** OnyxCeph³™ Instructions **

Placeholder in OnyxCeph³

In OnyxCeph³ placeholders and macros can be used in some places:
- Image acquisition -> Directory
- Start program / Open file -> Parameters
- When labeling 3D models
- Options→Interfaces→Directories
- In the handling of OnyxCeph³ events (e.g.: in EventContainerExportDone).

These placeholders are replaced by data of the currently selected patient and, if applicable, the active image when called and the macros are executed.

General placeholders (see also the overview at the end of the text)

"%0":   PatID
Patientennummer
      z.B.: 08/15

"%1":   PatID
Patient number corrected for file names
      z.B.: 08~615   (Invalid character "/" replaced by "~6)
      The following characters are replaced during correction:

"\"	->	"~0"
"*"	->	"~1"
"?"	->	"~2"
"@"	->	"~3"
"."	->	"~4"
"""	->	"~5"
"/"	->	"~6"
"<"	->	"~7"
">"	->	"~8"
"|"	->	"~9"

"%2":   Name

"%3":   First name

"%4":   Birthday
      Format: JJJJMMTT
      z.B.: 19960313 für 13.3.1996

"%5":   Gender
      possible values:

"X":	unknown
"M":	Male or Mann
"F":	Female or Frau
"MC":	Male Converted
"FC":	Female Converted
"I":	Intersexual or Divers

"%8":   Name without spaces

"%9":   First name without spaces

"%A":   Model number

"%B":   Birthday - Mediadent requests
                        Format: TTMMJJJJ
                        z.B.: 13031996 für 13.3.1996

"%C":   Additional patient number

"%D":   Insurance number

"%F":   Number of the current client
                        Can be extended to the format 0015 with <FL|%F|4|0>

"%{pat:initialcontact}":   Initial Contact Date in format: YYYYMMDD

"%{pat:starttreatment}":   Start of Treatment in format: YYYYMMDD

"%{pat:assessmentdate}":   Assessment Date in format: YYYYMMDD

"%{pat:notes}":
"%M":   Comment on the patient (!! Can be multiline !!)
                        With <VAL|%M|TagName> A value can be read from the comment
                        This value must be in the form "TagName=Value" in the comment

"%{pat:attributes}": Attributes of the patient separated with semicolon ;

"%{pat:caseid}":   Patient's case ID.
                        If several case numbers are known, a selection dialog is displayed

"%{pat:caseid_1}":   First case ID in Patient's case ID list

"%U":   Username: Will be replaced with the short name of the current OnyxCeph login

"%W":   Workstation: Replaced with the current Windows login: Username [Computer name]

"%X`":
"%{time:ansi}": Timestamp: current date as well as time (server) in format: YYYYMMDDHHNNSS
                        e.g.: The current year can be output with <SS|%X|1|4>

"%{timestamp}": Timestamp: current date and time (server) in the format: YYYY-MM-DD HH:MM:SS

"%%":   Percent sign "%" (in case the percent sign is needed in the text)

Placeholder when an image is selected

"%6":   Image file name starting from the image directory on the server:
                        e.g.: 08~615\08~615SBIX.jpg

"%7":   Image code
                        e.g.: 08~615SBIX

"%E":   Image date in format YYYYMMDD

"%I":   Image type

"%{img:notes}":
"%T":   Comment on the image (!! Can be multiline !!)
                        With <VAL|%M|TagName> a value can be read from the comment
                        This value must be in the form "TagName=Value" in the comment

"%{img:attributes}": Attributes of the image separated with semicolon ;

"%{img:seriesname}":
"%G":   Name of the session to which the image belongs
                              e.g.: Final-01.11.2016

"%{img:seriesdate}":   Date of the session to which the image belongs in the format YYYYMMDD

"%{img:seriesnotes}":   Comment on the session to which the picture belongs (!! Can be multiline !!)

Recursive search with * in image acquisition

If a "*" character is <u>appended</u> to the path, the subdirectories of the path are also searched.
Optionally, the depth of the search can be specified after the "*" character and the "<" marker.

Examples:

Search subdirectories in the patient directory:
                    "D:\Bilder\%1*"

For the patient 123456 to become all images from the directory
                    "D:\Images\123456\"
and all subdirectories are returned.

Possible results:
                    "D:\Images\123456\Img1.jpg"
                    "D:\Images\123456\2010\Img2.jpg"
                    "D:\Images\123456\2011\Retension\Img3.jpg"
                    ...

With the path:
                    "D:\Images\%1*<1"
Only the following file will be found:
                    "D:\Images\123456\Img1.jpg"
                    "D:\Images\123456\2010\Img2.jpg"
This file is not found:
                    "D:\Images\123456\2011\Retension\Img3.jpg"

Also allowed: Search all images on the D: drive:
                    "D:*"
Please avoid, may take a very long time.

Wildcards

Wildcards "*" and "?" are also possible in all directory names.
Wildcards are used according to the normal Windows conventions:

"?"   stands for a character
"*"   stands for any number of characters

OnyxCeph³ searches for all matching paths and returns the files they contain.

For the patient Müller,Jan, for example, at the import path:

        D:\Scans\Day????????\%8,%9*<1

searches the following directories (if available):
                    D:\Scans\Day20160301\Müller,Jan\
                    D:\Scans\Day20160301\Müller,Jan\Head\
                    D:\Scans\Day20170313\Müller,Jan\
                    D:\Scans\Day20170313\Müller,Jan\Teeth\

Module-specific placeholders

%E
Image date in all modules derived from TfrmTreat3DBase.
Image date in ThirdPartyToolStart (if started from image)

%J
Jaw in export 3D, if only objects of the upper or lower are exported

%N
Filename container in EventContainerImportDone
Filename container in EventContainerExportDone
File name container in EventContainerUploadDone
File name Report in EventReportUploadDone
File name of the report EXE in EventReportExportDone
Filename in EventToothMovementExportDone
Filename of the 3D file in Event3DExportDone
WebAddress in EventWebExportDone
File names separated with spaces in Event3DSeriesExportDone
   When exporting multiple files, the wildchar * stands for the step number

%O
FTPCode in EventContainerUploadDone
FormName in SaveCarbonCopy and PDF-Export
ProjectName in EventProjectSaved

%P
Password in EventReportUploadDone

%Q
Download- Address in EventReportUploadDone
ProjectCode in EventProjectSaved

%S
Step-Number in Export3D ot Aligner
Number of files in Event3DSeriesExportDone
"New" for new or "Upd" for updated records in EventEvaluationDone

%V
ID of the module in EventModulOpened, EventModulClosed and Export-Directories (also %{module:id})
Name of the anaysis in EventEvaluationDone

%Z
Placeholders for image data type (2D|3D) for events EventEvaluationDone, EventImageImportDone (Systemoptions|
Events)

%{module:name}
Name of the module in EventModulOpened, EventModulClosed and Export-Directories

Macros for special interfaces

Only for image acquisition the following macros are supported:

"<FDK_D>": The name of the data path according to KFO Office conventions with date of birth is used.
"<FDK_I>": The name of the data path according to the KFO Office conventions with patient ID is used.

Example:
C:\PatientData\ is the path configured in KFO Office for patient images.
In Onyx, the path C:\PatientData\<FDK_I> would then have to be configured for the third-party programs.
(Assuming FDK uses the patient number, if birthday instead of <FDK_I> then use the macro <FDK_D>).

"<TNTand>": SurnameFirstName is inserted without spaces (for TNTand).

Example: Hans Peter Müller-Herbig becomes "Müller-HerbigHansPeter".

Macros for string manipulation

The following macros start with "<" and end with ">". They use multiple parameters separated by "|".
Syntax:

<C|T|P0|P1|P2|...>
C: Macro command e.g. "SS" for SubString
T: Text, may contain placeholders like %1, the placeholders are always replaced first and only then the macro is executed.
P0, P1: Parameters, depending on command different number and usage

In general, macros may be nested. That means T, P0, P1, ... can contain macros. The macros are resolved from the inside to the outside.

SubString (SS)

"<SS|T|Pos|Count>"
A substring of length Count is returned from the text T, starting from Pos.
If Pos + Count exceed the length of the string, the string is returned starting from Pos.

Example:
       "This is a <SS|new MacroXX|5|5> in text"
turns into:
       "This is a Macro in text"

Replace String (RS)

"<RS|T|SearchString|ReplaceString>"
In text T substring SearchString is searched and replaced with ReplaceString.

Example::
       "This is <RS|a old macro|old|new> in text"
turns into:
       "This is a new macro in text"

Fill Left (FL)

"<FL|T|Size|Char>"
In the text T is filled on the left side with the character Char that T has the length Size.

Example::
Fill patient number to 8 characters with zeros:
       "ID<FL|%1|8|0>"
becomes for patient 123456 to:
       "ID00123456"

Fill Right (FR)

"<FR|T|Size|Char>"
In the text T is filled on the right side with the character Char that T has the length Size

Example:
Fill patient number to 6 characters with zeros:
       "ID<FR|%1|8|0>"
becomes for patient 123456 to:
       "ID12345600"

Trim Left (TL)

"<TL|T|Size|Char>"
Im Text T werden auf der linken Seite so viele Zeichen Char gelöscht, dass T die Länge Size hat
If the last character on the left side is not Char, the T remains unchanged

Example:
Delete leading zeros in patient number up to 8 characters:
		"ID<TL|%1|8|0>"
becomes for patient 0000123456 to:
		"ID00123456"

Trim Right (TR)

"<TR|T|Size|Char>"
In the text T on the right side so many characters Char are deleted that T has the length Size
If the last character on the right side is not Char, the T remains unchanged

Example:
Delete appended X in patient number up to 8 characters:
		"ID<TR|%1|8|X>"
becomes for patient 123456XXXX to:
		"ID123456XX"

		"ID<TR|%1|8|X>"
becomes for patient 1234567890XXXX to:
		"ID12345667890"

Crop Left (CL)

"<CL|T|Count>"
In the text T on the left side Count characters are deleted.
If T is shorter than Count, an empty string is returned.

Example:
Delete leading text "ID" in patient id:
		"<CL|%1|2>"
becomes for patient ID123456:
		"123456"

Crop Right (CR)

"<CR|T|Count>"
In the text T, Count characters are deleted on the right side.
If T is shorter than Count, an empty string is returned.

Example:
Delete year number in a patient ID:
		"ID<CR|%1|5>"
becomes for patient 123456-2021 to:
		"ID123456"

Contains Text (CTX)

"<CTX|T|Tag|Found Text|Not Found Text>"
In the text T the text Tag is searched. If it is found, the "Found text" is returned, if not the "Not found text" is returned.

Example:
Check if a tag is included in the attributes:
		"<CTC|%{pat:attributes}|;CLP;|cleft palate|>"
becomes for a patient with the attribute ;ORTHO;CLP;CHIR; to:
		"cleft palate"

POSition (POS)

"<POS|T|Tag>"
In the text T the text Tag is searched. If it is found, the position of the first character is returned, if it is not found, an empty text.

Example:
Find out at which position a tag is included in the comment:
"<POS|%{pat:notes}|station:>"
becomes for a patient with the comment "Dr. Meier station:B5" to:
"11"

Conversion to UTF-7 (U7)

"<U7|T>"
The text T converted to UTF-7 encoding

Example:
"Name: <U7|%3 %2>"
becomes for the patient with the name "Björn Müller" to:
"Name: Bj+APY-rn M+APw-ller"

Encoding for URL (URLE)

"<URLE|T>"
The text T is converted to UTF-8 and then escaped for transmission as a URL.
See also: https://en.wikipedia.org/wiki/URL-Encoding

Example:
"<URLE|Name: %3 %2>"
becomes for the patient with the name "Björn Müller" to:
"Name%3A%20Bj%C3%B6rn%20M%C3%BCller"

Conversion to a valid file name (FILE)

"<FILE|T>"
In the T text, all characters that are not allowed for file or directory names are replaced.
Invalid characters are replaced (as already for the placeholder "%1") during correction as follows:

```
"\"        -> "~0"
"*"        -> "~1"
"?"        -> "~2"
"@"        -> "~3"
":"        -> "~4"
"""        -> "~5"
"/"        -> "~6"
"<"        -> "~7"
">"        -> "~8"
"|"        -> "~9"
```

Example:
"Model<FILE|%A>.PDF"
becomes the valid file name for the patient with the model number "123\A":
"Model123~0A.PDF"

Increment (INC)

"<INC|T|INCVAL>"
The integer T is increased by INCVAL. The result is also an integer.
The texts in T and INCVAL must be convertible to an integer. Negative numbers are permissible.

Example:
Increase step number %S by 8:
    "Step: <INC|%S|8>"
becomes for Step 4:
    "Step: 12"

Value (VAL)

"<VAL|T|Tag>"
The text T should be a multiline (e.g.: %M Notes).
A search is made for a line that starts with the tag followed by "=", the text after the "=" is returned

Example:
Read out order number "Order" from the patient comment:
    "Order #<VA|%M|ORDER>"
If there is a line "Order=0-8-15" in Notes (merge command %M), the result is:
    "Order #0-8-15"

DateTimeFormat (DTF)

"<DTF|T|FS>"
The text T should be a date or time in one of the following formats:
   yyyymmdd, yyyymmddhhnnss or yyyymmddhhnn

In FS a format string must be passed, according to which date (and time) are formatted.
The syntax is described here:
http://docwiki.embarcadero.com/Libraries/Sydney/en/System.TDateTime.FormatString

Example:
<DTF|%4|dd.m.yyyy> -> "19.9.1990"
<DTF|%X|dddd mmmm d, yyyy hh:mm:ss AM/PM> -> "Tuesday June 15, 2021 10:39:00 AM"

Age (AGE)

"<AGE|STARTDATE|ENDATE|FORMAT>"
Der Text in STARTDATE und ENDATE sollte ein Datum oder time in one of the following formats:
   yyyymmdd, yyyymmddhhnnss or yyyymmddhhnn
To output the patient age, %4 should always be transferred as STARTDATE.
As ENDDATE, for example, "%{img:seriesdate}" or "%E" for the picture date can be transferred.

The formatting of the result can be selected with FORMAT. The following values are possible here: SHORT, LONG, YEARS, DECI, DAYS or YYMMDD.

Examples:
Age on the date of the session:
    <AGE|%4|%{img:seriesdate}|SHORT> -> "19.5 Years"
    <AGE|%4|%{img:seriesdate}|LONG> -> "19.5 (19 Years, 6 Months)"
Age at the date of the picture:
    <AGE|%4|%4|DECI>   -> "19.5"
    <AGE|%4|%4|DAYS>   -> "7128"
Current age of the patient:
    <AGE|%4|%{time:ansi}|YYMMDD>   -> "190613"

Overview: All merge commands and scope of validity

Patient: Values are available when a patient is active.

Description	Placeholder	Short	Comment
ID		%0	
ID, for filenames		%1	Patient ID corrected for file names
Last name		%2	
First name		%3	
Birthday		%4	Format: JJJJMMTT
Gender		%5	
Last name (without space)		%8	van Schulz → vanSchulz
First name (without spaces)		%9	Anna Lena → AnnaLena
Model number		%A	
Birthday		%B	Format: DDMMYYYY
Additional Patient ID		%C	
Insurance number		%D	
Initial Contact Date	%{pat:initialcontact}		Format: DDMMYYYY
Start of Treatment	%{pat:starttreatment}		Format: DDMMYYYY
Assessment Date	%{pat:assessmentdate}		Format: DDMMYYYY
Comment	%{pat:notes}	%M	may be multiline
Attributes	%{pat:attributes}		Attributes separated with semicolon ;
Case ID	%{pat:caseid}		If necessary, a selection dialog is displayed

Image / Findings: Values are available if a finding is active.

Description	Placeholder	Short	Comment
Date of recording		%E	
File name		%6	
Code		%7	
Comment	%{img:notes}	%T	may be multiline
Attributes	%{img:attributes}		Attributes separated with semicolon ;
Image type name		%I	
Image type code		%Y	
2D or 3D finding		%Z	„2D" oder „3D"
Name of the session	%{img:seriesname}	%G	
Date of the session	%{img:seriesdate}		Format: DDMMYYYY
Comment of the session	%{img:seriesnote}		may be multiline

System

Description	Placeholder	Short	Comment
Percent sign		%%	Percent sign in the text
Timestamp	%{time:ansi}	%X	Server time in format: JJJJMMTTHHMMSS
Timestamp	%{time:stamp}		Server time in format: JJJJ-MM-TT HH:MM:SS
Name of workstation		%W	Username [Computername]
Tool- or Event-name	%{event:name}		Name of the triggered tool or event
Tool- or Event-ID	%{event:id}		ID of the triggered tool or event
Modul-Code	%{module:id}	%V	Code of the triggering module
Modul-Name	%{module:name}		Name of the triggering module

User: Values are available when user management and a user are active

Description	Placeholder	Short	Comment
Username (long)	%{user:name}		Name of the current OnyxCeph login
Username (short)	%{user:short}	%U	Short name of the current OnyxCeph login

Special placeholders

Description	Placeholder	Short	Comment
Analysis name		%V	Name of the analysis done
Evaluation: New or update		%S	"New" or "UPD"
CSV-File		%N	Name of the export CSV file
Download address		%Q	
FTP-Code		%O	
Name of the exported table		%T	
Name of the report file		%N	
Name of the aligner project		%P	
Name of the container		%N	
Names of the exported files		%N	separated with with space
Passwort		%P	assigned password
ProjectCode	%{project:id}	%Q	
ProjectName	%{project:name}	%O	
Number of steps		%S	Number of steps exported
Step number		%S	Number of the exported step
Webadress		%N	

Events columns: 3D Export Done · 3D Series Export Done · Container Export Done · Container Import Done · Container Upload Done · Evaluation Done · Image Import Done · Module Closed · Module Opened · Project Saved · Report Export Done · Report Upload Done · Tooth Movement Export Done · Treated Image Saved · User Login · User Logout · Web Export Done · Third-party programs · Export 3D (files, labeling) · Export aligner protocol