## Real Movement in Functional Digital Dentistry



### Tizian JMA Optic – precise, safe, quick & economic!

## Tizian JMA Optic – The new dimension of the function-oriented digital workflow

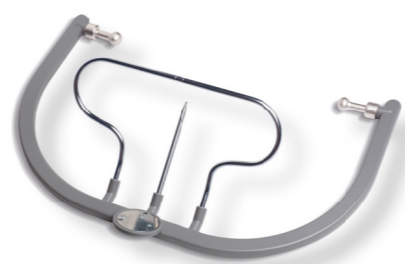### Welcome to the world of functional digital dentistry

The Tizian JMA Optic System by zebris is based upon the latest optical sensor technology which makes it a new dimension in functional dentistry.

The Tizian JMA Optic jaw registration system records all degrees of the lower jaw's mobility quickly, precisely and contact-free. Functional analysis examinations can help determine discoordinations and movement limitations as well as neuromuscular jaw relations. For the creation of functional dentures, the system calculates the setting values of the established mechanical and virtual articulators and provides these together with the real movement data as an export file for CAD/CAM systems.
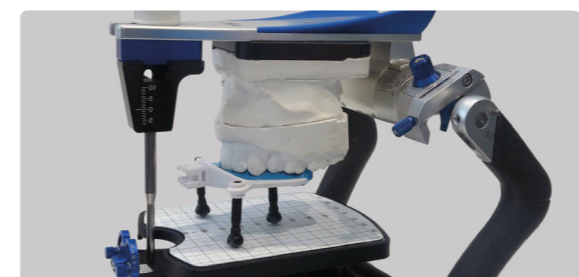
SCHÜTZ DENTAL

---

**Real Movement:** The **patient's real movement** data or the setting values of virtual articulators are transfered via standardized XML export to external CAD systems (Tizian CAD/CAM System). Therefore, the system is **a decisive component of Schütz Dental's digital workflow f**or the production of functional dentures. A **patented coupling tray** establishes the exact relationship between movement data and the tooth surfaces recorded by either the model scanner (Tizian Smart-Scan Plus 3.0) or the intraoral scanner (i700). At the same time, it is **a part of the new zebris transfer table** and facilitates a simple transfer of the skull-related maxillary position to mechanical articulators. This makes the use of a mechanical face bow unnecessary.

**Precise:** The Analyser consists of a handy stand-alone headbow with lower jaw sensors. Aside from the condyle movement, you can record **all six degrees of the lower jaw mobility with a high level of precision.**

**Quick:** The system can be operated either wirelessly via WLAN or stably via a USB interface. The head bow is attached in a few simple steps using the nose support, an overhead strap and the support surfaces attached to the spring-loaded side brackets. Use the C-arm to enter a defined reference plane on the head. It is also possible to enter the bipupillary line and other points such as the projection, smile line, lip line and much more.
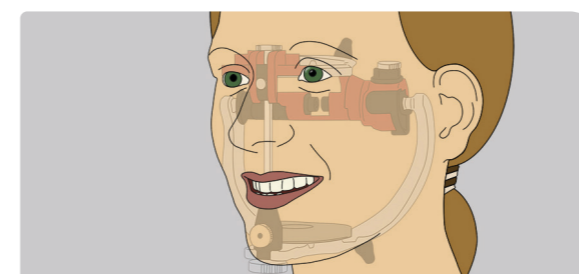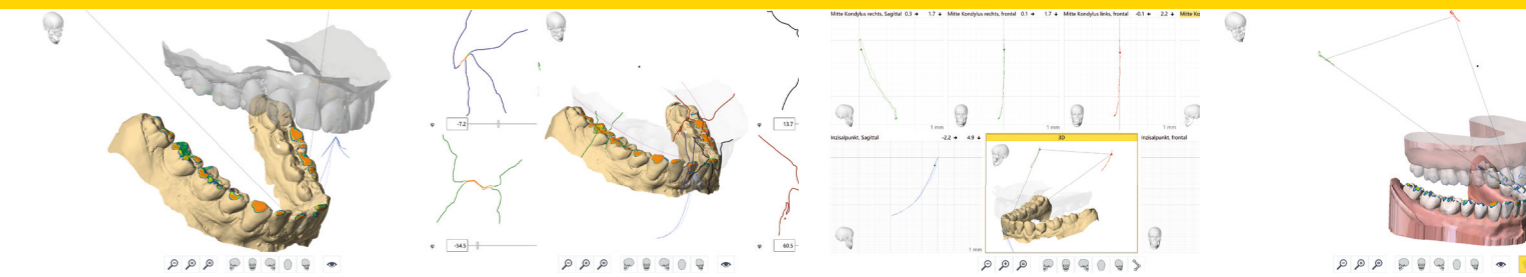

Transfer table for the transfer of the skull-related maxillary position in mechanical articulators using the coupling tray.
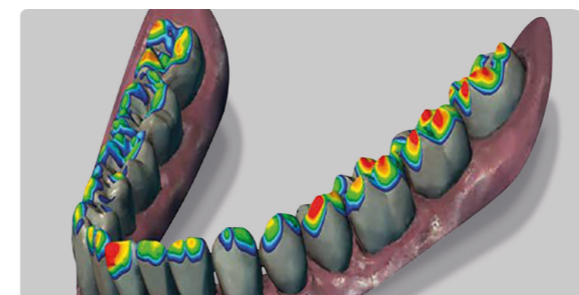

The system is ready for visualizing the static and dynamic contact situation.


The basic software module lets the user program articulators and export real movement data.

**Safe:** The table stand included in the basic system provides a safe place to store instrument components. The battery-powered head bow (WLAN system) is charged by the inductive charging base integrated in the table stand. The extremely small and light-weight lower jaw sensor fastens magnetically onto paraocclusal or occlusal attachments and is then linked to the teeth in the lower jaw.

SCHÜTZ DENTAL

Pictures in this brochure may vary.

---


*Module: Digital Occlusion*

**Interfaces and options for data export**

- **Dental Project Export** – Export to exocad Aside from the movement and position data, the setting values of conventional articulators as well as ROM parameters can be exported. With these settings, the skull-related position is transfered, as well. This is exceptional in combination with the intraoral scanner, as this gives the user an option to use the skull-related position in the digital workflow for the very first time.
- **VideoExport** – The VideoExport is available in each application/each module

- **zebris .zebdb Data Export** - (Anonymous) export of patient data/recorded data from the patient data base; Exchange of individual data sets e.g. with colleagues who also work with this software; Database backup copies
- **CSV-Raw Data Export from the Database**
- Raw data of movement and position information for the static analysis and processing in a third party system like Excel, Matlas or SPSS.
- **CSV-Export from Report** - For statistic analysis of patient cases

The modular and intuitive evaluation software **Tizian Function Pro** contains: a database, the basic module for determining the setting parameters of mechanical and virtual articulators, and the export function for real trajectories.
**Optional** add-on modules are available for functional analysis, position analysis of the condyles and determination of a neuromuscular jaw relationship as well as the Plane Finder module, Cerec articulator, CMDfact* Interactor and Digital Occlusion.
The optional Sicat, Attachment Designer and Splint modules are new additions.

**The system comprises:**

- Electronic head bow
- Lower jaw sensor
- C-bow
- Evaluation software Tizian Function Pro by zebris with basic module, articulator and data export.

- Table stand/inductive charger
- Foot switch/manual button (wireless)
- Attachments
- Instructions for use
- Transport case

Optional: Different software extension modules, laptop

Operation via a standard PC with Windows 10 operating system.
Basic color: white RAL9003

*Mobile: Conveniently store and transport the complete system inside the case provided.*

## Get your individual offer
### Ask your Schütz Dental Export Area Manager or contact our Back Office Team!

## Tizian Function Pro Software
### 11 modules with many great features
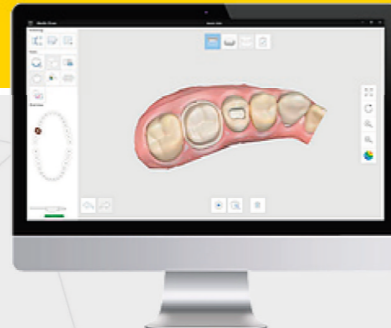
**Digital Occlusion**

*Presentation of the real data with live occlusion.*

This module consists of the patient's individual movements and the digitalized jaw models. It offers the possibility to view the contact relations of the teeth's occlusal surfaces statically and dynamically already during recording. Run up to four transverse section planes through the models during analysis or determine premature contacts or which areas are loaded particularly often.

**Function**

The individual steps of a 3D analysis are described on the basis of the standard settings. Additional patterns of movement, their recording sequence and their number are pre-configurable via the recording settings.

**PlaneFinder PS1 Articulator**

The recording consists of the movements of protrusion, laterotrusion left and right. The results of the recording are to be considered in a differentiated way, depending on the patient's movements. The articulator values are generally obtained by tooth contact. With these values, the system determines the value for the setting of the individual anterior tooth guide tray. The same is true for lateral movements which pass over the canines respectively over the posterior teeth.

**Cerec Articulator**

*Creation of an interface for Cerec users*

The measurement consists of the movements of protrusion, laterotrusion left and right as well as an opening movement. The results of the recording are to be considered in a differentiated way, depending on the patient's movements. The patient's movements are recorded with help of an occlusal attachment in order to determine the settings for the digital Cerec articulator.

**Articulator**

This module consists of the movements protrusion, laterotrusion left and laterotrusion right.

Please note that the values for the articulator settings are generated from idle movement. Additional movements of the patient guided by the practitioner may influence the validity of occlusal freedom of movement. We recommend to test any restorations produced with zebris values inside the patient's mouth and to correct them, if necessary.

**CMDfact® Interactor**

Adaptation to the functional software CMDtrace (Dr. Oliver Ahlers)

The module facilitates the registration and evaluation of the functional movement area (capacity of movements) as well as the coordination of lower jaw movements. It is possible to get an impression on the coordination of movement execution via the speed of the condyles in the course of movement. For this purpose, the movement information from the opening and closing movement is specially processed.

**Sicat**

SICAT Function provides you with an integrated workflow in 3D for the diagnosis and treatment of craniomandibular dysfunction (CMD) as well as digital planning of the high-precision SICAT OPTIMOTION therapeutic appliance.

**Jaw relation**

The module „Jaw relation" lets the user determine the correct relation between mandible and maxilla with the classic support pin registry, jig, aqualizer and hand-guided positioning. In addition, the target movement of the mandible to a determined position is supported in real time. This is transferred via registration material for diagnostic assessment and prosthetic restoration. This registration can also be used to determine and diagnostically assess temporomandibular joint positions with the aid of the EPA module.

**Electronic Position Analysis (EPA)**

The Electronic Position Analysis allows for the determination of condyle positions in the maxilla.

Registrations inserted between the rows of teeth can be compared with each other and splint positions can be checked. In addition, markers in relation to the condylar path are set. The diagnosis of the location of pains which are caused by a condylar misalignment can be supported.

The new possibility of recording a video promotes the digital data transfer beween dental practice and dental lab. It forms the basis for an optimized communication „Quick Support".

### New features from version 4.0

**Splint** (version 4.0)

This new module enables you to create comfort, positioning and Michigan splints, taking physiological movement patterns into account.

**Attachment Designer** (version 4.0)

This module allows you to create paraocclusal attachments for 3D printing.

*Pictures in this brochure may vary.*

---

## We are here for you!

📞 **+49 (0) 6003 814-362**

✉️ **export@schuetz-dental.de**

**www.schuetz-dental.com**

## Schütz Dental Newsletter

**Register for our newsletter and be one step ahead.**

Benefit from exclusive offers and promotions for dental technology, dentistry and implantology which are only available through our newsletter. Never miss important information or events by Schütz Dental again. Always keep one decisive step ahead of your competitors.

**Register now: sdent.eu/newsletterenglish**
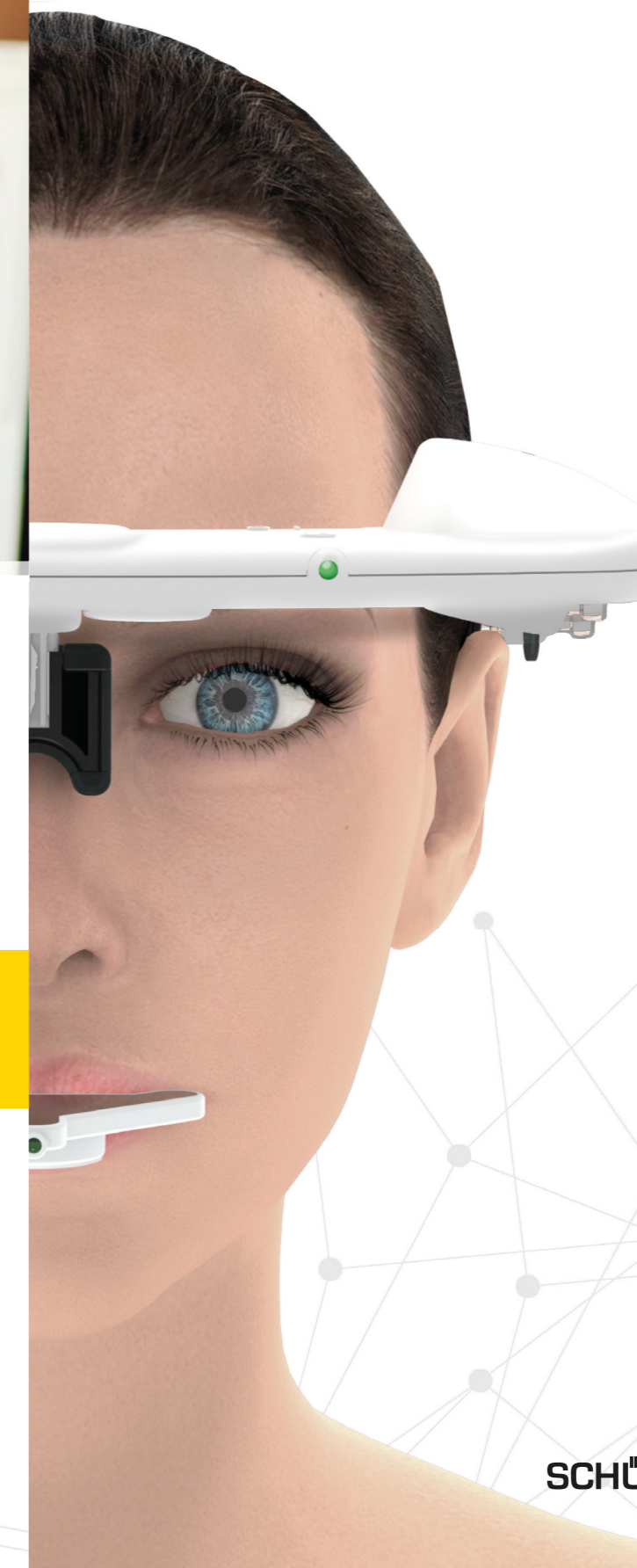
**www.schuetz-dental.com**
**Visit us online!**

**SCHÜTZ DENTAL**
Micerium Group

Waltkewitsch 10/2023

---

# Digital
# Functional Analysis

### Real Movement
### in Functional
### Digital Dentistry

**SCHÜTZ DENTAL**
Micerium Group