The FF Heuristic for Lifted Classical Planning: Technical Appendix

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Table 1 below is an extension of Table 2 in the paper "*The FF Heuristic for Lifted Classical Planning*" (Corrêa et al. 2022). It contains the coverage per-domain for both benchmark sets.

References

Corrêa, A. B.; Pommerening, F.; Helmert, M.; and Francès, G. 2022. The FF Heuristic for Lifted Classical Planning. In Honavar, V.; and Spaan, M., eds., *Proceedings of the Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI 2022)*. AAAI Press.

	Datalog-Based Heuristics						Other Lifted Methods			Fast Downward	
	Eager			Lazy + PO			Eager			Eager	Lazy + PO
Coverage	h^{add}	h^{FF}	$h^{\text{R-FF}}$	h^{add}	h^{FF}	$h^{\text{R-FF}}$	h^{gc}	$h^{\text{gc, ur-d}}$	$h^{\text{gc, ur}}$	h^{FF}	h^{FF}
airport (50)	25	28	31	27	26	**31**	26	21	22	36	**37**
barman-sat14 (20)	0	0	0	0	**20**	18	0	0	0	11	12
blocks (35)	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**
childsnack-sat14 (20)	0	0	0	7	0	0	0	0	0	1	**9**
depot (22)	9	15	8	17	20	**21**	14	11	11	17	18
driverlog (20)	15	16	17	14	14	14	19	14	14	18	**20**
freecell (80)	76	77	76	76	76	77	30	44	43	79	**80**
grid (5)	2	4	3	4	**5**	**5**	3	0	0	4	4
gripper (20)	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**
logistics00 (28)	**28**	**28**	**28**	**28**	**28**	**28**	**28**	25	25	**28**	**28**
logistics98 (35)	16	20	19	24	32	32	5	5	5	29	**33**
miconic (150)	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	145	**150**	**150**
movie (30)	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**
mystery (30)	**18**	16	16	17	17	17	15	3	3	17	**18**
nomystery-sat11 (20)	1	3	3	6	7	7	5	1	2	**10**	9
openstacks (30)	18	26	19	21	28	17	8	29	29	29	**30**
parking-sat11 (20)	13	**20**	18	**20**	**20**	**20**	0	0	0	**20**	**20**
parking-sat14 (20)	2	**20**	11	15	**20**	18	0	0	0	14	16
pipesworld-notankage (50)	23	28	24	37	39	38	35	15	14	31	**42**
pipesworld-tankage (50)	12	13	12	18	25	25	21	9	9	23	**41**
psr-small (50)	42	47	47	**50**	**50**	**50**	48	47	47	**50**	**50**
rovers (40)	15	18	19	39	**40**	**40**	18	28	29	26	**40**
satellite (36)	27	22	22	35	34	34	13	19	16	28	**36**
thoughtful-sat14 (20)	7	14	**17**	12	11	16	5	5	5	8	11
tpp (30)	15	15	15	28	**30**	**30**	12	13	13	23	**30**
trucks (30)	8	9	8	7	8	8	5	7	7	15	**19**
visitall-sat11 (20)	2	8	9	2	11	11	**20**	**20**	**20**	3	4
visitall-sat14 (20)	0	0	0	0	4	4	**12**	11	**12**	0	0
zenotravel (20)	**20**	**20**	**20**	**20**	**20**	**20**	**20**	13	13	**20**	**20**
IPC Sum (1001)	629	702	677	759	820	816	597	575	569	775	**862**
blocksworld-large (40)	1	4	0	6	9	4	4	7	7	4	**12**
childsnacks-large (144)	34	27	30	82	73	69	26	98	65	51	**115**
genome-edit-distance (312)	185	294	225	289	311	310	**312**	**312**	**312**	**312**	**312**
logistics-large (40)	8	9	9	**40**	**40**	**40**	20	0	0	30	32
organic-synthesis (56)	47	48	48	**49**	48	**49**	48	47	47	20	20
pipesworld-tankage-nosplit (50)	22	23	25	28	**32**	**32**	22	10	12	15	19
rovers-large (40)	11	36	36	**40**	**40**	**40**	1	16	14	11	13
visitall-multidimensional (180)	118	101	104	143	143	143	65	**151**	102	72	72
HTG Sum (862)	426	542	477	677	**696**	687	498	641	559	515	595
Total Sum (1863)	1055	1244	1154	1436	**1516**	1503	1095	1216	1128	1290	1457

Table 1: Coverage per-domain for all tested methods over both benchmark sets. Best results shown in bold typeface.