	#	Result	Variant	Count	Total time	Alloc. Memory	Peak Mem- ory	Iterations and	aly- is r	BA nini- niza- tion time	Initial prop- erty au- toma- ton Loca- tions	Initial prop- erty au- toma- ton Edges	Initial RCFG Loca- tions	Initial RCFG Edges	uct	Initial prod- uct Edges	uct	Optimize Prod- uct Edges	Trivial mod- ules	Determin mod- ules	n Nése deterministic mod- ules		Avg Locs addrivial mod- ules	Avg Locs deter- minis- tic mod- ules	Avg Locs non- deter- minis tic mod- ules
bugs	3	Unsafe	Default-LBE-SNME.epf None+SBE-pf Default-LBE-Multi-epf Default-LBE-Multi-epf None+SBE-Simplify-AssumesSBE-epf Default-LBE-Multi-YoundetBuchi-epf None+SBE-Simplify-AssumesSBE-epf Default-LBE-Aulti-SBE-Simplify-AssumesSBE.epf Default-LBE-Multi-SBE-Simplify-AssumesSBE-epf None-epf None-epf	3 3 3 3 3 3 3 3	0.34 s 0.48 s 0.28 s 0.70 s 0.55 s 0.32 s 0.80 s 0.58 s 0.64 s	1061.00 MB 1062.00 MB 977.33 MB 1058.17 MB 1060.50 MB 1013.83 MB 1057.00 MB 1058.17 MB	124.44 MB 254.01 MB 104.42 MB 308.46 MB 247.60 MB 124.24 MB 122.70 MB 300.34 MB 359.92 MB	4 0.0 1 0.0 3 0.0 4 0.3 3 0.0 3 0.0 3 0.3 4 0.3	43 s (22 s (63 s (50 s (73 s (51 s (59 s))))))))))))))))))))))	0.05 s 0.14 s 0.01 s 0.23 s 0.19 s 0.05 s 0.41 s 0.22 s	1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	35 35 35 35 35 35 35 35 35	47 48 47 47 48 47 48 48 47	56 56 56 56 56 56 56 56 56	91 92 91 91 92 91 92 92	43 56 30 30 56 43 31 31 56	72 92 61 61 92 72 62 62 91	1 0 0 1 1 1 1	1 1 0 0 1 1 1 1 1	0 0 0 1 0 0 0	Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating	2 3 0 1 3 2 2 2 2 2	3 4 2 0 4 3 2 2 4	3 (1 (2 (3 (4
	9	Safe	Default-LBE-SNME.epf None+SBE-pf Default-LBE-Multi-epf Default-LBE-Multi-NondetBuchi-epf None+SBE-Simplify AssumesSBE.epf Default-LBE-Simplify AssumesSBE.epf Default-LBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LBE-Multi-SBE-pf None.epf None.epf	9 9 9 9 9 9	0.18 s 0.23 s 0.13 s 0.46 s 0.22 s 0.17 s 1.17 s 0.18 s 0.19 s	976.89 MB 969.61 MB 970.67 MB 922.56 MB 974.78 MB 970.17 MB 963.83 MB 979.17 MB 972.83 MB	58.39 MB 73.69 MB 35.69 MB 68.83 MB 75.18 MB 52.34 MB 54.26 MB 53.37 MB 65.60 MB	4 0.3 3 0.4 4 0.3 3 0.4 4 1.3 4 0.3	17 s (07 s (0.01 s 0.00 s 0.00 s 0.04 s 0.01 s 0.00 s 0.72 s 0.01 s	1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	16 16 16 16 16 16 16 16	23 24 23 23 24 23 24 24 24 24 23	23 23 23 23 23 23 23 23 23 23 23	37 39 37 37 39 37 39 39	14 23 13 13 23 14 13 13 23	21 39 19 19 39 21 20 20 37	1 3 1 1 3 1 2 2 2	0 0 0 0 0 0 0	0 0 0 0 0 0 0	-	3 3 3 3 3 3 3 3 3	1 3 1 0 3 1 1 1 0 2	
	12	Completed	Default-LBE-SNME.epf None+SBE-pf Default-LBE-Multi-epf Default-LBE-Multi-epf None+SBE-Simplify AssumesSBE.epf Default-LBE-Simplify AssumesSBE.epf Default-LBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LBE-Multi-SBE-Epf None.epf None.epf	12 12 12 12 12 12 12 12 12 12	0.22 s 0.29 s 0.17 s 0.52 s 0.31 s 0.21 s 1.08 s 0.28 s 0.30 s	997.17 MB 992.46 MB 993.50 MB 995.63 MB 995.63 MB 992.75 MB 996.33 MB 998.63 MB	74.90 MB 118.77 MB 52.87 MB 128.74 MB 118.29 MB 70.32 MB 71.37 MB 115.12 MB 139.18 MB	4 0.3 2 0.3 3 0.4 4 0.3 3 0.4 4 1.6 4 0.3	24 s (11 s (41 s (26 s (15 s (01 s (22 s (0.02 s 0.04 s 0.00 s 0.09 s 0.05 s 0.01 s 0.64 s 0.06 s	1 1 1 1 1 1 1 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	21 21 21 21 21 21 21 21 21 21	29 30 29 29 30 29 30 29 30 29	31 31 31 31 31 31 31 31 31	51 52 51 51 52 51 52 52 52 52	22 31 17 17 31 22 17 17	34 52 30 30 52 34 31 31 51	1 2 1 1 2 1 2 1 2 2	0 0 0 0 0 0 0	0 0 0 0 0 0 0	Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating	3 2 3 3 3 3 3 3	1 3 1 0 3 1 1 1 1 2	
		Timeout	Default-LBE-SNME.epf None+SBE.epf Default-LBE-Multi-rpf Default-LBE-Multi-ryf Default-LBE-Multi-ryf None+SBE+Simplify'AssumesSBE.epf Default-LBE-Single epf Default-LBE-Multi-SBE-Simplify'AssumesSBE.epf Default-LBE-Multi-SBE-Simplify'AssumesSBE.epf Default-LBE-Multi-SBE-Epf None.epf	0 0 0 0 0 0 0		-	-	-				-	-			-					-	-	-	-	
ltlemodelcheede benchmarks	5	Unsafe	Default-LBE-SNME.epf None+SBE.epf Default-LBE-Multi-epf Default-LBE-Multi-rNondetBuchi.epf None+SBE-Fainplify AssumesSBE.epf Default-LBE-Singlie vpf Default-LBE-Multi-SBE-Hamplify-AssumesSBE.epf Default-LBE-Multi-SBE-Simplify-AssumesSBE.epf Default-LBE-Multi-SBE-Multi-SBE-Multi-None-epf None-epf	5 4 4 5 5 4 4 5	0.26 s 0.28 s 0.29 s 0.43 s 0.29 s 0.24 s 0.35 s 0.29 s 0.28 s	4061.70 MB 4044.30 MB 4229.25 MB 4289.38 MB 4057.50 MB 4044.40 MB 4229.25 MB 4267.88 MB 4051.00 MB	96.90 MB 121.52 MB 99.92 MB 107.88 MB 111.86 MB 105.78 MB 112.01 MB 102.22 MB 122.49 MB	4 0.3 2 0.3 4 0.3 3 0.3 2 0.3 2 0.3	22 s (23 s (35 s (35 s (23 s (27 s (27 s (22 s (27 s)	0.00 s 0.00 s 0.00 s 0.00 s 0.00 s 0.00 s 0.00 s	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3	63 70 70 63 63 70 70 70	85 86 95 95 86 85 96 96 85	120 120 141 141 120 120 141 141 141	213 215 256 256 215 213 259 259 213	89 120 88 88 120 89 88 88 120	157 215 172 172 215 157 175 175 213	3 3	0	0 - 0 - 0	Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating	3 - 3 3 3	2 - - 2 2 - - -	. (
	18 er-	Safe	Default-LBE-SNME.epf None+SBE.epf Default-LBE-Multi-epf Default-LBE-Multi-rNondetBuchi.epf None+SBE+Simplify AssumesSBE.epf Default-LBE-Simplify AssumesSBE.epf Default-LBE-Multi+SBE-HimplifyAssumesSBE.epf Default-LBE-Multi+SBE-SimplifyAssumesSBE.epf Default-LBE-Multi+SBE.epf None.epf	15 15 13 13 14 15 13 13 13 15	5.63 s 4.30 s 3.86 s 3.86 s 2.16 s 6.80 s 2.25 s 2.22 s 5.54 s	4433.13 MB 4381.57 MB 4284.81 MB 4352.38 MB 4186.54 MB 4376.67 MB 4335.46 MB 4282.54 MB	256.67 MB 270.16 MB 181.00 MB 185.45 MB 222.02 MB 220.85 MB 155.94 MB 142.82 MB 316.51 MB	10 4.: 5 3.: 5 3.: 6 2.: 8 6.: 5 2.: 5 2.:	20 s (75 s (70 s (68 s (612 s (111 s (611 s (111 s	0.12 s 0.14 s 0.02 s 0.06 s 0.02 s 0.13 s 0.02 s	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 4 4 3 3 4 4 4	131 131 140 140 134 131 140 140 131	168 169 180 180 172 168 181 181	277 277 303 303 284 277 303 303 277	508 513 550 550 520 508 556 556 556 508	207 277 252 252 284 210 252 252 252 277	386 513 445 445 520 388 450 450 508	2 2 2 2 2 2 2 2 2 2 2 2 2	6 6 2 0 2 5 2 2 6	0 0 0 2 2 0 0	-	3 3 3 3 3 3 3 3 3	2 2 2 0 2 2 2 2 2 2 2	2 (
	23	Completed	Default-LBE-SNME.epf None+SBE.epf Default-LBE-Multi-epf Default-LBE-Multi-Pf Default-LBE-Multi-Pf Default-LBE-Multi-Pf None+SBE-Figniffy AssumesSBE.epf Default-LBE-Multi-SBE-Simplify AssumesSBE.epf Default-LBE-Multi-SBE-Simplify AssumesSBE.epf Default-LBE-Multi-SBE-Simplify AssumesSBE.epf Default-LBE-Multi-SBE-Epf	20 20 17 17 19 20 17 17 17	4.28 s 3.30 s 3.02 s 3.06 s 1.66 s 5.16 s 1.80 s 1.77 s 4.23 s	4340.28 MB 4297.25 MB 4271.74 MB 4337.56 MB 4152.58 MB 4293.60 MB 4310.47 MB 4279.09 MB 4315.28 MB	216.73 MB 233.00 MB 161.92 MB 167.20 MB 193.03 MB 192.08 MB 145.60 MB 133.27 MB 268.00 MB	7 4.3 8 3.3 4 2.9 4 2.1 5 1.1 7 5.0 4 1.0	17 s (21 s (192 s (192 s (194	0.09 s 0.10 s 0.02 s 0.05 s 0.02 s 0.10 s 0.02 s 0.02 s	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	3 3 3 3 3 3 3 3	114 114 124 124 115 114 124 124 114	147 148 160 160 150 147 161 161	238 238 265 265 241 238 265 265 265 238	434 439 481 481 440 434 486 486 434	177 238 213 213 241 179 214 214 214 238	329 439 380 380 440 331 385 385 434	2 - 2	2	0	Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating	3 3 3 3 3 3	2 - - 2 - - - -	. (
		Timeout	Default-LBE-SNME-pf None+SBE-pf Default-LBE-Multi-typ Default-LBE-Multi-typ None+SBE-P simplify AssumesBE-pf Default-LBE-Single-pf Default-LBE-Single-pf Default-LBE-Multi+SBE-pf Default-LBE-Multi+SBE-pf Default-LBE-Multi+SBE-pf	3 2 6 6 4 3 6	67.05 s 64.48 s 90.80 s 69.53 s 65.02 s 70.94 s 96.86 s 94.01 s 60.32 s	6758.17 MB 6318.00 MB 5686.33 MB 5756.08 MB 6904.75 MB 6831.17 MB 5729.00 MB 5623.58 MB	4811.90 MB 4435.37 MB 3651.38 MB 4760.83 MB 4481.64 MB 3771.23 MB 3542.15 MB 2138.19 MB	4 22. 6 31. 7 20. 4 20. 3 18. 4 20. 7 22.	43 s 20 13 s 28 16 s 17 04 s 8 69 s 17 00 s 18 76 s 19 29 s 20	0.61 s 3.21 s 7.23 s 3.82 s 7.30 s 3.27 s 0.50 s 0.13 s	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 2 2 2 3 3 2 2 2	228 154 143 143 194 228 143 143 38	299 212 187 187 256 299 187 187 55	418 205 252 252 358 418 252 252 75	627 279 397 397 575 627 399 399 173	321 205 213 213 358 321 213 213 213 75	500 279 344 344 575 500 346 346 173	2 3 1 2 - 2 1 1	2 3 5 0 - 2 6 5	0 Decompo 1 Decompo 1 Decompo 0 Decompo 0 Decompo 0 Decompo	sition not yet finished sition not yet finished	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 4 2 0 - 2 2 2	1 1
coolant	12	Unsafe	None.epf Default-LIBE-SNME.epf None+SBE.epf Default-LIBE-Multi-epf Default-LIBE-Multi-prf Default-LIBE-Multi-Promote-Buchi-epf Default-LIBE-Multi-Promote-Buchi-epf Default-LIBE-Multi-SBE-SIM-Bulti-SBE-Epf Default-LIBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LIBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LIBE-Multi-SBE-Epf Default-LIBE-Multi-SB	10 10 10 10 10 10 10 10 10	2.22 s 2.67 s 1.72 s 1.87 s 2.65 s 2.16 s 2.09 s 1.82 s 2.57 s	2811.45 MB 2905.80 MB 2817.00 MB 2811.15 MB 2881.25 MB 2842.25 MB	572.48 MB 515.07 MB 515.12 MB 642.28 MB 690.79 MB 512.84 MB 495.81 MB 630.49 MB 807.60 MB	3 2.3 3 2.3 4 1.1 3 2.3 3 2.0 3 1.3 4 1.1	12 s (658 s (660 s (676	0.01 s 0.01 s 0.01 s 0.02 s 0.02 s 0.01 s 0.01 s 0.01 s	3 3 3 3 3 3 3 3 3	7 7 7 7 7 7 7	68 68 68 68 68 68 68 68	89 90 89 89 90 89 90 90 89	204 204 204 204 204 204 204 204 204 204	512 519 512 512 512 519 512 519 519 519	163 204 116 116 204 163 117 117 204	397 519 342 342 523 397 351 349 512	2 2 3 3 2 2 2 2 2 3	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	Nonterminating	3 3 3 3 3 3 3 3 3 3	1 1 0 0 1 1 1 0 0	
	6	Safe	Default-LBE-SNME.epf None+SBE-grf Default-LBE-Multi-pf Default-LBE-Multi-pf Default-LBE-Multi-NondetBuchi.epf None+SBE-Yamplify AssumesSBE.epf Default-LBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LBE-Multi-SBE-grf None.epf	6 6 6 6 6 6 6	0.59 s 1.25 s 0.73 s 0.65 s 1.56 s 0.59 s 0.82 s 0.73 s 0.65 s	2909.75 MB 2897.92 MB 2908.25 MB 2914.83 MB 2905.83 MB 2896.58 MB 2911.25 MB 2914.92 MB 2899.58 MB	191.97 MB 574.41 MB 239.38 MB 216.68 MB 298.78 MB 202.12 MB 253.24 MB 246.86 MB 219.55 MB	6 1 7 0.0 7 0.3 6 1 6 0 8 0.0 7 0.0 7 0.3	15 s (61 s (652 s (645 s (688 s (668 s (656	0.02 s 0.02 s 0.02 s 0.02 s 0.02 s 0.02 s 0.02 s 0.02 s 0.02 s	3 3 3 3 3 3 3 3	8 8 8 8 8 8 8	67 67 67 67 67 67 67 67	89 90 89 89 90 89 90 90	217 217 217 217 217 217 217 217 217 217	581 589 581 581 589 581 589 589 589	175 217 130 130 217 175 130 130 217	460 589 409 409 592 460 419 418 581	3 3 3 3 3 3 3 4	2 2 3 0 2 2 2 3 3 3 2	0 0 0 3 0 0 0	- - - - - - -	3 3 2 2 2 2 3 3 3 2 2	1 1 1 0 1 1 1 1	
	18	Completed	Default-LBE-SNME.epf None+SBE.epf Default-LBE-Multi-epf Default-LBE-Multi-epf Default-LBE-Multi-youndetBuchi-epf None+SBE+SimplifyAssumesSBE.epf Default-LBE-Multi-SBE-HsimplifyAssumesSBE.epf Default-LBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LBE-Multi-SBE-Epf None.epf	16 16 16 16 16 16 16 16	1.41 s 2.24 s 1.57 s 1.62 s 1.41 s 1.85 s	2848.31 MB 2902.84 MB 2851.22 MB 2850.03 MB 2890.47 MB 2862.63 MB 2846.69 MB 2845.38 MB 2913.03 MB	429.79 MB 537.32 MB 411.72 MB 482.68 MB 543.79 MB 396.32 MB 404.85 MB 486.63 MB 587.08 MB	4 2.0 5 1.3 5 1.3 4 2.3 4 1.4 5 1.4 5 1.3 4 1.7	04 s 0 23 s 0 29 s 0 13 s 0 47 s 0 48 s 0 29 s 0 75 s 0	0.01 s 0.01 s 0.01 s 0.02 s 0.01 s 0.01 s 0.01 s 0.01 s	3 3 3 3 3 3 3 3	7 7 7 7 7 7	67 67 67 67 67 67 67 67	89 90 89 89 90 89 90 90	209 209 209 209 209 209 209 209 209	538 545 538 538 545 538 545 545 545 538	167 209 121 121 209 167 122 122 209	421 545 367 367 549 421 377 375 538	2 2 3 3 2 2 2 2 3 3	1 1 1 0 1 1 1 1 1	0 0 0 1 0 0 0	Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating Nonterminating	3 3 3 3 3 3 3 3 3	1 0 0 1 1 0 0	
		Timeout	Default-LBE-SNME.epf None+SBE.epf Default-LBE-Multi-tpf Default-LBE-Multi-NondetBuchi-epf None+SBE-Simplify AssumesSBE.epf Default-LBE-Sungle-gef Default-LBE-Multi-SBE-HsimplifyAssumesSBE.epf Default-LBE-Multi-SBE-SimplifyAssumesSBE.epf Default-LBE-Multi-SBE-SimplifyAssumesSBE.epf None.epf	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	60.01 s 60.04 s	3230.50 MB 3132.75 MB 3122.50 MB 3241.75 MB 3256.00 MB 3129.50 MB 3131.00 MB	2367.70 MB 2018.14 MB 2110.89 MB	16 59.5 36 60.3 35 63.5 16 60.3 15 59.5 39 59.5 39 60.3	91 s 29	0.05 s 0.17 s 0.69 s 0.12 s	3 3 3 3 3 3 3 3	5 5 5 5 5 5 5 5	70 70 70 70 70 70 70 70 70	92 93 92 92 93 92 93 93 93	172 172 172 172 172 172 172 172 172 172	346 353 346 346 353 346 353 353 346	144 172 92 92 172 144 93 93 172	285 353 233 233 353 285 242 242 346	13 32 31 12 12 12 35 35	3 4 0 3 3 4 4 4 2	0 Decompo 4 Decompo 0 Decompo 0 Decompo 0 Decompo 0 Decompo	sition not yet finished sition not yet finished	8 5 5 9 9 5 5	3 3 0 3 3 3 3 3	

 ${\bf Table~1:~Results~for~LTLAutomizer C.xml.}$