

#tasks \		config	root gap	time 1 st sol	gap 1 st sol	time end	gap end	%opt	%solv.	#node	#cut
20	Def. Int. Time KS <u>Precomp.</u> I & T & K I & T & P I & K & P T & K & P I & T & K & P	0.00	0.00	52.10	0.70	158.29	0.00	90	90	2344	0
		0.00	0.00	53.88	0.20	226.59	0.00	81	81	1412	0
		0.00	0.00	85.05	0.48	178.83	0.00	90	90	5159	0
		0.00	0.00	38.02	0.37	126.41	0.00	90	90	775	0
		0.00	0.00	58.39	0.84	144.58	0.00	90	90	1084	182
		0.00	0.00	40.30	0.25	130.06	0.00	90	90	779	0
		0.00	0.00	78.48	0.43	164.23	0.00	90	90	1622	253
		0.00	0.00	48.55	0.71	138.58	0.00	90	90	749	195
		0.00	0.00	94.40	0.59	260.72	0.00	81	81	2948	213
		0.00	0.00	58.45	0.10	147.01	0.00	90	90	1162	212
25	Def. Int. Time KS <u>Precomp.</u> I & T & K I & T & P I & K & P T & K & P I & T & K & P	0.00	0.00	310.74	0.77	397.15	0.00	88	88	3099	0
		0.00	0.00	317.22	0.50	556.66	0.00	66	66	3325	0
		0.00	0.00	306.48	0.30	557.84	0.00	66	66	5733	0
		0.00	0.00	230.28	0.00	402.56	0.00	77	77	2160	0
		0.00	0.00	401.02	0.31	539.97	0.00	77	77	4118	270
		0.00	0.00	181.39	0.86	371.63	0.00	77	77	2394	0
		0.00	0.00	297.07	1.89	539.74	0.00	66	66	4176	212
		0.00	0.00	292.07	0.14	374.41	0.00	88	88	2665	364
		0.00	0.00	201.04	0.63	382.52	0.00	88	88	6178	220
		0.00	0.00	198.29	0.38	646.59	0.00	44	44	1475	176
30	Def. Int. Time KS <u>Precomp.</u> I & T & K I & T & P I & K & P T & K & P I & T & K & P	0.00	0.00	613.51	0.03	848.06	0.00	40	40	2691	0
		0.00	0.00	511.61	0.56	927.08	0.00	20	20	2644	0
		0.00	0.00	471.70	0.89	726.78	0.18	50	60	3909	0
		0.00	0.00	566.97	4.51	929.74	0.28	20	30	4661	0
		0.00	0.00	480.07	0.11	844.17	0.00	30	30	1115	413
		0.00	0.00	418.92	0.81	719.47	0.08	40	50	2498	0
		0.00	0.00	638.50	1.53	888.73	0.00	40	40	4537	298
		0.00	0.00	614.62	0.62	851.27	0.00	40	40	1729	247
		0.00	0.00	461.71	0.21	627.16	0.00	70	70	2227	281
		0.00	0.00	603.20	0.17	805.14	0.00	50	50	2503	268

Table 1: Res Family 4 ($f_i(b) = b$)

#tasks \	config	root gap	time 1 st sol	gap 1 st sol	time end	gap end	%opt	%solv.	#node	#cut
20	Def.	32.47	15.80	39.92	1001.17	35.10	0	100	234049	0
	Int.	32.47	13.14	44.39	1000.01	32.53	0	100	305795	0
	Time	31.42	6.02	45.39	1000.01	37.10	0	100	336114	0
	KS	32.47	4.77	51.48	1002.05	43.27	0	100	362535	0
	<u>Preemp.</u>	32.47	18.59	41.23	1004.02	32.67	0	100	289579	306
	I & T & K	32.47	3.26	50.20	1000.39	43.90	0	100	397407	0
	I & T & P	32.93	8.60	44.47	1000.01	37.56	0	90	322877	301
	I & K & P	32.47	3.81	53.59	1000.29	43.21	0	100	394204	208
	T & K & P	32.47	2.76	48.37	1000.39	43.51	0	100	425418	255
	I & T & K & P	32.47	3.31	50.20	1001.19	43.45	0	100	402036	272
25	Def.	51.23	75.83	47.27	1000.07	53.26	0	100	110161	0
	Int.	51.23	101.21	42.75	1000.02	53.71	0	100	74674	0
	Time	51.23	56.92	48.06	1000.02	57.45	0	100	145884	0
	KS	51.23	24.22	55.32	1001.59	58.78	0	100	133254	0
	<u>Preemp.</u>	51.23	178.78	43.51	1001.75	52.30	0	100	75751	143
	I & T & K	51.23	9.36	51.71	1001.43	59.13	0	100	163577	0
	I & T & P	51.23	53.65	46.60	1000.04	58.79	0	100	123541	125
	I & K & P	51.23	15.68	54.31	1000.07	59.42	0	100	94353	234
	T & K & P	51.23	10.14	58.57	1000.09	60.83	0	100	148546	154
	I & T & K & P	51.23	8.56	52.26	1000.07	58.88	0	100	155711	188
30	Def.	48.42	266.77	42.40	1000.44	52.29	0	100	38494	0
	Int.	44.89	293.64	38.04	1000.02	50.86	0	90	28720	0
	Time	44.89	121.33	46.10	1002.63	55.96	0	90	52114	0
	KS	48.42	101.31	49.66	1000.03	62.15	0	100	41022	0
	<u>Preemp.</u>	45.46	372.34	47.98	1000.02	48.27	0	90	38026	132
	I & T & K	48.42	36.91	51.82	1002.79	58.64	0	100	55469	0
	I & T & P	48.42	149.46	42.75	1000.02	57.56	0	100	56140	90
	I & K & P	48.42	155.39	48.36	1000.21	60.35	0	100	24206	141
	T & K & P	48.42	54.77	51.60	1003.12	60.66	0	100	69676	121
	I & T & K & P	48.42	39.78	51.27	1001.09	60.17	0	100	61211	110

Table 2: Res Family 1

#tasks \	config	root gap	time 1 st sol	gap 1 st sol	time end	gap end	%opt	%solv.	#node	#cut
20	Def.	39.90	34.89	50.72	1000.61	40.68	0	100	297682	0
	Int.	39.90	20.12	48.12	1000.01	40.33	0	100	304882	0
	Time	38.83	30.64	48.44	1000.38	49.11	0	100	260306	0
	KS	39.90	6.87	51.56	1001.21	53.64	0	100	389453	0
	<u>Precomp.</u>	39.90	24.86	49.29	1000.01	41.21	0	100	307621	235
	I & T & K	39.90	3.54	50.41	1000.38	54.32	0	100	358205	0
	I & T & P	38.81	15.29	44.91	1000.72	45.31	0	90	291398	163
	I & K & P	39.90	5.48	49.93	1000.03	54.41	0	100	391491	198
	T & K & P	39.90	2.66	53.16	1000.03	54.20	0	100	370111	264
	I & T & K & P	39.90	3.76	50.10	1000.01	53.89	0	100	402480	265
25	Def.	40.33	303.19	24.99	1000.30	45.61	0	84	34888	0
	Int.	45.62	107.20	30.92	1001.61	51.33	0	84	48397	0
	Time	44.42	121.61	31.16	1000.08	48.37	0	100	97717	0
	KS	44.42	61.02	27.94	1001.93	51.08	0	100	47783	0
	<u>Precomp.</u>	44.42	269.53	34.65	1000.07	48.51	0	100	33088	193
	I & T & K	44.42	21.83	36.21	1002.66	50.41	0	100	100206	0
	I & T & P	43.88	160.00	31.38	1001.30	49.42	0	92	74804	200
	I & K & P	44.97	50.22	38.94	1001.37	51.55	0	92	30579	240
	T & K & P	44.42	25.70	36.01	1004.70	51.42	0	100	116391	139
	I & T & K & P	44.42	27.77	34.55	1003.87	50.99	0	100	108747	222
30	Def.	46.59	404.60	31.22	1000.16	53.78	0	68	25696	0
	Int.	47.48	414.57	38.56	1000.02	56.08	0	68	15427	0
	Time	46.35	250.84	36.17	1005.87	54.53	0	81	24797	0
	KS	46.67	217.23	37.94	1002.88	54.80	0	87	14987	0
	<u>Precomp.</u>	44.03	355.23	38.81	1000.02	50.26	0	62	22953	230
	I & T & K	46.31	137.33	33.97	1000.67	55.35	0	100	37213	0
	I & T & P	46.31	360.30	32.50	1003.46	56.56	0	100	22216	193
	I & K & P	46.16	149.11	37.66	1001.11	58.12	0	81	8031	152
	T & K & P	46.20	116.52	40.52	1004.80	55.21	0	93	27549	146
	I & T & K & P	46.31	117.41	36.88	1005.47	54.23	0	100	26285	158

Table 3: Res Family 2

#tasks \	config	root gap	time 1 st sol	gap 1 st sol	time end	gap end	%opt	%solv.	#node	#cut
20	Def.	30.35	62.03	18.83	1000.13	32.96	0	100	117381	0
	Int.	30.35	53.31	19.43	1000.01	33.32	0	100	215383	0
	Time	30.35	18.67	28.02	1000.06	31.05	0	100	188944	0
	KS	30.35	37.05	22.47	1003.75	34.28	0	100	175894	0
	<u>Preemp.</u>	30.35	111.35	19.47	1000.20	30.58	0	100	125944	418
	I & T & K	30.35	18.08	17.79	1007.83	33.57	0	100	188099	0
	I & T & P	30.35	33.06	16.65	1005.55	32.19	0	100	161381	332
	I & K & P	30.35	10.62	27.01	1000.01	33.96	0	100	176805	294
	T & K & P	30.35	12.32	21.69	1005.85	33.91	0	100	203035	360
	I & T & K & P	31.99	20.51	18.39	1004.73	36.34	0	75	211407	287
25	Def.	42.59	224.00	21.95	1001.97	43.30	0	80	60008	0
	Int.	39.60	318.51	19.04	1003.38	41.09	0	60	20843	0
	Time	42.59	84.84	24.34	1000.26	45.15	0	80	78680	0
	KS	42.59	102.73	32.20	1002.90	45.32	0	80	30308	0
	<u>Preemp.</u>	42.59	307.44	20.89	1000.01	46.38	0	80	35363	200
	I & T & K	42.59	78.27	25.88	1000.16	44.77	0	80	69517	0
	I & T & P	43.95	32.06	23.85	1000.01	45.28	0	60	68557	197
	I & K & P	42.59	350.75	21.68	1000.02	45.93	0	80	16081	279
	T & K & P	42.59	96.22	22.46	1002.12	45.46	0	80	72479	298
	I & T & K & P	42.59	107.58	17.76	1010.22	45.57	0	80	53856	142
30	Def.	38.14	907.12	13.77	1000.01	46.26	0	20	2800	0
	Int.	34.58	611.11	6.73	1000.31	34.58	0	40	4848	0
	Time	38.73	642.12	23.75	1000.02	48.48	0	60	9454	0
	KS	52.63	551.92	18.75	1000.02	58.46	0	60	4560	0
	<u>Preemp.</u>	0.00	0.00	0.00	1000.00	0.00	0	0	0	0
	I & T & K	47.19	224.36	24.37	1003.44	52.09	0	100	19887	0
	I & T & P	47.23	554.03	22.76	1000.08	52.55	0	80	9688	384
	I & K & P	43.38	466.21	23.54	1000.01	51.74	0	40	2259	371
	T & K & P	47.19	304.05	31.60	1003.26	51.79	0	100	17328	197
	I & T & K & P	42.98	160.94	22.76	1010.44	48.34	0	80	13136	285

Table 4: Res Family 3