Appendix: Experimental results

TABLE A1
F-measure and F2-measure for program `grep` (a lower score indicating better performance)

Version	Granularity	Probability Profile	F_{RPT}	F_{DRT}	F_{MAPT}	F_{RAPT}	$F2_{RPT}$	$F2_{DRT}$	$F2_{MAPT}$	$F2_{RAPT}$
V1	Coarse	Equal	231.70	258.90	217.90	159.10	633.80	526.55	491.35	343.65
		Proportional	123.70	156.90	118.65	121.50	429.60	412.85	448.70	375.40
	Medium	Equal	214.90	179.15	164.70	129.70	401.55	349.80	320.50	315.15
		Proportional	169.45	160.20	153.85	148.10	515.70	463.21	438.25	431.68
	Fine	Equal	188.65	181.45	175.85	117.45	115.50	186.30	182.90	162.50
		Proportional	150.15	160.80	124.90	144.35	522.05	427.00	494.55	492.25
V2	Coarse	Equal	18.15	18.00	17.15	14.30	299.75	432.65	378.85	313.60
		Proportional	13.70	13.60	11.60	10.60	342.30	276.05	269.85	206.30
	Medium	Equal	7.65	6.55	5.50	4.90	6.85	6.40	6.15	3.40
		Proportional	12.85	17.15	12.30	9.30	438.15	188.20	175.60	160.40
	Fine	Equal	8.70	7.40	6.70	5.80	18.75	15.05	11.30	13.40
		Proportional	16.70	15.95	10.40	12.35	170.35	115.25	164.20	102.10
V3	Coarse	Equal	51.20	41.40	26.00	22.40	169.20	192.10	218.85	106.95
		Proportional	35.00	28.30	25.95	22.45	130.20	119.80	103.10	83.30
	Medium	Equal	65.80	90.85	87.60	36.05	102.40	151.80	149.65	145.55
		Proportional	36.45	36.00	28.55	25.45	133.05	179.00	116.25	135.55
	Fine	Equal	72.95	72.00	54.85	43.75	226.00	148.50	144.60	106.55
		Proportional	26.90	25.60	24.85	23.50	214.70	218.85	123.15	205.05
V4	Coarse	Equal	309.50	463.20	267.00	223.20	—	—	—	—
		Proportional	246.00	264.40	235.20	209.65	—	—	—	—
	Medium	Equal	189.45	187.75	148.60	213.00	—	—	—	—
		Proportional	283.20	200.55	143.85	193.80	—	—	—	—
	Fine	Equal	224.00	222.40	209.25	183.90	—	—	—	—
		Proportional	279.05	305.85	207.75	226.35	—	—	—	—

TABLE A2
F-measure and F2-measure for program `gzip` (a lower score indicating better performance)

Version	Granularity	Probability Profile	F_{RPT}	F_{DRT}	F_{MAPT}	F_{RAPT}	$F2_{RPT}$	$F2_{DRT}$	$F2_{MAPT}$	$F2_{RAPT}$
V1	Coarse	Equal	38.55	34.05	24.25	21.90	73.05	82.80	62.90	34.80
		Proportional	98.60	49.80	39.70	76.40	162.75	91.20	68.65	72.05
	Medium	Equal	60.85	64.05	43.20	46.10	110.50	130.30	107.60	131.05
		Proportional	86.35	66.95	66.15	65.25	262.35	126.35	170.90	166.60
	Fine	Equal	107.50	91.20	76.30	61.65	270.15	212.70	178.35	176.10
		Proportional	117.75	119.05	111.70	70.45	193.40	201.95	183.30	180.70
V2	Coarse	Equal	66.50	56.70	54.85	36.20	—	—	—	—
		Proportional	21.80	16.90	19.10	11.25	—	—	—	—
	Medium	Equal	51.25	43.45	42.95	44.65	—	—	—	—
		Proportional	19.10	17.55	12.25	15.75	—	—	—	—
	Fine	Equal	40.55	28.70	28.10	27.80	—	—	—	—
		Proportional	17.15	12.15	10.90	13.15	—	—	—	—
V4	Coarse	Equal	40.10	34.35	34.35	21.40	71.95	61.00	54.45	41.05
		Proportional	70.65	58.45	47.70	58.40	253.35	72.90	63.00	67.05
	Medium	Equal	63.55	51.80	51.45	45.30	62.10	61.10	54.00	44.10
		Proportional	107.55	76.05	63.65	74.75	177.50	107.55	112.90	71.85
	Fine	Equal	136.60	131.05	101.05	111.60	207.80	172.15	170.50	160.85
		Proportional	99.80	91.25	68.60	81.05	281.95	174.65	155.75	148.65
V5	Coarse	Equal	5.95	5.00	4.75	4.05	10.05	8.55	8.40	6.35
		Proportional	46.15	13.00	22.40	12.05	53.30	12.40	23.65	11.50
	Medium	Equal	3.70	3.05	2.70	3.05	5.45	4.80	4.60	5.25
		Proportional	45.70	6.60	6.40	5.70	71.50	6.75	6.90	6.55
	Fine	Equal	7.85	6.25	5.70	4.90	10.85	10.20	10.05	7.70
		Proportional	25.85	9.05	13.05	9.00	111.10	12.45	17.60	10.50

TABLE A3
F-measure and F2-measure for program `make` (a lower score indicating better performance)

Version	Granularity	Probability Profile	F_{RPT}	F_{DRT}	F_{MAPT}	F_{RAPT}	$F2_{RPT}$	$F2_{DRT}$	$F2_{MAPT}$	$F2_{RAPT}$
V1	Coarse	Equal	98.25	89.20	79.70	79.95	201.20	187.25	177.80	186.00
		Proportional	89.25	86.40	86.10	73.05	276.20	184.15	135.95	181.75
	Medium	Equal	127.40	122.55	117.25	104.10	229.10	285.00	263.70	245.10
		Proportional	134.60	122.55	101.85	117.75	320.20	203.15	196.65	183.25
	Fine	Equal	222.20	191.85	183.80	177.65	405.10	298.05	260.75	177.50
		Proportional	134.30	129.90	104.75	102.40	293.90	331.50	250.50	167.85
V2	Coarse	Equal	458.70	402.65	370.35	362.65	—	—	—	—
		Proportional	413.15	388.70	350.25	385.65	—	—	—	—
	Medium	Equal	557.60	431.20	413.65	405.85	—	—	—	—
		Proportional	272.90	330.10	267.50	225.65	—	—	—	—
	Fine	Equal	652.25	644.20	622.55	603.80	—	—	—	—
		Proportional	456.55	324.25	317.85	318.55	—	—	—	—

TABLE A4
T-measure and T2-measure for program `grep` (in ms) (a lower score indicating better performance)

Version	Granularity	Probability Profile	T_{RPT}	T_{DRT}	T_{MAPT}	T_{RAPT}	$T2_{RPT}$	$T2_{DRT}$	$T2_{MAPT}$	$T2_{RAPT}$
V1	Coarse	Equal	31102.30	42012.50	28664.75	11612.00	68868.95	92326.45	100426.90	39167.70
		Proportional	21725.95	13495.60	12048.55	12495.15	57600.10	46176.00	57060.50	35818.40
	Medium	Equal	84986.85	72931.35	79151.65	50351.80	46526.90	51245.85	18892.60	56496.00
		Proportional	15752.40	16537.25	12356.45	14378.30	41629.05	53319.90	27628.75	31196.90
	Fine	Equal	58478.50	31922.00	48094.75	18791.20	33589.15	44661.20	40473.25	52750.15
		Proportional	12503.05	17547.10	7835.05	18823.45	18188.60	36484.50	16433.15	43683.15
V2	Coarse	Equal	3022.20	4415.65	3168.55	1844.20	29962.50	34308.80	37136.85	18567.00
		Proportional	811.65	1223.70	537.80	1078.00	12982.15	45877.20	20286.75	19894.30
	Medium	Equal	2843.60	3828.75	3095.25	2332.25	2534.15	5803.50	5220.65	2518.00
		Proportional	1182.95	1903.95	1860.25	1432.55	17720.95	28450.80	18347.85	20247.50
	Fine	Equal	2579.05	6441.80	3117.60	2658.90	1831.10	11332.50	9511.40	1854.05
		Proportional	2743.55	2866.55	2610.40	2755.20	31521.90	31005.70	35737.65	26285.10
V3	Coarse	Equal	13422.30	10835.85	7896.20	5919.00	51203.60	69810.05	50489.90	13097.75
		Proportional	3717.25	6593.70	3150.85	5161.30	13191.05	21866.05	11114.40	15047.45
	Medium	Equal	69899.25	96427.20	79616.80	32076.20	56034.20	139706.50	120935.00	43150.30
		Proportional	5874.45	4318.60	6227.90	5592.10	26637.75	23314.20	25535.75	11720.25
	Fine	Equal	37761.20	31888.50	27193.40	18876.40	56283.05	65960.15	54118.80	35059.80
		Proportional	6702.20	5746.50	3958.15	6078.80	21295.25	16642.10	16559.65	13966.10
V4	Coarse	Equal	107716.40	147239.30	79275.05	43325.40	—	—	—	—
		Proportional	21786.25	27050.20	25651.10	21454.40	—	—	—	—
	Medium	Equal	164911.80	79536.40	125860.80	82878.65	—	—	—	—
		Proportional	24497.05	38017.75	26851.50	39399.80	—	—	—	—
	Fine	Equal	74948.05	73944.20	65696.75	63661.50	—	—	—	—
		Proportional	18328.60	29748.75	10106.05	23645.80	—	—	—	—

TABLE A5
T-measure and T2-measure for program `gzip` (in ms)(a lower score indicating better performance)

Version	Granularity	Probability Profile	T_{RPT}	T_{DRT}	T_{MAPT}	T_{RAPT}	$T2_{RPT}$	$T2_{DRT}$	$T2_{MAPT}$	$T2_{RAPT}$
V1	Coarse	Equal	14506.65	13006.65	10075.45	6705.15	29848.35	29461.30	28869.75	9591.55
		Proportional	17718.85	18644.75	12794.95	18777.05	69503.50	51049.15	26623.15	26533.60
	Medium	Equal	28379.20	13594.40	16802.70	14489.40	33630.05	29076.75	29168.65	10984.10
		Proportional	14626.20	6896.25	12403.95	11807.35	32338.85	14297.10	26989.25	11013.00
	Fine	Equal	26610.95	28794.00	31465.30	13850.20	80868.80	72540.55	72624.35	80242.65
		Proportional	18458.00	20173.95	22114.00	6936.00	32638.30	19971.25	29493.10	25842.15
V2	Coarse	Equal	44281.65	28899.00	21174.20	13910.10	—	—	—	—
		Proportional	4148.55	5759.25	5397.55	5453.05	—	—	—	—
	Medium	Equal	34312.00	17583.25	21040.25	30294.05	—	—	—	—
		Proportional	5175.95	2702.50	4563.70	4077.00	—	—	—	—
	Fine	Equal	20329.20	26648.35	20355.75	10805.35	—	—	—	—
		Proportional	4316.75	3745.45	3899.10	5203.20	—	—	—	—
V4	Coarse	Equal	29697.20	14206.95	17106.95	10655.00	47518.55	37240.90	37079.75	18222.20
		Proportional	24748.20	22272.05	12406.85	19784.40	46939.95	30963.80	27214.65	21938.10
	Medium	Equal	17356.45	13443.05	20897.45	12972.80	38900.35	25021.30	32292.40	26698.15
		Proportional	20209.75	6741.30	15233.85	13068.25	49056.25	16980.25	24725.70	26000.35
	Fine	Equal	29500.35	28436.65	34287.55	23942.25	55407.30	46075.05	43216.15	42009.95
		Proportional	20751.30	33156.75	16290.15	15935.75	27408.35	37622.90	45239.95	43791.80
V5	Coarse	Equal	2792.45	2730.10	2909.85	2383.65	6258.95	4514.10	6117.60	5369.75
		Proportional	15881.40	5670.25	9080.00	6337.80	19868.30	7631.85	8996.60	6390.30
	Medium	Equal	1927.10	1551.80	1979.30	1930.60	5354.55	2667.80	5040.60	4827.40
		Proportional	11345.90	2078.40	3550.85	3956.90	18939.40	2768.55	15227.40	7302.95
	Fine	Equal	3091.95	4660.15	3834.85	3487.35	8543.50	8470.80	7861.85	8109.00
		Proportional	13897.55	5918.45	7772.65	5844.20	19799.75	6421.65	9634.80	9634.80

TABLE A6
T-measure and T2-measure for program `make` (in ms)(a lower score indicating better performance)

Version	Granularity	Probability Profile	T_{RPT}	T_{DRT}	T_{MAPT}	T_{RAPT}	$T2_{RPT}$	$T2_{DRT}$	$T2_{MAPT}$	$T2_{RAPT}$
V1	Coarse	Equal	7783.50	11133.95	7421.95	8142.65	25741.05	16259.55	18776.00	17920.95
		Proportional	5838.55	10088.65	6558.65	8812.40	21083.90	16160.75	15463.25	13392.50
	Medium	Equal	13541.70	10733.60	18753.45	12470.45	38183.05	30281.65	30210.70	19255.75
		Proportional	10472.60	8560.55	12075.45	13758.75	19070.80	21337.85	21551.25	19461.15
	Fine	Equal	21619.15	23385.25	21263.75	21593.25	27818.90	39644.20	49377.80	20077.70
		Proportional	10112.55	16499.45	7236.95	8539.10	27387.55	31749.80	19066.05	11067.75
V2	Coarse	Equal	28532.75	35993.00	39727.20	36592.30	—	—	—	—
		Proportional	20202.35	26408.65	17414.00	16762.60	—	—	—	—
	Medium	Equal	20281.35	67205.40	52588.65	51398.40	—	—	—	—
		Proportional	25628.60	44287.65	32129.30	25466.75	—	—	—	—
	Fine	Equal	98311.45	71488.25	66706.65	45466.25	—	—	—	—
		Proportional	48635.00	25699.85	54519.25	60452.05	—	—	—	—