

# dentaleyepad

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# Version 2.3

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### Dear dental photographer,

congratulations on your new dentaleyepad. We have put in a lot of ideas and work and hope you will have a lot of fun with it and take many beautiful dental photos. In this short manual we would like to make you acquainted with the most important operating elements. But don't worry: most of the points only concern the first setup. Once that's done, you'll get by with just a few buttons.

For those of you who are in a hurry we have marked the important parts with 1 the other ones have 1 only. Please also visit our website:

### www.dentaleyepad.com

Here you will also find all tutorials and further tips and tricks for good dental images with example videos. If you would like to use an interface to a practice management or image archive, you will also find the corresponding setup instructions here.

We are also happy to assist you with advice and action in the event of problems. You can reach us at

+49 7352 939212 or by mail support@doctorseyes.de

We are also pleased about improvement suggestions. But now have fun with the first dental camera which was also designed for left-handers.

Yours

& the dentaleyepad Team

## **Check for completeness**

The box contains the following articles:

- 1. dentaleyepad
- 2. Plug-in power supply with USB connection
- 3. Cable with USB plug and round dentaleyepad connector
- 4. USB extension cable
- 5.2 x photo cheek retractors
- 6. optional USB cable (only if ordered separately)
- 7. optional box: Docking station (only if ordered separately)
- 8. optional box: Intraoral camera (only if ordered separately)

For safety reasons the dentaleyepad was shut down. A boot procedure is therefore required for the first start. See point 2, the first shooting.

### **Charging the dentaleyepad**

To charge, plug the USB power supply into a wall outlet and connect it to the USB plug of the cable. Insert the other end with the round plug into the **round** socket of the dentaleyepad at the bottom right.

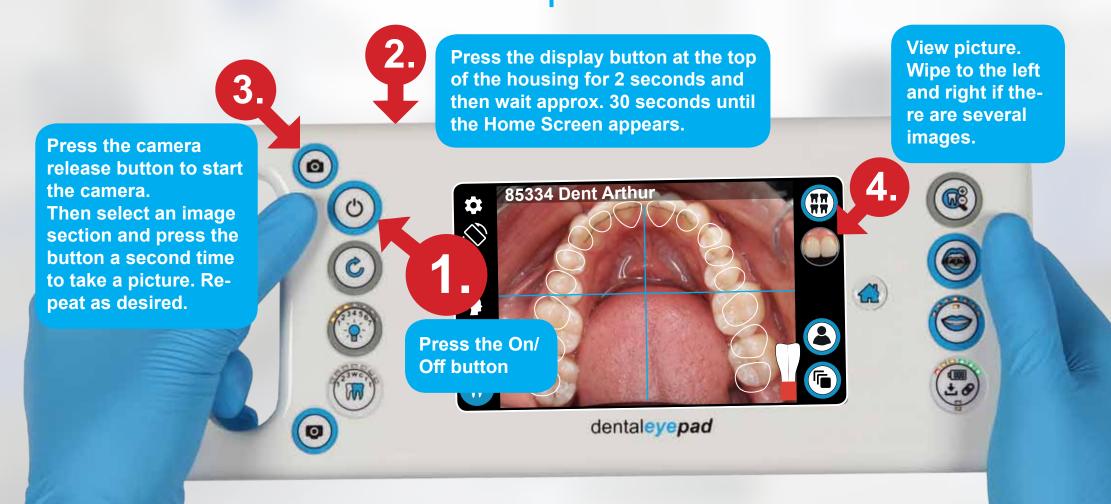
Alternatively, we recommend the use of the docking station, where the dentaleyepad switches off and charging starts automatically.

Charging is indicated by a charging animation on the lower right button. If all LEDs are constantly lit (without running light animation), the charging process is completed.

# The first Shooting

Switch on the dentaleyepad with the on/off button (1) on the left side. The first time you use the dentaleyepad, you still need to activate the display. Press the display button (2) for approx. 2 seconds. (This is only necessary the first time the unit is switched on.) The Home Screen appears after approx. 30 seconds. Pressing the release button starts the camera application automatically.

Press the camera button a second time to take a picture. Use the preview button (4) to view the image. If you have more than one image, you can also wipe to the left and right to scroll. Use the back arrow on the screen to return to the camera. (You can also press the camera release button to restart the camera).



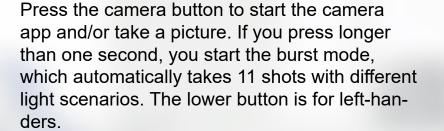
## **The Control Buttons**





The dentaleyepad is switched on and off with the On/Off button. When the dentaleyepad is placed on the docking station, it is switched off automatically.







If you are using a workflow with the control image activated, you can use the Repeat button to take the last shot again. The previous image is automatically deleted.



This button is used to set the brightness of the modelling light. The default value for this is 1. (The brightness is automatically maximized during shooting.) Pressing increases the value by one brightness level at a time. For video recording, we recommend the value 7. See also the tutorial Video Mode..



This button is used to recall various scenarios that have been previously saved. This button is

also planned for future expansions.



Use the top right button to select three different zoom levels. The focal lengths of each step can be defined in the doctorseyes camera app.



The second button is used to select the lighting scenario for intraoral images. Here the light is arranged directly around the objective so that the oral cavity can be well illuminated.



The third key is used to select the extraoral start scenario. Here the lighting strips are arranged as far apart as possible, e.g. to illuminate the anterior row of teeth from the side.

By pressing further, a further 10 different lighting scenarios can be selected to optimise surface reflections if necessary.



The Home button always returns you to the home screen.



The fourth key has several functions:

On the one hand, the LEDs of this key indicate the current battery status of the illumination battery. If only a single red LED is displayed, the dentaleyepad should be charged.

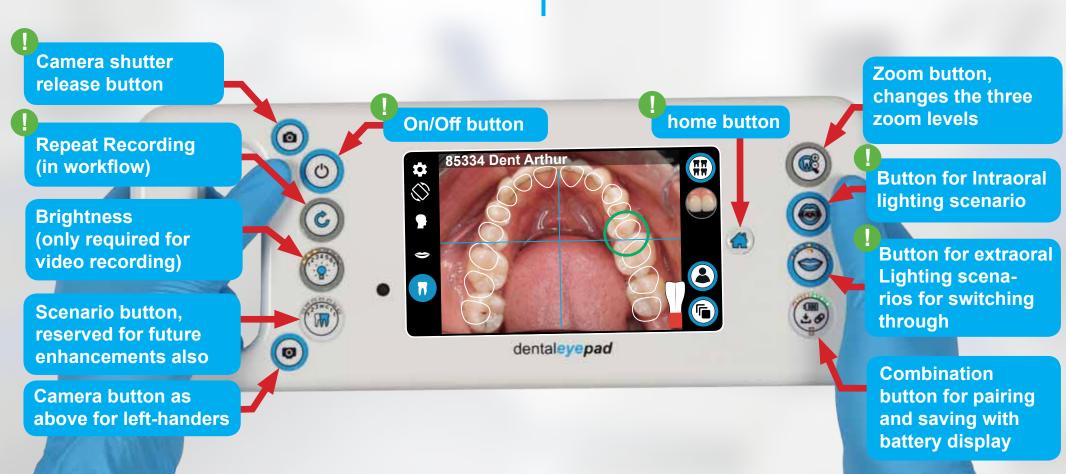
However, it can also be charged earlier by plugging in the charging cable or placing it in the docking station.

The button also serves as a memory button for individual lighting scenarios.

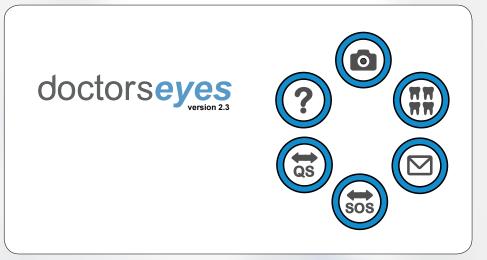
If the button is pressed for longer than 1 second, a LED starts flashing on the lower left button. A memory location can now be selected by pressing the lower right button. Press the lower right button again to select this memory location and save the lighting scenario here.

The third function of this key is the login function: If the intraoral camera is plugged into the USB socket at the bottom right, it must be registered on the denta-leyepad. This is done by briefly pressing the button. The registration is indicated by a green LED.

Various other devices such as external hard disks or USB sticks can also be used on the USB port. Here, too, registration is required by briefly pressing a key.



### **The Home Screen**





The camera (doctorseyes cam)

With the camera app you can take single pictures as well as whole picture series with different lighting scenarios. To start the so-called burst mode, press and hold the release button for 2 seconds. The dentaleyepad will then automatically start a series of differently illuminated images. One of the main advantages of the dentaleyepad is the wireless transmission of images to the pc or server. You can select in the camera app if images should be transfered automaticly. With the transferindicator you are immediately informed about succressful transfer.

You can also specify whether the images are to be deleted automatically after successful transfer or whether they are to be retained on the dentaleyepad as a backup copy.

You can also switch directly from the camera app to the gallery app by pressing the gallery icon in the upper right corner.



The gallery

This app allows you to view images and enlarge them using two-finger gestures. You can also delete images individually or as a group. Using the Edit button within the app you can also adjust the image or insert text and markers. You can also select images here and transfer them to the pc or server



Help (doctorseyes help)

In the help app you can watch short video tutorials for each topic. The help is automatically extended all the time.



Mail

Here you can send and receive mails just like from your PC.



Remote help

Should further assistance be required, we can access your dentaleyepad and control it remotely with your consent using these apps. Your service provider will ask you to press one of these buttons



# **The Camera Display Buttons**





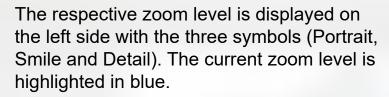
The camera app is the heart of the dentaleyepad. The small white gearwheel icon in the top left corner takes you to all important settings.

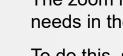


If you shoot pictures from 12 o'clock position it may be helpful if you can switch off the automatic rotation function. You can do this with this button. If rotation is locked you see that on the little lock on this icon.









The zoom levels can be adapted to personal needs in the settings.



To do this, select the top left gearwheel and then the tooth symbol (second from bottom). However, especially when taking portraits, make sure that the focal length is at least 70 mm to avoid distortions (nose too big, ears disappearing).



Use the gallery button to go directly to the image gallery here you can magnify and edit images. Use the preview button to display the last image. If no picture has been taken yet, a small square with an arrow appears here. Press the back arrow to return to the camera.



Use the patient button to call up the patient data. Depending on settings, the photo assistant can also automatically starts the corresponding workflow.



You can use the workflow button to start a workflow manually. You can also access the Workflow Editor from here.

## The dentaleyepad Concept

The concept behind the dentaleyepad is to make dental photography as easy and comfortable as possible. For this purpose we have implemented the following methods:



#### **Speed**

automatic and reliable image transfer to your computer



#### Ease of use

The Dental Photo Assistant allows you to save all camera settings for each image type, so you don't have to worry about it when taking pictures.



#### **Security in patient management**

The dentaleyepad communicates with your practice administration, takes over the current patient data and then transfers the images back to the administration system on a patient-related basis. Depending on the interface, the image types are also transferred to the management system.

You can find an overview of the interfaces and their functions under:

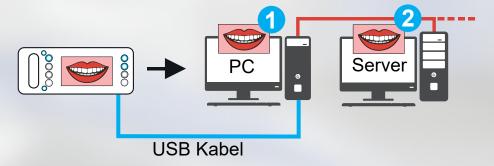
www.dentaleyepad.com/interfaces

Let's start with the transfer...

There are many ways to transfer the images from the dentaleyepad. The two most important are the transfer via USB cable (simplest) and the automatic or manual transfer via WLAN (most effective). However, you can also send images by e-mail or transfer them to a cloud storage device such as Microsoft Onedrive, Google Drive or Dropbox.

## **Transfer via USB Cable**

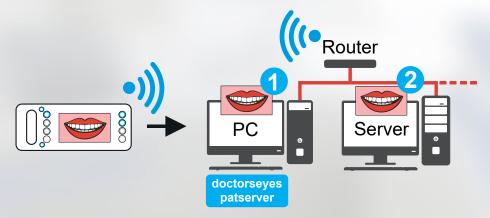
Switch on the dentaleyepad by pressing the on/off button. Connect the USB socket at the bottom of the dentaleyepad to the PC using a USB cable (A plug to A plug). As soon as the connection is established, the setting light of the dentaleyepad switches off automatically. The first time, you must confirm the access of the PC on the dentaleyepad.



The dentaleyepad is automatically identified by Windows and appears as a data medium in your file directory. The images are located in the folder "This PC\dentaleyepad S2.1\Phone\DCIM\doctorseyes" and can be moved or copied to your PC by drag and drop.

## **Transfer via WLAN**

The fastest and most effective way to transfer images to a PC is via WLAN. In order to transfer the images wirelessly to a PC, it is necessary to install the "patserver" program on the PC / server. Please install the patserver on a PC that is always running when images are to be transferred. This can also be, for example, the PC at the reception. You can download the patserver under "Service" from www.dentaleyepad. com.



Note: Your PC and the WLAN router must be on the same network. If your network is protected by additional software, make sure that the network port 9701 is enabled for communication with the patserver.

The images can be stored either on the corresponding PC locally (1), or on a shared network drive (2). Which of the two variants is useful also depends on how you process the images afterwards. To do this, follow the specifications of the interface partner.

## doctorseyes patserver Installation

When you have downloaded patserver.exe, to your PC click on it for installation.
Shortly after the following message from Windows defender

appears: click on "More info".

Now patserver will be indicated. Here click on "Run anyway".

The Installation will start. It takes a few seconds only. (if you have windows 8 or older the screen looks different but similar)

When the installation is finished patserver starts with the following screen.





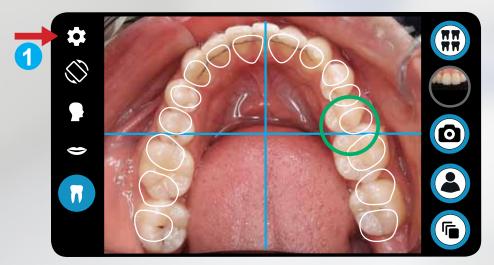




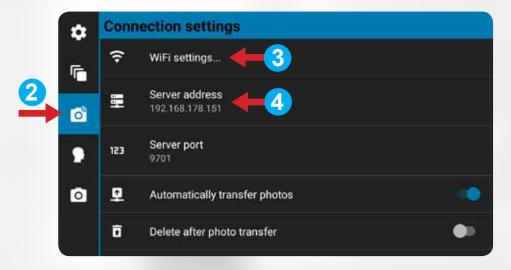
# dentaleyepad Settings

Now we continue on the dentaleyepad:

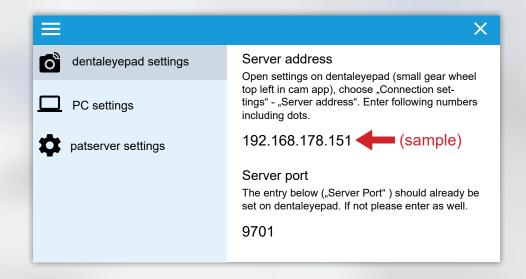
- 1 Open the settings with the gear icon in the upper left corner of the camera.
- Select "Connection settings".



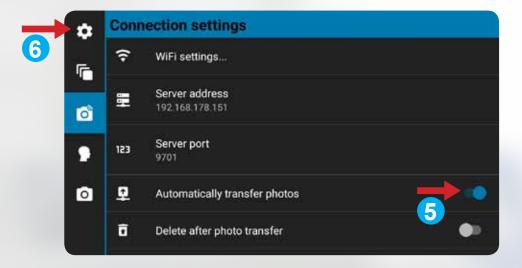
3 Press "WLAN Settings", select your network and enter your password.



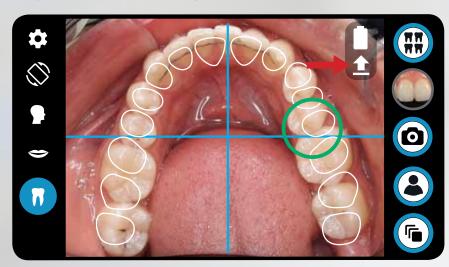
4 Now select "Server Address". Enter the number including the points displayed under "dentaleyepad settings".



- Make sure that "Automatically transfer photos" is enabled.
- You can return to the camera viewfinder by tapping the gear icon twice.



Now a small arrow appears below the battery icon in the upper right corner indicating the automatic transfer.

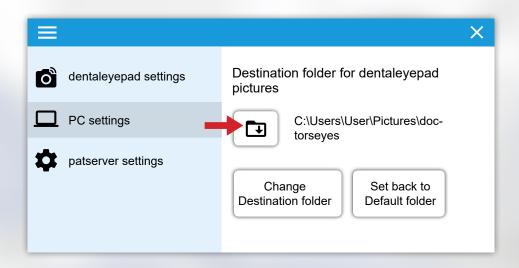


## **PC Settings**

Now your dentaleyepad is preparared for wireless transfer. To specify where the images should be sent to, we have to complete the patserver settings.

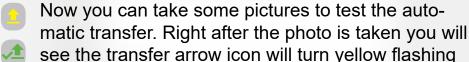
Default destination folder for the image transfer is: C:\User\User\Pictures\dentaleyepad

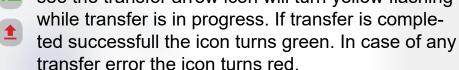
You can open that folder with a click on the folder icon.



If you want to have access to dentaleyepad photos from all your PCs you should change the destination folder to a shared network folder.

### **Autotransfer to PC**





If there are problems with the transfer of photos in your daily work, you can still take photos. The pictures are stored in an internal database. When the problem is solved, you can restart the transfer process by touching the red arrow. All images that have not yet been transferred yet will now be send subsequently.

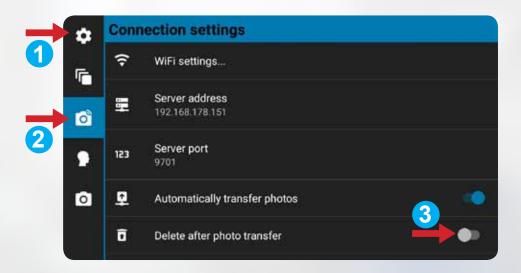
## **Delete Images Automatically?**

At the highest resolution, at least 2200 images can be stored on the dentaleyepad. Therefore, by default, the images remain on the dentaleyepad as a copy after transfer.

Alternatively, you can also delete the images automatically after successful transfer.

Proceed as follows to do so:

- Select the "Basic settings" again via the gearwheel icon.
- Then tap on the camera icon with WLAN bar to access the "Connection settings" (The third from top)
- Then switch on the option "Delete after photo transfer" at the bottom.



## **Troubleshooting**

If a red transmission arrow is displayed, check the following options:

- 1) Check that the wireless LAN is turned on AND "connected" is displayed.
- 2) Check that the server address on the dentaleyepad and the PC are identical.

- 3) Make sure that the dentaleyepad and the PC are on the same network. Do not use a so-called "guest account" because this may have limited access.
- 4) Ask your network administrator or IT support if your network is protected by additional software. Ensure that the patserver and/or network port 9701 is enabled for network communication.

## patserver Settings

As the last part of the transmission setup we now take care of the patserver settings.

#### **Start of patserver:**

Here you can specify whether the patserver should start automatically when Windows starts. The default setting for this option is "On".

#### Visibility des patserver:

You can also specify whether the patserver window should be visible after startup. The default setting is "off".

If you want to see the patserver window, you can open it by clicking on the patserver icon in the system tray.



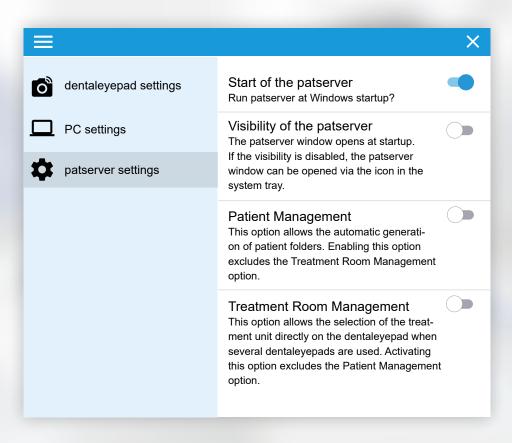
#### **Patient Management:**

This option enables the automatic creation of patient directories. Enabling this option requires a restart of the patserver. Subsequently, patient-related subdirectories (sorted by name or patient number) are automatically created in a patient folder. You can also search for specific patients via a search window.

#### **Treatment Room Management:**

This option allows the selection of the treatment unit directly on the dentaleyepad when using several dentaleyepads. The option "Treatment Room management" on the dentaleyepad must be activated under Connection settings. See also the interface description of your dental software provider.

The "Patient Management" and "Treatment Room Ma-

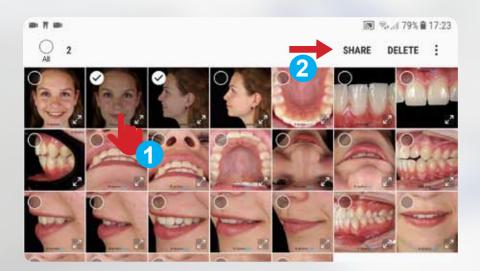


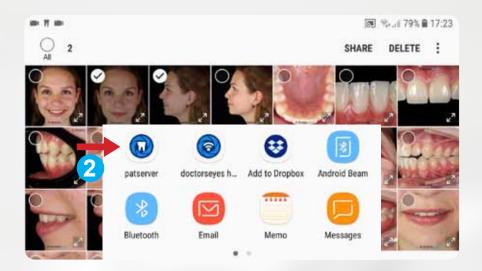
nagement" options are mutually exclusive.

### **Manual Transfer to the PC**

The transfer of individual manually selected images is done via the gallery:

- Press and hold an image until the marker circles appear. Then mark the desired images with a checkmark.
- Then press "Share" and select the icon for the patserver.





The selected images are now transferred from the camera app to the target folder.

## dentaleyepad Interfaces

The dentaleyepad has interfaces to many practice management systems.

These enable the transfer of patient data to the dentaleyepad and, depending on the capabilities of the practice management system, the return of image data directly to the patient file.

If your practice management system does not offer its own image management, the images can also be managed directly with the patserver.

At this point, we recommend that you switch to your software-specific instructions to set up your interface. If no interface instructions are included in your shipment, you can also download them under:

#### www.dentaleyepad.com/interfaces

If no interface is available, you can also manually enter the patient name or number on the dentaleyepad.

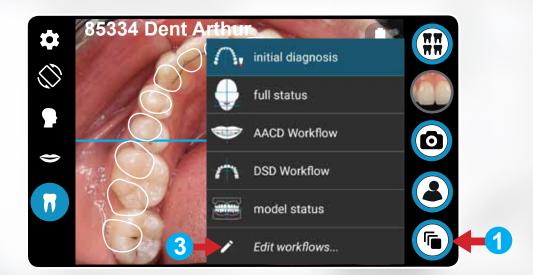
If you use several programs for patient and/or image management, there may be different connection options. We will be happy to advise you personally and individually.

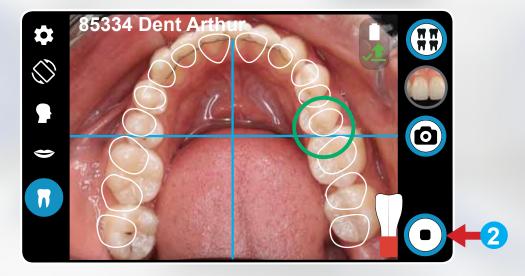
### **The Dental Photo Assistant**

The dental photo assistant helps you not to forget about recurring photo series and automatically sets the correct shooting parameters for each image type. This makes it easy to delegate photography as no camera knowledge is required. You can define and name any workflow (series of shots) according to your needs. We have already created five sample workflows for you.

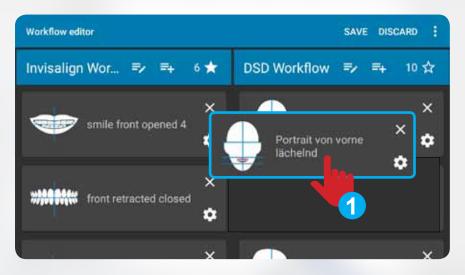
- You start a workflow by tapping on the Workflow button at the bottom right and then selecting a workflowname. This starts immediately with the first overlay image.
- A workflow can be aborted at any time via the "Stop Button" in the lower right corner.

3 Via the bottom menu item "Edit Workflows..." you reach the workflow editor.

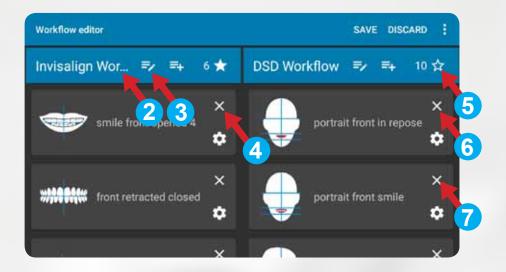




Jeder Workflow besteht aus einem Namen und einer beliebig langen Folge von Workflow-Schritten.



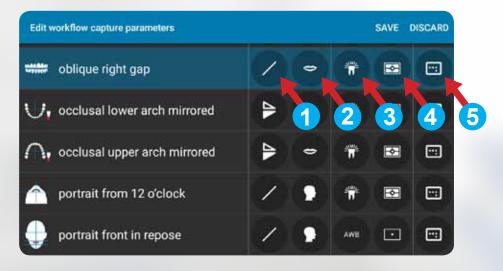
1 By pressing and holding a workflow card, you can " detach " it and move it to another location in the same or a different workflow.



- With the pen icon you can edit the workflow name.
- With the plus icon you open a dialog window to create a new workflow card.
- You can delete a workflow card by pressing the small cross.
- 5 You can create a new workflow or delete it completely using the "three dots" menu at the top right.
- By pressing the asterisk you can define the respective workflow as default and optionally start it automatically.
- Each workflow card has a small gear icon at the bottom right. You can use this to start the capture parameter editor.

## **Capture Parameter Editor**

This allows you to define all recording parameters for each image type. The corresponding image type is automatically preselected.

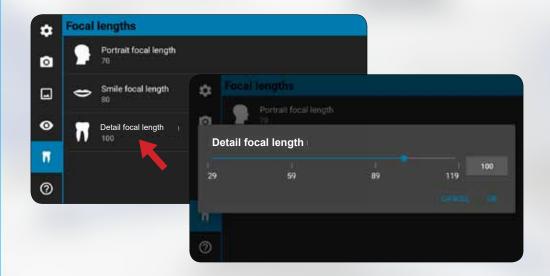


- You can choose whether an image is automatically mirrored horizontally or vertically.
- Here you can select the zoom level. Read more about this in the next section.
- Here you select the type of illumination. This should usually be the "dentaleyepad light". If ambient light plays a role, e.g. in portrait photography, "AWB Automatic" can also be used.
- The exposure mode is determined here. For intraoral images, "Matrix" should be selected here. For

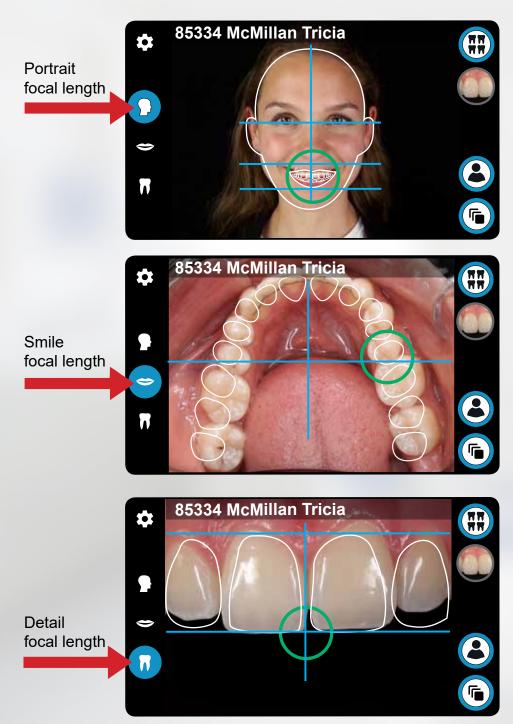
- portrait shots, however, "center" should be selected.
- In the menu item "Aspect ratio" you can determine whether the shots should be taken in a ratio of 4:3 or 16:9.

# **Zoom Levels - Focal Length of Lens**

The tooth icon in the basic settings of the camera app takes you to the lens focal lengths. Here you can define a focal length for each zoom level.

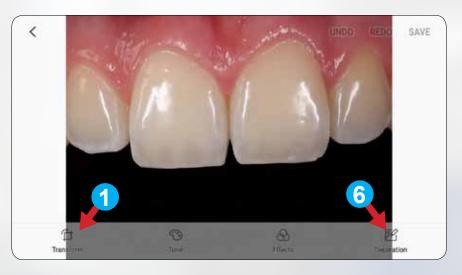


The portrait focal length should not be less than 70 mm to avoid distortion.

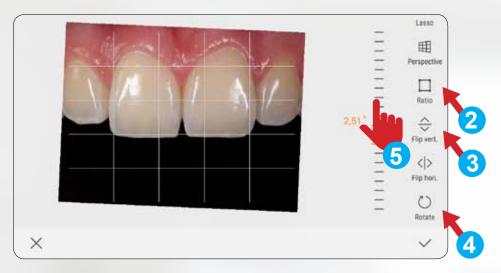


## **Image Editing**

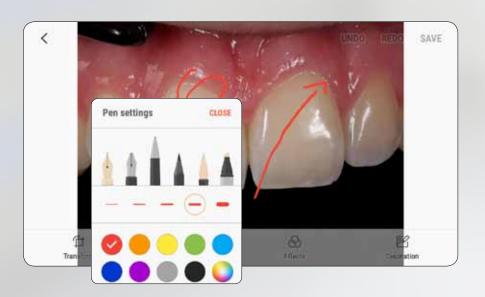
If necessary, images can also be processed directly on the dentaleyepad. To do this, open an image in the gallery single view. You will find an edit button in the bottom center.



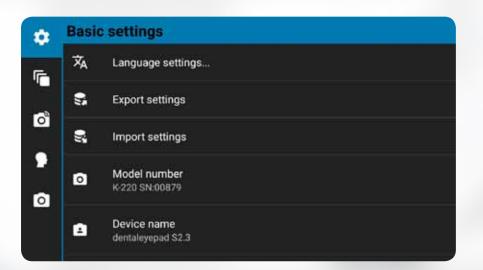
- Then, by pressing the "Transform" button on the far left, you can rotate or crop the image.
- With this button you can crop an image section or determine the aspect ratio of the section.
- 3 Here you can mirror vertically or horizontally.
- With this option you can rotate the image 90° clockwise.
- This is a very useful feature: By wiping on the scale, you can rotate the image continuously and crop it automatically.



Press "Decoration" in the lower right corner and then "Draw" in the same place to enter the "Drawing Mode": Here you can select the pen type and draw into the image with your finger. After confirming with the check mark at the bottom right, you can change the position of the drawn line again. When saving, a copy is always created, the original is preserved.



## **Basic Settings Menu**





### **Setting the language**

The language of the dentaleyepad is set here. Parts that have not yet been translated may be displayed in English.



#### Save / restore settings

With these two buttons all settings of the dentaleyepad can be stored and restored if necessary.



#### **Model number**

The model number and the serial number of the dentaleyepad are listed here.



#### **Device name**

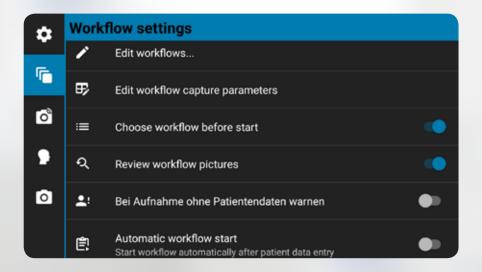
The device name is displayed e.g. in Windows when connecting via USB cable.



#### **Expert mode**

If this mode is activated, a number of additional functions such as the video mode are activated. These can then be set via the camera settings. (Last Icon on the left side)

# **Workflow Settings Menu**





#### Edit workflow...

This takes you to the workflow editor.



### **Edit workflow shooting parameters**

Here you can adjust the recording parameters such as mirroring or zoom level according to your requirements.



# Select workflow at startup (default on)

Pressing the Workflow button opens a menu for selecting a workflow.

If this option is deactivated here, the standard workflow is started immediately when the Workflow button is pressed.



# Workflow with control image (default on)

When shooting in the workflow, a control image is displayed after each shot. This can be saved with the Camera button or deleted and re-recorded with the Repeat button.



# Warn for images without patient data (default off)

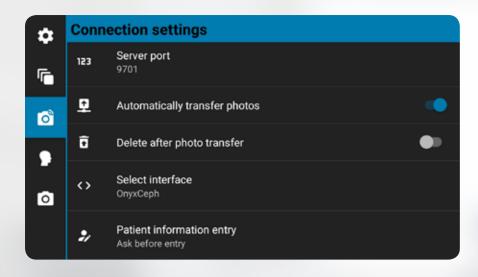
If this function is activated, a message is displayed when a picture is taken and no patient data is available. It makes sense to activate this function if you use an interface for transferring patient data.



# Start workflow automatically (default off)

If this function is activated, the corresponding workflow is started automatically after the patient and workflow data has been entered. It makes sense to activate this function if you use an interface for transferring patient data.

## **Connection Settings Menu**





#### WLAN settings...

Switch on the WLAN here and log on to your network. Use the arrow pointing to the left (top left) to return to the menu.



#### **Server Address**

If your interface can transfer patient data using an info file, you can enter the address here that is displayed in our separate "patserver" program.



#### **Server Port**

If your interface can transfer patient data using an info file, you can enter the port here, which is displayed in our separate "patserver" program. This port is normally already set.



# Transfer photos automatically (default off)

Here you can transfer images automatically to the patserver.



# Delete after photo transfer (default off)

If this option is enabled, the images are automatically deleted from the dentaleyepad after successful upload.



#### **Select interface**

Here you can select the appropriate interface to your practice management system. For an up-to-date list of supported systems and further information, visit www.dentaleyepad.com/interfaces

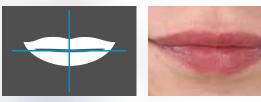


### **Patient information entry**

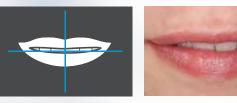
If patient data and/or workflow information is to be received from an interface, you can select the transfer method here. Manual entry is also possible.

# **The Workflow Image Types**

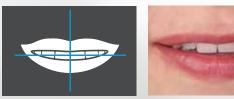
#### Following are the image types with international short codes



smile front closed image code: sf0



smile front slightly opened 1 image code: sf1



smile front slightly opened 2 image code: sf2



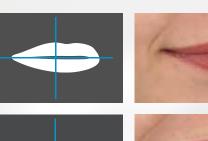
smile front opened 3 image code: sf3



smile front opened 4 image code: sf4



smile front gap 5 image code: sf5



smile right open image code: sro



smile right in repose image code: srr



smile right open image code: sro





smile left closed image code: slc





smile left in repose image code: slr



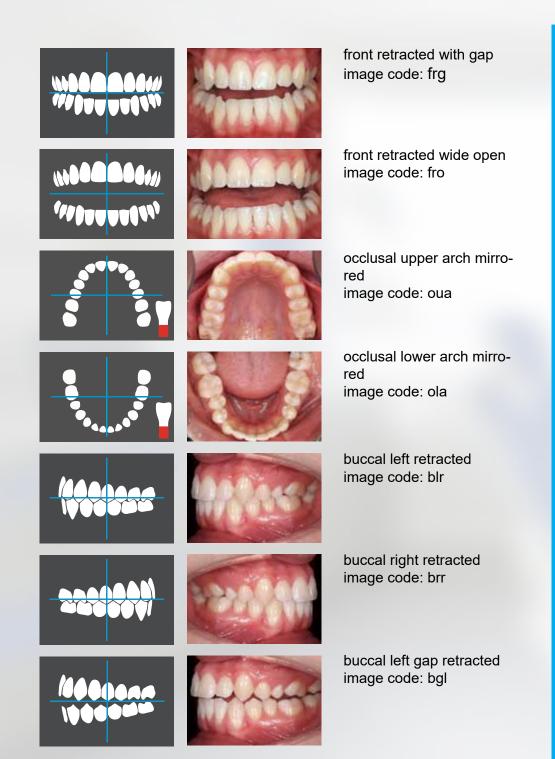


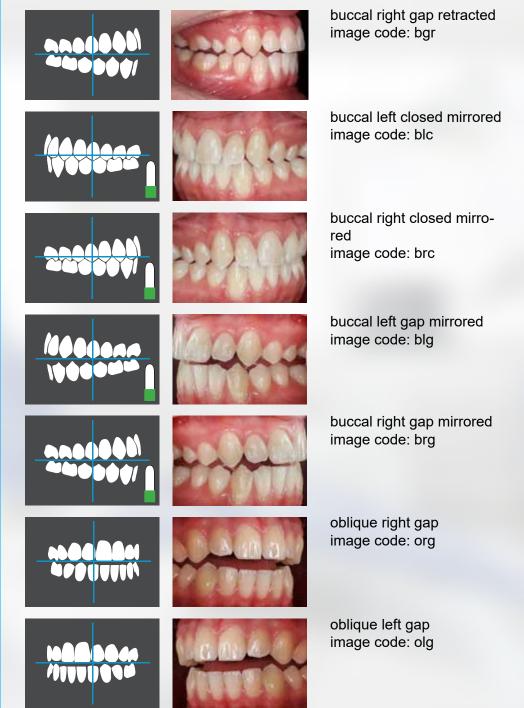
smile left open image code: slo

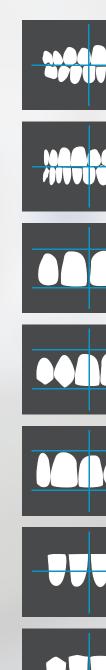




front retracted closed image code: frc









oblique right closed image code: orc



oblique left closed image code: olc



upper jaw front image code: 4uf



upper jaw anterior oblique left image code: 4ul



upper jaw anterior oblique right image code: 4ur



lower jaw front image code: 4lf



lower jaw anterior oblique left image code: 4ll

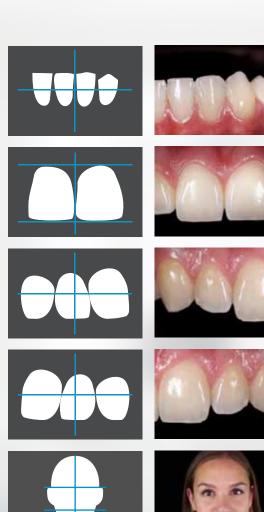


image code: 4lr

image code: 2uf

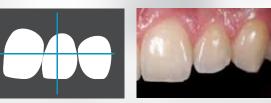
detail upper jaw front

right

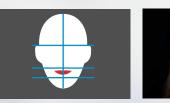
lower jaw anterior oblique



detail upper jaw oblique right image code: 2ur



detail upper jaw oblique left image code: 2ul



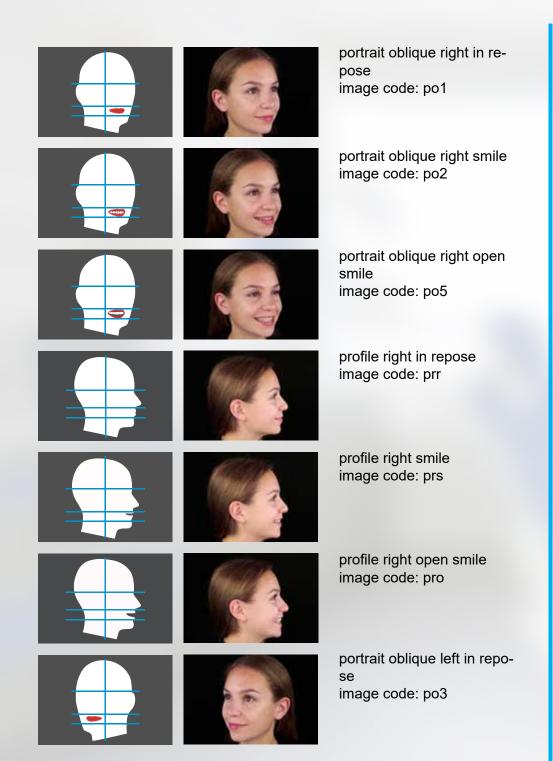
portrait front in repose image code: pfr

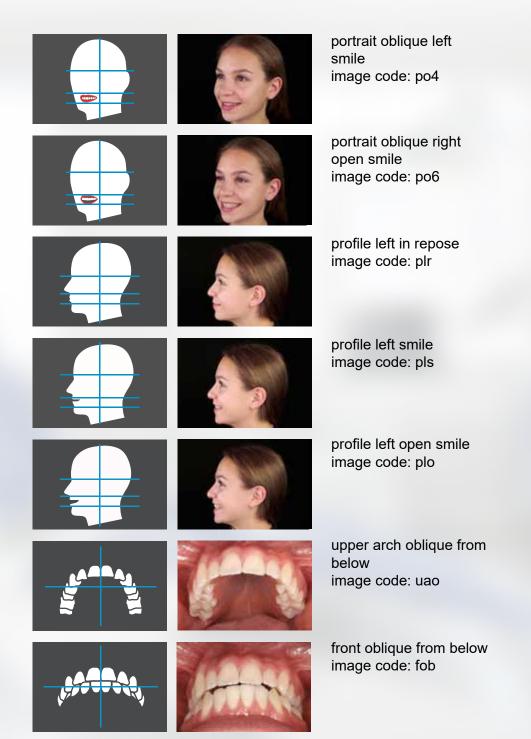


portrait front smile image code: pfs



portrait front opwn smile image code: pfo









portrait from 12 o'clock image code: p12



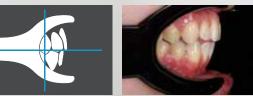
smile from 12 o'clock image code: s12



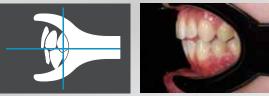
smile from 12 o'clock mirrored image code: m12



upper arch from 90° image code: u90



incisors right from 90° image code: ir9



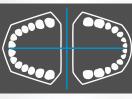
incisors left from 90° image code: il9



lower jaw direkt image code: ljd

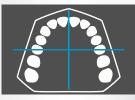


model left side image code: mls





model maxilla and mandibular image code: mmm





model upper jaw image code: muj



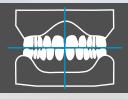


model lower jaw image code: mlj





model front side image code: mfs





model back side image code: mbs





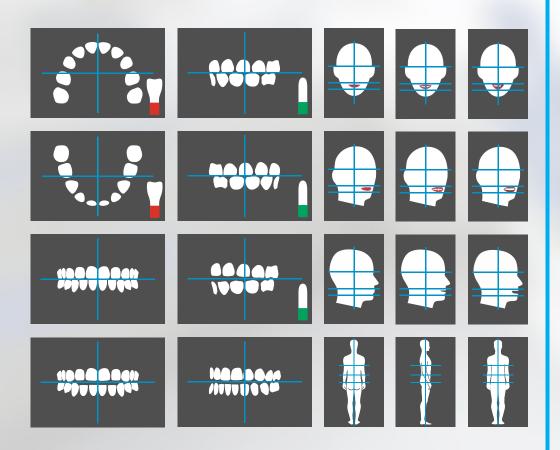
model right side image code: mrs

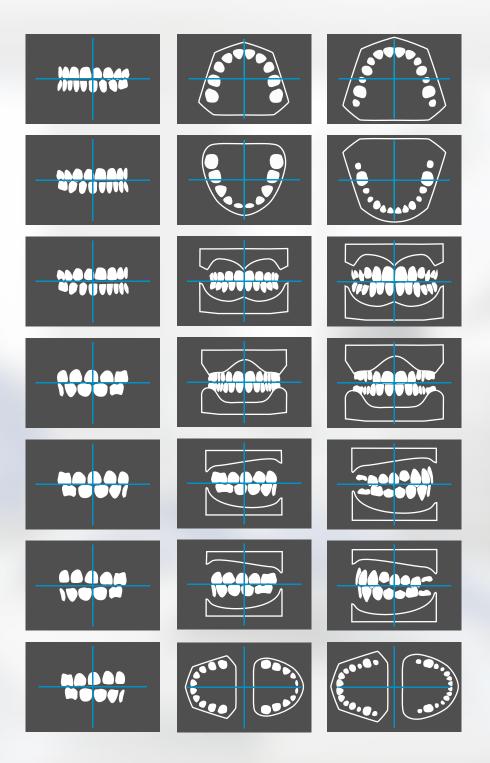
# **Extended Workflow Image Types**

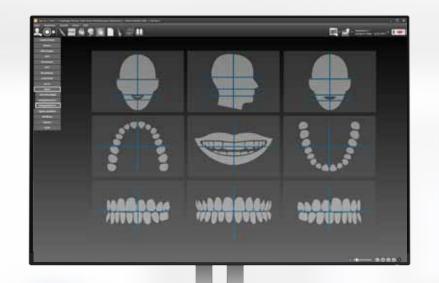
In the last update we added some new image types at the request of many users. All standard views are now also available as milk teeth version. The model views are now available in the variants: Milk teeth, transitional teeth and adult teeth.

All portrait overlays are now also available in upright format. A complete overview can be found at:

www.dentaleyepad.com/imagetypes







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Patient data and desired image types are transferred.

**Automatic** assignment in photo status of the patients record.

E - C-



Follow the dental photo assistant. If necessary, simply repeat the image.

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