

# HTML 5 ZERO-FOOTPRINT **DICOM VIEWER**

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# QUICK START GUIDE

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## **Windows x64 File System**

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](#).

**IHE** XDS-I.b  
**PASSED**

**FDA** K222320  
510(k)  
**CLEARED**

**CE** 0197  
Class IIb certified

## ABOUT SOFTWARE

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This guide describes MedDream DICOM Viewer deployment on Windows x64 and configuration when studies are stored in the **Windows file system**. The study can only be opened by specifying the name of the directory where the DICOM files are stored in the browser's address bar.

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

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Check [User Manual](#) section: "MedDream viewing functionalities minimal hardware requirements".

## INSTALLATION FOR THE FIRST TIME

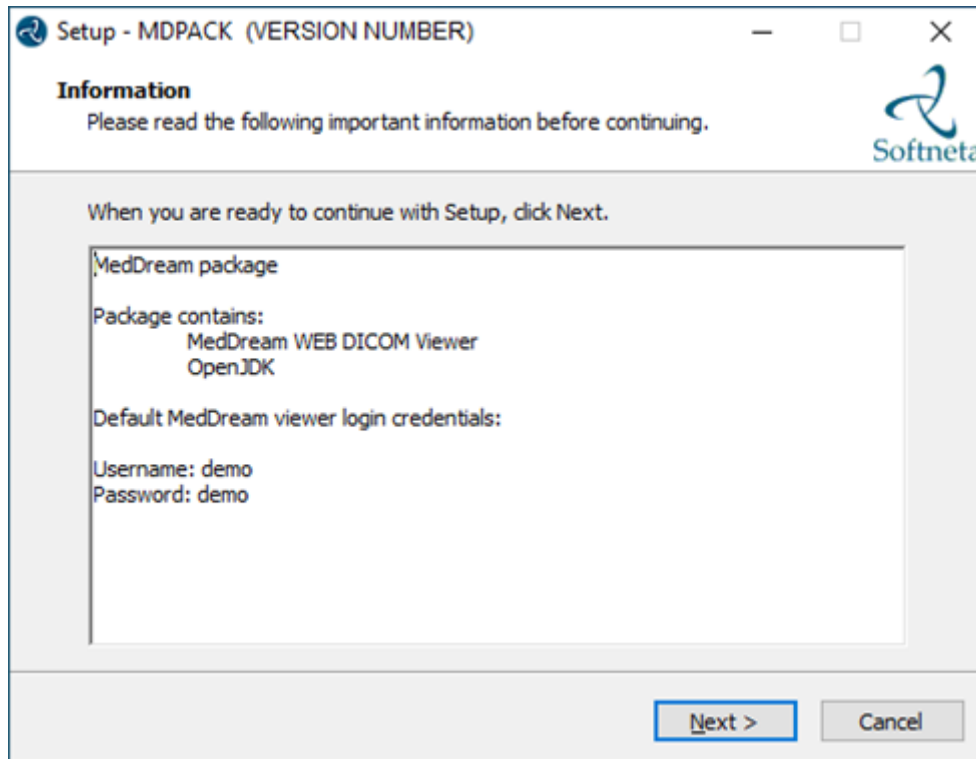
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1

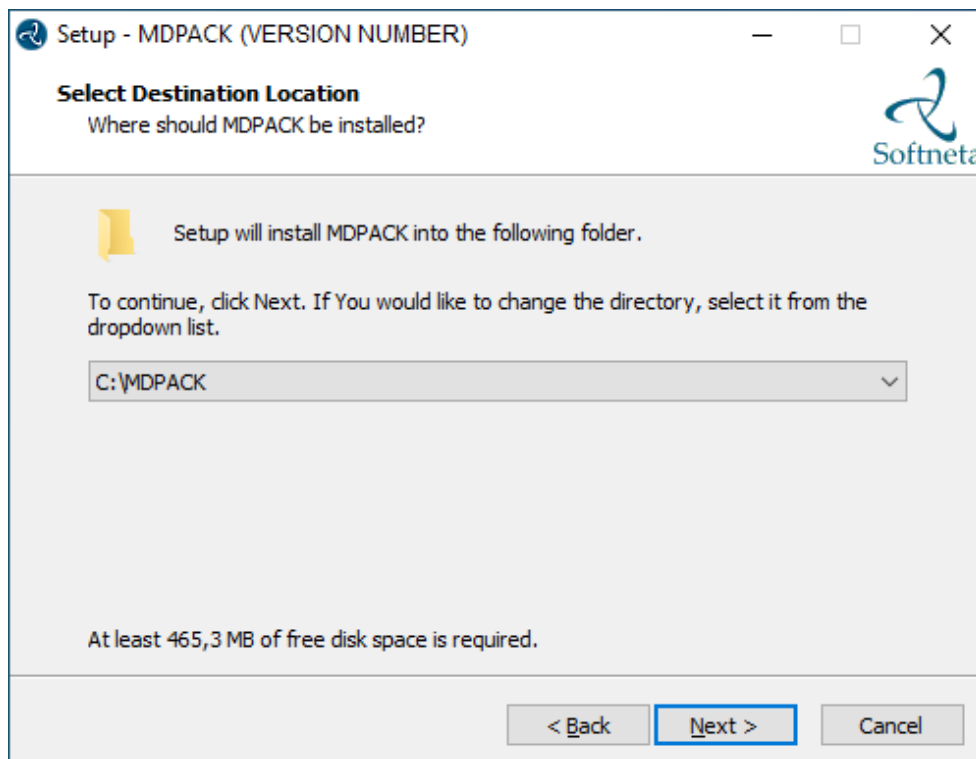
### Install MedDream DICOM Viewer:

- **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.**

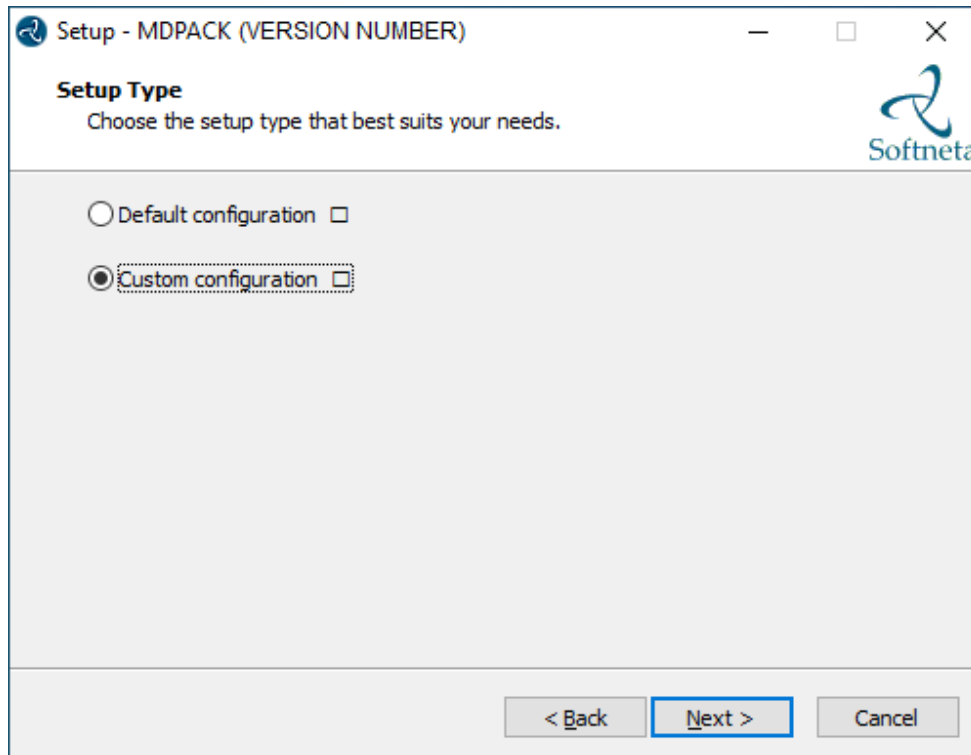
- **Remember** default MedDream Viewer **login credentials** and click **Next >** button:



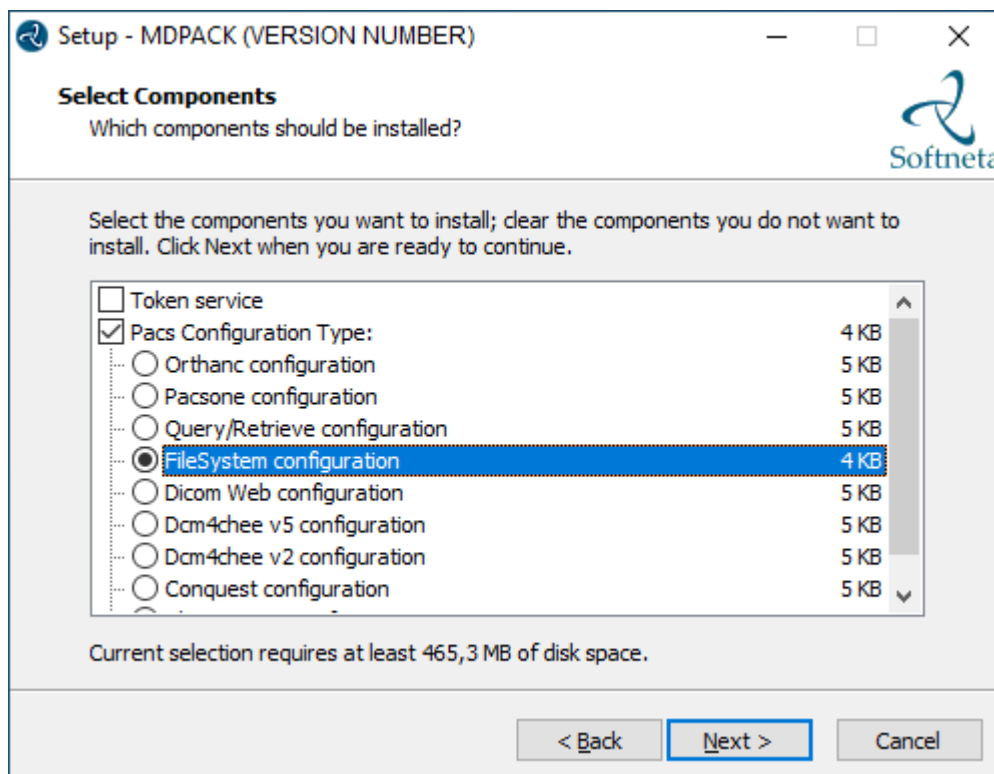
- Choose **C:\MDPACK** and click **Next >** button:



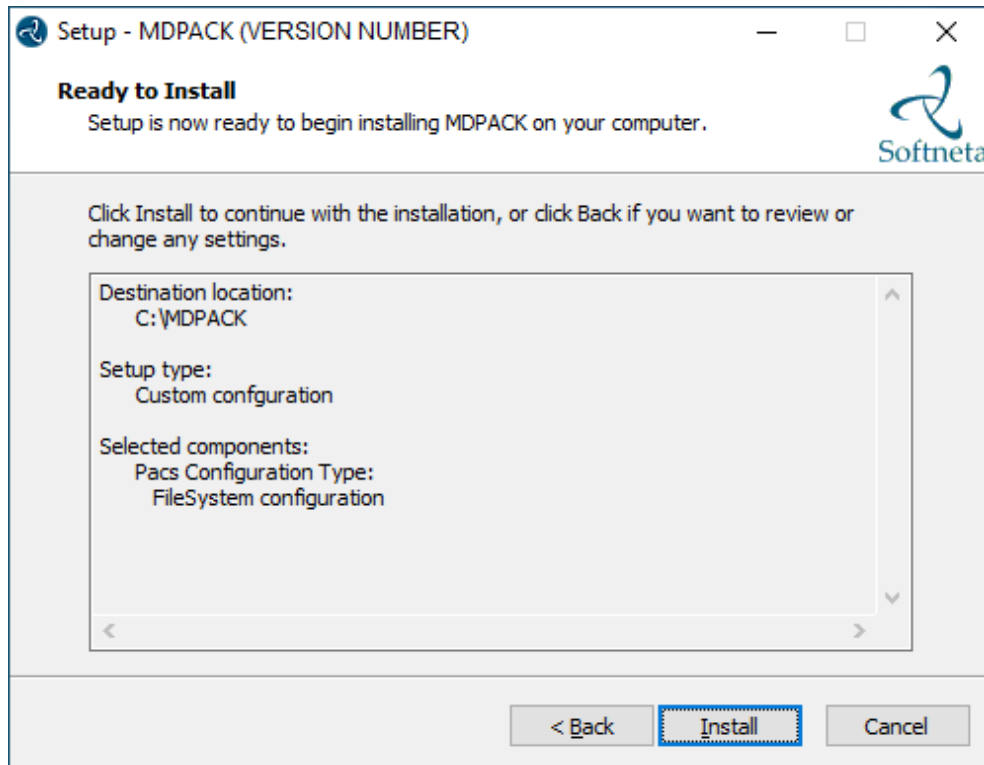
- Choose **Custom configuration** and click **Next >** button:



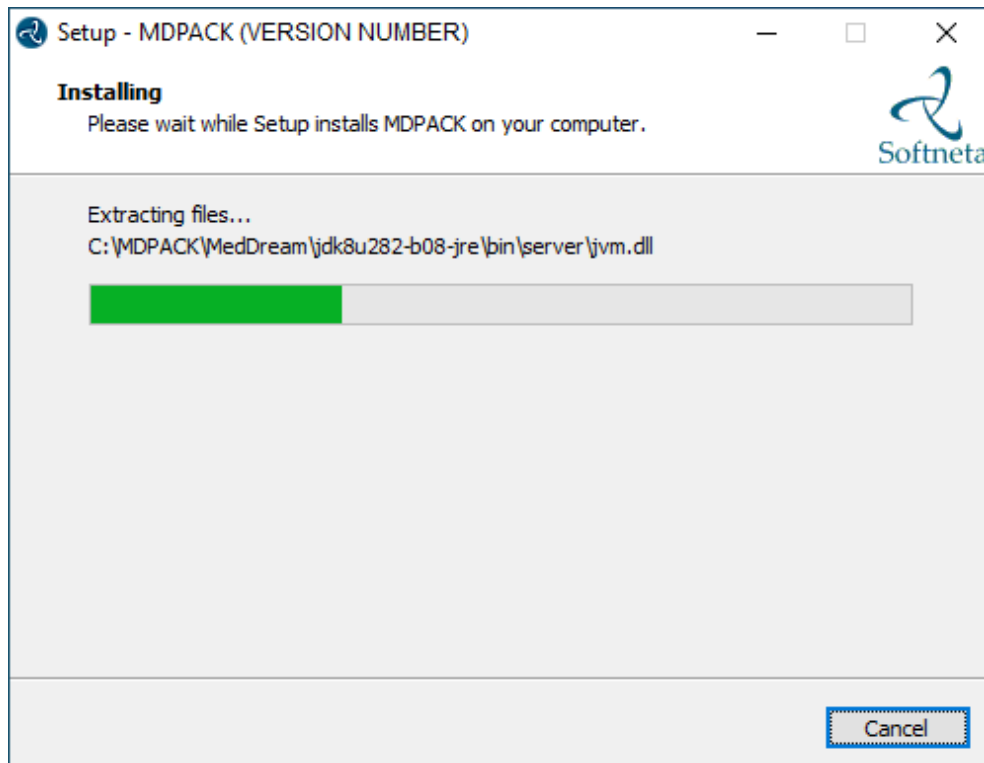
- Choose **FileSystem configuration** and click **Next >** button:



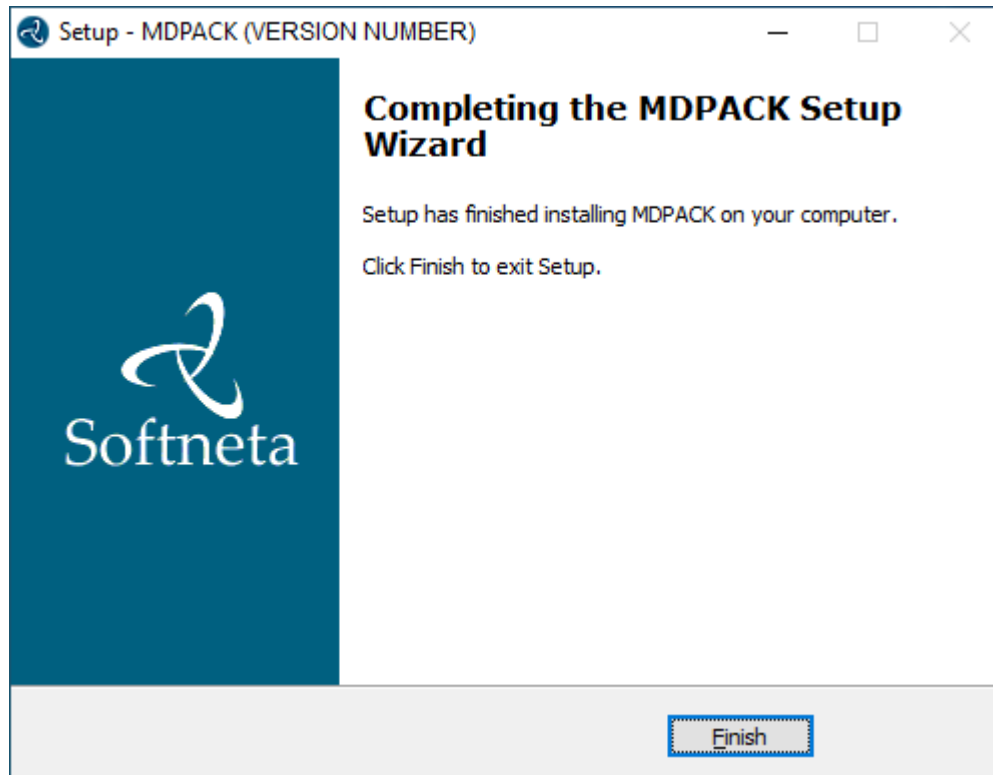
- Click **Install** button:



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



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



## CONFIGURATION

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**1** **Create a directory** where the DICOM files will be stored. It is usually created in C:\MDPACK\MedDream. Name the directory "**DICOM**". The full path to it will be C:\MDPACK\MedDream\DICOM.

**2** **Save** at least one study in the **DICOM** directory. Store each study in a separate directory. Give study directories short and easy-to-remember names because you'll need to include them in the URL. For example, I named my study "1", the path to the study files is C:\MDPACK\MedDream\DICOM\1. Series can be stored in separate directories in the study directory.

**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).

**3** **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** the path to the storage of DICOM files in the application.properties file:  
`com.softneta.meddream.pacs.configurations[0].rootDirectory=C:\\MDPACK\\MedDream\\DICOM\\`
- **Specify** HIS integration parameters:  
`spring.profiles.include=auth-his, auth-inmemory`  
`authentication.his.valid-his-params=file`

```
authorization.defaultHisPermissions=SEARCH,PATIENT_HISTORY,REPORT_VIEW,CLEAR_CACHE,USER_SETTINGS
```

4

**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 Windows file system is given below:

```
#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.searchPatientHistoryInAllStorages=false

spring.profiles.include=auth-his
authentication.his.valid-his-params=file
#authentication.his.maxObjects=1
#authentication.his.useSameSession=true
authorization.defaultHisPermissions=SEARCH,PATIENT_HISTORY,REPORT_VIEW,CLEAR_CACHE,USER_SETTINGS

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.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,RAINB  
OW  
#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=FileSystem
```

```
com.softneta.meddream.pacs.configurations[0].id=files
```

```
com.softneta.meddream.pacs.configurations[0].rootDirectory=/var/DICOM
```

```
#com.softneta.meddream.pacs.configurations[0].rootDirectory=Z:\\H\\dcm
```

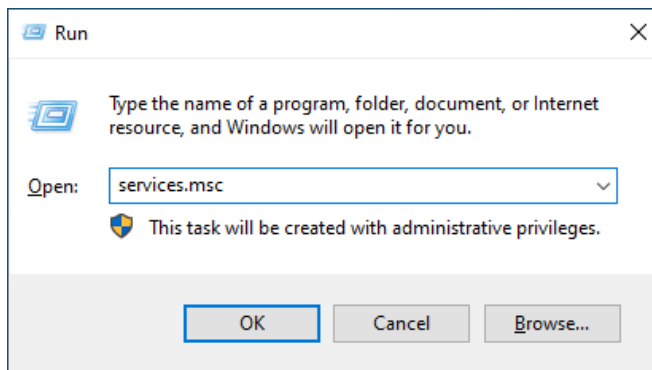
```
com.softneta.meddream.pacs.configurations[0].maxDepth=1
```

```
#com.softneta.meddream.pacs.configurations[0].cacheMaxSize=2000
```

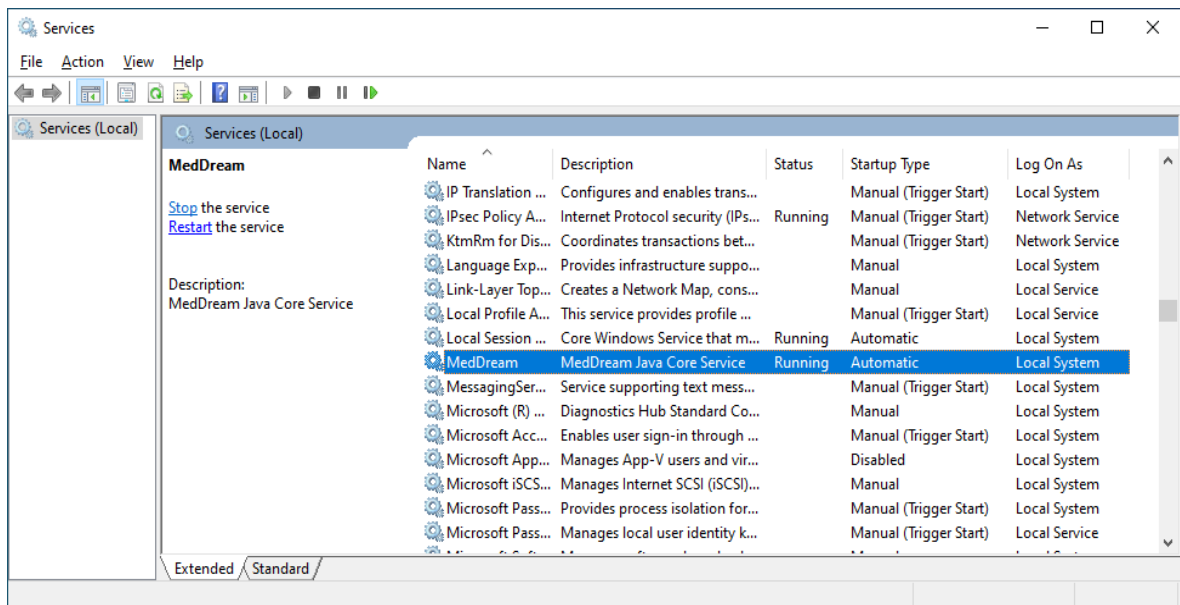
```
#com.softneta.meddream.pacs.configurations[0].cacheMaxAgeSec=86400
```

**5 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:**

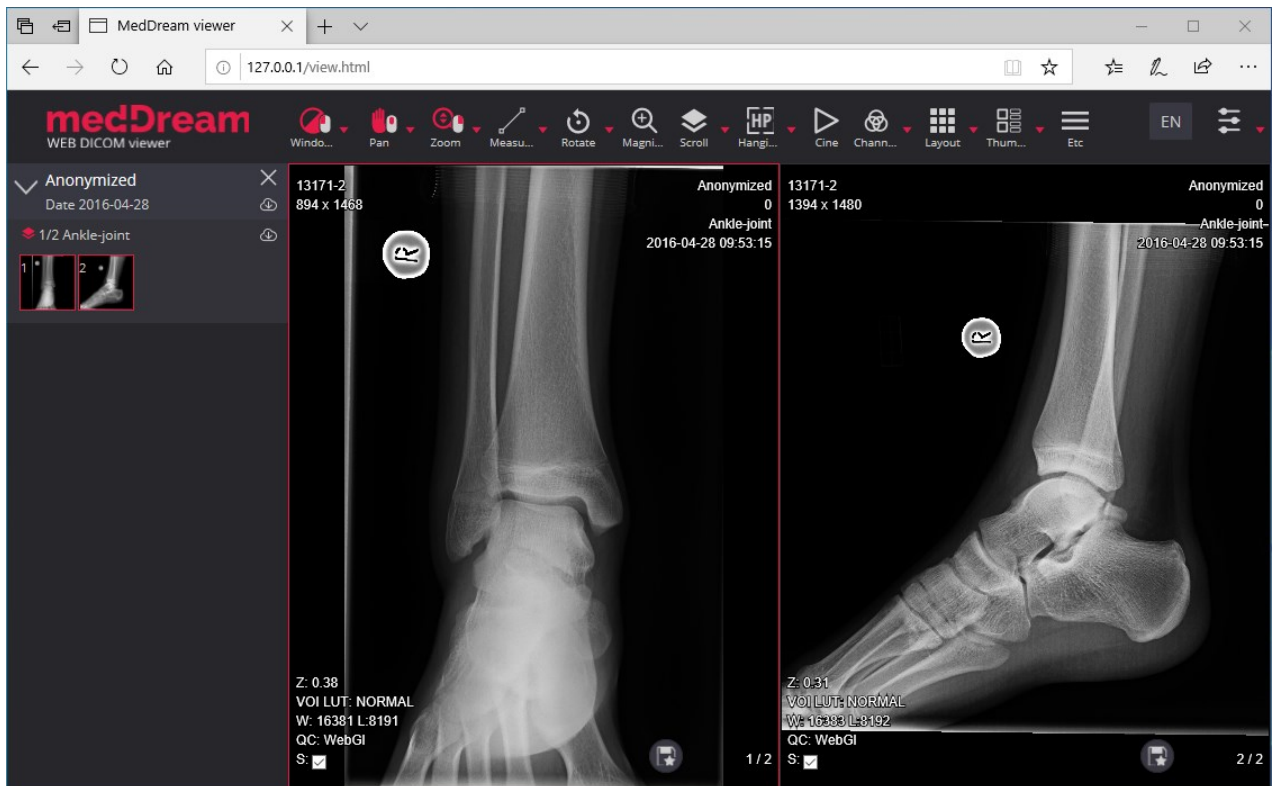


**NOTE:** In the C:\MDPACK\MedDream\ApTemplates you can find examples of MedDream Viewer configurations with explanations. All MedDream settings are stored in the application.SAMPLE.properties file.

## VERIFICATION

- 1 Open a browser and enter the MedDream Viewer address. Include the name of the study in the URL. Enter the name of the study after "=", for example <http://127.0.0.1/?file=1>

MedDream Viewer opens the specified study:



- 2 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**.

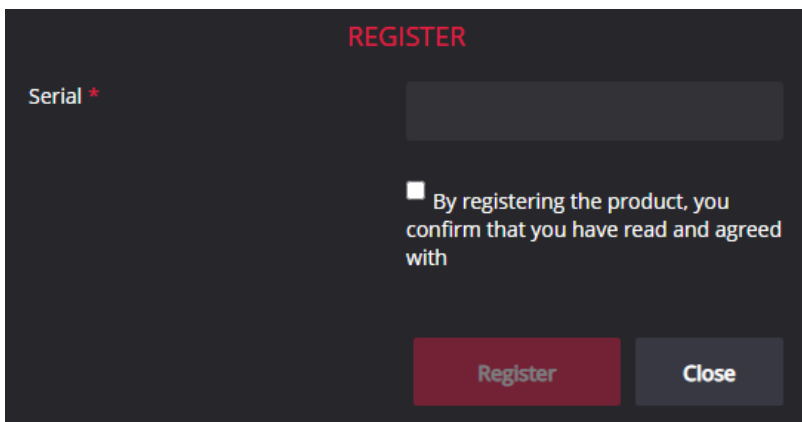
- ✓ MedDream DICOM Viewer logs are stored in the **C:\IMDPACK\MedDream\meddream.main.log**. The standard logging level in the application.properties file is set to INFO. If the log contains too little information, you can change the logging level to **DEBUG** by changing the value of the logging.level.com.softneta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

## LICENSE

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MedDream DICOM Viewer licensed under the Commercial License. Please contact [info@softneta.com](mailto: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](mailto:info@softneta.com) or by phone +370 670 15991.

## HELP AND RESOURCES

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- ✓ 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](mailto:support@softneta.com) or call +370 672 62795.