

Processing Workflow

Overview

Inputs

Nationwide ALS point cloud
~ 49k tiles

Nationwide terrain model at 0.4 m res.
~ 49k tiles

process_tiles.py Process management

- Parallel processing (per tile)
- Point cloud extractions
- DTM extractions
- Logging

Outputs

Ecological variables, raster 10 m res.
18 x terrain and cover structure descriptors
~ 49k tiles each

dk_lidar Python Modules

points.py

Point cloud handling and extraction functions

- Point cloud ingestion
- Footprint extraction
- Variable extractions

OPALS bindings in Python.

dtm.py

DTM handling and extraction functions

- Footprint extraction
- Aggregations
- Variable extractions

GDAL and SAGA GIS binaries.

common.py

Common Functions

- Logging functions
- Mask generation

settings.py

Global settings

- Processing options
- Input/output paths
- Paths to binaries

Helper scripts

Independent python scripts

progress_monitor.py

Process monitoring

- Displays progress
- Estimates time remaining

debug.py

Debugging script

- Executes processing functions (points & dtm) for a single tile.
- Complemented by **debug.rmd** used for quality assurance.