

DTX Studio[™] Clinic 2.4

Instructions for Use

GTIN Information:

The following table lists the GTIN information for the devices described in this IFU.

Device	GTIN		
300851_V2.4_WIN64	07332747187038		
300851_V2.4_MAC	07332747187045		



days.

ifu.nobelbiocare.com

symbol.glossary.nobelbiocare.com

Nobel Biocare AB Manufacturer: Box 5190, 402 26 Västra Hamngatan 1, 411 17

Göteborg, Sweden Phone: +46 31 81 88 00 Fax: +46 31 16 31 52 www.nobelbiocare.com

Canada license exemption: Please note that not all products may have been licensed in accordance with Canadian law.



For Prescription Use Only. Caution: Federal (United States) law restricts this device to sale by or on the order of a clinician, medical professional or physician.

Distributed in Australia by:

Nobel Biocare Australia Pty Ltd Level 4/7 Eden Park Drive Macquarie Park, NSW 2114 Australia Phone: +61 1800 804 597

Distributed in New Zealand by:

Nobel Biocare New Zealand Ltd 33 Spartan Road Takanini, Auckland, 2105 New Zealand Phone: +64 0800 441 657

GMT 76800 US 2022, April 22 $\ensuremath{\mathbb{C}}$ Nobel Biocare Services AG, 2022 All rights reserved.

Nobel Biocare, the Nobel Biocare logotype and all other trademarks used in this document are, if nothing else is stated or is evident from the context in a certain case, trademarks of Nobel Biocare. iPad® is a registered trademark of Apple® Inc., Adobe® is a registered trademark of Adobe Systems Incorporated in the United States and/or other countries. Windows® is a registered trademark of Microsoft® Corp. Product images in this document are not necessarily to scale.

Rx Only

In order to receive a free printed copy, please contact customer service or your local sales representative and a hardcopy will be provided to you within 7 calendar

Contents

Contents

come to DTX Studio [™] Clinic	
Disclaimer of Liability	
Device Description	
Intended Purpose	
Intended Use / Indications for Use	
Intended User and Intended Patient Target Group	
Required Compatibility with Other Devices	
Devices with Measuring Function	
Contraindications	
Cautions / Precautions	
Warnings	
Cybersecurity	
Compatibility	
Interoperability	
Intended Lifetime	
Performance Requirements and Limitations	
Clinical Benefits and Undesirable Side Effects	
Facilities and Training	
Notice Regarding Serious Incidents	
Professional Use	
System Requirements	
Installation of the Software	

Start

0	Starting DTX Studio™ Clinic	10
[Exploring the Work Area	10
[Exploring the Notification Area	10
,	Adjusting Settings	10
	Changing Language and Date/Time Format	11
	Adjusting DICOM Compliance Settings	11
	Setting Default Image Filters	11
	Disabling Auto-Rotation of Intraoral Images	11
	Disabling Automatically Set Level and Window Values	11
	Connecting to DTX Studio [™] Core	11
	Adding an Application to the Action Pane	12
	Enabling Practice Management System (PMS) Integration	12
	Adding a TWAIN Device to DTX Studio™ Clinic	12
(Closing DTX Studio™ Clinic	12

Overview of the Main Features

Create a Patient Record	14
Creating a New Patient Record	14
Managing Patient Records	14
Privacy Options	14
Searching and Sorting Patient Records	14
Exporting a Patient Record	15
Sharing Patient Data via DTX Studio™ Go	15
Importing from 3Shape Dental Desktop Software	16

Request scans17Scheduling a Scan17Searching and Sorting Scan Requests17Scan Workflows18Defining a Scan Workflow18Applying a Scan Workflow18

Perform a Scan	19
Perform a Scheduled Scan	19
Perform an Immediate Scan	19
Guided Acquisition with Intraoral Sensors or PSP Devices	19
Free Acquisition with Intraoral Sensors or PSP Devices	19
Guided Image Acquisition with Intraoral Cameras	20
Free Image Acquisition with Intraoral Cameras	20
Intraoral Scanning	21
3Shape TRIOS® Scanner	21
KaVo and Medit Scanners	21

Make a Diagnosis or Plan a Treatment	22
Exploring the Patient Module	22
Working with the Patient Menu	22
Menu Options	22
Diagnosis Tooth Chart	22
Diagnosis Data	23
Setting the 3D and Dental Scan Viewer Background	23
Setting the Default Image Zoom Level	23
Interact with the Mouse	24
Workspaces	24
Customizing Workspaces	26
Show all Related Tooth Information with SmartFocus™	26
Customize Views with SmartLayout™	26
Align Dental Scans with SmartFusion™	26
Thumbnail Bar	26

Add Diagnostic Findings	27
SmartPanel™ Tooth Chart	27
Adjusting Tooth Rotation Axis in Tooth Workspace	27
Clipping the 3D Volume	27
Use Dental Intraoral Cameras in Workspaces	28
Tools	28
Reports	31
Creating Reports	31
Adding Custom Practice Logos	31
Open DTX Studio [™] Implant	32
Orders	33
Appendix: Shortcut Keys	34

Symbols Glossary

Welcome to DTX Studio[™] Clinic

DISCLAIMER OF LIABILITY

This product is part of an overall concept and may only be used in conjunction with the associated original products according to the instructions and recommendations of Nobel Biocare, hereinafter referred to as 'the Company'. Non-recommended use of products made by third parties in conjunction with products of the Company will void any warranty or other obligation, express or implied. The user has the duty to determine whether or not any product is suitable for the particular patient and circumstances. The Company disclaims any liability, express or implied, and shall have no responsibility for any direct, indirect, punitive or other damages, arising out of or in connection with any errors in professional judgment or practice in the use of these products. The user is also obliged to study the latest developments in regard to this product and its applications regularly. In cases of doubt, the user has to contact the Company does not assume any liability whatsoever for damage arising thereof. Please note that some products detailed in this Instructions for Use may not be regulatory cleared, released or licensed for sale in all markets.

Before using DTX Studio[™] Clinic, please read these Instructions for Use and retain it for future reference. Please note that the information provided in this document is intended to get you up and running.

DEVICE DESCRIPTION

DTX Studio[™] Clinic is a software interface for dental/medical practitioners used to analyze 2D and 3D imaging data, in a timely fashion, for the treatment of dental, craniomaxillofacial and related conditions. DTX Studio[™] Clinic displays and processes imaging data from different devices (i.e. Intra Oral X-Rays, (CB)CT scanners, Intraoral scanners, intraoral and extraoral cameras).

INTENDED PURPOSE

Intended purpose of the software is to support the diagnostic process and treatment planning for dental and craniomaxillofacial procedures.

INTENDED USE / INDICATIONS FOR USE

DTX Studio[™] Clinic is a software program for the acquisition, management, transfer and analysis of dental and craniomaxillofacial image information, and can be used to provide design input for dental restorative solutions. It displays and enhances digital images from various sources to support the diagnostic process and treatment planning. It stores and provides these images within the system or across computer systems at different locations.

INTENDED USER AND INTENDED PATIENT TARGET GROUP

DTX Studio[™] Clinic is used by an interdisciplinary treatment team, to support them in treating patients who are subject to dental, craniomaxillofacial or related treatments.

REQUIRED COMPATIBILITY WITH OTHER DEVICES

DTX Studio[™] ecosystem is compatible with the most used operating systems Windows and Mac including the latest releases.

Intraoral sensors: KaVo GXS-700[™], KaVo IXS[™], DEXIS[™] Titanium, Gendex[™] GXS-700[™], DEXIS[™] Platinum.

Intraoral cameras: KaVo DIAGNOcam[™] Vision Full HD, KaVo DIAGNOcam[™], CariVu[™], DEXIS[™] DexCAM[™] 4HD, KaVo ErgoCAM[™] One, Gendex[™] GXC-300[™], DEXIS[™] DexCAM[™] 3, DEXIS[™] DexCAM[™] 4.

Intraoral scanner: Compatibility with Medit Scan for DTX Studio[™], which supports the MEDIT i500/KaVo X 500, MEDIT i700/KaVo X 700 intraoral scanner or other compatible models.

Software: DTX Studio[™] Core, DTX Studio[™] Implant, DTX Studio[™] Go, DTX Studio[™] Lab, CyberMed OnDemand3D[™], Anatomage InVivo[™] and Medit Link Software^{*}, Medit Scan for DTX Studio[™] software^{*} (which supports MEDIT i500/Kavo X 500 and MEDIT i700/KaVo X 700) or other compatible models.

DEVICES WITH MEASURING FUNCTION

Measurement accuracy depends on the image data, the used scanner hardware, its calibration and acquisition settings. The measurement cannot be more precise than the resolution of the image. DTX Studio[™] Clinic software reports the value, rounded to one digit after the decimal point, based on user-picked points.

CONTRAINDICATIONS

None identified for DTX Studio[™] Clinic.

CAUTIONS / PRECAUTIONS

- Users are advised to obtain training before undertaking a new treatment method or using a new device.
- When using a new device or treatment method for the first time, working with a colleague who is experienced with the new device or treatment method may help avoid possible complications.
- The user should ensure patient movement is kept to a minimum during the scanning process to reduce the risk of an incorrect scan.

WARNINGS

Following warnings are shown in the software.

Warning	Explanation
The name in the DICOM file(s) differs from the patient name.	To reduce the risk of using incorrect data to create the patient model, verify the patient name and check whether patient name and the name in the used DICOM set correspond.
Cannot add the 3D scan to the current diagnosis.	The current diagnosis contains a 3D scan linked to a surgery plan. Create a new diagnosis to import the 3D scan.
Cannot add the surgery plan to the current diagnosis.	Select a surgery plan based on the 3D scan included in the current diagnosis.
Exporting images in 8 bit could potentially result in fidelity loss.	It is recommended to export images in another format to maintain their quality.
Do not expose patient	Device could not be armed. In this state, the device cannot receive x-ray radiation. Retry by reconnecting or restarting the device. If the problem is not resolved, please contact the customer support of your device.
Verify the scan request parameters on the device.	Before exposing the patient, make sure to check the parameters on the device.

It is not advised to modify the treatment plan without the use of the actual implant shapes.

The actual shapes can be downloaded from DTX Studio™ Go.

Image has been flipped.

This warning is displayed when images are manually flipped (horizontally or vertically) by users.

- Furthermore, a number of technical warnings (e.g., inconsistent CT data) are visualized in DTX Studio[™] Clinic.
- It is strongly recommended that users follow the instructions and technical notifications within the software to reduce the risk of an inaccurate scan.
- Measurement accuracy depends on the image data, the used scanner hardware, its calibration and acquisition settings. The measurement cannot be more precise than the resolution of the image. DTX Studio[™] Clinic software reports the value, rounded to one digit after the decimal point, based on user-picked points.
- Automatic intraoral images sorting (MagicSort) is intended to be used only for adult dentition without gemination, crowding and macrodontia.

CYBERSECURITY

It is recommended that active and up-to-date antivirus and anti-malware software, together with a correctly configured firewall, are installed on the computer where DTX Studio[™] Clinic is to be used. Furthermore, always lock the computer when it is left unattended.

COMPATIBILITY

DTX Studio[™] Clinic is connected with other medical devices and compatible with previous DTX Studio[™] Clinic versions.

INTEROPERABILITY

DTX Studio[™] Clinic is interoperable with:

- DTX Studio[™] Core.
- DTX Studio[™] Implant.
- DTX Studio[™] Go.
- DTX Studio™ Lab.
- CyberMed OnDemand3D™.

INTENDED LIFETIME

For software the intended lifetime is three years. When used on the supported operating systems, the software will keep performing according to its intended use.

PERFORMANCE REQUIREMENTS AND LIMITATIONS

DTX Studio[™] Clinic has dependencies on the operating systems it is used with. It is therefore important to make sure DTX Studio[™] Clinic is used only with approved operating systems. More information about which operating systems are approved can be found in the 'Computer Guidelines for DTX Studio[™] Clinic'.

CLINICAL BENEFITS AND UNDESIRABLE SIDE EFFECTS

DTX Studio[™] Clinic is a component of treatment with a dental implant system and/or dental crowns and bridges. As a clinical benefit of treatment, patients can expect to have their missing teeth replaced and/or crowns restored.

No undesirable side effects identified for DTX Studio[™] Clinic.

FACILITIES AND TRAINING

It is strongly recommended that clinicians, new as well as experienced users of implants, prosthetics and associated software, always go through special training before undertaking a new treatment method. Nobel Biocare offers a wide range of courses for various levels of knowledge and experience. For more information, please visit <u>www.nobelbiocare.com</u>.

NOTICE REGARDING SERIOUS INCIDENTS

If, during the use of this device or as a result of its use, a serious incident has occurred, please report it to the manufacturer and to your national authority. The contact information for the manufacturer of this device to report a serious incident is as follows:

Nobel Biocare AB

https://www.nobelbiocare.com/complaint-form

PROFESSIONAL USE

DTX Studio[™] Clinic is for professional use only.

SYSTEM REQUIREMENTS

We advise to check the system requirements before starting the installation of the software. To obtain information on minimum and/or recommended requirements, please contact customer support. New versions of the software may require higher requirements for hardware or operating system.

INSTALLATION OF THE SOFTWARE

To obtain information on how to install the software, please contact the authorized technician or customer support.

Start

STARTING DTX STUDIO[™] CLINIC

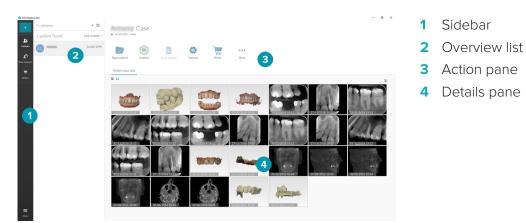
To open DTX Studio[™] Clinic:

- On Windows, double-click the shortcut icon on the desktop.
- On macOS, click the shortcut icon 🛸 in the Finder application folder or the Dock.
- 1. Select the user.
- 2. Enter your password.
- 3. Click Log in.

NOTES

- If two-factor authentication was set up on DTX Studio[™] Go, every 30 days you will additionally need to
 enter a six-digit verification code to log in.
- DTX Studio[™] Clinic should always be connected to the Internet. If that is not possible, a connection should be established at least once every 14 days, because otherwise your access to DTX Studio[™] Clinic may be temporarily suspended.

EXPLORING THE WORK AREA



EXPLORING THE NOTIFICATION AREA

The DTX Studio^{\mathbb{M}} Clinic icon \mathfrak{R} in the notification area grants access to the DTX Studio^{\mathbb{M}} Clinic settings (\mathfrak{P}) and the following tabs:

- Notifications: shows which patient records are being uploaded or synchronized with DTX Studio[™] Core.
- DTX: provides quick access to DTX Studio[™] Core ((), DTX Studio[™] Go (), Exposure reports*, QuickPrescribe*, Scan Center* or a linked third-party application.
- Devices: lists the acquisition devices and their statuses (connected via USB ••, online •, busy or offline •). Click ••• to access the device settings or to disable unrequired devices.

*Requires DTX Studio™ Core

ADJUSTING SETTINGS

To adjust the default DTX Studio[™] Clinic settings:

- 1. Click **Menu ≡**.
- 2. Click Settings 🌣.

Changing Language and Date/Time Format

To adjust the preferred language, date format and time format:

- 1. In the <u>settings</u> sidebar, click **Regional**.
- 2. Select the date and time format in the Short date format, Long date format and Time format lists.
- 3. Select the preferred language from the **Application language** list.
- 4. Click OK.
- 5. Restart DTX Studio[™] Clinic for the changes to take effect.

Adjusting DICOM Compliance Settings

To ensure compliance with the DIN 6862-2 standard, enter the institution information. When exporting a DICOM file, the provided institution information replaces empty tags.

- 1. In the <u>settings</u> sidebar, click **Practice**.
- 2. Select Use DIN 6862-2 standard.
- 3. Provide the requested institution information.
- 4. Click OK.

NOTE: When importing and exporting a compliant DICOM file, the DIN 2020 tags always remain preserved.

Setting Default Image Filters

To set the default image filters in DTX Studio[™] Clinic for the Clinic viewer and patient module:

- 1. In the <u>settings</u> or diagnose preferences sidebar, click **Image settings**.
- 2. From the **Default image settings** list, select the image type for which you want to set the default filter settings.

NOTE: To set custom values for the Gamma filter, set the Gamma option to Manual.

- 3. Select the filters to be used by default for the selected image type and use the appearing slider to set the filter percentage.
- 4. Click OK.

NOTE: Click Reset to revert to the initial default values.

Disabling Auto-Rotation of Intraoral Images

Upon performing an immediate scan, intraoral images are automatically rotated in the correct position. To disable this:

- 1. In the <u>settings</u> or patient module preferences sidebar, click **Image settings**.
- 2. Deselect Apply auto-rotation in DTX Studio capture.

Disabling Automatically Set Level and Window Values

Upon importing or acquiring a 2D image, level and window values are automatically set. To disable this:

- 1. In the <u>settings</u> or patient module preferences sidebar, click **Image settings**.
- 2. In the top-right drop-down menu, select PAN, Intraoral or Ceph.
- 3. Deselect Auto level window.
- 4. Enter custom level and window values.
- 5. Click OK.

Connecting to DTX Studio[™] Core

DTX Studio[™] Core is a software solution to store and retrieve patient media and image data types (2D X-ray, 3D X-ray, (CB)CT scans, photos) in a structured and centralized way, so that stored data is immediately accessible anywhere in the dental clinic.

 If DTX Studio[™] Clinic is connected with DTX Studio[™] Core, DTX Studio[™] Clinic can be used in a network environment and enables the acquisition of images from other supported (Ethernet connected and supported 3Shape TRIOS[®]) devices. A connection with DTX Studio[™] Core needs to be established to work with network devices, scan requests and access radiographic reports.

To establish a connection with DTX Studio[™] Core:

- 1. In the <u>settings</u> sidebar, click **Core**.
- 2. Enter the **URL** (web address), **Login** and **Password** for DTX Studio[™] Core.
- 3. Click Connect.

Adding an Application to the Action Pane

To add an application shortcut to the action pane:

- 1. In the <u>settings</u> sidebar, click **Quick Launch**.
- 2. Click Add.
- 3. Select the executable file and click **Open**.
- 4. Select Launch with patient data to launch the third party application with patient data.
- 5. Click **Browse** to choose a location for the exported data.
- 6. Click Select folder. Alternatively, enter the file path in the Export directory field.
- 7. Specify which data is exported by adding export parameters to the **Export parameters** field.

NOTE: Consult the Quick launch topic in the help files for an extensive overview of all patient data parameters.

8. Click OK.

Enabling Practice Management System (PMS) Integration

Integrating DTX Studio[™] Clinic with a PMS (i.e. through VDDS or OPP) allows you to create a patient record and acquire an image from within the PMS.

Preview the PMS images in DTX Studio[™] Clinic or directly in the DTX Studio[™] Clinic patient module.

- 1. In the <u>settings</u> sidebar, click **PMS integration**.
- 2. Select Enable PMS integration.

Adding a TWAIN Device to DTX Studio[™] Clinic

To add a TWAIN supported device to DTX Studio™ Clinic:

- 1. In the <u>settings</u> sidebar, click **Devices**.
- 2. Click Add.
- 3. Select the TWAIN device.
- 4. Configure the device settings.
- 5. Click Add.

CLOSING DTX STUDIO[™] CLINIC

Make sure to close all the instances of the diagnostic and scan modules*.

To close DTX Studio[™] Clinic:

- 1. Click Menu.
- 2. Click Close application.

NOTE: Using the closing button ×, the software remains running in the background, to allow data synchronization and a quicker response when reopening DTX Studio[™] Clinic.

*Module might be licensed.

Overview of the Main Features

To get started with the main features:

1	Create or link a patient record	+	Create a patient record in DTX Studio™ Clinic (see <u>page 14</u>).
		\$	Integrate your Practice Management System (see <u>page 12</u>) and link an existing PMS patient record.
2	Acquire or import data		Acquire a scan or multiple scan workflows (see <u>page 19</u>).
			Request a scan or scan workflow (see page 17).
			Drag and drop images in a patient record (see page 13).
		Ŧ	Add data in the Patient module (see <u>page 23</u>).
		9	Import from 3Shape Dental Desktop Software (see <u>page 16</u>).

Once a patient record is created and data is added, continue to:

 Diagnose and plan treatments 	Open the patient module (see <u>page 22</u>).	
	P Optionally, open DTX Studio [™] Implant (see page 32).	
— Share and communicate	Share data via DTX Studio™ Go (see <u>page 15</u>).	
	Export a patient record (see <u>page 15</u>).	
	Create a report or patient communication letter (page 31).	
— Place orders	Optionally, order a restoration or surgery plan (see <u>page 33</u>).	

Create a Patient Record

CREATING A NEW PATIENT RECORD

To create a new patient record:

- 1. Click Add patient +.
- 2. Select Create patient.
- 3. Enter basic patient details, like patient name, date of birth and gender.
- 4. Click Create.
- 5. The patient record is added to the **Patients** ♣ list. If DTX Studio[™] Clinic is connected to DTX Studio[™] Core, the patient record is also added to DTX Studio[™] Core.

MANAGING PATIENT RECORDS

Click **Patients 1** in the sidebar to open the patients list, if not already open.

- NOTE: If the workstation is not connected to DTX Studio[™] Core, only locally-stored patient records are shown.
- Patient records that are open in the patient module on a local or network-connected workstation are marked with ^O.
- To edit basic patient information, select the patient record in the patients list, click More ...
 and select Edit 2.
- To delete a patient, select the patient record in the patients list, click More … and select Delete ①.
- To make sure that a patient record that is stored in DTX Studio[™] Core is also available offline, click
 More ••• and enable Offline available.
- Drag and drop a compatible image type in a patient record. The image is imported.

The notification area (see <u>page 10</u>) shows which patient records are being uploaded or synchronized.

PRIVACY OPTIONS

To ensure patient privacy by only showing patient initials in the patients list or completely hiding the patients list:

- 1. On the patients list, click 😓.
- 2. Select Privacy mode to show initials only or Hide patients list to completely hide it.

NOTES

- Click \gg in the sidebar to re-show the patients list.
- Privacy mode remains enabled, even when restarting DTX Studio[™] Clinic. To turn off the privacy mode, re-click S and uncheck Privacy mode.

SEARCHING AND SORTING PATIENT RECORDS

To find a patient record, sort the patients list or use the search function. To sort the patients list:

- 1. Click the drop-down arrow next to the patients list header.
- 2. Select Last created, Last modified or Last captured.
- 3. Click the drop-down list again to close it.

To search for a patient:

- 1. On the patients list, click 😓.
- 2. Select to search for the Patient name, Date of birth or Patient ID.
- 3. Type (a part of) the selected search option in the **Find a patient** field **Q**.
- 4. While typing text in the search box, the patients list is filtered automatically.

To remove the search criteria, click \mathbf{x} in the search field.

EXPORTING A PATIENT RECORD

Export a patient record to share the diagnoses and image data with another DTX Studio[™] Clinic user. Additionally, the exported patient can be viewed in the Referral version of DTX Studio[™] Clinic, freely available via DTX Studio[™] Go.

To export a patient:

- 1. Select the patient record in the patients list.
- 2. Click More ….
- 3. Click Export patient 🕑.
- 4. Select the diagnoses you want to export. To export the entire patient record, select **Export full patient**.
- 5. Browse to the location where to store the patient and click **Export**.

SHARING PATIENT DATA VIA DTX STUDIO[™] GO

Share patient data with a dental office via <u>DTX Studio™ Go</u>. If patient data is shared, an additional **GoShare** tab shows an overview.

- 1. On a patient record's action pane, click **Share**
- 2. Select what you want to share:
 - Full patient *S* to share the entire patient record (DTX Studio™ Clinic proprietary encrypted format), or
 - Patient data 🗎 to share specific data.
- 3. Choose the preferred options.
- 4. Click Continue.
- 5. DTX Studio[™] Go opens in the web browser and the created GoShare case is shown. Meanwhile, the data is uploaded in the background.
 - Add notes to the **Prescription** card's text field.
 - To create a prescription note template, click Insert quick note and select Configure. Click Add quick note. Add a title, write the custom text and click Save. Click Close.
 - To change the default prescription image or to add annotations, hover over the prescription image and select Edit prescription. Click Change image to select another image.
 - − To edit the patient information, click r in the top-right corner.
 - If needed, provide further information or additional files of the CB(CT) images, clinical pictures, intraoral images, Pan, reports etc.
- 6. Click Start sharing.
- 7. Select the connection with which you want to share patient data. Either by searching or selecting an existing connection in the **Share with a connection** field, or by entering an email address.
- 8. Click **Send**. The receiving account is notified by e-mail.
- 9. The shared case is added to the **GoShare** overview in the patient record. Click **View case** to open the shared case in DTX Studio[™] Go.

IMPORTING FROM 3SHAPE DENTAL DESKTOP SOFTWARE

To import a scan that was acquired with a 3Shape TRIOS[®] intraoral scanner, a patient record needs to be created in DTX Studio[™] Clinic first.

- NOTE: For more information on how to integrate a 3Shape TRIOS® intraoral scanner device, see the DTX Studio™ Core Quick Guide.
- 1. Create a new patient record in DTX Studio[™] Clinic. To make sure that the 3Shape data will merge:
 - use exactly the same first name, last name and date of birth as those of an existing patient in 3Shape Dental Desktop.
 - make sure that the patient names are correctly capitalized. Names are case-sensitive.

NOTES

- Previously imported patient records cannot be re-imported. Duplicate the patient record in 3Shape Dental Desktop, and import the duplicated patient record instead.
- The DTX Studio[™] Clinic patient record ID is not exchanged with 3Shape. The link is created based on the user confirmation that the first name, last name and date of birth are identical.
- 2. Select the patient record in the **Patients** 1 list.
- 3. Click More ….
- 4. Select Import from 3Shape 🗢.
- 5. If requested, confirm that the patient record matches the one in the 3Shape Dental Desktop.
- 6. The data is retrieved and added to the **Patient data** tab on the patient detail panel.

Request scans

To work with scan requests or to initiate a scan workflow with multiple scan protocols (see <u>page 18</u>), a connection with DTX Studio[™] Core needs to be established (see <u>page 11</u>).

SCHEDULING A SCAN

To request a scan for a patient:

- 1. Select the patient record in the patients list.
- 2. Click Scan request
- 3. Optionally, initiate a scan workflow with multiple scan protocols. See "Scan Workflows" on page 18.
- 4. Hover over the picture tile of the image acquisition device and click **Select**.
- 5. Fill out the applicable information in the scan request form.

NOTE: Depending on the chosen modality, the form is different.

- If the image acquisition device allows multiple modalities, select the required modalities: **3D**, **CEPH** (Cephalogram), **PAN**, **IOXRAY** (2D intraoral scan), **IOS** (3D intraoral scan) and/or **IOCAM** (intraoral photo). If applicable, select an imaging program.
- On the tooth chart, select the regions you want to scan.
- If needed, change the Scan date and the Requesting clinician.
- Select **Sinus** if the sinus needs to be scanned.
- Select an image acquisition **resolution** if applicable.
- If the selected device is an intraoral device, select a **Template**, and specify the **Imaging program**.
- Add Request notes for the operator if applicable.
- 6. Click Create scan request(s). The scan request is added.

SEARCHING AND SORTING SCAN REQUESTS

To sort the scan request list:

- 1. In the sidebar, click **Scan requests 1**.
- 2. Click the drop-down arrow next to the **Scan requests** list header.
- 3. Select to sort by **Scheduled date** or **Creation date**.

To search for a scan request:

- 1. Type (a part of) the scheduled date or the patient name in the **Find a scan request** field **Q**.
- 2. While typing text in the search box, the scan requests list is filtered automatically. The search results are sorted on the scheduled date.

To remove the search criteria, click \mathbf{x} in the search field.

SCAN WORKFLOWS

Use the QuickPrescribe feature to create a scan workflow consisting of multiple scans from different modalities with a particular set of pre-defined scan requests. These scan workflows can then be used on all workstations. Define a scan workflow in DTX Studio[™] Core first, and apply it during the schedule a scan or capture wizards.

DEFINING A SCAN WORKFLOW

To define a scan workflow:

- 1. Click on the DTX Studio[™] Clinic [®] icon in the notification area at the bottom of the screen (on the top of the screen if you use a Mac).
- 2. Click QuickPrescribe. If you have not set up any scan workflows yet, click Get started right away.
- 3. Complete the scan workflow configuration in DTX Studio $^{\rm m}$ Core.

NOTE: In DTX Studio[™] Core, click **Help** in the bottom-left corner for more information.

4. Select a scan workflow from either the scan request or capture wizard.

APPLYING A SCAN WORKFLOW

Define a scan workflow in DTX Studio[™] Core, and select it during the scan request wizard or capture wizard.

- 1. Select the patient record in the patient list.
- 2. Click Scan request 🗟 or Capture 💸.
- 3. Click QuickPrescribe.

NOTES

- Type (a part of) the scan workflow in the search field to narrow down the results.
- To see all the modalities and parameters that are set, hover over a scan workflow name in the list. Click More info.
- 4. Hover over a scan workflow name in the list, and click **Create scan requests(#)**. The number indicates the number of scan requests created with the selected scan workflow.
- 5. On the tooth chart, select the diagnostic region that you want to scan.
- 6. Click Create scan requests.

Perform a Scan

Take a scan before, during or after diagnosing the patient — with or without creating a scan request first. It is strongly recommended that users should follow the instructions and technical notifications within the software to reduce the risk of an inaccurate scan.

PERFORM A SCHEDULED SCAN

To perform a scan for a scan request:

- 1. On the scan request card, click **Start**.
- 2. Hover over a device tile and click **Select**.
- 3. Go to the device to perform the scan.
- 4. Click Finish to end the action, or click Open diagnose to open the patient module.

PERFORM AN IMMEDIATE SCAN

- 1. Select the patient record in the patients list.
- 2. Click **Capture** 🗞.
- 3. Hover over a device tile and click **Select**.

NOTES

- Intraoral images are automatically rotated in the correct position. To disable this, see "Disabling Auto-Rotation of Intraoral Images" on page 11.
- Upon importing or acquiring a 2D image, level and window values are automatically set. To disable this, see "Disabling Automatically Set Level and Window Values" on <u>page 11</u>.
- Use multiple sensors with different sensor sizes by plugging them in or out during the capture wizard.
 The used sensor is shown in the top-right corner.
- If multiple sensors are plugged in, the + symbol appears. All sensors which are connected and active, are ready to acquire the scan. X-ray triggers the image acquisition.

Guided Acquisition with Intraoral Sensors or PSP Devices

To acquire intraoral images with a template:

- 1. Initiate an immediate scan.
- 2. Click the **Template** tab and select your preferred template.
- 3. Select the layout and images that you want to acquire.
- 4. Click Start.
- 5. Go to the device to perform the scan.
- 6. On the preview page, inspect the acquired images.
 - Make changes if needed: hover over a preview image to see the additional Rotate, Flip, show or hide Image filters and Capture again options.
- 7. Click Finish.

Free Acquisition with Intraoral Sensors or PSP Devices

To acquire intraoral images without using a template:

- 1. Initiate an immediate scan.
- 2. Select the **Free** tab.
- 3. Go to the device to perform the scan.

If you have activated MagicSort autodetection, see the steps below:

- In the bottom-right corner, the MagicSort autodetection assistant is shown.
- In the capture wizard teeth are automatically detected. They are marked in blue. Click on a tooth to remove the MagicSort label.
- Intraoral images are automatically mapped on FMX charts.
- Manually indicate unidentified images on the tooth chart.

Note: By default, MagicSort autodetection is activated. To deactivate it, see settings.

- 4. On the preview page, inspect the acquired image and assign a tooth range if necessary.
 - Click **Clear selection** to remove the indicated teeth on the tooth range.
 - Make changes if needed: hover over a preview image to see the additional Rotate, Flip, show or hide Image filters and Capture again options.
 - Rotate or flip the acquired image if necessary.

lcon	Shortcut
ſ	Alt+🖛, or R
Ĵ	Alt+➡, or Shift+R
II.	U
=	Shift+U
	ار ر

Guided Image Acquisition with Intraoral Cameras

To acquire intraoral camera images with a template:

- 1. Initiate an immediate scan.
- 2. Stay on the **Guided** tab.
- 3. For intraoral cameras with a tip, select the teeth that you want to acquire.
- 4. Press the device button if available or click Capture image.
- 5. To select another tooth of which intraoral images will be taken, use the ← or → keyboard buttons. Alternatively, click the tooth on the tooth range or click **Previous** or **Next**.

NOTE: When only one image per tooth is required, enable **Proceed to the next tooth after capture** to automatically continue with the next tooth.

6. Click Finish.

Free Image Acquisition with Intraoral Cameras

To acquire intraoral camera images without using a template:

- 1. Initiate an immediate scan.
- 2. Click the **Free** tab.
- 3. Press the device button if available or click **Capture image**.
- 4. To assign acquired images to a tooth, click an image thumbnail at the bottom and select the corresponding tooth on the tooth range.

NOTE: Assign an image to multiple teeth by selecting the image, clicking a tooth and dragging over the other teeth.

5. Click Finish.



INTRAORAL SCANNING

3Shape TRIOS® Scanner

1. Start the scan in the 3Shape Dental Desktop application.

NOTE: For more information on how to integrate a 3Shape TRIOS[®] intraoral scanner device, see the DTX Studio[™] Core Quick Guide.

- 2. Complete the scanning process.
- 3. The image is added to the **Patient data** tab on the patient detail panel.
 - The finished scan request is marked with a checkmark.
 - Click **Open diagnose** to start a new diagnosis in the patient module.

KaVo and Medit Scanners

The scan module^{*} allows you to use a supported Medit / KaVo intraoral scanner with DTX Studio[™] Clinic and to reopen existing scan cases.

Acquire Intraoral Scan Data

1. Select the patient record in the patients list.

- 2. Click Capture 🗞.
- 3. Select the intraoral scanner and click **Select**.
- 4. The scan module is opened.
- 5. Follow the instructions.
- 6. The processed data is added to the patient record.

Reopen a Scan Case

Intraoral scan data that was locally captured can be reopened in the scan module*.

NOTE: This is only possible on the computer used to acquire the scan data.

To reopen the scan module* to edit the scan, take additional scans, trim, measure and more:

1. In a patient record, click the dental scan tile.

2. Click Open in Medit Scan.

* For Windows computers only and on the computer which has been used for acquiring the intraoral scan data. A PRO IOS license type or a subscription to the Plus+ feature Medit Scan integration are required.

Make a Diagnosis or Plan a Treatment

Use the patient module to view and inspect the patient data and to add findings and measurements to the patient record.

To open the patient module, select a patient in the **Patients** list and click **Open Patient >**. Alternatively, double-click the patient in the patient list or press [O].

The features depend on the DTX Studio[™] Clinic license type:

License type	Features	Image Acquisition
DTX Studio [™] Clinic Pro or Pro IOS	2D and 3D	2D and 3D
DTX Studio™ Clinic SeLect	2D only	2D only

EXPLORING THE PATIENT MODULE



WORKING WITH THE PATIENT MENU

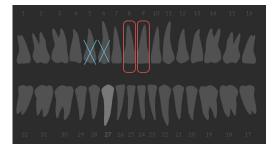
In the patient module, click = in the upper-left corner to open the patient menu.

Menu Options

- Capture: acquire data directly from the patient module,
- Import: import data to the open diagnosis,
- New: create a new diagnosis,
- Open: open another existing diagnosis,
- Save: save the open diagnosis,
- **Export report**: export a report of the patient diagnosis,
- Preferences: change the settings, like the Default workspace, Performance, Image settings, 3D viewer and Tools.
- Close application: close the patient module.

Diagnosis Tooth Chart

Click Menu. The patient menu's tooth chart gives an overview of the open diagnosis.



Note: If the patient is younger than eight years old, the tooth chart for primary teeth is shown. Please keep in mind to change the teeth manually to go to an adult tooth chart when the patient is growing up.

To edit the tooth chart, click a tooth on the tooth chart and select one of the following:

	Exchange	Exchange a primary tooth with an adult tooth. This option is available if the child tooth has a corresponding adult tooth. If the tooth is exchanged, all the findings of the primary tooth are deleted and the adult tooth is set to healthy.
		Note : Child dentition is displayed for patients younger than eight years old.
Х	Not present with gap	This tooth is missing and there is a gap on this location.
	Impacted	This tooth will be impacted (often used for wisdom teeth).
+7	Insert	Insert a tooth, e.g., adult molars in a child dentition.
	NI I II I	

in Not present without gap Indicate hypodontia.

Diagnosis Data

Below the tooth chart, the scans and the images for the open diagnosis are shown per data type, and sorted by acquisition date.

- 🗊 3D scan
- Pan (panoramic image)
- Intraoral images
- Cephalogram
- Clinical pictures
- Screenshots
- Face scan
- 🔝 🛛 Dental scan
 - Click another 3D scan to switch between 3D scans.
 - To start acquiring data directly from the patient module and add it to the open diagnosis, click Capture
 Alternatively, click O on the menu bar.
 - To import data to the open diagnosis, click **Import** eq.

Note: Upon importing or acquiring a 2D image, level and window values are automatically set. To disable this, see "Disabling Automatically Set Level and Window Values" on page 11.

SETTING THE 3D AND DENTAL SCAN VIEWER BACKGROUND

To change the default background color of the 3D or dental scan viewer in the patient module:

- 1. In the **Preferences** window, click **3D viewer**.
- 2. Select Solid color.
- 3. Select a color in the drop-down menu, or select **Custom** to select any other color.
- 4. Click OK.

SETTING THE DEFAULT IMAGE ZOOM LEVEL

To set the default zoom level of shown images in the patient module:

- 1. In the **Preferences** window, click **Workspace**.
- 2. In the **Default image size** list, select the default magnification value.
- 3. Click OK.

INTERACT WITH THE MOUSE

Use the mouse to interact with the viewers.

	Action	3D Viewer	Other Viewer Types
	Right-click and drag	Rotate the 3D model	Zoom in and out
Ctrl Cmd	Ctrl + click and drag, or Cmd + click and drag	Pan	Pan
Shift	Shift + click and drag	Zoom in and out	Zoom in and out
1	Scroll the wheel button	Zoom in and out	In reslice viewer only: scroll through slices

WORKSPACES

Select a workspace from the workspace bar or use the corresponding shortcut key, if available.

Note: Only the workspaces for which images or data have been added to the diagnosis are shown.

Workspace	Description	Shortcut key
3D patient	To inspect the loaded model from all sides, use the mouse actions (see "Interact with the Mouse" on <u>page 24</u>) and the keyboard shortcuts (see "Appendix: Shortcut Keys" on <u>page 34</u>) Or use the standard clinical view icons:	F2
	😨 Frontal	
	Posterior	
	🔊 Left lateral	
	Right lateral	
	Cranial	
	🔒 Caudal	
	Press F2 again to go to the dental scan workspace (if available).	
3D panoramic	The 3D panoramic radiograph is generated based on the loaded 3D scan.	F3

Workspace	Description	Shortcut key
Tooth	Navigate to a specific tooth and compare all 2D and 3D data using the SmartPanel [™] Layout tab. Annotate the selected tooth (see <u>page 27</u>). The vertical slider on the perpendicular viewer rotates the slices around the tooth rotation axis. Depending on the situation, the following slice	F4
	hints indicate the orientation of the reslice:	
	– Oral/Buccal (O / B)	
	 Mesial/Distal (M / D) 	
	 Left/Right (L / R). 	
	To adjust the rotation axis, see "Adjusting Tooth Rotation Axis in Tooth Workspace" on <u>page 27.</u>	
Endo	Focus on a specific tooth for endodontic diagnostics and procedures. To display the tooth pulp, click the Endo filter on the SmartPanel [™] Viewer tab.	N/A
	Note : This workspace is available if a 3D scan is loaded and when tooth annotations are defined.	
	 The 3D viewer is focussed on a tooth of interest. 	
	 The Tooth cross-sections viewer is a cross-sectional viewer that shows several horizontal tooth cross-sections. 	
	 Once the root morphology is defined (See "Diagnose tab" on <u>page</u> <u>28</u>), the root canals are visualized. 	
Implant	Plan and inspect implants. This workspace consists by default of 3 viewers, the Pan viewer, the snapped to implant viewer and the cross-sectional viewer.	F9
	 Click and drag a cross-sectional reslice in the Pan viewer to navigate to a desired position. 	
3D inspection	Navigate to a specific point outside the tooth range to inspect it.	N/A
TMJ	Inspect the condyle heads and the temporomandibular joint areas.	N/A
Dental scan	Inspect and compare dental scans.	F2
	Press F2 again to go to the 3D patient workspace (if available).	
Pan	View a 2D panoramic radiograph (panorex) or multilayer pan images.	F5
Intraoral	Inspect the intraoral images on a layout, for inspecting e.g., a Full Mouth X-ray series.	F6
	Double-click an image to use additional workspace functionalities: image filters and SmartLayout [™] (see <u>page 26</u>).	
	 Switch to another image by clicking on a thumbnail in the tooth range on the SmartPanel[™] Layout tab. Alternatively, use the + ↑ Arrow keys. 	
	 To return to the initial layout overview, click on the top-right layout title or press Esc. 	
Ceph	View the frontal and/or lateral cephalogram. Use the Generate the 3D Cephs tool to calculate cephalograms based on the loaded 3D scan, or import 2D cephalograms.	F7
Clinical pictures	View the clinical pictures for the patient.	F8
Intraoral pictures	Similar to Clinical pictures, but containing the intraoral camera pictures. When the intraoral camera is used. For example, in the tooth workspace, with a selected tooth on the tooth chart, the acquired image is automatically assigned in the clinical pictures workspace as well.	N/A

Workspace	Description	Shortcut key
Intraoral camera	Dedicated workspace for intraoal camera acquisition.	F10
Recent images	The Recent images workspace shows all recently imported or acquired images. By default, the workspace shows the images of the last seven days. To change this, go to the patient module preferences.	F12

Customizing Workspaces

- 1. In the **Preferences** window, click **Workspace**.
- 2. In the **Default workspace** list, select the workspace to be shown by default when opening the patient module. The standard setting is **Most recent data**, the workspace associated with the most recently acquired or imported image.
- 3. Optionally, change the number of days in the **Recent images** field for images to be displayed in the **Recent images** workspace. The default value is 7.
- 4. Click OK.

Show all Related Tooth Information with SmartFocus[™]

To activate SmartFocus™ in a supported viewer, press the spacebar. Alternatively, click ⊕ on the top menu bar.

- Click on a tooth region to go to the tooth workspace and optionally load the data for the specific tooth in the viewers.
- Click on a region outside the tooth range to go to the 3D inspection workspace.

Customize Views with SmartLayout™

Customize a workspace by adding or removing viewers via the SmartPanel[™] Layout tab and by changing the viewer proportions.

- To add another viewer to the workspace, click a tile on the SmartPanel[™] Layout tab.
- Re-click the tile to remove the viewer from the workspace.
- To change the proportion of the viewers, drag one of the window splitters.
- To reset the viewers, click the **Reset Layout** button ⁽¹⁾.
- To close a viewer, click on the top-left window title. Select Close viewer. Alternatively, press [Q].
- To sort by modality, date or to have selected images appear first, click the Sort by drop-down menu and select either Modality, Date or Selected first.
- To save the workspace layout, click ••• next to the workspace title and select Save workspace layout.
 This layout is set as default layout for new patient diagnoses.

Align Dental Scans with SmartFusion™

To align a dental scan with the 3D scan in the 3D patient workspace:

- 1. Click Align dental scan 🥪 in the Edit 3D scan tools menu.
- 2. Select a dental scan and click **Next**.
- 3. If needed, indicate corresponding points and use the **Bone threshold** slider to adjust the visualization.
- 4. Check the alignment.
- 5. Click Finish.

Thumbnail Bar

At the bottom of the intraoral workspace and the clinical pictures workspaces, a thumbnail bar contains the images that are added to the diagnosis but not shown in the workspace viewer.

- Drag an image from the thumbnail bar and drop the image on a placeholder.
- If the placeholder already contained an image, this image is replaced by the new image and the old image is re-added to the thumbnail bar.

Add Diagnostic Findings

The SmartPanel[™] **Findings** tab allows you to note dental pathologies, jaw problems or other diagnostic findings on tooth level.

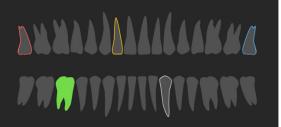
- To add a predefined diagnostic finding to the tooth, click Add finding [■] in the Diagnose tools menu, or on the SmartPanel[™] Findings tab. Select a finding.
- Optionally, include a screenshot by clicking Screenshots ⁴⁴ on a finding.
- To remove the finding, hover over or select the finding, click •••• and select **Delete**.
- To add a custom diagnostic finding, enter the custom finding text in the search field and press Enter or click Add.
- Click the drop-down menu to assign a status, if needed.

NOTES

- In the tooth workspace, the status is visually indicated on the tooth chart as well.
- If the finding is added in the tooth workspace, the finding is added to the specific tooth.
- If the finding is created in another workspace, click the tooth number placeholder and type the tooth number to assign the finding to a specific tooth.

SmartPanel[™] Tooth Chart

In the tooth workspace and endo workspace, a tooth chart is shown above the SmartPanel[™] tab.



- The active tooth, for which the data are shown in the workspace, is highlighted in green.
- Select another tooth by clicking a tooth on the tooth chart.
- Below the tooth chart, click < to go to the previous tooth, or click > to go to the next tooth.
- A tooth with at least one finding has a colored outline. The color depends on the treatment status of the finding.

Treatment status	Color	Description
Condition	Gray	The finding is not critical, but may need to be watched to track its evolution over time.
Treatment plan	Red	The finding needs to be treated.
Follow-up	Orange	The finding is discovered at an early stage and should be watched.
Completed	Blue	The treatment for this finding has been completed.

Adjusting Tooth Rotation Axis in Tooth Workspace

To adjust the rotation axis:

- 1. Click **Edit axis** (1) or press [A].
- 2. An orange cross is drawn on top of the perpendicular and the parallel viewer.
- 3. Drag the mouse inside the viewer to rotate the image data around the center point of the viewer.
- 4. Press [A] again or right-click to finish the action.

Clipping the 3D Volume

On the SmartPanel[™] Viewer tab of the 3D patient, Tooth and 3D Inspection workspace, select Clip 3D Visualization, to hide a part of the 3D volume and inspect certain areas of the volume.

Use Dental Intraoral Cameras in Workspaces

Acquire intraoral images with a USB dental intraoral camera directly in the intraoral camera workspace or from within another workspace:

- 1. Click the Intraoral camera workspace tab or in any workspace, click the SmartPanel[™] Cameras tab.
- 2. Click a camera device tile, if needed.
- 3. Press the device button to acquire the image. Alternatively, click **Capture image** at the bottom.

TOOLS

The toolbar provides you with tools to diagnose, measure, plan treatments and edit the scan data.

Not all the tools will be available in all the workspaces. Unavailable tools are grayed out.

WARNING: Measurement accuracy depends on the image data, the used scanner hardware, its calibration and acquisition settings. The measurement cannot be more precise than the resolution of the image. DTX Studio[™] Clinic software reports the value, rounded to one digit after the decimal point, based on user-picked points.

Click one of the toolbar tabs to go to the underlying tools.

Diagnose tab Set the slice thickness of a 3D reslice viewer. Click on the 3D reslice viewer and drag horizontally to set the X-ray thickness. Right-click to finish. NOTE: To set a default slice thickness, go to the Image settings tab in the DTX Studio[™] Clinic settings. In the top-right drop-down menu, select 3D Reslices, Panoramic or Tooth. Select a preferred thickness in the Slice thickness drop-down menu.

- O Drag on a viewer to adjust the brightness and contrast:
 - Horizontally: to change the contrast.
 - Vertically: to change the brightness.

NOTE: When the brightness and contrast tool is used with grayscale images, the level and window values are updated accordingly.

- Magnify a certain area of an image (default setting) or compare applied filters to the original image. Use the minus and plus keys (or Shift + Plus key when using macOS) to adjust the magnification level. To change the default settings, go to the patient module preferences.
- Real Inspect the underlying reslice when clicking on a 3D model.
 - The reslice is shown in the overlay slice explorer window.
 - Active image filters and the slice thickness are applied to the slice explorer view as well.
 - Scroll to go through all the reslices.
 - While inspecting the underlying reslice, the 3D model remains rotatable.
- Capture a screenshot. It is added to the clinical pictures workspace, the SmartPanel[™] Layout tab and the patient data. The captured screenshot can be added to a report (see <u>page 27</u>).
- Add a finding to the SmartPanel[™] **Findings** tab.
- Analyze the airway. Indicate landmarks to create a box surrounding the region of interest. Click **Done**. The airway volume and the constriction point is visualized in the 3D patient workspace.
- Indicate a nerve. Click the first anchor point. Then click every next anchor point. Right-click to finish.
 - Adjust the nerve annotation by moving the anchor points on the viewer.
 - All the anchor points will appear as one line on the SmartPanel[™] **Annotation** tab.

L.	 Draw a custom reslice line in any reslice viewer of the 3D patient workspace (coronal/sagittal/axial) to create a custom reslice to inspect the CT data in detail. For example to mark and inspect the root canals and to make annotations. Move the custom reslice by clicking and dragging the reslice line. Rotate the custom reslice by clicking and dragging one of the reslice endings.
W	Define the root morphology by indicating reference points on the root canals. 1. Scroll through the slices to find an optimal position.
	Note : If needed, re-indicate the tooth center in the Horizontal viewer by clicking and dragging the center.
	2. Click a position in one of the viewers.
	3. The root canal visualization is immediately shown in the Root canal viewer.
	 Click Add point to add a new reference point, if needed. Click Done.
T_{T}	Add text to an image.
Ĉ.	Draw segmented lines with the pen. All the lines will appear as one annotation on the SmartPanel [™] Annotation tab.
În	Draw free-form lines with the pencil.
0	Draw a circle.
\rightarrow	Draw an arrow.
	Select the line thickness for an annotation.
Measu	ire tab
×	Measure the HU value of a point. Click a point in the scene to measure the HU or the gray value.
UNION OF T	Measure a linear distance. Click the two points between which you want to measure the distance. If the image has not yet been calibrated, enter a Reference value . The calibration measurement will be shown in the scene and the calibration object → is added on the SmartPanel [™] Annotation tab. The measurement (and its accuracy) is shown.
CT CT	Measure segments. Click the first point. Then click every next point. Right-click to finish.
٢	Measure an angle. Click three points.
Implar	it tab

To place an implant. This tool can be used in any workspace that contains CB(CT) data.

🔄 Manage which implants can be placed.

Edit 3	O Scan tab
(2)	 Edit the orientation of the patient model. The 3D patient model can be orientated in the preferred position by translating and rotating the model in the 3D viewers. Click the pan icon or the rotation icon for or press the [Tab] key to switch between rotation and translation mode. The selected mode appears in green. Drag the model until it is correctly aligned with the reference lines. Click Done.
	 Adjust the Pan curve. Indicate the points and teeth as requested by the system. When the teeth are not clearly visible, scroll or use the gray slider at the right side to adjust the position of the axial reslice to a plane showing the tooth setup (approximately converging with the occlusal plane). To adjust the curve: Click and drag individual control points to adjust the shape of the curve. Click on the curve to add a new control point. Click and drag the surrounding area to move the complete curve.
U	Define the TMJ area. Indicate the condyle head position as shown in the wizard. Click Done . The TMJ workspace is opened, to compare the left and the right condyle head position and examine the temporomandibular joint area.
- ()	Adjust the tooth positions. On the tooth chart, select the tooth that you want to calibrate. Drag the tooth indication to its correct position on the axial reslice. Adjust the axis of the tooth on the perpendicular reslice.
2	Adjust the bone threshold. Click and drag horizontally on a 3D viewer to adjust the bone threshold value.
\$	Clean up the patient model by cutting out redundant parts. Click a point in the scene to start drawing around the section that should be removed. Right-click to confirm. NOTE : To restore the original patient model, click <i>•••</i> next to 3D visualization on the SmartPanel [™] Viewer tab. Select Reset 3D model .
	Align or realign a dental scan with the 3D scan via SmartFusion™.
=	Generate a Pan. The panoramic (reslice) view is added to the patient data as a 2D image. The generated image is opened in the Pan workspace.
Q	Generate 3D cephalograms based on the imported 3D scan.

Dental Scan tab		
4	Fill the holes [*] of all jaw scans and diagnostic scans currently visible in the dental scan workspace. Choose either to fill small or all holes. Click Fill holes . The added texture is indicated in blue. * For Windows only. Additional software has to be installed.	
CCC and	Compare dental scans to follow up on gingival recession, tooth wear and other differences. Select a dental scan to compare with the reference scan. Click Finish . By default, a colored distance map is applied. On the SmartPanel [™] Viewer tab, select Overlay to show the two scans aligned with each other. Disable the comparison by turning the Scan comparison switch off.	
÷ Wartus	Calculate virtual teeth with SmartSetup.	

REPORTS

CREATING REPORTS

To create a report containing findings or as template for patient-related letters:

- 1. In the patient module, open the patient menu.
- 2. Click Export report.
- 3. Select a report template.
- 4. Click Export report.
- 5. The report is exported in an editable .odt format and opened in the default text editor, e.g., Microsoft Office, LibreOffice, OpenOffice Writer.
- 6. Make any changes, if needed.
- 7. Save the report.

ADDING CUSTOM PRACTICE LOGOS

By default, the DTX Studio[™] Clinic icon is added to a report header. To add a custom logo:

- 1. In the <u>settings</u> sidebar, click **Reports**.
- 2. Click **Browse**.
- 3. Select a new logo.
- 4. Click OK.

Open DTX Studio[™] Implant

To connect DTX Studio[™] Clinic with the implant module DTX Studio[™] Implant:

- 1. Click Menu.
- 2. Click Settings.
- 3. Click DTX Studio Implant.
- 4. Click **Browse** to go to the location on the computer where DTX Studio[™] Implant is installed.
 - NOTE: Set the location for patient data in case you need to add patient data to the patient record in DTX Studio[™] Implant manually; that is if a patient record already exists in DTX Studio[™] Implant or if intraoral scans are exported to DTX Studio[™] Implant but are not aligned with the 3D scan.
- 5. Click OK.

To launch DTX Studio[™] Implant:

1. Select the patient record in the patients list.

NOTE: At least one 3D scan must be available for this patient.

- 2. Click Implant 🔍.
- 3. Select Open existing patient or Export to new patient.
- 4. If there is more than one 3D scan, select the appropriate tile.
- 5. Click Export.
- 6. A success message appears. Click **OK**.
- 7. The patient record is created and/or opened in DTX Studio™ Implant.

Orders

To order a restoration or a surgery plan:

- 1. Select the patient record in the patients list.
- 2. Click Order 🐺.
- 3. Select **Restoration** \Im / **Surgery plan** \Im .
- 4. Select the patient data to send to the lab or the clinician.
- 5. Click Continue.
- 6. A draft order is created on DTX Studio[™] Go. Add the missing data and send the order to the connected lab or clinician.
- 7. Click **Orders** in the sidebar to view all your orders.
 - **Note**: Please note that some products described in the Instructions for Use may not be regulatory cleared, released or licensed for sale in all markets.

Appendix: Shortcut Keys

Below you find an overview of the available keyboard shortcuts in DTX Studio™ Clinic.

For keyboard shortcuts where you press two or more keys simultaneously, the keys to press are separated by a plus sign (+). When alternative keyboard shortcuts are available, the alternatives are separated by 'or'. On macOS, use the Command key (Cmd) instead of the Control key (Ctrl).

General Shortcuts	
Alt+F4 or Cmd+Q	Exit the application.
Ctrl+M or Cmd+M	Maximize or restore down the viewer (when multiple viewers are available).
Ctrl+Z or Cmd+Z	Undo.
Ctrl+Y or Cmd+Shift+Z	Redo.
Ctrl+S or Cmd+S	Save.
Esc	Cancel or close dialog or viewer.
F1	Help

In a Patient Record	
>	Export data.
В	If an intraoral sensor device is connected, start acquiring Bitewings.
С	Launch the capture module.
0	Open patient / Launch the patient module.
F	If an intraoral sensor device is connected, start acquiring FMX.
Ρ	Open existing patient in DTX Studio™ Implant.
Shift+P	Export to new DTX Studio™ Implant patient.
Х	If an intraoral sensor device is connected, launch the intraoral capture module. If no intraoral sensor device is connected, launch the capture module.
←→	Previous or next image in Clinic viewer.
Esc	Close the data viewer.
R or Shift+R	Rotate an image.

Patient Module	
<	Import images.
А	Turn on/off Edit Axis.
В	If an intraoral sensor device is connected, start acquiring Bitewings.
С	Launch the capture module.
Ctrl+l or Cmd+l	Show or hide the info overlay on the viewers.
Ctrl+P or Cmd+P	Print viewer images and content.
Delete or Backspace	Delete an annotation.
E	Apply or remove the crisp filter.
Μ	Measure a distance.
Х	If an intraoral sensor device is connected, launch the intraoral capture module. If no intraoral sensor device is connected, launch the capture module.
F2	Switch between 3D patient* and Dental scan* workspace.
F3	Go to 3D panoramic* workspace.
F4	Go to Tooth* workspace.
F5	Go to Pan workspace.
F6	Go to Intraoral workspace.
F7	Go to Ceph workspace.
F8	Go to Clinical pictures workspace.
F9	Go to Implant workspace.
F10	Go to Intraoral camera workspace.
F12	Go to Recent images workspace.
Т	Add text annotation
Q	Close viewer.
Spacebar	To activate SmartFocus™ in a supported viewer
*Only available in DTX Studio™ Clinic	Pro. if performance setting 2D only viewing for low-performance computer is not enabled.

*Only available in DTX Studio[™] Clinic Pro, if performance setting **2D only viewing for low-performance computer** is not enabled.

General Viewer shortcuts	
+ or Z	Zoom in. Hold down the button to keep zooming in.
- or Shift+Z	Zoom out. Hold down the button to keep zooming out.
Ctrl+R or Cmd+R	Reset the zoom on the active viewer.
Ctrl + click and drag, or Cmd + click and drag, or hold the left and the right mouse button and drag	Pan.

L

Set Brightness Contrast/Level Window

3D Render Viewer Shortcuts	
Scroll the wheel button, or Press Shift + click and drag, or swipe up or down	Zoom.
Hold the right mouse button and drag.	Rotate.
Arrow keys or numeric keys	 Rotate the model around the X- and Y-axis. Every key press rotates the model by 1 degree. If one of the keys is pressed for longer than 1 second, the model is rotated continuously with a constant speed.
1, 3, 5, 7, 9	 Switch between the standard clinical views in the active viewer: 1 Left lateral view 3 Right lateral view 5 Frontal view 9 Caudal view 7 Cranial view
F + click	Focus all reslices on the clicked 3D position.

3D Reslice Shortcuts	
t	Go up 1 slice.
t	Go down 1 slice.
Page Up	Go up 10 slices.
Page Down	Go down 10 slices.

Home	Go to the first slice.
End	Go to the last slice.
Scroll or Swipe up/down	Scroll through the slices.
F + click	Focus all reslices on the clicked 3D position.

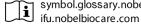
2D Image Viewer Shortcuts	
Alt + 🗲 or Shift+R	Rotate the image counterclockwise.
Alt + ➡ or R	Rotate the image clockwise.
U	Flip an intraoral image or a clinical picture horizontally.
Shift+U	Flip an intraoral image or a clinical picture vertically.
Ctrl+T or Cmd+T	Adjust tooth range.

Symbols Glossary



Batch code

symbol.glossary.nobelbiocare.com



Consult Instructions for Use



Do not re-sterilize

Rx Only

For prescription use only



Keep dry



Magnetic resonance conditional



Serial number



Catalog number



Contains or presence of phthalate



Do not re-use



Patient identifier



Manufacturer





Sterilized using irradiation





Date of manufacture



Do not use if package is damaged



Keep away from sunlight



Medical device



Patient number



Use-by date