TimberID Platform

Solving the Digitalisation of the Supply Chain Traceability

Key insights

Increased demand and requirements by the forestry sector due to EU Deforestation Regulatory is the major driver to boost the market demand!!



- EUDR obligations
- Geo-localisation and timestamp provenance to the timber log source
- Forest owners and sawmills low willingness to adopt
- Digitalization at a low level
- Cost-effective
- Digital chain of custody
- Easy and fast adoption
- Patented invention

 Future technology to meet market complexity and requirements





CONSULTING FOREST PILES LOGISTIC SAWMILL PRODUCTS

The TimerID System secures traceability from the forest to the final wooden product.

The Technology is fully compliant with the EU Deforestation Regulatory requirements!!!

Solving Traceability and Transparency obligations



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"The geolocation coordinates need to be provided in the due diligence statements that operators are required to submit to the Information System ahead of the placing on the Union market or the export of the products.

The Regulation requires that operators (or traders which are not SMEs) trace every relevant commodity back to its plot of land before making it available or placing it on the market, or before exporting it.

If a part of a shipment is non-compliant, the non-compliant part needs to be identified and separated from the rest before the shipment is placed on the market or exported and that part may not be placed on the market or exported."

TimberID - Architecture



Timber Identification is a ground-breaking DeepTech solution combining AI/ML image processing, analysis and recognition with a proprietary unique variable code marking technology, delivering ~100% accuracy in data processing.

Patent applications in progress: PL443425; PL443426; PL444311; PCT/IB2023/05249

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Market - Disruption



How does TimberID Fingerprint work?



The multidimensional image analysis considers the unique characteristics of each log including the distinct ring, bark and knot patterning found in the log as well as other data points such as the size, shape, diameter, proportions and any unique markings, finally creating a fingerprint hash code, a visual TimberID[™] Fingerprint.

At Deeplai is a team of engineers, highly skilled individuals with experience in computer vision image processing and software development.

SaaS Platform, Mobile Apps



TimberID SaaS Platform

- Web client interface access and previews
- Account management
- Sourced files storage
- Processed files storage
- Files processing
 - Dcode reading
 - Timberfingerprint identification
 - Verifications
- Reporting

Dedicated Mobile Apps

TimberID (IOS only)

- Image sourcing, record creation,
- Log measurements automation
- Dcode verification linked with the SaaS platform

Dcode reader (IOS, Android)

- Dcode encrypting data reader
- Data export as an item list file



TimberID Dcode Marker - Roadmap



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DMH & EDG Marking - Technology



DMH (Dcode Marker Hammer) is a manual tool to indenting a hammer code mark on the timber ring. The marking head is reflecting the Dcode structure and is consisting of 24 individually rotating stamps set at a defined angle arranged side by side and one fixed stamp.

EDG (Electronic Dcode Generator) is a portable device for variable Dcode, sourced by positioning satellite signals accessible globally.

Delivering a geo-localization accuracy on a 2m level, timestamp accuracy to a one second level.





DMA Marking - Technology



COMING SOON

The DMA (Dcode Marker Automated) is a semi-automated unit to indenting a Dcode mark on the timber ring by using electric energy supply. The Electronic Dcode Generator is built-in for fully automated rotation of all stamps at a variable position by sourcing the satellite signals globally accessible.

Delivering a geo-localization accuracy on a 2m level,

timestamp accuracy to a one second level.

Performing a unit productivity of 600 log code marking a day, annually 152 200 logs (252 days, 8 hours per day).

Sealed Chain of Custody



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Sawmill - Production







Entry Data Collection

Log Yard Inventory Management

Timber Provenance at Board Level

Sawmill is the production entry gate for final timber log identification and verification. Here we complete the first stage of the close loop of the chain of custody in the supply chain timber provenance. The objective to pass the traceability provenance data from source to the final wooden product is performed by applying a dedicated process. The detailed provenance data, especially the timestamp details strongly support the quality of the inventory management.

Sawmill - Log yard Inventory management





A sawmill ERP system generates a unit identification number, which is linked with TimberID data.

The geo-localization data confirms the provenance, and the timestamp defines the log aging.

Precise data on a single log level improve the inventory turnaround, securing higher board grading level and minimizing wastage.

Consequently, cost-effective inventory planning and management is achievable.

Timber provenance - Transfer to a Board level





Traceability provenance data are transferred to a board level, upon selected cutting patterns, interim coding is being applied linked with a log sawmill ID.

Then to a final code mark is set on every board allowing to transfer the timber provenance from source to a final wooden product.

The process is a matter of customisation understanding the production volume, and the required technology (line speed, setup, configuration) understanding the challenging environment, saw dust.

Be a part of the TimberID story! Trees can't talk, you take actions!







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watch video

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