medDream™
by Softneta Company

HTML 5 ZERO-FOOTPRINT DICOM VIEWER

QUICK START GUIDE

Windows x64 MedDream PACS Premium

Document version 1.00

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**.

IHE XDS-I.b PASSED   FDA K162011 510(k) CLEARED   CE 0197 Class IIb certified

ABOUT SOFTWARE

This guide describes MedDream DICOM Viewer deployment on Windows x64. MedDream PACS Premium software package contains all the software required to run MedDream Viewer on your server.

The Viewer can be integrated into 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

✓ The Operating system is **Windows 10 (x64)** or one of the **Windows Server (x64)** versions: 2012, 2012 R2, 2016, 2019.

✓ Make sure the server has at least **3 GHz CPU with 2 cores**, **3 GB of RAM**, **20 GB** of available **hard disk** space. Network bandwidth is not less than **4 Mbit/s.**

# INSTALLATION FOR THE FIRST TIME

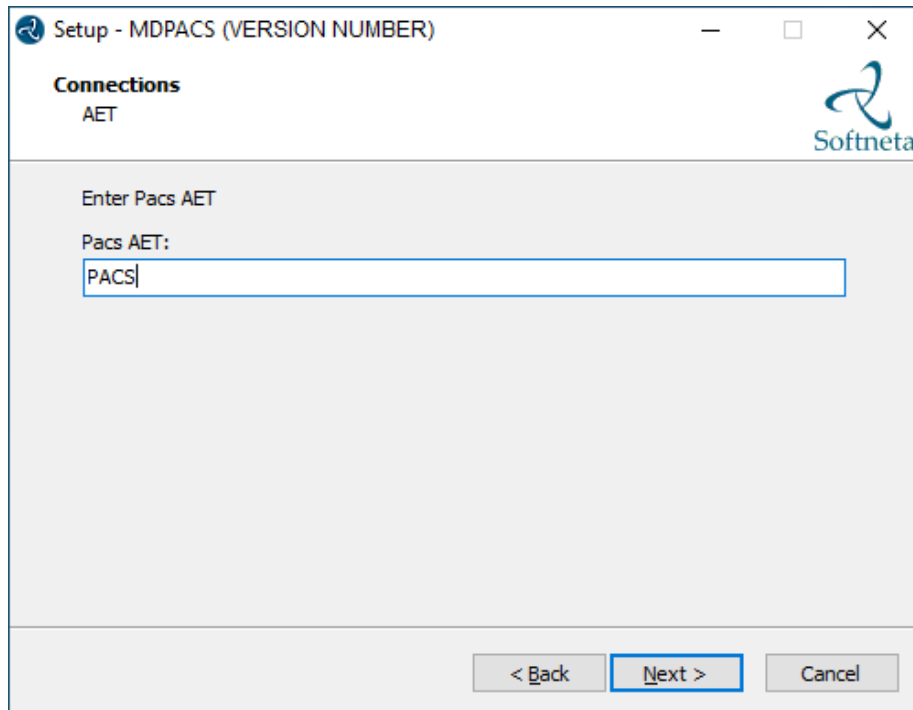**1** **Install all in one package (MedDream DICOM Viewer, MedDream PACS, MySQL database and additional programs):**

- **Download** the latest Windows version of the package from the Softneta website: https://www.softneta.com/files/meddreampacs/premium/LATEST/MedDream-PACS-Premium.exe

- **Execute MedDream-PACS-Premium.exe** and click **Next >** button:
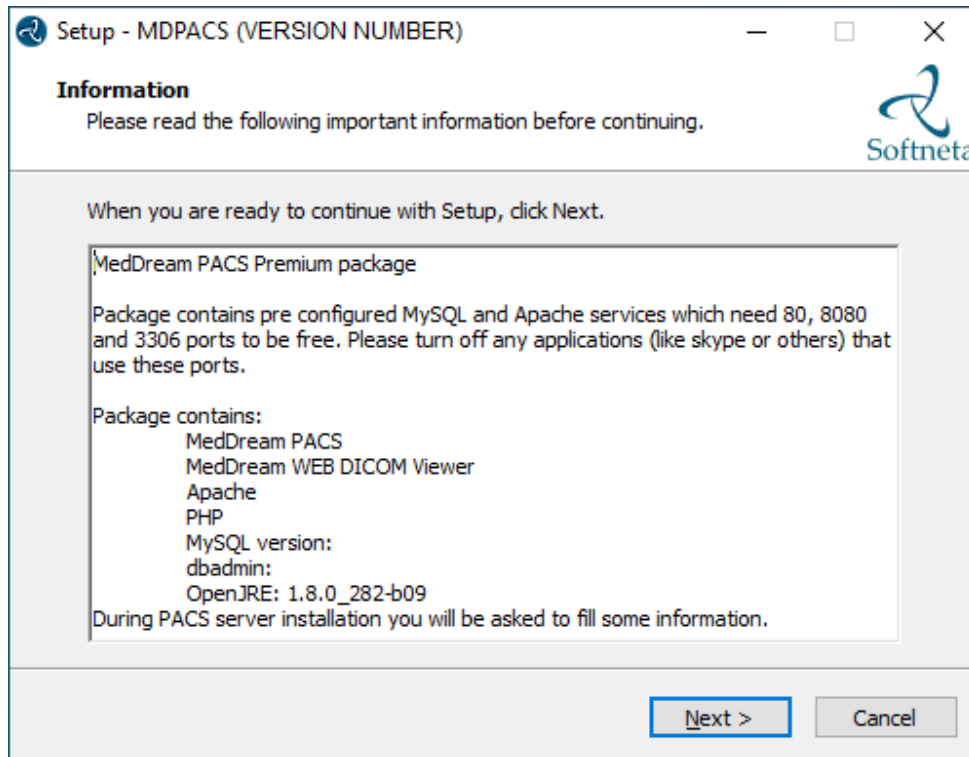
- Choose **C:\MDPACS** and click **Next >** button:
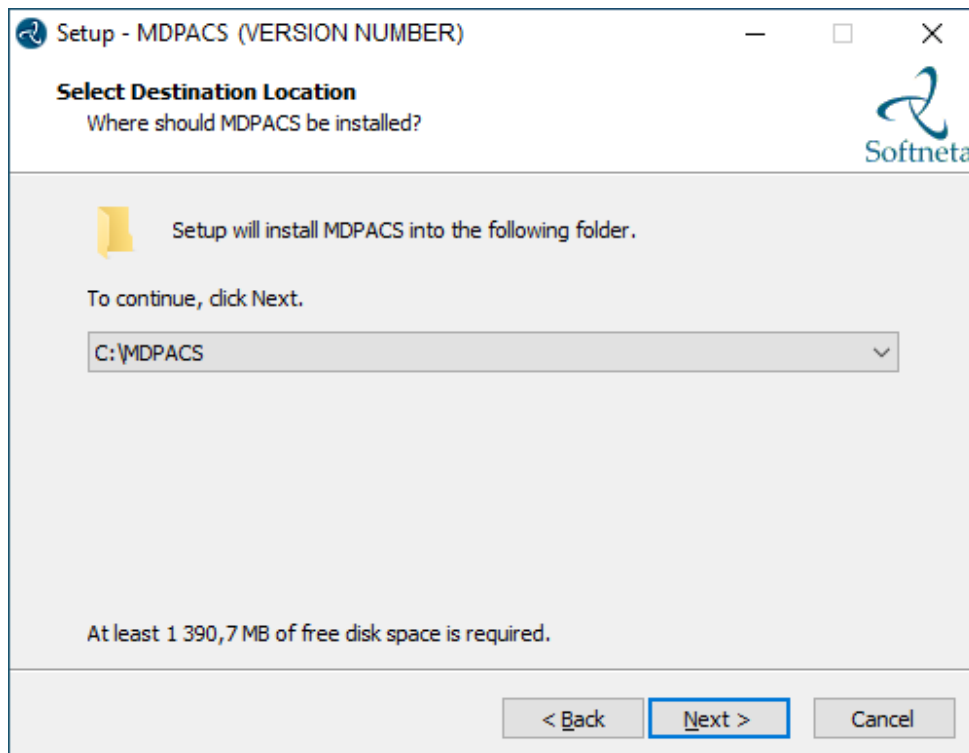
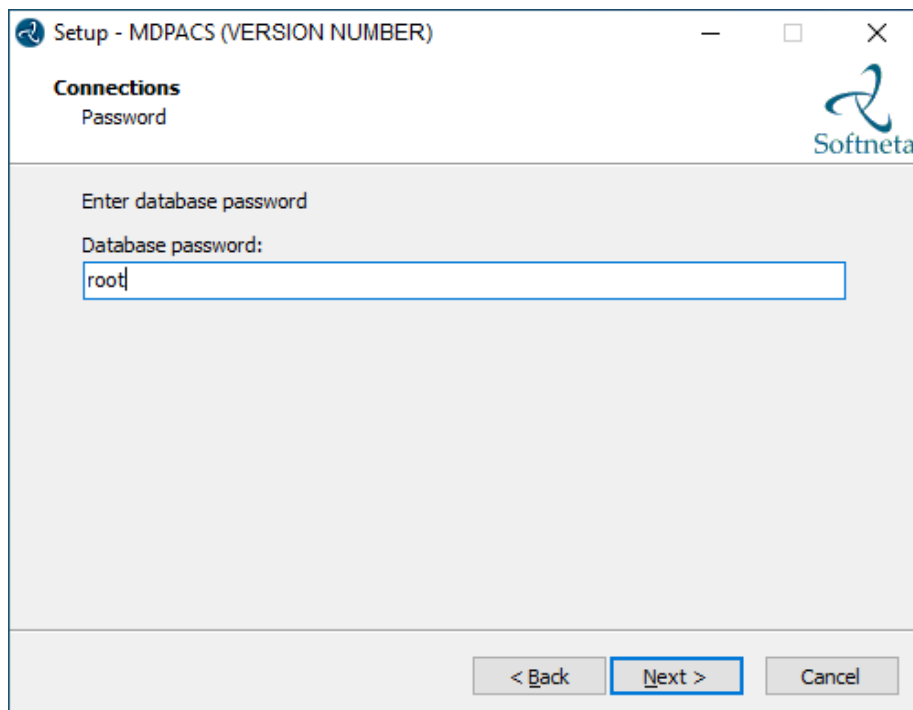- **Enter** Pacs AET, such as PACS. Remember it, you will need to specify the exact same AET name in the PACS configuration. Then click **Next >** button:

TIP: Pacs AET will be saved in the C:\MDPACS\MedDream\application.properties file.

- **Enter** database password. Remember it. Then click **Next >** button:
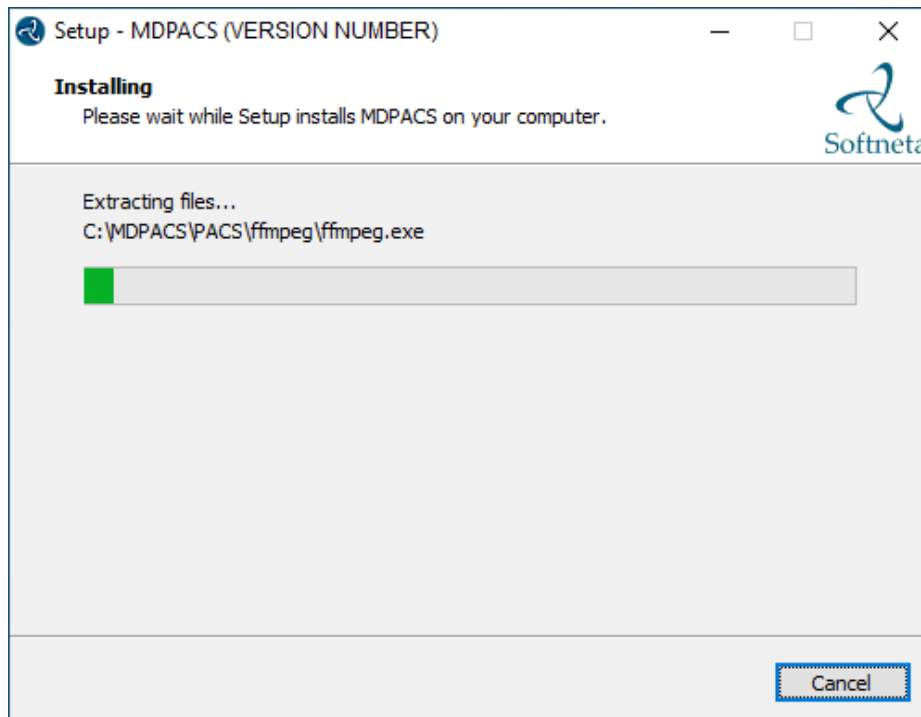

TIP: Database password will be saved in the C:\MDPACS\MedDream\application.properties file.

- Click **Install** to continue with the installation:
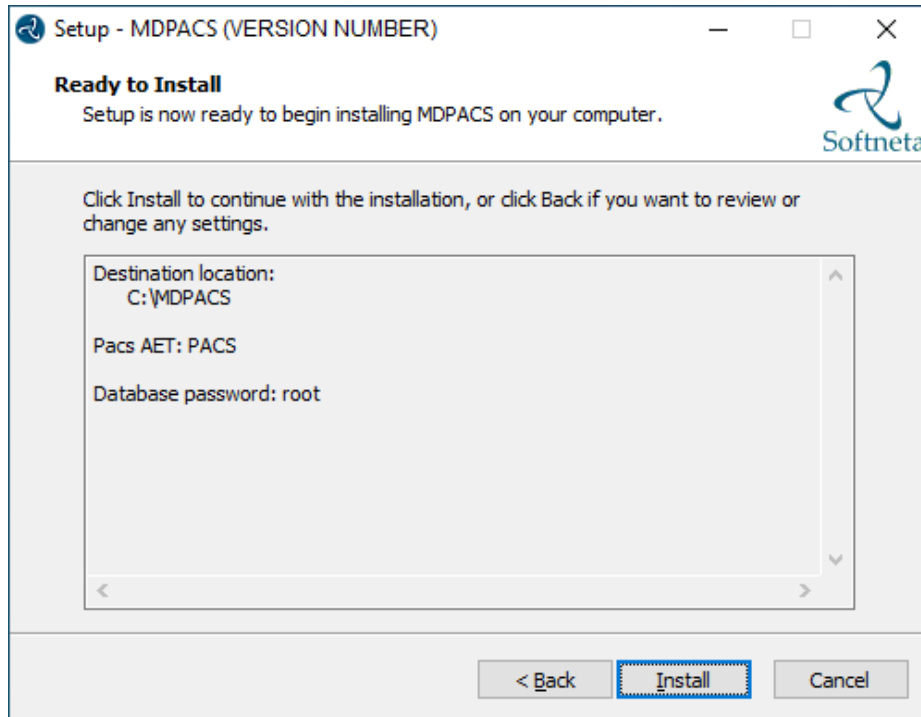
- A progress bar will be displayed during the MedDream Viewer installation process:

- Once MedDream Viewer is installed, the MedDream PACS configuration begins. **Follow the steps below to install and configure the MedDream PACS server.**

- **DICOM part:**
  - **Change** "Application Entity Title" to the same AET you specified before, e.g., PACS.
  - **Change** "Server Port" to e.g., 104.
- **Database part:**
  - **Change** "Database Name" to e.g., PACS.
  - **Enter** "Password" for database user "dicom".
- **Storage part.**
  - **Specify** the storage location for the DICOM files, e.g., C:\MDPACS\DICOM.
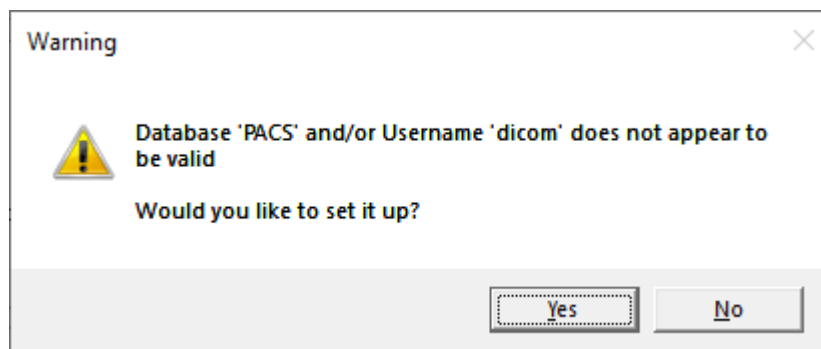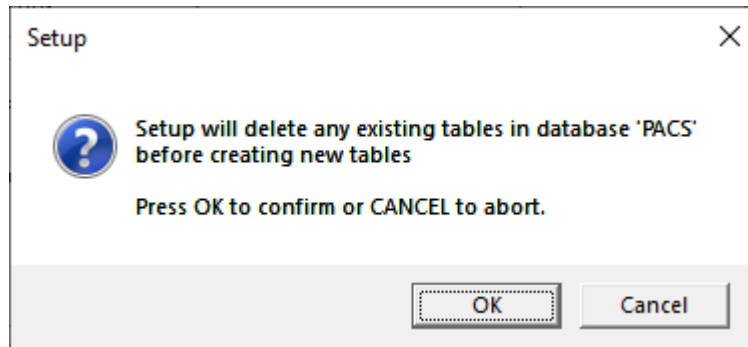- **Click Install** button.

- You will be notified by two messages. It is recommended to press **<OK>** button in the first message

and **<Yes>** in the second:

Setup

Setup will delete any existing tables in database 'PACS' before creating new tables

Press OK to confirm or CANCEL to abort.

OK   Cancel

Warning

Database 'PACS' and/or Username 'dicom' does not appear to be valid
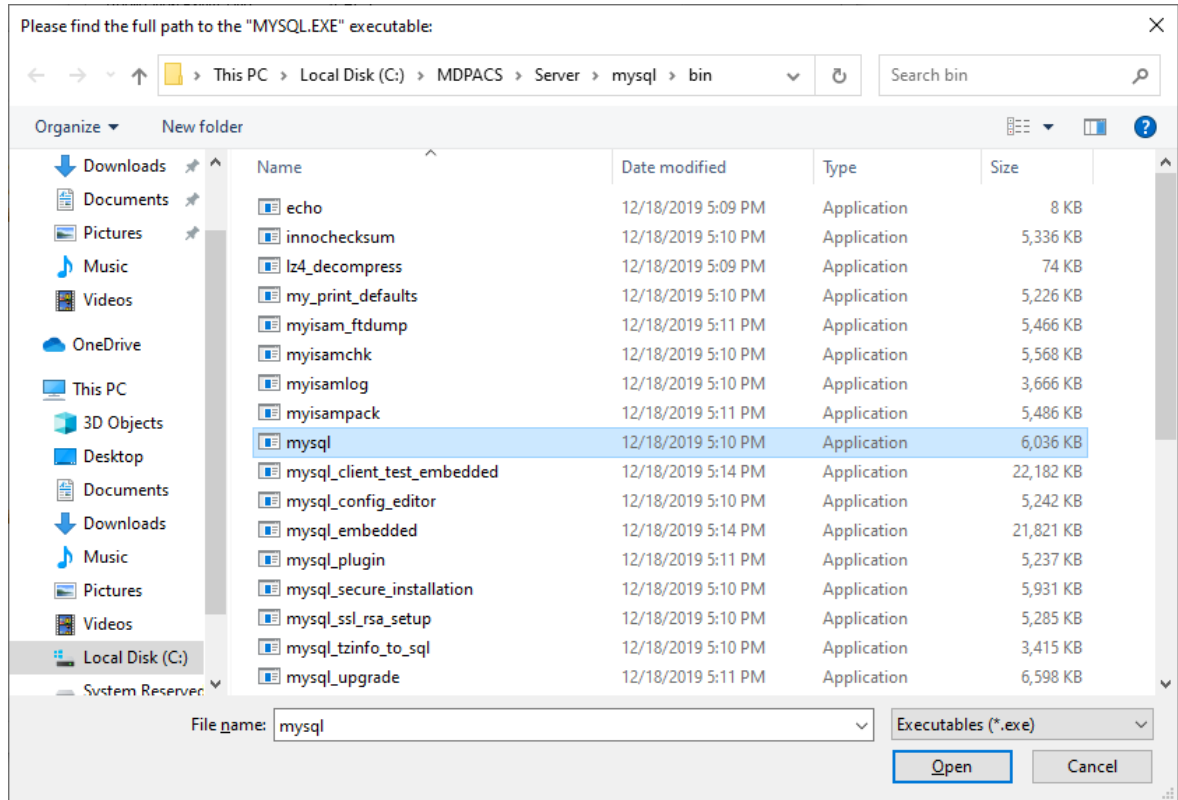
Would you like to set it up?

Yes   No

- **Enter** database password for "root" user. Enter **the same password** you specified in the MedDream Viewer installation.

Setup Database User

Enter password for Database Administrator

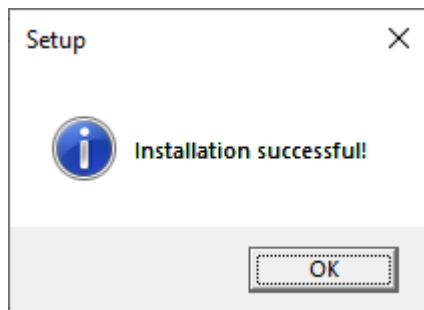Username: root

Password: ****

OK   Cancel
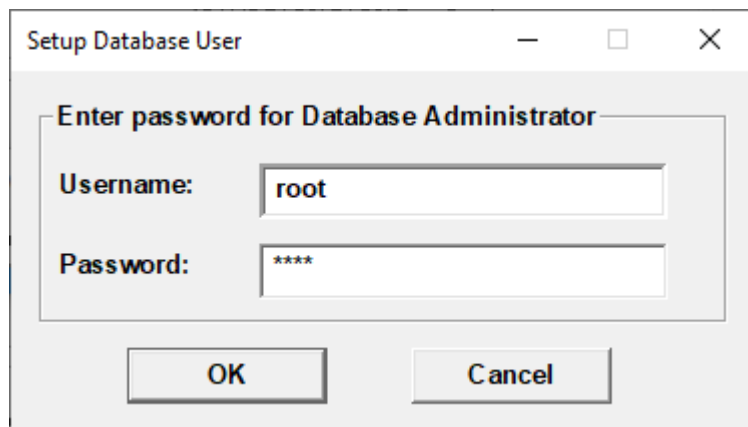
- **Find** the full path to the **"mysql.exe"**. Usually, you can find it here:

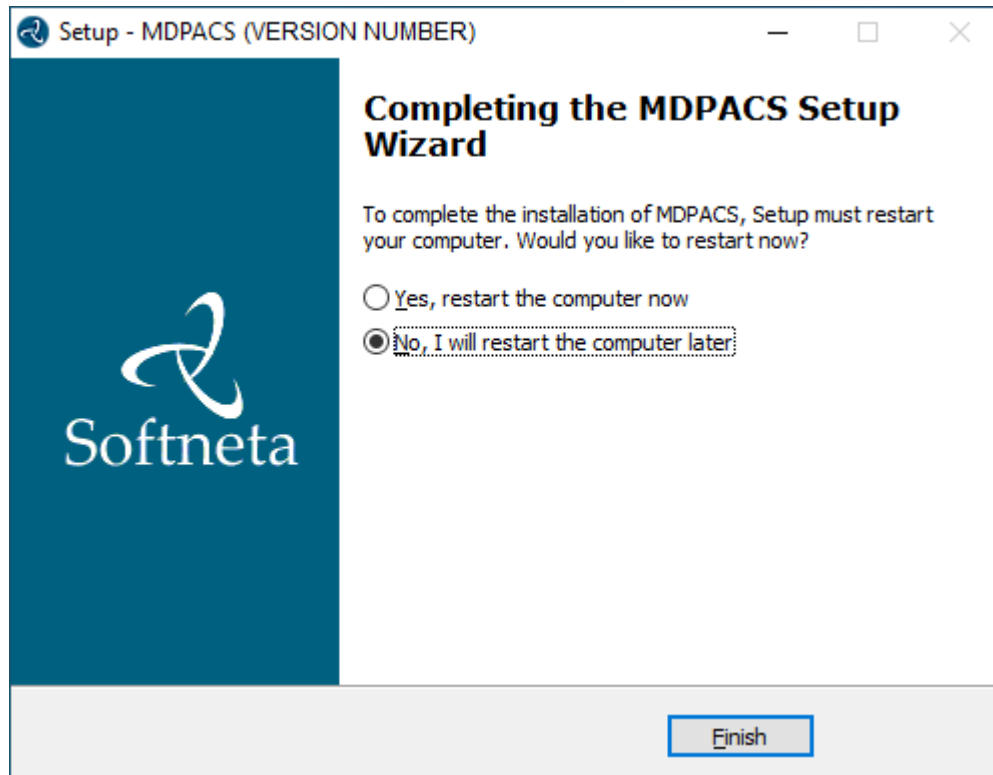C:\MDPACS\Server\mysql\bin\mysql.exe. **Select** the file and then click **Open**:

TIP: You can have several MySQL databases installed on your computer, choose correct database.

- When the MedDream PACS installation is complete, a success message is displayed.

- MedDream PACS Premium installation is complete. Click **Finish** button.

CONFIGURATION

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1   **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 MedDream PACS Premium server is given below:

```
server.port=8080

com.softneta.preparation.coreThreadCount=40

com.softneta.preparation.maxThreadCount=50

com.softneta.preparation.multiFrameThreadCount=20

com.softneta.tempCleaner.cleanRateMilliSec=1800000
# incidental leftovers from Export
com.softneta.tempCleaner.tempItems[0].directory=${com.softneta.meddream.tempDir}
/archive
com.softneta.tempCleaner.tempItems[0].pattern=*
```

```
com.softneta.tempCleaner.tempItems[0].olderThanSec=7200


# incidental leftovers from Burn
com.softneta.tempCleaner.tempItems[1].directory=${com.softneta.meddream.tempDir}
com.softneta.tempCleaner.tempItems[1].pattern=*_export
com.softneta.tempCleaner.tempItems[1].olderThanSec=21600
com.softneta.tempCleaner.tempItems[1].matchAnyDepth=false


# incidental leftovers from Forward
com.softneta.tempCleaner.tempItems[2].directory=${com.softneta.meddream.tempDir}
com.softneta.tempCleaner.tempItems[2].pattern=forward_*.dcm
com.softneta.tempCleaner.tempItems[2].olderThanSec=7200
com.softneta.tempCleaner.tempItems[2].matchAnyDepth=false


# leftovers from MPR (no cleaning by other means so far)
com.softneta.tempCleaner.tempItems[3].directory=${com.softneta.meddream.tempDir}/3d
com.softneta.tempCleaner.tempItems[3].pattern=*
com.softneta.tempCleaner.tempItems[3].olderThanSec=7200


# incidental leftovers from viewing some videos
com.softneta.tempCleaner.tempItems[4].directory=${com.softneta.video.convertedDir}
com.softneta.tempCleaner.tempItems[4].pattern=*
com.softneta.tempCleaner.tempItems[4].olderThanSec=3600


# files prepared both on demand and in background (no cleaning by other means so far)
com.softneta.tempCleaner.tempItems[5].directory=${com.softneta.preparation.cacheDir}
com.softneta.tempCleaner.tempItems[5].pattern=*
com.softneta.tempCleaner.tempItems[5].olderThanSec=604800


# incidental leftovers from Share
com.softneta.tempCleaner.tempItems[6].directory=${com.softneta.dicom.library.
upload.tempDir}
com.softneta.tempCleaner.tempItems[6].pattern=*
com.softneta.tempCleaner.tempItems[6].olderThanSec=86400
##### Miscellaneous
```

```
# Number of times a failed background job will be restarted.
# Default value: 3
spring.batch.job.maxFailedJobRestarts=10


spring.profiles.include=auth-pacsone


authorization.defaultLoginPermissions=SEARCH,EXPORT_ISO,EXPORT_ARCH,FORWARD,
REPORT_VIEW,REPORT_UPLOAD,PATIENT_HISTORY,UPLOAD_DICOM_LIBRARY,3D_RENDERING,ADMIN,
DOCUMENT_VIEW
authorization.users[0].userName=root
authorization.users[0].role=SEARCH,EXPORT_ARCH,FORWARD,REPORT_VIEW,REPORT_UPLOAD,
PATIENT_HISTORY,UPLOAD_DICOM_LIBRARY,3D_RENDERING,ADMIN,VIEW_PRIVATE,DOCUMENT_VIEW


com.softneta.meddream.loginEnabled=true


logging.file.name=mdjavacore.log
logging.level.com.softneta=ERROR


com.softneta.dicom.library.upload.anonymized=true


com.softneta.meddream.pacs.configurations[0].type=PacsOne
com.softneta.meddream.pacs.configurations[0].id=Pacs
com.softneta.meddream.pacs.configurations[0].username=root
com.softneta.meddream.pacs.configurations[0].searchApiEnabled=true
com.softneta.meddream.pacs.configurations[0].imageApiEnabled=true
##To enable "Save annotation" and "SHARE" functions configure and uncomment below 3
lines. Add MEDDREAM AEtitle into PACS system to accept annotations.
#com.softneta.meddream.pacs.configurations[0].storeScpAet=PACS
#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].encoding=ISO-8859-1
com.softneta.meddream.pacs.configurations[0].encodingTo=
com.softneta.meddream.pacs.configurations[0].password=root
authentication.database.databaseName=PACS
authentication.database.jdbcUrl=jdbc:mysql://127.0.0.1:3306/PACS
```

```
com.softneta.meddream.pacs.configurations[0].url=

jdbc:mysql://127.0.0.1:3306/PACS?characterEncoding=latin1
```

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

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 "root" and the password of this user. Press **Log in** button:
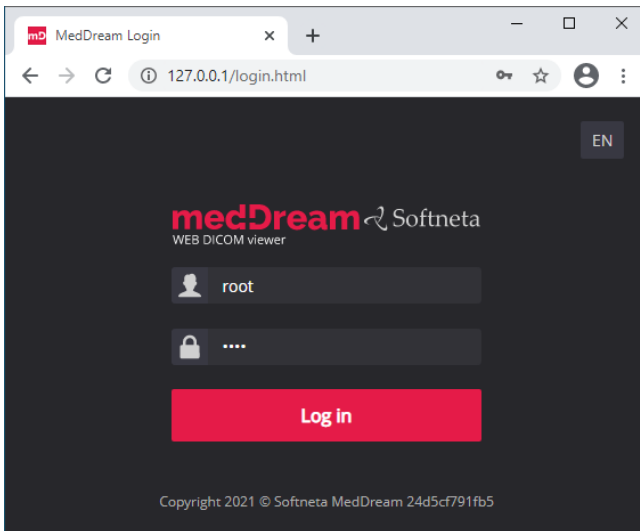
TIP: If you can't connect, restart Windows services (run in cmd line: services.msc and restart MedDream service).

**3** If you did not upload the studies using the MedDream PACS user interface, you will see an empty list of studies:
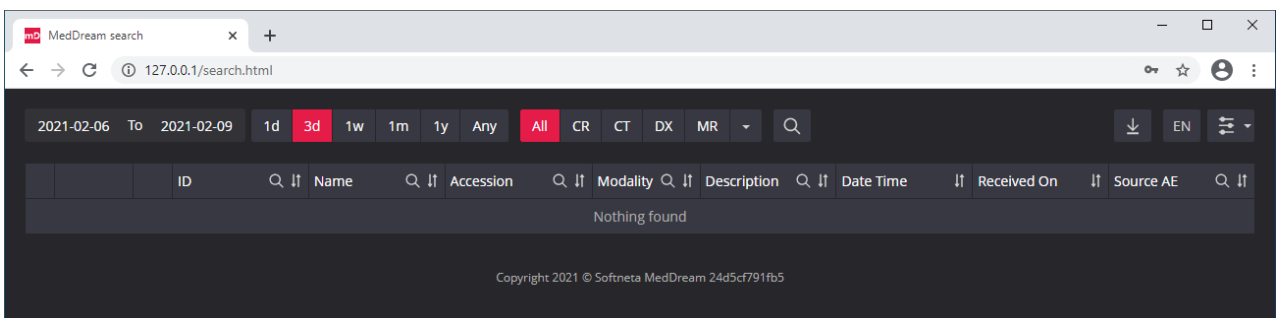
4 **Upload studies to the MedDream PACS server, follow these steps:**

- **Open** a browser and **enter** the MedDream PACS URL http://127.0.0.1/Pacs (P must be a capital
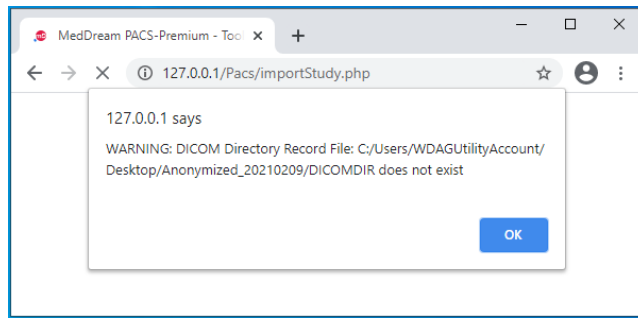

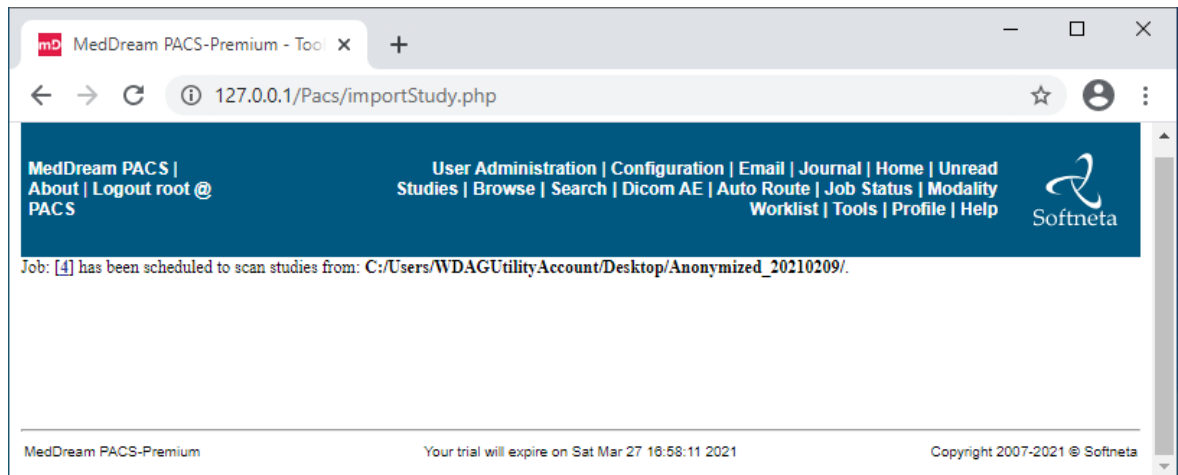letter). **Enter** your login credentials and press **<Login>** button:
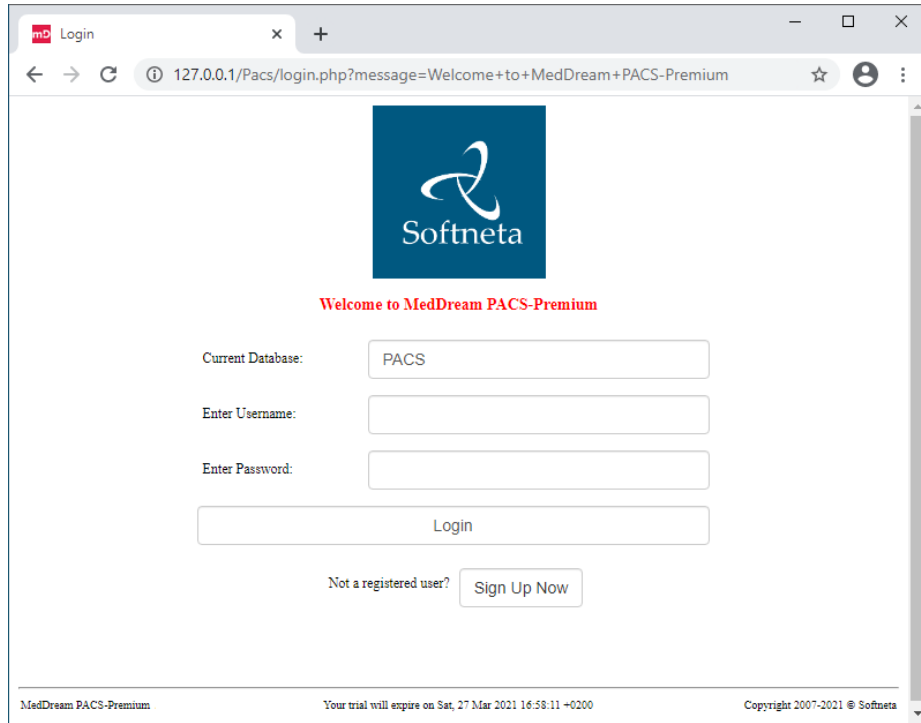
- **Click "Tools"** menu. DICOM images can be uploaded to the server by importing a directory with DICOM files. **Click "Import"** submenu and **enter** the full path to the local directory with files. Press **<Import Studies>** button.
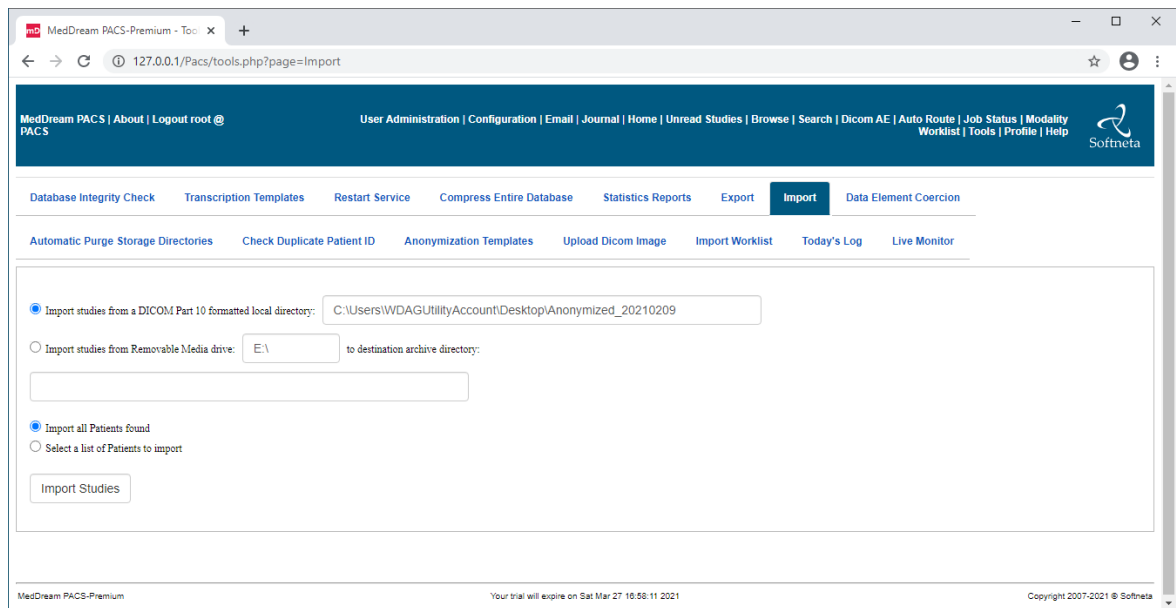
- Press **<OK>** button in the warning message:

- **Click** on the link with job number:

- **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:
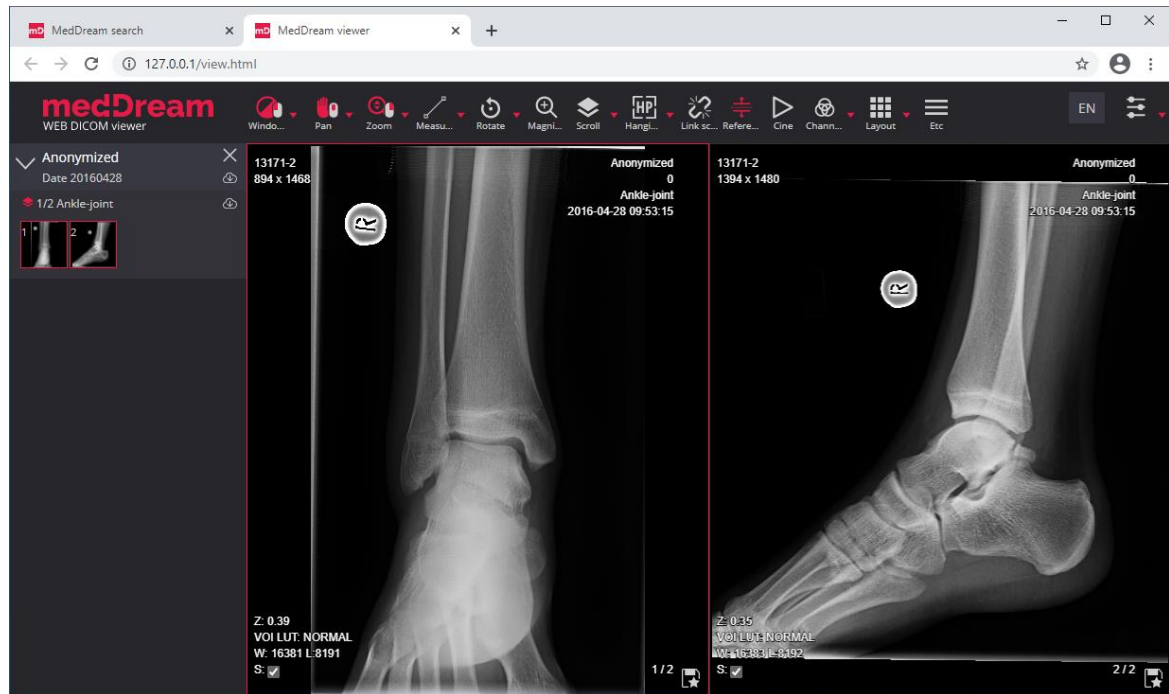
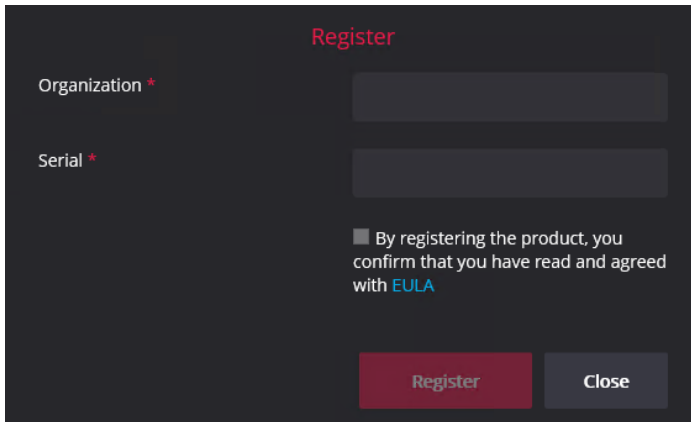**6** Now you can try and see how powerful and useful this tool is.

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 +370 645 06960.