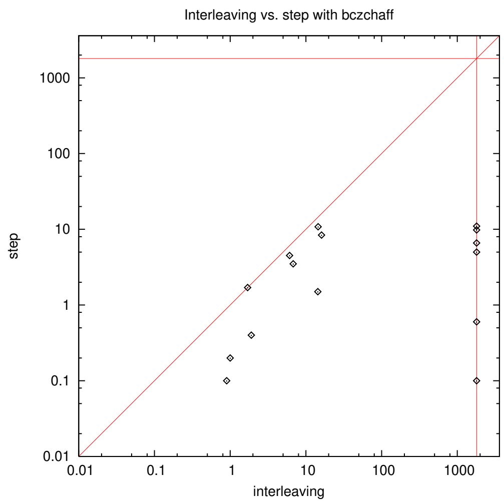
Benchmarking different Encodings

- A Python implementation "1b-pn-bmc", 190 lines of code
- Run on and AMD Athlon 64, 2 GHz, 900 MiB memory limit enforced for the bczchaff SAT solver
- Deadlock checking benchmarks, time and bound given for the smallest bound k with which a deadlock exists
- If a 1800 second timeout is hit for some value of k before an deadlocking bound is found, the largest bound k which is solved in less than 1800s is reported with $> k$, and the time is set to 1800s.
- The best time is in blue, the worst time is in red

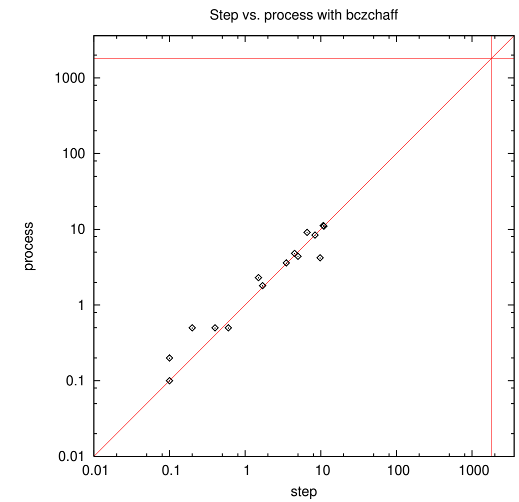
Benchmarking Results with bczchaff

Problem	$\|P\|$	$\|T\|$	St. k	St. s	Pr. k	Pr. s	Int. k	Int. s
BYZA4_2A	579	473	8	0.6	8	0.5	$>$11	$>$1800.0
DARTES(1)	331	257	32	1.7	32	1.8	32	1.7
DP(12)	72	48	1	0.0	1	0.0	12	0.1
ELEV(3)	326	782	8	0.4	8	0.5	14	1.9
ELEV(4)	735	1938	10	1.5	10	2.3	17	14.4
HART(75)	302	152	151	4.5	151	4.8	151	6.1
HART(100)	402	202	201	10.8	201	11.2	201	14.5
KEY(2)	94	92	36	11.0	36	11.0	$>$40	$>$1800.0
KEY(3)	129	133	37	6.6	37	9.1	$>$38	$>$1800.0
KEY(4)	164	174	38	5.0	38	4.4	$>$37	$>$1800.0
KEY(5)	199	215	39	9.8	39	4.2	$>$30	$>$1800.0
MMGT(3)	122	172	7	0.1	7	0.2	10	0.9
MMGT(4)	158	232	8	0.2	8	0.5	12	1.0
Q(1)	163	194	9	0.1	9	0.1	$>$18	$>$1800.0
SENT(75)	252	102	83	3.5	83	3.6	88	6.8
SENT(100)	327	127	108	8.4	108	8.4	113	16.1
SPD(1)	29	31	4	0.0	4	0.0	7	0.0

Interleaving vs. Steps with bczchaff



Steps vs. Processes with bczchaff



bczhaff vs. bcminisat