Metadata form of Silva Fennica

This form is designed for writing the elements of metadata, which are used in the description of research materials such as data and codes. The form is based on the work done in the Work Group "Description of research materials" under the Finnish Open Science Coordination.

Item	Description	Responsible
Name of the data / code	Terrestrial Laser Scanning Point Clouds and Tree Attributes from 55 Sample Plots at the Evo Test Site (Spring 2024)	Author
Author & ORCID	Yrttimaa, Tuomas (0000-0003-2648-523X) Liikonen, Lauri Erkkilä, Aapo Vastaranta, Mikko (0000-0001-6552-9122)	Author
Authors' affiliation(s)	University of Eastern Finland, School of Forest Sciences	Author
Owner of the material	University of Eastern Finland (https://ror.org/00cyydd11)	Author
Publisher	University of Eastern Finland (https://ror.org/00cyydd11)	Author
Funder	Research Council of Finland (https://ror.org/05k73zm37)	Author
Description	Terrestrial laser scanning (TLS) point cloud data segmented by individual trees from 55 sample plots (32 m x 32 m) located in Evo, Finland.	Author
Methods	TLS data acquisition was conducted during leaf-off season in April-May 2024 using Riegl VZ-400i time-of-flight sensor. The scan pattern included nine scan locations (one at the center, eight at the borders) located approximately 16 m apart. Both upright-oriented and 90 degrees tilted scans were collected. Individual scans were co-registered, merged, and segmented by individual trees using the LIS TreeAnalyzer-plugin in RiSCAN PRO software (version 2.19.3).	Author
Variables	For each point return, following information is provided: XYZ coordinates [m], reflectance [dB], return number, number of returns, point source ID (scan location), height above the ground [m], point origin ID (tree ID). For each tree, the XYZ location of the stem cross section [m], tree height [m], stem diameter [m], crown projection area [m²] and crown diameter [m] have been measured from the tree-segmented point clouds. Tree species is derived from an existing field inventory data. Sample plot-level forest inventory attributes are also provided for context for data users by describing the structural conditions of the sample plots.	Author
Author keywords	terrestrial laser scanning, point cloud processing, Riegl VZ-400i, LIS TreeAnalyzer, RiSCAN PRO, point cloud segmentation, tree characterization	Author
Vocabulary keywords (community standard)	Keywords from controlled vocabularies and ontologies (general or disciplinary) that improve the findability of the material. Provide links to the vocabularies used e.g., the taxonomic database used for nomenclature.	Author
Discipline	Forestry, Geosciences	Archive/Repository/Publisher
Type of material	Research data	Author
Language	ENG	Author
Time range covered	2024-04-22 to 2024-05-14	Author
Geographic region	Evo, Hämeenlinna, Finland	Author
Version		Author
File format(s)	.laz (version 1.4), .csv (comma-delimited)	Author
Availability of the materials	open	Author
Justification for access restrictions		Author

Licence	Creative Commons Attribution 4.0 International (CC BY 4.0)	Author
Connections with other research materials		Author
Access to the connected research materials		Author
Codes only: hardware/software requirements for running the code		Author
Connections to other products of research		Author
Personal data		Author
Confidential or secret data	No	Author
Publication date	2024-04-15	Archive/Repository/Publisher
Preservation policy	Permanently	Author
Permanent identifier (PID)	https://doi.org/10.23729/fd-5a800660-8bd8-35ef-ac9f-ac5c45f7fa77	Archive/Repository/Publisher