

Shading parameter files

There are two types of shading parameter files that need to be specified when `Shading = TRUE`:

1. Shadow map files
2. Skyview file

Shadow map files

Required:

Required when `Shading = TRUE`.

Read by:

`InitNewMonth()`

Format:

2D Matrix

Purpose:

Contains a shading factor for every cell in the basin for each month. *NOTE: This is a compound grid, with one shading factor for every timestep of the day (e.g., 8 sequential grids for a 3 hour timestep input).* Shading factors vary from 0-255.

Comments:

File names are expected to be of the format:

`<shading data path>.xx.<shading data extension>`,

where `xx` is a 2-digit integer indicating the month (use a leading zero for number smaller than 10)

Details:

- If the format is `BIN` or `BYTESWAP`, then an `unsigned char` should be used.
- If the format is `NetCDF`, then `NC_BYTE` should be used and the variable name in the NetCDF file should be `Shade.Factor`.
- The shadow map files are masked based on the content of the mask file.

Skyview file

Required:

Required when `Shading = TRUE`.

Read by:

`InitShadeMap()`

Format:

2D Matrix

Purpose:

Contains the sky view factor for every individual grid cell in the basin.

Comments:

Details:

- If the `format` is `BIN` or `BYTESWAP`, then a `float` should be used.
- If the `format` is `NetCDF`, then `NC_FLOAT` should be used and the variable name in the NetCDF file should be `SkyView.Factor`.
- The skyview file is masked based on the content of the mask file.