

**NAME**

a68g – Algol 68 Genie, an Algol 68 interpreter

**SYNOPSIS**

```
a68g [-assertions | -noassertions] [-backtrace | -nobacktrace] [-brackets]
[-check | -norun] [-debug | -monitor] [-echo string] [-execute unit]
[-extensive] [-frame number] [-gnudiagnosics] [-handles number]
[-heap number] [-listing] [-moids] [-overhead number]
[-pragmats | -nopragmats] [-precision number] [-preludelisting]
[-print unit] [-reductions] [-run] [-source | -nosource] [-stack number]
[-statistics] [-terminal] [-timelimit number] [-trace | -notrace]
[-tree | -notree] [-unused] [-verbose] [-version] [-warnings | -nowarnings]
[-xref | -noxref] filename
```

**DESCRIPTION**

Algol 68 Genie (Algol68G) is an Algol 68 interpreter. It can be used for executing Algol 68 programs or scripts. Algol 68 is a rather lean orthogonal general-purpose language that is a beautiful means for denoting algorithms. Algol 68 was designed as a general-purpose programming language by IFIP Working Group 2.1 (Algorithmic Languages and Calculi) that has continuing responsibility for Algol 60 and Algol 68.

**OPTIONS**

Options are passed to a68g either from the file .a68g.rc in the working directory, the environment variable A68G\_OPTIONS, the command-line or from pragmats.

Option precedence is as follows: pragmat options supersede command-line options, command-line options supersede options in environment variable A68G\_OPTIONS, A68G\_OPTIONS supersedes options in .a68g.rc.

Listing options, tracing options and -pragmat, -nopragmat, take their effect when they are encountered in a left-to-right pass of the program text, and can thus be used, for example, to generate a cross reference for a particular part of the program.

Options are not case sensitive. In the list below, uppercase letters are mandatory for recognition. For instance

```
a68g -prec 200 -ti 60 ...
```

means

```
a68g -precision 200 -timelimit 60 ...
```

Where numeric arguments are required, suffices 'k', 'M' or 'G' are allowed for multiplication with 2 \*\* 10, 2 \*\* 20 or 2 \*\* 30 respectively.

**-Assertions | -NOAssertions**  
Control elaboration of assertions.

**-BACKtrace | -NOBACKtrace**  
Control whether a stack backtrace is done in case a runtime-error occurs.

**-BRackets**  
Consider [ .. ] and { .. } as being equivalent to ( .. ). Traditional Algol 68 syntax allows ( .. ) to replace [ .. ] in bounds and slices.

**-Check | -NORun**  
Check syntax only, the interpreter does not start.

- DEBUG | -MONitor**  
Start in the monitor. Invoke the monitor in case a runtime-error occurs; the program will pause in the monitor on the line that contains the error.
- ECHO** *string*  
Echo 'string' to stdout.
- Execute** *unit*  
Execute the Algol 68 unit. In this way one-liners can be executed from the command line.
- EXTensive**  
Generate an extensive listing.
- FRAME** *number*  
Set the frame stack size to *number* bytes.
- GNUdiagnostics**  
Generate GNU style diagnostics.
- HANDLES** *number*  
Set the handle space size to *number* bytes.
- HEAP** *number*  
Set the heap size to *number* bytes.
- Help**  
Print a list of options.
- LISTing**  
Generate a concise listing.
- MOIDS**  
Generate an overview of modes in the listing file.
- OVERHEAD** *number*  
Set overhead for stack checking.
- PORTcheck | -NOPORTcheck**  
Enable or disable portability warning messages.
- PRagmats | -NOPRagmats**  
Control elaboration of pragmats.
- PRECision** *number*  
Set the precision for LONG LONG modes to *number* significant digits.
- PRELUDElisting**  
Generate a listing of preludes.
- Print** *unit*  
Print the value yielded by the Algol 68 unit. In this way one-liners can be executed from the command line.
- QUOTEstropping**  
Use quote stropping.
- REDuctions**  
Print reductions made by the parser.

- RUN** Override the norun option.
- SOURCE | -NOSOURCE**  
Control the listing of source lines in the listing file.
- STACK** *number*  
Set the stack size to *number* bytes.
- Statistics**  
Generate statistics in the listing file.
- Timelimit** *number*  
Interrupt the interpreter after *number* seconds, generating a "time limit exceeded" error.
- Trace | -NOTrace**  
Control tracing of the running program.
- TREE | -NOTREE**  
Control listing of the syntax tree in the listing file.
- UNUSED**  
Generate an overview of unused tags in the listing file.
- UPPERstopping**  
Use upper stopping, which is the default stopping regime.
- VERBose**  
Use verbose mode.
- Version**  
Print the version of the running image of a68g.
- Warnings | -NOWarnings**  
Enable warning messages or suppress suppressible warning messages.
- Xref | -NOXref**  
Control generation of a cross-reference in the listing file.

**AUTHOR**

Author of Algol68G is Marcel van der Veer <algol68g@xs4all.nl>.