

### Testset with converse modalities

% of assert	depth	n. of formulae	sat	unsat	unknown	timeouts		% of timeouts	
						sibyl	SPASS	sibyl	SPASS
<b>Tot</b>		<b>8100</b>	<b>3980</b>	<b>4005</b>	<b>115</b>	<b>323</b>	<b>800</b>	<b>3.99</b>	<b>9.88</b>
0	2	180	92	88	0	5	0	2.78	0.00
0	3	180	91	89	0	1	3	0.56	1.67
0	4	180	83	97	0	4	2	2.22	1.11
0	5	180	95	85	0	6	5	3.33	2.78
0	6	180	90	90	0	3	4	1.67	2.22
0	7	180	92	88	0	10	5	5.56	2.78
0	8	180	93	87	0	7	5	3.89	2.78
0	9	180	96	82	2	9	7	5.00	3.89
0	10	180	94	85	1	8	4	4.44	2.22
25	2	180	92	88	0	6	0	3.33	0.00
25	3	180	91	89	0	1	4	0.56	2.22
25	4	180	83	97	0	4	4	2.22	2.22
25	5	180	95	85	0	6	5	3.33	2.78
25	6	180	88	90	2	3	7	1.67	3.89
25	7	180	91	88	1	12	9	6.67	5.00
25	8	180	92	87	1	6	10	3.33	5.56
25	9	180	94	83	3	10	11	5.56	6.11
25	10	180	94	85	1	8	5	4.44	2.78
50	2	180	92	88	0	7	0	3.89	0.00
50	3	180	89	90	1	2	15	1.11	8.33
50	4	180	80	97	3	5	13	2.78	7.22
50	5	180	94	86	0	7	14	3.89	7.78
50	6	180	84	92	4	6	14	3.33	7.78
50	7	180	86	88	6	12	23	6.67	12.78
50	8	180	89	88	3	7	24	3.89	13.33
50	9	180	90	85	5	10	28	5.56	15.56
50	10	180	89	87	4	10	29	5.56	16.11
75	2	180	92	88	0	7	2	3.89	1.11
75	3	180	87	91	2	3	19	1.67	10.56
75	4	180	79	98	3	5	19	2.78	10.56
75	5	180	91	87	2	8	29	4.44	16.11
75	6	180	82	94	4	7	28	3.89	15.56
75	7	180	86	89	5	12	35	6.67	19.44
75	8	180	86	90	4	8	35	4.44	19.44
75	9	180	89	85	6	10	49	5.56	27.22
75	10	180	84	88	8	11	45	6.11	25.00
100	2	180	91	88	1	7	4	3.89	2.22
100	3	180	88	91	1	2	21	1.11	11.67
100	4	180	79	98	3	5	26	2.78	14.44
100	5	180	89	87	4	9	34	5.00	18.89
100	6	180	80	94	6	8	28	4.44	15.56
100	7	180	86	89	5	13	38	7.22	21.11
100	8	180	86	90	4	8	40	4.44	22.22
100	9	180	86	86	8	11	50	6.11	27.78
100	10	180	80	88	12	14	48	7.78	26.67

### Sat/unsat partitioning

% of assert	depth	sat	unsat	Sibyl				SPASS			
				timeout on sat	timeout on unsat	% on sat	% on unsat	timeout on sat	timeout on unsat	% on sat	% on unsat
<b>Tot</b>		<b>3980</b>	<b>4005</b>	<b>166</b>	<b>42</b>	<b>2.05</b>	<b>0.52</b>	<b>684</b>	<b>1</b>	<b>8.44</b>	<b>0.01</b>
0	2	92	88	5	0	5.43	0.00	0	0	0.00	0.00
0	3	91	89	1	0	1.10	0.00	3	0	3.30	0.00
0	4	83	97	3	1	3.61	1.03	2	0	2.41	0.00
0	5	95	85	5	1	5.26	1.18	5	0	5.26	0.00
0	6	90	90	3	0	3.33	0.00	4	0	4.44	0.00
0	7	92	88	8	2	8.70	2.27	5	0	5.43	0.00
0	8	93	87	6	1	6.45	1.15	5	0	5.38	0.00
0	9	96	82	7	0	7.29	0.00	5	0	5.21	0.00
0	10	94	85	6	1	6.38	1.18	3	0	3.19	0.00
25	2	92	88	5	1	5.43	1.14	0	0	0.00	0.00
25	3	91	89	1	0	1.10	0.00	4	0	4.40	0.00
25	4	83	97	3	1	3.61	1.03	4	0	4.82	0.00
25	5	95	85	5	1	5.26	1.18	5	0	5.26	0.00
25	6	88	90	1	0	1.14	0.00	5	0	5.68	0.00
25	7	91	88	9	2	9.89	2.27	8	0	8.79	0.00
25	8	92	87	4	1	4.35	1.15	9	0	9.78	0.00
25	9	94	83	7	0	7.45	0.00	8	0	8.51	0.00
25	10	94	85	6	1	6.38	1.18	4	0	4.26	0.00
50	2	92	88	6	1	6.52	1.14	0	0	0.00	0.00
50	3	89	90	1	0	1.12	0.00	14	0	15.73	0.00
50	4	80	97	1	1	1.25	1.03	10	0	12.50	0.00
50	5	94	86	6	1	6.38	1.16	14	0	14.89	0.00
50	6	84	92	2	0	2.38	0.00	10	0	11.90	0.00
50	7	86	88	4	2	4.65	2.27	17	0	19.77	0.00
50	8	89	88	2	2	2.25	2.27	21	0	23.60	0.00
50	9	90	85	4	1	4.44	1.18	23	0	25.56	0.00
50	10	89	87	5	1	5.62	1.15	25	0	28.09	0.00
75	2	92	88	6	1	6.52	1.14	2	0	2.17	0.00
75	3	87	91	1	0	1.15	0.00	17	0	19.54	0.00
75	4	79	98	1	1	1.27	1.02	16	0	20.25	0.00
75	5	91	87	5	1	5.49	1.15	27	0	29.67	0.00
75	6	82	94	3	0	3.66	0.00	24	0	29.27	0.00
75	7	86	89	4	3	4.65	3.37	30	0	34.88	0.00
75	8	86	90	2	2	2.33	2.22	31	0	36.05	0.00
75	9	89	85	3	1	3.37	1.18	43	0	48.31	0.00
75	10	84	88	2	1	2.38	1.14	37	0	44.05	0.00
100	2	91	88	5	1	5.49	1.14	3	0	3.30	0.00
100	3	88	91	1	0	1.14	0.00	20	0	22.73	0.00
100	4	79	98	1	1	1.27	1.02	23	0	29.11	0.00
100	5	89	87	4	1	4.49	1.15	30	0	33.71	0.00
100	6	80	94	2	0	2.50	0.00	22	0	27.50	0.00
100	7	86	89	5	3	5.81	3.37	33	0	38.37	0.00
100	8	86	90	2	2	2.33	2.22	36	0	41.86	0.00
100	9	86	86	2	1	2.33	1.16	41	1	47.67	1.16
100	10	80	88	1	1	1.25	1.14	36	0	45.00	0.00

## Impact of Sibyl optimization techniques

% of assert	depth	n.formule	sat	unsat	unknown	timeouts			% of timeouts		
						default	backjump off	semantic branching off	default	backjump off	semantic branching off
<b>Tot</b>		<b>8100</b>	<b>3824</b>	<b>3964</b>	<b>312</b>	<b>323</b>	<b>668</b>	<b>328</b>	<b>3.99</b>	<b>8.25</b>	<b>4.05</b>
0	2	180	88	88	4	5	12	4	2.78	6.67	2.22
0	3	180	90	89	1	1	5	2	0.56	2.78	1.11
0	4	180	80	96	4	4	9	4	2.22	5.00	2.22
0	5	180	90	84	6	6	11	6	3.33	6.11	3.33
0	6	180	87	90	3	3	16	3	1.67	8.89	1.67
0	7	180	85	86	9	10	21	10	5.56	11.67	5.56
0	8	180	87	86	7	7	14	7	3.89	7.78	3.89
0	9	180	89	82	9	9	14	9	5.00	7.78	5.00
0	10	180	88	84	8	8	17	9	4.44	9.44	5.00
25	2	180	88	88	4	6	12	4	3.33	6.67	2.22
25	3	180	90	89	1	1	6	2	0.56	3.33	1.11
25	4	180	80	96	4	4	10	4	2.22	5.56	2.22
25	5	180	90	84	6	6	11	6	3.33	6.11	3.33
25	6	180	87	90	3	3	16	3	1.67	8.89	1.67
25	7	180	83	86	11	12	23	12	6.67	12.78	6.67
25	8	180	88	86	6	6	12	6	3.33	6.67	3.33
25	9	180	87	83	10	10	15	10	5.56	8.33	5.56
25	10	180	88	84	8	8	18	9	4.44	10.00	5.00
50	2	180	87	87	6	7	12	6	3.89	6.67	3.33
50	3	180	88	90	2	2	8	3	1.11	4.44	1.67
50	4	180	79	96	5	5	10	5	2.78	5.56	2.78
50	5	180	88	85	7	7	12	7	3.89	6.67	3.89
50	6	180	82	92	6	6	19	6	3.33	10.56	3.33
50	7	180	83	86	11	12	24	12	6.67	13.33	6.67
50	8	180	87	86	7	7	13	7	3.89	7.22	3.89
50	9	180	86	84	10	10	16	10	5.56	8.89	5.56
50	10	180	84	86	10	10	20	11	5.56	11.11	6.11
75	2	180	87	87	6	7	12	6	3.89	6.67	3.33
75	3	180	86	91	3	3	9	4	1.67	5.00	2.22
75	4	180	78	97	5	5	11	6	2.78	6.11	3.33
75	5	180	86	86	8	8	14	8	4.44	7.78	4.44
75	6	180	79	94	7	7	21	7	3.89	11.67	3.89
75	7	180	83	86	11	12	24	12	6.67	13.33	6.67
75	8	180	84	88	8	8	16	8	4.44	8.89	4.44
75	9	180	86	84	10	10	16	10	5.56	8.89	5.56
75	10	180	82	87	11	11	21	12	6.11	11.67	6.67
100	2	180	87	87	6	7	12	6	3.89	6.67	3.33
100	3	180	87	91	2	2	9	3	1.11	5.00	1.67
100	4	180	78	97	5	5	11	6	2.78	6.11	3.33
100	5	180	85	86	9	9	13	9	5.00	7.22	5.00
100	6	180	78	94	8	8	22	8	4.44	12.22	4.44
100	7	180	82	86	12	13	25	13	7.22	13.89	7.22
100	8	180	84	88	8	8	16	8	4.44	8.89	4.44
100	9	180	84	85	11	11	18	11	6.11	10.00	6.11
100	10	180	79	87	14	14	22	14	7.78	12.22	7.78