Object Oriented Programming – Ex2 Report

GitHub link:
https://github.com/YaRiinos/ObjectOrientations---Project

להלן השוואות של האלגוריתמים מול הטסטים שסופקו לנו
כפי שאפשר לראות רוב ההפרשים מאוד מינורים וישנו דיוק רב, אך בעמודת Alt בבדיקת אלגו 2
רואים הפרשים גדולים, דבר הכנראה נובע מקובץ הסריקה שלנו בניגוד לקובץ הסריקה שקיבלנו

Compare BM2

Num	Mac Adde	Mac Name		Lat	Lon	Alt		My Algo	Mac Adde	Lat	Lon	Alt		Diff Lat	Diff Lon	Dif Alt
0	00:02:6f:8		1	-87	32.10345	35.20924	708.5804		00:02:6f:8	32.10386	35.2089	715.6639	1	0.000411	0.000344	7.083498
1	00:02:6f:b		11	-86	32.10399	35.20897	702.3785		00:02:6f:b	32.10377	35.2089	710.3643	1	0.000217	0.000116	7.985886
2	00:0d:f0:3	Gateway	9	-87	32.10609	35.21107	688.7624		00:0d:f0:3	32.10609	35.2111	688.7624	1	0	0	0
3	00:11:6b:1	yosh	1	-84	32.10236	35.20966	691.1283		00:11:6b:1	32.10205	35.2098	691.9253	1	0.000311	0.000152	0.79695
4	00:11:6b:1	yosh	13	-84	32.10479	35.21009	711.0177		00:11:6b:1	32.105	35.2105	692.7188	1	0.000213	0.000381	18.2989
5	00:11:6b:1	yosh	1	-87	32.10475	35.21092	696.4908		00:11:6b:1	32.10501	35.2108	688	1	0.000264	0.000124	8.490829
6	00:11:6b:2	Cartiheal	11	-73	32.10492	35.20973	703.1072		00:11:6b:2	32.10572	35.2098	688.555	1	0.0008	2.67E-05	14.55219
7	00:12:2a:3	netbox-55	1	-86	32.10252	35.20735	698.9057		00:12:2a:3	32.10252	35.2073	698.9057	1	0	0	0
8	00:1a:2f:7		13	-76	32.10548	35.20966	689.2879		00:1a:2f:7	32.10534	35.2091	688.4228	1	0.00014	0.000856	0.865048
9	00:1a:dd:e	afikim-wi	1	-53	32.10253	35.20732	699.886		00:1a:dd:e	32.10253	35.2073	700.1623	1	1.62E-06	2.58E-05	0.276229
10	00:1a:dd:f	PEPWAVE	1	-76	32.10596	35.21055	688.6825		00:1a:dd:f	32.10584	35.2101	688.5948	1	0.000125	0.0005	0.087657
11	00:1a:dd:f		1	-87	32.10615	35.21139	688.8994		00:1a:dd:f	32.10615	35.2114	688.8994	1	0	0	0
12	00:1a:dd:f	Afikim_W	1	-81	32.10609	35.21107	688.7624		00:1a:dd:f	32.10609	35.2111	688.7624	1	0	0	0
13	00:1a:dd:f		13	-87	32.1056	35.21008	689.0231		00:1a:dd:f	32.10441	35.2079	689.9497	1	0.001186	0.002203	0.926564
14	00:1a:dd:f	Afikim_W	13	-85	32.10514	35.20907	689.2441		00:1a:dd:f	32.10473	35.2081	689.632	1	0.000409	0.000987	0.387903
15	00:1a:dd:f		1	-87	32.10621	35.21195	689.2763		00:1a:dd:f	32.10621	35.2119	689.2763	1	0	0	0

Compare BM3

Num	Mac Addess	Mac Name		Lat	Lon	Alt		My Algo	Mac Addess	Lat	Lon	Alt		Diff Lat	Diff Lon	Dif Alt
1	00:02:6f:8e:64:67		1	-91	32.10419	35.20918	685		00:02:6f:8e:64:67	32.10419	35.20918	685	1	0	0	0
2	00:11:6b:11:02:b7	yosh	1	-81	32.102	35.20984	693		00:11:6b:11:02:b7	32.102	35.20984	693	1	0	0	0
3	00:11:6b:11:7e:0c	yosh	1	-84	32.10465	35.21092	691.3914		00:11:6b:11:7e:0c	32.1049	35.21044	686	1	0.000249	0.000478	5.391404
4	00:1a:dd:f5:df:c5	Afikim_W	6	-87	32.10475	35.21007	689		00:1a:dd:f5:df:c5	32.10475	35.21007	689	1	0	0	0
5	00:1d:aa:81:d8:3c	KCG-ADSL	3	-62	32.10292	35.20994	698.9251		00:1d:aa:81:d8:3c	32.10291	35.20983	694	1	1.16E-05	0.000107	4.925066
6	00:27:22:f3:bb:2b		6	-87	32.10365	35.2101	710.6711		00:27:22:f3:bb:2b	32.10365	35.2101	710.6711	1	0	0	0
7	1c:b9:c4:12:7c:c8	Ariel_Univ	11	-73	32.10295	35.2088	686		1c:b9:c4:12:7c:c8	32.10347	35.20876	686	1	0.000513	4.48E-05	0
8	1c:b9:c4:12:90:b8	Ariel_Univ	11	-71	32.10316	35.20953	690.8082		1c:b9:c4:12:90:b8	32.10319	35.20873	684	1	3.3E-05	0.000798	6.808214
9	1c:b9:c4:12:af:78	Ariel_Univ	11	-68	32.1032	35.20988	701.7108		1c:b9:c4:12:af:78	32.10291	35.20983	694	1	0.000291	4.87E-05	7.710776
10	1c:b9:c4:12:af:7c	Ariel_Univ	40	-72	32.10298	35.20966	704.8277		1c:b9:c4:12:af:7c	32.10297	35.20968	706.9104	1	1.85E-05	1.71E-05	2.082724
11	1c:b9:c4:14:2b:88	Ariel_Univ	11	-80	32.10338	35.20996	698.3196		1c:b9:c4:14:2b:88	32.10291	35.20983	694	1	0.000471	0.000126	4.319608
12	1c:b9:c4:14:2b:c8	Ariel_Univ	6	-81	32.10485	35.21105	693.988		1c:b9:c4:14:2b:c8	32.10489	35.21135	698	1	3.64E-05	0.000304	4.012014
13	1c:b9:c4:14:2b:d8	Ariel_Univ	1	-69	32.10221	35.20937	689.6116		1c:b9:c4:14:2b:d8	32.10226	35.20895	688	1	5.26E-05	0.000416	1.611577
14	1c:b9:c4:14:2b:dc	Ariel_Univ	36	-74	32.10219	35.20947	690		1c:b9:c4:14:2b:dc	32.10226	35.20895	688	1	6.53E-05	0.000517	2
15	1c:b9:c4:14:2c:3c	Ariel_Univ	52	-67	32.1027	35.20983	710.111		1c:b9:c4:14:2c:3c	32.10269	35.20987	711.8977	1	1.25E-05	4.03E-05	1.786722
16	1c:b9:c4:14:2f:68	Ariel_Univ	6	-63	32.10263	35.20899	687.5512		1c:b9:c4:14:2f:68	32.10302	35.20872	685	1	0.000386	0.000272	2.551224
17	1c:b9:c4:14:30:38	Ariel_Univ	1	-72	32.10311	35.20988	701.818		1c:b9:c4:14:30:38	32.10393	35.21041	695	1	0.000817	0.00053	6.817981
18	1c:b9:c4:14:30:3c	Ariel_Univ	44	-76	32.10296	35.2097	702.1429		1c:b9:c4:14:30:3c	32.10296	35.2097	702.1429	1	0	0	0
19	1c:b9:c4:14:33:c8	Ariel_Univ	11	-75	32.1026	35.2091	688.8198		1c:b9:c4:14:33:c8	32.10302	35.20872	685	1	0.000418	0.00038	3.819766
20	1c:b9:c4:15:1c:b8	Ariel_Univ	1	-75	32.10385	35.21002	696.253		1c:b9:c4:15:1c:b8	32.10419	35.20918	685	1	0.000342	0.000847	11.25303

Compare Algo2

	Lat	Lon	Alt						My Algo2	Lat	Lon	Alt		Diff Lat	Diff Lon	Diff Alt
12-05-17 11:48 model=§	32.10296	35.2097	702.1429	3	1c:b9:c4:1	IT-MNG	1	-81		32.10484	35.20963	684		0.001877	6.77539E-05	18.14288
12-05-17 11:48 model=§	32.10375	35.2101	711.0424	8	1c:b9:c4:1	IT-MNG	1	-73		32.10346	35.20811	688.3627		0.00029	0.001990716	22.67973
12-05-17 11:48 model=§	32.10406	35.20903	685	7	1c:b9:c4:1	Ariel_Univ	6	-57		32.10337	35.20876	696.5056		0.000693	0.0002625	11.50562
12-05-17 11:48 model=§	32.10487	35.21134	692	1	1c:b9:c4:1	IT-MNG	48	-59		32.10484	35.20963	684		3.55E-05	0.0017117	8
12-05-17 11:48 model=§	32.10344	35.20983	711.4668	2	8c:0c:90:2	Ariel_Univ	11	-80		32.10337	35.20876	696.5056		6.88E-05	0.001069568	14.96117
12-05-17 11:48 model=§	32.10333	35.20966	704.8398	6	8c:0c:90:a		11	-69		32.1034	35.20874	698.7546		6.85E-05	0.000916581	6.085151
12-05-17 11:48 model=§	32.10333	35.20966	704.8398	4	30:e1:71:0	DIRECT-61	6	-69		32.1034	35.20874	698.7546		6.85E-05	0.000916581	6.085151
12-05-17 11:48 model=§	32.10375	35.2101	711.0424	5	30:e1:71:0	DIRECT-61	6	-62		32.10317	35.20889	686.239		0.000581	0.001205636	24.80339
12-05-17 11:48 model=§	32.10381	35.21028	710.9061	2	8c:0c:90:2	Ariel_Univ	11	-64		32.10337	35.20876	696.5056		0.000439	0.001519031	14.40051
12-05-17 11:49 model=§	32.10341	35.20969	704.4103	6	8c:0c:90:a		11	-64		32.10318	35.20892	694.6549		0.000229	0.000766859	9.75542
12-05-17 11:49 model=§	32.10232	35.21004	712.119	2	40:a5:ef:7	2.4V1	1	-88		32.10345	35.20825	688.4346		0.001135	0.001788932	23.68447
12-05-17 11:49 model=§	32.10319	35.20873	684	4	1c:b9:c4:1	Ariel_Univ	1	-79		32.10347	35.20814	687.5138		0.000278	0.00058801	3.513794
12-05-17 11:49 model=§	32.10344	35.20983	711.4668	2	8c:0c:90:a	Ariel_Univ	11	-59		32.10405	35.20963	675		0.00061	0.002018048	36.46679
12-05-17 11:49 model=§	32.10487	35.21134	692	3	8c:0c:90:a		11	-59		32.10348	35.20767	688.7803		0.001396	0.0036735	3.219727
12-05-17 11:49 model=§	32.10487	35.21134	692	2	78:11:dc:1	TamiRach	8	-89		32.10348	35.20805	689.3313		0.001393	0.00329601	2.668701
12-05-17 11:49 model=§	32.10351	35.20991	710.4194	1	1c:b9:c4:1	Ariel_Univ	44	-61		32.10481	35.2084	679		0.001302	0.001500955	31.41941
12-05-17 11:49 model=§	32.10319	35.20873	684	2	10:0d:7f:9	Bezeq-n_;	11	-75		32.10481	35.2084	679		0.001648	0.00089995	1.02E-12
12-05-17 11:49 model=§	32.10495	35.21061	686	1	ec:8c:a2:2	Ariel_Univ	11	-73		32.10481	35.2084	679		0.000141	0.00220394	7
12-05-17 11:49 model=§	32.10406	35.20903	685	6	1c:b9:c4:1	Ariel_Univ	11	-81		32.10484	35.20963	684		0.000774	0.00060429	1
12-05-17 11:49 model=§	32.10365	35.2101	710.6711	4	00:27:22:f		6	-67		32.10484	35.20963	684		0.001184	0.000470006	26.67108
12-05-17 11:49 model=§	32.10419	35.20918	685	5	00:27:22:f		6	-60		32.10307	35.20313	659		0.001127	0.00604963	26