Distributed Systems - Project 1
Distributed Matrix Multiplication

Firstname Lastname (login name)

October 31, 2016

1 Plots and Graphs

1.1 N=1152 Cores=1

This is some analysis of the graph seen in table 1.
This is some analysis of the figure 1

1.2 N=1152 Cores=4

This is some analysis of the graph seen in table 2.
This is some analysis of the figure 2

1.3 N=1440 Cores=1

This is some analysis of the graph seen in table 3.
This is some analysis of the figure 3

1.4 N=1440 Cores=4

This is some analysis of the graph seen in table 4.
This is some analysis of the figure 4

1.5 N=2304 Cores=1

This is some analysis of the graph seen in table 5.
This is some analysis of the figure 5

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.10138578	0.0767324	10.21484
2	0.474938611111	1.00449744444	4.60218055556
4	1.200226	1.783687	2.769629
8	1.649541	1.933852	1.981126
16	3.540273	3.00706	1.1683885

Table 1: N=1152 Cores=1

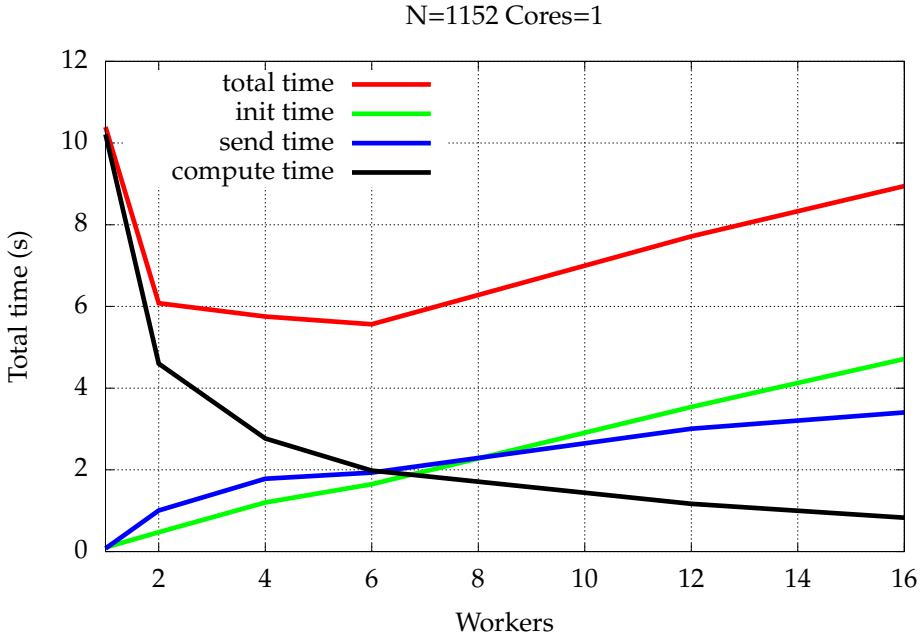

Figure 1: N=1152 Cores=1

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.4804383	1.1093686	1.713067
2	1.23712	1.91873	0.8699196
4	1.620366	2.17016	0.737511
8	3.462244	3.470238	0.5587752
16	4.579382	3.970148	0.5770616

Table 2: N=1152 Cores=4

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.0908066	0.08248418	15.03653
2	0.4613676	1.518403	10.42775
4	1.188435	2.759522	5.384172
8	1.646734	3.046986	4.007394
16	3.538326	4.610407	2.145131

Table 3: N=1440 Cores=1

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.4439212	1.654106	3.103632
2	1.147854	3.06924	1.689802
4	1.579866	3.440884	1.230548
8	3.457976	5.227428	0.9392878
16	4.572112	5.988658	0.9975946

Table 4: N=1440 Cores=4

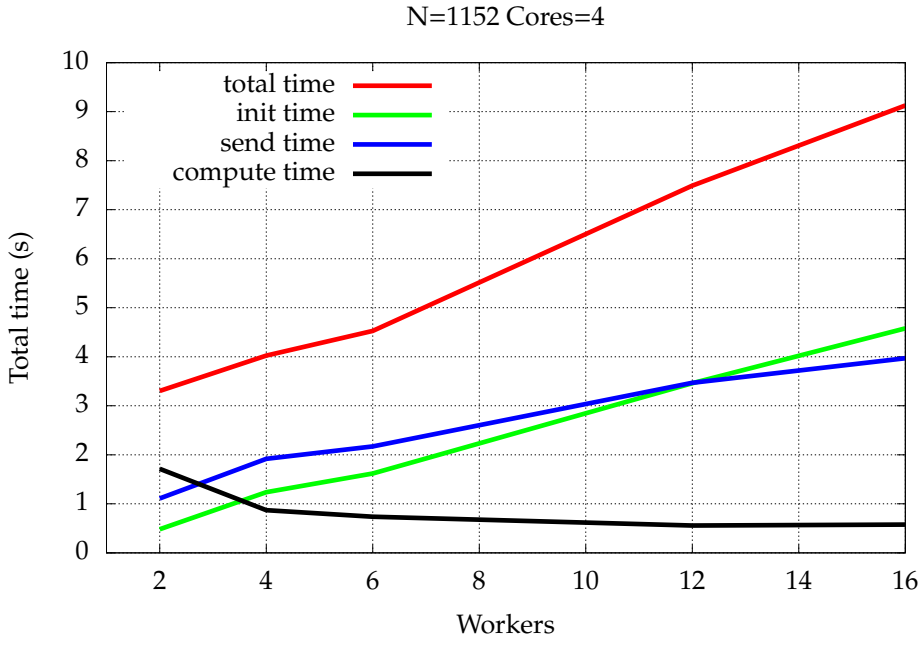

Figure 2: N=1152 Cores=4

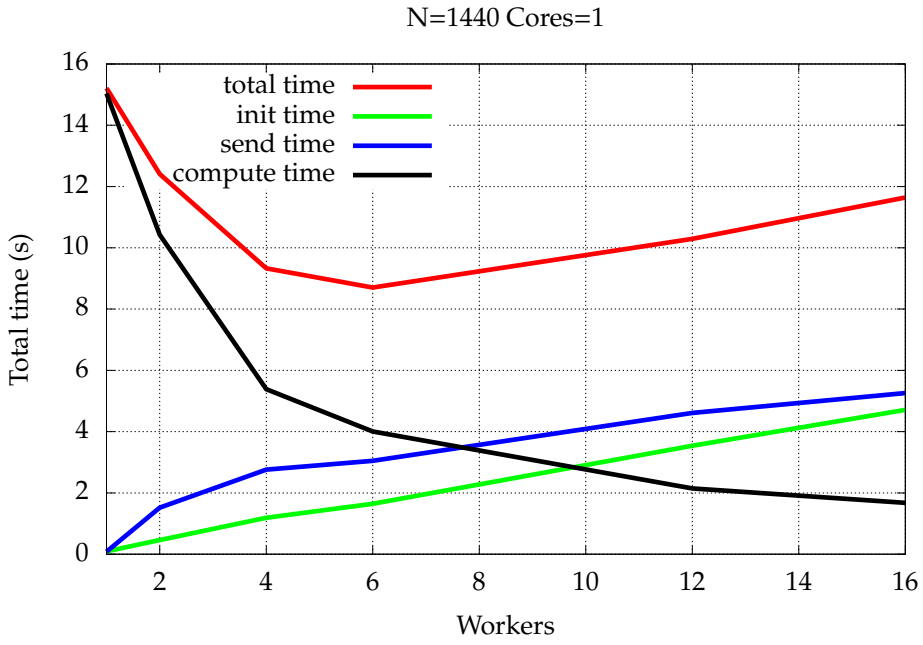

Figure 3: N=1440 Cores=1

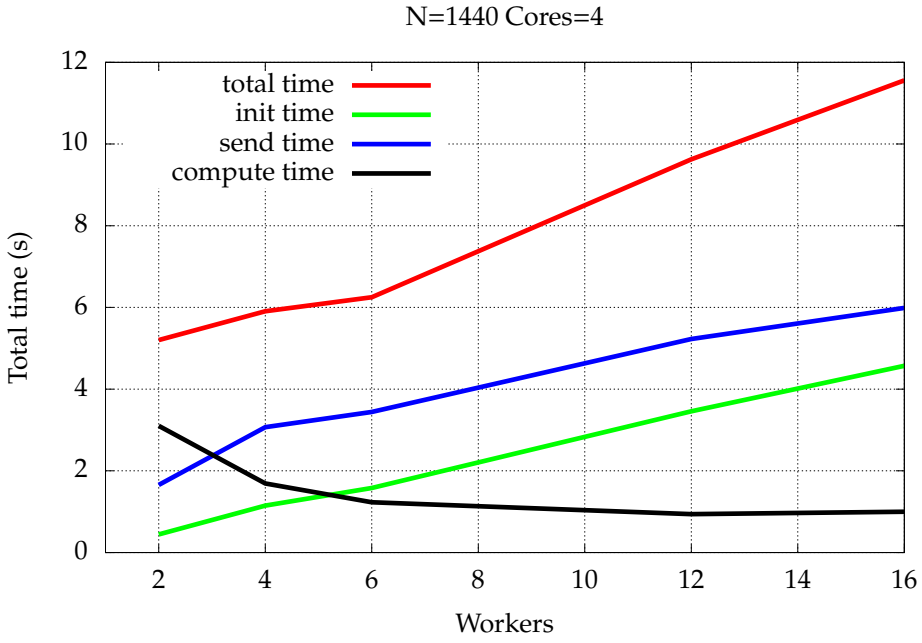

Figure 4: N=1440 Cores=4

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.0889021666667	0.120138053333	37.2009733333
2	0.4618156	3.808026	49.73261
4	1.196326	6.987342	23.21903
8	1.637381	7.721645	14.87232
16	3.524031	11.89726	7.972387

Table 5: N=2304 Cores=1

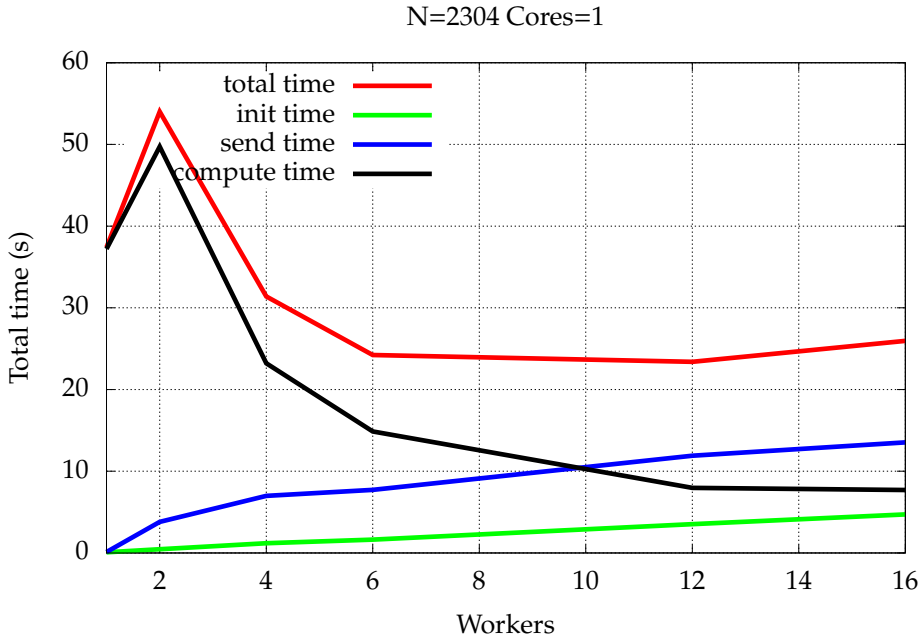

Figure 5: N=2304 Cores=1

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.4369968	4.053808	13.51936
2	1.158994	8.167546	7.208886
4	1.599608	9.144976	4.545434
8	3.413682	13.69378	2.43407
16	4.572182	15.48522	2.397678

Table 6: N=2304 Cores=4

1.6 N=2304 Cores=4

This is some analysis of the graph seen in table 6.
This is some analysis of the figure 6

1.7 N=3600 Cores=1

This is some analysis of the graph seen in table 7.
This is some analysis of the figure 7

1.8 N=3600 Cores=4

This is some analysis of the graph seen in table 8.
This is some analysis of the figure 8

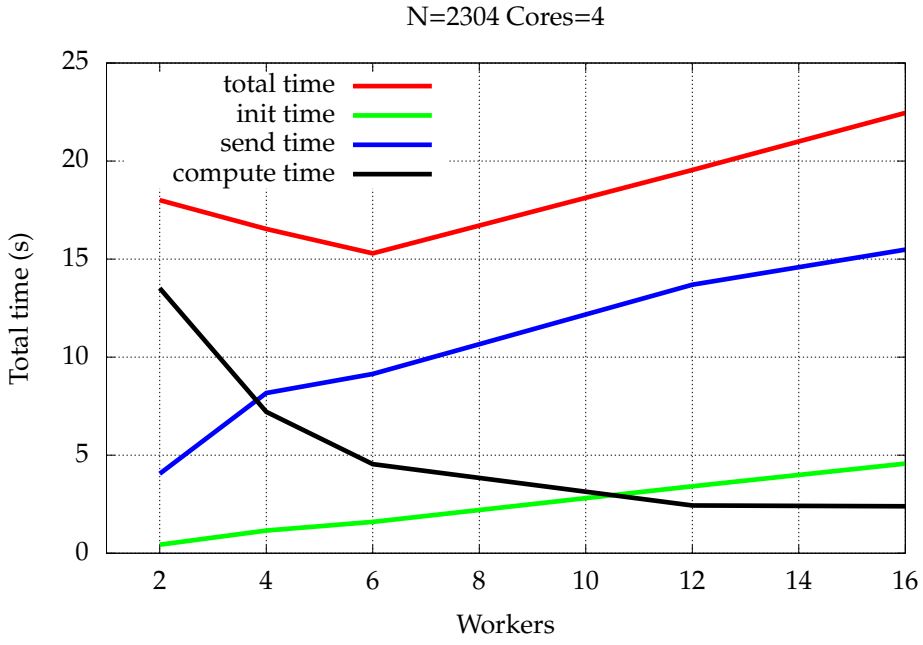

Figure 6: N=2304 Cores=4

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.08846647	0.20920764	105.52733
2	0.4635311	9.353892	178.1567
4	1.38261	19.59494	97.78628
8	2.383776	22.06282	73.04015
16	3.565261	29.00132	30.40372

Table 7: N=3600 Cores=1

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.4493372	9.8016	43.1988
2	1.16593	19.59708	21.50394
4	1.609412	22.541	17.47252
8	3.466588	34.20354	8.02585
16	4.579998	38.82958	6.289098

Table 8: N=3600 Cores=4

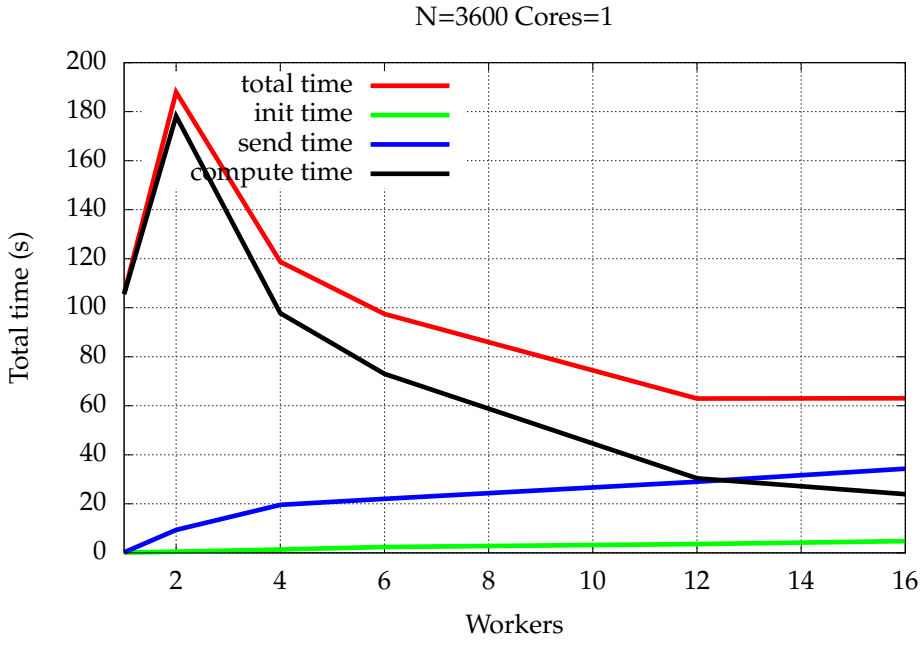

Figure 7: N=3600 Cores=1

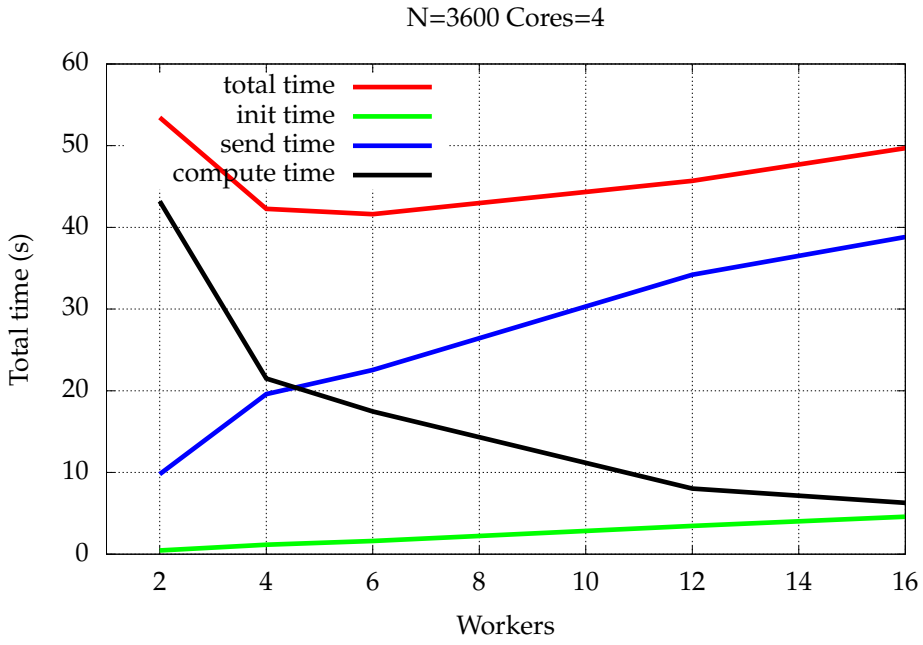

Figure 8: N=3600 Cores=4

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.088329425	0.32824245	229.890066667
2	0.4705262	18.48172	431.2662
4	1.216796	32.25206	253.8698
8	1.652394	35.47376	170.0502
16	3.550446	57.46754	93.14778

Table 9: N=5040 Cores=1

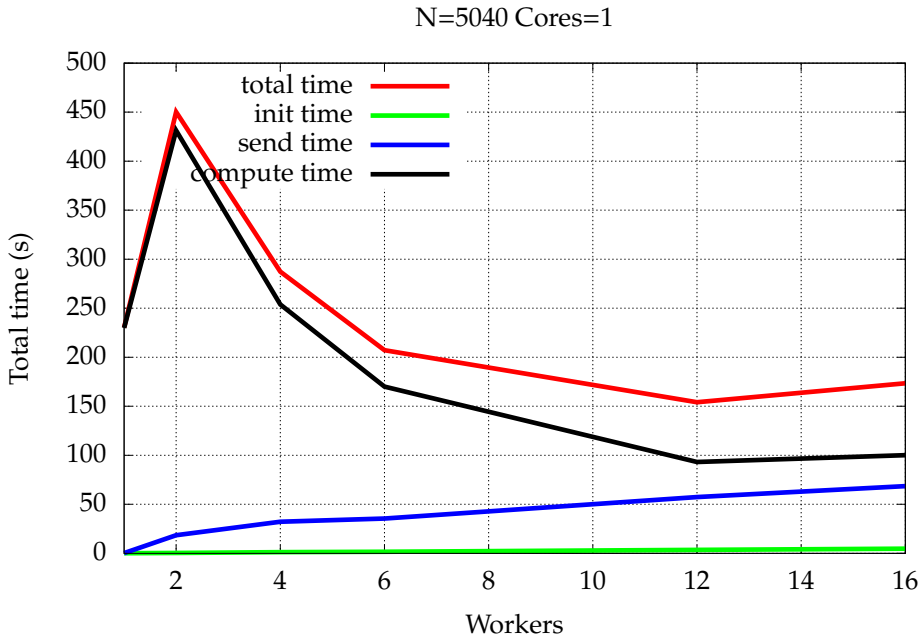

Figure 9: N=5040 Cores=1

1.9 N=5040 Cores=1

This is some analysis of the graph seen in table 9.
This is some analysis of the figure 9

1.10 N=5040 Cores=4

This is some analysis of the graph seen in table 10.
This is some analysis of the figure 10

Workers	Initialisation (s)	Sending (s)	Computing (s)
1	0.449573	19.25264	132.4628
2	1.178954	38.01076	58.53002
4	1.613828	45.09404	55.93592
8	3.433806	70.9933	23.45946
16	4.585312	79.31578	16.16644

Table 10: N=5040 Cores=4

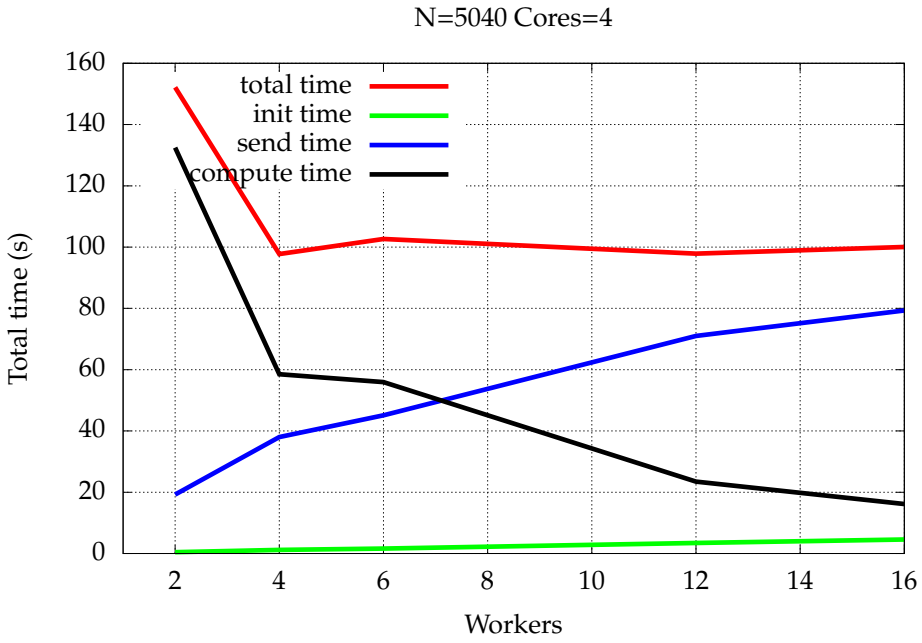

Figure 10: N=5040 Cores=4