

GetIndexIQ documentation

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Chapter 1

GetIndexIQ documentation

1.1 GetIndexIQ documentation

GetIndexIQ 1.0 Release I

Autodocs and Include files index generator for use with
GetRefIQ commodity.

Introduction

What is it.

Distribution and Copyrights

How to spread it.

Getting started

How to start it ...

Not everyday usage

And how to use it.

Contacting author

How to contact me, author.

Technical information

How it works.

History

If you like to read (me do :).

For all missing information take a look at GetRefIQ documentation, [here](#) .

1.2 Table of contents

Introduction

Autodocs

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1.3 Introduction

GenIndexIQ is an utility to scan autodocs or include (both C and ←
assembler)
files for reference(s), structure definition(s), macro(s), etc., and store
it into index file. GenIndex can work without GUI or use BGUI library to
create one. When GUI is opened then also ReqTools library is necessary (for
file requesters). As for now GenIndexIQ recognizes following file types:

Autodocs

C header files

Assembler header files

If you want me to build support for your favourite language ←
then don't
hesitate to contact me (address
here
) . But send me examples of files to
scan and point my attention at things I should scan for!

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1.4 Autodocs

I tried it with original Amiga Autodocs, MUI, BGUI, ↔
ReqTools and XPK
autodocs. Worked. Although in some of Amiga autodocs there was a problem
with long function names. For example in amigaguide.doc there is a line:

```
amigaguide.library/OpenAmigaGuideAsyncAamigaguide.library/OpenAmigaGuideAsyncA
```

which has no separator between two function names. I suggest correcting it
manually and rescanning again. There is not much I can do about it in my
scanner, it would be too complicated.

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1.5 C header files

Scans for '#define's and 'struct's. Hopefully recognizes ↔
everything. If
there are statements like this:

```
#ifndef foo  
#define bar(p) ...  
#else  
#define bar(p,q) ...  
#define
```

both definitions are scanned and recognized, and are displayed as

```
bar(p)  
bar(p,q)
```

so you can choose one you want.

Of course parser skips comments ! Hmmm ... C style comments ... C++ soon to
be implemented.

<- Back

1.6 Assembler header files

This was hard one! :)

Scans for 'STRUCTURE's, 'MACRO's, 'BITDEF's and 'EQU's.

With 'BITDEF's there is some problem, something that produces MEMF_CHIP and
MEMB_CHIP looks like

```
MEM,CHIP,...
```

and as such is displayed in reference list, I'll think about it in future.

<- Back

1.7 Distribution

DISCLAIMER

WITH THIS DOCUMENT I MAKE NO WARRANTIES OR REPRESENTATIONS EITHER EXPRESSED OR IMPLIED WITH RESPECT TO THE PRODUCT DESCRIBED HEREIN. THE INFORMATION PRESENTED HEREIN IS BEING SUPPLIED ON AN 'AS IS' BASIS AND IS EXPRESSLY SUBJECT TO CHANGE WITHOUT NOTICE. THE ENTIRE RISK AS TO THE USE OF THIS INFORMATION IS ASSUMED BY THE USER. IN NO EVENT WILL I BE LIABLE FOR DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY CLAIM ARISING OUT OF THE INFORMATION PRESENTED HEREIN, EVEN IF I HAVE BEEN ADVISED OF THE POSSIBILITIES OF SUCH DAMAGES.

COPYRIGHT

GenIndexIQ and its documentation is Copyright ©1996–1997 Radoslaw Chyra.
BGUI is Copyright 1993–1996 Jan van den Baard.
1996 Ian J. Einman.
ReqTools is Copyright 1991–1994 Nico François
1995–1996 Magnus Homgren

BGUI.library and ReqTools.library are not included in this archive. It is possible to use GenIndexIQ without both, but I think that everyone has ReqTools and BGUI is easy to fetch from Aminet.

DISTRIBUTION

For distribution details look at GetRefIQ documentation.
Conditions described there also apply to GenIndexIQ.

<- Main

1.8 Getting started

GenIndexIQ may be started only from CLI. I haven't implemented ↔
Workbench
support because I think it is unnecessary. Here is template:

```
"FROM/M, TO, RECURSE=R/S, VERBOSE=V/S, KEEPEMPTY=K/S, KEEPFNDEF=D/S, GUI/S"
```

```
FROM      : list of files and/or directories to scan for autodocs and  
           includes  
TO        : index file name to write generated index tree  
RECURSE  : when scanning directory recurse into subdirectories  
VERBOSE  : display message when something is wrong with scanned file (now  
           scanner only yields if file being scanned is inappropriate type,  
           I'll improve it later)  
KEEPEMPTY: if scanned file contains no references keep it in file list
```

instead of removing (which is default)

KEEPFNDEF: for C header files there is often a #define at the beginning of file which defines current filename of being already included (e.g. #define DOS_DOS_H for dos/dos.h file). Default is that GenIndexIQ removes that define from reference list, this option turns off that behaviour.

GUI : open GUI. If there were files given for scanning and this option specified, then GUI will be open AFTER completing scanning of all files.

!WARNING! If scanning files without GUI it is possible to break scanning with Ctrl-C, but if scanning with GUI it's impossible (this will change in future). After Ctrl-C scanning stops after completing scanning of current file.

<- Main

1.9 Not everyday usage

GUI module uses BGUI for creating and maintaining GUI (this may change in future, as I think about building my own layout engine for GadTools gadgets), and ReqTools for file and EZ requesters.

Menus

Gadgets

There is also status bar down there in the window, it displays information about current GenIndexIQ operation.

<- Main

1.10 Menus

Project:

Save	: generates and stores index file on disk
Save As	: as above, but first asks for file name
About	: about program ...
Quit	: should I explain ?

Settings:

Recurse	: same as
RECURSE	option (when turned on)
Verbose	: same as
VERBOSE	option (when turned on)
Keep empty	: same as


```
        KEEPEMPTY
        option (when turned on)
Keep file name #define: same as
        KEEPFNDEF
        option (when turned on)
```

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1.11 Gadgets

Left listview displays scanned file names. Below there are gadgets ↔
for:

```
Add   : add more files/dirs
Delete: delete selected file from list (together with all associated
        references)
Clear  : delete all files from list
Rescan: rescan all files in list
```

Right listview displays scanned references from selected file (in left listview). Below there are gadgets for:

```
Delete: remove selected reference from reference list
Rescan: rescan current file (selected in left listview)
```

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1.12 Contacting author

All stuff contained here in this package was brought to you by

Radoslaw Chyra (Chyras/NegativeIQ)

I'm a 23 year old student at Wroclaw University. I study Computer Science and now I'm trying to finish my third and fourth year (together :) At home I use Amiga1200 self made Tower with 540 MB harddisk. I also own Pentium PC box, but the only thing I use there is Linux and appropriate programming, TeXing, etc. stuff. MS-DOS, Win***s and similar suck. Definitely suck. Although it's my opinion :)

I started with my first computer Amiga 500 back in 1987. I coded some demos in assembler under the name of PEPSI Drinkers Inc. Then I moved to coding OS compliant software (still in assembler) and together with Grzegorz Calkowski (UncleMat) we formed Beet Development Group. Now I program under the name of NegativeIQ which is two-person programming team. Second member is Szeryf, who is PC owner.

For bug reports, enhancements, flames etc contact me at:

e-mail:

```
chyra@tempus.ii.uni.wroc.pl
(Should be valid for at least two years)
irc:
chyra @ #amigapl (not so often!)
www:
http://tempus.ii.uni.wroc.pl/~chyra/
```

I can also be reached by snail-mail, you can send gifts here:

```
s-mail:
Radoslaw Chyra
Kosnego 36/2
45-056 Opole
Poland
```

<- Main

1.13 Technical info

For scanning purposes in GenIndexIQ I used Flex release 2.5 scanner generator, first versions of GenIndexIQ used also Bison 1.24 grammar parser, but I removed it, reducing code size (although complicating Flex scanner). ↔

GenIndexIQ generates sorted AVL tree to minimize search time (which is now $O(\log n)$). It may consume some much amounts of memory, for example Include references took for me about 450 kB! Anyway, you can always split this to two or more files, GetRefIQ accepts multiple index files, of course references found in every next file WILL be added to sorted list.

GenIndexIQ and GetRefIQ were programmed on Amiga1200T with KS3.0 and 2MB chip memory, using SAS/C 6.56, Flex 2.5, RCS 5.6.0.1 and Cygnus Ed 3.5.

GenIndexIQ was tested on:

```
Amiga 500 with 0.5MB chip and 2 MB Slow equipped with KS2.04
Amiga 1200 with 2MB chip and KS3.0
Amiga 1200/Blizzard 030/50 2MB chip and 8MB fast with KS3.1
```

<- Main

1.14 History

```
Release I
-----
V1.0      - first public release
```

<- Main
