

results

Udacity AIND Project 2 Planning Run Search Results – July 2018

Air Cargo Problem 1		Actions	Expansions	Goal Tests	New Nodes	Plan Length	Time (python3)	Time (pypy3)
uninformed search								
1	breadth_first_search	20	43	56	178	6	0.014598817	0.023811796
2	depth_first_graph_search	20	21	22	84	20	0.006951313	0.009618925
3	uniform_cost_search	20	60	62	240	6	0.016808189	0.017927114
greedy_best_first_graph_search								
4	h_unmet_goals	20	7	9	29	6	0.001001224	0.001633515
5	h_pg_levelsum	20	6	8	28	6	0.837734495	0.730893023
6	h_pg_maxlevel	20	6	8	24	6	0.256463023	0.117956296
7	h_pg_setlevel	20	6	8	28	6	2.593834551	0.882086453
astar_search								
8	h_unmet_goals	20	50	52	206	6	0.00605541	0.011246378
9	h_pg_levelsum	20	28	30	122	6	2.16099925	0.534907814
10	h_pg_maxlevel	20	43	45	180	6	0.88224426	0.261162691
11	h_pg_setlevel	20	33	35	138	6	6.930685965	1.3706316

Air Cargo Problem 2		Actions	Expansions	Goal Tests	New Nodes	Plan Length	Time (python3)	Time (pypy3)
uninformed search								
1	breadth_first_search	72	3343	4609	30503	9	1.304245606	0.337785426
2	depth_first_graph_search	72	624	625	5602	619	1.802513191	0.496396211
3	uniform_cost_search	72	5154	5156	46618	9	2.027296161	0.571888791
greedy_best_first_graph_search								
4	h_unmet_goals	72	17	19	170	9	0.012030344	0.009136501
5	h_pg_levelsum	72	9	11	86	9	21.613074295	3.692731617
6	h_pg_maxlevel	72	27	29	249	9	13.67148084	2.649279092
7	h_pg_setlevel	72	9	11	84	9	70.910037417	11.851160706
astar_search								
8	h_unmet_goals	72	2467	2469	22522	9	1.368463879	0.673549578
9	h_pg_levelsum	72	357	359	3426	9	526.369943708	106.94428423
10	h_pg_maxlevel	72	2887	2889	26594	9	1305.662411375	250.266466691
11	h_pg_setlevel	72	1037	1039	9605	9	5335.981300321	890.48271614

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Air Cargo Problem 3		Actions	Expansions	Goal Tests	New Nodes	Plan Length	Time (python3)	Time (pypy3)
uninformed search								
1	breadth_first_search	88	14663	18098	129625	12	6.529805299	0.947339138
2	depth_first_graph_search	88	408	409	3364	392	0.699610553	0.257007012
3	uniform_cost_search	88	18510	18512	161936	12	9.141016173	1.413229058
greedy_best_first_graph_search								
4	h_unmet_goals	88	25	27	230	15	0.026324797	0.020584356
5	h_pg_levelsum	88	14	16	126	14	44.406597397	11.83760229
6	h_pg_maxlevel	88	21	23	195	13	18.491756961	3.709348562
7	h_pg_setlevel	88	35	37	345	17	342.361170865	57.184571421
astar_search								
8	h_unmet_goals	88	7388	7390	65711	12	5.14607621	1.376859467
9	h_pg_levelsum	88	369	371	3403	12	838.089751705	156.706902662
10	h_pg_maxlevel	88	9580	9582	86312	12	Not run	1259.335336112
11	h_pg_setlevel	88	3423	3425	31596	12	Not run	4236.97163035

Air Cargo Problem 4		Actions	Expansions	Goal Tests	New Nodes	Plan Length	Time (python3)	Time (pypy3)
uninformed search								
1	breadth_first_search	104	99736	114953	944130	14	57.795239441	6.001156547
2	depth_first_graph_search	104	25174	25175	228849	24132	2489.116236758	1112.628073653
3	uniform_cost_search	104	113339	113341	1066413	14	72.545209727	11.360931355
greedy_best_first_graph_search								
4	h_unmet_goals	104	29	31	280	18	0.046175466	0.044849814
5	h_pg_levelsum	104	17	19	165	17	84.504157846	14.502743878
6	h_pg_maxlevel	104	56	58	580	17	63.890922664	10.10761648
7	h_pg_setlevel	104	107	109	1164	23	1797.978454814	232.459051012
astar_search								
8	h_unmet_goals	104	34330	34332	328509	14	37.320165358	4.113155945
9	h_pg_levelsum	104	1208	1210	12210	15	4949.412996867	776.447068099
10	h_pg_maxlevel	104	62077	62079	599376	14	Not run	11914.10174954 Over 3 hours
11	h_pg_setlevel	104	22606	22608	224229	14	Not run	39854.09688239 11 hours overnight