Libpll sequential benchmarks

December 22, 2016

• node : node index (post order traversal)

• depth : node depth from the virtual root

• lsize : recursive number of children under the left child node

• rsize : recursive number of children under the right child node

• psize: number of unique (not repeating) sites on the current node

• lsize: number of unique (not repeating) sites on the left child node

• rsize: number of unique (not repeating) sites on the right child node

• repeats : runtime for 500 updatepartials on the node

 $\bullet\,$ TCLV opt : runtime for 500 update partials on the node with left and right TCLV

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node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	repeats tipinner
node0	11	0	0	25	5	5	$42 \mathrm{ms}$	$40 \mathrm{ms}$
node1	10	0	2	68	5	25	98ms	75ms
node2	10	0	0	24	6	5	$39 \mathrm{ms}$	42ms
node3	9	4	2	225	68	24	314ms	232ms
node4	8	0	8	403	5	225	578ms	$374 \mathrm{ms}$
node5	7	0	10	508	5	403	$737 \mathrm{ms}$	$490 \mathrm{ms}$
node6	9	0	0	24	5	5	$43 \mathrm{ms}$	$43 \mathrm{ms}$
node7	9	0	0	24	5	5	$45 \mathrm{ms}$	$40 \mathrm{ms}$
node8	8	2	2	148	24	24	$237 \mathrm{ms}$	216ms
node9	11	0	0	25	5	5	48ms	$46 \mathrm{ms}$
node10	11	0	0	23	5	5	48ms	41ms
node11	10	2	2	178	25	23	$261 \mathrm{ms}$	$252 \mathrm{ms}$
node12	9	0	6	268	5	178	$397 \mathrm{ms}$	$234 \mathrm{ms}$
node13	10	0	0	22	5	5	$45 \mathrm{ms}$	$43 \mathrm{ms}$
node14	10	0	0	25	5	5	$46 \mathrm{ms}$	$43 \mathrm{ms}$
node15	9	2	2	115	22	25	187ms	$157 \mathrm{ms}$
node16	8	8	6	628	268	115	971ms	$638 \mathrm{ms}$
node17	7	6	16	919	148	628	1324ms	$985 \mathrm{ms}$
node18	6	12	24	1428	508	919	2156ms	$2209 \mathrm{ms}$
node19	7	0	0	25	5	5	47ms	53ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node20	6	0	2	72	5	25	113ms	$79 \mathrm{ms}$
node21	5	38	4	1597	1428	72	$2057 \mathrm{ms}$	$1694 \mathrm{ms}$
node22	11	0	0	25	5	5	$48 \mathrm{ms}$	$50 \mathrm{ms}$
node23	15	0	0	25	5	5	$43 \mathrm{ms}$	$42 \mathrm{ms}$
node24	14	0	2	90	5	25	129ms	104ms
node25	13	0	4	211	5	90	283ms	224ms
node26	12	0	6	339	5	211	444ms	$348 \mathrm{ms}$
node27	14	0	0	24	5	5	$43 \mathrm{ms}$	$44 \mathrm{ms}$
node28	13	0	2	62	5	24	94ms	$74 \mathrm{ms}$
node29	12	4	0	109	62	5	148ms	$119 \mathrm{ms}$
node30	11	8	6	681	339	109	918ms	$821 \mathrm{ms}$
node31	10	2	16	896	25	681	1191ms	$946 \mathrm{ms}$
node32	9	20	0	932	896	5	1207ms	959 ms
node33	8	0	22	1022	5	932	$1354 \mathrm{ms}$	$950 \mathrm{ms}$
node34	8	0	0	30	5	10	$53 \mathrm{ms}$	$43 \mathrm{ms}$
node35	7	24	2	1267	1022	30	$1858 \mathrm{ms}$	$1133 \mathrm{ms}$
node36	6	28	0	1329	1267	5	1894ms	$1129 \mathrm{ms}$
node37	9	0	0	25	5	5	$45 \mathrm{ms}$	$43 \mathrm{ms}$
node38	8	2	0	92	25	5	$125 \mathrm{ms}$	$96 \mathrm{ms}$
node39	7	4	0	188	92	5	266ms	183ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node40	8	0	0	30	8	5	$58 \mathrm{ms}$	$55 \mathrm{ms}$
node41	10	0	0	20	5	5	$35 \mathrm{ms}$	$37 \mathrm{ms}$
node42	10	0	0	25	5	5	51ms	$46 \mathrm{ms}$
node43	9	2	2	124	20	25	193ms	180ms
node44	8	0	6	158	5	124	246ms	$139 \mathrm{ms}$
node45	7	2	8	373	30	158	$543 \mathrm{ms}$	$354 \mathrm{ms}$
node46	6	6	12	913	188	373	$1346 \mathrm{ms}$	$1323 \mathrm{ms}$
node47	5	30	20	2118	1329	913	$2694 \mathrm{ms}$	$3283 \mathrm{ms}$
node48	4	44	52	3230	1597	2118	$4130 \mathrm{ms}$	5101ms
node49	4	0	0	22	5	5	$44 \mathrm{ms}$	$37 \mathrm{ms}$
node50	3	98	2	3230	3230	22	$4503 \mathrm{ms}$	2718ms
node51	2	0	102	3230	5	3230	$4426 \mathrm{ms}$	$3151 \mathrm{ms}$
node52	2	0	0	32	12	5	$54 \mathrm{ms}$	$39 \mathrm{ms}$
node53	1	104	2	3230	3230	32	$3954 \mathrm{ms}$	$3064 \mathrm{ms}$
node54	0	0	108	3230	5	3230	$4576 \mathrm{ms}$	3416ms
node55	1	0	0	23	5	5	$51 \mathrm{ms}$	$49 \mathrm{ms}$
node56	0	2	0	62	23	6	$99 \mathrm{ms}$	$72 \mathrm{ms}$

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node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	repeats tipinner
node0	5	0	0	121	21	21	172ms	161ms
node1	4	0	2	265	21	121	391ms	245ms
node2	4	0	0	59	21	21	$76 \mathrm{ms}$	79ms
node3	3	4	2	407	265	59	$538 \mathrm{ms}$	$428 \mathrm{ms}$
node4	3	0	0	54	21	21	$78 \mathrm{ms}$	$81 \mathrm{ms}$
node5	2	8	2	520	407	54	764ms	$504 \mathrm{ms}$
node6	1	12	0	627	520	21	$905 \mathrm{ms}$	$572 \mathrm{ms}$
node7	8	0	0	150	21	21	204ms	238ms
node8	7	0	2	396	21	150	$567 \mathrm{ms}$	$332 \mathrm{ms}$
node9	10	0	0	180	21	21	261ms	224ms
node10	9	0	2	411	21	180	$608 \mathrm{ms}$	$342 \mathrm{ms}$
node11	10	0	0	72	21	21	$103 \mathrm{ms}$	$95 \mathrm{ms}$
node12	9	0	2	133	21	72	211ms	$122 \mathrm{ms}$
node13	8	4	4	587	411	133	806ms	$617 \mathrm{ms}$
node14	10	0	0	165	21	21	$236 \mathrm{ms}$	$234 \mathrm{ms}$
node15	9	0	2	339	21	165	$503 \mathrm{ms}$	$320 \mathrm{ms}$
node16	8	0	4	525	21	339	732ms	471ms
node17	7	10	6	788	587	525	1022ms	1176ms
node18	6	4	18	845	396	788	$1086 \mathrm{ms}$	$1365 \mathrm{ms}$
node19	9	0	0	136	21	21	171ms	193ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node20	8	0	2	266	21	136	$325 \mathrm{ms}$	264ms
node21	7	0	4	475	21	266	$582 \mathrm{ms}$	461ms
node22	9	0	0	82	21	21	$91 \mathrm{ms}$	127ms
node23	13	0	0	84	21	21	94ms	116ms
node24	12	2	0	148	84	21	$165 \mathrm{ms}$	$157 \mathrm{ms}$
node25	13	0	0	88	21	21	$105 \mathrm{ms}$	$124 \mathrm{ms}$
node26	12	0	2	154	21	88	$196 \mathrm{ms}$	$174 \mathrm{ms}$
node27	11	4	4	270	148	154	$345 \mathrm{ms}$	$443 \mathrm{ms}$
node28	13	0	0	67	21	21	$79 \mathrm{ms}$	$106 \mathrm{ms}$
node29	12	0	2	113	21	67	$123 \mathrm{ms}$	$133 \mathrm{ms}$
node30	12	0	0	73	21	21	$82 \mathrm{ms}$	$116 \mathrm{ms}$
node31	11	4	2	187	113	73	$210 \mathrm{ms}$	$309 \mathrm{ms}$
node32	10	10	8	369	270	187	$431 \mathrm{ms}$	$602 \mathrm{ms}$
node33	9	0	20	408	21	369	$521 \mathrm{ms}$	$428 \mathrm{ms}$
node34	8	2	22	453	82	408	$630 \mathrm{ms}$	$561 \mathrm{ms}$
node35	12	0	0	89	21	21	121ms	$133 \mathrm{ms}$
node36	11	2	0	188	89	21	230ms	174ms
node37	13	0	0	85	21	21	112ms	115ms
node38	13	0	0	63	21	21	$75 \mathrm{ms}$	101ms
node39	12	2	2	173	85	63	220ms	$297 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node40	11	0	6	242	21	173	$336 \mathrm{ms}$	$252 \mathrm{ms}$
node41	10	4	8	410	188	242	$524 \mathrm{ms}$	599 ms
node42	9	0	14	456	21	410	$623 \mathrm{ms}$	410ms
node43	11	0	0	56	21	21	$80 \mathrm{ms}$	$84 \mathrm{ms}$
node44	10	0	2	117	21	56	176ms	$127 \mathrm{ms}$
node45	10	0	0	163	21	21	231ms	$235 \mathrm{ms}$
node46	9	4	2	371	117	163	$555 \mathrm{ms}$	$532 \mathrm{ms}$
node47	8	16	8	581	456	371	843ms	$829 \mathrm{ms}$
node48	7	26	26	669	453	581	$949 \mathrm{ms}$	$1087 \mathrm{ms}$
node49	6	6	54	805	475	669	$1164 \mathrm{ms}$	$1284 \mathrm{ms}$
node50	5	24	62	935	845	805	$1339 \mathrm{ms}$	$1397 \mathrm{ms}$
node51	7	0	0	149	21	21	$173 \mathrm{ms}$	$204 \mathrm{ms}$
node52	7	0	0	160	21	21	185ms	$231 \mathrm{ms}$
node53	6	2	2	475	149	160	$587 \mathrm{ms}$	$714 \mathrm{ms}$
node54	11	0	0	101	21	21	118ms	$164 \mathrm{ms}$
node55	10	0	2	175	21	101	213ms	$185 \mathrm{ms}$
node56	9	4	0	228	175	21	311ms	240ms
node57	8	6	0	344	228	21	$466 \mathrm{ms}$	$345 \mathrm{ms}$
node58	7	0	8	430	21	344	$575 \mathrm{ms}$	$446 \mathrm{ms}$
node59	7	0	0	225	21	21	$300 \mathrm{ms}$	$360 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node60	6	10	2	666	430	225	857ms	1096ms
node61	5	6	14	782	475	666	944ms	$1250 \mathrm{ms}$
node62	4	88	22	975	935	782	1221ms	1566ms
node63	5	0	0	252	21	21	$355 \mathrm{ms}$	$399 \mathrm{ms}$
node64	4	0	2	541	21	252	771ms	$544 \mathrm{ms}$
node65	3	112	4	993	975	541	1480ms	$1455 \mathrm{ms}$
node66	5	0	0	250	21	21	$365 \mathrm{ms}$	$318 \mathrm{ms}$
node67	4	2	0	585	250	21	874ms	$521 \mathrm{ms}$
node68	8	0	0	90	21	21	123ms	$127 \mathrm{ms}$
node69	8	0	0	102	21	21	146ms	$149 \mathrm{ms}$
node70	7	2	2	243	90	102	$365 \mathrm{ms}$	$352 \mathrm{ms}$
node71	9	0	0	77	21	21	$105 \mathrm{ms}$	$106 \mathrm{ms}$
node72	8	0	2	149	21	77	191ms	$156 \mathrm{ms}$
node73	9	0	0	92	21	21	126ms	$135 \mathrm{ms}$
node74	8	0	2	185	21	92	$238 \mathrm{ms}$	$201 \mathrm{ms}$
node75	7	4	4	334	149	185	$472 \mathrm{ms}$	$431 \mathrm{ms}$
node76	6	6	10	432	243	334	$609 \mathrm{ms}$	$597 \mathrm{ms}$
node77	8	0	0	85	21	21	109ms	$104 \mathrm{ms}$
node78	7	2	0	181	85	21	$252 \mathrm{ms}$	$166 \mathrm{ms}$
node79	9	0	0	83	21	21	121ms	115ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node80	10	0	0	85	21	21	$127 \mathrm{ms}$	119ms
node81	10	0	0	56	21	21	$83 \mathrm{ms}$	$70 \mathrm{ms}$
node82	9	2	2	168	85	56	$268 \mathrm{ms}$	211ms
node83	8	2	6	241	83	168	$353 \mathrm{ms}$	$268 \mathrm{ms}$
node84	9	0	0	59	21	21	$82 \mathrm{ms}$	$75 \mathrm{ms}$
node85	8	0	2	100	21	59	$155 \mathrm{ms}$	$108 \mathrm{ms}$
node86	7	10	4	375	241	100	$480 \mathrm{ms}$	$431 \mathrm{ms}$
node87	6	4	16	500	181	375	$588 \mathrm{ms}$	$657 \mathrm{ms}$
node88	5	18	22	641	432	500	$809 \mathrm{ms}$	998ms
node89	8	0	0	93	21	21	112ms	$143 \mathrm{ms}$
node90	10	0	0	76	21	21	$89 \mathrm{ms}$	$125 \mathrm{ms}$
node91	11	0	0	87	21	21	$99 \mathrm{ms}$	$127 \mathrm{ms}$
node92	12	0	0	74	21	21	$86 \mathrm{ms}$	102ms
node93	11	2	0	133	74	21	$170 \mathrm{ms}$	$156 \mathrm{ms}$
node94	10	2	4	239	87	133	$325 \mathrm{ms}$	401ms
node95	9	2	8	313	76	239	414ms	$394 \mathrm{ms}$
node96	10	0	0	78	21	21	104ms	$123 \mathrm{ms}$
node97	10	0	0	94	21	21	123ms	140ms
node98	9	2	2	243	78	94	$314 \mathrm{ms}$	$375 \mathrm{ms}$
node99	8	12	6	515	313	243	$680 \mathrm{ms}$	833ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node100	7	2	20	586	93	515	$765 \mathrm{ms}$	708ms
node101	6	0	24	629	21	586	813ms	613ms
node102	10	0	0	100	21	21	128ms	128ms
node103	10	0	0	84	21	21	114ms	120ms
node104	9	2	2	270	100	84	$378 \mathrm{ms}$	434ms
node105	10	0	0	83	21	21	$127 \mathrm{ms}$	148ms
node106	10	0	0	101	21	21	$154 \mathrm{ms}$	$172 \mathrm{ms}$
node107	9	2	2	238	83	101	$309 \mathrm{ms}$	$389 \mathrm{ms}$
node108	8	6	6	499	270	238	648ms	724ms
node109	10	0	0	105	21	21	$139 \mathrm{ms}$	$152 \mathrm{ms}$
node110	9	0	2	189	21	105	$259 \mathrm{ms}$	184ms
node111	12	0	0	91	21	21	$120 \mathrm{ms}$	$125 \mathrm{ms}$
node112	11	0	2	159	21	91	$219 \mathrm{ms}$	$159 \mathrm{ms}$
node113	10	4	0	286	159	21	$410 \mathrm{ms}$	$256 \mathrm{ms}$
node114	9	6	0	355	286	21	$543 \mathrm{ms}$	$315 \mathrm{ms}$
node115	8	4	8	460	189	355	$698 \mathrm{ms}$	$661 \mathrm{ms}$
node116	7	14	14	654	499	460	$892 \mathrm{ms}$	$946 \mathrm{ms}$
node117	11	0	0	32	21	21	$45 \mathrm{ms}$	$49 \mathrm{ms}$
node118	12	0	0	24	21	21	$35 \mathrm{ms}$	$39 \mathrm{ms}$
node119	11	2	0	28	24	21	$34 \mathrm{ms}$	$45 \mathrm{ms}$

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node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node120	10	2	4	44	32	28	$61 \mathrm{ms}$	$67 \mathrm{ms}$
node121	10	0	0	145	21	21	184ms	213ms
node122	9	8	2	252	44	145	$349 \mathrm{ms}$	274ms
node123	11	0	0	95	21	21	141ms	141ms
node124	10	0	2	200	21	95	291ms	191ms
node125	9	4	0	283	200	21	$393 \mathrm{ms}$	$280 \mathrm{ms}$
node126	8	12	6	485	252	283	711ms	$729 \mathrm{ms}$
node127	9	0	0	94	21	21	144ms	$123 \mathrm{ms}$
node128	8	2	0	255	94	21	371ms	$238 \mathrm{ms}$
node129	7	20	4	598	485	255	799ms	$902 \mathrm{ms}$
node130	6	30	26	764	654	598	1023ms	1213ms
node131	5	26	58	822	629	764	1107ms	1322ms
node132	4	42	86	874	641	822	1030ms	1454ms
node133	3	4	130	950	585	874	1211ms	1492ms
node134	2	118	136	1029	993	950	1358ms	$1693 \mathrm{ms}$
node135	1	0	256	1029	21	1029	1276ms	953 ms
node136	0	14	258	1035	627	1029	1498ms	$1486 \mathrm{ms}$
node137	0	0	0	248	21	21	370ms	$336 \mathrm{ms}$

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node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node0	4	0	0	24	5	6	$55 \mathrm{ms}$	$55 \mathrm{ms}$
node1	8	0	0	21	5	7	$50 \mathrm{ms}$	$47 \mathrm{ms}$
node2	7	0	2	28	5	21	$64 \mathrm{ms}$	44ms
node3	6	4	0	65	28	8	110ms	86ms
node4	5	6	0	98	65	7	$148 \mathrm{ms}$	115ms
node5	8	0	0	17	6	5	$46 \mathrm{ms}$	51ms
node6	7	0	2	18	5	17	$45 \mathrm{ms}$	$42 \mathrm{ms}$
node7	6	0	4	23	5	18	$50 \mathrm{ms}$	46ms
node8	8	0	0	13	5	5	$43 \mathrm{ms}$	$40 \mathrm{ms}$
node9	9	0	0	11	5	5	$41 \mathrm{ms}$	$37 \mathrm{ms}$
node10	8	0	2	20	5	11	$55 \mathrm{ms}$	$49 \mathrm{ms}$
node11	7	2	4	38	13	20	$76 \mathrm{ms}$	77ms
node12	6	0	8	51	5	38	$100 \mathrm{ms}$	$69 \mathrm{ms}$
node13	5	6	10	83	23	51	$137 \mathrm{ms}$	119ms
node14	4	8	18	194	98	83	298ms	297ms
node15	3	2	28	246	24	194	$368 \mathrm{ms}$	289ms
node16	2	0	32	267	6	246	$405 \mathrm{ms}$	247ms
node17	1	0	34	273	6	267	$415 \mathrm{ms}$	245ms
node18	0	0	36	273	5	273	423ms	266ms
node19	9	0	0	22	5	5	$54 \mathrm{ms}$	64ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node20	10	0	0	23	5	5	$63 \mathrm{ms}$	$50 \mathrm{ms}$
node21	10	0	0	25	5	5	$62 \mathrm{ms}$	$50 \mathrm{ms}$
node22	9	2	2	120	23	25	195ms	174ms
node23	8	2	6	272	22	120	$437 \mathrm{ms}$	294ms
node24	7	0	10	341	5	272	520ms	$384 \mathrm{ms}$
node25	10	0	0	22	5	5	$62 \mathrm{ms}$	$65 \mathrm{ms}$
node26	9	0	2	63	5	22	112ms	$96 \mathrm{ms}$
node27	8	0	4	76	5	63	$135 \mathrm{ms}$	$92 \mathrm{ms}$
node28	11	0	0	17	6	5	$46 \mathrm{ms}$	$51 \mathrm{ms}$
node29	10	0	2	37	5	17	77ms	$72 \mathrm{ms}$
node30	11	0	0	24	5	6	64ms	$68 \mathrm{ms}$
node31	10	2	0	35	24	5	$73 \mathrm{ms}$	$68 \mathrm{ms}$
node32	9	4	4	131	37	35	204ms	$232 \mathrm{ms}$
node33	13	0	0	23	6	5	51ms	$53 \mathrm{ms}$
node34	12	0	2	43	6	23	87ms	$65 \mathrm{ms}$
node35	11	0	4	55	5	43	$97 \mathrm{ms}$	86ms
node36	12	0	0	16	5	5	41ms	$46 \mathrm{ms}$
node37	11	2	0	29	16	5	61ms	$61 \mathrm{ms}$
node38	10	6	4	111	55	29	174ms	211ms
node39	9	0	12	120	5	111	164ms	$159 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node40	8	10	14	281	131	120	$383 \mathrm{ms}$	$493 \mathrm{ms}$
node41	7	6	26	421	76	281	$525 \mathrm{ms}$	$594 \mathrm{ms}$
node42	6	12	34	927	341	421	1107ms	1559 ms
node43	11	0	0	21	6	5	$50 \mathrm{ms}$	$57 \mathrm{ms}$
node44	10	0	2	46	5	21	84ms	79ms
node45	12	0	0	17	5	5	$47 \mathrm{ms}$	$53 \mathrm{ms}$
node46	14	0	0	10	5	5	$37 \mathrm{ms}$	$38 \mathrm{ms}$
node47	15	0	0	25	5	5	$55 \mathrm{ms}$	$61 \mathrm{ms}$
node48	14	0	2	69	5	25	119ms	$86 \mathrm{ms}$
node49	13	2	4	179	10	69	$263 \mathrm{ms}$	$223 \mathrm{ms}$
node50	12	0	8	185	5	179	276ms	$217 \mathrm{ms}$
node51	11	2	10	215	17	185	$310 \mathrm{ms}$	$270 \mathrm{ms}$
node52	11	0	0	25	5	5	$55 \mathrm{ms}$	$66 \mathrm{ms}$
node53	10	14	2	466	215	25	$661 \mathrm{ms}$	$556 \mathrm{ms}$
node54	9	4	18	704	46	466	$907 \mathrm{ms}$	$820 \mathrm{ms}$
node55	8	0	24	796	6	704	$1003 \mathrm{ms}$	$800 \mathrm{ms}$
node56	10	0	0	25	5	5	$61 \mathrm{ms}$	$64 \mathrm{ms}$
node57	18	0	0	22	5	5	$59 \mathrm{ms}$	$58 \mathrm{ms}$
node58	17	0	2	57	5	22	$106 \mathrm{ms}$	$76 \mathrm{ms}$
node59	22	0	0	14	6	5	$40 \mathrm{ms}$	$42 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node60	22	0	0	23	5	5	$55 \mathrm{ms}$	$54 \mathrm{ms}$
node61	21	2	2	69	14	23	121ms	$131 \mathrm{ms}$
node62	23	0	0	9	5	5	$36 \mathrm{ms}$	$37 \mathrm{ms}$
node63	22	0	2	35	5	9	$77 \mathrm{ms}$	$78 \mathrm{ms}$
node64	21	0	4	87	5	35	$154 \mathrm{ms}$	100ms
node65	20	6	6	212	69	87	$335 \mathrm{ms}$	$352 \mathrm{ms}$
node66	19	0	14	228	5	212	$337 \mathrm{ms}$	$245 \mathrm{ms}$
node67	21	0	0	29	9	5	$62 \mathrm{ms}$	$68 \mathrm{ms}$
node68	21	0	0	19	5	5	$51 \mathrm{ms}$	$59 \mathrm{ms}$
node69	20	2	2	106	29	19	$165 \mathrm{ms}$	186ms
node70	20	0	0	15	5	5	44ms	$45 \mathrm{ms}$
node71	19	6	2	146	106	15	$240 \mathrm{ms}$	180ms
node72	18	16	10	434	228	146	$657 \mathrm{ms}$	$635 \mathrm{ms}$
node73	17	0	28	449	5	434	$673 \mathrm{ms}$	$400 \mathrm{ms}$
node74	16	4	30	522	57	449	791ms	$523 \mathrm{ms}$
node75	15	0	36	555	5	522	$753 \mathrm{ms}$	$502 \mathrm{ms}$
node76	14	0	38	638	5	555	$927 \mathrm{ms}$	$609 \mathrm{ms}$
node77	19	0	0	24	5	5	$58 \mathrm{ms}$	$59 \mathrm{ms}$
node78	20	0	0	23	5	5	$54 \mathrm{ms}$	$56 \mathrm{ms}$
node79	19	0	2	60	5	23	110ms	$72 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node80	18	2	4	212	24	60	$313 \mathrm{ms}$	$229 \mathrm{ms}$
node81	21	0	0	17	6	5	$50 \mathrm{ms}$	$50 \mathrm{ms}$
node82	20	0	2	33	5	17	$66 \mathrm{ms}$	$53 \mathrm{ms}$
node83	22	0	0	24	5	5	60ms	$52 \mathrm{ms}$
node84	27	0	0	17	5	5	$50 \mathrm{ms}$	$47 \mathrm{ms}$
node85	26	2	0	27	17	5	62ms	$50 \mathrm{ms}$
node86	25	0	4	40	5	27	87ms	$71 \mathrm{ms}$
node87	24	6	0	56	40	5	122ms	$82 \mathrm{ms}$
node88	24	0	0	20	5	5	54ms	$56 \mathrm{ms}$
node89	23	8	2	82	56	20	143ms	$116 \mathrm{ms}$
node90	25	0	0	8	5	5	40ms	$33 \mathrm{ms}$
node91	25	0	0	18	5	5	$52 \mathrm{ms}$	$42 \mathrm{ms}$
node92	24	2	2	37	8	18	68ms	$61 \mathrm{ms}$
node93	25	0	0	13	5	5	42ms	$42 \mathrm{ms}$
node94	28	0	0	16	5	5	$49 \mathrm{ms}$	$44 \mathrm{ms}$
node95	28	0	0	9	5	5	$37 \mathrm{ms}$	$40 \mathrm{ms}$
node96	27	2	2	38	16	9	$69 \mathrm{ms}$	$79 \mathrm{ms}$
node97	26	0	6	54	5	38	$93 \mathrm{ms}$	89ms
node98	25	0	8	73	5	54	120ms	$94 \mathrm{ms}$
node99	24	2	10	96	13	73	151ms	$134 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node100	23	6	14	145	37	96	211ms	210ms
node101	22	12	22	220	82	145	$295 \mathrm{ms}$	$375 \mathrm{ms}$
node102	21	2	36	331	24	220	418ms	$359 \mathrm{ms}$
node103	22	0	0	19	5	5	$45 \mathrm{ms}$	$55 \mathrm{ms}$
node104	24	0	0	17	5	5	$38 \mathrm{ms}$	$43 \mathrm{ms}$
node105	26	0	0	22	5	5	$50 \mathrm{ms}$	$60 \mathrm{ms}$
node106	33	0	0	14	5	5	$35 \mathrm{ms}$	$42 \mathrm{ms}$
node107	32	0	2	33	5	14	$54 \mathrm{ms}$	$60 \mathrm{ms}$
node108	31	0	4	46	5	33	$68 \mathrm{ms}$	$65 \mathrm{ms}$
node109	32	0	0	12	5	5	$38 \mathrm{ms}$	$40 \mathrm{ms}$
node110	33	0	0	15	5	5	$40 \mathrm{ms}$	$47 \mathrm{ms}$
node111	32	2	0	46	15	5	$73 \mathrm{ms}$	$65 \mathrm{ms}$
node112	31	2	4	62	12	46	$91 \mathrm{ms}$	88ms
node113	30	6	8	108	46	62	$159 \mathrm{ms}$	184ms
node114	29	0	16	146	5	108	$202 \mathrm{ms}$	173ms
node115	28	0	18	149	5	146	208ms	180ms
node116	27	0	20	189	5	149	270ms	224ms
node117	27	0	0	20	5	5	$49 \mathrm{ms}$	$59 \mathrm{ms}$
node118	26	22	2	256	189	20	$353 \mathrm{ms}$	324ms
node119	25	2	26	336	22	256	$468 \mathrm{ms}$	406ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node120	24	0	30	344	5	336	487ms	$389 \mathrm{ms}$
node121	23	2	32	372	17	344	512ms	$457 \mathrm{ms}$
node122	26	0	0	15	5	5	41ms	$50 \mathrm{ms}$
node123	25	0	2	20	5	15	48ms	$56 \mathrm{ms}$
node124	25	0	0	18	5	5	51ms	57ms
node125	24	4	2	49	20	18	$80 \mathrm{ms}$	111ms
node126	23	0	8	66	5	49	$99 \mathrm{ms}$	101ms
node127	22	36	10	480	372	66	$609 \mathrm{ms}$	618ms
node128	21	2	48	535	19	480	644ms	616ms
node129	20	40	52	948	331	535	1270ms	$1611 \mathrm{ms}$
node130	19	4	94	1004	33	948	$1453 \mathrm{ms}$	$1007 \mathrm{ms}$
node131	18	0	100	1041	5	1004	$1527 \mathrm{ms}$	$1022 \mathrm{ms}$
node132	17	8	102	1379	212	1041	$1958 \mathrm{ms}$	$1626 \mathrm{ms}$
node133	21	0	0	24	5	5	$55 \mathrm{ms}$	$59 \mathrm{ms}$
node134	20	0	2	50	5	24	$96 \mathrm{ms}$	$65 \mathrm{ms}$
node135	19	0	4	70	5	50	123ms	$93 \mathrm{ms}$
node136	21	0	0	16	5	5	$46 \mathrm{ms}$	44ms
node137	21	0	0	13	5	5	44ms	$37 \mathrm{ms}$
node138	20	2	2	39	16	13	$72 \mathrm{ms}$	$85 \mathrm{ms}$
node139	19	6	0	56	39	5	$105 \mathrm{ms}$	$75 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node140	18	6	8	159	70	56	243ms	$234 \mathrm{ms}$
node141	18	0	0	24	5	5	$62 \mathrm{ms}$	$53 \mathrm{ms}$
node142	17	16	2	250	159	24	413ms	$245 \mathrm{ms}$
node143	16	112	20	1768	1379	250	$2350 \mathrm{ms}$	1898ms
node144	15	0	134	1774	5	1768	2159ms	1796ms
node145	14	0	136	1863	5	1774	2343ms	$1852 \mathrm{ms}$
node146	13	40	138	2448	638	1863	3717ms	$3392 \mathrm{ms}$
node147	15	0	0	21	8	5	$53 \mathrm{ms}$	$65 \mathrm{ms}$
node148	14	2	0	43	21	6	$85 \mathrm{ms}$	$77 \mathrm{ms}$
node149	13	4	0	82	43	5	$136 \mathrm{ms}$	$119 \mathrm{ms}$
node150	12	180	6	2574	2448	82	$3640 \mathrm{ms}$	2470ms
node151	18	0	0	21	5	5	$50 \mathrm{ms}$	$51 \mathrm{ms}$
node152	17	2	0	62	21	5	100ms	86ms
node153	16	0	4	125	5	62	187ms	$133 \mathrm{ms}$
node154	15	0	6	226	5	125	$332 \mathrm{ms}$	$250 \mathrm{ms}$
node155	17	0	0	25	5	5	48ms	$63 \mathrm{ms}$
node156	17	0	0	14	5	5	$35 \mathrm{ms}$	44ms
node157	16	2	2	58	25	14	$105 \mathrm{ms}$	102ms
node158	23	0	0	26	6	5	$67 \mathrm{ms}$	$59 \mathrm{ms}$
node159	28	0	0	25	11	5	$50 \mathrm{ms}$	$46 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node160	29	0	0	25	5	5	$53 \mathrm{ms}$	57ms
node161	31	0	0	24	5	5	$50 \mathrm{ms}$	$60 \mathrm{ms}$
node162	37	0	0	24	5	5	54ms	$56 \mathrm{ms}$
node163	36	0	2	40	5	24	$70 \mathrm{ms}$	62ms
node164	35	4	0	101	40	5	146ms	118ms
node165	34	0	6	189	6	101	266ms	196ms
node166	35	0	0	23	5	5	$59 \mathrm{ms}$	$52 \mathrm{ms}$
node167	34	2	0	64	23	5	101ms	91ms
node168	33	8	4	364	189	64	484ms	444ms
node169	32	14	0	399	364	5	498ms	414ms
node170	31	0	16	431	5	399	$538 \mathrm{ms}$	$483 \mathrm{ms}$
node171	30	2	18	524	24	431	$665 \mathrm{ms}$	$495 \mathrm{ms}$
node172	29	0	22	560	5	524	$759 \mathrm{ms}$	$505 \mathrm{ms}$
node173	28	2	24	675	25	560	904ms	714ms
node174	27	2	28	729	25	675	1077ms	$786 \mathrm{ms}$
node175	26	0	32	740	5	729	1040ms	781ms
node176	28	0	0	25	5	5	51ms	$64 \mathrm{ms}$
node177	27	2	0	68	25	5	$135 \mathrm{ms}$	$93 \mathrm{ms}$
node178	28	0	0	24	5	5	$58 \mathrm{ms}$	$61 \mathrm{ms}$
node179	27	2	0	54	24	5	100ms	80ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node180	26	4	4	236	68	54	$356 \mathrm{ms}$	$427 \mathrm{ms}$
node181	25	34	10	1009	740	236	$1556 \mathrm{ms}$	$1314 \mathrm{ms}$
node182	24	46	0	1021	1009	5	1509ms	$1050 \mathrm{ms}$
node183	25	0	0	25	5	5	48ms	$65 \mathrm{ms}$
node184	24	2	0	82	25	5	134ms	$104 \mathrm{ms}$
node185	23	48	4	1197	1021	82	1732ms	$1365 \mathrm{ms}$
node186	22	2	54	1240	26	1197	1681ms	$1366 \mathrm{ms}$
node187	21	0	58	1279	5	1240	$1696 \mathrm{ms}$	1191ms
node188	20	60	0	1295	1279	5	$1560 \mathrm{ms}$	$1152 \mathrm{ms}$
node189	19	0	62	1334	8	1295	1614ms	$1222 \mathrm{ms}$
node190	18	0	64	1389	5	1334	1523ms	$1219 \mathrm{ms}$
node191	20	0	0	27	5	8	48ms	$56 \mathrm{ms}$
node192	21	0	0	22	5	5	$38 \mathrm{ms}$	$52 \mathrm{ms}$
node193	24	0	0	27	5	9	$42 \mathrm{ms}$	$54 \mathrm{ms}$
node194	23	0	2	58	6	27	$71 \mathrm{ms}$	$71 \mathrm{ms}$
node195	22	0	4	104	6	58	110ms	115ms
node196	28	0	0	23	5	6	$39 \mathrm{ms}$	$51 \mathrm{ms}$
node197	27	0	2	39	5	23	$59 \mathrm{ms}$	$61 \mathrm{ms}$
node198	26	0	4	59	7	39	68ms	76ms
node199	25	6	0	88	59	5	$99 \mathrm{ms}$	88ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node200	26	0	0	25	5	6	$53 \mathrm{ms}$	$54 \mathrm{ms}$
node201	25	2	0	65	25	5	$74 \mathrm{ms}$	80ms
node202	24	8	4	250	88	65	$330 \mathrm{ms}$	$367 \mathrm{ms}$
node203	25	0	0	29	11	6	$75 \mathrm{ms}$	$64 \mathrm{ms}$
node204	24	0	2	65	6	29	120ms	84ms
node205	23	14	4	386	250	65	$679 \mathrm{ms}$	497ms
node206	22	0	20	417	5	386	$667 \mathrm{ms}$	$446 \mathrm{ms}$
node207	21	6	22	538	104	417	$855 \mathrm{ms}$	680ms
node208	20	2	30	584	22	538	$958 \mathrm{ms}$	$646 \mathrm{ms}$
node209	19	2	34	645	27	584	$1027 \mathrm{ms}$	$726 \mathrm{ms}$
node210	22	0	0	28	5	9	61ms	$69 \mathrm{ms}$
node211	22	0	0	34	12	6	$79 \mathrm{ms}$	$68 \mathrm{ms}$
node212	21	2	2	182	28	34	282ms	$333 \mathrm{ms}$
node213	27	0	0	29	10	5	$60 \mathrm{ms}$	$56 \mathrm{ms}$
node214	26	0	2	59	6	29	$95 \mathrm{ms}$	$95 \mathrm{ms}$
node215	25	4	0	93	59	6	$145 \mathrm{ms}$	$125 \mathrm{ms}$
node216	24	0	6	151	7	93	$225 \mathrm{ms}$	186ms
node217	23	0	8	169	5	151	224ms	$195 \mathrm{ms}$
node218	27	0	0	23	5	5	44ms	$55 \mathrm{ms}$
node219	26	0	2	46	6	23	$66 \mathrm{ms}$	81ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node220	27	0	0	29	8	6	$51 \mathrm{ms}$	$73 \mathrm{ms}$
node221	26	0	2	90	5	29	134ms	$113 \mathrm{ms}$
node222	25	4	4	245	46	90	404ms	$452 \mathrm{ms}$
node223	28	0	0	17	5	5	$39 \mathrm{ms}$	$47 \mathrm{ms}$
node224	27	0	2	56	5	17	$90 \mathrm{ms}$	$87 \mathrm{ms}$
node225	28	0	0	28	5	8	$56 \mathrm{ms}$	$64 \mathrm{ms}$
node226	27	2	0	97	28	12	$155 \mathrm{ms}$	$138 \mathrm{ms}$
node227	26	4	4	297	56	97	422ms	$531 \mathrm{ms}$
node228	25	0	10	328	5	297	431ms	$399 \mathrm{ms}$
node229	24	10	12	663	245	328	896ms	$1102 \mathrm{ms}$
node230	23	0	24	686	5	663	951ms	$656 \mathrm{ms}$
node231	22	10	26	877	169	686	$1193 \mathrm{ms}$	$1068 \mathrm{ms}$
node232	21	0	38	882	5	877	$1306 \mathrm{ms}$	$837 \mathrm{ms}$
node233	20	6	40	1258	182	882	$1978 \mathrm{ms}$	$1404 \mathrm{ms}$
node234	19	0	48	1267	5	1258	2013ms	$1189 \mathrm{ms}$
node235	18	38	50	1744	645	1267	$2698 \mathrm{ms}$	$2716 \mathrm{ms}$
node236	17	66	90	7429	1389	1744	9847ms	$11103 \mathrm{ms}$
node237	16	0	158	7429	5	7429	$10434 \mathrm{ms}$	$7000 \mathrm{ms}$
node238	15	6	160	7429	58	7429	10348ms	$6631 \mathrm{ms}$
node239	14	8	168	7429	226	7429	$10336 \mathrm{ms}$	7298ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node240	13	0	178	7429	5	7429	$10032 \mathrm{ms}$	6817ms
node241	16	0	0	25	5	5	$60 \mathrm{ms}$	$53 \mathrm{ms}$
node242	15	0	2	37	5	25	$77 \mathrm{ms}$	$53 \mathrm{ms}$
node243	15	0	0	17	5	5	51ms	$42 \mathrm{ms}$
node244	14	4	2	71	37	17	131ms	$96 \mathrm{ms}$
node245	13	0	8	139	5	71	$245 \mathrm{ms}$	$139 \mathrm{ms}$
node246	12	180	10	7429	7429	139	9847ms	7346ms
node247	11	188	192	7429	2574	7429	$10595 \mathrm{ms}$	9455ms
node248	13	0	0	25	5	5	52ms	$67 \mathrm{ms}$
node249	12	2	0	83	25	5	$132 \mathrm{ms}$	116ms
node250	12	0	0	25	5	5	57ms	$65 \mathrm{ms}$
node251	11	4	2	264	83	25	$374 \mathrm{ms}$	$349 \mathrm{ms}$
node252	10	382	8	7429	7429	264	$10365 \mathrm{ms}$	$7422 \mathrm{ms}$
node253	9	2	392	7429	25	7429	9933 ms	$6788 \mathrm{ms}$
node254	10	0	0	24	5	5	$66 \mathrm{ms}$	$62 \mathrm{ms}$
node255	12	0	0	41	8	12	89ms	84ms
node256	13	0	0	25	5	5	$65 \mathrm{ms}$	$68 \mathrm{ms}$
node257	18	0	0	26	9	5	$70 \mathrm{ms}$	$66 \mathrm{ms}$
node258	17	2	0	45	26	6	$95 \mathrm{ms}$	77ms
node259	16	4	0	75	45	5	137ms	102ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node260	23	0	0	14	7	6	44ms	$47 \mathrm{ms}$
node261	22	0	2	23	5	14	$53 \mathrm{ms}$	$58 \mathrm{ms}$
node262	24	0	0	14	5	5	42ms	$50 \mathrm{ms}$
node263	24	0	0	18	5	5	$49 \mathrm{ms}$	$52 \mathrm{ms}$
node264	23	2	2	36	14	18	$74 \mathrm{ms}$	$90 \mathrm{ms}$
node265	22	6	0	47	36	5	94ms	81ms
node266	21	4	8	66	23	47	$125 \mathrm{ms}$	$123 \mathrm{ms}$
node267	21	0	0	25	5	8	$64 \mathrm{ms}$	$71 \mathrm{ms}$
node268	20	14	2	92	66	25	163ms	144ms
node269	26	0	0	12	5	5	$45 \mathrm{ms}$	$48 \mathrm{ms}$
node270	25	0	2	20	5	12	$57 \mathrm{ms}$	$51 \mathrm{ms}$
node271	24	4	0	29	20	5	$60 \mathrm{ms}$	$57 \mathrm{ms}$
node272	23	0	6	32	5	29	$72 \mathrm{ms}$	$62 \mathrm{ms}$
node273	23	0	0	15	5	5	$50 \mathrm{ms}$	48ms
node274	22	8	2	50	32	15	101ms	89ms
node275	23	0	0	20	6	8	$60 \mathrm{ms}$	$57 \mathrm{ms}$
node276	25	0	0	14	6	5	$50 \mathrm{ms}$	$44 \mathrm{ms}$
node277	24	0	2	19	6	14	48ms	$48 \mathrm{ms}$
node278	23	4	0	33	19	9	$66 \mathrm{ms}$	$59 \mathrm{ms}$
node279	22	2	6	57	20	33	108ms	$102 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node280	21	12	10	98	50	57	184ms	180ms
node281	20	0	24	107	6	98	$192 \mathrm{ms}$	$135 \mathrm{ms}$
node282	19	18	26	178	92	107	$322 \mathrm{ms}$	$325 \mathrm{ms}$
node283	18	46	0	190	178	6	$328 \mathrm{ms}$	244ms
node284	17	0	48	196	5	190	$337 \mathrm{ms}$	221ms
node285	16	0	50	200	5	196	281ms	237ms
node286	15	6	52	293	75	200	391ms	427ms
node287	14	0	60	436	5	293	$632 \mathrm{ms}$	476ms
node288	13	0	62	559	5	436	$742 \mathrm{ms}$	581ms
node289	12	2	64	666	25	559	$1022 \mathrm{ms}$	$653 \mathrm{ms}$
node290	11	2	68	1098	41	666	$1448 \mathrm{ms}$	$1072 \mathrm{ms}$
node291	10	0	72	1383	8	1098	$1859 \mathrm{ms}$	1297ms
node292	9	2	74	1565	24	1383	$2365 \mathrm{ms}$	$1334 \mathrm{ms}$
node293	8	396	78	7429	7429	1565	$10323 \mathrm{ms}$	9138ms
node294	7	26	476	7429	796	7429	$10396 \mathrm{ms}$	$7535 \mathrm{ms}$
node295	9	0	0	37	8	10	$62 \mathrm{ms}$	78ms
node296	12	0	0	26	5	7	54ms	$67 \mathrm{ms}$
node297	14	0	0	24	5	5	$55 \mathrm{ms}$	$61 \mathrm{ms}$
node298	13	0	2	41	5	24	77ms	$71 \mathrm{ms}$
node299	14	0	0	24	5	5	60ms	$64 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node300	13	2	0	58	24	5	$96 \mathrm{ms}$	81ms
node301	12	4	4	174	41	58	247ms	314ms
node302	11	2	10	305	26	174	443ms	403ms
node303	16	0	0	21	5	6	$47 \mathrm{ms}$	52ms
node304	15	0	2	38	5	21	$63 \mathrm{ms}$	75ms
node305	23	0	0	16	6	5	41ms	$51 \mathrm{ms}$
node306	22	0	2	24	5	16	51ms	$49 \mathrm{ms}$
node307	21	0	4	34	5	24	61ms	$61 \mathrm{ms}$
node308	20	0	6	47	5	34	$80 \mathrm{ms}$	77ms
node309	22	0	0	13	5	5	$33 \mathrm{ms}$	$43 \mathrm{ms}$
node310	21	0	2	19	5	13	$40 \mathrm{ms}$	$45 \mathrm{ms}$
node311	26	0	0	27	7	7	$56 \mathrm{ms}$	$68 \mathrm{ms}$
node312	25	0	2	31	5	27	$60 \mathrm{ms}$	$67 \mathrm{ms}$
node313	24	0	4	73	5	31	112ms	$98 \mathrm{ms}$
node314	23	6	0	97	73	5	138ms	132ms
node315	22	0	8	151	6	97	200ms	171ms
node316	21	0	10	171	7	151	244ms	204ms
node317	20	4	12	236	19	171	$356 \mathrm{ms}$	281ms
node318	19	8	18	309	47	236	475ms	379ms
node319	22	0	0	18	5	5	$43 \mathrm{ms}$	$53 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node320	21	0	2	30	5	18	$57 \mathrm{ms}$	$56 \mathrm{ms}$
node321	20	0	4	51	6	30	$93 \mathrm{ms}$	$76 \mathrm{ms}$
node322	19	6	0	65	51	5	111ms	92ms
node323	18	28	8	424	309	65	$605 \mathrm{ms}$	$559 \mathrm{ms}$
node324	17	0	38	464	5	424	651ms	$530 \mathrm{ms}$
node325	18	0	0	14	5	6	$36 \mathrm{ms}$	$50 \mathrm{ms}$
node326	17	0	2	25	5	14	51ms	$57 \mathrm{ms}$
node327	16	40	4	536	464	25	761ms	$623 \mathrm{ms}$
node328	15	0	46	569	6	536	922ms	$630 \mathrm{ms}$
node329	14	4	48	739	38	569	1187ms	$825 \mathrm{ms}$
node330	17	0	0	23	5	5	$65 \mathrm{ms}$	$55 \mathrm{ms}$
node331	20	0	0	25	5	5	$65 \mathrm{ms}$	$54 \mathrm{ms}$
node332	23	0	0	24	5	6	61ms	$57 \mathrm{ms}$
node333	22	2	0	46	24	5	91ms	$61 \mathrm{ms}$
node334	21	0	4	72	5	46	$133 \mathrm{ms}$	$93 \mathrm{ms}$
node335	20	6	0	98	72	6	179ms	$138 \mathrm{ms}$
node336	19	2	8	212	25	98	$370 \mathrm{ms}$	226ms
node337	24	0	0	30	5	9	$77 \mathrm{ms}$	$57 \mathrm{ms}$
node338	23	2	0	76	30	5	147ms	107ms
node339	25	0	0	25	5	5	$57 \mathrm{ms}$	$63 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node340	24	0	2	68	6	25	$137 \mathrm{ms}$	$99 \mathrm{ms}$
node341	24	0	0	26	6	5	$74 \mathrm{ms}$	$59 \mathrm{ms}$
node342	23	4	2	140	68	26	249ms	182ms
node343	22	4	8	244	76	140	$436 \mathrm{ms}$	$439 \mathrm{ms}$
node344	21	0	14	267	5	244	$453 \mathrm{ms}$	284ms
node345	24	0	0	22	5	6	$62 \mathrm{ms}$	$55 \mathrm{ms}$
node346	23	2	0	48	22	5	$100 \mathrm{ms}$	$80 \mathrm{ms}$
node347	22	4	0	65	48	6	$122 \mathrm{ms}$	$94 \mathrm{ms}$
node348	21	6	0	101	65	7	$175 \mathrm{ms}$	$126 \mathrm{ms}$
node349	20	16	8	416	267	101	$636 \mathrm{ms}$	$557 \mathrm{ms}$
node350	19	0	26	455	5	416	$728 \mathrm{ms}$	$466 \mathrm{ms}$
node351	18	12	28	701	212	455	$1041 \mathrm{ms}$	$951 \mathrm{ms}$
node352	22	0	0	19	7	5	$49 \mathrm{ms}$	$44 \mathrm{ms}$
node353	21	0	2	35	5	19	$72 \mathrm{ms}$	$58 \mathrm{ms}$
node354	27	0	0	7	5	5	$37 \mathrm{ms}$	$30 \mathrm{ms}$
node355	26	0	2	25	6	7	$50 \mathrm{ms}$	$54 \mathrm{ms}$
node356	25	0	4	42	5	25	$77 \mathrm{ms}$	$67 \mathrm{ms}$
node357	24	0	6	47	5	42	$86 \mathrm{ms}$	75ms
node358	23	8	0	83	47	5	136ms	102ms
node359	23	0	0	15	6	5	44ms	41ms

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node360	22	10	2	122	83	15	196ms	$128 \mathrm{ms}$
node361	25	0	0	21	5	5	$47 \mathrm{ms}$	$52 \mathrm{ms}$
node362	24	2	0	51	21	6	120ms	$70 \mathrm{ms}$
node363	23	0	4	75	6	51	115ms	94ms
node364	22	6	0	101	75	5	$150 \mathrm{ms}$	114ms
node365	21	14	8	283	122	101	416ms	$434 \mathrm{ms}$
node366	20	4	24	373	35	283	$479 \mathrm{ms}$	$369 \mathrm{ms}$
node367	19	30	0	420	373	5	$575 \mathrm{ms}$	$394 \mathrm{ms}$
node368	18	0	32	473	5	420	$653 \mathrm{ms}$	$504 \mathrm{ms}$
node369	17	42	34	1117	701	473	$1573 \mathrm{ms}$	$1913 \mathrm{ms}$
node370	16	2	78	1195	23	1117	$1707 \mathrm{ms}$	$1270 \mathrm{ms}$
node371	19	0	0	9	5	5	$39 \mathrm{ms}$	$38 \mathrm{ms}$
node372	18	2	0	23	9	5	$59 \mathrm{ms}$	$61 \mathrm{ms}$
node373	21	0	0	17	5	5	$51 \mathrm{ms}$	$52 \mathrm{ms}$
node374	20	0	2	41	5	17	$88 \mathrm{ms}$	$70 \mathrm{ms}$
node375	19	4	0	81	41	5	149ms	$115 \mathrm{ms}$
node376	19	0	0	25	5	5	62ms	$71 \mathrm{ms}$
node377	18	6	2	182	81	25	285ms	$256 \mathrm{ms}$
node378	17	4	10	271	23	182	420ms	$343 \mathrm{ms}$
node379	19	0	0	25	5	5	$56 \mathrm{ms}$	$68 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node380	18	0	2	69	6	25	117ms	100ms
node381	17	0	4	91	5	69	141ms	$120 \mathrm{ms}$
node382	16	16	6	466	271	91	728ms	618ms
node383	15	82	24	1553	1195	466	2404ms	2281ms
node384	14	108	0	1556	1553	6	2262ms	$1437 \mathrm{ms}$
node385	13	54	110	2211	739	1556	2945ms	$2693 \mathrm{ms}$
node386	12	0	166	2336	5	2211	2954ms	2181ms
node387	11	0	168	2372	5	2336	$3379 \mathrm{ms}$	2413ms
node388	10	14	170	2639	305	2372	$4038 \mathrm{ms}$	$3246 \mathrm{ms}$
node389	10	0	0	25	5	5	$54 \mathrm{ms}$	$67 \mathrm{ms}$
node390	9	186	2	2764	2639	25	$3616 \mathrm{ms}$	2808ms
node391	8	2	190	2963	37	2764	$3921 \mathrm{ms}$	$2727 \mathrm{ms}$
node392	7	0	194	3006	5	2963	$4255 \mathrm{ms}$	2718ms
node393	6	504	196	7429	7429	3006	$9893 \mathrm{ms}$	$10606 \mathrm{ms}$
node394	5	48	702	7429	927	7429	$10383 \mathrm{ms}$	7945ms
node395	4	752	0	7429	7429	6	10223ms	6689 ms
node396	5	0	0	17	5	5	44ms	$43 \mathrm{ms}$
node397	4	0	2	25	5	17	$57 \mathrm{ms}$	$51 \mathrm{ms}$
node398	3	754	4	7429	7429	25	9823ms	6887ms
node399	2	760	0	7429	7429	5	$9583 \mathrm{ms}$	$6703 \mathrm{ms}$

node	depth	lsize	rsize	psrsize	lsrsize	rsrsize	repeats	TCLV opt
node400	1	0	762	7429	6	7429	10184ms	6801ms
node401	0	764	0	7429	7429	5	$9839 \mathrm{ms}$	6811ms