## **Meta-data**Quality control and process flags

Good data: flag divisible by 10

QA/QC flags:

0: Good data 1: No data 2: L2 RangeCheck 3: CSAT Diagnostic

4: L17500 Diagnostic 5: L2 DiurnalCheck 6: exclude dates

7: exclude hours 8: albedo  $F_{cd}$  < threshold 9: albedo time flag

Corrections flags:

10: Linear [11: Rotation] [12: Massman] 13: Virtual F<sub>11</sub>

[14: WPL] 15: TafromTv 16: L3 RangeCheck

17: L3 DiurnalCheck 18: u\* filter 19: Gap co-ordination

Gap-filling flags:

30: Flux gap filled by ANN 31: Flux gap not filled by ANN

40: Met gap filled from climatology

50: Gap filled from ratios

60: Gap filled by interpolation

70: Gap filled by replacement

80: u\* from F<sub>u</sub> 81: u\* not from F<sub>u</sub> 82: L4 RangeCheck 83: L4 DiurnalCheck

Carbon partitioning flags:

90: night R<sub>p</sub> from Q<sub>10</sub>

100: Day R<sub>s</sub> from light response curve or NEEmax

110: GPP night mask 111: Day  $Fc > R_a$ 

Footprint flags:

121: Date filter 122: no solution

## Meta-data Process flags

Penman-Monteith inversion flags:

131:  $r_{st} < 0$ 

 $132: F_e < threshold$ 

133:  $F_{sd}$  < threshold

134: U = 0

Penman-Monteith aerodynamic resistance flags:

140: rav\_base short circuit (rav\_top good)

150: rav\_top short circuit (rav\_base good) 151: rav\_top not short circuit (rav\_base bad)

160: parallel circuit (rav\_full and rav\_top good) 161: not parallel circuit (rav\_full short-circuit)