted when you upgrade your computer, you should be prepared for anything. **Before you download any new software, make sure all your data is copied onto some form of backup media**, and that the data on your backup media is readable and restorable!
- **Create a Warm Boot Tape.** When doing an upgrade, you'll be configuring new drivers for your peripheral devices and using the MONGEN program to embed a new driver in your AMOS monitor. Either of these two operations, if done incorrectly, could result in a computer that won't boot. If you have a warm boot tape, you will be able to access your hard disk drive and correct the situation which prevented you from booting. Without a warm boot tape, it will be much more difficult to access the computer and correct the problem. See the *System Commands Reference Manual* for information on how to create a warm boot monitor and a bootable tape.

Also, make sure you have your AMOS PIC before continuing. If you don't have your PIC, you can get it by contacting your dealer or Alpha Micro Sales Order Administration.

2 - Downloading AMOS 1.4E



Once you begin this procedure, do not press the computer's reset button until you are instructed to do so in step 9.

To download the software from the AlphaCD, use these commands:

```
LOG OPR:   
COPY=ACDn: *.* [ ] 
```

N is the number of the device containing the AMOS 1.4E software.

If you have created a tape containing the AMOS 1.4E release, and are installing from it rather than directly from the CD, use the appropriate command (for example, MTURES) to copy the files from the tape to the correct accounts on DSK0:.



After copying the release, you can erase the file OPR:INS14E.LIT. This is the self-expanding file containing the ODL version of 1.4E. You don't need this file when installing the full version.

After you've downloaded the files, use the VERIFY command to make sure all the files transferred correctly:

```
VERIFY AMOS.DIR 
```

VERIFY compares the files on your disk to the master list in the AMOS.DIR file. If any files transferred incorrectly or not at all, VERIFY displays them as mismatched files. If there are any mismatches, download those files again.

3 - Entering the AMOS PIC

You can now enter the PIC for AMOS 1.4E.



As with any PIC, other users will be temporarily suspended while the PIC is being processed.

To enter the PIC, use these commands:

```
LOG SYS:   
INST14 DSK0: pic 
```

Pic is your AMOS PIC code. If you do not enter both the device and PIC on the INST14 command line, it will prompt you for them. Here is a sample command:

```
INST14 DSK0: ABC12-34567-321DE-54FGH 
```

4 - Making a Bootable 1.4E Test Monitor

To create a bootable AMOS 1.4E monitor, you will use the MONGEN program to embed the appropriate disk driver into the monitor.



Because AMOS 1.4E is PIC-encoded, there is only one monitor file included, AMOS14.MON. You *must* use this monitor during MONGEN, as shown below. Unlike earlier 1.X versions of AMOS, there are not separate monitors depending on your number of licensed users. **Do not use an AMSxx.MON file** to create your new monitor. These files are left over from your previous AMOS release; you can delete them after you complete the upgrade.

AMOS 1.4E includes the 515DVR.DVR, 515SCZ.DVR, 520DVR.DVR and 522DVR.DVR generic disk drivers for intelligent controllers. It also includes the following generic SCSI bus disk drivers:

- SCZ100.DVR, for SCSI drives connected to the AM-405 board in S-100 computers
- SCZDVR.DVR, for SCSI drives connected to the SASI port on AMOS computers with 68030 or earlier processors
- SCZ190.DVR, for SCSI drives connected to the AM-190's SCSI-2 port or the SCSI port on an AM-540 board in an AM-3000M.
- SCZRR.DVR, for SCSI drives connected to an Eagle's or Roadrunner's SCSI-2 port. SCZRR.DVR is used for all Eagle series computers, as well as any standard Alpha Micro system which has been upgraded with a Roadrunner high-performance add-on board.

Here is a sample use of MONGEN to create a new monitor, using the SCZDVR.DVR disk driver:

```
LOG SYS: 
MONGEN 
Input monitor name: AMOS14.MON 
New disk driver: SCZDVR.DVR 
New language definition table name: ENGLISH 
New monitor name: TEST.MON 
SAVE TEST.MON 
```

Be sure to enter the correct driver and language definition table names for your configuration.

5 - Updating Drivers for Tape Devices

When upgrading your computer's software, you want to make sure all your peripheral devices are running from the latest device drivers. After AMOS 1.4E has been downloaded, all the new drivers are located in your DVR: account (DSK0:[1,6]).

To create updated drivers for your magnetic tape devices, log into the DVR: account, then type one or more of these commands:

1. If you are using a DAT drive:

```
COPY DAT.DVR=647DVR.DVR 
```

2. If you are using an AM-62x Tandberg tape drive:

```
COPY STR.DVR=625DVR.DVR 
```

3. If you are using an AM-640 1/2" magnetic tape drive:

```
COPY MTU.DVR=640DVR.DVR 
```

4. If you are using an Exabyte 8mm tape or Pertec-to-SCSI converter:

```
COPY MTX.DVR=645DVR.DVR 
```

6 - Updating Drivers for Disk Devices

Earlier in this procedure, you used MONGEN to embed a new driver (applicable to your configuration) into your new monitor. You also need to update the drivers for non-DSK: devices:

1. Log to DSK0:[1,6] (DVR:).
2. Use FIXLOG to generate new drivers for all self-configuring disk subsystems: all SCSI, ESDI, and SMD disk drives. The generic driver files used with FIXLOG to create subsystem device drivers are the same as those listed for MONGEN in step 4.
3. To create a new driver for your floppy drive, use FIXFLP if your computer uses an AM-212 or AM-214 floppy controller. Use FIX219 if your computer uses an AM-219 floppy controller. Use FIX210 for all other configurations.
4. Use the FIX420 program to generate new drivers for all conventional Winchester and ST506 disk drives.



Remember, the new driver you create is left in user memory only! Be sure to SAVE each new driver to the DVR: account (DSK0:[1,6]) before rebooting the system. For example, if you've created a driver called SUB.DVR, type: **SAVE SUB.DVR**

7 - Verifying TEST.MON

Before you copy TEST.MON to either AMOSL.MON or AMOS32.MON, you need to verify the computer boots properly using it. To do so, enter the following commands:

```
LOG OPR: 
MONTST TEST,AMOS32.INI 
```

or:

```
MONTST TEST,AMOSL.INI 
```

Make sure the computer boots without error. After the computer has completed booting, enter the SYSTAT command and check the status of all logical devices on the boot disk and any subsystem disks.

8 - Setting the System Date

Due to the changes we've made for year-2000 compliance, you need to reset your system date after installing AMOS 1.4E. To do so, log into OPR: and use the DATE command:

```
LOG OPR:   
DATE date 
```

Date is the current date in the correct format for your language.



If you ever return to a pre-1.4E version of AMOS, you'll need to reset the date.

9 - Rename the Test Monitor

Once you are sure TEST.MON works properly for your configuration, enter the following commands:

```
LOG SYS:   
COPY AMOS32.MON=TEST.MON 
```

or:

```
COPY AMOSL.MON=TEST.MON 
```

To make sure the monitor copied correctly, press your computer's Reset button. Watch the operator terminal for errors during the boot-up process. Once the computer has booted, make sure everything is up and running—subsystem disk and tape devices, printers, network software, task manager, etc.

As a final step, we strongly recommend you create another warm boot tape based on your upgraded (AMOS 1.4E) operating system.

Please turn to the section “After the Installation,” on page 11.

AMOS 1.4E ODL INSTALLATION PROCEDURE

For extra convenience and safety, the suggested installation process takes place on any device other than DSK0:. You can then copy the installed files to DSK0: whenever it is convenient for you. Optionally, you can install the files directly onto DSK0:.

Installing AMOS 1.4E ODL requires these simple steps:

1. Make sure the computer to be upgraded is running at least AMOS 1.4.
2. Download the single compressed file, INS14E.LIT.
3. Uncompress the file and follow the displayed instructions.
4. Enter the PIC for AMOS 1.4E.
5. Copy the AMOS 1.4E files, including the PIC overlay, to DSK0:.
6. Use MONGEN to create a new monitor for the computer and reboot.
7. Enter the current date.

Each part of the procedure can be performed at the installation site or remotely via modem. The following sections describe each step in detail.

1 - Prerequisites

AMOS 1.4E ODL updates only those parts of AMOS necessary for year 2000 compliance. Other parts of the operating system remain as they are. Therefore, the computer to be updated must be running a version of AMOS which will be compatible with the AMOS 1.4E files after they are installed. ***To install AMOS 1.4E ODL successfully, you must start with a computer running AMOS 1.4 or later. Do not install this software on a computer running any earlier version of AMOS.***



To help you check your version of AMOS, the AM14E.LIT file includes a directory for the latest version of AMOS 1.4C, which you can use with the VERIFY command. It is called AMS14C. Since this file is extracted from the AM14E.LIT file in step 3, you cannot use it until then.

You also need a device to perform the installation on. While an empty logical disk is ideal, you require only a device with at least 1200 blocks of free space. If you install directly onto DSK0:, you need only 400 blocks of free space, on any logical device.



As with any software upgrade, we recommend you have a warm boot tape and a good current backup of the system you're updating. This procedure is very straightforward, and problems should be rare, but they do occur, and it's always best to be prepared for them.

2 - Downloading the Compressed File

AMOS 1.4E ODL is provided on the AlphaCD in a single file: INS14E.LIT[1,2], on the AMOS 1.4E logical device. This is a self-extracting archive file which contains the file TELL.DO and the AMOS release itself, in a second compressed file, AM14E.LIT. You decompress INS14E.LIT into its separate components once it is on the target system.

You can copy this file to the target system in one of several ways: directly from the CD; via a magnetic tape, or by downloading over a modem. Use whatever method is most convenient for you.

Copy the INS14E.LIT file to the [1,2] account on the device where you'll be performing the installation. This can be any disk device.

3 - Uncompressing the 1.4E Files



You can extract the 1.4E files directly to DSK0:. If you do, make sure no one else is using the computer, and immediately finish the installation by entering the PIC and creating the new monitor file, as described below.

When you're ready to install AMOS 1.4E, type these commands from AMOS command level:

```
LOG devn:[1,2]   
INS14E.LIT 
```

This displays text reminding you to be sure you have a good backup and warm boot tape before you continue. It then tells you to type this command:

```
AM14E/D/R:devn 
```

devn is the device where you downloaded the INS14E.LIT file, and where you want to create the new 1.4E files. Notice that in the AM14E command line you do not have to include a colon (:) after devn.

This extracts the component files from the AM14E.LIT archive file (which was extracted from INS14E.LIT), and places each file in its proper account, on devn:. Any existing file with the same name in the same account is overwritten.



After extracting AM14E.LIT, INS14E.LIT erases itself and the TELL.DO file it created. If, for some reason, you need to execute INS14E.LIT again, you must recopy it from the CD.

To make sure all the files were created properly, use the VERIFY command with the directory file YR2000.DIR. Be sure to enter the correct device to compare the files on. For instructions on using VERIFY, please see the *AMOS System Commands Reference Manual*.

4 - Entering the AMOS 1.4E PIC

You can now enter the PIC for AMOS 1.4E. The PIC overlay file is created on devn:, so if you are not installing directly on DSK0:, this does not affect the currently running operating system in any way.

As with any PIC, other users will be temporarily suspended while the PIC is being processed. To enter the PIC, use these commands:

```
LOG devn:[1,4] 
INST14 devn: pic 
```

As before, *devn* is the device where you downloaded and expanded the 1.4E files; *pic* is your AMOS PIC code. If you do not enter both the device and PIC on the INST14 command line, it will prompt you for them. Here is a sample command:

```
INST14 DSK8: ABC12-34567-321DE-54FGH 
```

5 - Copying the Files to DSK0:

The computer can run indefinitely under its current operating system after you've installed AMOS 1.4E on devn:. When you're ready to have the computer use 1.4E, copy the 1.4E files to DSK0:. If you've used an empty logical device for devn:, you can do this with these commands:

```
LOG OPR: 
COPY DSK0:=devn:*. * [ ] 
```



This also copies the self-extracting archive file, AM14E.LIT, to OPR:. You do not need this file on DSK0:, and you can erase it immediately by entering **ERASE AM14E.LIT** .

If there are other files on devn:, refer to the file list in the YR2000.DIR file, and copy those files to the corresponding accounts on DSK0:. *You must also copy the file AMOS14.OVR[1,4]*. This is the overlay file containing the PIC created in the previous step.

6 - Creating the New AMOS 1.4E Monitor

The AMOS monitor was updated for AMOS 1.4E. Therefore, you now need to use MONGEN to generate a new monitor file for the computer, containing the proper disk driver for this system. Please refer to step 4 of the procedure for installing the complete AMOS 1.4E release, on page 5 of this document, and to the MONGEN sheet in the *AMOS System Commands Reference Manual*.

After creating and saving the new monitor, test it with MONTST. Make sure the system boots correctly, and all devices are defined and usable. Reset the system date, as described below. Once you're sure the monitor is correct, rename it so it is the standard system monitor.



If you're installing AMOS 1.4E over a modem, you may want to create an initialization file which uses the modem port as the boot port, and use it during MONTST. Otherwise, you won't be able to see the boot process, and if the boot pauses or halts, you won't know where the problem may be.

7 - Setting the System Date

Due to the changes we've made for year-2000 compliance, you need to reset your system date after installing AMOS 1.4E. To do so, log into OPR: and use the DATE command:

```
LOG OPR:   
DATE date 
```

Date is the current date in the correct format for your language.



If you ever return to a pre-1.4E version of AMOS, you'll need to reset the date.

As a final step, we strongly recommend you create another warm boot tape based on your upgraded (AMOS 1.4E) operating system. For instructions on creating a warm boot tape, please see the WRMGEN sheet in the *AMOS System Commands Reference Manual*.

AFTER THE INSTALLATION

After you have AMOS 1.4E up and running, check to see if there are any outstanding patches you should apply to it. If you have access to Alpha Micro's TABBS bulletin board, check the patches area and install any that apply to your system. If you don't have access to TABBS, ask your Alpha Micro dealer if there are any patches you should install.