

Benchmark Name	# sym inputs	mode	run time (msec)	static analysis time (msec)	#exec. paths	#solver queries	solver time (msec)	#inst. regions	#inst. methods	#inst.
WBS	3	1	263	0	24	46	21	0	0	0
WBS	3	2	569	1009	1	0	0	6	0	6
WBS	3	3	532	1234	1	0	0	6	0	6
WBS	3	4	920	1333	1	12	328	6	0	6
WBS	3	5	917	1355	1	12	311	6	0	6
WBS	15	1	4427660	0	7962624	15925246	3121444	0	0	0
WBS	30	5	57532	2230	1	280	54072	16	0	140
TCAS	12	1	2656	0	198	2338	1509	0	0	0
TCAS	12	2	3648	2988	98	1098	862	13	0	361
TCAS	12	3	1326	4509	1	0	0	4	28	4
TCAS	12	4	1674	4470	1	8	75	4	28	4
TCAS	12	5	1357	3364	1	8	114	4	28	4
TCAS	24	1	353066	0	39204	465262	296228	0	0	0
TCAS	120	5	3853	1840	1	80	2212	4	280	40
replace	11	1	1241296	0	757261	4317642	818462	0	0	0
replace	11	2	1080048	3390	477315	3125750	667165	27	0	51069
replace	11	3	1622018	3980	681673	4623560	1030076	25	17210	53938
replace	11	4	7027542	4062	82320	3757873	5338884	34	6339	139813
replace	11	5	8529211	4377	82320	3904498	6340147	40	6339	286767
NanoXML	7	1	4408426	0	3606607	8318716	2195506	0	0	0
NanoXML	7	2	5027498	680	3606476	8318577	2351930	2	0	5262
NanoXML	7	3	5021002	871	3606476	8318577	2336583	2	0	5262
NanoXML	7	4	17852489	1111	3599980	9292835	11787938	7	77156	492289
NanoXML	7	5	2663570	1406	553917	1680328	1619964	8	3241	203507
NanoXML	8	1	43200000	0	31835683	72954300	22040428	0	0	0
NanoXML	8	5	26365485	680	3642830	11024807	18055761	8	27273	1393422
Siena	6	1	4883384	0	2985984	7600684	2087250	0	0	0
Siena	6	5	5033783	1551	2985984	7600684	2092015	0	0	0
Schedule2	3	1	773	0	343	684	172	0	0	0
Schedule2	3	5	1557	722	343	684	172	0	0	0

Table 2: Java Ranger Performance on WBS, TCAS, Replace, NanoXML, Siena, and Schedule2

Benchmark Name	# sym inputs	mode	run time (msec)	static analysis time (msec)	#exec. paths	#solver queries	solver time (msec)	#inst. regions	#inst. methods	#inst.
PrintTokens2	3	1	41973	0	9074	188002	23080	0	0	0
PrintTokens2	3	2	47858	800	8184	182366	23179	2	0	2287
PrintTokens2	3	3	51571	1180	8184	182366	26022	2	0	2287
PrintTokens2	3	4	49842	1222	8184	186940	24538	2	0	2287
PrintTokens2	3	5	77124	1129	6612	168350	33783	15	0	18230
ApacheCLI	6	1	12987647	0	2515866	26577992	4393629	0	0	0
ApacheCLI	6	2	1731243	611	93328	208980	693509	4	0	420736
ApacheCLI	6	3	1803509	910	93328	208980	744353	4	0	420736
ApacheCLI	6	4	5858874	907	93328	1050452	4090707	4	0	420736
ApacheCLI	6	5	5031006	1083	93328	1050452	3307654	5	0	439072
ApacheCLI	7	1	43181000	0	4114753	98058899	17579650	0	0	0
ApacheCLI	7	2	13194514	546	555143	1301110	5480163	4	0	3610342
ApacheCLI	6+1	1	31886455	0	4839812	64432586	9470833	0	0	0
ApacheCLI	6+1	2	3838606	594	171818	756030	1770804	4	0	813694
ApacheCLI	6+1	3	3677573	803	171818	756030	1716274	4	0	813694
ApacheCLI	6+1	4	10474434	841	171818	2383418	7287933	4	0	813694
ApacheCLI	6+1	5	11636593	742	171818	2385043	8010246	5	0	847837
ApacheCLI	7+1	1	43191000	0	3725921	144990567	17875860	0	0	0
ApacheCLI	7+1	2	26186160	466	986522	3095212	11608660	4	0	6854478
MerArbiter	24	1	5456648	0	707972	271571	38138	0	0	0
MerArbiter	24	2	1729347	11734	40752	126384	50502	34	0	66514
MerArbiter	24	3	1762671	20639	40752	126384	48857	34	0	66514
MerArbiter	24	4	1949940	19997	40752	258672	109488	35	0	68191
MerArbiter	24	5	1990565	21110	40752	258672	114509	35	0	68191
MerArbiter	28	1	43191000	0	1731221	4852988	2258472	0	0	0
MerArbiter	28	2	12074874	13361	276144	871304	439035	34	0	463868

Table 3: Java Ranger Performance on PrintTokens2, ApacheCLI with the last input made made concrete and symbolic respectively, and MerArbiter