Data Format Documentation

Instrument: Tipping Bucket Rain Gauge, MC3E Field Campaign

The Tipping Bucket Rain Gauge data set for the entire campaign is contained within tar archives. Each archive is named with the following convention,

tbgauge_[sn]_mc3e_[latitude_longitude].tar

   where [sn] = serial number of host APU platform (e.g., apu01)
        [latitude_longitude]=geographic location of instrument
        (e.g., N363442.07_W0972640.90 is North 36°34'42.07" and West 97°26'40.90")

and consists of ASCII files containing the 1-minute rainfall accumulations as well as some information on each rainfall event.

The following files are contained within the tar archive and follow a similar naming convention as above:

- *_minuteTotals.txt: 1-minute rainfall accumulations
- *_raintable.txt: quality-controlled total rainfall measured for a continuous period of precipication

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Format of each file in the tipping bucket rain gauge data set:

Level 1A: 1-min accumulation files (*_minuteTotals.txt)

Format: ASCII

Format of each line:
YYYYmmDDHHMM, tipping bucket gauge_1 1-minute accumulation (mm), tipping bucket gauge_2 1-minute accumulation (mm)

Level 3: raintable files (*_raintable.txt)

Format: ASCII

Format of each line:
year, day of year precipitation begins, beginning of precipitation (HH:MM), day of year precipitation ends, ending of precipitation (HH:MM), number of rainfall observations (minutes), event maximum rainfall rate (mm/hr), Parsivel rainfall (mm), tipping bucket gauge 1 rainfall (mm), tipping bucket gauge 2 rainfall (mm)