

Guidelines for soil data preparation

- Each profile must have a unique identifier. Use column name 'ProfID' for the column that stores this identifier.
- One column stores the upper depth of the layer, one column the lower depth
- Required columns: ProfID, X_coord, Y_coord, DepthFrom, DepthTo, SOC, BD.
- For each profile, subsequent soil horizons/layers should be on top of each other, not next to each other
- Coordinates in decimal degrees or metres. Not in degrees-minutes-second
- Derive bulk density data using a pedotransfer function (cookbook) or use SoilGrids bulk density layers (supplied).
- Compute SOC and BD for the 0-30 cm layer by taking a weighted average of the horizons/layers that make up this target layer (use function computeSoilProperty).
- Compute SOC stock in kg/m² for (from SOC and BD):

$$\text{SOC}/100 * \text{BD} * 0.3 \text{ (SOC in \% , BD in kg/m}^3\text{)}$$