1 i-CAT® FLX™ and i-CAT® FLX MV™ scanner instructions

STEP 1. IMAGE ACQUISITION

Software: SmartScan STUDIO Manager (Fig.1)

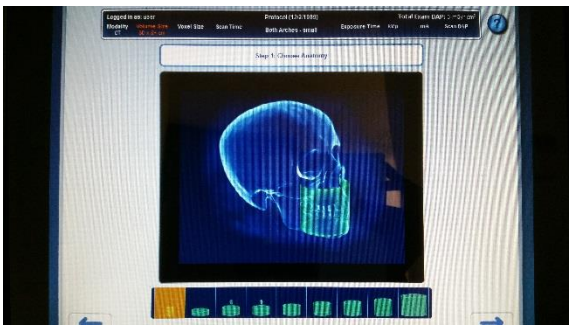


Fig. 1: **:** SmartScan STUDIO Manager

Calibration object scan and radiographic Guide scan

- Place the calibration object / radiographic guide on the holder. The radiographic guide and the calibration object should be placed on a radio translucent foam or sponge (Fig.2).
- Make sure to place the object in the middle of the FOV
- Create a custom protocol with the following settings:
    1. Anatomy: FOV 8Dx8H
    2. Resolution: 0.2 mm voxel size
    3. Dose: HD

Patient scan

- Recommended settings
    1. Anatomy: Arches (8Dx8H) or Both Arches (16Dx8H)
    2. Resolution: 0.3 mm voxel size
    3. Dose: To be decided by the treating clinician. A higher scan time will result in better images.

Scanning tips:

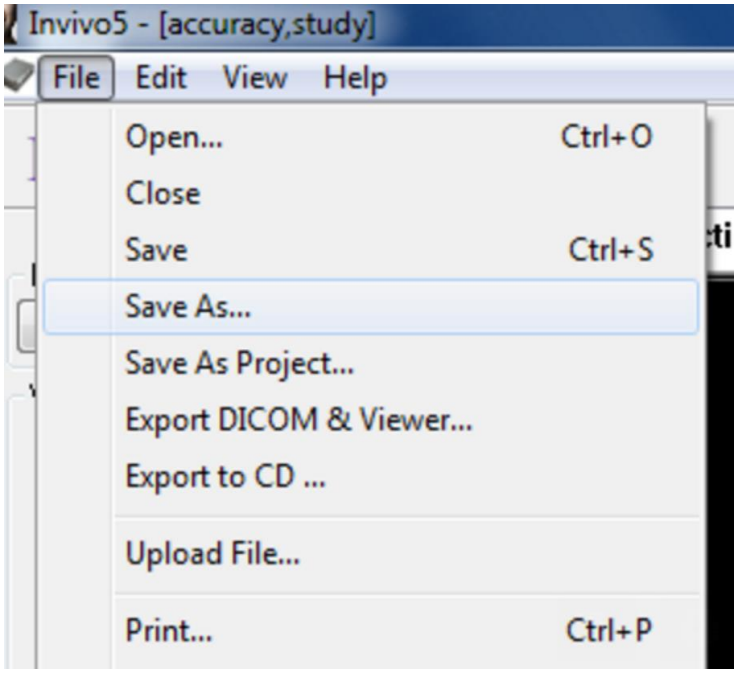
- For more information and guidance, please consult following sections of the NobelClinician Help Files in the software: My Office Module > Scanner Calibration.
- The radiographic guide scan must always be performed following the same protocol as the calibration object scan.

Fig. 2: Calibration object positioned on a dedicated sponge

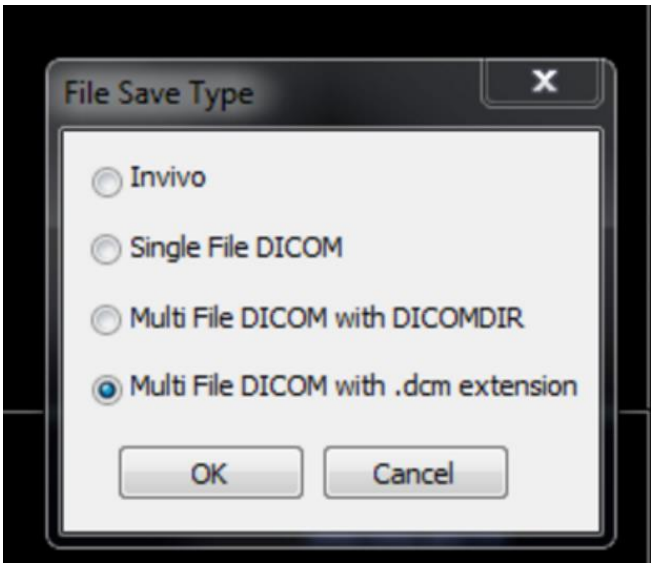
STEP 2. EXPORT IMAGE

Software: Invivo

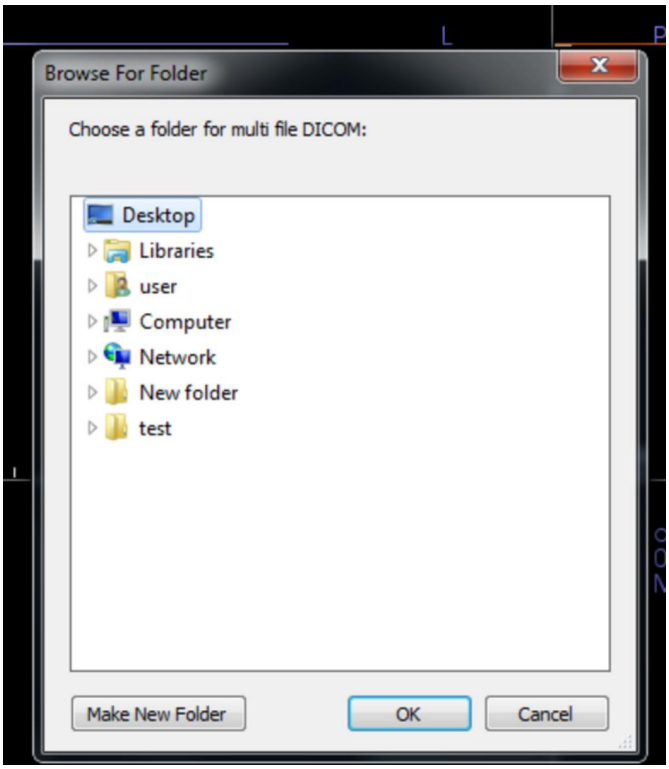
- Open the patient file by clicking on it in the Smartscan STUDIO Manager. Invivo will open.
- Export the scan data with : File > Save As…



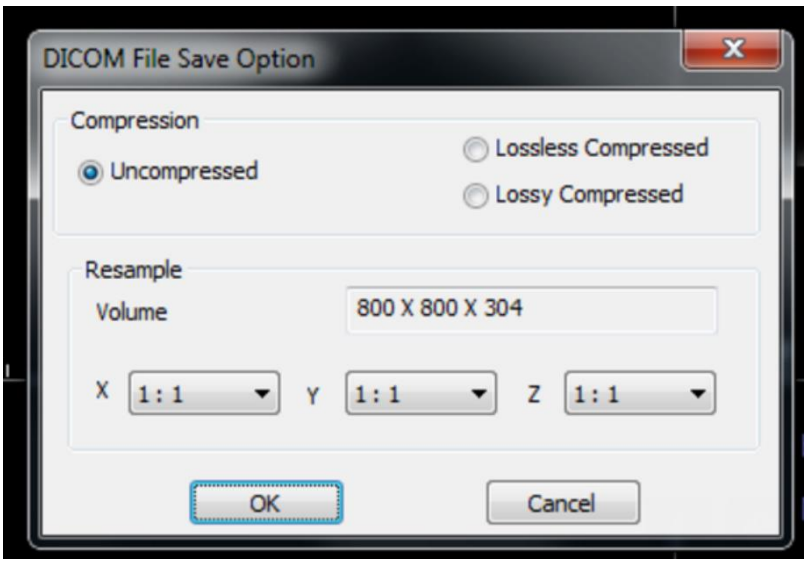
- Choose Multi File DICOM. Both the. dcm extension and DICOMDIR option is supported by NobelClinician.



- Select the location where you want to save the DICOM file



- Select the uncompressed format. Do no resample the data. The ratios should remain 1:1.



2 Import the scan in NobelClinician

To create a 3D model of the patient and the radiographic guide, it is important to select the appropriate DICOM files, to set the most appropriate volume of interest and to indicate the optimal isovalue. The system will guide you through these steps in the Create Bone Wizard and the Create Guide Wizard.

For more information and guidance, please consult following sections of the NobelClinician Help Files in the software:

- Planning a patient > Bone model > Create a 3D bone model
- Planning a patient > Radiographic Guide model > Create a 3D radiographic guide model

3 Alignment of radiographic guide and patient bone

The patient bone model and the radiographic guide model will be aligned automatically.

If problems occur during the automatic alignment or when automatic alignment fails, this can be rectified by doing a manual alignment.

The Manual Alignment wizard is for advanced users only! Please first check that there are no artifacts, for example motion artifacts in the CT images, and that the NobelGuide protocol has been followed meticulously.

For more information and guidance, please consult following section of the NobelClinician Help Files in the software:

- Planning a patient > Radiographic guide mode > Explaining the radiographic guide wizard