85s Time Limit Analysis - Data

N	Density	Index	ls_name	move_strg	rmr_duratio	number_of_run	fo_max	fo_mean	fo_sd	n_moves_mean	n_moves_sd	mean2_round_tim	relative fo dif
1000	1	1	bs_array	best_move	85.047	703	210545	208278.485	639.586851	758.736842	20.219785	0	
1000	1	1	bs_array	first_move	85.002	22653	211080	208550.838	620.0062	1061.800335	28.972743	0	
1000	1	1	tree	best_move	85.016	3992	210727	208254.248	620.908037	758.313627	20.498065	0	
1000	1	1	tree	first_move	85.004	7463	210735	208549.738	618.28804	1061.872035	28.485923	0	
1000	1	1	basic	first_move	85.122	939	210446	208562.123	632.559604	1061.365282	28.307638	0	
1000	1	2	bs_array	best_move	85.065	719	206405	204409.944	628.475998	754.598053	20.235087	0	
1000	1	2	bs_array	first_move	85.001	22908	206906	204636.545	599.910409	1060.168413	28.84487	0	
1000	1	2	tree	best_move	85.013	4084	206749	204419.269	618.415698	753.833986	20.079088	0	
1000	1	2	tree	first_move	85.005	7877	206691	204642.423	600.618433	1060.355846	28.786973	0	
1000	1	2	basic	first_move	85.007	932	206189	204634.733	590.259334	1060.458155	28.625324	0	
1000	1	3	bs_array	best_move	85.056	736	204475	203048.824	569.370236	748.305707	19.871127	0	
1000	1	3	bs_array	first_move	85.001	23542	205556	203258.935	573.829224	1051.541373	28.372548	0	
1000	1	3	tree	best_move	85.011	4213	205110	203033.954	571.950375	748.602421	19.610636	0	
1000	1	3	tree	first_move	85.013	8341	205672	203257.006	579.498959	1051.93442	28.450073	0	
1000	1	3	basic	first_move	85.03	964	205138	203247.940	577.865345	1051.789419	28.480033	0	
1000	1	4	bs_array	best_move	85.114	717	213386	211538.451	609.465685	759.317992	20.284088	0	
1000	1	4	bs_array	first_move	85.004	22726	213986	211773.777	604.537102	1069.36214	28.630343	0	
1000	1	4	tree	best_move	85.018	4055	213541	211511.388	589.583559	759.516646	19.531508	0	
1000	1	4	tree	first_move	85.001	7798	213766	211781.007	591.01381	1069.637086	28.885991	0	
1000	1	4	basic	first_move	85.019	889	214087	211807.473	613.75806	1069.872891	29.756126	0	
1000	1	5	bs_array	best_move	85.077	719	211427	209819.663	619.425393	758.16968	21.253857	0	
1000	1	5	bs_array	first_move	85.001	22523	212510	210013.550	614.505376	1063.658704	28.871376	0	
1000	1	5	tree	best_move	85.014	4010	212074	209851.054	610.674155	756.900499	20.06709	0	
1000	1	5	tree	first_move	85.003	7490	212248	210030.622	619.86509	1063.824566	28.555816	0	
1000	1	5	basic	first_move	85.063	930	211674	210002.103	624.48721	1064.921505	27.52495	0	
1000	5	1	bs_array	best_move	85.132	223	856865	853135.533	1523.10604	1151.591928	40.492476	0	
1000	5	1	bs_array	first_move	85.015	3763	858973	854168.461	1439.37091	1775.59341	52.821597	0	
1000	5	1	tree	best_move	85.081	777	858218	853190.727	1547.35243	1149.595882	40.871288	0	
1000	5	1	tree	first_move	85.046	684	858450	854292.706	1434.10397	1779.913743	52.319837	0	
1000	5	1	basic	first_move	85.138	566	858905	854135.524	1452.15148	1776.883392	51.228621	0	
1000	5	2	bs_array	best_move	85.058	222	862031	857685.373	1521.96923	1156.509009	39.426833	0	
1000	5	2	bs_array	first_move	85.012	3722	864274	858683.357	1499.66469	1783.432563	54.379519	0	
1000	5	2	tree	best_move	85.055	769	863482	857658.685	1552.51940	1152.721717	41.273304	0	
1000	5	2	tree	first_move	85.102	676	863695	858589.278	1572.52732	1782.315089	52.953059	0	
1000	5	2	basic	first_move	85.089	579	862888	858640.664	1548.19245	1785.697755	53.470604	0	
1000	5	3	bs_array	best_move	85.289	224	865835	862810.857	1404.01637	1149.334821	42.632561	0	
1000	5	3	bs_array	first_move	85.01	3748	869131	863893.345	1443.00685	1781.233725	52.945183	0	
1000	5	3	tree	best_move	85.026	770	867295	862875.353	1546.83542	1150.51039	40.458997	0	
1000	5	3	tree	first_move	85.036	680	868187	863847.939	1516.28568	1781.727941	55.13455	0	
1000	5	3	basic	first_move	85.039	616	867989	863836.379	1369.43489	1777.301948	54.144975	0	
1000	5	4	bs_array	best_move	85.156	224	866398	862037.598	1625.87247	1147.683036	41.098558	0	
1000	5	4	bs_array	first_move	85.004	3768	868482	863135.889	1445.45188	1775.844214	53.078637	0	
1000	5	4	tree	best_move	85.083	780	866386	862038.748	1492.58649	1147.073077	40.207711	0	
1000	5	4	tree	first_move	85.125	686	867134	863149.701	1531.63143	1772.900875	55.606217	0	
1000	5	4	basic	first_move	85.049	591	867489	863044.453	1484.85419	1774.725888	54.481056	0	
1000	5	5	bs_array	best_move	85.201	224	860558	856673.642	1522.92303	1150.473214	42.647948	0	
1000	5	5	bs_array	first_move	85.007	3757	862678	857720.985	1510.44961	1784.066542	53.618998	0	
1000	5	5	tree	best_move	85.093	756	861589	856634.920	1604.61266	1149.194444	40.741806	0	
1000	5	5	tree	first_move	85.078	673	863317	857753.472	1540.68626	1782.092125	53.450152	0	
1000	5	5	basic	first_move	85.075	570	861876	857650.291	1504.83543	1783.422807	54.294859	0	
1000	10	1	bs_array	best_move	85.597	126	1606672	1602408.89	1876.64824	1308.634921	48.802908	0	
1000	10	1	bs_array	first_move	85.017	1364	1610644	1604014.45	2132.97529	2122.829179	69.020829	0	
1000	10	1	tree	best_move	85.092	297	1608684	1602743.60	2321.84193	1316.6633	52.677864	0	
1000	10	1	tree	first_move	85.001	217	1609352	1603995.35	2244.78303	2118.211982	73.199313	0	
1000	10	1	basic	first_move	85.144	449	1609903	1604021.89	2065.55288	2121.895323	68.762236	0	
1000	10	2	bs_array	best_move	85.383	124	1627199	1622055.95	2259.87938	1320.330645	48.07466	0	
1000	10	2	bs_array	first_move	85.055	1356	1631673	1623566.89	2155.85810	2123.360619	69.705071	0	
1000	10	2	tree	best_move	85.006	293	1629761	1621965.96	2285.73850	1317.215017	53.708716	0	
1000	10	2	tree	first_move	85.143	216	1629731	1623771.18	2180.64775	2125.328704	70.07191	0	
1000	10	2	basic	first_move	85.213	470	1629224	1623669.13	2196.20837	2124.657447	69.609455	0	
1000	10	3	bs_array	best_move	85.232	124	1626905	1621497.04	2141.30179	1319.959677	57.826966	0	
1000	10	3	bs_array	first_move	85.006	1361	1630446	1623184.13	2093.32779	2123.286554	70.83245	0	
1000	10	3	tree	best_move	85.074	300	1628102	1621699.83	2363.85844	1321.3	51.598934	0	
1000	10	3	tree	first_move	85.035	223	1629588	1623102.43	2127.48866	2118.147982	70.348527	0	
1000	10	3	basic	first_move	85.139	477	1630317	1623086.61	2128.81577	2123.366876	66.247468	0	
1000	10	4	bs_array	best_move	85.365	124	1624034	1617200.37	2076.94693	1323.629032	51.238448	0	
1000	10	4	bs_array	first_move	85.003	1362	1625210	1618525.61	1976.18682	2122.0837	68.39826	0	
1000	10	4	tree	best_move	85.008	302	1623216	1617144.75	2171.54780	1315.31457	55.290357	0	
1000	10	4	tree	first_move	85.223	223	1624517	1618444.78	2134.05934	2119.452915	72.531894	0	
1000	10	4	basic	first_move	85.168	422	1624457	1618628.46	2060.78120	2123.490521	69.85787	0	

85s Time Limit Analysis - Data

1000	10	5	bs_array	best_move	85.198	124	1622785	1616346.45	2278.65339	1318.556452	57.520866	0
1000	10	5	bs_array	first_move	85.057	1354	1624266	1617787.24	2051.11207	2120.902511	66.780042	0
1000	10	5	tree	best_move	85.155	295	1622811	1616565.72	2311.03558	1318.922034	56.486363	0
1000	10	5	tree	first_move	85.162	219	1622992	1617588.46	2002.30862	2120.607306	66.683955	0
1000	10	5	basic	first_move	85.107	454	1624151	1617933.20	2004.77690	2118.788546	71.361426	0
1000	50	1	bs_array	best_move	88.646	21	8080185	8067982.47	5939.56867	1676.952381	85.248922	2
1000	50	1	bs_array	first_move	85.14	82	8081427	8070350.58	4021.06630	3027.304878	129.277796	0
1000	50	1	tree	best_move	85.486	27	8074227	8068952.96	4168.30658	1708.592593	90.293455	1
1000	50	1	tree	first_move	88.048	17	8079901	8071299.70	5054.17598	2976.294118	137.439084	1
1000	50	1	basic	first_move	85.329	276	8085394	8069962.47	4517.99153	3011.485507	122.163245	0
1000	50	2	bs_array	best_move	85.612	20	8072885	8065315.4	4726.07759	1691.1	84.666345	2
1000	50	2	bs_array	first_move	85.531	83	8079490	8068253.80	4559.77059	2997.13253	122.755489	0
1000	50	2	tree	best_move	85.285	27	8074375	8066658.81	4714.98516	1687.925926	92.90773	1
1000	50	2	tree	first_move	89.805	17	8075718	8068871.11	3232.87815	3011.411765	110.136311	1
1000	50	2	basic	first_move	85.247	268	8080107	8068980.60	4858.19243	3030.175373	130.152763	0
1000	50	3	bs_array	best_move	86.42	20	8072887	8065403.3	3855.79982	1715.8	93.827821	2
1000	50	3	bs_array	first_move	85.04	82	8079116	8066876.5	4501.65041	3024.817073	128.718271	0
1000	50	3	tree	best_move	86.442	27	8076225	8065988.37	5470.26144	1716.814815	101.816479	1
1000	50	3	tree	first_move	87.68	17	8070236	8064555.29	4146.13031	2947.294118	105.558885	1
1000	50	3	basic	first_move	85.158	300	8081323	8066265.54	4573.03434	3011.48	132.3296	0
1000	50	4	bs_array	best_move	88.983	21	8075375	8065309.38	5239.02443	1679.190476	78.177831	2
1000	50	4	bs_array	first_move	85.036	83	8081254	8068816.68	4984.40161	2988.337349	141.084891	0
1000	50	4	tree	best_move	87.203	28	8077876	8066819.39	4619.59857	1664.5	84.018918	1
1000	50	4	tree	first_move	89.113	17	8077041	8068566.47	4945.12167	3011.352941	120.68137	1
1000	50	4	basic	first_move	85.147	276	8084693	8069413.53	4675.69270	3023.119565	131.839701	0
1000	50	5	bs_array	best_move	85.18	20	8075873	8063906.65	4538.86359	1687.65	88.973746	2
1000	50	5	bs_array	first_move	85.029	82	8074835	8065799.52	4822.50401	3019.817073	128.837876	0
1000	50	5	tree	best_move	85.685	27	8071794	8064356.70	4899.49510	1694.037037	84.017847	1
1000	50	5	tree	first_move	89.481	17	8071560	8065072	3476.78081	3006.705882	117.217126	1
1000	50	5	basic	first_move	85.221	296	8077997	8065083.87	4507.61536	3007.047297	119.462582	0
1000	100	1	bs_array	best_move	88.051	9	2575862	25754329.1	2620.70300	1801.777778	85.823822	4.222222
1000	100	1	bs_array	first_move	87.01	24	2576863	25760862.2	4361.53482	3396.166667	146.13255	0
1000	100	1	tree	best_move	87.449	11	2576313	25757796.5	2687.45072	1825.909091	65.67614	3
1000	100	1	tree	first_move	97.752	7	2576729	25760514.1	4042.36845	3374	117.293283	3
1000	100	1	basic	first_move	85.155	226	2577106	25759466.0	4987.22209	3398.929204	141.893748	0
1000	100	2	bs_array	best_move	92.317	9	2576650	25760953.6	3594.39219	1893.333333	110.804131	4.222222
1000	100	2	bs_array	first_move	88.414	24	2577293	25762421.4	4248.10878	3449.333333	177.837629	0
1000	100	2	tree	best_move	88.496	11	2576977	25760414.0	4668.02302	1823.454545	106.91999	3
1000	100	2	tree	first_move	99.083	7	2576691	25760454.7	4742.23257	3407	111.502723	3
1000	100	2	basic	first_move	85.016	228	2577323	25760603.7	4998.15689	3408.72807	165.446858	0
1000	100	3	bs_array	best_move	90.03	9	2579760	25792954.1	3120.81848	1841.666667	69.447022	4.111111
1000	100	3	bs_array	first_move	86.865	24	2580249	25794452.5	3971.72018	3365.75	146.070545	0
1000	100	3	tree	best_move	85.31	11	2579950	25793105.9	4269.85984	1769	59.022338	3
1000	100	3	tree	first_move	97.136	7	2579862	25794662.7	4136.55694	3340	104.683196	3
1000	100	3	basic	first_move	85.191	224	2580800	25795078.8	5017.94587	3391.450893	165.742343	0
1000	100	4	bs_array	best_move	88.893	9	2581915	25809034.1	5423.53957	1813.111111	108.388647	4.444444
1000	100	4	bs_array	first_move	87.247	24	2581587	25807152.5	5685.15058	3393.791667	128.972213	0
1000	100	4	tree	best_move	88.533	11	2581677	25805756.2	5121.03427	1834.636364	127.322263	3
1000	100	4	tree	first_move	97.025	7	2581675	25807096	7265.98261	3336.142857	231.223719	3
1000	100	4	basic	first_move	85.04	229	2582134	25807450.6	5624.06034	3424.812227	170.124985	0
1000	100	5	bs_array	best_move	88.092	9	2576728	25760529.5	4343.23767	1796.888889	86.815826	4.111111
1000	100	5	bs_array	first_move	85.305	23	2577479	25765722.2	4513.99688	3495.26087	150.857611	0
1000	100	5	tree	best_move	86.834	11	2576990	25762560.9	4332.32938	1802.363636	76.522454	3
1000	100	5	tree	first_move	85.741	6	2577025	25763422.1	4139.61400	3447.666667	135.989787	3
1000	100	5	basic	first_move	85.401	226	2577648	25763414.1	4821.69429	3419.783186	156.37283	0

85s Time Limit Analysis - Best Solution

N	Density	Index	Best F	Algorithm	Strategy	# Runs	F Mean	F SD	SD Distance Factor	Field
1000	1	1	211080	bs_array	first_move	22653	208550.838	620.0062	4.079251632	fo_max
1000	1	2	206906	bs_array	first_move	22908	204636.545	599.910409	3.782989131	
1000	1	3	205672	tree	first_move	8341	203257.006	579.498959	4.167381785	
1000	1	4	214087	basic	first_move	889	211807.473	613.75806	3.714047249	
1000	1	5	212510	bs_array	first_move	22523	210013.550	614.505376	4.062535124	
1000	5	1	858973	bs_array	first_move	3763	854168.461	1439.37091	3.337943426	
1000	5	2	864274	bs_array	first_move	3722	858683.357	1499.66469	3.727928267	
1000	5	3	869131	bs_array	first_move	3748	863893.345	1443.00685	3.62968094	
1000	5	4	868482	bs_array	first_move	3768	863135.889	1445.45188	3.698574131	
1000	5	5	863317	tree	first_move	673	857753.472	1540.68626	3.61107101	
1000	10	1	1610644	bs_array	first_move	1364	1604014.45	2132.97529	3.108122443	
1000	10	2	1631673	bs_array	first_move	1356	1623566.89	2155.85810	3.760034582	
1000	10	3	1630446	bs_array	first_move	1361	1623184.13	2093.32779	3.469053572	
1000	10	4	1625210	bs_array	first_move	1362	1618525.61	1976.18682	3.382464882	
1000	10	5	1624266	bs_array	first_move	1354	1617787.24	2051.11207	3.158656144	
1000	50	1	8085394	basic	first_move	276	8069962.47	4517.99153	3.415571196	
1000	50	2	8080107	basic	first_move	268	8068980.60	4858.19243	2.290233594	
1000	50	3	8081323	basic	first_move	300	8066265.54	4573.03434	3.292661327	
1000	50	4	8084693	basic	first_move	276	8069413.53	4675.69270	3.267851069	
1000	50	5	8077997	basic	first_move	296	8065083.87	4507.61536	2.864736085	
1000	100	1	25771063	basic	first_move	226	25759466.0	4987.22209	2.325335502	
1000	100	2	25773238	basic	first_move	228	25760603.7	4998.15689	2.527774772	
1000	100	3	25808006	basic	first_move	224	25795078.8	5017.94587	2.576177757	
1000	100	4	25821345	basic	first_move	229	25807450.6	5624.06034	2.470523909	
1000	100	5	25776481	basic	first_move	226	25763414.1	4821.69429	2.710015704	

85s Time Limit Analysis - Best Mean

N	Density	Index	Best F Mean	Algorithm	Strategy	# Runs	F Max	F SD	% Distance from Best F	Field
1000	1	1	208562.1235	basic	first_move	939	210446	632.559604	1.19%	fo_mean
1000	1	2	204642.4234	tree	first_move	7877	206691	600.618433	1.09%	
1000	1	3	203258.9357	bs_array	first_move	23542	205556	573.829224	1.17%	
1000	1	4	211807.4736	basic	first_move	889	214087	613.75806	1.06%	
1000	1	5	210030.6227	tree	first_move	7490	212248	619.86509	1.17%	
1000	5	1	854292.7061	tree	first_move	684	858450	1434.10397	0.54%	
1000	5	2	858683.3576	bs_array	first_move	3722	864274	1499.66469	0.65%	
1000	5	3	863893.3455	bs_array	first_move	3748	869131	1443.00685	0.60%	
1000	5	4	863149.7012	tree	first_move	686	867134	1531.63143	0.61%	
1000	5	5	857753.4725	tree	first_move	673	863317	1540.68626	0.64%	
1000	10	1	1604021.898	basic	first_move	449	1609903	2065.55288	0.41%	
1000	10	2	1623771.185	tree	first_move	216	1629731	2180.64775	0.48%	
1000	10	3	1623184.134	bs_array	first_move	1361	1630446	2093.32779	0.45%	
1000	10	4	1618628.462	basic	first_move	422	1624457	2060.78120	0.40%	
1000	10	5	1617933.207	basic	first_move	454	1624151	2004.77690	0.39%	
1000	50	1	8071299.706	tree	first_move	17	8079901	5054.17598	0.17%	
1000	50	2	8068980.604	basic	first_move	268	8080107	4858.19243	0.14%	
1000	50	3	8066876.5	bs_array	first_move	82	8079116	4501.65041	0.18%	
1000	50	4	8069413.533	basic	first_move	276	8084693	4675.69270	0.19%	
1000	50	5	8065799.524	bs_array	first_move	82	8074835	4822.50401	0.15%	
1000	100	1	25760862.25	bs_array	first_move	24	2576863	4361.53482	0.04%	
1000	100	2	25762421.46	bs_array	first_move	24	2577293	4248.10878	0.04%	
1000	100	3	25795078.88	basic	first_move	224	2580800	5017.94587	0.05%	
1000	100	4	25809034.11	bs_array	best_mov	9	2581915	5423.53957	0.05%	
1000	100	5	25765722.26	bs_array	first_move	23	2577479	4513.99688	0.04%	

85s Time Limit Analysis - Number of Runs

N	Density	Index	Algorithm bs_array	bs_array	tree	tree	basic		Property
		Strategy	best_move	first_move	best_move	first_move	first_move		number_of_runs
1000	1	1	703	22653	3992	7463	939		
1000	1	2	719	22908	4084	7877	932		
1000	1	3	736	23542	4213	8341	964		
1000	1	4	717	22726	4055	7798	889		
1000	1	5	719	22523	4010	7490	930		
1000	5	1	223	3763	777	684	566		
1000	5	2	222	3722	769	676	579		
1000	5	3	224	3748	770	680	616		
1000	5	4	224	3768	780	686	591		
1000	5	5	224	3757	756	673	570		
1000	10	1	126	1364	297	217	449		
1000	10	2	124	1356	293	216	470		
1000	10	3	124	1361	300	223	477		
1000	10	4	124	1362	302	223	422		
1000	10	5	124	1354	295	219	454		
1000	50	1	21	82	27	17	276		
1000	50	2	20	83	27	17	268		
1000	50	3	20	82	27	17	300		
1000	50	4	21	83	28	17	276		
1000	50	5	20	82	27	17	296		
1000	100	1	9	24	11	7	226		
1000	100	2	9	24	11	7	228		
1000	100	3	9	24	11	7	224		
1000	100	4	9	24	11	7	229		
1000	100	5	9	23	11	6	226		

#Runs First/# Runs Bes

N	Density	Index	bs_array factor	tree factor

85s Time Limit Analysis - Number of Runs

1000	1	1	32.22332859	1.869488978
1000	1	2	31.86091794	1.928746327
1000	1	3	31.98641304	1.979824353
1000	1	4	31.69595537	1.923057953
1000	1	5	31.32545202	1.867830424
1000	5	1	16.87443946	0.8803088803
1000	5	2	16.76576577	0.8790637191
1000	5	3	16.73214286	0.8831168831
1000	5	4	16.82142857	0.8794871795
1000	5	5	16.77232143	0.8902116402
1000	10	1	10.82539683	0.7306397306
1000	10	2	10.93548387	0.7372013652
1000	10	3	10.97580645	0.7433333333
1000	10	4	10.98387097	0.738410596
1000	10	5	10.91935484	0.7423728814
1000	50	1	3.904761905	0.6296296296
1000	50	2	4.15	0.6296296296
1000	50	3	4.1	0.6296296296
1000	50	4	3.952380952	0.6071428571
1000	50	5	4.1	0.6296296296
1000	100	1	2.666666667	0.6363636364
1000	100	2	2.666666667	0.6363636364
1000	100	3	2.666666667	0.6363636364
1000	100	4	2.666666667	0.6363636364
1000	100	5	2.555555556	0.5454545455

85s Time Limit Analysis - F Mean

		Algorithm	bs_array	bs_array	tree	tree	basic				Property
		Strategy	best_move	first_move	best_move	first_move	first_move				fo_mean
N	Density	Index									
1000	1	1	208278.4851	208550.8387	208254.2482	208549.7387	208562.1235				
1000	1	2	204409.9444	204636.5454	204419.2693	204642.4234	204634.7339				
1000	1	3	203048.8247	203258.9357	203033.9549	203257.0066	203247.9409				
1000	1	4	211538.4519	211773.7777	211511.3884	211781.0077	211807.4736				
1000	1	5	209819.6634	210013.5503	209851.0549	210030.6227	210002.1032				
1000	5	1	853135.5336	854168.4613	853190.7272	854292.7061	854135.5247				
1000	5	2	857685.3739	858683.3576	857658.6853	858589.2781	858640.6649				
1000	5	3	862810.8571	863893.3455	862875.3532	863847.9397	863836.3799				
1000	5	4	862037.5982	863135.8891	862038.7487	863149.7012	863044.4535				
1000	5	5	856673.6429	857720.9851	856634.9206	857753.4725	857650.2912				
1000	10	1	1602408.897	1604014.452	1602743.606	1603995.35	1604021.898				
1000	10	2	1622055.952	1623566.899	1621965.962	1623771.185	1623669.138				
1000	10	3	1621497.04	1623184.134	1621699.837	1623102.439	1623086.612				
1000	10	4	1617200.379	1618525.617	1617144.755	1618444.78	1618628.462				
1000	10	5	1616346.452	1617787.242	1616565.722	1617588.461	1617933.207				
1000	50	1	8067982.476	8070350.585	8068952.963	8071299.706	8069962.478				
1000	50	2	8065315.4	8068253.807	8066658.815	8068871.118	8068980.604				
1000	50	3	8065403.3	8066876.5	8065988.37	8064555.294	8066265.547				
1000	50	4	8065309.381	8068816.687	8066819.393	8068566.471	8069413.533				
1000	50	5	8063906.65	8065799.524	8064356.704	8065072	8065083.872				
1000	100	1	25754329.11	25760862.25	25757796.55	25760514.14	25759466.04				
1000	100	2	25760953.67	25762421.46	25760414.09	25760454.71	25760603.79				
1000	100	3	25792954.11	25794452.58	25793105.91	25794662.71	25795078.88				
1000	100	4	25809034.11	25807152.58	25805756.27	25807096	25807450.62				
1000	100	5	25760529.56	25765722.26	25762560.91	25763422.17	25763414.13				

85s Time Limit Analysis - F Mean

#First Strategy Value / Best Strategy Value

N	Density	Index	bs_array factor	tree factor
1000	1	1	1.001307642	1.001418893
1000	1	2	1.001108562	1.001091649
1000	1	3	1.00103478	1.001098593
1000	1	4	1.00111245	1.001274727
1000	1	5	1.000924065	1.000855692
1000	5	1	1.001210743	1.001291597
1000	5	2	1.001163578	1.001085039
1000	5	3	1.001254607	1.001127146
1000	5	4	1.001274064	1.00128875
1000	5	5	1.001222569	1.001305751
1000	10	1	1.001001963	1.000781001
1000	10	2	1.000931501	1.001112984
1000	10	3	1.001040454	1.000864897
1000	10	4	1.000819465	1.000803902
1000	10	5	1.000891387	1.000632662
1000	50	1	1.000293519	1.000290836
1000	50	2	1.000364326	1.000274253
1000	50	3	1.000182657	0.999822331
1000	50	4	1.000434863	1.000216576
1000	50	5	1.000234734	1.000088698
1000	100	1	1.000253671	1.000105506
1000	100	2	1.000056977	1.000001577
1000	100	3	1.000058096	1.000060357
1000	100	4	0.9999270981	1.000051916
1000	100	5	1.000201576	1.000033431

85s Time Limit Analysis - F Mean Relative

		Algorithm	bs_array	bs_array	tree	tree	basic			Property
		Strategy	best_move	first_move	best_move	first_move	first_move			fo_mean
N	Density	Index								
1000	1	1	0.1360%	0.0054%	0.1476%	0.0059%	0.0000%			
1000	1	2	0.1136%	0.0029%	0.1090%	0.0000%	0.0038%			
1000	1	3	0.1034%	0.0000%	0.1107%	0.0009%	0.0054%			
1000	1	4	0.1270%	0.0159%	0.1398%	0.0125%	0.0000%			
1000	1	5	0.1004%	0.0081%	0.0855%	0.0000%	0.0136%			
1000	5	1	0.1355%	0.0145%	0.1290%	0.0000%	0.0184%			
1000	5	2	0.1162%	0.0000%	0.1193%	0.0110%	0.0050%			
1000	5	3	0.1253%	0.0000%	0.1178%	0.0053%	0.0066%			
1000	5	4	0.1288%	0.0016%	0.1287%	0.0000%	0.0122%			
1000	5	5	0.1259%	0.0038%	0.1304%	0.0000%	0.0120%			
1000	10	1	0.1006%	0.0005%	0.0797%	0.0017%	0.0000%			
1000	10	2	0.1056%	0.0126%	0.1112%	0.0000%	0.0063%			
1000	10	3	0.1039%	0.0000%	0.0914%	0.0050%	0.0060%			
1000	10	4	0.0882%	0.0064%	0.0917%	0.0113%	0.0000%			
1000	10	5	0.0981%	0.0090%	0.0845%	0.0213%	0.0000%			
1000	50	1	0.0411%	0.0118%	0.0291%	0.0000%	0.0166%			
1000	50	2	0.0454%	0.0090%	0.0288%	0.0014%	0.0000%			
1000	50	3	0.0183%	0.0000%	0.0110%	0.0288%	0.0076%			
1000	50	4	0.0509%	0.0074%	0.0321%	0.0105%	0.0000%			
1000	50	5	0.0235%	0.0000%	0.0179%	0.0090%	0.0089%			
1000	100	1	0.0254%	0.0000%	0.0119%	0.0014%	0.0054%			
1000	100	2	0.0057%	0.0000%	0.0078%	0.0076%	0.0071%			
1000	100	3	0.0082%	0.0024%	0.0076%	0.0016%	0.0000%			
1000	100	4	0.0000%	0.0073%	0.0127%	0.0075%	0.0061%			
1000	100	5	0.0202%	0.0000%	0.0123%	0.0089%	0.0090%			

85s Time Limit Analysis - F Mean Relative

#First Strategy Value / Best Strategy Value

N	Density	Index	bs_array factor	tree factor
1000	1	1	0.04	0.04
1000	1	2	0.03	0.00
1000	1	3	0.00	0.01
1000	1	4	0.13	0.09
1000	1	5	0.08	0.00
1000	5	1	0.11	0.00
1000	5	2	0.00	0.09
1000	5	3	0.00	0.04
1000	5	4	0.01	0.00
1000	5	5	0.03	0.00
1000	10	1	0.00	0.02
1000	10	2	0.12	0.00
1000	10	3	0.00	0.06
1000	10	4	0.07	0.12
1000	10	5	0.09	0.25
1000	50	1	0.29	0.00
1000	50	2	0.20	0.05
1000	50	3	0.00	2.61
1000	50	4	0.15	0.33
1000	50	5	0.00	0.50
1000	100	1	0.00	0.11
1000	100	2	0.00	0.98
1000	100	3	0.29	0.21
1000	100	4	#DIV/0!	0.59
1000	100	5	0.00	0.73

85s Time Limit Analysis - Mean Number of Moves

N	Density	Index	Algorithm bs_array	bs_array	tree	tree	basic			Property
		Strategy	best_move	first_move	best_move	first_move	first_move			n_moves_mean
1000	1	1	758.736842	1061.800335	758.313627	1061.872035	1061.365282			
1000	1	2	754.598053	1060.168413	753.833986	1060.355846	1060.458155			
1000	1	3	748.305707	1051.541373	748.602421	1051.93442	1051.789419			
1000	1	4	759.317992	1069.36214	759.516646	1069.637086	1069.872891			
1000	1	5	758.16968	1063.658704	756.900499	1063.824566	1064.921505			
1000	5	1	1151.591928	1775.59341	1149.595882	1779.913743	1776.883392			
1000	5	2	1156.509009	1783.432563	1152.721717	1782.315089	1785.697755			
1000	5	3	1149.334821	1781.233725	1150.51039	1781.727941	1777.301948			
1000	5	4	1147.683036	1775.844214	1147.073077	1772.900875	1774.725888			
1000	5	5	1150.473214	1784.066542	1149.194444	1782.092125	1783.422807			
1000	10	1	1308.634921	2122.829179	1316.6633	2118.211982	2121.895323			
1000	10	2	1320.330645	2123.360619	1317.215017	2125.328704	2124.657447			
1000	10	3	1319.959677	2123.286554	1321.3	2118.147982	2123.366876			
1000	10	4	1323.629032	2122.0837	1315.31457	2119.452915	2123.490521			
1000	10	5	1318.556452	2120.902511	1318.922034	2120.607306	2118.788546			
1000	50	1	1676.952381	3027.304878	1708.592593	2976.294118	3011.485507			
1000	50	2	1691.1	2997.13253	1687.925926	3011.411765	3030.175373			
1000	50	3	1715.8	3024.817073	1716.814815	2947.294118	3011.48			
1000	50	4	1679.190476	2988.337349	1664.5	3011.352941	3023.119565			
1000	50	5	1687.65	3019.817073	1694.037037	3006.705882	3007.047297			
1000	100	1	1801.777778	3396.166667	1825.909091	3374	3398.929204			
1000	100	2	1893.333333	3449.333333	1823.454545	3407	3408.72807			
1000	100	3	1841.666667	3365.75	1769	3340	3391.450893			
1000	100	4	1813.111111	3393.791667	1834.636364	3336.142857	3424.812227			
1000	100	5	1796.888889	3495.26087	1802.363636	3447.666667	3419.783186			

85s Time Limit Analysis - Mean Number of Moves

First #Moves Mean / Best #Moves Mean

N	Density	Index	bs_array factor	tree factor
1000	1	1	1.399431629	1.400307204
1000	1	2	1.404944538	1.406617194
1000	1	3	1.405229658	1.405197726
1000	1	4	1.408319243	1.408312894
1000	1	5	1.402929624	1.405501208
1000	5	1	1.541859896	1.548295163
1000	5	2	1.542082724	1.546179848
1000	5	3	1.549795319	1.54864133
1000	5	4	1.547329845	1.545586685
1000	5	5	1.550724102	1.550731588
1000	10	1	1.622170664	1.608772707
1000	10	2	1.608203693	1.613501726
1000	10	3	1.608599559	1.603078772
1000	10	4	1.603231456	1.611365801
1000	10	5	1.608503381	1.607833709
1000	50	1	1.805242005	1.741956585
1000	50	2	1.772297635	1.78409
1000	50	3	1.76291938	1.716722207
1000	50	4	1.779629763	1.809163677
1000	50	5	1.789362174	1.774876119
1000	100	1	1.884897632	1.847846652
1000	100	2	1.821830986	1.868431549
1000	100	3	1.827556561	1.888072357
1000	100	4	1.871805675	1.818421853
1000	100	5	1.945173623	1.912858537

85s Time Limit Analysis - F Max

| N | Density | Index | Algorithm bs_array | bs_array | tree | tree | basic | | | Property |
			Strategy best_move	first_move	best_move	first_move	first_move	Max F		fo_max
1000	1	1	210545	211080	210727	210735	210446	211080		
1000	1	2	206405	206906	206749	206691	206189	206906		
1000	1	3	204475	205556	205110	205672	205138	205672		
1000	1	4	213386	213986	213541	213766	214087	214087		
1000	1	5	211427	212510	212074	212248	211674	212510		
1000	5	1	856865	858973	858218	858450	858905	858973		
1000	5	2	862031	864274	863482	863695	862888	864274		
1000	5	3	865835	869131	867295	868187	867989	869131		
1000	5	4	866398	868482	866386	867134	867489	868482		
1000	5	5	860558	862678	861589	863317	861876	863317		
1000	10	1	1606672	1610644	1608684	1609352	1609903	1610644		
1000	10	2	1627199	1631673	1629761	1629731	1629224	1631673		
1000	10	3	1626905	1630446	1628102	1629588	1630317	1630446		
1000	10	4	1624034	1625210	1623216	1624517	1624457	1625210		
1000	10	5	1622785	1624266	1622811	1622992	1624151	1624266		
1000	50	1	8080185	8081427	8074227	8079901	8085394	8085394		
1000	50	2	8072885	8079490	8074375	8075718	8080107	8080107		
1000	50	3	8072887	8079116	8076225	8070236	8081323	8081323		
1000	50	4	8075375	8081254	8077876	8077041	8084693	8084693		
1000	50	5	8075873	8074835	8071794	8071560	8077997	8077997		
1000	100	1	25758623	25768638	25763139	25767298	25771063	25771063		
1000	100	2	25766506	25772933	25769772	25766915	25773238	25773238		
1000	100	3	25797609	25802493	25799506	25798621	25808006	25808006		
1000	100	4	25819158	25815870	25816777	25816751	25821345	25821345		
1000	100	5	25767280	25774796	25769906	25770259	25776481	25776481		

85s Time Limit Analysis - F Max

#First Strategy Value / Best Strategy Value

N	Density	Index	bs_array factor	tree factor
1000	1	1	1.002541024	1.000037964
1000	1	2	1.002427267	0.9997194666
1000	1	3	1.00528671	1.002739993
1000	1	4	1.002811806	1.001053662
1000	1	5	1.005122335	1.000820468
1000	5	1	1.002460131	1.000270328
1000	5	2	1.002601995	1.000246676
1000	5	3	1.00380673	1.001028485
1000	5	4	1.002405361	1.000863357
1000	5	5	1.002463518	1.002005597
1000	10	1	1.002472191	1.000415246
1000	10	2	1.00274951	0.9999815924
1000	10	3	1.002176525	1.000912719
1000	10	4	1.000724123	1.000801495
1000	10	5	1.000912629	1.000111535
1000	50	1	1.000153709	1.00070273
1000	50	2	1.000818171	1.000166329
1000	50	3	1.000771595	0.9992584407
1000	50	4	1.000728016	0.9998966312
1000	50	5	0.999871469	0.9999710102
1000	100	1	1.000388802	1.000161432
1000	100	2	1.000249432	0.9998891337
1000	100	3	1.00018932	0.999965697
1000	100	4	0.9998726527	0.9999989929
1000	100	5	1.000291688	1.000013698

85s Time Limit Analysis - F Relative Max

N	Density	Index	Algorithm bs_array Strategy best_move	bs_array first_move	tree best_move	tree first_move	basic first_move			Property fo_max
1000	1	1	0.2535%	0.0000%	0.1672%	0.1634%	0.3004%			
1000	1	2	0.2421%	0.0000%	0.0759%	0.1039%	0.3465%			
1000	1	3	0.5820%	0.0564%	0.2733%	0.0000%	0.2596%			
1000	1	4	0.3274%	0.0472%	0.2550%	0.1499%	0.0000%			
1000	1	5	0.5096%	0.0000%	0.2052%	0.1233%	0.3934%			
1000	5	1	0.2454%	0.0000%	0.0879%	0.0609%	0.0079%			
1000	5	2	0.2595%	0.0000%	0.0916%	0.0670%	0.1604%			
1000	5	3	0.3792%	0.0000%	0.2112%	0.1086%	0.1314%			
1000	5	4	0.2400%	0.0000%	0.2413%	0.1552%	0.1143%			
1000	5	5	0.3196%	0.0740%	0.2002%	0.0000%	0.1669%			
1000	10	1	0.2466%	0.0000%	0.1217%	0.0802%	0.0460%			
1000	10	2	0.2742%	0.0000%	0.1172%	0.1190%	0.1501%			
1000	10	3	0.2172%	0.0000%	0.1438%	0.0526%	0.0079%			
1000	10	4	0.0724%	0.0000%	0.1227%	0.0426%	0.0463%			
1000	10	5	0.0912%	0.0000%	0.0896%	0.0784%	0.0071%			
1000	50	1	0.0644%	0.0491%	0.1381%	0.0679%	0.0000%			
1000	50	2	0.0894%	0.0076%	0.0709%	0.0543%	0.0000%			
1000	50	3	0.1044%	0.0273%	0.0631%	0.1372%	0.0000%			
1000	50	4	0.1153%	0.0425%	0.0843%	0.0946%	0.0000%			
1000	50	5	0.0263%	0.0391%	0.0768%	0.0797%	0.0000%			
1000	100	1	0.0483%	0.0094%	0.0307%	0.0146%	0.0000%			
1000	100	2	0.0261%	0.0012%	0.0134%	0.0245%	0.0000%			
1000	100	3	0.0403%	0.0214%	0.0329%	0.0364%	0.0000%			
1000	100	4	0.0085%	0.0212%	0.0177%	0.0178%	0.0000%			
1000	100	5	0.0357%	0.0065%	0.0255%	0.0241%	0.0000%			

85s Time Limit Analysis - F Relative Max

#First Strategy Value / Best Strategy Value

N	Density	Index	bs_array factor	tree factor
1000	1	1	0.00	0.98
1000	1	2	0.00	1.37
1000	1	3	0.10	0.00
1000	1	4	0.14	0.59
1000	1	5	0.00	0.60
1000	5	1	0.00	0.69
1000	5	2	0.00	0.73
1000	5	3	0.00	0.51
1000	5	4	0.00	0.64
1000	5	5	0.23	0.00
1000	10	1	0.00	0.66
1000	10	2	0.00	1.02
1000	10	3	0.00	0.37
1000	10	4	0.00	0.35
1000	10	5	0.00	0.88
1000	50	1	0.76	0.49
1000	50	2	0.09	0.77
1000	50	3	0.26	2.17
1000	50	4	0.37	1.12
1000	50	5	1.49	1.04
1000	100	1	0.19	0.48
1000	100	2	0.05	1.82
1000	100	3	0.53	1.10
1000	100	4	2.50	1.01
1000	100	5	0.18	0.95