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LAMPIRAN

LAMPIRAN 1

PARAMETER MASUKAN PH2DT

* ph2dt.inp - input control file for program ph2dt
* Input station file:
seissta.dat
* Input phase file:
Data_Iqbal.pha
*MINWGHT: min. pick weight allowed [0]
*MAXDIST: max. distance in km between event pair and stations [200]
*MAXSEP: max. hypocentral separation in km [10]
*MAXNGH: max. number of neighbors per event [10]
*MINLNK: min. number of links required to define a neighbor [8]
*MINOBS: min. number of links per pair saved [8]
*MAXOBS: max. number of links per pair saved [20]
*MINWGHT MAXDIST MAXSEP MAXNGH MINLNK MINOBS MAXOBS
  0   1000   100   10   10   1   100

PARAMETER MASUKAN TOMODD

*--- input file selection
* cross correlation diff times:
*

*
*catalog P diff times:
dt.ct
* catalog absolute times
absolute.dat
*
* event file:
event.dat
*
* station file:
stasiun.dat
*
*--- output file selection
* original locations:
data.loc
* relocations:
data.reloc
* station information:
data.sta
* residual information:
data.res
* source paramater information:

*Output velocity
data.vel
* Vp model
Vp_model.dat
* Vs model
Vs_model.dat
*--- data type selection:
* IDAT: 0 = synthetics; 1= cross corr; 2= catalog; 3= cross & cat
* IPHA: 1= P; 2= S; 3= P&S
* DIST:max dist [km] between cluster centroid and station
* IDAT   IPHA   DIST
                1000

t clustering:
C: min # of obs/pair for crosstime data (0= no clustering)
C: min # of obs/pair for network data (0= no clustering)

```
* OBSCC  OBSCT  CC_format
   0     0     2
*
*--- solution control:
* ISTART:    1 = from single source; 2 = from network sources
* ISOLV:     1 = SVD, 2=lsqr
* NSET:      number of sets of iteration with specifications following
*  ISTART  ISOLV  NSET weight1 weight2 weight3 air_depth
   2      2     2    5      5      5      0
* i3D delt1 ndip iskip scale1 scale2 iuses
   2  0   9   1   0.5   1.0    1
* xfac  tlim    nitpb(1) nitpb(2) stepl
 1.3  0.001     10      10     5
* lat_Orig  lon_Orig    Z_Orig iorig rota
 0.626121 122.678591   0    1    0
*
*--- data weighting and re-weighting:
* NITER:              last iteration to used the following weights
* WTCCP, WTCCS:       weight cross P, S
* WTCTP, WTCTS:       weight catalog P, S
* WRCC, WRCT:         residual threshold in sec for cross, catalog data
* WDCC, WDCT:         max dist [km] between cross, catalog linked pairs
* WTCD:  relative weighting between absolute and differential data
* THRES: Scalar used to determine the DWS threshold values
* DAMP:              damping (for lsqr only)
*      --- CROSS DATA ----- ----CATALOG DATA ----
* NITER WTCCP WTCCS WRCC WDCC WTCTP WTCTS WRCT WDCT
WTCD DAMP JOINT THRES
 4  -9  -9  -9  -9  1.0  -9  -9 50  -9 200  1   3
 3  -9  -9  -9  -9  1.0  -9  -9 50  0.5 80  0   3
*
*--- event selection:
* CID:         cluster to be relocated (0 = all)
* ID:   cuspids of event to be relocated (8 per line)
* CID
   0
* ID
```

LAMPIRAN 3

DATA POSISI EVENT GEMPA SEBELUM DAN SETELAH RELOKASI

No. Event	Sebelum Relokasi			Setelah Relokasi		
	Lintang	Bujur	Kedalaman (km)	Lintang	Bujur	Kedalaman (km)
1	1.76	124.93	228	1.761207	124.866854	228.888
2	1.27	122.1	10	1.305389	122.178817	1.874
3	1	121.75	10	1.019205	121.757235	9.577
4	0.26	123.81	181	0.235052	123.822917	181.016
5	0.28	122.2	136	0.280222	122.169735	139.408
6	0.73	124.48	29	0.885207	124.38116	10.125
7	0.47	121.72	101	0.437864	121.712288	107.329
8	1.01	120.24	10	1.030957	120.237915	12.104
9	1.24	121.84	12	1.262716	121.847062	11.184
10	0.4	123.6	239	0.398956	123.607039	236.001
11	1.23	124.53	244	1.268055	124.484554	244.344
12	0.3	121.93	152	0.326763	121.974894	152.192
13	1.83	124.67	234	1.861456	124.601628	231.294
14	0.56	120.48	46	0.565286	120.471631	76.309
15	0.65	123.33	147	tidak ter relokasi		
16	0.55	119.73	15	0.584467	119.784041	22.716
17	0.32	123.33	232	0.38268	123.34585	210.521
18	0.32	121.51	146	0.295613	121.517839	150.716
19	0.15	123.87	48	0.107543	123.820638	44.456
20	0.84	120.38	10	0.808548	120.396338	0.174
21	0.31	120.32	24	0.319545	120.316235	33.579
22	0.39	122.38	97	0.351399	122.378866	103.429
23	0.75	120.61	55	0.679793	120.530965	33.533
24	0.73	121.7	48	0.723994	121.695394	53.338
25	0.91	121.02	14	0.89888	121.012419	11.737
26	0.76	122.22	54	0.776859	122.232756	58.376
27	0.47	123.58	239	0.461386	123.625244	247.204
28	0.38	121.14	10	0.401835	121.136971	7.484
29	1.11	121.11	12	1.126139	121.117253	18.54
30	0.67	120.88	77	0.626411	120.885132	88.832
31	0.93	124.58	11	tidak ter relokasi		
32	1.12	122.44	14	1.138312	122.432039	10.23
33	0.45	123.65	230	0.46674	123.650936	235.279
34	0.81	124.31	225	0.882497	124.287809	231.861
35	0.4	122.33	88	0.395312	122.416895	110.101
36	0.74	122.24	69	0.774963	122.275553	75.599
37	0.26	123.57	232	0.275054	123.595174	234.069
38	0.89	125.02	73	0.885928	124.983382	69.231
39	0.32	120.03	14	0.215603	120.04384	11.079
40	0.97	122.72	54	0.918758	122.719084	63.54
41	1.22	120.66	11	1.198492	120.647689	13.592
42	0.36	122.09	153	0.354916	122.032918	158.951
43	0.24	123.98	191	0.270523	123.970809	195.814
44	0.49	123.52	10	0.450134	123.563623	18.439
45	0.48	123.57	10	0.527594	123.538143	7.229
46	1.22	122.04	18	1.214012	122.028499	24.953
47	0.46	123.53	10	0.402693	123.54113	9.052
	0.73	122.3	63	0.702327	122.301628	70.358
	0.38	122.65	64	0.412695	122.624943	68.515
	1.29	122.04	10	1.290907	122.051701	2.556
	0.35	122.26	163	0.316404	122.261507	162.465
	1.1	121.73	10	1.084401	121.754614	9.172
	0.54	122.06	121	0.576274	122.109269	126.162

54	0.95	123.22	14	0.954258	123.211239	21.444
55	0.89	120.98	18	0.865453	120.962305	18.133
56	0.19	123.83	196	0.150933	123.851473	191.124
57	0.37	124.31	67	0.236201	124.455355	54.949
58	1.08	124.06	267	1.029285	124.011499	270.143
59	0.07	119.71	13	0.068795	119.721086	24
60	1.15	120.05	45	1.088107	120.040007	8.253
61	0.45	121.2	63	0.500459	121.256307	79.961
62	0.36	122.27	111	0.364861	122.294336	109.272
63	0.77	124.18	244	0.781812	124.160872	241.136
64	1.21	120.65	10	1.182795	120.645516	14.942
65	0.76	122.29	35	0.812607	122.310262	32.935
66	0.34	123.64	222	0.330382	123.565544	228.981
67	1.06	122.15	10	1.084384	122.132642	8.733
68	1.16	121.04	14	1.216227	120.937427	18.767
69	1.13	125.12	92	1.164774	125.107935	93.106
70	0.71	122.43	90	0.714922	122.430103	79.632
71	1.21	124.79	184	1.332448	124.802376	180.709
72	0.62	123.96	259	0.71754	123.92841	256.514
73	1.35	124.75	211	1.338782	124.726497	206.983
74	1.36	121.19	10	1.404152	121.260376	10.933
75	1.48	124.51	252	1.473576	124.52229	258.148
76	0.8	121.95	36	0.750889	121.920085	39.072
77	1.12	124.09	255	1.331557	124.100635	259.543
78	0.69	121.14	79	0.635257	121.153947	86.905
79	1.18	122.07	16	1.153584	122.045711	13.174
80	1.24	121.42	10	1.354726	121.399552	10.328
81	1.26	121.37	10	1.249469	121.397013	12.293
82	0.23	123.99	177	0.253321	123.998104	171.269
83	0.24	123.84	127	0.208606	123.857992	118.256
84	0.38	121.98	186	0.363845	121.973315	183.238
85	0.53	120.55	12	0.577835	120.52548	27.583
86	0.2	124.1	109	0.182659	124.060807	117.03
87	0.13	119.95	57	0.189757	119.974398	49.23
88	0.78	120.98	21	0.727951	121.031405	19.753
89	1.44	121.22	10	1.442404	121.219458	13.659
90	0.74	122.63	10	0.707472	122.624162	6.336
91	0.27	123.98	199	0.296075	123.985441	189.327
92	0.22	119.96	90	0.102963	120.086743	94.868
93	0.53	122.33	104	0.593369	122.284465	91.694
94	0.73	120.58	28	0.719657	120.667676	31.43
95	0.68	122.12	69	0.702454	122.087687	73.254
96	1.25	124.6	190	1.21126	124.543132	197.63
97	1.07	123.89	273	0.913664	123.886938	271.582
98	1.04	121.38	10	1.02681	121.368669	10.839
99	0.4	120.55	46	0.364196	120.600285	58.46
100	0.63	120.83	67	0.562654	120.847477	66.12
101	1.35	125.05	82	1.354027	125.069344	84.588
102	0.57	123.43	26	0.587869	123.425757	28.136
103	0.66	120.23	10	0.662461	120.262191	5.319
104	0.88	123.9	256	0.856594	123.861719	264.015
105	0.28	121.53	10	0.29641	121.542106	7.71
106	0.8	124.05	246	0.860977	124.045052	245.19
	0.71	121.55	85	0.678517	121.542277	86.01
	0.78	123.93	264	0.787346	123.92557	268.381
	0.28	124.06	119	0.204903	124.058301	118.034
	0.39	120.72	34	0.37307	120.754631	43.821
	0.53	123.6	236	0.479	123.655876	241.615
	0.87	124.44	158	0.813977	124.382422	160.337

113	0.34	122.08	151	0.331362	122.059497	147.839
114	0.65	121.27	29	0.612855	121.265991	43.48
115	0.49	120.6	55	0.462416	120.619556	68.322
116	1.22	121.4	16	1.200121	121.402669	21.377
117	0.9	122.21	82	0.854963	122.194035	82.96
118	0.77	121.98	51	0.742359	121.968872	55.944
119	0.56	121.38	31	0.541189	121.358219	40.459
120	0.15	119.98	62	0.143002	119.984839	47.48
121	1.01	122.1	10	1.024971	122.087581	9.853
122	1.03	120.27	35	1.07421	120.245996	52.155
123	0.63	120.49	10	0.626108	120.512223	10.769
124	0.66	122.1	65	0.640929	122.11119	69.611
125	1.59	125.05	186	1.606939	124.996411	186.78
126	0.66	122.23	89	0.613349	122.250057	89.155
127	0.48	124.14	149	0.454126	124.154036	141.658
128	0.54	121.52	55	0.550301	121.541349	61.972
129	1.27	120.57	10	1.252883	120.571419	5.162
130	0.86	123.98	226	0.954929	123.999268	233.585
131	1.26	120.8	10	tidak ter relokasi		
132	0.66	121.16	48	0.630357	121.182332	34.267
133	0.39	121.92	143	0.416243	121.953564	142.437
134	1.13	123.94	255	1.065521	123.947347	256.734
135	0.49	124.6	40	0.435998	124.674259	57.143
136	0.63	121.38	75	0.60715	121.393042	85.681
137	0.59	121.85	77	0.619558	121.875122	69.648
138	0.43	122.65	103	0.436067	122.604069	86.903
139	0.87	121.76	28	0.905983	121.763973	31.873
140	0.35	122.06	173	0.339446	122.113582	172.326
141	0.65	122.25	87	0.592052	122.141423	104.061
142	1.34	120.53	28	1.305117	120.498446	30.202
143	1.29	120.3	24	1.241232	120.237915	24.597
144	0.43	124.67	88	0.430914	124.61779	86.453
145	1.37	124.64	220	1.303345	124.637052	217.665
146	0.47	122.02	111	0.479127	122.028825	105.009
147	0.92	120.24	10	0.90396	120.268091	4.039
148	0.93	124.03	220	0.767901	124.039722	212.743
149	0.64	122.34	95	0.670498	122.329614	97.405
150	0.43	122.06	121	0.485141	122.058219	107.956
151	0.42	121.15	31	0.42927	121.132137	63.978
152	0.36	122.45	113	0.259408	122.539095	57.581
153	1.73	124.95	208	1.725876	124.951123	210.473
154	1.35	124.93	10	1.313061	124.955086	5.165
155	0.31	122.05	142	0.305382	122.0552	140.996
156	0.55	123.83	246	0.540967	123.809709	245.928
157	0.99	121.32	16	0.946226	121.346468	19.755
158	0.28	121.92	165	0.288001	121.943896	158.468
159	0.43	122.51	73	0.414942	122.543644	77.644
160	1.68	124.82	166	1.619851	124.793408	179.476
161	0.29	122.14	197	0.34524	122.08807	192.655
162	0.6	122.19	63	0.610502	122.194149	62.656
163	0.6	121.63	39	0.594455	121.639176	51.568
164	0.31	122.11	168	0.305927	122.107918	166.083
165	1.31	125.26	90	1.339837	125.22749	92.684
	0.56	121.18	24	0.541528	121.196379	32.595
	0.43	120.57	24	0.392087	120.593262	20.783
	0.97	121.27	13	0.934054	121.232072	13.76
	0.78	123.97	225	0.796633	123.943921	224.345
	0.63	121.08	70	0.613284	121.142293	65.767
	1.12	124.17	10	1.166744	124.08877	1.147

172	1.22	122.08	18	1.194616	122.107658	20.196
173	0.56	123.92	20	0.306389	123.829696	25.677
174	0.65	122.27	76	0.568323	122.294995	77.82
175	1.23	121.37	23	1.226908	121.373722	29.21
176	0.69	119.92	10	0.706348	119.931681	1.702
177	0.56	120.65	66	0.510296	120.681348	58.75
178	0.47	123.6	214	0.437152	123.65105	217.674
179	0.48	121.05	88	0.454418	121.073926	88.26
180	0.28	122.44	129	0.301397	122.419141	127.375
181	1.04	122.1	10	1.014898	122.067456	15.621
182	0.65	121.61	58	0.654769	121.595467	57.207
183	0.52	121.69	101	0.599426	121.638664	94.585
184	1.15	120.81	10	1.128815	120.830908	8.886
185	0.36	121.92	97	0.392811	121.935954	90.69
186	0.76	120.61	10	0.758722	120.627856	8.082
187	0.39	121.93	143	0.381984	121.941854	144.577
188	0.55	120.32	19	0.603162	120.308105	25.637
189	0.92	120.32	10	0.902924	120.31438	15.314
190	0.31	122.37	108	0.354052	122.324878	115.784
191	1.08	123.37	21	1.095666	123.373332	23.07
192	0.44	122.18	113	0.451407	122.19082	110.697
193	1.25	121.8	10	1.234635	121.814876	5.45
194	0.73	120.84	10	0.702901	120.830868	7.246
195	1.03	121.78	11	1.028254	121.780216	12.221
196	0.76	121.27	63	0.735787	121.272965	72.575
197	0.42	120.26	26	0.368451	120.344523	19.255
198	1.34	121.18	11	1.322484	121.171175	18.861
199	1.11	121.42	10	1.062749	121.427441	5.566
200	0.84	121.68	61	0.83404	121.679053	59.786
201	1.17	120.79	15	1.098556	120.821004	11.568
202	0.61	122.29	88	0.549752	122.313778	82.295
203	0.55	121.22	53	0.793755	121.19939	89.605
204	0.29	121.97	182	0.311835	121.932275	173.292
205	1.22	121.44	10	1.179438	121.459261	9.513
206	1.08	121.4	10	1.094883	121.409058	11.788
207	1.13	121.41	10	1.112647	121.439494	7.396
208	1.62	125.14	117	1.588292	125.155981	128.327
209	0.54	119.77	24	0.578893	119.816431	31.481
210	0.71	122.14	71	0.741945	122.146965	74.21
211	1.08	122.42	10	1.100184	122.454753	17.711
212	1.26	125.08	124	1.170339	125.10564	112.318
213	0	120.07	64	0.017905	120.059627	78.454
214	0.58	121.68	86	0.596716	121.679557	89.299
215	0.33	122.22	145	0.319964	122.213354	142.875
216	0.92	120.17	10	0.955686	120.167537	12.566
217	0.23	123.36	18	0.134843	123.44174	15.292
218	1.14	121.34	10	1.152505	121.350545	9.466
219	0.19	124.17	90	0.199583	124.19624	85.403
220	1.82	125.22	135	1.807203	125.216089	136.541
221	0.5	120.6	10	0.506327	120.608195	10.794
222	0.83	122.64	32	0.833818	122.629525	37.059
223	0.35	122.02	173	0.334401	122.031901	176.345
224	1.13	120.53	13	1.204351	120.585107	16.426
	1.09	121.66	10	1.083922	121.657747	13.945
	1.46	125.36	81	1.489263	125.350798	90.361
	0.39	120.37	55	0.368954	120.396305	61.294
	0.36	121.99	166	0.368591	122.013387	166.409
	0.97	121.04	10	1.018786	121.050732	11.928
	1.11	124.43	225	1.124885	124.471053	224.957

231	0.66	122.51	83	0.631572	122.532674	91.547
232	0.52	122.46	55	0.545563	122.482324	65.829
233	0.83	122.32	11	0.944185	122.281787	11.737
234	0.31	120.87	101	0.343502	120.897656	105.834
235	1.1	123.36	19	1.072674	123.375309	24.141
236	0.31	122.01	172	0.313267	122.04034	170.589
237	0.37	122.29	108	0.307135	122.307121	110.252
238	0.13	123.89	381	tidak ter relokasi		
239	0.86	120.46	21	0.883383	120.435368	29.935
240	1.08	120.39	10	1.118248	120.390601	5.481
241	0.6	122.2	73	0.604356	122.192326	72.345
242	1.35	121.1	39	1.365376	121.066276	37.144
243	0.35	122.04	181	0.319967	122.052962	181.092
244	0.3	122.05	167	0.304594	122.106673	168.844
245	1.47	124.88	200	1.456549	124.854476	200.307
246	0.94	122	30	0.947608	121.992497	34.835
247	0.71	122.42	55	0.713476	122.426994	58.067
248	0.19	119.97	55	0.189415	119.971086	65.612
249	0.62	122.3	77	0.572209	122.311841	79.484
250	0.67	122.36	48	0.674001	122.354541	52.473
251	0.38	120.59	58	0.385049	120.60918	59.994
252	0.94	122.55	54	0.940132	122.533496	46.434
253	1.18	121.35	10	1.164602	121.349455	13.692
254	0.29	121.86	164	0.279418	121.859139	168.052
255	1.73	125.33	553	tidak ter relokasi		
256	0.81	120.47	21	0.783699	120.492033	15.41
257	1.02	120.64	24	1.067231	120.609489	31.231
258	0.86	121.01	10	0.921312	121.003442	15.886
259	0.84	122.42	23	0.84314	122.413403	29.155
260	0.35	122.02	163	0.349642	122.063281	161.989
261	0.77	120.62	10	0.75236	120.641984	12.703
262	0.76	122.82	43	0.785137	122.80057	44.98
263	0.55	122.34	76	0.62504	122.315495	85.878
264	0.28	122.16	155	tidak ter relokasi		
265	0.6	122.98	294	0.275851	122.186076	149.184
266	0.8	124.16	200	0.925768	124.130379	209.69
267	0.26	120.02	77	0.349854	120.100187	121.037
268	0.37	121.55	114	0.37785	121.536776	112.801
269	0.37	120.62	39	0.411557	120.636654	60.152
270	0.35	122.03	162	0.38277	122.081576	163.994
271	0.4	124.66	120	0.40655	124.612191	125.319
272	0.34	122.31	148	0.329047	122.327319	148.455
273	0.32	122.01	148	0.33433	122.02216	151.111
274	0.32	121.63	167	0.31851	121.635994	161.817
275	0.49	121.51	85	0.485998	121.526221	85.829
276	0.63	121.61	71	0.68447	121.559098	75.287
277	1.32	121.5	10	1.33736	121.581291	4.828
278	1.25	121.55	10	1.273832	121.565771	8.394
279	0.92	124.67	10	tidak ter relokasi		
280	0.28	123.83	211	0.289615	123.800464	214.106
281	0.94	121.29	10	0.957305	121.318945	3.526
282	0.89	124.19	202	0.839221	124.189868	193.137
283	1.06	121.1	10	1.114038	121.070605	21.803
	0.6	121.66	73	0.607954	121.628369	68.51
	0.81	120.16	10	tidak ter relokasi		
	0.32	121.98	196	0.351773	121.962158	199.836
	0.33	122.38	118	0.337231	122.364982	111.962
	0.52	122.36	85	0.55782	122.307096	90.382
	1	123.04	10	0.935348	123.019002	3.65

290	1.13	123.85	11	0.949809	123.797591	20.525
291	0.88	124.02	275	0.834422	124.003304	263.533
292	1.36	124.59	234	1.336132	124.568848	239.316
293	1.38	121.44	14	1.386028	121.401644	23.995
294	0.59	123.73	258	0.579609	123.77015	258.971
295	1.31	124.66	222	1.278542	124.618392	223.889
296	0.06	120	68	0.088592	120.058089	82.023
297	1.12	120.32	10	1.156065	120.347746	9.25
298	0.2	123.86	188	0.251883	123.869344	192.133
299	0.85	122.6	14	0.848174	122.591772	12.288
300	0.96	122.53	31	0.93749	122.548112	43.632
301	1.2	120.99	11	1.191583	120.983496	18.402
302	0.47	123.6	267	0.430386	123.58999	269.731
303	0.56	121.81	75	0.593292	121.864502	79.844
304	0.21	123.92	132	0.064036	123.855355	118.513
305	1.04	120.33	10	1.038802	120.371501	8.689
306	0.41	124.19	146	0.536803	124.15048	143.974
307	0.6	122.51	34	0.584891	122.506909	33.532
308	0.95	122.05	14	0.931318	122.0705	28.537
309	0.41	123.06	245	0.475075	123.103638	251.207
310	0.91	122.55	13	0.901557	122.539006	22.428
311	0.2	124.19	163	0.286622	124.174341	166.279
312	0.93	124.48	215	0.97207	124.441374	210.973
313	0.95	122.78	30	0.910337	122.717619	29.566
314	0.32	119.7	19	0.513539	119.558765	24.263
315	0.27	124.02	172	0.265067	124.007463	171.537
316	0.4	122.21	182	0.389905	122.184969	185.532
317	1.5	124.94	153	1.459403	124.9427	152.6
318	1.61	125.37	10	1.651616	125.352645	15.147
319	0.39	122.34	130	0.386648	122.344271	131.52
320	0.45	123.51	260	0.422711	123.536353	261.064
321	0.98	121.63	10	0.986039	121.621436	3.82
322	0.54	119.73	14	0.625447	119.729842	18.365
323	0.32	120.67	20	0.306729	120.714176	23.041
324	0.85	123.95	271	0.793489	123.915592	268.777
325	1.1	120.94	21	1.073077	120.95026	24.267
326	0.14	123.32	200	0.177498	123.305688	209.989
327	0.38	122.44	142	0.347735	122.434082	145.786
328	0.54	122.23	79	0.521765	122.25992	84.04
329	1.12	121.8	53	1.183168	121.781527	27.945
330	0.59	123.64	259	0.482694	123.633781	238.773
331	1.33	124.71	53	1.399296	124.600334	66.632
332	0.38	121.75	136	0.359662	121.714388	132.942
333	0.53	122.06	66	0.526367	122.043555	74.355
334	1.72	124.86	223	1.729449	124.864217	224.342
335	0.73	124.36	198	0.752645	124.383138	204.684
336	1.41	124.63	177	1.348408	124.607764	185.911
337	0.35	122.4	103	0.30087	122.36958	99.066
338	0.25	119.88	45	0.194615	119.956014	45.253
339	1.09	124.52	218	1.181008	124.50061	218.921
340	1.72	124.77	220	1.690416	124.771672	218.471
341	0.94	121.93	19	0.957875	121.916797	18.217
342	1.16	120.41	10	1.172169	120.40616	12.024
	1.35	121.32	19	1.351375	121.303239	23.259
	1.39	121.46	13	1.40372	121.481812	16.457
	0.65	122.25	93	0.679093	122.253621	85.164
	1.39	120.76	10	1.466183	120.686296	15.722
	1.38	120.69	64	1.368993	120.677124	32.742
	0.95	123.55	11	0.77924	123.53702	4.04

349	0.4	121.15	10	0.442794	121.133903	16.461
350	0.72	123.79	269	0.60842	123.790519	262.692
351	0.95	123.69	10	0.88719	123.691431	1.247
352	0.34	121.56	130	0.363419	121.608521	130.153
353	0.85	120.84	10	0.853785	120.825293	5.732
354	0.81	120.82	10	0.828549	120.811051	8.215
355	0.97	122.69	44	0.925363	122.696794	52.974
356	0.46	121.12	78	0.418261	121.11945	69.952
357	0.5	121.24	28	0.469939	121.218953	26.375
358	0.81	120.82	10	0.783515	120.843937	7.758
359	1.39	121.09	10	1.371009	121.096696	9.234
360	1.5	124.54	217	1.573173	124.451481	227.861
361	0.39	123.46	257	0.401494	123.50026	262.283
362	0.3	122.05	166	0.281608	122.085409	165.366
363	0.63	121.14	53	0.57663	121.141659	45.956
364	0.52	121.24	31	0.523259	121.260075	61.687
365	0.6	121.21	20	0.591717	121.172607	27.95
366	0.97	121.74	16	0.996729	121.742171	21.963
367	1.69	124.75	10	1.725638	124.74659	8.158
368	0.6	122.26	75	0.592533	122.290462	71.815
369	0.95	124.26	75	0.978321	124.303133	88.324
370	0.19	124.01	16	0.187771	124.048747	23.72
371	0.38	122.05	175	0.399336	121.998381	176.806
372	1.22	124.27	257	1.209592	124.279622	253.11
373	0.93	122.97	20	0.829367	122.957381	21.754
374	0.28	122.18	127	0.299294	122.246655	131.893
375	0.7	123.13	10			
376	0.42	122.12	175	0.390889	122.09248	168.782
377	0.65	123.05	10	0.64344	123.057178	13.287
378	0.27	124.05	81	0.257408	123.995703	21.537
379	1.25	120.34	10	1.271061	120.332487	12.071
380	1.16	120.4	13	1.168156	120.368693	13.396
381	0.29	122.53	103	0.318785	122.477604	103.742
382	0.21	123.77	118	0.168112	123.773519	123.439
383	0.76	120.42	10	0.754748	120.426196	9.716
384	1.08	120.44	10	1.205618	120.401497	8.79
385	0.24	123.75	164	0.225735	123.735701	181.306
386	0.2	120.14	35	0.212571	120.12609	48.409
387	1.08	120.13	11	1.013954	120.131462	10.355
388	1.07	120.41	10	1.127027	120.39681	9.222
389	1.1	120.4	10	1.091643	120.412614	8.783
390	0.18	124.16	24	0.223958	124.142757	27.341
391	0.33	122.19	184	0.338341	122.189543	184.472
392	0.44	122.5	66	0.432638	122.497795	62.385
393	1.3	120.92	13	1.274205	120.939738	15.082
394	1.35	120.92	10	1.386683	120.924251	13.275
395	0.74	122.2	10	0.742873	122.170044	5.246
396	0.7	122.1	54	0.651696	122.078491	55.894
397	1.24	120.92	10	1.253896	120.924251	9.987
398	0.48	121.02	466		tidak ter relokasi	
399	0.5	121.24	33	0.479003	121.234188	51.706
400	0.47	122.14	168	0.434885	122.094336	172.37
401	0.35	123.85	21	0.417839	123.897721	10.694
	0.55	121.54	82	0.554416	121.483586	80.623
	0.22	123.99	182	0.277461	123.970223	188.305
	0.65	123.79	258	0.656497	123.803979	254.51
	0.92	121.06	13	0.93104	121.051839	18.63
	0.27	123.9	177	0.289895	123.859668	183.428
	0.4	123.65	246	0.460453	123.651034	239.507

408	1.66	125.22	21	1.606578	125.224756	14.116
409	0.46	123.68	232	0.446978	123.668595	238.631
410	0.62	122.09	75	0.641494	122.007161	70.958
411	0.97	120.25	34	0.85667	120.365788	30.915
412	0.29	124.15	26	0.323509	124.157975	31.51
413	0.54	123.02	74	0.482603	123.024097	77.426
414	0.75	120.02	10	0.766761	120.083895	5.861
415	0.6	121.24	33	0.530504	121.235531	28.531
416	1.08	121.83	24	1.088607	121.82028	25.988
417	0.78	120.14	10	0.765228	120.117228	1.542
418	0.28	122.2	154	0.273316	122.208504	153.85
419	0.93	122.67	34	1.025078	122.655623	54.966
420	0.36	121.26	28	0.431036	121.242293	23.108
421	0.97	121.21	25	0.955874	121.179777	28.696
422	0.31	119.93	13	0.354787	119.902026	16.075
423	0.9	123.82	10	0.691243	123.749788	0.689
424	0.29	124.14	18	0.397224	124.142212	19.248
425	0.5	123.5	10	0.4933	123.523633	4.319
426	1.18	121.74	12	1.18744	121.778402	13.862
427	0.88	123.84	238	0.847333	123.824007	241.155
428	1.34	120.69	30	1.412861	120.663387	34.735
429	0.36	123.9	195	0.32055	123.900643	187.825
430	1.23	121.18	39	1.101987	121.197754	45.492
431	1.13	121.73	18	1.126999	121.736849	25.558
432	1.12	121.84	10	1.113117	121.875008	19.108
433	0.18	123.4	233	0.195573	123.382235	241.992
434	0.4	123.7	153	0.37857	123.693465	155.148
435	0.51	121.22	59	0.482951	121.223608	65.46
436	1.36	121.19	10	1.325977	121.195036	6.362
437	1.24	120.73	10	1.230987	120.768229	11.854
438	1.06	120.51	12	0.969333	120.539128	14.369
439	1.24	120.47	19	1.178808	120.450513	18.861
440	0.73	123.86	245	0.676274	123.852458	254.33
441	0.55	122.37	64	0.581481	122.402181	77.812
442	0.39	122.02	171	0.362225	122.000529	174.801
443	0.86	120.68	10	0.862049	120.657243	4.835
444	0.68	121.18	79	0.66278	121.112866	76.8
445	0.63	121.14	27	0.585231	121.14384	27.055
446	0.65	121.1	36	0.586249	121.11403	31.76
447	0.64	121.14	33	0.63834	121.14541	32.769
448	0.72	121.12	50	0.699319	121.124056	48.871
449	0.61	122.22	75	0.62214	122.234359	74.661
450	1.14	120.48	12	1.118981	120.482796	17.569
451	0.63	123.72	255	0.615153	123.714836	262.028
452	0.77	120.37	16	0.75279	120.378239	19.834
453	0.85	120.65	10	0.876367	120.630355	10.768
454	0.33	120.59	98	0.328723	120.536247	90.895
455	0.4	123.67	235	0.431469	123.705973	232.736
456	0.43	122.07	180	0.427967	122.080029	183.028
457	0.95	120.18	13	0.980654	120.164225	24.774
458	0.32	121.81	190	0.388848	121.8427	191.572
459	0.3	120.72	14	0.218918	120.770638	11.718
460	1.02	121.38	10	1.050835	121.376359	9.91
	1.11	121.81	12	1.120371	121.827181	14.963
	0.3	121.57	131	0.322115	121.538184	133.354
	0.39	123.94	183	0.377744	123.924674	186.88
	0.78	119.99	10	0.857755	120.000562	6.821
	0.43	123.66	243	0.468864	123.622371	251.567
	0.62	122.36	98	0.621047	122.351522	97.026

467	0.46	124.53	38	0.470735	124.47832	34.482
468	0.8	121.24	31	0.765174	121.240755	34.456
469	0.39	120.4	10	0.396478	120.41639	13.108
470	0.49	122.53	84	0.395504	122.5375	85.486
471	0.86	120.62	10	tidak ter relokasi		
472	0.82	120.65	10	0.862851	120.628239	5.557
473	0.92	120.37	21	0.85747	120.415112	23.181
474	1.47	124.5	19	1.517032	124.505363	22.322
475	0.32	122.05	179	0.366977	122.065446	178.669
476	0.63	120.2	10	0.618516	120.17417	16.703
477	0.56	121.19	64	0.55152	121.171395	67.527
478	0.22	123.34	250	0.187136	123.261629	256.723
479	1.14	124.87	35	0.95132	124.822803	24.427
480	0.71	123.16	58	0.689392	123.168685	55.506
481	0.55	122.35	57	0.548422	122.366016	63.666
482	0.8	121.24	47	0.776386	121.233504	53.43
483	1.03	120.09	10	1.000683	120.101237	11.898
484	0.37	122.12	137	0.362372	122.143221	137.719
485	0.38	123.53	231	0.399785	123.554704	231.626
486	0.84	122.07	16	0.825324	122.0545	21.7
487	0.33	121.87	157	0.366926	121.918205	153.254
488	0.35	122.07	174	0.333482	122.061296	166.502
489	0.65	120.44	10	0.64177	120.468132	9.312
490	0.67	122.19	76	0.640824	122.191536	77.177
491	0.97	123.18	33	0.977804	123.165861	37.749
492	0.88	120.01	10	0.814295	120.01888	4.923
493	1	121.54	10	0.998579	121.529215	15.739
494	0.31	122.05	168	0.349672	122.099862	173.938
495	0.25	123.78	142	0.303579	123.796826	142.34
496	0.31	122.35	151	0.342088	122.363127	152.062
497	0.25	121.01	126	0.190435	121.031787	120.196
498	0.65	121.97	66	0.649555	121.952303	64.06
499	0.54	122.19	74	0.570007	122.264567	83.403
500	0.45	121.53	81	0.508525	121.530452	86.178
501	0.73	123.92	242	0.805998	123.914673	243.472
502	0.9	121.96	30	0.896303	121.947062	29.719
503	0.45	122.06	119	0.513882	122.027409	107.909
504	0.97	121.33	44	0.974439	121.330119	53.631
505	0.45	121.99	105	0.456559	122.019987	104.246
506	0.39	123.63	237	0.431496	123.655737	237.84
507	0.32	122.02	101	0.417132	122.041024	106.409
508	0.77	123.28	39	0.796884	123.274951	40.28
509	1.78	124.83	178	1.708039	124.857983	177.902
510	0.44	123.58	234	0.466219	123.634521	228.266
511	0.37	123.66	230	0.401375	123.674772	231.661
512	0.27	120.17	68	0.318384	120.130672	59.499
513	1.3	120.29	10	1.419477	120.334635	2.08
514	1.25	120.68	12	1.282059	120.666732	16.212
515	1.27	120.64	10	1.31454	120.630851	13.54
516	1.04	122.69	400	tidak ter relokasi		
517	1	121.68	10	1.026933	121.699137	9.613
518	0.59	121.23	53	0.559992	121.254126	64.915
519	0.84	121.55	22	0.812521	121.548405	40.454
	1.01	120.04	10	1.014235	120.030583	10.155
	1.17	121.4	10	1.216011	121.409619	0.246
	0.58	121.11	26	0.524574	121.111979	24.18
	0.2	124.04	163	0.295944	124.020467	165.39
	0.8	120.01	10	0.863408	119.990601	5.877
	0.7	121.57	30	0.755109	121.569173	29.478

526	1.21	121.06	10	1.196969	121.080078	4.918
527	0.59	121.97	80	0.545565	121.983716	85.748
528	1.07	124.89	126	1.049919	124.916439	131.125
529	0.91	121.91	23	0.937991	121.890104	23.993
530	1.39	125.19	99	1.436908	125.206323	98.515
531	0.55	120.14	60	0.513681	120.181055	71.668
532	0.84	120.59	10	0.878311	120.567122	12.092
533	1.18	121.21	10	1.196703	121.233903	6.009
534	0.19	123.92	177	0.215752	123.973877	175.441
535	0.63	124.42	11	0.603866	124.452214	24.478
536	0.33	122.06	155	0.351162	122.096305	153.711
537	0.59	121.63	79	0.62781	121.613102	83.006
538	0.15	123.74	138	0.149618	123.746021	135.666
539	0.58	121.32	46	0.534679	121.30516	59.08
540	0.38	122.07	173	0.38991	122.12181	170.978
541	0.72	121.31	47	0.723379	121.301709	58.128
542	1.02	121.75	10	1.034799	121.739852	6.62
543	0.48	122.04	99	0.457192	122.047502	99.734
544	0.74	120.21	10	0.725152	120.216667	16.405
545	0.85	124.38	211	0.675001	124.34965	209.629
546	0.45	123.73	242	0.493168	123.713525	241.088
547	0.95	121.22	12	0.91635	121.196785	15.013
548	0.33	122.65	79	0.368952	122.621143	85.765
549	1	120.37	13	1.062248	120.336174	18.244
550	0.46	122.47	59	0.553855	122.450903	64.205
551	0.61	123.8	264	0.645719	123.81106	258.227
552	0.37	121.75	123	0.336864	121.759033	124.297
553	0.88	120.44	13	0.888588	120.437809	16.662
554	0.69	123.25	34	0.761554	123.240356	47.134
555	0.53	120.78	26	0.509303	120.750057	32.009
556	0.71	123.88	263	0.66942	123.902531	258.886
557	0.47	121.49	100	0.500295	121.520915	106.577
558	0.38	120.8	78	0.377108	120.815584	79.73
559	0.79	120.65	20	0.764294	120.677035	22.54
560	0.31	123.71	223	0.326949	123.694914	224.76
561	0.22	123.37	126	0.081163	123.336572	115.535
562	0.31	124.53	87	0.285647	124.478019	90.04
563	0.92	124.09	86	0.927209	124.035913	67.137
564	0.91	122.12	13	0.869977	122.073844	14.685
565	0.79	124.46	203	0.828779	124.43138	200.584
566	0.6	122.26	60	0.575394	122.250016	58.41
567	0.36	123.59	223	0.339427	123.598527	223.044
568	0.66	122.21	76	0.704059	122.191081	84.702
569	0.62	122.41	74	0.644255	122.353394	68.055
570	0.55	121.65	24	0.556149	121.640348	29.51
571	0.62	122.11	77	0.678446	122.106136	72.447
572	0.48	121.13	78	0.461501	121.094385	72.235
573	1.14	120.32	10	1.123443	120.324569	11.88
574	0.44	122.57	66	0.520737	122.570272	72.931