

May 1, 1987

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**NOS/BE Station 1.15 Release Notice**

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## INTRODUCTION

Version 1.15 of the NOS/BE Station is now released. Highlights of the release are described in this Release Notice.

The NOS/BE Station 1.15 release contains 9 new features and corrective code for the resolution of 35 SPRs.

Responses to SPRs closed by this release will be shipped separately to the originating sites only.

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The UNICOS operating system is derived from the AT&T UNIX System V operating system. UNICOS is also based in part on the Fourth Berkeley Software Distribution under license from The Regents of the University of California.

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## RELEASE CONTENTS

The NOS/BE Station 1.15 release consists of the following:

- NOS/BE Station 1.15 Release Notice (this document)
- NOS/BE Station 1.15 Release Tape
- NOS/BE Station 1.15 Installation Bulletin
- NOS/BE Station 1.15 SPR Summary
- NOS/BE Station 1.15 Test Summary Report
- CDC NOS/BE Station Reference Manual, publication SR-0034
- CDC NOS/BE Station Internal Reference Manual, publication SM-0052
- CDC NOS/BE Station Operator's Guide, publication SG-0058
- CDC NOS/BE Station Reference Card, publication SQ-0241
- CDC NOS/BE Station Summary of Differences for UNICOS Installations, publication SN-0240

## NEW USER FEATURES

### ASCII support

Users now have the capability to transfer NOS/BE files in ASCII 8/12 format between the NOS/BE and Cray computer systems.

In addition, jobs in ASCII 8/12 format can now be submitted to the Cray computer system, and have output returned in ASCII 8/12 format.

### UNICOS support

Datasets can now be transferred between UNICOS and NOS/BE using the FETCH, DISPOSE, and ACQUIRE commands. The new format UNICOS, "UD", is also supported. Refer to the CDC NOS/BE Station Summary of Differences for UNICOS Installations, publication SN-0240, for more details.

With the DISPOSE command, UNICOS new-line characters are translated into end-of-line (EOL) zero-byte terminators in the NOS/BE file. Tabs are expanded to the default tab positions 1, 9, 17, 25, etc. (every 8 columns).

With the FETCH and ACQUIRE commands, the NOS/BE file must be record type Z, block type C. All EOL zero-byte terminators are translated into UNICOS new-line characters. NOS/BE end-of-record (EOR) and end-of-file (EOF) marks are ignored, but a new-line character is inserted if there is no zero-byte terminator before the EOR or EOF. The NOS/BE end-of-information (EOI) mark corresponds to the UNICOS end-of-file character. The character conversions are summarized as follows:

UNICOS to NOS/BE

FROM	TO
new-line	EOL
TAB	expanded
EOF	EOI

NOS/BE to UNICOS

FROM	TO
EOL	new-line
EOR	ignored, or new-line if no EOL
EOI	EOF

## New User Features

### Dual-state support

NOS/VE users can now submit jobs to the Cray computer system.

Datasets can also be transferred between NOS/VE and the Cray computer system. The CB (ASCII), BB, and TR formats are supported.

Cray job status for NOS/VE users is also available, using the STATUS\_CRAY command. The output is the same as that of the CSTATUS command.

Refer to section 5 of the CDC NOS/BE Station Reference Manual, publication SR-0034, for more details on dual-state support.

### Enhanced Cray status display

The CSTATUS display now includes the date, time, and station version. Users who write the CSTATUS output to a file for later processing should bear this change in mind.

## NEW SYSTEMS FEATURES

### Enhanced history trace

This feature allows the trace information for CRSTAT to be written to a local file. The release tape includes a tracefile analyzer program, which can be used in interactive or batch modes. The program should be self-explanatory.

It is recommended that the station be brought up using a procedure, which permits enabling this feature.

For more details, refer to the CDC NOS/BE Station Internal Reference Manual, publication SM-0052.

### Installation procedures

The installation procedures have been changed to include dual-state support installation. This is optional and must be selected by the installing analyst.

The release tape includes a new SITEMOD deck, in which all installation parameters are listed. This provides a significant improvement for installing and tailoring the station to the site's needs.

### Provide exit in CRAYCMD for user validation

Sites may now easily implement their own CRAYCMD user validation and security features by changing subroutines within CRAYCMD. Skeleton routines are provided for analysts' convenience.

## NEW OPERATIONS FEATURES

### Independent operator control of file and job staging

This enables the station operator to turn ON or OFF staging for JOB and FILES separately.

### Add support for "held" datasets

Dataset transfers can be indefinitely suspended via the ISCB,HLD operator command. Held datasets may be reinitiated via the RELEASE operator command. For more details, refer to the CDC NOS/BE Station Internal Reference Manual, publication SM-0052.

## SIGNIFICANT PROBLEMS FIXED

<u>SPR #</u>	<u>Description</u>
7557	When link between CYBER and CRAY-1 goes down, CRSTAT just executes a short RECALL loop, not advising the operator of the link's condition.
11227	CTASK keeps CPU during link I/O. Causes very slow transparent transfers when CYBER uses CDC 819 disks.
11430	Problem with blank compression causes no lines to be printed in the logfile following the account card.
11436	NOS/BE station goes down when "ENDCONC" command entered from COS.
11437	Station did not start with "LINK NOT RESPOND" message while COS was running.
11605	Control point 5 loops with no job present.
12123	Bad escape sequence generates "BAD DATA IN CRAY FILE" during write.
12125	Assign number of disk buffers at logon.
12127	Correct bad checking of separators in routine SCP (CTASK) when processing CTASK control statement parameters.
12129	Inhibit generation of spot output list with *CS* ID when the station aborts.
12131	When an error is detected on link file (by CRC, for example), SCI should abort after disposing the file to the output queue. Instead, the file is disposed to the output queue, but the transfer is reinitiated, by COS again and again. This can result in FNT saturation under NOS/BE.
12145	UIO obtains scheduler channel before CSD. Results in intermittent error message "TASK MISSING".
12496	BBI does not work properly for S/L tapes.
12502	BBO is unable to read an S/L tape.
12985	Bad dataset headers fills all available memory. Results in "WORK SPACE FULL." error message.
12987	CYBER hung after CRAY machine was powered down.

## Significant Problems Fixed

<u>SPR #</u>	<u>Description</u>
14641	Same as 12985.
14741	Previous fix hangs task at control point if a RELOG has just been performed by the station.
16458	Error in CDO results in COS sometimes receiving incorrect data (part of data overwritten by blanks).
18313	When SDT for input is full, CTASK aborts.

OUTSTANDING KNOWN SIGNIFICANT PROBLEMS

<u>SPR #</u>	<u>Description</u>
11438	FEI diagnostic CID (channel interface test) does not run.
12498	BBI aborts with message "ERROR WHILE DOING LINK I/O", due to size of the dataset being a multiple of the segment size, causing a false premature EOD to be detected.

## TESTING ENVIRONMENT

The NOS/BE Station 1.15 release was tested in the following environments:

- Customer site in West Germany
  - CYBER 810 running NOS/BE 1.5 L627
  - CRAY-1/S running COS 1.14BF1
  - CRAY-2 running UNICOS 2.0<sup>1</sup>
  - NSC HYPERchannel adapter
- Second customer site, also in West Germany
  - CYBER 815 running NOS/BE 1.5 L627
  - CRAY-1/S running COS 1.14BF4
  - FEI

The dual-state feature could not be tested, due to circumstances beyond our control.

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<sup>1</sup> Be sure that you run the version of the USCP that supports the NOS/BE station.

## BUGFIX AND CRITICAL FIX SUPPORT

The previous release of the NOS/BE Station was Version 1.14. That version will be supported through September 1, 1987.

The general policy for support of standard software is as follows:

Standard software as defined by Cray Research, Inc. (CRI), includes all COS and associated product set software, all UNICOS and associated product set software and all software written by CRI to support the CRI stations. In general, bugfix and critical release support for major release "n-1" will be provided for at least 4 months after the shipment of major release "n".

Bugfix releases supersede all previous bugfix releases for a specified release level. The COS, CFT, Linking Software/Stations, Pascal, and Product Set Utilities are all inclusive; that is, the distribution tape contains the base software, plus all mods from previous releases. A 1.14 Bugfix 3 release would include mods previously released in 1.14 Bugfix 1 and 2, as well as additional bugfix mods. 1.14 Bugfix 1 and 2 would not be prerequisites for installing 1.14 Bugfix 3, unless specifically documented in the System Installation Bulletin for Bugfix 3.

The following chart provides a summary of currently supported Cray standard software products. It identifies the current level of each product and indicates which previous level, if any, is still supported. Dependencies for the current level, if any, are also indicated for each product.<sup>2</sup>

**Compilers and Products**

Product	Previous Supported Level	Support Expires	Current Level	Software Requirements <sup>3</sup>
CFT	1.14	12/04/86 (Expired)	1.15	COS 1.15 or later 1.15 Libraries
Product Set, Libraries and Utilities	none	-	<sup>4</sup>	COS/CFT 1.14 or later
Pascal	3.0	04/19/87	3.1	COS 1.14BF5 or later
CFT77	1.2	08/24/87	1.3	COS 1.14BF6 or later PASCAL 3.1
C (COS)	1.1	08/08/87	2.0	COS 1.15BF2 or later

**Operating Systems**

Product	Previous Supported Level	Support Expires	Current Level	Software Requirements <sup>3</sup>
COS	none	-	1.15	CFT 1.14BF5 or later
UNICOS	1.1	06/06/87	2.0	CFT77 1.2 <sup>5</sup> (CRAY-2 only)

## Linking Software

Product	Previous Supported Level	Support Expires	Current Level	Software Requirements <sup>3</sup>
Apollo station	2.01	03/10/87 (Expired)	2.02	COS 1.12 or later UNICOS 2.0 AEGIS 9.0 or later
MVS station	2.01	07/20/87	2.02	COS 1.11 or later UNICOS 2.0
NOS station	1.16	04/30/87 (Expired)	1.17	COS 1.13 or later UNICOS 2.0 University of MN PASCAL 4.0 is required
NOS/BE station	1.14	09/01/87	1.15	COS 1.13 or later UNICOS 2.0 NOS/BE 1.5 (L627, L650, L664) NOS/VE 1.2.1 University of MN PASCAL 4.0 is required
RDOS local station	1.14	08/03/87	1.15	COS 1.13 or later
Remote Apollo Link	none	-	1.01	COS 1.12 or later UNICOS 2.0 AEGIS 9.0 or later
VAX/VMS station	3.03	08/10/87	3.04	COS 1.13 or later UNICOS 2.0
VM station	4.00	04/12/87 (Expired)	4.01	COS 1.14 or later UNICOS 2.0 IBM VM/SP 3.0 PUT level 8401 or later
UNIX station	2.00	11/25/86 (Expired)	2.01	COS 1.14 or later UNICOS 2.0
SUPERLINK/ISP	none	-	1.00	COS 1.14BF2 or later

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- <sup>2</sup> This table indicates the latest base release levels of software and is not meant to show current bugfix software releases unless specifically stated, as for SUPERLINK/ISP.
- <sup>3</sup> The "Software Requirements" category indicates supported levels of Cray and vendor software. To determine which levels were actually tested reference the "Testing Status" section within the Release Notice/Letter for the respective software product.
- <sup>4</sup> The product set supporting COS 1.15 includes the following common COS/UNICOS products: ADSTAPE 2.0, APLM 2.0, BIND 2.0, DEBUG 2.0, SEGLDR 2.0, UPDATE 2.0, \$ARLIB 2.0, \$IOLIB 2.0, \$SCILIB 2.0, and \$UTLIB 2.0. Other COS-specific products and libraries are at the 1.15 level.
- <sup>5</sup> The product set included with UNICOS 2.0 consists of the following:
- CRAY-1 and CRAY X-MP systems only: CFT 1.15 BF2 compiler, C 2.0 compiler, FTREF 2.0, PREMULT 1.0, APLM 3.0, ADSTAPE 2.2, and BIND 2.2
  - CRAY-2 systems only: CFT2 compiler, C compiler, and SEP 1.0 communications package
  - CRAY-1, CRAY X-MP, and CRAY-2 systems: UNICOS 2.0 commands, libraries, and on-line manuals, TCP/IP (if licensed), USCP, Pascal 3.1 compiler, library support (Fortran, C, and PASCAL), CAL 3.0 assembler, SEGLDR 3.0, DEBUG 3.0, DDA 3.0, DRD 3.0, UPDATE 4.0, and on-line diagnostics



