

Gruppe N: Yasser Ibourk& Narges Shafieyoun

Aufgabe 1:

Channel 1&2 in Dateien.

https://localhost:9443 - Mirth Connect Administrator - (4.5.0)

Mirth Connect

- Dashboard
- Channels
- Users
- Settings
- Alerts
- Events
- Extensions

Message Tasks

- Refresh
- Send Message
- Import Messages
- Export Results
- Remove All Messages
- Remove Results
- Remove Message
- Reprocess Results
- Reprocess Message

Other

- Notifications
- View User API
- View Client API
- Help
- About Mirth Connect
- Visit nextgen.com
- Report Issue
- Logout

Channel Messages - dicom-sender-toOrthanc

Start Time: 04:46 PM ☐ All Day ☐ RECEIVED
☐ TRANSFORMED
☐ FILTERED
End Time: 04:46 PM ☐ Regex ☐ QUEUED
Text Search: ☐ SENT
Page Size: 20 ☐ ERROR
☐ PENDING

Current Search
Max Message Id: 158
Date Range: (any) to (any)
Statuses: (any)
Connectors: (any)

	Id	Connector	Status	Received Date	Response Date	Errors
[-]	158	Source	TRANSFORMED	2025-06-26 20:14:30.005	--	--
		Destination 1	SENT	2025-06-26 20:14:30.036	2025-06-26 20:14:30.058	--
[-]	157	Source	TRANSFORMED	2025-06-26 20:13:00.013	--	--
		Destination 1	SENT	2025-06-26 20:13:00.156	2025-06-26 20:13:00.214	--
[-]	156	Source	TRANSFORMED	2025-06-26 03:17:05.004	--	--
		Destination 1	SENT	2025-06-26 03:17:05.022	2025-06-26 03:17:05.043	--
[-]	155	Source	TRANSFORMED	2025-06-26 03:14:25.005	--	--
		Destination 1	SENT	2025-06-26 03:14:25.031	2025-06-26 03:14:25.053	--
[-]	154	Source	TRANSFORMED	2025-06-26 02:56:35.003	--	--
		Destination 1	SENT	2025-06-26 02:56:35.144	2025-06-26 02:56:35.201	--

Messages | Mappings

☐ Raw ☒ Transformed ☐ Encoded

```
<tag00020010 len="20" tag="00020010" vr="UI">1.2.840.10008.1.2.1</tag00020010>
<tag00020012 len="16" tag="00020012" vr="UI">1.2.40.0.13.1.1</tag00020012>
<tag00020013 len="12" tag="00020013" vr="SH">dcM4che-2.0</tag00020013>
<tag00080012 len="8" tag="00080012" vr="DA">20020510</tag00080012>
<tag00080013 len="6" tag="00080013" vr="TM">163456</tag00080013>
<tag00080014 len="28" tag="00080014" vr="UI">1.2.276.0.7230010.3.0.3.5.1</tag00080014>
<tag00080016 len="30" tag="00080016" vr="UI">1.2.840.10008.5.1.4.1.1.88.11</tag00080016>
<tag00080018 len="54" tag="00080018" vr="UI">1.2.276.0.7230010.3.1.4.2155604110.4180.1021041296.60</tag00080018>
<tag00080020 len="0" tag="00080020" vr="DA"/>
<tag00080023 len="8" tag="00080023" vr="DA">20020510</tag00080023>
<tag00080030 len="0" tag="00080030" vr="TM"/>
<tag00080033 len="6" tag="00080033" vr="TM">163456</tag00080033>
<tag00080050 len="0" tag="00080050" vr="SH"/>
<tag00080060 len="2" tag="00080060" vr="CS">SR</tag00080060>
<tag00080070 len="0" tag="00080070" vr="LO"/>
<tag00080090 len="0" tag="00080090" vr="PN"/>
<tag00081030 len="34" tag="00081030" vr="LO">OFFIS Structured Reporting Samples</tag00081030>
<tag0008103E len="20" tag="0008103E" vr="LO">RSNA '95, Picker, MR</tag0008103E>
<tag00081111 len="0" tag="00081111" vr="SQ"/>
<tag00100010 len="17" tag="00100010" vr="PN">eHealth-Gruppe xy</tag00100010>
<tag00100020 len="7" tag="00100020" vr="LO">1234567</tag00100020>
<tag00100030 len="8" tag="00100030" vr="LO">26.06.25</tag00100030>
<tag00100040 len="2" tag="00100040" vr="CS">M</tag00100040>
<tag00200000 len="62" tag="00200000" vr="UI">2.16.840.1.113662.4.8796818069641.798806497.93296077602350.10</tag00200000>
<tag0020000E len="54" tag="0020000E" vr="UI">1.2.276.0.7230010.3.1.3.2155604110.4180.1021041296.61</tag0020000E>
```

Patient

eHealth-Gruppe xy
PatientID: 1234567
PatientBirthDate: Thursday, June 26, 2025
PatientSex: M

Study

OFFIS Structured Reporting Samples
StudyDate: ?
AccessionNumber:
ReferringPhysicianName:
StudyInstanceUID: 2.16.840.1.113662.4.8796818069641.798806497.93296077602...
StudyID:

Series

RSNA '95, Picker, MR
Status: *Unknown*
Modality: SR
SeriesInstanceUID: 1.2.276.0.7230010.3.1.3.2155604110.4180.1021041296.61
SeriesNumber: 1

Instance

Instance: 1
SOPInstanceUID: 1.2.276.0.7230010.3.1.4.2155604110.4180.1021041296.60

Interact

Delete this instance
Send to DICOM modality

Access

Download the DICOM file
Download the JSON file
Preview the instance

DICOM Tags

Show tag description

Meta header

0002,0000 (FileMetaInformationGroupLength): 202
0002,0002 (MediaStorageSOPClassUID): 1.2.840.10008.5.1.4.1.1.88.11
0002,0003 (MediaStorageSOPInstanceUID): 1.2.276.0.7230010.3.1.4.2155604110.4180.1021041296.60
0002,0010 (TransferSyntaxUID): 1.2.840.10008.1.2.1
0002,0012 (ImplementationClassUID): 1.2.276.0.7230010.3.0.3.6.6
0002,0013 (ImplementationVersionName): OFFIS_DCMTK_366

Dataset

0008,0012 (InstanceCreationDate): 20020510
0008,0013 (InstanceCreationTime): 163456
0008,0014 (InstanceCreatorUID): 1.2.276.0.7230010.3.0.3.5.1
0008,0016 (SOPClassUID): 1.2.840.10008.5.1.4.1.1.88.11
0008,0018 (SOPInstanceUID): 1.2.276.0.7230010.3.1.4.2155604110.4180.1021041296.60
0008,0020 (StudyDate):
0008,0023 (ContentDate): 20020510
0008,0030 (StudyTime):
0008,0033 (ContentTime): 163456
0008,0050 (AccessionNumber):
0008,0060 (Modality): SR
0008,0070 (Manufacturer):
0008,0090 (ReferringPhysicianName):
0008,1030 (StudyDescription): OFFIS Structured Reporting Samples
0008,103e (SeriesDescription): RSNA '95, Picker, MR
0008,1111 (ReferencedPerformedProcedureStepSequence): []
0010,0010 (PatientName): eHealth-Gruppe xy
0010,0020 (PatientID): 1234567
0010,0030 (PatientBirthDate): 20250626
0010,0040 (PatientSex): M
0020,000d (StudyInstanceUID): 2.16.840.1.113662.4.8796818069641.798806497.93296077602350.10
0020,000e (SeriesInstanceUID): 1.2.276.0.7230010.3.1.3.2155604110.4180.1021041296.61
0020,0010 (StudyID):
0020,0011 (SeriesNumber): 1
0020,0013 (InstanceNumber): 1

Beispiel-DICOM report10.dcm/image10.dcm (Aus Zusatzmaterial)

JavaScript Code:

```

tmp = msg;

// (0010,0010) Patient Name – PN var newName = 'eHealth-Gruppe xy';
tmp['tag00100010'] = newName; tmp['tag00100010']['@vr'] = 'PN';
tmp['tag00100010']['@len'] = newName.length;

tmp['tag00100010']['@tag'] = '00100010';

// (0010,0020) Patient ID – LO var newID = '1234567'; tmp['tag00100020'] = newID;
tmp['tag00100020']['@vr'] = 'LO'; tmp['tag00100020']['@len'] = newID.length;

tmp['tag00100020']['@tag'] = '00100020';

```

```
/* ----- (0010,0030) Patient BirthDate – LO, TT.MM.YY ----- */ var today = new  
java.text.SimpleDateFormat('dd.MM.yy')  
  
.format(new java.util.Date());  
  
tmp['tag00100030'] = today;  
  
tmp['tag00100030']['@vr'] = 'LO';  
  
tmp['tag00100030']['@len'] = today.length(); tmp['tag00100030']['@tag'] = '00100030';
```

Orthanc-Viewer nach Rücktransfer

Walz^John^R - OFFIS Structured Reporting Samples

PatientID: **PIKR752962**

PatientBirthDate: **Tuesday, October 24, 1978**

PatientSex: **M**

StudyDate: **?**

AccessionNumber:

ReferringPhysicianName:

StudyInstanceUID: **2.16.840.1.113662.4.8796818069641.798806497.93296077602350.10**

StudyID:

eHealth-Gruppe xy - OFFIS Structured Reporting Samples

PatientID: **1234567**

PatientBirthDate: **Thursday, June 26, 2025**

PatientSex: **M**

StudyDate: **?**

AccessionNumber:

ReferringPhysicianName:

StudyInstanceUID: **2.16.840.1.113662.4.8796818069641.798806497.93296077602350.10**

StudyID:

Mirth-Dashboard: Channel 1 & 2 müssen je Received/Sent anzeigen

Aufgabe 2:

1. K-PACS → Orthanc

DICOM Einstellungen

Query/Retrieve | DICOM Print | Modality Worklist

Test	Logischer Name	DICOM AE-Titel	IP-Adresse	Port-Nummer
ECHO	LOCALCLIENT	LOCALCLIENT	127.0.0.1	11112
ECHO	ORTHANC-9112	EHEALTH	127.0.0.1	9112

Logischer Name: LOCALCLIENT | DICOM AE-Titel: LOCALCLIENT | IP-Adresse: 127.0.0.1 | Port-Nummer: 11112

Hinzufügen | Löschen | Verändern | Speichern

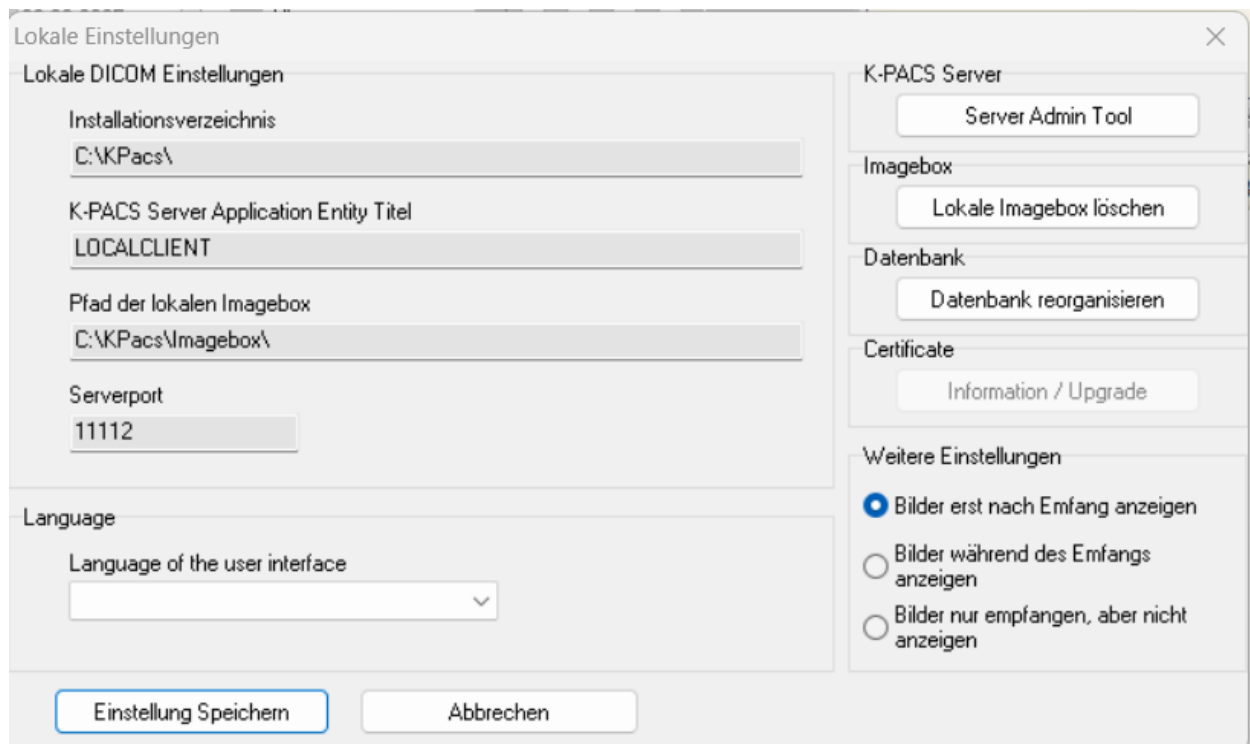
ECHO	ORTHANC-9112	EHEALTH	127.0.0.1	9112
------	--------------	---------	-----------	------

Information

Success!

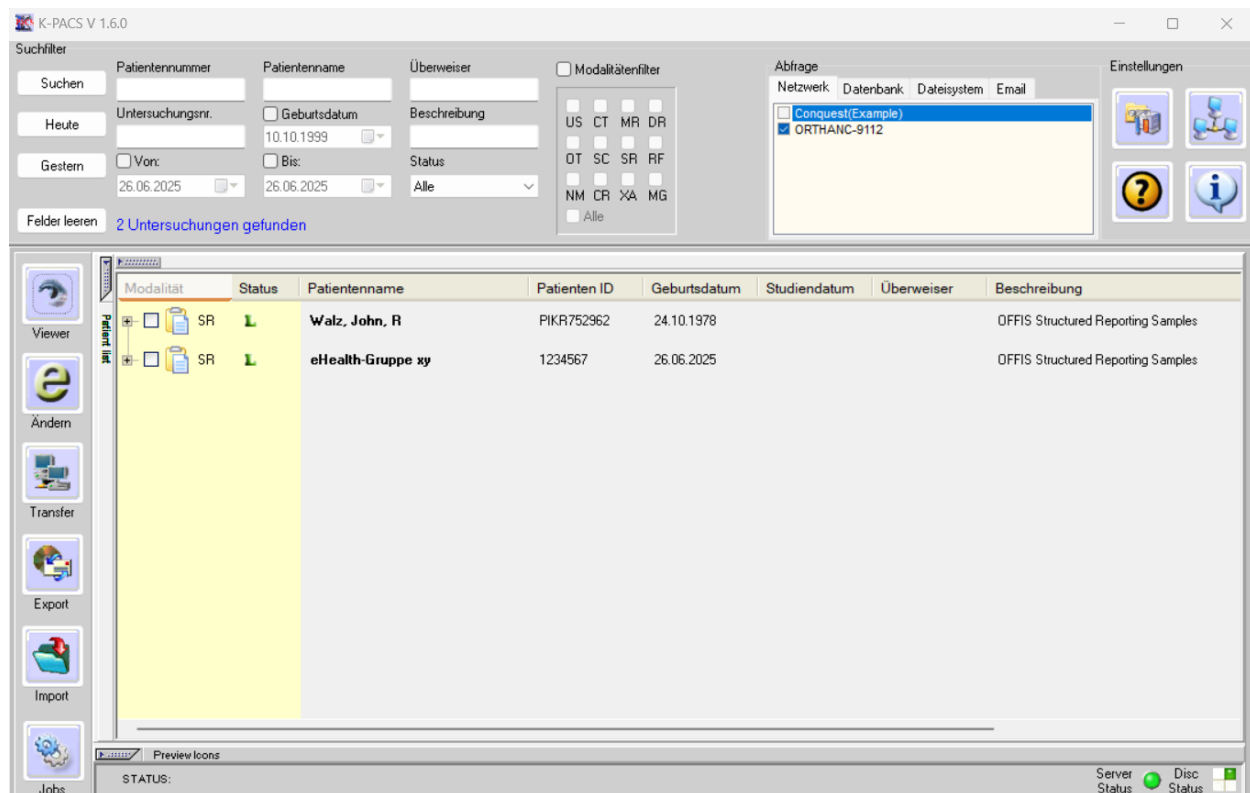
OK

Logischer Name: ORTHANC-9112 | DICOM AE-Titel: EHEALTH | IP-Adresse: 127.0.0.1 | Port-Nummer: 9112



C-Find erfolgreich ausgeführt

Alle Einträge von Orthnac wurden gezeigt.



C-Move erfolgreich

18:55:34: Send job to AET EHEALTH finished successfully

K-PACS V 1.6.0

Suchfilter

Suchen: Patientennummer, Patientenname, Überweiser, Untersuchungsnr., Geburtsdatum, Beschreibung, Status, Vorname, Bis, Alle

Modalitätenfilter: US, CT, MR, DR, OT, SC, SR, RF, NM, CR, XA, MG, Alle

Abfrage: Netzwerk, Datenbank, Dateisystem, Email

Einstellungen: ?

Felder leeren: 2 Untersuchungen gefunden

Modalität	Status	Patientenname	Patienten ID	Geburtsdatum	Studiendatum	Überweiser	Beschreibung
MR	60	SIMPSON, HOMER, III	26791642	30.10.1969	19.10.2007	PATIENT	Kopf-Orbita
SR	60	eHealth-Gruppe xy	1234567	26.06.2025			OFFIS Structured Reporting Sample

Viewer, Ändern, Transfer, Export, Import, Jobs

Preview Icons

STATUS: 18:55:34: Send job to AET EHEALTH finished successfully

Server Status, Disc Status

Die Einträge in Orthnac sind jetzt:

SIMPSON^HOMER^III - Kopf^Orbita

PatientID: 26791642
PatientBirthDate: Thursday, October 30, 1969
PatientSex: F
StudyDate: Friday, October 19, 2007
AccessionNumber: 0013538918
InstitutionName: Rad. Univ. Klinik Freiburg
ReferringPhysicianName: PATIENT
StudyInstanceUID: 1.2.276.0.38.1.1.1.3150.20071019111400.13538918
StudyID: 0013538918
RequestedProcedureDescription: MR Schädel mit KM

Walz^John^R - OFFIS Structured Reporting Samples

PatientID: PIKR752962
PatientBirthDate: Tuesday, October 24, 1978
PatientSex: M
StudyDate: ?
AccessionNumber:
ReferringPhysicianName:
StudyInstanceUID: 2.16.840.1.113662.4.8796818069641.798806497.93296077602350.10
StudyID:

eHealth-Gruppe xy - OFFIS Structured Reporting Samples

PatientID: 1234567
PatientBirthDate: Thursday, June 26, 2025
PatientSex: M
StudyDate: ?
AccessionNumber:
ReferringPhysicianName:
StudyInstanceUID: 2.16.840.1.113662.4.8796818069641.798806497.93296077602350.10
StudyID:

K-PACS V 1.6.0

Suchfilter

Suchen

Patientennummer

Patientenname

Überweiser

Modaltätenfilter

Abfrage

Netzwerk

Datenbank

Dateisystem

Email

Einstellungen

Heute

Untersuchungsnr.

Geburtsdatum

Beschreibung

Gestern

Von:

Bis:

Status

Alle

Felder leeren

3 Untersuchungen gefunden

Modalität	Status	Patientenname	Patienten ID	Geburtsdatum	Studiendatum	Überweiser	Beschreibung
SR	60	SIMPSON, HOMER, III	26791642	30.10.1969	19.10.2007	PATIENT	Kopf^Orbita
SR	60	eHealth-Gruppe xy	1234567	26.06.2025			OFFIS Structured Reporting Sampl
SR	60	Walz, John, R	PIKR752962	24.10.1978			OFFIS Structured Reporting Sampl

2. Orthanc → K-PACS

C-Echo

> Lookup ⌵ Plugins EHEALTH » DICOM Query/Retrieve (1/4)

DICOM server: Host-Docker-Internal_AET-LOCALCLIENT_Port-11112

Field of interest:

- ☒ Patient ID
- ☐ Patient Name
- ☐ Accession Number
- ☐ Study Description

Value for this field: *

Study date:

Modalities:

CR CT MR NM PT US XA DR DX MG

Test Echo

Echo result

The C-Echo has succeeded!

✓ OK

C-Find erfolgreich

> Lookup ⌵ Plugins EHEALTH » DICOM Query/Retrieve (1/4)

DICOM server: Host-Docker-Internal_AET-LOCALCLIENT_Port-11112

Field of interest:

- ☒ Patient ID
- ☐ Patient Name
- ☐ Accession Number
- ☐ Study Description

Value for this field: 26791642

Study date: Any date

Modalities:

CR CT MR NM PT US XA DR DX MG

Test Echo Search studies

Lookup ⌵ Plugins EHEALTH » DICOM Query/Retrieve

Filter items...

SIMPSON^HOMER^III

PatientID: 26791642

PatientBirthDate: Thursday, October 30, 1969

PatientSex: F

C-Move erfolgreich

Receive job from EHEALTH finished successfully

Lookup

Plugins

EHEALTH » Job

Filter items...

General information about the job

CompletionTime: Thu Jun 26 2025 19:35:01 GMT+0200 (Mitteleuropäische Sommerzeit)
CreationTime: Thu Jun 26 2025 19:35:01 GMT+0200 (Mitteleuropäische Sommerzeit)
EffectiveRuntime: 0.356
ErrorCode: 0
ErrorDescription: Success
ErrorDetails:
ID: 9f4c0350-1dc8-4cb7-909c-d28299021bc8
Priority: 0
Progress: 100
State: Success
Type: DicomModalityStore

Detailed information

Description: REST API
FailedInstancesCount: 0
InstancesCount: 20
LocalAet: EHEALTH
ParentResources: ["e8d5fb1c-8112bdd0-62bb8f2c-13d18ed7-b0e8dc64"]
RemoteAet: LOCALCLIENT

K-PACS V 1.6.0

Suchfilter

Suchen

Patientennummer

Patientenname

Überweiser

☐ Modalitätenfilter

Abfrage

Netzwerk

Datenbank

Dateisystem

Heute

Untersuchungsnr.

☐ Geburtsdatum

Beschreibung

US

CT

MR

DR

OT

SC

SR

RF

NM

CR

XA

MG

☐ Alle

Gestern

☐ Von:

26.06.2025

☐ Bis:

26.06.2025

Status

Alle

Felder leeren

Keine Untersuchung gefunden

LOCALCLIENT-11112

ORTHANC-9112

Viewer

Ändern

Transfer

Export

Modalität

Status

Patientenname

Patienten ID

Geburtsdatum

Studiendatum

Überweise

☐

SIMPSON, HOMER, III

26791642

30.10.1969

19.10.2007

PATIENT