

Extension of meteo interpolation method 12

Three new parameters can be used optionally (as a group):

1. upper inversion elevation
2. upper lapse rate
3. data type (T-type for continuous data like temperature; P-type for discontinuous data like precipitation or sunshine duration)

This extension allows the definition of two different elevation-dependent lapse rate ranges, so the lapse rate may change in a certain elevation in intensity and/or even in sign.

Example:

```
[precipitation]
12
$inpath//prec.dat AdditionalColumns=0
0.0015 1500 0.0025 P-type      # method 12: lower lapse rate, upper limit,
                                # upper lapse rate, type
```

This means that the lapse rate of 0.0015 mm/m is applied below 1500 m a.s.l. whereas above 1500 m a.s.l. the upper lapse rate of 0.0025 mm/m is valid. The P-type is for intermittent data: if a zero (0) value occurs, no lapse rate should be applied, otherwise lower elevation cells would experience rainfall even if all stations have zero values. If type is T-type, the lapse rate is applied for all values, even for negative ones. Beside precipitation also sunshine duration is a P-type variable, whereas vapour pressure, relative air humidity, radiation, wind speed, and temperature are rather T-type parameters because there are non-zero values possible for any time of the day. However, it is important to define valid ranges for e.g. humidity and wind speed in order to avoid negative values induced by negative lapse rates for higher elevations or by positive lapse rates for lower elevations.