Erasmus+

KOOLITUSKESKUS

RED CROSS MEDICAL COLLEGE OF RĪGA STRADIŅŠ UNIVERSITY

3shape

User Manual

3SHAPE

3Shape TRIOS 4 is a handheld, wireless intraoral scanner utilized by dentists and dental assistants for scanning patients' teeth and gums. It generates an immediate 3D model of the teeth, gums, and occlusion, allowing both the dentist and patient to view it in real-time on a screen adjacent to the chair.

AUTOCLAVING

Sterilization Using an Autoclave

1. The TRIOS Tip must be cleaned and sterilized immediately after use. New Tips must be sterilized or high-level disinfected before their first use.
2. Hand-wash the tips with soapy water and a soft brush. A mild dish detergent is recommended. If stains still appear on the mirror, or if it is dirty or slightly foggy, repeat the cleaning process before rinsing with water. Carefully dry the mirror with a paper towel.
3. Place the tip in a steam pouch and seal it. You can use either a self-adhesive or heat-resistant pouch. The pouch must be hermetically sealed.
4. Sterilize the packaged tip in an autoclave using one of the following two programs:

- at a temperature of 134 °C (273.2 °F) for at least 4 minutes;
- at a temperature of 121 °C (249.8 °F) for at least 45 minutes.

Use an autoclave program that dries the packaged tip before opening the autoclave. Autoclave types and temperatures vary depending on the autoclave type and manufacturer. The autoclave manufacturer's user manual will indicate whether the minimum parameters have been set for the autoclave.

CLEANING WITH DISINFECTANT

1. Hand-wash the tip with soapy water and a brush immediately after use. A mild dish detergent or similar is recommended. Check the tip's mirror after cleaning. If there are visible stains, dirt, or a whitish layer on the mirror, repeat the cleaning process with a soft dishwashing brush and soapy water. Rinse with water.
2. Carefully dry the mirror with a paper towel.
3. Disinfect the tip using Wavicide-01 solution. Immerse the tip completely in the Wavicide-01 solution for 45-60 minutes. Refer to the Wavicide-01 solution user manual as well.
4. After 45-60 minutes in the Wavicide-01 solution, remove the tip and rinse it, following the Wavicide-01 solution user manual instructions.
5. Dry the tip and mirror with a non-abrasive cloth or towel.
6. 3Shape has validated high-level disinfection with Wavicide-01 solution, but it is not globally approved and/or recognized as a medical device disinfectant; always follow the procedures established for your clinic or institution, as well as all national guidelines.

Never autoclave an unpackaged tip, as this will leave stains on the mirror that cannot be removed. Refer to the autoclave manual for more information.

To sterilize the scanner tip, a Class B vacuum autoclave complying with the EN13060 standard is required.

The scanner tip with the attached mirror can be sterilized up to 150 times, after which it must be discarded.

SCANNER CALIBRATION

To ensure optimal quality and accuracy of the scanner, calibration is necessary for calculating the scanner's internal geometry and camera parameters. This article provides useful tips on what to consider for proper scanner calibration.

How often should the scanner be calibrated?

There is no specific requirement for calibration frequency, but the general recommendation is to calibrate it **once a week.**

Situations/indications that recalibration is needed:

- If the visual quality and/or accuracy of the scans decreases;
- If the scanner has been transported or moved to another surface;
- If the last calibration was performed more than 30 days ago (a warning will appear in the software, suggesting recalibration).

What should be considered before calibrating the scanner and how to avoid the need for frequent recalibration?

Always use the original calibration object included with the scanner - the label with the serial number on the back of the object corresponds to the serial number on the back of the scanner.

- Avoid using calibration objects from different scanners, even though they may appear visually identical;
- Ensure that the scanner is not calibrated "cold." It is not recommended to calibrate the scanner "first thing in the morning" if it was turned off overnight - as the scanner's temperature rises during the day, a notification may appear indicating that recalibration is needed due to the temperature change;
- Make sure the room temperature is stable throughout the day, and do not place the scanner next to a heat source or window;
- Avoid touching the calibration object without its protective cover and always keep the cover on when not in use to ensure that the calibration object remains clean and scratch-free (scratches, dirt, or dust may cause calibration to fail or lead to inaccurate scanning results).

If the calibration object is damaged, e.g., dropped on the floor, do not attempt to repair it yourself - contact **rasmus@medgrupe.ee** to order a replacement calibration object.

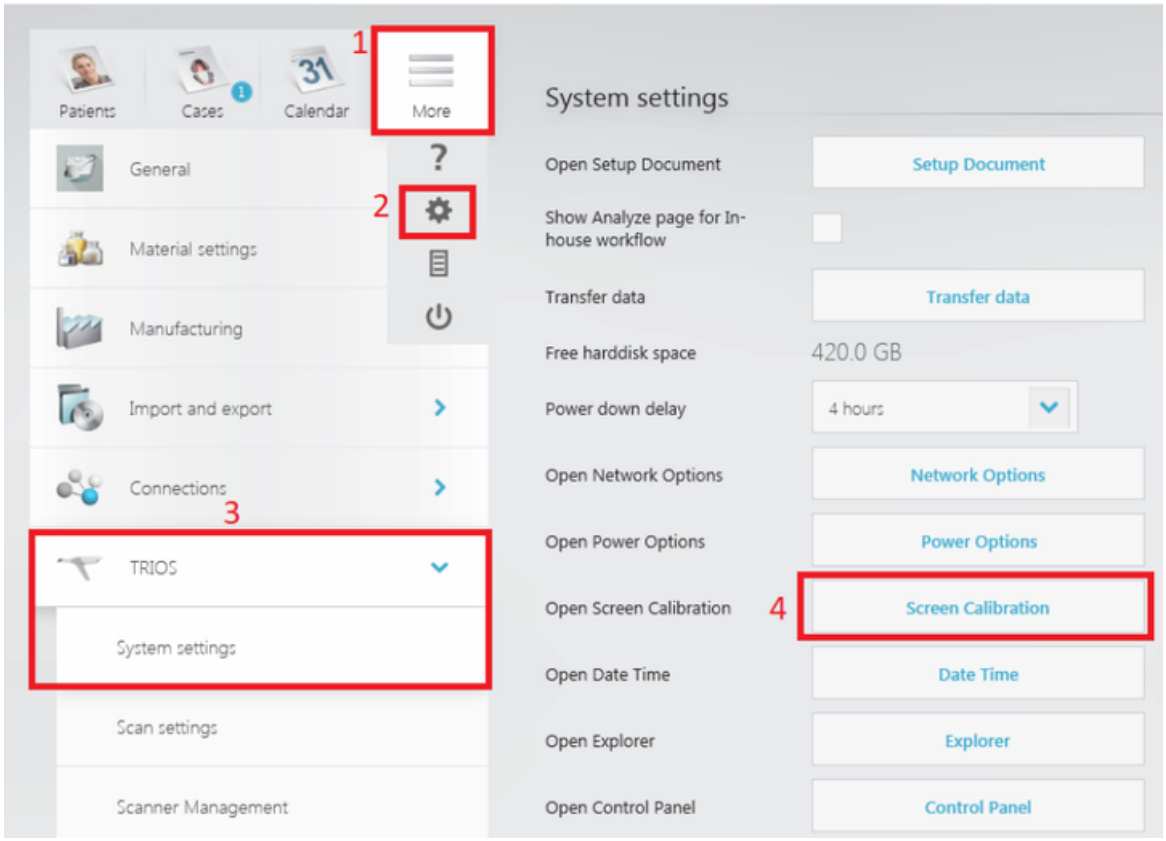
MOVE SCREEN CALIBRATION

If the TRIOS Cart / MOVE / MOVE+ monitor's touch sensitivity is inaccurate, the touchscreen can be calibrated using 4-point calibration.

To perform 4-point calibration, follow these steps:

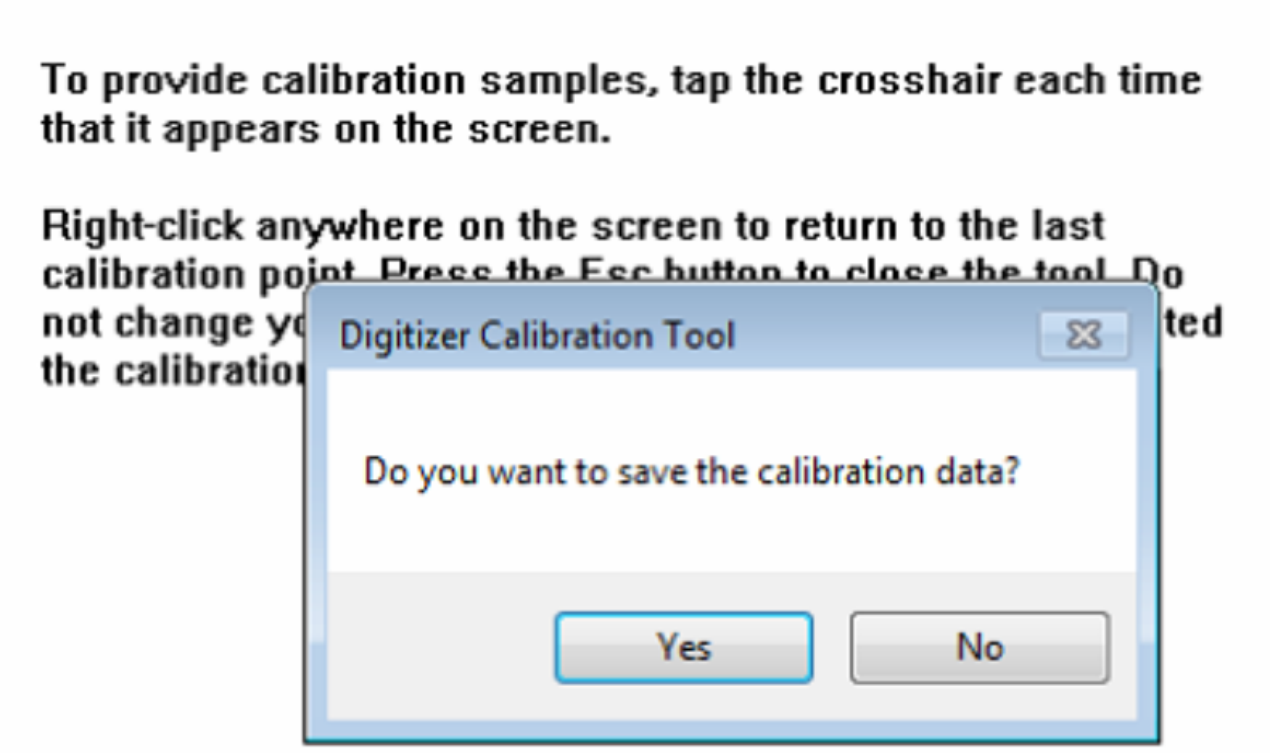
1. Open the "Screen Calibration" tool from the settings list.

● More → Settings → TRIOS → System settings → Screen calibration



2.Follow the on-screen instructions and touch the cross each time it appears on the screen.

3.Once the calibration is complete, a confirmation message will appear. Press Yes to save the calibration.



ERROR MESSAGES

This error may be caused by an excessive number of 3D images (maximum recommended limit of 3,000 3D images for scanning one arch).

Solution: The file is most likely unrecoverable, and a new scan will need to be performed. When possible, adhere to the limit of up to 3,000 3D images for scanning one jaw. When scanning more complex areas, use the "lock surface" tool to prevent over-scanning of already captured surfaces.

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