SisGPSGraph

Versão beta0311/2019

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Professor: Victor Sobreira

Disciplina: GSI533 - Projeto e Desenvolvimento de Sistemas 1

Faculdade de Computação

Universidade Federal de Uberlândia - Ano: 2019-1

- Grupo apenas conseguiu levantar os requisitos a partir dessa etapa.

- Professor Wagner (Product Owner) apresentou divergências nas informações e métodos, que implicou grandes modificações no escopo do projeto.

- Planilhas ainda não foram disponibilizadas. Os dados apresentados sobre a estação pifl3651 foram gerados em cima da planilha inicial fornecida pelo Product Owner.

- Comunicação começou a fluir, pode se coletar as estórias de forma coesa.

- Mudanças frequentes no projeto.
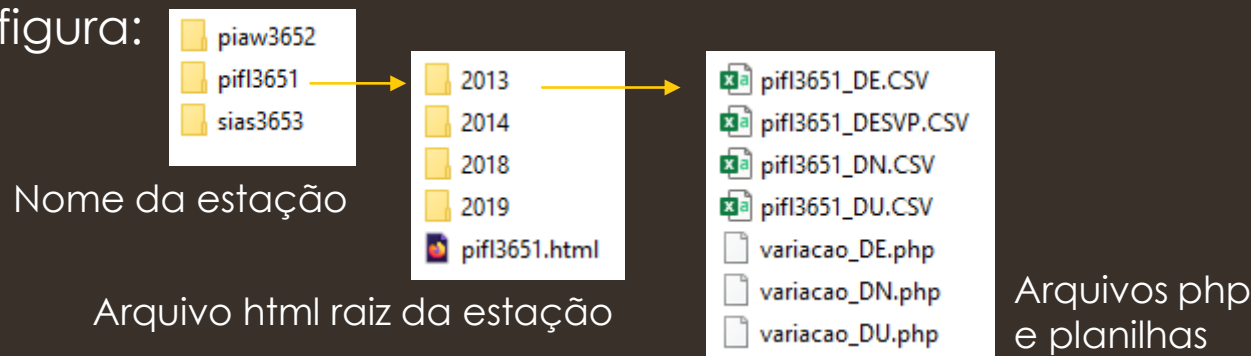
Planilha em formato texto .out

EPOCH	GPS_TIME	H:M:S	X(m)	Y(m)	Z(m)	SIGX(m)	SIGY(m)	SIGZ(m)	DE(m)	SIGDE(m)	DN(m)	SIGDN(m)	DU(m)	SIGDU(m)	2D_ERROR(m)	3D_ERROR(m)	Lat(deg)	Lon(deg)	h_geo(m)	H_Orto(m)	dtr(m)
1	259200.00	00:00:00.00	4081094.4275	-4457448.2808	-2034742.0873	5.2583	4.7199	4.2830	-0.0962	2.5812	0.6807	2.9973	-1.6597	7.2543	0.6874	1.7964	-18.72409738	-47.52379592	910.809184	920.522937	-12.545266
2	259215.00	00:00:15.00	4081095.4402	-4457449.3507	-2034742.5001	3.7219	3.3400	3.0318	-0.0718	1.8257	0.7625	2.1207	-0.1321	5.1351	0.7659	0.7772	-18.72409664	-47.52379569	912.336738	922.050493	-11.170479
3	259230.00	00:00:30.00	4081095.4509	-4457448.9965	-2034742.5452	2.9970	2.6896	2.4156	0.1753	1.4854	0.6383	1.7013	-0.3582	4.1170	0.6619	0.7526	-18.72409777	-47.52379334	912.110697	921.824445	-11.298799
4	259245.00	00:00:45.00	4081096.3669	-4457449.8578	-2034743.2521	2.5287	2.2696	1.9971	0.2693	1.2776	0.3712	1.4254	1.0562	3.4452	0.4586	1.1514	-18.72410018	-47.52379245	913.525021	923.238758	-10.372395
5	259260.00	00:01:00.00	4081096.3368	-4457449.8806	-2034743.2805	2.1860	1.9616	1.6780	0.2317	1.1318	0.3433	1.2202	1.0620	2.9449	0.4142	1.1399	-18.72410043	-47.52379281	913.530907	923.244644	-10.186579
6	259275.00	00:01:15.00	4081096.0734	-4457449.7097	-2034743.0801	1.9212	1.7221	1.4244	0.1528	1.0211	0.4355	1.0593	0.7098	2.5536	0.4615	0.8467	-18.72409960	-47.52379356	913.178691	922.892433	-10.507452
7	259290.00	00:01:30.00	4081095.9184	-4457449.6004	-2034743.1959	1.7108	1.5303	1.2200	0.1124	0.9327	0.2664	0.9301	0.5715	2.2410	0.2891	0.6405	-18.72410112	-47.52379394	913.040395	922.754131	-10.554822
8	259305.00	00:01:45.00	4081095.9897	-4457449.6345	-2034743.3283	1.5406	1.3735	1.0541	0.1420	0.8595	0.1645	0.8246	0.6834	1.9880	0.2173	0.7171	-18.72410204	-47.52379366	913.152296	922.866028	-10.510675
9	259320.00	00:02:00.00	4081095.8125	-4457449.5767	-2034743.3622	1.4009	1.2434	0.9188	0.0502	0.7974	0.0803	0.7376	0.5405	1.7812	0.0947	0.5488	-18.72410281	-47.52379453	913.009400	922.723131	-10.571166
10	259335.00	00:02:15.00	4081095.5284	-4457449.3532	-2034743.3532	1.2847	1.1341	0.8076	-0.0344	0.7436	0.0429	0.6649	0.4023	1.6105	0.0550	0.4060	-18.72410314	-47.52379533	912.871172	922.584902	-10.675965
11	259350.00	00:02:30.00	4081095.5047	-4457449.4780	-2034743.3680	1.1867	1.0411	0.7156	-0.1101	0.6963	-0.0153	0.6034	0.2766	1.4681	0.1112	0.2981	-18.72410367	-47.52379605	912.745496	922.459225	-10.742471
12	259365.00	00:02:45.00	4081095.4690	-4457449.4974	-2034743.3886	1.1031	0.9613	0.6389	-0.1496	0.6542	-0.0380	0.5510	0.2740	1.3482	0.1543	0.3145	-18.72410387	-47.52379642	912.742912	922.456641	-10.691993
13	259380.00	00:03:00.00	4081095.4913	-4457449.4913	-2034743.3391	1.0311	0.8923	0.5743	-0.1540	0.6164	0.0211	0.5058	0.2940	1.2464	0.1555	0.3326	-18.72410334	-47.52379647	912.762903	922.476634	-10.651782
14	259395.00	00:03:15.00	4081095.4770	-4457449.4651	-2034743.3352	0.9684	0.8322	0.5196	-0.1218	0.5822	0.0067	0.4666	0.2394	1.1592	0.1220	0.2687	-18.72410347	-47.52379616	912.708226	922.421957	-10.640957
15	259410.00	00:03:30.00	4081095.4495	-4457449.4229	-2034743.3013	0.9135	0.7795	0.4729	-0.1136	0.5511	0.0228	0.4322	0.1815	1.0841	0.1159	0.2153	-18.72410332	-47.52379608	912.650331	922.364062	-10.626074
16	259425.00	00:03:45.00	4081095.5389	-4457449.5132	-2034743.3372	0.8650	0.7331	0.4327	-0.1087	0.5227	0.0296	0.4020	0.3132	1.0189	0.1126	0.3328	-18.72410326	-47.52379604	912.782067	922.495798	-10.518290
17	259440.00	00:04:00.00	4081095.5217	-4457449.4628	-2034743.3006	0.8219	0.6920	0.3979	-0.0873	0.4965	0.0486	0.3752	0.2553	0.9620	0.1000	0.2742	-18.72410309	-47.52379583	912.724174	922.437905	-10.501322
18	259455.00	00:04:15.00	4081095.4028	-4457449.2381	-2034743.3676	0.7835	0.6554	0.3676	-0.1091	0.4725	0.0753	0.3514	0.1393	0.9120	0.1326	0.1923	-18.72410285	-47.52379604	912.608130	922.321863	-10.564145
19	259470.00	00:04:30.00	4081095.4201	-4457449.3669	-2034743.2143	0.7491	0.6228	0.3410	-0.0975	0.4503	0.0856	0.3301	0.0956	0.8681	0.1297	0.1612	-18.72410276	-47.52379593	912.564509	922.278242	-10.592282
20	259485.00	00:04:45.00	4081095.5250	-4457449.4058	-2034743.2182	0.7181	0.5936	0.3176	-0.0464	0.4299	0.1139	0.3109	0.1911	0.8291	0.1230	0.2273	-18.72410250	-47.52379545	912.660010	922.373743	-10.544128
21	259500.00	00:04:60.00	4081095.4981	-4457449.3669	-2034743.1869	0.6902	0.5674	0.2968	-0.0672	0.4109	0.1380	0.2937	0.1649	0.7946	0.1535	0.2252	-18.72410208	-47.52379564	912.633738	922.347472	-10.539688
22	259515.00	00:05:15.00	4081095.5033	-4457449.3932	-2034743.1881	0.6650	0.5438	0.2783	-0.0539	0.3933	0.1347	0.2781	0.1588	0.7637	0.1451	0.2151	-18.72410231	-47.52379552	912.627664	922.341398	-10.534933
23	259530.00	00:05:30.00	4081095.4909	-4457449.4909	-2034743.1672	0.6421	0.5223	0.2618	-0.0627	0.3770	0.1517	0.2639	0.1438	0.7361	0.1641	0.2182	-18.72410216	-47.52379560	912.612657	922.326392	-10.509844
24	259545.00	00:05:45.00	4081095.4740	-4457449.3709	-2034743.1335	0.6213	0.5029	0.2469	-0.0605	0.3618	0.1748	0.2510	0.1070	0.7114	0.1850	0.2137	-18.72410195	-47.52379558	912.575820	922.289555	-10.534178
25	259560.00	00:05:60.00	4081095.5018	-4457449.4045	-2034743.1213	0.6025	0.4852	0.2336	-0.0626	0.3477	0.2003	0.2393	0.1443	0.6891	0.2099	0.2547	-18.72410172	-47.52379560	912.613152	922.326888	-10.480233
26	259575.00	00:06:15.00	4081095.4984	-4457449.2381	-2034743.1411	0.5853	0.4691	0.2215	-0.0656	0.3346	0.1810	0.2285	0.1490	0.6689	0.1925	0.2434	-18.72410190	-47.52379563	912.617828	922.331564	-10.475984
27	259590.00	00:06:30.00	4081095.4814	-4457449.3853	-2034743.1288	0.5696	0.4543	0.2106	-0.0647	0.3223	0.1843	0.2187	0.1202	0.6507	0.1953	0.2294	-18.72410187	-47.52379562	912.589088	922.302823	-10.485092
28	259605.00	00:06:45.00	4081095.5289	-4457449.4136	-2034743.1126	0.5552	0.4407	0.2006	-0.0488	0.3109	0.2166	0.2097	0.1652	0.6341	0.2220	0.2767	-18.72410157	-47.52379547	912.634038	922.347775	-10.446879
29	259620.00	00:07:00.00	4081095.5602	-4457449.1077	-2034743.1077	0.5421	0.4282	0.1915	-0.0321	0.3003	0.2302	0.2014	0.1902	0.6190	0.2324	0.3003	-18.72410125	-47.52379531	912.659031	922.372767	-10.418022
30	259635.00	00:07:15.00	4081095.5670	-4457449.4319	-2034743.1013	0.5301	0.4166	0.1832	-0.0330	0.2904	0.2399	0.1937	0.1987	0.6052	0.2422	0.3133	-18.72410136	-47.52379532	912.667579	922.381316	-10.408418
31	259650.00	00:07:30.00	4081095.5872	-4457449.4464	-2034743.0970	0.5191	0.4059	0.1756	-0.0279	0.2811	0.2518	0.1866	0.2204	0.5926	0.2533	0.3358	-18.72410126	-47.52379527	912.689287	922.403025	-10.415822
32	259665.00	00:07:45.00	4081095.5965	-4457449.1061	-2034743.1061	0.5089	0.3959	0.1686	-0.0293	0.2724	0.2481	0.1801	0.2377	0.5810	0.2498	0.3448	-18.72410129	-47.52379528	912.706560	922.420297	-10.395089
33	259680.00	00:08:00.00	4081095.6170	-4457449.4681	-2034743.1080	0.4996	0.3867	0.1621	-0.0206	0.2643	0.2529	0.1740	0.2581	0.5703	0.2538	0.3619	-18.72410125	-47.52379520	912.726937	922.440675	-10.393004
34	259695.00	00:08:15.00	4081095.6310	-4457449.0950	-2034743.0950	0.4910	0.3781	0.1562	-0.0105	0.2567	0.2683	0.1684	0.2631	0.5605	0.2685	0.3759	-18.72410111	-47.52379511	912.731947	922.445684	-10.389584
35	259710.00	00:08:30.00	4081095.6238	-4457449.4530	-2034743.0920	0.4830	0.3700	0.1507	-0.0054	0.2496	0.2660	0.1631	0.2467	0.5514	0.2661	0.3628	-18.72410113	-47.52379506	912.715591	922.429329	-10.391338
36	259725.00	00:08:45.00	4081095.6496	-4457449.4598	-2034743.0901	0.4757	0.3625	0.1456	0.0091	0.2430	0.2750	0.1582	0.2674	0.5430	0.2751	0.3837	-18.72410105	-47.52379492	912.736276	922.450014	-10.367418
37	259740.00	00:09:00.00	4081095.6606	-4457449.0858	-2034743.0858	0.4689	0.3554	0.1409	0.0202	0.2367	0.2804	0.1537	0.2700	0.5352	0.2812	0.3898	-18.72410100	-47.52379481	912.738389	922.452567	-10.386323
38	259755.00	00:09:15.00	4081095.6681	-4457449.4583	-2034743.0771	0.4626	0.3488	0.1365	0.0237	0.2308	0.2910	0.1494	0.2740	0.5279	0.2919	0.4004	-18.72410090	-47.52379478	912.742882	922.456620	-10.381543
39	259770.00	00:09:30.00	4081095.6814	-4457449.4604	-2034743.0741	0.4568	0.3425	0.1324	0.0321	0.2253	0.2972	0.1455	0.2831	0.5211	0.2990	0.4117	-18.72410085	-47.52379470	912.751936	922.465675	-10.384441
40	259785.00	00:09:45.00	4081095.6797	-4457449.4633	-2034743.0633	0.4513	0.3366	0.1286	0.0550	0.2201	0.2986	0.1417	0.2536	0.5147	0.3036	0.3956	-18.72410083	-47.52379449	912.724464	922.436202	-10.402265
41	259800.00	00:09:60.00	4081095.6928	-4457449.4252	-2034743.0585	0.4461	0.3309	0.1250	0.0643	0.2152	0.3061	0.1382	0.2608	0.5086	0.3128	0.4072	-18.72410077	-47.52379440	912.729645	922.443383	-10.370315
42	259815.00	00:10:15.00	4081095.6928	-4457449.4333	-2034743.0558	0.4410	0.3254	0.1216	0.0573	0.2106	0.3102	0.1348	0.2642	0.5026	0.3154	0.4115	-18.72410073	-47.52379446	912.733085	922.476663	-10.376717
43	259830.00	00:10:30.00	4081095.6904	-4457449.4262	-2034743.0544	0.4361	0.3199	0.1184	0.0619	0.2062	0.3097	0.1317	0.2586	0.4967	0.3158	0.4082	-18.72410073	-47.52379442	912.727456	922.441194	-10.344114
44	259845.00	00:10:45.00	4081095.6640	-4457449.4065	-2034743.0480	0.4312	0.3145	0.1154	0.0556	0.2021	0.3053	0.1286	0.2258	0.4907	0.3104	0.3838	-18.72410077	-47.52379448	912.694706	922.408444	-10.351304
45	259860.00	00:10:60.00	4081095.6524	-4457449.4013	-2034743.0436	0.4262	0.3091	0.1125	0.0506	0.1981	0.3058	0.1257	0.2134	0.4846	0.3099	0.3763	-18.72410077	-47.52379463	912.682247	922.395985	-10.364186
46	259875.00	00:11:15.00	4081095.6320	-4457449.3955	-2034743.0457	0.4213	0.3036	0.1098	0.0395	0.1944	0.2980	0.1229	0.1970	0.4783	0.3006	0.3594	-18.72410084	-47.52379464	912.665847	922.379585	-10.361234
47	259890.00	00:11:30.00	4081095.6400	-4457449.4036	-2034743.0449	0.4162	0.2981	0.1071	0.0399	0.1908	0.3024	0.1202	0.2075	0.4720	0.3050	0.3689	-18.72410080	-47.52379463	912.676406	922.390144	-10.330810
48	259905.00	00:11:45.00	4081095.4013	-4457449.4455	-2034743.0455	0.4111	0.2926	0.1046	0.0365	0.1874	0.3089	0.1176	0.2285	0.4655	0.3110	0.3859	-18.72410081	-47.52379466	912.667354	922.411093	-10.300897
49	259920.00	00:11:60.00	4081095.6547	-4457449.4196	-2034743.0431	0.4060	0.2871	0.1021	0.0400	0.1841	0.3111	0.1150	0.2275	0.4589	0.3136	0.3875	-18.72410072	-47.52379466	912.696393	922.410132	-10.271385
50	259935.00	00:12:15.00	4081095.6339	-4457449.4019	-2034743.0394	0.4008	0.2815	0.0998	0.0366	0.1809	0.3058	0.1126	0.2006	0.4522	0.3080	0.3676	-18.72410077	-47.52379466	912.669483	922.383221	-10.301106
51	259950.00	00:12:30.00	4081095.6421	-4457449.4398	-2034743.0398	0.3955	0.2760	0.0975	0.0429	0.1779	0.3072	0.1102	0.2057	0.4454	0.3102	0.3722	-18.72410076	-47.52379460	912.676530	922.388268	-10.287255
52	259965.00	00:12:45.00	4081095.6412	-4457449.3982	-2034743.0350	0.3903	0.2706	0.0953	0.0444	0.1749	0.3108	0.1078	0.2013	0.4386	0.3139	0.3729	-18.72410072	-47.52379459	912.670204	922.383942	-10.288275
53	259980.00	00:13:15.00	4081095.5852	-4457449.3799	-2034743.0301	0.3850	0.2651	0.0932	0.0391	0.1721	0.3059	0.1055	0.1716	0.4318	0.3083	0.3529	-18.72410082	-47.52379464	912.640466	922.354204	-10.340844

Planilha já processada

Data	Dia	DE	DN	DU
01/01/2013	1	-0,0718	0,7625	-0,1321
02/01/2013	2	0,1753	0,6383	-0,3582
03/01/2013	3	0,2693	0,3712	1,0562
04/01/2013	4	0,2317	0,3433	1,0620
05/01/2013	5	0,1528	0,4355	0,7098
06/01/2013	6	0,1124	0,2664	0,5715
07/01/2013	7	0,1420	0,1645	0,6834
08/01/2013	8	0,0502	0,0803	0,5405
09/01/2013	9	-0,0344	0,0429	0,4023
10/01/2013	10	-0,1101	-0,0153	0,2766
11/01/2013	11	-0,1496	-0,0380	0,2740
12/01/2013	12	-0,1540	0,0211	0,2940
13/01/2013	13	-0,1218	0,0067	0,2394
14/01/2013	14	-0,1136	0,0228	0,1815
15/01/2013	15	-0,1087	0,0296	0,3132
16/01/2013	16	-0,0873	0,0486	0,2553
17/01/2013	17	-0,1091	0,0753	0,1393
18/01/2013	18	-0,0975	0,0856	0,0956
19/01/2013	19	-0,0464	0,1139	0,1911
20/01/2013	20	-0,0672	0,1380	0,1649
21/01/2013	21	-0,0539	0,1347	0,1588
22/01/2013	22	-0,0627	0,1517	0,1438
23/01/2013	23	-0,0605	0,1748	0,1070
24/01/2013	24	-0,0626	0,2003	0,1443
25/01/2013	25	-0,0656	0,1810	0,1490
26/01/2013	26	-0,0647	0,1843	0,1202
27/01/2013	27	-0,0488	0,2166	0,1652
28/01/2013	28	-0,0321	0,2302	0,1902
29/01/2013	29	-0,0330	0,2399	0,1987
30/01/2013	30	-0,0279	0,2518	0,2204
31/01/2013	31	-0,0293	0,2481	0,2377
01/02/2013	32	-0,0206	0,2529	0,2581
02/02/2013	33	-0,0105	0,2683	0,2631
03/02/2013	34	-0,0054	0,2660	0,2467
04/02/2013	35	0,0091	0,2750	0,2674
05/02/2013	36	0,0202	0,2804	0,2700
06/02/2013	37	0,0237	0,2910	0,2740
07/02/2013	38	0,0321	0,2972	0,2831
08/02/2013	39	0,0550	0,2986	0,2536
09/02/2013	40	0,0643	0,3061	0,2608
10/02/2013	41	0,0573	0,3102	0,2642
11/02/2013	42	0,0619	0,3097	0,2586

- A planilha foi tratada, extraiu se os campos desnecessários, mantendo apenas os valores das variáveis DE, DN e DU e depois é convertida e exportada para o formato .CSV (padrão utilizado).

- Planilha pode ser enviada para processamento no SisGPSGraph. Que insere a Data e o número do dia.

- Agora temos os campos Data, Dia e as coordenadas DE, DN e DU. Os scripts lerão os dados direto do arquivo .CSV

- Uma hierarquia de Pastas é criada conforme a Estação e ano, conforme figura:

Nome da estação

Arquivo html raiz da estação

Arquivos php e planilhas

Modulação do Sistema, Tecnologias Utilizadas, Linguagens e métodos, Implementação e testes.

1 - Tratamento das Planilhas

• Python

• Jupyter Notebook

2 - Sistema Web

• Layout: HTML, CSS

• Layout responsivo utilizando Bootstrap

3 - Construção dos gráficos

• Linguagem PHP

• Framework CanvasJS

4 - Personalização dos resultados

• Próximo Sprint definir parâmetros de exibição dos resultados
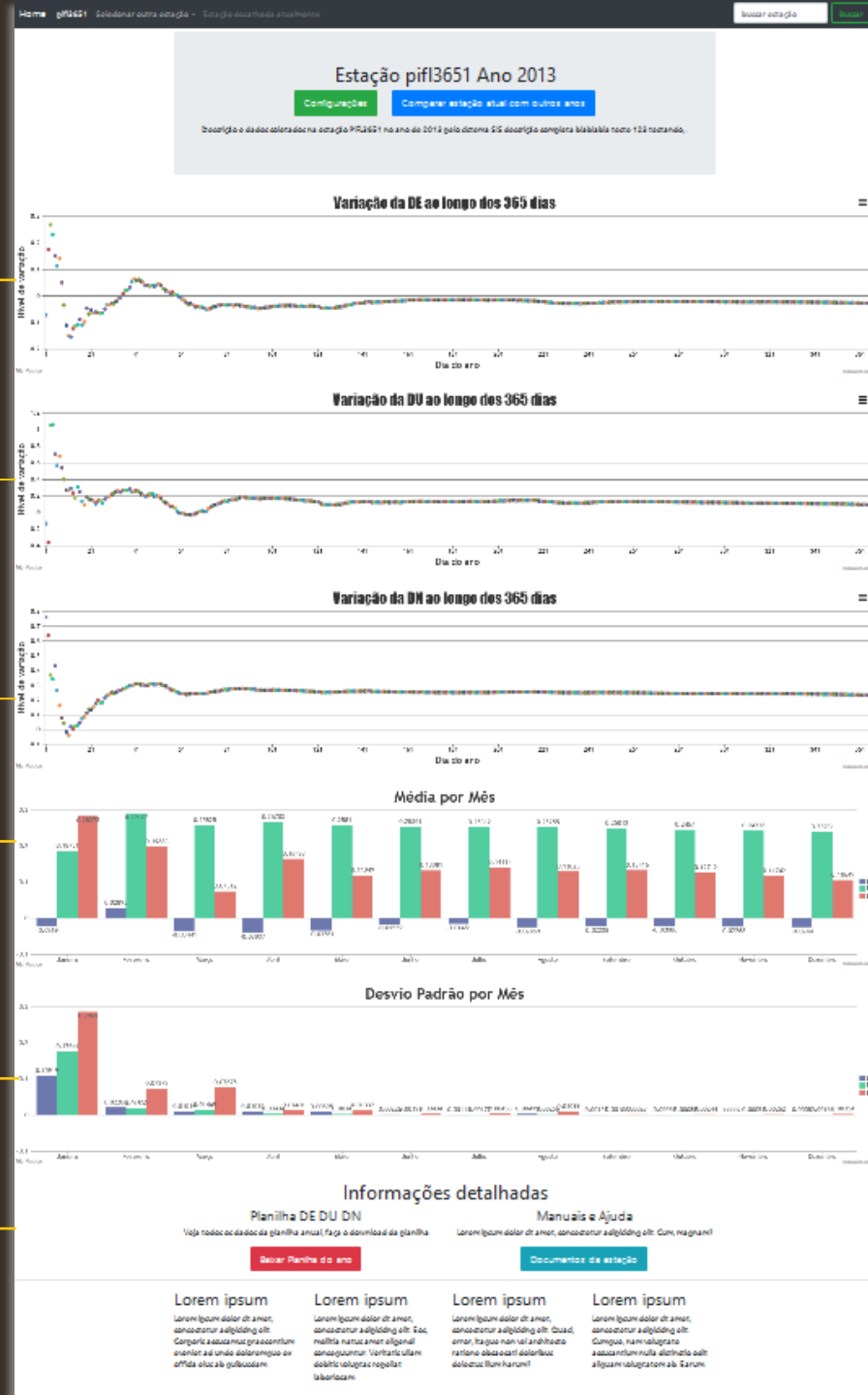
• Personalizar intervalos de data e Estação para comparação dos resultados

Gráficos de dispersão do ano todo 365 dias para as colunas DE DU e DN

Gráfico de Barras exibindo a média Mensal

Gráfico de Barras exibindo o Desvio Padrão Mensal

Informações detalhadas sobre a Estação
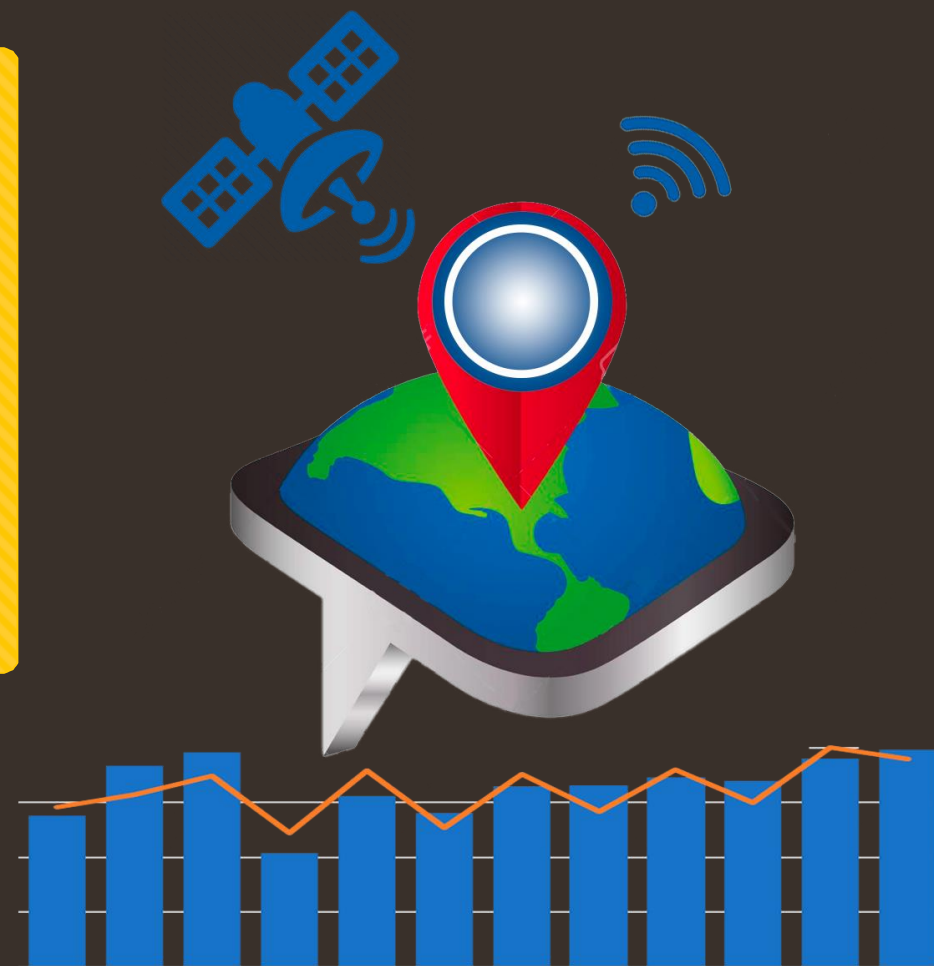
Perguntas

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Universidade Federal de Uberlândia - Ano: 2019-1

SisGPSGraph
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