

McScM - Bug # 25: Scm consistency check takes too long

Status:	New	Priority:	High								
Author:	Grégoire Sutre	Category:									
Created:	07/22/2010	Assignee:	Tristan Le Gall								
Updated:	06/23/2011	Due date:									
Subject:	Scm consistency check takes too long										
Description:	<p>On large examples, the scm consistency check takes a very long time. The attached scripts produce scm models that are simple (no actions) but large.</p> <p>* flat.scm.sh <code>_size_</code>: a single automaton with <code>_size_</code> locations and <code>_size_</code> transitions. * product.scm.sh <code>_size_</code>: a product of <code>_size_</code> automata, each consisting of 2 locations and 2 transitions.</p> <p>The times in the table below have been obtained with the following commands (see attached files) :</p> <pre><pre>sh flat.scm.sh <size> mcscm.native -statistics sh product.scm.sh <size> mcscm.native -statistics </pre></pre> <p>On these examples (which do not have bad states), 95% of the total running time is taken by the scm consistency check. The table also contains an entry for the <code>_peterson_3.scm_</code> example, where 90% of the total running time is taken by the scm consistency check.</p> <table><thead><tr><th> _Size _Locations _Transitions _Consistency Check </th></tr></thead><tbody><tr><td> _3=.Flat 10000 10000 10000 4.12 s </td></tr><tr><td> 20000 20000 20000 21.45 s </td></tr><tr><td> 30000 30000 30000 48.43 s </td></tr><tr><td> _3=.Product 11 2048 22528 2.24 s </td></tr><tr><td> 12 4096 49152 15.14 s </td></tr><tr><td> 13 8192 106496 80.88 s </td></tr><tr><td> _Peterson 3 10648 56628 37.80 s </td></tr></tbody></table>			_Size _Locations _Transitions _Consistency Check	_3=.Flat 10000 10000 10000 4.12 s	20000 20000 20000 21.45 s	30000 30000 30000 48.43 s	_3=.Product 11 2048 22528 2.24 s	12 4096 49152 15.14 s	13 8192 106496 80.88 s	_Peterson 3 10648 56628 37.80 s
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History

04/08/2011 01:42 pm - Grégoire Sutre

- Target version set to 1.x
- Start date deleted (07/22/2010)

06/23/2011 12:31 pm - Tristan Le Gall

- Assignee set to Tristan Le Gall

Files

flat.scm.sh	247 Bytes	07/22/2010	Grégoire Sutre
product.scm.sh	228 Bytes	07/22/2010	Grégoire Sutre