

HL7		Health Level 7 : ISO and ANSI standard (7 from the OSI 7 th layer) Based on message paradigm. Trigger events
Segments		
MSH		Message line corresponding to one type of info Message Header : contains type and trigger events
DF 1		DF separator
DF 2		Other separators
DF 3 → 6		Receiving/Sending apps/app instances
DF 9		Msg Type & Trigger Event
DF 10		Msg control ID
DF 11		Msg processing ID (Debugging, Production, Training) or mode (Archive, Restore...)
DF 12		HL7 version
PID		
EVN		
Data Fields		
Components		Compose the segments. Separated by “ ” (pipe) Compose the data fields. Separated by the “^” (carret). Repetition by ~ (tilde)
SEQ		Sequence : position of the DF
LEN		Max length of DF
Optionality		R required O optional C Conditional
DT		Data types
ST		String
DT		Date
TM		Time
Types		
ADT		Admission Discharge Transfer
A01, A02,...		Event types (transfer, register, update etc...)
ACK		General acknowledgment
AA, AE, AR		App Accept, App Error, App Reject
CA, CR, CE		Commit Accept, Commit Reject, Commit Error
ORM		Order Message
ORR		Order Acknowledgment
ORU		Observation Result/unsolicited
QRY		Query (request)
SIU		Scheduling Information Unsolicited

BAR
DFT

Biling Account Record
Detailed Financial Situation

XML Extensible Markup Language

UML Unified Modeling Language

Use case	Describe actors, responsibilities, situations
Sequence diagram	Define transfer mode
Activity Diagram	Detail message exchanges

DTD Document type definition : define elements and attribute to make valid XML file

messages.dtd
ACK.dtd
segments.dtd
fields.dtd
datatypes.dtd

XSD XML Schema : same as dtd but used more often nowadays

DICOM

DICOM		Digital Imaging and Communication in Medicine : Image format AND communication standard
	Book	
	Part 3,5,6	Defining the data format
	Part 4,7,8	Defining the network communication protocols
	Part 12	Defining communication on media
DSC		DICOM Standard Committee
	WG	Workgroups
	Supplement	New developments
	CP	Correction Proposal for small modifications
SOP Class		Service Object Pair
	SG	Service Groupe
	DIMSE	DICOM Message Service Element
	IOD	Information Object Definition → Composite or Normalized
	OD	Object Definition
	IE	Information Entity
	Module	Logical group of information
	Attributes	Pixel values, metadata, etc... → Unit of information
	VR	Value Representation (DICOM Data Type)
	VM	Value Multiplicity (Cardinality)
UIDs		Unique Identifiers
DIMSE-C		Composite DIMSE
	C-ECHO	Verification
	C-STORE	Storage
	C-FIND	Query/Retrieve
	C-GET	Query/Retrieve
	C-MOVE	Query/Retrieve
	C-CANCEL	Cancel
	C-PRINT	Print
	RQ	Request
	RSP	Response

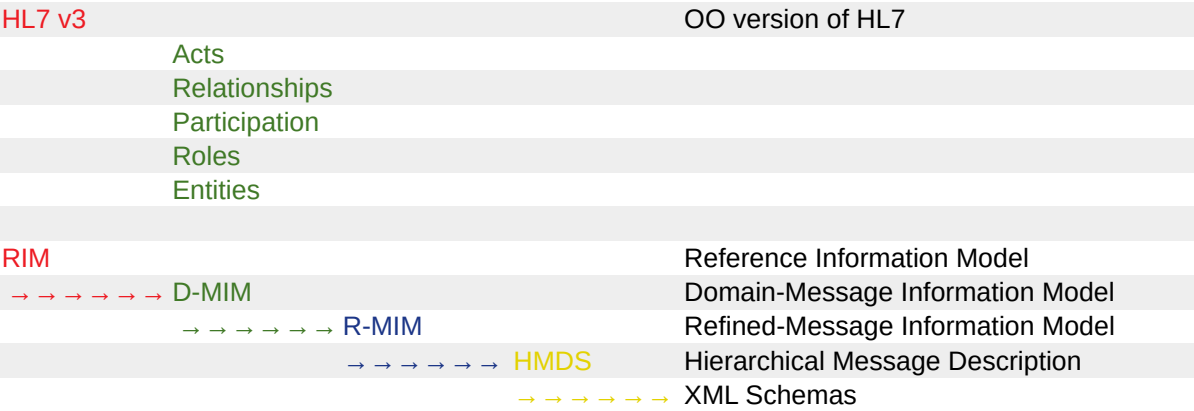
DICOM

DUL			DICOM upper layer protocol for network transfer
	PDU		Protocol Data Unit
		A-ASSOCIATION	Association service message to establish communication channel
		P-DATA	To exchange data value
		PDV	Presentation Data Value
	SCU		Service Class User
	SCP		Service Class Provider
MWL			Modality Worklist : Communication between RIS and DICOM for scheduling
MMPS			Modality Performed Procedures : Communication between RIS and DICOM during procedure

Data protection

HIPAA		Health Insurance Portability & Accountability Act	
	Administrative procedures		
	Physical safeguards		
	Technical security services		
	Technical mechanisms		
		DF 1	DF separator
		DF 2	Other separators
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		DF 11	Msg processing ID (Debugging, Production, Training) or mode (Archive, Restore...)
		DF 12	HL7 version
	(e)PHI		(electronic) Protected Health Information
CIA triad		Confidentiality Integrity Availability	
NIST		National Institute of Standards and Technology	
	NIST 800-53		Special Publication 800-53 (26 families of controls) Requirement standard
	NIST CSF		Cybersecurity Framework (5 sections of controls 22 categories) Guideline standard
	NIST RMF		Risk Management Framework
ISO		International Organization for Standardization	
	ISO/IEC 27002		InfoSec controls
	Types		
GDPR	ADT		Admission Discharge Transfer
		A01, A02, ...	Event types (transfer, register, update etc...)
	ACK		General acknowledgment
		AA, AE, AR	App Accept, App Error, App Reject
		CA, CR, CE	Commit Accept, Commit Reject, Commit Error
AAA triad (triple A model)	ORM		Order Message
			Order Acknowledgment
	IdM	ORU	Observation Result/unsolicited
		QRY	Query (request)
DS		SIU	Scheduling Information Unsolicited

		Data protection
	BAR	Biling Account Record
	ITU-T X500 DFT	Detailed Financial Situation
	LDAP	Lightweight Directory Access Protocol – Standard network protocol
XML	DIT	Extensible Markup Language
	LDIF	LDAP Data Interchangeable Format
UML		Unified Modeling Language
	Use case	Describe actors, responsibilities, situations
	Sequence diagram	Define transfer mode
	Activity Diagram	Detail message exchanges
DTD		Document type definition : define elements and attribute to make valid XML file
	messages.dtd	
	ACK.dtd	
	segments.dtd	Identity Provider
	fields.dtd	
	datatypes.dtd	Desktop-base SSO – Based on Ticket Granting Ticket
	SAML	Security Assertion Markup Language – Server redirects Client to IdP which generates a SAML token
XSD	Oauth2	XML Schema : same as dtd but used more often nowadays



Terminologie

CIM (ICD)		Classification Internationales des Maladies (finalité statistique)
ICD-9 ICD-10		3 chiffres + 1 chiffre de spécification
		DF 1 DF separator
		DF 2 Other separators
		DF 3 → 6 Receiving/Sending apps/app instances
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Codes INAMI		Finalité administrative
CPT		Current Procedural Terminology
ICPC-2		International Classification of Primary Care
POMR		Problem Oriented Medical Report
SODA (SOAP)		Subjectif Objectif Diagnostique Actes
SNDO		Standard Nomenclature of Diseases and Operations (2 axes)
SNOP		Systemized Nomenclature of Pathology (4 axes)
SNOMED		Systemized Nomenclature of Medicine (6 axes)
Types		7 à 11 axes
ADT		Admission Discharge Transfer
A01, A02,...		Event types (transfer, register, update etc...)
NIH	ACK	General acknowledgment
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NLM	ORM	Order Message
	ORR	Order Acknowledgment
MeSH	ORU	Observation Result/unsolicited
UMLS	QRY	Query (request)
	SIU	Scheduling Information Unsolicited

Terminologie

DSM	BAR	Biling Account Record
ACR	DFT	Detailed Financial Situation
LOINS		Biologie Clinique
XML		Extensible Markup Language
KMEHR		Kind Messages for Electronic Healthcare Records (Analogue CDA (XML))
UML		Unified Modeling Language
	Use case	Describe actors, responsibilities, situations
	Sequence diagram	Define transfer mode
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