

# Results of Original Secure Yannakakis

## 1. TPC-H Query 3

### (1) 1MB

row_num	o_orderkey	o_orderdate	o_shippriority	annotation
276	1092	1995-03-04	0	8006
462	1830	1995-02-23	0	7164
517	2053	1995-02-07	0	12143
782	3110	1994-12-17	0	2937
958	3814	1995-02-22	0	12594
1038	4134	1995-01-12	0	12116
1059	4227	1995-02-24	0	8724
1142	4550	1994-12-29	0	898
1179	4707	1995-02-27	0	5718
1240	4960	1995-02-26	0	11275
1328	5312	1995-02-24	0	6176

Running time: 328ms

Communication cost: 15.9736 MB

### (2) 3MB

row_num	o_orderkey	o_orderdate	o_shippriority	annotation
232	928	1995-03-02	0	255523
254	998	1994-11-26	0	14171
321	1281	1994-12-11	0	84846
355	1411	1994-12-21	0	109442
530	2114	1995-01-16	0	37113
782	3110	1994-12-17	0	32844
866	3458	1994-12-22	0	105892
964	3844	1994-12-29	0	5428
1038	4134	1995-01-12	0	147788
1074	4290	1995-01-15	0	31619
1457	5825	1995-02-21	0	28472
1555	6211	1994-11-24	0	37573
1881	7521	1995-02-28	0	93833
1887	7527	1994-12-12	0	11782
2071	8263	1995-01-27	0	105110
2309	9221	1995-01-04	0	170096
2456	9824	1995-01-23	0	32909
2489	9953	1995-02-28	0	2622
2610	10434	1994-12-24	0	39754
2612	10436	1995-01-03	0	35555
2783	11111	1995-01-18	0	41397
3050	12194	1995-03-02	0	45471
3546	14178	1995-01-01	0	11417
3631	14503	1995-02-06	0	154148
3828	15300	1995-02-09	0	94061
4120	16480	1994-12-07	0	40762
4121	16481	1995-02-19	0	51719
4266	17058	1995-01-02	0	45132
4360	17440	1995-01-24	0	143161

Running time: 944ms

Communication cost: 51.5879 MB

(3) 10MB

row_num	o_orderkey	o_orderdate	o_shippriority	annotation
95	359	1994-12-19 0	6159	
462	1830	1995-02-23 0	9900	
530	2114	1995-01-16 0	4466	
782	3110	1994-12-17 0	4498	
941	3749	1995-02-24 0	12958	
958	3814	1995-02-22 0	18494	
1111	4423	1995-02-17 0	406	
1240	4960	1995-02-26 0	15620	
1303	5191	1994-12-11 0	7391	
1505	6017	1995-01-31 0	9542	
1555	6211	1994-11-24 0	4744	
1965	7845	1994-12-14 0	7290	
2051	8195	1995-01-07 0	9929	
2074	8290	1994-12-10 0	6209	
2120	8480	1995-01-30 0	11436	
2199	8775	1995-02-04 0	5991	
2202	8802	1995-02-01 0	8929	
2536	10144	1995-01-03 0	4210	
2565	10245	1995-02-14 0	22226	
2763	11043	1995-02-20 0	7731	
2806	11206	1994-12-29 0	7894	
2905	11617	1994-12-11 0	13124	
3159	12615	1995-03-06 0	1987	
3622	14470	1995-01-25 0	7609	
3829	15301	1994-12-27 0	5743	
3972	15876	1995-01-25 0	6209	
4121	16481	1995-02-19 0	7223	
4511	18023	1995-02-25 0	5652	
4564	18244	1995-02-12 0	9247	
4672	18688	1995-03-06 0	19994	
4708	18820	1995-02-12 0	15953	
4918	19654	1995-01-10 0	8686	
5020	20068	1995-03-01 0	8013	
5070	20262	1994-12-27 0	14400	
5126	20486	1995-03-06 0	20322	
5340	21348	1995-03-11 0	2244	
5342	21350	1995-02-25 0	2725	
5347	21379	1995-01-15 0	8298	
5411	21635	1994-12-03 0	1655	
5456	21824	1995-02-08 0	2833	
5474	21890	1995-01-25 0	3561	
5692	22756	1994-12-25 0	8418	
5984	23936	1994-12-18 0	10760	
6040	24160	1995-02-02 0	5622	
6181	24709	1995-01-16 0	1380	
6238	24934	1995-01-31 0	1112	
6240	24960	1995-01-28 0	26780	
6279	25095	1995-01-26 0	16005	
6296	25184	1995-02-28 0	8181	
6361	25441	1995-01-10 0	2815	
6513	26049	1995-03-01 0	4909	

6653	26597	1995-01-14	0	9195
6777	27105	1995-02-17	0	1972
6862	27430	1995-02-01	0	5270
6955	27811	1995-03-05	0	9661
6999	27975	1995-02-13	0	8319
7279	29095	1995-03-09	0	27652
7766	31046	1995-02-08	0	19499
7967	31847	1994-12-19	0	8752
8146	32578	1995-02-06	0	6025
8272	33088	1994-12-24	0	14705
8275	33091	1995-01-26	0	5213
8592	34368	1995-01-08	0	2187
8648	34592	1995-02-28	0	4836
8721	34881	1995-02-08	0	17279
8746	34978	1995-02-05	0	15038
8891	35555	1995-03-05	0	13321
8964	35844	1994-12-07	0	5912
9053	36197	1995-01-25	0	22620
9240	36960	1995-03-09	0	1601
9379	37507	1994-12-09	0	4329
9487	37927	1995-01-26	0	7775
9772	39076	1994-12-12	0	769
10092	40356	1994-12-20	0	9416
10125	40485	1994-12-28	0	11834
10848	43392	1995-01-01	0	10513
10958	43814	1995-01-10	0	15042
11154	44610	1995-03-11	0	15781
11242	44962	1994-12-29	0	436
11267	45059	1995-02-04	0	21847
11342	45350	1995-01-04	0	3056
11362	45442	1995-02-07	0	6111
11531	46115	1995-03-03	0	26891
11532	46116	1995-01-08	0	8102
11691	46755	1995-02-07	0	20615
11803	47203	1994-12-19	0	3757
12227	48899	1995-01-19	0	1327
12400	49600	1995-03-08	0	12017
12441	49761	1995-01-25	0	23611
12481	49921	1995-02-18	0	18522
12572	50276	1995-02-15	0	7765
12617	50465	1995-03-12	0	16332
12891	51555	1994-12-13	0	6565
13022	52070	1994-12-02	0	715
13126	52486	1995-01-05	0	15324
13146	52578	1995-03-08	0	12131
13350	53382	1994-12-28	0	9662
13722	54882	1995-02-07	0	8123
13768	55072	1995-01-05	0	181
13771	55075	1995-02-02	0	14220

Running time: 2954ms

Communication cost: 185.305 MB

## 2. TPC-H Query 10

### (1) 1MB

row_num	c_custkey	c_name	c_nationkey	annotation
1	1	00000001	15	399
4	4	00000004	4	8136
13	13	00000013	3	8217
19	19	00000019	18	4504
37	37	00000037	8	360
41	41	00000041	10	4502
44	44	00000044	16	5933
49	49	00000049	10	473
52	52	00000052	11	7552
56	56	00000056	10	4117
61	61	00000061	17	14357
64	64	00000064	3	4444
67	67	00000067	9	3485
70	70	00000070	22	2390
76	76	00000076	0	7192
79	79	00000079	15	7318
80	80	00000080	0	1550
82	82	00000082	18	3905
92	92	00000092	2	4622
97	97	00000097	17	13144
101	101	00000101	2	870
103	103	00000103	9	9731
104	104	00000104	10	5606
109	109	00000109	16	2912
115	115	00000115	8	9309
118	118	00000118	18	7209
121	121	00000121	17	22072
122	122	00000122	3	1490
124	124	00000124	18	10799
125	125	00000125	19	8481
133	133	00000133	17	21930
142	142	00000142	9	10003
143	143	00000143	16	9558

Running time: 2122ms

Communication cost: 12.3652 MB

### (2) 3MB

row_num	c_custkey	c_name	c_nationkey	annotation
1	1	00000001	15	109225
4	4	00000004	4	5334
7	7	00000007	18	65151
10	10	00000010	5	7525
13	13	00000013	3	126906
19	19	00000019	18	36731
25	25	00000025	12	14962
34	34	00000034	15	233755
35	35	00000035	17	9948
37	37	00000037	8	30587
38	38	00000038	12	115734
40	40	00000040	3	98360

46	46	00000046	6	42593
49	49	00000049	10	162143
52	52	00000052	11	58101
55	55	00000055	10	12889
58	58	00000058	13	133771
67	67	00000067	9	148960
76	76	00000076	0	97224
95	95	00000095	15	32122
97	97	00000097	17	76425
100	100	00000100	20	172657
103	103	00000103	9	42823
104	104	00000104	10	18148
106	106	00000106	1	4093
112	112	00000112	19	86165
121	121	00000121	17	132809
122	122	00000122	3	68682
130	130	00000130	9	282352
131	131	00000131	11	101382
136	136	00000136	7	27712
139	139	00000139	9	27948
142	142	00000142	9	132439
143	143	00000143	16	5932
145	145	00000145	13	53784
148	148	00000148	11	53408
154	154	00000154	19	32006
157	157	00000157	15	51922
164	164	00000164	4	70463
166	166	00000166	10	163119
169	169	00000169	18	13528
172	172	00000172	22	28661
181	181	00000181	9	106114
182	182	00000182	3	66216
187	187	00000187	4	35366
193	193	00000193	23	237315
202	202	00000202	7	223094
203	203	00000203	1	92363
205	205	00000205	12	67498
208	208	00000208	19	121013
214	214	00000214	8	53338
217	217	00000217	23	31867
220	220	00000220	16	96384
224	224	00000224	15	151050
226	226	00000226	3	68888
232	232	00000232	22	36097
233	233	00000233	3	95290
238	238	00000238	16	93062
242	242	00000242	3	47040
251	251	00000251	13	39567
256	256	00000256	10	172681
259	259	00000259	5	33166
260	260	00000260	1	21747
262	262	00000262	4	66911
269	269	00000269	14	45085
274	274	00000274	19	57532
277	277	00000277	23	172443

283	283	00000283	7	94450
286	286	00000286	22	37481
292	292	00000292	11	155232
298	298	00000298	21	192081
302	302	00000302	4	11829
307	307	00000307	13	90384
308	308	00000308	9	114463
313	313	00000313	0	65828
316	316	00000316	8	39858
325	325	00000325	15	116520
338	338	00000338	23	200527
340	340	00000340	2	137643
343	343	00000343	3	50091
344	344	00000344	2	7567
346	346	00000346	2	113975
350	350	00000350	15	46215
352	352	00000352	9	118354
353	353	00000353	10	91159
358	358	00000358	5	326676
359	359	00000359	14	54510
362	362	00000362	17	71096
364	364	00000364	23	135621
365	365	00000365	24	92398
367	367	00000367	13	17943
368	368	00000368	22	27429
370	370	00000370	12	119861
373	373	00000373	20	118398
374	374	00000374	22	26568
376	376	00000376	16	193117
389	389	00000389	9	128930
392	392	00000392	17	87708
394	394	00000394	23	132110
397	397	00000397	7	150506

Running time: 848ms

Communication cost: 39.7549 MB

### (3) 10MB

row_num	c_custkey	c_name	c_nationkey	annotation
1	1	00000001	15	1955
2	2	00000002	13	9872
7	7	00000007	18	8085
10	10	00000010	5	637
11	11	00000011	23	8249
22	22	00000022	3	3908
23	23	00000023	3	19336
28	28	00000028	8	6525
35	35	00000035	17	22998
40	40	00000040	3	12540
41	41	00000041	10	6891
43	43	00000043	19	34853
58	58	00000058	13	7630
59	59	00000059	1	5355
64	64	00000064	3	13306

71	71	00000071	7	3856
79	79	00000079	15	7601
86	86	00000086	0	14811
88	88	00000088	16	11863
94	94	00000094	9	175
97	97	00000097	17	11608
106	106	00000106	1	15747
107	107	00000107	15	2006
109	109	00000109	16	29422
110	110	00000110	10	2682
113	113	00000113	12	10488
116	116	00000116	16	1167
118	118	00000118	18	3797
121	121	00000121	17	18013
124	124	00000124	18	14668
130	130	00000130	9	10373
133	133	00000133	17	14988
136	136	00000136	7	5920
137	137	00000137	16	9518
143	143	00000143	16	2714
148	148	00000148	11	5221
149	149	00000149	19	25245
154	154	00000154	19	19736
155	155	00000155	0	2246
158	158	00000158	10	18587
163	163	00000163	21	8226
172	172	00000172	22	6105
175	175	00000175	10	4779
178	178	00000178	21	3837
179	179	00000179	4	1710
184	184	00000184	21	16716
188	188	00000188	5	12571
190	190	00000190	11	2325
193	193	00000193	23	5853
202	202	00000202	7	14456
205	205	00000205	12	798
215	215	00000215	9	1526
223	223	00000223	20	15968
226	226	00000226	3	14595
238	238	00000238	16	14926
244	244	00000244	15	8166
247	247	00000247	20	5482
248	248	00000248	10	12037
250	250	00000250	16	16810
251	251	00000251	13	5817
253	253	00000253	15	11913
254	254	00000254	1	3772
256	256	00000256	10	8579
262	262	00000262	4	4343
265	265	00000265	17	5757
272	272	00000272	2	1526
275	275	00000275	22	10942
277	277	00000277	23	4421
278	278	00000278	20	7130
283	283	00000283	7	16531

289	289	00000289	10	10212
299	299	00000299	4	467
302	302	00000302	4	11834
304	304	00000304	0	6252
313	313	00000313	0	8718
316	316	00000316	8	11675
319	319	00000319	6	6023
323	323	00000323	18	2822
325	325	00000325	15	8409
328	328	00000328	5	11808
332	332	00000332	22	11376
334	334	00000334	4	24629
337	337	00000337	0	4065
340	340	00000340	2	25186
341	341	00000341	9	13008
346	346	00000346	2	1555
352	352	00000352	9	16595
355	355	00000355	14	20416
364	364	00000364	23	1142
374	374	00000374	22	10668
379	379	00000379	7	27300
382	382	00000382	8	9649
386	386	00000386	24	15872
388	388	00000388	7	2248
389	389	00000389	9	5668
391	391	00000391	11	10134
394	394	00000394	23	10882
398	398	00000398	15	345
401	401	00000401	19	8002
403	403	00000403	14	5822

Running time: 4098ms

Communication cost: 142.878 MB

### 3. The extension query

#### (1) 1MB

row\_num o\_custkey o\_orderkey c\_name l\_returnflag annotation  
Empty Relation!

Running time: 8747ms

Communication cost: 223.354 MB

#### (2) 3MB

row_num		o_custkey	o_orderkey	c_name	l_returnflag	annotation
1	4	164	00000004	R		17062
2	5	896	00000005	A		3872
3	7	7621	00000007	N		1408
4	10	1389000000010	N			633
5	11	1696	00000011	N		11229
6	16	7399	00000016	N		2816
7	16	1392600000016	N			817



8	16	1568700000016	R	5729
9	20	7105 00000020	R	8448
10	55	1066100000055	R	5632
11	85	8195 00000085	R	16282
12	91	2720 00000091	A	17248
13	100	7874 00000100	N	1634
14	100	8706 00000100	N	16164
15	101	6278 00000101	R	7385
16	101	9735 00000101	N	4381
17	103	3552 00000103	N	12132
18	110	5346 00000110	A	2464
19	112	1 00000112	N	4200
20	112	2662 00000112	N	3546
21	119	6402 00000119	N	5697
22	134	4871 00000134	N	5729
23	139	1059800000139	R	13072
24	149	1360300000149	N	7744
25	160	1613400000160	R	4652
26	160	1626200000160	A	3033
27	163	1408 00000163	N	48846
28	169	1954 00000169	N	10339
29	175	1056600000175	N	7353
30	176	4545 00000176	A	2816
31	182	7524 00000182	R	5388
32	187	6084 00000187	N	1971
33	188	8645 00000188	N	7751
34	196	5312 00000196	A	25413
35	196	1062900000196	A	3376
36	199	8582 00000199	A	9304
37	205	4004 00000205	A	8980
38	220	3746 00000220	R	7227
39	220	1414700000220	A	4044
40	220	1689600000220	N	19771
41	223	6343 00000223	N	29075
42	223	1472200000223	N	28595
43	230	2656 00000230	R	11229
44	238	993 00000238	N	4200
45	244	1587500000244	N	5697
46	244	1603600000244	R	58150
47	247	1175000000247	N	352
48	253	2630 00000253	R	37582
49	253	3108 00000253	A	13024
50	253	1356900000253	R	12806
51	257	1232200000257	R	1056
52	260	1289900000260	N	1477
53	262	8805 00000262	N	2464
54	265	7618 00000265	R	27912
55	265	1235800000265	N	3489
56	266	1184 00000266	N	1347
57	274	1050100000274	N	25586
58	283	1666 00000283	N	36053
59	284	1776000000284	A	1055
60	286	418 00000286	N	591
61	299	9987 00000299	N	38379
62	304	9955 00000304	N	12255

63	307	2432	00000307	N	4576
64	307	3492	00000307	R	3143
65	311	868	00000311	R	10621
66	319	16391	00000319	N	6752
67	332	5254	00000332	A	18791
68	332	5570	00000332	N	12469
69	341	9159	00000341	N	20094
70	346	5478	00000346	N	27777
71	370	4803	00000370	N	4009
72	383	15685	00000383	N	633
73	385	17473	00000385	N	17157
74	406	7138	00000406	N	8448
75	418	8134	00000418	N	10327
76	422	2370	00000422	A	14184
77	448	15396	00000448	N	15119

Running time: 10538ms

Communication cost: 715.562 MB

### (3) 10MB

row_num	o_custkey	o_orderkey	c_name	l_returnflag	annotation
1	23	4086400000023	N	228	
2	34	4883600000034	A	119	
3	37	1031 00000037	R	525	
4	41	5488000000041	N	48	
5	50	1129900000050	R	765	
6	65	7105 00000065	A	620	
7	65	1882200000065	A	1395	
8	83	2150400000083	N	150	
9	85	2477100000085	N	1221	
10	89	1415000000089	A	2178	
11	89	1949000000089	N	682	
12	100	2899600000100	N	667	
13	104	5363900000104	N	798	
14	118	6499 00000118	N	240	
15	121	4195500000121	N	1015	
16	131	3318600000131	R	840	
17	131	5501300000131	N	900	
18	136	2588800000136	N	1050	
19	154	1235700000154	N	444	
20	169	5075300000169	N	3300	
21	179	5491700000179	A	1125	
22	181	2723400000181	N	170	
23	188	1587200000188	A	2550	
24	196	2179700000196	N	646	
25	200	3225600000200	N	700	
26	211	4326600000211	N	760	
27	220	2227600000220	R	943	
28	226	1222800000226	A	414	
29	227	5260900000227	N	675	
30	230	5959 00000230	A	1261	
31	233	3133500000233	N	190	
32	233	3779400000233	R	370	

33	235	3107300000235	R	1075
34	239	4864200000239	A	80
35	242	3222700000242	N	2268
36	244	5321700000244	N	40
37	247	2627400000247	A	660
38	248	2960500000248	A	25
39	259	3277400000259	A	119
40	259	4224600000259	R	825
41	268	5213500000268	A	120
42	280	5079000000280	N	1452
43	281	5958900000281	A	930
44	295	4199000000295	N	320
45	304	3469400000304	N	215
46	307	3232700000307	R	280
47	314	1828 00000314	R	726
48	337	9382 00000337	N	264
49	355	1312500000355	R	38
50	355	4544700000355	R	629
51	388	3649 00000388	A	57
52	388	1130300000388	R	1472
53	388	3968600000388	A	208
54	392	323 00000392	A	4000
55	395	5130000000395	N	80
56	400	3462600000400	A	275
57	400	4205300000400	N	10
58	400	5453200000400	N	460
59	403	8098 00000403	N	399
60	409	2016600000409	A	200
61	409	3360500000409	R	190
62	409	4518700000409	R	390
63	410	5911000000410	N	609
64	440	1101000000440	N	2024
65	455	2176000000455	R	32
66	458	1270600000458	A	2214
67	458	2524800000458	N	1350
68	463	2778300000463	N	475
69	469	1619400000469	R	2070
70	472	1792 00000472	R	675
71	473	3587700000473	A	510
72	478	3312100000478	N	368
73	488	8199 00000488	N	1377
74	490	2969700000490	N	29
75	496	3623000000496	R	152
76	497	2486500000497	R	1110
77	497	4256700000497	A	570
78	505	5168400000505	R	3588
79	506	3712200000506	N	459
80	508	4880100000508	A	630
81	509	3898000000509	A	510
82	526	2803200000526	N	2720
83	529	1699500000529	R	1406
84	548	5056600000548	N	1715
85	577	6663 00000577	R	200
86	580	3738000000580	A	1716
87	583	1785900000583	A	58

88	584	3603300000584	R	1875
89	593	4506000000593	R	476
90	595	4768600000595	R	1518
91	602	2400500000602	A	493
92	607	8997 00000607	A	2178
93	611	3303100000611	R	270
94	623	4269000000623	A	370
95	625	2259700000625	N	87
96	632	2796800000632	N	2666
97	637	4329800000637	N	300
98	655	8518 00000655	N	992
99	661	1123200000661	N	750
100	667	2925500000667	N	1575
101	685	2006600000685	A	40
102	685	4192400000685	N	155
103	689	4726700000689	R	970
104	691	8576 00000691	A	140
105	715	5210200000715	A	1806
106	731	3746 00000731	R	644
107	734	3664600000734	R	630
108	737	4787700000737	A	2046
109	745	5350 00000745	R	361
110	746	3395300000746	R	1406
111	751	2243600000751	N	210
112	760	5654700000760	A	760
113	778	5491600000778	N	30
114	785	2960600000785	N	464
115	788	2813300000788	N	756
116	794	2279 00000794	A	162
117	805	1318500000805	N	1400
118	811	4634100000811	R	920
119	818	1174900000818	N	3024
120	820	4003200000820	A	114
121	830	4163900000830	N	164
122	839	2640000000839	N	1998
123	883	2144500000883	R	3300
124	892	2209 00000892	A	35
125	901	4701500000901	A	1260
126	908	3553 00000908	R	252
127	908	5529900000908	A	2904
128	910	5901200000910	A	68
129	913	4889600000913	A	528
130	943	3773400000943	A	2064
131	946	5501400000946	A	713
132	949	1164800000949	N	874
133	949	3981000000949	N	2268
134	952	2451900000952	N	841
135	965	3750 00000965	R	1786
136	967	4514 00000967	R	2160
137	971	768 00000971	N	2574
138	973	4381200000973	N	841
139	986	2336700000986	N	836
140	994	2089900000994	R	1938
141	1010	5193700001010	R	1554
142	1015	2620900001015	N	666

143	1021	1223100001021	N	1008
144	1025	4631000001025	A	450
145	1027	390 00001027	N	130
146	1027	1571 00001027	A	180
147	1028	6789 00001028	N	209
148	1033	2259500001033	N	559
149	1040	3926400001040	N	1650
150	1042	5254500001042	N	2400
151	1045	1856 00001045	R	4324
152	1045	2839000001045	R	1075
153	1060	1485200001060	N	1122
154	1061	4384600001061	R	3520
155	1079	5088000001079	A	3600
156	1084	2256000001084	N	215
157	1093	4102800001093	N	2625
158	1096	3286400001096	N	874
159	1099	2922300001099	A	770
160	1102	3952000001102	N	990
161	1102	5385800001102	N	180
162	1106	7047 00001106	N	2025
163	1117	5299600001117	N	232
164	1124	5933300001124	N	2046
165	1142	3578100001142	A	1710
166	1148	1491700001148	N	1000
167	1157	8261 00001157	R	825
168	1163	4358800001163	A	3168
169	1171	3548800001171	N	1512
170	1174	2032200001174	A	650
171	1178	801 00001178	A	726
172	1184	4778000001184	R	1292
173	1189	3891800001189	N	100
174	1192	2329900001192	A	40
175	1198	7140 00001198	A	207
176	1207	2988900001207	R	112
177	1207	4125500001207	R	140
178	1213	5632300001213	N	165
179	1214	1136500001214	N	1922
180	1222	3109 00001222	A	2150
181	1223	1885100001223	R	370
182	1226	3667300001226	A	225
183	1234	5104400001234	R	532
184	1246	7589 00001246	N	1400
185	1252	482 00001252	N	528
186	1255	1997500001255	A	2052
187	1255	2729900001255	A	483
188	1255	3926800001255	R	736
189	1256	4489600001256	N	2775
190	1261	8001 00001261	R	20
191	1261	1213000001261	N	726
192	1264	4179600001264	N	525
193	1270	2906300001270	A	175
194	1276	3449800001276	A	560
195	1277	2547400001277	A	52
196	1282	1827200001282	N	285
197	1285	3357000001285	R	32

198	1291	1367100001291	N	516
199	1300	1888000001300	R	1800
200	1300	5066200001300	N	1122
201	1321	3453000001321	R	2356
202	1333	1398600001333	N	1725
203	1340	1284 00001340	N	245
204	1348	1485000001348	N	1160
205	1358	5552400001358	N	70
206	1360	4838700001360	R	1584
207	1378	4096 00001378	R	200
208	1385	4940900001385	N	2400
209	1397	3233 00001397	A	625
210	1403	3175100001403	N	333
211	1406	3145900001406	N	1334
212	1418	7750 00001418	R	150
213	1451	5443500001451	N	475
214	1453	5555300001453	R	220
215	1468	3069300001468	N	2442
216	1481	9602 00001481	A	1296
217	1496	4515700001496	N	1500
218	1499	3514300001499	N	836

Running time: 37706ms

Communication cost: 2562.21 MB