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Sidexis 4

Version 4.4

Operator's Manual

English

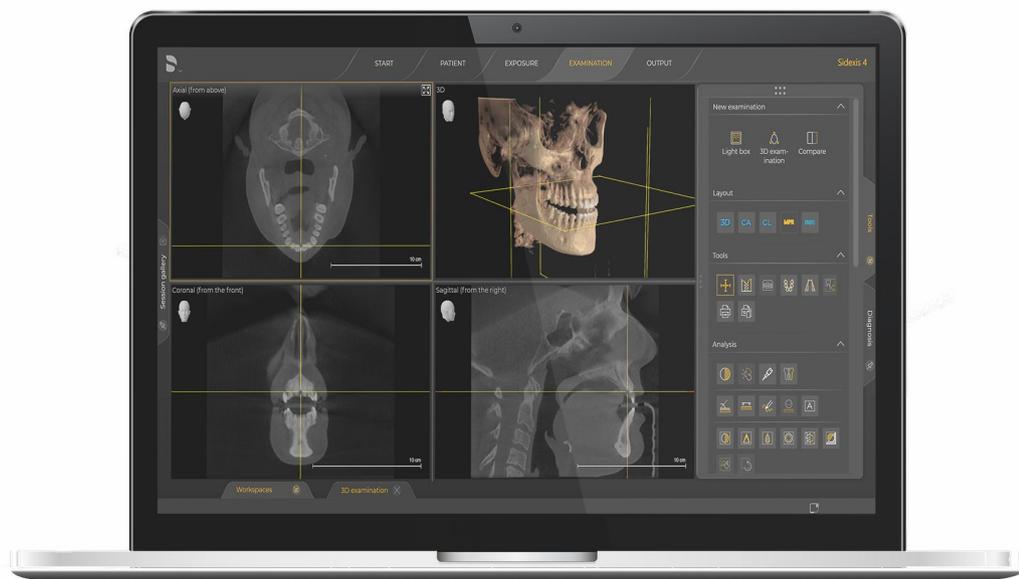


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1 General data

1.1 About this user manual

1.1.1 General information

Read the document Use this manual to become familiar with the software before using it. It is essential that you observe the warning and safety information specified in this manual.



Tip: You can access the PDF of this manual by clicking the "Help" button in the system menu or pressing the F1 key. In order to display the PDF, you must have a PDF viewer, e.g. Acrobat Reader, installed on your computer.

Target group This user manual is aimed at dentists and other dental/medical specialists and specialist staff.

Original language The original version of this document was written in the German language.

"Download Center" for technical documents We have set up a "Download Center" for the technical documents at dentsplysirona.com/ifu. From here, you can download these instructions for use along with other documents. Please complete the online form if you would like a hard copy of the instructions for use or operator's manual. We would be happy to send you a printed copy, free of charge.

Keep the document safe Keep this user manual handy at all times in case you or another user needs information later. Save the user manual on a PC or print it out.
If you sell the software, make sure that the user manual is included with it either as a hard copy or on an electronic storage device so that the new owner can familiarize himself with its functions and the specified warning and safety information.

1.1.2 Conventions

Example	Meaning
Click	A single click down and releasing of the left mouse button.
Double-click	Clicking and releasing of the left mouse button twice in quick succession.
Ctrl+N	On the keyboard: Press the Ctrl and N keys simultaneously.
Drag & drop	Pulling along and letting go. Click the left mouse button on an element, hold it and then release the mouse button on a possible target.
Activate / deactivate a check box	Selecting / deselecting a check box with a mouse click in order to activate / deactivate its underlying function.
Activate / deactivate an option button	Selecting / deselecting an option button with a mouse click in order to activate / deactivate its underlying function.

1.1.3 List of abbreviations

PAS	Practice Administration Software
-----	----------------------------------

1.1.4 Identification of danger levels

To prevent personal injury and material damage, please observe the warning and safety information provided in these operating instructions. Such information is highlighted as follows:

 DANGER
An imminent danger that could result in serious bodily injury or death.

 WARNING
A possibly dangerous situation that could result in serious bodily injury or death.

 CAUTION
A possibly dangerous situation that could result in minor or moderate bodily injury.

NOTICE
A possibly harmful situation which could lead to damage of the product or an object in its environment.

IMPORTANT
Application instructions and other important information.

Tip: Information on making work easier.

1.1.5 Formats and symbols used

The formats and symbols used in this document have the following meaning:

<ul style="list-style-type: none"> ✓ Prerequisite 1. First action step 2. Second action step or ➤ Alternative action ↵ Result ➤ Individual action step 	Request for action.
see "Formats and symbols used [→ 10]"	Identifies a reference to another text passage and specifies its page number.
• List	Identifies a list.
"Command / menu item"	Indicates commands, menu items or quotations.

1.2 Intended use

Sidexis 4 is software that offers functions for the acquisition, administration, analysis, diagnosis, presentation, and transfer of digital or digitized image data, e.g. X-ray images or videos recordings, for medical use, predominantly in dentistry.

1.3 Foreseeable misuse

This software is intended solely for use with X-ray products and on patients by trained personnel.

1.4 Indication and contraindication

1.4.1 Indications

- Manage, analyze, and diagnose digital / digitalized X-ray images
- Manage and analyze digital / digitalized optical exposures
- Preparing image data for further processing e.g. export and treatment planning

1.4.2 Contraindications

- Using Sidexis 4 for contraindications of the respective imaging system. Please pay attention to the corresponding operating manual of the imaging system.
- Perform angle and length calculations in images that are not suitable for this due to their image creation or their not containing validated scaling information.

1.4.3 Obligation to notify authorities

In the European Union, operators or users must report all serious events related to medical devices to the competent authority of the Member State in which they are established.

1.5 Approval



This product bears the CE marking in accordance with the provisions of the Regulation (EU) 2017/745 of April 5, 2017 concerning medical devices.



This product is a medical device.

1.6 System requirements

Browser requirements

- Google Chrome version 92 or higher
- Mozilla Firefox Version 91 or higher
- Microsoft Edge version 92 or higher

1.7 Interface extension for optional system components

Sidexis 4 supports an interoperable extension of the system interfaces for other optional X-ray and video components, such as SIMOCON2 and the X-ray control book.

The extended interfaces do not constitute a necessary requirement or an extension of the functionality of Sidexis 4. The medical purpose and intended use of Sidexis 4 remain in force.

The interfaces for the optional system components are enabled at the discretion of the user and/or owner via the configuration menu of Sidexis 4.

To find out whether a device can be connected to Sidexis 4, please refer to the separate installation instructions for that device.

1.8 Device registration



Please register Sidexis 4 and all Dentsply Sirona devices:

<https://siroforcemobile.dentsplysirona.com>

1.9 Contact information

Dentsply Sirona Product service

Log in to register your units and make service requests:
<https://dentsplysirona.service-pacemaker.com/>

Manufacturer's address



Sirona Dental Systems GmbH
Fabrikstrasse 31
64625 Bensheim
Germany

Tel.: +49 (0) 6251/16-0
Fax: +49 (0) 6251/16-2591
E-Mail: contact@dentsplysirona.com
www.dentsplysirona.com

Representative Switzerland



Maillefer Instruments Holding Sàrl
Chemin du verger 3
CH-1338 Ballaigues

2 Before commencing operation

2.1 Read the technical documentation



Before you commence operation of the Sidexis 4 software, read through the Sidexis4 Operator's Manual (REF 6774587) carefully.

Also download the Sidexis4 Installation Requirements (REF 6773779) from the Internet and read them thoroughly.

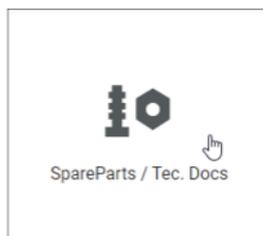
Only when you have read and understood these documents is it guaranteed that you can operate the Sidexis 4 software correctly.

Note also the "White paper" documents:

Download of service documentation from "*Siroforce mobile*"

You can download the current service documentation (including the Installation Requirements, Installation Instructions and Service Manuals) for Sidexis 4 from the Dentsply Sirona "*Siroforce mobile*" platform:

1. To do so, scan the adjacent QR code or click on the following link:
<https://siroforcemobile.dentsplysirona.com/>
↳ "*Siroforce mobile*" opens.



2. Click the "*Spare parts / Tec. Docs*" button.

↳ The selection menu for spare parts and technical documentation opens.

3. Click on the magnifying glass icon in the header.

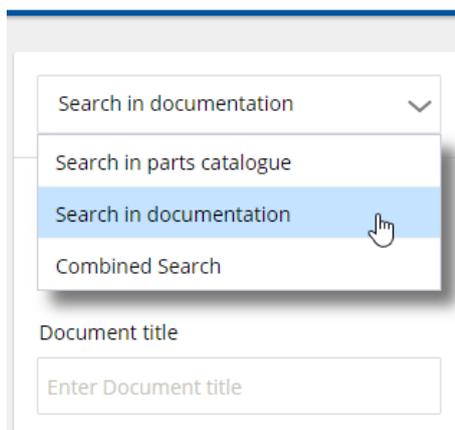
4. In the list, select the menu item "*Search in documentation*".



Catalogue of parts



Documentation





5. Enter the REF number of the document you are searching for **without spaces** in the "Document number" input field and use the "Start search" button to start the search.

↳ The search result is displayed in the list view.

Search in documentation

Search for

Document title

Document number

Installation kit / retrofit kit REF

Search in

Clear search mask

Start search

Search result (1 hit)

Word found	Name of document	Document number	Installation kit / retrofit kit REF
	Installation instructions	6447200	

Search result

6. To open the document as a PDF, click the arrow symbol on the right in the row of the list view.



Download of user documentation from the "Download Center"

The Sidexis 4 operator's manual and other user documents can be downloaded from the Dentsply Sirona "Download Center". Click on the following link for this:

www.dentsplysirona.com/ifu

To quickly locate the desired documentation, enter the REF number of the document in the input field for the full-text search and confirm the entry with the Enter key.

If you would like a hard copy of a user manual, please complete the online form. We will then be happy to send you a printed copy free of charge.

2.2 Software download of Sidexis 4



You can download the latest version of the Sidexis 4 software by following this link:

<https://www.dentsplysirona.com/sidexis-sw>

You can also scan the QR code on the voucher to access the software download.

Keep the Sidexis 4 serial number handy for the installation so you can activate Sidexis 4 successfully during installation. You will find this on the Sidexis 4 voucher.

3 Safety information

3.1 General safety information

WARNING

Incorrect diagnosis / treatment

Please pay attention to the patient display that is permanently visible in Sidexis 4 in order to prevent patient mix-ups.

CAUTION

Loss of older X-ray images through defective data backup

Repeated radiation exposure for the patient as a result of taking new X-ray exposures.

- Back up the patient data and images from the PC onto an external data carrier multiple times each day. An automatic back-up can be set in the "Reminders" configuration menu (see "Configuration menu" section ⇒ "General settings").

3.2 Data protection and product security

Dentsply Sirona recommends reviewing the requirements for data protection and product security in your organization and your systems. Our white paper aims to guide you to useful information regarding data production and product security.

"White paper" European Union
"White paper" Rest of the world

- Sidexis4 (V4.4) Whitepaper (REF 6798818)
- Sidexis4 (V4.4) Whitepaper (REF 6798826)

4 General operating functions

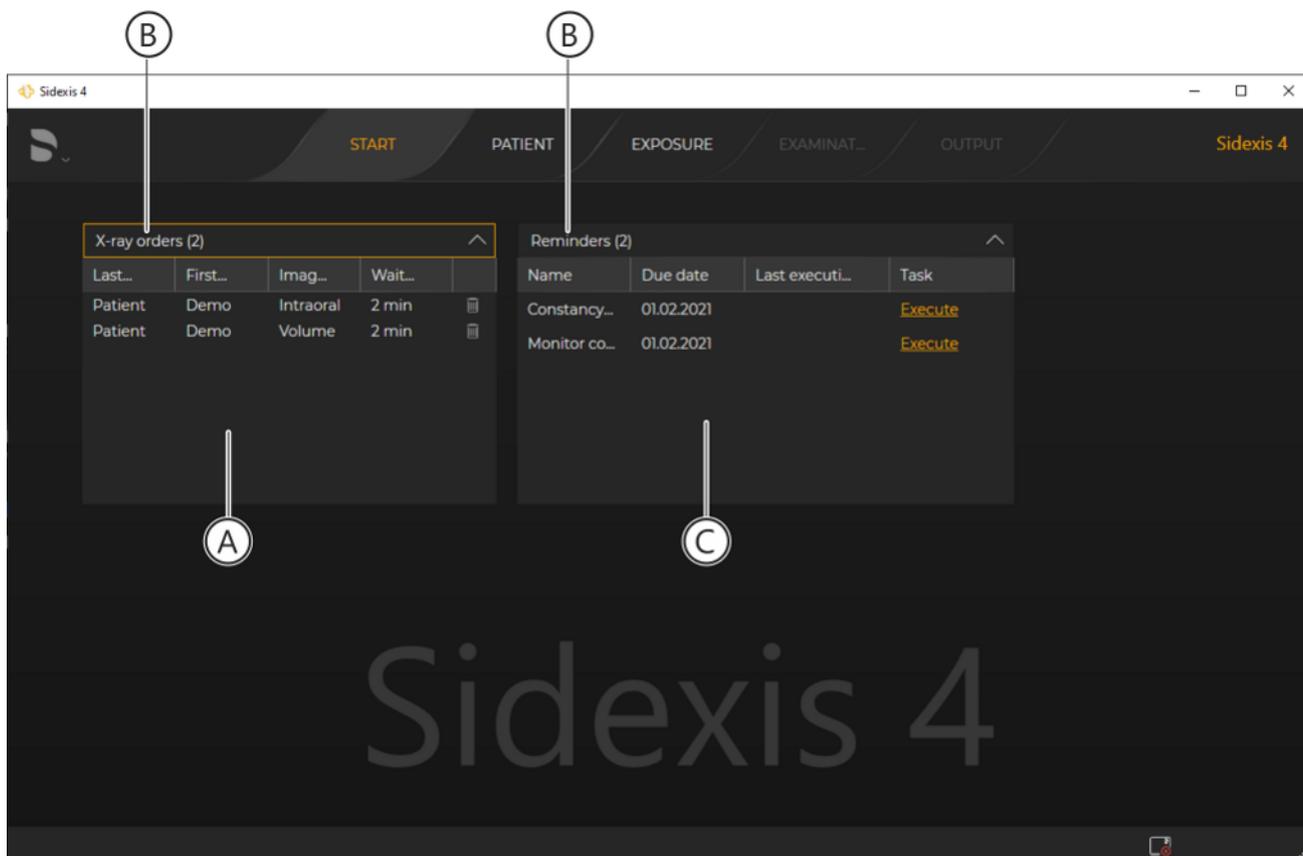
4.1 Starting / exiting the program

Starting Sidexis 4

> Double-click on the program icon.

↳ Sidexis 4 starts.

While Sidexis 4 is starting, various expansion modules are loaded in the background. Sidexis 4 is only available to you in full once all modules have been loaded in their entirety. The loading operation is displayed in the status bar.



"Start" work phase with order lists

↳ Sidexis 4 starts and jumps automatically to the work phase "Start".

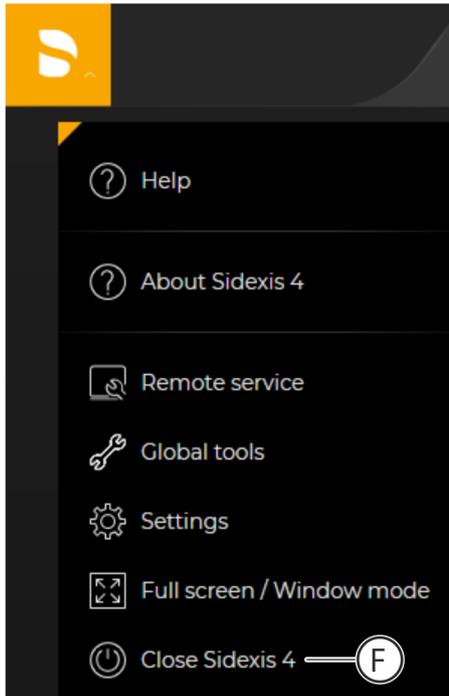


↳ The order list (A) and the reminder list (C) are displayed. The display fields (B) show the number of open X-ray orders and the number of pending reminders. The lists are closed initially when the program is started. Clicking on the arrow symbol (D) opens the lists.

Closing Sidexis 4



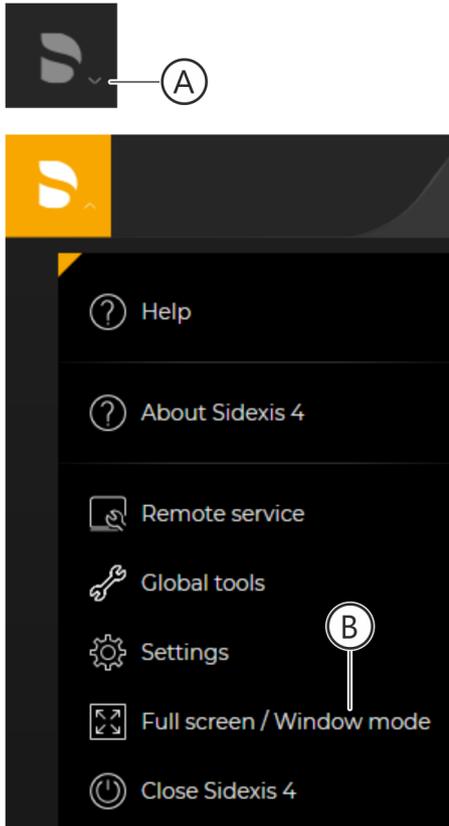
1. Click on the arrow (E) next to the Dentsply Sirona logo in the title bar.
 - ↳ A drop-down list opens.
2. Click on the "Close Sidexis 4" button (F) in the drop-down list.
 - ↳ Sidexis 4 closes.



4.2 Full-screen and window mode

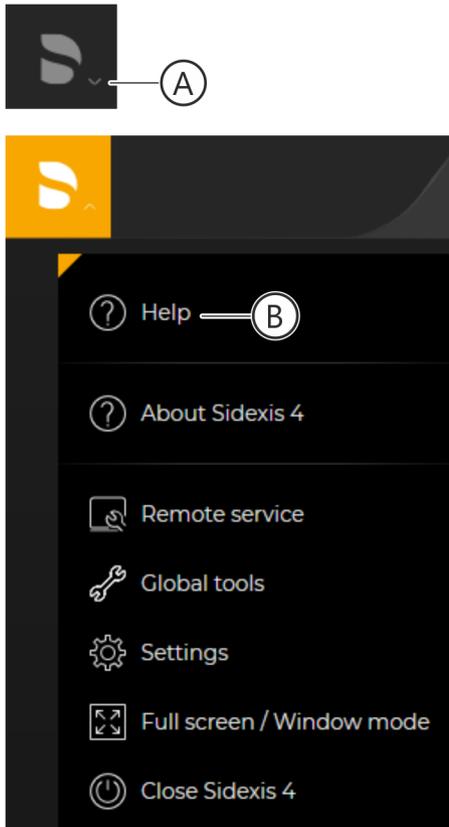
When starting Sidexis 4 for the first time following installation, the program starts in full-screen mode as per the factory setting. Every time Sidexis 4 is restarted, it keeps the setting that was active when the program was last closed.

Switching display modes



1. Click on the arrow (A) next to the Dentsply Sirona logo in the title bar.
 - ↳ A drop-down list opens.
2. Click on the "Full screen / Window mode" button (B) in the drop-down list.
 - ↳ The display mode changes.

4.3 User manual in PDF format



1. Click on the arrow (A) next to the Dentsply Sirona logo in the title bar.
 - ↳ A drop-down list opens.
2. Click on the "Help" button (B) in the drop-down list.
 - ↳ The subitem "Sidexis 4 Help" is displayed in the submenu.
3. Click on the "Sidexis 4 Help" button.



Opening "Sidexis4 User manual"

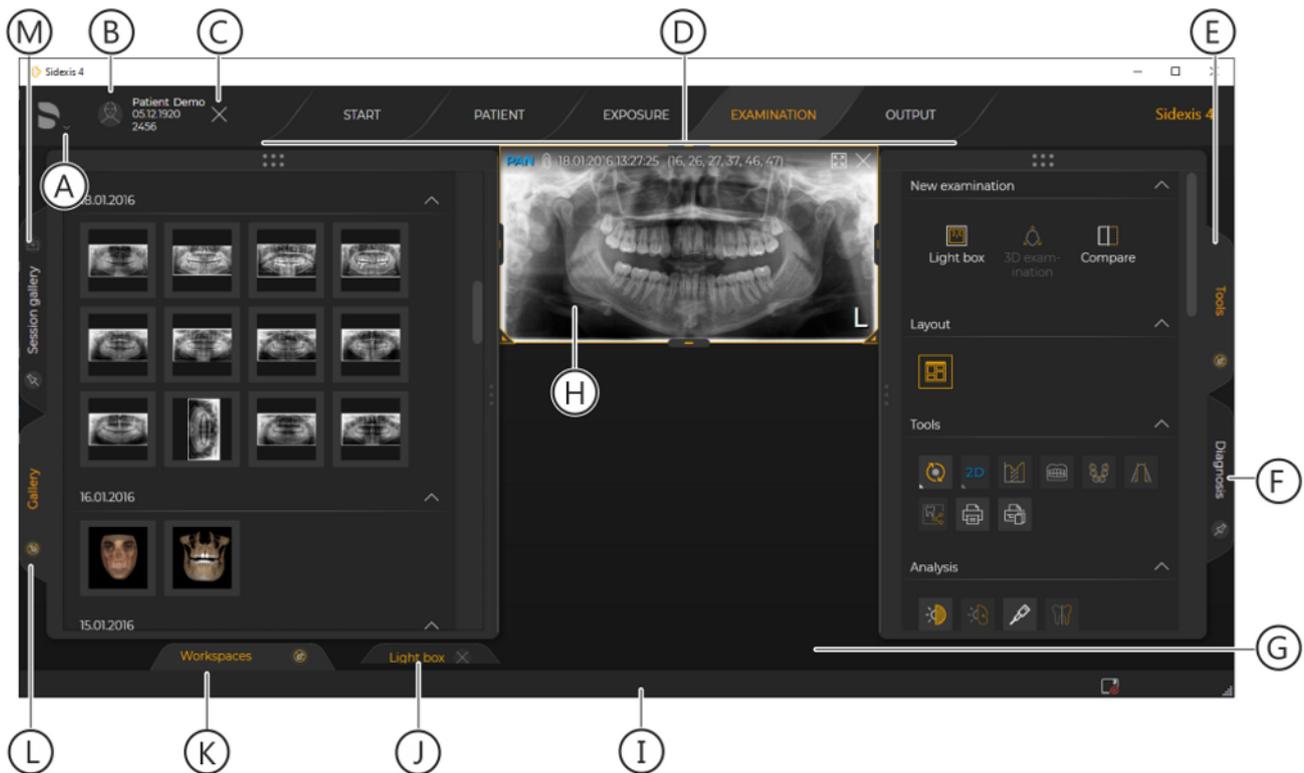
- ↳ The "Sidexis4 User manual" is displayed in PDF format.

5 User interface

It may be the case that the depiction of pictograms in this manual differs slightly from the depiction in your current software due to further development of Sidexis 4. These differences are only visual in nature and do not the functionality of the software.

With its modern design, Sidexis 4 supports you in your everyday work.

The functionality of Sidexis 4 is assigned to different work phases, which will typically be run through when preparing a dental diagnosis using imaging systems. Sidexis 4 therefore helps you to keep an overview.

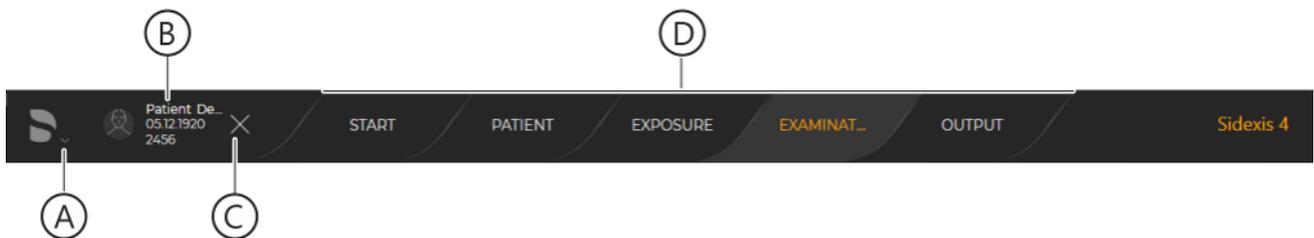


User interface

A	System menu
B	Registered patient
C	Title bar
D	Phase bar
E	"Tools" docking window (only in the "Examination" work phase)
F	Diagnosisdocking window (only in the "Examination" work phase)
G	Work area
H	Media window (if an image is open)
I	Status bar

J	Work area bar You can switch between the work areas opened in the session via tabs.
K	"Workspaces" tab for displaying the work area bar (J).
L	Gallery docking window (only in the "Light box" and "Compare" work areas of the "Examination" work phase)
M	Session gallery docking window (only in the "Exposure", "Examination" and "Output" work phases)

5.1 Header line



Title bar

A	System menu
B	Currently registered patient
C	Check out patient
D	Phase bar

The currently registered patient (J) and the button for checking out a patient (K) are only displayed if a patient is registered.

You can define which information about the currently registered patient (J) is displayed in the title bar in the "Patient settings"/"Patient display" configuration menu.

5.2 The phase bar



Phase bar

The phase bar contains five buttons.

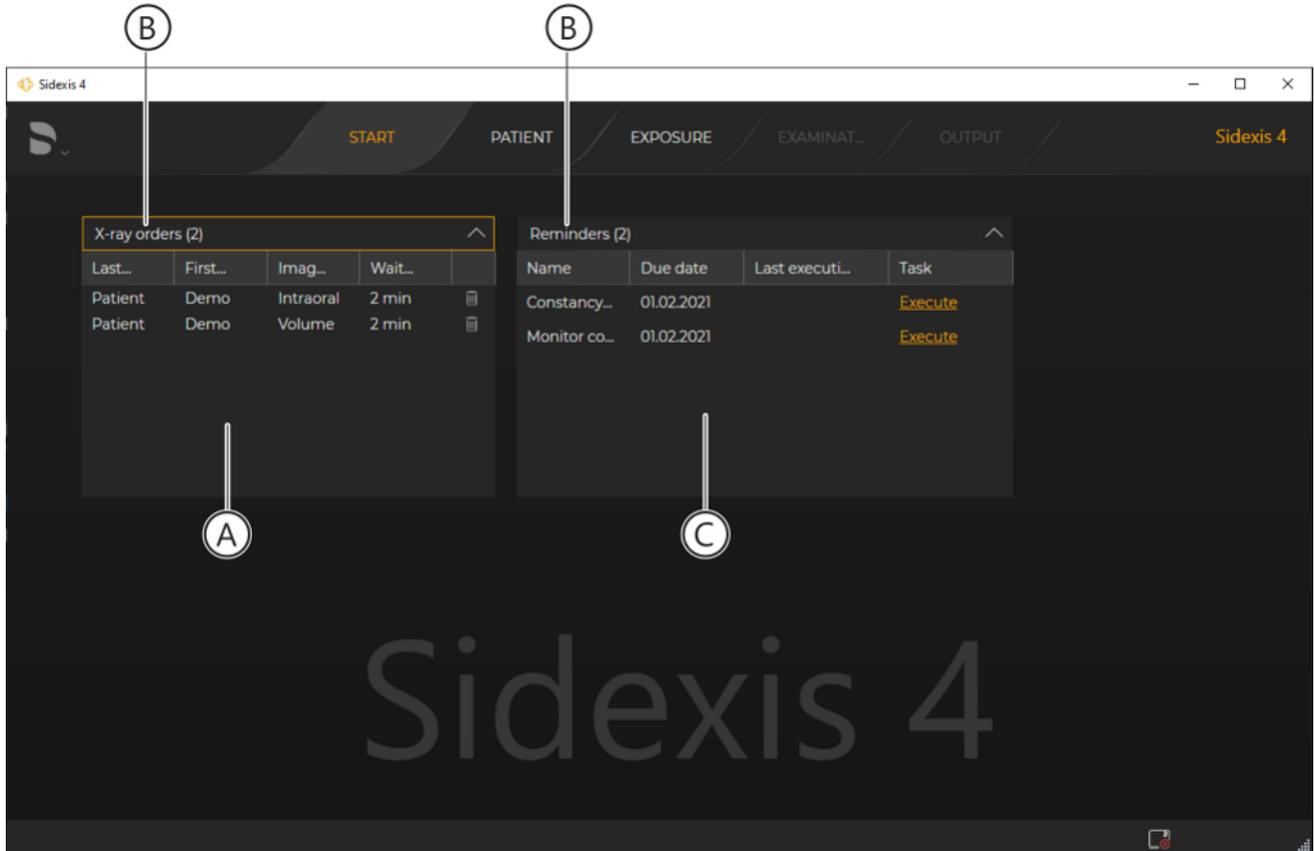
Button/work phase	Function
"Start"	Start window / Order list / Reminder list
"Patient"	Manage patient data
"Exposure"	Create digital X-ray exposures / Import media items
"Examination"	Analyze and diagnose media items
"Output"	Export media items and findings

By clicking on the phase bar buttons you can access the corresponding work phase.

5.2.1 "Start" work phase

Selection: Click on the "Start" button or the [F12] shortcut

The "Start" work phase is opened automatically when Sidexis 4 is restarted.



"Start" work phase

A	Order list
B	Number of open orders
C	Reminder list

In the "Start" work phase, open X-ray orders are displayed in the order list [→ 26] along with important reminders [→ 26].

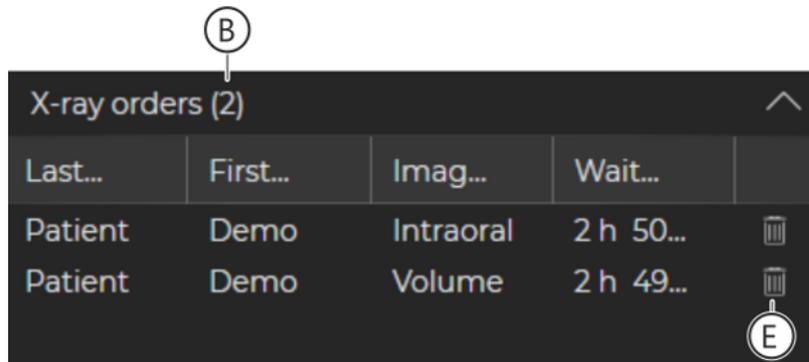


Collapsing and expanding lists

The lists can be expanded and collapsed by clicking on the arrows (D).

5.2.1.1 Job list

If you work with central Practice Administration Software (PAS) in your practice, the X-ray exposures are created in the PAS and sent from there to Sidexis 4. The orders then appear in the order list.



Last...	First...	Imag...	Wait...	
Patient	Demo	Intraoral	2 h 50...	
Patient	Demo	Volume	2 h 49...	

Order list

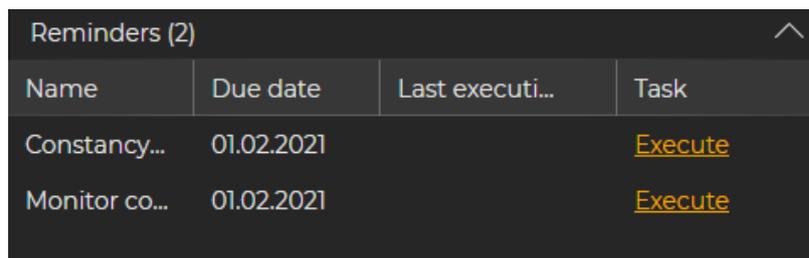
The order list shows you the open X-ray orders with patient name, image type and wait time since the order was created. The number in parentheses (B) indicates the number of open orders.

By double-clicking on an entry in the list you are taken directly to the "Exposure" work phase.

By clicking on the recycle bin icon (E), orders can be deleted from the list.

You can find more detailed information on the order list in section "Managing jobs".

5.2.1.2 Appointment list



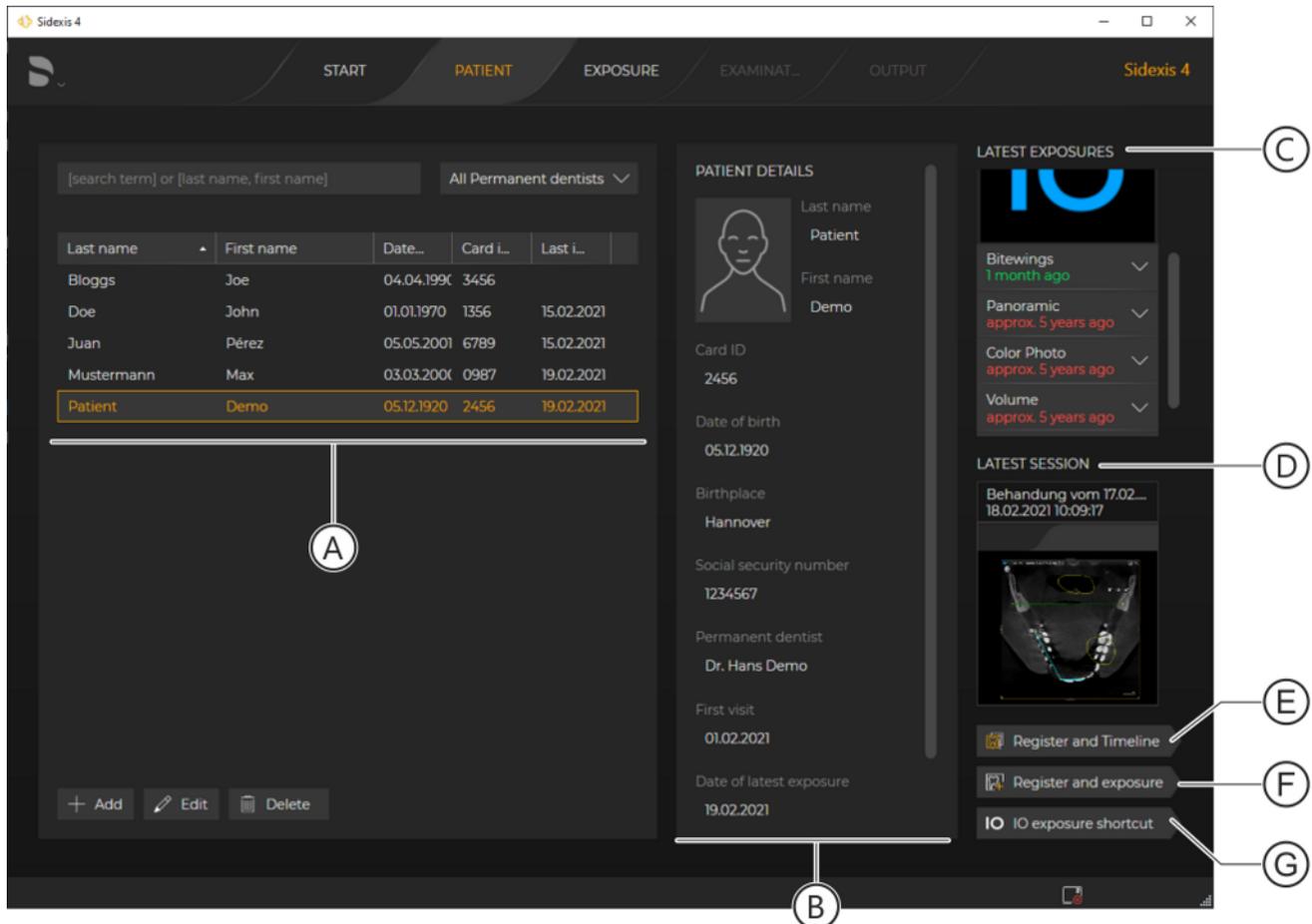
Name	Due date	Last executi...	Task
Constancy...	01.02.2021		Execute
Monitor co...	01.02.2021		Execute

Reminder list

The reminder list gives you important reminders. The reminders can be defined via the "Reminders" configuration menu.

5.2.2 The "Patient" work phase

Selection: Click on the "Patient" button



"Patient" work phase – Patient table and patient details

A	Patient table
B	Patient details
C	Latest exposure (per media item type)
D	Latest session
E	Register patient and switch to the "Timeline"
F	Register patient and switch to the "Exposure" work phase
G	Register patient and switch directly to the configured intraoral exposure ("Exposure" work phase).

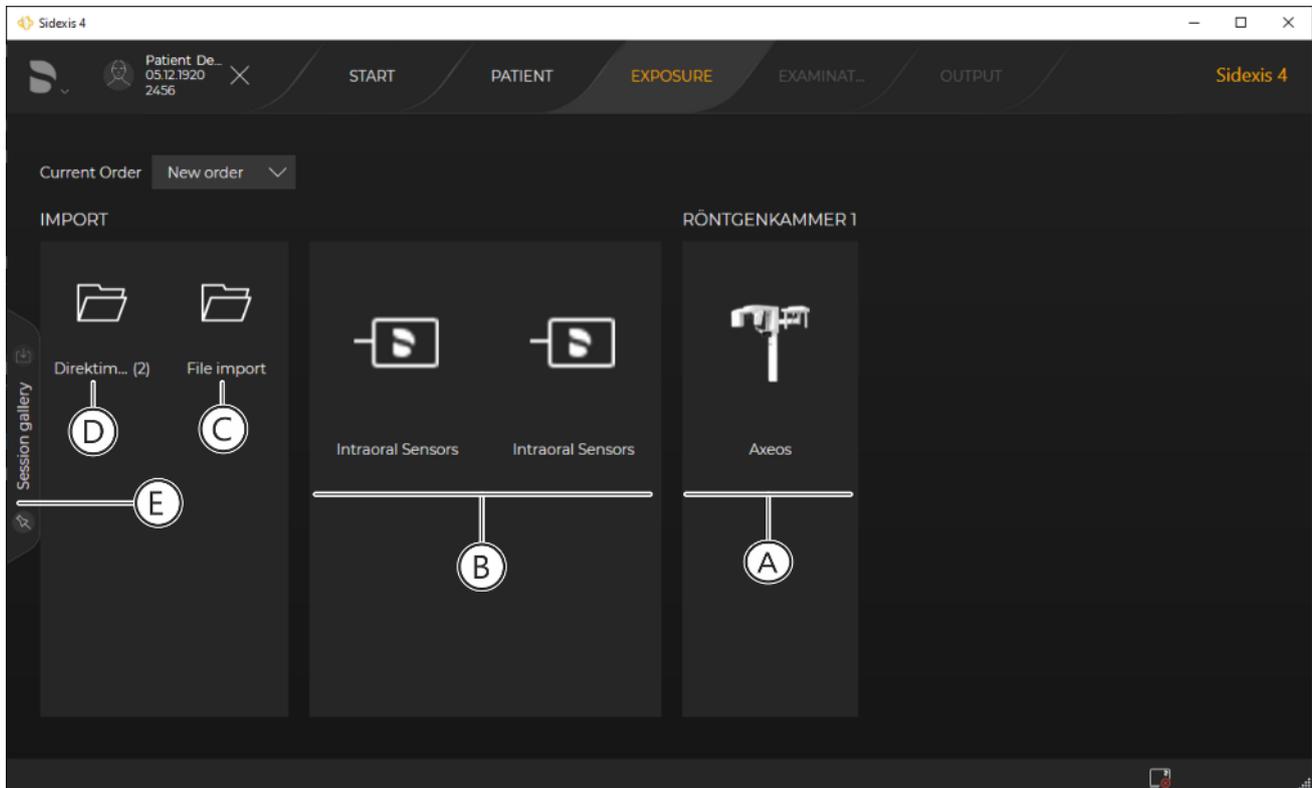
In the "Patient" work phase, patient data saved in the Sidexis 4 database is displayed in table form.

By selecting a patient with a mouse click on the corresponding line in the patient table (A), the patient details (B) belonging to that patient, the last X-ray exposures taken (C) (if available), and the last patient session (D) are displayed. These can be opened by double-clicking on the corresponding image.

You can find detailed information on handling patient tables and patient data in section ""Managing patient data"".

5.2.3 The "Exposure" work phase

Selection: Click on the "Exposure" button



"Exposure" work phase

The exposure is prepared in the "Exposure" work phase. The X-ray devices (A) available in the network are displayed according to X-ray room. The assignment of devices to rooms can be configured during device setup.

Intraoral sensors (B) available in the network are shown separate from the X-ray devices but are not assigned to an X-ray room.

An import icon (C) is displayed in the "Import" menu area. If directory monitoring has also been set up, then the "monitored" folder (D) is also displayed.

A saved session can be loaded via the "Session gallery" docking window (see also section "Session gallery [→ 57]").

Depending on device type, the current status of the device is also indicated by a pictogram:

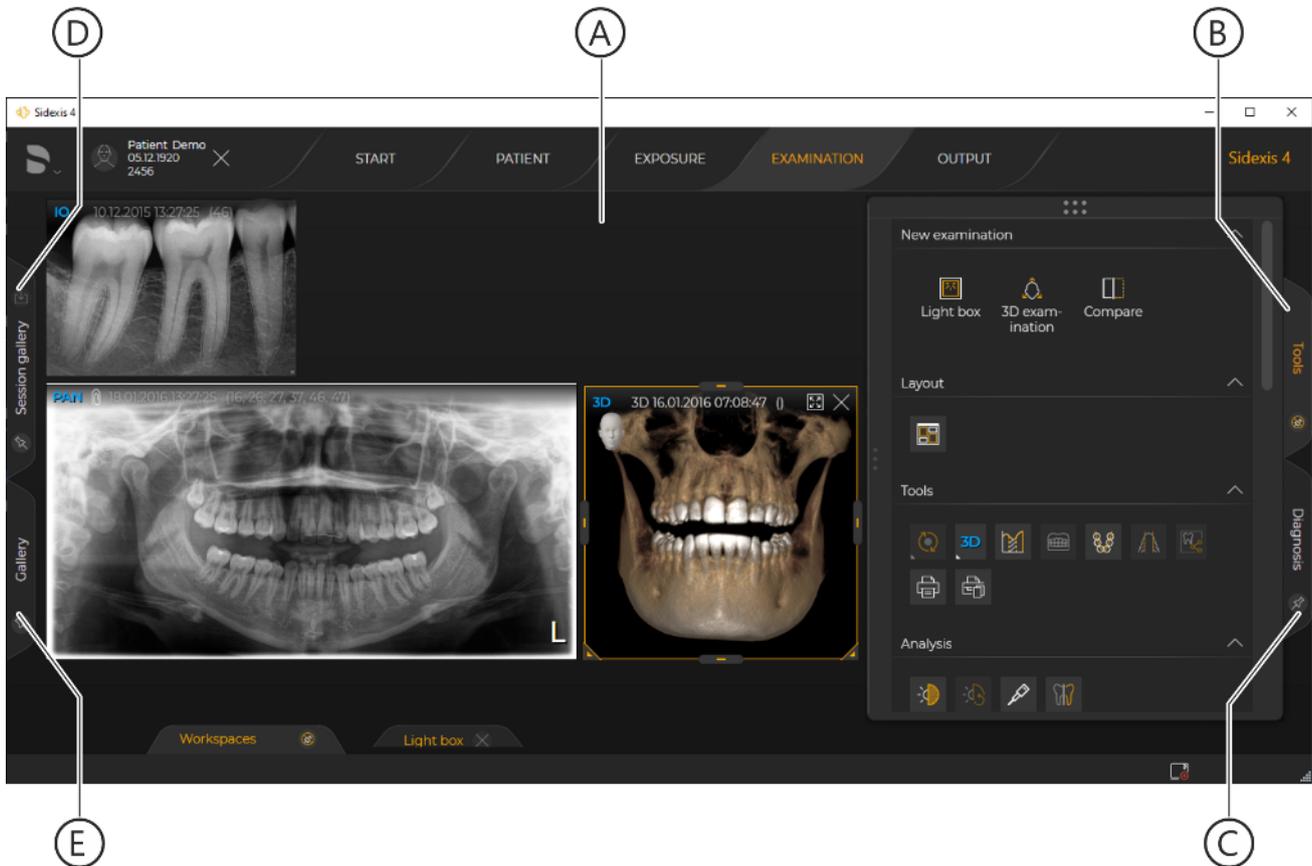
	Device is ready
	Device is in use
	Device unavailable
	Device unknown.
	Data could not be transferred to Sidexis 4 (rescue state)

By double-clicking on a device in the list, the corresponding dialog for preparing the exposure opens.

In addition to the functionality for creating exposures, image data from external sources can also be imported by double-clicking on the folder icons (C or D).

5.2.4 The "Examination" work phase

Selection: Click on the "Examination" button



"Examination" work phase

A	Work area
B	"Tools" docking window
C	"Diagnosis" docking window
D	"Session gallery" docking window
E	"Gallery" docking window

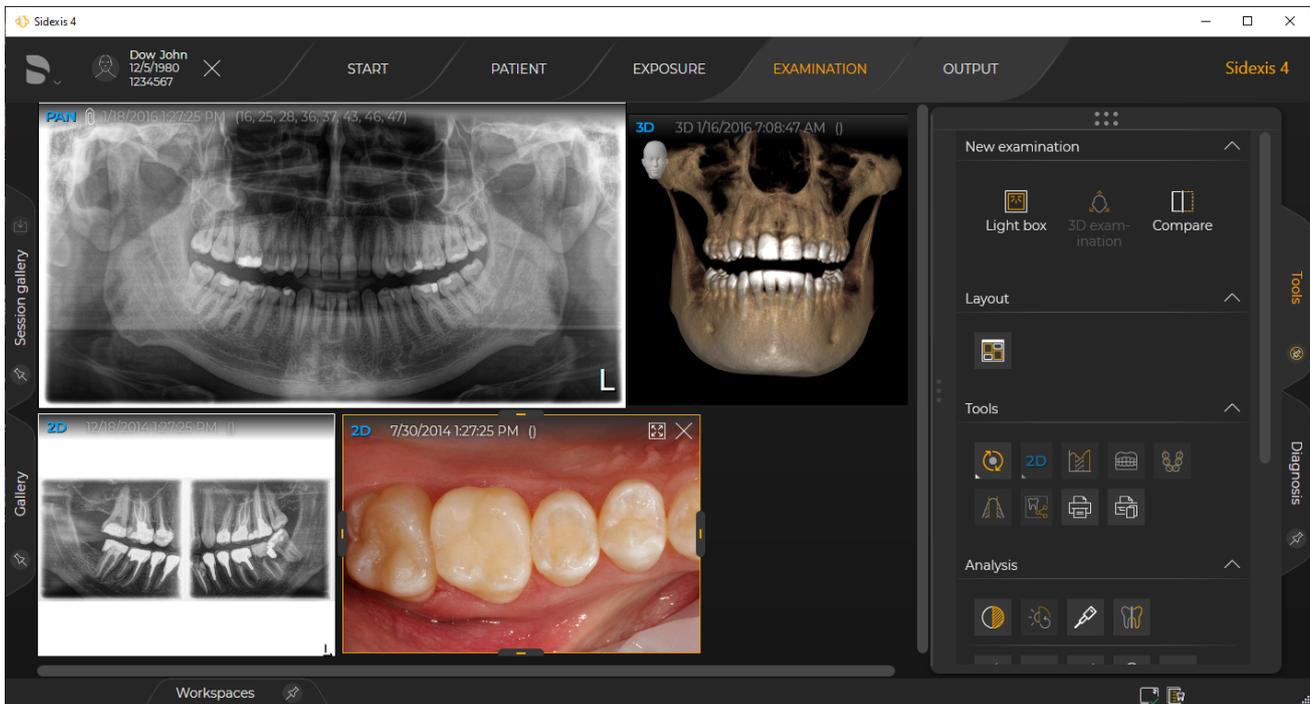
The analysis and diagnosis of image data takes place in the "Examination" work phase. In this phase, a wide range of tools are available to you for analyzing and diagnosing 2D images and 3D volumes. A 3D work area or a virtual light box can be selected as a work area (A), as well as another work area for comparing image data.

You can find detailed information on working in the "Examination" work phase in section "Analysis and diagnosis".

5.2.4.1 Work areas

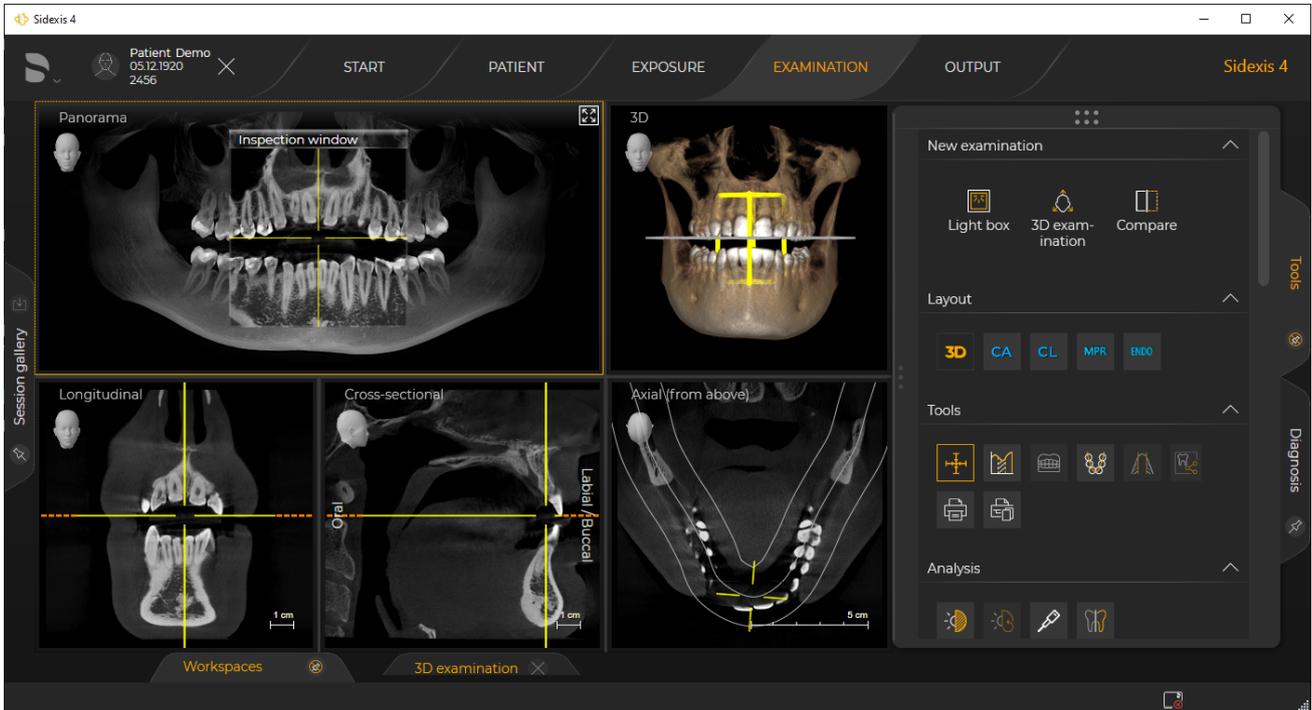
Sidexis 4 provides three different work areas for 2D images, 3D volumes, and section views:

- "Light box"
 - Displaying 2D images, 3D volumes, and their section views
 - Free positioning of windows possible
 - Automatic arrangement of all open media windows is possible through the "Automatic Layout" function [→ 37]
 - Windows do not correlate with one another and can be configured independently



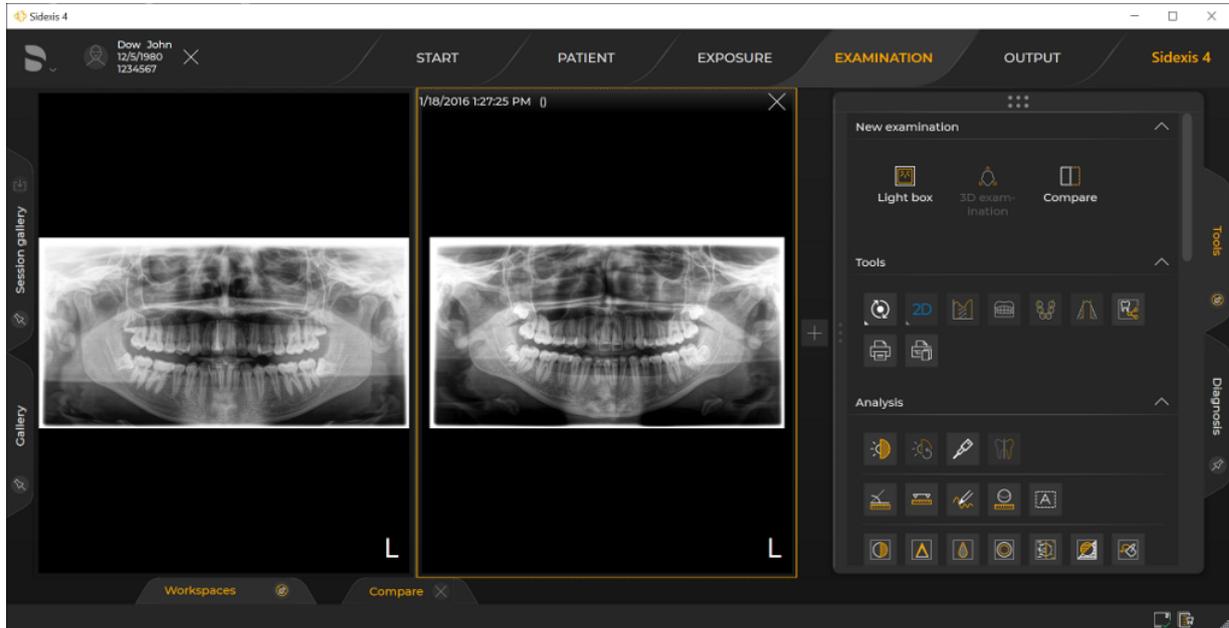
Example of displaying different 3D volumes, section views, and 2D images in the light box

- "3D examination"
 - Targeted display and editing of a 3D volume and its section views (no 2D images can be displayed)
 - Different standard layouts available (adjustments to window sizes possible)
 - Windows within a layout correlate with one another
 - By dragging the separation lines, the windows' size ratios can be adjusted; no free positioning of the windows is possible.

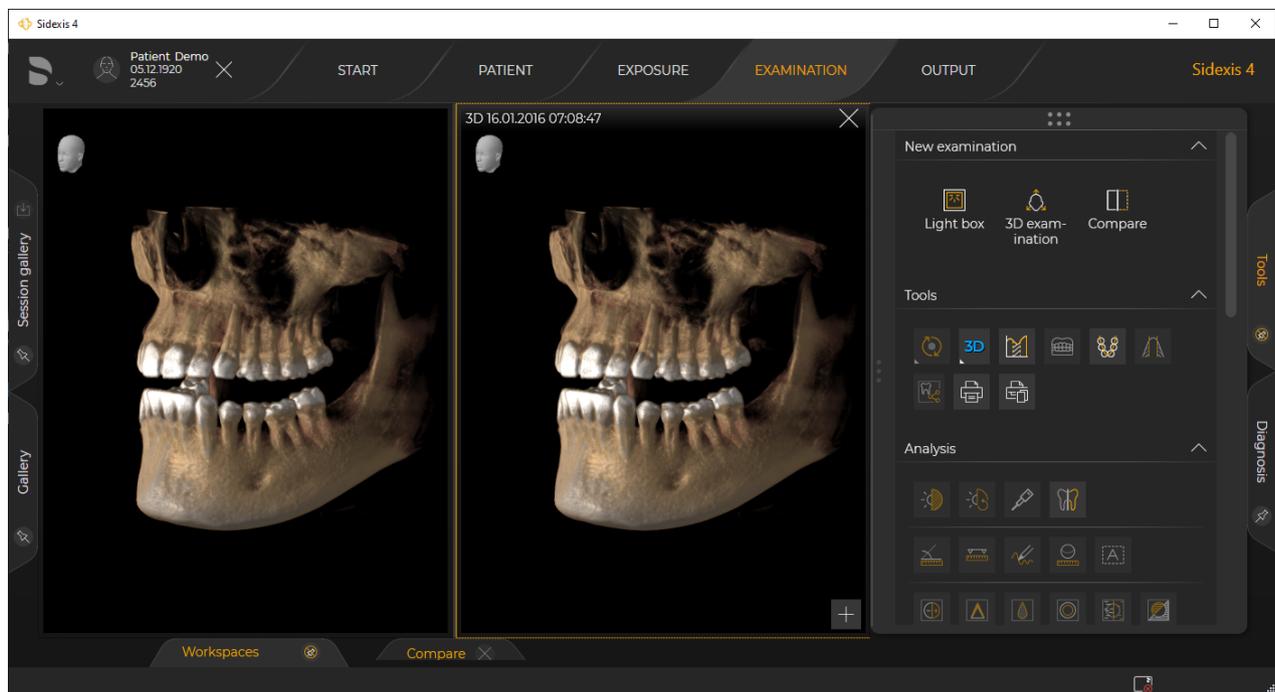


Example of displaying a 3D volume and its section views in the "3D examination" work area

- "Compare"
 - Comparison of a maximum of four 2D images, or two 3D volumes, or two section views
 - Images of the same type can be compared



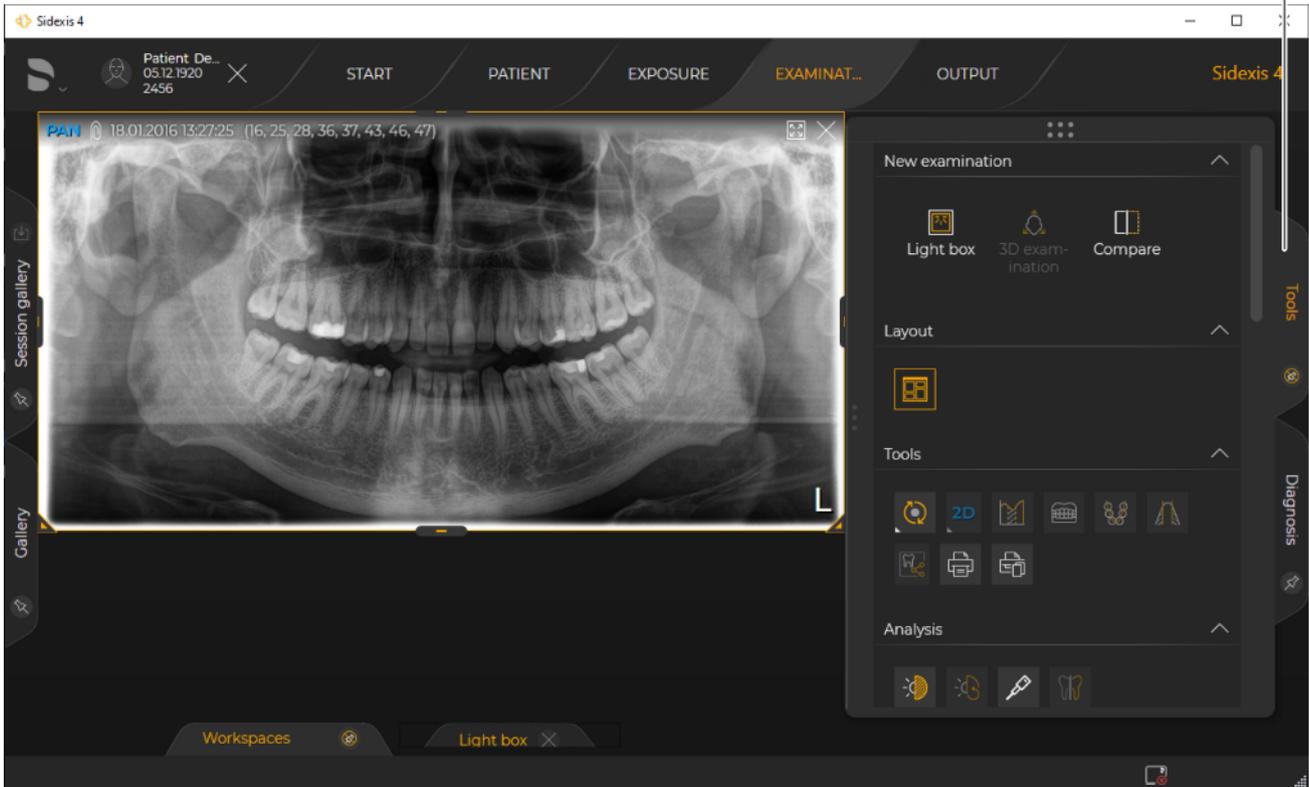
Example of a 2D image comparison in the "Compare" work area



Example of a volume comparison in the "Compare" work area

You can find detailed information on working in the different work phases in section "Analysis and diagnosis".

5.2.4.2 Tool kits



"Tools" docking window

The "Tools" docking window (A) offers you a wide range of functions for analyzing and diagnosing image data, which are arranged in different "tool kits":

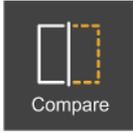
- "New examination"
- "Layout"
- "Tools"
- "Analysis" with annotations and filters
- "Annotations"
(only if the exposure selected in the work area contains annotations)
- "Surface data"
(only if surface data has been selected in the work area)
- "Info"

You can collapse and expand the tool kits by clicking on the title of the kit. To use the functions, click on the icons in the tool kits.

The "Tools" docking window can either be docked or floating. When docked, the docking window is fixed to the edge of the work area. You can find detailed information on working with docking windows in section "Docking window".

5.2.4.2.1 "New examination"

Opening new exams

Button	Function
 <p>Light box</p>	Opens media item in a new <i>"Light box"</i>
 <p>3D-Examination</p>	Opens volume in new <i>"3D examination"</i>
 <p>Compare</p>	Open media item in new <i>"Compare"</i> work area Only media items of the same type – i.e. two 3D volumes, section views, or up to four 2D images – can be compared with each other.

Interfaces to other programs/work areas

Button	Function
 <p>GALILEOS Implant</p>	Start GALILEOS program/work area. The button is only displayed if the GALILEOS Implant program has been installed and a 3D volume selected.
 <p>SICAT SUITE</p>	Start SICATSUITE program/work area. The button is only displayed if the SICATSUITE program has been installed.

5.2.4.2.2 "Layout"

The "Layout" tool kit is only available if the "3D examination" or "Light box" work area is selected in the "Examination" work phase.

"3D examination" work area

Button	Function	Section views
	Display 3D volume in the panoramic layout	<ul style="list-style-type: none"> • Panorama scene • 3D scene • Tangential • Longitudinal [→ 169] • Axial (top view)
	Display 3D volume in the ceph a.p./p.a. layout	<ul style="list-style-type: none"> • Ceph a.p./p.a. • 3D scene • Axial (top view) • Sagittal (from right)
	Display 3D volume in the ceph lateral layout	<ul style="list-style-type: none"> • Ceph lateral • 3D scene • Axial (top view) • Coronal (front view)
	Display 3D volume in the MPR/radiology layout	<ul style="list-style-type: none"> • Axial (top view) • 3D scene • Coronal (front view) • Sagittal (from right)
	Display 3D volume in ENDO layout	<ul style="list-style-type: none"> • Axial (top view) • 3D scene • Coronal (front view) • Sagittal (from right)

After selection, the button for the selection is disabled because the corresponding mode is already selected.

"Light box" work area

Button	Function
	Arrange media windows in the "Light box" automatically

The selected button "Automatic Layout" is highlighted orange. Provided the button is highlighted orange, the media windows are arranged in the light box in the automatic layout. If a media window is selected and moved manually, the button is automatically deselected and the highlighting disappears.

By clicking on the "Automatic Layout" button once more, the function can be re-activated.

5.2.4.2.3 "Tools"

Light box The following buttons are available as tools in the Light box or 3D examination:

Button	Function	Note
	Rotate and flip	Only available for 2D images and photos
	Rotate and flip ⇒ Submenu: Rotate 90 degrees clockwise	
	Rotate and flip ⇒ Submenu: Rotate 90 degrees counterclockwise	
	Rotate and flip ⇒ Submenu: Flip horizontally	Only available for photos and scans of the Xios Scan and Dürr Vistascan devices
	Rotate and flip ⇒ Submenu: Flip vertically	
	View selection <ul style="list-style-type: none"> • AX = Axial (top view) • SAG = Sagittal (from right) • COR = Coronal (front view) • TSA = Section view • LSA = Tangential • 3D = 3D • PAN = Panorama • CA = Ceph a./p. • CL = Ceph Lateral 	Only available for 3D scene and section views
	Transfer function editor	Only available for volume exposures in the 3D scene
	Surface data editor	Only available if surface data is available in the database

Button	Function	Note
	Volume corrections ⇒Submenu: Panorama curve editor (3D adjustment) (only available for volume exposures)	Only available for volume exposures
	Adjust gray value distribution and bone reference values	Only available for third-party volumes* *) Data records that originate from 3rd party manufacturers
	Send media item to communication partner (only available if communication partner has been configured)	This function is only available if communication partners have been configured.
	Print selected image	Clicking this button displays the print preview and the "Printing tools" docking window (see also section Printing)
	Print entire work area with all images	

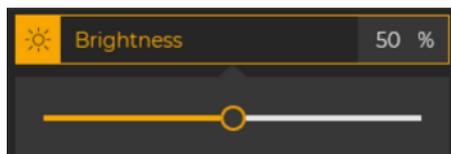
3D examination

Button	Function	Note
	Show/hide positioning aids	
	Transfer function editor	Only available for volume exposures in the 3D scene
	Surface data editor	Only available if surface data is available in the database
	Volume corrections ⇒Submenu: Panorama curve editor (3D adjustment) (only available for volume exposures)	Only available for volume exposures

Button	Function	Note
	Adjust gray value distribution and bone reference values	Only available for third-party volumes* *) Data records that originate from 3rd party manufacturers
	Send media item to communication partner (only available if communication partner has been configured)	This function is only available if communication partners have been configured.
	Print selected image	Clicking this button displays the print preview and the <i>"Printing tools"</i> docking window (see also section Printing)
	Print entire work area with all images	

5.2.4.2.4 "Analysis"

In the "Analysis" tool kit, you will find three different types of button:



- Buttons that when clicked provide a tool for examining the media items in the work area (e.g. the "Angle measurement." tool).
After clicking on / selecting the button...
 - the button is highlighted orange.
 - the mouse pointer changes (over the media windows).
 After clicking on the button once more, the button is deselected again and the corresponding tool is therefore also deactivated.
- Buttons that when clicked apply a function (e.g. the image filters). By clicking on these buttons more than once, the respective function is applied multiple times.
- Controls (see also section "Setting the brightness / contrast and tonal value through the dials"

Buttons

Button	Function	Note
	Set brightness and contrast via mouse-operated controls	Not available for 3D volumes (3D scene).
	Reset brightness and contrast for the selected image	Only available if the brightness and contrast were changed previously
	Measure density	Not available for the panorama scene or for volume exposures in the 3D scene
	Section plane	Only available for volume exposures in the 3D scene

Button	Function	Note
	Angle measurement	Only available for section images and cephalometric exposures
	Length measurement	
	Draw in freehand annotations "Freehand drawing" means free drawing with the mouse pointer.	
	Enter text annotations	
	Reference measurement	Only available for 2D images
	Use autocontrast	Not available for volume exposures in the 3D scene

Button	Function	Note
	Apply sharpening filter	Only available for grayscale images
	Apply smoothing filter	
	Apply relief filter	
	Apply noise filter	
	Invert image	
	Color image with false colors	
	Reset filters	

Controls

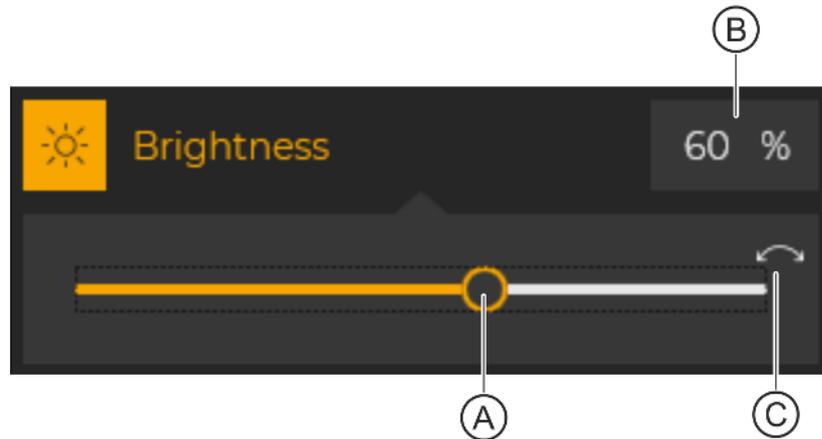
Controls	Function	Note
	Set brightness via a control	Not available for volume exposures in the 3D scene
	Set contrast via a control	
	Set tonal value via a control	

Controls	Function	Note
 An icon of a white bone with a yellow and black striped threshold line across its upper portion.	Set bone threshold value via a control	Only available for volume exposures in the 3D scene
 An icon of a white human head profile with a yellow and black striped transparency line across the face.	Set surface transparency (Facescan) via a control	

Using controls



1. Click on the button (A) of the control..
 - ↳ The control is activated.
 - ↳ A slider appears below the button.



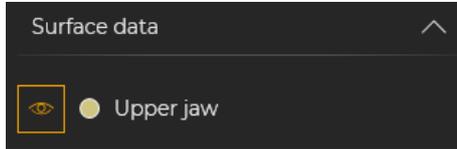
2. Move the mouse pointer over the dot (A) on the slider, press and hold down the left mouse button and move the dot horizontally.
 - ↳ The adjustment value changes.

You can also enter the value directly into the input field (B) using the keyboard.

By clicking on the white reset arrow (C) you can reset the changes again.

5.2.4.2.5 "Surface data"

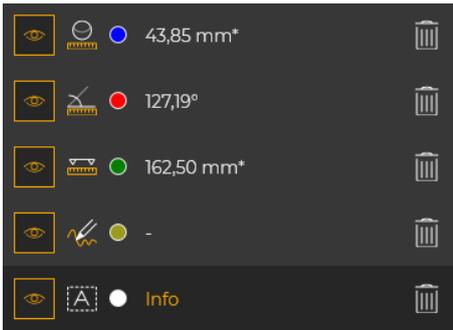
The "Surface data" tool kit is only displayed if surface data is selected in the work area.



All individual objects contained in the data are displayed in the "Surface data" tool kit. You can change the color of individual objects or hide them by clicking the buttons in the "Surface data" tool kit.

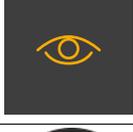
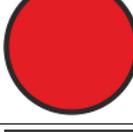
Button	Function
	Hide individual object
	Change the color of the individual object

5.2.4.2.6 "Remarks"



The "Annotations" tool kit is only displayed if annotations have been made in the currently selected window using the "Reference measurement", "Angle measurement", "Length measurement" or "Freehand annotations" tools.

All drawn in annotations are displayed in the "Annotations" tool kit. You can change the color of individual annotations or hide/delete them by clicking the buttons in the "Annotations" tool kit.

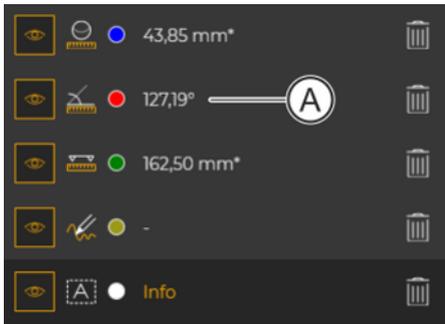
Button	Function
	Angle notation
	Length annotation
	Freehand annotation
	Text annotation
	Hide annotations
	Change color of annotations
	Delete annotations

Finding annotations in section views again

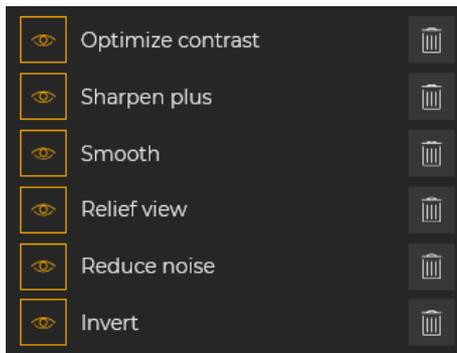
In section views, annotations are always drawn in the currently displayed section plane, and the ones adjacent to it. When navigating through the section planes the annotations may thus no longer be visible.

To find annotations again in the section views, proceed as follows:

- > Double-click on the area (A) of the desired annotation in the "Annotations" tool kit.
 - ↳ The section plane with the corresponding annotation is displayed again in the media window.



5.2.4.2.7 "Filter"



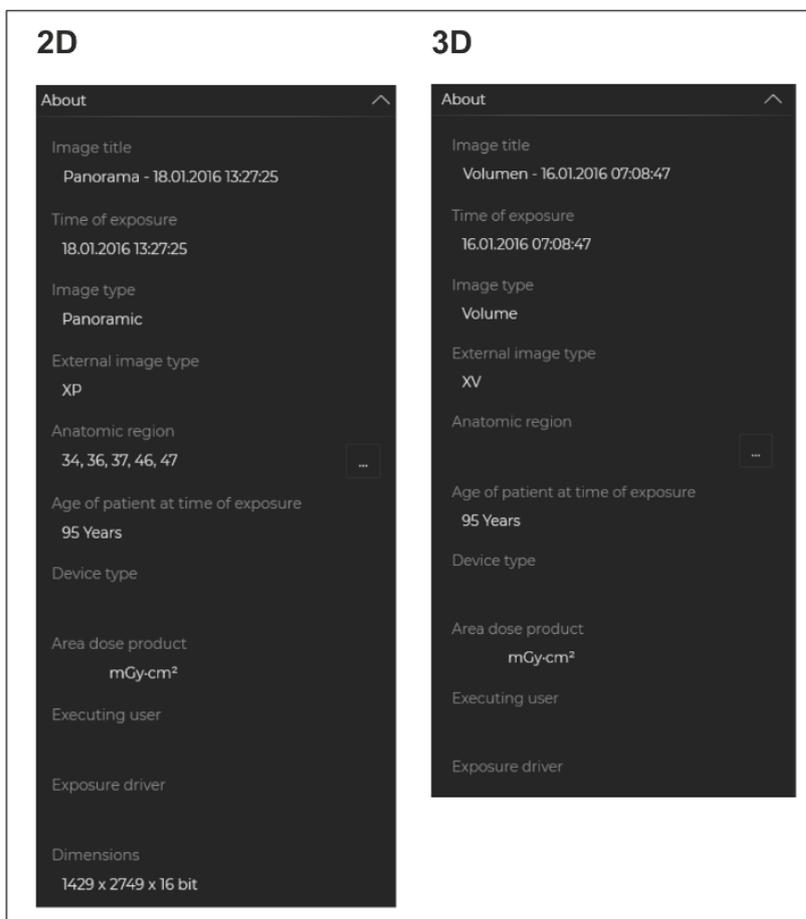
The "Filter" tool kit is only displayed if an image filter was applied previously.

All applied filter operations are displayed in the "Filter" tool kit. Individual filter operations can be hidden or deleted by clicking the buttons in the "Filter" tool kit.

Button	Function
	Hide filter operation
	Delete filter operation

5.2.4.2.8 "Info"

The "Info" tool kit provides information on the media item currently displayed in the examination and on the associated patient.



"Info" tool kit after selection of a 2D or 3D image

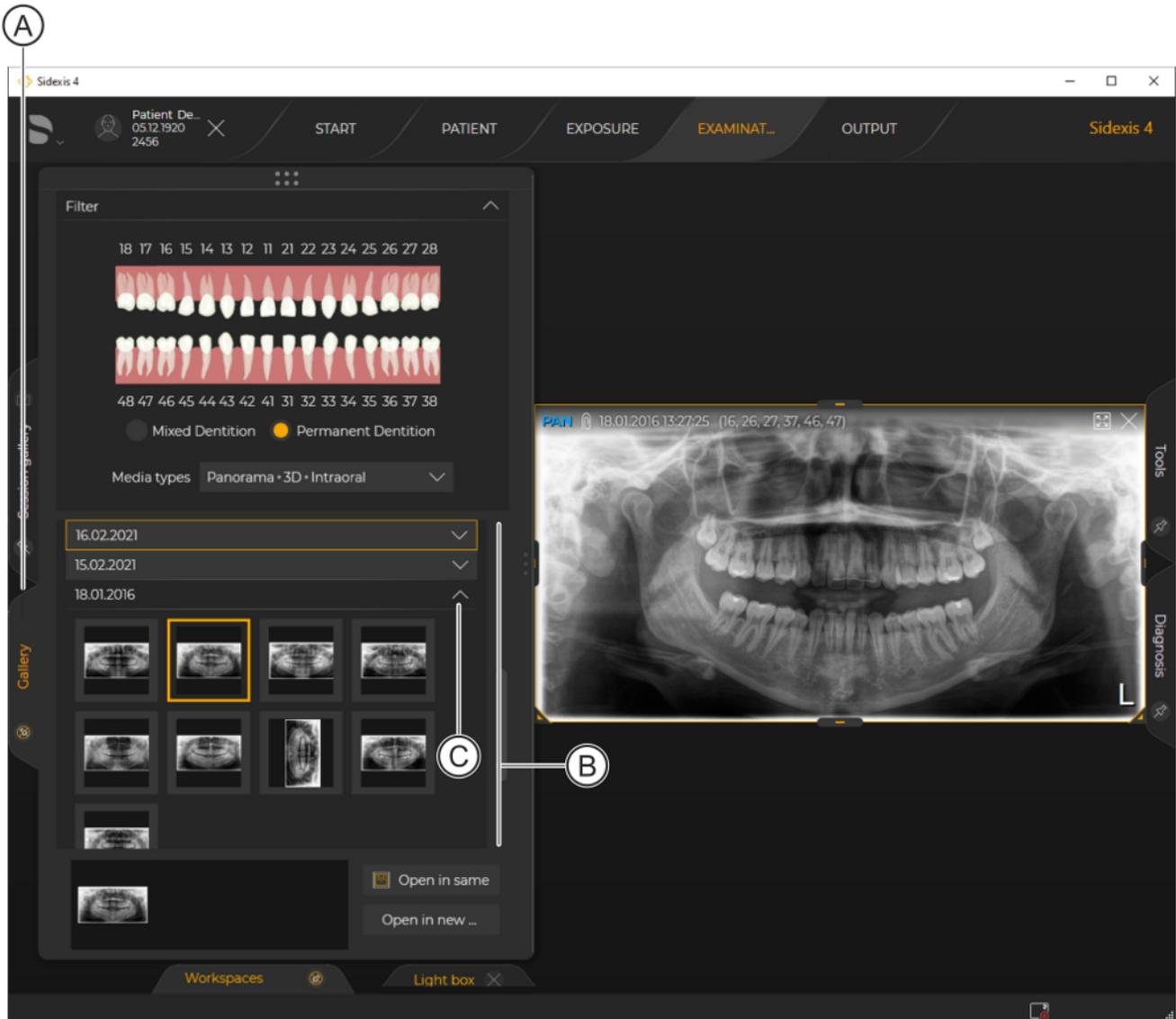
Different information is displayed depending on the media type.

Image title, anatomical region, and dose area product can be edited and changed in the "Info" tool kit.

1. To change the image title, click on the "Image title" and change it in the input field.
2. To change the "Anatomic region", click on the button with the 3 points.
3. To change the dose area product, click on the "Area dose product" (in front of the unit) and change it in the input field.

5.2.4.3 Gallery

You can use the "Gallery" docking window (A) to open media files (images, volumes, etc.) of the registered patient (from the database) in the "Examination" work area.

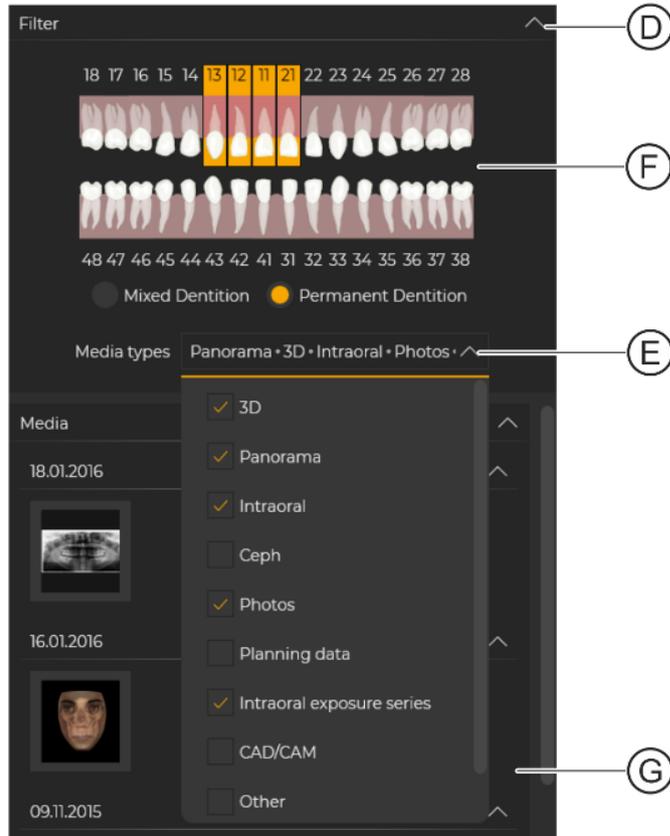


"Gallery" docking window

All images and exposures of a patient are displayed sorted by date (B) in the "Gallery" docking window. You can expand and collapse the view of the images for the respective date by clicking the arrow (C).

The following functions are available in the "Gallery":

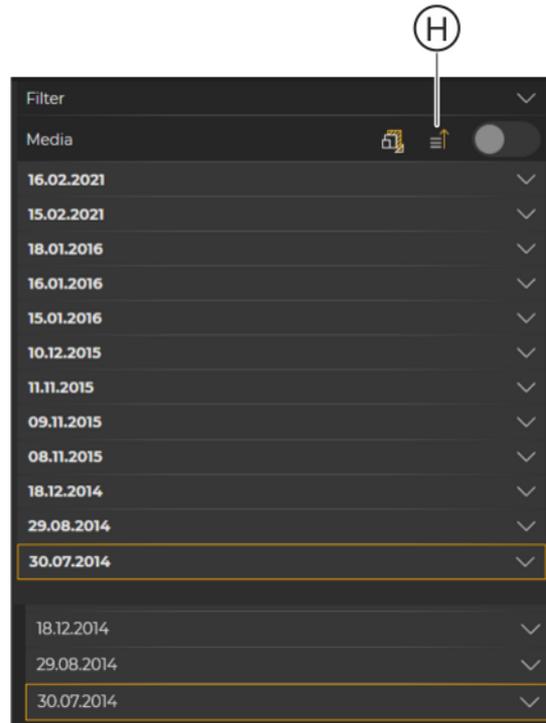
Filtering media files If there is a large number of media files, it may be useful to limit the displayed selection using a filter.



Filtering media list

1. Click on the arrow icon (D) to expand the "Filter" tab.
 2. Click on the "Media types" drop-down list (E) and click on the desired check boxes.
- or
- > Click on the desired teeth in the dental chart (F).
 - ↳ Now, only the files matching the filter criteria are displayed in the media list.

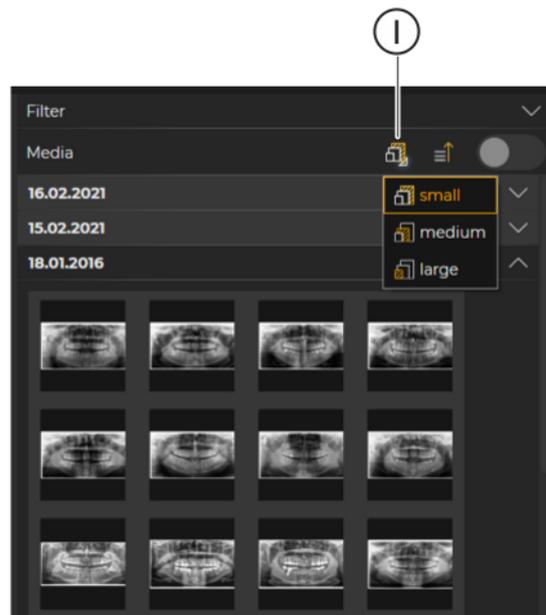
Sorting media list by date You can sort the media list by date in ascending or descending order.



Sorting media list

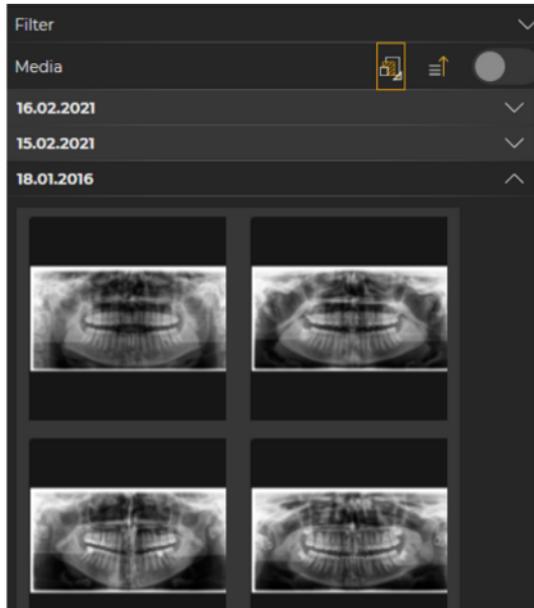
- > Click on the icon (H) in the "Gallery".
The orange arrow in the icon (H) indicates the sorting direction (ascending/descending).
- ↳ The media list is sorted.

Preview images You can choose the display size of the preview images in the gallery.



Changing size of preview images

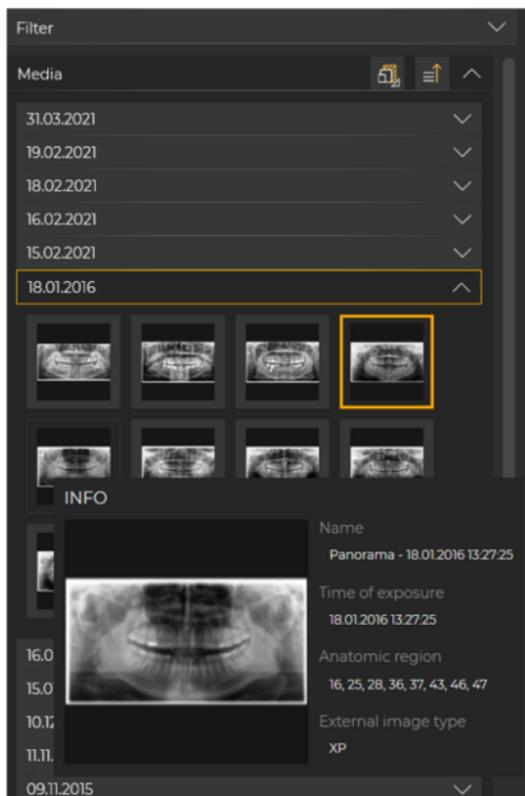
- Click on the icon (I) in the "Gallery" and select the display size for the preview images (small, medium or large).
 - ↳ The size of the preview images changes accordingly.



Size of preview images changed

Displaying image information

You can have the media information (media name, exposure date and time, and image type) displayed by hovering the mouse over a preview image. The image information is displayed for all media types.

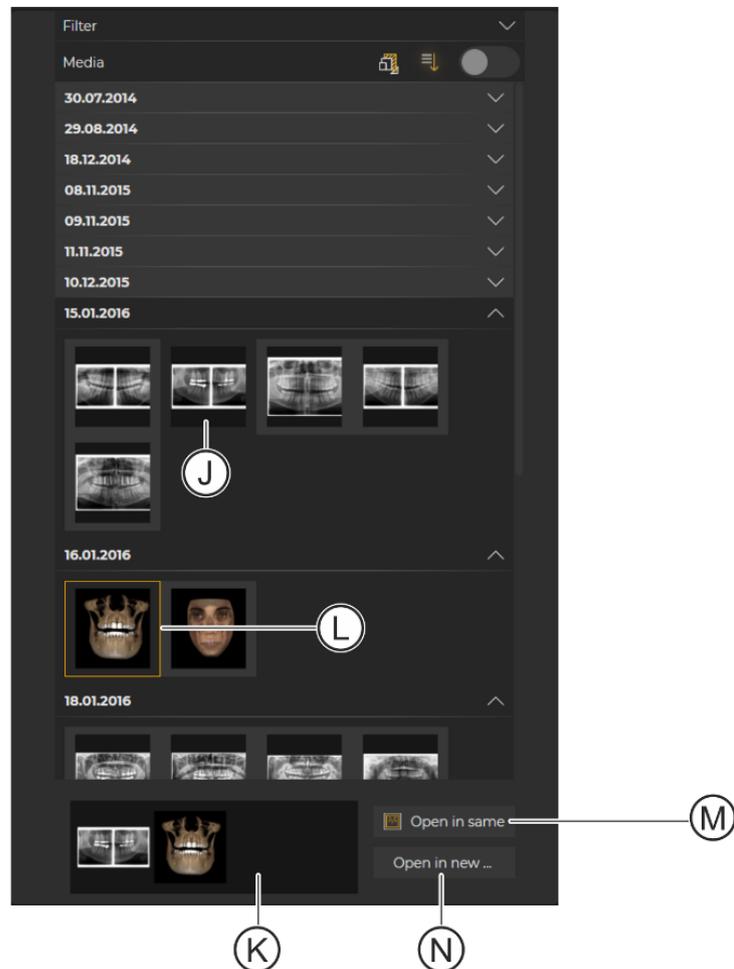


Displaying image information

Opening images in the "Examination" work area

You can select one or more media files in the "Examination" work phase via the "Gallery". There are various options for this:

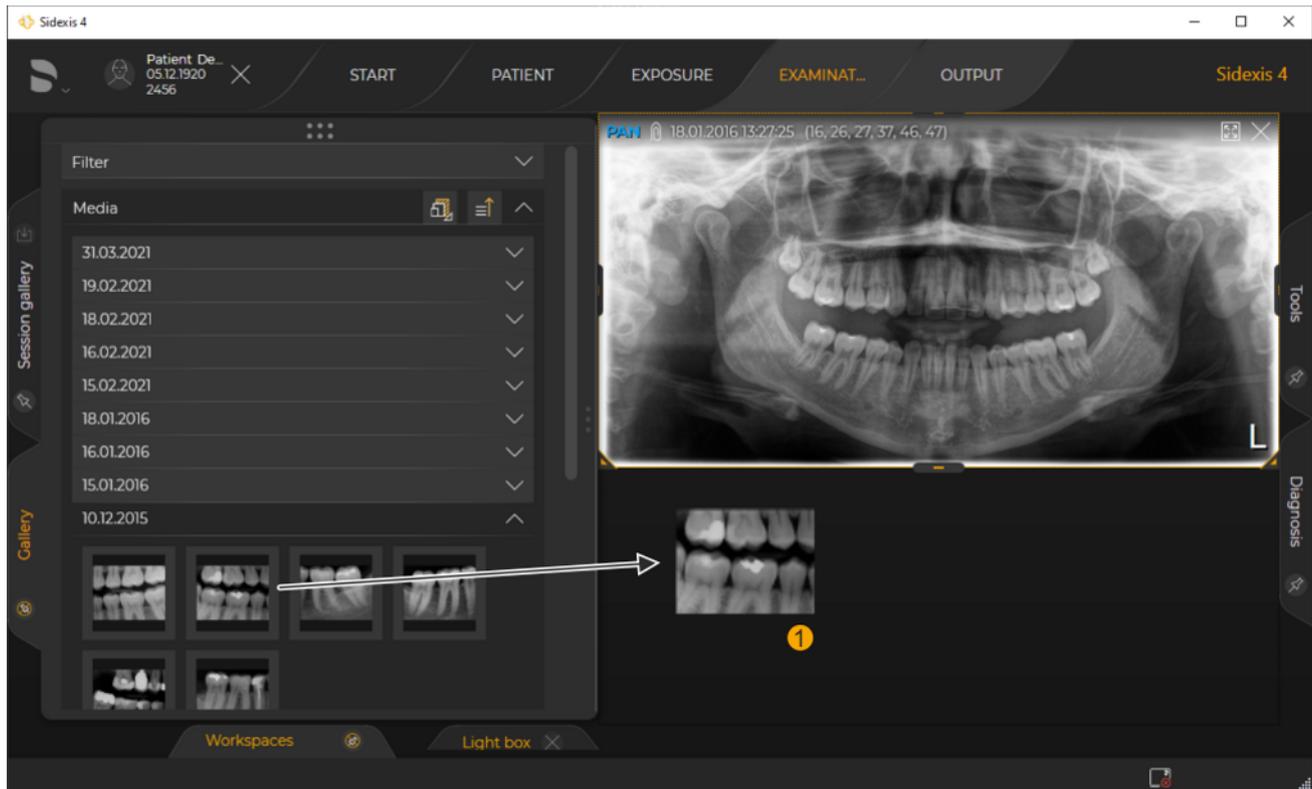
Using the clipboard of the "Gallery"



Opening media file using the clipboard

1. Click on a media file (J).
 ↳ The media file is copied to the clipboard (K).
 Clicking on the file again will remove it from the clipboard.
2. Repeat the action, if desired, for other media files (e.g. (L)).
3. When the clipboard contains all the desired media files, click the "Open in same..." button (M) or "Open in same..." button (N), depending on whether you want to open the files in the currently opened work area or in a new work area.
 If you open the files in a new work area, a selection window appears where you can select the type of work area ("Light box", "3D examination" or "Compare").

Using drag & drop



Opening a media file using drag & drop

- > Click on the media file and, with the left mouse button pressed, drag it to the currently open work area. Then release the mouse button.
 - ↳ The file is opened in the work area.

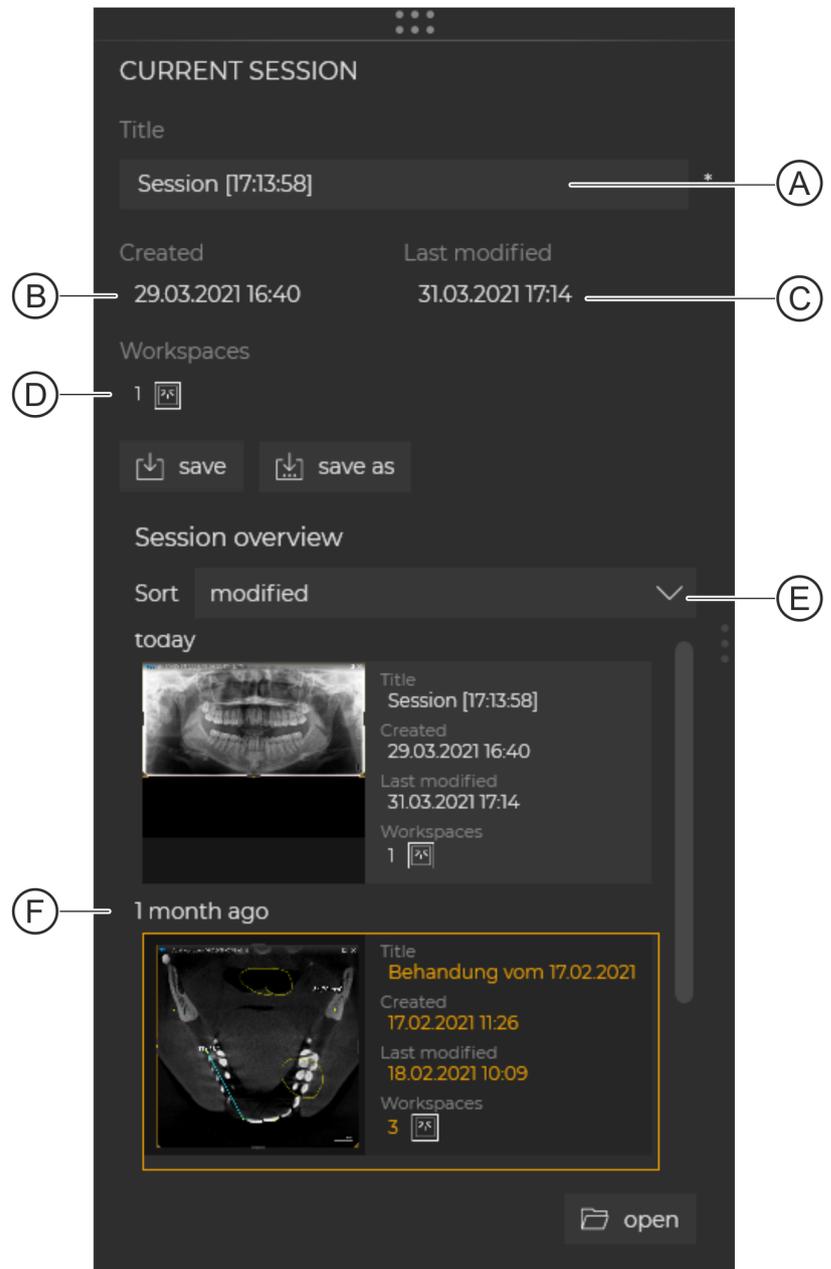
You can expand and collapse the "Gallery" by clicking on the title of the docking window.

You can expand and collapse the "Gallery" by clicking on the title of the docking window.

The "Gallery" docking window can either be docked or floating. When docked, the docking window is fixed to the edge of the work area. You can find detailed information on working with docking windows in section "Docking window".

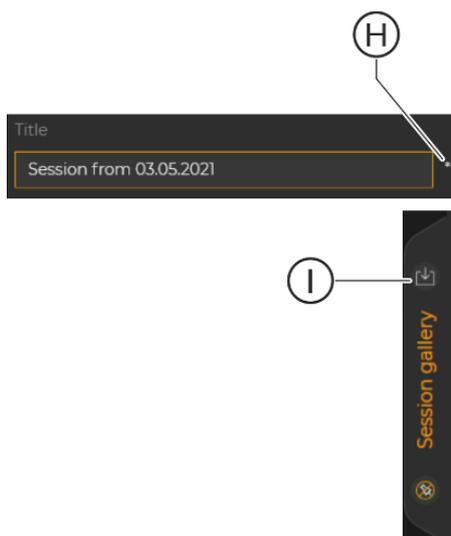
5.2.4.4 Session gallery

The "Session gallery" docking window provides a convenient option for renaming, saving and opening patient sessions.



"Session gallery"

A	Name of the current patient session	
B	Creation date of the current patient session	
C	Date of last change to the current patient session	
D	Number of work areas available in the current patient session	
E	Drop-down list	Sort the saved patient sessions by the following criteria: – "Modified" – "Created"
F	Saved patient session in the session overview	
Buttons		
	"Save"	Save the current session
	"Save as"	Save the current session under a new name
	"Open"	Open the patient session selected in the session overview



As soon as you change something in the patient session, an asterisk (H) is displayed next to the "Name" input field in the "Session gallery" docking window. Both the "Save" button in the "Session gallery" docking window and the Save icon (I) in the tab of the docking window are enabled.

Saving patient session

- ✓ A patient is registered.
 - ✓ An "Examination" is open.
 - 1. Display the "Session gallery" docking window.
 - 2. Change the name of the patient session if necessary in the "Name" input field (A).
 - 3. Click on the "Save" button.
- or
- > Click on the Save icon (I) on the tab.
 - ↳ The patient session is saved.

Saving patient session under a new name

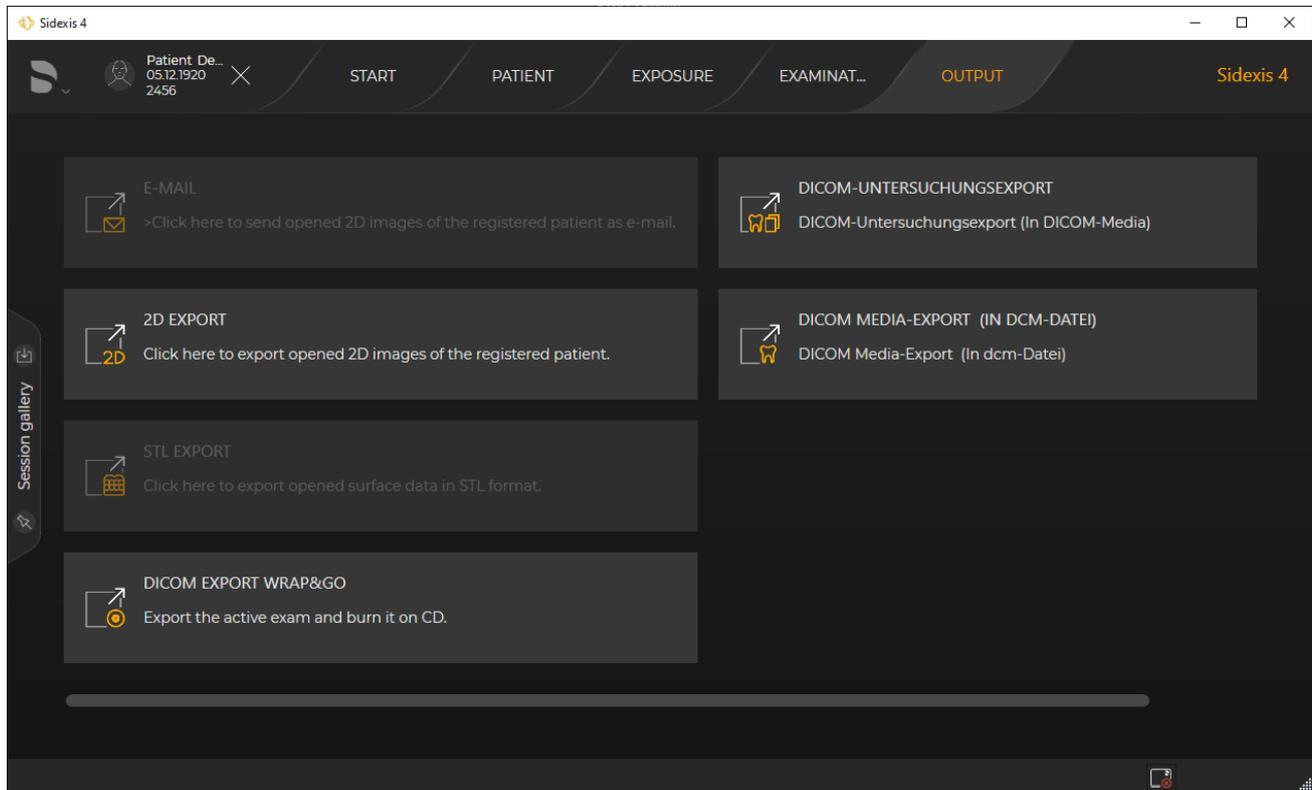
- ✓ A patient is registered.
- ✓ An "Examination" is open.
- 1. Display the "Session gallery" docking window.
- 2. Click on the "Save as" button.
 - ↳ The dialog for saving the current session opens.
- 3. Enter the desired name for the patient session in the input field (A) and click on the "Save" button.
 - ↳ The patient session is saved under the name entered.

Opening saved patient session

- ✓ A patient is registered.
 - ✓ At least one saved patient session is available.
 - ✓ The "Exposure", "Examination" or "Output" work phase is open.
 - 1. Display the "Session gallery" docking window.
 - 2. In the session overview, select the desired patient session and then click on the "Open" button or double-click on the patient session.
- or
- > Use drag & drop to move the patient session from the session overview to the Sidexis 4 user interface.
 - ↳ The patient session is opened in the "Examination" work phase.

5.2.5 The "Output" work phase

Selection: Click on the "Output" button

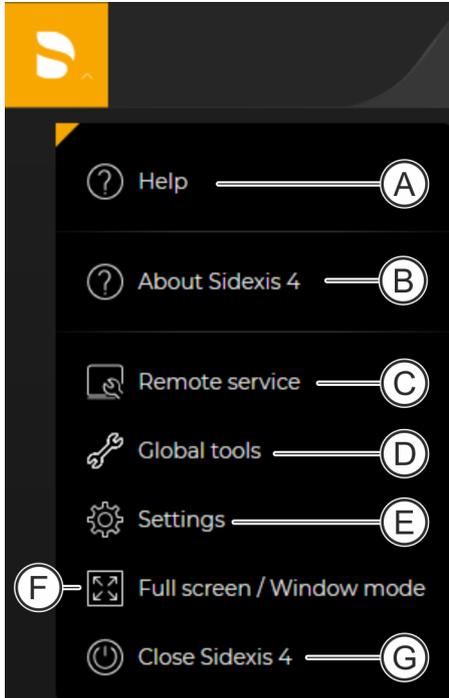


"Output" work phase

Media items can be exported or sent via email in the "Output" work phase.

5.3 System menu

You can use the system menu to perform general functions that are independent of the respective examination.



System menu

A	Open the Sidexis 4 Operator's Manual as PDF [-> 21]
B	Open program information
C	Start remote service [-> 61]
D	Open global system tools [-> 62]
E	Open configuration menu [-> 83]
F	Set full-screen / window mode
G	Close program

5.3.1 Starting remote service

If support is needed, the possibility exists to initiate a remote maintenance session with the customer via Teamviewer. You start the Teamviewer session with the "Remote service" button.

You can find more information about the functions for remote maintenance of the system in the "Sidexis4 Service manual" (REF 6799618).

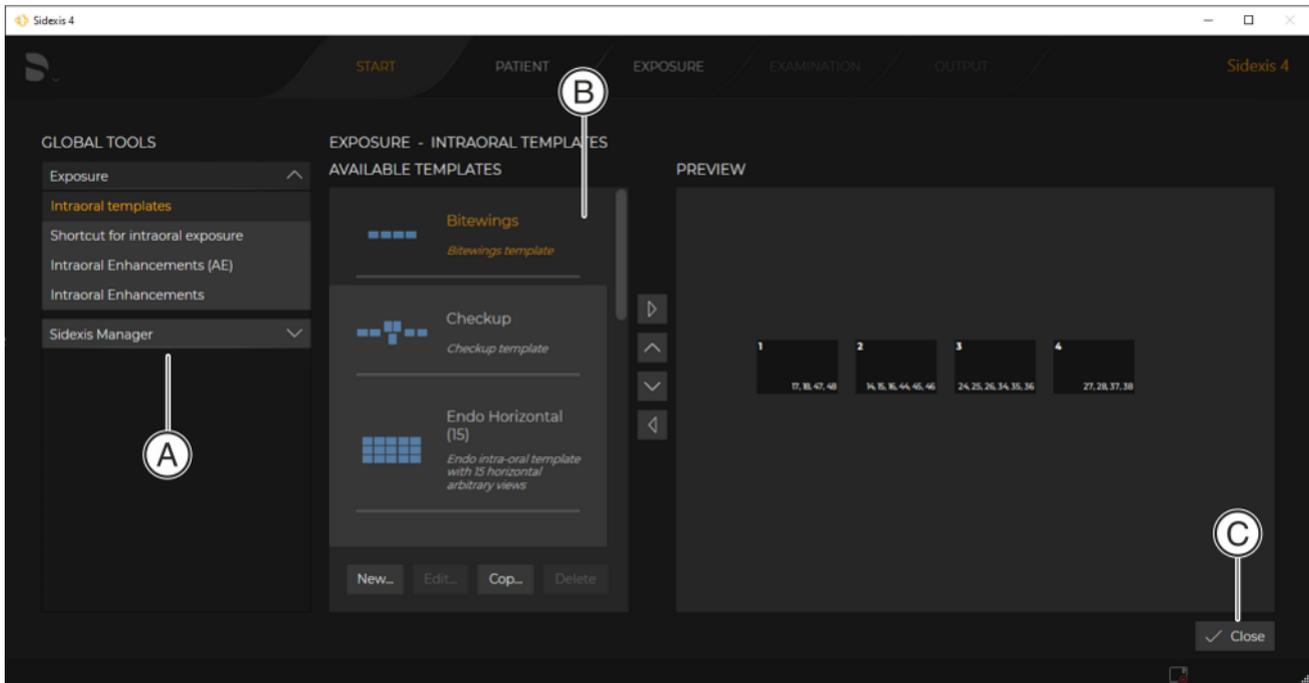
The release for remote maintenance must be carried out fully subject to the security mechanisms designated for that purpose. You can find more information on this in the following technical documents:

"White paper" European Union
"White paper" Rest of the world

- Sidexis4(V4.4) Whitepaper (REF 6798818)
- Sidexis4(V4.4) Whitepaper (REF 6798826)

5.3.2 Global tools

The "Global tools" menu provides you with tools for setting your Sidexis 4 system environment.



"Global tools" menu, e.g. "Intraoral templates" menu

A	Structure tree with buttons for menu selection
B	Selected menu
C	Close the "Global tools" menu

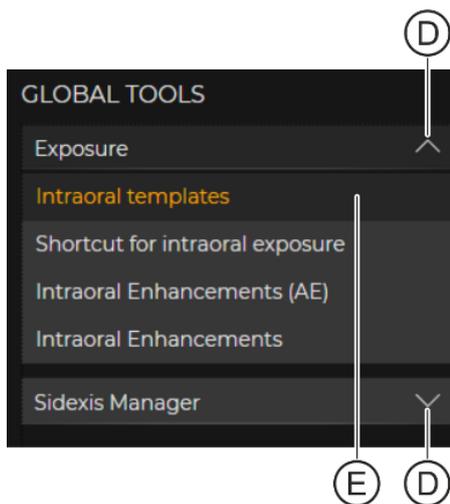
The menus for presetting the system are compiled into groups:

- "Exposure"
- "Sidexis Manager"

By clicking on the arrow (D) next to the group name (e.g. "Exposure"), the buttons (E) for the corresponding menu become visible.

Depending on which X-ray components or intraoral sensors are installed on the computer, various submenus can be displayed in this menu.

Clicking on a button opens the corresponding menu.



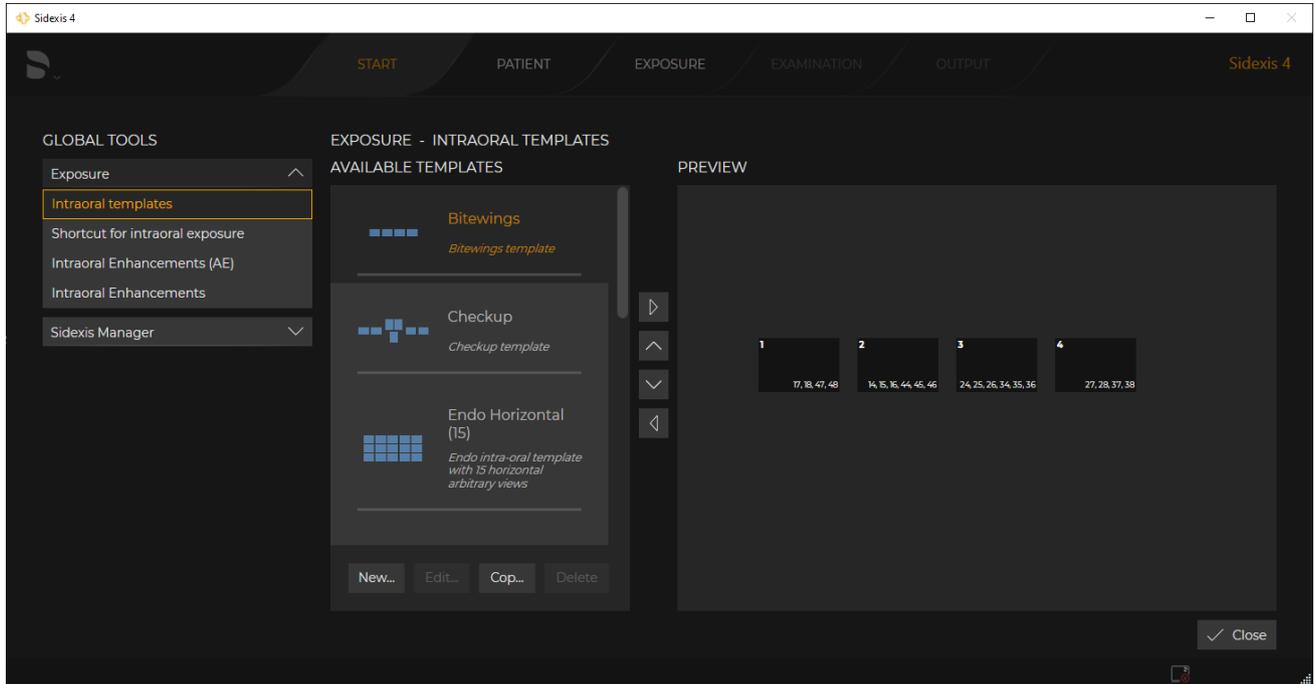
Close menu

To close the "Global tools" menu, click on the "Close" button (C).

5.3.2.1 "Exposure"

5.3.2.1.1 "Intraoral templates"

Management and configuration of templates for intraoral exposure series.

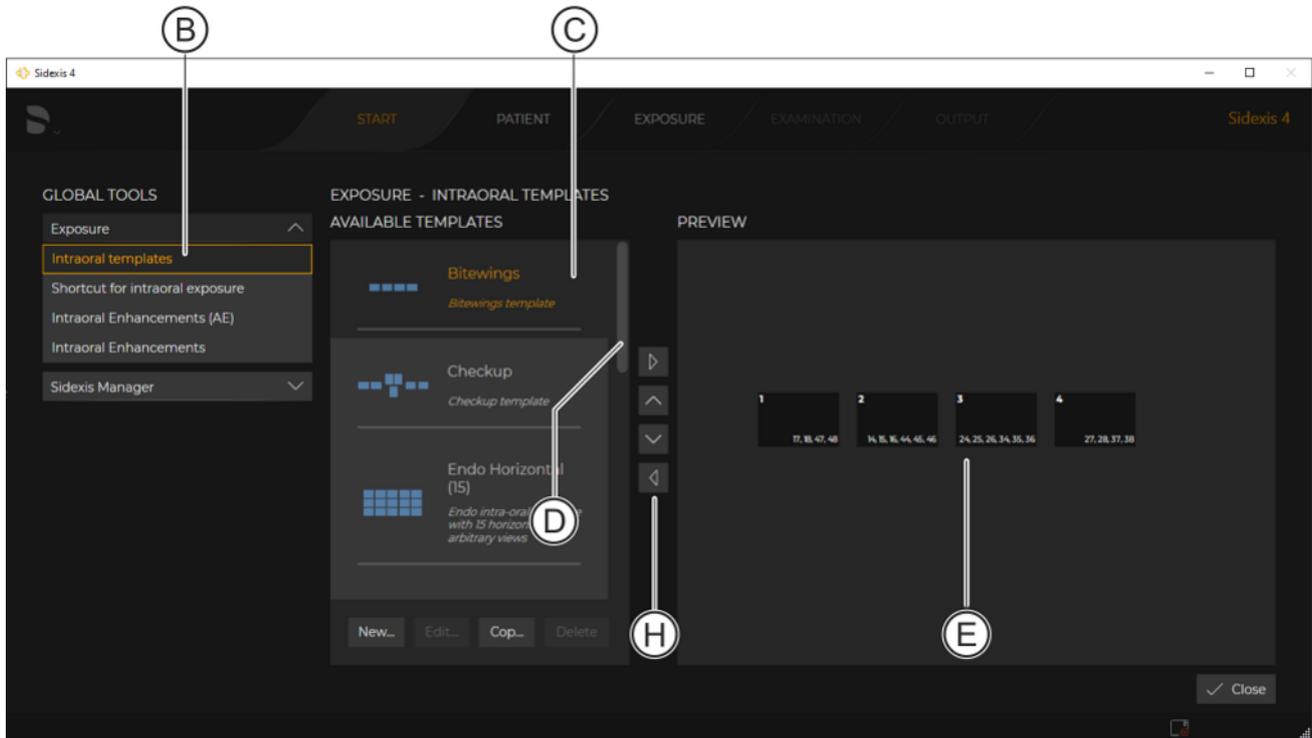


"Intraoral templates" menu

Button	Function
<i>"New..."</i>	Add an empty template to set up a new intraoral exposure series
<i>"Edit..."</i>	Open an existing template for editing. Not possible with standard templates.
<i>"Copy..."</i>	Copy the template of an intraoral exposure series.
<i>"Delete"</i>	Delete template of an intraoral exposure series. Not possible with standard templates.
	Move the selected template to the top position in the list.
	Move the selected template up one position in the list.
	Move the selected template down one position in the list.
	Move the selected template to the bottom position in the list.

5.3.2.1.1.1 Sort / delete templates

Sorting templates in the list



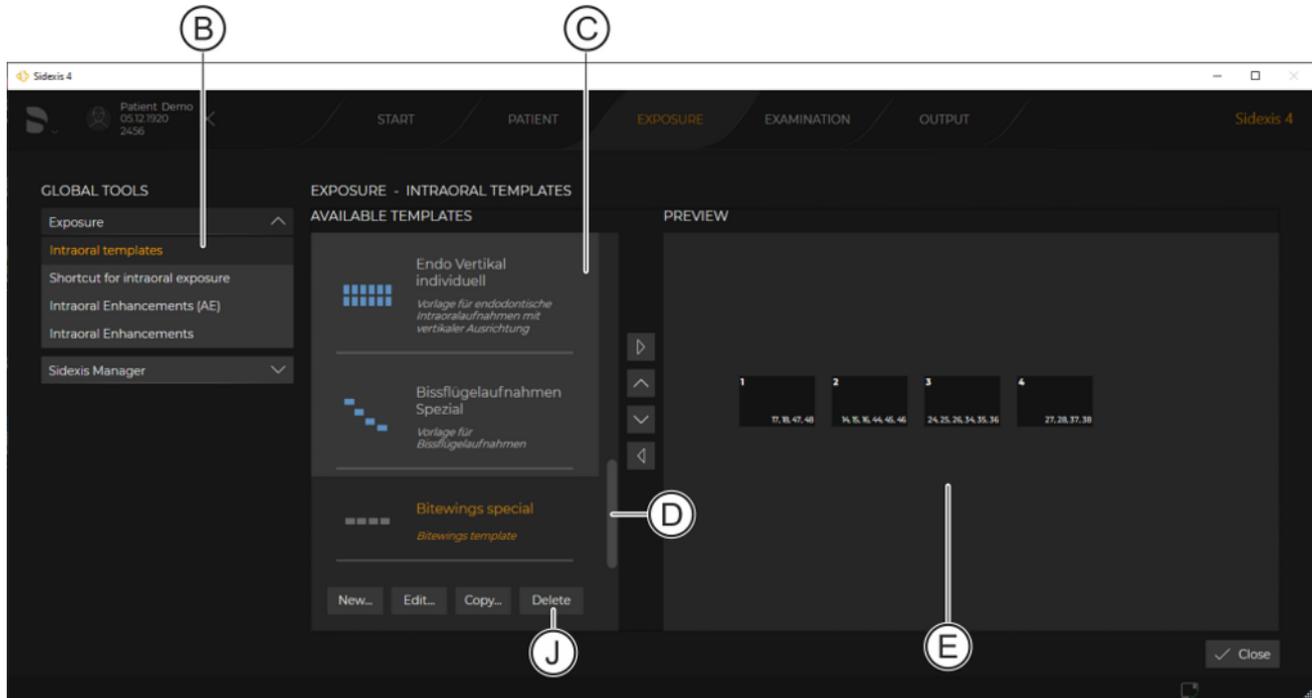
Sorting templates

	Move the selected template to the top position in the list.
	Move the selected template up one position in the list.
	Move the selected template down one position in the list.
	Move the selected template to the bottom position in the list.

- ✓ The "Intraoral templates" menu (B) is open.
- 1. Click the desired template (e.g. Bitewing Special) in the template list (C).
 - You can scroll up or down in the list using the scroll bar (D).
 - ↪ The selected template is highlighted orange.
 - ↪ The arrangement of the exposures in the "Light box" is displayed in the preview window (E).

2. Click on one of the arrow buttons (H) (see table).
↳ The template moves up or down in the list.

Deleting templates



Deleting templates

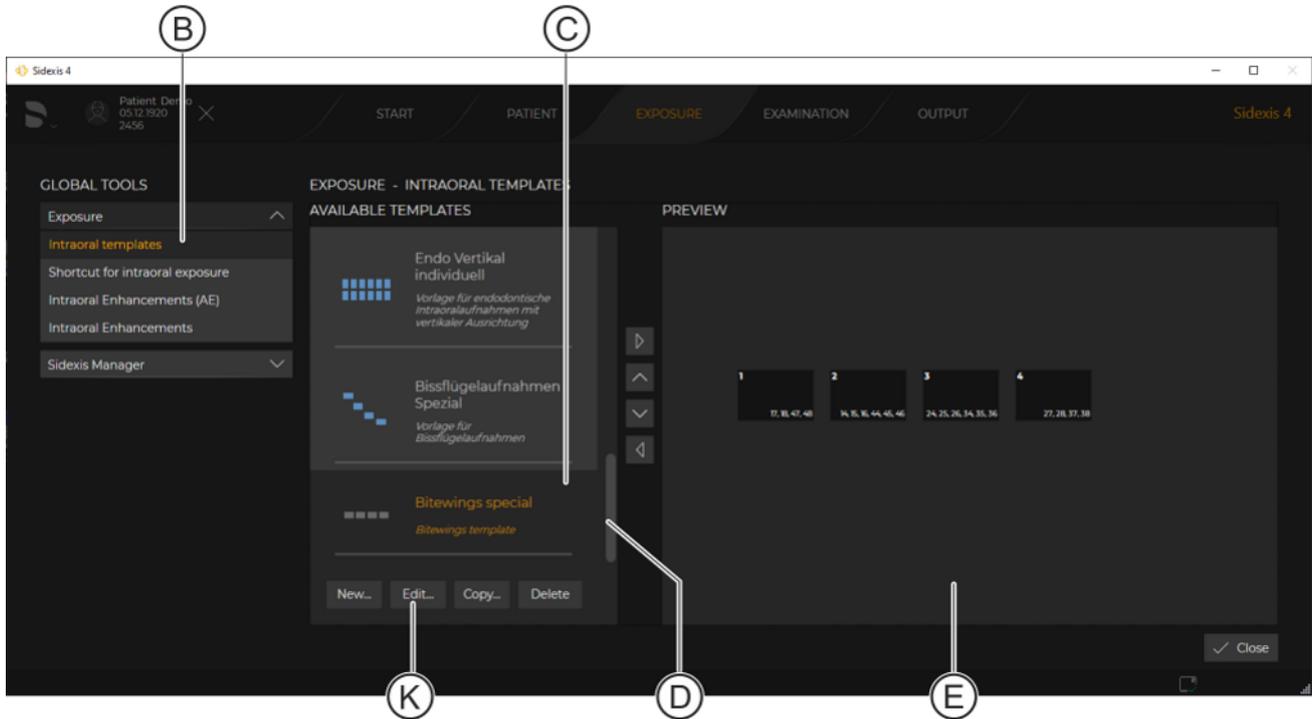
IMPORTANT: Standard templates cannot be deleted.

- ✓ The "Intraoral templates" menu (B) is open.
1. Click the desired template (e.g. Bitewing Special) in the template list (C).
You can scroll up or down in the list using the scroll bar (D).
↳ The selected template is highlighted orange.
↳ The arrangement of the exposures in the "Light box" is displayed in the preview window (E).
 2. Click on the "Remove" button (J).
↳ The template is deleted.

5.3.2.1.1.2 Edit templates

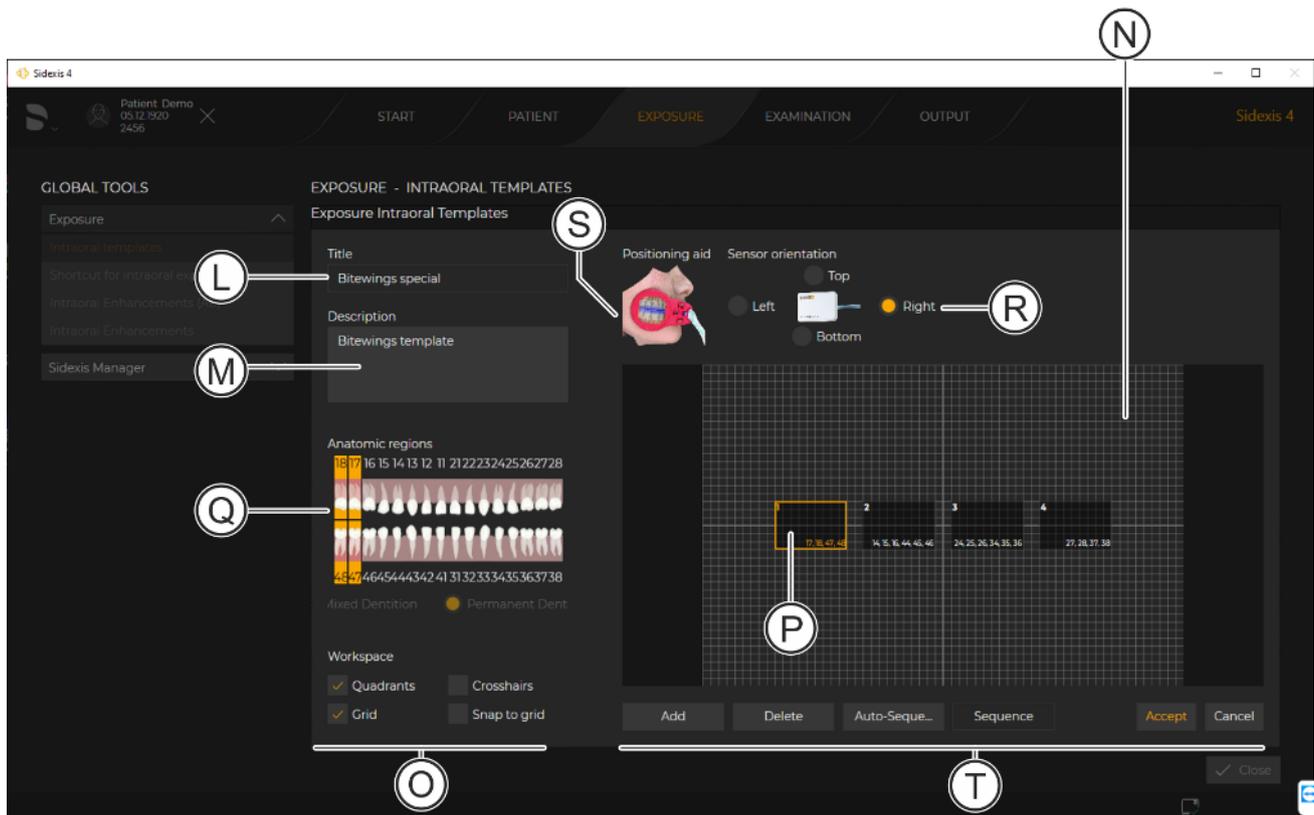
Standard templates cannot be edited.

Starting template editing



Editing templates

- ✓ The "Intraoral templates" menu (B) is open.
- 1. Click the desired template (e.g. Bitewing Special) in the template list (C).
You can scroll up or down in the list using the scroll bar (D).
 - ↳ The selected template is highlighted orange.
 - ↳ The arrangement of the exposures in the "Light box" is displayed in the preview window (E).
- 2. Click on the "Edit..." button (K).
 - ↳ The menu for editing the template opens.



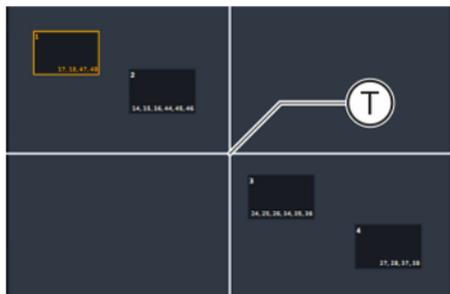
Editing template

L	Input field for the template name	
M	Input field for the template description	
N	Preview window (of the "Light box")	
O	Check box for adjusting the view for the preview window (of the "Light box")	
	"Quadrants"	Divides the preview window into 4 quadrants.
	"Grid on/off"	Displays a grid in the preview window.
	"Crosshairs"	Displays a crosshairs when the exposure window is moved. The top left corner of the image preview window forms the origin of the crosshairs.
O	"Snap to grid"	Activates a magnetic grid in the preview window.
	P	Exposure window
Q	Dental chart	Selection of the anatomical region for the individual exposure.
R	Option buttons for selecting the alignment for the intraoral sensor.	
S	Presentation of the positioning aid (if useful).	

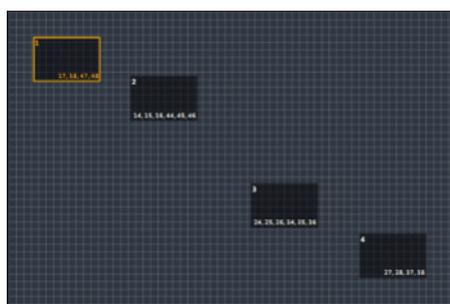
T	Buttons	
	<i>"Add"</i>	Inserts a new exposure window into the template window.
	<i>"Remove"</i>	Removes the selected exposure window from the template window.
	<i>"Auto-Sequence"</i>	Assigns the exposure sequence depending on the arrangement of exposure windows in the template window [→ 72].
	<i>"Sequence"</i>	Assigns the exposure sequence irrespective of the arrangement of exposure windows in the template window [→ 72].
	<i>"Apply"</i>	Apply changes
	<i>"Cancel"</i>	Cancel operation

5.3.2.1.1.2.1 Adjust the view for the preview window

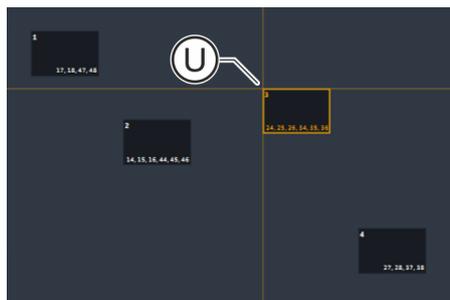
In order to be able to position the exposure window in the preview window exactly the "Intraoral templates" ⇒ "Edit..." menu provides different options which you are able to select via the check boxes:



- **"Quadrants"**
When the check box is selected, the preview window is divided into four quadrants by blue lines (T). This allows the exposure windows to be positioned easily into the required quadrants. The quadrant view is not visible in the Lightbox once the exposure series has been completed.



- **"Grid on/off"**
A grid is displayed in the preview window if the check box is selected. The exposure windows can be positioned precisely using the grid. The grid is not "magnetic" initially.



- **"Crosshairs"**
If the check box is selected an orange colored crosshair (U) is displayed in the preview window when an exposure window is moved. The crosshair permits alignment of the exposure window without a grid network or "magnetic" grid or precise positioning of the windows on the grid displayed.
- **"Snap to grid"**
If the check box is selected an invisible "magnetic" grid is activated in the preview window. The magnetic grid makes it easier to position the exposure window in the preview window. The magnetic grid corresponds with the grid to be displayed via the "Grid on/off" check box.

Click on the "Confirm" button to save the changes made.
Click on the "Cancel" button to discard the changes.

5.3.2.1.1.2.2 Editing individual exposures

The exposure window displays the individual exposure of the exposure series in the preview window.

You can select the required anatomical region and sensor alignment for each individual exposure. To do this, proceed as follows:

✓ The template editing is open.

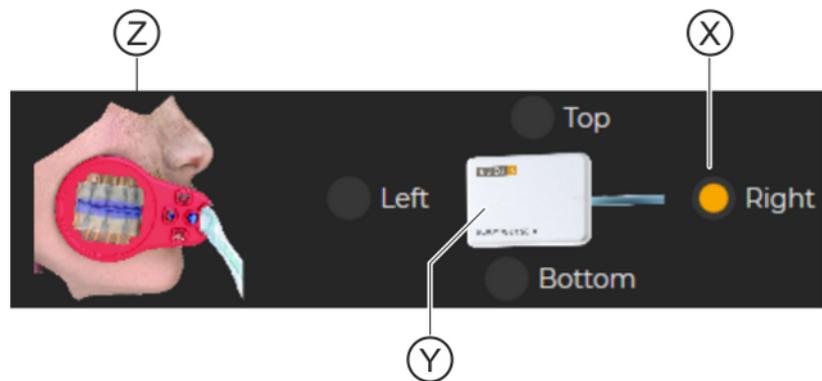
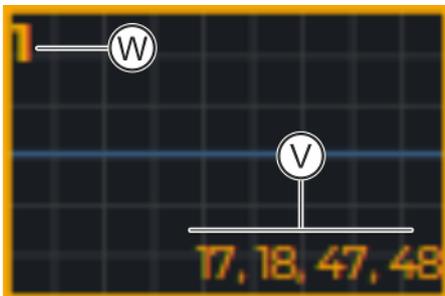
1. Click on the desired exposure window.

↳ The exposure window is highlighted in orange.

2. Select the desired anatomical region (V) in the dental chart.

↳ The tooth numbers of the selected teeth (according to the defined dental chart) are displayed in the exposure window.

↳ The position of the individual exposure (W) is indicated at the top left corner of the exposure window.



↳ A sensible position (orientation) for the intraoral sensor in the patient's mouth is suggested in the "Sensor orientation" menu area. The corresponding option button (X) is preselected. A preview image is displayed for the selected orientation of the sensor (Y).

↳ A preview image (Z) is displayed for the location of the positioning aid (only if the selection of the tooth region is sensible).

3. If desired, you can change the preselection for the sensor orientation at any time by clicking on the option buttons (X).

↳ The preview images for the sensor orientation (Y) and positioning aid (Z) change accordingly.

4. You can change the exposure position for the exposure if required within the exposure series, see the "Change the exposure sequence [-> 72]" section.

↳ The position of the individual exposure (W) is indicated at the top left corner.

Example:

"1" means that the individual exposure is the first exposure in the exposure series.

5. Click on the "Apply" button to save the changes made.

Click on the "Cancel" button to discard the changes.

5.3.2.1.1.2.3 *Arrange individual exposures in the preview window*

The exposure windows of a template can be arranged freely in the preview window. The arrangement in the preview window of the template corresponds to the subsequent arrangement of the exposures in the light box.

To move exposure windows in the preview window, proceed as follows:

- ✓ The template editing is open.
- 1. **Tip:** Use the view options for the preview window to position the exposure windows exactly (see the "Adjust the view for the preview window [→ 70]" section).
Press on the left mouse button and move the exposure window with the mouse button held down.
 - ↳ The exposure window button is highlighted in orange and has moved to the new position.
- 2. Release the left mouse button.
 - ↳ The exposure window is placed at the new position.
- 3. Click on the "Apply" button to save the changes made.
Click on the "Cancel" button to discard the changes.

5.3.2.1.1.2.4 *Change the exposure sequence*

The exposure window displays the individual exposure of the exposure series in the preview window.

The top left corner of the exposure window shows the position that the individual exposure will take up within the exposure series (W).

There are two options for configuring the exposure sequence of the individual exposures within the exposure series:

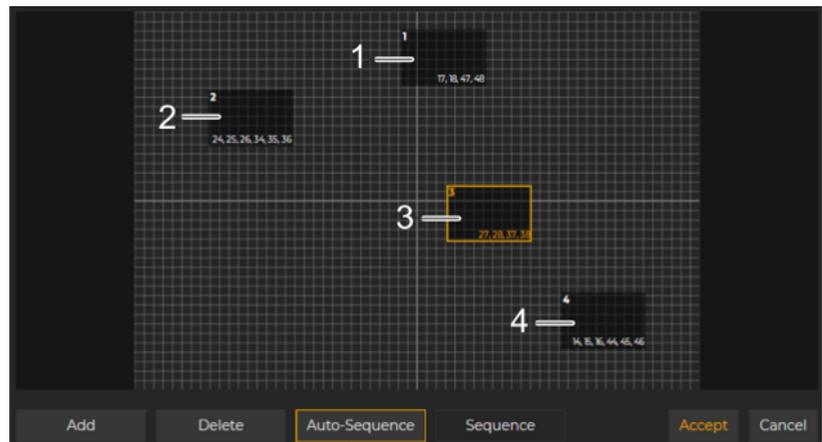
- Automatic configuration
- Manual configuration

Automatic configuration

With *automatic configuration of the exposure sequence*, the sequence of exposures is assigned in accordance with the arrangement of the exposure windows in the preview window. The exposure sequence is assigned to the exposure windows from top to bottom.

Proceed as follows for automatic configuration:

- ✓ The template editing is open.
- 1. Arrange the exposure windows in the preview window in such a way that the position of the exposure windows corresponds with the required exposure sequence from top to bottom.
 - ↳ The top left corner of the exposure window shows the position at which the individual exposure is completed within the exposure series (W).
Example:
"1" means the individual exposure is the 1st exposure within the exposure series.



(A)

Configuring exposure sequence automatically

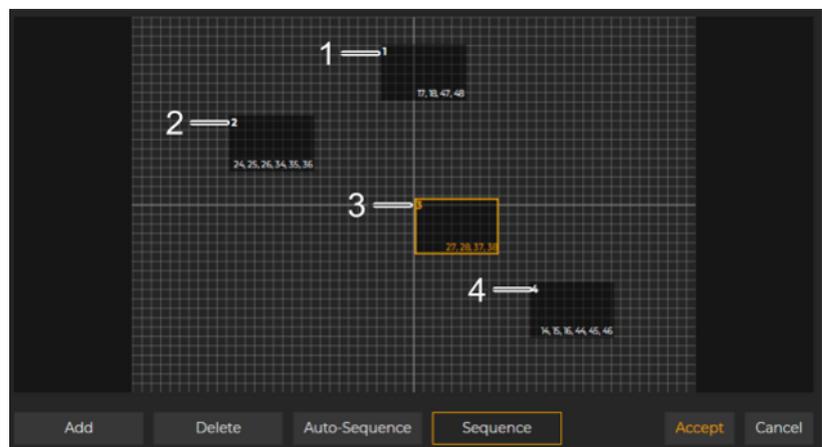
2. Click the "Auto-Sequence" button (A).
 - ↳ The exposure sequence is assigned automatically.
 - ↳ The respective exposure position is displayed in the top left corner of the exposure windows (W).

Manual configuration

With manual configuration of the exposure sequence, the sequence of the exposures is assigned independent of the arrangement of the exposure windows in the preview window.

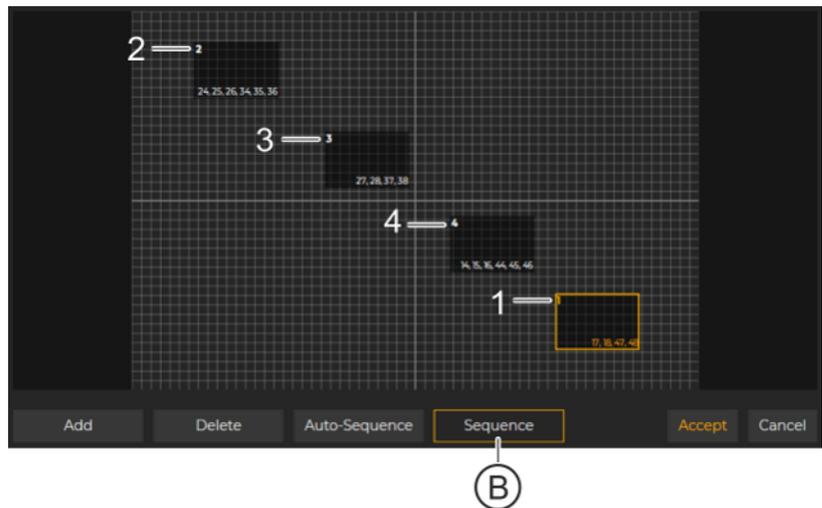
Proceed as follows for manual configuration:

- ✓ The template editing is open.



Exposure windows in the preview window

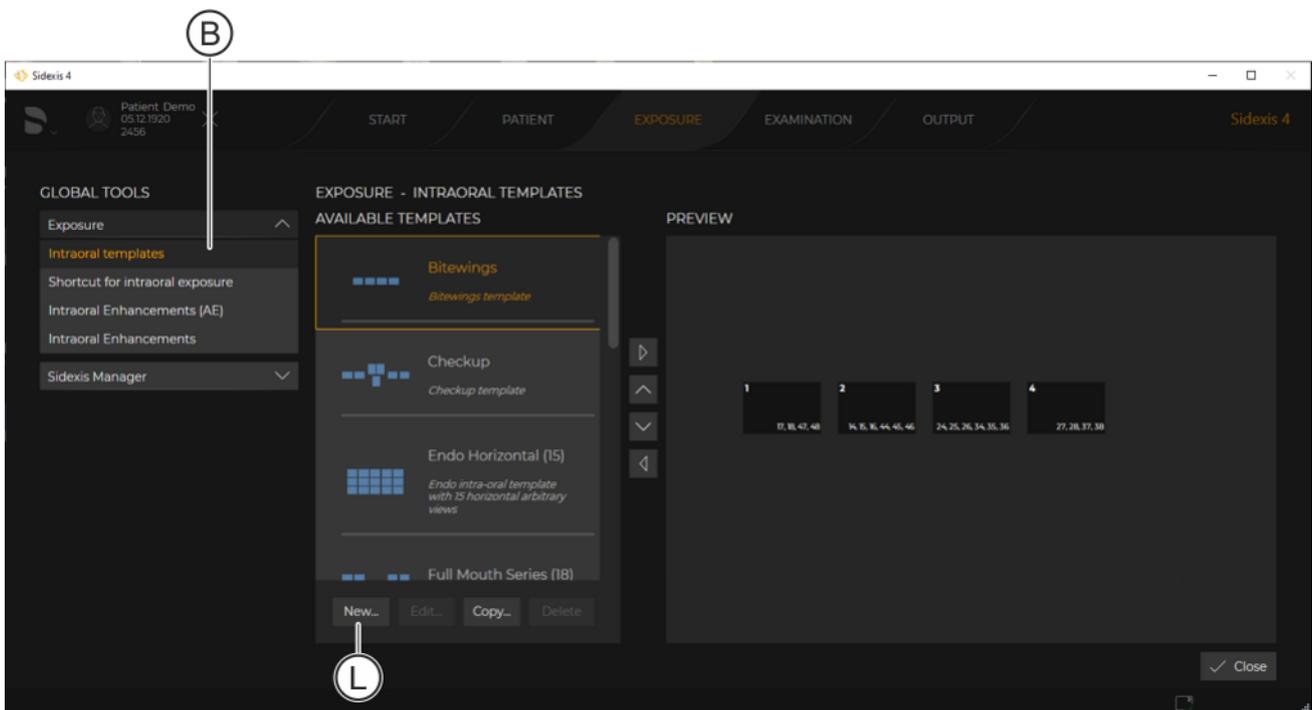
1. Arrange the exposure windows in the preview window according to how they are supposed to appear subsequently in the light box.



Configuring exposure sequence manually

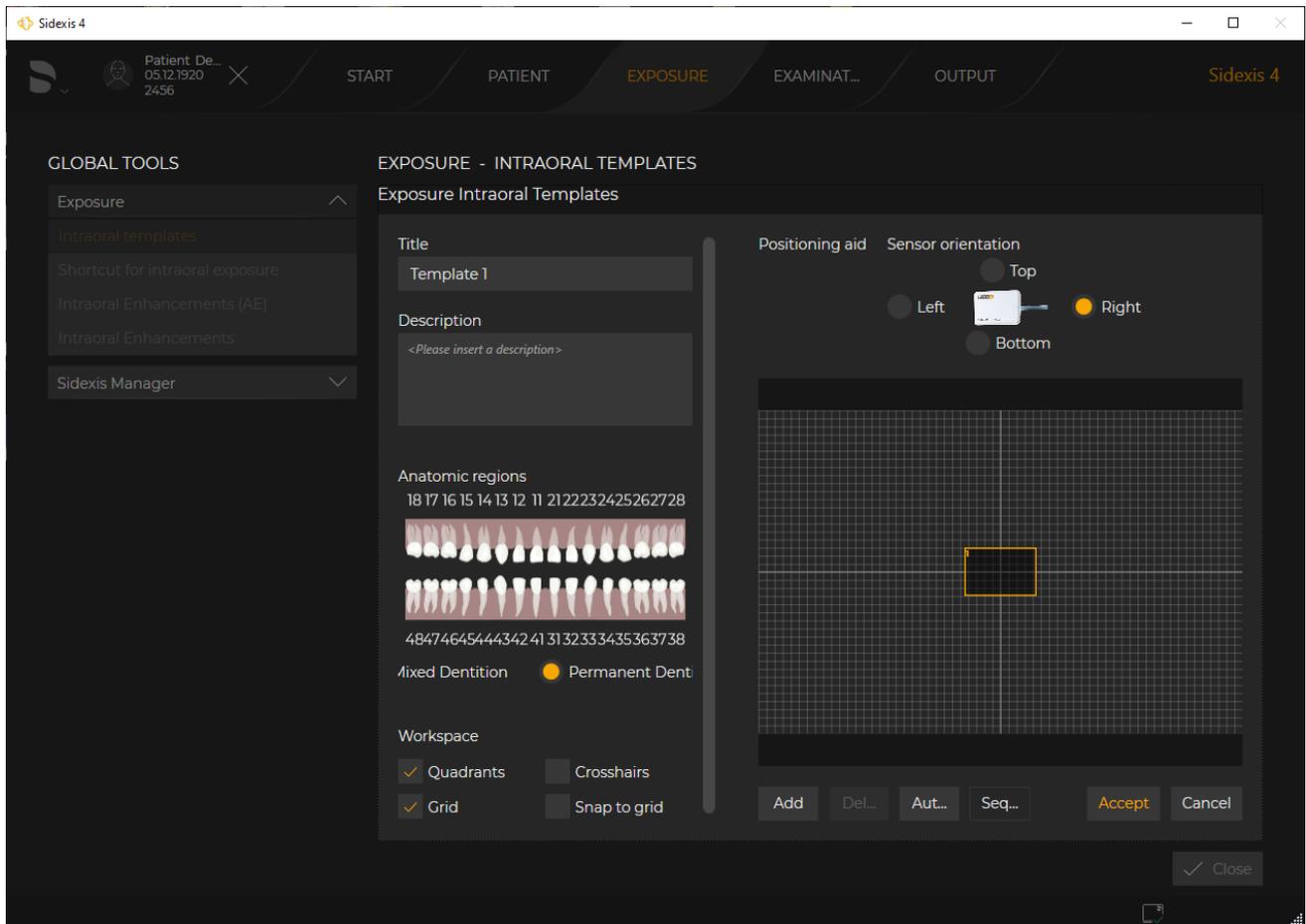
2. Click on the "Sequence" button (B).
 3. Click on the exposure windows successively in the desired exposure sequence.
 - ↳ The exposure sequence is assigned accordingly.
 - ↳ The respective new exposure position is displayed in the top left corner of the exposure windows (W).
- Saving modified template** > Click on the "Apply" button to save the changes made. Click on the "Cancel" button to discard the changes.

5.3.2.1.1.3 Create a new template



Adding new template

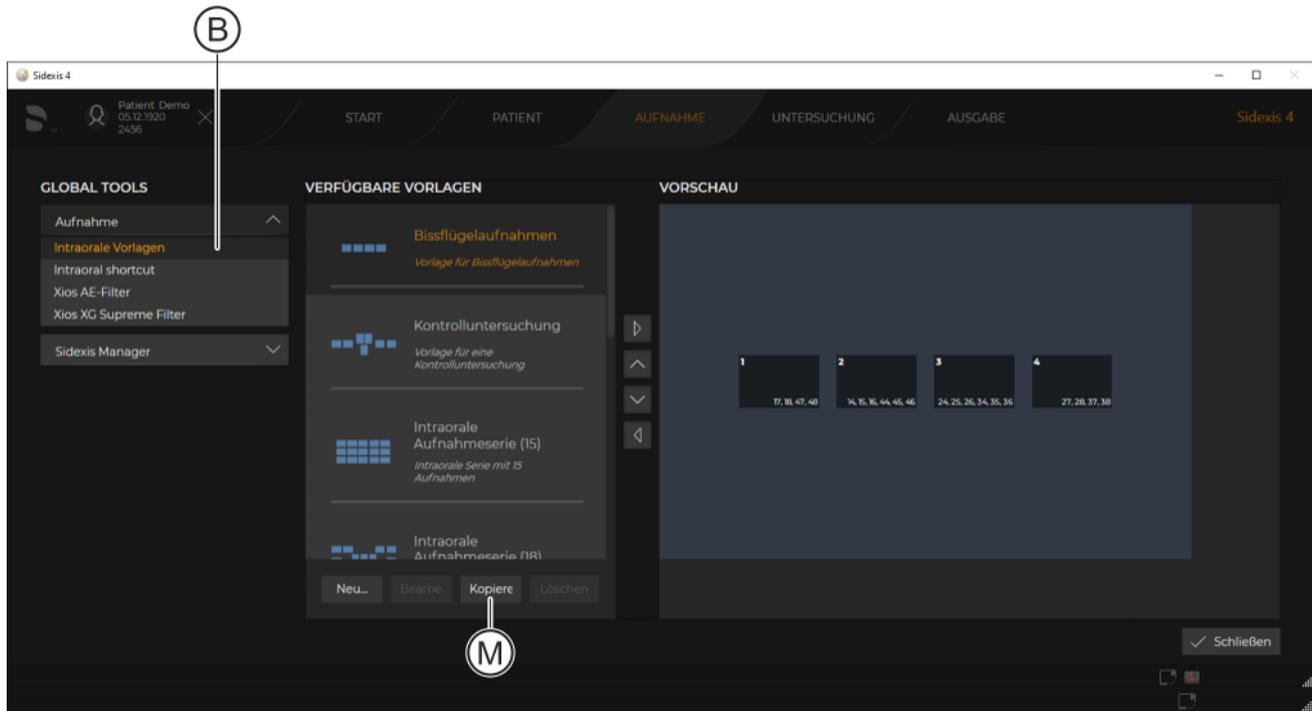
- ✓ The "Intraoral templates" menu (B) is open.
1. Click on the "New..." button (L).



Editing template

1. The menu for editing the new template opens.
2. Edit the new template as described in the "Edit templates [→ 67]" section.
3. Click on the "Apply" button to save the new template. Click on the "Cancel" button to discard the changes.

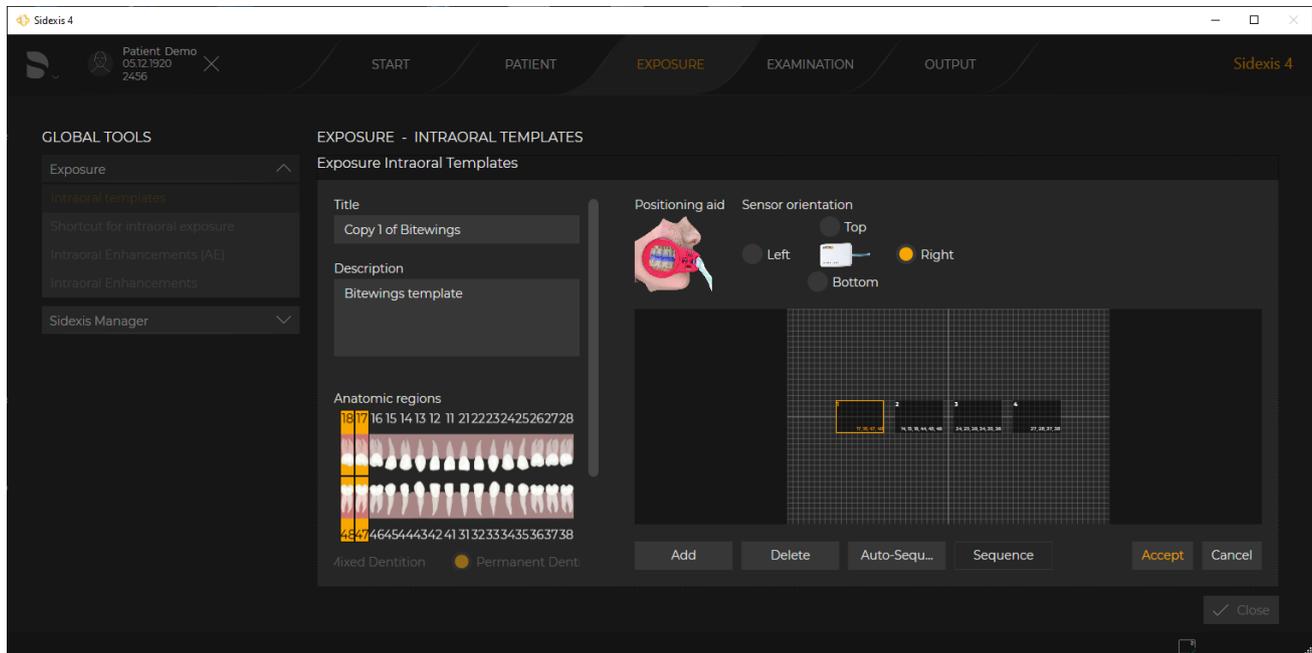
5.3.2.1.1.4 Copy templates



Copying template

✓ The "Intraoral templates" menu (B) is open.

1. Select the template that you want to copy.
2. Click on the "Copy..." button (M).



Editing template

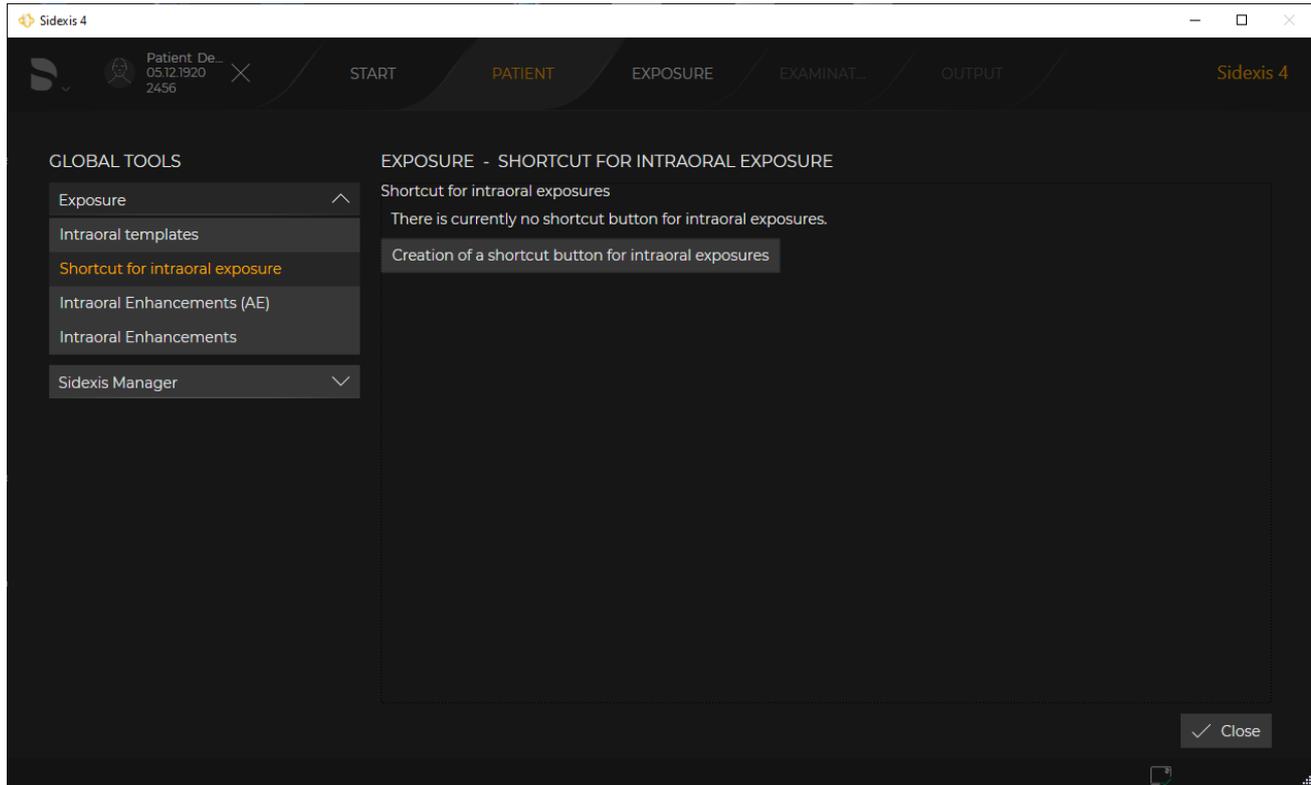
✎ The menu for editing the copied template opens.

3. Edit the copied template as described in section "Edit templates [→ 67]".
4. Click on the "*Apply*" button to save the copied template. Click on the "*Cancel*" button to discard the changes.

5.3.2.1.2 Creating an "IO exposure shortcut"

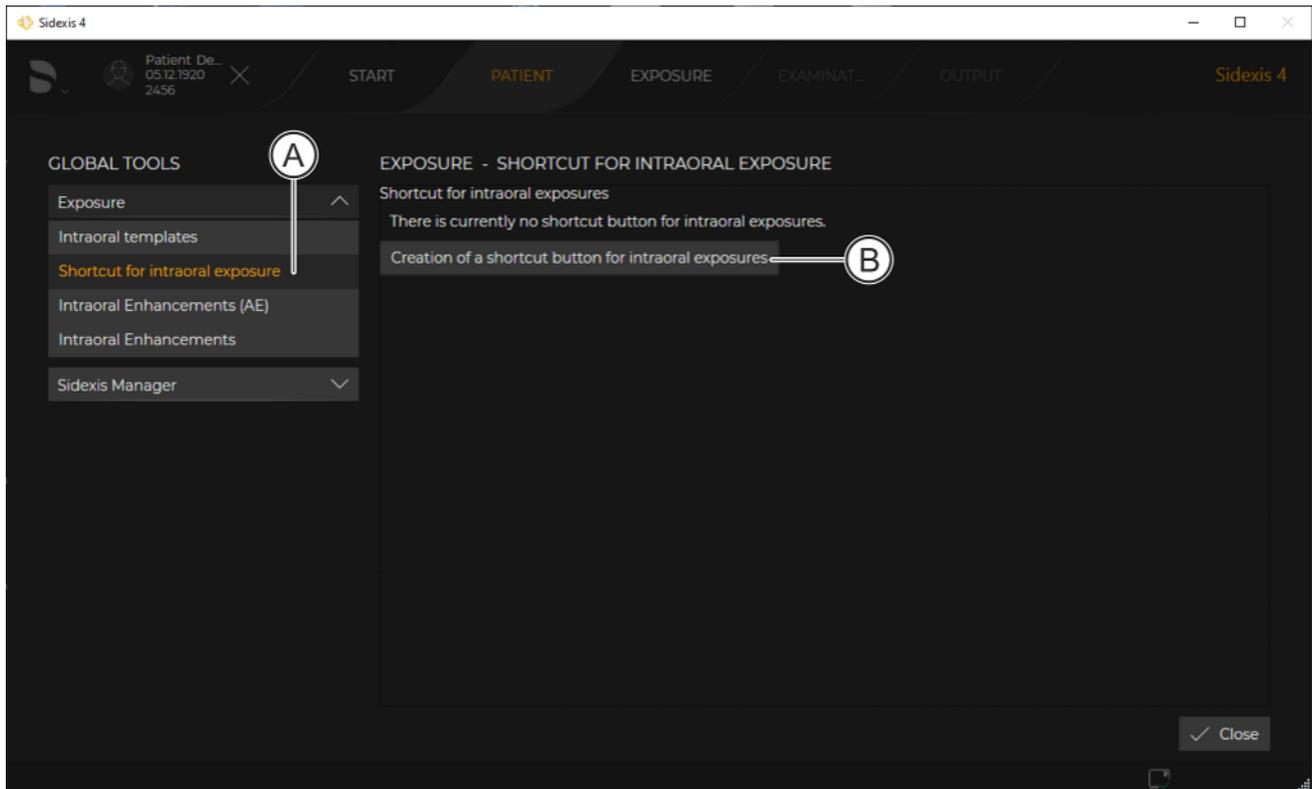
Creation of a "IO exposure shortcut" button that can be used to order a previously configured intraoral exposure series in the "Patient" work phase.

The start of the exposure series takes place exclusively via the control panel on the X-ray unit.



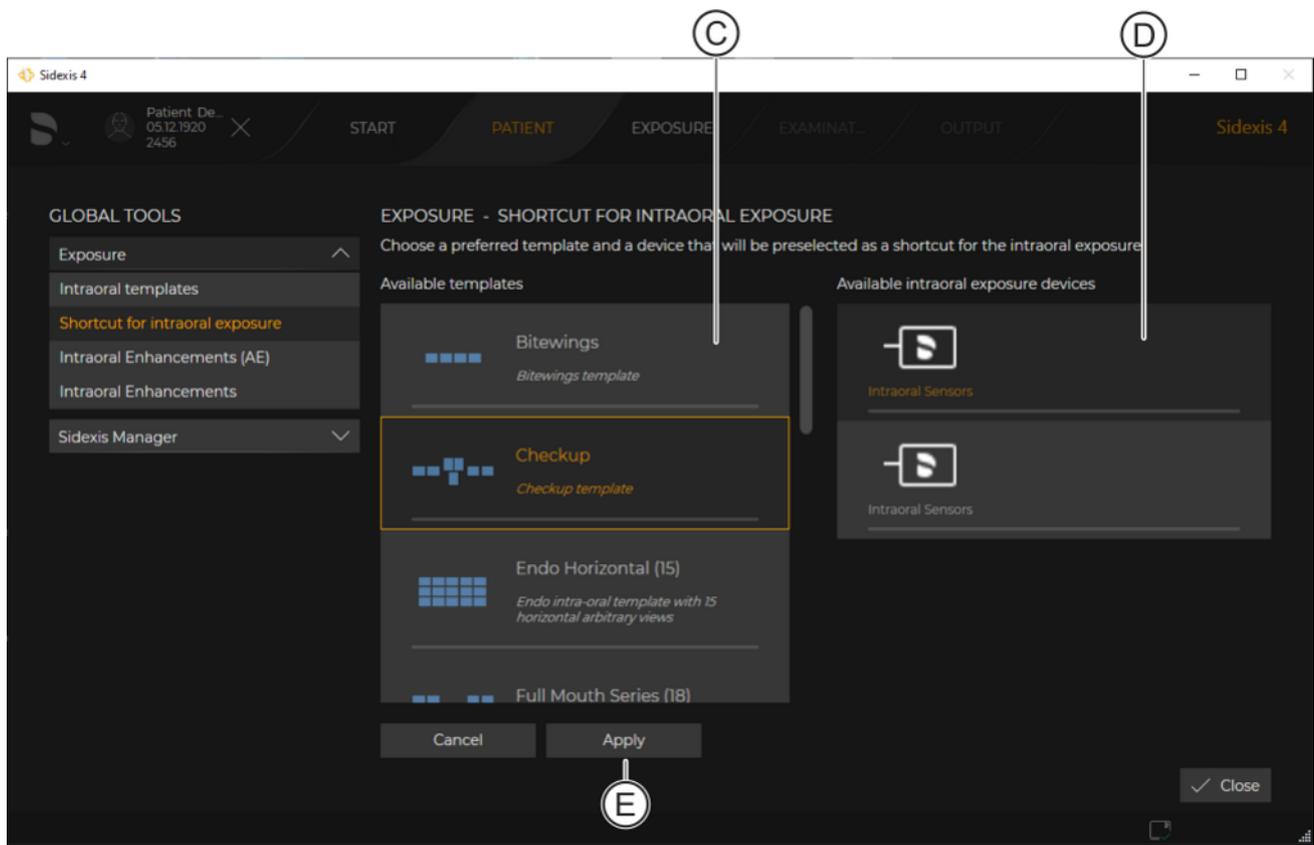
Creating intraoral shortcut

Creating "IO exposure shortcut" ✓ System menu "Global tools" is open.



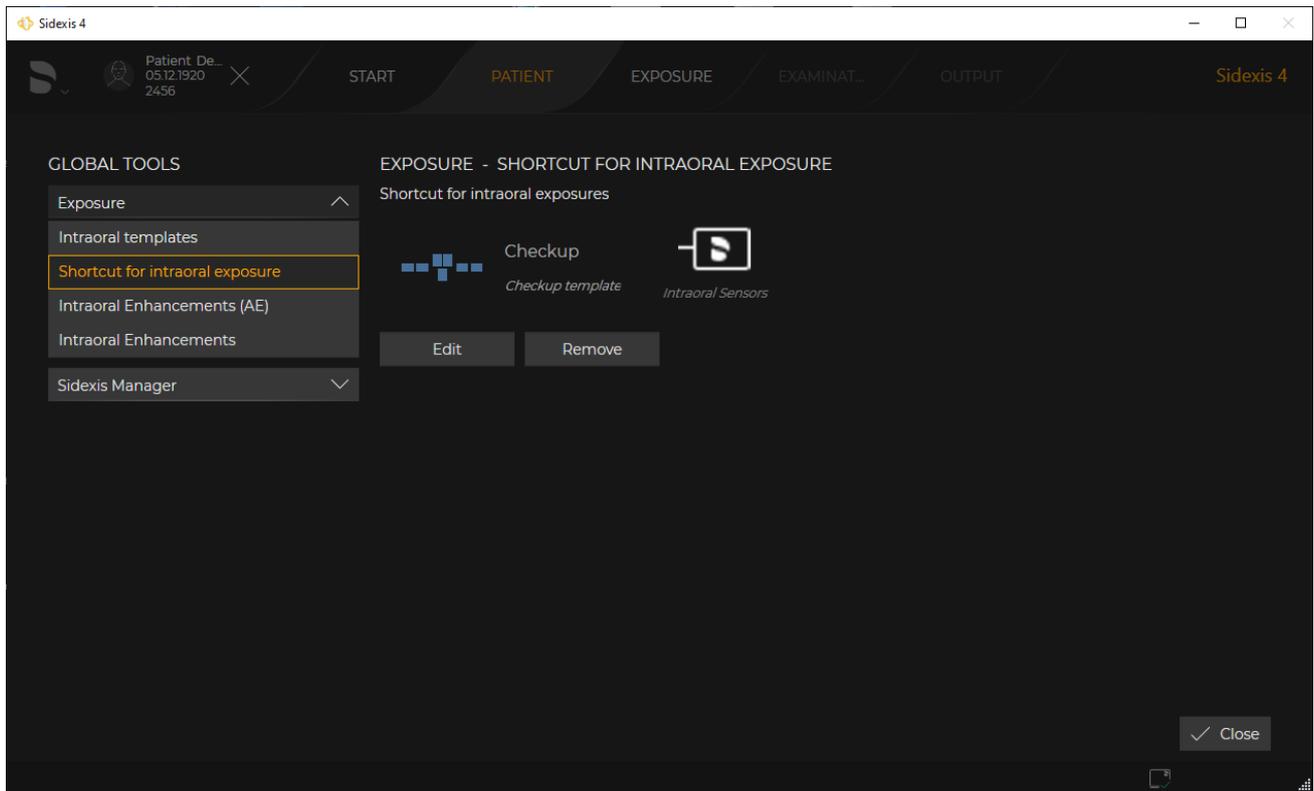
Menu Create intraoral button "IO exposure shortcut"

1. Click the "Shortcut for intraoral exposure" button (A).
 - ↳ The menu for creating/editing the "Shortcut for intraoral exposure" is displayed.
2. Click on the "Creation of a shortcut button for intraoral exposures" button in the menu.
 - ↳ The available intraoral templates (intraoral series) and the available intraoral sensors are displayed.



Defining intraoral button "IO exposure shortcut"

3. Select an intraoral template (C) and an intraoral sensor (D) from the list.
4. Confirm the selection by clicking the "Apply" button.

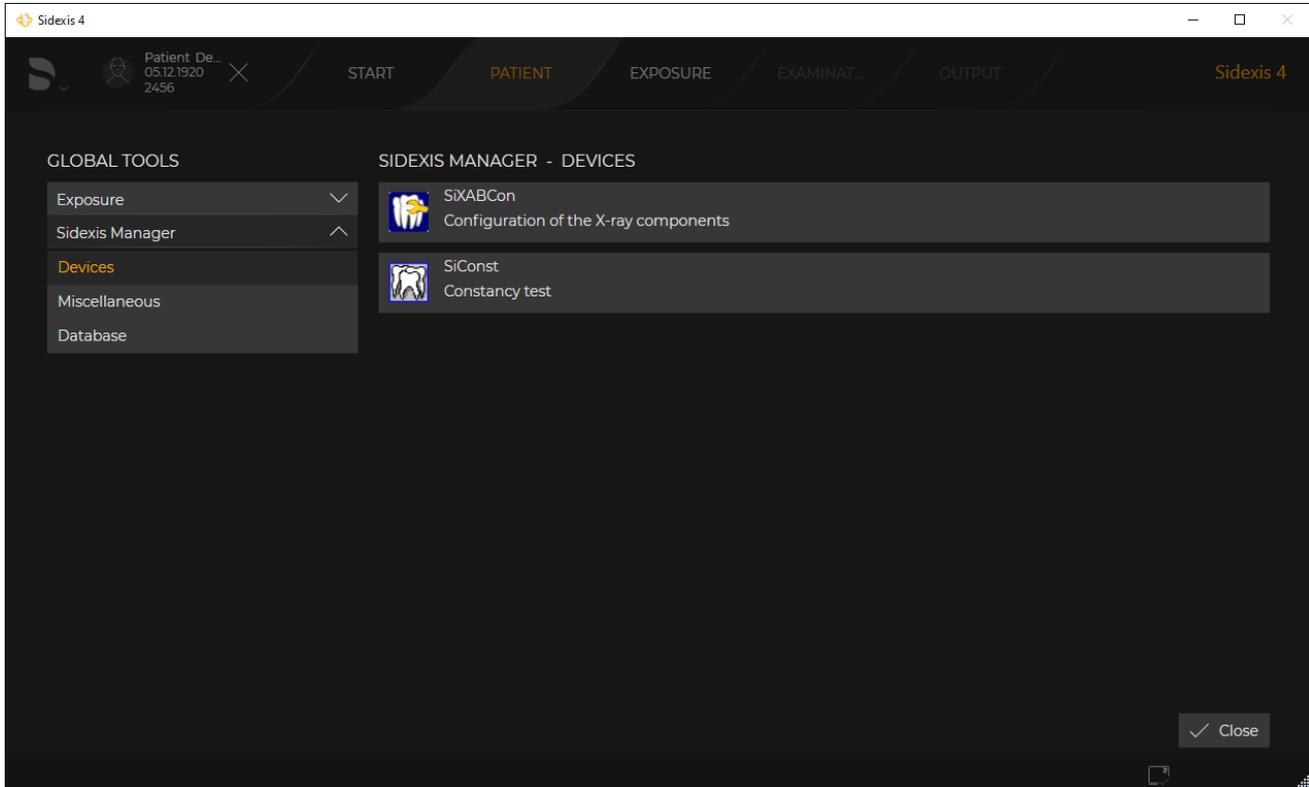


"IO exposure shortcut"

↵ The configuration of the *"IO exposure shortcut"* is displayed.

The *"Shortcut for intraoral exposure"* can be edited at any time with the *"Edit"* button or deleted again with the *"Remove"* button.

5.3.2.2 "Sidexis Manager"
"Devices" Global device settings



"Devices" menu

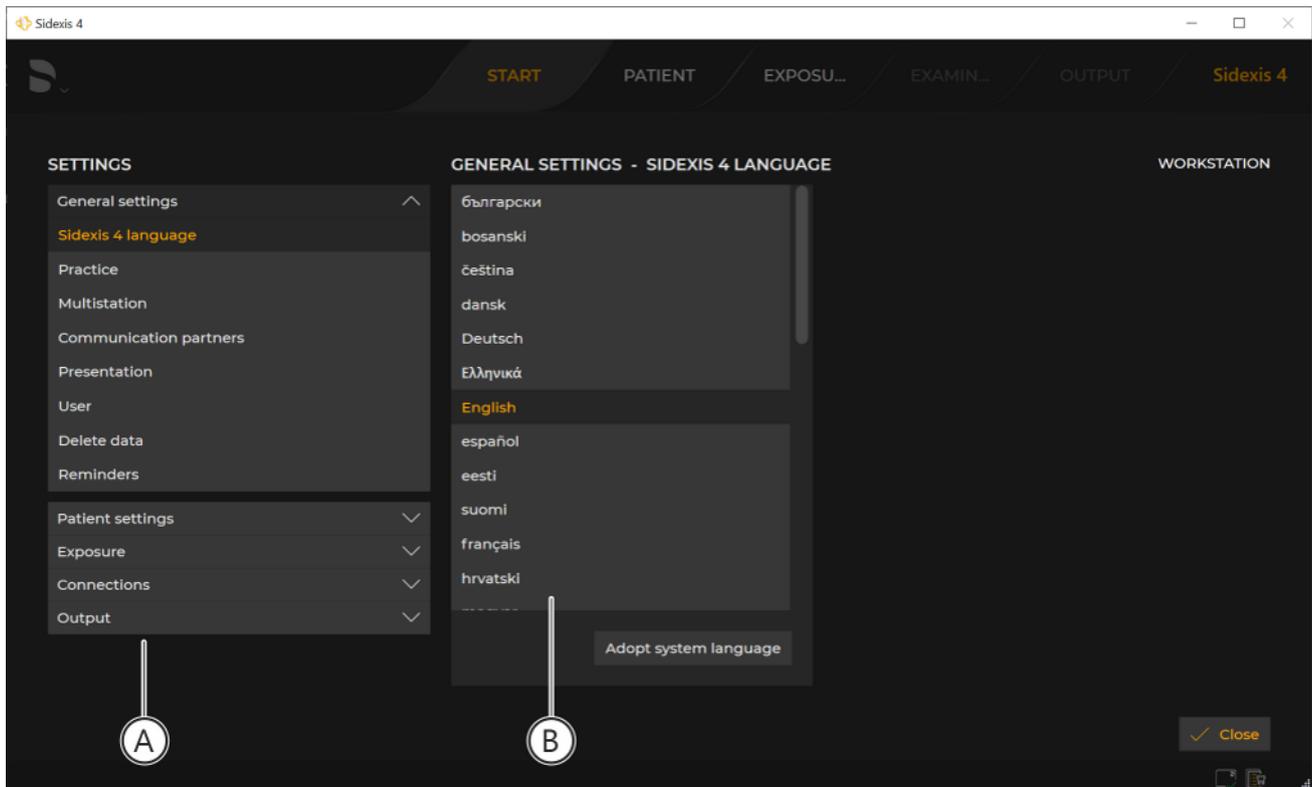
Button	Function
SIXABCon	Configuration of the X-ray components
SICConst	Constancy test
Other	Depending on which X-ray components or intraoral sensors are installed on the computer, other buttons for opening the relevant configuration programs are displayed in this menu.

"Miscellaneous" These settings may only be made by authorized service engineers (see Sidexis4 Service manual, REF 6799618).

"Database" These settings may only be made by authorized service engineers having Windows administrator rights (see Sidexis4 Service manual, REF 6799618).

5.3.3 Settings

You can adjust Sidexis 4 according to the requirements of your practice. To do this, you are provided with a clear configuration menu.



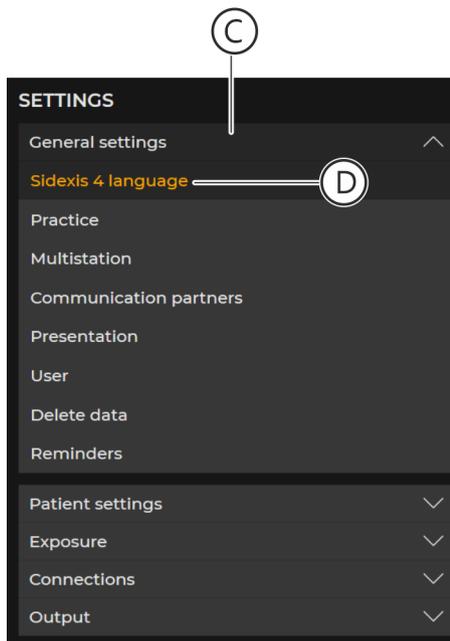
Configuration menu, e.g. the "Application language" menu

A	Structure tree with buttons for menu selection
B	Menu

The menus for presetting the program are compiled into groups:

- "General settings"
- "Patient settings"
- "Exposure"
- "Output"
- "Connections"

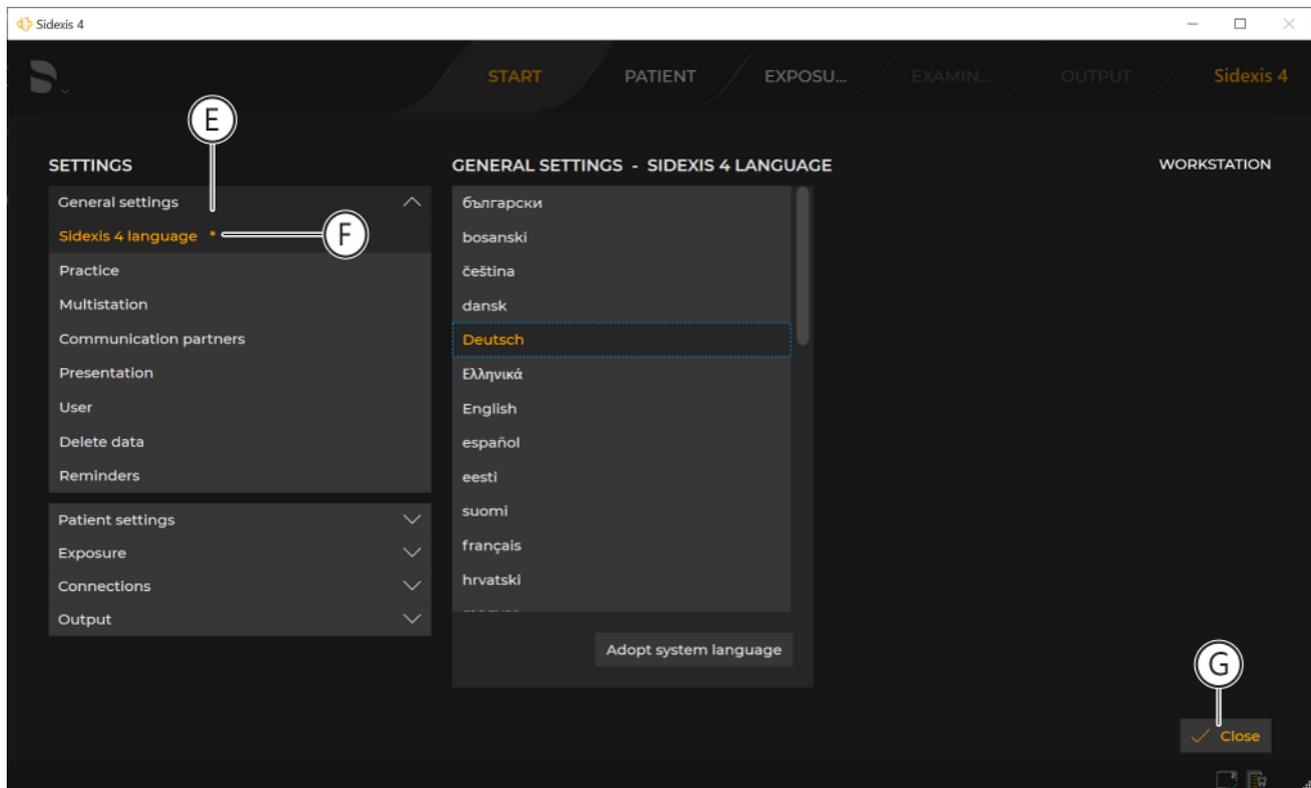
If plug-ins for treatment units that require settings are installed in Sidexis 4, these are also displayed as buttons here.



By clicking on the group name (C) (e.g. "General settings"), the buttons (D) for the corresponding menus become visible.

Clicking on a button opens the corresponding menu.

Marking of changed configurations



Marking of a changed configuration that has not yet been activated by restarting the software

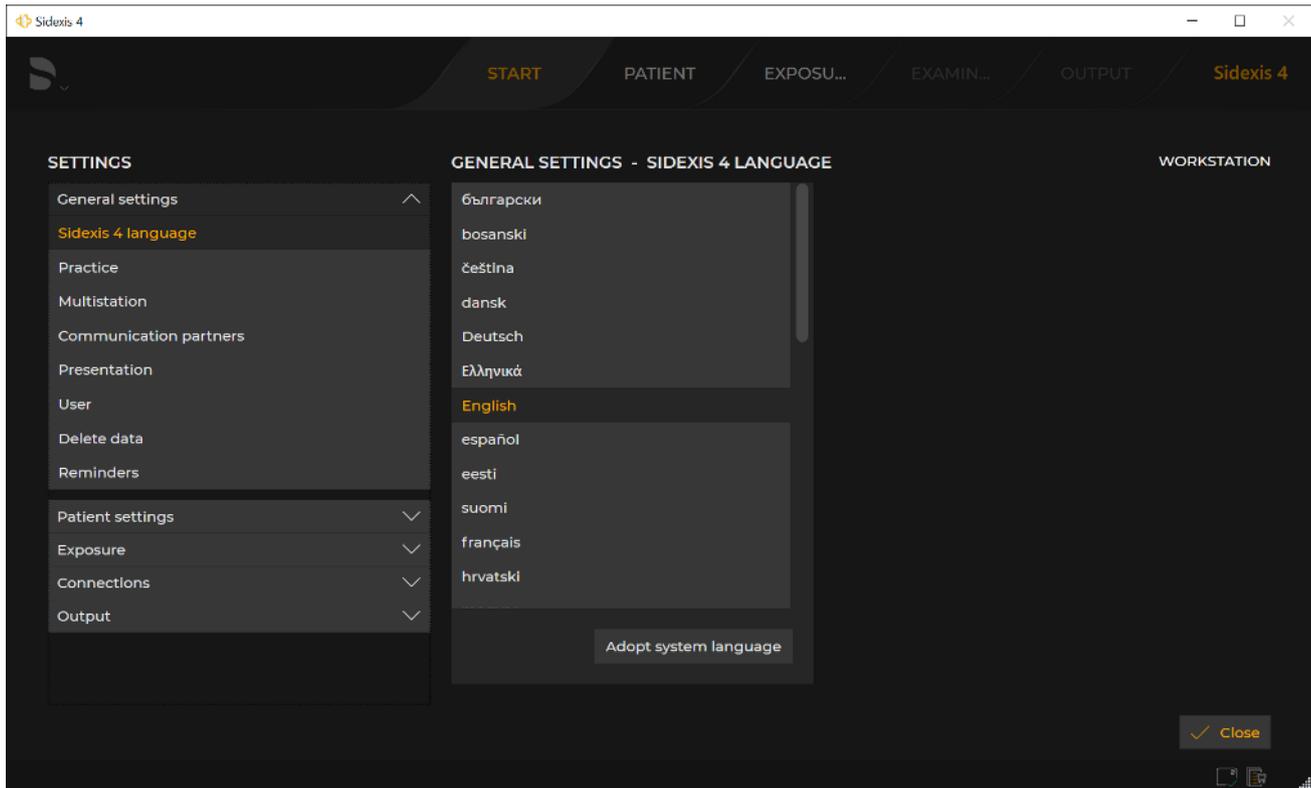
If you have made changes in the configuration menu that require a restart of the software for activation, the corresponding buttons in the structure tree (E) are marked with an * (F). This marking is deleted again following successful restart of the software and activation of the change.

Saving changes The changes made are automatically saved on closing the configuration menu or on changing to a submenu.

Closing configuration menu If you wish to close the configuration menu, click on the "Close" button (G). The menu is closed.

5.3.3.1 "General settings"

"Sidexis 4 language" Workstation-related settings for the program language



"Application language" menu

List field	Function
"Sidexis 4 language"	Selecting the program language
Button	Function
"Adopt system language"	Select system language as the program language. The currently set system language is adopted as the program language. If the system language is not available as program language, English is automatically used as the program language.

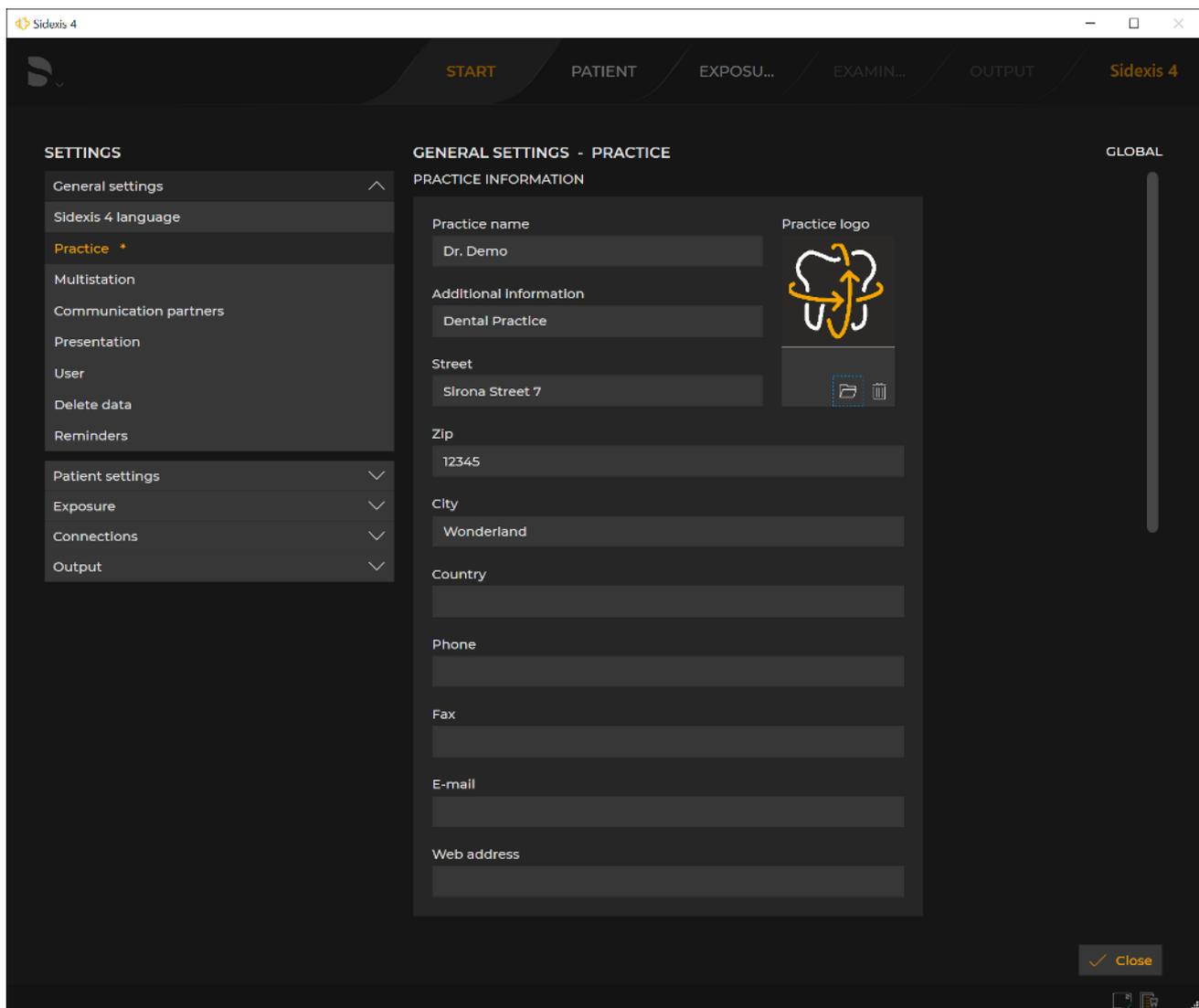
"Practice" *Global* settings for the practice data; e.g. how data is displayed on a printout.

The *"Practice"* menu contains the following sub-areas:

- *"Practice information"*
- *"Header definition"* and *"Header preview"*
- *"Dental chart"*

You can move the menu up or down in the window using the scrollbar to the right of the menu.

Menu area *"Practice information"*:



"Practice information" menu



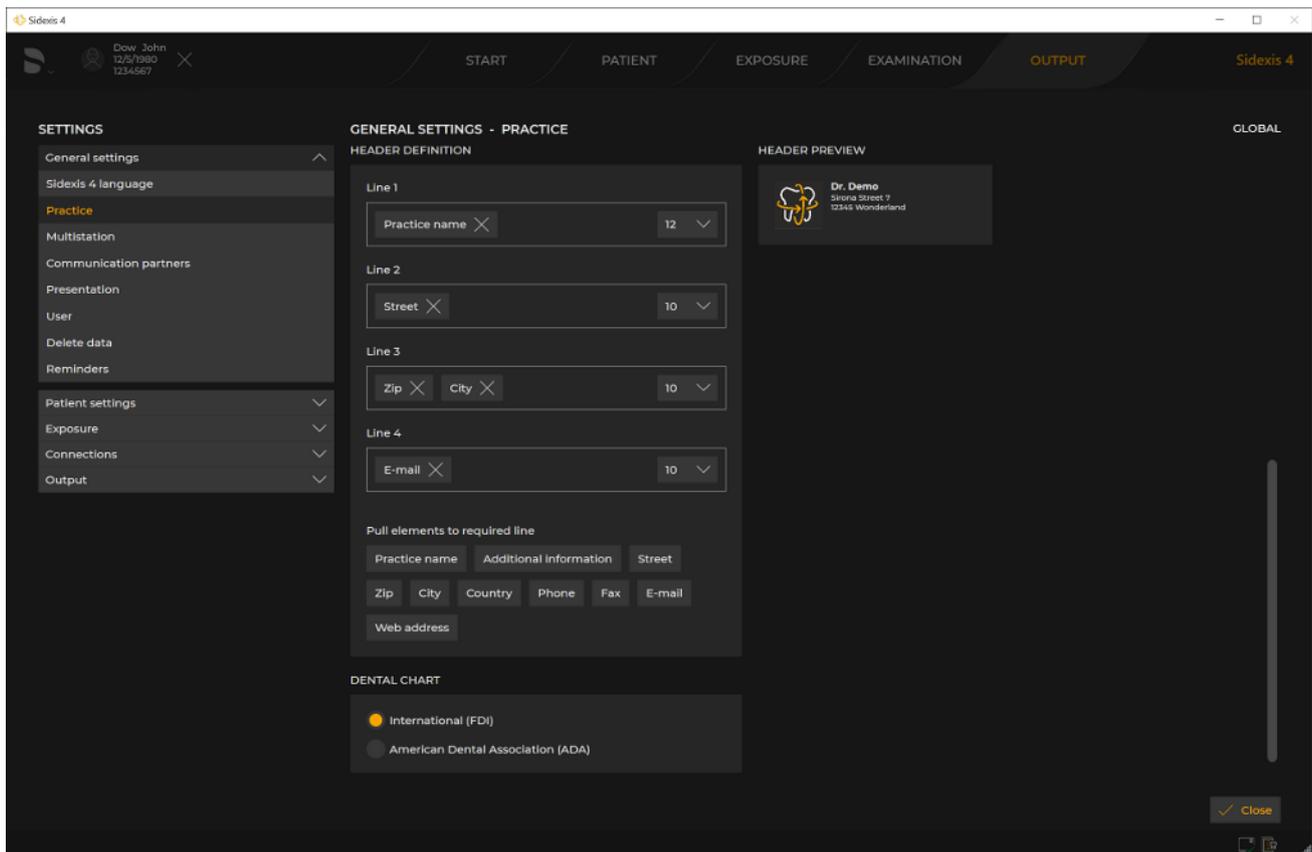
Dr. Demo
Sirona Street 7
12345 Wonderland

Example of a practice address in a printout

Entry fields	Entry
"Practice name"	Name of the practice
"Additional information"	Any additional information
"Street"	Street
"Zip"	Zip code
"City"	City
"Country"	Country
"Phone"	Phone number
"Fax"	Fax number
"E-mail"	Email address
"Web address"	Website
Button	Function
"Practice logo"	Define practice logo for printouts
"Show preview"	Preview the display of practice data; e.g. on printouts

Menu area "Header definition" and "Header preview":

See section "Configure headers for printing [→ 350]".



Configure headers for printing

Menu area "Dental chart":

Option button	Option button activated
"International (FDI)"	International dental notation is used
"American Dental Association (ADA)"	American dental notation is used

The configuration for displaying the practice address in the printout is described in the "Personalizing Sidexis 4 [→ 343] ⇒ "Practice-specific settings [→ 346]" section.

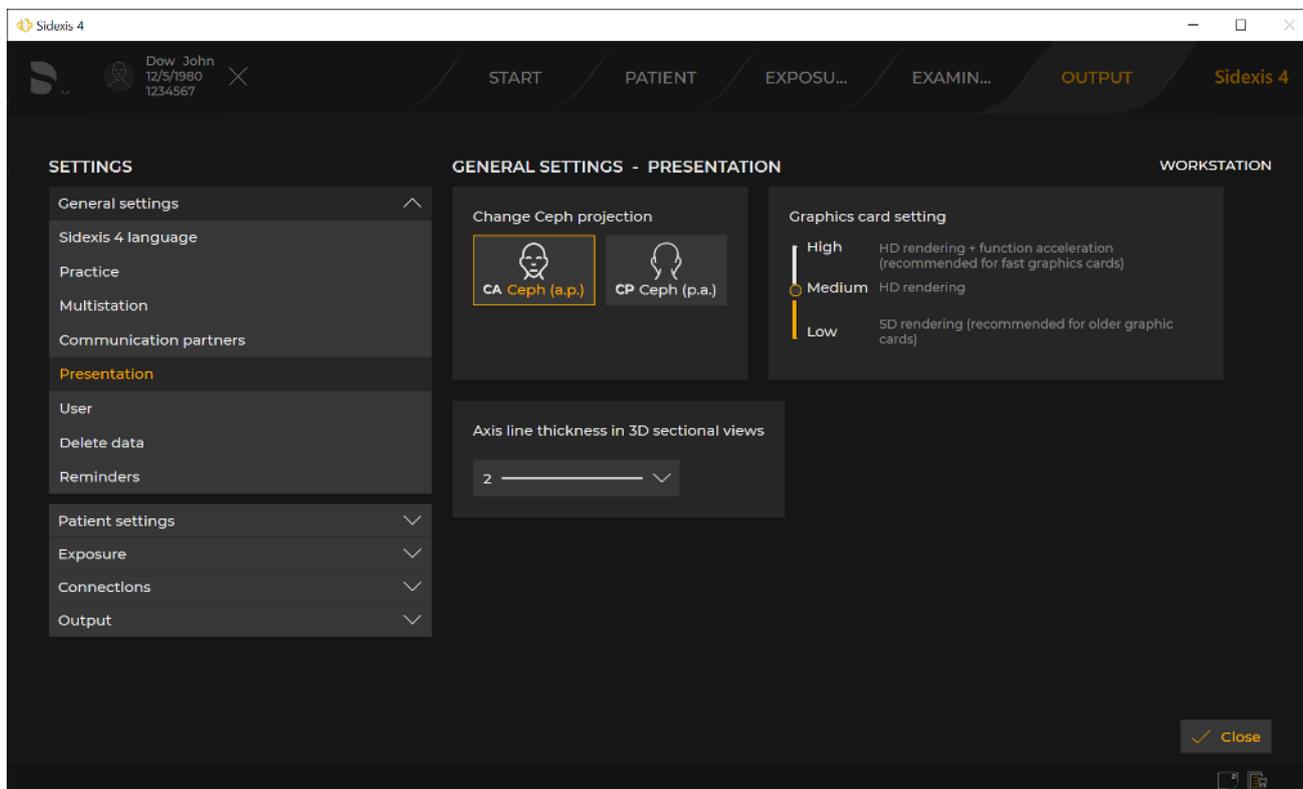
"Multistation" These settings may only be made by authorized service engineers (see Sidexis4 Service manual, REF 6799618).

"Communication partners" These settings may only be made by authorized service engineers (see Sidexis4 Service manual, REF 6799618).

"Presentation" *Workstation-related* settings for the depiction a ceph projection.

The "Presentation" configuration menu can be used to switch the ceph projection direction from "Ceph (a.p.)" (factory settings) to "Ceph (p.a.)". [→ 152]

In addition, the line thicknesses for the focus point axes can be selected and rendering settings can be configured.



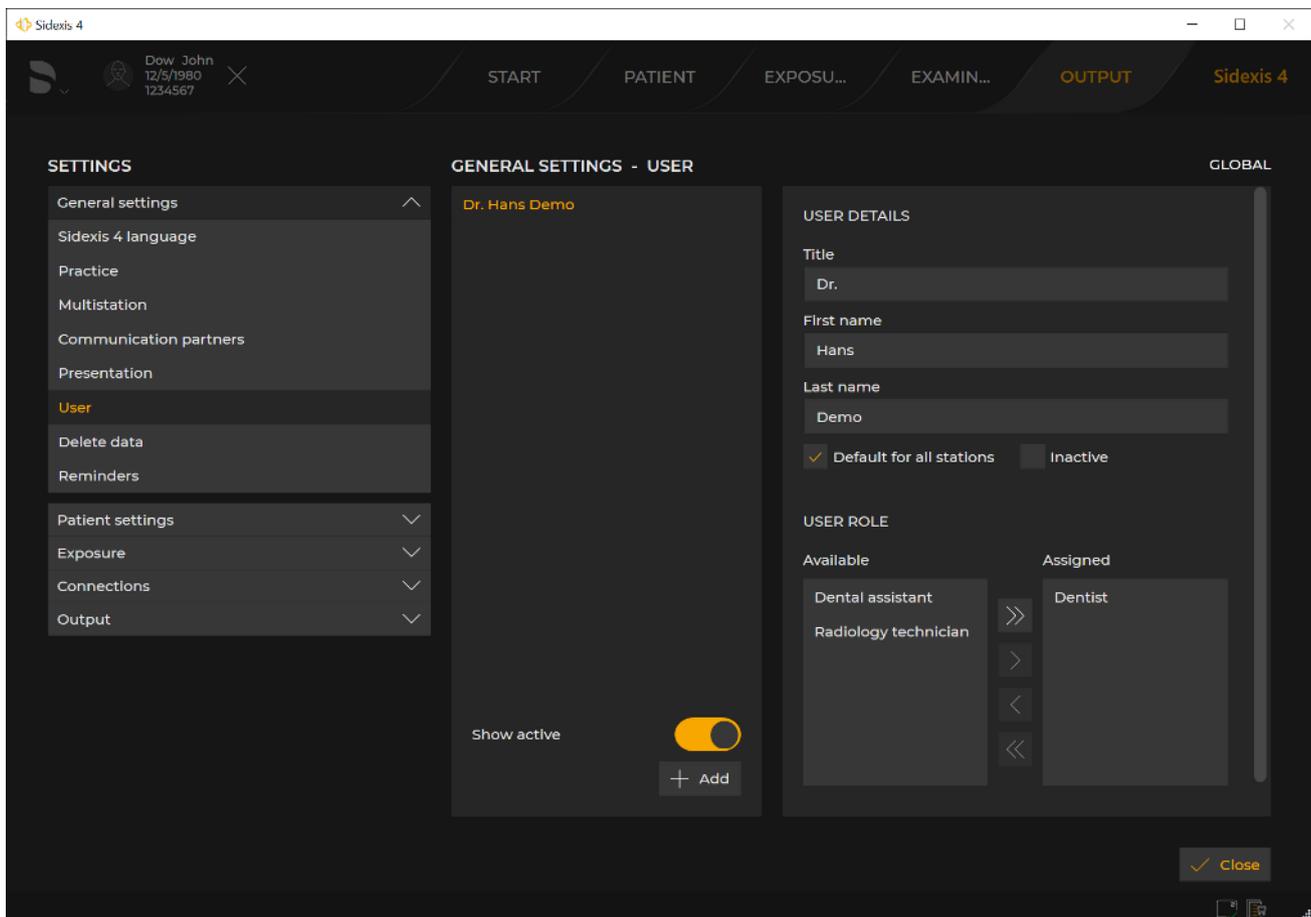
"Presentation" menu

Button	Function
"CA Ceph (a.p.)"	"CA" anterior – posterior projection
"CP Ceph (p.a.)"	"CP" posterior – anterior projection
List field	Function

Button	Function
"Axis line thickness in 3D sectional views"	Set line thickness for the axes in the 3D section views, 4 levels (1 - 4 pixels)
Slider	Function
"Graphics card setting"	High: HD rendering + acceleration for panorama curve editor (recommended for fast graphics cards) Medium: HD rendering (factory setting) Low: SD rendering (recommended for older graphics cards)

"User" Global user setup.

Users set up here are entered into different list fields of Sidexis 4 (e.g. when entering the indication prior to exposure) and can be selected there. Each user must at least be allocated one "User role".



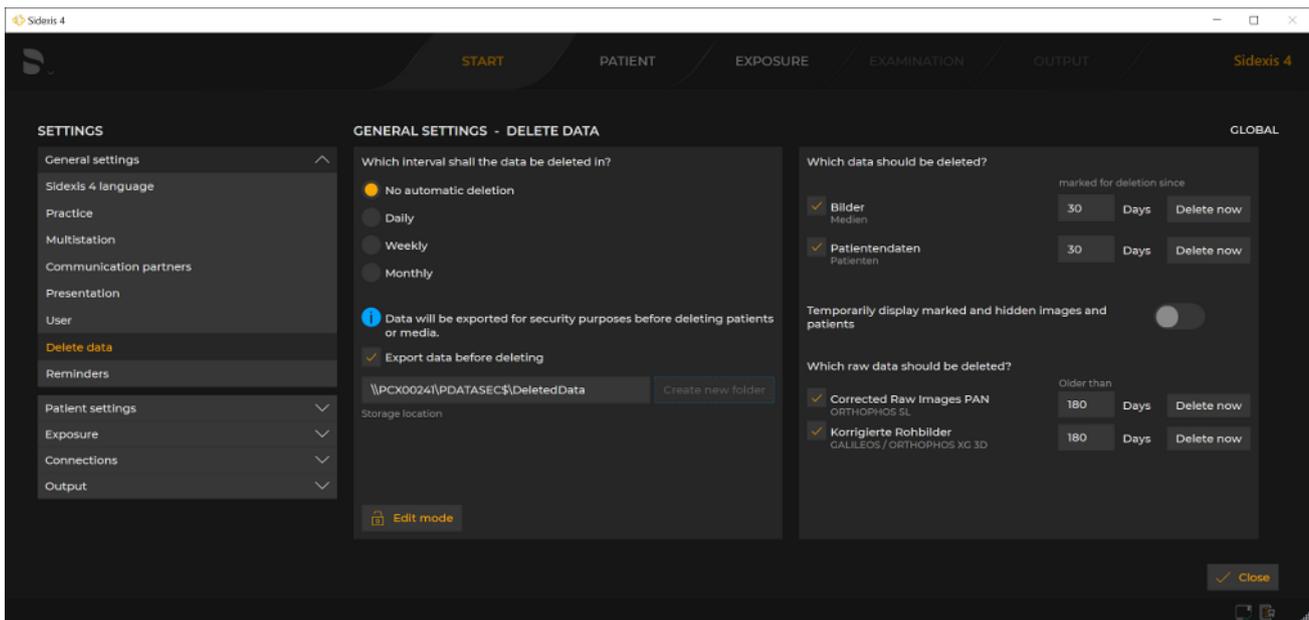
Menu "User"/"User details"/"User role"

Entry fields	Entry
"Title"	Title of the user
"First name"	First name of the user
"Surname"	Surname of the user
Check box	Check box selected

Entry fields	Entry
"Default for all stations"	Selected users are defined as standard consultants. If a patient is not assigned to a consultant, this standard consultant is suggested as the main consultant in the menus.
"Inactive"	Deactivate user
Switch	Switched on (orange)
"Show active"	Show active users only
Button	Function
"Add"	Add new user

"Delete data" Global settings for deletion of data

To configure the deletion of data, it is necessary to log in with the service password. To do this, click the "Edit mode" button and enter the service password.



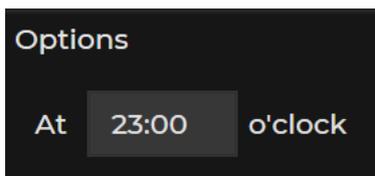
"Delete data" menu

Configuring deletion frequency:

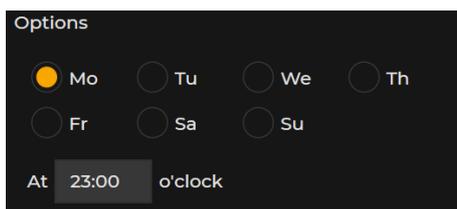
Option buttons	Entry
"No automatic deletion"	Data is only deleted manually using the "Delete now" button.
"Daily"	Data is deleted daily; time can be adjusted

Option buttons	Entry
"Weekly"	Data is deleted weekly; weekday and time of the deletion operation can be adjusted
"Monthly"	Data is deleted monthly; the day of the month (1-31) and time of the deletion operation can be adjusted If a month has fewer days than the set day, the data is deleted on the last day of the month.

Further options can be defined depending on which option button is selected:



- "Daily" deletion frequency: Set the time



- Weekly deletion frequency: Set the weekday and time



- "Monthly" deletion frequency: Set the day of the month (1-31) and time

Configuring data export before deletion:

Check box	Check box selected
<i>"Export data before deleting"</i>	Data is backed up to a defined storage location prior to deletion. The path to the storage location is defined in the input field <i>"Storage location"</i> .
Entry fields	Entry
<i>"Storage location"</i>	Path to the storage location to which the data is backed up prior to deletion if the <i>"Export data before deleting"</i> check box is activated.
Buttons	Entry
<i>"Create new folder"</i>	Create a new folder as a storage location for the data.
<i>"Edit mode"</i>	Switch to password-protected edit mode.
<i>"Delete now"</i>	Delete data directly (independent of the automated deletion cycle) The button always relates to the adjacent check box.

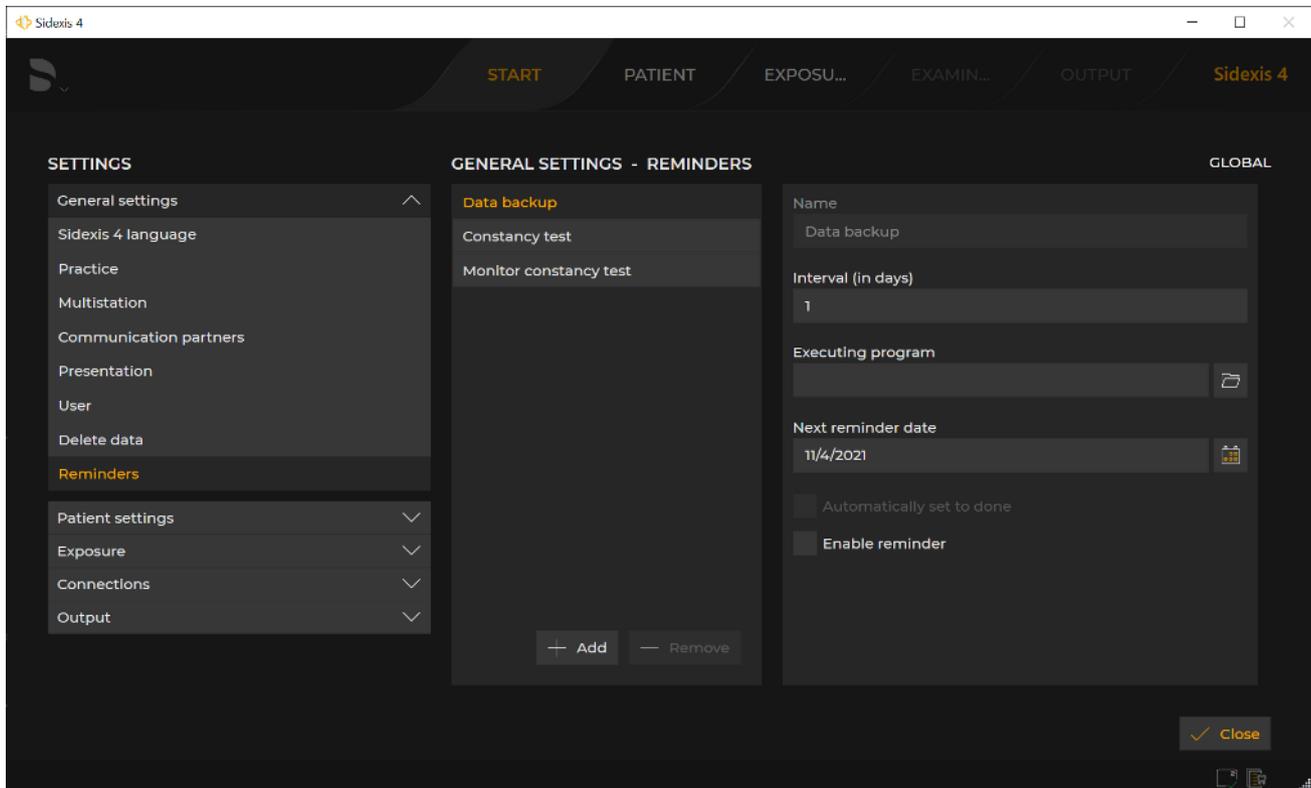
Selecting the data which is deleted:

Check box	Check box selected
<i>"Images"</i>	<i>"Images"</i> (media) are deleted.
<i>"Patient data"</i>	<i>"Patient data"</i> (patients) are deleted.
<i>"Corrected raw images" PAN</i>	Data group Orthophos SL This data group with data type <i>"Corrected raw images" PAN</i> can always be selected. Further check boxes may be displayed here, depending on whether other device plugins for Sidexis 4 are installed.
<i>"Corrected raw images"</i>	Data group GALILEOS / ORTHOPHOS XG 3D This data group with data type <i>"Corrected raw images"</i> can always be selected. Further check boxes may be displayed here, depending on whether other device plugins for Sidexis 4 are installed.

Switch	Switched on (orange)	Switched off (gray)
<i>"Temporarily display marked and hidden images and patients"</i>	Deleted and hidden images and patients are displayed temporarily.	Deleted and hidden images and patients are not displayed temporarily.

"Reminders" *Global* settings for the diary.

Via the *"Reminders"* configuration menu, entries are defined that appear as reminders in the list of appointments in the *"Start"* work phase.



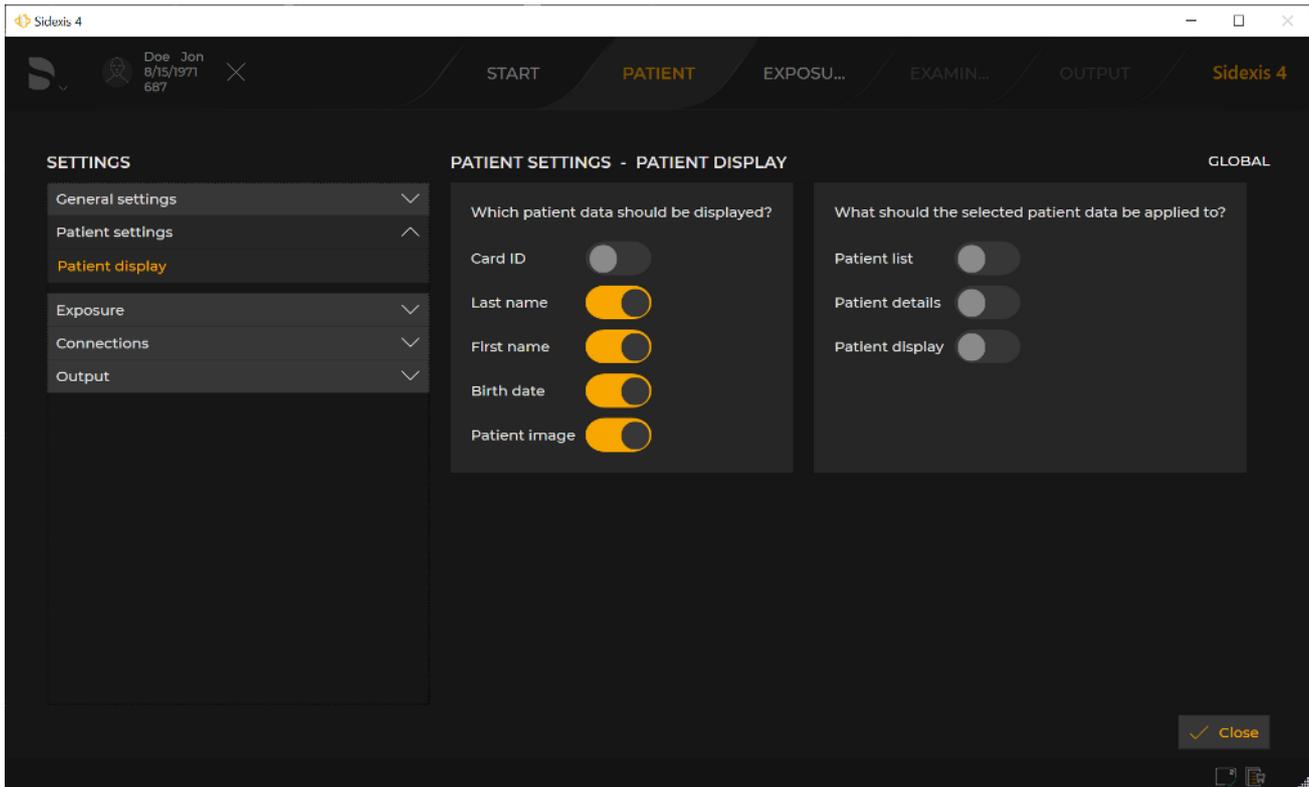
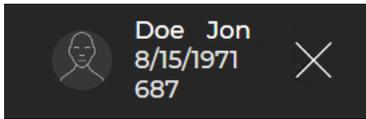
"Reminders" menu

Entry fields	Entry
<i>"Name"</i>	Appointment title
<i>"Interval (in days)"</i>	Interval for automatically creating regular appointments in the diary
<i>"Executing program"</i>	Selecting the program that should be started when clicking on an appointment in the diary.
<i>"Next reminder date"</i>	Date of the next appointment
Check box	Check box selected
<i>"Automatically set to done"</i>	Appointments are automatically set to the "Completed" status after clicking on them in the diary.
<i>"Enable reminder"</i>	The defined appointment is activated and appears in the diary
Button	Function
<i>"Add"</i>	Add new appointment
<i>"Remove"</i>	Delete existing appointment
Folder icon	Path selection

If program extensions (plugins) have been installed in Sidexis 4, additional submenus may appear in the *"General settings"* menu.

5.3.3.2 "Patient settings"

"Patient display" Global settings for displaying the logged in patient in the header line



Configuring the display for the patient data

Selecting the displayed patient data:

Switch	Switched on (orange)
"Card ID"	Information is displayed in the title bar
"Last name"	
"First name"	
"Birth date"	
"Patient image"	

Area selection on to which the above selection is to be applied:

Switch	Switched on (orange)
"Patient list"	Selection is applied.
"Patient details"	
"Patient display"	

IMPORTANT

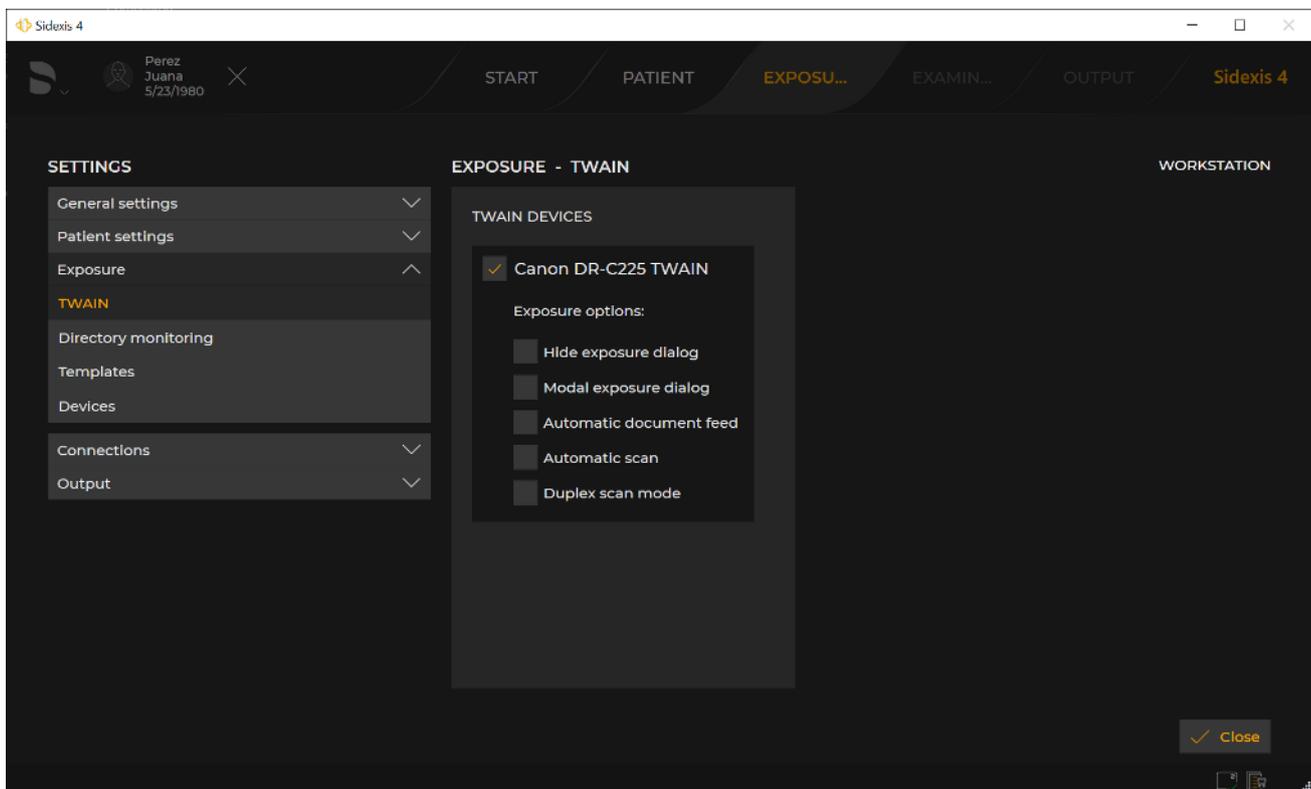
At least the "Card ID" check box or the check boxes "Last name", "First name", and "Birth date" must be selected for clear identification of a patient.

If just the "Card ID" check box is selected, a card ID number must be entered for each patient.

If a patient is registered for whom this does not apply (no card ID number, even though, except for the "Patient image" check box, only the "Card ID" check box is activated in the configuration), the red text "Not uniquely identifiable" appears in the display of the registered patient.

5.3.3.3 "Exposure"

"TWAIN" Workstation-related settings for TWAIN devices

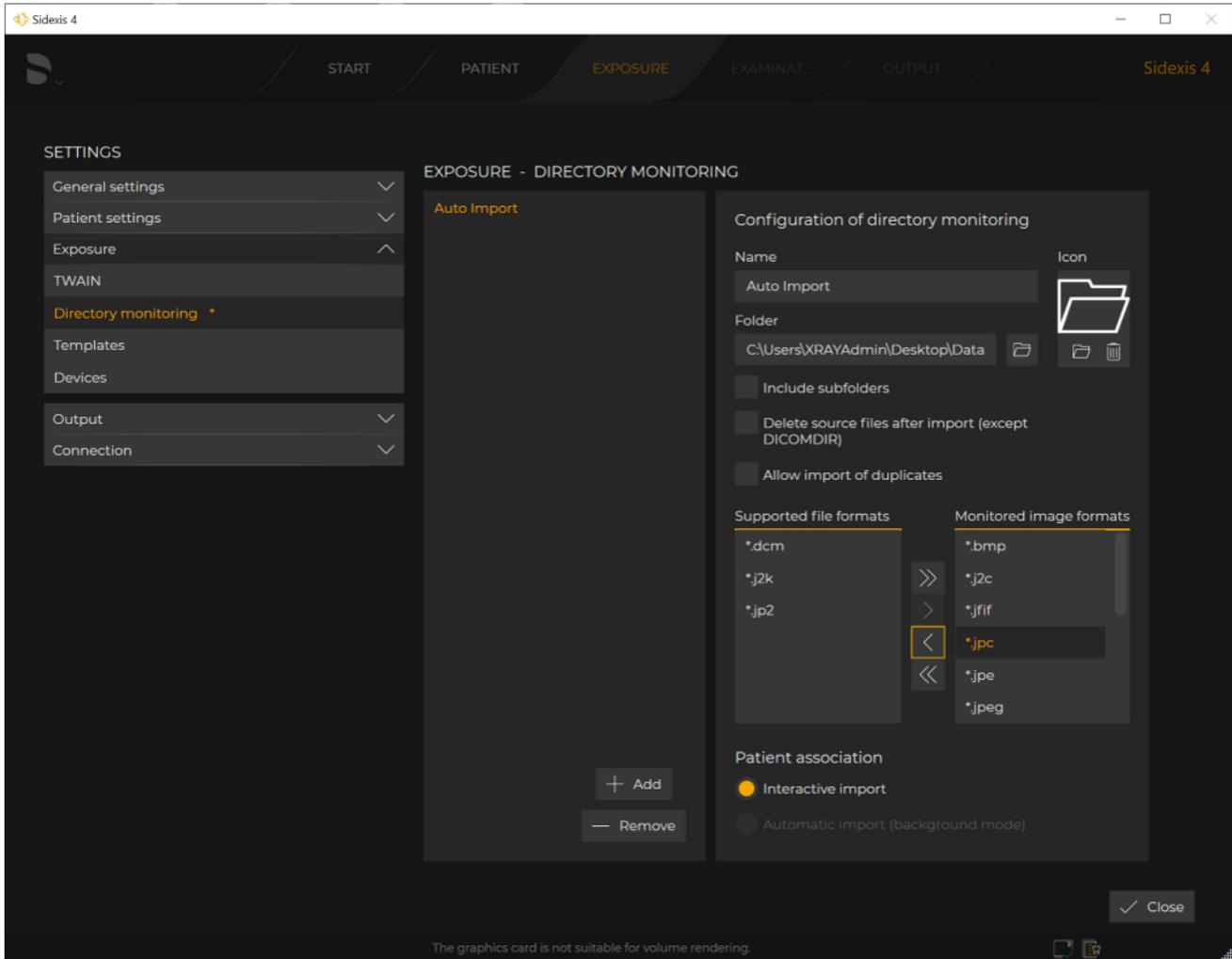


"TWAIN devices" menu

You can set the TWAIN connection via the check boxes in the "TWAIN devices" menu.

"Directory monitoring" Workstation-related settings for directory monitoring for media imports

Via the directory monitoring, you can set up an automatic import of media items from a "monitored" folder. Via the *"Directory monitoring"* menu, you can create and delete "monitored" folders and specify which media items are to be automatically imported with which patient assignment.



"Directory monitoring" menu

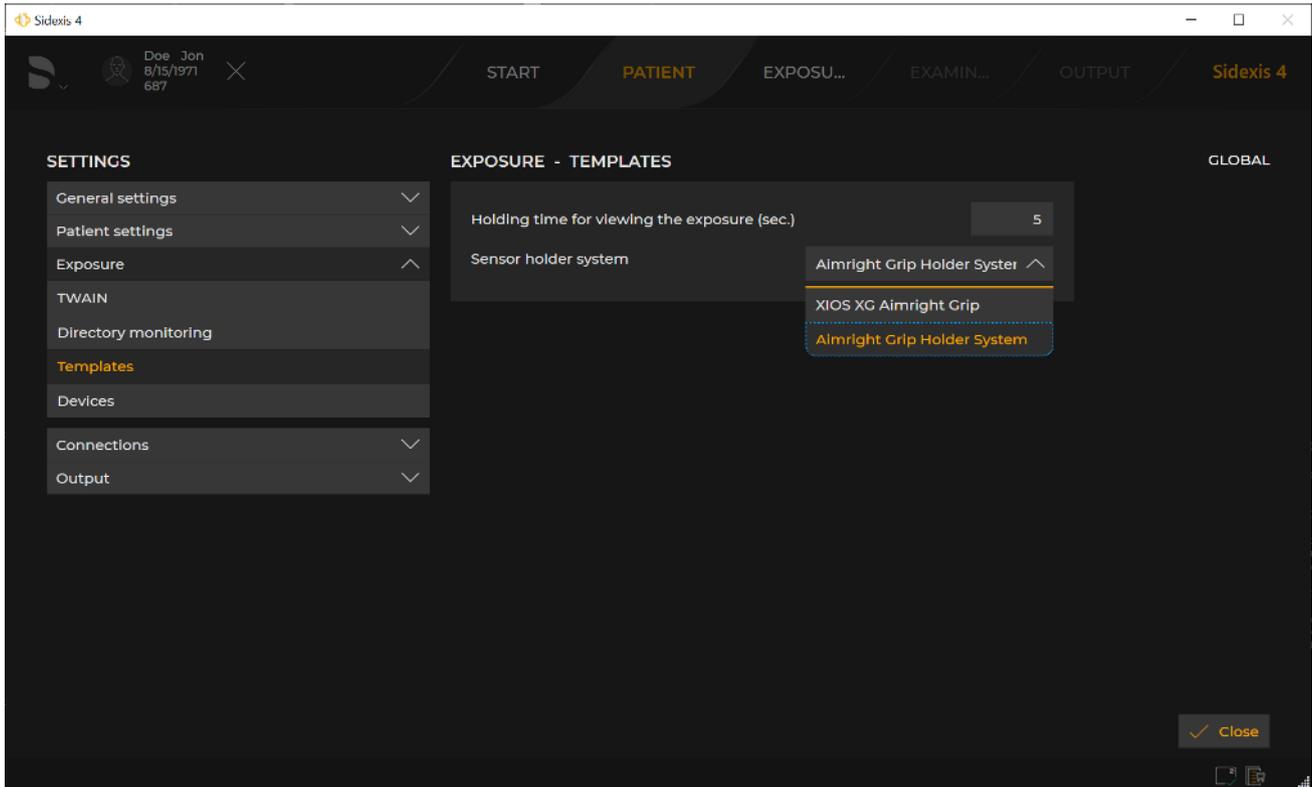
Entry fields	Entry
"Name"	Name of the import directory
"Folder"	Path to the "monitored" folder

Check box	Check box selected
<i>"Include subfolders"</i>	Media items that sit in subfolders of monitored folders are also imported.
<i>"Delete source files after import (except DICOMDIR)"</i>	The original files are deleted in the monitored folder after the import. The "deleted" files are not actually deleted, but are moved from the import folder to the temp folder. The temp folder must therefore be deleted every now and then. You can access the required directory using the environment variable "%TMP%".
<i>"Allow import of duplicates"</i>	Allow import of duplicates. When importing media items, a check is performed to see whether the media item is already in the Sidexis 4 database. It is possible to import duplicates into the database. In order to import duplicates <i>without further actions in the import table</i> , the <i>"Allow import of duplicates"</i> check box must be selected. If the check box is not selected here, an icon indicating an existing import problem is displayed in the import table when an attempt is made to import a duplicate (see also section "Importing duplicates [-> 325]").

Option button	Option button activated
<i>"Interactive import"</i>	Interactive import of data
<i>"Automatic import (background mode)"</i>	Automatic import of data

Button	Function
<i>"Add"</i>	Add monitored folder
<i>"Remove"</i>	Delete monitored folder
<i>"Icon"</i>	Define icon for the monitored folder or restore to factory settings
Folder icon	Select the path to the "monitored" folder via the directory tree

"Templates" Global settings for the exposure series

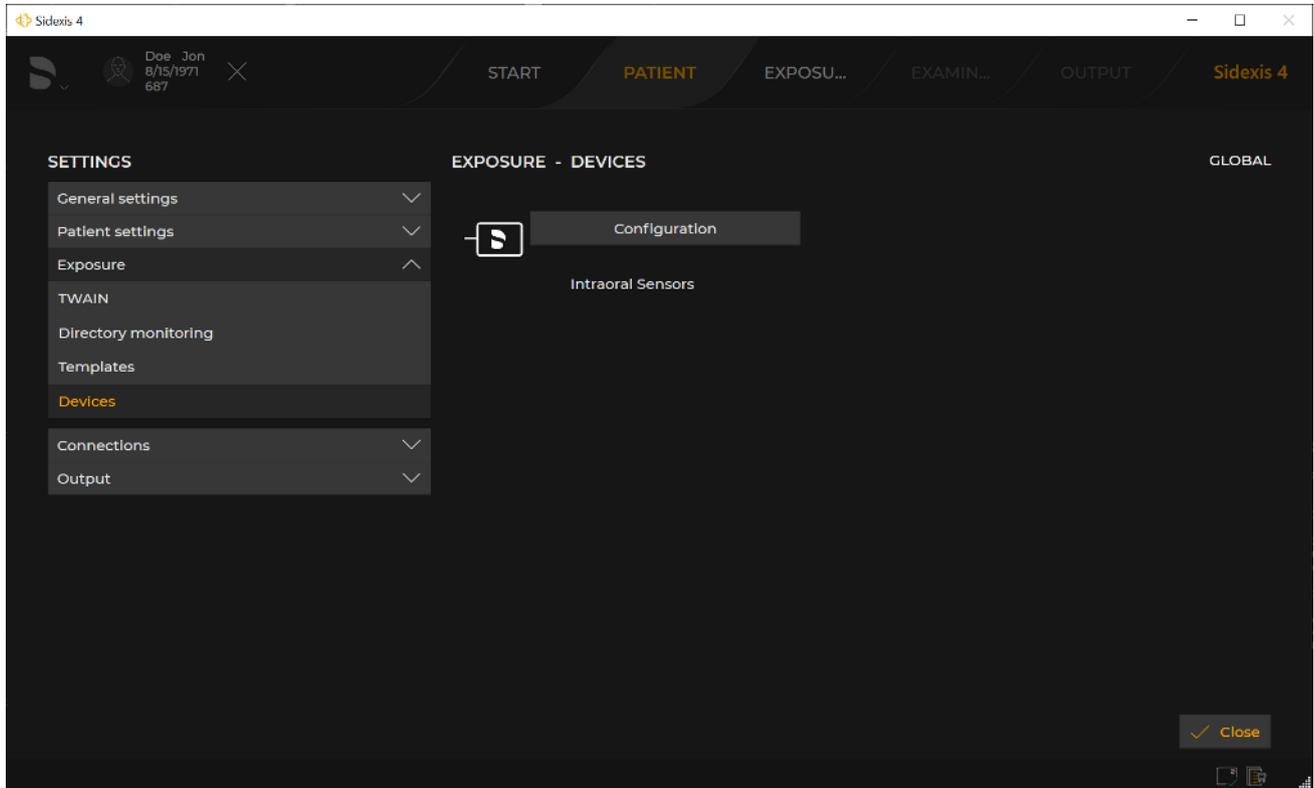


"Templates" menu

Entry fields	Entry
"Holding time for viewing the exposure (sec.)"	Time interval between the exposure appearing and the request for triggering the next exposure
Drop-down list	Selection
"Sensor holder system"	Selection of the sensor hold systems for intraoral exposures

"Devices" *Global* settings for the configuration of exposure devices

The number of devices or sensors displayed here varies depending on the installation.



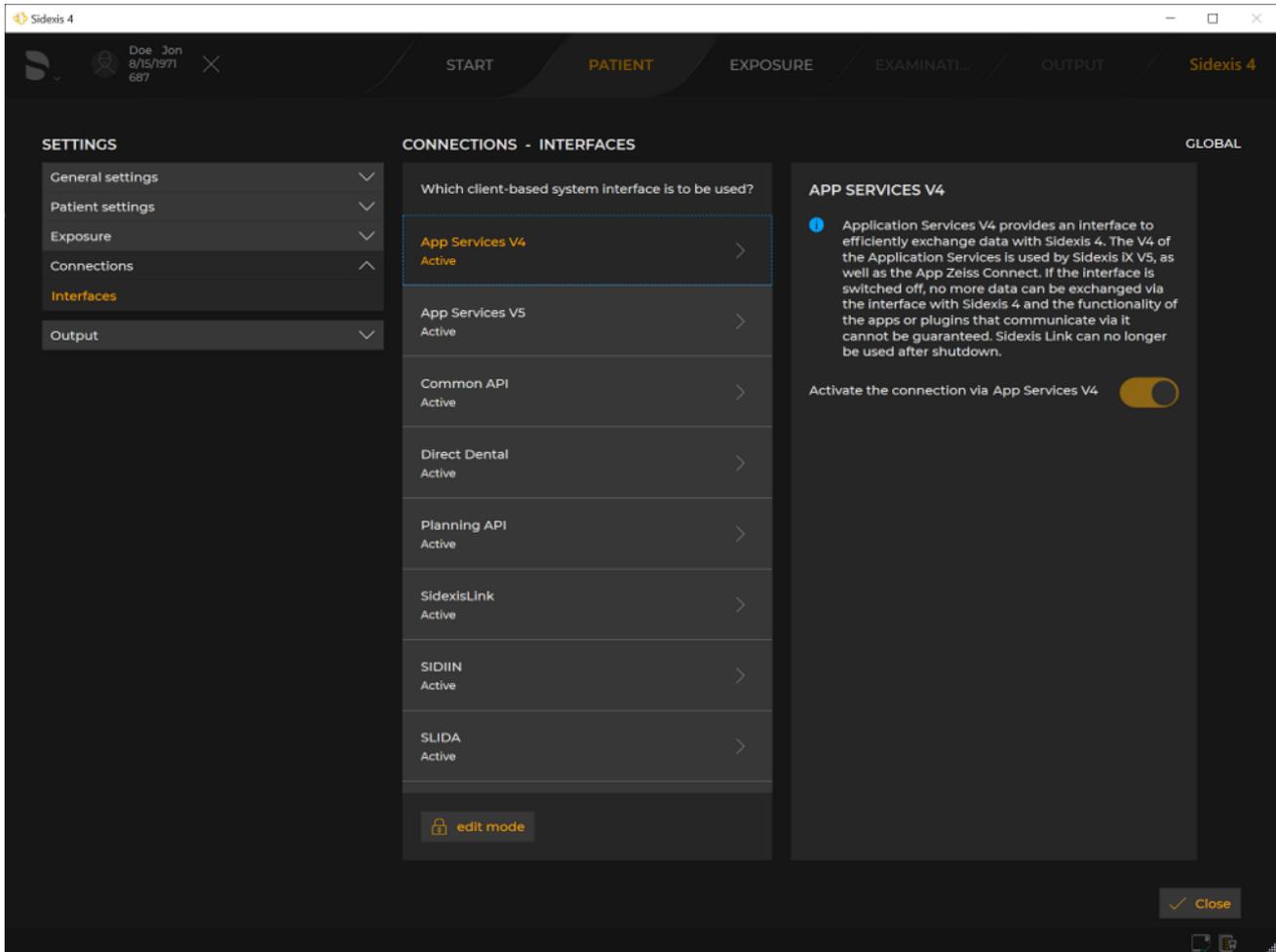
"Devices" menu

Button	Function
"Configuration"	Opens the menu for configuring the corresponding exposure device. The submenu that opens differs depending on the exposure device and is described in the instructions for use of the respective exposure device.

5.3.3.4 "Connections"

"Interfaces" *Global* settings for the setting of interfaces

To activate and deactivate interfaces, it is necessary to log in with the **"SIDEXIS 4 ADMINISTRATOR PASSWORD"** that you defined in the **"Sidexis 4 - System Administrator password"** input field during installation. To do this, click the **"Edit mode"** button and enter the **"SIDEXIS 4 ADMINISTRATOR PASSWORD"**.

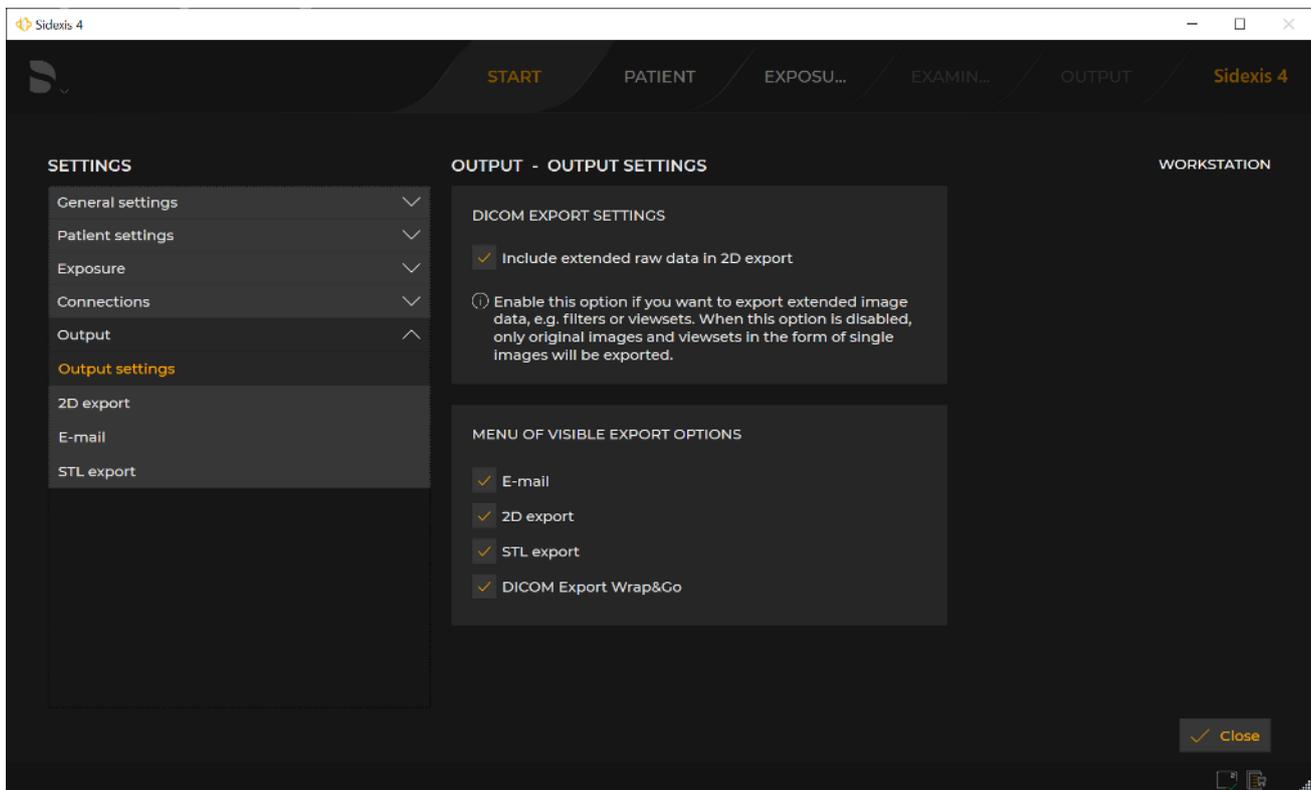


"Interfaces" menu

List field	Selected (orange)
<i>"Which client-based system interface is to be used?"</i>	Selection of the interface you want to activate or deactivate. If the interface has been selected, its description is displayed in the menu window on the right.
Switch	Switched on (orange)
<i>"Activate the connection via"</i>	The interface is activated.

5.3.3.5 "Output"

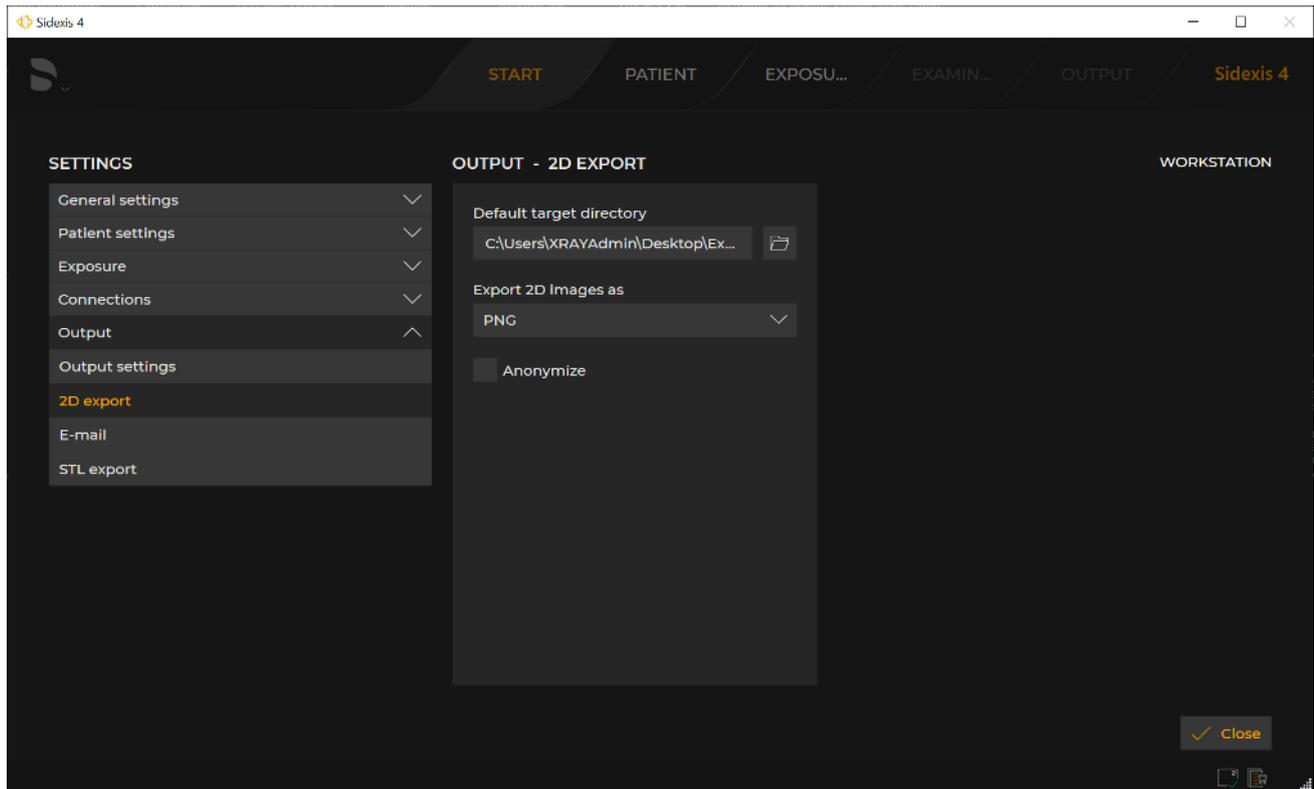
"Output settings" Workstation-related settings for the output settings



"Output settings" menu

Check box	Check box selected
<i>"DICOM Export settings"</i> menu area	
<i>"Include extended raw data in 2D export"</i>	Extended 2D export of raw data (including filter settings, layouts, etc.) is enabled.
<i>"Menu of visible export options"</i> menu area	
<i>"E-mail"</i>	These formats are displayed in the <i>"Output"</i> work phase. The export function <i>"E-mail"</i> is only available if MS Outlook is installed on the computer. If none of the check boxes have been selected, no examination can be exported or output. The <i>"Output"</i> button is then deactivated in the phase bar.
<i>"2D export"</i>	
<i>"STL export"</i>	
<i>""</i>	

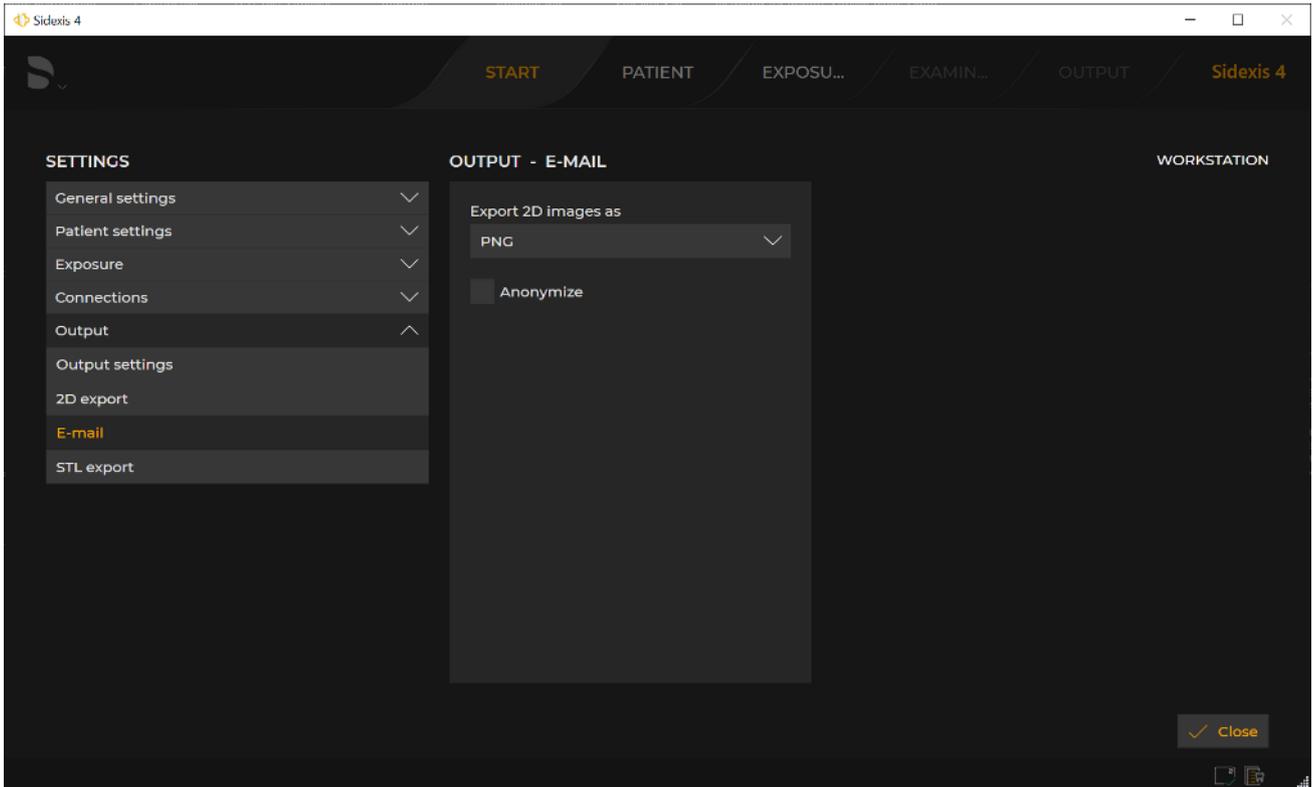
"2D export" Workstation-related settings for the output of 2D media items



"2D export" menu

Entry fields	Entry
"Default target directory"	Standard target directory for the output of 2D media items
Drop-down list	Entry
"Export 2D images as"	Output profile for the output of 2D media items
Check box	Check box selected
"Anonymize"	The raw data is anonymized during export.

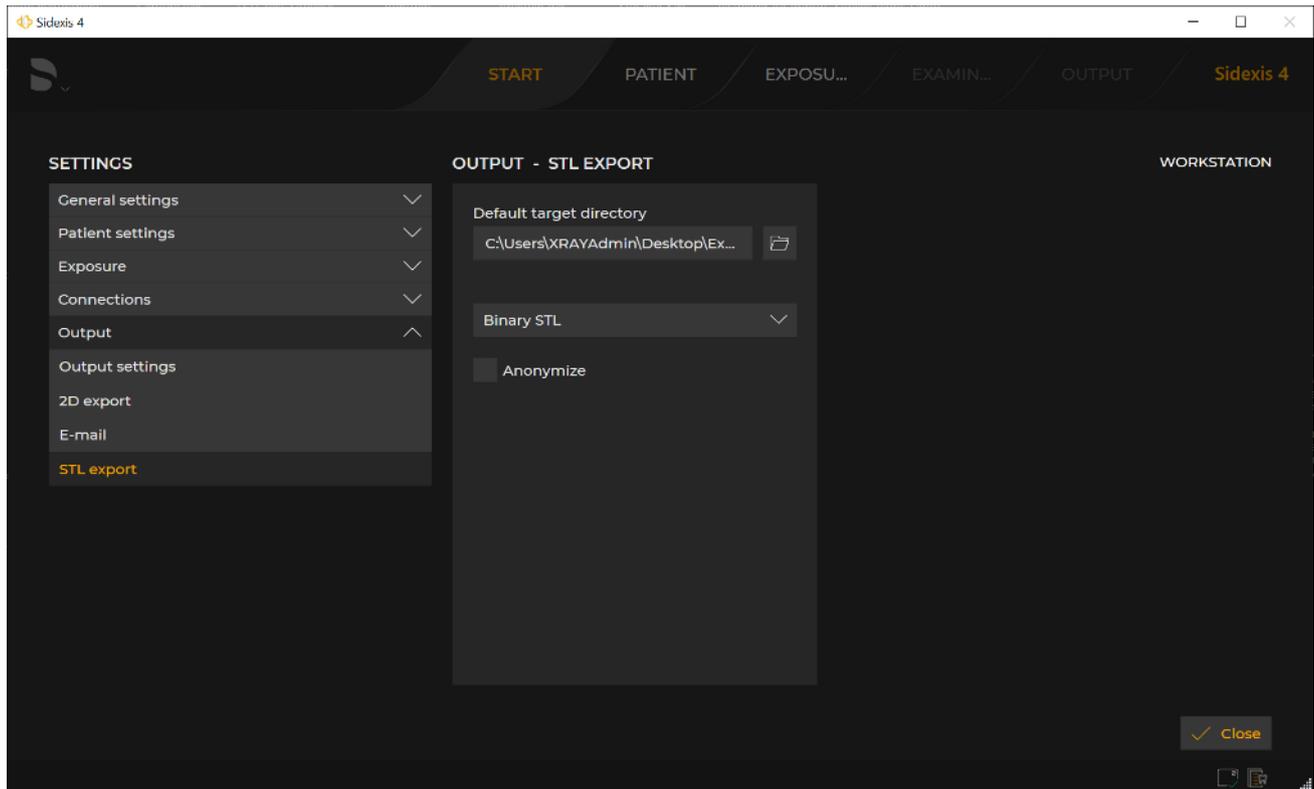
"E-mail" Workstation-related settings for the output of E-mails



"E-mail" menu

Drop-down list	Entry
"Export 2D images as"	Output profile for the output of E-mails
Check box	Check box selected
"Anonymize"	The patient data is anonymized during export.

"STL export" Workstation-related settings for the export in STL format



"STL export" menu

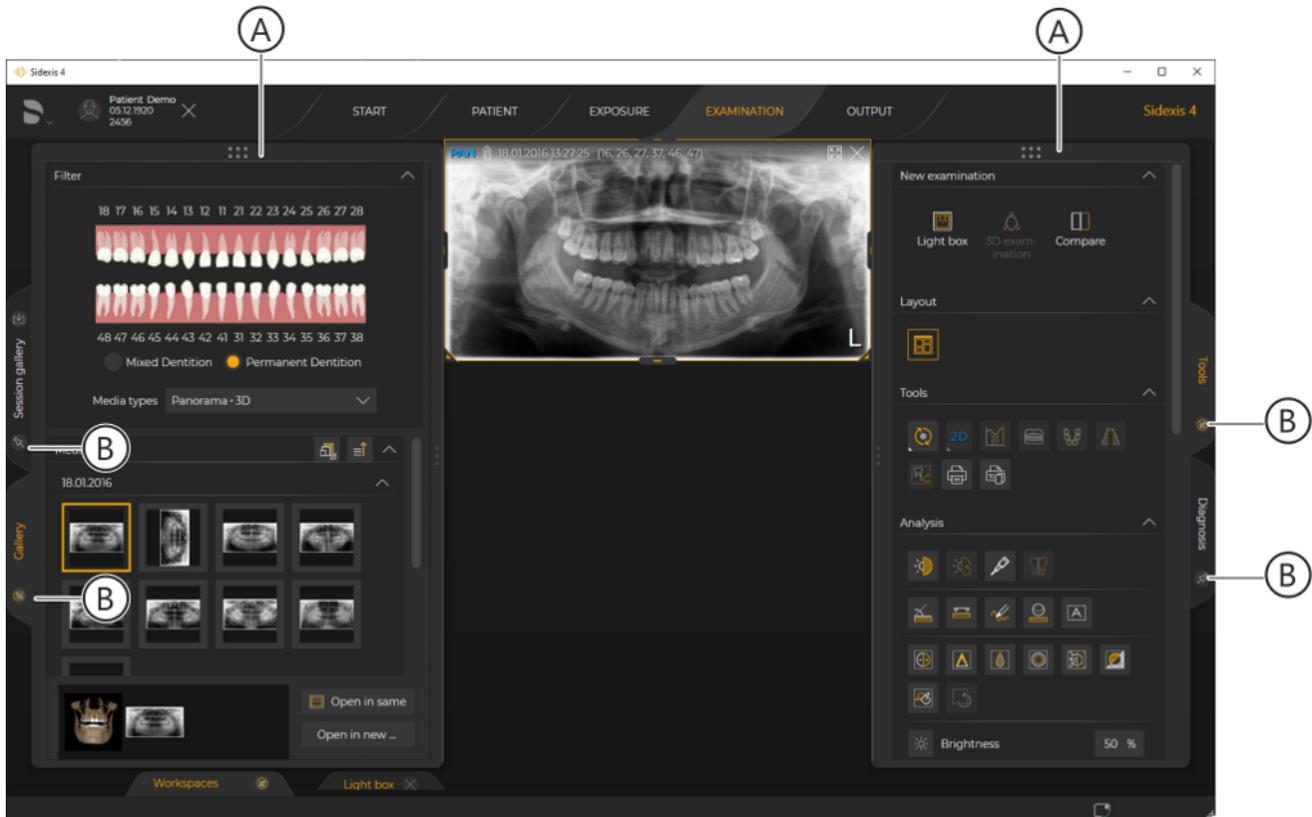
Entry fields	Entry
"Default target directory"	Default target directory for the output of STL media
Drop-down list	Entry
Drop-down list for selection of the output format	Output profile for the output of STL media
Check box	Check box selected
"Anonymize"	The patient data is anonymized during export.

5.4 Docking window

Various docking windows are available in the "Examination" phase:

- "Tools"
- "Diagnosis"
- "Gallery"
- "Session gallery"

After selecting the print functions via the "Tools" tool kit icons, the "Printing tools" docking window is available in the "Output" phase.



Docking window

Docking windows (A) can either be docked or floating. When docked, a docking window is fixed to the edge of the work area. It can then be temporarily shown or hidden by clicking on the tab (B). The size of the docking window can be altered by dragging the edge of the docking window with the mouse button held down.

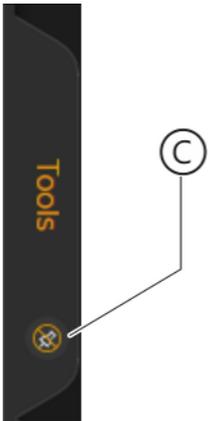
Docking windows can also be permanently displayed.

Only one of the "Gallery" and "Session gallery" docking windows or "Tools" and "Diagnosis" docking windows can be expanded at a time at the edge of the work area. If the windows are released from the edge of the window and can be moved freely then all docking windows can be displayed in parallel.

In the factory setting, docking windows are docked and hidden.

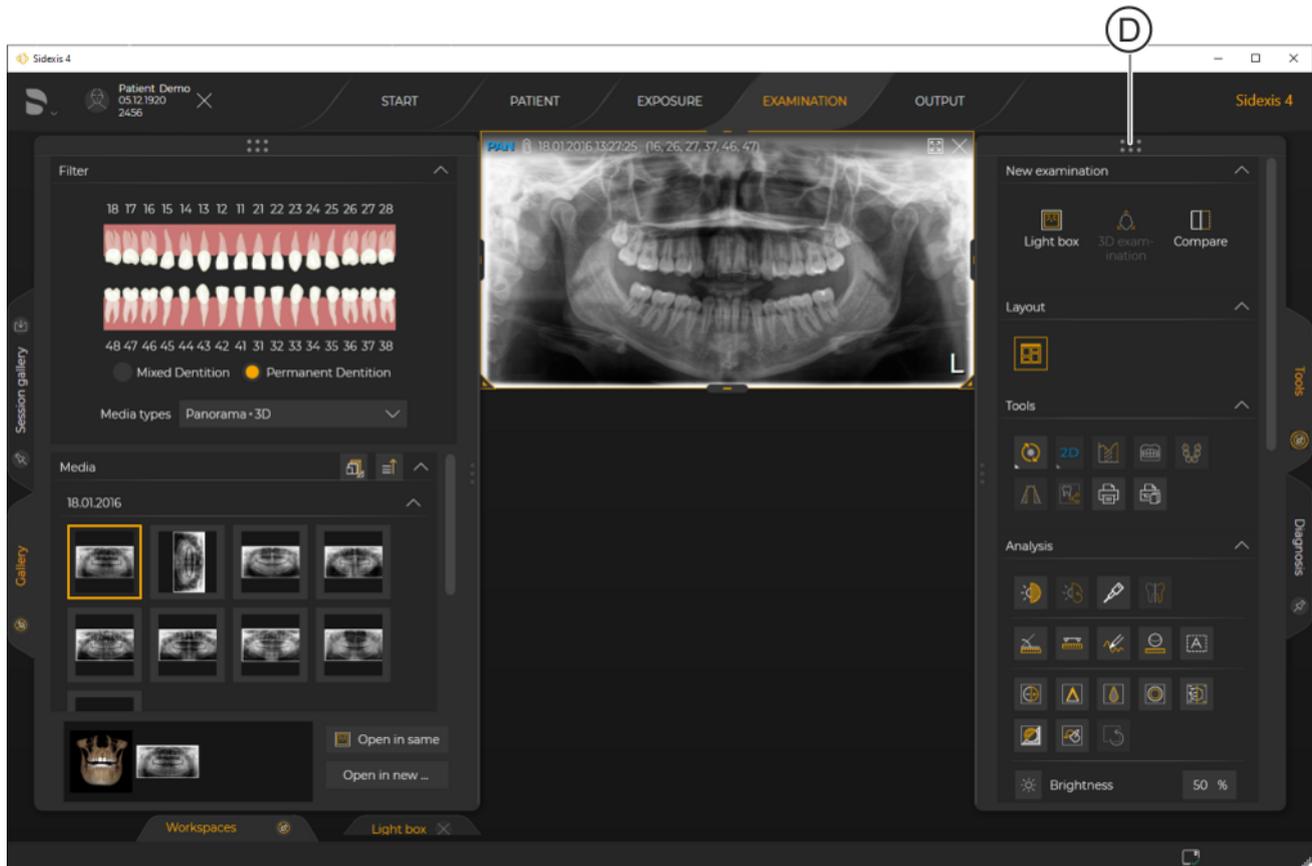
Permanently showing/ hiding docking window

- > Click on the pin icon (C) in the tab.
- ↪ The pin icon changes.
- ↪ The docking window remains permanently hidden.



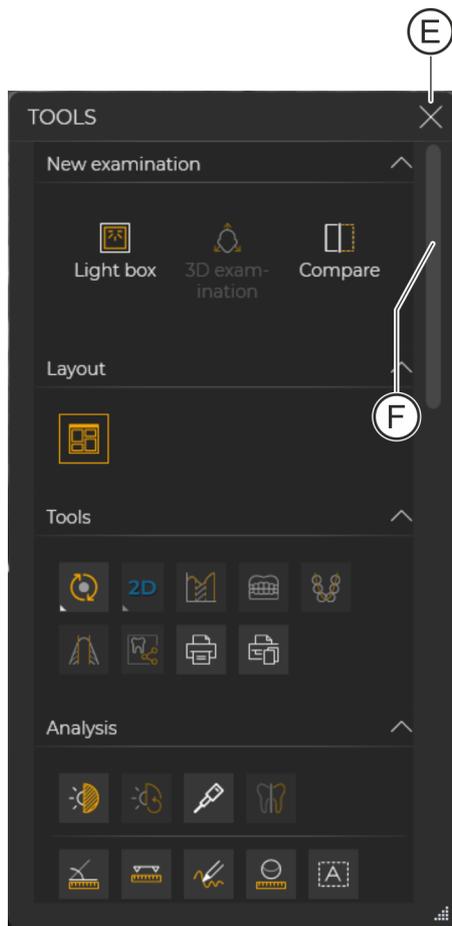
Undocking a docking window

A movable docking window is detached from the other components of the work area, so that it can be moved easily.



Undocking a docking window

1. Move the mouse pointer onto the dot (D) in the title bar (B) of the docking window.
2. Press the left mouse button.
3. With the mouse button held down, move the mouse pointer to another position in the work area.



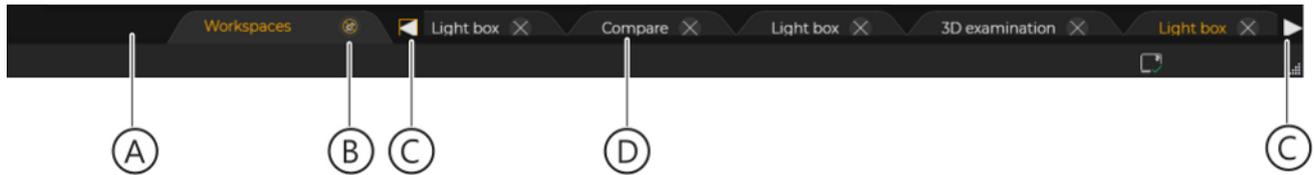
- ↪ The docking window is detached from the edge and can now be positioned freely.
- ↪ You can scroll in the docking window using the scroll bar (F).

Docking a docking window

- > Click on the white X (E) in the title bar of the undocked docking window.
 - ↪ The docking window automatically becomes docked to the edge again.

The functions available in the docking windows are described in sections "The "Examination" work phase [→ 31]" and "Printing [→ 338]".

5.5 Work area bar



Work area bar

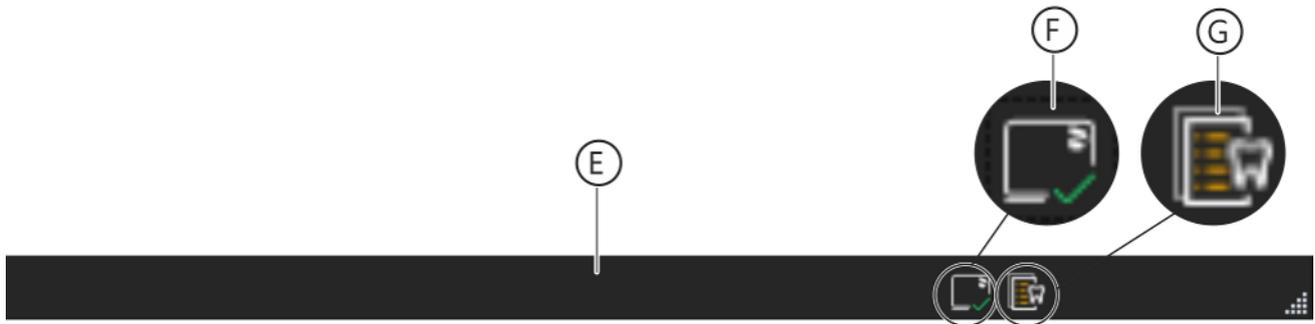
The work area bar (A) is permanently hidden in the factory settings of the software. By clicking on the pin icon (B) in the "Workspaces" tab, you can permanently display the work area bar. Clicking on the pin icon (B) again cancels the permanent displaying of the work area bar.

All opened work areas are displayed as buttons on the displayed work area bar. By clicking on these buttons, you can toggle between the opened work areas.

Arrow icons (C) are displayed in the work area bar if there are so many work areas open that they cannot all be displayed simultaneously in the work area bar. You can scroll through the work area bar by clicking these arrows.

By clicking on the cross-mark (D) in the buttons, the corresponding work areas are closed.

5.6 Status bar

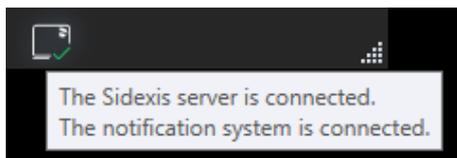


Status bar

Status messages between the Sidexis 4 client and server are displayed in the status bar (E).

The icon (F) indicates the status of the server connection.

	Network connection is okay
	Network connection error
	Network connection is currently being established



If you hover the mouse over the icon (F), additional information about the connection is displayed in the form of a tool tip.

You can open the X-ray control book using the icon (G).

5.7 General control elements

The following control elements are available in Sidexis 4:

Check boxes

- Function selection, multiple selection possible ("AND" condition)
- When you hover the mouse pointer over the check box...
 - The pointer changes from an "arrow" to a "hand"
 - The check box turns dark gray
- Clicking on the check box selects/deselects it and activates/deactivates the relevant function.
- Possible states:



- Check box activated (selected)



- Check box deactivated (not selected)

Option buttons

- Function selection, only one button can be selected in a group of option buttons ("OR" condition)
- When you hover the mouse pointer over the option button...
 - The pointer changes from an "arrow" to a "hand"
 - The option button turns dark gray
- Clicking on the option button activates the function behind it. A selected option button is deselected as soon as you click on another option button in the same group.
- Possible states:



- Option button activated (selected)



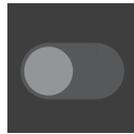
- Option button deactivated (not selected)

Switches

- Switching functions on and off
- Clicking on the switch switches it on or off.
- Possible states:



- Switch is switched on



- Switch is switched off

Buttons

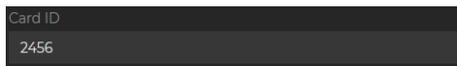


- Function control (e.g. accessing a menu)
- Buttons can be texts, icons, or other areas of the user interface.
- When you hover the mouse pointer over a button...
 - The pointer changes from an "arrow" to a "hand"
 - The check box turns dark gray
- Clicking on the button starts the function behind it.



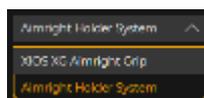
Some icon buttons have a small white triangle in the bottom left corner. This indicates the presence of another submenu behind the button, which is opened by clicking on the button.

Input fields



- Free entry of texts or numbers
- When you hover the mouse pointer over an input field, the pointer changes from an "arrow" to an "I-beam".
- Clicking on the input field places the text cursor in the field. Text is entered using the keyboard.

Drop-down lists



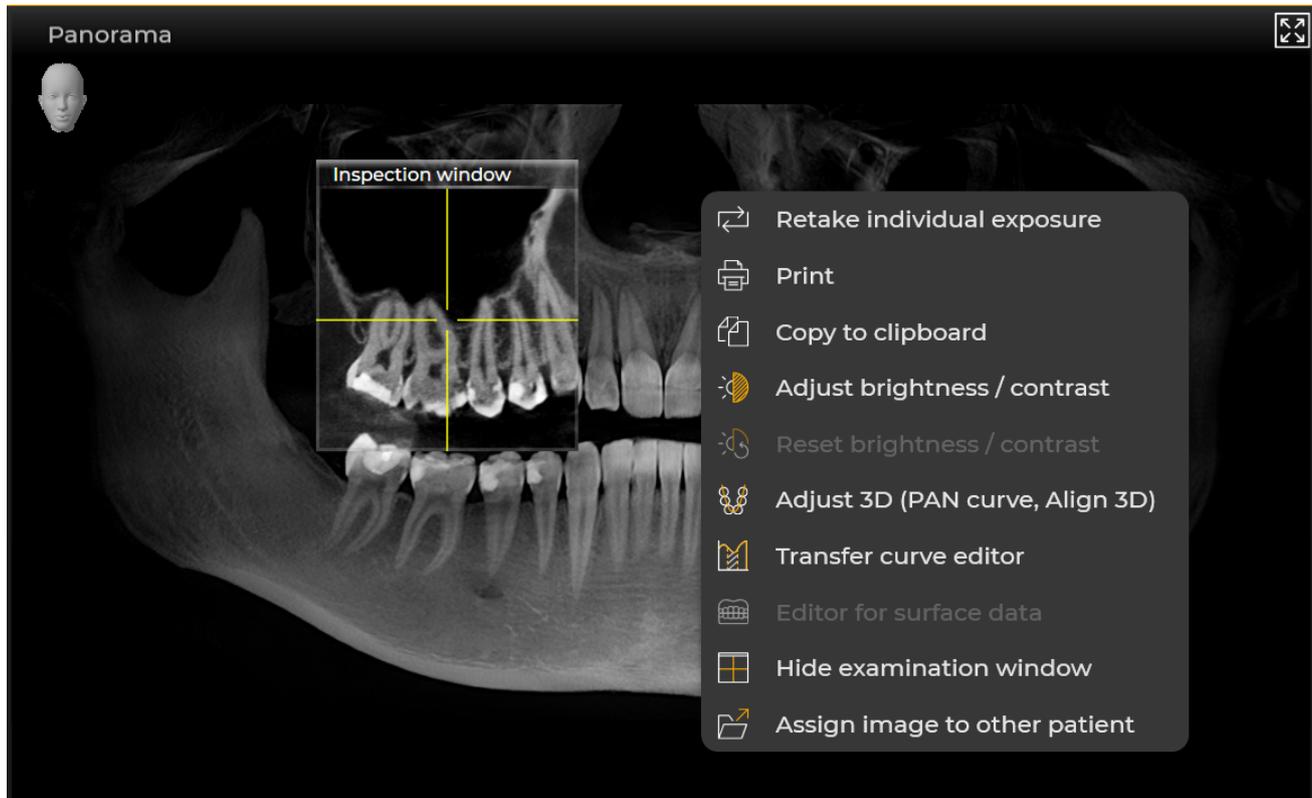
- Selection list of possible entries for a field
- When you hover the mouse pointer over a drop-down list, the pointer changes from an "arrow" to a "hand".
- Clicking on the drop-down list opens the list of possible entries. Clicking on an entry inserts it into the drop-down list.

5.8 Call up shortcut menus

Some of the "Tools" docking window functions can also be accessed via context menus. You can call up these menus by right-clicking over the media window.

Calling up context menus

- ✓ The "Examination" work phase is open.
- 1. Place the mouse pointer over the desired media window.
- 2. Right-click on the content of the media window.



Context menu

- ↳ The context menu opens.
- 3. Left-click on the desired function in the context menu.
- ↳ The function is called up.

5.9 Shortcut keys

5.9.1 General shortcut keys

Shortcut keys	Function	Prerequisites	Note
[+/-]	Zooms into media window.	A work area must be opened and the desired media window must be selected.	
[BACKSPACE (in input field)]	Opens previous logical step (one step back).	None	"Start" Work phase ⇒ work phase "Examination" ⇒ work phase Patient (cursor in the input field for the search) ⇒ work phase "Start" ⇒ NOTICE! If the focus is in an input field, then the shortcut will likely be processed from the input field.
[IMAGE up/down]	Scroll through layers.	A section view (volume) must be opened and selected in the work area.	
[ENTER]	Opens next logical step (one step forward).	None	"Start" Work phase ⇒ work phase "Patient" (cursor in the input field for the search) ⇒ "Gallery" ⇒ work phase "Examination" ⇒ work phase "Output" NOTICE! If the focus is in an input field, then the shortcut will potentially be processed from the input field.
[Esc]	Deactivates tool.	A tool – e.g. the length measurement tool – is activated.	
[F1]	Opens help.	None	
[SPACE BAR]	Activates full-screen mode.	A work area must be opened and the desired media window must be selected.	
[SPACE BAR]	Exits full-screen mode.	Full-screen mode must be activated.	If a tool is activated, this must first be deactivated; e.g. through the "Esc" shortcut

Shortcut keys	Function	Prerequisites	Note
[ARROW KEY up/down/left/right]	Changes the image section displayed.	A work area must be opened and the desired media window must be selected.	
[Ctrl]+[-]	Minimize content.	Print preview	
[Ctrl]+[+]	Maximize content.	Print preview	
[Ctrl]+[O]	Opens gallery for adding a media item to an opened work area.	A work area must be opened.	
[Ctrl]+[1]	Display "100%"	Print preview	
[Ctrl]+[2]	"Page width" display.	Print preview	
[Ctrl]+[3]	"Whole page" display.	Print preview	
[Ctrl]+[4]	"Two pages" display.	Print preview	
[Ctrl]+[C]	Copy	Print preview	
[Ctrl]+[E]	Changes to the "Output" work phase.	A work area must be opened.	
[Ctrl]+[F4]	Closes current work area.	A work area must be opened.	
[Ctrl]+[P]	Print a work area.	Print preview: Print a work area.	
[Ctrl]+[P]	Prints the image	Print preview: Print selected image	
[Ctrl]+[Tab]	Selects the next image in the current work area.	A work area with multiple images must be opened.	
[Ctrl]+[Shift]+[3]	Creates a volume (3D) exposure.	A patient must have been registered.	
[Ctrl]+[Shift]+[C]	Creates a Ceph exposure.	A patient must have been registered.	
[Ctrl]+[Shift]+[I]	Creates an intraoral exposure.	A patient must have been registered.	
[Ctrl]+[Shift]+[P]	Creates a panoramic exposure.	A patient must have been registered.	
[Ctrl]+[C]	Copy the image from the work area to the Windows clipboard.	A work area must be opened and the desired media window must be selected.	
[Ctrl]+[S]	Save patient session.	An examination must be open.	
ARROW KEY right/left	Select images in the media gallery.	Media gallery must be open.	

5.9.2 Shortcut keys within the timeline

The shortcut keys described in this section only apply if you have opened the *"Timeline"*.

In the following, the terms **"highlighted"** and **"selected"** are used in connection with the media items of the *"Timeline"*.

A *highlighted media item* is selected (with blue border) but not yet transferred to the *"Clipboard"*.

A *selected media item* (with orange border) is in the *"Clipboard"* of the *"Timeline"*.

"Timeline" in the *"Exposure"* view

Shortcut keys	Function	Prerequisite
ARROW KEY right / left	Selects the first media item within the highlighted <i>"Timeline"</i> row (exposure date). If a media item has already been highlighted or selected in the <i>"Timeline"</i> row, the media item to the left or right of the media item last highlighted or selected in this line is selected.	No media item is highlighted or selected.
ARROW KEY up / down	Changes the <i>"Timeline"</i> row (exposure date). The first media item of the <i>"Timeline"</i> row is automatically selected.	
[Ctrl]+SPACE BAR	The previously highlighted or selected media item becomes selected or highlighted, respectively.	At least one media item is highlighted or selected.
[Ctrl]+ ARROW KEY right / left	The media item next to the media item last highlighted or selected is highlighted. The highlighted media item is selected via the shortcut [Ctrl] + SPACE BAR. The [Ctrl] key must not be released throughout this process. Previously selected media items remain selected.	
[Shift]+ ARROW KEY right/ left / up / down	Selects all the media items present in the <i>"Timeline"</i> row + all media items of the highlighted <i>"Timeline"</i> rows above and below it.	
[Ctrl]+[A]	Selects all media items present in the <i>"Timeline"</i> .	
[Enter]	Opens all selected media items (from the <i>"Clipboard"</i> in the <i>"Light box"</i> work area)	At least one media item is highlighted or selected.

"Timeline" in the "Sessions" view

Shortcut keys	Function	Prerequisite
ARROW KEY right / left	Selects the first session within the highlighted <i>"Timeline"</i> row (session date). If during the current <i>"Timeline"</i> session a session has already been highlighted or selected in this <i>"Timeline"</i> row, the session to the left or right of the session last highlighted or selected in this line is selected.	No session is highlighted or selected.
ARROW KEY up / down	Changes the <i>"Timeline"</i> row (exposure date). The first session of the <i>"Timeline"</i> row is automatically selected.	
[Ctrl]+SPACE BAR	The previously highlighted or selected session becomes selected or highlighted, respectively.	One session is highlighted or selected.
[Ctrl]+ ARROW KEY right / left	The session next to the session last highlighted or selected is highlighted. The highlighted session is selected via the shortcut [Ctrl] + SPACE BAR.	One session is highlighted or selected.

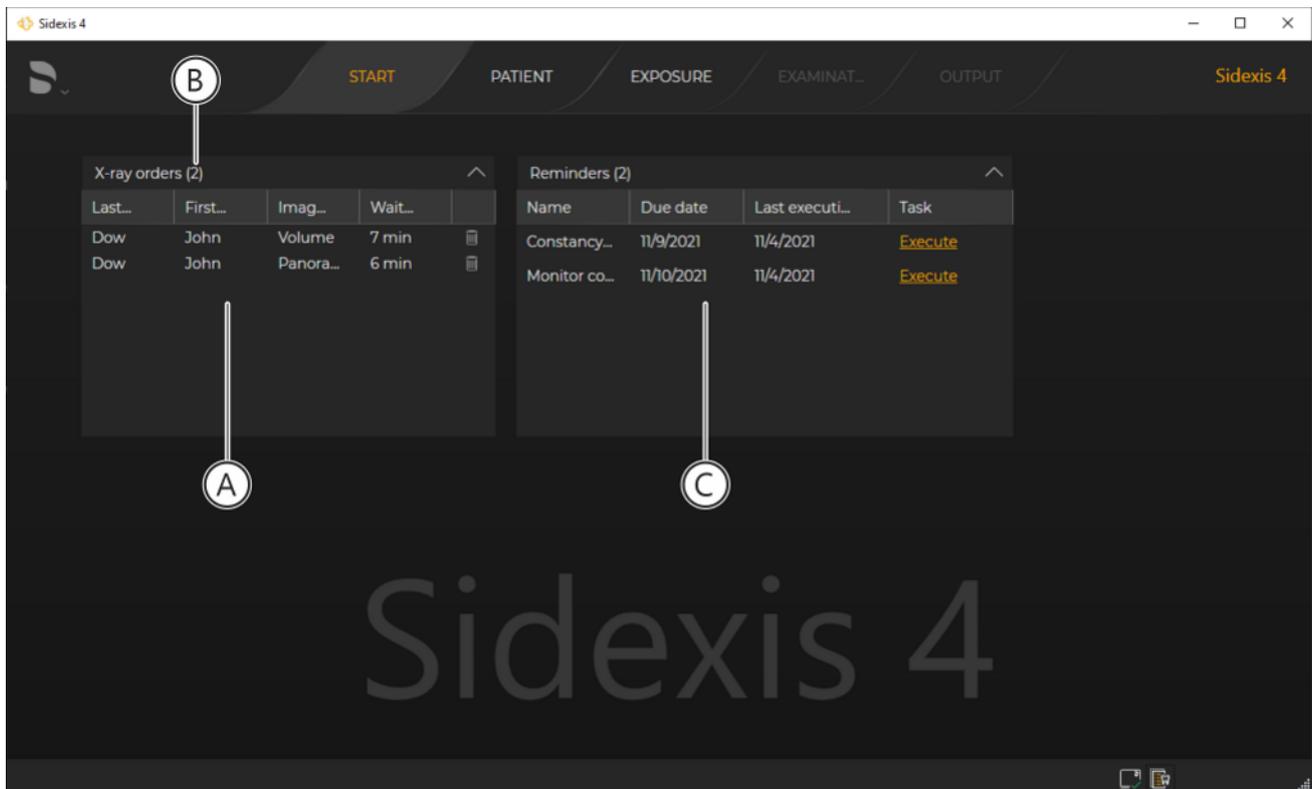
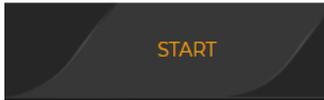
6 Managing jobs

Orders are managed in the "Start" work phase.

After Sidexis 4 restarts, the software automatically goes into the "Start" work phase.

Calling up "Start" work phase

> Click on the "Start" button in the phase bar.



"Start" work phase

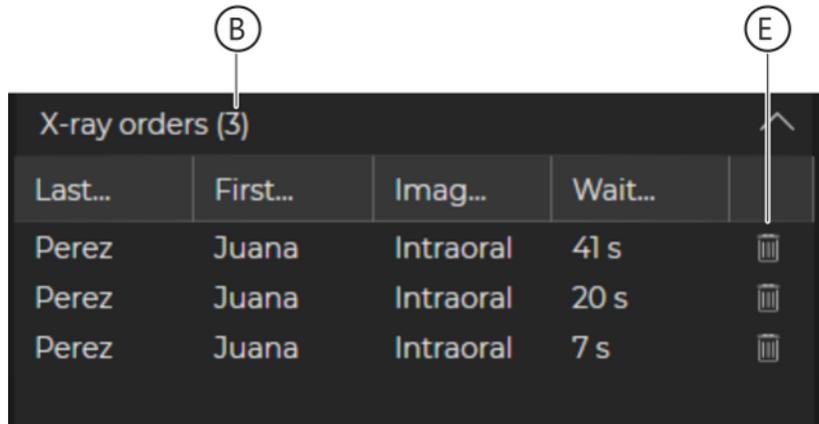
↳ Sidexis 4 jumps to the "Start" work phase.



Expanding the list of X-ray orders

↳ The order list (A) and the reminder list (C) are displayed. The display field (B) shows the number of open X-ray orders and the number of pending reminders. The lists are closed initially when the program is started. Clicking on the arrow symbol (D) opens the lists.

6.1 Creating an X-ray job



Order list

B	Number of open orders
E	Recycle bin

If you work with central **Practice Administration Software (PAS)** in your practice, the X-ray exposures are created in the PAS and sent from there to Sidexis 4. The orders from the PAS are displayed in the order list of the "Start" work phase.

6.2 Accepting X-ray jobs

An X-ray job can be accepted either automatically or manually. You can set the method of accepting in the configuration menu. When an X-ray job is accepted, the corresponding patient is also automatically logged in.

6.2.1 Accepting X-ray jobs automatically

If the *"Orders can be accepted here"* and *"Accept single order directly"* check boxes are selected in the *"General settings"* ⇒ *"Multistation"* configuration menu, Sidexis 4 switches directly to the *"Exposure"* work phase upon arrival of an X-ray order from the PAS. The corresponding patient is registered and displayed in the title bar.

If a patient is currently registered and you are currently in the *"Examination"* work phase, the order is written in the order list and must be accepted manually later.

If you are not in the *"Examination"* work phase, the currently registered patient is automatically checked out. The new patient is registered and Sidexis 4 establishes exposure readiness.

6.2.2 Accepting X-ray jobs manually

- ✓ The *"Start"* work phase is open.
- > Double-click on the X-ray order in the order list that you want to do next.

Tip: You can sort the order list [→ 120] for a better overview.

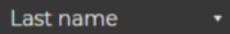


"Exposure" work phase with a registered patient

- ↳ Sidexis 4 jumps directly to the *"Exposure"* work phase.
- ↳ The X-ray order is accepted. The respective patient is registered and displayed in the header line (D).

6.3 Sorting the job list

You can sort the order list according to the terms in the header line such as last name.



1. Click on the relevant term in the table header (e.g. "*Last name*").
 - ↳ The list is sorted accordingly.
 - ↳ A small arrow point is displayed in the header next to the term. This indicates the sorting direction (upwards or downwards).
2. By clicking on the same term again, you can change the sorting direction around.

7 Logging patients in/out

There are several different ways to register or check out a patient.

When a patient is checked out, their last patient session is automatically saved.

Automatically via PAS

The patient is automatically registered when an X-ray order arrives from the PAS. The currently registered patient is then automatically checked out.

Manually via the patient table

✓ The *"Patient"* work phase is open.

1. Double-click on the row of the patient you are looking for in the patient table.

or

> Click on the row of the patient you are looking for in the patient table and then on the *"Register and Timeline"* or *"Register and exposure"* button.

Last name	First name	Date...	Card i...	Last i...
Bloggs	Joe	04.04.1990	3456	
Doe	John	01.01.1970	1356	15.02.2021
Juan	Pérez	05.05.2001	6789	15.02.2021
Mustermann	Max	03.03.2000	0987	19.02.2021
Patient	Demo	05.12.1920	2456	31.03.2021

Edit

Register and Timeline

Register and exposure

Delete

Context menu of patient table

or

> Right-click on the row of the patient you are looking for in the patient table and then on the *"Register and exposure"* or *"Register and Timeline"* button in the context menu that appears.

↳ If a patient is currently registered, they will be checked out.

↳ The new patient is registered.

↳ The new patient is displayed on the left side of the title bar.

By opening the "latest session" or "latest exposure"

✓ The *"Patient"* work phase is open.

1. Click on the row of the patient you are looking for in the patient table.

↳ The patient's data is displayed in detail next to the patient table.

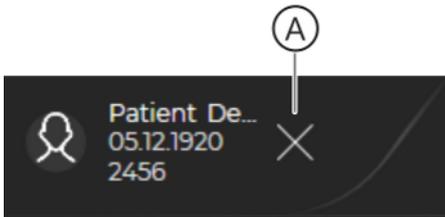
↳ The patient's last exposures (of each image type) and their last patient session are also displayed.

2. Double-click on one of the last exposures or the last patient session.

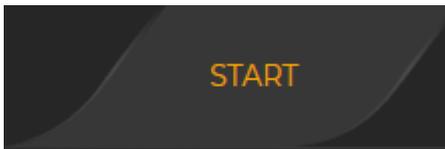
↳ If a patient is currently registered, they will be checked out.

↳ The new patient is registered.

↳ The new patient is displayed on the left side of the title bar.

Checkout via the registration window of the title bar

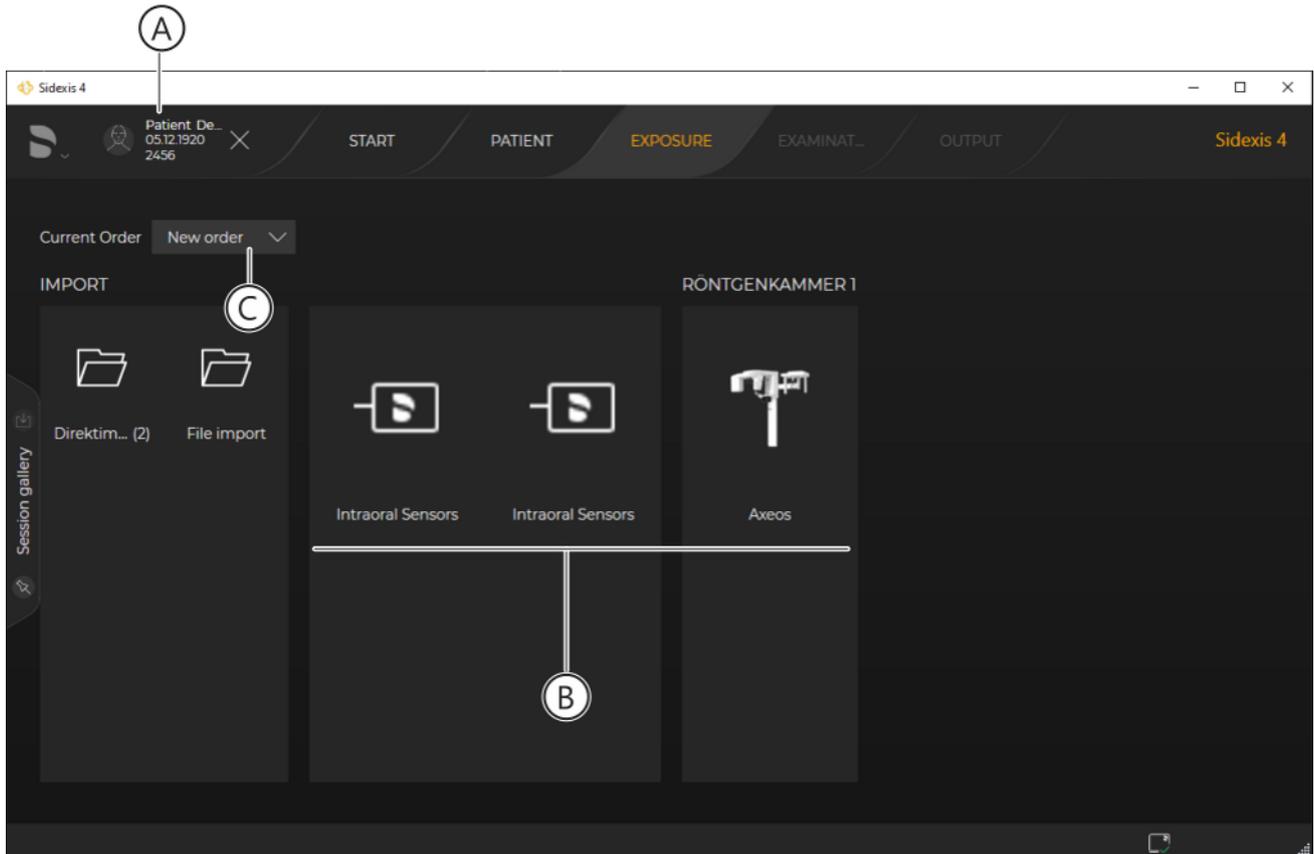
- ✓ A patient is registered.
- Click on the "Check out patient" button (A) on the left side of the title bar.
 - ↳ The patient is checked out.

Checkout via the "Start" button of the phase bar

- ✓ A patient is registered.
- Click on the "Start" button in the phase bar.
 - ↳ The patient is checked out.

8 Preparing X-ray exposures

X-ray exposures are prepared in the "Exposure" work phase.



"Exposure" work phase

A	Registered patient
B	Selectable X-ray devices
C	Current order

Device availability Depending on device type, the current status of the device is also indicated by a pictogram:

	Device is ready
	Device is in use
	Device unavailable
	Device unknown.
	Data could not be transferred to Sidexis 4 (rescue state)

8.1 Selecting an X-ray job

Automatic order acceptance from the PAS

If the *"Orders can be accepted here"* and *"Accept single order directly"* check boxes are selected in the *"General settings"* ⇒ *"Multistation"* configuration menu, an X-ray order arriving from the PAS is accepted directly. Sidexis 4 automatically switches to the *"Exposure"* work phase. The corresponding patient is registered and displayed in the title bar.

If a patient is registered and you are not in the *"Examination"* work phase when the new X-ray order arrives, then this patient is automatically checked out.



The new order from the PAS is selected in the *"Current Order"* drop-down list (C). Only the relevant devices for this order are available.

If you want to take a different X-ray exposure to the one defined in the order, you can select the *"New order"* entry in the *"Current Order"* drop-down list. The order is then moved from the PAS to the order list and you can take an X-ray exposure separate from the order first. All X-ray devices in the network will then be available again.

If you are currently in the *"Examination"* work phase when the new X-ray order arrives, the order is written into the order list and must be accepted manually later.

Manual order acceptance via the order list

If the *"Orders can be accepted here"* and *"Accept single order directly"* check boxes are deselected in the *"Multistation"* configuration menu or you are currently in the *"Examination"* work phase when a new X-ray order arrives, the orders from the PAS are automatically written into the order list and must be accepted manually later.

- Double-click the desired entry in the order list.
 - ↳ Sidexis 4 opens the *"Exposure"* work phase.
 - ↳ The new patient (A) is registered and displayed in the title bar.
 - ↳ The order from the order list is selected in the *"Current Order"* drop-down list. Only the suitable devices (B) for this order are available.

If you want to take a different X-ray exposure than the one defined in the order, you can select the *"New order"* entry in the *"Current Order"* drop-down list (C). The order is then moved from the PAS back to the order list and you can take an X-ray exposure separate from the order first. All X-ray devices in the network will then be available again.

New order without PAS via the *"Patient"* work phase

If no X-ray order has been created via the PAS, you can also define a completely new X-ray order via the *"Patient"* work phase.

1. Open the *"Patient"* work phase.
2. Click on the desired patient in the patient list.
 - ↳ The patient's details, the last exposures, and the last patient session are displayed.
3. Click on the *"Register and exposure"* button to create a new exposure.
 - ↳ Sidexis 4 opens the *"Exposure"* work phase.
 - ↳ The new patient (A) is registered and displayed in the title bar.
 - ↳ *"New order"* is selected in the *"Current Order"* drop-down list. All X-ray devices in the network are available.

Repeating order via the *"Patient"* work phase

You can repeat the last exposure of a particular image type via the *"Patient"* work phase [→ 128].

1. Open the *"Patient"* work phase.
2. Click on the desired patient in the patient list.
 - ↳ The patient's details, the last exposures, and the last patient session are displayed on the right next to the patient list.
3. *Right-click* on one of the last exposures and then on the *"Create new order"* button in the context menu.
 - ↳ Sidexis 4 opens the *"Exposure"* work phase.
 - ↳ The new patient (A) is registered and displayed in the title bar.
 - ↳ The old order for the "latest exposure" is selected in the *"Current Order"* drop-down list. Only the suitable devices (B) for this order are available.

8.2 Select X-ray components/acquisition unit

- ✓ The "Exposure" work phase is open.
- > Select an X-ray component.
 - To do this, click on the device icon in the list of X-ray components.
 - ↳ The dialog for preparing the exposure appears.

IMPORTANT: The dialog and the workflow for preparing and creating an X-ray exposure is dependent on the selected X-ray component. For information on the dialogs and workflows, please refer to the operating instructions of the respective X-ray components.

8.3 Repeat the exposure

Sidexis 4 offers you two simple options for repeating X-ray exposures:

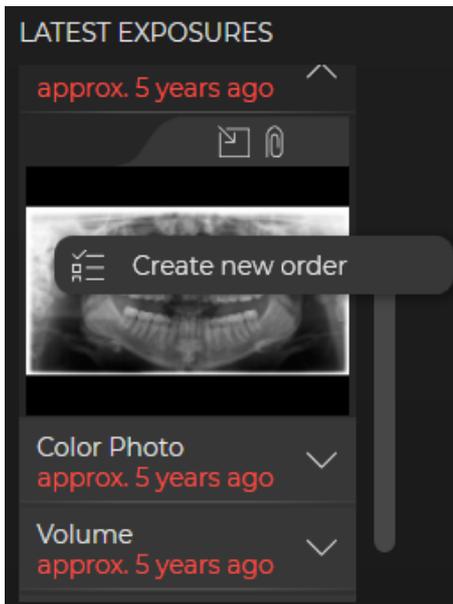
- Repeating the *last X-ray exposure* from the "Patient" work phase.
- Repeating an X-ray exposure currently open in the "Examination" work phase.

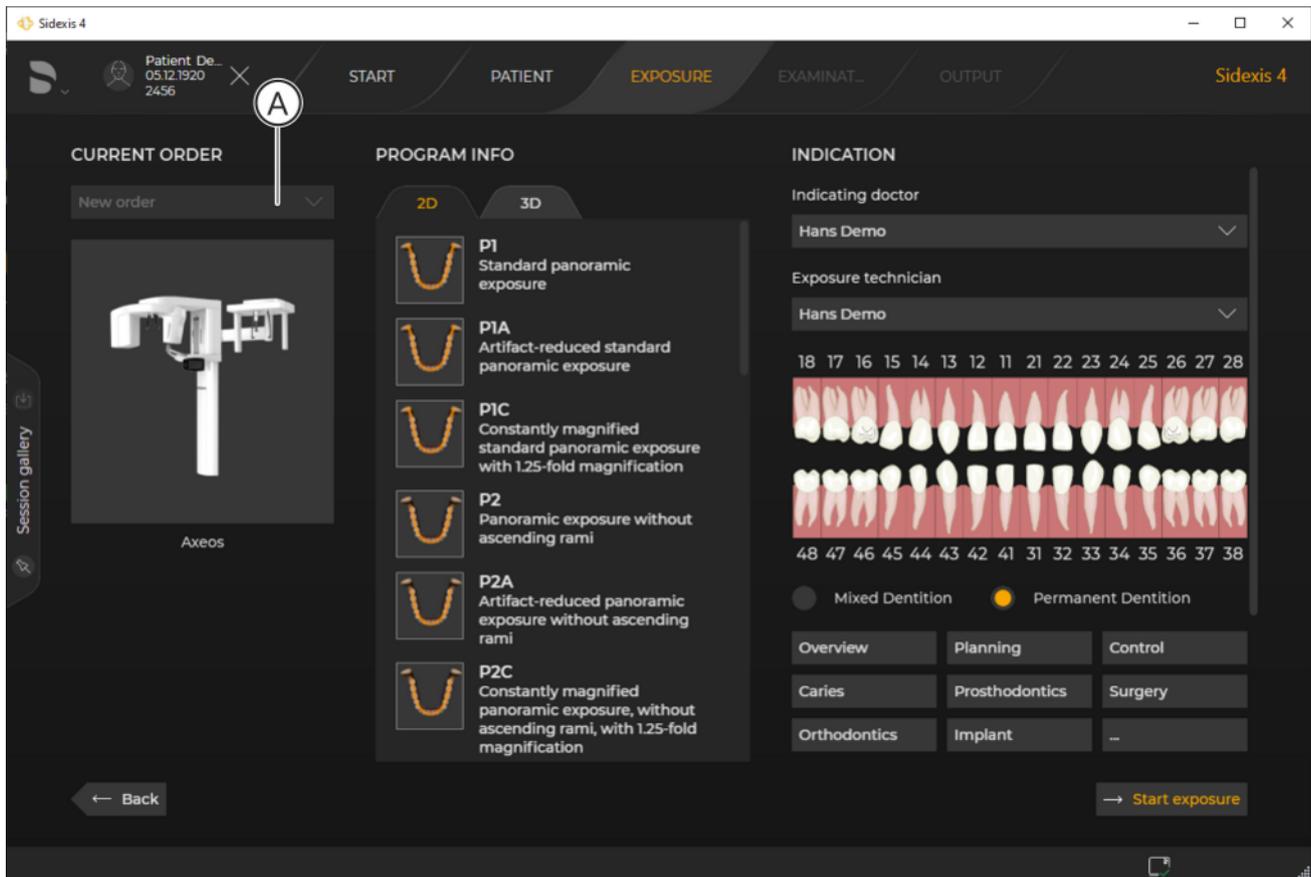
Last X-ray exposure

The last exposure of any image type can be repeated from the "Patient" work phase.

✓ A patient must be registered.

1. Switch to the "Patient" work phase.
2. Under "Latest exposures", right-click on the exposure that you want to repeat.
 - ↳ A context menu opens.
3. Click on the "Create new order" button with the left mouse button.





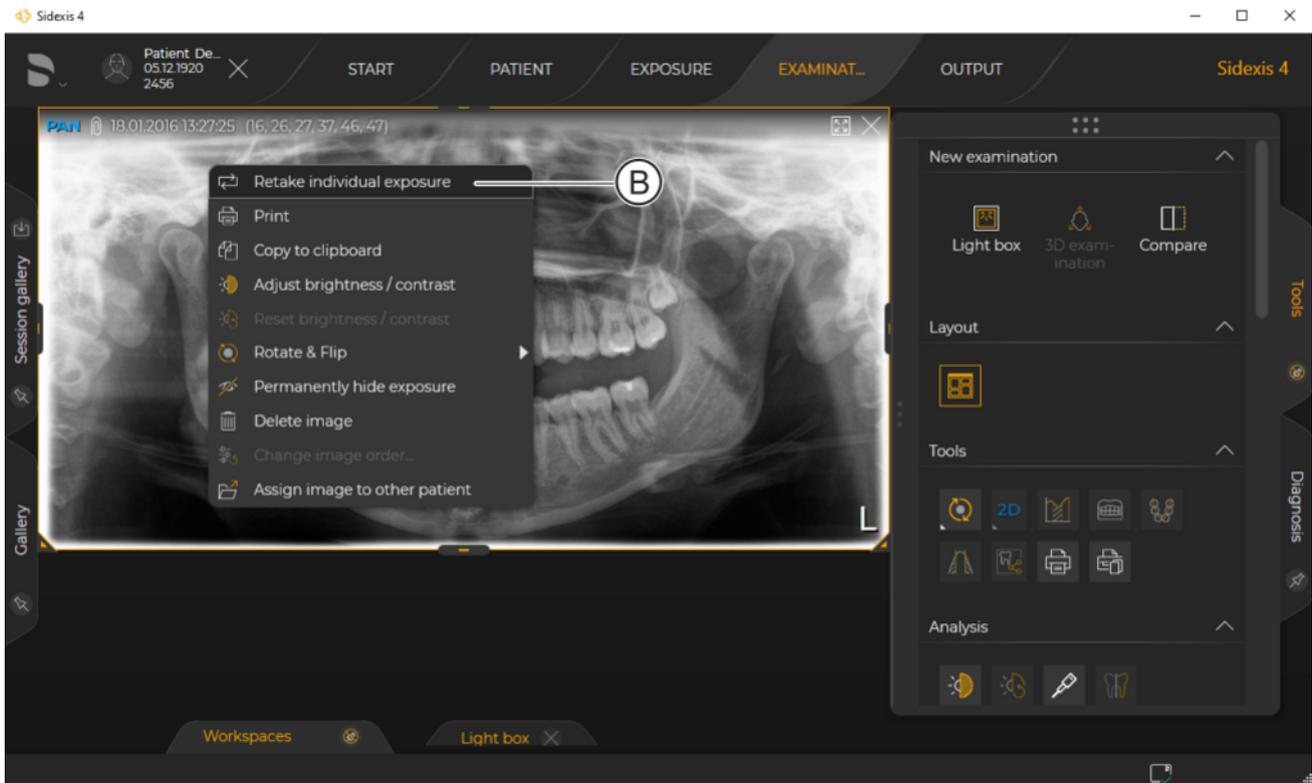
Repeating last exposure

- ↳ Sidexis 4 switches to the "Exposure" work phase.
- ↳ The new X-ray order (A) is shown in the "Current Order" drop-down list.
- ↳ The new X-ray order is displayed in the order list of the "Start" work phase.

Currently opened X-ray exposure

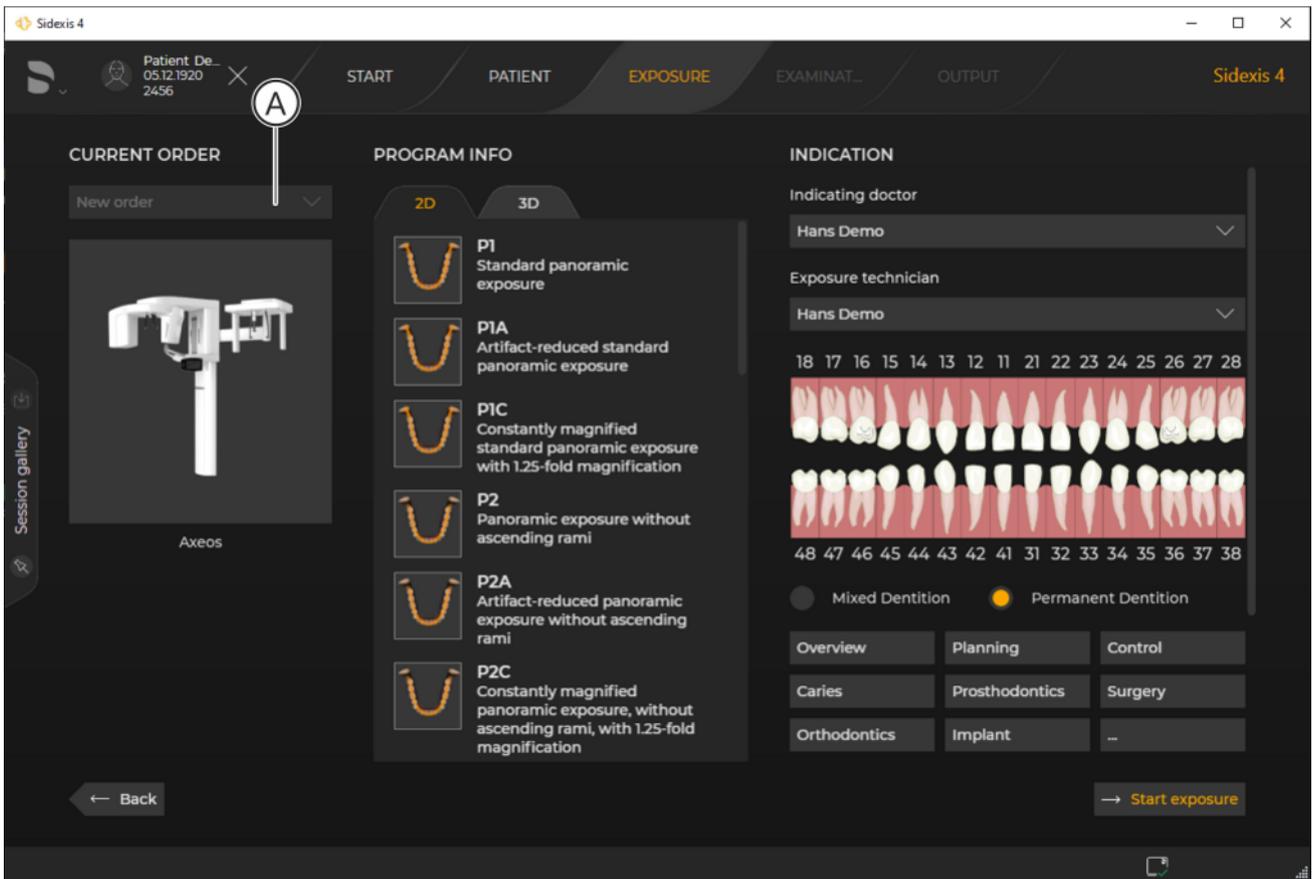
Any exposure opened in the "Examination" work phase can be repeated.

- ✓ An exposure is opened in the "Examination" work phase.
- 1. Switch to the "Examination" work phase.
- 2. *Right-click* on the exposure that you want to repeat.
 - ↳ A context menu opens.



Context menu

3. Click on the "Retake individual exposure" button (B) with the left mouse button.



Repeating last exposure

- ↳ Sidexis 4 switches to the "Exposure" work phase.
- ↳ The new X-ray order (A) is shown in the "Current Order" drop-down list.
- ↳ The new X-ray order is displayed in the order list.

9 Opening media and sessions in the "Examination" work phase

9.1 "Patient" work phase

9.1.1 Opening exposures

9.1.1.1 Opening last exposures

✓ The "Patient" work phase is open.

1. Click on the row of the patient you are looking for in the patient table.

↳ The patient's data is displayed in detail next to the patient table.

↳ The latest exposures (of each image type) and the latest patient session are also displayed.

You can scroll through the window using the scroll bar (A).

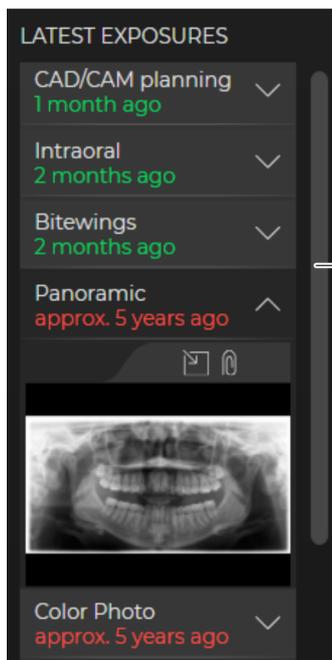
2. Under "Latest exposures", click on the media type that you want to open, e.g. Panoramic exposure.

↳ The latest media item is displayed.

3. Double-click on the media item.

↳ If a patient has already been registered, this patient is checked out automatically and the new patient is registered.

↳ Depending on the type of media item, the last media item is opened in the "3D examination" or "Light box" work area.

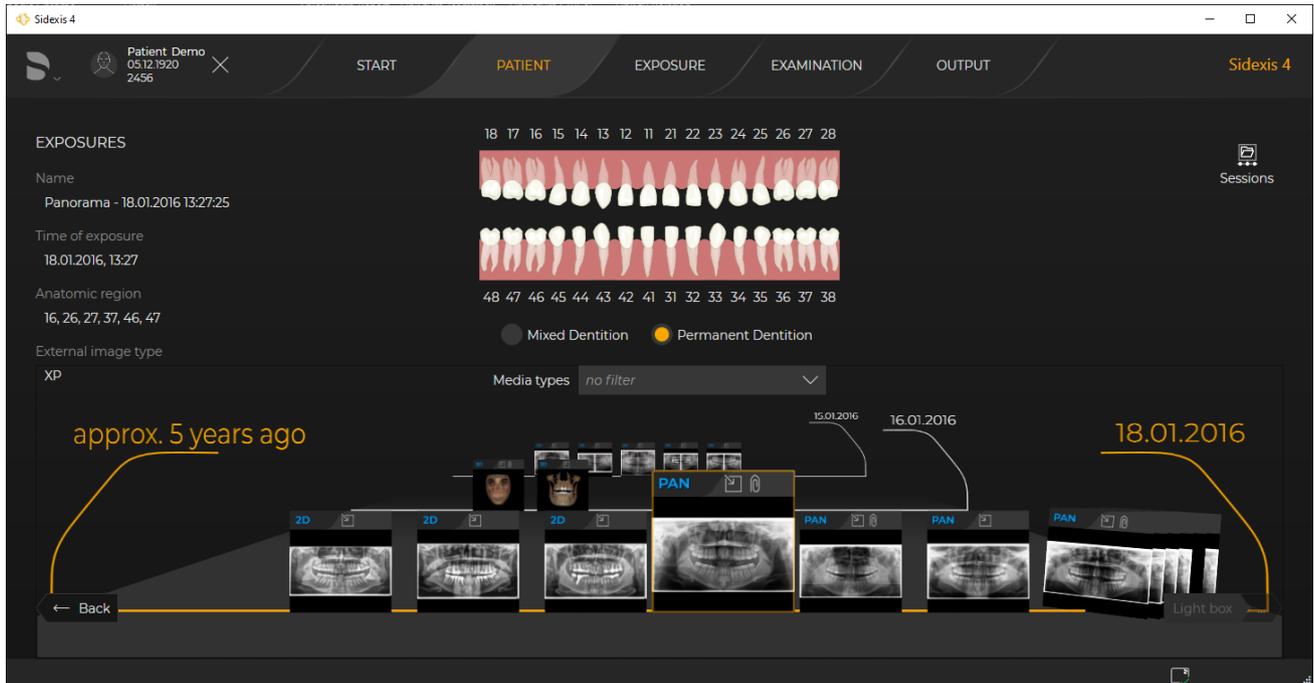


9.1.1.2 "Timeline" exposures

9.1.1.2.1 Opening individual media items

Opening media item directly from the "Timeline" by double-clicking

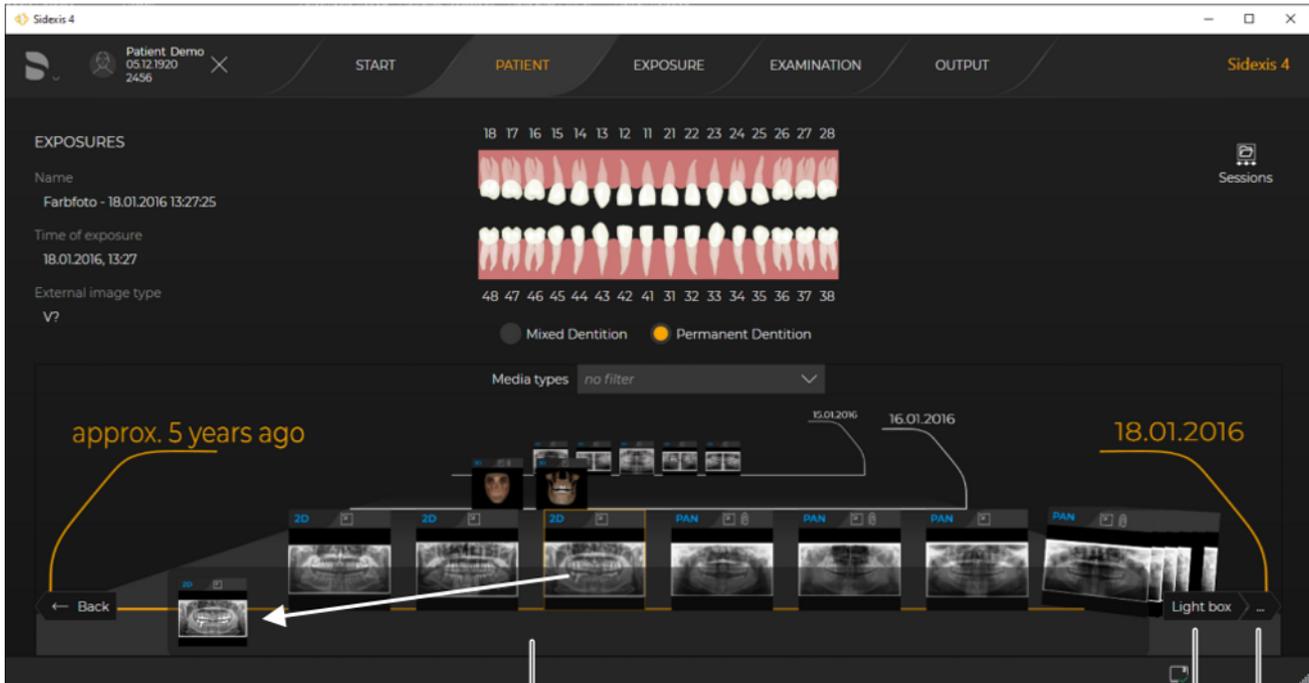
- ✓ The "Timeline" is open in the "Exposures" view.



Opening media item by double-clicking

- > Double-click on the desired media item in the "Timeline".
 - ↳ Depending on the type of media item, the media item is opened in the "Light box" or "3D examination" work area.

Opening media item from the "Timeline" via the "Clipboard" ✓ The "Timeline" is open in the "Exposures" view.



(A)

(B)

(C)

Opening media item via the clipboard of the "Timeline"

1. Use drag & drop to move the desired media item to the clipboard of the "Timeline".

or

> Click on the desired media item in the "Timeline".

↳ The media item is displayed in the clipboard (A) of the "Timeline".

↳ Depending on the type of media item, the "Light box" or "3D examination" button (B) is displayed.

2. Click on the "Light box" or "3D examination" button.

or

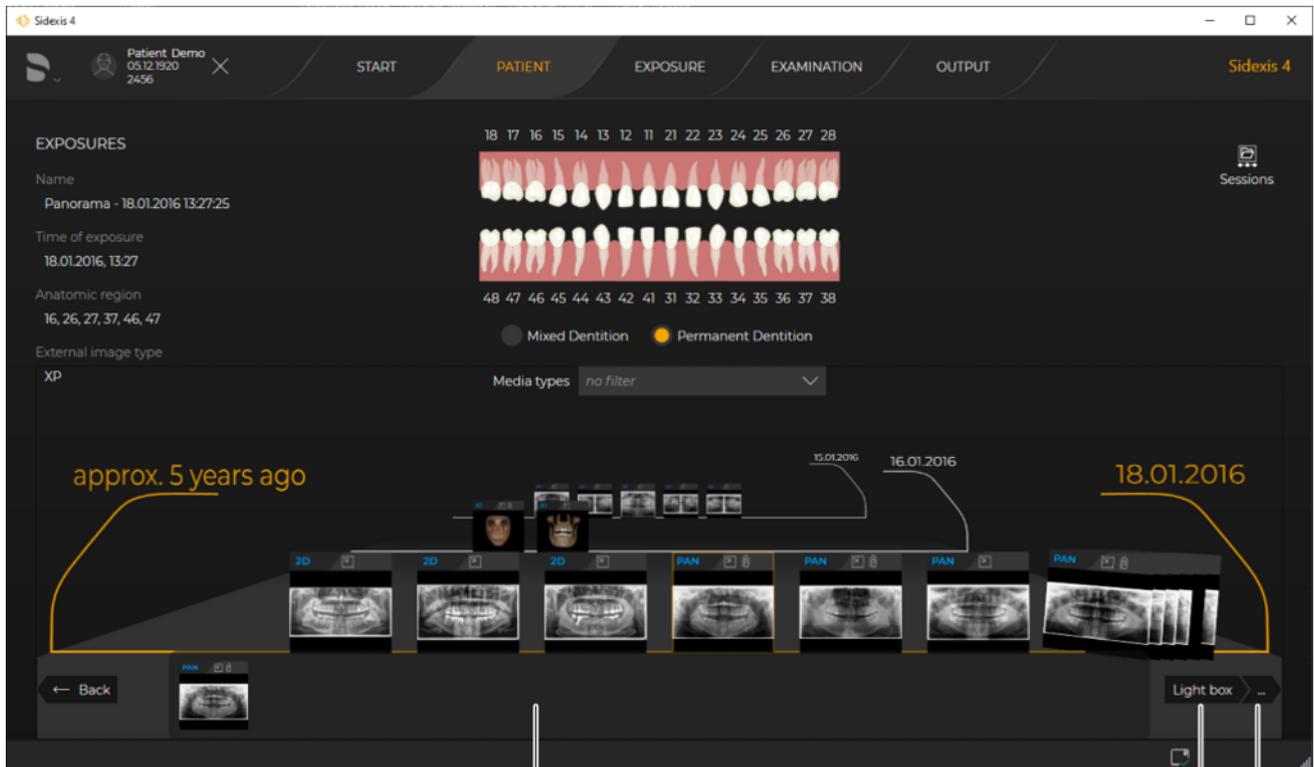
> Click on the button with the 3 dots (C) and then click on the desired work area.

Only the work areas appropriate for the media item are ever displayed.

↳ The media item is opened in the corresponding work area.

Selecting media item using standard arrow keys of computer keyboard and transferring it to the clipboard

✓ The "Timeline" is open in the "Exposures" view.



A

B C

Selecting media item using standard arrow keys of computer keyboard and transferring it to the clipboard

1. Press the up or down arrow key on your computer keyboard to select the desired row in the "Timeline".
 - ↳ The first media item of the selected line is automatically selected (marked in orange) and is in the clipboard.
2. Press the left or right arrow key to select a different media item from the line.
 - ↳ The media item in the clipboard changes accordingly.
 - ↳ Depending on the type of media item, the "Light box" or "3D examination" button (B) is displayed.
3. Click on the "Light box" or "3D examination" button.

or

 - > Click on the button with the 3 dots (C) and then click on the desired work area.

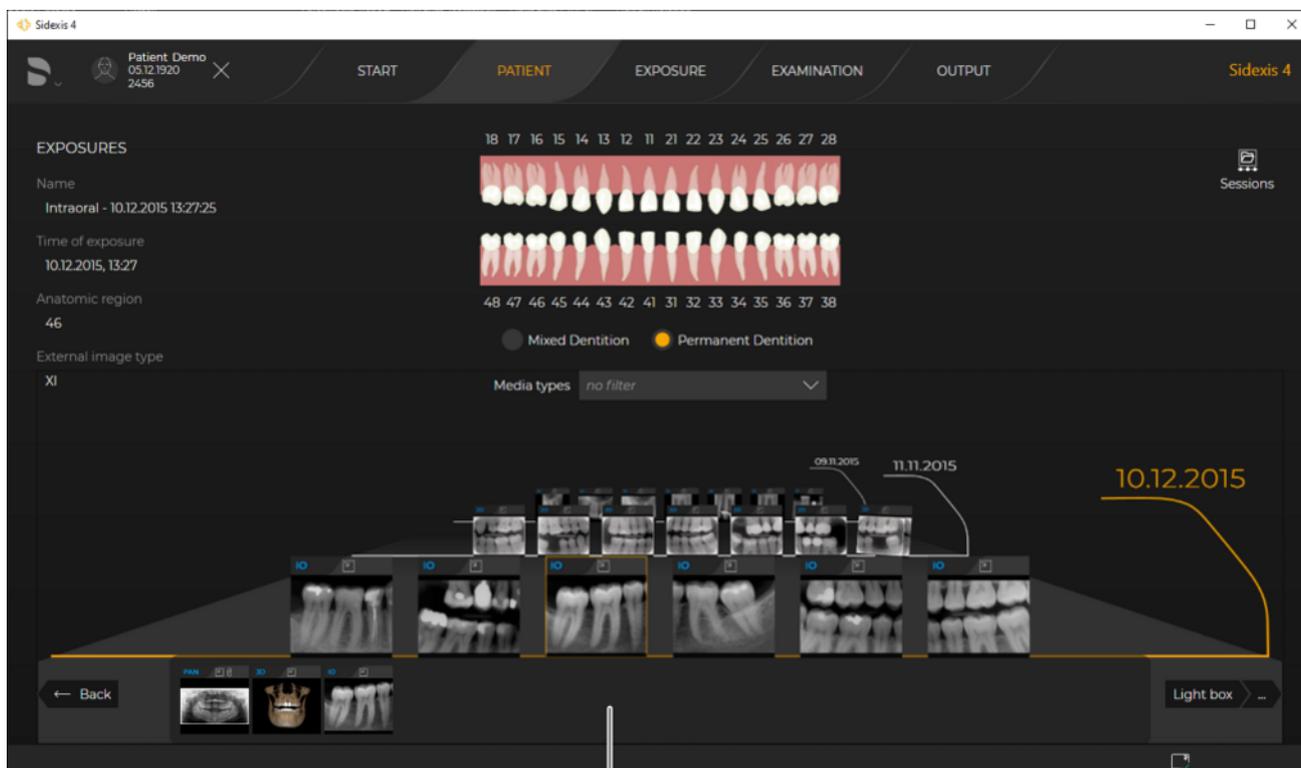
Only the work areas appropriate for the media item are ever displayed.

 - ↳ The media item is opened in the corresponding work area.

9.1.1.2.2 Opening multiple media items in the work area simultaneously

Opening multiple media items from the "Timeline" via the clipboard

- ✓ The "Timeline" is open in the "Exposures" view.



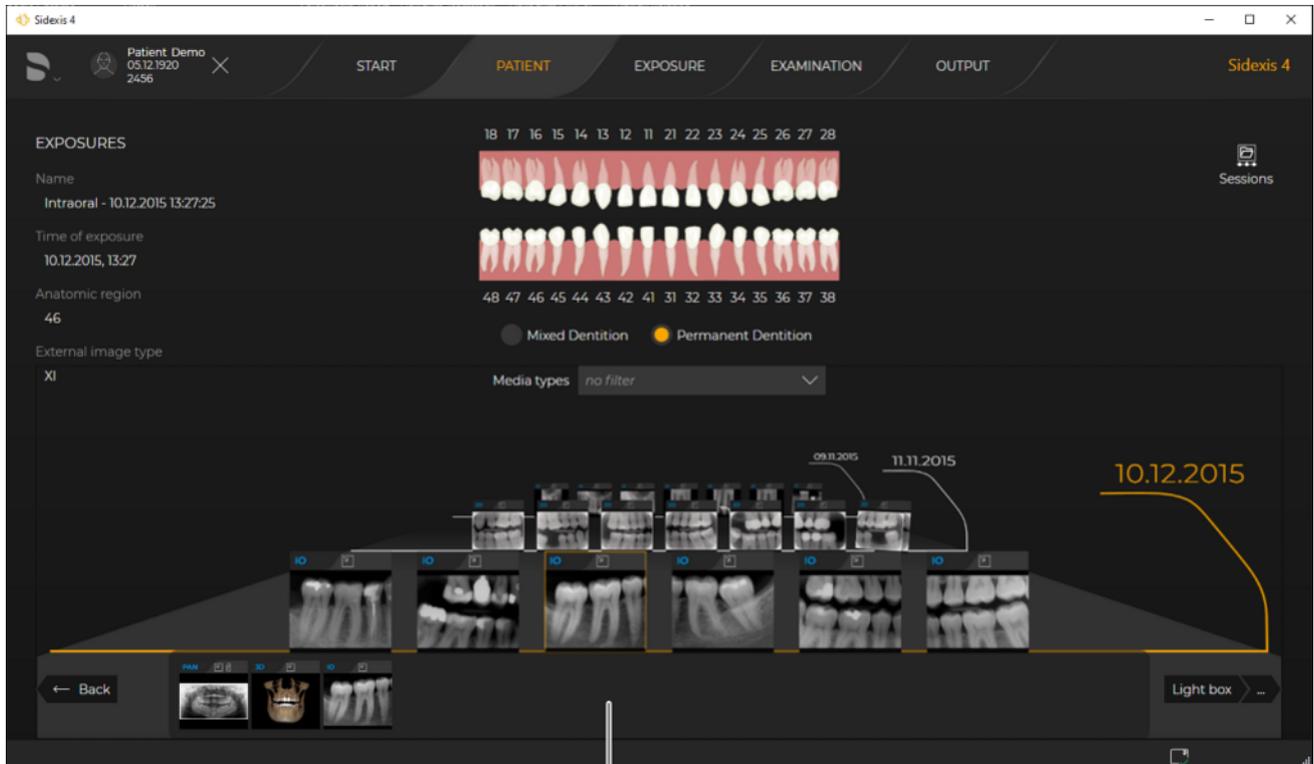
A

Clipboard of the "Timeline"

1. Use drag & drop to move various media items to the clipboard (A) of the "Timeline".
or
> Select several media items by clicking and holding down the "Ctrl" or "Shift" key, or all media items using the "Ctrl"+"A" key combination (see section "Shortcut keys").
 - ✎ The media items are on the clipboard (A).
 - ✎ Depending on what type of media items are on the clipboard, these can be opened in the "3D examination", "Light box", or "Compare" work area.
Opening in the "Compare" work area is only offered if 2x 3D exposures or up to 4x 2D exposures are on the clipboard.
2. Click on the "Light box" or "3D examination" button (B).
or
> Click on the button with the 3 dots (C) and then click on the desired work area.
Only the work areas appropriate for the media item are ever displayed.
 - ✎ The media items are opened in the "Light box", "3D examination" or "Compare" work areas.

Selecting multiple media items using standard arrow keys of computer keyboard and transferring them to the clipboard

✓ The "Timeline" is open in the "Exposures" view.



A

Clipboard of the "Timeline"

1. Select the desired media items in the "Timeline".
There are various ways of selecting multiple media items at the same time using the computer keyboard:
 - *standard up/down arrow key*: Select the first media item of the selected row
 - *[Shift]+standard up/down arrow key*: Select all media items of the selected row
 - *standard left/right arrow key*: Select another media item from the row
 - *[Shift]+standard left/right arrow key*: Select multiple "adjacent" media items in the row
 - *[Ctrl]+standard left/right arrow key, then the space bar*: Select multiple "individual" media items in the row
 - ↳ The selected media items are highlighted orange and displayed in the clipboard (A).
 - ↳ Depending on what type of media items are on the clipboard, these can be opened in the "3D examination", "Light box", or "Compare" work area.
Opening in the "Compare" work area is only offered if 2x 3D exposures or up to 4x 2D exposures are on the clipboard.
2. Click on the "Light box" or "3D examination" button (B).

or

- > Click on the button with the 3 dots (C) and then click on the desired work area.

Only the work areas appropriate for the media item are ever displayed.

- ↳ The media items are opened in the "Light box", "3D examination" or "Compare" work areas.

9.1.2 Opening sessions

9.1.2.1 Continue last patient session

The last opened patient session is displayed in the "Patient" work phase as a session; even if this has not been explicitly saved. This last session can be continued.

However, an unsaved session is not present in the "Session gallery".

- ✓ The "Patient" work phase is open..

1. Click on the row of the patient you are looking for in the patient table.

- ↳ The patient's data is displayed in detail next to the patient table.

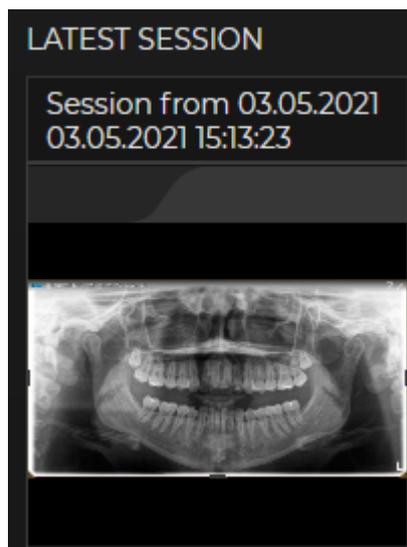
- ↳ The latest exposures (of each image type) of the patient and the last patient session are also displayed.

NOTE: If this involves a saved patient session, the name of the session is also displayed there.

2. Double-click the "Latest session" image.

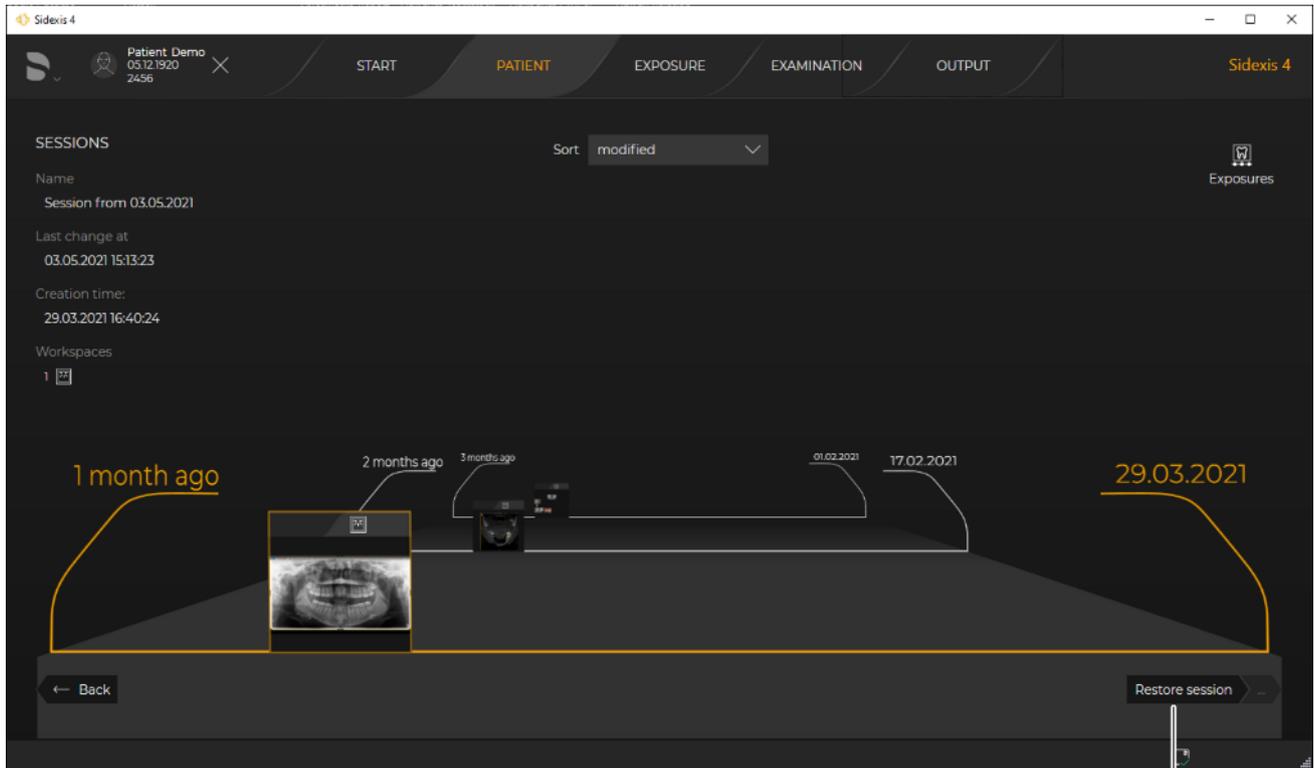
- ↳ If a different patient is registered, they are automatically checked out and the new patient is registered.

- ↳ The new patient's last session is opened and can be continued.



9.1.2.2 "Timeline" sessions

✓ The "Timeline" is open in the "Sessions" view.



Open session from the "Timeline"/ "Sessions" view

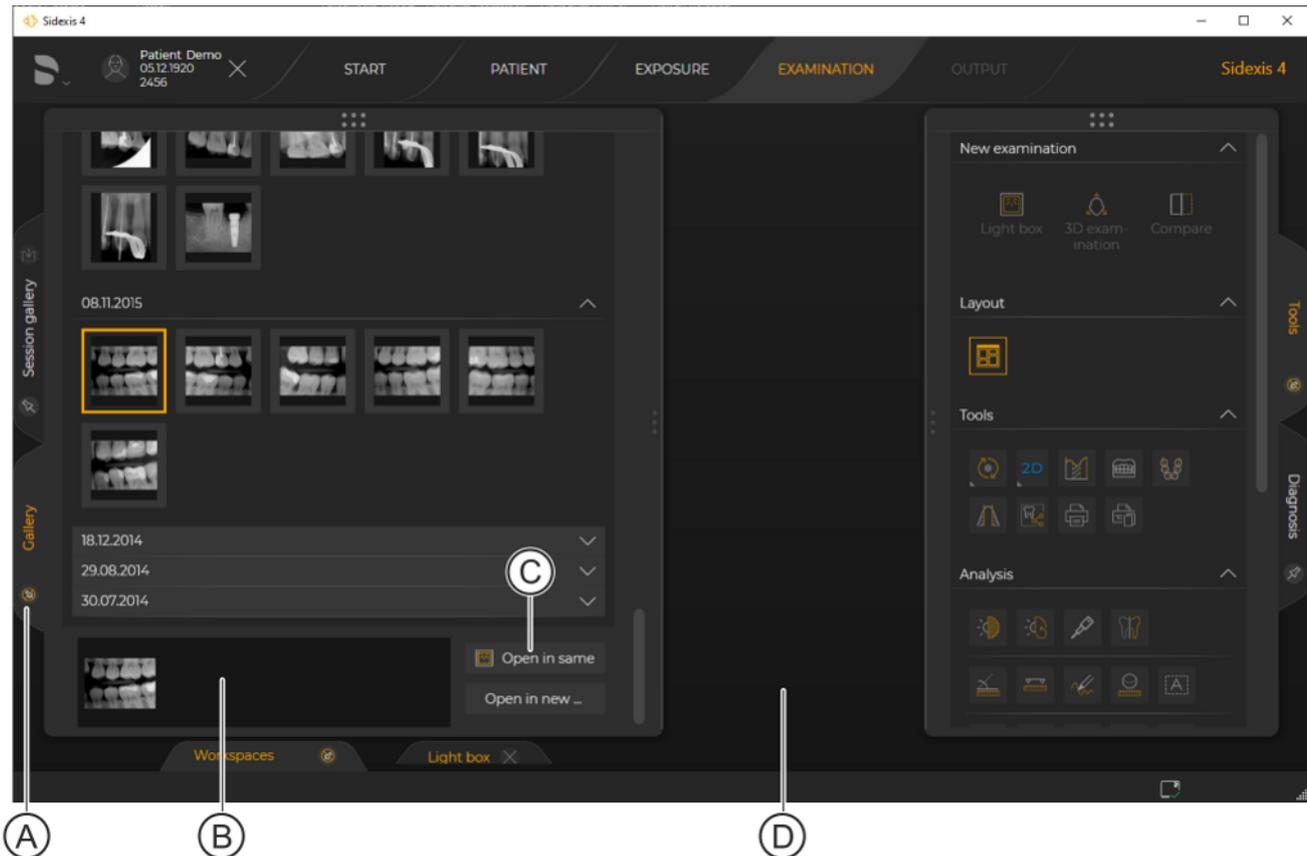
- > Click on the desired session and then click on the "Restore session" button.
- or
- > Double-click on the desired session.
 - ↳ The patient session is opened in the "Examination" work phase.

9.2 "Examination" work phase

9.2.1 Opening exposures via the "Gallery"

The "Gallery" is available in the "Light box" and "Compare" work areas.

✓ The "Examination" work phase is open.



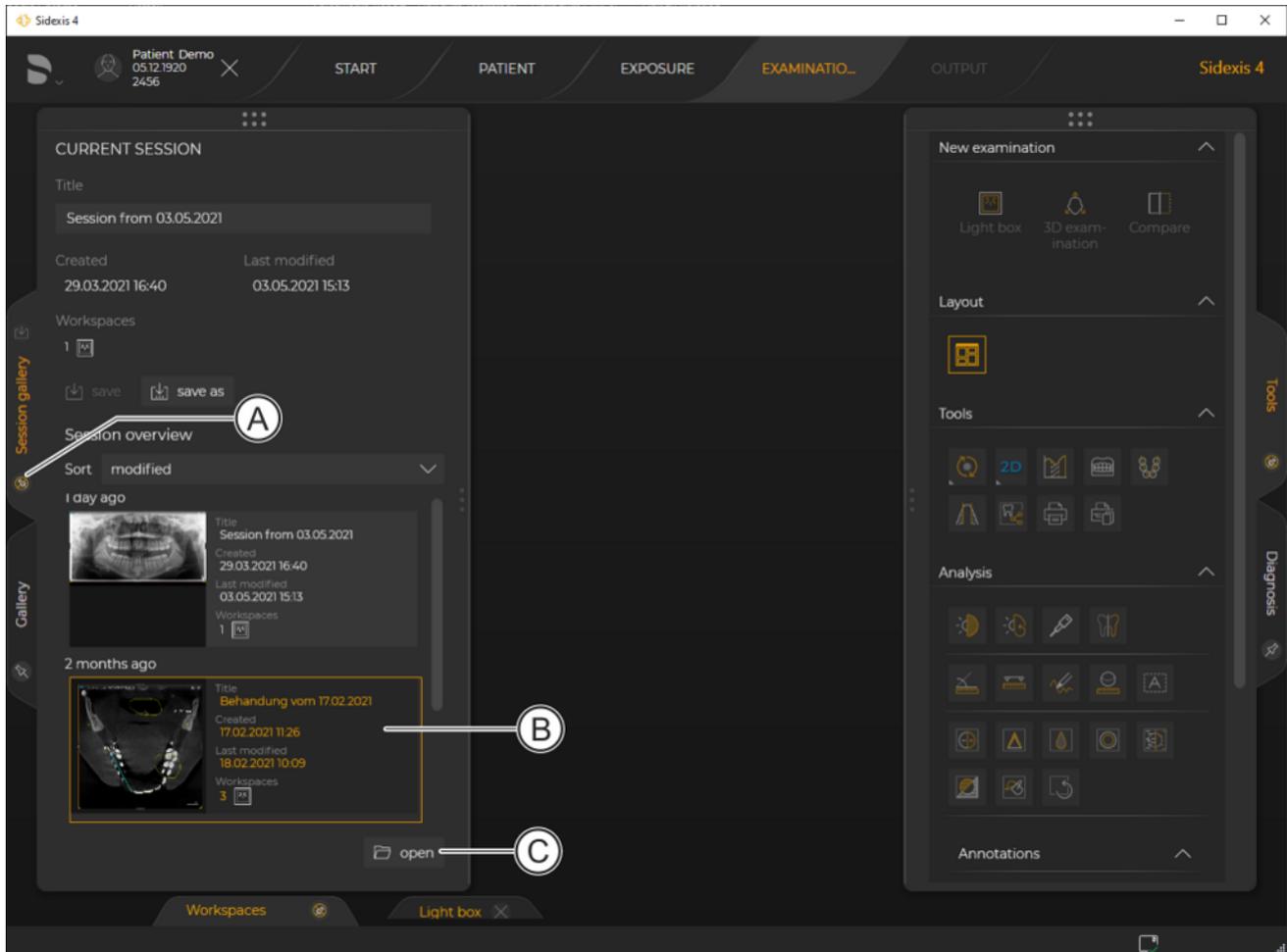
Opening exposures from the "Gallery"

1. Click on the "Gallery" tab to display the gallery [→ 105].
 2. Use drag & drop to move one or more exposures to the clipboard (B) of the "Gallery" and then click on the "Open in same..." button (C) to open the exposures in the current work area (D).
The "Open in same..." button would open the exposures in a new work area.
- or
- > Use drag & drop to move an exposure directly to the current work area (D).

9.2.2 Opening sessions via the "Session gallery"

The "Session gallery" is available in all work areas.

- ✓ The "Examination" work phase is open.



Opening a session from the "Session gallery"

1. Click on the "Session gallery" tab (A) to display the session gallery [→ 105].
 2. Click on the session (B) in the "Session gallery" and then click on the "Open" button (C).
- or
- > Double-click on the session (B) in the "Session gallery".
 - ↳ If a saved session is currently open, a message window opens asking if you want to overwrite the current session with the new session, discard the new session or cancel the operation.
3. To open the new session, click on the "Overwrite" button.
 - ↳ The session opens.

10 Analysis and diagnosis

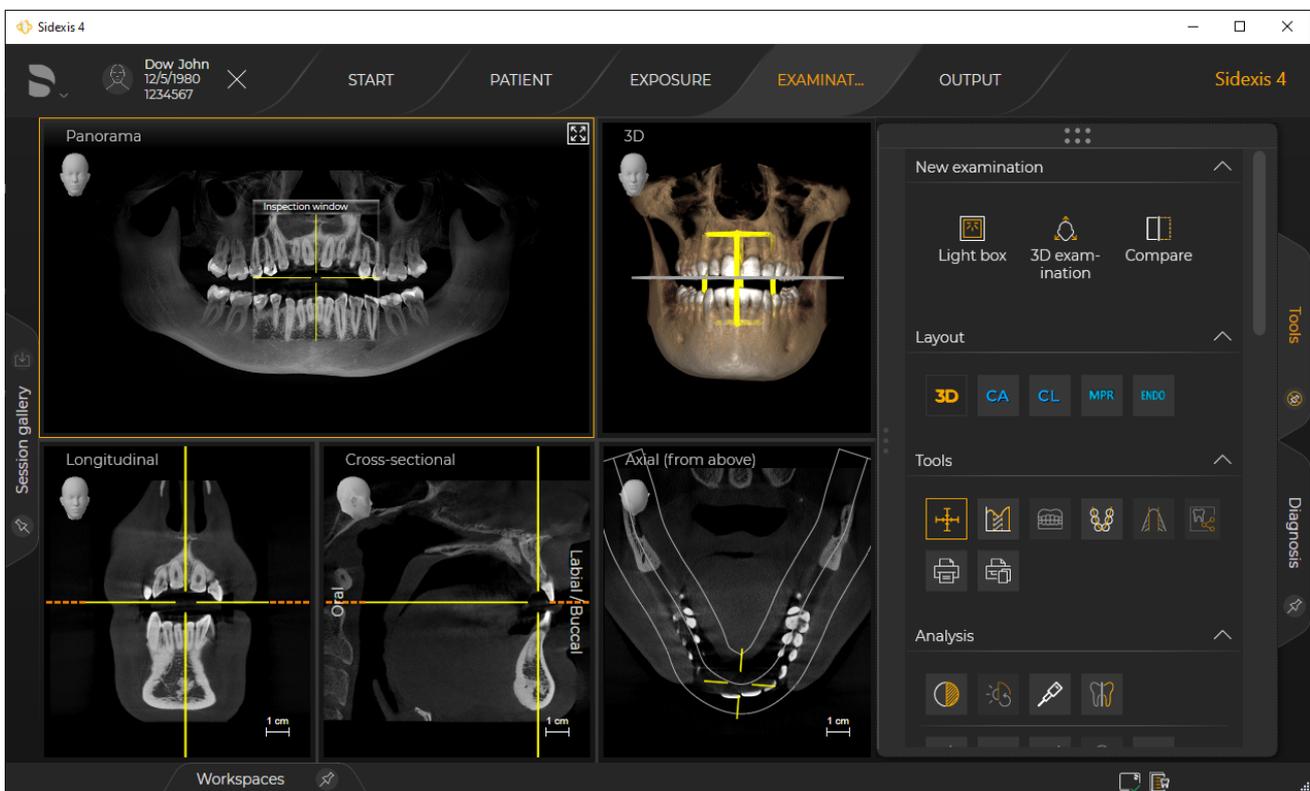
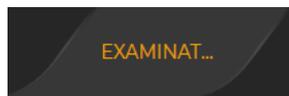
The analysis and diagnosis of image data takes place in the work phase *"Examination"*. Various work areas and a wide range of tool kits are available to you here for analyzing volumes and images.

Calling up *"Examination"* work phase

Immediately after opening a media item or creating an X-ray exposure, Sidexis 4 automatically jumps to the *"Examination"* work phase. Depending on whether it is a 2D image, a 3D volume exposure, or a section view, the exposure is initially displayed in the *"Light box"* or the *"3D examination"* work area. As long as a work area is open, you can change back to this work phase from any point in the software. After checking out a patient or closing all examinations, the work phase can no longer be selected.

To change to the *"Examination"* work phase, proceed as follows:

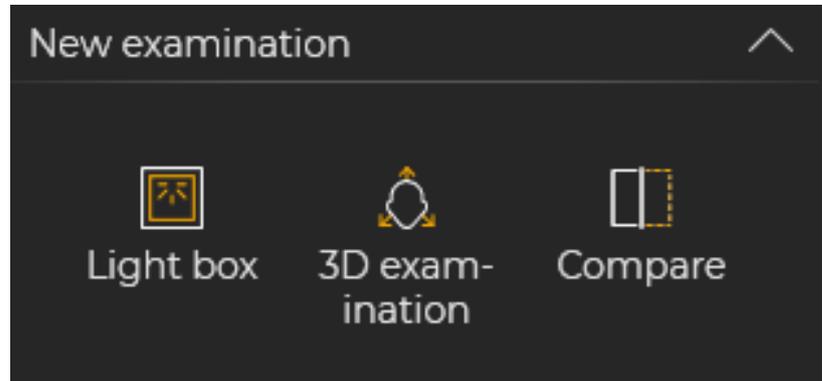
- ✓ A patient is registered.
- ✓ An exposure has been taken.
- Click on the *"Examination"* button in the phase bar.



"Examination" work phase

- The *"Examination"* work phase opens.

10.1 Work areas for 2D images, 3D volumes, and section views



Work areas

Images are displayed, processed, and diagnosed in the work phase "Examination" Depending on the type of image (volumes or 2D grid images) there are three different work areas available to you:

- "Light box"
- "3D examination"
- "Compare"

After opening a 3D volume or a 2D image from the media gallery of the "Patient" work phase, Sidexis 4 automatically opens a new work area in the "Examination" work phase. Depending on the type of image, a new 3D work area or a new light box is opened. All opened work areas are displayed as buttons in the status bar and can be shown, hidden, or closed using this.

IMPORTANT: The "3D examination" work area is suitable for displaying a 3D volume and evaluating section views, whereas in the "Light box" work area, all image types (i.e. 2D images, a 3D volume and its section views) are displayed. The "Light box" work area is also suitable for evaluating section views.

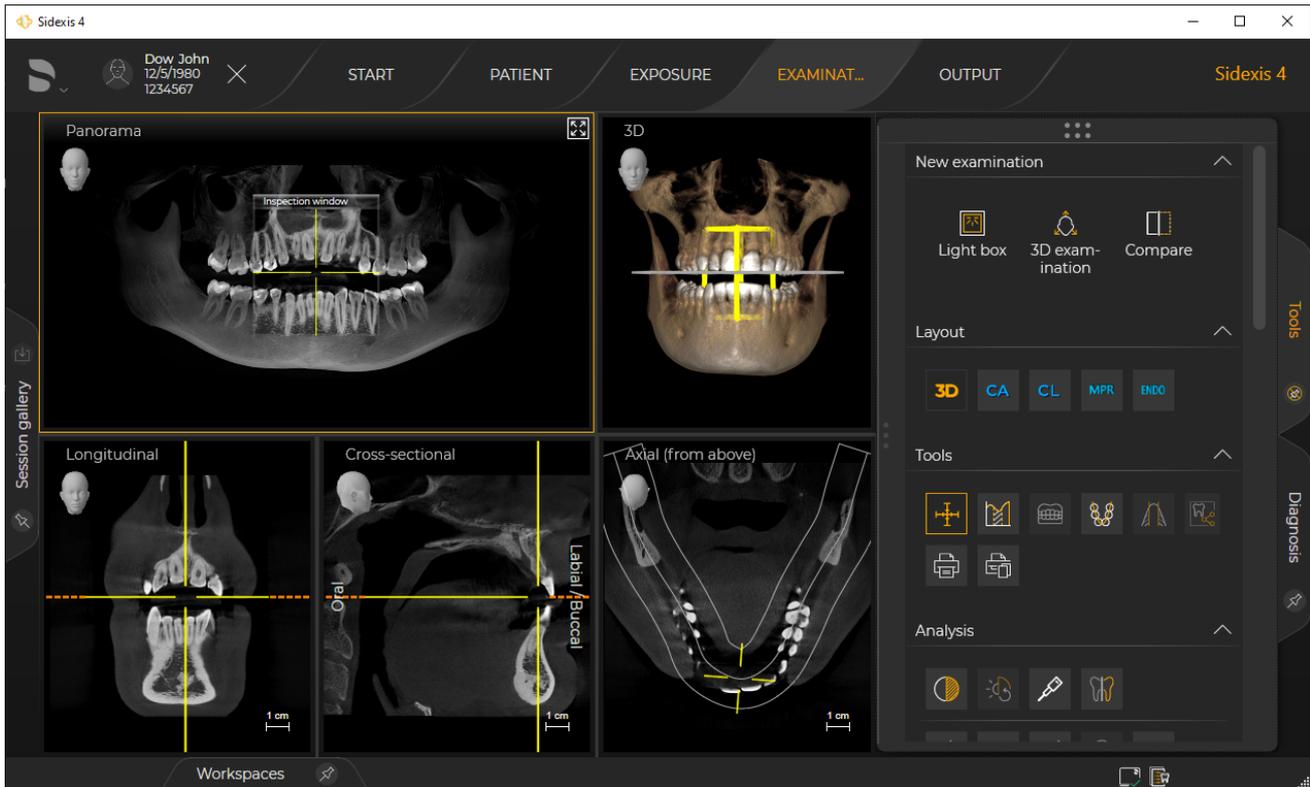
In the third "Compare" work area, image data of the same image type can be compared.

In the "Light box" and "Compare" work areas, multiple volumes and/or the same volume can be loaded multiple times. Different section views of a volume can be displayed next to each other, for example, and/or views of the same volume can be edited (e.g. filtered) separately using this function.

10.1.1 "3D examination"



Selection: Click on the "3D examination" button in the "New examination" tool kit.



Example of displaying a 3D volume in the "3D examination" work area

3D volumes and their section views are typically displayed and analyzed in the "3D examination" work area for detailed examination. In the "Layout" tool kit, four conventional, standard layouts are available to you for the "3D examination", which you can select via the "3D", "CA", "CL", and "MPR" buttons and use for the evaluation.

The section planes can be changed via the examination window and via the section views are changed. If the position of the section plane is changed, the change takes effect in the displayed views and the examination window.

10.1.1.1 Open media in a new "3D examination"

There are various ways of opening a new "3D examination":

- From the gallery of the "Examination" work phase
 - From the media gallery of the "Patient" work phase
 - Via the "3D examination" button of the "New examination" tool kit
- ✓ The "Patient" work phase is selected.
1. Click on the "Register and Timeline" button.
 - ↳ The "Timeline" is displayed.

Opening a new "3D examination" work area from the "Timeline"

2. Scroll with the mouse to the desired 3D media item.
3. Double-click the 3D media item.
 - ↳ The 3D media item is opened in a new *"3D examination"*.

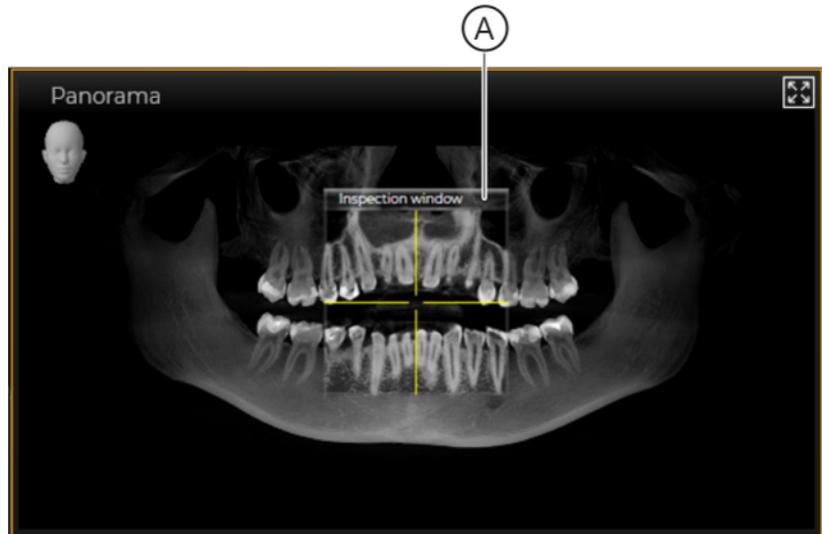
IMPORTANT

You can also open multiple media items in a new light box at the same time or add media items to an opened light box later on. You can find information on this in the "Managing media items" section.

Opening a new *"3D examination"* work area using the *"3D examination"* button

- ✓ The *"Examination"* work phase is selected.
1. Select an open *"3D examination"*.
 2. Click on the *"3D examination"* button on the *"New examination"* tool kit.
 - ↳ The currently selected media item is opened as a copy in a new *"3D examination"*.

10.1.1.2 Examination window

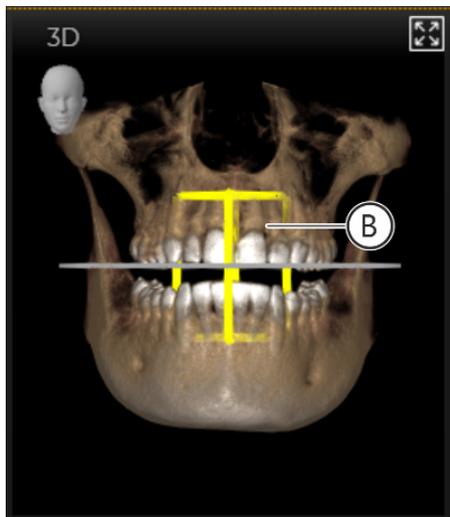


Panorama scene with superimposed "Inspection window" (A)

Using the "Inspection window" (A), you can examine thin layers of the volume along the panoramic curve to evaluate anatomical structures (usually individual teeth) in all three dimensions.

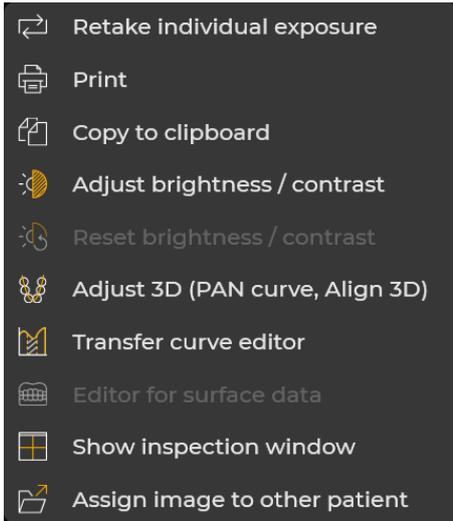
The "Panorama" section plane displayed in the "Inspection window" is displayed as a position aid (B) in the 3D scene.

The examination window can be shown or hidden in the panorama scene.



10.1.1.2.1 Showing / hiding the examination window

- ✓ The "3D examination" work area is selected.
- ✓ The examination window is hidden.
- 1. Place the mouse over the panorama scene.
- 2. Click the right mouse button.
 - ↳ A context menu opens.
- 3. Click the "Show inspection window" button in the context menu.
 - ↳ The examination window is displayed.
- 4. By clicking once more on the "Show inspection window" button, the examination window becomes hidden.

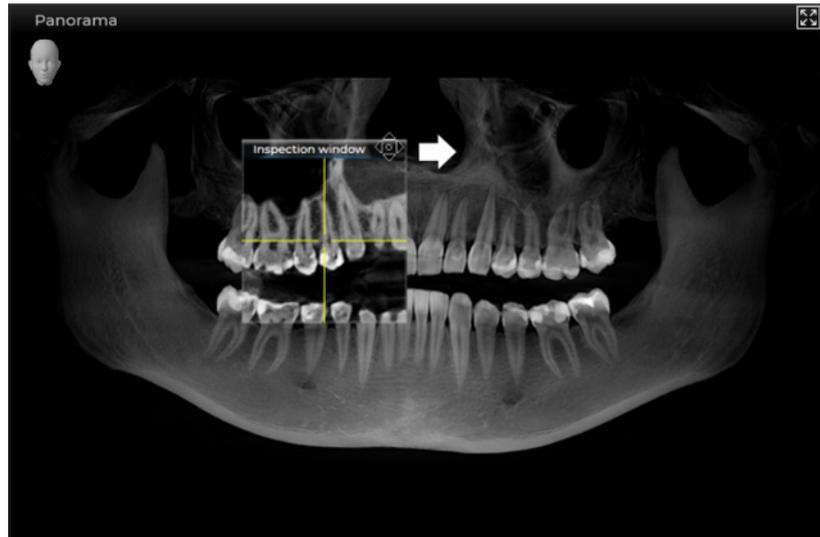


10.1.1.2.2 Moving section and projection planes through the examination window

Moving section planes mesial ↔ distal
and longitudinal direction OK ↔ UK



- ✓ The "3D examination" work area is selected.
- ✓ The examination window is shown.
- 1. Move the mouse over the header line of the examination window.
 - ↳ The mouse pointer changes its form.



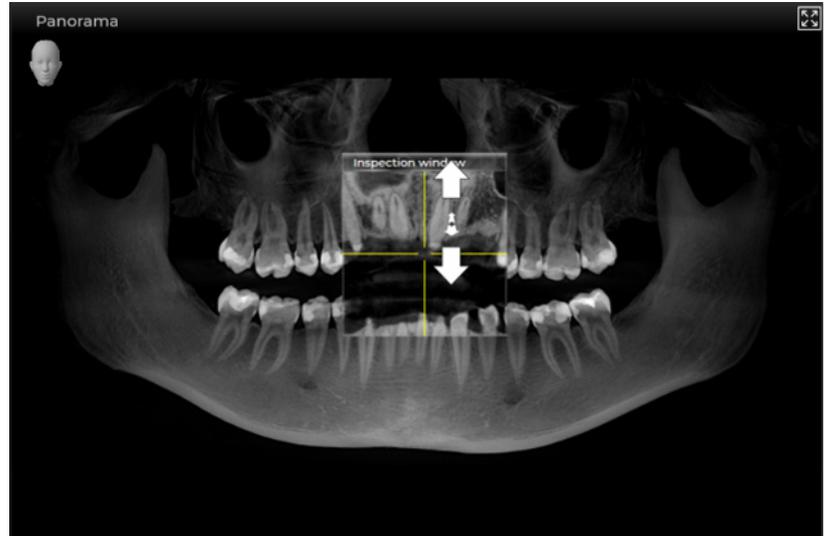
Moving the examination window

- 2. Press on the left mouse button and move the examination window with the mouse button held down in a vertical or horizontal direction.
 - ↳ The section planes are moved accordingly.
 - Horizontal = moves section planes in a mesial ↔ distal direction
 - Vertical = moves section planes in an OK ↔ UK longitudinal direction
 - ↳ The "Panorama" and "Transversal" section planes are displayed as position aids in the 3D scene.
 - ↳ The section views change according to the selected section plane.

Moving lingual/palatinal ⇌ buccal section planes



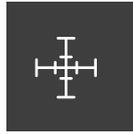
- ✓ The "3D examination" work area is selected.
- ✓ The examination window is shown.
- 1. Move the mouse over the content of the examination window.
 - ↳ The mouse pointer changes its form.



Navigating the examination window

- 2. Press the left mouse button and move the mouse pointer up and down while holding down the mouse button.
 - ↳ The section planes are moved accordingly.
 - Upwards = lingual/palatinal section plane movement
 - Downwards = buccal section plane movement
 - ↳ The "Panorama" and "Transversal" section planes are displayed as position aids in the 3D scene.
 - ↳ The section views change according to the selected section plane.

10.1.1.3.1 Showing and hiding position aids



- ✓ The "3D examination" work area is selected.
- 1. Click on the "Show positioning aid" button in the "Tools" tool kit.
 - ↳ The position aids are shown.
 - ↳ The button is highlighted orange once it is activated.
- 2. If the button is clicked again the position aids are hidden once more and the button is no longer highlighted.

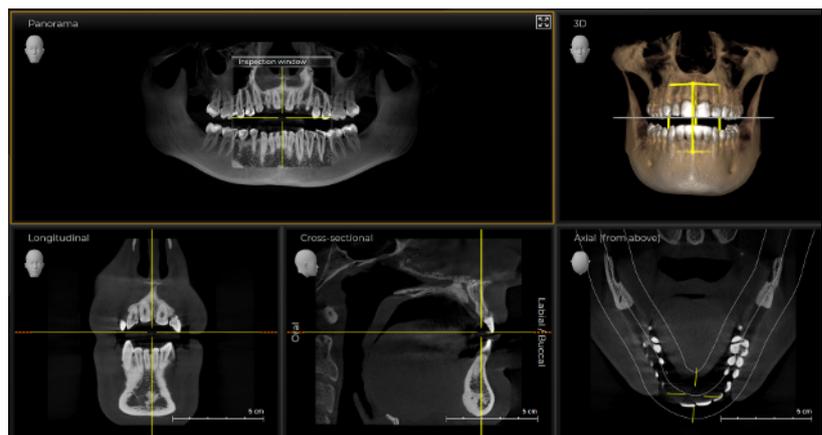
10.1.1.4 Standard layouts

In the "3D examination" work area, five conventional, standard layouts are available to you, which you can select via the "3D", "CA", "CL", "MPR", and "ENDO" buttons of the "Layout" tool kit.

Panorama layout

The "3D" layout contains the following views::

- "Panorama" with examination window (if shown), see [→ 159]
- "3D", see [→ 160]
- "Longitudinal", see [→ 169]
- "Transversal", see [→ 170]
- "Axial (from above)", see [→ 171]

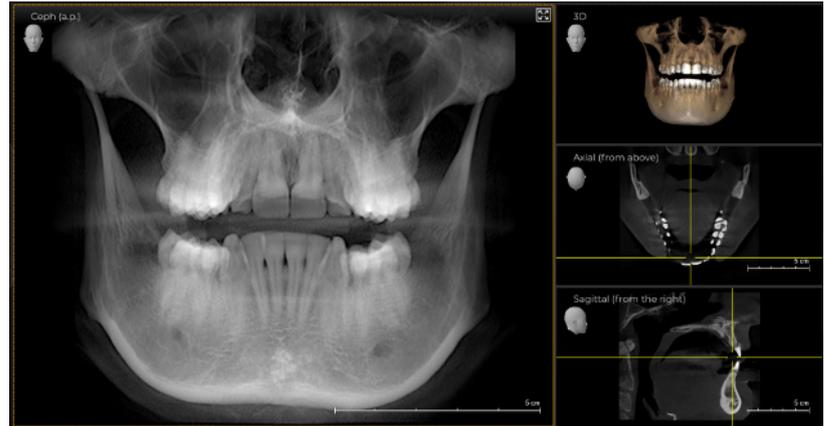


Panorama layout

Ceph a.p. / p.a. layout

The "CA" layout contains the following views:

- "Ceph (a.p.)"/"Ceph (p.a.)", see
- "3D", see [→ 160]
- "Axial (from above)", see [→ 171]
- "Sagittal (from the right)", see [→ 172]



Ceph a.p./p.a. layout

Ceph lateral layout

The "CL" layout contains the following views:

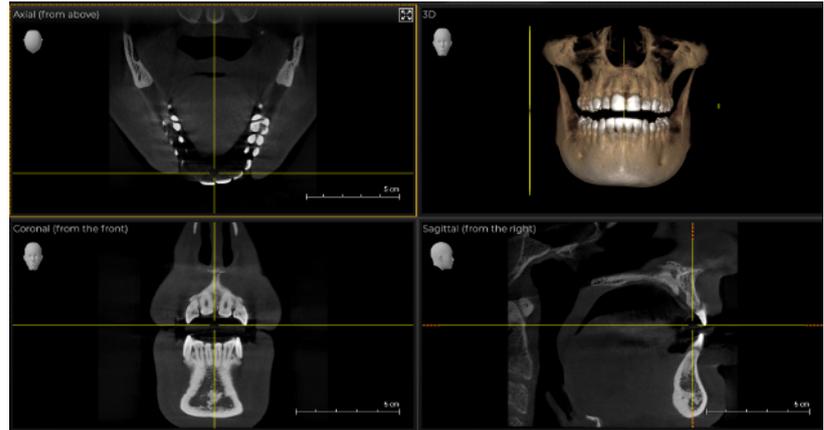
- "Ceph lateral (from the right)" / "Ceph lateral (from the left)", see [→ 175]
- "3D" see [→ 160]
- "Axial (from above)", see [→ 171]
- "Coronal (from the front)", see [→ 173]



Ceph lateral layout

MPR layout The "MPR" layout contains the following views:

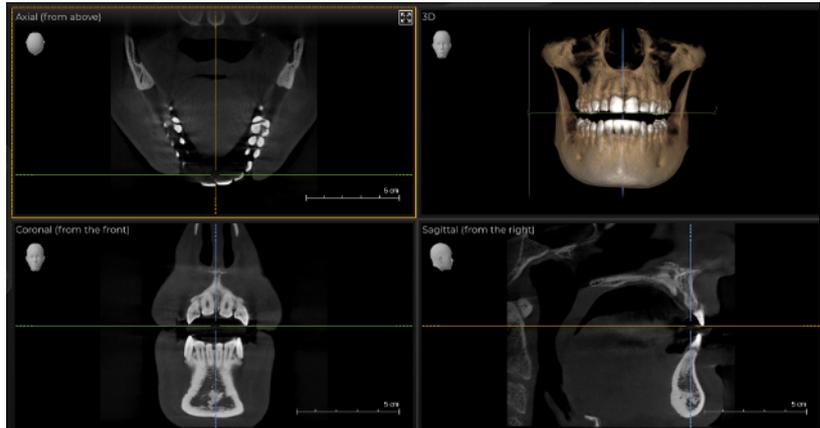
- "Axial (from above)", see [→ 171]
- "3D", see [→ 160]
- "Coronal (from the front)", see [→ 173]
- "Sagittal (from the right)", see [→ 172]



MPR layout

Endo layout The "Endo" layout contains the following views::

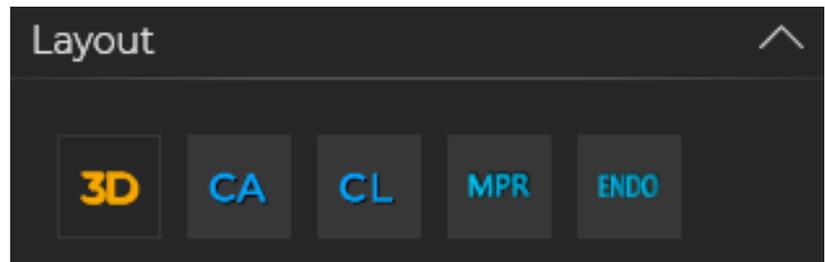
- "Axial (from above)", see [→ 171]
- "3D", see [→ 160]
- "Coronal (from the front)", see [→ 173]
- "Sagittal (from the right)", see [→ 172]



Endo layout

10.1.1.4.1 Selecting standard layouts

- ✓ The "3D examination" work area is selected.



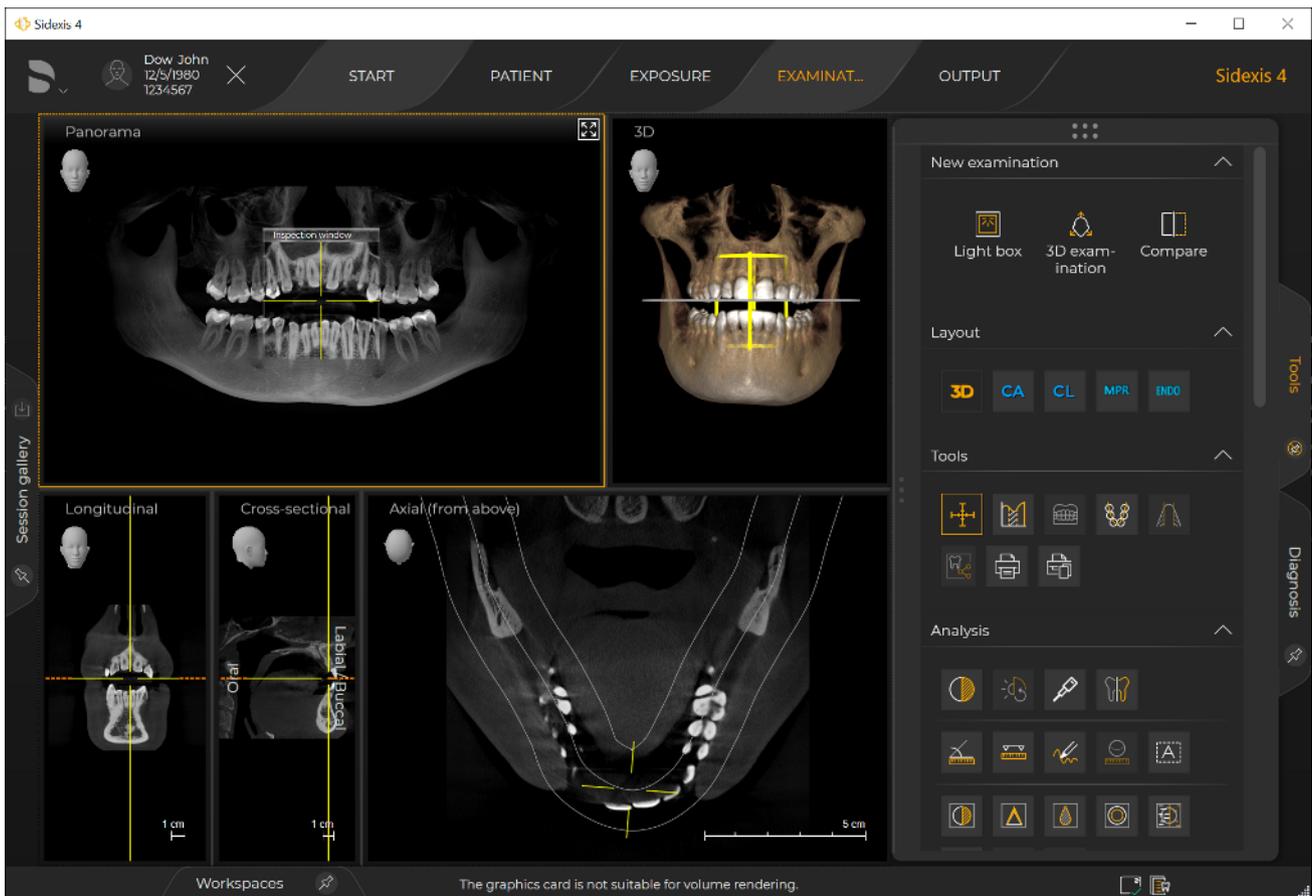
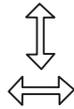
Choose layout

- > Click on the "3D", "CA", "CL", "MPR" or "ENDO" button in the "Layout" tool kit.
 - ↳ The 3D volume is displayed in the selected layout.

10.1.1.4.2 Changing standard layouts

You can change the standard layout division. To do this, proceed as follows:

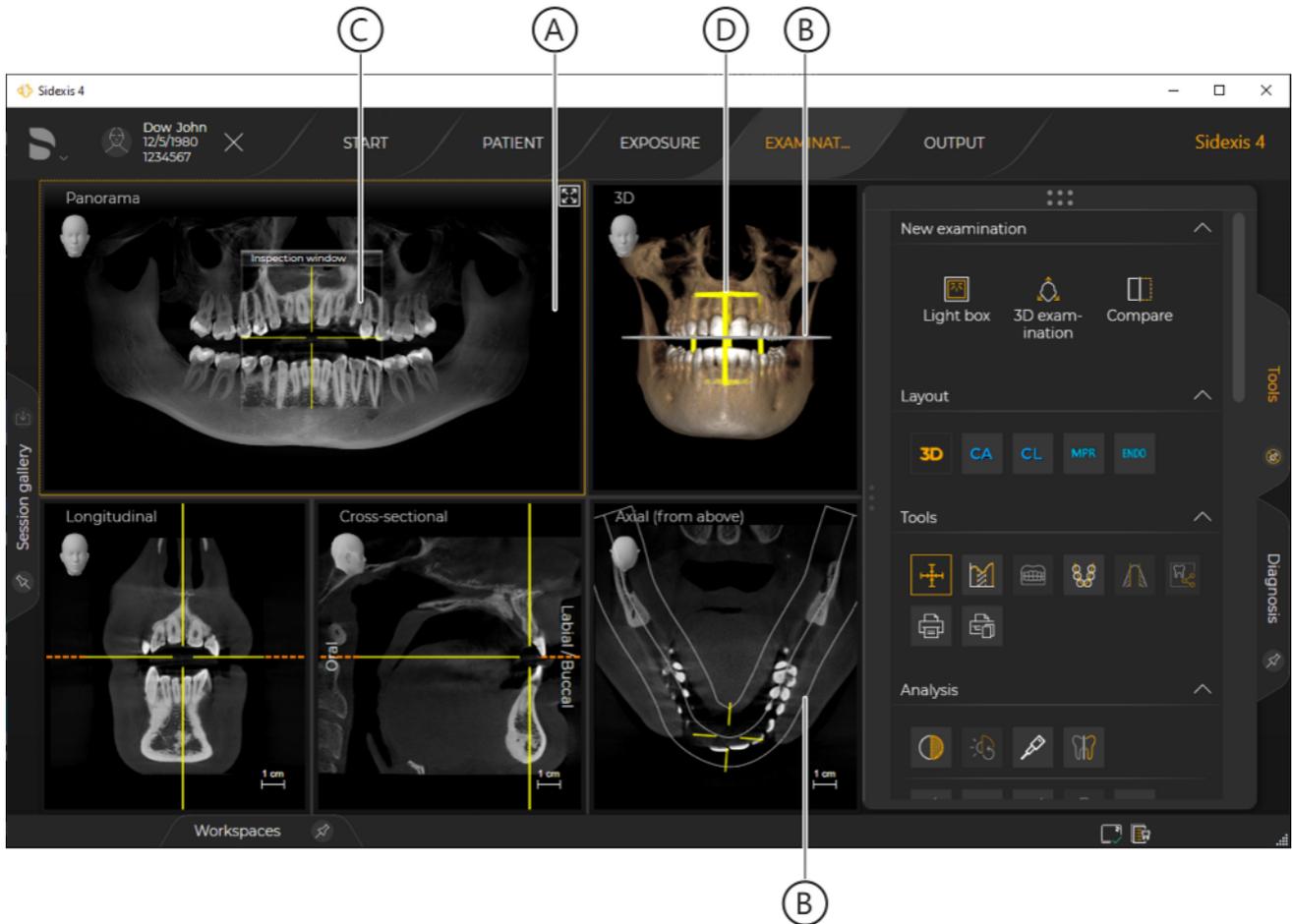
- ✓ The "3D examination" work area is selected.
- ✓ The desired layout is selected.
- 1. Move the mouse pointer over the white division line that you want to move.
 - ↔ The mouse pointer changes its form.
- 2. Press the left mouse button and move the line with the mouse button held down.



Layout with modified divisions

- ↔ The window/image sizes change accordingly.

10.1.1.5 Panoramic image



Panorama scene

A	Panorama scene
B	Panorama curve
C	Examination window
D	"Panorama" section plane

In the panorama scene (A) of the "3D examination" work area, a panoramic tomogram that is calculated or reconstructed from the 3D volume is displayed.

The panoramic layer radiogram is calculated on the basis of the panoramic curve (B) from the volume. The panorama curve can be best adjusted to the mandibular arch using the "Panorama curve editor".

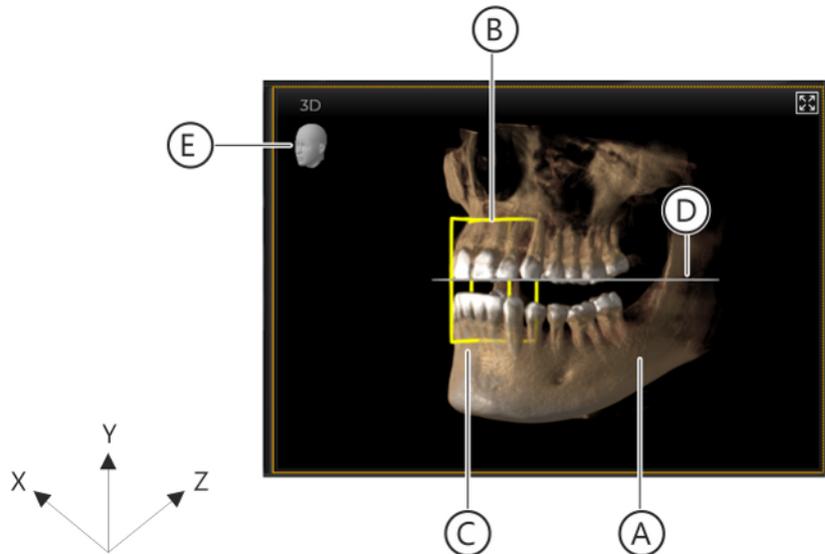
An examination window (C) can be superimposed on the panorama scene. The section plane (D) of the volume is displayed in the examination window.

The section planes can be moved to the 3D scene and the section views through the examination window.

10.1.1.6 3D image

A 3D reconstruction of the CBCT exposure is displayed in the 3D scene of the "3D examination" work area.

The 3D reconstruction can be rotated in the three axes x, y, and z using the mouse. [-> 161]



3D scene

A	3D reconstruction
B	"Panorama" section plane
C	"Transversal" section plane
D	Panorama curve
E	Orientation display

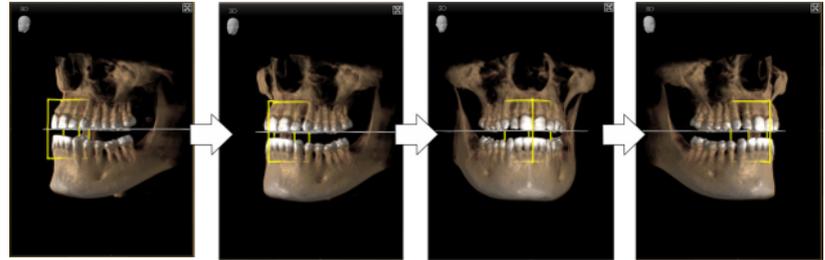
10.1.1.6.1 Changing angles

Changing view with the mouse



You can freely rotate the 3D reconstruction in the three axes x, y, and z using the mouse. To do this, proceed as follows:

1. Move the mouse pointer over the 3D image.
2. Press the left mouse button.
 - ↳ The mouse pointer changes its form.
3. Move the mouse pointer in an x, y, or z direction with the mouse button held down.



Changing view

- ↳ The 3D reconstruction is rotated according to the movement of the mouse pointer.

Selecting fixed view

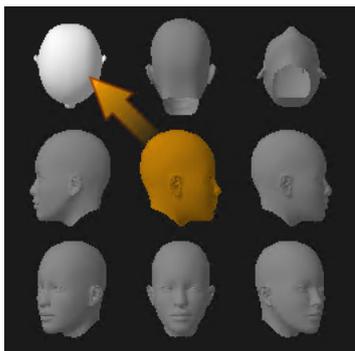
Sidexis 4 offers you eight standard views that you can select via icons in the 3D scene:

- Top
- Back
- Bottom
- Right
- Right isometric
- Front
- Left isometric
- Left

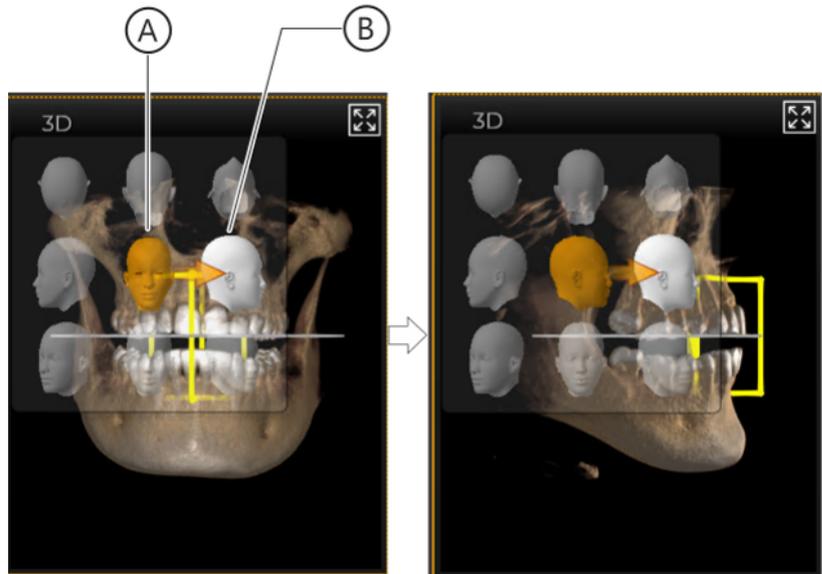
To select views, proceed as follows:

1. Move the mouse pointer onto the orientation display in the 3D image.

- ↳ The icons for selecting the view are superimposed. The current view is displayed in orange (A).



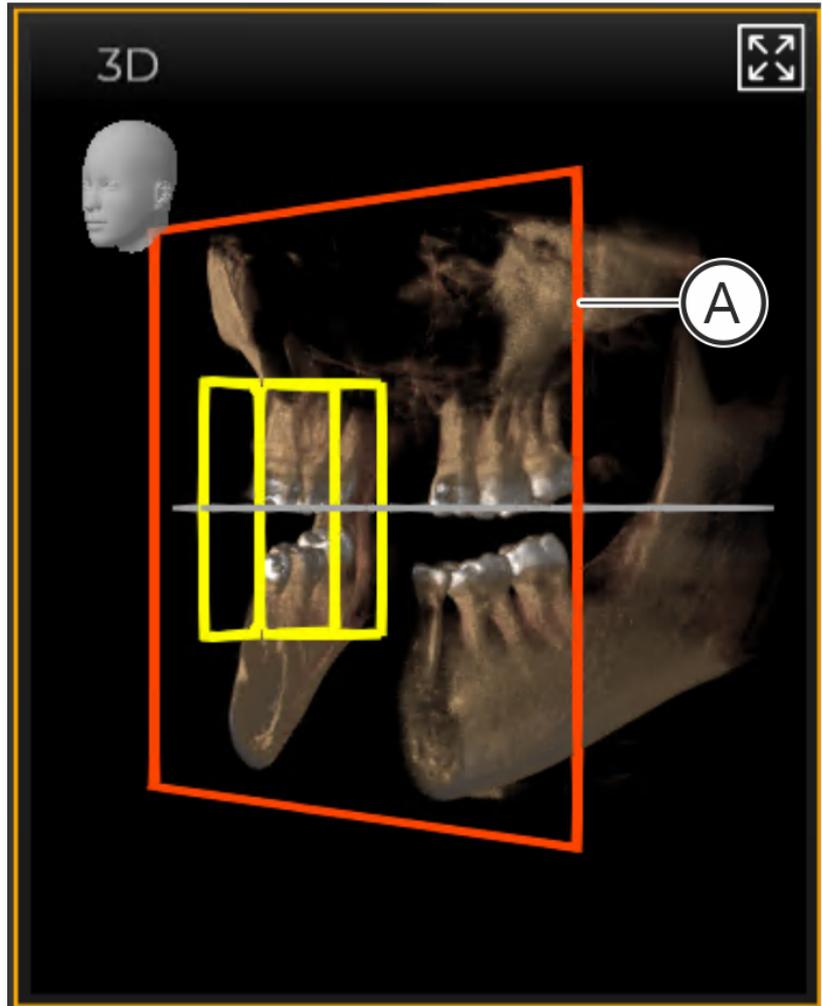
2. Click on the icon with the desired view; e.g. "Right" (B).



Selecting standard view

- ↳ The 3D reconstruction is turned to the desired view.

10.1.1.6.2 Planar sections



Interactive section screen (A) in the 3D scene

In the 3D scene you can interactively set planar sections in order to be able to analyze anatomical structures. To do this, you can place a section screen (A) in the currently selected angle. This screen (a clipping plane) can be moved through the volume using a mouse.

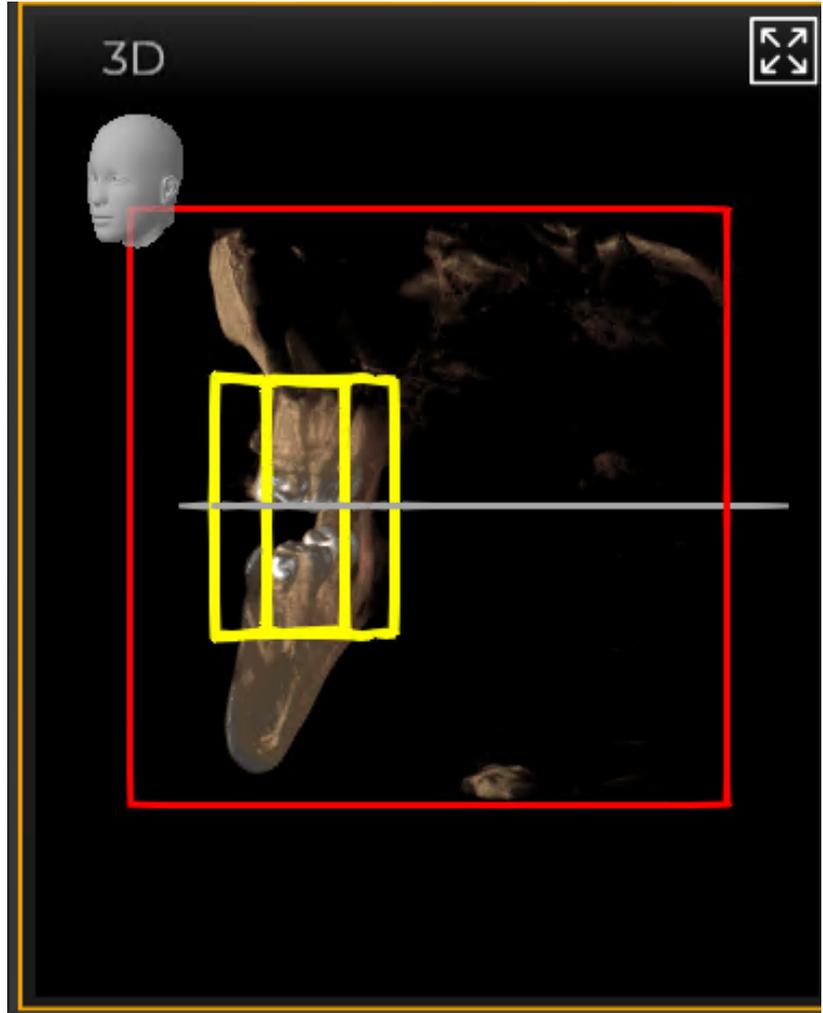
Setting a section screen

1. Select the angle at which you want [→ 161] to set the planar section.





2. Click on the "Create interactive clipping plane in the selected 3D view." button.



Setting a section screen

- ↳ The section screen (A) is set.

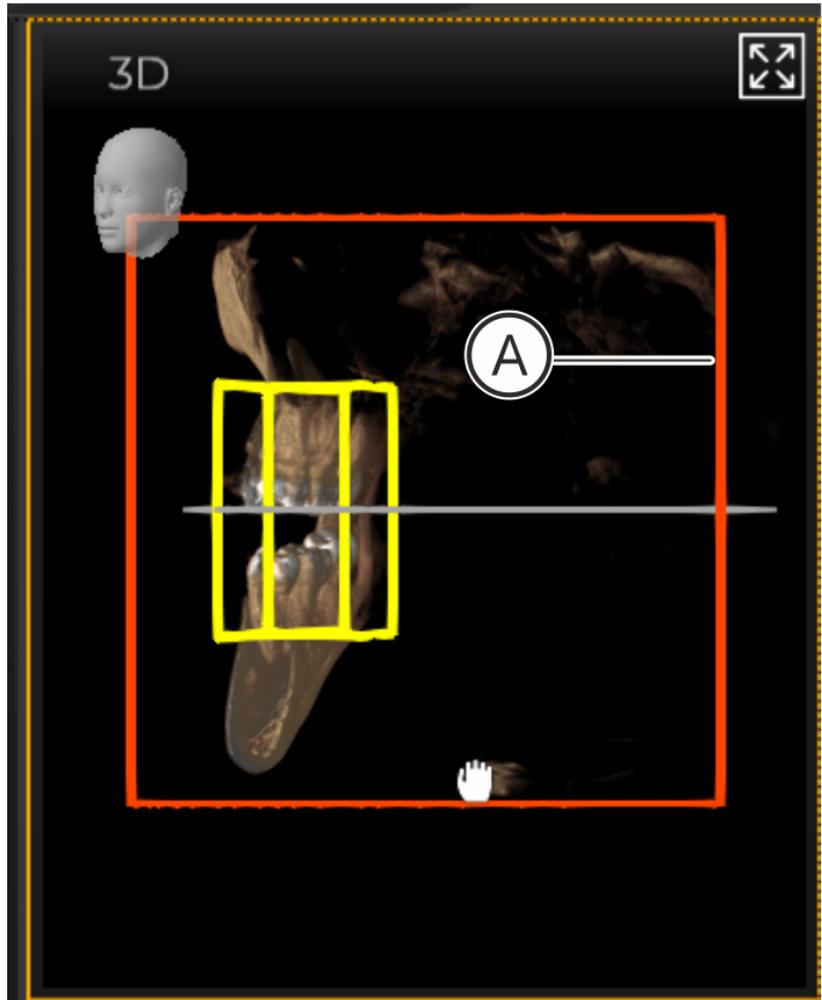
Moving a section screen



1. Move the mouse pointer onto the content of the section screen.
↳ The mouse pointer changes its form.
2. Press the left mouse button.



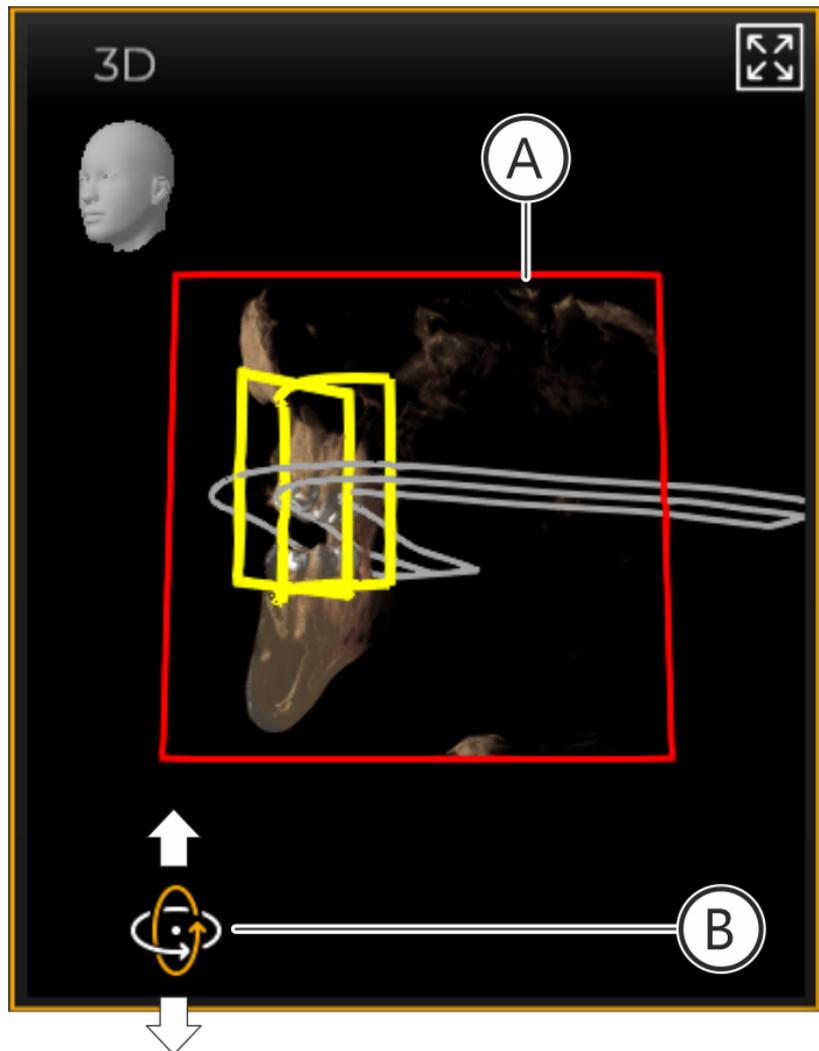
- ↳ The mouse pointer changes its form.
3. Move the mouse pointer inside the section screen with the mouse button held down.



Moving a section screen through the 3D reconstruction

- ↪ The section screen is moved through the 3D reconstruction. The section through the 3D reconstruction changes accordingly.

Changing the angle of the 3D reconstruction including the section screen



Changing the angle of the 3D construction including the section screen

The changing of the angle of the 3D reconstruction including the section screen is carried out as described in section "Changing angles [→ 161]".

NOTICE! When changing the angle with the mouse, however, you must ensure that the mouse pointer (B) is located outside the section screen (A) when pressing the left mouse button. Otherwise the angle is not change, and instead the section screen is moved.

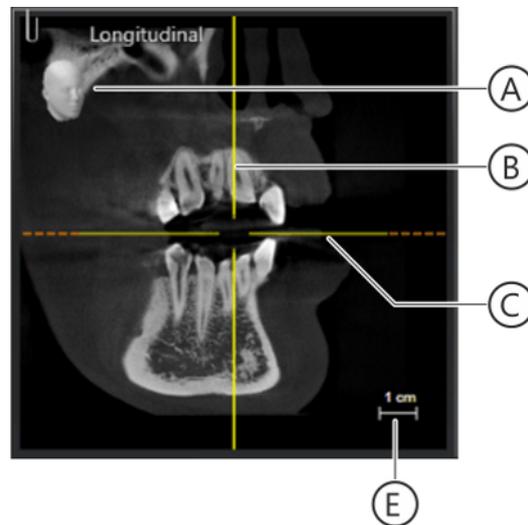
10.1.1.7 Section views:

Each (section) plane of the 3D volume can be displayed as a section view in Sidexis 4. Using the section views it is possible to assess and measure anatomical structures from various angles. Sidexis 4 provides various standard section views in the Standard layouts. You can navigate interactively through the sections using the mouse.

10.1.1.7.1 Longitudinal

The "Longitudinal" section view displays planar sections that run tangentially to the panorama curve. The panorama curve can be adjusted optimally to the patient's mandibular arch using the panorama curve editor. Sections along the mandibular arch can thus be examined using the longitudinal section view.

You can find information on the moving and inclining of section planes in section "Navigating the section views".



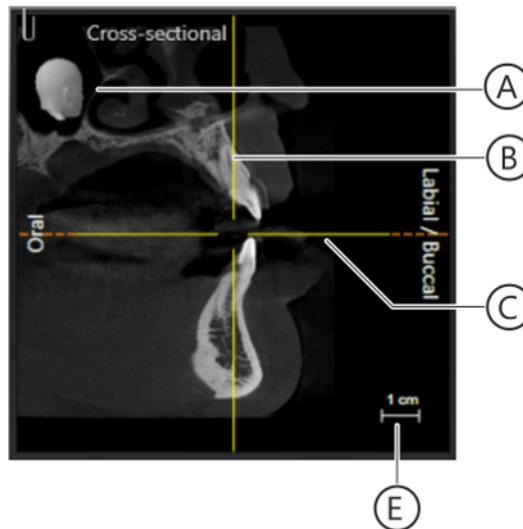
"Longitudinal" section view

A	Orientation display
B	Vertical position of the "Transversal" section plane
C	Horizontal position of the Axial (from above) section plane (corresponds to the position of the panorama curve)
E	Measurement indicator

10.1.1.7.2 Transversal

The *"Transversal"* section view displays planar sections that run perpendicular to the panorama curve. The panorama curve can be adjusted optimally to the patient's mandibular arch using the panorama curve editor. Sections across the mandibular arch can thus be examined using the transversal section view.

You can find information on the moving and inclining of section planes in section *"Navigating the section views"*.



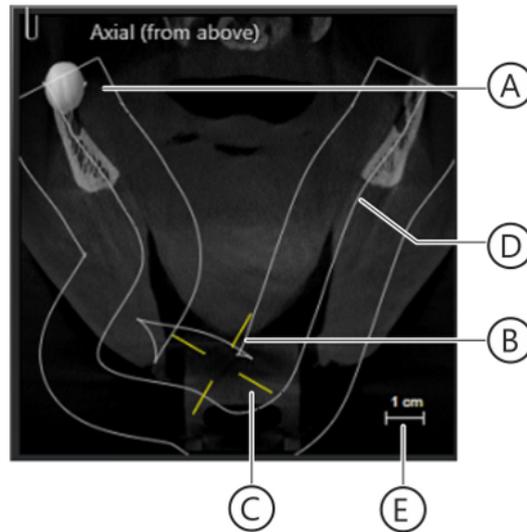
"Transversal" section view

A	Orientation display
B	Vertical position of the <i>"Longitudinal"</i> section plane
C	Horizontal position of the Axial (from above) section plane (corresponds to the position of the panorama curve)
E	Measurement indicator

10.1.1.7.3 Axial (top view)

The "Axial (from above)" section view displays planar, transversal sections that run parallel to the panorama curve. Transverse sections in the occlusal plane can thus be examined using the axial section. The axial section planes can be moved and tilted.

You can find information on the moving and inclining of section planes in section "Navigating the section views".



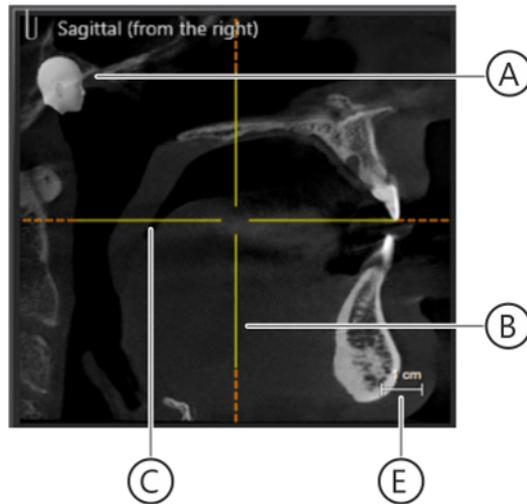
"Axial (from above)" section view

A	Orientation display
B	Position of the "Transversal" section plane
C	Position of the "Longitudinal" section plane
D	Panorama curve
E	Measurement indicator

10.1.1.7.4 Sagittal (from right)

The *"Sagittal (from the right)"* section view displays planar sections in the sagittal plane. Sections in the sagittal plane can thus be examined using the sagittal section view. The sagittal section plane can be moved, slanted, and tilted.

You can find information on the moving and inclining of section planes in section *"Navigating the section views"*.



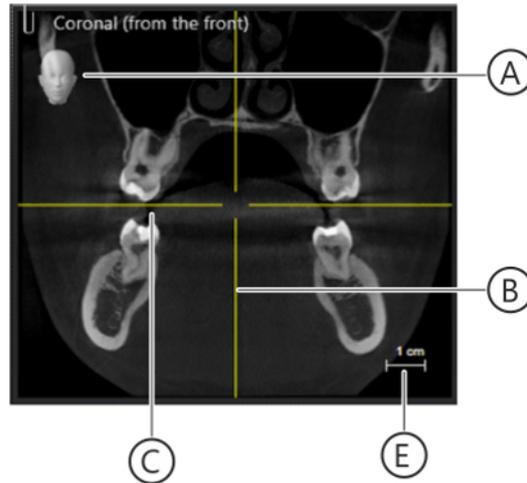
"Sagittal (from the right)" section view

A	Orientation display
B	Position of the <i>"Coronal (from the front)"</i> section plane
C	Horizontal position of the Axial (from above) section plane (corresponds to the position of the panorama curve)
E	Measurement indicator

10.1.1.7.5 Coronal (front view)

The "Coronal (from the front)" section view displays planar sections in the coronal plane. Sections in the coronal plane can thus be examined using the coronal section view.

You can find information on the moving and inclining of section planes in section "Navigating the section views".



"Coronal (from the front)" section view

A	Orientation display
B	Position of the "Sagittal (from the right)" section plane
C	Horizontal position of the Axial (from above) section plane (corresponds to the position of the panorama curve)
E	Measurement indicator

10.1.1.7.6 Ceph a.p./p.a.

The "Ceph AP"/"Ceph PA" thick film projection is calculated from the volume data.

- Ceph a./p. = front view
- Ceph p./a. = rear view

Which of the two Ceph a./p. or Ceph p./a. thick film projections is displayed at this point can be configured in the "General settings" => "Presentation" configuration menu.



Thick film projection "Ceph AP"/"Ceph PA"

Tip: The "3D align" function can be used to optimize Ceph views.

10.1.1.7.7 Ceph lateral

The "*Ceph lateral*" thick film projection is calculated from the volume data.



"Ceph lateral" thick film projection

Tip: The "*3D align*" function can be used to optimize Ceph views.

10.1.1.7.8 Navigating the section views

Sidexis 4 displays the following section planes in the layouts:

- "Longitudinal"
- "Transversal"
- "Axial (from above)"
- "Coronal (from the front)"
- "Sagittal (from the right)"
- "Ceph AP"/"Ceph PA"
- "Ceph lateral"

10.1.1.7.8.1 Moving section planes



1. Move the mouse pointer over the section view in which you want to navigate.
2. Click the left mouse button.
 - ↳ The corresponding media window is selected.
 - ↳ The mouse pointer changes its form.
3. Move the mouse pointer in a vertical direction holding the mouse button down.
 - ↳ The section plane is moved accordingly.
 - "Longitudinal" = Moving the section plane in a lingual/palatinal ⇔ buccal direction
 - "Transversal" = Moving the section plane tangentially along the panoramic curve
 - "Axial (from above)" = Moving the section plane longitudinally in an OK ⇔ UK direction
 - "Sagittal (from the right)" = Moving the section plane transversally
 - "Coronal (from the front)" = Moving the section plane sagittally
 - ↳ In the 3D scene, the new section and projection planes "Transversal", "Panorama", and the panoramic curve are displayed as position aids.
 - ↳ The section views change according to the new section plane.

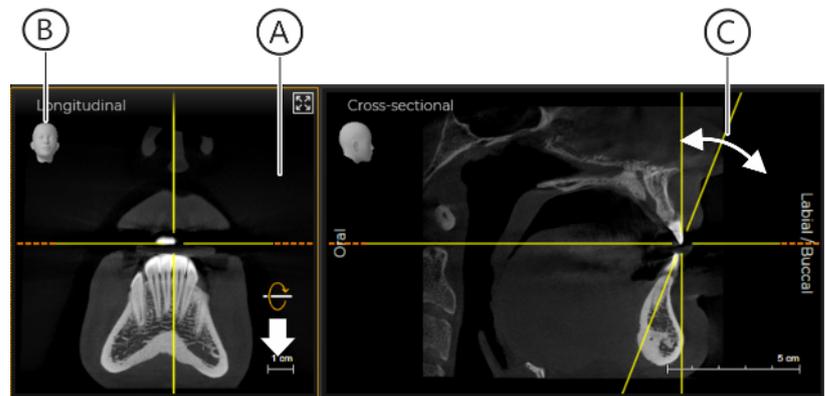
10.1.1.7.8.2 Slanting / tilting section planes

The "Longitudinal", "Transversal", "Axial (from above)", "Sagittal (from the right)", and "Coronal (from the front)" section planes can be slanted / tilted.

There are two procedures for tilting or inclining the planes:

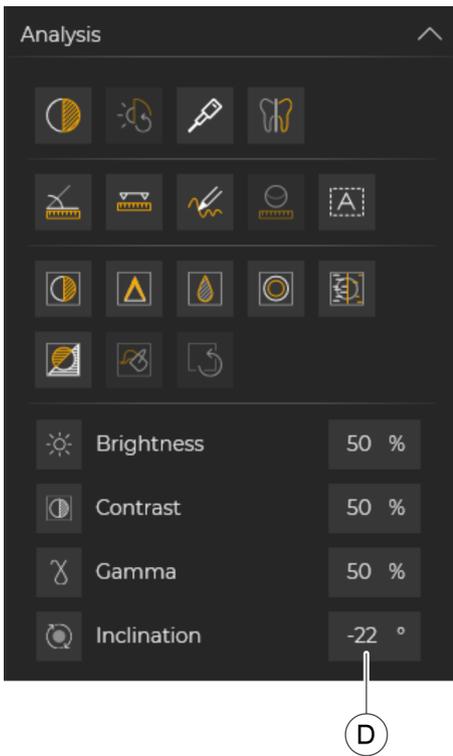
- By moving the mouse pointer over the section view
 - Using the "Incline" control (D) in the "Analysis" tool kit
1. Move the mouse pointer over the left or right (orange dashed) edge of the horizontal position aid in the desired section view.
 - ↳ The mouse pointer changes its form.
 2. Press the left mouse button. Move the mouse pointer in a vertical direction with the mouse button held down.

Tilting or inclining a section plane by moving the mouse pointer over the section view



Tilting or inclining a section plane (in the example, the "Longitudinal" section plane)

- ↳ The section plane (A) is rotated around the axis of rotation (yellow horizontal position aid).
- ↳ Provided the section plane is displayed in the projections, the position of the inclined section plane is displayed as a yellow line (C) in the other section views.
- ↳ In addition the position of the section plane is displayed via the position aid (B).

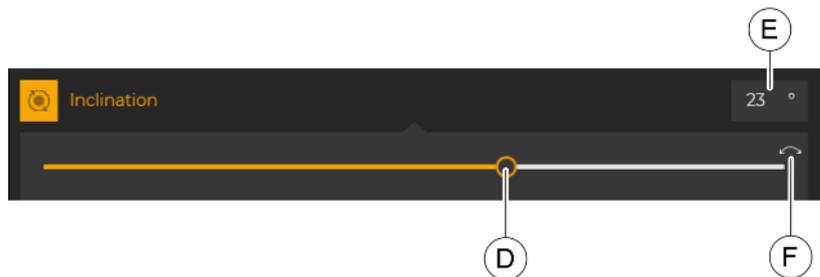


↳ The inclination of the selected section plane is displayed in the field (D) of the "Analysis" tool kit.

Displaying the inclination

Tilting / inclining the section plane with the "Incline" control

1. Select the desired section view in the work area.
2. Click on the "Inclination" row in the "Analysis" tool kit.
 - ↳ The "Incline" control is displayed.



"Incline" control

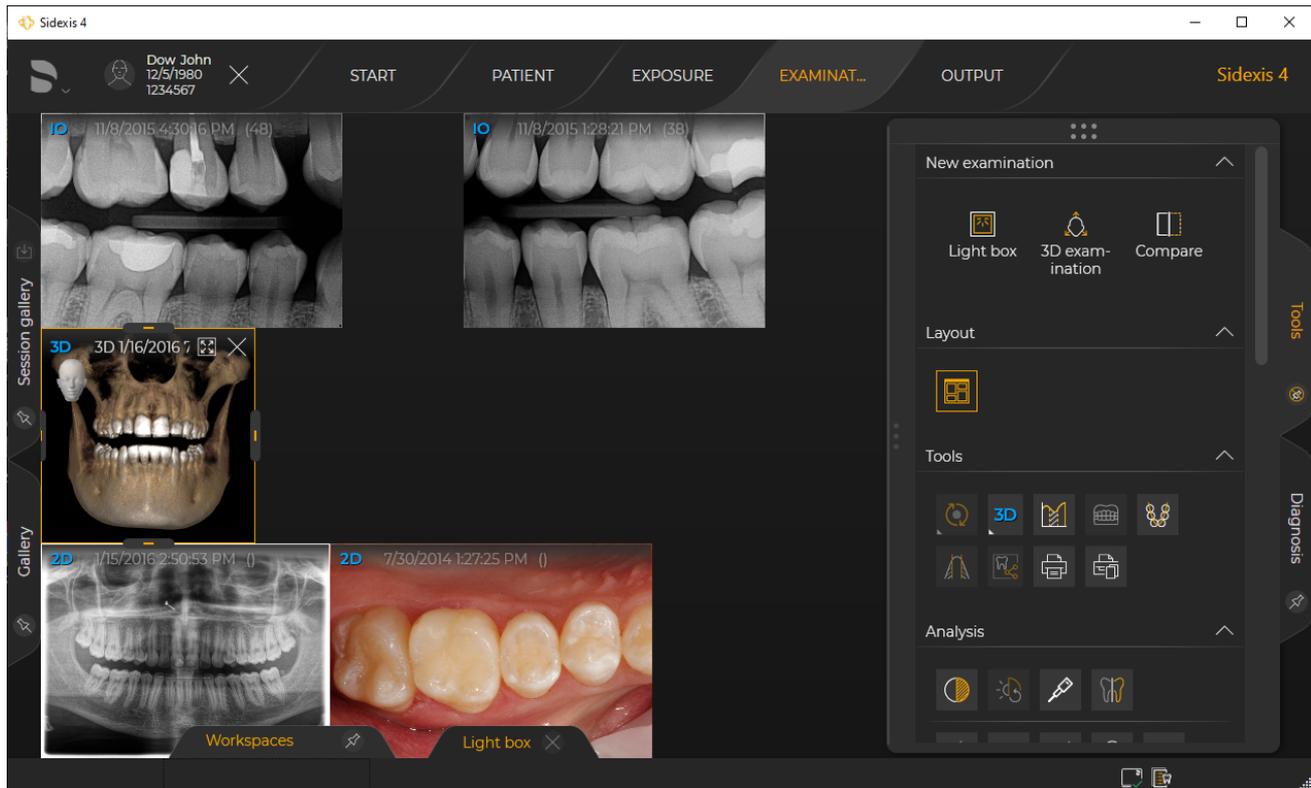
3. Move the mouse pointer over the "Incline" control (D).
 - ↳ A slider appears over the control.
 4. Move the mouse pointer onto the circle of the slider, press the left mouse button, and move the circle along the slider with the mouse button held down.
- or
- > Enter the desired value in the corresponding input field (E) and confirm the entry with the Return key.
- ↳ The section plane is rotated around the axis of rotation (yellow horizontal position aid).
 - ↳ Provided the section plane is displayed in the projections, the position of the inclined section plane is displayed as a dashed yellow line in the other section views. The inclination of the

- Undoing the tilt or inclination of the section plane
- selected section plane is displayed on the *"Incline"* control in the field (E).
1. Select the desired section view in the work area.
 2. Click on the *"Inclination"* row in the *"Analysis"* tool kit.
↳ The *"Incline"* control is displayed.
 3. Click on the white reset arrow (F) on the *"Incline"* slider.
↳ The inclination of the section plane is reset to the origin, i.e. 0°.

10.1.2 "Light box"



Selection: Click on the "Light box" button in the "New examination" tool kit.



Example of displaying different media windows in the light box

The functionality of the traditional light box is recreated. In this "virtual light box" you can open 2D images, as well 3D volumes and section views. Each image is opened in its own media window.

10.1.2.1 Open 2D images in a new "Light box"

There are various ways of opening a new "Light box":

- From the gallery of the "Examination" work phase
- From the media gallery of the "Patient" work phase
- Via the "Light box" button of the "New examination" tool kit

Opening a new "Light box" work area from the "Timeline"

- ✓ The "Patient" work phase is selected.
- 1. Click on the "Register and Timeline" button.
 - ↳ The "Timeline" is displayed.
- 2. Scroll with the mouse to the desired 2D image.
- 3. Double-click on the 2D image.
 - ↳ The 2D image is opened in a new "Light box".

IMPORTANT

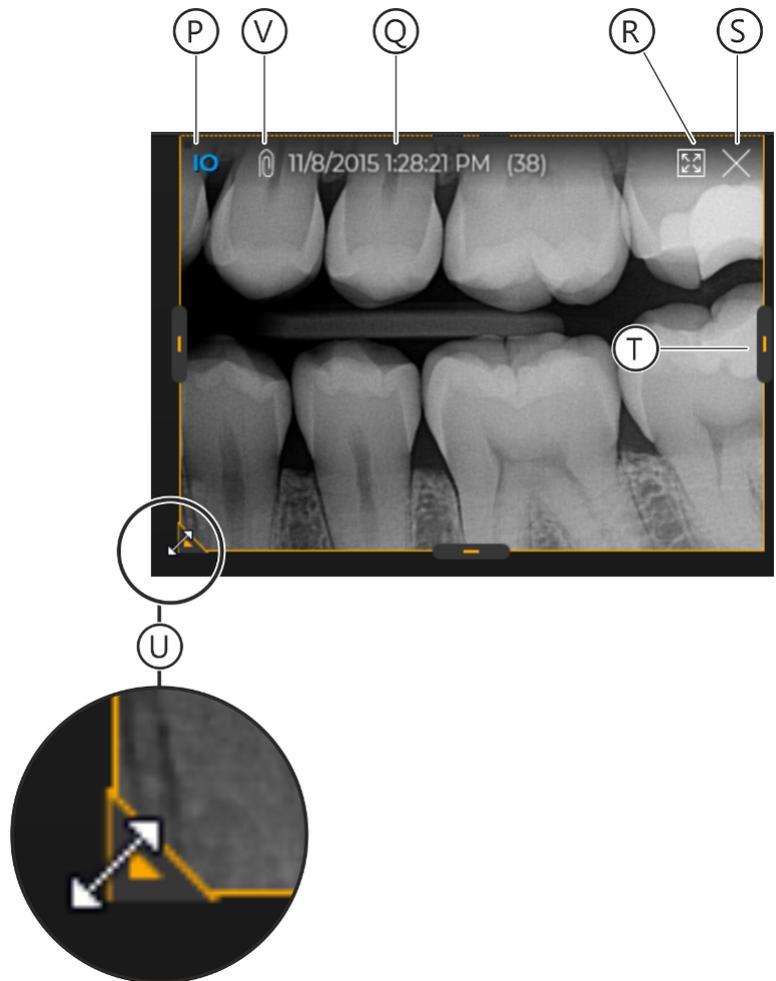
You can also open multiple media items in a new light box at the same time or add media items to an opened light box later on. You can find information on this in the "Managing media items" section.

Opening a new "Light box" work area using the "Light box" button

- ✓ The "Examination" work phase is selected.
- 1. Select an open "Light box".
- 2. Click on the "Light box" button on the "New examination" tool kit.
 - ↳ The currently selected media item is opened as a copy in a new "Light box".

10.1.2.2 Working with media windows

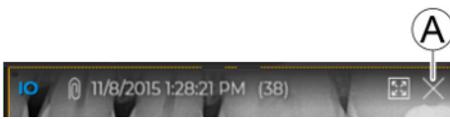
In the "Light box" work area, each media item is displayed in its own media window, whether that be a 3D volume, section view, or a 2D image. Several media windows and media items can be opened in parallel. By clicking on a media window, this is selected and placed in the foreground. Only one media window can be selected at a time. A header is shown on the selected media window. The header displays the type of media, the date and time of the exposure, and the "Full screen / Window mode" button. In media windows of intraoral exposures, the information in the header of the media window is always displayed, irrespective of the selection.



Media window

P	Media type display (3D / 2D / panorama)
Q	Date and time of exposure/video
R	"Full screen / Window mode" button
S	"Close" button
T	Choose / cut media window (image detail)
U	Proportionally zoom in/out of media window (content)
V	Paper clip, if a diagnosis is saved with the media item.

10.1.2.2.1 Closing a media window

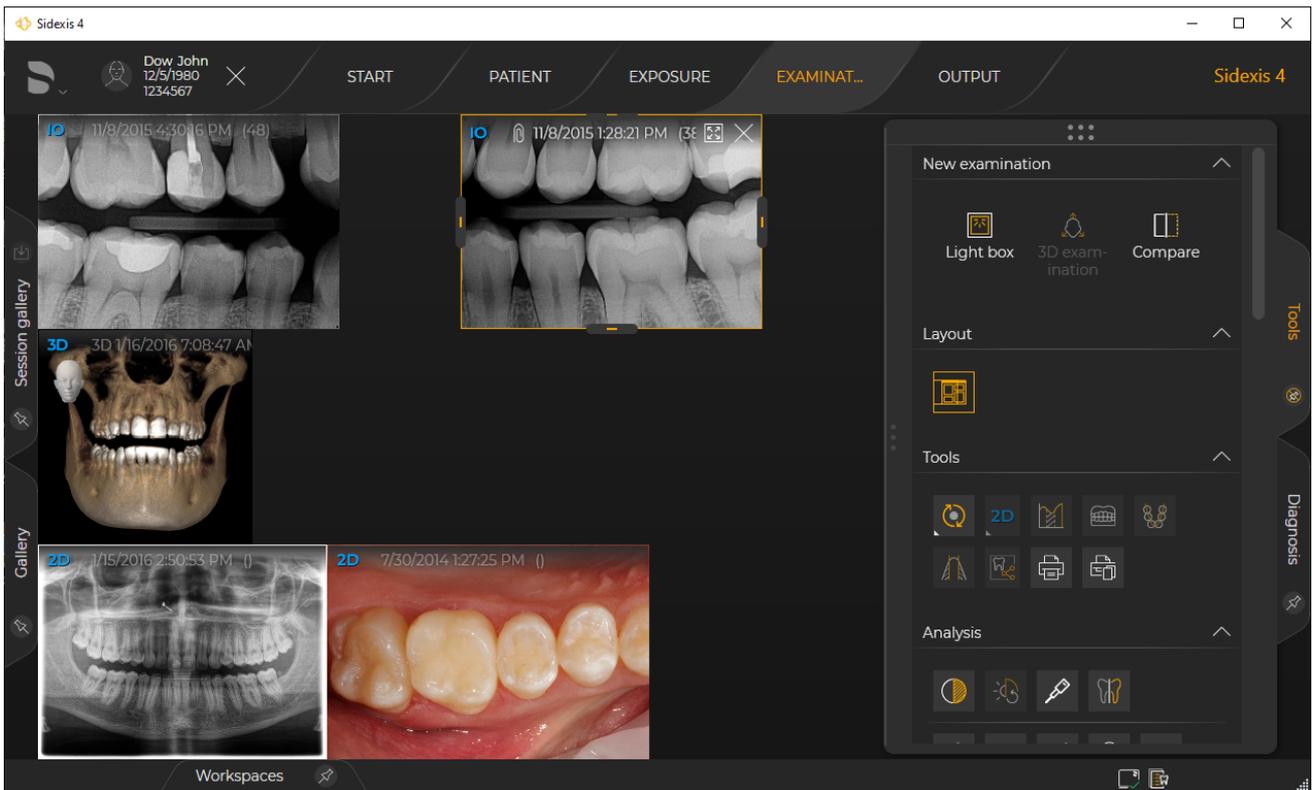


- Click on the X (A) at the top right in the title bar of the media window.
- ↳ The media window is closed.

10.1.2.2.2 Arranging media windows automatically in the work area



- ✓ Several media windows (media) are opened in the "Light box".
- Click on the "Auto arrange all images." button.

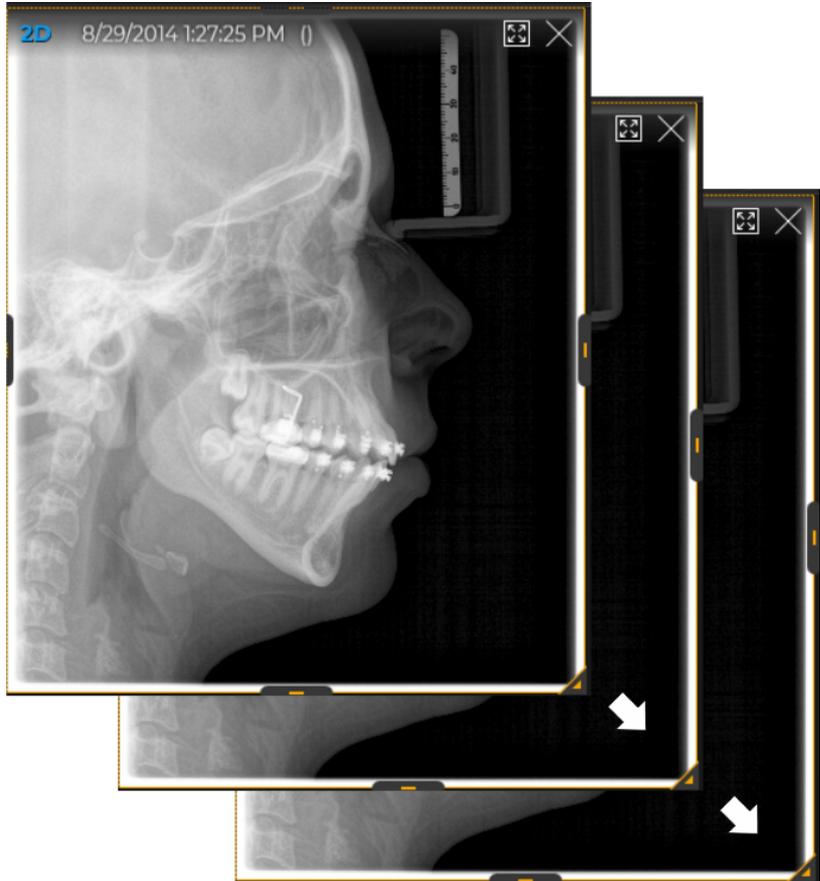


Automatic arrangement of the opened media windows

- ↳ The opened media windows (media items) are automatically arranged in the "Light box". In so doing, media items of the same kind are arranged next to each other in chronological order.
- ↳ The "Auto" button is highlighted orange.

10.1.2.2.3 Moving media windows

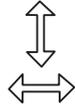
1. Select the desired media window.
2. Move the mouse pointer onto the title bar of the media window.
↳ The mouse pointer changes its form.



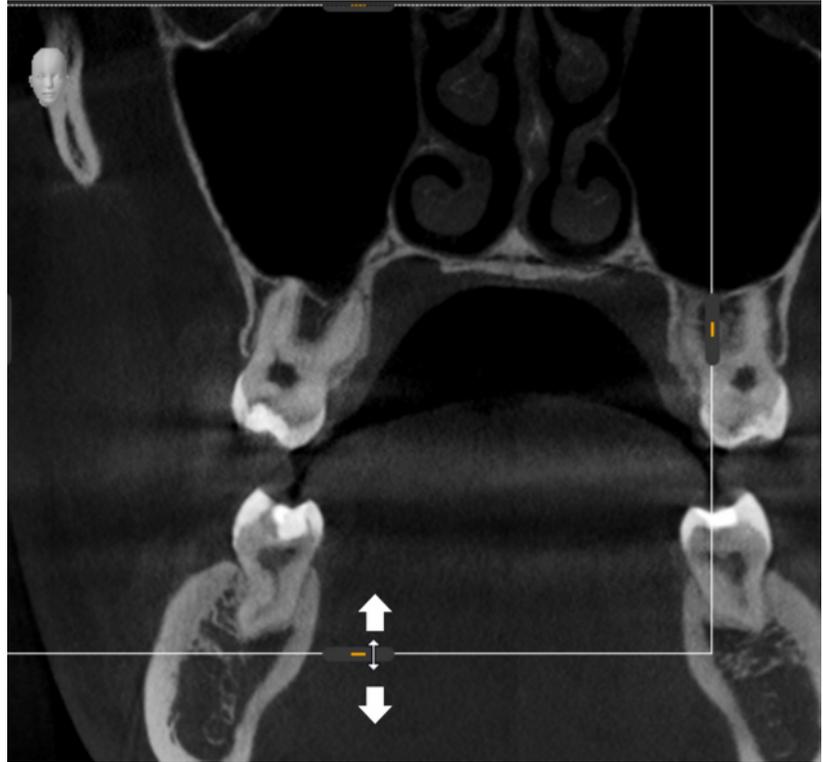
Moving media window in the "Light box"

3. Press the left mouse button and move the media window with the left mouse button held down.
↳ The media window is moved to another position.

10.1.2.2.4 Choose / cut image detail



1. Select the desired media window.
2. Move the mouse pointer onto a drag point of the media window.
↳ The mouse pointer changes its form.
3. Press the left mouse button.



Choose / cut media window (image detail)

- ↳ The frame of the media window is displayed as a white line over the image.
4. With the mouse button held down, make the media window smaller or larger.
↳ The image is cut. The actual image size remains unchanged.

Changing the image size

- ✓ The desired media window is selected.
1. Place the mouse pointer over the image in the media window.
2. Roll the mouse wheel forwards or backwards.
↳ The image size in the media window changes.
 - Rolling the mouse wheel forwards = Enlarges the image
 - Rolling the mouse wheel backwards = Reduces the image

Moving an image

- ✓ The desired media window is selected.
- 1. Place the mouse pointer over the image in the media window.
- 2. Press the right mouse button.
 - ↳ The mouse pointer changes its form.

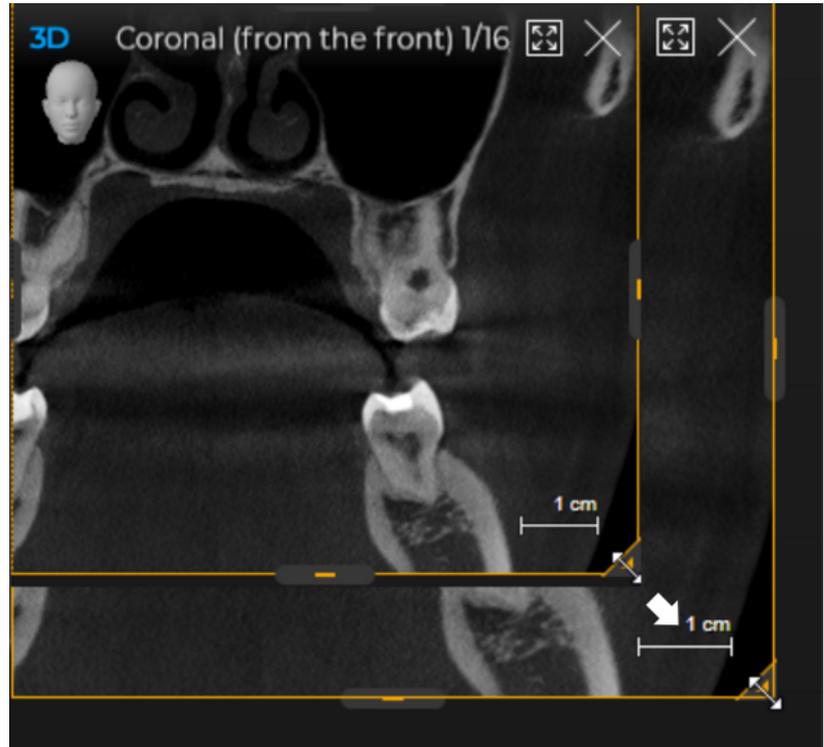


Moving an image in the media window

- 3. Move the image with the right mouse button held down.
 - ↳ The image is moved in the media window.

10.1.2.2.5 Proportionally enlarging / reducing the media window

1. Select the desired media window.
2. Move the mouse pointer to the white arrow point in the lower corner of the media window.
↳ The mouse pointer changes its form.



Proportionally enlarging / reducing the media window (image)

3. Press on the left mouse button and pull the media window in a diagonal direction to become larger or smaller with the mouse button held down.
↳ The media window is expanded or reduced in size. The content is also zoomed in or out with the size of the window. The image detail is not changed.

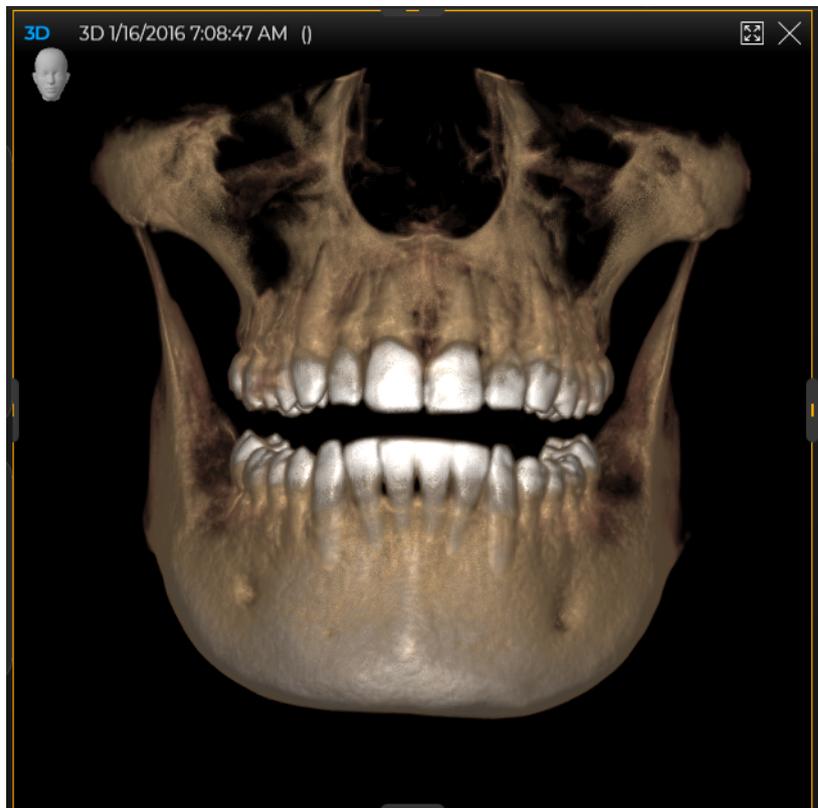
10.1.2.2.6 Maximizing the media window on the work area (single image mode)



- ✓ The desired media window is selected.
- > Click on the *"Full screen / Window mode"* button on the right side of the title bar of the media window.
- or
- > Press the space bar.
 - ↳ The media item is maximized on the work area.
- > By clicking on the *"Normal view"* button or pressing the space bar, the single image mode is reset.
 - ↳ The media item is displayed once again in the media window.

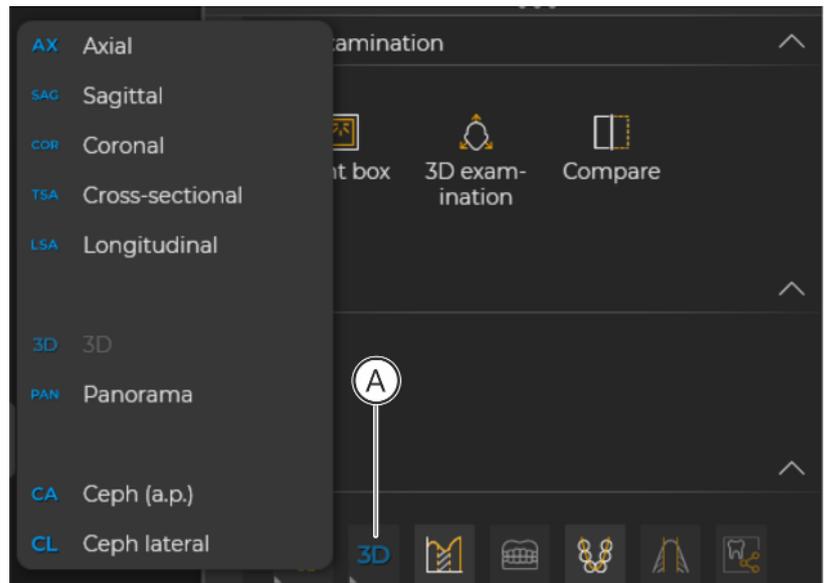
10.1.2.2.7 Changing projection type in the media window

In media windows in the *"Light box"* that contain a 3D volume or a section view, the projection type can be changed. To do this, proceed as follows:



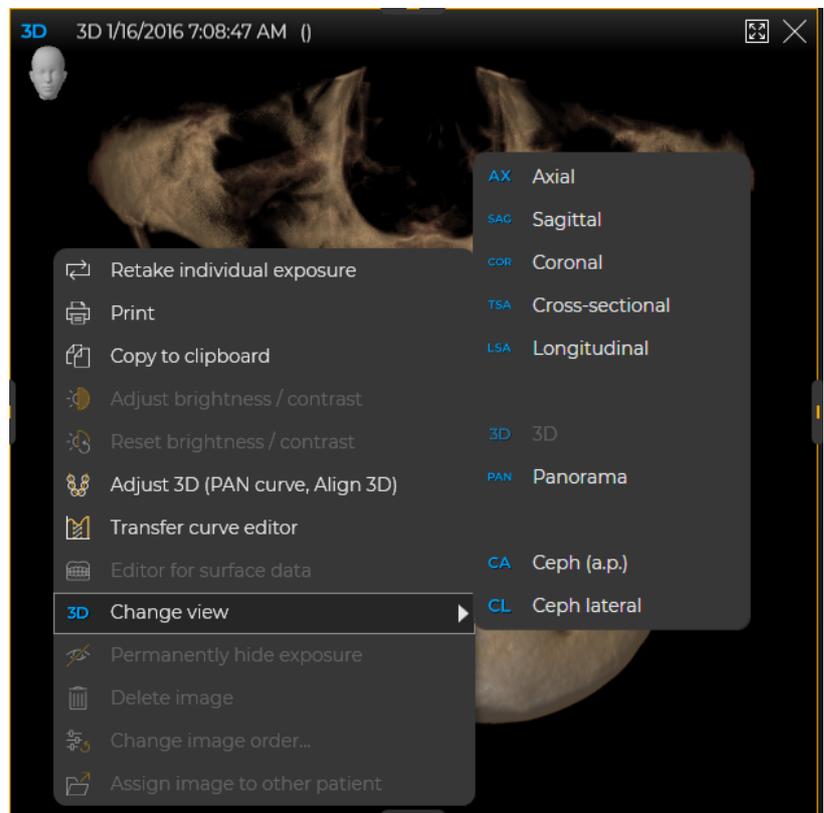
Example: Media window in "Light box" with a 3D volume

- ✓ A media window with a 3D volume or a section view is selected in the *"Light box"* (a 3D volume in this example).



Changing projection type

1. Click on the "Change projection type of selected volume." button (A) in the "Tools" tool kit.



Changing projection in the media window via the context menu

or

- > Click on the "Change view" button of the context menu.
 - ↳ A submenu opens.
- 2. Click on the desired projection type in the submenu, e.g. "Coronal".



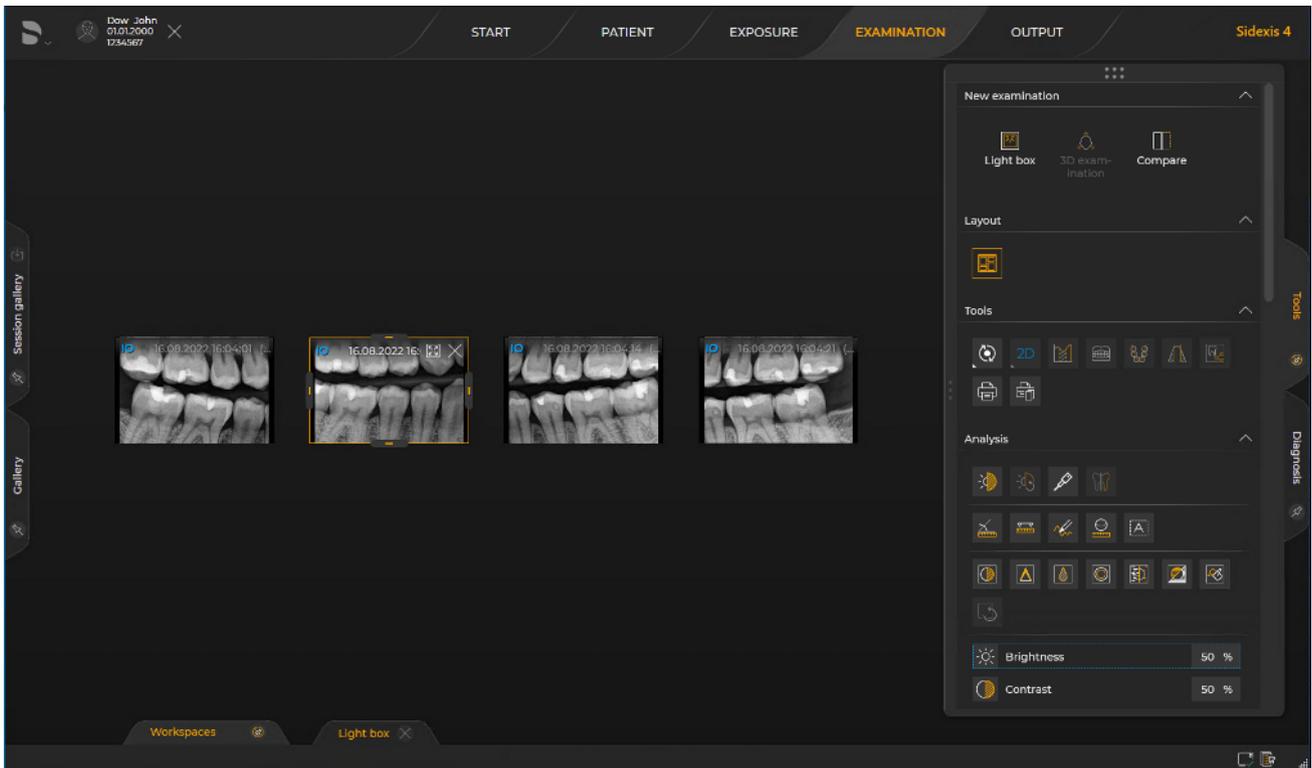
Example: "Coronal" section view



- ↪ The "Coronal" section view is displayed in the media window.
- ↪ The "Change view" button in the tool kit changes (from "3D" to "COR" in this example).

10.1.2.3 Working with intraoral series

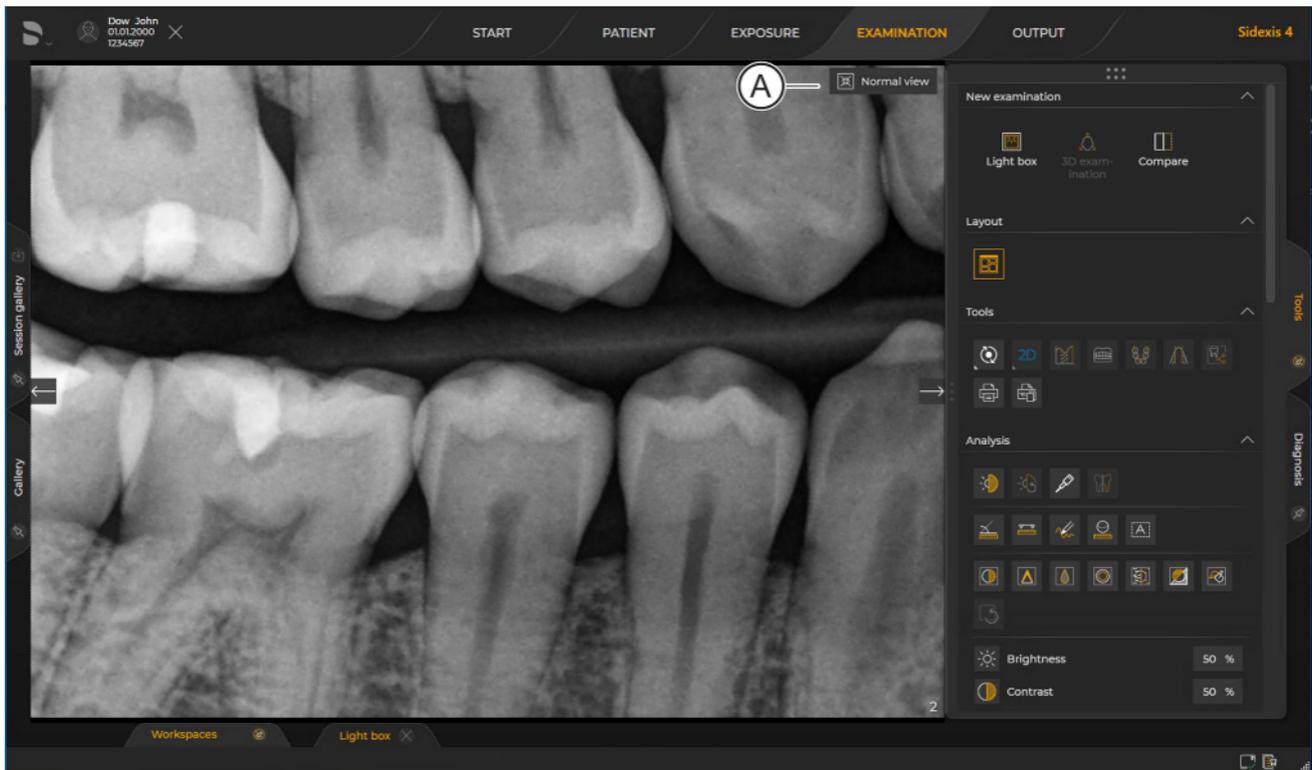
10.1.2.3.1 Magnifying intraoral exposures



Intraoral exposure in the "Light box"

You can magnify the intraoral exposures in the "Light box".

1. Double-click on the intraoral exposure or the header of the media window.
- or
- > Press the space bar on your computer keyboard.



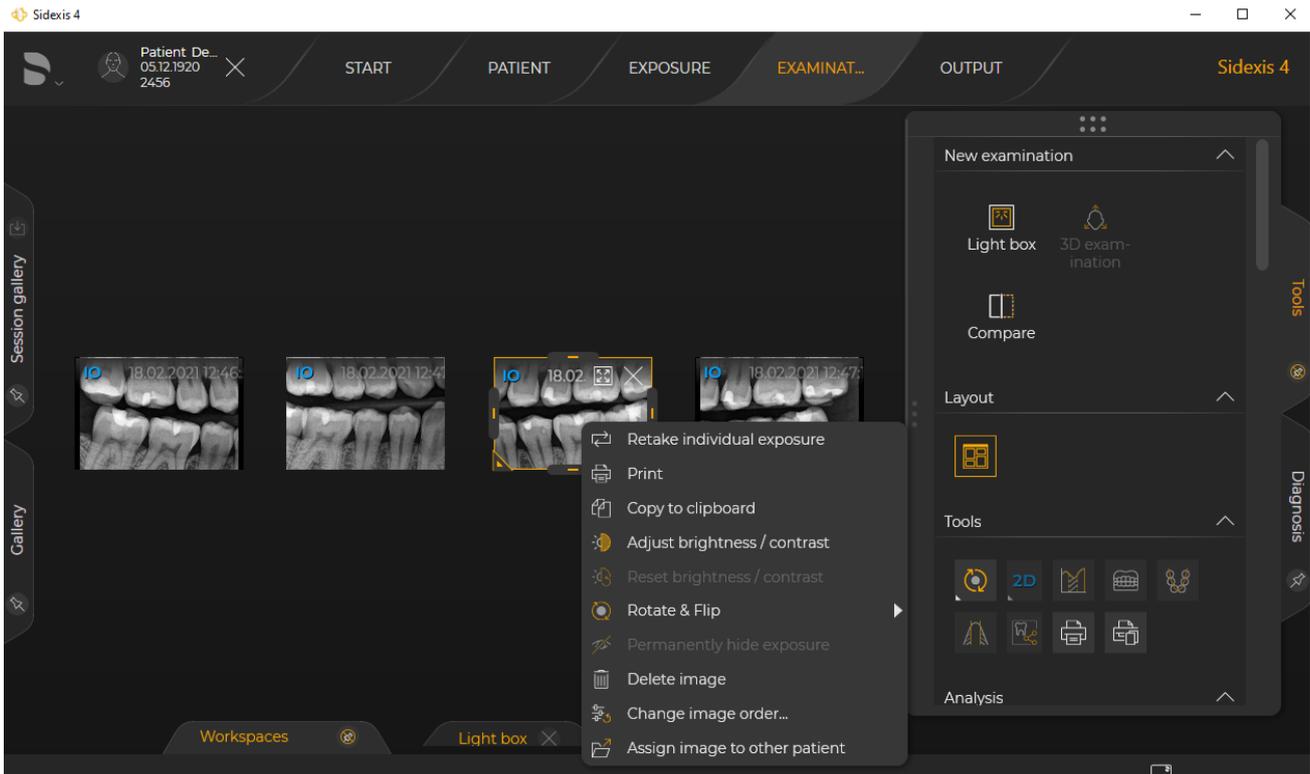
Window view of intraoral exposure

- ☞ The exposure is opened in the full view and magnified on the work area.
- 2. You can change the window view again by clicking on the icon (A) or double-clicking on the exposure. All exposures are displayed again.

10.1.2.3.2 Retaking an intraoral exposure

You can retake an individual exposure of an exposure series at a later time.

1. Open the exposure series from the "Timeline" or "Gallery" in the "Examination" work phase (see section "Opening media and sessions in the "Examination" work phase [→ 132]").



Retaking individual exposure

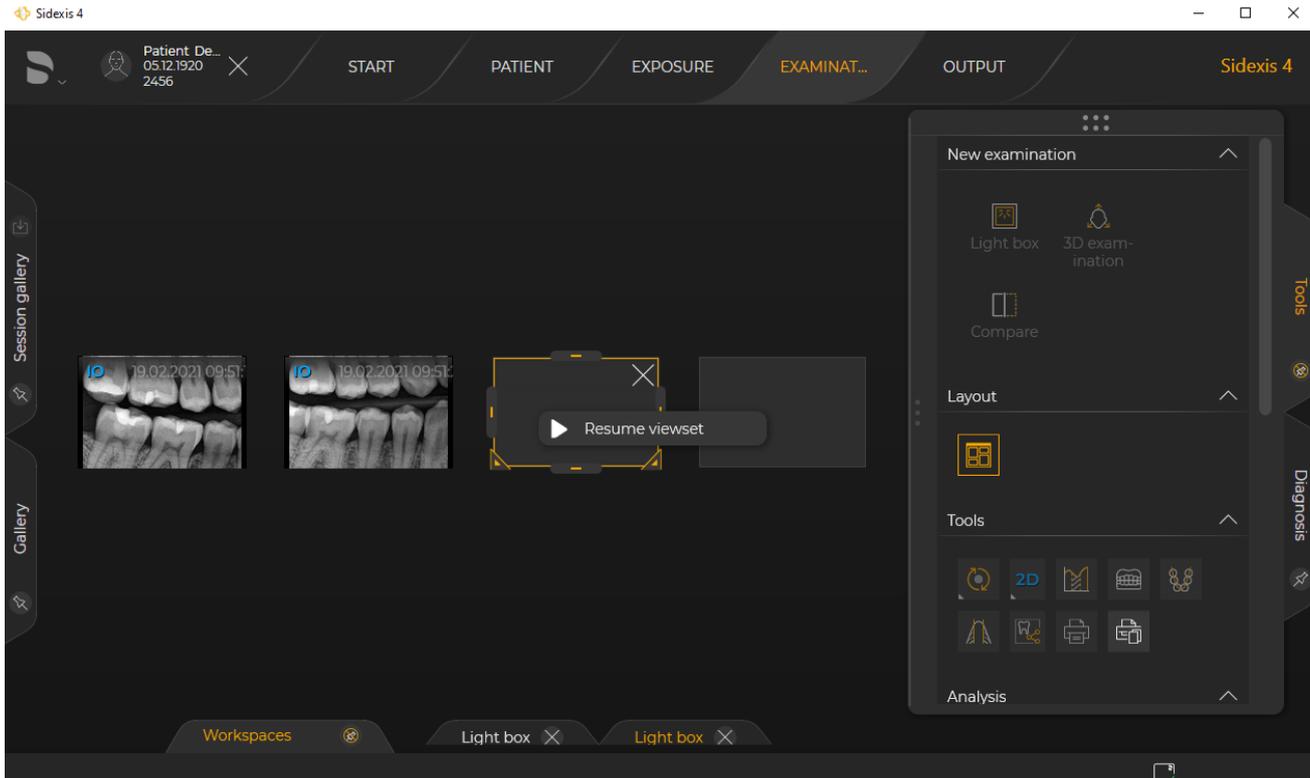
2. Right-click on the exposure that you want to repeat.
 - ↳ A context menu opens.
3. Click the "Retake individual exposure" button in the context menu.
 - ↳ Sidexis 4 switches to the intraoral exposure dialog.
4. Start the exposure in the intraoral exposure dialog.

You can find information on the workflow in the technical documents of the corresponding sensor plug-ins.

10.1.2.3.3 Continuing an intraoral exposure series

An exposure series that has been interrupted can be continued later at any time.

1. Open the exposure series from the "Timeline" or "Gallery" in the "Examination" work phase (see section "Opening media and sessions in the "Examination" work phase [→ 132]").



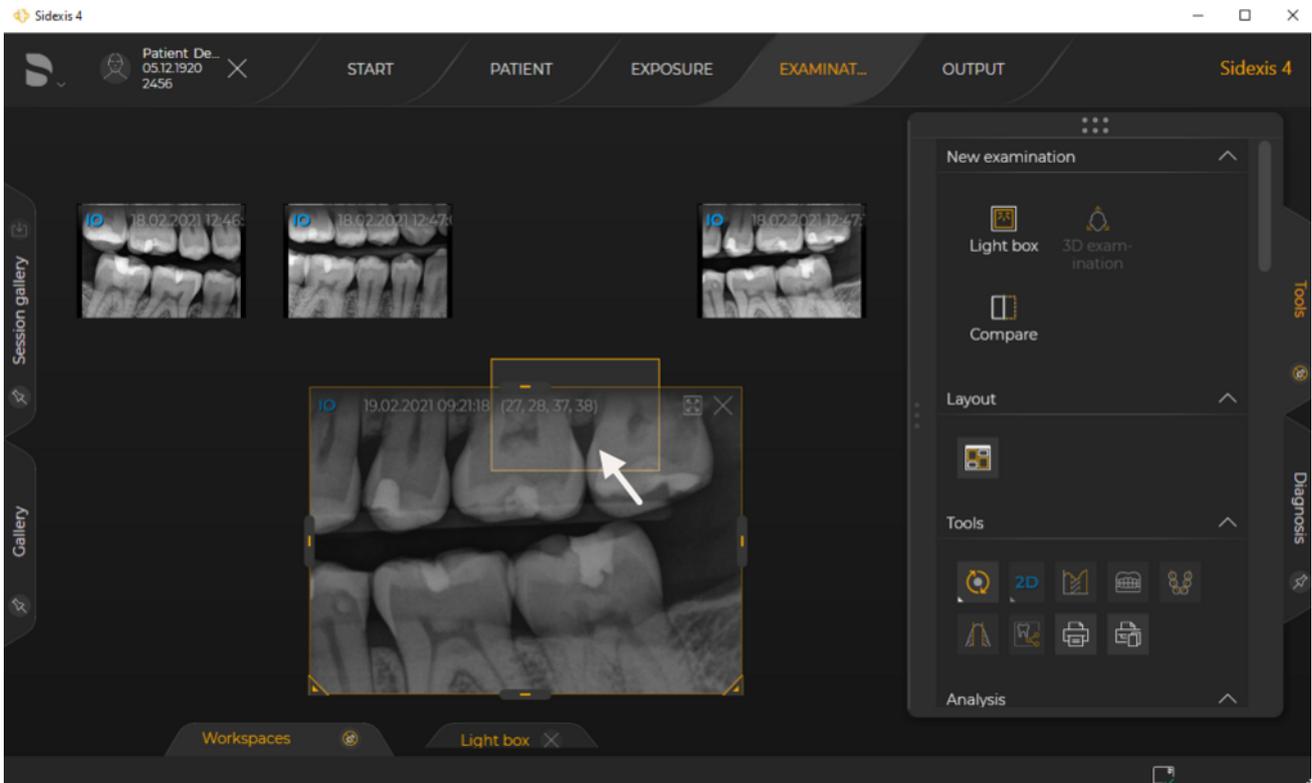
Continuing an exposure series

2. Right-click on the placeholder of the exposure that you want to continue the exposure series with and then click on the "Resume viewset" button.
↳ Sidexis 4 switches to the intraoral exposure dialog.
3. Continue the exposure series in the intraoral exposure dialog. You can find information on the workflow in the technical documents of the corresponding intraoral sensor software.

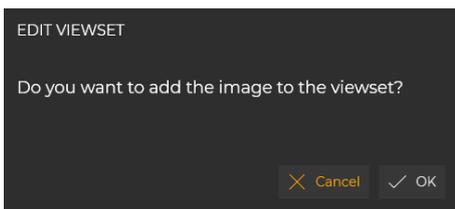
10.1.2.3.4 Supplementing an intraoral exposure series

Sidexis 4 provides the option of completing an incomplete intraoral exposure series.

1. Open the incomplete exposure series, as well as the individual exposure that is to be added to the exposure series, from the "Timeline" or "Gallery" in the "Examination" work phase (see section "Opening media and sessions in the "Examination" work phase [→ 132]").
2. Move the mouse pointer over the individual intraoral exposure and then use drag & drop to move it to the desired exposure position.

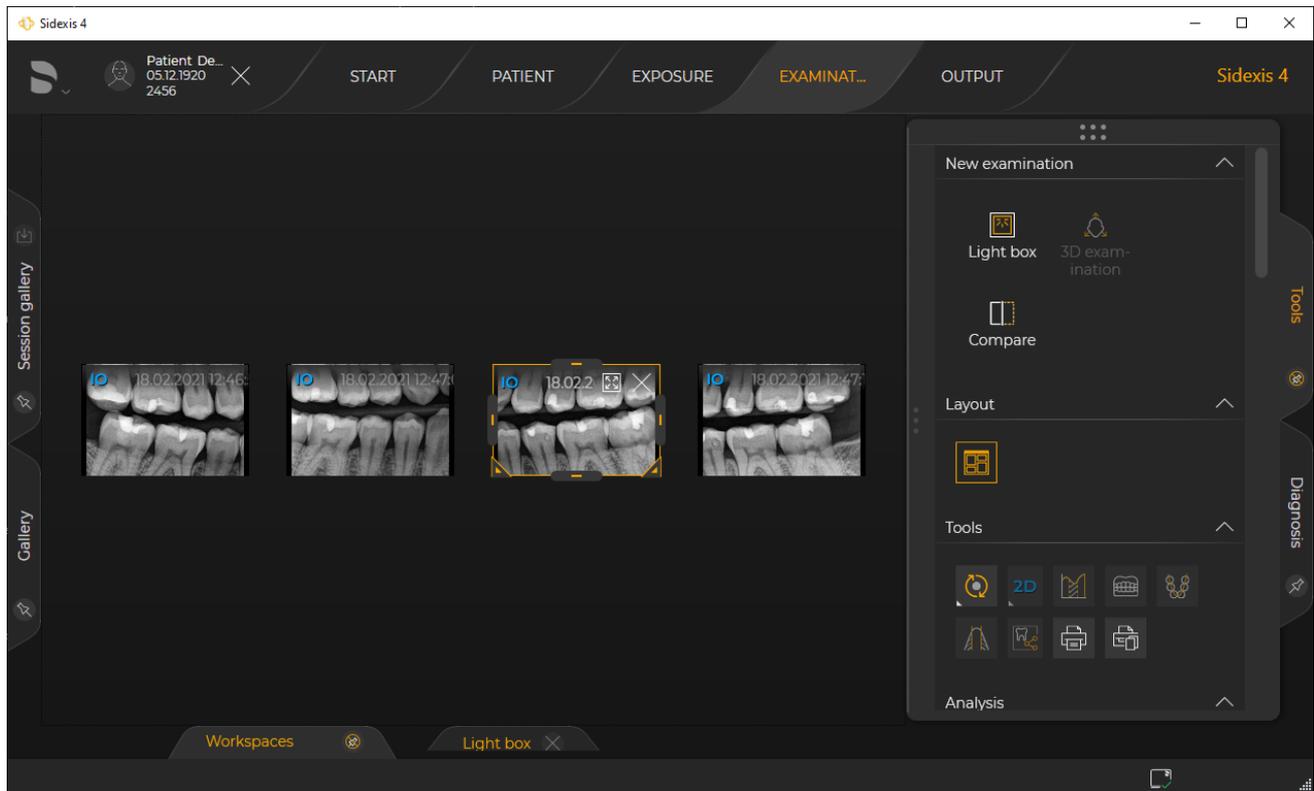


Inserting individual intraoral exposure into an incomplete exposure series

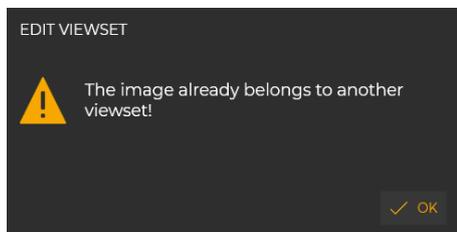


☞ A dialog box opens.

3. Confirm that you want to insert the image at the position by clicking on the "Ok" button.



Completed intraoral exposure series

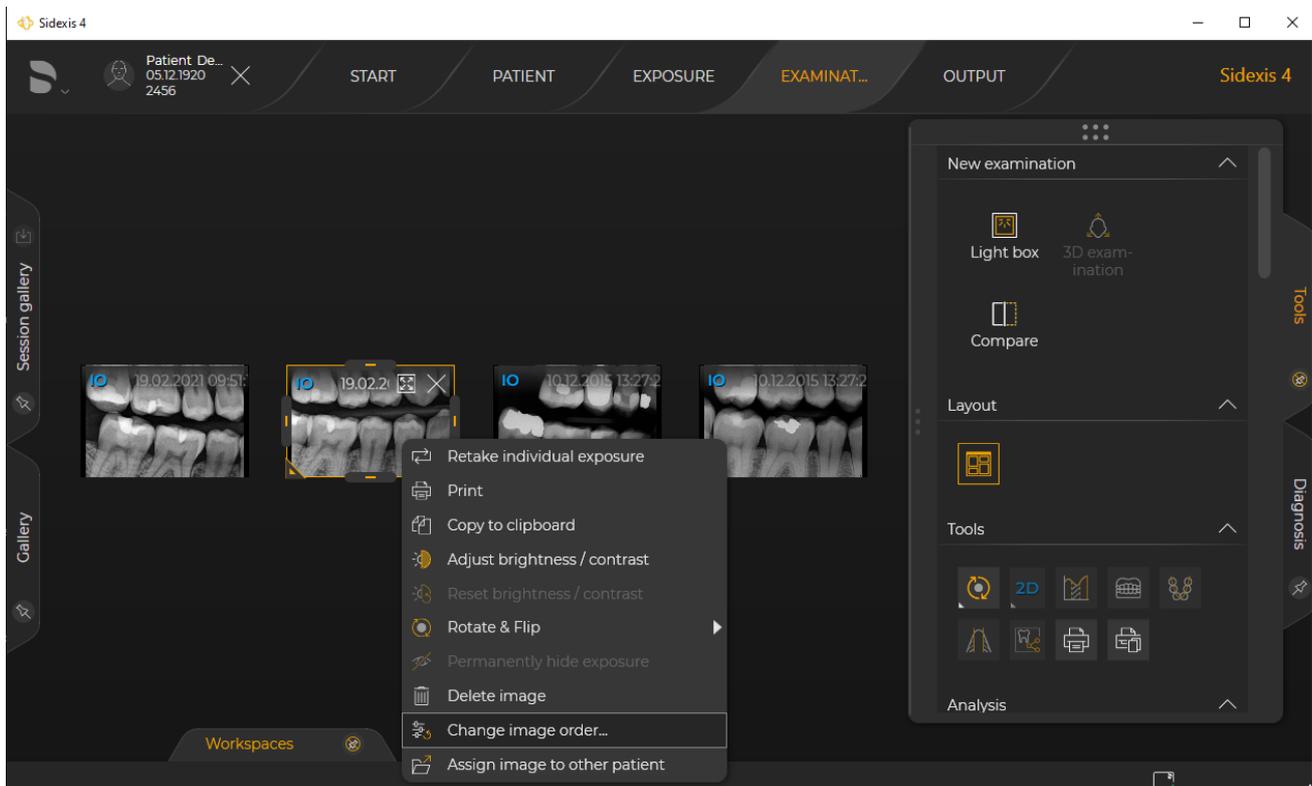


- ↪ The image is inserted at the position.
- ↪ If the individual intraoral exposure already belongs to another intraoral exposure series, a message box will appear and inform you of this.

10.1.2.3.5 Swapping exposure positions in an exposure series

Sidexis 4 provides the option of subsequently swapping the position of two exposures of an intraoral exposure series.

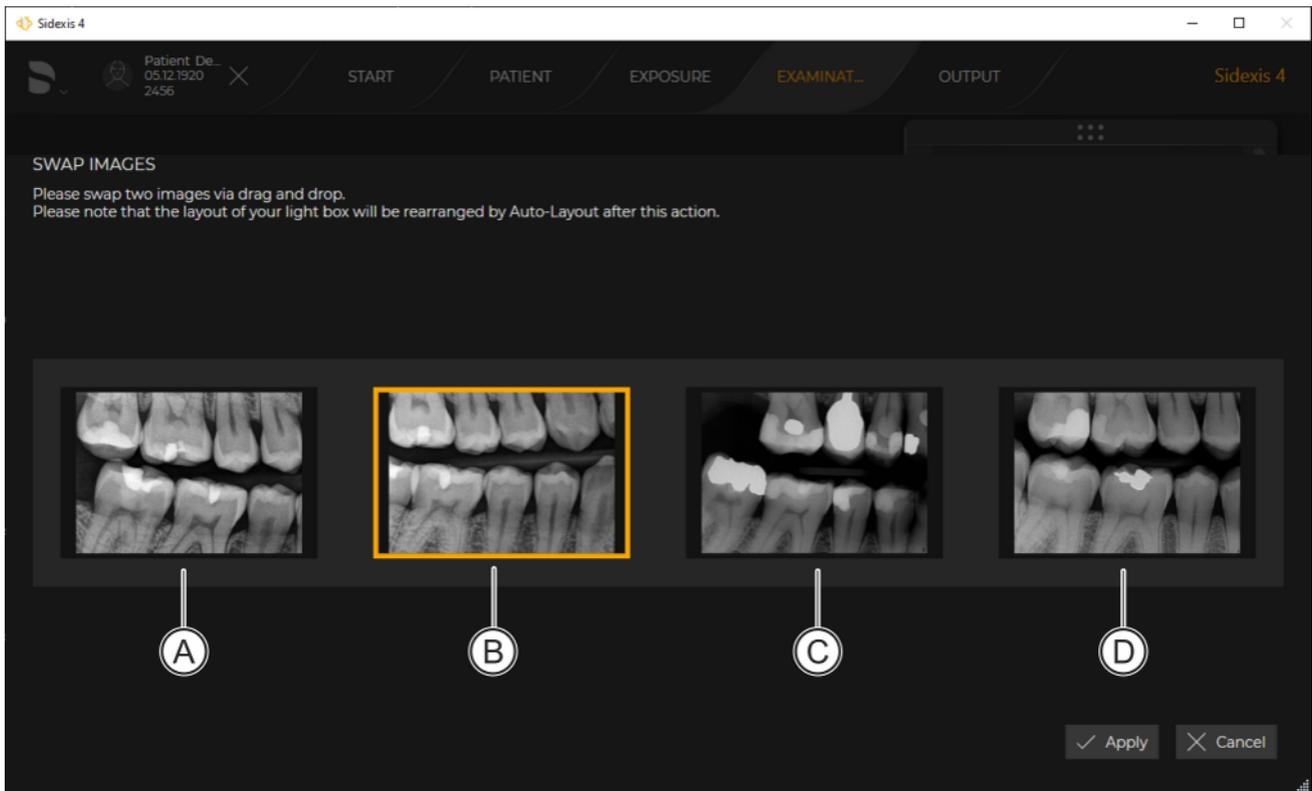
1. Open the exposure series from the "Timeline" or "Gallery" in the "Examination" work phase (see section "Opening media and sessions in the "Examination" work phase [→ 132]").
2. Move the mouse pointer over the intraoral exposure whose position you want to swap for another.



Swapping exposure positions in an exposure series

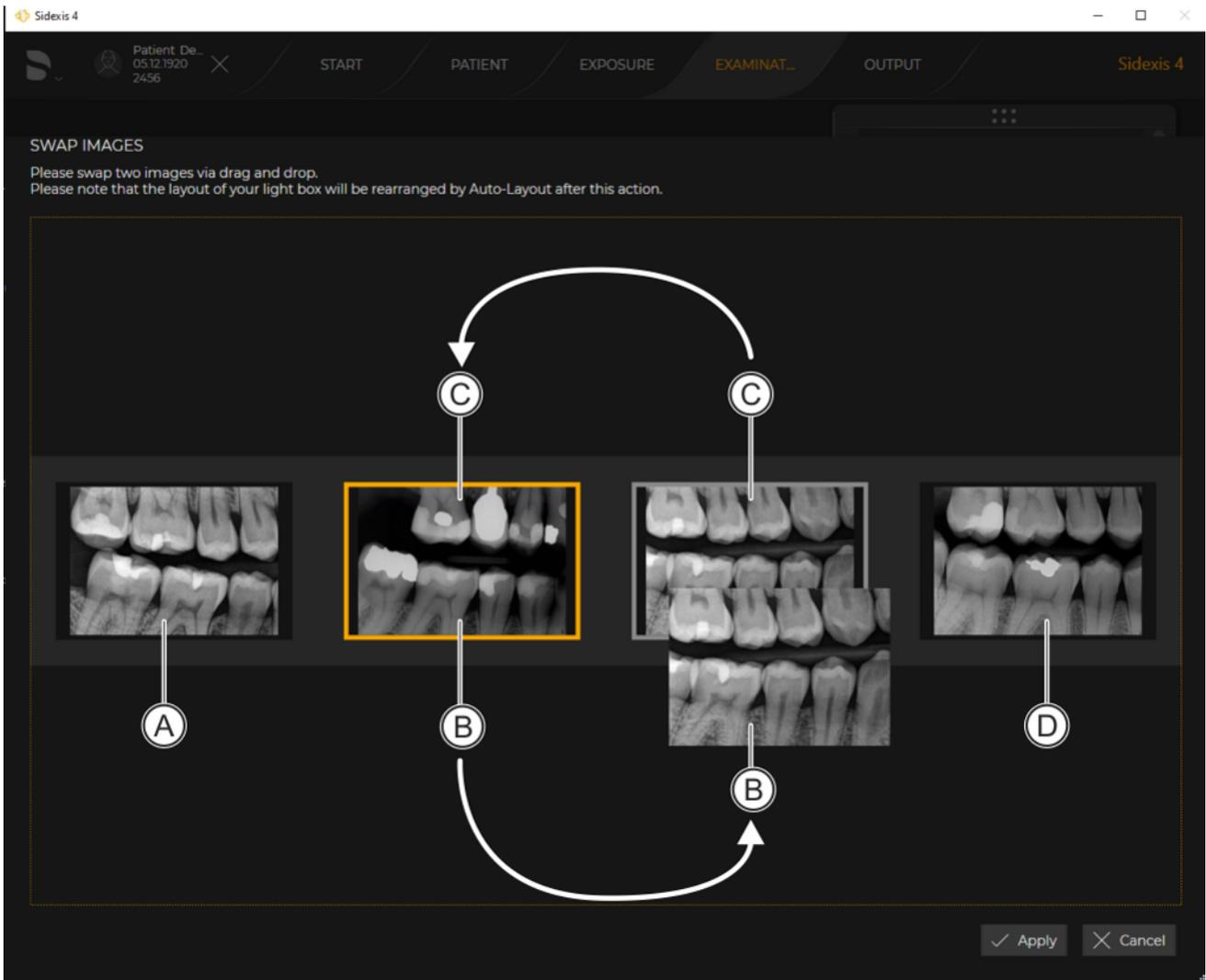
☞ A context menu opens.

3. Click the "Change image order..." button in the context menu.



"Swap images" menu

☞ The *"Swap images"* menu opens.



"Swap images"

4. To swap image (B) and image (C), for example, use drag & drop to move image (B) onto image (C).
During the drag & drop action, the original position of the selected image is marked with a orange outline and the destination position is marked with a green outline.
 - ↳ The images are swapped.
5. If you want to save the changes for the series, click on the *"Apply"* button.
 - ↳ The intraoral exposure series is saved.

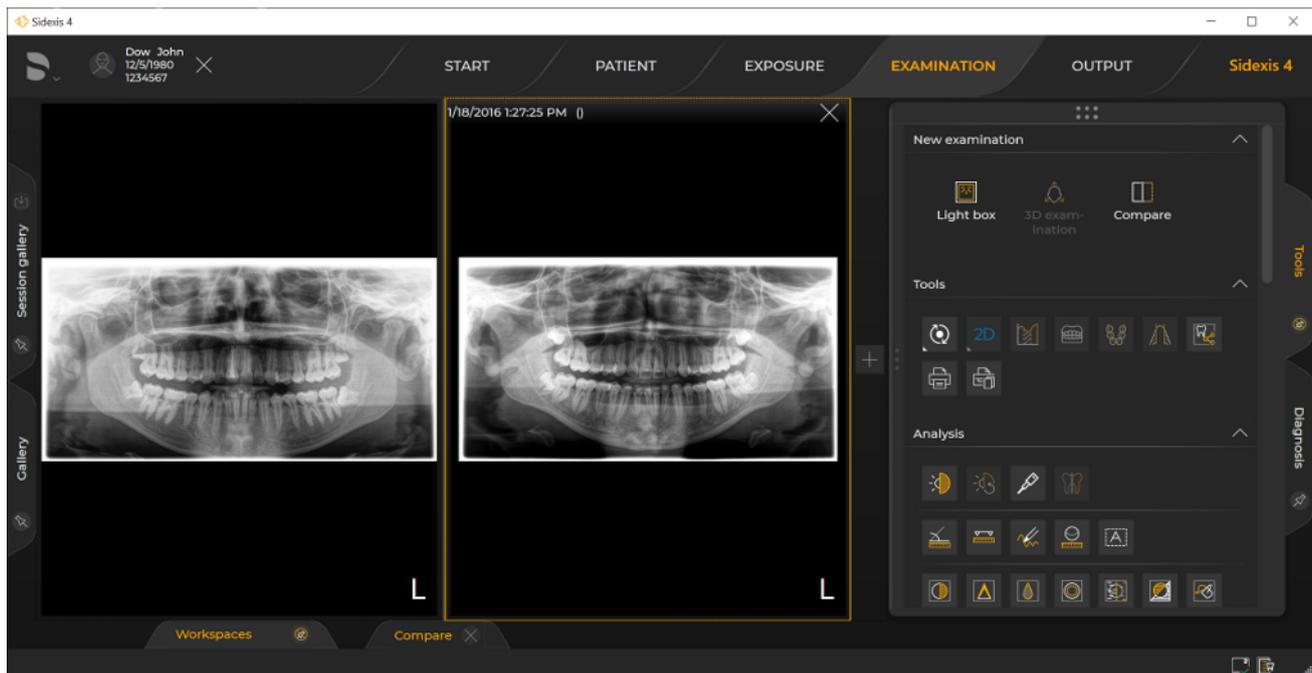
10.1.3 "Compare"

Sidexis 4 offers a special work area for comparing exposures. In the "Compare" work area, you can compare two volumes or two section views or up to four 2D images.

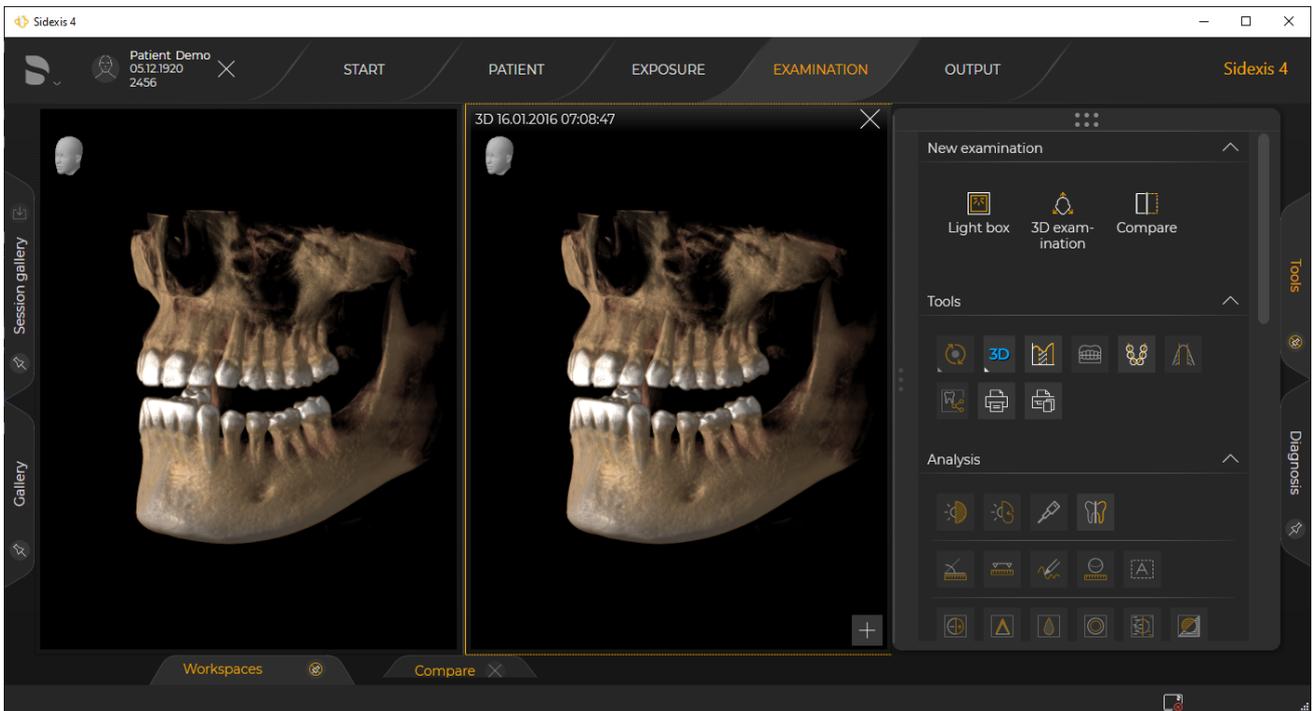
The images being compared to each other are correlated (provided that the "Synchronize views" function is switched on), so that the following functions, when performed in one of the windows, are also applied to all the opened windows:

- Changing the brightness or contrast
- Changing the tonal value (gamma)
- Zooming in/out of media window content
- Moving content in the media window
- Changing projection types (when comparing 3D volumes or section views)
- Navigating through the section views

The correlation of the views can be disabled and enabled again.



Example of a 2D image comparison in the "Compare" work area



Example of a volume comparison in the "Compare" work area

10.1.3.1 Open media in a new "Compare" work area

IMPORTANT

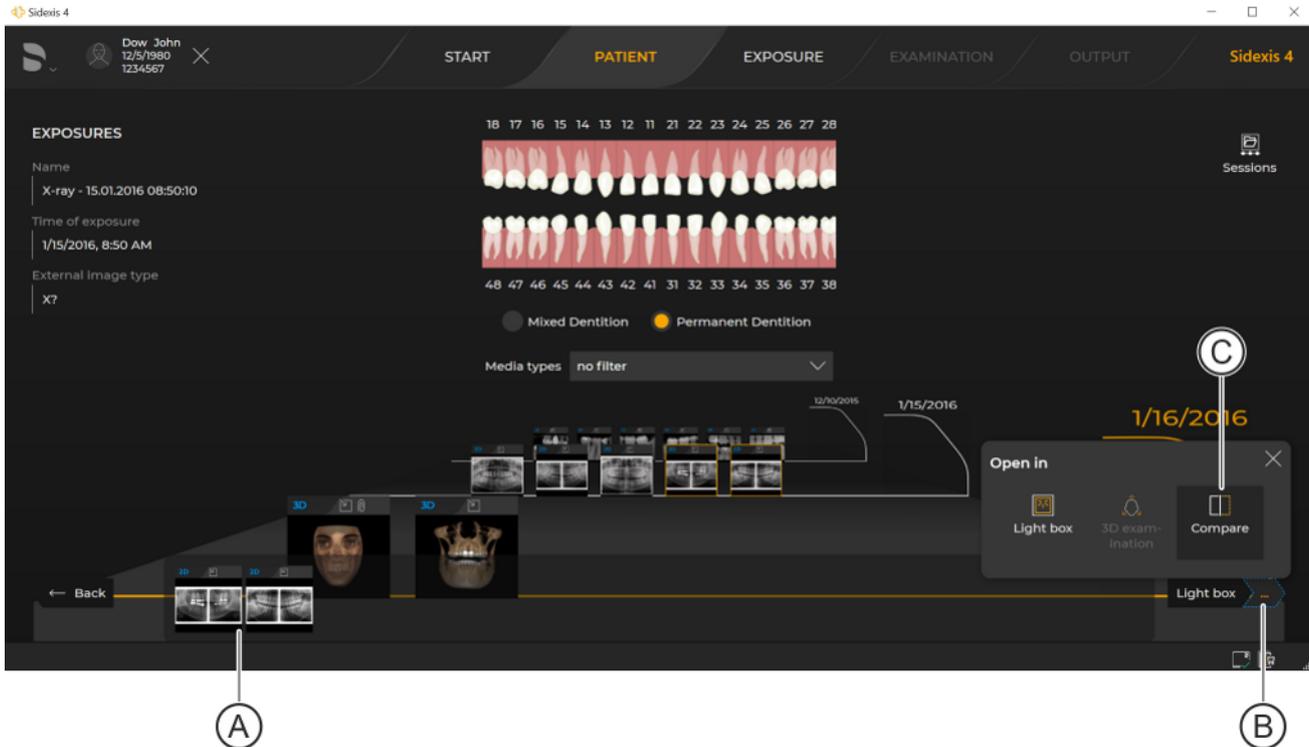
You can open a maximum of two volumes or section views or up to four 2D images simultaneously in the "Compare" work area.

There are various ways of opening media items in the "Compare" work area.:

- Open up to 4 media items directly from the "Timeline" ("Patient" work phase) in the "Compare" work area [→ 202]
- Open "Compare" work area from the "Light box" ("Examination" work phase) [→ 204]

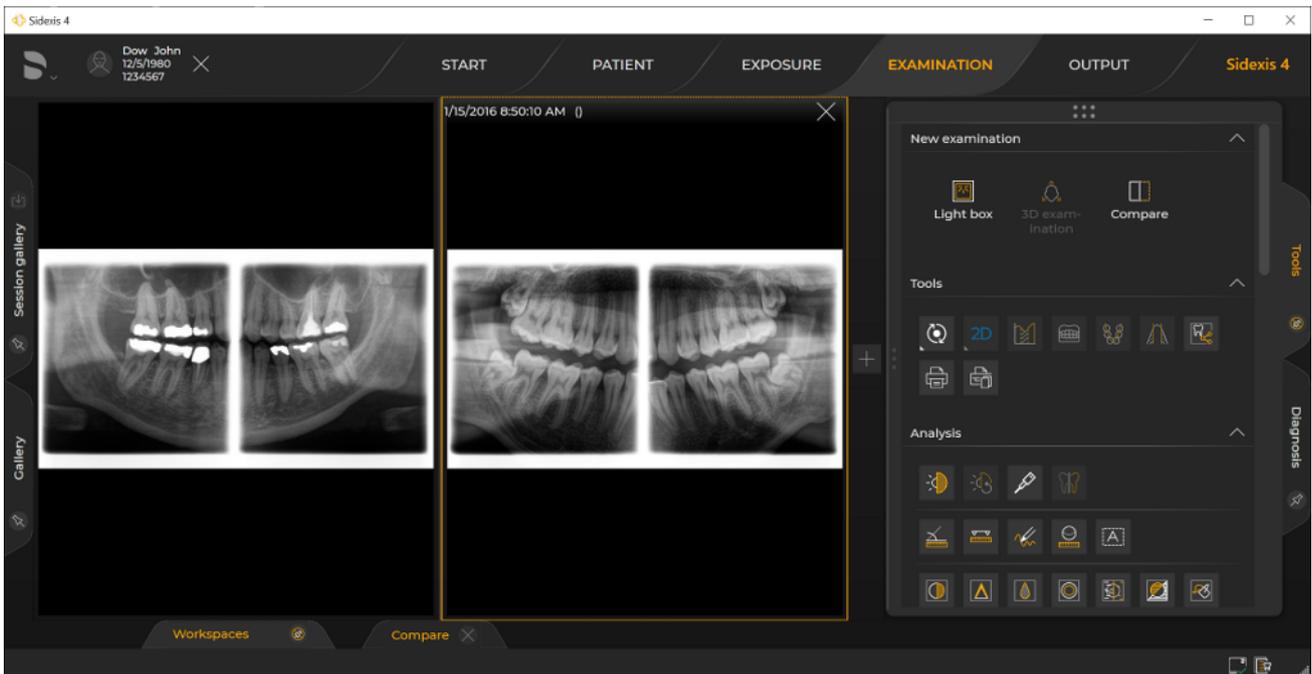
10.1.3.1.1 From the "Patient" work phase

- ✓ The "Patient" work phase is open.
- 1. Click on the "Register and Timeline" button.
 - ↳ The "Timeline" opens.



Opening media from the "Timeline"

- 2. Use drag & drop to move the media you want to compare to the clipboard (A).
A maximum of two volumes or section views or up to four 2D images can be opened simultaneously in the "Compare" work area.
- 3. Click on the button with the three dots and then click on the "Compare" icon in the submenu.
 - ↳ The media items are opened in the "Compare" work area.



"Compare" work area with opened media items

4. If desired, you can add additional media items to the work area via the "Gallery" or using the small white "plus" icon (to the right of the images).

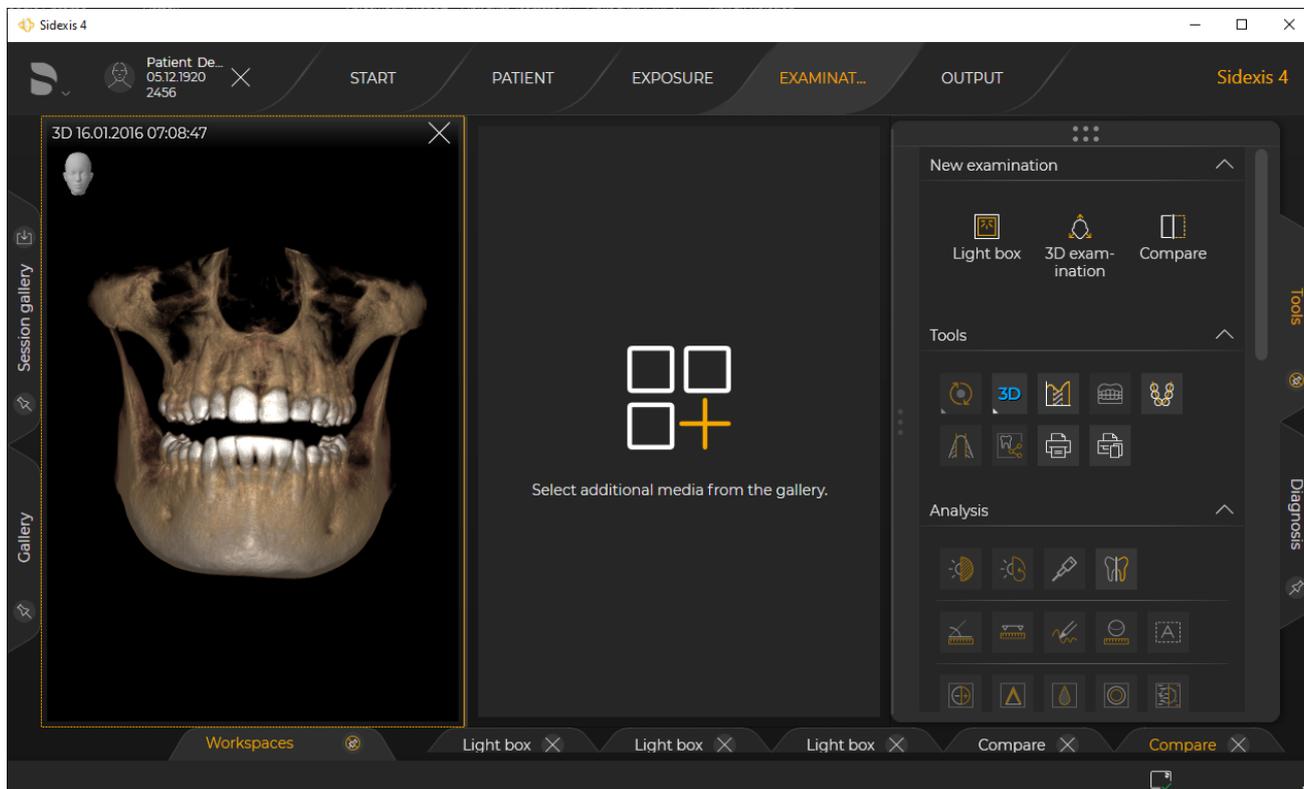
You can find more information on the "Gallery" docking window in section "Gallery".

10.1.3.1.2 From the "Examination" work phase

Depending on whether you have opened one exposure or multiple exposures in the work area, you have various options for opening the "Compare" work area.

"Only one exposure" is open in the , "Light box" or "3D examination" work area.

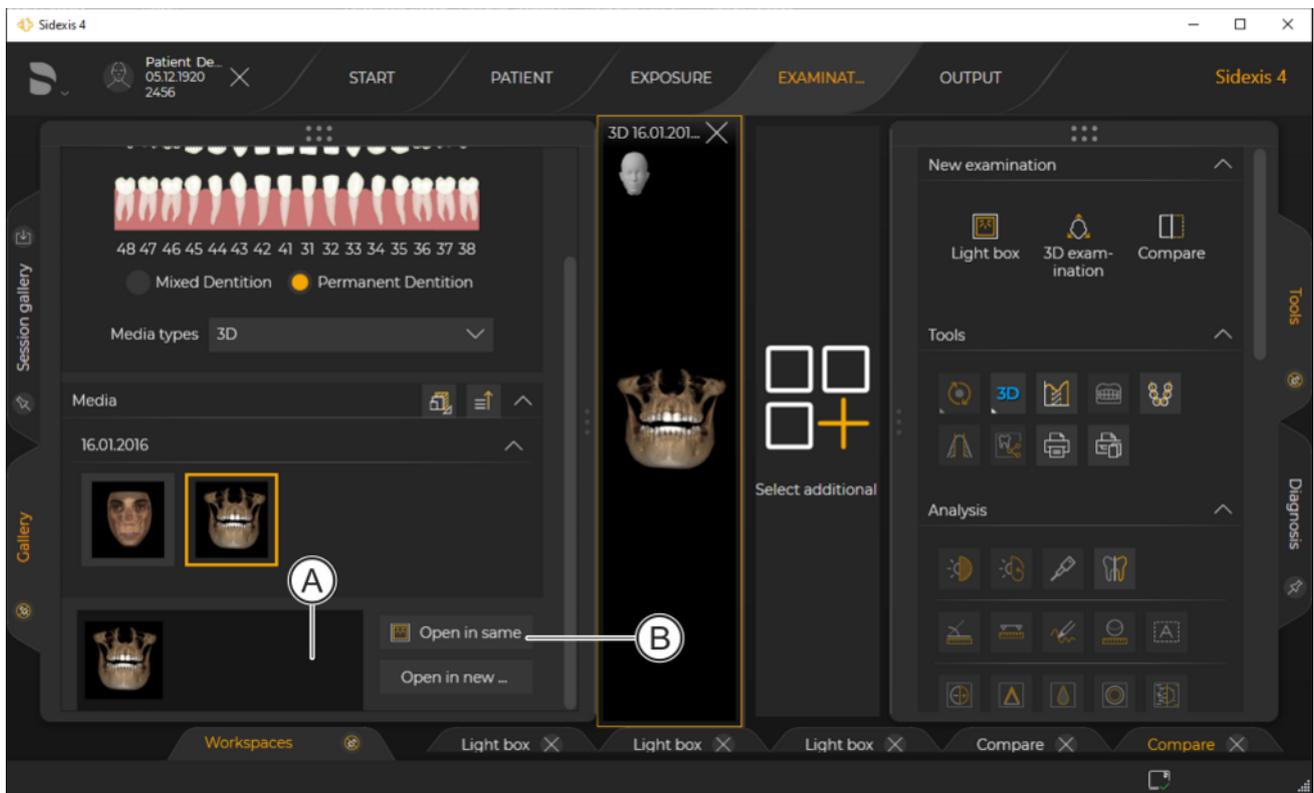
- ✓ The "Examination" work phase is open.
 - ✓ **Only one media window** is open in the work area.
1. Select a media window.
 2. Click on the "Compare" button in the "New examination" tool kit.



Opening "Compare" work area from the "Examination" work phase

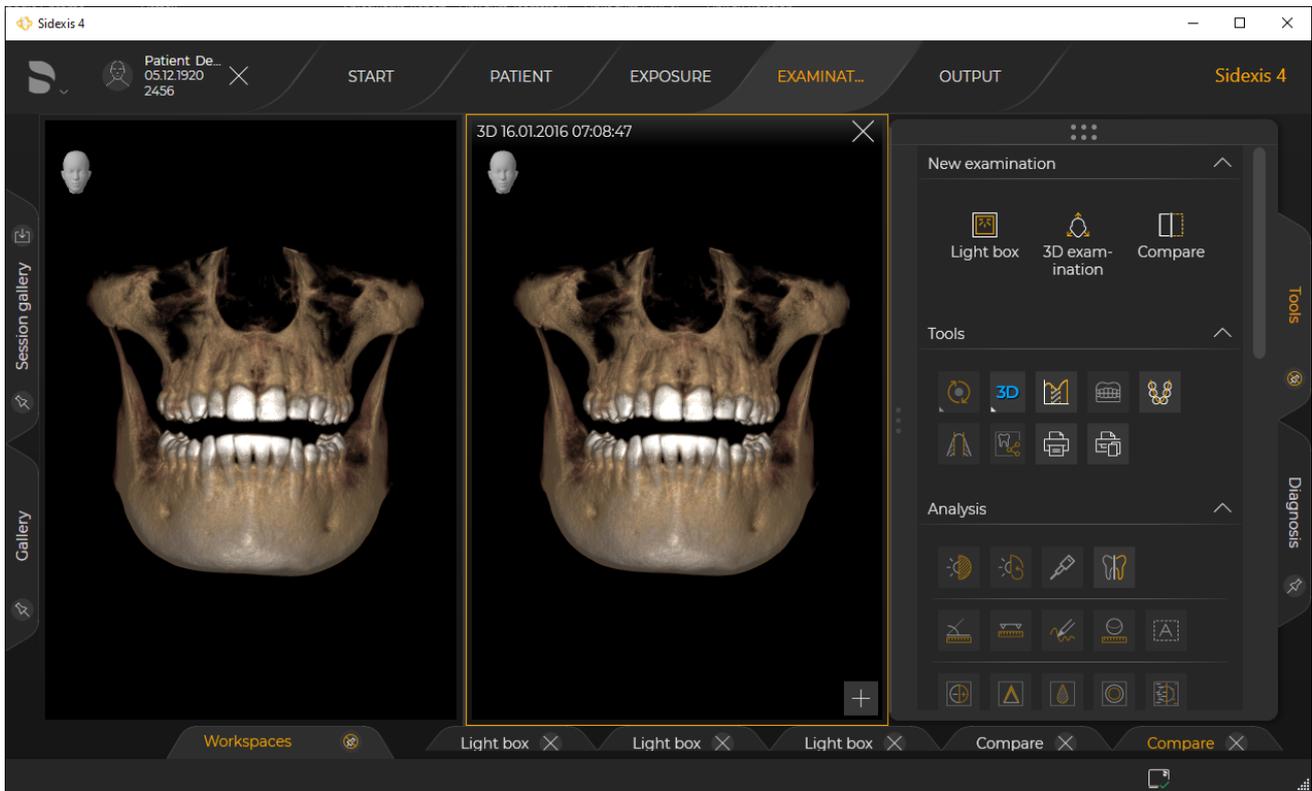


- ↳ The media window is opened in a new "Compare" work area.
 - ↳ You are prompted to add additional exposures from the "Gallery" to the work area.
3. Click on the orange "Plus" icon.
 - ↳ The "Gallery" docking window opens.
- or
- > Display the "Gallery" docking window via the tab [→ 105].



Adding media items via the "Gallery"

4. Use drag & drop to move additional media items to the clipboard (A) of the "Gallery" and then click on the "Open in same..." button (B) to add the media items in the current "Compare" work area. The "Open in same..." button would open the media items in a new "Compare" work area.
- or
- > Use drag & drop to move additional media items directly to the current work area.



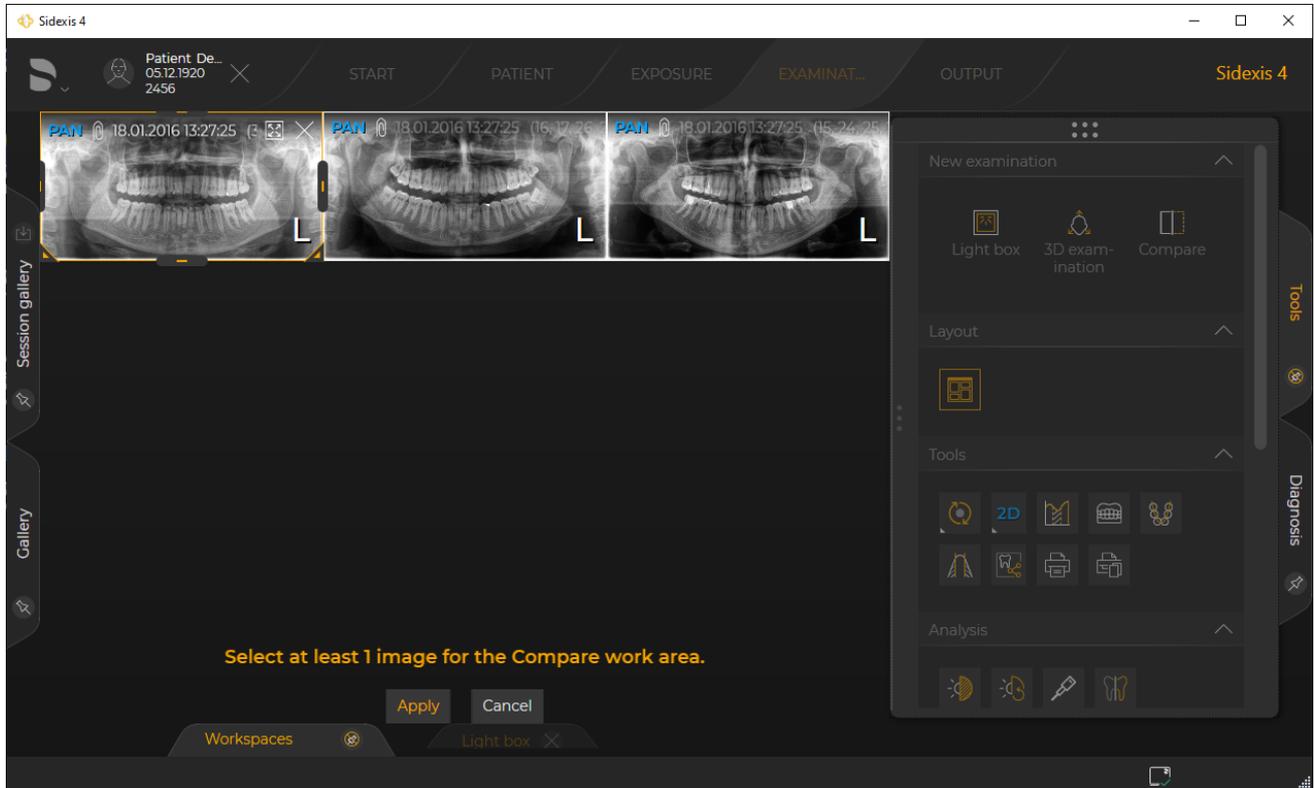
"Compare" work area with added exposures

☞ The media items are added in the current *"Compare"* work area. You can find more information on the *"Gallery"* docking window in section Gallery.

"Multiple exposures" already open in the "Light box" work area

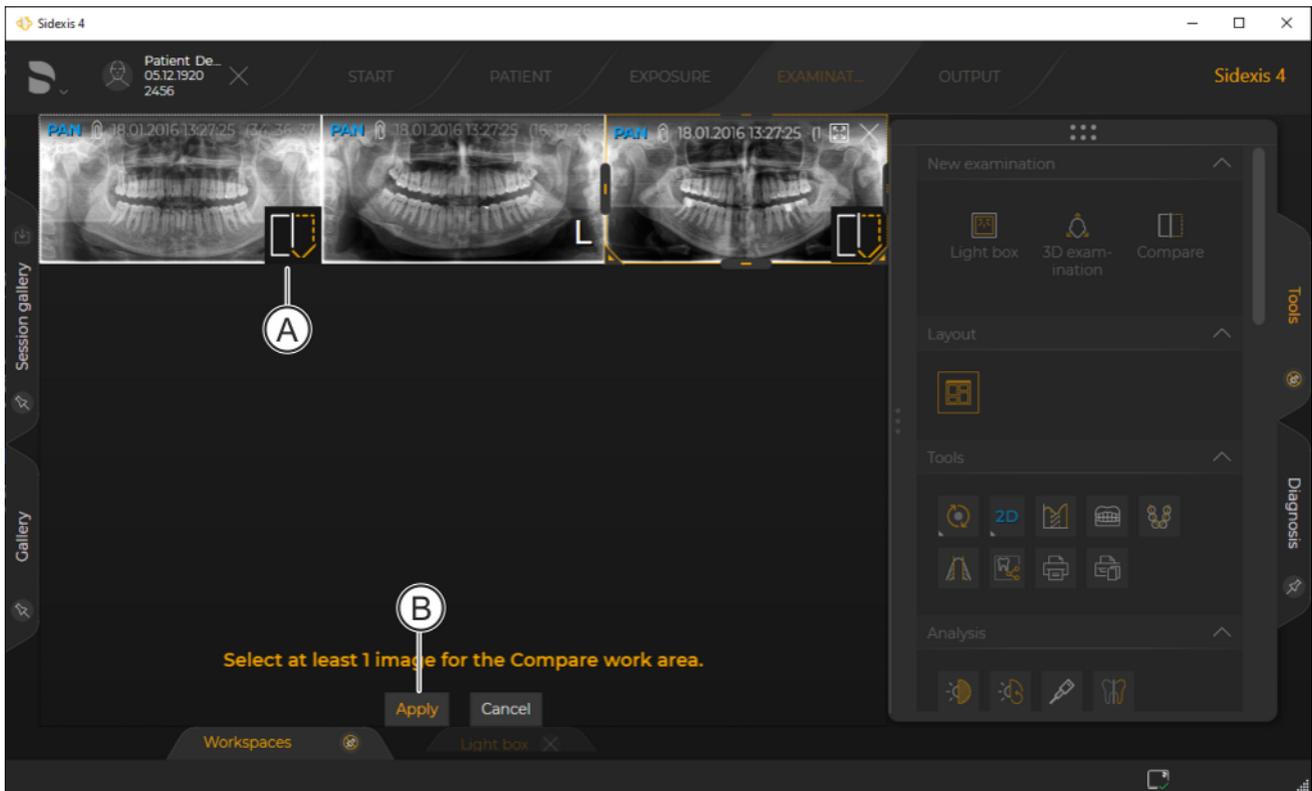
- ✓ The *"Examination"* work phase is open.
- ✓ **Multiple media windows** are open.

1. Click on the *"Compare"* button in the *"New examination"* tool kit.



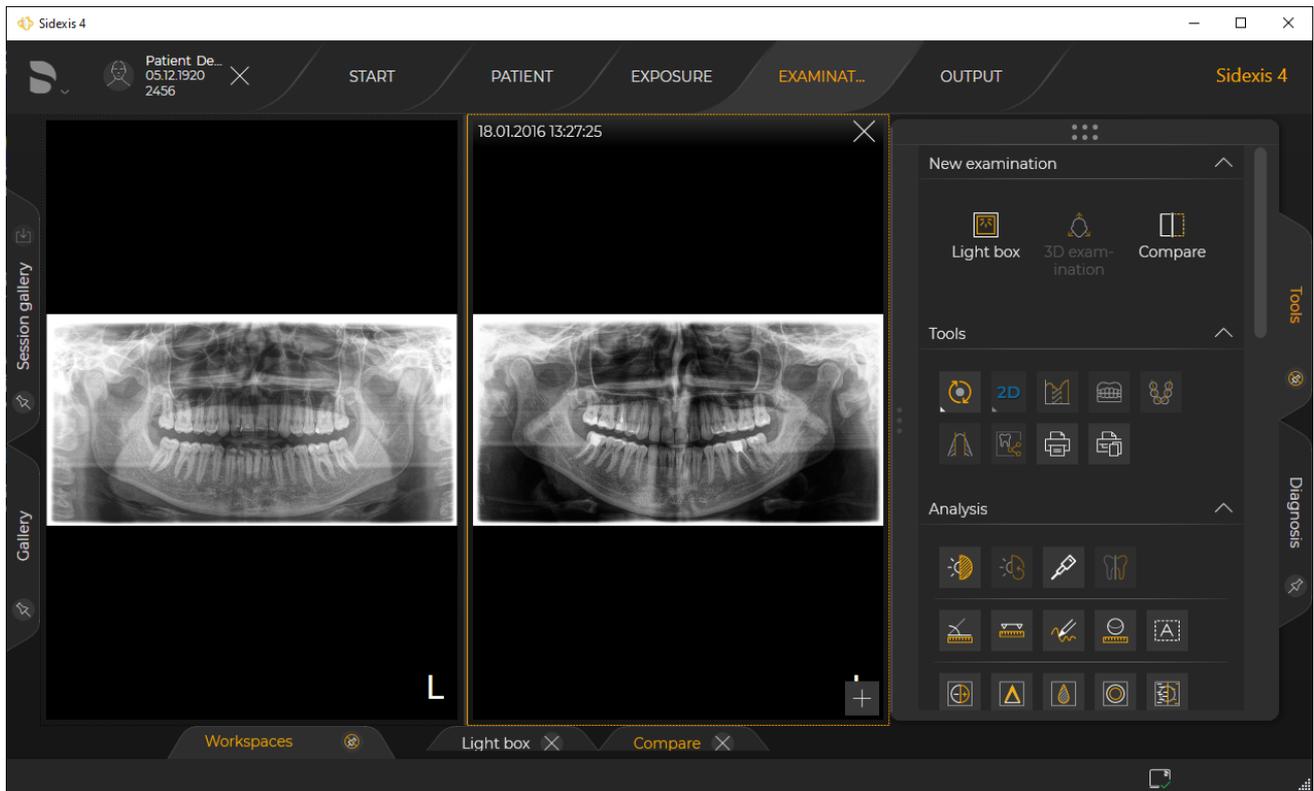
Opening "Compare" work area from the "Examination" work phase

- ✎ You are prompted to select the exposures that you want to compare in the *"Compare"* work area.
2. Click on the desired exposures.

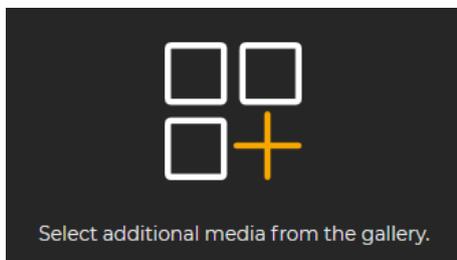


Selecting and confirming media items for the "Compare" work area

- ☞ The exposures are marked with an icon (A).
3. Then click on the "Apply" button (B).



"Compare" work area with opened exposures

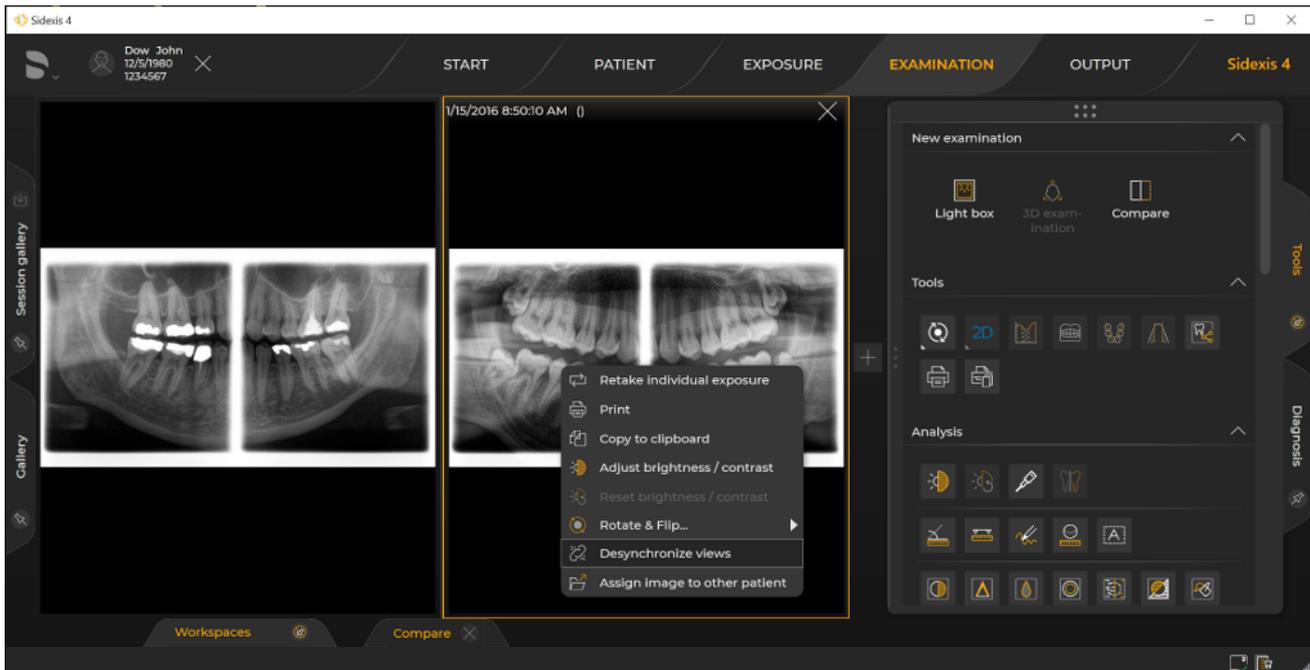


- ↪ The exposures are opened in the "Compare" work area.
- ↪ If only one exposure was selected, you are prompted to add additional media items from the gallery to the work area. Then proceed further as described in section "Only one exposure" is open in the "Light box" or "3D examination" work area".

10.1.3.2 Connect/disconnect views

The correlation of the views can be disabled and enabled again. To do this, proceed as follows:

1. Move the mouse over a media item.
2. Right-click.
 - ↳ A context menu opens.



Synchronizing and desynchronizing views

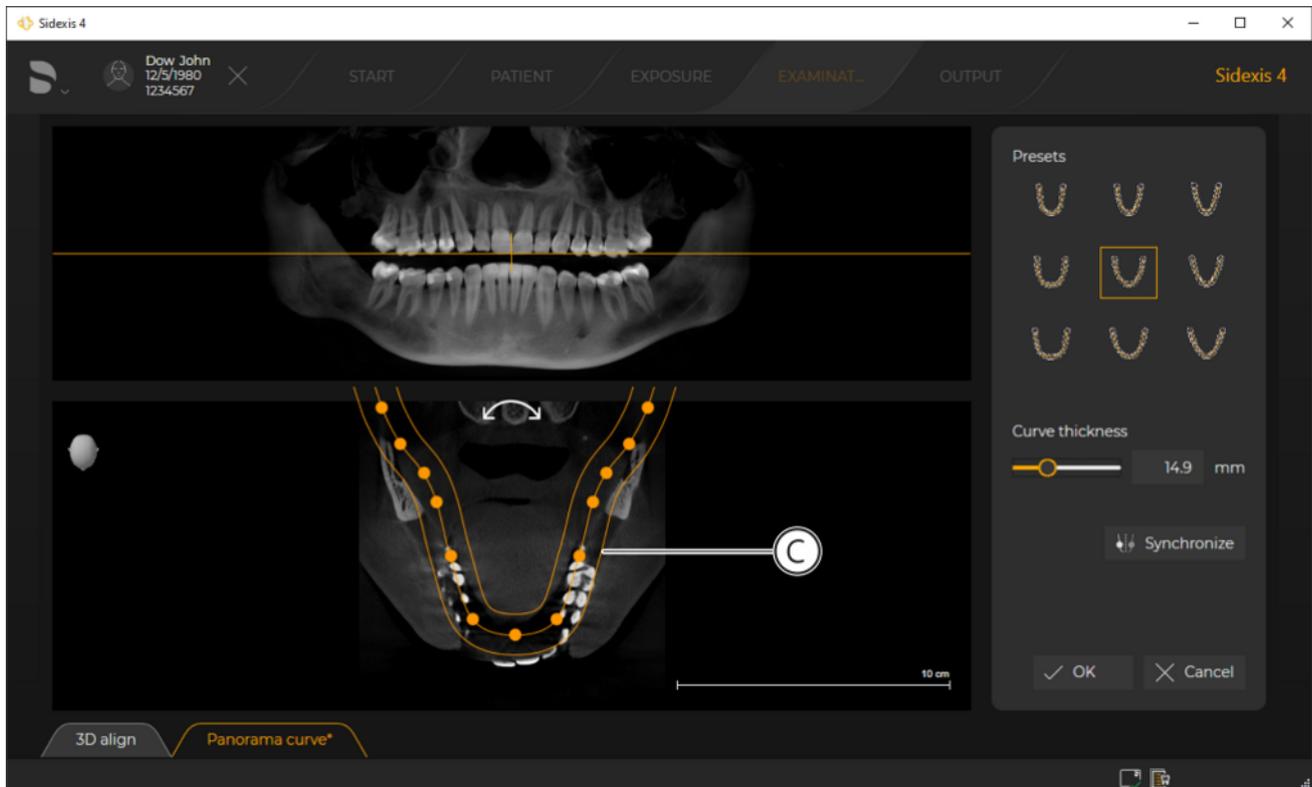
3. Click the "Desynchronize views" or "Synchronize views" button in the context menu.
 - ↳ The correlation of the views is disabled or enabled.

10.2 Set panoramic curve

If the quality of the automatically generated views in the Panorama work area does not meet your requirements for diagnosis purposes, you can have the Panorama work area recalculated.

The panoramic curve should be set up so that ...

- The panoramic curve covers all the teeth and jaw
- The tooth roots are shown as centrally as possible. Ideally, the central (middle) line of the panoramic curve (mandibular arch) should go through the center of the dental roots.



"Panorama curve editor"

To do this you improve the panoramic curve (C) using the *"Panorama curve editor"*. The *"Panorama curve editor"* offers the following options for setting up the panoramic curve:

- Vertical movement of the panoramic curve in the section view
- Automatic adjustment of the panoramic curve through the preselection of appropriate dentitions (mandibular arch).
- Manual editing of the panoramic curve (thickness, shape, horizontal position, symmetry)

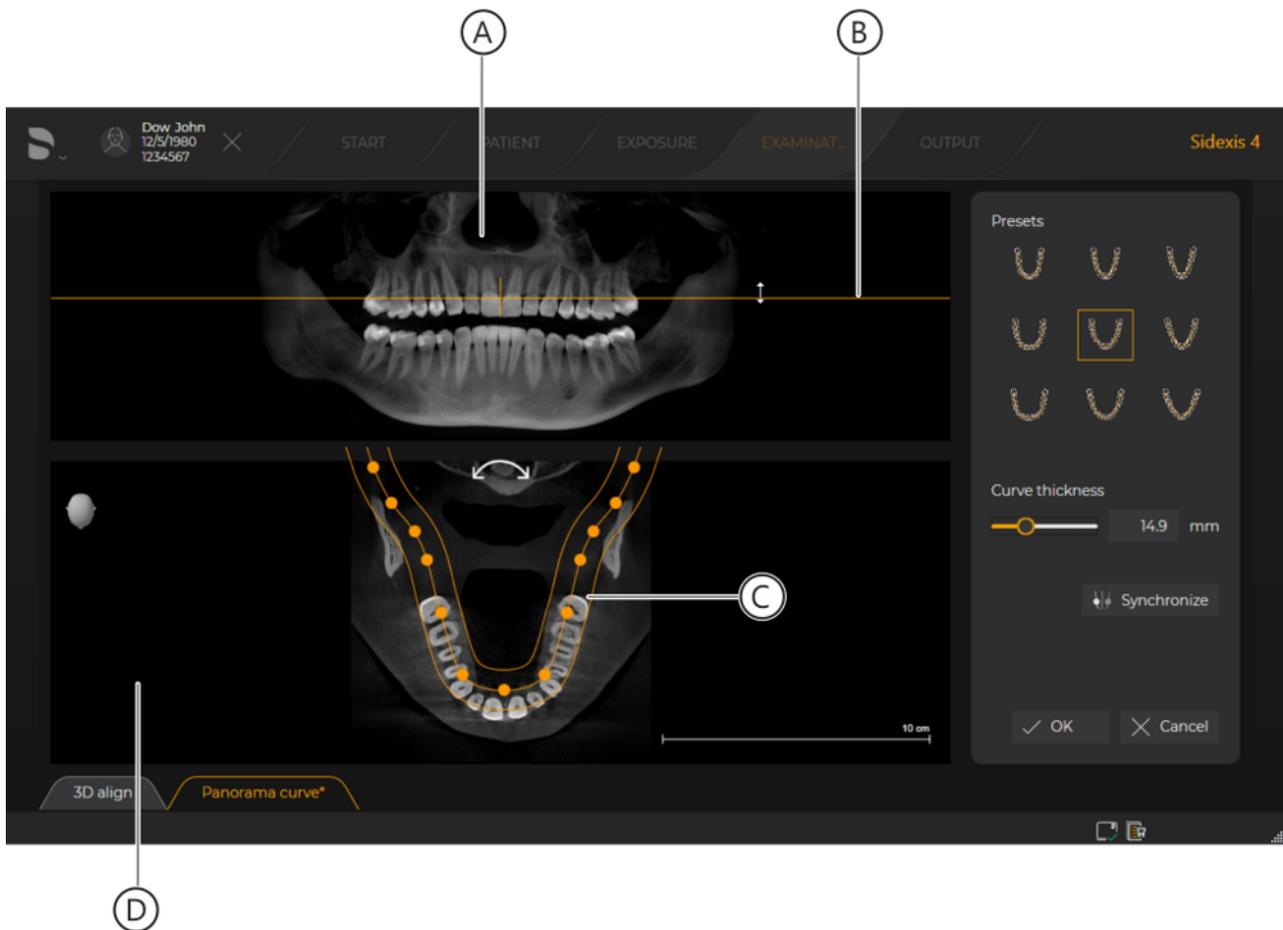
10.2.1 Opening the "panoramic curve editor" menu



- ✓ A patient is registered.
- ✓ A 3D examination is open in the "Examination" work phase.
- > Click on the "Adjust 3D (PAN curve, Align 3D)" icon in the "Tools" tool kit.
- or
- > Right-click over the panorama scene or a section view in the 3D examination and select "Panorama curve editor" in the context menu.
- ↳ The "Panorama curve editor" menu is displayed. [→ 211]

10.2.2 Moving the panoramic curve to another section plane

- ✓ "Panorama curve editor" is open.

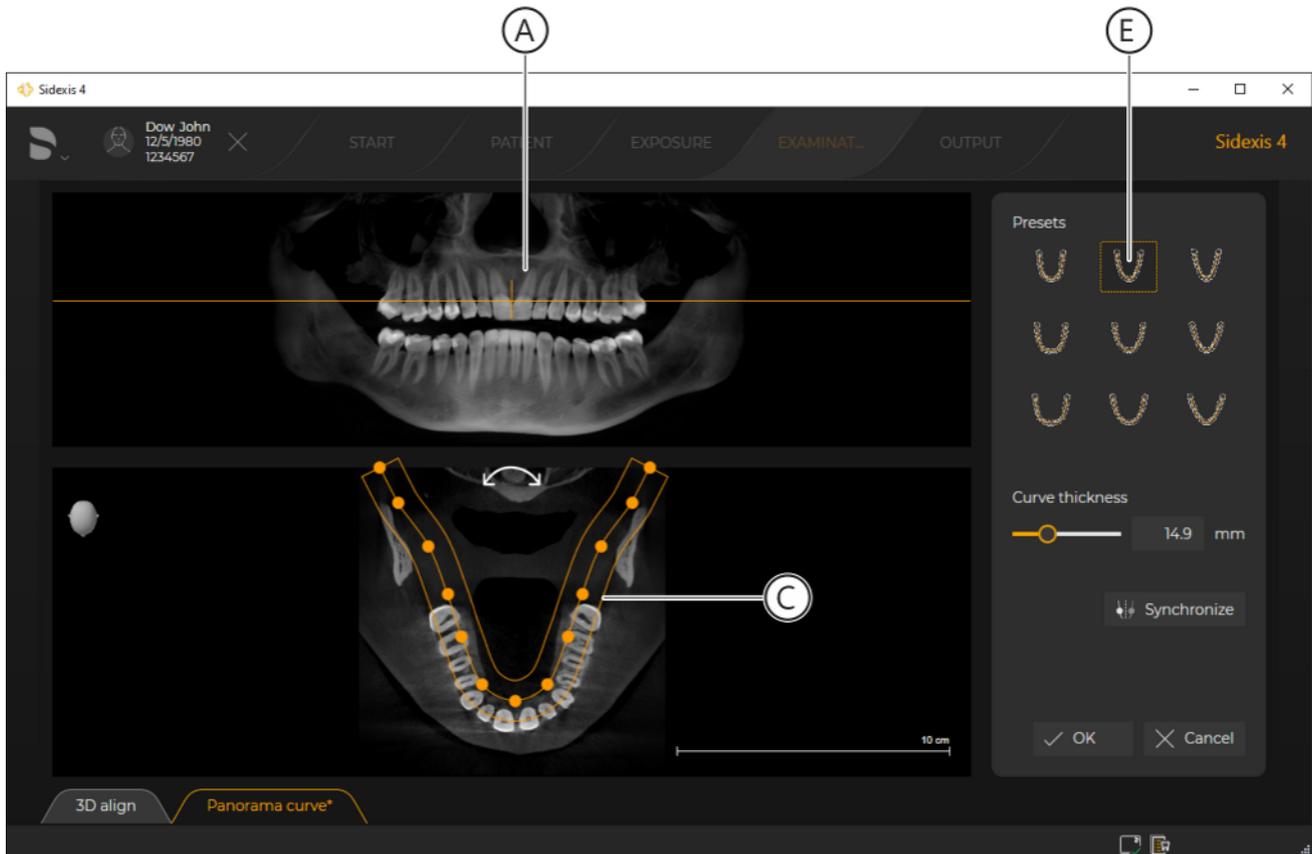


Moving the panoramic curve to another section plane

1. Move the mouse pointer over the orange-colored line (B) in the panoramic view (A).
2. Press the left mouse button and move the line in a vertical direction with the mouse button held down. Releasing the mouse button ends the process.
 - ↳ The panoramic curve (C) is shifted to a new section plane.
 - ↳ The new section plane is displayed in the window (D).

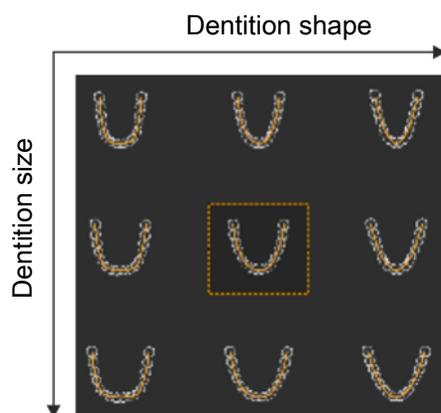
10.2.3 Automatically adjusting panoramic curves to preset dentition shapes and sizes

The "Panorama curve editor" provides three different standard dentition shapes and three different sizes. We proceed as follows to set the panoramic curve to the dentition shape and size:



Automatically adjusting panoramic curves to dentitions

- ✓ "Panorama curve editor" is open.
- Click on a dentition shape and size in the "Presets" window (E) of the "Panorama curve editor".
 - ↳ The panoramic curve (C) and the panoramic view (A) are automatically adjusted to the new dentition shape and size.



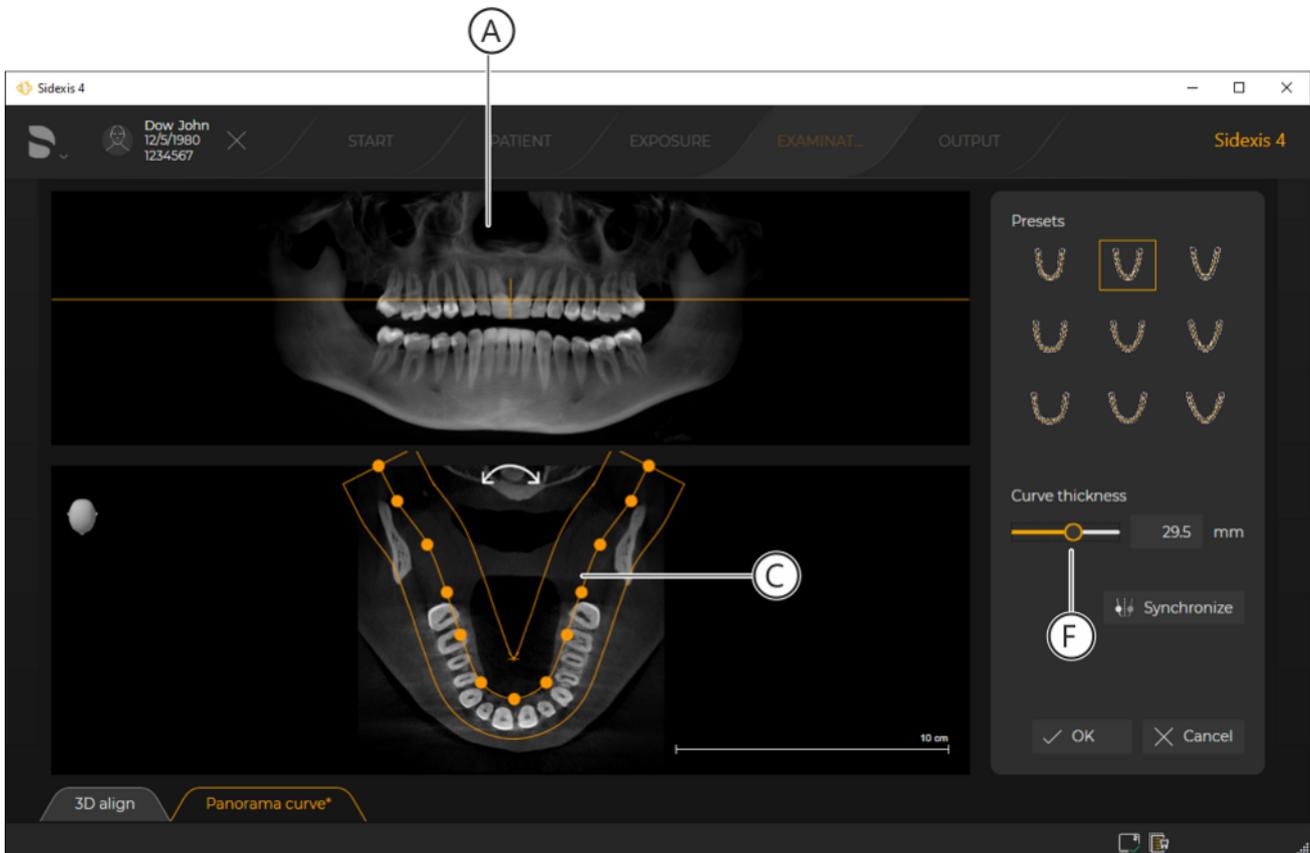
10.2.4 Editing the panoramic curve manually

Ensure that the panorama curve also follows a clinically useful course after manual editing so that the panoramic view can still fulfill an overview function.

You can adjust the panorama curve to the mandibular arch manually.

- ✓ "Panorama curve editor" is open.
- ✓ The panorama curve is in the desired section plane.
- ✓ The shape of the mandibular arch is preselected using the buttons of the Presets window.
- Adjust the thickness, contour, symmetry, and position of the panorama curve to the mandibular arch manually.

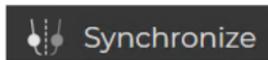
Setting curve thickness The curve thickness of the panorama curve can be modified using the slider (F) of the panorama curve editor.



Setting thickness of panorama curve

1. Move the mouse pointer over the slider (F).
2. Left-click on the handle of the slider and, keeping the mouse button pressed, move the slider handle to the left (thinner curve) or the right (thicker curve).
 - ↳ The panorama curve (C) becomes thinner or thicker.
 - ↳ The panoramic exposure is adjusted accordingly.

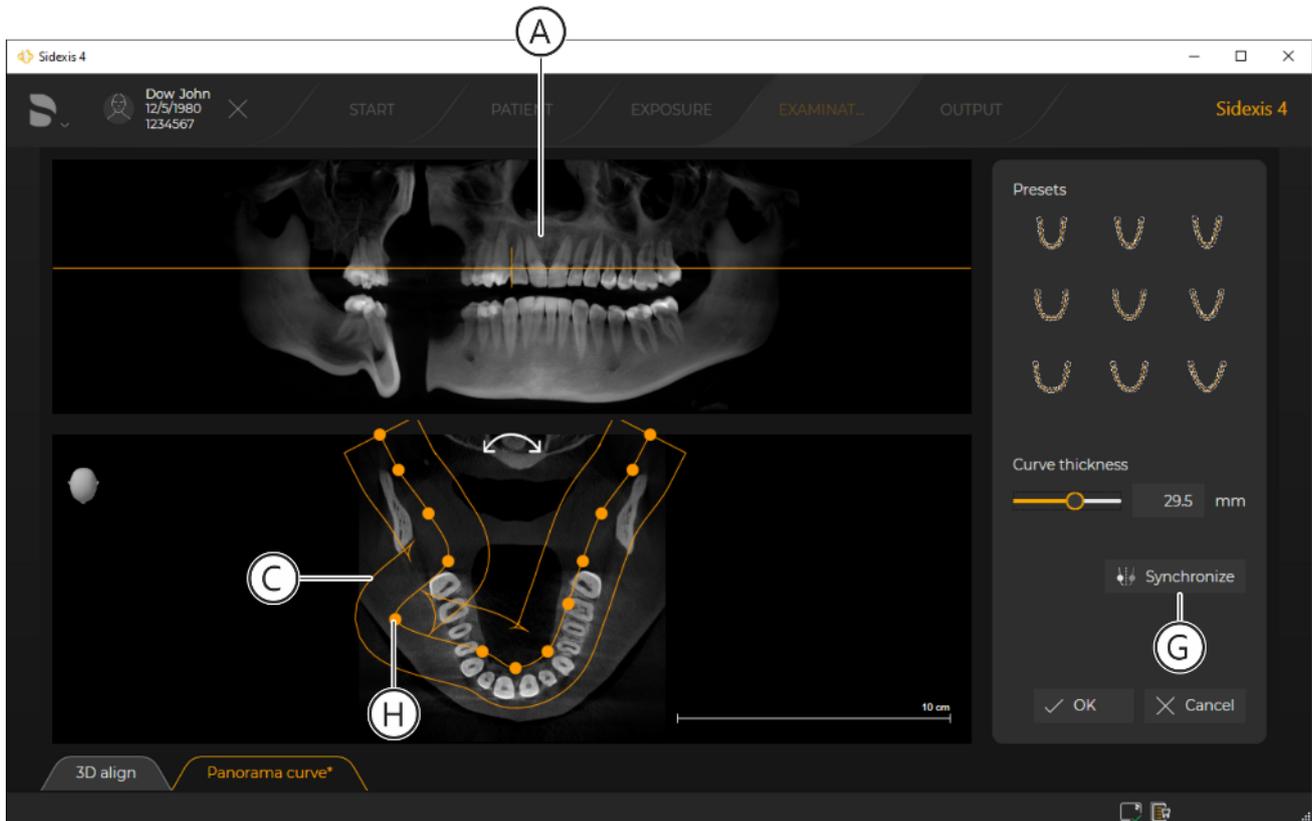
Adjusting shape of panorama curve to mandibular arch



The shape of the panorama curve (C) can be optimally adjusted to the mandibular arch.

Tip: By activating the "Synchronize" button (G), the changes of the panorama curve are automatically synchronized for both sides of the mandibular arch. The button is activated by clicking on the button with the mouse. The active button is highlighted orange.

To adjust the shape of the panorama curve, proceed as follows:

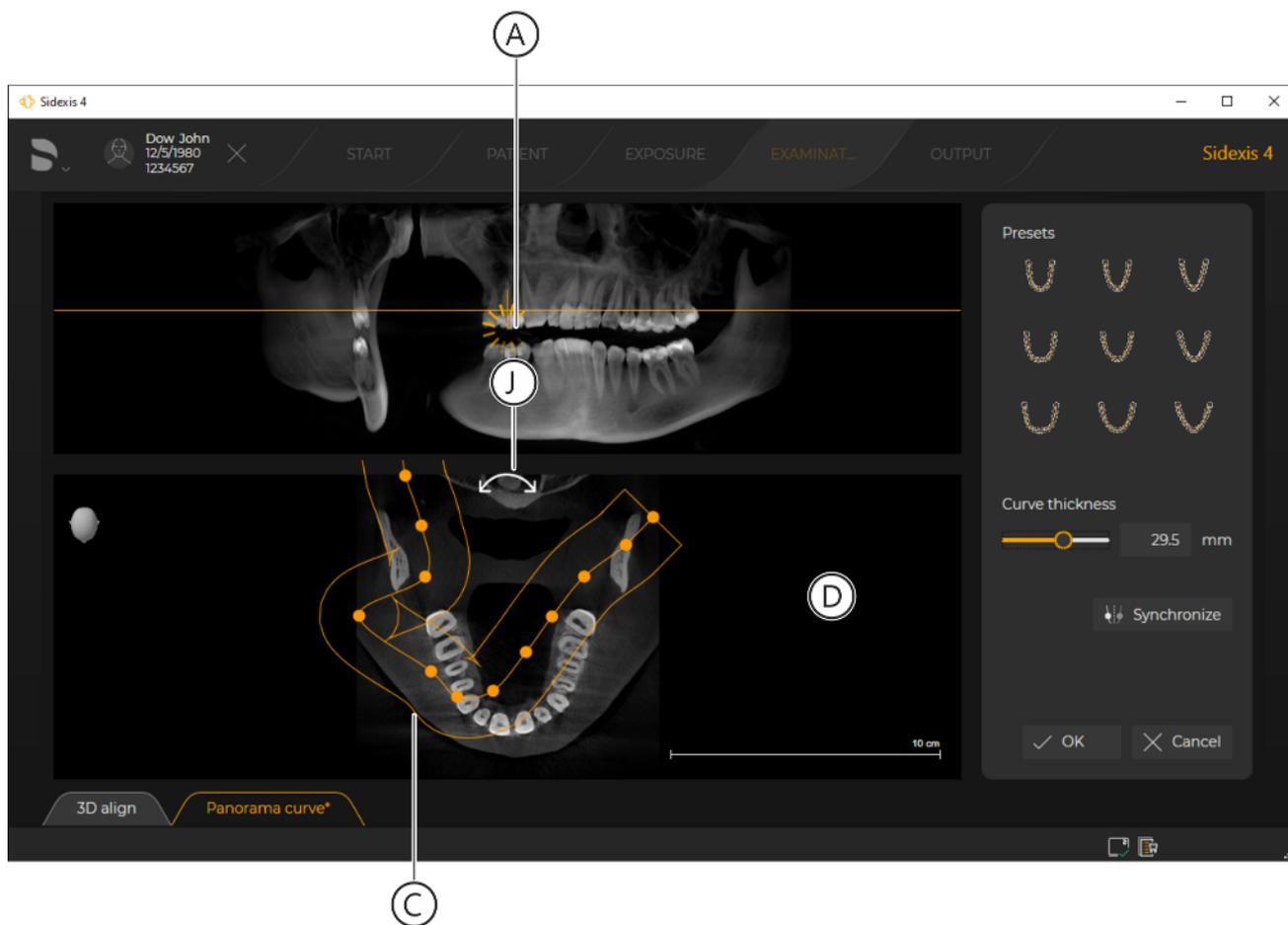


Changing shape of panorama curve

1. Place the mouse pointer over a base point (H) of the panorama curve.
2. Press and hold the left mouse button and move the base point in any direction.
 - ↳ The shape of the panorama curve (C) is changed.
 - ↳ *If button is activated (G):*
Changing a base point of the panorama curve automatically affects both sides of the panorama curve (mirrored).
 - ↳ The panoramic exposure (A) is adjusted accordingly.

Panning the panorama curve

The panorama curve (C) can be panned. That might be necessary if the patient was not optimally positioned during image acquisition. To pan the panorama curve, proceed as follows:



Panning the panorama curve

1. Move the mouse pointer over the arrow (J) in the window (D) of the panorama curve editor.
2. Press and hold the left mouse button and move the mouse pointer to the left or right. Releasing the mouse button ends the process.
 - ↳ The panorama curve (C) is panned accordingly.
 - ↳ The panoramic exposure (A) is adjusted accordingly.

10.3 3D alignment

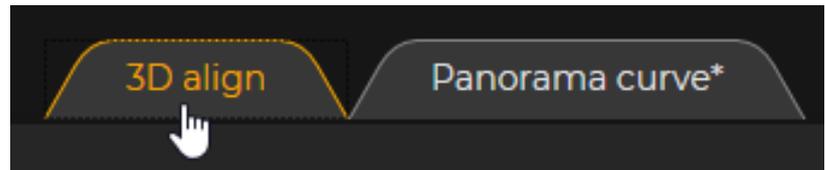
The "3D align" function is available in Sidexis 4 for correcting an exposure..

After the 3D alignment, in most cases the panorama curve must be adjusted once more using the "Panorama curve editor".

10.3.1 Opening the "3D alignment" menu

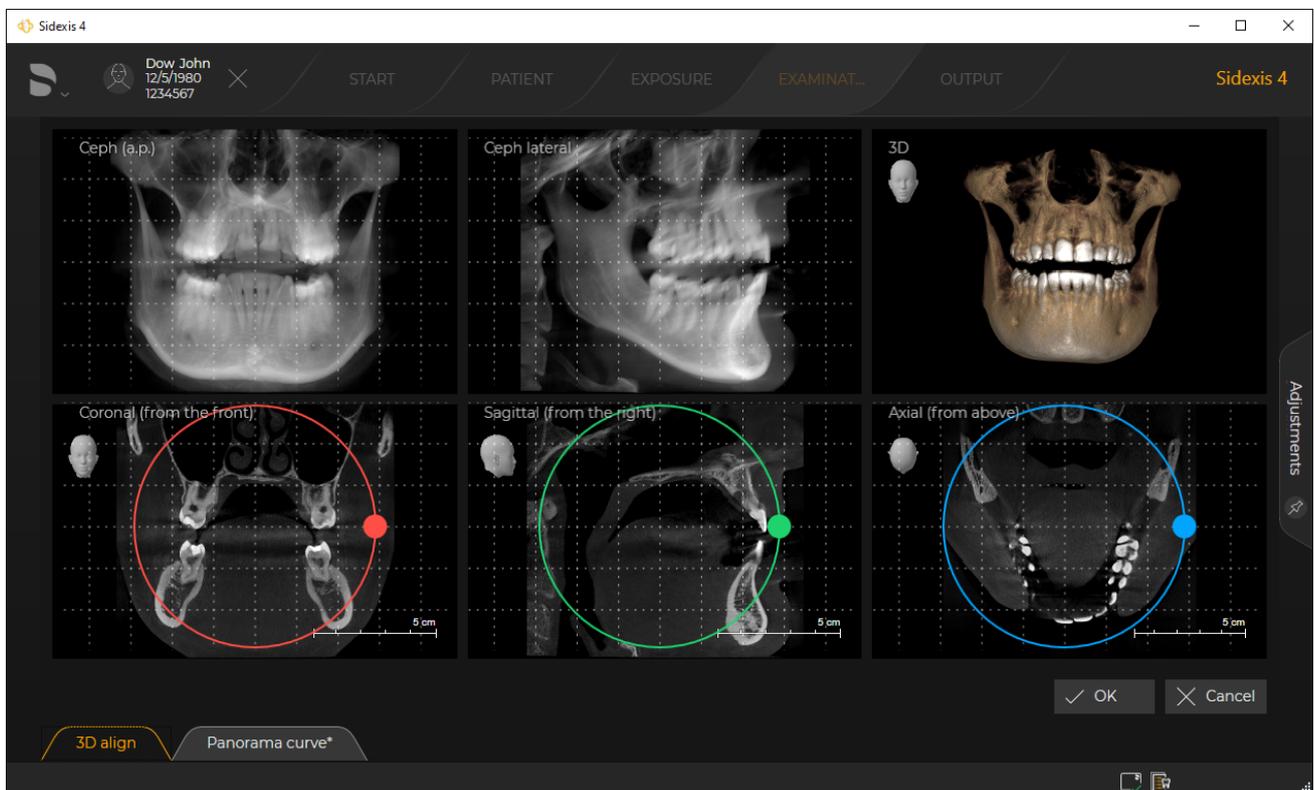


- ✓ A patient is registered.
 - ✓ A 3D examination is open in the "Examination" work phase.
1. Click on the "Adjust 3D (PAN curve, Align 3D)" icon in the "Tools" tool kit.
- or
- > Right-click in the 3D examination and click on the "Panorama curve editor" button in the context menu.
- ↳ The "Panorama curve editor" menu is displayed.



Tab "3D align"

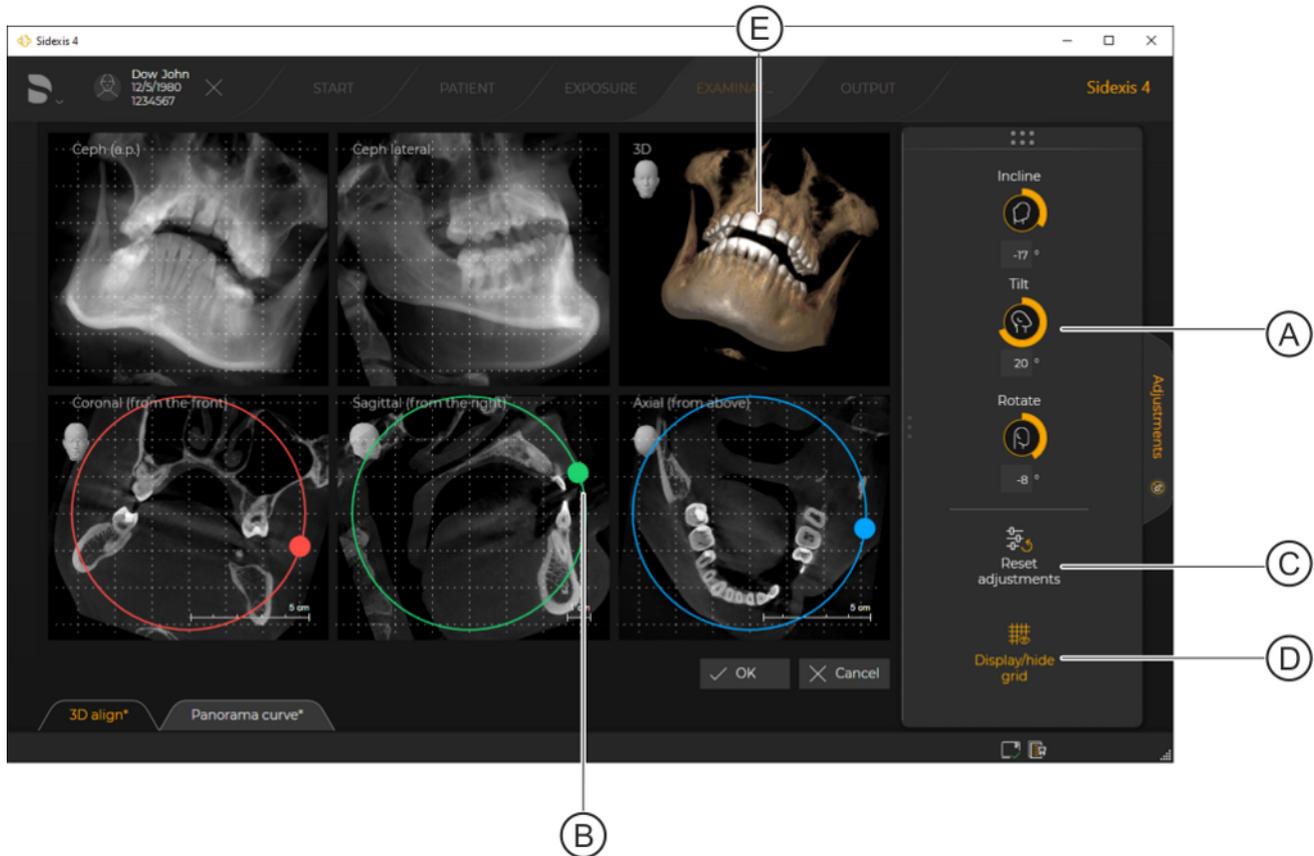
2. Click on the "3D align" tab.
- ↳ The menu switches to the "3D align" view.



"Adjust 3D (PAN curve, Align 3D)" menu, "3D align" view

10.3.2 Correcting positions

✓ The "3D align" menu is opened.



"Adjust 3D (PAN curve, Align 3D)" menu, "3D align" view

A	Control for position correction
B	Correction by rotating the section views using the drag points
C	Reset correction
D	Showing and hiding grid lines
E	3D view of the volume exposure

- > Correct the position of the volume either using the controls (A)
- or
- > by rotating the volume in the views (B).

Position correction using the controls

There are 3 controls for correcting the volume orientation.

- > Change the position of the volume using the controls (A). The controls are operated in the same way as the controls in the "Analysis" tool kit.
 - "Incline" control ("coronal" correction direction (red))
 - "Tilt" control ("sagittal" correction direction (green))
 - "Rotate" control ("axial" correction direction (blue))
- ↪ The position of the volume changes accordingly.
- ↪ The drag points on the circular lines in the section views are shifted accordingly.

Position correction by rotating the section views using the drag points

The position correction can also be performed in the section views using the mouse pointer.

1. Move the mouse pointer onto a drag point (B).
2. Press and hold down the left mouse button and move the drag point along the circular line.
 - Movement along the red circular line corresponds to the "Incline" control
 - Movement along the green circular line corresponds to the "Tilt" control
 - Movement along the blue circular line corresponds to the "Rotate" control
- ↪ The position of the volume changes accordingly.
- ↪ The displays on the dials are changed accordingly.

10.4 Editing images

IMPORTANT

Archiving modified images

Changes to images made using the functions of the tool kits (e.g. brightness, contrast, filter or annotations) must be saved for archiving during the course of the patient session. Diagnoses that have been documented using the *"Diagnosis"* docking window are automatically and permanently saved to each individual exposure, uncoupled from the context of the session.

10.4.1 Brightness / contrast / tonal value

IMPORTANT

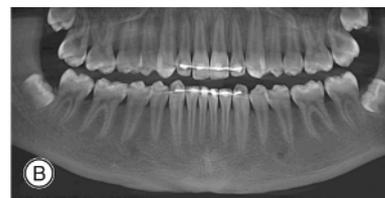
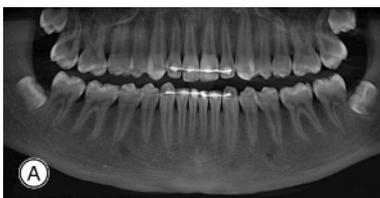
The specialist performing the examination is individually responsible for changes made to the brightness, contrast and tonal value.

These functions are not available for the 3D scene.

To better accentuate or delineate image details or to enhance the image quality, you can adjust the brightness and contrast of the image.

To do this, different tools are made available to you in the *"Analysis"* tool kit of the *"Tools"* docking window.

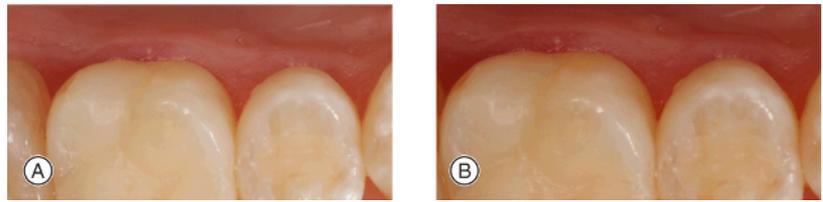
Brightness/contrast



Example for setting brightness and contrast

A	Original
B	Brightness changed
C	Contrast changed

Tonal value (gamma)



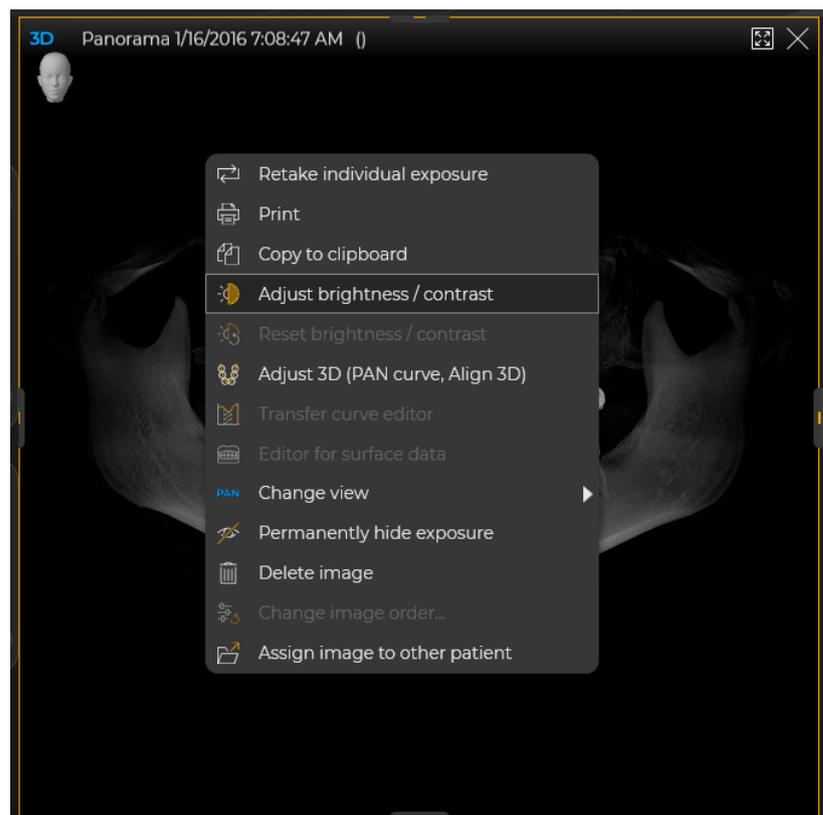
Example for setting tonal value

A	Original
B	Tonal value changed

10.4.1.1 Setting the brightness / contrast via the mouse controller

The mouse controller offers a simple and elegant way of adjusting brightness and contrast. You can interactively adjust the brightness and contrast using the mouse controller.

1. Select the desired media window.
2. Click on the "Adjust brightness / contrast" button in the "Tools" tool kit in the "Analysis" docking window.



Setting the brightness/contrast via the context menu

or

- > Click on the "Adjust brightness / contrast" button of the context menu.
3. Place the mouse pointer over the image in the media window.



- ↪ The form of the mouse pointer changes into mouse controller.
4. Press the left mouse button and move the mouse controller vertically or horizontally with the mouse held down.
- Vertical mouse controller movement = Brightness changes
 - Horizontal mouse controller movement = Image contrast changes
- ↪ The configured values for brightness and contrast are displayed on the controls of the "Analysis" tool kit [→ 223].

10.4.1.2 Automatic contrast optimization

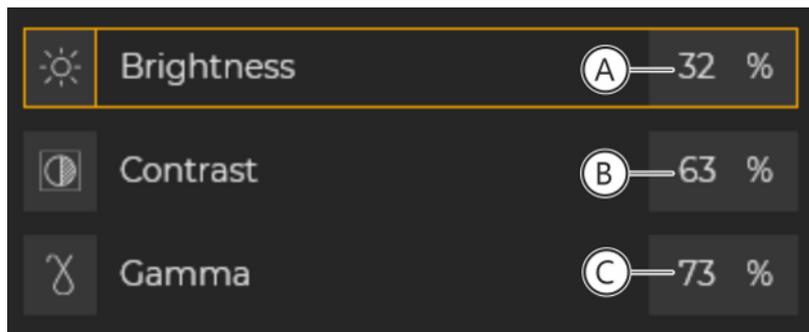
The automatic contrast optimization analyzes the current distribution of grayscale values present in an image and optimizes this according to a non-linear statistical method.



- ✓ The "Analysis" tool kit of the "Tools" docking window is opened.
- 1. Select the desired media window.
- 2. Click on the "Optimize contrast" button.
- ↳ The contrast in the selected media window is optimized.

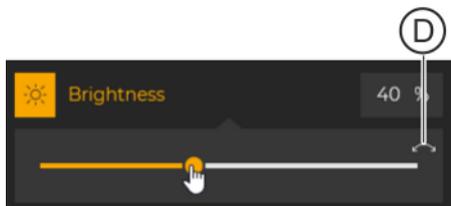
10.4.1.3 Setting the brightness / contrast and tonal value through the dials

- ✓ The "Analysis" tool kit of the "Tools" docking window is opened.
- 1. Select the desired media window.
- ↳ The current view settings for brightness, contrast and gamma as well as rotation of the section plane are displayed as numerical values in the input fields (A+B+C).



Display fields

	Display field	
A	Brightness	50% = Original
B	Contrast	50% = Original
C	Tonal value (gamma)	50% = Original



- 2. Click on a row, e.g. "Brightness".
- ↳ The corresponding control is displayed.
- 3. Move the mouse pointer onto the circle of the slider, press the left mouse button, and move the circle along the slider with the mouse button held down.
- or
- > Enter the desired value in the corresponding input field and confirm the entry with the Return key.
- ↳ The settings for brightness, contrast, and tonal value are changed.
- 4. Clicking the arrow (D) resets the setting back to 50%.

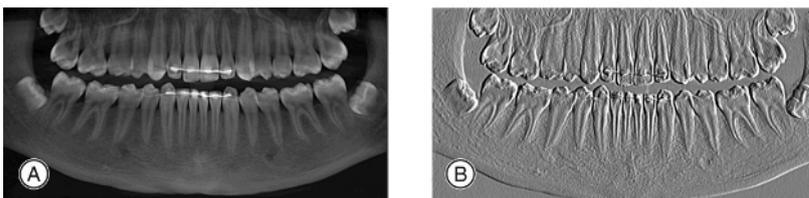
10.4.2 Image filters

These functions are not available for the 3D scene.

In order to emphasize image details, to distinguish them more clearly, or to improve the quality of image presentation, Sidexis 4 offers various image filters in the "Tools" docking window of the "Analysis" tool kit. All image filters can be applied multiple times on an image.

10.4.2.1 Relief

By using the "Edge gain (relief)." image filter, the edges between high-contrast image details are analyzed and displayed lighter or darker. This results in a relief-like detachment of the image, in which the contours are more clearly distinguished.



Example of applying the "Edge gain (relief)." filter

A	Original
B	The "Edge gain (relief)." filter is used

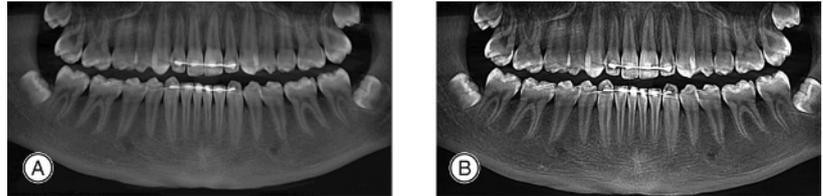


1. Select the desired media window.
2. Click on the "Edge gain (relief)." button in the "Analysis" tool kit in the "Tools" docking window.
 - ↪ The filter is applied to the selected image.
 - ↪ The filter operation is displayed in the "Filter" tool kit.

10.4.2.2 Applying sharpness

By using the "Sharpen image." image filter, the contrasts of adjacent pixels are increased. The edges and contour lines of the image are thus enhanced. The impression of an overall sharper image is created.

NOTICE! For images with high noise levels, "sharpening" can negatively affect the image impression.



Example of applying the "Sharpen image." filter

A	Original
B	The "Sharpen image." filter is used



1. Select the desired media window.
2. Click on the "Sharpen image." button in the "Analysis" tool kit in the "Tools" docking window.
 - ↳ The filter is applied to the selected image.
 - ↳ The filter operation is displayed in the "Filter" tool kit.

10.4.2.3 Reducing noise

By using the *"Reduce noise."* image filter, individually scattered pixels and smaller disturbances are eliminated without reducing the overall sharpness of the image.

This filter may only have a slight effect in less noisy images or those with low or "soft" contrast.

1. Select the desired media window.
2. Click on the *"Reduce noise."* button in the *"Analysis"* tool kit in the *"Tools"* docking window.
 - ↳ The filter is applied to the selected image.
 - ↳ The filter operation is displayed in the *"Filter"* tool kit.



10.4.2.4 Smooth down

By using the *"Smooth selected image."* image filter, the contrast of adjacent pixels is reduced or averaged, thereby softening sharp edges. The impression of smoothing is created. The overall sharpness of the image is reduced.

1. Select the desired media window.
2. Click on the *"Smooth selected image."* button in the *"Analysis"* tool kit in the *"Tools"* docking window.
 - ↳ The filter is applied to the selected image.
 - ↳ The filter operation is displayed in the *"Filter"* tool kit.



10.4.2.5 Invert

By using the *"Invert image."* image filter, the brightness values of the image pixels are inverted. The brightness and contrast values are also adjusted accordingly in this case. A positive or negative presentation of the X-ray is obtained in this way.



Example of applying the "Invert image." filter

A	Original
B	The <i>"Invert image."</i> filter is used

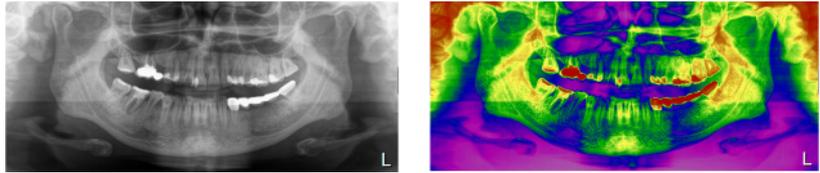


1. Select the desired media window.
2. Click on the *"Invert image."* button in the *"Analysis"* tool kit in the *"Tools"* docking window.
 - ↪ The filter is applied to the selected image.
 - ↪ The filter operation is displayed in the *"Filter"* tool kit.

10.4.2.6 False colors

You can use the "Colorize image." option to obtain better distinction of image details. The grayscale values of the X-ray image are replaced by colors.

The "Colorize image." option must always be taken as the final step in the filter chain.



Example of applying the "Colorize image." filter

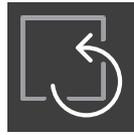
A	Original
B	The "Colorize image." option is used



1. Select the desired media window.
2. Click on the "Colorize image." button in the "Analysis" tool kit in the "Tools" docking window.
 - ↳ The filter is applied to the selected image.
 - ↳ The "Colorize image." button is highlighted orange.

10.4.2.7 Resetting / hiding an image filter

Resetting all image filters at once



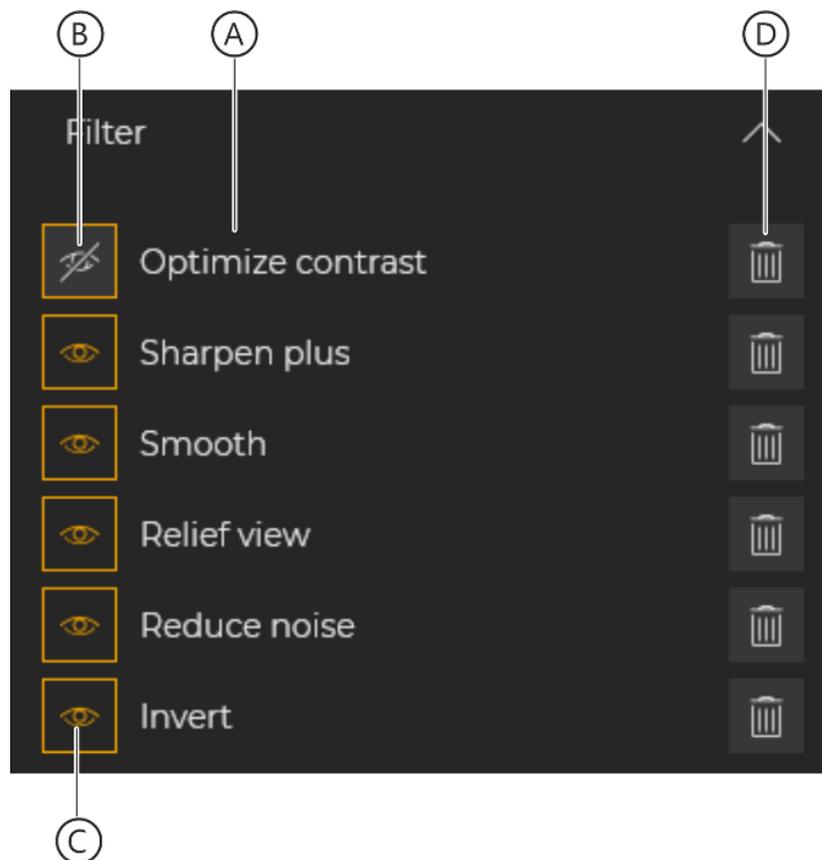
All image filters that have been manually applied to an image are reset using the "Reset image to default settings." button in the "Analysis" tool kit in the "Tools" docking window.

- ✓ Image filters have been applied to the selected media window.
- > Click on the "Reset image to default settings." button.
 - ↳ All filters that have been manually applied to the selected media window are reset.

Resetting filter operations individually

An applied image filter is reset separately via the "Filter" tool kit in the "Tools" docking window.

1. Select the desired media window.
2. Click on the "Remove" button (D) of the desired filter operation (A) in the "Filter" tool kit.



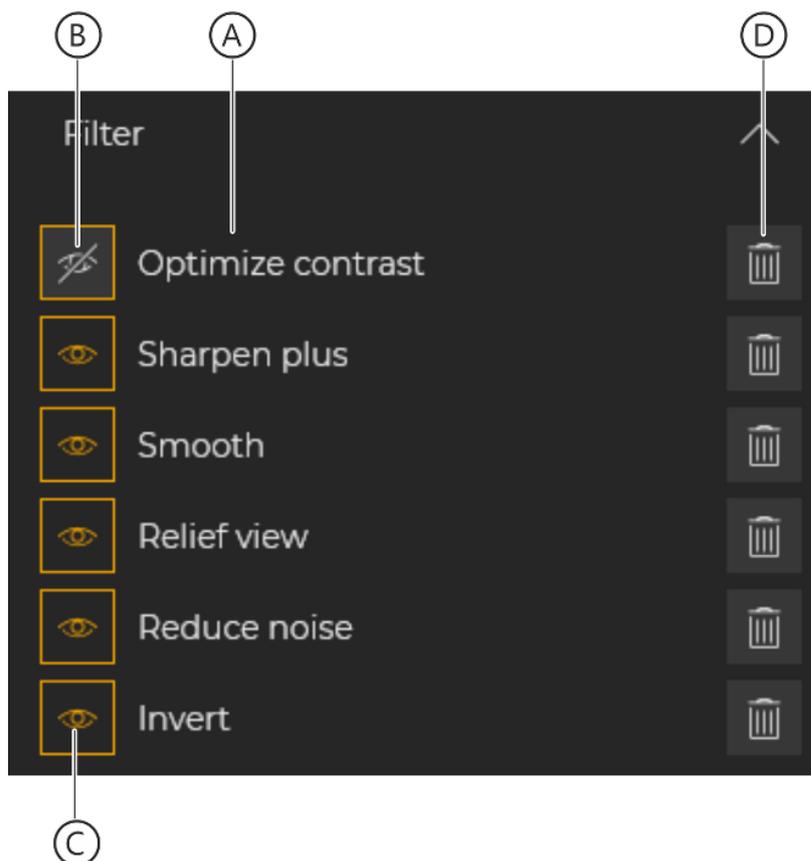
Deleting individual filter operations

- ↳ The respective filter operation is reset.
- ↳ All other filter operations are left unchanged.

Hiding/showing filter operations individually

An applied image filter is shown or hidden via the "Filter" tool kit in the "Tools" docking window.

1. Select the desired media window.
2. Click on the "Show/hide" button (C) of the desired filter operation in the "Filter" tool kit.



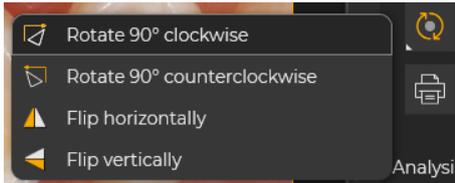
Hiding/showing individual filter operations

- ✎ The filter operation is hidden.
 - ✎ The button changes its appearance (B).
3. To show the filter operation, click on the "Show/hide" button again.
 - ✎ The filter operation is shown again.
 - ✎ The button changes its appearance (C).

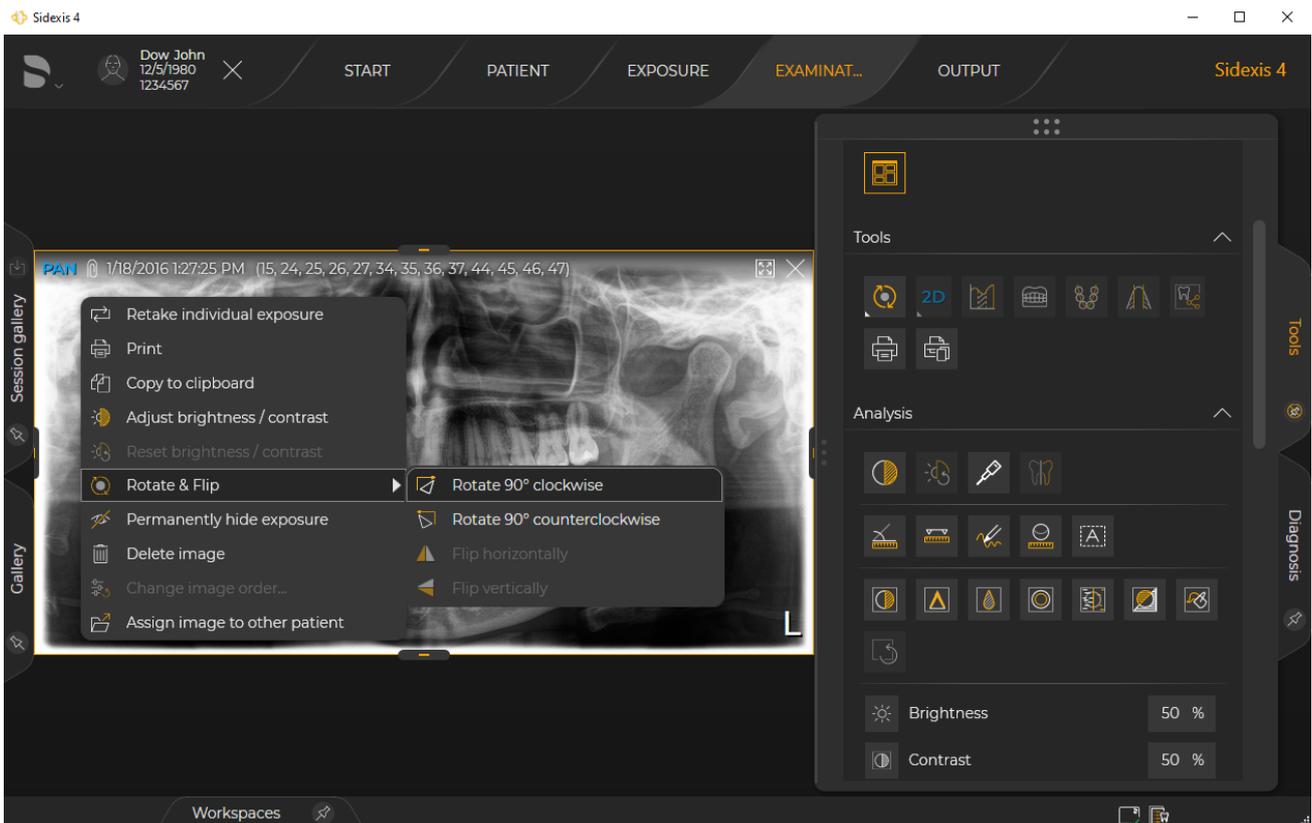
10.4.3 Changing image orientation



For editing the image orientation, you have access to various functions in the "Analysis" tool kit of the "Tools" docking window. Clicking the "Rotate & Flip..." button opens the submenu with various functions:



- "Rotate 90° clockwise"
- "Rotate 90° counterclockwise"
- "Flip horizontally"
- "Flip vertically"



Editing the image orientation

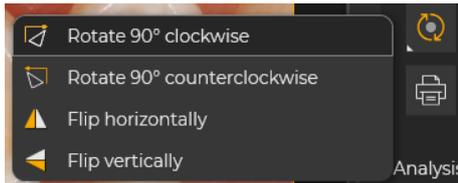
IMPORTANT: You can also access the functions by left-clicking over the media window.

IMPORTANT: The "Rotate & Flip..." functions act on the original media item; i.e. an image is rotated or flipped everywhere, even in pre-existing sessions.

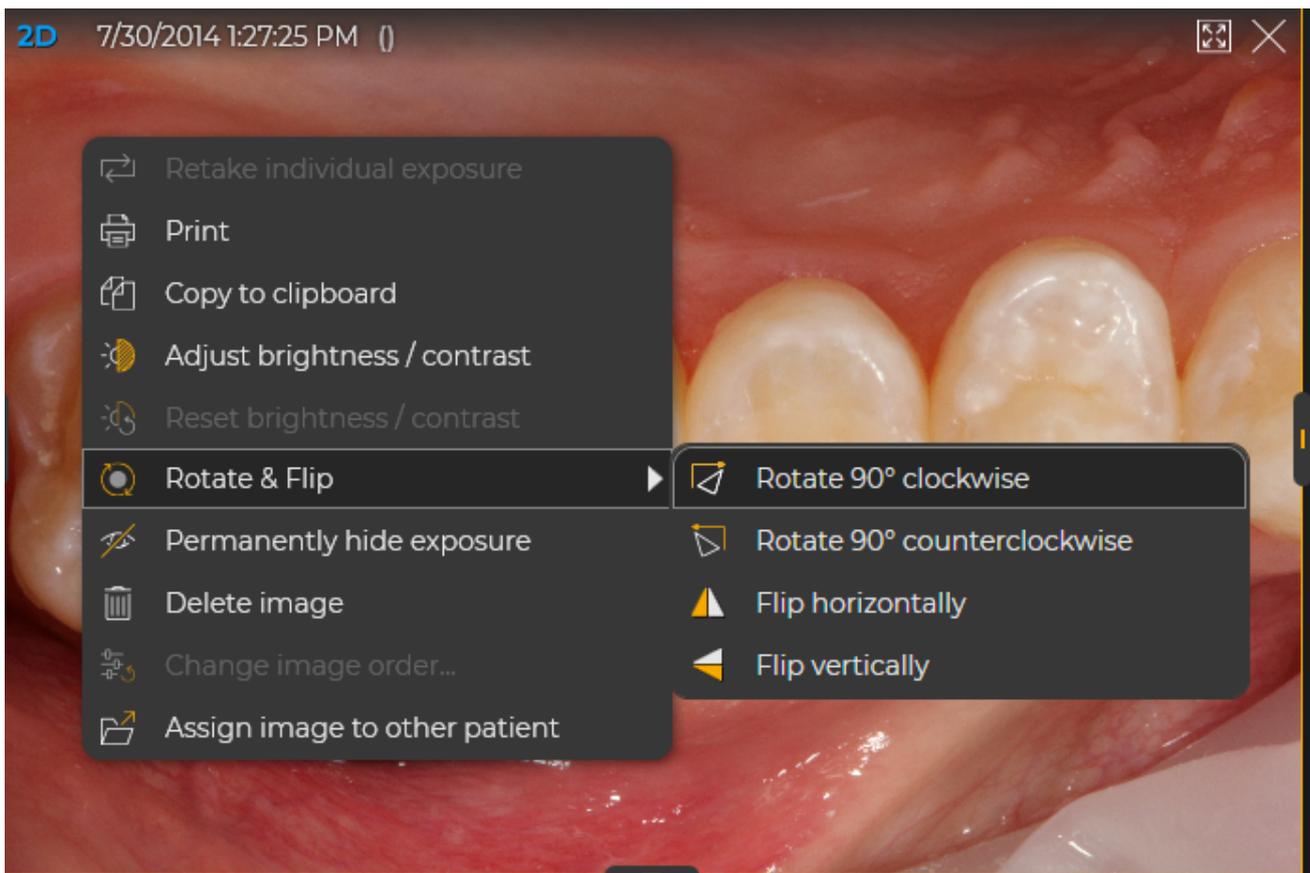
10.4.3.1 Rotating

These functions are only available in the "Light box" and in the "Compare" work area.

In order to compensate for different orientations during exposure creation, it is possible to rotate 2D images in 90° steps in a clockwise or counterclockwise direction.



1. Select the desired media window.
2. Click on the "Rotate & Flip..." button in the "Tools" tool kit in the "Tools" docking window and select the menu item "Rotate 90° clockwise" or "Rotate 90° counterclockwise" in the submenu.



Rotating image via the context menu

or

- > Right-click over the image and then select the "Rotate & Flip..." menu item in the context menu, and then the "Rotate 90° clockwise" or "Rotate 90° counterclockwise" menu item in the submenu.
 - ↳ The selected image is rotated 90° in a clockwise or counterclockwise direction.
 - ↳ If the same image has been opened more than once, all presentations of it are also rotated accordingly.

10.4.3.2 Mirroring

CAUTION

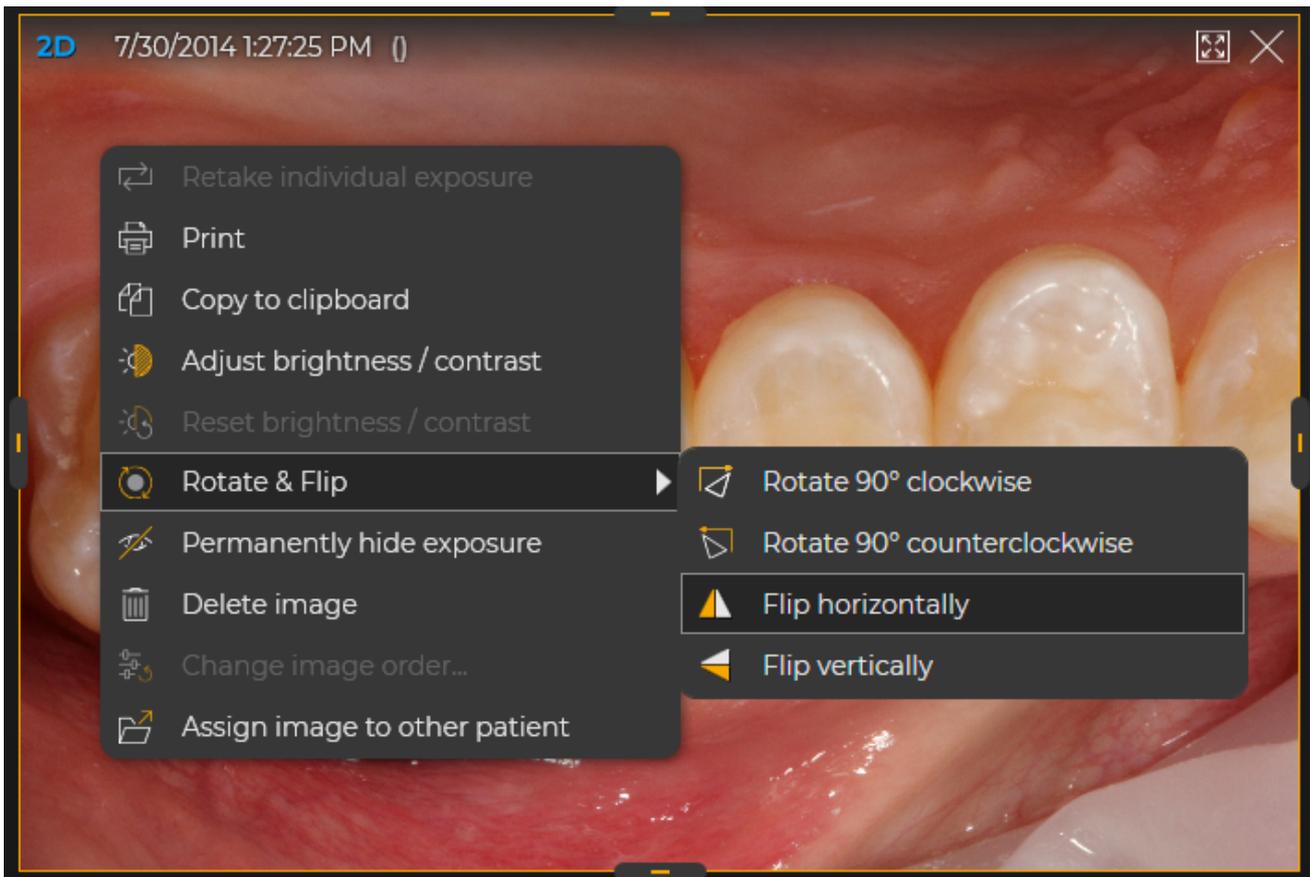
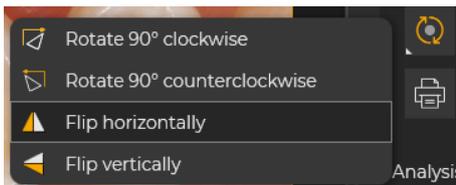
Hazard caused by unintentional flipping

Pay attention not to flip the images unintentionally. That can lead to misinterpretation of the exposures. A warning in the "Flip image" screenshot warns you again of the risk of a possible misinterpretation.

These functions are only available in the "Light box" and for photos and scans of the Xios Scan and Dürr Vistascan devices.

In order to compensate for positioning errors when scanning exposures, it is possible to flip scanned exposures horizontally and vertically.

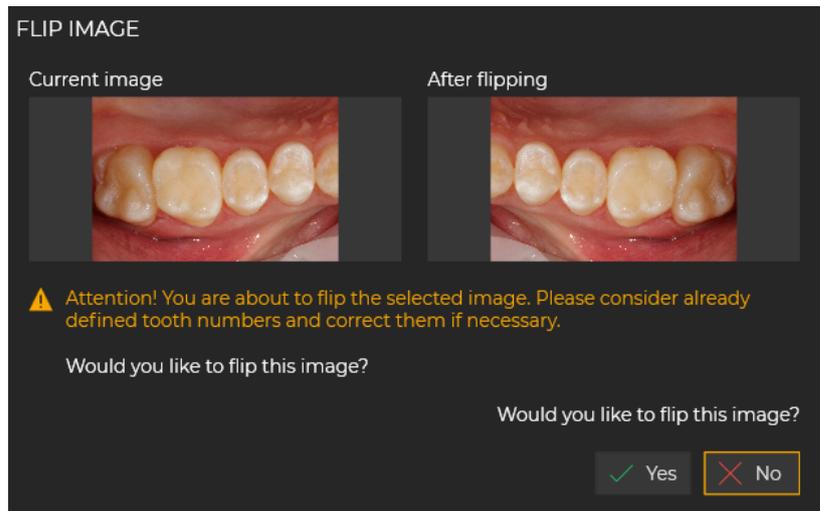
1. Select the desired media window.
2. Click on the "Rotate & Flip..." button in the "Tools" tool kit in the "Tools" docking window and select the menu item "Flip horizontally" or "Flip vertically" in the submenu.



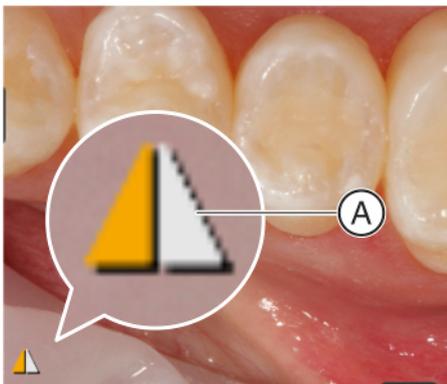
Mirroring images through the context menu

or

- > Right-click over the image and then select the "Rotate & Flip..." menu item in the context menu, and then the "Flip horizontally" or "Flip vertically" menu item in the submenu.
- ↳ The "Flip image" dialog box opens.

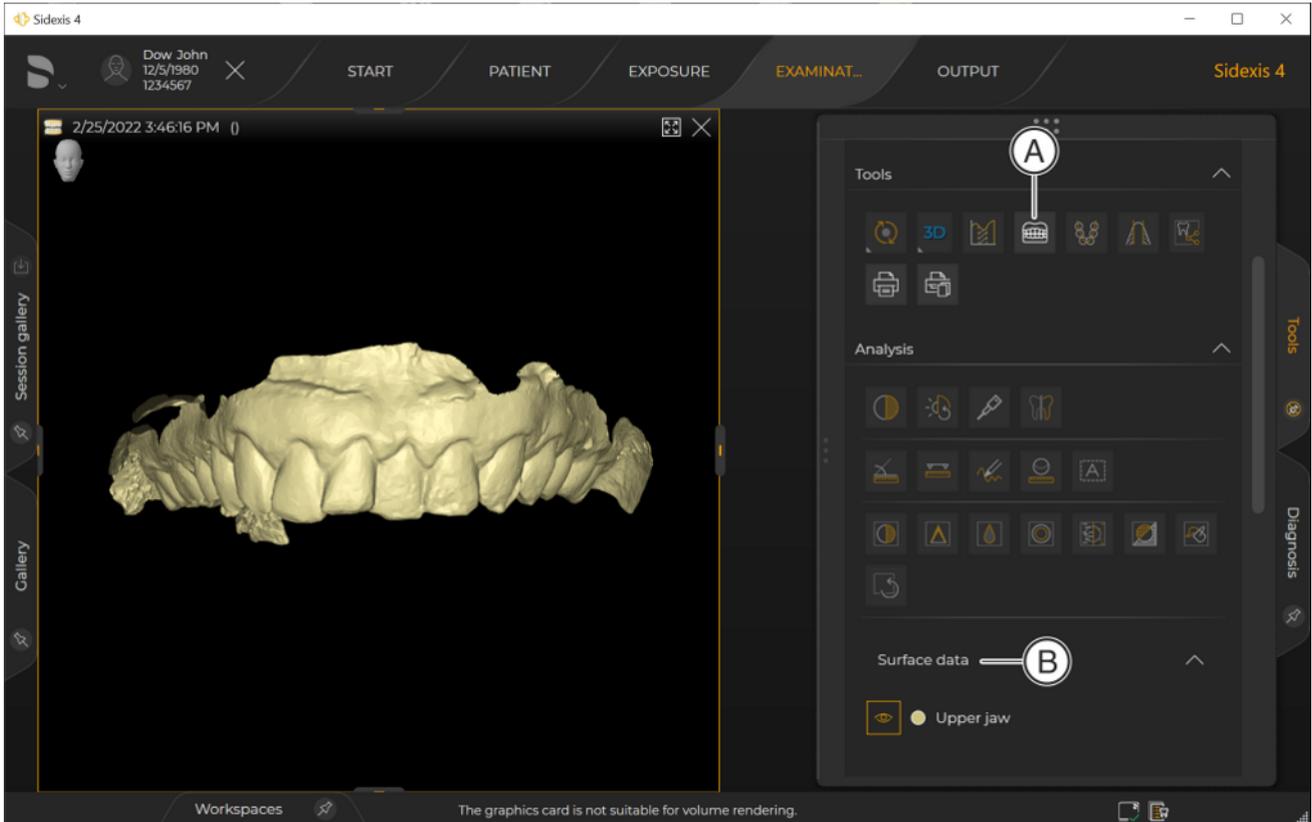


"Flip image" dialog box



- 3. IMPORTANT:** Note the information provided in the dialog box. To flip the image, click the "Yes" button.
 - ↪ The selected image is flipped horizontally or vertically. **IMPORTANT:** A flipped image is always indicated by an icon (A) at the bottom left of the image. This icon indicates whether the image has been flipped horizontally (as in the example) or vertically, and is permanently embedded into the image when exporting. The icon (A) is also visible in print-outs.
 - ↪ If the same image is open more than once, then all other presentations of it are also flipped accordingly.

10.5 Editing surface data

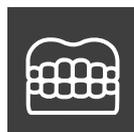


"Surface data editor"

You can retroactively edit imported surface data through the *"Tools"* docking window.

For this purpose, the functions of the *"Surface data editor"* (A) and the *"Surface data"* (B) tool kit are available to you.

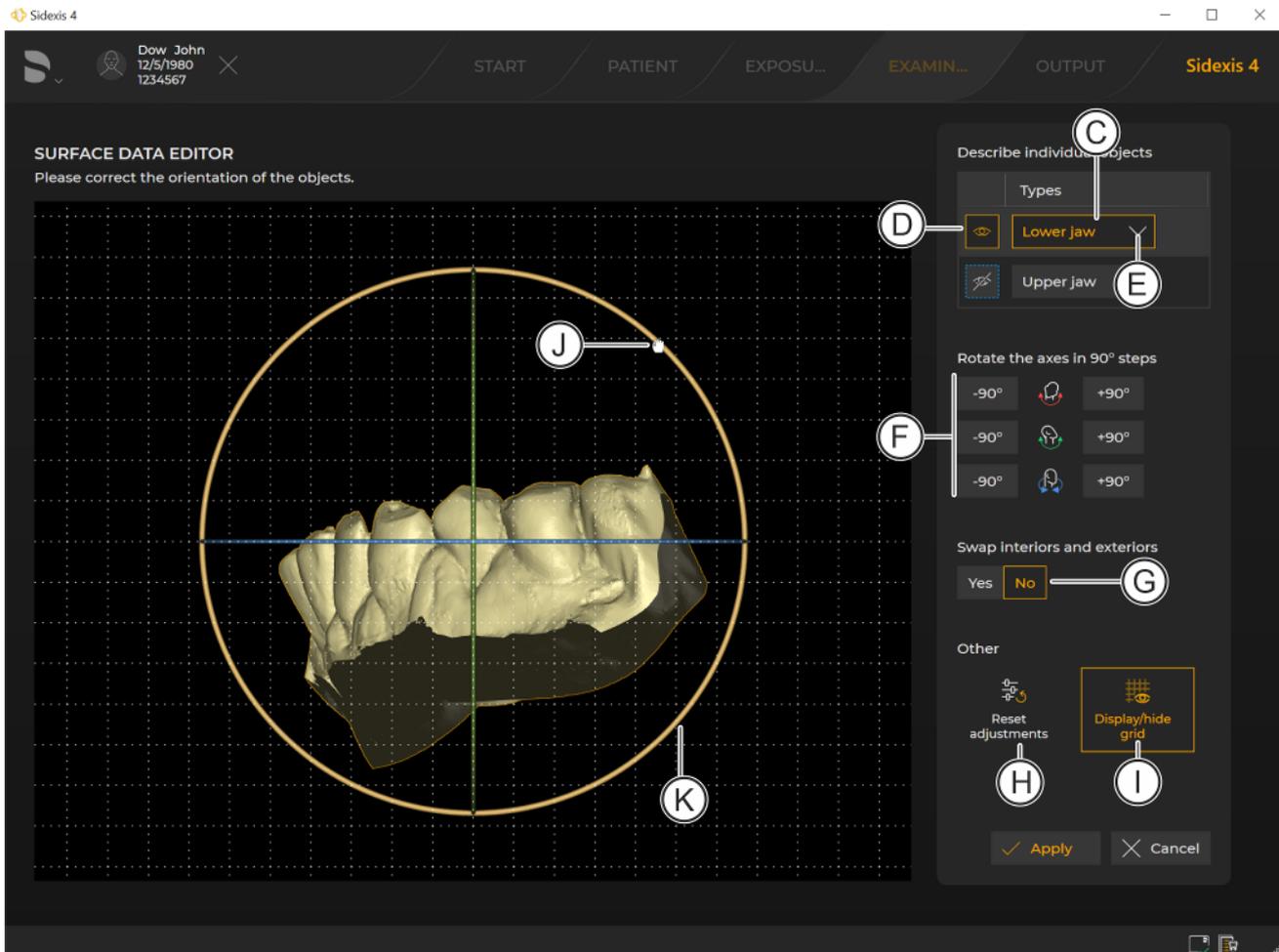
"Surface data editor"



- > Click on the symbol (A) in the tool kit.
 - ↳ The *"Surface data editor"* opens.

10.5.1 Surface data editor

You can set the properties of the surface data through the "Surface data editor".



"Surface data editor"

Selecting individual objects

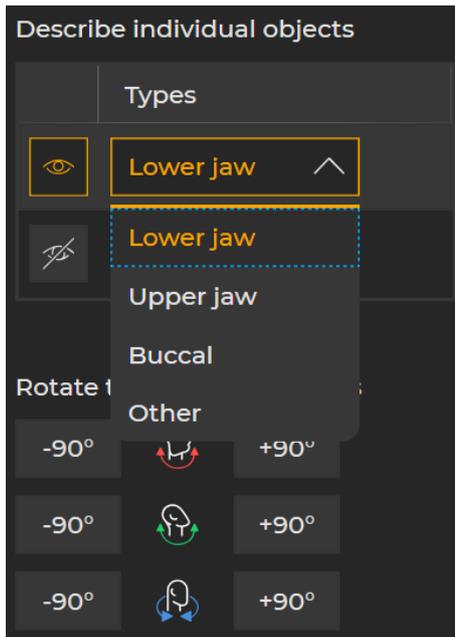
- > Click on the relevant object line (C).
- ↳ The individual object is selected and is highlighted in the preview. Only ever one object can be selected.

Hiding individual objects

1. Click on the "Hide/Show" icon (D) in the relevant object line.
 - ↳ The relevant individual object is hidden.
 - ↳ The icon is shown in gray.
2. To show, click on the icon once again.

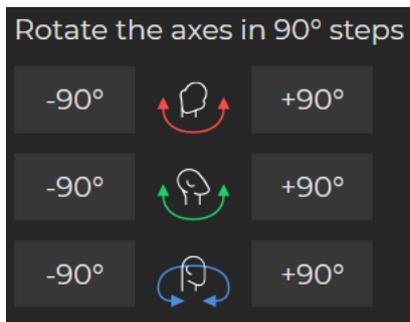


Assigning object type

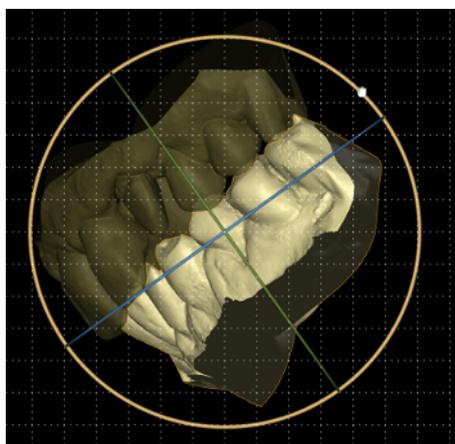


1. Click on the arrow (E) in the object line (C).
↳ A drop-down list opens.
2. Select the correct object type for the object.

Changing views



- > You can rotate the model stepwise on the three rotation axes (red, green, blue) by clicking on the buttons (F). The colors correspond to the rotation axes displayed in the preview. One click produces one rotation of the model by +/-90° on the respective axis. The rotation always acts on the entire model, including hidden individual objects.



Switching internal/external surfaces on an object

- or
- > Move the mouse pointer over the desired rotation axis, press and hold down the right mouse button and move the mouse pointer upward/downward or left/right. The model is rotated along the axis of rotation steplessly.

- > Click on the switch (G) to swap the internal and external surface on the object.

Resetting the adjustments of the view



- > Click on the "Reset adjustments" icon (H).
 - ↳ All changes to the view are reset.

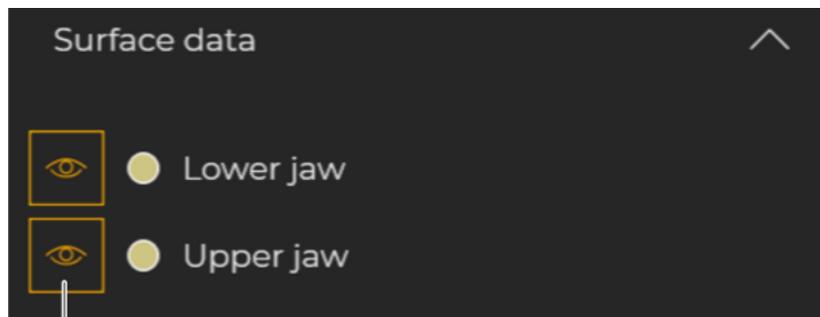
Hiding/showing the grid



- > Click on the "Display/hide grid" icon (I).
 - ↳ The grid in the preview is shown/hidden.

10.5.2 "Surface data" tool kit

10.5.2.1 Hiding/showing individual objects



Hiding/showing individual objects



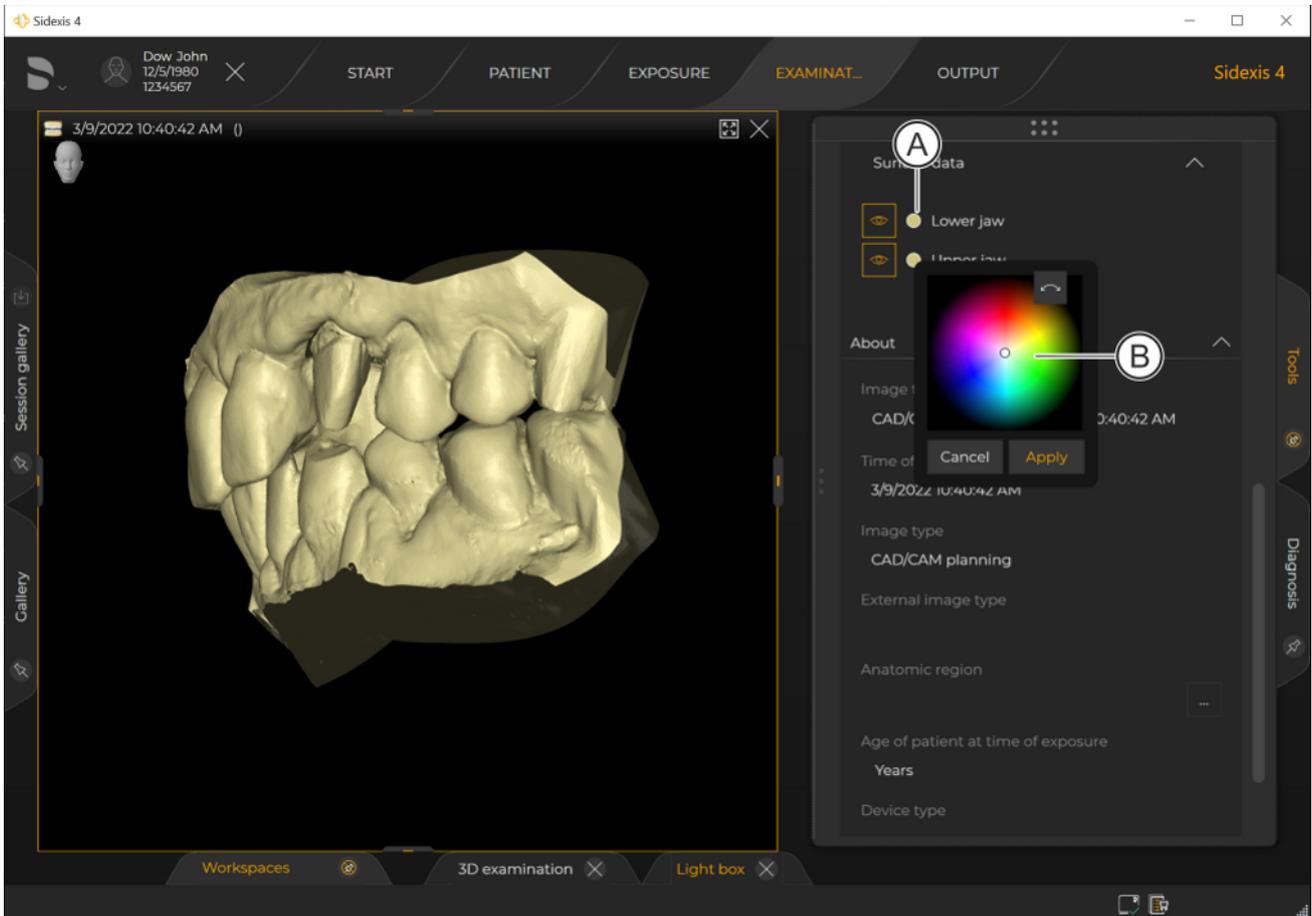
1. Click on the icon (A).
 - ↳ The relevant object is hidden.
 - ↳ The icon changes.



2. To show, click on the icon once again.
 - ↳ The object is shown again.

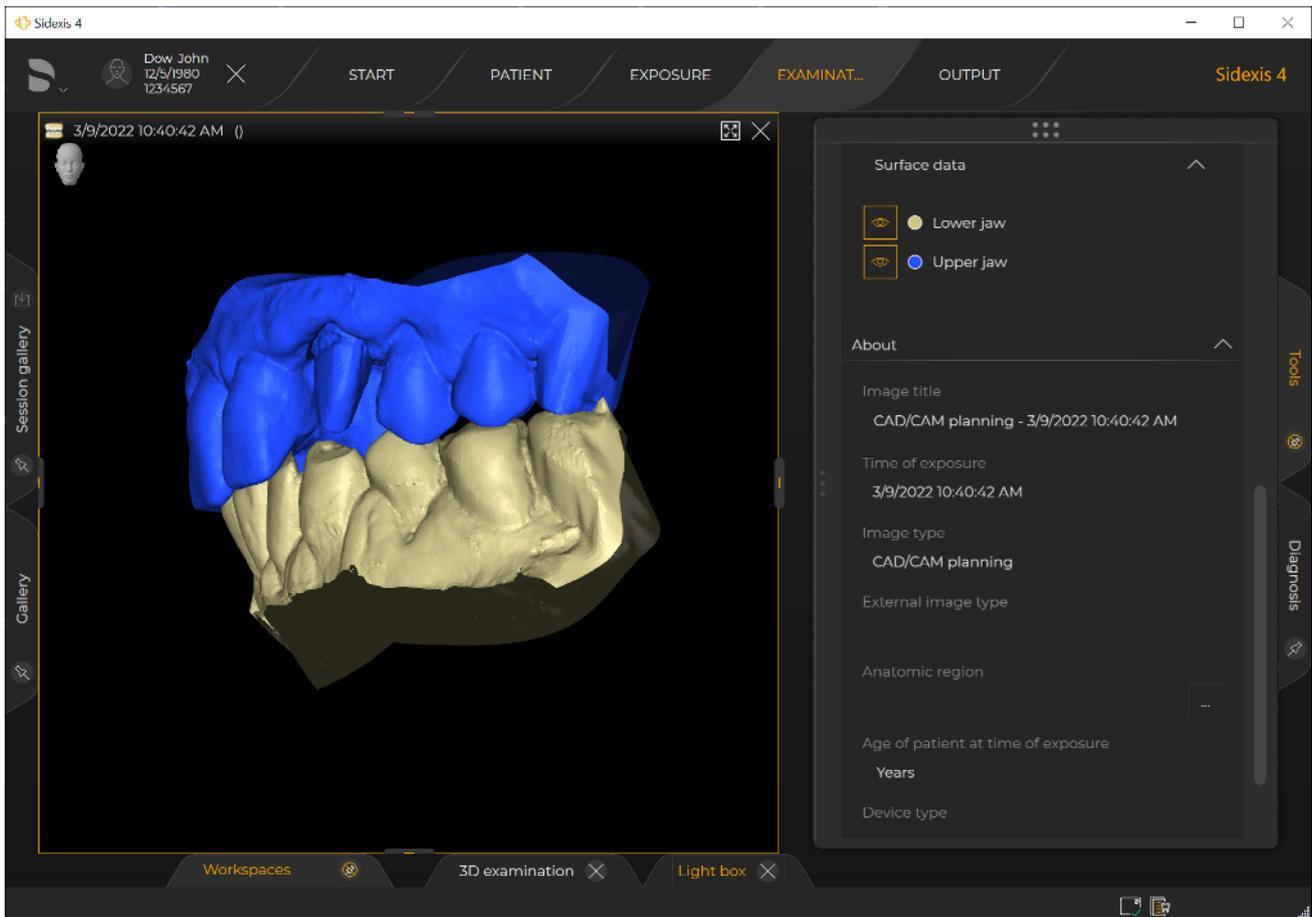
10.5.2.2 Changing the colors of individual objects

1. Click on the color icon (A) of the object whose color you want to change in the "Surface data" tool kit.



Selecting color of the object

2. Click on the desired color and confirm the color selection by clicking on the "Apply" button.



Changed object color

- ☞ The color of the object changes.

10.6 Performing measurements

In the "3D examination" work area, these function are not available for the panorama and 3D scenes.

To perform measurement operations on 2D images and section views, Sidexis 4 offers various tools in the "Analysis" tool kit in the "Tools" docking window.

IMPORTANT

Actual precision

The measurement results are displayed with a technical precision of two decimal places (0.00) for "mm*" and "mm ref". The technical precision is achieved by the exact conversion of the pixel spacing, taking the zoom levels, resolution and reference measurement (for mm ref) into consideration. The actual precision that can be achieved depends on the skills and needs of the user for setting the measuring points exactly.

Please note this information on actual precision when setting measuring points. The actual precision depends directly on the precision of the measuring point setting.

Images of unknown origin

Please be aware that the image resolution information of images of unknown origin can be inaccurate. In such cases, meaningful measurement operations are possible only after adjusting the dimensions using a reference object.

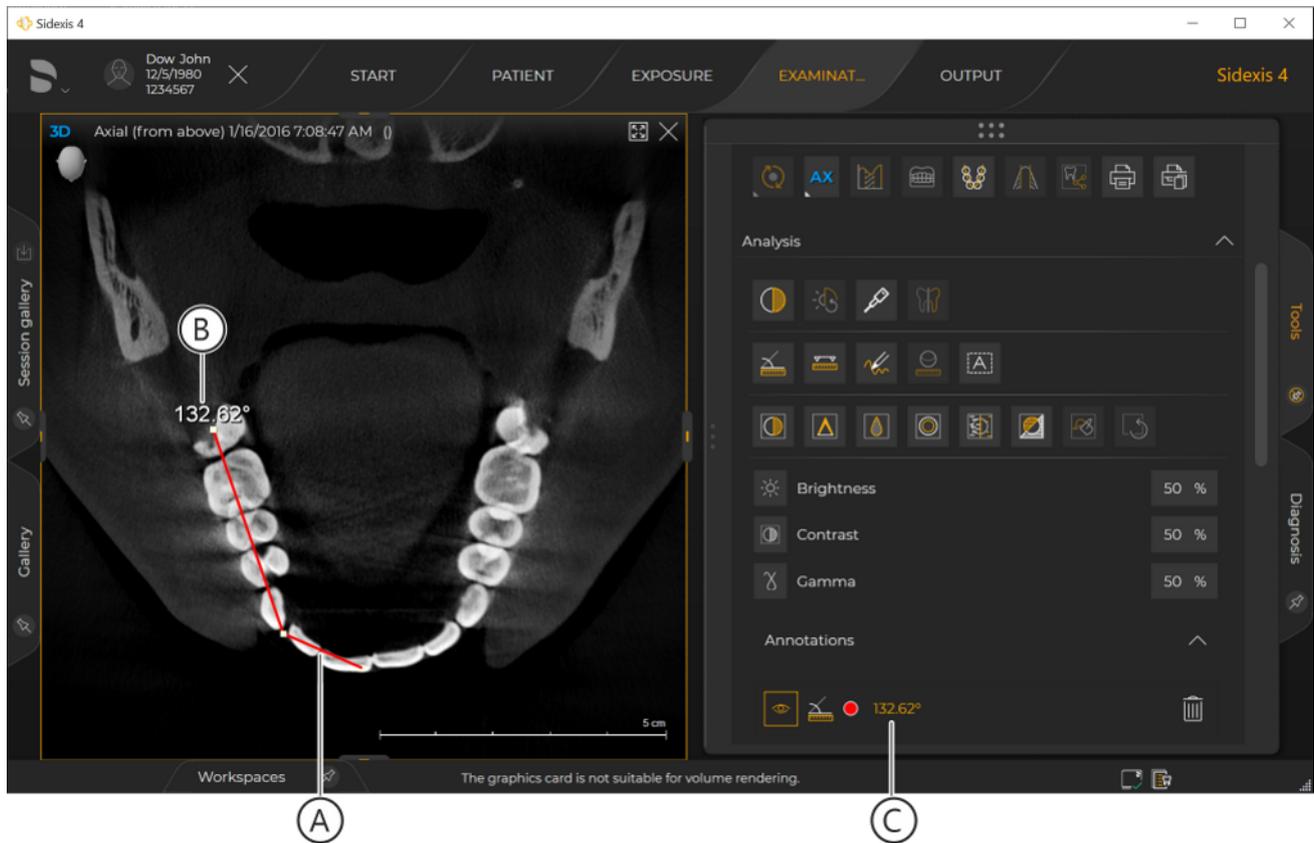
10.6.1 Angles

10.6.1.1 Measuring angles

For angle measurements, Sidexis 4 offers a simple measurement tool in the "Analysis" tool kit in the "Tools" docking window.

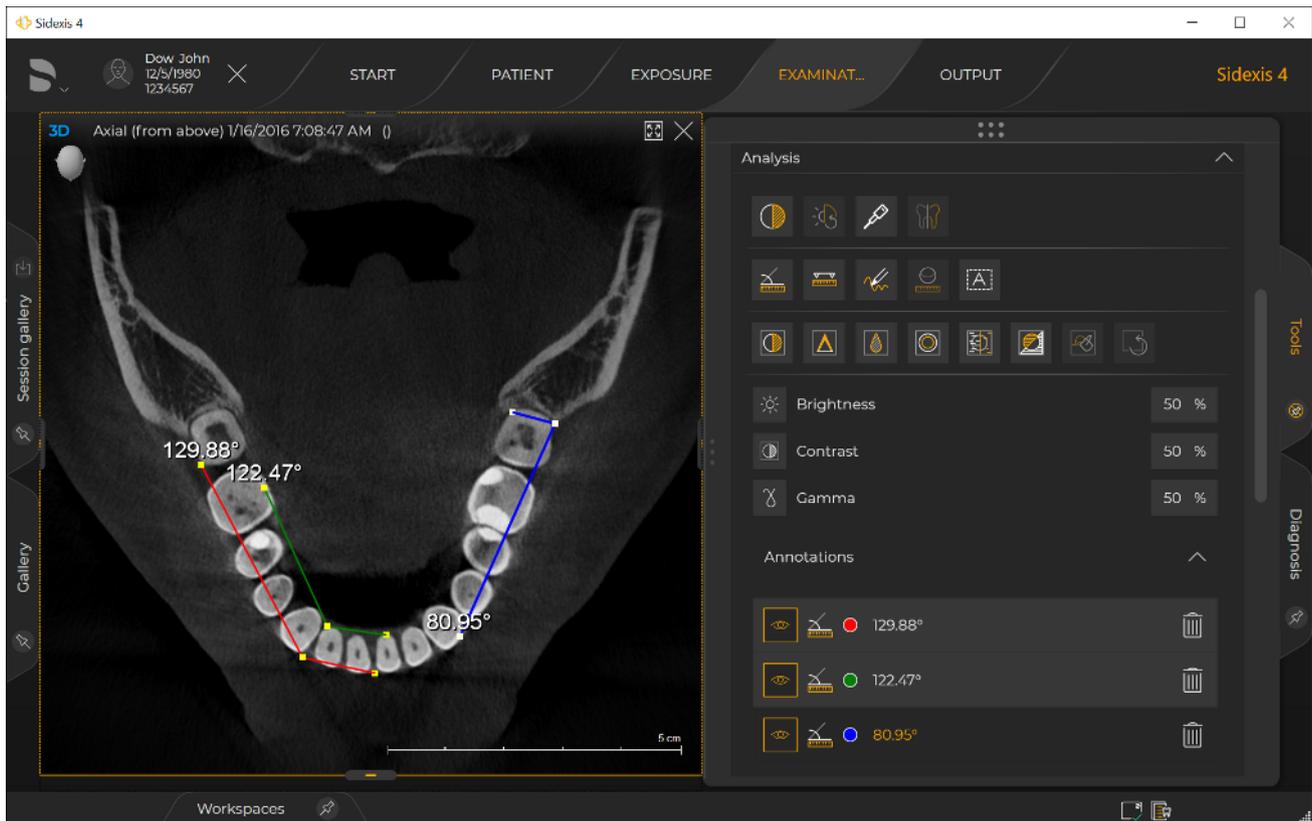


1. Click on the "Angle measurement." button in the "Analysis" tool kit of the "Tools" docking window.
2. Place the mouse pointer over the desired media window.
 - ↳ The mouse pointer changes its form.
3. Set the starting point of the first angle leg by clicking on the desired point in the image.
4. Draw the first leg of the angle using the mouse pointer.
5. Set the end point of the first angle leg by clicking on the desired point in the image.
6. Draw the second leg of the angle using the mouse pointer.
 - The angle can be measured to the right or left.
 - ↳ The resulting angle is displayed "live" in the image and in the "Annotations" tool kit.
7. Set the end point of the second angle leg by clicking on the desired point in the image.



Measuring angles

- ↪ The angle is drawn into the image as a colored line (A).
- ↪ The angular dimension (B) is displayed in the image at the start point of the first angle leg.
- ↪ In the "Annotations" tool kit, the angle is displayed as an annotation (C) with display color and angular dimension. The color of the angle can be changed subsequently (see section "Changing the color of the remarks").



Several angles (annotations) in one image

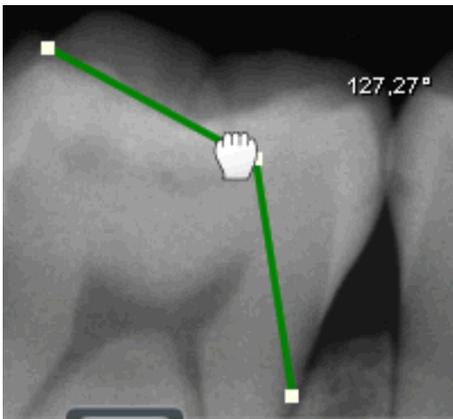
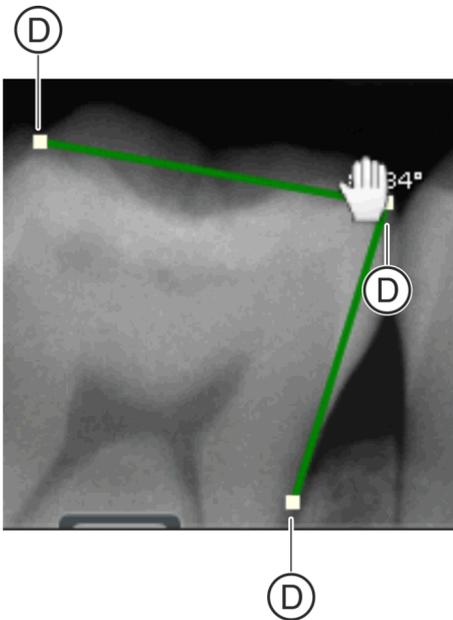
If multiple angles are measured in an image, Sidexis 4 automatically displays these in different colors. Each angle appears in the "Annotations" tool kit as a new angle annotation.

You can change or optimize the angle sizes drawn into the image at any time subsequently [→ 244].

The moving, hiding, showing, and deleting of angle annotations and the changing of the annotation color are described in section "Creating and editing annotations".

10.6.1.2 Editing angle sizes

1. Move the mouse pointer onto one of the angle's three drag points (D).
 - ↳ The mouse pointer changes its form.
2. Press the left mouse button.
 - ↳ The mouse pointer changes its form.

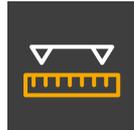


3. With the mouse button held down, move the mouse pointer to another position.
 - ↳ The angle changes.
 - ↳ The new angular dimension is displayed.

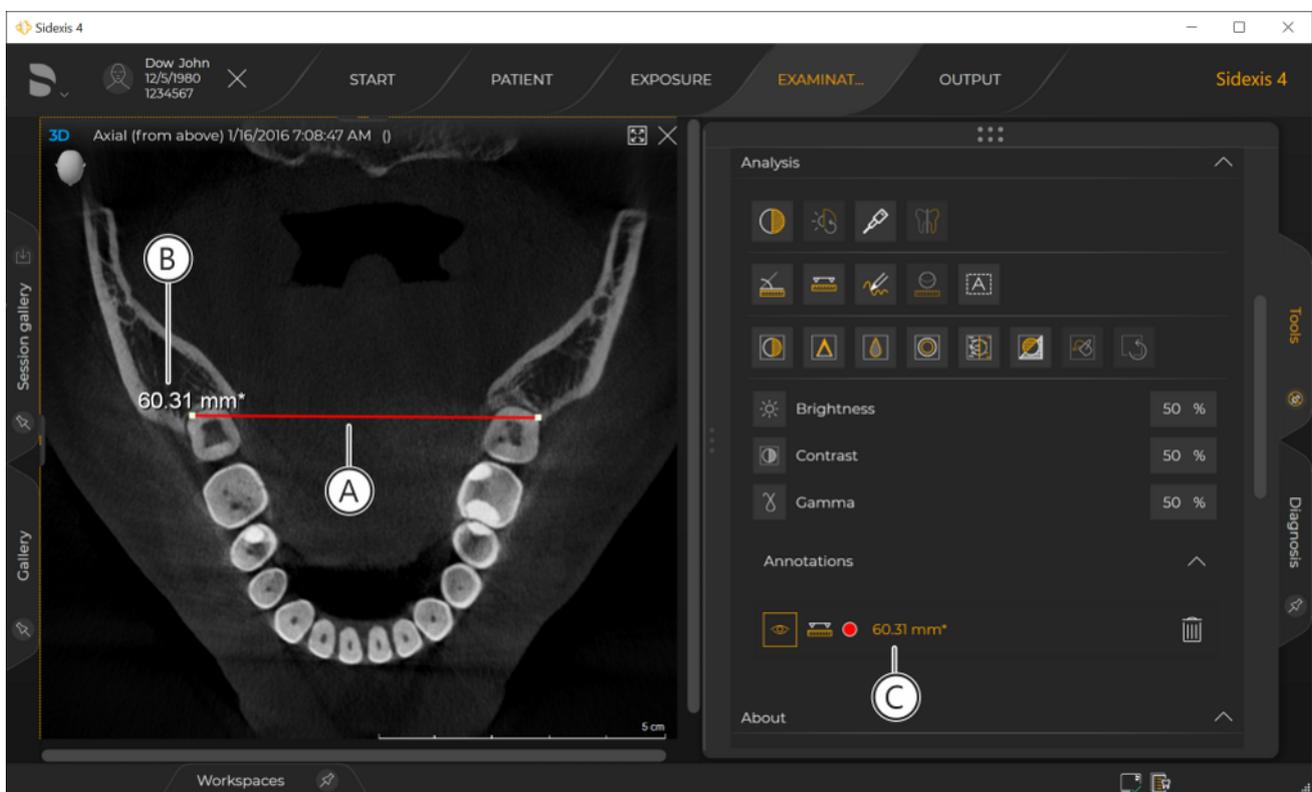
10.6.2 Lengths

10.6.2.1 Measuring lengths

For length measurements on 2D and 3D section views, Sidexis 4 offers a simple measurement tool in the "Analysis" tool kit in the "Tools" docking window.

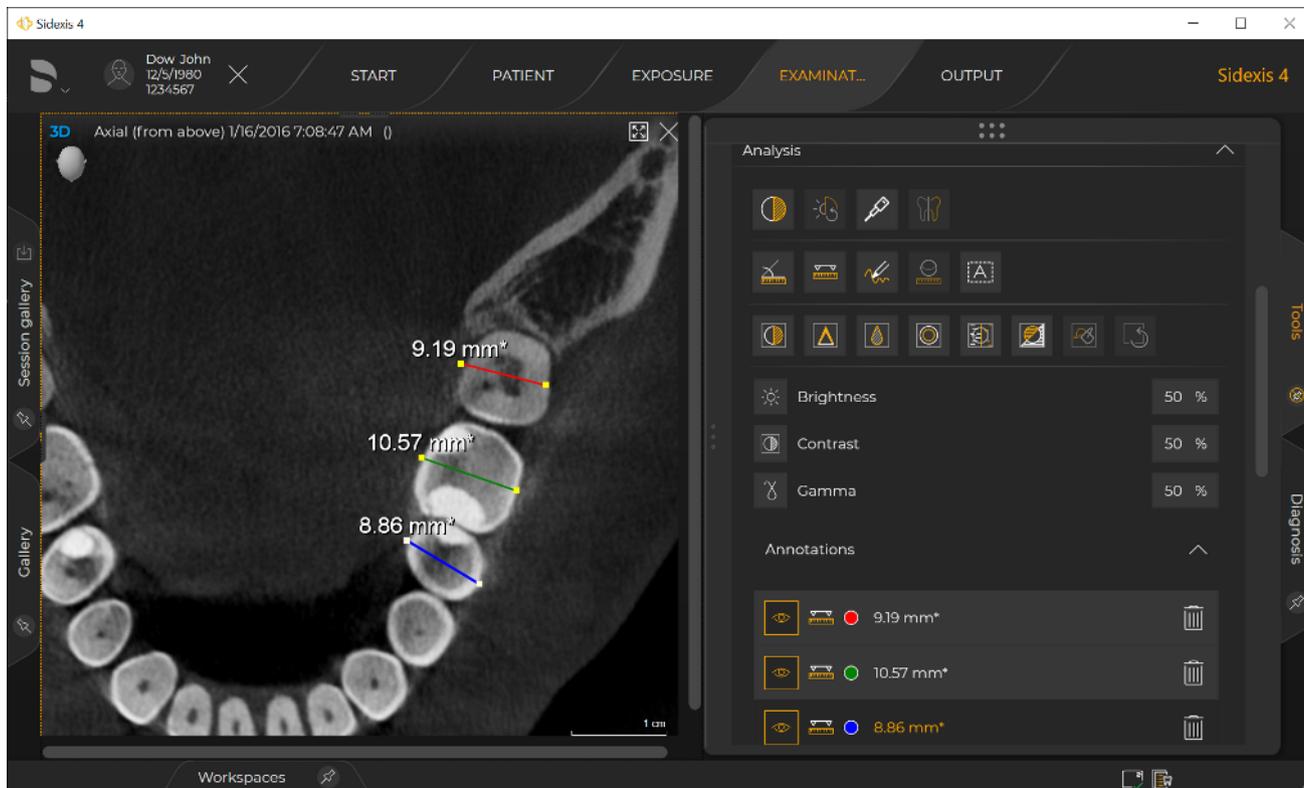


1. Click on the "Length Measurement" button in the "Analysis" tool kit of the "Tools" docking window.
2. Place the mouse pointer over the desired media window.
 - ↳ The mouse pointer changes its form.
3. Set the start point for the length measurement by clicking on the desired point in the image (single click).
4. Draw the path to be measured with the mouse pointer. If required, set multiple base points for the path to be measured using single clicks.
 - ↳ The length of the resulting distance is displayed "live" in the image and in the "Annotations" tool kit.
5. Set the end point for the length measurement by double-clicking on the desired point in the image (double-click).



Measuring length

- ↪ The distance is drawn as a colored line.
The color of the distance can be changed subsequently (see section "Changing the color of the remarks").
- ↪ The linear measure (B) is displayed at the start point of the distance.
- ↪ The distance is displayed as an annotation (C) with display color and linear measure in the "Annotations" tool kit.
If no referencing has taken place prior to the length measurement, the displayed measured value is marked with a * after the unit.



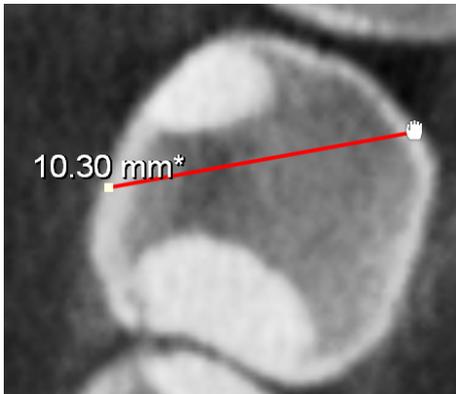
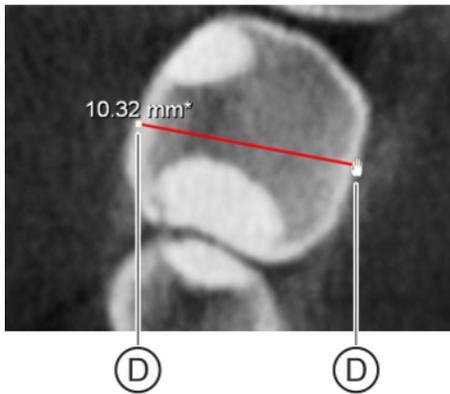
Measuring several lengths (annotations) in one image

If multiple lengths are measured in an image, Sidexis 4 automatically displays these in different colors. Each distance appears in the "Annotations" tool kit as a new length annotation.

You can change or optimize [→ 247] the path drawn into the image at any time subsequently.

The moving, hiding/showing, and deleting of length annotations and the changing of the annotation color are described in section "Creating and editing remarks".

10.6.2.2 Editing paths



1. Move the mouse pointer to one of the path's drag points (D).
 - ↳ The mouse pointer changes its form.
2. Press the left mouse button.
 - ↳ The mouse pointer changes its form.
3. With the mouse button held down, move the mouse pointer to another position.
 - ↳ The path changes.
 - ↳ The new linear measure is displayed.

10.6.3 Reference measurement

10.6.3.1 Measuring a reference object

If measurements have to be taken on a 2D image, then the image resolution has to be adjusted using a reference object. That means that the lengths measured in the 2D image (in mm*) of a reference object are referenced with the actual length of the object (in mm). To do this, the reference object must be placed in direct proximity to the area to be measured during the exposure.

✓ A reference object is placed right next to the area to be measured on the 2D image.

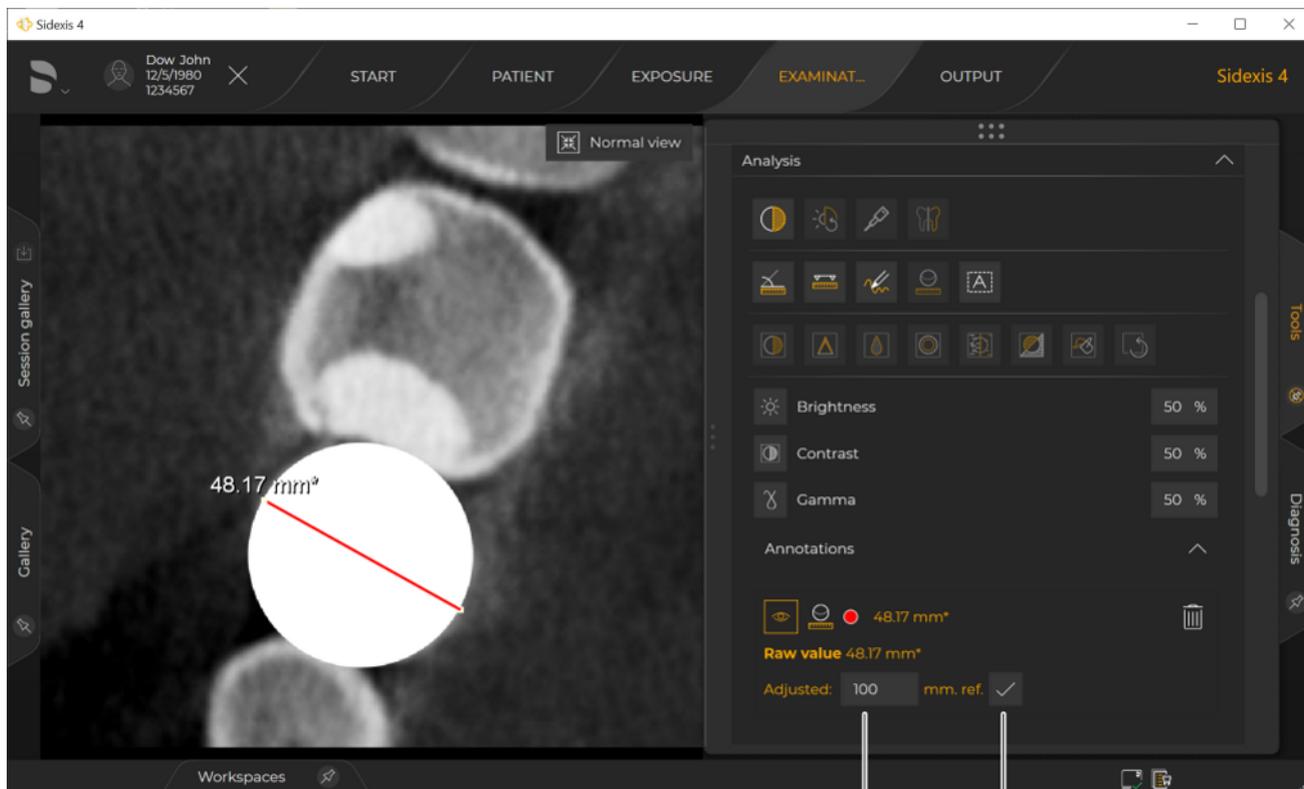


1. Click on the "Reference measurement." button in the "Analysis" tool kit of the "Tools" docking window.

2. Place the mouse pointer over the desired media window.

☞ The mouse pointer changes its form.

3. Measure the length of the reference object as described in the section "Measuring lengths".



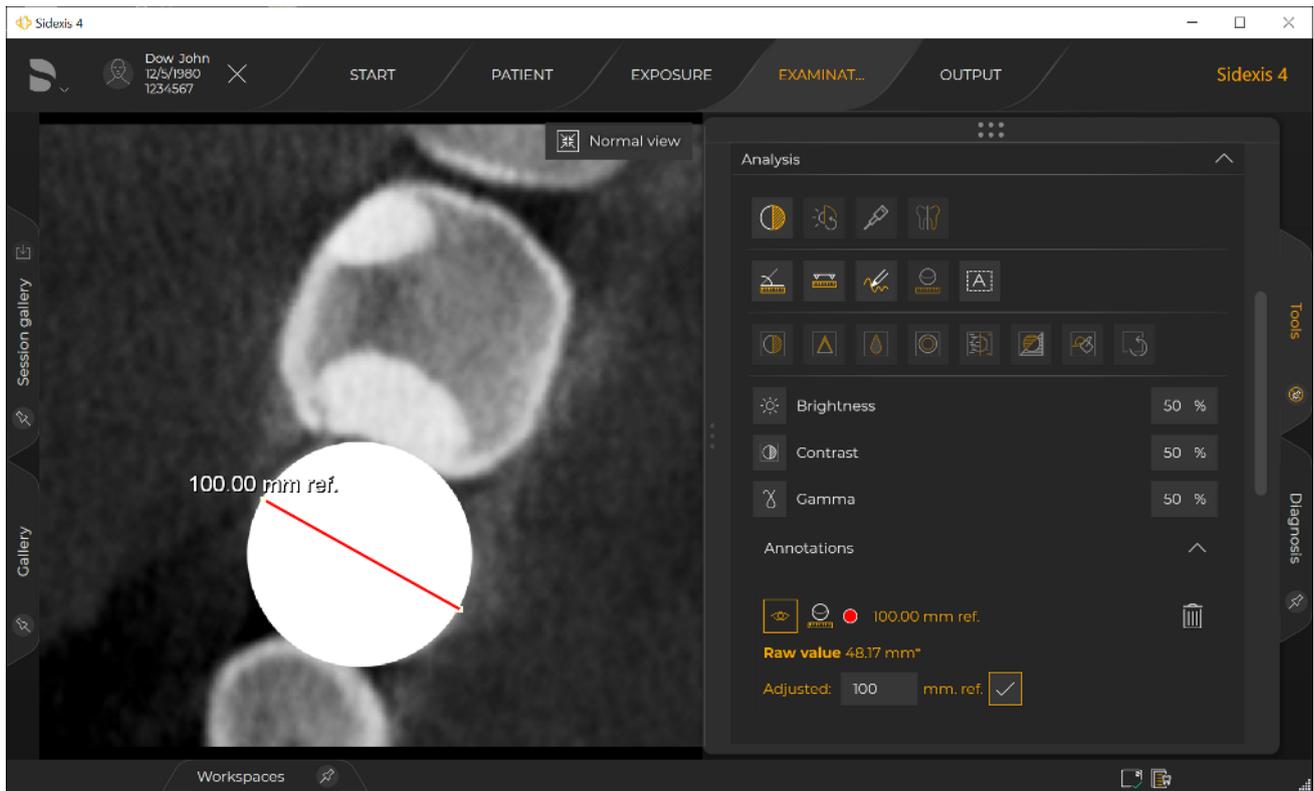
C

B

Reference measurement

4. Enter the actual length of the reference object in the input field (C) of the "Annotations" tool kit.

5. Click on the "Apply" button (B).



Referenced measurement

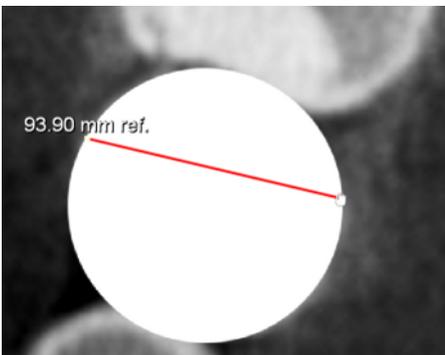
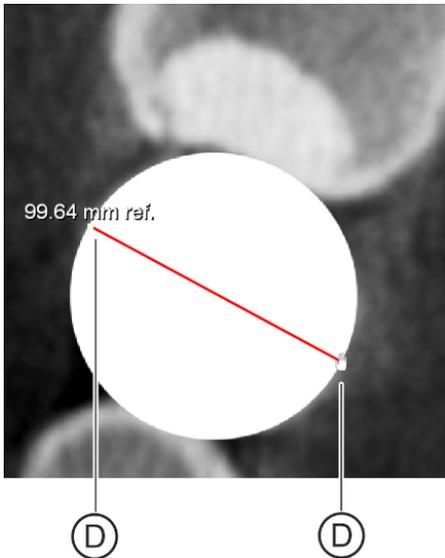
- ↪ The referencing has been performed.
- ↪ The actual length of the reference object is displayed in the image as a linear measure on the reference path with the add-on "Ref.".

You can change the reference measurement later on at any time.

The moving, hiding, showing, and deleting of reference annotations and the changing of the annotation color are described in section "Creating and editing remarks".

10.6.3.2 Editing reference measurements

1. Move the mouse pointer onto one of the reference path's drag points (D).
 - ↳ The mouse pointer changes its form.
2. Press the left mouse button.
 - ↳ The mouse pointer changes its form.



3. With the mouse button held down, move the mouse pointer to another position.
 - ↳ The path changes.
 - ↳ The new linear measure is displayed.

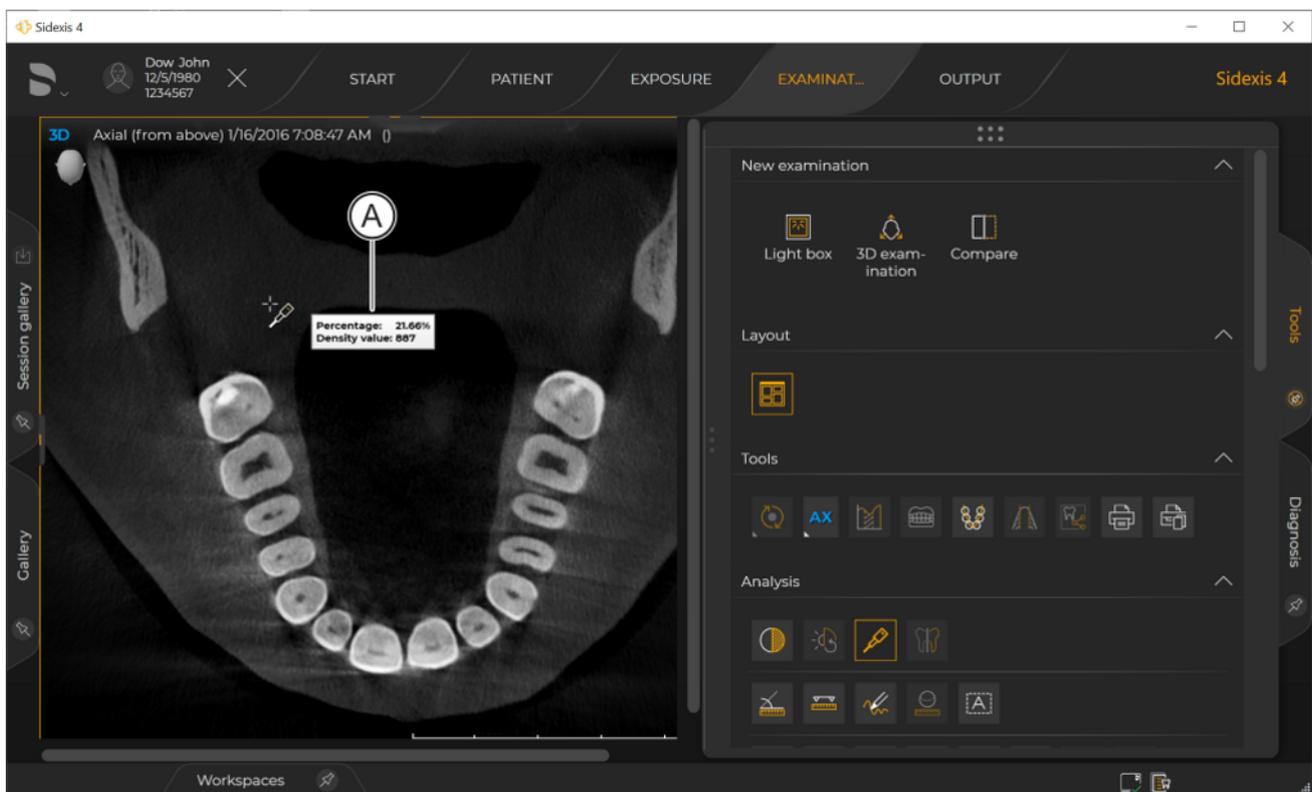
10.6.4 Measuring bone density

For measurement of bone density, Sidexis 4 offers a single measurement tool in the "Analysis" tool kit in the "Tools" docking window.



1. Click on the "Measure density." button in the "Analysis" tool kit of the "Tools" docking window.
2. Place the mouse pointer over the desired media window.

↪ The mouse pointer changes its form.



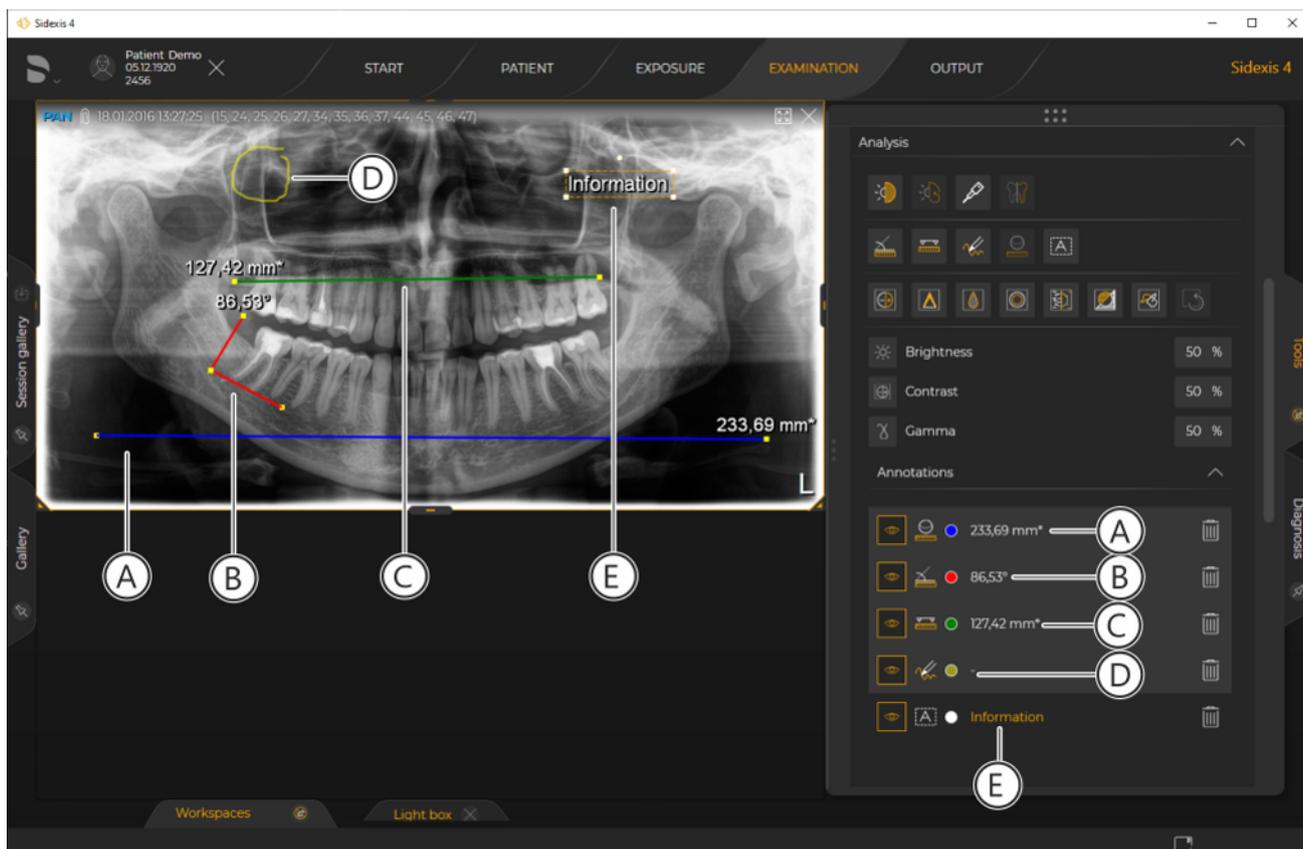
Measurement of bone density

↪ The bone density measured at the position of the mouse pointer is displayed "live" in a window (A).

10.7 Creating and editing remarks

In the "3D examination" work area, these function are not available for the panorama and 3D scenes.

Sidexis 4 offers various tools in the "Analysis" tool kit in the "Tools" docking window for creating and editing annotations.



Annotations

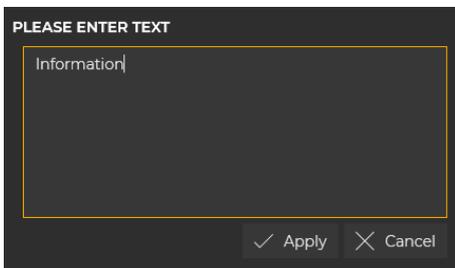
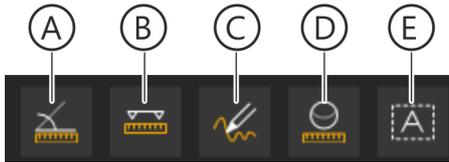
Reference length (A), angles (B), lengths (C), freehand annotations (D) and text (E) can be inserted as annotations in a 2D image or section view.

IMPORTANT

In the case of section views, the annotation is drawn in the current section plane and is therefore only visible in this section plane and in the sections adjacent to this section plane.

By double-clicking on the annotation in the "Annotations" tool kit, you can have the section plane in which the annotation has been drawn displayed in the media window again.

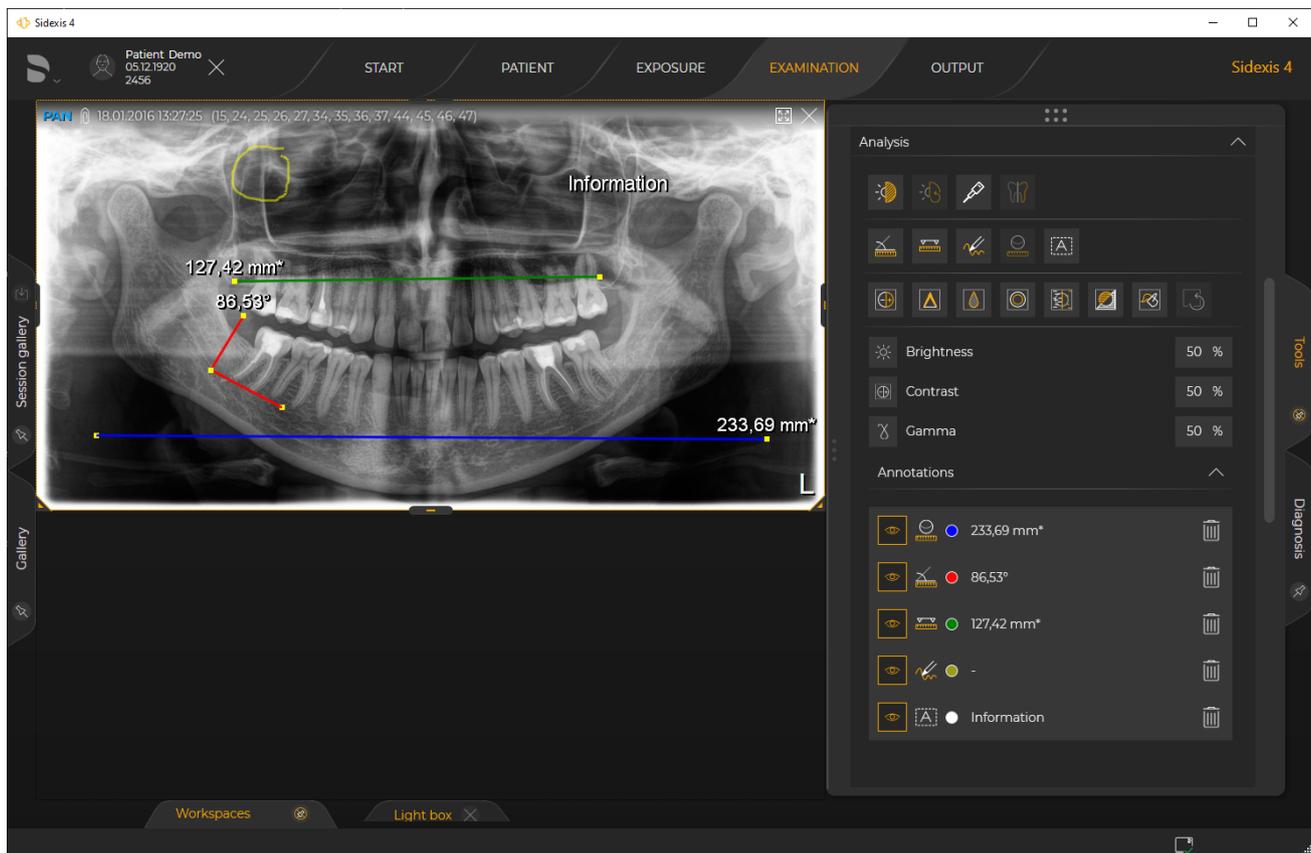
10.7.1 Creating remarks



1. Click on the button for the desired annotation in the "Analysis" tool kit of the "Tools" docking window.
 - A = Angle
 - B = Length
 - C = Freehand annotation
 - D = Reference length (not for volumes)
 - E = Text annotation

*"Freehand annotations" = free drawing with the mouse pointer
2. Place the mouse pointer over the desired media window.
 - ↳ The mouse pointer changes its form. Depending on the annotation selected, the mouse pointer looks somewhat differently (mouse pointer for angle annotation in this example).
3. Draw the annotation in the image:
 - The drawing in of angles and lengths is described in section "Performing measurements [→ 241]".
 - To draw in freehand annotations, press the left mouse button and drag the mouse pointer over the image in a desired line. To stop drawing, release the mouse button again.
4. Click on the image to insert text annotations.
 - ↳ A text box opens.
5. Enter the text in the text box and confirm the entry with the "Apply" button.

You can edit the text afterwards by double-clicking on the annotation in the image. The text annotations can also be increased or decreased in size and rotated (see section "Changing the size and orientation of text annotations [→ 260]").



Drawn in annotations

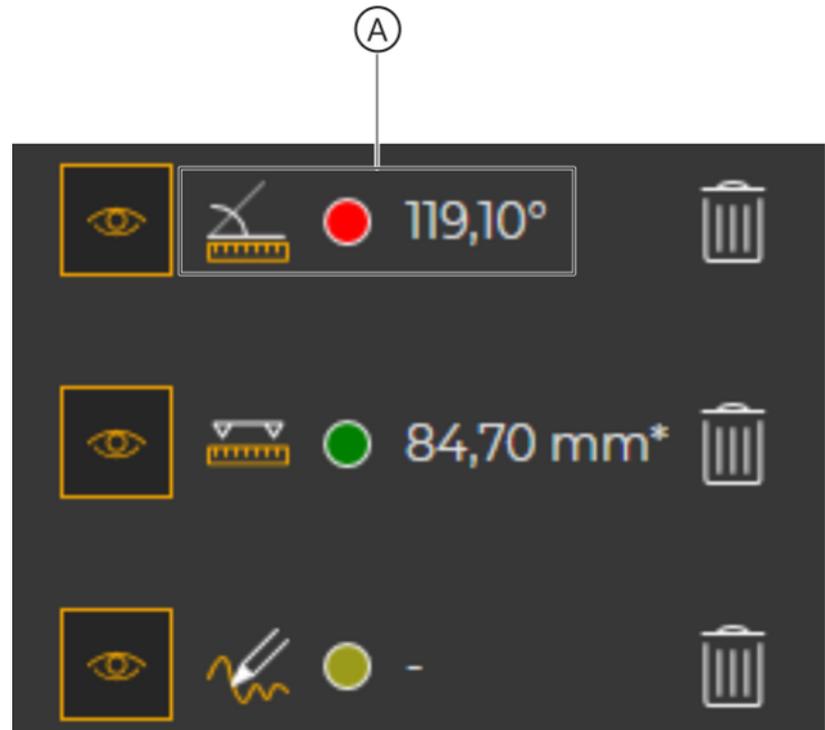
- ✎ The annotation is displayed with dimension and color and/or text in the "Annotations" tool kit.

If multiple angle or length annotations are drawn in an image, Sidexis 4 automatically displays these in different colors. To start with, freehand annotations always have the same color. Each annotation appears in the "Annotations" tool kit as a new line.

10.7.2 Retrieving notes in section views

In section views, annotations are always drawn in the currently displayed section plane, and the ones adjacent to it. When navigating through the section planes the annotations may thus no longer be visible.

To find annotations again in the section views, proceed as follows:



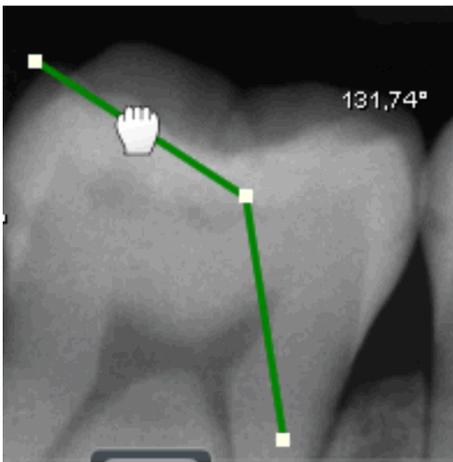
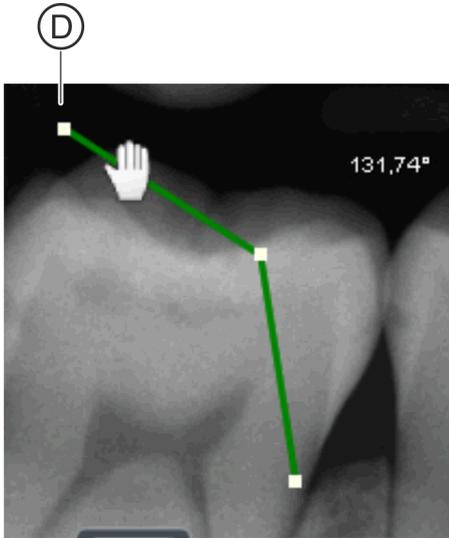
Finding annotations again

- > Double-click on the area (A) of the desired annotation in the "Annotations" tool kit.
 - ↳ The section plane with the corresponding annotation is displayed again in the media window.

10.7.3 Moving remarks

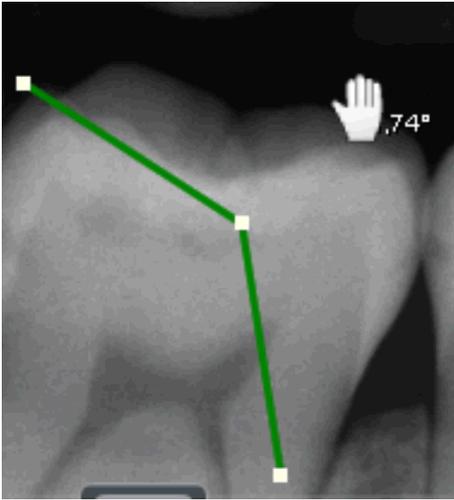
Freehand annotations cannot be moved.

1. Move the mouse pointer onto the annotation, but *not* onto the drag point (D) of a annotation.
↳ The mouse pointer changes its form.
2. Press the left mouse button.
↳ The mouse pointer changes its form.

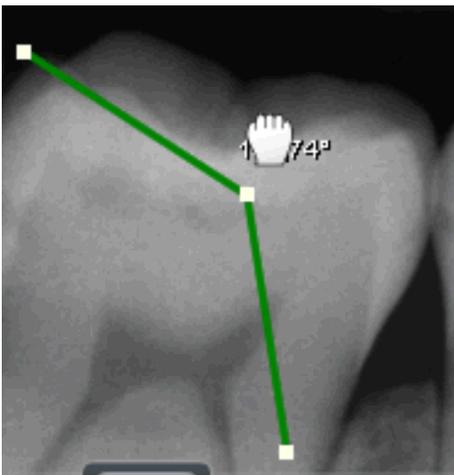


3. With the mouse button held down, move the mouse pointer to another position.
↳ The annotation with associated dimension display is moved to another position in the image.

10.7.4 Moving dimension indicators



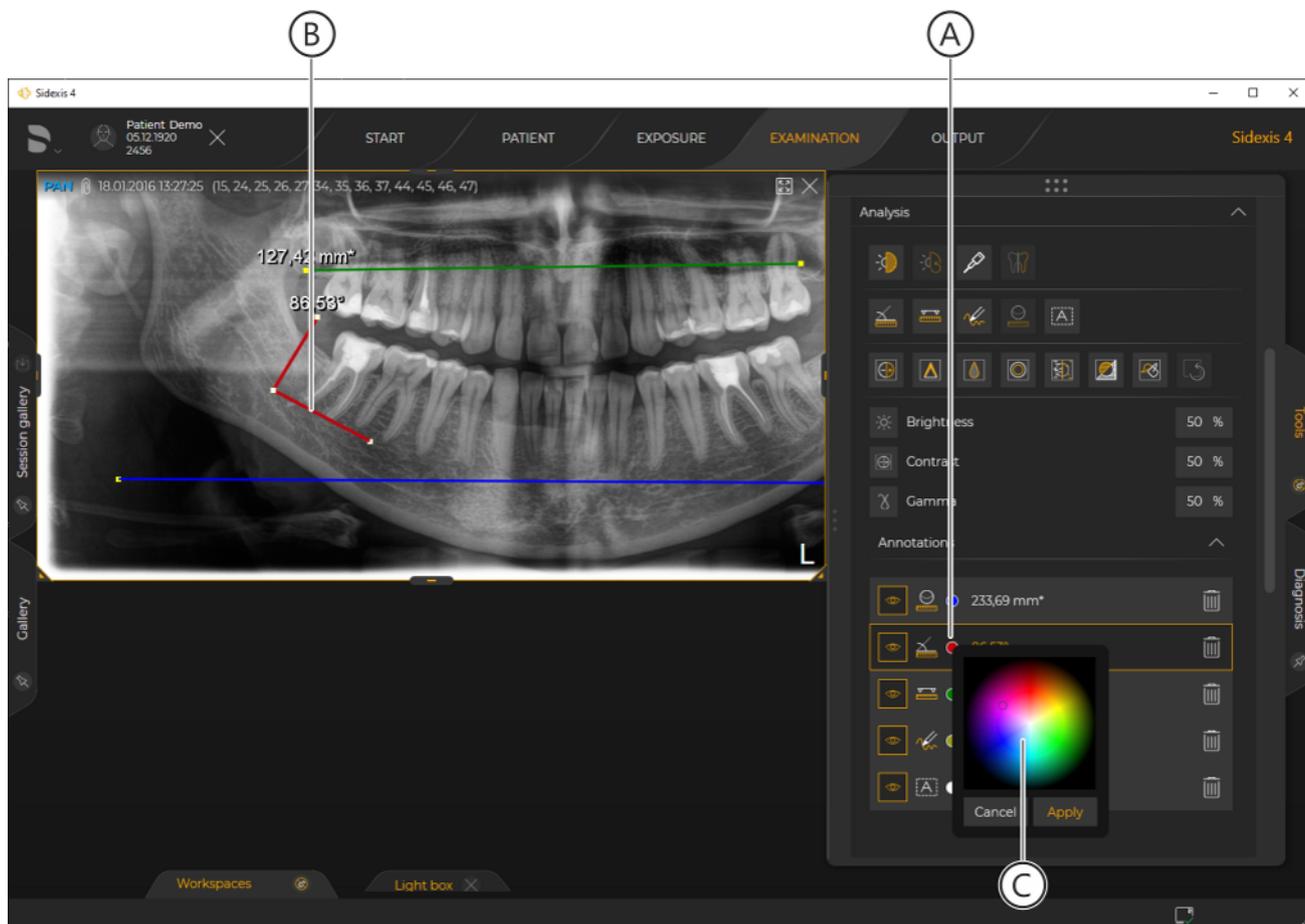
1. Move the mouse pointer onto the indicated dimension.
 - ↳ The mouse pointer changes its form.
2. Press the left mouse button.
 - ↳ The mouse pointer changes its form.



3. With the mouse button held down, move the mouse pointer to another position.
 - ↳ The dimension indicator is moved to another position in the image.
 - ↳ The actual remark stays in its original position.

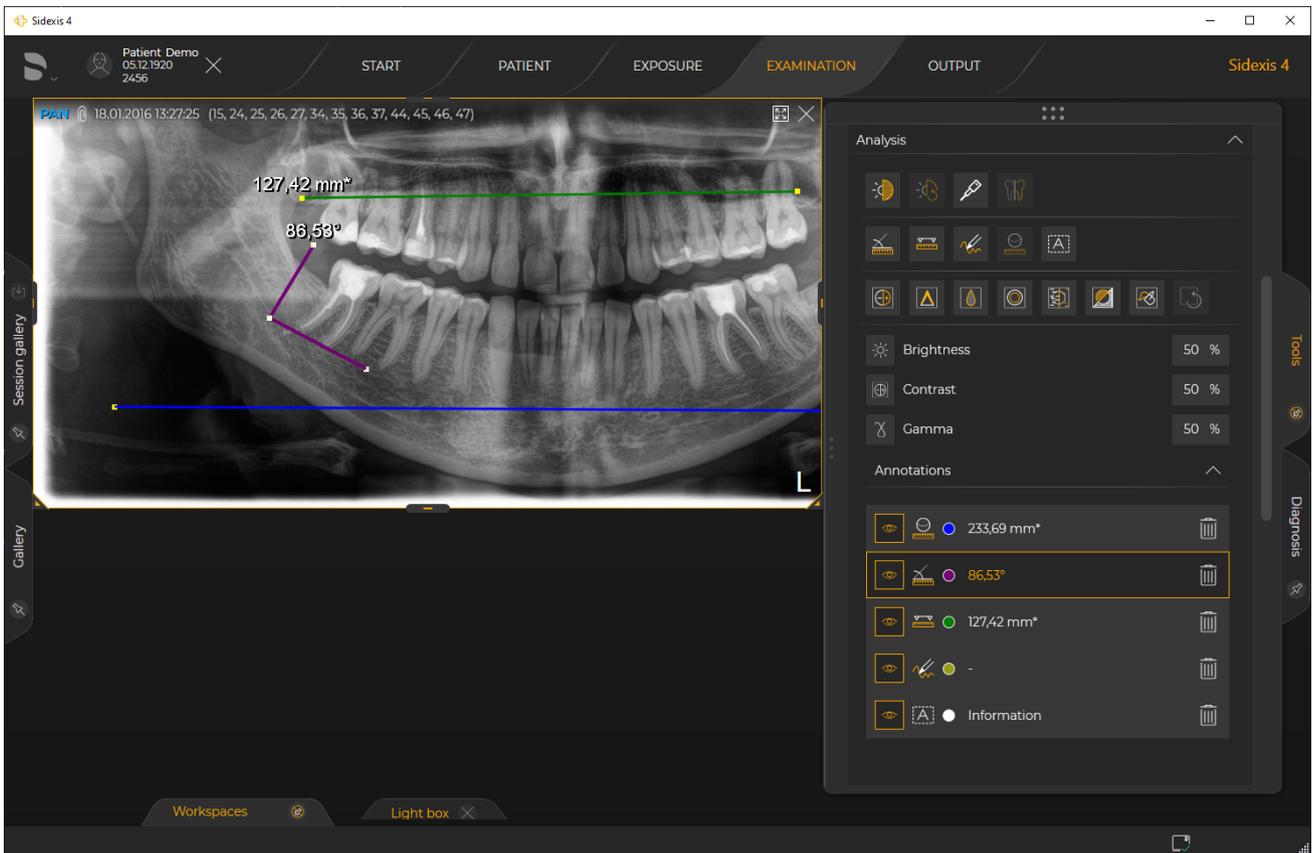
10.7.5 Changing the color of the remarks

1. In the "Annotations" tool kit, click on the color icon (A) of the annotation whose color you want to change.



Selecting color of annotation

- ↳ The relevant annotation is displayed "in bold" in the media window (B).
 - ↳ A menu for color selection (C) opens through the tool kit.
2. Click on the desired color and confirm the color selection by clicking on the "Apply" button.



Changed annotation color

↪ The color of the annotation changes.

10.7.6 Changing the size and orientation of text annotations

Changing size of text annotation



A



1. Select the text annotation.
2. Move the mouse pointer onto one of the white squares (A) in the corners of the text frame and press the left mouse button.

☞ The mouse pointer changes its form.

3. Keeping the mouse button pressed, drag the text frame to the desired size.

Changing orientation of text annotation



B

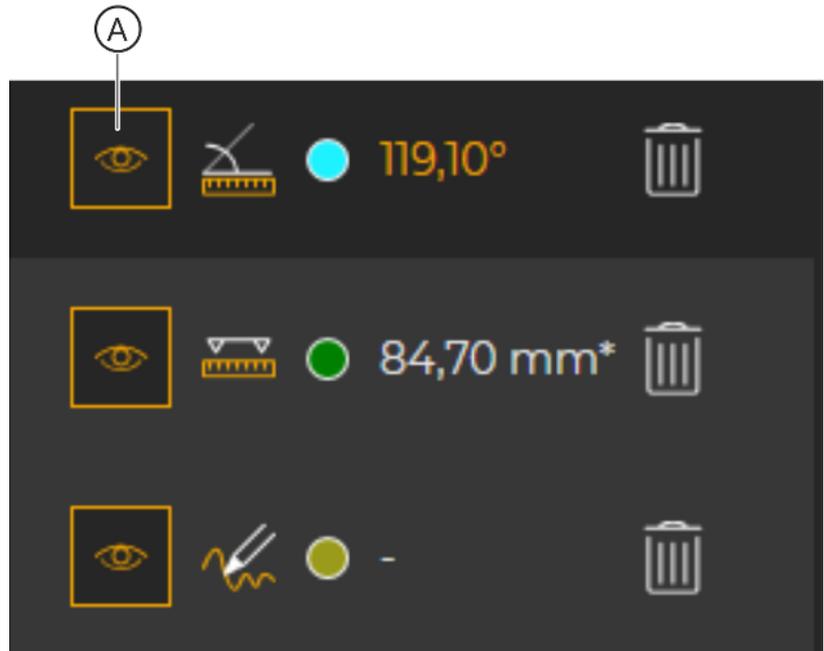


1. Select the text annotation.
2. Move the mouse pointer onto the white dot (B) above the text frame and press the left mouse button.

☞ The mouse pointer changes its form.

3. Keeping the mouse button pressed, move the cursor to the right or left and rotate the text clockwise or counterclockwise.

10.7.7 Showing/hiding remarks

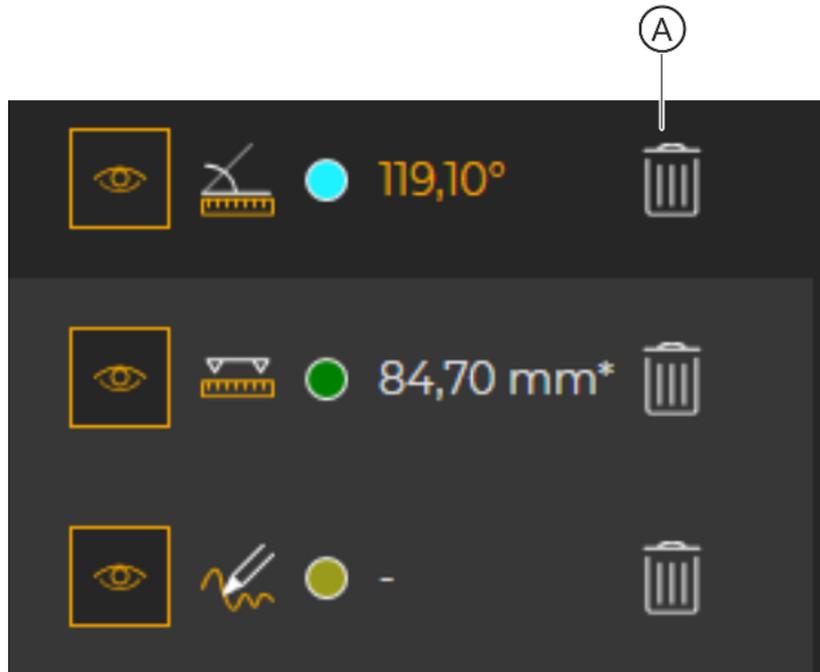


Hiding "Annotations"

1. In the "Annotations" tool kit, click on the icon (A) of the annotation that you want to hide.
 - ↳ The corresponding annotation is hidden.
 - ↳ The icon changes.
2. To show, click on the icon once again.
 - ↳ The annotation is displayed again.



10.7.8 Delete notes



Deleting "Annotations"



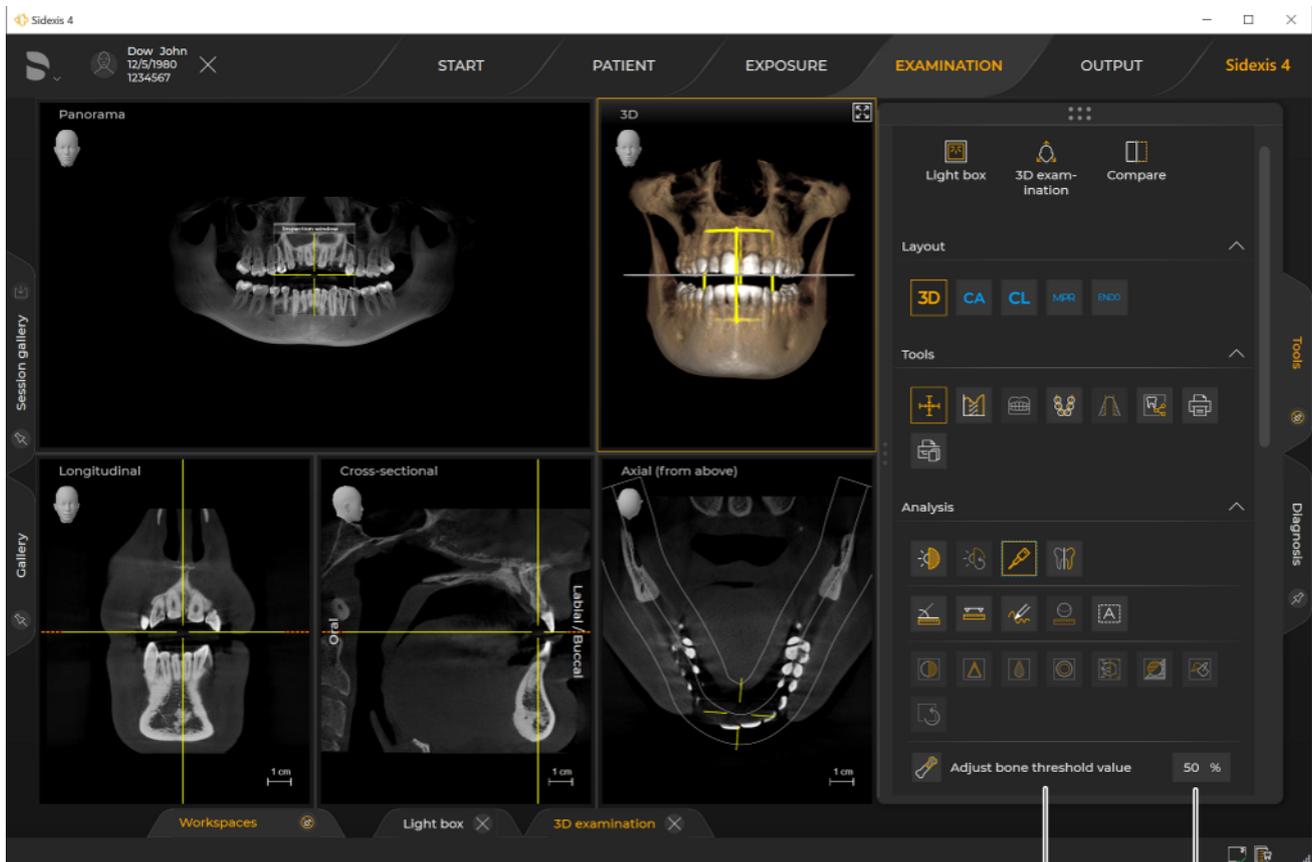
- > In the "Annotations" tool kit, click on the "Remove" button (A) of the annotation that you want to delete.
 - ↳ The corresponding annotation is deleted.

10.8 Optimizing the 3D image display

For CBCT exposures with or without FaceScan, the display can be optimized in the 3D scene. Various functions are available in the "Tools" docking window for this purpose.

10.8.1 Setting the bone threshold value

- ✓ The "Examination" work phase is open.
 - ✓ The "3D examination" work area is opened.
1. Select the 3D scene.

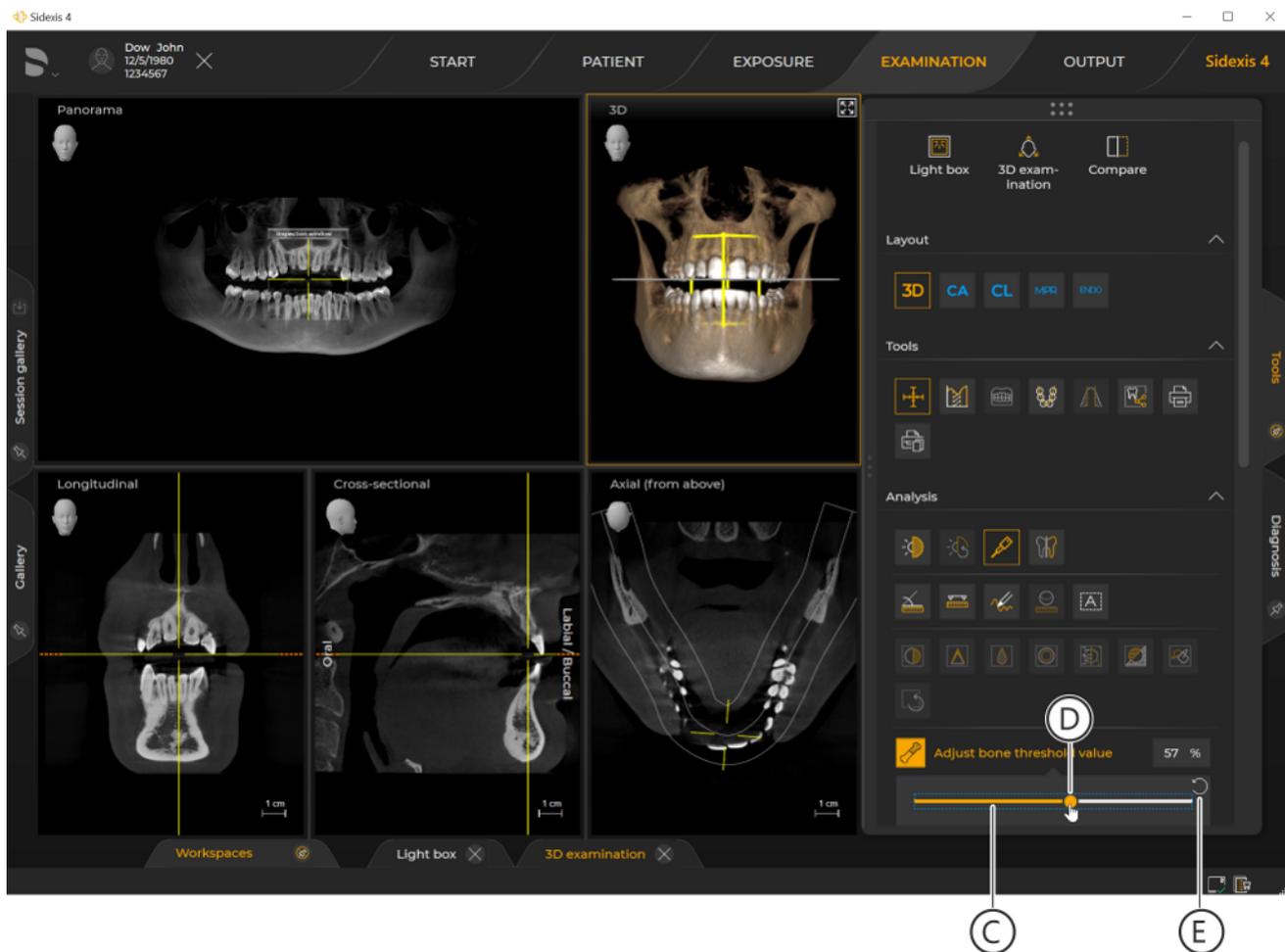


A

B

"Adjust bone threshold value" control

- ↪ The "Adjust bone threshold value" row (A) is displayed in the "Analysis" tool kit.
 - ↪ The currently set bone threshold value is displayed in the input field (B).
2. Click on the "Adjust bone threshold value" row.
 - ↪ The control is activated.
 - ↪ A slider (C) appears below the button.

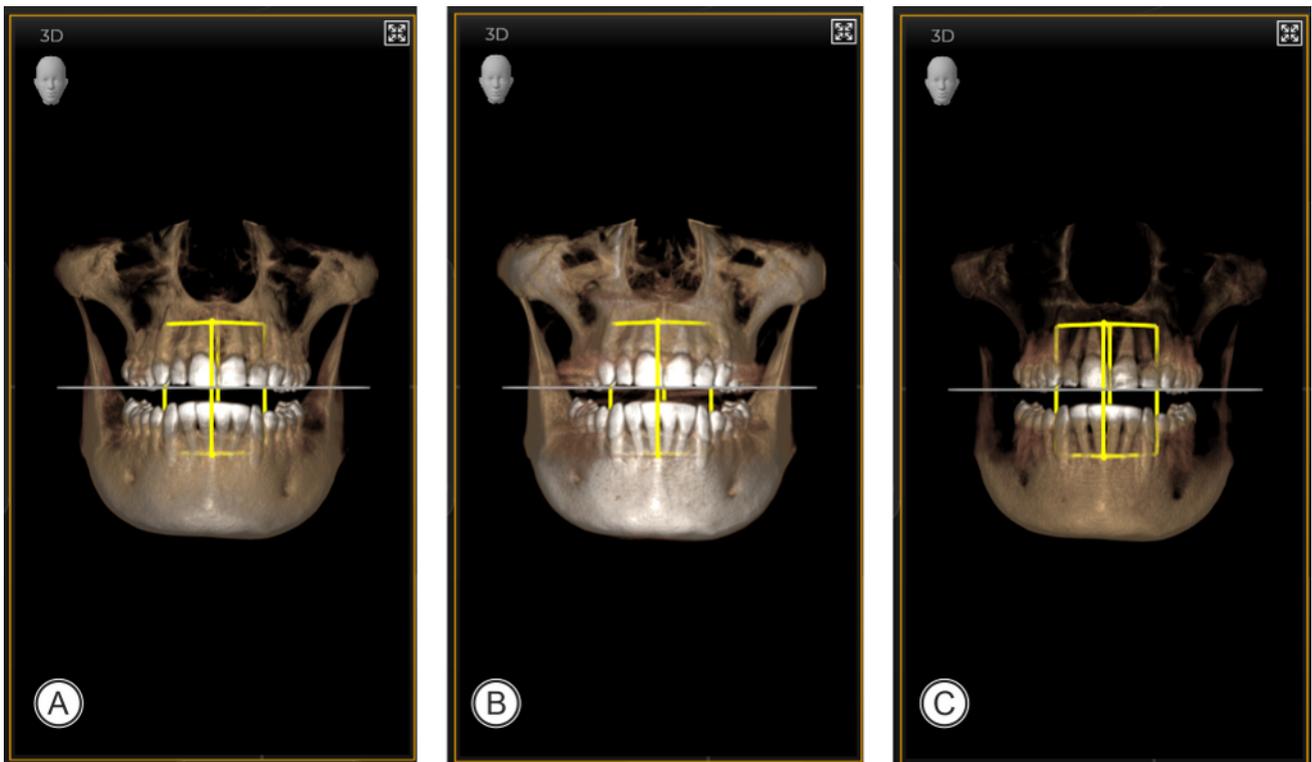


Setting the bone threshold value

3. Move the mouse pointer over the dot (A) on the slider, press and hold down the left mouse button and move the dot horizontally.

You can also enter the value directly in the input field (B) via the keyboard.

You can reset the changes again by clicking on the white reset arrow (E).



Example for setting the bone threshold value

A	50% (original)
B	75%
C	25%

↪ The adjustment value changes.

10.8.2 Transfer curve editor

This function is only available for a 3D scene.

In the *"Transfer curve editor"*, you can apply pre-configured or self-defined transfer curves to an opened volume.

In essence, a transfer curve determines how a volume is displayed. The transfer curve defines how transparent certain density area should be displayed in the volume and how they should be colored.

A typical application is to have the dense tooth material set completely opaque (white, for example), and to make the unimportant parts (skin, etc.) more transparent.

To use a transfer curve on an opened volume, please proceed as follows:

- ✓ The *"Examination"* work phase is open.
- ✓ The 3D scene (volume) is selected.

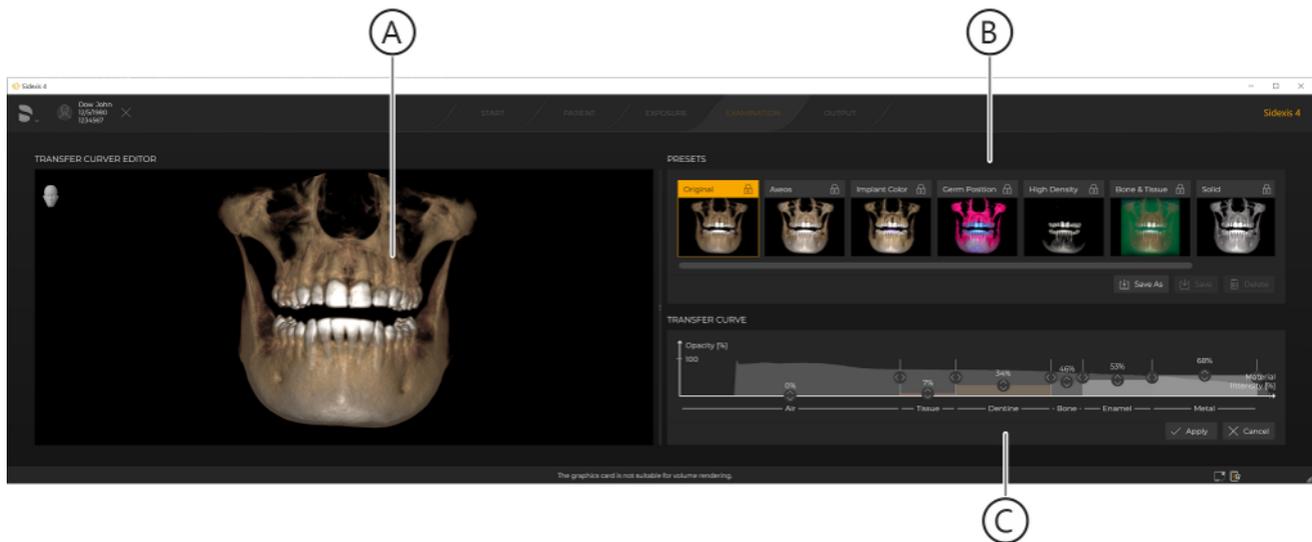


1. Click on the *"Adjust transfer curve"* button in the *"Tools"* tool kit of the *"Tools"* docking window.

or

- > Right-click over the 3D scene and select the *"Transfer curve editor"* function in the context menu.

- ↳ The *"Transfer curve editor"* opens.
- ↳ A preview image (A) is displayed.



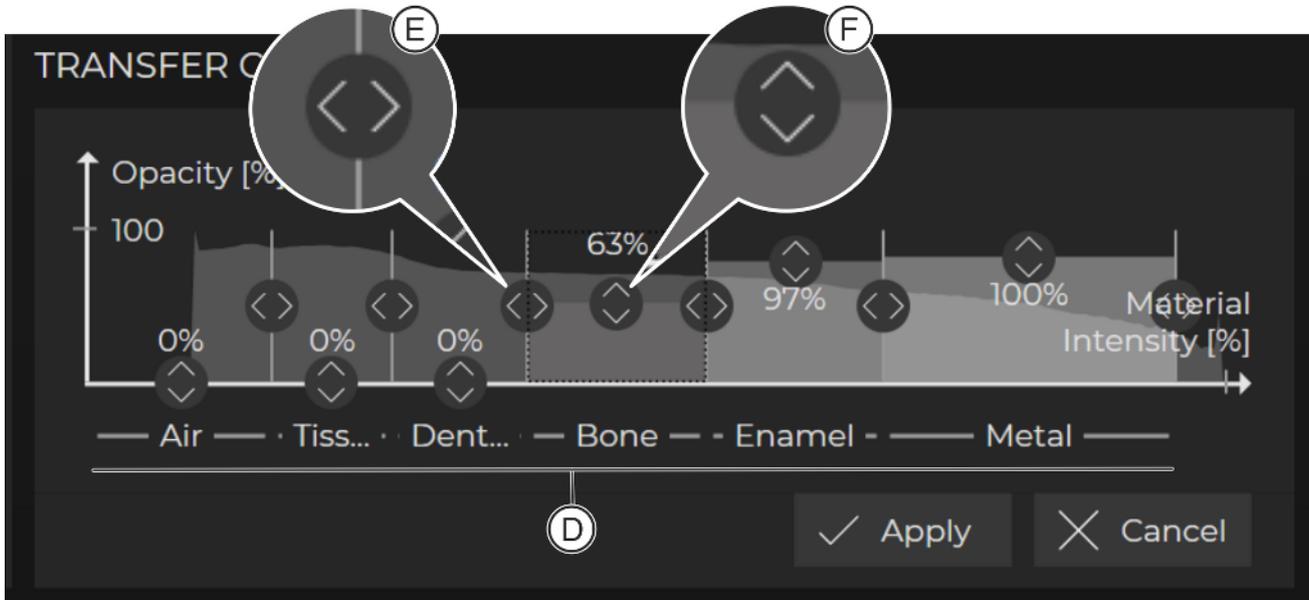
"Transfer curve editor"

2. Select the desired preset for the transfer curve by clicking on an image in the "Presets" menu area (B):
 - ↳ The selected transfer curve is applied to the preview image.
 - ↳ The settings of the transfer curve are displayed in the "Transfer curve" menu area (C).
3. *If necessary:*
Adapt the pre-selected transfer curve to your requirements.
Tip: You can save the adapted "Transfer curve" as a new preset. Detailed information on adapting and saving a "Transfer curve" can be found in the section "Adapting transfer curves [→ 268]".
4. Click the "Apply" button to apply the currently selected "Transfer curve" to the 3D scene.
 - ↳ The "Transfer curve" is applied to the 3D scene.
 - ↳ The "Transfer curve editor" closes and the modified 3D scene is displayed in the work area of the "Examination" work phase.

10.8.2.1 Adapting transfer curves

The transfer curve contains the following materials (D):

- Air
- Tissue
- Dentin
- Bone
- Enamel
- Metal



Transfer curve

Using the sliders (E + F), you can adapt the material intensity and opacity of every material individually to your requirements.

By changing the **material intensity**, you can shift the density areas assigned to the respective material. It is therefore possible, for example, to define all bone parts in the volume to the bone area. The same can be done with all other areas.

This is actually best visible using air as an example. The volume does not only contain tissue, bone, etc. but also air, too. Were air to be set to full opacity, then you would simply only ever see one block. For this reason, the air area is fully transparent by default. With the air slider, you can therefore set the point from which you can identify tissue in the volume instead of air.

Opacity is the opposite of transparency. Full transparency would mean an opacity of 0%. Full opacity means the respective density areas appear completely solid, thus letting through no light at all. Material opacity is one of the most important settings options, because you can use it to configure how easily visible certain density areas (materials) are, meaning solid or transparent or completely invisible.

- Changing material intensity**
1. Move the mouse pointer onto a slider (E).
 2. Press the left mouse button and move the slider in a horizontal direction.
 3. Perform this action, if necessary, for all materials in order to set the material intensity optimally for the various materials.
 - ↳ The changes are displayed immediately in the preview image (A).
- Changing material opacity**
1. Move the mouse pointer onto a slider (F).
 2. Press the left mouse button and move the slider in a vertical direction.
 3. Perform this action, if necessary, for all materials, to set the material opacity optimally for the various materials.
 - ↳ The opacity of the materials is displayed in the transfer curve in %.
 - ↳ The changes are displayed immediately in the preview image (A).
- Saving transfer curve**
- The standard transfer curves "Original", "Color", "Patient Mode", and "Implant" cannot be overwritten.
- You can save an adapted transfer curve under a new name in the presets:
1. To do this, click on the "Save as" button in the "Presets" menu area.
 - ↳ A dialog box opens.
 2. Enter the desired name for the new preset in the input field of the dialog box and then click on the "Apply" button.
 - ↳ The new preset is displayed in the "Presets" menu area.

10.9 Adjust external volume

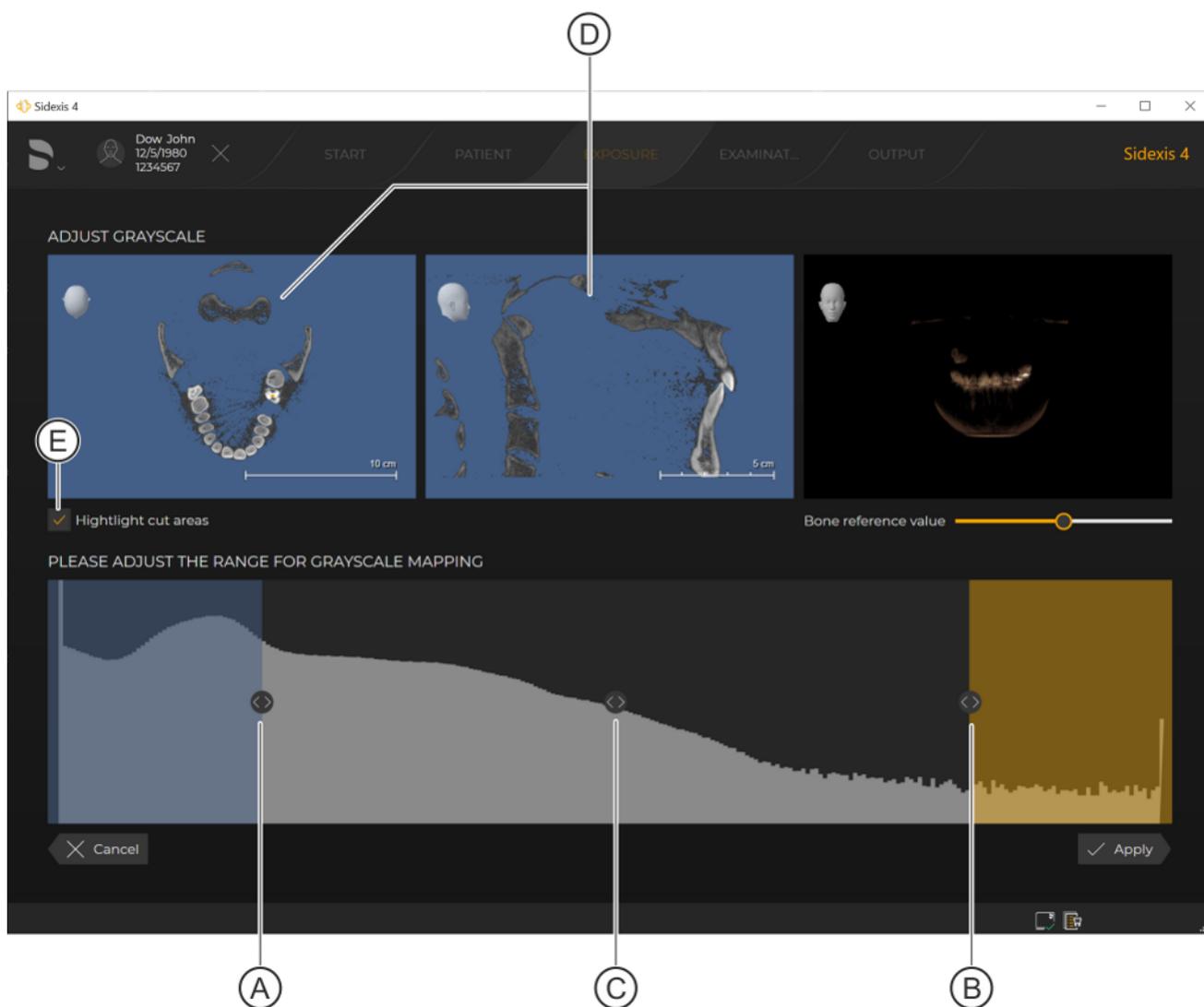
External volumes are data records that originate from 3rd party manufacturers.

You can adjust the gray value distribution and the bone reference value of a third-party volume using the Gray Scale Editor of the "Tools" tool kit.

> Click on the "Gray Scale Editor" button to open the editor.



10.9.1 Setting the gray value distribution



Setting the gray value distribution

1. Set the value range for the gray value distribution.
To do this, move the mouse pointer over the arrow symbol (A or B), press and hold the left mouse button and move the arrow. Similarly,

you can also move the entire value range to the middle of the value range using the arrow symbol (C).

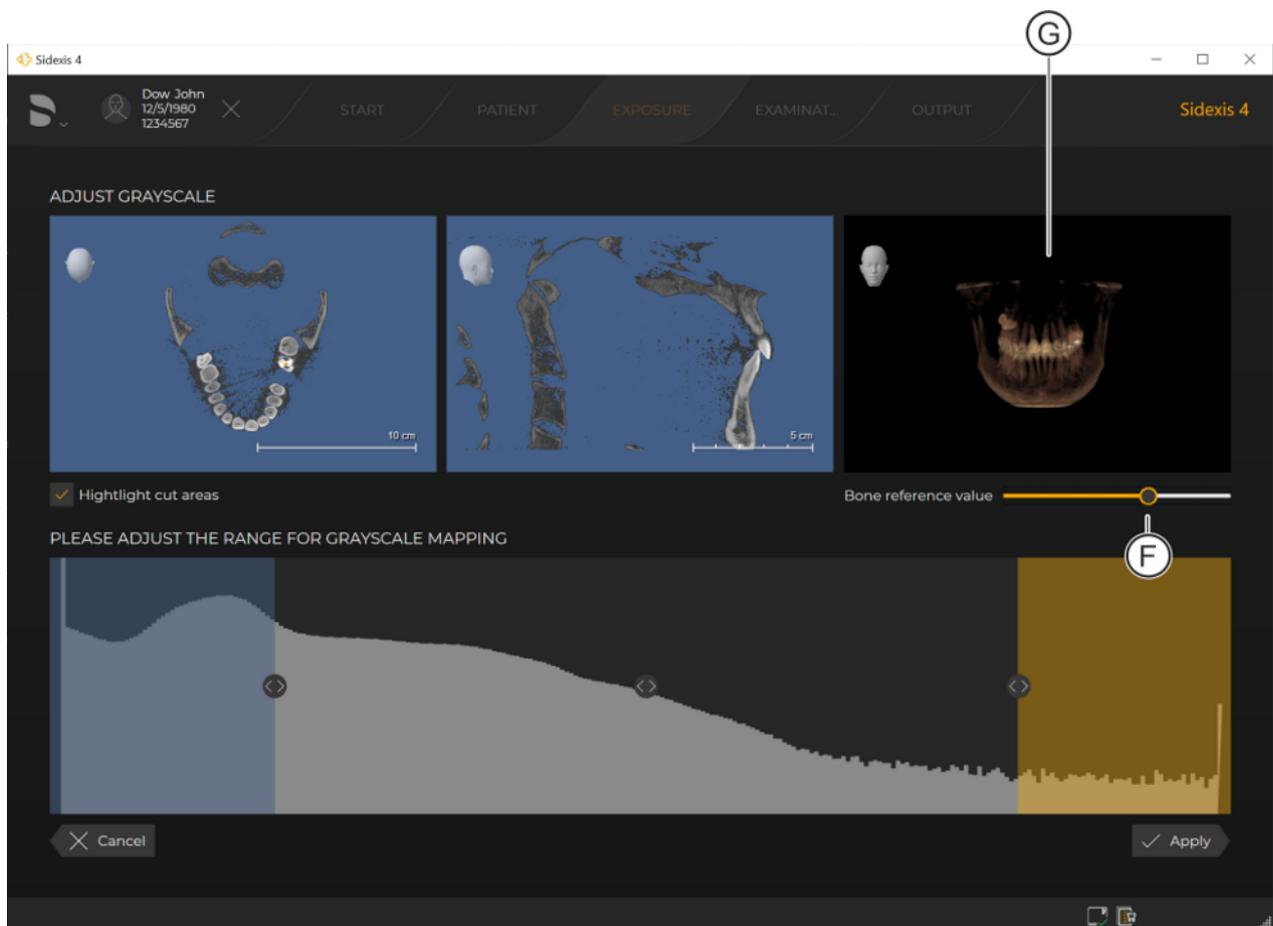
↳ Adjustment of the value range can be checked on the thumbnail images (D).

↳ To highlight the cut areas in color, the check box (E) must be selected.

2. Click on the "Apply" button.

↳ The change is saved.

10.9.2 Set the bone reference value



Setting bone reference value

1. Set the bone reference value.

To do this, move the mouse pointer over the dot (F) on the slider, press and hold down the left mouse button and move the dot horizontally.

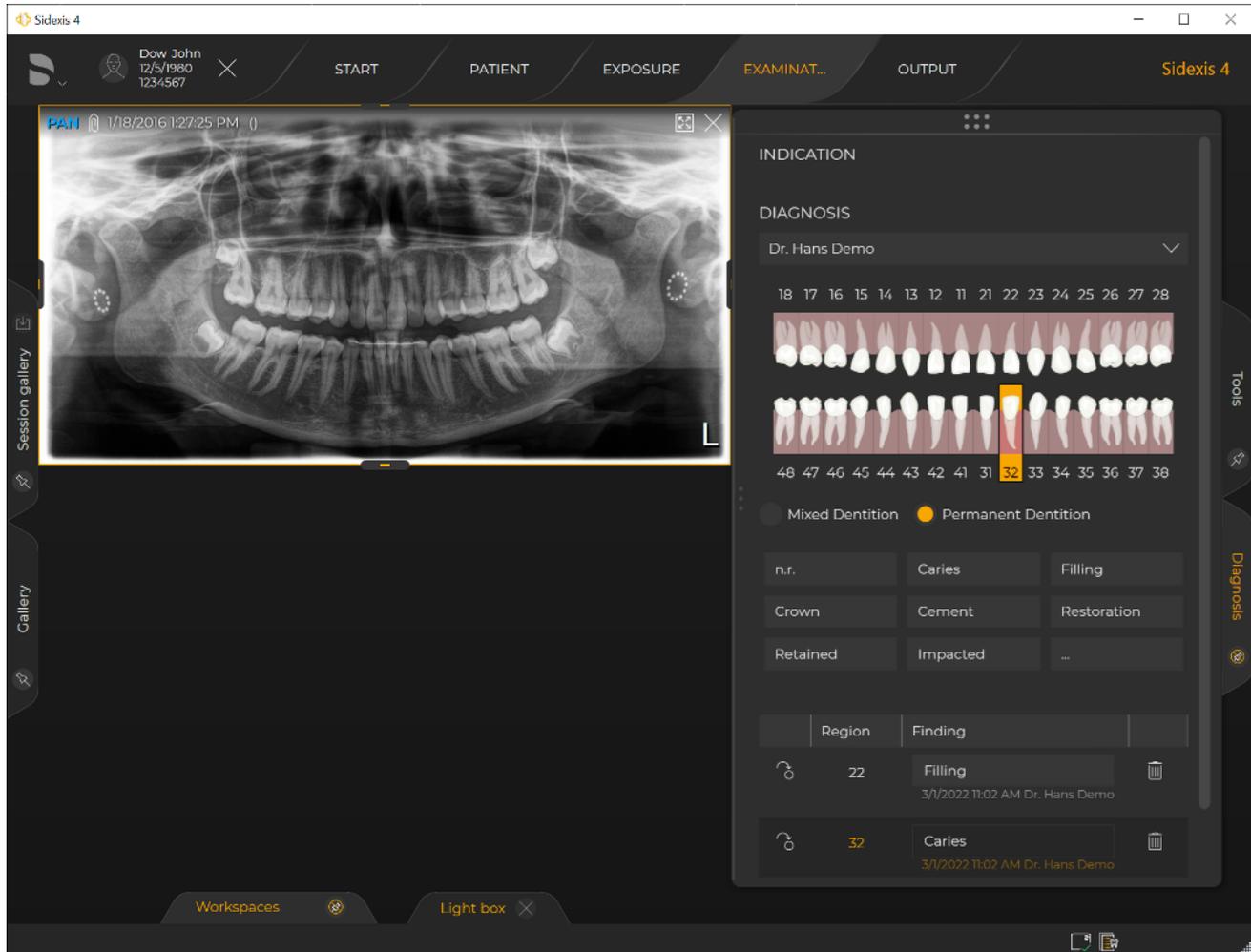
↳ Adjustment of the bone reference value can be checked on the thumbnail image (G).

2. Click on the "Apply" button.

↳ The change is saved. The adjusted bone reference value is adopted as the zero reference (50%) for the setting of the bone threshold value (see section "Analysis and diagnosis ⇒ Optimizing the 3D image display ⇒ Setting the bone threshold value").

10.10 Documenting findings

The "Diagnosis" docking window is available in the "Examination" work phase in Sidexis 4 for documenting findings.



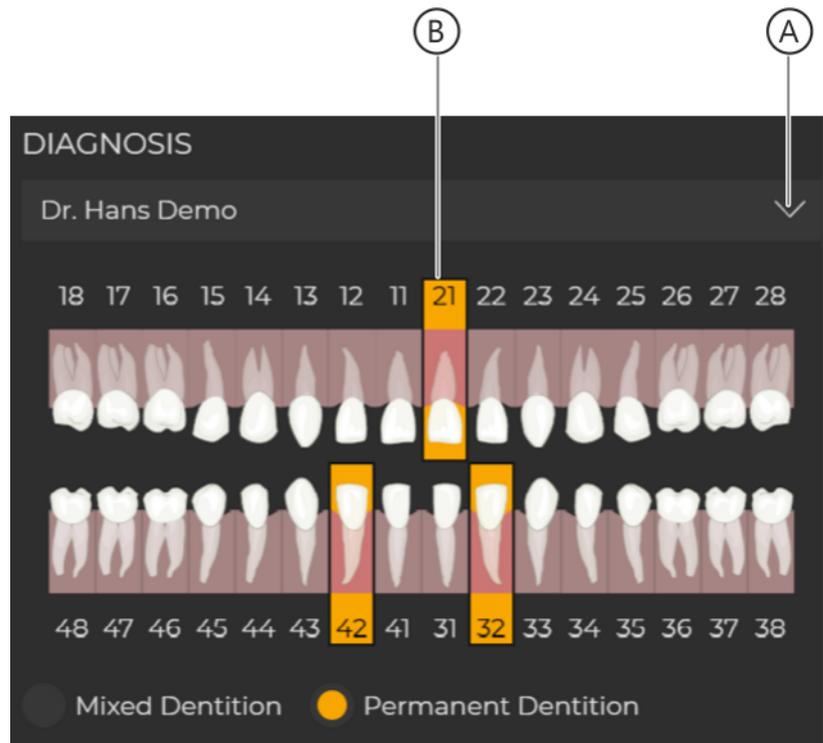
Documenting findings

All findings from the analysis of image data can be documented in the "Diagnosis" docking window.

10.10.1 Creating a new diagnosis

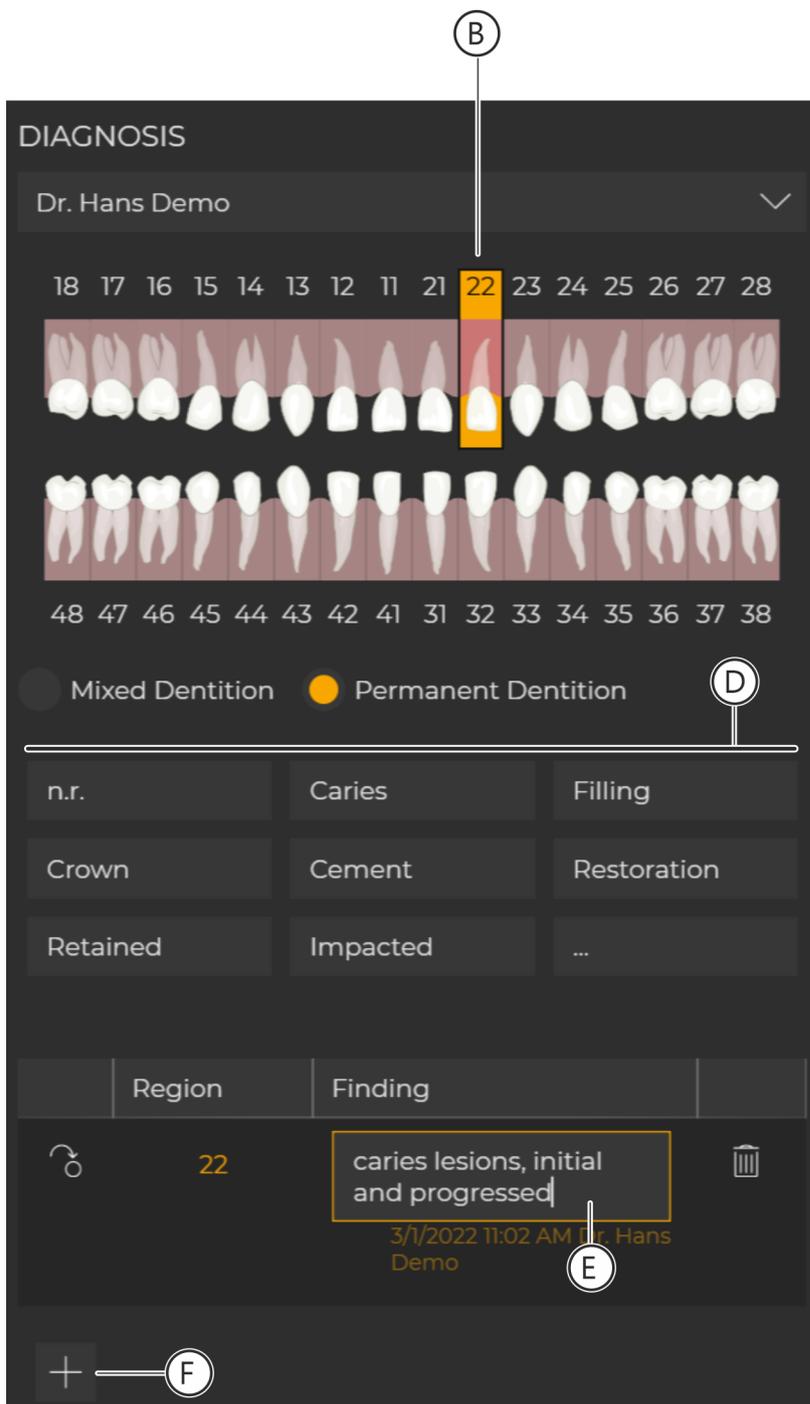
- ✓ The "Examination" work phase is open.
 - ✓ A media item is open.
1. Show the docking window permanently by clicking on the "Diagnosis" tab and then on the pin icon (C) in the tab.
 - ↳ The "Diagnosis" docking window is shown permanently.
 2. Select the dentist in the drop-down list (A).

NOTE: If a user has been entered as the default user for all stations in the "General settings" ⇒ "User" configuration menu, this user is preselected as the default dentist in the drop-down list (A).



Selecting the dentist and region

3. In the dental chart (B), click on the teeth to which the first diagnosis is to apply.
 - ↳ The selected teeth are framed orange.



Entering diagnosis

4. Click on one or several of the buttons (D) corresponding to the diagnosis for the selected teeth.
 Standard diagnosis texts are automatically entered into the "Finding" input field (E) of the diagnosis list using these buttons.
- or
- > Enter the diagnosis directly into the "Finding" input field (E) in the diagnosis list using the keyboard.

- ↪ The diagnosis texts are assigned to the selected teeth or region.

IMPORTANT

Additional diagnosis texts

You can open a selection menu for additional diagnosis texts using the button with the three dots.

5. If you require an additional line in the diagnosis list, click on the "Add" button (F).
 - ↪ The diagnosis list is expanded by one line.
- ↪ All entered diagnoses are saved with the media item. Media items with diagnoses are marked with a "paper clip" in the "Gallery" of the "Timeline", and in the title bar of the corresponding media window.



10.11 Parallel working on multiple stations

Opening and processing the same session/media item in parallel on multiple workstations is possible with Sidexis 4.

Functionality may be limited in such cases, however.

In the following table, you can see a few examples of how you might use multi-operation in your practice:

Action on work station 1	Effect on work station 2
"Image title", "Anatomic region" or "Area dose product" are changed on workstation 1 in the "About" tool kit.	The modified media information is automatically updated on workstation 2.
Raw data is deleted from workstation 1.	The opened media item remains opened on workstation 2. Only after checkout of the patient and registration of the patient again does the action performed on workstation 1 become visible.
Diagnostic results are created, changed, or deleted on workstation 1.	The "Diagnosis" docking window is updated immediately on workstation 2.
A session is renamed on workstation 1.	The "Session gallery" docking window and the "Timeline" are updated immediately on workstation 2.
A media item is hidden, rotated, or flipped on workstation 1.	The opened media item remains opened and unchanged on workstation 2. Only after checkout of the patient and reopening of the media item or the session do the actions performed on workstation 1 become visible.
A session is open on workstation 1.	The session can only be saved under a new name.
The panoramic curve is edited on workstation 1, the grayscale display is adjusted for a third-party volume or a position correction is made for a volume.	The adjustments and corrections made on workstation 1 only become visible after checkout of the patient and reopening of the media item or session.
A media item is open on workstation 1.	<p>The display "Latest exposures" and "Latest session" are updated immediately on workstation 2.</p> <p>The following actions are blocked on the workstation if the same media item is opened on workstation 1:</p> <ul style="list-style-type: none"> • Media item deletion or moving it to another patient • Session deletion • Replacing exposures or exposure series, and repeating individual exposures of an exposure series
A panoramic exposure is open on workstation 1 in the "Orthophos SL Panorama editor".	Parallel opening of the panoramic exposure in the "Orthophos SL Panorama editor" on workstation 2 is not possible.
A volume is open on workstation 1 in GALILEOS Implant or in SICAT Suite.	Parallel opening of the volume in GALILEOS Implant or in SICAT Suite on workstation 2 is not possible.

11 "Managing patient data"

If you work with central "Practice Administration Software" (PAS) in your practice, patient data is primarily administered and maintained via PAS. With every X-ray order arriving from the PAS, Sidexis 4 makes a copy of the patient data record associated with it and puts it into the Sidexis 4 database and thus also the patient table.

In Sidexis 4, you can create further patients at any time.

In connection with a central PAS, the following should be noted:

- Patients created via the PAS (i.e. who have an external "Card ID") cannot be edited in Sidexis 4.
- If you are creating patients with an internal card ID number from new via Sidexis 4 and your practice has a PAS, the "Report internal patient ID if external ID is missing" check box must be checked in the "Communication partners" configuration menu, as otherwise duplicated entries may occur in the patient list.

The patient's image data (e.g. X-ray exposures) are managed in the Sidexis 4 database. Access to the image data is, however, also possible through the PAS.

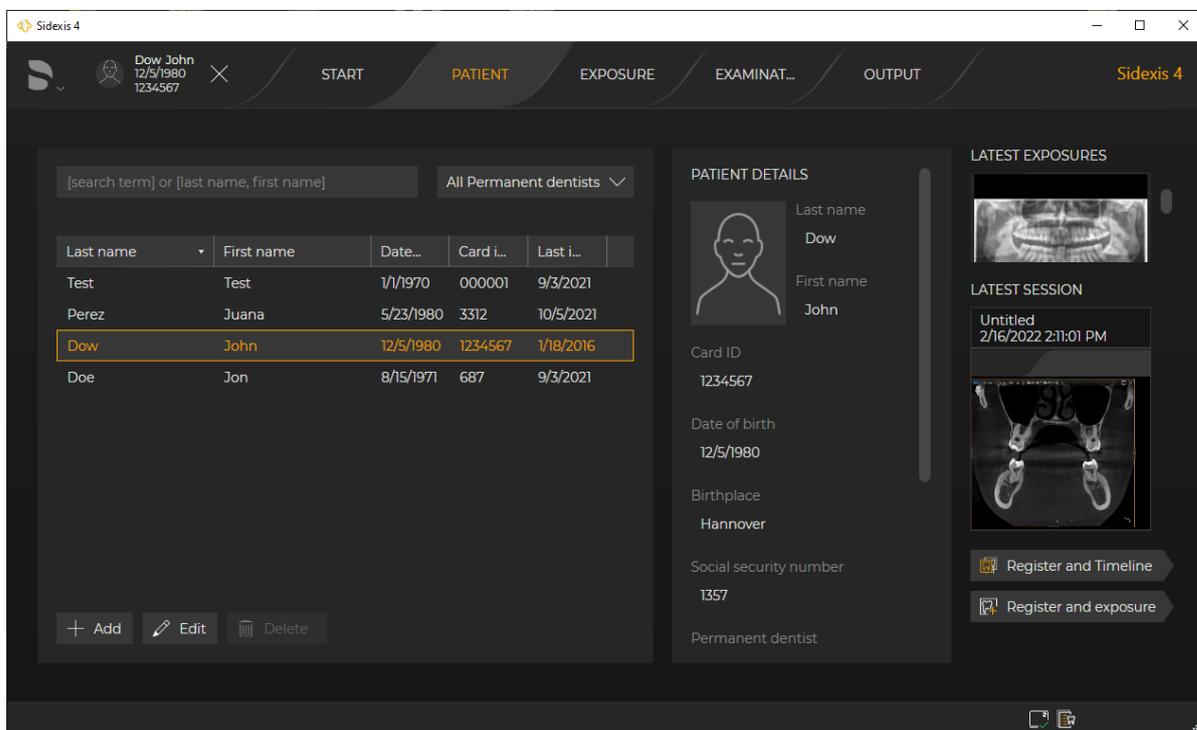
The administration of patient data is managed in Sidexis 4 in the "Patient" work phase.

Calling up "Patient" work phase



To change to the "Patient" work phase, proceed as follows:

- > Click on the "Patient" button in the phase bar.

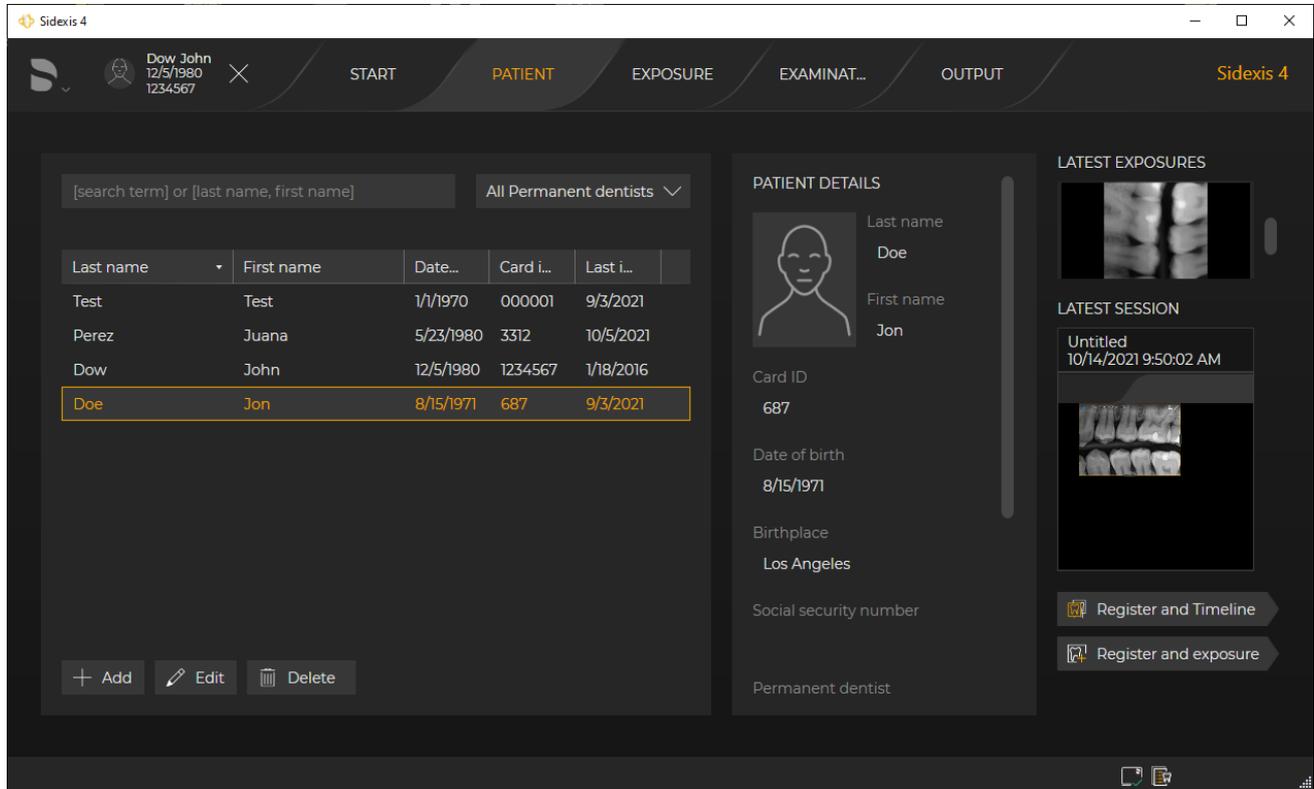


"Patient" work phase

👉 The "Patient" work phase opens.

11.1 Working with the patient table

The patient table shows you all the patients whose data has been imported from the PAS (if available) or created by you in Sidexis 4.

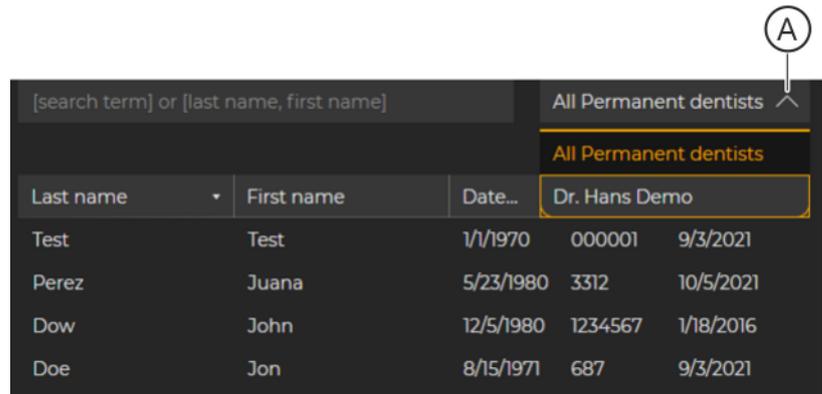


Patient table

11.1.1 Displaying patients according to dentist

You can have all the patients displayed in the patient table, or just the patients of a particular dentist.

1. To display all patients, select "All Permanent dentists" in the drop-down list (A).



The screenshot shows a patient table interface. At the top, there is a search bar with the placeholder text "[search term] or [last name, first name]". To the right of the search bar is a dropdown menu currently set to "All Permanent dentists". A callout bubble labeled 'A' points to this dropdown. Below the search bar, the table has columns for "Last name", "First name", "Date...", and two columns of patient data. The table contains the following rows:

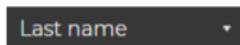
Last name	First name	Date...		
Test	Test	1/1/1970	000001	9/3/2021
Perez	Juana	5/23/1980	3312	10/5/2021
Dow	John	12/5/1980	1234567	1/18/2016
Doe	Jon	8/15/1971	687	9/3/2021

Filtering patient tables by permanent dentist

- ↳ The patients of all dentists saved in Sidexis 4 are displayed in the table.
2. To display the patients of just one particular dentist, select that dentist in the drop-down list (A).

11.1.2 Sorting a patient table

You can sort the patient table according to the terms in the header line; e.g. "Last name".



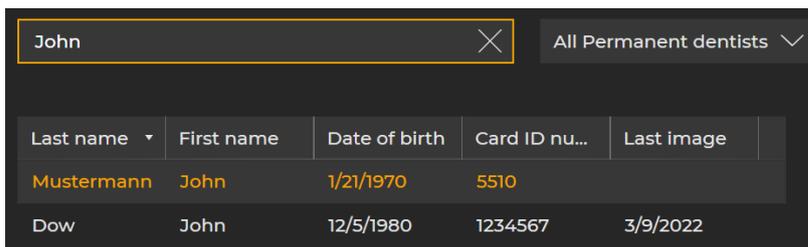
1. Click on the relevant term in the table header (e.g. "Last name").
 - ↳ The table is sorted accordingly.
 - ↳ A small arrow point is displayed in the header next to the term. This indicates the sorting direction (upwards or downwards).
2. By clicking on the same term again, you can change the sorting direction around.

11.1.3 Free text search in the patient table

You can search for text and numerical order in the patient table.

- > Enter the search term in the input field on the left above the patient table.

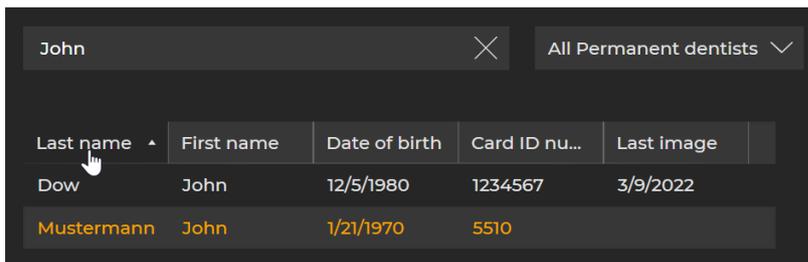
Example: "John"



Last name ▾	First name	Date of birth	Card ID nu...	Last image
Mustermann	John	1/21/1970	5510	
Dow	John	12/5/1980	1234567	3/9/2022

Free text search in the patient table

- ↪ The search result is displayed in the patient table.
Example: All patients whose first or last name is "John" are displayed.



Last name ▾	First name	Date of birth	Card ID nu...	Last image
Dow	John	12/5/1980	1234567	3/9/2022
Mustermann	John	1/21/1970	5510	

Search result sorted by "Last name"

Tip: After the search, sort the patient table by the "Last name" or "First name" column, depending on whether you searched for "John" as a first name or last name (see also section "Sorting a patient table [→ 279]").

Icon search assistance

You can also enter individual letters or wildcards alone into the entry field. The corresponding hits are always displayed in the patient table. "?" can be entered as a wildcard for an individual letter, while "*" can be entered for more than one letter. If a name is not entered in full, e.g. "Jo", the software treats the name as if a "*" had been added to the end of it.

11.2 Create a new patient

You can create new patients using the Sidexis 4 *"Patient editor"*.

IMPORTANT

If you are creating patients with an internal card ID number from new via Sidexis 4 and your practice has a PAS, the *"Report internal patient ID if external ID is missing"* check box must be checked in the *"Communication partners"* configuration menu, as otherwise duplicated entries may occur in the patient list.

PATIENT EDITOR

 Last name *
Dow

First name *
John

Card ID *
1234567

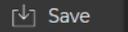
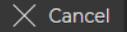
Date of birth *
12/5/1980 

Birthplace
Hannover

Social security number
1357

Permanent dentist
Dr. Hans Demo 

Gender
 Male Female Unknown

 Save  Cancel

"Patient editor"

Input fields	Entry
"Last name" (mandatory field)	Surname
"First name" (mandatory field)	First name
"Birth date"* (mandatory field)	Date of birth
"Card ID"* (mandatory field)	Internal card ID number
"Birthplace"	Birthplace
"Social security number"	Social security number

* The "Birth date" or "Card ID" entry field must be completed.

Option button	Option button activated
"Male"	Gender
"Female"	
"Untitled"	
Drop-down list	Function
"Permanent dentist"	Selection of the permanent dentist

✓ The "Patient" work phase is open.

1. Click on the "Add" button.

↳ The "Patient editor" opens.

2. Enter the data for the new patient in the entry fields in the editor.

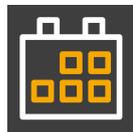
Tip: You can also select the date of birth by clicking on the calendar button and selecting the date from the calendar.

↳ Once you have filled in the mandatory fields, the "Save" button becomes active.

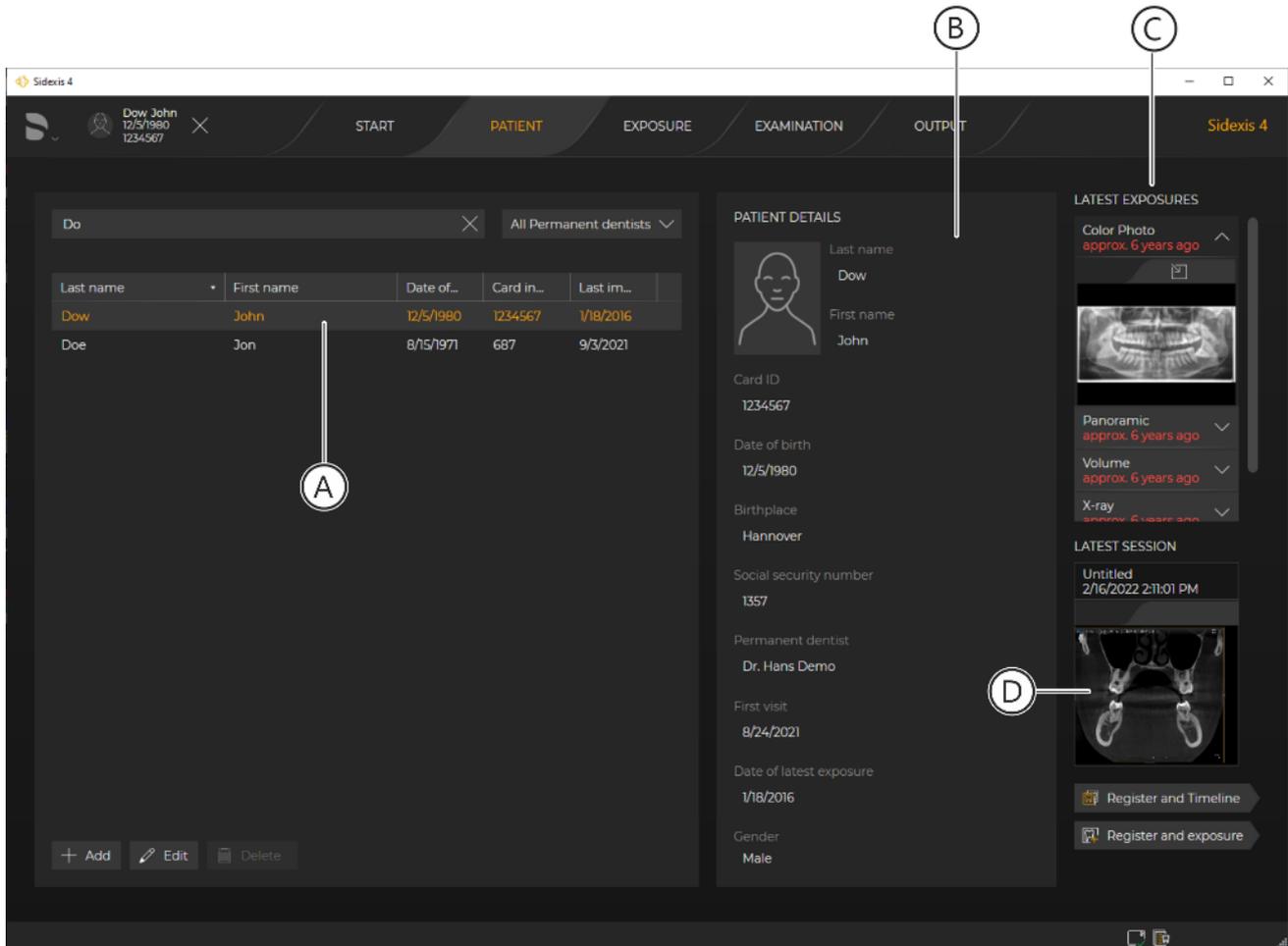
3. *Optional:* Select the gender of the new patient using the option buttons and select a permanent dentist in the drop-down list.

4. Click on the "Save" button.

↳ The new data record is created.



11.3 Displaying patient details



Displaying patient details

- > Click the row of the patient you are looking for (A) in the patient table.
 - ↳ The patient's data is displayed in detail (B) next to the patient table.
 - ↳ Additionally, the last exposures (of each image type) of the patient (C) and their last patient session (D) are displayed. These are opened by double clicking on the last exposures or the last patient session.

11.4 Editing patient details

CAUTION

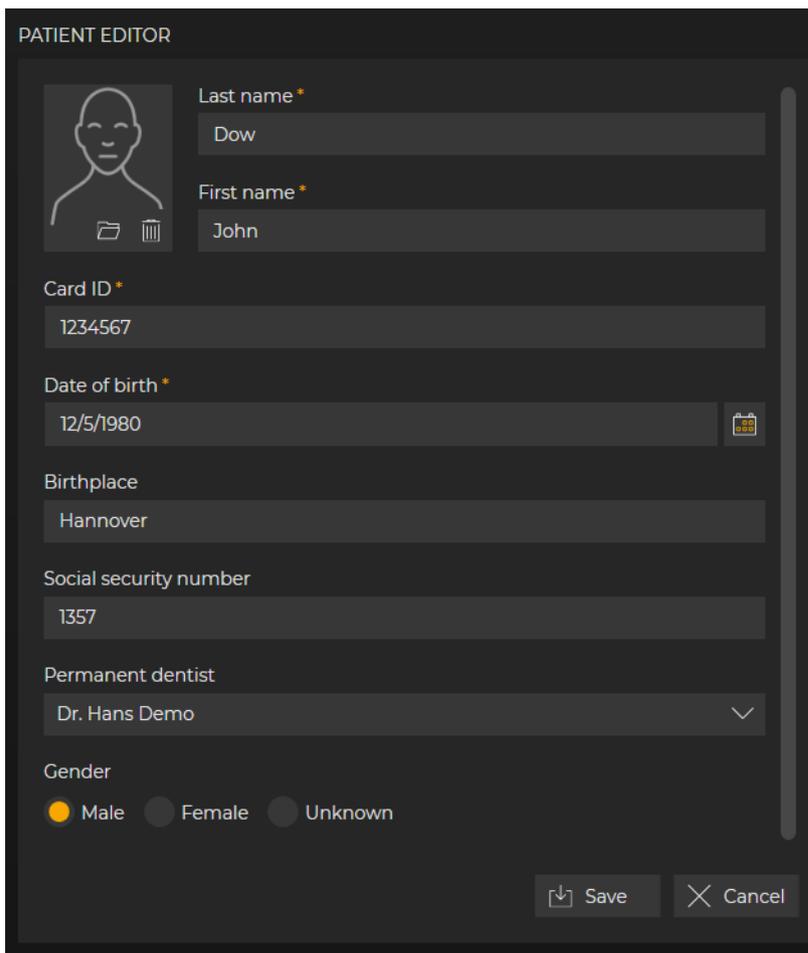
Patient mix-up

There are situations in which the entry of a card ID number is essential to clearly identify a patient:

- In the configuration menu *"Patient display"*, only the *"Card ID"* check box has been selected
- Two patients have the same first and last names and the same birth date

The Card ID number is either an external Card ID number (from PAS/SLIDA) or an internal Card ID number, which then corresponds optimally to the patient record in the patient management (not tied to it).

Patient data can only be edited via the Sidexis 4 *"Patient editor"* if it does *not* include an external card ID number.



The screenshot shows the "PATIENT EDITOR" window with the following fields and values:

- Last name ***: Dow
- First name ***: John
- Card ID ***: 1234567
- Date of birth ***: 12/5/1980
- Birthplace**: Hannover
- Social security number**: 1357
- Permanent dentist**: Dr. Hans Demo
- Gender**: Male (selected), Female, Unknown

Buttons for "Save" and "Cancel" are located at the bottom right.

"Patient editor"

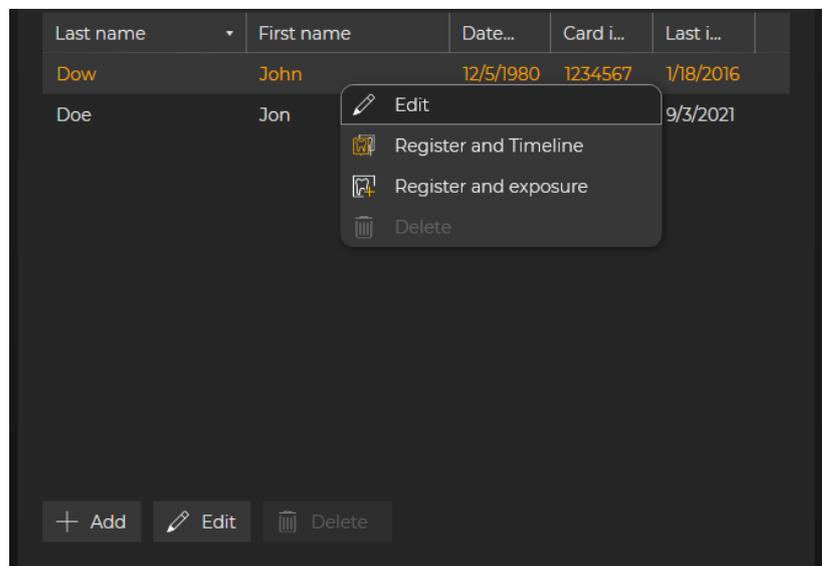
Input fields	Entry
"Last name" (mandatory field)	Surname
"First name" (mandatory field)	First name
"Birth date"* (mandatory field)	Date of birth
"Card ID"* (mandatory field)	Internal card ID number
"Birthplace"	Birthplace
"Social security number"	Social security number

* The "Birth date" or "Card ID" entry field must be completed.

Option button	Option button activated
"Male"	Gender
"Female"	
"Untitled"	
Drop-down list	Function
"Permanent dentist"	Selection of the permanent dentist

✓ The "Patient" work phase is open.

1. Left-click with the mouse on the row of the patient you are looking for in the patient table and then on the "Edit" button.

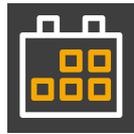


Context menu of patient table

or

- > Right-click on the row of the patient you are looking for in the patient table and then select "Edit" in the context menu that appears.

↳ The patient's data is displayed next to the patient table in "Patient editor".



2. Change the data for the patient using the input fields, option buttons and drop-down lists of the editor.

Tip: You can also change the date of birth by clicking on the calendar button and selecting the date from the calendar.

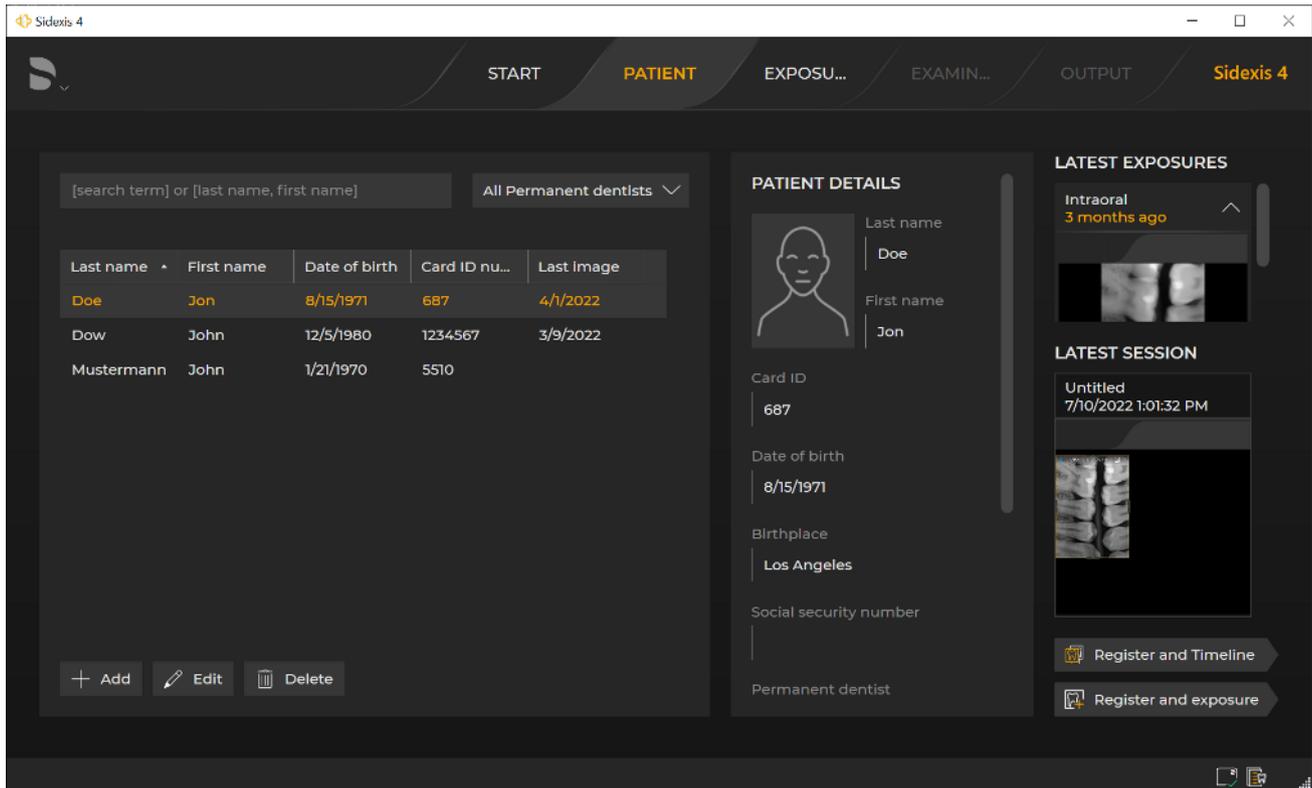
3. *Optional:* Select the gender of the new patient using the option buttons and select a permanent dentist in the drop-down list.
4. Click on the "Save" button.

↵ The modified data record is saved.

11.5 Deleting patients

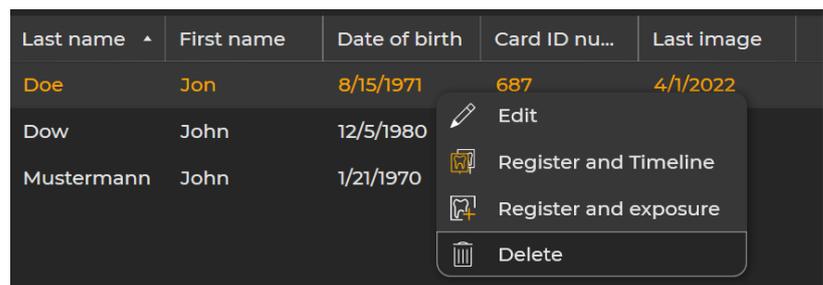
The option to delete patients is only offered in the menu if an administrator password has already been set up in the configuration menu (see section "Setting up an administrator password").

IMPORTANT: Please ensure not to delete any media items or patient data subject to statutory safekeeping obligations.



Deleting patient

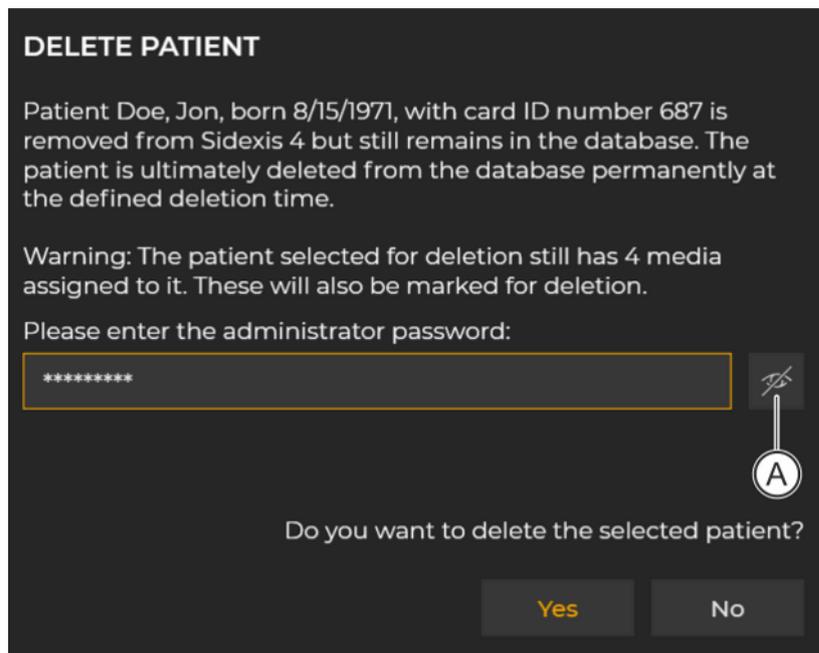
1. Left-click with the mouse on the row of the patient you want to delete from the patient table and then on the "Delete" button.



Context menu of patient table

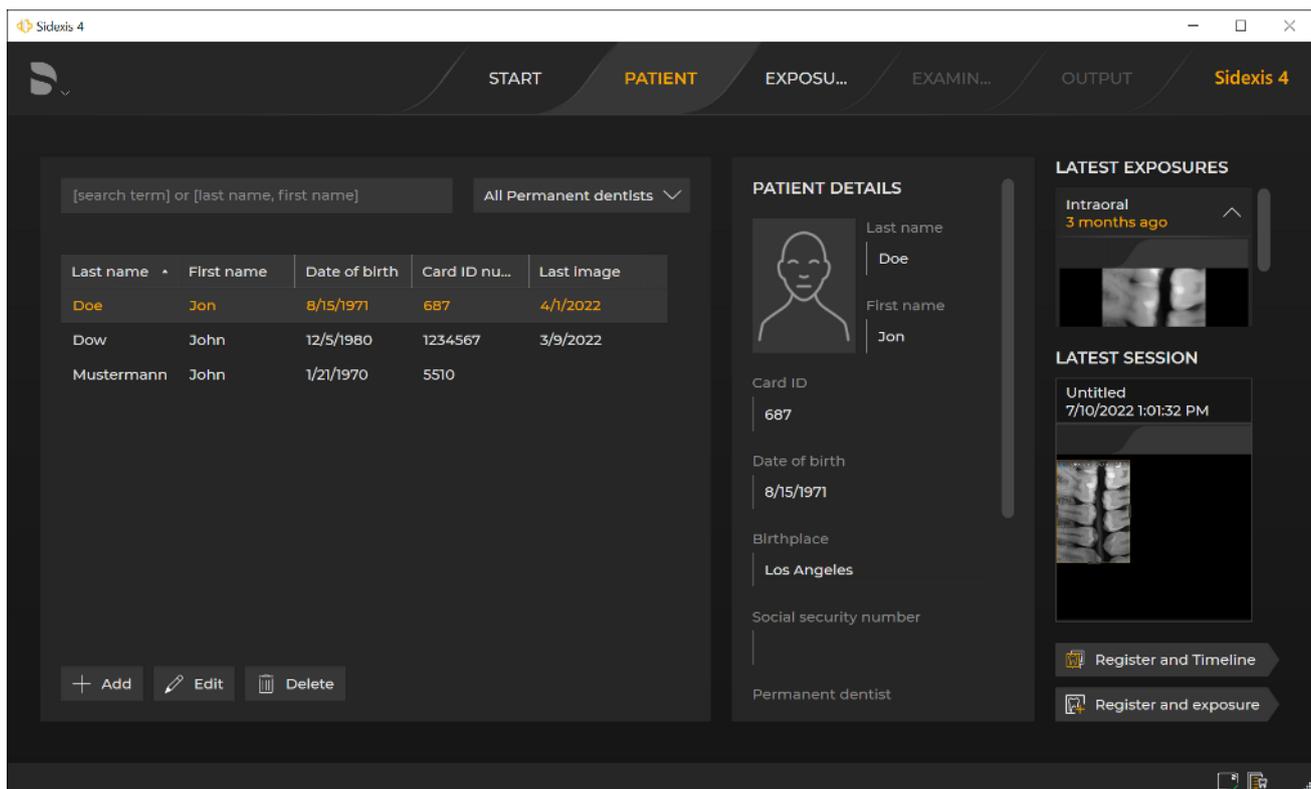
or

- > Right-click on the row of the patient you want to delete from the patient table and then on the "Delete" button in the context menu that appears.
 - ↳ A dialog box opens.



"Delete Patient" dialog box

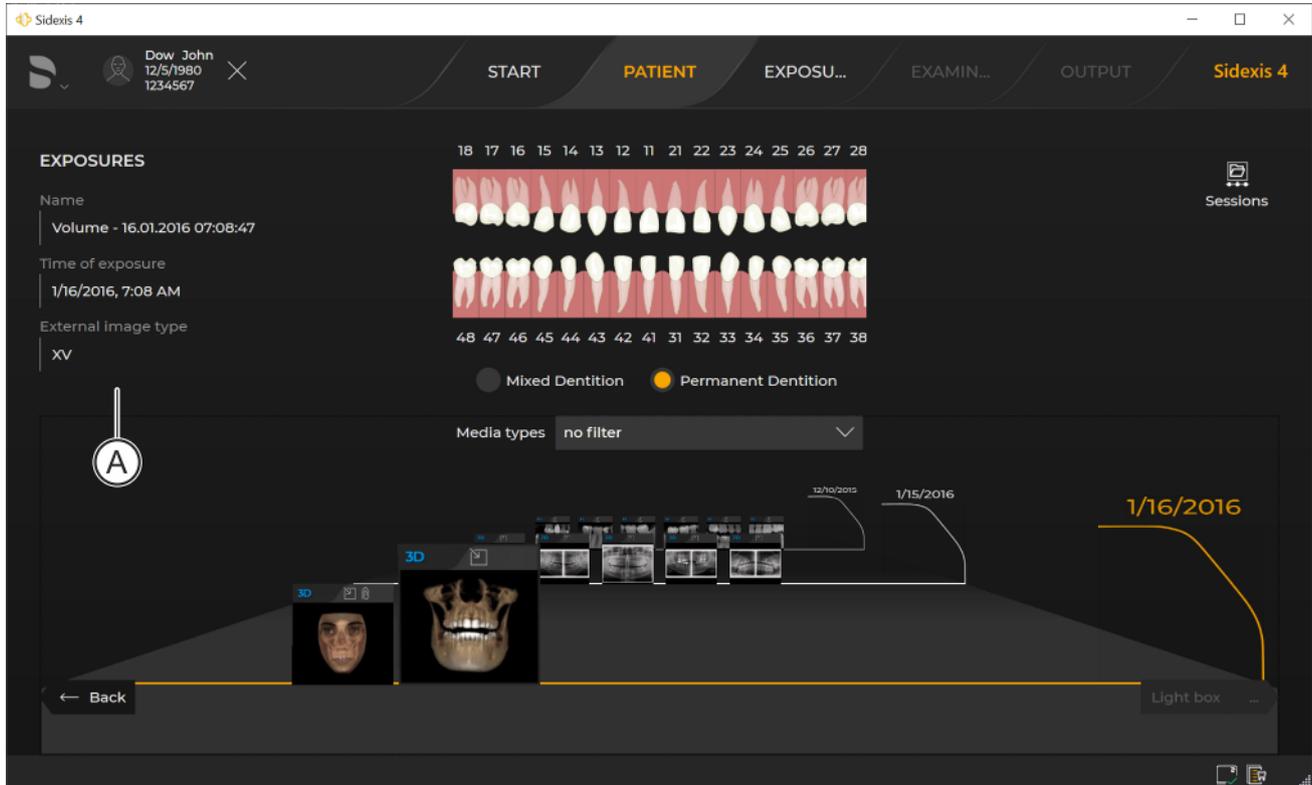
2. Enter the administrator password in the input window of the dialog box and click on the "Yes" button.
Tip: You can display the password in plain text using the button (A).



- ☞ The patient is permanently deleted and no longer displayed in the patient list.

12 Managing media items and sessions via the "Timeline"

Media items and sessions are managed via the "Timeline".



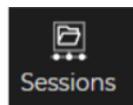
"Timeline" in the "Exposures" view

In the "Timeline" all media items and patient sessions saved to a patient are displayed arranged in chronological order on a timeline.

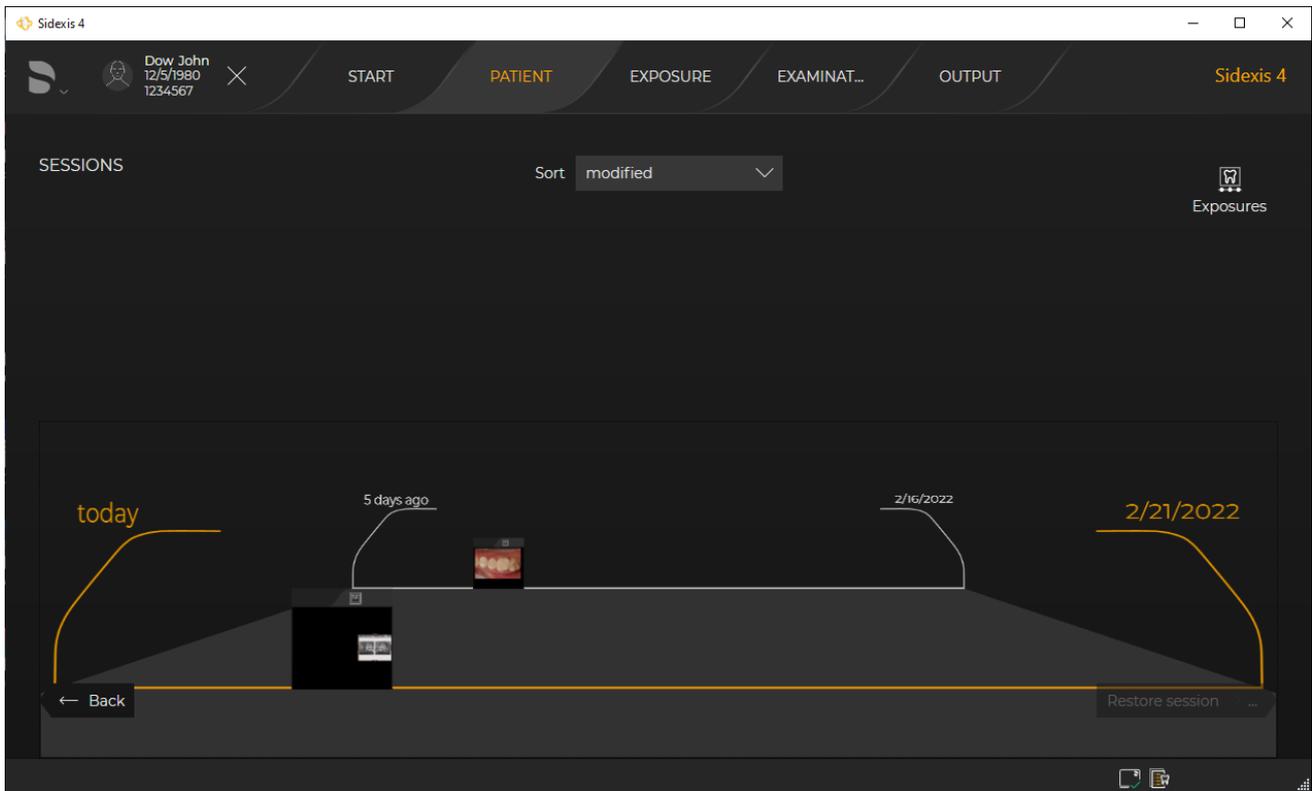
The "Timeline" is available in the "Gallery" docking window and a "Session gallery" in the "Examination" work phase.

The "Timeline" can be opened from the "Patient" work phase through the "Register and exposure" button.

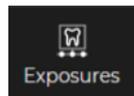
If a media item is selected in the "Timeline" then all media info belonging to the media item (A) is displayed.



The switchover of the "Timeline" to the display of patient sessions takes place through the "Sessions" button in the top right of the "Timeline", provided that patient sessions have been saved for the registered patient.



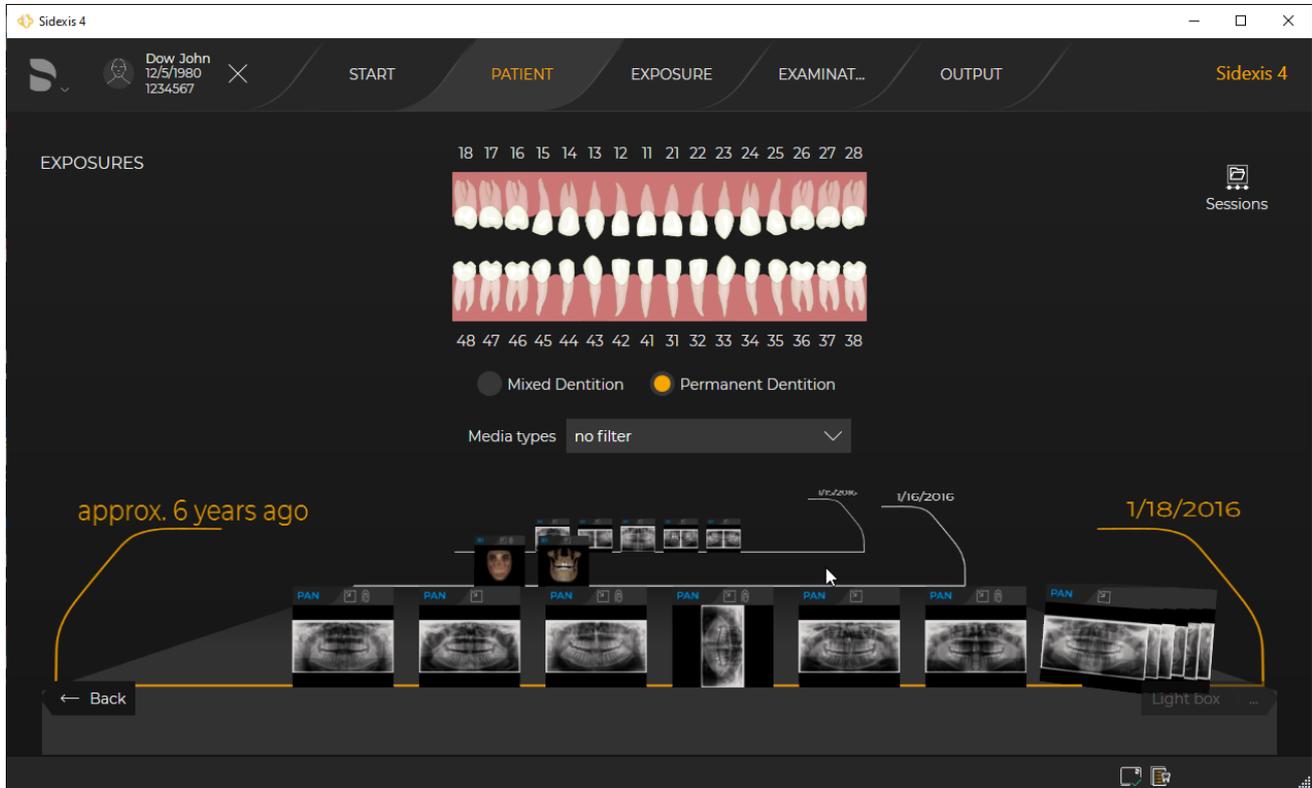
"Timeline" in the "Sessions" view



You can switch back to the "Exposures" view using the "Exposures" button in the top right of the "Timeline".

12.1 Moving along the "timeline"

- ✓ The "Timeline" is open.
- 1. Move the mouse pointer over the "Timeline", but not on the image.



Moving along the "Timeline"

- 2. Press on the left mouse button and move the mouse pointer over the "Timeline" in a vertical direction.
- or
- > Roll the mouse wheel forwards or backwards.
- ↳ You "move" along the "Timeline" through the media items or sessions.

You can also move to the "Timeline" using the keyboard, see the "Shortcut keys within the timeline" section.

12.2 Filter timeline

If a lot of media items are stored for a patient, it can be useful to filter the presentation of media items on the "Timeline".

The following filters are available:

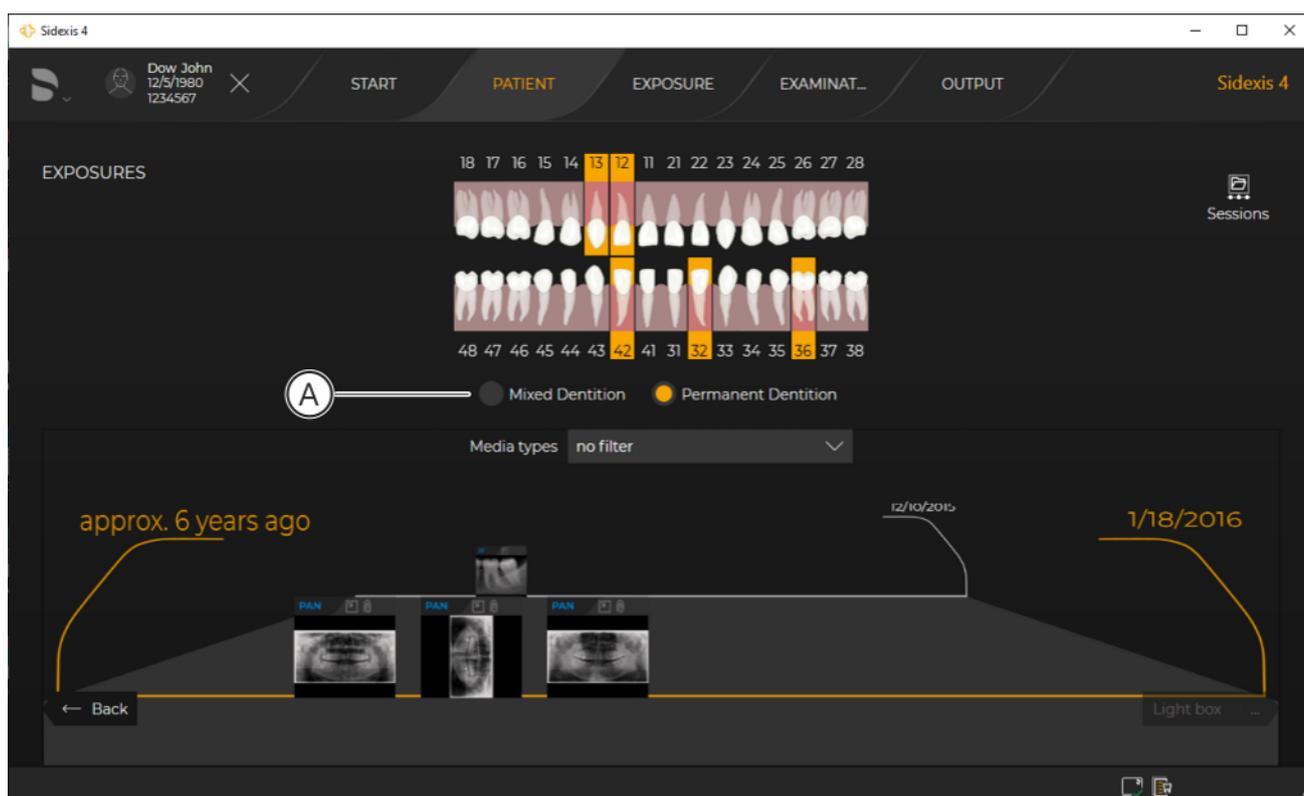
- Anatomical region
- Media type

Filter by anatomical region

✓ The "Timeline" is open.

1. Click on the teeth in the dental chart that are to be displayed on the media items.

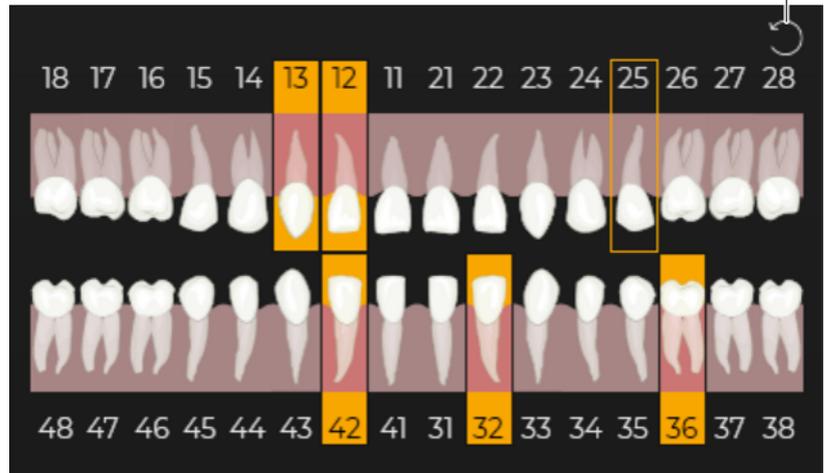
By selecting the corresponding option button (A), you can switch between permanent dentition and mixed dentition.



"Timeline" filtered according to tooth region

- ↳ The selected teeth are framed orange.
- ↳ The "Timeline" filters according to media items that match the selection.
- ↳ The filter result is displayed.

(B)

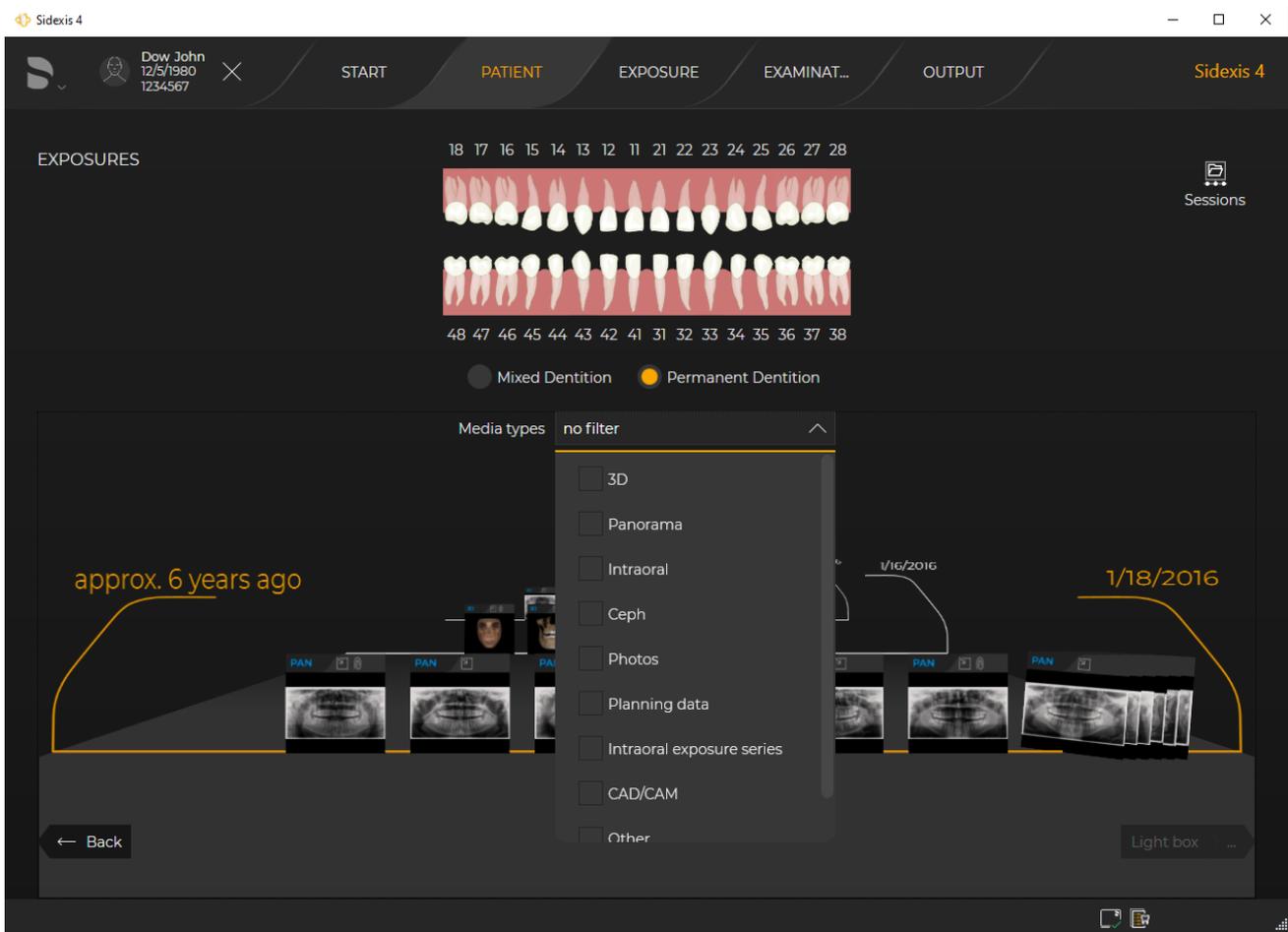


2. To undo the filter function, move the mouse pointer to the top right corner of the dental chart and click on the reset icon (B).

Filtering by media type

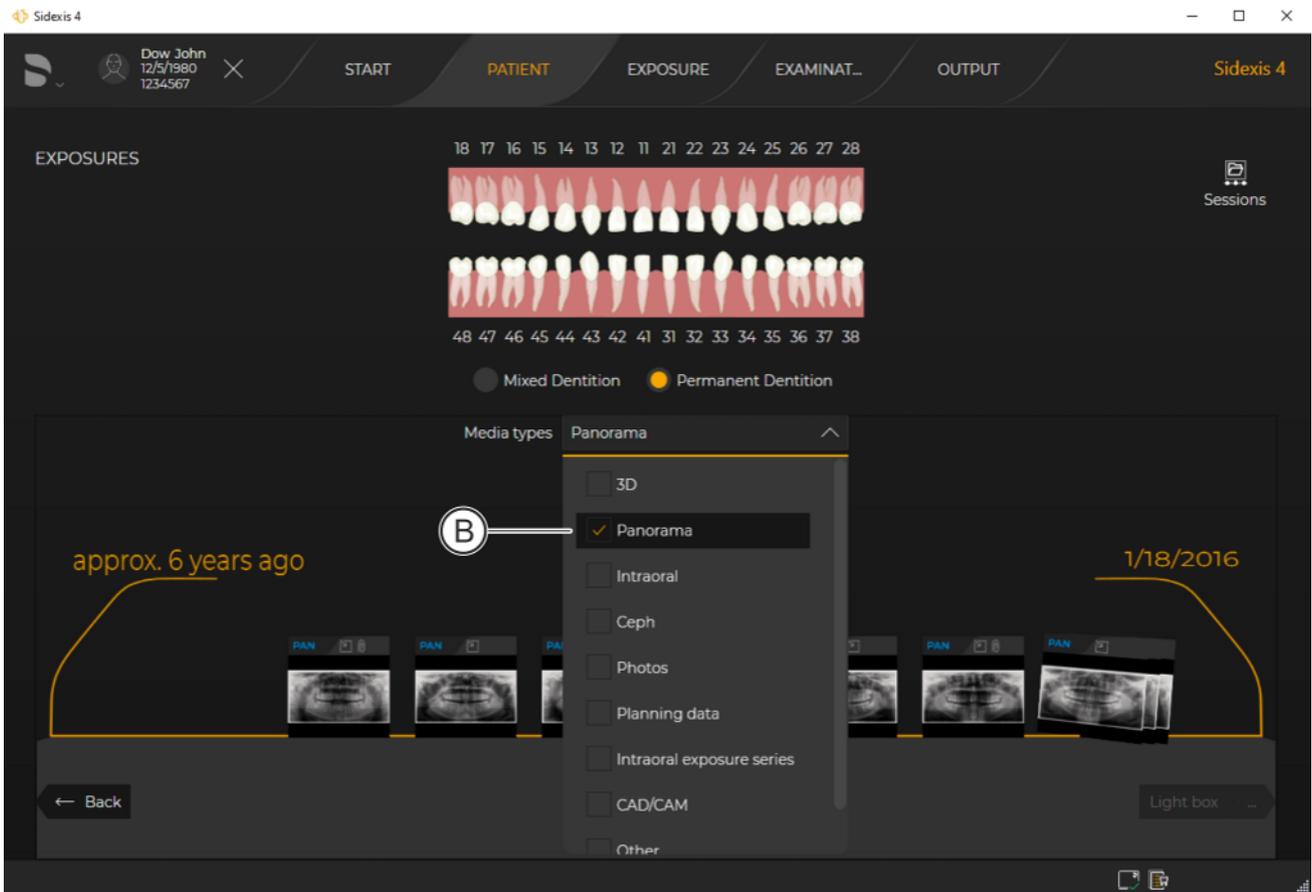


- ✓ The "Timeline" is open.
All media types are shown when the "Timeline" is first opened.
1. Click on the arrow (A) in the "Panorama" drop-down list.



Media selection

1. A list opens from which to select the media types.
2. Select the check boxes in front of the media types to be shown in the "Timeline" (in the example, "Panorama").



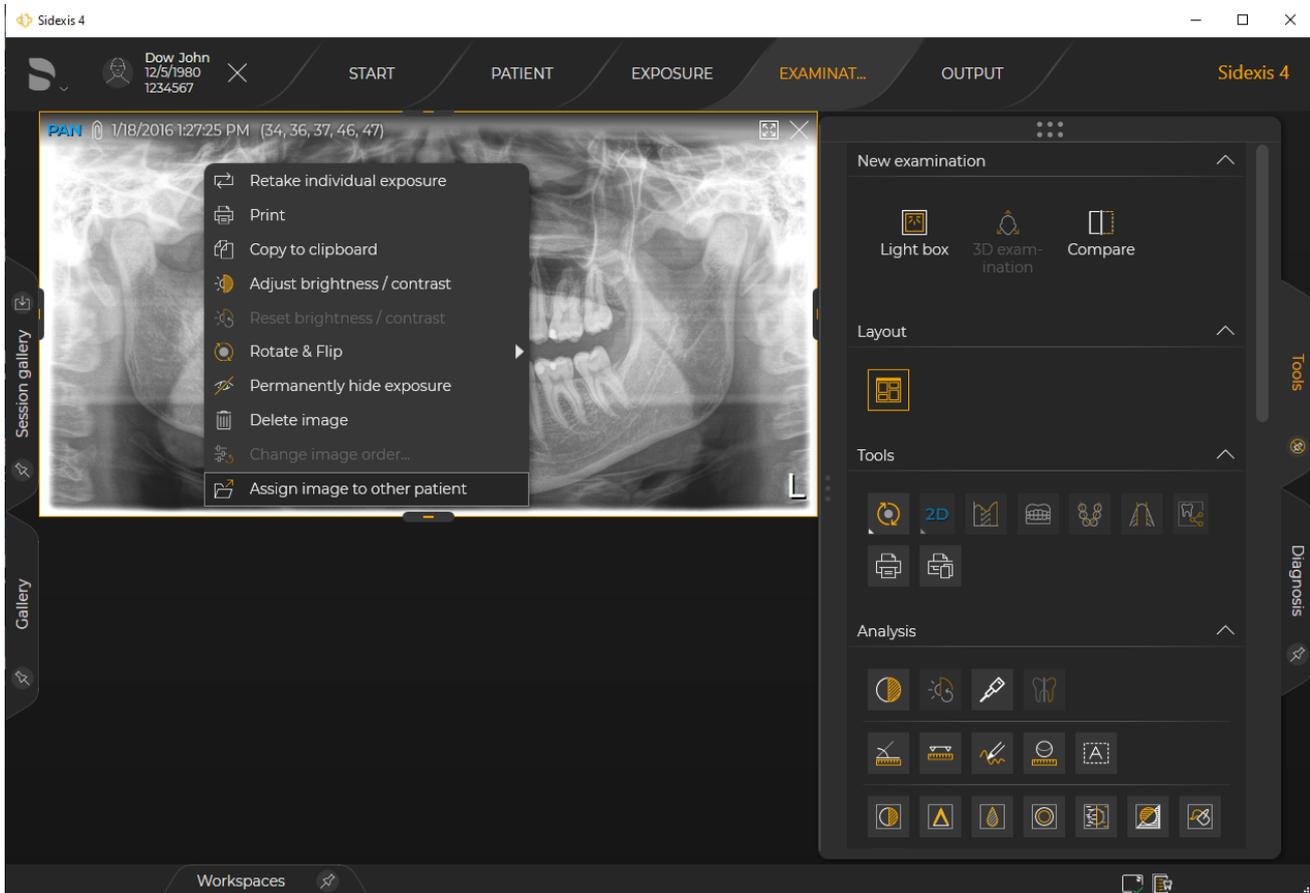
Filtered "Timeline"

- Only those media items whose media type corresponds to the selected filter criterion are displayed.
3. To undo the filter function, select either all or none of the check boxes.

12.3 Move medium to another patient

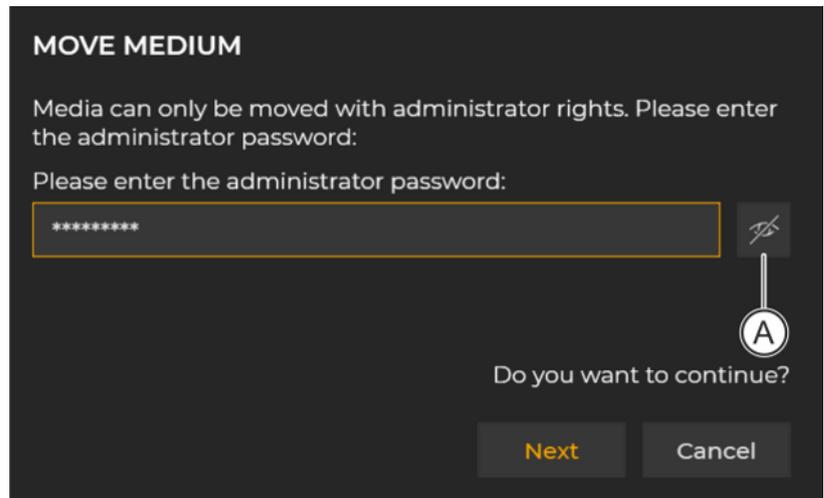
Sidexis 4 provides the option of moving media from one patient to another patient, i.e. of reallocating a media item to another patient. To do this, proceed as follows:

- ✓ The media item to be moved must be opened in a work area.
- 1. Move the mouse pointer in the work area over the desired media item.
- 2. Right-click.
 - ↳ A context menu opens.



Context menu

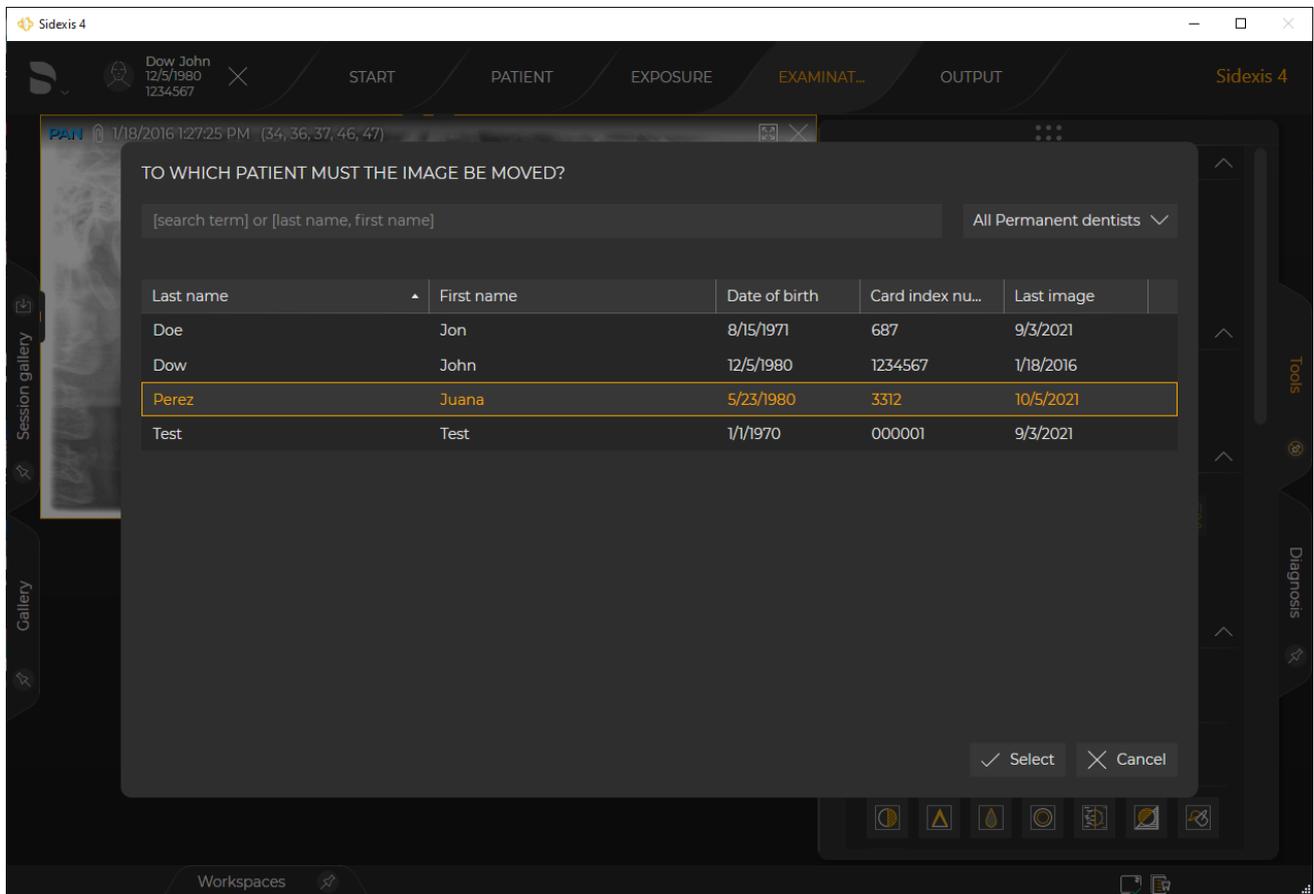
- 3. Click the "Assign image to other patient" button in the context menu.



"Move medium" dialog box

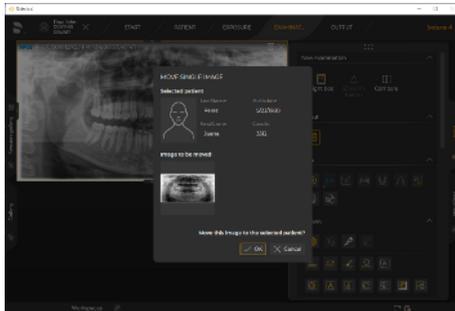
☞ A dialog box opens.

4. Enter the administrator password in the input window of the dialog box and click the "Next" button. **Tip:** You can display the password in plain text using the button (A).



Patient list

☞ The patient list is displayed.



5. Select the patient in the list to whom the media item is to be allocated and confirm the selection via the *"Select"* button. By clicking the *"Cancel"* button the procedure is terminated and you will return to the work area.
 - ↳ A dialog is opened in which the patient info for the selected patient is displayed along with the media item being moved.
6. Click on the *"Ok"* button to finally allocate the media item to the new patient. To cancel the process and return to the work area again, click the *"Cancel"* button.
 - ↳ A message appears stating that the media item has been successfully allocated to a new patient.
7. Click on the *"Ok"* button to complete the process.
 - ↳ *"Light box"* work area:
The media item is closed in the *"Light box"* work area. The *"Light box"* work area itself remains open, even if no media item is open any longer.
 - ↳ *"3D examination"* work area:
The *"3D examination"* is closed. If no other work area is opened, an empty *"Light box"* work area is automatically opened.
 - ↳ *"Compare"* work area:
The media item is closed in the *"Compare"* work area. The *"Compare"* work area itself remains open, even if no media item is open any longer.

12.4 Exposures from TWAIN data sources

Sidexis 4 offers the possibility of importing media from TWAIN data sources (e.g. scanners, etc.) to the Sidexis 4 database.

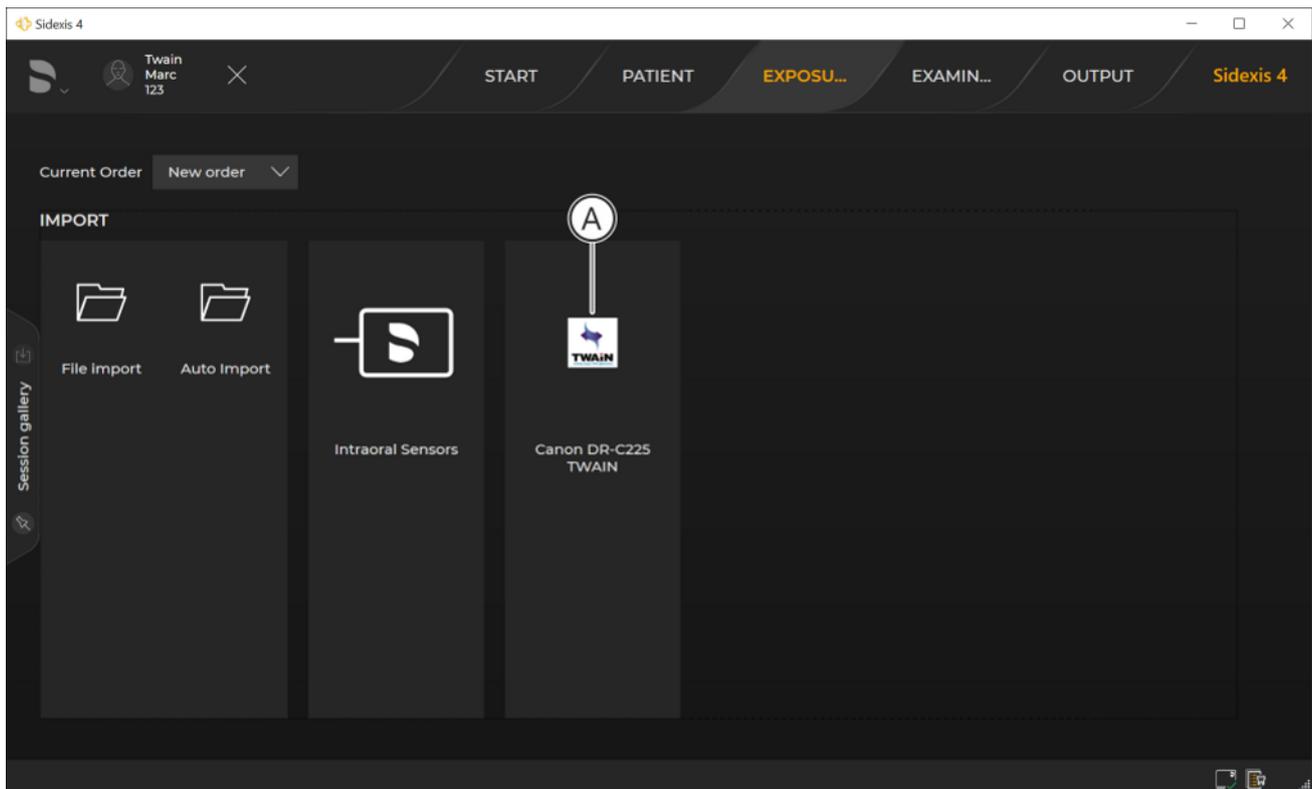
The following data and data sources are supported:

- TWAIN 2.2
- 32-bit TWAIN data sources
- 2D images with 8-bit palette, 24/32-bit Truecolor
- Single images and image series

Multiple TWAIN devices can be installed on the PC. The different devices are displayed in the "Exposure" work phase by a Twain icon with the name of the data source.

NOTE: The quality of the display of scanned images depends on the performance and the settings of the scanner as well as the quality of the original.

- ✓ The "Exposure" work phase is open.



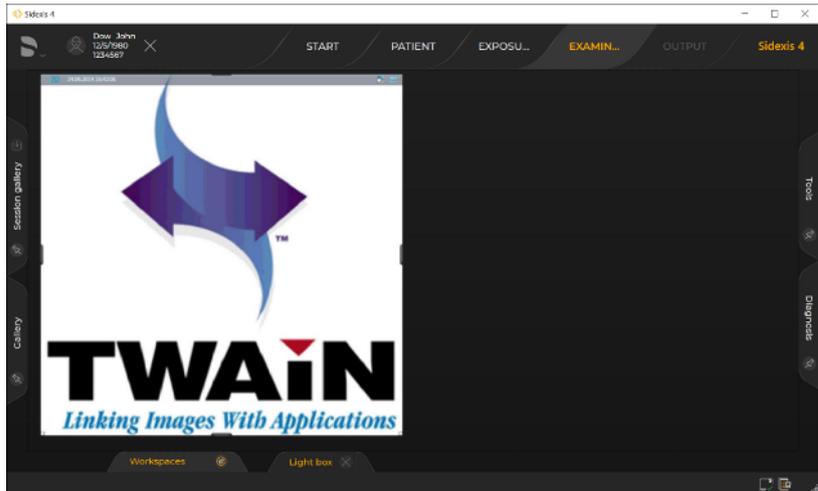
Import of media from TWAIN data sources

1. Double-click the icon of the desired TWAIN data source (A).
 - ↳ The scan dialog box of the TWAIN data source (if present) opens.

IMPORTANT

The TWAIN import can be optimized via the "TWAIN devices" configuration menu.

2. Start the data import via the scan dialog box of the TWAIN data source.



Imported media item

- ↳ The media item imported from the data source is displayed in the "Light box" work area.

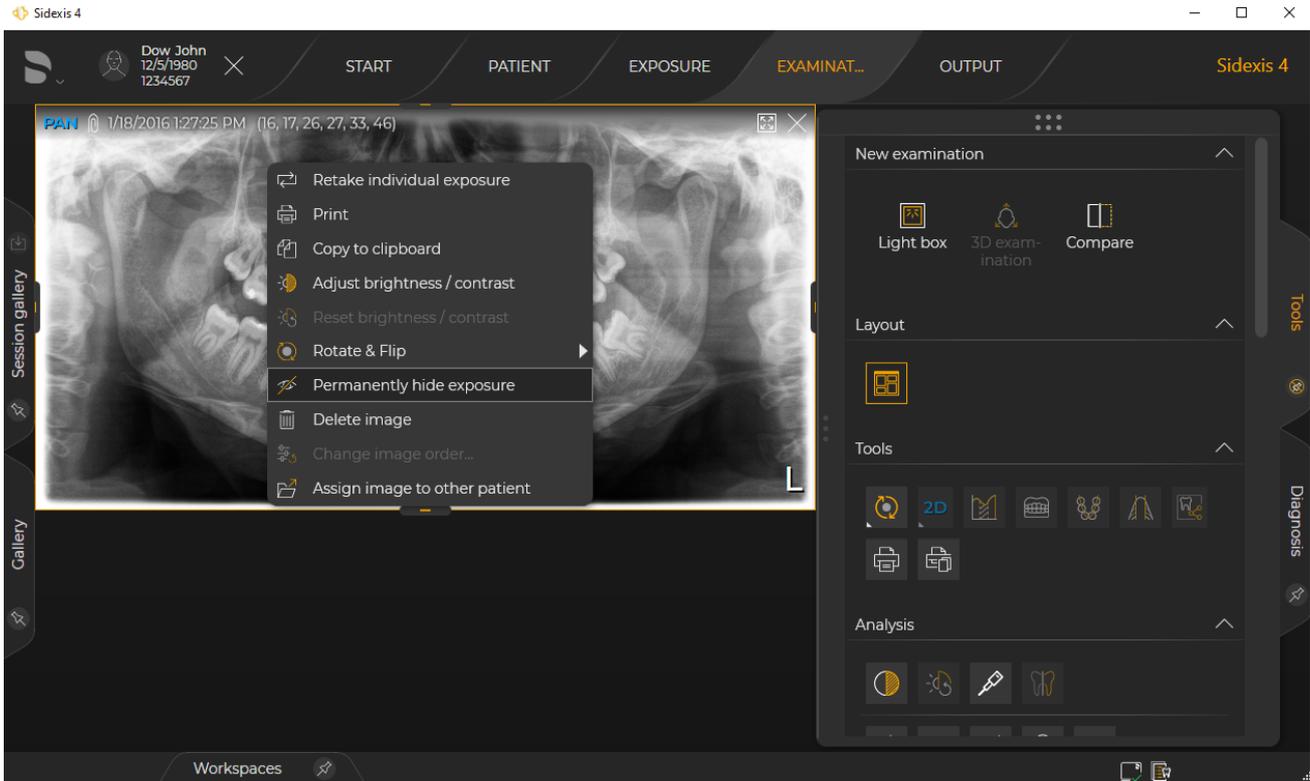
12.4.1 Important information on scanning X-ray images

When scanning X-ray images, please observe the following points:

- To enable full analysis of scanned-in X-ray images in Sidexis 4, they must be scanned in with 256 gray levels.
- The scanner must be equipped with a backlight unit in order to ensure maximum contrast of the scanned images.
- Intraoral X-ray images must be scanned at a resolution of 600 dpi.
- Panoramic, ceph or TSA X-ray images must be scanned at a resolution of 300 dpi.
- If a length measurement is to be performed, the scanned in image must first be calibrated via a reference measurement in Sidexis 4.

12.5 Hide media items in the "timeline".

1. Open the desired image in the "Light box" work area.
2. Move the mouse pointer over a media window and press the right mouse button.



Permanently hide the image

3. Click the "Permanently hide exposure" button in the context menu.
 - ↳ A dialog box opens.
4. Confirm the operation to hide the media item by clicking on the "Yes" button.
 - ↳ The media item is no longer shown in the "Timeline".

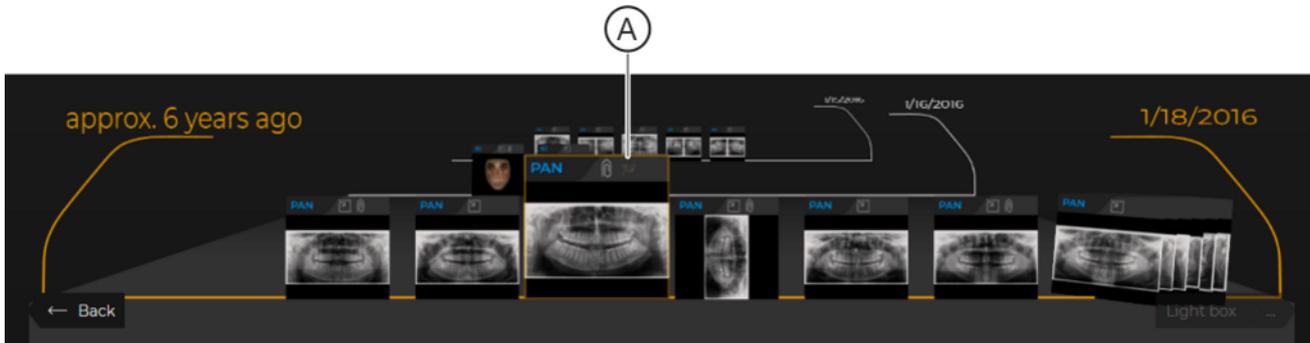
IMPORTANT

The media items are no longer displayed in the "Timeline" but are still available in the Sidexis 4 database. Using the "Temporarily display marked and hidden images and patients" toggle switch in the "General settings" => "Delete data" configuration menu, hidden media items can be displayed temporarily in the "Timeline" and even opened [→ 302].

12.6 Display hidden media items in the "timeline"

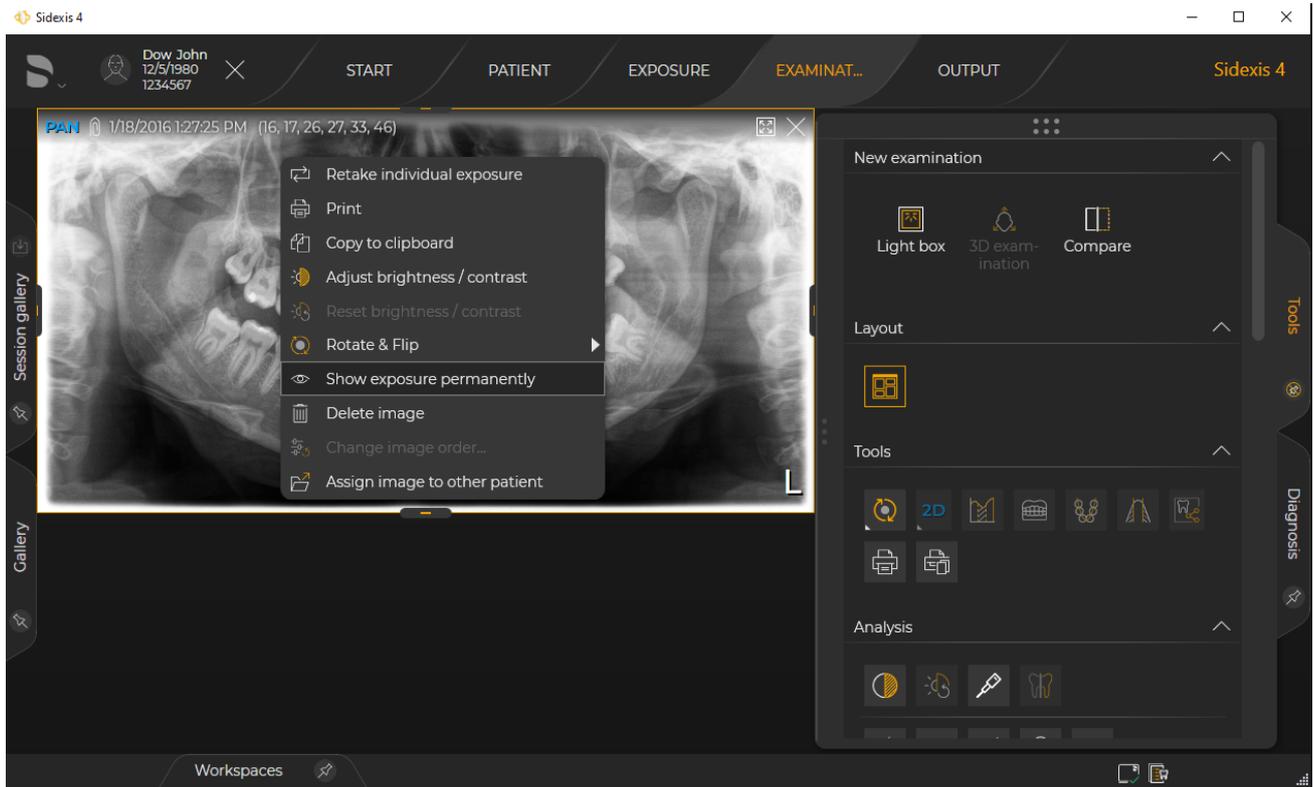
When media items have been hidden in "Timeline", they are still available in the Sidexis 4 database. Proceed as follows to display these hidden media items again in the "Timeline":

1. Activate the "Temporarily display marked and hidden images and patients" toggle switch in the "General settings" => "Delete data" configuration menu. Detailed information on the "Settings [→ 83]" can be found in the "Sidexis4 Service manual" technical documentation (REF 6799618).



Display hidden images in the "Timeline"

- ↳ All hidden media items that have ever been saved for the registered patient are temporarily displayed again in "Timeline". They are identified in the image by the symbol (A).
2. Open the media item that you would like to display again in the "Light box"; see section ""Examination" work phase [→ 140]".
 3. Click on the media item with the right mouse button.



Permanently show the image

- ↩ A context menu opens.
- 4. Click on the "Show exposure permanently" button.
- 5. Deactivate the "Temporarily display marked and hidden images and patients" switch in the "General settings" => "Delete data" configuration menu again.

12.7 Deleting media items

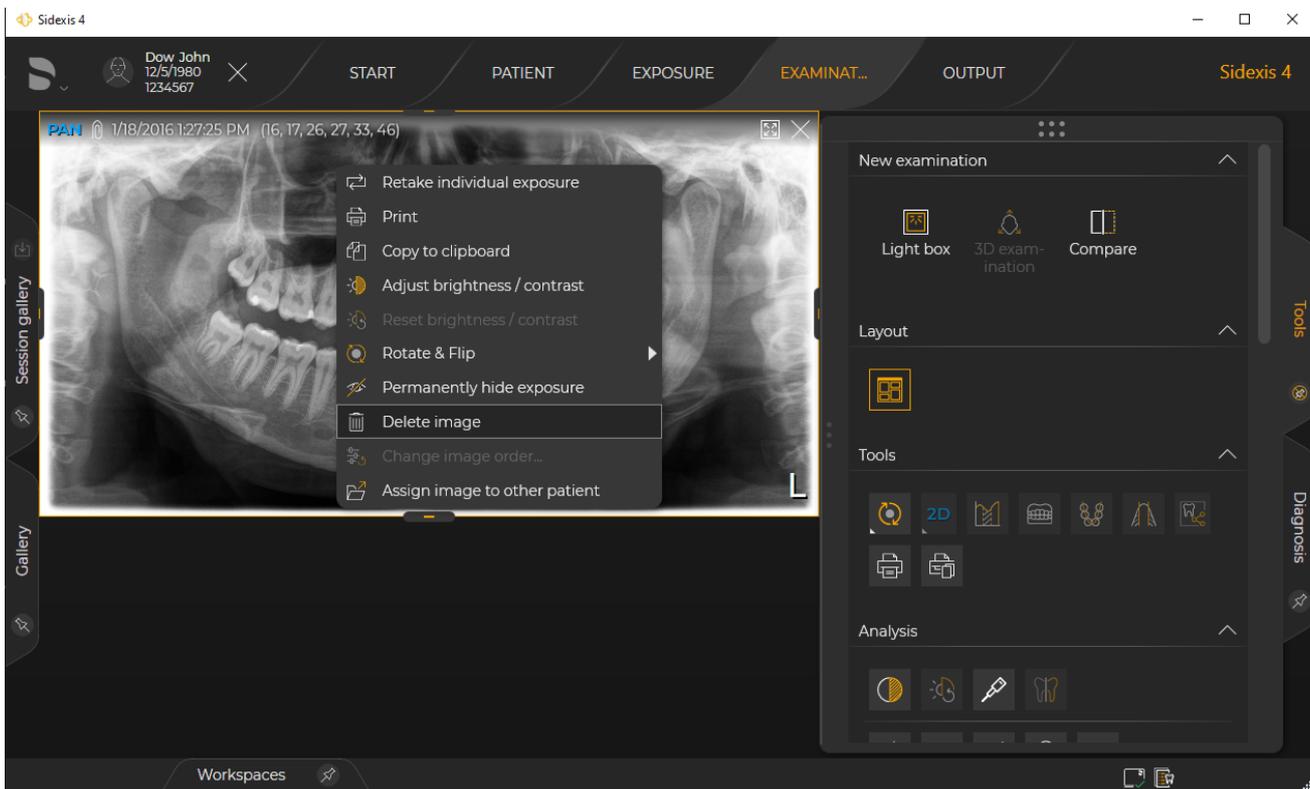
The deleting of media items is offered in the menu if an administrator password has been set up in the configuration menu (see section "Setting up an administrator password").

IMPORTANT: Please ensure not to delete any media items or patient data subject to statutory safekeeping obligations.

IMPORTANT

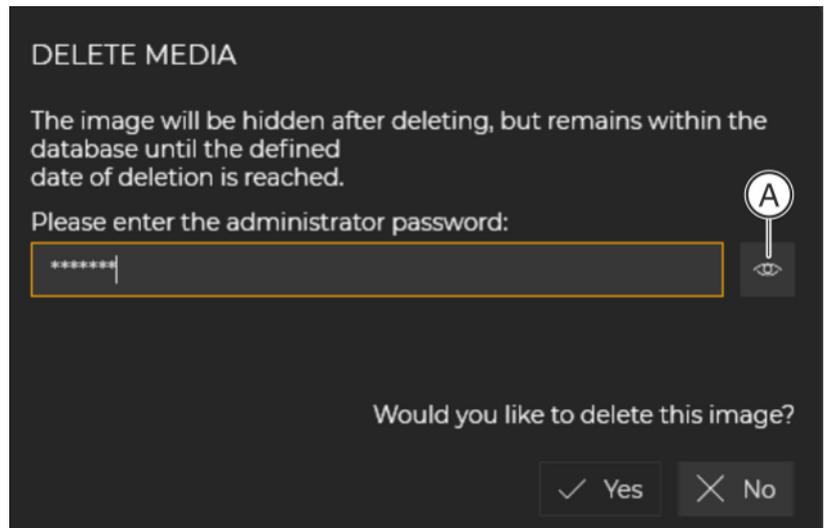
When a media item is "deleted", it still remains in the Sidexis 4 database up until the defined time of deletion and is also displayed grayed out in the "Timeline". The time at which the media items are ultimately deleted is defined in the "General settings" ⇒ "Delete data" configuration menu. When the "No automatic deletion" option is selected, the media items are never fully deleted and can be restored at any time.

1. Open the desired image in the "Light box" work area.
2. Move the mouse pointer over a media window and press the right mouse button.



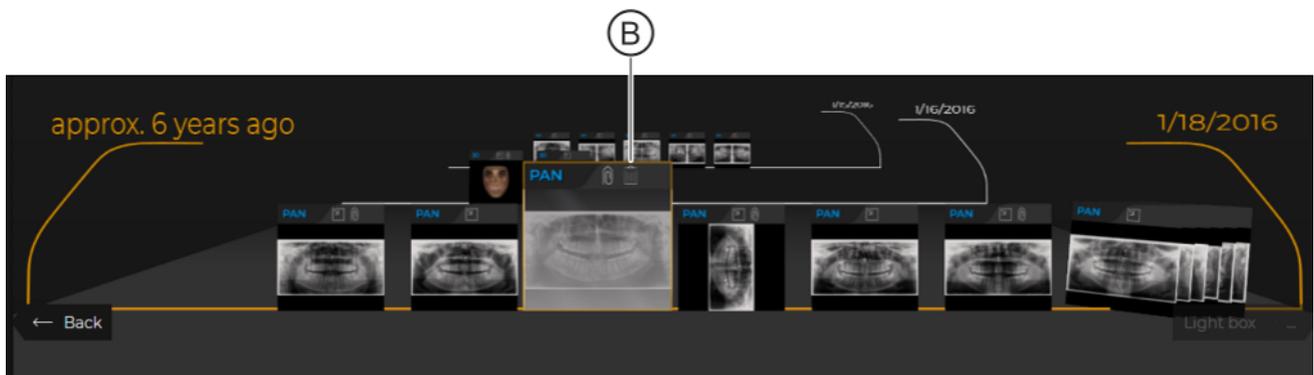
"Delete image"

- ↖ A context menu opens.
3. Click the "Delete image" button in the context menu.
 - ↖ A dialog box opens.



Confirm deletion

4. Enter the administrator password in the input window of the dialog box and click on the "Yes" button.
Tip: You can display the password in plain text using the button (A).
↳ The media item is marked for deletion (A).

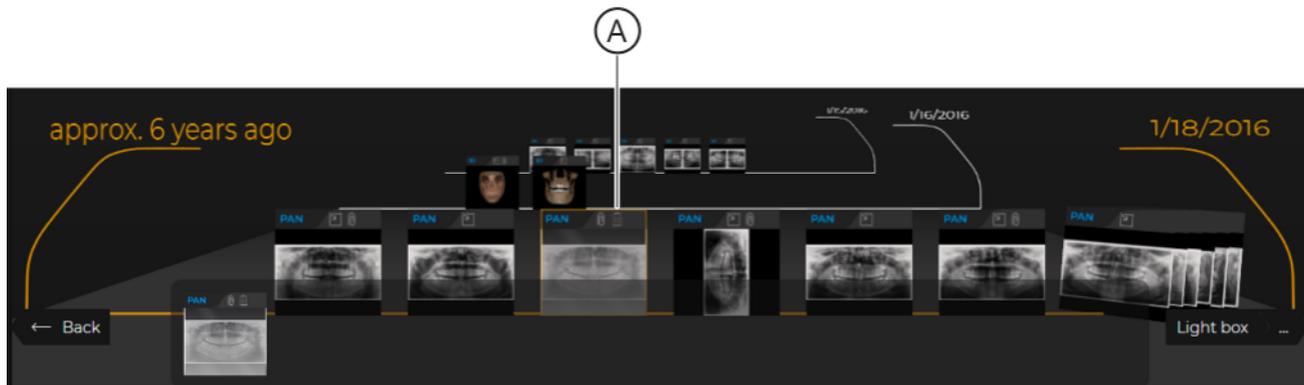


Display of the media item marked for deletion in the "Timeline"

- ↳ Until the ultimate deletion time, the media item is displayed grayed out in the "Timeline". The preview image is additionally labeled with a trash can symbol (B).

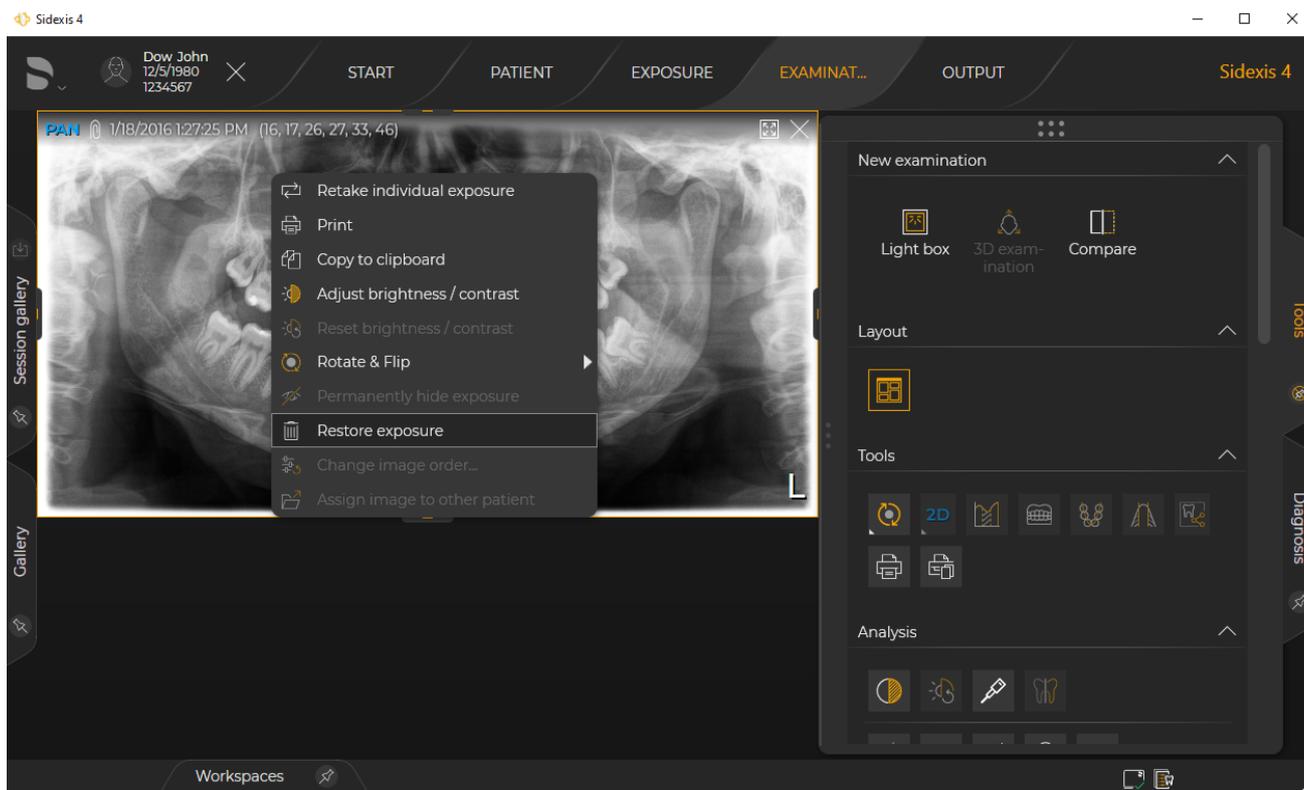
12.8 Restoring deleted media items

As long as media items marked for deletion are still in the Sidexis 4 database, you can restore them. To do this, proceed as follows:



Deleted media items in the "Timeline"

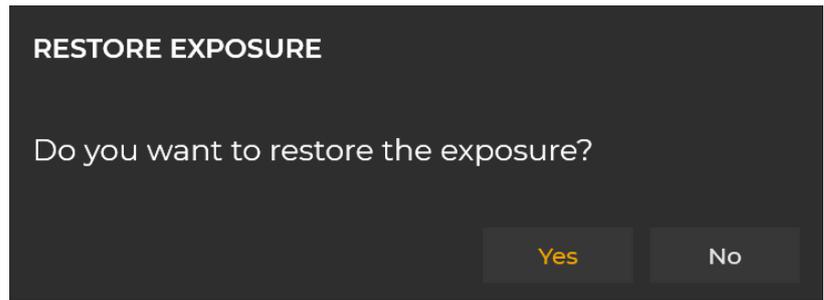
1. Open the marked medium (A) via the "Timeline".
2. Open the marked media item that you want to restore in the "Light box"; see section "Examination" work phase [→ 140]".
3. Click on the media item with the right mouse button.



Restore media item

☞ A context menu opens.

4. Click on the *"Restore exposure"* button.



"Restore exposure" dialog box

- ↳ A dialog box opens.
5. Confirm that you want to restore the media item by clicking the *"Yes"* button.
 - ↳ The marking for deletion of the media item is canceled.

13 Import / export media items

IMPORTANT

The quality of the display of imported images depends on the performance and settings of the X-ray components.



Imported media items are indicated in the "Timeline" with an import symbol.

13.1 Import exposures

IMPORTANT

L/R markings on images of type 01XC and 02XC:

In the case of cephalometric images transferred from SIDEXIS XG, an R is always inserted at the bottom right of the image, regardless of the image position. This may lead to confusion. An L marking in images migrated from SIDEXIS XG is therefore not comparable to the familiar R/L markings of conventional exposures.

On all cephalometric images, the R marking does not refer to the X-ray beam direction, but ensures that the image is viewed in its original orientation and is not flipped.

The following media items can be imported:

2D data
(images and surfaces)

- Formats:
 - DICOMDIR
 - DICOM files (*.dcm; *.*)
 - TIFF (*.tif, *.tiff)
 - PNG (*.png)
 - JPEG (*.jpg, *.jpeg)
 - JPEG 2000 (*.f2k, *.j2c, *.jp2)
 - BMP (*.bmp)
- X-ray images with 8 – 16 bits/pixel
- Optical images (photos) with 8-bit palette, 24/32-bit Truecolor

3D volumes

- Formats:
 - DICOMDIR
 - DICOM files (*.dcm; *.*)

Surfaces

- Formats:
 - DICOMDIR
 - Combi scan (CBCT exposure+face scan or face scan only)
 - STL (*.stl) (device-independent format)

GALILEOS Implant planning

- Formats:
 - DICOMDIR
 - CBCT exposure + planning data from GALILEOS Implant

If DICOM or TIFF files contain data that identifies patients, the data is automatically transferred during the import. However, it can also be

reassigned during import.

If a media item to be imported does not have a capture date, this can be entered manually.

13.1.1 Import files / folder

Media items can be assigned exclusively to the registered patient upon import.

IMPORTANT

The following sections describe the process for importing media items for a registered patient as this represents the standard case. However, the media import can also be completed without a registered patient. Please note section "Media import with patient not logged in [→ 320]" for this special case.

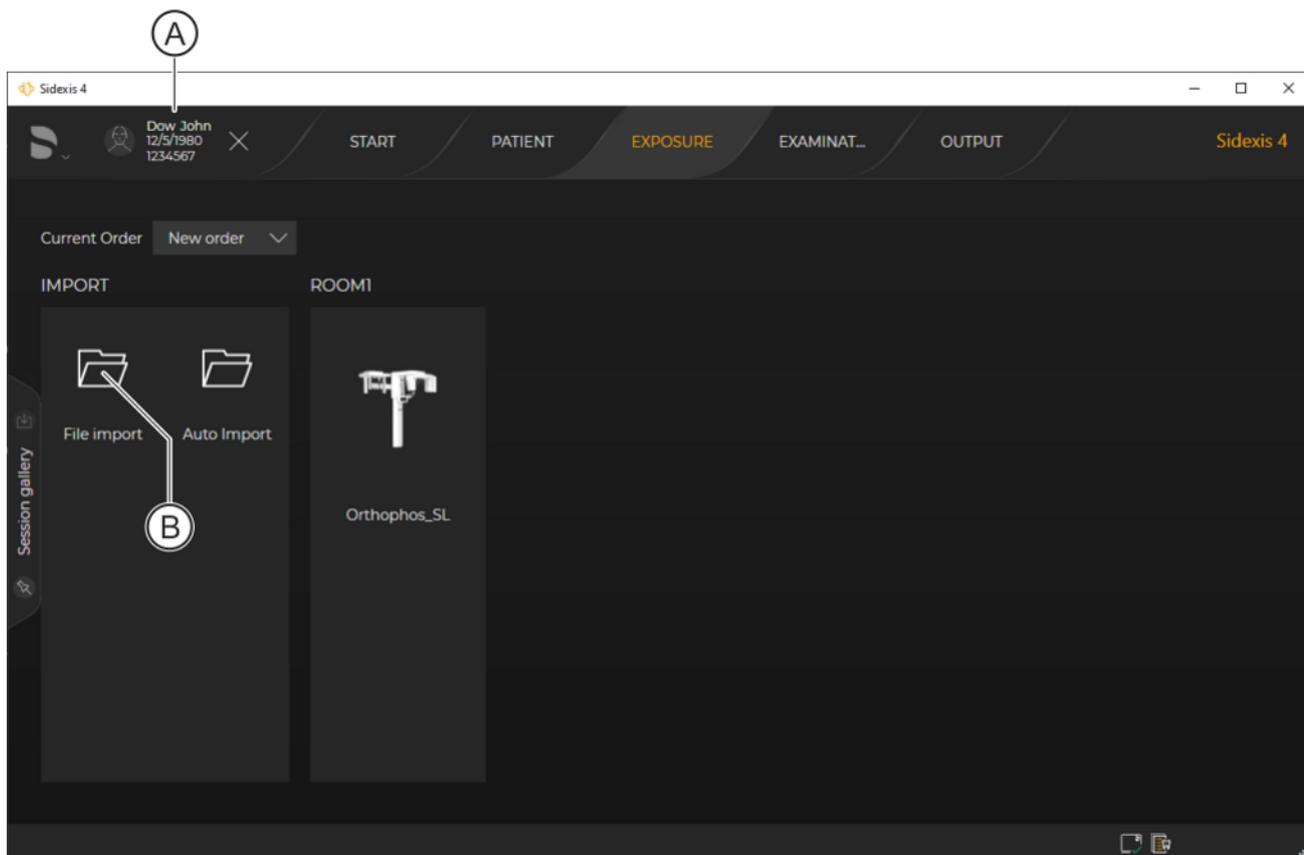
13.1.1.1 Select files or folder / Open "File import" menu

There are several options available for selecting the files or folder to be imported and opening the "File import" menu:

- Via the "Exposure" work phase
- "Drag&Drop" the files to any desired location in the Sidexis 4 user interface.

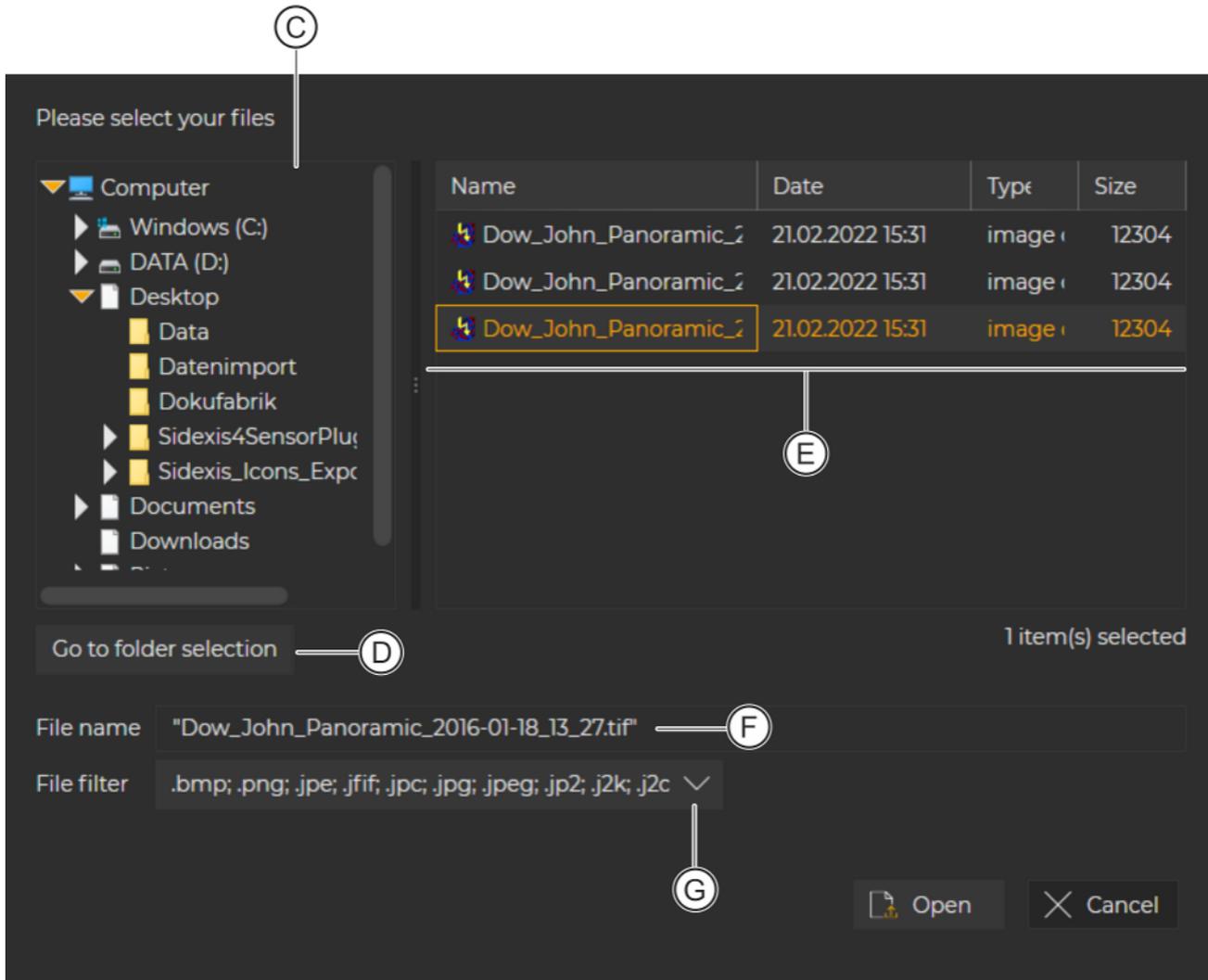
Via the "Exposure" work phase

1. Click on the "Exposure" button in the phase bar.



"Exposure" work phase

- ↳ The "Exposure" work phase opens.
 - ↳ The registered patient (A) is displayed in the title bar.
2. Click on the "File import" button (B).
- ↳ The menu for the media selection opens.



File or folder selection for the media import

C	Structure tree for the file system	
D	"Go to folder selection"	After clicking folders can be selected, "Go to file selection" is displayed on the button.
	"Go to file selection"	After clicking files can be selected, "Go to folder selection" is displayed on the button.
E	File or folder window	
F	Name of the selected file	
G	Drop-down list for filtering files in the file window by format	

Buttons	
"Open"	Adopts the selected files into the "File import" menu.
"Cancel"	Discards the selection and cancels the operation.

3. Select the desired files or folders in the file or folder window.
Tip: You can also select several files at the same time using "Ctrl".
4. Confirm the selection by clicking the "Open" button.

<p>IMPORTANT</p> <p>Media import for a non-registered patient</p> <p>If no patient is registered at this point, the menu for assigning the patient opens first. In such cases, the assignment of the files to the patient must be defined via this menu. The menu as well as the patient assignment options are described in section "Media import with patient not logged in [→ 320]".</p> <p>The same behavior also occurs when files or volumes are to be imported and the patient data is not recognized by Sidexis 4.</p>
--

- ↳ The "File import" menu opens.
- ↳ **NOTICE! A maximum of 30 files are imported into the import table of the menu.**
 An import preview is displayed in the import table of the "File import" menu (see section "Edit import table / Start import [→ 313]").

Using "Drag&Drop"

- > Drag a file or a folder (or several at the same time) from your file system to anywhere in the Sidexis 4 user interface using "Drag&Drop".

<p>IMPORTANT</p> <p>Media import for a non-registered patient</p> <p>If no patient is registered at this point, the menu for assigning the patient opens first. In such cases, the assignment of the files to the patient must be defined via this menu. The menu as well as the patient assignment options are described in section "Media import with patient not logged in [→ 320]".</p> <p>The same behavior also occurs when files or volumes are to be imported and the patient data is not recognized by Sidexis 4.</p>
--

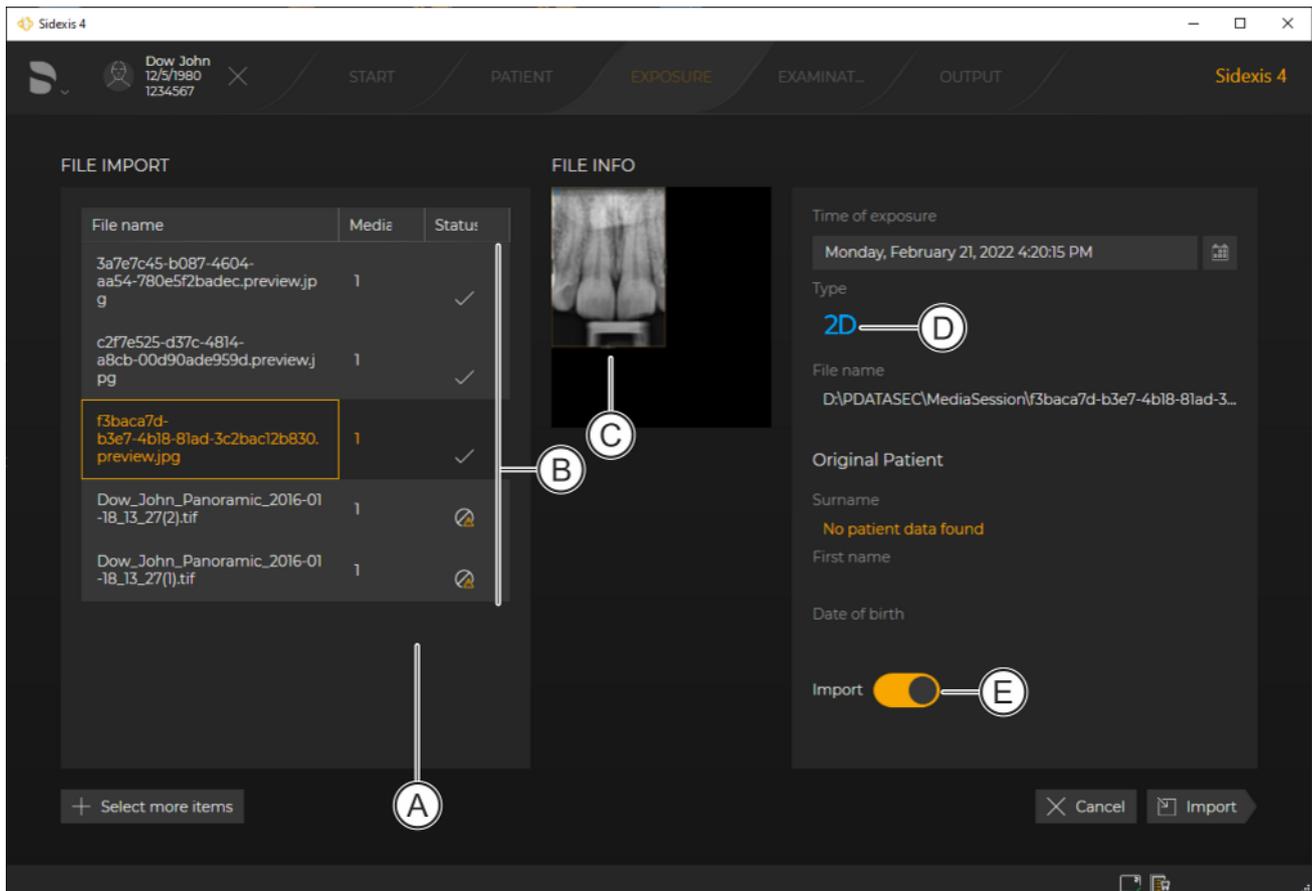
- ↳ The "File import" menu opens.
- ↳ An import preview is displayed in the import table of the "File import" menu (see section "Edit import table / Start import [→ 313]").

Once you have selected the files for the import and these are displayed in the "File import" menu import table, edit the import table as described in the "Edit import table / Start import [→ 313]" section.

13.1.1.2 Edit import table / Start import

Once the files or folders have been imported into the "File import" menu via the "Import" button of the "Exposure" work phase or using drag & drop, continue with the editing of the import preview.

You can add further files to the import table via the "Select more items" button or using drag & drop. The maximum limit for the number of files in the import table is 30.



"File import" menu

A	Import table with a preview of the files imported.
B	Icons indicating the import status of the files.
C	Image preview of the file selected in the import table. In the case of volumes, arrows are displayed below the preview for scrolling through the projections.
D	File type
E	Sliding switch for confirming the import for the file selected in the import table.

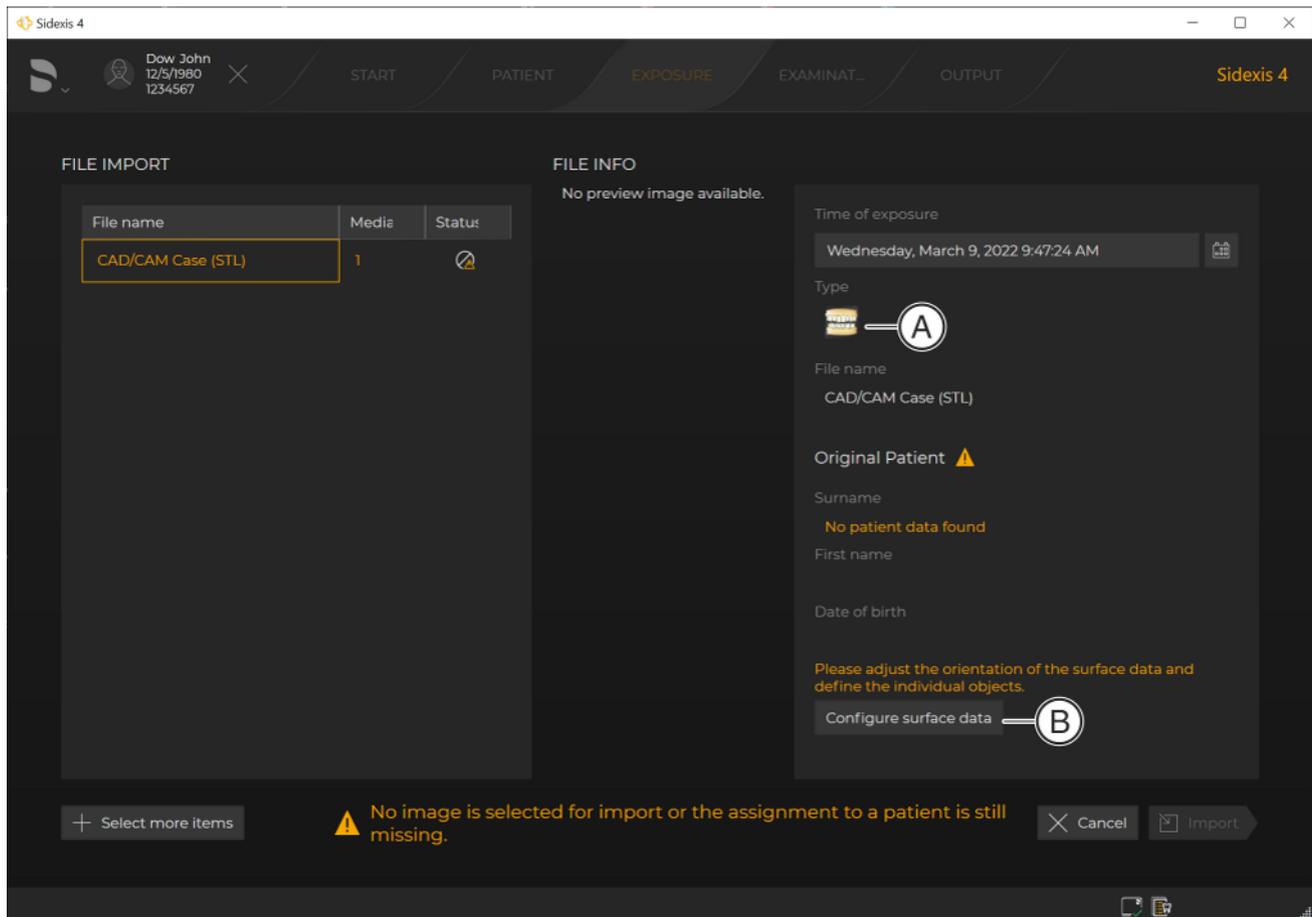
Icons are displayed in the import table in order to depict the different (problem) cases for a data import. The following cases may occur:

Pic-togram	Status/problem	Action
	<ul style="list-style-type: none"> No problem present Status "to be imported" 	<ol style="list-style-type: none"> <i>If the file is to be imported:</i> No action required. <i>If the file is not to be imported:</i> Click the slider (E). <ul style="list-style-type: none"> The status changes to "No". The status of the icon in the import table changes to "do not import".
	<ul style="list-style-type: none"> No problem present Status "do not import" 	<ol style="list-style-type: none"> <i>If the file is not to be imported:</i> No action required. <i>If the file is to be imported:</i> Click the slider (E). <ul style="list-style-type: none"> The status changes to "Yes". The status of the icon in the import table changes to "to be imported".
	<ul style="list-style-type: none"> Problem identified, e.g. patient data does not match the patient registered or the image is a duplicate. If the file is to be imported, actions need to be taken to rectify the problem. Status "do not import" <p>The corresponding information on the problem along with any advice on rectifying it are displayed in the "File info" area.</p> <div data-bbox="762 1691 1082 1940" style="background-color: #333; color: #fff; padding: 5px;"> <p>Original Patient ▲</p> <p>Surname Dow</p> <p>First name John</p> <p>Date of birth 12/5/1980</p> <p style="color: #ffc107; font-size: small;">Attention! Your import selection contains duplicates.</p> <p style="text-align: center;"> <input type="button" value="Yes, import duplicate"/> <input type="button" value="Import all duplicated items of patient"/> </p> </div>	<ul style="list-style-type: none"> > Implement the appropriate actions to rectify the problem. ↪ The status of the icons in the import table change accordingly to "Problem rectified" and "to be imported".

Pic-togram	Status/problem	Action
	<ul style="list-style-type: none"> • There was a problem but this was rectified. • Status "Problem rectified" • Status "to be imported" 	<ol style="list-style-type: none"> 1. <i>If the file is to be imported:</i> No action required. 2. <i>If the file is not to be imported:</i> Click the slider (E). <ul style="list-style-type: none"> ↳ The status changes to "No". ↳ The status of the icon in the import table changes to "do not import".
	<ul style="list-style-type: none"> • There was a problem but this was rectified. • Status "Problem rectified" • Status "do not import" 	<ol style="list-style-type: none"> 1. <i>If the file is not to be imported:</i> No action required. 2. <i>If the file is to be imported:</i> Click the slider (E). <ul style="list-style-type: none"> ↳ The status changes to "Yes". ↳ The status of the icon in the import table changes to "to be imported".
	<ul style="list-style-type: none"> • File cannot be imported. 	<p>No action possible.</p>

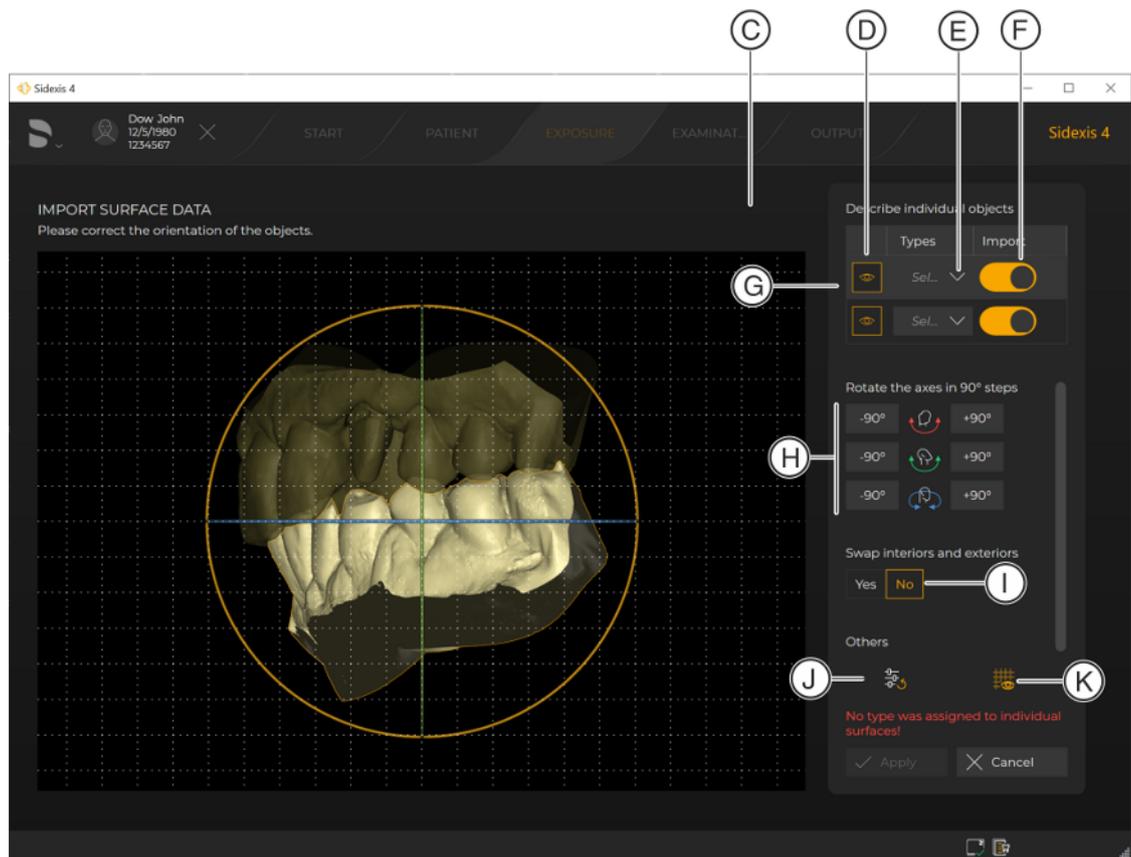
1. Edit the import table in accordance with this action table.
2. Click on the "Import" button to start the import.
 - ↳ The files with the status "to be imported" are added to the patient registered and appear in the "Timeline".

13.1.1.2.1 Import of surface data in *.stl format



"File import" menu with surface data in STL format

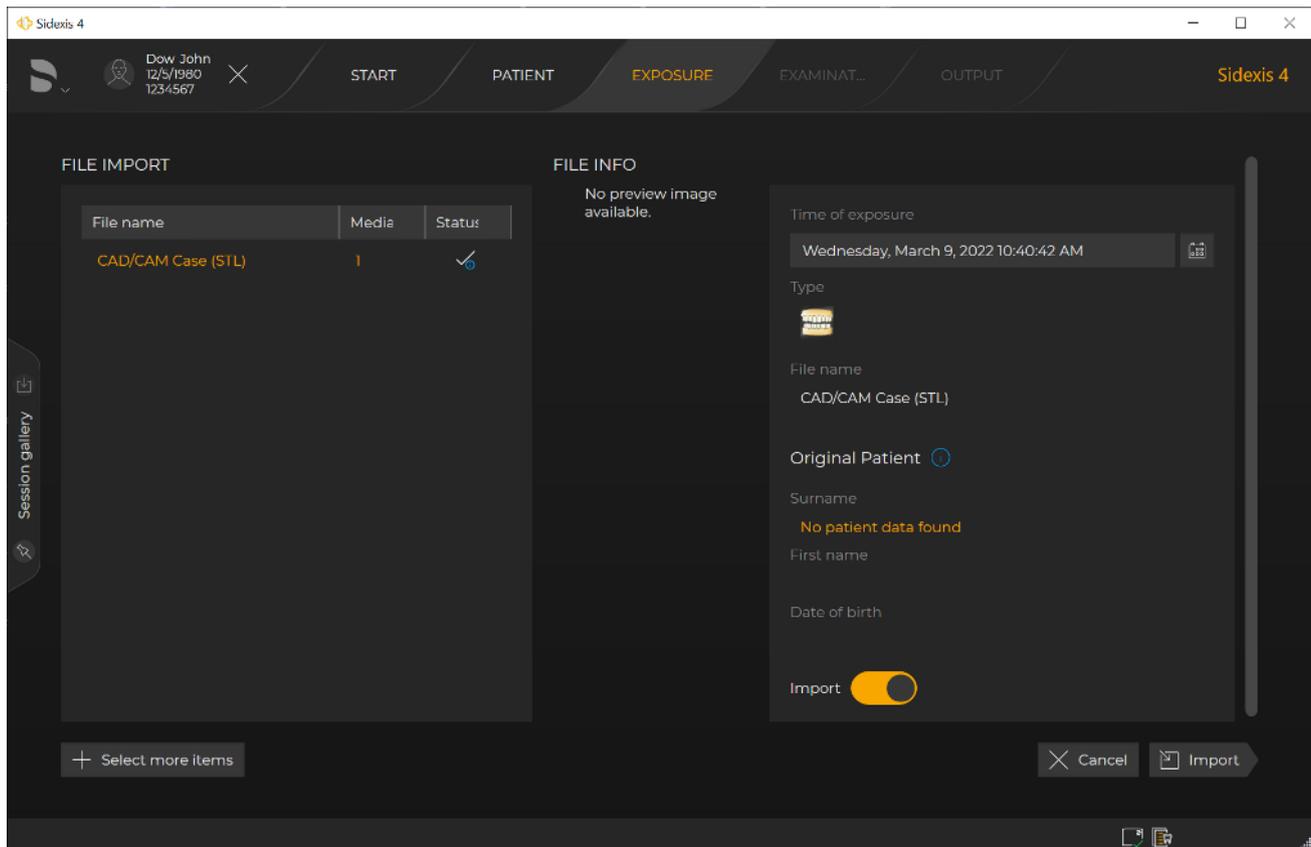
When surface data is imported in STL format (A), "Configure surface data" (B) appears in the "File import" menu. By clicking on this button, the "Surface data editor" opens:



"Surface data editor"

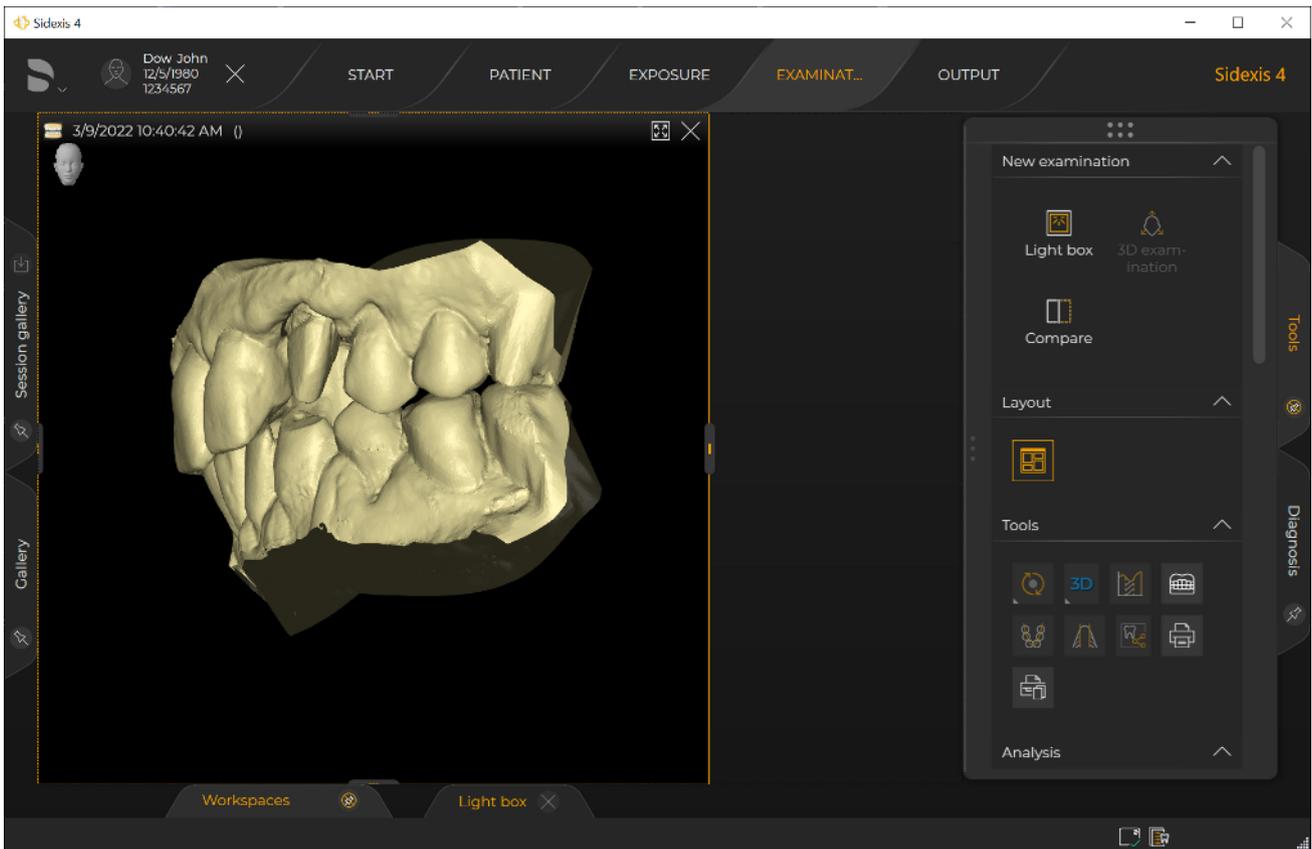
C	Import preview
D	Symbol for hiding an object
E	Drop-down list for the object type: "Lower jaw", "Upper jaw", "Buccal" or "Other"
F	Switch: Select or deselect for import The switch always applies to the drop-down list in front of it.
G	Object line: By clicking on the object line, the desired object is also selected in the import preview. It is not possible to select an object by clicking in the import preview.
H	Buttons: Rotate +/- 90° The colors correspond to the rotation axes in the import preview. You can also change the view interactively and infinitely in the import preview. To do this, you move the mouse pointer over the desired rotation axis (orange, green, or blue), press the left mouse button, and move the mouse pointer up/down or left/right with the mouse button held down.
I	Switch: Swap outside and inside
J	Reset view
K	Display/hide grid

1. Assign an object type to the individual objects using the drop-down lists.
2. Select which individual objects are to be imported using the switch.
3. If so desired, set even more surface data in the *"Surface data editor"* and confirm the settings by clicking on the *"Confirm"* button. You can find further information on the *"Surface data editor"* in the section *"Editing surface data"*.
↳ The *"Surface data editor"* closes.



"File import" menu

- ↳ The *"File import"* menu appears.
4. Click on the *"Import"* button to start the import.



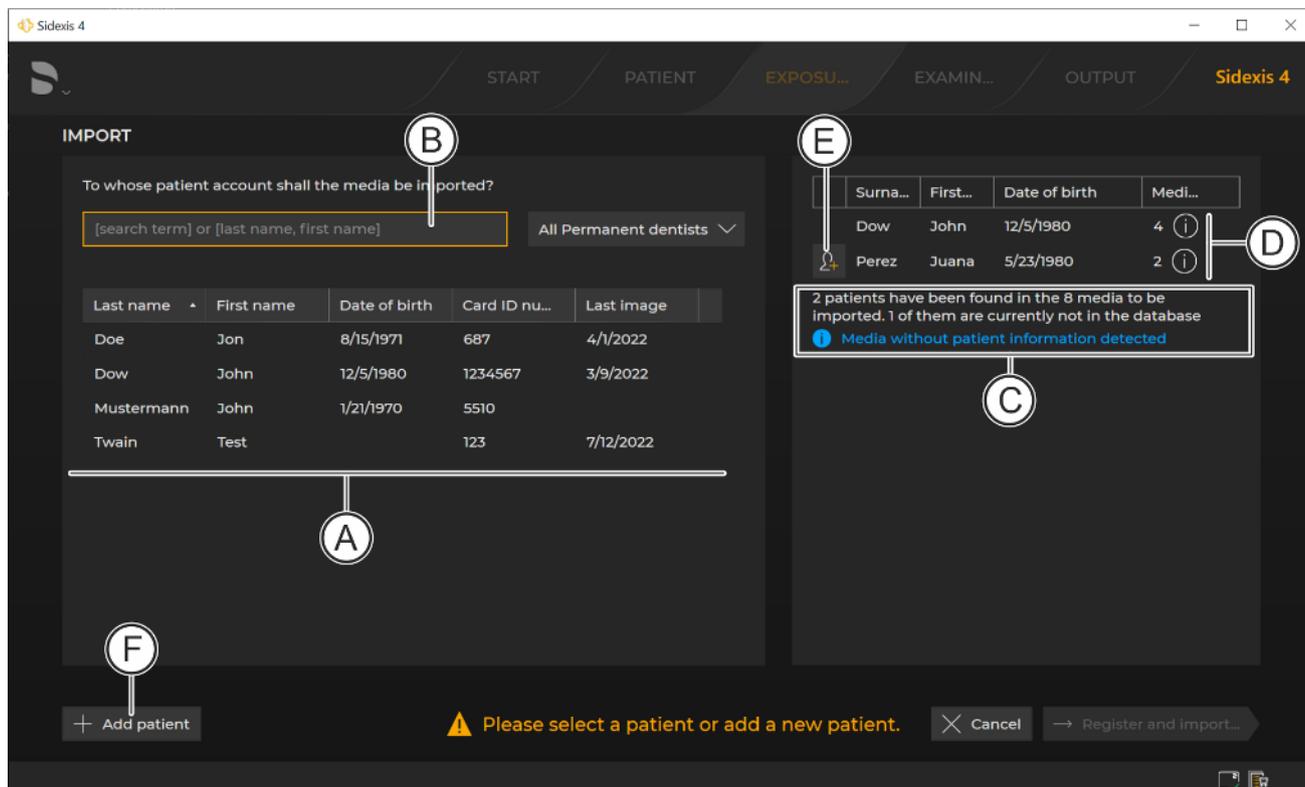
Imported surface data

- ✎ The data is imported and displayed in the "Light box" of the "Examination" work phase.

The "Surface data editor" can be accessed via the "Tools" tool kit of the "Examination". The settings can also be amended there retroactively. Furthermore, the "Surface data" tool kit also provides the option of hiding/showing objects of the data record and coloring individual objects.

13.1.1.3 Media import with patient not logged in

If no patient has been registered when the media import is started (see the "Select files or folder / Open "File import" menu [-> 310]" section), then the "Patient selection" menu opens first instead of the "File import" menu after selecting the files or folders.



"Patient selection" menu

A	<p>Patient table</p> <p>If only files of a single patient were selected for the import, the patient table (A) is already prefiltered by this patient. You can remove the filter by deleting the entry in the input field (B).</p>
C	<p>Information on the file import:</p> <ul style="list-style-type: none"> – How many files identified for how many patients? – Have any media items been found without patient data?
D	<p>List of found patients.</p> <p>If files of patients who are not yet present in the current patient list were found, you can create a new patient in the patient table by clicking on the "Add patient" button (E). Known patient data is transferred directly to the "Patient editor".</p>
E	<p>"Add patient" button for adding a patient if data of a patient that is not yet present in the patient table was detected during import.</p>
F	<p>"Add patient" button for adding the patient to the patient table (independent of the imported data).</p>

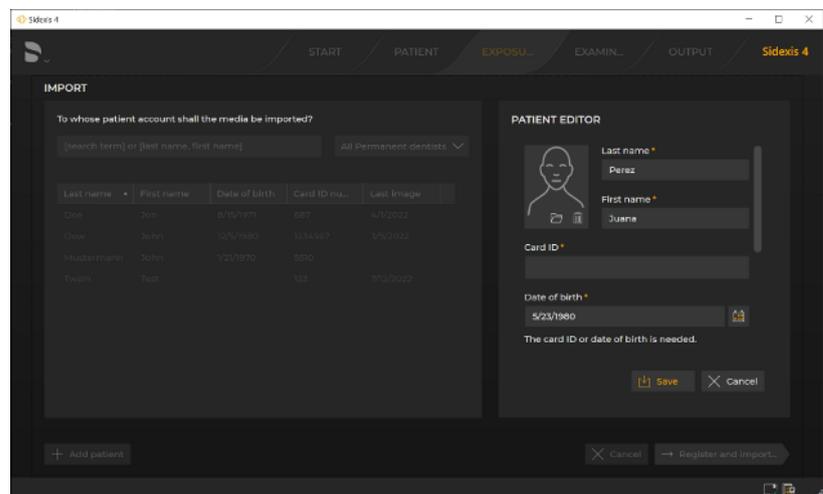
The files to be imported must be allocated to a patient in this menu. To do this, proceed as follows:

If the patient to whom the images are to be allocated is already present in the patient list:

1. Select the patient to whom the images are to be allocated in the patient list (A) and click the *"Register and import..."* button.
 - ↳ The images are allocated to the selected patient.
 - ↳ The *"File import"* menu opens.
2. Proceed further as described in section "Edit import table / Start import [→ 313]".

If the patient to whom the images are to be allocated is not yet present in the patient list:

1. Click on the pictogram (E) in front of the patient you want to add to the patient table.



"Patient editor"

- ↳ The *"Patient editor"* opens.
- ↳ Provided that it is known the patient data is automatically added to the input fields in the editor.
2. Enter all additional required data in the input fields in the editor (see also section "Editing patient details").
3. Click the *"Save"* button once you have entered the patient details.
 - ↳ The images are allocated to the new patient who has been set up.
 - ↳ The *"File import"* menu opens.
4. Proceed further as described in section "Edit import table / Start import [→ 313]".

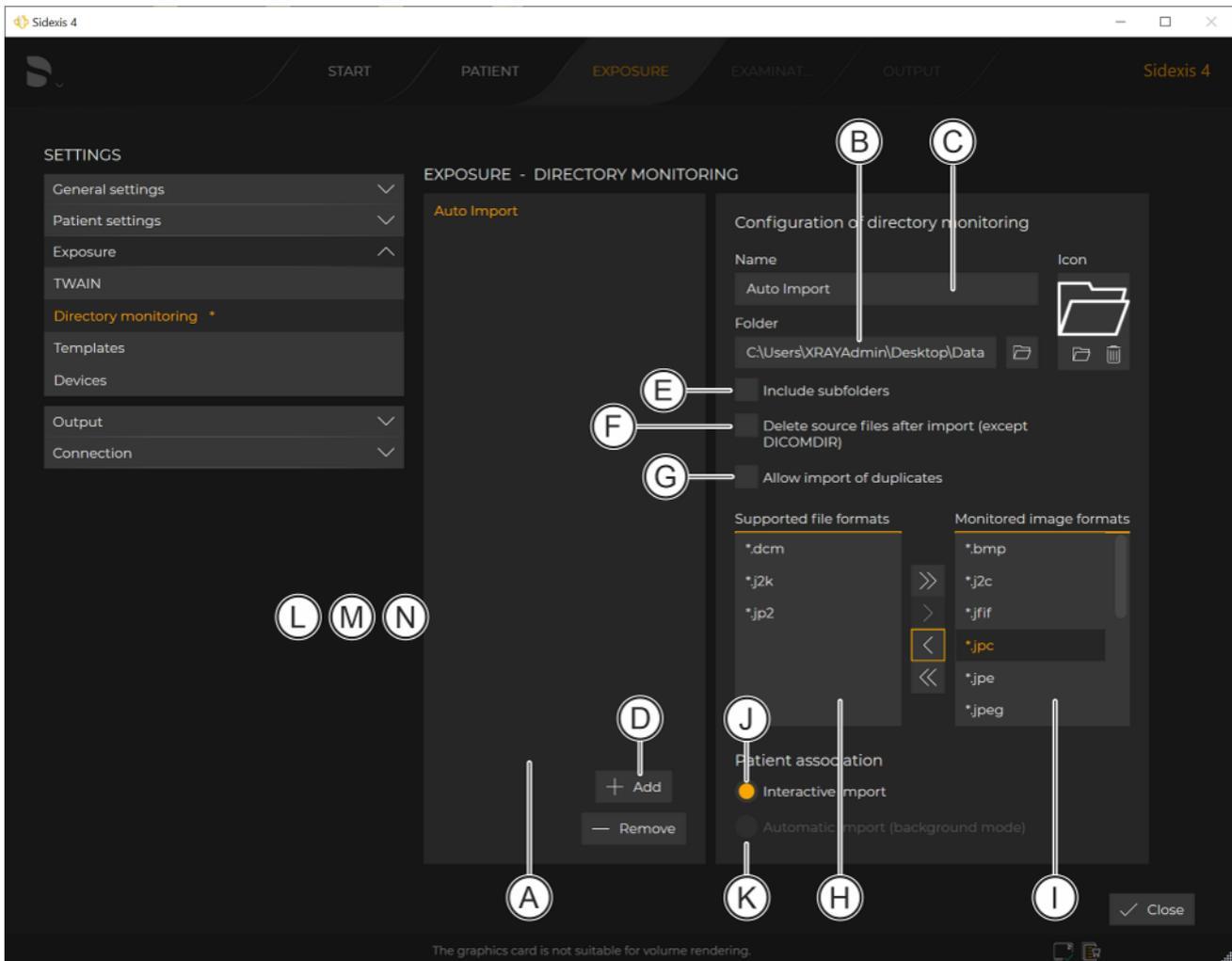
13.1.2 Automatic import via directory monitoring

Via the directory monitoring, you can automatically import a media item from a "monitored" folder.

To do this, this function must be set up via the "Directory monitoring" configuration menu. You can create and delete "monitored" folders and specify which media items are to be automatically imported with which patient assignment.

Setting up directory monitoring

1. Open the system menu [→ 61].
2. In the structure tree, select the submenu "Settings" → "Exposure" → "Directory monitoring".



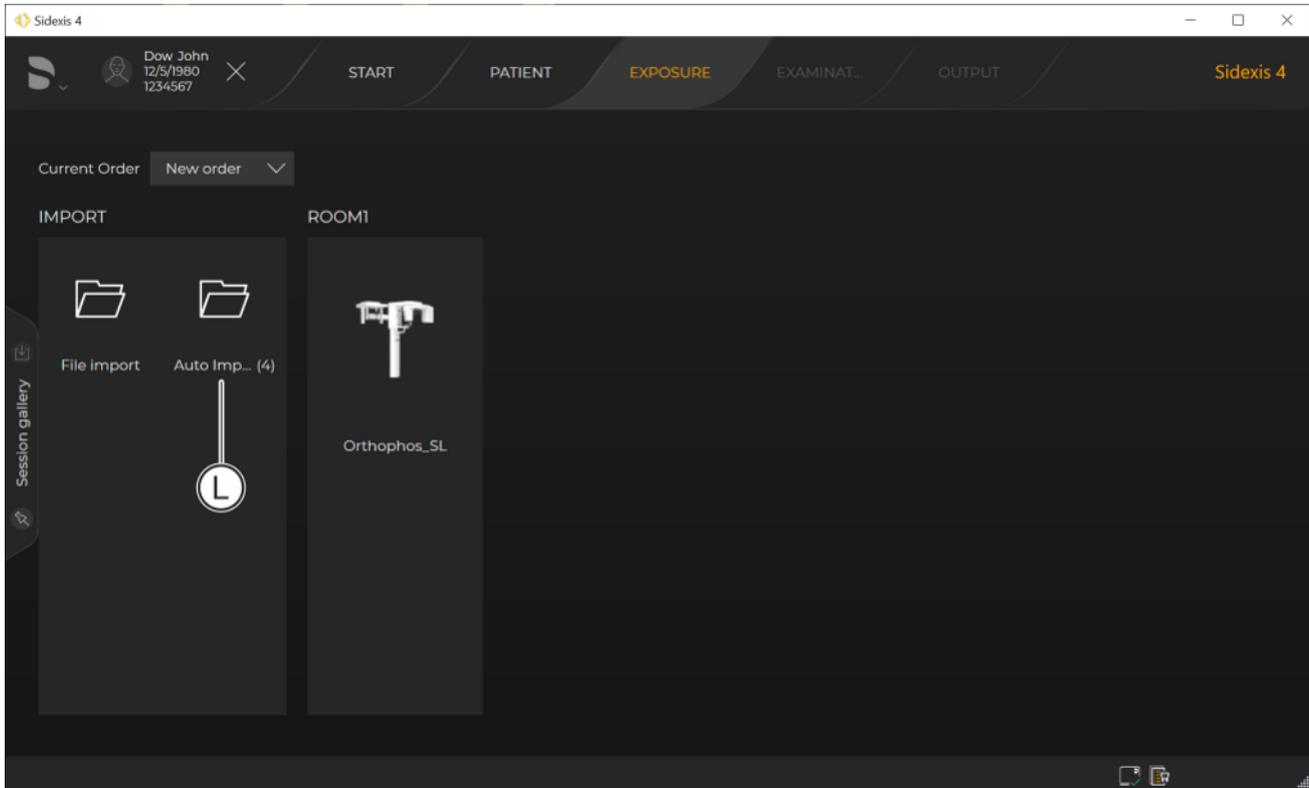
"Directory monitoring" menu

3. Select a directory from the "Directory monitoring" list (A).
 - ↳ The "Directory monitoring" menu is displayed.
 - ↳ The currently configured name for the monitored folder (as it is displayed in the "Exposure" work phase) and the path to the corresponding folder (in which the image data to be imported is located) are entered in the "Name" (C) and "Folder" (B) input fields.
4. If necessary, change the entries in the input fields.

5. *If the folder does not yet exist...*
Create it by clicking on the "Add" button (D) and enter the desired name and path in the "Name" (C) and "Folder" (B) input fields.
6. *If image data from subfolders is also to be imported...*
Select the "Include subfolders" check box (E) in the "Directory monitoring" menu.
7. *If image data is also to be deleted from the directory folder after the import...*
Select the "Delete source files after import (except DICOMDIR)" check box (F) in the "Directory monitoring" menu.
The "deleted" files are not actually deleted but are instead moved from the Import folder to the Temp folder. The temp folder must therefore be deleted every now and then.
8. *If media items that are already present in the database (duplicates) are to be imported...*
Select the "Allow import of duplicates" check box (G) in the "Directory monitoring" menu.
9. Select the formats that are to be imported in the "Supported file formats" list (H) and transfer these formats to the "Monitored image formats" list (I) by clicking on the button with the (single) arrow.
Clicking on the button with the double arrow transfers all the formats from the "Supported file formats" list to the "Monitored image formats" list.
10. Use the "Interactive import" (J) and "Automatic import (background mode)" (K) option buttons to choose whether the imported media items are to be assigned interactively to one or various patients via the "File import" menu, or whether the imported media items are to be automatically assigned to the registered patient.
Automatic assignment of media items is only possible if a patient is registered at the time of the import.
11. Close the menu with the "Close" button.
 - ↳ The configuration is saved automatically.
 - ↳ All the directories listed in the "Directory monitoring" list appear in the "Exposure" work phase.

Importing media

- ✓ Folders have been created for the directory monitoring.
- 1. Click on the "Exposure" button in the title bar of Sidexis 4.
 - ↳ The "Exposure" work phase opens.

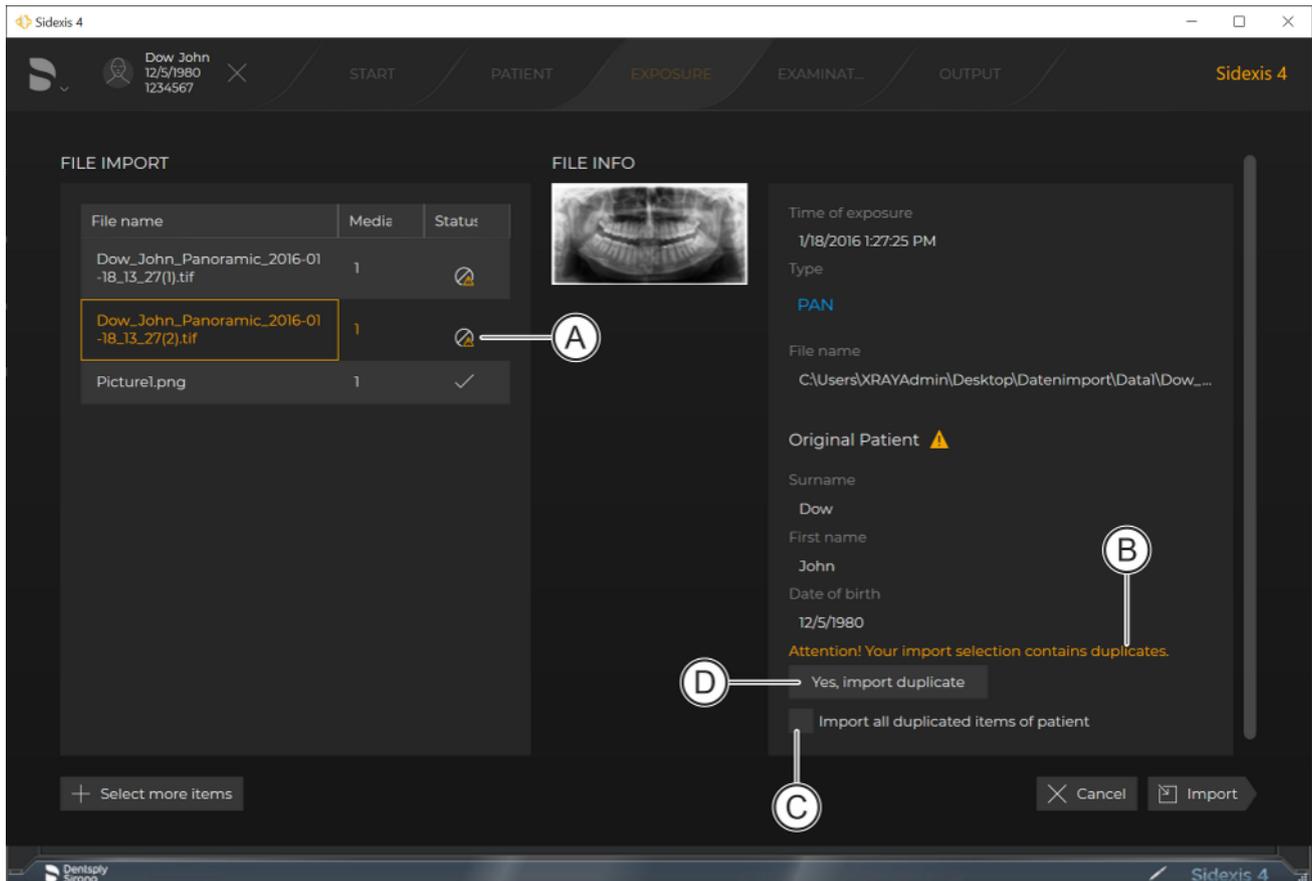


"Exposure" work phase

- ↳ All folders defined for the directory monitoring are displayed (L).
- 2. Double-click on the desired folder.
 - ↳ The media items are assigned to the patient who is stored in the data of the media item. If this patient does not yet exist in Sidexis 4, the patient is created automatically.

13.1.3 Importing duplicates

It is possible to import duplicates into the database. In order to import duplicates *without further actions in the import table*, the "Allow import of duplicates" check box must be selected in the "Directory monitoring" configuration menu [→ 322].



Importing a duplicate

If the "Allow import of duplicates" check box is not selected there, an icon indicating an existing import problem is displayed when an attempt is made to import a duplicate in the import table of the "File import" menu (see also section "Edit import table / Start import [→ 313]").

1. *To rectify the problem for the file selected in the import table:* Click on the "Yes, import duplicate" button (D).
↳ The status of the icon next to the file selected in the import table changes to "Problem rectified" and "to be imported".
2. *If the problem needs to be rectified for all duplicates of the registered patient:* Select the "import all duplicated items of patient" check box (C) and then click on the "Yes, import duplicate" button (D).



13.2 Import volume / external volume

External volumes are data records that originate from 3rd party manufacturers.

1. Start the import for volumes or third-party volumes as described in section "Import files / folder" via the "Exposure" work phase or using drag & drop. .

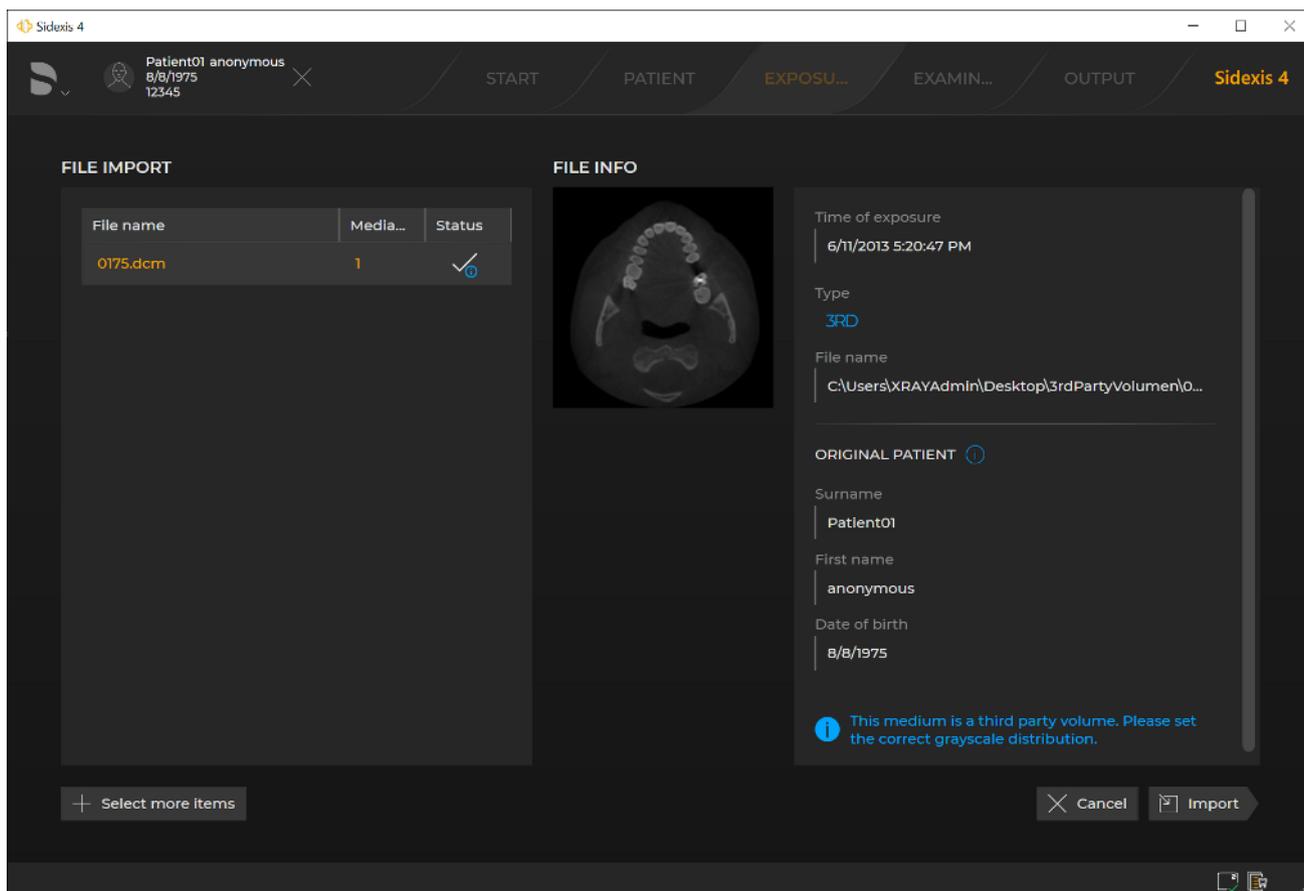
↳ The "File import" menu opens.

IMPORTANT

Media import for a non-registered patient

If no patient has been registered at this point, the "Patient selection" menu opens first. In such cases, the assignment of the files to the patient must be defined via this menu. The menu as well as the patient assignment options are described in section "Media import with patient not logged in".

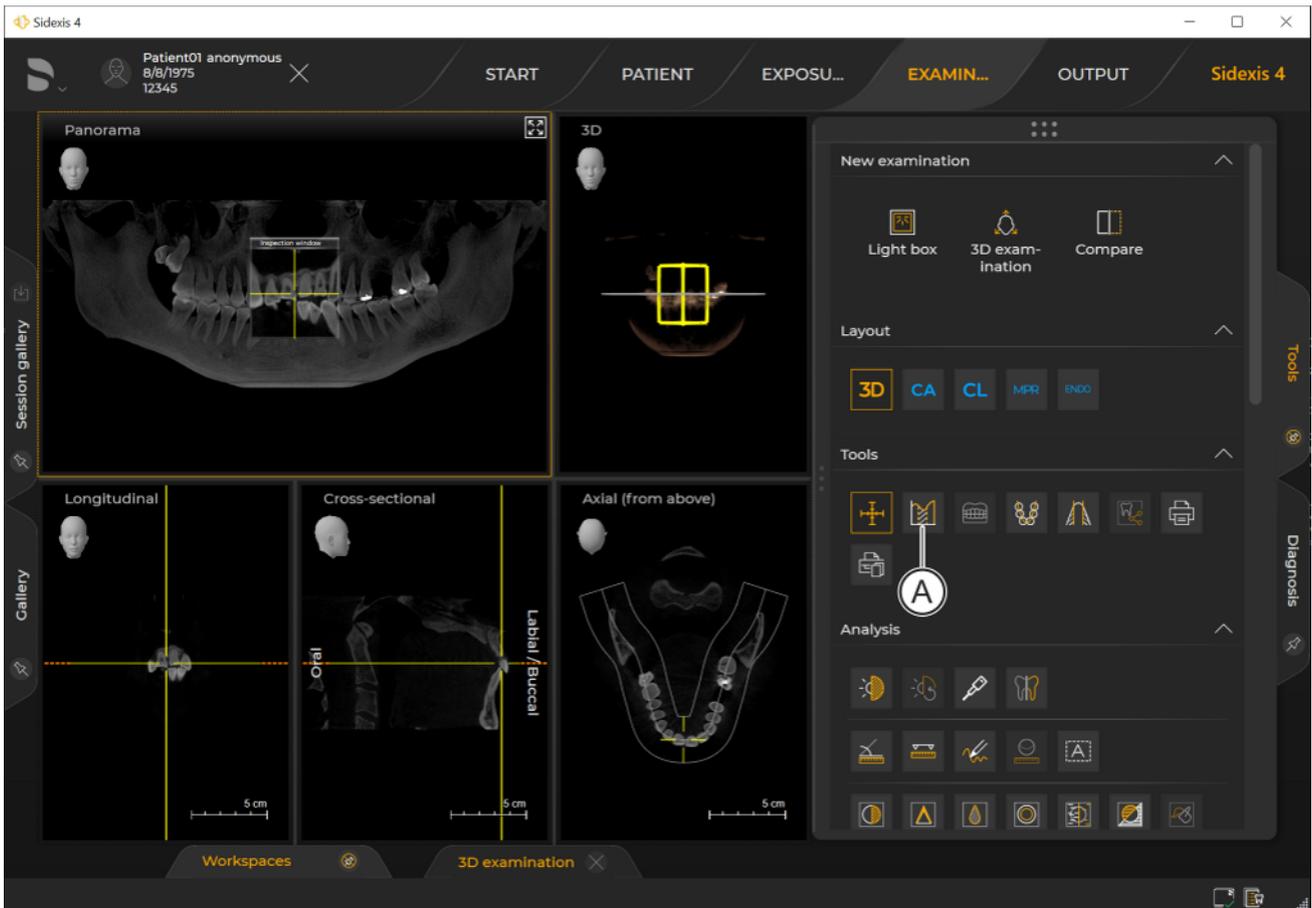
The same behavior also occurs when files or volumes are to be imported and the patient data is not recognized by Sidexis 4.



Importing third-party volumes

- ↳ In the screenshot, you see a notification that the selected media item is a third-party volume and a correct grayscale distribution must be set (see section "Setting the gray value distribution [→ 270]").

2. Click on the "Import" button.



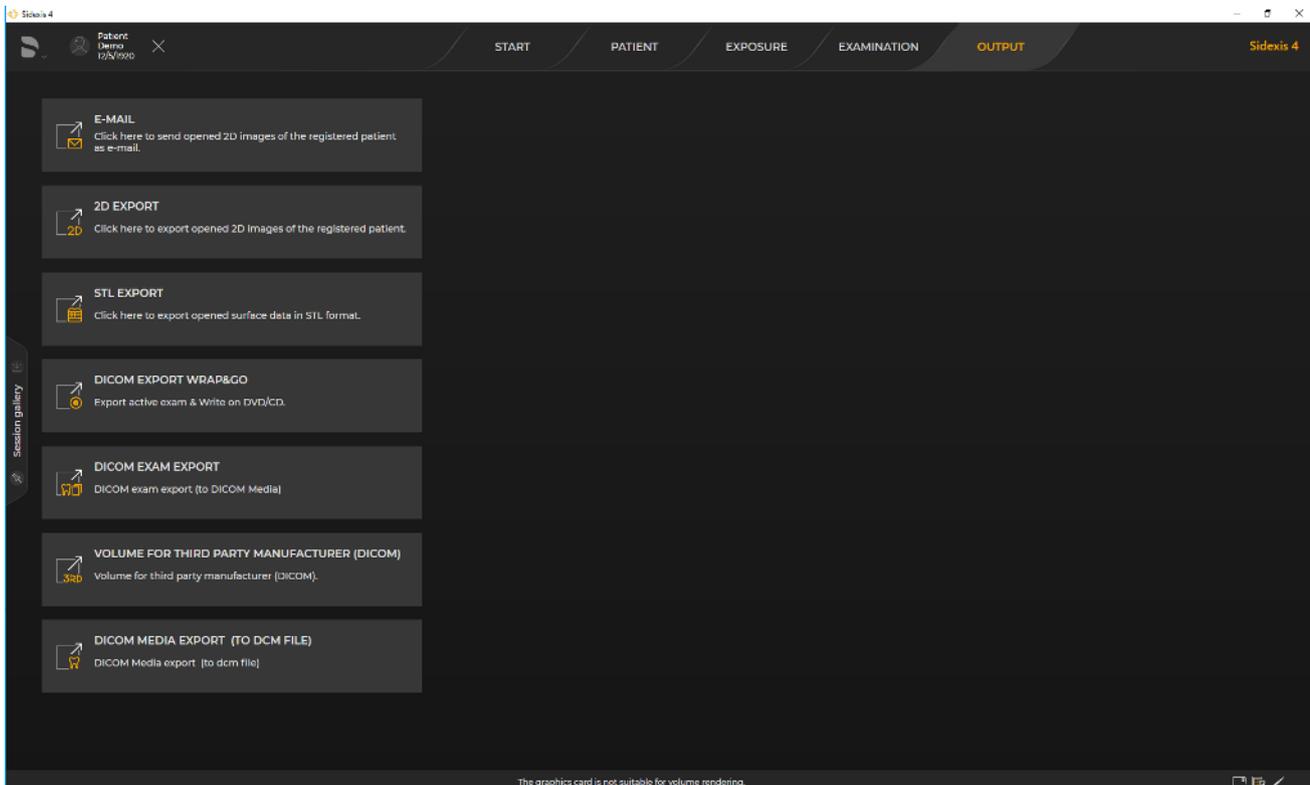
Imported third-party volume

- ↪ The volume is imported and opened in the "3D examination" work area.
- ↪ An icon (A) for setting the grayscale distribution and the bone reference value for the third-party volume is displayed in the "Tools" tool kit (see section "Adjust external volume").

13.3 Exporting media items

Sidexis 4 provides you with various options for exporting and sending media items and examinations saved with a patient in the "Output" work phase.

The export formats that are to be available to you in the "Output" work phase can be configured in the "Output" ⇒ "Output settings" configuration menu.



Exporting media items and examinations

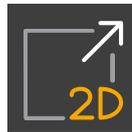
13.3.1 Exporting 2D views

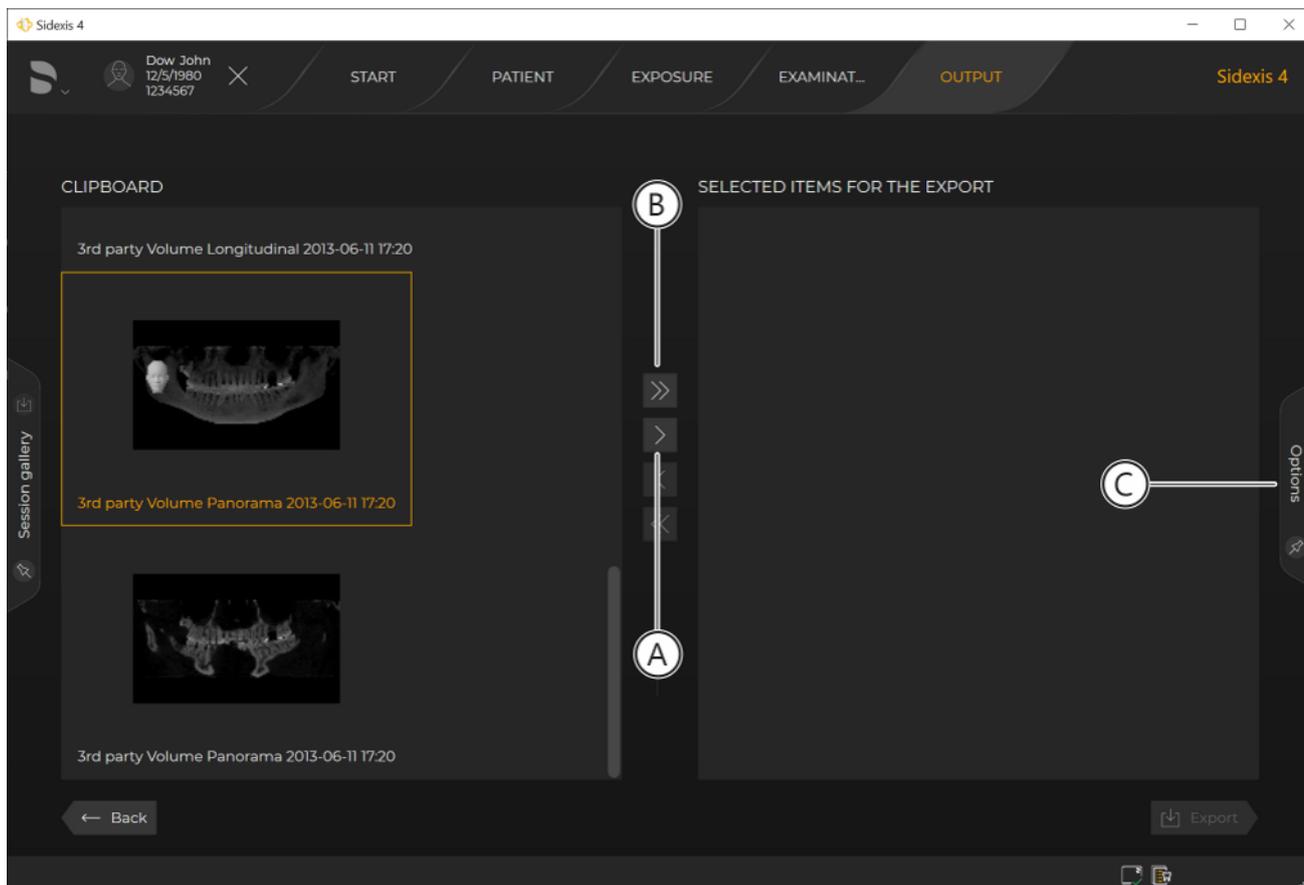
The "2D export" function can be used to export 2D views of image, volume and surface data. This means:

- All open 2D views for the current patient can be exported in 2D image formats.
- The 2D views are exported with the current settings for brightness, contrast, filters, etc.
- The "Default target directory" defined in the "Output" ⇒ "2D export" configuration menu is used for the export.
The export directory can be changed in the "2D export" menu.
- The following file naming convention is used:
 - For 2D (grid) images:
<Last name>_<First name>_<WorkspaceName>(possibly instance)_<Image type>_<Time>.<File extension>
 - For section views:
<Last name>_<First name>_<WorkspaceName> (possibly instance)_<Image type>_<Time>_<View type>.<File extension>

Proceed as follows to export the 2D views:

- ✓ The "Output" work phase is open.
 - ✓ At least one examination is open.
1. Click on the "2D export" button.
 - ↳ The "2D export" export menu opens.
 2. In the left "Clipboard" window, click on all media items that are to be exported.
 - ↳ The selected media items are highlighted orange.



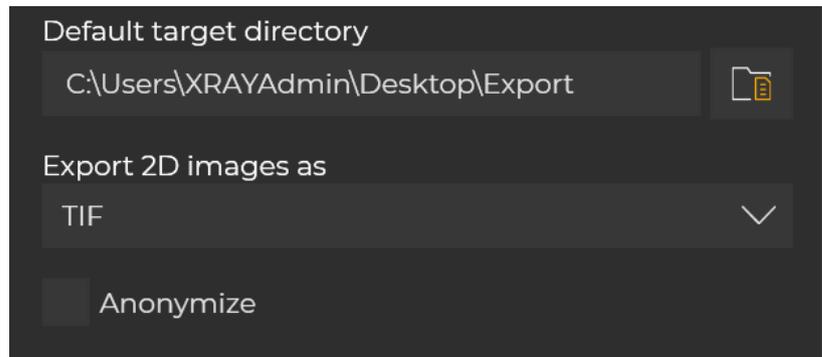


Selecting 2D media items for export

3. Transfer the *highlighted media items* to the right "*Selected items for the export*" window by clicking on the button with the single arrow (A).

or

- > Transfer *all media items* to the right "*Selected items for the export*" window by clicking on the button with the double arrow (B).
4. The media items appear in the right "*Selected items for the export*" window.
By selecting the media items in the right "*Selected items for the export*" window and then clicking on the buttons with the arrows (A or B), you can deselect the 2D media items for export and return them to the "*Clipboard*" window.
5. Click on the "*Options*" tab (C).



Export options

- ↳ The window for setting the export options opens.
 - ↳ The "Default target directory" defined in the "Output" ⇒ "2D export" configuration menu is entered in the input field.
6. If you would like to select a different export directory, click on the folder icon and select a different export path.
- or
- > Enter the export path using the keyboard.
7. If you want to export the media items without patient information, select the "Anonymize" check box.
Depending on the setting of the check box, this box is selected or deselected by default after opening the export menu.
 8. Click on the "Next" button.
 - ↳ The selected 2D media items are exported.

13.3.2 Sending 2D views by email

Only Outlook-compatible email clients are supported by Sidexis 4.

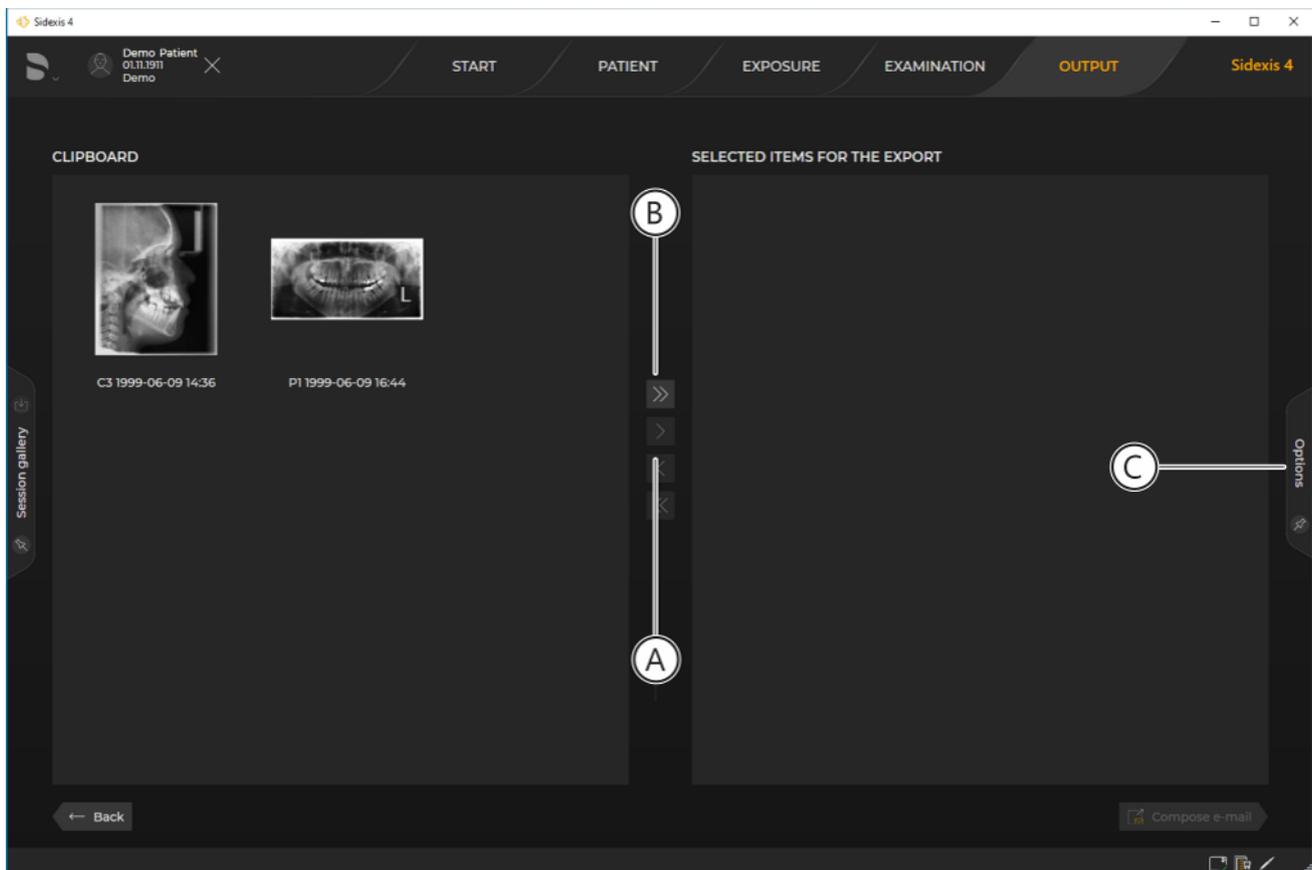
The "E-mail" function can be used to send 2D views of image, volume and surface data directly by email. The following applies:

- All open 2D views for the current patient can be sent in 2D image formats directly by email.
- The 2D views are saved with the current settings for brightness, contrast, filters, etc. as attachments to an email. The subject, body and recipients can be edited in the email client.
- The following file naming convention is used:
 - For 2D (grid) images:
<Last name>_<First name>_<WorkspaceName>(possibly instance)_<Image type>_<Time>.<Filename extension>
 - For section views:
<Last name>_<First name>_<WorkspaceName> (possibly instance)_<Image type>_<Time>_<View type>.<Filename extension>

Proceed as follows to send the 2D views:

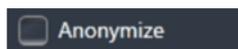
- ✓ The "Output" work phase is open.
- ✓ At least one examination is open.
- 1. Click on the "E-mail" button.
 - ↳ The "E-mail" menu opens.
- 2. In the left "Clipboard" window, click on all media items that are to be sent.
 - ↳ The selected media items are highlighted orange.





Selecting 2D media items to be sent by email

3. Transfer the *highlighted media items* to the right "*Selected items for the export*" window by clicking on the button with the single arrow (A).
- or
- > Transfer *all media items* to the right "*Selected items for the export*" window by clicking on the button with the double arrow (B).
4. The media items appear in the "*Selected items for the export*" window on the right.
By selecting the media items in the "*Selected items for the export*" window on the right and then clicking on the buttons with the arrows (A or B), you can deselect the 2D media items again for export and put them back in the "*Clipboard*" window.
5. Click on the "*Options*" tab.
↳ The window for setting the sending options opens.
6. If you want to export the media items without patient information, select the "*Anonymize*" check box.
Depending on the setting of the check box, this check box is selected or deselected by default after opening the export menu.
7. Click on the "*Compose e-mail*" button.
↳ A new email opens. The 2D views selected for sending are attached as files.



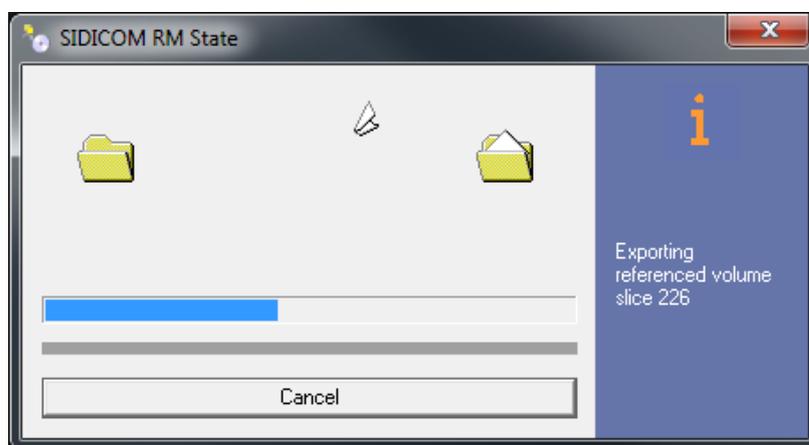
13.3.3 DICOM Export Wrap&Go

Using *"DICOM Export Wrap&Go"*, the active examinations including Sidexis 4 Viewer can be automatically exported and burned to a DVD or redirected to your file system. The following applies:

- All the media items of the currently registered patient – where specified – are exported in a format compatible with DICOM.
- Sidexis 4 Viewer is also burned to the DVD.

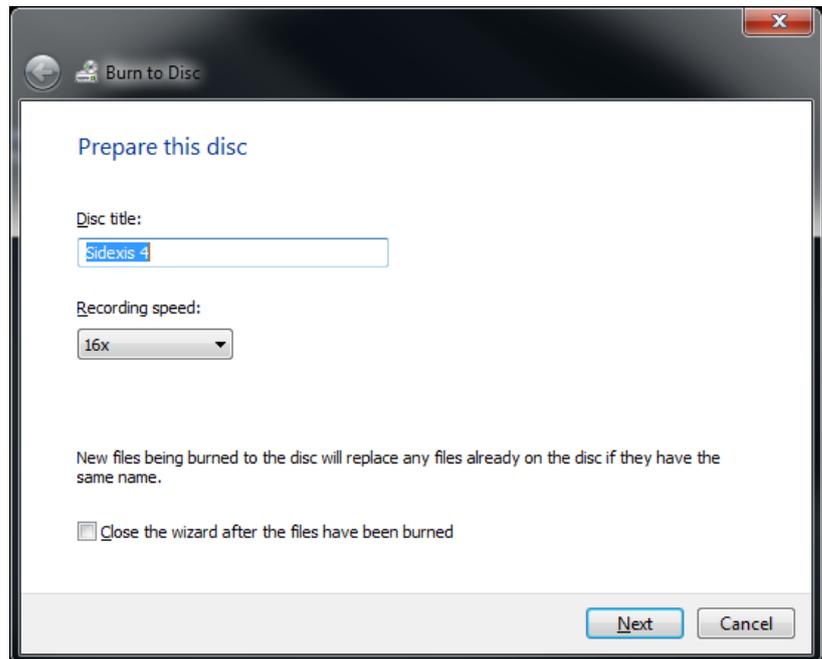
Proceed as follows to perform a DICOM export:

- ✓ The *"Output"* work phase is open.
 - ✓ At least one examination is open.
1. Click on the *"DICOM Export Wrap&Go"* button.



DICOM Export

- ↳ The DICOM Export starts.



Windows software to burn DVDs

- ↳ The Windows software to burn DVDs opens.
2. Burn the DVD as usual with your Windows program.

13.3.4 Exporting DICOM examination export and volumes

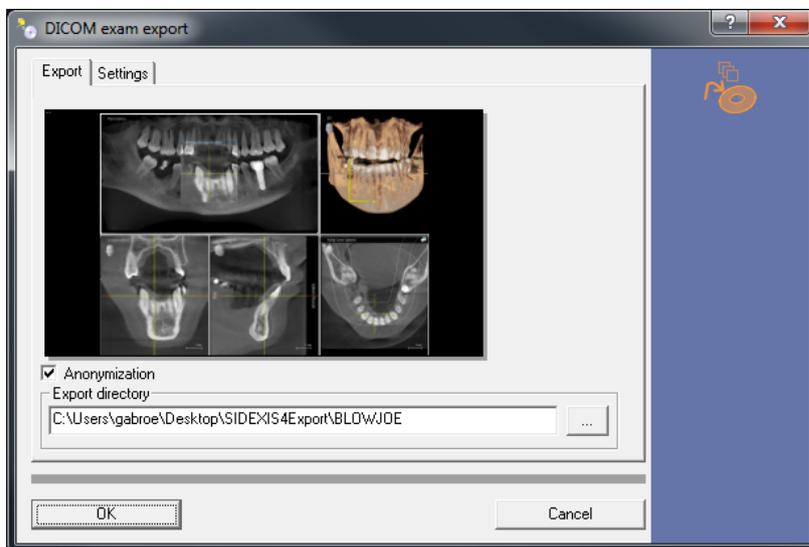
NOTE: Third-party volumes cannot be exported.

All open media items in a work area (2D views, volumes, and face scan surfaces) including raw 3D data, can be exported using the "DICOM examination report". The following applies:

- Findings are included in the export.

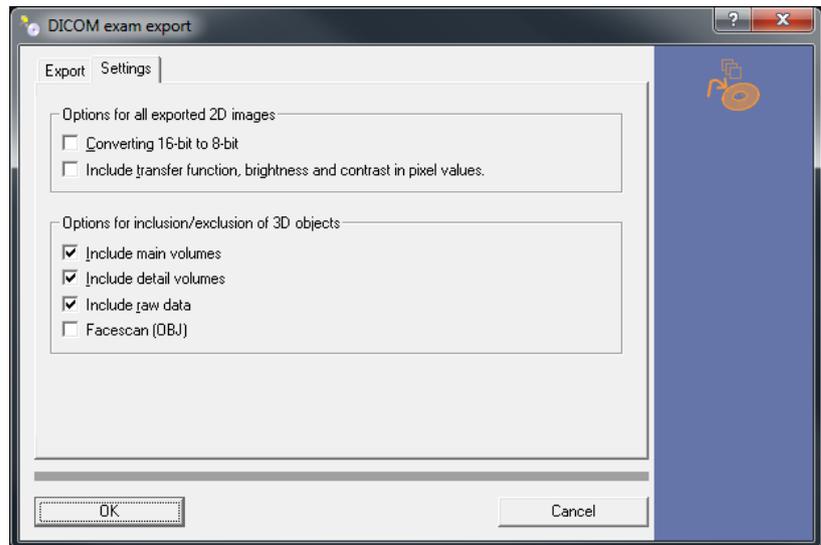
For the "DICOM examination report", please proceed as follows:

- ✓ The "Output" work phase is open.
 - ✓ At least one examination is open.
1. Click on the "DICOM exam export" button.



"DICOM exam export" menu

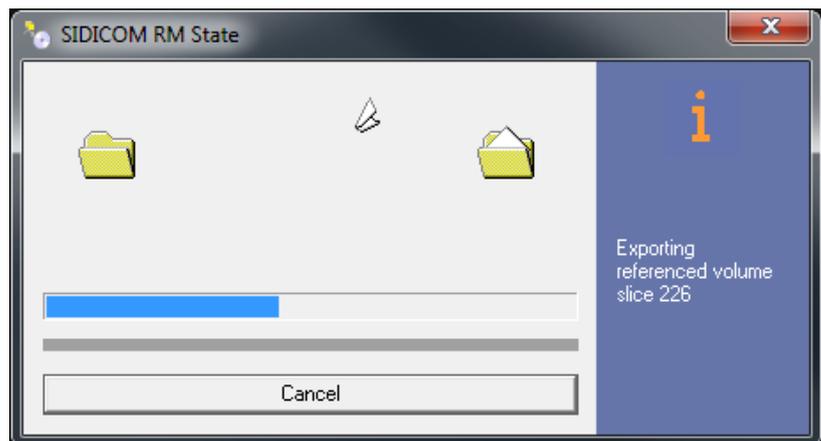
- ↳ The "DICOM exam export" menu opens.
 - ↳ The "Export" tab is selected.
2. Select the desired export directory by clicking on the folder icon.
or
> Enter an export path into the input field using the keyboard.
 3. Click on the "Settings" tab.
 4. Select your desired export settings.



Export settings for the DICOM examination export or to export volumes

"16 bit to 8 bit"	2D views are converted to 8 bit
"Include transfer function, brightness, and contrast in pixel values"	The transfer function, as well as brightness and contrast settings, are included in the export
"Include main volumes"	Main volumes are also exported
"Include detail volumes"	Detail volumes are also exported
"Include raw data"	Raw data are also exported
"Facescan (OBJ)"	Face scan surfaces are also exported

5. When you have applied all your settings, click on the "OK" button.



DICOM Export

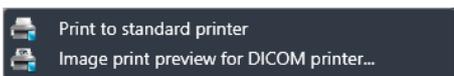
- ↳ The DICOM Export starts.
- ↳ The data is saved in the selected directory.

14 Printing

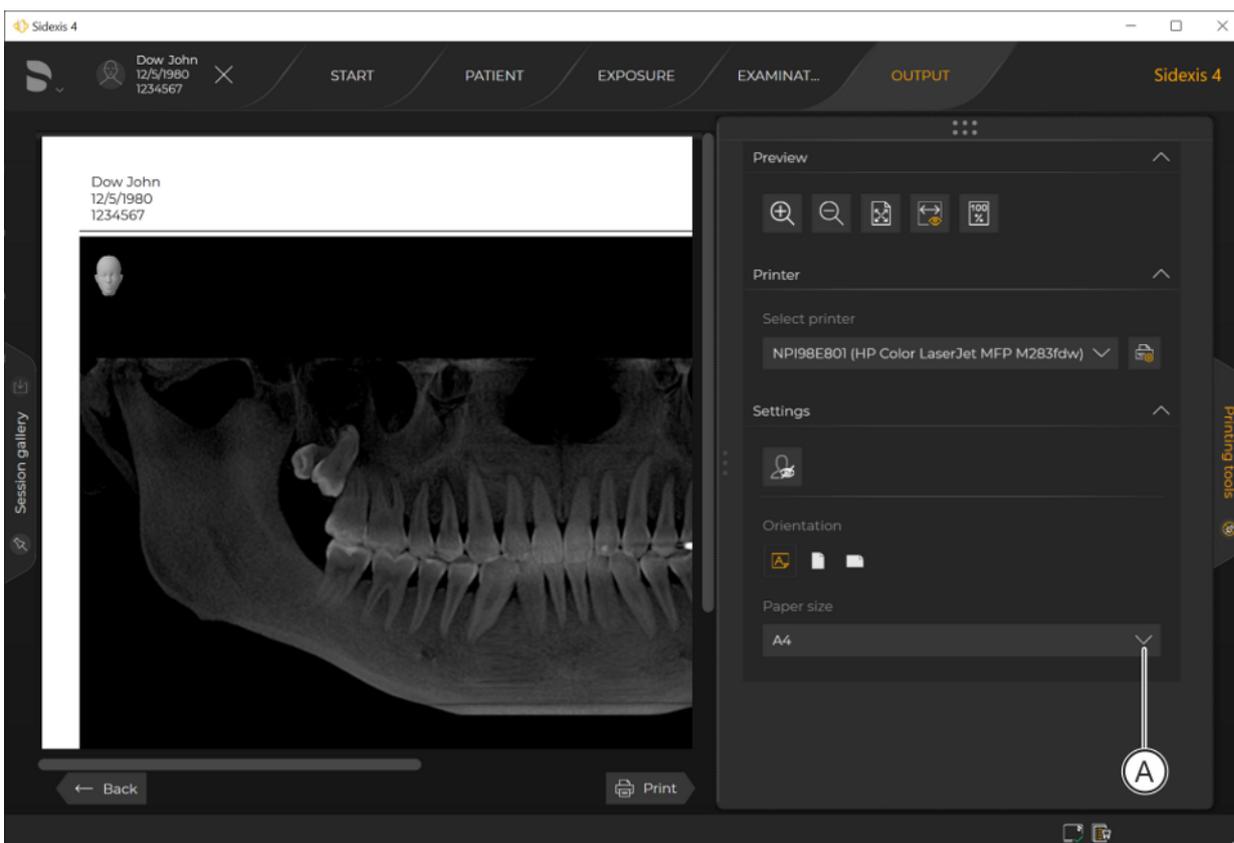
14.1 Printing an image

- ✓ The "Examination" work phase is open.
- ✓ The image to be printed out is open and selected in the work area. The selection of the image can be identified by the displayed title bar of the media window.

1. Click on the "Print selected image." button.



- ✎ If "DICOM PS" is installed, you can now also choose between standard and DICOM-Print in a submenu. Information on DICOM-Print is available in the "SIDICOM PS Installation and Operator's Manual" technical documentation (REF 6259241).

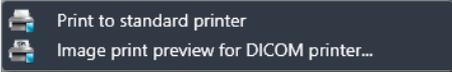


Print preview and "Printing tools" docking window (A)

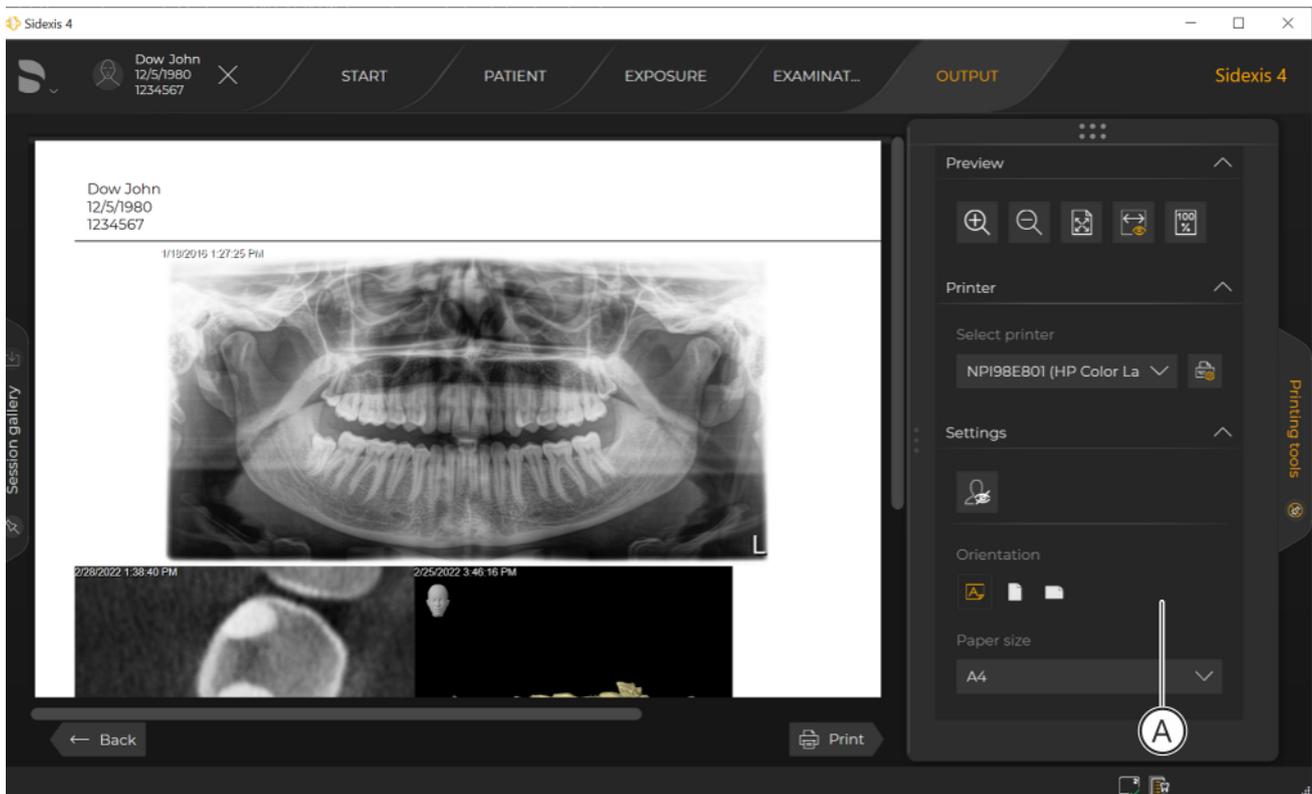
- ✎ Print preview and the "Printing tools" docking window (A) are displayed.
2. Select the desired printer in the "Printing tools" docking window and configure all the printer and printing settings.
 3. Click on the "Print" button.
 - ✎ The image is printed.

14.2 Printing a work area

- ✓ The "Examination" work phase is open.
 - ✓ The work area is set as desired.
1. Click on the "Print entire workspace with all the images." button.



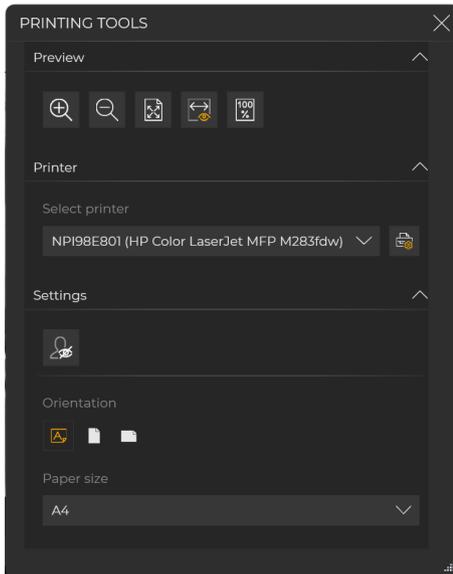
- ✎ If "DICOM PS" is installed, you can now also choose between standard and DICOM-Print in a submenu. Information on DICOM-Print is available in the "SIDICOM PS Installation and Operator's Manual" technical documentation (REF 6259241).



"Printing tools" print preview and docking window

- ✎ Print preview and the "Printing tools" docking window (A) are displayed.
2. Select the desired printer in the "Printing tools" docking window and configure all the printer and printing settings.
 3. Click on the "Print" button.
 - ✎ The work area is printed.

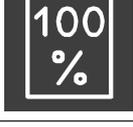
14.3 The "Printing tools" docking window

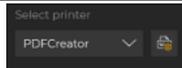
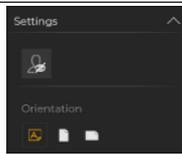
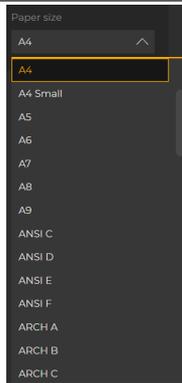


After clicking on the *"Print selected image."* and *"Print entire workspace with all the images."* buttons of the *"Tools"* tool kit of the *"Tools"* docking window, the *"Printing tools"* docking window is also shown with the print preview. This contains the tools for setting the print options. The tools are split into groups:

- *"Preview"*
- *"Printer"*
- *"Settings"*

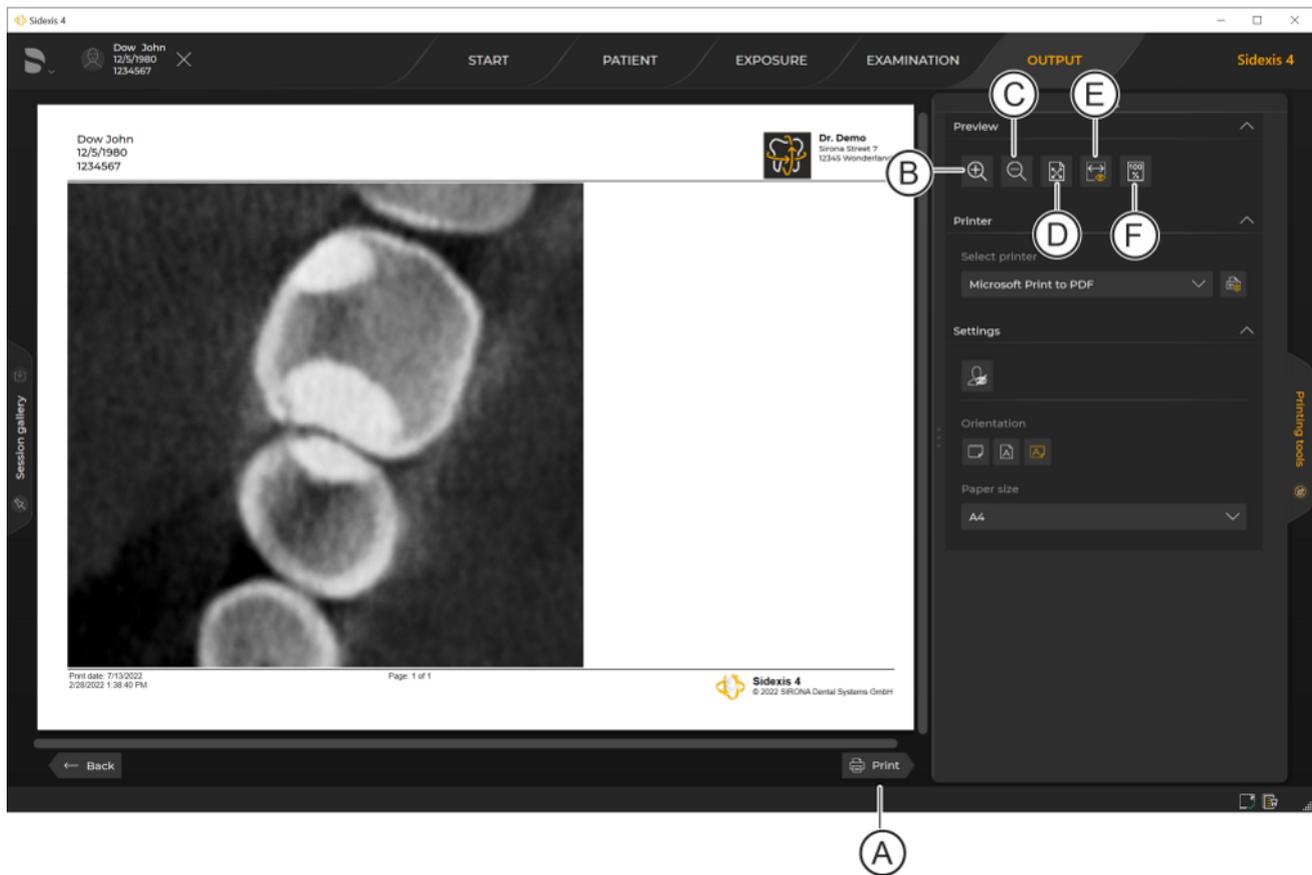
These groups can be collapsed and expanded by clicking on the group name with the mouse. The following tools and settings are available:

Button	Function
	Zoom in
	Zoom out
	Fitting to the work area
	Scaling to the width of the work area
	Scaling to original size
	Printout anonymization

Drop-down list	Function
	Select a printer
	Select printing format
	Select paper format

14.4 Print preview

Clicking on the "Print" or "Print entire workspace" button in the tool kit of the "Examination" work phase displays the print preview.



Print preview

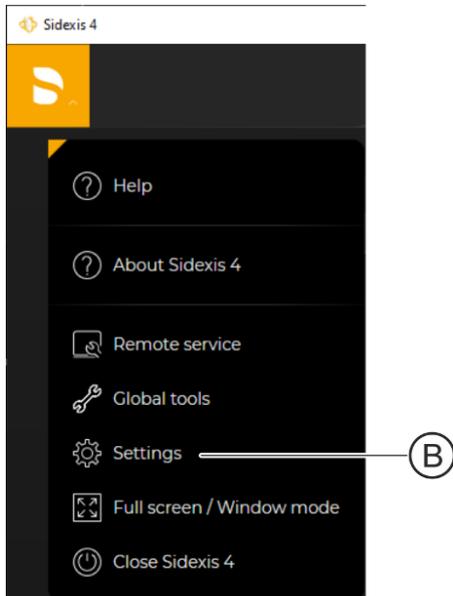
Button	Function	Shortcut key
A	Printing	[Ctrl]+[P]
B	Maximize content	[Ctrl]+[+]
C	Minimize content	[Ctrl]+[-]
D	Whole page	[Ctrl]+[3]
E	Page width	[Ctrl]+[2]
F	100%	[Ctrl]+[1]

15 Personalizing Sidexis 4

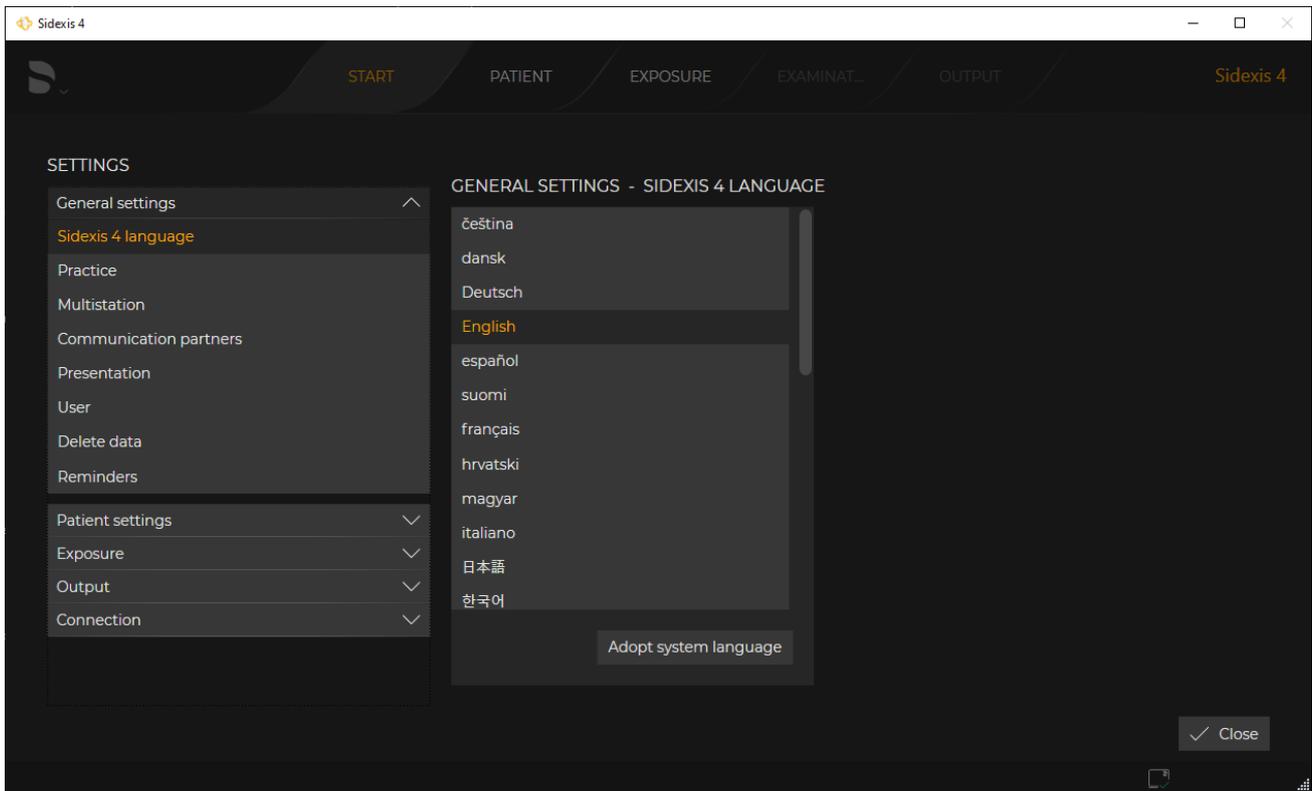
15.1 Opening the "Settings" menu



1. Click on the Dentsply Sirona logo (A) on the left in the title bar of the software.
↳ The system menu opens.



2. Click on the "Settings" button (B) in the system menu.

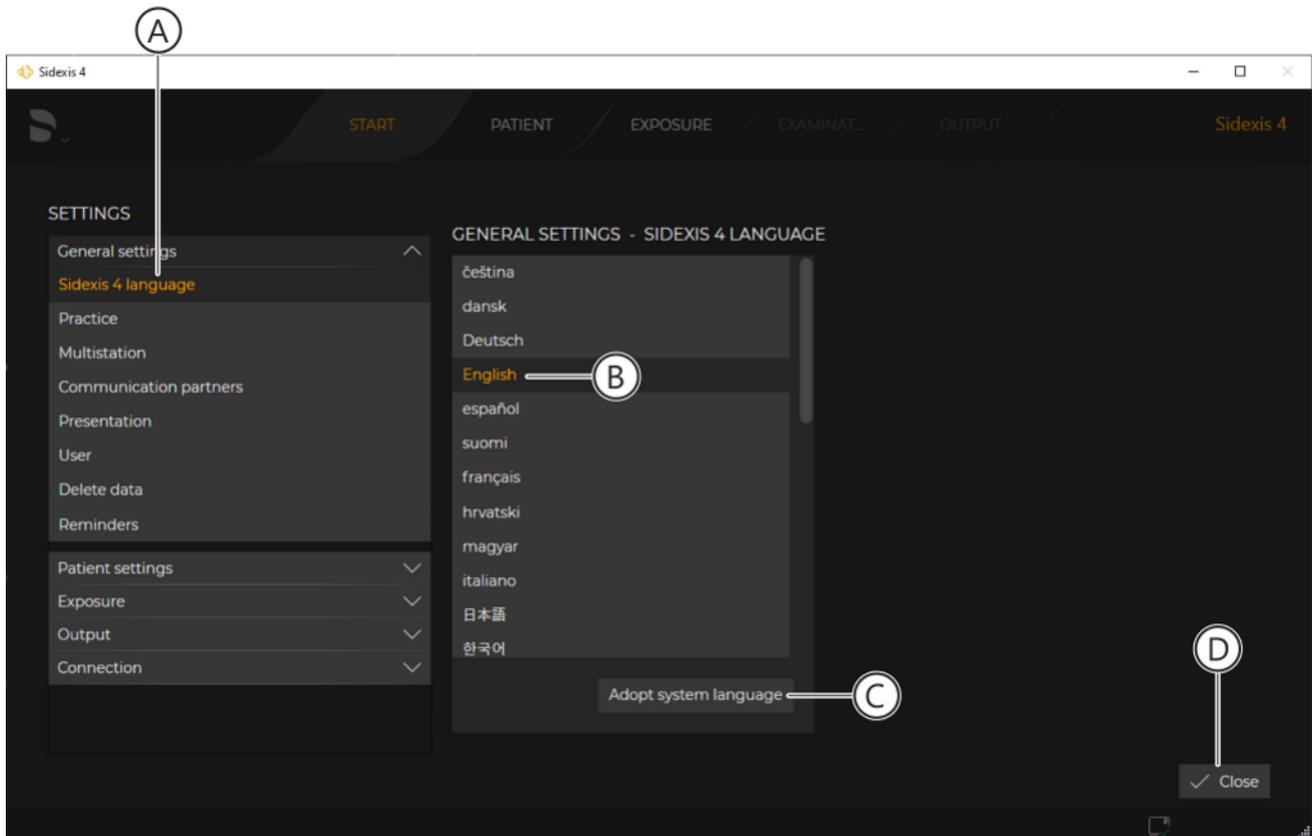


Configuration menu

☞ The configuration menu [→ 83] opens.

15.2 Setting the program language

- ✓ The configuration menu is open.
- 1. Click on the "General settings" ⇒ "Sidexis 4 language" buttons in the structure tree (A).



"Application language" menu

- ✦ The "Application language" menu is displayed.
- 2. Select the desired program language by clicking on one of the buttons (B).
- or
- > Adopt the current system language as the program language by clicking on the "Adopt system language" button (C).
If the system language is not available as a program language, English is automatically used as the program language.
- 3. Click on the "Close" button (D) or switch to a new submenu.
 - ✦ The message window opens. It points out to you that the setting for the program language has been changed, but that the change to the program language requires the software to be restarted.
- 4. Confirm the message window by clicking the "Ok" button.
- 5. Exit Sidexis 4 and restart the software.
 - ✦ Sidexis 4 starts in the new program language.

15.3 Practice-specific settings

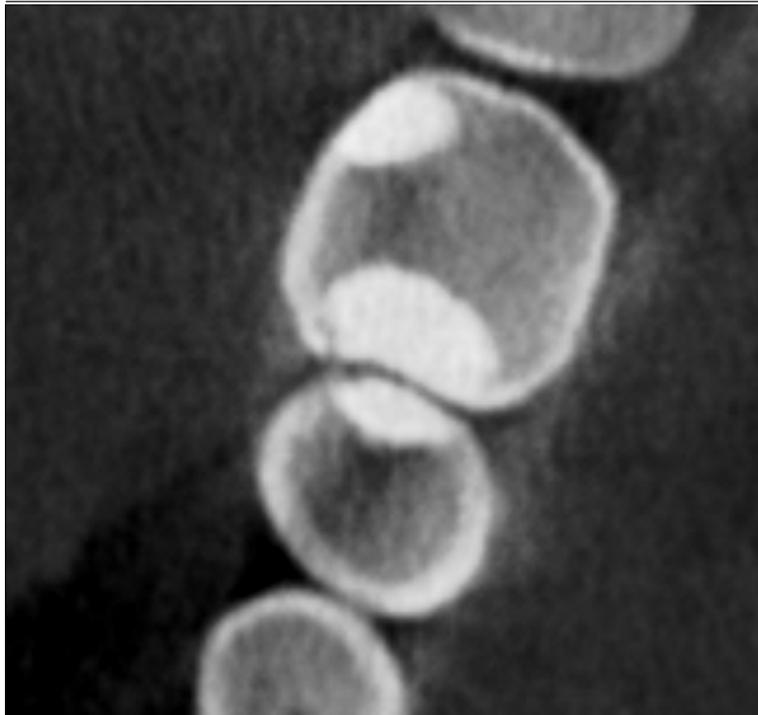
Via the configuration menu for "General settings" ⇒ "Practice" you can carry out the following practice-specific adjustments in Sidexis 4:

- Enter [→ 347] practice information
- Define [→ 348] practice logo
- Configure [→ 350] headers for printing
- Select [→ 354] dental chart

Dow John
12/5/1980
1234567



Dr. Demo
Sirona Street 7
12345 Wonderland



Print date: 7/13/2022
2/28/2022 1:38:40 PM

Page: 1 of 1

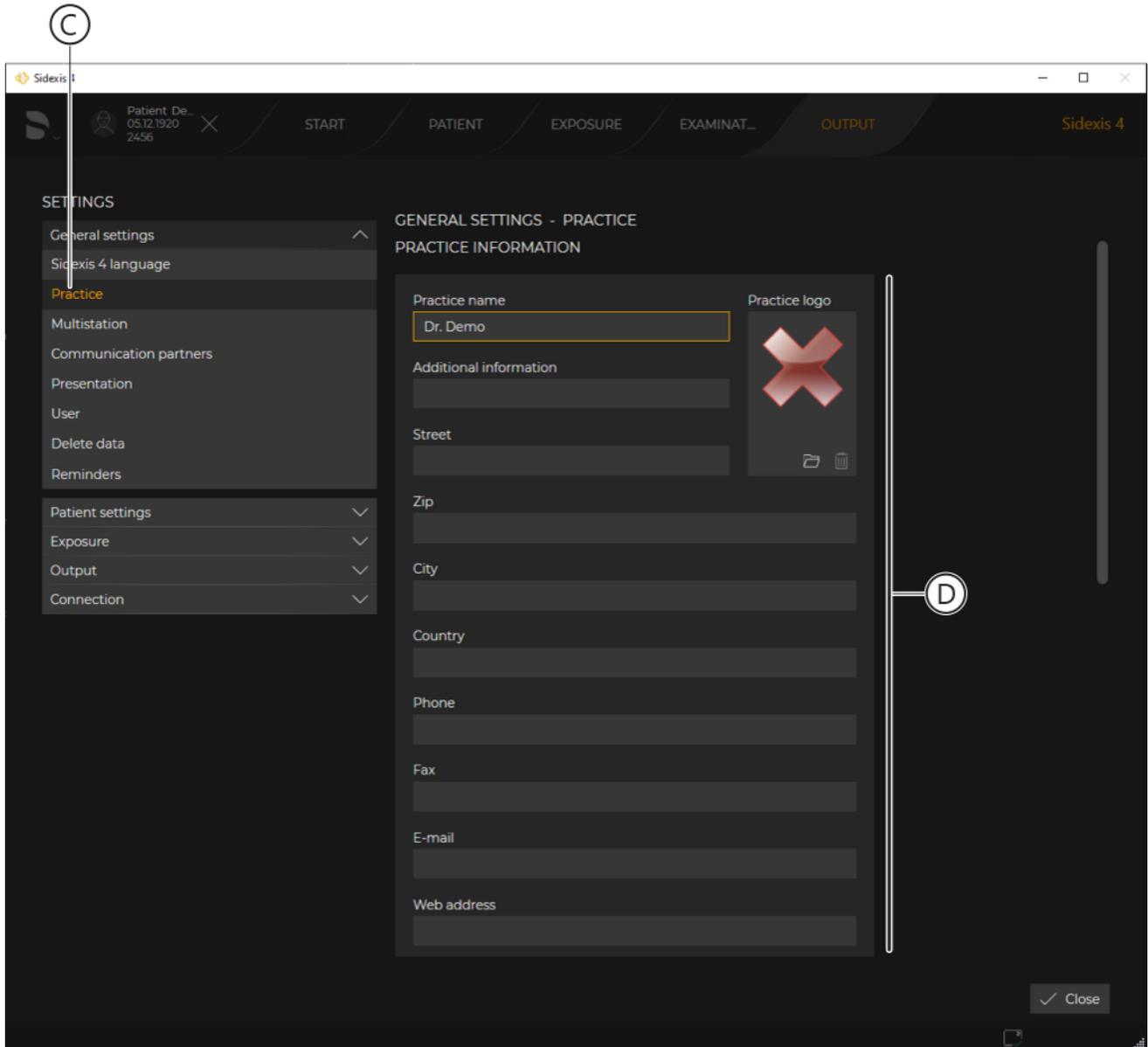


Sidexis 4
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When examinations are printed the individual practice data (A) and the practice logo (B) are shown in the examination. Proceed as described in the Enter practice information [→ 347], Define practice logo [→ 348] and Configure headers for printing [→ 350] sections to define this practice-specific presentation..

15.3.1 Enter practice information

- ✓ The configuration menu is open.
- 1. Click on the "General settings" => "Practice" buttons in the structure tree (C).
- ↳ The "Practice information" menu area is displayed.

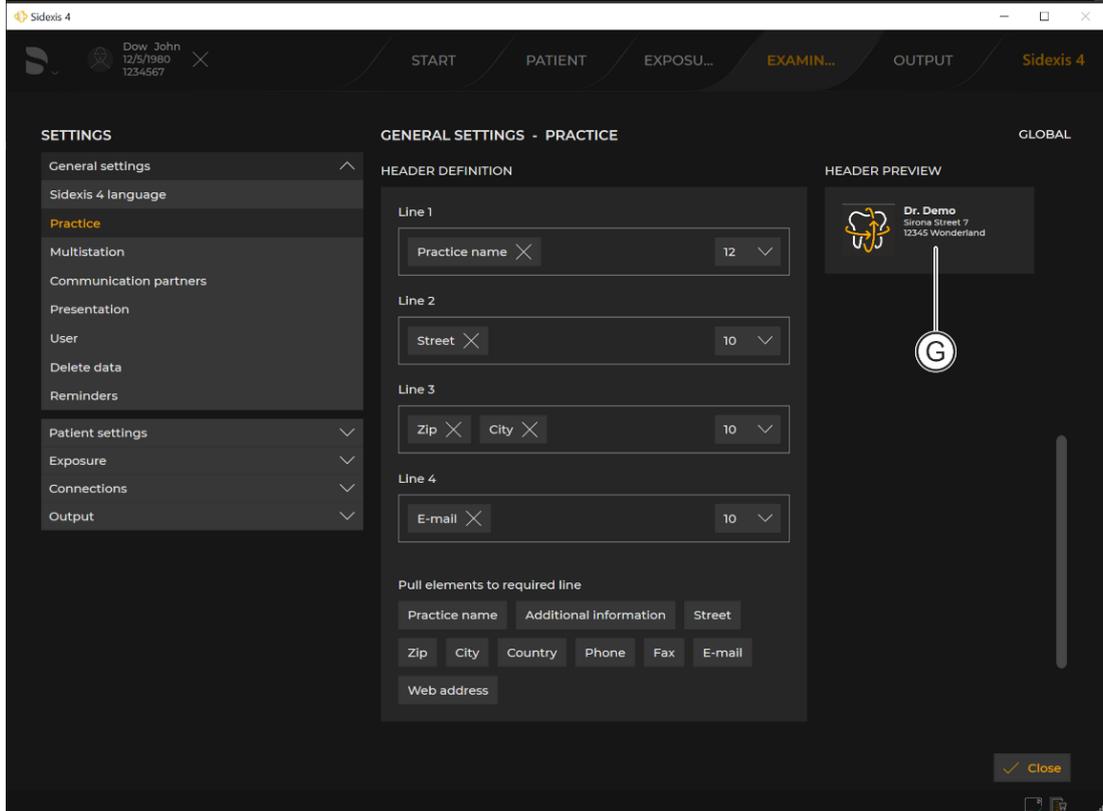
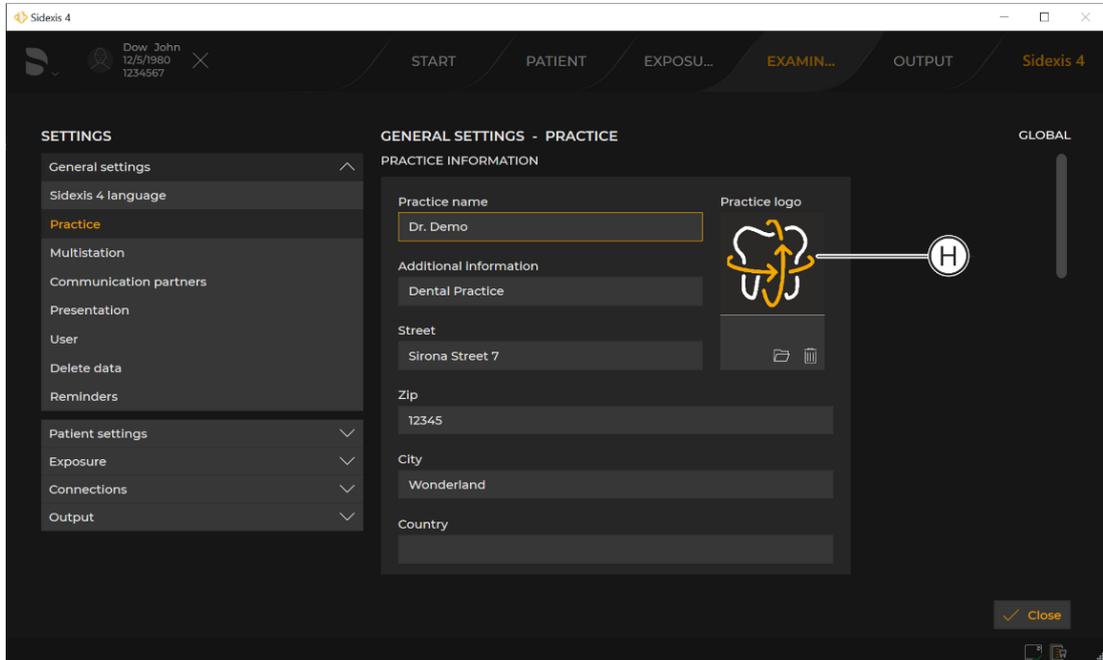


"Practice information" menu area

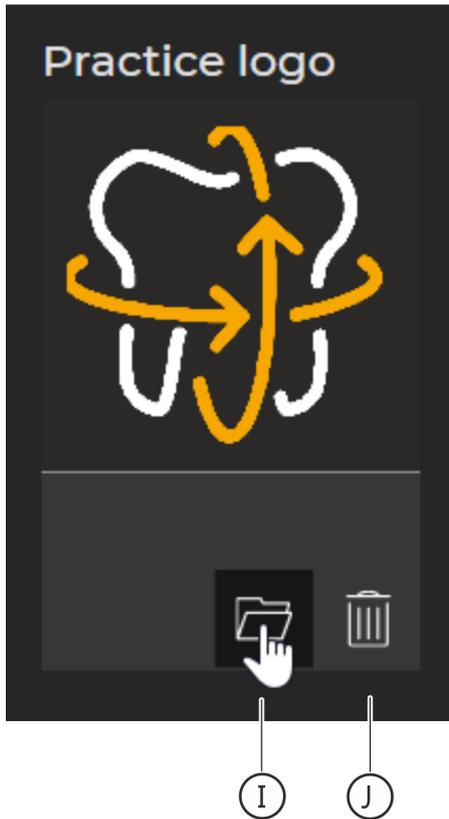
- 2. Enter the practice data in the input fields (D) using the keyboard. The "Practice name" field is a mandatory field. This means that there **must** be an entry made in this field. Entering data in the other input fields is optional.
- 3. Click on the "Close" button or switch to a new submenu.
 - ↳ The changes are saved in the memory and are now activated. If you have opened a print preview, this must be reopened in order to update the display.

15.3.2 Define practice logo

- ✓ The "General settings" → "Practice" configuration menu is open [→ 347].



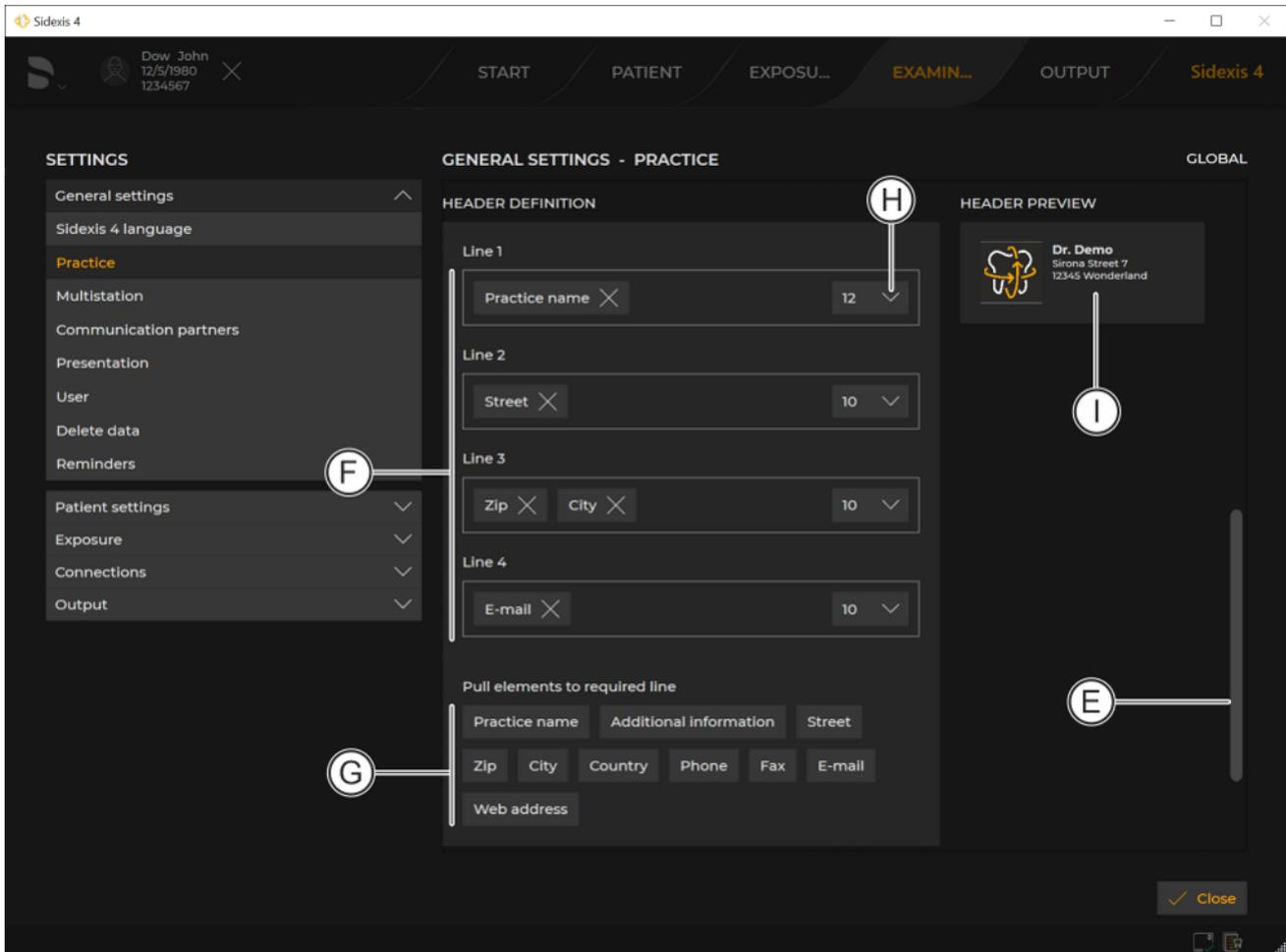
Defining practice logo display



1. Move the mouse pointer over the practice logo (H).
 - ↳ The "Folder" (I) and "Recycle bin" (J) buttons are shown.
2. Click on the "Folder" button.
 - ↳ The Windows file browser opens.
3. Select the desired file (practice logo) and confirm the selection via the "Open" button.
 - ↳ The selected practice logo is displayed in the preview window (G).
4. Click on the "Close" button or switch to a new submenu.
 - ↳ The changes are saved in the memory and are now activated. If you have opened a print preview, this must be reopened in order to update the display.

15.3.3 Configure headers for printing

- ✓ The "General settings" → "Practice" configuration menu is open [→ 347].



Define header

1. Use the scrollbar (E) to scroll further down in the menu to the "Header definition" menu area.
 - ✎ The practice information that is to appear in the header of your practice printouts is defined in lines 1-4 (F).
The following information is defined as a factory setting:
 - Line 1 = "Practice name"
 - Line 2 = "Street"
 - Line 3 = "Zip", "City"
 - Line 4 = "E-mail"
 - ✎ In the list fields (H) you can select the font size for the corresponding lines (in points).

HEADER DEFINITION

Line 1

Practice name X 12 V

Line 2

Street X 10 V

Line 3

Zip X City X 10 V

Line 4

E-mail X 10 V

Additional information

Pull elements to required line

Practice name Additional information Street

Zip City Country Phone Fax E-mail

Web address

Defining row contents

2. To define the row contents, move the mouse pointer over an element in the "Selection" area (G) and move it to the desired row using drag & drop.

HEADER DEFINITION

Line 1

Practice name X 12 V

Line 2

Street X 10 V

Line 3

Zip X City X 10 V

Line 4

E-mail X Additional informa X 10 V

Pull elements to required line

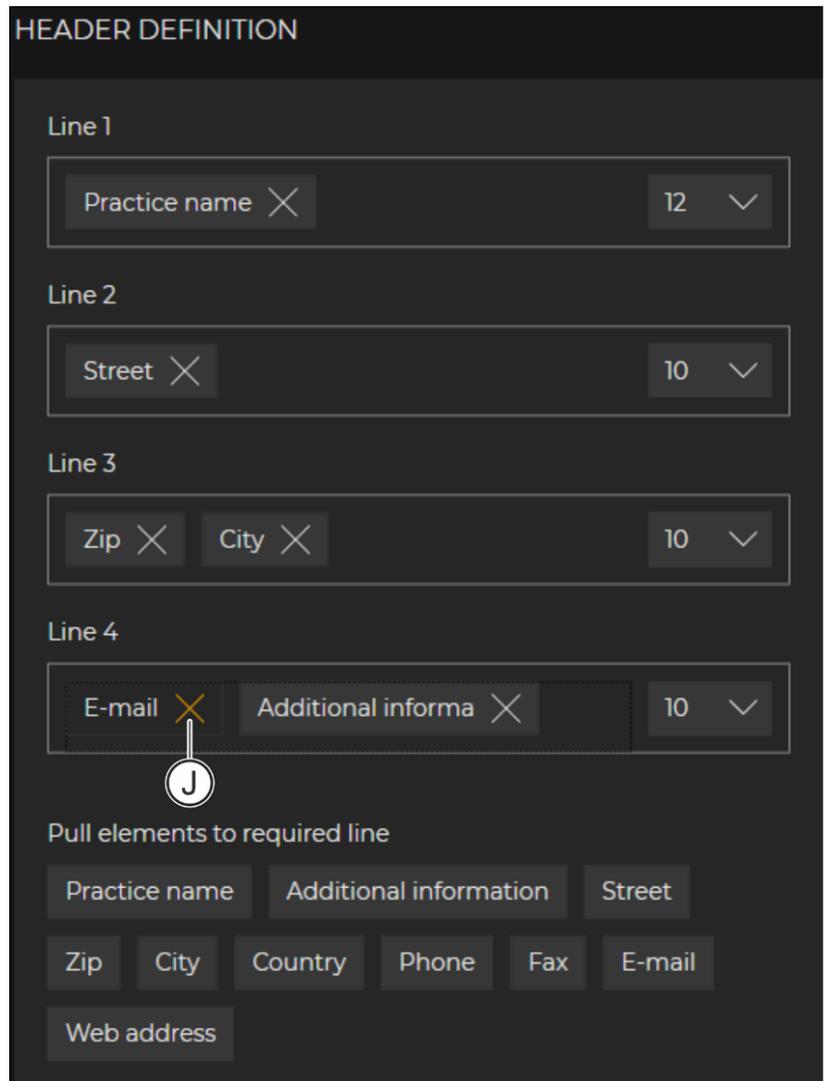
Practice name Additional information Street

Zip City Country Phone Fax E-mail

Web address

Modified row content

- ↪ The element appears in the row at the desired position. You can move more than one element into a row one after the other. The elements can be moved within the row or to other rows in the same way at any time.
- ↪ The modified header is displayed in the preview window (I).



Deleting content from a row

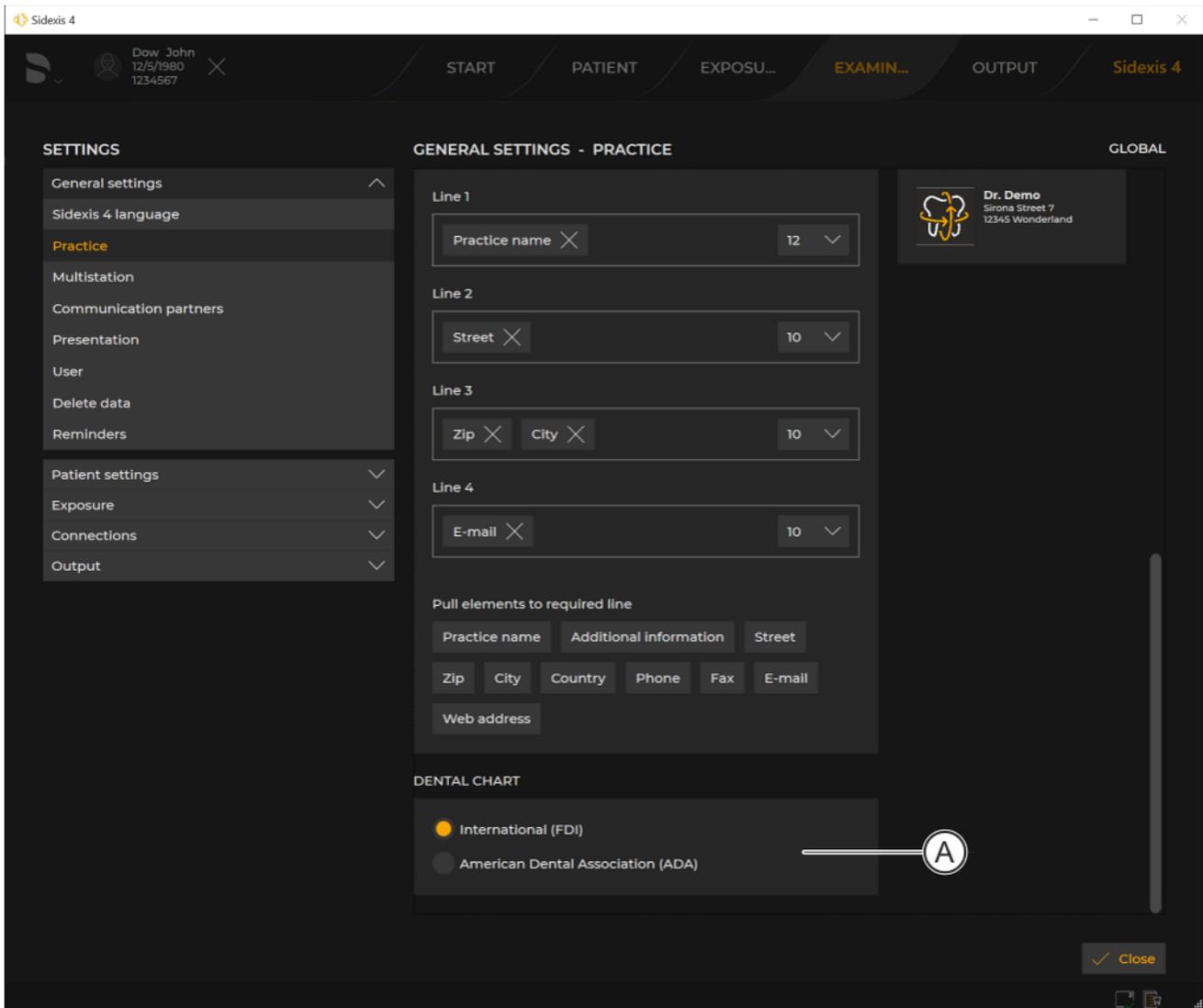
- ☞ To delete an element from a row, right-click on the cross-mark (J) in the element.
- 3. Click on the "Close" button or switch to a new submenu.
 - ☞ The changes are saved in the memory and are now activated. If you have opened a print preview, this must be reopened in order to update the display.

15.3.4 Selecting the dental notation

The "International (FDI)" dental chart is set when the software is supplied.

This is not the case for deliveries to the USA. "American Dental Association (ADA)" is set as the factory setting there.

- ✓ The "General settings" ⇒ "Practice" configuration menu is open [→ 347]..



Select dental chart

1. Select the desired dental chart.
You can select between the following dental charts (A):
 - "International (FDI)"
 - "American Dental Association (ADA)"Select the corresponding option button to select the desired dental chart.

2. Click on the "Close" button or switch to a new submenu.
 - ↳ The message window opens. It points out to you that the setting for the program language has been changed, but that the change to the program language requires the software to be restarted.
3. Confirm the message window by clicking the "Ok" button.
 - ↳ The changes are activated once the software is restarted.

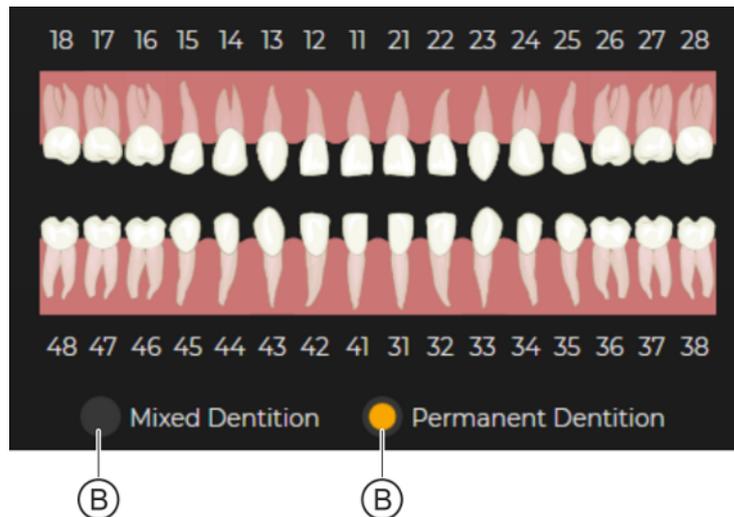
"International (FDI)"



"American Dental Association (ADA)"



"Permanent Dentition" and "Mixed Dentition"



Switching between transitional and permanent dentitions

You can switch between "Permanent Dentition" and "Mixed Dentition" by selecting the option buttons (B) in the "Timeline".

15.4 User set up/administration

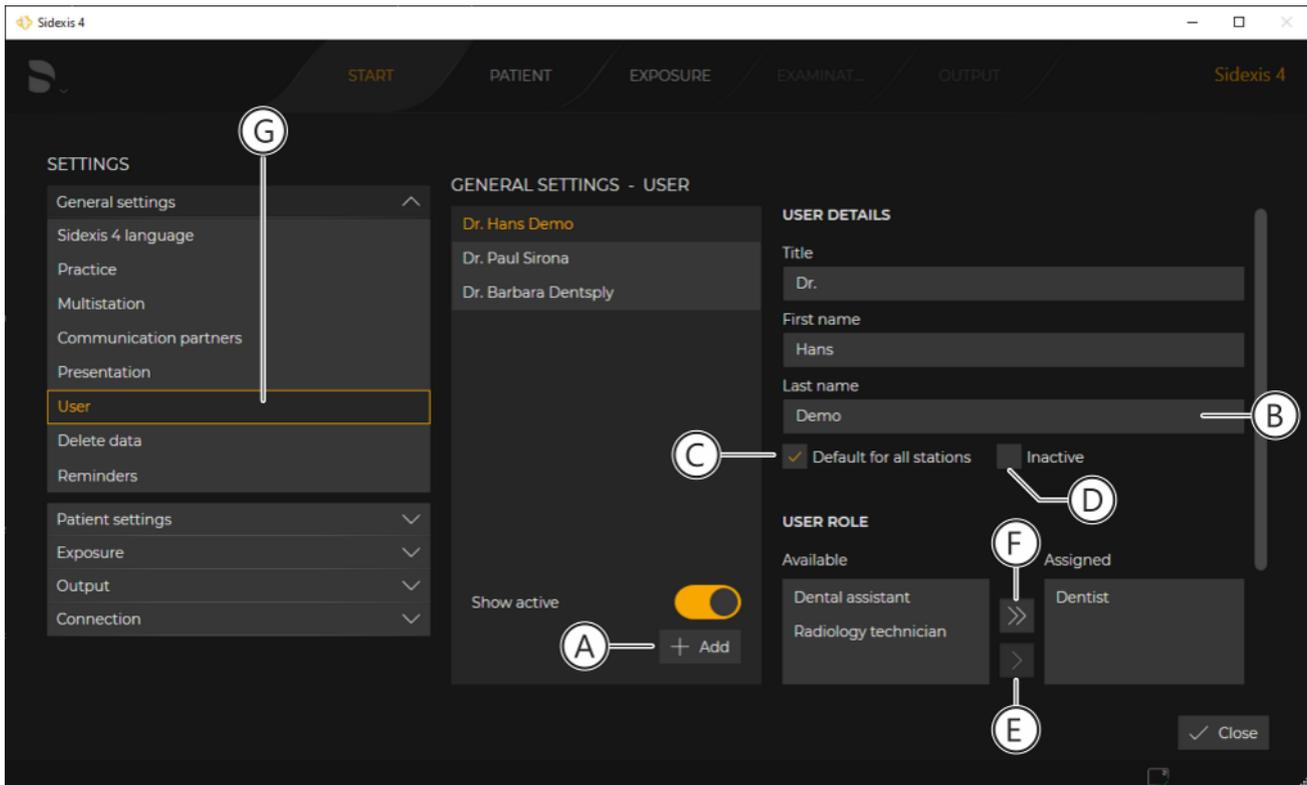
User administration is performed in the "General settings" ⇒ "User" configuration menu.

Users set up here are entered into different list fields of Sidexis 4 (e.g. when entering the indication prior to exposure) and can be selected there.

✓ The configuration menu is open.

1. Click the "General settings" ⇒ "User" buttons in the structure tree (G).

↳ The "User" menu is displayed.



"User" menu

2. Click the "Add" button (A).

↳ The "Last name" input field (B) is marked in red as an entry is required (mandatory field).

3. Enter the surname of the new user in the "Last name" entry field.

4. *Optional:* Enter the user's title and first name into the "Title" and "First name" entry fields.

5. *If the newly set-up user is to be preset as the permanent dentist on all workstations:*

Select the "Default for all stations" check box.

6. *If the newly set-up user is not to be included in the dentist drop-down lists:*

Select the "Inactive" check box (D).

When the "Inactive" check box is selected, the user is still displayed on existing data records (e.g. exposures) but is no longer displayed in the drop-down lists.

7. Click in the left *"Available"* window on the user role (*"Dentist"*, *"Dental assistant"* or *"Radiology technician"*) that is to be assigned to the new user.
 - ↳ The selected user role is highlighted orange.
 8. Transfer the *selected user role* by clicking with the mouse on the button with the single arrow (E) in the right *"Assigned"* window.
- or
- > Assign *all user roles* to the right *"Assigned"* window by clicking on the button with the double arrow (F) .
 9. The user role(s) are assigned to the new user and appear in the *"Assigned"* window on the right.

By selecting the user roles in the *"Assigned"* on the right and then clicking on the buttons with the arrows, you can deselect the user roles for the user again and put them back in the *"Available"* window.
 10. Click on the *"Close"* button or switch to a new submenu.
 - ↳ The message window opens. You will be notified that the setting has been changed, but that the change requires the software to be restarted.
 11. Confirm the message window by clicking the *"Ok"* button.
 - ↳ The changes are activated once the software is restarted.

15.5 Configuring patient display

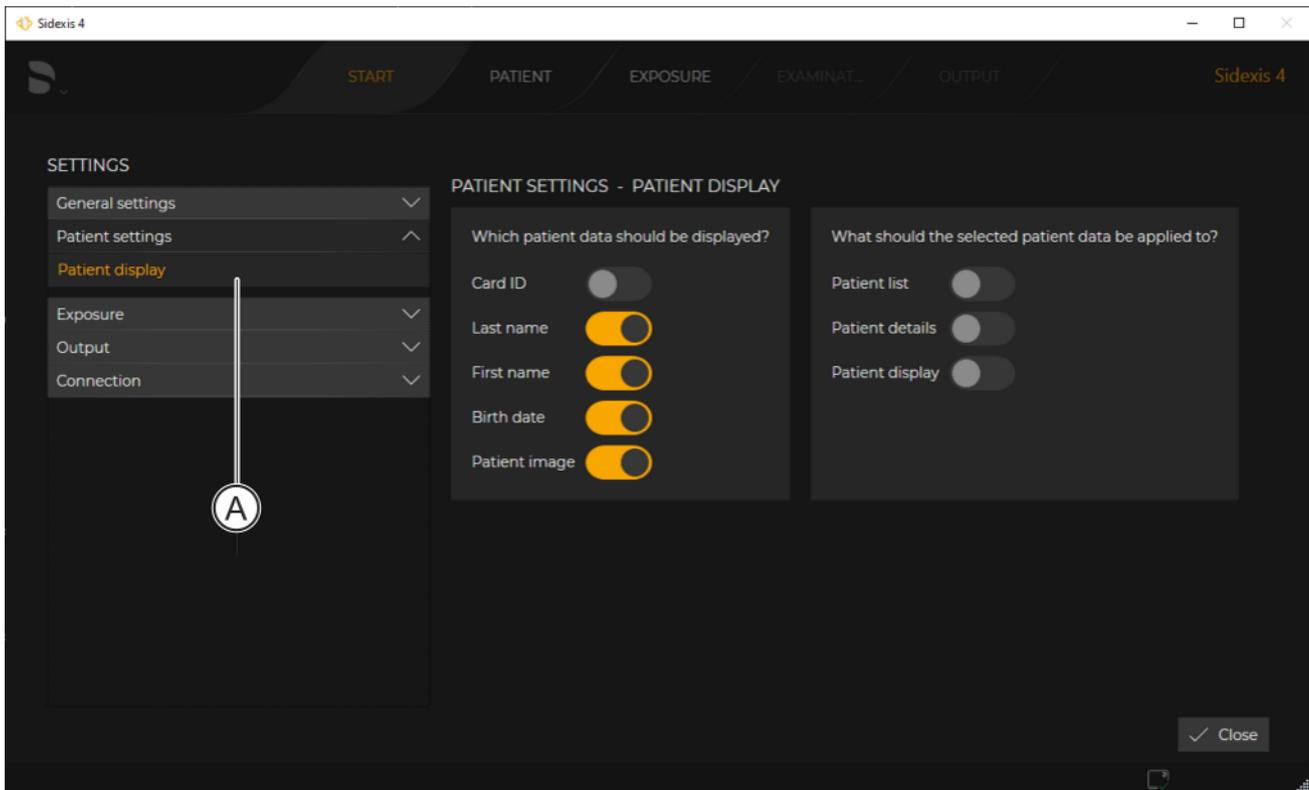
IMPORTANT

At least the "Card ID" check box or the check boxes "Surname", "First name", and "Birth date" must be selected for clear identification of a patient.

If just the "Card ID" check box is selected, a card ID number must be entered for each patient.

If a patient is registered for whom this does not apply (no card ID number, even though, except for the "Patient image" check box, only the "Card ID" check box is activated in the configuration), the red text "Not uniquely identifiable" appears in the display of the registered patient.

- ✓ The configuration menu is open.
- 1. Click on the "Patient settings" ⇒ "Patient display" buttons in the structure tree (A).

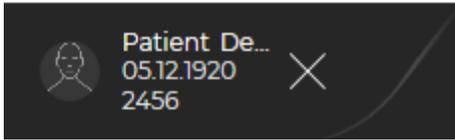


"Patient display" menu

"Card ID"	Information is displayed in the title bar
"Last name"	
"First name"	
"Birth date"	
"Patient image"	

- ☞ The "Patient display" menu is displayed.

2. Define the information of the registered patient to be displayed in the title bar of Sidexis 4 by selecting the check boxes.
3. Click on the "Close" button or switch to a new submenu.
 - ↳ The patient display will be changed according to the settings.



15.6 Setting up or resetting the "Sidexis 4 Administrator password"

For several functions in Sidexis 4, such as deleting media and patients from the database, the "*SIDEXIS 4 ADMINISTRATOR PASSWORD*" is required. This must be set up during the software installation.

The administrator password can be changed again later at any time with the Sidexis 4 Password Tool.

For detailed information on setting up and changing passwords, refer to the Sidexis4 Installation Instructions (REF 6778331).

16 Data recovery

16.1 Data recovery for ORTHOPHOS XG and GALILEOS

In case of an unexpected network error, there may be problems with image transfer from the X-ray components to Sidexis 4.

In this case the system closes the connection after a while and enters the so-called Rescue state. This means that the image is not lost, but is kept in the RAM of the X-ray component by a safety mechanism until it is retrieved by the "Sirona Control Admin Rescue" rescue program. A further exposure with this X-ray unit is blocked until this moment.

CAUTION

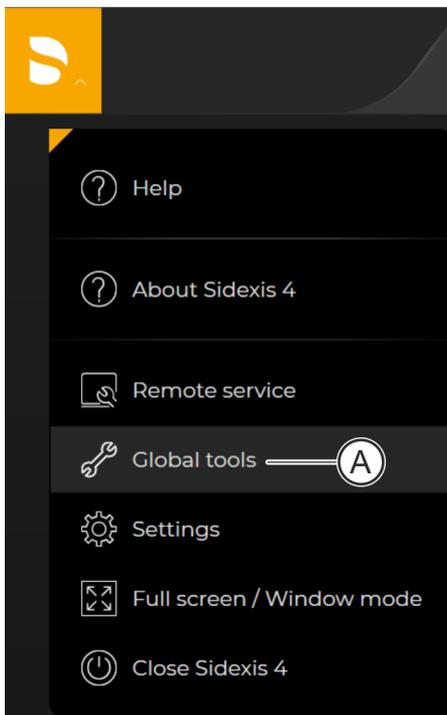
The X-ray component may not be switched off during the Rescue state.

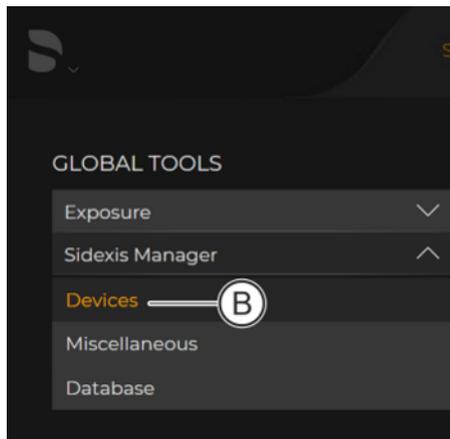
If the X-ray unit is switched off, the image is lost and the unit will be ready for operation after the next power on.

16.1.1 Starting the "Sirona Control Admin Rescue" program

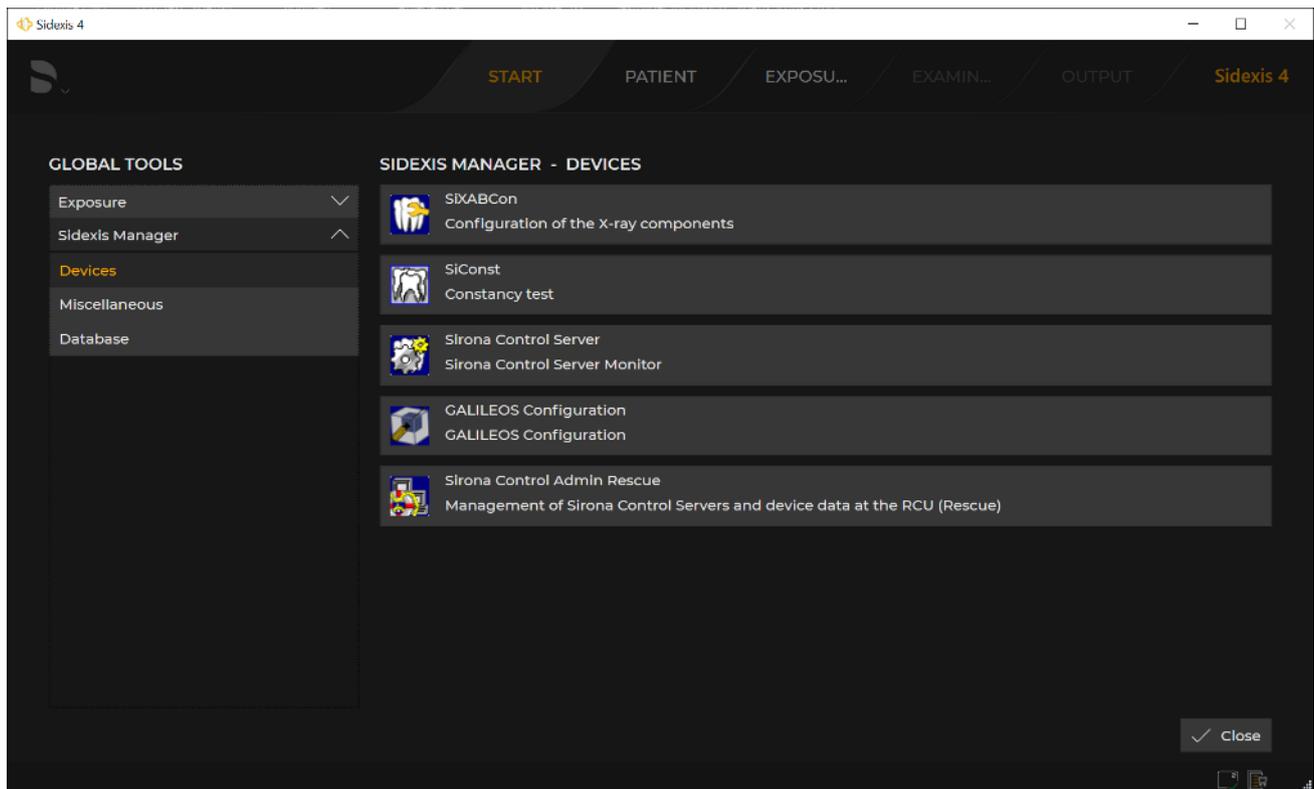
- ✓ Sidexis 4 is installed.
 - ✓ The workstation software for the corresponding X-ray component is installed on the workstation.
1. Start Sidexis 4.
 2. Click on the "Global tools" row (A) in the system menu.
 - ↳ The "Global tools" menu opens.

 Sidexis 4



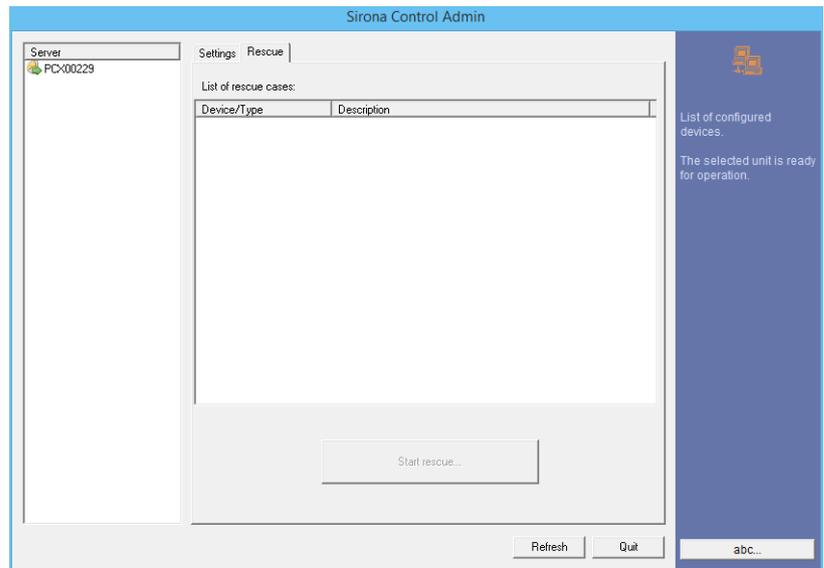


3. Click on the "Sidexis Manager" ⇒ "Devices" button (B) in the structure tree.



Starting "Sirona Control Admin Rescue" program

4. Click on the "Sirona Control Admin Rescue" button.

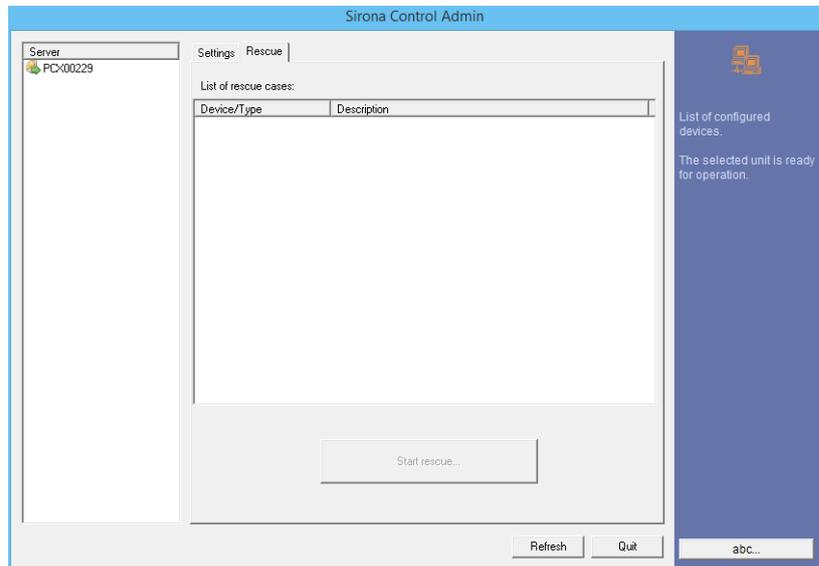


"Sirona Control Admin Rescue" program

- ↪ The "Sirona Control Admin Rescue" program opens.
- ↪ The program tries to establish a connection to the X-ray component which is in Rescue state. If no X-ray component answers, the network should be checked. If a connection is successfully established, the X-ray component is displayed in the list.

16.1.2 Requesting data

- ✓ The "Sirona Control Admin Rescue" program is opened [-> 361].



"Sirona Control Admin Rescue" program

- > Click on the "Start rescue..." button.

16.2 Data recovery in other devices

Notes for data recovery, (e.g. for the Orthophos SL 3D X-ray equipment) can be found in the respective operating instructions of the devices.

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