



Dear Users,

In view of the continuity of the SPOT-VEGETATION mission, harmonization studies on processing methods and products are being performed on the current CTIV processing chains. This critical review of methods will soon define the post-processing principles of the entire archive. The post-processing itself will start after the end of the VEGETATION mission, which will last till the end of 2013 or possibly till mid 2014. One key objective of this re-processing operation is to ensure full consistency with the processing chain for Proba-V that will be launched early 2013.

During the review process, an anomaly has been identified in the VEGETATION processing chain. It concerns the uncorrect implementation of the standardization of solar illumination. This standardization has a direct impact on the values of the Top of Atmosphere reflectance provided in the VGT-P products. The difference in reflectance value can reach up to 6% depending on the period of the year. The maximum difference is reached in July as the date used for the standardization is fixed to 1st January, where the difference is equal to zero).

A simple correction of reflectance values of VGT-P products can be achieved using a correction factor which depends on the day of acquisition in the year.

For VGT-S products that provide BOA reflectance (Bottom of Atmosphere, also defined as Top of Canopy), the impact of this error remains in the same order of magnitude but the correction is not straightforward as the error affects the value of the soil reflectance as well as the various terms of the atmospheric correction performed.

In order to avoid disrupting operational applications based on multi-annual VGT data analysis, it was decided not to change the processing chain right now, and thus to prefer continuity over a break in the consistency of treatment.

The proposed procedure is therefore the following:

- 1) For users who wish to apply the standardization on the VGT-P products, the correction method is provided in the appendix
- 2) At the end of the VEGETATION mission the entire archive will be re-processed as mentioned before, and will include the above modification both for VGT-P and VGT-S products, as well as possible other improvements. The latter are to be approved by the user Committee and the Steering Committee.

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On behalf of the SPOT-VEGETATION Steering Committee



APPENDIX: Correction factor for P product

$$\text{New value} = \text{old value} * \text{CF}$$

DOY: Day of Year

CF: Correction Factor

DOY	CF
1	1.0000
2	1.0000
3	1.0000
4	0.9999
5	0.9999
6	1.0000
7	1.0000
8	1.0000
9	1.0001
10	1.0001
11	1.0002
12	1.0003
13	1.0004
14	1.0005
15	1.0006
16	1.0007
17	1.0008
18	1.0009
19	1.0011
20	1.0013
21	1.0014
22	1.0016
23	1.0018
24	1.0020
25	1.0022
26	1.0024
27	1.0026
28	1.0029
29	1.0031
30	1.0034
31	1.0036
32	1.0039
33	1.0042
34	1.0045
35	1.0048
36	1.0051
37	1.0054
38	1.0057
39	1.0061
40	1.0064
41	1.0068
42	1.0071
43	1.0075
44	1.0079
45	1.0083

46	1.0087
47	1.0091
48	1.0095
49	1.0099
50	1.0103
51	1.0107
52	1.0112
53	1.0116
54	1.0121
55	1.0125
56	1.0130
57	1.0135
58	1.0139
59	1.0144
60	1.0149
61	1.0154
62	1.0159
63	1.0164
64	1.0169
65	1.0174
66	1.0180
67	1.0185
68	1.0190
69	1.0195
70	1.0201
71	1.0206
72	1.0212
73	1.0217
74	1.0223
75	1.0229
76	1.0234
77	1.0240
78	1.0246
79	1.0251
80	1.0257
81	1.0263
82	1.0269
83	1.0275
84	1.0280
85	1.0286
86	1.0292
87	1.0298
88	1.0304
89	1.0310
90	1.0316
91	1.0322
92	1.0328
93	1.0334
94	1.0340
95	1.0345
96	1.0351
97	1.0357
98	1.0363
99	1.0369

100	1.0375
101	1.0381
102	1.0387
103	1.0393
104	1.0399
105	1.0405
106	1.0411
107	1.0416
108	1.0422
109	1.0428
110	1.0434
111	1.0440
112	1.0445
113	1.0451
114	1.0457
115	1.0462
116	1.0468
117	1.0473
118	1.0479
119	1.0484
120	1.0490
121	1.0495
122	1.0500
123	1.0506
124	1.0511
125	1.0516
126	1.0521
127	1.0526
128	1.0531
129	1.0536
130	1.0541
131	1.0546
132	1.0551
133	1.0555
134	1.0560
135	1.0565
136	1.0569
137	1.0574
138	1.0578
139	1.0583
140	1.0587
141	1.0591
142	1.0595
143	1.0599
144	1.0603
145	1.0607
146	1.0611
147	1.0615
148	1.0618
149	1.0622
150	1.0625
151	1.0629
152	1.0632
153	1.0635

154	1.0638
155	1.0642
156	1.0645
157	1.0647
158	1.0650
159	1.0653
160	1.0656
161	1.0658
162	1.0661
163	1.0663
164	1.0665
165	1.0668
166	1.0670
167	1.0672
168	1.0674
169	1.0675
170	1.0677
171	1.0679
172	1.0680
173	1.0682
174	1.0683
175	1.0684
176	1.0685
177	1.0686
178	1.0687
179	1.0688
180	1.0689
181	1.0689
182	1.0690
183	1.0690
184	1.0691
185	1.0691
186	1.0691
187	1.0691
188	1.0691
189	1.0691
190	1.0690
191	1.0690
192	1.0690
193	1.0689
194	1.0688
195	1.0688
196	1.0687
197	1.0686
198	1.0685
199	1.0684
200	1.0682
201	1.0681
202	1.0680
203	1.0678
204	1.0676
205	1.0675
206	1.0673
207	1.0671

208	1.0669
209	1.0667
210	1.0664
211	1.0662
212	1.0660
213	1.0657
214	1.0654
215	1.0652
216	1.0649
217	1.0646
218	1.0643
219	1.0640
220	1.0637
221	1.0634
222	1.0630
223	1.0627
224	1.0624
225	1.0620
226	1.0617
227	1.0613
228	1.0609
229	1.0605
230	1.0601
231	1.0597
232	1.0593
233	1.0589
234	1.0585
235	1.0580
236	1.0576
237	1.0572
238	1.0567
239	1.0563
240	1.0558
241	1.0553
242	1.0548
243	1.0544
244	1.0539
245	1.0534
246	1.0529
247	1.0524
248	1.0519
249	1.0513
250	1.0508
251	1.0503
252	1.0498
253	1.0492
254	1.0487
255	1.0482
256	1.0476
257	1.0471
258	1.0465
259	1.0460
260	1.0454
261	1.0448

262	1.0443
263	1.0437
264	1.0431
265	1.0425
266	1.0419
267	1.0414
268	1.0408
269	1.0402
270	1.0396
271	1.0390
272	1.0384
273	1.0378
274	1.0372
275	1.0366
276	1.0360
277	1.0355
278	1.0349
279	1.0343
280	1.0337
281	1.0331
282	1.0325
283	1.0319
284	1.0313
285	1.0307
286	1.0301
287	1.0295
288	1.0289
289	1.0283
290	1.0278
291	1.0272
292	1.0266
293	1.0260
294	1.0254
295	1.0249
296	1.0243
297	1.0237
298	1.0232
299	1.0226
300	1.0220
301	1.0215
302	1.0209
303	1.0204
304	1.0198
305	1.0193
306	1.0188
307	1.0182
308	1.0177
309	1.0172
310	1.0167
311	1.0162
312	1.0157
313	1.0152
314	1.0147
315	1.0142

316	1.0137
317	1.0132
318	1.0128
319	1.0123
320	1.0119
321	1.0114
322	1.0110
323	1.0105
324	1.0101
325	1.0097
326	1.0093
327	1.0089
328	1.0085
329	1.0081
330	1.0077
331	1.0073
332	1.0069
333	1.0066
334	1.0062
335	1.0059
336	1.0056
337	1.0052
338	1.0049
339	1.0046
340	1.0043
341	1.0040
342	1.0038
343	1.0035
344	1.0032
345	1.0030
346	1.0028
347	1.0025
348	1.0023
349	1.0021
350	1.0019
351	1.0017
352	1.0015
353	1.0013
354	1.0012
355	1.0010
356	1.0009
357	1.0007
358	1.0006
359	1.0005
360	1.0004
361	1.0003
362	1.0002
363	1.0002
364	1.0001
365	1.0000
366	1.0000