

SAT-Race 2008



Theory and Applications of Satisfiability Testing Eleventh International Conference May 12 – 15, Guangzhou, P. R. China



Results of Main Track (Sequential CNF Solvers)

	ا	Solver			1100			111 110	don (Sequi	Siitiai		3011	Cisj						
Instance	SAT/ I	MiniSat (32bit)	•		sat 32bit)		preSAT (32bit)	CMUSAT (64bit)	kw (32bit)			•	LocalMinisat (32bit)	MiraXT (32bit)	SATzilla (32bit)	eSAT (32bit)				SAT4J (64bit)
IBM Benchmark Suite (15 ibm-2002-04r-k80 ibm-2002-11r1-k45 ibm-2002-18r-k90 ibm-2002-20r-k75 ibm-2002-22r-k60 ibm-2002-22r-k80 ibm-2002-23r-k90 ibm-2002-24r3-k100 ibm-2002-25r-k10	SAT SAT SAT UNSAT SAT SAT SAT SAT UNSAT	17.2 15.2 81.7 50.3 202.1 45.5 94.8 141.6 125.6	20.1 61.5 101.8 342.4 83.4 148.9 142.2 228.5	67.8 31.7 278.6 90.8 409.9 183.1 254.7 437.0 148.8	49.8 51.2 471.3 98.9 391.4 378.7 614.1 726.3 255.3	58.8 35.5 201.0 124.5 441.1 62.8 154.8 314.1 154.7	110.4 213.0 306.2 537.1 158.1 263.1 233.6	48.4 30.8 243.8 131.6 822.7 198.9 90.8 421.4 256.3	670.0 736.3 631.0 742.1 157.5	20.3 168.4 84.1 168.2 77.7 75.3 431.9 163.3	77.5 97.4 684.4 682.6 598.0 204.9	95.8 57.3 306.1 476.7 507.8 245.8 479.8 	43.0 475.8 337.7 522.5 418.7 155.2	27.6 10.7 859.1 449.8 231.1 251.0 581.0	107.6 118.2 443.6 648.0 637.2 283.6	82.0 437.1 218.0 562.3 431.2 697.1 212.4	65.9 62.5 430.0 502.6 215.5	59.1 96.2 409.1 606.5 603.3 254.1	485.7 342.0 	83.9 153.6 648.5 729.6 226.1
ibm-2002-25r-k10 ibm-2002-29r-k75 ibm-2002-30r-k85 ibm-2002-31_1r3-k30 ibm-2004-01-k90 ibm-2004-1_11-k80 ibm-2004-23-k100 ibm-2004-23-k80 ibm-2004-29-k25 ibm-2004-29-k55 ibm-2004-3_02_3-k95	UNSAT SAT UNSAT SAT SAT SAT SAT UNSAT SAT SAT SAT SAT SAT	668.4 35.7 143.1 17.3 52.8 107.0 259.7 41.6 26.4 1.4	399.0 154.8 899.3 402.5 12.7 38.6 214.2 143.2 68.7 10.5 1.6	78.2 154.2 49.5 286.7 485.8 193.7 84.3 21.9 1.4	293.7 226.1 91.5 422.7 461.2 109.5 86.7 2.9	79.6 374.4 12.4 60.2 371.6 91.2 61.0 83.2 1.5	362.8 857.8 52.8 131.5 221.2 345.8 109.5 39.3	131.1 766.8 811.1 48.1 258.0 264.9 453.5 115.4 30.9	165.4 81.9	673.2 47.0 178.6 892.9 160.5 64.0 94.3	307.5 273.0 177.1 91.7 242.0 2.0	625.3 466.2 70.0 564.7 189.4 77.8 5.6	230.7 397.1 390.7 116.9	52.9 117.3 77.7 357.8 86.1 674.1 13.6 1.7	718.6 115.9	403.5 95.5 240.6	548.4 86.0 330.1 401.5 83.2	156.0 199.8 681.9 2.5	632.3 	67.2 313.9 64.7 4.4
Manolios Benchmark Suite manol-pipe-c10nid_i manol-pipe-c10nidw manol-pipe-c6bidw_i manol-pipe-c8nidw manol-pipe-c9n_i manol-pipe-f7nidw manol-pipe-f9b manol-pipe-g10bid_i manol-pipe-g10nid manol-pipe-g8nidw	UNSAT	384.0 535.5 34.4 204.0 13.2 493.5 354.6 393.0 150.8 205.5	416.9 44.2 207.5 17.0 574.9 552.0 145.8 369.8	527.2 756.4 40.9 265.6 17.5 70.7 232.2 497.3 69.2 15.1	265.2 428.4 26.6 167.7 17.9 59.2 512.3 263.6 132.4 12.7	784.7 62.0 306.5 20.4 405.6 890.2 102.7 350.1	430.3 44.9 273.5 24.8 812.4 516.0 178.9 110.2	52.2 431.1 20.3 570.6 161.5 146.6	85.1 724.8 30.3	59.5 24.3 255.0 	87.0 347.8 11.8 45.1 46.7 78.5 11.4	825.3 73.6 521.8 34.5 149.0 311.7 833.0 151.2 24.5	55.2 435.9 41.7 173.9	125.4 807.3 131.4 203.6 456.4 28.9	151.4 55.0 156.9 657.5	298.7 34.6 227.9 406.9 	68.0 889.8 35.1 358.4 486.8	 129.4 36.0 116.9 638.6 236.2 21.7	332.7 33.0 421.0 882.9 99.5	 74.5 476.4 71.5 419.2 296.6 43.7
Mironov-Zhang Benchmar mizh-md5-47-3 mizh-md5-47-4 mizh-md5-48-2 mizh-md5-48-5 mizh-sha0-35-3 mizh-sha0-35-4 mizh-sha0-36-1 mizh-sha0-36-3 mizh-sha0-36-4	SAT	SAT) 19.9 39.9 475.0 124.1 93.3 7.4 9.4 190.2 68.8 367.6	238.7 357.9 100.1 268.6 700.1 36.1 208.1 336.9	 716.9 224.8 45.2 60.4 259.5	266.6 669.8 291.8 342.4 332.4 164.5	91.9 55.3 290.5 129.5 71.8 18.7 355.5 85.8 	58.8 359.5 356.2 56.8 81.0 66.3 28.8 195.7 13.9	403.2 85.3 96.9 259.1 213.8 18.9 100.7 	87.9 203.6 115.9	116.9 92.6 153.0 103.3 118.5 14.6 119.5	806.5 565.3 805.7 513.0 596.6 	 619.4 103.8 	190.9 105.1 643.7 549.9 458.8 36.7 	124.0 292.0 27.3 432.9 387.9 20.1 98.4	353.4 345.3 461.9 156.1 94.8 	78.6 311.2	124.2 96.6 214.4 604.4 143.9 18.8 72.6 553.4	878.5 93.9 224.0 403.0 307.6 332.4 	106.8 507.0 35.8 202.1 866.6 129.4 278.8	713.1 222.5 233.4 292.4 742.0
Post Benchmark Suite (2 spost-c32s-col400-16 post-c32s-gcdm16-22 post-c32s-gcdm16-23 post-c32s-ss-8 post-cbmc-aes-d-r1 post-cbmc-aes-ee-r2 post-cbmc-aes-ee-r3 post-cbmc-aes-ele post-cbmc-zfcp-2.8-u2	SAT, 8 UNSAT	(T) 46.9 102.9 125.7 2.8 19.7 85.4	35.2 147.8 163.4 340.0 5.0 680.9 799.7 44.2	353.3 120.9 150.6 4.0 772.2 45.3	208.1 33.9 39.6 3.6 35.9	45.7 2.6 24.3 66.2	191.6 126.6 157.5 8.4 95.6 15.4	116.6 302.3 326.5 344.2 2.5 34.0 109.9	154.6 254.1 627.6 524.2 3.5 	142.1 120.1 130.2 3.0 64.5 64.6	565.5 193.8 233.3 4.8 281.2 284.8 38.2	268.8 361.7 284.1 4.6 811.6 731.9 47.7	197.5 425.1 378.8 3.0	239.1 4.2 84.8 37.6	89.2 761.5 6.0 79.4	3.7 3.7 22.9	140.2 1.9 537.3	66.7 762.1 3.8 54.2	48.5 361.9 156.5 5.3 168.0 33.9	417.9 506.5 5.1
Velev Benchmark Suite (4 velev-engi-uns-1.0-4nd velev-fvp-sat-3.0-b18 velev-npe-1.0-9dlx-b71 velev-vliw-sat-4.0-b4 velev-vliw-sat-4.0-b8 velev-vliw-uns-2.0-iq1 velev-vliw-uns-2.0-iq2 velev-vliw-uns-4.0-9-i1 velev-vliw-uns-4.0-9-i1	SAT, 6 UNS UNSAT SAT SAT SAT SAT UNSAT UNSAT UNSAT UNSAT UNSAT	AT) 8.9 18.6 106.3 45.9 68.6	10.7 193.2 169.5 21.2 33.3 	27.5 5.2 763.4 182.5 93.5 19.4 66.1 639.2	16.1 64.6 767.0 340.1 273.3 255.8 368.0 359.6	14.3 9.5 208.5 72.5 40.6 	75.3 500.0 5.8 4.1 4.1 	16.3 11.7 578.9 69.8 91.3 		42.9 12.0 98.4 91.3 100.6 	67.1 18.4 698.7 15.1 64.4 484.7 161.4	41.2 7.2 96.7 84.0 681.0 		29.8 30.0 655.8 24.0 34.5 	56.5 408.7 159.3 474.9	16.8 2.4 414.9 143.6 139.5 319.1 	21.0 47.4 55.5 	21.7 35.9 449.6 46.2 84.5 211.7 778.5 303.3	15.2 41.8 17.1 10.6 10.5 133.3 416.7 283.9	75.0 64.2 199.9 257.3 578.2
Mixed Benchmark Suite (1 aloul-chnl11-13 anbul-dated-5-15-u anbul-part-10-13-s anbul-part-10-15-s babic-dspam-vc1080 babic-dspam-vc949 babic-dspam-vc973 cmu-bmc-longmult13 cmu-bmc-longmult15 een-pico-prop00-75 een-tip-sat-nusmv-t5.Been-tip-sat-texas-tp-5e een-tip-sat-vis-eisen fuhs-aprove-15	UNSAT	NSAT) 377.7 157.7 1.1 1.1 2.4 1.7 27.7 16.3 2.0 14.9 0.9 0.1 0.3 15.2	142.2 1.4 1.2 2.5 1.9 12.5 11.9 2.1 18.2 1.0 0.2 0.3 27.5	1.8 1.6 3.4 1.2 13.4 12.5 2.2 28.1 1.4 0.2 0.4	 486.5 1.7 1.5 3.5 1.5 15.0 10.6 3.7 17.7 2.2 0.3 0.5	 684.7 0.6 0.6 1.4 2.8 17.2 18.7 1.6 141.6 1.0 0.1 0.4 29.1	299.7 1.4 1.6 1.8 1.4 21.7 32.1 0.2 52.9 50.9 0.5 3.6 20.2	 1.0 1.0 2.4 2.3 24.1 17.8 1.9 35.1 1.1 0.2 0.4 27.2	 479.1 36.0 35.6 25.3 1.4 27.4 22.6 8.6 57.7 3.2 0.6 1.1	1.3 1.1 2.8 1.6 11.2 10.1 1.9 17.7 1.3 0.1 0.3	1.8 1.6 3.5 1.3 231.6 15.0 2.5 22.6 1.7 0.3 0.4 59.6	 819.0 1.7 1.5 3.4 3.0 35.0 47.4 2.7 38.4 2.5 0.3 0.6 37.6	1.8 2.6	 1.5 1.1 2.7 5.0 23.2 14.6 1.5 50.7 1.2 0.1 0.4 75.1	132.0 0.8 0.7 1.5 3.8 63.3 48.6 5.4 182.4 1.0 0.1 0.4 135.3	0.4 12.2 2.1 49.3	1.3 22.0 15.3 4.4	 1.9 1.7 3.7 2.4 81.2 56.2 2.7 140.2 1.6 0.3 0.5 123.2	814.3 0.8 0.7 1.7 1.9 21.2 21.3 1.5 848.9 1.1 0.1 0.4 59.1	1.7 1.6 3.5 6.4 43.7 36.6 8.6 165.3 3.8 0.5
uhs-aprove-16 coldb-heqc-alu4mul coldb-heqc-frg1mul coldb-heqc-x1mul coldb-heqc-x1mul coldb-heqc-x1mul coldb-heqc-x1mul coldb-heqc-atmul coldb-heqc-atmul coldb-heqc-atmul coldb-heqc-atmul coldb-heqc-atmul coldb-heqc-atmul coldb-heqc-atmul coldb-heqc-frg1mul coldb-heqc-frg1mul coldb-heqc-frg1mul coldb-heqc-frg1mul coldb-heqc-dalumul coldb-heqc-frg1mul coldb-heqc-frg1mul coldb-heqc-x1mul c	UNSAT UNSAT UNSAT UNSAT UNSAT SAT UNSAT UNSAT UNSAT UNSAT UNSAT UNSAT SAT SAT SAT	161.7 192.7 129.7 1.0 149.3 73.2 828.0	191.6 165.1 814.8 19.8 1.4 60.3 66.3	205.1 535.2 545.3 1.4 61.9 454.4 90.6	13.7 315.9 179.7 848.9 55.4 1.0 84.2 37.5 187.3	472.4 248.5 860.6 1.4 66.6 541.3 18.9 68.7	422.3 269.0 79.8 3.5 134.1 173.3	323.7 248.3 75.0 2.9 87.0 87.5	91.9 73.4 10.1 119.0 397.3 22.1 238.0 277.7	682.0 208.9 8.1 0.7 33.7 263.4 29.1 96.1	203.5 649.0 175.6 133.5 392.2 525.6 2.2 578.9 184.9 432.3	722.8 637.8 250.2 38.4 3.5 240.2 23.8 365.8	545.6 350.5 3.0 574.9 134.0	 330.2 55.5 22.5 65.1 748.9 	250.1 60.9 35.6 6.2 160.6 609.9 37.3 150.4	272.2 323.4 508.1 59.3 3.9 163.8	733.5 142.0 741.9 6.1 85.5 128.7	395.0 41.8 3.7 756.1 247.3	256.9 332.7 9.2 35.6 51.5 428.5 	527.0 441.1 537.0 507.0
balac-sn7-ipc5-h16 balac-uts-l06-ipc5-h34 schup-l2s-abp4-1-k31 schup-l2s-bc56s-1-k391 schup-l2s-motst-2-k315 simon-s02-f2clk-50 simon-s02b-r4b1k1.1 simon-s03-fifo8-400 simon-s03-w08-15 vange-col-abb313GPIA-9-c	SAT SAT UNSAT UNSAT SAT UNSAT SAT SAT UNSAT SAT SAT SAT SAT SAT	284.9 18.1 8.2 514.9 23.6 172.2 145.6 106.4 35.0 74.0	331.4 34.8 12.9 720.0 26.6 220.8 230.2 259.9 30.1 83.1	120.5 20.2 15.9 49.9 706.3 112.8 147.4 44.4 41.9	43.7 18.3 13.9 65.6 130.7 177.3 467.9 55.9 106.6 	123.7 22.5 11.3 99.1 206.0 464.0 108.5 101.5 114.9	74.0 77.8 57.5 123.7 290.8 265.4 527.5 98.3 213.3	549.4 49.3 20.2 32.5 360.6 10.5 79.5 52.8 50.8		51.7 104.9	295.4 16.9 23.9 56.7 404.8 522.9 850.5 92.8 80.6 	155.7 31.5 35.9 110.2 410.2 261.8 815.7 58.2 186.5	24.7 381.9 669.3 81.1 119.8	318.5 41.3 45.7 45.5 273.5 90.0 51.1 31.2	401.0 104.3 81.7 514.8 141.2 155.6 142.9 679.1 	287.3 316.0 		29.6 227.3 106.0 114.9 624.0 	237.7 98.5 449.0 784.3 234.1 	614.2 152.3 317.8 197.7 133.8 631.2
#solved: #solved SAT/UNSAT: rank by solved: speed points: rank by speed: total score: rank:		81 43/38 1 7.26 1 88.26	39/40 2 5.61 2	77 35/42 3 5.10 6 82.10	76 36/40 4 5.04 7 81.04	74 40/34 5 4.79 8 78.79	38/34 6	40/32 6 4.72 10	32/38 8 5.19 4	40/30 8 5.16 5	5.44 3 74.44	68 30/38 11 3.99 13 71.99	32/32 12 3.68 15	63 37/26 13 4.26 11 67.26	30/30 14 4.18 12	29/31 14 3.81 14 63.81	30/30 14 3.32 16 63.32	28/28 17 3.08 18 59.08	54 23/31 18 3.19 17 57.19 18	49 26/23 19 2.43 19 51.43 19

SAT-Competition 2007 Solvers

Inotan as	SAT/	Rsat 2007	picosat 2007	MiniSA7 2007
I nstance BM Benchmark Suite (1)	UNSAT SAT / 5 UN	(32bit) ISAT)	(32bit)	(32bit)
bm-2002-04r-k80 bm-2002-11r1-k45	SAT	71.1	94.6 62.7	50.9 43.1
om-2002-18r-k90 om-2002-20r-k75	SAT SAT	126.0 179.0	531.2 316.1	751.4
m-2002-22r-k60	UNSAT	892.0	489.9	
om-2002-22r-k75 om-2002-22r-k80	SAT	193.7 312.3	467.2	250.2 395.3
m-2002-23r-k90 m-2002-24r3-k100	SAT UNSAT	321.8 170.5	628.1	543.7
n-2002-25r-k10 n-2002-29r-k75	UNSAT SAT	134.4	842.2	389.3
n-2002-30r-k85 n-2002-31 1r3-k30	SAT UNSAT	524.0 773.9	635.8	 537. ₄
n-2004-01-k90 n-2004-1 11-k80	SAT	68.2 105.0	77.9 696.1	28.5 61.0
n-2004-23-k100	SAT			
า-2004-23-k80 า-2004-29-k25	SAT UNSAT	119.0	186.4	336.0 473.0
-2004-29-k55 -2004-3_02_3-k95	SAT	30.3 1.8	134.2 3.9	206. 2.
nolios Benchmark Suit	te (10 UNSA UNSAT	T) 476.2		
anol-pipe-c10nidw anol-pipe-c6bidw_i	UNSAT UNSAT	793.6 36.8	196.1	 59.:
ol-pipe-c8nidw	UNSAT	174.9		
nol-pipe-c9n_i nol-pipe-f7nidw	UNSAT UNSAT	14.1	48.8 261.1	230.
ol-pipe-f9b ol-pipe-g10bid_i	UNSAT UNSAT	494.1		
nol-pipe-g10nid nol-pipe-g8nidw	UNSAT UNSAT	124.1 149.4	273.2 34.3	163.
onov-Zhang Benchma	rk Suite (10	SAT)		
zh-md5-47-3 zh-md5-47-4	SAT SAT	216.0 560.7	328.2	496.3 323.2
zh-md5-47-5 zh-md5-48-2	SAT	698.7 348.7	348.2 456.1	227.: 267.:
h-md5-48-5 h-sha0-35-3	SAT SAT	262.6 21.8	143.2	888.
n-sha0-35-4	SAT	159.3	79.5	465.
h-sha0-36-1 h-sha0-36-3	SAT SAT	761.3 840.7		
-sha0-36-4	SAT	179.6		
: Benchmark Suite (2 -c32s-col400-16	UNSAT	316.5	302.7	39.7
-c32s-gcdm16-22 -c32s-gcdm16-23	SAT UNSAT	390.5 315.8	885.9	241.6 311.7
-c32s-ss-8 -cbmc-aes-d-r1	UNSAT UNSAT	3.6	4.0	4.:
:-cbmc-aes-d-r2 :-cbmc-aes-ee-r2	UNSAT UNSAT			
cbmc-aes-ee-r3	UNSAT UNSAT	41.6	 75.2	 289.
-cbmc-zfcp-2.8-u2	SAT	59.7		66.9
v Benchmark Suite (v-engi-uns-1.0-4nd	4 SAT, 6 UNS UNSAT	SAT) 19.4	54.4	26.3
ev-fvp-sat-3.0-b18 ev-npe-1.0-9dlx-b71	SAT SAT	6.5 177.1	63.4 332.3	
v-vliw-sat-4.0-b4 v-vliw-sat-4.0-b8	SAT SAT	98.0 57.5	545.2 572.4	27.! 17.:
ev-vliw-uns-2.0-iq1 ev-vliw-uns-2.0-iq2	UNSAT UNSAT			
v-vliw-uns-2.0-uq5	UNSAT			
ev-vliw-uns-4.0-9-i1 ev-vliw-uns-4.0-9	UNSAT UNSAT			
ed Benchmark Suite (ul-chnl11-13	17 SAT, 23 UNSAT	JNSAT)		
ul-dated-5-15-u	UNSAT	471.7		
ul-part-10-13-s ul-part-10-15-s	SAT			
c-dspam-vc1080 c-dspam-vc949	UNSAT UNSAT	1.8 1.6	271.3	1.2 1.0
ic-dspam-vc973 ı-bmc-barrel6	UNSAT UNSAT	3.5 1.5	467.5 1.9	2.3 2.8
u-bmc-longmult13 u-bmc-longmult15	UNSAT UNSAT	27.5 9.9	87.8 33.1	21.3 17.4
-pico-prop00-75 -pico-prop05-75	UNSAT UNSAT	2.3 14.2	3.4 77.3	13.: 44.:
n-tip-sat-nusmv-t5.B	SAT	1.6	7.5	1.
-tip-sat-texas-tp-5e -tip-sat-vis-eisen	SAT	0.3	0.6	0. 0.
s-aprove-15 s-aprove-16	UNSAT UNSAT	39.9 730.6	50.9 557.0	77.(
db-heqc-alu4mul db-heqc-dalumul	UNSAT UNSAT	501.6	259.9	218.
db-heqc-frg1mul db-heqc-x1mul	UNSAT UNSAT			
eu-vmpc-27 eu-vmpc-31	SAT	42.2	18.6 103.0	343.
ns-vbmc-lucky7	UNSAT	1.4	4.2	7.
ri-eq-atree-9 rijn-philips	UNSAT UNSAT	148.9	151.0	61. [°] 547.
is-s03-gripper11 ain-vpn-clauses-10	SAT	47.5 159.0	23.4 96.7	270. 126.
ain-vpn-clauses-8 ac-sn7-ipc5-h16	SAT SAT	20.6	363.2	
lac-uts-l06-ipc5-h34 hup-l2s-abp4-1-k31	SAT UNSAT	19.0 27.2	27.0 31.2	120. 33.
nup-12s-abp4-1-k31 nup-12s-bc56s-1-k391	UNSAT			
•	SAT UNSAT	146.9 270.8	530.5	59.0 833.
nup-l2s-motst-2-k315 non-s02-f2clk-50	CAT	263.5	127.9	26.7
nup-l2s-motst-2-k315 non-s02-f2clk-50 non-s02b-r4b1k1.1 non-s02b-r4b1k1.2	SAT	525.2	141.0	
nup-l2s-motst-2-k315 non-s02-f2clk-50 non-s02b-r4b1k1.1		525.2 41.7 115.6	141.0 212.7 152.9	80.7
up-l2s-motst-2-k315 on-s02-f2clk-50 on-s02b-r4b1k1.1 on-s02b-r4b1k1.2 on-s03-fifo8-400	SAT UNSAT SAT	41.7	212.7	251.7 80.7 76.3

