Semantic Analysis Summary
POGS GPL 2012
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Summary of:
Verification Condition files (.vcg)
Simplified Verification Condition files (.siv)
Victor result files (.vct)
Riposte result files (.rsm)
Proof Logs (.plg)
Dead Path Conjecture files (.dpc)
Summary Dead Path files (.sdp)

"status" column keys:
1st character:
'-' - No VC
'S' - No SIV
'U' - Undischarged
'E' - Proved by Examiner
'I' - Proved by Simplifier by Inference
'X' - Proved by Simplifier by Contradiction
'P' - Proved by Simplifier using User Defined Proof Rules
'V' - Proved by Victor
'O' - Proved by Riposte
'C' - Proved by Checker
'R' - Proved by Review
'F' - VC is False

2nd character:
'-' - No DPC
'S' - No SDP
'U' - Unchecked
'D' - Dead path
'L' - Live path

in the directory:
/home/msc/bm4/public_html/RMSE/CW1/console
Summary produced: 23-OCT-2014 23:27:00.92

File /home/msc/bm4/public_html/RMSE/CW1/console/disable_reset.vcg
procedure Console.Disable_Reset
VCs generated 23-OCT-2014 23:26:01
VCs simplified 23-OCT-2014 23:26:58

VCs for procedure_disable_reset :
<table>
<thead>
<tr>
<th>#</th>
<th>From</th>
<th>To</th>
<th>Proved By</th>
<th>Dead Path</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
</tbody>
</table>

File /home/msc/bm4/public_html/RMSE/CW1/console/do_reset.vcg
procedure Console.Do_Reset
VCs generated 17-OCT-2014 16:44:01
VCs simplified 17-OCT-2014 16:54:38
VCs for procedure_do_reset:

<table>
<thead>
<tr>
<th>#</th>
<th>From</th>
<th>To</th>
<th>Proved By</th>
<th>Dead Path</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
<tr>
<td>2</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
</tbody>
</table>

File /home/msc/bm4/public_html/RMSE/CW1/console/enable_reset.vcg

procedure Console.Enable_Reset

VCs generated 23-OCT-2014 23:26:01

VCs simplified 23-OCT-2014 23:26:58

VCs for function_enable_reset:

<table>
<thead>
<tr>
<th>#</th>
<th>From</th>
<th>To</th>
<th>Proved By</th>
<th>Dead Path</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
</tbody>
</table>

File /home/msc/bm4/public_html/RMSE/CW1/console/inc_spad_cnt.vcg

procedure Console.Inc_SPAD_Cnt

VCs generated 23-OCT-2014 23:26:01

VCs simplified 23-OCT-2014 23:26:58

VCs for procedure_inc_spad_cnt:

<table>
<thead>
<tr>
<th>#</th>
<th>From</th>
<th>To</th>
<th>Proved By</th>
<th>Dead Path</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>start</td>
<td>check stm @ 30</td>
<td>Inference</td>
<td>No DPC</td>
<td>I-</td>
</tr>
<tr>
<td>2</td>
<td>start</td>
<td>rtc check @ 31</td>
<td>Inference</td>
<td>No DPC</td>
<td>I-</td>
</tr>
<tr>
<td>3</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
<tr>
<td>4</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
</tbody>
</table>

File /home/msc/bm4/public_html/RMSE/CW1/console/reset_enabled.vcg

function Console.Reset_Enabled

VCs generated 23-OCT-2014 23:26:01

VCs simplified 23-OCT-2014 23:26:58

VCs for function_reset_enabled:

<table>
<thead>
<tr>
<th>#</th>
<th>From</th>
<th>To</th>
<th>Proved By</th>
<th>Dead Path</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
</tbody>
</table>

File /home/msc/bm4/public_html/RMSE/CW1/console/reset_spad_cnt.vcg

procedure Console.Reset_SPAD_Cnt

VCs generated 23-OCT-2014 23:26:01

VCs simplified 23-OCT-2014 23:26:59

VCs for procedure_reset_spad_cnt:
<table>
<thead>
<tr>
<th>#</th>
<th>From</th>
<th>To</th>
<th>Proved By</th>
<th>Dead Path</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>start</td>
<td>rtc check @ 38</td>
<td>Inference</td>
<td>No DPC</td>
<td>I-</td>
</tr>
<tr>
<td>2</td>
<td>start</td>
<td>assert @ finish</td>
<td>Examiner</td>
<td>No DPC</td>
<td>E-</td>
</tr>
</tbody>
</table>

File /home/msc/bm4/public_html/RMSE/CW1/console/spad_cnt_value.vcg
function Console.SPAD_Cnt_Value

VCs generated 23-OCT-2014 23:26:01
VCs simplified 23-OCT-2014 23:26:59

VCs for function_spad_cnt_value :

<table>
<thead>
<tr>
<th>#</th>
<th>From</th>
<th>To</th>
<th>Proved By</th>
<th>Dead Path</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>start</td>
<td>assert @ finish</td>
<td>Inference</td>
<td>No DPC</td>
<td>I-</td>
</tr>
</tbody>
</table>

===============================================================================
Summary:
Proof strategies used by subprograms

Total subprograms with at least one VC proved by examiner: 6
Total subprograms with at least one VC proved by simplifier: 3
Total subprograms with at least one VC proved by contradiction: 0
Total subprograms with at least one VC proved with user proof rule: 0
Total subprograms with at least one VC proved by Victor: 0
Total subprograms with at least one VC proved by Riposte: 0
Total subprograms with at least one VC proved using checker: 0
Total subprograms with at least one VC discharged by review: 0

Maximum extent of strategies used for fully proved subprograms:

Total subprograms with proof completed by examiner: 4
Total subprograms with proof completed by simplifier: 3
Total subprograms with proof completed with user defined rules: 0
Total subprograms with proof completed by Victor: 0
Total subprograms with proof completed by Riposte: 0
Total subprograms with proof completed by checker: 0
Total subprograms with VCs discharged by review: 0

Overall subprogram summary:

Total subprograms fully proved: 7
Total subprograms with at least one undischarged VC: 0
Total subprograms with at least one false VC: 0

Total subprograms for which VCs have been generated: 7

ZombieScope Summary:

Total subprograms for which DPCs have been generated: 0
Total number subprograms with dead paths found: 0
Total number of dead paths found: 0

VC summary:
Note: (User) denotes where the Simplifier has proved VCs using one or more user-defined proof rules.

Total VCs by type:

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Examiner</th>
<th>Simplifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assert/Post</td>
<td>9</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Precondition</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Check stmt.</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Runtime check</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Refinem. VCs</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Inherit. VCs</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td><strong>12</strong></td>
<td><strong>8</strong></td>
<td><strong>4</strong></td>
</tr>
<tr>
<td><strong>%Totals:</strong></td>
<td></td>
<td><strong>67%</strong></td>
<td><strong>33%</strong></td>
</tr>
</tbody>
</table>

============ End of Semantic Analysis Summary =============