medDream™
by Softneta Company

HTML 5 ZERO-FOOTPRINT DICOM VIEWER

QUICK START GUIDE

Windows x64 PacsOne PACS

Document version 4.00

This guide describes the basics of installing and configuring web-based DICOM Viewer for PACS server. More information is provided in the full Install Manual, download its latest version: **Install Manual**.

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ABOUT SOFTWARE

This guide describes MedDream DICOM Viewer deployment on Windows x64 and configuration when studies are stored in the **PacsOne PACS server**.

MedDream DICOM Viewer can be integrated into any PACS archive, HIS/RIS/EHR/EMR, Telemedicine, Patient Portals, National Systems, CAD and AI algorithms. MedDream Universal Enterprise Viewer can be installed on premises, in any virtual environment or on cloud.

MedDream is designed to aid medical professionals in day-to-day decision-making process. MedDream is a cost effective certified solution perfect for software vendors, integrators, OEM's and national system providers.

PREREQUISITES

✓ Check User Manual section: "MedDream viewing functionalities minimal hardware requirements".

✓ **PacsOne PACS server** is installed. If **PacsOne PACS** is not installed on the server, detailed instructions about how to do this can be found here: https://www.pacsone.net/download.htm?

INSTALLATION FOR THE FIRST TIME

1 **Install MedDream DICOM Viewer:**

- **Download** the latest Windows version of MedDream from the Softneta website: https://www.softneta.com/files/meddreamviewer/NEWEST/MedDream-DICOM-Viewer-Setup.exe
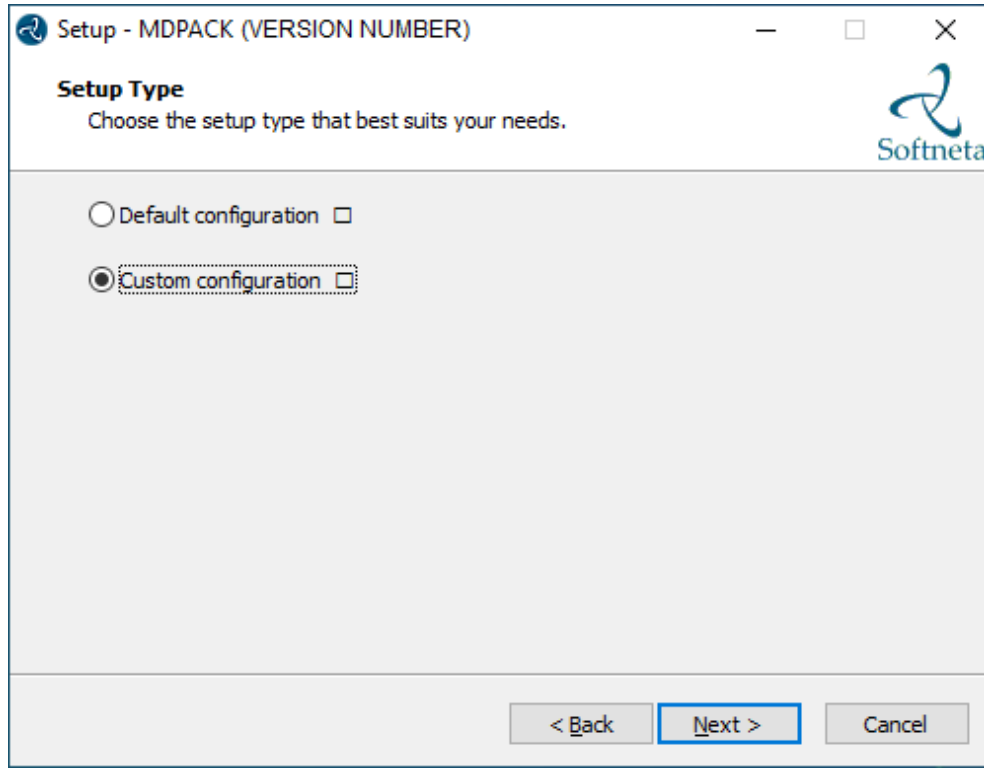- **MedDream-DICOM-Viewer-Setup.exe.**

- **Remember** default MedDream Viewer **login credentials** and click **Next >** button:
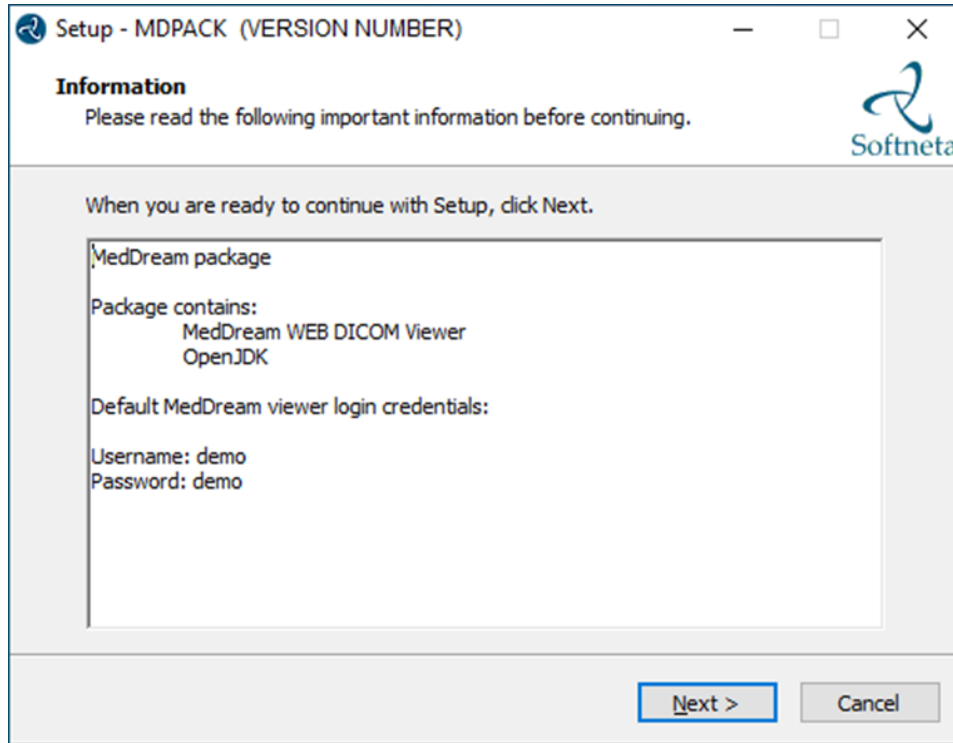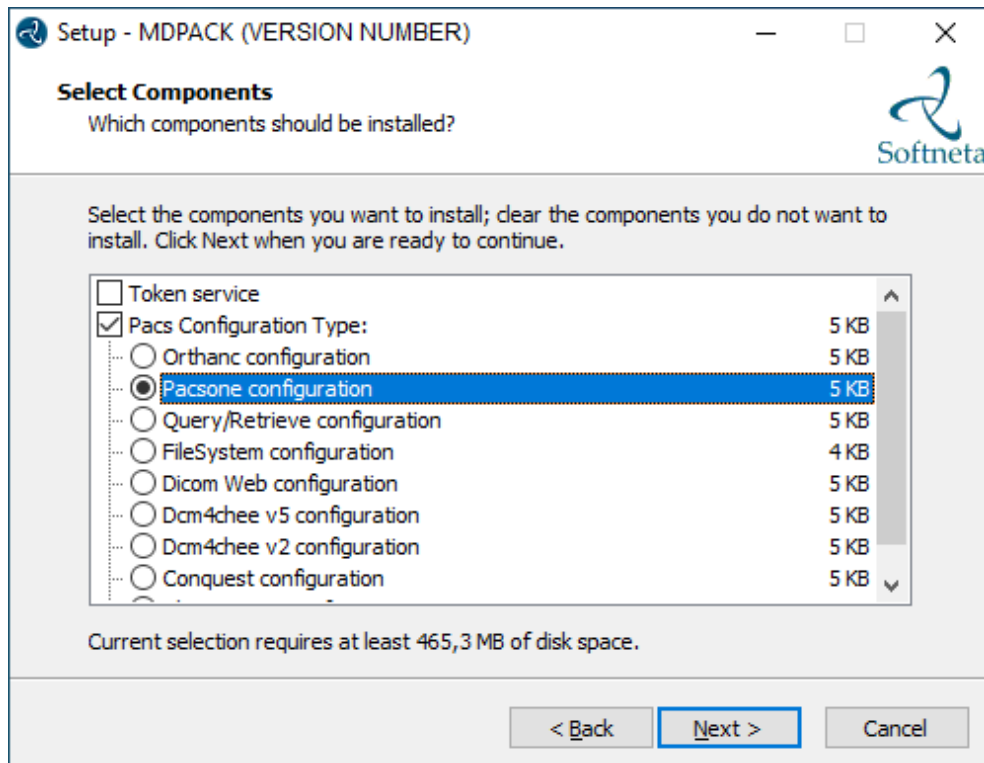

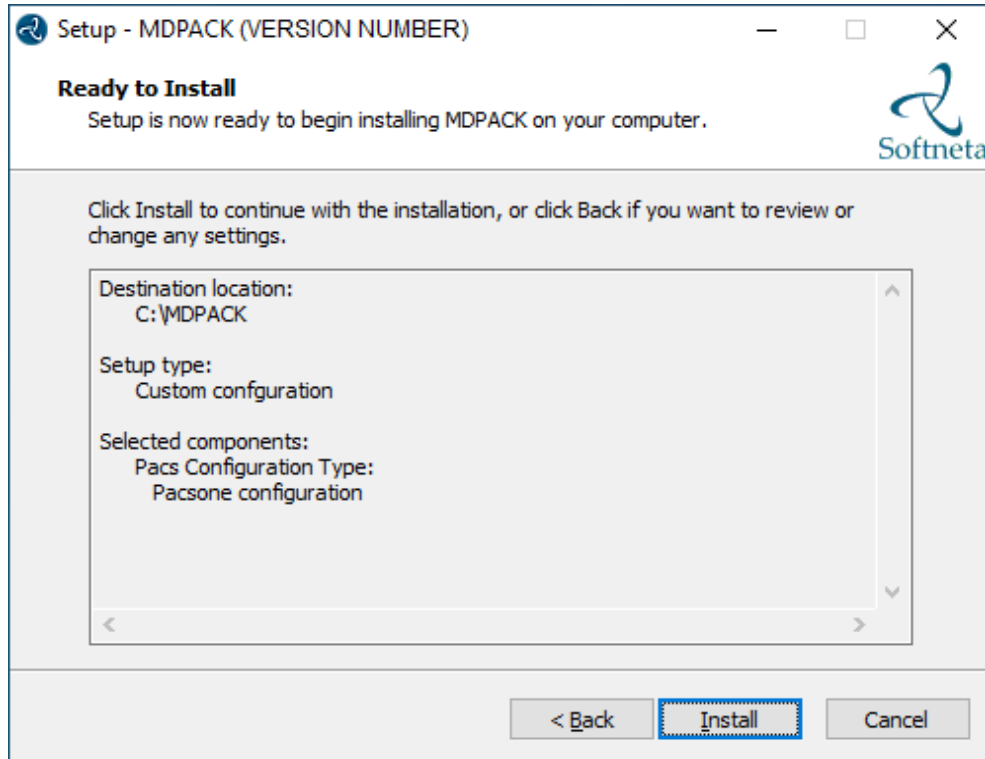- Choose **C:\MDPACK** and click **Next >** button:
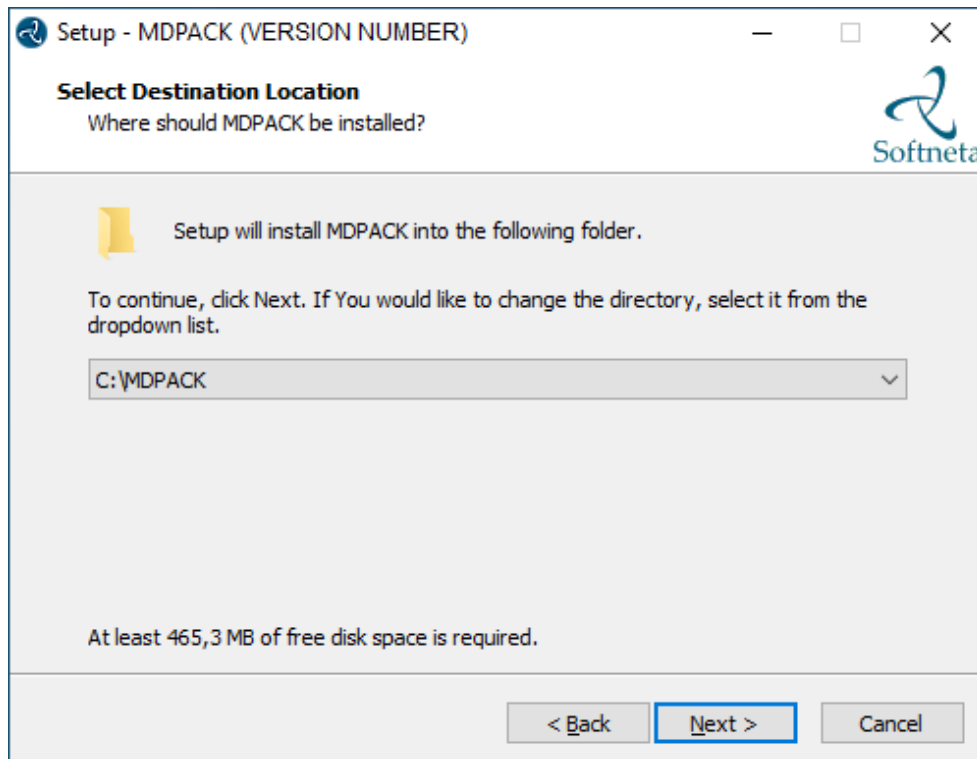
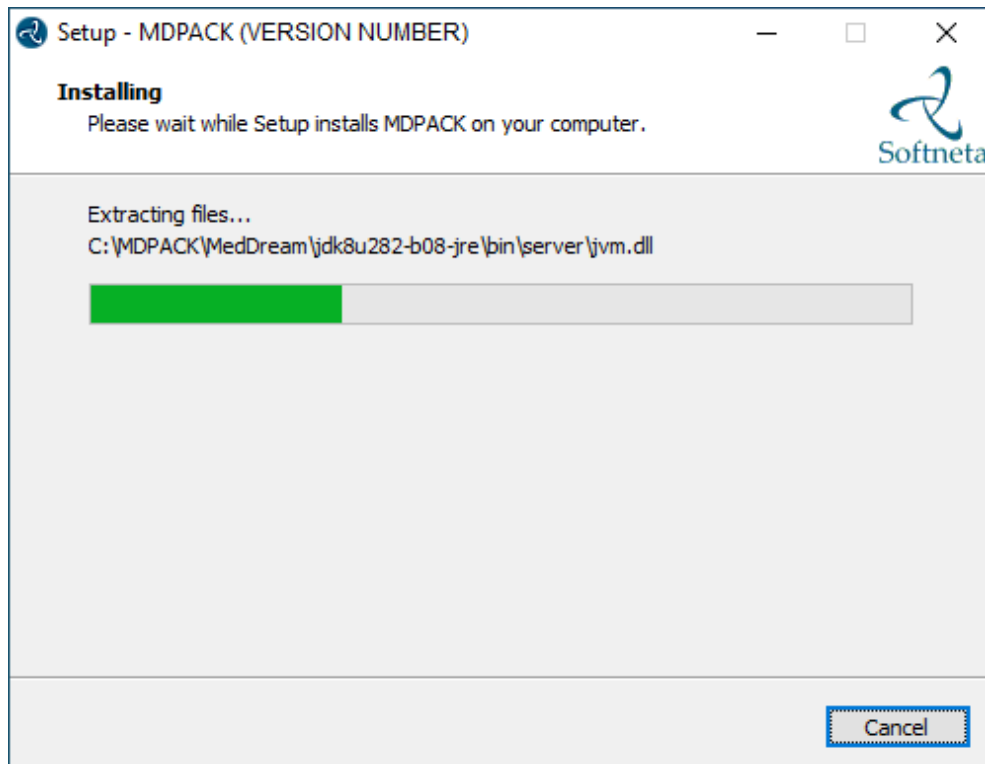- Choose **Custom configuration** and click **Next >** button:

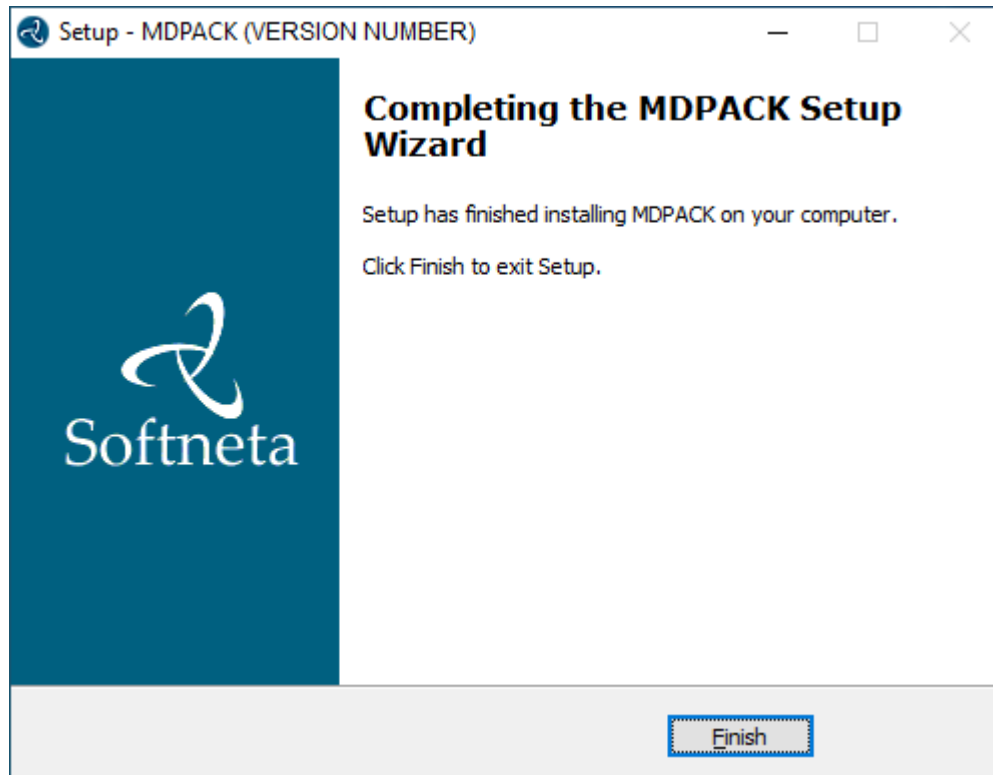- Choose **Pacsone configuration** and click **Next >** button:

- Click **Install** button:

- A progress bar will be displayed during the MedDream Viewer installation process:

- Well done, you have completed the installation. Click **Finish** button.

CONFIGURATION

1 **Change the basic MedDream Viewer settings for the first launch. Open** application.properties file. You can find it in the C:\MDPACK\MedDream\application.properties. **Do** the following steps:

- **Enter** your PacsOne database IP address, port and database name as shown in the example below:

  `com.softneta.meddream.pacs.configurations[0].url=jdbc:mysql://127.0.0.1:3306/PACS1`

- **Change** username from `{Username}` to, for example, "pacsone":

  `com.softneta.meddream.pacs.configurations[0].username=pacsone`

- **Change** password from `{Password}` to, for example, "pacsone":

  `com.softneta.meddream.pacs.configurations[0].password=pacsone`

- **Enter** AE title, IP address, port of PACS, if you want to enable the ability to save annotations and other additional information in the MedDream Viewer:
  `com.softneta.meddream.pacs.configurations[0].storeScpAet=PACSONE`
  `com.softneta.meddream.pacs.configurations[0].storeScpIp=127.0.0.1`
  `com.softneta.meddream.pacs.configurations[0].storeScpPort=104`

2 **Change the other MedDream Viewer settings.** You can add additional MedDream settings or change existing ones in the C:\MDPACK\MedDream\application.properties file. **The minimum MedDream DICOM Viewer configuration** for opening studies stored on the PacsOne PACS:

```
#server.port=80

server.servlet.session.timeout=60

#server.compression.enabled=true

server.compression.mime-types=application/octet-stream


#com.softneta.settings.fileLocation=${com.softneta.meddream.configRoot}/sys/settings

#com.softneta.thumbnails.ffMpegExecutable=${com.softneta.meddream.configRoot}/sys/ffmpeg/
ffmpeg.exe


authentication.manager.username=admin

authentication.manager.password=

#management.server.port=8081

#management.server.address=127.0.0.1

#com.softneta.meddream.maxAttemptsToConnect=5

#com.softneta.meddream.timeoutSeconds=60


#com.softneta.meddream.searchPatientHistoryInAllStorages=false


spring.profiles.include=auth-inmemory

authentication.inmemory.users[0].userName=demo

authentication.inmemory.users[0].password=demo

authorization.users[0].userName=demo

authorization.users[0].role=ADMIN,SEARCH,PATIENT_HISTORY,UPLOAD_DICOM_LIBRARY,EXPORT_ISO,
EXPORT_ARCH,FORWARD,REPORT_UPLOAD,DOCUMENT_VIEW,FREE_DRAW_EDIT,SMART_DRAW_EDIT,CLEAR_CACH
E,USER_SETTINGS

#authorization.users[0].accessibleStorages=PacsOneQR,d4c5Dicomweb


#spring.profiles.include=auth-pacsone

#authentication.database.databaseName=DB_NAME

#authentication.database.jdbcUrl=jdbc:mysql://DB_HOST:DB_PORT/${authentication.database.d
atabaseName}

#authorization.defaultLoginPermissions=SEARCH,PATIENT_HISTORY,UPLOAD_DICOM_LIBRARY,DOCUME
NT_VIEW,BOUNDING_BOX_VIEW,FREE_DRAW_VIEW,SMART_DRAW_VIEW,CLEAR_CACHE,USER_SETTINGS

#authorization.users[0].userName=NAME1

#authorization.users[0].role=ANONYMOUS_VIEW

#authorization.users[0].accessibleStorages=PacsOneLocal
```

```
#spring.profiles.include=auth-his,auth-inmemory
#spring.profiles.include=auth-his
#authentication.his.token-service-address=http://127.0.0.1:8088/v3/validate
#authentication.his.valid-his-params=study,storage
#authentication.his.valid-his-params=accnum
#authentication.his.valid-his-params[0]=patient,accnum
#authentication.his.valid-his-params=patient
#authentication.his.valid-his-params=file
#authentication.his.useSameSession=true
#authentication.his.patient-integration-open-studies=false


logging.level.ROOT=ERROR
#logging.level.com.softneta=INFO
logging.file.name=meddream


com.softneta.dicom.library.upload.anonymizeLevel=1


#com.softneta.meddream.dcmsnd.bind=MEDDREAM
#com.softneta.meddream.dcmsnd.dicomSendThreadCount=2
#com.softneta.meddream.dcmsnd.forwardingMethod=plugin
#com.softneta.meddream.dcmsnd.annotationsFromOrigAet=true


#com.softneta.dicomStoreService.localAETitle=MEDDREAM
#com.softneta.dicomStoreService.port=11116
com.softneta.dicomStoreService.address=127.0.0.1
#com.softneta.dicomStoreService.saveDirectory=${com.softneta.meddream.tempDir}/STORE
com.softneta.dicomStoreService.acceptAETitles=SendersTitle,AnotherTitle
#com.softneta.dicom-store-service.allowedIps=192.168.111.87,192.168.111.88,192.168.111.91
#com.softneta.dicomStoreService.prepareReceivedFile=true
#com.softneta.dicomStoreService.prepareForTheseLocalTitles=


#com.softneta.preparation.thumbnailCreationModalities=CT,PT,MR
#com.softneta.preparation.thumbnailCreation=all
#com.softneta.preparation.enabled=true
```

```
#com.softneta.preparation.cachePreparationFiles=false
#com.softneta.preparation.compressPixelsBeforeSave=false
#com.softneta.preparation.persistCache=true
#com.softneta.preparation.cacheTimeToIdleSeconds=86400


com.softneta.temp-cleaner.cleanRateMilliSec=1800000
#com.softneta.temp-cleaner.cron=0 30 0 * * *
#com.softneta.temp-cleaner.monitoringFrequencyMilliSec=60000
#com.softneta.temp-cleaner.freeSpaceThresholdPct=90


com.softneta.temp-cleaner.tempItems[0].directory=${com.softneta.preparation.cacheDir}
com.softneta.temp-cleaner.tempItems[0].pattern=*
com.softneta.temp-cleaner.tempItems[0].olderThanSec=604800


com.softneta.temp-cleaner.tempItems[1].directory=${com.softneta.meddream.tempDir}
com.softneta.temp-cleaner.tempItems[1].pattern=*_archive
com.softneta.temp-cleaner.tempItems[1].olderThanSec=7200
com.softneta.temp-cleaner.tempItems[1].matchAnyDepth=false


com.softneta.temp-cleaner.tempItems[2].directory=${com.softneta.meddream.tempDir}
com.softneta.temp-cleaner.tempItems[2].pattern=*_export
com.softneta.temp-cleaner.tempItems[2].olderThanSec=21600
com.softneta.temp-cleaner.tempItems[2].matchAnyDepth=false


com.softneta.temp-cleaner.tempItems[3].directory=${com.softneta.meddream.tempDir}
com.softneta.temp-cleaner.tempItems[3].pattern=forward_*.dcm
com.softneta.temp-cleaner.tempItems[3].olderThanSec=7200
com.softneta.temp-cleaner.tempItems[3].matchAnyDepth=false


com.softneta.temp-cleaner.tempItems[4].directory=${com.softneta.video.convertedDir}
com.softneta.temp-cleaner.tempItems[4].pattern=*
com.softneta.temp-cleaner.tempItems[4].olderThanSec=3600


com.softneta.temp-
cleaner.tempItems[5].directory=${com.softneta.dicom.library.upload.tempDir}
com.softneta.temp-cleaner.tempItems[5].pattern=*
```

```
com.softneta.temp-cleaner.tempItems[5].olderThanSec=86400


com.softneta.temp-
cleaner.tempItems[6].directory=${com.softneta.dicomStoreService.saveDirectory}
com.softneta.temp-cleaner.tempItems[6].pattern=*
com.softneta.temp-cleaner.tempItems[6].olderThanSec=86400


#com.softneta.audit.serverHostname=192.168.1.123
#com.softneta.audit.serverPort=6514
com.softneta.audit.useTls=false
com.softneta.audit.trustStore=file:///c:/tmp/nxlog/client/cacerts.jks
com.softneta.audit.trustStorePassword={password}
com.softneta.audit.keyStore=file:///c:/tmp/nxlog/client/cacerts.jks
com.softneta.audit.keyStorePassword={password}


spring.batch.job.maxFailedJobRestarts=10
com.softneta.meddream.enabledColorPalettes=HOT_IRON,PET,HOT_METAL_BLUE,PET_20_STEP,RAINBO
W
#com.softneta.meddream.toolbarButtonsOrderingEnabled=false
#com.softneta.meddream.http.brandingCacheMaxAgeSec=0
#com.softneta.cache.studyStructureSec=300
#com.softneta.dicomParser.useJdtLookupDDict=false


com.softneta.meddream.pacs.configurations[0].type=PacsOne
com.softneta.meddream.pacs.configurations[0].id=PacsOneLocal
#com.softneta.meddream.pacs.configurations[0].forwardApiEnabled=false
#com.softneta.meddream.pacs.configurations[0].eventApiEnabled=false
com.softneta.meddream.pacs.configurations[0].url=jdbc:mysql://127.0.0.1:3306/PACS1
#com.softneta.meddream.pacs.configurations[0].url=jdbc:postgresql://127.0.0.1:5432/PACS1
com.softneta.meddream.pacs.configurations[0].username={Username}
com.softneta.meddream.pacs.configurations[0].password={Password}
#com.softneta.meddream.pacs.configurations[0].mappedStorageLocation=C://PacsStorage//Stud
ies=Z://Studies1|E://DICOM//=Z://Studies2
#com.softneta.meddream.pacs.configurations[0].dicomCacheDirectory=${com.softneta.meddream
.tempDir}/dcm/aws_s3_1
#com.softneta.meddream.pacs.configurations[0].awsS3ConnectionInfoCacheTimeInSec=600
com.softneta.meddream.pacs.configurations[0].useModalityAggregation=true
```

```
#com.softneta.meddream.pacs.configurations[0].strictUserAetIsEnabled=true

#com.softneta.meddream.pacs.configurations[0].storeScpAet=PACSONE

#com.softneta.meddream.pacs.configurations[0].storeScpIp=127.0.0.1

#com.softneta.meddream.pacs.configurations[0].storeScpPort=104

#com.softneta.meddream.pacs.configurations[0].storeScuAet=MEDDREAM2
```

3 **Restart MedDream service.** After making any changes to the application.properties file, the MedDream service must be restarted.

- **Open** Windows **Services** by pressing **<Win⊞ > + R** and **type** services.msc. Click **OK** button:
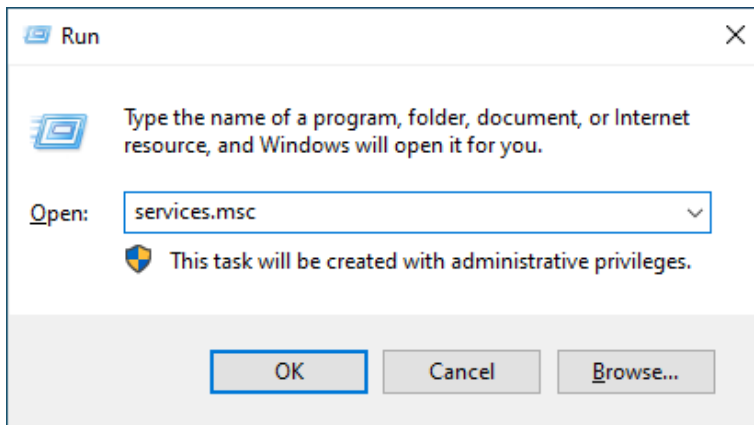
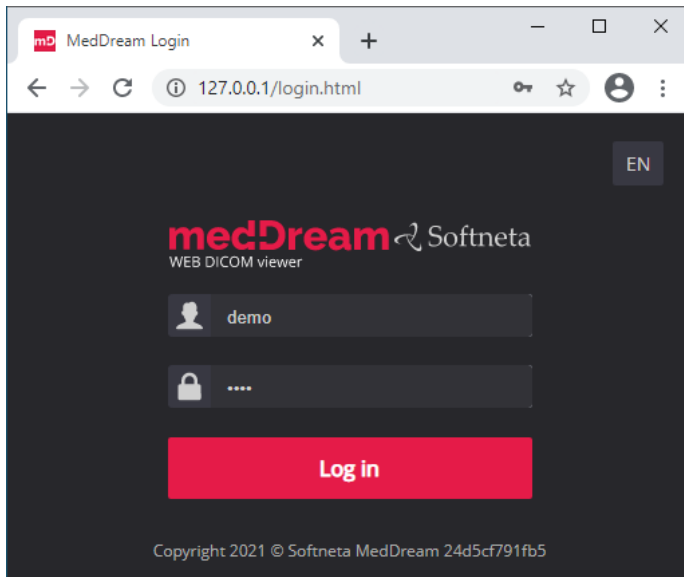- **Find** the **MedDream** service and **restart** it:
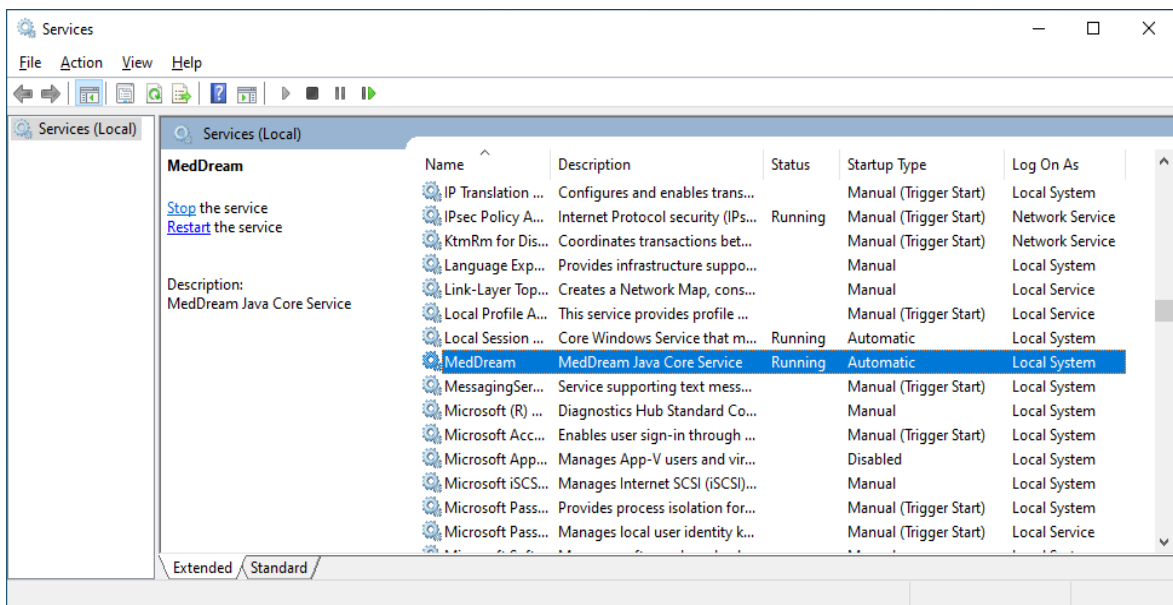
NOTE: In the C:\MDPACK\MedDream\ApTemplates you can find examples of MedDream Viewer configurations with explanations. All MedDream settings are stored in the application.SAMPLE.properties file.
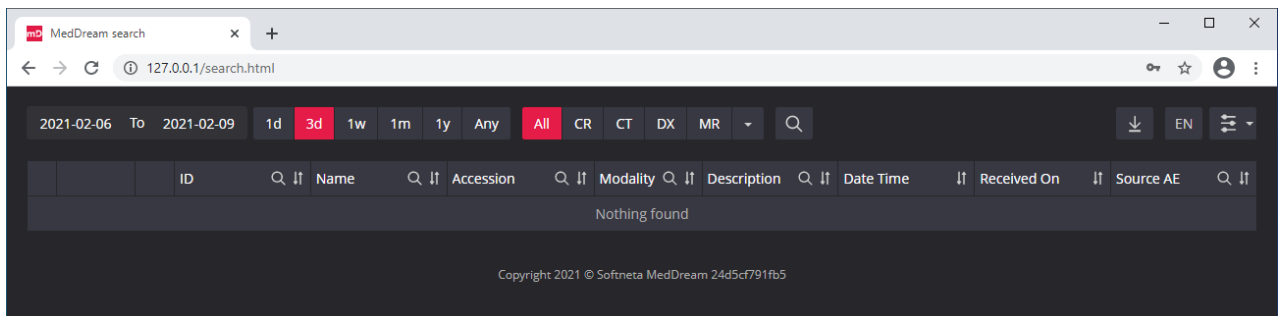

VERIFICATION

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1 Open a browser and enter the MedDream URL http://127.0.0.1/ in the address bar.

2 In the login window, enter the username **demo** and password **demo**. Press **Log in** button:
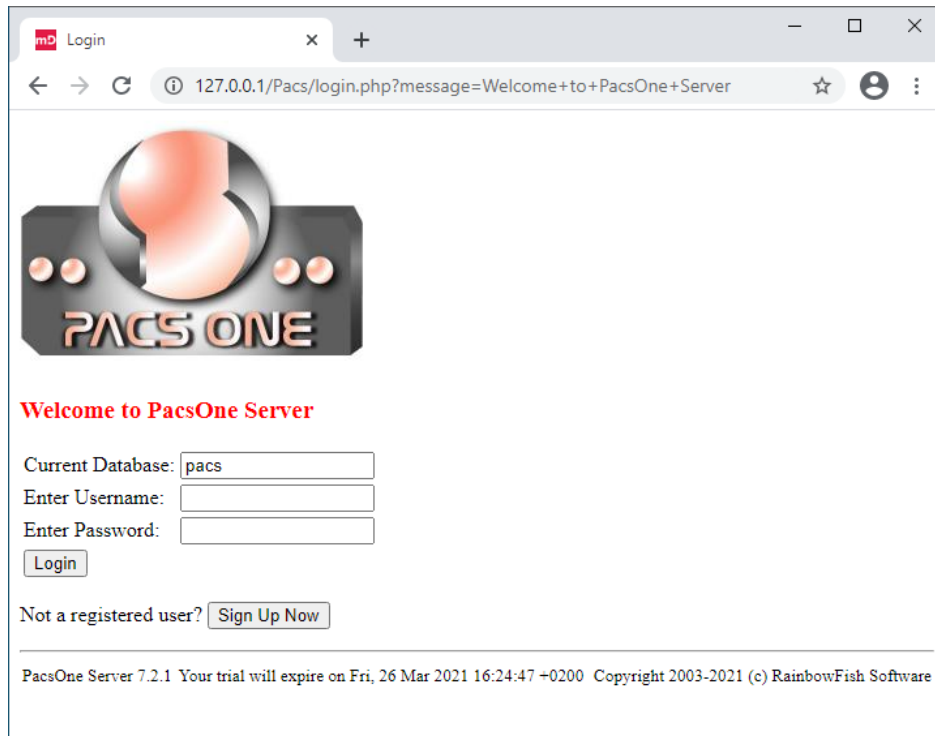

TIP: If you can't connect, restart Windows services (run in cmd line: services.msc and restart MedDream service).

**3** MedDream Viewer shows an empty list of studies:

**4** **Upload studies to the PacsOne PACS server, follow these steps:**

- **Open** a browser and **enter** the PacsOne PACS URL http://127.0.0.1/Pacs. **Enter** your login credentials and press **<Login>** button:

- **Click "Tools"** menu. DICOM images can be uploaded to the server by importing a directory with DICOM files. **Click "Import"** submenu and **enter** the full path to the local directory with files. Press **<Import Studies>** button.
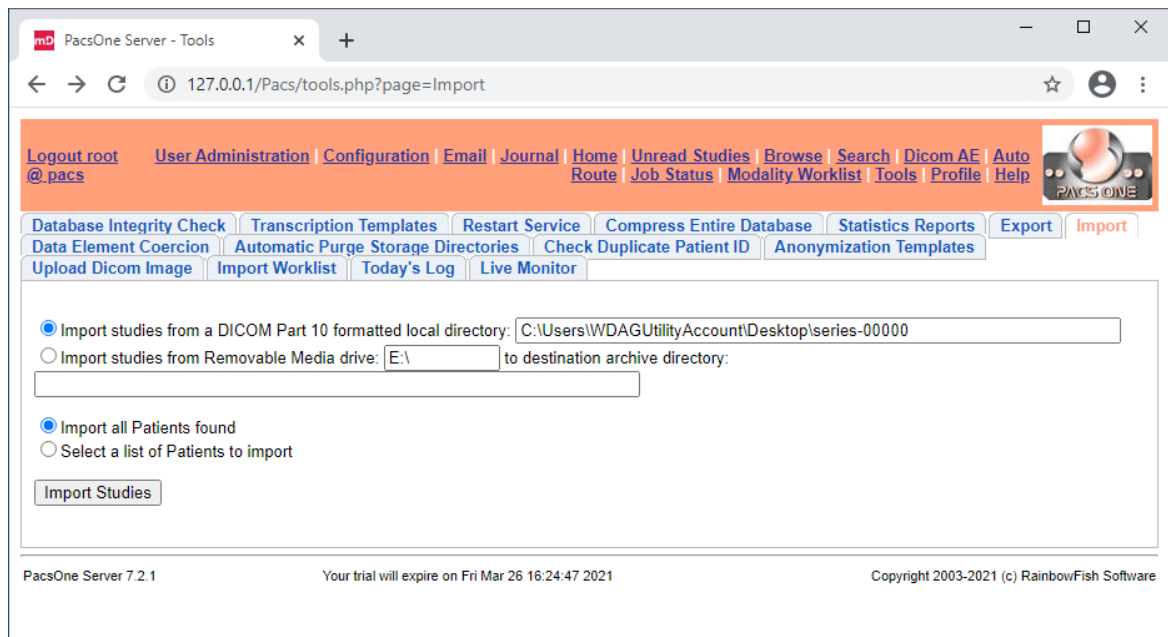

- **Choose** to review jobs. In the "My Submitted Jobs" table you can verify if the import was successful and how many files were imported to the server.
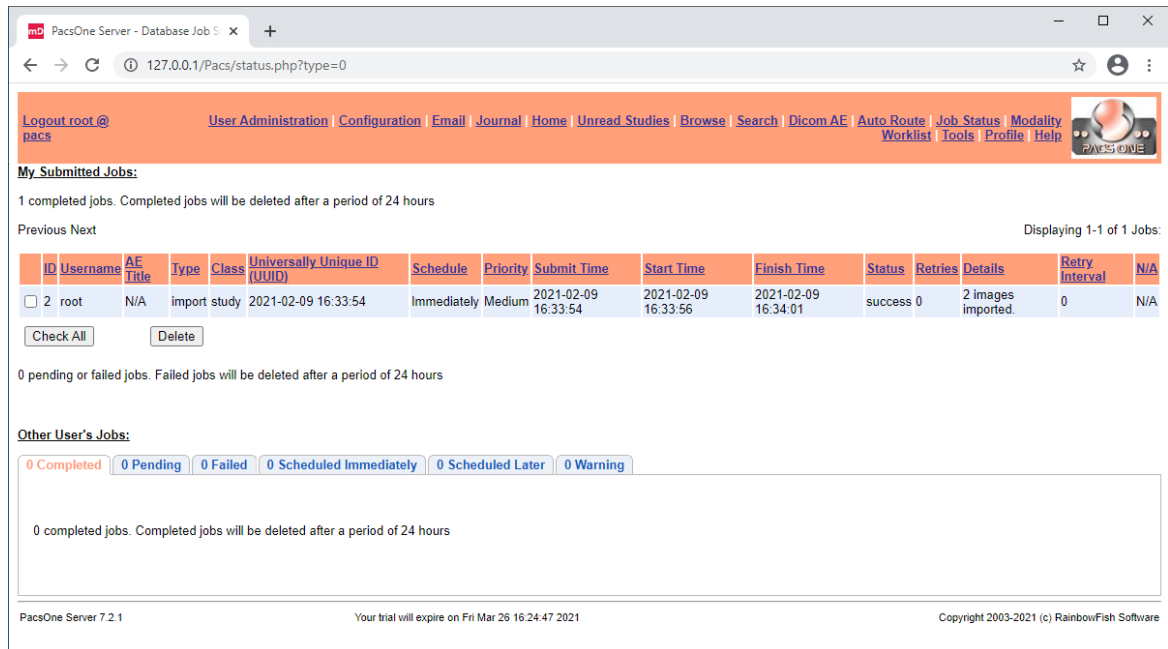

TIP: Samples of anonymized studies can be downloaded from https://demo.softneta.com/ (Login –> Open the selected study –> Click Export –> Select the DICOM format and click Export again –> Press the Download link).

5 **Review uploaded studies in the MedDream Viewer:**

- **Type** http://127.0.0.1/ into your browser's address bar again. **Login** with user **demo,** password **demo** and **change** the date range selection by pressing **<Any>** button. Now you can see your studies in the list:
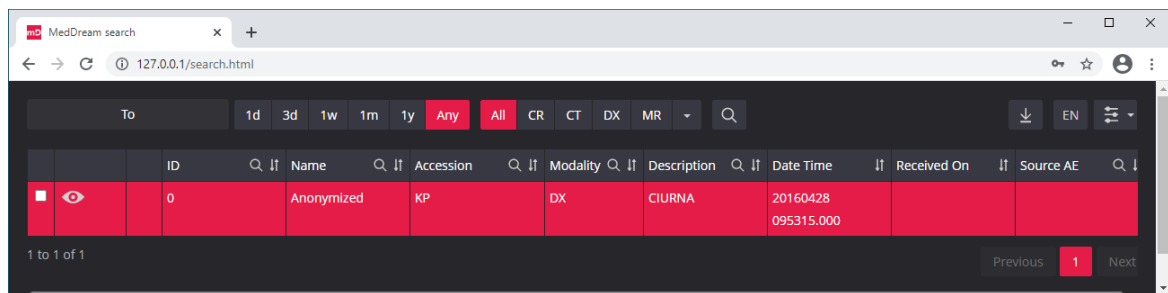
- **Click** once on the study with the left mouse button. MedDream Viewer opens the study in a new browser tab:
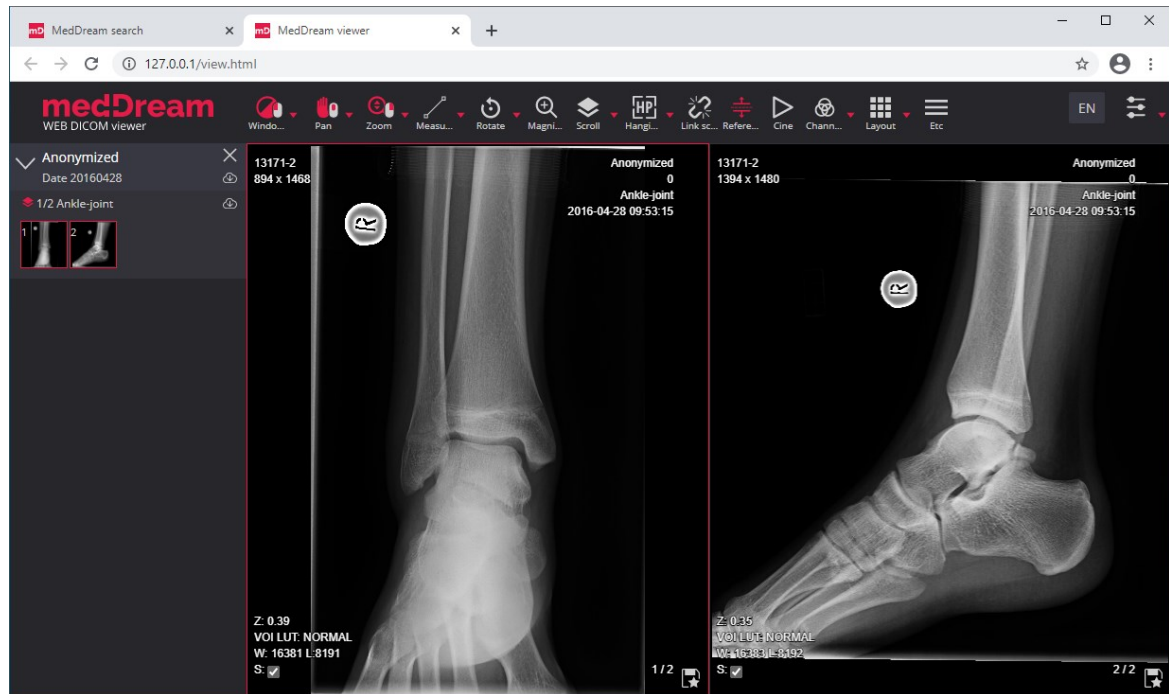
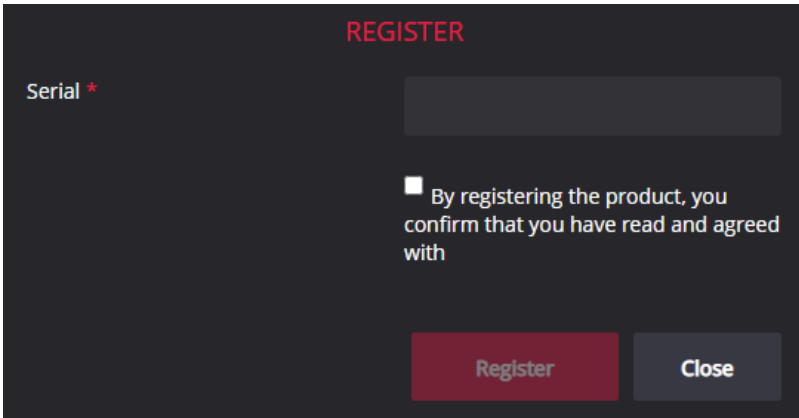**6** Now you can try and see how powerful and useful this tool is.

TROUBLESHOOTING

✓ You must restart the MedDream service each time after changes to the application.properties file or if something went wrong. You can restart the service by running in cmd line: services.msc -> then selecting MedDream service and clicking Restart on the left.

✓ If you can't open the studies, clearing your browser's cache may help. Open a browser and press **CTRL+SHIFT+DEL**. Then select which old data you want to delete and click **Clear** data.

✓ MedDream DICOM Viewer logs are stored in the **C:\MDPACK\MedDream\meddream.main.log**. The standard logging level in the application.properties file is set to INFO. If the log contains too little information, you can change the logging level to **DEBUG** by changing the value of the logging.level.com.softneta parameter.

LICENSE

MedDream DICOM Viewer licensed under the Commercial License. Please contact info@softneta.com to get TRIAL or Commercial license. If you have a License Serial number, follow these instructions:

1 Press **Register** button. The system opens a license registration window:

2 Enter the name of the organization and the license **Serial** number you received.

3 Click on the link **EULA** and read Software License Agreement. After reading, close the window by clicking the **<Close>** button.

4 **Check** the box ☐ to confirm that you accept license agreement.

5 Press **Register** button. The license will be successfully registered.

NOTE: If you have any questions about MedDream licenses and prices, please contact our SALES team by e-mail info@softneta.com or by phone +370 670 15991.

HELP AND RESOURCES

✓ Detailed MedDream installation and configuration instructions are provided in the install manual. You can download it from here: https://www.softneta.com/files/meddreamviewer/doc/MedDream-DICOM-Viewer-Install-Manual.pdf

✓ We are constantly improving this product. Get the most out of your MedDream Viewer with updated features and performance.

✓ Download the User manual from https://www.softneta.com/files/meddreamviewer/doc/MedDream-DICOM-Viewer-User-Manual.pdf and get more information about this device.

✓ Read short instructions and watch tutorial videos here: https://www.softneta.com/documentation/user-guide/user-introduction/

✓ Our great SUPPORT team is always ready to help you. If you have any questions, please write an email to support@softneta.com or call +370 672 62795.