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Release Notice
Diagnostics Database V2.7
Document No. 760-000618-203

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Release Notice

1. Introduction

This document describes release V2.7 of the Diagnostics Database. This document is intended to enhance and clarify the existing permanent documentation for this product with information that is up-to-the-minute, or was developed too late for inclusion in the permanent documentation. Always refer to this release notice before reporting questions or problems with the Diagnostics Database. Your questions may be answered here. Fixes and workarounds are listed here that may save you time in rediscovering known problems.

The remaining sections in this document describe the contents of this release.

- Section 2 describes the contents of this distribution.
- Section 3 contains notes and warnings about the use of the software.
- Section 4 contains enhancements to the previous functionality.
- Section 5 describes fixes for previously reported problems.
- Section 6 describes known software problems.
- Section 7 contains fixes to the current documentation.
- Section 8 contains information on new documentation.
- Appendix A contains instructions for installing this release on a C-1 Service Processor Unit (SPU).

Diagnostics Database consists of microcode files, scan-ring definition files, interactive scan scripts, and various other files required by programs and diagnostic utilities which execute under the UNIX Version 7 operating system of the SPU. These files are the property of CONVEX Computer Corporation and are intended for use only by CONVEX Field Service.

2. Contents of This Distribution

The distribution package for this release of Diagnostics Database consists of this document and the distribution media for the software. The specific contents of the software are described in the following table:

ITEM	QTY	TYPE	PART NUMBER	DESCRIPTION	FORMAT
1.	1	cipher	760-001515-202	Diagnostics Database, V2.7	Installsw.
2.	1	qic	760-002115-201	Diagnostics Database, V2.7	Installsw.

3. Notes and Warnings

This section contains general useful information or words of caution about the product.

- This release supercedes all previous releases of Diagnostics Database.
- The file /mnt/usr/lib/DB_diskfmt is no longer released on this tape. It is released with System Diagnostics V6.3 (760-000015-201: cipher, 760-002015-201: qic).
- Diagnostics Database V2.7 is compatible with certain revisions of CONVEX C-1 hardware. Consult the C-1 CPU Logic Configurator (400-000100-991, 400-000100-992,

400-000100-993, 400-000100-994, 400-000100-995, or 400-000100-996) for applicability of this database to the existing hardware configuration. Functionality on hardware configurations other than those specified by the Logic Configurators is not guaranteed.

- This release requires the installation of SPU UNIX V4.0 (760-000515-000: boot, 760-000615-000: installsw) or later, System Diagnostics V5.0 (760-000315-000) or later, and CONVEX UNIX OS and Utilities V4.1 or later as prerequisites.
- This release contains new revisions of microcode files. Installation of the Diagnostics Database V2.7 tape (760-001515-201) saves the currently installed microcode files in */mnt/usr/ucode.old* and installs the new microcode files in */mnt/usr/ucode*. If necessary, the original microcode files can be restored from the *ucode.old* directory.
- The installation of this release results in the deletion of the following directories prior to loading the V2.7 files from the release tape:
 - */mnt/jptest*
 - */mnt/usr/scn*
- This release should be installed only by a qualified CONVEX Field Service representative. Please see Appendix A for installation details.

4. Enhancements

- This release contains the following C-1 microcode file revisions:

FILE	REVISION
base.wcs	1.15
base.fasu	1.7
actl.acs	1.22
mctl.mcs	1.7
lsctl.lcs	2.12

5. Fixes

- This release contains bug fixes to the vector microcode.

Many minor changes to fix vector instructions that failed during certain faulting operations.

6. Known Software Problems

- None.

7. Known Documentation Problems

- Not applicable.

8. New Documentation

- None.

Installing Diagnostics Database V2.7

Warnings

This release supercedes all previous releases of Diagnostics Database.

Diagnostics Database V2.7 should be installed only on system configurations as specified by the C-1 CPU Logic Configurator (400-000100-991, 400-000100-992, 400-000100-993, 400-000100-994, 400-000100-995, or 400-000100-996).

This release requires the installation of SPU UNIX V4.0 (760-000515-000: boot, 760-000615-000: installsw) or later and System Diagnostics V5.0 (760-000315-000) or later as prerequisites.

Installation of the Diagnostics Database V2.7 tape saves the currently installed microcode files in */mnt/usr/ucode.old* and installs new microcode in */mnt/usr/ucode*. Depending upon the system logic configuration level, it may be necessary to restore some or all of the original microcode files from the *ucode.old* directory.

The installation of this release results in the deletion of the following directories prior to loading the V2.7 files from the release tape:

- */mnt/jptest*
- */mnt/usr*

In particular, you may wish to examine the file */mnt/usr/lib/softlog*, which contains information about single-bit memory errors that may have occurred.

Installation Procedure

1. Using the latest revision of the C-1 CPU Logic Configurator (400-000100-991, 400-000100-992, 400-000100-993, 400-000100-994, 400-000100-995, or 400-000100-996), verify that Diagnostic Database V2.7 is compatible with the existing hardware revision. If not, this database CANNOT be installed.
2. If SPU UNIX is already booted, go to step 6.
3. Place the front panel key switch in the *local* position and depress the system reset button to boot SPU UNIX.
4. The soft front panel menu will be displayed. Change the mode to diagnostics and continue the boot process by entering the following commands at the **(fp)**> prompt:


```
(fp)> set mode=diagnostic or sm=d
(fp)> boot
```
5. The SPU UNIX bootstrap routine will prompt with:

SPU UNIX boot

:

Enter a carriage return <CR> in response to the prompt. SPU UNIX will now boot and prompt with **(spu)>** when boot is complete.

NOTE: A file system check is performed during the boot procedure. If errors are detected in the file system, they will be corrected if possible. If it is not possible to automatically correct the errors, then you will be requested to execute */etc/fsck* manually to correct these errors before proceeding.

6. If steps 3-5 were skipped, then execute */etc/fsck* manually and correct all errors before proceeding:

```
(spu)> /etc/fsck -y
```

If errors are detected in the root file system, then reboot SPU UNIX via */etc/reboot*:

```
(spu)> /etc/reboot -n
```

7. Verify that SPU UNIX V4.0 or later is installed:

```
(spu)> cat /UNIX_REV
```

If the file */UNIX_REV* is not present or the version number displayed for SPU UNIX is not V4.0 or later, then install SPU UNIX V4.0 (760-000515-000: boot, 760-000615-000: installsw) or later in accordance with SPU UNIX Release Notice V4.0 (760-000518-000).

8. Verify that System Diagnostics V5.0 or later is installed:

```
(spu)> cat /mnt/DIAG_REV
```

If the file */mnt/DIAG_REV* is not present or the version number displayed for System Diagnostics is not V5.0 or later, then install System Diagnostics V5.0 (760-000315-000) or later in accordance with the System Diagnostics Release Notice V5.0 (760-000318-000).

9. Place the Diagnostics Database V2.7 tape (760-001515-202) in the cartridge tape unit or the qic tape version (760-002115-201) in the qic drive and enter the following command:

```
(spu)> /etc/installsw -i
```

The installation of this release requires about 5 minutes. A log of all tar operations is saved in */tmp/installsw.tar*. Once installation has been successfully completed, */tmp/installsw.tar* should be removed as follows:

```
(spu)> rm /tmp/installsw.tar
```

10. After installation is complete, remove the tape from the cartridge tape unit.
11. If the desired mode of operation is diagnostic mode, then this step may be skipped. Otherwise, return to the soft front panel via the */etc/reboot* command:

```
(spu)> /etc/reboot
```

Change the mode of operation setting to the *desired-mode*. Use the soft front panel *help* command if you need assistance:

(fp)> set mode=*desired-mode*

Place the front panel key switch in the *secure* position and enter the *boot* command to reboot the system:

(fp)> boot

12. This completes the installation of Diagnostics Database V2.7.

