NAME

executor – random execution

SYNOPSIS

bcg_open [*bcg_opt*] *spec*[**.bcg**] [*cc_opt*] **executor** [*executor_opt*] *executor_param*

or:

exp.open [*exp_opt*] *spec*[**.exp**] [*cc_opt*] **executor** [*executor_opt*] *executor_param*

or:

fsp.open [*fsp_opt*] *spec*[**.lts**] [*cc_opt*] **executor** [*executor_opt*] *executor_param*

or:

lnt.open [*lnt_opt*] *spec*[**.lnt**] [*cc_opt*] **executor** [*executor_opt*] *executor_param*

or:

lotos.open [*lotos_opt*] *spec*[**.lotos**] [*cc_opt*] **executor** [*executor_opt*] *executor_param*

or:

seq.open [*seq_opt*] *spec*[**.seq**] [*cc_opt*] **executor** [*executor_opt*] *executor_param*

DESCRIPTION

This program explores the labelled transition system corresponding to the BCG graph *spec***.bcg**, the composition expression *spec***.exp**, the FSP program *spec***.lts**, the LNT program *spec***.lnt**, the LOTOS program *spec***.lotos**, or the sequence file *spec***.seq**, and produces a random execution sequence.

Visible labels in the execution sequence are displayed as the corresponding transitions are fired. Invisible labels (noted ''`i`'') are not displayed.

The execution sequence is displayed using the full SEQ format (see the **seq**(LOCAL) man page for a description of this format).

Various strategies are currently available to solve non-determinism:

(1): Non-determinism is not allowed. The program will stop if the current state has more than one successor.

(2): Non-determinism is allowed. If the current state has several successors, one of them is selected using a pseudo-random number generator. The seed of the generator is initialized using the system clock.

(3): Same as strategy (2), except that the seed of the generator is provided by the user, in order to obtain reproducible execution sequences.

OPTIONS

The options *bcg_opt*, if any, are passed to **bcg_lib**(LOCAL).

The options *exp_opt*, if any, are passed to **exp.open**(LOCAL).

The options *fsp_opt*, if any, are passed to **fsp.open**(LOCAL).

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

The options *lotos_opt*, if any, are passed to **caesar**(LOCAL) and to **caesar.adt**(LOCAL).

The options *seq_opt*, if any, are passed to **seq.open**(LOCAL).

The options *cc_opt*, if any, are passed to the C compiler.

The following options *executor_opt* are currently available:

–hide [–total | –partial | –gate] *hiding_filename*
Use the hiding rules defined in *hiding_filename* to hide (on the fly) the labels of the Labelled Transition System being generated. See the **caesar_hide_1**(LOCAL) manual page for a detailed description of the appropriate format for *hiding_filename*.

The **-total**, **-partial**, and **-gate** options specify the "total matching", "partial matching", and "gate matching" semantics, respectively. See the **caesar_hide_1**(LOCAL) manual page for more details about these semantics. Option **-total** is the default.

–rename [–total|–single|–multiple|–gate] *renaming_filename*
Use the renaming rules defined in *renaming_filename* to rename (on the fly) the labels of the Labelled Transition System being generated. See the **caesar_rename_1**(LOCAL) manual page for a detailed description of the appropriate format for *renaming_filename*.

The **-total**, **-single**, **-multiple**, and **-gate** options specify the "total matching", "single partial matching", "multiple partial matching", and "gate matching" semantics, respectively. See the **caesar_rename_1**(LOCAL) manual page for more details about these semantics. Option **-total** is the default.

The parameters *executor_param* have the following formats, where *depth* is an integer denoting the maximal number of transitions to be fired (if *depth* = 0, no upper bound is fixed) and where *seed* is an integer denoting the value of the chosen seed:

* If *executor_param* = *depth* **1**
  => strategy (1): deterministic execution
* If *executor_param* = *depth* **2**
  => strategy (2): non-deterministic with random seed
* If *executor_param* = *depth* **3** *seed*
  => strategy (3): non-deterministic with chosen seed
* If *executor_param* is empty
  => interactive mode.

EXIT STATUS
When the source is erroneous, error messages are issued. Exit status is 0 if everything is alright, 1 otherwise.

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FILES

spec.**bcg**	BCG graph (input)
spec.**exp**	network of communicating LTSs (input)
spec.**lts**	FSP specification (input)
spec.**lnt**	LNT specification (input)
spec.**lotos**	LOTOS specification (input)
spec.**seq**	sequence file (input)

The source code of this tool is available in file **$CADP/src/open_caesar/executor.c**

SEE ALSO

OPEN/CAESAR Reference Manual, **bcg_open**(LOCAL), **bcg**(LOCAL), **caesar**(LOCAL), **caesar.adt**(LOCAL), **exp**(LOCAL), **exp.open**(LOCAL), **fsp.open**(LOCAL), **lnt.open**(LOCAL), **lotos**(LOCAL), **lotos.open**(LOCAL), **seq**(LOCAL), **seq.open**(LOCAL)

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

Directives for installation are given in files **$CADP/INSTALLATION_*.**

Recent changes and improvements to this software are reported and commented in file **$CADP/HISTORY.**

BUGS

Please report new bugs to Hubert.Garavel@inria.fr