



SICAT FUNCTION & CEREC

Individual functional prosthetics

INDIVIDUAL FUNCTIONAL PROSTHETICS

THE COMBINATION of SICAT Function, SICAT JMT⁺ and CEREC allow for the first time the fabrication of prosthetic restorations based on the patient-individual lower jaw movements.

LIKE NO OTHER SOFTWARE, the practitioner is able to calculate all necessary parameters to program the virtual articulator in the CEREC software.

HOW YOU BENEFIT: Patient-individual functional prosthetics in a digital workflow, based on the actual dynamics of the lower jaw.



SICATFUNCTION



DIGITAL AND SEAMLESS INTEGRATION of three types of data in SICAT Function makes the complex interrelation visible: data of the CBCT, the Jaw Motion Tracker (SICAT JMT⁺) and optical surface scan data are combined within SICAT Function.

FOR THE FIRST TIME, the real patient-individual movement of the mandible can be visualized in 3D, true to anatomy.

THE INTEGRATION OF jaw movement data in CEREC, allows a restoration design that takes the actual dynamics of the lower jaw into account.

- Calculation of all necessary parameters for the programming of the virtual articulator
- True patient-specific dynamics in CEREC
- Patient-individual functional prosthetics

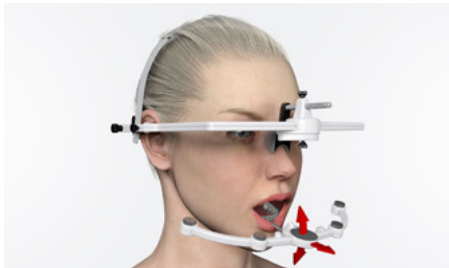
THE SICAT FUNCTION WORKFLOW

1



Scan with a CBCT system. The patient wears the SICAT Fusion Bite during the scan for the subsequent fusion of CBCT and JMT data.

2



Lower jaw movement data such as guided opening movement, protrusion, and laterotrusion are recorded with the SICAT JMT⁺. Facebow and mandibular sensor communicate via ultrasound.

3

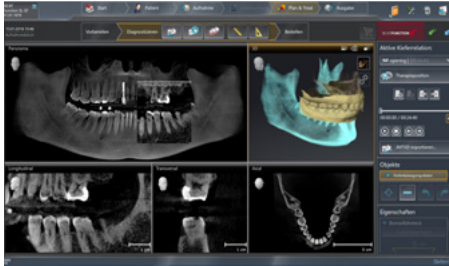


Capturing of optical surface scan data (SSI, SIXD or STL) of the patient with an intra-oral camera.

Most suitable for

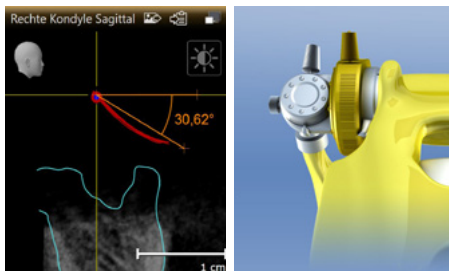
**QUADRANT
RESTORATION
AND
FULL MOUTH
REHAB**

4



Fusion of optical surface scan data and mandible movement data with CBCT data directly within SICAT Function to visualize true patient-specific dynamics.

5



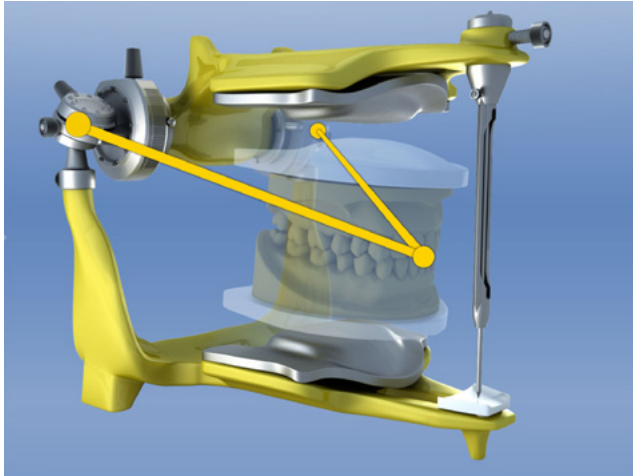
Patient-individual measuring of all necessary parameters for the programming of the virtual articulator such as sagittal angle and Bennett angle. Arms and Balkwill angle will be calculated automatically.

6



Determination of all parameters in a spreadsheet, transfer into the CEREC articulator and subsequent creation of the restoration design based on true dynamics of the lower jaw.

GUIDED OPENING MOVEMENT

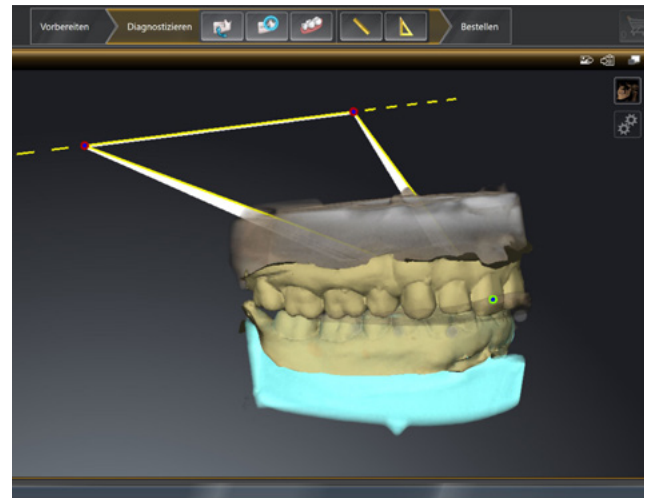


FOR PROGRAMMING THE VIRTUAL ARTICULATOR, the guided opening movement recorded with the SICAT JMT⁺ enables the practitioner to calculate the virtual hinge axis of the mandibular joints, even when the condyles are not visible.

THE GUIDED OPENING MOVEMENT must be integrated in the protocol within the SICAT JMT⁺ software and be performed by means of a Lauritzen or Dawson grip.

EVEN WITHOUT A CBCT SCAN OF THE PATIENT you can fully take advantage of SICAT Function's and CEREC's benefits:

- As an alternative to a CBCT scan of the patient, the SICAT Fusion Bite is placed between the stone models of the upper and lower jaw. Next, the stone models are placed on a base and subsequently scanned with a CBCT system.
- The following capture of the lower jaw movement data with the SICAT JMT⁺, as well as the optical surface scan data with CEREC, are performed directly on the patient, according to the regular SICAT Function workflow.



SUPPORTED BY THE HIGHLY PRECISE and contact-free recording of all degrees of freedom and movements of the mandible with the SICAT JMT⁺, the path is clear for the transfer, display, and analysis of real patient-individual movements in 3D.

THE SICAT JMT⁺ includes a facebow with integrated receiver modules as well as a perfectly balanced mandibular sensor. This sensor is attached to the paraocclusal T-Attachment by means of a magnetic fastener.

WITHIN THE SICAT JMT⁺ SOFTWARE you can generate a patient-individual recording protocol. Depending on the indication, specific jaw movements and positions can be recorded. Short videos in the software guide the practitioner systematically through this protocol.



1 IN ORDER TO PRECISELY merge the data from the CBCT and SICAT JMT⁺, the patient wears the SICAT Fusion Bite at the start of movement recording.

2 THE INDIVIDUAL MANDIBLE MOVEMENTS and jaw positions are subsequently recorded by the mandibular sensor fixed to the paraocclusal T-Attachment which is simply and easily attached to the vestibular surface of the patient's lower jaw teeth

SICAT FUNCTION, SICAT JMT⁺ AND CEREC: Individual fitting accuracy for each prosthetic restoration right from the start.



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