What are improved in "version 2010"?
April 26, 2011

Tonzi Ranch:

1. Dataset format and variable meaning/units in each group of files are explained in a file named as "head_TonziOverstory_v2010_with explanation.xls" or "head_TonziUnderstory_v2010_with explanation.xls".
2. Latent heat data are recalculated after fixing a bug in processing C++ codes.
3. We notice that soil heat flux is drifting, probably due to litter accumulation over the sensor. To reduce the effects of drifting, we estimated soil heat storage term based on soil temperature and moisture *in situ*. Corrected G may be good for checking energy balance.
4. To maintain complete information of overstory site, soil moisture at 0, 20, and 50 cm are added in "overstory" data site.
5. "understory" data keep the same format, and soil moisture data are replaced with corrected values.
6. FC_flag is reported in "gapfilled" files. Definitions of FC_flag are:

```
FC_flag=0; /* good data */
FC_flag=1; /* under unqualified conditions */
FC_flag=9; /* missing data originally from the field */
```

7. Some variables at the overstory tower at the end of 2010 were missing due to power problems – incoming PAR, air temperature and moisture, and Precipitation. These variables for this period have been corrected by comparing with the records at Vaira Ranch or duplicated sets of instrument at the same site or a nearby weather station: Campo Seco, CA (http://www.raws.dri.edu/cgi-bin/rawMAIN.pl?caCCSC).

 If you have any questions or suggestions, please contact to Siyan Ma at syma@berkeley.edu or Dennis Baldocchi at baldocchi@berkeley.edu. Update on April 26, 2011