

Constraints (single) - Optimal

#	\mathcal{G}	% Obs	\mathcal{O}	\mathcal{G}^*	$\delta_{HC}(L)$						$\delta_{HC}(P)$						$\delta_{HC}(S)$					
					Time	AR	FPR	FNR	Acc	$ S $	Time	AR	FPR	FNR	Acc	$ S $	Time	AR	FPR	FNR	Acc	$ S $
BLOCKS (936)	20.3	10	1.25	8.0	28.427	0.42	0.35	0.23	91.7	9.89	18.711	0.42	0.35	0.23	91.7	9.89	19.204	0.44	0.32	0.24	91.7	8.17
		30	3.08	3.97	28.375	0.33	0.32	0.35	83.3	3.92	18.792	0.31	0.37	0.31	86.1	6.22	19.133	0.43	0.31	0.26	75.0	3.86
		50	4.42	2.5	28.501	0.46	0.33	0.21	80.6	3.17	18.915	0.46	0.33	0.21	83.3	3.53	19.128	0.45	0.38	0.18	72.2	3.39
		70	6.67	1.94	28.54	0.54	0.21	0.25	72.2	1.86	18.853	0.55	0.23	0.22	77.8	2.19	17.604	0.57	0.38	0.05	88.9	3.75
		100	8.83	1.83	28.58	0.58	0.21	0.22	75.0	2.0	18.808	0.58	0.21	0.22	75.0	2.0	14.688	0.62	0.35	0.03	91.7	3.42
IPC-GRID (1248)	7.5	10	1.63	2.71	11.383	0.92	0.08	0.0	100.0	3.1	7.565	0.92	0.08	0.0	100.0	3.1	7.953	0.4	0.56	0.03	97.9	7.06
		30	4.0	1.21	11.441	0.97	0.02	0.01	97.9	1.23	7.541	0.95	0.04	0.01	97.9	1.4	8.039	0.25	0.74	0.01	100.0	6.77
		50	6.19	1.13	11.44	0.97	0.01	0.02	97.9	1.1	7.537	0.96	0.02	0.02	97.9	1.13	7.982	0.27	0.71	0.03	91.7	6.27
		70	8.69	1.04	11.436	0.97	0.02	0.01	97.9	1.06	7.556	0.97	0.02	0.01	97.9	1.06	7.989	0.3	0.64	0.06	72.9	5.0
		100	11.88	1.0	11.453	1.0	0.0	0.0	100.0	1.0	7.481	1.0	0.0	0.0	100.0	1.0	7.97	0.23	0.57	0.19	43.8	3.38
LOGISTICS (936)	10.0	10	2.0	2.83	13.435	0.89	0.11	0.0	100.0	3.64	8.741	0.89	0.11	0.0	100.0	3.64	13.498	0.71	0.25	0.04	97.2	4.0
		30	5.75	1.19	13.446	0.92	0.08	0.0	100.0	1.44	8.871	0.88	0.12	0.0	100.0	1.58	13.517	0.67	0.33	0.0	100.0	2.19
		50	9.42	1.06	13.477	0.96	0.04	0.0	100.0	1.17	8.789	0.96	0.04	0.0	100.0	1.17	13.566	0.72	0.28	0.0	100.0	1.69
		70	13.25	1.03	13.488	1.0	0.0	0.0	100.0	1.03	8.873	1.0	0.0	0.0	100.0	1.03	13.442	0.71	0.29	0.0	100.0	1.67
		100	18.17	1.0	13.614	1.0	0.0	0.0	100.0	1.0	8.758	1.0	0.0	0.0	100.0	1.0	13.507	0.69	0.31	0.0	100.0	1.67
MICRONIC (936)	6.0	10	2.0	2.53	8.525	0.8	0.2	0.0	100.0	3.39	5.579	0.8	0.2	0.0	100.0	3.39	8.515	0.62	0.38	0.0	100.0	4.19
		30	5.42	1.22	8.536	0.77	0.23	0.0	100.0	1.78	5.573	0.77	0.23	0.0	100.0	1.78	8.526	0.63	0.37	0.0	100.0	2.25
		50	8.42	1.06	8.461	0.9	0.1	0.0	100.0	1.28	5.613	0.9	0.1	0.0	100.0	1.28	8.514	0.81	0.19	0.0	100.0	1.5
		70	11.92	1.0	8.468	0.97	0.03	0.0	100.0	1.08	5.673	0.97	0.03	0.0	100.0	1.08	8.509	0.91	0.09	0.0	100.0	1.19
		100	16.33	1.0	8.554	1.0	0.0	0.0	100.0	1.0	5.501	1.0	0.0	0.0	100.0	1.0	8.488	1.0	0.0	0.0	100.0	1.0
ROWERS (936)	6.0	10	1.67	2.28	9.259	0.78	0.14	0.08	91.7	2.64	6.064	0.78	0.14	0.08	91.7	2.64	9.264	0.67	0.33	0.0	100.0	4.08
		30	3.67	1.31	9.232	0.91	0.09	0.0	100.0	1.53	6.062	0.91	0.09	0.0	100.0	1.53	9.275	0.8	0.2	0.0	100.0	1.94
		50	5.75	1.19	9.261	0.94	0.03	0.03	97.2	1.19	6.155	0.94	0.03	0.03	97.2	1.19	9.318	0.91	0.09	0.0	100.0	1.42
		70	8.17	1.0	9.219	0.99	0.01	0.0	100.0	1.03	6.09	0.99	0.01	0.0	100.0	1.03	9.253	1.0	0.0	0.0	100.0	1.08
		100	10.83	1.0	9.297	1.0	0.0	0.0	100.0	1.0	6.19	1.0	0.0	0.0	100.0	1.0	9.284	1.0	0.0	0.0	100.0	1.0
SOKORAN (936)	8.7	10	2.33	2.11	18.215	0.38	0.56	0.06	88.9	5.58	12.334	0.38	0.56	0.06	88.9	5.58	19.544	0.24	0.71	0.04	91.7	7.47
		30	6.5	1.25	18.274	0.41	0.45	0.14	72.2	2.33	12.246	0.36	0.5	0.14	75.0	2.94	19.651	0.14	0.75	0.11	63.9	4.83
		50	10.33	1.22	18.262	0.53	0.32	0.15	83.3	1.78	12.218	0.48	0.39	0.13	86.1	2.58	19.656	0.21	0.55	0.22	52.8	2.75
		70	14.67	1.03	18.287	0.73	0.22	0.05	88.9	1.58	12.267	0.7	0.25	0.04	91.7	1.94	19.66	0.21	0.48	0.31	30.6	1.69
		100	20.17	1.0	18.339	0.85	0.1	0.04	91.7	1.25	12.246	0.85	0.1	0.04	91.7	1.25	19.724	0.23	0.48	0.29	41.7	1.92
Average					14.908	0.8	0.14	0.06	93.68	2.17	9.854	0.79	0.15	0.06	94.33	2.34	14.947	0.56	0.37	0.07	86.32	3.31

Table 1: Results for each constraint set, for optimal observations. L for Landmarks, P for Post-hoc, and S for State equation.

Constraints (single) - Suboptimal

#	\mathcal{G}	% Obs	\mathcal{O}	\mathcal{G}^*	$\delta_{HC}(L)$						$\delta_{HC}(P)$						$\delta_{HC}(S)$											
					Time	AR	FPR	FNR	Acc	$ S $	Time	AR	FPR	FNR	Acc	$ S $	Time	AR	FPR	FNR	Acc	$ S $	Time	AR	FPR	FNR	Acc	$ S $
BLOCKS (936)	20.3	10	1.42	7.61	28.499	0.41	0.32	0.27	94.4	8.97	18.778	0.41	0.32	0.27	94.4	8.97	19.106	0.39	0.39	0.23	97.2	8.64	19.135	0.39	0.39	0.23	97.2	8.64
		30	3.83	3.58	28.483	0.44	0.29	0.27	80.6	4.03	18.813	0.36	0.42	0.22	88.9	6.89	19.262	0.41	0.37	0.21	80.6	4.17	19.265	0.41	0.37	0.21	80.6	4.17
		50	5.92	3.19	28.531	0.37	0.25	0.39	58.3	2.06	18.705	0.39	0.32	0.29	72.2	3.03	19.071	0.51	0.33	0.16	83.3	3.5	19.29	0.51	0.33	0.16	83.3	3.5
		70	8.5	2.53	28.564	0.45	0.24	0.31	77.8	2.25	18.759	0.5	0.26	0.24	88.9	2.69	17.664	0.55	0.29	0.16	83.3	3.06	17.666	0.54	0.3	0.16	83.3	3.14
		100	11.83	2.25	28.584	0.52	0.18	0.29	75.0	2.0	19.078	0.6	0.21	0.19	91.7	2.58	14.546	0.58	0.32	0.1	91.7	3.5	14.414	0.74	0.1	0.16	100.0	1.92
IPC-GRID (1248)	7.5	10	2.06	1.58	11.441	0.86	0.14	0.0	100.0	2.0	7.581	0.8	0.2	0.0	100.0	2.56	8.003	0.25	0.74	0.01	100.0	7.23	8.003	0.25	0.74	0.01	100.0	7.23
		30	5.56	1.4	11.364	0.88	0.05	0.07	100.0	1.21	7.488	0.77	0.2	0.03	100.0	2.44	7.917	0.23	0.72	0.05	89.6	6.67	7.917	0.23	0.72	0.05	89.6	6.67
		50	8.88	1.35	11.36	0.89	0.04	0.07	97.9	1.13	7.581	0.82	0.12	0.06	100.0	1.42	7.921	0.29	0.63	0.08	72.9	5.21	7.964	0.29	0.63	0.08	72.9	5.21
		70	12.56	1.31	11.427	0.91	0.02	0.07	100.0	1.06	7.547	0.88	0.05	0.07	100.0	1.13	8.013	0.08	0.66	0.26	20.8	3.54	8.013	0.08	0.66	0.26	20.8	3.54
		100	17.25	1.5	11.461	0.94	0.0	0.06	100.0	1.0	7.475	0.94	0.0	0.06	100.0	1.0	12.073	0.05	0.54	0.41	0.0	1.94	7.981	0.05	0.54	0.41	0.0	1.94
LOGISTICS (936)	10.0	10	2.67	2.0	13.527	0.81	0.19	0.0	100.0	3.0	8.888	0.81	0.19	0.0	100.0	3.11	13.498	0.78	0.22	0.0	100.0	2.97	8.827	0.76	0.24	0.0	100.0	3.19
		30	7.5	1.14	13.466	0.93	0.07	0.0	100.0	1.31	8.809	0.78	0.22	0.0	100.0	1.97	13.461	0.7	0.3	0.0	100.0	1.94	8.901	0.69	0.31	0.0	100.0	2.03
		50	11.92	1.06	13.499	0.94	0.06	0.0	100.0	1.19	8.898	0.84	0.16	0.0	100.0	1.47	13.509	0.7	0.3	0.0	100.0	1.72	8.938	0.7	0.3	0.0	100.0	1.72
		70	16.67	1.03	13.488	0.99	0.01	0.0	100.0	1.06	8.878	0.95	0.05	0.0	100.0	1.14	13.542	0.71	0.29	0.0	100.0	1.67	8.91	0.71	0.29	0.0	100.0	1.67
		100	23.17	1.0	13.591	1.0	0.0	0.0	100.0	1.0	8.953	1.0	0.0	0.0	100.0	1.0	13.556	0.69	0.31	0.0	100.0	1.67	8.939	0.69	0.31	0.0	100.0	1.67
MICRONIC (936)	6.0	10	3.0	1.83	8.497	0.68	0.32	0.0	100.0	3.14	5.598	0.68	0.32	0.0	100.0	3.19	8.575	0.51	0.49	0.0	100.0	4.03	8.573	0.45	0.55	0.0	100.0	4.81
		30	7.67	1.25	8.48	0.77	0.22	0.01	100.0	1.78	5.532	0.64	0.36	0.0	100.0	2.58	8.602	0.6	0.39	0.01	100.0	2.42	8.602	0.6	0.39	0.01	100.0	2.42
		50	12.25	1.03	8.524	0.97	0.03	0.0	100.0	1.11	5.577	0.8	0.2	0.0	100.0	1.53	8.575	0.88	0.12	0.0	100.0	1.31	8.567	0.87	0.13	0.0	100.0	1.35
		70	17.33	1.0	8.52	0.99	0.01	0.0	100.0	1.03	5.586	0.94	0.06	0.0	100.0	1.11	8.567	0.94	0.06	0.0	100.0	1.11	8.541	0.94	0.06	0.0	100.0	1.11
		100	24.0	1.0	8.42	1.0	0.0	0.0	100.0	1.0	5.726	1.0	0.0	0.0	100.0	1.0	8.563	1.0	0.0	0.0	100.0	1.0	8.574	1.0	0.0	0.0	100.0	1.0
ROWERS (936)	6.0	10	1.83	2.39	9.216	0.79	0.17	0.03	94.4	3.14	6.1	0.79	0.17	0.03	94.4	3.14	9.254	0.66	0.34	0.0	100.0	4.28	6.095	0.66	0.34	0.0	100.0	4.28
		30	4.5	1.39	9.217	0.86	0.11	0.03	100.0	1.61	6.112	0.79	0.19	0.02	100.0	2.11	9.279	0.74	0.26	0.0	100.0	2.25	6.118	0.5	0.5	0.0	100.0	3.86
		50	7.17	1.11	9.227	0.99	0.0	0.01	100.0	1.08	6.106	0.94	0.04	0.01	100.0	1.17	9.268	0.94	0.06	0.0	100.0	1.28	6.111	0.57	0.43	0.0	100.0	2.81
		70	10.0	1.06	9.286	0.98	0.02	0.0	100.0	1.11	6.062	0.94	0.06	0.0	100.0	1.25	9.349	0.93	0.07	0.0	100.0	1.25	6.275	0.78	0.22	0.0	100.0	1.69
		100	13.67	1.0	9.15	1.0	0.0	0.0	100.0	1.0	6.085	1.0	0.0	0.0	100.0	1.0	9.4	1.0	0.0	0.0	100.0	1.0	6.035	1.0	0.0	0.0	100.0	1.0
SIOBRAN (936)	8.7	10	3.33	1.83	18.258	0.3	0.55	0.16	69.4	4.86	12.194	0.29	0.57	0.14	72.2	6.61	19.587	0.24	0.72	0.05	91.7	6.58	13.354	0.24	0.72	0.05	91.7	6.58
		30	8.67	1.28	18.33	0.43	0.44	0.13	75.0	2.81	12.237	0.34	0.61	0.05	91.7	5.19	19.721	0.14	0.54	0.32	33.3	2.17	13.394	0.14	0.54	0.31	33.3	2.28
		50	13.75	1.33	18.328	0.51	0.32	0.17	75.0	1.94	12.255	0.38	0.58	0.04	100.0	1.07	19.84	0.17	0.41	0.43	16.7	1.25	13.499	0.16	0.45	0.39	25.0	1.67
		70	19.33	1.36	18.308	0.58	0.21	0.2	80.6	1.53	12.238	0.53	0.36	0.12	91.7	2.61	19.815	0.17	0.42	0.41	19.4	1.53	13.499	0.15	0.47	0.38	22.2	1.83
		100	27.0	1.33	18.203	0.73	0.09	0.18	91.7	1.25	12.376	0.73	0.09	0.18	91.7	1.25	19.833	0.22	0.43	0.35	41.7	1.92	13.467	0.22	0.43	0.35	41.7	1.92
Average			14.908	0.76	0.15	0.09	92.34	2.04	9.871	0.72	0.21	0.07	95.93	2.6	14.977	0.74	0.36	0.11	80.74	3.03	10.009	0.47	0.43	0.11	81.11	3.41		