

## Release Notice:

# DG/UX™ AViiON Sample Device Driver Sources Release 4.30

April 1991

This Release Notice applies to Models:  
Q009AZN30A

This Release Notice is part number:  
085-600276-00

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DATA GENERAL CORPORATION  
4400 Computer Drive  
Westboro, Massachusetts 01580

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## 1. Introduction

This Release Notice describes the DG/UX AViiON Sample Device Driver Sources (ASDDS) product and its installation on Data General's family of AViiON™ computers.

You may print additional copies of this release notice after you have installed ASDDS. A copy suitable for line-printers can be found in the file `/usr/opt/asdds/release/asdds_4.30.rn`. In the event of (actual text) differences between the printed copy of this notice and the online version, the printed copy takes precedence.

## 2. Product Description

ASDDS 4.30 contains the source code for several DG/UX 4.30 device driver libraries as well as the necessary kernel specific tools to build these libraries. These sources allow the customer to modify existing DG/UX device drivers or serve as a model for writing new device drivers.

The source code for the following DG/UX 4.30 device drivers is included:

- High-Level SCSI disk driver
- High-Level SCSI tape driver
- High-Level AViiON graphics driver
- Adaptec 6250 integrated SCSI adapter driver
- Ciprico 3510 VME SCSI adapter driver
- Ciprico 3200/3400 VME SMD/ESDI disk driver
- AViiON parallel line printer driver
- AMD AM7990 integrated Ethernet driver
- Interphase V/Ethernet 3207 VME LAN driver

## 3. Environment

ASDDS 4.30 runs on an AViiON system running DG/UX Revision 4.3x; this revision of ASDDS is not compatible with DG/UX 5.4x. See the section *Installation Instructions* for more details.

## 4. Enhancements and Changes

This is the initial release of the AViiON Sample Device Driver Sources product.

## 5. Notes and Warnings

### 5.1 Your Legal Rights to Use ASDDS

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- Data General continues to own the software.
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- You must incorporate the Data General copyright notice in every copy of the source materials and derivative works.

- You are allowed to use the original source materials and any derivative works only on the Designated Equipment, i.e., the particular CPU on which the product is licensed for use.
- You cannot allow anyone else to see, copy or use any source code materials, even on the Designated Equipment.
- If you want to give or sell to others a product that includes a derivative work, you must first enter into a written contract with Data General on mutually agreed terms. Contact

**Data General Corporation  
Open System Marketing  
4400 Computer Dr  
Westboro MA 01850  
ATTN: DG/UX Product Manager**

if you require more information.

## 6. Installation Instructions for ASDDS

The following notes are provided to help in the installation and maintenance of ASDDS on your system.

### 6.1 Loading ASDDS onto Your System

The following instructions describe how to load the ASDDS from tape to your system.

- Become superuser.
- If you want to put ASDDS in a separate logical disk, create a logical disk named `asdds`. The ASDDS requires about 12000 blocks of disk space. The recommended size for the logical disk is 40000 blocks to allow for future growth and temporary file use (e.g. object files and libraries). See the **Installing and Managing DG/UX** manual for information on how to create a logical disk.
- It is recommended that ASDDS be loaded into the `/usr/opt` filesystem. To do this, create a directory named `/usr/opt/asdds`. If you created a logical disk for ASDDS then mount the `/dev/dsk/asdds` logical disk on `/usr/opt/asdds`.
- Place the ASDDS release tape in the tape drive, and make `/usr/opt/asdds` the current working directory. Execute the following `cpio` command:

```
cpio -icvBd </dev/rmt/tapeid
```

Where *tapeid* is the drive number of the tape device, usually 0. This will load all of the ASDDS tools and source files into the `/usr/opt/asdds` directory.

The locations of various kinds of files in the revision 4.30 release are given to help in system administration. For a complete list of files see `/usr/opt/asdds/release/asdds_4.30.fl`.

Path	Description
/usr/opt/asdds	directory for build scripts
/usr/opt/asdds/:mkdriver	ASDDS kernel sources build script
/usr/opt/asdds/:mktools	ASDDS tools build script
/usr/opt/asdds/tools	build tool sources directory
/usr/opt/asdds/utilities	build utilities
/usr/opt/asdds/release	release information and notes
/usr/opt/asdds/aviion/sys	sys include files
/usr/opt/asdds/aviion/ext	ext include files
/usr/opt/asdds/aviion/dev	disk and tape driver sources
/usr/opt/asdds/aviion/hken	VME Ethernet driver sources
/usr/opt/asdds/aviion/inen	integrated Ethernet driver sources
/usr/opt/asdds/aviion/lance	AMD AM7990 driver sources
/usr/opt/asdds/aviion/lb	new drivers library
/usr/opt/asdds/aviion/cf	configuration information
/usr/opt/asdds/aviion/asdds_ii	include information

## 6.2 Device Driver Library Build Procedure

The following steps describe how to build all of the device driver libraries (e.g. dev.a, inen.a, lance.a, and hken.a) and tools after they have been loaded from tape.

- Become superuser.
- Make **/usr/opt/asdds** the current working directory, or wherever you loaded ASDDS.
- Execute the **:mktools** script. This will build any kernel specific source release tools located in **/usr/opt/asdds/aviion/tools**.
- After the **:mktools** script has completed, execute the **:mkdriver** script. This will build the tag files for the device driver libraries, create the device driver interface files in **/usr/opt/asdds/aviion/ii**, compile the source files, and finally create the device driver libraries in **/usr/opt/asdds/aviion/lb**.
- In order to build a new DG/UX kernel containing the new libraries, they must be moved into the directory **/usr/src/uts/aviion/lb**. However, before copying the new libraries it is extremely important to save the current versions existing in **/usr/src/uts/aviion/lb**.

One safe method to do this is to rename the original lb directory, say, to *original-lb* and to create a new directory, say, *new-lb* and copy all the files from the original directory into the new directory. Then, create a symbolic link between *lb* and the directory you want to use: *new-lb*.

- After the original libraries have been saved and the new device driver libraries have been copied into **/usr/src/uts/aviion/lb**, a new kernel can be built by executing the "newdgux" option from sysadm.

After all of the device driver libraries have been built initially, it is possible rebuild them individually as required. For example, the following steps are necessary to rebuild the dev.a library:

- Become superuser
- Add **/usr/opt/asdds/tools/bin** as one of the first entries in your path.
- Make the library source file directory your current working directory. In this example it would be **/usr/opt/asdds/aviion/dev**.
- Execute the **make(1)** command. This will use the Makefile in the library source file directory to rebuild the individual library.

### 6.3 Source Build Dependencies

The ASDDS includes all of the source files and kernel specific tools necessary to build the device driver libraries. However, it does not include a C compiler or a far-back-end (linker, debugger, librarian). The build scripts are designed to use the current version of these tools installed in `/usr/bin` as part of DG/UX.

The ASDDS also requires that the kernel libraries and interface files have been loaded from the DG/UX binary release tape in `/usr/src/uts/aviion/lb` and `/usr/src/uts/aviion/ii` respectively.

## 7. Software Media and Documentation Distribution

The following parts described in the table below are included when Software Media and Documentation model is ordered.

Part Number	Description
079-600171-00	QIC150 cartridge tape containing the ASDDS sources
085-600276-00	AViiON Sample Device Driver Sources Release Notice
093-701075	Using the DG/UX Kernel Debugger
093-701053	Writing a Device Driver for the DG/UX System

## 8. ASDDS Support

ASDDS is a Data General category "C" product. This means that this product is furnished "AS IS" without support services and without warranty of any kind, express or implied, including any warranties of merchantability or fitness for a particular purpose.

Data General provides consulting services on this product. Contact your local Data General Sales Representative and ask for more information on Data General's Professional Services and Consulting program.

## 9. Preparing a Software Trouble Report (STR)

If you believe you have found an error in the DG/UX System or its documentation, or if you have a suggestion for enhancing or improving the product, use a Data General Software Trouble Report (STR) to communicate this to DG.

The standard STR form is available once DG/UX is loaded. It is called `/usr/release/STR_form` and is line printer ready. STR forms are also available from the nearest DG office or DG representative, or the Software Support Center. ASDDS is a category "C" product. As such, Data General will accept STRs on ASDDS, but reserves the right *not* to respond to any STRs submitted.

### 9.1 Gathering STR Information

To help us expedite STR processing, include only one problem or suggestion on each STR form. Please follow these guidelines when filling out your Software Trouble Report:

- List the name of the product as the "ASDDS", model number Q009AZN30A. List the release number as 4.30; if you are running an update or patch, then include its number as well.
- Decide what kind of STR you are writing:
  - Enhancement: describe the proposed enhancement clearly and tell why you want it. The better we understand your desire, the easier it is for us to evaluate your request.

- Documentation Error: list the title and part number of the document and list the page and paragraph (or section) containing the error. Please state exactly why you think there is an error.
  - Software Problem: clearly and specifically state the problem so that support personnel can try to reproduce it.
3. On the STR form provide all of the following information:
- Date
  - Name and release number of the product
  - Release of the operating system
  - CPU type
  - Hardware configuration (if relevant)
  - Names and release numbers of other software running on the system
  - The command line or scenario that caused the problem
  - The action(s) necessary to reproduce the problem
  - How often the problem occurs and how serious it is
4. If the problem occurred soon after installing a new release of software or new hardware, please note this.
5. If you received an error message, please write down the exact text (and number, if present) of the message.

--- End of Release Notice ---

