



C-DAC's Medical Informatics Software Development Kit (SDK) for DICOM PS3.0-2015 is an implementation of Digital Imaging and Communications in Medicine (DICOM) PS3.0-2015.

The SDK is a Free and open-source software (FOSS) which facilitates incorporation of NEMA's DICOM PS3.0-2015 in healthcare applications.

The API library can also be used by Medical device manufacturers for making their medical device medical standards compliant.

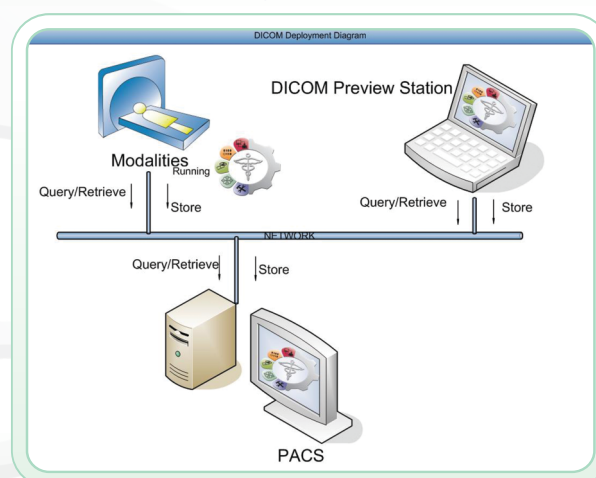
Advantages

- SDK is licensed under Apache License v2.0 (Open Source License) that makes it free for both personal / commercial use.
- SDK allows building Service Class User (SCU) and Service Class Provider (SCP) components for all standard defined modalities
- Integrates with Rapid Application Development Tools so programmer can continue using IDE of choice
- Apart from standard deployable packages, custom packaging allows to target specific memory, storage, and cost requirements
- Layered API packaging approach makes it possible to target currently needed DICOM capabilities and enhance / extend later
- Cost effective complete implementation of the standard provides high Return-On-Investment
- Suitable for both DICOM expert and general object-oriented programmer
- Start early with SDK using variety of samples, test codes, documentation available with the toolkit
- Designed to easily deliver and update revisions to standard

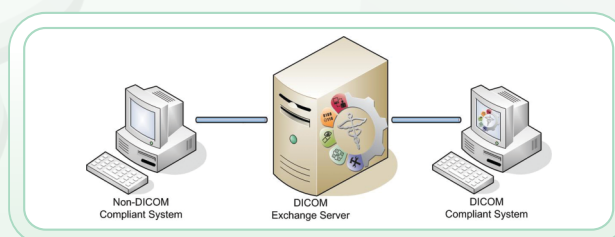
C-DAC's Medical Informatics Software Development Kit is a suite of API libraries & toolkit that provides medical standards compliance to the implementing applications/medical devices

Digital Imaging and Communications in Medicine (DICOM) is a comprehensive set of standards for handling, storing, printing and transmitting information in medical imaging proposed by National Electrical Manufacturers Association (NEMA) (www.nema.org)

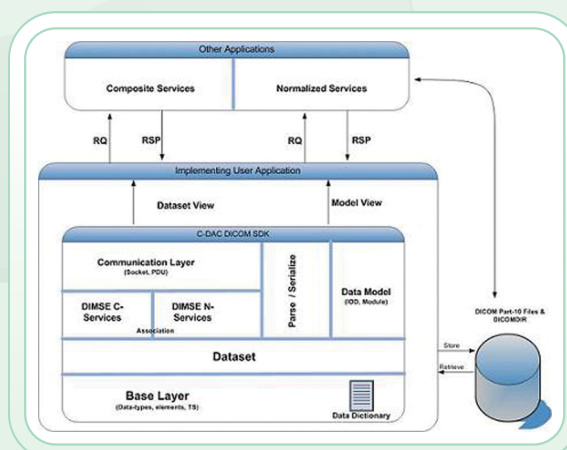
Usage Scenario



Data Exchange Scenario



Architecture





Sample Applications

- ```
String dataSinkImpl = "org.apache.derby.jdbc.
String conn=
String url= "
 objDataSink = new DataSinkImpl(connection, url);
IDBConnection conn;

Creates CStoreSCPHandler.

CStoreSCPHandler scp = new CStoreSCPHandler();

/*
 * Add DataSink on Process Handler. Here CStoreSCPHandler is acting as handler
 * for the test code. Hence adding Data Sink to Process Handler
 */
scp.addDataSink(EnumDataSink.CSERVICES, objDataSink);

/*
 * Created SCP session and set Default association and Process Handler
 * and start
 */
SCPSession session = new SCPSession();

/*
 * Initializes the service types and sets it on SCP Session
 * EnumService Type configures SCP Session to load corresponding
 * corresponding DIMSE Services.
 */
EnumServiceType[] arrEnumServiceType = new EnumServiceType[7];
EnumServiceType[0] = EnumServiceType.CSTORE_DEFAULT; // Read and write operation.
session.selectServices(arrEnumServiceType); // And then

// Process Handler as the SCP TestCode
session.start(ProcessHandler(scp);
```

Java API Documentation

- [illegible]

## Command line Utilities

- ```

root@kali:~# openssl req -x509 -newkey rsa:2048 -keyout key.pem -out cert.pem
Generating a RSA private key
.....+++++
writing new private key to 'key.pem'
-----
You are about to generate a self-signed certificate that will expire on 01/01/2020, which is 365 days away. If you do not wish to receive a certificate that expires so soon, you should request a certificate from a Certificate Authority (CA). You can learn more about Certificates at the following URL:
http://www.openssl.org/docs/man1.1.1/man1/openssl-cs.html

Do you want to create the certificate? (y/n) y
-----
Please enter the following 'extra' attributes
to be sent with your request, separated by a space, and
blank lines for fields you wish to leave blank
Email Address <[email]>: [email]
Organization:
Organizational Unit:
Common Name <hostname>: [localhost]
State or province name (2 letter code):
Locality name (3 letter code):
Country name (2 letter code) <e.g. US>: [US]
Please enter the following one or more o
...

```

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Download: https://www.cdac.in/index.aspx?id=hi_hs_medinfo_dicom_download



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