



Ikelo V 2.0.x Calibration Procedure

COPYRIGHT

© Copyright by custom8 nv

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Custom8 NV. No patent liability is assumed with respect to the use of the information contained herein. Neither is any liability assumed for damages resulting from the use of the information contained herein.

Feedback

Requests for information or usage of these –or parts of these- instructions can be addressed to :

Custom8 nv
Romeinsestraat 18
B-3001 Heverlee
info@custom8.be

Date of publication

November 6, 2019

Software version

V 2.0.x



Table of contents

Copyright.....	2
Feedback.....	2
Date of publication.....	2
Software version.....	2
Weight Scale Calibration.....	4
Camera Calibration.....	6

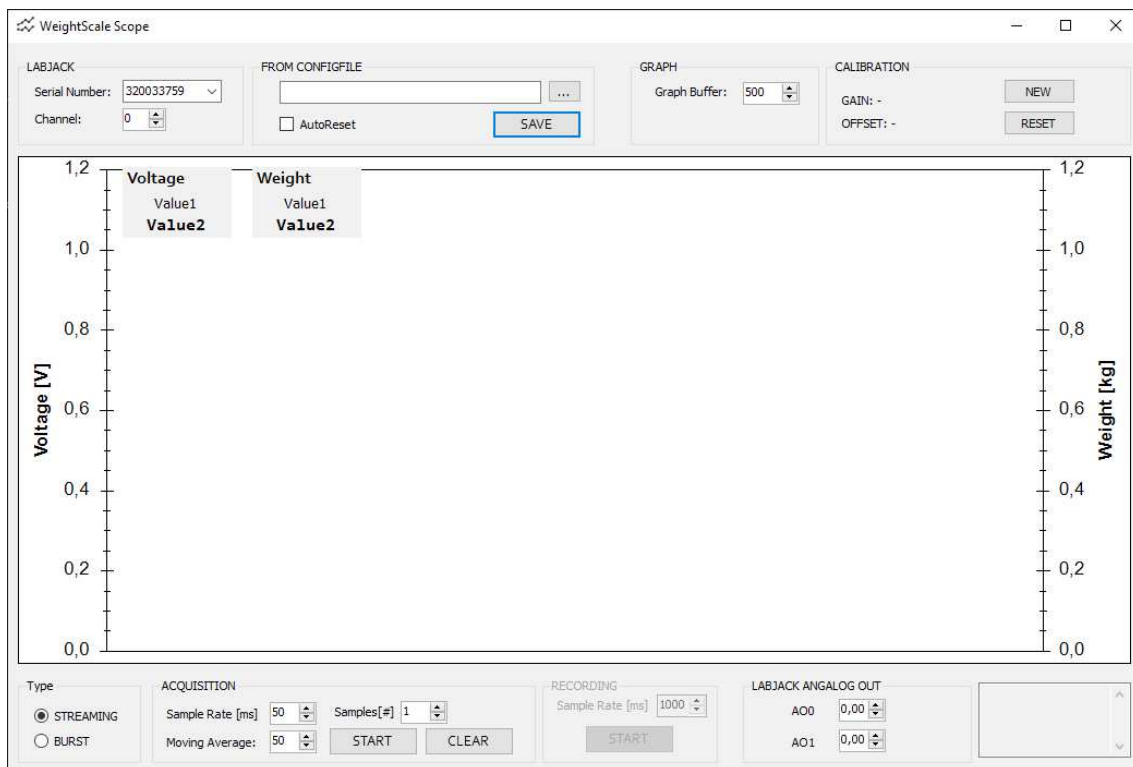


WEIGHT SCALE CALIBRATION

The calibration of the weight scale can be checked with the WeightScale Scope.

To start the scope, double click on the icon on the desktop, or as 'c8.Ikelo.WeightScaleScope.exe' in the main installation directory of the Ikelo Bodyscanner software:

- 32bit OS: C:\Program Files\custom8\Ikelo.Custom8
- 64bit OS: C:\Program Files (x86)\custom8\Ikelo.Custom8



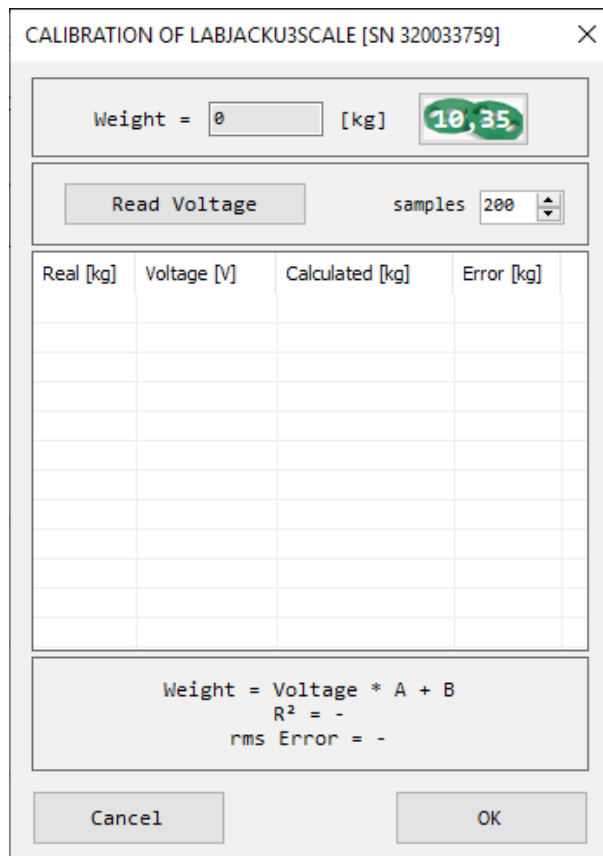
To check the current calibration settings, load the configuration file from the Ikelo Bodyscanner program, which is located at:

- C:\ProgramData\custom8\Ikelo

This will allow to monitor the weightscale output in kilograms.

To adjust the calibration, click on the 'NEW' button in the top right corner. This will open a new window.





You can calibrate the weight scale, using at least 4 objects or combinations thereof with a *known* weight (including an empty scale).

- Put the object(s) on the scale. Indicate the real weight of the object.
- Press 'Read Voltage'. It is advisable to measure the same object multiple times to minimize possible noise on the measurement.
- Repeat until at least 4 weights (including zero) have been entered.
- The list gives an overview of the measurement points, showing the real value, voltage measured, calculated weight (using the current gain and offset) & error. Double click a row in the list to remove the row.
- Press 'OK' to close this window and return to the WeightScale Scope

Remember to save the current settings into the configuration file of the Ikelo Bodyscanner software by clicking on the 'SAVE' button!

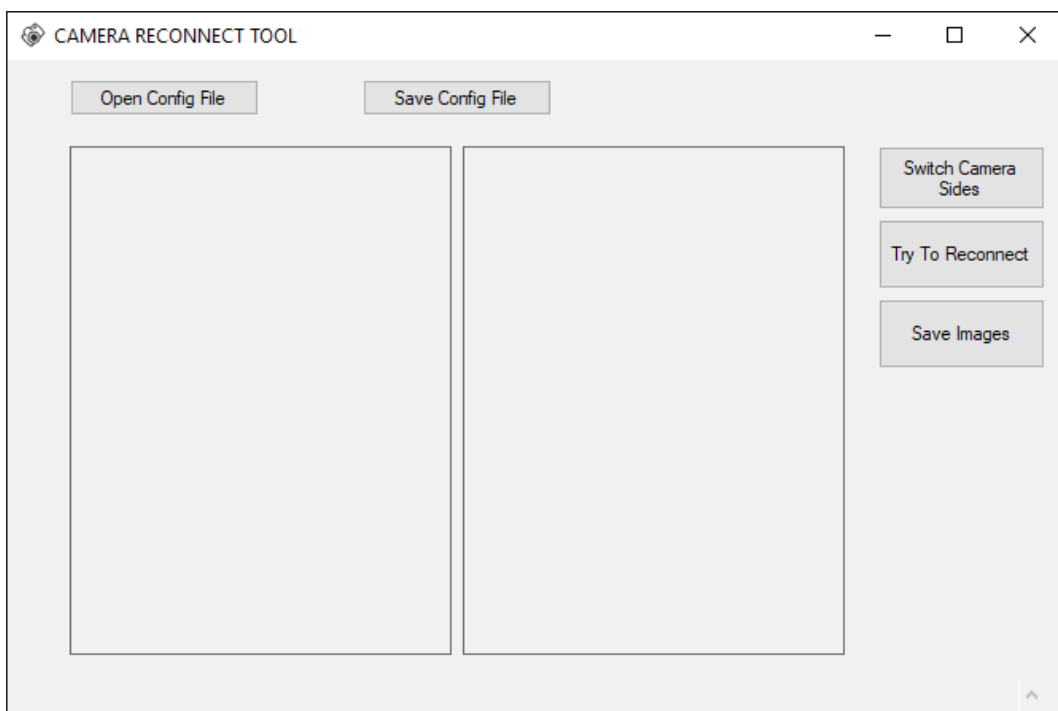


CAMERA CALIBRATION

The camera calibration is performed by taking a collection of pictures with the camera's which can be processed by Custom8. There are 3 types of pictures necessary for each camera:

1. Picture of an empty scene (clear view on back panel)
2. Picture of a calibration panel with reference marker
3. Picture of an "average person" or dummy with a green shirt

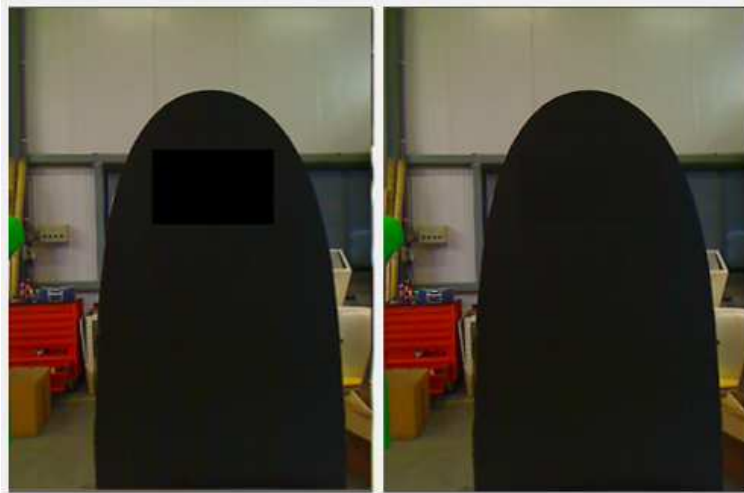
The pictures can be taken by the Camera Reset tool, which can be opened by clicking on the desktop icon, or by opening the program (c8.Ikelo.CameraReset.exe) in the main Ikelo Software directory.



Load the configuration file from the Ikelo Bodyscanner program to start the camera's. The camera's can be switched if the image is upside down with the button on the top right.

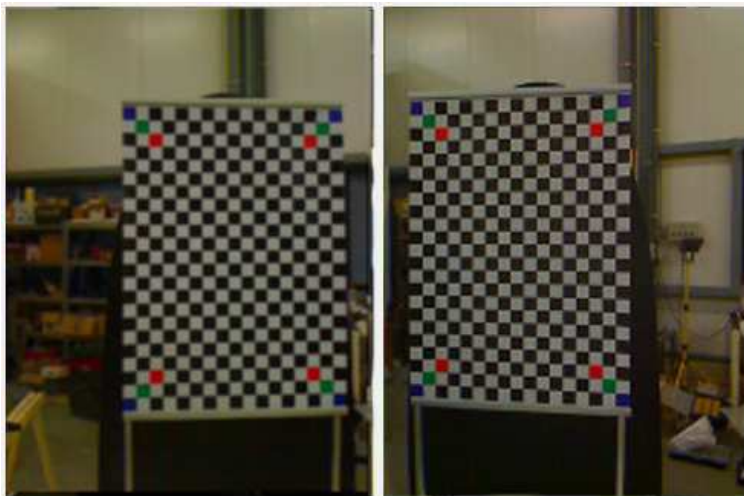


In a first step, pictures are taken from the **back panel** with nothing in front:



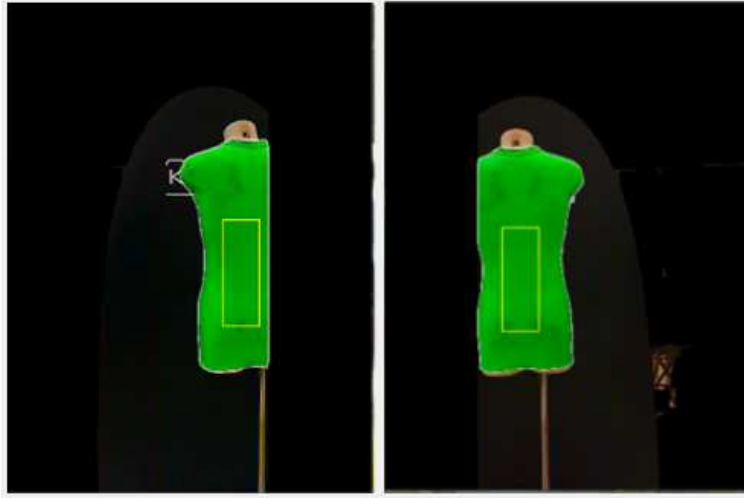
Press 'Save Images' and point at a location to save the current images.

For the second step, a **calibration pattern** is positioned vertically above the middle of the weight scale. To map the left and right image, a **reference** marker must be added to the pattern, and the **height of the corresponding square** from the weight scale must be saved!



Press 'Save Images' and point at a location to save the current images.

In a third step pictures are taken from average **person with a green shirt**, hands in a natural way in front of the body, or from a dummy with green shirt.



Press 'Save Images' and point at a location to save the current images.

Finally, make an archive (advised name: "Ikelo ID – date-time.zip") from the complete picture collection, together with the height information of the reference from step 2, and send it to support@custom8.be. Within 48hrs a calibration file will be returned. The period can be shortened by making an appointment up front.