

README

Cronus

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Chapter 1

README

1.1 Geek Gadgets Quick Start

Welcome to the Amiga Developers Environment (ADE), a CD-ROM ↔
distribution of
Geek Gadgets.

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General ADE Info
Release Schedule
Installing the ADE
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1.2 Installing the Amiga Developers Environment

Installing the Amiga Developers Environment requires approximately 40 Mb of disk space for a minimal install, and about 300 Mb for a full install. Not everyone will need everything in the ADE, but if you have sufficient

diskspace you may want to consider installing as much of it as you can because many packages depend upon other packages and these dependencies are not current recorded in any usable form. A future version of the ADE will use a package manager that makes it much easier to selectively "pick and choose" a custom selection of packages to install.

If you do not wish to install any or all of the ADE onto your hard drive, the supplied installation script gives you the option of running directly from the CD-ROM. Depending upon your needs, and the speed of your CD-ROM drive, this may be a good compromise for you.

You can run the installer now or use your WorkBench to locate and run the installation script from it's own icon.

1.3 Guide files for various packages

Many of the Geek Gadgets packages have documentation in "texinfo" format, which can be automatically processed to produce AmigaGuide format documents. These are normally installed in ADE:guide. The below links are links to the guide files in the ready-to-run portion of this CD.

autoconf	automake	bfd	binutils	bison
bugs	calc	cfg-paper	configure	cpio
cpp	cvs	cvsclient	dc	diff
dld	dvidvi	ed	emacs	fd2inline
fileutils	find	gawk	gcc-amigaos	gcc
gdb	gdbint	gdbm	gmp	gprof
guile-prog	guile-user	gzip	id-utils	info-stdnd
info	ld	ldint	libnix	m4
make	makeinfo	rpm	sh-utils	stabs
standards	tar	texinfo	textutils	time
wdiff	wget			

1.4 Geek Gadgets Release Schedule

Geek Gadgets will be a quarterly release, with intermediate ↔
development

snapshot
releases via ftp from ftp.ninemoons.com or one of its mirrors.

Sales of the Geek Gadgets CD help to support further development and a large portion of the proceeds are made available as incentives for developers to work on specific projects. CD subscriptions are available at reduced cost.

Geek Gadgets is a dynamic entity, being worked on simultaneously by a number of different people all over the world. As such, it is subject to constant revision and improvement. The Geek Gadgets CD attempts to capture a stable snapshot at periodic intervals and make it available to people who otherwise would have no easy access to this material. Many

improvements
are planned

for future releases, so this CD is certain to be very different from the next release, which should occur in about three months.

A release of Geek Gadgets for BeOS, a new operating system from Be Inc, is being worked on and should be available by early summer.

1.5 Planned Improvements

Package Manager and Installer

We are working on a better packaging system based on the Redhat Package Manager (RPM) that is the standard for Redhat Linux. A port is included in the current ADE, but the ADE packages have not yet been converted to use it. RPM will provide the ability to selectively install and deinstall particular packages, track dependencies between packages, and more.

AmigaOS Hunk format support

Work on full support for AmigaOS "hunk format" is in progress. When it is complete, the standard object file format for gcc will be switched from "a.out" to hunk. The tools will continue to accept a.out format objects and libraries though, for backwards compatibility. Once hunk format is supported, support for standard Amiga C extensions like "chip" will be easy to implement. Most of the pieces are already in place. The switchover to hunk format should occur before Geek Gadgets Version 3 if some remaining problems can be resolved (such as C++ constructor/destructor support).

Better Documentation

A common complaint, and quite justified, for those just getting started working with the ADE is the lack of documentation related to the project itself. There is quite a bit of documentation for each package, but that documentation is not always easily accessible.

One of the projects currently underway is to improve the Makefiles for each project so that they automatically build and install several different forms of documentation in the binary tree, including AmigaGuide format, PostScript format, DVI format, GNU "info" format, and man pages where applicable. The guide files that can be found in the top level guide directory are some of the results of this project, but there is still work to be done.

Another documentation goal of the ADE project is to unify all the various types of ADE related documents, FAQ's, etc that are floating around and organize them into a standard document that answers most questions about the ADE, ranging from questions about how to help with the project to what it is good for.

1.6 General ADE Information

Because of the hard work of a number of members of the Amiga community, we ↔

now have a large body of development tools that have been ported to the Amiga and are available in both source and binary form. We will refer to this software set as the "Amiga Developers Environment" or "ADE" for short.

The name reflects the fact that not only is this environment intended to meet the needs of Amiga Developers for tools, examples, documentation, and other useful material, but that it is also supported by the developer community itself and not any single entity, commercial or otherwise. This ensures that it will always be available and supportable by this community.

One of the goals of the ADE is to have a completely self hosting environment. I.E. that everything within it be compilable by the provided compilers. It should be possible for the recipient of these utilities to make whatever changes or bug fixes they want in any piece of code, and then rebuild and use that fixed version (and hopefully send those changes back for integration into future releases).

Although the ADE started out as ports of tools covered by the GNU General Public License (GPL), the GNU Library General Public License (LGPL), or some code covered by the "Berkeley License", it certainly isn't limited to those. Any package which is available in source is eligible to be part of the ADE.

There are several
 mailing lists
 available for people that are interested in
getting ongoing ADE information or participating in discussions about the
ADE.

1.7 ADE Mailing Lists

Cronus maintains a number of mailing lists for people to discuss ↔
 ADE related
topics and get timely information about the ADE. These lists are managed by the "majordomo" mail server. Majordomo responds to commands that appear in the body of messages that you send it, and sends back replies to you via email, containing either the requested information or status results for commands you have asked it to run on your behalf.

For example, send email to "majordomo@ninemoons.com" with the body of the message containing "help", to get a
 help message
 from the majordomo server.

To see what
 lists
 are available, send an email containing "lists" in the
body of the message.

1.8 Sample output of majordomo's lists command

This is a sample output from sending the major domo server a "lists" command. Note that it is probably out of date at this point.

majordomo@ninemoons.com serves the following lists:

ade	Amiga Developers Environment - general discussion
ade-announce	Important ADE announcements (moderated)
ade-gcc	Discussions about GNU C compiler port
ade-ixemul	Discussions about Unix Emulation library issues
ade-java	Discussions about Java on the Amiga
ade-projects	Discussions about ongoing ADE projects
ade-x	Discussions about ADE X Windows port
areport	Amiga Report distribution list (moderated)
picasso	Picasso II Graphics Board Mailing List
pos	Discussions related to p.OS from proDAD

Use the 'info <list>' command to get more information about a specific list.

1.9 MajorDomo's help message

(This is a copy of the help message from the majordomo server)

This is Brent Chapman's "Majordomo" mailing list manager, version 1.93.

In the description below items contained in []'s are optional. When providing the item, do not include the []'s around it.

It understands the following commands:

```
subscribe <list> [<address>]
Subscribe yourself (or <address> if specified) to the named <list>.

unsubscribe <list> [<address>]
Unsubscribe yourself (or <address> if specified) from the named <list>.

get <list> <filename>
Get a file related to <list>.

index <list>
Return an index of files you can "get" for <list>.

which [<address>]
Find out which lists you (or <address> if specified) are on.

who <list>
Find out who is on the named <list>.

info <list>
Retrieve the general introductory information for the named <list>.

lists
```

Show the lists served by this Majordomo server.

```
help
Retrieve this message.
```

```
end
Stop processing commands (useful if your mailer adds a signature).
```

Commands should be sent in the body of an email message to "majordomo@ninemoons.com".

Commands in the "Subject:" line NOT processed.

If you have any questions or problems, please contact "fnf@ninemoons.com".

1.10 Stable 970414 ADE snapshot archives

About every 4-6 weeks, a new developer release of the ADE is made available via ftp from ftp.ninemoons.com and its mirrors. Most of the material on this particular CD came from the snapshot that was released on April 14, 1997 (970414). These are the archives that can be found in the AmigaOS/dist directory, with a few minor changes and additions. When the contents of the binary archives are extracted, the resulting tree forms the "ready to run" tree found in the AmigaOS/ready-to-run directory on this CD.

1.11 X Window System (X11R6.1)

The X11R6.1 port on this CD-ROM is much more complete than the release on ↔

Geek Gadgets Version 1. The server now contains Picasso and CyberGraphics support. If you are interested in helping with improving the X server or porting X applications, you should subscribe to the ade-x mailing list

.

In order to get X up and running you need to do the following:

- 1) Add "setenv DISPLAY :0" to your User-Startup
- 2) Add "path ade:X11R6.1/bin add" to your User-Startup
- 3) Add "resident bin:sh force" to your User-Startup (see above)
- 4) Add "/ade/X11R6.1/bin" to your PATH environment variable so sh can also find the X programs.

There are various methods to actually start the server and clients: see for example the 'xinit' and 'startx' manual pages. For the moment you can just use the following CLI commands:

```
run x -pn
sleep 2
run twm
run xterm
```

Primitive, but they do the job.

1.12 ADE Organization

The ADE can be divided into several distinct files trees. If you simply plan to use the ADE to build your own projects, you won't have to worry too much about these details, since you can just use the provided installer script to install the ADE.

If you plan to help out the ADE project or want to understand more of the details, then you should study this section. The ADE file trees are:

ADE-bin Binary tree where executables, runtime libraries, user documentation, etc live in "ready-to-run" form. Uses "ADE:" as an alias (Amiga assign). The files in this area are built from source in ADE-src or copied from files in ADE-src.

ADE-src Source tree which contains all the sources for components of the ADE. Given the ADE-src tree, and a copy of the ADE-bin tree, it should be possible to completely recreate the ADE-bin and ADE-dist trees.

ADE-dist Tree which contains material from ADE-bin and ADE-src, archived in a form suitable for BBS or ftp access. Also contains baseline source archives for packages which have been modified and diff files for the Amiga sources relative to this baseline.

The ADE-dist tree normally contains several files for each program. As an example, here are the names of the files for the GNU C compiler. Each file also has an associated product info file which has the same name but an additional suffix of ".pi":

gcc-X.X.X-base.tgz Baseline source before incorporation into the ADE. In some cases base files have been reorganized to match the same file tree structure as used for the Amiga source in the ADE, so that diff files can be mechanically generated.

gcc-X.X.X-bin.lha The binary package for GNU C, C++, and Objective C.

gcc-X.X.X-src.tgz The Amiga source from which the supplied binaries were compiled.

gcc-X.X.X-diffs.gz The diffs from the baseline to the Amiga source. The baseline source, amiga source, and diff file form a complete source distribution. In theory, only any two of these are needed, since the third can be regenerated from either of the other two.

Note that ".tgz" is short for ".tar.gz", which is a gzip compressed tar archive. To extract the contents, you would do something like:

```
tar -xvpzf gcc-X.X.X-base.tgz
```

If this causes you any problems, you can use pipes to do the decompression and tar extraction as two separate processes, without creating a temporary file:

```
zcat gcc-X.X.X-base.tgz | tar -xvpf -
```

Without using pipes, you can create a temporary file to extract from, as follows:

```
zcat gcc-X.X.X-base.tgz >gcc-X.X.X-base.tar  
tar -xvpf gcc-X.X.X.tar
```