

A Heuristic Approach to Schedule Reoptimization in the Context of Interactive Optimization

Auxiliary Material

This document is a supplement to the article “A Heuristic Approach to Schedule Reoptimization in the Context of Interactive Optimization”. The detailed results of the proposed Iterative Local Search (ILS) procedure, on the *Sprint* instances of the INRC2010 benchmark are reported in Table 1 and 2. The results have been obtained on a PC with an Intel Core i5 processor 2.5GHz and 8GB of memory. The time limit, given by the INRC2010 time benchmark, has been set to 9.5 seconds. Only one thread has been used by the ILS procedure, and the parameter α has been set to 5%. 20 runs have been performed on each instance.

Instance	Average	Standard deviation	Best of 20 runs
Sprint 1	56.55	0.59	56
Sprint 2	58.60	0.66	58
Sprint 3	51.95	0.74	51
Sprint 4	60.45	0.80	59
Sprint 5	58.30	0.46	58
Sprint 6	54.45	0.50	54
Sprint 7	57.20	0.68	56
Sprint 8	56.65	0.57	56
Sprint 9	56.00	0.63	55
Sprint 10	53.05	0.86	52
Sprint hidden 1	35.30	1.62	32
Sprint hidden 2	33.90	1.22	32
Sprint hidden 3	64.95	2.25	62
Sprint hidden 4	69.15	1.24	67
Sprint hidden 5	61.95	1.66	60
Sprint hidden 6	142.05	6.91	132
Sprint hidden 7	162.65	7.09	153
Sprint hidden 8	222.40	9.76	209
Sprint hidden 9	350.40	6.12	340
Sprint hidden 10	325.55	11.10	306
Sprint hint 1	79.35	2.67	77
Sprint hint 2	47.95	2.04	45
Sprint hint 3	60.45	3.38	56
Sprint late 1	40.60	1.36	38
Sprint late 2	41.05	1.32	39
Sprint late 3	50.65	1.24	48
Sprint late 4	83.00	3.85	76
Sprint late 5	46.20	0.75	45
Sprint late 6	42.75	0.62	42
Sprint late 7	46.75	1.84	45
Sprint late 8	17.00	0.00	17
Sprint late 9	17.05	0.22	17
Sprint late 10	47.95	2.04	45

Table 1: Computational results of ILS on *Sprint* instances of the INRC2010 benchmark.

Instance	Run																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Sprint 1	57	56	56	57	56	57	57	58	56	56	56	56	56	56	57	56	57	57	57	57
Sprint 2	58	59	58	58	59	58	59	58	58	59	59	58	60	58	58	60	58	59	59	59
Sprint 3	52	52	52	51	51	52	52	51	51	52	52	53	53	52	52	53	51	53	53	51
Sprint 4	62	61	60	60	60	60	59	62	60	60	62	61	60	61	60	61	60	60	60	60
Sprint 5	58	58	58	58	58	58	58	58	58	58	59	58	59	58	59	58	59	58	59	59
Sprint 6	55	54	54	54	54	54	55	55	55	54	55	54	54	55	54	54	55	54	55	55
Sprint 7	57	58	58	57	58	57	56	56	57	57	58	58	57	57	57	57	58	58	56	57
Sprint 8	56	57	57	57	57	57	57	58	57	56	56	57	57	57	56	57	56	56	56	56
Sprint 9	57	57	56	56	55	56	55	56	56	56	55	56	56	57	56	56	56	56	55	56
Sprint 10	54	52	55	53	52	53	54	53	52	52	52	53	54	53	53	54	54	53	52	53
Sprint hidden 1	37	38	39	34	34	34	32	35	36	35	33	36	35	35	35	36	36	35	34	37
Sprint hidden 2	34	34	33	33	34	34	34	35	32	35	33	33	35	38	33	33	34	33	34	34
Sprint hidden 3	63	65	64	62	67	70	67	63	66	64	66	62	62	67	68	62	64	66	67	64
Sprint hidden 4	68	68	70	71	69	69	68	68	69	69	68	70	72	72	70	67	69	71	68	69
Sprint hidden 5	64	64	60	62	61	62	60	64	66	60	60	61	61	61	64	63	62	62	61	61
Sprint hidden 6	135	136	160	139	146	145	152	139	142	137	133	150	140	146	132	146	137	148	136	142
Sprint hidden 7	156	172	170	182	156	161	157	166	153	171	167	161	166	157	156	161	161	158	156	166
Sprint hidden 8	223	212	213	217	214	223	211	242	211	233	230	231	231	226	209	220	235	221	235	211
Sprint hidden 9	350	350	361	347	358	351	349	342	347	344	356	360	343	340	347	352	344	359	354	354
Sprint hidden 10	328	333	316	325	314	323	318	306	334	345	325	345	345	325	327	316	325	332	323	306
Sprint hint 1	79	77	78	77	77	79	79	80	82	89	77	79	80	79	80	77	77	81	81	79
Sprint hint 2	46	50	48	50	46	46	50	47	46	46	52	47	51	47	48	46	51	48	49	45
Sprint hint 3	57	67	59	65	56	57	68	63	57	59	62	56	61	60	58	61	63	59	59	62
Sprint late 1	39	42	39	39	41	41	41	40	39	43	41	41	42	41	38	39	40	42	42	42
Sprint late 2	40	39	41	41	40	41	44	39	41	41	41	40	41	41	44	41	41	40	42	43
Sprint late 3	52	51	51	51	50	48	52	51	50	51	49	49	51	50	51	50	50	51	54	51
Sprint late 4	76	91	86	81	84	86	85	89	80	78	82	86	85	82	82	87	80	80	77	83
Sprint late 5	46	46	46	47	46	45	47	46	46	48	46	46	45	46	46	47	46	47	45	47
Sprint late 6	43	43	42	43	43	42	43	43	43	43	44	44	42	42	43	42	43	43	42	42
Sprint late 7	46	46	46	46	46	45	48	47	48	46	46	45	45	51	46	50	51	46	45	46
Sprint late 8	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Sprint late 9	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
Sprint late 10	46	50	48	50	46	46	50	47	46	46	52	47	51	47	48	46	51	48	49	45

Table 2: Individual run values obtained by ILS on *Sprint* instances of the INRC2010 benchmark.