NewTom IOS
EXACT.VISION

3D INTRAORAL SCANNER

PERFECTLY SHARP DETAIL.

3D scanner that integrates seamlessly with the technology of dental surgeries. Our goal: to improve the patient experience and optimise workflows.

In a dental surgery equipped with state-of-the-art instruments, a 3D intraoral scanner is a real must. The resulting digital impression is extremely accurate and immediately available for the subsequent treatment phases. Digital scanning avoids manual impression taking with the resulting patient discomfort, since it requires no invasive actions.

NewTom IOS is a latest-generation 3D intraoral scanner, extremely lightweight and accurate, suitable for integration with all the other NewTom instruments and compatible with the main systems currently in use.

VERSATILITY

Prosthetic and Conservative dentistry, Orthodontics, Guided surgery and Prosthetic implants. NewTom IOS covers many treatment areas - for dental surgeries that aim to offer excellence in dental care.

PRECISION

Two high resolution cameras and innovative software that guarantees considerable development potential. With Active Stereo Imaging and Fire Fusion, each impression is accurate down to the smallest details.

ERGONOMICS

At just 150 grams, the handpiece of NewTom IOS ensures outstanding ergonomics and performance.

NNT CONNECTIVITY

NewTom IOS allows for real-time interaction with the dental technicians' lab and, thanks to 3D CBCT data, helps users to plan optimised project strategies.

ALTOGETHER UNIQUE.

One instrument for many applications.

The 3D impression made with NewTom IOS can be used in many treatment applications within a dental surgery, ensuring the greatest accuracy even in the most difficult conditions.
The main beneficiary is the patient, who won't have to endure the discomfort of manual impression taking and whose waiting time will be halved.
Each impression is immediately available for use in formats suitable for sharing with the dental technicians, who can then give their feedback in real time, while the patient is still in the chair.

NewTom IOS is an extremely high precision diagnostic tool that allows the dentist to achieve a fully digital workflow, with the resulting maximisation of efficiency. NewTom technologies guarantee extreme precision of 3D imaging, which can also be used for surgical purposes.

APPLICATION FIELDS

Intraoral scanning performed with NewTom IOS is widely used in multiple fields. Not only does it allow to create prostheses and orthodontic devices, but it is also very useful in implantology and guided surgery.

FULL DIGITAL.

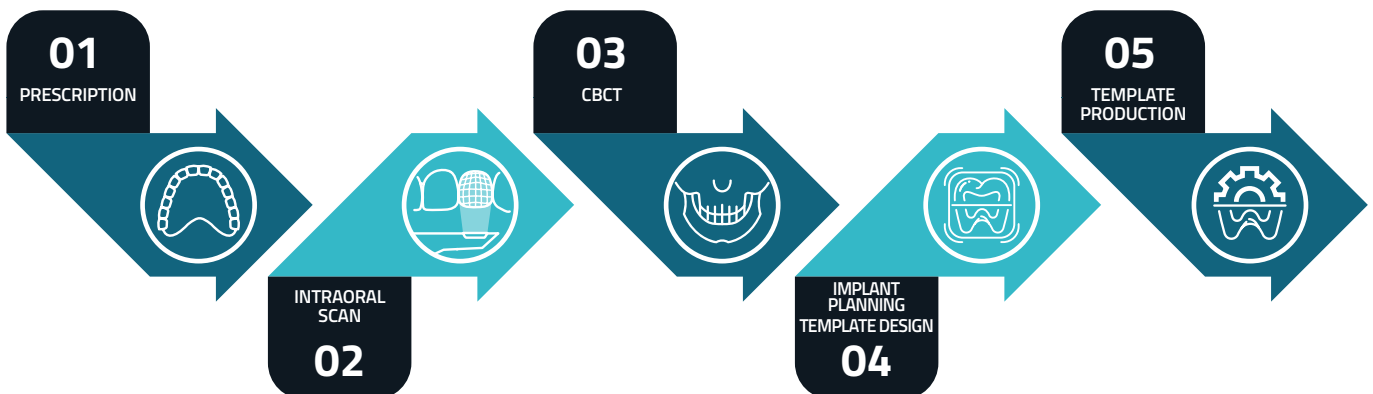## Maximum efficiency with fully digital workflows.

NewTom IOS is integrated into NNT, NewTom's all-in-one software. 3D impressions are therefore immediately available for any processing and use within the dental surgery.
Unlike a traditional impression, a 3D impression can be immediately shared with the dental technician's lab, minimising time requirements and errors.
The image can be exported in STL, PLY or OBJ formats. The files are compatible with the most common sharing systems, also via e-mail.

GUIDED SURGERY

NewTom IOS allows you to diagnose and design surgical templates. The scan files, in STL, PLY or OBJ format, and the soft tissue scans in natural colour integrate with the DICOM data to generate a very high precision template.

01 PRESCRIPTION

02 INTRAORAL SCAN

03 CBCT

04 IMPLANT PLANNING TEMPLATE DESIGN

05 TEMPLATE PRODUCTION

IMPLANT PROSTHETICS

The benefits of digital intraoral scans are even more obvious in the case of prosthetic implant applications. NewTom IOS allows impressions to be taken on implants according to a much less invasive procedure for the patient. Additionally, the NewTom IOS software supplements a workflow in which gum scans and scanbody features are automatically superimposed, to ensure painstakingly accurate designs.

01 PRESCRIPTION

INTRAORAL SCAN **02**

03 INTRAORAL SCANBODY

SHARING **04**

05 DENTAL TECH LAB
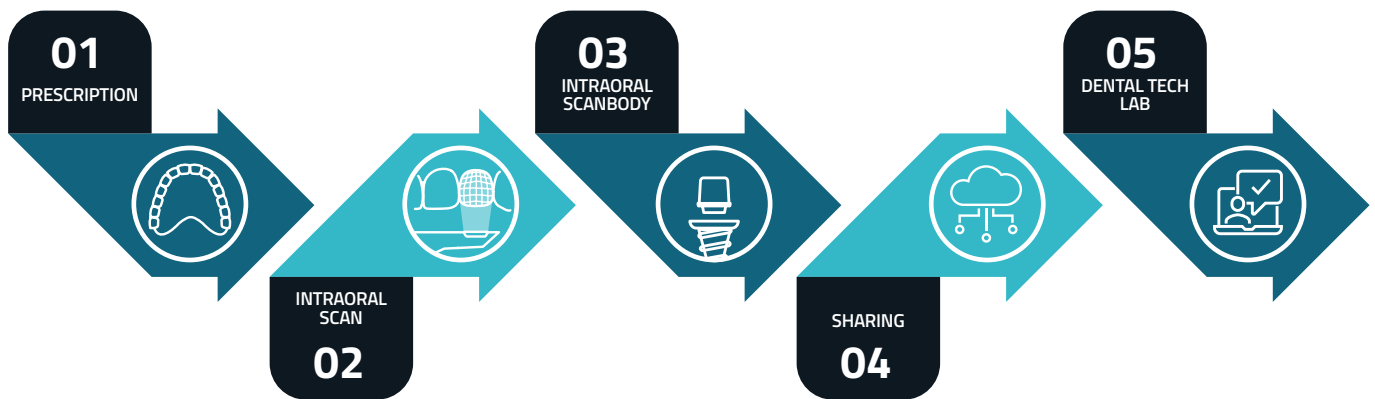
PROSTHESES AND ORTHODONTIC DEVICES

NewTom IOS optimises the scanning process in all applications where intraoral scanning is indicated. Impressions can be sent to the dental technicians' lab straight after scanning, in order to immediately receive any feedback.

01 PRESCRIPTION

INTRAORAL SCAN **02**

03 SHARING

DENTAL TECH LAB **04**
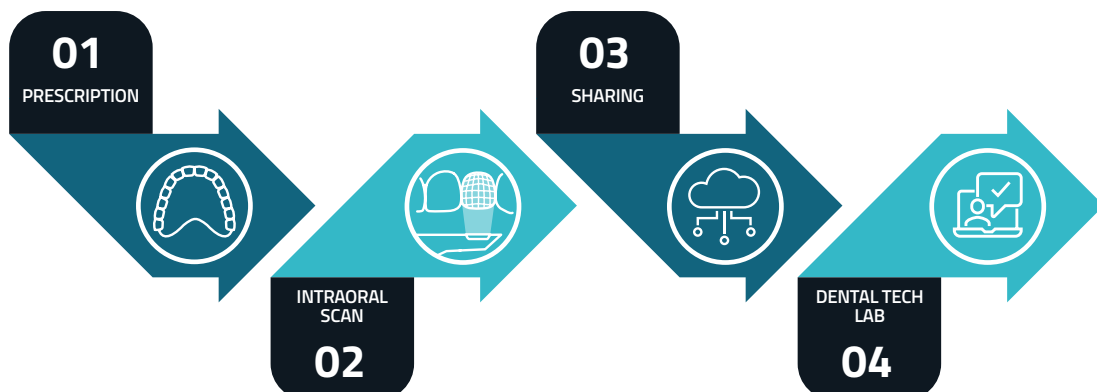
HI-TECH IMPRESSION.

Innovative technologies: whenever only excellence will do.

NewTom IOS includes hardware and software components that meet the highest currently available standards, such as the two high-definition colour cameras and LED projector. No detail, however small, has been overlooked in order to equip dental surgeries with a tool that meets the highest expectations.

ACTIVE STEREO IMAGING

NewTom IOS relies on a modern, patented evolution version of the Active Stereo Imaging technology, now universally established in various fields of application of 3D imaging. All the components have been miniaturized and made lighter to be contained in an extremely compact and practical handpiece.
In addition, Active Stereo Imaging does not require the use of powders because it eliminates any distortions produced by reflective surfaces, and does not require calibration.
Unlike traditional technologies, Active Stereo Imaging includes two high definition colour cameras with a central projector for improved image accuracy.
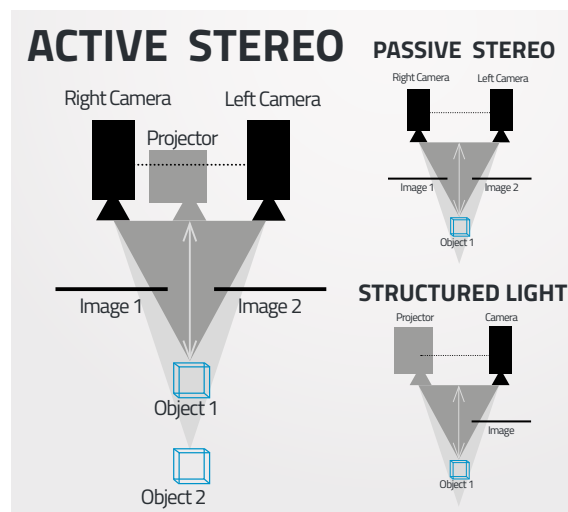
FIRE FUSION

Fire Fusion is a new 3D processing software technology allowing a huge volume of 3D data to be stored in real time. This has a positive impact in terms not just of performance and speed, but also of resolution, quality of 3D reproduction and accuracy.
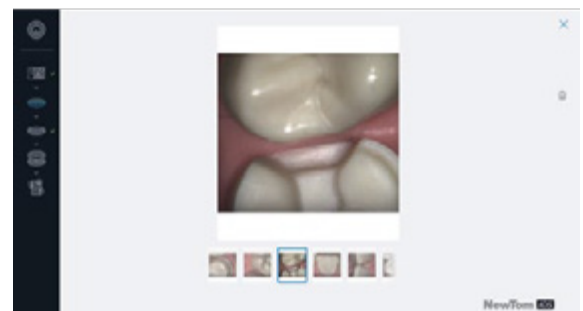
COLOUR SCANNING

The 3D model is displayed in a matter of instants. The obtained image is extremely detailed, with vivid and realistic colours. This ensures optimal interpretation of the site of interest.

2D VIDEO CAMERA

NewTom IOS also allows high resolution photos to be taken and automatically saved and shared with the dental technicians' lab.

USB 3.0

The USB 3.0 port allows connecting to both a workstation and a notebook.

ERGONOMIC DESIGN.

Lightweight, versatile, functional. For total operating comfort.

has a very light handpiece, designed to adapt to different handles. Scanning is easy for the doctor and non-invasive for the patient.
Operation is extremely fast and ensures the greatest accuracy - wherever the treatment site.

ULTRALIGHT HANDPIECE

At just 150 grams, this highly compact handpiece is easy to handle and does not cause any discomfort to the patient.

ADJUSTABLE TIP

The tip can be rotated without having to change the handle, so as to easily scan the upper and lower arches.

SCANNING BUTTON

The scan is started and stopped directly from the handpiece, via a special button.

SOLID BASE

The base of the scanner is sturdy and steady. It can be safely placed on a piece of furniture, on a drawer unit or even on the dental unit module.

ANTI-FOGGING SYSTEM

The handpiece contains an internal ventilation circuit which stops the prism fogging up.

AUTOCLAVABLE TIP

Newtom IOS is supplied with a set of 3 autoclavable tips (134°C/4 minutes).

COMPLETE CONNECTIVITY.

Excellent connectivity and integration with the modern systems adopted by NewTom. Workflow and clinical and diagnostic activities become much easier and high-performing.

REMOTE ASSISTANCE

By configuring the scanner to use the surgery's internet connection, it is possible to monitor the device and perform any remote technical servicing.

CAM

As an open system, NewTom IOS can interface with any CAD design software, and is therefore suitable for the production of devices and restorations on all open CAM milling devices or milling centres.

3D PRINTING

The open formats STL, PLY and OKJ allow scan files to be managed for designing and printing 3D models to support treatment planning, or finalise prosthetic restorations.

CAD

NewTom IOS scan files can be imported to any CAD software compatible with the open formats STL, PLY and OKJ. Arch scan data are automatically saved with occlusion information. In addition, the occlusal adjustment file can also be exported.

ORTHO

The scan data can be imported not just in CAD software but also into orthodontic analysis and design software - increasingly popular and high-performing.

STL

CLOUD

SCAN DATA SHARING

USB

OBJ

OPEN SYSTEM

PLY

STL

STL

The STL format, the most common and universally used, contains all the information on the 3D model and the occlusion.

PLY

In addition to 3D model and occlusion information, the PLY format also includes colour texture.

OBJ

The OBJ format has the same characteristics as the PLY format and is the most widely used on various 3D graphic devices and applications, such as Face Scanner and 3D Printing.

USB AND CLOUD

The sending of scan files can be managed via cloud services, via email, or via USB. The transfer takes place in seconds because the files are quite light.

NNT: CERTIFIED SOFTWARE

NNT has been granted the ISDP© 10003 international scheme for data protection certification, to assess compliance with the European Regulation 2016/679 concerning the protection of individuals with regard to the processing of personal data.

TECHNICAL SPECIFICATIONS.

SCANNING	
Surface preparation	Without de-lustre powder
Rendering viewing	Colour
Scanning principle	Active Stereo Imaging
Scan depth	From 0 to 15 mm

SCANNER	
Handpiece dimensions (L x D x H)	265 x 45 x 45 mm
Base dimensions (L x D x H)	193 x 99 x 72 mm
Handpiece weight	150 g
Handpiece-base lead	1.8 m
Power supply	100-240 VAC 50/60 Hz
PC connection	1 x USB 3.0
Tip	Removable in autoclavable biocompatible polymer

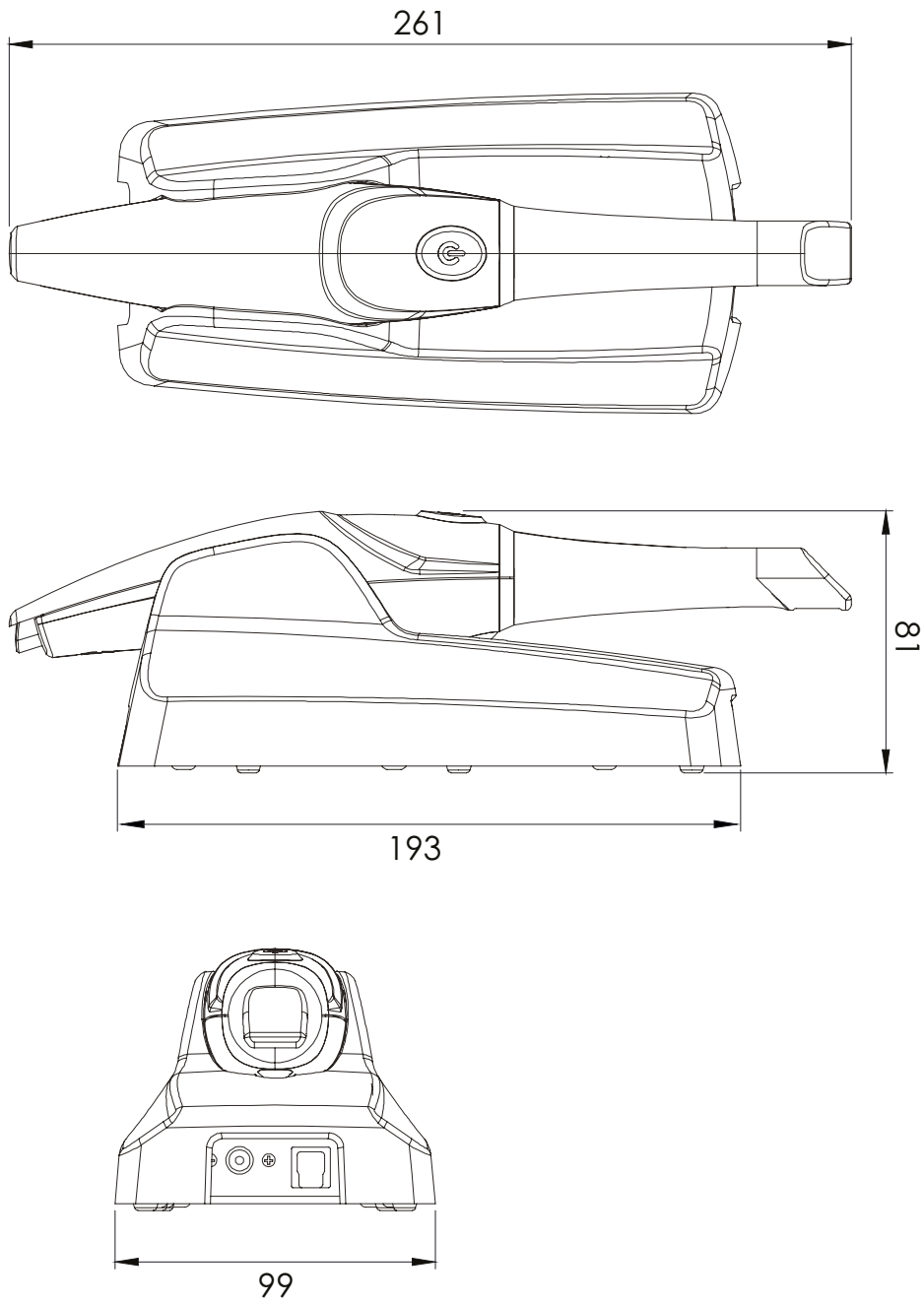| SOFTWARE	
Outgoing file format	STL, PLY, OBJ
Touch Screen interface	▪
Implant scan	▪
Bi-Lateral vestibular scan	▪
3D measurements	▪
Scan correction	▪

RECOMMENDED SYSTEM REQUIREMENTS	
Processor	≥ 4 Core Intel i7 ≥ 2.1 Ghz clock or higher
RAM	16 GB DDR4
Video board	NVIDIA GeForce GTX ≥ 1070/RTX* ≥2060
USB	1 USB 3.0 port + 1 USB port
Operating system	Windows 10 (not Windows 10 S)
	*Check for video board compatibility with your dealer

EQUIPMENT	
STANDARD	NewTom IOS Intraoral Scanner - 3 autoclavable tips 2 m USB 3.0 cable - 100-240 V power supply - NewTom IOS software
OPTIONAL	Autoclavable 3-tips pack

Specifications subject to change without prior notice.

261

Dimensions in millimetres

81

193

99

Cone Beam   3D Imaging

NewTom

what's next