

## **PLANMECA ProMax 3D Scanning Protocol**



# Scanning Protocol for the ProMax 3D Scanner for use with easyGuide™

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## General

This protocol is written specifically for users of ProMax 3D CBVT machines.

- **Patient Scan** – with the template/X-marker firmly fixed in the patient's mouth, as instructed by the dentist.
- **Dual Jaw Scans (where necessary)** – Mandible and Maxilla must be scanned separately.
- Remove metallic objects such as jewelry and metal prostheses.

## Patient Preparation, Positioning and Scanning

**a) Template Placement:** Ensure that the denture appliance with the X-marker is fixed and stable in the patient's mouth. The technologist should not perform the scan if the appliance does not fit easily and soundly in the patient's jaw - contact the dentist.

**b) Patient Positioning:** Select 3D Large View 3 Horizontal program. Select "teeth" targeting. Select FULL for diameter and FULL for height. If the lower jaw (mandible) is to be scanned, position the chin cup in the highest position on the patient positioning mask. For upper jaw (maxilla), position the chin cup in the lowest position in the patient support mask.

Select the "Go 3D" button on the graphical user interface (GUI). Have the patient enter the machine either standing or sitting in a chair. Center the patient so that the upper laser divides the face into two symmetrical halves (midline). The patient's head should be tilted to minimize the interference of the jaw and teeth images with artifacts stemming from metal fillings. It's best to position the occlusal plane parallel to the floor. NOTE: Preview function option can be enabled to check scout images for patient positioning.

The position of the layer light denotes the front of the primary volume and should be placed directly on the anterior most metal tube of the X-marker. NOTE: In some situations custom positioning of the patient may be required where the chin is position back further to get the X-marker in the scan. **The X-marker must be present in the final scan.**

Any metal objects such as jewelry should be removed from the scanned region.

**c) Patient Scanning:** After finalizing the positioning process, ask the patient to close their eyes, remain motionless and not swallow during the scan. Continue to perform the scan.

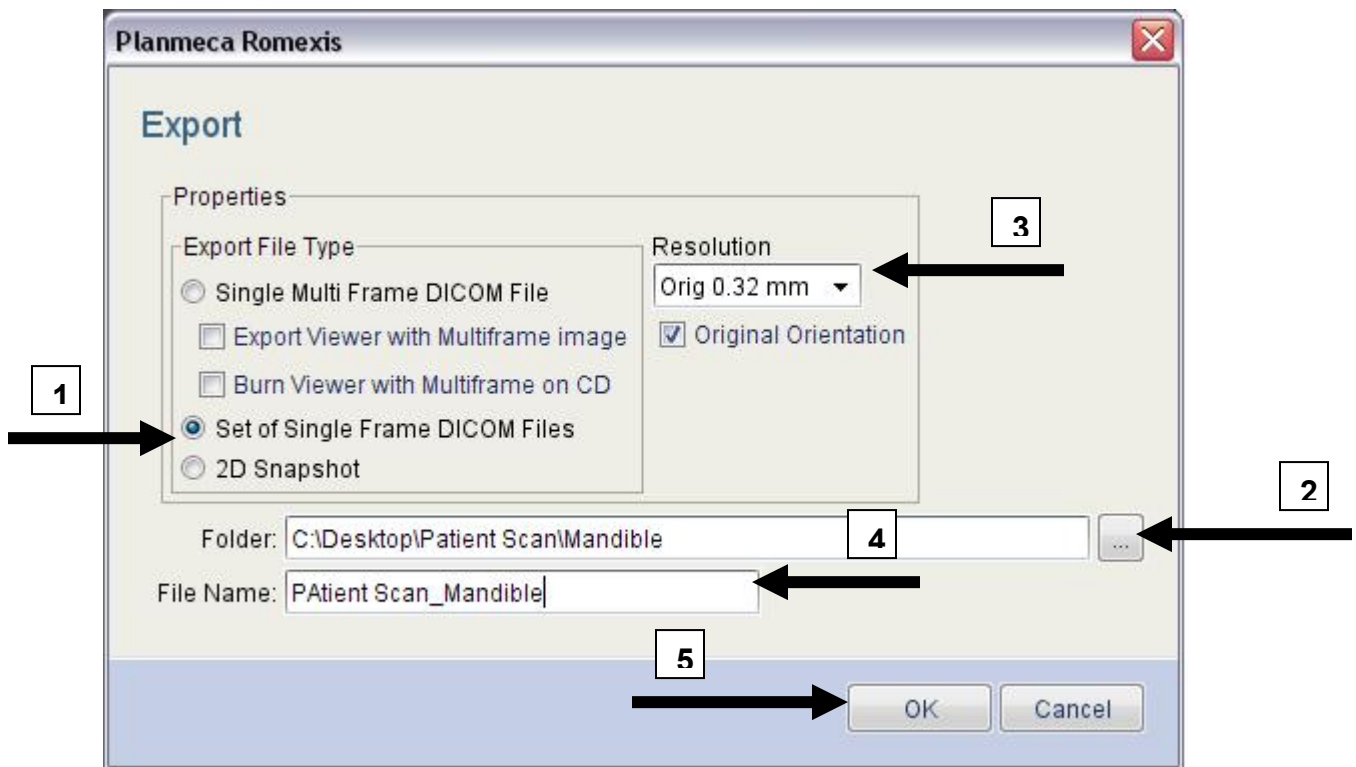
## Data Export

After the scan is complete, export all the volume data as follows:

- a) Click Export button on the top toolbar of the Romexis software.



- b) Select Single Frame DICOM (1), Select export path (2), select 0.32mm slice (3) (if not already selected) and give a file name (4) such as "Patient Scan\_Mandible". Click OK (5).



- c) Repeat for each target being acquired.

Note: the data for each jaw should be saved in separate data sets (see below)

**a) Output 1: Mandible**



Patient's scan data

**b) Output 2: Maxilla**



Patient's scan data