

1  
85/10/02

NOS/VE 1.1.3 OPERATING SYSTEM

LEVEL 644

SOFTWARE RELEASE BULLETIN

Control Data Corporation recommends that the Software  
Release Bulletin be read in its entirety prior to any  
NOS/VE installation.

## Software Release Bulletin

## Table of Contents.

1.0 OVERVIEW . . . . .	1-1
1.1 PURPOSE OF SRB . . . . .	1-1
1.2 POST SRB PROBLEM NOTIFICATION . . . . .	1-1
1.3 SYSTEM CONTENT . . . . .	1-2
1.3.1 OPERATING SYSTEM . . . . .	1-2
1.3.2 PRODUCT SET . . . . .	1-2
1.3.3 OTHER PRODUCTS . . . . .	1-2
1.4 WARNINGS AND RESTRICTIONS . . . . .	1-3
2.0 SYSTEM INSTALLATION NOTES . . . . .	2-1
2.1 INSTALLATION . . . . .	2-1
2.1.1 NOS INSTALLATION . . . . .	2-1
2.2 NOS/VE 1.1.2 - NOS/VE 1.1.3 INSTALLATION AND UPGRADE DIFFERENCES . . . . .	2-4
2.2.1 SYSTEM START UP COMMANDS . . . . .	2-4
2.2.2 SYSTEM SHUT DOWN COMMANDS . . . . .	2-5
2.2.3 SITE COMMAND LIBRARY . . . . .	2-5
2.2.4 OPERATOR COMMAND LIBRARY . . . . .	2-5
2.2.5 RELOADING FILES . . . . .	2-6
2.2.6 USING NOS/VE WITH 834/639 PERIPHERALS . . . . .	2-7
2.3 NOS/VE INSTALLATION . . . . .	2-9
2.4 MAIL/VE INSTALLATION . . . . .	2-16
2.5 C170 COMMON PRODUCTS . . . . .	2-18
2.6 NOS/BE INSTALLATION . . . . .	2-20
2.7 OPERATOR COMMANDS . . . . .	2-21
2.8 CONFIGURATION MANAGEMENT . . . . .	2-27
2.9 DEVICE MANAGEMENT/RECOVERY . . . . .	2-27
2.10 PERMANENT FILE UTILITIES . . . . .	2-28
2.11 COMMAND LANGUAGE STATISTIC . . . . .	2-28
2.12 ONLINE MANUALS . . . . .	2-29
3.0 OPERATING SYSTEM NOTES AND CAUTIONS . . . . .	3-1
3.1 PHYSICAL I/O (TAPE) . . . . .	3-1
4.0 PRODUCT SET NOTES AND CAUTIONS . . . . .	4-1
4.1 ACCOUNTING AND VALIDATION UTILITIES . . . . .	4-1
5.0 HOST SYSTEM NOTES . . . . .	5-1
5.1 NOS 2.4.2 LEVEL 642 OPERATING SYSTEM . . . . .	5-1
5.2 NOS/BE LEVEL 627 OPERATING SYSTEM . . . . .	5-1
6.0 FCA LEVELS . . . . .	6-1
Appendix A NOS/VE Peripheral Maintenance and Support . . . . .	A-1
A1.0 NOS/VE DUAL STATE DEVICE MANAGEMENT . . . . .	A1-1
A1.1 PROCESSING WHICH IS COMMON TO NOS AND NOS/BE . . . . .	A1-1
A1.2 NOS DUAL STATE IDIOSYNCRASIES . . . . .	A1-2

Software Release Bulletin

A1.3 NDS/BE DUAL STATE IDIOSYNCRASIES . . . . .	A1-3
Appendix B Support of 7154 Controller . . . . .	B-1
B1.0 SUPPORT OF 7154 CONTROLLER . . . . .	B1-1

## Software Release Bulletin

-----  
1.0 OVERVIEW  
-----

## 1.0 OVERVIEW

The NDS/VE 1.1.3 Level 644 Software Release Bulletin (SRB) is to be used in conjunction with the NDS/VE Installation and Upgrade Manual (IUM) for installing NDS/VE and its software products. Control Data recommends that the SRB be read in its entirety prior to software installation.

## 1.1 PURPOSE\_OF\_SRB

The SRB is the vehicle in which any changes to the IUM, after it has gone to print, are documented. Although features are not fully documented in this SRB, major changes in the system are highlighted with emphasis placed on installation dependent and configuration management data.

This document contains information necessary to install the NDS/VE 1.1.3 Level 644 system.

## 1.2 POST\_SRB\_PROBLEM\_NOTIFICATION

Any significant problems that occur after publication of this SRB will be documented in Installation Bulletins available on SOLVER. Please note that Installation Bulletins are the vehicle used by Central Software Support to notify sites of significant software problems identified during the life of a system, as well as problems with the installation process.

The SRB also documents a number of system deficiencies. Refer to the NDS/VE 1.1.3 Level 644 Software Availability Bulletin for a complete description of dual state partner combinations supported with this release.

## Software Release Bulletin

---

**1.0 OVERVIEW**  
**1.3 SYSTEM CONTENT**

---

**1.3 SYSTEM\_CONTENT**

This section lists the enhancements and new features of the NDS/VE 1.1.3 Level 644 system.

**1.3.1 OPERATING SYSTEM**

- o 63 Character Set
- o Micro File Transfer Facility (PFTF) Support
- o AAM Concurrency Support
- o BASIC and PASCAL Support
- o FORTRAN Argument Checking
- o Recovered Tape Errors
- o Loader Table Extensions
- o FSP\$OPEN\_FILE
- o Word Processing (FSE)
- o Scan Token Upgrade
- o SM/TDU Support of Scrolling
- o FAPs on Command Files
- o SCU 1.1 Enhancements
- o Full Path PF Errors
- o INCLUDE Command
- o Performance Enhancements
- o Screen Management Performance Enhancements
- o NDS/BE Dual State Package Source Code Support
- o NDS 2.+.2 Level 642 Verification
- o NDS/BE 1.5 Level 627/631 Verification
- o CYBIL 85.2
- o Corrective Code

**1.3.2 PRODUCT SET**

- o BASIC
- o PASCAL
- o PROLOG
- o IM/ZEUS
- o AAM Enhancements
- o COBOL Enhancements
- o Debug Enhancements
- o FORTRAN Enhancements
- o FNU Enhancements
- o FMA Enhancements
- o IM/DM
- o Corrective Code

**1.3.3 OTHER PRODUCTS**

- o MAIL/VE

85/10/02

## Software Release Bulletin

## 1.0 OVERVIEW

## 1.4 WARNINGS AND RESTRICTIONS

## 1.4 WARNINGS AND RESTRICTIONS

The following warnings and restrictions are especially important to this release:

1. Changes to the program interface require the recompilation of all CYBIL modules.
2. Tape usage is restricted to permanent file backup/restore, migrating VAX tapes, and dump analyzer operations.
3. When first installing the system, a job log will be printed showing errors 220033 and 161016 (subcatalog unknown and "use a command library ..."). These errors are not significant (in this case) and may be ignored.
4. The product "STANDARD" takes quite a bit longer than the other products to install.
5. You must enter

```
SET_COMMAND_LIST A=$SYSTEM.SCU.COMMAND_LIBRARY
```

prior to running VERIFY\_INSTALLED\_SOFTWARE or the latter will indicate that SCU is not installed.

6. It may be desirable to bring up MDD periodically for such functions as displaying maintenance registers. In this case, an MDD terminal may be connected to port 1 and MDD initiated by the NOS command X.MDD(parameters). Consult the NOS Operator's Handbook for details.
7. Due to the size of the image file required, 834's and 844's can not be defined as the system device on systems with more than 64MB of available memory.
8. NOS/VE R1.1.2 level 638 supports memory configurations of up to 128MB. Up to 16MB can be used by NOS or NOS/BE with the remainder being used by NOS/VE.

Memory dumps are created on magnetic tape at the time of a system failure to assist in the analysis of the failure. For this purpose configurations with a central memory size up to 32MB must include a nine track tape unit with 1500 PE or 6250 GCR recording capabilities. Configurations with a central memory size greater than 32MB must include a nine track tape unit with 6250 GCR recording capabilities. Configurations with central memory size greater than 64MB must also use 3600 foot reels of magnetic tape for system dumps. Also temporary mass storage space on both NOS/VE and NOS or NOS/BE equal

## Software Release Bulletin

-----  
1.0 OVERVIEW1.4 WARNINGS AND RESTRICTIONS  
-----

to the memory size must be provided to dump and analyze these tapes.

9. NDS/VE R1.1.2 level 638 changed the format of all validation file's (\$FAMILY\_USERS). The system converts from the old to new format the first time level 638 is deadstarted and creates cycle 2 of the file. Previous levels of NDS/VE required cycle 1 of \$FAMILY\_USERS whereas level 638 uses the highest cycle. This will allow moving from one level of NDS/VE to another and still having a validation file in the proper format. However changes made at one level will be lost when deadstarting another level.
10. NDS/VE R1.1.2 level 638 required MA462-003 controlware to run on the 834 disk subsystem. This controlware is released only with CIPL004 and must be moved to the NDS deadstart tape. See the CIPL004 Software Release Bulletin for details.
11. Installing products on a system with only 834 disks must be done in the following order.

MANUALS\_MAINT\_II  
STANDARD  
etc.

Otherwise, the 834's may run out of space during the installation of MANUALS\_MAINT\_II.

In several sections of this document, PSR numbers are given following a problem description. Additional information about the problem may be obtained from SOLVER by using this number.

---

## 2.0 SYSTEM INSTALLATION NOTES

---

## 2.0 SYSTEM INSTALLATION NOTES

### 2.1 INSTALLATION

#### 2.1.1 NOS INSTALLATION

1. Both PASSON and IRHF must run out of the SYSTEMX account in order to access NOS output queue files which are transmitted to the NOS/VE input queue. If your site has changed the password of the SYSTEMX user, then you must alter the USER statements in the RUNJOBS procedure. Enter the following statements under the user name from which NOS/VE is being deadstarted:

```
UNLOAD,SYSTEM,NVELIB.  
COMMON,SYSTEM.  
GTR,SYSTEM,NVELIB,U.ULIB/NVELIB  
LIBRARY,NVELIB.  
GETPROC,RUNJOBS.
```

\*Change all USER statement passwords to your site's value

```
FSE,RUNJOBS.
```

\*Add RUNJOBS to DSTLIB.

```
REPPROC,RUNJOBS,L=DSTLIB.
```

2. In order to use the ST=NVE parameter to route a file to the input queue, the user must have CUST and COLK validation bits set.
3. If a correction package contains corrections to the NOS libraries NVELIB or NOSBINS, APPLY\_ALL\_CORRECTIONS will require enough scratch file space on the 170 side to make two copies of the NOS deadstart tape. This space is only used temporarily and is returned when the new NOS deadstart tape is generated.
4. A skeleton file (ACCOUNT) is created during deadstart and used by Interim Remote Host and Interstate Communications to generate partner jobs that are submitted to NOS. This file is created within a procedure named ACCFILE which is located in user library NVELIB. Currently, the ACCOUNT file created will contain the following:

```
&JOB.  
USER,&USER,&PASSWORD,&FAMILY.  
CHARGE,&CHARGE,&PROJECT.
```



85/10/02

## Software Release Bulletin

-----  
2.0 SYSTEM INSTALLATION NOTES2.1.1 NOS INSTALLATION  
-----

When an Interstate Communications Job (GETF, REPF, CREIC) is executed, the partner job is created using the ACCOUNT file to set up NOS accounting for the NOS batch job. The fields within the account file which are prefixed by an ampersand (&) are replaced with appropriate information by the operating system. The &JOB by a default job statement and the &PASSWORD, &CHARGE, &USER, &FAMILY, and &PROJECT as determined by the command being used.

If the charge and project numbers were not specified on the SET\_LINK\_ATTRIBUTES command the characters '\*' are substituted for '&CHARGE' and blanks for '&PROJECT'. This implies that default charge will be used by NOS and the user must have the correct charge and project numbers specified under MODVAL.

Changes can be made to the ACCOUNT file so that a site may create their own accounting file for Remote Host and Interstate Communications jobs.

```
UNLOAD,SYSTEM,NVELIB.
COMMON,SYSTEM.
GTR,SYSTEM,NVELIB,U.ULIB/NVELIB
LIBRARY,NVELIB.
GETPROC,ACCFILE.
FSE,ACCFILE.
```

\* Delete the CHARGE statement from ACCFILE

```
REPPROC,ACCFILE,L=DSTLIB.
```

NOTE: A user can now submit an interstate communications job to a different NOS family by defining the family parameter on the SETLA command as that family.

5. You should not use NVEPROL (or any other prolog that attaches NVELIB) in NOS catalogs that are used by the software maintenance utility. This is, if you entered:

```
SETLA (UN,NVE) PW
UPGRADE_SOFTWARE
```

at the NOS/VE system console, the user number specified by UN should NOT have a prolog that attaches NVELIB. If it does, UPGRADE\_SOFTWARE will fail with the message:

```
ERRDR: This task's partner NOS/170 Job has ended or called
CLOSLNK.
```

Furthermore, you may not use NVEPROL or similar user prologs in the

85/10/02

## Software Release Bulletin

-----  
2.0 SYSTEM INSTALLATION NOTES2.1.1 NOS INSTALLATION  
-----

NOS user used for deadstarting NOS/VE. If you do, the NVExxxx command will fail.

6. The Remote Host partner jobs will now be submitted via a new service class. They will now be submitted as batch origin types from the Communication Task service class instead of the batch service class. In order to use REPLACE\_FILE and GET\_FILE now, you will need to do the following:

- a. The NOS IPRDECK has to have the Communication Task service class defined in it (see NOS Installation guide). It also needs a CLASS card added to it.

```
CLASS,BC,CT.
```

This allows you to run batch origin type jobs from the Communication Task service class.

- b. Once NOS is up and running, the user number that NOS/VE is deadstarted from must be validated to use Communication Task service class.

```
X.MOOVAL.
```

```
K,jsn.
```

```
K,U,username.
```

```
K,VM=CT.
```

(This will toggle the bit - it should increase the value of the VM parameter.)

```
K.END.
```

- c. Now deadstart NOS/VE in the normal way.

## Software Release Bulletin

-----  
2.0 SYSTEM INSTALLATION NOTES2.2 NDS/VE 1.1.2 - NDS/VE 1.1.3 INSTALLATION AND UPGRADE DIFFERENCES  
-----2.2 NDS/VE 1.1.2 - NDS/VE 1.1.3 INSTALLATION AND UPGRADE DIFFERENCES

This section documents differences between NDS/VE 1.1.2 and NDS/VE 1.1.3 in the area of:

1. System Start Up Commands
2. System Shut Down Commands
3. Command Libraries
4. System Prologs and Epilogs
5. Using NDS/VE with 834/639 Peripherals

## 2.2.1 SYSTEM START UP COMMANDS

## \$SYSTEM.START\_UP\_COMMANDS

Commands in this file are executed by the system job during NDS/VE deadstart. This file is created only by an installation deadstart, with files being reloaded from the REQUIRED tape (i.e., the first time you install NDS/VE 1.1.3).

Examine the contents of \$SYSTEM.START\_UP\_COMMANDS, and if you want to change the commands, simply overwrite this file with the commands you want executed. Possible commands include:

1. SET\_DEFAULT\_FAMILY
2. SET\_JOB\_CLASS\_LIMITS
3. SET\_COMMAND\_LIST (for the operator command list)

You may also wish to execute certain commands based on the type of deadstart being performed. You can determine the type of deadstart by testing the value of the variable RAV\$LOAD\_OPTION, which may have these values.

'INSTALL'	Installation deadstart was performed, SET_FILE_LOADING_OPTIONS was used to select "INSTALL" (the default for an installation deadstart).
'RELOAD'	Installation deadstart, SET_FILE_LOADING_OPTIONS was used to select "RELOAD".
'NORMAL'	Continuation deadstart, SET_FILE_LOADING_OPTIONS was used to select "NORMAL" (the default for a continuation deadstart).
'UPGRADE'	Continuation deadstart, SET_FILE_LOADING_OPTIONS was used to select "UPGRADE".

85/10/02

## Software Release Bulletin

---

2.0 SYSTEM INSTALLATION NOTES  
2.2.1 SYSTEM START UP COMMANDS

---

'INSTALL\_DEFERRED\_FILES' Continuation deadstart, SET\_FILE\_LOADING\_OPTIONS was used to select "INSTALL\_DEFERRED\_FILES".

Examine the released \$SYSTEM.START\_UP\_COMMANDS for an example of testing the RAV\$LOAD\_OPTION variable.

## 2.2.2 SYSTEM SHUT DOWN COMMANDS

At NDS/VE R1.1.1, this file was record SHUDC on the NDS file NVELIB. Commands in the file

\$system.shutdown\_commands

are executed by the system job during system termination. Create the file and insert any commands you wish to be executed during system shut down.

## 2.2.3 SITE COMMAND LIBRARY

\$SYSTEM.OSF\$SITE\_COMMAND\_LIBRARY

This file is reserved for CDC, and the system is released such that this file is no longer automatically added to users' command lists.

Locally written procedures you want to make accessible to your users should be placed on another command library, and the system prolog should be modified appropriately.

## 2.2.4 OPERATOR COMMAND LIBRARY

\$SYSTEM.OSF\$OPERATOR\_COMMAND\_LIBRARY

This file is reserved for CDC, it is in the operator's command list.

Locally written procedures you want to make accessible to your operators should be placed on another command library, and the system start up commands (see above) should be modified appropriately to also add your local operator command library to the operator's command list.

Should you have to reload permanent files, your operator command library (OSF\$OPERATOR\_COMMAND\_LIBRARY) will not be available until it is explicitly added to the command list, after files are reloaded. This should not be a problem, unless you want to use a restore procedure different from the one supplied by CDC. In this case, place your procedure on the NDS file SITECP (Just like the CDC restore procedure) and rebuild your deadstart file with REPRECS. This procedure will then be made a permanent file under \$SYSTEM for any installation deadstarts.

---

2.0 SYSTEM INSTALLATION NOTES  
2.2.5 RELOADING FILES

---

## 2.2.5 RELOADING FILES

Perform the following steps if you have to reload your permanent file base.

1. Execute an installation deadstart, using a NVE procedure file which pauses for operator system core commands. Enter the system core commands:

```
INITDD <vsn> where <vsn> identifies the deadstart device  
GO
```

Note that the GO must be uppercase, and you do not enter the 'AUTO' system core command.

2. Deadstart will eventually pause with the set file loading options display. Enter:

```
SET_FILE_LOADING_OPTION load_option=reload  
GO
```

3. After deadstart completes, execute the permanent file reload procedure.

```
ATTACH_FILE $SYSTEM.RESTORE  
RESTORE restore_parameters
```

Note that if you write your own permanent file reload procedure (see the Operator Command Library section) you would attach your procedure instead.

4. After files are reloaded, enter:

```
CREATE_FAMILY NVE administrator-user-name
```

you may safely ignore the PF error 220513.  
and then enter:

```
INCLUDE_FILE $SYSTEM.START_UP_COMMANDS
```

85/10/02

## Software Release Bulletin

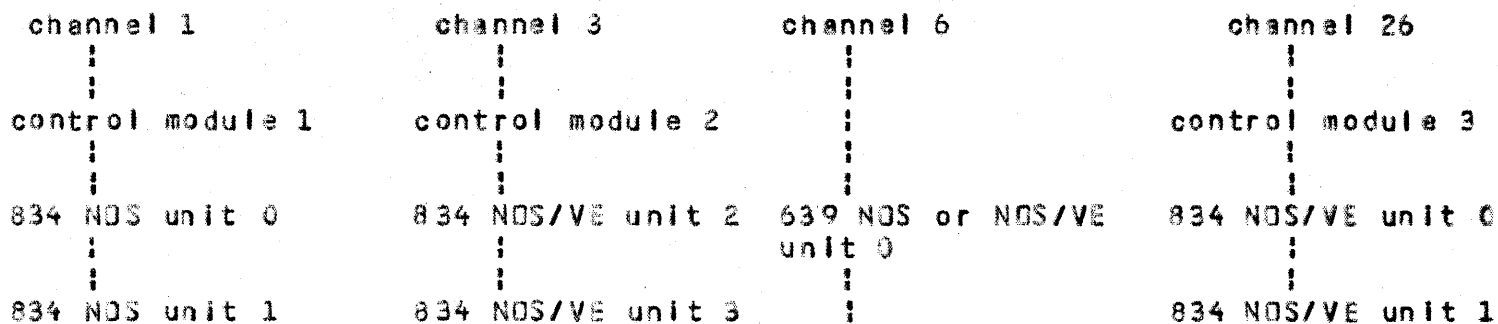
## 2.0 SYSTEM INSTALLATION NOTES

## 2.2.6 USING NDS/VE WITH 834/639 PERIPHERALS

## 2.2.6 USING NDS/VE WITH 834/639 PERIPHERALS

The following steps exemplify configuring NDS/VE R1.1.2 level 638 for 834 disks and a 639 magnetic tape.

In this example, four 834 disks are to be designated for NDS/VE. Two 834 disks were for NDS. The disk/tape configuration was the following.



- a. The NDS EQPDECK should not contain any mention of the NDS/VE 834 disks. Only the 639 tape drive needs to be configured on NDS, and then only if it is to be shared between NDS and NDS/VE.

An excerpt from the EQPDECK:

```
EQ10=DD,UN=10.
EQ11=DD,UN=11.
EQ20=CM,EQ=1,CH=1.
EQ50=NT,EQ=0,UN=0,CH=6,TF=IST.
```

- b. Assuming file DECKS has the changed NDS deadstart decks, the GENNDS procedure can be used to place the 834 controlware from the CIPL004 tape on to the new NDS deadstart tape.

```
LABEL,CIP004,VSN=CIP004,LB=KU,D=PE,F=SI.
GTR,CIP004,ISDCW.PPU/MA462
UNLOAD,CIP004.
LIBEDIT,P=ISDCW,B=0,Z,C.*RENAME,PPU/MA462,ISD
NOTE,IN.*FILE,ISDCW
PACK,IN.
GENNDS,VSN=vsn,D=density,I=IN,B=DECKS.
```

85/10/02

## Software Release Bulletin

-----  
2.0 SYSTEM INSTALLATION NOTES2.2.6 USING NDS/VE WITH 834/639 PERIPHERALS  
-----

- c. The manage\_physical\_configuration subcommands (in SITECP) to describe the 834s are:

```
"Disk channel 3 to control module 2 to 834 disk units 2 and 3.
setdcd cn=3
setcd e=cm2 pi=$10395_11 sn=0 cc=channel3 en=2
setsdd e=isd22 pi=$834_2 sn=100 un=02 cc=cm2
setsdd e=isd23 pi=$834_2 sn=101 un=03 cc=cm2
"Disk channel 26 to control module 3 to 834 disk units 0 and 1.
setdcd cn=26(8)
setcd e=cm3 pi=$10395_11 sn=1 cc=channel22 en=3
setsdd e=isd30 pi=$834_2 sn=102 un=00 cc=cm3
setsdd e=isd31 pi=$834_2 sn=103 un=01 cc=cm3
"Tape channel 6 to 639 tape unit 0.
setdcd cn=6
setcd e=t639 pi=$7221_1 sn=2 cc=channel6
setsdd e=t0 pi=$639_1 sn=104 un=0 cc=t639
```

- d. The 639 tape channel (channel 6) is downed on NDS before deadstarting NDS/VE.
- e. The MANUALS\_MAINT\_II product should be installed before the STANDARD product.

85/10/02

## Software Release Bulletin

---

 2.0 SYSTEM INSTALLATION NOTES  
 2.3 NDS/VE INSTALLATION
 

---

## 2.3 NDS/VE INSTALLATION

1. Remote installation and maintenance of the operating system requires an analyst or operator be present at the operator's console.
2. If your site has the CYBER 170 APL2 installed, and desires to migrate APL applications to the CYBER 180, AFIFIX should be replaced under user number APLO. AFIFIX, a 170 resident permanent file, now has the added capability of being a pre-processor for the 180 APL workspace CONVERT\_APL2. Installation instructions are described in this section; refer to the APL section in Product Set Notes and Cautions for usage information.

The first step of installation is to create the following NDS/VE job to move the NDS/VE file to NDS. It may be created as a NDS or NDS/VE text file. This text file is then accessed from the operator console, using the ATTACH\_FILE or GET\_FILE command. The INCLUDE\_FILE command is executed to submit this job as a \$SYSTEM family batch job.

(NOTE: User APLO has an installation definable password; the default, APLO, is being used for example. It is assumed that the CYBER 170 AFIFIX already properly exists in user APLO as an indirect and public file.)

```

JOB,MOVEAPL

WHEN ANY_FAULT DO
  DISPLAY_VALUE DSV$STATUS OUTPUT=$RESPONSE
  REQUEST_OPERATOR_ACTION MESSAGE=' AFIFIX MOVE FAILED '
  LOGOUT
WHENEND

SET_LINK_ATTRIBUTES USER=(APLO NDS) PASSWORD=APLO
REPLACE_FILE FROM=$SYSTEM.APL.MAINTENANCE.AFIFIX ..
  TO=AFIFIX DC=B60

JOBEND
  
```

3. Interim Remote Host partner jobs are submitted as batch origin jobs with the advent of NDS 2.3. Problems with the commands GET\_FILE and REPLACE\_FILE occur when the NDS system batch job limit is set too low. This could cause GET\_FILE and REPLACE\_FILE to fail with the error message "UNABLE TO COMMUNICATE WITH NDS 170 REMOTE HOST". What happens is that when doing one of these commands, a partner job gets spun off and is submitted as a batch job to NDS. If there are enough batch jobs running to reach the batch job limit, the partner job will be put in the NDS input queue to wait for one of the batch jobs to finish. The 180 side waits for the partner job to finish. If the



## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.3 NDS/VE INSTALLATION**

---

180 side does not get a response from the partner job within 10 minutes, then it will time out and issue the error message above. To get around this problem, we recommend that the batch limit be set to 20 to 50 or more depending on the use of file transfer through Remote Host and Interstate Communication in your system. The maximum number of Remote Host and Interstate Communication jobs that can be running at one time is 50.

NOTE: CREATE\_INTERSTATE\_CONNECTION (CREIC) commands do not time out on the 180 side. They will wait until the partner job gets rolled in and finishes before they continue on.

4. Do not do a INITDD on a TERMINATE\_SYSTEM as stated in Item 6 of the NDS/VE Analysis Manual, page 2-5.
5. CIPL004, specifically the controlware that is used for the 834 disk subsystem, contains a defect which will be encountered by sites which configure more than four 834 control modules per channel to NDS/VE. This defect will cause a control module to master clear all control modules on its channel, requiring a redeadstart of NDS/VE. It is strongly suggested that no site configure more than four 834 control modules per channel, and that the unit numbers of the control modules be 0, 1, 2, and 3. CIPL004A and CIPL005 will contain corrective code.
6. The default value of MAXIMUM\_SEGMENT\_LENGTH has been changed to 150000000(10) bytes. This is also the minimum value that SET\_SYSTEM\_ATTRIBUTE will allow for this parameter.
7. In addition to the steps listed in the NDS/VE Accounting and Validation Utilities reference manual, sites using the Utilities must include the following entry in their NOS LIBDECK.

```
*PROC SYNCACC,SYNCVAL
```

It defines SYNCACC and SYNCVAL as procedure files and makes them executable as NOS commands.

8. The 834 disk subsystem and the 639 tape subsystem are new peripheral products supported by NDS/VE R1.1.2 level 638. These products are fully described in the NDS/VE Installation and Upgrade manual. NDS/VE when running in a dual state environment with NDS/BE does not support the 834 disk subsystem.

To be used by NDS/VE, the 834 device must not be assigned an EST entry in the NOS EQPDECK.

The 639 tape unit needs to be assigned an EST entry in the NOS

## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.3 NDS/VE INSTALLATION**

---

EQPDECK only if the site wishes to be able to use the tape unit on both NDS and NDS/VE (via the CHANGE\_ELEMENT\_STATE command). NDS/VE when running in a dual state environment with NDS/BE does not support the 639 tape subsystem.

The tape unit does not need to be defined in the NDS EQPDECK if only NDS/VE will be using it, but care must be taken to assure that NDS MALET does not conflict with NDS/VE in functioning the tape subsystem.

9. The MANAGE\_LOGICAL\_CONFIGURATION subcommand, CHANGE\_ELEMENT\_STATE, sometimes produces the following message at the NVE control point on NDS.

EQUIPMENT NOT AVAILABLE/NOT ASSIGNED

This message should be ignored.  
PSR NVOG569

10. Special processing is required as a result of a change in the format of the NDS/VE binary logs.
  - a. Sites must terminate their logs prior to bringing up NDS/VE 1.1.3. They must also do their processing of these terminated log files on NDS/VE 1.1.3 if and only if they use the DISPLAY\_BINARY\_LOG utility to process them.
  - b. Sites must terminate their logs again just after bringing up the NDS/VE 1.1.3 system. The information from this terminate log should be discarded.
  - c. Now normal operations can continue.
11. The smallest disk configuration supported for NDS/VE is 2 834\_2 disks. When installing NDS/VE on these and other configurations in which disk space is restricted, some special steps need to be taken to assure that:
  - a. The system does not run out of disk space during the course of the installation.
  - b. After system installation, ample disk space is available for end user programs and data.

The procedure recommended here contains three main features.

- a. Do not install the product tapes MANUALS\_MAINT\_I and MANUALS\_MAINT\_II. These tapes contain the source libraries for

## Software Release Bulletin

-----  
2.0 SYSTEM INSTALLATION NOTES2.3 NOS/VE INSTALLATION  
-----

the online manuals. You only need the source if you wish to make changes to the online manuals.

- b. After the system is installed, the installation catalog (\$SYSTEM.SOFTWARE\_MAINTENANCE.INSTALLATION\_CATALOG) can be deleted.
- c. During the course of installation you can produce a partial backup of the installation catalog that you can use in the remote event that it will be necessary to provide support to your site.

Follow the procedure outlined in the NOS/VE Installation and Upgrade manual for NOS/VE Installation through step 12. (The installation deadstart of NOS/VE and installation of required files.) When you reach step 13 (Install NOS/VE standard and optional products.) follow the instructions outlined below.

- a. At the NOS/VE system console enter the command:

```
UPGRADE_SOFTWARE
```

- b. Use the INSTALL\_PRODUCT (INSP) subcommand of UPGRADE\_SOFTWARE to install all of the NOS/VE optional products that you received and all of the NOS/VE standard products except do not install the standard product tapes labeled:

```
ONLINE_MANUALS_I  
ONLINE_MANUALS_II  
MANUALS_MAINT_I  
MANUALS_MAINT_II
```

- c. At the NOS/VE system console, enter the command:

```
QUIT
```

- d. Use the BACKUP\_PERMANENT\_FILES utility to backup the installation catalog and delete its contents.

At the NOS/VE system console enter the following sequence of commands.

```
JOB  
REQUEST_MAGNETIC_TAPE TAPE EVSN=vsN RING=YES T=MT9$6250  
BACKUP_PERMANENT_FILES BACKUP_FILE=TAPE  
BACKUP_CATALOG $SYSTEM.SOFTWARE_MAINTENANCE ..  
  .INSTALLATION_CATALOG  
QUIT
```

85/10/02

## Software Release Bulletin

---

2.0 SYSTEM INSTALLATION NOTES  
2.3 NDS/VE INSTALLATION

---

## JOBEND

vsn is the VSN of the tape that will be used to contain the backup file.

This sequence of commands causes a job to be initiated that will backup the installation catalog. This job will produce a listing. Respond to the tape request when it occurs and wait for the job to complete. You should check the listing produced by the job for errors before going on to the next step.

- e. At the NDS/VE system console enter the following sequence of commands.

```
BACKUP_PERMANENT_FILES BF=$NULL
DELETE_CATALOG_CONTENTS $SYSTEM.SOFTWARE_MAINTENANCE ..
.INSTALLATION_CATALOG
QUIT
```

This sequence of commands deletes the contents of the installation catalog.

- f. Install the online manuals using UPGRADE\_SOFTWARE. At the NDS/VE system console enter:

```
UPGRADE_SOFTWARE
INSTALL_PRODUCT ONLINE_MANUALS_I
(Respond to the tape mount request and wait for the tape to
unload.)
INSTALL_PRODUCT ONLINE_MANUALS_II
(Respond to the tape mount request.)
QUIT
```

- g. Repeat the set of commands described in step e.

- h. All of the NDS/VE software is now installed and the system has a reasonable amount of disk space available for user programs and data. You should proceed with step 14 (Establish family user administrators.)

12. NDS/VE supports memory sizes up to 128 megabytes. The NDS/VE deadstart input file (TPXXXK) included with the release materials is built to optimize performance on a system with 16 megabytes of memory. This results in measurable performance degradation on systems with 32 megabytes of memory because of frequent "page table full" conditions. Systems with memory sizes significantly larger than 32 megabytes will not run at all.

## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.3 NOS/VE INSTALLATION**

---

In order to run NOS/VE on a large memory system (32 megabytes or larger) incorporate the following steps in your installation process.

- a. When you reach step 10 of the NOS/VE installation process (Readeadstart NOS) select the P (DEADSTART PANEL PARAMETERS) option of CTI.

- b. At the NOS system console enter:

```
CM=100000.
```

- c. Continue with the NOS/VE installation process described in the NOS/VE Installation and Upgrade manual through step 13 (Install NOS/VE standard and optional products).

- d. Before terminating UPGRADE\_SOFTWARE with the QUIT command use the MAKE\_VE\_DEADSTART\_FILE subcommand of UPGRADE\_SOFTWARE to build a new NOS/VE deadstart input file that is optimized for your memory size. At the NOS/VE system console enter

```
SETLA (un,pw) pw  
MAKE_VE_DEADSTART_FILE PS=8192 MS=memsize
```

un and pw specify the username and password you are using to install NOS/VE. memsize is the actual physical memory size of your system.

The MAKE\_VE\_DEADSTART\_FILE command presumes that SITECP and DCFILE are available on the NOS or NOS/BE catalog specified with the SETLA command. If they are not present or if the SETLA command was incorrect, MAKE\_VE\_DEADSTART\_FILE will return an error. If this happens you should correct the problem and reissue the MAKE\_VE\_DEADSTART\_FILE command.

MAKE\_VE\_DEADSTART\_FILE places a new NOS/VE deadstart input file on NEWTPXK in the catalog you specified with SETLA.

- e. Terminate UPGRADE\_SOFTWARE and NOS/VE. At the NOS/VE system console enter:

```
QUIT  
TERMINATE_SYSTEM
```

- f. Readeadstart NOS. This time do NOT use the CM option at CTI time to restrict memory use.

- g. Login to the NOS catalog that you are using to install and deadstart NOS/VE. Change the name of TPXXXK to something else

Software Release Bulletin

---

2.0 SYSTEM INSTALLATION NOTES

2.3 NOS/VE INSTALLATION

---

(DTPXXXK for example.) Change the name of NEWTPXK to TPXXXK.

- h. Redeadstart NOS/VE using the NOSVE deadstart procedure file (NVExxxx) that you built in step 11 (Generate NOS/VE deadstart procedure file).
- i. NOS/VE is now up and running with your full memory. Continue the installation starting with step 14 (Establish family user administrators).

## Software Release Bulletin

---

 2.0 SYSTEM INSTALLATION NOTES  
 2.4 MAIL/VE INSTALLATION  


---

## 2.4 MAIL/VE INSTALLATION

1. The installation of MAIL/VE begins with the installation of NOS/VE but must be completed as follows:

- a. The following catalogs and files should be present under master catalog \$SYSTEM.MAILVE after completion of NOS/VE installation.

CATALOG/_FILE	DESCRIPTION
BOUND_PRODUCT	File containing the bound MAIL/VE binary.
MAINTENANCE COMMAND_LIBRARY	Catalog containing the following: System Administrators command library.
MAIM_VE	System Administrators HELP online manual.

- b. To continue with installation of MAIL/VE enter from the \$SYSTEM console:

```
SET_COMMAND_LIST
ADD=$SYSTEM.MAILVE.MAINTENANCE.COMMAND_LIBRARY
```

This command adds the System Administrator command library to the command list.

- c. Then install MAIL/VE by entering the following command:

```
INSTALL_MAIL FAMILY=family_name
```

This command will build the MAIL/VE database files, create the necessary file and catalog permits, and register the first MAIL/VE users - \$SYSTEM and MAILVE. This procedure is run once after NOS/VE is installed but not to subsequently reinstall MAIL/VE.

Following the completion of the INSTALL\_MAIL procedure, these additional sub-catalogs should exist under \$SYSTEM.MAILVE:

CATALOG	DESCRIPTION
MAIL	Catalog where the live database files are stored.
BACKUP	Catalog where backup copies of the database files are stored.

The files and catalogs should have the following contents and

## Software Release Bulletin

---

 2.0 SYSTEM INSTALLATION NOTES  
 2.4 MAIL/VE INSTALLATION
 

---

permits:

CATALOG_/_FILE	DESCRIPTION
\$SYSTEM.MAILVE	Catalog G=USER USER=MAILVE FN=family_name AM=(ALL CYCLE CONTROL) SM=NONE This is the master MAIL/VE catalog.
\$SYSTEM.MAILVE.BOUND_PRODUCT	File G=PUBLIC AM=(READ EXECUTE) SM=(READ EXECUTE)
\$SYSTEM.MAILVE.BACKUP	Catalog NO PERMITS This catalog should be empty.
\$SYSTEM.MAILVE.MAIL	Catalog G=PUBLIC AM=(READ SHORTEN APPEND MODIFY) SM=NONE This catalog contains the seven central mail database files.
\$SYSTEM.MAILVE.MAINTENANCE	Catalog NO PERMITS This catalog contains the System Administrators online manual and the System Administrators command library.

- The MAIL/VE System Administrator must run as user name MAILVE or \$SYSTEM. Since \$SYSTEM must run from the NOS/VE console, user name MAILVE can be created which will allow a System Administrator to perform the maintenance operations from an interactive terminal. In order for user MAILVE to run MAIL/VE maintenance routines, the command library must be attached via:

```
SET_COMMAND_LIST
ADD=$SYSTEM.MAILVE.MAINTENANCE.COMMAND_LIBRARY
```



## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.4 MAIL/VE INSTALLATION**

---

3. The MAINTAIN\_MAIL utility registers users in the MAIL/VE system. This utility is accessed via the command:

```
MAINTAIN_MAIL (MAIN)  
PW=VUNY
```

The password for MAINTAIN\_MAIL and for all its subcommands is VUNY.

The various commands available to the System Administrator can be listed from within the MAINTAIN\_MAIL utility by entering HELP followed by a carriage return. The System Administrator online manual can be accessed for additional information on the available commands by entering the following:

```
HELP command_name
```

The manual may also be accessed directly by the System Administrator, running with user name \$SYSTEM or MAILVE, via:

```
EXPLAIN M=$SYSTEM.MAILVE.MAINTENANCE.MAIN_VE
```

4. Other procedures available on the System Administrator command library and described in detail in the System Administrator online manual are:
- a. BACKUP\_MAIL  
This procedure backs up the MAIL/VE database files. This procedure can be run as often as needed to backup the database files.
  - b. RESTORE\_MAIL  
This procedure reloads the MAIL/VE database files that have been backed up using the BACKUP\_MAIL procedure.
  - c. DISPLAY\_MAIL\_STATISTICS  
This procedure creates a graphical usage listing of the usage of MAIL/VE over the current usage period. The current usage period is defined as that amount of time since the last deadstart of NDS/VE.
  - d. CHANGE\_MAIL  
This procedure can be used to replace the MAIL/VE binary. This procedure may never have to be run.

**2.5 CY-170 COMMON PRODUCTS**

1. The CY-180 products. FMU and FMA, use the CY-170 products, BAM and COBOL 5. If using NOS 2.4.1 L630 or NOS/BE L627 with product set

85/10/02

Software Release Bulletin

---

2.0 SYSTEM INSTALLATION NOTES

2.5 C170 COMMON PRODUCTS

---

L628, the following notes and caution code must be added. For COBOL add CL5B294 and for 170 BAM add SW1A648.

If using NDS 2.3 L617 with product set L617, the following upgrades must be made. For COBOL upgrade to L628 add CL5B294. For 170 BAM add SW1A647 and SW1A648. For SDRT5 either upgrade to level 628 or add ST5A353 to level 617.

85/10/02

## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.6 NOS/BE INSTALLATION**

---

**2.6 NOS/BE INSTALLATION**

1. To login to NOS/VE from an interactive terminal, you must first be validated to log in to NOS/BE INTERCOM 5.X. INTERCOM users are validated by use of the PASSWRD utility as described in the NOS/BE Installation Handbook. In order for an INTERCOM user to log in to NOS/VE, he must have a valid NOS/VE user name as one of his INTERCOM password parameters. The user must enter the following command after logging in to INTERCOM in order to log in to NOS/VE:

**VEIAF**

The VEIAF utility is an INTERCOM multi user job which will take the NOS/VE user name for the current INTERCOM user from the Password file and initiate a login sequence with the NOS/VE Interactive Facility. After successful login, NOS/VE messages similar to the following will be displayed:

```
Welcome to the NOS/VE Software System.  
Copyright Control Data 1984.  
C170-855 SN2. NOS/VE R1.  
September 13, 1984. 1:34 PM.
```

VEIAF will continue to function as the interface between the INTERCOM user and the NOS/VE Interactive Facility until the session is complete.

2. A NOS/VE job can be submitted from NOS/BE by creating a NOS/BE file containing a NOS/VE job image and using the NOS/BE ROUTE command with a logical id of NVE to submit the job to the NOS/VE input queue. The format of the ROUTE command for this operation is as follows.

```
ROUTE(file,DC=IN,ST=NVE)
```

The NVE LID must not be defined for the host NOS/BE system or it will attempt to process the NOS/VE jobs as NOS/BE jobs.

85/10/02

## Software Release Bulletin

---

2.0 SYSTEM INSTALLATION NOTES  
2.7 OPERATOR COMMANDS

---

## 2.7 OPERATOR COMMANDS

## 1. Restarting IRHF and IFEXEC on the 180 Side

IRHF moves NOS/VE input and output from and to NOS or NOS/BE. It has a NOS or NOS/BE partner job also called IRHF. IFEXEC is the NOS/VE interactive task. It has a NOS or NOS/BE partner job called PASSON which is the NAM application VEIAF.

IRHF should automatically restart if it aborts. To bring up IRHF manually, the operator must first bring down IRHF, then bring it up again. The same holds true for IFEXEC.

To bring down IRHF, enter at the 180 NOS/VE operator's console:

```
DEACTIVATE_SYSTEM_TASKS TASK_NAMES=RHINPUT  
DEACTIVATE_SYSTEM_TASKS TASK_NAMES=RHOUTPUT
```

Then to bring IRHF back up, enter at the 180 NOS/VE operator's console:

```
ACTIVATE_SYSTEM_TASKS TASK_NAMES=RHINPUT  
ACTIVATE_SYSTEM_TASKS TASK_NAMES=RHOUTPUT
```

To bring down IFEXEC, enter at the 180 NOS/VE operator's console:

```
DEACTIVATE_SYSTEM_TASKS TASK_NAMES=IFEXEC
```

Then to bring IFEXEC back up, enter at the 180 NOS/VE operator's console:

```
ACTIVATE_SYSTEM_TASKS TASK_NAMES=IFEXEC
```

## 2. Restarting IRHF and PASSON on the NOS Side

To make provisions for restarting IRHF and PASSON, two procedures have been provided. These are MSSIRHF and MSSPASS and are located in User Index 377777. You should notice that the three prefix characters are the name of the MSS subsystem in NOS. Both IRHF and PASSON must use a NOS subsystem procedure to be invoked. If you have MSS installed at your site, then you should choose another subsystem that is not installed.

IRHF is restarted by simply typing the following in at the 170 operator's console:

```
MSSIRHF.
```

85/10/02

## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.7 OPERATOR COMMANDS**

---

PASSON is restarted by entering:

MSSPASS.

NOTE: Changes were made to procedure RUNJOBS to allow for PASSON to restart itself whenever it aborts abnormally. If PASSON aborts abnormally, the system will attempt to restart PASSON automatically. If NAM goes down, PASSON will not be automatically restarted.

3. The NDS application (VEIAF) that connects NDS/VE jobs to NAM will sometimes produce the flashing console message:

"PASSON ABNORMAL 18"

This message means PASSON is discarding an unsolicited message generated between VEIAF and the first read request from NDS/VE.

This should be ignored. Clear the message with 'GO,jsn.'

See Section 3.14 for PASSON diagnostic messages.

4. The operator should not enter any command at the operator's console that requires a magnetic tape. This will generally yield a deadlock condition. All requests should come from other than the system job. This will permit assignment of equipment from the operator's console.
5. Restarting IRHF on the NDS/BE side.

To make provision for restarting IRHF, an operator initiated procedure has been provided. Simply type:

nn.X RUNIRHF.

where nn is a clear control point number.

6. PASSON Abnormal Processing (NDS/BE)

During periods of heavy interactive usage, the message:

PASSON ABNORMAL

may appear on the NDS/BE job status (8) display. Unless related to a problem that a user has reported, this message does not necessarily indicate an error condition.

When PASSON ABNORMAL appears on the system console screen, record the number of the message for your site analyst's use.

85/10/02

## Software Release Bulletin

---

2.0 SYSTEM INSTALLATION NOTES  
2.7 OPERATOR COMMANDS

---

If your analyst asks you to examine the dayfile of the PASSON job, enter the following command:

A=NN.

NN is the control point number of the PASSON job.

Examine the dayfile for the message. The message format is:

HEX DATA FOR PASSON CONDITION=MESSAGE NUMBER

The message is followed by one or more lines of hexadecimal data which your site analyst may ask you to record.

See Section 3.14 for PASSON diagnostic messages.

7. The INITIALIZE\_DEADSTART\_DEVICE system core command and the INITIALIZE\_MS\_VOLUME Logical Configuration Utility subcommand do not warn the operator that the volume has been previously initialized. This is of particular concern in INITIALIZE\_MS\_VOLUME because the operator may misspell the element\_name of the device and inadvertently destroy permanent files.
8. In order to freeze the display on the NDS/VE operator's console while it is rapidly updating, we suggest using the 'SETUP' key. Pressing the 'SETUP' key will cause the console to stop accepting data from the host which will immediately halt the display. The lower two lines will be temporarily overwritten with the setup option display. Pressing the 'F1' key will allow the display to resume updating.
9. If the operator accidentally assigns a VE tape to the wrong VE job, no indication of this situation is given and the tape remains attached to the (wrong) job until it ends. If another drive is available the tape can be moved and reassigned.  
PSR NV0E854
10. There are two operator commands available for manual job swapping. These are

SWAPOUT <JSN> and  
SWAPIN <JSN>

<JSN> is the system job name of the job to be swapped.

If the job is to be swapped in, using the DISSJ command will provide the JSN necessary for the SWAPIN command. When a job is swapped out using the SWAPOUT command, it will remain swapped out until the SWAPIN command is executed.

85/10/02

## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.7 OPERATOR COMMANDS**

---

11. The STOP key on the NDS/VE console provides the operator with a pause break utility. However, the system is unable to deal with this correctly during deadstart. If the STOP key is pressed during deadstart, the system will terminate with a fatal error message. Users should avoid pressing this key during the deadstart process. If it is accidentally pressed and the system aborts, deadstart must be started over.

If the STOP key is pressed during the latter part of the deadstart process, the console may respond with the prompt:

P/

If this happens, the RESUME\_COMMAND command should be entered immediately.

12. If a system crash is caused by a fatal disk error, only the last two lines of the failure description are visible in the main operator window. Thus, it is important after any system failure to expand the main operator window and record any error information present.

The information displayed in the window should be written down in its entirety. The information will be necessary to repair the problem. Attempting to "get around" the problem by deadstarting the NDS/VE system will destroy the contents of the main operator window. If the NDS/VE system fails due to a disk problem, NDS/VE's Engineering Log is unavailable to the Customer Engineer; thus, the information written to the system console is the only evidence of the failure.

13. If during NDS/VE deadstart PPs cannot be assigned, the following error is returned:

PP NOT AVAILABLE/NOT ASSIGNED  
NO PP AVAILABLE.

Retry the deadstart.  
PSR NVOG295

14. The message "QAC ERROR=11" will occasionally appear at the NVE control point. This error can be ignored.  
PSR NVOG307

15. A controlware problem causes an 18 second delay between the time a not ready 639 tape unit is assigned and a message is issued.

16. Function key 7 can be used to toggle between the NDS/VE and NDS or NDS/BE system console display and a utility (e.g. MDD) requesting access to the same console.

2.0 SYSTEM INSTALLATION NOTES

2.7 OPERATOR COMMANDS

---

17. When running from the NDS system console under DIS it is necessary to execute a valid USER statement before doing a ROUTE to send jobs to the NDS/VE input queue.



85/10/02

## Software Release Bulletin

---

 2.0 SYSTEM INSTALLATION NOTES  
 2.7 OPERATOR COMMANDS
 

---

18. The CHANGE\_ELEMENT\_STATE command permits a site to alter the state (ON, OFF) of a magnetic tape subsystem element when the element is not in use by NDS/VE. This allows a single tape unit to be used by both NDS or NDS/BE and NDS/VE without an intervening deadstart of NDS/VE to reconfigure the tape unit. This command is documented in the NDS/VE Installation and Upgrade manual in the Logical Configuration Utility section.

The following example describes the commands used to toggle a 639 tape subsystem (channel, controller, and unit) from NDS/VE to NDS, and back to NDS/VE.

(at the NDS/VE operator's console enter:)

```
MANLC          Enter the Logical Configuration Utility
CHAES E=CHANNEL6 S=OFF  Change the state of the tape subsystem to
                        OFF, from the channel down through the unit
                        (assumes channel6 is the element name of
                        the channel leading to the unit. This may
                        take from 1 to 2 minutes
QUIT          Exit the LCU
```

(at the NDS system console enter:)

```
UP,CH6.       UP and ON the appropriate channel and
UP,EQnn.      equipment
ON,nn.        For the 639 tape subsystem MAGNET should be
IDLE,MAG.     idled and restarted in order to force the
MAG.          loading of the NDS conversion tables. This
              is not required for the 67x tape subsystem.
```

NDS may now use the tape unit

```
DOWN,EQnn.    To return the subsystem to NDS/VE, first
DOWN,CH6.     down channel and equipment
```

(at the VE operator's console enter:)

```
MANLC          Enter the LCU
CHAES E=CHANNEL6 S=ON  Change the subsystem's state to ON. Again,
                        this may take 1 to 2 minutes.
QUIT          Exit the LCU
```

NDS/VE may again use the tape unit

---

2.0 SYSTEM INSTALLATION NOTES  
2.8 CONFIGURATION MANAGEMENT

---

### 2.8 CONFIGURATION MANAGEMENT

1. The name ALL is a reserved element name and should not be used in any element definitions.
2. When running the Physical Configuration Utility (PCU) from an interactive terminal, the include\_file command will return an error stating that the included file is not callable. In order to test the configuration, enter the PCU, then copy the test file to another local file. You now can include\_file the new local file.
3. Serial number uniqueness is now enforced by the Physical Configuration Utility. When defining elements in the configuration prolog, care must be taken to specify a unique serial number for each element. The only exception to this is for multi-spindle devices such as 885-1x.

### 2.9 DEVICE MANAGEMENT/RECOVERY

1. If any disk volume being used by NOS/VE becomes full, the following message will periodically appear on the console:

```
AAAAAA - out of space (date) (time)  
(AAAAAA is the vsn of the volume)
```

Any task that is requesting space on a full volume will hang waiting for space. Some space may be obtained by asking users (if they are able) to delete permanent files and detach local files. If the disk full condition persists, the NOS/VE system should be taken down and brought back up. This action will release most of the temporary file space that was in use. If the disk full was caused by permanent files, then the disk will be nearly full after the recovery, and the archiving of permanent files or deleting of some files must be done as soon as the system is up.

It is possible that a disk full situation will occur that cannot be recovered. This will have happened if the "out of space" message appears during a deadstart before the system is up (this usually will occur during the permanent file reorganization phase of deadstart -- recognized by the "PF RECOVERY" message at the console). In this case permanent file volumes must be initialized and reloaded from a previous backup dump.

It is !imperative! that all efforts be made to resolve a full volume condition !before! taking the system down, so as to avoid having to reload files.

85/10/02

## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.9 DEVICE MANAGEMENT/RECOVERY**

---

2. Any NOS/VE failure that is related to a disk error should be given special attention. Many times, the disk failure can be repaired and NOS/VE restarted without having to reload files. Make sure that the first attempts to repair the device are done in a non-destructive mode.
3. Certain software failures during recovery can be circumvented by performing a recovery "without image". An attempt should always be made to recover with image, but if it fails, a recovery without image should be attempted. Recovery without image is forced by using the following command at deadstart time:

```
SETSAR_RETRY_RECOVERY_WITH_IMAGE 1
```

**2.10 PERMANENT\_FILE\_UTILITIES**

1. The power of the family administrator has been extended to allow backing up, deleting, and restoring files for users in his family.

**2.11 COMMAND\_LANGUAGE\_STATISTIC**

1. The data that gets emitted for this statistic is the time and page faults for the task that calls the command. If the command spins off a task, then the data for that task is found under the task statistics and the command statistic will only contain the time and page faults for the initiating task.

85/10/02

## Software Release Bulletin

---

 2.0 SYSTEM INSTALLATION NOTES  
 2.11 COMMAND LANGUAGE STATISTIC
 

---

Statistic Name	Description
CL170002	<p>Command Resources. This statistic will collect and generate data for every command executed. It should only be used for testing or performance information gathering.</p> <p>The information generated by this statistic includes:</p> <p>DESCRIPTIVE DATA - command name            COUNTER 1 - job mode CP time            COUNTER 2 - monitor mode CP time            COUNTER 3 - total page faults            COUNTER 4 - total page-ins            COUNTER 5 - total page-reclaims            COUNTER 6 - total page-assigns</p>

Due to the large overhead incurred by using this statistic, it is conditional and must be activated in the following manner:

FROM THE CONSOLE ENTER:

```
SETSA COMMAND_STATISTICS_ENABLED TRUE
ACTS CL170002
```

To deactivate the statistic, use the opposite of the above sequence.

```
DEAS CL170002
SETSA COMMAND_STATISTICS_ENABLED FALSE
```

## 2.12 ONLINE MANUALS

1. The installation and upgrade of online manuals is documented in the NDS/VE Installation and Upgrade Usage Manual for Release 1.1.2. The maintenance process is described in this section.

The source for online manuals is being distributed to allow customers the capability of tailoring the manuals for their site. Source libraries contain a SCU feature reflecting the revision level documentation changes (example: feature VER\_1\_1\_2 for Release 1.1.2) This not only gives the benefit of a "revision packet" to identify new capabilities and changes, but also aids the update process for the site version of manuals.

To tailor a manual for a site:

85/10/02

## Software Release Bulletin

---

**2.0 SYSTEM INSTALLATION NOTES**  
**2.12 ONLINE MANUALS**

---

- a. Create a new source library or additional cycle of  
\$SYSTEM.MANUALS.MAINTENANCE.SOURCE\_LIBRARY\_I or  
\$SYSTEM.MANUALS.MAINTENANCE.SOURCE\_LIBRARY\_II reflecting the  
site modifications. (Note that each manual is contained in a  
deck. Decks are grouped by product.)
- b. Execute \$SYSTEM.MANUALS.MAINTENANCE.BINDING\_PROCEDURE within  
the \$SYSTEM user or maintenance user name to create new  
manuals.

```
PROC bind_manuals, binm, bind_manual  
  manual, manuals, m: LIST OF NAME or KEY all = all  
  source_catalog, sc: FILE = $SYSTEM.MANUALS.MAINTENANCE  
  catalog, c: FILE = $USER.MANUALS  
  status)
```

where,

```
manual = sou deckname(s) of manual(s) desired to be created  
source_catalog contains the source libraries used for  
compilation  
catalog = resultant catalog for new manual(s)
```

---

3.0 OPERATING SYSTEM NOTES AND CAUTIONS

---

3.0 OPERATING\_SYSTEM\_NOTES\_AND\_CAUTIONS

3.1 PHYSICAL\_I/O\_(TAPE)

Tape usage is restricted to permanent file backup/restore, migrating VAX tapes, and dump analyzer operations for NDS/VE 1.1.3.

---

4.0 PRODUCT SET NOTES AND CAUTIONS

---

4.0 PRODUCT SET NOTES AND CAUTIONS

4.1 ACCOUNTING AND VALIDATION UTILITIES

1. Page 3-1 of the NDS/VE Accounting and Validation manual suggests that SYNCVAL be run by entering the following command.

```
X.SYNCVAL(UN=adminun,PW=adminpw,VEIAF=bitname)
```

You should use the following commands instead.

```
X.DIS.  
SYNCVAL(UN=adminun,PW=adminpw,VEIAF=bitname)  
DRJP.
```

If you use the X.SYNCVAL command, the NDS/VE batch job that is routed by SYNCVAL will not be run.

2. Page 4-1 of the NDS/VE Accounting and Validation manual suggests that SYNCACC be run by entering the following command.

```
X.SYNCACC(UN=adminun,PW=adminpw)
```

You should use the following commands instead.

```
X.DIS.  
SYNCACC(UN=adminun,PW=adminpw)  
DRJP.
```

If you use the X.SYNCACC command, the NDS/VE batch job that is routed by SYNCACC will not be run.

## Software Release Bulletin

-----  
5.0 HDST SYSTEM NOTES  
-----

## 5.0 HDST\_SYSTEM\_NOTES

## 5.1 NDS\_2.4.2\_LEVEL\_642\_OPERATING\_SYSTEM

1. Support for micro-computer file transfer for NDS/VE 1.1.3 introduced a dependence on the NDS 2.4.2 version of CCP for all terminal I/O. This support consisted mainly of multi-message transparent, sticky inter-character timeout, and input timeout.

The solution is to install the NDS 2.4.2 version of CCP, replace records ABS/PPTF-DVL/MODEM30 from the NDS 2.4.2 deadstart tape, and file PPTFR/UN=LIBRARY from NDS 2.4.2 RECLAIM tapes on any/all NDS 2.4.1 network hosts.

2. As of NDS/VE 1.1.3, a user will be able to route jobs from NDS to NDS/VE with the following commands:

- a. ROUTE,ifn,DC=IN,ST=MFA.
- b. ROUTE,ifn,DC=TO,ST=MFB.
- c. ROUTE,ifn,DC=NO,ST=MFA.
- d. ROUTE,ifn,DC=IN,ST=MFB,UN=username.

where MFA and MFB are valid logical identifiers (LIDs) defined for NDS/VE.

In the first case, the output gets routed back to the mainframe it was sent from. In the second case, the output will get routed to the NDS wait queue. In the third case, the output will be suppressed. In the fourth case, the output is sent to an RBF terminal to the user name that's logged in.

NOTE: The following command will not be supported as of NDS/VE 1.1.3.

ROUTE,ifn,DC=LP,FC=RH.

## 5.2 NDS/BE\_LEVEL\_627\_OPERATING\_SYSTEM

1. The NDS/BE terminal driver always issues a line feed (LF) in response to a carriage return (CR) sent from a terminal. This causes a problem when using the NDS/VE Full Screen Editor (FSE) with terminals which consider the home position (command line) to be the last line of the display and do not have a page mode. For terminals like this, such as the CDC 722-10, the user should clear the screen (followed by a CR) to cause the NDS/VE FSE to repaint the entire screen.
2. NDS/VE fails to deadstart after a NDS/BE checkpoint/recovery deadstart due to checkpoint flags set in the Environment Interface



---

5.0 HOST SYSTEM NOTES

5.2 NDS/BE LEVEL 627 OPERATING SYSTEM

---

face Communication Block.

Solution:

Install NB0E477 from SOLVER.

3. NVE subsystem control point hangs after a level 3 recovery deadstart due to coding error in IAB.

Solution:

Install NB0E481 from SOLVER.

85/10/02

## Software Release Bulletin

-----  
5.0 HOST SYSTEM NOTES5.2 NDS/BE LEVEL 627 OPERATING SYSTEM  
-----

4. The DST1 job on the installation decks PL will not install NDS/VE binaries correctly.

## Solution:

Install the following modification to the installation decks:

```
=IDENT C7535DST
=B HISTORY.2
C7535DST CORRECT VE ROUTINE EDITLIB.
      JWB      03/15/85      DST1

=C HISTORY
=D C7535DK.7                      NEAR DST1.315
REPLACE(FASLAVE,NUC,AL=1,FL=23100)
=D C7535DK.18                      NEAR DST1.629
REPLACE(DSMRUN,NVE,AL=1,FL=44000)
=D C7535DK.21,31
SETAL(CLOSLNK,0)
SETAL(GETLNK,0)
SETAL(GETNLNK,0)
SETAL(GETPLNK,0)
SETAL(NLIF,0)
SETAL(OPENLNK,0)
SETAL(PUTLNK,0)
SETAL(PUTNLNK,0)
SETAL(PUTPLNK,0)
SETAL(WREPLNK,0)
SETAL(IC7MMLI,0)
=C DST1
```

---

 6.0 FCA LEVELS
 

---



---

 6.0 ECA LEVELS
 

---

NDS/VE 1.1.3 Level 644 was tested in an environment containing the following hardware and software components.

COMPONENT	RELEASE LEVEL
-----	-----
7155/885 (FMD)	MA721-D10
834	MA462-D04
CYBER Initialization Package	CIPL004/CIPL004A
NDS	2.4.2 Level 642
CML	Level 173
NDS/BE	1.5 Level 627/631

The following components are certified at the indicated levels:

MODEL	FCA Index #	CIP	CML	NDS	NDS/VE	NDS/BE
-----	-----	---	---	---	-----	-----
CYBER 810	3	L004	173	2.4.2-642	1.1.3-644	1.5-631
CYBER 815	6	L004	173	2.4.2-642	1.1.3-644	1.5-631
CYBER 825	7	L004	173	2.4.2-642	1.1.3-644	1.5-631
CYBER 830	3	L004	173	2.4.2-642	1.1.3-644	1.5-631
CYBER 835	7	L004	173	2.4.2-642	1.1.3-644	1.5-627
CYBER 840	2	L004	173	2.4.2-642	1.1.3-644	1.5-631
CYBER 845	5	L004	173	2.4.2-642	1.1.3-644	1.5-627
CYBER 850	2	L004	173	2.4.2-642	1.1.3-644	1.5-631
CYBER 855	8	L004	173	2.4.2-642	1.1.3-644	1.5-627
CYBER 860	2	L004	173	2.4.2-642	1.1.3-644	1.5-631

85/10/02

## Software Release Bulletin

-----  
A1.0 NDS/VE DUAL STATE DEVICE MANAGEMENT  
-----

## A1.0 NDS/VE\_DUAL\_STATE\_DEVICE\_MANAGEMENT

## A1.1 PROCESSING WHICH IS COMMON TO NDS AND NDS/VE

In the NDS/VE dual state system, all the elements (channels, controllers, storage devices) which belong to the NDS or NDS/BE system which are likely to be used by NDS/VE may be described in the NDS/VE physical configuration for the mainframe. It is a requirement that at least the subset of the physical configuration which is to be included in NDS/VE's logical configuration must be described in NDS/VE's physical configuration.

When executing in a dual-state environment, NDS/VE acquires its PPs, channels and certain types of peripherals from its NDS or NDS/BE counterpart as dictated by the most recently installed physical and logical configurations. Termination of NDS/VE execution will cause the resources acquired by NDS/VE to revert back to the NDS or NDS/BE system.

NDS/VE does not share a mainframe channel with a NDS or NDS/BE system but NDS/VE will share a \$7155\_1x or a \$7021\_32 controller with a NDS or NDS/BE system. However, each state must have a unique channel access to the controller.

A mass storage or tape storage device cannot be accessed concurrently by both dual-state systems; one state must have exclusive ownership of the storage device at a time.

The information recorded on a mass storage device by one state is not directly readable by another state should a mass storage device be alternately owned by the dual-state systems; the volume must be re-initialized by the system to use it next. However, it is not necessary to reformat \$885\_1x, \$344\_4x, nor \$834\_12 mass storage devices when alternating the use of the storage devices between states.

By using the CHANGE\_ELEMENT\_STATE subcommand of the LCU, one can toggle the ownership of a tape subsystem element between the NDS or NDS/BE system and NDS/VE without requiring a deadstart of either state.

85/10/02

## Software Release Bulletin

---

A1.0 NOS/VE DUAL STATE DEVICE MANAGEMENT  
A1.2 NOS DUAL STATE IDIOSYNCRASIES

---

## A1.2 NOS\_DUAL\_STATE\_IDIOSYNCRASIES

The following table summarizes the configuration capabilities and requirements when configuring a NOS dual-state system:

Product	Can be In NOS EST	Must be In NOS EST To Be Used By NOS/VE	Ownership May be Toggled Between States	Can be Shared Between States
\$639-1	Y (1)	N (3)	Y (1)	N
\$679_x	Y	Y (2)	Y	N
\$834_12	N (3)	N	N	N
\$844_4x	Y	Y (2)	N	N
\$885_1x	Y	Y (2)	N	N
\$7021_31	Y	Y (2)	Y	N
\$7021_32	Y	Y (1)	Y	Y
\$7155_11	Y	Y (1)	N	N
\$7155_12	Y	Y (1)	N	Y
\$7155_13	Y	Y (1)	N	Y
\$7155_14	Y	Y (1)	N	Y
\$10395_11	N (3,4)	N	N	N

## Notes:

1. The NOS/VE channel to the element must be in the DOWN state in the NOS configuration.
2. The element and the channel connecting it to NOS/VE must be in the DOWN state in the NOS configuration.
3. The NOS/VE channel may be in either the UP or the DOWN state in the NOS configuration and must not have any elements connected to it.
4. If the element is connected to two channels then both channels must be described in the NOS/VE logical configuration, i.e. NOS cannot be allowed to use either channel concurrent with NOS/VE use.

85/10/02

## Software Release Bulletin

-----  
 A1.0 NOS/VE DUAL STATE DEVICE MANAGEMENT  
 A1.3 NOS/BE DUAL STATE IDIOSYNCRASIES  
 -----

## A1.3 NOS/BE DUAL STATE IDIOSYNCRASIES

The following table summarizes the configuration capabilities and requirements when configuring a NOS/BE dual-state system:

Product	Can be in NOS/BE EST	Must be in NOS/BE EST To Be Used by NOS/VE	Ownership May be Toggled Between States	Can be Shared Between States
\$639-1	N	N (3)	N	N
\$679_x	Y	Y (2)	Y	N
\$834_12	N (3)	N	N	N
\$844_4x	Y	Y (2)	N	N
\$885_1x	Y	Y (2)	N	N
\$7021_31	Y	Y (2)	Y	N
\$7021_32	Y	Y (1)	Y	Y
\$7155_11	Y	Y (1)	N	N
\$7155_12	Y	Y (1)	N	Y
\$7155_13	Y	Y (1)	N	Y
\$7155_14	Y	Y (1)	N	Y
\$10395_11	N (3,4)	N	N	N

## Notes:

1. The NOS/VE channel to the element must be in the DOWN state in the NOS/BE configuration.
2. The element and the channel connecting it to NOS/VE must be in the DOWN state in the NOS/BE configuration.
3. The NOS/VE channel may be in either the UP or the DOWN state in the NOS/BE configuration and must not have any elements connected to it.
4. If the element is connected to two channels then both channels must be described in the NOS/VE logical configuration, i.e. NOS/BE cannot be allowed to use either channel concurrent with NOS/VE use.

Software Release Bulletin  
Support of 7154 Controller

---

B1.0 SUPPORT OF 7154 CONTROLLER

---

B1.0 SUPPORT OF 7154 CONTROLLER

The following information is provided for those sites installing NDS/VE on a configuration using 7154 controllers. Users should be aware that NDS/VE support of 7154 controllers is planned to be dropped in the future. This information is supplied as an appendix to the SRB and will not be incorporated into any manuals.

To use a 7154 controller in a NDS/VE system, make the following changes:

1. Use \$7154\_1 as the Product\_Identification in Configuration Prolog files.
2. Use \$7154\_1 when defining the deadstart controller.