Disclosed: An efficient depth-first, top-down algorithm for mining disjunctive closed itemsets in high-dimensional data Supplementary Material - Summary of data sets

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Figures for the experiments assessing the performance of Disclosed

Good data sets

Figure A-1: Performance measures for the GDS963 data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2

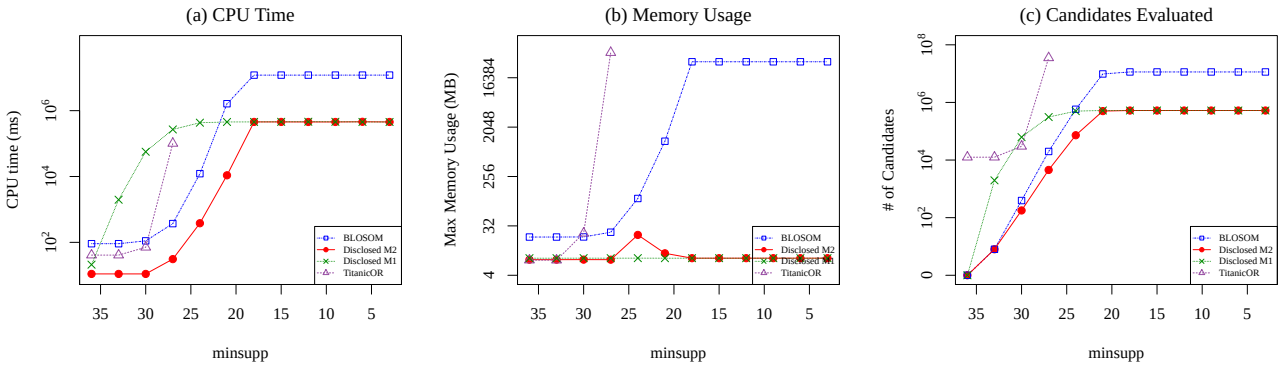


Figure A-2: Performance measures for the GDS2200 data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2

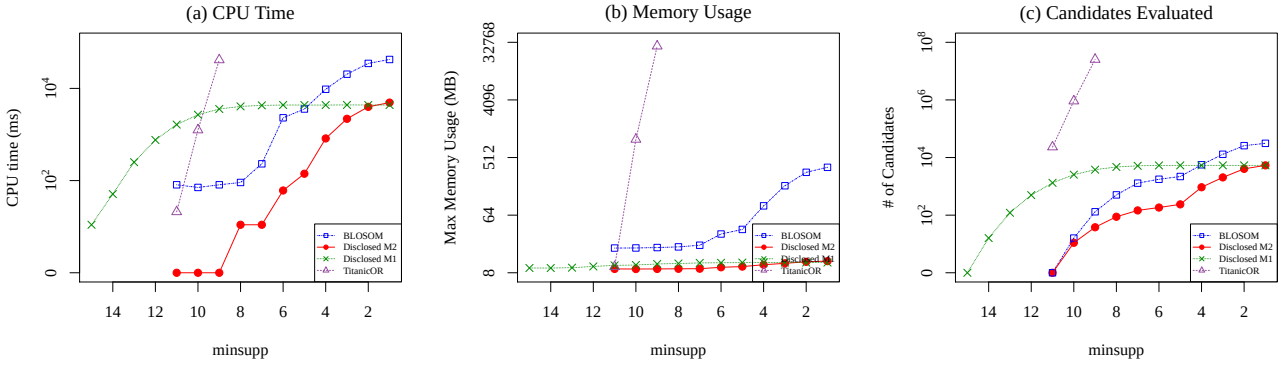


Figure A-3: Performance measures for the GDS2545 data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2

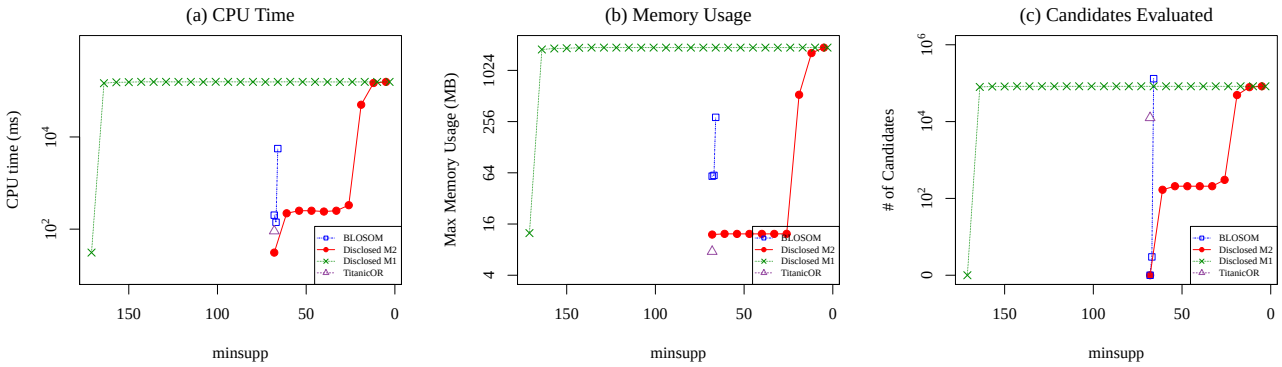
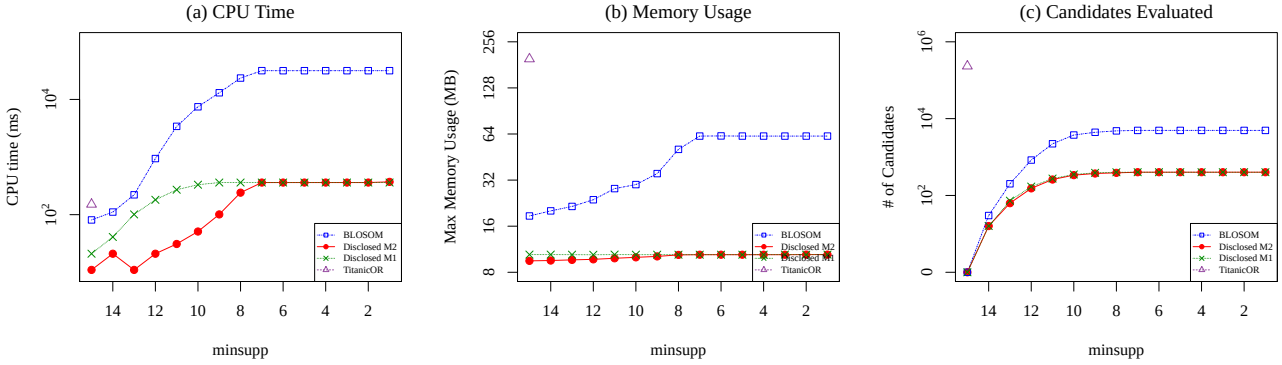


Figure A-4: Performance measures for the GDS2941 data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2



Bad data sets

Figure A-5: Performance measures for the Embryo data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2

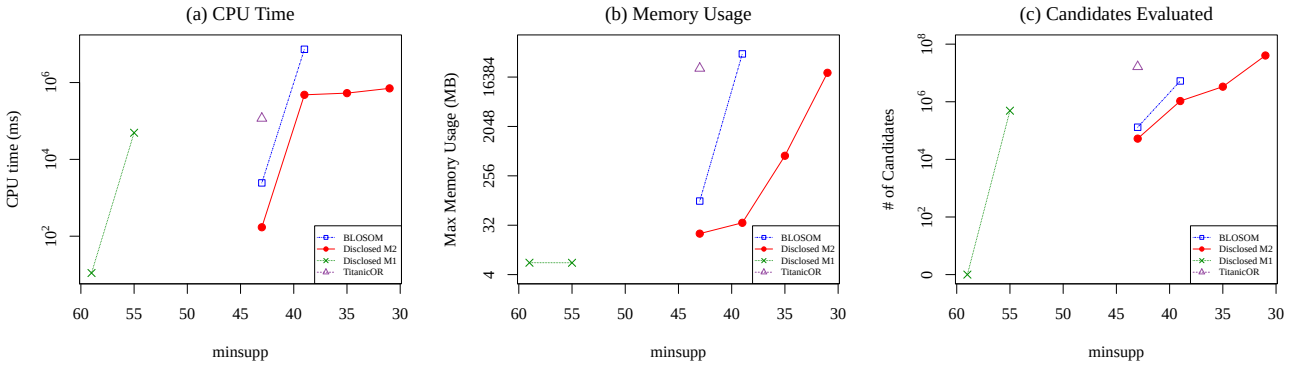


Figure A-6: Performance measures for the Promoters data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2

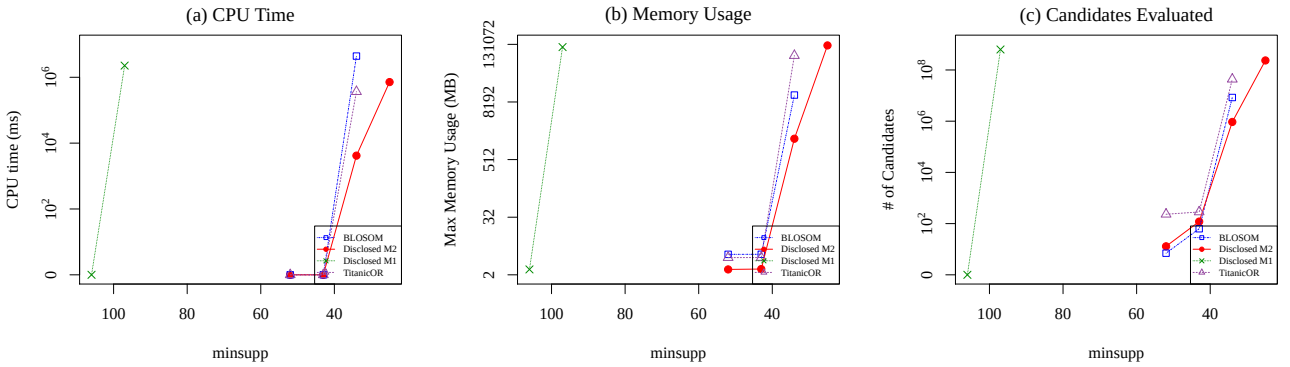
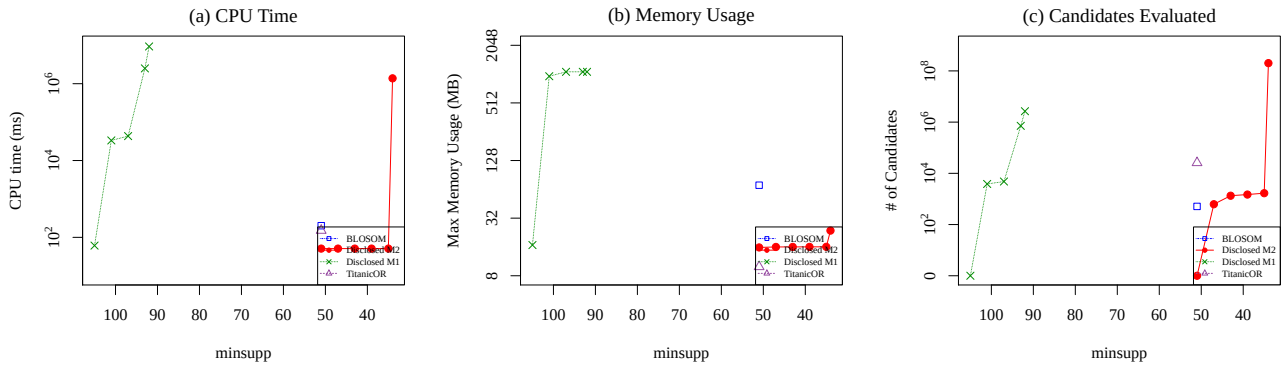


Figure A-7: Performance measures for the GDS2519 data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2



Average data sets

Figure A-8: Performance measures for the GDS2250 data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2

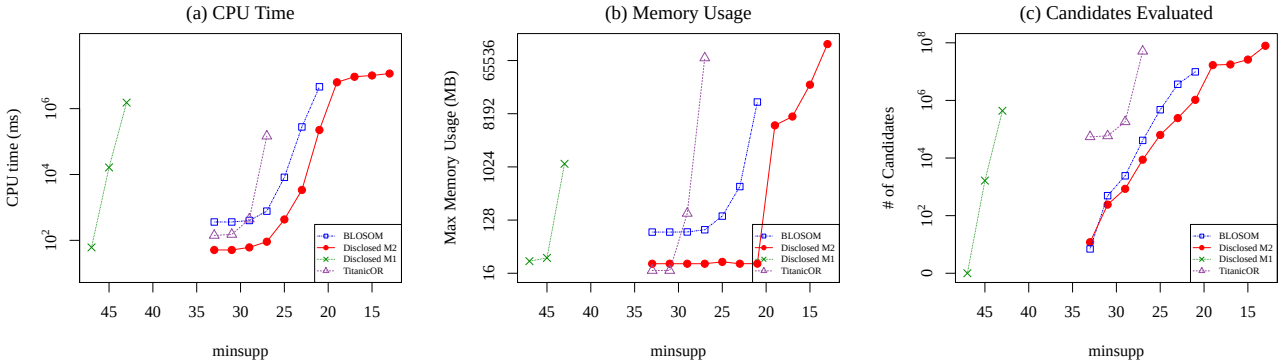


Figure A-9: Performance measures for the Colon data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2

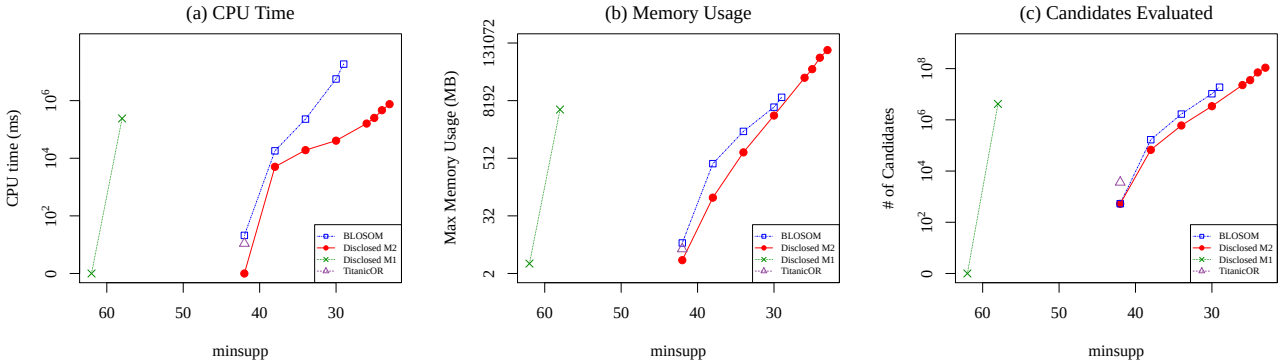
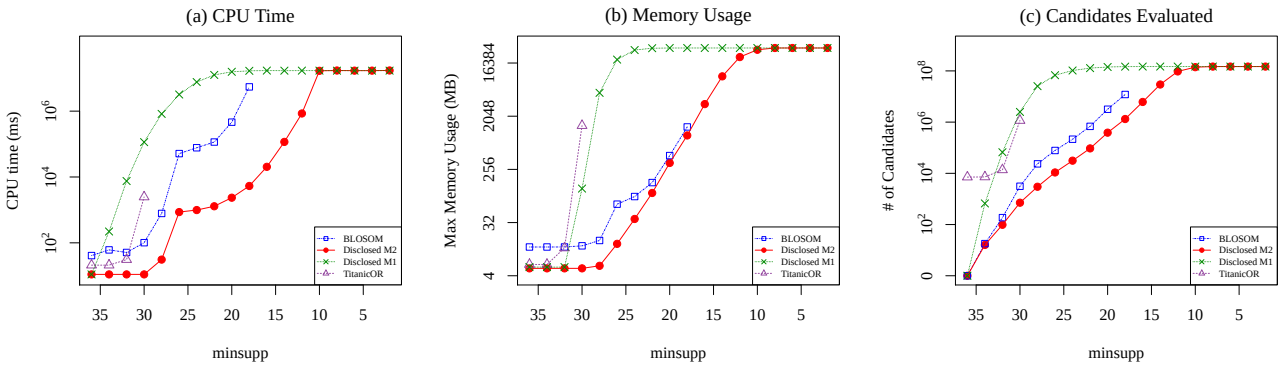


Figure A-10: Performance measures for the Leukemia data set. Disclosed M1 refers to Disclosed's performance under model1 experiment restrictions, while Disclosed M2 refers to model2



Tables with the results of the experiments to assess the performance of Disclosed Good data sets

Table A-15: This table contains raw performance results for the GDS963 data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
1	1	DisclosedM2	36	00:02.20	0.01	0	7904	0
6	8	DisclosedM2	33	00:00.02	0.01	0	7904	0
144	178	DisclosedM2	30	00:00.02	0.01	0	7920	0
4173	4536	DisclosedM2	27	00:00.04	0.03	0	7904	0
70765	72747	DisclosedM2	24	00:00.39	0.38	0	22416	0
500873	501082	DisclosedM2	21	00:10.90	10.88	0.01	10336	0
524287	524287	DisclosedM2	18	07:35.76	455.19	0.49	8416	0
524287	524287	DisclosedM2	15	07:35.57	455.06	0.43	8416	0
524287	524287	DisclosedM2	12	07:35.67	453.97	0.42	8416	0
524287	524287	DisclosedM2	9	07:34.29	453.81	0.4	8416	0
524287	524287	DisclosedM2	6	07:40.08	459.51	0.48	8416	0
524287	524287	DisclosedM2	3	07:34.57	454.07	0.42	8416	0
1	1	BLOSOM	36	00:00.44	0.09	0.03	20496	0
6	8	BLOSOM	33	00:00.26	0.09	0.03	20496	0
144	393	BLOSOM	30	00:00.31	0.11	0.02	20576	0
4173	19849	BLOSOM	27	00:00.54	0.37	0.04	25104	0
70765	578627	BLOSOM	24	00:12.37	12.19	0.08	103888	0
500873	9740327	BLOSOM	21	27:06.88	1625.24	1.08	1157904	0
524287	11424319	BLOSOM	18	03:20:53	12006.44	28.18	32844048	0
524287	11424319	BLOSOM	15	03:20:53	12010.09	28.83	32844032	0
524287	11424319	BLOSOM	12	03:21:03	12012.51	28.28	32844064	0
524287	11424319	BLOSOM	9	03:20:49	12013.99	28.75	32844048	0
524287	11424319	BLOSOM	6	03:20:52	12016.89	28.5	32844064	0
524287	11424319	BLOSOM	3	03:21:03	12027.99	28.77	32844064	0
1	1	DisclosedM1	36	00:00.06	0.02	0	8416	0
1975	1975	DisclosedM1	33	00:01.98	1.97	0	8416	0
62359	62359	DisclosedM1	30	00:56.56	56.48	0.06	8432	0
310763	310763	DisclosedM1	27	04:28.70	268.4	0.25	8416	0
499055	499055	DisclosedM1	24	07:11.26	430.81	0.38	8432	0
523943	523943	DisclosedM1	21	07:34.25	453.74	0.43	8416	0
524287	524287	DisclosedM1	18	07:35.38	454.86	0.44	8416	0
524287	524287	DisclosedM1	15	07:38.02	457.48	0.46	8416	0
524287	524287	DisclosedM1	12	07:40.81	460.27	0.47	8416	0
524287	524287	DisclosedM1	9	07:38.93	458.37	0.48	8416	0
524287	524287	DisclosedM1	6	07:34.85	454.32	0.46	8416	0
524287	524287	DisclosedM1	3	07:33.53	453.01	0.45	8416	0
1	12557	TitanicOR	36	0:00.05	0.04	0.00	7760	0
11	12571	TitanicOR	33	0:00.04	0.04	0.00	7744	0
2236	30009	TitanicOR	30	0:00.08	0.07	0.00	24064	0
6229326	35334906	TitanicOR	27	2:01.42	101.31	20.07	48365952	0
NA	NA	TitanicOR	24	3:36.76	179.90	36.76	100629744	6

Table A-16: This table contains raw performance results for the GDS2200 data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	15	00:00.19	0	0	9376	0
0	0	DisclosedM2	14	00:00.01	0	0	9376	0
0	0	DisclosedM2	13	00:00.01	0	0	9360	0
0	0	DisclosedM2	12	00:00.01	0	0	9344	0
1	1	DisclosedM2	11	00:00.01	0	0	9408	0
9	11	DisclosedM2	10	00:00.01	0	0	9376	0
36	38	DisclosedM2	9	00:00.01	0	0	9408	0
86	88	DisclosedM2	8	00:00.01	0.01	0	9456	0
143	146	DisclosedM2	7	00:00.02	0.01	0	9488	0
180	184	DisclosedM2	6	00:00.07	0.06	0	9984	0
231	237	DisclosedM2	5	00:00.15	0.14	0	10240	0
905	931	DisclosedM2	4	00:00.84	0.82	0.01	10944	0
1942	2044	DisclosedM2	3	00:02.20	2.19	0	11520	0
3734	4050	DisclosedM2	2	00:04.00	3.98	0.01	12160	0
4882	5346	DisclosedM2	1	00:04.93	4.92	0	12464	0
0	0	BLOSOM	15	00:00.27	0.06	0.04	19984	0
0	0	BLOSOM	14	00:00.18	0.08	0.03	19984	0
0	0	BLOSOM	13	00:00.16	0.06	0.03	19984	0
0	0	BLOSOM	12	00:00.16	0.07	0.03	19984	0
1	1	BLOSOM	11	00:00.18	0.08	0.03	19984	0
9	16	BLOSOM	10	00:00.22	0.07	0.03	20048	0
36	131	BLOSOM	9	00:00.18	0.08	0.03	20352	0
86	505	BLOSOM	8	00:00.21	0.09	0.04	20848	0
143	1290	BLOSOM	7	00:00.32	0.23	0.03	22128	0
180	1762	BLOSOM	6	00:02.40	2.3	0.03	33168	0
231	2193	BLOSOM	5	00:03.70	3.57	0.04	39152	0
905	5602	BLOSOM	4	00:09.75	9.58	0.07	91680	0
1942	12979	BLOSOM	3	00:20.53	20.34	0.09	189328	0
3734	25834	BLOSOM	2	00:35.13	34.85	0.13	307616	0
4882	31128	BLOSOM	1	00:42.72	42.39	0.21	368288	0
1	1	DisclosedM1	15	00:00.06	0.01	0	9728	0
16	16	DisclosedM1	14	00:00.06	0.05	0	9712	0
121	121	DisclosedM1	13	00:00.25	0.25	0	9840	0
496	496	DisclosedM1	12	00:00.77	0.76	0	10288	0
1305	1325	DisclosedM1	11	00:01.65	1.64	0	10704	0
2454	2544	DisclosedM1	10	00:02.69	2.68	0	10848	0
3583	3793	DisclosedM1	9	00:03.57	3.57	0	11248	0
4363	4698	DisclosedM1	8	00:04.08	4.07	0	11456	0
4738	5157	DisclosedM1	7	00:04.28	4.28	0	11696	0
4858	5313	DisclosedM1	6	00:04.36	4.36	0	11744	0
4881	5345	DisclosedM1	5	00:04.36	4.35	0	11840	0
4883	5348	DisclosedM1	4	00:04.36	4.35	0	11856	0
4883	5348	DisclosedM1	3	00:04.39	4.38	0	11840	0
4883	5348	DisclosedM1	2	00:04.37	4.36	0	11840	0
4883	5348	DisclosedM1	1	00:04.37	4.36	0	11840	0
0	22215	TitanicOR	15	0:00.03	0.02	0.00	10000	0
0	22215	TitanicOR	14	0:00.02	0.02	0.00	10000	0
0	22215	TitanicOR	13	0:00.02	0.02	0.00	10000	0
0	22215	TitanicOR	12	0:00.02	0.02	0.00	9984	0
44	23161	TitanicOR	11	0:00.03	0.02	0.00	10176	0
17560	913035	TitanicOR	10	0:01.48	1.25	0.22	1009200	0
475543	25359122	TitanicOR	9	0:47.74	41.49	6.17	29200832	0
NA	NA	TitanicOR	8	2:53.87	154.32	19.28	100629744	6

Table A-17: This table contains raw performance results for the GDS2545 data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
1	1	DisclosedM2	68	00:00.24	0.03	0.01	12320	0
28	168	DisclosedM2	61	00:00.23	0.22	0	12560	0
32	208	DisclosedM2	54	00:00.25	0.25	0	12544	0
32	208	DisclosedM2	47	00:00.25	0.25	0	12544	0
32	208	DisclosedM2	40	00:00.25	0.24	0.01	12544	0
32	208	DisclosedM2	33	00:00.25	0.25	0	12544	0
41	304	DisclosedM2	26	00:00.34	0.33	0	12576	0
33098	49151	DisclosedM2	19	00:50.15	50	0.14	542256	0
53041	78787	DisclosedM2	12	02:28.74	148.31	0.4	1675552	0
55899	83027	DisclosedM2	5	02:36.91	156.45	0.41	1941952	0
1	1	BLOSOM	68	00:00.58	0.2	0.04	59872	0
3	3	BLOSOM	67	00:00.33	0.14	0.05	61104	0
131071	131071	BLOSOM	66	00:06.08	5.59	0.18	294192	0
NA	NA	BLOSOM	65	06:00:06	6702.3	106.5	127295376	124
1	1	DisclosedM1	171	00:00.19	0.03	0.01	12816	0
53840	79761	DisclosedM1	164	02:27.13	146.67	0.4	1845920	0
55050	81796	DisclosedM1	157	02:34.04	153.5	0.44	1895280	0
55335	82201	DisclosedM1	150	02:35.17	154.68	0.43	1909664	0
55887	83010	DisclosedM1	143	02:37.37	156.87	0.43	1931744	0
55897	83025	DisclosedM1	136	02:36.91	156.38	0.43	1941984	0
55899	83027	DisclosedM1	129	02:37.30	156.85	0.4	1941984	0
55899	83027	DisclosedM1	122	02:37.00	156.48	0.41	1941952	0
55899	83027	DisclosedM1	115	02:37.04	156.57	0.39	1941968	0
55899	83027	DisclosedM1	108	02:36.44	155.92	0.48	1941952	0
55899	83027	DisclosedM1	101	02:37.87	157.35	0.44	1941968	0
55899	83027	DisclosedM1	94	02:37.39	156.89	0.43	1941952	0
55899	83027	DisclosedM1	87	02:36.86	156.39	0.43	1941968	0
55899	83027	DisclosedM1	80	02:37.21	156.73	0.43	1941952	0
55899	83027	DisclosedM1	73	02:36.49	155.96	0.43	1941968	0
55899	83027	DisclosedM1	66	02:36.88	156.37	0.45	1941952	0
55899	83027	DisclosedM1	59	02:37.59	157.08	0.47	1941952	0
55899	83027	DisclosedM1	52	02:36.93	156.42	0.45	1941968	0
55899	83027	DisclosedM1	45	02:37.15	156.65	0.41	1941952	0
55899	83027	DisclosedM1	38	02:36.54	156.04	0.45	1941968	0
55899	83027	DisclosedM1	31	02:36.56	156.06	0.43	1941968	0
55899	83027	DisclosedM1	24	02:36.80	156.31	0.45	1941952	0
55899	83027	DisclosedM1	17	02:36.95	156.48	0.43	1941952	0
55899	83027	DisclosedM1	10	02:36.73	156.26	0.43	1941952	0
55899	83027	DisclosedM1	3	02:36.90	156.39	0.47	1941952	0
1	12558	TitanicOR	68	0:00.11	0.09	0.01	7776	0
NA	NA	TitanicOR	61	2:52.74	153.20	19.50	100629728	6

Table A-18: This table contains raw performance results for the GDS2821 data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	26	00:02.97	0.05	0.01	24064	0
9	9	DisclosedM2	24	00:00.07	0.06	0	24080	0
126	130	DisclosedM2	22	00:00.07	0.06	0	24080	0
751	785	DisclosedM2	20	00:00.07	0.06	0.01	24112	0
3116	3299	DisclosedM2	18	00:00.20	0.19	0	24368	0
17427	17892	DisclosedM2	16	00:02.60	2.57	0.02	25712	0
50181	50639	DisclosedM2	14	00:03.25	3.22	0.02	25760	0
65953	65973	DisclosedM2	12	00:09.43	9.38	0.03	25952	0
66154	66174	DisclosedM2	10	00:57.47	57.35	0.1	26288	0
66277	66297	DisclosedM2	8	02:44.17	163.73	0.39	96368	0
66277	66297	DisclosedM2	6	02:42.86	162.37	0.4	96384	0
66277	66297	DisclosedM2	4	02:43.03	162.64	0.35	96368	0
66277	66297	DisclosedM2	2	02:43.33	162.9	0.38	96384	0
0	0	BLOSOM	26	00:00.87	0.35	0.15	52096	0
9	15	BLOSOM	24	00:00.72	0.35	0.13	52096	0
126	500	BLOSOM	22	00:00.63	0.36	0.16	52240	0
751	6650	BLOSOM	20	00:01.55	1.22	0.16	54016	0
3116	30632	BLOSOM	18	00:22.05	21.69	0.15	69360	0
17427	287152	BLOSOM	16	06:57.33	416.6	0.36	309088	0
50181	1361604	BLOSOM	14	09:20.95	560.26	0.4	344336	0
65953	2357798	BLOSOM	12	18:34.43	1113.19	0.83	690400	0
66154	2380316	BLOSOM	10	01:23:04	4979.41	3.9	3777136	0
66277	2381837	BLOSOM	8	04:17:18	15420.52	11.27	10935888	0
66277	2381837	BLOSOM	6	04:17:11	15415.01	11.08	10934176	0
66277	2381837	BLOSOM	4	04:17:12	15416.98	11.04	10934192	0
66277	2381837	BLOSOM	2	04:17:11	15416.12	11.21	10935808	0
0	0	DisclosedM1	26	00:00.09	0.06	0.01	26576	0
26	26	DisclosedM1	24	00:00.20	0.19	0	26592	0
1015	1035	DisclosedM1	22	00:02.88	2.86	0.01	26592	0
7455	7475	DisclosedM1	20	00:20.79	20.74	0.03	26592	0
27023	27043	DisclosedM1	18	01:09.43	69.3	0.11	43056	0
51343	51363	DisclosedM1	16	02:07.31	127.07	0.21	72160	0
63719	63739	DisclosedM1	14	02:36.42	156.14	0.25	91232	0
66105	66125	DisclosedM1	12	02:42.27	161.93	0.31	96400	0
66263	66283	DisclosedM1	10	02:41.60	161.26	0.3	96368	0
66277	66297	DisclosedM1	8	02:41.91	161.59	0.29	96352	0
66277	66297	DisclosedM1	6	02:42.42	162.07	0.31	96368	0
66277	66297	DisclosedM1	4	02:43.31	162.94	0.33	96368	0
66277	66297	DisclosedM1	2	02:42.61	162.27	0.3	96368	0
0	54277	TitanicOR	26	0:00.18	0.15	0.02	18032	0
63	54483	TitanicOR	24	0:00.16	0.15	0.00	18192	0
22607	453364	TitanicOR	22	0:00.92	0.78	0.12	463904	0
NA	NA	TitanicOR	20	2:58.39	159.12	19.22	100629744	6

Table A-19: This table contains raw performance results for the GDS2941 data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
1	1	DisclosedM2	15	00:00.23	0.01	0	9728	0
16	16	DisclosedM2	14	00:00.02	0.02	0	9776	0
63	63	DisclosedM2	13	00:00.02	0.01	0	9872	0
153	153	DisclosedM2	12	00:00.02	0.02	0	9952	0
260	260	DisclosedM2	11	00:00.04	0.03	0	10112	0
338	338	DisclosedM2	10	00:00.06	0.05	0	10256	0
373	373	DisclosedM2	9	00:00.11	0.1	0	10400	0
388	388	DisclosedM2	8	00:00.25	0.24	0	10640	0
400	403	DisclosedM2	7	00:00.37	0.36	0	10672	0
400	403	DisclosedM2	6	00:00.37	0.36	0	10672	0
400	403	DisclosedM2	5	00:00.37	0.36	0	10672	0
400	403	DisclosedM2	4	00:00.37	0.36	0	10672	0
400	403	DisclosedM2	3	00:00.37	0.36	0	10672	0
400	403	DisclosedM2	2	00:00.37	0.36	0	10688	0
400	403	DisclosedM2	1	00:00.37	0.37	0	10688	0
1	1	BLOSOM	15	00:00.33	0.08	0.05	19104	0
16	30	BLOSOM	14	00:00.37	0.11	0.06	20624	0
63	201	BLOSOM	13	00:00.35	0.22	0.06	22048	0
153	835	BLOSOM	12	00:01.09	0.94	0.06	24384	0
260	2215	BLOSOM	11	00:03.54	3.41	0.05	28832	0
338	3746	BLOSOM	10	00:07.61	7.45	0.07	30624	0
373	4416	BLOSOM	9	00:13.20	13.05	0.06	36128	0
388	4801	BLOSOM	8	00:23.70	23.5	0.07	52016	0
400	4938	BLOSOM	7	00:31.77	31.57	0.1	63520	0
400	4938	BLOSOM	6	00:31.71	31.52	0.08	63664	0
400	4938	BLOSOM	5	00:31.74	31.53	0.09	63520	0
400	4938	BLOSOM	4	00:31.81	31.54	0.08	63520	0
400	4938	BLOSOM	3	00:31.81	31.54	0.08	63504	0
400	4938	BLOSOM	2	00:31.73	31.53	0.09	63520	0
400	4938	BLOSOM	1	00:31.72	31.55	0.09	63520	0
1	1	DisclosedM1	15	00:00.08	0.02	0	10688	0
16	16	DisclosedM1	14	00:00.05	0.04	0	10688	0
73	73	DisclosedM1	13	00:00.10	0.1	0	10672	0
167	170	DisclosedM1	12	00:00.19	0.18	0	10656	0
272	275	DisclosedM1	11	00:00.28	0.27	0	10688	0
349	352	DisclosedM1	10	00:00.34	0.33	0	10672	0
385	388	DisclosedM1	9	00:00.36	0.36	0	10672	0
399	402	DisclosedM1	8	00:00.37	0.36	0	10672	0
400	403	DisclosedM1	7	00:00.37	0.36	0	10672	0
400	403	DisclosedM1	6	00:00.37	0.36	0	10672	0
400	403	DisclosedM1	5	00:00.37	0.36	0	10672	0
400	403	DisclosedM1	4	00:00.37	0.36	0	10672	0
400	403	DisclosedM1	3	00:00.37	0.36	0	10688	0
400	403	DisclosedM1	2	00:00.37	0.36	0	10672	0
400	403	DisclosedM1	1	00:00.37	0.36	0	10688	0
649	232491	TitanicOR	15	0:00.20	0.15	0.04	202496	0
NA	NA	TitanicOR	14	2:59.79	160.37	19.21	100629728	6

Table A-20: This table contains raw performance results for the Leukemia data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
1	1	DisclosedM2	36	00:00.27	0.01	0	5472	0
10	16	DisclosedM2	34	00:00.01	0.01	0	5472	0
76	98	DisclosedM2	32	00:00.01	0.01	0	5472	0
628	713	DisclosedM2	30	00:00.01	0.01	0	5472	0
2784	2993	DisclosedM2	28	00:00.03	0.03	0	6048	0
10062	10823	DisclosedM2	26	00:00.87	0.86	0	14272	0
29335	31243	DisclosedM2	24	00:01.00	0.99	0	37744	0
88512	94131	DisclosedM2	22	00:01.32	1.29	0.02	104288	0
362098	387599	DisclosedM2	20	00:02.42	2.35	0.07	337376	0
1237178	1322328	DisclosedM2	18	00:05.56	5.34	0.22	989152	0
5726741	6135148	DisclosedM2	16	00:21.05	20.37	0.67	3368288	0
28005300	29459000	DisclosedM2	14	01:58.56	116.45	2.08	9968128	0
92829621	95432271	DisclosedM2	12	14:15.50	850.05	5.18	21183952	0
135608761	139976931	DisclosedM2	10	04:40:30	16802.5	25.38	28175008	0
143217133	147745342	DisclosedM2	8	04:46:33	17163.41	25.86	30205440	0
143217133	147745342	DisclosedM2	6	04:43:41	16991.45	24.9	30205440	0
143217133	147745342	DisclosedM2	4	04:44:01	17011.65	25.22	30205440	0
143217133	147745342	DisclosedM2	2	04:47:11	17201.15	25	30205456	0
1	1	BLOSOM	36	00:00.23	0.04	0.02	12608	0
10	18	BLOSOM	34	00:00.15	0.06	0.01	12608	0
76	186	BLOSOM	32	00:00.20	0.05	0.02	12624	0
628	3128	BLOSOM	30	00:00.21	0.1	0.01	13200	0
2784	23429	BLOSOM	28	00:00.88	0.78	0.01	16272	0
10062	78016	BLOSOM	26	00:51.51	51.35	0.05	67296	0
29335	215039	BLOSOM	24	01:17.48	77.25	0.06	90640	0
88512	682875	BLOSOM	22	01:55.46	115.24	0.08	156544	0
362098	3182844	BLOSOM	20	07:42.85	462.33	0.28	449776	0
1237178	11983647	BLOSOM	18	01:30:57	5455.73	0.75	1378256	0
NA	NA	BLOSOM	16	06:00:00	21595.35	0.93	1473296	124
1	1	DisclosedM1	36	00:00.03	0.01	0	5760	0
667	667	DisclosedM1	34	00:00.22	0.22	0	5744	0
66712	66712	DisclosedM1	32	00:07.56	7.54	0.01	5744	0
2467143	2501200	DisclosedM1	30	01:54.72	114.54	0.16	123840	0
24360790	25391450	DisclosedM1	28	13:47.17	825.03	1.91	5228848	0
64872572	67870810	DisclosedM1	26	53:28.02	3200.35	7.09	19191200	0
99506956	103660802	DisclosedM1	24	02:07:44	7649.05	13.75	27859216	0
123885168	128364873	DisclosedM1	22	03:30:08	12586.21	19.56	29954048	0
137508766	142033517	DisclosedM1	20	04:21:33	15667.74	23.35	30191408	0
142243064	146771163	DisclosedM1	18	04:39:49	16761.83	24.87	30205088	0
143133411	147661619	DisclosedM1	16	04:44:37	17048.55	25.67	30205440	0
143214181	147742390	DisclosedM1	14	04:42:47	16939.01	25.16	30205440	0
143217106	147745315	DisclosedM1	12	04:43:51	17002.97	25.8	30205456	0
143217133	147745342	DisclosedM1	10	04:43:52	17004.64	24.95	30205440	0
143217133	147745342	DisclosedM1	8	04:42:42	16934.54	24.4	30205456	0
143217133	147745342	DisclosedM1	6	04:43:04	16956.85	24.55	30205440	0
143217133	147745342	DisclosedM1	4	04:43:06	16958.55	25.21	30205456	0
143217133	147745342	DisclosedM1	2	04:43:47	16998.61	25.91	30205440	0
2	7130	TitanicOR	36	0:00.03	0.02	0.00	6368	0
37	7226	TitanicOR	34	0:00.02	0.02	0.00	6368	0
717	13685	TitanicOR	32	0:00.04	0.03	0.00	12144	0
150612	1155170	TitanicOR	30	0:02.97	2.47	0.49	1450320	0
NA	NA	TitanicOR	28	3:07.85	160.51	27.07	100629744	6

Bad data sets

Table A-21: This table contains raw performance results for the Embryo data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	59	00:00.31	0.01	0	6464	0
0	0	DisclosedM2	55	00:00.01	0.01	0	6480	0
0	0	DisclosedM2	51	00:00.01	0.01	0	6464	0
0	0	DisclosedM2	47	00:00.01	0.01	0	6464	0
49705	52545	DisclosedM2	43	00:00.18	0.17	0	23008	0
1007877	1060559	DisclosedM2	39	08:00.13	479.56	0.49	36288	0
2814817	3341202	DisclosedM2	35	08:51.47	530.7	0.68	610752	0
34909328	40386670	DisclosedM2	31	11:50.99	706.3	4.52	20088064	0
NA	NA	DisclosedM2	27	21:54.44	824.36	67.77	127715344	137
0	0	BLOSOM	59	00:00.39	0.08	0.02	17648	0
0	0	BLOSOM	55	00:00.20	0.08	0.02	17648	0
0	0	BLOSOM	51	00:00.17	0.08	0.02	17648	0
0	0	BLOSOM	47	00:00.21	0.07	0.02	17632	0
49705	130528	BLOSOM	43	00:02.58	2.44	0.06	90688	0
1007877	5271219	BLOSOM	39	02:03:38	7350.12	39.9	44506592	0
NA	NA	BLOSOM	35	06:00:00	21579.72	12.49	47792656	124
1	1	DisclosedM1	59	00:00.04	0.01	0	6752	0
489405	489405	DisclosedM1	55	00:49.37	49.31	0.05	6736	0
NA	NA	DisclosedM1	51	06:00:02	21532.95	56.45	127551824	124
0	7129	TitanicOR	59	0:00.04	0.03	0.00	6224	0
0	7129	TitanicOR	55	0:00.04	0.03	0.00	6224	0
0	7129	TitanicOR	51	0:00.04	0.04	0.00	6208	0
0	7129	TitanicOR	47	0:00.04	0.04	0.00	6224	0
9361863	16431277	TitanicOR	43	2:20.55	116.69	23.77	24175936	0
NA	NA	TitanicOR	39	2:12.35	112.59	19.54	100629744	6

Table A-22: This table contains raw performance results for the GDS2519 data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
1	1	DisclosedM2	51	00:02.43	0.05	0	16192	0
49	622	DisclosedM2	47	00:00.06	0.05	0	16384	0
177	1336	DisclosedM2	43	00:00.06	0.05	0	16400	0
202	1485	DisclosedM2	39	00:00.06	0.05	0	16416	0
265	1678	DisclosedM2	35	00:00.07	0.05	0.01	16432	0
201327209	201362587	DisclosedM2	34	23:05.17	1381.15	1.34	24288	0
NA	NA	DisclosedM2	33	06:00:00	21561.6	33.06	16704	124
511	511	BLOSOM	51	00:00.52	0.2	0.06	72384	0
NA	NA	BLOSOM	50	06:00:03	16210.3	78.24	127561616	124
1	1	DisclosedM1	105	00:00.10	0.06	0.01	17152	0
3351	3843	DisclosedM1	101	00:33.61	33.38	0.21	996320	0
4170	4787	DisclosedM1	97	00:43.54	43.24	0.28	1107360	0
713917	714535	DisclosedM1	93	41:46.36	2503.2	2.76	1107360	0
2663268	2663886	DisclosedM1	92	02:35:28	9318.46	8.87	1107360	0
NA	NA	DisclosedM1	91	06:00:00	21574.72	21.91	269664	124
3071	25785	TitanicOR	51	0:00.18	0.15	0.02	10160	0
NA	NA	TitanicOR	47	2:57.41	156.02	21.34	100629760	6

Table A-23: This table contains raw performance results for the Lymphoma data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	46	00:02.36	0	0	3536	0
0	0	DisclosedM2	44	00:00.01	0	0	3520	0
0	0	DisclosedM2	42	00:00.00	0	0	3520	0
0	0	DisclosedM2	40	00:00.00	0	0	3520	0
0	0	DisclosedM2	38	00:00.00	0	0	3520	0
0	0	DisclosedM2	36	00:00.01	0	0	3520	0
0	0	DisclosedM2	34	00:00.00	0	0	3504	0
0	0	DisclosedM2	32	00:00.00	0	0	3536	0
0	0	DisclosedM2	30	00:00.00	0	0	3520	0
0	0	DisclosedM2	28	00:00.00	0	0	3520	0
0	0	DisclosedM2	26	00:00.00	0	0	3520	0
0	0	DisclosedM2	24	00:00.00	0	0	3520	0
3	5	DisclosedM2	22	00:00.00	0	0	3520	0
180	309	DisclosedM2	20	00:00.01	0	0	3856	0
2613966	2691647	DisclosedM2	18	08:29.96	507.64	1.98	5561152	0
30259160	31381334	DisclosedM2	16	02:12:53	7936.26	31.47	93252080	0
NA	NA	DisclosedM2	14	06:00:03	21488.66	79.26	127653760	124
0	0	BLOSOM	46	00:00.39	0.01	0.01	10352	0
0	0	BLOSOM	44	00:00.08	0.02	0.01	10352	0
0	0	BLOSOM	42	00:00.06	0.02	0	10352	0
0	0	BLOSOM	40	00:00.05	0.01	0.01	10352	0
0	0	BLOSOM	38	00:00.06	0.02	0.01	10352	0
0	0	BLOSOM	36	00:00.06	0.02	0.01	10352	0
0	0	BLOSOM	34	00:00.06	0.01	0.01	10352	0
0	0	BLOSOM	32	00:00.08	0.01	0.01	10352	0
0	0	BLOSOM	30	00:00.08	0.01	0.01	10352	0
0	0	BLOSOM	28	00:00.07	0.01	0.01	10352	0
0	0	BLOSOM	26	00:00.07	0.01	0.01	10352	0
0	0	BLOSOM	24	00:00.05	0.02	0	10352	0
3	3	BLOSOM	22	00:00.07	0.01	0.01	10352	0
180	303	BLOSOM	20	00:00.07	0.01	0.01	10416	0
2613966	3577587	BLOSOM	18	01:10:11	4170.83	30.19	35226352	0
NA	NA	BLOSOM	16	06:00:00	21557.28	34.18	101524192	124
1	1	DisclosedM1	46	00:00.43	0	0	3680	0
1082	1082	DisclosedM1	44	00:00.54	0.53	0	3824	0
179310	179310	DisclosedM1	42	01:06.54	66.42	0.1	4128	0
10840195	10840195	DisclosedM1	40	53:51.33	3225.23	5.6	12064	0
NA	NA	DisclosedM1	38	06:00:00	21557.81	38.87	117120	124
0	4026	TitanicOR	46	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	44	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	42	0:00.01	0.00	0.00	5392	0
0	4026	TitanicOR	40	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	38	0:00.01	0.00	0.00	5392	0
0	4026	TitanicOR	36	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	34	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	32	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	30	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	28	0:00.01	0.00	0.00	5408	0
0	4026	TitanicOR	26	0:00.01	0.00	0.00	5392	0
0	4026	TitanicOR	24	0:00.01	0.00	0.00	5408	0
3	4027	TitanicOR	22	0:00.01	0.00	0.00	5568	0
631	5128	TitanicOR	20	0:00.01	0.00	0.00	5936	0
NA	NA	TitanicOR	18	2:16.65	116.31	20.24	100629744	6

Table A-24: This table contains raw performance results for the Promoters data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	106	00:00.37	0	0	2656	0
0	0	DisclosedM2	97	00:00.01	0	0	2656	0
0	0	DisclosedM2	88	00:00.00	0	0	2640	0
0	0	DisclosedM2	79	00:00.00	0	0	2656	0
0	0	DisclosedM2	70	00:00.00	0	0	2656	0
0	0	DisclosedM2	61	00:00.00	0	0	2656	0
7	13	DisclosedM2	52	00:00.00	0	0	2656	0
59	120	DisclosedM2	43	00:00.00	0	0	2704	0
363950	933356	DisclosedM2	34	00:04.46	4.17	0.28	1432256	0
84474898	235343665	DisclosedM2	25	12:34.99	715.51	31.4	127563360	0
NA	NA	DisclosedM2	16	24:48.23	1319.84	56.99	127791744	137
0	0	BLOSOM	106	00:00.14	0	0	5488	0
0	0	BLOSOM	97	00:00.02	0	0	5488	0
0	0	BLOSOM	88	00:00.02	0	0	5472	0
0	0	BLOSOM	79	00:00.02	0	0	5488	0
0	0	BLOSOM	70	00:00.02	0	0	5504	0
0	0	BLOSOM	61	00:00.02	0	0	5488	0
7	7	BLOSOM	52	00:00.02	0	0	5488	0
63	63	BLOSOM	43	00:00.02	0	0	5504	0
5028509	8409459	BLOSOM	34	01:13:35	4404.77	7.14	11705312	0
NA	NA	BLOSOM	25	06:00:00	21592.86	3.28	4253744	124
1	1	DisclosedM1	106	00:00.15	0	0	2656	0
390178942	630677318	DisclosedM1	97	38:11.48	2262.89	26.03	117798720	0
NA	NA	DisclosedM1	88	25:17.16	1338.24	57.5	127735504	137
0	228	TitanicOR	106	0:00.00	0.00	0.00	4656	0
0	228	TitanicOR	97	0:00.00	0.00	0.00	4672	0
0	228	TitanicOR	88	0:00.00	0.00	0.00	4656	0
0	228	TitanicOR	79	0:00.00	0.00	0.00	4656	0
0	228	TitanicOR	70	0:00.00	0.00	0.00	4672	0
0	228	TitanicOR	61	0:00.00	0.00	0.00	4672	0
7	232	TitanicOR	52	0:00.00	0.00	0.00	4688	0
63	285	TitanicOR	43	0:00.00	0.00	0.00	4704	0
24437654	43473859	TitanicOR	34	7:10.59	365.60	64.71	78171568	0
NA	NA	TitanicOR	25	4:09.78	212.83	36.58	100629744	6

Average data sets

Table A-25: This table contains raw performance results for the ALL-AML data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	38	00:00.01	0	0	4208	0
0	0	DisclosedM2	35	00:00.00	0	0	4224	0
6	10	DisclosedM2	32	00:00.00	0	0	4208	0
236	284	DisclosedM2	29	00:00.01	0	0	4224	0
16867	17500	DisclosedM2	26	00:00.70	0.69	0.01	31392	0
162187	170035	DisclosedM2	23	00:01.91	1.88	0.03	209760	0
847186	900005	DisclosedM2	20	00:05.00	4.81	0.18	917568	0
4772552	5153644	DisclosedM2	17	00:18.93	18.19	0.73	3758880	0
22566556	24260346	DisclosedM2	14	01:22.17	79.59	2.46	12406384	0
256377728	264589442	DisclosedM2	11	48:54.15	2923.69	9.55	32771792	0
NA	NA	DisclosedM2	8	06:00:01	21538.42	56.74	127289504	124
0	0	BLOSOM	38	00:00.25	0.03	0.01	10240	0
0	0	BLOSOM	35	00:00.10	0.03	0.01	10240	0
6	6	BLOSOM	32	00:00.10	0.03	0.01	10240	0
236	570	BLOSOM	29	00:00.13	0.04	0	10416	0
16867	105793	BLOSOM	26	00:08.44	8.35	0.02	59440	0
162187	1548350	BLOSOM	23	02:16.29	136.08	0.09	250480	0
847186	9295971	BLOSOM	20	44:42.67	2681.57	0.46	1035728	0
NA	NA	BLOSOM	17	06:00:00	21595.5	0.93	1445840	124
1	1	DisclosedM1	38	00:00.04	0	0	4368	0
9178	9178	DisclosedM1	35	00:02.00	2	0	4368	0
3349852	3350426	DisclosedM1	32	04:06.47	246.16	0.27	5328	0
215925804	224015049	DisclosedM1	29	01:43:54	6221.27	11.34	20716096	0
NA	NA	DisclosedM1	26	03:14:28	11597.34	65.97	127345392	137
0	4812	TitanicOR	38	0:00.02	0.01	0.00	5664	0
0	4812	TitanicOR	35	0:00.01	0.01	0.00	5664	0
6	4816	TitanicOR	32	0:00.01	0.01	0.00	5808	0
1397	9497	TitanicOR	29	0:00.03	0.02	0.00	10768	0
NA	NA	TitanicOR	26	3:01.00	161.84	18.91	100629760	6

Table A-26: This table contains raw performance results for the Colon data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	62	00:00.40	0	0	3264	0
0	0	DisclosedM2	58	00:00.01	0	0	3264	0
0	0	DisclosedM2	54	00:00.01	0	0	3264	0
0	0	DisclosedM2	50	00:00.01	0	0	3248	0
0	0	DisclosedM2	46	00:00.01	0	0	3248	0
382	525	DisclosedM2	42	00:00.01	0	0	3888	0
59388	67319	DisclosedM2	38	00:05.09	5.06	0.02	78784	0
504221	602511	DisclosedM2	34	00:19.34	19.15	0.17	696192	0
2936932	3415750	DisclosedM2	30	00:41.76	40.82	0.88	4096640	0
20106537	22805305	DisclosedM2	26	02:45.72	160.21	5.26	25219104	0
31636202	35488159	DisclosedM2	25	04:20.09	251.75	7.95	38186112	0
63378186	71045118	DisclosedM2	24	07:59.73	465.05	13.9	66205920	0
97188623	108816158	DisclosedM2	23	12:55.10	753.94	20.13	95649360	0
NA	NA	DisclosedM2	22	06:00:01	21506.05	64.23	127496288	124
0	0	BLOSOM	62	00:00.12	0.02	0	8512	0
0	0	BLOSOM	58	00:00.06	0.02	0	8496	0
0	0	BLOSOM	54	00:00.06	0.02	0	8512	0
0	0	BLOSOM	50	00:00.06	0.01	0.01	8512	0
0	0	BLOSOM	46	00:00.06	0.01	0	8512	0
382	532	BLOSOM	42	00:00.08	0.02	0	8896	0
59388	167582	BLOSOM	38	00:18.43	18.06	0.32	404256	0
504221	1678344	BLOSOM	34	03:50.30	228.67	1.36	1908688	0
2936932	10432938	BLOSOM	30	01:34:17	5651.04	4.61	6130864	0
5360948	18792819	BLOSOM	29	05:08:59	18527.93	7.32	9847472	0
NA	NA	BLOSOM	28	06:00:00	21591.99	3.84	5647392	124
1	1	DisclosedM1	62	00:00.02	0	0	3296	0
3676086	4180698	DisclosedM1	58	04:02.02	240.51	1.42	5457840	0
NA	NA	DisclosedM1	54	06:00:02	21464.09	57.19	127208992	124
0	2000	TitanicOR	62	0:00.01	0.01	0.00	5104	0
0	2000	TitanicOR	58	0:00.01	0.00	0.00	5104	0
0	2000	TitanicOR	54	0:00.01	0.01	0.00	5104	0
0	2000	TitanicOR	50	0:00.01	0.00	0.00	5088	0
0	2000	TitanicOR	46	0:00.01	0.00	0.00	5104	0
843	3627	TitanicOR	42	0:00.01	0.01	0.00	6672	0
NA	NA	TitanicOR	38	2:25.05	124.45	20.56	100629728	6

Table A-27: This table contains raw performance results for the GDS2250 data set. *Number of patterns* refers to the number of disjunctive closed itemsets found with the given minimum support threshold (*MinSupp*). *Number of candidates* refers to the number of candidates evaluated by the algorithm. The algorithms are BLOSOM, DisclosedM2, DisclosedM1, for Disclosed with model2 and model1 respectively, and TitanicOR. *Ellapsed time* is the wall-clock time measured for the algorithm. *CPU time* is the algorithm's time (in seconds) on CPU. *System time* is the CPU time (in seconds) spent by the system on behalf of the algorithm. *Max. Memory* is the maximum amount of main memory used by the algorithm. Both time and memory were measured with *GNU time* program. Finally, *Status* refers to the algorithm's exit status; 0 if the algorithm terminates with no problem; 124 if the algorithm *times out* (experiments were limited to six hours); 137 if the algorithm was terminated (*killed*) by the system.

Number of Patterns	Number of Candidates	Algorithm	MinSupp	Elapsed time	CPU time	System time	Max. Memory (KB)	Status
0	0	DisclosedM2	47	00:00.16	0.06	0.01	23776	0
0	0	DisclosedM2	45	00:00.06	0.05	0	23776	0
0	0	DisclosedM2	43	00:00.06	0.05	0	23776	0
0	0	DisclosedM2	41	00:00.06	0.05	0	23776	0
0	0	DisclosedM2	39	00:00.06	0.05	0.01	23776	0
0	0	DisclosedM2	37	00:00.06	0.05	0	23776	0
0	0	DisclosedM2	35	00:00.06	0.05	0	23776	0
7	12	DisclosedM2	33	00:00.06	0.05	0	23792	0
201	242	DisclosedM2	31	00:00.06	0.05	0	23808	0
730	854	DisclosedM2	29	00:00.06	0.06	0	23792	0
7760	8770	DisclosedM2	27	00:00.10	0.09	0	23792	0
60402	63349	DisclosedM2	25	00:00.44	0.43	0	25568	0
242793	243157	DisclosedM2	23	00:03.41	3.39	0.01	23808	0
1048938	1049661	DisclosedM2	21	03:45.74	225.53	0.16	23872	0
16818665	16847565	DisclosedM2	19	01:45:33	6324.08	7.89	5319920	0
17553283	17730121	DisclosedM2	17	02:35:09	9296.18	12.25	7514608	0
24484125	26195291	DisclosedM2	15	02:49:52	10172.24	16.36	26093552	0
68853856	78868374	DisclosedM2	13	03:15:01	11650.52	41.39	127530848	0
NA	NA	DisclosedM2	11	02:27:47	8799.57	61.21	127738272	137
0	0	BLOSOM	47	00:00.89	0.35	0.18	82000	0
0	0	BLOSOM	45	00:00.71	0.35	0.16	82000	0
0	0	BLOSOM	43	00:00.69	0.35	0.17	82000	0
0	0	BLOSOM	41	00:00.69	0.34	0.17	81984	0
0	0	BLOSOM	39	00:00.70	0.34	0.17	82000	0
0	0	BLOSOM	37	00:00.68	0.35	0.16	81984	0
0	0	BLOSOM	35	00:00.66	0.35	0.17	81968	0
7	7	BLOSOM	33	00:00.67	0.36	0.17	81984	0
201	493	BLOSOM	31	00:00.70	0.36	0.16	82016	0
730	2419	BLOSOM	29	00:00.70	0.4	0.16	82336	0
7760	40951	BLOSOM	27	00:01.10	0.77	0.16	89776	0
60402	474565	BLOSOM	25	00:08.58	8.21	0.2	153152	0
242793	3641276	BLOSOM	23	04:38.82	277.73	0.49	485744	0
1048938	9800931	BLOSOM	21	01:17:07	4605.57	15.45	13253296	0
NA	NA	BLOSOM	19	06:00:01	20558.03	50.5	127613664	124
1	1	DisclosedM1	47	00:00.11	0.06	0.01	26304	0
1641	1643	DisclosedM1	45	00:16.40	16.37	0.02	29888	0
435621	438159	DisclosedM1	43	25:29.23	1526.32	2.64	1183904	0
NA	NA	DisclosedM1	41	06:00:00	21572.9	23.55	6958384	124
0	54613	TitanicOR	47	0:00.17	0.14	0.02	18096	0
0	54613	TitanicOR	45	0:00.15	0.14	0.00	18096	0
0	54613	TitanicOR	43	0:00.15	0.14	0.00	18096	0
0	54613	TitanicOR	41	0:00.15	0.14	0.00	18096	0
0	54613	TitanicOR	39	0:00.15	0.14	0.00	18080	0
0	54613	TitanicOR	37	0:00.15	0.14	0.00	18096	0
0	54613	TitanicOR	35	0:00.15	0.14	0.00	18096	0
7	54617	TitanicOR	33	0:00.15	0.14	0.00	18256	0
1564	58810	TitanicOR	31	0:00.16	0.15	0.00	18240	0
28022	181109	TitanicOR	29	0:00.52	0.44	0.07	170176	0
8667499	50848882	TitanicOR	27	2:56.50	146.21	30.11	74206368	0
NA	NA	TitanicOR	25	3:11.96	168.36	23.31	100629728	6