



**End-to-end digital platform for
sustainable forest management**



Timbeter

With Timbeter, the log measuring process can be quicker and more accurate. Timbeter provides tools for measuring log diameters, pile and truck volumes, and pile density coefficient in less than 3 minutes.

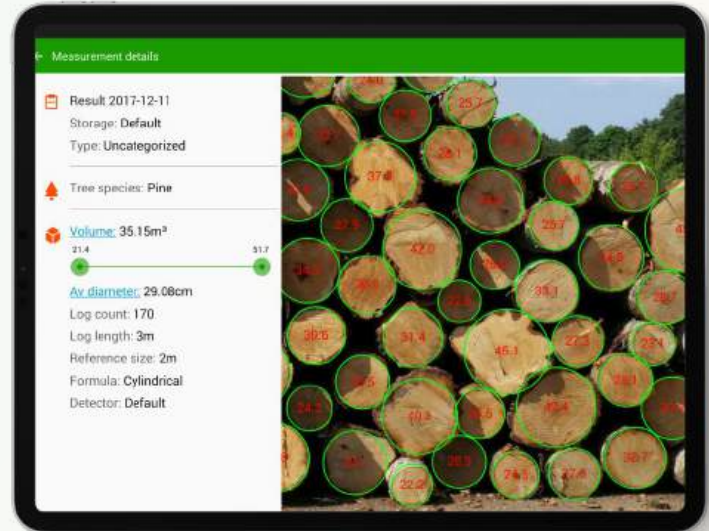


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Diameter measurement

Obtain the volume, log count and diameters of each and every log.



- Number of logs in the pile
- The average diameter
- Diameter of each log
- Volume calculation according to the formula selected
- Diameter distribution

Measurement process

1. Open **Timbeter** application

Start a new measurement



View finished measurements

2. Make a picture of a pile or truck

Current angle of device

Turn flashlight on/off

Switch between panorama and single shot capture

Capture image

Go back

Adjust the light

The image shows a mobile camera app interface with a stack of logs in the background. The interface is annotated with six numbered green circles and corresponding text labels:

- 1**: Points to the 'Angle' status bar at the top.
- 2**: Points to the 'Single image' and 'Panorama' capture mode options on the left sidebar.
- 3**: Points to the back arrow at the bottom left.
- 4**: Points to the flashlight icon on the right sidebar.
- 5**: Points to the camera icon on the right sidebar.
- 6**: Points to the light adjustment slider at the bottom right, which is currently set to 0.00.

3. Enter your data

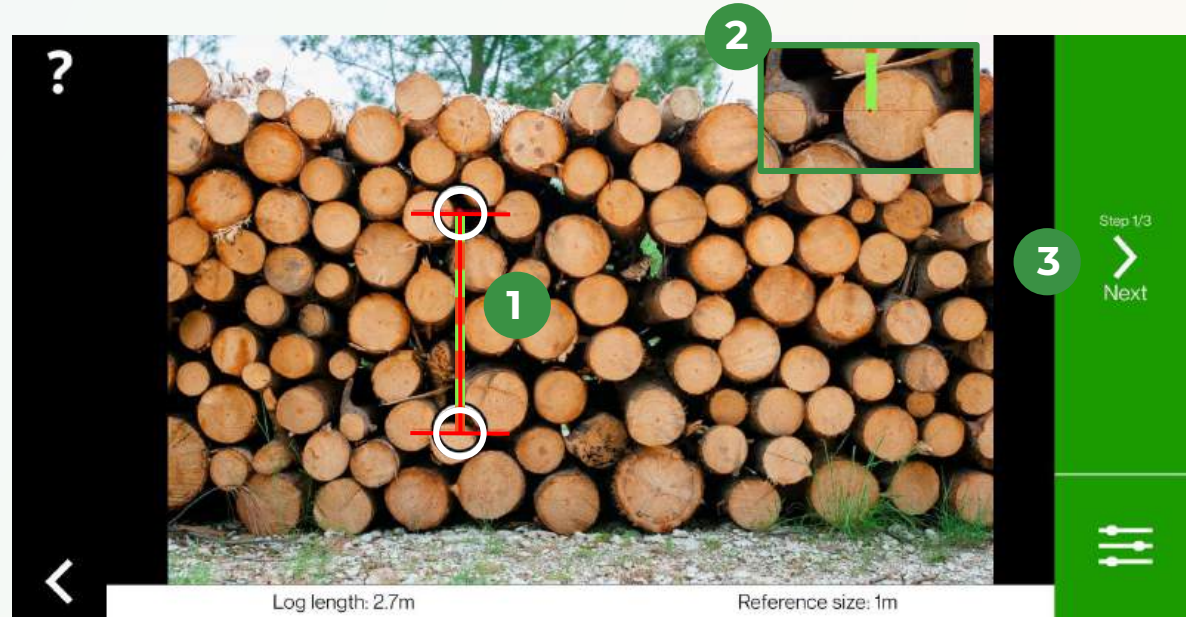
1. Select “Diameter” measurement option
2. Enter the length of the reference
3. Enter log length and select tree species
4. Choose 1 of 15 volume calculation formulas
5. Optional - Edit “Name”, select “Storage” and add “Shipment number”
6. Optional - Choose wood “Type”, “Quality”, “Assortment” and add a “Comment”
7. Click “Save” to continue

Measurement options Save

Diameter 1	Contour	Truck	Density
Reference size <input type="text" value="100"/> cm 2			
3 Tree species <input type="text" value="Pine"/>			
Log length <input type="text" value="270"/> cm			
Volume formula <input type="text" value="Cylindrical formula"/> 4			
Detector <input type="text" value="Default"/>			
<input checked="" type="checkbox"/> Show advanced fields			
File name <input type="text" value="diameter"/>			
Storage <input type="text" value="Default"/> 5			
Shipment number <input type="text" value="Shipment number"/>			
Type <input type="text" value="Uncategorized"/>			
Quality <input type="text"/>			
Assortment <input type="text"/>			
Comment <input type="text" value="Comment"/>			
7 Save			

4. Set the reference

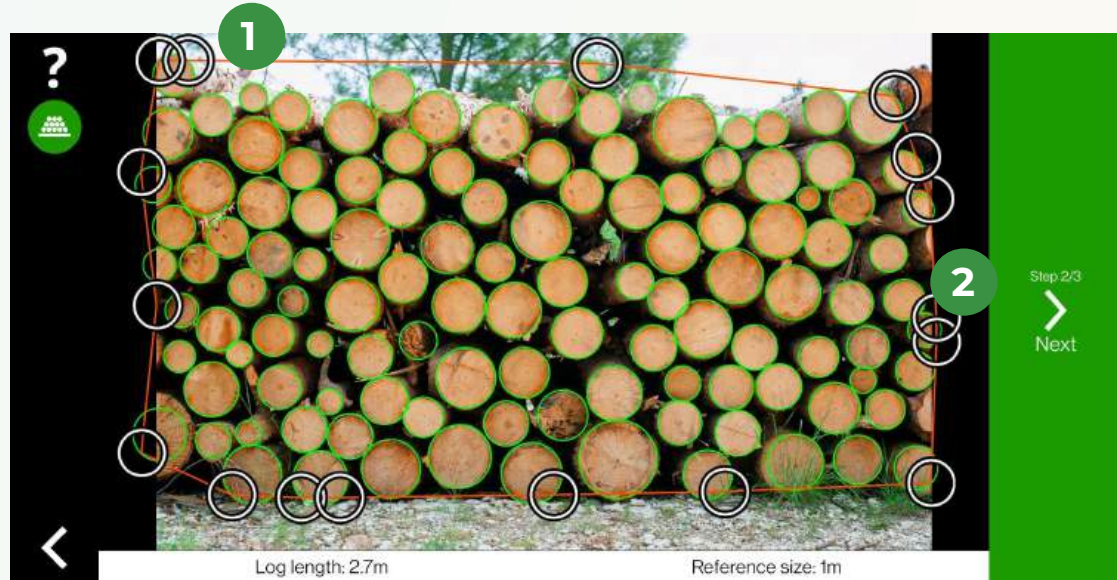
1. The red line with two white circles will appear. Set the circle to both edges of the reference.
2. In upper corner you will see zoomed in picture for perfect adjustment
3. Click “Next” to continue



5. Adjust the area of interest

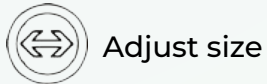
In case there are other logs in the picture, it is possible to adjust area of interest. Logs which are outside the contour will be removed.

1. Move white circles to adjust area in what you are interested
2. Click “Next” to continue



6. Adjust the log circles

1. To delete an unnecessary object, tap and hold on circle
2. To add log what is not detected, tap and hold on log
3. Select missing log and adjust circle size and position:

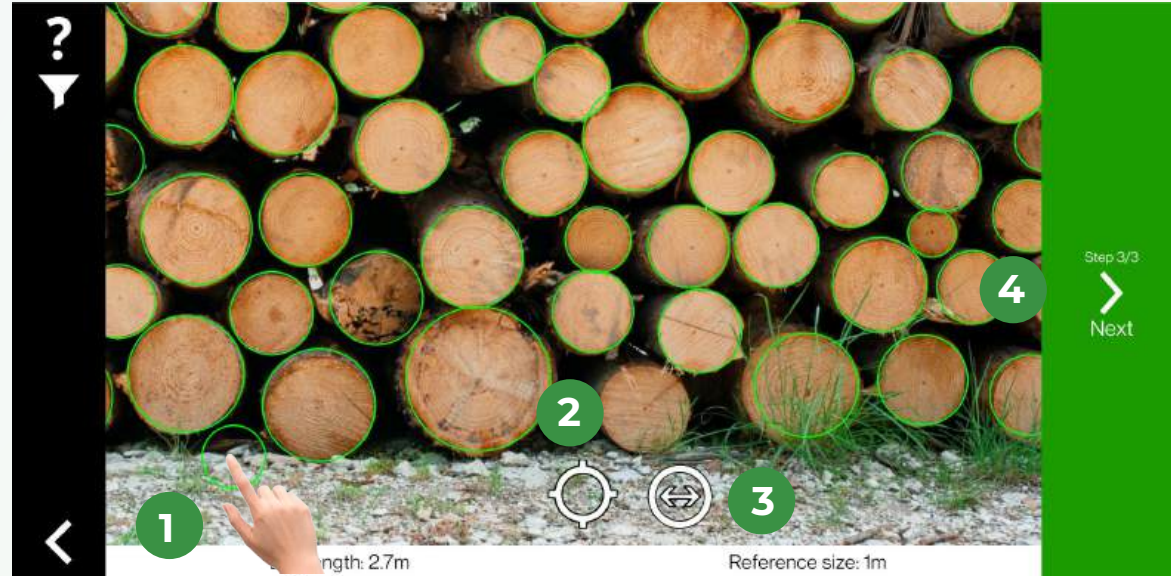


Adjust size



Adjust position

4. Click “Next” to continue



7. Result

1. Administrative information
2. Volume
3. Average diameter and tally sheet
4. Parameters and result

← Measurement details
↻ Measure again

1 {

diameter
Storage: Default
Type: Uncategorized

Tree species: Pine

2 { **Volume:** 12.18m³

112 37.9

3 { **Av diameter:** 21.71cm

Log count: 117
Log length: 2.7m
Reference size: 1m
Formula: Cylindrical

2

	Volume	Volume%	Count	Count%
Total	12.18m ³		117	
Pine	12.18m ³	100.00%	117	100.00%
Cull	0.00m ³	0.00%	0	0.00%

OK

3


Diameter	Count
11cm	1
12cm	3
13cm	3
14cm	1
15cm	5
16cm	4
17cm	4
18cm	4
19cm	9
20cm	9

8. Log in to [Timbeter Dashboard](#)

Features:

- Result overview
- Measurement editing
- Reports
- PDF and excel
- GPS location
- Easy to share results

Measurement location



Latitude

Longitude

Storage

[Save](#)

Measurement details

Volume: 32.218 m³ Log count: 146

Measurement type

Wood type

Wood quality

Log length

 m

Volume formula

Reference size

 m

Public URL

Contour measurement

Calculate the pile volume using pile density coefficient.



- Automatic or manual pile contour
- Volume calculation with fixed air filling factor/ pile density coefficient
- Height measurements with a set interval (1, 3, or 5 metres)

Measurement process

1. Open **Timbeter** application

Start a new measurement



View finished measurements

2. Make a picture of a pile or truck

Current angle of device

Turn flashlight on/off

Switch between panorama and single shot capture

Capture image

Go back

Adjust the light

The image shows a mobile camera app interface with a stack of logs in the background. The interface is annotated with six numbered green circles and their corresponding functions:

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- 2**: Points to the 'Single image' and 'Panorama' capture mode options on the left sidebar.
- 3**: Points to the back arrow at the bottom left.
- 4**: Points to the flashlight icon on the right sidebar.
- 5**: Points to the camera icon on the right sidebar.
- 6**: Points to the light adjustment slider at the bottom right, which is currently set to 0.00.

3. Enter your data

1. Select “Contour” measurement option
2. Enter the length of the reference
3. Enter log length and select tree species
4. Enter pile density coefficient
5. Optional - height measurement interval
6. Optional advanced fields
7. Click “Save” to continue

Measurement options Save

Diameter **1** Contour Truck Density

Reference size 100 cm **2**

Automatic contour

3 Tree species Birch

Log length 300 cm

Pile density 62 % **4**

5 Mark heights m

Show advanced fields

File name Contour measurement

Storage Default **6**

Shipment number Shipment number

Type Uncategorized

Quality

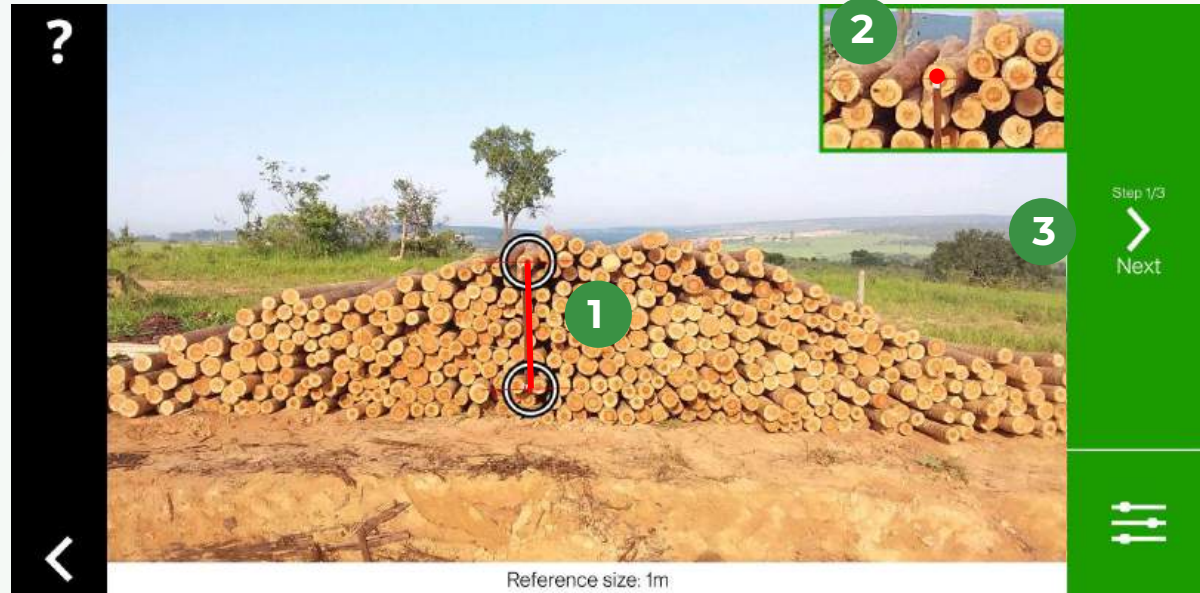
Assortment

Comment Comment

7 Save

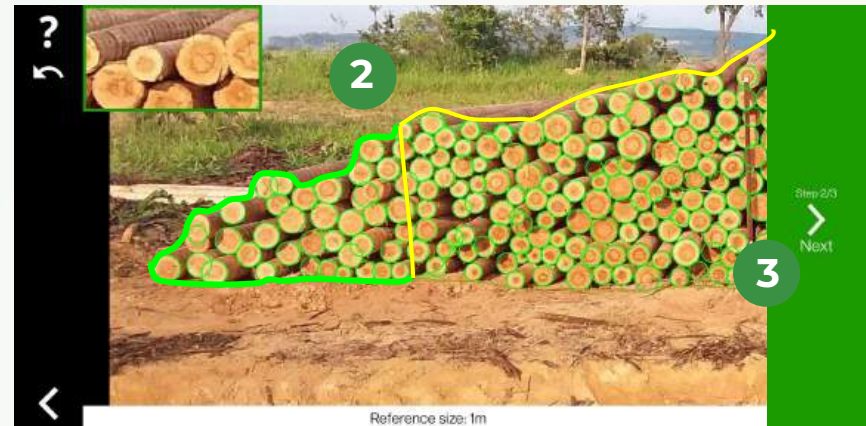
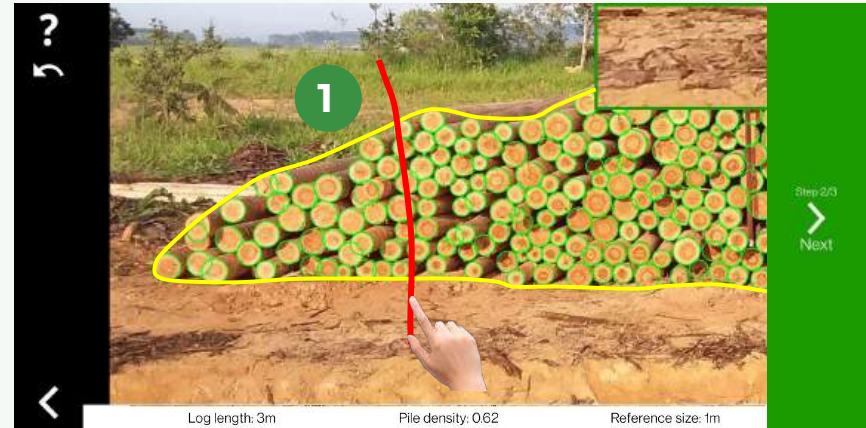
4. Set the reference

1. The red line with two white circles will appear. Set the circle to both edges of the reference.
2. In upper corner you will see zoomed in picture for perfect adjustment
3. Click “Next” to continue



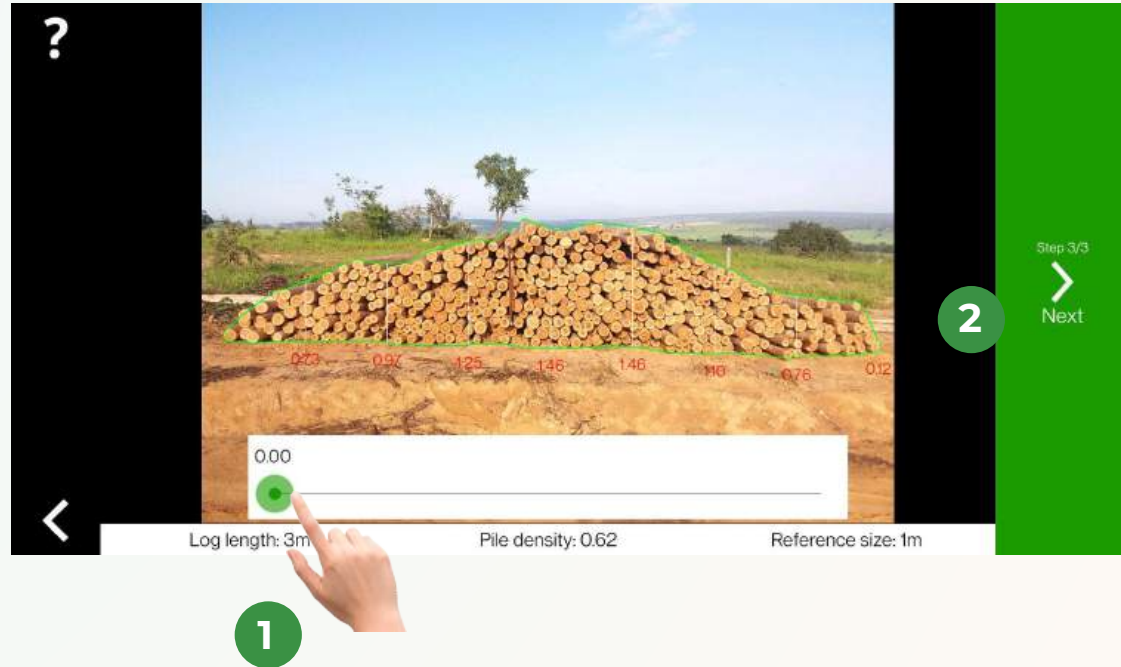
5. Determine pile area

1. To reduce the pile area, draw a line from the outside of the area and finish drawing it outside of the area. It'll be shown in red line.
2. To broaden the pile area, draw a line from the inside of the pile and finish it inside of the pile. It'll be shown in green line.
3. Click "Next" to continue



6. Mark heights

1. Drag slider to shift where height measurements are made
2. Click “Next” to continue



7. Result

1. Administrative information
2. Volume
3. Parameters and result
4. Individual height measurement

← Measurement details

↻ Measure again

1 { Contour measurement
Storage: Default
Type: Uncategorized

2 { Tree species: Birch

3 { Volume: 15.29m³
Gross: 24.66 stere
Pile width: 8.07m
Pile height: 1.02m
Av height marking: 0.98m
Log length: 3m
Reference size: 1m
Pile density: 0.62



8. Log in to [Timbeter Dashboard](#)

Features:

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Measurement location

Latitude

Longitude

Storage

Measurement details

Volume: 31.467 m³ Log count: 0

Coefficient

Measurement type

Wood type

Wood quality

Log length

 m

Reference size

 m

Public URL

Truck measurement

Determine the cubature of packs.



- Quick and accurate measurement of the load
- All required data available in digital form for buyers
- Reduction of claims. In case of a disagreement, digital proof always available



Truck from the side



Truck from the log face side

Measurement mode: **Truck**

Use case: 1+ loads

Data:

- Total volume
- Volume of each load
- Load heights

Measurement mode: **Diameter**

Use case: 1 load

Data:

- Diameters of each log
- Total volume
- Average diameter
- Log count



Truck from the log face side



Truck from the log face side

Measurement mode: **Contour**

Use case: 1 load

Data:

- Total volume
- Gross volume
- Load height
- Load width

Measurement mode: **Density**

Use case: 1 load

Data:

- Load density
- Volume
- Diameters
- Log count

What is the location of trucks/ your position when making measurement/ how do you make measurement?

Truck from the side



Measurement mode:

TRUCK

Data

Total volume
Volume of each load
Load heights

Truck from the back



Measurement mode

DIAMETER

Data

Diameters of each log
Total volume
Average diameter
Log count

CONTOUR

Data

Total volume
Gross volume
Load height
Load width

DENSITY

Data

Load density
Volume
Diameters
Log count

Measurement process

1. Open **Timbeter** application

Start a new measurement



View finished measurements

2. Make a picture of a truck from the side

Current angle of device

Turn flashlight on/off

Switch between panorama and single shot capture

1 Angle

2 Single image

3

4

5 Capture image

6

Go back

Adjust the light

3. Enter your data

1. Select “Truck” measurement option
2. Enter the length of the reference
3. Add loads with different parameters (log length, density, quality etc.)
4. Add loads with the same data
5. Select “Tree species”, “Quality”, “Assortment” *
6. Enter “Log length”, “Pile density”, “Load width”

The screenshot shows the 'Measurement options' interface. At the top, there is a green bar with the text 'Measurement options' and a 'Save' button. Below this, there are four tabs: 'Diameter', 'Contour', 'Truck', and 'Density'. The 'Truck' tab is selected and highlighted with a red underline and a green circle containing the number '1'. Below the tabs, there is a 'Reference size' input field with the value '100' and the unit 'cm', with a green circle containing the number '2' next to it. Below the reference size, there is a 'Count' input field with the value '1' and a green circle containing the number '4' next to it. To the right of the 'Count' field is a red '+' button with a green circle containing the number '3' next to it. Below the 'Count' field, there are three dropdown menus: 'Tree species' (set to 'Pine'), 'Quality', and 'Assortment'. These three dropdowns are grouped by a green bracket on the right with a green circle containing the number '5' and an asterisk (*). Below these dropdowns, there are three input fields: 'Log length' (set to '300' and 'cm'), 'Pile density' (set to '61' and '%'), and 'Load width' (set to '200' and 'cm'). These three input fields are grouped by a green bracket on the right with a green circle containing the number '6'.

*optional

4. Enter your data - Advanced fields

1. Click on “Show advanced fields”
2. Here you will have a possibility to choose “Storage”, “Type”, add “Licence plate”, “Shipment number”, etc.
3. Click “Save” to continue

Measurement options Save

Diameter Contour **Truck** Density

1 Show advanced fields

File name

Storage 🔍

Type

License plate

Owner

Shipment number

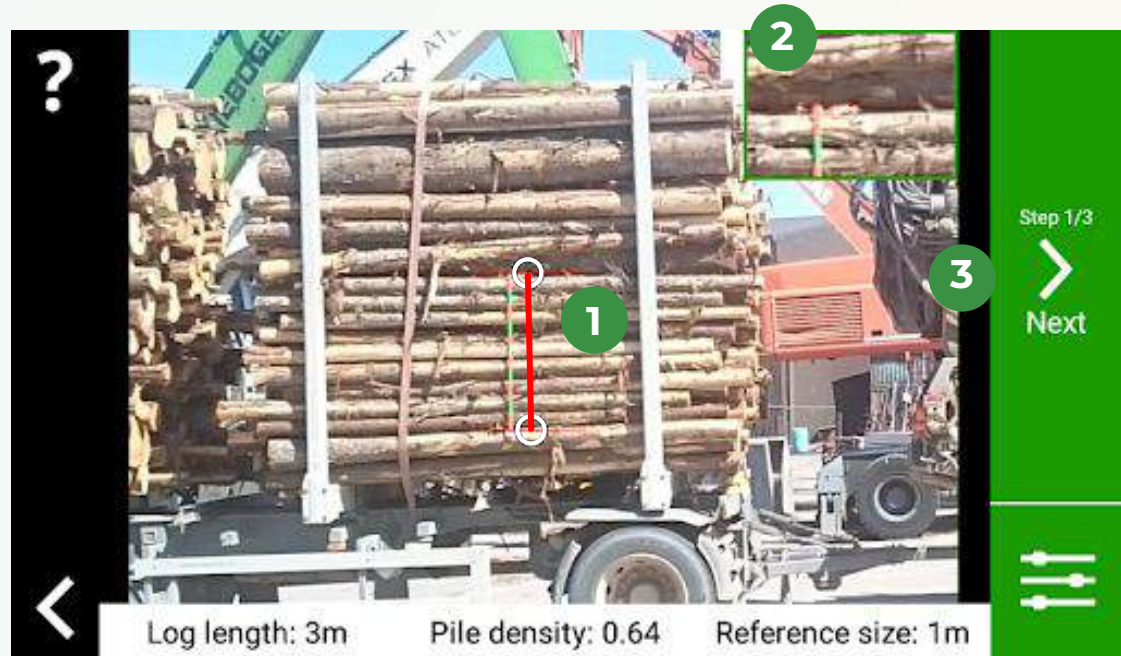
Comment

2

3 Save

5. Set the reference

1. The red line with two white circles will appear. Set the circle to both edges of the reference.
2. In upper corner you will see zoomed in picture for perfect adjustment
3. Click "Next" to continue



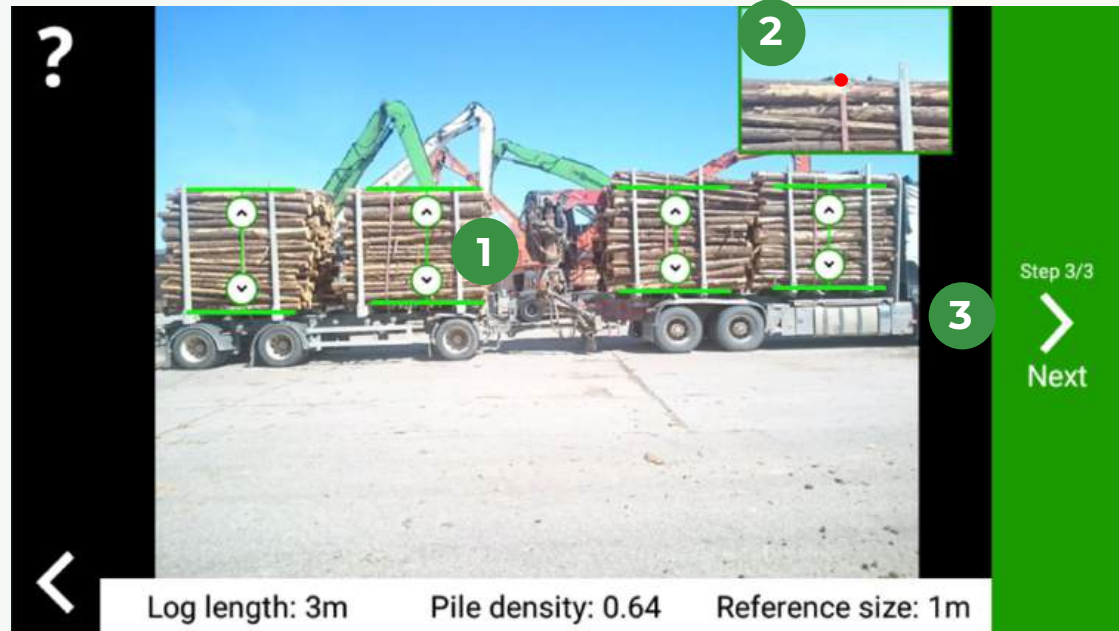
6. Select the loads

1. Tap on each load, once you select the load by tapping, a white circle will appear
2. In case you mistakenly tapped somewhere else, you can “Remove last” or “Remove all” loads
3. Click “Next” to continue



7. Adjust the load height

1. You'll see the green lines on the loads that you have selected in the previous step. Adjust the top and bottom of load
2. In the upper corner you will see a zoomed in picture for the perfect adjustment
3. Click "Next" to continue



8. Result


1. Administrative information
2. Total and gross volume
3. Full result for each load

← Measurement details
↻ Measure again

1 📄 **Truck measurement**
 Storage: Default
 Type: Uncategorized
 License plate: ABC 123
 Shipment number: 1234567

🌲 Tree species: Pine

📦 Volume: 27.42m³ **2**
 Gross: 42.84 stere
 Log length: 3m
 Reference size: 1m
 Pile density: 0.64
 Load width: 2m




🗨️

← Measurement details
↻ Measure again

3 1 Volume: 6.37m³
 Gross: 9.96 stere
 Load height: 1.66m
 Tree species: Pine
 Log length: 3m
 Pile density: 0.64
 Load width: 2m

2 Volume: 5.45m³
 Gross: 8.52 stere
 Load height: 1.42m
 Tree species: Pine
 Log length: 3m
 Pile density: 0.64
 Load width: 2m



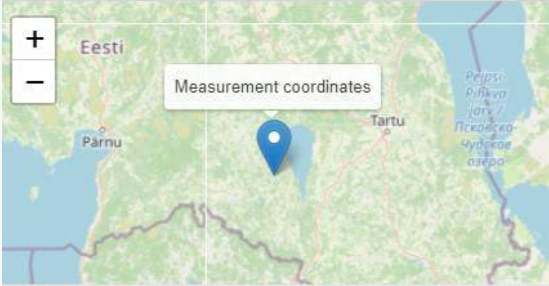
🗨️

9. Log in to [Timbeter Dashboard](#)

Features:

- Result overview
- Measurement editing
- Reports
- PDF and excel
- GPS location
- Easy to share results

📍 Measurement location



Latitude

Longitude

Storage

[Save](#)

Load 1	Load 2
Height	Height
<input type="text" value="1.99"/>	<input type="text" value="2.04"/>
Volume	Volume
<input type="text" value="7.5222"/>	<input type="text" value="7.7112"/>
Coefficient	Coefficient
<input type="text" value="0.63"/>	<input type="text" value="0.63"/>
Width	Width
<input type="text" value="2.0"/>	<input type="text" value="2.0"/>
Log length	Log length
<input type="text" value="3.0"/>	<input type="text" value="3.0"/>
Wood type	Wood type
<input type="text" value="Birch"/>	<input type="text" value="Birch"/>
Quality	Quality
<input type="text" value="Sawlog"/>	<input type="text" value="Sawlog"/>

Density measurement

Measurement mode can be used to determine density of timber amount without air and bark in pile or truck load.



- Pile and load density
- Volume
- Diameters
- Number of logs

Measurement process

1. Open **Timbeter** application

Start a new measurement



View finished measurements

2. Make a picture of a pile or truck

Current angle of device

Turn flashlight on/off

Switch between panorama and single shot capture

Capture image

Go back

Adjust the light

3. Enter your data

1. Select “Density” measurement option
2. Enter the length of the reference
3. Enter log length and select tree species
4. Optional - Choose “Storage”, “Shipment number”, “Type”
5. Optional - Enter “Quality”, “Assortment”, “Comment”
6. Click “Save” to continue

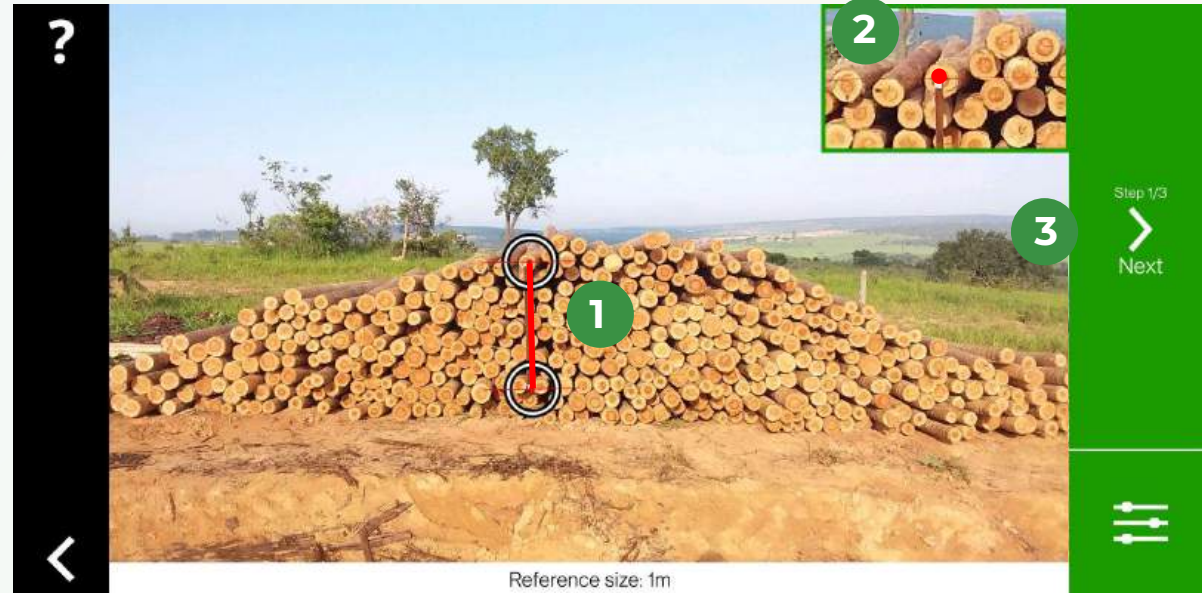
The screenshot shows the 'Measurement options' form in the TIMBETER application. The form is divided into four tabs: Diameter, Contour, Truck, and Density. The 'Density' tab is selected, indicated by a green circle with the number '1'. The form contains several input fields and dropdown menus, with numbered callouts indicating the steps:

- 1:** Select the 'Density' measurement option.
- 2:** Enter the 'Reference size' (100 cm).
- 3:** Enter the 'Log length' (300 cm) and select the 'Tree species' (Birch).
- 4:** Optional fields: 'Storage' (Default), 'Shipment number' (Shipment number), and 'Type' (Uncategorized).
- 5:** Optional fields: 'Quality', 'Assortment', and 'Comment'.
- 6:** Click the 'Save' button at the bottom.

Additional form details include: Reference type (Reference stick), Automatic contour (checked), Detector (Default), Show advanced fields (checked), File name (2021-05-10 16-07-58 - 4), and a green 'Save' button at the bottom.

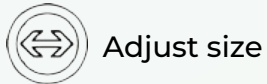
4. Set the reference

1. The red line with two white circles will appear. Set the circle to both edges of the reference.
2. In upper corner you will see zoomed in picture for perfect adjustment
3. Click “Next” to continue



5. Adjust the log circles

1. To delete an unnecessary object, tap and hold on circle
2. To add log what is not detected, tap and hold on log
3. Select missing log and adjust circle size and position:

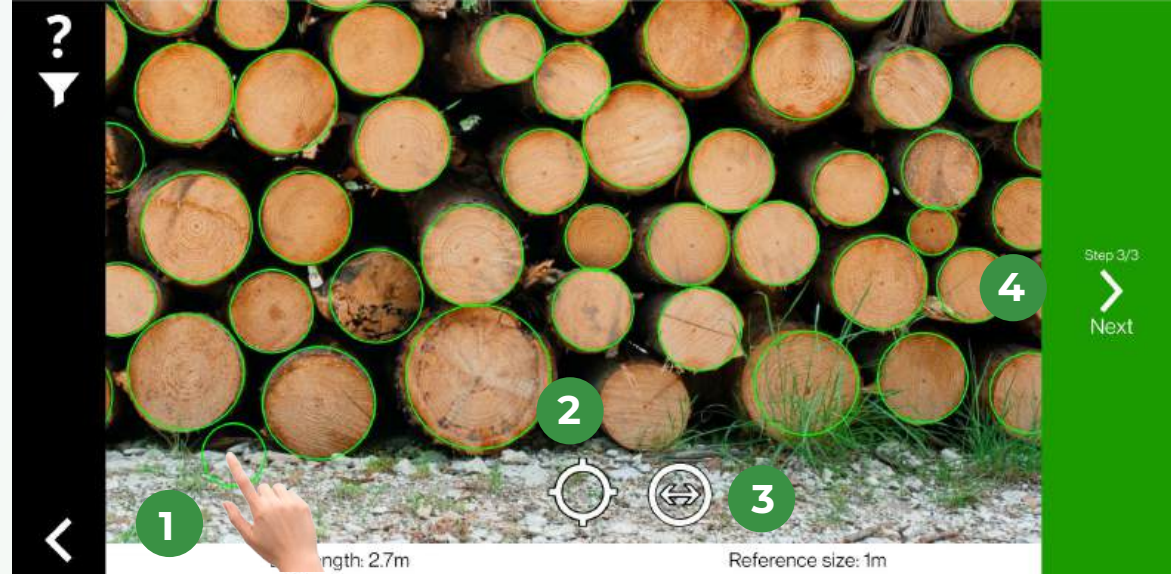


Adjust size




Adjust position

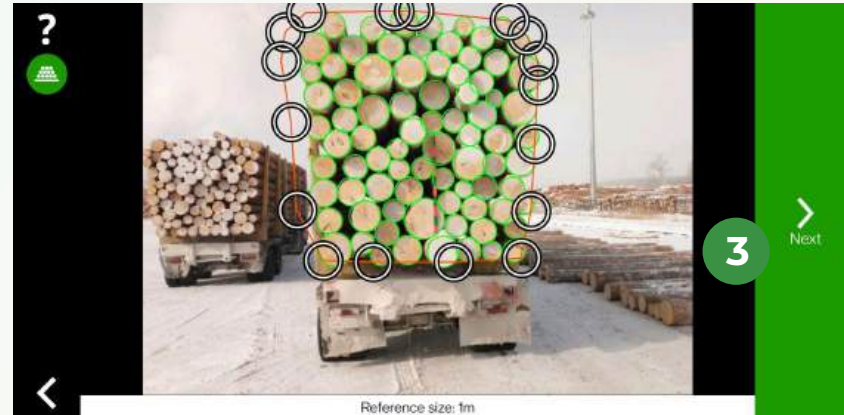
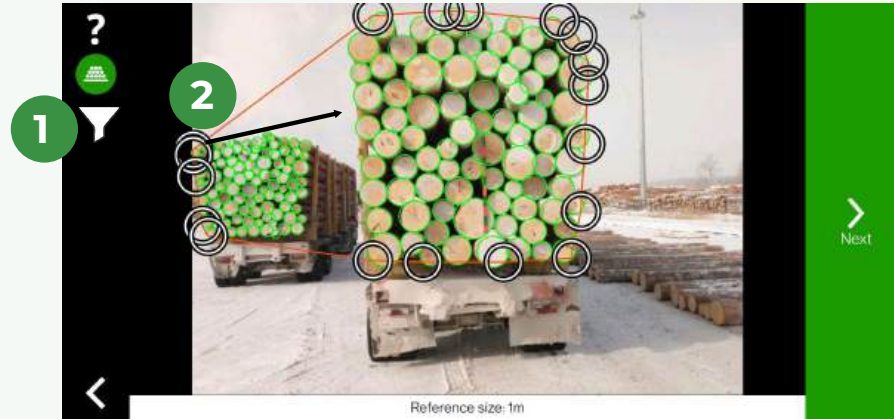
4. Click “Next” to continue



6. Adjust the area of interest

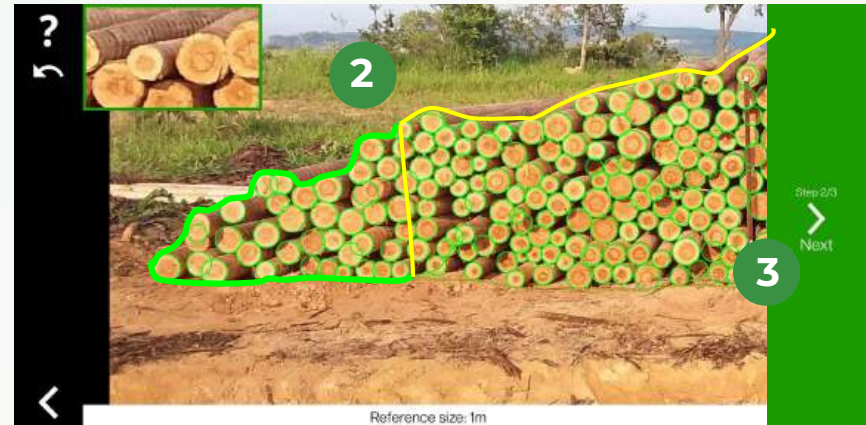
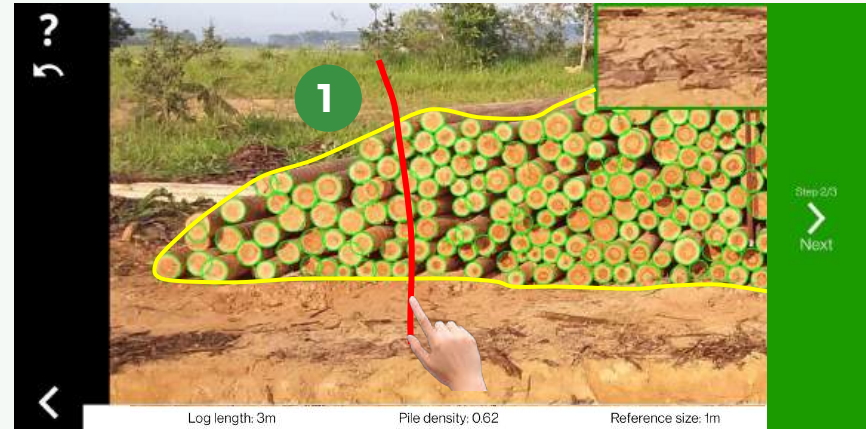
In case there are other logs in the picture, it is possible to adjust area of interest.

1. Click on  sign
2. Move white circles to adjust area in what you are interested
3. Click “Next” to continue



7. Determine pile area

1. To reduce the pile area, draw a line from the outside of the area and finish drawing it outside of the area. It'll be shown in red line.
2. To broaden the pile area, draw a line from the inside of the pile and finish it inside of the pile. It'll be shown in green line.
3. Click "Next" to continue



8. Result

1. Administrative information
2. Volume
3. Parameters and result
4. Density - result is shown in decimal number, converting to %, means that 66% in this pile is wood, rest is air and bark.

Density result can be used in Contour and Truck regime

← Measurement details
↻ Measure again

1

Automatic Density Sample
2021-05-10 16-07-58 - 8
Id: 876745
Storage: Default
Type: Uncategorized

2

Tree species: Birch

Volume: 16.22m³

6.7
17.5

3

[Av diameter](#): 12.43cm
Log count: 437
Log length: 3m
Reference size: 1m
Detector: Default

4

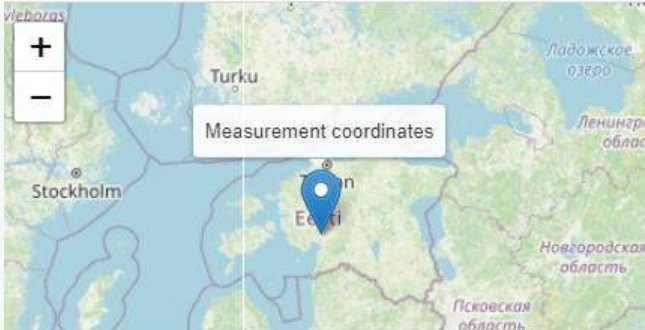
Pile density: 0.66

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Features:

- Result overview
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- PDF and excel
- GPS location
- Easy to share results

Measurement location



Latitude

Longitude

Storage

Measurement details

Volume: 10.591 m³ Log count: 70

Coefficient

Measurement type

Wood type

Wood quality

Log length

 m

Volume formula

Reference size

 m

Public URL

Benefits



Time efficiency



Digitalization



Transparency



Cost efficiency



Reduction of human error



Prevention of illegal logging



Sustainability



Traceability



Logistics planning



Fair trade



Safety



Waste reduction

Our mission



Global solution for efficient, transparent and data-driven timber supply chain management.

Our mission is to save essential and limited resources in the forestry: trees, labour force and driven miles.



 **TIMBETER**

Teaduspargi 6/1

12618, Tallinn

Estonia

+372 5193 9593

info@timbeter.com

WWW.TIMBETER.COM

