

January 2011 AMOS™ 8.2 Release Notes

The AMOS software release has been compiled for the new Series 1 Eagle 900™ and Series 1 AM-9000™ systems. These new systems are constructed with high performance hardware and Archimedes Cache Technology (ACT). ACT uses a dedicated high speed memory partition accessed by AM9000.exe to provide a unique Disk Cache integrated for AMOS use. The disk compute index is 2 to 3.1 times greater than a system without ACT. ACT is enabled at boot time with a memory size value defined in the general configuration page. The disk cache memory size is normally between 32Mb to 500 Mb in size. AMOS allocated memory is normally 100Mb to 800Mb in size.

The new AM-113-24 board has been developed and is integrated into the system to provide SSD access and four high-speed serial ports that are now mapped as PC-Com ports. The AMOS PIC code is installed with OSINST/C to create the SYS:AMO000.Ovr. This is keyed to the parallel SSD on the AM-113-24 board. The board has a surface mount SSD socket.

The new systems now have been integrated with the latest version of Window embedded standard 7 (Wes7) customized for the Eagle 900 and AM-9000 hardware. Most of the software support programs all had to be upgraded for use with Wes7. Remote Desktop Connection will now function. UltraVNC has been updated. Windows Security Essentials is installed and provides protection from viruses and spy-ware. The older Ghost 2003 will not function under Wes7, so we have provided Acronis True Image 2011 backup and restore software. This is the only one we found that will allow you to make a Bootable DVD system backup that is restorable on one media. We now can support more backup options for these systems.

New disk storage technology is now available on the new systems. Solid State Disks (SSDs), SAS 2, SATA 6.0Gb/sec drives. Hot swap SATA trays for backup. Blu-Ray disks for AMOS and Acronis True Image 2011 backup. DVD-RW and BD-RE media or USB flash drives can now be used with Acronis True Image. Older Streamers can still be integrated but the new backup options are so much faster that we believe tape backups are now obsolete. MAKBD for AMOS backup of files is faster and uses low cost DVD-RAM or Blu-Ray BD-RE media.

New Features and Updates

Here are some of the new features for AM-9000 – Eagle 900 systems.

- AM9000.exe Ver **1.2(962)** with ACT
- The New AM-113-24 Parallel SSD and 4-port SIO board
- Documentation included
- AM-9000 with 8-Core Xeon X5677 processor @ 3.47Ghz
- Eagle 900 with 3-Core AMD AM3 processor @ 3 Ghz
- Solid State Disk drives on AM-9000 systems
- SATA 6.0Gb/sec hard drives on Eagle 900
- Updates to AMOS 8.2 programs
- AlphaShell.exe is updated to boot AM9000.exe
- Windows embedded standard 7 (Wes7) with Program Libraries
- Windows networking and printers supported
- Acronis True Image 2011 for Backup and Recovery
- HotSwap!exe allows user to mount and un-mount SATA/SAS drives from the system
- UltraVNC 1.0.9.5 remote management and Windows Remote Desktop Connection
- Max available memory on Eagle 900, AM-9000 is 3.0Gb with 32bit Wes7

The new AMOS emulator **1.2(962)** has the following enhancements and fixes:

1. Archimedes Cache Technology uses a dedicated memory partition for AMOS disk cache. This disk cache buffers up reads and writes to improve system performance.
2. CS command added to diagnostic window to show Archimedes Cache statistics for read and write buffers.
3. EMUX calls added for enable and disable of Archimedes Cache.
4. CacheOn and CacheOff commands available from the diagnostic screen.
5. PC-Com serial ports increased from 18 to 36 available to AMOS.
6. Layout of configuration screens all updated for larger fields.
7. Magic Code is displayed in the General configuration menu.
8. Integration of new AM-113-24 Parallel SSD board with auto detect of base address.
9. Wes7 signed drivers for both Parallel SSD and Serial ports of the AM113-24 board.
10. New TVicHw32.Sys Wes7 signed driver integrated to work with AM113-24 Parallel SSD.
11. Updated shutdown messages to fix the Memory cannot be read errors.
12. Added LPT clear button to clear out registry settings.
13. Fix for loading EAMOS files for AM9000B.exe version only.
14. Error_Logs folder now used for system boot log.
15. AM9000 menu updated to access Acronis True Image backup.
16. Update to AMOS Disk page allows up to 50 disk subsystems. A page up and page down button has been added to give you more subsystems.
17. XBAKUP.DO[2,2] interface added for Windows-side backups. Works with C:\Am9000\WinXP\Backup.Bat. You may customize this file to copy any AMD files under the control of AM9000 to any windows controlled disk device. This should be run on one of the VTMx jobs on the system so you will get a resulting log file of the processes executed in the BACKUP.BAT file.
18. Windows –AMOS Time Sync option added to Am9000.exe. This new feature allows you to check the Disable Time Sync check box in the Configuration General Tab. The time and date sync between Windows and AMOS can be set independent of the other. Then you can set your current date and time from OPR: This is helpful to run month end reports at a later time in the next month. To re-sync date and time un-check this box. This may be done without restarting AMOS.
19. Disk-IO enhancements for Hot Swap AMD pseudo drives. Added message on the mount and un-mount of hot swap AMOS disk subsystems.
20. To use Hot swapped AMOS disk subsystems, execute XMNT DEV: will mount a subsystem, and when finished you type XMOUNT DEV:/U to un-mount the device, without rebooting AMOS. You can use any 3-letter device name. This device driver must be in DVR: and is a copy of PCDSK.DVR. The driver must be loaded in System memory. When the disk subsystem is opened or closed you will get an Am9000 diagnostic window message, logged in the error log file. Do not DEVTBL or BITMAP these DEV: names. SMEM is required for BitMaps and DevTbls.
21. AM9000 – Eagle 900 can use Hot Swap SAS or SATA disk drives. On-line or off-line Backup SATA drives may be used for backup media with SATA disk trays. Please use the HotSwap!exe program in the sys-tray to mount and un-mount these drives.

22. USB data sticks and USB hard drives may be used to backup your AMD files. Please note that USB data sticks must be formatted in NTFS to allow larger than 2GB AMD files to be copied to them. FAT32 devices have a 2GB file size limit.
23. Added Help links to open AM9000Help.Pdf and AM9000.Chm.
24. Added AMOS command ACMode.lit. Allows user to turn off the cache or turn on modes 1,2, or 3.
25. Updated LRUN file mode access for smoother multi-job performance.

AMOS 8.2 UPDATED SOFTWARE

The Jan2011.AMD, AM9000.AMD and SUB.AMD files contains the updated AMOS software for the new systems. Most of the updates are directly related to the new hardware and the AM113-24 parallel SSD board. All AMOS programs are documented in the new AMOS.DIR file. The following listed programs have a functional change since the previous release Aug 2009. If you need to know what changed previously open the Aug2009 release notes. The new version of AM9000.EXE is **1.2(961)** and this version is installed with the latest Jan2011 updates. All AM-9000 and Eagle 900 systems must use these versions in their boot AMD file for Archimedes Cache to be enabled. If you try and use a previous version, Archimedes Cache is disabled and the system will be in single user mode.

AMOS Programs	Version	Description
Opr:AMOS.DIR		Updated for AMOS 8.2
Sys:AM9000.Mon	8.2(102)-8	New Monitor updates for System bits changed
Sys:TrmDef.Lit	8.2(156)-8	Required changes for Monitor-overlay, Osinst changes
Sys:ACMode.lit	8.2(100)	Turn on Archimedes Cache modes 1,2 or 3. 0=Turn off cache.
Sys:AM900p.new	8.2(156)	Parallel SSD overlay
Sys:AM900b.new	8.2(156)	Falcon SSD overlay
Sys:Am900u.new	8.2(156)	Usb SSD overlay
Sys:Montst.Lit	8.2(120)-6	Changes for AM9000.mon to boot
Sys:Mongen.Lit	8.2(107)-2	Changes for system bits for Monitor change
Sys:System.Lit	8.2(118)-5	Added message for missing blank Trmdef, display boot INI file
Sys:Si.lit	8.2(103)	Major updates for system bits, ACT, Display SSD device System Type, Os version, Boot Monitor and boot INI file
Sys:Shows.lit	8.2(110)-2	updated for Am9000 systems.
Sys:OsInst.Lit	8.2(103)	Updates for Am9000, display version number, help and overlays
Sys:Vue.Lit	8.1(531)-6	Fixed for 'G' command Montst AM-9000 Monitor
Sys:Xmount.Lit	8.0(101)	Changed for Am9000 system
Sys:MakBD.lit	8.0(102)-2	Added extra CR at the end of the display
Sys:DVD.Lit	8.0(101)-14	Minor fixes for use with newer DVD drives.
Sys:DVD.DEV		Updated for new drives supported
Sys:DVDnew.DEV		Backup copy updated for new drives supported
Mac:Sys.m68		update AM-9000 system bits and SSD bits
Mac:SysSym.m68		update AM-9000 system bits
Cmd:XBAKUP.do	Allows the user to create Windows backups of AMD files to other disks on the system	
Cmd:XSERV.do	Obtain the windows services	
Opr:PASUPD.do	Update the configure menu password access	
UPDPAS.BAT	Used to write a new password for the configure menu.	

Installed PICs

All systems are delivered with the AMOS PIC codes installed. The AMOS PIC enables the multi-user licenses, AlphaTCP, AlphaNET and Archimedes Cache software when used the above documented programs. The DVD and the Blu-ray PIC codes and Lightning Basic PIC code are installed.

To encode AMOS execute OSINST/switch use switch /B for AM113-50 and /C for AM113-24.

DVD Devices

The DVD drive models now supported are:

- LFD-521U Panasonic drive
- LG-4040b, LG-4080b, LG-4081b, LG-4082b
- LG-4120B, LG-4160b, LG-4163b, LG-4167B
- LG-H10, H22, H42, H54, H55 drives
- Pioneer DVR-K16, K17
- TSSTCorp Sh202 & SH203
- Sony DRU-830a
- Matsushita SW-5582 Blu-ray drive
- LG-H20L Blu-ray drive
- LGH22NP20, LGH22LP20
- WH10LS30 Blu-ray drive
- ATAPI iHAS424 drive

The DVD.DEV device file has been updated with the new drives. You do not need to re-encode the overlay.

Updated JAN2011.AMD file

To access the JAN2011.AMD file, map the C:\AM9000\Jan2011.AMD file to the UPD device. Then use XMOUNT UPD: in AMOS. Below is an example session of mounting this disk file. To Un-mount the UPD: device execute XMOUNT UPD:/U.

```

AMOS>XMOUNT UPD:
Device contains 24 logical units.
AMOS>MOUNT UPD:
UPD0:  AMOS 8.2 January 2011 Release ..... (C08)
UPD1:  AlphaTCP 1.5C March 2009 Release ..... (S06)
UPD2:  AlphaNET 2.4 January 2006 Release ..... (L02)
UPD3:  AlphaFAX 2.1 February 2007 Release ..... (C01)
UPD4:  MULTI 2.1B June 2007 Release ..... (N02)
UPD5:  AlphaWRITE 1.2A PR06/2000 ..... (D00)
UPD6:  AlphaWRITE 2.2 March 2009..... (U02)
UPD7:  AlphaCALC 2.0 April 2004 Release ..... (M00)
UPD8:  ESP 2.2 PR10/99 ..... (E00)
UPD9:  AlphaMAIL 1.2B October 2008 Release .... (C02)
UPD10: AlphaC (vol 1 of 2) PR12/97 ..... (B00)
UPD11: AlphaC 2.0 (vol 2 of 2) PR12/97 ..... (B00)
UPD12: AlphaODBC 1.4B March 2009 Release ..... (B03)
UPD13: VersiCOMM-Plus V3.1 and ZARC OCT2004 ... (A06)
UPD14: Unsupported Software January 2006 ..... (FREE)
UPD15: d/Soft Release February 2007 ..... (A00)
UPD16: Metropolis 7.5a(Y2K Version) PR 8/2009.. (7.5a)

```

```
UPD17:  AMPC 7.1 System Boot Disk Jan2011..... (C00)
UPD18:  AM8000 System Boot Disk Configured..... (C00)
UPD19:  Eagle800 System Boot Disk Configured.... (C00)
UPD20:  Eagle900 System Boot Disk Configured.... (A00)
UPD21:  AM9000 System Boot Disk Configured..... (A00)
UPD22:  ( )
UPD23:  ( )
```

AMOS Documentation

The Documentation included on this update DVD is installed into C:\AM9000\DOC folder. The documents are:

- TOC.PDF - This file has links to each of the documents described here.
- AMOS 8.x Server Owner's Manual Rev B00
- AM-9000 Series I Service Manual
- AM-9000 System Specifications Sheet
- Eagle 900 Series I Service Manual
- Eagle 900 System Specifications Sheet
- Aug2009 AMOS 8.1 Release Notes
- Jan2011 AMOS 8.2 Release Notes

To access these documents, *type* PDF TOC at the VTM1 terminal or open Explorer and click on the filename to execute the PDF reader to display the document selected. Once you have the TOC file open, select a document of interest and click on the filename link. The most important new document is the AMOS Server Owner's Manual. This document gives details on AMOS 8.x and XPE to support the AM-9000 and Eagle 900 systems.

Create an Updated Bootable Recovery DVD

After you have installed your new system and applied your system application software and environmental settings, it is important to create a Bootable Recovery DVD with the Acronis True Image 2011 backup utility. Refer to the updated service manual on how to create a C: drive backup.

Label this new DVD as "***AMOS 8.2 System Recovery DVD***".

If you ever need to replace your System Disk (C, D, E drive partitions), you will need the system recovery DVD to make the replacement drive bootable with your customer settings. An additional AMOS DSK: disk backup is also recommended. The system is shipped with a Wes7BootC.tib backup file on the D: OSBackups logical.

The primary hard drive is now partitioned into 3 pieces.

C: Boot-Partition is 30725Mb.

D: OSBackups partition is 40960Mb.

E: Data-Partition is the balance of the available hard drive space.

For the Eagle 900 the Data drive is about 526Gb (640GB physical drive)

For the AM-9000 the Data drive is about 168Gb (256GB physical SSD drive)