

# SWobs.txt

Shortwave radiation is an optional forcing data. It can be used for calculation of snow melt, ice on lake and rivers and potential evaporation. Some of the available model options for these processes depend on shortwave radiation, and use it either from this file or approximated from other input data.

The file is located in the `modeldir` folder. Shortwave radiation ( $\text{MJ}/\text{m}^2/\text{d}$ ) is given for all time steps. The *SWobs-file* is read only if `readswobs` is set in [info.txt](#).

The first row is column headings. It holds a text string (e.g. 'date', no spaces allowed) for the first column, and integers in the form of station or subbasin ID numbers for the rest of the columns.

The first column is date-time. The default format is `yyyy-mm-dd [HH:MM]`, where hour and minutes are necessary if the timestep is shorter than one day. The date-time is the beginning of the timestep. It is possible to use another date-time format: `yyyymmdd[HHMM]`. It is expected for all forcing files, if `readformat 1` is set in [info.txt](#).

The second to last columns are radiation for all stations or subbasins. The ID number (first row) may be `swobsid` or `subid`. If `swobsid` is used, several subbasins may use the same radiation time series. `subid` is defined in [GeoData.txt](#). The order of subbasins in *SWobs.txt* does not have to be same as in [GeoData.txt](#). `swobsid` may be defined in [ForcKey.txt](#) or [GeoData.txt](#).

Example snippet of *SWobs.txt* file:

```
date      1234  1245
1990-01-01 0.7   0.75
1990-01-02 0.8   0.65
...
```

*SWobs\_nnn.txt* holds shortwave radiation forcing data for sequence with `seqnr nnn`. For `seqnr 0` *SWobs.txt* is used.