

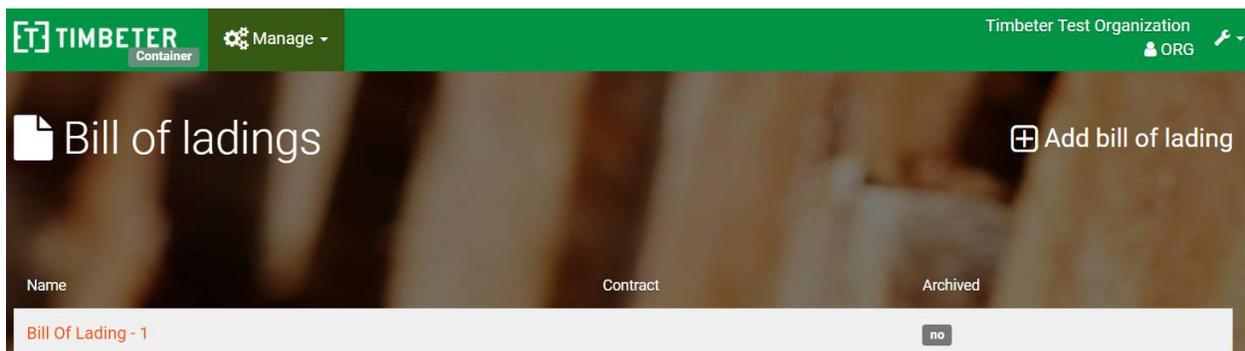
TIMBETER CONTAINER USER GUIDE

1. Before Measuring

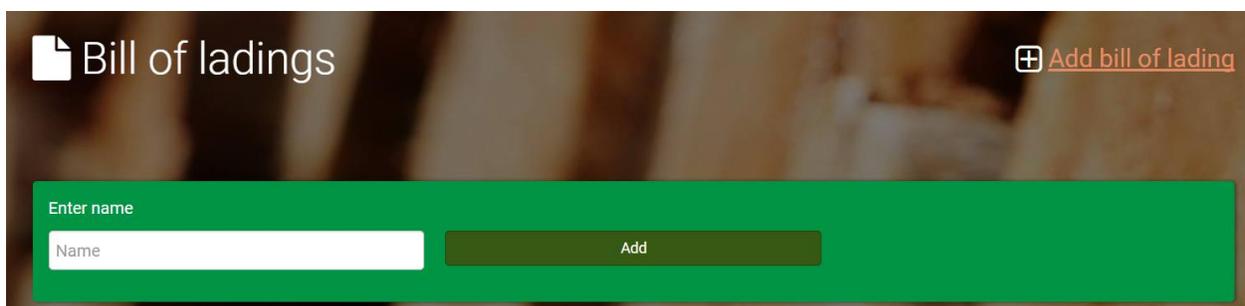
Enter the data of Bill of Ladings and containers from the storage module. Log in from container.timbeter.com with the credentials (e-mail, password) you used during the registration. The information entered from the storage module (bill of lading, container) will appear in the application. This way you will make sure that all the measurements are under the right container and right bill of lading.

1.1 Adding bill of lading.

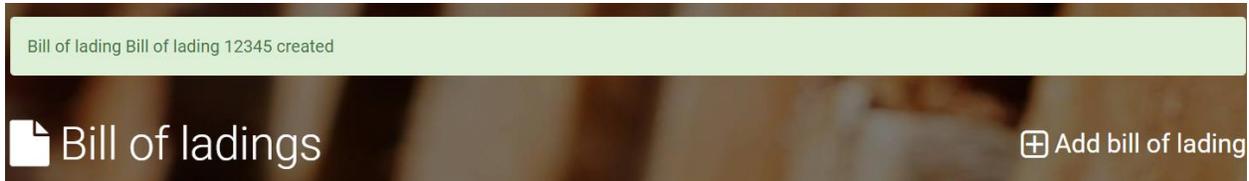
Simply select Manage => Bill of ladings from the upper left and select Add bill of lading.



Then enter the name of bill of lading and click Add.



And the bill of lading has been added.



1.2. Adding container under the bill of lading

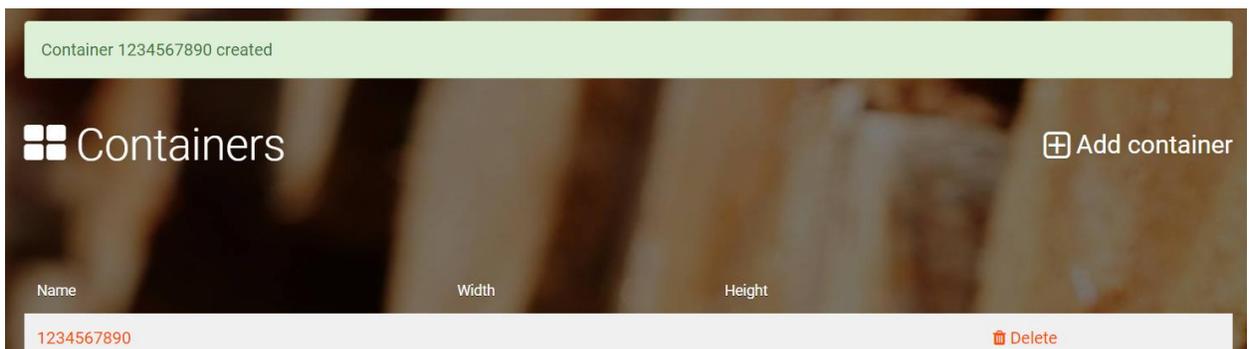
Now it is time to add the container numbers under the bill of lading. Select Manage from upper row and select Add container.



Select the Bill of Lading and the number of container. You can add as many containers needed. Multiple container numbers can be added all at once by entering each container on a separate line.

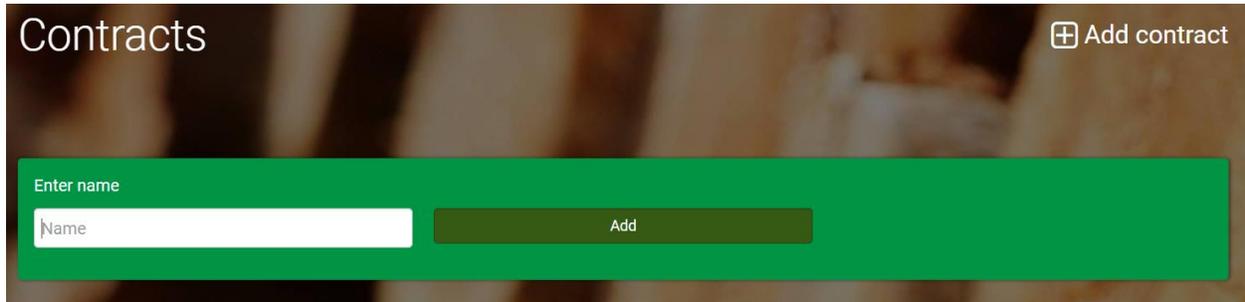


Container has been successfully created and appears in the list.



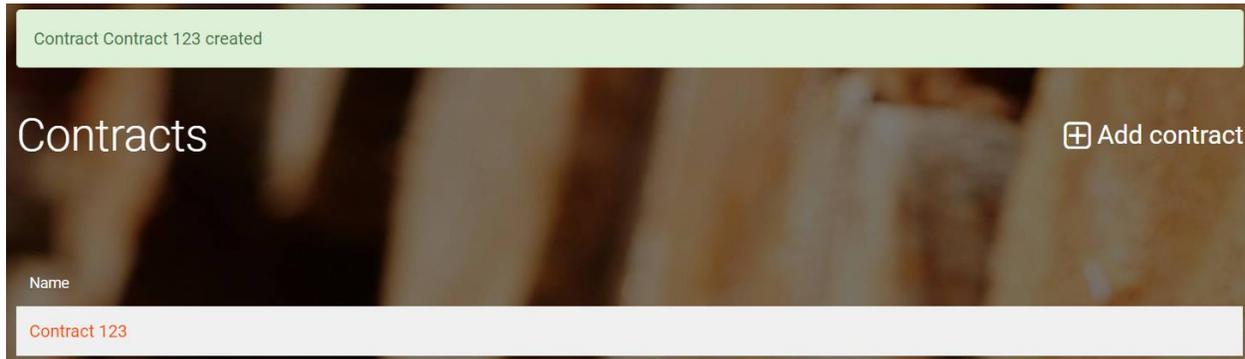
1.3. Adding contracts

Select Contract from Manage menu and Add contract. Contracts can be added to the bill of lading as a reference and also as an option to filter on the dashboard.



The screenshot shows the 'Contracts' page with a green header bar. On the right side of the header, there is a '+ Add contract' button. Below the header, there is a green form area. Inside this area, there is a label 'Enter name' above a white input field containing the text 'Name'. To the right of the input field is a dark green button labeled 'Add'.

Contract has been created.



The screenshot shows the 'Contracts' page after a contract has been created. At the top, there is a light green notification bar that says 'Contract Contract 123 created'. Below this, the 'Contracts' header is visible with the '+ Add contract' button. Underneath, there is a table with a single row. The table has a header row with the label 'Name'. The data row contains the text 'Contract 123'.

1.4. Adding wood types, qualities, assortments and reasons for cull.

Timbeter provides most commonly used species in the application. Companies can easily enter their custom wood types, assortments and reasons for defect.

Select Wood types from the Manage menu. All information is synchronized with the device, so all the options will also appear in the device

Name	Archived
Pine	
Spruce	
Birch	
Aspen	
Alder	
Ash	
Oak	

Adding new wood types or wood qualities is taking place from upper right: Add wood type or Add wood quality.

Name	Archived
Pulpwood	
Fuelwood	
Small-diameter sawlog	
Sawlog	
Plywood log	

Adding new wood assortment following information is available for entry: wood type, wood quality, log length and price.

Name	Wood type	Wood quality	Log length	Price	Archived
Assortment 1	Spruce	Small-diameter sawlog	3.0 m	€50 / m ³	<input type="checkbox"/>
Assortment 2	Pine	Small-diameter sawlog	3.0 m	€55 / m ³	<input type="checkbox"/>

In the case of cull by default the following reasons are entered: wrong length, rot, crookedness and wrong diameter.



Reason	Minimum diameter	Maximum diameter	Archived
Wrong length			
Rot			
Crooked log			

When adding culls you can set the minimum and maximum diameter which will allow the software to mark anything out of that range as cull. The default "Wrong diameter" cull is clickable and you can set the diameter range.



Cull Wrong diameter(6-60)

Reason	<input type="text" value="Wrong diameter(6-60)"/>
Minimum diameter	<input type="text" value="6,0"/> cm
Maximum diameter	<input type="text" value="60,0"/> cm

or [go back](#)

1.5. Information filtering

All the information can be easily found and filtered on the dashboard.

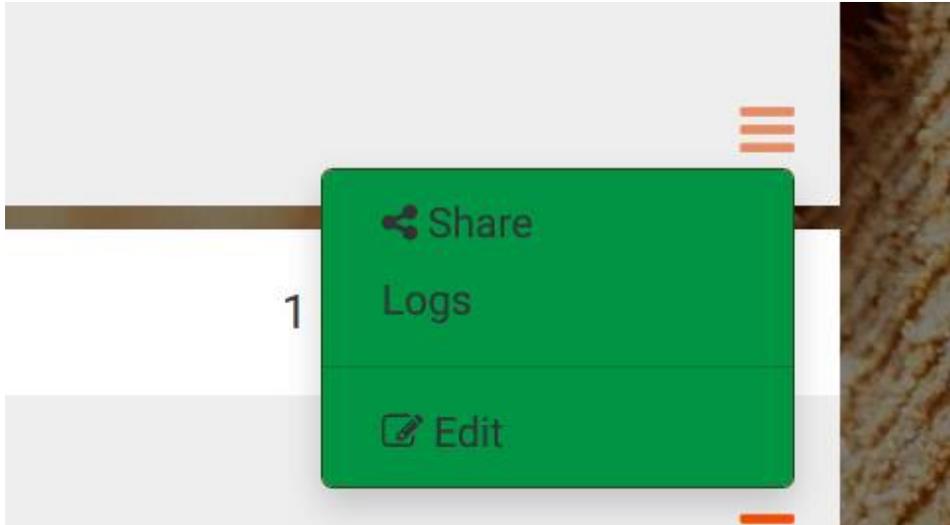
The screenshot shows a dashboard titled "Measurements" with a green background. It features several filter fields: "Bill of lading" (dropdown), "Contract" (dropdown), "Measurement date" (range selector), "Species" (text input), "Length" (range selector), "Volume" (range selector), and "Wood assortment" (text input). At the bottom, there is a "Filter" button, a "Save as Excel" button, and a "Clear" button.

From the dashboard filters you have the option to save the whole dashboard as excel and this will divide each bill of lading on a separate sheet. Each sheet will have the following information: Bill of lading name, the container count, log count of the bill of lading, the total volume, wood types that are present, public link to the bill of lading and the list of all containers separately with their respective log count and volume and containing timber with it's respective public link.

	A	B	C	D	E
1	Bill of lading	Bill Of Lading - 1			
2	Container count	3			
3	Log count	252			
4	Volume	83,62 m ³			
5	Wood type	Pine, Spruce			
6	Link	Bill Of Lading - 1			
7					
8	Container	Log count	Volume	Wood type	Link
9	Container - 1	80	27,21	Pine	Container - 1
10	Container - 2	72	26,61	Spruce	Container - 2
11	Container - 3	100	29,8	Pine	Container - 3
12					
13					
14					

1.6. Container Log distribution sheet

When opening a bill of lading from the dashboard you can see the option icon on each of the containers. From the dropdown menu there you have the selection "Logs", that will generate an excel file of the container.



The log distribution sheet is generated as according to the rounding of the formula that is used.

	A	B	
1	Container	Container - 1	
2	Volume formulas	JAS	
3	Diameter	Count	
4		20	12
5		22	15
6		24	22
7		26	10
8		28	15
9		30	10
10		32	3
11		40	4
12	Total		91
13	Average		25,65
14			

2. Measuring

Diameters, average diameter, volume, coefficient.

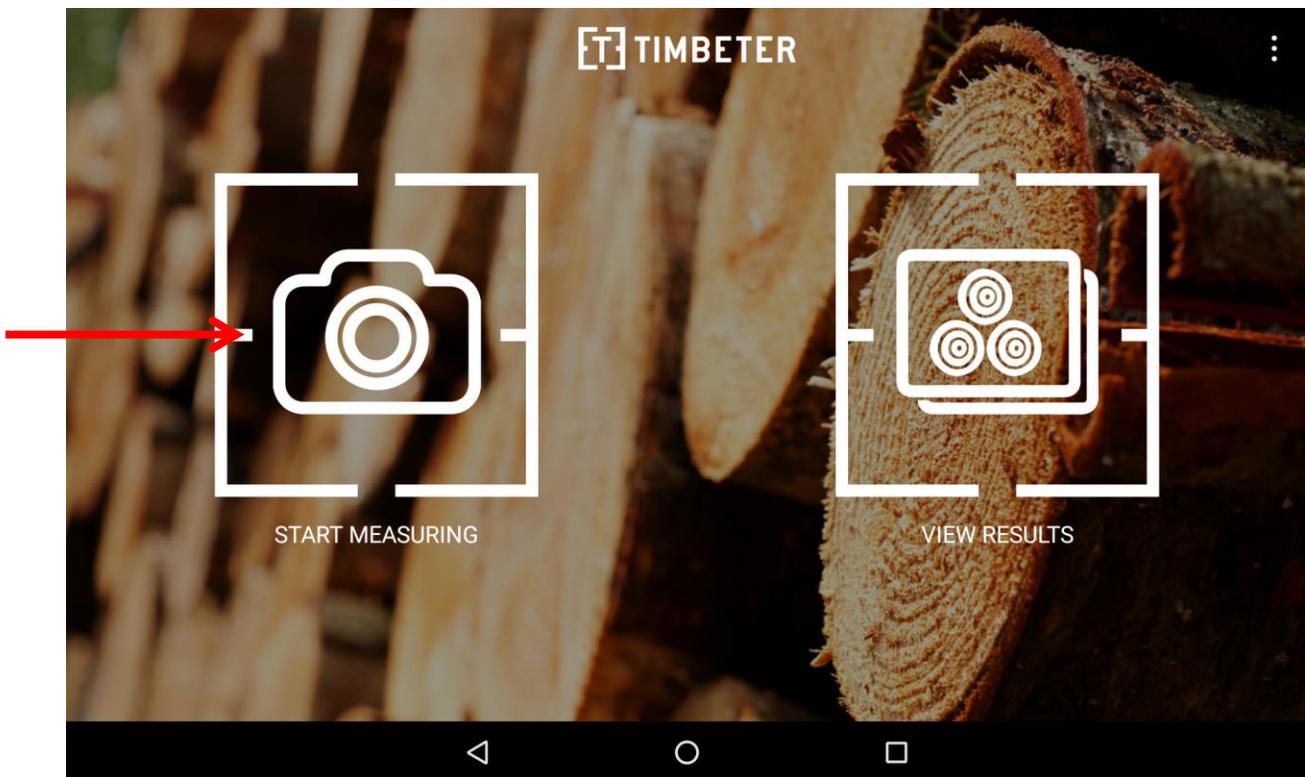
If you want to measure the **volume, coefficient, average diameter** and **pile density** you need to have a reference (minimum 1 m long). If you are only interested in the **log count** then you do not have to have a reference at hand.

REFERENCE is at least **1 meter** long (this can be a wooden plank, a measuring tape). It needs to be attached to the pile before measuring.

The reference must be painted a color that is clearly distinguishable from the timber and bark, so that it is easy to find the tips of the reference on the photo. Good colors are blue, red and orange. Neon shades stand out particularly well from the background.

IF you do not want to measure the **volume, coefficient, average diameter** and **pile density** and are only interested in the **log count** then you do not have to have a reference at hand.

To start measuring, click the left button in the menu.



A table of Bill Of Ladings will pop up and you will be prompted to choose the correct one under which the desired container lies. Choose a bill of lading after which another table will appear. Choose a container from the newly appeared container list.

If you do not have any bill of lading or containers registered to your account just yet, then you may use the default container.

If you have chosen the correct container you may begin taking a picture.

2.1. Photographing

To photograph the pile, hold your smartphone/tablet at a **90+/-3** degree angle, **parallel** to the pile. The smart device's orientation sensors will display the tilt angle in degrees in the top left corner of the screen, for both vertical and horizontal directions. If the tilt angles are too great for the picture, their background color will turn from green to red. So just before you take the picture, confirm that the orientation sensor readings are green – otherwise you will not be able to save the photograph.



2.2. Light / Exposure Settings

If the lighting conditions are not appropriate for photographing (ie it's too dark or too bright), the device's camera can be adjusted for exposure by changing its light sensitivity. Exposure compensation can be adjusted under the "EV" label in the top right corner. The default exposure compensation in the app is 0.0. If there is too much light, change the EV setting to somewhere between -0.5 and -2.0. If there is not enough light, change the EV setting to somewhere between 0.5 and 2.0.



For capturing a photo, push the camera button. Once the photo has been taken, a number of options will open:

- a) Measure and save – measure the pile immediately;
- b) Save – this lets you just save the photo and continue photographing the piles. Saved pictures can be measured later in the “Results” view. When saving it is also uploaded to the container module in the background.

ALSO PLEASE NOTE: A container measurement typically consists of 2-3 measured pictures and 1 picture that is not measured. This picture is usually the container with its door closed. This is a good way to signify that all the container's areas have been measured.

2.3. Data Entry

You will need to enter the parameters that describe the container and the roundwood:

1. **Reference size** (optional)– the length of the rod being used as a reference;
2. **Bill of lading** (optional) you may change the bill of lading, in case you chose the wrong one when starting measuring.
3. **Container** (optional) you may choose another container, incase you chose the wrong one when you started measuring.

4. **File name** – You may change the file Name, by default the name is the name of the container + index.
5. **Tree species** (pine, birch, aspen, alder, ash, oak, other);
6. **Assortment** – this value stores previously inputted settings, new assortments may be created from storage module timbeter.com
7. **Log length** (cm);
8. **Width** – width of the container.
9. **Height** – height of the container.
10. **Select** the appropriate **formula**. The choices are the **JAS** formula, the **Nilson** formula (both are used when the pile is stacked with all thin ends in one direction), the **cylindrical formula** (used when the logs are mixed.) or the **GOST** standard.
11. If needed, you may input a comment regarding container weight or whatever other information you deem necessary.

Step 1 Settings

Use reference 300 cm

Edit pile density

Bill of lading Bill Of Lading - 1

Container Container - 1

File name containerOutside

Tree species Birch

Assortment

Log length 300 cm

Width 300 cm

After you have finished entering the data, click Save in the top right corner.

2.4. Setting the reference

(ONLY APPEARS IF THE REFERENCE IS SET IN THE PREVIOUS STEP)

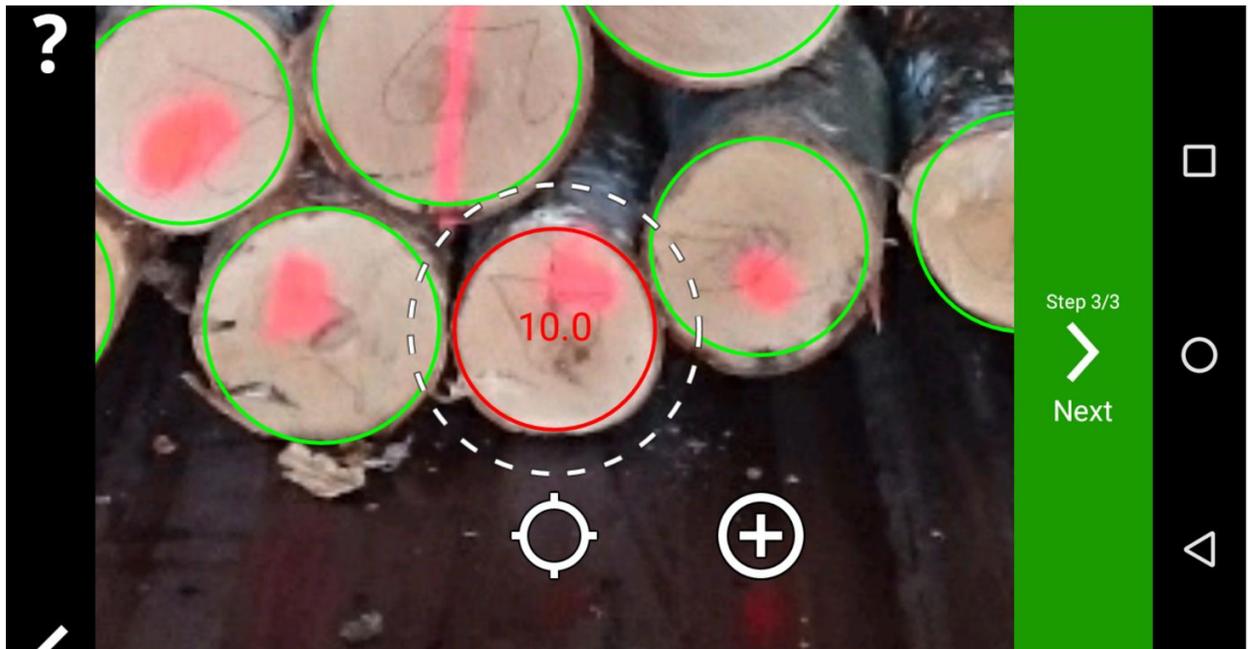
You will see two white markers on the screen which are used to indicate the reference. Place the red dots on the ends of the reference object by dragging the white markers. The top right corner of the screen will show a zoom view, to make finding the right position easier.

Once the reference markers are in exactly the right positions, click Next.



2.5 Adjusting log detections.

Now the application has detected the logs inside the container. If the app fails to recognize a log (for example, it is in shade), hold your finger on the screen in the corresponding location. This will tell the app to search that place again. Use the + icon to increase or decrease the circle, and the O icon to change the log's location. You can also pinch to zoom in on the screen.

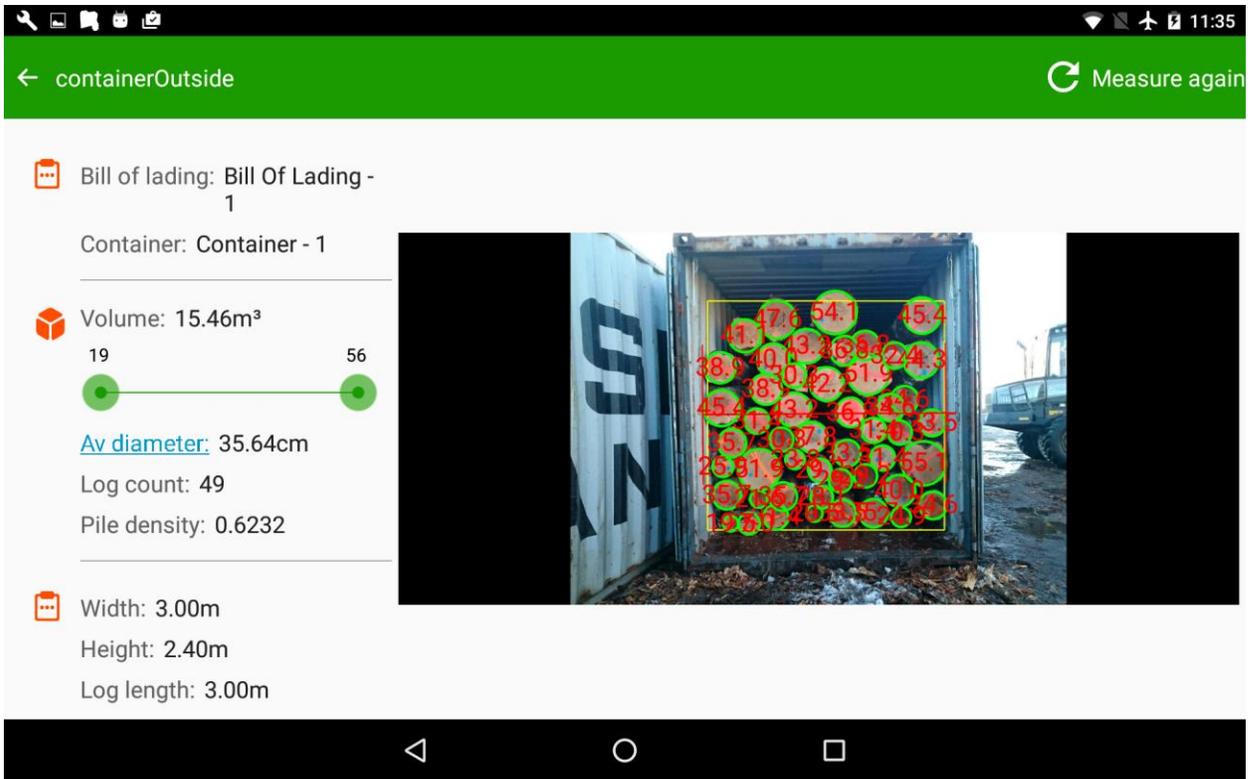


If the app has identified too many logs by mistake (for example, if there is a different round object in the photo), you can delete the log by holding your finger on the screen. If a log is in the wrong position or has the wrong size, you can activate it the same way, by holding your finger on the screen. Use the + icon to make the circle larger or smaller. Use the O icon to change the log's location. Logs that have been manually adjusted are highlighted in red on the screen.

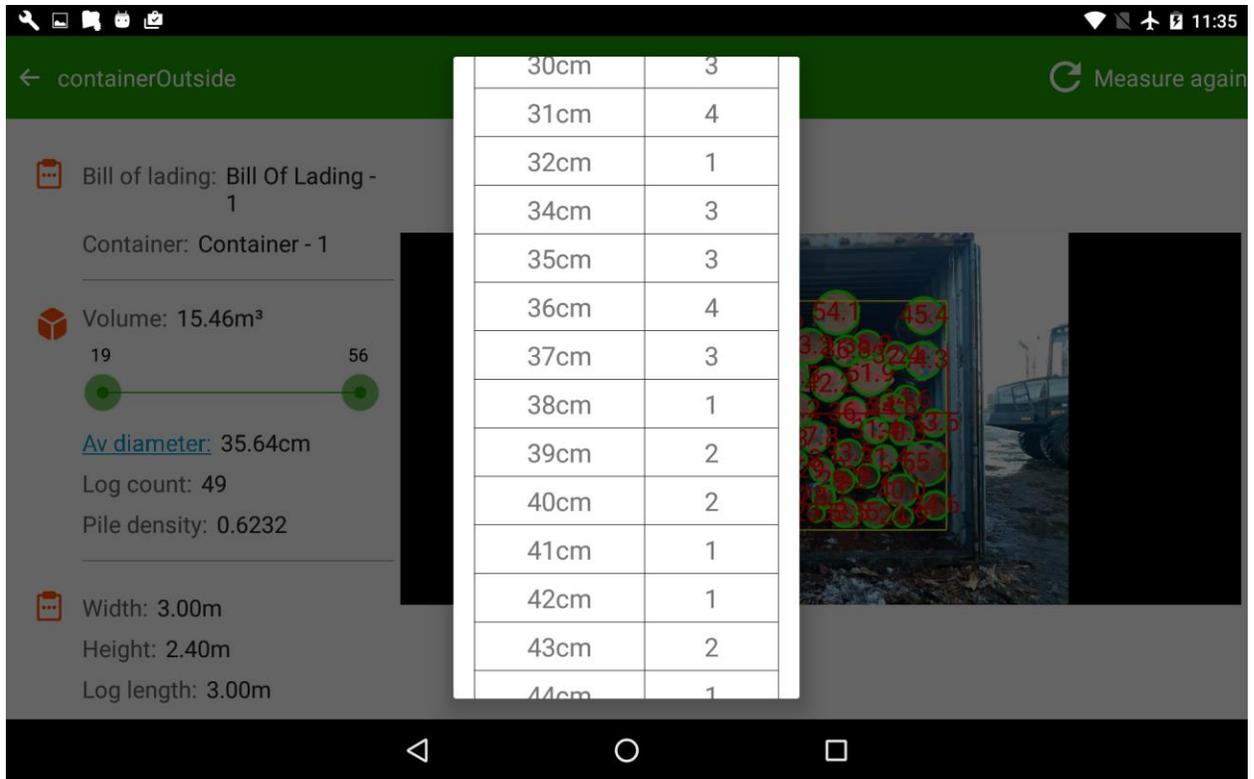
Once all logs have been detected and corrected, click Next. The measurement will then save and you will be taken back to the main Menu screen. To view the measurement click on view Results and click on the desired measurement.

The app will then display the number of logs in the pile and the rest of the inputted settings. If you have entered a reference size then the average diameter of the log, the timber volume, the pile density are also displayed.

On the left of the measurement information you will also see all the measured diameter, if you have prompted to use a reference, then the reference is displayed and finally a yellow box around all the measurements showing the area considered as the container.



It is also possible to filter the diameters, to see how many logs are in a concrete range. For example from 16-20 cm or 25-30 cm .



If something has gone wrong, click Measure again to repeat the actions.

All measurement results are available in the Results view and, for a company account, in the storage module container.timbeter.com.