AOS/VS for the MV DC Series Update Notice

078_000273_16

Model Number 31133

Revision 7.71

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DATA GENERAL CORPORATION
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1 Introduction

AOS/VS is available as Model 3900 and also as Model 31133. This update notice contains information about AOS/VS Model 31133 which is intended for systems with Pre-Installed AOS/VS. New machines that come with Pre-Installed AOS/VS are the DS/7500; and ECLIPSE MV/5500 DC, MV/5600 DC, MV/3600 DC, MV/3500 DC, MV/3200 DC, MV/2500 DC, MV/2000 DC, MV/1400 DC, and MV/1000 DC computers. For all other machines, read the update notice for AOS/VS Model 3900 (078_000105_29). The Introduction, Software, Installation, and Enhancements chapters are the only chapters with 3900 or 31133 specific information.

The purpose of this release notice is to provide you with information about Revision 7.71 of AOS/VS that is not available in the AOS/VS documentation.

This product consists of the following parts:

Part Description	Part Number
AOS/VS Rev. 7.71 update notice	078_000273_16
AOS/VS Rev. 7.71 update media	See Section 7 of this update notice

This printed update notice always accompanies the software. After you have installed the product, you can print additional copies of this notice. Its pathname is :UTIL:078_000273_16

2 Product Description

AOS/VS, Advanced Operating System/Virtual Storage, is one of several Data General proprietary operating systems. Running on ECLIPSE MV/Family and DS/Series computers, AOS/VS is a multitasking, multiprogramming, demand-paged, virtual-storage, operating system that is suited for time-sharing, batch processing, and real-time control applications.

This revision of AOS/VS combines the functionality of all previous revisions and their updates, and adds new functionality and changes.

3 Environment

3.1 Hardware and Microcode

1) To run AOS/VS Models 3900 and 31133, DGC recommends that you have at least 3 megabytes of memory. For Model 31446, AOS/VS Operating System Environment for the DS/7500-series Systems, we suggest at least 4 megabytes of memory.

2) The Microcode revision of your system varies depending on your configuration. The following list shows the latest revisions of Microcode available. AOS/VS will work with these and later revisions.

Computer	Microcode Revision	Additional Notes
MV/1000 DC	12.00	
MV/1400 DC	12.00	
MV/2000 DC	10.00	Level A
MV/2000 DC (enhanced)	12.00	
MV/2500 DC	8.00	
MV/3200 DC, MV/3500 DC, and MV/3600 DC	53/85	Dependent on the revision of the processor chip set
MV/4000	13.00	Models 8468, 8469, 8760, and 8761
MV/4000-class	13.00	Models 8764 and 8765
MV/5500 DC	53/85	
MV/5600 DC	53/85	
MV/6000	11.00	No hardware floating point
DS/7500	10.00	
DS/7500 (enhanced)	12.00	

MV/7800, MV/7800 DC, MV/7800 U, MV/7800 C	11.00	
MV/7800 DCX, MV/7800 XP	5.00	
MV/8000, MV/8000 II,	11.00	No hardware floating point
MV/8000 C	9.00	With hardware floating pt Model 9300 with ATI is not supported.
MV/9300	2.00	
MV/9500	5.12	
MV/9600	2.00	
MV/10000	9.00	Model 8780
MV/10000 SX	9.00	Model 8880
MV/15000 Models 8, 10, and 20	8.00	
MV/18000	3.00	
MV/20000	13.00	
MV/40000	12.3	IDOS revision

3.2 Software

1) AOS/VS and many system programs in the root (:) expect to find system files in a particular directory structure. You should not rename system files or directories, or create links to them. If you do, AOS/VS may not work properly.

2) There are patches in the directory :UPDATE:7.71 which resolve problems in the following programs when run under revision 7.71 of AOS/VS.

Program Name	Patch Name
FTA.PR	5.30_FTA.PR_PAT
FTA.PR	5.50_FTA.PR_PAT
SVTA.PR	5.30_SVTA.PR_PAT
SVTA.PR	5.50_SVTA.PR_PAT
TPMSCCP.PR	3.51_TPMSCCP.PR_PAT
XTS.PR	5.61_XTS_PMGR_RING0_PAT

3) There are patches in directory :UPDATE:7.71 which enable certain options. The patchkits apply to either the AOS/VS system file or to one of the AOS/VS program files. Each patchkit includes a description of the option provided by the patchkit.

Filename	Status
7.71_AOSVS_MV40000.DPF_OPAT	CHANGED
7.71_FILE_ELEMENT_SIZE_OPAT	UNCHANGED
7.71_FLUSH_BUFFERS_OPAT	UNCHANGED
7.71_ROOT_ACL_OPAT	UNCHANGED
7.71_SEA_BUFFERS_OPAT	UNCHANGED
7.71_SEA_ENTRIES_OPAT	UNCHANGED
7.71_SYSCALL_CHARGE_OPAT	UNCHANGED
7.71_TUNPBLK_OPAT	UNCHANGED
7.71_AOSVS_DISCONNECT_OPAT	UNCHANGED
7.71_AOSVS_UACL_OPAT	UNCHANGED
7.71_LPMGR.PR_ORD_CR_OPAT	UNCHANGED
7.71_AGENT.PR_GIGATAPE_OPAT	UNCHANGED
7.71_XLPT.PR_HEADER_OPAT	UNCHANGED
7.71_AOSVS_DIR_TLM_OPAT	UNCHANGED
7.71_LPMGR.PR_NO_CON0LOG_OPAT	UNCHANGED
7.71_AOSVS_DEL_LEBS_OPAT	NEW
7.71_AOSVS_IAC24.CONS_OPAT	NEW
7.71_AGENT.PR_RECREATE_OPAT	NEW
7.71_FIXUP_REBOOT_OPAT	NEW
7.71_XXXZRS.PR_ESBB_OPAT	NEW

You can find detailed information about the optional patches in Appendix A of the 3900 Update Notice(078_000105_29).

4) AOS/VS ships with up-to-date error messages in the ERMES file and the related .OB files for AOS/VS and its utilities. These .OB files can be found in :UTIL and include the error and diagnostic messages from both DGC language products used to build AOS/VS and their language runtime environments.

   If you rebuild your system's ERMES file (using the macro LINK_ERMES.CLI or your own tailored macro), the following language and runtime .OB files will be included, unless you update these with ERMES files obtained from more current revisions of the language or runtime product.

Product	.OB File	Revision
C	CERMES.OB	4.10
Common Language Runtime Environment	CLREERMES.OB	3.12
DGL	DGLERMES.OB	3.20
F77	F77ERMES.OB	4.10
LANG_RT	LANG_RTERMES.OB	3.53
PL/1	PL1ERMES.OB	2.52
PL/1 16	PL1ERMES16.OB	3.12

4 Enhancements and Changes

This section lists all enhancements to AOS/VS since Revision 7.70. The "Changes" section lists differences since Revision 7.70.

4.1 Enhancements

1) AOS/VS Enhancements:

a) An enhancement has been added to make the system log and con0 log secure from being tampered with by privileged users. If a /PROTECT switch is added to the CLI SYSLOG command used to start syslog or con0 logging, the system log will be protected by the operating system from any attempt to modify it including: stopping the log, renaming it, deleting it or in any way modifying its contents. This protection cannot be overidden by any means including but not limited to: SUPERUSER, SUPERPROCESS and SYSMGR. For more information, see "Managing AOS/VS and AOS/VS II" manual 093-000541-03.

b) Deferred soft error reporting was enhanced to better detect when there is a high number of correctable errors. Previously, the deferred soft error report included statistical information (bytes transferred, error ratios) and an acceptance level ("Marginal" or "Bad"). The new messages no longer use the marginal or bad terminology; instead, specific maintenance recommendations are provided. There are now two types of error messages that are reported, depending on the number of correctable errors. The following shows the format of these messages for ECLIPSE tapes. The FRU ID identifies the field replacable unit.

```
From system on dd-mm-yy at hh:mm:ss
Soft Tape Error Report
Device code: xxx  Unit: xx
FRU ID: xx
A high number of correctable errors has occurred.
Please observe the suggested maintenance schedule
for the drive.
```

```
From system on dd-mm-yy at hh:mm:ss
Soft Tape Error Report
Device code: xxx  Unit: xx
FRU ID: xx
```

An unacceptably high number of correctable errors has occurred. Please clean the tape drive and use a known good tape. If you receive this message frequently, contact your DG service representative.

c) AOS/VS 7.71 supports the new ?WSCNTL system call. Use this system call to view or adjust the maximum and/or minimum values for the current processes working set. See Documentation Changes file :UTIL:093_000543_02 for further details.

d) AOS/VS 7.71 logs in ERROR_LOG the logical disk address causing a device error on DPJ devices. The logical disk address is placed in the double word at location 46 of a device error (code 4) event. REPORT.PR identifies the address if the /DE and /DX switches are used.

2) AGENT enhancements

a) ?READ no longer has a 2 gigabyte file size limitation. The limit is now 4 gigabytes. The relative offset limit is 2 gigabytes forward or backward. Absolute positioning must be used to change the offset by more than 2 gigabytes.

3) DUMP_II enhancements

a) DUMP_II now includes a new /TAPEMEMORY switch. The following text is from the section of the CLI.TPC.DUMP_II helpfile which describes the new TAPEMEMORY feature.

/TAPEMEMORY=MAX or /TAPEMEMORY=n

Helps stream SCSI-2 helical scan cartridge tape drives, like the 4-mm DAT (Model 6762) and 8-mm Models 6760/6761, in order to prolong the life of these drives. While this switch helps stream the tape drive, it is not intended to improve performance nor does it provide any benefit with other drives.

Use this switch for large backup operations only when the system is not active: the switch sets aside n (1-250) Mbytes of memory (or a maximum that it computes) for its buffers, and runs DUMP_II as a resident process. You must have the privilege Change [process] type and sufficient physical memory to use this switch.

If you use /TAPEMEMORY=MAX, DUMP_II chooses a maximum value for you. If you use /TAPEMEMORY=n, the rule is that each Gbyte of data to be dumped requires 15 Mbytes of memory. In addition to the /TAPEMEMORY switch, you should also use /BLOCKCOUNT=255 and /BUFFERSIZE=n, where n is the maximum buffer size supported by your system. DUMP_II will disregard the value you choose if there is not enough memory available or if that value would prevent the system from running. It will inform you of this, and continue to run with a smaller value.

NOTE: If you use /TAPEMEMORY=MAX, run only one dump process or you may hang the dump processes or the system. You can run multiple processes if you use /TAPEMEMORY=n, but whether you run one or several processes ensure that the summation of n for all processes is the smaller of two values: 80% of physical memory or physical memory minus 5 Megabytes.

4) CLI32 Enhancements

a) To allow viewing of help files via BROWSE, the macros :UTIL:HELPB.CLI and :UTIL:XHELPB.CLI are provided. These function the same as the HELP/V command and the XHELP.CLI macro, except that the BROWSE utility is used to view the appropriate help file.

The help files were modified to include leading DIM-OFF control characters on each line. This assures the proper handling of dim attributes while scrolling through a help file via BROWSE.

5) REPORT Enhancements:

a) Support for new syslog and con0 logging entries was added for syslog and con0 logging protection. This is described in manual 093-000541-03, "Managing AOS/VS and AOS/VS II".

b) REPORT.PR identifies the logical disk address causing a device error on DPJ devices for AOS/VS 7.71 error logs.

6) PATCH Enhancements:

a) New optimization features have been added to PATCH. When PATCH encounters conditional patches, it first evaluates the condition. If the patch is not applicable, then PATCH no longer processes the patch line. This considerably speeds up the processing of non-applicable patches, but no longer reports on these patch lines. A new /NOOPT switch disables this enhancement, if you want PATCH to report on these patch lines.

4.2 Changes

1) AOS/VS Changes:

a) All problems fixed by the 7.70_AOSVS_PAT.41 patch file have been corrected in source.

b) A 7.70 panic 14537 resulting from GURUFLAG set and many lines genned is fixed.

c) A problem causing the inability to terminate processes after an attempt to chain or terminate during memory contention is fixed.

d) Logical Disk capacity is truncated to 4.3 gigabytes on LDU's with sizes greater than 4.3 gigabytes. This is of significance only with the Clariion Disk Array product.

e) AOS/VS 7.71 fixes a problem with an exclusive ?FLOCK waiter not decrementing the waiter count when aborted. This made it impossible to get the lock until the process of the aborted task terminated.

f) A problem is fixed with data compression working in reverse on tape drives. Previously, a data compression off bit was being viewed as a do data compression bit.

g) A problem is fixed with some density switches (like /density=low) on some unicorn (MTJ tapes).

h) AOS/VS 7.71 insures the used MCA link # will be returned in offset ?PRNH of the ?RDB packet if a 0 is supplied in the same offset which accepts transmissions from any link #. Previous revisions only worked with 32 bit programs which did not suspend MCA protocol.

2) AGENT Changes:

a) The internal symbol table lookup was improved. A buffer cache routine was improved as in AGENT.PR patch #7.70.00.01. Additional source changes were also made to optimize value to symbol translation. During the first value to symbol translation, the AGENT optimizes for further translations. A delay will occur while the first value is translated, depending on the size of the symbol table; but subsequent translations will occur immediately. FED, PATCH, DEBUG, and the ?FEDFUNC system call all benefit from these changes.

b) A problem with ?CDAY using the high bits of AC0 is fixed.

c) AOS/VS 7.71 fixes problems with reading variable length records split across two labeled tapes.

d) All problems fixed by the 7.70_AGENT.PR_PAT.08 patch file have been corrected in source.

3) BROWSE Changes:

a) Numerous changes were made to the BROWSE help screens to fix spelling errors, make the screens more readable, and to clarify some functionality.

b) When supplying a template on the BROWSE command line and no files exist to match the template, BROWSE would put the user in the Windows screen and display the error '<template from command line> - Illegal filename character' at the bottom of the screen. BROWSE will now put the user in a screen with the message 'No files match argument(s).' 'Press any key to continue...'. Any keystroke will put the user into the Windows screen, since BROWSE has no files to view in this situation.

c) BROWSE normally displays a header containing file status information. But when the /NU switch is used, the initial screen displays a header with some helpful information for new users, and then subsequent screens display the normal header. On the initial screen, BROWSE/NU was incorrectly displaying the normal header and then immediately over-writing it with the new user header. BROWSE/NU will now display just the new user header on the initial screen, and then display the normal header on subsequent screens.

d) Browse did not properly recognise D412+, D462+ and D216+ models. This is now corrected.

e) In mode 2, there was a problem that caused lines to wrap too soon if there were more than two control (attribute) characters in the line. This problem is fixed, and the lines will properly wrap in mode 2.

4) HELP File Changes:

a) The :UTIL:XHELPB.CLI macro was corrected so that it properly displays dim and bright characters in HELP files.

b) Many of the HELP files were updated so that they properly display dim and bright characters when viewed with the HELPB or XHELPB macro which uses BROWSE.

5) CLI16 Changes:

a) Before 7.70, CLI16 turned the system manager privilege on and off for certain commands. The 7.70 CLI16 gives the user control with the PRIVILEGE command. However, sometimes the 7.70 CLI16 inadvertently turns the privilege off, not realizing the user wants it on. The 7.71 CLI16 corrects this problem, and it avoids inadvertently turning the privilege off.

b) There was a problem processing the QSNA command if both the /TYPE and /MEDIUM switches were used. The first switch was inadvertantly ignored. This is now fixed.

c) All problems fixed by the 7.70_CLI16.PR_PAT.01 patch file have been corrected in source.

6) CLI32 Changes:

1) If a son was proc'd with the /ESTR switch and the son returned an error code but not a string, then the /ESTR string was not set. Now, the /ESTR string will be set to the text which corresponds to the error code.

2) For disk unit type (DKU) files, use of [filename] previously caused CLI32 to terminate. Now, this will return an "Illegal file type for macro" error message.

3) There are instances where we allow a template with a trailing ':', for instance "SPACE/V :NET:<host>:". The 2.20 CLI32 reported errors when such templates were used. This now works correctly.

4) The MOVE/DELETE command did not properly move the UDA of DIRECTORY type files. This now works properly.

5) MOVE/FTA produced spurious errors when used with a source pathname that contained more than one entry in the pathname.

6) Commands using a /L switch sometimes returned spurious errors if they were preceeded by the command sequence "LIST/K;LISTFILE <filename>". This is now fixed.

7) The /ESTRING switch sometimes produced spurious errors when used more than once in the same macro. This is now fixed.

8) The /STREAM switch is now accepted by the QFTA command.

9) The [!loopend] psuedo macro did not work properly in macros create by a QBATCH/M command. This is now fixed.

10) The [!SUBSTRING] pseudo macro did not return fill characters when used with the /RIGHTFILL and /ITEM switches. This has been fixed.

11) [!READ] command was not recognizing ^D^D as end of file. This has been fixed.

12) An EXECUTE/S command was not returning the termination message in the STRING variable if another termination message was outstanding. This has been fixed.

13) A "^D^D^D^D" sequence would terminate a CLI even if it had sons. This has been fixed. The message "You have sons do you wish to terminate?" will be generated and the CLI will wait for a response.

14) A CX command would abort if the /MAX switch came before the /START switch on the command line. This has been fixed.

15) Lexical comments in nested conditionals were being ignored. This has been fixed.

16) The construct "<&>" was sometimes not being treated as a literal "&" instead the & was being treated as a continuation character. This has been fixed.

17) "Missing [or]" errors were not being generated when they should. Instead "extraneous [!else]" errors were being generated. This has been fixed.

18) Occasionally an "invalid page" error would be received after an EXECUTE/S command, followed by an X CLI command, followed by another EXECUTE/S command. This has been fixed.

19) The /TYPE switch on the QDISPLAY command was not properly restricting the QDISPLAY to queues of the specified type. This has been fixed.

20) When errors occurred during the execution of a VARx type command, the CLASS of the error returned was not consistent. This has been fixed. All errors during a VARx type command will now be treated as CLASS1 errors.

21) The command "WHO username:number" sometimes returned a "host does not exist error" when the specified process did not exist. It now returns a "process not in hierachy" error.

22) The /TYPE switch on the MOVE command was not properly restricting the files moved to the type specified. This has been fixed.

23) When a permanent file was moved via a MOVE command with the /REC or /DEL switch specified the moved file did not have permanence. This has been fixed.

24) Using the /FTA switch with the MOVE command while RMA was disabled did not work properly and produced a CLI traceback. This is now fixed.

25) CLI command lines longer that 256 characters caused a hang when running in batch. This now works properly.

26) Previously, when CLI32 encountered a heap overflow error, a traceback was output and then the CLI chained. A

traceback will no longer be output, and the CLI will only chain if necessary; in many instances of this error, the CLI can continue execution after the error occurs.

27) The /ERCL switch to the QSNA command now works properly.

28) The error "Unable to access network in this manner" was incorrectly returned when the PRTYPE or PRIORITY commands referenced remote processes. These commands now work properly. Note: due to a RMA restriction, these commands will not work properly when the remote process ID is greater than 255.

29) CLI macros can use the command line "@NULL [!READ]" to request a NEWLINE before continuing macro execution. Such macros occasionally failed with the "a macro file >10000 bytes requires .CLI extension" error. This problem is now fixed.

30) An extraneous ampersand (&) character was inserted at the beginning of alternate lines of files created by CREATE/M if each of the lines were preceeded by a right parenthesis. This problem is now fixed.

31) CLI macros that use the /M switch within an infinite loop led to a heap overflow error. This problem is now fixed.

7) DISPLAY Changes:

a) DISPLAY did not copy to the destination tape when using the command X DISPLAY/NOLIST/ALL @tape1 @tape2 when tape2 was an MTJ type device. This has been fixed.

b) All problems fixed by the 7.70_DISPLAY.PR_PAT.01 patch file have been corrected in source.

8) DUMP_II Changes:

a) DUMP_II was not always properly dumping directories with extended element sizes greater than 1. If the directory was dumped using a pathname of the format "DIR_NAME:TEMPLATE", and the template was not a # template, the primary element count of the directory recorded in the dump file would be incorrect. This caused "invalid primary element count" errors when you attempted to reload that directory or the files it contained. This was a rare problem, since the default directory element size is 1, unless a different size was specified when the LDU was created. This problem has been fixed to retain the correct information.

b) The /BUFFERSIZE switch was being ignored when dumping to remote tape drives across the network. The maximum 8K size was always being used regardless of the /BUFFERSIZE value. The /BUFFERSIZE switch now works properly and the default is still 8K when no /BUFFERSIZE switch is used.

c) DUMP_II was not giving a properly formated name to dump files for system areas. This has been corrected.

d) In AOS/VS 7.70, a template containing a leading "=" would incorrectly cause an "Illegal template character" error. This problem is now fixed and templates with leading "=" characters will be processed correctly.

9) EXEC Changes:

a) If limiting is not enabled for a queue the default maxtime will not be printed to the QOUT file or displayed when a QD/V is done. This change was made because maxtime is not enforced unless limiting is not enabled, and its presence in the QOUT file or the QD/V display may be misleading.

b) Resolved problems with changing stream priority with the CONTROL @EXEC PRIORITY command. Owner access (or superuser/operator) access is now required to issue this command.

c) XBAT.PR would crash if it received invalid data in place of device names. This has been fixed.

d) XBAT returned incorrect error messages when a user issued CONTROL @EXEC PRIORITY commands without a stream number. This has been fixed.

e) Superuser could not issue MOUNT requests when the ACL of :PER:MOUNTQ was OP,WR. This has been fixed.

f) EXEC was always converting jobnames to uppercase. Jobnames will no longer be converted to uppercase but will retain the case originally specified by the user. If a user specifies a lowercase jobname on the QBATCH command, a lower case jobname will be displayed by the QD/V command.

g) A problem which caused EXEC to crash with "EXEC unavailable, please log off and terminate this EXEC" has been fixed.

h) Exec was not closing the line when IAC panics occurred. This has been fixed.

i) XBAT was not returning an error when the QOUTPUT directory was full. This has been fixed.

j) The $t_stream_state structure and the INIT_DEVICE entry declaration were changed in COOP_TOOLKIT.IN so that the status bits are now aligned, to be consistent with the EXEC interface. These changes are reflected in the COOP_TOOLKIT.LB and COOP_MAIN.OB files.

k) In SAMPLE_COOP.C, the INIT_DEVICE declaration was changed, to be consistent with the COOP_TOOLKIT.IN change.

l) The CX LIMIT command was not setting page limits properly on print queues, and the incorrect error "stream not found" was returned. This command now works properly.

m) The ?EXEC system call would sometimes hang with the ?XFSTS function. This problem is now fixed.

n) A problem which could lead to an EXEC fatal error "Invalid state reached" has been fixed.

o) The "Control @EXEC MODIFY" and "QMODIFY" commands were not modifying the /DESTINATION, /QLIST, or /QOUTPUT names. These names can now be modified with these commands.

p) Issuing an ?EXEC/?XFBAT call and specifying an output file would cause EXEC to return the error "file does not exist" if the output file did not exist. EXEC now create the output file if it does not exist.

q) In AOS/VS 7.71, XLPT handling of cleanup files was incorrectly changed so that cleanup files were printed after every print request to a printer that has binary enabled.

   With AOS/VS 7.71, XLPT functionality is corrected so that cleanup files are only printed after /BINARY or /PASSTHRU requests to a printer that has binary enabled.

   Patchkit 7.71_XLPT.PR_CLEANUP.ALL_OPAT is now provided to make XLPT function as it did in AOS/VS 7.70, where the cleanup file is printed after every request to a printer that has binary enabled.

r) When you QPRINT an empty file, XLPT normally does not print anything, not even headers that may be associated with the printer. Patchkit 7.71_XLPT.PR_EMPTY.FILE_OPAT is now provided to change XLPT so that the headers are printed, even if the file is empty.

s) All problems fixed by the 7.70_EXEC.PR_PAT.06 patch file have been corrected in source.

t) All problems fixed by the 7.70_XLPT.PR_PAT.01 patch file have been corrected in source.

10) REPORT Changes:

a) REPORT did not handle /DEVICES=xx properly when xx was the device code of a H.A.D.A./MV controller. This problem has been fixed.

b) REPORT device error format for the H.A.D.A./MV has changed slightly. References to Sauna have been changed to IOP and both the device position letter and number are reported.

c) REPORT was ignoring the /LPP switch. This has been fixed.

d) Output for system panic events was not displaying all values. This has been fixed.

11) SCOM Changes:

a) A wrong error message was displayed when the list file is written to a directory to which a user has no write access. This problem has been fixed.

12) Terminal Services Changes:

a) A problem that effectively disabled the ?CFF (form feed on ?OPEN) functionality was fixed.

b) A problem with the 68K IACs, that occurred when more than 4 different EDIT READ programs attempted to establish on a single controller, was fixed. This problem led to a 34036 panic. In addition to fixing the panic problem, the maximum allowable number of EDIT READ programs per controller was raised from 4 to 8.

c) A problem with IAC timing logic, that could result in corrupted timing chains as well as IAC page 0 corruption, was fixed. This problem could cause 34045 panics or hung IAC lines.

d) A Stack Overflow problem with the Eclipse based IAC's(ie IAC16,IAC8) has been corrected.

e) A problem introduced in AOS/VS 7.70 that resulted in incorrect RETURN COLUMN data for SCREEN MGT ?READ's, when the column equaled the CPL variable, has been fixed.

f) A MODEM connect problem, that could result in garbage being displayed to the Terminal during a LOGON attempt, has been fixed.

g) An ITC disconnect problem, that could result in hung lines, or in 34040 or 34047 panics, has been corrected in AOS/VS 7.71.

h) A number of problems, that were resulting in panic sub-code 76(Timeout), have been fixed. These panics were typically seen on controllers with unterminated lines or powered off PC's, which resulted in execessive code executed by the controller interrupt handlers.

i) A design change introduced in AOS/VS 7.70, that disabled Page Mode with Binary ?WRITE's, was corrected to revert back to AOS/VS 7.69 functionality. Binary ?WRITE will no longer disable Page Mode.

j) A design change, introduced in AOS/VS 7.70, that looked at characters for delimiter checking, after 7BIT masking had been applied, was corrected to revert back to AOS/VS 7.69 functionality, where delimiter checking was done against the original characters in the ?WRITE buffer. Certain applications, which were taking advantage of the 7.69 functionality, were losing ?WRITE data, as a result of the change.

k) Screen Edit LEFT ARROW and RIGHT ARROW handling performance were improved, by eliminating unnecessary repainting of the screen.

l) A boundary condition problem with the Screen Edit ^U and ^K handling, where an extra line was erased if the field ended in column 79., was corrected.

m) Two problems with Screen Edit "No Echo with Pre-Display" functionality were corrected. The first problem was not properly validating the ?READ "relative position" data, which could result in HOST memory corruption. The second problem was the "Pre-Display" buffer was not scanned properly, which would result in DELETE's leaving characters on the screen.

n) A problem using Function Key delimiters, where erroneous "Line Too Long" errors were occuring, was corrected.

o) A problem with certain IAC's, that lack an Atomic HOST/IAC interface, that could result in a system hang, was corrected. IAC's that may have seen this problem are CPI, MCP, LMC, and LAC12.

p) An initialization problem with AUTOBAUD functionality, that would result in AUTOBAUD processing after the AUTOBAUD characteristic had been turned off, was corrected.

q) A problem with the Screen Edit ?ESBE flag("?READ Termed on Input Buffer Empty"), where the flag was not properly cleared, was corrected. This problem could result in application programs, such as KERMIT, to incorrectly timeout and break their connections.

r) An ITC/LTC problem, where characteristic data was not properly set at FIRST OPEN, was corrected. This problem could result in improper connection states to exist between the PMGR and TRANSPORT engines and lead to hung lines.

s) A problem, with LAST CLOSE handling not properly tearing down outstanding ?SEND's to a CONSOLE, was corrected. This problem could result in "Device in Use" errors, on subsequent attempts to ENABLE the lines.

t) A problem with the older ECLIPSE based IAC's, that could result in a single byte buffer overwrite, was corrected.

u) A problem, with older ECLIPSE based IAC's, where turning on ?CTO(CHAR/ON/TO) was not timing out IO in progress, at the time of the change, was corrected.

v) A problem with aborting for "Priority Reads", that could cause a 7300 panic, was corrected.

w) An ITC/LTC problem where ports would go into disabled mode when logging out/disconnecting from the ITC was corrected.

x) A problem in "Drop Type Ahead" functionality not working with the TPMS product was corrected.

13) VSGEN Changes:

a) Disk specifications including SWAP and PAGE allow unit numbers 0-F hexidecimal where previous revisions only allowed 0-7.

b) VSGEN has been corrected to accept either ?HRDFLC or ?HOFC as the Hardware Output Flow Control characteristic.

c) VSGEN has been corrected to accept a series of line numbers with only spaces used for delimiters.

d) A problem with "Too Many Channels", that would result in a VSGEN FATAL ERROR condition has been corrected.

e) A problem, where a system could be build without a CON0 entry, has been fixed.

f) VSGEN has been corrected to properly accept underscores(_) in the Initial IPC or PROGRAM strings.

14) SMI Changes:

a) A problem, where an attempt to QCAN a JOB with a sequence number > 16384. would cause a "Fixed Point Overflow" TRAP, has been corrected.

15) PCOPY changes:

a) 2 problems, involving support for the new Data Compression Option for several new Magnetic Tapes, have been corrected.

b) A problem, that prevented PCOPY from handling a Device on the 2nd IOC, has been fixed.

16) Miscellaneous Changes:

a) The HELP file CLI32.CMD.PRIVILEGE is obsolete because the same HELP file applies to both CLI16 and CLI32. This obsolete HELP file is now included in the OBSOLETE_FILES.CLI list in the :UPDATE:7.71 directory.

5 Notes and Warnings

5.1 Notes

1) Normally, an estimated amount of system CPU resources used during AOS/VS system calls is charged against the user's accumulated CPU time. You can install an optional patch, 7.71_AOSVS_SYSCALL.CHARGE_OPAT, to enable more accurate accounting of user CPU time. This patch will cause the actual amount of CPU time spent in the system on behalf of a user process to be added to that user's accumulated CPU time.

   System calls ?RUNTM, ?PSTAT and ?XPSTAT can be used to report user CPU time use as before, but only when this patch is not installed. Otherwise, the CPU time used will have the Operating System component of CPU time added to the user's CPU time spent. This means that the user CPU time number returned in ?RUNTM, ?PSTAT and ?XPSTAT will include any operating system CPU time spent on behalf of that user.

   The affected number returned in the ?RUNTM, ?PSTAT, and ?XPSTAT system calls is at offset ?GRCH for the ?RUNTM system call, ?PSCH/?PSCL for the ?PSTAT system call, and ?XPCH (double word) for the ?XPSTAT system call.

2) AOS/VS Rev 7.71 only supports TDFTs (Terminal Dependent Function Tables) in the following environments; CPI, MCP1, LAC-12, IAC-16, IAC-8 (non 68k version). TDFT support is not planned for other controllers.

3) In revisions prior to AOS/VS 7.70, consoles associated with IAC-24s were improperly numbered. This problem is now fixed. AOS/VS distributes the names so that they alternate between the two processors on the IAC-24 (the even numbered lines on one processor and the odd on the other). This is in keeping with console numbering on the other terminal controllers with multiple processors.

   However, the result of this fix is that these consoles will have different numbers when rev 7.71 is installed. Specifically, if the lowest-numbered console on the IAC-24 is @CONx, then the console number for a particular terminal changes as follows:

	7.69	7.70
	@CON(x+0)	@CON(x+0)
	1	2
	2	4
	:	:
	11	22
	12	1
	13	3
	14	5
	:	:
	23	23

   Optional patch(7.71_AOSVS_IAC24.CONS_OPAT) is provided to revert to the pre AOS/VS 7.70 line numbering scheme.

4) The :SYSGEN directory contains two new VSGEN files: VSGEN.CON and VSGEN.HLP. These files are used by VSGEN's new line group editor. Anyone using the new T (TERMINAL) command or the MODIFY command from the line group editor's main menu must have write access to the VSGEN.CON file.

5) Beginning in AOS/VS 7.70, two sets of IAC .PR files are shipped. The files xxxRS.PR are the IAC files that were shipped with AOS/VS 7.69, and are executed via the PID 1 PMGR process. To run these files the KANJI option must be GENNED or a special optional patch must be used. The xxxZRS.PR files are the IAC files that are executed via RING 0 Terminal Services. These IAC's represent the default Terminal Services functionality.

6) Intelligent asynchronous controllers such as IAC-8, IAC-16, IAC-24, ITC-128, etc., allocate a portion of their memory for input and output buffers, also called ring buffers. The amount of memory available varies from revision to revision. If you have taken the VSGEN default answers for Input buffer

byte length and Output buffer byte length, you will not have a problem. But if you specified larger-than-default answers or if you select Asian language or ANSI terminal support on some controllers, your system may use more space than actually exists. Your system will come up, but the controller will not function properly. During system initialization the system will print the message "IAC DEVICE CODE xxx IAC memory oversubscribed." You will have to generate a new system with smaller sizes for input and output buffers.

The following table shows the total and average amounts of memory available for ring-buffer allocation (for average space, we round down odd numbers to the next even number), using actual patch space for files, which may be pre-patched, as shipped. If you apply additional patches, the ring buffer space may change. All values are decimal bytes.

Note that this table should be used as a guideline. Some variance on your system is possible.

The following table lists changes for AOS/VS II 3.01, compared with AOS/VS II 3.00 release. Refer to the AOS/VS II 3.00 release notice, part number 085-000930, for the complete list.

Ring buffer space for		Total RB Space	RB Space Per Line
CPI/24:			
no options		9684	402
ansi		4580	190
IAC-8:			
no options		8976	560
ansi		4842	302
IAC-16:			
no options		4404	136
ansi	- 10 lines	3702	184
	- 11 lines	2842	128
	- 12 lines	1982	82
	- 13 lines	1122	42
	- 14 lines	262	8
	- 15 lines	insufficient memory	
	- 16 lines	insufficient memory	
IAC-L/RMSC:			
no options		3642	112
ansi	- 10 lines	2940	146
	- 11 lines	2080	94
	- 12 lines	1220	50
	- 13 lines	360	12

- 14 lines	insufficient memory	
- 15 lines	insufficient memory	
- 16 lines	insufficient memory	
LAC-12:		
no options	16914	704
ansi	11810	492
LMC:		
no options	20338	1270
ansi	16098	1006
MCP1:		
no options	20676	1292
ansi	16436	1026
ITC128 and LTC64:		
no options	81396	1270
ikis ii - 100 lines	33350	666
ITC128A		
no options	2879168	11246
ikis ii - 128 lines	2565048	10018
IAC8-3:		
no options	46240	2890
IAC24:		
no options	275680	11486
ikis ii	200056	8334
LAC16, LAC32, and FCM32:		
no options	244716	7646
ikis ii	160868	5026
Integrated LAC16:		
no options	179180	5598
ikis ii	95332	2978
LMC8:		
no options	307872	19242
ikis ii	240472	15028
Integrated LMC8:		
no options	242336	15146
ikis ii	174936	10932
IWC - 23 line:		
no options	729928	30412
ikis ii	654304	27262

5.2 Warnings

There are no new warnings for AOS/VS 7.71 Update. All these warnings also applied to AOS/VS 7.70

1) With AOS/VS Terminal Services, much of the system call processing related to terminals is processed in Ring 0 of the operating system. This is in contrast with revisions prior to 7.70 when portions of this processing was the responsibility of PID 1 PMGR. While PID 1 PMGR does retain some minor responsibilities with Rev 7.71, CPU utilization associated with consoles should not be measured exclusively by examining this PID's CPU consumption. The AOS/VS Monitor Rev 5.30 is equipped with tools to aid in accurately measuring terminal overhead. See that product's release information for details.

2) Consoles supported by Terminal Services will return a PID of 0 if an application does a ?GPORT on the associated global port number. For example, an application does an ?ILKUP system call on @CONSOLE. Next the returned global port number is given to the ?GPORT system call and the PID returned in AC1 is 0. If the application then uses this PID (0) has input to the ?PNAME system call it would be returned an error since PID 0 is invalid input for ?PNAME.

3) THERE IS A PARTIAL REV-LOCK BETWEEN AOS/VS REV 7.71 AND TERMCONTROLLER SOFTWARE! If you are running the XNS protocol on your ITC128 or LTC64 you should load TERMCONTROLLER Software Rev 22025 or greater. If you are running the TCPIP protocol on these controllers you should load TERMCONTROLLER Software Rev 3.36 or greater.

   Failure to use these new TERMCONTROLLER software revisions can result in the following problem. If you used VSGEN to create system specifying "N" to the question "TERMMANAGER download?" as part of IAC of type "128" or "64" gen, you must install the appropriate new revision of TERMCONTROLLER software before running that system. If you fail to do this, ITC-128s or LTC-64s on your system will fail to boot.

4) The command sequence ^O ^S ^O yields different results when issued via a keyboard attached through an ITC128 or LTC64 versus other types of controllers. The ^S will not be ignored and must be followed by a ^Q in order to restore output. This is a known restriction and will not change in a future revision of AOS/VS.

5) A new line interface was created between AOS/VS 7.70 and the AOS/VS Performance Package 5.30 to provide additional functionality. This interface re-implements the Line Monitor

features which allow you to collect data about "Response Time" and "Think Time" for each terminal connected to your system. The new Line Monitor allows all types of terminal connections to be monitored as well as allowing more than 128 connections to be monitored.

With AOS/VS 7.71, if Line Monitoring is enabled for the AOS/VS Performance Package, either by SYSTUNE or by patching location GURUFLAG to 1, revisions of the AOS/VS Performance Package prior to 5.30 will no longer work.

6) The BROWSE utility will NOT run on any terminal that does not support the "Read Model ID" command. This includes D2 and D200 type terminals.

7) If you use 150MB or greater tape cartridge media to move data between systems, please note that there are tape interchange restrictions with the latest versions of DUMP_II and LOAD_II.

AOS/VS 7.71 allows the DUMP_II and LOAD_II programs to access more than 65534 tape records in one tape file. Revisions prior to AOS/VS 7.70 did not. Tapes containing these "high record" counts cannot be read by those earlier revisions. To avoid this problem, use large buffer sizes when using DUMP_II/LOAD_II for media interchange (16KB for 150MB cartridge and 32KB for 2GB cartridge if possible).

8) AOS/VS Terminal Services AUTOBAUD functionality will only work on terminals that are either set to 7 data bits/mark parity OR 8 data bits/no parity.

9) The optional patch <5.30,5.50>_FTA.PR_PAT must be applied in order for EXEC to properly handle queues of type "FTA".

10) The optional patch <5.30,5.50>_SVTA.PR_PAT must be applied in order for SVTA to properly handle terminal characteristics in conjunction with AOS/VS Revision 7.71.

11) The optional patch 3.51_TPMSCCP.PR_PAT must be applied in order for TPMS to work properly with AOS/VS Revision 7.71.

12) If you use a 150 Mbyte or greater tape cartridge devices, note that only the DUMP_II/LOAD_II programs allow the full capacity of the tape to be accessed. All other AOS/VS utilities that access tape media (such as DISPLAY, CLI COPY command and AGENT labeled tape) cannot access record counts greater than 65534 and will have unpredictable results if used to access or create a tape file with greater record counts.

13) There are various line printer controllers that incorrectly return the status of the line printer (i.e. status indicates that the line printer is on-line and ready when it is off-

line or even powered off). Because of this incorrect status, the process (including EXEC if executing a CONTROL @EXEC START queue @line-printer) will hang when trying to open the line printer. To avoid this problem ensure that the line printer is powered on and is on-line before trying to access it.

14) The patch 5.61_XTS_PMGR_RING0_PAT must be intalled in XTS.PR to fix the XTS and PMGR IPC interface problem where XTS uses PID 1 to determine IPC is from PMGR. In AOS/VS Revision 7.71, PMGR resides in Ring 0 and this check is no longer true.

15) For MV/3000 Series machines, AOS/VS SYSBOOT revision 7.71 expects the name of the microcode file to be MV3.MCF; so, if you are upgrading from a revision prior to 7.70, before installing Revsion 7.71, you should change the name of this file from MV35.MCF to MV3.MCF. If you do not change the name of the file, you will have to change the name of the default microcode file using the Technical Maintenance Menu option 9.

6 Documentation

6.1 Manuals and Templates

In the list below, asterisks (*) mark manuals that are new or have been revised since AOS/VS Rev. 7.70.

	Part Number	Name
	014-001344-02	Binders for the manuals listed below
	069-000031-02	Learning to Use Your AOS/VS System
	069-000203-02	Using the AOS/VS System Management Interface (SMI)
*	069-000231-01	AOS/VS and AOS/VS II Glossary
	069-000293-00	Starting and Updating Preinstalled AOS/VS
	093-000197-04	SPEED Text Editor (AOS and AOS/VS) User's Manual
	093-000242-02	AOS/VS Macroassembler (MASM) Reference Manual
	093-000245-02	AOS/VS Link and Library File Editor (LFE) User's Manual
	093-000246-01	AOS/VS Debugger and File Editor User's Manual
	093-000249-02	SED Text Editor User's Manual (AOS and AOS/VS)
	093-000335-01	AOS/VS System Concepts
	093-000361-03	SED Text Editor template (new color - grey)
	093-000396-01	AOS/VS Debug/FED template (new color - grey)
*	093-000540-03	AOS/VS and AOS/VS II Error and Status Messages
*	093-000541-03	Managing AOS/VS and AOS/VS II
	093-000542-02	AOS/VS, AOS/VS II, and AOS/RT32 System Call Dictionary, ?A Through ?Q, with addendum 086-000195-00

	093-000543-02	AOS/VS, AOS/VS II, and AOS/RT32 System Call Dictionary, ?R Through ?Z, with addendum 086-000196-00
*	093-000646-01	Using the CLI (AOS/VS and AOS/VS II), with addendum 086-000200-00
	093-000650-01	AOS/VS and AOS/VS II Menu-Driven Utilities template
	093-000675-02	Installing, Starting, and Stopping AOS/VS

6.2 Documentation-Changes Files

Print the documentation-changes files listed below after installing your software. (The files are located in directory :UTIL.) Follow the instructions on the first page of each file. The documentation is incomplete without them. Asterisks (*) mark files that have been revised since AOS/VS Revision 7.70.

	Filename	For Manual
	069_000031_02	Learning to Use Your AOS/VS System
	069_000293_00	Starting and Updating Preinstalled AOS/VS
	093_000242_02	AOS/VS Macroassembler (MASM) Reference Manual
	093_000245_02	AOS/VS Link and Library File Editor (LFE) User's Manual
*	093_000246_01	AOS/VS Debugger and File Editor User's Manual
*	093_000335_01	AOS/VS System Concepts
*	093_000543_02	AOS/VS, AOS/VS II, and AOS/RT32 System Call Dictionary, ?R Through ?Z
*	093_000646_01	Using the CLI (AOS/VS and AOS/VS II)

7 Software

7.1 Media

Model Number	Part Number	Description
31133H	071-001465-02	reel-to-reel tape (1600-bpi) Vol 1
	071-001571-02	reel-to-reel tape (1600-bpi) Vol 2
31133B	061-000196-04	1/8-inch cart.tape (21 Mbyte) Vol 1
	061-000557-02	1/8-inch cart.tape (21 Mbyte) Vol 2
31133J	070-000377-02	1/2-inch cart.tape (130 Mbyte) Vol 1
31133A	079-000103-02	1/4-inch cart.tape (150 Mbyte) Vol 1
31133G		34 96-tpi 5-1/4 inch diskettes(730 Kb)
	081-000653-04	STARTER Diskette 1 of 3
	081-000665-04	STARTER Diskette 2 of 3
	081-001092-02	STARTER Diskette 3 of 3
	081-000666-04	OS UTILITIES MEDIA VOL1
	081-000667-04	OS UTILITIES MEDIA VOL2
	081-000762-04	OS UTILITIES MEDIA VOL3
	081-000763-04	OS UTILITIES MEDIA VOL4
	081-000764-04	OS UTILITIES MEDIA VOL5
	081-000765-04	OS UTILITIES MEDIA VOL6
	081-000792-03	OS UTILITIES MEDIA VOL7
	081-000793-03	OS UTILITIES MEDIA VOL8
	081-000810-03	OS UTILITIES MEDIA VOL9
	081-000901-03	OS UTILITIES MEDIA VOL10
	081-000970-03	OS UTILITIES MEDIA VOL11
	081-000975-03	OS UTILITIES MEDIA VOL12
	081-001034-02	OS UTILITIES MEDIA VOL13
	081-001035-02	OS UTILITIES MEDIA VOL14
	081-001036-02	OS UTILITIES MEDIA VOL15
	081-001038-02	OS UTILITIES MEDIA VOL16
	081-001042-02	OS UTILITIES MEDIA VOL17
	081-001043-02	OS UTILITIES MEDIA VOL18
	081-001054-02	OS UTILITIES MEDIA VOL19
	081-001079-02	OS UTILITIES MEDIA VOL20
	081-001080-02	OS UTILITIES MEDIA VOL21
	081-001081-02	OS UTILITIES MEDIA VOL22
	081-001082-02	OS UTILITIES MEDIA VOL23
	081-001083-02	OS UTILITIES MEDIA VOL24
	081-001084-02	OS UTILITIES MEDIA VOL25

081-001085-02	OS UTILITIES MEDIA VOL26
081-001086-02	OS UTILITIES MEDIA VOL27
081-001087-02	OS UTILITIES MEDIA VOL28
081-001088-02	OS UTILITIES MEDIA VOL29
081-001089-02	OS UTILITIES MEDIA VOL30
081-001121-00	OS UTILITIES MEDIA VOL31
081-001122-00	OS UTILITIES MEDIA VOL32
081-001123-00	OS UTILITIES MEDIA VOL33
081-001124-00	OS UTILITIES MEDIA VOL34

7.2 Files

The files shipped with AOS/VS Revision 7.71 are listed in a separate text file that you can print. The pathname of this file is :UTIL:7.71_AOSVS_FILES.

7.3 Organization

NOTE - The DOCUMENTATION and SYSTEM prompts will usually refer to the "OS SYSTEM MEDIA", while the actual physical media has been labeled as "OS UTILITIES MEDIA". While we apologize for the inconsistency, the two designations refer to one and the same. This document will refer to "OS SYSTEM MEDIA".

1) H and B Tape Medium Organization

   Magnetic Tape Medium (1600-bpi magnetic tape, and 21 Mbyte cartridge tape):

   The AOS/VS Revision 7.71 H and B Tape media consists of two volumes labeled "OS SYSTEM MEDIA Vol 1" and "OS SYSTEM MEDIA Vol 2". Any time you are instructed to load from a tape labeled "OS SYSTEM MEDIA", you will now be expected to load both Vol 1 and Vol 2.

   Volume 1

Tape file	Contents	Description
0	TBOOT	Tape bootstrap
1	FIXUP	Disk fixer utility
2	DFMTR	Disk formatter
3	TBOOT	Tape bootstrap -- unused
4	TBOOT	Tape bootstrap -- unused
5	STARTER.SYS	Starter program
6	TBOOT	Tape bootstrap -- unused
7	Tape dumpfile 1	Operating system and utilities
8	:UPD:SYSMGR	System manager profile

Volume 2

Tape file	Contents	Description
0	TBOOT	Tape bootstrap
1	FIXUP	Disk fixer utility
2	DFMTR	Disk formatter
3	TBOOT	Tape bootstrap -- unused
4	TBOOT	Tape bootstrap -- unused
5	STARTER.SYS	Starter program
6	TBOOT	Tape bootstrap -- unused
7	Tape dumpfile 2	Help files and utilities
8	:UPD:SYSMGR	System manager profile

The formats of the two volumes are the same, with the exception of file seven. What was previously contained in file seven has been split between file seven on volume 1 and file seven on volume 2. Basically, :UTIL:#, HELP:#, and UPDATE:# have been moved to the second volume, because the H and B tape mediums were too small to hold the entire AOS/VS product.

Note that when using the OS SYSTEM MEDIA for any other purpose, such as loading the default operator profile, or starting from tape, either volume may be used. Also, during the loading process, it is not critical that you load volume 1 before loading volume 2, only that you load them both.

2) J and A Tape Medium

Magnetic tape medium organization (130 and 150 Mbyte cartridge tape).

The AOS/VS Revision 7.71 J and A medium consists of one volume, whereas H and B media consist of two volumes. Basically the two file 7 dump files for the H and B media are contained in one file for the J and A media.

Tape file	Contents	Description
0	TBOOT	Tape bootstrap
1	FIXUP	Disk fixer utility
2	DFMTR	Disk formatter
3	TBOOT	Tape bootstrap -- unused
4	TBOOT	Tape bootstrap -- unused
5	STARTER.SYS	Starter program
6	TBOOT	Tape bootstrap -- unused
7	Tape dumpfile	Operating system and utilities
8	:UPD:SYSMGR	System manager profile

3) Diskette Medium Organization

Diskette	Part Number	Contents
1	081-000653-04	STARTER 1 of 3
2	081-000665-04	STARTER 2 of 3
3	081-001092-02	STARTER 3 of 3
4	081-000666-04	VOL1 (Second dump file)
5	081-000667-04	VOL2 (Second dump file)
6	081-000762-04	VOL3 (Second dump file)
7	081-000763-04	VOL4 (Second dump file)
8	081-000764-04	VOL5 (Second dump file)
9	081-000765-04	VOL6 (Second dump file)
10	081-000792-03	VOL7 (Second dump file)
11	081-000793-03	VOL8 (Second dump file)
12	081-000810-03	VOL9 (Second dump file)
13	081-000901-03	VOL10 (Second dump file)
14	081-000970-03	VOL11 (Second dump file)
15	081-000975-03	VOL12 (Second dump file)
16	081-001034-02	VOL13 (Second dump file)
17	081-001035-02	VOL14 (Second dump file)
18	081-001036-02	VOL15 (Second dump file)
19	081-001038-02	VOL16 (Second dump file)
20	081-001042-02	VOL17 (Second dump file)
21	081-001043-02	VOL18 (Second dump file)
22	081-001054-02	VOL19 (Second dump file)
23	081-001079-02	VOL20 (Second dump file)

24	081-001080-02	VOL21 (Second dump file)
25	081-001081-02	VOL22 (Second dump file)
26	081-001082-02	VOL23 (Second dump file)
27	081-001083-02	VOL24 (Second dump file)
28	081-001084-02	VOL25 (Second dump file)
29	081-001085-02	VOL26 (Second dump file)
30	081-001086-02	VOL27 (Second dump file)
31	081-001087-02	VOL28 (Second dump file)
32	081-001088-02	VOL29 (Second dump file)
33	081-001089-02	VOL30 (Second dump file)
34	081-001121-00	VOL31 (Second dump file)
35	081-001122-00	VOL32 (Second dump file)
36	081-001123-00	VOL37 (Second dump file)
33	081-001124-00	VOL34 (Second dump file)

To create a backup diskette set of system and utility files, use the SYSDISKETTE.CLI macro. Type the following:

```
) SUPERUSER ON <NL>
Su) DIR :SYSGEN <NL>
Su) SYSDISKETTE <NL>
```

The macro will copy STARTER.SYS onto diskettes 1, 2, and 3. For diskette 4, the macro will first dump PROFILE, VOL1 and then prompt you to first remove the diskette and then insert it again. You can ignore this, and just press NEW LINE to write a second VOL1 (dump file) to this diskette. For the remaining diskettes, the macro will prompt you to insert each diskette.

8 Installation Instructions

8.1 For New Users

Once you have set up your computer hardware as described in your installation manual, and installed your clock battery, you are ready to turn on the power and bring up easy-to-use AOS/VS. Your AOS/VS operating system has been pre-installed on your hard disk, so it is not necessary to load it from diskettes or tape.

The power-up sequence is described in detail in Chapter 2 of "Starting and Updating Pre-installed AOS/VS" (069-000293-00), and "Starting and Updating Pre-installed AOS/VS on ECLIPSE MV/5000 DC Series Systems" (069-000481-00) with "Addendum to Starting and Updating Pre-installed AOS/VS on ECLIPSE MV/5000 DC Series Systems" (086-000171-00).

8.2 For Upgrading from a Previous Revision

If you are loading a new revision of the operating system over the previous revision on your disk, follow the procedure below to prevent the loss of important information.

a) Some users modify :UP.CLI, or change the passwords of the OP and/or SYSMGR profiles. If you have not made changes to released macro files, and have not changed the passwords of OP or SYSMGR, skip to step b) below.

   * Enter the CLI from SMI by pressing NEW LINE twice from the SMI Main Menu.

   * Turn on Superuser, as follows:

) SUPERUSER ON <NL>

   * Position yourself in the root directory, as follows:

     Su) DIRECTORY : <NL>

   * Copy UP.CLI (and any other macros in the root that you have modified), as follows:

     Su) COPY UP.CLI.XXX UP.CLI <NL>

* Position yourself in the :UPD directory, as follows:

```
Su) DIRECTORY :UPD <NL>
```

* Copy SYSMGR and OP, as follows:

```
Su) COPY SYSMGR.XXX SYSMGR <NL>
Su) COPY OP.XXX OP <NL>
```

* Return to the SMI Main Menu, as follows:

```
Su) BYE <NL>
```

b) Shut down the system, following the instructions in Chapter 5 of "Using the AOS/VS System Management Interface (SMI)" (069-000203-02).

c) Load the new release, following the procedures described in chapters 5 or 6 "Loading Releases and Updates from Tape/Diskettes" in "Starting and Updating Pre-installed AOS/VS" (069-000293-00), and "Starting and Updating Pre-installed AOS/VS on ECLIPSE MV/3500 DC and MV/5000 DC Series Systems" (069-000481-03).

NOTE: AOS/VS Revision 7.71 31133B and 31133H tape media consists of 2 volumes, and the following procedural changes should be noted.

Where there was previously one volume of system tape media labeled "OS SYSTEM MEDIA", there are now two volumes labeled "OS SYSTEM MEDIA Vol 1" and "OS SYSTEM MEDIA Vol 2". Any time you are instructed to load software from a tape labeled "OS SYSTEM MEDIA", you should load both Vol 1 and Vol 2.

If you are running the Starter program, you load system software by selecting entry 3 (Load new system software on your disk) from the "Build or Update System Disk Menu", or by typing the keyword SOFTWARE. Either way, you are placed in the "Load New System Software" screen. Here, you are prompted to mount the tape as follows:

```
Mount the "OS SYSTEM MEDIA" on unit @MTJ0
Press NEW LINE when ready.
```

Mount the tape labeled "OS SYSTEM MEDIA Vol 1" and proceed by pressing NEW LINE. When the tape has finished loading, you are returned to entry 3 of the "Build or Update System Disk Menu". Press NEW LINE to return to the "Load New System Software" screen. Once again, you are prompted to mount a tape:

```
Mount the "OS SYSTEM MEDIA" on unit @MTJ0
Press NEW LINE when ready.
```

Remove the first volume, and insert the volume labeled "OS SYSTEM MEDIA Vol 2". Press NEW LINE to begin loading the software from the second tape volume. Proceed normally after the second volume has loaded.

Note that when using the OS SYSTEM MEDIA for any other purpose, such as loading the default operator profile, or starting from tape, either volume may be used. In the loading processes described above, it is not critical that you load volume 1 before loading volume 2, only that you % load them both. p() The SYSTAPE.CLI macro that is included with your software and resides in the :SYSGEN directory optionally produces two volumes that are equivalent to the two volumes of OS SYSTEM MEDIA. You must use the /TWO_VOLUMES switch unless you have deleted or excluded some of the files that are supplied by Data General; if you exclude some of the files on your disk from your customized system tape, you will likely be able to fit everything on one volume.

d) Bring up the system and log on as OP or sysmgr. Since you copied :UPD:SYSMGR to UPD:SYSMGR.XXX, the SYSMGR password is now SYSTEM_MANAGER.

e) If you copied any or all of the files :UP.CLI, :UPD:SYSMGR, or :UPD:OP then proceed with the following steps:

   * Enter the CLI from SMI by pressing NEW LINE twice from the SMI Main Menu.

   * Turn on Superuser, as follows:

) SUPERUSER ON <NL>

   * Position yourself in the root directory, as follows:

     Su) DIRECTORY : <NL>

   * Restore UP.CLI (and any other macros in the root that you have modified), as follows:

     Su) DELETE UP.CLI; RENAME UP.CLI.XXX UP.CLI <NL>

   * Position yourself in the :UPD directory, as follows:

     Su) DIRECTORY :UPD <NL>

   * Restore SYSMGR and OP, as follows:

     Su) DELETE SYSMGR; RENAME SYSMGR.XXX SYSMGR <NL>
     Su) DELETE OP; RENAME OP.XXX OP <NL>

* Return to the SMI Main Menu, as follows:

Su) BYE <NL>

f) You are now ready to resume normal work activity.

9 Preparing a Software Trouble Report (STR)

Gathering STR Information

If you find an error in AOS/VS, its utilities or its documentation, or if you have suggestions to make about the product, please fill out and return a Data General Software Trouble Report (STR). (If your contract permits, you may report the information called for to your Data General representative.) You should use the newly revised on-line STR form (pathname :UTIL:STR_FORM_AOSVS).

See Chapter 10 in "Managing AOS/VS and AOS/VS II" for help in filling out the STR.

[End of "AOS/VS for the MV DC Series Update Notice"]