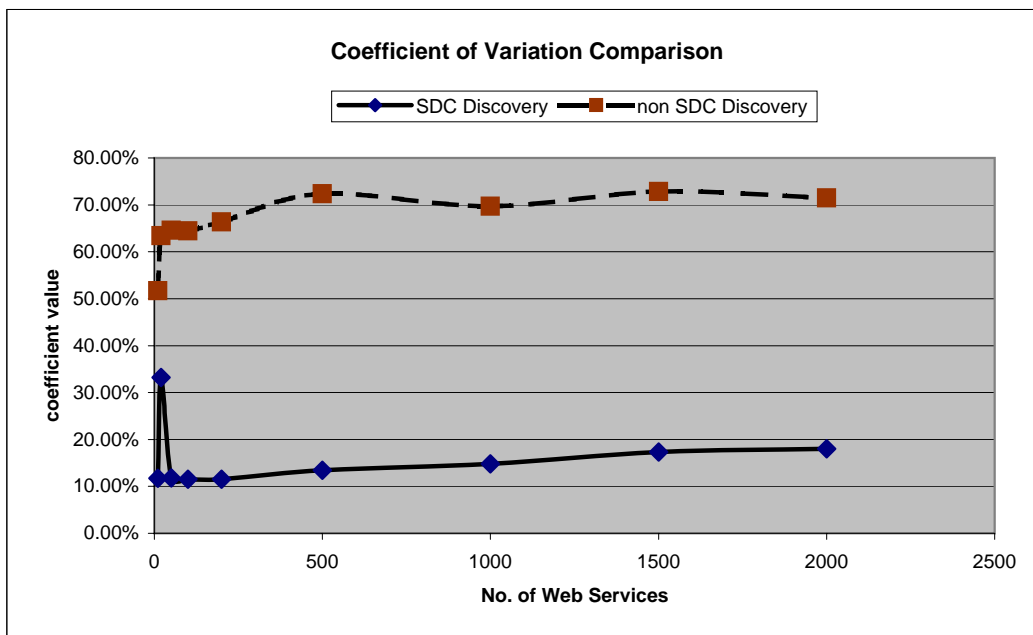statistical preparation of comparison for all 10 goal instances
data = arithmetic mean of the data for the individual goal instances (see following worksheets)
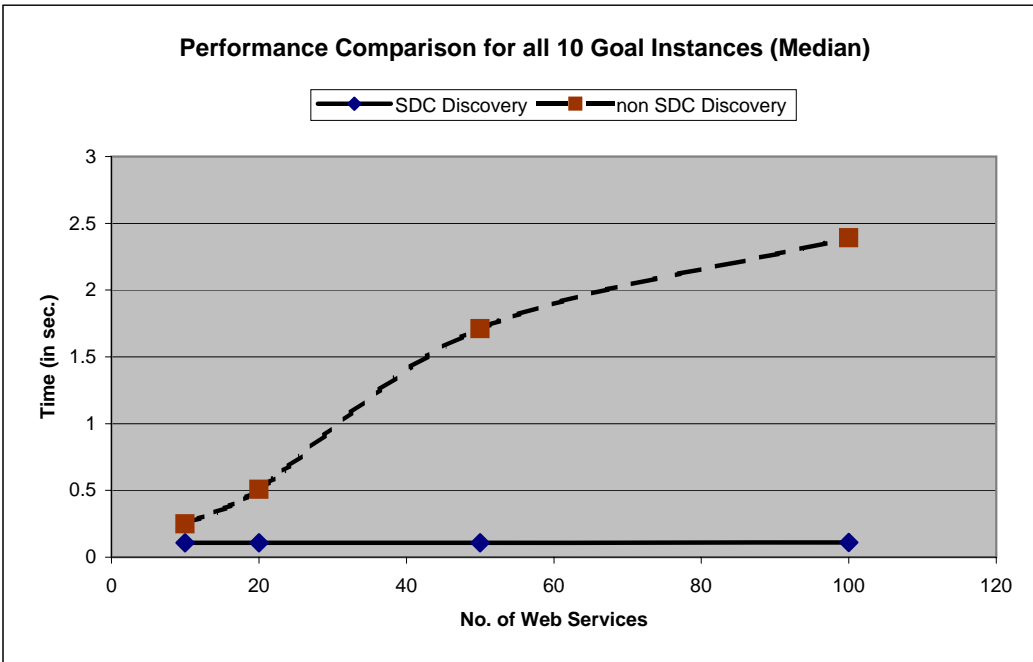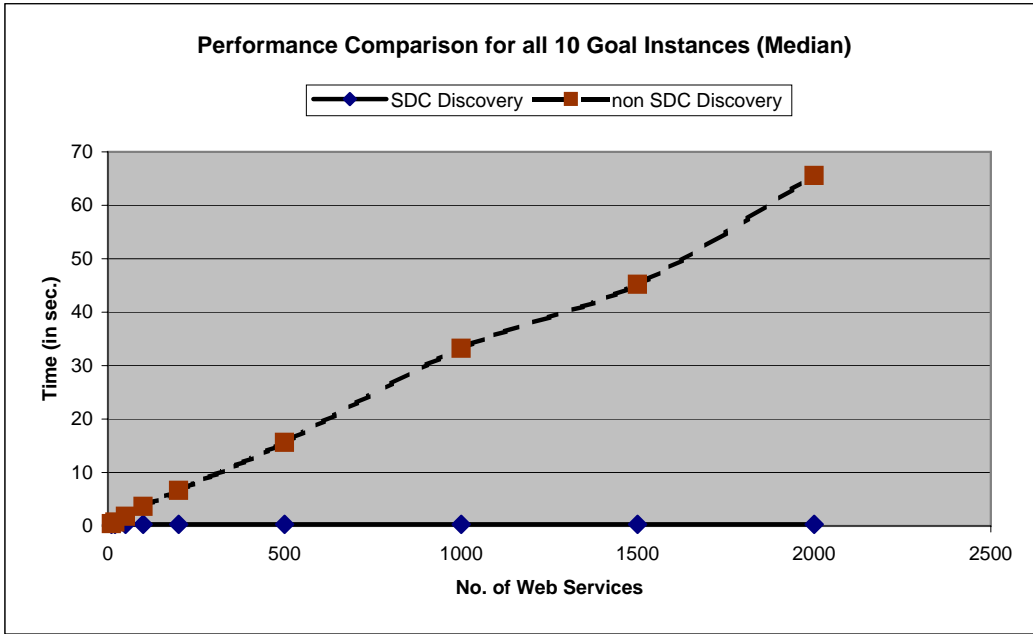
SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.28116543	0.2734	0.2559	0.4563	1562.564515	0.032997502	11.74%
20	0.29307	0.27885	0.2574	0.9346	48644.8878	0.097271044	33.19%
50	0.284648	0.27885	0.2575	0.4595	1568.8552	0.033559762	11.79%
100	0.287544	0.28125	0.2651	0.4533	1489.18936	0.03314478	11.53%
200	0.290118	0.2815	0.2636	0.4359	1759.13332	0.033389555	11.51%
500	0.29223	0.2859	0.2652	0.4922	2384.44284	0.039230557	13.42%
1000	0.296686	0.2875	0.2651	0.539	2795.6794	0.043867008	14.79%
1500	0.301862	0.2906	0.2717	0.594	4701.46044	0.052346692	17.34%
2000	0.306008	0.2938	0.2731	0.5954	4376.71728	0.055161952	18.03%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.413052	0.3922	0.1544	0.9438	49210.50728	0.213581785	51.71%
20	0.815156	0.733	0.159	2.3708	292723.8776	0.517229873	63.45%
50	2.000464	1.79795	0.1888	5.054	1759016.815	1.292189794	64.59%
100	3.962612	3.67855	0.253	10.4883	7027879.395	2.554986046	64.48%
200	7.60848	6.6697	0.3484	19.5459	26774771.26	5.047951866	66.35%
500	18.334298	15.6115	0.7014	51.321	186903202.9	13.26301462	72.34%
1000	37.696672	33.2215	2.1126	103.743	725864586	26.27576623	69.70%
1500	53.90973	45.1997	1.4599	148.776	1632655033	39.26855982	72.84%
2000	72.963554	65.5562	2.3656	192.97	2899274797	52.13448486	71.45%

Performance Comparison for all 10 Goal Instances (Median)

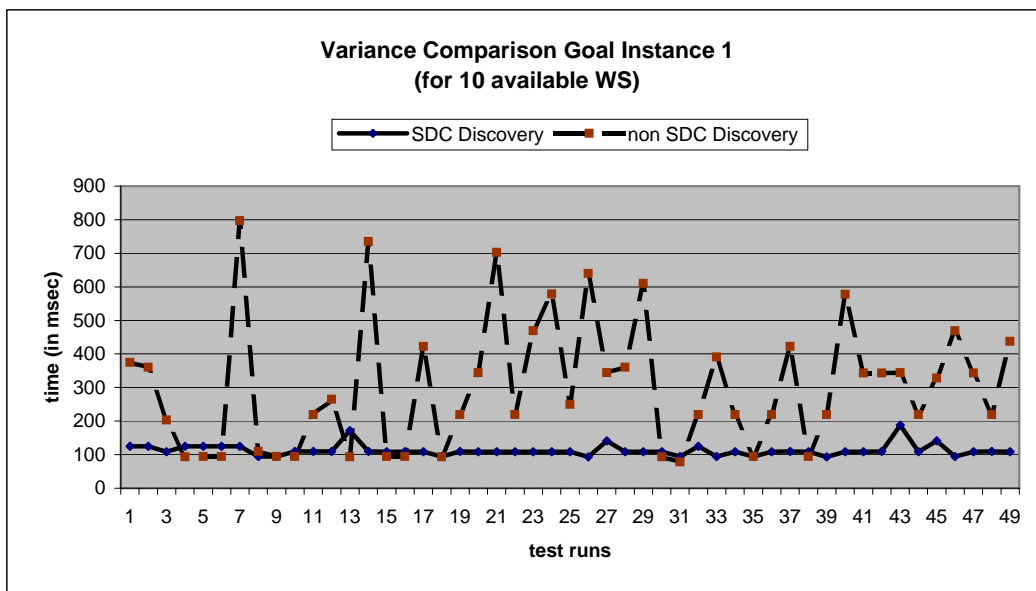**Performance Comparison for all 10 Goal Instances (Median)**

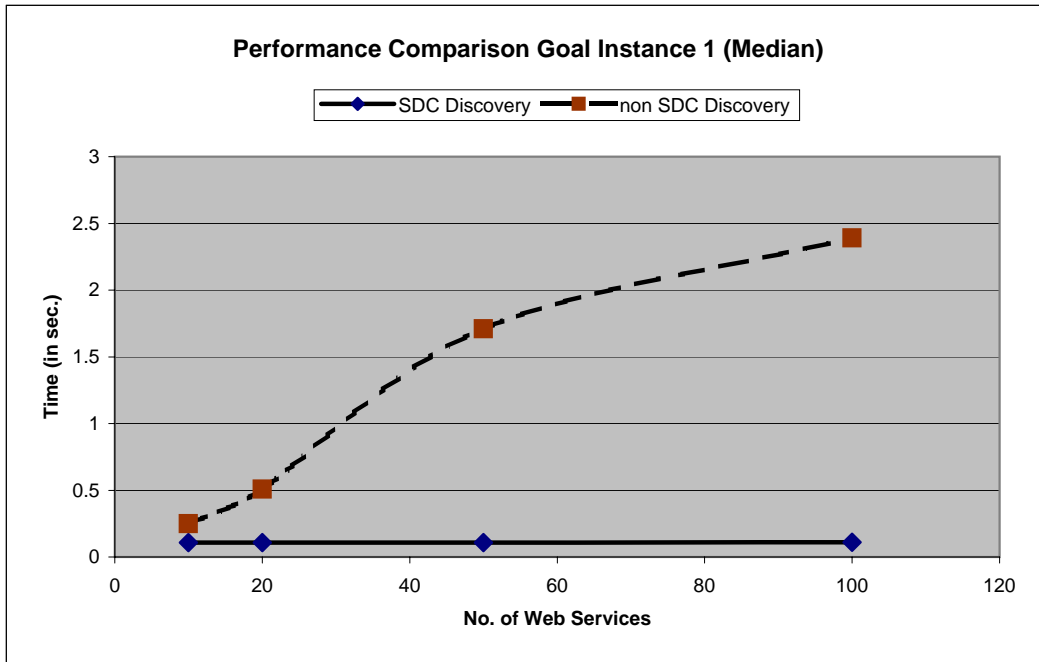statistical preparation of comparison for: goal instance 1

SDC Discovery

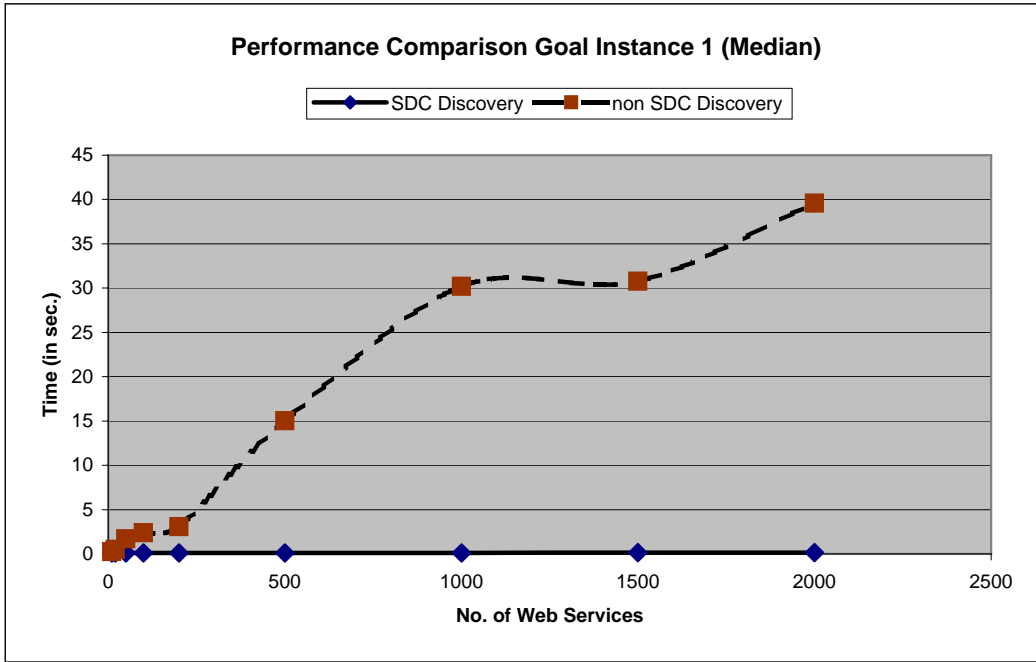| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.11285714	0.109	0.093	0.188	314.6122449	0.017737312	15.72%
20	0.1115	0.109	0.093	0.203	323.13	0.017975817	16.12%
50	0.11246	0.109	0.093	0.203	234.2084	0.015303869	13.61%
100	0.11616	0.11	0.109	0.156	118.5744	0.010889187	9.37%
200	0.125	0.11	0.109	0.219	803.72	0.028349956	22.68%
500	0.12626	0.125	0.109	0.219	478.1124	0.021865781	17.32%
1000	0.12966	0.125	0.109	0.234	274.8644	0.016579035	12.79%
1500	0.14556	0.14	0.125	0.297	935.6464	0.030588338	21.01%
2000	0.15252	0.141	0.125	0.453	3213.8096	0.056690472	37.17%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.29976	0.25	0.078	0.797	35511.9024	0.18844602	62.87%
20	0.6147	0.508	0.078	1.938	208179.49	0.456266907	74.23%
50	1.77864	1.7105	0.093	4.031	1384656.55	1.176714303	66.16%
100	3.0873	2.391	0.094	8.593	5279921.09	2.297807888	74.43%
200	5.64736	3.0545	0.078	19.608	27426398.71	5.237021931	92.73%
500	17.12608	15.0305	0.094	46.044	146719239.3	12.11277174	70.73%
1000	31.25436	30.1855	0.344	92.165	566908810.1	23.80984691	76.18%
1500	45.28732	30.7865	0.828	147.067	1445426988	38.01877153	83.95%
2000	56.24786	39.583	1.422	175.487	2542395428	50.42217199	89.64%

Variance Comparison Goal Instance 1 (for 10 available WS)

Performance Comparison Goal Instance 1 (Median)

SDC Discovery — non SDC Discovery

Performance Comparison Goal Instance 1 (Median)
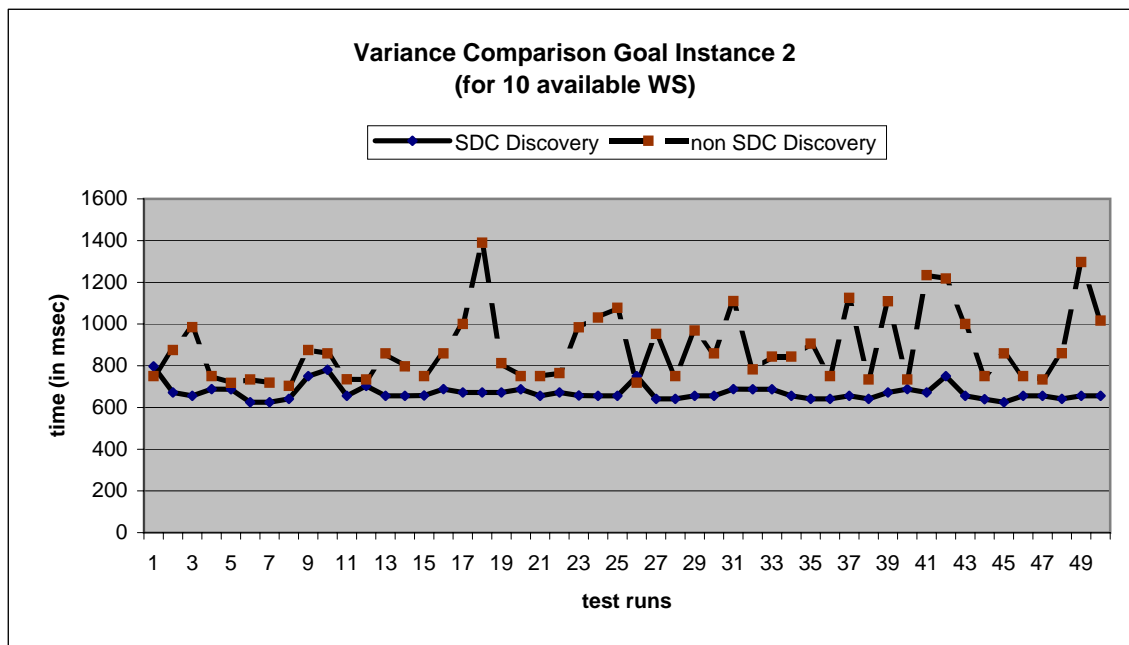
SDC Discovery — non SDC Discovery

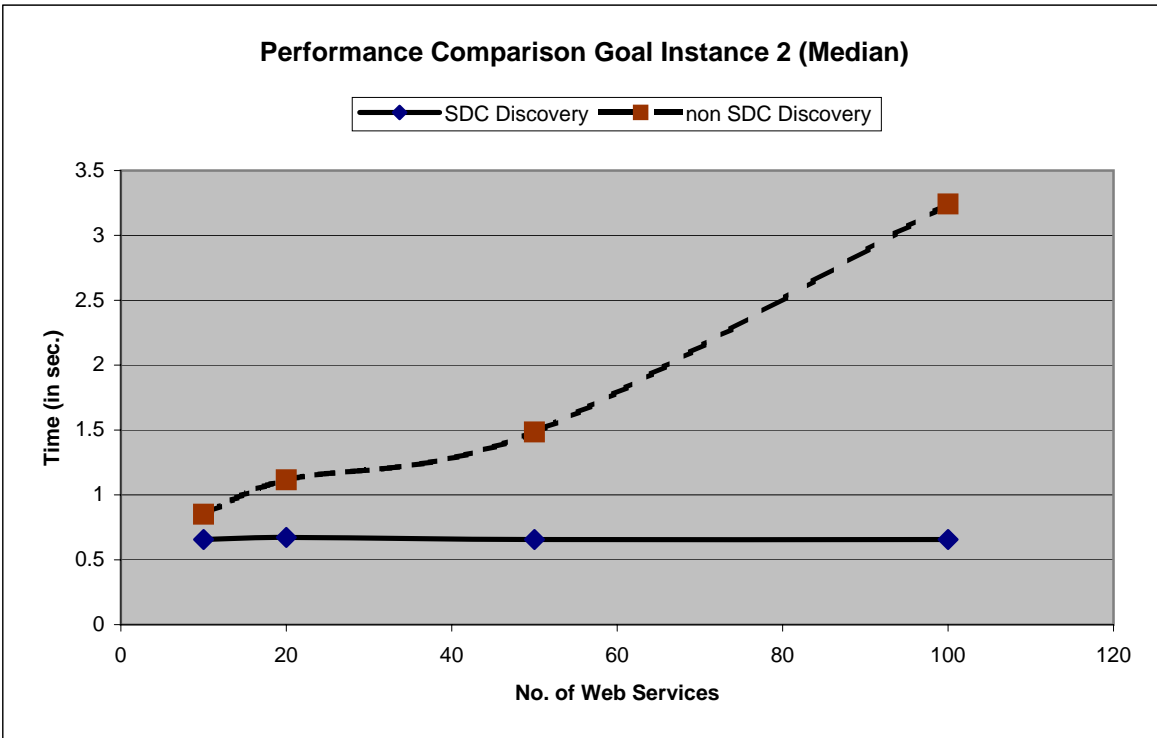statistical preparation of comparison for: goal instance 2

SDC Discovery

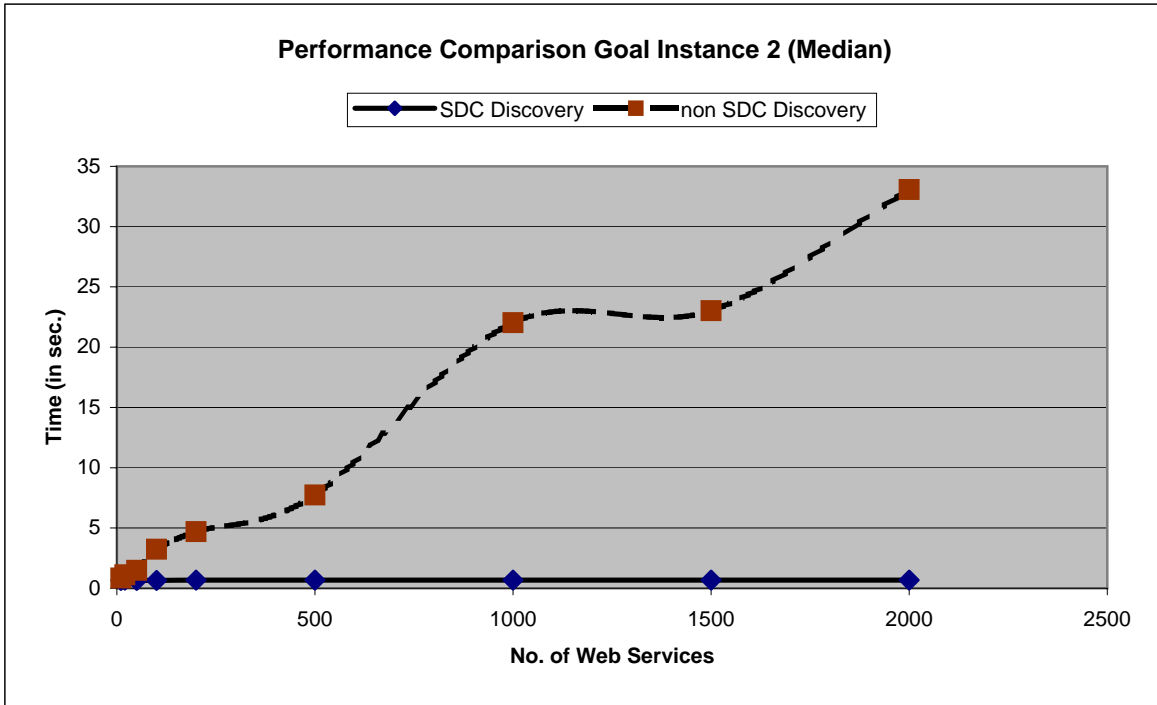| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.67094	0.656	0.625	0.781	1046.844648	0.032354979	4.82%
20	0.68506	0.672	0.625	1.047	4271.8564	0.06535944	9.54%
50	0.67156	0.656	0.625	0.797	1659.7264	0.04073974	6.07%
100	0.67366	0.6565	0.64	0.797	1177.7044	0.034317698	5.09%
200	0.68524	0.672	0.64	0.828	1599.3024	0.039991279	5.84%
500	0.67462	0.672	0.64	0.766	816.8756	0.028581036	4.24%
1000	0.6834	0.672	0.624	0.844	1852.08	0.043035799	6.30%
1500	0.70454	0.672	0.641	1.407	14129.2884	0.118866683	16.87%
2000	0.68118	0.672	0.64	0.797	1156.9076	0.034013344	4.99%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.88336	0.8515	0.703	1.39	28242.5504	0.1680552	19.02%
20	1.18666	1.1165	0.718	2.266	136750.5044	0.369797924	31.16%
50	1.76084	1.485	0.734	3.937	732013.8144	0.855578059	48.59%
100	3.38882	3.242	0.75	8.156	3757901.788	1.938530832	57.20%
200	5.02378	4.703	0.766	12.717	10643375.65	3.262418681	64.94%
500	10.48922	7.734	0.75	33.014	69717564.21	8.349704439	79.60%
1000	28.59172	22.0375	0.828	106.57	659784393.8	25.68626858	89.84%
1500	33.92656	23.023	2.052	107.751	781996608.8	27.96420227	82.43%
2000	51.03844	33.076	2.031	162.254	1768918426	42.05851193	82.41%

Variance Comparison Goal Instance 2 (for 10 available WS)

Performance Comparison Goal Instance 2 (Median)

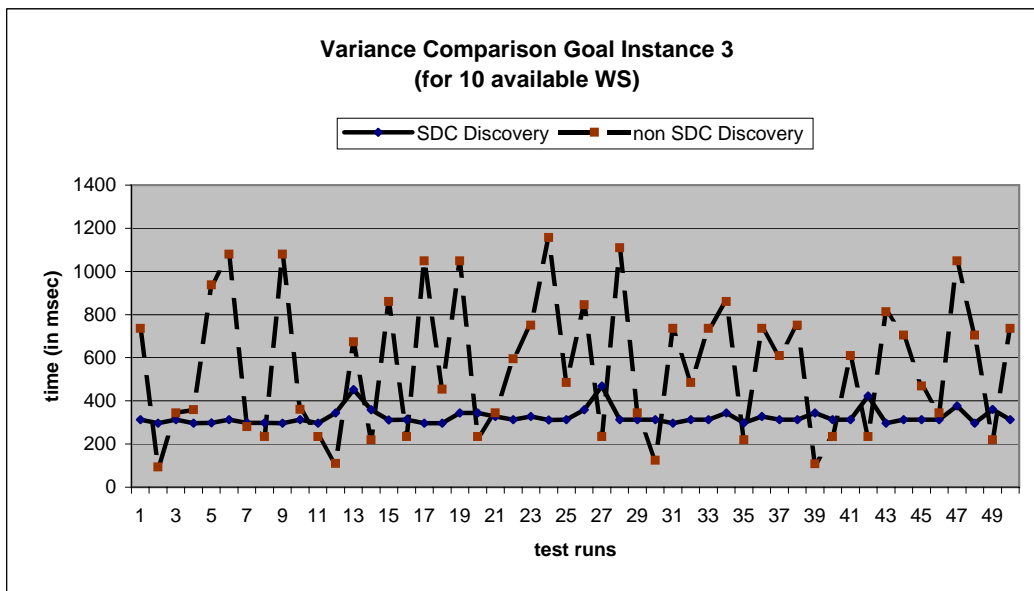**Performance Comparison Goal Instance 2 (Median)**

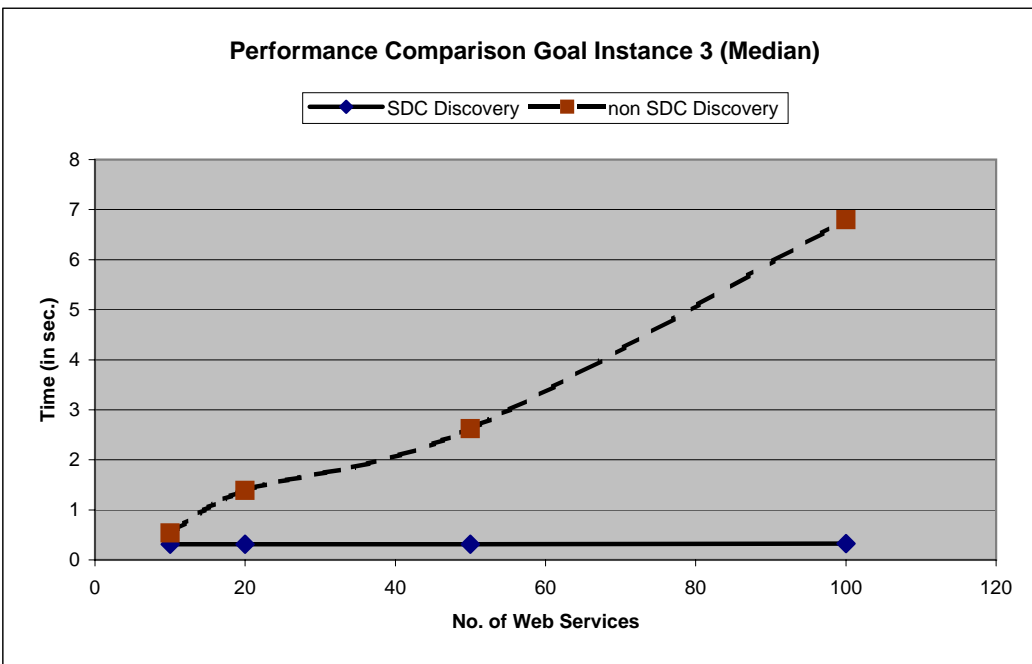statistical preparation of comparison for: goal instance 3

SDC Discovery

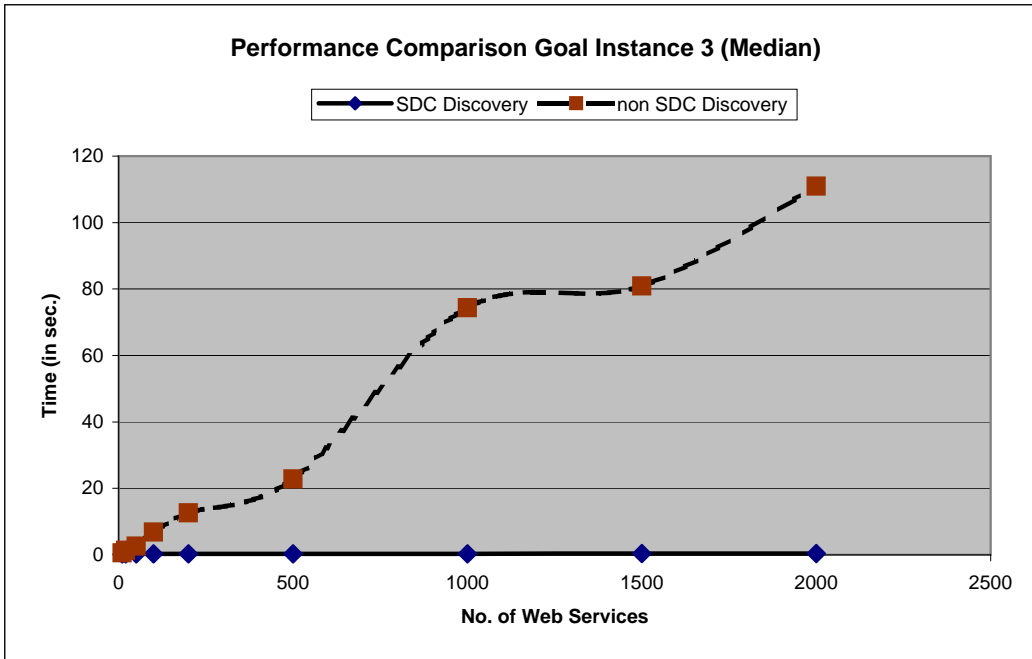| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.32526531	0.313	0.297	0.469	1378.399	0.037126796	11.41%
20	0.31928	0.313	0.297	0.422	478.9616	0.021885191	6.85%
50	0.33648	0.313	0.297	0.688	3580.8096	0.059839866	17.78%
100	0.32798	0.328	0.312	0.422	462.0196	0.021494641	6.55%
200	0.33442	0.328	0.312	0.438	980.2436	0.031308842	9.36%
500	0.3472	0.328	0.312	0.812	4866.6	0.069761021	20.09%
1000	0.34028	0.329	0.312	0.437	410.9616	0.020272188	5.96%
1500	0.35066	0.344	0.328	0.532	1559.2644	0.039487522	11.26%
2000	0.36634	0.344	0.328	0.704	3561.5044	0.059678341	16.29%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.55926	0.5395	0.094	1.157	98894.4724	0.314474915	56.23%
20	1.27992	1.3845	0.109	2.408	448213.9536	0.669487829	52.31%
50	2.72448	2.6195	0.109	5.912	2945607.13	1.716277113	62.99%
100	6.74048	6.799	0.703	12.363	12168460.69	3.488332078	51.75%
200	13.18636	12.649	1.391	26.533	50271689.63	7.090253143	53.77%
500	27.5141	22.812	0.937	75.655	357211973.1	18.9000522	68.69%
1000	71.98234	74.3735	7.203	121.857	1009630366	31.7746812	44.14%
1500	93.33886	80.9435	2.078	181.808	2691333380	51.87806261	55.58%
2000	117.40564	110.901	0.391	244.951	5246537195	72.43298416	61.69%

Performance Comparison Goal Instance 3 (Median)

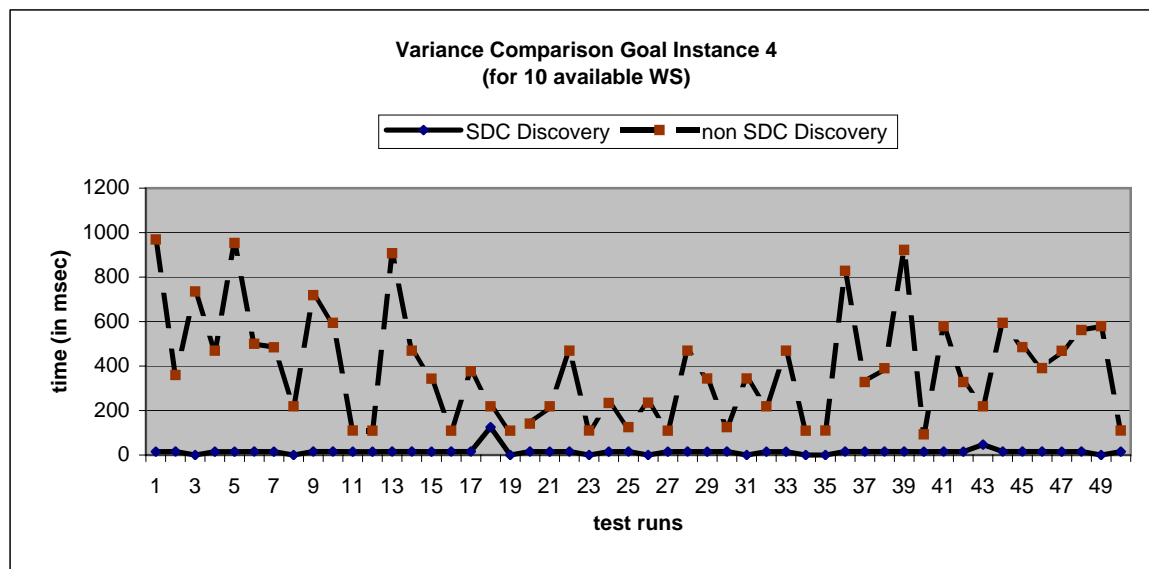**Performance Comparison Goal Instance 3 (Median)**

statistical preparation of comparison for: goal instance 4

SDC Discovery

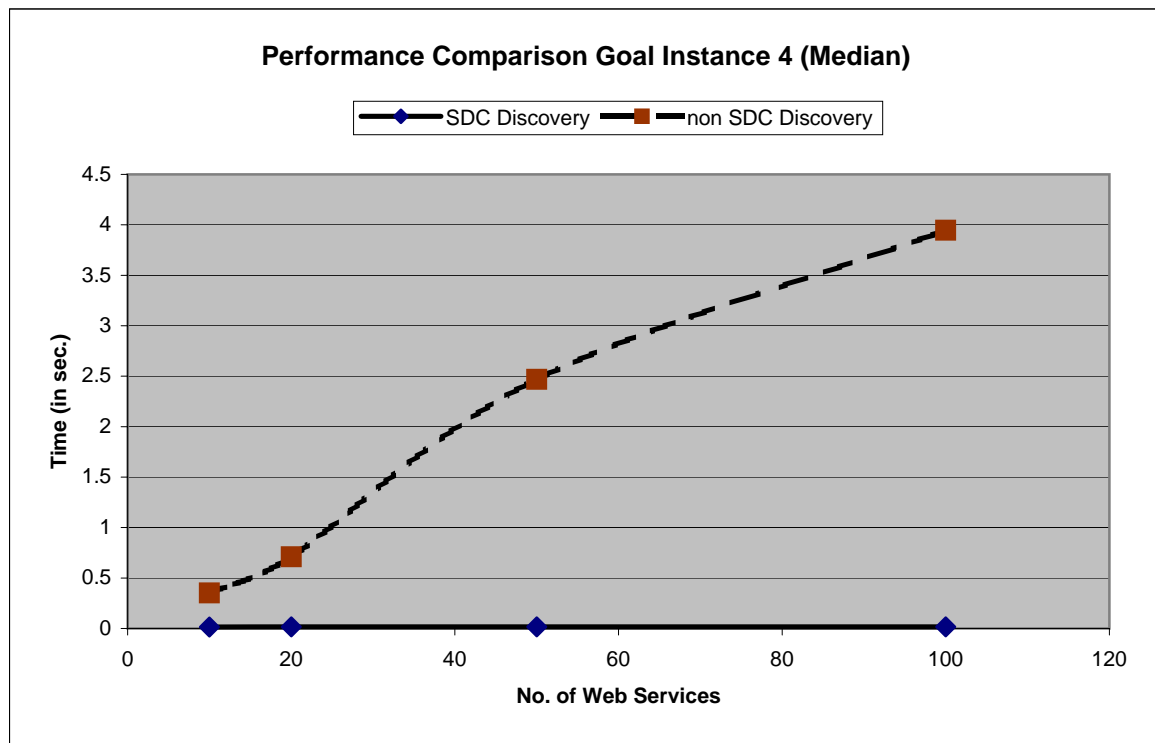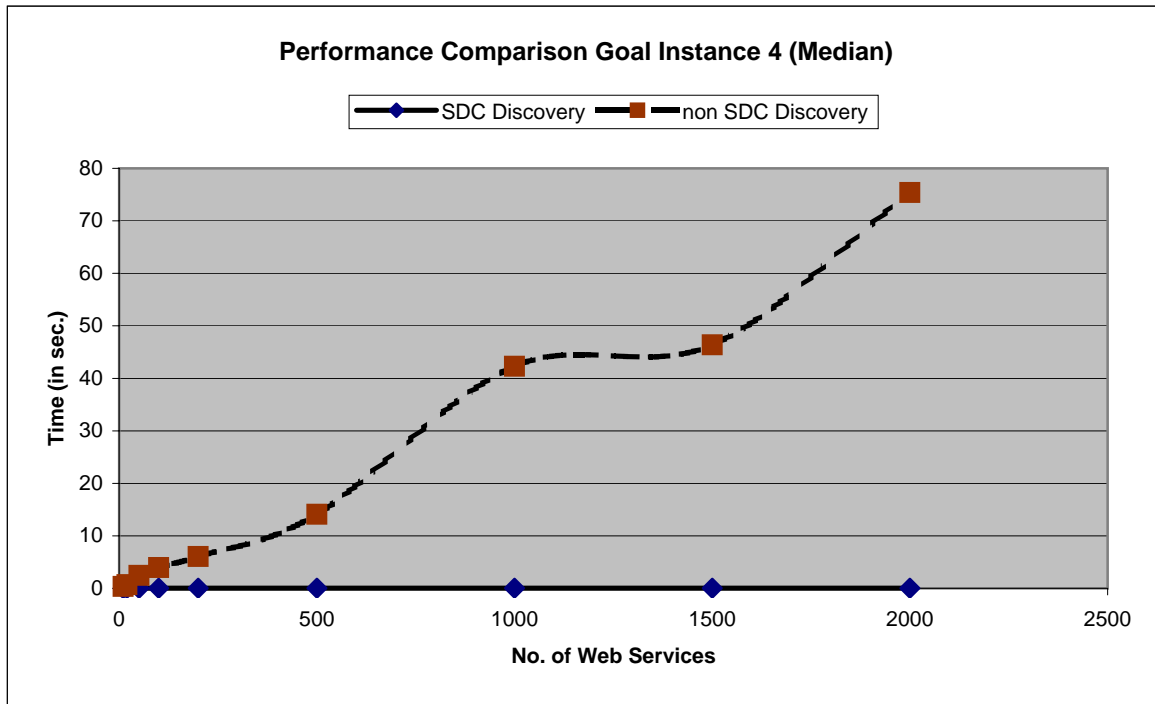| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.01559184	0.015	0	0.125	309.2619742	0.017585846	112.79%
20	0.0162	0.016	0	0.125	273.16	0.016527553	102.02%
50	0.01658	0.016	0	0.125	461.7236	0.021487755	129.60%
100	0.01746	0.016	0	0.125	270.4484	0.016445315	94.19%
200	0.01654	0.016	0	0.047	33.4084	0.00578	34.95%
500	0.01816	0.016	0	0.141	591.1744	0.024314078	133.89%
1000	0.01746	0.0155	0	0.125	514.4084	0.022680573	129.90%
1500	0.01904	0.016	0	0.141	665.5184	0.025797643	135.49%
2000	0.02312	0.016	0	0.328	2362.7456	0.048608082	210.24%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.3892	0.352	0.093	0.969	61639.32	0.248272673	63.79%
20	0.74056	0.711	0.093	1.954	262068.3664	0.511926134	69.13%
50	2.5007	2.4695	0.234	5.689	2555616.17	1.598629466	63.93%
100	4.64586	3.947	0.109	13.333	9679545.68	3.111196824	66.97%
200	7.75394	6.08	0.234	20.49	33590662.5	5.795745206	74.75%
500	18.48602	14.121	0.609	57.283	223885820.5	14.96281459	80.94%
1000	44.49564	42.294	3.361	92.841	713497450.4	26.71137305	60.03%
1500	59.13076	46.3745	0.328	164.794	2319156593	48.15762237	81.44%
2000	77.48424	75.3945	9.187	224.395	2923191810	54.06654982	69.78%

Variance Comparison Goal Instance 4
(for 10 available WS)

Performance Comparison Goal Instance 4 (Median)

SDC Discovery ◆   non SDC Discovery ■

Time (in sec.) — No. of Web Services

Performance Comparison Goal Instance 4 (Median)

SDC Discovery ◆   non SDC Discovery ■
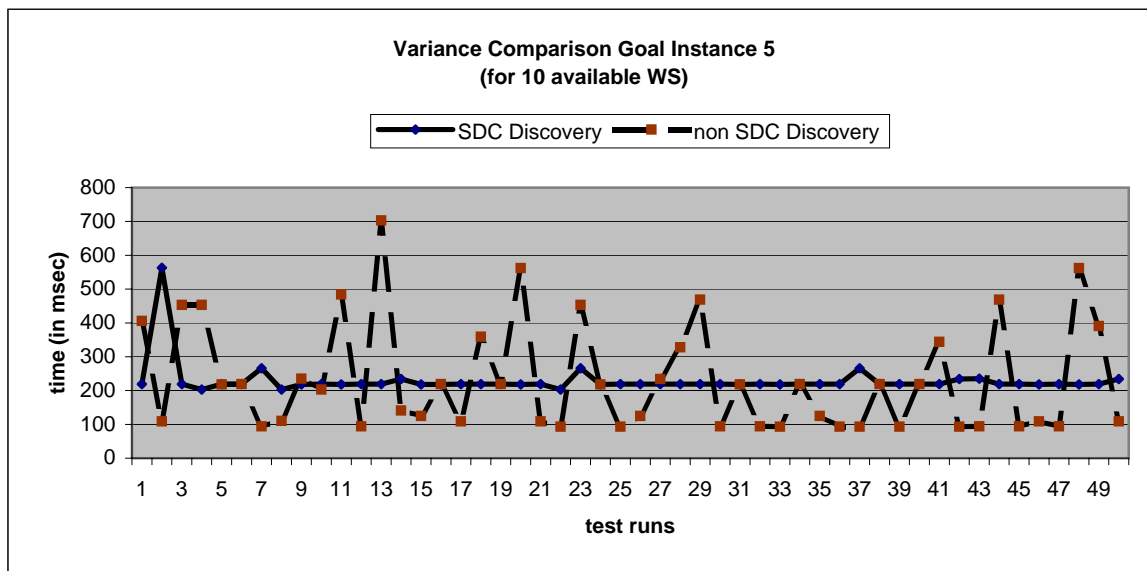
Time (in sec.) — No. of Web Services

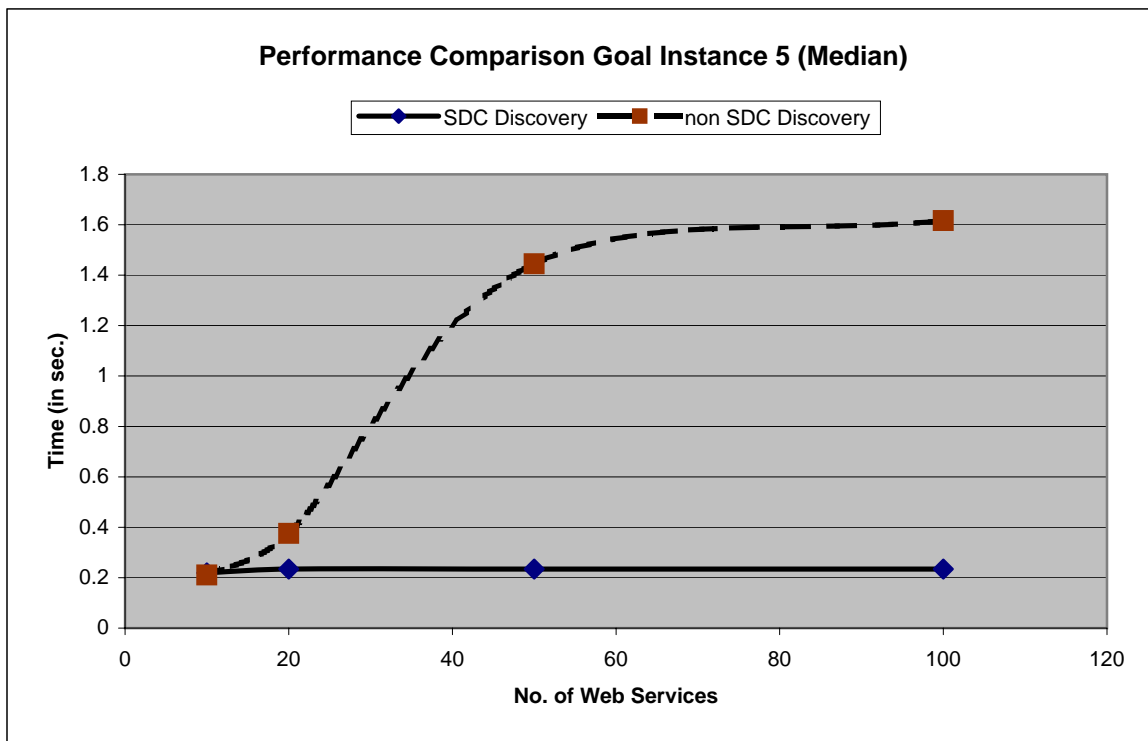statistical preparation of comparison for: goal instance 5

SDC Discovery

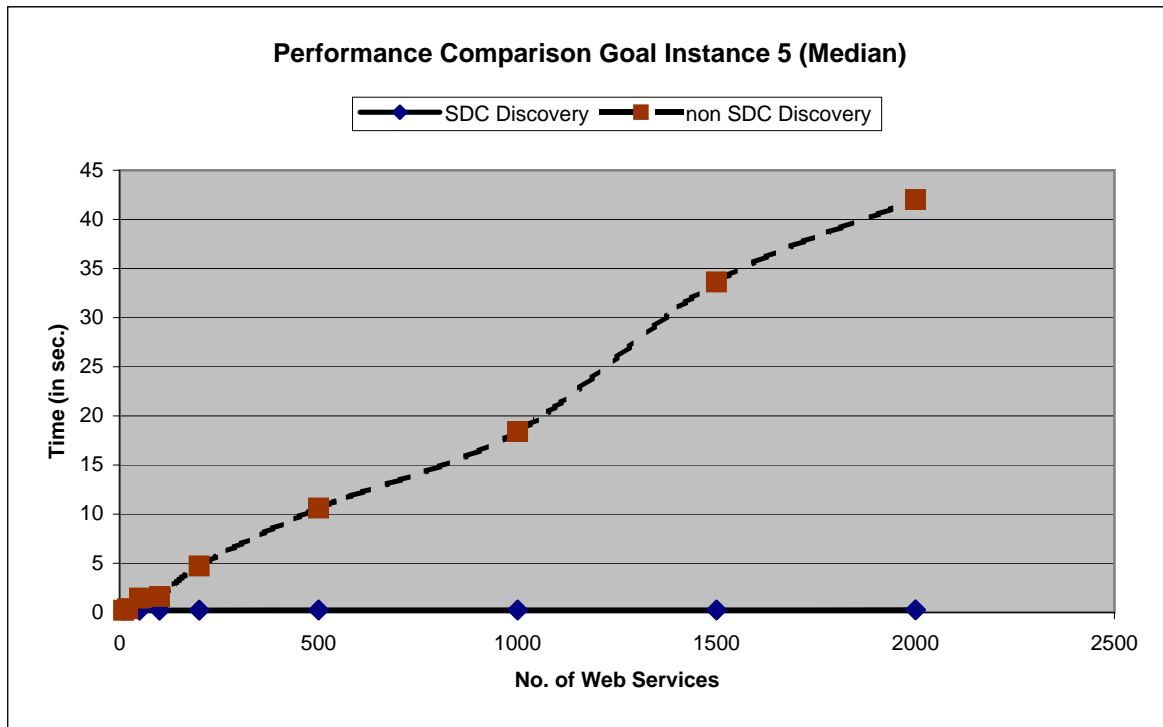| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.22895918	0.219	0.203	0.563	2485.957518	0.049859377	21.78%
20	0.23834	0.234	0.218	0.641	3404.5844	0.058348817	24.48%
50	0.2428	0.234	0.218	0.594	3278.76	0.057260458	23.58%
100	0.24152	0.234	0.218	0.36	607.6896	0.024651361	10.21%
200	0.24244	0.235	0.218	0.281	169.0064	0.013000246	5.36%
500	0.25106	0.25	0.234	0.36	560.6564	0.023678184	9.43%
1000	0.25108	0.25	0.234	0.312	198.1936	0.014078125	5.61%
1500	0.25904	0.25	0.25	0.328	243.7184	0.015611483	6.03%
2000	0.26252	0.265	0.25	0.344	284.5296	0.016868005	6.43%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.23112	0.2105	0.093	0.703	25191.6256	0.1587187	68.67%
20	0.47244	0.3755	0.093	1.422	120317.8064	0.346868572	73.42%
50	1.49648	1.445	0.094	4.422	963954.8896	0.981812044	65.61%
100	1.91464	1.6165	0.093	7.468	2735509.83	1.653937674	86.38%
200	5.52624	4.726	0.094	21.139	20944864.22	4.576555935	82.82%
500	11.78104	10.6245	0.218	39.769	88498622.12	9.407370627	79.85%
1000	23.13188	18.397	1.688	73.95	300887400.4	17.3461062	74.99%
1500	40.1553	33.6255	0.453	144.159	1247036569	35.31340495	87.94%
2000	46.35394	42.0245	1.39	143.83	1493547346	38.64644027	83.37%

Variance Comparison Goal Instance 5 (for 10 available WS)

Performance Comparison Goal Instance 5 (Median)

SDC Discovery non SDC Discovery

Performance Comparison Goal Instance 5 (Median)
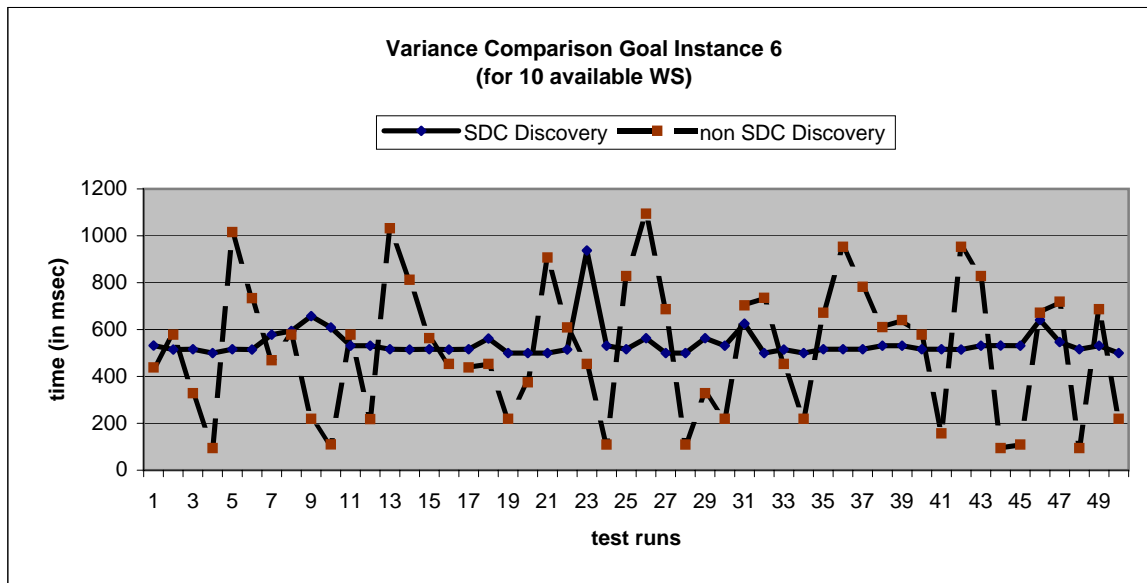
SDC Discovery non SDC Discovery

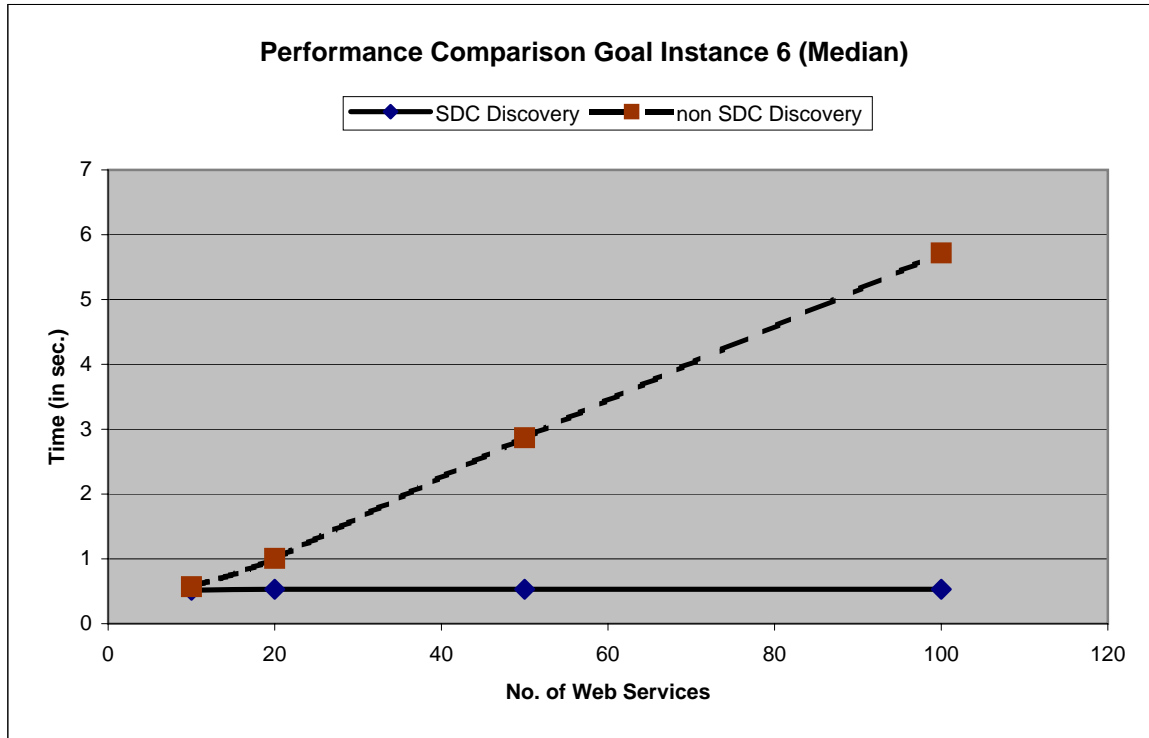statistical preparation of comparison for: goal instance 6

SDC Discovery

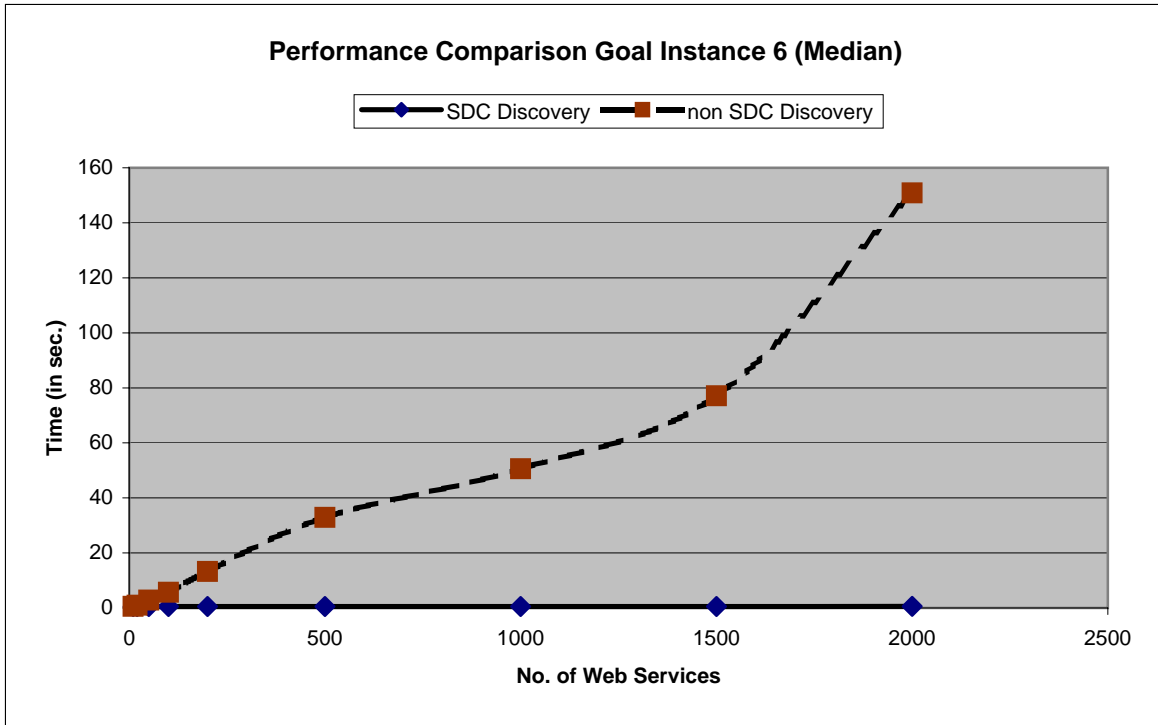| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.5404898	0.516	0.5	0.937	4610.290712	0.067899122	12.56%
20	0.53162	0.531	0.5	0.672	930.3556	0.030501731	5.74%
50	0.53156	0.531	0.5	0.656	677.4464	0.026027801	4.90%
100	0.53562	0.531	0.515	0.672	888.8356	0.029813346	5.57%
200	0.54974	0.532	0.515	0.89	3528.5524	0.05940162	10.81%
500	0.54064	0.531	0.515	0.656	612.9104	0.024757027	4.58%
1000	0.5522	0.5465	0.515	0.922	3210.8	0.056663922	10.26%
1500	0.58092	0.547	0.516	0.922	6373.1936	0.079832284	13.74%
2000	0.60094	0.563	0.531	0.953	10790.2164	0.103875966	17.29%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.5185	0.5705	0.094	1.094	80855.13	0.284350365	54.84%
20	1.1366	1.008	0.094	2.5	460362.4	0.678500111	59.70%
50	3.0282	2.867	0.219	5.844	2645127.48	1.626384788	53.71%
100	5.74968	5.7185	0.203	11.61	11150342.74	3.339212892	58.08%
200	12.9583	13.234	0.359	23.703	40064712.45	6.329669221	48.85%
500	31.36966	32.9465	2.922	60.095	292608442.9	17.10580144	54.53%
1000	56.52352	50.5715	3.563	163.44	1514250992	38.91337805	68.84%
1500	83.5551	77.142	5.875	182.612	2676860466	51.73838484	61.92%
2000	131.31316	150.894	3.719	248.975	5970983802	77.27214118	58.85%

Performance Comparison Goal Instance 6 (Median)

— SDC Discovery   — non SDC Discovery

Performance Comparison Goal Instance 6 (Median)

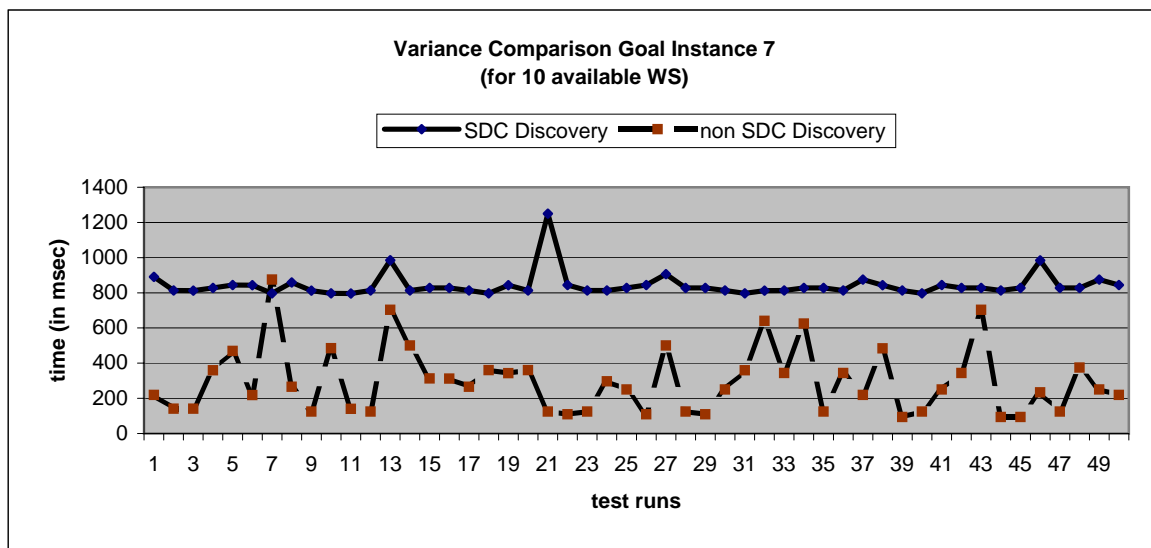— SDC Discovery   — non SDC Discovery

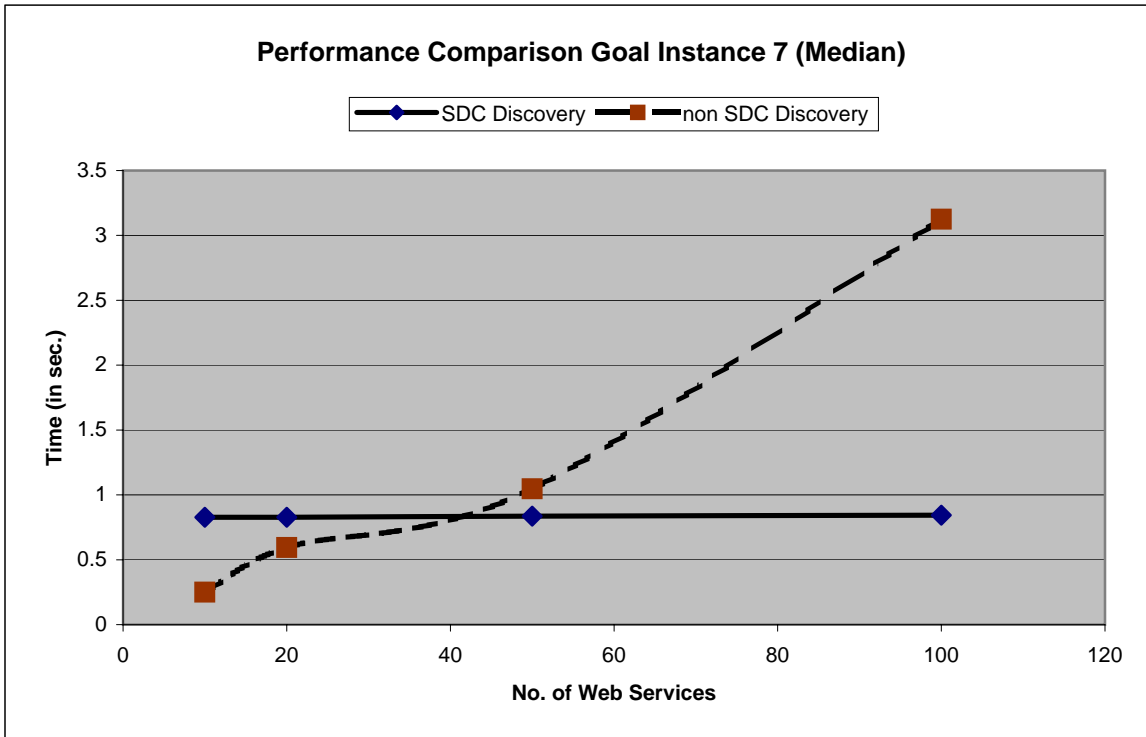statistical preparation of comparison for: goal instance 7

SDC Discovery

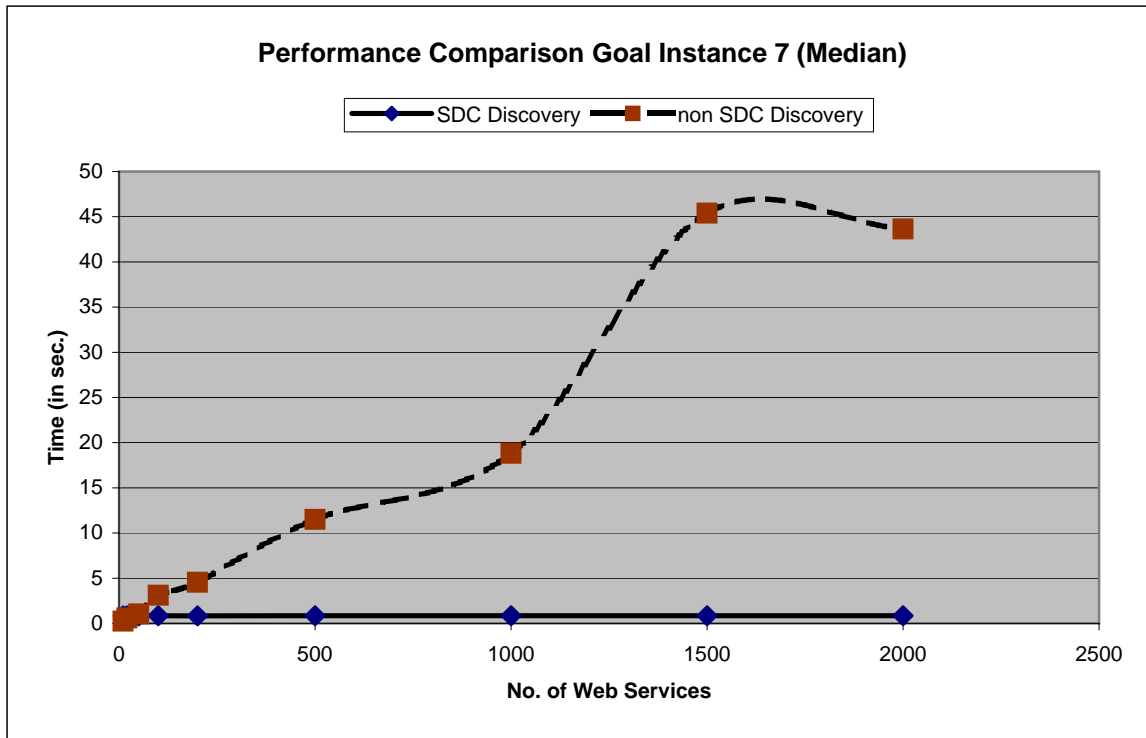| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.84122449	0.828	0.796	1.25	4922.745523	0.07016228	8.34%
20	0.9419	0.828	0.796	5.735	474936.01	0.689156013	73.17%
50	0.85138	0.8365	0.797	1.265	4709.6756	0.068627076	8.06%
100	0.8665	0.844	0.812	1.25	6655.49	0.081581187	9.42%
200	0.86126	0.829	0.797	1.25	8959.1524	0.094652799	10.99%
500	0.8581	0.844	0.797	1.187	5358.37	0.073200888	8.53%
1000	0.8822	0.844	0.812	1.5	12153.68	0.11024373	12.50%
1500	0.86792	0.844	0.812	1.86	21356.3536	0.146138132	16.84%
2000	0.86184	0.844	0.812	1.172	3834.3344	0.061922003	7.18%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.29532	0.25	0.094	0.875	33619.3776	0.183355877	62.09%
20	0.72626	0.594	0.094	5.625	636375.8724	0.797731705	109.84%
50	1.67348	1.0465	0.094	5.297	2124020.09	1.457401828	87.09%
100	3.46646	3.125	0.14	12.172	7054502.088	2.656031266	76.62%
200	5.6289	4.555	0.109	19.454	19586851.53	4.425703507	78.62%
500	16.04202	11.5005	0.234	54.939	168858004.1	12.99453747	81.00%
1000	26.03778	18.8285	1.359	83.877	426512815.8	20.65218671	79.32%
1500	48.69554	45.392	1.172	133.191	1122212051	33.49943359	68.79%
2000	58.73366	43.642	3.281	188.926	2382483636	48.81069182	83.11%

Performance Comparison Goal Instance 7 (Median)

SDC Discovery — non SDC Discovery

Performance Comparison Goal Instance 7 (Median)
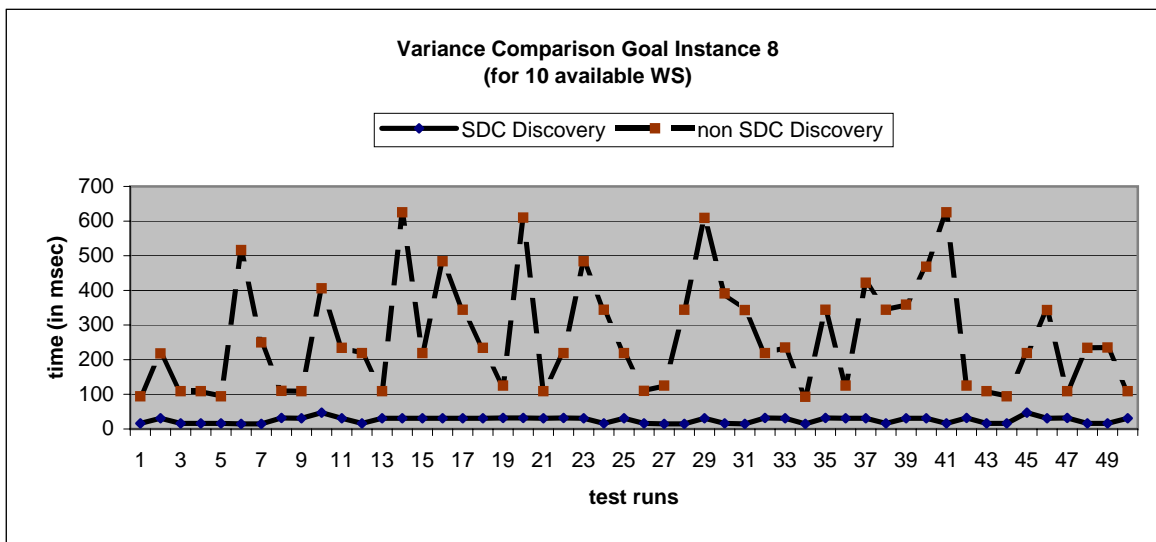
SDC Discovery — non SDC Discovery

statistical preparation of comparison for: goal instance 8

SDC Discovery

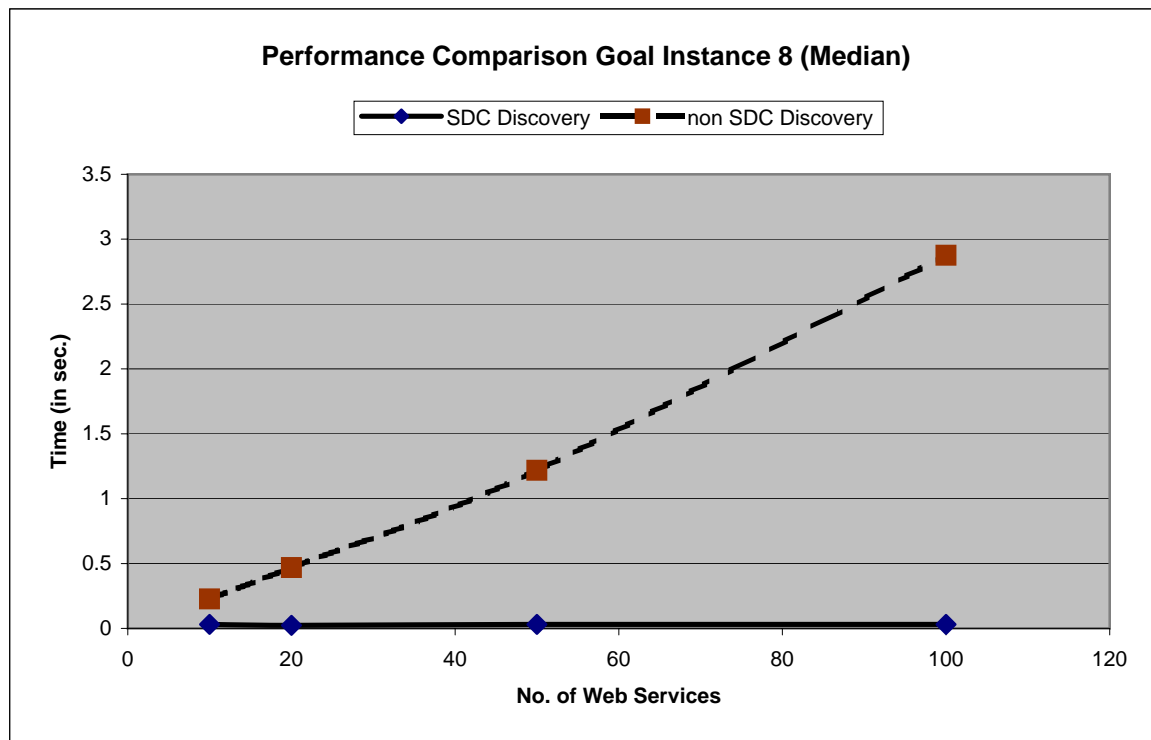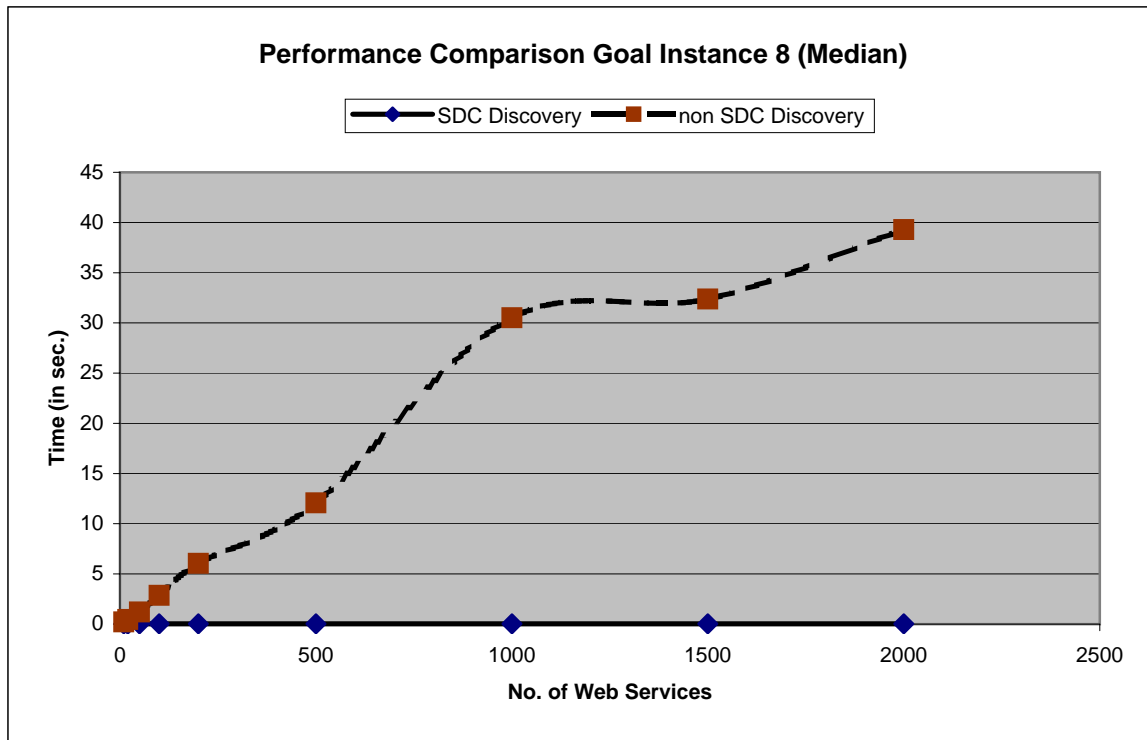| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.02587755	0.031	0.015	0.047	75.41357768	0.008684099	33.56%
20	0.0269	0.0235	0.015	0.172	518.25	0.022765105	84.63%
50	0.03184	0.031	0.015	0.188	971.4944	0.031168805	97.89%
100	0.03034	0.031	0.015	0.172	888.1844	0.029802423	98.23%
200	0.02744	0.031	0.015	0.187	580.0064	0.024083322	87.77%
500	0.02438	0.031	0.015	0.032	61.5556	0.007845738	32.18%
1000	0.04302	0.031	0.015	0.422	5552.0596	0.074512144	173.20%
1500	0.03002	0.031	0.015	0.188	576.2196	0.024004575	79.96%
2000	0.02784	0.031	0.015	0.062	69.7744	0.008353107	30.00%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.26652	0.2265	0.093	0.625	25349.0096	0.159213723	59.74%
20	0.63098	0.469	0.093	1.954	191615.2596	0.437738803	69.37%
50	1.59292	1.219	0.093	4.829	1377464.434	1.173654308	73.68%
100	3.20008	2.8755	0.109	10.485	4498163.754	2.120887492	66.28%
200	6.945	6.0625	0.25	16.001	19457440.68	4.411058907	63.51%
500	15.64352	12.071	0.125	50.892	166101445.2	12.88803496	82.39%
1000	35.34498	30.5165	1.578	107.69	664823392.7	25.78416942	72.95%
1500	40.12298	32.384	0.125	129.847	795477792.9	28.20421587	70.29%
2000	52.08724	39.298	0.485	187.817	2136735218	46.22483335	88.75%

Performance Comparison Goal Instance 8 (Median)

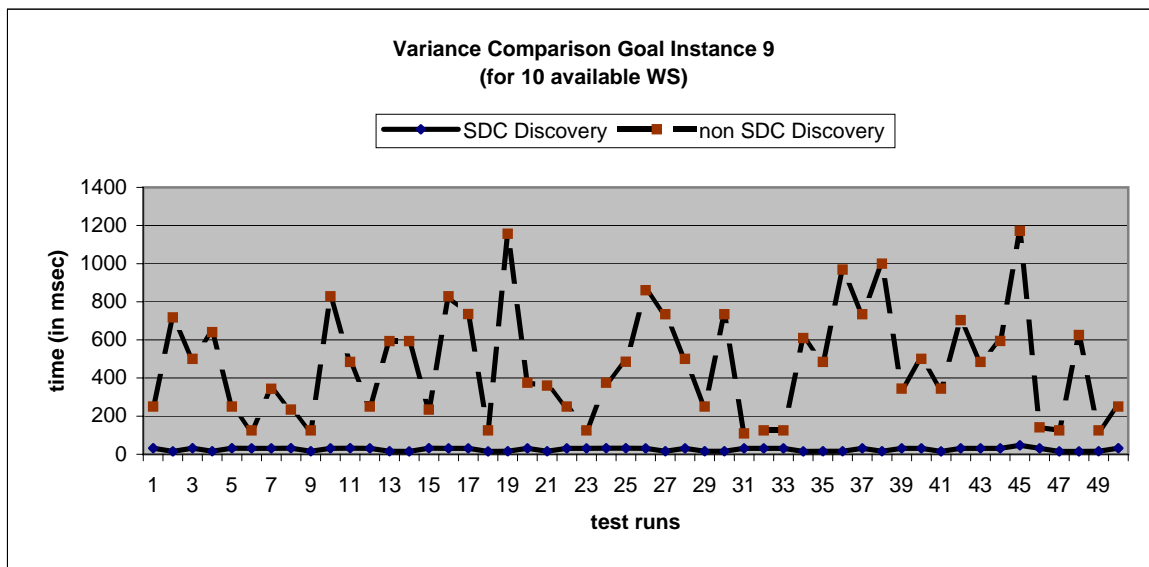Performance Comparison Goal Instance 8 (Median)

statistical preparation of comparison for: goal instance 9

SDC Discovery

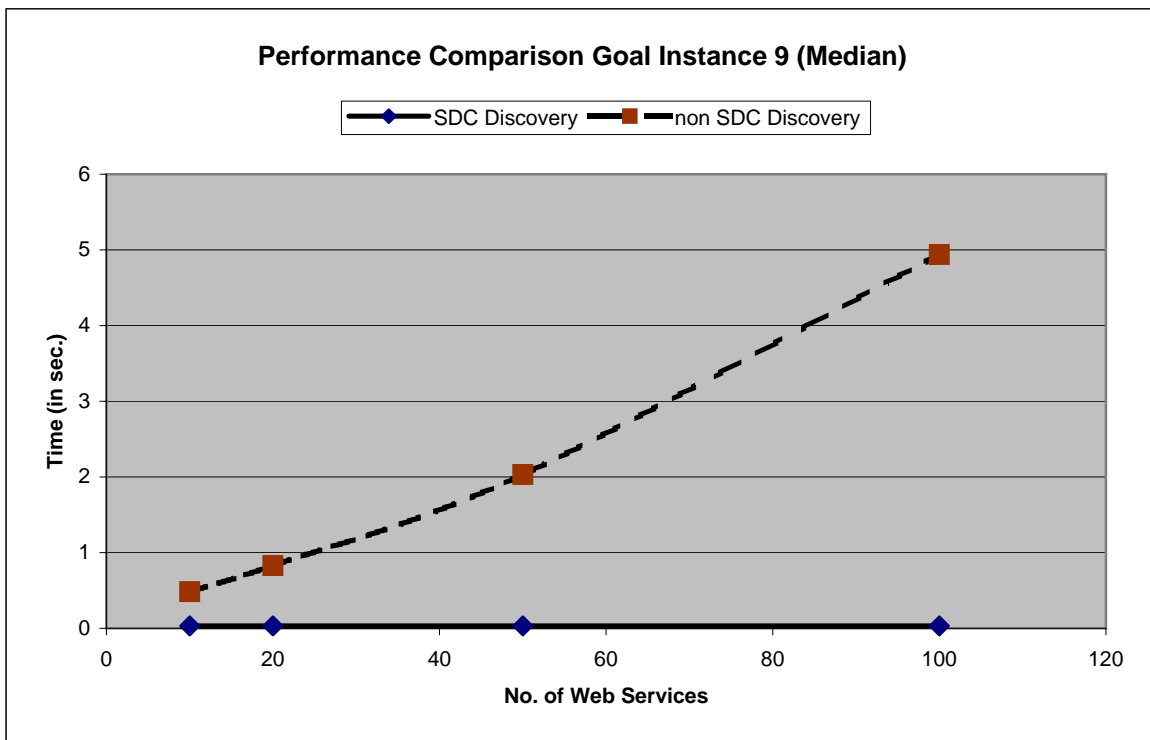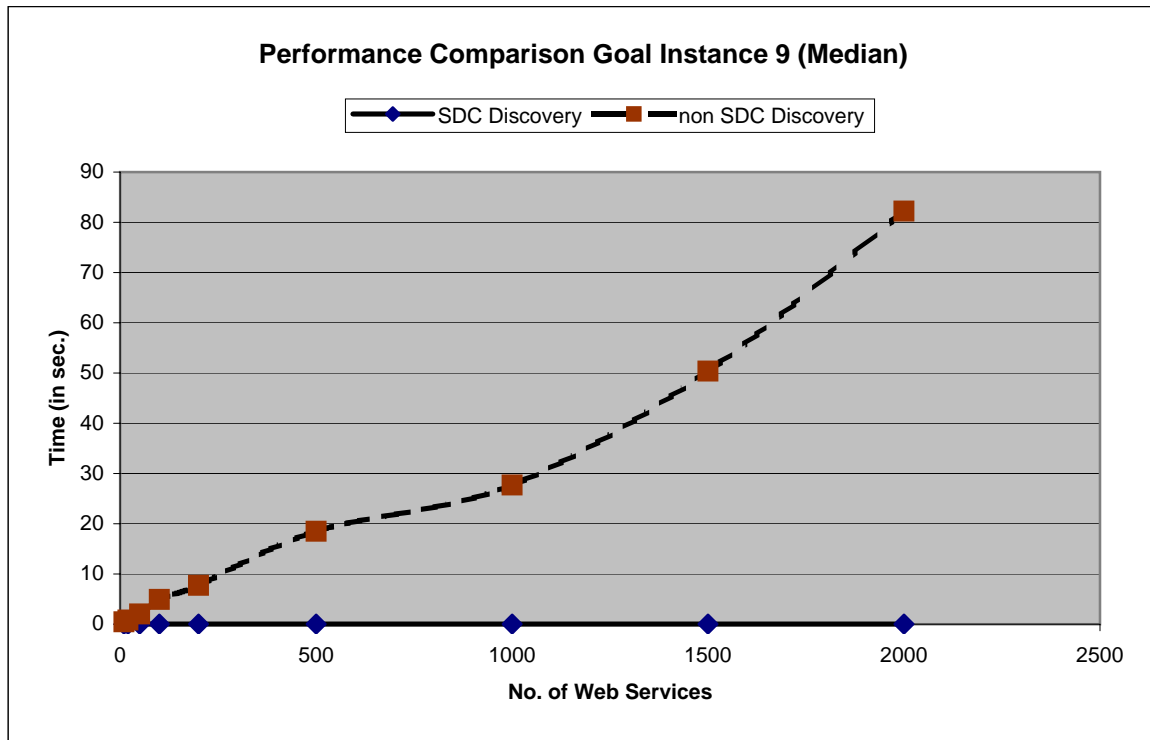| no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.02553061	0.031	0.015	0.047	67.14702207	0.008194329	32.10%
20	0.0321	0.031	0.015	0.172	914.69	0.030243842	94.22%
50	0.0275	0.031	0.015	0.047	54.65	0.007392564	26.88%
100	0.03152	0.031	0.015	0.157	711.3296	0.026670763	84.62%
200	0.02818	0.031	0.015	0.047	58.9876	0.007680339	27.25%
500	0.03058	0.031	0.015	0.14	299.8036	0.017314838	56.62%
1000	0.0385	0.031	0.015	0.406	3220.81	0.056752181	147.41%
1500	0.02872	0.031	0.015	0.062	110.3616	0.010505313	36.58%
2000	0.05164	0.031	0.015	0.954	17670.9104	0.132931977	257.42%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.47244	0.484	0.109	1.172	81797.7664	0.286003088	60.54%
20	0.95972	0.828	0.125	2.25	381264.5616	0.617466243	64.34%
50	2.19534	2.0315	0.109	6.047	2036616.264	1.42710065	65.01%
100	5.18928	4.938	0.235	12	11579663.4	3.402890448	65.58%
200	8.79054	7.7345	0.109	23.532	32325589.53	5.685559737	64.68%
500	21.79904	18.4925	0.625	58.861	259218407.9	16.10026111	73.86%
1000	35.66096	27.721	0.468	108.314	951496707.5	30.84634026	86.50%
1500	60.73036	50.386	0.594	168.088	2425576340	49.25014051	81.10%
2000	90.47256	82.2385	0.125	229.966	3473247853	58.93426722	65.14%

Variance Comparison Goal Instance 9
(for 10 available WS)

Performance Comparison Goal Instance 9 (Median)

Performance Comparison Goal Instance 9 (Median)

statistical preparation of comparison for: goal instance 10

SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand. deviation (in sec)	coefficient of variation
10	0.02491837	0.016	0.015	0.156	414.9729279	0.020370884	81.75%
20	0.0278	0.031	0.015	0.157	397.88	0.01994693	71.75%
50	0.02432	0.031	0.015	0.032	60.0576	0.007749684	31.87%
100	0.03468	0.031	0.015	0.422	3111.6176	0.055781875	160.85%
200	0.03092	0.031	0.015	0.172	878.9536	0.029647152	95.88%
500	0.0513	0.031	0.015	0.609	10198.37	0.100986979	196.86%
1000	0.02906	0.031	0.015	0.188	568.9364	0.023852388	82.08%
1500	0.0322	0.031	0.015	0.203	1065.04	0.032634951	101.35%
2000	0.03214	0.031	0.015	0.187	822.4404	0.028678222	89.23%

Non-SDC Discovery

no. WS	arith. mean (in sec)	median (in sec)	min (in sec)	max (in sec)	variance (in msec^2)	stand.deviation (in sec)	coefficient of variation
10	0.21504	0.1875	0.093	0.656	21003.9184	0.144927287	67.40%
20	0.40372	0.3355	0.093	1.391	82090.5616	0.286514505	70.97%
50	1.25356	1.086	0.109	4.532	825091.3264	0.908345378	72.46%
100	2.24352	2.133	0.094	8.703	2374782.89	1.541033059	68.69%
200	4.62438	3.8985	0.094	12.282	13436127.68	3.665532386	79.27%
500	13.09228	10.782	0.5	36.658	96212509.92	9.808797578	74.92%
1000	23.94354	17.2895	0.734	86.723	450853532.6	21.23331186	88.68%
1500	34.15452	31.9395	1.094	128.445	821473537.8	28.66135966	83.92%
2000	48.4988	38.5105	1.625	123.101	1054707261	32.47625688	66.96%

Variance Comparison Goal Instance 10 (for 10 available WS)

Performance Comparison Goal Instance 10 (Median)

SDC Discovery ◆ non SDC Discovery ■

Performance Comparison Goal Instance 10 (Median)

SDC Discovery ◆ non SDC Discovery ■