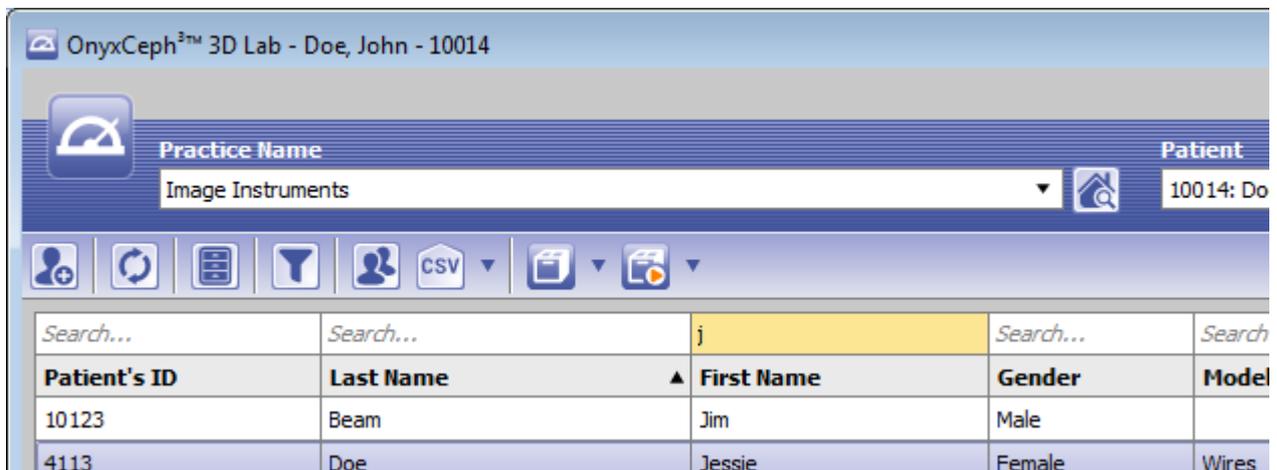


Container-Exchange

By its so-called container system, OnyxCeph^{3TM} supports a synchronized data exchange between multiple separate Onyx databases for the same or for different licensees. By this feature, e.g. one practice can handover and synchronize data between several locations in case a patient is moving between these locations. Or, a doctor can export complete cases to his notebook or home PC (e.g. for treatment preparation, case presentation, discussion with other doctors, courses, conferences etc.) and, if appropriate, can re-import and sync the cases after modification in the practice database.

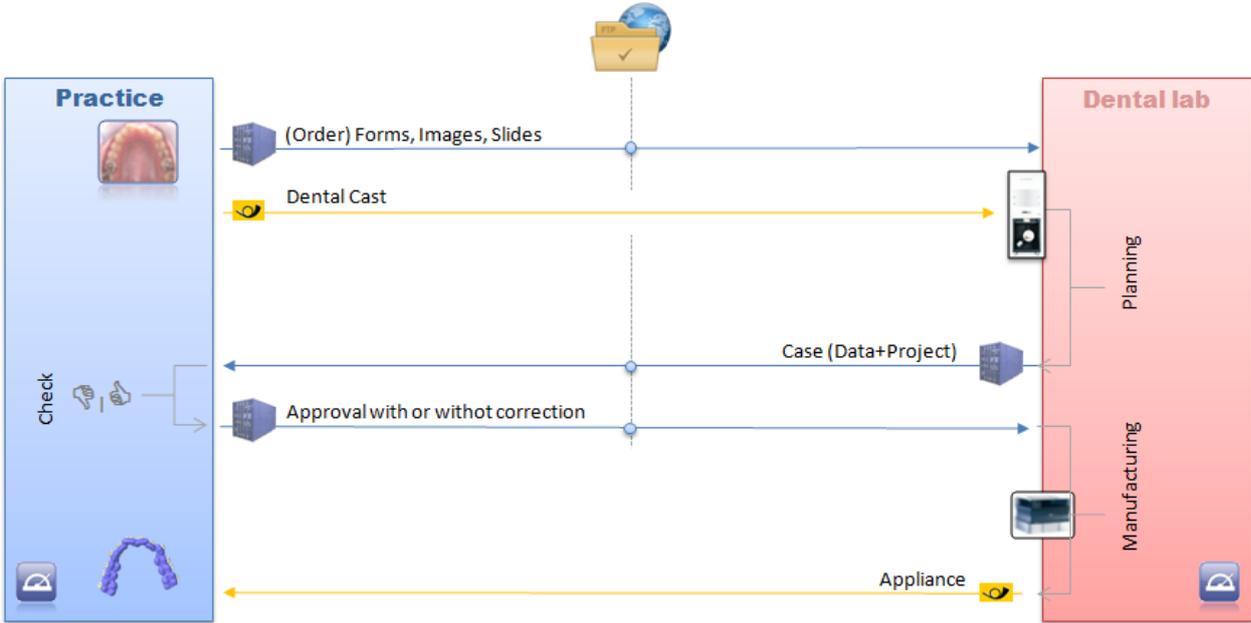
If the container system is used to import data from another OnyxCeph^{3TM} user, on the importing end a separate database section (Practice/Client) will be automatically created for the sender. All future data imported from the same licensee by container exchange will be added to this separate section. Thus, each such client has its own patient list.



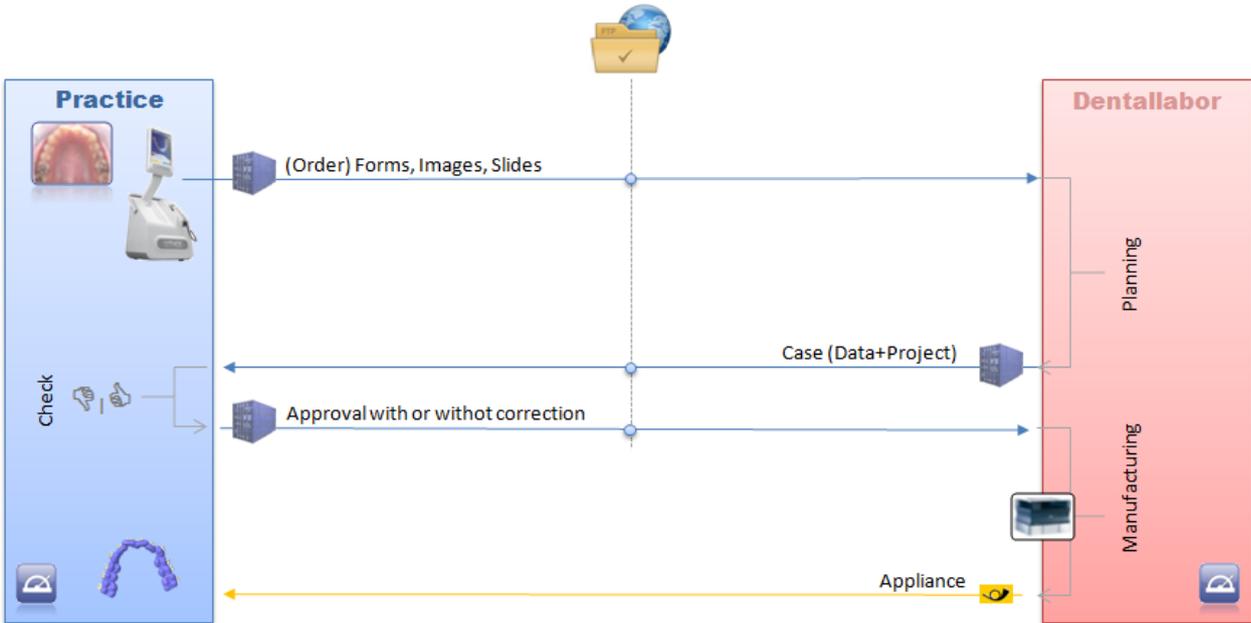
Switching between the patient lists of different practices/clients can either be done by dropdown menu "Practice Name" or in the list view of all clients which is opened by icon "Select Practice" [CTRL+SHIFT+P]. In the list view, the following partner practice information is available:

- Practice-ID
- Practice name
- Name (License owner)
- First name (License owner)
- Address
- ZIP code
- Town
- State
- Country
- Phone
- Fax
- Email

For dental labs and other dental service providers the ability to separately manage any number of Onyx communication partners (customers) allows to exchange and maintain all patient-related information and data in a very handy way if OnyxCeph^{3™} is used as a practice frontend software too as illustrated by the two images below.



In case also the 3D scanning process is performed in the practice itself, e.g. by an i/o scanner, all data and information exchange between practice and lab except the delivery of the manufactured treatment or i/d bonding appliances can be done completed digitally using the container exchange functionality.



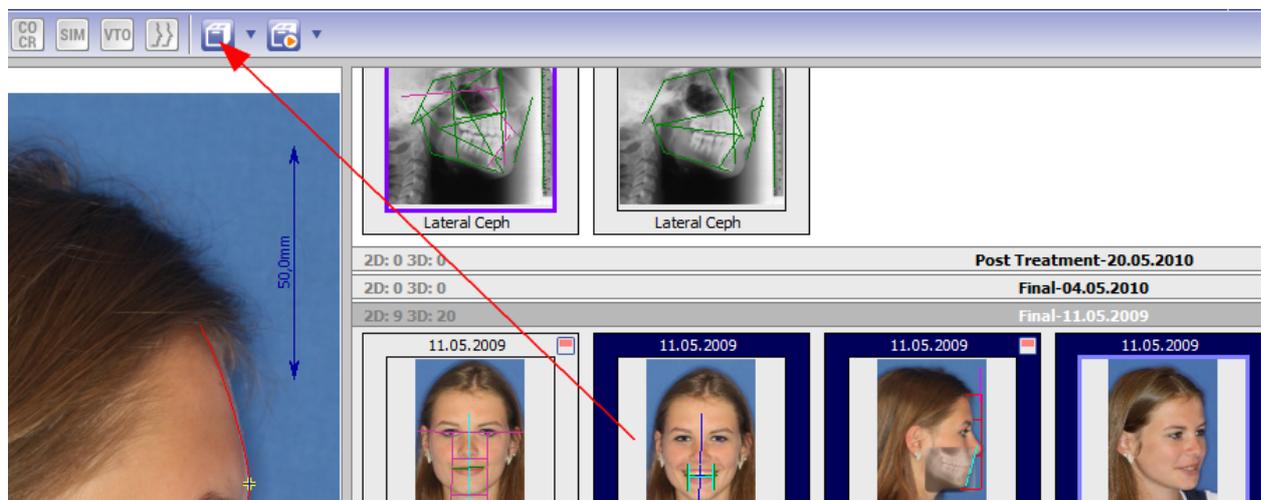
Populate Container

Containers can include 2D and 3D image data, presentation slides, and (order) forms for one or multiple patients. Consequently, the container icon appears identically on tabs |Images|, |Presentation| and |Forms| and on top of the patient list.

The current content of a container can either be complemented by new data or be deleted before adding new content.



Complementing is done by drag&drop of the pre-selected thumbnails for images, slides or forms.

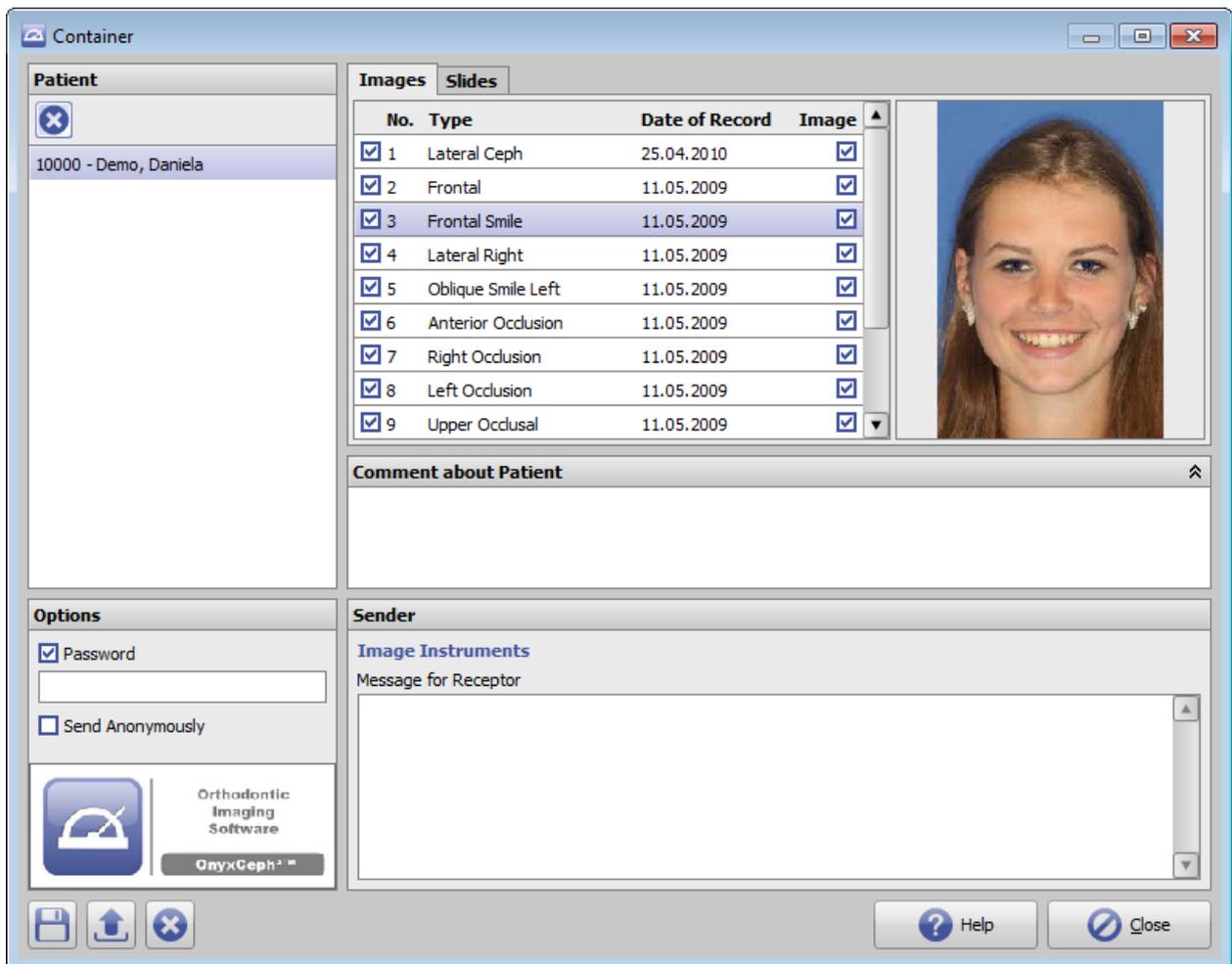


Manage Container

The current container content can be displayed in a separate window by the context menu Edit/Send of the container icon. In this window, it is possible to remove single records, and to add comments for single patients, general information for the receiver or to assign a container password.



By Checkbox [Image] right of each data list item it is controlled if the original image (which might already be existing in the database of the receiver) or alternatively only the image thumbnail could be (re-) transferred by the container.



Export Container

Containers can be saved locally in O3C file format by button [Save Container] and provided online or offline for the receiver thereafter.



For exchanging data on a continuous base as usual for dental laboratories, it is recommended to use a FTP server to transfer containers online. To do so, beside internet access on both ends, adequate server space is required. Additionally, the server login data need to be configured in the OnyxCeph^{3™} local system settings.

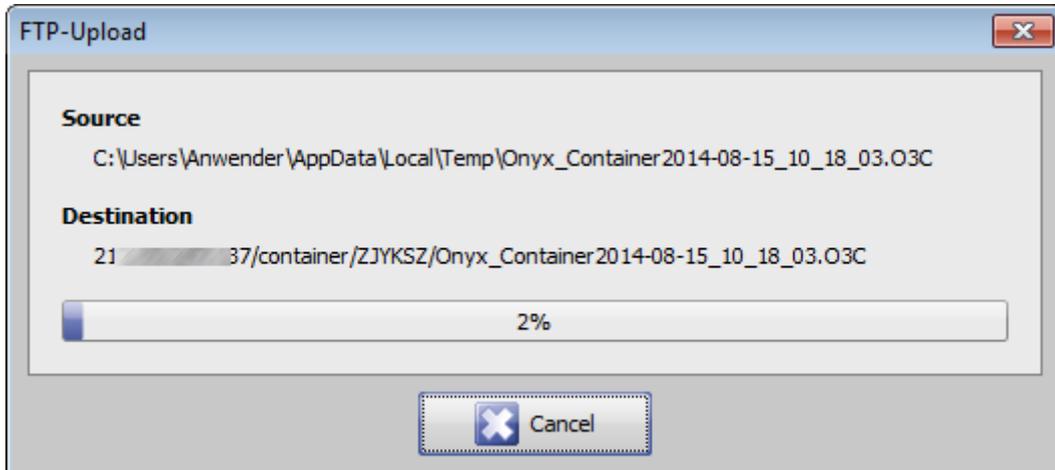


After the container content was compressed (zipped), a button list of FTP server connections available for container upload opens in a Send to ... window. In this list, the 1st button <First Button> represents the FTP upload login configured for the sender.



Each button following the <First Button> corresponds to FTP server login data of OnyxCeph^{3™} communication partners that have created their own incoming server. By importing containers sent by these partners, their FTP access data have been posted to the database and the corresponding button was created automatically.

This handling should allow dental lab customers to return the approved or corrected data to the service provider without additional preconditions directly onto the FTP incoming server of the laboratory. After the destination server was chosen, the data upload starts.



If the own FTP server was selected by the first button, after data upload is completed, a new email message will be displayed in the local standard email program to be sent to the designated customer or partner including the following content:

Password:
8Q1U361BLPFMW3RN M89WD7SALNGBN16ER35LDRUU2N7M

Link:
ftp://...@.../container/ZJYKSZ/Onyx_Container2014-08-15_10_18_03.

If the FTP server of a partner was selected by one of the buttons listed below the <First Button>, after data upload is completed, an OnyxCeph^{3™} internal form will be displayed which can be sent to the email address internally deposited for this client:

An OnyxCeph data container was uploaded on your FTP-Server.

Sender: [Name of the sending home client]

FTP Password:

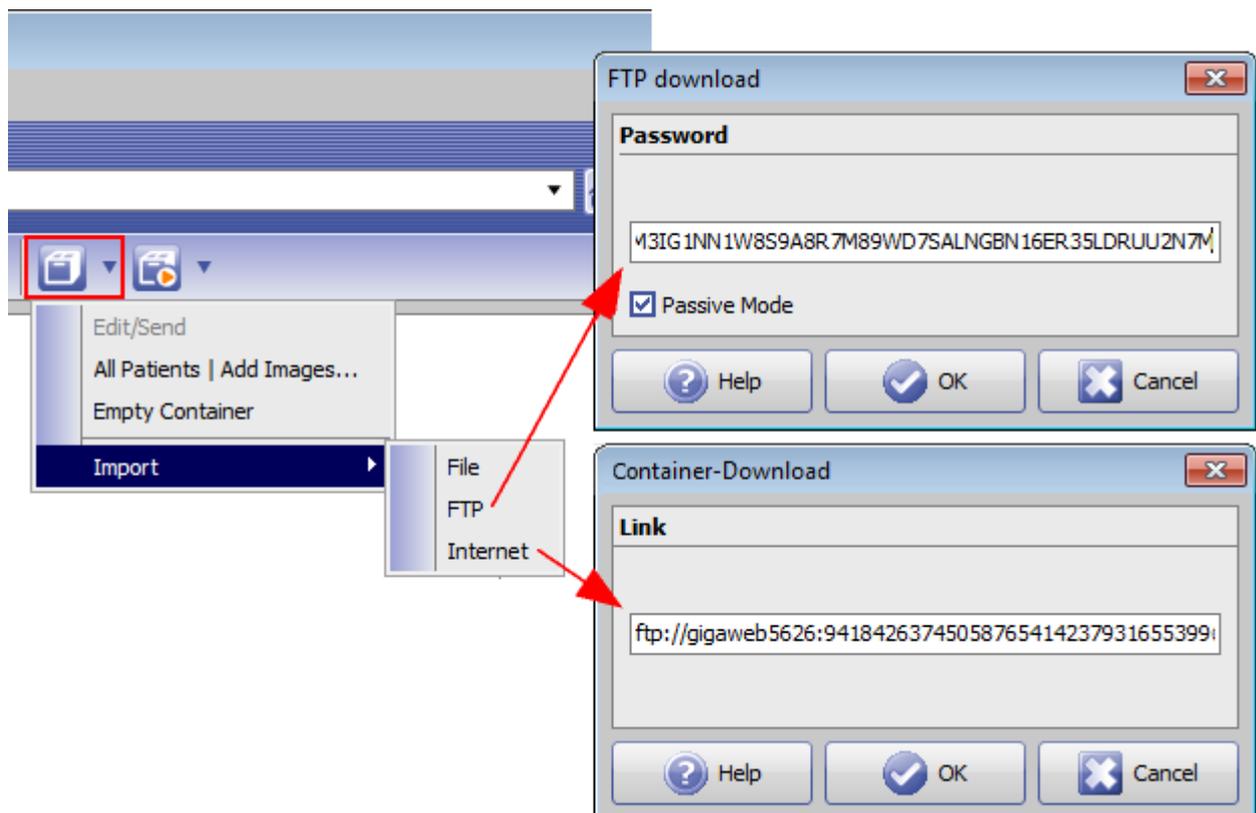
4768G3CXEQLPGR36 H2NX6K6C4E194EK2NNFDBJW8H63S

Comment: [optional]

Import Container

After the Email was received, the container file can be imported directly into the local OnyxCeph^{3™} database. For this purpose, either the main menu item *Communication/Container-Exchange/Import* or the context menu of the container icon top of the patient list can be used.

Alternatively, one of both links received by email (FTP or internet) can be selected.



After the download was completed and after the optional password was filled in (if any), the container content is shown in the container window. At this point it is still possible to exclude complete patient records or single images from import.

As a result of the import process the program displays the patient list for the sending client. If this was not available yet, it will be created automatically.

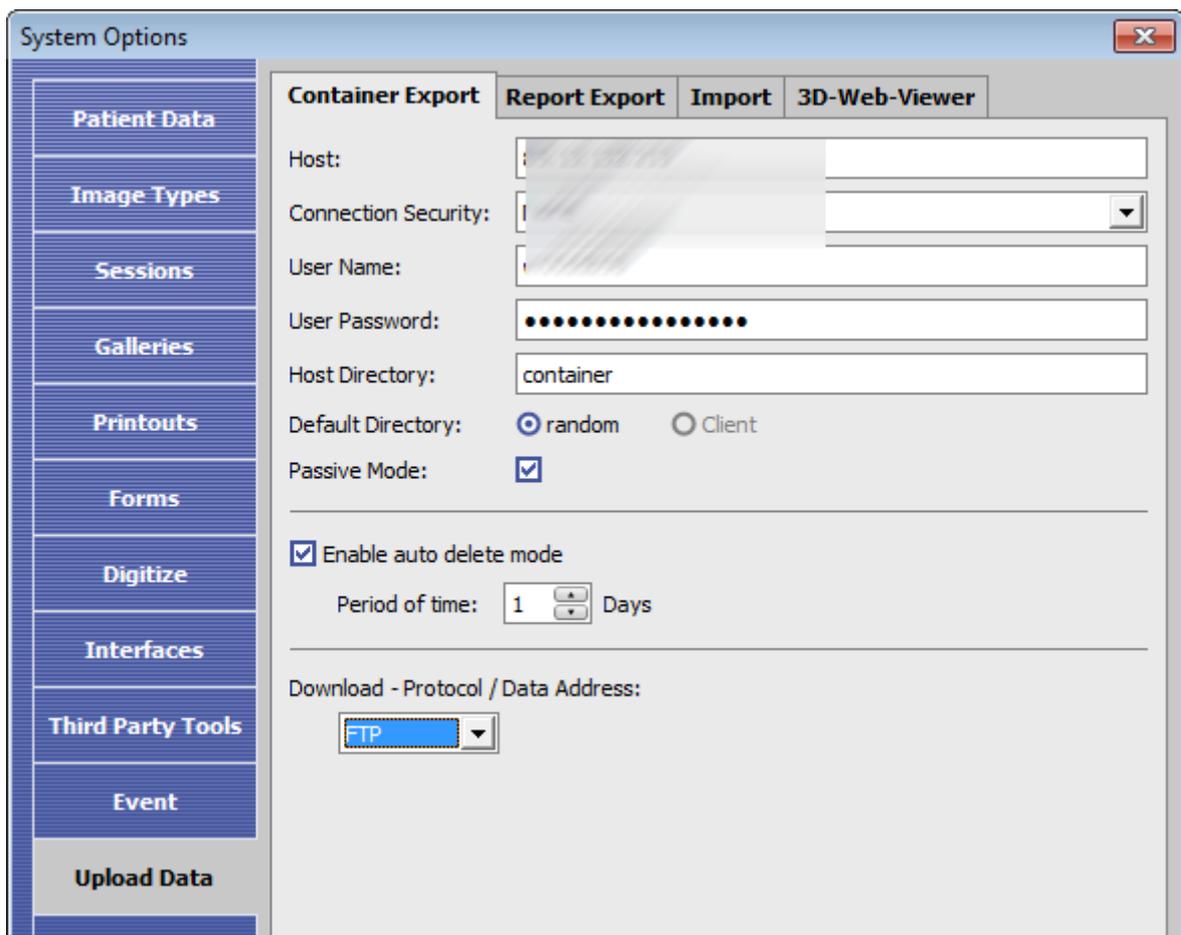
System Options | Upload Data

To upload container files to an outgoing directory on the own FTP server and to download such files sent by communication partners/customers from an incoming directory on the own FTP server, all of the below described settings need to be configured via menu Options|System Options on tab sheet Upload Data.

Separate settings are supported for outgoing and incoming data since this allows to set up different servers and permissions.

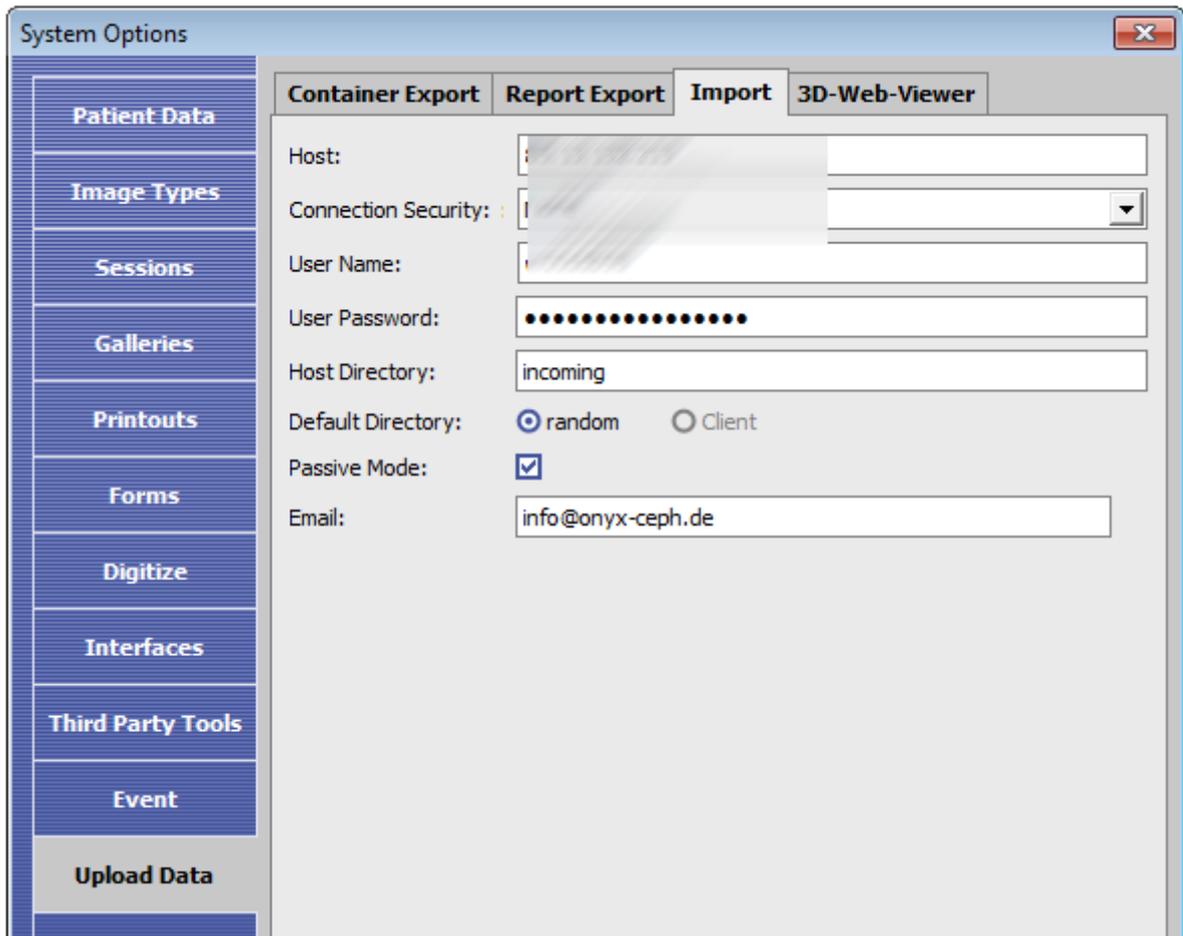
- **| Container Export | - Settings**

For data export, it is recommended to create a separate sub directory (e.g. ../container) and to assign permissions 775 to this sub directory on the FTP server. In the corresponding OnyxCeph^{3™} system options window all required access data incl. transfer mode (mostly: Passive Mode) have to be defined.



- | Import | - Settings

Also for data import it is recommended to create a separate sub directory (e.g. ../incoming) and to assign permissions 775 to this sub directory on the FTP server. Also here, in the corresponding OnyxCeph^{3™} system options window all required access data incl. transfer mode (mostly: Passive Mode) have to be defined.



In input field CGI Script the URL for a Perl script file (e.g. support.pl) must be filled in which makes sure that the information sent by an Onyx-internal webform is forwarded to the email address indicated above and that a confirmation of receipt is displayed by the URL below the input field.

Perl Script File

Without any obligation, the following code shows an example for a Perl script file for the conversion of OnyxCeph^{3™} internal webform content regarding the container transfer into an email message to the consigned address und for the display of a confirmation page.

```
# -----  
#!/usr/bin/perl -w  
  
# -----> SMTP-Program for sending mail:  
my $Sendmail_Prog = "/usr/lib/sendmail";  
  
# -----> Include module for CGI-Scripts:  
use CGI;  
use CGI::Carp qw(fatalsToBrowser);  
  
# -----> Apply module for CGI-Scripts for reading the form data:  
$query = new CGI;  
@names = $query->param;  
  
# -----> Read internal data from the hidden-Fields:  
$mailto = $query->param('mailto');      # ---> Email address  
$subject = $query->param('subject');    # ---> Email subject  
$delimiter = $query->param('delimiter'); # ---> Delimiter between name und value  
$returnhtml = $query->param('return');  # ---> URL for confirmation of receipt  
  
# -----> Extract email from form data:  
$mailtext = "";  
foreach(@names) {  
    $name = $_;  
    @values = "";  
    @values = $query->param($name);  
    if($name ne "mailto" && $name ne "return" && $name ne "subject" && $name ne "delimiter"  
    && $name ne "btnSubmit" && $name ne "btnClear") {  
        foreach $value (@values) {  
            $mailtext = $mailtext.$name;  
            $mailtext = $mailtext.$delimiter;  
            $mailtext = $mailtext.$value."\n";  
        }  
    }  
}  
  
# -----> Send email:  
open(MAIL,"|$Sendmail_Prog -t") || print STDERR "Not able to launch email program \n";  
print MAIL "To: $mailto\n";  
print MAIL "Subject: $subject\n\n";  
print MAIL "$mailtext\n";  
close(MAIL);  
  
# -----> Send confirmation:  
print "Location: $returnhtml\n\n";  
  
# -----
```

Finding Transfer Option

In case image/finding data have accidentally been assigned to the wrong client or patient record, it can be manually moved to the correct client and patient record.

Warning:

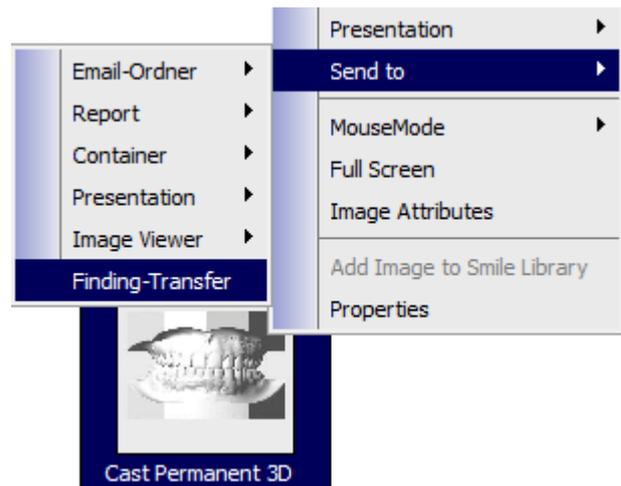
Be careful when manipulating the local user INI: Accidentally manipulating or deleting the INI content can result in undesired appearance and/or performance of the software application on the local workstation.

- **Selecting transfer data**

(Multi-) Select image data to be transferred and open context menu on one of the selected thumbnails while SHIFT+CTRL is pressed on the keyboard. Click *Sent to* ► | *Finding Transfer* in the context menu.

- **Pasting transfer data**

By menu *Patient* | *Select Patient* | *Finding Transfer* [CTRL+T] selected data are pasted into the active patient record. After finding transfer is completed, to avoid confusion, the wrongly assigned images should be deleted.



See also:



http://www.onyxwiki.net/doku.php?id=en:function_container

OnyxReport

While the above described container communication option can exclusively be used by and between authorized OnyxCeph^{3™} users, the OnyxReport option allows OnyxCeph^{3™} users to provide patient information and finding data also for non- (authorized) users by a standalone 2D|3D image viewer software.

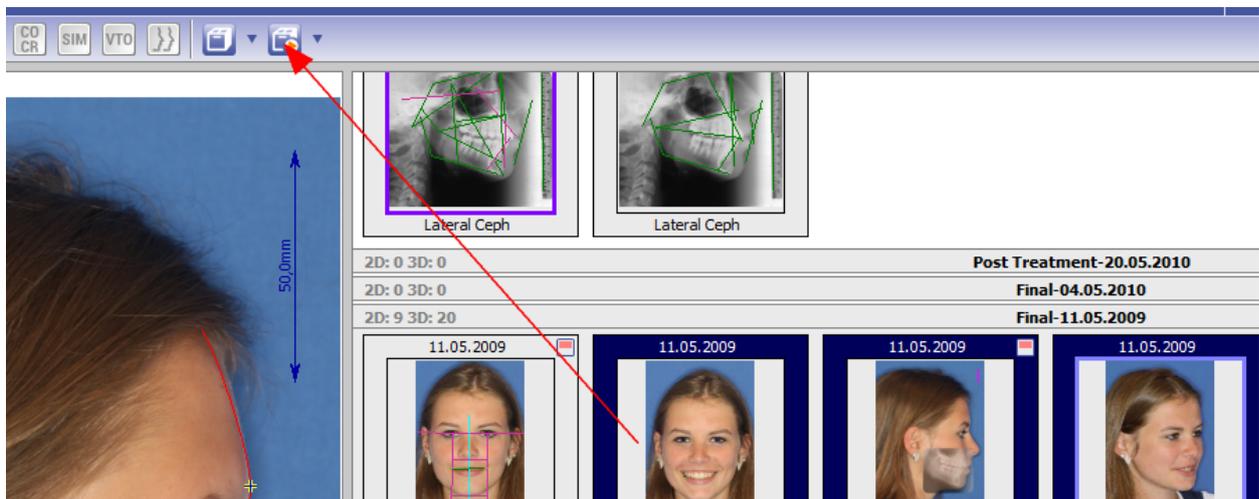
Create Report

Reports can include 2D and 3D image data and presentation slides for one or multiple patients. Consequently, the report icon appears identically on tabs |Images|, |Presentation| and on top of the patient list.

The current content of a report can either be complemented by new data or be deleted before adding new content.

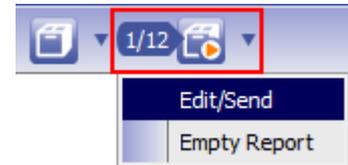


Complementing is done by drag&drop of the preselected thumbnails for images, slides or forms.

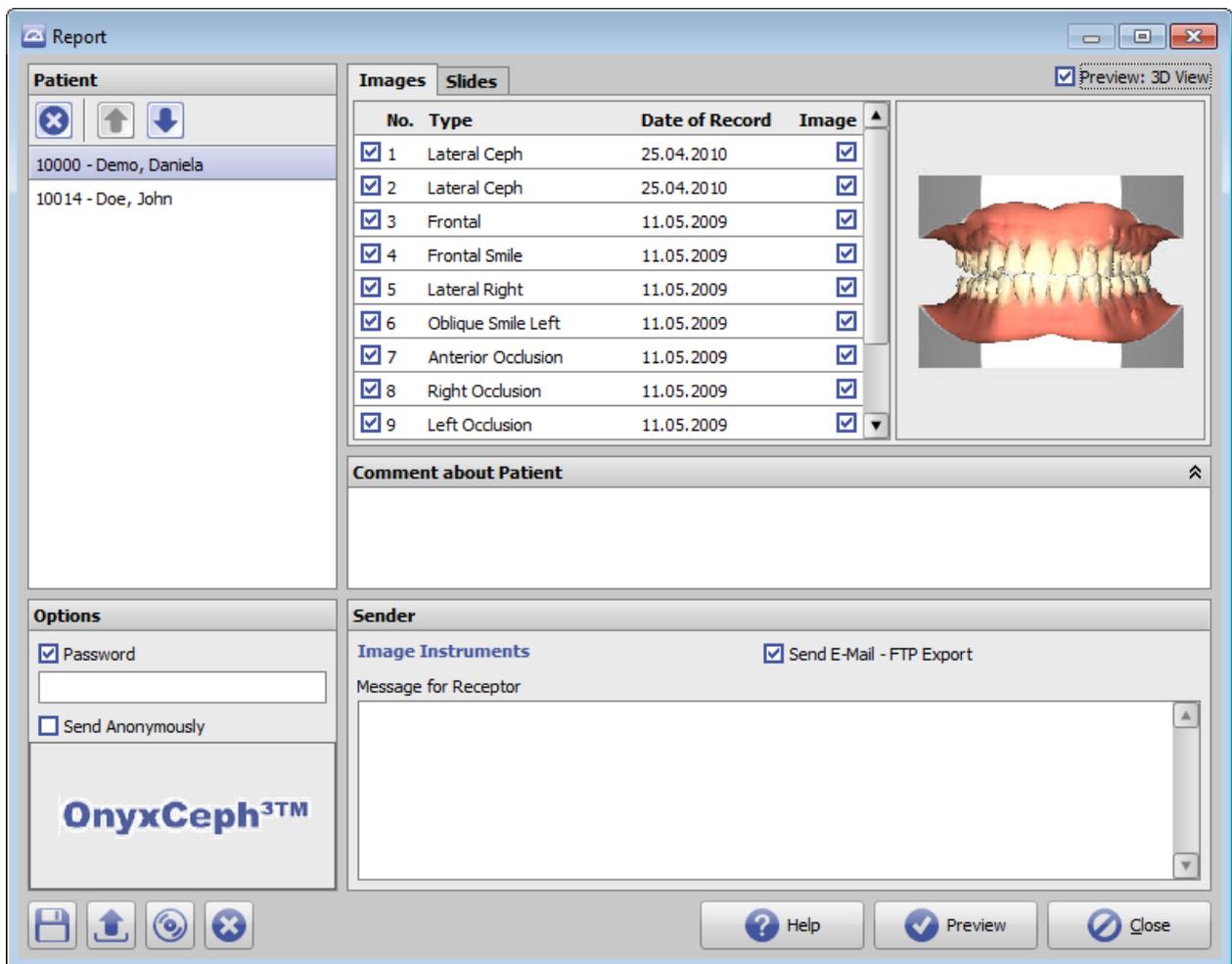


Manage Report

The current report content can be displayed in a separate window by item Edit/Send in the report icon context menu. In this window, it is possible to remove complete patient records, hide single image records, and to add comments for each patient, to add general information for the receiver or to assign an optional password.



Patient data (name, first name,) can be anonymized by activating the corresponding checkbox bottom left in panel Options.



Before saving or uploading, the content can be checked by opening the report in the report window by button [Preview].

Export Report

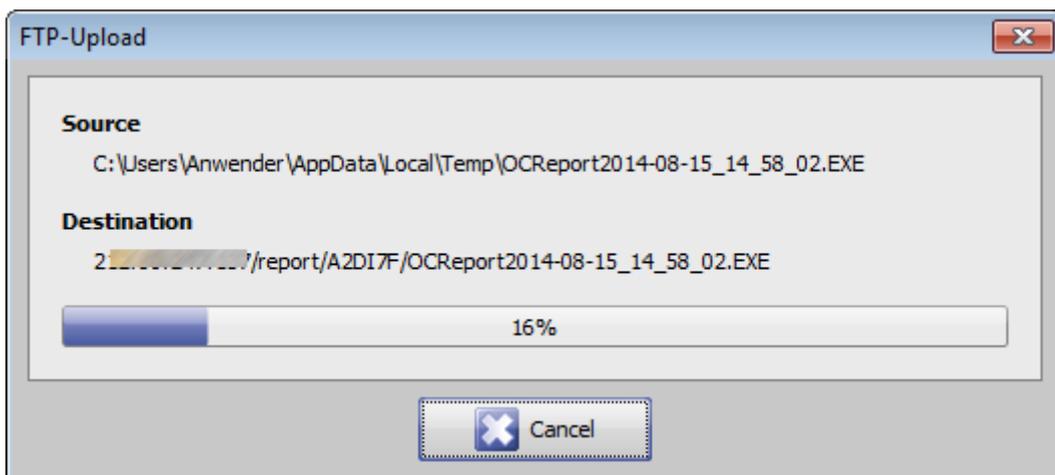
Reports can be saved as file in EXE format by button [Save Report] to be submitted to the receiver online or offline thereafter.



Since OnyxReport files are executables, sending such files attached to an email might fail b/c spam filters on incoming mail servers often remove such attachments for security reasons. Also because of this, it is recommended to use a FTP server to transfer reports online. To do so, beside internet access on both ends, adequate server space is required. Additionally, the server login data need to be configured in the OnyxCeph³™ local system settings.



After the report was compressed (zipped) in the local user folder, the data upload to the pre-configured FTP server starts immediately.



After data upload is completed, a new email message will be displayed in the local standard email program to be sent to the designated customer or partner including the following content:

Password: AW83

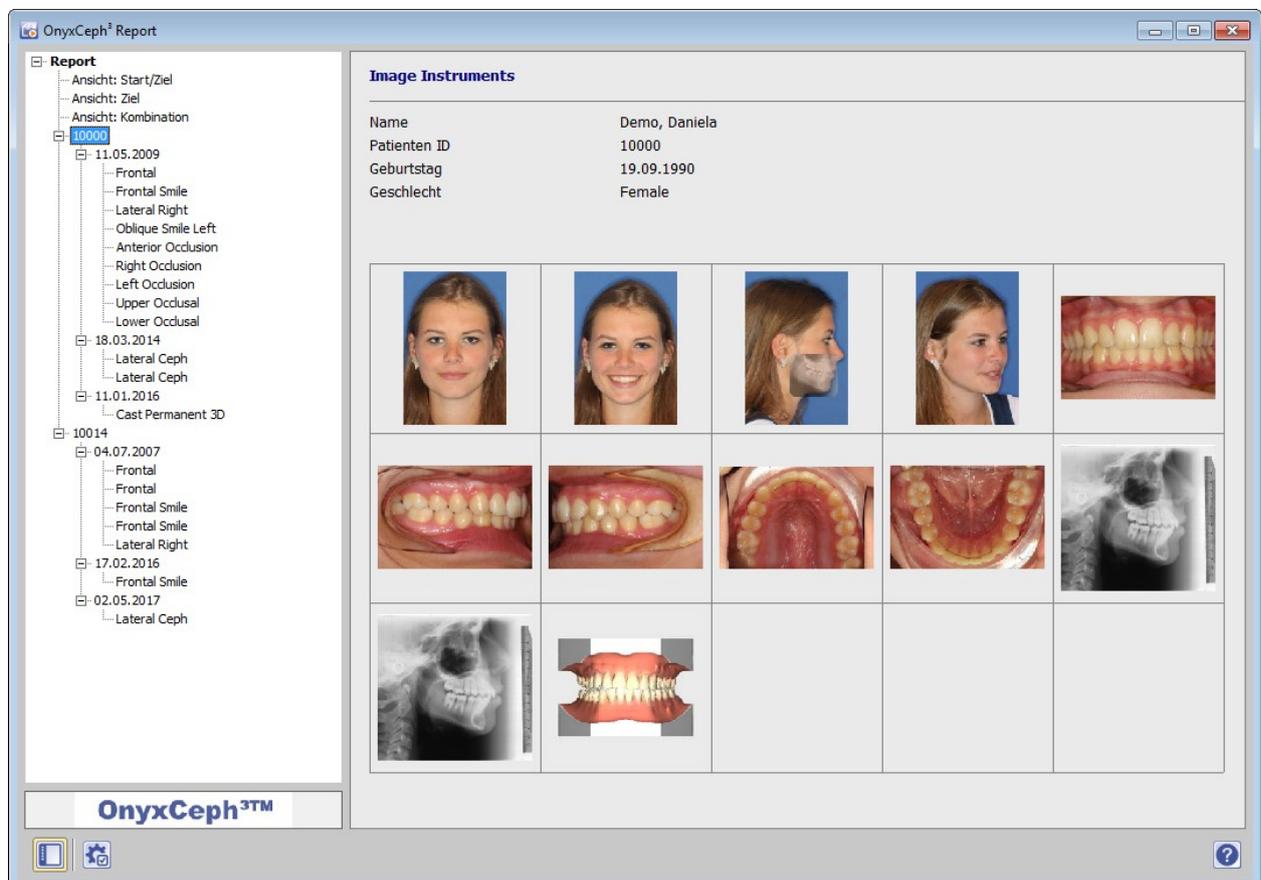
Link: ftp://...@.../report/A2DI7F/OCReport2014-08-15_14_58_02.EXE

In case the patient data in the report have not been anonymized, the password which is needed to open the report should be sent by a separate email.

Open Report

OnyxReport files are executables and can be launched by doubleclick as usual for EXE files.

After the report password was filled in (only assigned for reports sent via FTP server) and after language selection the report viewer opens with its more or less self-explaining graphical user interface providing several visualization options for the covered 2D and 3D data and linked graphical and alphanumerical information.



System Options | Upload Data

To upload report files to an outgoing directory on the own FTP server, all of the below described settings need to be configured via menu Options|System Options on tab sheet Upload Data.

- **| Report Export | - Settings**

For data export, it is recommended to create a separate sub directory (e.g. ../report) and to assign permissions 775 to this sub directory on the FTP server. In the corresponding OnyxCeph³™ system options window all required access data incl. transfer mode (mostly: Passive Mode) have to be defined.

The screenshot shows the 'System Options' dialog box with the 'Report Export' tab selected. The left sidebar contains a list of menu items: Patient Data, Image Types, Sessions, Galleries, Printouts, Forms, Digitize, Interfaces, Third Party Tools, Event, and Upload Data (which is highlighted). The main area of the dialog is divided into four tabs: Container Export, Report Export (active), Import, and 3D-Web-Viewer. The Report Export tab contains the following fields and options:

- Host: [Text input field]
- Connection Security: [Dropdown menu]
- User Name: [Text input field]
- User Password: [Text input field with masked characters]
- Host Directory: [Text input field containing 'report']
- Default Directory: random Client
- Passive Mode:
- Enable auto delete mode
- Period of time: [Spin box set to 20] Days
- Download - Protocol / Data Address: [Dropdown menu showing 'http://', 'FTP', 'http://', and 'https://'] [Text input field]

Web-Viewer

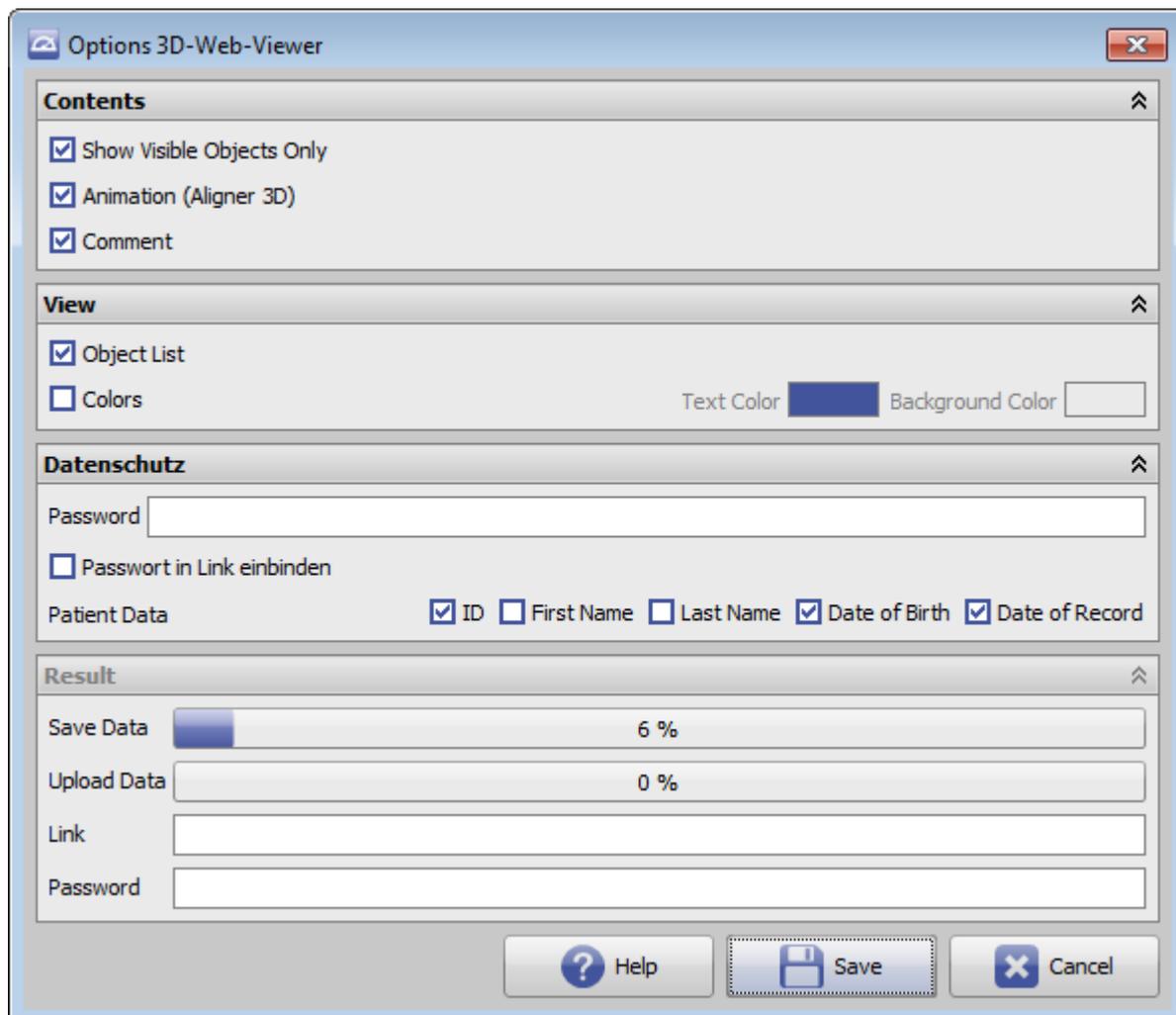
A nice and simple (but applicable to 3D surface data only) feature for the visualization of OnyxCeph^{3™} 3D data to partners/customers is to export and provide the files on a web server in IIWGL file format using webGL. This Option is only available in program version OnyxCeph3[™] 3D Lab.

Generate Web-View

A Web-View file can be created and uploaded by icon menu Web Export which is available in each 3D module with data export option. The menu command is also available in the context menu of each object list.



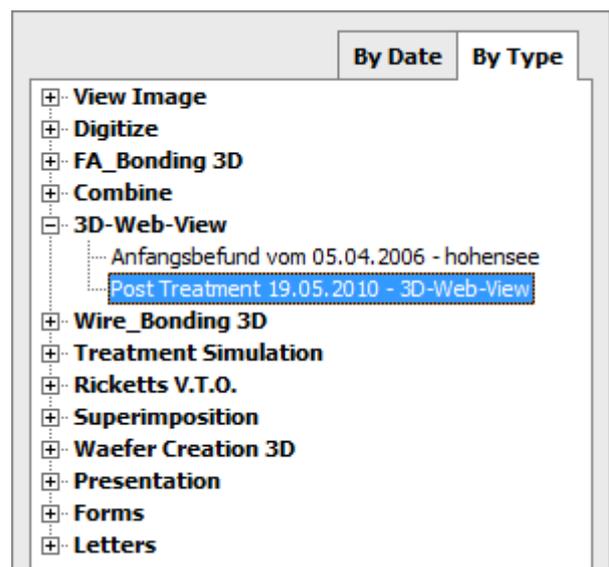
In the export window several options can be selected which will influence the appearance of the webview when displayed in the browser window.

A screenshot of the 'Options 3D-Web-Viewer' dialog box. The dialog has a title bar with a close button. It is divided into several sections: 'Contents' with checkboxes for 'Show Visible Objects Only', 'Animation (Aligner 3D)', and 'Comment'; 'View' with checkboxes for 'Object List' and 'Colors', and color selection fields for 'Text Color' and 'Background Color'; 'Datenschutz' with a 'Password' field, a checkbox for 'Passwort in Link einbinden', and a 'Patient Data' section with checkboxes for 'ID', 'First Name', 'Last Name', 'Date of Birth', and 'Date of Record'; and 'Result' with progress bars for 'Save Data' (6%) and 'Upload Data' (0%), and input fields for 'Link' and 'Password'. At the bottom are 'Help', 'Save', and 'Cancel' buttons.

By button [Save], all 3D objects activated in the data set object list, are converted into an OnyxCeph^{3™} - specific 3D WebGL file with encrypted file name and uploaded to the FTP Server defined in the local system options.

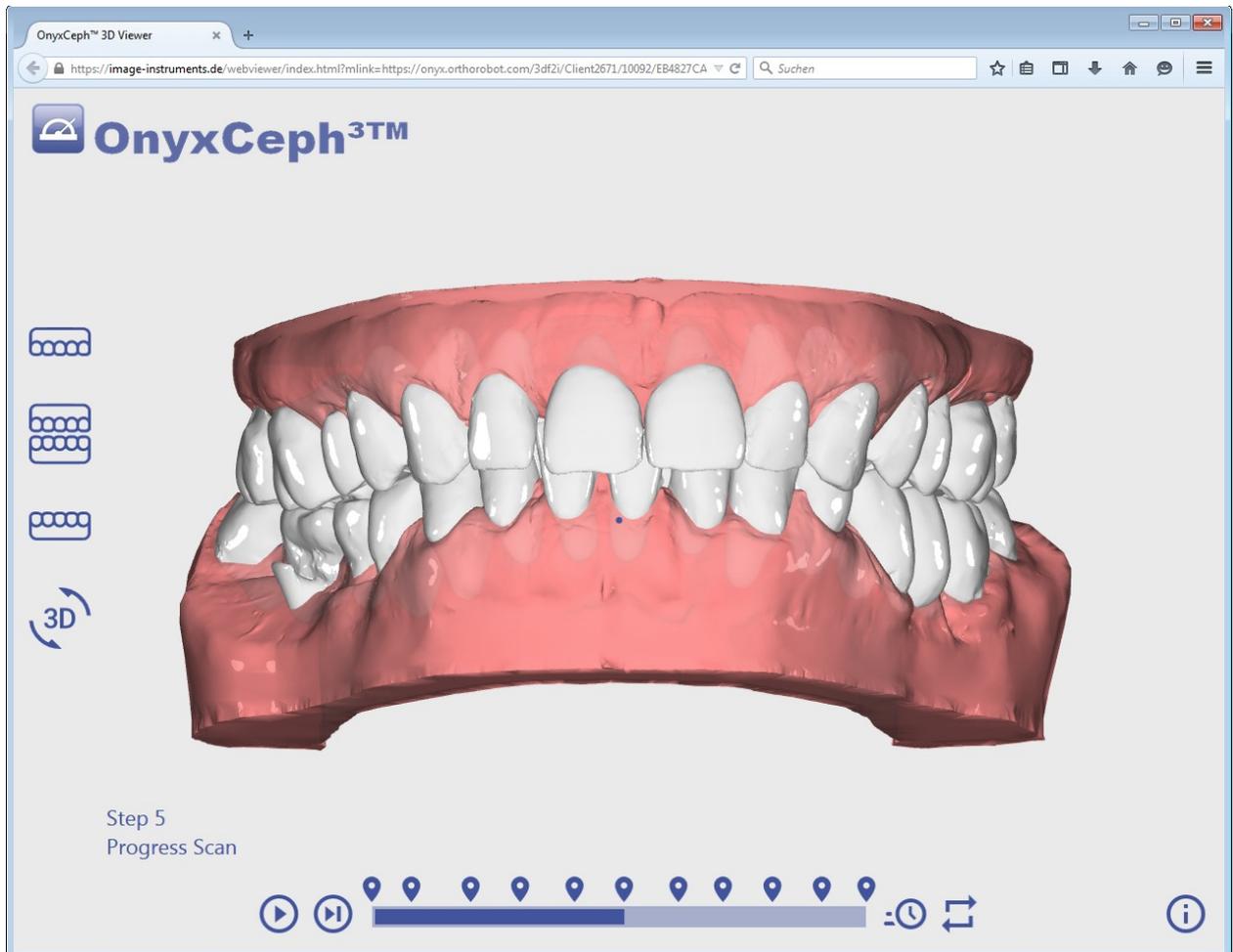
Entry	Description	Standard
Show Visible Objects Only	If checked, no invisible objects are exported to reduce the file size	on
Animation (source)	Include the animation which can be generated when saving the finding from the modules V.T.O. 3D, Aligner 3D or Sim 3D	on
Comment	Display the comment of the finding as static text in the webviewer	off
Object List	Show an Onyx-like list for modifying objects	off
Colors	Use individualized colors in the webviewer	off
Password	Always choose a new password for data protection (or leave empty for random password)	
Embed Password into Link	on: The password is written as part of the link (lower security), off: The password must be communicated separately and must be entered on starting the viewer (higher security)	off
Patient Data	Select the data to display on the information popup	all off
Link	Result which can be given to the user or can be embedded into a patient-specific web page	
Password	Only displayed then not included in the link	

After successful upload, a new entry with the assigned project name is added and displayed to knot 3D-Web-View in the QuickFind tree on tab |Patient|.



Open Web-View

This 3D-Web-View entry is linked with the URL of the IIWGL dataset and opens on doubleclick the website which was configured in system options in the local standard web browser to display the 3D object in an embedded iframe. To manipulate the 3D view, the identical controls can be applied as available in OnyxCeph³™.

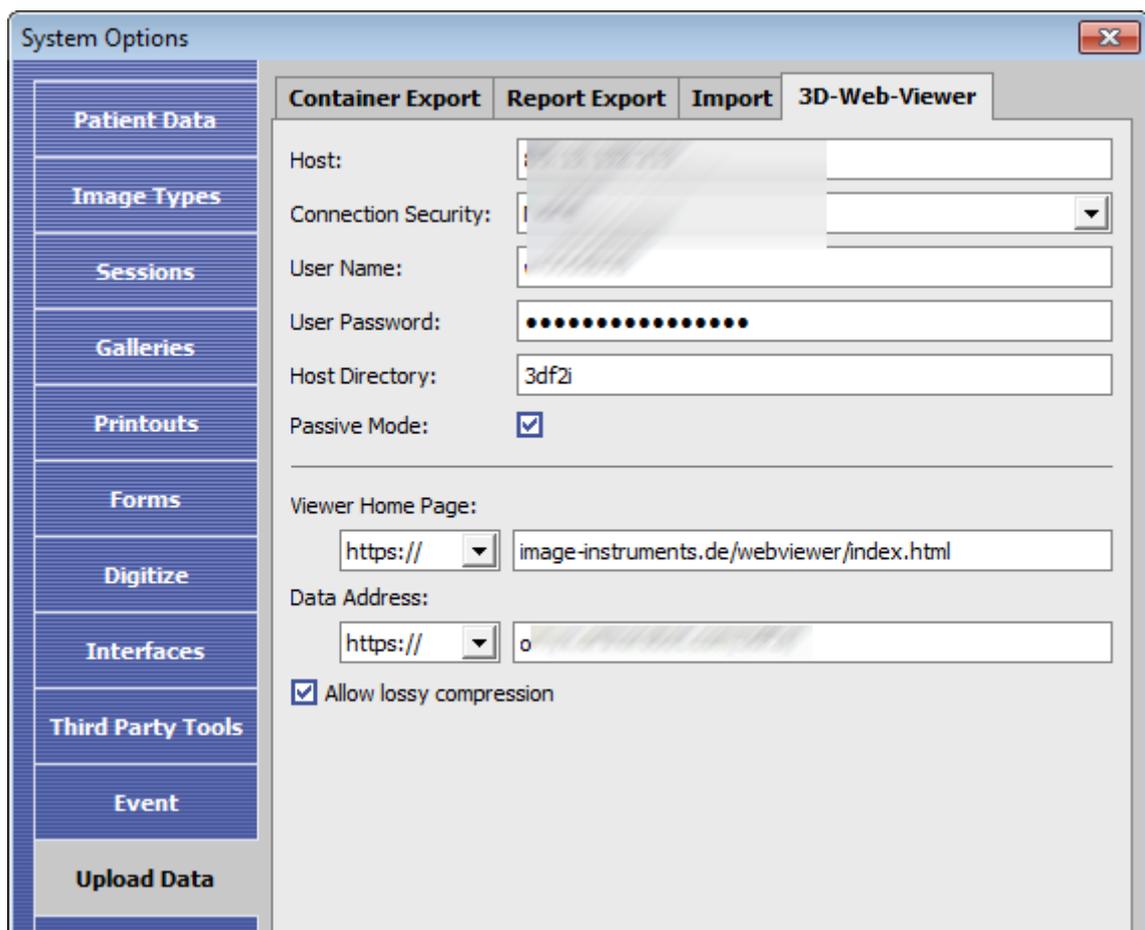


System Options | Upload Data

To upload all Web-Viewer files to a directory on the own FTP server, all of the below described settings need to be configured via menu Options|System Options on tab sheet Upload Data.

- | **3D-Web-Viewer | - Settings**

For data export, it is recommended to create a separate sub directory (e.g. ../3df2i) and to assign permissions 775 to this sub directory on the FTP server. In the corresponding OnyxCeph^{3™} system options window all required access data incl. transfer mode (mostly: Passive Mode) have to be defined.



The screenshot shows the 'System Options' dialog box with the '3D-Web-Viewer' tab selected. The sidebar on the left lists various system options, with 'Upload Data' highlighted. The main content area contains the following settings:

- Host:** [Empty text field]
- Connection Security:** [Dropdown menu]
- User Name:** [Empty text field]
- User Password:** [Text field with masked characters]
- Host Directory:** [Text field containing '3df2i']
- Passive Mode:**
- Viewer Home Page:** [Dropdown menu with 'https://' selected] [Text field containing 'image-instruments.de/webviewer/index.html']
- Data Address:** [Dropdown menu with 'https://' selected] [Text field containing 'o...']
- Allow lossy compression:**

Input field *Viewer Home Page* must include the URL of a website which is used to display the 3D file. It is in the users option, however, to link to <http://www.image-instruments.de/webviewer/> for this purpose. The associated HTML source code can also be copied, modified and moved to another web server instead.

Input field *Data Address* must include the HTTP address of the FTP sub directory (Host Directory) which is used to upload and host the Web-Viewer files. In this directory, a sub structure for each customer/client and for each patient of a client is automatically created and includes also a .htaccess file to manage access control.

Index File Homepage

The following source code is used for the default standard and can be downloaded, copied and modified by the user. Anyway, the iframe tag should not be modified other than the frame layout parameters.

- Take care of the valid sequence of protocols in both the iframe-embedding in the viewer homepage and in the configuration above (http >= https in Viewer Homepage > iFrame > Data-Address)
- Notice that the of the Host Directory might be different from the address from outside (Data Address)
- The minimal page for an individualized viewer looks like this:

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head> <title>My 3D Viewer</title> <meta http-equiv="Content-Type" content="text/html; charset=utf-8" /> </head>
<body>


<iframe      src="https://onyx.orthorobot.com/webviewer/main.html"      name="OnyxCephWebGL"
referrerpolicy="unsafe-url" style="position:fixed; top:0px; left:0px; bottom:0px; right:0px; width:100%;
height:100%; border:none; margin:0; padding:0; overflow:hidden; z-index:1;">Ihr Browser kann leider
keine eingebetteten Frames anzeigen</iframe>

</body>
</html>
```

See also:



http://www.onyxwiki.net/doku.php?id=function_webexport

Note

Image Instruments reserves the right to modify OnyxCeph^{3™} as a result of technological progress or to adapt new Windows™ operating system features or requirements.

Within the territory of the European Union, each user of the software is responsible for complying with the regulations of the medical device directive.

The CE label for OnyxCeph^{3™} as a medical software product is effective only for the latest available release.

For all questions about OnyxCeph^{3™} you could not find an answer within this summary, please contact Image Instruments directly by phone or email.



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