

Dataset Size	K (# of clusters)	P (# of processors)	Run 1 time	Run 2 time	Run 3 time
Medium	2	1	0.07801	0.080225	0.097706
Medium	2	2	0.070661	0.070921	0.096355
Medium	2	4	0.106651	0.114671	0.12618
Medium	2	8	0.132129	0.123394	0.167675
Medium	2	16	0.28114	0.174692	0.272397
Medium	5	1	0.21415	0.213861	0.855594
Medium	5	2	0.155687	0.497877	0.5768
Medium	5	4	0.645255	0.564547	0.700524
Medium	5	8	0.733534	0.610636	0.15187
Medium	5	16	1.930542	0.971129	1.442476
Medium	10	1	2.392603	2.754899	1.872254
Medium	10	2	1.350055	1.606325	1.224823
Medium	10	4	1.117333	1.044266	1.491711
Medium	10	8	0.928482	0.870196	1.10576
Medium	10	16	1.507441	1.873923	2.222409
Medium	25	1	5.767605	5.553773	5.59169
Medium	25	2	1.978231	3.235037	2.860125
Medium	25	4	2.025078	1.640813	2.228501
Medium	25	8	1.301313	1.874012	0.924257
Medium	25	16	1.608503	1.762146	1.611359
Large	2	1	0.576278	0.38741	0.573701
Large	2	2	0.424079	0.425637	0.428625
Large	2	4	0.384952	0.252034	0.374019
Large	2	8	0.390018	0.373628	0.355374
Large	2	16	0.281641	0.669676	0.677345
Large	5	1	1.053203	2.455519	1.05191
Large	5	2	0.66343	0.656734	0.655377
Large	5	4	1.946333	0.503821	0.540434
Large	5	8	0.425425	0.42191	0.438746
Large	5	16	0.517484	0.525497	0.678408
Large	10	1	5.784299	4.46377	5.037787
Large	10	2	3.191517	4.613891	4.608916
Large	10	4	0.934081	2.84109	1.609513
Large	10	8	1.943981	0.553558	3.751533
Large	10	16	1.567237	3.624331	1.507305
Large	25	1	18.33866	22.599124	21.168545
Large	25	2	13.134812	9.160318	10.574281
Large	25	4	4.761566	7.152966	10.379164
Large	25	8	3.474693	3.453214	4.385037
Large	25	16	2.989368	3.618595	3.39076

**Average time**

0.085313667  
0.079312333  
0.115834  
0.141066  
0.242743  
0.427868333  
0.410121333  
0.636775333  
0.49868  
1.448049  
2.339918667  
1.393734333  
1.21777  
0.968146  
1.867924333  
5.637689333  
2.691131  
1.964797333  
1.366527333  
1.660669333  
0.512463  
0.426113667  
0.337001667  
0.373006667  
0.542887333  
1.520210667  
0.658513667  
1.225077  
0.428693667  
0.573796333  
5.095285333  
4.138108  
1.794894667  
2.083024  
2.232957667  
20.70210967  
10.95647033  
7.431232  
3.770981333  
3.332907667