ONEPIX

USER MANUAL

ENGLISH

ONEPIX 2.5 / 2.6

MD CE 2862 onepix.se onepix.dk onepix.no onepix.app

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INTRODUCTION

IMPORTANT

The product must be installed correctly before used in clinical environment. Follow the instructions in the Installation instructions included with the product.

If any serious incident should occur in relation to the device this should be reported to Unident and Competent Authority.

The product may only be used in accordance with its intended use.

INTENDED USE

Onepix® is a software package developed by Unident AB for use in acquiring, displaying, and manually manage digital dental x-ray and video images.
It provides a user interface so that the operator may acquire images such as digital x-ray sensors and dental video cameras.

The computer which runs the Onepix® software serves as the tool through which patient information is entered, image acquisition is initiated, and acquired images are viewed, managed, stored, and retrieved.

Onepix is intended to be used by dental health professionals. This includes dentists, dental nurses, dental hygienists and/or dental radiologists. The intended patient population does not interact with the device at any point.

INTENDED PATIENT POPULATION

The intended patient population is patients of all ages who need oral X-ray examination or documentation of oral conditions.

QUALIFICATION AND FACILITIES

Onepix is intended to be used by dental health professionals. This includes dentists, dental nurses, dental hygienists and/or dental radiologists. No specific Onepix training is required for usage.

Onepix is intended to be used in Dental practices or similar clinical environments.

INDICATION FOR USE

The indication for the use of Onepix is when there is a need to manage images for oral diagnostics, before selecting action and documentation of oral conditions. The Onepix user interface enables trained dental professionals to receive, store, transmit, print and analyze images to diagnose, plan treatments and follow up on oral conditions.

This is usually done in the following situations:

- When diagnosis cannot be determined by clinical examination only, or when suspected diagnosis requires radiographic verification or photo documentation.
- For treatment planning to determine anatomy and suitable procedure.

- Checkups during treatment, such as radiographs to verify the root canal preparation depth, or implant component fit.
- Post-treatment follow-up, for example analysis of root filling.
- When follow-up of a physiological or pathological process, such as healing or the progress of the disease, is needed.

CLINICAL BENIFITS

The following clinical claims and benefits are identified for Onepix:

- The advantage of digital technology enabled by Onepix is that the radiographs appear on the screen immediately after loading, within three seconds.
- Unlike manual processing, there is no need to use chemicals to produce the images.
- With Onepix, all the clinic's images can be easily collected in one system.
- Onepix is an open system, which means that it works with all different sensors with full integration to most of the Scandinavian market's X-ray products and patient examination systems.
- Modern user interface with smart menues that give the user a more efficient way of working and an improved user experience.

Warning
Connected devices must be interconnected, set up and tested to work as intended and to make the best use of Onepix's features. Onepix is part of a chain of products (external entities) that depend on each other for them to work together. There is a risk that your X-rays will not be optimal if you do not have the right settings!

CE MARKING

Onepix is a software product according to MDCG 2019-11 and processes data with a medical purpose.

Since Onepix is a software, has a medical purpose and is used to diagnose and monitor oral conditions, Onepix qualifies as a medical device according to MDR (EU) 2017/745.

Onepix is a CE marked product. Unident is certified by Intertek Certification AB according to EN-ISO 13485:2016 Quality Management Standard. Unident is also certified according to SS-EN-ISO 9001:2015 Quality Management Standard and SS-EN-ISO 14001:2015 Environmental Management Systems.

Onepix meets DICOM standards, which are maintained by an international committee to achieve compatibility and improve workflow and efficiency between image processing systems and other information systems in healthcare.

Onepix is designed and tested for use with compatible hardware devices. The list for compatible hardware is in the Onepix Installation section.

LICENSING ONEPIX

Onepix is made available to the user through two different subscriptions as explained below.

Onepix Cloud Organization – This subscription is required per organization and enables a unique Onepix instance for the organization but does not allow usage.

Onepix Cloud User - This subscription allows one (1) user to use Onepix without restrictions.

Onepix Local Viewer – Here you can only open exams, but not create new ones. This is suitable for use on an office computer, reception computer etc..

Onepix Local Standard – This subscription has full functionality and allows acquisition from all compatible products.

Warning
Do not acquire any dental images in Demo mode unless you have ensured that you have a software that can display DICOM images after the function has ended!

ONEPIX HELP RESOURCES

The HELP button/function and user manual is in the the top right of the program.
To read more about Onepix go to www.onepix.se

For telephone support, contact Unident AB on tel. 0346-732 450 eller e-mail *support@unident.se*

APPLICATION GROUP ICONS

The following icons represent various software components that are installed together with the Onepix software. Additional items may apply when new Onepix applications and drivers are installed.

Icon	Description
	OnepixClient – application for network clients or standalone workstations

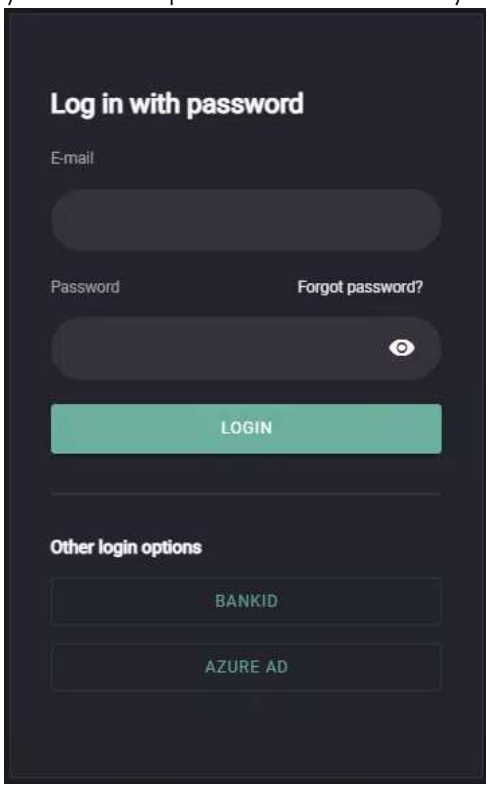
	OnepixAutomation – Enables the launch of OnepixClient with parameters
	Onepix Admin – helps with managing the information in your Onepix database
	Onepix Help - Opens Onepix HTML Help
	Onepix Settings
	Reference Number (Item Number)
	Refer to Instructions for Use
	Manufacturer, contact details

GET TO KNOW ONEPIX

This section provides a brief review of the Onepix User Interface. To learn more about the different parts and features, see sections on Exam View and Zoom View as well as Onepix Settings.

LOGIN ONEPIX CLOUD

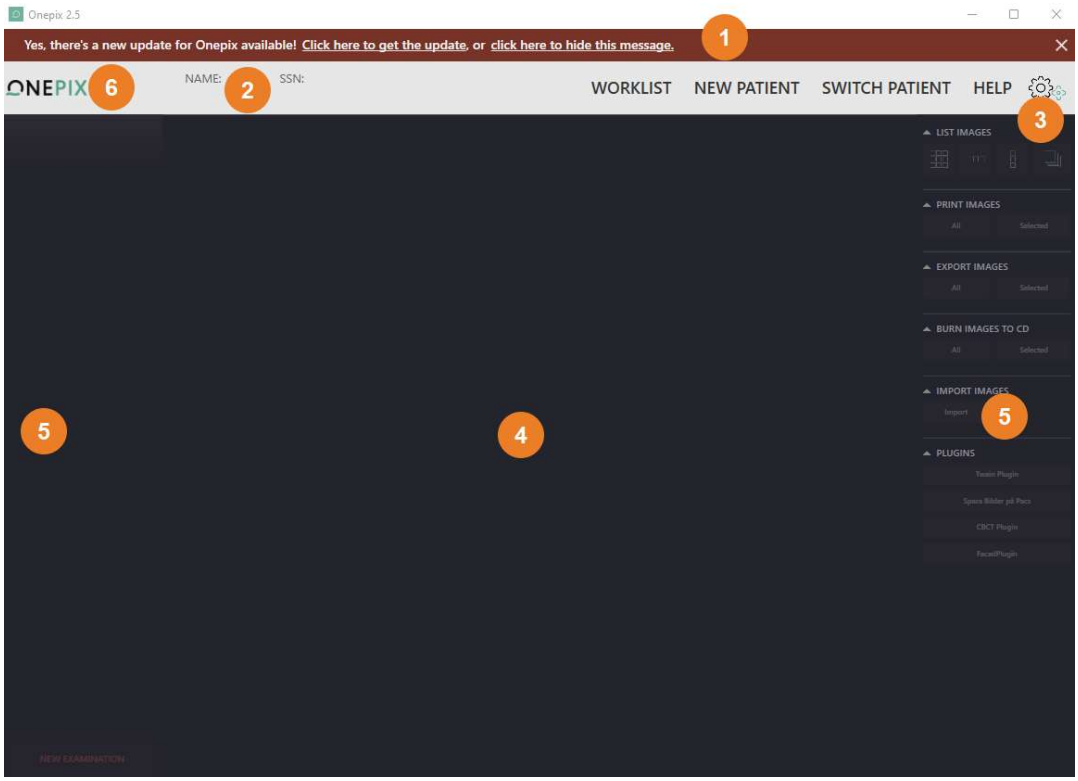
The first time you launch Onepix Cloud for the day, you will get a login box where you can enter your login details. The login is saved all day on the PC that you log on to. If you start Onepix on another PC then you have to log in again.



The login options available are Email, BankID, and Azure AD. Your login details are provided by your clinic administrator.

WORK IN ONEPIX

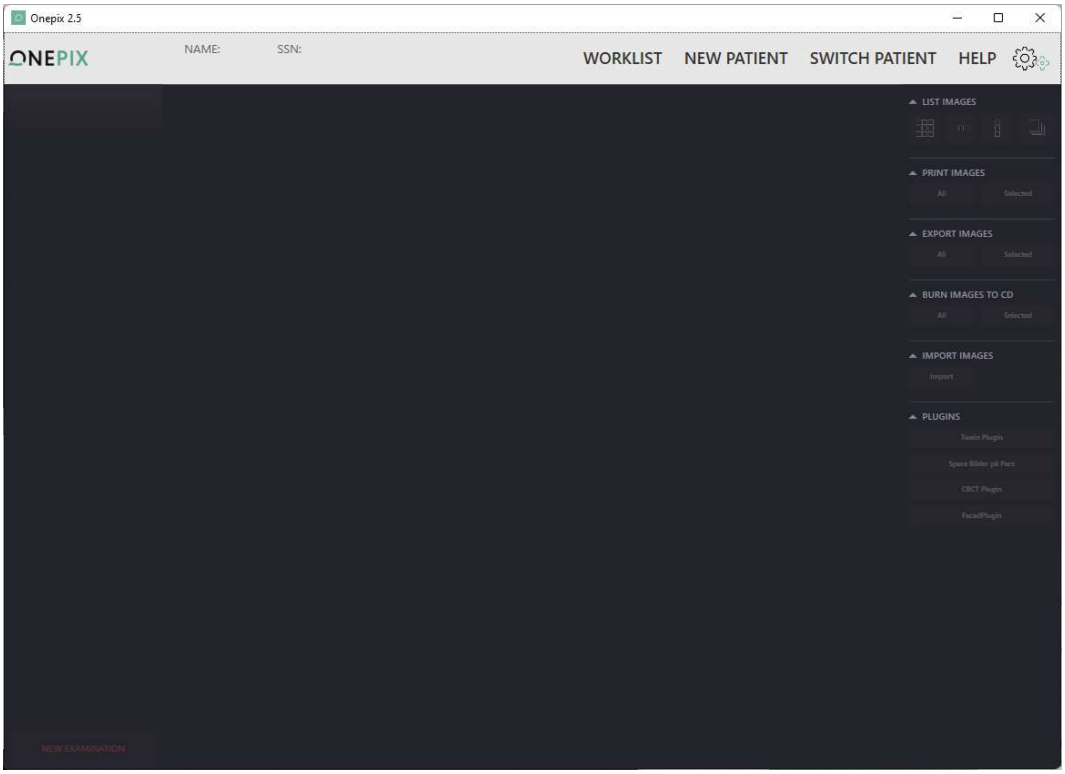
When you start working with Onepix, you will learn how to use two views, the exam view and the zoom view. Exam view and the zoom view have some things in common. Everything that is done in Onepix is saved automatically, i.e. you do not need to save any changes and you do not get a question if anything should be saved, but you can always undo changes as you will see when you read more about the features available in Onepix. The idea of this is to create a more user-friendly workflow. Below are the parts that are common to both exam and zoom view.



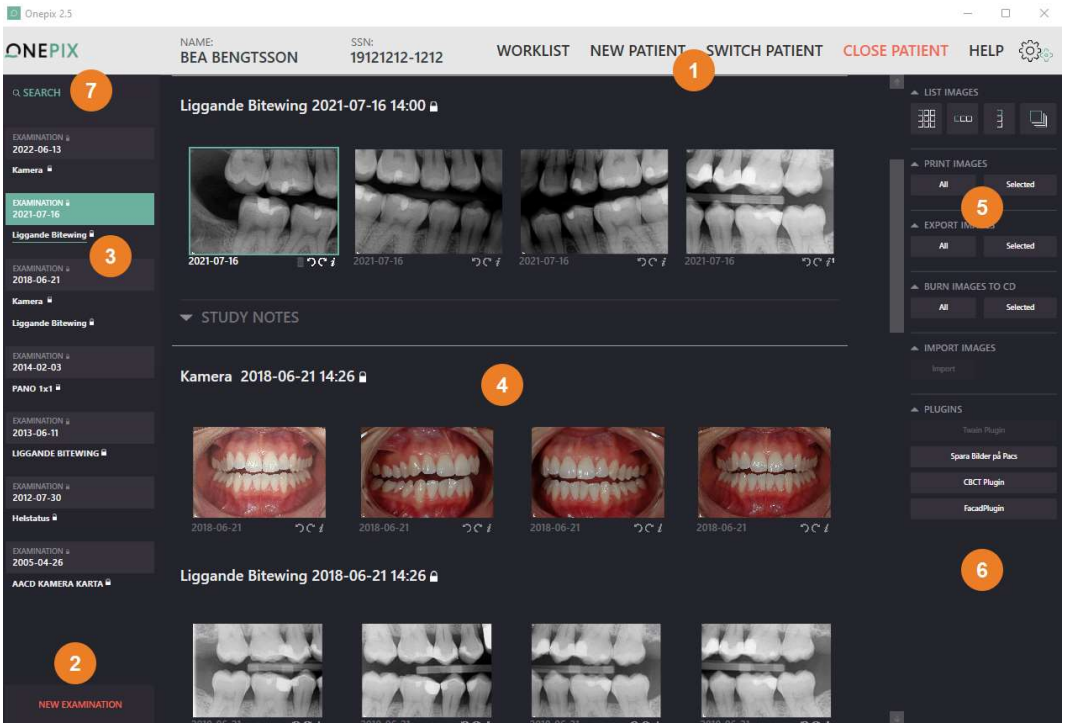
1. UPDATE FIELD: A row at the top of the window that appears when there is an update available. Can be easily closed, by clicking on the text or via the cross on the far right, but will return after restarting the program. It is possible to turn off the automatic update request, see the onepix settings section for more information.
2. PATIENT INFORMATION: At the top of the lightgray field, the patient information, such as social security number and name, is displayed. This information is visible in both exam and zoom view.
3. SETTINGS: On the far right of the same field as the patient information, there is an icon/button with gears that leads to Onepix settings. You can read more about the settings available in the Onepix Settings section.
4. IMAGE PRESENTATION: The large bar in the middle displays exams, series, and images depending on whether you are in exam view or in zoom view.
5. TOOLS AND FEATURES: All functions and tools used in Onepix can be found in the fields on the right and left of the exams/images.
6. NOTE: To find out which version of Onepix you have, you can click on the Onepix icon at the top left.

EXAM VIEW

When Onepix starts, the exam view appears first. In the beginning, only the light gray patient information field, at the top, is active. Here you can choose to create a new patient or do a search on the existing patient.



Since Onepix is mostly opened from a patient management system, the selected patient's most recently taken images are showed directly instead, as in the picture below.

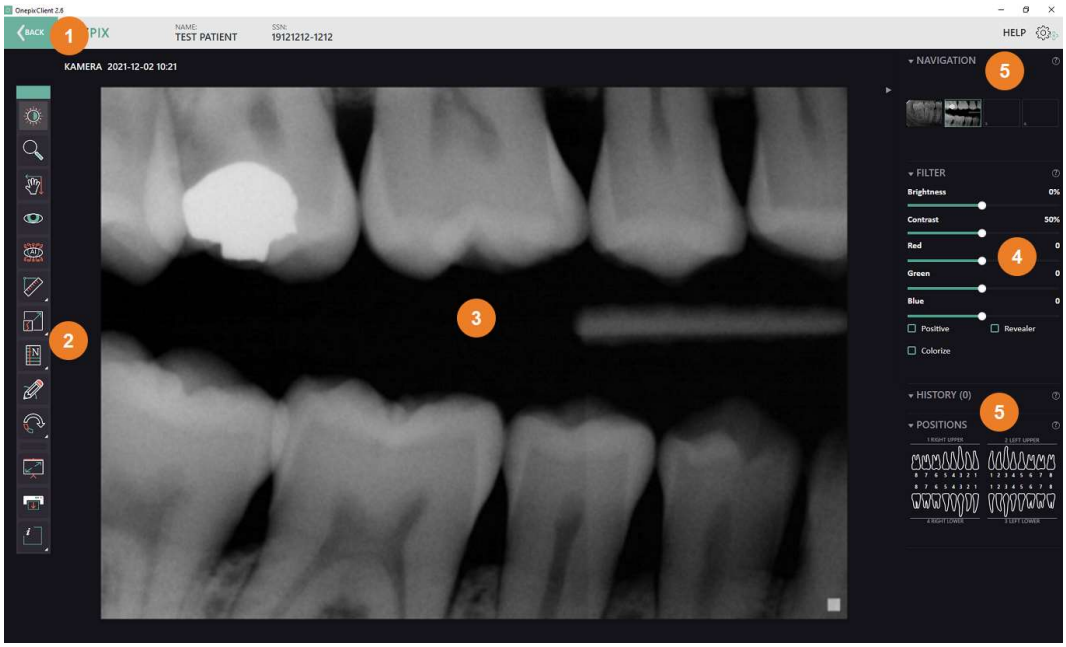


1. NEW / SWITCH PATIENT: If Onepix is not opened from a patient management system, you can create or search patients via these buttons. But the recommendation is to go through the patient management system, to get accurate patient information.
2. NEW EXAM: New exam is created by clicking on the button new examinaion, at the bottom left.
3. EXAMS AND SERIES: A list of tabs appear on the far left of the exam view in Onepix. Each gray tab with date corresponds to an examination for the patient in question. The most recent examination is at the top and the oldest at the bottom of the exam view. The green color indicates which exam appears in the slide presentation field in the center. For each exam, there may be one or more series, for example, one can have a bitewing and one or more apical series during the same exam session. If there are more exams than can fit on the screen, you can scroll down through the tabs to get to the desired exam. But you can also scroll in the center. A new exam is only active for editing during the current day that the exam was created. When that day is over, the exam, all its series and images are locked for editing. The exam/series is locked when you see an icon with a padlock after the series name.

4. IMAGE PRESENTATION AND IMAGE ACQUISITION: This field presents all series and exams in date order. This field was also used for image aqcuisition from a hardware such as a sensor or photo camera. In this field, you can directly rotate, detach image or read/write comments about the image. You can also quickly zoom in part of the image by right-clicking and holding the mouse button image while moving to the area you are interested in.
5. IMAGE MANAGEMENT: In this field, you will find functions for managing images. To select the images in the exam view, hold down the Ctrl key and click on the images. Then you select one of the functions that are in the field on the right, such as List images, Print, Export/Import images, etc.
6. PLUGIN: This shows the plugins that are installed. Some examples of these are TWAIN, 3D Plugin etc.
7. SEARCH: Here you can perform a quick search if you are looking for a certain kind of images.

ZOOM VIEW

If you doubleclick an image in the exam view, the image opens in zoom view where you can review and work on the image. All changes made are automatically saved and are located under HISTORY in the right bar, where they can be easily removed by double-clicking on Delete which is located to the right of each history entry.



1. BACK: The back button is used to get back to the exam view. All changes made to the image will be saved automatically.
2. TOOLS: Image tools are located to the left of the image. The tools contain graphical features such as brightness, contrast, orientation and magnification. There are also diagnostic tools such as pixel values, measurements and notes.
3. IMAGE PRESENTATION: Here the image is displayed in the state and settings you select using the tools.
4. ADJUST CONTROLS: Using these sliders, you can adjust the image presentation, such as increasing sharpness, light, and contrast, etc.
5. HISTORY / POSITION / NAVIGATION: All changes to the image are displayed under HISTORY and can be easily removed by double-clicking on the text Delete. Under NAVIGATION, you see where in the series the image is located and under POSITION the dental status is displayed.

Warning
Marked teeth in the dental status are based on information added when loading the image. This may deviate from reality if the image was loaded in the wrong position in the series or if the necessary manual correction of the dental status was not made after exposure.

EXAM VIEW

This section includes:

- Patient management
- Start a new Exam/Series
- Create/Edit Layouts

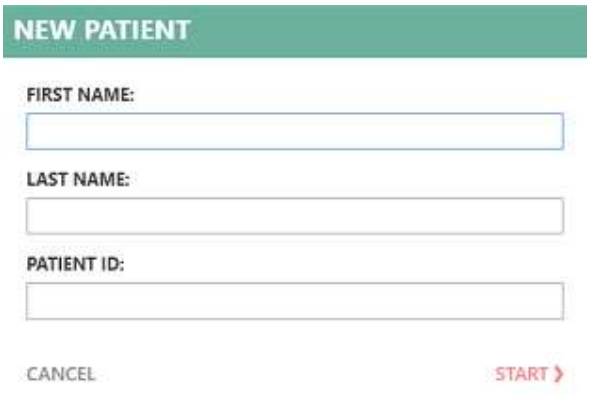
- Image management in examview
  - Compare/List images
  - Printing, Exporting and Importing Images , etc.

PATIENT MANAGEMENT

If a patient management system is used, it is usually linked to Onepix, which means that all patient data is automatically sent over from the patient management system. If the patient management system is missing or for some other reason, the patient cannot be created from the patient management system, then you can use the built-in Onepix patient management functions.

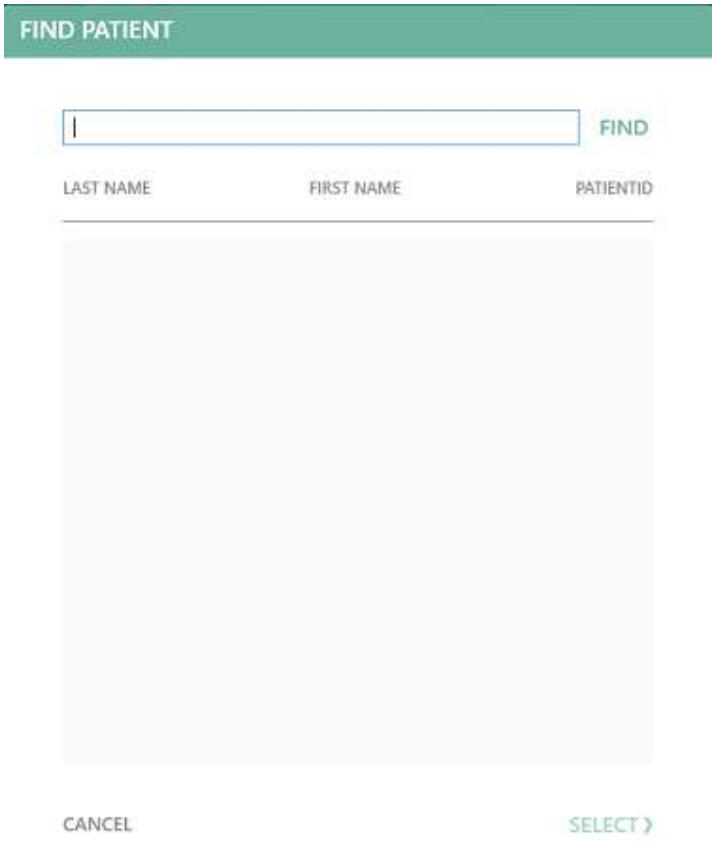
NEW PATIENT

The patient's first name, last name and ID details should always be entered in the new patient dialog box.



SEARCH PATIENT

If there are previous examinations, you can retrieve the patient information by clicking the SEARCH PATIENT button. This opens the search box where you can search for patients First Name, Last Name and/or Patient ID. Use only the space key if you want to search for, for example, both first name and last name, example: *John Doe 1234*



CLOSE PATIENT
Closes the active patient and its examinations.

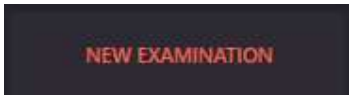
HELP
This option will open the help section of the Onepix application. The help files are designed to provide easy access to information about the various functions and options of the Onepix software.

To open the help section, click the HELP button/text in the upper right corner of the application.

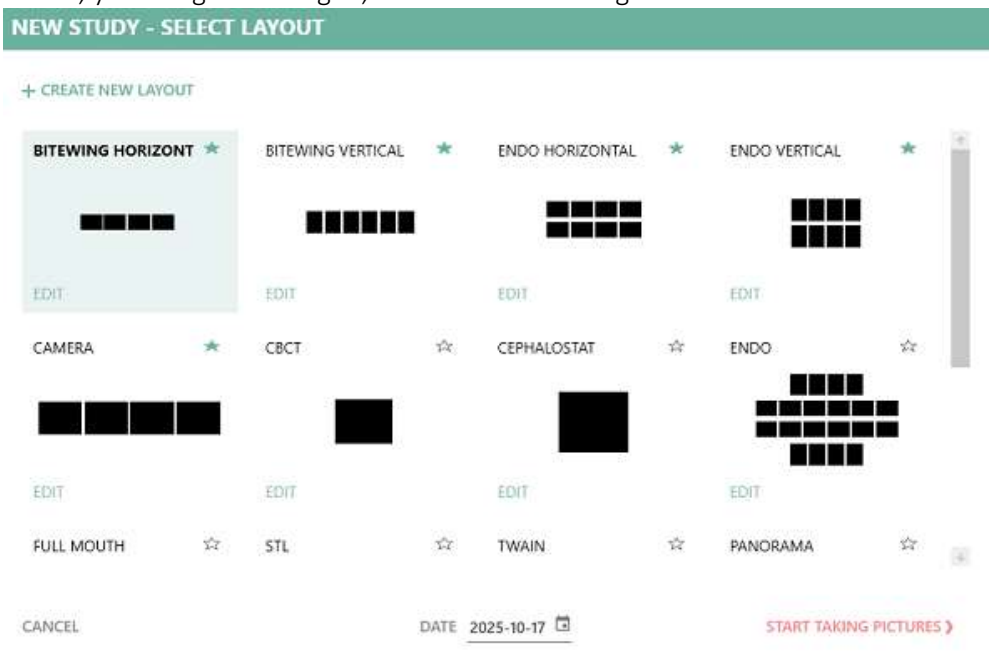
EXAMS AND SERIES
Starting with Onepix 2.0, exams and series are handled in a little different way than it did before. An exam stands for an exam occasion. A series is a collection of pictures taken during the same occasion. There can be several series in a single exam, such as a series with Panoramic Images and one with Bitewing. Exams and series appear in the left bar of the exam view with recent exams at the top of the list. An exam/series is active for editing during the first day that they are acquired, the next day the exam is

locked for all editing. This is visualized in the form of a padlock to the right of the Exam/Series.

NEW EXAM



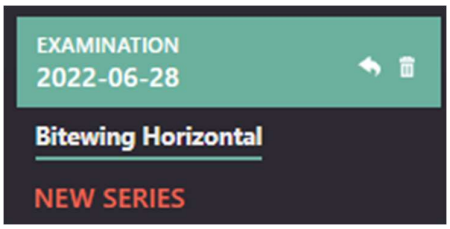
The NEW EXAMINATION button is located at the bottom left. When you click on the button, you will get a dialogue, as shown in the image below.



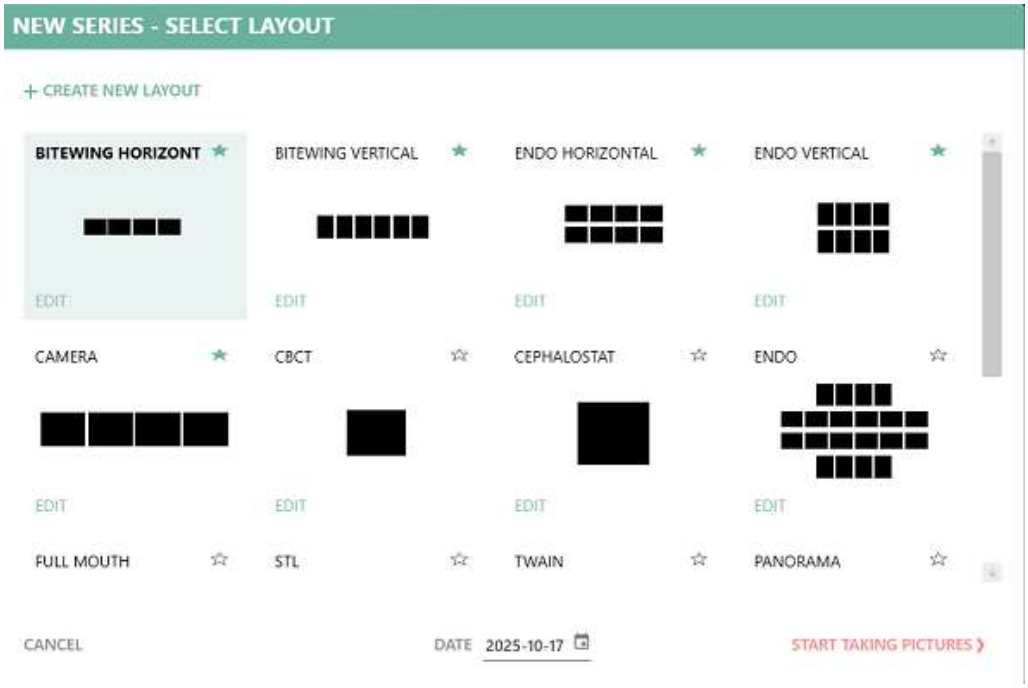
Select a layout depending on the type of images to acquire and click START TAKING PICTURES. In this window, you also have the option to create a new layout, modify and select favorite layouts. You can also choose whether the examination should be on a different date. The setting for selecting a date is found under Onepix settings or via the security module. More about layouts and their management can be found under the EDIT OR CREATE LAYOUT section in this manual.

NEW SERIES

After you create the first exam, the text NEW SERIES appears under the current exam in the list on the left.

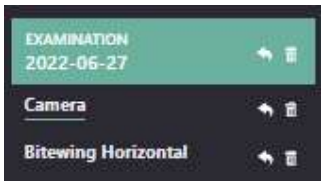


To create more series, click the text NEW SERIES, select a layout and click START TAKING PICTURES.

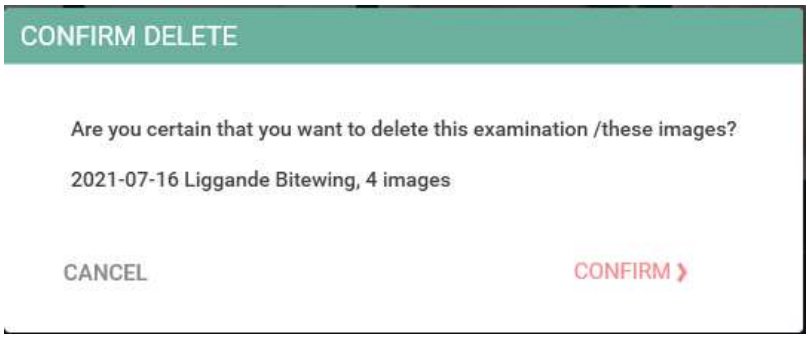


The new series dialog box looks the same as for new exam. The only difference is that a new series is created under the existing exam.

DELETE AN EXAM/SERIES



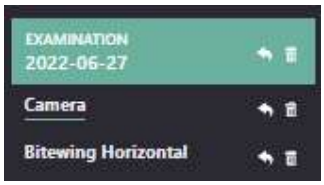
You can delete a series/exam directly in the Onepix client by clicking on the recycle bin icon on the right side of the exam tab.



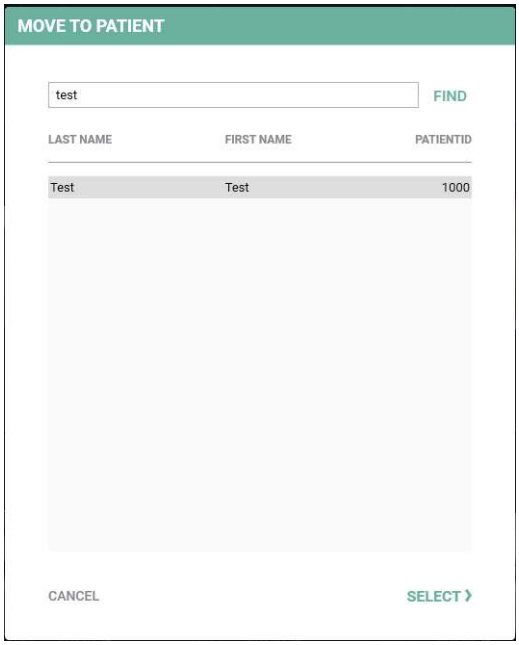
When you click on the recycle bin icon then you will get a dialog box where you choose to confirm deletion or to cancel.

Warning
Only images without diagnostic value may be deleted according to applicable law. Exams deleted from the client can be restored through the Onepix Admin Tool.

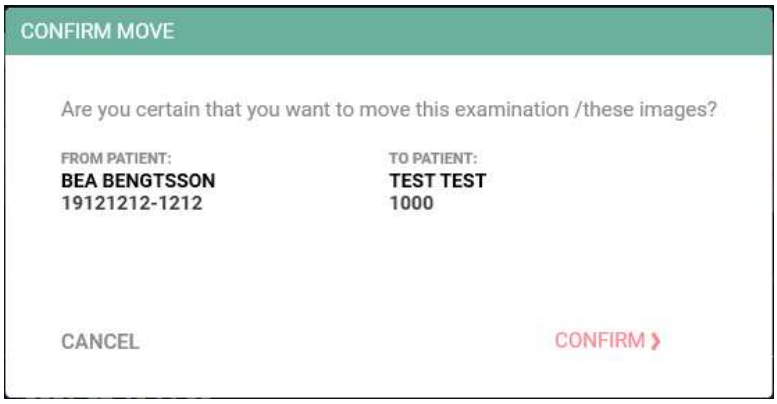
MOVE AN EXAMINATION/SERIES TO ANOTHER PATIENT



You can move an examination/series from one patient to another by clicking on the arrow that appears on the right side of the examination tab.



Search patient where the examination/series is to be moved to. Select the patient and click SELECT.



In this step, you confirm the move of images. To move single images from one patient to another, see the "Moving Items" section under Onepix Admin.

Warning

Exercise caution when an entire examination or series is moved to another patient. Check that the correct target patient is selected and also check that the exam or series was moved by opening the target patient in Onepix.

EDIT OR CREATE LAYOUT

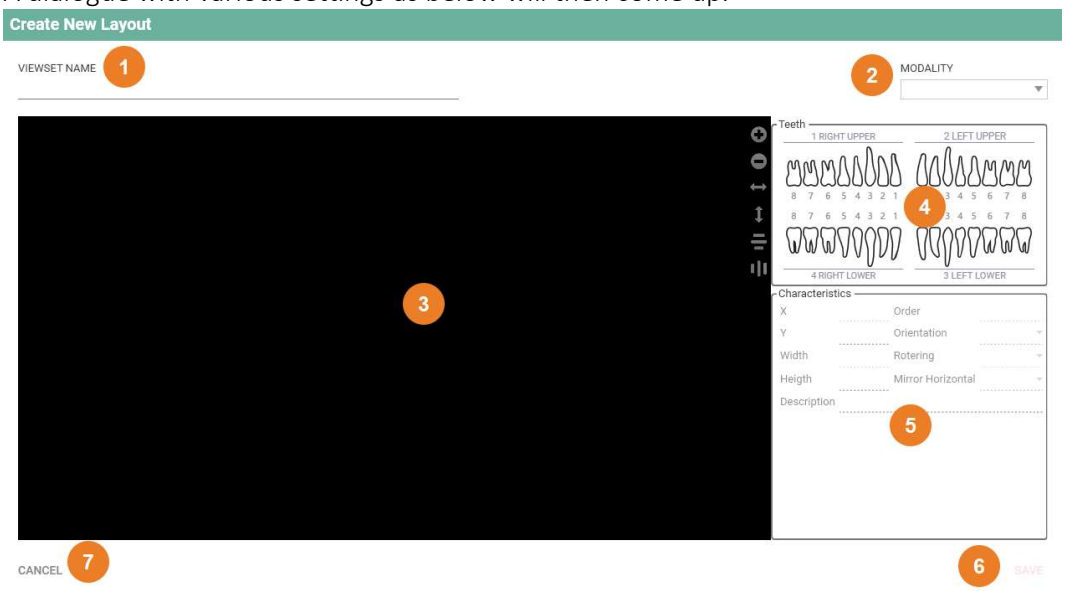
Onepix has several preset series/layouts that are intended to cover the most common exam types. The layouts for intraoral X-ray are named in standard version: Horizontal bitewing, Vertical bitewing, Endo and Full mouth. It also includes layouts for photo,

intraoral camera images, panorama and scanner etc. To get to the selection to edit or create new layout, you can click the NEW EXAM or NEW SERIES button in the exam list.

The star icon that appears at the top right of the layout is used to sort layouts by favorites, click on a star and that layout will be placed in first place in the list, at the top left. The star then also changes color to green indicating that it is selected as a favorite layout. To change settings for the specific layout, click the EDIT text below the layout.

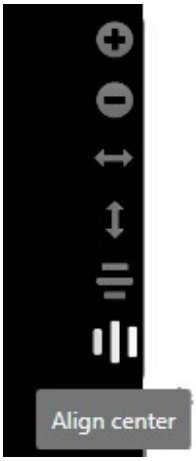
To create a new layout click on the create new layout button

A dialogue with various settings as below will then come up.

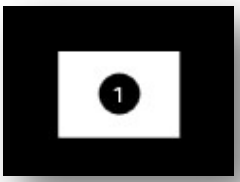


1. Start by typing a name for the layout.
2. Select which modality the layout belongs to, such as Photo.
3. The large black bar is where the layout is created and displayed. Use the tools on the right to create/delete image objects, distribute or center

horizontally/vertically. To see what the different icons do, you can place the mouse pointer over, then a text with explanation will appear.

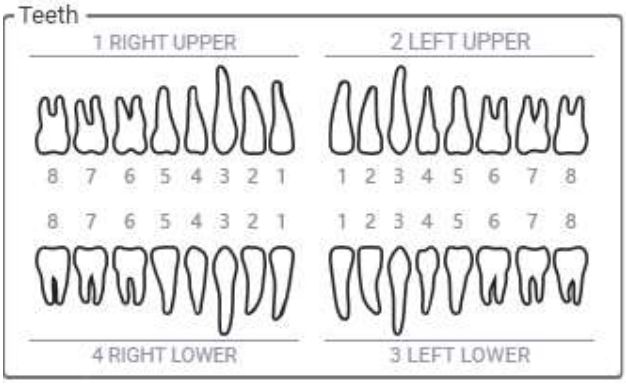


When you click on the plus sign, a position/frame is created in the black bar that looks like this:

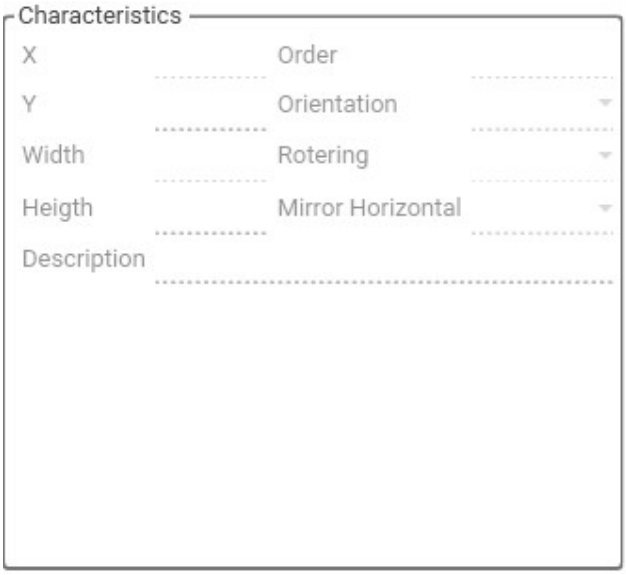


If you want to remove this box, click on it once to select it, and then click on the minus sign. To distribute or center frames, select the positions to be affected and click on the respective symbol.

4. In this field, you can preset a frame with teeth. Click a frame to select it, and then click on the teeth it represents.

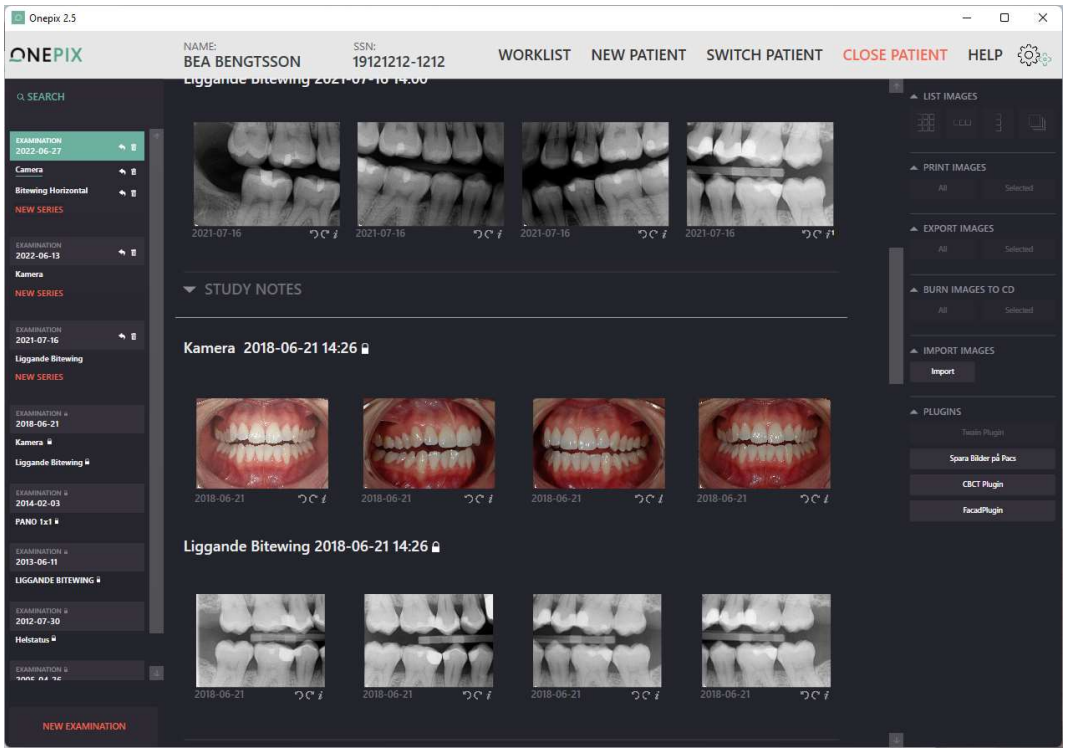


5. Under Properties, you'll see the properties that exist for the selected frame. Here you can change settings, for the selected frame, such as Width, Height Rotate or Mirroring. Mirror horizontally is used, for example, if using a mirror when shooting a photo.



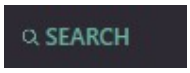
6. Click SAVE to save the layout with these settings. You can always change the layout afterwards if something goes wrong.
7. Click CANCEL if you changed your mind.

IMAGE MANAGEMENT

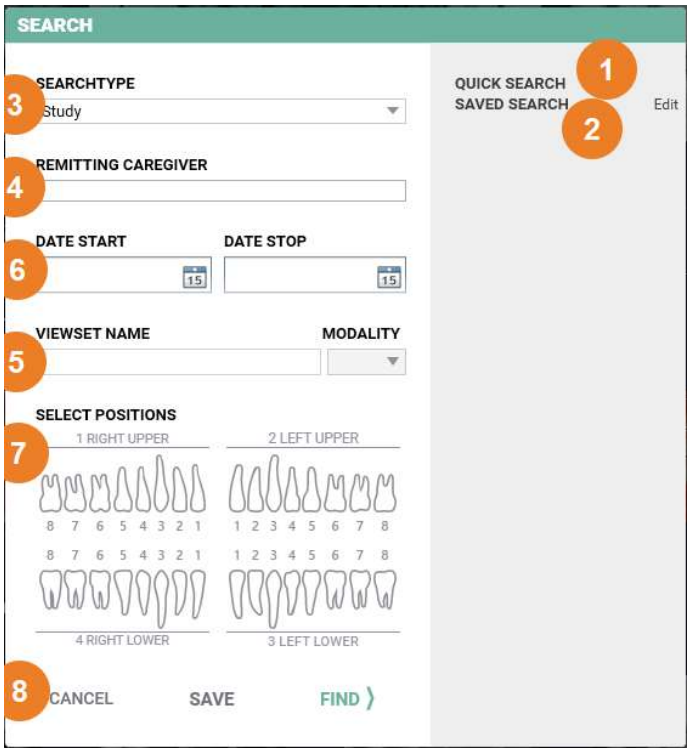


All images are presented in the middle section of the Onepix exam view. The latest exam is presented first. To quickly get to a certain exam or series, you can go through the exam list on the left side and click on the date that is relevant. You can also browse directly in the middle section by scrolling with computer mouse.

SEARCH IMAGES



At the top left, above the exam list, there is a search function. The idea with it is to quickly find images that are interesting. The image below describes the different options available for the search function. The search results are presented in the exam view with recently taken images at the top.



1. QUICK SEARCH – Here are some of the most common searches. The idea is that you should be able to quickly get the images with just one click.

2. SAVED SEARCH – You can create your own searches and save them.

3. SEARCHTYPE – Here you select whether it is Exam, Series, or Images you are searching for.

4. REMITTING CAREGIVER – If that information is in the pictures, you can search for a specific therapist.

5. VIEWSET NAME – Here you can search by specific name of a series/layout or select the modality in the list.

6. DATE – Here you can if the search should take place within a certain daterange.

7. SELECT POSITION – Here you choose whether it is a certain tooth or position easily by clicking on the teeth to which the search applies.

8. Here you choose whether to cancel the search, save or perform a search based on the criteria selected.

After you have done a search, onepix will display the search result in the exam view. To go back to all exams, click on the BACK button at the top left.

QUICK ZOOM

Quick Zoom is a Onepix feature that "zooms" or enlarges images in an exam, making each image display in magnification. Quick Zoom can save you valuable time by not having to open each image separately to view it in magnification.

To use Quick Zoom, you only need to right-click with the mouse cursor in an image in the exam view and hold down the mouse button, the image will then be displayed in an enlarged mode. Move the mouse pointer to move around in the image. Changing the size of the quick zoom window can be found under the section on Onepix settings.

MOVE IMAGE / CHANGE POSITION

If an image has ended up in a different box than what was intended, you can easily move the image by clicking on the image, holding down the left mouse button and dragging the image to another frame.

Before:

After:

If there already is an image in the box that you are moving to, these will change places.

Before:

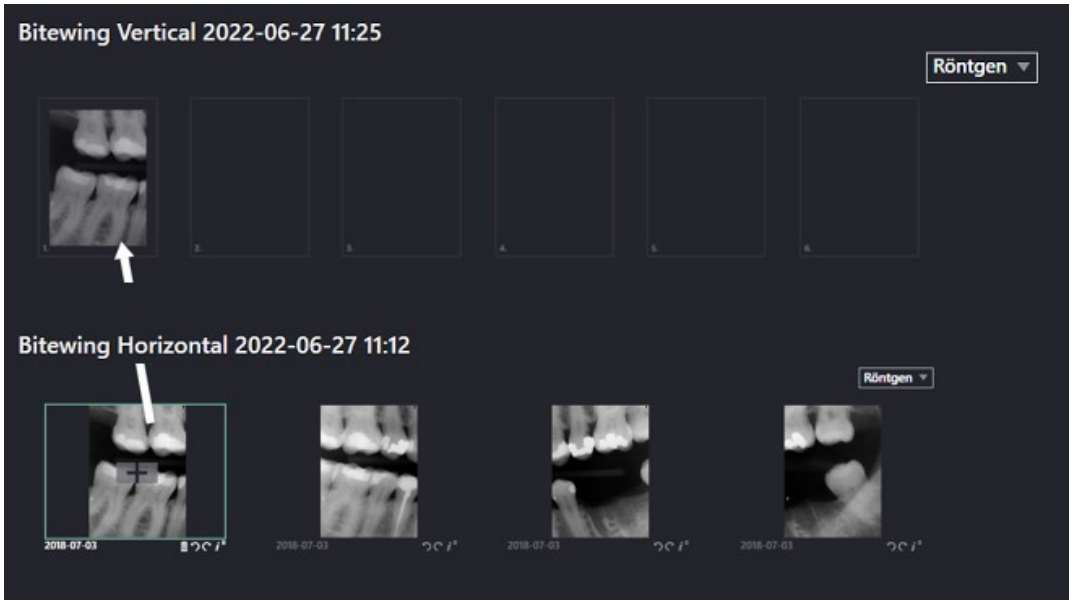
After:

Note that you can only move images in a series with today's date. Older series are locked for editing.

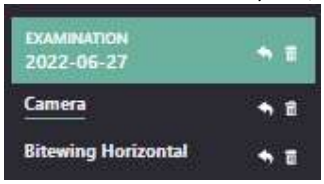
MOVE IMAGES BETWEEN SERIES

If you have created a series with bitewing horizontal, but regret it and want a bitewing vertical instead. Then you can create a new series by clicking on the text NEW SERIES

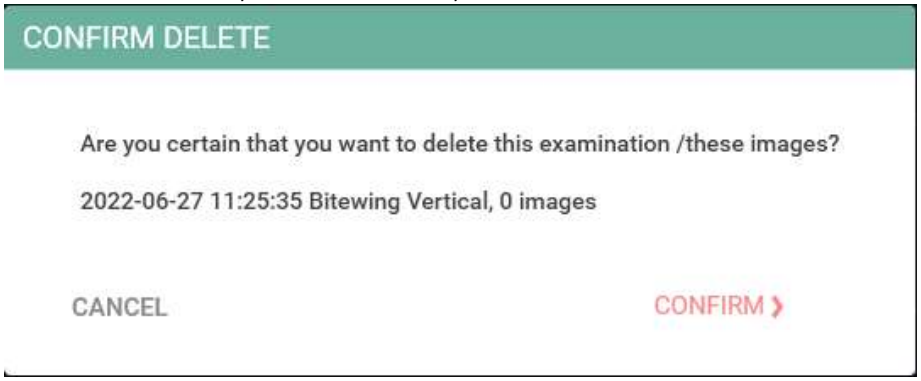
If you have already taken pictures in the series Bitewing Horizontal, but want to move these to the series Bitewing Vertical then you can easily just click on the image hold down the mouse button, drag and drop the image to the correct position.



To remove a blank layout, one can click on the trash can icon to the right of the series.



Confirm deletion if you are sure that you have selected the correct series to delete.

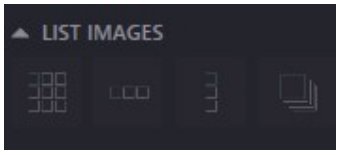


Warning
Only images without diagnostic value may be deleted according to applicable law. Exams deleted from the client can be restored through the Onepix Admin Entry Tool.

LIST IMAGES

To compare/list two or more images, hold down the Ctrl key and click on the images to be compared. The selected images will receive a green frame as an indication. If you want to compare all the images in a series then you can use the Ctrl+A keys to select all of them.

Then click on any of the icons that appear in the right bar under COMPARE IMAGES. The different comparison options available from the left are: Multiple in squares, Horizontal, Vertical, Overlap.

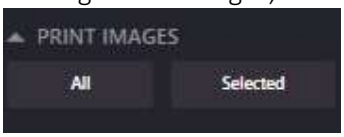


This is what it can look like if you choose to compare the images horizontally. Fits well when comparing e.g. bitewing images.

To close the images, you can either use the Esc key or you can click the cross on each image. When choosing to compare images with practice patching, you can easily browse between the images by using the Page Up / Page Down keys

PRINT

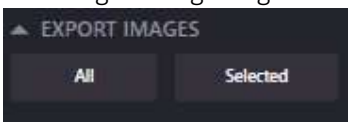
The Print function can be used to print All images in the active exam or you can only print selected images. Select the images to be printed by holding down the Ctrl key and clicking on the images, the images will have a green frame as a highlight.



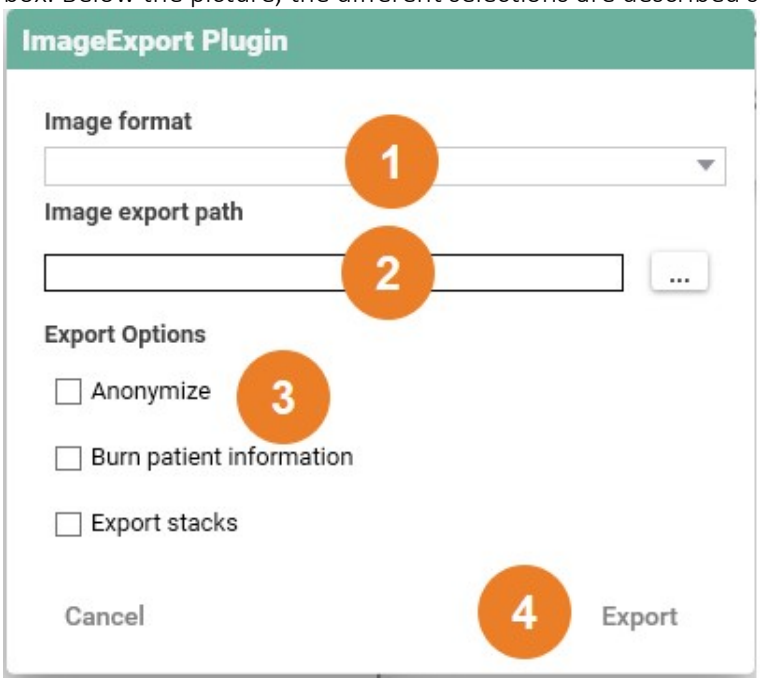
If you choose to print all images, the entire examination will end up on a page with associated patient and examination information. If you choose to print the selected images, each individual image will end up on its own page.

EXPORT IMAGES

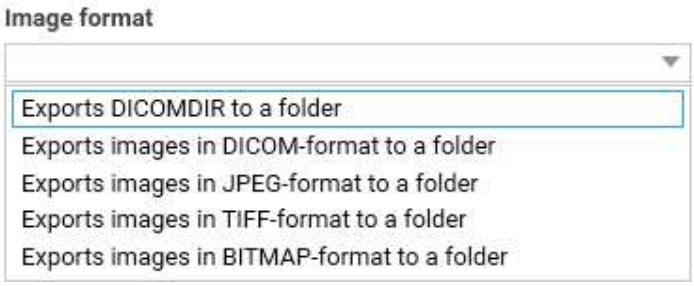
The export feature can export either all images in an exam or only those that are selected. To highlight images hold down the Ctrl key and click on the images to export, the images will get a green frame as a highlight.



Whether you choose to export all images or selected, you will get the following dialog box. Below the picture, the different selections are described step by step.



1. Under *Image Format* there are the several choices to choose from. Export in DICOM format is preferred, but this requires that the recipient of the files has a software that can read DICOM files.



2. Select a path for image export by clicking on the dots button, or type in a path such as *C:\Temp*

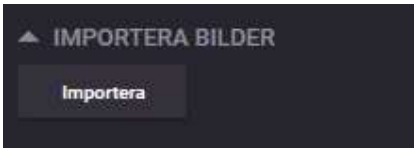
3. Under E*xport Options,* you can choose whether to Anonymize the images, and you can also choose whether to burn patient information into the image. This is what an image can look like if you choose to both anonymize and burn the information in the image.

4. Click Export, the destination folder will open in windows explorer and display the images saved.

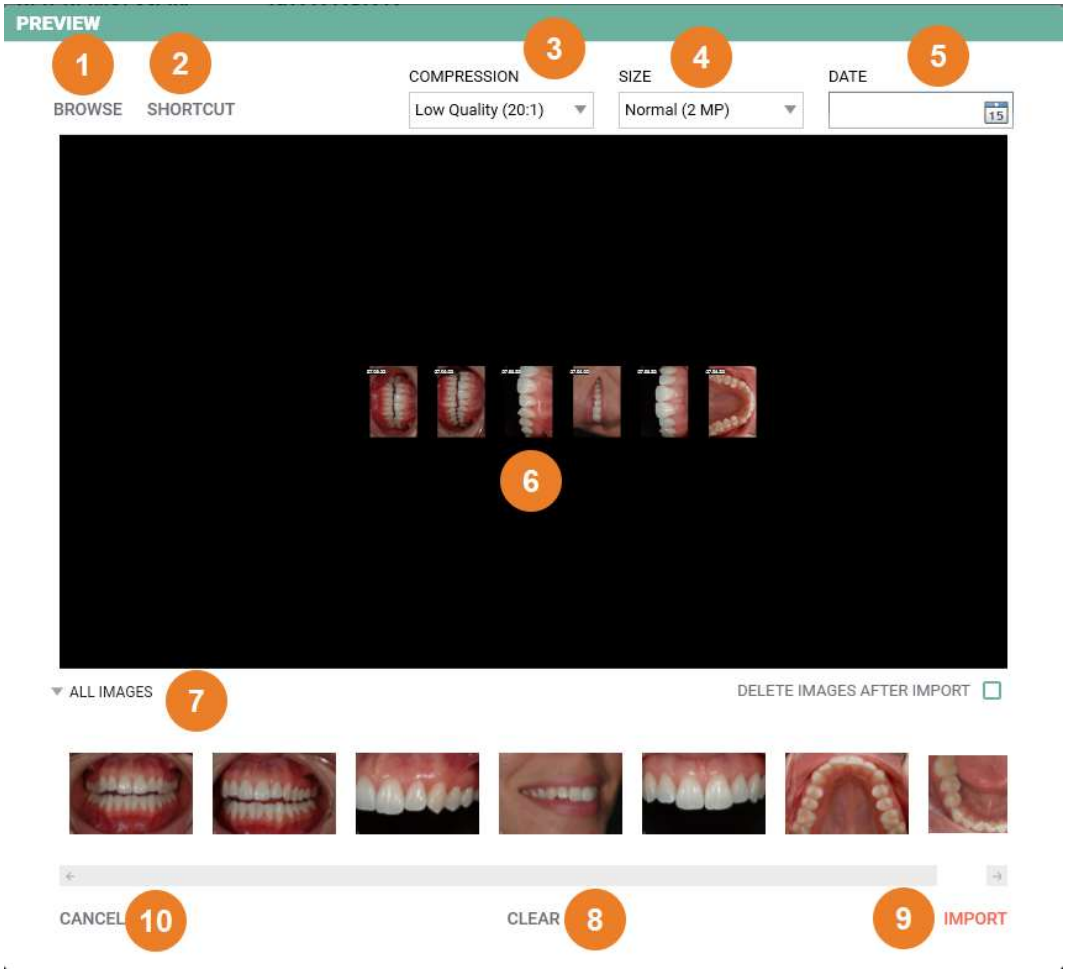
Warning
To send images via email, the email must be encrypted to comply with the Patient Data Act. There are secure systems for this communication, such as C-tact Link.

IMPORT IMAGES

Imports images from files. Onepix program can import 8-bit and 12-bit black and white (in grayscale) images and 24-bit color images in several differentformats, such as.TIFF, BMP, PNG and JPG.



In order to import images, you must be in a series with today's exam date. You can either choose to import images into an existing series or create a new series. If you are going to read from a memory card in a card reader, first insert the memory card, then click on the Import button.



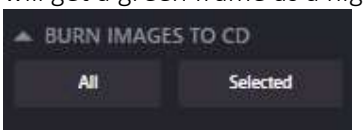
1. Browse for images from a folder on disk. If you are reading from a memory card then the images will be presented instantly without you having to click on anything.
2. If you want to label these images with a comment, do so here.
3. Select the compression rate. Most often only done the first time, previous selections are saved on this computer.
4. Select the size. Most often only done the first time, previous selections are saved on this computer.
5. Select the date if it should be a different date on the images than today's date.
6. Here is a preview of what it will look like when the images are imported into the series. If there are previews that are not desired, one can easily just click on an image, press and hold the mouse button and pull the image out of the layout and drop.
7. If there are more images on the memory card or in the folder you are importing from, click the text ALL IMAGES to display these in a list. You can easily click on an image in the list and drag and drop into the desired box in the preview above.

8. If you want to empty the preview from all images, click CLEAR. Then do according to step 7.
9. Click IMPORT when you feel satisfied with your choice.
10. CANCEL closes the dialog box without any changes or import.

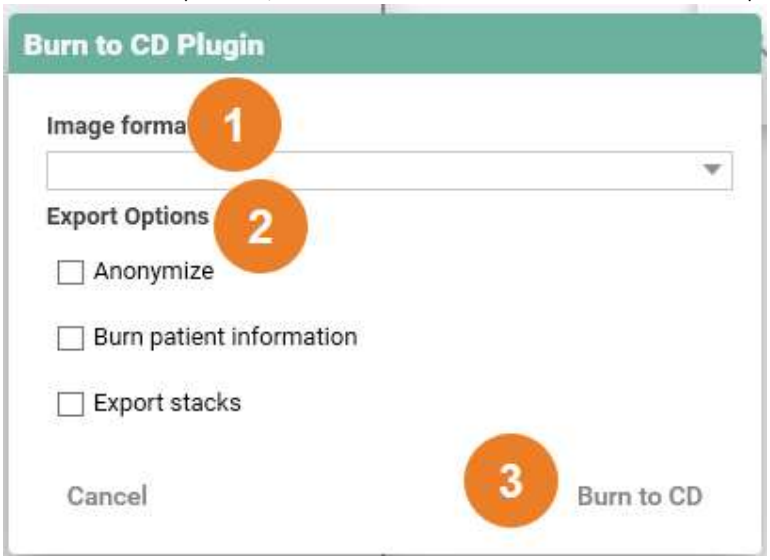
Warning
To avoid confusion of patient information, the "Export to DICOM" option should be used as this means that patient information is stored in the file. If other image formats are selected, "Burn patient information" should be enabled, then patient information will be printed in plain text below the image.

EXPORT TO CD

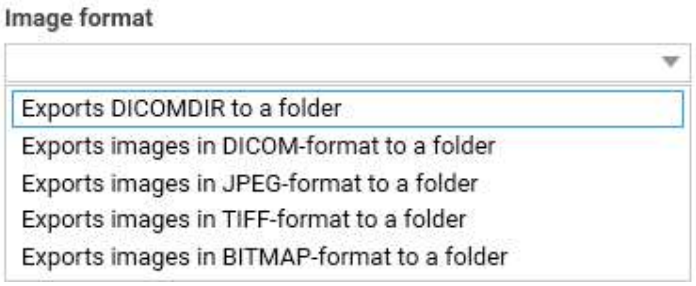
Export to CD can export either all images in a exam or only those that are selected. To highlight images hold down the Ctrl key and click on the images to select, the images will get a green frame as a highlight.



Whether you choose to export all images or selected, you will get the following dialog box. Below the picture, the different choices are described step by step.



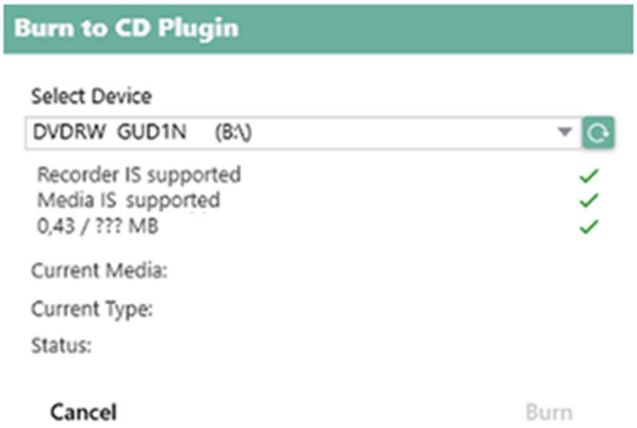
1. Under *Format* there are the following choices to choose from. Export in DICOM format is preferred, but this requires that the recipient of the files has a software that can read DICOM files.



2. Under E*xport options,* you can choose whether to Anonymize the images, and you can also choose whether to burn patient information into the image or not. If no choice is made here then the image will be saved with patient and series information as file name, example of this: *19690101-1005_A. LYING BITEWING_2016-02-10_08-42-21.jpg*

3. Make sure you have inserted a blank disc into the CD/DVD burner.
   Click Burn to CD/DVD.
4. You will then see this dialog box:

5. Select the device that will burn the images and check that all the criterias are met:

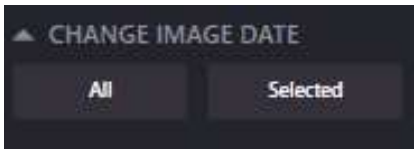


6. Click Burn and wait for the disc to finish.

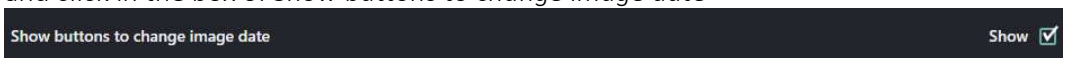
Warning
To avoid confusion of patient information, the "Export to DICOM" option should be used as this means that patient information is stored in the file. If other image formats are selected, "Burn patient information" should be enabled, then patient information will be printed in plain text under the image.

CHANGE THE IMAGE DATE

Change Image Date is used to easily change dates on existing images that, for example if images have been imported with the wrong date. Note that you can only change the image date on series/exams that are not locked. If the exams/series are locked then the buttons are disabled.



Change the image date feature is disabled by default. To activate go to Onepix settings and click in the box of *Show buttons to change image date*



To change the image date of individual images, select one or more images by pressing down the Ctrl key and clicking on the images so that they are marked with a green selection. Then click the Selected button under Change Image Date.

To change to the same date for the entire series, select an image in the series and click the *All* button under *Change Image Date.*

Select the correct date by clicking the calendar icon and clicking *Select*

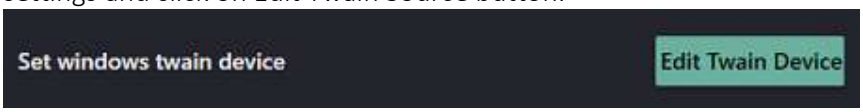
Make sure that the date below the image in the exam view is updated for selected images.

PLUGIN

Under PLUGIN, the installed Onepix plugin will appear. Plugins can be selected during the installation process. Here are some examples of the plugins available in Onepix.

TWAIN PLUGIN

Twain plugin is used for acquiring images from a Twain-compatible source, such as an image plate scanner or a panoramic machine. To select the twain source go to Onepix settings and click on Edit Twain Source button.



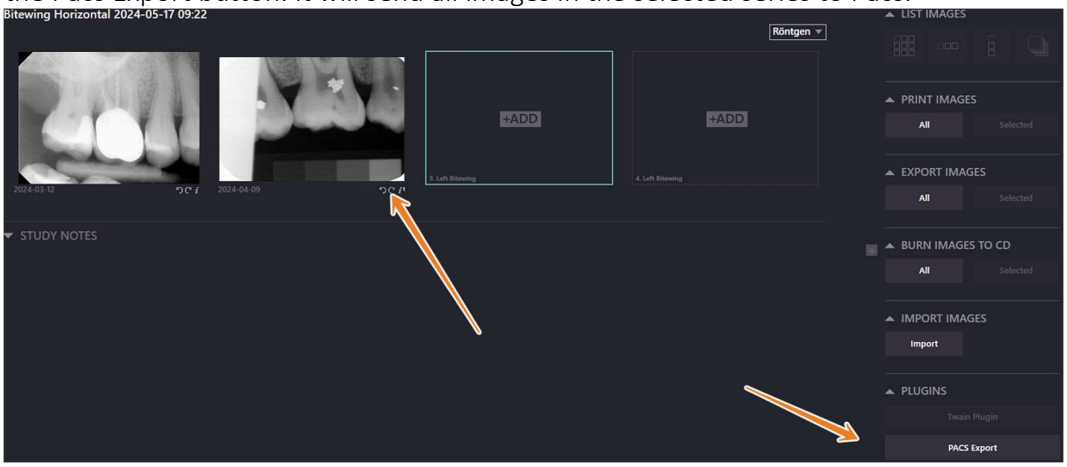
To acquire images from a Twain source: Create a new Twain Study/Series with modality OT (Other), select an image position and click on Twain plugin.

Please note that twain sources have their own design and dialogue so the image acquisition process could be different for different sources. Refer to the manufacturers user manual for each Twain source. When you have acquired images in the twain dialogue and close the window/dialogue the images are sent to Onepix. To test/troubleshoot the Twain source you can use an open source application such as Twacker.

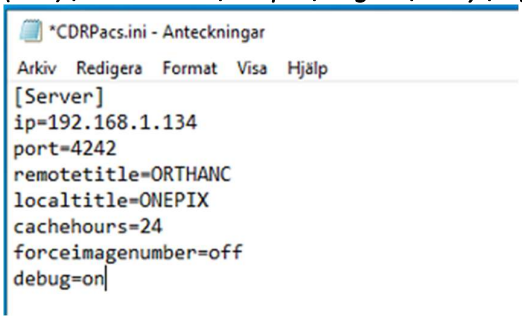
PACS EXPORT

Pacs Export plugin is used to send images from Onepix to a Pacs server.

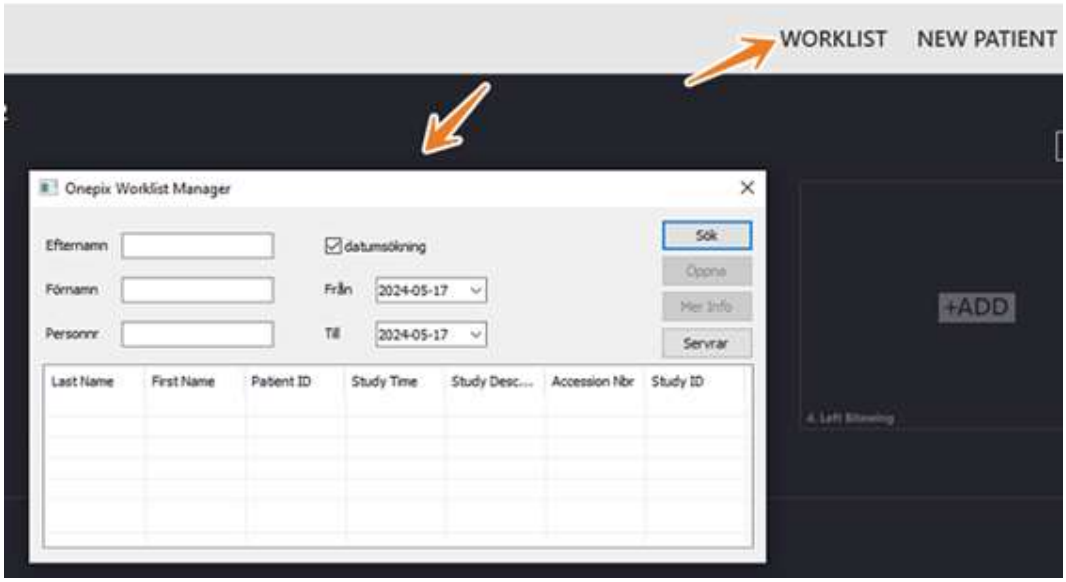
The workflow is simple, you select a series that you want to export and click on the Pacs Export button. It will send all images in the selected series to Pacs.



Yuu can find settings for Pacs Export in ***CDRPacs.ini*** file in folder ***C:\Program Files (x86)\Unident AB\Onepix\Plugins\Study\Legacy\PacsPlugin***



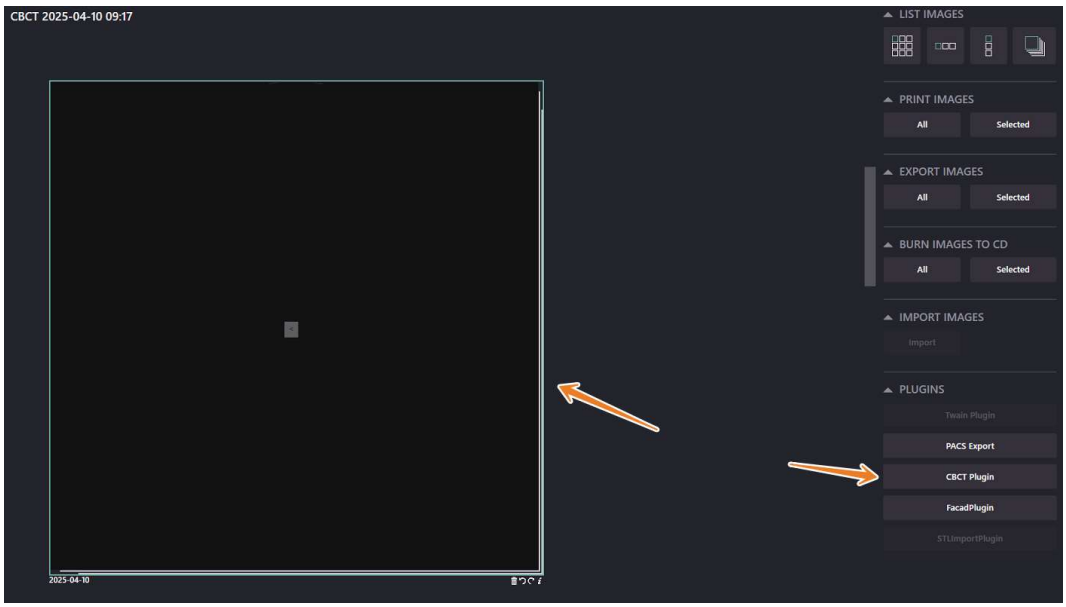
When Pacs Export plugin is installed, you will also see that you get new button called WORKLIST in Onepix. This can be used to get patients from a worklist system such as RIS for example.



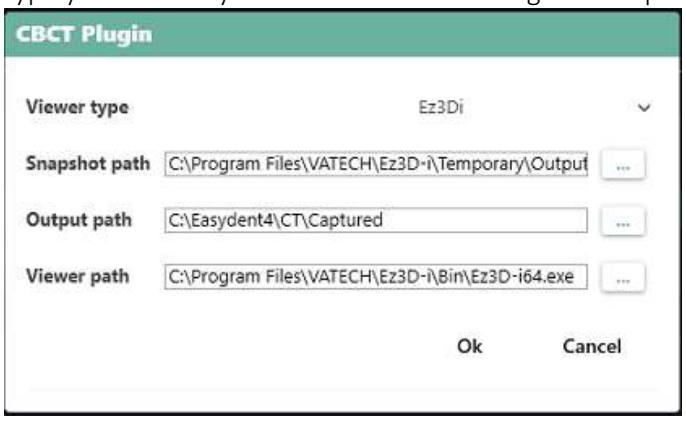
The settings for the worklist is in ***uwm.ini*** file in folder ***C:\Program Files (x86)\Unident AB\Onepix***

CBCT PLUGIN

CBCT Plugin is used to export a CBCT study to an external CBCT Viewer. Onepix can store CBCT studies but it can only show one image slice at the time. Select the CBCT Study you want to export and click on the CBCT Plugin.



In Onepix settings when you click on button CBCT Plugin you can choose which Viewer type you use and you can also do the settings for Snapshot, Output and Viewer path.



FACAD PLUGIN

Facad Plugin is used to export images to an external viewer called Facad. You select the image to export and click on the Facad Plugin button

The settings for the Facad Plugin is located in ***C:\Program Files (x86)\Unident AB\Onepix\Plugins\Study\FacadPlugin\FacadPlugin.dll.config*** file.

FacadPlugin.dll.config - Anteckningar

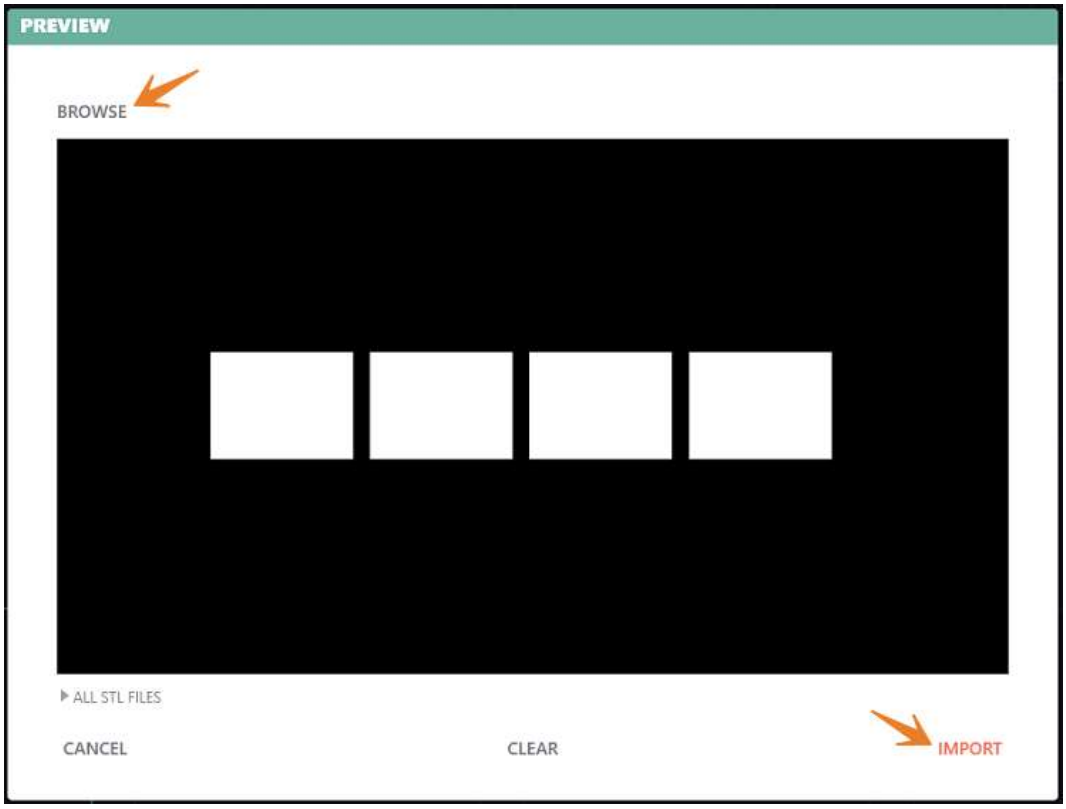
Arkiv Redigera Format Visa Hjälp

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
 <runtime>
 <generatePublisherEvidence enabled="false"/>
 </runtime>
 <appSettings>
 <add key="PluginPath" value="C:\Facad\Program\Facad\Facad.exe"/>
 <add key="PluginArg" value="{0}"/>
 <add key="Debug" value="false"/>
 </appSettings>
</configuration>
```

STL IMPORT PLUGIN

STL Import Plugin is used to import STL files to Onepix. Create a new study or seies with STL (3D Manufacturing Model) modality and click on STL Import Plugin.

Click on BROWSE and select a folder containing STL files. Choose which files to import and click on IMPORT button.

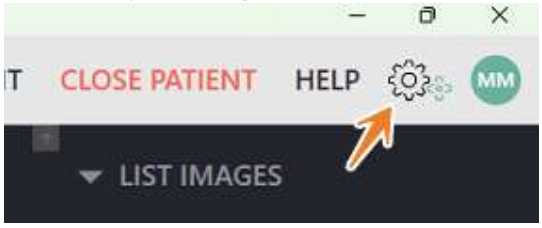


3SHAPE UNITE PLUGIN

3Shape Unite Plugin is used to import 3D models from 3Shape Unite Software to Onepix. Create a new study or series with STL (3D Manufacturing Model) modality and click on 3ShapeUnite plugin button.

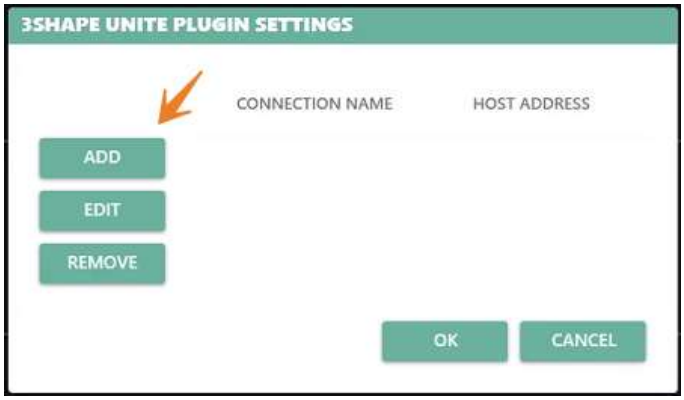
3SHAPE UNITE SETTINGS

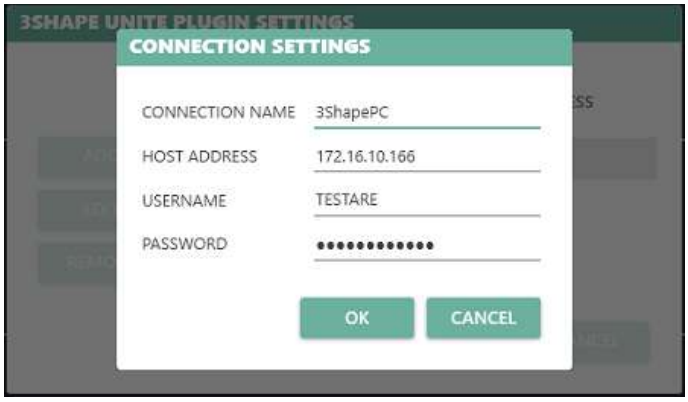
Go to Onepix settings



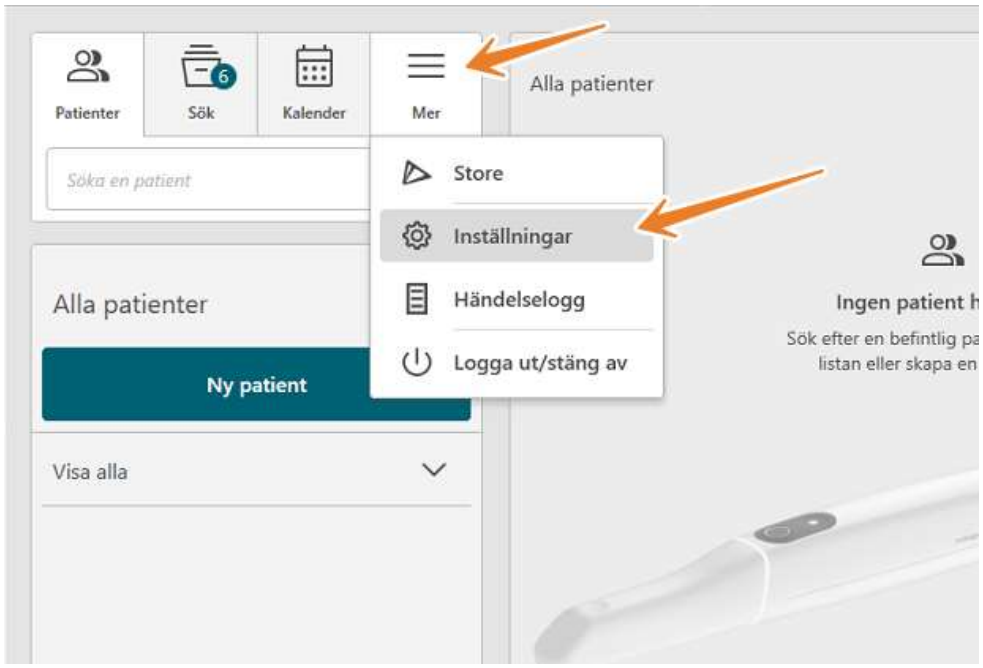
Click on 3Shape Unite Plugin

Click on ADD button

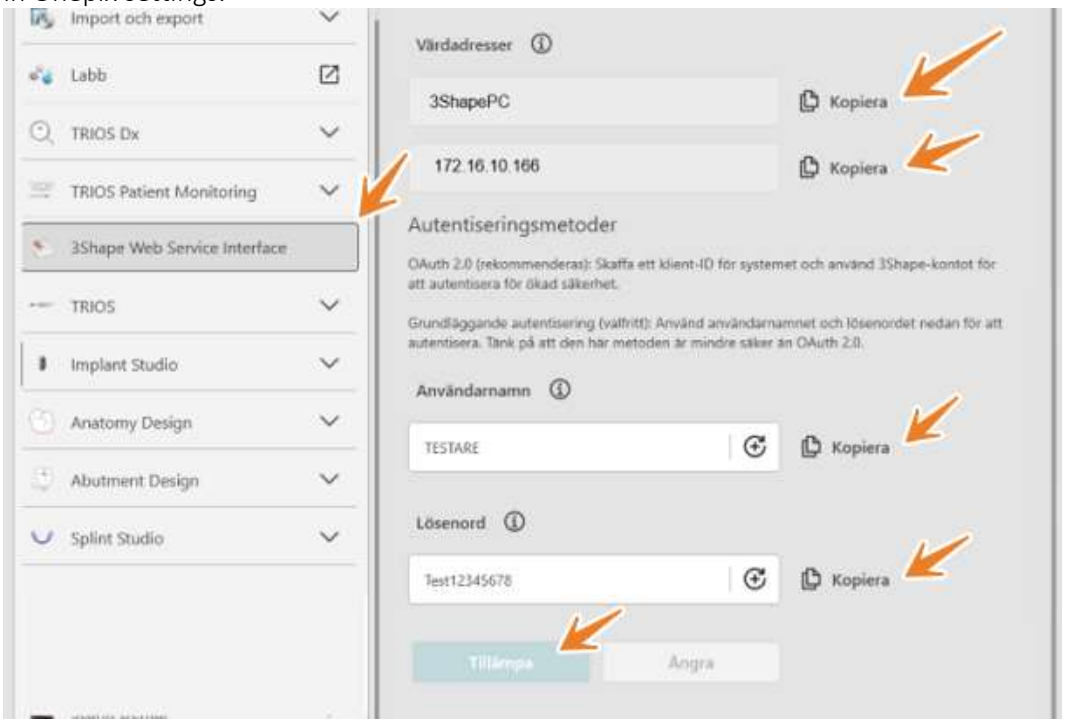




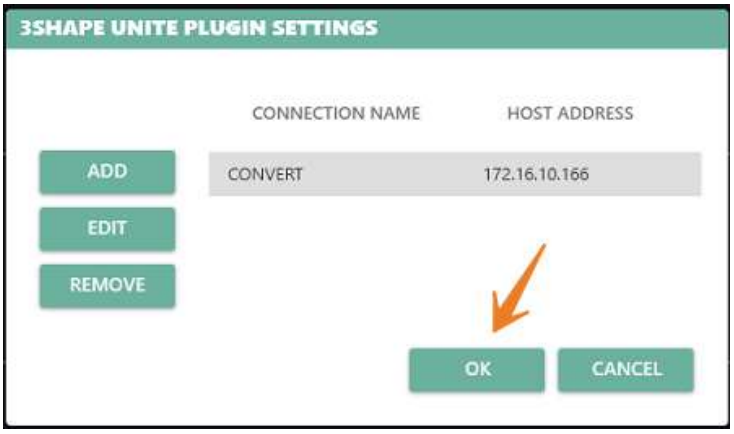
Type in the connection information that you can find in 3Shape Unite Software, se below.



Choose a user/password and click on Apply and then copy the information and paste it in Onepix settings.



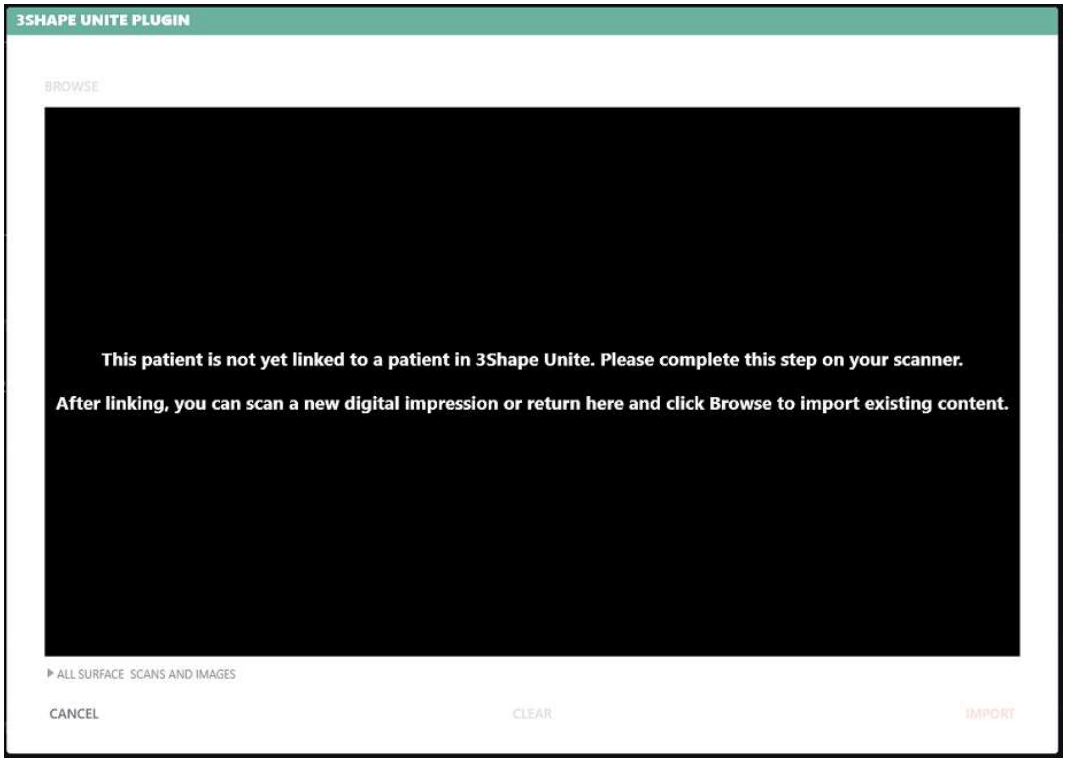
You can add more then one scanner. Click on OK when finished.



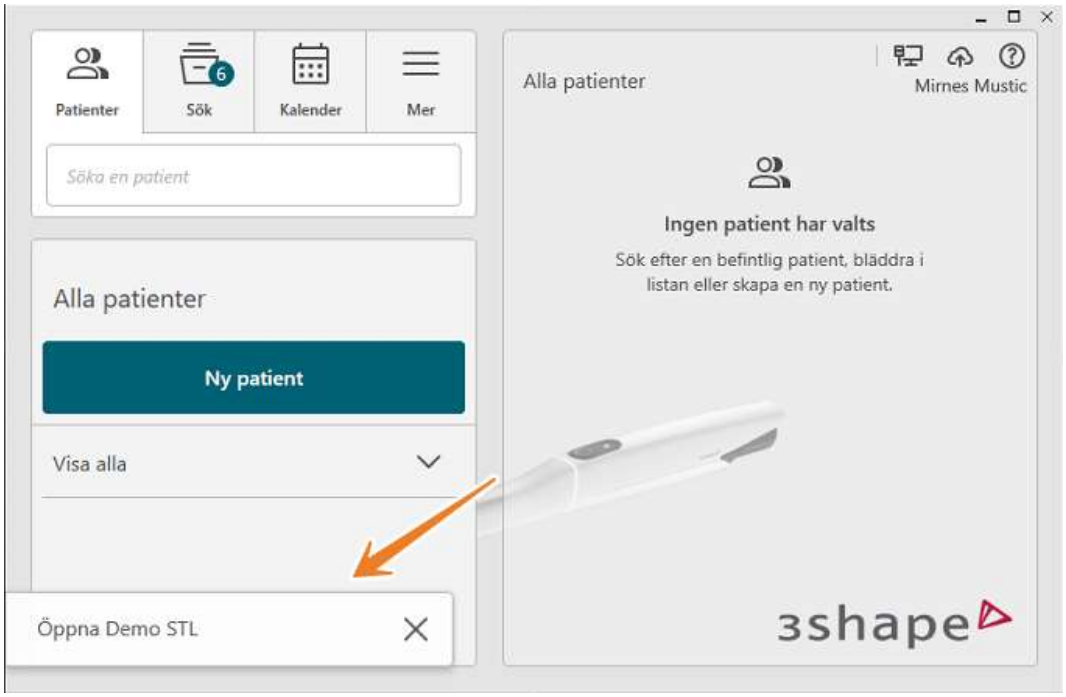
3SHAPE UNITE INTEGRATION WORKFLOW

Note that for this to work 3Shape Unident software needs to be running.

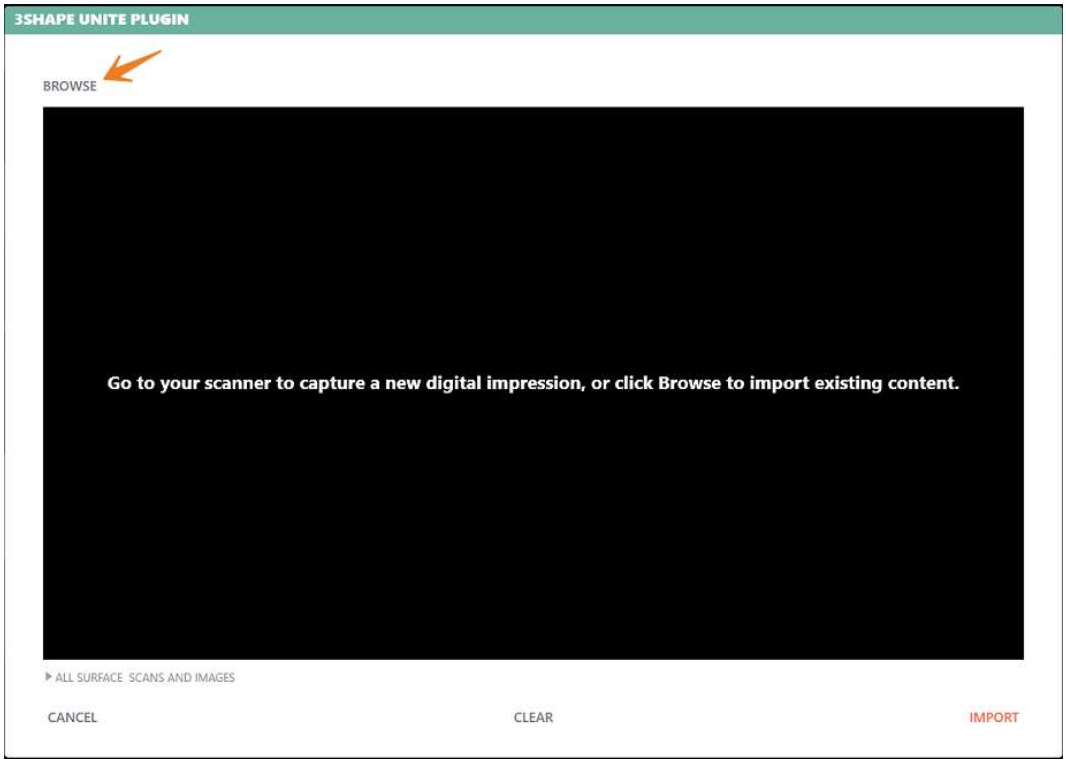
This opens the 3Shape Unite Plugin dialogue.



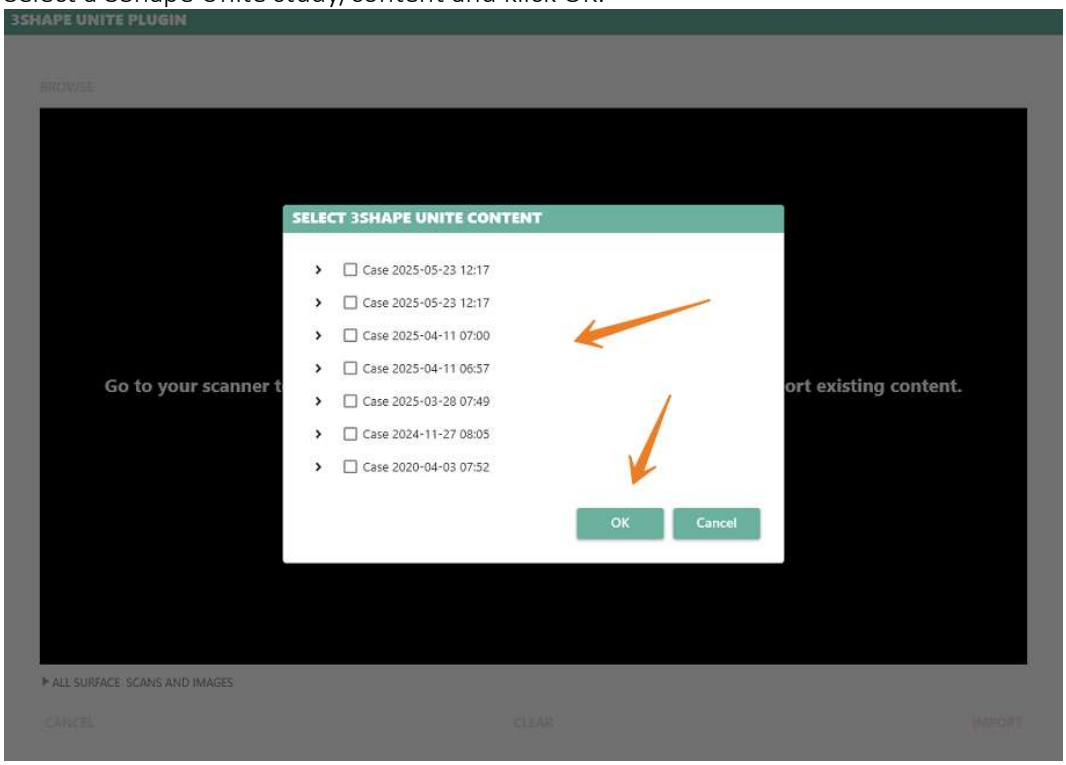
If you are about to do a new scanning, go to the 3Shape Unite Software and click on the button in the left lower corner to create or open the patient and proceed with the scanning.



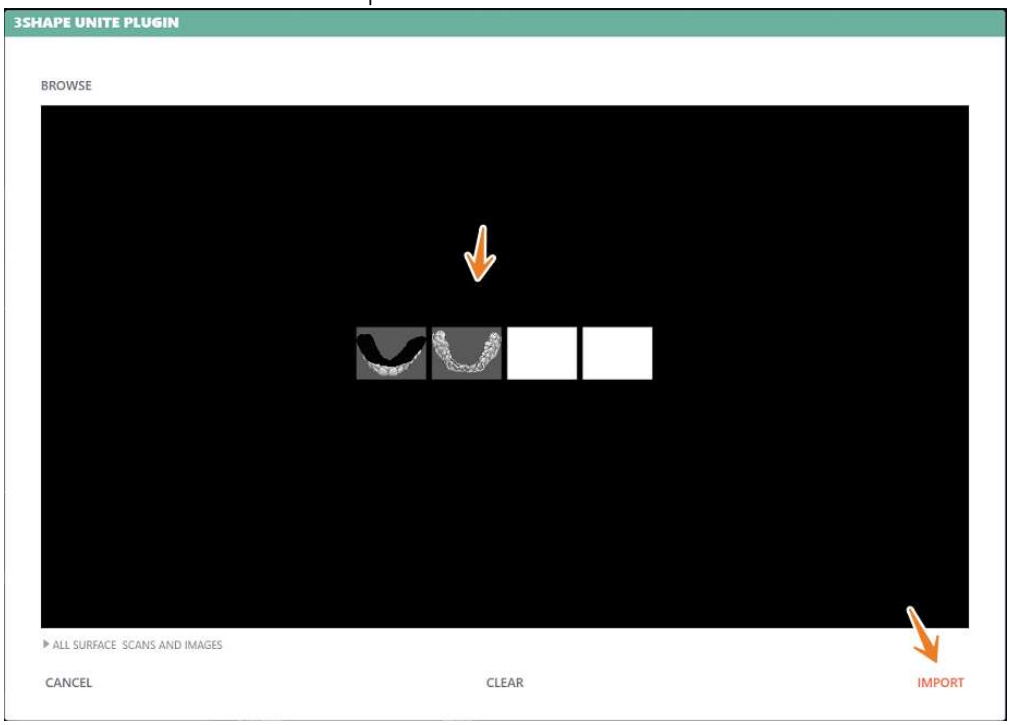
When the scanning is completed, go back to Onepix to import the 3D Model.
Click on BROWSE.



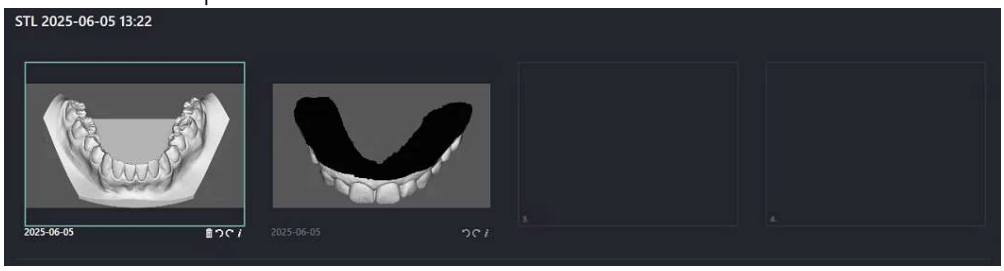
Select a 3Shape Unite study/content and klick OK.



Choose which 3D Model to import and click on IMPORT button



DoubleClick in a position to view the 3D model in zoomview



In zoomview you can use the tools on the left side to zoom, rotate and move the 3D model.

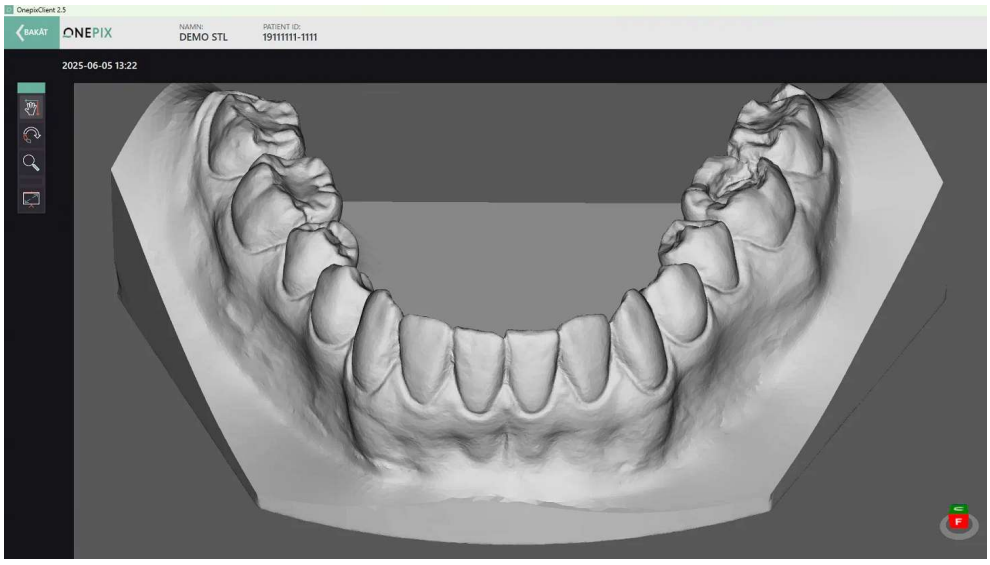


IMAGE ACQUISITION

When an exam or a series is created, a blank layout appears with today's date ready for image acquisition. This is shown by the presence of a symbol with +START in the center of the frame as in the image below.

At the top right of the series is a small droplist with an arrow and a name of the sensor manufacturer used by default. If you want to temporarily use a different kind of sensor then you can click on the arrow and select the other hardware, as in the image example below. In Onepix settings, you can set which hardware should be pre-selected here for all new X-ray series on this specific PC.

To start an image acquisition, make sure the hardware is plugged in. Hardware means all image hardware such as x-raysensor, photo camera, scanner, panorama etc. Then click on the +START button in the position where the image acquisition should start and wait for it to say ready below the frame. The frame is enabled and ready for image loading.

Warning
In order for the patient not to be exposed to unnecessary X-rays, it is important that you wait until the position box in the onepix examination window flashes/lights up green (default color) in auto capture mode, or until the message "waiting to take X-ray image" appears before activating the X-ray source.

When acquisition occurs, the last captured image is displayed in full screen for 3 seconds, by default, but you can change this time under settings. When the image is then closed, the programme returns to the image acqiosition mode and the activation is moved to the next position in the seriesorder. In other words, you do not need to activate each position, it is enough to activate the first one. The seriesorder in which the images are acquired is displayed in the empty frame at the bottom left.

If the hardware is not connected or if you do not get any contact with the hardware for some reason, then you will see the following information below the frame:

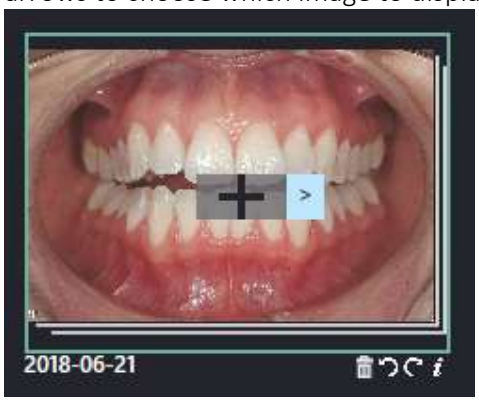
Do not take pictures if you receive this message, but make sure that the hardware is in and that you get a position with green marking that is ready for image capturing. If the hardware is connected and you still receive this message, contact technical support.

Warning
If the image is not loaded correctly in Onepix, hardware and software troubleshooting should be carried out before new exposure is performed. With some hardware, the image can be re-sent without new exposure directly from Onepix.

MULTIPLE IMAGES IN THE SAME POSITION

You can load more than one image into the same frame. To activate the box for image capture, click on the plus symbol that appears in the middle of the frame. Plus symbol appears only if the series is created today.

If more than one image is in a frame, it looks like the image below. Click the right or left arrows to choose which image to display at the front of the stack.



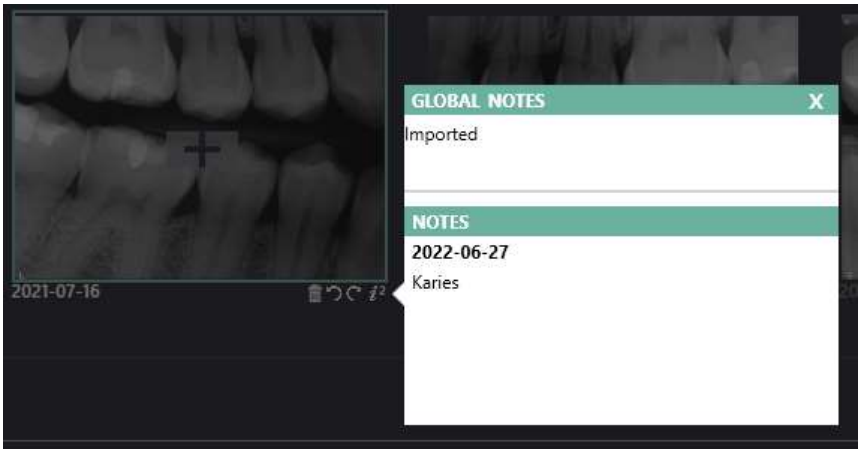
Warning
When a stack symbol appears below an image, multiple images in the same position are available. Switch between the images using the arrows that appear when the cursor is hovered over the image.

IMAGE MANAGEMENT AFTER ACQUISITION

When the image acquisition is complete, you have the same day to edit the exam and the images. After that, the exam is locked and no changes can be made unless it is unlocked manually. It is still possible to see and read all the information, but no changes are saved on exams older than one day. To unlock an exam requires going through the Onepix Admin software.

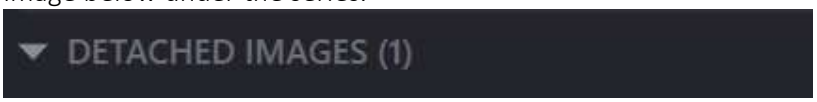
Already in the exam view, there is now the possibility to:

- Rotate an image at 90 degrees clockwise/counterclockwise using the arrows located below the image.
- It is possible to detach/unmount an image, if it is not good enough to be displayed in the series, by clicking on the trash can icon. This does not remove the image, it is just not presented as mounted in the series. The image ends up under a tab called DETACHED IMAGES directly below the series where you can easily choose to attach it back into the series if you want.
- The symbol (*i*) shows if there are any comments and how many there are in the picture. You can read the comments if you click on the symbol. Here you can also write/change a Global comment for the image.



DETACHED IMAGES

If there are any detached images in the series then a tab will appear as shown in the image below under the series.

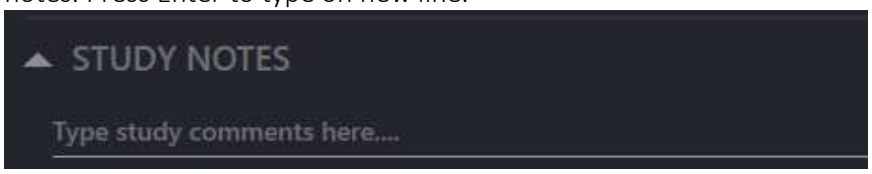


Click the arrow to open the list of the detached images. All detached images are displayed in a horizontal list.

To reattach the image, you can click on the image in the list under detached images, pressing down the mouse button while moving the image to an empty position in the series. Please note that this is only possible during the same day while the series is unlocked. Detaching and attaching in older exams can be done through the Onepix Admin tool or by unlocking the exam via Onepix Admin.

STUDY NOTES

Under each exam , there is a notes field where you can write/read notes for this exam. Click the arrow to the left of the notes text and then click the line below to read/write notes. Press Enter to type on new line.



Study notes provide the ability to add general notes to a study (also known as "exam"). Users who use study notes usually add and modify them at the end of the exam, as an easy way to add general observations. Study notes can only be added during the same day as the exam is created, this can be edited afterwards via Onepix Admin if necessary.

KEYBOARD SHORTCUTS IN EXAM VIEW

Listed below are the keyboard shortcuts available in Exam View.

COMMAND NAME	KEYBOARD SHORTCUT
New exam	Ctrl + N
Search patient	Ctrl + O
Close	Ctrl + W
Copy image	Ctrl + C
Select all	Ctrl + A
Print	Ctrl + P
Browse list function when overlapping	Up/Down arrow
Esc	Close compare window or dialog

ZOOM VIEW

This section includes:

- Tools to View/Manage/Adjust Images
- STL Viewer

When you doubleclick an image in the exam view, that image opens in the so-called zoom view. Please see the STL Viewer section below for how to work with STL files. To the left of the image are image tools and to the right are information and image enhancement sliders. Any changes made in the Zoomview is automatically saved if the image is taken on the same day that changes are made. You can still make changes and adjustments to images older than a day, for review, etc., but those changes will not be saved to the image. To go back to the exam view, use the BACK button at the top left. This section describes the different parts of the Zoom view with its capabilities.

TOOLS

On the left side of the image in the zoom view are imaging tools. Below is a description of these and how they are intended to be used.

BRIGHTNESS AND CONTRAST

Brightness and contrast are among the most common tools used in The Zoom View and are therefore active by default when opening an image in The Zoom View.

1. Click on the button to enable the tool if it is disabled.
2. Then click in the image and keep the mouse button pressed.

3. Move the mouse pointer Up/Down for brightness .
4. Move the mouse pointer Left/Right for contrast.
5. To return to the original image, double-click in the image.

Changes in brightness and contrast also occur on the controls located under Filters on the right side. All changes are saved under History.

ZOOM

Enlarge the tool is used to zoom in/out an image as follows:

1. Click on the button to activate the tool.
2. To enlarge an area quickly, you can double-click in the image.
3. It is also possible to use mouse wheels to zoom in or out.
4. Click in the image and hold the left mouse button.
5. Hover the Up or Down cursor to zoom in or out.
6. To return to the original image, double-click in the image.

Zoom feature remains enabled until you select another tool or close the Zoom view.

MOVE

Provides navigation capabilities in an image. The Move tool is used in conjunction with Zoom and makes it possible to exam adjacent areas of an zoomed image.
To pan the image, follow these steps:

1. Click the Move button.
2. Use mouse wheels to zoom in the image, or double-click on the part you are interested in.
3. Keep the mouse button pressed and move the cursor either up/down or right/left.
4. To return to the original state, you can just double-click in the image regardless of the state in which you are in.

The move function remains active until you select another tool.

FLASHLIGHT

Enhances or "lights up" a certain area of an image.

Clicking the Flashlight button activates the maximum contrast feature as the default setting. Hover over the image with mouse to see results. If you right-click on the image, a menu will appear where you can select other sizes and filter functions.

The following settings are available for Flashlight:

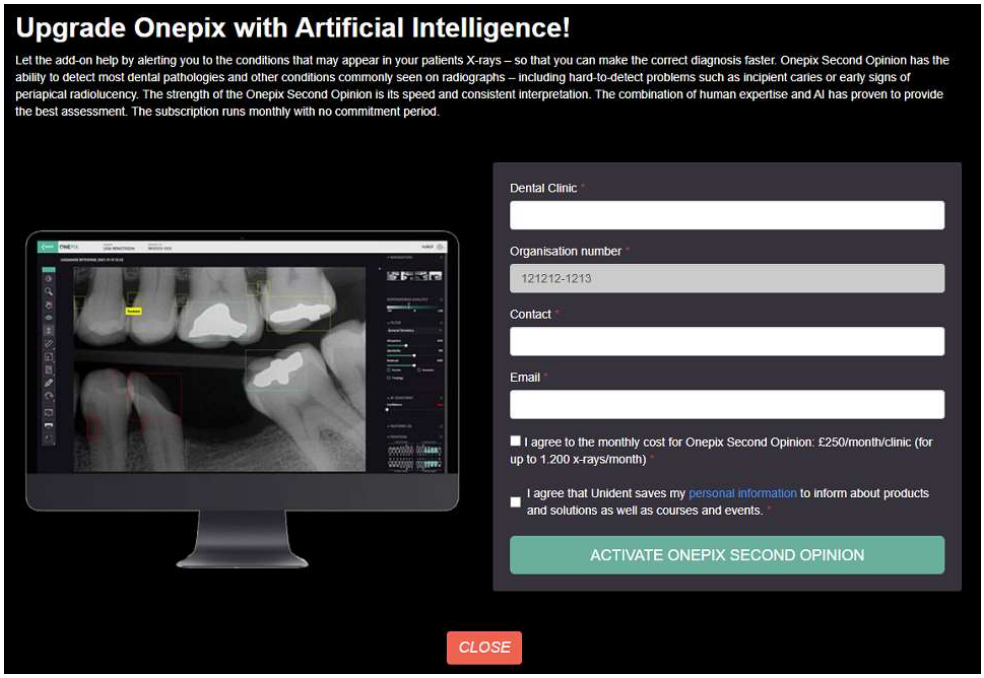
- Choices from Small to Extra Large Beam
- Maximize contrast – Illuminates the image
- Positive - Inverts the image
- Magnifier – Magnifies the image
- Relief - Applies a relief effect, giving it a three-dimensional appearance.
- Colorize - Color the image
- Freeze – Makes the flashllight stay in the same place, click freeze again to drop.
- Off - Turning off the Flashlight tool

Flashlight remains active until you select another tool or right-click and select Off.

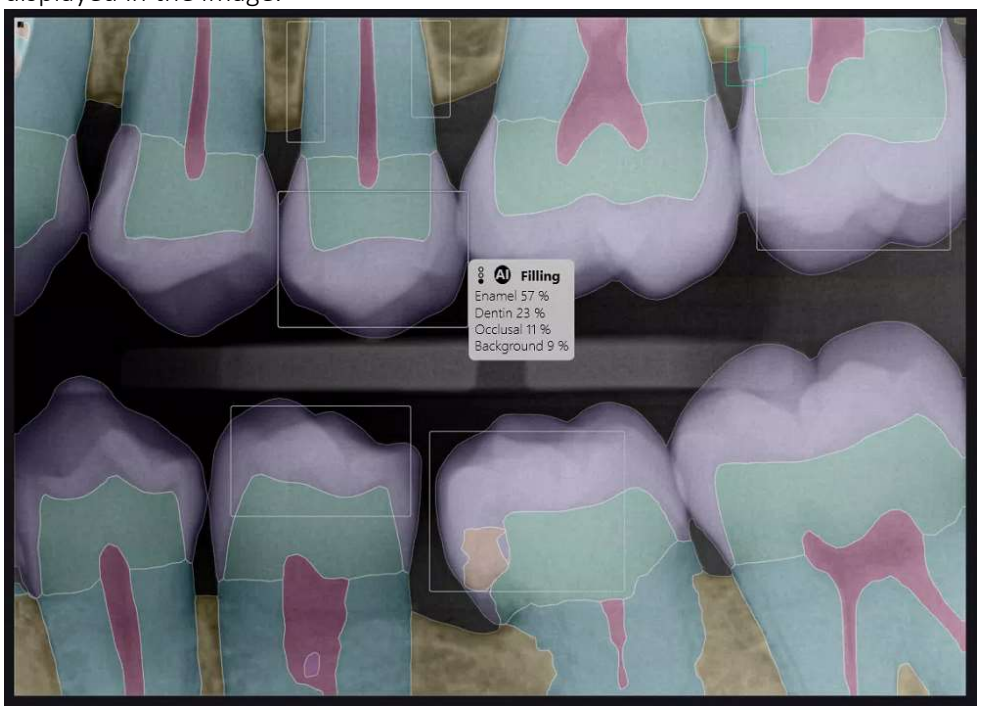
AI – SECOND OPINION

Provides you with support by alerting you to the conditions that may appear in your patient's pictures so that you can make the correct diagnosis faster.

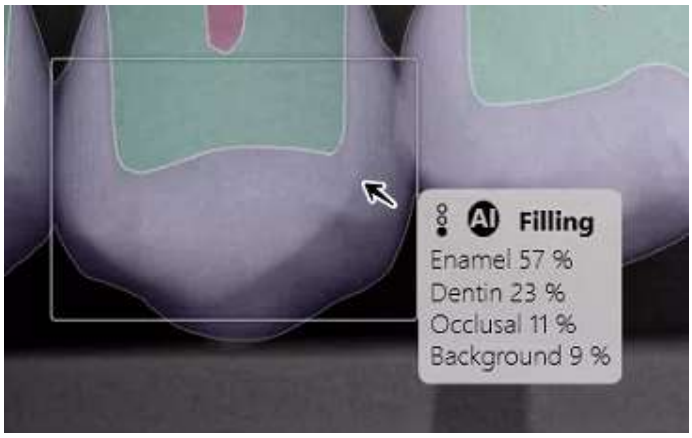
The first time you click on the AI button you will be given the option to register your account. Fill in the details in the form, read through and agree to the terms and conditions and you can start using AI immediately by clicking on the Activate AI button.



When you click on the AI button the information is loaded into the image. The result is displayed in the image.

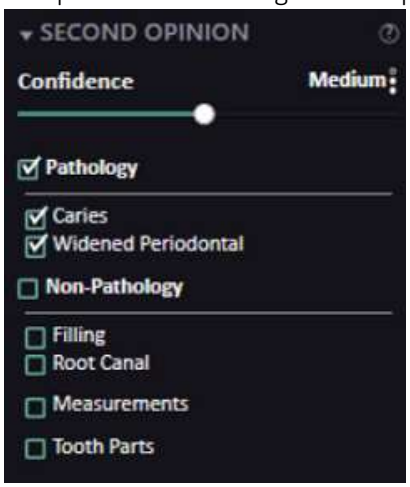


When you hover over a highlighted area with the mouse arrow, you get a little more information.

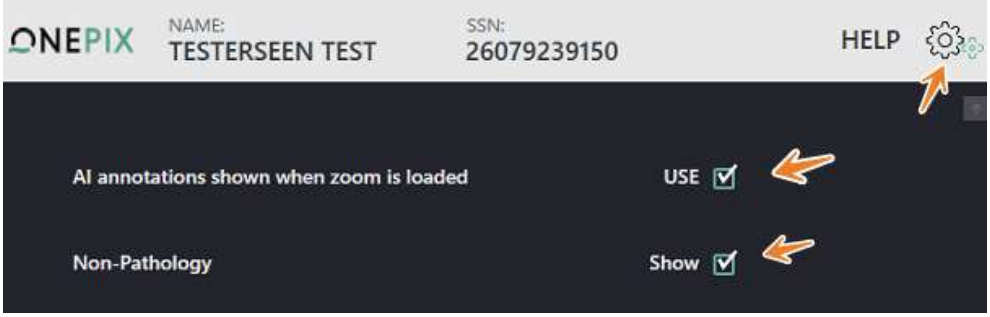


Caries is shown with a mark around the area where caries is assumed to be present.

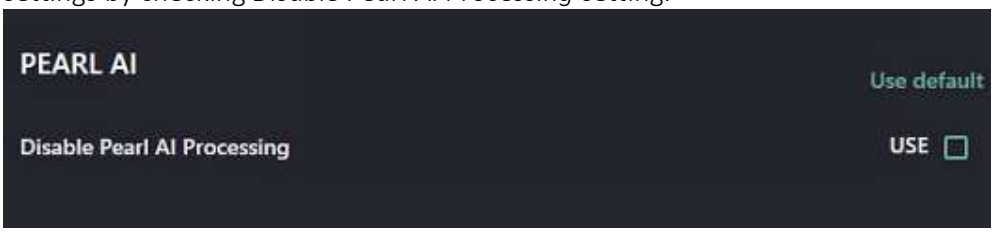
When the AI button is activated, you will also get the Second Opinion in the panel on the right side of the image. Here you can choose to what degree the tool should react. By default, the tool is based on medium, but the slider can be moved to low or high confidence. Below the slider you can also choose what information you want to be displayed in the image such as caries, fillings , etc. These settings are saved per computer in the settings file OnepixSettings.xml



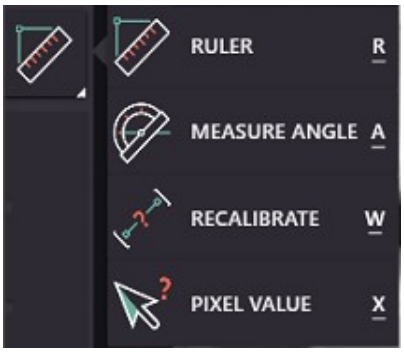
In Onepix settings, you can choose whether you want AI to be activated automatically every time you open an image in review mode and whether you want non-pathology to be displayed or not.



Once you have registered an account, Onepix will download the second opinion information directly after image acquisition. This function can be turned off in Onepix settings by checking *Disable Pearl AI Processing* setting.



RULER



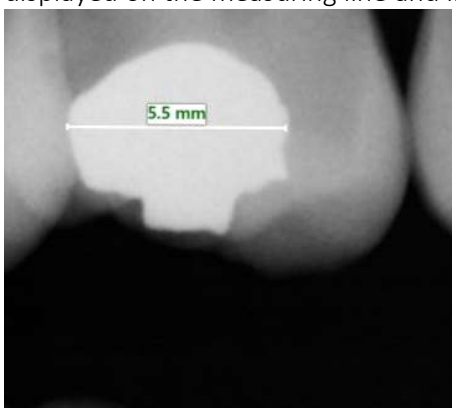
When you click on the ruler tool, you get three choices: RULER, MEASURE ANGLE, RECALIBRATE and PIXEL VALUE. Below is what can be done with the different tools.

Warning
The measurement result is highly dependent on the use of calibration objects and sensor placement. Measurement errors due to distortion as well as the limitation that a two-dimensional image implies can lead to misdiagnosis or malpractice. The user of the measurement function should have good knowledge of projection technology in order to obtain a satisfactory result.

Warning
Diagnosis or treatment must not be based solely on measurement results due to the risk of measurement errors.

RULER

Distances can be measured between two points. The result of the measurement is displayed on the measuring line and in the status bar.



To measure distances with a straight line, do as follows:

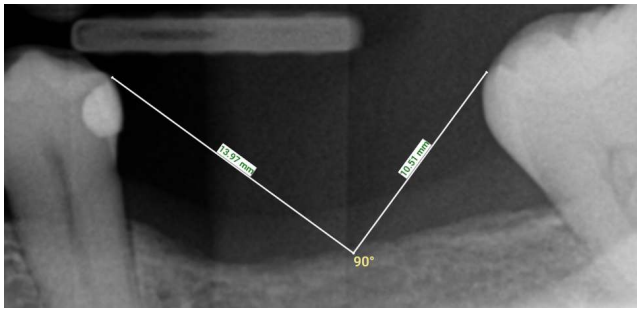
1. To specify a starting point, press and hold the left mouse button.
2. Press and hold the button until you have entered the distance you want to measure.
3. When you release the button, the length of the line between the two points is displayed in the picture.
4. When you start a new measurement, the first line disappears.

The measurement result is displayed in millimeters if the image is calibrated otherwise it says Px for the number of pixels. This feature you can use to quickly assess straight distances. You can print an image with measurement results by using Ctrl+P or clicking the print button.

MEASURE ANGLE

Measures the distance between several lines and the angle between two straight lines. Multiple Lines and Angles are two different features, but are presented together in this section.

1. Specify a starting point in the image by clicking the left mouse button once and release.
2. Drag the mouse cursor and draw the next line by moving the cursor and left-clicking again at the end of the line.
3. Continue on the line or end the measurement by right-clicking.

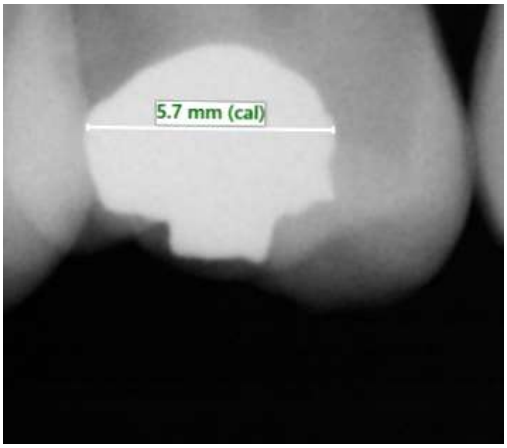


RECALIBRATE

Sets distance information for an image. The calibration function allows you to correct distortion problems caused by incorrect sensor position, misdirected beam or other factors. You can correct the problem by placing a straight object of known length (such as a file) in the area being X-rayed. The object serves as a reference point for measurement once you have taken the picture. Take an X-ray. *(In this example, the file is the object of known length.)*

1. Click the left mouse button to specify a starting point parallel to the file and hold down the button until you reach the other end of the file.
2. When you release the button, the Distance Calibration dialog box appears.

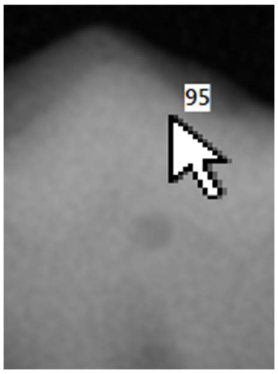
3. Enter the actual length of the file, dimensions in millimeters, in the text box and click OK.
4. The calibration is complete, when you measure in the image you will see that this is a calibrated measure by saying (cal) after the measurement.



When you save the image, the new calibrated value is saved, so that the image does not need to be recalibrated. When you reopen the image, the saved value is applied as a starting point for all measures. The word **(cal)** is visible after the metric.

PIXEL VALUE

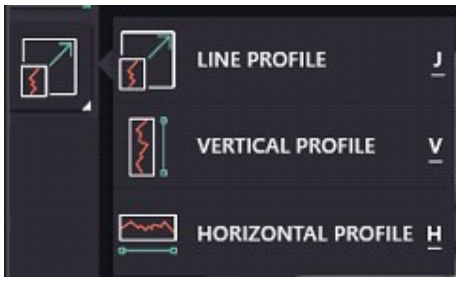
Displays grayscale pixel values in the image. Select Pixel Value, then move mouse cursor to an area of the image. The pixel value in the current area appears next to the mouse pointer.



Pixel values are a measure of density, so if the density in the X-rayed range is relatively high (e.g., bone), then the pixel values on the grayscale within the range are low to medium. When the X-rays pass through low-density areas (such as air), the pixel values become much higher.

Knowing pixel values can help in assessing whether the exposure is dark enough to evaluate. The darkest pixels should be between 92 and 99%. If they fall below the limit value, you can re-shoot the image with slightly higher exposure to get better image quality and make it easier to distinguish between contrasting areas.

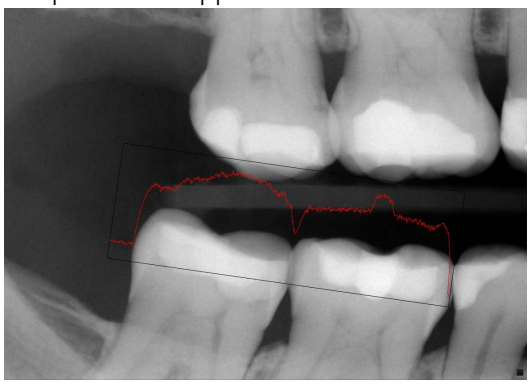
DENSITY PROFILE



Displays the grayscale value for each pixel along a vertical, horizontal, or user-defined line. Density profiles are used to find areas of pixels that have similar grayscale percentages. It can be used to determine the spread in areas with pathology and to find other areas of the picture with similar characteristics. Like the other measurement tools in Onepix, you can print the image with the current density profile using the keyboard shortcut Ctrl+P or click the print button in the zoom menu.

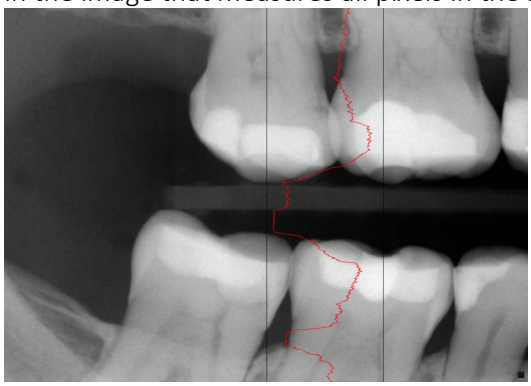
LINE PROFILE

For line profiles, click once in the image to highlight the starting point of the line, hold down the button, and drag the line as far as you want it. When you release the button, the profile will appear.



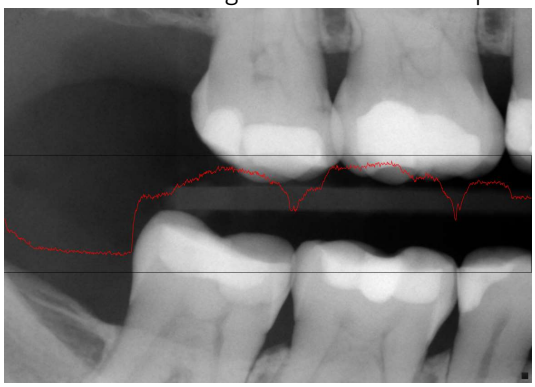
VERTICAL PROFILE

For vertical profile, click on any pixel in the image and a density profile will be created in the image that measures all pixels in the line.



HORIZONTAL PROFILE

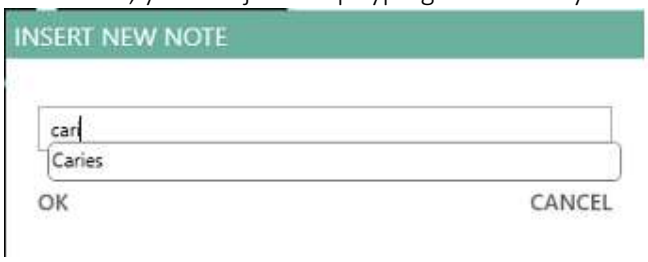
For horizontal profile, click on any pixel in the image and a density profile will be created in the image that measures all pixels in the line.



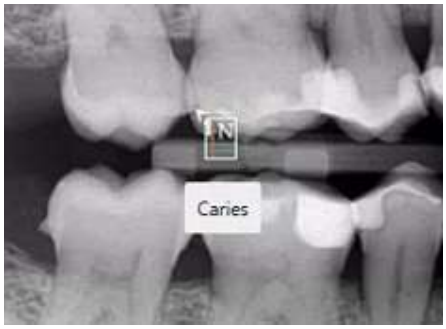
NOTE

Adds comments with flags to an image. Comments can be added at any time in an image opened in the zoom view. The cursor changes to an arrow. If you click in the image, the dialog box appears as shown in the image below.

In the Insert New Note dialog box, you can type in the comment text. Here you will get suggestions for most common comments as soon as you start writing. Use the down arrow and press Enter or click on any of the suggestions if you want to use it. Otherwise, you can just keep typing in the text you want to type instead.

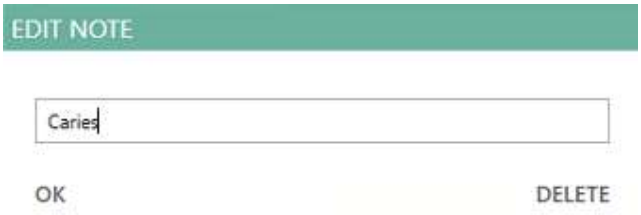


When you're done with the note, click OK. Then the dialog box closes, the note is assigned a number, and the text is saved. The comment in the image is visualized as a small arrow and comment icon. The comment text appears when you move the mouse arrow over it.



To remove or edit a comment:

1. Make sure you have clicked and activated the comment tool.
2. Then click on the comment in the image. You will then get this dialog box.



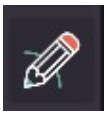
3. Change text and click OK to edit.
4. Click DELETE to delete the comment.

Remember that you can only create, modify, or delete comments on images taken on the same day. Images older than one day are locked for editing and can only be unlocked via the Onepix Admin software.

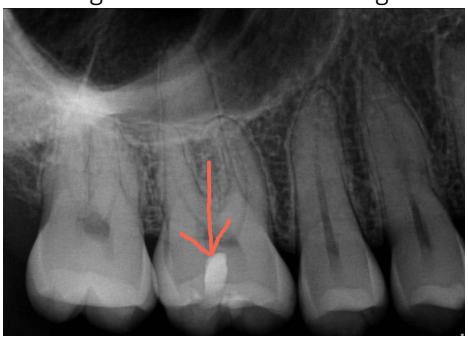
SHOW/HIDE

This feature allows you to show/hide comments in the image. The comments are hidden only while you remain in the zoom view. If you choose to close the image and reopen it in the zoom view, then the comments will appear again.

DRAW



Drawing tool is a tool for adding freehand notes to, for example, X-ray images.

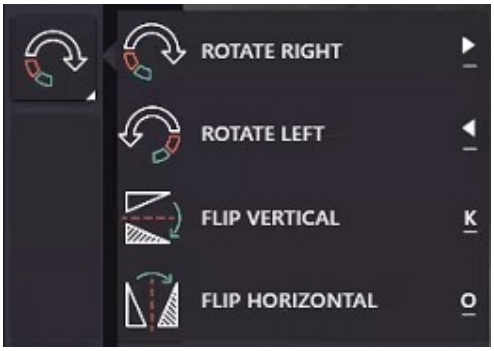


When the drawing tool is selected then you can right-click in the image to get the selections available for the tool.

1. The Erase option removes everything that is drawn in the image.
2. The Size selection allows you to select the width of the drawing tool, by default it is Medium.

3. The Color option means that you can change what color the drawing tool will use. You can draw with all colors in the Windows palette, the color is applied to all drawings in the picture.

ROTATE



These tools allow you to change the image orientation. In some cases, the function can be used for images that are acquired in the wrong position. Normally, images are automatically rotated in Onepix to their correct orientation based on the position, which is usually sufficient. In other cases, additional reorientation may be needed. All changes appear as saved under HISTORY to the right of the image.

There are four ways toc hange the orientation of an image:

- ROTATE RIGHT
  Rotates the image 90 degrees clockwise.

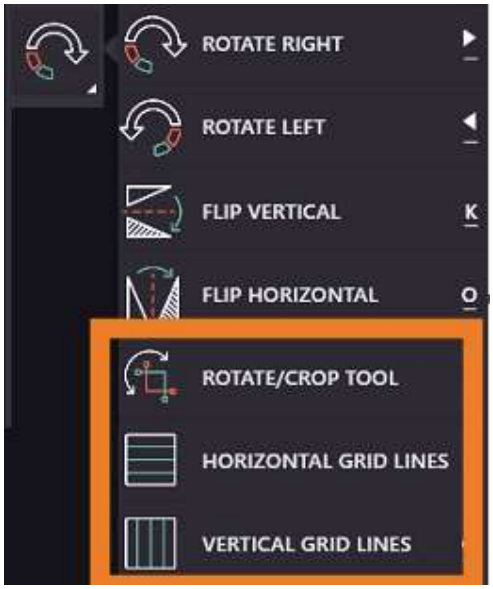
- ROTATE LEFT
  Rotates the image 90 degrees counterclockwise.

- MIRROR UP/DOWN
  Turns the image so that it is mirrored vertically.

- MIRROR LEFT/RIGHT
  Turns the image so that it is mirrored horizontally.

Warning
If the "Mirror Up/Down" and "Mirror Left/Right" settings are used, the image will appear mirrored. If the image is acquired up and down to the series, the setting "Rotate Right" or "Rotate Left" should be used.

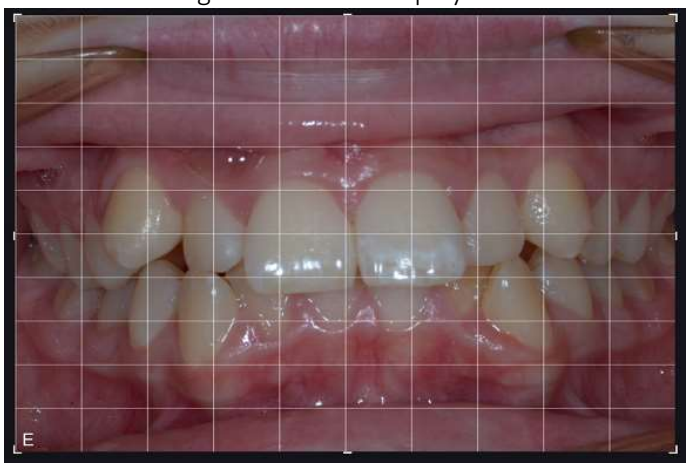
CROP



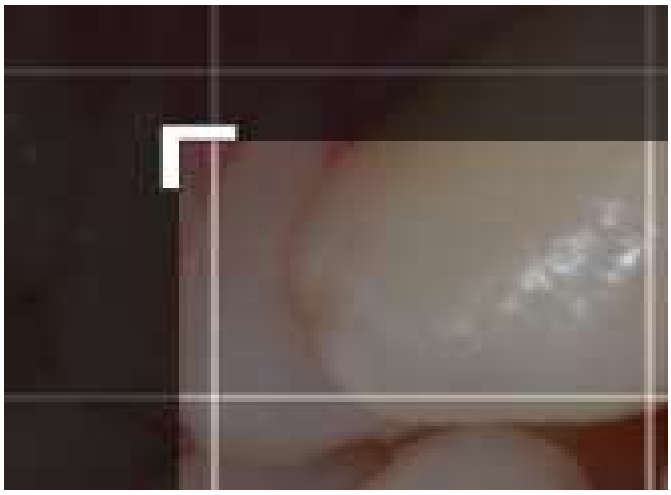
The Crop feature is used to gradually rotate and crop photos. The changes are saved under history such as Rotate/Crop and you can always return to the original image by clicking Delete under the history.

To begin cropping the image, click the Rotate/Crop button or press the Ctrl + C keys.

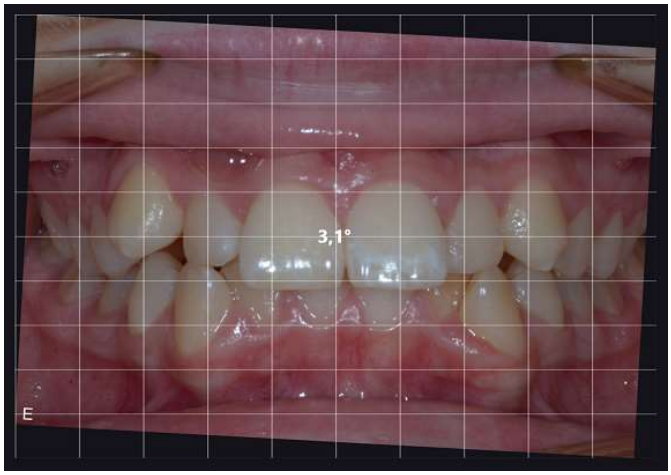
The current image will then be displayed with horizontal and vertical lines.



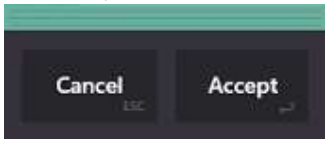
To crop the image, click and drag any of the corners.



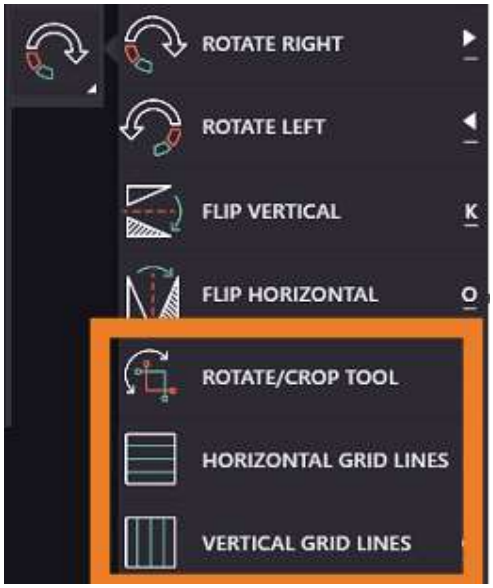
For rotating, click in the image and hold down the left mouse button while dragging to the left or right with the mouse cursor to gradually rotate the image as desired, release the mouse button when the desired rotate is achieved.



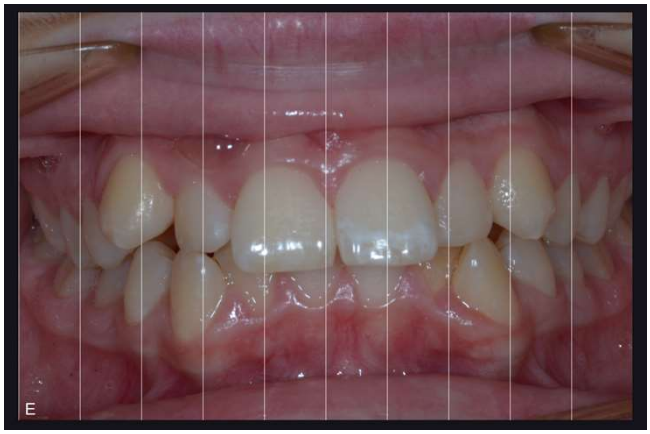
When you feel that the image is ready to be saved, click the Crop button. If you are not satisfied, click Cancel and redo the procedure.



HORIZONTAL AND VERTICAL LINES



To show or hide Horizontal and/or Vertical Lines in the image, click any of the buttons or use key combination Ctrl+G or Ctrl+Q



FULL SCREEN

If you want to hide all information in Zoom view except the image, click the Full Screen button. Full-screen mode maximizes the image by enlarging it to fit the entire screen. To return to the zoom view, click the Close button in the upper left or press the Esc key.

PRINT

Prints the current image in Zoom view. The printed image contains the improvements and options applied (contrast, color scheme, etc.). The changes appear in the image in the printed report even if the changes themselves haven't been saved yet. You can also choose to include information about the patient, dentist, examination and image in the printout.

INFO

INFO OVERLAY

Click here to show or hide text in the image that shows tangible image information.

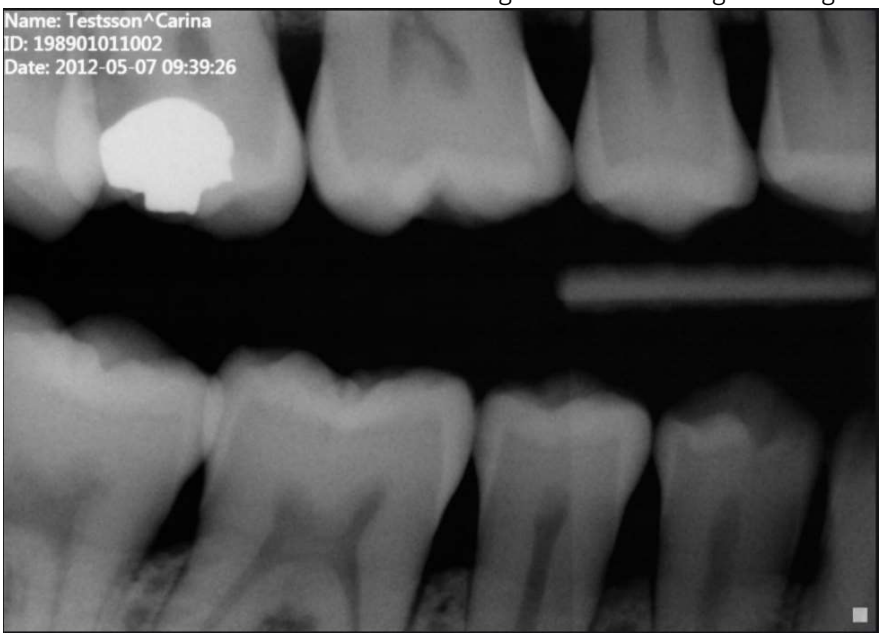


IMAGE INFO

With this feature, you can show all the DICOM tags that exist for the image. Here you can copy all the tags to the Windows clipboard. Furthermore, you can save or send this information by using Ctrl+V to paste information into a text file or similar.


INFORMATION

Tag	Attribute	Value	VR	Length
(0008,0008)	Image Type	ORIGINAL\PRIMARY	Code String	16
(0008,0016)	SOP Class UID	1.2.840.10008.5.1.4.1.1.77.1.4	Unique Identifier	30
(0008,0018)	SOP Instance UID	1.2.840.114244.400.5.1727866017.2995137622.5852	Unique Identifier	48
(0008,0020)	Study Date	20210716	Date	8
(0008,0021)	Series Date	20210716	Date	8
(0008,0022)	Acquisition Date	20210716	Date	8
(0008,0023)	Content Date	20210716	Date	8
(0008,0030)	Study Time	140052	Time	6
(0008,0031)	Series Time	140117	Time	6
(0008,0032)	Acquisition Time		Time	0
(0008,0033)	Content Time	140118	Time	6
(0008,0050)	Accession Number		Short String	0
(0008,0060)	Modality	OT	Code String	2
(0008,0070)	Manufacturer	Sirona Dental, Inc.	Long String	20
(0008,0080)	Institution Name		Long String	0
(0008,0081)	Institution Address		Short Text	0
(0008,0090)	Referring Physician's Name		Person Name	0
(0008,1010)	Station Name	MIRNES	Short String	6
(0008,1030)	Study Description	Liggande Bitewing	Long String	18
(0008,103E)	Series Description		Long String	0
(0008,1040)	Institutional Department Name		Long String	0
(0008,1050)	Performing Physician's Name		Person Name	0
(0008,1070)	Operators' Name		Person Name	0
(0008,1090)	Manufacturer's Model Name	Onepix	Long String	6
(0010,0010)	Patient's Name	Bengtsson^Bea	Person Name	14
(0010,0020)	Patient ID	19121212-1212	Long String	14
(0010,0030)	Patient's Birth Date		Date	0

CANCEL COPY TO CLIPBOARD

SIDE PANEL

On the right side of the image there is a panel where you can make adjustments, filters, see the information and status of the image. In this section, below we go through the idea behind these.

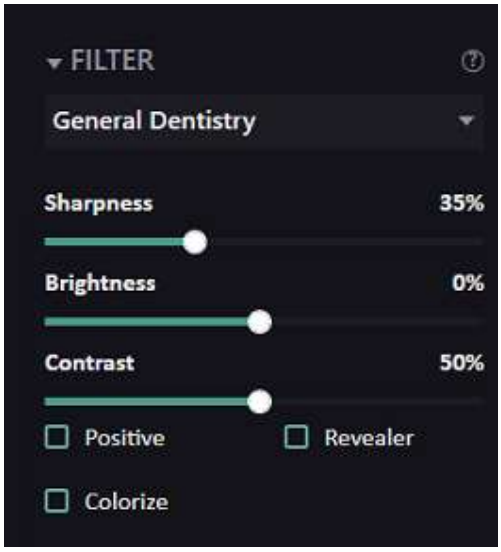
EXPOSURE QUALITY

Exposure quality exists to provide an assessment of the images in avial way, by marking an area where the image exposure is judged to be optimal. The exposure quality meter is available for X-ray images with 12-bit bit depth or higher. To turn off exposure quality so that information is always hidden, go to Onepix's settings and in the Zoom view section, clear the exposure quality check box.

- The green area in the middle of the meter means that the image was optimally exposed based on the technology factors used.
- The light gray area on the left means that the image was underexposed and that a change in the technology factors would improve image quality.
- The dark area on the right means the opposite, that the image was overexposed and that a change in the technology factors would reduce the patient dose without degrading the image quality.

FILTER

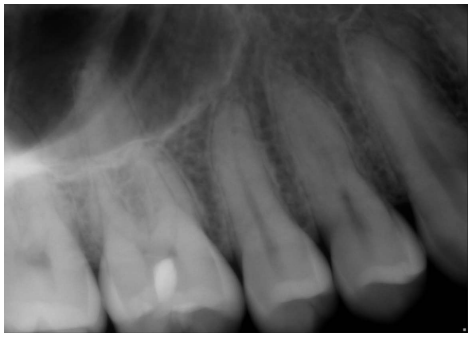
If the images are taken with a sensor that supports filters, these will be available in a drop-down menu, as in the image example below where General Dentistry is the default filter for Schick 33 / Fona sensors from Sirona. How to choose which filter to display by default can be read about in usermanual for each sensor.



Warning
Incorrect settings in AutoFilter can lead to an image that is not diagnosable. Return to the original image if you suspect that a filter has distorted the image.

SHARPNESS

Sharpening is an image enhancement filter that has been developed specifically for Schick 33 and Fona system images. With sharpness, different image optimization functions are combined that increase contrast and make the details appear better. Sharpness is automatically applied to all images taken by the Schick 33 or Fona sensor. The level of focus to be displayed by default can be read about in the user manual for each sensor. Note that when you adjust the image sharpness using the sharpness slider, the changes to the image will not be saved.



Before sharpening

After sharpness of 35%

BRIGHTNESS/CONTRAST

You can either use the Brightness/Contrast tool to the left of the image or you can use controls on the right side that are separate for Brightness/Contrast to fine-tune. Regardless of the tool used, information is presented in this field.

SHARPNESS FILTERS

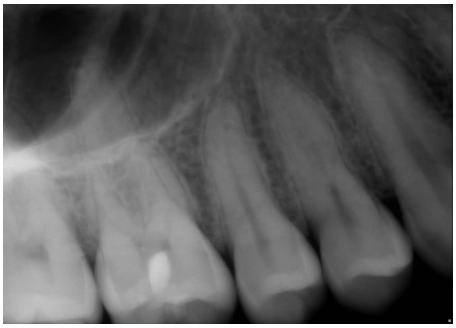
By default, the sharpening function is displayed using only one slider, called the "Sharpen filter". When this slider changes from its default value of 0, the sharpness of the image changes.

What sharpness does is change the contour contrast. This means that the higher the value of Sharpness, the darker and lighter the sides of the contour will be. To display

advanced sharpness controls, there is a checkbox in "Onepix Settings" called "Unsharp mask advanced controls". When enabled, three controls called Sharpness, Radius and Threshold are displayed.

- Radius determines how large an area around the contours will be affected. An increase in value causes the darkening and brightening to spread further away from the contour.
- Sharpness controls how much the contour contrast should be increased. This means that the higher the quantity value, the darker and lighter the sides of the contour will be, respectively.
- The threshold determines how large the tonal difference must be for the program to consider something as an outline. The higher the value, the more distinctive the contours must be to be sharpened.
- All adjustments are saved under History with the name Unsharp mask.

See examples below of what an image might look like after adjusting these sliders.



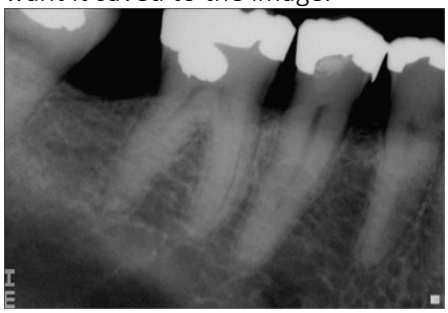
Before sharpening filters

After sharpening filters

REVEALER

Displays X-ray images with greater detail than with light/contrast and preserves clarity with very little interference and artifacts. Unlike other image contrast tools that do not preserve intermediate values in an image, Revealer uses the entire volume of the X-ray image and enlarges each individual pixel. By processing each pixel separately, Revealer creates access to more visual information and displays it in a way that makes subtle differences in the image appear more clearly. The change is applied when you check

the Revealer box. Uncheck the Revealer box after you finish reviewing if you don't want it saved to the image.



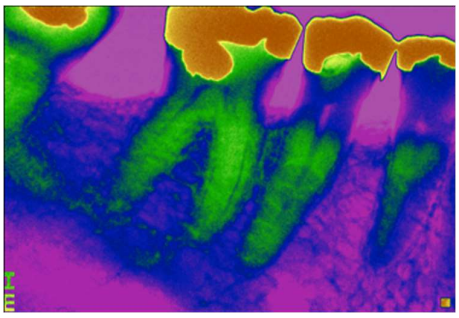
Before revealer

After revealer

COLOR

Applies a layer of color by mapping pixel values from an 8-bit grayscale to a 24-bit color. Coloring is another tool in identifying possible problemareas during an examination, as some differences are easier to distinguish in color. Check the Color box**.** Adjust the color using the contrast and brightness controls. Uncheck the Color box after you finish reviewing if you do not want it to be saved on the image.

Before coloring



After coloring

POSITIVE

Inverts the grayscale of the image, so that negative images appear as positive and positive as negative. Check the Positive box to apply the function. Uncheck the Positive box after you finish reviewing if you do not want it saved on the image.

Negative

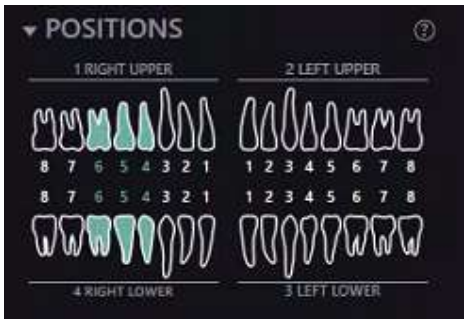
Positive

HISTORY

History keeps track of all changes to an image and can be used to remove them by clicking Delete. The changes are displayed one at a time and any enhancement applied to an image can be removed, provided that this occurs during the same day that the image was taken or loaded. Images older than a day are locked for change and can only be unlocked via Onepix Admin if needed.

POSITION

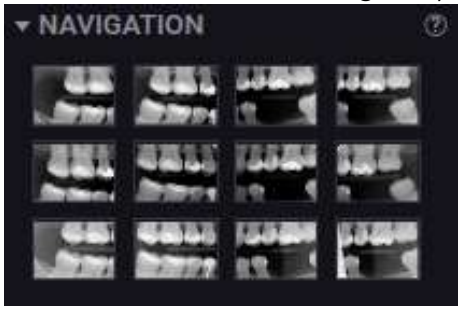
Position shows which teeth the current image represents. If the picture is acquired in the correct position in the series, the teeth information will be filled in automatically. It is possible to click on the tooth to add or remove the teeth that are not shown in the image. Changes are saved to the image only if they are made on the same day as the picture is taken. Any images older than a day are locked, and changes to the zoom view are not saved.



Warning
Marked teeth in the dental status are based on information added when acquiring the image. This may deviate from reality if the image was acquired in the wrong position in the series or if the necessary manual correction of the dental status was not made after exposure.

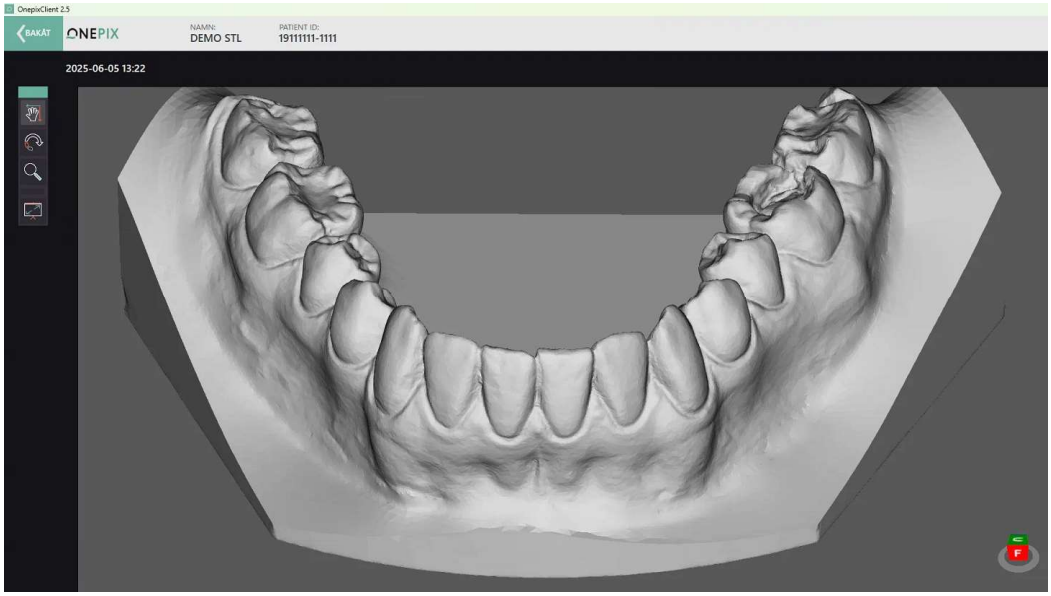
NAVIGATION

In navigation, the exam series is displayed in miniature. The idea of this is that you should be able to easily see which image in the series you have in the zoom view and that you can easily select another image in the series without having to go back to the exam view. You can also navigate by using the arrow keys on the keyboard.



STL VIEWER

When you doubleclick on a thumbnail in an STL Study the STL file opens zoomview in STL mode where you can view the 3D Model. Tools on the left can be used to Move, Rotate and Zoom in and out in the 3d Model



KEYBOARD SHORTCUTS IN ZOOM VIEW

Command name	Keyboard shortcut
Esc	Back to exam view
Brightness/Contrast tool	Ctrl + B
Zoom tool	Ctrl + Z
Move tool	Ctrl + M
Flashlight	Ctrl + L
Ruler tool	Ctrl + R
Measure Angle Tool	Ctrl + A
Recalibrate tools	Ctrl + W
Pixel value	Ctrl + X
Line profile tool	Ctrl + J
Vertical Profile Tool	Ctrl + V
Horizontal Profile Tool	Ctrl + H
Note tool	Ctrl + N
Show/Hide Notes	Ctrl + E
Draw tools	Ctrl + D
Rotate right	Ctrl + > (Right key)
Rotate left	Ctrl + < (Left key)
Mirror Up/Down	Ctrl + K
Mirror Left/Right	Ctrl + O
Crop	Ctrl + C
Horizontal lines	Ctrl + G
Vertical lines	Ctrl + Q
Full screen	Ctrl + F
Print	Ctrl + P
Info Overlay	Ctrl + Y
Image Info	Ctrl + I
Browse in Navigation	Arrow keys

ONEPIX SETTINGS

In this section you will get information about what settings you can do in the Onepix client. To get to settings, click on the symbol that looks like gears at the top right of the program.

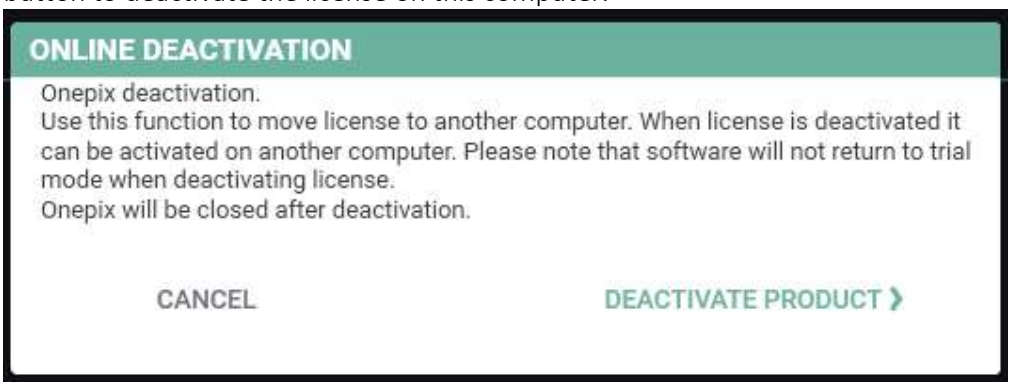
DEACTIVATE LICENSE ONEPIX LOCAL

At the top in settings is license and activation information.

If you want to change computers, you can, for example, deactivate your license on the old computer and activate with the same license key on the new computer after installing Onepix. There are two different ways to deactivating a license, depending on whether the computer is connected to the internet or not.

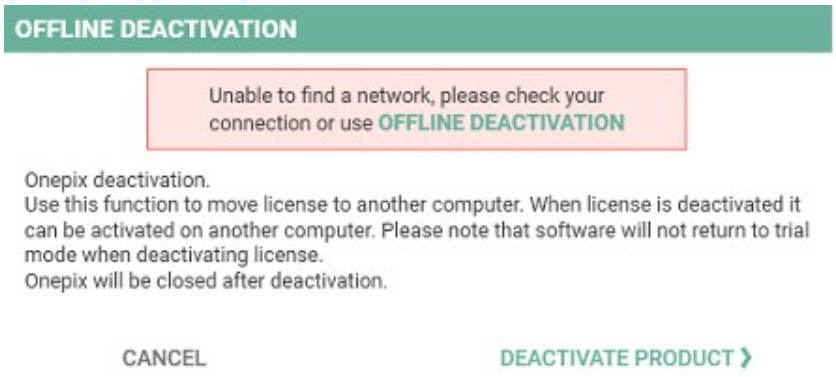
ONLINE DEACTIVATION

If your computer is connected to the internet, i.e. is online, and you click on the Deactivate License button then you will get the dialog box as shown below. Click on the button to deactivate the license on this computer.

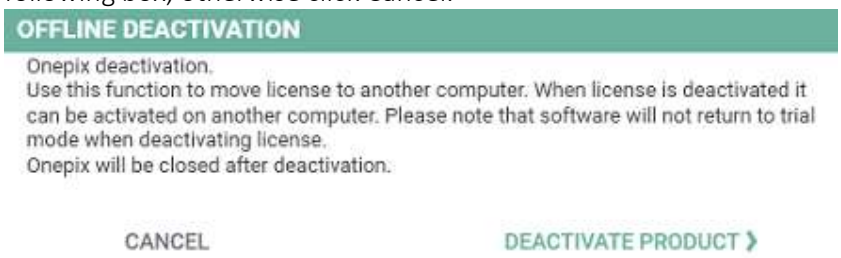


OFFLINE DEACTIVATION

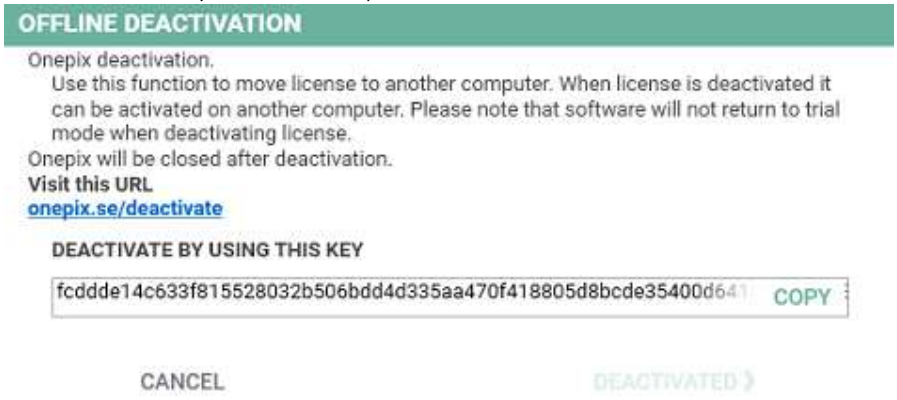
If, on the other hand, your computer is not connected to the internet, i.e. is offline, then you will get the following dialog box instead. To proceed with the deactivation click on the text Offline Deactivation.



If you are absolutely sure that it should be done, click Deactivate License in the following box, otherwise click Cancel.



Copy the key in the following box and go to onepix.se/activate, on a computer that has internet, and follow the instructions on the page. Do not click on Cancel in the dialog box below until you have completed the instructions.



NOTE It is important that you follow through with the instructions for disabling the license. You will not be able to activate the license on another computer if the instructions are not fully followed. If you have any questions, please contact technical support.

ONEPIX CLIENT SETTINGS

LANGUAGE

Here you can choose

- Which language Onepix client should be shown in.

CHECK UPDATES

In Onepix there is the possibility to download updates automatically. Onepix notifies the user when update is available. Here you can set:

- If Onepix should check for updates automatically.
- You can also choose if you want updates a little earlier than normal, i.e. as soon as the launch is made, by selecting Select from this list.

EXAM WINDOW

Here you can choose, among other things:

- If exams are to be locked at the end of the day.
- What size the images should be in the exam view (Size is in pixels).
- Quick zoom window size can be set here too (Size is in pixels).
- Choice whether thumbnails should be used in the exam view or not and the quality of these.

VIEWSET TEMPLATES

Here are settings for layouts such as:

- Size of layouts, width oh height (Size is in pixels).
- Path to layout files
- Quality of thumbnail etc.

ZOOM WINDOW

In the zoom view, there is some information on the right side of the image. Here you can choose what to show or hide. If it should be displayed it should be check and if it should not be displayed then checked out. Some choices available here are:

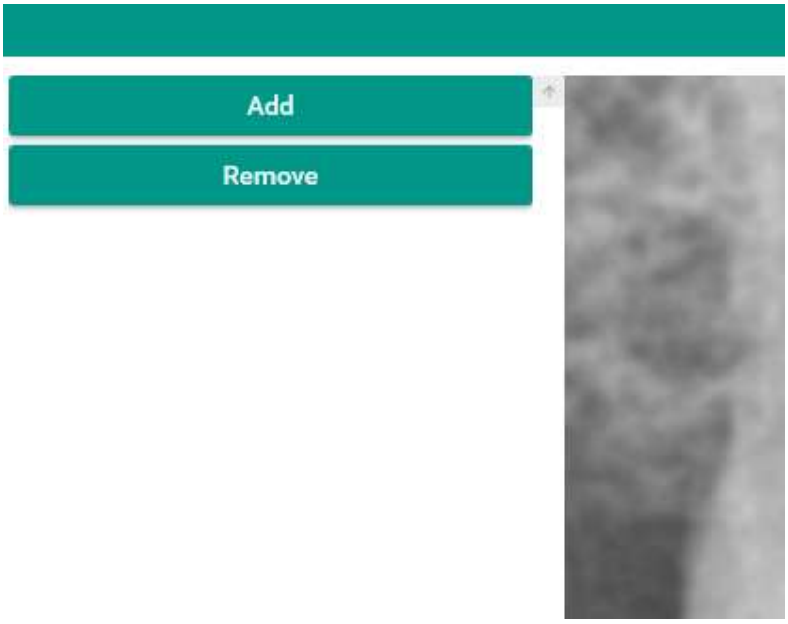
- View exposure meter
- View navigation
- View history and others...

ACQUISITION

Here you will find settings for autotake, autofilter etc.

- Autotake is the function that is activated when acquiring new images in a series. Here you can set the color of the autotake for start and stop, and how long the acquired image should be displayed on the screen before it goes back to the series/exam to take a new picture.
- Autofilter provides the ability to apply image adjustments automatically to images acquired with any of Onepix acquisition modules. The image adjustments that can be made are Histogram Adjustment, Median Filter and Unsharp Mask. The changes added to the images are saved under HISTORY in Zoom view.

  To load a sample image that previews set filters, select an image in the exam view, then go to Onepix Settings and click the Edit AutoFilter button.



Click Add to create a filter. Give the filter a name, TestFilter in the example, and then tap OK.

1. Select the filter to use or adjust.
2. The histogram can be adjusted automatically by using the Auto Level function. Click in the checkbox, and then click the arrow next to Histogram. Then check the checkbox at Auto level. In order for the automatic to work, it is sometimes required to set Low threshold or High threshold. One such example is if a sensor has cut corners. Then the Low Threshold may be set to, for example, 0.001 to exclude these black corners from the calculation. To manually adjust the Histogram, click the arrow next to Histogram and check its checkbox to activate the filter. Adjust the area by dragging the arrows that are on the left and right below the histogram. To adjust Gamma, use the arrow in the center.
3. To add a Median filter, click the arrow next to Median Filter and check its checkbox. Select Radius by dragging the slider to the desired setting.
4. To add the Unsharp mask filter, click on the arrow next to Unsharp mask and check its checkbox. Select Radius, Sharpness, and Threshold by dragging the slider to the desired setting.
5. The filter that is now created can be linked to the selected loading module in the Use for selection.

The AutoFilter feature can be turned on and off under Onepix Settings>Acquisition. To apply AutoFilter to an already loaded image that lacks these filters, click the "Apply to Current Image" button in the AutoFilter window.

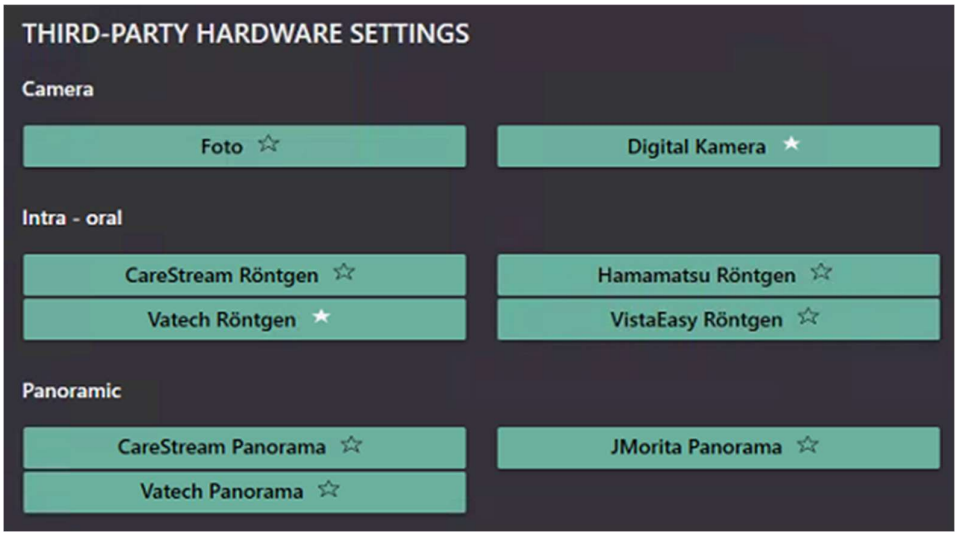
Warning
Incorrect settings in AutoFilter can lead to an image that is not diagnosable. Return to the original image if you suspect that a filter has distorted the image.

SEARCH FILTERS

Here you can set under which path filter settings should be saved. This path applies to both AutoFilter and Search filter settings found in the exam view.

HARDWARE SETTINGS

Information about installed hardware, such as, for example, intraoral sensor, camera, panorama. Check the settings by clicking on the green button for each acquisition module. For example, if you use intraoral sensor from 2 different manufacturers, this can be seen here, you can then choose which sensor to use as default by clicking on the star as in the image example below.



What settings you should use be made can be read about in the user manual that belongs to each hardware.

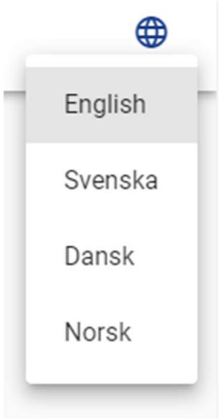
ONEPIX CLOUD ADMIN

INTRODUCTION

This section includes:

- Access to Onepix Admin
- Manage patients and examinations
- Manage users, permissions, and roles
- Import DICOM exams and images

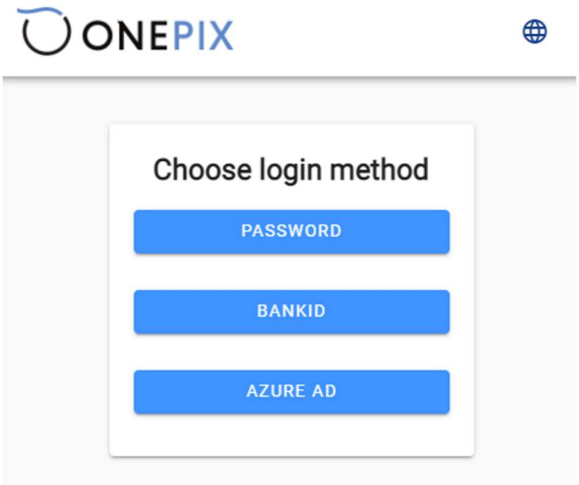
Onepix Admin is accessed via the internet browser via the address clinic.onepixcloud.com, where clinic is the name assigned to your workplace. On the first page, you can select the language by clicking on the globe button at the top right. You can change the language at any time on the page.



To see information about Onepix Admin, click on the button with the question mark.

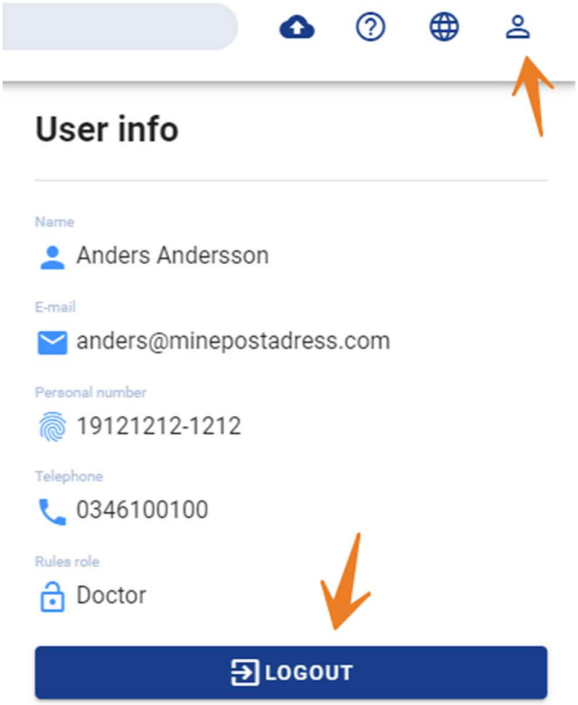
LOG ON

Login to Onepix Admin is done through one of the login options and enter your login details. Login details are provided by your clinic administrator.



LOG OUT

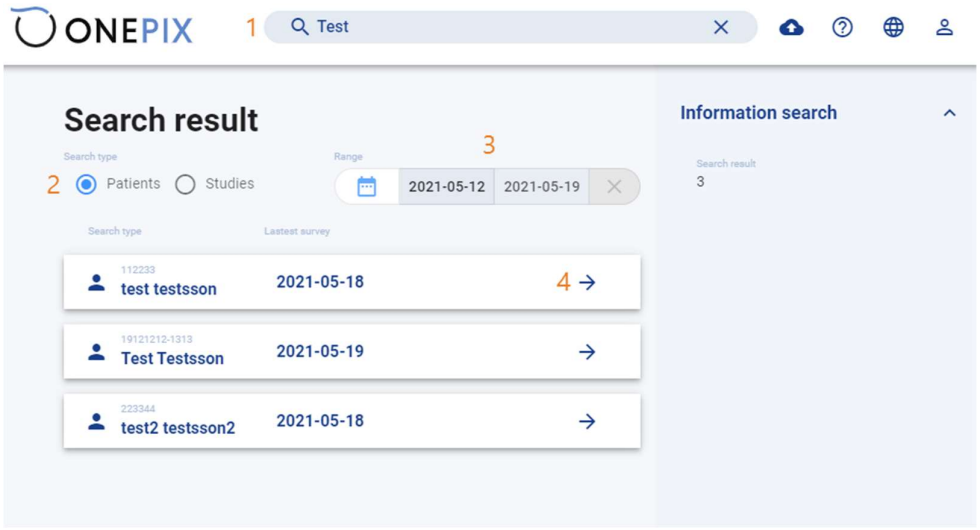
Click on your user icon in the upper right corner. Log out by clicking on the button at the bottom. Here you can also see your user information.



MANAGE PATIENTS AND EXAMINATIONS

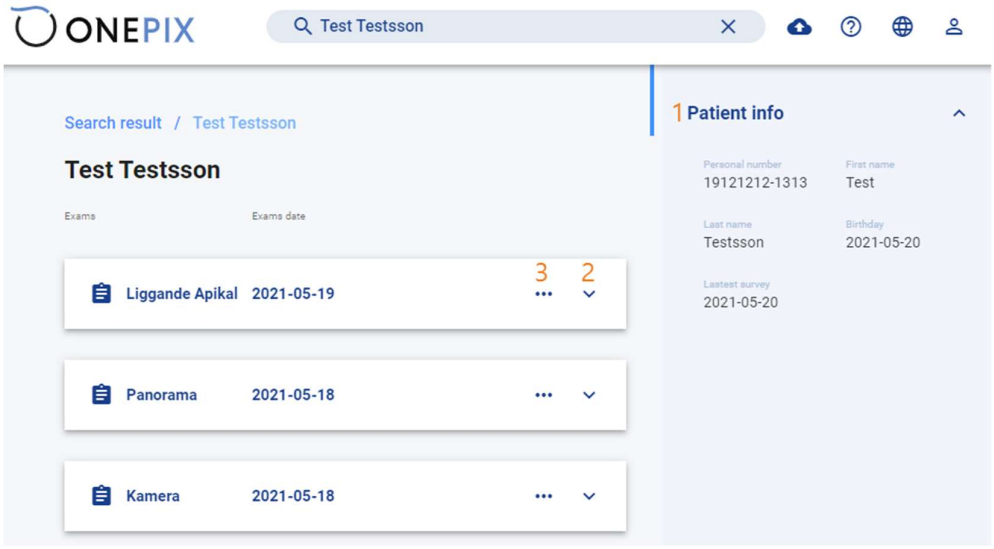
When you log in, you'll see a view based on your users rights. Read more about this under section Manage users, permissions and roles.

As a clinic user, you will only see the patient list. Here you can search by patient or examination and review images.



1. Search patient via search bar, the search will begin automatically after entering 3 letters.
2. Choose to search for Patients or Studies
3. If you choose to search on studies, then you search by selecting dates from and to. The last week's exams appear automatically.
4. Once you have searched for the patient or the study, click on the arrow to see more information.

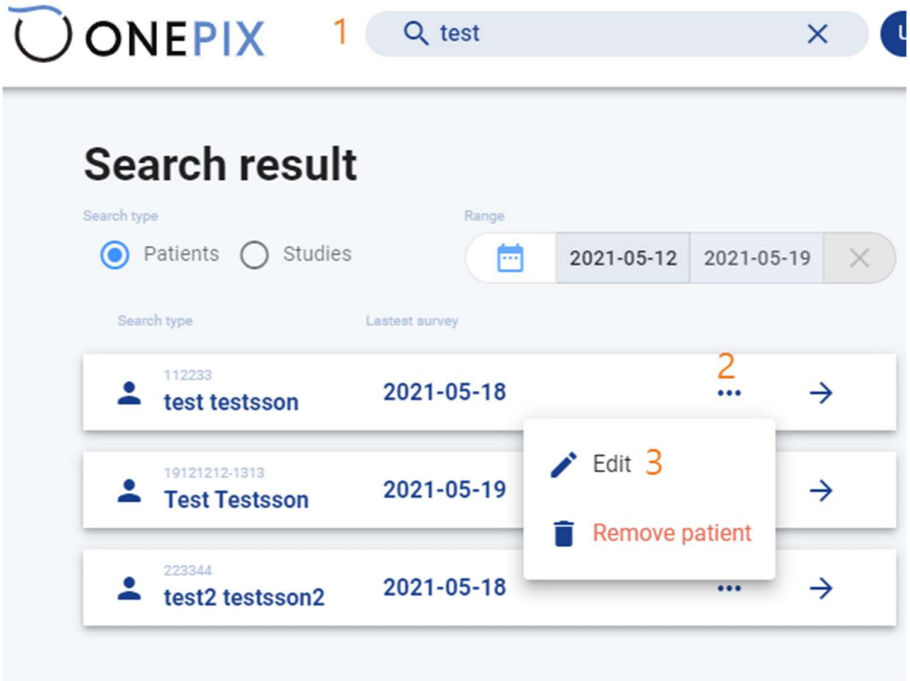
This is what it looks like when you are in the patient view.



1. Patient information is displayed here
2. Click on the arrow to see the content of the series and images
3. Click the dots to change or delete the exam/study.

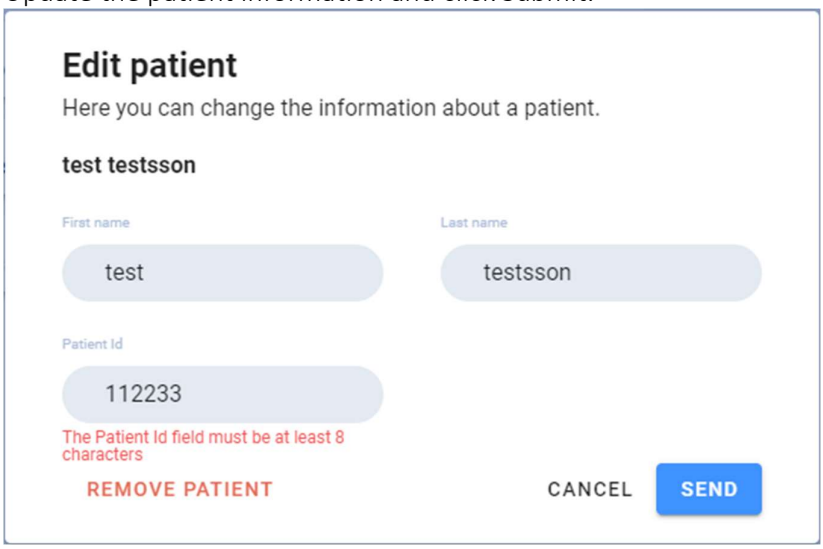
UPDATE PATIENT INFORMATION

In order to update patient information, you must log in as a clinic administrator.



To update patient information:

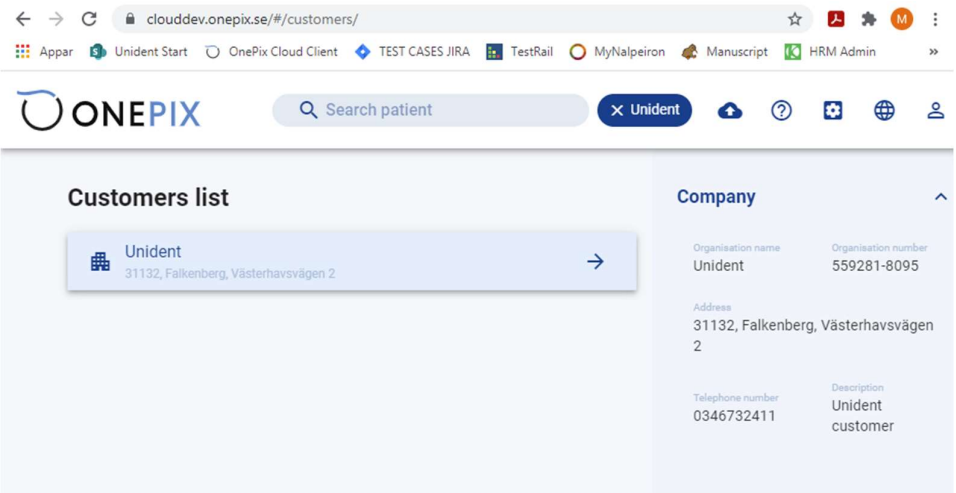
1. Find a patient via the search box.
2. Click on the dots
3. Select Edit
4. Update the patient information and click Submit.



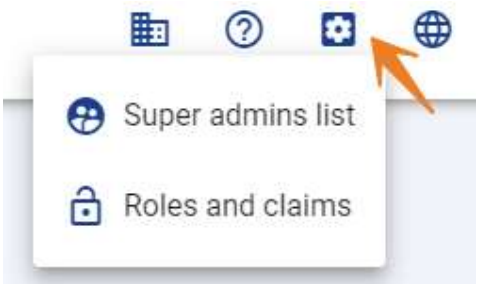
5. Check in the patient list that the information has been updated.

SYSTEM ADMINISTRATOR

As a System Administrator, in addition to everything that a regular user and clinic administrator can do, you can also see all Companies/Clinics and manage the System Administrator list. Click on a company to enter and view or manage the data.



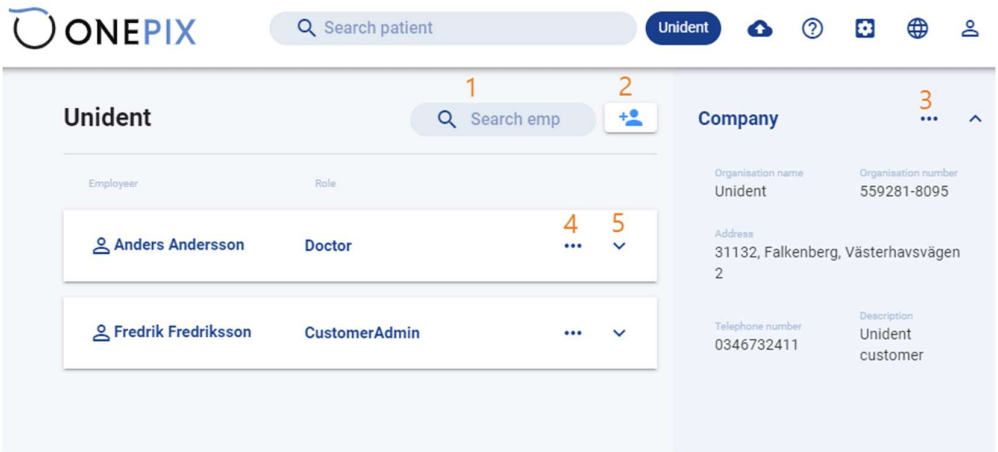
To manage the system administrator list click on the gear icon.



MANAGE USERS, PERMISSIONS, AND ROLES

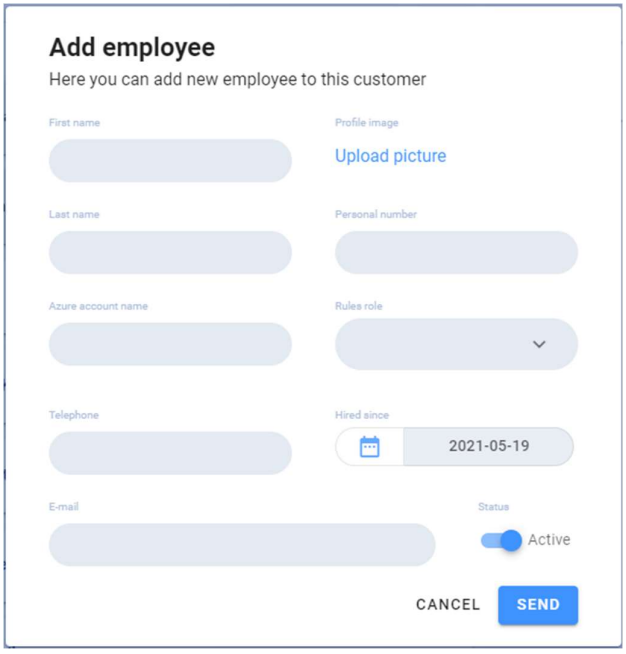
CLINIC ADMINISTRATOR

As a clinic administrator, you can update and manage patient information and users in the clinic. You can also view and update your clinic information.

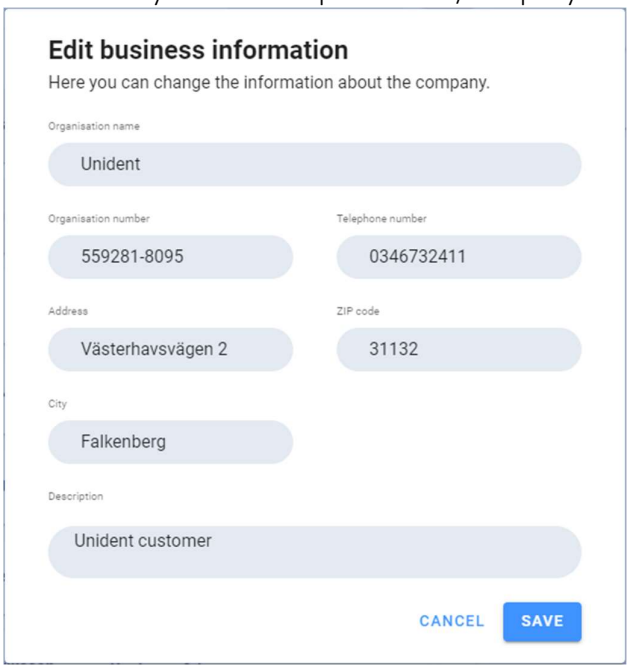


1. If there are many users in the clinic, then you can use the search bar to search for a user.

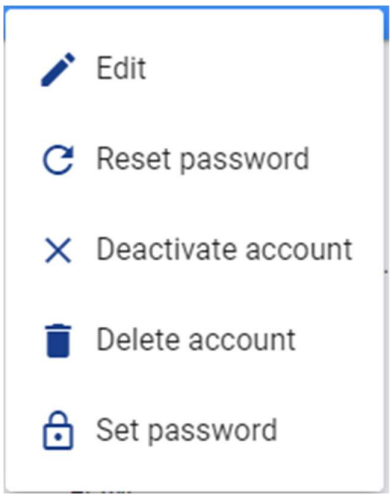
2. Click the button to add a new user. Here you fill in information such as name, social security number, e-mail, what role the user has and so on. Click the Send button to save the new user.



3. Click here if you need to update clinic/company information.



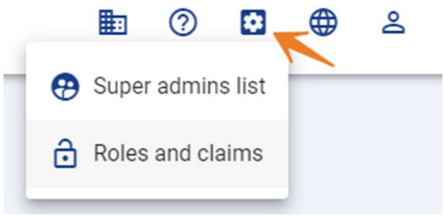
4. Click here to: Update User Information, Reset Password, Deactivate Account, Delete Account and Set a New Password.



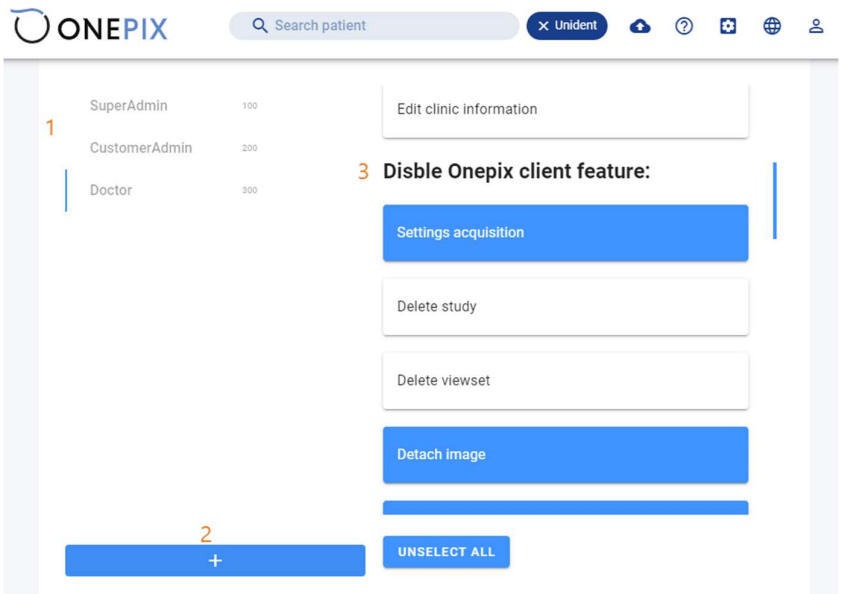
5. To see user information, click on the arrow.

ROLES AND CLAIMS

As a clinic administrator and system administrator, you have access to the roles and claims feature.



When you click on the Roles and claims button, you will be guided to a new page where you can create roles, and set rights for the roles. By default, there is a user role doctor and a clinic administrator customeradmin.



1. When you sign in as a clinic administrator, you only see the User role and can make settings for that role.
2. You can create new roles where you assign different rights.
3. Rights that you can assign concern, among other things, users/rights in clinics, but also which permissions/functions you want to block in the Onepix client application.

IMPORT DICOM EXAMS AND IMAGES

DICOM IMPORT

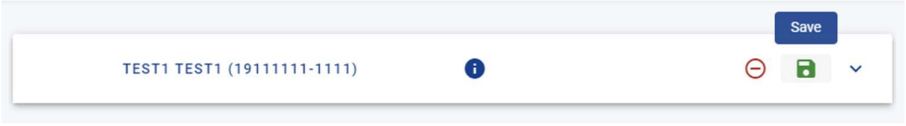
To import Dicom images from a DICOMDIR catalog:

1. Click the Import button

2. Then click the Import DICOM as a folder button

3. Select a folder on your computer that contains a DICOMDIR file and click Open and Upload. The files are uploaded.

4. Once the images are uploaded, then you can see patient information and choose whether to view the images, delete or save this examination via the buttons on the right side



5. Click save to save the images of the patients.

ONEPIX LOCAL ADMIN

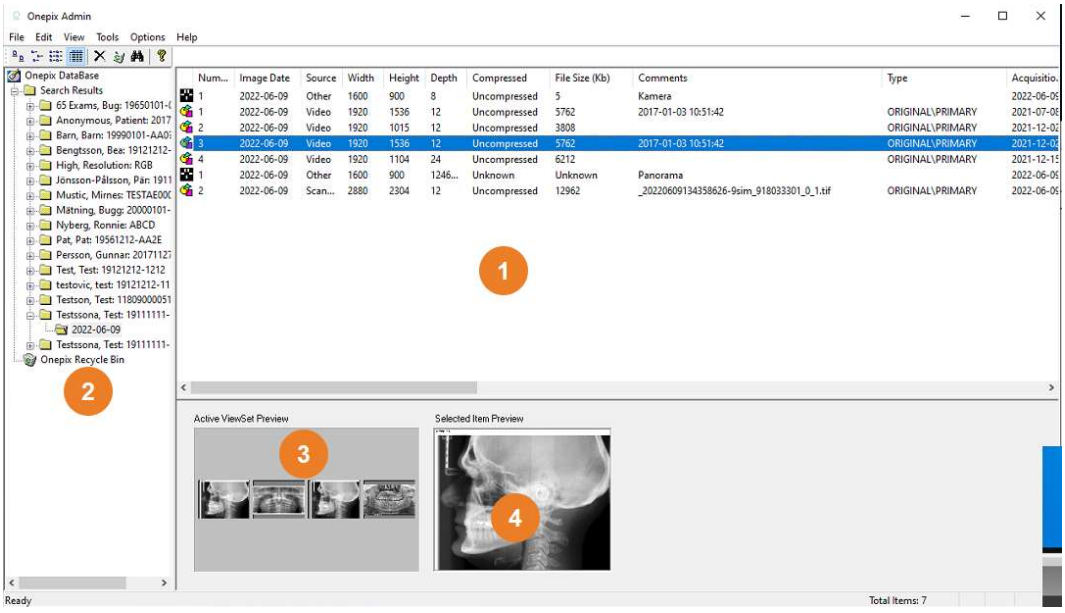
This section includes:

- Import DICOM studies and images
- Export patients, DICOM studies and images

• Separate, delete, and clear images

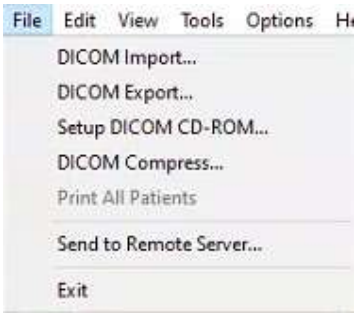
- Attach and reclaim photos
- Database search, editing, and validation

When you start the data management tool Onepix Admin, either via the desktop shortcut or via Onepix in the Start menu, the tool's three-part screen initially appears without content. To view all patient, exam, and image information contained in the Onepix imagedatabase, click Tools> Search, and then click OK. The standard search is done per patient, but if you are primarily searching for images or studies, you can select any of those options in the menu. If a specific patient is sought, you can also click on the search button "binoculars"



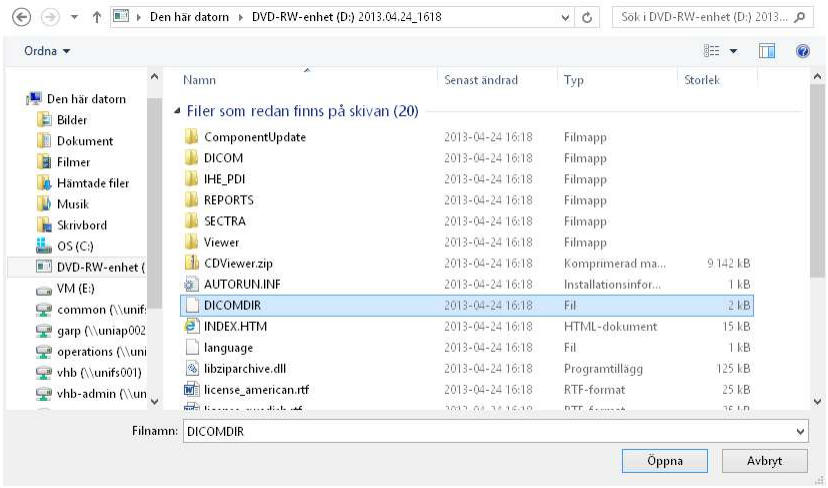
1. Area of patient/exam/image
2. Search results and list of patient/exam
3. Series Overview Area
4. Image Overview area

FILE MENU

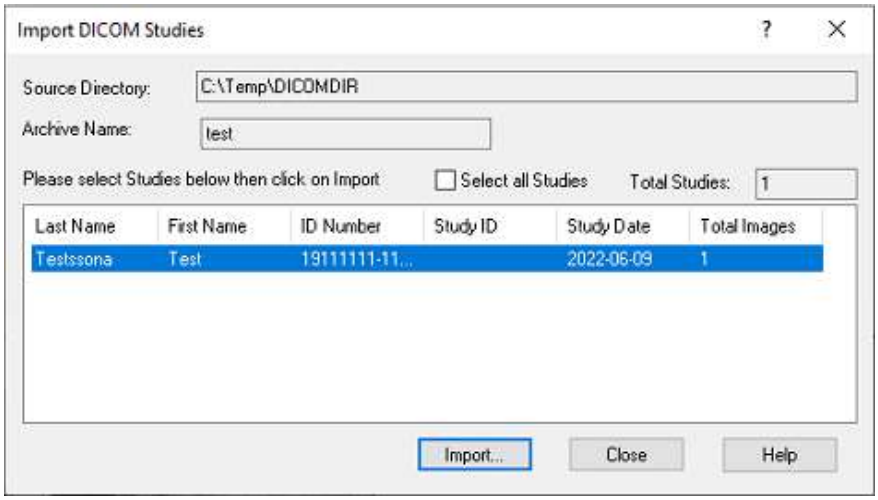


DICOM IMPORT

Imports DICOM studies and images into the current database from another device. The import source can be a valid DICOM file or archive, located at an available path or on a physical drive. Onepix loads all records into a "DICOMDIR" file set in the current database.

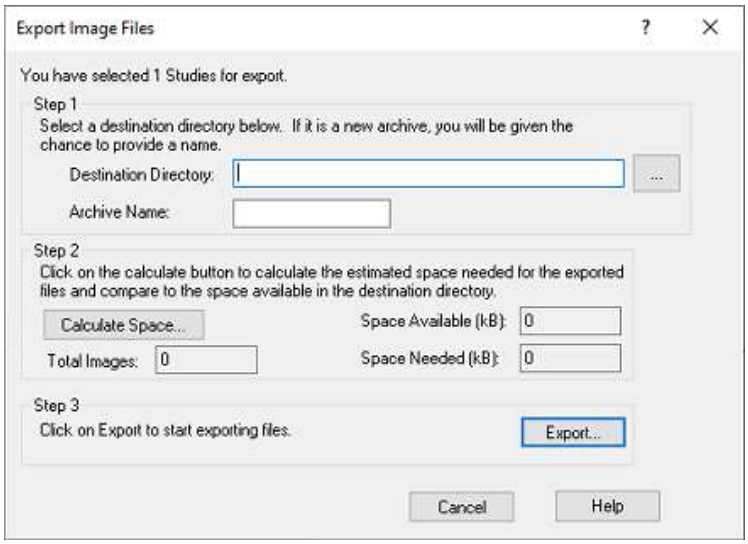


Each entry contains patient/exam/series/image information and the tables in the connected database are populated in the same way.



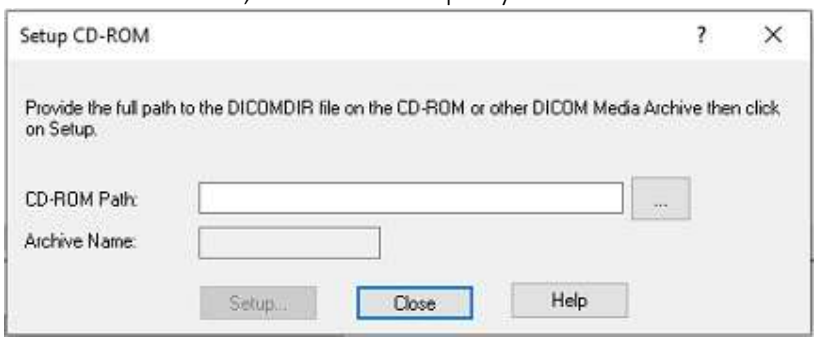
DICOM EXPORT

Exports patient information, DICOM studies, and images to another device. You have the option to create a new storage store for the items in their destination location, or use a folder in a location that already exists. You can select single objects, groups of objects (by selecting while holding down the <SHIFT> key), or all studies and images for a specific patient (by selecting Edit> Select All or with the keyboard shortcut <CTRL><A>.



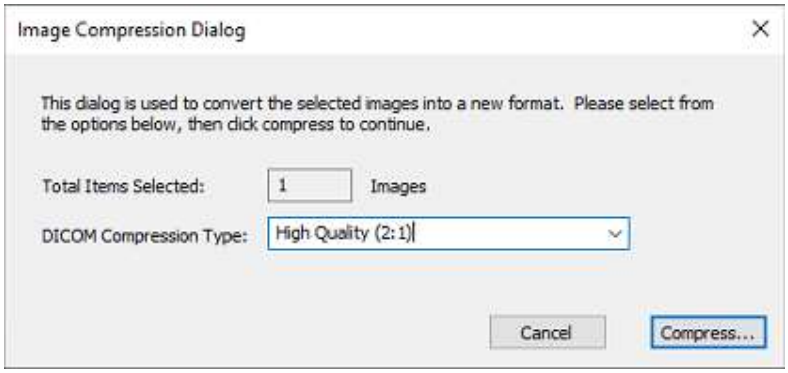
CD-ROM SETTINGS

To load Onepix exams from a CD-ROM, browse the image folder on the disc and click the Install button. Keep in mind that you can only load exams that have already been converted to DICOM with this action.
When Onepix exams are recorded in the current database, it is updated with the volume information, so that the Onepix system knows where the exams are located.



DICOM COMPRESSION

Reduces the storage space for X-rays, with or without loss when compressed. Compressing X-ray images has many advantages, including: increased efficiency of storage space for images and better ability to store on removable media.



Following compression formats are supported:

- Low compression rate (High quality) with JPEG2000, which saves files with a 2:1 file size reduction.
- Medium compression rate (Medium quality) with JPEG2000, which saves images with a 5:1 file size reduction. The compression rate is equivalent to Lead PQ1 in previous Onepix versions.
- High compression rate (Low quality) with JPEG, which saves images with a 20:1 file size reduction.

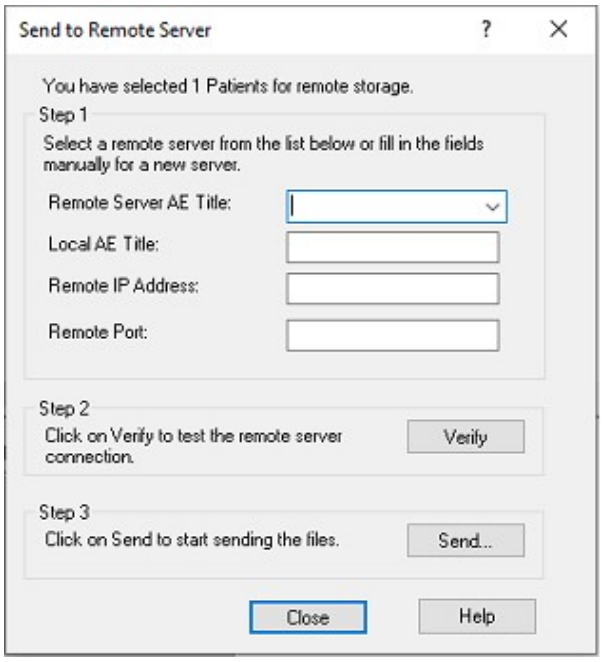
PRINT ALL PATIENTS

Prints a patient list.

Before you print a patient list, you need to conduct a search. To open the search box, click Tools> Search. Because the patient list is based on the search results, you may want to filter the results using the options in the search box. When you're done, click OK.
When the patient list appears, click File> Print All Patients

SEND TO REMOTE SERVER

Displays a dialog box where you can save patient data to a remote location. This feature is especially useful for practices with multiple clinics, where backup of patient records takes place to a central server or where medical records are shared between several different locations.



In multi-clinic practices, more than one server can be used for journals, a local server to which the work computers connect, and a remote server for archiving and storage. You can choose to send all the studies for a particular patient, or just the studies and images you desire.

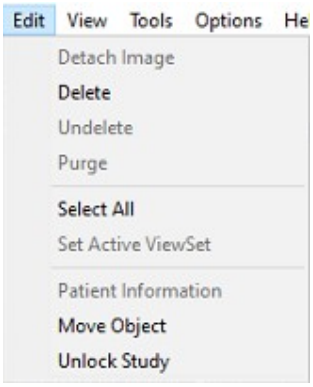
To submit all studies for a specific patient, follow these steps:

1. Open the All Patients folder in the Onepix Admin.
2. Select the patient (patients) whose files you want to send.
3. Click File> Send to Remote Server. Select a registered remote server from the drop-down menu in the dialog box, or fill in the text boxes if you want to add a new server.
4. Click Verify to confirm the connection to the remote server.
5. When the remote server is ready, click Send.

Here's how to send the images for a specific exam:

1. Open the All Patients folder, double-click the patient's name in the upper-right bar, and then double-click the exam that contains the images you want to send.
2. Click File> Send to Remote Server. Select a registered remote server from the drop-down menu in the dialog box, or fill in the text boxes if you want to add a new server.
3. Click Verify to confirm the connection to the remote server.
4. If the remote server is ready, click Send

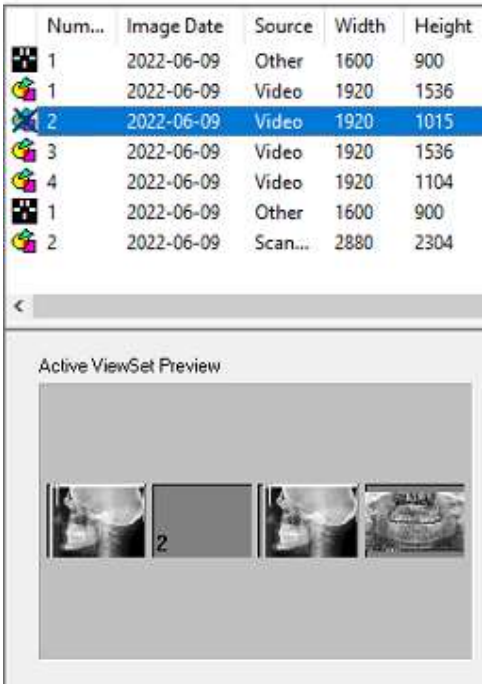
EDIT MENU



DETACH IMAGE

Detaches (dismounts) images from the series. If you choose to detach an image, it is preserved as part of the patient exam but it does not appear in the series. Detach provides greater flexibility in the management of series and allows you to retain active and inactive series and attached/detached images.

Images that you do not want to view, but want to keep, can be detached from their current series. An image that has been detached can be deleted or attached to its original, or a new, series. In the example below the image number 2 is detachedfrom the series. This can also be seen by the image object having a black X across the image icon.



By detaching and attaching images, you can adjust the exams to show relevant images in an appropriate series. It is common for relevant images to be scattered over several exams, which sometimes complicates comparisons. With Onepix Admin, you can verify

that the most relevant series is active, and then drag and drop images (from the upper right bar) to the view set (in the lower right bar).

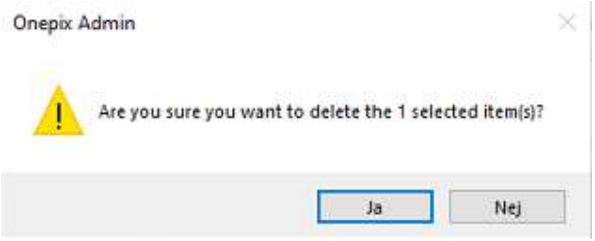
DELETE

Removes patient, exam or images from a particular device and moves them to the trashbin. Removal of patient studies and images in Onepix is done in several steps in Onepix Admin, to ensure that your data is not accidentally deleted.

When a patient is deleted, all studies/exams, series, and images for the patient are deleted (they are moved to the trashbin in Onepix Admin).

When an exam is deleted, all series and images from that exam are deleted (moved to the trashbin in Onepix Admin).

If a series object is deleted, all images are detached. The images can be atatched in a different series or deleted (moved to the trashbin in Onepix Admin). When an image is deleted, it is detached and can either be attached to another series, or deleted (moved to the trashbin in Onepix Admin).



The steps for deleting patient, studies and images are similar and are described below:

Start the Onepix Admin software. Perform the following steps in the patient list:

1. Select a patient folder (in the left bar) so that the list of studies is displayed (in the upper right field), or select an exam folder (in the left bar) so that the list of series and images is displayed (in the upper right field).

2. Select the patient, exam, series, or image that you want to delete. (Patients can only be deleted in the upper-right bar, when the All Patients folder is open.) If you choose to delete a patient, all studies, series, and images associated with the patient will also be removed. The same goes for studies, where view sets and images linked to the exam are removed.
3. Click Edit > Delete. This will move all current items to the trashbin in Onepix (under the patient list folder in the left bar).
4. If you want to delete the items totally, clear the Recycle Bin in Onepix Admin (You are advised not to clear the Recycle Bin unless you are absolutely sure that the correct items are being cleared).

UNDELETE

Withdrawing deleted studies and images. With the Onepix Admin tool, it is possible to recover deleted studies and images. Items deleted using the data management tool are first moved to the trashbin in Onepix Admin. (The Onepix trashbin is in the left bar, after the list of patient folders.)

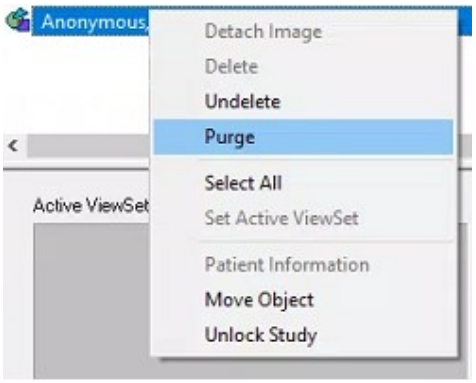
To recover studies and images from the Onepix Recycle Bin, open the Recycle Bin and select the items you want to recover, or click Edit> Select All to recover all. Then click Undelete in the Edit menu.

If a patient is undeleted, all studies, series and images for the patient are also undeleted(restored from the trash in Onepix). If an exam is undeleted, all series and images in the exam are also undeleted (restored from the trash in Onepix Admin). If an active series is undeleted(restored from the Onepix Recycle Bin), all images are attached to the series. If an image is reverted (restored from the Trashbin in Onepix Admin), it attaches to the currently active view set.

If the items have been emptied from the Onepix Recycle Bin, they can still be recovered from the Recycle Bin in Windows, provided that the operation was performed on the computer where the images are locally stored. Recovering items from here requires a few more steps. A step-by-step description of how to recover emptied items can be found under the heading "Purge".

PURGE

Moving deleted patients, studies/images from the trashbin in Onepix Admin to the recycle bin in Windows. When studies and images are purged, the database information is also deleted. It helps to ensure that image files and database entries are aligned.



To recover purged images from the Windows Recycle Bin, follow these steps.

1. Open the Recycle Bin in Windows (most often found on the Windows desktop).

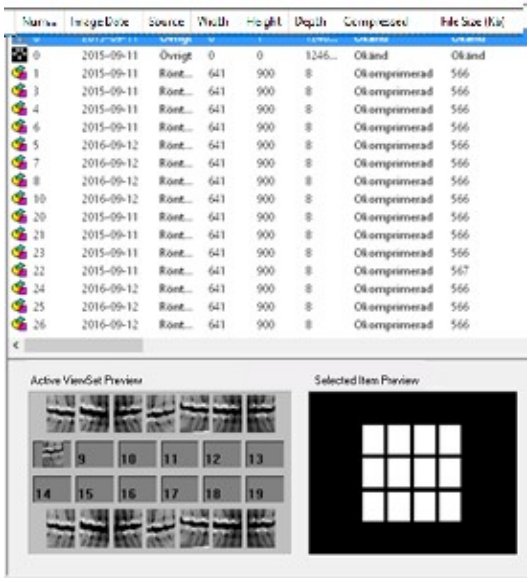
2. Select the items you want to recover. In the Windows Recycle Bin, studies and image objects may not be grouped together, so you need to select all the items you want to recover.
3. Click Restore the selected items.
4. Open the Onepix Admin and click Database Validation Wizard in the Tools menu. When you approve, database records are created for the deleted items.
5. Follow the instructions in the Database Integrity Control Guide (Database Validation Guide). One of the boxes in the control wizard displays images that lack the corresponding database entries. Here are the images you want to recover.
6. Click Add Records and continue through the wizard. On the last page, click Finish.

SET ACTIVE VIEWSET

Changes a series layout from inactive to active for multi-layout studies. The layout that is currently active has a dark icon. The inactive layout has a gray icon. When switching between layouts , consider the number of positions in the different layouts as shown in the following examples.

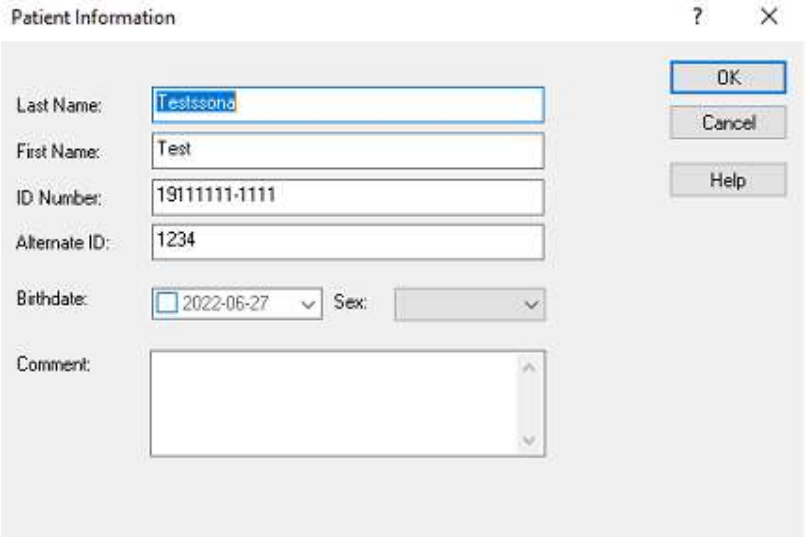
Study below has two layouts. The active layout has 15 images in 26 positions; the second (currently inactive) layout has 12 positions. If you choose to change the status of the layouts and make it inactive to active, there won't be enough positions in the layout with 12 positions.

That would cause 3 of the images to be detched, meaning they would be saved in the study but not shown in the current series. To avoid the problem when working with multiple layouts , make sure that the second layout (the one you want to make active) has enough positions for the number of images in the current series (the one to be made inactive).



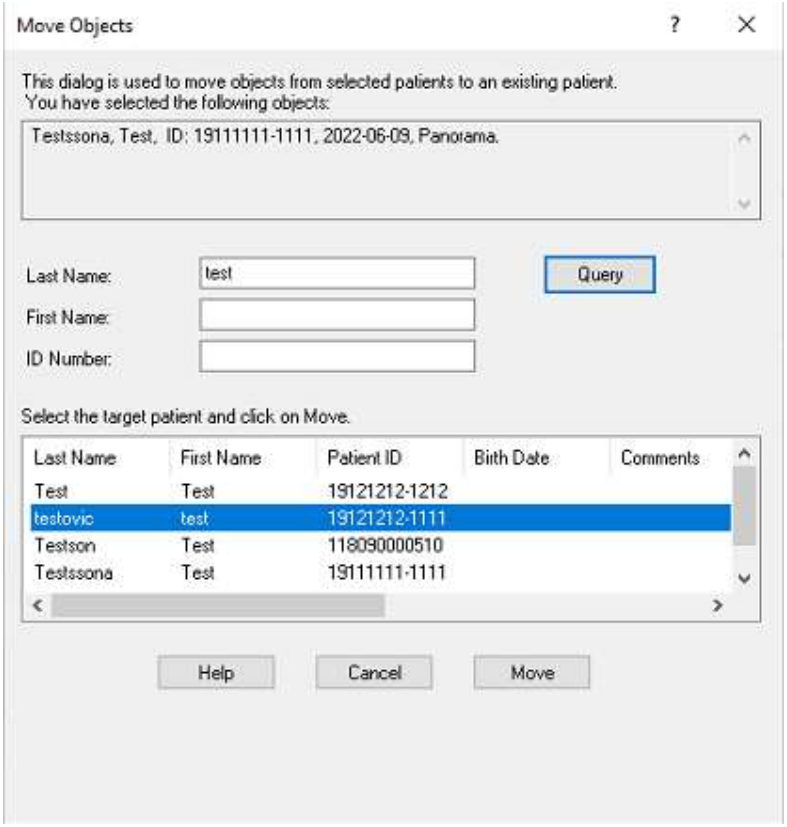
PATIENT/STUDY INFORMATION

Allows you to change patient and study data. Patient and study information constitutes important information in Onepix. Nevertheless, it may sometimes be necessary to check it to ensure that the database records are consistent with patient and study information. Editing patient information in the data management window makes it easy to update and/or clarify patient information in the database.
Search for the patient in onepix's database via the search tool "binoculars". Select the patient in the search results list > select patient information under the edit menu item. Changes in patient information are automatically updated through all studies and images for the patient. Changes in exam information are updated in the same way.



MOVE OBJECTS

This feature allows you to combine studies in two different patient records, in case of any duplicates of the patient. Combining studies can be an easy way to keep the database clean and up to date. A patient who has married and changed their last name is an example of when it may be useful to use the function to merge studies, so that the older studies are combined with the newer ones. You can choose to merge all the studies for a particular patient, or just the studies you are interested in. In addition to merging patients, you can also move individual studies, series and even images from one patient to another.



To move all studies for a patient, follow these steps:

1. Start Onepix Admin. Select the search tool "Binoculars" and find the patient where the studies will be moved from.
2. Select the patient's name in the upper right bar. (By selecting the patient, you specify which location you want the studies to be moved from.)
3. Click Edit> Move object. Select the target patient in the dialog box (the location where you want to move the studies).
4. Click Move to move your studies to the destination location.

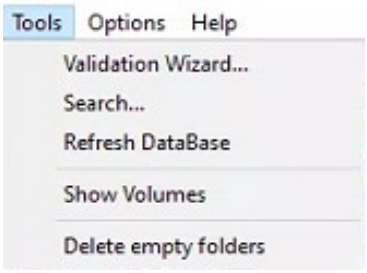
To merge some studies/series/images for a specific patient, follow these steps:

1. Open the Onepix Admin. Select the search tool "Binoculars" and find the patient where the *studies will be moved from.*
2. Double-click the patient's name in the field in the upper right. (When you see the studies for the selected patient, you can then choose which studies /series/or images you want to move fromhere.)
3. Click Edit> Move object. Select the target patient in the dialog box (the location where you want to move the studies).
4. Click Move to move these to the destination location.

UNLOCK EXAM

A exam/series older then one day will be locked in Onepix 2.0 for all editing. If for some reason you need to unlock an exam, then you select the exam in question and choose Unlock exam. The exam will automatically return to locked mode the next day.

TOOLS MENU



DATABASE VALIDATION GUIDE

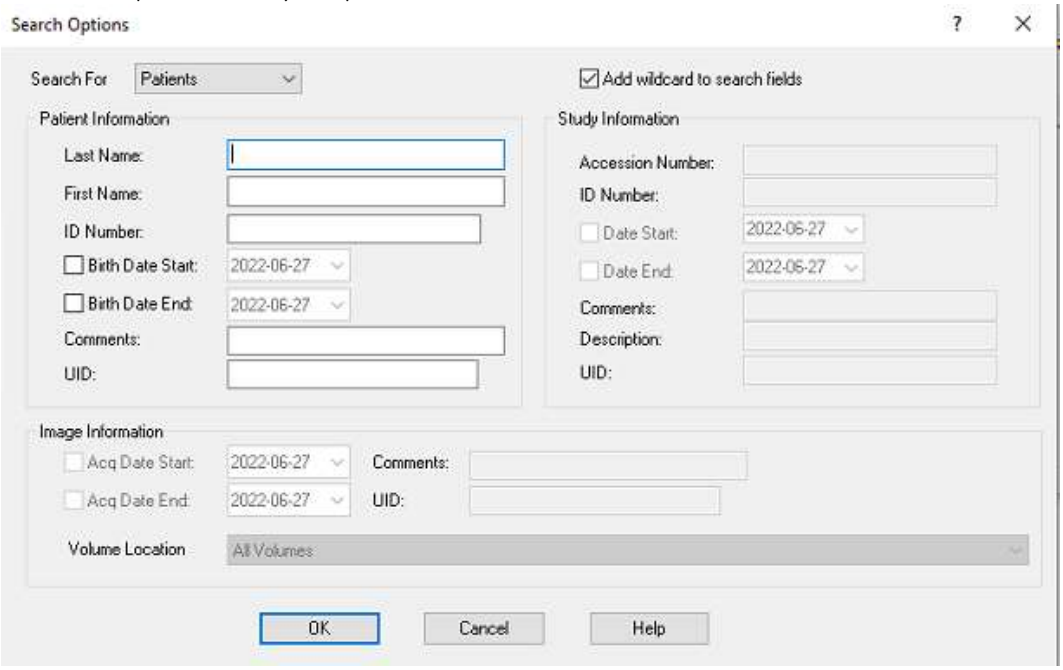
Checks the data integrity of the patient- and image information stored in the database. The Database Integrity Wizard (Validation Wizard) walks you through the following control steps:

- Identifies the location of stored images
- Identifies image files without corresponding database entries
- Detects database records without corresponding image files
- Adds database records for missing image files.

There may be more than one path or location for image storage in the system, but only one path can be checked at a time. When the current path is approved in the wizard, images can be identified that are not associated with any corresponding record in the database. In that case, you can choose to either delete the images, or add entries for the images automatically.
The wizard also detects if database records are missing. These can be added to the database, or removed.

SEARCH

Perform custom searches at the patient, study and image level. The Search dialog box offers three different ways to retrieve information in the database: per patient, study, or image, using the custom fields in the dialog box. Select either Patients, Study, or Images from the drop-down list and enter as much or as little information in the fields as you need to filter the results. When you click OK, the information corresponding to the search parameters you specified is retrieved.



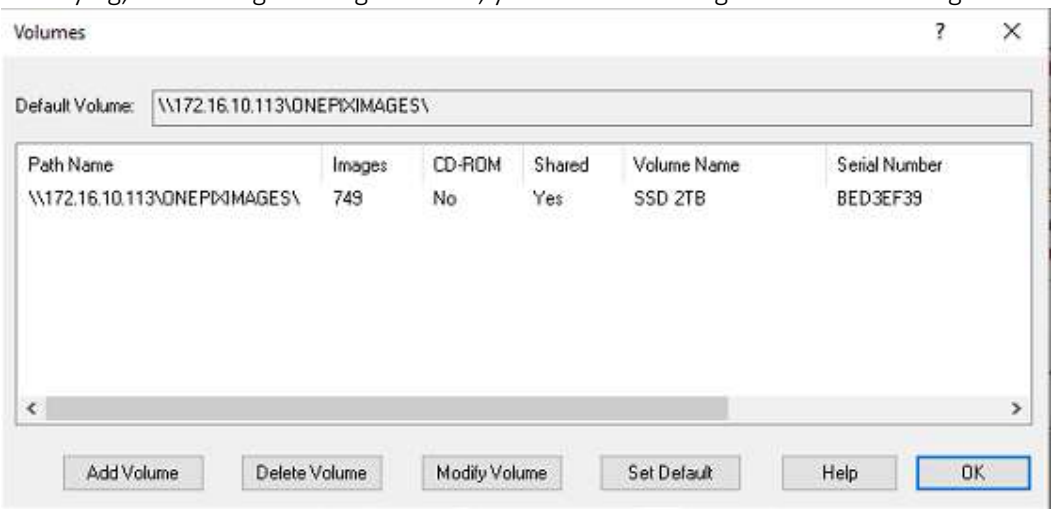
UPDATE THE DATABASE

Sends a request to the current database to retrieve the latest patient and image information. In Onepix, clients and servers act as different programs. Onepix servers receive image storage requests and respond to querys and requests for retrieval from one or more Onepix clients. Although Onepix clients and servers collaborate in exchanging patient, study, and image information, updates to one Onepix client are not always visible on other clients, even though they are connected to the same server.

If you click Tools> Update Database, the client retrieves the latest information from the server's database. Patient studies are updated on the server at the end of the Onepix session. It is important to remember, if the information you are trying to retrieve has been added by another Onepix client. To ensure that the information added to a particular client is saved in the server database, you need to close the Onepix session on the computer in question.

SHOW VOLUMES

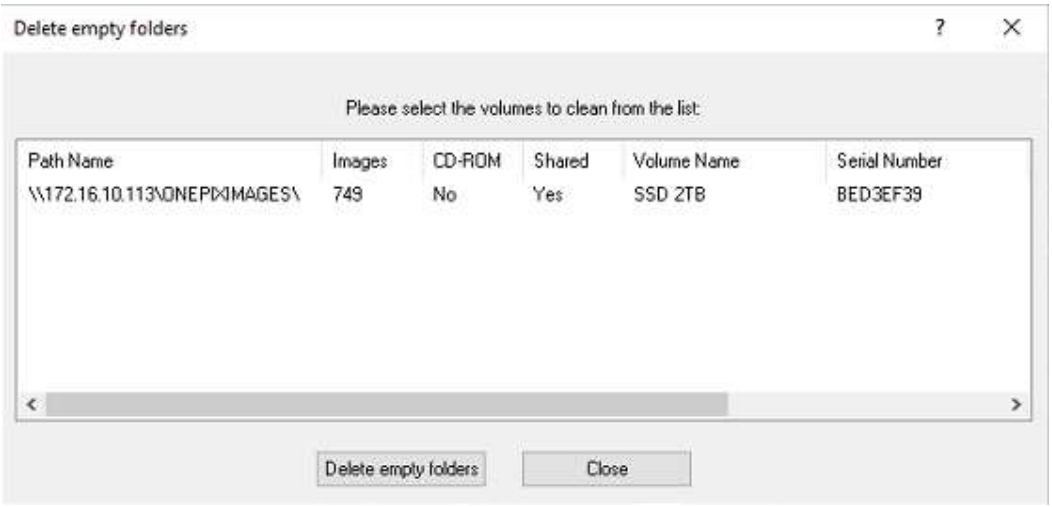
Volume information is saved in the Onepix database to identify paths where images are stored in the system. If you need to change the volume information, such as adding, modifying, or deleting an image archive, you can do so using the volume editing tool.



Keep in mind that changes in volume paths can affect the localization and retrieval of images in Onepix. We recommend that you do not make any volume changes without the help or instructions of authorized support personnel.

DELETE EMPTY FOLDERS

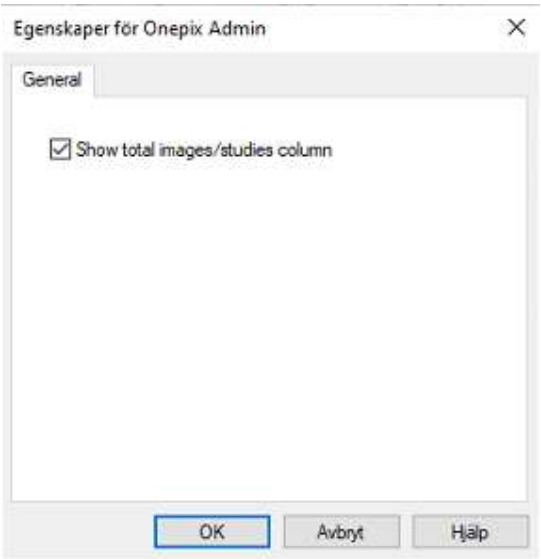
Automatically removes empty directories from the image volume. It remains only to select the volume to be processed and click Delete empty folders.



OPTIONS MENU

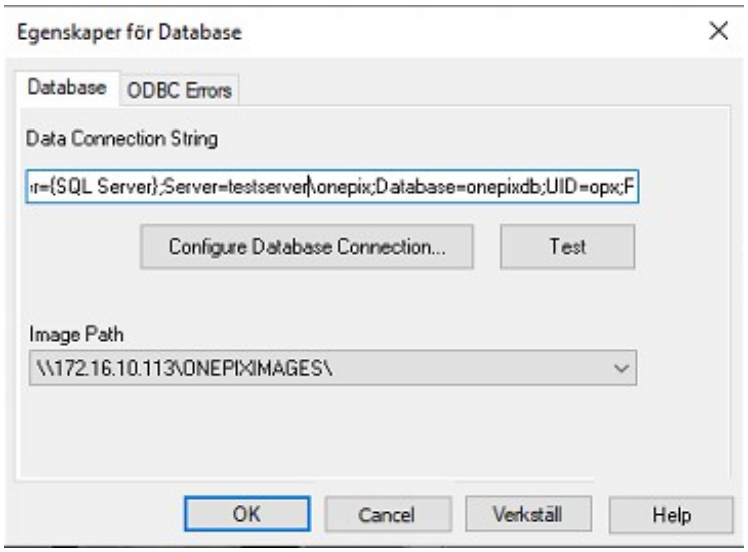
PROPERTIES

If you select this option, a column is added to the patient/exam/image area with the total number of studies for each exam, or the totalnumber of images for each series.

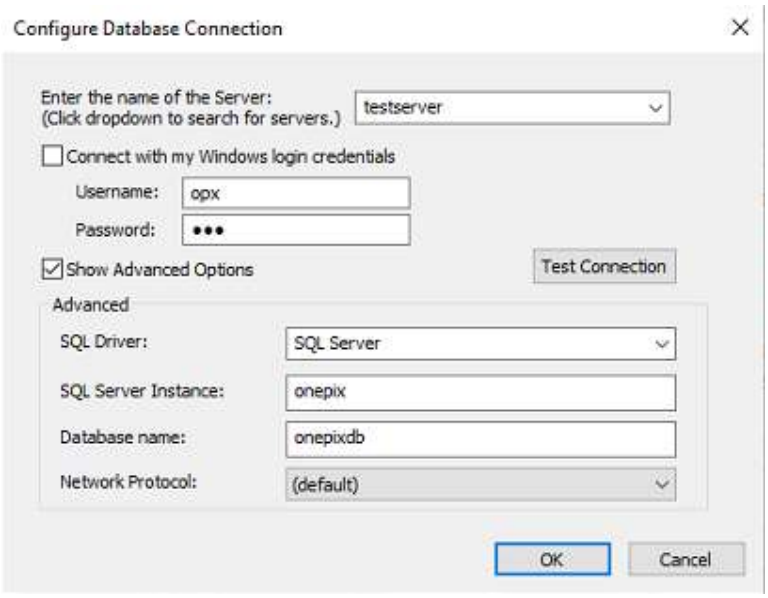


DATABASE

This can be used to test the connection to the patient database, to view the current path to the image folder where the X-ray images are saved, and to configure the database.



Database connection configuration is done via the Configure Database Connection button



ONEPIX

INSTALLATION MANUAL

ENGLISH

INSTALLATION OF ONEPIX

REGISTRERA ONEPIX

Every Onepix installation needs to be registered in order to meet the traceability requirements for medical devices. Fill out the registration form on website onepix.app if you have installed Onepix on one or more computers.

SYSTEM REQUIREMENTS

System requirements for Onepix can be found below. The Onepix application is installed with one of the following configurations: Single workstation with Onepix for single users (Standalone) or Multi-user network with Onepix (Onepix client/server). For Onepix local it is recommended using dedicated servers for storing and downloading images.

SECURITY

To ensure that the security of the system is high, the following is required on the computer where Onepix is to be installed:

- Windows must be updated with the latest Windows updates.
- Updated and working anti-virus software must be available.
- Firewall that protects the computer against attacks from the Internet

CLIENT

Recommendation for computer:

- Windows 11, Windows 10 x64, Windows 10 x86
- CPU 64bit: Intel or AMD Processor
- 8 GB RAM
- DirectX 9 or later with WDDM 1.0 or later driver
- Intel USB chipset

COMPUTER MONITOR

Recommendation for screen:

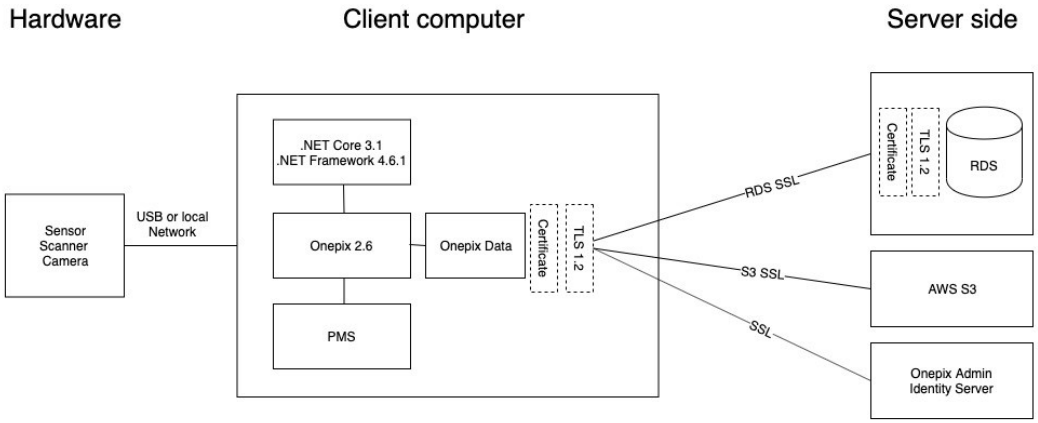
- A medical monitor (DICOM Monitor) is best suited for displaying X-ray images. Alternatively, a monitor of high-quality panel can be used.
- The screen should ideally be calibrated if this is possible.
- Minimum resolution is 1280x1024
- Recommended resolution 1920x1080
- 24 bit color depth
- Viewing angle, degrees, 178

SERVER

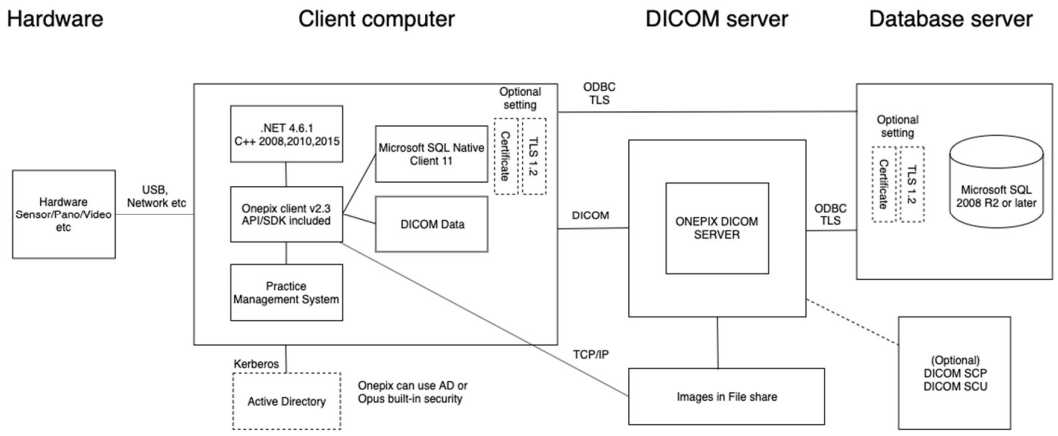
NOTE If there is already a legacy SQL instance, called CDRDICOM, then only the database is upgraded, so the existing SQL instance can remain to avoid new installation. When installing in a new environment, the following requirements are imposed on the computer:

- Windows Server 2022, Windows Server 2016, Windows Server 2012, Windows 11, Windows 10 x64
- CPU 64bit: Intel or AMD Processor
- 8 GB RAM-minne
- 500 GB hard drive

REAL WORLD OVERVIEW ONEPIX CLOUD



REAL WORLD OVERVIEW ONEPIX LOCAL



COMPATIBLE HARDWARE

This table shows compatible hardware that works with Onepix Local, Onepix Cloud and in Citrix / Terminal Server environment. Note that Onepix also supports Twain, UVC and WIA/WPD acquisition interfaces. Contact the manufacturer for drivers and detailed information about which models are compatible with which operating system.

INTRAORAL SENSOR

Manufacturer	Model	Connectivity	Onepix Local	Onepix Cloud	Citrix / TS
Carestream	RVG 5100 / 5200 / 6100 / 6200 / 6500	Integrated	✓	✓	✓
Dürr VistaEasy	VistaRay sensors	Integrated	✓	✓	✓
Gendex GXPicture	GXS-700	Integrated	✓	✓	
Imagelevel	MDX-3	Integrated	✓	✓	✓
KaVo / Dexis	SNAPSHOT / DIGORA Toto	Integrated	✓	✓	✓
Myray (iCapture)	Zen-X / Zen-X E / Zen-X DCiS	TWAIN	✓**	✓**	✓**
Schick by Sirona	Schick AE / Schick 33 / Schick Elite / XIOS XG Select / XIOS XG Supreme / CDR Remote HS	Integrated	✓	✓	✓
Schick by Sirona	CDR Wireless SDX	Integrated	✓*	✓*	✓*
Schick by Sirona	CDR 2000	Integrated	✓*	✓*	✓*
Vatech	EZ Sensor HD	Integrated	✓	✓	✓**
Hamamatsu	Hamamatsu USB sensor	Integrated	✓	✓	
Planmeca	ProSensor	Integrated	✓	✓	✓
Other…	Sensors that support Twain acquisition	TWAIN	✓**	✓**	✓**

INTRAORAL CAMERA

Manufacturer	Model	Connectivity	Onepix Local	Onepix Cloud	Citrix / TS
Acteon	Sopro USB cameras	Integrated	✓	✓	✓
Carestream	CS 1500	Integrated	✓***	✓***	✓***
Dürr VistaEasy	VistaCam cameras	Integrated	✓	✓	✓
IC-Lercher	L-Cam USB – Empia Chipset	Integrated	✓	✓	✓
Myray (iCapture)	CU2	Twain	✓**	✓**	✓**
Schick by Sirona	USB Cam4	Integrated	✓	✓	✓
Schick by Sirona	USB Cam2	Integrated	✓	✓	✓
Schick by Sirona	USB Cam	Integrated	✓*	✓*	✓*
Vatech	Vatech EZCam	Integrated	✓***	✓***	✓***
Other…	Cameras that support UVC	Integrated	✓***	✓***	✓***

EXTRAORAL CAMERA

Manufacturer	Model	Connectivity	Onepix Local	Onepix Cloud	Citrix / TS
Fuji	Fuji FinepiX S5	Integrated	✓	✓	✓
Nikon	D7500 / D7200 / D7100 / D7000 / D700 / D610 / D5100 / D300s / D300 / D200 / D90 / D80	Integrated	✓	✓	✓
Other…	Cameras that support WIA & WPD	Integrated	✓****	✓****	✓****

INTRAORAL IMAGEPLATE SCANNER

Manufacturer	Model	Connectivity	Onepix Local	Onepix Cloud	Citrix / TS
Acteon	PSPIX / PSPIX2	Twain	✓**	✓**	✓**
Carestream / Kodak	CS 7200 / CS 7400 / CS 7600	Integrated	✓	✓	✓
Dürr	VistaEasy Vistascan / Vistascan Mini	Integrated	✓	✓	✓
Kavo / Dexis	DIGORA Optime (all models) / EXPRESS / EXPRESS Origo / KaVo Scan eXam / KaVo Scan eXam Plus	Integrated	✓	✓	✓
Innixim	Spark	Integrated	✓		
Vatech	Vatech VSP	Integrated	✓	✓**	✓**
Other…	Scanners that support Twain acquisition	Twain	✓**	✓**	✓**

PANORAMA / CBCT

Manufacturer	Model	Connectivity	Onepix Local	Onepix Cloud	Citrix / TS
Acteon	X-mind Prime (2D)	Twain	✓**	✓**	✓**
Ajat	ART Plus (2D)	Twain	✓**	✓**	✓**
Carestream	CS 8100 / CS 9000 / CS 9300 (2D)	Integrated	✓	✓	✓
Myray	Hyperion X5 / X9 (2D)	Twain	✓**	✓**	✓**
Kavo / Dexis	CRANEXTM Novus / CRANEXTM Novuse / KaVo Pan eXam TM / KaVo Pan eXam Plus / OP30 / OP200 D / OC200 D / OP300 / OP300 MaXio (2D)	Integrated	✓	✓	✓
Kavo / Dexis	CRANEX 3D / CRANEX 3DX / SCANORA 3D / SCANORA 3DX	Integrated	✓		

Morita	IC-5 / Veraview Epocs (2D)	Integrated	✓	✓	✓
Planmeca	DIDAPI & 2D Image Capture / ProOne / Promax (2D)	Integrated	✓	✓	✓
Schick by Sirona	CDR iPAN (2D)	Integrated	✓	✓	✓
Schick by Sirona	CDR PanElite (2D)	Integrated	✓	✓	✓
Sirona	XG3 / XG5 (2D)	Twain	✓**	✓**	✓**
Vatech	PaXPrimo (2D)	Integrated	✓	✓	✓
Vatech	PaXDuo3D	Integrated	✓		
Vatech	VcaptureSW 2D - PaX-I / GreenX / PaX-I Plus (2D)	Integrated	✓	✓	✓
Vatech	VcaptureSW 3D - GreenX / PaX-I Plus	Integrated	✓		
Other…	Panorama that support Twain acquisition (2D)	Twain	✓**	✓**	✓**

* Works only on 32bit Operating systems
** Image Acquisition is processed with Twain interface provided by the manufacturer.
*** Cameras that fully support UVC (USB Video Class) are functional with Onepix.
**** Cameras that support WIA (Windows Image Acquisition) WPD (Windows Portable Devices).

PRACTICE MANAGEMENT SYSTEMS COMPATIBLE WITH ONEPIX

The following Practice Management Systems have made integrations to Onepix.

System	Manufacturer
Al Dente	Al Dente Software AS
Alma	AlmaSoft AB
Anita	Anita Systems AS
Carestream T4	Carestream
Carita	Swedish Care
DentalSuite	Plandent A/S
Frenda	Frenda AB
Muntra	Muntra AB
Nextsys	Unident AB
Opus	Opus Systemer AS
Orthodontis	Orthodontis AS
TD Journal	A-Data A/S
Zilke	Go On Software

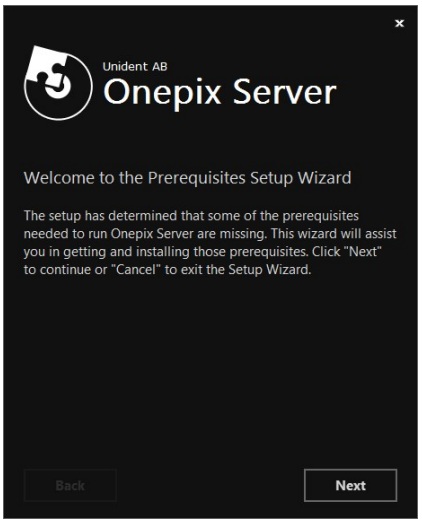
SERVER INSTALLATION ONEPIX LOCAL

Onepix Server packages installs the following:

- SQL server 2022 Express with instance name ONEPIX
- An empty database is created named OnepixDB
- Onepix Admin software

Download Onepix Server and follow the instructions below. Open the folder where Onepix is saved after downloading and run Onepix Server Setup. exe.

Click NEXT



The program will automatically find which components need to be installed. But just select the boxes that you know for sure you need or don't need to install.
Klick on NEXT.

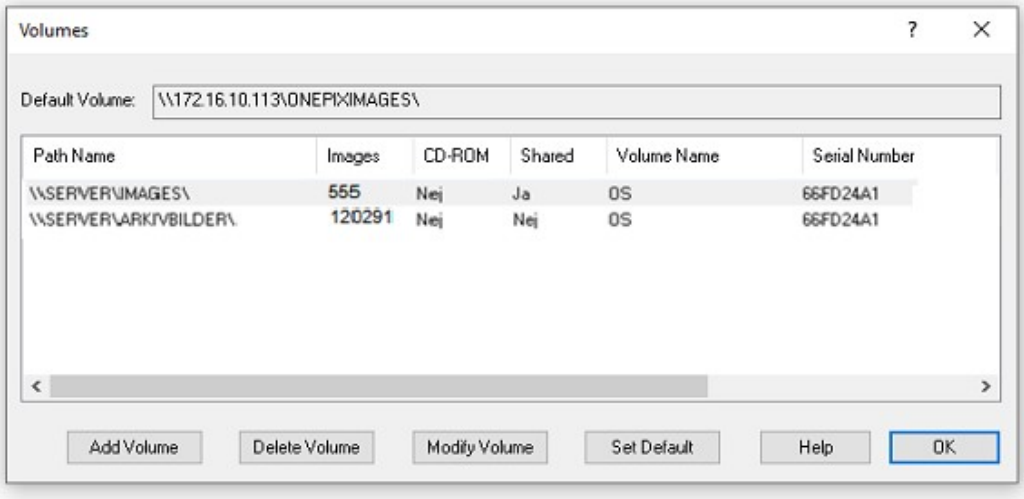
Read through and tick the License Terms and click NEXT.

If there is already an older database and a SQL instance installed, such as CDRDICOM, then the installation package will not install any new instance, but you will get a dialog box where you can fill in the information, test the SQL communication and click Install to update the existing database.

Wait for the program to finish installing and click Finish.

BACKUP ROUTINES

Onepix database consists of a SQL database named **OnepixDB**(If you install Onepix Server) as well as **image volume/volumes** containing all imagefiles. The SQL database is an index that shows which image is in which directory and the SQL database can always be rebuilt based on the information in the files, but this can take a long time depending on how many images there are. In other words, the image volumes contain all the information as the files are saved in a so-called DICOM filetype. Our recommendation is to always make a backup of all image volumes and the SQL database in order to be able to restore it quickly in case of any problems. Which imagevolumes are used can be easily seen by launching the OnepixAdmin program and going to the Tools menu>Show Volumes.



Note that it is important to take backup of all volumes even if they are archived as changes can occur even in old images.

CLIENT INSTALLATION

IMPORTANT INFORMATION

The installation package will automatically uninstall previous CDRDicom and Onepix software. Onepix Client package install the following:

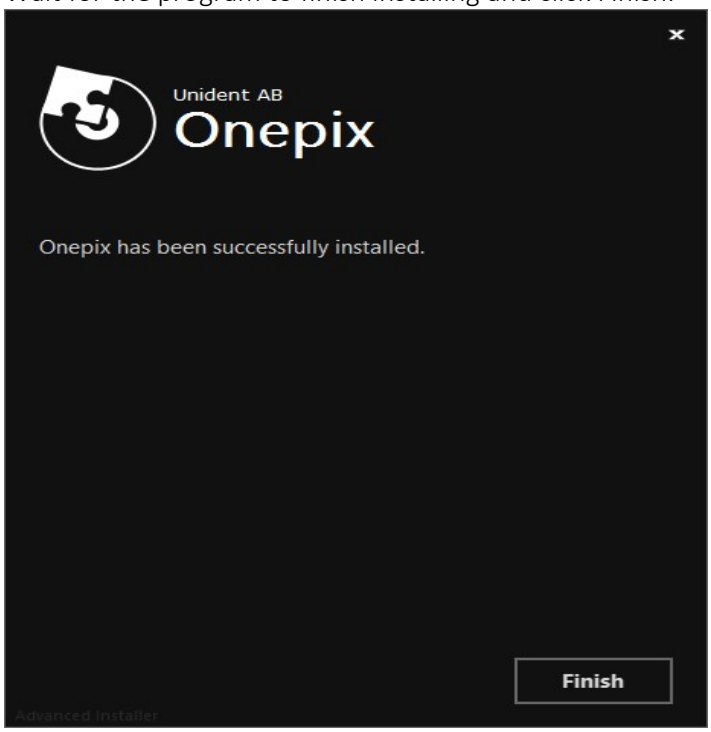
- Onepix client software
- Onepix Admin software (Optional)
- Optional plugins such as TWAIN
- Selectable acquisition modules such as Schick sensor, Kavo Panorama etc.

Launch the OnepixClient installation package and follow the instructions below. Open the folder where Onepix is saved after downloading and run Onepix Client Setup.exe.

Read through the license agreement, fill in the license approval box and click INSTALL

Check the parts you want to be installed and click Install.

Wait for the program to finish installing and click Finish.



INSTALLATION OF ONEPIX CLIENT WITH COMMAND LINE

To install the program with command line, you can use the following command, for example:

OnepixClient2.3setup.exe
ADDLOCAL=MainFeature,admin,schicksensor,video,digitalcamera,twain /quiet

Below you will find a table of parameters and what these do.
** required*

Name	Gear	Description of the switchboard
Onepix Client	ADDLOCAL=MainFeature	Install Onepix Client*
Onepix Admin	Admin	Install Onepix Admin program
Access control	Security	Install Access control tool
Default Acq Modules		
Carestream intra-oral	carestreamio	Install carestream intraoral scanner and sensor support
Carestream panorama	carestreampx	Install support for Carestream panorama
Digital camera	digitalcamera	Install support for extraoral cameras
Dürr intra-oral	vistaeasy	Install support for Dürr intraoral scanner and sensor
Dürr Camera	vistaeasyxc	Installing support for Dürr intraoral camera
E2V	e2v	Install support for E2V intraoral sensor
Fuji S5	diticalcamera_old	Install support for Fuji S5 extraoral camera (old photo module)
Gendex sensor	gendexio	Install support for Gendex intraoral sensor
Hamamatsu	Hamamatsu	Installing support for Hamamtsu intraoral sensor
Intra-oral camera	video	Install support for Intraoral cameras
Kavo intra-oral	kavo	Install support for Kavo intraoral scanner and sensor
Kavo panorama	kavopx	Install support for Kavo panorama
MDX-3 sensor	mdx3	Install support for MDX-3 intraoral X-ray sensor
Morita panorama	morita	Install support for Morita panorama
Planmeca intra-oral	planmecaio	Install support for Planmeca intraoral sensor
Planmeca panorama	planmecapx	Install support for Planmeca panorama
Schick sensor	schick sensor	Install support for Schick and Fona sensor
Schick panorama	schickpano	Install support for Schick panorama
Spark scanner	spark	Install Spark intraoral scanner support
TWAIN	twain	Install support for loading from TWAIN sources
Vatech VSP	vatechvsp	Install vatech VSP intraoral scanner support
Vatech sensor	vatechio	Install vatech intraoral sensor support

Vatech panorama	vatech	Install support for Vatech panorama
Citrix / Terminal Server Acquisition Modules		
Carestream intra-oral	citrixcarestreamio	Install RSS support for Carestream intraoral scanner and sensor
Carestream panorama	citrixcarestreampx	Install RSS support for Carestream panorama
Digital camera	citrixdigitalcamera	Install RSS support for extraoral cameras
Dürr intra-oral	citrixvistaeasy	InstallING RSS support for Dürr intraoral scanner and sensor
Dürr Camera	citrixvistaeasyxc	Install RSS support for Dürr intraoral camera
Fuji S5	citrixphoto	Install RSS support for Fuji S5 extraoral camera (old photo module)
Hamamatsu	citrixhamamatsu	Install RSS support for Hamamtsu intraoral sensor
Intra-oral camera	citrixvideonew	Install RSS support for Intraoral cameras
Kavo intra-oral	citrixkavo	Install RSS support for Kavo intraoral scanner and sensor
Kavo panorama	citrixkavopx	Install RSS support for Kavo panorama
MDX-3 sensor	citrixmdx3	Installing RSS support for MDX-3 intraoral X-ray sensor
Morita panorama	citrixmorita	Install RSS support for Morita panorama
Planmeca intra-oral	citrixplanmecaio	Install RSS support for Planmeca intraoral sensor
Planmeca panorama	citrixplanmecapx	Install RSS support for Planmeca panorama
Schick sensor	citrixschick sensor	Install RSS support for Schick and Fona sensor
Schick panorama	citrixschickpano	Install RSS support for Schick panorama
TWAIN	citrixtwain	Install RSS support for loading from TWAIN sources
Vatech sensor	citrixvatechio	Install RSS support for Vatech intraoral sensor
Vatech panorama	citrixvatechpano	Install RSS support for Vatech panorama
Plugin - General		
CBCT Plugin	cbct	Install plugin for CBCT (3D viewer)
Facad Plugin	facadplugin	Install plugin for exporting images from Onepix to Facad
Logviewer	logviewer	Install software to be able to read Onepix logging
Pacs Export Plugin	pacsexportplugin	Install plugin for exporting images from Onepix to Pacs
STL Import Plugin	stlimport	Install plugin for STL import
3 Shape Unite Plugin	_3shapeunite	Install plugin for 3 Shape Unite
Plugin - Citrix		
Import plugin	citriximport plugin	Import plugin for Citrix / Terminal server
Extra		
	/quiet	Silent installation without graphical interface

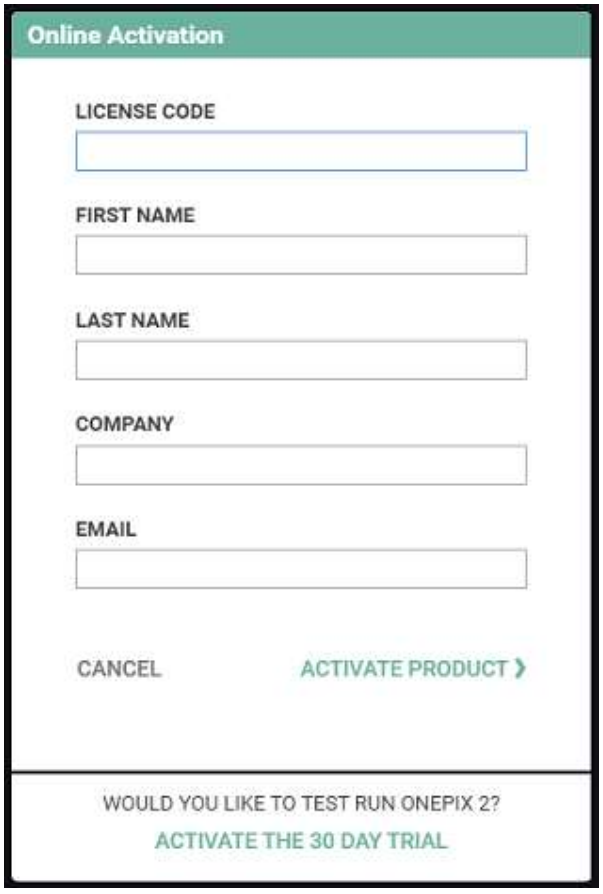
LICENSE ACTIVATION ONEPIX LOCAL

The first time you start Onepix, you will receive a request to activate Onepix. Fill in all the details and click Activate product. You can also startt a 30-day trial if you don't have a license code. When the evaluation period ends, you will not be able to start Onepix without registering with a license code.

Warning
Do not take any odontological images in Demo mode unless you have ensured that you have a software that can display DICOM images after the function has ended!

ONLINE ACTIVATION

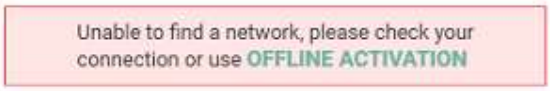
Fill in all the details and click Activate Product.



OFFLINE ACTIVATION

If, for some reason, your computer is not connected to the internet and is offline. Then you will get the following information in the activation dialog box. Click Offline

Activation to activate the license anyway. Please note that in order for you to activate the license offline, you must have access to the internet on another computer.



Fill in all the details and click Activate Product.

You will receive this information when you click activate product, follow the instructions below to activate your license. You must have access to a computer with an internet connection in order to do this.

LICENSE ACTIVATION WITH COMMAND LINE ONEPIX LOCAL

In cases where you need to activate / deactivate Onepix with command line, you can do this with the software ***opxlicense.exe*** located in the directory *C:\Program Files (x86)\Unident AB\Onepix*.

- Activation command: ***opxlicense.exe /a XXXXXXXXXXXXXXXXX /f Name /l Surname /c Company /e test@unident.se***
- Deactivation command: ***opxlicense.exe /d XXXXXXXXXXXXXXXXX***

LICENSE ACTIVATION VIA PROXY

If proxy is used, then proxy settings can be put in the following format.

- Activation command: ***opxlicense.exe /a XXXXXXXXXXXXXXXXX /f Name /l Surname /c Company /e test@unident.se /pi 127.0.0.1 /pn 1080 /pu adminuser /pp password***
- Deactivation command: ***opxlicense.exe /d XXXXXXXXXXXXXXXXX /pi 127.0.0.1 /pn 1080 /pu adminuser /pp password***

DESCRIPTION OF COMMANDS

Name	Gear
/a	Activate license code
/d	Deactivating license code
/f	First name *
/l	Surname *
/c	Company *
/e	Email
/pi	Proxy IP
/pn	Proxy port number
/pu	Proxy users
/pp	Proxy password

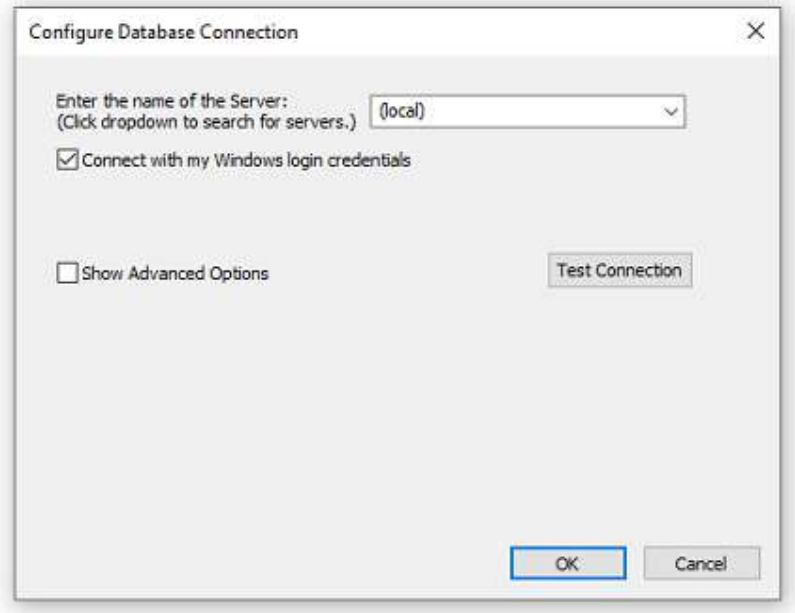
* Use "quotation marks" if there is a space in the entered value, e.g. "Unident AB"

DATABASE CONNECTION

To connect onepix Client to an existing database on the computer or network, do the following. If the SQL instance/database is created manually, i.e. is not installed via Onepix Server then you can connect to it by ticking "Show advanced options" instead and filling in the required details.

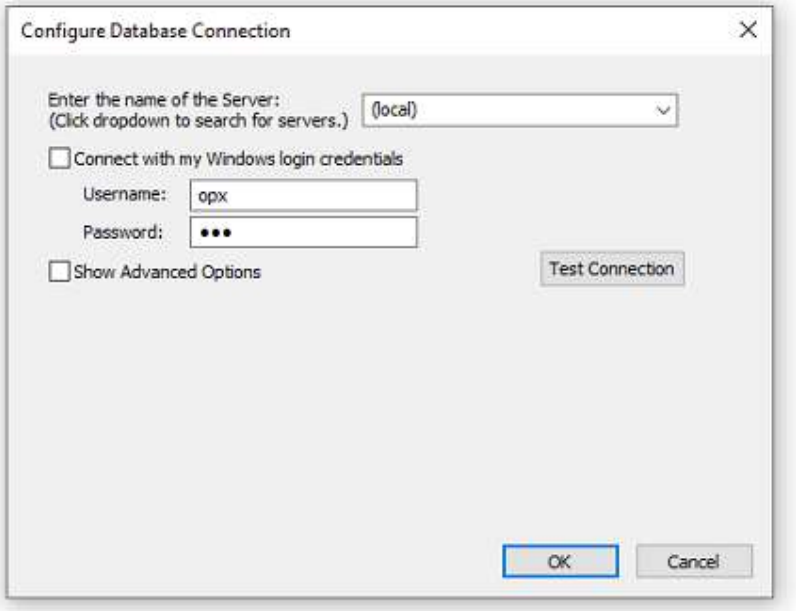
OPTION 1 - WINDOWS LOGIN

- Immediately after installation, launch the Onepix client by double-clicking on the shortcut on the desktop. The Configure Database Connection dialog box appears. If you can't get the dialog box, you can always go into Onepix Admin and go via the Options menu>Database
- If you are going to connect to an external server (for example, if your images are saved on a computer other than the one you are sitting at), click the down arrow and select the correct server from the list.
- Check the option "Connect with my Windows login credentials".
- Click the *Test Connection* button.
- If the connection works, click *OK*. The installation is now complete.
- If the connection doesn't work, continue with option 2.



OPTION 2 - SQL LOGIN

- Uncheck the "Connect with my Windows login credentials" option.
- Enter "opx" (in lower case and without quotation marks) as the username and password.
- Click the *Test Connection* button. Click *OK* when the connection is working.


Configure Database Connection
Enter the name of the Server:
(Click dropdown to search for servers.)
(local)
Connect with my Windows login credentials
Username:
opx
Password:
Show Advanced Options
Test Connection
OK
Cancel

ONEPIXAUTOMATION - PATIENT MANAGEMENT SYSTEM INTEGRATION

Most patient management systems have a direct integration with Onepix. For those systems that lack a direct integration but still can start external programs through sending parameters, you can use OnepixAutomation.exe. OnepixAutomation.exe is installed automatically and is located in the same folder as OnepixClient.exe, the command should look like the example below:

Example: OnepixAutomation.exe "PatientID" "Lastname" "Firstname"

This is only an example so PatientID, Lastname and Firstname should be changed to the corresponding parameters from the individual patient management system. Quotation marks should be used to include all patient information, such as if the patient is registered with more than one first name or last name in the patient management system.

LOCKED FEATURES

Via Onepix Automation, you have the opportunity to lock functions in Onepix if for example, you do not want ordinary users to be able to search for or create new patients directly in Onepix, or if you want to lock settings for users. Each suspended feature in Onepix has a flag as shown below with an associated value:

- SEARCH PATIENT - (DisableOpen) = 1
- NEW LAYOUT/SERIES - (DisableNewLayout) = 2
- SETTINGS - (DisableSettings) = 4
- NEW EXAM - (DisableNewExam) = 8
- NEW SERIES - (DisableNewSeries) = 16
- NEW PATIENT - (DisableNewPatient) = 32

To combine the block of two or more functions, add the numbers from the flags and enter the sum at the end. Below are 2 examples of how it works:

1. Run OnepixAutomation with the command below to lock SEARCH PATIENT:
   OnepixAutomation.exe "PatientID" "Lastname" "Firstname" 1
2. Run OnepixAutomation with the command below to lock SEARCH PATIENT + NEW LAYOUT + SETTINGS + NEW PATIENT:
   OnepixAutomation.exe "PatientID" "Lastname" "Firstname" 39

SELECTABLE PARAMETERS

If you want to include the dentist's information "Dentist" and/or clinic name "Clinic" then you add these at the end according to the example below:

OnepixAutomation.exe "PatientID" "Lastname" "Firstname" 39 "Dentist" "Clinic"

AUTOMATIC UPDATING OF PATIENT DATA

If it is possible to send parameters with a unique ID from the Patient Management System, then you can use these to update the patient data automatically when you

open the patient from the Patient Management System. The unique ID parameter should be passed at the end, here are examples:

- OnepixAutomation.exe "PatientID" "Lastname" "Firstname" 39 "Dentist" "Clinic" "UniqueID"

If you want to skip certain parameters such as Dentist and Clinic , you write like this:

- OnepixAutomation.exe "PatientID" "Lastname" "Firstname" 39 "" "" "UniqueID"

Note that "" quotation marks record skipping that parameter.

It is important to keep in mind that the unique ID should be as unique as possible. Since images can be sent to other clinics, you want to avoid that the uniqueID collides in another database. To avoid this, you can for example send several parameters from the journal at the same time such as clinic name, therapist and patient ID directly after each other as long as these are within the "" quotation marks.

Example:

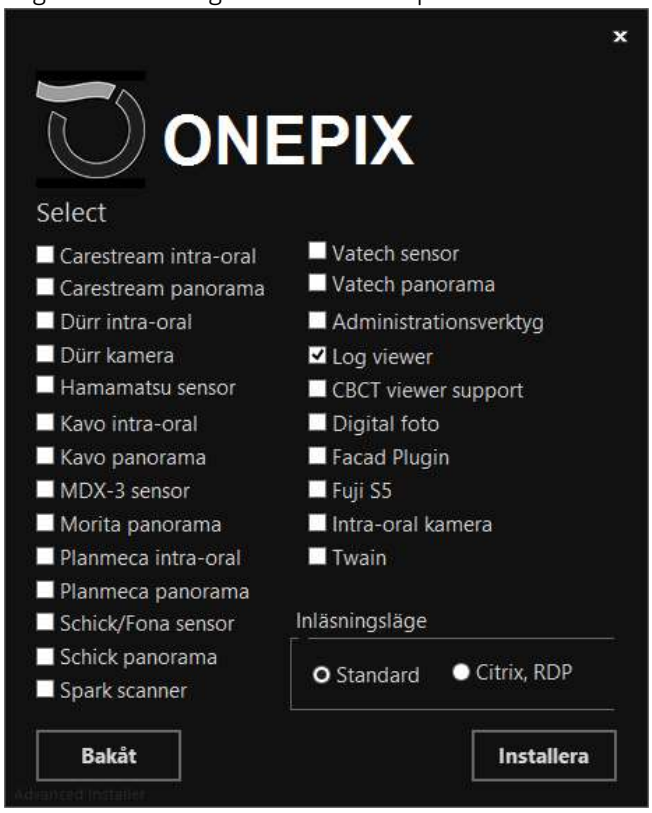
- OnepixAutomation.exe "PatientID" "Lastname" "Firstname" 39 "" "" "ClinicDentistUniqueID"

ONEPIX LOG VIEWER

From Onepix version 2.3, all activity is logged in the same database as the images. In other words, no separate installations are required for activity logging. Logging takes place in the database table named *Audit* where the following activity is saved:

- Login
- Logout
- Open patient
- Move Exam
- Move Series
- Move Image
- Delete Exam
- Delete Series
- New Exam
- New Series
- New Image
- Export Image
- Open Image
- Modify Image
- Detach Image
- Attach Image

To be able to access the log, you can install the program Onepix Log Viewer by checking Log Viewer during the installation process.



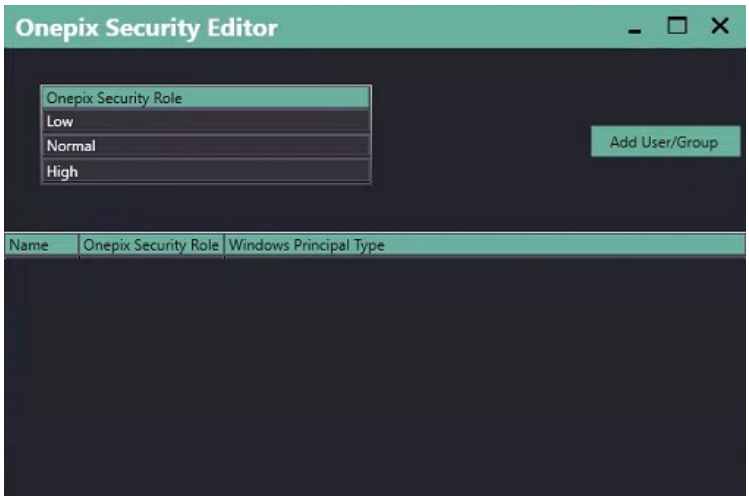
The program is installed in the same directory as OnepixClient and a shortcut is created on the desktop.

To take part of the information that is logged in the Audit table, launch the Onepix Log Viewer program. Here you can search for Patient (PatientID/Social Security Number), User(Windows username), or Computer name.

The result can be exported in CSV format that can be opened in an external text editor if desired.

ONEPIX SECURITY EDITOR ONEPIX LOCAL

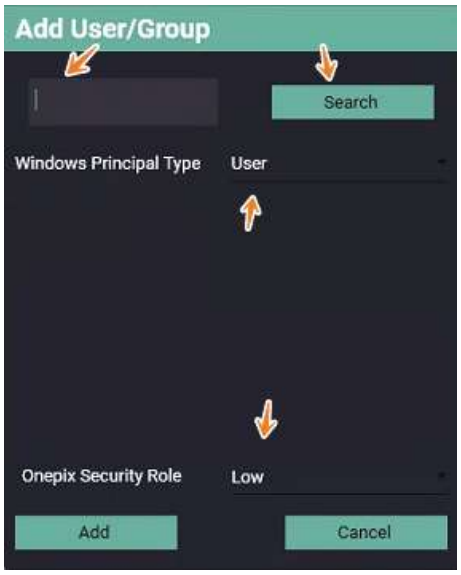
With Security Editor you can restrict access to functions that can be controlled by assigning Windows users a permission level: Low, Medium, or High.



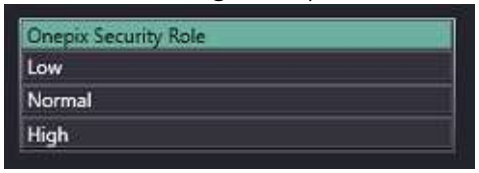
Security Editor is installed using the Onepix client package. A shortcut to the program is installed on the desktop.

The database is updated with the *dbo tables. SecurityRole* and *dbo. SIDToSecurityRole,* these tables should be assigned the following rights for all users connecting to the database: SELECT. Administrators should be granted the following rights: ALTER, SELECT, INSERT, UPDATE, DELETE

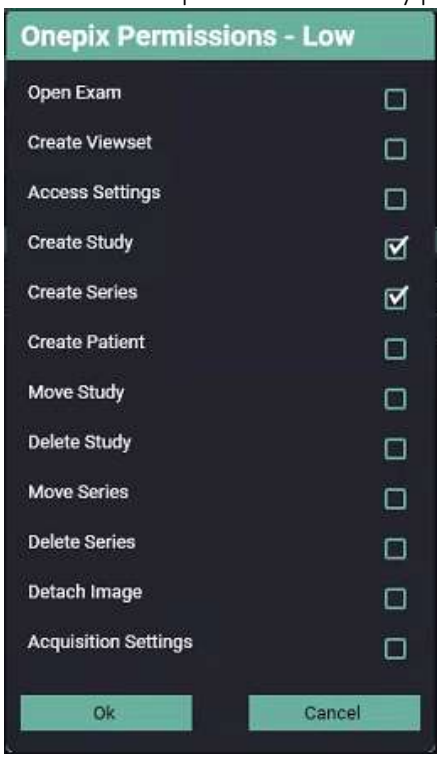
To add users, click the Add User/Group button. Search for a user or group in your domain. Select the entry in the result, select a permission level, and click the Add button.



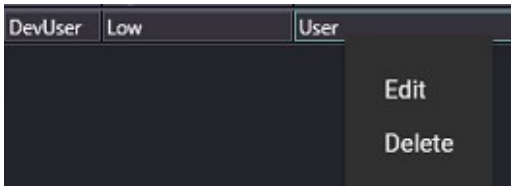
The permission levels Low, Medium, and High can be edited by right-clicking on each level and selecting Modify.



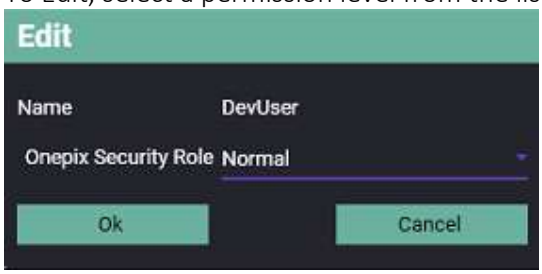
Here are examples of low security permissions.



To change/delete the user/group list, right-click the user/group and select Edit or Delete.

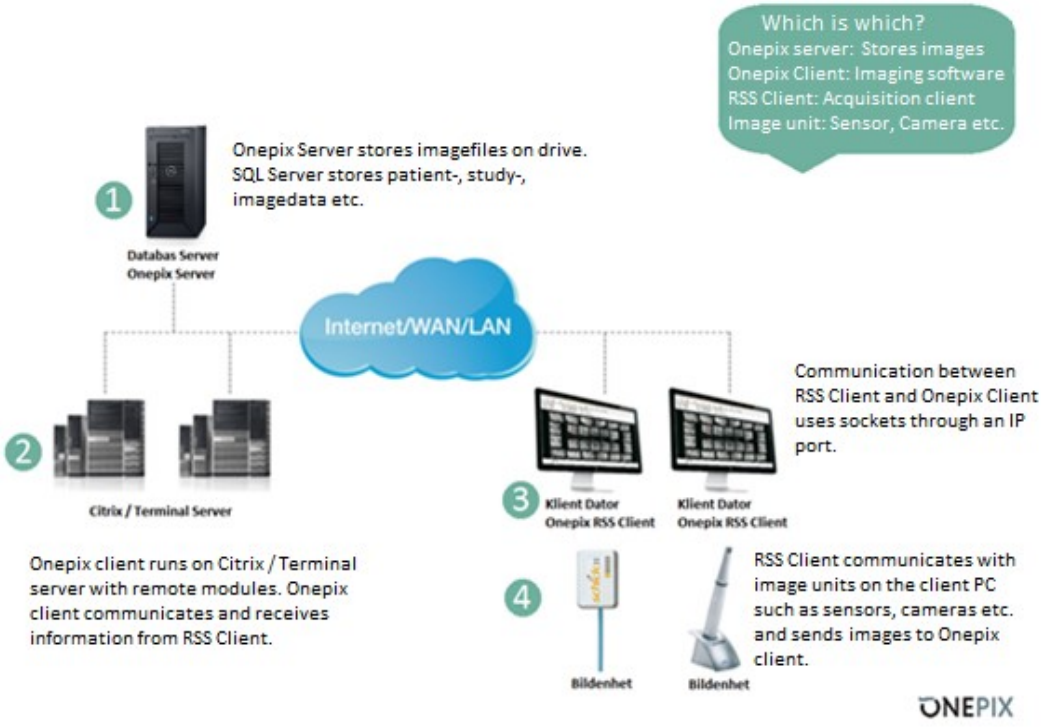


To Edit, select a permission level from the list and click Ok



INSTALLATION RSS CLIENT 5.4.1 ONEPIX LOCAL

GET TO KNOW ONEPIX RSS



The Onepix RSS client communicates with Onepix on port 27016 (TCP). This means that this port must be open between the Onepix client and the Onepix RSS client for the system to work.

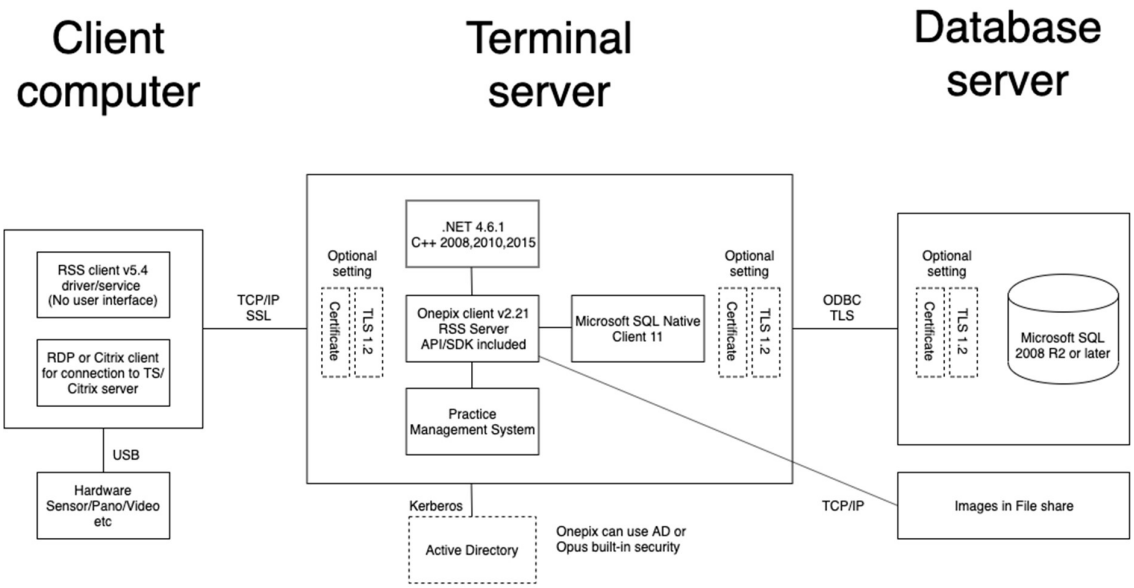
Even if the client PC does not have the Onepix RSS client installed, this port must be open if Onepix is to be used for image review from the client PC. If the port isn't open, Onepix will need about 30 seconds per module to start at startup. This can take a long time depending on how many modules are installed.

INSTALLATION REQUIREMENTS RSSCLIENT

This installation assumes that Onepix 2.1 or later is installed on the Citrixserver / Terminalserver. Read more about this under the installation section of the Onepix user manual. It also assumes that the Onepix client is started once to test functionality and that the connection to the database and image storage works. Client computer requirements:

- Windows 7 32/64bit, Windows 8.1 32/64bit, Windows 10 32/64bit
- RSS Client requires .NET Framework 4.6.1 or later to work.

REAL WORLD OVERVIEW ONEPIX LOCAL TS OR CITRIX ENVIRONMENT



INSTALLATION OF ONEPIX CLIENT ON CITRIX / TERMINAL SERVER

Support for acquisition in Citrix / Terminal Server is now installed with the same installation package as the Onepix client. Use a installation package of Onepix 2.1 or later.

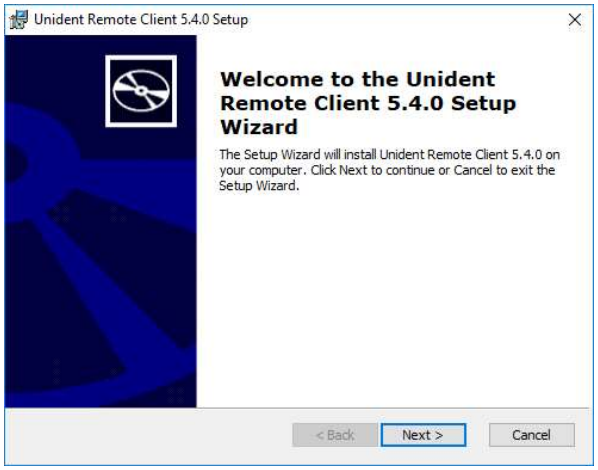
Select the acquisition modules to use, it is important to select the Citrix, RDP acquisition mode and click Install. Launch the Onepix client once to set up the database connection as well as activate the license code.

NOTE In order to use Onepix in the Citrix/Terminal Server environment, a "Remote" license is required. Read more about this under the installation section of the Onepix user manual.

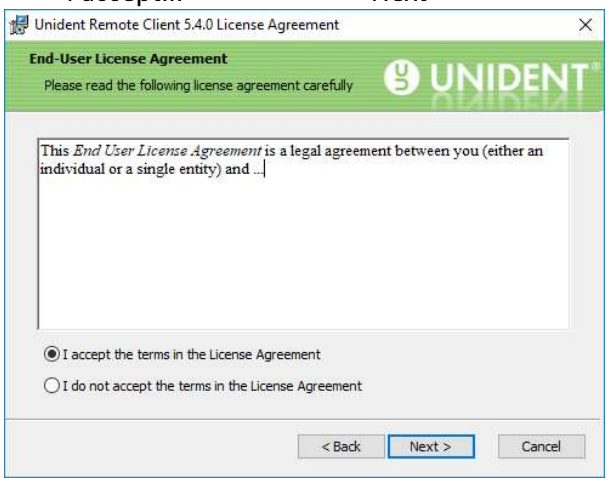
INSTALLATION OF ONEPIX RSS CLIENT ON CLIENTCOMPUTER/THIN CLIENT

Run *OnepixRSSClient5.4. 1_x86.msi* or *OnepixRSSClient5.4. 1_x64.msi*

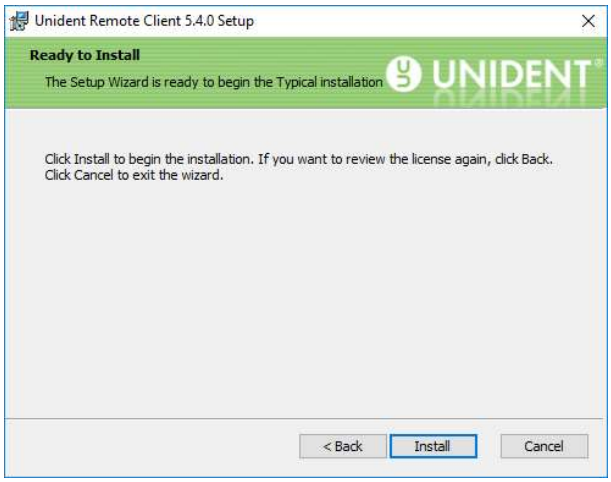
Click Next to continue the installation.



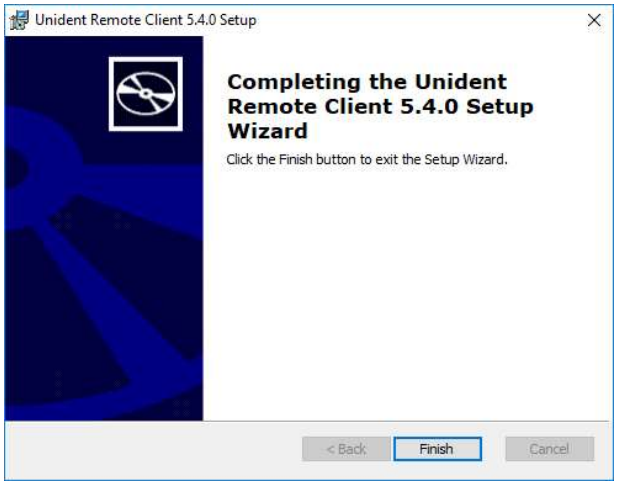
Click I accept... and then click Next.

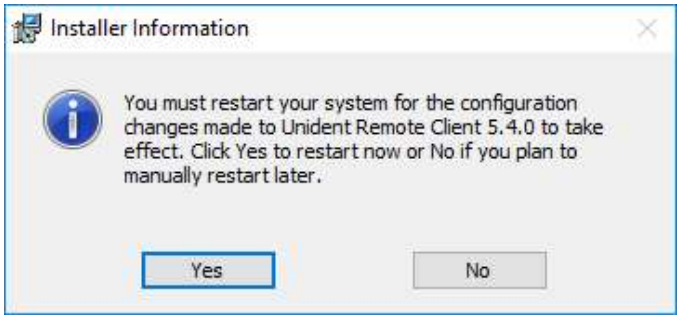


Click Install to start the installation.



Click **Finish**.





Onepix RSS Client requires a reboot after installation. This is in order for the Onepix RSS Client process to be started, as the shortcut to the process can be found under Autostart in the Start menu. Click **Yes** to restart the computer.

INSTALLATION OF DRIVERS

The Onepix RSS Client 5.4.0 package already contains following drivers to maintain backward compatibility. Those that have (x86) at the end, only works on 32bit OS and are only available in OnepixRSSClientx86.msi package.

- Schick CDR 2000 USB Remote (x86)
- Schick CDR 2000 USB Remote HS
- Schick CDR Wireless (x86)
- Schick CDR Elite
- Schick 33
- Schick USBCam (x86)
- Schick USBCam2 x(x86)
- Schick USBCam4
- Schick Pan-X (x86)
- Schick iPan (x86)

All other hardware requires separate installation of drivers, these can be found on www.onepix.se/drivrutiner

CONFIGURATION OF ACQUISITION MODULES IN ONEPIX RSS

Configuration of the various acquisition modules used on the local client is controlled via XML files. These files are centrally managed from the servers and are automatically installed in the *C:\[ProgramData]\Schick Technologies\CDR\ModuleConfigs* directory, but can be moved to any location.

If you move these files and directories to another location, change the path in the registry on the Citrix/RDP server in the key:
HKEY_LOCAL_MACHINE\SOFTWARE\Unident AB\RSS\ConfigPath.

[ConfigPath] contains the files that determine the default configuration for all connected clients. The files that should be located here are: Importplugin.xml, Pano.xml, PanoVatech.xml, Photo.xml, SynergyUSB.xml, TwainPlugin, Video.xml, Xray.xml.

After installation, there is also a file called wireless.xml.example. This is an example file that shows what the wireless sensor registration file should look like. This should be placed in each client's directory under [Configpath], renamed wireless.xml in the cases where wireless Schick sensors are used.

CUSTOM CONFIGURATION CLIENT

When a client should have a configuration that is different from the default configuration, create a folder under "ConfigPath" and name it after the client computer name. Then copy in the XML files that this client needs (depends on the features the client will use) and make the required changes to the files.

In order for the clients running Onepix RSS to load the settings from the server, an empty file named "loadmodules" must be in the client's directory.

CENTRALLY STORED CALIBRATION FILES FOR SENSORS

Onepix RSS has a function that goes out and retrieves the calibration file that the client needs from a central location and puts it locally on the computer. This is done to speed up the image capture process.

The path to the calibration files is set in the registry of the terminal server of the key:
HKEY_LOCAL_MACHINE\SOFTWARE\Unident AB\RSS\CalibPath

This does not apply to CDR Elite, Schick33 as well as Fona sensors, which have the calibration file built into the sensor and are calibrated automatically.

SETTINGS IN XML FILES

- Import plugin.xml
  Here settings are made for Card Import, the function of loading images to Onepix from memory cards or other folder.
- OnepixPhoto.xml
  New photo module that supports system cameras that have WIA support. Setting are made here for the new photo module.
- Pano.xml
  Here settings are made for panoramic machines from Schick Technologies. The machine models that are compatible are: CDR-Pan, CDR-PanX and iPan.
- PanoVatech.xml
  Here the choice of machine model is made. The machines you can choose from are annotated in the XML file.
- Photo.xml (Old photo module, remains for Fuji S5 support)
  Here settings are made for direct shooting of images into Onepix with extraoral camera. The camera models that are compatible are: Fuji S2, S3, S5. Nikon D90, D200, D300, D300S, D700.
- Video.xml
  This file is included for support for Intraoral cameras from Schick Technologies. The cameras that are compatible are USBCam1, USBCam2 and USBCam4. No settings need to be made in this file.
- Xray.xml
  Here general settings for sensors from Schick Technologies are made. The sensors that are compatible are: CDR 2000, CDR Wireless, CDR Elite, Schick 33.
- SynergyUSB.xml
  This is where the resolution of the Schick 33 sensor is set.

CONTENTS OF THE IMPORT PLUGIN.XML

Here it is set which compression and size to choose when card import is used. The user can change this manually, but every time the card import is started again, it returns to the set standard.

Default XML file

```
<!--
Compression levels:
0 = "Uncompressed"
1 = "High (2:1)"
2 = "Medium (5:1)"
3 = "Low (20:1)"

DefaultSize:
0 = "Small (1MP)"
1 = "Normal (2MP)"
2 = "Large (4MP)"
3 = "Very Large (6MP)"

-->
<?xml version='1.0' encoding='utf-8'?>
<settings>
        <key name="DefaultCompression" type="DWORD">3</key>
        <key name="DefaultSize" type="DWORD">1</key>
</settings>
```

ONEPIXPHOTO CONTENT.XML

Here you can set the size used on photos that are loaded via the digital camera module.

Default XML file

```
<?xml version='1.0' encoding='utf-8'?>
<settings>
<!--
ImageSize:
  0"Small (1MP)"
  1 "Normal (2MP)"
  2 "Large (4MP)"
  3 "Very large (6MP)"

-->
<key name="imageSize" type="string">0</key>
</settings>
```

CONTENT OF PANO.XML

The most common changes made here are to set the 12 bit acquisitionmode to 1 or 0. It is done by setting "ACQUIRE_12BITS" to 1 (12 bits) or 0 (8 bits)

Keep in mind here that the path to calibration files should not be central because the panoramic calibration file is not always unique and requires calibration on the client. DEVICE indicates the device used. Type "CDR-320" if you want to use the CDRPan sensor that uses PCI cards. Type "iPAN.SYS" if you want to use the iPAN sensor that has a USB interface. Type "PanElite.SYS" if you want to use PanElite Panorama/Kefalostat.

Default XML file

```
<?xml version='1.0' encoding='utf-8'?>
<settings>
	<key name="Acquire_12Bits" type="boolean">0</key>
	<key name="Auto_ACCEPT" type="boolean">1</key>
	<key name="Auto_Count" type="numerical">40</key>
	<key name="Auto_Thresh" type="numerical">15</key>
	<key name="Blanks" type="numerical">3</key>
	<key name="Calibrate" type="boolean">1</key>
	<key name="Clip_Saturated" type="boolean">1</key>
	<key name="Dark_Sub" type="boolean">1</key>
	<key name="Dark_Thresh" type="numerical">99</key>
	<key name="Device" type="string">iPAN.SYS</key>
	<key name="DeviceDll" type="string">PanoAcq.dll</key>
	<key name="direction" type="numerical">0</key>
	<key name="Eq_Thresh" type="numerical">9950</key>
	<key name="Equalize" type="boolean">0</key>
	<key name="Extra_Bad_Rows" type="boolean">0</key>
	<key name="Initial_Timeout" type="numerical">60</key>
	<key name="Lx" type="numerical">3200</key>
	<key name="Ly" type="numerical">1603</key>
	<key name="MapAutoThresh" type="boolean">0</key>
	<key name="Mapping" type="numerical">1</key>
	<key name="Nonlinear" type="boolean">1</key>
	<key name="Spot_Remover" type="boolean">0</key>
	<key name="Stop_Timeout" type="numerical">7</key>
	<key name="System_Path" type="string">C:\\Program Files\\Schick
Technologies\\Shared Files\\</key>
	<key name="Thresh" type="numerical">99</key>
</settings>
```

CONTENT OF PANOVATECH.XML

The following Vatech models are compatible: *Pax-PnP, Pax-Primo, Pax-500VS* • *Pax-Uni3D, Picasso Trio, Pax-Reve3D, Pax-Duo3D, Pax-Flex3D* and *VCaptureSW* compatible models. Under the key "DeviceType" it is defined which model is used.

Default XML file

```
<?xml version='1.0' encoding='utf-8'?>
<settings>
<!--
	devicetypes:
	5=PnP
```

```
        16=PAXUni3D_NP
        17=PAXUni3D_NC
        18=PAXUni3D_SP
        19=PAXUni3D_SC,
        22=Picasso Trio
        23=Picasso Pro
        24=Picasso Master
        25=PAXReve3D
        26=PAXPrimo
        30=VCaptureSW (Pax-i, Pax-i3D, Pax-i-3D Green, Pax-Insight, Pax-Flex3D)
-->
        <key name="DeviceType" type="DWORD">30</key>
        <key name="Debug" type="DWORD">0</key>
</settings>
```

CONTENT OF PHOTO.XML

Campath specifies a direct path to the folder where a digital camera can directly store images. CamType 0=Fuji Finepix S2/S3, CamType 1= Nikon D90, D200, D300, D300S, D5100, D610, D700, D7000, D7100, D7200, D7500 or Fuji Finepix S5. Camtype 2= Direct-connected digital camera. D1 set to 1 deletes the images in the directly connected digital camera folder.

Default XML file

```
<?xml version='1.0' encoding='utf-8'?>
<settings>
        <key name="CamPath" type="SZ"> </key>
        <key name="CamType" type="DWORD">1</key>
        <key name="d0" type="DWORD">1</key>
        <key name="d1" type="DWORD">0</key>
        <key name="d2" type="DWORD">0</key>
<!--
ImageSize:
  0 "Small (1MP)"
  1 "Normal (2MP)"
  2 "Large (4MP)"
  3 "Very large (6MP)"
-->
        <key name="ImageSize" type="DWORD">0</key>
</settings>
```

CONTENT IN VIDEO.XML

If an older version of the Schick intraoral camera is used, this can be configured here. For Schick USBCamX , nothing needs to be changed.

Default XML file

```
<?xml version='1.0' encoding='utf-8'?>
<settings>
        <key name="AutoWhite" type="numerical">1</key>
        <key name="CamPort" type="numerical">320</key>
```

```
        <key name="LightSource" type="numerical">1</key>
        <key name="Mode" type="numerical">0</key>
        <key name="UseCamera" type="numerical">0</key>
</settings>
```

CONTENT OF XRAY.XML

DEVICE indicates which sensor is used.

USBCDR.SYS = CDR2000 USB Remote (black)
CDRUSB2.DLL = CDR USB Remote HS (white)
SynergyUSB.DLL = CDR Elite, Schick 33
USBCDRW.SYS = Wireless 2
USBCDRSDX.SYS = Wireless SDX.

DEVICEDLL should be **ACQ32.DLL** for all sensors except CDR Elite and Schick 33 where it should be **SynergyACQ.dll**.
To configure filters (**ONLY FOR CDR ELITE**), **apply_postprocess** must be set to **1**. Filters are then set using **POST_PROCESS_LEVEL**:

1 = smooth
2 = edge low
3 = edge high
0 = none

To apply 12 bits of grayscale to the X-ray images**, ACQUIRE_12BITS** should be set to **1**.
There is also the option to disable the CDR Wireless base station when Onepix starts. **Base_Disabled** should then be set at value **1**.

SYSTEM_PATH is the local path to the sensor calibration file. This differs depending on the operating system:

- Windows XP - ***C:\Documents and Settings\All Users\Application Data\Schick Technologies\CDR\Sensors***
- Windows Vista/7/8/10 - ***C:\ProgramData\Schick Technologies\CDR\Sensors***

Default XML file

```
<?xml version='1.0' encoding='utf-8'?>
<settings>
        <key name="ACQUIRE_12BITS" type="numerical">1</key>
        <key name="AUTO_ACCEPT" type="numerical">1</key>
        <key name="AUTO_COUNT" type="numerical">40</key>
        <key name="AUTO_THRESH" type="numerical">15</key>
        <key name="CALIBRATE" type="numerical">1</key>
        <key name="DARK_SUB" type="numerical">1</key>
        <key name="DEVICE" type="string">SynergyUSB.DLL</key>
        <key name="DEVICEDLL" type="string">SynergyACQ.DLL</key>
        <key name="USB_AUTODETECT" type="boolean">0</key>
        <key name="apply_postprocess" type="boolean">0</key>
        <key name="POST_PROCESS_LEVEL" type="numerical">0</key>
```

```
        <key name="DynamicRangeMsg" type="numerical">0</key>
        <key name="EQ_MIN_COUNT" type="numerical">9999</key>
        <key name="EQ_THRESH" type="numerical">9950</key>
        <key name="EQ_THRESH0" type="numerical">0</key>
        <key name="EQUALIZE" type="numerical">0</key>
        <key name="EXP_TIME" type="numerical">15</key>
        <key name="FOOTPEDAL" type="numerical">0</key>
        <key name="FOOTPEDAL_ACTIVE" type="numerical">0</key>
        <key name="FOOTPEDAL_COM" type="numerical">1</key>
        <key name="GENERATE_PATID" type="numerical">0</key>
        <key name="INTEGRATE_TIME" type="numerical">7</key>
        <key name="MapAutoThresh" type="numerical">0</key>
        <key name="Mapping" type="numerical">1</key>
        <key name="NON_LINEAR" type="numerical">1</key>
        <key name="PHOENIX_INTEGRATE_TIME" type="numerical">7</key>
        <key name="PORT" type="numerical">768</key>
        <key name="RAMPUP" type="numerical">8</key>
        <key name="RAMPUP_IMG" type="numerical">6</key>
        <key name="RESET_DURATION" type="numerical">410</key>
        <key name="SERIES_FLIP" type="numerical">0</key>
        <key name="SPOT_REMOVER" type="numerical">0</key>
        <key name="SYSTEM_PATH" type="string">C:\\Documents and Settings\\All
Users\\Application Data\\Schick Technologies\\CDR\\Sensors\\</key>
        <key name="BASE_DISABLED" type="numerical">0</key>
</settings>
```

CONTENT IN SYNERGYUSB.XML

Here you set which resolution to use when acquiring with Schick 33 sensors. MAXIMUS_BINNED_MODE set to value 1, provides high resolution. Value 2 provides standard resolution.

Default XML file

```
<?xml version='1.0' encoding='utf-8'?>
<settings>
        <key name="MAXIMUS_BINNED_MODE" type="numerical">1</key>
</settings>
```

FUNCTIONAL CHECK

The following section describes how to perform a functional check of all modules after installing and configuring Onepix with Onepix RSS.

CARD IMPORT TEST

For this step you need a memory card with pictures and the memory card reader connected to a computer with the RSS client installed.

1. Insert a memory card into the card reader or plug in the camera with USB cable and turn on the camera.

2. Open a test patient in Onepix.
3. To create a new series, click NEW SERIES or NEW EXAM. Then select a series, e.g. CAMERA SERIES.
4. Click the "IMPORT" button to the right of the series. The images on the memory card should now appear in the preview box.
5. If you don't have any pictures on the card, you can select "Browse" to find the images locally on the computer.
6. When the images appear in the preview, click "IMPORT" to start importing the images into Onepix. The images shall now be displayed in Onepix after a moment.

IMAGE ACQUISITION TEST

Image acquisition is done in the same way no matter what hardware you choose, here are examples of how image acquisition can be done with X-ray sensor, photo or intraoral camera. For more information on image acquisition/imaging see the Onepix user manual.

X-ray sensor

For this step you need to have access to an X-ray tube, a sensor connected to the USBRemote box and a computer with the RSS client installed.

1. Open a test patient in Onepix via the "SEARCH PATIENT" function.
2. Create a new series by clicking NEW EXAM or NEW SERIES. Then select an X-ray series, e.g. HORIZONTAL BITEWING.
3. Make the sensor ready for image capture by clicking the +START symbol in an empty position or pressing the CTRL+T keys. The highlighted position on the screen should now light up green.
4. The sensor is now ready to be exposed with the X-ray machine. Feel free to place an object between the active surface of the sensor (flat side) and the X-ray tube. Please leave this to a nurse who knows how the X-ray machine works.
5. The image should now after a short time appear on the screen in Onepix.

Photo camera/Intraoral camera

For this step you need access to a system camera or an intraoral camera that is supported according to the compatibility list and a computer with the RSS client installed is needed.

1. Open a test patient in Onepix via the "SEARCH PATIENT" function.
2. Create a new series by clicking NEW EXAM or NEW SERIES. Then select a Camera series.
3. Get the camera ready for shooting by clicking the +START symbol in an empty position. The highlighted position on the screen should now light up green. (If it's an intraoral camera, then a preview window opens.)

4. Take a picture with the photo camera. (With intraoral camera, freeze an image and click the “Take Picture” button)
5. The image should now after a short time appear on the screen in Onepix.

CLIENT AND SERVER TROUBLESHOOTING

Server-side errors are logged under *%APPDATA%\Unident AB\Onepix\Logs* and on the RSS client side under *%APPDATA%\Unident AB\RSS*.

If the client does not have contact, first check that the process "RssClient.exe" is running on the client. The processes are displayed in the Task Manager. If the process is not running, start RSSClient by running "RSSClient.exe" located at the following path: *C:\Program Files\Unident AB\RssClient*.

The RSSClient process is started when Windows starts by being located in Autostart in the Start Menu. This process requires Microsoft .NET 4.6.1 installed to start.

If it still doesn't work, check that RSS is installed and that it is the correct version that is installed. Make sure you have followed the instructions in this document for configuring RSS and Onepix.