

Release Notice

GNU Toolset for AViiON Systems  
Revision 1.00

March 1991

Part Number 085-600250-00

Model R028A

Restricted Rights Legend:

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at [FAR] 52.227-7013 (May 1987).

DATA GENERAL CORPORATION  
4400 Computer Drive  
Westboro, Massachusetts 01580

Unpublished - all rights reserved under the copyright laws of the United States.

DG/UX is a trademark and AViiON is a registered trademark of Data General Corporation.

Copyright c Data General Corporation 1991.  
All Rights Reserved.

Licensed Material - Property of Data General Corporation.

This software is made available solely pursuant to the terms of a DGC license agreement which governs its use.

CONTENTS

1. Introduction.....	3
2. Product Description.....	3
3. Environment.....	6
4. Enhancements and Changes.....	6
5. Notes and Warnings.....	6
6. Documentation.....	6
7. Software Distribution.....	9
7.1 Media.....	9
7.2 Organization.....	9
7.3 Files.....	9
8. Installation Instructions.....	10
9. Reporting Problems.....	10

## 1. Introduction

This Release Notice describes a collection of GNU tools and related software that run under DG/UX on Data General's AViiON computers. In addition, this notice may provide information not currently available in the GNU documentation (e.g. warnings and recent enhancements).

This printed release notice always accompanies the software. You may print additional copies of this release notice after you have installed the product. A copy suitable for lineprinters can be found in the file /usr/release/toolset\_1.00.rn.

## 2. Product Description

The GNU Toolset is a collection of utilities and libraries that are provided in source form for users of AViiON systems. Most of the tools come from the family of GNU software produced by the Free Software Foundation. InterViews and NIHCL are C++ class libraries that are in the public domain.

GNU software is subject to the Free Software Foundation's General Public License. The GPL is intended to promote innovation by insuring that the sources to GNU software and to any derivative applications are freely available. The GPL places no constraint on mere use of GNU tools; it does require that any application that incorporates all or part of any GNU product must in turn be placed under the GPL. You should keep this restriction in mind if you choose to build an application using a GNU library, since linking against such a library may cause your application to be subject to the GPL. [The Free Software Foundation is expected to revise its position on library use and the GPL.]

The contents of the Toolset fall into three categories:

1. general utilities, many of them replacements for existing Unix tools;
2. program development tools; and
3. program development libraries, principally class libraries for C++ program development.

The Toolset installation program allows you to install the tools in any or all of these categories; for most tools, you may choose to install executables, sources, or both (see "Installation Instructions," below).

The table on the next page lists the contents of the Toolset, by category, with a brief description of each of the tools.

General utilities

- emacs** Widely-distributed implementation of the Emacs editor, with integrated Lisp system and interface to X window system.
- bash** The 'Bourne Again Shell,' compatible with **sh**. **Bash** has many of the extensions of **cs**h and **ks**h, including job control, command history, and command-line editing.
- gawk** GNU's version of the Unix **awk** utility.
- grep**  
**fgrep**  
**egrep** Much faster versions of the Unix utilities.
- diff** A faster version of the Unix utility, with some additional features.
- sed** A faster version of the Unix utility.
- finger** A daemon-based version of the BSD Unix utility: **finger** provides useful information about users on the Internet network.
- perl** A language that combines some of the features of C, **sed**, **awk**, and **sh**. **Perl** is an interpreted language optimized for scanning arbitrary text files, extracting information from those files, and printing reports based on that information.
- compress** A file-compression utility; **uncompress** performs the complementary operation. The companion tool **zmore** is a filter that displays compressed text files.
- patch** A complement of the **diff** utility, **patch** takes any of the three forms of difference listing and applies these differences to an original file, producing a patched version.
- ispell** An interactive spelling checker and related utilities.
- texi2roff** A translator to convert GNU Texinfo files into a format that can be printed using **nroff** or **troff** with the **mm**, **ms**, or **me** macro packages.
- gnuplot** A command-driven interactive function plotting utility. The companion tool **lasergnu** is used to send **gnuplot**'s output to an IMAGEN or Postscript printer.

Program development tools

<b>g++</b>	A true compiler for the C++ programming language.
<b>gdb</b>	A source-level debugger that supports the C language and GNU's implementation of C++.
<b>bison</b>	Upward-compatible replacement for the <b>yacc</b> parser generator, with additional features.
<b>yacc</b>	"Berkeley yacc," another replacement for the <b>yacc</b> parser generator.
<b>make</b>	This version includes nearly all features of the BSD, System V, and POSIX versions of <b>make</b> , with extensions including parallelism, conditional execution, and text manipulation.
<b>flex</b>	A scanner generator that produces far more efficient scanners than <b>lex</b> does.
<b>scheme</b>	A simplified, lexically scoped dialect of Lisp, designed at MIT and elsewhere to teach programming and to research new parallel programming and compilation techniques.
<b>Smalltalk</b>	GNU's implementation of the Smalltalk-80 language for object-oriented programming.

Program development libraries

<b>InterViews</b>	A C++ interface to the X11 system, implemented on top of Xlib. The library includes a number of tools, such as class and font browsers.
<b>NIHCL</b>	A library of Smalltalk-like classes for C++, formerly known as the "OOPS library."
<b>libg++</b>	Basic C++ class library, with interface to the standard C libraries, other general-purpose classes.
<b>readline</b>	Command-line interface for C and C++, with completion, line editing, and interactive history manipulation.
<b>gdbm</b>	This set of database routines is a superset of the Unix <b>dbm</b> and <b>ndbm</b> families of tools.

### 3. **Environment**

The GNU Toolset Release 1.00 is intended for use on AViiON systems running DG/UX Revision 4.30 or later. To determine the disk space requirements of the packages in this release, see the table in section 7.2. Note that some of the packages are quite large; if you do not create a separate logical disk for such packages, you may inadvertently fill up another file system.

### 4. **Enhancements and Changes**

This is DG's first release of the GNU Toolset.

### 5. **Notes and Warnings**

1. The iclass file browser in the InterViews family of tools identifies only classes in which the keyword "class" appears at the beginning of its source line.
2. The NIHCL library, libnihcl.a, contains several known bugs, particularly in the use of deepCopy() and shallowCopy(). Use these with caution.

### 6. **Documentation**

There are three forms of documentation for the utilities in the Toolset.

- + First, there is a README file included with the sources for each of the tools: for example, when you install the sources for general utilities in this distribution, you will find the README file for the **patch** utility in /usr/opt/gnu/src/patch/README. The README file typically holds some revision history and other low-level information for the developer who wishes to modify and rebuild the tool. For some tools such as **diff** or **sed**, which have functionally equivalent commands on the host system, the README file may be the only documentation: use the existing man page for details of the tool's operation.
- + The following tools in this distribution are provided with man pages, which are installed when you install the respective tools:

bash(1)	gawk(1)	make(1L)
bison(1)	gdb(1)	patch(1)
compress(1)	gnuplot(1)	perl(1)
emacs(1)	grep(1)	texi2roff(1)
finger(1)	ispell(1)	yacc(1)
flex(1)	ispell(4)	zmore(1)
g++(1)	lasergnu(1)	

The InterViews library comprises an extensive set of tools, accompanied by an equally extensive set of man pages:

Adjuster(3I)	MsgHdr(3I)	Tray(3I)
Banner(3I)	ObjectSpace(3I)	Viewport(3I)
Bitmap(3I)	ObjectStub(3I)	World(3I)
Border(3I)	Painter(3I)	WorldView(3I)
Box(3I)	Panner(3I)	alert(3I)
Brush(3I)	Pattern(3I)	dclock(3I)
Button(3I)	Persistent(3I)	fstreamb(3I)
Canvas(3I)	Perspective(3I)	graphics(3I)
ChiefDeputy(3I)	PropSheet(3I)	iclass(3I)
Color(3I)	Raster(3I)	idraw(3I)
Connection(3I)	Regexp(3I)	ifb(3I)
Control(3I)	ReqErr(3I)	ifc(3I)
Cursor(3I)	Resource(3I)	inclink(3I)
Damage(3I)	Rubband(3I)	iostreamb(3I)
Deck(3I)	Scene(3I)	istat(3I)
Deputy(3I)	Scroller(3I)	libgraphic(3I)
Dialog(3I)	Sensor(3I)	logo(3I)
Event(3I)	Shape(3I)	mailbox(3I)
FileBrowser(3I)	StrBrowser(3I)	mkclass(3I)
FileChooser(3I)	StrChooser(3I)	mkdossier(3I)
Font(3I)	StringEditor(3I)	portspace(3I)
Frame(3I)	StringPool(3I)	remind(3I)
Glue(3I)	StringTable(3I)	squares(3I)
Graphic(3I)	Subject(3I)	sted(3I)
GraphicBlock(3I)	Table(3I)	tcpbuf(3I)
InterViews(3I)	TextBuffer(3I)	tcpstream(3I)
Interactor(3I)	TextDisplay(3I)	tcpstreamb(3I)
Menu(3I)	TextEditor(3I)	
Message(3I)	Transformer(3I)	

To access any of these man pages through the **man** command, you should add the directory **/usr/opt/gnu/man/man1** to your **\$MANPATH** environment variable (see **man(1)**).

- + A number of tools in this release are provided with documentation in the form of "texinfo" files, which can be formatted to produce printed or on-line documentation. When you install these tools, the corresponding texinfo files are installed in **/usr/opt/gnu/doc**:

emacs	g++	libg++
bash	gdb	readline
gawk	bison	history
finger	make	
	scheme	
	smalltalk	

Texinfo files are intended for formatting with the Tex typesetting system. If you have the Tex on your system, you should install the **texinfo** component of this release and add its constituent files to your Tex system. (Tex is distributed with Contributed Software for AViiON Systems, Model #R006AZN20A.)

To format the texinfo files for line- or Laser-printing, you can use the **texi2roff** tool included with this release. This tool converts texinfo files into source acceptable to the troff or nroff text formatters.

Finally, users of GNU Emacs can add the texinfo documents to the GNU Emacs Info document browsing subsystem. To do this, you must first create an **info** file from the texinfo file:

1. Visit the texinfo file in an Emacs buffer.
2. Invoke the Emacs command **M-x texinfo-format-buffer**.
3. Invoke the Emacs command **C-x Cs** to save the new **info** file in the same directory as the texinfo source.

If the document is large, Emacs may produce several **info** files with suffixes **-1**, **-2**, and so on.

To add the **info** files to the Emacs browsing subsystem, move all of the files of the manual(s) you wish to install to the `/usr/opt/emacs/info` directory, and then edit the file `'dir'` in that directory to add the new menus. For example, to add the **gawk** documentation, copy the file(s) `'gawk.info*'` from the `/usr/opt/gnu/doc` directory to the `/usr/opt/emacs/info` directory. Then edit the file `'dir'` to include the following line:

```
* gawk: (gawk.info). The GNU awk tool.
```

This process is fully described in the document **texinfo.texinfo**, installed with the **texinfo** tool in this release.

A hard copy of the GNU Emacs manual is available from the Free Software Foundation, 675 Massachusetts Avenue, Cambridge, MA 02139; contact FSF for ordering information.



## 7. Software Distribution

### 7.1 Media

Model #	Part #	Description
R028A	079-600123-00	GNU Toolset

### 7.2 Organization

The following table shows the organization of packages on the tape (all are in Volume 1):

File	Name	Size (bytes)	Type
0	reserved	16000	image
1	sysadm_toc	4000	toc
2	reserved	16000	image
3	gnu-util-bin__r.img	17000000	tar
4	gnu-util-bin__u.ins	16384	tar
5	gnu-util-src__r.img	11000000	tar
6	gnu-util-src__u.ins	16384	tar
7	gnu-dev-bin__r.img	12000000	tar
8	gnu-dev-bin__u.ins	16384	tar
9	gnu-dev-src__r.img	50000000	tar
10	gnu-dev-src__u.ins	16384	tar
11	gnu-libs-bin__r.img	50000000	tar
12	gnu-libs-bin__u.ins	16384	tar
13	gnu-libs-src__r.img	50000000	tar
14	gnu-libs-src__u.ins	16384	tar
15	Interviews-bin__r.img	11000000	tar
16	Interviews-bin__u.ins	16384	tar
17	Interviews-src__r.img	77000000	tar
18	Interviews-src__u.ins	16384	tar
19	NIHCL-bin__r.img	36000000	tar
20	NIHCL-bin__u.ins	16384	tar
21	NIHCL-src__r.img	4000000	tar
22	NIHCL-src__u.ins	16384	tar

### 7.3 Files

Upon installation of any package, a list of its constituent files will be found in /usr/release. The file list is distinguished by the ".fl" suffix:

```
gnu-util-bin.fl  
gnu-util-src.fl  
gnu-dev-bin.fl  
gnu-dev-src.fl  
gnu-libs-bin.fl  
gnu-libs-src.fl  
InterViews-bin.fl  
InterViews-src.fl  
NIHCL-bin.fl  
NIHCL-src.fl
```

All Toolset components are installed in /usr/opt. Look at the appropriate file list for the file structure of any package you install.

## 8. **Installation Instructions**

Follow these steps to install the GNU Toolset on your DG/UX system:

1. Log in as root. This is necessary to run system administration and to write files in /usr/opt.
2. Invoke the system administration facilities by running sysadm.
3. When prompted, select releasemgmt.
4. Select loadpackage and respond as appropriate.
5. After the packages are loaded, select setuppackage from the sysadm menu to complete the installation.

For more detailed information, refer to Chapter 2 of Installing and Managing the DG/UX System.

## 9. **Reporting Problems**

The GNU Toolset is not a supported product. However, you can help us to improve the product by sending problem reports and suggestions via email to

`gnu-toolset@dg-rtp.dg.com`

Please identify the revisions of the operating system and Toolset you are using, the tool in which you see a problem or deficiency, and the names and revisions of any other software the tool uses (for example, a problem report against **gdb** should indicate the compiler used to produce the executable). Describe any actions

necessary to reproduce the problem, and report any error message you received. If appropriate, send a sample file that can be used to reproduce the problem.

If you would like to subscribe to the gnu-toolset mailing list, send a message to [gnu-toolset-request@dg-rtp.dg.com](mailto:gnu-toolset-request@dg-rtp.dg.com). You will then be able to monitor this mailing list for items of interest and/or answers to your questions.

End of Release Notice

