

C-DAC's Medical Informatics Software Development Kit (SDK) v3.1 for HL7 Release Note

About SDK

C-DAC's Medical Informatics Software Development Kit v3.1 for HL7 is an implementation of ANSI/HL7 V2.8.2-2015 Standard. The SDK is developed on JAVA 8, which facilitates incorporation of HL7 v2.8.2 in healthcare applications. The API library can also be used by Medical device manufacturers for making their medical device medical standards compliant.

Salient Features of SDK

- Easy to use Object-Oriented implementation of ANSI approved HL7 v2.8.2 standard
- Allows customization or extension by implementing provided interfaces
- Comprehensive Error/Warning Logging capability to assist debugging
- Set of API Documentation
- Sample test codes along with the sample test data to demonstrate the capabilities of SDK
- Ready to run Command Line Utilities
- Source Code of SDK and also for Utilities
- Readme and Help document to give assistance to the user while using SDK

Enhancement and Inclusion in C-DAC's Medical Informatics SDK v3.1 for HL7 v2.8.2

- Enhanced Packages in SDK are as follows:
 - **HL7 Base Package**
 - Included classes for Segments of Claims and Reimbursement, and Materials Management System as defined in HL7 v2.8.2.
 - Enhanced Query Class for supporting Claims and Reimbursement, and Materials Management Systems.
 - Enhanced Code Table Values according to HL7 v2.8.2.
 - Included Local Extension Protocol and Implemented Test code to demonstrate working of it.
 - **HL7 System Packages**
 - Included HL7 Systems Claims and Reimbursement, and Materials Management.
 - Claims and Reimbursement - These messages are responsible to support Claims and Reimbursement (CR) for the electronic exchange of health invoice (claim) data.

- Materials Management - Materials Management defines abstract messages for the purpose of communicating various events related to the transactions derived from supply chain management within a healthcare facility.
- Implemented classes for Trigger Events/Messages, added Source and Recipient entities for included systems.
- **Auxiliary Protocol Packages**
 - Included Publish-Subscribe Protocol and Implemented Test code to demonstrate working of it. The SDK comprises of agent classes that support the Publish-Subscribe protocol implementation.
- Removed dependency of uuid.jar

Capabilities of C-DAC's Medical Informatics HL7 SDK v3.1

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- Create HL7 2.8.2 messages/events using Source and Recipient
- Parse and Serialize HL7 2.8.2 messages
- Get invalid/unknown/unrecognized data in HL7 message through UnrecognizedSegment, UnrecognizedField, UnrecognizedData while processing
- Edit HL7 v2.8.2 message/event
- Store, preview, analyse and edit HL7 2.8.2 messages/events in the form of XML or MS Document
- Receive broadcast events, generate acknowledgement messages, queries of respective systems and receive responses, generate acknowledgments for deferred responses as Source entity
- Generate broadcasted events, acknowledgements and responses for events/queries, and receive acknowledgements of deferred responses as Recipient entity
- Enable HL7 Special Protocols - Sequence Number, HL7 Batch Protocol, Continuation Messages and Segments , Local Extension Protocol , Publish-Subscribe Protocol.
- Enable HL7 Auxiliary Protocols - Immediate vs. Deferred Response, Query cancellation, and Interactive Continuation

Availability

The C-DAC's Medical Informatics Software Development Kit v3.1 for HL7 v2.8.2 is available as downloadable package from C-DAC's Portal (<http://www.cdac.in>) under Apache License v2.0 as free and open source software.

For any information regarding C-DAC's Medical Informatics Software Development Kit v3.1 please write to C-DAC at sdk-eng@cdac.in.