Libpll sequential benchmarks

July 3, 2017

- node : node index (post order traversal)
- 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
- ullet repeats: runtime for 500 update partials on the node
- $\bullet\,$ TCLV opt : runtime for 500 update partials on the node with left and right TCLV
- SR opt : bclv si repeats qqpart, gros if dans la boucle
- SR opt2 : bclv si repeats qqpart, boucle qui gere aussi les non repeats
- $\bullet\,$ SR opt3 : tip pattern, b
clv si repeats q
qpart, boucle qui gere aussi les non repeats
- SR opt4; bclv si repeats qqpart, gros if dans la boucle, prebuffer, unroll

1 dataset 404 hits avx

node	psrsize	lsrsize	rsrsize	tippat	repeats
node0	25	5	5	$63 \mathrm{ms}$	8ms
node1	25	5	5	60ms	8ms
node2	25	5	5	60ms	8ms
node3	125	25	5	138ms	8ms
node4	25	5	5	63ms	8ms
node5	125	5	25	136ms	8ms
node6	625	5	125	140ms	8ms
node7	25	5	5	$62 \mathrm{ms}$	8ms
node8	125	5	25	137ms	8ms
node9	15422	625	125	204ms	23ms
node10	25	5	5	$60 \mathrm{ms}$	8ms
node11	25	5	5	59ms	8ms
node12	125	5	25	136ms	8ms
node13	562	125	5	130ms	8ms
node14	2131	562	5	137ms	10ms
node15	14409	25	2131	203ms	22ms
node16	25	5	5	$60 \mathrm{ms}$	12ms
node17	125	5	25	136ms	14ms
node18	625	5	125	138ms	9ms
node19	25	5	5	$59 \mathrm{ms}$	8ms

node	psrsize	lsrsize	rsrsize	tippat	repeats
node20	25	5	5	$59 \mathrm{ms}$	8ms
node21	625	25	25	199ms	8ms
node22	38841	625	625	200ms	$50 \mathrm{ms}$
node23	371435	14409	38841	199ms	204ms
node24	25	5	5	$60 \mathrm{ms}$	8ms
node25	125	25	5	130ms	8ms
node26	371435	371435	125	203ms	145ms
node27	25	5	5	$65 \mathrm{ms}$	8ms
node28	125	25	5	133ms	8ms
node29	625	5	125	136ms	14ms
node30	25	5	5	$60 \mathrm{ms}$	8ms
node31	125	25	5	128ms	8ms
node32	25	5	5	64ms	8ms
node33	25	5	5	$60 \mathrm{ms}$	8ms
node34	125	25	5	133ms	8ms
node35	1834	25	125	206ms	$10 \mathrm{ms}$
node36	4884	1834	5	136ms	$13 \mathrm{ms}$
node37	27188	125	4884	197ms	41ms
node38	37328	5	27188	133ms	44ms
node39	46686	37328	5	137ms	$53 \mathrm{ms}$

node	psrsize	lsrsize	rsrsize	tippat	repeats
node40	25	5	5	$60 \mathrm{ms}$	8ms
node41	25	5	5	$60 \mathrm{ms}$	8ms
node42	125	25	5	$137 \mathrm{ms}$	8ms
node43	2579	25	125	195ms	$15 \mathrm{ms}$
node44	25	5	5	$63 \mathrm{ms}$	$10 \mathrm{ms}$
node45	25	5	5	$59 \mathrm{ms}$	8ms
node46	610	25	25	200ms	9ms
node47	2406	5	610	134ms	$10 \mathrm{ms}$
node48	6705	5	2406	138ms	$15 \mathrm{ms}$
node49	14601	6705	5	128ms	$22 \mathrm{ms}$
node50	25724	14601	5	136ms	$33 \mathrm{ms}$
node51	38948	25724	5	133ms	44ms
node52	49793	38948	5	134ms	$53 \mathrm{ms}$
node53	371435	2579	49793	197ms	179ms
node54	25	5	5	61ms	8ms
node55	25	5	5	$60 \mathrm{ms}$	8ms
node56	125	25	5	137ms	$7 \mathrm{ms}$
node57	613	125	5	134ms	8ms
node58	6864	25	613	202ms	13ms
node59	15086	6864	5	139ms	21ms

node	psrsize	lsrsize	rsrsize	tippat	repeats
node60	25	5	5	$65 \mathrm{ms}$	$7 \mathrm{ms}$
node61	25	5	5	61ms	$7 \mathrm{ms}$
node62	125	25	5	140ms	$7 \mathrm{ms}$
node63	25	5	5	$60 \mathrm{ms}$	$13 \mathrm{ms}$
node64	125	25	5	139ms	$10 \mathrm{ms}$
node65	5194	125	125	203ms	$13 \mathrm{ms}$
node66	11462	5194	5	138ms	$20 \mathrm{ms}$
node67	21034	5	11462	130ms	$29 \mathrm{ms}$
node68	25	5	5	$63 \mathrm{ms}$	8ms
node69	125	5	25	132ms	8ms
node70	371435	21034	125	204ms	178ms
node71	371435	25	371435	202ms	145ms
node72	371435	15086	371435	204ms	166ms
node73	371435	371435	371435	191ms	198ms
node74	25	5	5	64ms	8ms
node75	25	5	5	$59 \mathrm{ms}$	8ms
node76	125	5	25	139ms	8ms
node77	620	125	5	140ms	8ms
node78	25	5	5	61ms	8ms
node79	125	25	5	139ms	8ms

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node96 25 5 5 60ms 8ms node97 125 25 5 131ms 8ms node98 25 5 5 64ms 8ms	node94	371435	371435	371435	194ms	200ms
node97 125 25 5 131ms 8ms node98 25 5 5 64ms 8ms	node95	25	5	5	$65 \mathrm{ms}$	8ms
node98 25 5 5 64ms 8ms	node96	25	5	5	$60 \mathrm{ms}$	8ms
	node97	125	25	5	131ms	8ms
node99 2812 125 25 199ms 11ms	node98	25	5	5	64ms	8ms
	node99	2812	125	25	199ms	11ms

node	psrsize	lsrsize	rsrsize	tippat	repeats
node100	25	5	5	$62 \mathrm{ms}$	8ms
node101	125	5	25	$135 \mathrm{ms}$	8ms
node102	25	5	5	$65 \mathrm{ms}$	8ms
node103	2442	125	25	191ms	$10 \mathrm{ms}$
node104	25	5	5	$65 \mathrm{ms}$	8ms
node105	125	5	25	137ms	8ms
node106	26716	2442	125	201ms	$36 \mathrm{ms}$
node107	25	5	5	61ms	8ms
node108	125	25	5	$137 \mathrm{ms}$	8ms
node109	591	125	5	$137 \mathrm{ms}$	8ms
node110	2073	591	5	138ms	$10 \mathrm{ms}$
node111	5204	2073	5	133ms	12ms
node112	25	5	5	$65 \mathrm{ms}$	8ms
node113	125	5	25	133ms	8ms
node114	25043	5204	125	199ms	40ms
node115	371435	26716	25043	201ms	182ms
node116	371435	2812	371435	197ms	151ms
node117	25	5	5	$60 \mathrm{ms}$	8ms
node118	125	25	5	$135 \mathrm{ms}$	8ms
node119	371435	371435	125	204ms	$147 \mathrm{ms}$

node	psrsize	lsrsize	rsrsize	tippat	repeats
node120	371435	371435	5	$143 \mathrm{ms}$	$137 \mathrm{ms}$
node121	371435	25	371435	$215 \mathrm{ms}$	146ms
node122	371435	371435	371435	$202 \mathrm{ms}$	198ms
node123	371435	15422	371435	$205 \mathrm{ms}$	$159 \mathrm{ms}$
node124	371435	125	371435	198ms	$145 \mathrm{ms}$
node125	371435	25	371435	$215 \mathrm{ms}$	143ms
node126	25	5	5	$72 \mathrm{ms}$	8ms
node127	371435	371435	25	$205 \mathrm{ms}$	147ms
node128	25	5	5	$65 \mathrm{ms}$	8ms
node129	25	5	5	$72 \mathrm{ms}$	8ms
node130	625	25	25	$199 \mathrm{ms}$	8ms
node131	3015	5	625	$150 \mathrm{ms}$	$10 \mathrm{ms}$
node132	11258	5	3015	$144 \mathrm{ms}$	18ms
node133	371435	371435	11258	$204 \mathrm{ms}$	158ms
node134	371435	371435	5	$147 \mathrm{ms}$	136ms
node135	371435	25	371435	$199 \mathrm{ms}$	145ms
node136	25	5	5	$60 \mathrm{ms}$	8ms
node137	125	5	25	$137 \mathrm{ms}$	8ms
node138	536	5	125	$130 \mathrm{ms}$	8ms
node139	25	5	5	$66 \mathrm{ms}$	8ms

node	psrsize	lsrsize	rsrsize	tippat	repeats
node140	125	5	25	134ms	8ms
node141	9013	536	125	$197 \mathrm{ms}$	16ms