Morita 3D Accuitomo Scanning Protocol

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Scanning Protocol for the Morita 3D Accuitomo

For Use with iDent

General

This protocol is written specifically for users of Morita 3D CBCT scanner.

- Patient Scan – with the appliance firmly fixed in the patient's mouth, as instructed by the dentist.
- Dual Jaw Scans (where necessary): mandible and maxilla must be scanned separately.
- Radiographic Appliance Scan – appliance alone in a Styrofoam (Polystyrene) box.
- Remove metallic objects such as jewelry and metal prostheses.

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iDent Scan Parameters

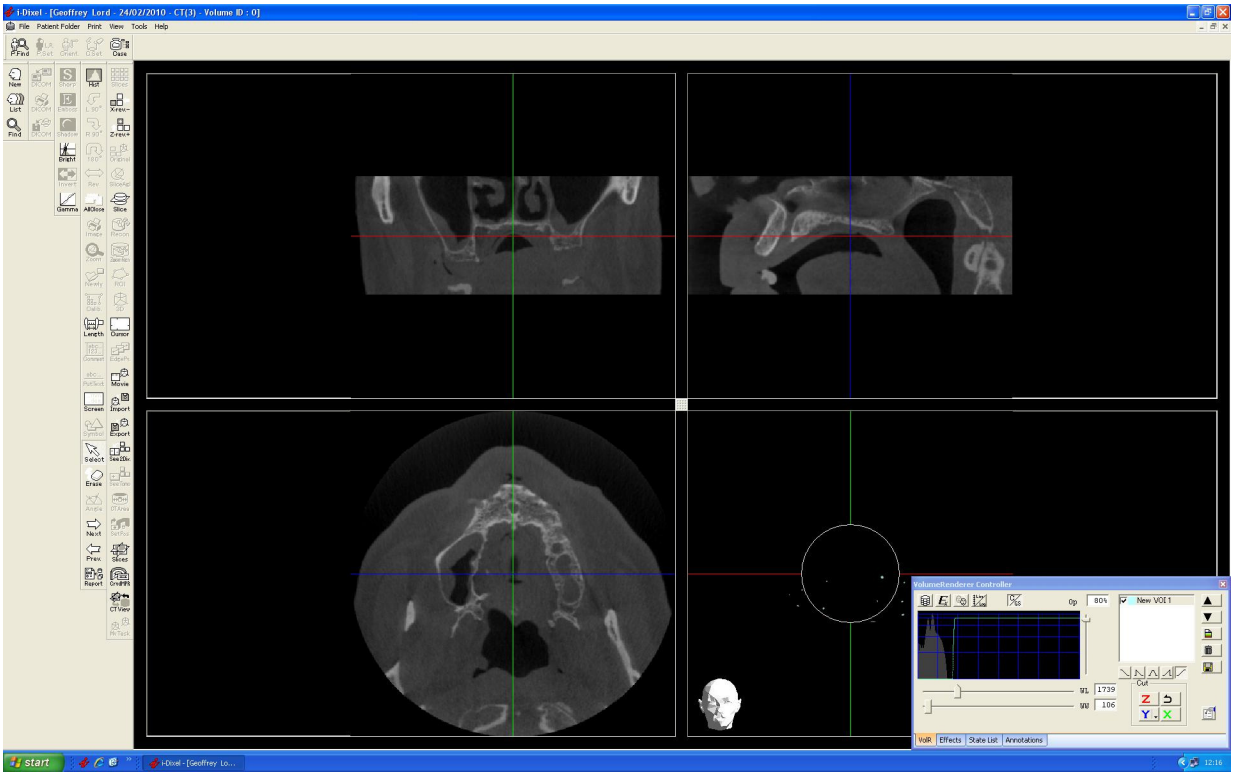
Use the following machine settings:

Settings for Patient with Appliance:

- FOV : 140 x 50
- Generator: 90 kVp / 5 - 6 mA (Lower for small patient, higher for large)

Settings for Appliance scan:

- FOV : 140 x 50
- Generator: 60 kVp /1 mA



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Patient Preparation, Positioning and Scanning

a) **Appliance Positioning**: Ensure that the appliance 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**: The patient and the appliance should be motionless during the scanning procedure. In order to ensure this, the patient's head should be firmly attached to the Head Holder. If the lower jaw (mandible) is to be scanned, instruct the patient to bite an object such as a gauze pad.

   The patient's head should be tilted so as to minimize the interference of the jaw and teeth images with artifacts stemming from metal fillings. A first positioning (before the Pilot scan) should be with the occlusal plane parallel to the scanner light marker. If the pilot scan reveals that the angulation is wrong, then further head tilting should be carried out. Each time that the patient's head is re-positioned, attachment to the head holder should be checked.

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

c) **Patient Scanning:** The region to be scanned should include all the relevant jaw volume, the appliance and the teeth. The horizontal marker line should be in center of the region of interest, in order not to miss relevant volume due to accidental patient motion.

   Prior to the scan, the patient should be instructed not to swallow. The CT Technologist may wish to instruct the patient to swallow several times before starting the CT scan.

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The Appliance Positioning and Scanning

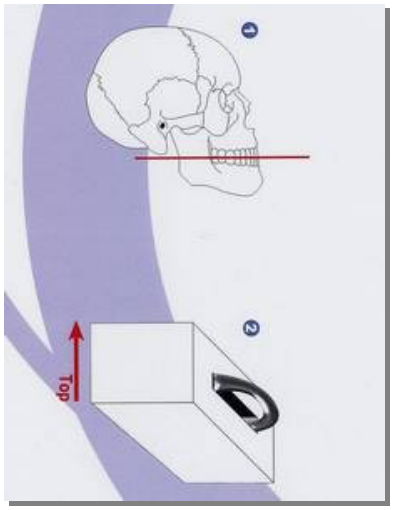
a) **Positioning:** The appliance should be placed in a Styrofoam (Polystyrene) box, in the same orientation as scanned in the patient's mouth. The appliance should be positioned similarly to the patient's head position during the patient scan, including the distance to the center of the FOV, the angle and the orientation (see figure below).

b) **Appliance Stability**: Ensure the stability of the appliance.

Never place the appliance in a vertical position.

Ensure **only** the appliance is being scanned (without any external interference).

c) Styrofoam box: for further information, contact your local iDent support.



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Data Reconstruction and Saving

Use i-Dixel CT acquisition software:

- Click on **Recon icon**
- Select 0.250 pixel size and 0.250 slice thickness (or the closest size that the software lets you pick)
- Select **Z slices**
- Save as… **DICOM**

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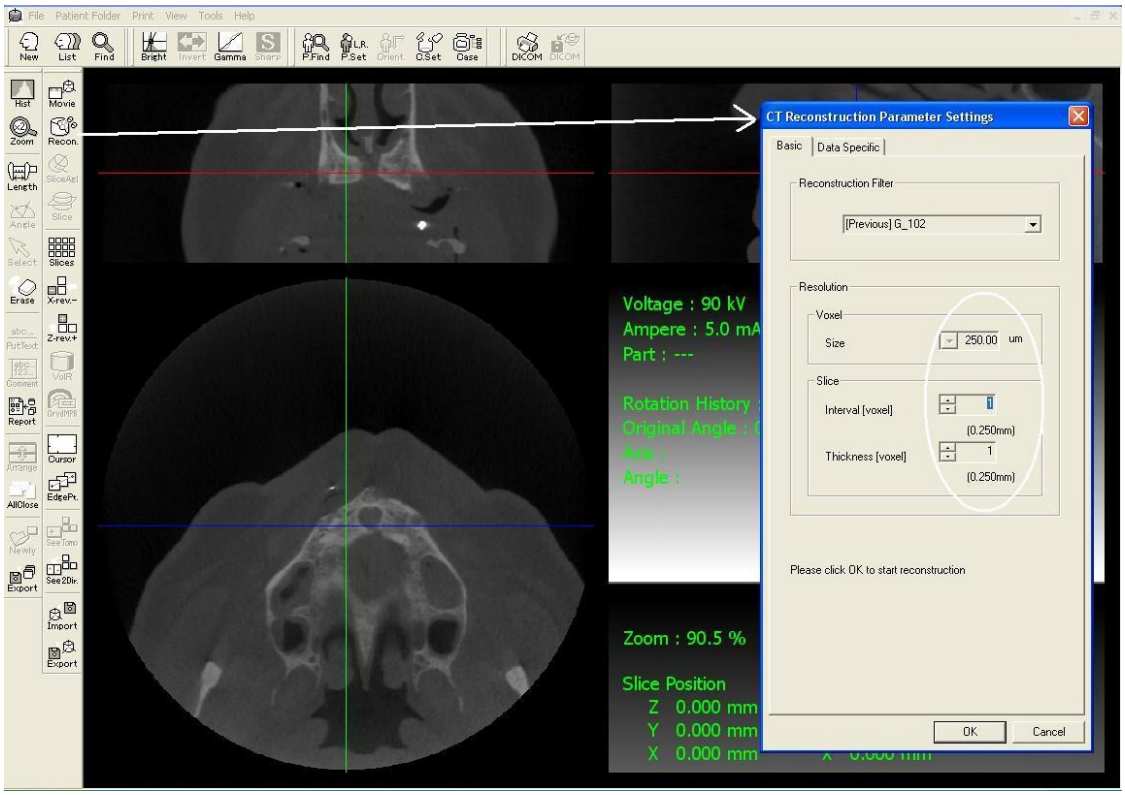

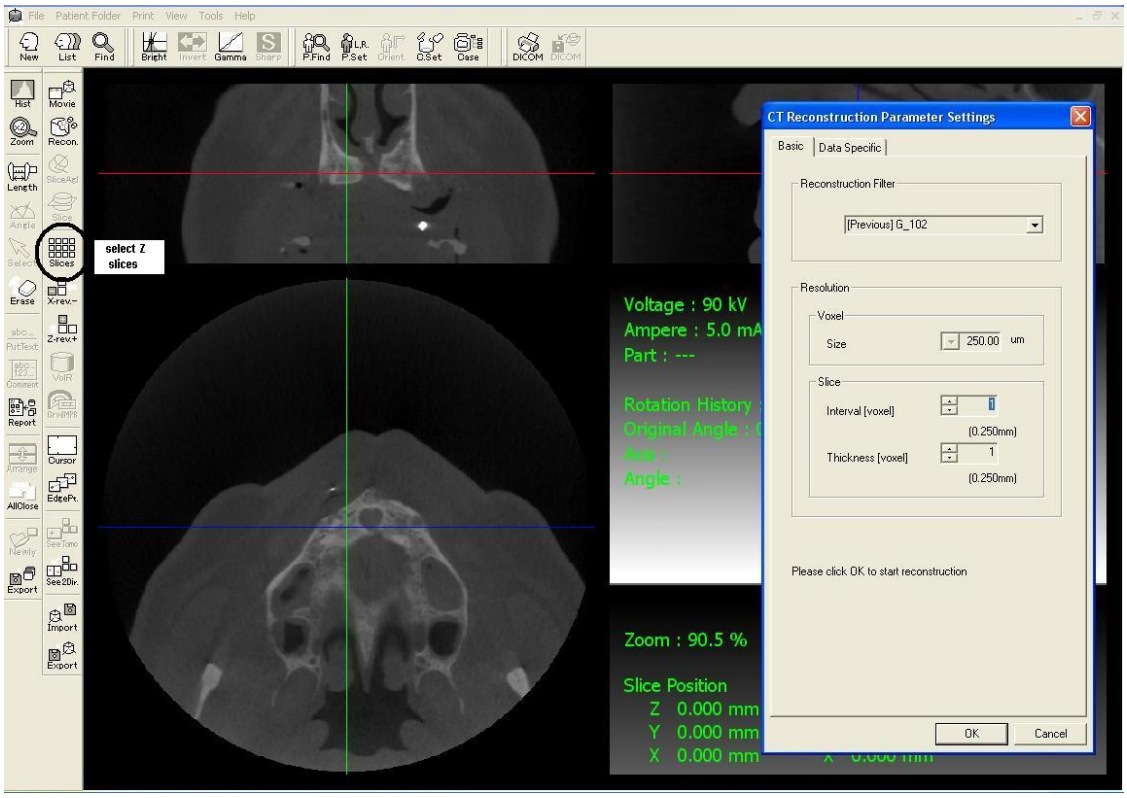

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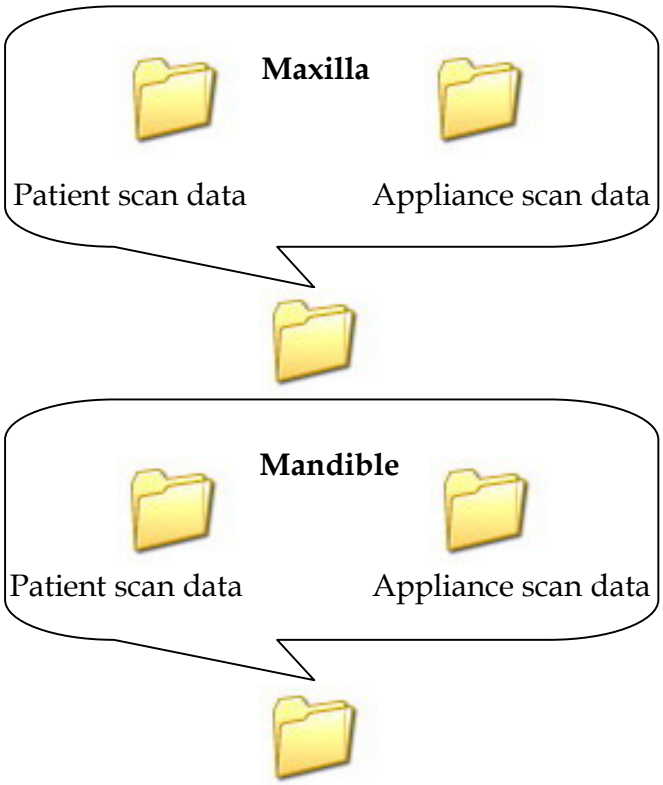
Data Saving

a) Data for each jaw should be saved in **separate datasets (see below)**. The data for each template should correspond to the data of the patient.

b) Each patient and template datasets should be copied to separate folder, compressed (right click on folder > send to compressed zipped folder).

c) Send zipped file(s) to iDent partner via the internet (contact your iDent partner for upload information).



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