



**** OnyxCeph³™ Guidelines ****

How to transfer patient data to OnyxCeph³?

First a remark: OnyxCeph³ also supports the VDDS-media interface. Patient data could also be transferred using this interface (for more information see www.vdds.org)

1. Supported Data Tags

There are some ways of data delivery to OnyxCeph³: via command line parameters, via text file in .ini format or HTTP-request. Tags are used for transfer in any case. Following, you will find a survey of the tags supported:

1.1. Patient Data

Hand over this data for new patients in any case:

PatID	Unique ID, up to 50 Characters
Firstname	
Lastname	
Birthday	Format: YYYYMMDD e.g. "20090530" for 30.5.2009
Sex	Format: "M" for Male and "F" for Female
<u>Optional Data:</u>	
Middlename	
PreferedName	
Title	
Race	
Country	
State	
ZIP	
City	
Street	
Street2	
Doctor	
Email	
Cellular	
HomePhone	
WorkPhone	
PatTags	Keywords Concerning the Patient (Separated by ";")
PatMarker	Modify Marker in Patient-Tab 5 chars: „1" to set and „0" to reset the Marker, „-" no Change
InsuranceID	Insured Person Number of Health Insurance
Salutation	
ContactDate	Format: YYYYMMDD, e.g. "20090530"
ModellNr	Additional Cast ID
Notes	Explanatory Notes Concerning the Patient
Silent	Adoption of <u>New</u> Patients without Query Unattended Image Import (see 1.2.) Unattended Container Import (see 6.)
Overwrite	In <code>Silent</code> mode: Patient Data is Overwritten without Query

1.2. Tags for Images or 3D Data

In addition, image files can be handed over to OnyxCeph's image acquisition. Supported image formats are: BMP, TIF, JPG, GIF, CMP, PNG, PCX, IMG, DICOM and others.

In order to ensure correct image assignment you have to deliver at least the patient ID using the tag: `PatID` described above. You may also deliver all additional patient data.

2D image files as well as 3D data sets can be transferred.

All popular image formats and the following 3D file formats are supported:

`ii3 PLY DXF STL OBJ 3DS MSH OFF PMH BRE 3DC SOP o3m BCD ZPR OCXD`

Pass either 2D images or 3D data, not mixed!

For transferring of 2D images to OnyxCeph³, please, use the following tags:

`PicCount` Number of Images to Transfer

Optionally, you may force that the image files are deleted after acquisition (in case the files are temporary):

`PicErase` "Y" or "1" OnyxCeph³ Deletes the Files After Acquisition
 "N" or "0" (Default) OnyxCeph³ Doesn't Delete the Files.

This image information has to be handed over for any image in any case.

stands for the image number starting with 1; e.g. the first entry is `-PicPath1="C:\tmp\img.jpg"`

`PicPath#` Full Path of the Image File #

Optionally, you may deliver the following information on any image:

`PicInfo#` Additional Information, Just Like Tags, Comments, etc.
`PicDate#` Date of Acquisition, Format: `YYYYMMDD`, e.g. "20090530"
`PicTags#` Keywords Concerning the Image (Separated by ";")
`PicNote#` Image Comment (Lines Separated by ";")
 To pass a semicolon in the text, please use it double: `";;"`

Optionally, image data may be imported in unattended mode. For this transfer the following parameter:

`Silent` "Y" or "1" Images are Adopted without Image Acquisition Dialog

The following should be noted:

- Images or 3D-data will not be aligned and have to be edited later.
- Data is stored in a new session with the current date.
- All images get the image type "Unknown". This has to be adjusted later.
- All 3D-data of the same load is merged and stored as one finding.
- Volume data (CTs, DVTs) can not be imported in unattended mode.

1.3. Data of a Referring Doctor

Similar to the patient's data also data of the referring doctor can be optionally handed over.

Used Tags:

Ref_ID	Unique ID of the Referring Doctor (Always Required)
Ref_Employer	Name of the Referring Doctor's Practice,

Apart from that the same tags as for patient data are used. They have, however, to be extended by the prefix „**Ref_**“:

Ref_Firstname, Ref_Lastname, Ref_Sex, Ref_Middlename, Ref_PreferedName,
Ref_Title, Ref_Country, Ref_State, Ref_ZIP, Ref_City, Ref_Street, Ref_Street2,
Ref_Email, Ref_Cellular, Ref_HomePhone, Ref_WorkPhone, Ref_Notes

2. Transfer via Command Line Parameters

If patient and image data is transferred via command line parameters the file OnyxCeph.exe is started with the tags and followed by the values as command line. Any value should be formatted as follows:

-Tag="Value"

Between the values there has to be at least one space character. At the end of this text you find some examples.

3. Transfer via HTTP

If the infoservert is active in OnyxCeph³ master data can also be transferred to OnyxCeph³ via HTTP requests.

OnyxCeph³ operates as HTTP server and serves the configured port.

In case the checkbox **Only Local** is activated (Standard) only access from IP 127.0.0.1 is allowed.

Syntax

Server:Port/SetPat -Tag="Value" -Tag="Value" ...

If no space character is in Value the quotation marks can be omitted.

4. Transfer via Text File

For this a text file in INI format has to be generated. This file has to contain a [PatDat] paragraph. Patient and image data can be stored in this paragraph using the tags described above. Please, find an example at the end of this text.

In order to start data adoption OnyxCeph.exe has to be started with the following parameters: -PatID and -Data. After -Data= the entire path of the INI file has to be transferred together with the patient data.

OnyxCeph³ checks if the patient number delivered via PatID matches the patient number in the INI file. Only in case of consistency the data is adopted.

5. Transfer via DICOM File

A DICOM file includes patient data as well as image data.

If name and path of a DICOM file is handed over after the command line parameters:

```
-DICOM="File Name"
```

then the patient's master data is compared and the image is opened in the 2D image acquisition dialog.

The parameter `-PicErase` (see above) is also supported.

All other parameters are ignored and do not have to be handed over.

6. Import of .O3C-Containers

An .O3C-container-file comprises patient data as well as image data. It may include data of several patients.

If the path of the container-file is transferred after the command line parameter:

```
-ContainerFile="File Name"
```

the patient's master data and image data is compared. For this purpose the import dialog opens.

If the container was uploaded to an FTP-server the key can be transferred via command line parameter `ContainerFTP`:

```
-ContainerFTP="C5UW5SJNN3...B6DKHUWUQKD73"
```

With the parameter `Silent`, the display of the container import dialog can be suppressed. The container is read without any further dialog and the data are merged in. In the case of a conflict, the data of the container is always used.

```
-Silent=1
```

The command line parameter `ContainerNote` allows handing over of a string that can be attached to the comment of the images adopted. The comment may also be multi-line, the semicolon ";" is interpreted as a line feed:

```
-ContainerNote="Order=#0-8-15;Customer=13"
```

After import OnyxCeph³ automatically opens the respective client and patient.

All other parameters are ignored and do not have to be handed over.

7. Start Modules in OnyxCeph³

The parameters `ActionBefore` and `ActionAfter` allow starting of specific modules.

At present starting the following modules is supported (will be extended):

- **ActionBefore** (prior to master data comparison)
 - Copy patient: `-ActionBefore="CLONEPATIENT:123" -PatID="123New"`
- **ActionAfter** (after master data comparison or container import)
 - Presentation template: `-ActionAfter="PRESENTATION:TemplateName"`
 - Create a container with all patient data:
`-PatID="123" -ActionAfter="PATCONTAINER:C:\Temp\FileName.O3C"`

8. Detect Position of OnyxCeph.exe

In order to hand over the data you have to call `OnyxCeph.exe`.

This file is installed locally at any client. The default position is:

```
<ProgramFiles>\Image Instruments\Onyx3Client\OnyxCeph.exe
```

However, because this position can be changed during the client install, the safest way is to obtain the position of the client installation folder from the registry. Therefore you have to read the following key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Image Instruments\OnyxCeph\Install Path
```

There you find the folder of the OnyxCeph³ client.

9. Examples

First read the registry key:

```
"HKEY_LOCAL_MACHINE\SOFTWARE\Image Instruments\OnyxCeph\Install Path"  
The Value may be e.g. "c:\Program Files\Image Instruments\Onyx3Client\"
```

Transfer of a new patient, set the second Marker:

```
"c:\Program Files\Image Instruments\Onyx3Client\OnyxCeph.exe" -PatId="123"  
-Firstname="Test" -Lastname="Patient" -Birthday="19960313" -Sex="F"  
-PatMarker=-1---
```

Transfer of a patient together with his/her referring doctor:

```
"c:\Programme\Image Instruments\Onyx3Client\OnyxCeph.exe" -PatId="123"  
-Firstname="Test" -Ref_Lastname="Patient" -Ref_Id="456" -Ref_Firstname="Frank"  
-Ref_Lastname="Physician" -Ref_Title="Dr."
```

Assign a known referring doctor to a known patient:

```
"c:\Programme\Image Instruments\Onyx3Client\OnyxCeph.exe" -PatId="123"  
-Ref_Id="456"
```

Transfer of two images for an already known patient:

```
"c:\Programs\Image Instruments\Onyx3Client\OnyxCeph.exe" -PatId="123"  
-PicCount=2 -PicPath1="C:\temp\XRay.tif" -PicPath2="C:\My Images\Photo.jpg"
```

Transfer of two STL-files for a known patient, delete files after import:

```
"c:\Program Files\Image Instruments\Onyx3Client\OnyxCeph.exe" -PatId="123"  
-PicErase=1 -PicCount=2 -PicPath1="C:\scan\Upper.stl"  
-PicPath2="C:\scan\Lower.stl"
```

Transfer of patient and images in one Step.

Source Files are to be Deleted After Acquisition:

```
"c:\Program Files\Image Instruments\Onyx3Client\OnyxCeph.exe" -PatId="123"  
-Firstname="Test" -Lastname="Patient" -Birthday="19960313" -Sex="F"  
-Title="Dr. med. dent." -City="Chemnitz" -PicCount=2 -PicErase=1  
-PicPath1="C:\temp\XRay.tif" -PicInfo1="Lateral Ceph" -PicDate1="20000815"  
-PicPath2="C:\My Images\Photo.jpg" -PicInfo2="Lateral Photo"  
-PicDate2="20000814"
```

Opening of a patient via HTTP and updating the name

Opens patient 123 and updates master data when indicated

```
http://127.0.0.1:24000/setpat -PatId="123" -Firstname="Test" -Lastname="Patient"  
-Birthday="19960313" -PatMarker="-1---"
```

Generate or update a referring doctor HTTP:

Generates the referring doctor 456, or updates his/her master data

```
http://127.0.0.1:24000/setpat -Ref_Id="456" -Ref_Employer="My Practice"  
-Ref_Firstname="Frank" -Ref_Lastname="Physician" -Ref_Title="Dr."
```

Opening of a patient and presentation template via HTTP.

Opens patient 123 and after that the presentation template *Onyx_Images_8*

```
http://127.0.0.1:24000/setpat -PatId=123  
-StartModule="PRESENTATION:Onyx_Images_8"
```

Copying of a patient via HTTP.

Copies the patient 123 inclusive of all images. The copy gets the new patient ID *123New* and is renamed to

„Test Patient“

```
http://127.0.0.1:24000/setpat -ActionBefore="ClonePatient:123" -PatID="123New"  
-Firstname="Test" -Lastname="Patient"
```

Use of a file for data transfer

Generate an .INI File of arbitrary name (e.g. *C:\Temp\MyPatientData.INI*) :

```
MyPatientData.ini

[PatDat]
PatId=123
Firstname=Test
Lastname=Patient
Birthday=19960313
Sex=F
Title=Dr. med. dent.
City=Chemnitz
PatMarker=-1---
PicCount=1
PicPath1=C:\temp\XRay.tif
PicInfo1=Lateral Ceph
PicDate1=20000815
```

Start OnyxCeph.exe with the following parameters:

```
"c:\Program Files\Image Instruments\Onyx3Client\OnyxCeph.exe" -PatId="123"
-Data="C:\Temp\MyPatientData.INI"
```

If in the section [PatDat] an entry UTF8=1 exists, all values are read as UTF-8, otherwise ASCII-strings are expected.

Transfer of patient and image via DICOM File.

OnyxCeph³ is supposed to load patient and image data from the DICOM file and delete it after adoption:

```
"c:\Program Files\Image Instruments\Onyx3Client\OnyxCeph.exe"
-DICOM="C:\Temp\XRayPost.DCM" -PicErase=1
```

Import of patients and images from a container

OnyxCeph³ is supposed to load patient and image data from a container that is located on an FTP-server.

The comment field of the recorded images is filled with the order number:

```
"c:\Program Files\Image Instruments\Onyx3Client\OnyxCeph.exe"
-ContainerFTP="C5UW5SJNN3....B6DKHUWUQKD73" -ContainerNote=#42
```

or via HTTP

```
http://127.0.0.1:24000/setpat -ContainerFTP="C5UW5SJNN3....B6DKHUWUQKD73"
-ContainerNote=#42
```



image **instruments**

© Image Instruments GmbH
info@image-instruments.de
www.onyx-ceph.de