Snow analysis package

Task 1: Extension for multilayer snow model

➜ Update two layer snow water content with observations of total snow height:

$$w_{snow}(k, new) = \frac{h_{snow}(new)}{h_{snow}(old)} w_{snow}(k, old)$$

Old: first guess from model forecast, new: analysis
Model snow density is taken as truth.

Task 2: Extension for surface analysis package (including snow analysis)

➜ Adapt Grib I/O to Grib – API standard.

➜ First continue reading/writing Grib 1 and translate to new keywords
Later switch to Grib 2.

Snow analysis package

Task 3: Extension for usage of MSG snow mask

➜ Merge MCH-snow analysis package with actual version of surface analysis

➜ Start after Task 1 / 2

Timeline

Task	Status	To be finished (rough estimate)
Multilayer snow model	Work in progress	4 weeks
Grib API	Work in progress	8 weeks
MSG snow mask	Preliminary work done	16 weeks