0121a938-0

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COLLABORATORS

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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

0121a938-0

1.1 GccOpts, main page.

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                                          GCCOPTS v1.3


                Summary of this
                tremendous
                 file:


                Introduction
                         ...  DON'T read it...
    I.
                What~is~it
                           ...  A quick overview.
    II.
                How~does~it~work~?
                   ...  Another overview...
    III.
                The~Project~group
                    ...  Guess what it is...
    IV.
                The~Libraries~group
                  ...  About... well, you know
    V.
                The~Options~group
                    ...  Another chapter...
    VI.
                The~Makefile
                         ...  Still the same boring things
    VII.
                Example
                              ...  Forget it.
    VIII.
                Misc
                                 ...  Yeepee ! The last chapter !

  click here ->
                ~~~~~
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if you really don’t know what a makefile is.

1.2 The false commercials

Introduction : The FALSE commercials.

FANTASTIC !!! TOTALLY FREE !!! Try it now !

GccOpts is the last product of our secret lab,~product~of~several~years~of intensive research, by the greatest scientists~in~the~world.

This program will make you the life EASIER~and~INCREDIBLY~FUN,~women~will go into coma, when crossing you in the~street,~your friends~will~invit~you in LUXURIOUS restaurant EVERY DAY, your~boss~will DOUBLE~your~pay, and~on your way, the blind will recover the~vision,~the leaf~will~recover the~hearing...

Try it now, and get SUPERNATURAL POWERS, that~will~make~your~ennemies~ envious, and turn the girls "enamoradas"...

Try it now, and your programs will NEVER be~bugged~AGAIN,~GccOpts~garantees ALL your PROGRAMS to be TOTALLY~BUG-FREE~and~completly~OPTIMIZED...

Only GccOpts can make it so EASY...

1.3 I. What Is It ?

I. What is it ?

GccOpts~is~a~program~that~allows~you~to~automatically~and~quickly~write~a

Makefile
~~for~the~Amiga~GCC.~It’s~simple~enough,~I~hope,~not~to~need~any~ documentation,~so~don’t~be~too~much~disturbed~if~I~don’t~offer~you~ megabytes~of~precise~informations~about~this~program~(anyway~I~am~reachable thru~many~net-addresses).

This~program~provides you~a~useful~and~graphical~interface~to~easely~make~ your~
Makefiles
~for~Amiga~GCC.~It~needs~AmigaOS 2.0~or +, and of course the ixemul.library. An example of a project with a graphical interface is provided in the package (see
Example
), have a look on it if you really don’t know how works a makefile.

Just install it in your path, and enjoy (yes,~this~is~real plug-and-play~:))

1.4 II. How Does it work ?

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 II. How the does it work ?
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Firstly you should install GccOpts by copying it to the gnu:bin/
directory.

Launch GccOpts from the CLI or~the~Workbench,~and~have~a~look~on~the~panel
that just opened on~the~screen.~On~the~right,~a~group~named~"Project"~
contains a listview~and~some~other~gadgets.~There~are~also~two~other~
groups, "Libraries"~and~"Options".~You'll~have~to~refer~to~the~concerned
section of the~manual~for~further~information~about~each~of~this~groups.~

After having filled some~gadget~with~some~random~value~of~your~own,~press
the gadget "Save~Makefile",~and~the~GccOpts~will~save~a~Makefile~which
purpose is to make~you~compile~your~project~with~the~gnu~Make~command.

If you don't want to~save~the~Makefile~you~have~done~or~modified,~just
click on~the~"Cancel"~gadget~or~on~the~upper-left~CloseWindow gadget.
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1.5 III. The PROJECt group.

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III. The "Project" group.
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In this group, the programmer~(you!)~will~need~to~give~some~useful~
informations about the project he~(you,~ever)~want~the~Makefile~to~be
done~for.

First of all, the "Project" listview must contain~all~the~~files~that~are
part of the projet. The given files can be~any~*.c~or~*.o~file~(GccOpts
will~process them differently in~the~~makefile,~however).~Include~files
are~accepted, and gcc will be told to use~them, with the directive under
the form :"-i your_include.h -i~another_include.h"... If you add any *.o or
*.a file in the project~listview, it will be added to the Makefile as an
archive that should not to~be deleted by the "clean" rule.

To add a name into the listview, just~type~it~inside~the~string~gadget~
below, and press enter. To delete~one~entry,~select it~with~the~mouse,~and
click on the DEL gadget below~the~listview.~The gadget~"?"~will~pop up~a
filerequester, and if you select~a~file with~it, this~one~will be~added~to
the listview. You can also let~the~program automatically choose~the~project
files, by clicking the~"SCAN"~gadget. GccOpts will then scan all~the~files~
in the current~directory, and~insert in the listview every .c file.

Three cycle gadgets below the listview~can~be~used~to~select~some~options
about the code generation. This gadgets~are~:

"Code" : which refers to the processor~your~project~will~be~generated~
for~:~68000 - 68020 - 68030 - 68040/020-881~-~68040.

"Fpu" : only allows two value (could have~been~a~boolean~thing),~fpu~or~
not~: 68881 or NONE, default is NONE.
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"Optimize" will permit to select~the~level~of~optimization~for~your~ program~: NONE, LEVEL 1, LEVEL 2, or~LEVEL~3.~Choose~it in~peace~with~ your~concience and your memory (and~you'll~need~some for~the~third~level).

Another, last but not least, gadget allows~you~to~select~the~name~of~the~ output file. So the name of the~gadget,~you'd~have~guessed~it,~you~clever programmer, is "Output". The name~you~give it~will~be used~as~the~first rule of~the~Makefile,~so~that~"make~NAME_OF_YOUR_PROGRAM_IN_OUTPUT"~will~ just~compile~all the~newer~part~of~your project. This is the same~than~ "Make"~alone, as~this is~the~first~rule~of the Makefile.

That's all for the "Projet" group.

1.6 IV. The LIBRARIES group

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IV. The "Libraries" group.
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This group contains only one gadget, a listview,~into~which~the~ clever programmer will put the names of all the libraries~that~its~project will need to be linked with. To know how to add an entry to the listview, please refer~to~the~previous~"Project group" section.

The name of the library can be either the normal~file~name,~ie.~ "libamiga.a" (without quotes) , or either "amiga".~"libamiga"~will also~be accepted. This names will be inserted into the~project as~libraries,~and~ will be refered in the Makefile as "-lamiga".

1.7 V. The OPTIONS group

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V. The "Options" group.
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This group contain a listview that~will~contain~some~of~the~options~you~ can need for your project. To flag~or~un-flag~an~option,~just~go onto~the listview gadget, and click on~the~option~you~want~to~select/deselect.~An~ option is currently selected if~a~"*" is~added~at~its~beginning.

This options are divided~into~6~parts~:~Code~generation,~Linking,~Stack, Optimizing,~Debugging,~and ~Warning.~For~more~information about~them, please~read the~gcc~documention (click here -->READ~GCC.GUIDE to do so). However, Names~are~quite clear,~you~shouldn't~have~problems with them, and if~you have,~you~can contact~me~for~more~informations.

1.8 VI. The Makefile

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                VI. The Makefile.
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The generated~
Makefile
~should~not~be~modified~if~you~want~it~to~be~
correctly re-processed~by~GccOpts.~The~makefile~should~be~run~by~the Make
command.

This
Makefile
contains three useful entries for the clever programmer :

- all : This rules will call the two others, clean and compile, and your project will be fully recompiled.

- clean : this will clean-up the project, ie. just remove every *.o file leading around.

-~YOUR_PROJECT_NAME~:~~will~recompile~only~the~new~or~modified~files,
and~create~an~executable~named~YOUR_PROJECT_NAME,~according~to~the~
informations~and~options~given. The program will recursively scan the given c-source file for non-system include files (the token " #include" should be at the beginning of the line, with no blank or tabulation). Non-system include files are those bracketed with \" (while standart system includes should be bracketed with '<' and '>', and won't be scanned). All this includes will be linked to the correct c files that call them.

The default rule executed by Make (alone) is YOUR_PROJECT_NAME. In order to be able to re-read it correctly, GccOpts puts special informations inside the created Makefile, so don't modify it if you want to re-use later the result of your (not so) hard work.

1.9 VII. Example

VII. The example.

A very simple example is provided, and will quickl show you how GccOpts works. The program to compile is simply an "Hello world", and has strictly no importance. If Gccopts is not installed in your system, you should copy it in the gnu:bin/ directory.

In the workbench screen, open the drawer "GccOpts_Example", and click on the Options icon. This icon will call the GccOpts program (which should already be installed in the gnu:bin/ or C: directory).

There you can modify the compiler options. Once done, just click on the "Save Makefile" gadget. The makefile will be saved, and the program will close its window and shut down. Then, you can double-click on the MakeProject icon. This script will open a shell window and call the make program.

You can also start GccOpts from a shell, and do just the same as above. To compile the project, just type "make" or "make all" in the shell.

Please note that the program will be recompiled only if the c-source file is modified.

1.10 VIII. Misc

VIII. Misc.

This program is totally freeware, if you paid for this, be~sure~I~have~not seen a penny of your money. The source of this program~is~also~free,~ although not distributed, just ask for it, and I'll~E-Mail~it~uuencoded to~you.

Of course the author gives no warranty at all for this~program,~it~may~not work at all, crash your computer, destroy your~terminal,~invit~your~ stepmother at home for a full month, or any other~terrible~disaster,~that's YOUR business and YOUR responsability in using~this~program.

Thanks to Philippe Brand for its wise advices.

TO DO:

- Flex & bison support
- coffee-machine support
- Whatever you clever programmer will tell me...

You can contact me for comments, requests, anything :

```
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               rodrigo.reyes@electron.fr

    Fido     : 2:320/104.16
               2:320/214.7

    AmigaNet : 39:180/1.16

    UCNet    : 88:320/1.7

    or snailmail : Rodrigo Reyes
                   ELECTRON BBS
                   Boîte postale 101
                   91801 Brunoy France
                   France
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1.11 History

History
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v1.3 (6 August 1995)
- Automagically scan sources and generate dependencies with non-system include files.

- Some minor bugfixes.
- The makefile is made more readable.

v1.2 (30 July 1995)

- GCC2.7.0 options added : stackcheck and stackextend.
- The useless *.h files in the Project group are removed.
- Added the version number of GccOpts in the makefile to prevent future option changes.
- Icons providing a graphical interface.

v1.1 (25 May 1995)

- Scan gadget added to the Project Group.
- The generated MakeFile is improved.

v1.0 (22 May 1995)

- First Release.

1.12 What is a makefile ?

What is a makefile ?

A "makefile" is a scriptfile that describes your project (the different componants of your program: c files, includes, objects files, libraries, etc).

This file (which may be called makefile, or Makefile, or GNUMakefile) will be used by a program, called "make", whose job is to always keep your project correctly updated. So, if the program does not exist yet, it will simply compile it entirely. Or else it will compare the date and time of the source file with the date and time of the compiled file, and will compile it if,and only if, needed. All of this according to the rules described in the makefile.

This provide a very powerly and easy-to-use developping system for the programmer.