

NAME

`grl.open` – OPEN/CAESAR connection for the GRL language

SYNOPSIS

grl.open [**-print** *pp_file*].**grl**] [**-silent** | **-verbose**] [**-version**] [**-about**] [**-ignore**] [**-warnings**] [**-merge**] [**-sync**] [**-warning**] [**-showall**] [**-force**] [**-relabel**] [**-root** *system*] [**-labels**] [*lnt_options*] *filename*].**grl**] [*cc_options*] *user*].**a**].**c**].**o**] [*user_options*]

DESCRIPTION

Taking as input *filename.grl* (which contains the principal program of a GRL specification) and an OPEN/CAESAR program *user*].**a**].**c**].**o**], **grl.open** operates as follows:

- First, it translates the GRL specification *filename.grl* (including all transitively imported programs) into a LNT specification using **grl2lnt**(LOCAL). See **grl2lnt**(LOCAL) for more information.
- Then, it calls “**lnt.open** [*lnt_options*] *filename.lnt* [*cc_options*] *user*].**a**].**c**].**o**] [*user_options*]”, passing to **lnt.open** (and, transitively, **caesar.open**, **caesar.adt** and **caesar**) appropriate options that depend on the options passed to **grl.open** (see below). See **lnt.open**(LOCAL), **caesar.open**(LOCAL), **caesar.adt**(LOCAL), and **caesar**(LOCAL) for more information.

However, if *user* is the “-” string (instead of the name of an OPEN/CAESAR application program), **grl.open** will execute only the first step (translation into a LNT specification) and then stop without invoking **lnt.open**. In such case, the files generated during the first step are not removed.

OPTIONS

-print *pp_file*].**grl**]

Perform syntax and semantic analysis of *filename.grl*, prints an indented form of the file in *pp_file.grl* and stops execution.

-silent

Execute silently, reporting only errors. This is the opposite of **-verbose**. The default option is **-verbose**. This option is passed to **grl2lnt**(LOCAL), and **lnt.open**(LOCAL). See **grl2lnt**(LOCAL), **lnt.open**(LOCAL) for more information.

-verbose

Report activities and progress, including errors, to the user’s screen. This is the opposite of **-silent**. The default option is **-verbose**. This option is passed to **grl2lnt**(LOCAL), and **lnt.open**(LOCAL). See **grl2lnt**(LOCAL), **lnt.open**(LOCAL) for more information.

-version

Display the version number of **grl2lnt**(LOCAL) and stop.

-about

Display information about **grl.open**(LOCAL) and stop.

-ignore

Do not stop execution after an error is issued, force the generation of an LNT file (possibly with errors). This option is passed to **grl2lnt**(LOCAL). See **grl2lnt**(LOCAL) for more information.

-warnings

Stop execution when a warning is issued in GRL specification and exit with status 1. This option is passed to **grl2lnt**(LOCAL). See **grl2lnt**(LOCAL) for more information.

-merge

Use merge mode. It simulates the merge of transitions with adding a special merged transition and hiding everything else. This option is passed to **grl2lnt**(LOCAL). See **grl2lnt**(LOCAL) for more information.

-sync

Use synchronous mode. It enables the generation of merged transitions. The option should be used only on synchronous programs. This option is passed to **grl2lnt(LOCAL)**. See **grl2lnt(LOCAL)** for more information.

-warning

No warning is issued in the GRL specification. This option is passed to **grl2lnt(LOCAL)**, and **lnt.open(LOCAL)**. See **grl2lnt(LOCAL)**, **lnt.open(LOCAL)** for more information.

-showall

Show all transitions. This option is passed to **grl2lnt(LOCAL)**. See **grl2lnt(LOCAL)** for more information.

-force

Overwrite output files, even if they were edited by the user or do not need to be updated. This option is passed to **grl2lnt(LOCAL)**, and **lnt.open(LOCAL)**. See **grl2lnt(LOCAL)**, **lnt.open(LOCAL)** for more information.

-relabel

Generate a rename file to match formal definition of LTS labels (required by other tools). This option is passed to **grl2lnt(LOCAL)**. See **grl2lnt(LOCAL)** for more information.

-root instantiation

where *instantiation* can take two different forms: **system**, or a character string of the form "*system* (*X1*, ..., *Xn*)" where *X1*, ..., *Xn* are values of the constant parameters of the system. It is highly recommended to type given parameters using syntax *of type*.

If the option is specified, only the system **system** will be treated. **grl2lnt** will generate a Main process calling the process of the root system in the LNT specification. By default, if the **-root** option is absent, it is assumed that there is only one system in the program or that there exists a system called **Main**. This option is passed to **grl2lnt(LOCAL)**, and **lnt.open(LOCAL)**. See **grl2lnt(LOCAL)**, **lnt.open(LOCAL)** for more information.

-labels

Display on user's screen the list of labels expected to be printed in the LNT specification and for example on the generated LTS.

lnt_options

if any, are passed to **lnt.open(LOCAL)**.

cc_options

if any, are passed to the C compiler.

user_options

if any, are passed to *user*.

OPERANDS

<i>filename.grl</i>	GRL specification (input)
<i>pp_file.grl</i>	GRL code (optional output)
<i>filename.o</i>	object code (output)
<i>filename.err</i>	detailed error messages (output)
<i>user.a</i>	exploration module (archive, input)
<i>user.c</i>	exploration module (source, input)
<i>user.o</i>	exploration module (object code, input)
<i>user</i>	executable program (output)

FILES

\$CADP_TMP/lnt.* temporary files

\$GRL_LOCATION/Int/GRL_V1.lnt

GRL predefined library (LNT code)

\$GRL_LOCATION/incl/GRL_V1.h

GRL predefined library (C code)

EXIT STATUS

If the translation was successful the exit status is 0. If any error occurred during translation, the exit status is 1 and error messages are issued.

AUTHOR

Eric Leo.

SEE ALSO

grl(LOCAL), **grl2lnt(LOCAL)**, **lnt.open(LOCAL)**, **lnt2lotos(LOCAL)**, **caesar.adt(LOCAL)**, **caesar(LOCAL)**,

Additional information is available from the CADP Web page located at <http://cadp.inria.fr>

Directives for installation are given in files **\$GRL_LOCATION/INSTALLATION**.

Recent changes and improvements to this software are reported and commented in file **\$GRL_LOCATION/VERSION**.

BUGS

Please report any bug to cadp@inria.fr